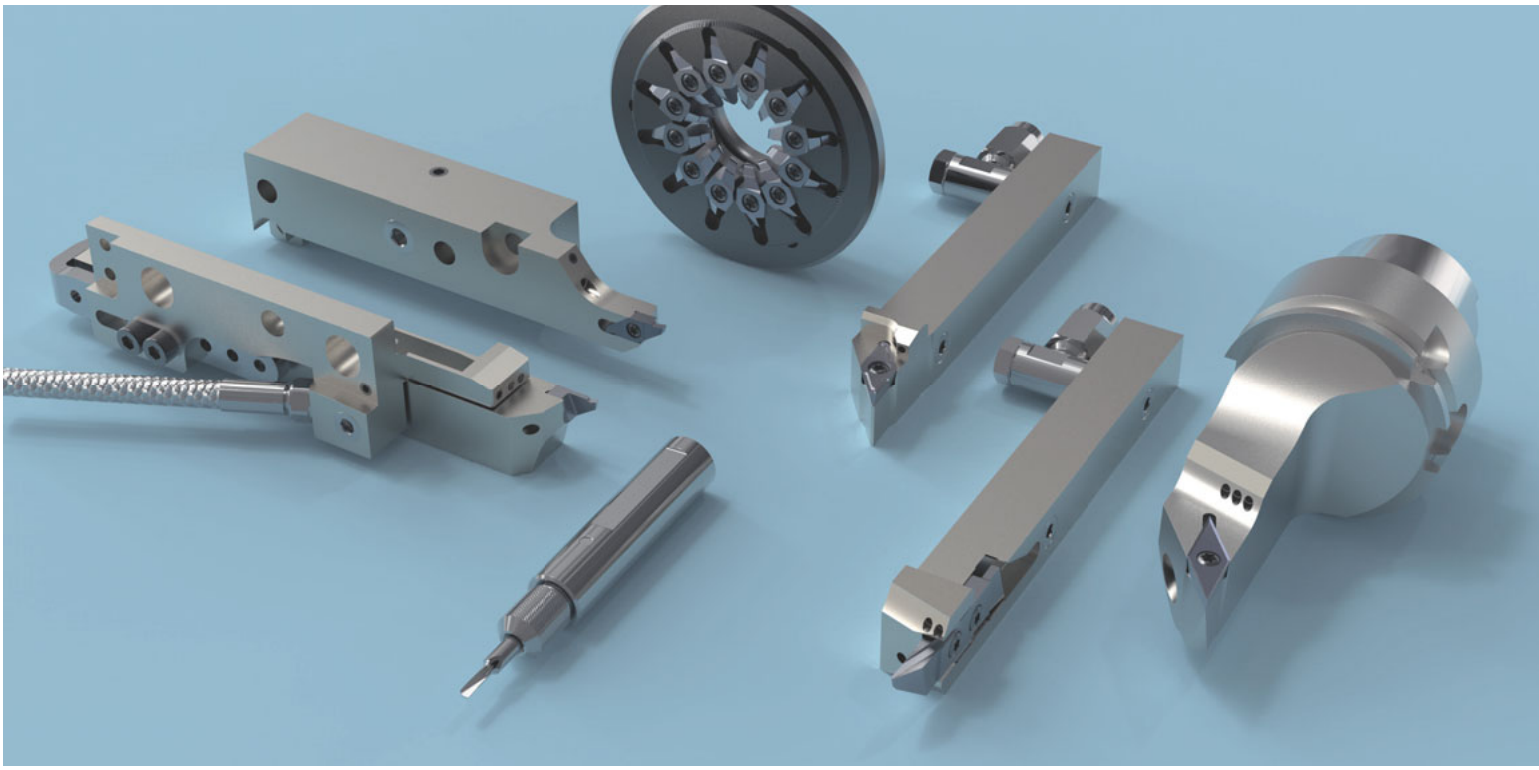
25 since 1993

UTILIS multidec®

swiss type tools



PRECISION TOOLS
FOR THE MICROMECHANICAL AND MEDICAL INDUSTRY

future since 1915

UTILIS®

Tooling for High Technology

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UTILIS® Tooling for High Technology

At UTILIS, it's all about cutting. And your success.


IQNet
THE INTERNATIONAL CERTIFICATION NETWORK
CERTIFICATE
IQNet and SQS
hereby certify that the organisation
Utilis AG
8555 Müllheim
Switzerland
Certified area
Whole company
Field of activity
Manufacturing and sale of precision tools
has implemented and maintains a
Management System
which fulfills the requirements of the following standard(s)
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Michael Drechsel
President of IQNet
Roland Glauser
CEO SQS

future since 1915

For more than 100 years we have been developing, producing and distributing premium quality cutting tools for micromechanics, watch- and medical technology.

UTILIS AG is one of the world's leading suppliers of precision tools for the metal working industry. Ever since the company was founded in 1915 it has been our declared goal to forge ahead in the production of high quality cutting tools for micromechanics that are valuable and beneficial for our customers. For us, as a traditional, mid-sized, family runed Swiss business, it is only natural that we place the greatest value on precision, service and our customers. We consciously decided to produce our multidec® brand products in Switzerland. It is the only way that we can ensure the established and proven quality of UTILIS brand products that we currently sell in 57 countries around the world. A positive side effect: we ensure, create and maintain employment in Switzerland.

2018 – 25 years of multidec®



25 since 1993 UTILIS multidec swiss type tools

For more than a quarter of a century we have been developing innovative precision tools under our own brand "multidec®", which is specifically designed to meet the challenges of the watch, medical and dental implant industries. By using state-of-the-art, advanced technology and our extensive know-how in the manufacture of our "multidec® product line", we are positioning ourselves as a specialist and as one of the leading companies in the market for cutting tools in the metal cutting industry.

24-hour shopping, information and knowledge – and already more than 25,000 products.



Our e-shop offers you a large range of functions and assistance. Take advantage of the product search or the direct service area that we can fulfil your orders, wishes and suggestions quickly.

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– An extensive product portfolio
– Multidec® order helper – the guided multidec® product search
– UTILIS service area – quick search, contacts and assistance
– UTILIS adviser
– Tools, information and more

Innovative precision tools – new in this catalogue.

We develop and manufacture innovative solutions and precise cutting tools for you in the micromechanics area. Our claim? Superior quality and performance. We set ourselves challenging tasks in order to make use of our solutions and enhance our reputation as an innovative company.
You will find the following innovations (as well as many "new" additions to the range) in this multidec® general catalogue.



… 46

TWIN holder, the tool for more flexibility with double cutting edges in one holder.



… 46

Y-AXIS holder for machining to a position that is offset by 90°.



… 204

FC holder (fast change) with facility for clamping the indexable insert from the rear.



… 494

multidec®-SHORT holder (short version) with optimally directed, integrated "IC" coolant supply.



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Full profile threading inserts "VP-S" with reinforced thread profile.



… 366

Drill product line from multidec®-DRILL with high performance drills.



… 360

multidec®-BROACH polygonal and TORX impact tools.



… 386

multidec®-GRAVER engraving tool, finished ground or as semifinished product.

The sustainable profit of your company is at the cutting edge.

We have a market-oriented strategy which makes the sustainable benefit of our customers the main focus of our actions. We stand by our claim of being better than the competition.
Within the scope of our corporate strategy, both global networking and direct presence play a decisive part on all of the markets that are relevant to us. We are therefore anxious to make our own multidec® brand comprehensive available directly on site via our international representatives.
The enclosed general catalogue is excellent for this purpose – as well as personal discussions and our e-shop.





We wish you every success with our multidec® products, and we welcome you to UTILIS

Mario Macario, Managing Director (CEO)



Legend

Different information about multidec® application refer to certain machining methods. In addition, simple symbols inform of the product assortment and where additional products and technical information can be found.

Dimensions
All dimensions are in millimeter (mm); native dimensions in inch are calculated into millimeter.

Page information
□ 12… See page 12 and the following (example)

Recommended usage
- ● Preferred application
- ○ Possible application
- – Application not recommended

Machining method
- ▼ Roughing
- ▼▼ Finishing
- ▼▼▼ Micro finishing

Availability
- ■ Standard
- ■ New (in this catalog)

Categorization of materials
The information on using multidec® tools refers to certain materials. The materials to be machined are categorized in the same color throughout the entire catalog:

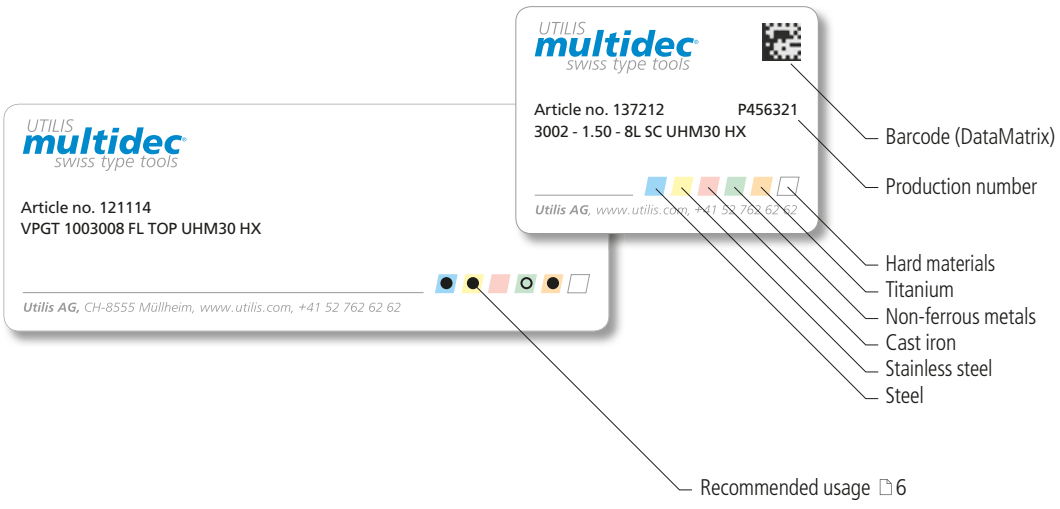
Steel (non-alloyed, low alloyed and high alloyed)
Stainless steel
Titanium and Ti-alloys
Non-ferrous metals (gold, aluminum and brass)

Order designation
To the designation of the selected type of product, the desired cutting material code must be added. Supplementing information to the grades can be found according to the page references (□ …).

Order designation		Carbide □ 19		
L	R	UHM 30	UHM 30 SX	UHM 30 HX
1602-0.5-2.5 L …	1602-0.5-2.5 R …	■		■
1602-0.8-5 L …	1602-0.8-5 R …	■		■
1602-1.0-5 L …	1602-1.0-5 R …	■		■

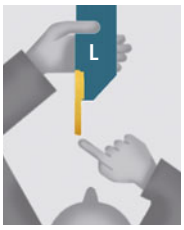
Example: 1602-0.5-2.5 L UHM 30

Packaging information
The product labels illustrate the content of the packaging and also show the materials on which the cutting insert can be used. For this purpose, UTILIS uses the ISO standard coding.
The UTILIS article number is generally also printed as a barcode on the UTILIS (multidec®) product packaging.

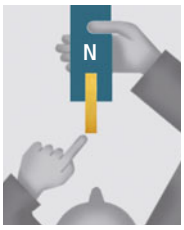


Execution of holder/insert
The side on which the insert is located determines whether it is a "left-" or "right-hand" holder. For this purpose, the holder is viewed with the insert pointing towards the observer.

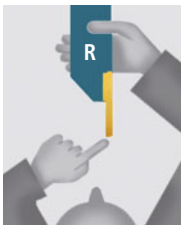
Pictures
The right-hand version of the tools is usually shown. (Exceptions are possible). The tool colours illustrated here are not binding.



Left hand holder

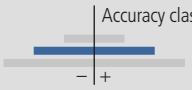


Neutral holder



Right hand holder

Product lines and accuracy classes of UTILIS
To meet today´s requirements of modern production it is not necessary to use the most accurate – but to use the tools adapted to the requirements. This means, the more accurate and sophisticated the process, the higher must be the accuracy of the produced tools. Therefore, the product range has been divided into three different accuracy classes. Your advantage: you buy the quality, which is effectively required.

Product line		Description
PREMIUM-LINE		The PREMIUM-LINE includes UTILIS tools with the highest accuracy requirements, especially for the production of micro parts. Tightest dimensional tolerances, precisely executed, highest surface quality and high repeatability are the features of this line.
STANDARD-LINE		The STANDARD-LINE meets the highest demands on the quality, which is demanded for Swiss type tools in production of small parts. Tight dimensional tolerances and high surface quality are implemented. These are quality standard tools, which are very well positioning this line in a wide range of applications.
VALUE-LINE		The VALUE-LINE is based on the known positions of our STANDARD-LINE. The most important functional elements – such as inserts and holders – are manufactured with the normal dimensional tolerances seen in the industry. Designed for the production of low-cost components, this line offers optimal quality standards.

Notes

Attention
Please note the legend 🗋6…

Technical information

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Properties and application range of carbide, cermet and HSS (High Speed Steel) 19

Properties and application range of coatings 20

Properties and application range for diamond 22

Surface quality 24

Improvement of feed rate by drag-cut with TOP System 25

Causes and remedies of wear 26

Problems and their remedies in different cases 27

Working situations 28

Formulas

Cutting speed (v_c)

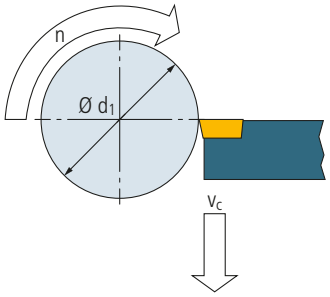
$$v_c = \frac{d_1 \cdot \pi \cdot n}{1000} \text{ [m/min]}$$

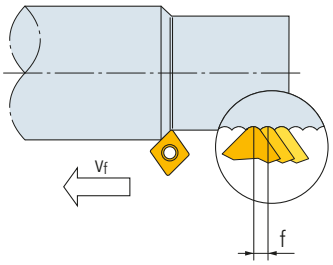
Revolutions per minute (n)

$$n = \frac{v_c \cdot 1000}{d_1 \cdot \pi} \text{ [min}^{-1}\text{]}$$

Feedrate (v_f)

$$v_f = f \cdot n \text{ [mm/min]}$$





Comparison of default hardness values

Tensile strength (N/mm²)	Vickers HV	Brinell HB	Rockwell HRC	Shore C
700	200	200	–	28
740	210	210	–	29
770	220	220	–	30
810	230	230	19.2	31
840	240	240	21.2	33
880	250	250	23	34
910	260	260	24.7	35
950	270	270	26.1	36
980	280	280	27.6	37
1020	290	290	29	39
1050	300	300	30.3	40
1090	310	310	31.5	41
1120	320	320	32.9	42
1150	330	330	33.8	43
1190	340	340	34.9	44
1230	350	350	36	45
1260	360	359	37	46
1300	370	368	38	47
1330	380	373	38.9	48
1370	390	385	39.8	49
1400	400	393	40.7	50
1440	410	400	41.5	51
1470	420	407	42.3	52
1510	430	416	43.2	53
1540	440	423	44	54
1580	450	429	44.8	55
1610	460	435	45.5	56
1650	470	441	46.3	57
1680	480	450	47	58
1720	490	457	47.7	59
1750	500	465	48.3	60
1790	510	474	49	61
1820	520	482	49.6	62
1860	530	489	50.3	63
1890	540	496	50.9	64
1930	550	503	51.5	65
1960	560	511	52.1	66
2000	570	520	52.7	67
2030	580	527	53.3	68
2070	590	533	53.8	69
2100	600	533	54.4	70
2140	610	543	54.9	71
2170	620	549	55.4	72
2210	630	555	55.9	73
2240	640	561	56.4	74
2280	650	568	56.9	75
2310	660	574	57.4	75
2350	670	581	57.9	76
2380	680	588	58.7	77
2410	690	595	58.9	78
2450	700	602	59.3	79
2480	710	609	59.8	80
2520	720	616	60.2	81
2550	730	622	60.7	82
2590	740	627	61.1	83
2630	750	633	61.5	83
2660	760	639	61.9	84
2700	770	644	62.3	85
2730	780	650	62.7	86
2770	790	656	63.1	86
2800	800	661	63.5	87
2840	810	666	63.9	87
2870	820	670	64.3	88
2910	830	677	64.6	89
2940	840	682	65	89
2980	850	–	65.3	90
3010	860	–	65.7	90
3050	870	–	66	91
3080	880	–	66.3	91
3120	890	–	66.6	92
3150	900	–	66.9	92
3190	910	–	67.2	–

Tensile strength (N/mm²)	Vickers HV	Brinell HB	Rockwell HRC	Shore C
3220	920	–	67.5	–
3260	930	–	67.7	–
3290	940	–	68	–

Categorization of materials

Steel (non-alloyed, low alloyed and high alloyed)

Category	Material number	Specifications					Market designation	Hardness
		DIN	ISO	AFNOR	AISI/SAE/ASTM	JIS		(HB)
I	1.0116	St37-3	–	E24-U, E24-3, E24-4	A573-81 65, A573 Gr. 58	–	–	125
I	1.0144	St44-3	–	E28-4	A573-81	–	–	125
I	1.0301	C 10	–	AF 34 C, XC 10	–	S 10 C	–	125–155
I	1.0401	C 15	–	C18, AF3 7 C 12, XC 18, CC12	1015, 1016, 1017	S 15 C	–	98–178
I	1.0402	C 22	–	AF 42 C 20, 1 C 22, XC 25	1020, 1023	S 20 C, S 33 C	–	149–225
I	1.0501	C 35	–	C 35, 1 C 35, AF 55 C35, XC 38	1035	S 35 C, S 35 CM	–	178–225
I	1.0503	C 45	–	C 45, 1 C 45, AF 65 C 45	1045, 1043	S 45 C, S 45 CM	–	–
I	1.0535	C 55	–	C 54, 1 C 55, AF 70 C 55	1055	S 55 C, 1 C 55	–	–255
I	1.0570	St52-3, S355 J2G3 C	–	E 36-3, E 36-4	–	SM 50 YA	–	180
I	1.0601	C 60	–	C 60, 1 C 60, AF 70 C 55	1060	S 58 C	–	–255
I	1.0715	11 SMn 30, 9 SMn 28	11 SMn 28, 9 SMn 28	S 250	1213	SUM 22	–	107–169
I	1.0718	11 SMnPb 30, 9 SMnPb 28	11 SMnPb 28, 9 SMnPb 28	S 250 Pb	12 L 13	SUM 22 L, SUM 23 L, SUM 24 L	–	–
I	1.0721	10 S 20	–	10 F 1	1108	–	–	125–155
I	1.0722	10 SPb 20	–	10 PbF 2	11 L 08	–	–	–
I	1.0726	35 S 20	–	35 MF 6	1140	–	–	–
I	1.0727	46 S 20	–	–	–	–	–	178–214
I	1.0728	60 S 20	–	–	–	–	–	–
I	1.0736	11 SMn 37, 9 SMn 36	–	S 300	1215	SUM 25	–	–
I	1.0737	11 SMnPb 37, 9 SMnPb 36	11 SMnPb 35, 9 SMnPb 36	S 300 Pb	12 L 14	–	–	–
I	1.0756	35 SPb 20	–	–	–	–	–	–
I	1.0757	46 SPb 20	–	–	–	–	–	–
I	1.0758	60 SPb 20	–	–	–	–	–	–
I	1.0760	38 SMn 28	–	–	–	–	–	–
I	1.0761	38 SMnPb 28	–	–	–	–	–	–
I	1.0762	44 SMn 28, ETG 100	44 SMn 28	–	AISI 1144	–	–	320
I	1.0763	44 SMnPb 28	–	–	–	–	–	–
II	1.0904	55 Si 7	–	55 S 7	9255	–	–	235–290
II	1.0961	60 SiCr 7	–	60 SC 7	9262	SUP 7	–	245–310
I	1.1121	C 10 E, Ck 10	–	XC 10	–	S 10 C, S 9 CK	–	–
I	1.1141	C 15 E, Ck 15	–	XC 12, XC 15, XC 18	1015	S 15, S 15 CK	–	149–184
I	1.1157	40 Mn 4	–	35 M 5, 40 M 5	1039	–	–	–
I	1.1165	30 Mn 5	–	30 M 5	–	SMn 433 H, SCMn 2	–	238–280
I	1.1167	36 Mn 5, GS-36 Mn 5	–	35 M 5, 40 M 5	1335, 1541	SMn 438, SCMn 3	–	–217
I	1.1170	28 Mn 6	–	20 M 5, 28 Mn 6	1330	SCMn 1	–	223–255
I	1.1183	Cf 35	–	XC 38 H 1 TS	1035	S 35 C, S 35 CM	–	–
I	1.1191	C 45 E, Ck 45	–	C 45, 2 C 45, XC 42 H1, XC 45	1042, 1045	S 45 C, S 45 CM	–	207–255
I	1.1203	C 55 E, Ck 55	–	2 C 55, XC 55 H1, XC 54, XC 55	1055	S 55 C, S 55 CM	–	229–255
I	1.1213	Cf 53	–	XC 48 H 1 TS	1050, 1055	S 50 C, S 50 CM	–	–
I	1.1221	Ck 60	–	C 60, 2 C 60, XC 60	1064	S 58 C, S 60 CM, S 65 CM	–	241–255
I	1.1231	C 67 S, Ck 67	–	CX 68	–	S 70 CM	–	–92
I	1.1274	C 100 S, Ck 101	–	C 100, XC 100	1095	SUP 4, SK 4 CSP	–	–
I	1.1545	C 105 U, C 105 W 1	–	Y1 105	W 110	SK 3	–	190
I	1.1663	C 125 W	–	Y2 120	W 112	–	–	–
I	1.1730	C 45 W	–	–	–	–	–	–
II	1.2067	102 Cr 6, 100 Cr 6	–	Y 100 C 6	L 3	SUJ 2	–	–
III	1.2080	X 210 Cr 12	–	Z 200 C 12	D 3	SKD 1	–	–225
III	1.2083	X 42 Cr 13	–	Z 40 C 14	–	SUS 420 J 2	–	225
III	1.2210	115 CrV 3	–	100 C 3	L 2	–	–	–250
III	1.2311	40 CrMnMo 7	–	–	–	–	–	–235
III	1.2343	X 38 CrMoV 5-1	–	Z 38 CDV 5	H 11	SKD 6	–	–
III	1.2344	X 40 CrMoV 5-1	–	Z 40 CDV 5	H 13	SKD 61	–	–229
III	1.2355	50 CrMoV 13-15	–	–	–	–	–	–
III	1.2363	X 100 CrMoV 5-1	–	Z 100 CDV 5	A 2	SKD 12	–	–241

Steel (non-alloyed, low alloyed and high alloyed)

Category	Material number	Specifications					Market designation	Hardness
		DIN	ISO	AFNOR	AISI/SAE/ASTM	JIS		(HB)
III	1.2365	X 32 CrMoV 3 3	–	32 DCV 28	H 10	SKD 7	–	–
II	1.2379	X 155 CrVMo 12 1	–	Z 160 CDV 12	D 2	SKD 11	–	–
II	1.2419	105 WCr 6	–	105 WCr 5, 105 Wc 13	–	SKS 2, SKS 3, SKS31	–	–
III	1.2436	X 210 CrW 12	–	Z 210 CW 12–01	–	–	–	–250
III	1.2510	100 MnCrW 4	–	90 MWCV 5	O 1	SKS 3	–	–
III	1.2516	120 WV 4	–	200 WC 20	F 1	–	–	–
II	1.2542	45 WCrV 7	–	45 WCrV 8, 45 WCV 20	S 1	–	–	–
III	1.2581	X 30 WCrV 9-3	–	Z 30 WCV 9	H 21	SKD 5	–	–
III	1.2601	X 165 CrMoV 12	–	–	H 12	–	–	–
II	1.2713	55 NiCrMoV 6	–	55 NCDV 7, 55 NCDV 7	L 6	SKT 4	–	–
III	1.2714	55 NiCrMoV 7	–	–	–	–	–	–350
III	1.2735	15 NiCr 14	–	10 NC 12	–	SNC 22	–	–
III	1.2738	40 CrMnNiMo 7	–	–	–	–	–	–350
II	1.3243	HS 6-5-2-5, S 6-5-2-5	–	Z 85 WDKCV 06-05-05-04-02	–	SKH 55	–	–269
II	1.3255	HS 18-1-2-5, S 18-1-2-5	–	Z 80 WKCV 18-05-04-01	T 4	SKH 3	–	–265
II	1.3343	HS 6-5-2, S 6-5-2	–	Z 85 WDCV 06-05-04-02	M 2	SKH 51	–	–280
II	1.3344	HS 6-5-3, S 6-5-3	–	Z 120 WDCV 06-05-01	M 3 Cl. 2, M 1	SKH 52, SKH 53	–	–
II	1.3346	HS 2-9-1, S 2-9-1	–	Z 85 DCWV 08-04-02-0	H 41, M 1	–	–	–
II	1.3348	HS 2-9-2, S 2-9-2	–	Z 100 DCWV 09-04-02-02	M 7	–	–	–
II	1.3355	HS 18-0-1, S 18-0-1	–	Z 80 WCV 18-04-01	T 1	SKH 2	–	–269
III	1.3505	100 Cr 6	–	–	52100	SUJ 2, SUJ 4	–	–207
II	1.5120	38 MnSi 4	–	–	–	–	–	–
II	1.5415	16 Mo 3, 15 Mo 3	–	15 D 3	A 204 Gr. A	STBA 12, STFA 12, STPA 12	–	–
II	1.5423	16 Mo 5	–	–	4419, 4520	SB 450 M, SB 480 M	–	–
II	1.5622	14 Ni 6	–	16 N 6	A 203	–	–	–
III	1.5680	X 12 Ni 5, 12 Ni 19	–	Z 18 N 5, 5 Ni, Z 10 N 05	2515, 2517	SL 5 N 590	–	–
II	1.5710	36 NiCr 6	–	–	3135	SNC 236	–	–
II	1.5732	14 NiCr 10	–	15 NC 11, 16 NC 11	3415	SNC 415, SNC 415 (H)	–	–
II	1.5736	36 NiCr 10	–	30 NC 11	–	SNC 631, SNC 631 (H)	–	–
II	1.5752	15 NiCr 13, 14 NiCr 14	–	12 NC 15, 14 NC 12, 13 NiCr 14	3310; 3312, 3316	SNC 815	–	–255
II	1.5755	31 NiCr 14	–	18 NC 13	–	SNC 836	–	–
II	1.6510	39 NiCrMo 3	–	–	–	–	–	–240
II	1.6511	36 CrNiMo 4, GS-36 CrNiMo4	–	35 NCD 5, 40 NCD 3	9840	SNCM 439	–	–250
II	1.6523	20 NiCrMo 2-2, 21 NiCrMo 2	–	20 NCD 2, 22 NCD 2	8615, 8617, 8620	SNCM 220, SNCM 220 (H)	–	–212
II	1.6546	40 NiCrMo 2-2	–	40 NCD 2	8640, 8740	SNCM 240	–	–
II	1.6580	30 CrNiMo 8	–	30 CND 8	–	SNCM 431	–	375–430
II	1.6582	34 CrNiMo 6, GS-34 CrNiMo 6	–	35 NCD 6	4337, 4340	SNCM 447	–	296–350
II	1.6587	18 CrNiMo7-6, 17 CrNiMo 6	–	18 NCD 6	–	–	–	159–207
II	1.6657	14 NiCrMo 13-4	–	16 NCD 13	9310	–	–	–
II	1.7015	15 Cr 3	–	12 C 3, 15 Cr 2, 18 C 3	5015	SCr 415	–	–174
II	1.7033	34 Cr 4	–	32 C 4, 34 Cr 4	5132	SCr 430	–	–255
II	1.7034	37 Cr 4	–	38 C 4	–	SCr 435 H	–	–255
II	1.7035	41 Cr 4	–	41 Cr 4, 42 C 4	5140	SCr 440	–	–255
II	1.7045	42 Cr 4	–	42 C 4 TS	5140	SCr 440	–	–255
II	1.7103	67 SiCr 5	–	67 SiCr 5	9254	–	–	–
II	1.7131	16 MnCr 5	–	16 MC 5, 16 MnCr 5	5115	–	–	–207
II	1.7139	16 MnCrS 5	–	16 MnCrS 5	5115	–	–	–207
II	1.7147	20 MnCr 5	–	20 MC 5	–	SMnC 420, SMnC 420 (H)	–	296–372
II	1.7176	55 Cr 3	–	55 C 3	5155	SUP 9	–	–280
II	1.7218	25 CrMo 4	–	25 CD 4	4130	SCM 420, SCM 430	–	–255
II	1.7220	34 CrMo 4	–	34 CD 4	4130, 4135, 4137	SCM 432, SCM 435 H, SCCrM 3	–	–255
II	1.7223	41 CrMo 4	–	42 CD 4 TS	4142	SNB 22, SCM 440	–	–
II	1.7225	42 CrMo 4	–	42 CD 4	4140, 4142	SCM 440, SNB 7	–	311–350
II	1.7228	50 CrMo 4	–	–	–	–	–	360–372
II	1.7262	15 CrMo 5	–	12 CD 4	–	SCM 415	–	–
II	1.7335	13 CrMo 4-5, 13 CrMo 4-4	–	15 CD 4.05	A 182–F11, F12	SFVA F 12, STBA 20, STBA 22	–	–
II	1.7361	32 CrMo 12	–	30 CD 12	–	–	–	–

Categorization of materials

Steel (non-alloyed, low alloyed and high alloyed)

Category	Material number	Specifications					Market designation	Hardness
		DIN	ISO	AFNOR	AISI/SAE/ASTM	JIS		(HB)
II	1.7380	12 CrMo 9-10	–	12 CD 9-10, 10 CD 9-10	A 182-F22	SFVA F 22 A/B, SCMV 4, SCPH 32-CF	–	–
II	1.7715	14 MoV 6-3	–	14 Mo 6	K11591	–	–	–
II	1.8159	50 CrV 4	–	51 CV 4, 50 CV 4, 51 CrV 4	6150	SUP 10	–	–248
II	1.8161	58 CrV 4	–	–	–	–	–	–255
II	1.8507	34 CrAlMo 5	–	30 CAD 6-12	–	–	–	–
II	1.8509	41 CrAlMo 7-10	–	40 CAD 6-12	E 7140	SACM 1, SACM 645	–	–255
II	1.8519	31 CrMoC 9	–	–	–	–	–	–248
II	1.8522	33 CrMoV 12-9	–	–	–	–	Nitrodur 8522	–
II	1.8523	40 CrMoV 13-9, 39 CrMoV 13-9	–	–	–	–	–	–

Stainless steel

Category	Material number	Specifications					Market designation	Hardness
		DIN	ISO	AFNOR	AISI/SAE/ASTM	JIS		(HB)
V	1.4000	X 6 Cr 13	–	Z 8 C 12, Z 6 C 13	403	SUS 403	–	–200
V	1.4001	X 7 Cr 14	–	Z 8 C 13 FF	410 S	SUS 410 S	–	130–180
V	1.4002	X 6 CrAl 13	–	Z 6 CA 13	405	SUS 405	–	130–180
V	1.4005	X 12 CrS 13	–	X 12 CrS 13	416	SUS 416	–	–220
V	1.4006	X 12 Cr 13	–	Z 10 C 13	410, CA-15	SUS 410	–	–220
VI	1.4016	X 6 Cr 17	–	Z 8 C 17	430	SUS 430	–	240
VI	1.4021	X 20 Cr 13	–	–	–	–	–	–230
VI	1.4027	GX 20 Cr 14	–	Z 20 C 13 M	–	SCS 2	–	170–240
VI	1.4028	X 30 Cr 13	–	–	–	–	–	–245
VI	1.4034	X 46 Cr 13	–	Z 44 C 14	420	SUS 420	–	–245
VI	1.4035	X 45 CrS 13	–	–	420 F	SUS 420 F	–	–245
VI	1.4057	X 17 CrNi 16-2	–	Z 15 CN 16-02	431	SUS 431	–	–295
V	1.4104	X 12 CrMoS 17	–	Z 10 CF 17	430 F	SUS 430 F	–	–220
V	1.4105	X 6 CrMoS 17, X 4 CrMoS 18	–	Z 8 CF 17	430 FR	–	–	–200
VI	1.4108	X 30 CrMoN 15-1	–	–	5898	–	–	200–240
VI	1.4109	X 70 CrMo 15, X 65 CrMo 14	–	–	440 A	–	–	–280
V	1.4112	X 90 CrMoV 18	–	X 90 CrMoV 18	440 B	SUS 44 B	–	–255
V	1.4113	X 6 CrMo 17-1	–	Z 8 CD 17-01	434	SUS 434	–	–200
VI	1.4123	X 40 CrMoVN 16-2	–	Z 40 CDV 16-02	420 Mod	–	–	–265
V	1.4125	X 105 CrMo 17	–	Z 100 CD 17	440 C	SUS 440 C	–	–255
V	1.4197	X 20 CrNiMoS 13-1	–	–	420F Mod	–	–	–220
V	1.4301	X 5 CrNi 18-10	–	Z 6 CN 18-10	304, 304 H	SUS 304	–	–215
V	1.4305	X 8 CrNiS 18-9	X 10 CrNiS 18-9	Z 8 CNF 18-09	303	SUS 303	–	–230
V	1.4306	X 2 CrNi 19-11, X 2 CrNi 18-11	X 2 CrNi 19-11	Z 3 CN 19-11, Z 2 CN 18-10	304 L	SUS 304 L, SCS 19	–	–215
V	1.4308	X 6 CrNi 18-9	–	Z 6 CN 18-10 M	CF-8	SCS 13	–	130–200
V	1.4310	X 10 CrNi 18-8, X 12 CrNi 17-7	X 10 CrNi 19-8	Z 11 CN 18-08, Z 12 CN 18-09	301, 302	SUS 301	–	–
V	1.4311	X 2 CrNiN 18-10	–	Z 3 CN 18-10 Az	304 LN	SUS 304 LN	–	–230
VI	1.4313	X 3 CrNi 13-4	–	Z 4 CND 13-4, Z 6 CN 13-4	CA 6-NM	SCS 5	–	–320
VI	1.4317	GX 4 CrNi 13-4	–	Z 8 CD 17-1	CA 6-NM	SCS 6	–	230–350
V	1.4401	X 5 CrNiMo 18-10, X 5 CrNiMo 17-12-2	–	Z 6 CND 17-11, Z 6 CND 17-12-02	316	SUS 316	–	–215
V	1.4404	X 2 CrNiMo 17-12-2+S+Cu, X 2 CrNiMo 17-12-2	–	Z3CND17-11-02	316 L	SUS 316 F	–	–215
V	1.4408	X 6 CrNiMo 18-10	–	–	CF–8M	SCS 14	–	130–200
V	1.4410	X 2 CrNiMoN 25-7-4	–	Z2 CND 25-07-04 Az	F53	–	–	–230
V	1.4427	X 12 CrNiMoS 18-11	–	–	316 L	SUS 316 F	–	–
VI	1.4429	X 2 CrNiMoN 17-13-3, X 2 CrNiMoN 17-11-2	–	Z 2 CND 17-13 Az, Z 3 CND 17-11-03 Az	316 LN	SUS 316 LN	–	–250
V	1.4435	X 2 CrNiMo 18-14-3	–	Z 3 CND 18-14-03	316L	SUS 316 L, SCS 16	–	–215
V	1.4436	X 5 CrNiMo 17-13-3	–	Z 6 CND 18-12-03	316	SUS 316	–	–215
V	1.4438	X 2 CrNiMo 18-15-4	–	Z 2 CND 19-15-04	317L	SUS 317L	–	–215
V	1.4441	X 2 CrNiMo 18-15-3	5832-1	–	316 LVM, F 138	SUS 316	–	–
V	1.4452	X 13 CrMnMoN 18-14-3	–	–	–	–	–	–
VI	1.4460	X 3 CrNiMo 27-5-2, X 8 CrNiMo 27-5	–	Z 5 CND 27-05 Az	329	SUS 329 J 1, SCS 11, SCH 11	–	–260
VI	1.4462	X 2 CrNiMoN 22-5-3	–	Z2 CND 22-05-03 AZ	329 A	–	Uranus 45 N	–270
V	1.4501	X 2 CrNiMoCuWN 25-7-4	–	Z2 CNDUW 25-07-04 AZ	F55	–	Zeron 100	–230
VI	1.4507	X 2 CrNiMoCuN 25-6-3	–	Z3 CNDU 25-07 AZ	F61	–	Uranus 52 N	–185
V	1.4510	X 6 CrTi 17, X 3 CrTi 17	–	Z 8 CT 17	XM 8, 430 Ti	SUS 430 LX	–	–185
V	1.4512	X 5 CrTi 12, X 2 CrTi 12	–	Z 6 CT 12	409	SUH 409	–	–180
VI	1.4539	X 1 NiCrMoCu 25-20-5	–	Z 2 NCDU 25-20	904 L	–	Uranus B6	–230
VI	1.4541	X 6 CrNiTi 18-10	–	Z 6 CNT 18-10	321	SUS 321	–	–215
VI	1.4542	X 5 CrNiCuNb 16-4, X 7 CrNiCu 16-4-4	–	Z7 CNU 17-04-04	630, 17-4 PH	SCS 24, SUS 630	–	–360
VI	1.4543	X 3 CrNiCuTiNb 12-9	–	–	XM-16	–	–	–
VI	1.4547	X 1 CrNiMoCuN 20-18-17	–	Z1 CNDU 20-18-06 AZ	F44	–	–	–250
VI	1.4548	X 5 CrNiCuNb 17-4-4	–	–	–	–	–	–360
VI	1.4550	X 6 CrNiNb 18-10	–	Z 6 CNNb 18-10	347, 348	SUS 347	–	–230
V	1.4568	X 7 CrNiAl 17-7	–	–	17-7 PH	–	–	–230
V	1.4570	X6 CrNICuS 18-9-2	–	–	–	–	–	–215
V	1.4571	X 6 CrNiMoTi 17-12-2	–	Z 6 CNDT 17-12	316 Ti	SUS 316 Ti	–	–215

Categorization of materials

Stainless steel

Category	Material number	Specifications					Market designation	Hardness
		DIN	ISO	AFNOR	AISI/SAE/ASTM	JIS		(HB)
V	1.4581	GX 5 CrNiMoNb 19-11-2	–	Z 4 CNDNb 18-12 M	–	SCS 22	–	130–200
V	1.4583	X 10 CrNiMoNb 18-12	–	–	318	–	–	130–220
VI	1.4718	X 45 CrSi 9-3	–	Z 45 CS 9	HNV 3	SUH 1	Pyrodur 4718	–300
V	1.4724	X 10 CrAl 13, X 10 CrAlSi 13	–	Z 13 C 13	405	SUS 405	–	–192
V	1.4742	X 10 CrAl 18, X 10 CrSiAl 18-1-1	–	Z 10 CAS 18	430	SUH 21, SUS 430	–	–212
VI	1.4757	X 80 CrNiSi 20	–	–	HNV6	SUH 4	–	–
V	1.4762	X 10 CrAl 24, X 10 CrAlSi 25	–	Z 12 CAS 25	446	SUH 446	–	–223
V	1.4828	X 15 CrNiSi 20-12	–	Z 9 CN 24-13, Z17 CNS 20-12	309	SUH 309	–	–223
V	1.4841	X 15 CrNiSi 25-20	–	Z15 CNS 25-20	314	–	–	165–225
VI	1.4845	X 8 CrNi 25-21, X 12 CrNi 25-21	–	Z 8 CN 25-20, Z 12 CN 25-20	310 S	SUH 310, SUS 310 S	–	–
VI	1.4864	X 12 NiCrSi 35-16, X 12 NiCrSi 36-16	–	Z 20 NCS 33-16	330	SUH 330	–	–
VI	1.4865	GX 40 NiCrSi 38-19, GX 40 NiCrSi 38-18	–	–	–	SCH 15, SCH 16	–	–
V	1.4871	X 53 CrMnNiN 21-9	–	Z 52 CMN 21-09 Az	EV 8	SUH 35, SUH 36	–	–
V	1.4876	X 10 NiAlTi 32-21, X10 NiCrAlTi 32-21	–	–	314	–	NICROFER® 3220 h	135–205
V	1.4878	X 12 CrNiTi 18-9, X 8 CrNiTi 18-10	–	Z 6 CNT 18-10	321	SUS 321	–	215
VI	1.4923	X 20 CrMoV 12-1, X 22 CrMoV 12-1	–	–	–	–	–	–270
V	1.4944	X 6 NiCrTiMoV 26-15	–	–	660	–	–	–200
VI	1.4980	X 6 NiCrTiMoVB 25-15 2	–	–	453	–	INCOLOY® Alloy A-286	248–341
VI	1.6359	X 2 NICoMo 18-8-5	–	–	–	–	MARVAL 18	–
VI	2.4068	Nickel 201	–	UNS N02201	–	–	–	–
VI	2.4668	NiCr19Fe18Nb5Mo3 Ti1AlC	–	–	–	–	INCONEL® Alloy 718	> 352
VI	2.4711	CoCr20Ni15Mo7	–	K13C20N16Fe15D7	F1058	–	Phynox® KL	–
VI	Co Cr	Co Cr	–	–	–	–	–	–

Categorization of materials

Titanium and Ti-alloys

Category	Material number	Specifications					Market designation	Hardness
		DIN	ISO	AFNOR	AISI/SAE/ASTM	JIS		(HB)
IV	3.7025	TiCP Grade 1	5832-2	T35	B 348, F67	KS-40	–	~120
IV	3.7035	TiCP Grade 2	5832-2	T40	B 348/265, F 67	KS-50	–	~150
IV	3.7034	TiCP Grade 2	5832-2	T40	B 348/265, F 67	KS-50	–	~150
IV	3.7055	Ti 3 (Grade 3)	5832-2	T50	F67	KS-70	–	~170
IV	3.7064	TiCP Grade 4, TiCP Grade 4B	5832-2	T60	B 348, F 67, B265	KS-85	–	~200
IV	3.7065	TiCP Grade 4B, TiCP Grade 4	5832-2	–	B 348, F 67	KS-85	–	~200
IV	3.7115	Ti Al 2.5 5n (Grade 6)	–	–	B 348/TA 5E	KS-115 AS	–	–
IV	3.7134	TiCu 2	–	–	B 348, F 67	–	–	<260
IV	3.7164	Ti6AlV4 Grade 5, TiAl 8 Mo 1 V 1	5832-3	TA6V	B265, B348, 4911, 4928	KS-130 AV	–	~310
IV	3.7165	Ti6AlV4 Grade 5	5832-3	TA6V	B265, B348, 4911, 4928	KS-130 AV	–	~310
IV	3.7235	Ti 2 Pd (Grade 7)	–	–	B 348/F 67	–	–	~150
IV	3.7154	TiAl 6 Zr 5	–	–	B 348	KS-50 Pd	–	–
IV	3.7194	Ti 3 Al 2.5V (Grade 9)	–	–	B 348	KS-50 Pd	–	–
IV	3.7225	Ti 7 (Grade 7)	–	–	–	–	–	~150
IV	9.9367	TiAl6Nb7	5832-11	TA6Nb7	F1295	–	Protasul	–

Non-ferrous metals (aluminum)

Category	Material number	Specifications					Market designation	Hardness
		DIN	ISO	AFNOR	AISI/SAE/ASTM	JIS		(HB)
VII	2.1871	G-AlCu 4 TiMg	–	–	–	–	–	–
VII	3.0205	Al99	–	1200 (A4)	–	–	–	–
VII	3.0255	Al99.5	–	1050 A	1000	–	–	–
VII	3.0275	Al99.7	–	1070 A	–	–	–	–
VII	3.0285	Al99.8	–	1080 A	–	–	–	–
VII	3.1255	AlCuSiMn	–	–	2014	–	AVIONAL 14	–
VII	3.1325	AlCuMg 1	–	2017 A (AU4G)	–	–	AVIONAL 17	–
VII	3.1355	AlCuMg 2	–	2024 (AU4G1)	–	–	AVIONAL 24	–
VII	3.1645	AlCuMgPb	–	2030 (AU4Pb)	–	–	–	–
VII	3.1655	AlCuBiPb, AlCu 6 BiPb	–	2001 (AU5PbBi)	–	–	–	–
VII	3.1754	G-AlCu 5 Ni 1.5	–	–	–	–	–	–
VII	3.2163	G-AlSi 9 Cu 3	–	–	–	–	–	–
VII	3.2315	AlMgSi 1	–	–	6082	–	ANTICORODAL 100	–
VII	3.2371	G-AlSi 7 Mg	–	–	4218 B	–	–	–
VII	3.2373	G-AlSi 9 Mg	–	–	–	–	–	–
VII	3.2381	G-AlSi 10 Mg	–	–	–	–	–	–
VII	3.2382	GD-AlSi 10 Mg	–	–	–	–	–	–
VII	3.2383	G-AlSi 10 Mg (Cu)	–	–	A 360.2	–	–	–
VII	3.2581	G-AlSi 12	–	–	A 413.2	–	–	–
VII	3.2582	GD-AlSi 12	–	–	A 413.0	–	–	–
VII	3.2583	G-AlSi 12 (Cu)	–	–	A 413.1	–	–	–
VII	3.3206	AlMgSi 0.5	–	6060 (AGS)	6063	–	ANTICORODAL 63 - AL6060	–
VII	3.3207	E-AlMgSi 0.5	–	–	6101	–	ALDREY	–
VII	3.3214	AlMgSi 0.5	–	–	6061	–	ANTICORODAL 61	–
VII	3.3315	AlMg 1	–	5005 (AlMg1)	–	–	–	–
VII	3.3545	AlMg 4 Mn	–	5086 (AG4MC)	5083	–	PERALUMAN 44	–
VII	3.3547	AlMg 4.5 Mn 0.7	–	5083 (AlMg5Mn0.7)	5083	A 5083	–	–
VII	3.3561	G-AlMg 5	–	–	–	–	–	–
VII	3.4335	AlZn 4.5 Mg 1	–	7020 (AZ5G)	7020	–	CARPENTAL	–
VII	3.4345	AlZnMgCu 0.5	–	–	7050	–	–	–
VII	3.4365	AlZnMgCu1.5	–	7075 (AZ5GU)	7075	–	ERGAL	–
VII	3.5101	G-MgZn 4 SE 1 Zr 1	–	–	ZE 41	–	–	–
VII	3.5103	MgSE 3 Zn 2 Zr 1	–	–	EZ 33	–	–	–
VII	3.5106	G-MgAg 3 SE 2 Zr 1	–	–	QE 22	–	–	–
VII	3.5812	G-MgAl 8 Zn 1	–	–	AZ 81	–	–	–
VII	3.5912	G-MgAl 9 Zn 1	–	–	AZ 91	–	–	–

Non-ferrous metals (brass)

Category	Material number	Specifications					Market designation	Hardness
		DIN	ISO	AFNOR	AISI/SAE/ASTM	JIS		(HB)
VIII	2.0220	CuZn 5	–	–	C 21000	C2100	–	65–110
VIII	2.0230	CuZn 10	–	–	–	–	–	75–130
VIII	2.0240	CuZn 15	–	–	–	–	–	65–145
VIII	2.0250	CuZn 20	–	–	–	–	–	65–150
VIII	2.0265	CuZn 30	–	–	C 26000	C2600	–	70–165
VIII	2.0321	CuZn 37	–	–	C 27200, C 27400	C2700, C2720	–	70–180
VIII	2.0331	CuZn 35 Pb 1, CuZn 36 Pb 1.5	CuZn 35 Pb 1	–	C 34000, C 34700	C3501	–	95–120
VIII	2.0335	CuZn 36	CuZn 37	–	C 27000, C 27200	C2700	–	65–130
VIII	2.0360	CuZn 40	–	–	–	–	–	95–120
VIII	2.0371	CuZn 38 Pb 2, CuZn 38 Pb 1.5	CuZn 38 Pb 2	–	C 37700	C3771, C3561	–	80–160
VIII	2.0375	CuZn 36 Pb 3	–	–	–	–	–	80–155
VIII	2.0380	CuZn 39 Pb 2	CuZn 38 Pb 2	–	C 37700	C3771, C3561	–	95–150
VIII	2.0401	CuZn 39 Pb 3	CuZn 38 Pb 3	–	C 38500	C3603	–	80–145
VIII	2.0402	CuZn 40 Pb 2	CuZn 40 Pb 2	–	C 38000	C3771, C3561	–	80–145
VIII	2.0410	CuZn 44 Pb 2	–	–	–	–	–	–
VIII	2.0490	CuZn 31 Si	CuZn 31 Si 1	–	C 69800	–	–	<180
VIII	2.0540	CuZn 35 Ni	–	–	–	–	–	–
VIII	2.0550	CuZn 40 Al 2, CuZn 37 Mn 3 Al 2 PbSi	CuZn 37 Mn 3 Al 2 Si	–	C 67400	–	–	130–200
VIII	2.0572	CuZn 40 Mn 2 Fe 1	–	–	–	–	–	–
VIII	2.0771	CuNi 7 Zn 39 Mn 5 Pb 3	–	–	–	–	–	130–200
VIII	2.0853	CuNi 1 Si	–	–	C 19010	–	–	–170
VIII	2.1191	CuAg 0.1, CuAg0.10P	–	–	C 10700, C 12100	–	–	–120
VIII	2.1293	CuCr 1 Zr	–	–	C 18150	–	–	–170
VIII	2.1310	CuFe 2 P	–	–	C 19400	–	–	–170
VIII	2.1498	CuSP, CuS (P0.01)	–	–	C 14700	–	–	–140

Properties and application range of carbide, cermet and HSS

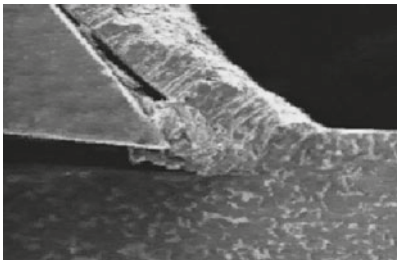
Grade	Norm	Application range											Materials (category) and hardness value (HB)								
		DIN/ISO 513 Toughness Hardness											125–300	180–250	200–350		180–220	220–330	60–130		
													Steel non-alloyed (I)	Steel low alloyed (II)	Steel high alloyed (III)	Titanium (IV)	Stainless steel (V)	Stainless steel (VI)	Aluminum (VII)	Brass (VIII)	Synthetics reinforced/composits (IX)
		01	05	10	15	20	25	30	35	40	45	50									
Carbide																					
UHM 10	K 10 / M 10												–	–	–	○	–	–	●	●	–
UHM 10 HX	K 10 / M 10												○	○	○	●	●	●	○	○	–
UHM 10 MZ	P 15 / M 10												●	●	●	–	–	–	–	–	–
UHM 20	K 20 / M 20												●	○	○	○	○	○	–	–	–
UHM 20 HPX	P 20–40 / M 20–40												●	●	●	○	●	●	–	–	–
UHM 20 HX	K 20 / M 20												●	●	●	●	●	●	○	○	–
UHM 20 MZ	P 25 / M 20												●	●	●	–	○	○	–	–	–
UHM 30	K 30 / M 20												○	○	○	○	○	○	●	●	–
UHM 30 HX	K 30 / M 20												○	○	○	●	●	●	○	–	–
UHM 30 MZ	P 35 / M 35												●	○	–	–	●	●	–	–	–
UHM 30 SX	K 30 / M 20												○	–	–	–	●	●	○	○	–
Cermet																					
UCM 10	P 15 / K 10 / M 10												●	●	●	–	●	●	–	–	–
UCM 10 HX	P 15 / K 10 / M 10												●	●	●	–	●	●	–	–	–
UCM 10 MZ	P 10 / K 05 / M 10												●	●	●	–	○	○	–	–	–
HSS																					
HSS	P 40–50 / M 40–50												●	●	●	–	○	○	●	●	–
HSS HX	P 40–50 / M 40–50												●	●	●	○	●	●	○	○	–
HSS SX	P 40–50 / M 40–50												●	●	●	○	●	●	○	○	–

Application range for diamond 22

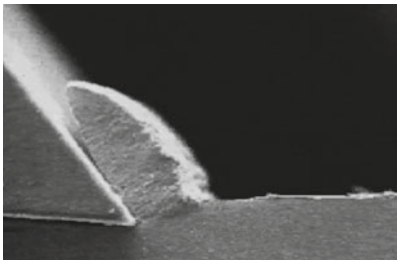
Legend 6

Properties and application range of coatings

With the refinement of cutting tools with an additional coating the wear will be decisively reduced. Rubbing, warming up, diffusion and oxidation decreases significantly.



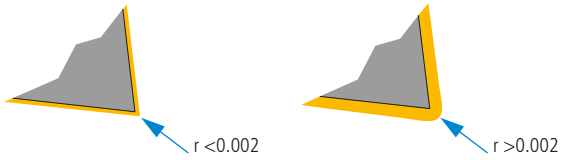
Cutting process without coated tool



Cutting process with coated tool

Rounded edges among coated inserts

Every coating of a carbide insert results in arounded cutting edge. The smaller the diameter of the material to be cut, the more significant are the consequences in the cutting performance. Therefore the rounding off of the cutting edge depends on the thickness of the coated layer. As thicker the coating, as greater is the radius created along the cutting edge.



Properties and application range of coatings

Coating	Standard for general applications			General applications (upon customer request)			Special applications (upon customer request)			
UTILIS coating code	**HX**	**HPX**	**MZ**	**SX**	**BX**	**HX-A**	**HX-F**	**TX+**	**DX-T**	**DX-HC**
Coating	TiAlN / AlTiN	TiAlN / AlTiN	TiN / TiAlN	TiN	TiCN	AlCrN	AlCrN	TiSiN	Diamond DLC	Diamond Ta-C
Procedure	PVD	PVD	CVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD

Materials (Category)		Application areas									
Steel non-alloyed	(I)	●	●	●	●	●	●	●	–	–	–
Steel low alloyed	(II)	●	●	●	●	●	●	●	–	–	–
Steel high alloyed	(III)	●	●	●	○	○	●	●	–	–	–
Titanium	(IV)	●	●	–	–	○	○	○	●	–	–
Stainless steel	(V)	●	●	●	○	●	●	●	●	–	–
Stainless steel	(VI)	●	●	●	○	○	●	●	●	–	–
Aluminum	(VII)	●	○	–	○	–	–	–	–	●	●
Brass	(VIII)	●	○	–	○	–	–	–	–	●	●
Synthetics reinforced/composits	(IX)	○	○	–	–	–	–	–	–	○	●
Hard materials	> 70 HRC	–	–	–	–	–	–	–	●	–	–

Characteristics	
HX	Standard allround coating for finishing and micro-finishing operations on a wide range of materials.
HPX	Standard allround coating for roughing and finishing operations in steel and stainless steel.
SX	Coating for the machining of steel materials for slow and medium cutting speeds. Not recommended for highly heat resistant materials.
BX	Coating with extreme hardness and outstanding toughness. Extremely suitable for steel, stainless steel and conditionally for titanium, at slow cutting speeds.
HX-A	Universally usable coating for dry and wet machining at fast cutting speeds in steel, stainless steel and titanium.
HX-F	High-performance coating for micro finishing operations in steel and stainless steel. Recommended for sharp edges, which are used in micro machining.
TX+	High-performance coating for micro finishing and finishing operations in stainless steel and highly heat resistant materials as well as micro cutting of hardened steels up to 70 HRC.
DX-T	Diamond coating for non-ferrous metals. Recommended for aluminium, plastic, brass and copper.
DX-HC	High performance diamond coating for non-ferrous metals. Recommended for aluminium alloys, platinum, silver, gold, composites and reinforced synthetics

Legend 6

Properties and application range for diamond

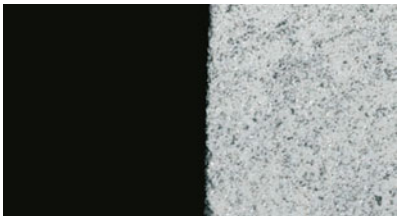
The exceptional hardness of diamonds in the various tool versions enables much higher cutting parameters to be achieved compared when conventional cutting materials are used.
In addition to traditional grinding and erosion machining, the use of high tech lasers not only produces top quality cutting edges, but also enables 3D chip removal geometries to be obtained.

UPCD15 / UPCD20
UPCD (polycrystalline diamond) is a sintered diamond powder in a metallic bonding matrix. Its grain structure ranging from ultra-fine (UPCD20) to coarse (UPCD15) gives the UPCD varying degrees of toughness, so greatly extending the range of possible applications.
With its diamond content of around 90 % only, UPCD has a much lower hardness and hence wear-resistance than UCVD.

Suitable for the following materials:
– Aluminum with 8–20 % SiC
– Brass, copper and bronze
– Platinum and gold



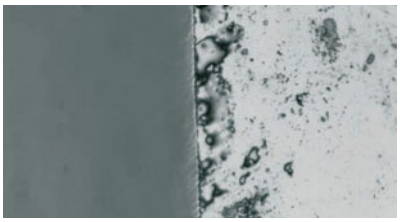
UPCD15



UPCD20

UCVD08
This diamond is produced by the CVD technique with a thickness of 0.8 mm. No binder is used. Minute diamond crystals are separated from the gas phase into a thick polymer diamond substrate which consists of up to 99.9 % diamond material.
Because of its high wear resistance, the life time of this innovative cutting material is between 2 and 10 times longer than that of UPCD.
The extremely sharp cutting edge enables reduced cutting pressure to be applied, therefore achieving excellent surface quality.

Suitable for the following materials:
– CFK… up to 80 % carbon fiber
– GFK… up to 80 % glass fiber
– Plastics
– Aluminum with 8–20 % SiC
– Brass, copper and bronze
– Platinum and gold



UCVD08

Properties and application range for diamond

Grade	Norm	Application range	Materials (category) and hardness value (HB)							
		DIN/ISO 513 Toughness Hardness	125–300 Steel non-alloyed (I)	180–250 Steel low alloyed (II)	200–350 Steel high alloyed (III)	Titanium (IV)	180–220 Stainless steel (V)	220–330 Stainless steel (VI)	60–130 Aluminum (VII)	Brass (VIII)	Synthetics reinforced/composits (IX)
		01 05 10 15 20 25 30 35 40 45 50									
Diamond											
UCVD 08			–	–	–	–	–	–	●	●	●
UPCD 15			–	–	–	–	–	–	●	●	–
UPCD 20			–	–	–	–	–	–	●	●	○

UTILIS® Tooling for High Technology

Surface quality

For the definition of surface roughness measured values are defined by DIN-ISO. In particular it means:

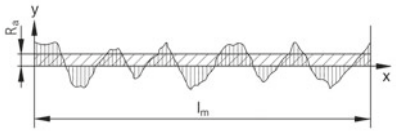
– Single surface roughness depth Z_1 … Z_5
This is the vertical distance between the highest and the lowest point of the roughness profile R within a single measured length l_e.

– Average roughness depth R_z (DIN 4768)
This is defined as the average value resulting from the single roughness depths of five successive single measured lengths l_e.

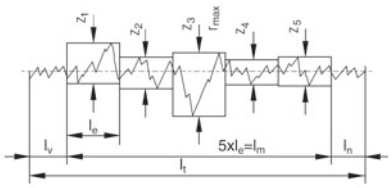
– Average roughness value R_a (DIN 4768)
This is defined as the arithmetical mean of the absolute sums of the roughness profile R within the entire measured length l_m.

– Max. surface roughness depth R_t (DIN 4768/1)
This is the distance between the elevation and depression of the line within the measured length (reference distance) of profile filtered according to DIN 4768 sheet 1.

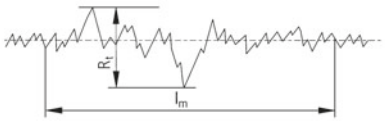
Average roughness value R_a



Single surface roughness depht Z



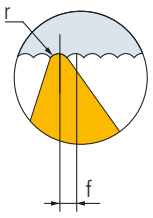
Maximum surface roughness R_t



Surface roughness by machining method

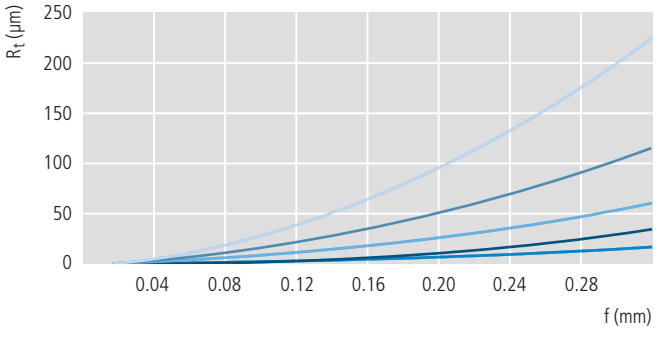
Surface roughness														Machining method
Surface symbol according to ISO 1302		0.025 ▽	0.05 ▽	0.1 ▽	0.2 ▽	0.4 ▽	0.8 ▽	1.6 ▽	3.2 ▽	6.3 ▽	12.5 ▽	25 ▽	50 ▽	
Roughness index (former)		N1	N2	N3	N4	N5	N6	N7	N8	N9	N10	N11	N12	
Average roughness value	R_a (µm)	0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50	
Surface roughness depth	R_z (µm)	0.025	0.63	1	1.6	2.5	4–6.3	10	16–25	40	63	100	160	
						▼▼▼	▼▼▼	▼▼▼	▼▼	▼▼	▼▼	▼	▼	Turning
					▼▼▼	▼▼▼	▼▼	▼▼	▼					Grinding

Theoretical surface roughness



r = Corner radius (mm)
R_t = Theoretical surface roughness (µm)
f = Feed (mm)

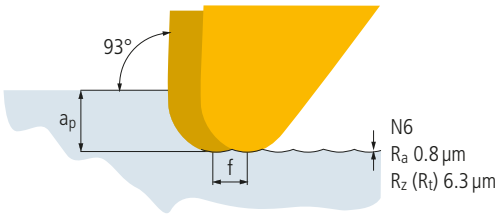
Standard design



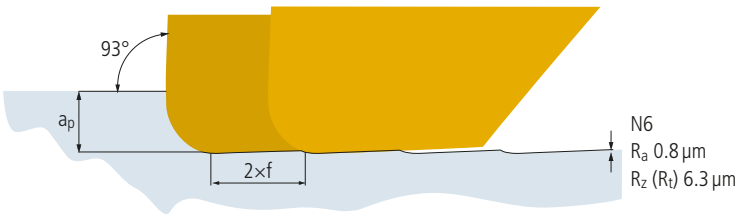
Improvement of feed rate by drag-cut with TOP System

By using the TOP system with drag-cut and a 93° holder the feed rate can be increased up to 2 times. This way the machining time can be decreased significantly by keeping the same quality. On the other hand within the same machining time the surface roughness can be improved clearly.

The following example illustrates the principle exactly.



Holder 93°
Corner radius 0.8 mm



Holder 93°
Corner radius 0.8 mm
multidec®-TOP insert

Causes and remedies of wear

A Flank wear



Reasons:
- Cutting speed too high
- Carbide grade with too little wear resistance
- Feed rate not adapted

Remedies:
- Reduce cutting speed
- Select better wear resistant carbide grade
- Adapt feed rate to cutting speed and cutting depth (increase feed rate)

Abrasion on flank, normal wear after a certain machining time.

B Edge chipping



Reasons:
- Grade with too high wear resistance
- Vibrations
- Feed rate too high or excessive cutting depth
- Interrupted cut
- Swarf damage

Remedies:
- Use tougher carbide grade
- Use negative cutting edge geometry with chip groove
- Increase stability (tool and work piece)

Through excessive mechanical stress at the cutting edge fracture and chipping can take place.

C Cratering

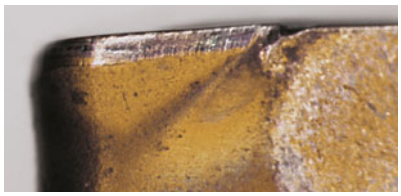


Reasons:
- Too high cutting speed and/or feed rate
- Rake angle too shallow
- Carbide grade with little wear resistance
- Insufficient coolant supply

Remedies:
- Reduce cutting speed and/or feed rate
- Increase coolant quantity and/or pressure, optimize coolant supply
- Use carbide grade which is more resistant to cratering

The hot chip which is being evacuated causes cratering at the rake face of the cutting edge.

D Plastic deformation



Reasons:
- Too high machining temperature, resulting in softening of substrate
- Damaged coatings

Remedies:
- Reduce cutting speed
- Choose carbide grade with higher wear resistance
- Provide cooling

High machining temperature and simultaneous mechanical stress can lead to plastic deformation.

E Built-up edges



Reasons:
- Too low cutting speed
- Too small rake angle
- Wrong cutting material
- Lack of cooling/lubrication

Remedies:
- Increase cutting speed
- Enlarge rake angle
- Select more resistant coating
- Use emulsion with higher concentration

Built-up material/edges occur when the chip is not evacuated properly due to a too low cutting temperature.

F Insert breakage



Reasons:
- Excessive stress of cutting material
- Lack of stability
- Corner angle too small
- Excessive notching

Remedies:
- Use tougher carbide grade
- Use protective edge chamfer
- Increase honing of cutting edge
- Use more stable geometry

Excessive stress of the insert causes breakage.

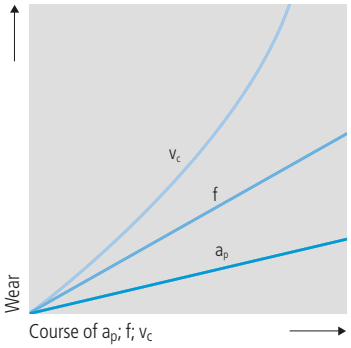
Problems and their remedies in different cases

Problem \ Remedy/Measure		Cutting speed	Feed	Carbide toughness	Carbide hardness	Clearance angle	Rake angle	Stability	Rounded edge condition	Coolant	Face/radial runout
A*	Excessive flank wear	↓	↑		↑						
B*	Chipping of cutting edge	↑	↓	↑			🔍	↑	↑		
C*	Excessive cratering	↓	↓		↑					↑	
D*	Plastic deformation	↓	↓		↑		🔍			🔍	
E*	Built up edge	↑	↑			🔍	↑		🔍	↑	
F*	Insert breakage		↓	↑			🔍	↑			
	Poor surface finish	↑	↓					↑	↓	🔍	↑
	Chip forming, chip pile up					🔍	🔍			🔍	
	Vibration	🔍	🔍			↓	↑	↑			↑
	Hairline cracks	↓	↓	🔍		↓				↑	

* Further information 26

↑ increase ↓ decrease 🔍 inspect, optimise

The cutting temperature particularly the wear depends significantly on the cutting conditions (v_c, f and a_p). Thermal causes of wear like oxidation and diffusion increase disproportionately.

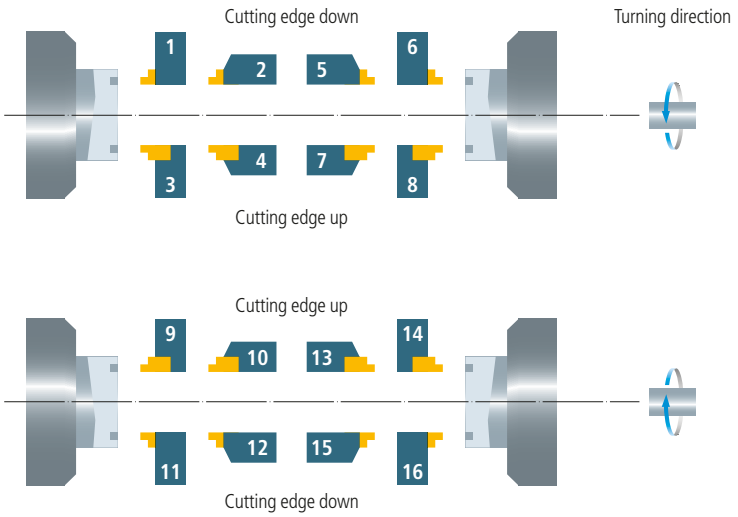


v_c = Cutting speed
f = Feed
a_p = Depth of cut

Working situations

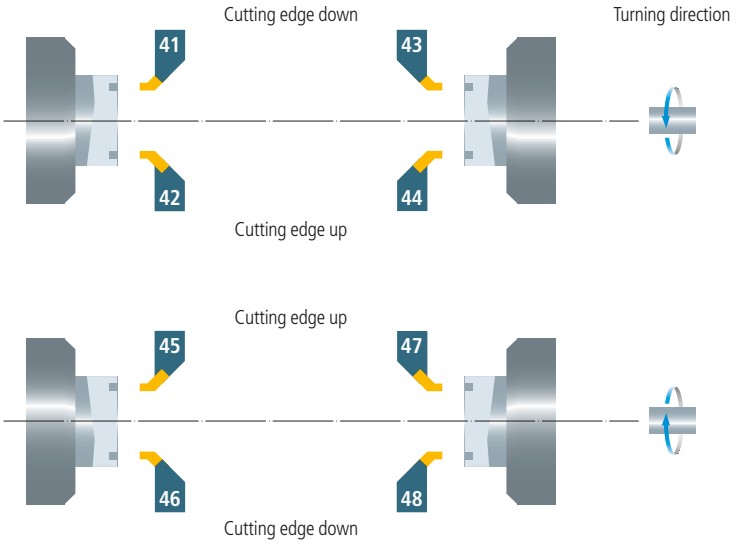
With the illustration below it is possible to achieve up different tooling situations. Choose yours and we will recommend you the suitable tooling solution.

Turning axial



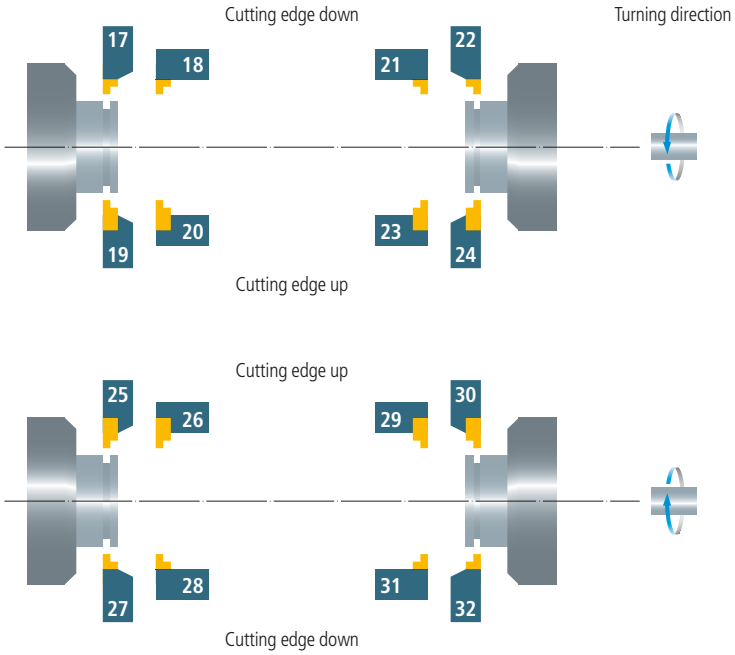
Situation	Execution	
	Holder	Insert
1	R	L
2	L	L
3	R	L
4	L	L
5	R	R
6	L	R
7	R	R
8	L	R
9	L	R
10	R	R
11	L	R
12	R	R
13	L	L
14	R	L
15	L	L
16	R	L

Turning axial (with holder 45°)



Situation	Execution	
	Holder	Insert
41	R	R
42	R	R
43	L	L
44	L	L
45	L	L
46	L	L
47	R	R
48	R	R

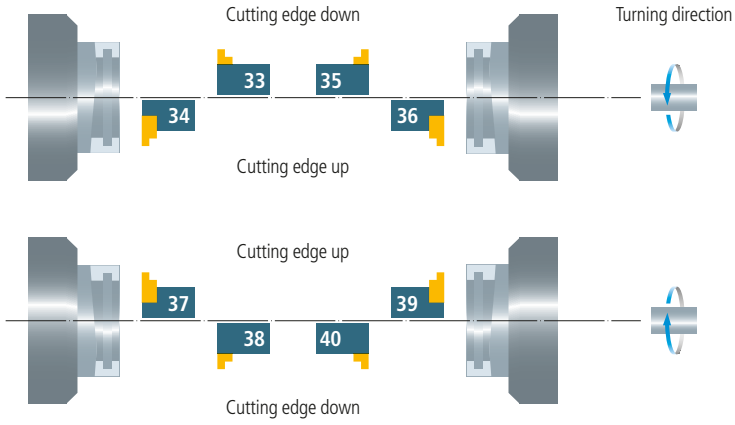
Turning radial outside



Situation	Execution	
	Holder	Insert
17	R	R
18	L	R
19	R	R
20	L	R
21	R	L
22	L	L
23	R	L
24	L	L
25	L	L
26	R	L
27	L	L
28	R	L
29	L	R
30	R	R
31	L	R
32	R	R

R = right L = left

Turning radial inside

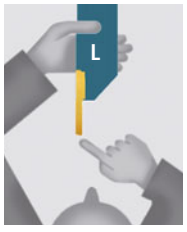


Situation	Execution	
	Holder	Insert
33	R	L
34	R	L
35	L	R
36	L	R
37	L	R
38	L	R
39	R	L
40	R	L

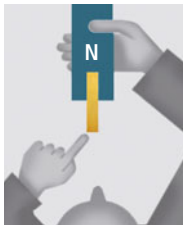
R = right L = left

Execution of holder/insert

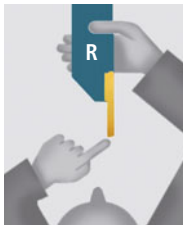
The side on which the insert is located determines whether it is a "left-" or "right-hand" holder. For this purpose, the holder is viewed with the insert pointing towards the observer.



Left hand holder



Neutral holder



Right hand holder

multidec®-CUT is most commonly used in OD-turning or alternatively in ID-turning. 5 systems are distinguished by the cutting depth or width and application field of machining process. All inserts are replaceable very easy and known for its great repeat accuracy. For cutting of all common materials we offer ideal adjusted micrograin carbides grades (K10–K40 PVD coated and uncoated).

Application		Type	multidec®-CUT tool system (holder and insert)				
			500	1600	1700	3000	3600
	Maximum of bar diameter		16	10	10	32	20
	Blank	… 01	●	●	●	●	●
	CUT off	… 02		●		●	
	Front turning	… 03		●		●	
	Back turning	… 04		●		●	
	Copy turning	… 04 SP		●		●	
	Grooving and turning	… 05		●		●	●
	Threading	… 06		●	●	●	
	Radius-grooving	… 07		●		●	
	Grooving (radial)	… 10		●	●		
	Grooving (axial)	… 11		●	●		
	Chamfering	… 12		●		●	
Holder shank size			▨ 6–10	▨ 8–25 ▨ ⅜"–¾" ⊘ 12–20	▨ 8–20 ▨ ⅜"–¾" ⊘ 16	▨ 8–25 ▨ ⅜"–¾"	▨ 10–25 ▨ ⅜"–¾"

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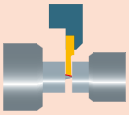
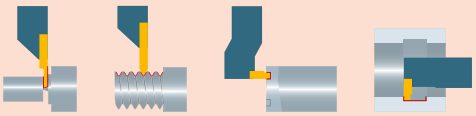
Machining methods 32



Choice of insert 34



Application 1600/1700/3000/3600 35



Product lines and accuracy classes of UTILIS, designation system 41





Overview inserts and holders 500 43



Overview inserts and holders 1600 47



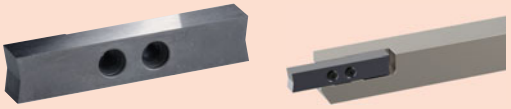
Overview inserts and holders 1700 95



Overview inserts and holders 3000 107



Overview inserts and holders 3600 155



Cutting specification 162



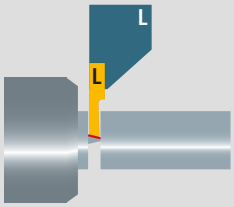
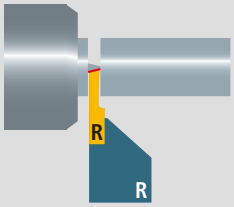
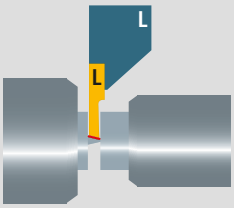
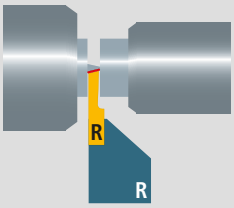
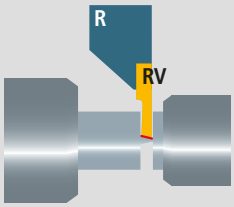
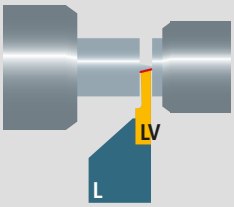
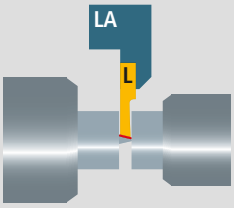
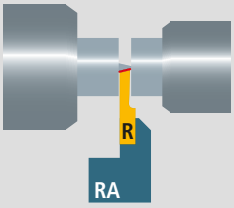
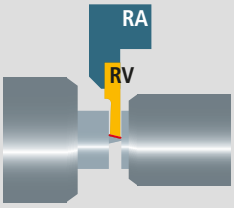
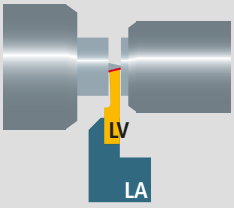
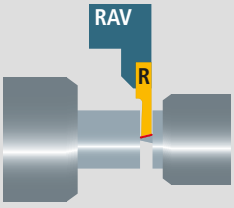
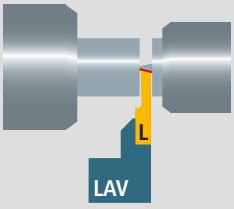
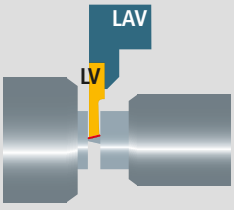
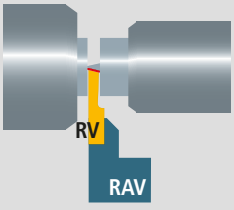
Recommendations for thread cutting 164

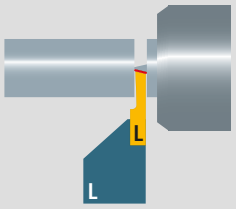
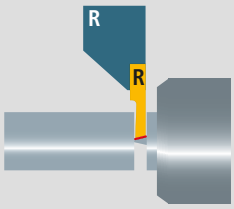
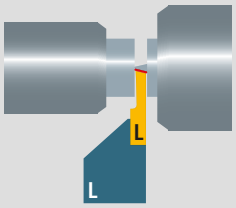
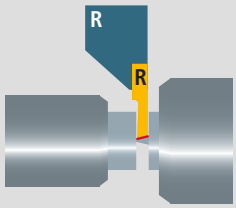
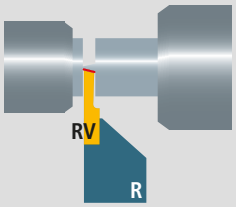
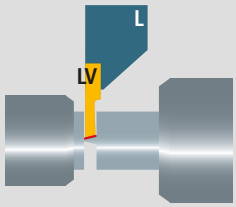
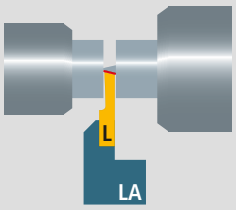
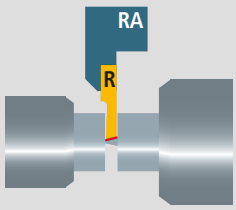
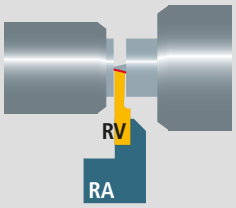
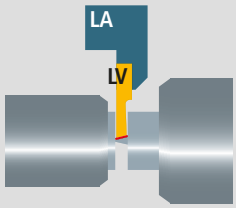
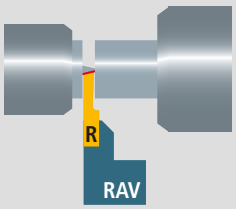
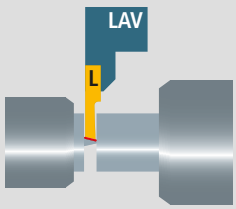
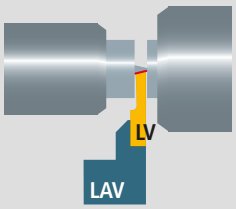
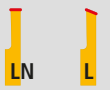
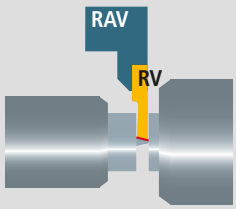
Choice of feed movement 165

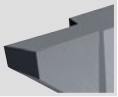
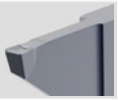
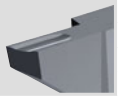
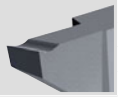
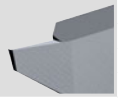
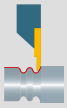
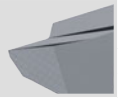
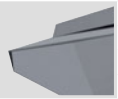
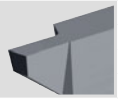
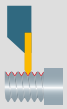
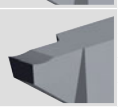
Accessories 625



A different combination of holder and insert allows cutting even in difficult situations.

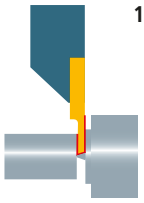
Main-spindle left	Possibilities of insert execution	Main-spindle left	Possibilities of insert execution	
				1
				2
				3
				4
				5
				6
				7
A		B		

Main-spindle right	Possibilities of insert execution	Main-spindle right	Possibilities of insert execution	
				1
				2
				3
				4
				5
				6
				7
C		D		

Application	Type and chip breaker		Machining Method ▼	Machining Method ▼▼	Machining Method ▼▼▼	Characteristics
		… 02	○	●	●	CUT off without chip breaker
			○	●	●	
			○	●	●	
			●	–	–	
		… 02 GS	●	○	–	CUT off with chip breaker
			●	○	–	
			●	○	–	
			○	○	–	
		… 02 SC	●	●	●	CUT off with chip breaker
			●	●	●	
			●	●	●	
			●	○	–	
		… 02 SPT	–	–	–	CUT off with chip breaker for tender material
			○	●	●	
			○	●	●	
			●	●	●	
		… 03	●	●	●	Front turning without chip breaker
			●	●	●	
			○	●	●	
			●	–	–	
		… 03 SP	○	●	●	Front turning with chip breaker
			○	●	●	
			○	●	●	
			●	●	●	
		… 03 CP TOP	○	●	●	Front turning with chip breaker and cutting edge "TOP"
			○	●	●	
			○	●	●	
			●	●	●	
		… 04	●	●	●	Back turning without chip breaker
			●	●	○	
			○	●	○	
			●	–	–	
		… 04 CP	○	●	●	Back turning with chip breaker
			○	●	●	
			○	●	●	
			●	●	●	
		… 04 SP	○	●	●	Copy turning with chip breaker
			○	●	●	
			○	●	●	
			●	●	●	
		… 04 TOP	○	●	●	Back turning with chip breaker and cutting edge "TOP"
			○	●	●	
			○	●	●	
			●	●	●	
		… 05	●	●	●	Grooving and turning without chip breaker
			●	●	●	
			○	●	○	
			●	○	–	
		… 05 CP	○	●	●	Grooving and turning with chip breaker
			○	●	●	
			○	●	●	
			●	●	●	
		… 06	–	–	●	Threading partial profile
			–	–	●	
			–	–	●	
			–	○	●	
		… 06 VP	–	–	●	Threading full profile
			–	–	●	
			–	–	●	
			–	○	●	
		… 07	–	●	●	Radius-grooving
			–	●	●	
			–	●	●	
			–	●	●	
		… 10	–	●	●	Grooving radial
			–	●	●	
			–	●	●	
			–	●	●	
		… 11	–	●	●	Grooving axial
			–	●	●	
			–	●	●	
			–	●	●	
		… 12	–	●	●	Chamfering
			–	●	●	
			–	●	●	
			–	●	●	

CUT off

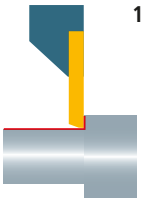
Inserts 50…



1602…

Front turning

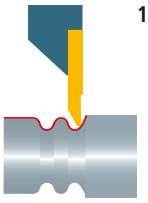
Inserts 59…



1603…

Copy turning (front)

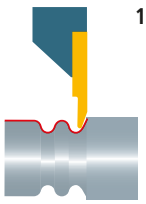
Inserts 62…



1604…

Copy turning (back)

Inserts 63…



1604…

Back turning

Inserts 64…



1604…

Grooving and Turning

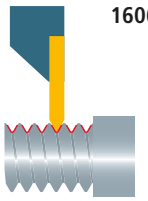
Inserts 66…



1605…

Threading

Inserts 68…



1606…

Radius-grooving

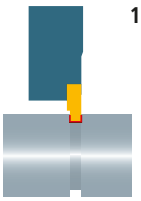
Inserts 72…



1607…

Grooving (radial)

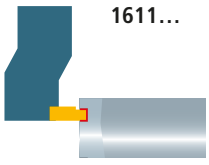
Inserts 73…



1610…

Grooving (axial)

Inserts 74…



1611…

Chamfering

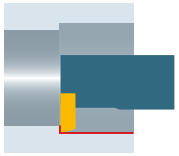
Inserts 76…



1612…

Front turning

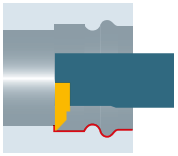
Inserts 59…



1603…

Copy turning (front)

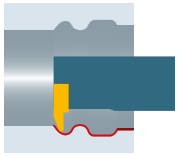
Inserts 62…



1604…V SP

Copy turning (back)

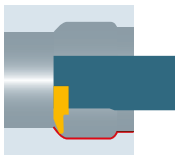
Inserts 63…



1604… SP

Back turning

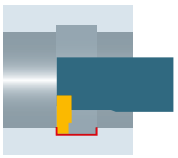
Inserts 64…



1604…

Grooving and Turning

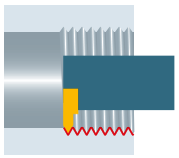
Inserts 66…



1605…

Threading

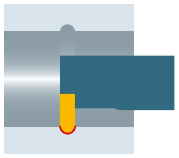
Inserts 71…



1606…

Radius-grooving

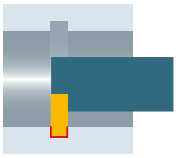
Inserts 72…



1607…

Grooving

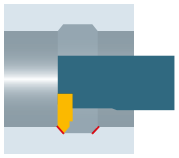
Inserts 73…



1610…

Chamfering

Inserts 76…



1612…

Special inserts (on demand)

Inserts 77…

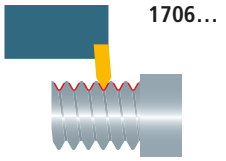
1694…,1696…, 1698…, 1699…

Holders 78…

All illustrations show right hand design. Left hand design is also available.

Threading

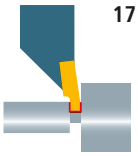
Inserts 97…



1706…

Grooving (radial)

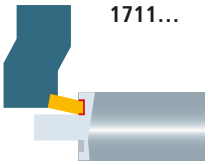
Inserts 98…



1710…

Grooving (axial)

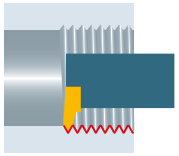
Inserts 99…



1711…

Threading

Inserts 97…



1706…

Grooving

Inserts 98…



1710…

Special inserts (on demand)

Inserts 100…

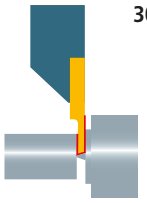
1799…

Holders 101…

All illustrations show right hand design. Left hand design is also available.

CUT off

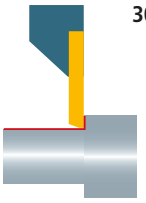
Inserts 110…



3002…

Front turning

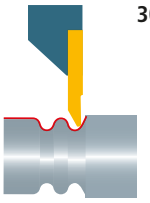
Inserts 129…



3003…

Copy turning (front)

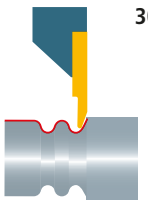
Inserts 131…



3004…

Copy turning (back)

Inserts 132…



3004…

Back turning

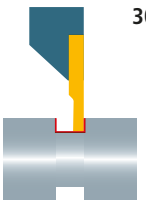
Inserts 133…



3004…

Grooving and Turning

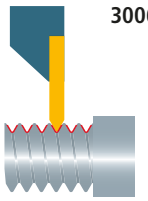
Inserts 136…



3005…

Threading

Inserts 138…



3006…

Radius-grooving

Inserts 143…



3007…

Chamfering

Inserts 144…



3012…

Special inserts (on demand)

Inserts 145…

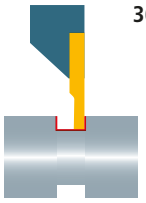
3099…

Holders 146…

All illustrations show right hand design. Left hand design is also available.

Grooving and Turning

Inserts 157…



3605…

Special inserts (on demand)

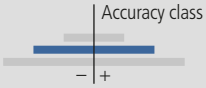
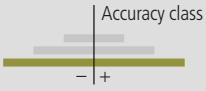
Inserts 158…

3699…

Holders 159…

All illustrations show right hand design. Left hand design is also available.

Product lines and accuracy classes of UTILIS — *multidec®-CUT*

Product line	🗋7	Repeatability
PREMIUM-LINE		< 10 µm
STANDARD-LINE		< 20 µm
VALUE-LINE		< 50 µm

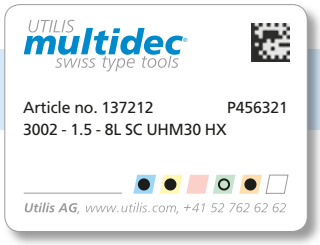
Designation system — *multidec®-CUT*

The designation of every insert and holder includes all important information according to the follwing system:

Inserts

3002 - 1.5 - 8L SC UHM30 HX

- 3002 — Product line
- 1.5 — Cutting design
- 8L — Width (mm)
- S — Maximum depth (mm)
- C — Execution
- UHM30 — Chip breaker or special execution
- H — Cutting material
- X — Coating



*

Holders

3000 - 08 - 100 L A

- 3000 — Product line
- 08 — Edition
- 100 — Holders cross section (mm)
- L — Length (mm)
- A — Execution
- offset



*

* Packaging Information 🗋7

Legend 🗋6

The turn and cut-off system 500 is suitable for Swiss type cam lathes up to bar diameter 15mm. The neutral cutting inserts, only available as blanks, consist of one cutting edge and will be mounted on tool holders with a repeatability of < 0.01 mm.
Even for the ground, hardened and nickel plated holders a wide range of possibilities with shank sizes between 6 and 10 mm are available. For Swiss-type automatic lathes special holders have been designed and complete the wide range of choices.







Advantages:
- Replace brazed tools on cam machines
- Neutral inserts with mirror polished cutting face
- Coated and uncoated blanks available
- The machine operator can grind his own cutting geometries

Technical information 9

43

Inserts
501… 44



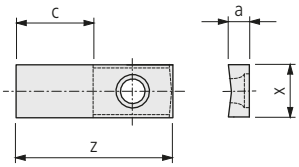
Holders
500… 45



Replacement and spare parts 45

Blank



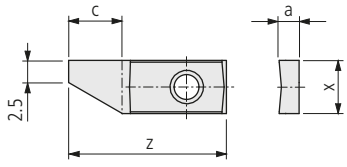


501…

Order designation	Carbide	19	Dimensions								Holder
	–	○									45…
	–	●									
	○	●									
	●	○									
N	UHM 10	UHM 10 HX	a	c	x	z					
PREMIUM-LINE			Accuracy class of UTILIS 41								
501-2-6 N P …*	■	■	2	8.5	6	17.8					500…
STANDARD-LINE			Accuracy class of UTILIS 41								
501-2-6 N …	■	■	2	8.5	6	17.8					500…

* Mirror polished





501…

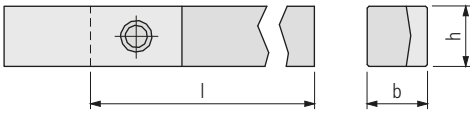
Order designation		Carbide	19	Dimensions								Holder
		●	●									45…
		○	●									
		○	●									
		●	○									
L	R	UHM 10	UHM 10 HX	a	c	x	z					
PREMIUM-LINE				Accuracy class of UTILIS 41								
501-1.5-6 L P …*	501-1.5-6 R P …*	■	■	1.5	6	6	17.8					500…

* Mirror polished



Standard





500…

Order designation L		Order designation R		Dimensions h	b	l	Inserts ⧉44…
STANDARD-LINE				Accuracy class of UTILIS ⧉41			
500-06x130 N	■	500-06x130 N	■	6	6	130	501…
500-07x130 L	■	500-07x130 R	■	7	7	130	501…
500-08x130 L	■	500-08x130 R	■	8	8	130	501…
500-10x130 L	■	500-10x130 R	■	10	10	130	501…

500… INCH

Order designation L		Order designation R		Dimensions b	h	l	Inserts ⧉44…
STANDARD-LINE				Accuracy class of UTILIS ⧉41			
500-3/8"x130 L	■	500-3/8"x130 R	■	9.525	9.525	130	501…

Replacement and spare parts

multidec®-CUT 500

Illustration	Description	Dimensions	Order designation		Holder
	TORX screw	M2.5 × 6 T08	MSP 25060 T08	■	500…

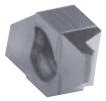
TORX screwdriver ⧉664

■ New

Legend ⧉6

The turn and cut-off system 1600 is suitable for Swiss type lathes up to bar diameter 10 mm. The cutting inserts consist of two cutting edges.
Even for the holders a wide range of possibilities with shank sizes between 7 and 25 mm are available. For Swiss-type automatic lathes special holders have been designed and complete the wide range of choices.







Advantages:
– Large selection of cutting geometries with different chip breakers especially made for smallest parts
– Full profile threading inserts starting from M 0.2 (0.06 mm pitch)
– Grooving inserts width starting from 0.05 mm



"IC" tool holder with integrated cooling

Cost-efficient processing of modern materials increasingly requires accurate control of the coolant at the cutting edge. Conveying the coolant as close as possible to the cutting edge is often a difficult task in the machine rooms of Swiss type turning lathes.
The multidec®-IC program offers a wide range of holders with integrated cooling. Because of the high precision and pressure, it is possible to discharge the chip quickly and safely from the cut-ting edge and the workpiece, which pro-tects the cutting edge of the insert. This means significantly longer tool life as well as very reliable serial production.

Advantages:
– All holders feature five possible connectors for the coolant supply
– Fixed coolant exit allows for small set-up in front of the holder
– With or without high pressure, the coolant medium always hits the cutting edge precisely



"TWIN" holder with and without integrated coolant supply

The "TWIN" range allows you to work with two inserts on the same holder.
Different combinations are possible, and provide the user with a high degree of flexibility. Holders are available with shank cross-sections of 8 to 20 mm, with and without internal cooling.

Advantages:
– Twice the number of tools on the machine
– Two different turning operations are possible with a single tool holder
– All holders with an integrated coolant supply have five connecting options

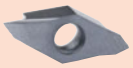


"Y-AXIS" holder with and without integrated coolant supply

Y-AXIS holders solve the chip control problems that can occur when cutting long-chip materials. With the Y-AXIS holder, the cutting edge is offset by 90° compared to the standard holder, whereby the chips fall in the bed of the machine. This prevents troublesome tumbling and flowing chips that can become caught on the cutting edge and damage it.

Benefits:
– Suitable for long chipping materials
– The problem of chip control is solved
– Holders with internal cooling
– All holders feature five possible connectors for the coolant supply

Technical information 9



Inserts

1601… 49
1602…, 1602… V 50
1602… TOP, 1602… V TOP 52
1602… SC, 1602… V SC 53
1602… SC TOP, 1602… V SC TOP 54
1602… N SC 55
1602… SPT, 1602… V SPT 56
1602… N SPT 58
1603… 59
1603… SP 60
1603… CP TOP 61
1604… V SP 62
1604… SP 63
1604… TOP 64
1604… SP TOP 65
1605… 66
1605… CP 67
1606… VP 68
1606… UN …VP 69
1606-G …VP 70
1606… 71
1607… 72
1610… 73
1611… 74
1611-45… 75
1612… 76
1694…, 1696…, 1698…, 1699… (special inserts) 77



Holders

1600…, 1600… IC 78
1600…4, …6, …8 80
1600… A 82
1600… AV 83
1600/1600… TWIN, 1600/1600… IC TWIN 84
1600 YA… Y-AXIS 86
1600… 00 RD . IC 87
1600… 90 ST A 88
1600… 45 ST A 89
1600… 90 ST 90
1600… 90 91
1600… 90 RD . IC 92
1600… 6-8 90 RD . IC 93



Replacement and spare parts 93



Coolant connectors and accessories 632

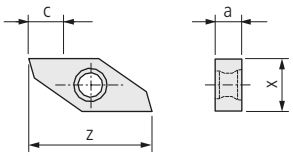
Attention
Please note the legend 🗋6…

Blank

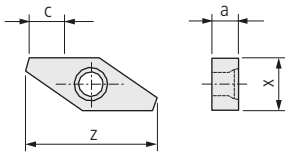


1601…

1601-3…



1601-4…/-6…/-8…
1601 B-3…

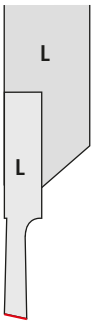


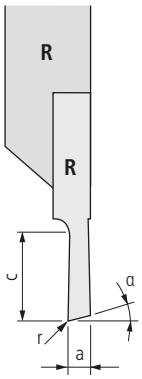
Order designation	Carbide 19				HSS		Dimensions						Holder
	○ ● ○ ○ ● ●												78…
	○ ● ○ ● ○ ●												
	○ ○ ○ ● – ○												
	– – ● ○ ● ○												
N	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	HSS	HSS HX	a	c	x	z			
PREMIUM-LINE							Accuracy class of UTILIS 41						
1601-3-5 N P …*	■	■	■	■			3	5	6	16			1600…
1601-4-5 N P …*	■	■	■	■			4	5	6	16			1600…
1601-6-5 N P …*	■	■	■	■			6	5	6	16			1600…
1601-8-5 N P …*			■	■			8	5	6	16			1600…
STANDARD-LINE							Accuracy class of UTILIS 41						
1601-3-5 N …	■	■	■	■	■	■	3	5	6	16			1600…
1601-4-5 N …	■	■	■	■	■	■	4	5	6	16			1600…
1601-6-5 N …	■	■	■	■	■	■	6	5	6	16			1600…
1601-8-5 N …			■	■	■	■	8	5	6	16			1600…
VALUE-LINE							Accuracy class of UTILIS 41						
1601 B-3-5 N …	■						3	5	6	16			1600…

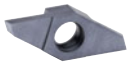
* Mirror polished



CUT off





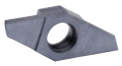


1602…

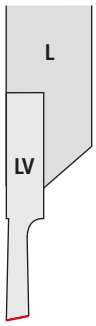
Order designation		Carbide 19				Dimensions								Holder
		○ ○ ○ –	● ● ○ –	○ ○ ○ ●	○ ● ● ○									78…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	r					
PREMIUM-LINE									Accuracy class of UTILIS 41					
1602-0.5-2.5 L G20 …	1602-0.5-2.5 R G20 …	■	■	■	■	0.5	2.5	20°	0					1600…
STANDARD-LINE									Accuracy class of UTILIS 41					
1602-0.8-5 L …	1602-0.8-5 R …	■	■	■	■	0.8	5	15°	0					1600…
1602-1.0-5 L …	1602-1.0-5 R …	■	■	■	■	1	5	15°	0					1600…
1602-1.2-5 L …	1602-1.2-5 R …	■	■	■	■	1.2	5	15°	0					1600…
1602-1.5-5 L …	1602-1.5-5 R …	■	■	■	■	1.5	5	15°	0					1600…
VALUE-LINE									Accuracy class of UTILIS 41					
1602 B-1.0-5 L …	1602 B-1.0-5 R…	■	■			1	5	15°	0					1600…
1602 B-1.5-5 L …	1602 B-1.5-5 R…	■	■			1.5	5	15°	0					1600…



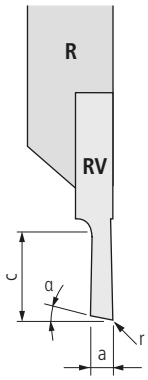
CUT off



1602… V



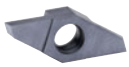
V: offset



Order designation		Carbide 19				Dimensions								Holder
														78…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	r					
PREMIUM-LINE								Accuracy class of UTILIS 41						
1602-0.5-2.5 LV G20 …	1602-0.5-2.5 RV G20 …	■	■	■	■	0.5	2.5	20°	–					1600…
STANDARD-LINE								Accuracy class of UTILIS 41						
1602-0.8-5 LV …	1602-0.8-5 RV …	■	■	■	■	0.8	5	15°	–					1600…
1602-1.0-5 LV …	1602-1.0-5 RV …	■	■	■	■	1	5	15°	–					1600…
1602-1.2-5 LV …	1602-1.2-5 RV …	■	■	■	■	1.2	5	15°	–					1600…
1602-1.5-5 LV …	1602-1.5-5 RV …	■	■	■	■	1.5	5	15°	–					1600…
VALUE-LINE								Accuracy class of UTILIS 41						
1602 B-1.0-5 LV …	1602 B-1.0-5 RV …	■	■			1	5	15°	–					1600…
1602 B-1.5-5 LV …	1602 B-1.5-5 RV …	■	■			1.5	5	15°	–					1600…

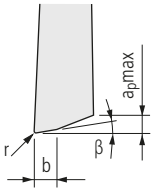
Turning and cut off

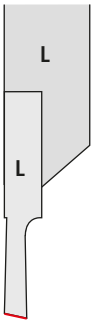


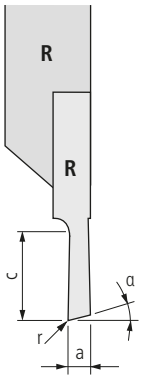


1602… TOP*

Detail TOP*

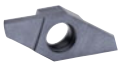






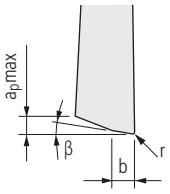
Order designation		Carbide ▯19				Dimensions							Holder ▯78…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	r	β	b	$a_p$max	
STANDARD-LINE								Accuracy class of UTILIS ▯41					
1602-1.5-5 L TOP 008 …	1602-1.5-5 R TOP 008 …			■	■	1.5	5	15°	0.08	1.5°	0.3	0.3	1600…

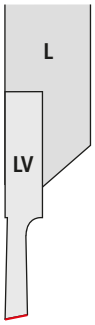
* Description TOP ▯25



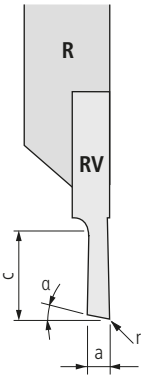
1602… V TOP*

Detail TOP*





V: offset



Order designation		Carbide ▯19				Dimensions							Holder ▯78…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	r	β	b	$a_p$max	
STANDARD-LINE								Accuracy class of UTILIS ▯41					
1602-1.5-5 LV TOP 008 …	1602-1.5-5 RV TOP 008 …			■	■	1.5	5	15°	0.08	1.5°	0.3	0.3	1600…

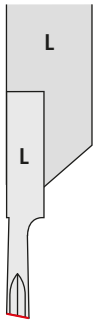
* Description TOP ▯25

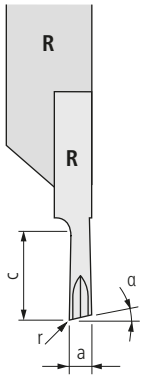


CUT off

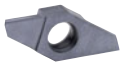


1602… SC

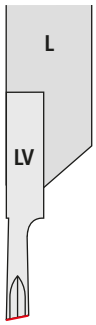




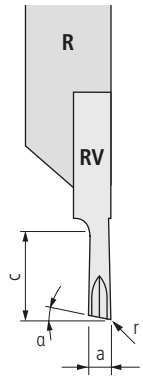
Order designation		Carbide 19				Dimensions								Holder
														78…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	r					
STANDARD-LINE						Accuracy class of UTILIS 41								
1602-1.5-5 L SC …	1602-1.5-5 R SC …	■	■	■	■	1.5	5	15°	–					1600…



1602… V SC



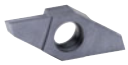
V: offset



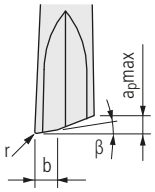
Order designation		Carbide 19				Dimensions								Holder
														78…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	r					
STANDARD-LINE						Accuracy class of UTILIS 41								
1602-1.5-5 LV SC …	1602-1.5-5 RV SC …	■	■	■	■	1.5	5	15°	–					1600…

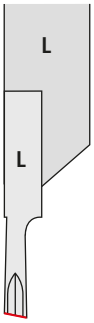


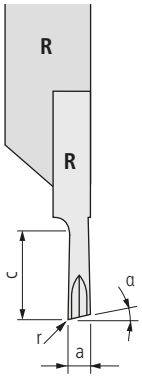
Turning and cut off



1602… SC TOP*

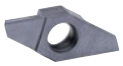




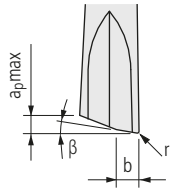


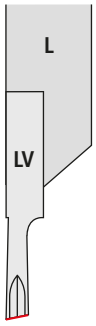
Order designation		Carbide ▯19				Dimensions								Holder ▯78…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	r	β	b	$a_p$max		
STANDARD-LINE									Accuracy class of UTILIS ▯41					
1602-1.5-5 L SC TOP 008 …	1602-1.5-5 R SC TOP 008 …			■	■	1.5	5	15°	0.08	1.5°	0.3	0.3		1600…

* Description TOP ▯25

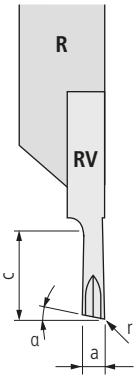


1602… V SC TOP*





V: offset



Order designation		Carbide ▯19				Dimensions								Holder ▯78…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	r	β	b	$a_p$max		
STANDARD-LINE									Accuracy class of UTILIS ▯41					
1602-1.5-5 LV SC TOP 008 …	1602-1.5-5 RV SC TOP 008 …			■	■	1.5	5	15°	0.08	1.5°	0.3	0.3		1600…

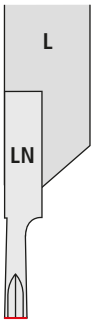
* Description TOP ▯25



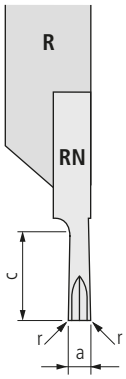
CUT off



1602… N SC



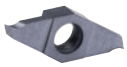
N: neutral



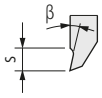
Order designation		Carbide 19				Dimensions								Holder
														78…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	r						
STANDARD-LINE								Accuracy class of UTILIS 41 – +						
1602-1.5-5 LN SC …	1602-1.5-5 RN SC …			■	■	1.5	5	0.05						1600…

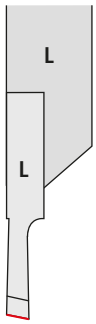


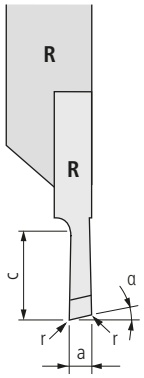
CUT off



1602… SPT



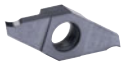




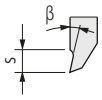
Order designation		Carbide 19				Dimensions								Holder
														78…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	β	r	s			
PREMIUM-LINE									Accuracy class of UTILIS 41					
1602-0.5-2.5 L SPT G20 …	1602-0.5-2.5-R SPT G20 …			■	■	0.5	2.5	20°	20°	–	2			1600…
STANDARD-LINE									Accuracy class of UTILIS 41					
1602-0.8-5 L SPT …	1602-0.8-5 R SPT …			■	■	0.8	5	15°	20°	–	2			1600…
1602-1.0-5 L SPT …	1602-1.0-5 R SPT …			■	■	1	5	15°	20°	–	2			1600…
1602-1.0-5 L SPT06 …	1602-1.0-5 R SPT06 …	■	■			1	5	15°	6°	0.05	2			1600…
1602-1.0-5 L SPT12 …	1602-1.0-5 R SPT12 …	■	■			1	5	15°	12°	0.05	2			1600…
1602-1.2-5 L SPT …	1602-1.2-5 R SPT …			■	■	1.2	5	15°	20°	–	2			1600…
1602-1.5-5 L SPT …	1602-1.5-5 R SPT …			■	■	1.5	5	15°	20°	–	2			1600…
1602-1.5-5 L SPT06 …	1602-1.5-5 R SPT06 …	■	■			1.5	5	15°	6°	0.05	2			1600…
1602-1.5-5 L SPT12 …	1602-1.5-5 R SPT12 …	■	■			1.5	5	15°	12°	0.05	2			1600…
VALUE-LINE									Accuracy class of UTILIS 41					
1602 B-1.0-5 L SPT06 …	1602 B-1.0-5 R SPT06 …	■	■			1	5	15°	6°	0.05	2			1600…
1602 B-1.5-5 L SPT06 …	1602 B-1.5-5 R SPT06 …	■	■			1.5	5	15°	6°	0.05	2			1600…

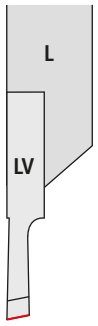
CUT off



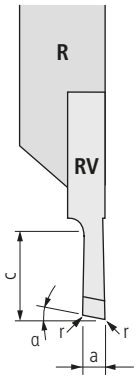


1602… V SPT





V: offset

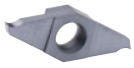


Order designation		Carbide 19				Dimensions								Holder
														78…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	β	r	s			
PREMIUM-LINE										Accuracy class of UTILIS 41				
1602-0.5-2.5 LV SPT G20 …	1602-0.5-2.5-RV SPT G20 …			■	■	0.5	2.5	20°	20°	–	2			1600…
STANDARD-LINE										Accuracy class of UTILIS 41				
1602-0.8-5 LV SPT …	1602-0.8-5 RV SPT …			■	■	0.8	5	15°	20°	–	2			1600…
1602-1.0-5 LV SPT …	1602-1.0-5 RV SPT …			■	■	1	5	15°	20°	–	2			1600…
1602-1.0-5 LV SPT06 …	1602-1.0-5 RV SPT06 …	■	■			1	5	15°	6°	0.05	2			1600…
1602-1.0-5 LV SPT12 …	1602-1.0-5 RV SPT12 …	■	■			1	5	15°	12°	0.05	2			1600…
1602-1.2-5 LV SPT …	1602-1.2-5 RV SPT …			■	■	1.2	5	15°	20°	–	2			1600…
1602-1.5-5 LV SPT …	1602-1.5-5 RV SPT …			■	■	1.5	5	15°	20°	–	2			1600…
1602-1.5-5 LV SPT06 …	1602-1.5-5 RV SPT06 …	■	■			1.5	5	15°	6°	0.05	2			1600…
1602-1.5-5 LV SPT12 …	1602-1.5-5 RV SPT12 …	■	■			1.5	5	15°	12°	0.05	2			1600…
VALUE-LINE										Accuracy class of UTILIS 41				
1602 B-1.0-5 LV SPT06 …	1602 B-1.0-5 RV SPT06 …	■	■			1	5	15°	6°	0.05	2			1600…
1602 B-1.5-5 LV SPT06 …	1602 B-1.5-5 RV SPT06 …	■	■			1.5	5	15°	6°	0.05	2			1600…

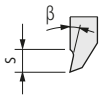
UTILIS multidec swiss type tools

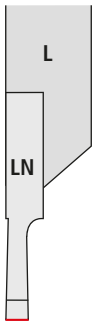


CUT off

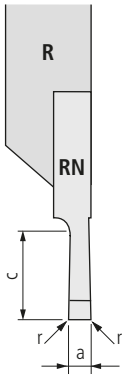


1602… N SPT

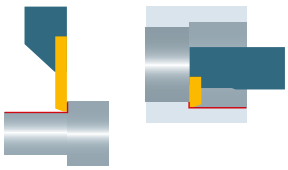




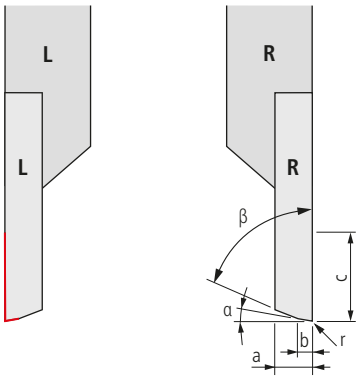
N: neutral



Order designation		Carbide ▯19				Dimensions								Holder ▯78…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	r	s	β				
PREMIUM-LINE										Accuracy class of UTILIS ▯41				
1602-0.5-2.5-LN SPT …	1602-0.5-2.5-RN SPT …			■	■	0.5	2.5	0.05	2	20°				1600…
STANDARD-LINE										Accuracy class of UTILIS ▯41				
1602-0.8-5 LN SPT …	1602-0.8-5 RN SPT …			■	■	0.8	5	0.05	2	20°				1600…
1602-1.0-5 LN SPT …	1602-1.0-5 RN SPT …			■	■	1	5	0.05	2	20°				1600…
1602-1.0-5 LN SPT06 …	1602-1.0-5 RN SPT06 …	■	■			1	5	0.05	2	6°				1600…
1602-1.0-5 LN SPT12 …	1602-1.0-5 RN SPT12 …	■	■			1	5	0.05	2	12°				1600…
1602-1.2-5 LN SPT …	1602-1.2-5 RN SPT …			■	■	1.2	5	0.05	2	20°				1600…
1602-1.5-5 LN SPT …	1602-1.5-5 RN SPT …			■	■	1.5	5	0.05	2	20°				1600…
1602-1.5-5 LN SPT06 …	1602-1.5-5 RN SPT06 …	■	■			1.5	5	0.05	2	6°				1600…
1602-1.5-5 LN SPT12 …	1602-1.5-5 RN SPT12 …	■	■			1.5	5	0.05	2	12°				1600…
VALUE-LINE										Accuracy class of UTILIS ▯41				
1602 B-1.0-5 LN SPT06 …	1602 B-1.0-5 RN SPT06 …	■	■			1	5	0.05	2	6°				1600…
1602 B-1.5-5 LN SPT06 …	1602 B-1.5-5 RN SPT06 …	■	■			1.5	5	0.05	2	6°				1600…



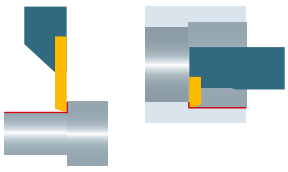
Front turning





1603…

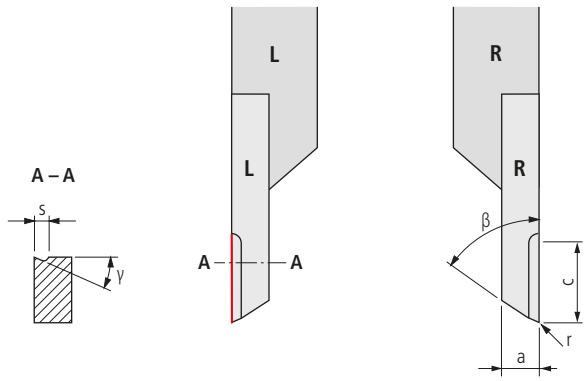
Order designation		Carbide 19				Dimensions								Holder
		○ ○ ○ –	● ● ○ –	○ ○ ○ ●	○ ● ○ ○									78…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	b	c	α	β	r			
STANDARD-LINE								Accuracy class of UTILIS 41						
1603-3.0-4 L …	1603-3.0-4 R …	■	■	■	■	3	1	4	3°	70°	–			1600…
1603-3.0-5 L 55008 …	1603-3.0-5 R 55008 …	■	■	■	■	3	–	4	–	55°	0.08			1600…
1603-3.0-5 L 55015 …	1603-3.0-5 R 55015 …	■	■	■	■	3	–	4	–	55°	0.15			1600…
1603-3.0-5 L 35008 …	1603-3.0-5 R 35008 …	■	■	■	■	3	–	4	–	35°	0.08			1600…
1603-3.0-5 L 35015 …	1603-3.0-5 R 35015 …	■	■	■	■	3	–	4	–	35°	0.15			1600…
VALUE-LINE								Accuracy class of UTILIS 41						
1603 B-3.0-4 L …	1603 B-3.0-4 R …	■	■			3	1	4	3°	70°	–			1600…



Front turning



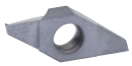
1603… SP U…



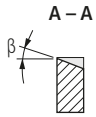
Order designation		Carbide 19				Dimensions								Holder 78…
		○	●	○	○									
		○	●	○	●									
		○	○	○	●									
		–	–	●	○									
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	β	r	s	γ			
STANDARD-LINE									Accuracy class of UTILIS 41 – +					
1603-3.0-4 L SP U55003 …	1603-3.0-4 R SP U55003 …	■	■	■	■	3	4	55°	0.03	1	12°			1600…
1603-3.0-4 L SP U55008 …	1603-3.0-4 R SP U55008 …	■	■	■	■	3	4	55°	0.08	1	12°			1600…
1603-3.0-4 L SP U55015 …	1603-3.0-4 R SP U55015 …	■	■	■	■	3	4	55°	0.15	1	12°			1600…
1603-3.0-4 L SP U35003 …	1603-3.0-4 R SP U35003 …	■	■	■	■	3	4	35°	0.03	1	12°			1600…
1603-3.0-4 L SP U35008 …	1603-3.0-4 R SP U35008 …	■	■	■	■	3	4	35°	0.08	1	12°			1600…
1603-3.0-4 L SP U35015 …	1603-3.0-4 R SP U35015 …	■	■	■	■	3	4	35°	0.15	1	12°			1600…

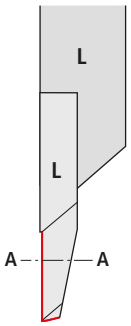


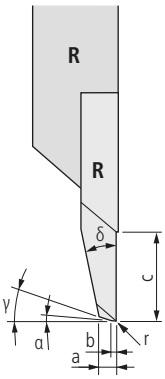
Front turning



1603… CP TOP*

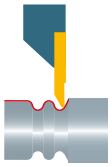


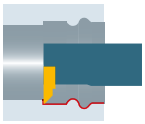




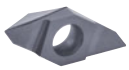
Order designation		Carbide 19				Dimensions								Holder
		○	●	○	○									78…
		○	●	○	●									
		○	○	○	●									
		–	–	●	○									
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	b	c	α	β	γ	r	δ	
STANDARD-LINE								Accuracy class of UTILIS 41						
1603-3.0-3.5 L CP TOP ZZ …	1603-3.0-3.5 R CP TOP ZZ …			■	■	0.8	0.2	4	1°	15°	2°	–	25°	1600…
1603-3.0-3.5 L CP TOP 003 …	1603-3.0-3.5 R CP TOP 003 …	■	■	■	■	0.8	0.2	4	1°	15°	2°	0.03	25°	1600…

* Description TOP 25

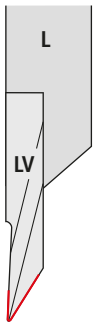




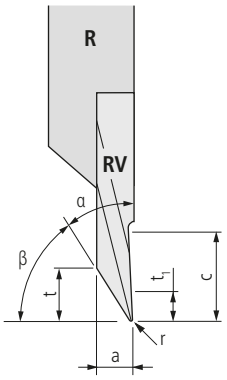
Copy turning (front)



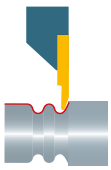
1604…V SP



V: offset

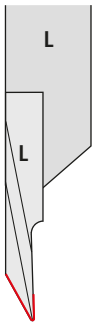


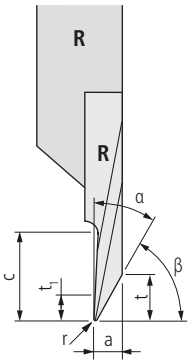
Order designation		Carbide ⬚19				Dimensions								Holder
		○ ○ ○ –	● ● ○ –	○ ○ ○ ●	○ ● ○ ○									⬚78…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	β	r	t	t_1		
STANDARD-LINE										Accuracy class of UTILIS ⬚41				
1604-2.5-4-5 LV SP29005 …	1604-2.5-4-5 RV SP29005 …	■	■	■	■	2.5	5	29°	61°	0.05	4	2		1600…
1604-2.5-4-5 LV SP29015 …	1604-2.5-4-5 RV SP29015 …	■	■	■	■	2.5	5	29°	61°	0.15	4	2		1600…

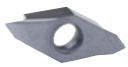




Copy turning (back)





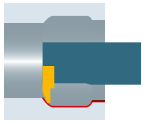


1604… SP

Order designation		Carbide 19				Dimensions								Holder
		○	●	○	○									78…
		○	●	○	●									
		○	○	○	●									
		–	–	●	○									
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	β	r	t	t_1		
STANDARD-LINE								Accuracy class of UTILIS 41 – +						
1604-1.25-2-3 L SP29005 …	1604-1.25-2-3 R SP29005 …	■	■	■	■	1.25	2.5	29°	61°	0.05	2	1		1600…
1604-2.5-4-5 L SP29005 …	1604-2.5-4-5 R SP29005 …	■	■	■	■	2.5	5	29°	61°	0.05	4	2		1600…
1604-2.5-4-5 L SP29015 …	1604-2.5-4-5 R SP29015 …	■	■	■	■	2.5	5	29°	61°	0.15	4	2		1600…

UTILIS multidec swiss type tools

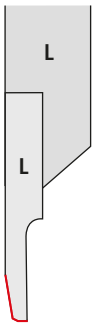


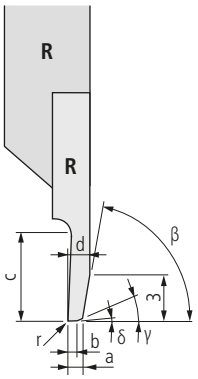


Back turning



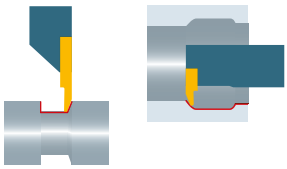
1604… TOP*





Order designation		Carbide ▯19				Dimensions								Holder
														▯78…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	b	c	d	β	γ	r	δ	
STANDARD-LINE						Accuracy class of UTILIS ▯41								
1604-0.15-2 L TOP ZZ …	1604-0.15-2 R TOP ZZ …	■	■	■	■	0.15	0.05	2	1	70°	8°	–	–	1600…
1604-0.2-2 L TOP 008 …	1604-0.2-2 R TOP 008 …	■	■	■	■	0.25	0.15	2	1	70°	8°	0.08	–	1600…
1604-0.4-4 L TOP 008 …	1604-0.4-4 R TOP 008 …	■	■	■	■	0.4	0.15	4	1.6	70°	8°	0.08	–	1600…
1604-0.8-4 L TOP 008 …	1604-0.8-4 R TOP 008 …	■	■	■	■	0.8	0.15	4	2	70°	8°	0.08	–	1600…
1604-1.2-4 L TOP ZZ …	1604-1.2-4 R TOP ZZ …	■	■	■	■	1.2	0.5	4	2.4	70°	8°	–	1°	1600…
VALUE-LINE						Accuracy class of UTILIS ▯41								
1604 B-0.8-4 L TOP 008 …	1604 B-0.8-4 R TOP 008 …	■	■			0.8	0.15	4	2	70°	8°	0.08	–	1600…
1604 B-1.2-4 L TOP ZZ …	1604 B-1.2-4 R TOP ZZ …	■	■			1.2	0.5	4	2.4	70°	8°	–	1°	1600…

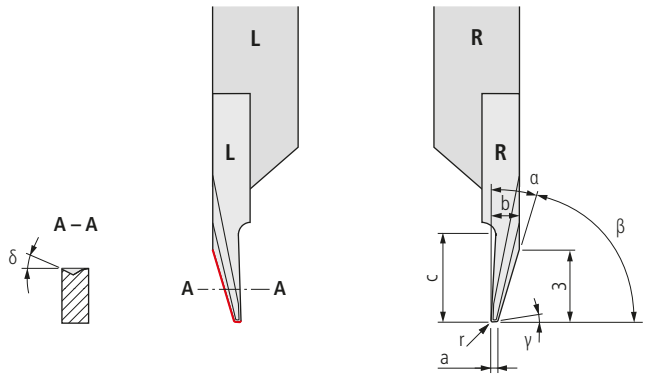
* Description TOP ▯25



Back turning



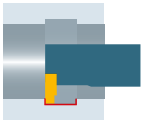
1604… SP TOP*



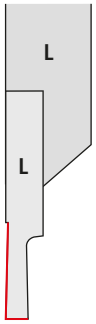
Order designation		Carbide 19				Dimensions								Holder
		○	●	○	○									78…
		○	●	○	●									
		○	○	○	●									
		–	–	●	○									
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	b	α	β	γ	δ	r	
STANDARD-LINE									Accuracy class of UTILIS 41 – +					
1604-1.5-3 L SP TOP 20ZZ …	1604-1.5-3 R SP TOP 20ZZ …	■	■	■	■	0.3	3	1.5	20°	70°	1.5°	15°	–	1600…
1604-1.5-3 L SP TOP 20005 …	1604-1.5-3 R SP TOP 20005 …	■	■	■	■	0.3	3	1.5	20°	70°	1.5°	15°	0.05	1600…

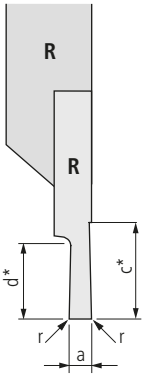
* Description TOP 25

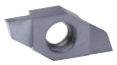




Grooving and turning





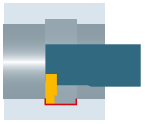


1605…

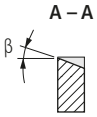
Order designation		Carbide 19				Dimensions								Holder
														78…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c*	d*	r					
STANDARD-LINE									Accuracy class of UTILIS 41					
1605-0.5-1.5 L …	1605-0.5-1.5 R …	■	■	■	■	0.5	1.5	1.5	0.05					1600…
1605-1.0-2.5 L …	1605-1.0-2.5 R …	■	■	■	■	1	2.5	2.5	0.05					1600…
1605-1.5-3 L …	1605-1.5-3 R …	■	■	■	■	1.5	3	3	0.05					1600…
VALUE-LINE									Accuracy class of UTILIS 41					
1605 B-1.0-2.5 L …	1605 B-1.0-2.5 R …	■	■			1	2.5	2.5	0.05					1600…
1605 B-1.5-3 L …	1605 B-1.5-3 R …	■	■			1.5	3	3	0.05					1600…

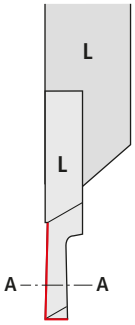
* c: maximal turning capacity
d: maximal grooving capacity

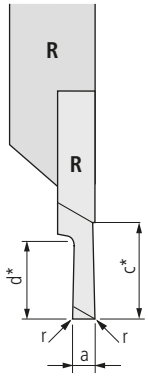




Grooving and turning





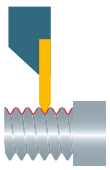




1605… CP

Order designation		Carbide ▯19				Dimensions								Holder
		○	●	○	○									▯78…
		○	●	○	●									
		○	○	○	●									
		–	–	●	○									
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c*	d*	r	β				
STANDARD-LINE									Accuracy class of UTILIS ▯41 – +					
1605-0.8-2.5 L CP …	1605-0.8-2.5 R CP …	■	■	■	■	0.8	2.5	2.5	–	15°				1600…
1605-1.0-3.5 L CP …	1605-1.0-3.5 R CP …	■	■	■	■	1	3.5	3.5	–	15°				1600…
1605-1.0-3.5 L CP R05 …	1605-1.0-3.5 R CP R05 …	■	■	■	■	1	3.5	3.5	0.05	15°				1600…
1605-1.5-3.5 L CP …	1605-1.5-3.5 R CP …	■	■	■	■	1.5	3.5	3.5	–	15°				1600…
1605-1.5-3.5 L CP R08 …	1605-1.5-3.5 R CP R08 …	■	■	■	■	1.5	3.5	3.5	0.08	15°				1600…
1605-2.0-3.5 L CP …	1605-2.0-3.5 R CP …	■	■	■	■	2	3.5	3.5	–	15°				1600…
1605-2.0-3.5 L CP R08 …	1605-2.0-3.5 R CP R08 …	■	■	■	■	2	3.5	3.5	0.08	15°				1600…

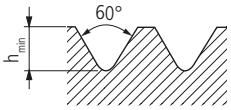
* c: maximal turning capacity
d: maximal grooving capacity

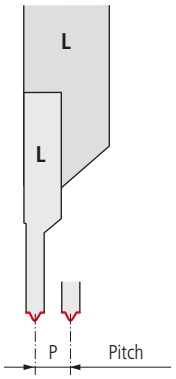


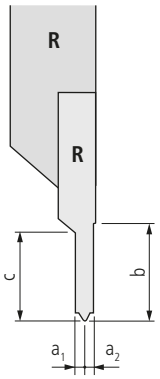
Threading (full profile metric)



1606… VP



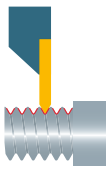




Order designation		Carbide ▯19				Standard			Dimensions						Holder ▯78…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	ISO DIN13	NIHS 06-03	NIHS 06-02	P	h_{min}	a_1	a_2	b	c	
PREMIUM-LINE								Accuracy class of UTILIS ▯41							
1606-0.06-60 VP L …	1606-0.06-60 VP R …			■	■	–	–	S 0.2*	0.06	0.037	0.04	0.03	4	–	1600…
1606-0.08-60 VP L …	1606-0.08-60 VP R …			■	■	–	–	S 0.3	0.08	0.049	0.05	0.04	4	–	1600…
1606-0.09-60 VP L …	1606-0.09-60 VP R …			■	■	–	–	S 0.35	0.09	0.055	0.05	0.05	4	–	1600…
1606-0.1-60 VP L …	1606-0.1-60 VP R …			■	■	–	–	S 0.4	0.1	0.061	0.06	0.06	4	–	1600…
1606-0.125-60 VP L …	1606-0.125-60 VP R …			■	■	–	–	S 0.5	0.125	0.077	0.08	0.07	4	–	1600…
1606-0.15-60 VP L …	1606-0.15-60 VP R …			■	■	–	–	S 0.6	0.15	0.092	0.09	0.08	4	–	1600…
1606-0.175-60 VP L …	1606-0.175-60 VP R …	■	■	■	■	–	–	S 0.7	0.175	0.104	0.1	0.1	4	–	1600…
1606-0.2-60 VP L …	1606-0.2-60 VP R …	■	■	■	■	–	–	S 0.8	0.2	0.123	0.12	0.11	4	–	1600…
1606-0.225-60 VP L …	1606-0.225-60 VP R …	■	■	■	■	–	–	S 0.9	0.225	0.138	0.14	0.12	4	–	1600…
1606-0.25-60 VP L …	1606-0.25-60 VP R …	■	■	■	■	M 1/1.2	M 1/1.2	S 1/1.2	0.25	0.153	0.15	0.14	4	–	1600…
1606-0.3-60 VP L …	1606-0.3-60 VP R …	■	■	■	■	–	M 1.4	S 1.4	0.3	0.184	0.18	0.17	4	–	1600…
1606-0.35-60 VP L …	1606-0.35-60 VP R …	■	■	■	■	M 1.6	M 1.6/1.8	–	0.35	0.215	0.21	0.19	4	–	1600…
1606-0.4-60 VP L …	1606-0.4-60 VP R …	■	■	■	■	M 2	M 2	–	0.4	0.245	0.24	0.22	4	–	1600…
1606-0.45-60 VP L …	1606-0.45-60 VP R …	■	■	■	■	M 2.5	M 2.2/2.5	–	0.45	0.276	0.27	0.25	4	–	1600…
STANDARD-LINE								Accuracy class of UTILIS ▯41							
1606-0.5-60 VP L …	1606-0.5-60 VP R …	■	■	■	■	M 3	M 3	–	0.5	0.307	0.28	0.28	4	1.3	1600…
1606-0.6-60 VP L …	1606-0.6-60 VP R …	■	■	■	■	–	M 3.5	–	0.6	0.368	0.33	0.33	4	1.5	1600…
1606-0.7-60 VP L …	1606-0.7-60 VP R …	■	■	■	■	M 4	M 4	–	0.7	0.429	0.39	0.39	4	1.8	1600…
1606-0.75-60 VP L …	1606-0.75-60 VP R …	■	■	■	■	–	M4.5	–	0.75	0.46	0.41	0.41	4	1.9	1600….
1606-0.8-60 VP L …	1606-0.8-60 VP R …	■	■	■	■	M5	M5	–	0.8	0.491	0.44	0.44	4	2	1600….
1606-1.0-60 VP L …	1606-1.0-60 VP R …	■	■	■	■	M6/7	–	–	1	0.613	0.55	0.55	4	2.5	1600….
1606-1.25-60 VP L …	1606-1.25-60 VP R …	■	■	■	■	M8/9	–	–	1.25	0.767	0.69	0.69	4	3	1600….

* Similar to the norme

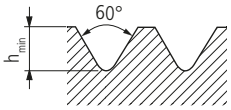
Recommendations for thread cutting ▯164

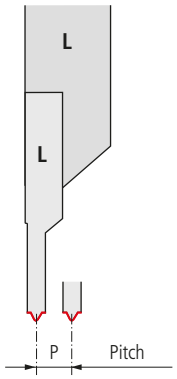


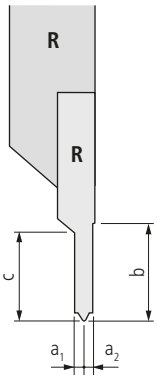
Threading (full profile UN)



1606… UN … VP

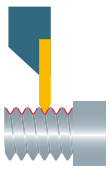






Order designation		Carbide ▯19				Standard / thread type ANSI / ASME B1.1 (Tolerance class 2A / 2B / 3A / 3B)						Dimensions							Holder ▯78…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	UN	UNC	UNF	UNEF	UNS	UNR	P (T/Inch)	P	h_{min}	a_1	a_2	b	c	
PREMIUM-LINE												Accuracy class of UTILIS ▯41							
1606-80 UN 60 VP L …	1606-80 UN 60 VP R …			■	■			●				80	0.317	0.194	0.22	0.17	4	–	1600…
1606-72 UN 60 VP L …	1606-72 UN 60 VP R …			■	■			●				72	0.353	0.217	0.25	0.19	4	–	1600…
1606-64 UN 60 VP L.…	1606-64 UN 60 VP R …			■	■		●	●				64	0.397	0.244	0.3	0.22	4	–	1600…
1606-56 UN 60 VP L …	1606-56 UN 60 VP R …			■	■		●	●		●		56	0.453	0.278	0.32	0.25	4	–	1600…
STANDARD-LINE												Accuracy class of UTILIS ▯41							
1606-48 UN 60 VP L …	1606-48 UN 60 VP R …			■	■		●	●		●		48	0.529	0.325	0.29	0.29	4	1.4	1600…
1606-44 UN 60 VP L …	1606-44 UN 60 VP R …			■	■			●				44	0.577	0.354	0.32	0.32	4	1.4	1600…
1606-40 UN 60 VP L …	1606-40 UN 60 VP R …			■	■		●	●		●		40	0.635	0.39	0.35	0.35	4	1.8	1600…
1606-36 UN 60 VP L …	1606-36 UN 60 VP R …			■	■			●		●		36	0.705	0.432	0.39	0.39	4	1.8	1600…
1606-32 UN 60 VP L …	1606-32 UN 60 VP R …			■	■		●	●	●		●	32	0.794	0.487	0.44	0.44	4	2	1600…
1606-28 UN 60 VP L …	1606-28 UN 60 VP R …			■	■		●	●		●	●	28	0.907	0.556	0.5	0.5	4	2.2	1600…
1606-24 UN 60 VP L …	1606-24 UN 60 VP R …			■	■		●	●	●	●		24	1.058	0.649	0.58	0.58	4	2.2	1600…
1606-20 UN 60 VP L …	1606-20 UN 60 VP R …			■	■	●	●	●	●		●	20	1.27	0.779	0.7	0.7	4	2.9	1600…

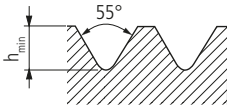
Recommendations for thread cutting ▯164

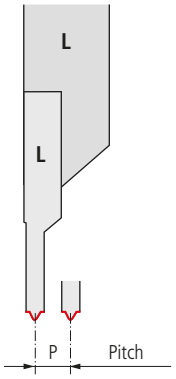


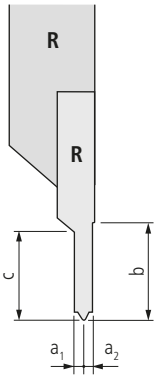
Threading (full profile pipe thread)



1606-G …VP

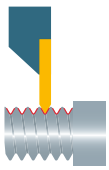


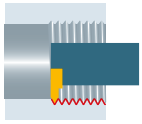




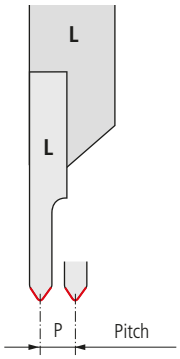
Order designation		Carbide ▯19				Standard		Dimensions							Holder ▯78…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	ANSI B1.1		P (T/Inch)	P	h_{min}	a_1	a_2	b	c	
STANDARD-LINE									Accuracy class of UTILIS ▯41						
1606-G 28-55 VP L …	1606-G 28-55 VP R …			■	■	1/8		28	0.907	0.581	0.5	0.5	4	2.3	1600…
						1/16		28	0.907	0.581	0.5	0.5	4	2.3	1600…
1606-G 19-55 VP L …	1606-G 19-55 VP R …			■	■	1/4		19	1.337	0.856	0.74	0.74	4	3.3	1600…
						3/8		19	1.337	0.856	0.74	0.74	4	3.3	1600…
1606-G 14-55 VP L …	1606-G 14-55 VP R …			■	■	1/2		14	1.814	1.162	1	1	4	4	1600…
						5/8		14	1.814	1.162	1	1	4	4	1600…
						3/4		14	1.814	1.162	1	1	4	4	1600…
						7/8		14	1.814	1.162	1	1	4	4	1600…

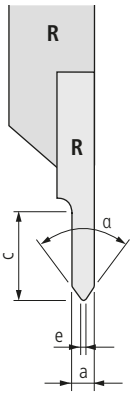
Recommendations for thread cutting ▯164

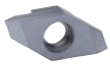




Threading (partial profile 55°/60°)



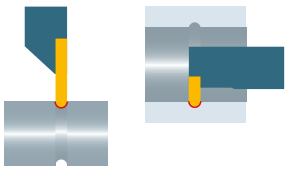




1606…

Order designation		Carbide ⬚19				Dimensions								Holder ⬚78…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	P	a	c	α	e				
STANDARD-LINE									Accuracy class of UTILIS ⬚41					
1606-2-4-55 L …	1606-2-4-55 R …			■	■	0.25–2	2	4	55°	0.035				1600…
1606-2-4-60 L …	1606-2-4-60 R …	■	■	■	■	0.25–2	2	4	60°	0.035				1600…
VALUE-LINE									Accuracy class of UTILIS ⬚41					
1606 B-2-4-55 L …	1606 B-2-4-55 R …	■	■			0.25-2	2	4	55°	0.035				1600…
1606 B-2-4-60 L …	1606 B-2-4-60 R …	■	■			0.25-2	2	4	60°	0.035				1600…

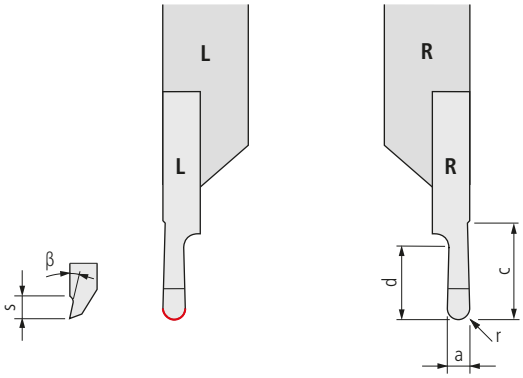
Recommendations for thread cutting ⬚164



Radius-grooving

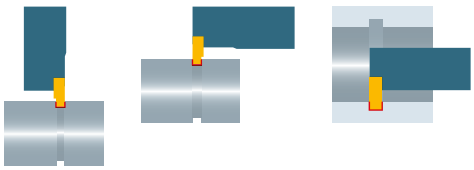


1607…



Order designation		Carbide 19				Dimensions								Holder
		○ ○ ○ –	● ● ○ –	○ ○ ○ ●	○ ● ○ ○									78…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	d	β	r	s			
PREMIUM-LINE									Accuracy class of UTILIS 41					
1607-R0.25-2 L …	1607-R0.25-2 R …	■	■	■	■	0.5	5	2	6°	0.25	2			1600…
STANDARD-LINE									Accuracy class of UTILIS 41					
1607-R0.4-2.5 L …	1607-R0.4-2.5 R …	■	■	■	■	0.8	5	2.5	6°	0.4	2			1600…
1607-R0.5-2.5 L …	1607-R0.5-2.5 R …	■	■	■	■	1	5	2.5	6°	0.5	2			1600…
1607-R0.6-2.5 L …	1607-R0.6-2.5 R …	■	■	■	■	1.2	5	2.5	6°	0.6	2			1600…
1607-R0.75-3 L …	1607-R0.75-3 R …	■	■	■	■	1.5	5	3	6°	0.75	2			1600…
1607-R0.8-3 L …	1607-R0.8-3 R …	■	■	■	■	1.6	5	3	6°	0.8	2			1600…
1607-R1.0-4 L …	1607-R1.0-4 R …	■	■	■	■	2	5	4	6°	1	2			1600…
1607-R1.5-4 L …	1607-R1.5-4 R …	■	■	■	■	3	5	4	6°	1.5	2			1600…

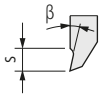
■ New

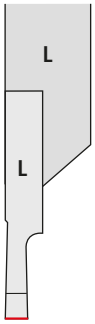


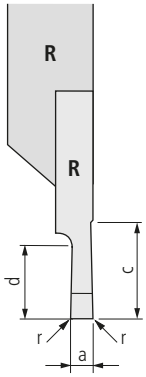
Grooving (radial)



1610…

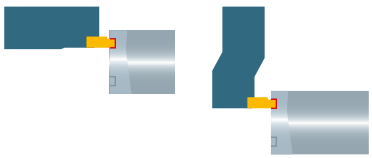






Order designation		Carbide ▯19				Standard	Dimensions							Holder ▯78…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	ISO DIN	a		r	c	d	β	s	
PREMIUM-LINE							Accuracy class of UTILIS ▯41							
1610-0.05-0.1 L …	1610-0.05-0.1 R …			■	■	–	0.05	±0.01	–	5	0.1	6°	1	1600…
1610-0.1-0.2 L …	1610-0.1-0.2 R …			■	■	–	0.1	±0.01	–	5	0.2	6°	1	1600…
1610-0.15-0.3 L …	1610-0.15-0.3 R …			■	■	–	0.15	±0.01	–	5	0.3	6°	1	1600…
STANDARD-LINE							Accuracy class of UTILIS ▯41							
1610-0.24-0.5 L …	1610-0.24-0.5 R …	■	■	■	■	6799	0.24	+0.04/0	–	5	0.5	10°	3	1600…
1610-0.3-0.6 L …	1610-0.3-0.6 R …	■	■	■	■	–	0.3	±0.02	–	5	0.6	6°	1	1600…
1610-0.34-0.6 L …	1610-0.34-0.6 R …	■	■	■	■	6799	0.34	+0.04/0	–	5	0.6	10°	3	1600…
1610-0.4-0.8 L …	1610-0.4-0.8 R …	■	■	■	■	–	0.4	±0.02	–	5	0.8	6°	1	1600…
1610-0.44-0.8 L …	1610-0.44-0.8 R …	■	■	■	■	6799	0.44	+0.04/0	–	5	0.8	10°	3	1600…
1610-0.45-1.5 L …	1610-0.45-1.5 R …	■	■	■	■	–	0.45	±0.02	–	5	1.5	6°	1	1600…
1610-0.5-1.0 L …	1610-0.5-1.0 R …	■	■	■	■	–	0.5	±0.02	–	5	1	6°	1	1600…
1610-0.54-0.8 L …	1610-0.54-0.8 R …	■	■	■	■	6799	0.54	+0.05/0	–	5	0.8	10°	3	1600…
1610-0.6-1.2 L …	1610-0.6-1.2 R …	■	■	■	■	–	0.6	±0.02	–	5	1.2	6°	1	1600…
1610-0.64-1.0 L …	1610-0.64-1.0 R …	■	■	■	■	6799	0.64	+0.05/0	–	5	1	10°	3	1600…
1610-0.64-1.2 L …	1610-0.64-1.2 R …	■	■	■	■	6799	0.64	+0.05/0	–	5	1.2	10°	3	1600…
1610-0.65-0.7 L …	1610-0.65-0.7 R …	■	■	■	■	471	0.65	±0.02	–	5	0.7	10°	3	1600…
1610-0.7-1.4 L …	1610-0.7-1.4 R …	■	■	■	■	–	0.7	±0.02	–	5	1.4	6°	1	1600…
1610-0.74-1.8 L …	1610-0.74-1.8 R …	■	■	■	■	6799	0.74	+0.05/0	–	5	1.8	10°	3	1600…
1610-0.85-0.9 L …	1610-0.85-0.9 R …	■	■	■	■	471	0.85	±0.02	–	5	0.9	10°	3	1600…
1610-0.85-1.2 L …	1610-0.85-1.2 R …	■	■	■	■	–	0.85	±0.02	–	5	1.2	10°	3	1600…
1610-0.94-2.3 L …	1610-0.94-2.3 R …	■	■	■	■	6799	0.94	+0.05/0	–	5	2.3	10°	3	1600…
1610-0.95-1.0 L …	1610-0.95-1.0 R …	■	■	■	■	471	0.95	±0.02	–	5	1	10°	3	1600…
1610-1.0-1.14 L …	1610-1.0-1.14 R …	■	■	■	■	471	1	±0.02	–	5	1.14	10°	3	1600…
1610-1.05-2.3 L …	1610-1.05-2.3 R …	■	■	■	■	6799	1.05	+0.08/0	–	5	2.3	10°	3	1600…
1610-1.15-2.8 L …	1610-1.15-2.8 R …	■	■	■	■	6799	1.15	+0.08/0	–	5	2.8	10°	3	1600…
1610-1.2-1.34 L …	1610-1.2-1.34 R …	■	■	■	■	471/472	1.2	±0.02	–	5	1.34	10°	3	1600…
1610-1.25-2.8 L …	1610-1.25-2.8 R …	■	■	■	■	6799	1.25	+0.08/0	–	5	2.8	10°	3	1600…
1610-1.35-3.3 L …	1610-1.35-3.3 R …	■	■	■	■	6799	1.35	+0.08/0	–	5	3.3	10°	3	1600…
1610-1.4-1.53 L …	1610-1.4-1.53 R …	■	■	■	■	471/472	1.4	±0.02	–	5	1.53	10°	3	1600…
1610-1.5-3L	1610-1.5-3R	■	■	■	■	–	1.5	±0.02	–	5	3	10°	3	1600…
1610-1.55-3.8 L …	1610-1.55-3.8 R …	■	■	■	■	6799	1.55	+0.08/0	–	5	3.8	10°	3	1600…
1610-1.7-1.82 L …	1610-1.7-1.82 R …	■	■	■	■	471/472	1.7	±0.02	–	5	1.82	10°	3	1600…
1610-1.95-2.0 L …	1610-1.95-2.0 R …	■	■	■	■	471/472	1.95	±0.02	–	5	2	10°	3	1600…
1610-2.25-2.0 L …	1610-2.25-2.0 R …	■	■	■	■	471/472	2.25	±0.02	–	5	2	10°	3	1600…
1610-2.75-2.0 L …	1610-2.75-2.0 R …	■	■	■	■	471/472	2.75	±0.02	–	5	2	10°	3	1600…

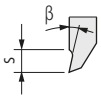
UTILIS multidec swiss type tools

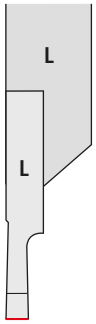


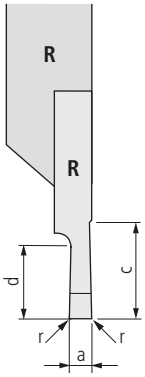
Grooving (axial)



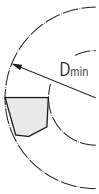
1611…







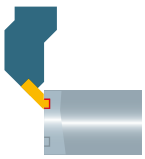
Order designation		Carbide 19				Dimensions								Holder
		○ ○ ○ –	● ● ● –	○ ○ ○ ●	○ ● ● ○									78…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a ±0.02	r	c	D_{min}	d	β	s		
STANDARD-LINE									Accuracy class of UTILIS 41					
1611-0.5-1 L …	1611-0.5-1 R …	■	■	■	■	0.5	0.05	4	7	1	8°	1.2		1600…
1611-0.6-1.2 L …	1611-0.6-1.2 R …	■	■	■	■	0.6	0.05	4	8	1.2	8°	1.2		1600…
1611-0.8-1.5 L …	1611-0.8-1.5 R …	■	■	■	■	0.8	0.05	4	8	1.5	8°	1.2		1600…
1611-1.0-2 L …	1611-1.0-2 R …	■	■	■	■	1	0.05	4	8	2	8°	1.2		1600…
1611-1.5-2.5 L …	1611-1.5-2.5 R …	■	■	■	■	1.5	0.05	4	14	2.5	8°	1.2		1600…
1611-2.0-3 L …	1611-2.0-3 R …	■	■	■	■	2	0.05	4	18	3	8°	1.2		1600…
1611-2.5-3.5 L …	1611-2.5-3.5 R …	■	■	■	■	2.5	0.05	4	18	3.5	8°	1.2		1600…



Attention
The groove must not be made underneath the D_{min}-position.

Pay attention to the "working situations" for the correct selection of the combinations of tools and inserts 28

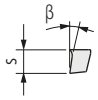
■ New

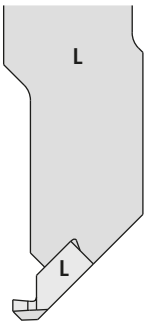


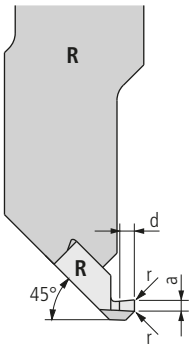
Miniature grooving (axial)



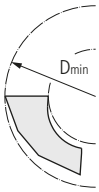
1611-45…







Order designation		Carbide ▯19				Dimensions							Holder ▯89
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a ±0.01	r	D_{min}	d	β	s		
PREMIUM-LINE								Accuracy class of UTILIS ▯41					
1611-45-0.25-0.5 L …	1611-45-0.25-0.5 R …			■	■	0.25	–	0.8	0.5	8°	0.5		1600… 45 ST A
1611-45-0.5-1.0 L …	1611-45-0.5-1.0 R …			■	■	0.5	–	1.6	1	8°	1		1600… 45 ST A
1611-45-0.75-1.5 L …	1611-45-0.75-1.5 R …			■	■	0.75	–	2.4	1.5	8°	1.5		1600… 45 ST A
1611-45-1.0-2.0 L …	1611-45-1.0-2.0 R …			■	■	1	–	3.2	2	8°	2		1600… 45 ST A



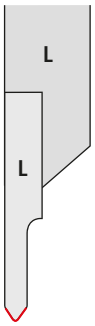
Attention
The first groove must be made exactly on the D_{min}-position.

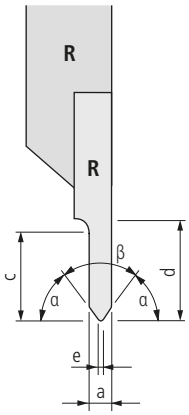
Pay attention to the "working situations" for the correct selection of the combinations of tools and inserts ▯28

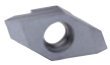




Chamfering







1612…

Order designation		Carbide ▯19				Dimensions								Holder ▯78…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	d	α	β	e			
STANDARD-LINE									Accuracy class of UTILIS ▯41					
1612-1-4-45 L …	1612-1-4-45 R …			■	■	1	4	4	45°	90°	–			1600…
1612-2-4-60 L …	1612-2-4-60 R …			■	■	2	4	4	60°	60°	0.035			1600…

1694…, 1696… ,1698…,1699…



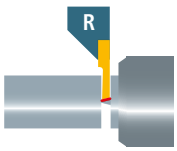
Product description
Development and production of multidec® tools for your own specific needs.

Customer's situation
A special machining method makes it impossible or difficult to use tools from the standard multidec® range. You need a special insert, a special tool or coating which is not included in our standard product range.

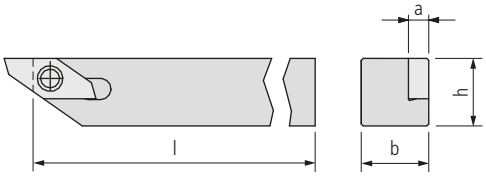
UTILIS solution
After detailed consultation, we will develop and make the best multidec® solution for your particular needs. Normally this will be done using standard blanks which enable the special tools to be produced and delivered quickly and at reasonable cost. The familiar multidec® quality is of course always guaranteed.

Advantages:
– UTILIS know-how and quality also for special tools
– Standard blanks permit fast and reasonably priced delivery
– Tools developed to meet your specific needs







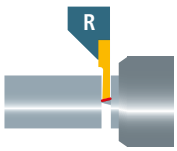


1600…

Order designation L		Order designation R		Dimensions h	b	l	a	Inserts 49…
STANDARD-LINE								Accuracy class of UTILIS 41
1600-07x100 L	■	1600-07x100 R	■	7	7	100	3	16…
1600-08x80 L	■	1600-08x80 R	■	8	8	80	3	16…
1600-08x100 L	■	1600-08x100 R	■	8	8	100	3	16…
1600-10x80 L	■	1600-10x80 R	■	10	10	80	3	16…
1600-10x100 L	■	1600-10x100 R	■	10	10	100	3	16…
1600-12x100 L	■	1600-12x100 R	■	12	12	100	3	16…
1600-16x125 L	■	1600-16x125 R	■	16	16	125	3	16…
1600-20x125 L	■	1600-20x125 R	■	20	20	125	3	16…
1600-25x125 L	■	1600-25x125 R	■	25	25	125	3	16…
VALUE-LINE								Accuracy class of UTILIS 41
1600 B-10x100 L	■	1600 B-10x100 R	■	10	10	100	3	16…
1600 B-12x100 L	■	1600 B-12x100 R	■	12	12	100	3	16…
1600 B-16x125 L	■	1600 B-16x125 R	■	16	16	125	3	16…

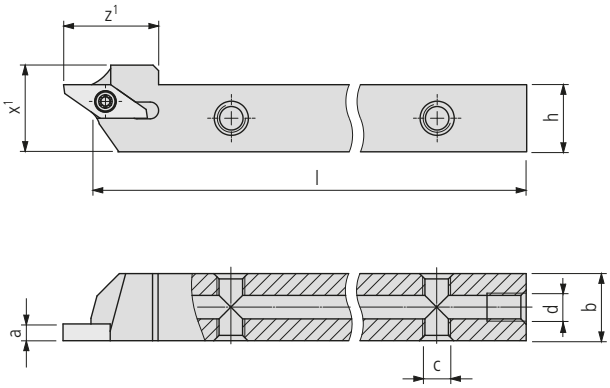
1600… INCH

Order designation L		Order designation R		Dimensions h	b	l	a	Inserts 49…
STANDARD-LINE								Accuracy class of UTILIS 41
1600-3/8"x80 L	■	1600-3/8"x80 R	■	9.525	9.525	80	3	16…
1600-3/8"x100 L	■	1600-3/8"x100 R	■	9.525	9.525	100	3	16…
1600-1/2"x100 L	■	1600-1/2"x100 R	■	12.7	12.7	100	3	16…
1600-5/8"x125 L	■	1600-5/8"x125 R	■	15.875	15.875	125	3	16…
1600-3/4"x125 L	■	1600-3/4"x125 R	■	19.05	19.05	125	3	16…



With internal cooling





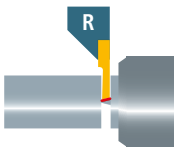
1600… IC

Order designation				Dimensions								Inserts
L		R		h	b	l	a	z^1	x^1	c	d	49…
PREMIUM-LINE				Accuracy class of UTILIS 41								
1600-08x100 L IC	■	1600-08x100 R IC	■	8	10	100	3	15	11.5	M5	M5	16…
1600-10x100 L IC	■	1600-10x100 R IC	■	10	10	100	3	15	13.5	M5	M5	16…
1600-12x100 L IC	■	1600-12x100 R IC	■	12	12	100	3	17	15.5	M5	M5	16…
1600-16x125 L IC	■	1600-16x125 R IC	■	16	16	125	3	17	19.5	M5	G1/8"	16…
1600-20x125 L IC	■	1600-20x125 R IC	■	20	20	125	3	20	23.5	M5	G1/8"	16…

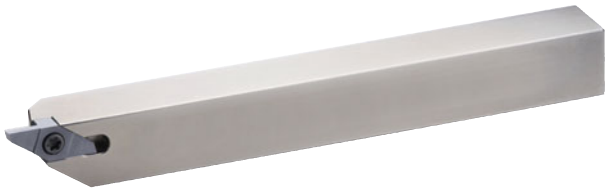
1600… IC INCH

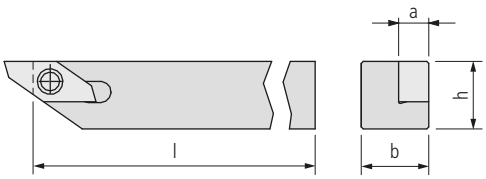
Order designation				Dimensions								Inserts
L		R		h	b	l	a	z^1	x^1	c	d	49…
PREMIUM-LINE				Accuracy class of UTILIS 41								
1600-3/8"x100 L IC	■	1600-3/8"x100 R IC	■	9.525	9.525	100	3	15	13	M5	M5	16…
1600-1/2"x100 L IC	■	1600-1/2"x100 R IC	■	12.7	12.7	100	3	17	16.2	M5	M5	16…
1600-5/8"x125 L IC	■	1600-5/8"x125 R IC	■	15.875	15.875	125	3	17	19.4	M5	G1/8"	16…
1600-3/4"x125 L IC	■	1600-3/4"x125 R IC	■	19.05	19.05	125	3	20	22.6	M5	G1/8"	16…

Scope of delivery: Holder without coolant connector
Coolant connectors 632



For special inserts with greater breadth





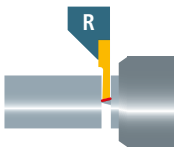
1600…4

Order designation L		Order designation R		Dimensions h	b	l	a					Inserts 77…
STANDARD-LINE				Accuracy class of UTILIS 41								
1600-08x80-4 L	■	1600-08x80-4 R	■	8	8	80	4					1694…*
1600-08x100-4 L	■	1600-08x100-4 R	■	8	8	100	4					1694…*
1600-10x80-4 L	■	1600-10x80-4 R	■	10	10	80	4					1694…*
1600-10x100-4 L	■	1600-10x100-4 R	■	10	10	100	4					1694…*
1600-12x100-4 L	■	1600-12x100-4 R	■	12	12	100	4					1694…*
1600-16x125-4 L	■	1600-16x125-4 R	■	16	16	125	4					1694…*
1600-20x125-4 L	■	1600-20x125-4 R	■	20	20	125	4					1694…*
1600-25x125-4 L	■	1600-25x125-4 R	■	25	25	125	4					1694…*

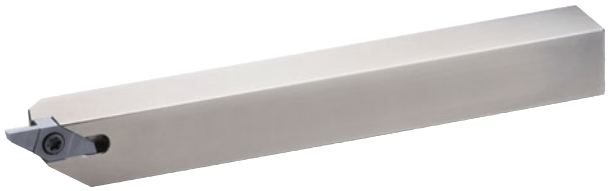
1600…6

Order designation L		Order designation R		Dimensions h	b	l	a					Inserts 77…
STANDARD-LINE				Accuracy class of UTILIS 41								
1600-10x80-6 L	■	1600-10x80-6 R	■	10	10	80	6					1696…*
1600-10x100-6 L	■	1600-10x100-6 R	■	10	10	100	6					1696…*
1600-12x100-6 L	■	1600-12x100-6 R	■	12	12	100	6					1696…*
1600-16x125-6 L	■	1600-16x125-6 R	■	16	16	125	6					1696…*
1600-20x125-6 L	■	1600-20x125-6 R	■	20	20	125	6					1696…*
1600-25x125-6 L	■	1600-25x125-6 R	■	25	25	125	6					1696…*

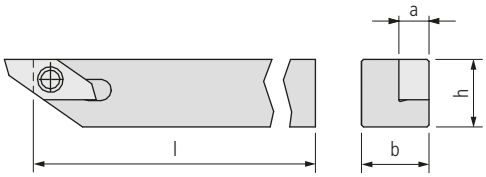
* Special inserts (on demand) 77



For special inserts with greater breadth

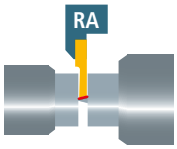


1600…8



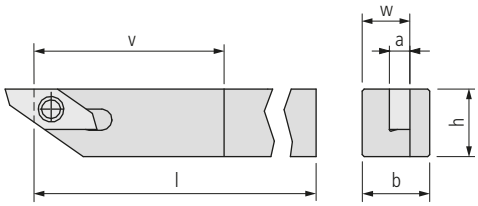
Order designation				Dimensions								Inserts
L		R		h	b	l	a					77…
STANDARD-LINE				Accuracy class of UTILIS 41								
1600-12x100-8 L	■	1600-12x100-8 R	■	12	12	100	8					1698…*
1600-16x125-8 L	■	1600-16x125-8 R	■	16	16	125	8					1698…*
1600-20x125-8 L	■	1600-20x125-8 R	■	20	20	125	8					1698…*
1600-25x125-8 L	■	1600-25x125-8 R	■	25	25	125	8					1698…*

* Special inserts (on demand) 77



With off-set shank and insert



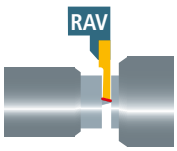


1600… A

Order designation L		Order designation R		Dimensions h	b	l	v	w	a			Inserts 🗋49…
STANDARD-LINE				Accuracy class of UTILIS 🗋41								
1600-08x80 LA	■	1600-08x80 RA	■	8	8	80	21	6	3			16…
1600-08x100 LA	■	1600-08x100 RA	■	8	8	100	21	6	3			16…
1600-10x80 LA	■	1600-10x80 RA	■	10	10	80	21	6	3			16…
1600-10x100 LA	■	1600-10x100 RA	■	10	10	100	21	6	3			16…
1600-12x100 LA	■	1600-12x100 RA	■	12	12	100	21	6	3			16…
1600-16x125 LA	■	1600-16x125 RA	■	16	16	125	21	6	3			16…

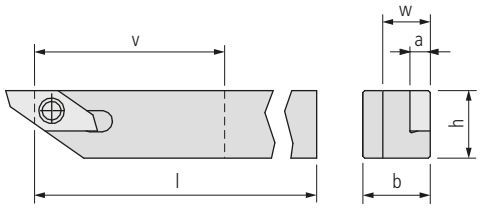
1600… A INCH

Order designation L		Order designation R		Dimensions h	b	l	v	w	a			Inserts 🗋49…
STANDARD-LINE				Accuracy class of UTILIS 🗋41								
1600-3/8"x80 LA	■	1600-3/8"x80 RA	■	9.525	9.525	80	21	6	3			16…
1600-3/8"x100 LA	■	1600-3/8"x100 RA	■	9.525	9.525	100	21	6	3			16…
1600-1/2"x100 LA	■	1600-1/2"x100 RA	■	12.7	12.7	100	21	6	3			16…
1600-5/8"x125 LA	■	1600-5/8"x125 RA	■	15.875	15.875	125	21	6	3			16…



With off-set shank



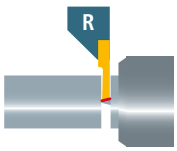


1600… AV

Order designation				Dimensions								Inserts
L		R		h	b	l	v	w	a			49…
STANDARD-LINE				Accuracy class of UTILIS 41								
1600-08x80 LAV	■	1600-08x80 RAV	■	8	8	80	21	6	3			16…
1600-08x100 LAV	■	1600-08x100 RAV	■	8	8	100	21	6	3			16…
1600-10x80 LAV	■	1600-10x80 RAV	■	10	10	80	21	6	3			16…
1600-10x100 LAV	■	1600-10x100 RAV	■	10	10	100	21	6	3			16…
1600-12x100 LAV	■	1600-12x100 RAV	■	12	12	100	21	6	3			16…
1600-16x125 LAV	■	1600-16x125 RAV	■	16	16	125	21	6	3			16…

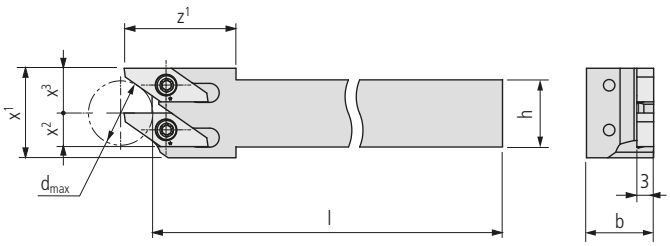
1600… AV INCH

Order designation				Dimensions								Inserts
L		R		h	b	l	v	w	a			49…
STANDARD-LINE				Accuracy class of UTILIS 41								
1600-3/8"x80 LAV	■	1600-3/8"x80 RAV	■	9.525	9.525	80	21	6	3			16…
1600-3/8"x100 LAV	■	1600-3/8"x100 RAV	■	9.525	9.525	100	21	6	3			16…
1600-1/2"x100 LAV	■	1600-1/2"x100 RAV	■	12.7	12.7	100	21	6	3			16…
1600-5/8"x125 LAV	■	1600-5/8"x125 RAV	■	15.875	15.875	125	21	6	3			16…



"TWIN" version



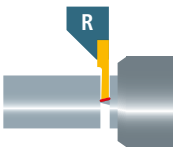


1600/1600… TWIN

Order designation				Dimensions									Inserts
L L		R R		h	b	l	z^1	x^1	x^2	x^3		d_{max}	49…
STANDARD-LINE				Accuracy class of UTILIS 41									
1600L/1600L-0810x100 Twin	■	1600R/1600R-0810x100 Twin	■	8	10	100	20	16	4	8		11.5	16…
1600L/1600L-10x100 Twin	■	1600R/1600R-10x100 Twin	■	10	10	100	20	16	5	8		11.5	16…
1600L/1600L-12x100 Twin	■	1600R/1600R-12x100 Twin	■	12	12	100	20	16	6	8		11.5	16…
1600L/1600L-16x125 Twin	■	1600R/1600R-16x125 Twin	■	16	16	125	20	20	8	10		19	16…
1600L/1600L-20x125 Twin	■	1600R/1600R-20x125 Twin	■	20	20	125	20	24	8	14		34	16…

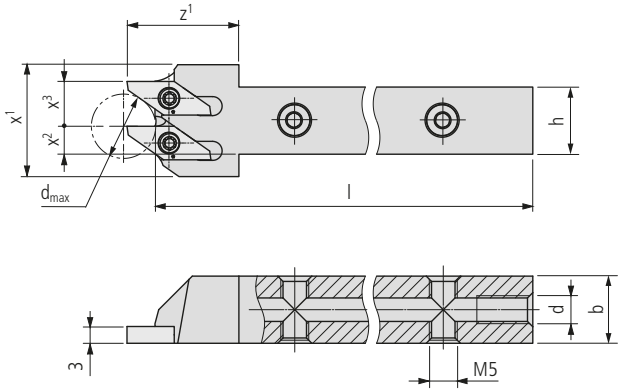
1600/1600… TWIN INCH

Order designation				Dimensions									Inserts
L L		R R		h	b	l	z^1	x^1	x^2	x^3		d_{max}	49…
STANDARD-LINE				Accuracy class of UTILIS 41									
1600L/1600L-3/8"x100 Twin	■	1600R/1600R-3/8"x100 Twin	■	9.525	9.525	100	20	16	5	8		11.5	16…
1600L/1600L-1/2"x100 Twin	■	1600R/1600R-1/2"x100 Twin	■	12.7	12.7	100	20	16	6	8		11.5	16…
1600L/1600L-5/8"x125 Twin	■	1600R/1600R-5/8"x125 Twin	■	15.875	15.875	125	20	20	8	10		19	16…
1600L/1600L-3/4"x125 Twin	■	1600R/1600R-3/4"x125 Twin	■	19.05	19.05	125	20	24	7	14		34	16…



"TWIN" version with internal cooling





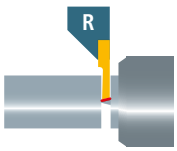
1600/1600… TWIN IC

Order designation				Dimensions									Inserts
L L		R R		h	b	l	z^1	x^1	x^2	x^3	d	d_{max}	49…
PREMIUM-LINE				Accuracy class of UTILIS 41									
1600L/1600L-0812x100 Twin IC	■	1600R/1600R-0812x100 Twin IC	■	8	12	100	20	20	3	8	M5	11.5	16…
1600L/1600L-1012x100 Twin IC	■	1600R/1600R-1012x100 Twin IC	■	10	12	100	20	20	4	8	M5	11.5	16…
1600L/1600L-12x100 Twin IC	■	1600R/1600R-12x100 Twin IC	■	12	12	100	20	20	5	8	M5	11.5	16…
1600L/1600L-16x125 Twin IC	■	1600R/1600R-16x125 Twin IC	■	16	16	125	20	24	7	10	G1/8"	19	16…
1600L/1600L-20x125 Twin IC	■	1600R/1600R-20x125 Twin IC	■	20	20	125	20	28	7	14	G1/8"	34	16…

1600/1600… TWIN IC INCH

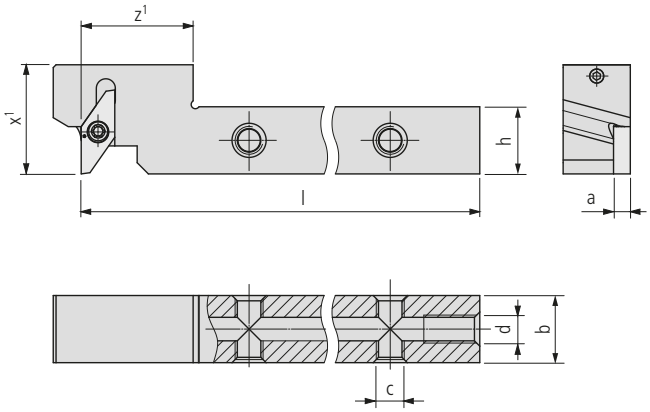
Order designation				Dimensions									Inserts
L L		R R		h	b	l	z^1	x^1	x^2	x^3	d	d_{max}	49…
PREMIUM-LINE				Accuracy class of UTILIS 41									
1600L/1600L-3/8"12x100 Twin IC	■	1600R/1600R-3/8"12x100 Twin IC	■	9.525	12	100	20	20	4	8	M5	11.5	16…
1600L/1600L-1/2"x100 Twin IC	■	1600R/1600R-1/2"x100 Twin IC	■	12.7	12.7	100	20	20	6	8	M5	11.5	16…
1600L/1600L-5/8"x125 Twin IC	■	1600R/1600R-5/8"x125 Twin IC	■	15.875	15.875	125	20	24	7	10	G1/8"	19	16…
1600L/1600L-3/4"x125 Twin IC	■	1600R/1600R-3/4"x125 Twin IC	■	19.05	19.05	125	20	28	6	14	G1/8"	34	16…

Scope of delivery: Holder without coolant connector
Coolant connectors 632



"Y-AXIS" version with internal cooling





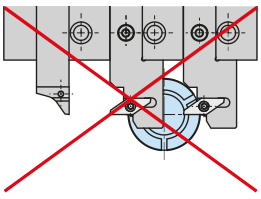
1600 YA… IC

Order designation L	Order designation R		Dimensions h	b	l	a	z1	x1	c	d	Inserts 49…
PREMIUM-LINE			Accuracy class of UTILIS 41								
	1600 YA-12x100-20 R IC	■	12	12	100	3	20	19.5	M5	M5	16…
	1600 YA-12x100-25 R IC	■	12	12	100	3	25	19.5	M5	M5	16…
	1600 YA-12x100-30 R IC	■	12	12	100	3	30	19.5	M5	M5	16…
	1600 YA-16x125-20 R IC	■	16	16	125	3	20	19.5	M5	G1/8	16…
	1600 YA-16x125-25 R IC	■	16	16	125	3	25	19.5	M5	G1/8	16…
	1600 YA-16x125-30 R IC	■	16	16	125	3	30	19.5	M5	G1/8	16…

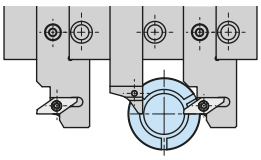
1600 YA… IC INCH

Order designation L	Order designation R		Dimensions h	b	l	a	z1	x1	c	d	Inserts 49…
PREMIUM-LINE			Accuracy class of UTILIS 41								
	1600 YA-1/2"x100-20 R IC	■	12.7	12.7	100	3	20	19.5	M5	M5	16…
	1600 YA-1/2"x100-25 R IC	■	12.7	12.7	100	3	25	19.5	M5	M5	16…
	1600 YA-1/2"x100-30 R IC	■	12.7	12.7	100	3	30	19.5	M5	M5	16…
	1600 YA-5/8"x125-20 R IC	■	15.875	15.875	125	3	20	19.5	M5	G1/8	16…
	1600 YA-5/8"x125-25 R IC	■	15.875	15.875	125	3	25	19.5	M5	G1/8	16…
	1600 YA-5/8"x125-30 R IC	■	15.875	15.875	125	3	30	19.5	M5	G1/8	16…

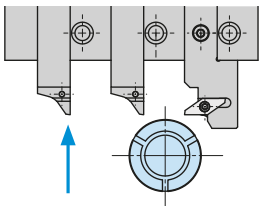
Usage notes:



To avoid problems, two Y-AXIS holders must not be mounted directly next to each other.



Mount a standard tool holder between the Y-AXIS holders.

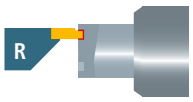


To prevent collisions, move back the holder in accordance with the overhanging length before changing the tool position.

Scope of delivery: Holder without coolant connector
Coolant connectors 632

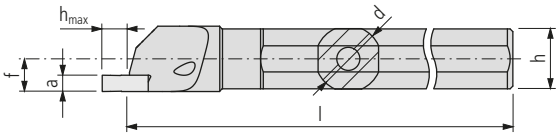
■ New

Legend 6



With round shank



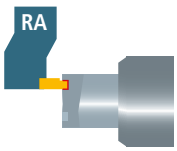


1600… 00 RD . IC

Order designation				Dimensions								Inserts
L		R		d	l	h_{max}	a	h	f			49…
STANDARD-LINE				Accuracy class of UTILIS 41								
1600-12x125 00 RD L IC	■	1600-12x125 00 RD R IC	■	12	125	5	3	11	6			16…
1600-16x125 00 RD L IC	■	1600-16x125 00 RD R IC	■	16	125	5	3	15	8			16…
1600-20x125 00 RD L IC	■	1600-20x125 00 RD R IC	■	20	125	5	3	19	10			16…
1600-22x125 00 RD L IC	■	1600-22x125 00 RD R IC	■	22	125	5	3	21	11			16…

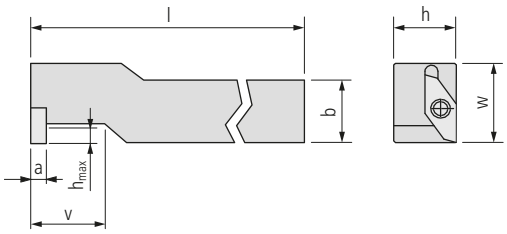
1600… 00 RD . IC INCH

Order designation				Dimensions								Inserts
L		R		d	l	h_{max}	a	h	f			49…
STANDARD-LINE				Accuracy class of UTILIS 41								
1600-3/4"x125 00 RD L IC	■	1600-3/4"x125 00 RD R IC	■	19.05	125	5	3	18	9.53			16…



With off-set shank





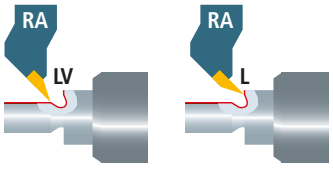
1600… 90 ST A

Order designation L		Order designation R		Dimensions h	b	l	v	w	h_{max}	a		Inserts* 74…
STANDARD-LINE				Accuracy class of UTILIS 41								
1600-08x80 90 ST LA	■	1600-08x80 90 ST RA	■	8	8	80	17	15	4	3		1611…
1600-08x100 90 ST LA	■	1600-08x100 90 ST RA	■	8	8	100	17	15	4	3		1611…
1600-10x80 90 ST LA	■	1600-10x80 90 ST RA	■	10	10	80	17	15	4	3		1611…
1600-10x100 90 ST LA	■	1600-10x100 90 ST RA	■	10	10	100	17	15	4	3		1611…
1600-12x100 90 ST LA	■	1600-12x100 90 ST RA	■	12	12	100	17	15	4	3		1611…
1600-16x125 90 ST LA	■	1600-16x125 90 ST RA	■	16	16	125	17	16	4	3		1611…
1600-20x125 90 ST LA	■	1600-20x125 90 ST RA	■	20	20	125	17	20	4	3		1611…

1600… 90 ST A INCH

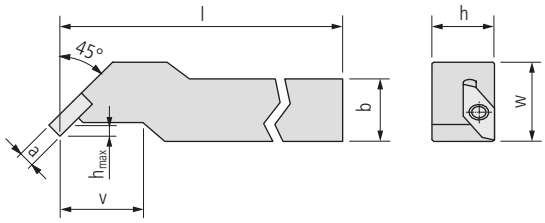
Order designation L		Order designation R		Dimensions h	b	l	v	w	h_{max}	a		Inserts* 74…
STANDARD-LINE				Accuracy class of UTILIS 41								
1600-3/8"x80 90 ST LA	■	1600-3/8"x80 90 ST RA	■	9.525	9.525	80	17	15	4	3		1611…
1600-3/8"x100 90 ST LA	■	1600-3/8"x100 90 ST RA	■	9.525	9.525	100	17	15	4	3		1611…
1600-1/2"x100 90 ST LA	■	1600-1/2"x100 90 ST RA	■	12.7	12.7	100	17	15	4	3		1611…
1600-5/8"x125 90 ST LA	■	1600-5/8"x125 90 ST RA	■	15.875	15.875	125	17	15.875	4	3		1611…
1600-3/4"x125 90 ST LA	■	1600-3/4"x125 90 ST RA	■	19.05	19.05	125	17	19.05	4	3		1611…

*** Attention**
Right hand holder needs left hand insert!



With off-set shank



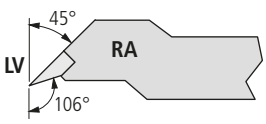


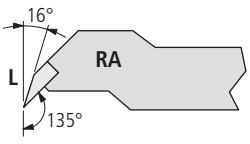
1600… 45 ST A

Order designation L		Order designation R		Dimensions h	b	l	v	w	h_{max}	a		Inserts 63…
STANDARD-LINE				Accuracy class of UTILIS 41								
1600-08x100 45 ST LA	■	1600-08x100 45 ST RA	■	8	8	100	17	13	2	3		1604…SP 1611-45… 1699…
1600-10x80 45 ST LA	■	1600-10x80 45 ST RA	■	10	10	80	17	13	2	3		
1600-10x100 45 ST LA	■	1600-10x100 45 ST RA	■	10	10	100	17	13	2	3		
1600-12x100 45 ST LA	■	1600-12x100 45 ST RA	■	12	12	100	17	13	2	3		
1600-16x125 45 ST LA	■	1600-16x125 45 ST RA	■	16	16	125	17	13	2	3		

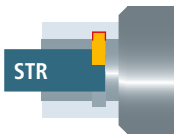
1600… 45 ST A INCH

Order designation L		Order designation R		Dimensions h	b	l	v	w	h_{max}	a		Inserts 63…
STANDARD-LINE				Accuracy class of UTILIS 41								
1600-3/8"x80 45 ST LA	■	1600-3/8"x80 45 ST RA	■	9.525	9.525	80	17	13	2	3		1604…SP 1611-45… 1699…
1600-3/8"x100 45 ST LA	■	1600-3/8"x100 45 ST RA	■	9.525	9.525	100	17	13	2	3		
1600-1/2"x100 45 ST LA	■	1600-1/2"x100 45 ST RA	■	12.7	12.7	100	17	13	2	3		
1600-5/8"x125 45 ST LA	■	1600-5/8"x125 45 ST RA	■	15.875	15.875	125	17	13	2	3		

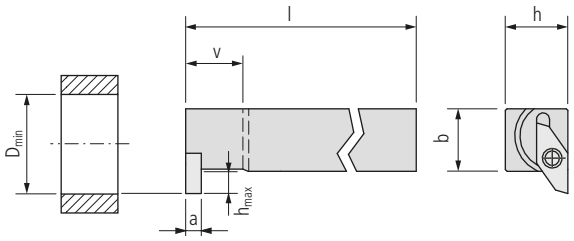




With these combinations of holder and insert, radially and axially undercuts, up to a limited depth, can be turned with standard inserts 1604… SP…
Otherwise, we can grind special inserts 1699…, adapted to your needs.



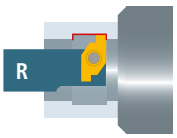




1600… 90 ST

Order designation				Dimensions								Inserts*
L		R		h	b	l	v	h_{max}	D_{min}	a		49…
STANDARD-LINE				Accuracy class of UTILIS 41								
1600-10x100 90 ST L	■	1600-10x100 90 ST R	■	10	10	100	11	4	21	3		16…
1600-12x100 90 ST L	■	1600-12x100 90 ST R	■	12	12	100	11	4	21	3		16…
1600-16x125 90 ST L	■	1600-16x125 90 ST R	■	16	16	125	11	4	21	3		16…

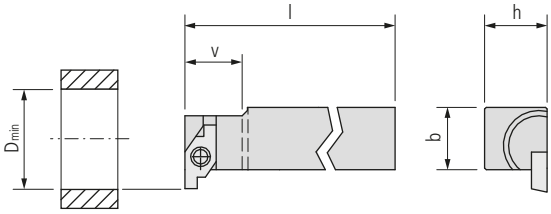
*** Attention**
Right hand holder needs left hand insert!



For special inserts

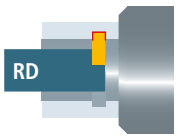


1600… 90

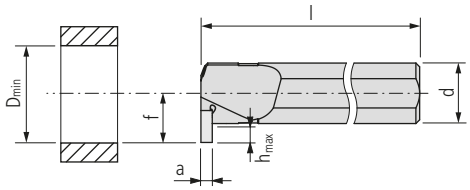


Order designation				Dimensions								Inserts*
L		R		h	b	l	v	D_{min}				77…
STANDARD-LINE				Accuracy class of UTILIS 41								
1600-10x100 90 L	■	1600-10x100 90 R	■	10	10	100	11	17				1699…
1600-12x100 90 L	■	1600-12x100 90 R	■	12	12	100	11	17				1699…

*** Attention**
Right hand holder needs left hand insert!



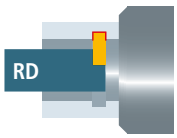




1600… 90 RD . IC

Order designation				Dimensions								Inserts*
L		R		d g6	l	h_{max}	D_{min}	a	f			49…
STANDARD-LINE								Accuracy class of UTILIS 41				
1600-12x125 90 RD L IC	■	1600-12x125 90 RD R IC	■	12	125	3	17	3	11			16…
1600-16x150 90 RD L IC	■	1600-16x150 90 RD R IC	■	16	150	3.5	21	3	13			16…
1600-20x180 90 RD L IC	■	1600-20x180 90 RD R IC	■	20	180	4	25	3	15			16…

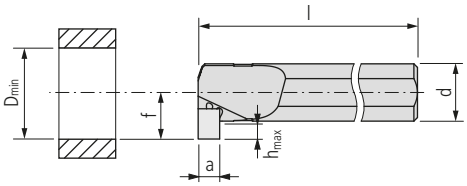
*** Attention**
Right hand holder needs left hand insert!



For special inserts with greater breadth



1600… 6-8 90 RD . IC



Order designation				Dimensions								Inserts*
L		R		d g6	l	h_{max}	D_{min}	a	f			77…
STANDARD-LINE				Accuracy class of UTILIS 41								
1600-16x150-6-8 90 RD L IC	■	1600-16x150-6-8 90 RD R IC	■	16	150	3.5	21	6	13			1696/98…
1600-20x180-6-8 90 RD L IC	■	1600-20x180-6-8 90 RD R IC	■	20	180	4	25	6	15			1696/98…

*** Attention**
Right hand holder needs left hand insert!

Replacement and spare parts

multidec®-CUT 1600

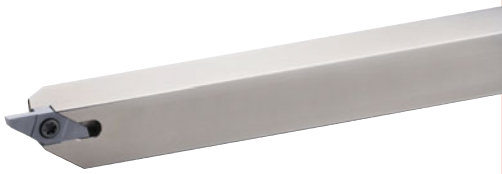
Illustration	Description	Dimensions	Order designation		Holder
	TORX screw	M2.5×6 T08	MSP 25060 T08	■	1600… 3*
		M2.5×7 T08	MSP 25070 T08	■	1600… 4*
		M2.5×9 T08	MSP 25090 T08	■	1600… 6* 1600… 8*

* Cutting edge width "a"

TORX screwdriver 664

The turning system 1700 ideally complements the existing system 1600.
The inclined position of the insert in the holder enables the tool to pass close to complex shapes with no risk of collision. The inserts consist of two cutting edges.
Even for the holders a wide range of possibilities with shank sizes between 8 and 20 mm are available. For Swiss-type automatic lathes special holders have been designed and complete the wide range of choices.

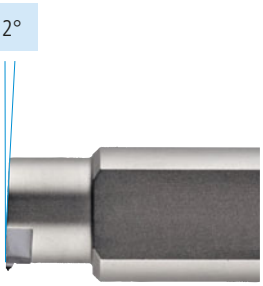




Advantages:
– Tool holder clearance given from insert seat
– Grooving inserts width starting from 0.05 mm
– "WCT" threading program for turning NIHS 60–30 threads in watch cases







Technical information 9



Inserts
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1706… WCT 97
1710… 98
1711… 99
1799… (special inserts) 100



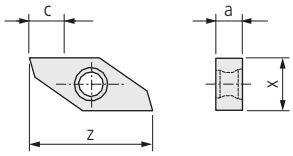
Holders
1700… WCT 101
1700… 102
1700… 92 ST 103
1700… 92 ST A 104



Replacement and spare parts 105

Blank

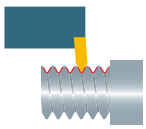


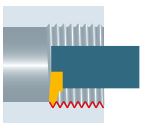


1701…

Order designation	Carbide ▯19				HSS		Dimensions						Holder
	○ ○ ○ –	● ● – ●	○ ○ ○ ●	○ ● ● ○	● ○ – ●	● ● ○ ○							▯78…
N	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	HSS	HSS HX	a	c	x	z			
PREMIUM-LINE							Accuracy class of UTILIS ▯41						
1701-3-5 N P …*	■	■	■	■			3	5	6	16			1700…
STANDARD-LINE							Accuracy class of UTILIS ▯41						
1701-3-5 N …	■	■	■	■	■	■	3	5	6	16			1700…

* Mirror polished

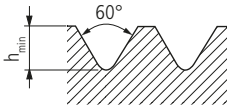


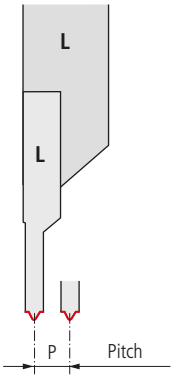


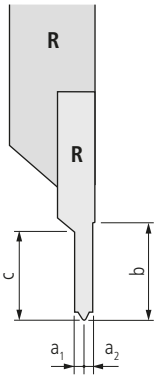
Threading (full profile metric) watch cases



1706… WCT







Order designation		Carbide 19				Standard	Dimensions						Holder 78…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	NIHS 60-30	P	h_{min}	a_1	a_2	b	c	
PREMIUM-LINE							Accuracy class of UTILIS 41						
1706-0.5-60 VP L WCT NIHS…	1706-0.5-60 VP R WCT NIHS…			■	■		0.5	0.315	0.35	0.28	2	1	1700… WCT

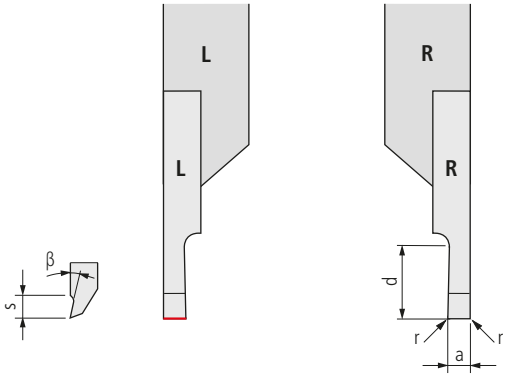
Application recommendation for number of passes at threading 164



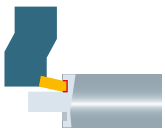
Grooving (radial)



1710…

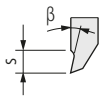


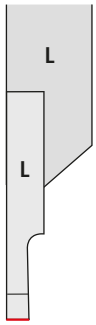
Order designation		Carbide 19				Dimensions								Holder
		○ ○ ○ –	● ● ○ ●	○ ○ ○ ●	○ ● ○ ○									78…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	Tole-rance	r	d	β	s			
PREMIUM-LINE						Accuracy class of UTILIS 41								
1710-0.05-0.1 L …	1710-0.05-0.1 R …			■	■	0.05	±0.01	–	0.1	6°	1.2			1700…
1710-0.1-0.2 L …	1710-0.1-0.2 R …			■	■	0.1	±0.01	–	0.2	6°	1.2			1700…
1710-0.2-0.4 L …	1710-0.2-0.4 R …			■	■	0.2	±0.01	–	0.4	6°	1.2			1700…
STANDARD-LINE						Accuracy class of UTILIS 41								
1710-0.3-0.6 L …	1710-0.3-0.6 R …			■	■	0.3	±0.02	–	0.6	6°	1.2			1700…
1710-0.4-0.8 L …	1710-0.4-0.8 R …			■	■	0.4	±0.02	–	0.8	6°	1.2			1700…
1710-0.5-1.0 L …	1710-0.5-1.0 R …			■	■	0.5	±0.02	–	1	6°	1.2			1700…
1710-0.6-1.2 L …	1710-0.6-1.2 R …			■	■	0.6	±0.02	–	1.2	6°	1.2			1700…
1710-0.7-1.4 L ….	1710-0.7-1.4 R …			■	■	0.7	±0.02	–	1.4	6°	1.2			1700…
1710-0.8-1.6 L …	1710-0.8-1.6 R …			■	■	0.8	±0.02	–	1.6	6°	1.2			1700…
1710-1.0-2.0 L …	1710-1.0-2.0 R …			■	■	1	±0.02	–	2	6°	1.2			1700…
1710-1.5-3.0 L …	1710-1.5-3.0 R …			■	■	1.5	±0.02	–	3	6°	1.2			1700…
1710-2.0-4.0 L …	1710-2.0-4.0 R …			■	■	2	±0.02	–	4	6°	1.2			1700…

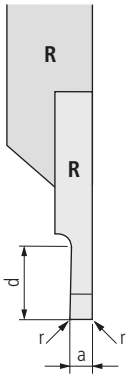


Grooving (axial)



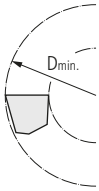






1711…

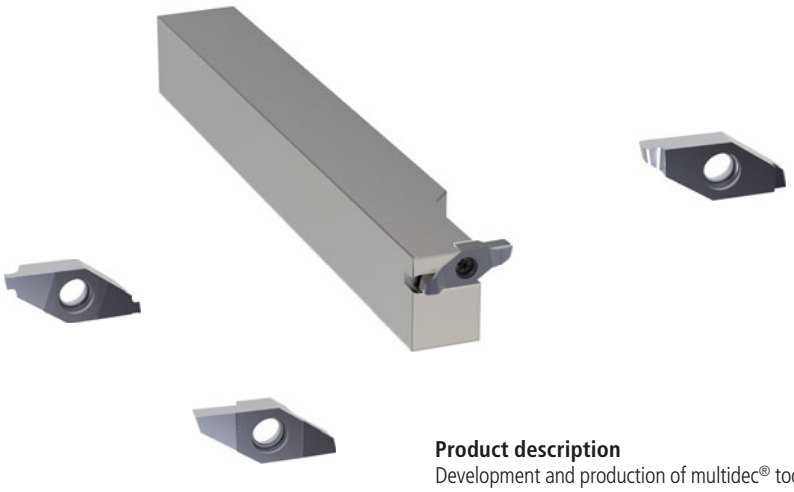
Order designation		Carbide 19				Dimensions								Holder
														78…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a ±0.02	r	$D_{min.}$	d	β	s			
STANDARD-LINE								Accuracy class of UTILIS 41						
1711-0.5-1 L …	1711-0.5-1 R …			■	■	0.5	0.05	8	1	8°	1.2			1700…
1711-0.8-1.5 L …	1711-0.8-1.5 R …			■	■	0.8	0.05	8	1.5	8°	1.2			1700…
1711-1.0-2 L …	1711-1.0-2 R …			■	■	1	0.05	9	2	8°	1.2			1700…
1711-1.5-2.5 L …	1711-1.5-2.5 R …			■	■	1.5	0.05	14	2.5	8°	1.2			1700…
1711-2.0-3 L …	1711-2.0-3 R …			■	■	2	0.05	17	3	8°	1.2			1700…
1711-2.5-3.5 L …	1711-2.5-3.5 R …			■	■	2.5	0.05	18	3.5	8°	1.2			1700…



Attention
The groove must not be made underneath the D_{min}-position.

Pay attention to the "working situations" for the correct selection of the combinations of tools and inserts 28

1799…

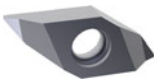


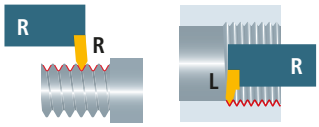
Product description
Development and production of multidec® tools for your own specific needs.

Customer's situation
A special machining method makes it impossible or difficult to use tools from the standard multidec® range. You need a special insert, a special tool or coating which is not included in our standard product range.

UTILIS solution
After detailed consultation, we will develop and fabricate the best multidec® solution for your particular needs. Normally this will be done using standard blanks which enable the special tools to be produced and delivered quickly and at reasonable cost. The familiar multidec® quality is of course always guaranteed.

Advantages:
– UTILIS know-how and quality also for special tools
– Standard blanks permit fast and reasonably priced delivery
– Tools developed to meet your specific needs

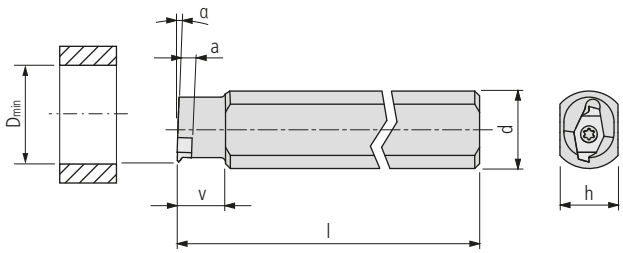




For external and internal turning

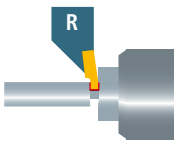


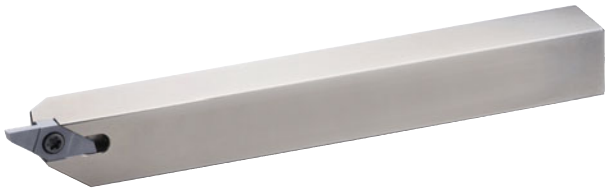
1700… WCT

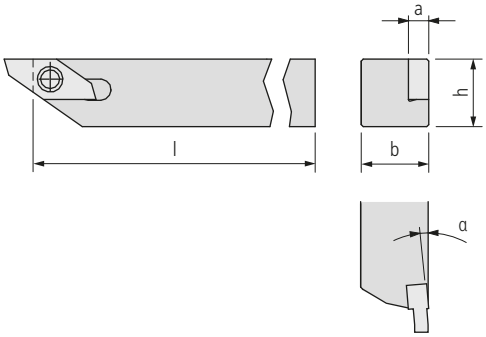


Order designation				Dimensions								Inserts*
L		R		d g6	l	h	v	D_{min}	a	α		97
PREMIUM-LINE								Accuracy class of UTILIS 41				
1700-12x100 WCT CS D16 L	■	1700-12x100 WCT CS D16 R	■	16	100	12	10	14	3	2°		1706… WCT…

*** Attention**
Right hand holder needs left hand insert!







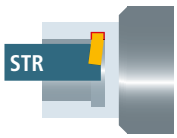
1700…

Order designation L		Order designation R		Dimensions h	b	l	a	α				Inserts* 98
STANDARD-LINE								Accuracy class of UTILIS 41				
1700-08x80 L	■	1700-08x80 R	■	8	8	80	3	2°				17…
1700-08x100 L	■	1700-08x100 R	■	8	8	100	3	2°				17…
1700-10x80 L	■	1700-10x80 R	■	10	10	80	3	2°				17…
1700-10x100 L	■	1700-10x100 R	■	10	10	100	3	2°				17…
1700-12x100 L	■	1700-12x100 R	■	12	12	100	3	2°				17…
1700-16x125 L	■	1700-16x125 R	■	16	16	125	3	2°				17…
1700-20x125 L	■	1700-20x125 R	■	20	20	125	3	2°				17…

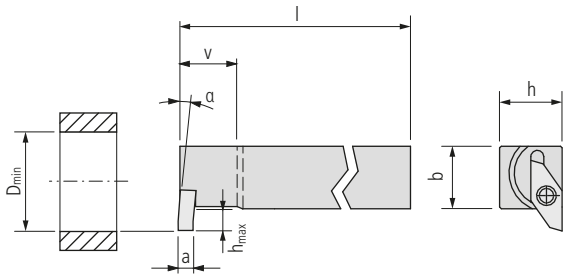
1700… INCH

Order designation L		Order designation R		Dimensions h	b	l	a	α				Inserts* 98
STANDARD-LINE								Accuracy class of UTILIS 41				
1700-3/8"x80 L	■	1700-3/8"x80 R	■	9.525	9.525	80	3	2°				17…
1700-3/8"x100 L	■	1700-3/8"x100 R	■	9.525	9.525	100	3	2°				17…
1700-1/2"x100 L	■	1700-1/2"x100 R	■	12.7	12.7	100	3	2°				17…
1700-5/8"x125 L	■	1700-5/8"x125 R	■	15.875	15.875	125	3	2°				17…
1700-3/4"x125 L	■	1700-3/4"x125 R	■	19.05	19.05	125	3	2°				17…

*** Attention**
Right hand holder needs left hand insert!







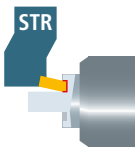
1700… 92 ST

Order designation				Dimensions								Inserts*
L		R		h	b	l	v	h_{max}	a	α	D_{min}	98
STANDARD-LINE				Accuracy class of UTILIS 41								
1700-08x100 92 ST L	■	1700-08x100 92 ST R	■	8	8	100	11	4	3	2°	21	17…
1700-10x100 92 ST L	■	1700-10x100 92 ST R	■	10	10	100	11	4	3	2°	21	17…
1700-12x100 92 ST L	■	1700-12x100 92 ST R	■	12	12	100	11	4	3	2°	21	17…
1700-16x125 92 ST L	■	1700-16x125 92 ST R	■	16	16	125	11	4	3	2°	21	17…
1700-20x125 92 ST L	■	1700-20x125 92 ST R	■	20	20	125	11	4	3	2°	21	17…

1700… 92 ST INCH

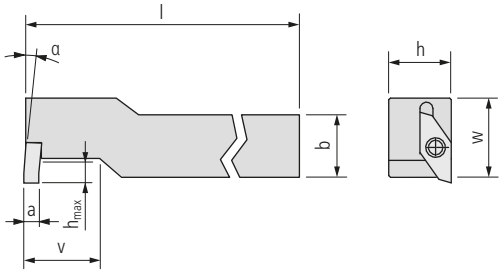
Order designation				Dimensions								Inserts*
L		R		h	b	l	v	h_{max}	a	α	D_{min}	98
STANDARD-LINE				Accuracy class of UTILIS 41								
1700-3/8"x100 92 ST L	■	1700-3/8"x100 92 ST R	■	9.525	9.525	100	11	4	3	2°	21	17…
1700-1/2"x100 92 ST L	■	1700-1/2"x100 92 ST R	■	12.7	12.7	100	11	4	3	2°	21	17…
1700-5/8"x125 92 ST L	■	1700-5/8"x125 92 ST R	■	15.875	15.875	125	11	4	3	2°	21	17…
1700-3/4"x125 92 ST L	■	1700-3/4"x125 92 ST R	■	19.05	19.05	125	11	4	3	2°	21	17…

*** Attention**
Right hand holder needs left hand insert!



With off-set shank





1700… 92 ST A

Order designation				Dimensions								Inserts*
L		R		h	b	l	v	w	h_{max}	a	α	99
STANDARD-LINE				Accuracy class of UTILIS 41								
1700-08x80 92 ST LA	■	1700-08x80 92 ST RA	■	8	8	80	17	15	4	3	2°	1711…
1700-08x100 92 ST LA	■	1700-08x100 92 ST RA	■	8	8	100	17	15	4	3	2°	1711…
1700-10x80 92 ST LA	■	1700-10x80 92 ST RA	■	10	10	80	17	15	4	3	2°	1711…
1700-10x100 92 ST LA	■	1700-10x100 92 ST RA	■	10	10	100	17	15	4	3	2°	1711…
1700-12x100 92 ST LA	■	1700-12x100 92 ST RA	■	12	12	100	17	15	4	3	2°	1711…
1700-16x125 92 ST LA	■	1700-16x125 92 ST RA	■	16	16	125	17	16	4	3	2°	1711…
1700-20x125 92 ST LA	■	1700-20x125 92 ST RA	■	20	20	125	17	20	4	3	2°	1711…

1700… 92 ST A INCH

Order designation				Dimensions								Inserts*
L		R		h	b	l	v	w	h_{max}	a	α	99
STANDARD-LINE				Accuracy class of UTILIS 41								
1700-3/8"x80 92 ST LA	■	1700-3/8"x80 92 ST RA	■	9.525	9.525	80	17	15	4	3	2°	1711…
1700-3/8"x100 92 ST LA	■	1700-3/8"x100 92 ST RA	■	9.525	9.525	100	17	15	4	3	2°	1711…
1700-1/2"x100 92 ST LA	■	1700-1/2"x100 92 ST RA	■	12.7	12.7	100	17	15	4	3	2°	1711…
1700-5/8"x125 92 ST LA	■	1700-5/8"x125 92 ST RA	■	15.875	15.875	125	17	15.875	4	3	2°	1711…
1700-3/4"x125 92 ST LA	■	1700-3/4"x125 92 ST RA	■	19.05	19.05	125	17	19.05	4	3	2°	1711…

*** Attention**
Right hand holder needs left hand insert!

Illustration	Description	Dimensions	Order designation		Holder
	TORX screw	M2.5 × 6 T08	MSP 25060 T08	■	1700…

TORX screwdriver 664

A turn and cut-off tool system for Swiss type lathes up to bar diameter 32 mm. The cutting inserts consist of two cutting edges. The insert seat, which is protected against contamination permits 100 % utilization of all cutting edges.
Even for the holders a wide range of possibilities with shank sizes between 8 and 25 mm are available. For Swiss-type automatic lathes special holders have been designed and complete the wide range of choices.







Advantages:
– Large selection of insert geometries with different chip breaker geometries
– Special chip breaker design for machining of small to mid-sized work pieces
– Perpendicularity guaranteed by two fixing screws, large support face and a genuine stop face for axial positioning
– The cutting forces are transferred directly from the insert to the holder; the screws are therefore not exposed to shear stress
– Inserts can be reground
– 2nd edge still usable after the first has crashed



Chip breaker "GS"

This insert with the chip breaker "GS" was developed using a revolutionary new manufacturing technology. Geometry, carbide and coating are perfectly matched to cut off all materials. The result is a cut-off insert which will increase your productivity enormously.

Advantages:
– Optimally tuned carbide and coating for high cutting speeds
– Good chip control by special chip breaker
– For high feeds
– Rounded cutting edge "E" for steel and easily machineable stainless steel
– Sharp cutting edge "F" for super-alloys, non-ferrous metals and stainless steels which are difficult to machine
– Can be used on all holders of the multidec®-CUT 3000 series
– Reasonably priced



"IC" tool holder with integrated cooling

Cost-efficient processing of modern materials increasingly requires accurate control of the coolant at the cutting edge. Conveying the coolant as close as possible to the cutting edge is often a difficult task in the machine rooms of Swiss type turning lathes.
The multidec®-IC program offers a wide range of holders with integrated cooling. Because of the high precision and pressure, it is possible to discharge the chip quickly and safely from the cutting edge and the workpiece, which protects the cutting edge of the insert. This means significantly longer tool life as well as very reliable serial production.

Advantages:
– All holders feature five possible connectors for the coolant supply
– Fixed coolant exit allows for small set-up in front of the holder
– With or without high pressure, the coolant medium always hits the cutting edge precisely

Technical information 9



Inserts
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Clamping of the insert on holder 3000…C (Combi) 153



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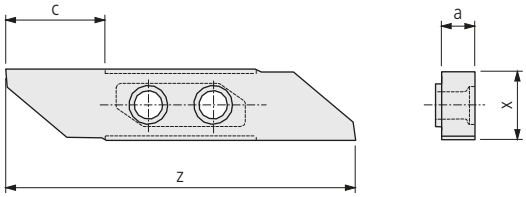
Coolant connectors and accessories 632

Attention
Please note the legend 🗋6…

Blank



3001…



Order designation		Carbide 19				HSS		Dimensions						Holder
		○ ○ ○ –	● ● ○ –	○ ○ ○ ●	○ ● ● ○	● ○ – ●	● ● ○ ○							146…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	HSS	HSS HX	a	c	x	z			
PREMIUM-LINE								Accuracy class of UTILIS 41						
3001-3.5-10 L P …*	3001-3.5-10 R P …*	■	■	■	■			3.5	11	8	40.5			3000…
3001-3.6-17 L P …*	3001-3.6-17 R P …*	■	■	■	■			3.6	17	8	51.5			3000…
STANDARD-LINE								Accuracy class of UTILIS 41						
3001-3.5-10 L …	3001-3.5-10 R …	■	■	■	■	■	■	3.5	11	8	40.5			3000…
3001-3.6-17 L …	3001-3.6-17 R …	■	■	■	■	■	■	3.6	17	8	51.5			3000…

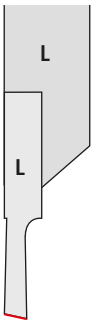
* Mirror polished

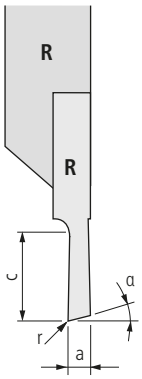
UTILIS multidec swiss type tools



CUT off







3002…

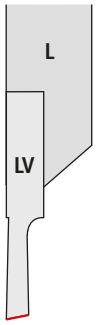
Order designation		Carbide 19				Dimensions								Holder
		○ ○ ○ –	● ● ● –	○ ○ ○ ●	○ ● ○ ○									146…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	r					
STANDARD-LINE									Accuracy class of UTILIS 41 – +					
3002-0.8-6 L …	3002-0.8-6 R …	■	■	■	■	0.8	6	15°	–					3000…
3002-0.8-10 L …	3002-0.8-10 R …	■	■	■	■	0.8	10	15°	–					3000…
3002-1.0-6 L …	3002-1.0-6 R …	■	■	■	■	1	6	15°	–					3000…
3002-1.0-13 L …	3002-1.0-13 R …	■	■	■	■	1	13	15°	–					3000…
3002-1.2-6 L …	3002-1.2-6 R …	■	■	■	■	1.2	6	15°	–					3000…
3002-1.5-8 L …	3002-1.5-8 R …	■	■	■	■	1.5	8	15°	–					3000…
3002-1.5-16 L …	3002-1.5-16 R …	■	■	■	■	1.5	16	15°	–					3000…
3002-1.8-8 L …	3002-1.8-8 R …	■	■	■	■	1.8	8	15°	–					3000…
3002-2.0-10 L …	3002-2.0-10 R …	■	■	■	■	2	10	15°	–					3000…
3002-2.0-16 L …	3002-2.0-16 R …	■	■	■	■	2	16	15°	–					3000…
3002-2.5-13 L …	3002-2.5-13 R …	■	■	■	■	2.5	13	15°	–					3000…
3002-2.5-16 L …	3002-2.5-16 R …	■	■	■	■	2.5	16	15°	–					3000…
3002-3.0-16 L …	3002-3.0-16 R …	■	■	■	■	3	16	15°	–					3000…

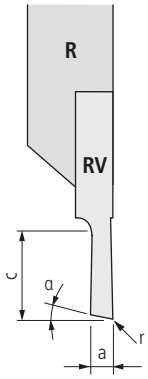


CUT off



3002… V





V: offset

Order designation		Carbide ▯19				Dimensions								Holder ▯146…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	r					
STANDARD-LINE									Accuracy class of UTILIS ▯41 – +					
3002-0.8-6 LV …	3002-0.8-6 RV …	■	■	■	■	0.8	6	15°	–					3000…
3002-0.8-10 LV …	3002-0.8-10 RV …	■	■	■	■	0.8	10	15°	–					3000…
3002-1.0-6 LV …	3002-1.0-6 RV …	■	■	■	■	1	6	15°	–					3000…
3002-1.0-13 LV …	3002-1.0-13 RV …	■	■	■	■	1	13	15°	–					3000…
3002-1.2-6 LV …	3002-1.2-6 RV …	■	■	■	■	1.2	6	15°	–					3000…
3002-1.5-8 LV …	3002-1.5-8 RV …	■	■	■	■	1.5	8	15°	–					3000…
3002-1.5-16 LV …	3002-1.5-16 RV …	■	■	■	■	1.5	16	15°	–					3000…
3002-1.8-8 LV …	3002-1.8-8 RV …	■	■	■	■	1.8	8	15°	–					3000…
3002-2.0-10 LV …	3002-2.0-10 RV …	■	■	■	■	2	10	15°	–					3000…
3002-2.0-16 LV …	3002-2.0-16 RV …	■	■	■	■	2	16	15°	–					3000…
3002-2.5-13 LV …	3002-2.5-13 RV …	■	■	■	■	2.5	13	15°	–					3000…
3002-2.5-16 LV …	3002-2.5-16 RV …	■	■	■	■	2.5	16	15°	–					3000…
3002-3.0-16 LV …	3002-3.0-16 RV …	■	■	■	■	3	16	15°	–					3000…

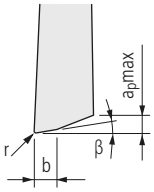
Turning and cut off

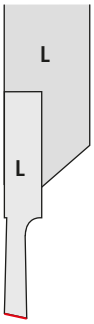


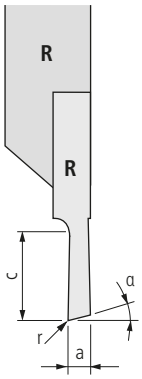


3002… TOP*

Detail TOP*







Order designation		Carbide ▯19				Dimensions							Holder
		○	●	○	○								▯146…
		○	●	○	●								
		○	○	○	●								
		–	–	●	○								
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	r	β	b	$a_p$max	
STANDARD-LINE									Accuracy class of UTILIS ▯41 – +				
3002-2.0-10 L TOP 015 …	3002-2.0-10 R TOP 015 …	■	■	■	■	2	10	15°	0.15	1.5°	0.3	0.45	3000…

* Description TOP ▯25

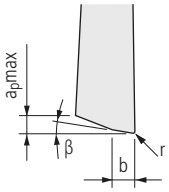


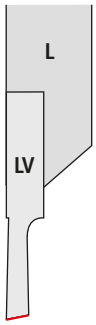
Turning and cut off



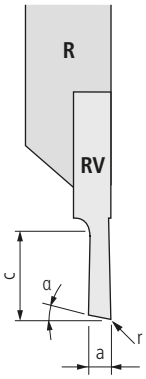
3002… V TOP*

Detail TOP*



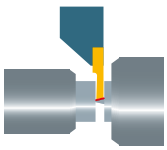


V: offset



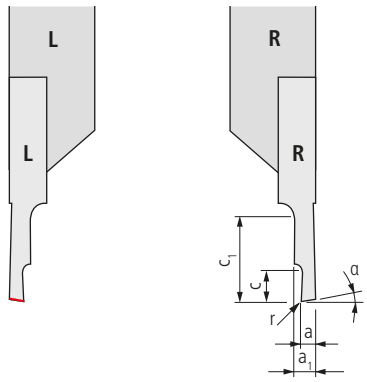
Order designation		Carbide ▯19				Dimensions								Holder ▯146…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	r	β	b	$a_p$max		
STANDARD-LINE								Accuracy class of UTILIS ▯41						
3002-2.0-10 LV TOP 015 …	3002-2.0-10 RV TOP 015 …	■	■	■	■	2	10	15°	0.15	1.5°	0.3	0.45		3000…

* Description TOP ▯25



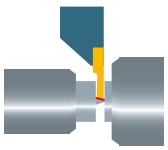
CUT off with counter-spindle





3002…16

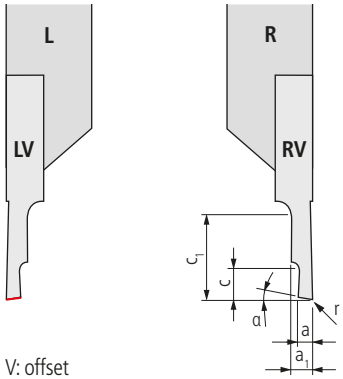
Order designation		Carbide 19				Dimensions								Holder
		○	●	○	○									146…
		○	●	○	●									
		○	○	○	●									
		–	–	●	○									
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	a_1	c	c_1	α	r			
PREMIUM-LINE										Accuracy class of UTILIS 41 – +				
3002-0.5-2.5-16 L G20 …	3002-0.5-2.5-16 R G20 …			■	■	0.5	1.9	2.5	16	20°	–			3000…
STANDARD-LINE										Accuracy class of UTILIS 41 – +				
3002-0.8-6-16 L …	3002-0.8-6-16 R …	■	■	■	■	0.8	2	6	16	15°	–			3000…
3002-1.0-6-16 L …	3002-1.0-6-16 R …			■	■	1	2.2	6	16	15°	–			3000…
3002-1.2-6-16 L …	3002-1.2-6-16 R …	■	■	■	■	1.2	2.4	6	16	15°	–			3000…



CUT off with counter-spindle



3002…16 V



V: offset

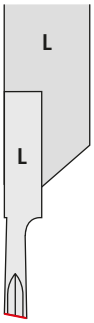
Order designation		Carbide ▯19				Dimensions								Holder ▯146…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	a_1	c	c_1	α	r			
PREMIUM-LINE									Accuracy class of UTILIS ▯41					
3002-0.5-2.5-16 LV G20 …	3002-0.5-2.5-16 RV G20 …			■	■	0.5	1.9	2.5	16	20°	–			3000…
STANDARD-LINE									Accuracy class of UTILIS ▯41					
3002-0.8-6-16 LV …	3002-0.8-6-16 RV …	■	■	■	■	0.8	2	6	16	15°	–			3000…
3002-1.0-6-16 LV …	3002-1.0-6-16 RV …			■	■	1	2.2	6	16	15°	–			3000…
3002-1.2-6-16 LV …	3002-1.2-6-16 RV …	■	■	■	■	1.2	2.4	6	16	15°	–			3000…

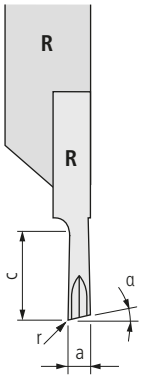
UTILIS multidec swiss type tools



CUT off







3002… SC

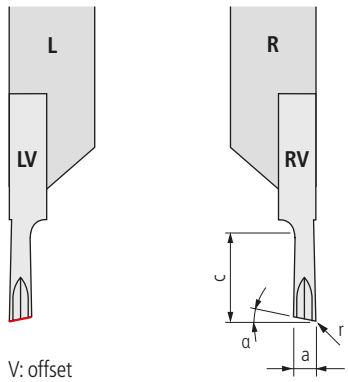
Order designation		Carbide 19				Dimensions								Holder
		○ ○ ○ –	● ● ○ ●	○ ○ ○ ●	○ ● ○ ○									146…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	r					
STANDARD-LINE									Accuracy class of UTILIS 41 – +					
3002-1.5-8 L SC …	3002-1.5-8 R SC …	■	■	■	■	1.5	8	15°	–					3000…
3002-1.5-16 L SC …	3002-1.5-16 R SC …	■	■	■	■	1.5	16	15°	–					3000…
3002-2.0-10 L SC …	3002-2.0-10 R SC …	■	■	■	■	2	10	15°	–					3000…
3002-2.0-16 L SC …	3002-2.0-16 R SC …	■	■	■	■	2	16	15°	–					3000…
3002-2.5-13 L SC …	3002-2.5-13 R SC …	■	■	■	■	2.5	13	15°	–					3000…
3002-2.5-16 L SC …	3002-2.5-16 R SC …	■	■	■	■	2.5	16	15°	–					3000…
3002-3.0-16 L SC …	3002-3.0-16 R SC …	■	■	■	■	3	16	15°	–					3000…



CUT off



3002… V SC



V: offset

Order designation		Carbide 19				Dimensions								Holder
		○	●	○	○									146…
		○	●	○	●									
		○	○	○	●									
		–	–	●	○									
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	r					
STANDARD-LINE									Accuracy class of UTILIS 41 – +					
3002-1.5-8 LV SC …	3002-1.5-8 RV SC …	■	■	■	■	1.5	8	15°	–					3000…
3002-1.5-16 LV SC …	3002-1.5-16 RV SC …	■	■	■	■	1.5	16	15°	–					3000…
3002-2.0-10 LV SC …	3002-2.0-10 RV SC …	■	■	■	■	2	10	15°	–					3000…
3002-2.0-16 LV SC …	3002-2.0-16 RV SC …	■	■	■	■	2	16	15°	–					3000…
3002-2.5-13 LV SC …	3002-2.5-13 RV SC …	■	■	■	■	2.5	13	15°	–					3000…
3002-2.5-16 LV SC …	3002-2.5-16 RV SC …	■	■	■	■	2.5	16	15°	–					3000…
3002-3.0-16 LV SC …	3002-3.0-16 RV SC …	■	■	■	■	3	16	15°	–					3000…

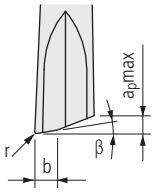
Turning and cut off

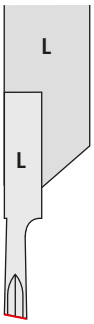


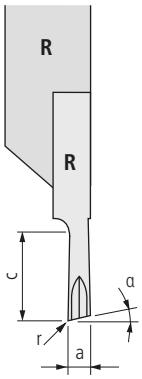


3002… SC TOP*

Detail TOP*







Order designation		Carbide 19				Dimensions							Holder
		○ ○ ○ –	● ● ○ –	○ ○ ○ ●	○ ● ● ○								146…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	r	β	b	$a_p$max	
STANDARD-LINE									Accuracy class of UTILIS 41				
3002-2.0-10 L SC TOP 015 …	3002-2.0-10 R SC TOP 015 …	■	■	■	■	2	10	15°	0.15	1.5°	0.3	0.45	3000…

* Description TOP 25

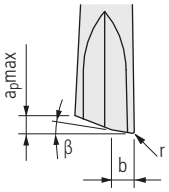


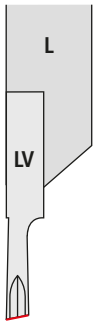
Turning and cut off



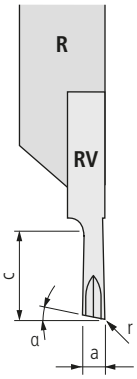
3002… V SC TOP*

Detail TOP*





V: offset



Order designation		Carbide 19				Dimensions							Holder
		○	●	○	○								146…
		○	●	○	●								
		○	○	○	●								
		–	–	●	○								
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	r	β	b	$a_p$max	
STANDARD-LINE								Accuracy class of UTILIS 41					
3002-2.0-10 LV SC TOP 015 …	3002-2.0-10 RV SC TOP 015 …	■	■	■	■	2	10	15°	0.15	1.5°	0.3	0.45	3000…

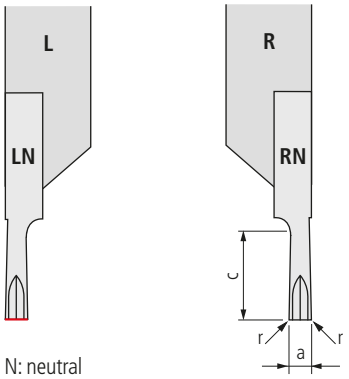
* Description TOP 25

CUT off





3002… N SC



N: neutral

Order designation		Carbide ▯19				Dimensions								Holder
		○ ○ ○ –	● ● ○ –	○ ○ ○ ●	○ ● ○ ○									▯146…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	r						
STANDARD-LINE								Accuracy class of UTILIS ▯41 – +						
3002-1.5-10 LN SC …	3002-1.5-10 RN SC …	■	■	■	■	1.5	10	0.08						3000…
3002-1.5-16 LN SC …	3002-1.5-16 RN SC …	■	■	■	■	1.5	16	0.08						3000…
3002-2.0-10 LN SC …	3002-2.0-10 RN SC …	■	■	■	■	2	10	0.08						3000…
3002-2.0-16 LN SC …	3002-2.0-16 RN SC …	■	■	■	■	2	16	0.08						3000…
3002-2.5-13 LN SC …	3002-2.5-13 RN SC …	■	■	■	■	2.5	13	0.08						3000…
3002-2.5-16 LN SC …	3002-2.5-16 RN SC …	■	■	■	■	2.5	16	0.08						3000…
3002-3.0-16 LN SC …	3002-3.0-16 RN SC …	■	■	■	■	3	16	0.08						3000…

Attention
Please note the legend 🗋6…

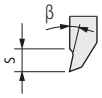
UTILIS multidec swiss type tools

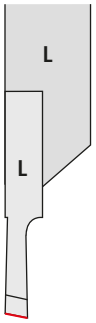


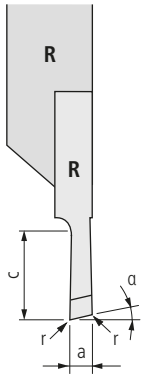
CUT off



3002… SPT







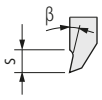
Order designation		Carbide 19				Dimensions								Holder
		○	●	○	○									146…
		○	●	○	●									
		○	○	○	●									
		–	–	●	○									
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	β	r	s			
STANDARD-LINE										Accuracy class of UTILIS 41				
										– +				
3002-0.8-10 L SPT …	3002-0.8-10 R SPT …			■	■	0.8	10	15°	20°	–	2			3000…
3002-1.0-13 L SPT …	3002-1.0-13 R SPT …			■	■	1	13	15°	20°	–	2			3000…
3002-1.5-8 L SPT …	3002-1.5-8 R SPT …			■	■	1.5	8	15°	20°	–	2			3000…
3002-1.5-8 L SPT06 …	3002-1.5-8 R SPT06 …	■	■			1.5	8	15°	6°	0.05	2			3000…
3002-1.5-8 L SPT12 …	3002-1.5-8 R SPT12 …	■	■			1.5	8	15°	12°	0.05	2			3000…
3002-1.5-16 L SPT …	3002-1.5-16 R SPT …			■	■	1.5	16	15°	20°	–	2			3000…
3002-2.0-10 L SPT …	3002-2.0-10 R SPT …			■	■	2	10	15°	20°	–	2			3000…
3002-2.0-10 L SPT06 …	3002-2.0-10 R SPT06 …	■	■			2	10	15°	6°	0.05	2			3000…
3002-2.0-10 L SPT12 …	3002-2.0-10 R SPT12 …	■	■			2	10	15°	12°	0.05	2			3000…
3002-2.0-16 L SPT …	3002-2.0-16 R SPT …			■	■	2	16	15°	20°	–	2			3000…
3002-2.0-16 L SPT06 …	3002-2.0-16 R SPT06 …	■	■			2	16	15°	6°	0.05	2			3000…
3002-2.0-16 L SPT12 …	3002-2.0-16 R SPT12 …	■	■			2	16	15°	12°	0.05	2			3000…
3002-2.5-13 L SPT …	3002-2.5-13 R SPT …			■	■	2.5	13	15°	20°	–	2			3000…
3002-2.5-13 L SPT06 …	3002-2.5-13 R SPT06 …	■	■			2.5	13	15°	6°	0.05	2			3000…
3002-2.5-13 L SPT12 …	3002-2.5-13 R SPT12 …	■	■			2.5	13	15°	12°	0.05	2			3000…
3002-2.5-16 L SPT …	3002-2.5-16 R SPT …			■	■	2.5	16	15°	20°	–	2			3000…
3002-2.5-16 L SPT06 …	3002-2.5-16 R SPT06 …	■	■			2.5	16	15°	6°	0.05	2			3000…
3002-2.5-16 L SPT12 …	3002-2.5-16 R SPT12 …	■	■			2.5	16	15°	12°	0.05	2			3000…
3002-3.0-16 L SPT …	3002-3.0-16 R SPT …			■	■	3	16	15°	20°	–	2			3000…
3002-3.0-16 L SPT06 …	3002-3.0-16 R SPT06 …	■	■			3	16	15°	6°	0.05	2			3000…
3002-3.0-16 L SPT12 …	3002-3.0-16 R SPT12 …	■	■			3	16	15°	12°	0.05	2			3000…

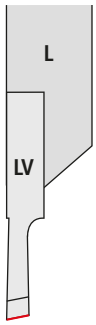


CUT off

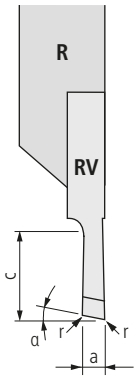


3002… V SPT





V: offset



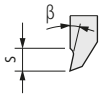
Order designation		Carbide ⬚19				Dimensions								Holder ⬚146…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	β	r	s			
STANDARD-LINE										Accuracy class of UTILIS ⬚41 – +				
3002-0.8-10 LV SPT …	3002-0.8-10 RV SPT …			■	■	0.8	10	15°	20°	–	2			3000…
3002-1.0-13 LV SPT …	3002-1.0-13 RV SPT …			■	■	1	13	15°	20°	–	2			3000…
3002-1.5-8 LV SPT …	3002-1.5-8 RV SPT …			■	■	1.5	8	15°	20°	–	2			3000…
3002-1.5-8 LV SPT06 …	3002-1.5-8 RV SPT06 …	■	■			1.5	8	15°	6°	0.05	2			3000…
3002-1.5-8 LV SPT12 …	3002-1.5-8 RV SPT12 …	■	■			1.5	8	15°	12°	0.05	2			3000…
3002-1.5-16 LV SPT …	3002-1.5-16 RV SPT …			■	■	1.5	16	15°	20°	–	2			3000…
3002-2.0-10 LV SPT …	3002-2.0-10 RV SPT …			■	■	2	10	15°	20°	–	2			3000…
3002-2.0-10 LV SPT06 …	3002-2.0-10 RV SPT06 …	■	■			2	10	15°	6°	0.05	2			3000…
3002-2.0-10 LV SPT12 …	3002-2.0-10 RV SPT12 …	■	■			2	10	15°	12°	0.05	2			3000…
3002-2.0-16 LV SPT …	3002-2.0-16 RV SPT …			■	■	2	16	15°	20°	–	2			3000…
3002-2.0-16 LV SPT06 …	3002-2.0-16 RV SPT06 …	■	■			2	16	15°	6°	0.05	2			3000…
3002-2.0-16 LV SPT12 …	3002-2.0-16 RV SPT12 …	■	■			2	16	15°	12°	0.05	2			3000…
3002-2.5-13 LV SPT …	3002-2.5-13 RV SPT …			■	■	2.5	13	15°	20°	–	2			3000…
3002-2.5-13 LV SPT06 …	3002-2.5-13 RV SPT06 …	■	■			2.5	13	15°	6°	0.05	2			3000…
3002-2.5-13 LV SPT12 …	3002-2.5-13 RV SPT12 …	■	■			2.5	13	15°	12°	0.05	2			3000…
3002-2.5-16 LV SPT …	3002-2.5-16 RV SPT …			■	■	2.5	16	15°	20°	–	2			3000…
3002-2.5-16 LV SPT06 …	3002-2.5-16 RV SPT06 …	■	■			2.5	16	15°	6°	0.05	2			3000…
3002-2.5-16 LV SPT12 …	3002-2.5-16 RV SPT12 …	■	■			2.5	16	15°	12°	0.05	2			3000…
3002-3.0-16 LV SPT …	3002-3.0-16 RV SPT …			■	■	3	16	15°	20°	–	2			3000…
3002-3.0-16 LV SPT06 …	3002-3.0-16 RV SPT06 …	■	■			3	16	15°	6°	0.05	2			3000…
3002-3.0-16 LV SPT12 …	3002-3.0-16 RV SPT12 …	■	■			3	16	15°	12°	0.05	2			3000…

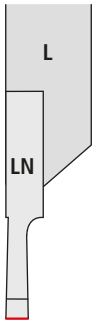
CUT off



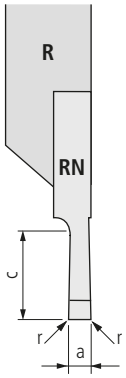


3002… N SPT



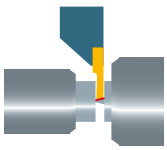


N: neutral

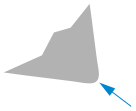


Order designation		Carbide 19				Dimensions								Holder
		○ ○ ○ –	● ● ○ –	○ ○ ○ ●	○ ● ○ ○									146…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	r	s	β				
STANDARD-LINE										Accuracy class of UTILIS 41 – | +			
3002-1.0-10 LN SPT …	3002-1.0-10 RN SPT …			■	■	1	10	0.05	2	20°				3000…
3002-1.5-10 LN SPT …	3002-1.5-10 RN SPT …			■	■	1.5	10	0.05	2	20°				3000…
3002-1.5-10 LN SPT06 …	3002-1.5-10 RN SPT06 …	■	■			1.5	10	0.05	2	6°				3000…
3002-1.5-10 LN SPT12 …	3002-1.5-10 RN SPT12 …	■	■			1.5	10	0.05	2	12°				3000…
3002-1.5-16 LN SPT …	3002-1.5-16 RN SPT …			■	■	1.5	16	0.05	2	20°				3000…
3002-2.0-10 LN SPT …	3002-2.0-10 RN SPT …			■	■	2	10	0.05	2	20°				3000…
3002-2.0-10 LN SPT06 …	3002-2.0-10 RN SPT06 …	■	■			2	10	0.05	2	6°				3000…
3002-2.0-10 LN SPT12 …	3002-2.0-10 RN SPT12 …	■	■			2	10	0.05	2	12°				3000…
3002-2.0-16 LN SPT …	3002-2.0-16 RN SPT …			■	■	2	16	0.05	2	20°				3000…
3002-2.0-16 LN SPT06 …	3002-2.0-16 RN SPT06 …	■	■			2	16	0.05	2	6°				3000…
3002-2.0-16 LN SPT12 …	3002-2.0-16 RN SPT12 …	■	■			2	16	0.05	2	12°				3000…
3002-2.5-13 LN SPT …	3002-2.5-13 RN SPT …			■	■	2.5	13	0.05	2	20°				3000…
3002-2.5-13 LN SPT06 …	3002-2.5-13 RN SPT06 …	■	■			2.5	13	0.05	2	6°				3000…
3002-2.5-13 LN SPT12 …	3002-2.5-13 RN SPT12 …	■	■			2.5	13	0.05	2	12°				3000…
3002-2.5-16 LN SPT …	3002-2.5-16 RN SPT …			■	■	2.5	16	0.05	2	20°				3000…
3002-2.5-16 LN SPT06 …	3002-2.5-16 RN SPT06 …	■	■			2.5	16	0.05	2	6°				3000…
3002-2.5-16 LN SPT12 …	3002-2.5-16 RN SPT12 …	■	■			2.5	16	0.05	2	12°				3000…
3002-3.0-16 LN SPT …	3002-3.0-16 RN SPT …			■	■	3	16	0.05	2	20°				3000…
3002-3.0-16 LN SPT06 …	3002-3.0-16 RN SPT06 …	■	■			3	16	0.05	2	6°				3000…
3002-3.0-16 LN SPT12 …	3002-3.0-16 RN SPT12 …	■	■			3	16	0.05	2	12°				3000…

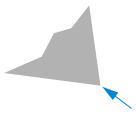
Attention
Please note the legend 🗋6…



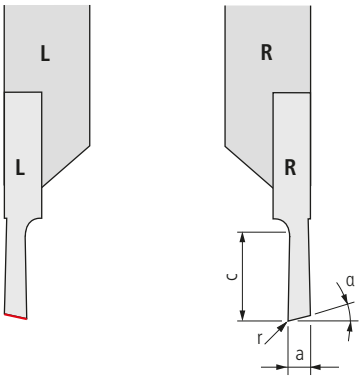
CUT off



E: Insert with rounded cutting edge



F: Insert with sharp cutting edge





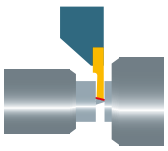
3002… E. GS

Order designation		Carbide 19				Dimensions								Holder
			●											146…
			○											
			–											
			●											
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	r					
VALUE-LINE									Accuracy class of UTILIS 41					
3002-2.0-10 EL GS …	3002-2.0-10 ER GS …	■	■			2	10	15°	0.2					3000…

3002… F. GS

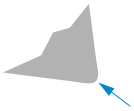
Order designation		Carbide 19				Dimensions								Holder
			○											146…
			●											
			●											
			○											
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	r					
VALUE-LINE									Accuracy class of UTILIS 41					
3002-2.0-10 FL GS …	3002-2.0-10 FR GS …	■	■			2	10	15°	0.2					3000…

"GS" cutting specification 162

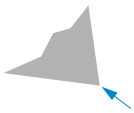


CUT off

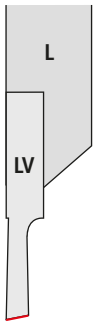




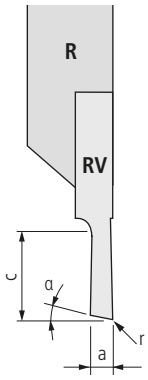
E: Insert with rounded cutting edge



F: Insert with sharp cutting edge



V: offset



3002… E.V GS

Order designation		Carbide 19				Dimensions								Holder
			●											146…
			○											
			–											
			●											
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	r					
VALUE-LINE										Accuracy class of UTILIS 41				
										– +				
3002-2.0-10 ELV GS …	3002-2.0-10 ERV GS …	■	■			2	10	15°	0.2					3000…

3002… F.V GS

Order designation		Carbide 19				Dimensions								Holder
			○											146…
			●											
			●											
			○											
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	r					
VALUE-LINE										Accuracy class of UTILIS 41				
										– +				
3002-2.0-10 FLV GS …	3002-2.0-10 FRV GS …	■	■			2	10	15°	0.2					3000…

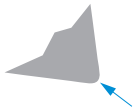
"GS" cutting specification 162

■ New

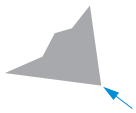
Cutting off



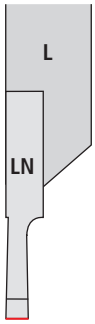


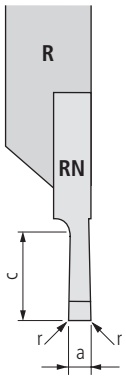


E: Insert with rounded cutting edge



F: Insert with sharp cutting edge





N: neutral

3002… E.N GS

Order designation		Carbide 19				Dimensions								Holder
														146…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	r					
VALUE-LINE									Accuracy class of UTILIS 41					
3002-2.0-10 ELN GS …	3002-2.0-10 ERN GS …	■	■			2	10		0.2					3000…

3002… F.N GS

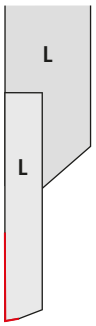
Order designation		Carbide 19				Dimensions								Holder
														146…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	r					
VALUE-LINE									Accuracy class of UTILIS 41					
3002-2.0-10 FLN GS …	3002-2.0-10 FRN GS …	■	■			2	10		0.2					3000…

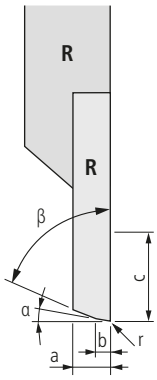
"GS" cutting specification 162



Front turning







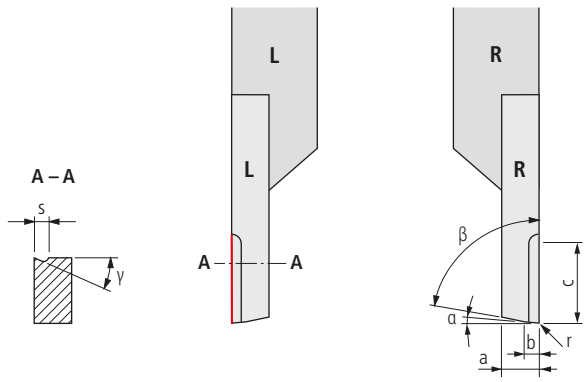
3003…

Order designation		Carbide 19				Dimensions								Holder
														146…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	b	c	α	β	r			
STANDARD-LINE									Accuracy class of UTILIS 41					
									– +					
3003-3.4-8 L …	3003-3.4-8 R …	■	■	■	■	3.4	1	8	3°	70°	–			3000…



Front turning

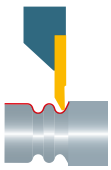




3003… SP …TOP*

Order designation		Carbide 19				Dimensions								Holder
		○	●	○	○									146…
		○	●	○	●									
		○	○	○	●									
		–	–	●	○									
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	b	c	α	β	s	γ	r	
STANDARD-LINE									Accuracy class of UTILIS 41 – +					
3003-3.4-8 L SP U TOP ZZ …	3003-3.4-8 R SP U TOP ZZ …	■	■	■	■	3.4	0.2	8	1°	82°	1.2	12°	–	3000…
3003-3.4-8 L SP U TOP 45008 …	3003-3.4-8 R SP U TOP 45008 …	■	■	■	■	3.4	1.2	8	1°	45°	1.2	12°	0.08	3000…
3003-3.4-8 L SP U TOP 45015 …	3003-3.4-8 R SP U TOP 45015 …	■	■	■	■	3.4	1.2	8	1°	45°	1.2	12°	0.15	3000…

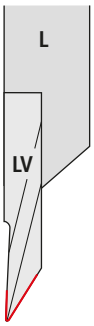
* Description TOP 25



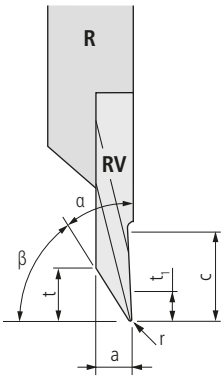
Copy turning (front)



3004… V SP



V: offset



Order designation		Carbide ▯19				Dimensions								Holder
		○ ○ ○ –	● ● ○ –	○ ○ ○ ●	○ ● ● ○									▯146…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	β	r	t	t_1		
STANDARD-LINE										Accuracy class of UTILIS ▯41 – +				
3004-3.2-6 LV SP29008 …	3004-3.2-6 RV SP29008 …	■	■	■	■	3.2	11	29°	61°	0.08	5	2.5		3000…
3004-3.2-6 LV SP29015 …	3004-3.2-6 RV SP29015 …	■	■	■	■	3.2	11	29°	61°	0.15	5	2.5		3000…
3004-3.2-6 LV SP29035 …	3004-3.2-6 RV SP29035 …	■	■	■	■	3.2	11	29°	61°	0.35	5	2.5		3000…
3004-3.2-6 LV SP29075 …	3004-3.2-6 RV SP29075 …	■	■	■	■	3.2	11	29°	61°	0.75	5	2.5		3000…

* Description TOP ▯25

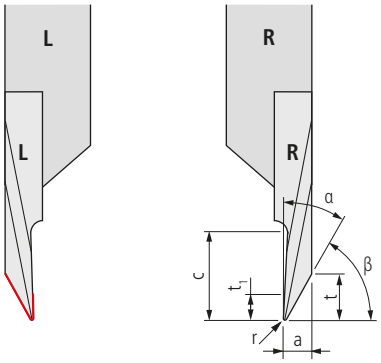
UTILIS multidec swiss type tools



Copy turning (back)



3004… SP



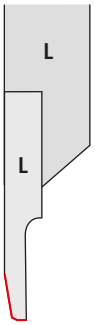
Order designation		Carbide ▯19				Dimensions								Holder ▯146…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	β	r	t	t_1		
STANDARD-LINE										Accuracy class of UTILIS ▯41				
3004-3.2-6 L SP29008 …	3004-3.2-6 R SP29008 …	■	■	■	■	3.2	11	29°	61°	0.08	5	2.5		3000…
3004-3.2-6 L SP29015 …	3004-3.2-6 R SP29015 …	■	■	■	■	3.2	11	29°	61°	0.15	5	2.5		3000…
3004-3.2-6 L SP29035 …	3004-3.2-6 R SP29035 …	■	■	■	■	3.2	11	29°	61°	0.35	5	2.5		3000…
3004-3.2-6 L SP29075 …	3004-3.2-6 R SP29075 …	■	■	■	■	3.2	11	29°	61°	0.75	5	2.5		3000…
3004-3.2-5 L SP35015 …	3004-3.2-5 R SP35015 …	■	■	■	■	3.2	11	35°	55°	0.15	4	2		3000…
3004-3.2-5 L SP35035 …	3004-3.2-5 R SP35035 …	■	■	■	■	3.2	11	35°	55°	0.35	4	2		3000…

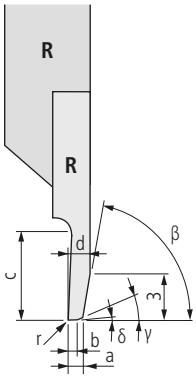
* Description TOP ▯25



Back turning







3004… TOP*

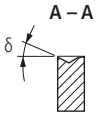
Order designation		Carbide 19				Dimensions								Holder
														146…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	b	c	d	β	γ	r	δ	
STANDARD-LINE										Accuracy class of UTILIS 41				
3004-0.8-6 L TOP ZZ …	3004-0.8-6 R TOP ZZ …	■	■	■	■	0.8	0.5	6	2	70°	8°	–	1°	3000…
3004-1.0-6 L TOP ZZ …	3004-1.0-6 R TOP ZZ …	■	■	■	■	1	0.5	6	2.2	70°	8°	–	1°	3000…
3004-1.2-8 L TOP ZZ …	3004-1.2-8 R TOP ZZ …	■	■	■	■	1.2	0.5	8	2.4	70°	8°	–	1°	3000…
3004-1.5-8 L TOP ZZ …	3004-1.5-8 R TOP ZZ …	■	■	■	■	1.5	0.5	8	2.7	70°	8°	–	1°	3000…
3004-1.8-8 L TOP ZZ …	3004-1.8-8 R TOP ZZ …	■	■	■	■	1.8	0.5	8	3	70°	8°	–	1°	3000…

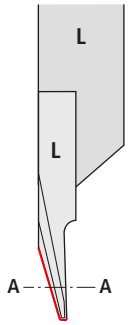
* Description TOP 25

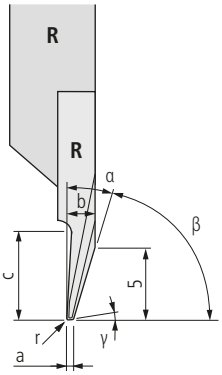
Back turning







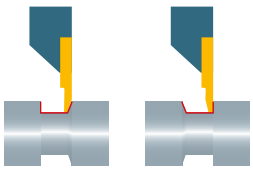




3004… SP TOP*

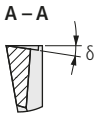
Order designation		Carbide 19				Dimensions								Holder 146…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	b	α	β	γ	δ	r	
STANDARD-LINE									Accuracy class of UTILIS 41 – +					
3004-2.4-6 L SP TOP 20ZZ …	3004-2.4-6 R SP TOP 20ZZ …	■	■	■	■	0.5	6	2.4	20°	70°	1.5°	15°	–	3000…
3004-2.4-6 L SP TOP 20008 …	3004-2.4-6 R SP TOP 20008 …	■	■	■	■	0.5	6	2.4	20°	70°	1.5°	15°	0.08	3000…
3004-2.4-6 L SP TOP 20015 …	3004-2.4-6 R SP TOP 20015 …	■	■	■	■	0.5	6	2.4	20°	70°	1.5°	15°	0.15	3000…

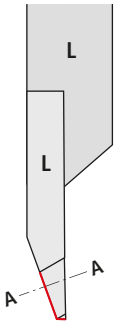
* Description TOP 25

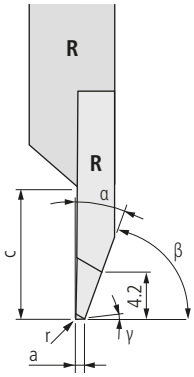


Back turning









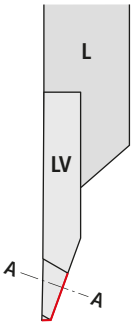
3004… CP

Order designation		Carbide 19				Dimensions								Holder
														146…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	β	γ	r	δ		
STANDARD-LINE								Accuracy class of UTILIS 41						
3004-0.8-4 L CP …	3004-0.8-4 R CP …	■	■	■	■	0.8	11	20°	70°	2°	–	8°		3000…

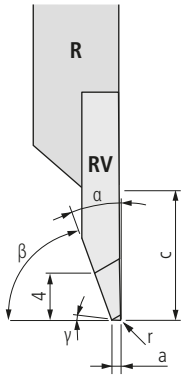


3004… V CP

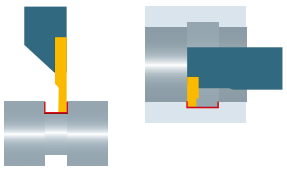




V: offset

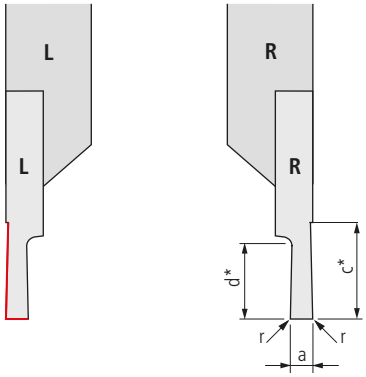


Order designation		Carbide 19				Dimensions								Holder
														146…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	α	β	γ	r	δ		
STANDARD-LINE								Accuracy class of UTILIS 41						
3004-0.8-4 LV CP …	3004-0.8-4 RV CP …			■	■	0.8	11	20°	70°	2°	–	8°		3000…



Grooving and turning





3005…

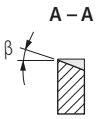
Order designation		Carbide ▯19				Dimensions								Holder
														▯146…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c*	d*	r					
STANDARD-LINE									Accuracy class of UTILIS ▯41					
3005-1.0-8 L …	3005-1.0-8 R …	■	■	■	■	1	8	2.5	0.05					3000…
3005-1.5-8 L …	3005-1.5-8 R …	■	■	■	■	1.5	8	3	0.05					3000…
3005-2.0-8 L …	3005-2.0-8 R …	■	■	■	■	2	8	4	0.05					3000…
3005-2.5-8 L …	3005-2.5-8 R …	■	■	■	■	2.5	8	5	0.05					3000…
3005-3.0-8 L …	3005-3.0-8 R …	■	■	■	■	3	8	6	0.05					3000…

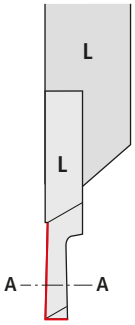
* c: maximal turning capacity
d: maximal grooving capacity

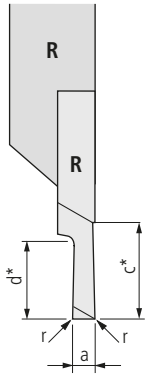


Grooving and turning







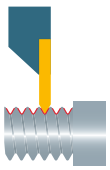


3005… CP

Order designation		Carbide ▯19				Dimensions								Holder ▯146…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c*	d*	r	β				
STANDARD-LINE									Accuracy class of UTILIS ▯41 – +					
3005-0.8-8 L CP …	3005-0.8-8 R CP …	■	■	■	■	0.8	8	2.5	–	10°				3000…
3005-1.0-8 L CP …	3005-1.0-8 R CP …	■	■	■	■	1	8	3.5	–	10°				3000…
3005-1.5-8 L CP …	3005-1.5-8 R CP …	■	■	■	■	1.5	8	4	–	10°				3000…
3005-1.5-8 L CP R08 …	3005-1.5-8 R CP R08 …	■	■	■	■	1.5	8	4	0.08	10°				3000…
3005-2.0-8 L CP …	3005-2.0-8 R CP …	■	■	■	■	2	8	5	–	10°				3000…
3005-2.0-8 L CP R08 …	3005-2.0-8 R CP R08 …	■	■	■	■	2	8	5	0.08	10°				3000…
3005-2.0-8 L CP R15 …	3005-2.0-8 R CP R15 …	■	■	■	■	2	8	5	0.15	10°				3000…
3005-2.5-8 L CP …	3005-2.5-8 R CP …	■	■	■	■	2.5	8	6	–	10°				3000…
3005-2.5-8 L CP R08 …	3005-2.5-8 R CP R08 …	■	■	■	■	2.5	8	6	0.08	10°				3000…
3005-2.5-8 L CP R15 …	3005-2.5-8 R CP R15 …	■	■	■	■	2.5	8	6	0.15	10°				3000…
3005-3.0-8 L CP …	3005-3.0-8 R CP …	■	■	■	■	3	8	6	–	10°				3000…
3005-3.0-8 L CP R08 …	3005-3.0-8 R CP R08 …	■	■	■	■	3	8	6	0.08	10°				3000…
3005-3.0-8 L CP R15 …	3005-3.0-8 R CP R15 …	■	■	■	■	3	8	6	0.15	10°				3000…

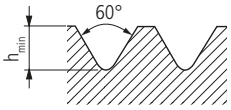
* c: maximal turning capacity
d: maximal grooving capacity

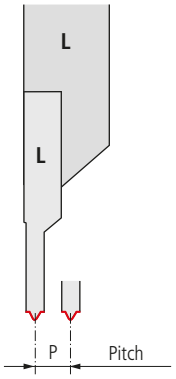
Threading (full profile metric)

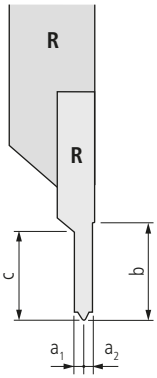




3006… VP

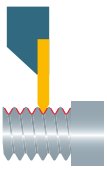






Order designation		Carbide ⬚19				Standard			Dimensions						Holder ⬚146…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	ISO DIN13	NIHS 06-03	NIHS 06-02	P	h_{min}	a_1	a_2	b	c	
PREMIUM-LINE								Accuracy class of UTILIS ⬚41							
3006-0.15-10-60 VP L …	3006-0.15-10-60 VP R …			■	■	–	–	S 0.6	0.15	0.092	0.09	0.08	8	–	3000…
3006-0.175-10-60 VP L …	3006-0.175-10-60 VP R …			■	■	–	–	S 0.7	0.175	0.107	0.11	0.1	8	–	3000…
3006-0.2-10-60 VP L …	3006-0.2-10-60 VP R …			■	■	–	–	S 0.8	0.2	0.123	0.12	0.11	8	–	3000…
3006-0.225-10-60 VP L …	3006-0.225-10-60 VP R …			■	■	–	–	S 0.9	0.225	0.138	0.14	0.12	8	–	3000…
3006-0.25-10-60 VP L …	3006-0.25-10-60 VP R …	■	■	■	■	M 1/1.2	M 1/1.2	S 1/S1.2	0.25	0.153	0.15	0.14	8	–	3000…
3006-0.3-10-60 VP L …	3006-0.3-10-60 VP R …	■	■	■	■	–	M 1.4	S 1.4	0.3	0.184	0.18	0.17	8	–	3000…
3006-0.35-10-60 VP L …	3006-0.35-10-60 VP R …	■	■	■	■	M 1.6	M 1.6/1.8	–	0.35	0.215	0.21	0.19	8	–	3000…
3006-0.4-10-60 VP L …	3006-0.4-10-60 VP R …	■	■	■	■	M 2	M 2	–	0.4	0.245	0.24	0.22	8	–	3000…
3006-0.45-10-60 VP L …	3006-0.45-10-60 VP R …	■	■	■	■	M 2.5	M 2.2/2.5	–	0.45	0.276	0.27	0.25	8	–	3000…
STANDARD-LINE								Accuracy class of UTILIS ⬚41							
3006-0.5-10-60 VP L …	3006-0.5-10-60 VP R …	■	■	■	■	M 3	M 3	–	0.5	0.307	0.28	0.28	8	1.3	3000…
3006-0.6-10-60 VP L …	3006-0.6-10-60 VP R …	■	■	■	■	–	M 3.5	–	0.6	0.368	0.33	0.33	8	1.5	3000…
3006-0.7-10-60 VP L …	3006-0.7-10-60 VP R …	■	■	■	■	M 4	M 4	–	0.7	0.429	0.39	0.39	8	1.8	3000…
3006-0.75-10-60 VP L …	3006-0.75-10-60 VP R …	■	■	■	■	–	M 4.5	–	0.75	0.46	0.41	0.41	8	1.9	3000…
3006-0.8-10-60 VP L …	3006-0.8-10-60 VP R …	■	■	■	■	M 5	M 5	–	0.8	0.491	0.44	0.44	8	2	3000…
3006-1.0-10-60 VP L …	3006-1.0-10-60 VP R …	■	■	■	■	M 6/7	–	–	1	0.613	0.55	0.55	8	2.5	3000…
3006-1.25-10-60 VP L …	3006-1.25-10-60 VP R …	■	■	■	■	M 8/9	–	–	1.25	0.767	0.69	0.69	8	3.1	3000…
3006-1.5-10-60 VP L …	3006-1.5-10-60 VP R …	■	■	■	■	M 10/11	–	–	1.5	0.92	0.83	0.83	8	3.8	3000…
3006-1.75-10-60 VP L …	3006-1.75-10-60 VP R …	■	■	■	■	M 12	–	–	1.75	1.073	0.96	0.96	8	4.4	3000…
3006-2.0-10-60 VP L …	3006-2.0-10-60 VP R …	■	■	■	■	M 14/16	–	–	2	1.227	1.1	1.1	8	5	3000…
3006-2.5-10-60 VP L …	3006-2.5-10-60 VP R …	■	■	■	■	M 18/20/22	–	–	2.5	1.534	1.4	1.4	8	5	3000…
3006-3.0-10-60 VP L …	3006-3.0-10-60 VP R …	■	■	■	■	M 24/27	–	–	3	1.84	1.65	1.65	8	5	3000…

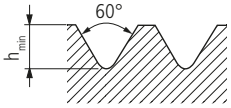
Recommendations for thread cutting ⬚164

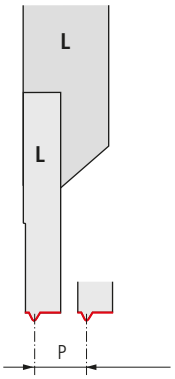


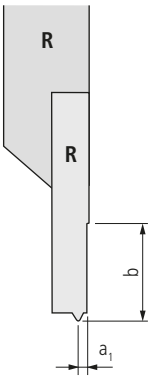
Threading (full profile metric)
Strenghten type "-S"



3006… VP-S





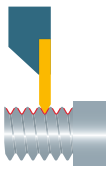


Order designation		Carbide ▯19				Standard			Dimensions						Holder ▯146…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	ISO DIN13	NIHS 06-03	NIHS 06-02	P	h_{min}	a_1	b			
STANDARD-LINE									Accuracy class of UTILIS ▯41 – +						
3006-0.25-60 VP-S L …	3006-0.25-60 VP-S R …	■	■			M 1/1.2	M 1/1.2	S1/S1.2	0.25	0.153	0.16	8			3000…
3006-0.3-60 VP-S L …	3006-0.3-60 VP-S R …	■	■			–	M1.4	S1.4	0.3	0.184	0.2	8			3000…
3006-0.35-60 VP-S L …	3006-0.35-60 VP-S R …	■	■			M1.6	M1.6/1.8	–	0.35	0.215	0.23	8			3000…
3006-0.4-60 VP-S L …	3006-0.4-60 VP-S R …	■	■			M2	M2	–	0.4	0.245	0.26	8			3000…
3006-0.45-60 VP-S L …	3006-0.45-60 VP-S R …	■	■			M2.5	M2.2/2.5	–	0.45	0.276	0.29	8			3000…
3006-0.5-60 VP-S L …	3006-0.5-60 VP-S R …	■	■			M3	M3	–	0.5	0.307	0.33	8			3000…
3006-0.6-60 VP-S L …	3006-0.6-60 VP-S R …	■	■			–	M3.5	–	0.6	0.368	0.39	8			3000…
3006-0.7-60 VP-S L …	3006-0.7-60 VP-S R …	■	■			M4	M4	–	0.7	0.429	0.46	8			3000…
3006-0.75-60 VP-S L …	3006-0.75-60 VP-S R …	■	■			–	M4.5	–	0.75	0.46	0.49	8			3000…
3006-0.8-60 VP-S L …	3006-0.8-60 VP-S R …	■	■			M5	M5	–	0.8	0.491	0.52	8			3000…
3006-1.0-60 VP-S L …	3006-1.0-60 VP-S R …	■	■			M6/7	–	–	1	0.613	0.65	8			3000…
3006-1.25-60 VP-S L …	3006-1.25-60 VP-S R …	■	■			M8/9	–	–	1.25	0.767	0.81	8			3000…
3006-1.5-60 VP-S L …	3006-1.5-60 VP-S R …	■	■			M10/11	–	–	1.5	0.92	0.98	8			3000…
3006-1.75-60 VP-S L …	3006-1.75-60 VP-S R …	■	■			M12	–	–	1.75	1.073	1.14	8			3000…
3006-2.0-60 VP-S L …	3006-2.0-60 VP-S R …	■	■			M14/16	–	–	2	1.227	1.3	8			3000…

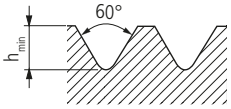
Recommendations for thread cutting ▯164

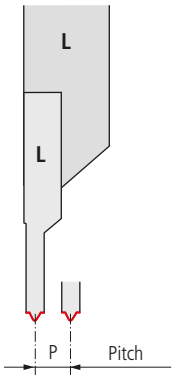
UTILIS multidec swiss type tools

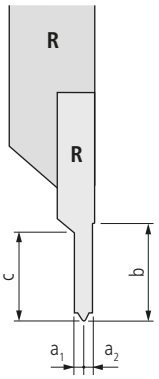
Threading (full profile UN)











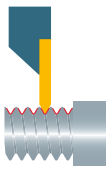
3006… UN … VP

Order designation		Carbide 19				Standard / thread type						Dimensions							Holder
						ANSI / ASME B1.1 (Tolerance class 2A / 2B / 3A / 3B)													
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	UN	UNC	UNF	UNEF	UNS	UNR	P (T/Inch)	P	h_{min}	a_1	a_2	b	c	
PREMIUM-LINE												Accuracy class of UTILIS 41							
3006-80 UN 10-60 VP L …	3006-80 UN 10-60 VP R …			■	■			●				80	0.317	0.194	0.19	0.17	8	–	3000…
3006-72 UN 10-60 VP L …	3006-72 UN 10-60 VP R …			■	■			●				72	0.353	0.217	0.21	0.19	8	–	3000…
3006-64 UN 10-60 VP L …	3006-64 UN 10-60 VP R …			■	■		●	●				64	0.397	0.244	0.24	0.22	8	–	3000…
3006-56 UN 10-60 VP L …	3006-56 UN 10-60 VP R …			■	■		●	●		●		56	0.453	0.278	0.27	0.25	8	–	3000…
STANDARD-LINE												Accuracy class of UTILIS 41							
3006-48 UN 10-60 VP L …	3006-48 UN 10-60 VP R …			■	■		●	●		●		48	0.529	0.325	0.29	0.29	8	1.4	3000…
3006-44 UN 10-60 VP L …	3006-44 UN 10-60 VP R …			■	■			●				44	0.577	0.354	0.32	0.32	8	1.4	3000…
3006-40 UN 10-60 VP L …	3006-40 UN 10-60 VP R …			■	■		●	●		●		40	0.635	0.39	0.35	0.35	8	1.8	3000…
3006-36 UN 10-60 VP L …	3006-36 UN 10-60 VP R …			■	■			●		●		36	0.705	0.432	0.39	0.39	8	1.8	3000…
3006-32 UN 10-60 VP L …	3006-32 UN 10-60 VP R …			■	■		●	●	●		●	32	0.794	0.487	0.44	0.44	8	2	3000…
3006-28 UN 10-60 VP L …	3006-28 UN 10-60 VP R …			■	■		●	●		●	●	28	0.907	0.556	0.5	0.5	8	2.2	3000…
3006-24 UN 10-60 VP L …	3006-24 UN 10-60 VP R …			■	■		●	●	●	●		24	1.058	0.649	0.58	0.58	8	2.4	3000…
3006-20 UN 10-60 VP L …	3006-20 UN 10-60 VP R …			■	■	●	●	●	●		●	20	1.27	0.779	0.7	0.7	8	2.9	3000…
3006-18 UN 10-60 VP L …	3006-18 UN 10-60 VP R …			■	■		●	●	●	●		18	1.411	0.866	0.78	0.78	8	3.4	3000…
3006-16 UN 10-60 VP L …	3006-16 UN 10-60 VP R …			■	■	●	●	●	●	●	●	16	1.588	0.974	0.87	0.87	8	3.6	3000…
3006-14 UN 10-60 VP L …	3006-14 UN 10-60 VP R …			■	■		●	●		●		14	1.814	1.113	1	1	8	3.9	3000…
3006-13 UN 10-60 VP L …	3006-13 UN 10-60 VP R …			■	■		●					13	1.954	1.199	1.07	1.07	8	4.2	3000…

Recommendations for thread cutting 164

■ New

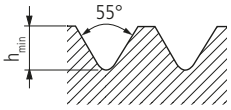
Legend 6

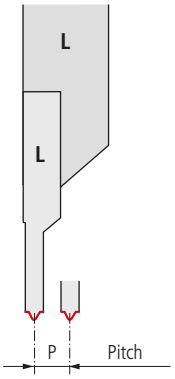


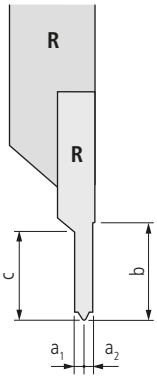
Threading (full profile pipe thread)



3006-G …VP

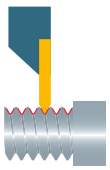






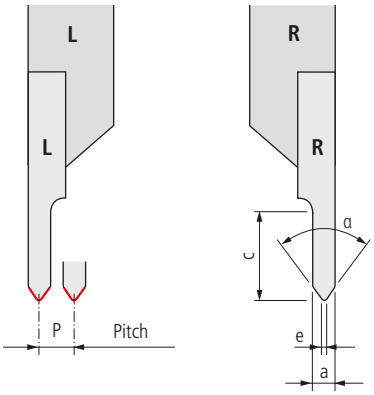
Order designation		Carbide ▯19				Standard		Dimensions							Holder ▯146…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	ANSI B1.1		P (T/Inch)	P	h_{min}	a_1	a_2	b	c	
STANDARD-LINE								Accuracy class of UTILIS ▯41							
3006-G 28 10-55 VP L …	3006-G 28 10-55 VP R …			■	■	1/8		28	0.907	0.581	0.5	0.5	8	2.3	3000…
						1/16		28	0.907	0.581	0.5	0.5	8	2.3	3000…
3006-G 19 10-55 VP L …	3006-G 19 10-55 VP R …			■	■	1/4		19	1.337	0.856	0.74	0.74	8	3.3	3000…
						3/8		19	1.337	0.856	0.74	0.74	8	3.3	3000…
3006-G 14 10-55 VP L …	3006-G 14 10-55 VP R …			■	■	1/2		14	1.814	1.162	1	1	8	4.5	3000…
						5/8		14	1.814	1.162	1	1	8	4.5	3000…
						3/4		14	1.814	1.162	1	1	8	4.5	3000…
						7/8		14	1.814	1.162	1	1	8	4.5	3000…
3006-G11 10-55 VP L …	3006-G11 10-55 VP R …			■	■	1		11	2.309	1.479	1.27	1.27	8	5	3000…
						1 1/8		11	2.309	1.479	1.27	1.27	8	5	3000…
						1 1/4		11	2.309	1.479	1.27	1.27	8	5	3000…
						1 1/2		11	2.309	1.479	1.27	1.27	8	5	3000…
						1 3/4		11	2.309	1.479	1.27	1.27	8	5	3000…
						2		11	2.309	1.479	1.27	1.27	8	5	3000…
						2 1/4		11	2.309	1.479	1.27	1.27	8	5	3000…
						2 1/2		11	2.309	1.479	1.27	1.27	8	5	3000…
						2 3/4		11	2.309	1.479	1.27	1.27	8	5	3000…
						3		11	2.309	1.479	1.27	1.27	8	5	3000…
						3 1/2		11	2.309	1.479	1.27	1.27	8	5	3000…
						4		11	2.309	1.479	1.27	1.27	8	5	3000…
						4 1/2		11	2.309	1.479	1.27	1.27	8	5	3000…
						5		11	2.309	1.479	1.27	1.27	8	5	3000…
						5 1/2		11	2.309	1.479	1.27	1.27	8	5	3000…
						6		11	2.309	1.479	1.27	1.27	8	5	3000…

Recommendations for thread cutting ▯164



Threading (partial profile 60°/55°)





3006…

Order designation		Carbide 19				Dimensions								Holder
		○ ○ ○ –	● ● ○ –	○ ○ ○ ●	○ ● ● ○									146…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	P	a	c	α	e				
STANDARD-LINE										Accuracy class of UTILIS 41 – +				
3006-2-6-60 L …	3006-2-6-60 R …	■	■	■	■	0.25–2	2	6	60°	0.035				3000…
3006-2-6-55 L …	3006-2-6-55 R …			■	■	0.25–2	2	6	55°	0.035				3000…
3006-3-10-60 L …	3006-3-10-60 R …	■	■	■	■	0.25–2	3	10	60°	0.035				3000…
3006-3-10-55 L …	3006-3-10-55 R …			■	■	0.25–2	3	10	55°	0.035				3000…

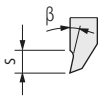
Recommendations for thread cutting 164

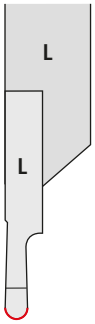


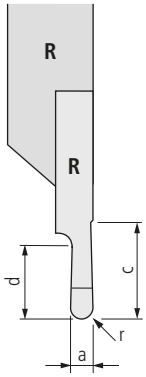
Radius-grooving



3007…







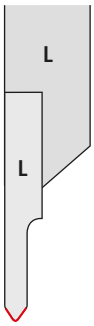
Order designation		Carbide 19				Dimensions								Holder
		○ ○ ○ –	● ● ○ –	○ ○ ○ ●	○ ● ○ ○									146…
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	d	β	r	s			
PREMIUM-LINE									Accuracy class of UTILIS 41					
3007-R0.25-2-10 L …	3007-R0.25-2-10 R …	■	■	■	■	0.5	12	2	6°	0.25	2			3000…
STANDARD-LINE									Accuracy class of UTILIS 41					
3007-R0.5-2.5-10 L …	3007-R0.5-2.5-10 R …	■	■	■	■	1	12	2.5	6°	0.5	2			3000…
3007-R0.6-2.5-10 L …	3007-R0.6-2.5-10 R …	■	■	■	■	1.2	12	2.5	6°	0.6	2			3000…
3007-R0.75-3-10 L …	3007-R0.75-3-10 R …	■	■	■	■	1.5	12	3	6°	0.75	2			3000…
3007-R0.8-3-10 L …	3007-R0.8-3-10 R …	■	■	■	■	1.6	12	3	6°	0.8	2			3000…
3007-R1.0-10 L …	3007-R1.0-10 R …	■	■	■	■	2	12	10	6°	1	2			3000…
3007-R1.5-10 L …	3007-R1.5-10 R …	■	■	■	■	3	12	10	6°	1.5	2			3000…
3007-R1.5-16 L …	3007-R1.5-16 R …	■	■	■	■	3	17	16	6°	1.5	2			3000…

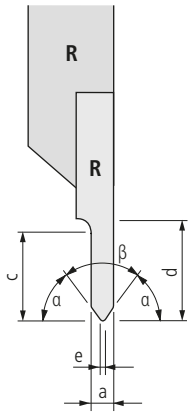
UTILIS multidec swiss type tools



Chamfering







3012…

Order designation		Carbide ▯19				Dimensions								Holder
		○	●	○	○									▯146…
		○	●	○	●									
		○	○	○	●									
		–	–	●	○									
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	d	α	β	e			
STANDARD-LINE									Accuracy class of UTILIS ▯41 – | +					
3012-2-6-60 L …	3012-2-6-60 R …			■	■	2	2	10	60°	60°	0.035			3000…
3012-2-10-45 L …	3012-2-10-45 R …			■	■	2	10	12	45°	90°	–			3000…

3099…



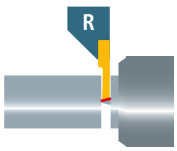
Product description
Development and production of multidec® tools for your own specific needs.

Customer's situation
A special machining method makes it impossible or difficult to use tools from the standard multidec® range. You need a special insert, a special tool or coating which is not included in our standard product range.

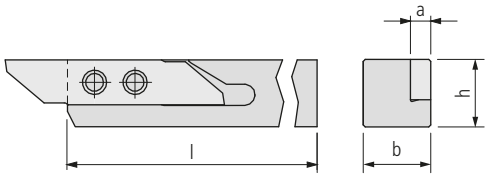
UTILIS solution
After detailed consultation, we will develop and make the best multidec® solution for your particular needs. Normally this will be done using standard blanks which enable the special tools to be produced and delivered quickly and at reasonable cost. The familiar multidec® quality is of course always guaranteed.

Advantages:
– UTILIS know-how and quality also for special tools
– Standard blanks permit fast and reasonably priced delivery
– Tools developed to meet your specific needs







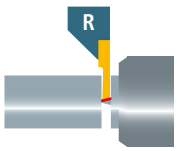


3000…

Order designation L		Order designation R		Dimensions h	b	l	a					Inserts ▯109…
STANDARD-LINE								Accuracy class of UTILIS ▯41				
3000-08x80 L	■	3000-08x80 R	■	8	8	80	3.5					30…
3000-08x100 L	■	3000-08x100 R	■	8	8	100	3.5					30…
3000-10x80 L	■	3000-10x80 R	■	10	10	80	3.5					30…
3000-10x100 L	■	3000-10x100 R	■	10	10	100	3.5					30…
3000-12x100 L	■	3000-12x100 R	■	12	12	100	3.5					30…
3000-16x125 L	■	3000-16x125 R	■	16	16	125	3.5					30…
3000-20x125 L	■	3000-20x125 R	■	20	20	125	3.5					30…
3000-25x150 L	■	3000-25x150 R	■	25	25	150	3.5					30…
VALUE-LINE								Accuracy class of UTILIS ▯41				
3000 B-10x100 L	■	3000 B-10x100 R	■	10	10	100	3					30…
3000 B-12x100 L	■	3000 B-12x100 R	■	12	12	100	3					30…
3000 B-16x125 L	■	3000 B-16x125 R	■	16	16	125	3					30…

3000… INCH

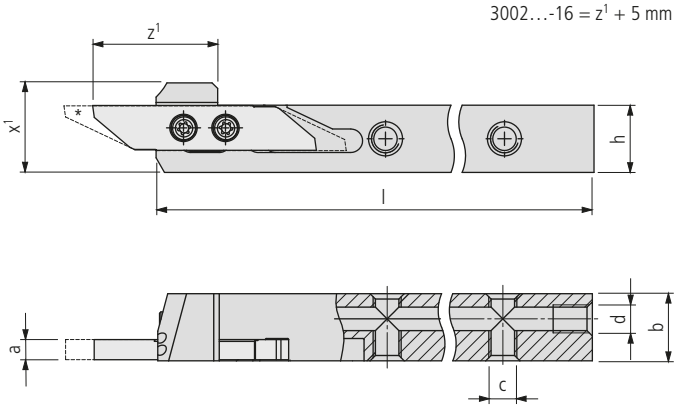
Order designation L		Order designation R		Dimensions h	b	l	a					Inserts ▯109…
STANDARD-LINE								Accuracy class of UTILIS ▯41				
3000-3/8"x80 L	■	3000-3/8"x80 R	■	9.525	9.525	80	3.5					30…
3000-3/8"x100 L	■	3000-3/8"x100 R	■	9.525	9.525	100	3.5					30…
3000-1/2"x100 L	■	3000-1/2"x100 R	■	12.7	12.7	100	3.5					30…
3000-5/8"x125 L	■	3000-5/8"x125 R	■	15.875	15.875	125	3.5					30…
3000-3/4"x125 L	■	3000-3/4"x125 R	■	19.05	19.05	125	3.5					30…



With internal cooling



* 3002…-13 = z^1 + 5 mm
3002…-16 = z^1 + 5 mm



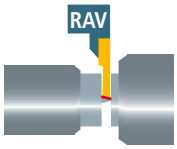
3000… IC

Order designation L		Order designation R		Dimensions h	b	l	a	z^1	x^1	c	d	Inserts 109…
PREMIUM-LINE				Accuracy class of UTILIS 41								
3000-08x100 L IC	■	3000-08x100 R IC	■	8	12	100	3.5	21	12.2	M5	M5	30…
3000-10x100 L IC	■	3000-10x100 R IC	■	10	12	100	3.5	21	14	M5	M5	30…
3000-12x100 L IC	■	3000-12x100 R IC	■	12	12	100	3.5	21	16	M5	M5	30…
3000-16x125 L IC	■	3000-16x125 R IC	■	16	16	125	3.5	21	20	M5	G1/8"	30…
3000-20x125 L IC	■	3000-20x125 R IC	■	20	20	125	3.5	21	24	M5	G1/8"	30…
3000-25x125 L IC	■	3000-25x125 R IC	■	25	25	125	3.5	21	29	M5	G1/8"	30…

3000… IC INCH

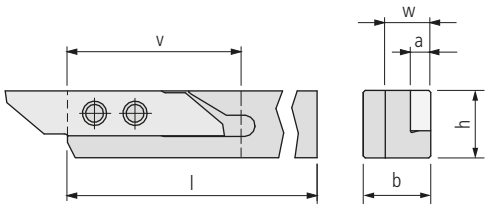
Order designation L		Order designation R		Dimensions h	b	l	a	z^1	x^1	c	d	Inserts 109…
PREMIUM-LINE				Accuracy class of UTILIS 41								
3000-3/8"x100 L IC	■	3000-3/8"x100 R IC	■	9.525	9.525	100	3.5	21	13.5	M5	M5	30…
3000-1/2"x100 L IC	■	3000-1/2"x100 R IC	■	12.7	12.7	100	3.5	21	16.7	M5	M5	30…
3000-5/8"x125 L IC	■	3000-5/8"x125 R IC	■	15.875	15.875	125	3.5	21	19.9	M5	G1/8"	30…
3000-3/4"x125 L IC	■	3000-3/4"x125 R IC	■	19.05	19.05	125	3.5	21	23	M5	G1/8"	30…

Scope of delivery: Holder without coolant connector
Coolant connectors 632



With off-set shank



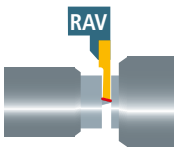


3000… AV

Order designation L		Order designation R		Dimensions h	b	l	v	w	a			Inserts 109…
STANDARD-LINE				Accuracy class of UTILIS 41								
3000-10x80 LAV	■	3000-10x80 RAV	■	10	10	80	28	8	3.5			30…
3000-10x100 LAV	■	3000-10x100 RAV	■	10	10	100	28	8	3.5			30…
3000-12x100 LAV	■	3000-12x100 RAV	■	12	12	100	28	8	3.5			30…
3000-16x125 LAV	■	3000-16x125 RAV	■	16	16	125	28	8	3.5			30…

3000… AV INCH

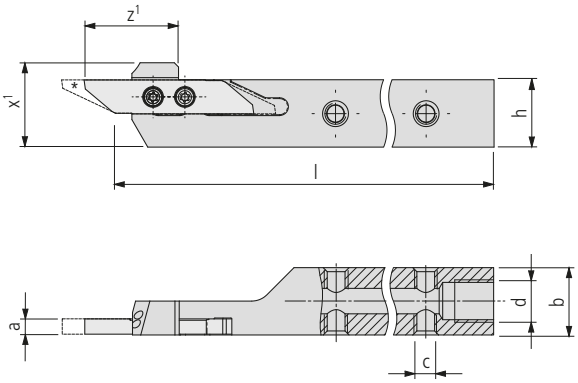
Order designation L		Order designation R		Dimensions h	b	l	v	w	a			Inserts 109…
STANDARD-LINE				Accuracy class of UTILIS 41								
3000-3/8"x80 LAV	■	3000-3/8"x80 RAV	■	9.525	9.525	80	28	8	3.5			30…
3000-3/8"x100 LAV	■	3000-3/8"x100 RAV	■	9.525	9.525	100	28	8	3.5			30…
3000-1/2"x100 LAV	■	3000-1/2"x100 RAV	■	12.7	12.7	100	28	8	3.5			30…
3000-5/8"x125 LAV	■	3000-5/8"x125 RAV	■	15.85	15.875	125	28	8	3.5			30…



With off-set shank and internal cooling



* 3002…-13 = z^1 + 5 mm
3002…-16 = z^1 + 5 mm



3000… AV IC

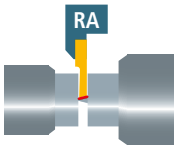
Order designation L		Order designation R		Dimensions h	b	l	a	z^1	x^1	c	d	Inserts 109…
PREMIUM-LINE				Accuracy class of UTILIS 41								
3000-16x125 LAV IC	■	3000-16x125 RAV IC	■	16	16	125	3.5	22	20	M5	G1/8"	30…

3000… AV IC INCH

Order designation L		Order designation R		Dimensions h	b	l	a	z^1	x^1	c	d	Inserts 109…
PREMIUM-LINE				Accuracy class of UTILIS 41								
3000-5/8"x125 LAV IC	■	3000-5/8"x125 RAV IC	■	15.875	15.875	125	3.5	22	20	M5	G1/8"	30…

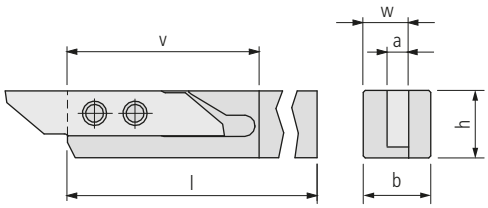
Scope of delivery: Holder without coolant connector
Coolant connectors 632

Note
This holder type is available with interior cooling from a shank cross section of 16 mm or ⅝" .



With off-set shank and insert seat



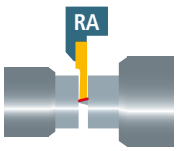


3000… A

Order designation L		Order designation R		Dimensions h	b	l	v	w	a			Inserts 109…
STANDARD-LINE				Accuracy class of UTILIS 41								
3000-10x80 LA	■	3000-10x80 RA	■	10	10	80	37	8	3.5			30…
3000-10x100 LA	■	3000-10x100 RA	■	10	10	100	37	8	3.5			30…
3000-12x100 LA	■	3000-12x100 RA	■	12	12	100	37	8	3.5			30…
3000-16x125 LA	■	3000-16x125 RA	■	16	16	125	37	8	3.5			30…

3000… A INCH

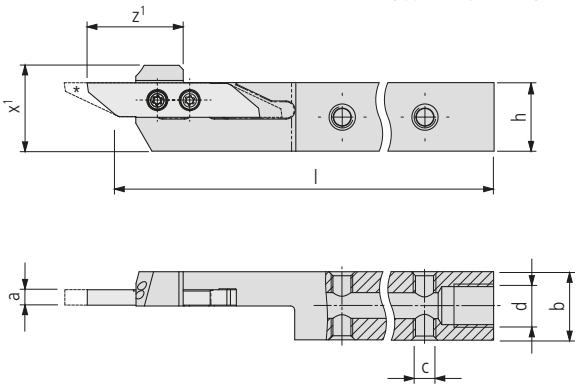
Order designation L		Order designation R		Dimensions h	b	l	v	w	a			Inserts 109…
STANDARD-LINE				Accuracy class of UTILIS 41								
3000-3/8"x80 LA	■	3000-3/8"x80 RA	■	9.525	9.525	80	37	8	3.5			30…
3000-3/8"x100 LA	■	3000-3/8"x100 RA	■	9.525	9.525	100	37	8	3.5			30…
3000-1/2"x100 LA	■	3000-1/2"x100 RA	■	12.7	12.7	100	37	8	3.5			30…
3000-5/8"x125 LA	■	3000-5/8"x125 RA	■	15.875	15.875	125	37	8	3.5			30…



With off-set shank, insert seat and internal cooling



* 3002…-13 = z^1 + 5 mm
3002…-16 = z^1 + 5 mm



3000… A IC

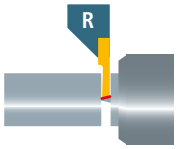
Order designation				Dimensions								Inserts
L		R		h	b	l	a	z^1	x^1	c	d	109…
PREMIUM-LINE				Accuracy class of UTILIS 41								
3000-16x125 LA IC	■	3000-16x125 RA IC	■	16	16	125	3.5	22	20	M5	G1/8"	30…

3000… A IC INCH

Order designation				Dimensions								Inserts
L		R		h	b	l	a	z^1	x^1	c	d	109…
PREMIUM-LINE				Accuracy class of UTILIS 41								
3000-5/8"x125 LA IC	■	3000-5/8"x125 RA IC	■	15.875	15.875	125	3.5	22	20	M5	G1/8"	30…

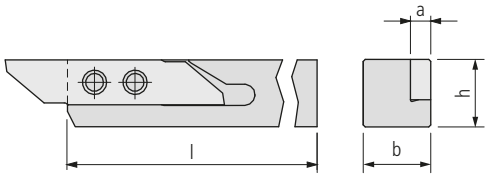
Scope of delivery: Holder without coolant connector
Coolant connectors 632

Note
This holder type is available with interior cooling from a shank cross section of 16 mm or ⅝" .



Clamping of insert from the back side





3000… C (Combi)

Order designation L		Order designation R		Dimensions h	b	l	a					Inserts 🗋109…
STANDARD-LINE							Accuracy class of UTILIS 🗋41 – +					
3000-08x100 LC	■	3000-08x100 RC	■	8	8	100	3.5					30…
3000-10x100 LC	■	3000-10x100 RC	■	10	10	100	3.5					30…
3000-12x100 LC	■	3000-12x100 RC	■	12	12	100	3.5					30…
3000-16x125 LC	■	3000-16x125 RC	■	16	16	125	3.5					30…
3000-20x125 LC	■	3000-20x125 RC	■	20	20	125	3.5					30…

3000… C (Combi) INCH

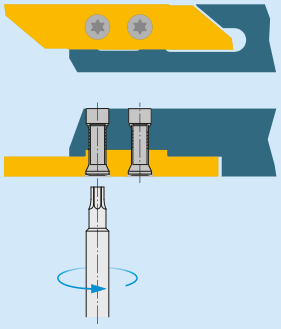
Order designation L		Order designation R		Dimensions h	b	l	a					Inserts 🗋109…
STANDARD-LINE							Accuracy class of UTILIS 🗋41 – +					
3000-3/8"x100 LC	■	3000-3/8"x100 RC	■	9.525	9.525	100	3.5					30…
3000-1/2"x100 LC	■	3000-1/2"x100 RC	■	12.7	12.7	100	3.5					30…
3000-5/8"x125 LC	■	3000-5/8"x125 RC	■	15.875	15.875	125	3.5					30…
3000-3/4"x125 LC	■	3000-3/4"x125 RC	■	19.05	19.05	125	3.5					30…

Clamping of the insert on holder 3000…C 🗋153

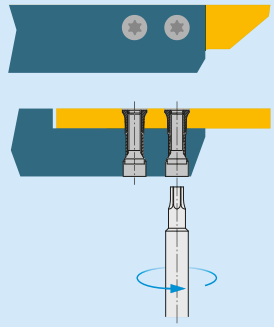
Clamping of the insert on holder 3000…C (Combi) — *multidec®-CUT 3000*

The regular tool holder multidec®-CUT 3000 uses the insert fixing screws from the side of the insert. The tool holder CUT 3000 C "Combi" allows in addition the insert fixing screws to be mounted from the opposite side using tapped bushings.

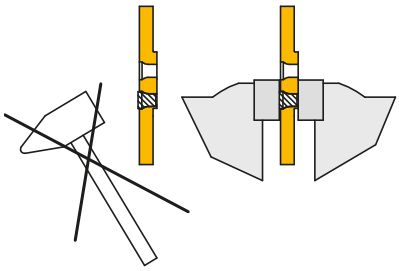
3000 (Standard)



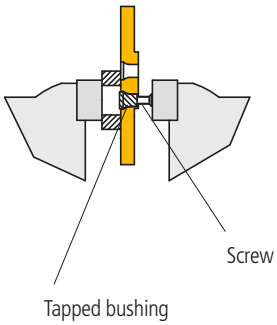
3000… C (Combi)



Press in



Press out



To avoid damage don't use excessive force while inserting and removing the tapped bushing.

Replacement and spare parts — *multidec®-CUT 3000*

Illustration	Description	Dimensions	Order designation		Holder
	TORX screw	M2.5 × 9 T08	MSP 25090 T08	■	3000…C
		M3 × 7.3 T08	MSP 30073 T08	■	3000-08…* 3000…A
		M3 × 9 T08	MSP 30090 T08	■	3000…**
	Tapped bushing Ø 3.55	M2.5 × 4	MSP 25040 GB2	■	3000…C

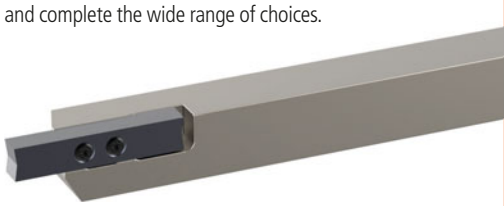
C: Combi; A: offset shank
* Holder up to shank width of 8 mm
** Holder from shank width of 10 mm

TORX screwdriver 664



A turn and cut-off tool for Swiss type lathes up to bar diameter 20 mm. The cutting inserts consist of two cutting edges. The insert seat, which is protected against contamination permits 100 % utilization of all cutting edges.
Even for holders a wide range of possibilities with shank sizes between 8 and 25 mm are available. For Swiss type automatic lathes special holders have been designed and complete the wide range of choices.





Advantages:
– System for grooving large and wide forms up to 6 mm
– The machine operator can grind his own cutting geometries



"IC" tool holder with integrated cooling

Cost-efficient processing of modern materials increasingly requires accurate control of the coolant at the cutting edge. Conveying the coolant as close as possible to the cutting edge is often a difficult task in the machine rooms of Swiss type turning lathes.
The multidec®-IC program offers a wide range of holders with integrated cooling. Because of the high precision and pressure, it is possible to discharge the chip quickly and safely from the cutting edge and the workpiece, which protects the cutting edge of the insert. This means significantly longer tool life as well as very reliable serial production.

Advantages:
– All holders feature five possible connectors for the coolant supply
– Fixed coolant exit allows for small set-up in front of the holder
– With or without high pressure, the coolant medium always hits the cutting edge precisely

Technical information 9



Inserts
3601… 156
3605… 157
3699… (special inserts) 158



Holders
3600…, 3600… IC 159

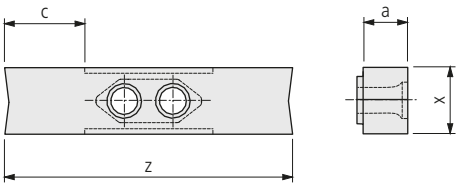


Replacement and spare parts 161

UTILIS multidec swiss type tools

Blank





3601…

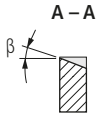
Order designation	Carbide 19		HSS		Dimensions						Holder 159…
	●	●	●	●							
	○	●	○	●							
	○	●	–	○							
	●	○	●	○							
L	UHM 30	UHM 30 HX	HSS	HSS HX	a	c	x	z			
PREMIUM-LINE								Accuracy class of UTILIS 41			
3601-6-10 N P …*	■	■			6	11	8	40.5			3600…
STANDARD-LINE								Accuracy class of UTILIS 41			
3601-6-10 N …	■	■	■	■	6	11	8	40.5			3600…

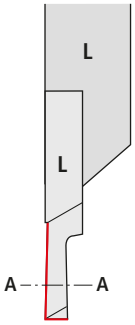
* Mirror polished

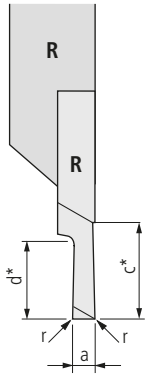


Grooving and turning









3605… CP

Order designation		Carbide		Dimensions								Holder
		●	●									159…
		○	●									
		○	●									
		●	○									
L	R	UHM30	UHM30 HX	a	c*	d*	r	β				
STANDARD-LINE							Accuracy class of UTILIS 41					
							– +					
3605-4.0-10 L CP …	3605-4.0-10 R CP …	■	■	4	10	10	–	10°				3600…
3605-4.0-10 L CP R08 …	3605-4.0-10 R CP R08 …	■	■	4	10	10	0.08	10°				3600…
3605-4.0-10 L CP R15 …	3605-4.0-10 R CP R15 …	■	■	4	10	10	0.15	10°				3600…

* c: maximal turning capacity
d: maximal grooving capacity

3699…



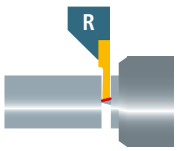
Product description
Development and production of multidec® tools for your own specific needs.

Customer's situation
A special machining method makes it impossible or difficult to use tools from the standard multidec® range. You need a special insert, a special tool or coating which is not included in our standard product range.

UTILIS solution
After detailed consultation, we will develop and make the best multidec® solution for your particular needs. Normally this will be done using standard blanks which enable the special tools to be produced and delivered quickly and at reasonable cost. The familiar multidec® quality is of course always guaranteed.

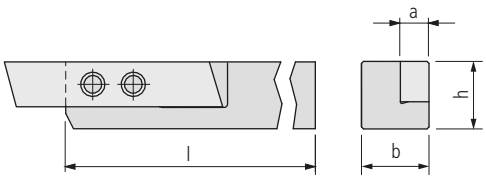
Advantages:
– UTILIS know-how and quality also for special tools
– Standard blanks permit fast and reasonably priced delivery
– Tools developed to meet your specific needs





Standard



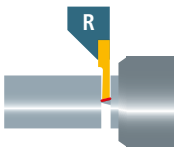


3600…

Order designation				Dimensions								Inserts
L		R		h	b	l	a					156…
STANDARD-LINE				Accuracy class of UTILIS 41								
3600-10x80 L	■	3600-10x80 R	■	10	10	80	6					36…
3600-10x100 L	■	3600-10x100 R	■	10	10	100	6					36…
3600-12x100 L	■	3600-12x100 R	■	12	12	100	6					36…
3600-16x125 L	■	3600-16x125 R	■	16	16	125	6					36…
3600-20x125 L	■	3600-20x125 R	■	20	20	125	6					36…
3600-25x150 L	■	3600-25x150 R	■	25	25	150	6					36…

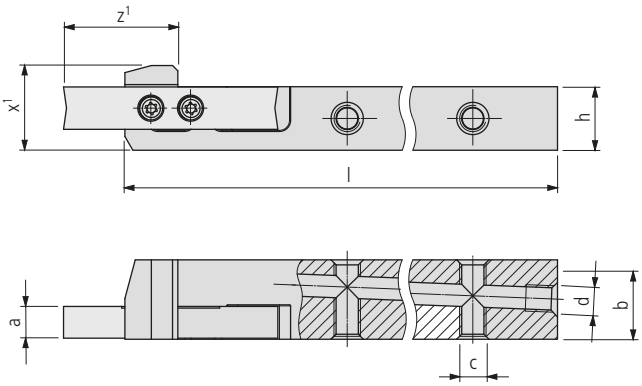
3600… INCH

Order designation				Dimensions								Inserts
L		R		h	b	l	a					156…
STANDARD-LINE				Accuracy class of UTILIS 41								
3600-3/8"x80 L	■	3600-3/8"x80 R	■	9.525	9.525	80	6					36…
3600-3/8"x100 L	■	3600-3/8"x100 R	■	9.525	9.525	100	6					36…
3600-1/2"x100 L	■	3600-1/2"x100 R	■	12.7	12.7	100	6					36…
3600-5/8"x125 L	■	3600-5/8"x125 R	■	15.875	15.875	125	6					36…
3600-3/4"x125 L	■	3600-3/4"x125 R	■	19.05	19.05	125	6					36…



With internal cooling





3600… IC

Order designation L		Order designation R		Dimensions h	b	l	a	z1	x1	c	d	Inserts 156…
PREMIUM-LINE				Accuracy class of UTILIS 41								
3600-1215x100 L IC	■	3600-1215x100 R IC	■	12	15	100	6	21	16	M5	M5	36…
3600-16x125 L IC	■	3600-16x125 R IC	■	16	16	125	6	21	20	M5	G1/8"	36…
3600-20x125 L IC	■	3600-20x125 R IC	■	20	20	125	6	21	24	M5	G1/8"	36…
3600-25x125 L IC	■	3600-25x125 R IC	■	25	25	125	6	21	29	M5	G1/8"	36…

3600… IC INCH

Order designation L		Order designation R		Dimensions h	b	l	a	z1	x1	c	d	Inserts 156…
PREMIUM-LINE				Accuracy class of UTILIS 41								
3600-1/2"15x100 L IC	■	3600-1/2"15x100 R IC	■	12.7	15	100	6	21	16.7	M5	M5	36…
3600-5/8"x125 L IC	■	3600-5/8"x125 R IC	■	15.875	15.875	125	6	21	19.9	M5	G1/8"	36…
3600-3/4"x125 L IC	■	3600-3/4"x125 R IC	■	19.05	19.05	125	6	21	23	M5	G1/8"	36…

Scope of delivery: Holder without coolant connector
Coolant connectors 632

Illustration	Description	Dimensions	Order designation		Holder
	TORX PLUS screw	M3 × 9 T08	MSP 30090 T08	■	3600-10…/3600-3/8"…*
		M3 × 11 TP09	MSP 30110 TP09	■	3600…**

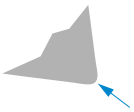
* Holder up to shank width of 10 mm
** Holder from shank width of 12 mm

TORX screwdriver □664

Cutting specification — multidec®-CUT

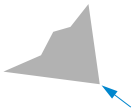
	Steel unalloyed			Steel low alloyed			Steel high alloyed			Titanium		
Hardness value (HB)	125–300			180–250			200–350			–		
Category	I			II			III			IV		
Machining method	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼
Feeds	f (mm/rev)											
	0.1–0.25	0.02–0.15	0.005–0.08	0.1–0.25	0.02–0.15	0.005–0.08	0.1–0.25	0.02–0.15	0.005–0.08	0.1–0.25	0.02–0.08	0.005–0.06
Depths of cut	a_p (mm)											
	<5	<3	<2	<5	<3	<2	<4	<2.5	<1.5	<4	<2.5	<1.5
Cutting speeds	v_c (m/min)											
Cutting material carbide												
UHM 20	40–110	60–120	60–140	60–100	60–120	60–130	40–90	60–110	60–120	40–60	50–70	60–80
UHM 20 HPX	150–200	180–220	200–260	80–150	100–180	160–220	70–100	90–150	120–180	50–100	60–120	60–140
UHM 30	30–70	50–80	50–100	30–60	40–80	40–90	–	30–70	30–80	–	25–60	30–70
UHM 30 HX	50–140	50–180	50–220	50–130	50–160	50–200	40–120	50–140	50–180	30–90	40–100	40–120
Cutting material HSS												
HSS	25–30	25–35	25–40	20–30	20–35	20–35	15–20	15–25	15–30	10–20	15–20	15–25
HSS HX	30–40	35–40	35–50	25–35	25–40	25–45	20–30	20–30	20–35	20–30	20–30	20–35

Cutting specification "GS" — multidec®-CUT



E: Insert with rounded cutting edge

Material number	Standards				Cutting speeds	Feeds
	DIN	AFNOR	AISI/SAE/ASTM	JIS	Vc (m/min)	f (mm/rev)
1.0715	11 SMn 30, 9 SMn 28	S 250	1213	SUM 22	80–150	0.05–0.25
1.0718	11 SMn 30, 9 SMnPb 28	S 250 Pb	12 L 13	SUM 22 L, SUM 23 L, SUM 24 L		
1.0736	11 SMn 37, 9 SMn 36	S 300	1215	SUM 25		
1.0737	11 SMnPb 37, 9 SMnPb 36	S 300 Pb	12 L 14	–		
1.4104	X 12 CrMoS 17	Z 10 CF 17	430 F	SUS 430 F	120–150	0.05–0.15
1.4301	X5 CrNi 18-10	Z 6 CN 18-10	304, 304 H	SUS304	80–100	0.05–0.07
1.4305	X 8 CrNiS 18-9	Z 8 CNF 18-09	303	SUS 303	120–150	0.05–0.15
1.4435	X2 CrNiMo 18-14-3	Z3 CND 18-14-03	316L	SUS316L, SCS16	80–90	0.08–0.1
3.4365	AlZnMgCu1.5	–	7075	–	180–200	0.15–0.2



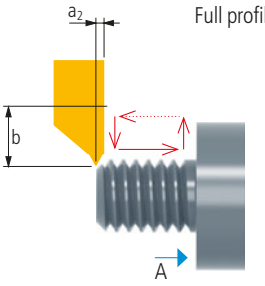
F: Insert with sharp cutting edge

Material number	Standards				Cutting speeds	Feeds
	DIN	AFNOR	AISI/SAE/ASTM	JIS	Vc (m/min)	f (mm/rev)
1.4104	X 12 CrMoS 17	Z 10 CF 17	430 F	SUS 430 F	120–150	0.04–0.12
1.4301	X5 CrNi 18-10	Z 6 CN 18-10	304, 304 H	SUS304	80–100	0.04–0.06
1.4305	X 8 CrNiS 18-9	Z 8 CNF 18-09	303	SUS 303	120–150	0.04–0.12
1.4435	X2 CrNiMo 18-14-3	Z3 CND 18-14-03	316L	SUS316L, SCS16	80–90	0.06–0.08
3.7165	TiAl6V4	T-A6V	B348	KS-130AV	55–65	0.03–0.05

	Stainless steel			Stainless steel			Aluminum			Brass		
Hardness value (HB)	180–220			220–330			60–130			–		
Category	V			VI			VII			VIII		
Machining method	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼
Feeds	f (mm/rev)											
	0.1–0.2	0.01–0.12	0.005–0.08	0.1–0.2	0.01–0.12	0.005–0.08	0.1–0.3	0.02–0.25	0.005–0.20	0.1–0.3	0.02–0.15	0.005–0.10
Depths of cut	a_p (mm)											
	<4	<2.5	<1.5	<4	<2.5	<1.5	<5	<3	<2	<5	<3	<2
Cutting speeds	v_c (m/min)											
Cutting material carbide												
UHM 20	40–100	40–110	40–120	30–70	30–80	30–80	100–1500	120–2000	160–2500	80–300	100–400	120–500
UHM 20 HPX	90–150	110–180	160–200	70–90	90–120	110–150	–	–	–	–	–	–
UHM 30	–	30–70	30–80	–	20–40	20–40	50–1000	60–1200	80–1500	40–100	50–140	50–160
UHM 30 HX	40–100	40–140	40–180	30–60	40–70	40–90	70–1500	80–2000	100–3000	50–150	50–200	50–250
Cutting material HSS												
HSS	15–20	15–25	15–30	10–20	15–20	15–25	30–80	40–80	50–90	30–50	30–60	40–70
HSS HX	20–30	20–30	20–35	20–30	20–30	20–35	40–90	50–100	50–120	40–60	40–80	50–90

Legend 6

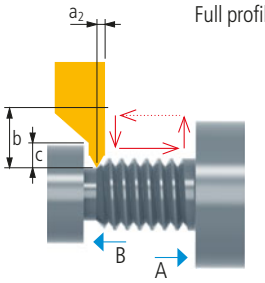
Properties and applications



Full profile threading inserts 1606… VP / 3006… VP up to pitch of 0.45 mm

Properties:
– Insert front side ground far back (b)
– At a minimum reduced distance between the thread tip and front side (a_2)

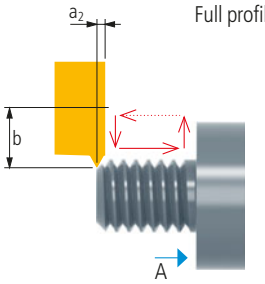
This makes it possible to move extremely close to the shoulder (A) with an extremely narrow or non-existent undercut.



Full profile threading inserts 1606… VP / 3006… VP from pitch of 0.5 mm

Properties:
– Insert front side ground far back (b)
– At a minimum reduced distance between the thread tip and front side (a_2)
– Back of insert ground free towards the rear (c)

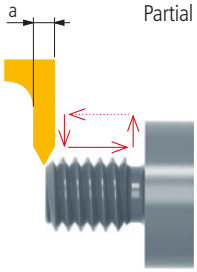
This makes it possible to move extremely close to the shoulder (A) with an extremely narrow or non-existent undercut. This version also makes it possible to manufacture a thread behind a shoulder (B).



Full profile threading inserts, reinforced 3006… VP – from pitch of 0.25 mm

Properties:
– Insert front side ground far back (b)
– At a minimum reduced distance between the thread tip and front side (a_2)
– Reinforcement of the threading profile using a special cut

The reinforcement makes it possible to reduce the number of passes by up to 20 %. It is possible to move extremely close to the shoulder (A) with an extremely narrow or non-existent undercut.



Partial profile threading inserts 1606… / 3006… with pitch of 0.25–2 mm

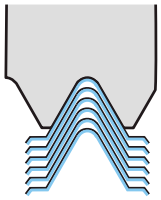
Properties:
– Front of insert with wide partial profile cut (a) for covering a bigger pitch area

This makes it possible to manufacture various pitches with the same indexable insert, but requires an undercut for smaller pitches.

Number of passes

Pitch (mm)	0.06–0.09	0.1–0.35	0.4	0.45	0.5	0.75	0.8	1	1.25	1.5	1.75	2–2.5
(T/Inch)	–	80/72	64	56	48/44	40/36	32	28/24	20/19	18/16	14	13/11
Steel	2–4	3–5	3–6	3–7	5–10	7–11	7–12	8–15	10–18	11–22	12–24	15–28
Stainless steel	3–6	4–7	5–8	6–9	8–10	9–12	10–15	11–17	13–20	18–22	20–26	25–30
Titanium	3–6	4–7	5–8	6–9	8–10	9–12	10–15	11–17	13–20	18–22	20–26	25–30
Non-ferrous metal	2–4	3–5	3–6	3–7	3–8	4–9	5–10	6–11	7–14	8–16	8–16	17–22

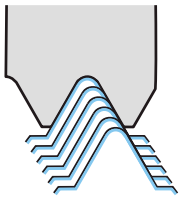
Choice of feed movement



Radial feed

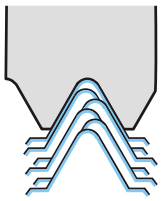
Applicability:
– For conventional lathes
– For piches < 2 mm
– Short chipping materials

Disadvantage:
– Poor chip control



Feed on the flanks

Applicability:
– For CNC lathes
– For piches 2 to 4 mm
– Long chipping materials
– Good chip control

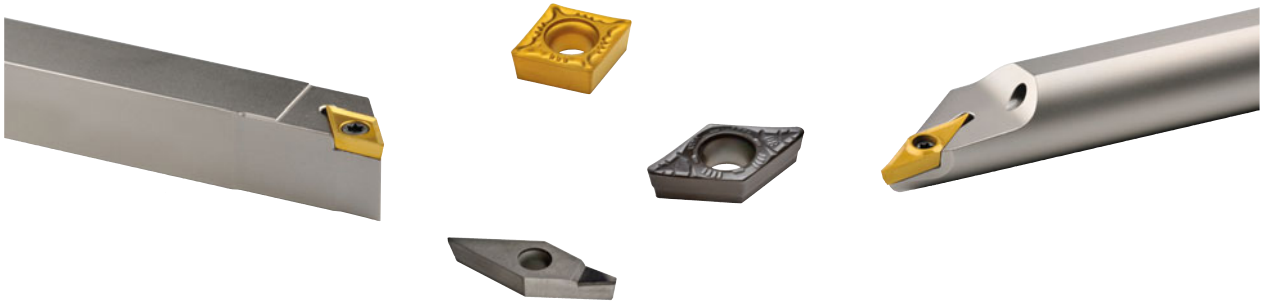


Alternated feed

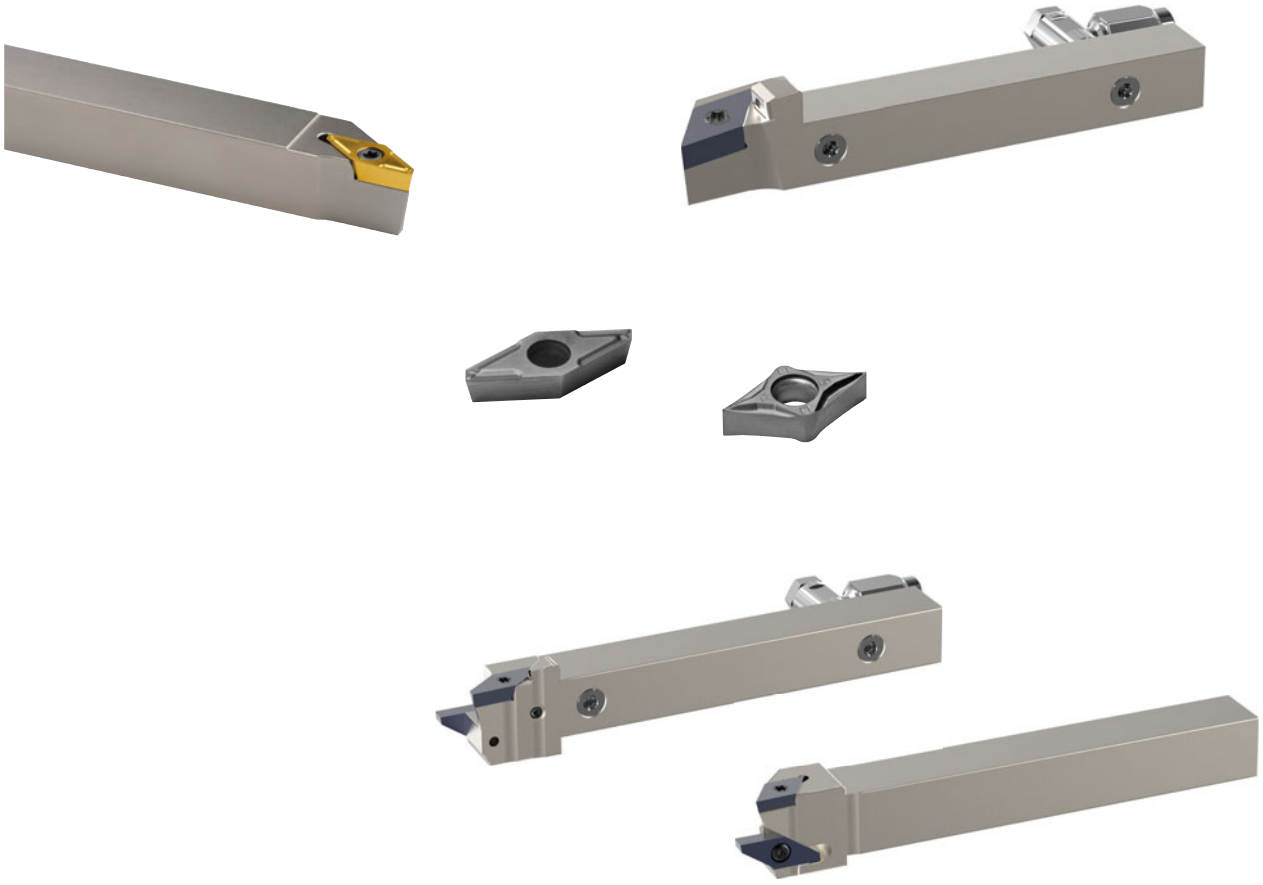
Applicability:
– For piches > 4 mm
– Long chipping meterials
– Regular wear of insert
– High tool-life
– Good chip control

Disadvantage:
– Complex CNC-programming

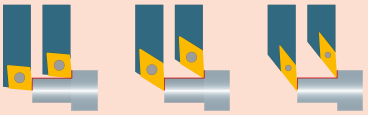
multidec®-ISO provides a very wide range of ISO standardized inserts for Swiss type machining and precision turning. All inserts consist of two or more edges and are easily indexed or changed.
At the same time multidec®-ISO provides a very stable and sharp cutting edge with a maximum radius between 0 and 0.8 mm. Innovative solutions involving coated and uncoated inserts made of carbide, cermets and diamond tips have been designed to cut very difficult materials. For all mechanical cutting conditions a large choice of sintered and ground inserts with a wide variety of chip grooves are available. Even for the holders a wide range of possibilities with shank sizes between 8 and 25 mm are available. For Swiss type automatic lathes special holders have been designed and complete the wide range of choices.



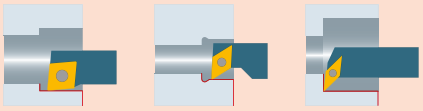
Advantages:
- Large range of standard ISO inserts
- Sharp cutting edges "F"
- Rounded cutting edges "E"
- Small corner radius (0–0.80 mm)
- Especially designed holders for CNC Swiss type automatic lathes (sizes 8×8 to 25×25 mm)



Technical information 9



Application OD turning 168



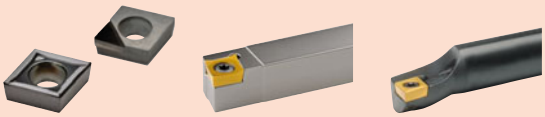
Application ID turning 170



Product lines and accuracy classes of UTILIS 171



Designation system (ISO) 172



Overview type CC… (80°) 177



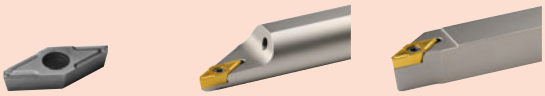
Overview type DC… (55°) 205



Overview type DN… (55°) 249



Overview type VC… (35°) 259



Overview type VP… (35°) 299



Cutting specification 324

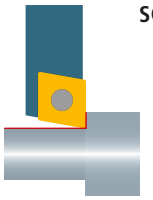


Accessories 664

Front turning

Holders 199

SCAC… U (90°)



Front turning

Holders 229

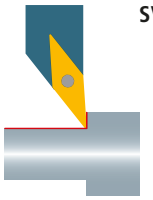
SDAC… U (90°)



Front turning

Holders 279

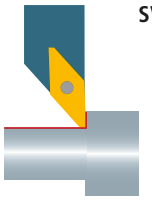
SVAC… U (90°)



Front turning

Holders 303

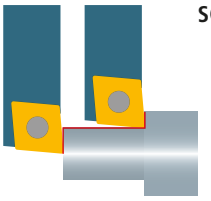
SVAP… (90°)



Turning and facing

Holders 200

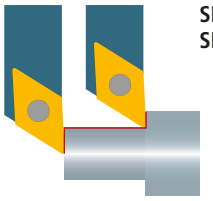
SCLC… U (95°)



Turning and facing

Holders 232/252

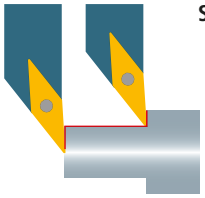
SDJC… U (93°)
SDJN… (93°)



Turning and facing

Holders 280

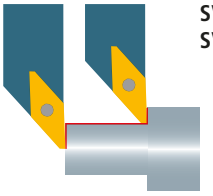
SVJC… U (93°)



Turning and facing

Holders 304/306

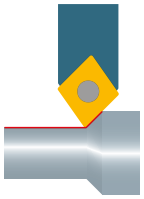
SVJP… (93°)
SVJP… V (93°)



Turning

Holders 199

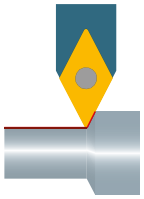
SCDC… U (45°)



Turning

Holders 238

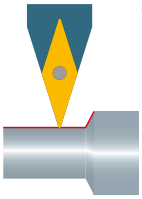
SDNCN… U (62.5°)



Turning

Holders 288

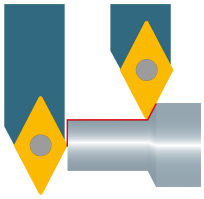
SVVCN… U (72.5°)



Turning and facing

Holders 236

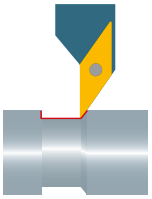
SDNC… U (62.5°)



Back turning

Holders 290

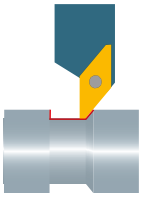
SVXC… (91°)



Back turning

Holders 312

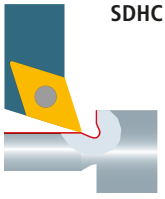
SVXP… (91°)



Turning and undercutting

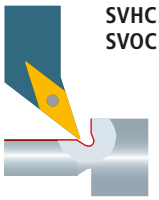
Holders 230

SDHC… U (107.5°)



Turning and undercutting

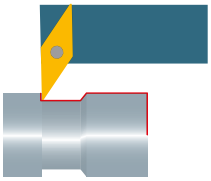
Holders 282



SVHC… U (107.5°)
SVOC… U (117.5°)

Turning and facing

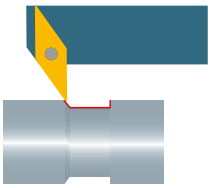
Holders 287



SVUC… (93°)

Back turning

Holders 286



SVQC… (93°)

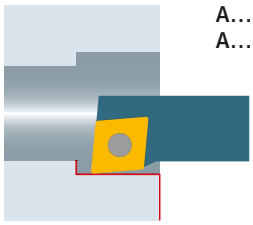
Inserts 177 / 205 / 249 / 259 / 299

All illustrations show right hand design. Left hand design is also available.

Turning and facing

Holders 202/203

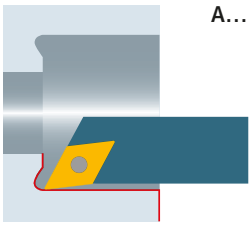
A… SCFC… (90°)
A… SCLC… (95°)



Turning and facing

Holders 242

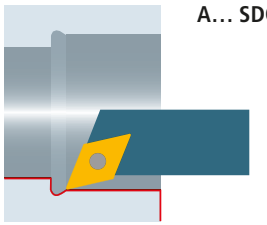
A… SDOC… (120°)



Turning and facing

Holders 243

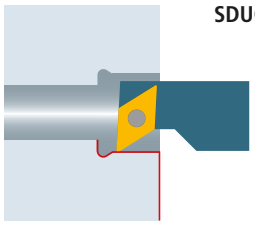
A… SDQC… (107.5°)



Turning and facing

Holders 244

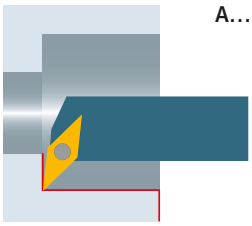
SDUC… (93°)



Turning and facing

Holders 296

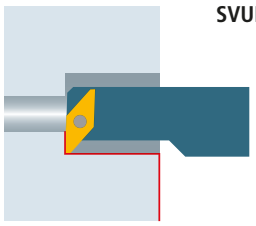
A… SVUC… (93°)



Turning and facing

Holders 322

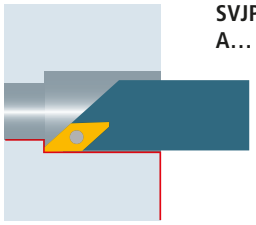
SVUP… (92°)



Turning and facing

Holders 319/320

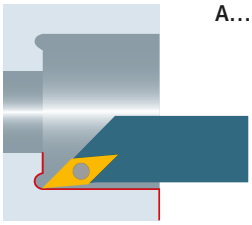
SVJP… (92°)
A… SVOP… (92°)



Turning and facing

Holders 295

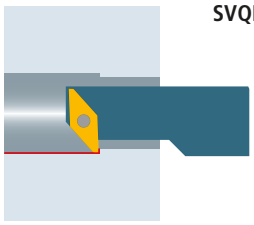
A… SVOC… (140°)



Back turning

Holders 321

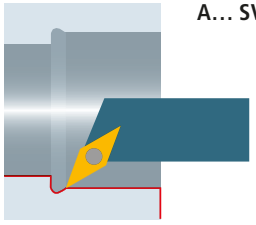
SVQP… (92°)



Turning and undercutting

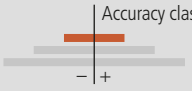
Holders 294

A… SVQC… (107.5°)

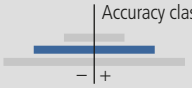


Inserts 177/205/249/259/299

All illustrations show right hand design. Left hand design is also available.



Product line	7	Tolerance index	Repeatability
PREMIUM-LINE	Accuracy class of UTILIS – | +	E	According to the ISO designation system for inserts
STANDARD-LINE	Accuracy class of UTILIS – | +	G	
VALUE-LINE	Accuracy class of UTILIS – | +	M / X	





Legend 6

UTILIS multidec® swiss type tools

Indexable inserts

Form of insert

Index	α
V	35°
D	55°
C	80°



Clearance angle

Index	α
C	7°
N	0°
P	11°



Tolerance

Index	s ±	d ±
E	0.025	0.025
G	0.13	0.025
M	0.13	0.05–0.15*
X	0.1	0.04



* Dependent on dimension of insert

Distinctive mark

Index	
W	
T	
U	
X/Z	Special shape

DCGT 0702015 FN -A3 UHM 30 HX

Chip breaker 178

Carbide 19

Coating 20

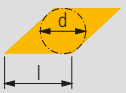
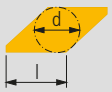
Edge condition

Index	
F	Sharp
E	Rounded

Cutting direction

Index		
L	Left	
N	Neutral	
R	Right	

Edge length

Index	l	d	
06	6.4	6.35	
09	9.7	9.53	
12	12.9	12.7	
07	7.75	6.35	
11	11.6	9.53	
11	11.1	6.35	
16	16.6	9.53	
10	10	6.35	

Insert thickness

Index	s
02	2.38
03	3.18
T3	3.97
04	4.76



Corner radius

Index	R
00/ZZ	0
003	0.03
006	0.06
008	0.08
01	0.1
015	0.15
02	0.2
035	0.35
04	0.4
075	0.75
08	0.8

Holder OD turning

Shaft height

h_1 / h_2



Shaft width

b

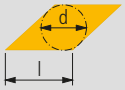
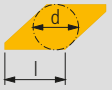


Holder lenght

Index	l_1
D	60
E	70
F	80
H	100
K	125
M	150
X...	Special



Edge length

Index	l	d	
06	6.4	6.35	
09	9.7	9.53	
12	12.9	12.7	
07	7.75	6.35	
11	11.6	9.53	
11	11.1	6.35	
16	16.6	9.59	
10	10	6.35	

Special shape

Index	
U	For Swiss type automatic lathes

SDJCR 1212 H07 U

Clamping

Index		
S	Screwed	

Form of insert

Index	α	
V	35°	
D	55°	
C	80°	

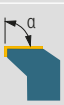
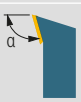
Clearance angle

Index	α	
C	7°	
N	0°	
P	11°	

Cutting direction

Index		
L	Left	
N	Neutral	
R	Right	

Holder form

Index	α		Index	α		Index	α		Index	α	
A	90°		**H**	107.5°		**N**	63°		**U**	93°	
F	90°		**J**	93°		**O**	117.5°		**X**	55°	
D	45°		**L**	95°		**Q**	90°				

UTILIS multidec swiss type tools

Holder ID turning

Shaft execution	
Index	
A	Steel shaft with internal cooling
E	Carbide shaft with steel head and internal cooling

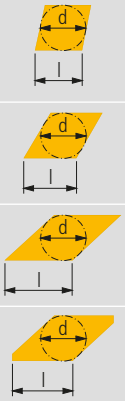
Shaft diameter
d_1



Holder lenght		
Index	l_1	
F	80	
H	100	
K	125	
M	150	
Q	180	
R	200	
S	250	
T	300	
X...	Special	



Edge length			
Index	l	d	
06	6.4	6.35	
09	9.7	9.53	
12	12.9	12.7	
07	7.75	6.35	
11	11.6	9.53	
11	11.1	6.35	
16	16.6	9.59	
10	10	6.35	



A12K SDUCR 07

Clamping		
Index		
S	Screwed	



Form of insert		
Index	α	
V	35°	
D	55°	
C	80°	



Clearance angle		
Index	α	
C	7°	
N	0°	
P	11°	

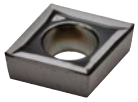


Cutting direction		
Index		
L	Left	L
N	Neutral	N
R	Right	R

Holder form											
Index	α		Index	α		Index	α		Index	α	
A	90°		**H**	107.5°		**N**	63°		**U**	93°	
F	90°		**J**	93°		**O**	117.5°		**X**	55°	
D	45°		**L**	95°		**Q**	90°				

Attention
Please note the legend 🗋6…

multidec®-ISO provides a well balanced range of tools for turning with rhombic 80° inserts and holders. Positive inserts with rounded cutting edges for roughing and sharp cutting edges for finishing are available.
These include a wide range of ground holders with hardened and nickel-plated surfaces for Swiss type automatic lathes with shank sizes from 8 to 20 mm and boring bars with diameters from 8 to 20 mm.





Advantages:
– High cutting volume with high feed rates
– Carbide and Cermet grades with chip breaker and coatings for all common materials
– Diamond range with CVD and PCD inserts for machining non-ferrous metals
– Cutting edge radius from 0.03 to 0.8 mm as standard
– Boring bars with steel- and carbide shank



"IC" tool holder with integrated cooling

Cost-efficient processing of modern materials increasingly requires accurate control of the coolant at the cutting edge. Conveying the coolant as close as possible to the cutting edge is often a difficult task in the machine rooms of Swiss type turning lathes.
The multidec®-IC program offers a wide range of holders with integrated cooling. Because of the high precision and pressure, it is possible to discharge the chip quickly and safely from the cutting edge and the workpiece, which protects the cutting edge of the insert. This means significantly longer tool life as well as very reliable serial production.

Advantages:
– All holders feature five possible connectors for the coolant supply
– Constant coolant discharge means low build-up at front near the holder
– With or without high pressure, the coolant medium always hits the cutting edge precisely

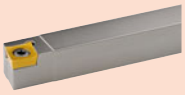
Technical information 9



Inserts (carbide / cermet)
CCGT … -PA3 178
CCGT … -PA5 179
CCGT … -PA7 180
CCXT … PA9 181
CCGT … -PF 182
CCGT … -PF23 183
CCMT … -PF43 184
CCMT … -PM 185
CCMT … -PMF 186
CCMT … -PM25 187
CCMT … -PM55 188
CCET … -U 189



Inserts (diamond)
CCGT … 190
CCGT … TOP 191
CCGT … -UWS 192
CCGT … TOP -UWS 193
CCGT … -UWN 194
CCGT … TOP -UWN 195
CCGT … -UWR 196
CCGW … 197
CCGW … TOP 198



Holders (OD turning)
SCAC… U (90°) 199
SCDC… U (45°) 199
SCLC… U (95°), SCLC… U IC (95°) 200



Holders (ID turning)
A… SCFC… (90°) 202
A… SCLC… (95°) 203

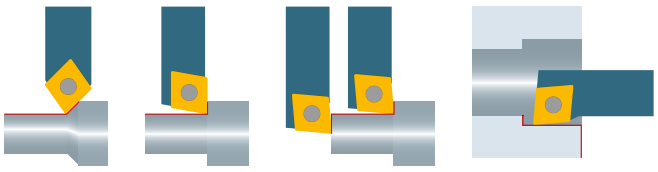


Replacement and spare parts 203



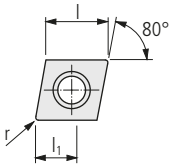
Coolant connectors and accessories 632

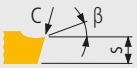
Inserts (Carbide / Cermet) — multidec®-ISO





CCGT … -PA3



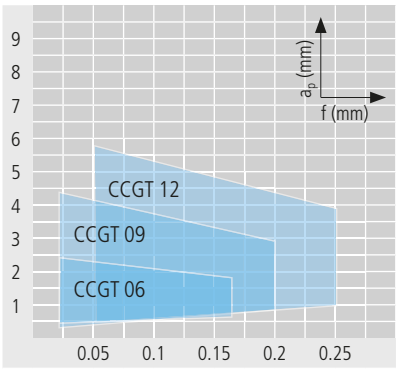


β: 30°
s: ±0.13
C: <0.002

Order designation	Carbide (□19)									Cermet		Diamond			Dimensions					Holder (□199…)
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
STANDARD-LINE															Accuracy class of UTILIS (□171)					
N																				
CCGT 060202 FN -PA3 …	■	■													6.4	0.2	4			SC…06…
CCGT 060204 FN -PA3 …	■	■													6.4	0.4	4			SC…06…
CCGT 09T304 FN -PA3 …	■	■													9.7	0.4	4			SC…09…
CCGT 09T308 FN -PA3 …	■	■													9.7	0.8	4			SC…09…

Application range of chip breaker — multidec®-ISO

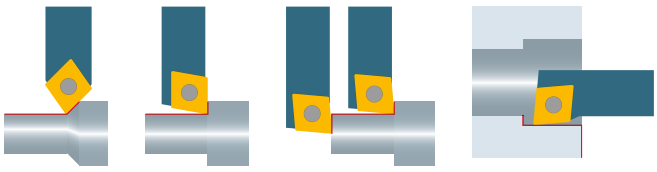
Properties:
– polished rake
– ground clearance
– sharp cutting edge "F"
– micrograin carbide, heat and wear resistent

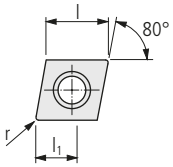


Optimal chip breaking

Application:
– micro finishing
– chip breaker for materials with difficult chip control
– stainless steel, alloyed steel, titanium, super alloy, aluminum and synthetics reinforced/ composites

	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	○	–	○
▼▼	○	○	○	○	○	○	●	–	●
▼▼▼	●	●	●	●	●	●	●	–	●







CCGT … -PA5

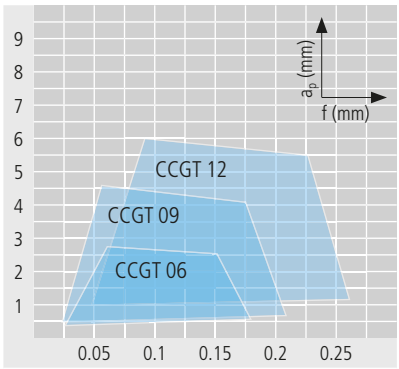


β: 25°
s: ±0.13
C: <0.002

Order designation	Carbide ▯19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						▯199…
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
STANDARD-LINE															Accuracy class of UTILIS ▯171					
N	CCGT 060202 FN -PA5 …	■	■												6.4	0.2	4			SC…06…
	CCGT 060204 FN -PA5 …	■	■												6.4	0.4	4			SC…06…
	CCGT 09T302 FN -PA5 …	■	■												9.7	0.2	6			SC…09…
	CCGT 09T304 FN -PA5 …	■	■												9.7	0.4	6			SC…09…
	CCGT 09T308 FN -PA5 …	■	■												9.7	0.8	6			SC…09…
	CCGT 120402 FN -PA5 …	■	■												12.9	0.2	8			SC…12…
	CCGT 120404 FN -PA5 …	■	■												12.9	0.4	8			SC…12…
	CCGT 120408 FN -PA5 …	■	■												12.9	0.8	8			SC…12…

Application range of chip breaker *multidec®-ISO*

Properties:
– polished rake
– ground clearance
– sharp cutting edge "F"
– submicrograin carbide, heat and wear resistent

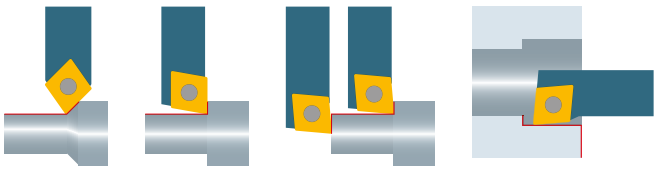


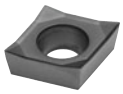
Optimal chip breaking

Application:
– finishing and micro finishing
– chip breaker for materials with difficult chip control
– stainless steel, alloyed steel, titanium, super alloy, aluminum and synthetics reinforced/ composites

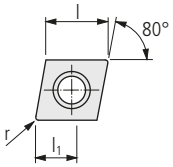
	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	○	–	○
▼▼	●	●	●	○	●	●	●	–	●
▼▼▼	●	●	●	○	●	●	●	–	●

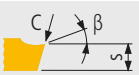
Inserts (Carbide / Cermet) — multidec®-ISO





CCGT … -PA7



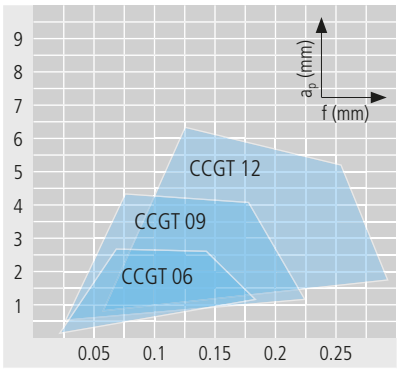


β: 27°
s: ±0.13
C: <0.002

Order designation	Carbide (19)									Cermet		Diamond			Dimensions					Holder (199…)
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
STANDARD-LINE															Accuracy class of UTILIS (171): – +					
N	CCGT 060202 FN -PA7 …	■	■												6.4	0.2	4			SC…06…
	CCGT 060204 FN -PA7 …	■	■												6.4	0.4	4			SC…06…
	CCGT 09T3005 FN -PA7 …	■	■												9.7	0.05	6			SC…09…
	CCGT 09T301 FN -PA7 …	■	■												9.7	0.1	6			SC…09…
	CCGT 09T302 FN -PA7 …	■	■												9.7	0.2	6			SC…09…
	CCGT 09T304 FN -PA7 …	■	■												9.7	0.4	6			SC…09…
	CCGT 09T308 FN -PA7 …	■	■												9.7	0.8	6			SC…09…
	CCGT 120402 FN -PA7 …	■	■												12.9	0.2	8			SC…12…
	CCGT 120404 FN -PA7 …	■	■												12.9	0.4	8			SC…12…
	CCGT 120408 FN -PA7 …	■	■												12.9	0.8	8			SC…12…

Application range of chip breaker — multidec®-ISO

Properties:
– ground clearance
– sharp cutting edge "F"
– micrograin carbide, heat and wear resistent

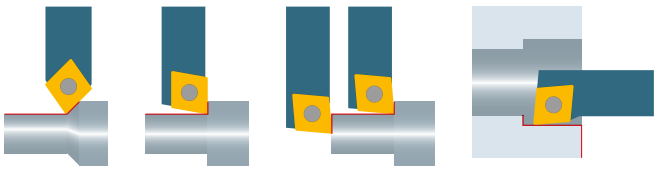


Optimal chip breaking

Application:
– micro finishing
– chip breaker for materials with good chip control
– stainless steel, alloyed steel, titanium, super alloy, aluminum and synthetics reinforced/ composites

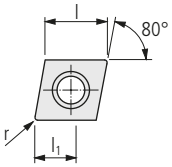
	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	○	–	○
▼▼	○	○	○	○	○	○	●	–	●
▼▼▼	●	●	●	○	●	●	●	–	●

Inserts (Carbide / Cermet) — *multidec®-ISO*





CCXT … -PA9



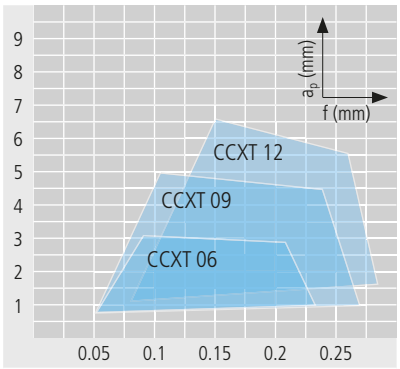


β: 25°
s: ±0.1
C: <0.01

Order designation	Carbide 19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			199…
VALUE-LINE															Accuracy class of UTILIS 171					
N CCXT 060204 EN -PA9 …	■	■													6.4	0.4	4			SC…06…
CCXT 09T304 EN -PA9 …	■	■													9.7	0.4	6			SC…09…
CCXT 09T308 EN -PA9 …	■	■													9.7	0.8	6			SC…09…

Application range of chip breaker — *multidec®-ISO*

Properties:
– high precision sintered insert
– rounded cutting edge "E"
– micrograin carbide, heat and wear resistent
– best performance-cost ratio

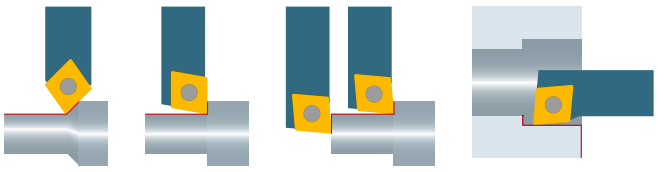


Optimal chip breaking

Application:
– finishing
– chip breaker for soft materials with good chip control
– alloyed steel, stainless steel, super alloy, titanium and aluminum

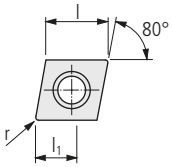
	I	II	III	IV	V	IV	VII	VIII	IX
▼	○	○	○	○	○	○	●	–	–
▼▼	●	●	●	●	●	●	○	–	–
▼▼▼	○	○	○	–	○	○	–	–	–

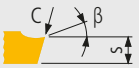
Inserts (Carbide / Cermet) — multidec®-ISO





CCGT … -PF

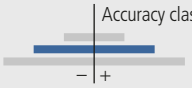




β: 8°
s: ±0.13
C: <0.01

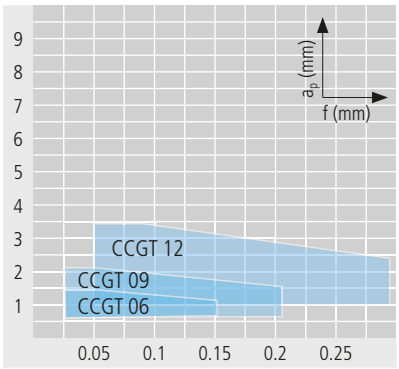
Order designation	Carbide (19)									Cermet			Diamond			Dimensions			Holder (199…)
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCM 10 MZ	UCVD 08	UPCD 15	UPCD 20	l	r	l_1	
STANDARD-LINE																			
N																			
CCGT 060202 EN -PF …					■			■		■	■	■				6.4	0.2	1.5	SC…06…
CCGT 060204 EN -PF …										■	■	■				6.4	0.4	1.5	SC…06…
CCGT 09T302 EN -PF …										■	■	■				9.7	0.2	2	SC…09…
CCGT 09T304 EN -PF …										■	■	■				9.7	0.4	2	SC…09…
CCGT 09T308 EN -PF …												■				9.7	0.8	2	SC…09…
CCGT 120404 EN -PF …										■	■					12.9	0.4	3.2	SC…12…

Accuracy class of UTILIS (171)



Application range of chip breaker — multidec®-ISO

Properties:
– ground clearance
– little rounded cutting edge "E"
– carbide and cermet in different grades

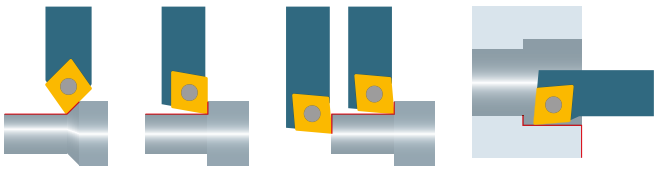


Optimal chip breaking

Application:
– finishing and micro finishing
– chip breaker for general application
– alloyed steel and stainless steel

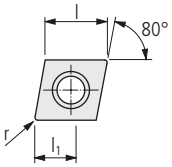
	I	II	III	IV	V	IV	VII	VIII	IX
▼	○	○	○	–	○	○	–	–	–
▼▼	●	●	●	–	●	●	–	–	–
▼▼▼	●	●	●	–	●	●	–	–	–

Inserts (Carbide / Cermet) — multidec®-ISO





CCGT … -PF23



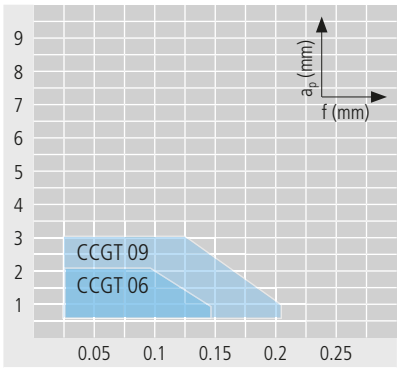


β: 12°
s: ±0.13
C: <0.002

Order designation	Carbide 19									Cermet		Diamond			Dimensions					Holder
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			199…
STANDARD-LINE																	Accuracy class of UTILIS 171			
N CCGT 0602005 FN -PF23 …							■								6.4	0.05	2			SC…06…
CCGT 060201 FN -PF23 …							■								6.4	0.1	2			SC…06…
CCGT 060202 FN -PF23 …							■								6.4	0.2	2			SC…06…
CCGT 09T3005 FN -PF23 …							■								9.7	0.05	3			SC…09…
CCGT 09T301 FN -PF23 …							■								9.7	0.1	3			SC…09…
CCGT 09T302 FN -PF23 …							■								9.7	0.2	3			SC…09…

Application range of chip breaker — multidec®-ISO

Properties:
– polished rake
– ground clearance
– sharp cutting edge "F"
– micrograin carbide

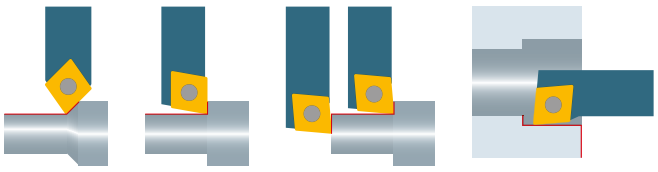


Optimal chip breaking

Application:
– micro finishing
– chip breaker for materials with difficult chip control
– alloyed steel and stainless steel

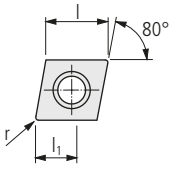
	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	–	–	–
▼▼	○	○	○	○	○	○	○	–	–
▼▼▼	●	●	●	○	●	●	○	–	○

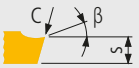
Inserts (Carbide / Cermet) — multidec®-ISO





CCMT … -PF43



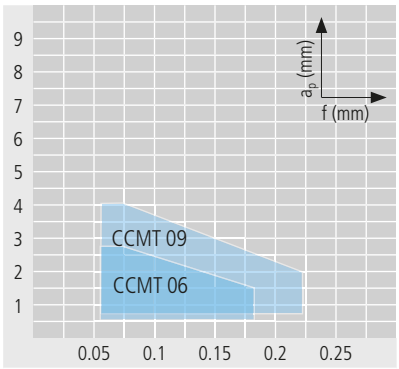


β: 12°
s: ±0.13
C: <0.02

Order designation	Carbide (19)									Cermet		Diamond			Dimensions					Holder (199…)
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
VALUE-LINE															Accuracy class of UTILIS (171)					
N																				
CCMT 060202 EN -PF43 …							■								6.4	0.2	2.6			SC…06…
CCMT 060204 EN -PF43 …							■								6.4	0.4	2.6			SC…06…
CCMT 09T302 EN -PF43 …							■								9.7	0.2	4			SC…09…
CCMT 09T304 EN -PF43 …								■							9.7	0.4	4			SC…09…
CCMT 09T308 EN -PF43 …								■							9.7	0.8	4			SC…09…

Application range of chip breaker — multidec®-ISO

Properties:
– sintered insert based on ISO standard
– rounded cutting edge "E"
– micrograin carbide

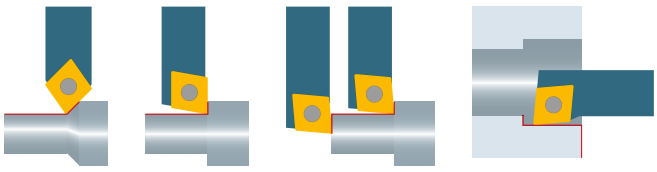


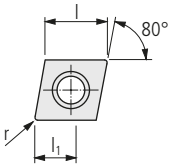
Optimal chip breaking

Application:
– roughing and finishing
– chip breaker for materials with difficult chip control
– alloyed steel and stainless steel

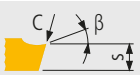
	I	II	III	IV	V	IV	VII	VIII	IX
▼	●	●	●	–	●	●	–	–	–
▼▼	●	●	●	–	●	●	–	–	–
▼▼▼	–	–	–	–	–	–	–	–	–

Inserts (Carbide / Cermet) — multidec®-ISO









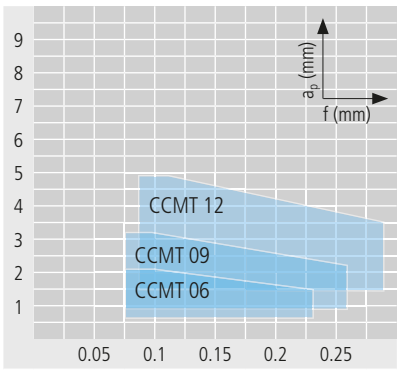
β: 8°
s: ±0.13
C: <0.02

CCMT … -PM

Order designation	Carbide 🗋19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			🗋199…
VALUE-LINE															Accuracy class of UTILIS 🗋171					
N CCMT 060204 EN -PM …			■		■			■							6.4	0.4	2			SC…06…
CCMT 060208 EN -PM …			■					■							6.4	0.8	2			SC…06…
CCMT 09T304 EN -PM …			■		■			■							9.7	0.4	3.2			SC…09…
CCMT 09T308 EN -PM …			■		■			■							9.7	0.8	3.2			SC…09…
CCMT 120404 EN -PM …			■		■			■							12.9	0.4	4.8			SC…12…
CCMT 120408 EN -PM …			■		■			■							12.9	0.8	4.8			SC…12…

Application range of chip breaker — multidec®-ISO

Properties:
– sintered insert based on ISO standard
– rounded cutting edge "E"
– micrograin carbide

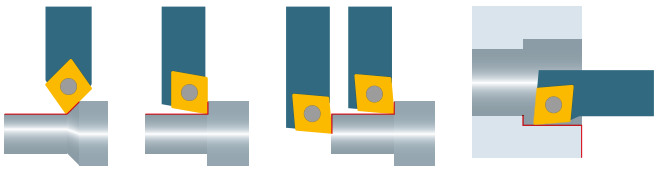


Optimal chip breaking

Application:
– roughing
– chip breaker for general application
– alloyed steel and stainless steel

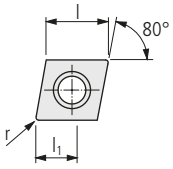
	I	II	III	IV	V	IV	VII	VIII	IX
▼	●	●	●	–	●	●	–	–	–
▼▼	○	○	○	–	○	○	–	–	–
▼▼▼	–	–	–	–	–	–	–	–	–

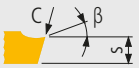
Inserts (Carbide / Cermet) — multidec®-ISO





CCMT … -PMF



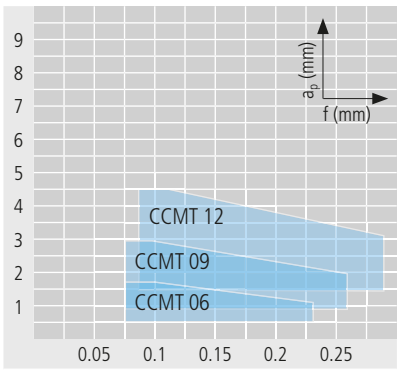


β: 8°
s: ±0.13
C: <0.02

Order designation	Carbide ⬚19									Cermet			Diamond			Dimensions			Holder
	–	–	●	●	●	○	○	●	○	●	●	●	–	–	–				
	–	●	–	●	○	○	●	●	●	○	●	○	–	–	–				
	○	●	–	○	–	○	●	–	–	–	–	–	–	–	–				
	●	○	–	–	–	○	○	–	○	–	–	–	●	●	●				⬚199…
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCM 10 MZ	UCVD 08	UPCD 15	UPCD 20	l	r	l_1		
VALUE-LINE																Accuracy class of UTILIS ⬚171				
N CCMT 060204 EN -PMF …												■				6.4	0.4	2		SC…06…
CCMT 09T304 EN -PMF …												■				9.7	0.4	3.2		SC…09…
CCMT 09T308 EN -PMF …												■				9.7	0.8	3.2		SC…09…
CCMT 120404 EN -PMF …												■				12.9	0.4	4.8		SC…12…

Application range of chip breaker — multidec®-ISO

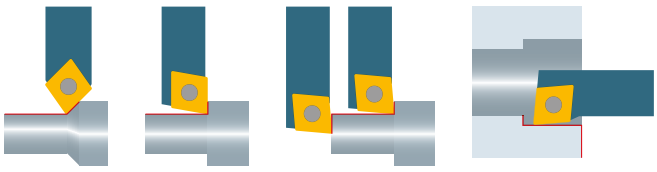
Properties:
– sintered insert based on ISO standard
– rounded cutting edge "E"
– micrograin carbide

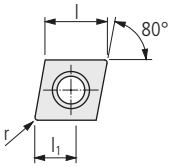


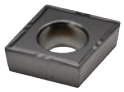
Optimal chip breaking

Application:
– roughing and finishing
– chip breaker for general application
– alloyed steel and stainless steel

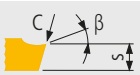
	I	II	III	IV	V	IV	VII	VIII	IX
▼	●	●	●	–	●	●	–	–	–
▼▼	●	●	●	–	●	●	–	–	–
▼▼▼	–	–	–	–	–	–	–	–	–







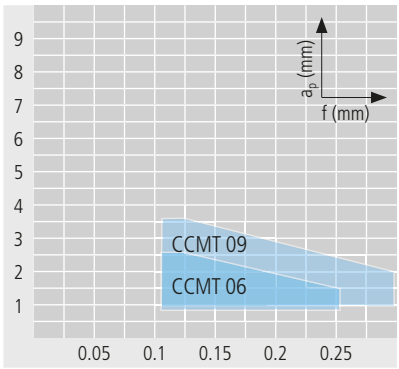
CCMT … -PM25



β: 18°
s: ±0.13
C: <0.02

Order designation	Carbide 19									Cermet		Diamond			Dimensions					Holder
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			199…
–	–	●	●	●	○	○	●	○	●	●	–	–	–							
–	●	–	●	○	○	●	●	●	○	●	–	–	–							
○	●	–	○	–	○	●	–	–	–	–	–	–	–							
●	○	–	–	–	○	○	–	○	–	–	–	●	●	●						
VALUE-LINE															Accuracy class of UTILIS 171					
N CCMT 060204 EN -PM25 …				■											6.4	0.4	2			SC…06…
CCMT 09T304 EN -PM25 …				■											9.7	0.4	2.2			SC…09…
CCMT 09T308 EN -PM25 …				■											9.7	0.8	3.2			SC…09…

Properties:
– sintered insert based on ISO standard
– rounded cutting edge "E"
– micrograin carbide

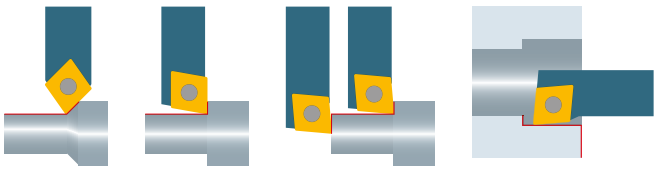


Optimal chip breaking

Application:
– roughing and finishing
– chip breaker for materials with difficult chip control
– stainless steel

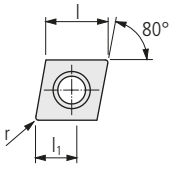
	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	–	–	–
▼▼	○	○	○	–	●	●	–	–	–
▼▼▼	–	–	–	–	–	–	–	–	–

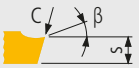
Inserts (Carbide / Cermet) — multidec®-ISO





CCMT … -PM55



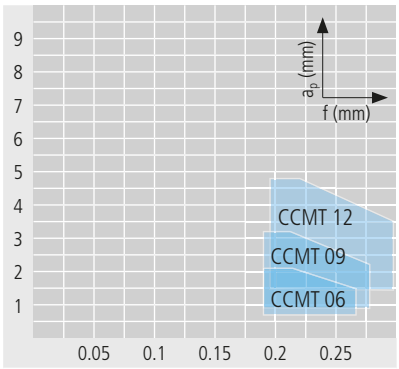


β: 16°
s: ±0.13
C: <0.02

Order designation	Carbide (19)									Cermet		Diamond			Dimensions					Holder (199…)
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
VALUE-LINE															Accuracy class of UTILIS (171)					
N																				
CCMT 060204 EN -PM55 …				■											6.4	0.4	2.6			SC…06…
CCMT 09T304 EN -PM55 …				■											9.7	0.4	3			SC…09…
CCMT 09T308 EN -PM55 …				■											9.7	0.8	4			SC…09…
CCMT120404 EN -PM55 …				■											12.9	0.4	4			SC…12…
CCMT120408 EN -PM55 …				■											12.9	0.8	4.8			SC…12…

Application range of chip breaker — multidec®-ISO

Properties:
– sintered insert based on ISO standard
– rounded cutting edge "E"
– micrograin carbide

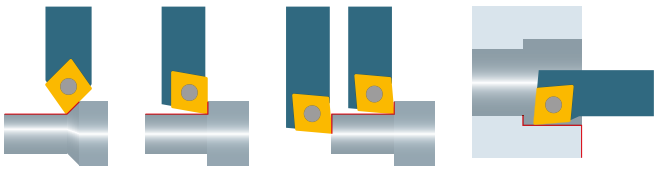


Optimal chip breaking

Application:
– roughing
– chip breaker for general application
– stainless steel

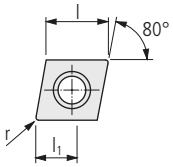
	I	II	III	IV	V	IV	VII	VIII	IX
▼	○	○	○	–	●	●	–	–	–
▼▼	–	–	–	–	–	–	–	–	–
▼▼▼	–	–	–	–	–	–	–	–	–

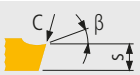
Inserts (Carbide / Cermet)





CCET … -U



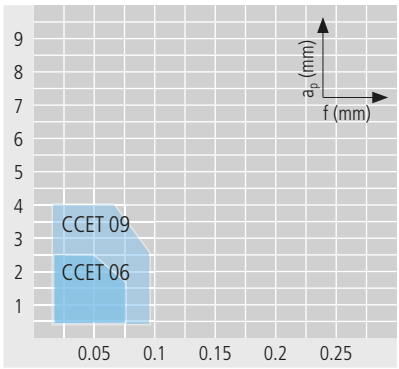


β: 12°
s: ±0.025
C: <0.002

Order designation	Carbide 🗋19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						🗋199…
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
PREMIUM-LINE															Accuracy class of UTILIS 🗋171					
R CCET 0602003 FR -U …	■	■													6.4	0.03	2.5			SC…06…
CCET 060201 FR -U …	■	■													6.4	0.1	2.5			SC…06…
CCET 060202 FR -U …	■	■													6.4	0.2	2.5			SC…06…
CCET 09T3003 FR -U …	■	■													9.7	0.03	4			SC…09…
CCET 09T301 FR -U …	■	■													9.7	0.1	4			SC…09…
CCET 09T302 FR -U …	■	■													9.7	0.2	4			SC…09…

Application range of chip breaker

Properties:
– ground rake and clearence
– sharp cutting edge "F"
– submicrograin carbide, heat and wear resistent and cermet

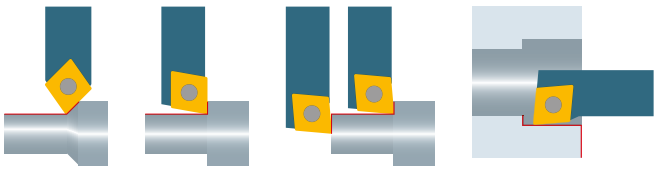


Optimal chip breaking

Application:
– micro finishing
– chip breaker for materials with difficult chip control
– alloyed steel and stainless steel

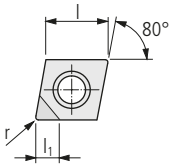
	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	–	–	–
▼▼	○	○	○	–	○	○	–	–	–
▼▼▼	●	●	●	○	●	●	○	–	○

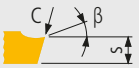
Inserts (Diamond) — multidec®-ISO





CCGT …



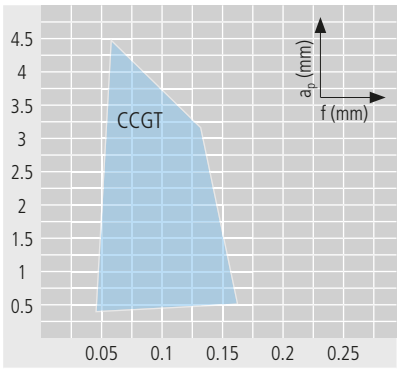


β: 7°
s: ±0.13
C: <0.002

Order designation	Carbide ▯19									Cermet		Diamond			Dimensions					Holder ▯199…
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
STANDARD-LINE															Accuracy class of UTILIS ▯171					
N	CCGT 060201 FN …												■	■	6.4	0.1	3.5			SC…06…
	CCGT 060202 FN …												■	■	6.4	0.2	3.5			SC…06…
	CCGT 060204 FN …												■		6.4	0.4	3.5			SC…06…
	CCGT 060208 FN …												■		6.4	0.8	3			SC…06…
	CCGT 09T302 FN …												■	■	9.7	0.2	4.5			SC…09…
	CCGT 09T304 FN …												■		9.7	0.4	4.3			SC…09…
	CCGT 09T308 FN …												■		9.7	0.8	4.1			SC…09…
	CCGT 120404 FN …												■	■	12.9	0.4	4.3			SC…12…
	CCGT 120408 FN …												■		12.9	0.8	4.1			SC…12…

Application range of chip breaker — multidec®-ISO

Properties:
– sharp cutting edge "F"
– less cutting force
– positive cut

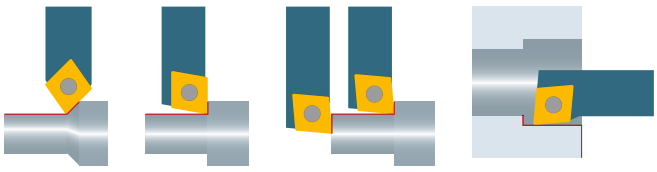


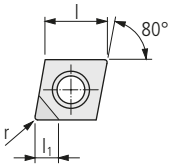
Optimal chip breaking

Application:
– finishing and micro finishing for unstable or thin-walled parts
– chip breaker for general application will generate continues chip
– aluminum, brass, copper, bronze, platinium, gold, synthetics and synthetics reinforced/composites
– Ideal for smallest tolerance and medium surface quality

	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	○	○	○
▼▼	–	–	–	–	–	–	●	●	●
▼▼▼	–	–	–	–	–	–	●	●	●

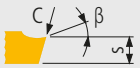
Inserts (Diamond) — multidec®-ISO







CCGT … TOP*



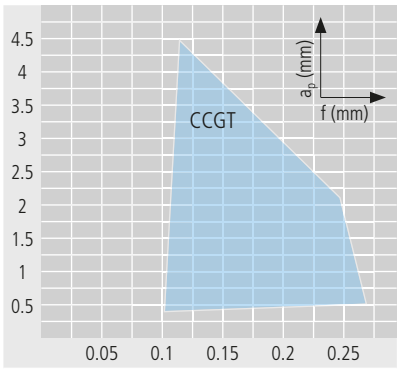
β: 7°
s: ±0.13
C: <0.002

Order designation	Carbide 🗋19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						🗋199…
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
STANDARD-LINE															Accuracy class of UTILIS 🗋171					
N	CCGT 060201 FN TOP …												■	■	6.4	0.1	3.5			SC…06…
	CCGT 060202 FN TOP …												■	■	6.4	0.2	3.5			SC…06…
	CCGT 060204 FN TOP …												■		6.4	0.4	3.5			SC…06…
	CCGT 09T302 FN TOP …												■	■	9.7	0.2	4.5			SC…09…
	CCGT 09T304 FN TOP …												■	■	9.7	0.4	4.3			SC…09…
	CCGT 09T308 FN TOP …												■		9.7	0.8	4.1			SC…09…
	CCGT 120404 FN TOP …												■	■	12.9	0.4	4.3			SC…12…
	CCGT 120408 FN TOP …												■	■	12.9	0.8	4.1			SC…12…

* Description TOP 🗋25

Application range of chip breaker — multidec®-ISO

Properties:
– sharp cutting edge "F"
– less cutting force
– positive cut
– TOP system, for a better surface finish

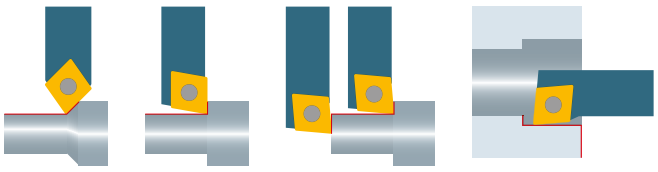


Optimal chip breaking

Application:
– finishing and micro finishing for unstable or thin-walled parts
– chip breaker for general application will generate continues chip
– aluminum, brass, copper, bronze, platinium, gold, synthetics and synthetics reinforced/composites
– Ideal for smallest tolerance and medium surface quality

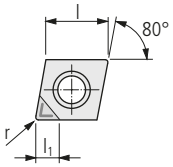
	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	○	○	○
▼▼	–	–	–	–	–	–	●	●	●
▼▼▼	–	–	–	–	–	–	●	●	●

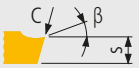
Inserts (Diamond) — multidec®-ISO





CCGT … -UWS



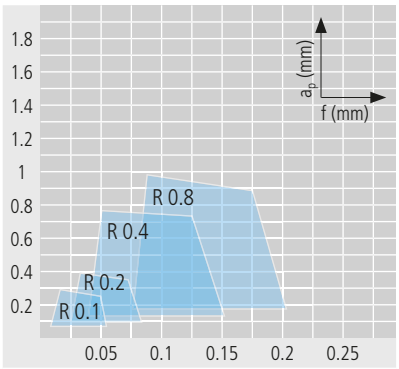


β: 15–20°
s: ±0.13
C: <0.002

Order designation	Carbide ▯19									Cermet		Diamond			Dimensions					Holder ▯199…
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
STANDARD-LINE															Accuracy class of UTILIS ▯171					
N	CCGT 060202 FN -UWS …											■	■		6.4	0.2	3			SC…06…
	CCGT 060204 FN -UWS …											■	■		6.4	0.4	3			SC…06…
	CCGT 060208 FN -UWS …											■	■		6.4	0.8	3			SC…06…
	CCGT 09T302 FN -UWS …												■		9.7	0.2	3			SC…09…
	CCGT 09T304 FN -UWS …											■	■		9.7	0.4	3			SC…09…
	CCGT 120404 FN -UWS …												■		12.9	0.4	3			SC…12…
	CCGT 120408 FN -UWS …												■		12.9	0.8	3			SC…12…

Application range of chip breaker — multidec®-ISO

Properties:
– sharp cutting edge "F"
– almost any cutting force
– high positive narrow chip breaker made by laser

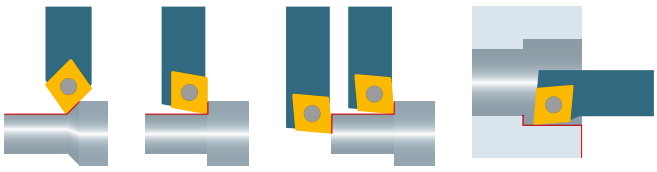


Optimal chip breaking

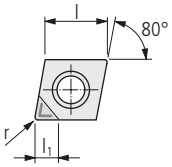
Application:
– micro finishing for unstable or thin-walled parts
– chip breaker for materials with difficult chip control
– synthetics reinforced/composites, aluminum, platinium, gold and synthetics
– Ideal for smallest tolerance and medium surface quality

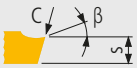
	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	–	–	–
▼▼	–	–	–	–	–	–	○	○	○
▼▼▼	–	–	–	–	–	–	●	●	●

Inserts (Diamond) — multidec®-ISO









β: 15–20°
s: ±0.13
C: <0.002

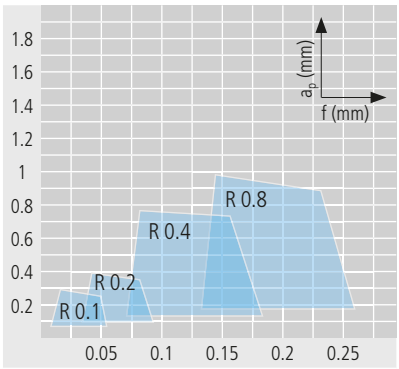
CCGT … TOP* -UWS

Order designation	Carbide ▯19									Cermet		Diamond			Dimensions					Holder
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			▯199…
– – ● ● ● ○ ○ ● ○ ● ● – – –																				
– ● – ● ○ ○ ● ● ● ○ ● – – –																				
○ ● – ○ – ○ ● – – – – – – –																				
● ○ – – – ○ ○ – ○ – – ● ● ●																				
STANDARD-LINE															Accuracy class of UTILIS ▯171					
N	CCGT 060202 FN TOP -UWS …											■			6.4	0.2	3			SC…06…
	CCGT 060204 FN TOP -UWS …											■	■		6.4	0.4	3			SC…06…
	CCGT 09T302 FN TOP -UWS …											■			9.7	0.2	3			SC…09…
	CCGT 09T304 FN TOP -UWS …											■	■		9.7	0.4	3			SC…09…
	CCGT 120404 FN TOP -UWS …											■			12.9	0.4	3			SC…12…
	CCGT 120408 FN TOP -UWS …											■	■		12.9	0.8	3			SC…12…

* Description TOP ▯25

Application range of chip breaker — multidec®-ISO

Properties:
– sharp cutting edge "F"
– almost any cutting force
– high positive narrow chip breaker made by laser
– TOP system, for a better surface finish

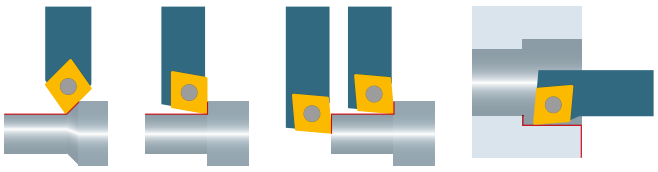


Optimal chip breaking

Application:
– micro finishing for unstable or thin-walled parts
– chip breaker for materials with difficult chip control
– synthetics reinforced/composites, aluminum, platinium, gold and synthetics
– Ideal for smallest tolerance and medium surface quality

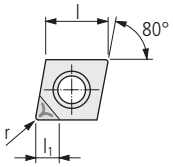
	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	–	–	–
▼▼	–	–	–	–	–	–	○	○	○
▼▼▼	–	–	–	–	–	–	●	●	●

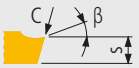
Inserts (Diamond) — multidec®-ISO





CCGT … -UWN



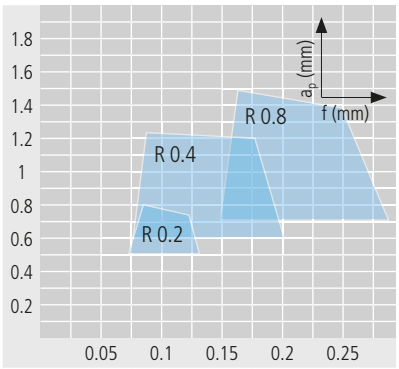


β: 15–20°
s: ±0.13
C: <0.005

Order designation	Carbide (□19)									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						□199…
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM30	UHM 30 HX	UHM 30 MZ	UHM30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
STANDARD-LINE															Accuracy class of UTILIS □171					
N	CCGT 060202 FN -UWN …											■		■	6.4	0.2	3			SC…06…
	CCGT 060204 FN -UWN …											■	■	■	6.4	0.4	3			SC…06…
	CCGT 060208 FN -UWN …											■		■	6.4	0.8	3			SC…06…
	CCGT 09T302 FN -UWN …											■		■	9.7	0.2	3			SC…09…
	CCGT 09T304 FN -UWN …											■		■	9.7	0.4	3			SC…09…
	CCGT 09T308 FN -UWN …											■		■	9.7	0.8	3			SC…09…
	CCGT 120404 FN -UWN …											■		■	12.9	0.4	3			SC…12…
	CCGT 120408 FN -UWN …											■		■	12.9	0.8	3			SC…12…

Application range of chip breaker — multidec®-ISO

Properties:
– sharp cutting edge "F"
– higher cutting force
– high positive wide chip breaker made by laser

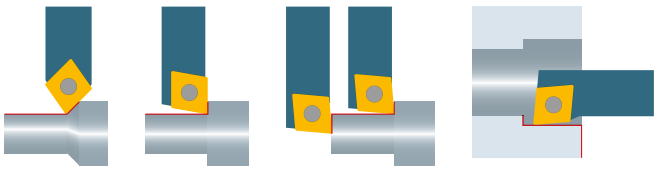


Optimal chip breaking

Application:
– finishing for stable or solid parts
– chip breaker for materials with difficult chip control
– synthetics reinforced/composites, aluminum, platinium, gold and synthetics
– Ideal for smallest tolerance and best surface quality

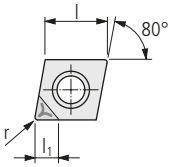
	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	○	○	○
▼▼	–	–	–	–	–	–	●	●	●
▼▼▼	–	–	–	–	–	–	–	–	–

Inserts (Diamond) — multidec®-ISO





CCGT … TOP* -UWN





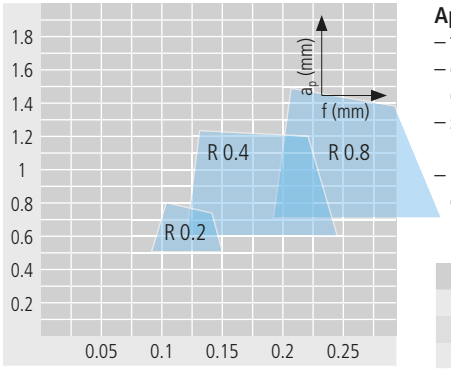
β: 15–20°
s: ±0.13
C: <0.005

Order designation	Carbide ▯19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						▯199…
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
STANDARD-LINE															Accuracy class of UTILIS ▯171					
N CCGT 060202 FN TOP -UWN …												■	■	■	6.4	0.2	3			SC…06…
CCGT 060204 FN TOP -UWN …												■	■	■	6.4	0.4	3			SC…06…
CCGT 09T302 FN TOP- UWN …												■	■	■	9.7	0.2	3			SC…09…
CCGT 09T304 FN TOP -UWN …												■	■	■	9.7	0.4	3			SC…09…
CCGT 120404 FN TOP -UWN …												■	■	■	12.9	0.4	3			SC…12…
CCGT 120408 FN TOP- UWN …												■	■	■	12.9	0.8	3			SC…12…

* Description TOP ▯25

Application range of chip breaker — multidec®-ISO

Properties:
– sharp cutting edge "F"
– higher cutting force
– high positive wide chip breaker made by laser
– TOP system, for a better surface finish

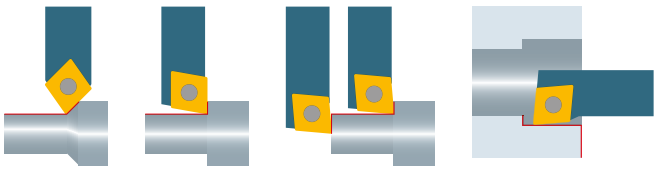


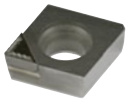
Optimal chip breaking

Application:
– finishing for stable or solid parts
– chip breaker for materials with difficult chip control
– synthetics reinforced/composites, aluminum, platinium, gold and synthetics
– Ideal for smallest tolerance and best surface quality

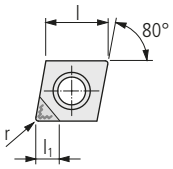
	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	○	○	○
▼▼	–	–	–	–	–	–	●	●	●
▼▼▼	–	–	–	–	–	–	–	–	–

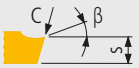
Inserts (Diamond) — multidec®-ISO





CCGT … -UWR



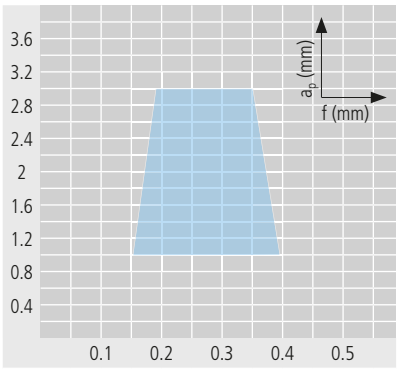


β: 15–20°
s: ±0.13
C: <0.005

Order designation	Carbide (19)									Cermet		Diamond			Dimensions					Holder (199…)
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
STANDARD-LINE															Accuracy class of UTILIS (171)					
N																				
CCGT 060204 FN -UWR …														■	6.4	0.4	3			SC…06…
CCGT 09T304 FN -UWR …														■	9.7	0.4	3			SC…09…
CCGT 09T308 FN -UWR …														■	9.7	0.8	3			SC…09…

Application range of chip breaker — multidec®-ISO

Properties:
– sharp cutting edge "F"
– higher cutting force
– high positive wide chip breaker made by laser

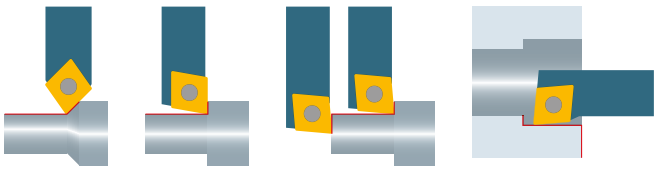


Optimal chip breaking

Application:
– finishing for stable or solid parts
– chip breaker for materials with difficult chip control
– synthetics reinforced/composites, aluminum, platinium, gold and synthetics
– maximum chip to chip volume

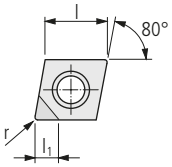
	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	○	○	○
▼▼	–	–	–	–	–	–	●	●	●
▼▼▼	–	–	–	–	–	–	–	–	–

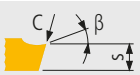
Inserts (Diamond) — multidec®-ISO





CCGW …





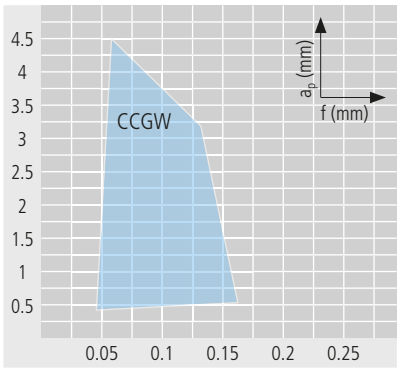
β: 0°
s: ±0.13
C: <0.002

Order designation	Carbide 🗋19									Cermet		Diamond			Dimensions					Holder
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			🗋199…
STANDARD-LINE																	Accuracy class of UTILIS 🗋171			
CCGW 060201 FN …													■	■	6.4	0.1	3.4			SC…06…
CCGW 060202 FN …												■	■	■	6.4	0.2	3.4			SC…06…
CCGW 060204 FN …												■	■	■	6.4	0.4	3.2			SC…06…
CCGW 060208 FN …													■		6.4	0.8	3			SC…06…
CCGW 09T302 FN …												■	■	■	9.7	0.2	4.5			SC…09…
CCGW 09T304 FN …												■	■	■	9.7	0.4	4.3			SC…09…
CCGW 09T308 FN …												■	■		9.7	0.8	4.1			SC…09…
CCGW 120404 FN …													■	■	12.9	0.4	4.3			SC…12…
CCGW 120408 FN …													■		12.9	0.8	4.1			SC…12…

N

Application range of chip breaker — multidec®-ISO

Properties:
– sharp cutting edge "F"
– medium cutting force
– neutral cut

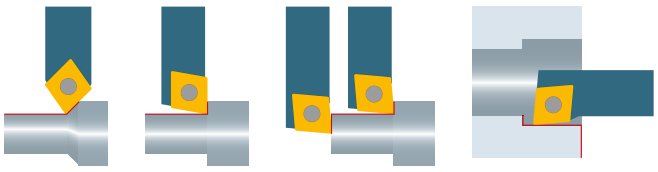


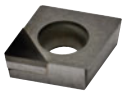
Optimal chip breaking

Application:
– finishing and micro finishing for stable or solid parts
– chip breaker for general application will generate continues chip
– aluminum, brass, copper, bronze, platinium, gold, synthetics and synthetics reinforced/composites
– Ideal for smallest tolerance and high surface quality

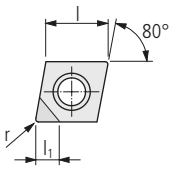
	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	○	○	○
▼▼	–	–	–	–	–	–	●	●	●
▼▼▼	–	–	–	–	–	–	●	●	●

Inserts (Diamond) — multidec®-ISO





CCGW … TOP*





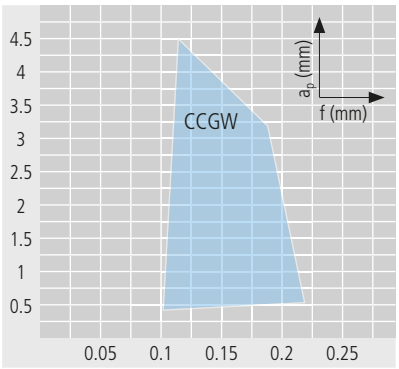
β: 0°
s: ±0.13
C: <0.002

Order designation	Carbide ▯19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						▯199…
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
STANDARD-LINE															Accuracy class of UTILIS ▯171					
N	CCGW 060201 FN TOP …												■	■	6.4	0.1	3.4			SC…06…
	CCGW 060202 FN TOP …												■	■	6.4	0.2	3.4			SC…06…
	CCGW 060204 FN TOP …												■		6.4	0.4	3.2			SC…06…
	CCGW 09T301 FN TOP …												■	■	9.7	0.1	4.5			SC…09…
	CCGW 09T302 FN TOP …												■	■	9.7	0.2	4.5			SC…09…
	CCGW 09T304 FN TOP …												■		9.7	0.4	4.3			SC…09…
	CCGW 120402 FN TOP …												■	■	12.9	0.2	4.3			SC…12…
	CCGW 120404 FN TOP …												■	■	12.9	0.4	4.3			SC…12…

* Description TOP ▯25

Application range of chip breaker — multidec®-ISO

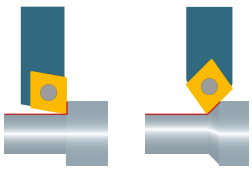
Properties:
– sharp cutting edge "F"
– medium cutting force
– neutral cut
– TOP system, for a better surface finish



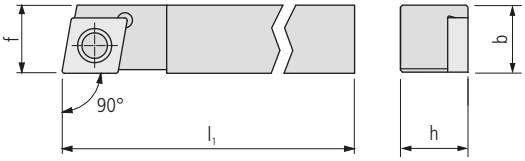
Optimal chip breaking

Application:
– finishing and micro finishing for stable or solid parts
– chip breaker for general application will generate continues chip
– aluminum, brass, copper, bronze, platinium, gold, synthetics and synthetics reinforced/composites
– Ideal for smallest tolerance and high surface quality

	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	○	○	○
▼▼	–	–	–	–	–	–	●	●	●
▼▼▼	–	–	–	–	–	–	●	●	●



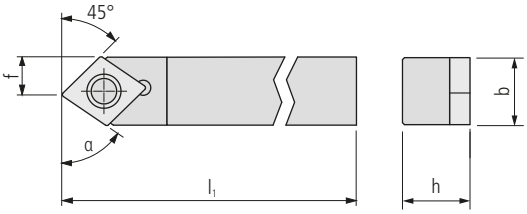




SCAC… U (90°)

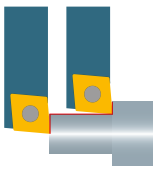
Order designation L		Order designation R		Dimensions b	h	l_1		f				Inserts ▯178…
STANDARD-LINE								Accuracy class of UTILIS ▯171				
SCACL 0808 K06 U	■	SCACR 0808 K06 U	■	8	8	125		8				CC..0602..
SCACL 1010 M06 U	■	SCACR 1010 M06 U	■	10	10	150		10				CC..0602..
SCACL 1212 M09 U	■	SCACR 1212 M09 U	■	12	12	150		12				CC..09T3..
SCACL 1616 H09 U	■	SCACR 1616 H09 U	■	16	16	100		16				CC..09T3..
SCACL 2020 K12 U	■	SCACR 2020 K12 U	■	20	20	125		20				CC..1204..



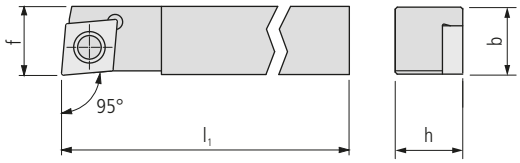


SCDC… U (45°)

Order designation L		Order designation R		Dimensions b	h	l_1		f		α		Inserts ▯178…
STANDARD-LINE								Accuracy class of UTILIS ▯171				
SCDCL 0808 K06 U	■			8	8	125		4		55°		CC..0602..
SCDCL 1010 M06 U	■			10	10	150		5		55°		CC..0602..
SCDCL 1212 M09 U	■			12	12	150		6		55°		CC..09T3..





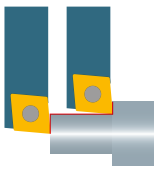


SCLC… U (95°)

Order designation L		Order designation R		Dimensions h	b	l_1	f	Inserts 178…
STANDARD-LINE				Accuracy class of UTILIS 171				
SCLCL 0808 F06 U	■	SCLCR 0808 F06 U	■	8	8	80	8	CC..0602..
SCLCL 0808 H06 U	■	SCLCR 0808 H06 U	■	8	8	100	8	CC..0602..
SCLCL 1010 F06 U	■	SCLCR 1010 F06 U	■	10	10	80	10	CC..0602..
SCLCL 1010 H06 U	■	SCLCR 1010 H06 U	■	10	10	100	10	CC..0602..
SCLCL 1212 H09 U	■	SCLCR 1212 H09 U	■	12	12	100	12	CC..09T3..
SCLCL 1616 K09 U	■	SCLCR 1616 K09 U	■	16	16	125	16	CC..09T3..

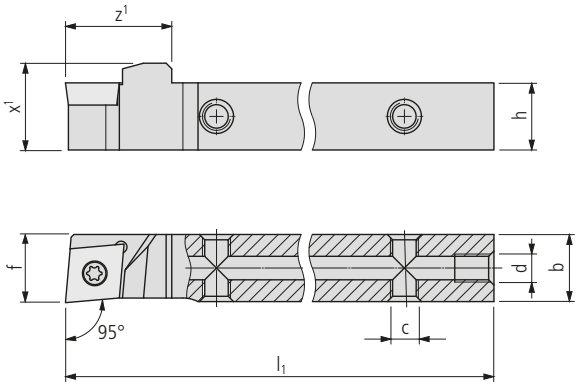
SCLC… U (95°) INCH

Order designation L		Order designation R		Dimensions h	b	l_1	f	Inserts 178…
STANDARD-LINE				Accuracy class of UTILIS 171				
SCLCL 3/8" H06 U	■	SCLCR 3/8" H06 U	■	9.525	9.525	100	9.525	CC..0602..
SCLCL 1/2" H09 U	■	SCLCR 1/2" H09 U	■	12.7	12.7	100	12.7	CC..09T3..
SCLCL 5/8" K09 U	■	SCLCR 5/8" K09 U	■	15.875	15.875	125	15.875	CC..09T3..



With internal cooling





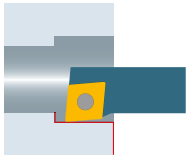
SCLC… U IC (95°)

Order designation				Dimensions								Inserts
L		R		h	b	l_1	z^1	x^1	c	d	f	178…
PREMIUM-LINE				Accuracy class of UTILIS 171								
SCLCL 0808 H06 U IC	■	SCLCR 0808 H06 U IC	■	8	8	100	16	11.5	M5	M5	8	CC.. 0602..
SCLCL 1010 H06 U IC	■	SCLCR 1010 H06 U IC	■	10	10	100	16	13.5	M5	M5	10	CC.. 0602..
SCLCL 1212 H09 U IC	■	SCLCR 1212 H09 U IC	■	12	12	100	19	15.5	M5	M5	12	CC.. 09T3..
SCLCL 1616 K09 U IC	■	SCLCR 1616 K09 U IC	■	16	16	125	19	19.5	M5	G1/8""	16	CC.. 09T3..

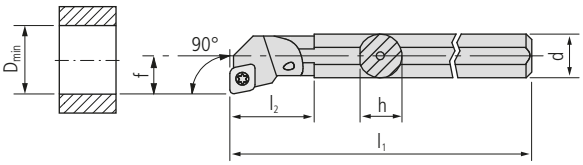
SCLC… U IC (95°) INCH

Order designation				Dimensions								Inserts
L		R		h	b	l_1	z^1	x^1	c	d	f	178…
PREMIUM-LINE				Accuracy class of UTILIS 171								
SCLCL 3/8" H06 U IC	■	SCLCR 3/8" H06 U IC	■	9.525	9.525	100	16	13	M5	M5	9.525	CC..0602...
SCLCL 1/2" H09 U IC	■	SCLCR 1/2" H09 U IC	■	12.7	12.7	100	19	16.2	M5	M5	12.7	CC..09T3..
SCLCL 5/8" K09 U IC	■	SCLCR 5/8" K09 U IC	■	15.875	15.875	125	19	19.4	M5	G1/8"	15.875	CC..09T3..

Scope of delivery: Holder without coolant connector
Coolant connectors 632





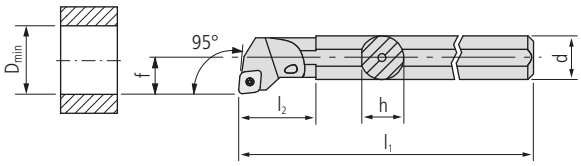


A… SCFC… (90°)

Order designation				Dimensions								Inserts
L		R		d	h	l_1	l_2	f	D_{min}			178…
STANDARD-LINE								Accuracy class of UTILIS 171				
A08F SCFCL 06	■	A08F SCFCR 06	■	8	7.6	80	17	5	11			CC..0602..
A10H SCFCL 06	■	A10H SCFCR 06	■	10	9.5	100	19	7	13			CC..0602..
A12K SCFCL 06	■	A12K SCFCR 06	■	12	11.5	125	22	9	16			CC..0602..







A… SCLC… (95°)

Order designation				Dimensions								Inserts
L		R		d	h	l_1	l_2	f	D_{min}			178…
STANDARD-LINE								Accuracy class of UTILIS 171				
A08F SCLCL 06	■	A08F SCLCR 06	■	8	7.6	80	17	5	11			CC..0602..
A10H SCLCL 06	■	A10H SCLCR 06	■	10	9.5	100	19	7	13			CC..0602..
A12K SCLCL 06	■	A12K SCLCR 06	■	12	11.5	125	22	9	16			CC..0602..
A16M SCLCL 09	■	A16M SCLCR 09	■	16	15	150	29	11	20			CC..09T3..
A20Q SCLCL 09	■	A20Q SCLCR 09	■	20	18.5	180	32	13	25			CC..09T3..

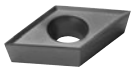
For holders (SC…) OD turning

Illustration	Description	Dimensions	Order designation		Holder
	TORX screw	M2.5×6 T08	MSP 25060 T08	■	SC… 06
		M3.5×11 T15	MSP 35110 T15	■	SC… 09
		M4.5×12 T15	MSP 45120 T15	■	SC… 12

For holders (… SC…) ID turning

Illustration	Description	Dimensions	Order designation		Holder
	TORX screw	M2.5×5 T08	MSP 25050 T08	■	A08F SC… 06 A10H SC… 06 A12K SC… 06
		M3.5×7.2 T15	MSP 35072 T15	■	A16M SC…09
		M3.5×8.6 T15	MSP 35086 T15	■	A20Q SC… 09

multidec®-ISO provides a well balanced range of tools for turning with rhombic 55° inserts and holders. Positive inserts with rounded cutting edges for roughing and sharp cutting edges for finishing are available.
These include a wide range of ground holders with hardened and nickel-plated surfaces for Swiss type automatic lathes with shank sizes from 8 to 20 mm and boring bars with diameters from 10 to 20 mm.





Advantages:
– Carbide and Cermet grades with chip breaker and coatings for all common materials
– Diamond range with CVD and PCD inserts for machining non-ferrous metals
– Cutting edge radius from 0.03 to 0.8 mm as standard
– Boring bars with steel- and carbide shanks



"IC" tool holder with integrated cooling

Cost-efficient processing of modern materials increasingly requires accurate control of the coolant at the cutting edge. Conveying the coolant as close as possible to the cutting edge is often a difficult task in the machine rooms of Swiss type turning lathes.
The multidec®-IC program offers a wide range of holders with integrated cooling. Because of the high precision and pressure, it is possible to discharge the chip quickly and safely from the cutting edge and the workpiece, which protects the cutting edge of the insert. This means significantly longer tool life as well as very reliable serial production.

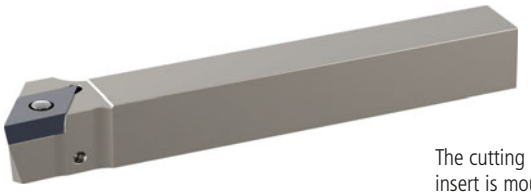
Advantages:
– All holders feature five possible connectors for the coolant supply
– Constant coolant discharge means low build-up at front near the holder
– With or without high pressure, the coolant medium always hits the cutting edge precisely



"TWIN" holder with and without integrated coolant supply

The "TWIN" range allows you to work with two inserts on the same holder.
Different combinations are possible, and provide the user with a high degree of flexibility. Holders are available with shank cross-sections of 8 to 20 mm, with and without internal cooling.

Advantages:
– Twice the number of tools on the machine
– Two different turning operations are possible with a single tool holder
– All holders with an integrated coolant supply have five connecting options

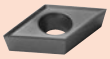


"FC" holder with quick cutting edge change system (fast change)

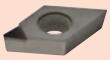
The cutting edge can be changed without unclamping the holder using the "FC" holder. The indexable insert is mounted using a specially developed knee lever which is operated using a clamping screw on the rear of the holder.

Advantages:
– Quick indexable insert change directly in the machine
– Holder with and without integrated coolant supply

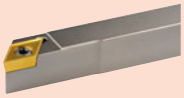
Technical information 9



Inserts (carbide / cermet)
DCGT … -A3 206
DCGT … -PA3 207
DCGT … -PA5 208
DCGT … -TOP5 209
DCGT … -PA7 210
DCXT … -PA9 211
DCGT … -PF 212
DCMT … -PF 213
DCGT … -PF23 214
DCGT … -PF33 215
DCMT … -PF43 216
DCMT … -PM 217
DCMT … -PMF 218
DCMT … -PM25 219
DCMT … -PM55 220
DCET … -U 221



Inserts (diamond)
DCGT … 222
DCGT … TOP 223
DCGT … -UWS 224
DCGT … -UWN 225
DCGT … -UWR 226
DCGW … 227
DCGW … TOP 228



Holders (OD turning)
SDAC… U (90°) 229
SDHC… U (107.5°), SDHC… U IC(107.5°) 230
SDJC… U (93°), SDJC… U IC (93°) 232
SDJC… U FC (93°), SDJC… U FC IC (93°) 234
SDNC… U (62.5°), SDNC… U IC (62.5°) 236
SDNCN … U (62.5°), SDNCN … U IC (62.5°) 238
SDJC. (93°)/1600… TWIN, SDJC. (93°)/1600… IC TWIN 240



Holders (ID turning)
A… SDOC… (120°) 242
A… SDQC… (107.5°) 243
SDUC… (93°), SDUC… IC (93°), A… SDUC… (93°) 244

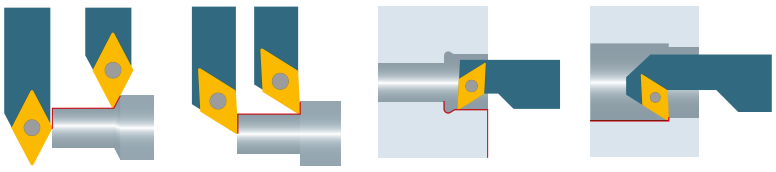


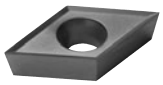
Replacement and spare parts 247



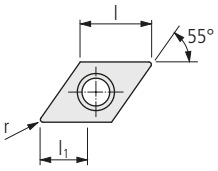
Coolant connectors and accessories 632

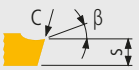
Inserts (Carbide / Cermet) — multidec®-ISO





DCGT … -A3



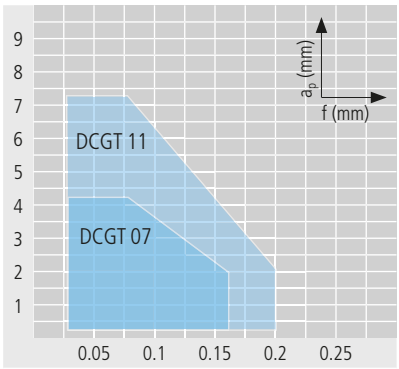


β: 30°
s: ±0.13
C: <0.002

Order designation	Carbide (□19)									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			□229…
STANDARD-LINE															Accuracy class of UTILIS □171					
N DCGT 0702006 FN -A3 …	■	■		■											7.75	0.06	4.1			SD…07…
DCGT 0702015 FN -A3 …	■	■		■											7.75	0.15	4.1			SD…07…
DCGT 0702035 FN -A3 …	■	■		■											7.75	0.35	4.1			SD…07…
DCGT 11T3008 FN -A3 …	■	■		■											11.6	0.08	7.2			SD…11…
DCGT 11T3015 FN -A3 …	■	■		■											11.6	0.15	7.2			SD…11…
DCGT 11T3035 FN -A3 …	■	■		■											11.6	0.35	7.2			SD…11…

Application range of chip breaker — multidec®-ISO

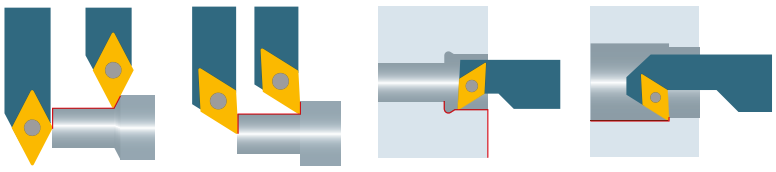
Properties:
– polished rake
– ground clearance
– sharp cutting edge "F"
– submicrograin carbide, heat and wear resistent

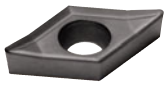


Optimal chip breaking

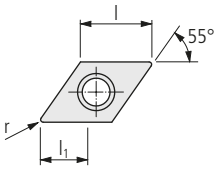
Application:
– micro finishing
– chip breaker for general application
– stainless steel, alloyed steel, titanium, super alloy, aluminum and synthetics reinforced/ composites

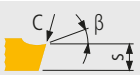
	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	–	–	–
▼▼	○	○	○	○	○	○	●	–	●
▼▼▼	●	●	●	●	●	●	●	–	●





DCGT … -PA3

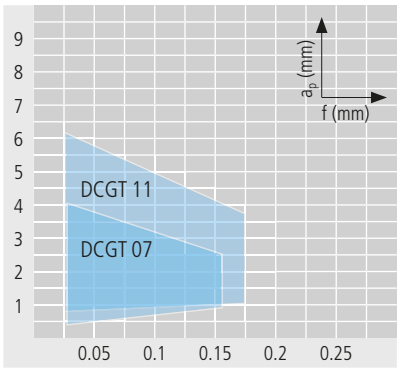




β: 30°
s: ±0.13
C: <0.002

Order designation	Carbide 19									Cermet		Diamond			Dimensions					Holder
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			229…
STANDARD-LINE															Accuracy class of UTILIS 171					
N DCGT 070204 FN -PA3 …	■	■													7.75	0.4	4			SD…07…
DCGT 11T304 FN -PA3 …	■	■													11.6	0.4	6.2			SD…11…
DCGT 11T308 FN -PA3 …	■	■													11.6	0.8	6.2			SD…11…

Properties:
– polished rake
– ground clearance
– sharp cutting edge "F"
– micrograin carbide, heat and wear resistent

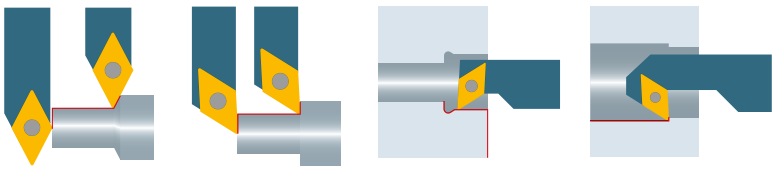


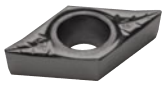
Optimal chip breaking

Application:
– micro finishing
– chip breaker for materials with difficult chip control
– stainless steel, alloyed steel, titanium, super alloy, aluminum and synthetics reinforced/ composites

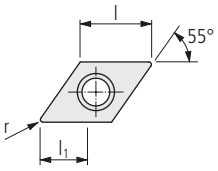
	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	○	–	○
▼▼	○	○	○	○	○	○	●	–	●
▼▼▼	●	●	●	●	●	●	●	–	●

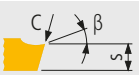
Inserts (Carbide / Cermet) — multidec®-ISO





DCGT … -PA5



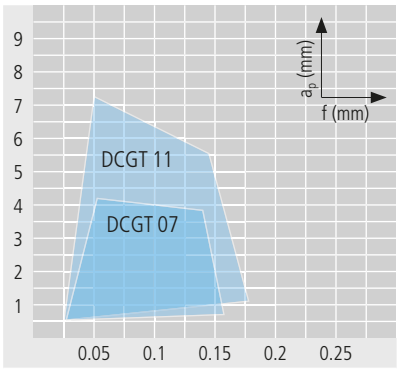


β: 25°
s: ±0.13
C: <0.002

Order designation	Carbide (□19)									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			□229…
STANDARD-LINE															Accuracy class of UTILIS □171					
N DCGT 070202 FN -PA5 …	■	■													7.75	0.2	4.1			SD…07…
DCGT 070204 FN -PA5 …	■	■													7.75	0.4	4.1			SD…07…
DCGT 11T302 FN -PA5 …	■	■													11.6	0.2	7.2			SD…11…
DCGT 11T304 FN -PA5 …	■	■													11.6	0.4	7.2			SD…11…
DCGT 11T308 FN -PA5 …	■	■													11.6	0.8	7.2			SD…11…

Application range of chip breaker — multidec®-ISO

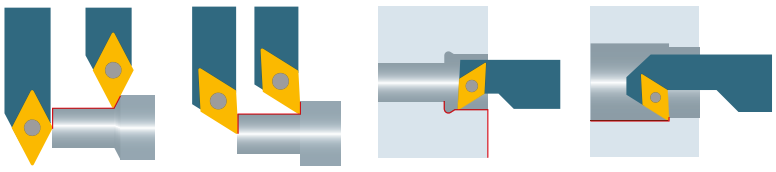
Properties:
– polished rake
– ground clearance
– sharp cutting edge "F"
– submicrograin carbide, heat and wear resistent

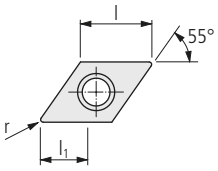


Optimal chip breaking

Application:
– finishing and micro finishing
– chip breaker for materials with difficult chip control
– stainless steel, alloyed steel, titanium, super alloy, aluminum and synthetics reinforced/ composites

	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	○	–	○
▼▼	●	●	●	○	●	●	●	–	●
▼▼▼	●	●	●	○	●	●	●	–	●









β: 25°
s: ±0.13
C: <0.002

DCGT … -TOP5*

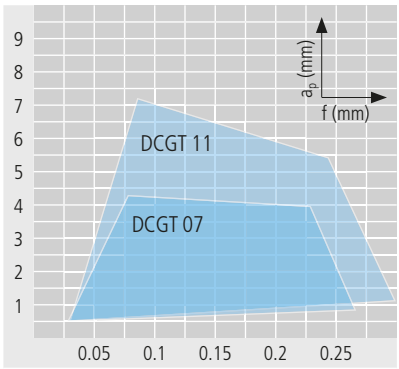
Order designation	Carbide 19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			229…
STANDARD-LINE															Accuracy class of UTILIS 171					
L DCGT 11T304 FL -TOP5 …	■	■													11.6	0.4	7.2			SD…11…
DCGT 11T308 FL -TOP5 …	■	■													11.6	0.8	7.2			SD…11…
N DCGT 11T304 FN -TOP5 …	■	■													11.6	0.4	7.2			SD…11…
DCGT 11T308 FN -TOP5 …	■	■													11.6	0.8	7.2			SD…11…
R DCGT 11T304 FR -TOP5 …	■	■													11.6	0.4	7.2			SD…11…
DCGT 11T308 FR -TOP5 …	■	■													11.6	0.8	7.2			SD…11…

* Description TOP 25

Application range of chip breaker

multidec®-ISO

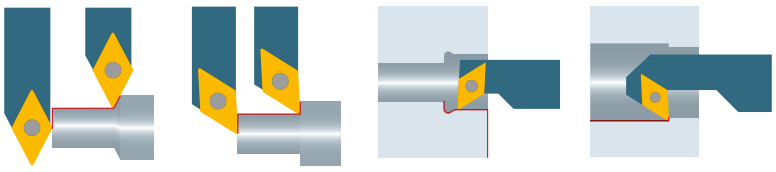
Properties:
– polished rake and ground clearance
– sharp cutting edge "F"
– micrograin carbide, heat and wear resistent
– TOP system, for a better surface finish

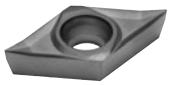


Optimal chip breaking

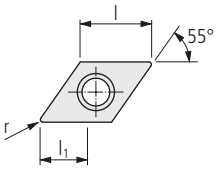
Application:
– finishing for 20–100 % higher feed rates compair to the standard
– chip breaker for materials with difficult chip control
– stainless steel, alloyed steel, titanium, super alloy, aluminum and synthetics reinforced/ composites

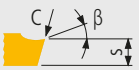
	I	II	III	IV	V	IV	VII	VIII	IX
▼	○	○	○	○	○	○	○	–	○
▼▼	●	●	●	○	●	●	●	–	●
▼▼▼	○	○	○	○	○	○	○	–	○





DCGT … -PA7



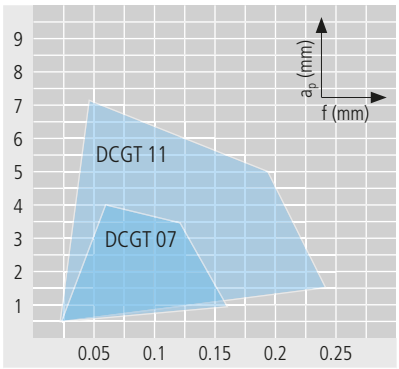


β: 27°
s: ±0.13
C: <0.002

Order designation	Carbide 19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			229…
STANDARD-LINE															Accuracy class of UTILIS 171					
DCGT 0702005 FN -PA7 …	■	■													7.75	0.05	4			SD…07…
DCGT 070201 FN -PA7 …	■	■													7.75	0.1	4			SD…07…
DCGT 070202 FN -PA7 …	■	■													7.75	0.2	4			SD…07…
DCGT 070204 FN -PA7 …	■	■													7.75	0.4	4			SD…07…
DCGT 11T3005 FN -PA7 …	■	■													11.6	0.05	7.2			SD…11…
DCGT 11T301 FN -PA7 …	■	■													11.6	0.1	7.2			SD…11…
DCGT 11T302 FN -PA7 …	■	■													11.6	0.2	7.2			SD…11…
DCGT 11T304 FN -PA7 …	■	■													11.6	0.4	7.2			SD…11…
DCGT 11T308 FN -PA7 …	■	■													11.6	0.8	7.2			SD…11…

N

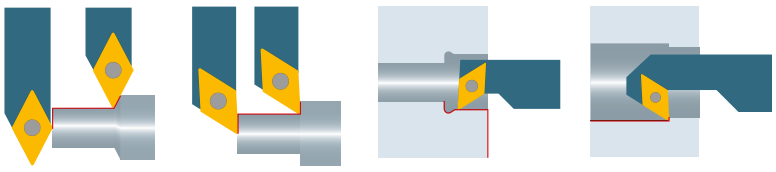
Properties:
– ground clearance
– sharp cutting edge "F"
– micrograin carbide, heat and wear resistent



Optimal chip breaking

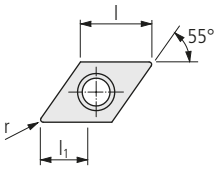
Application:
– micro finishing
– chip breaker for materials with good chip control
– stainless steel, alloyed steel, titanium, super alloy, aluminum and synthetics reinforced/ composites

	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	○	–	○
▼▼	○	○	○	○	○	○	●	–	●
▼▼▼	●	●	●	○	●	●	●	–	●





DCXT … -PA9

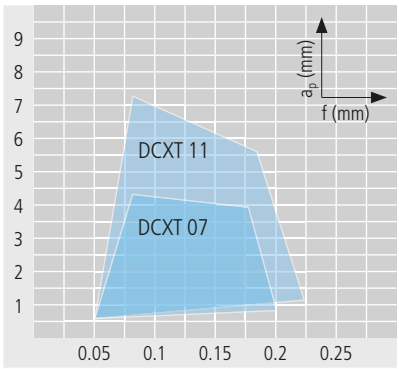




β: 25°
s: ±0.1
C: <0.01

Order designation	Carbide 🗋19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			🗋229…
VALUE-LINE																	Accuracy class of UTILIS 🗋171			
N DCXT 070204 EN -PA9 …	■	■													7.75	0.4	4			SD…07…
DCXT 11T304 EN -PA9 …	■	■													11.6	0.4	7.2			SD…11…
DCXT 11T308 EN -PA9 …	■	■													11.6	0.8	7.2			SD…11…

Properties:
– high precision sintered insert
– rounded cutting edge "E"
– micrograin carbide, heat and wear resistent
– best performance-cost ratio

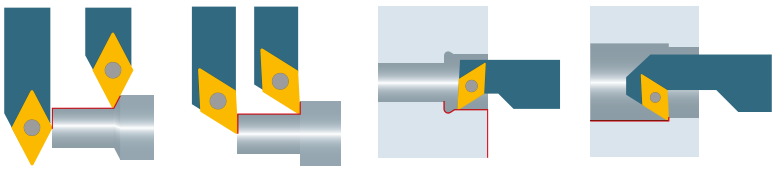


Optimal chip breaking

Application:
– finishing
– chip breaker for soft materials with good chip control
– alloyed steel, stainless steel, super alloy, titanium and aluminum

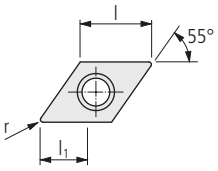
	I	II	III	IV	V	IV	VII	VIII	IX
▼	○	○	○	○	○	○	●	–	–
▼▼	●	●	●	●	●	●	○	–	–
▼▼▼	○	○	○	–	○	○	–	–	–

Inserts (Carbide / Cermet) — multidec®-ISO





DCGT … -PF





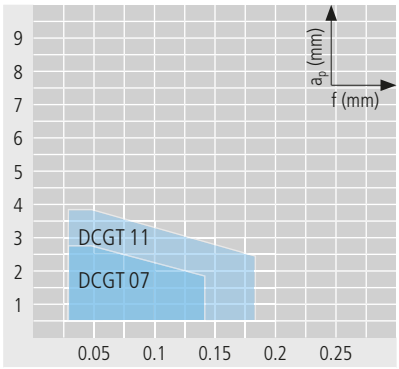
β: 8°
s: ±0.13
C: <0.01

Order designation	Carbide 19									Cermet			Diamond			Dimensions			Holder
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCM 10 MZ	UCVD 08	UPCD 15	UPCD 20	l	r	l_1	229…
	–	–	●	●	●	○	○	●	○	●	●	●	–	–	–				
	–	●	–	●	○	○	●	●	●	○	●	○	–	–	–				
	○	●	–	○	–	○	●	–	–	–	–	–	–	–	–				
	●	○	–	–	–	○	○	–	○	–	–	–	●	●	●				
STANDARD-LINE																			
																Accuracy class of UTILIS 171			
																– | +			
DCGT 070201 EN -PF …										■	■					7.75	0.1	2.8	SD…07…
DCGT 070202 EN -PF …					■			■		■	■	■				7.75	0.2	2.8	SD…07…
DCGT 070204 EN -PF …										■	■	■				7.75	0.4	2.8	SD…07…
DCGT 11T302 EN -PF …										■	■	■				11.6	0.2	3.9	SD…11…
DCGT 11T304 EN -PF …										■	■	■				11.6	0.4	3.9	SD…11…
DCGT 11T308 EN -PF …										■	■	■				11.6	0.8	3.9	SD…11…
DCGT 070201 FN -PF …						■	■		■							7.75	0.1	2.8	SD…07…
DCGT 070202 FN -PF …						■	■		■							7.75	0.2	2.8	SD…07…
DCGT 11T302 FN -PF …						■	■		■							11.6	0.2	3.9	SD…11…
DCGT 11T304 FN -PF …						■	■		■							11.6	0.4	3.9	SD…11…

N

Application range of chip breaker — multidec®-ISO

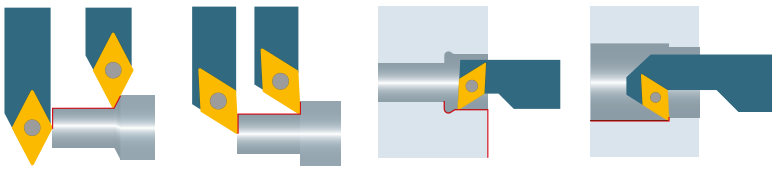
Properties:
– ground clearance
– little rounded cutting edge "E"
– sharp cutting edge "F"
– carbide and cermet in different grades



Optimal chip breaking

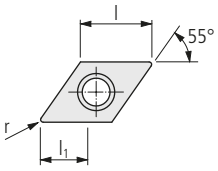
Application:
– finishing and micro finishing
– chip breaker for general application
– alloyed steel and stainless steel

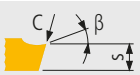
	I	II	III	IV	V	IV	VII	VIII	IX
▼	○	○	○	–	○	○	–	–	–
▼▼	●	●	●	–	●	●	–	–	–
▼▼▼	●	●	●	–	●	●	–	–	–





DCMT … -PF

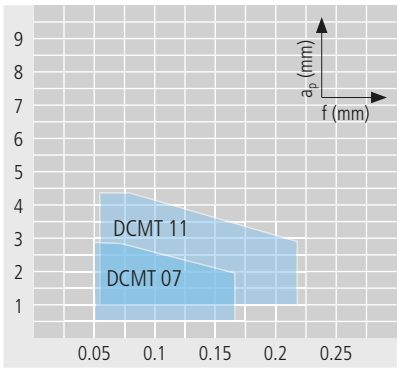




β: 8°
s: ±0.13
C: <0.02

Order designation	Carbide 19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			229…
VALUE-LINE																				
																		Accuracy class of UTILIS 171		
N	DCMT 070204 EN -PF …			■		■			■						7.75	0.4	2.9			SD…07…
	DCMT 11T304 EN -PF …			■		■			■						11.6	0.4	4.4			SD…11…
	DCMT 11T308 EN -PF …			■		■			■						11.6	0.8	4.4			SD…11…

Properties:
– sintered insert based on ISO standard
– rounded cutting edge "E"
– carbide and cermet in different grades

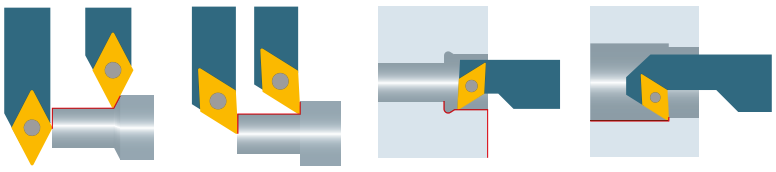


Optimal chip breaking

Application:
– roughing
– chip breaker for general application
– alloyed steel and stainless steel

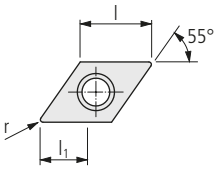
	I	II	III	IV	V	IV	VII	VIII	IX
▼	●	●	●	–	●	●	–	–	–
▼▼	○	○	○	–	○	○	–	–	–
▼▼▼	–	–	–	–	–	–	–	–	–

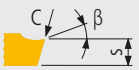
Inserts (Carbide / Cermet) — multidec®-ISO





DCGT … -PF23



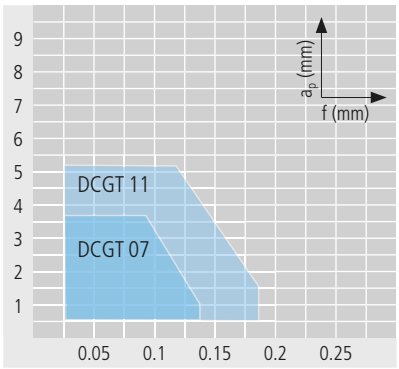


β: 12°
s: ±0.13
C: <0.002

Order designation	Carbide ▯19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						▯229…
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
STANDARD-LINE															Accuracy class of UTILIS ▯171					
N DCGT 0702003 EN -PF23 …							■								7.75	0.03	3.6			SD…07…
DCGT 0702005 FN -PF23 …							■								7.75	0.05	3.6			SD…07…
DCGT 070201 FN -PF23 …							■								7.75	0.1	3.6			SD…07…
DCGT 070202 FN -PF23 …							■								7.75	0.2	3.6			SD…07…
DCGT 11T3005 FN -PF23 …							■								11.6	0.05	5.2			SD…11…
DCGT 11T301 FN -PF23 …							■								11.6	0.1	5.2			SD…11…
DCGT 11T302 FN -PF23 …							■								11.6	0.2	5.2			SD…11…

Application range of chip breaker — multidec®-ISO

Properties:
– polished rake
– ground clearance
– sharp cutting edge "F"
– micrograin carbide

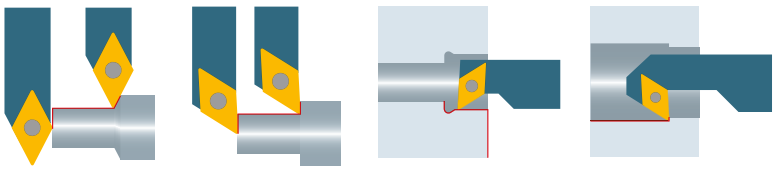


Optimal chip breaking

Application:
– micro finishing
– chip breaker for materials with difficult chip control
– alloyed steel and stainless steel

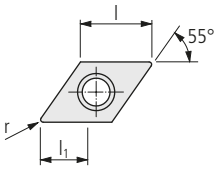
	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	–	–	–
▼▼	○	○	○	○	○	○	○	–	–
▼▼▼	●	●	●	○	●	●	○	–	○

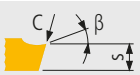
Inserts (Carbide / Cermet) — multidec®-ISO





DCGT … -PF33



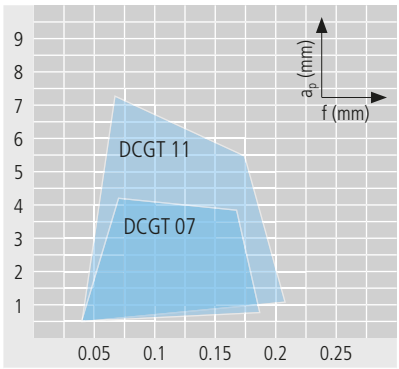


β: 12°
s: ±0.13
C: <0.002

Order designation	Carbide 🗋19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			🗋229…
STANDARD-LINE															Accuracy class of UTILIS 🗋171					
N	DCGT 0702005 FN -PF33 …						■								7.75	0.05	3.6			SD…07…
	DCGT 070201 FN -PF33 …						■								7.75	0.1	3.6			SD…07…
	DCGT 070202 FN -PF33 …						■								7.75	0.2	3.6			SD…07…
	DCGT 070204 FN -PF33 …						■								7.75	0.4	3.6			SD…07…
	DCGT 11T3005 FN -PF33 …						■								11.6	0.05	5.2			SD…11…
	DCGT 11T301 FN -PF33 …						■								11.6	0.1	5.2			SD…11…
	DCGT 11T302 FN -PF33 …						■								11.6	0.2	5.2			SD…11…
	DCGT 11T304 FN -PF33 …						■								11.6	0.4	5.2			SD…11…

Application range of chip breaker — multidec®-ISO

Properties:
– polished rake
– ground clearance
– sharp cutting edge "F"
– micrograin carbide

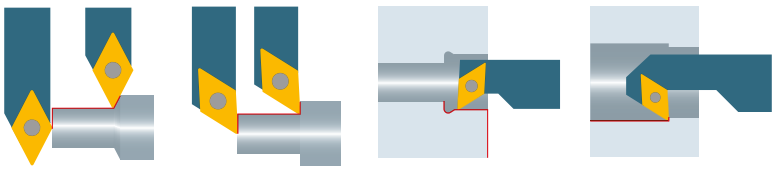


Optimal chip breaking

Application:
– micro finishing
– chip breaker for materials with difficult chip control
– alloyed steel and stainless steel

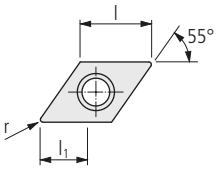
	I	II	III	IV	V	IV	VII	VIII	IX
▼	○	○	○	–	○	○	–	–	–
▼▼	●	●	●	–	●	●	–	–	–
▼▼▼	●	●	●	–	●	●	–	–	–

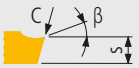
Inserts (Carbide / Cermet) — multidec®-ISO





DCMT … -PF43



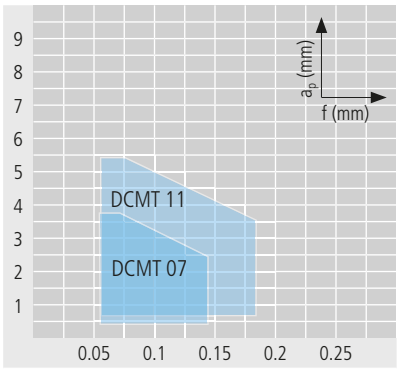


β: 12°
s: ±0.13
C: <0.02

Order designation	Carbide 🗋19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			🗋229…
VALUE-LINE															Accuracy class of UTILIS 🗋171					
N DCMT 070202 EN -PF43 …					■			■							7.75	0.2	3.8			SD…07…
DCMT 070204 EN -PF43 …								■							7.75	0.4	3.8			SD…07…
DCMT 11T302 EN -PF43 …								■							11.6	0.2	5.5			SD…11…
DCMT 11T304 EN -PF43 …								■							11.6	0.4	5.5			SD…11…
DCMT 11T308 EN -PF43 …								■							11.6	0.8	5.5			SD…11…

Application range of chip breaker — multidec®-ISO

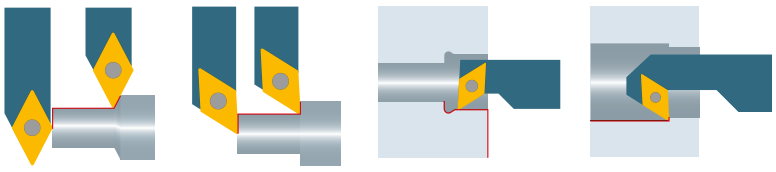
Properties:
– sintered insert based on ISO standard
– rounded cutting edge "E"
– micrograin carbide

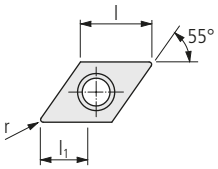


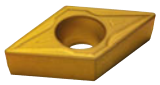
Optimal chip breaking

Application:
– roughing and finishing
– chip breaker for materials with difficult chip control
– alloyed steel and stainless steel

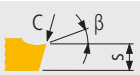
	I	II	III	IV	V	IV	VII	VIII	IX
▼	●	●	●	–	●	●	–	–	–
▼▼	●	●	●	–	●	●	–	–	–
▼▼▼	–	–	–	–	–	–	–	–	–







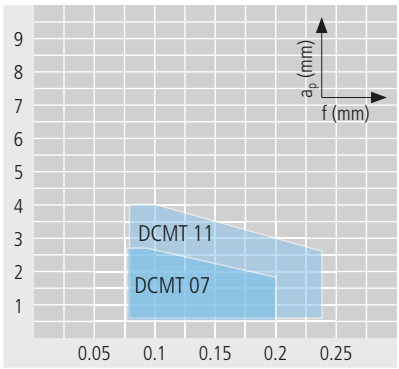
DCMT … -PM



β: 8°
s: ±0.13
C: <0.02

Order designation	Carbide 🗋19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						🗋229…
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
VALUE-LINE															Accuracy class of UTILIS 🗋171					
N DCMT 070204 EN -PM …			■		■			■							7.75	0.4	2.6			SD…07…
DCMT 070208 EN -PM …								■							7.75	0.8	2.6			SD…07…
DCMT 11T304 EN -PM …			■		■			■							11.6	0.4	4.1			SD…11…
DCMT 11T308 EN -PM …			■		■			■							11.6	0.8	4.1			SD…11…

Properties:
– sintered insert based on ISO standard
– rounded cutting edge "E"
– micrograin carbide

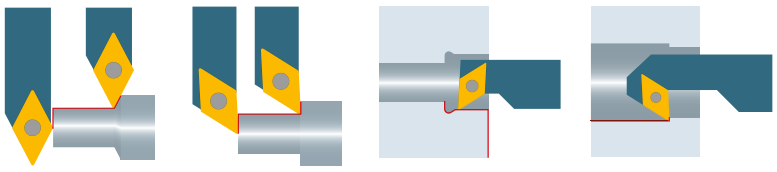


Optimal chip breaking

Application:
– roughing
– chip breaker for general application
– alloyed steel and stainless steel

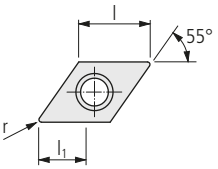
	I	II	III	IV	V	IV	VII	VIII	IX
▼	●	●	●	–	●	●	–	–	–
▼▼	○	○	○	–	○	○	–	–	–
▼▼▼	–	–	–	–	–	–	–	–	–

Inserts (Carbide / Cermet) — multidec®-ISO





DCMT … -PMF



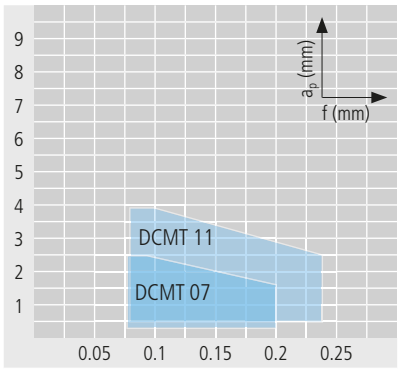


β: 8°
s: ±0.13
C: <0.02

Order designation	Carbide 19									Cermet			Diamond			Dimensions			Holder
	–	–	●	●	●	○	○	●	○	●	●	●	–	–	–				
	–	●	–	●	○	○	●	●	●	○	●	○	–	–	–				
	○	●	–	○	–	○	●	–	–	–	–	–	–	–	–				
	●	○	–	–	–	○	○	–	○	–	–	–	●	●	●				
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCM 10 MZ	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			229…
VALUE-LINE																Accuracy class of UTILIS 171					
N DCMT 070202 EN -PMF												■				7.75	0.2	2.6			SD…07…
DCMT 070204 EN -PMF												■				7.75	0.4	2.6			SD…07…
DCMT 11T304 EN -PMF												■				11.6	0.4	4.1			SD…11…
DCMT 11T308 EN -PMF												■				11.6	0.8	4.1			SD…11…

Application range of chip breaker — multidec®-ISO

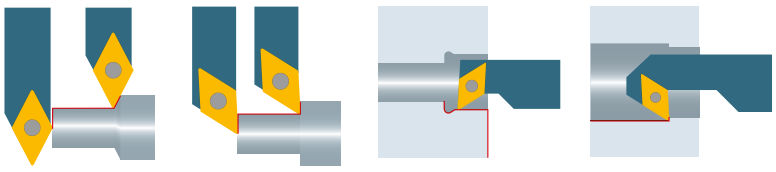
Properties:
– sintered insert based on ISO standard
– rounded cutting edge "E"
– micrograin carbide

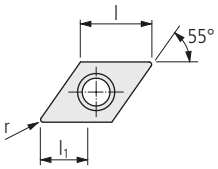


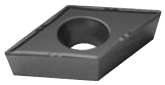
Optimal chip breaking

Application:
– roughing and finishing
– chip breaker for general application
– alloyed steel and stainless steel

	I	II	III	IV	V	IV	VII	VIII	IX
▼	●	●	●	–	●	●	–	–	–
▼▼	●	●	●	–	●	●	–	–	–
▼▼▼	–	–	–	–	–	–	–	–	–







DCMT … -PM25



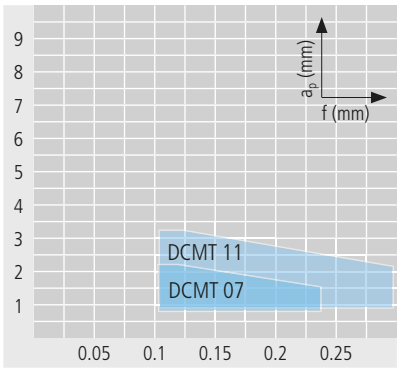
β: 18°
s: ±0.13
C: <0.02

Order designation	Carbide 🗋19									Cermet		Diamond			Dimensions			Holder
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1	🗋229…
–	–	●	●	●	○	○	●	●	○	●	●	–	–	–				
–	●	–	●	○	○	●	●	●	○	●	–	–	–					
○	●	–	○	–	○	●	–	–	–	–	–	–	–					
●	○	–	–	–	○	○	–	○	–	–	–	●	●	●				
VALUE-LINE																		
N	DCMT 070202 EN -PM25 …				■										7.75	0.2	1.6	SD…07…
	DCMT 070204 EN -PM25 …				■										7.75	0.4	2	SD…07…
	DCMT11T302 EN -PM25 …				■										11.6	0.2	2	SD…11…
	DCMT11T304 EN -PM25 …				■										11.6	0.4	2.2	SD…11…
	DCMT11T308 EN -PM25 …				■										11.6	0.8	3.2	SD…11…

Accuracy class of UTILIS 🗋171



Properties:
– sintered insert based on ISO standard
– rounded cutting edge "E"
– micrograin carbide

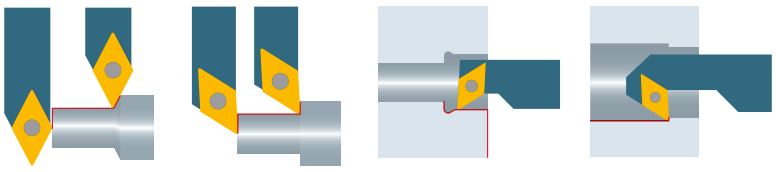


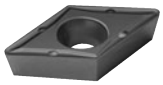
Optimal chip breaking

Application:
– roughing and finishing
– chip breaker for materials with difficult chip control
– stainless steel

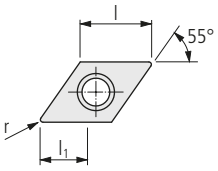
	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	–	–	–
▼▼	○	○	○	–	●	●	–	–	–
▼▼▼	–	–	–	–	–	–	–	–	–

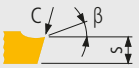
Inserts (Carbide / Cermet) — multidec®-ISO





DCMT … -PM55



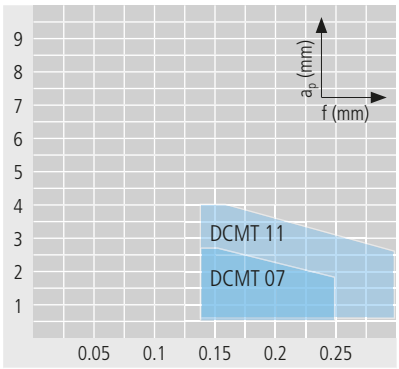


β: 16°
s: ±0.13
C: <0.02

Order designation	Carbide (19)									Cermet		Diamond			Dimensions					Holder (229…)
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
VALUE-LINE															Accuracy class of UTILIS (171)					
N DCMT 070204 EN -PM55 …				■											7.75	0.4	2.2			SD…07…
DCMT 070208 EN -PM55 …				■											7.75	0.8	2.4			SD…07…
DCMT11T304 EN -PM55 …				■											11.6	0.4	3			SD…11…
DCMT11T308 EN -PM55 …				■											11.6	0.8	4			SD…11…

Application range of chip breaker — multidec®-ISO

Properties:
– sintered insert based on ISO standard
– rounded cutting edge "E"
– micrograin carbide

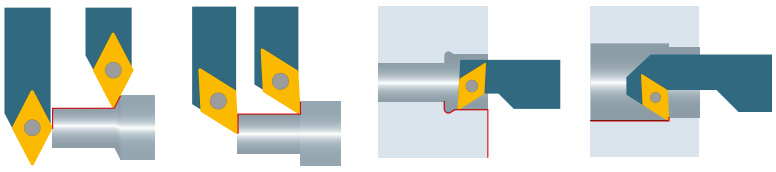


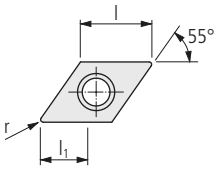
Optimal chip breaking

Application:
– roughing
– chip breaker for general application
– stainless steel

	I	II	III	IV	V	IV	VII	VIII	IX
▼	○	○	○	–	●	●	–	–	–
▼▼	–	–	–	–	–	–	–	–	–
▼▼▼	–	–	–	–	–	–	–	–	–

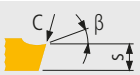
Inserts (Carbide / Cermet) — multidec®-ISO







DCET … -U



β: 12°
s: ±0.025
C: <0.002

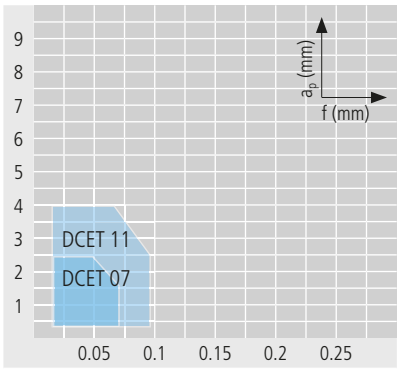
Order designation	Carbide 19									Cermet		Diamond			Dimensions					Holder 229…
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
PREMIUM-LINE																				
DCET 0702003 FR -U …	■	■													7.75	0.03	2.5			SD…07…
DCET 070201 FR -U …	■	■								■	■				7.75	0.1	2.5			SD…07…
DCET 070202 FR -U …	■	■								■	■				7.75	0.2	2.5			SD…07…
DCET 11T301 FR -U …	■	■								■	■				11.6	0.1	4			SD…11…
DCET 11T302 FR -U …	■	■								■	■				11.6	0.2	4			SD…11…
DCET 11T304 FR -U …	■	■													11.6	0.4	4			SD…11…

Accuracy class of UTILIS 171



Application range of chip breaker — multidec®-ISO

Properties:
- ground rake and clearence
- sharp cutting edge "F"
- submicrograin carbide, heat and wear resistent and cermet

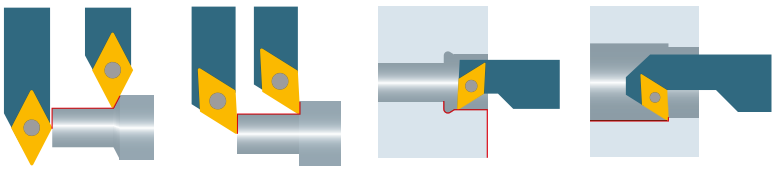


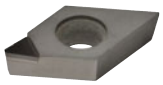
Optimal chip breaking

Application:
- micro finishing
- chip breaker for materials with difficult chip control
- alloyed steel and stainless steel

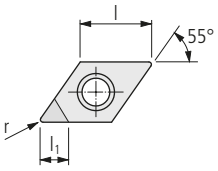
	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	–	–	–
▼▼	○	○	○	–	○	○	–	–	–
▼▼▼	●	●	●	○	●	●	○	–	○

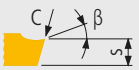
Inserts (Diamond) — multidec®-ISO





DCGT …



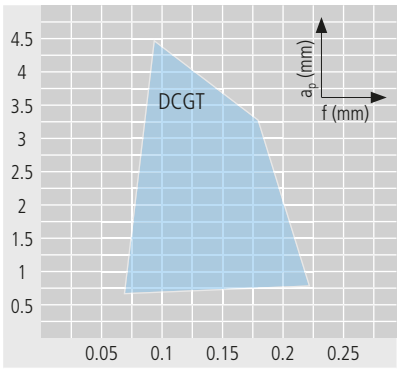


β: 5–7°
s: ±0.13
C: <0.002

Order designation	Carbide ▯19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						▯229…
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
STANDARD-LINE															Accuracy class of UTILIS ▯171					
N DCGT 070201 FN …														■	7.75	0.1	3.8			SD…07…
DCGT 070202 FN …													■	■	7.75	0.2	3.7			SD…07…
DCGT 070204 FN …													■		7.75	0.4	3.4			SD…07…
DCGT 070208 FN …													■		7.75	0.8	3			SD…07…
DCGT 11T301 FN …														■	11.6	0.1	4.8			SD…11…
DCGT 11T302 FN …													■	■	11.6	0.2	4.7			SD…11…
DCGT 11T304 FN …													■		11.6	0.4	4.3			SD…11…
DCGT 11T308 FN …													■		11.6	0.8	4			SD…11…
DCGT 11T312 FN …													■		11.6	1.2	3.5			SD…11…

Application range of chip breaker — multidec®-ISO

Properties:
– sharp cutting edge "F"
– less cutting force
– positive cut

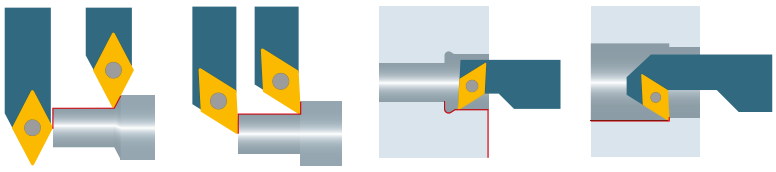


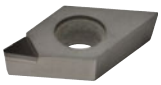
Optimal chip breaking

Application:
– finishing and micro finishing for unstable or thin-walled parts
– chip breaker for general application will generate continues chip
– aluminum, brass, copper, bronze, platinium, gold, synthetics and synthetics reinforced/composites
– Ideal for smallest tolerance and medium surface quality

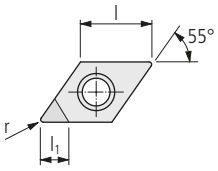
	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	○	○	○
▼▼	–	–	–	–	–	–	●	●	●
▼▼▼	–	–	–	–	–	–	●	●	●

Inserts (Diamond) — multidec®-ISO





DCGT … TOP*





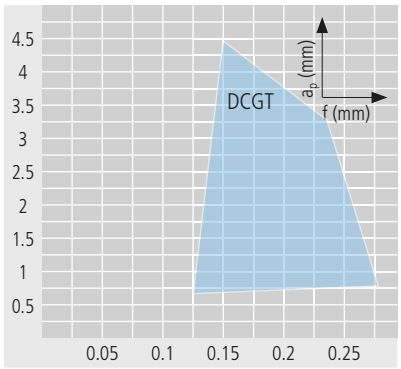
β: 5–7°
s: ±0.13
C: <0.002

Order designation	Carbide ▯19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						▯229…
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
STANDARD-LINE															Accuracy class of UTILIS ▯171					
L DCGT 070201 FL TOP …														■	7.75	0.1	3.8			SD…07…
DCGT 070202 FL TOP …														■	7.75	0.2	3.7			SD…07…
DCGT 11T301 FL TOP …														■	11.6	0.1	4.8			SD…11…
DCGT 11T302 FL TOP …														■	11.6	0.2	4.7			SD…11…
R DCGT 070201 FR TOP …														■	7.75	0.1	3.8			SD…07…
DCGT 070202 FR TOP …														■	7.75	0.2	3.7			SD…07…
DCGT 11T301 FR TOP …														■	11.6	0.1	4.8			SD…11…
DCGT 11T302 FR TOP …														■	11.6	0.2	4.7			SD…11…

* Description TOP ▯25

Application range of chip breaker — multidec®-ISO

Properties:
– sharp cutting edge "F"
– less cutting force
– positive cut
– TOP system, for a better surface finish

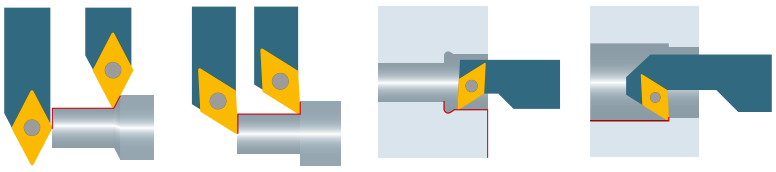


Optimal chip breaking

Application:
– finishing and micro finishing for unstable or thin-walled parts
– chip breaker for general application will generate continues chip
– aluminum, brass, copper, bronze, platinium, gold, synthetics and synthetics reinforced/composites
– Ideal for smallest tolerance and medium surface quality

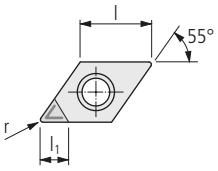
	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	○	○	○
▼▼	–	–	–	–	–	–	●	●	●
▼▼▼	–	–	–	–	–	–	●	●	●

Inserts (Diamond) — multidec®-ISO





DCGT … -UWS

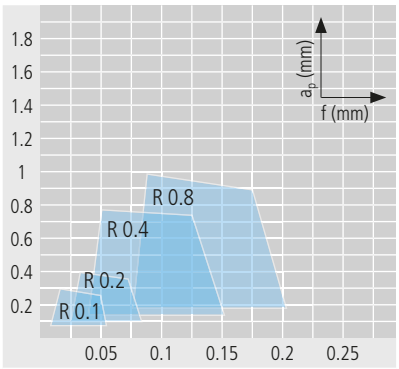




Order designation	Carbide (□19)									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						□229…
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
STANDARD-LINE															Accuracy class of UTILIS □171					
N	DCGT 070201 FN -UWS …												■	■	7.75	0.1	3			SD…07…
	DCGT 070202 FN -UWS …											■	■	■	7.75	0.2	3			SD…07…
	DCGT 070204 FN -UWS …											■	■	■	7.75	0.4	3			SD…07…
	DCGT 070208 FN -UWS …											■	■		7.75	0.8	3			SD…07…
	DCGT 11T301 FN -UWS …												■	■	11.6	0.1	3			SD…11…
	DCGT 11T302 FN -UWS …											■	■	■	11.6	0.2	3			SD…11…
	DCGT 11T304 FN -UWS …											■	■	■	11.6	0.4	3			SD…11…
	DCGT 11T308 FN -UWS …											■	■	■	11.6	0.8	3			SD…11…
	DCGT 11T312 FN -UWS …												■		11.6	1.2	3.6			SD…11…

Application range of chip breaker — multidec®-ISO

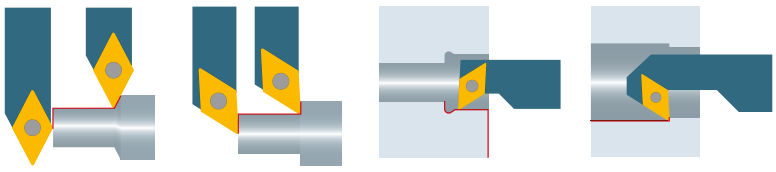
Properties:
– sharp cutting edge "F"
– almost any cutting force
– high positive narrow chip breaker made by laser



Optimal chip breaking

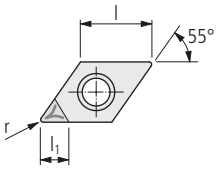
Application:
– micro finishing for unstable or thin-walled parts
– chip breaker for materials with difficult chip control
– synthetics reinforced/composites, aluminum, platinium, gold and synthetics
– Ideal for smallest tolerance and medium surface quality

	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	–	–	–
▼▼	–	–	–	–	–	–	○	○	○
▼▼▼	–	–	–	–	–	–	●	●	●





DCGT … -UWN

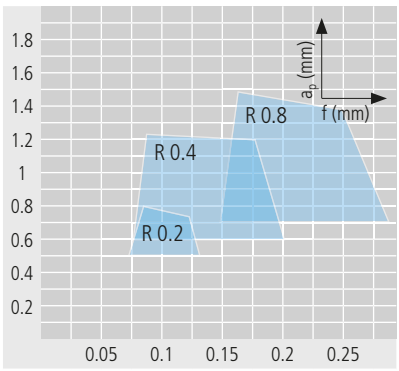




β: 15–20°
s: ±0.13
C: <0.005

Order designation	Carbide ▯19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						▯229…
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
STANDARD-LINE															Accuracy class of UTILIS ▯171					
N	DCGT 070201 FN -UWN …													■	7.75	0.1	3			SD…07…
	DCGT 070202 FN -UWN …													■	7.75	0.2	3			SD…07…
	DCGT 070204 FN -UWN …													■	7.75	0.4	3			SD…07…
	DCGT 070208 FN -UWN …													■	7.75	0.8	3			SD…07…
	DCGT 11T301 FN -UWN …													■	11.6	0.1	3			SD…11…
	DCGT 11T302 FN -UWN …													■	11.6	0.2	3			SD…11…
	DCGT 11T304 FN -UWN …													■	11.6	0.4	3			SD…11…
	DCGT 11T308 FN -UWN …													■	11.6	0.8	3			SD…11…

Properties:
– sharp cutting edge "F"
– higher cutting force
– high positive wide chip breaker made by laser

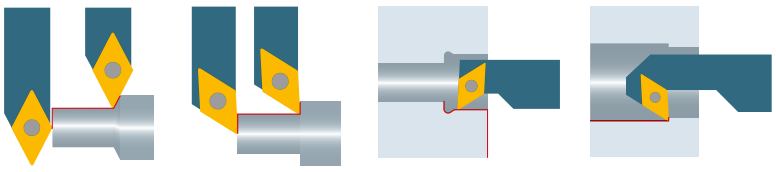


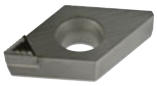
Optimal chip breaking

Application:
– finishing for stable or solid parts
– chip breaker for materials with difficult chip control
– synthetics reinforced/composites, aluminum, platinium, gold and synthetics
– Ideal for smallest tolerance and best surface quality

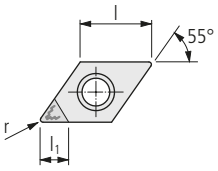
	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	○	○	○
▼▼	–	–	–	–	–	–	●	●	●
▼▼▼	–	–	–	–	–	–	–	–	–

Inserts (Diamond) — multidec®-ISO





DCGT … -UWR



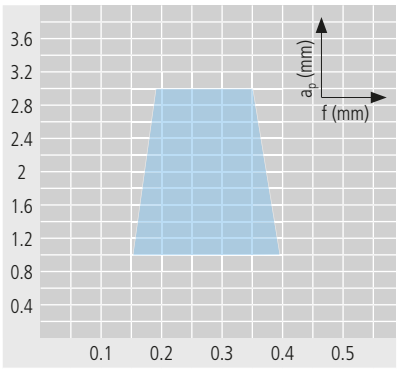


β: 15–20°
s: ±0.13
C: <0.005

Order designation	Carbide (UHM 10 / UHM 10 HX / UHM 10 MZ / UHM 20 HPX / UHM 20 MZ / UHM 30 / UHM 30 HX / UHM 30 MZ / UHM 30 SX)	Cermet (UCM 10 / UCM 10 HX)	Diamond (UCVD 08 / UPCD 15 / UPCD 20)	Dimensions l	r	l_1	Holder
	– – ● ● ● ○ ○ ● ○	● ●	– – –				
	– ● – ● ○ ○ ● ● ●	○ ●	– – –				
	○ ● – ○ – ○ ● – –	– –	– – –				
	● ○ – – – ○ ○ – ○	– –	● ● ●				
							□ 229…
STANDARD-LINE			Accuracy class of UTILIS □ 171				
DCGT 070204 FN -UWR …			■	7.75	0.4	3	SD…07…
DCGT 11T304 FN -UWR …			■	11.6	0.4	3	SD…11…
DCGT 11T308 FN -UWR …			■	11.6	0.8	3	SD…11…

Application range of chip breaker — multidec®-ISO

Properties:
– sharp cutting edge "F"
– higher cutting force
– high positive wide chip breaker made by laser

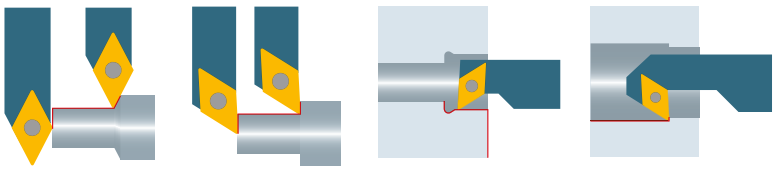


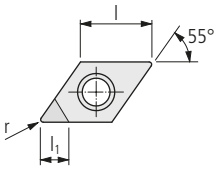
Optimal chip breaking

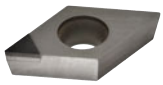
Application:
– machining of massive or solid parts
– chip breaker for materials with difficult chip control
– synthetics reinforced/composites, aluminum, platinium, gold and synthetics
– maximum metal removal rate

	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	○	○	○
▼▼	–	–	–	–	–	–	●	●	●
▼▼▼	–	–	–	–	–	–	–	–	–

Inserts (Diamond) — multidec®-ISO







DCGW …

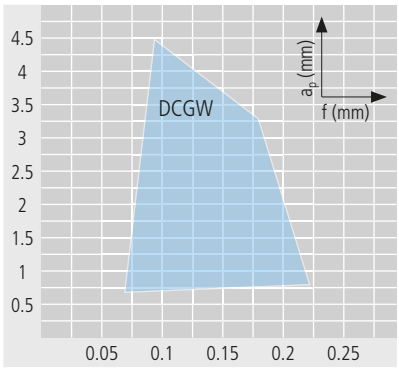


β: 0°
s: ±0.13
C: <0.002

Order designation	Carbide 19									Cermet		Diamond			Dimensions					Holder
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			229…
STANDARD-LINE															Accuracy class of UTILIS 171					
N DCGW 0702005 FN …														■	7.75	0.05	3.5			SD…07…
DCGW 070201 FN …														■	7.75	0.1	3.8			SD…07…
DCGW 070202 FN …												■	■	■	7.75	0.2	3.7			SD…07…
DCGW 070204 FN …												■	■	■	7.75	0.4	3.4			SD…07…
DCGW 070208 FN …												■	■	■	7.75	0.8	3			SD…07…
DCGW 11T301 FN …														■	11.6	0.1	4.8			SD…11…
DCGW 11T302 FN …												■	■	■	11.6	0.2	4.7			SD…11…
DCGW 11T304 FN …												■	■	■	11.6	0.4	4.3			SD…11…
DCGW 11T308 FN …												■	■	■	11.6	0.8	4			SD…11…
DCGW 11T312 FN …													■	■	11.6	1.2	3.6			SD…11…

Application range of chip breaker — multidec®-ISO

Properties:
– sharp cutting edge "F"
– medium cutting force
– neutral cut

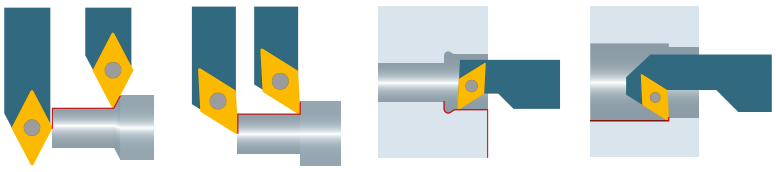


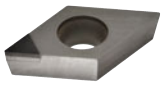
Optimal chip breaking

Application:
– finishing and micro finishing for stable or solid parts
– chip breaker for general application will generate continues chip
– aluminum, brass, copper, bronze, platinium, gold, synthetics and synthetics reinforced/composites
– Ideal for smallest tolerance and high surface quality

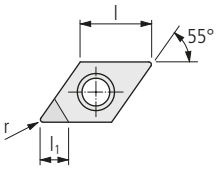
	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	○	○	○
▼▼	–	–	–	–	–	–	●	●	●
▼▼▼	–	–	–	–	–	–	●	●	●

Inserts (Diamond) — multidec®-ISO





DCGW … TOP*





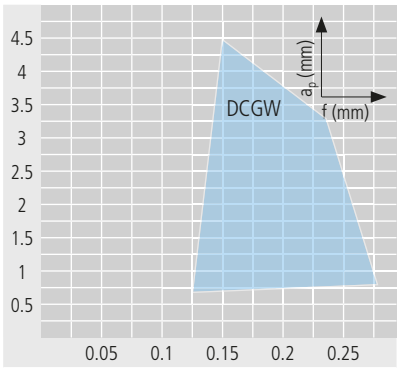
β: 0°
s: ±0.13
C: <0.002

Order designation	Carbide									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
STANDARD-LINE															Accuracy class of UTILIS 171					
L DCGW 11T301 FL TOP …														■	11.6	0.1	4.8			SD…11…
L DCGW 11T302 FL TOP …														■	11.6	0.2	4.7			SD…11…
R DCGW 11T302 FR TOP …														■	11.6	0.2	4.7			SD…11…
R DCGW 11T301 FR TOP …														■	11.6	0.1	4.8			SD…11…

* Description TOP 25

Application range of chip breaker — multidec®-ISO

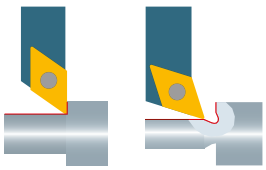
Properties:
– sharp cutting edge "F"
– medium cutting force
– neutral cut
– TOP system, for a better surface finish



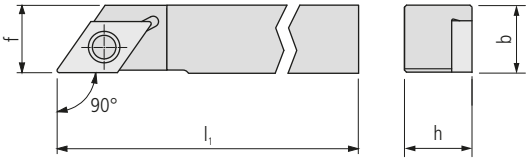
Optimal chip breaking

Application:
– finishing and micro finishing for stable or solid parts
– chip breaker for general application will generate continues chip
– aluminum, brass, copper, bronze, platinium, gold, synthetics and synthetics reinforced/composites
– Ideal for smallest tolerance and high surface quality

	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	○	○	○
▼▼	–	–	–	–	–	–	●	●	●
▼▼▼	–	–	–	–	–	–	●	●	●

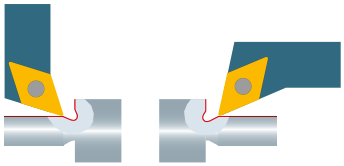


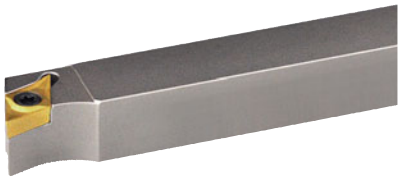


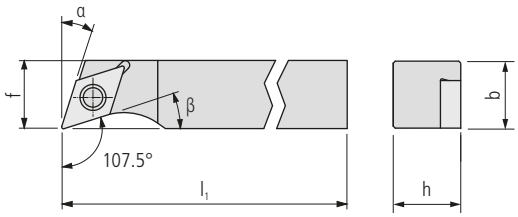


SDAC… U (90°)

Order designation				Dimensions								Inserts
L		R		h	b	l_1		f				206…
STANDARD-LINE				Accuracy class of UTILIS 171								
SDACL 0808 K07 U	■	SDACR 0808 K07 U	■	8	8	125		8				DC..0702..
SDACL 1010 M07 U	■	SDACR 1010 M07 U	■	10	10	150		10				DC..0702..
SDACL 1212 M07 U	■	SDACR 1212 M07 U	■	12	12	150		12				DC..0702..
SDACL 1212 M11 U	■	SDACR 1212 M11 U	■	12	12	150		12				DC..11T3..
SDACL 1616 K11 U	■	SDACR 1616 K11 U	■	16	16	125		16				DC..11T3..





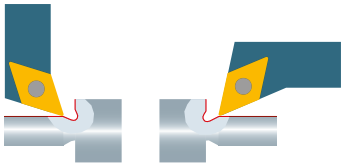


SDHC… U (107.5°)

Order designation L		Order designation R		Dimensions h	b	l_1	f	α	β	Inserts ⬚206…
STANDARD-LINE				Accuracy class of UTILIS ⬚171						
SDHCL 0808 H07 U	■	SDHCR 0808 H07 U	■	8	8	100	11	17.5°	17.5°	DC..0702..
SDHCL 1010 H07 U	■	SDHCR 1010 H07 U	■	10	10	100	11	17.5°	17.5°	DC..0702..
SDHCL 1212 H07 U	■	SDHCR 1212 H07 U	■	12	12	100	12	17.5°	17.5°	DC..0702..
SDHCL 1616 K11 U	■	SDHCR 1616 K11 U	■	16	16	125	16	17.5°	17.5°	DC..11T3..

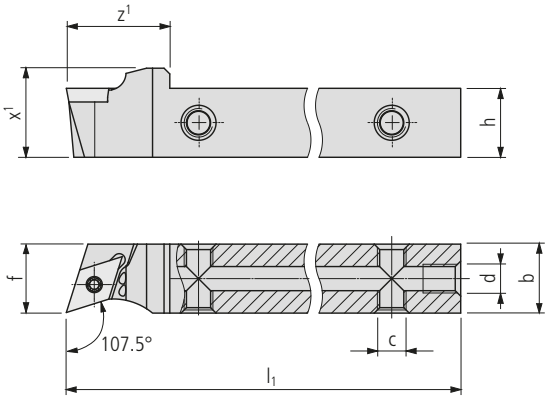
SDHC… U (107.5°) INCH

Order designation L		Order designation R		Dimensions h	b	l_1	f	α	β	Inserts ⬚206…
STANDARD-LINE				Accuracy class of UTILIS ⬚171						
SDHCL 3/8" H07 U	■	SDHCR 3/8" H07 U	■	9.525	9.525	100	11	17.5°	17.5°	DC..0702..
SDHCL 1/2" H07 U	■	SDHCR 1/2" H07 U	■	12.7	12.7	100	12.7	17.5°	17.5°	DC..0702..
SDHCL 5/8" K11 U	■	SDHCR 5/8" K11 U	■	15.875	15.875	125	15.875	17.5°	17.5°	DC..11T3..



With internal cooling





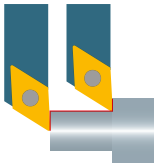
SDHC… U IC (107.5°)

Order designation				Dimensions								Inserts
L		R		h	b	l_1	z^1	x^1	c	d	f	206…
PREMIUM-LINE				Accuracy class of UTILIS 171								
SDHCL 0808 H07 U IC	■	SDHCR 0808 H07 U IC	■	8	8	100	18	11.5	M5	M5	8	DC..0702..
SDHCL 1010 H07 U IC	■	SDHCR 1010 H07 U IC	■	10	10	100	18	13.5	M5	M5	10	DC..0702..
SDHCL 1212 H07 U IC	■	SDHCR 1212 H07 U IC	■	12	12	100	18	15.5	M5	M5	12	DC..0702..
SDHCL 1616 K11 U IC	■	SDHCR 1616 K11 U IC	■	16	16	125	21	19.5	M5	G1/8"	16	DC..11T3..

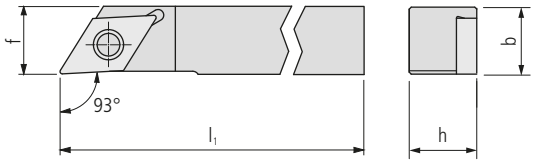
SDHC… U IC (107.5°) INCH

Order designation				Dimensions								Inserts
L		R		h	b	l_1	z^1	x^1	c	d	f	206…
PREMIUM-LINE				Accuracy class of UTILIS 171								
SDHCL 3/8" H07 U IC	■	SDHCR 3/8" H07 U IC	■	9.525	9.525	100	18	13	M5	M5	9.525	DC..0702..
SDHCL 1/2" H07 U IC	■	SDHCR 1/2" H07 U IC	■	12.7	12.7	100	18	16.2	M5	M5	12.7	DC..0702..
SDHCL 5/8" K11 U IC	■	SDHCR 5/8" K11 U IC	■	15.875	15.875	125	22	19.4	M5	G1/8"	15.875	DC..11T3..

Scope of delivery: Holder without coolant connector
Coolant connectors 632





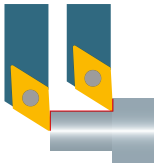


SDJC… U (93°)

Order designation L		Order designation R		Dimensions h	b	l_1	f	Inserts ⬚206…
STANDARD-LINE							Accuracy class of UTILIS ⬚171	
SDJCL 0808 F07 U	■	SDJCR 0808 F07 U	■	8	8	80	8	DC..0702..
SDJCL 0808 H07 U	■	SDJCR 0808 H07 U	■	8	8	100	8	DC..0702..
SDJCL 1010 F07 U	■	SDJCR 1010 F07 U	■	10	10	80	10	DC..0702..
SDJCL 1010 H07 U	■	SDJCR 1010 H07 U	■	10	10	100	10	DC..0702..
SDJCL 1010 H11 U	■	SDJCR 1010 H11 U	■	10	10	100	12	DC..11T3..
SDJCL 1212 H07 U	■	SDJCR 1212 H07 U	■	12	12	100	12	DC..0702..
SDJCL 1212 H11 U	■	SDJCR 1212 H11 U	■	12	12	100	12	DC..11T3..
SDJCL 1616 K07 U	■	SDJCR 1616 K07 U	■	16	16	125	16	DC..0702..
SDJCL 1616 K11 U	■	SDJCR 1616 K11 U	■	16	16	125	16	DC..11T3..
SDJCL 2020 K11 U	■	SDJCR 2020 K11 U	■	20	20	125	20	DC..11T3..

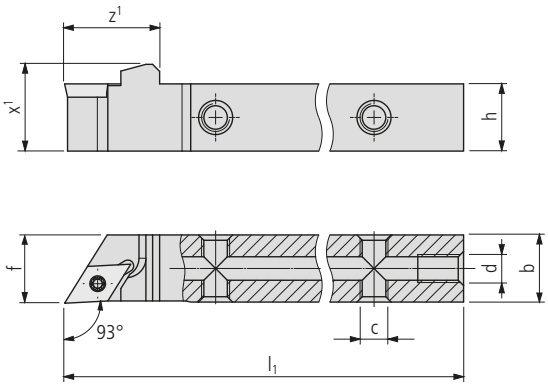
SDJC… U (93°) INCH

Order designation L		Order designation R		Dimensions h	b	l_1	f	Inserts ⬚206…
STANDARD-LINE							Accuracy class of UTILIS ⬚171	
SDJCL 3/8" F07 U	■	SDJCR 3/8" F07 U	■	9.525	9.525	80	9.525	DC..0702..
SDJCL 3/8" H07 U	■	SDJCR 3/8" H07 U	■	9.525	9.525	100	9.525	DC..0702..
SDJCL 3/8" F11 U	■	SDJCR 3/8" F11 U	■	9.525	9.525	80	9.525	DC..11T3..
SDJCL 3/8" H11 U	■	SDJCR 3/8" H11 U	■	9.525	9.525	100	9.525	DC..11T3..
SDJCL 1/2" H07 U	■	SDJCR 1/2" H07 U	■	12.7	12.7	100	12.7	DC..0702..
SDJCL 1/2" H11 U	■	SDJCR 1/2" H11 U	■	12.7	12.7	100	12.7	DC..11T3..
SDJCL 5/8" K11 U	■	SDJCR 5/8" K11 U	■	15.875	15.875	125	15.875	DC..11T3..
SDJCL 3/4" K11 U	■	SDJCR 3/4" K11 U	■	19.05	19.05	125	19.05	DC..11T3..



With internal cooling





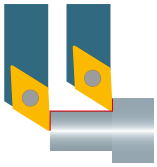
SDJC… U IC (93°)

Order designation				Dimensions								Inserts
L		R		h	b	l_1	z^1	x^1	c	d	f	206…
PREMIUM-LINE				Accuracy class of UTILIS 171								
SDJCL 0808 H07 U IC	■	SDJCR 0808 H07 U IC	■	8	8	100	17	11.5	M5	M5	8	DC.. 0702..
SDJCL 1010 H07 U IC	■	SDJCR 1010 H07 U IC	■	10	10	100	17	13.5	M5	M5	10	DC.. 0702..
SDJCL 1010 H11 U IC	■	SDJCR 1010 H11 U IC	■	10	10	100	22	13.5	M5	M5	10	DC.. 11T3..
SDJCL 1212 H07 U IC	■	SDJCR 1212 H07 U IC	■	12	12	100	17	15.5	M5	M5	12	DC.. 0702..
SDJCL 1212 H11 U IC	■	SDJCR 1212 H11 U IC	■	12	12	100	22	15.5	M5	M5	12	DC.. 11T3..
SDJCL 1616 K07 U IC	■	SDJCR 1616 K07 U IC	■	16	16	125	17	15.5	M5	G1/8"	16	DC.. 0702..
SDJCL 1616 K11 U IC	■	SDJCR 1616 K11 U IC	■	16	16	125	22	19.5	M5	G1/8"	16	DC.. 11T3..
SDJCL 2020 K11 U IC	■	SDJCR 2020 K11 U IC	■	20	20	125	22	23.5	M5	G1/8"	20	DC.. 11T3..

SDJC… U IC (93°) INCH

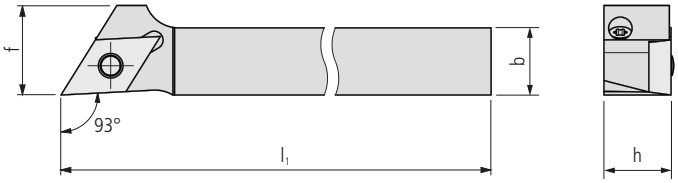
Order designation				Dimensions								Inserts
L		R		h	b	l_1	z^1	x^1	c	d	f	206…
PREMIUM-LINE				Accuracy class of UTILIS 171								
SDJCL 3/8" H07 U IC	■	SDJCR 3/8" H07 U IC	■	9.525	9.525	100	17	13	M5	M5	9.525	DC.. 0702..
SDJCL 3/8" H11 U IC	■	SDJCR 3/8" H11 U IC	■	9.525	9.525	100	22	13	M5	M5	9.525	DC.. 11T3..
SDJCL 1/2" H07 U IC	■	SDJCR 1/2" H07 U IC	■	12.7	12.7	100	17	16.2	M5	M5	12.7	DC.. 0702..
SDJCL 1/2" H11 U IC	■	SDJCR 1/2" H11 U IC	■	12.7	12.7	100	22	16.2	M5	M5	12.7	DC.. 11T3..
SDJCL 5/8" K07 U IC	■	SDJCR 5/8" K07 U IC	■	15.875	15.875	125	17	19.5	M5	G1/8"	15.875	DC.. 0702..
SDJCL 5/8" K11 U IC	■	SDJCR 5/8" K11 U IC	■	15.875	15.875	125	22	19.5	M5	G1/8"	15.875	DC.. 11T3..
SDJCL 3/4" K11 U IC	■	SDJCR 3/4" K11 U IC	■	19.05	19.05	125	22	22.6	M5	G1/8"	19.05	DC.. 11T3..

Scope of delivery: Holder without coolant connector
Coolant connectors 632



"FC" version (fast change)





SDJC… U FC* (93°)

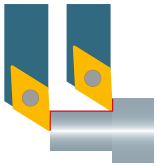
Order designation L		Order designation R		Dimensions h	b	l_1	f	Inserts ⬚206…
STANDARD-LINE				Accuracy class of UTILIS ⬚171				
SDJCL 1012 H11 U FC	■	SDJCR 1012 H11 U FC	■	10	12	100	16	DC..0702..
SDJCL 1212 H11 U FC	■	SDJCR 1212 H11 U FC	■	12	12	100	16	DC..0702..
SDJCL 1616 K11 U FC	■	SDJCR 1616 K11 U FC	■	16	16	125	16	DC..11T3..

SDJC… U FC* (93°) INCH

Order designation L		Order designation R		Dimensions h	b	l_1	f	Inserts ⬚206…
STANDARD-LINE				Accuracy class of UTILIS ⬚171				
SDJCL 1/2" H11 U FC	■	SDJCR 1/2" H11 U FC	■	12.7	12.7	100	16	DC..0702..
SDJCL 5/8" K11 U FC	■	SDJCR 5/8" K11 U FC	■	15.875	15.875	125	15.875	DC..11T3..

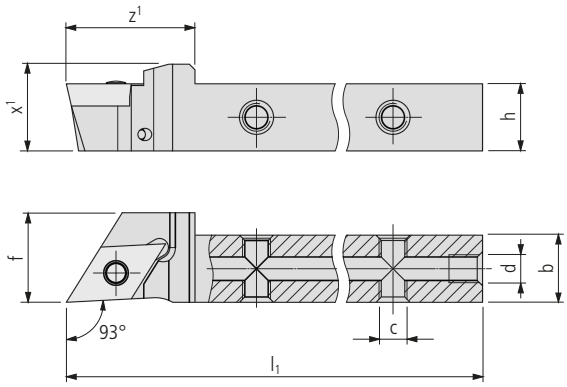
Spare parts (clamping bolts / screws) ⬚203

*** Note**
With this holder, the indexable insert is secured with a screw using a knee lever that can be operated from behind. This means the holder does not have to be unclamped to change the cutting edge.
Tighten the clamping screw to 1.2 Nm using a torque screwdriver.



"FC" version (fast change) with internal cooling





SDJC… U FC* IC (93°)

Order designation L		Order designation R		Dimensions h	b	l_1	z_1	x_1	c	d	f	Inserts 206…
PREMIUM-LINE				Accuracy class of UTILIS 171								
SDJCL 1012 H11 U FC IC	■	SDJCR 1012 H11 U FC IC	■	10	12	100	23	13.5	M5	M5	16	DC..11T3..
SDJCL 1212 H11 U FC IC	■	SDJCR 1212 H11 U FC IC	■	12	12	100	23	15.5	M5	M5	16	DC..11T3..
SDJCL 1616 K11 U FC IC	■	SDJCR 1616 K11 U FC IC	■	16	16	125	23	19.5	M5	G1/8"	16	DC..11T3..

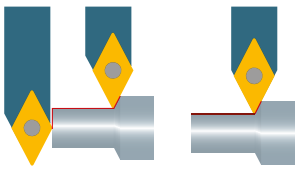
SDJC… U FC* IC (93°) INCH

Order designation L		Order designation R		Dimensions h	b	l_1	z_1	x_1	c	d	f	Inserts 206…
PREMIUM-LINE				Accuracy class of UTILIS 171								
SDJCL 1/2" H11 U FC IC	■	SDJCR 1/2" H11 U FC IC	■	12.7	12.7	100	23	16.2	M5	M5	16	DC..11T3..
SDJCL 5/8" K11 U FC IC	■	SDJCR 5/8" K11 U FC IC	■	15.875	15.875	125	23	19.4	M5	G1/8"	15.875	DC..11T3..

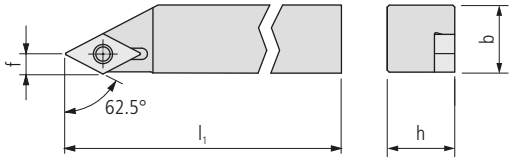
Spare parts (clamping bolts / screws) 203

*** Note**
With this holder, the indexable insert is secured with a screw using a knee lever that can be operated from behind. This means the holder does not have to be unclamped to change the cutting edge.
Tighten the clamping screw to 1.2 Nm using a torque screwdriver.

Scope of delivery: Holder without coolant connector
Coolant connectors 632





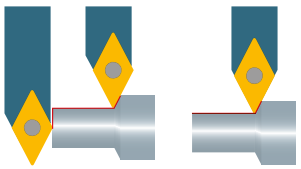


SDNC… U (62.5°)

Order designation L		Order designation R		Dimensions h	b	l_1	f	Inserts ⬚206…
STANDARD-LINE							Accuracy class of UTILIS ⬚171	
SDNCL 0808 F07 U	■	SDNCR 0808 F07 U	■	8	8	80	3.38	DC..0702..
SDNCL 0808 H07 U	■	SDNCR 0808 H07 U	■	8	8	100	3.38	DC..0702..
SDNCL 1010 F07 U	■	SDNCR 1010 F07 U	■	10	10	80	3.38	DC..0702..
SDNCL 1010 H07 U	■	SDNCR 1010 H07 U	■	10	10	100	3.38	DC..0702..
SDNCL 1212 H07 U	■	SDNCR 1212 H07 U	■	12	12	100	3.38	DC..0702..
SDNCL 1212 H11 U	■	SDNCR 1212 H11 U	■	12	12	100	5.17	DC..11T3..
SDNCL 1616 K11 U	■	SDNCR 1616 K11 U	■	16	16	125	5.17	DC..11T3..
SDNCL 2020 K11 U	■	SDNCR 2020 K11 U	■	20	20	125	5.17	DC..11T3..

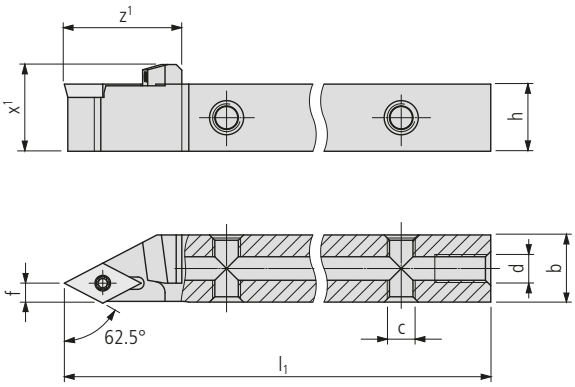
SDNC… U (62.5°) INCH

Order designation L		Order designation R		Dimensions h	b	l_1	f	Inserts ⬚206…
STANDARD-LINE							Accuracy class of UTILIS ⬚171	
SDNCL 3/8" H07 U	■	SDNCR 3/8" H07 U	■	9.525	9.525	100	3.38	DC..0702..
SDNCL 1/2" H07 U	■	SDNCR 1/2" H07 U	■	12.7	12.7	100	3.38	DC..0702..
SDNCL 1/2" H11 U	■	SDNCR 1/2" H11 U	■	12.7	12.7	100	5.17	DC..11T3..
SDNCL 5/8" K11 U	■	SDNCR 5/8" K11 U	■	15.875	15.875	125	5.17	DC..11T3..



With internal cooling





SDNC… U IC (62.5°)

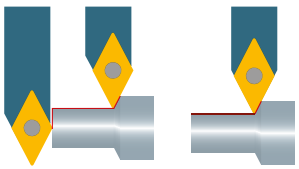
Order designation L		Order designation R		Dimensions h	b	l_1	z_1	x_1	c	d	f	Inserts 206…
PREMIUM-LINE				Accuracy class of UTILIS 171								
SDNCL 1010 H07 U IC	■	SDNCR 1010 H07 U IC	■	10	10	100	21	13.5	M5	M5	3.38	DC..0702..
SDNCL 1212 H07 U IC	■	SDNCR 1212 H07 U IC	■	10	10	100	21	13.5	M5	M5	3.38	DC..0702..
SDNCL 1212 H11 U IC	■	SDNCR 1212 H11 U IC	■	12	12	100	25	15.5	M5	M5	3.38	DC..11T3..
SDNCL 1616 K11 U IC	■	SDNCR 1616 K11 U IC	■	16	16	125	25	19.5	M5	G1/8"	5.37	DC..11T3..

SDNC… U IC (62.5°) INCH

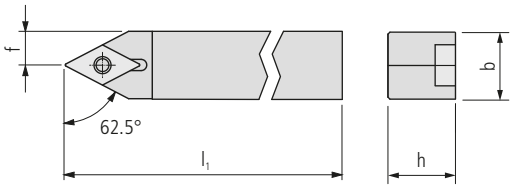
Order designation L		Order designation R		Dimensions h	b	l_1	z_1	x_1	c	d	f	Inserts 206…
PREMIUM-LINE				Accuracy class of UTILIS 171								
SDNCL 3/8" H07 U IC	■	SDNCR 3/8" H07 U IC	■	9.525	9.525	100	21	13	M5	M5	3.38	DC..0702..
SDNCL 1/2" H07 U IC	■	SDNCR 1/2" H07 U IC	■	12.7	12.7	100	21	16.2	M5	M5	3.38	DC..0702..
SDNCL 1/2" H11 U IC	■	SDNCR 1/2" H11 U IC	■	12.7	12.7	100	25	16.2	M5	M5	3.38	DC..11T3..
SDNCL 5/8" K11 U IC	■	SDNCR 5/8" K11 U IC	■	15.875	15.875	125	25	19.5	M5	G1/8"	5.37	DC..11T3..

Scope of delivery: Holder without coolant connector
Coolant connectors 632

■ New





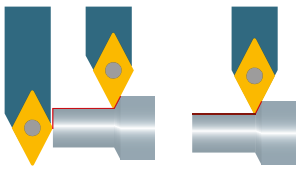


SDNCN … U (62.5°)

Order designation			Dimensions								Inserts
N			h	b	l_1		f				206…
STANDARD-LINE			Accuracy class of UTILIS 171								
SDNCN 0808 F07 U	■		8	8	80		4				DC..0702..
SDNCN 0808 K07 U	■		8	8	125		4				DC..0702..
SDNCN 1010 E07 U	■		10	10	70		5				DC..0702..
SDNCN 1010 M07 U	■		10	10	150		5				DC..0702..
SDNCN 1212 F07 U	■		12	12	80		6				DC..0702..
SDNCN 1212 M07 U	■		12	12	150		6				DC..0702..
SDNCN 1212 M11 U	■		12	12	150		6				DC..11T3..
SDNCN 1616 H11 U	■		16	16	100		8				DC..11T3..
SDNCN 2020 K11 U	■		20	20	125		10				DC..11T3..

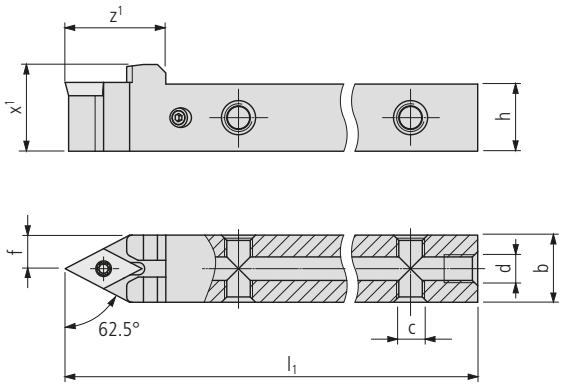
SDNCN … U (62.5°) INCH

Order designation			Dimensions								Inserts
N			h	b	l_1		f				206…
STANDARD-LINE			Accuracy class of UTILIS 171								
SDNCN 3/8"H07 U	■		9.525	9.525	100		4.76				DC..0702..
SDNCN 1/2"H07 U	■		12.7	12.7	100		6.35				DC..0702..
SDNCN 1/2"H11 U	■		12.7	12.7	100		6.35				DC..11T3..
SDNCN 5/8"K11 U	■		15.875	15.875	125		7.94				DC..11T3..



With internal cooling





SDNCN … U IC (62.5°)

Order designation			Dimensions								Inserts
N			h	b	l_1	z_1	x_1	c	d	f	206…
PREMIUM-LINE			Accuracy class of UTILIS 171								
SDNCN 0808 H07 U IC	■		8	8	100	18	11.5	M5	M5	4	DC..0702..
SDNCN 1010 H07 U IC	■		10	10	100	18	13.5	M5	M5	5	DC..0702..
SDNCN 1212 H07 U IC	■		12	12	100	18	15.5	M5	M5	6	DC..11T3..
SDNCN 1616 K11 U IC	■		16	16	125	22	19.5	M5	G1/8"	8	DC..11T3..

SDNCN … U IC (62.5°) INCH

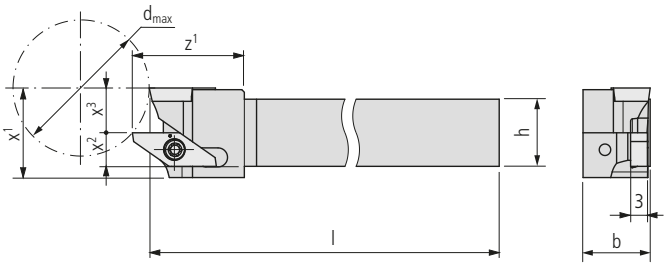
Order designation			Dimensions								Inserts
N			h	b	l_1	z_1	x_1	c	d	f	206…
PREMIUM-LINE			Accuracy class of UTILIS 171								
SDNCN 3/8"H07 U IC	■		9.525	9.525	100	18	13	M5	M5	4.76	DC..0702..
SDNCN 1/2"H07 U IC	■		12.7	12.7	100	18	16.2	M5	M5	6.35	DC..0702..
SDNCN 1/2"H11 U IC	■		12.7	12.7	100	18	16.2	M5	M5	6.35	DC..11T3..
SDNCN 5/8"K11 U IC	■		15.875	15.875	125	22	19.4	M5	G1/8"	7.94	DC..11T3..

Scope of delivery: Holder without coolant connector
Coolant connectors 632



"TWIN" version





SDJC. (93°)/1600… TWIN

Order designation		Dimensions									Inserts	
R R		h	b	l	z^1	x^1	x^2	x^3		d_{max}	206…	47…
STANDARD-LINE		Accuracy class of UTILIS 171										
SDJCR/1600R-0810 H07 Twin	■	8	10	100	20	16	4	8		23	DC..0702..	16…
SDJCR/1600R-1010 H07 Twin	■	10	10	100	20	16	5	8		23	DC..0702..	16…
SDJCR/1600R-1212 H07 Twin	■	12	12	100	20	16	6	8		23	DC..0702..	16…
SDJCR/1600R-1616 K11 Twin	■	16	16	125	20	20	8	10		35	DC..11T3..	16…
SDJCR/1600R-2020 K11 Twin	■	20	20	125	20	24	8	14		68	DC..11T3..	16…

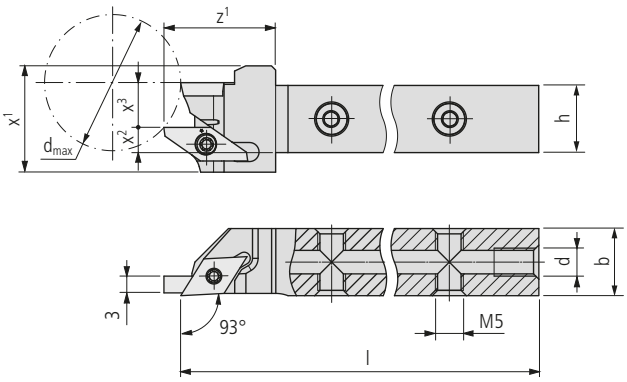
SDJC. (93°)/1600… TWIN INCH

Order designation		Dimensions									Inserts	
R R		h	b	l	z^1	x^1	x^2	x^3		d_{max}	206…	47…
STANDARD-LINE		Accuracy class of UTILIS 171										
SDJCR/1600R-3/8" H07 Twin	■	9.525	9.525	100	20	16	4.76	8		23	DC..0702..	16…
SDJCR/1600R-1/2" H07 Twin	■	12.7	12.7	100	20	16	6.35	8		23	DC..0702..	16…
SDJCR/1600R-5/8" K11 Twin	■	15.875	15.875	125	20	20	7.94	10		35	DC..11T3..	16…
SDJCR/1600R-3/4" K11 Twin	■	19.05	19.05	125	20	24	7.53	14		68	DC..11T3..	16…



"TWIN" version with internal cooling





SDJC. (93°)/1600… TWIN IC

Order designation		Dimensions									Inserts	
R R		h	b	l	z^1	x^1	x^2	x^3	d	d_{max}	206…	47…
PREMIUM-LINE		Accuracy class of UTILIS 171										
SDJCR/1600R-0810 H07 Twin IC	■	8	10	100	20	19	2.5	8	M5	23	DC..0702..	16…
SDJCR/1600R-1010 H07 Twin IC	■	10	10	100	20	19	3.5	8	M5	23	DC..0702..	16…
SDJCR/1600R-1212 H07 Twin IC	■	12	12	100	20	19	4.5	8	M5	23	DC..0702..	16…
SDJCR/1600R-1616 K11 Twin IC	■	16	16	125	26	23	6.5	10	G1/8"	35	DC..11T3..	16…
SDJCR/1600R-2020 K11 Twin IC	■	20	20	125	26	27	6.5	14	G1/8"	68	DC..11T3..	16…

SDJC. (93°)/1600… TWIN IC INCH

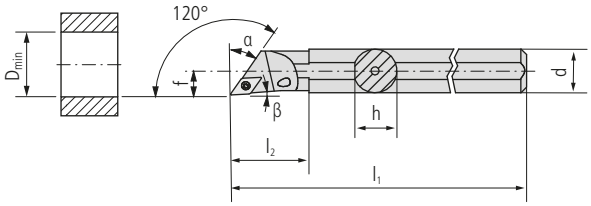
Order designation		Dimensions									Inserts	
R R		h	b	l	z^1	x^1	x^2	x^3	d	d_{max}	206…	47…
PREMIUM-LINE		Accuracy class of UTILIS 171										
SDJCR/1600R-3/8" H07 Twin IC	■	9.525	9.525	100	20	19	3.26	8	M5	23	DC..0702..	16…
SDJCR/1600R-1/2" H07 Twin IC	■	12.7	12.7	100	20	19	4.85	8	M5	23	DC..0702..	16…
SDJCR/1600R-5/8" K11 Twin IC	■	15.875	15.875	125	26	23	6.44	10	G1/8"	35	DC..11T3..	16…
SDJCR/1600R-3/4" K11 Twin IC	■	19.05	19.05	125	26	27	5.53	14	G1/8"	68	DC..11T3..	16…

Scope of delivery: Holder without coolant connector
Coolant connectors 632

■ New

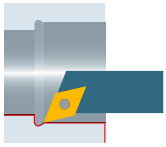




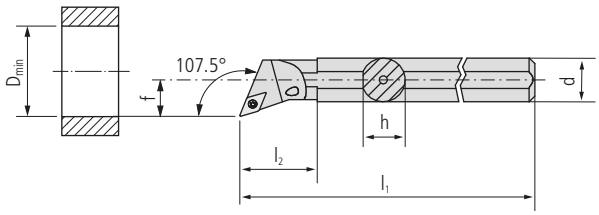


A… SDOC… (120°)

Order designation				Dimensions								Inserts
L		R		d	h	l_1	l_2	f	D_{min}	α	β	206…
STANDARD-LINE								Accuracy class of UTILIS 171				
A12K SDOCL 07	■	A12K SDOCR 07	■	12	11.5	125	21	7	14	30°	5°	DC..0702..

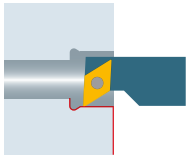


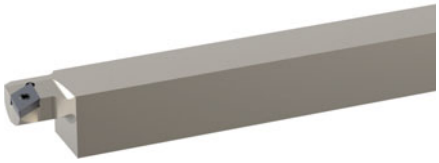


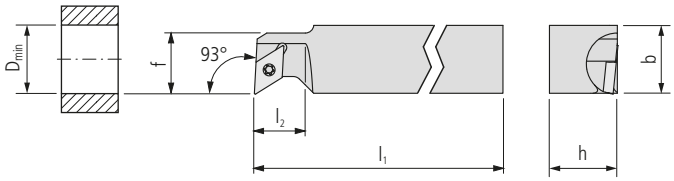


A… SDQC… (107.5°)

Order designation				Dimensions								Inserts
L		R		d	h	l_1	l_2	f	D_{min}			206…
STANDARD-LINE				Accuracy class of UTILIS 171								
A12K SDQCL 07	■	A12K SDQCR 07	■	12	11.5	125	22	9	16			DC..0702..
A16M SDQCL 07	■	A16M SDQCR 07	■	16	15	150	29	11	20			DC..0702..
A20Q SDQCL 07	■	A20Q SDQCR 07	■	20	18.5	180	32	13	25			DC..0702..

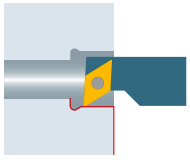






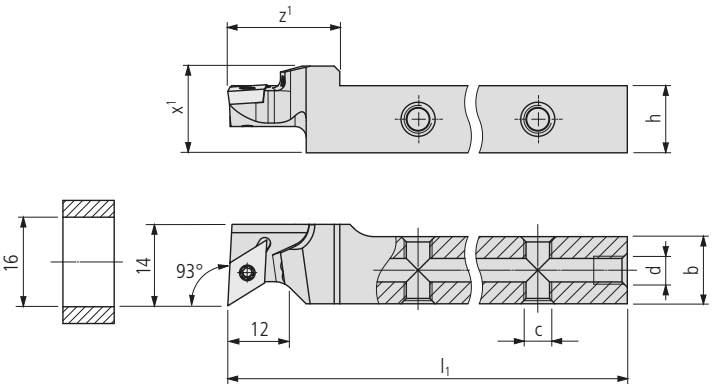
SDUC… (93°)

Order designation				Dimensions								Inserts
L		R		h	b	l_1	l_2	f	D_{min}			206…
STANDARD-LINE												
								Accuracy class of UTILIS 171				
								– +				
SDUCL 0808 XH07	■	SDUCR 0808 XH07	■	8	8	100	12	14	16			DC..0702..
SDUCL 1010 XH07	■	SDUCR 1010 XH07	■	10	10	100	12	14	16			DC..0702..
SDUCL 1212 XH07	■	SDUCR 1212 XH07	■	12	12	100	12	14	16			DC..0702..
SDUCL 1616 XK07	■	SDUCR 1616 XK07	■	16	16	125	12	14	16			DC..0702..



With internal cooling

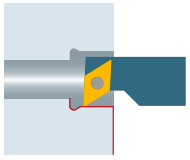




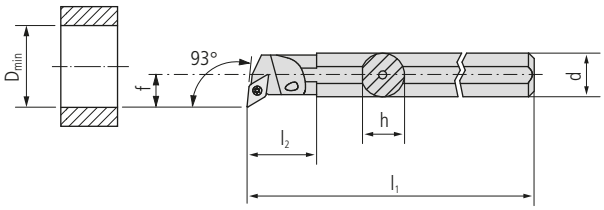
SDUC… IC (93°)

Order designation				Dimensions								Inserts
L		R		h	b	l_1	z^1	x^1	c	d		206…
PREMIUM-LINE								Accuracy class of UTILIS 171				
SDUCL 0810 XH07 IC	■	SDUCR 0810 XH07 IC	■	8	10	100	20	11.5	M5	M5		DC.. 0702..
SDUCL 1010 XH07 IC	■	SDUCR 1010 XH07 IC	■	10	10	100	20	13.5	M5	M5		DC.. 0702..
SDUCL 1212 XH07 IC	■	SDUCR 1212 XH07 IC	■	12	12	100	20	15.5	M5	M5		DC.. 0702..
SDUCL 1616 XH07 IC	■	SDUCR 1616 XH07 IC	■	16	16	100	20	19.5	M5	G1/8"		DC.. 0702..
SDUCL 1616 XK07 IC	■	SDUCR 1616 XK07 IC	■	16	16	125	20	19.5	M5	G1/8"		DC.. 0702..

Scope of delivery: Holder without coolant connector
Coolant connectors 632







A… SDUC… (93°)

Order designation				Dimensions								Inserts
L		R		d	h	l_1	l_2	f	D_{min}			206…
STANDARD-LINE				Accuracy class of UTILIS 171 – +								
A10H SDUCL 07	■	A10H SDUCR 07	■	10	9	100	–	7	14			DC..0702..
A12K SDUCL 07	■	A12K SDUCR 07	■	12	11.5	125	22	9	16			DC..0702..
A16M SDUCL 07	■	A16M SDUCR 07	■	16	15	150	29	11	20			DC..0702..
A20Q SDUCL 07	■	A20Q SDUCR 07	■	20	18.5	180	32	13	25			DC..0702..
A20Q SDUCL 11	■	A20Q SDUCR 11	■	20	18.5	180	32	13	25			DC..11T3..

For holders (SS…) OD turning

Illustration	Description	Dimensions	Order designation		Holder
	TORX screw	M2.5 × 6 T08	MSP 25060 T08	■	SD… 07
		M3.5 × 8.6 T15	MSP 35086 T15	■	SD… 11… Twin
		M3.5 × 11 T15	MSP 35110 T15	■	SD… 11

For holders (SD.C… FC) OD turning

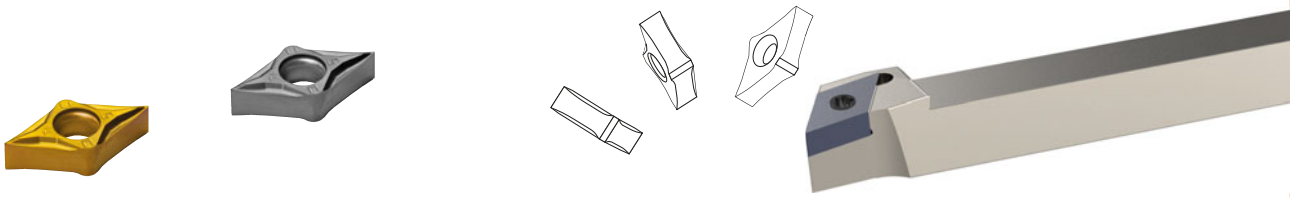
Illustration	Description	Dimensions	Order designation		Holder
	Clamping bolts	4 × 11	MSP SB 40110 FC	■	SD.C… 11 FC
	Clamping screw	M4 × 11	MSP KS 40110 FC T08	■	SD.C… 11 FC

For holders (… SD…) ID turning

Illustration	Description	Dimensions	Order designation		Holder
	TORX screw	M2.5 × 5.5 T07	MSP 25055 T07	■	A10H SD… 07
		M2.5 × 6 T08	MSP 25060 T08	■	A12K SD… 07 A16M SD… 07 A20Q SD… 07
		M3.5 × 8.6 T15	MSP 35086 T15	■	A20Q SD… 11

TORX screwdriver 664

This further development of multidec®-ISO provides a tool system with 4 cutting edges and the finest performance-cost ratio for Swiss type machining and precision turning.
The insert consist of 4 sharp cutting edges with radius 0.08 and 0.15 mm and is easily indexed or changed. Innovative chip breakers have been designed for cutting of very difficult materials on finishing and micro-finishing applications using coated and uncoated submicrograin carbide.
Even for the hardened and nickel-plated holders a wide range of possibilities with shank sizes between 10 and 25 mm are available. For Swiss type automatic lathes special holders have been designed and complete the range of choices.



Specific features of insert DNGU:
– Negative holder fixed with screw
– 4 positive cutting edges for the price of 2
– Sharp edges with 7° clearance angle
– Small corner radius (0.08 and 0.15 mm)
– Fine grain grade carbide
– Insert DNGU also usable on holders with toggle setting device



"IC" tool holder with integrated cooling

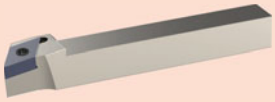
Cost-efficient processing of modern materials increasingly requires accurate control of the coolant at the cutting edge. Conveying the coolant as close as possible to the cutting edge is often a difficult task in the machine rooms of Swiss type turning lathes.
The multidec®-IC program offers a wide range of holders with integrated cooling. Because of the high precision and pressure, it is possible to discharge the chip quickly and safely from the cutting edge and the workpiece, which protects the cutting edge of the insert. This means significantly longer tool life as well as very reliable serial production.

Advantages:
– All holders feature five possible connectors for the coolant supply
– Constant coolant discharge means low build-up at front near the holder
– With or without high pressure, the coolant medium always hits the cutting edge precisely

Technical information 9



Inserts (carbide / cermet)
DNGU … 250



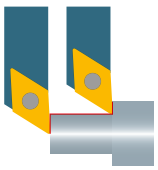
Holders (OD turning)
SDJN… (93°), SDJN… IC (93°) 252
SDNNN … (62.5°), SDNNN … IC (62.5°) 254



Replacement and spare parts 256

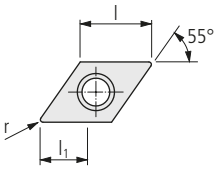


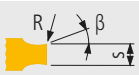
Coolant connectors and accessories 632





DNGU … -A4

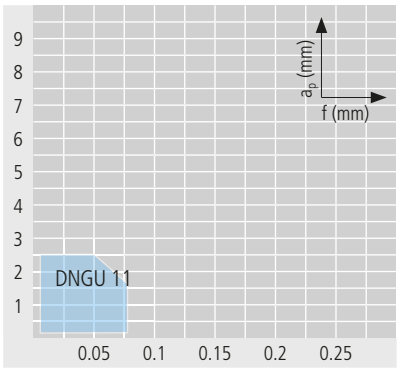




β: 8°
s: ±0.13
C: <0.002

Order designation	Carbide 19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			252…
STANDARD-LINE																	Accuracy class of UTILIS 171			
N DNGU 1104008 FN -A4 …				■		■	■		■						11.6	0.08	2.9			SDJN…11
DNGU 1104015 FN -A4 …				■		■	■		■						11.6	0.15	2.9			SDJN…11

Properties:
– polished rake and ground clearance
– 4 sharp cutting edge "F"
– submicrograin carbide, high toughness
– best performance-cost ratio

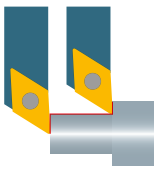


Optimal chip breaking

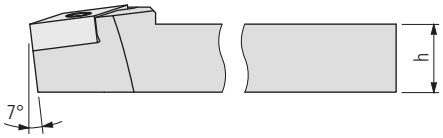
Application:
– micro finishing
– chip breaker for general application
– alloyed steel and stainless steel

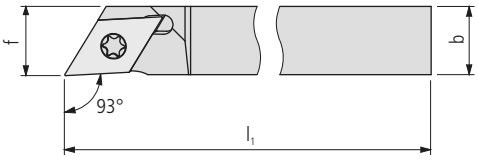
	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	–	–	–
▼▼	–	–	–	–	–	–	–	–	–
▼▼▼	●	●	●	○	●	●	–	–	–

Attention
Please note the legend 🗋6…







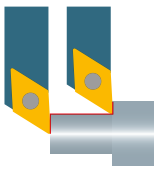


SDJN… (93°)

Order designation				Dimensions								Inserts
L		R		h	b	l_1		f				250…
STANDARD-LINE				Accuracy class of UTILIS 171								
SDJNL 1012 F11	■	SDJNR 1012 F11	■	10	12	80		12				DN… 11…
SDJNL 1012 H11	■	SDJNR 1012 H11	■	10	12	100		12				DN… 11…
SDJNL 1212 H11	■	SDJNR 1212 H11	■	12	12	100		12				DN… 11…
SDJNL 1616 K11	■	SDJNR 1616 K11	■	16	16	125		16				DN… 11…
SDJNL 2020 K11	■	SDJNR 2020 K11	■	20	20	125		20				DN… 11…
SDJNL 2525 M11	■	SDJNR 2525 M11	■	25	25	150		25				DN… 11…

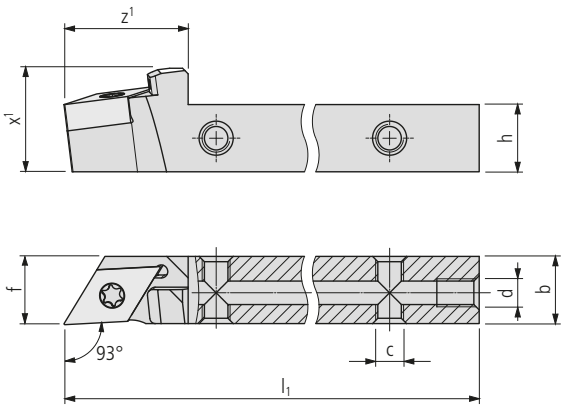
SDJN… (93°) INCH

Order designation				Dimensions								Inserts
L		R		h	b	l_1		f				250…
STANDARD-LINE				Accuracy class of UTILIS 171								
SDJNL 3/8" F11	■	SDJNR 3/8" F11	■	9.525	9.525	80		9.525				DN… 11…
SDJNL 3/8" H11	■	SDJNR 3/8" H11	■	9.525	9.525	100		9.525				DN… 11…
SDJNL 1/2" H11	■	SDJNR 1/2" H11	■	12.7	12.7	100		12.7				DN… 11…
SDJNL 5/8" K11	■	SDJNR 5/8" K11	■	15.875	15.875	125		15.875				DN… 11…
SDJNL 3/4" K11	■	SDJNR 3/4" K11	■	19.05	19.05	125		19.05				DN… 11…



With internal cooling





SDJN… IC (93°)

Order designation L		Order designation R		Dimensions h	b	l_1	z^1	x^1	c	d	f	Inserts 250…
PREMIUM-LINE				Accuracy class of UTILIS 171								
SDJNL 0808 H11 IC	■	SDJNR 0808 H11 IC	■	8	8	100	22	16.5	M5	M5	8	DN.. 11…
SDJNL 1012 H11 IC	■	SDJNR 1012 H11 IC	■	10	12	100	22	16.5	M5	M5	12	DN.. 11…
SDJNL 1212 H11 IC	■	SDJNR 1212 H11 IC	■	12	12	100	22	18.5	M5	M5	12	DN.. 11…
SDJNL 1616 K11 IC	■	SDJNR 1616 K11 IC	■	16	16	125	22	22.5	M5	G1/8"	16	DN.. 11…
SDJNL 2020 K11 IC	■	SDJNR 2020 K11 IC	■	20	20	125	22	26.5	M5	G1/8"	20	DN.. 11…
SDJNL 2525 K11 IC	■	SDJNR 2525 K11 IC	■	25	25	125	22	31.5	M5	G1/8"	25	DN.. 11…

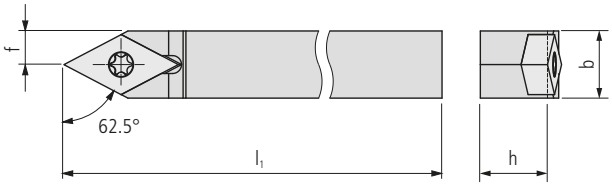
SDJN… IC (93°) INCH

Order designation L		Order designation R		Dimensions h	b	l_1	z^1	x^1	c	d	f	Inserts 250…
PREMIUM-LINE				Accuracy class of UTILIS 171								
SDJNL 3/8" H11 IC	■	SDJNR 3/8" H11 IC	■	9.525	12	100	22	16	M5	M5	12	DN.. 11…
SDJNL 1/2" H11 IC	■	SDJNR 1/2" H11 IC	■	12.7	12.7	100	22	19.2	M5	M5	12.7	DN.. 11…
SDJNL 5/8" K11 IC	■	SDJNR 5/8" K11 IC	■	15.875	15.875	125	22	22.4	M5	G1/8"	15.875	DN.. 11…
SDJNL 3/4" K11 IC	■	SDJNR 3/4" K11 IC	■	19.05	19.05	125	22	25.5	M5	G1/8"	19.05	DN.. 11…

Scope of delivery: Holder without coolant connector
Coolant connectors 632







SDNNN … (62.5°)

Order designation			Dimensions								Inserts
N			h	b	l_1		f				250…
STANDARD-LINE			Accuracy class of UTILIS 171								
SDNNN 1012 H11	■		10	12	100		6				DN..11..
SDNNN 1212 H11	■		12	12	100		6				DN..11..
SDNNN 1616 K11	■		16	16	125		8				DN..11..
SDNNN 2020 K11	■		20	20	125		10				DN..11..
SDNNN 2525 K11	■		25	25	125		12.5				DN..11..

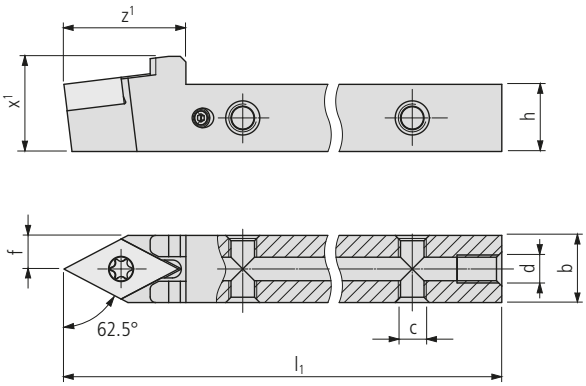
SDNNN … (62.5°) INCH

Order designation			Dimensions								Inserts
N			h	b	l_1		f				250…
STANDARD-LINE			Accuracy class of UTILIS 171								
SDNNN 3/8" H11	■		9.525	9.525	100		4.76				DN..11..
SDNNN 1/2" H11	■		12.7	12.7	100		6.35				DN..11..
SDNNN 5/8" K11	■		15.875	15.875	125		7.94				DN..11..
SDNNN 3/4" K11	■		19.05	19.05	125		9.525				DN..11..



With internal cooling





SDNNN … IC (62.5°)

Order designation				Dimensions								Inserts
N				h	b	l_1	z^1	x^1	c	d	f	250…
PREMIUM-LINE				Accuracy class of UTILIS 171								
SDNNN 1012 H11 IC	■			10	12	100	22	15	M5	M5	6	DN..11..
SDNNN 1212 H11 IC	■			12	12	100	22	17	M5	M5	6	DN..11..
SDNNN 1616 K11 IC	■			16	16	125	22	21	M5	G1/8"	8	DN..11..
SDNNN 2020 K11 IC	■			20	20	125	22	25	M5	G1/8"	10	DN..11..
SDNNN 2525 K11 IC	■			25	25	125	25	30.5	M5	G1/8"	12.5	DN..11..

SDNNN … IC (62.5°) INCH

Order designation				Dimensions								Inserts
N				h	b	l_1	z^1	x^1	c	d	f	250…
PREMIUM-LINE				Accuracy class of UTILIS 171								
SDNNN 3/8" H11 IC	■			9.525	9.525	100	22	14.525	M5	M5	4.76	DN..11..
SDNNN 1/2" H11 IC	■			12.7	12.7	100	22	17.7	M5	M5	6.35	DN..11..
SDNNN 5/8" K11 IC	■			15.875	15.875	125	22	20.875	M5	G1/8"	7.94	DN..11..
SDNNN 3/4" K11 IC	■			19.05	19.05	125	22	24.05	M5	G1/8"	9.525	DN..11..

Scope of delivery: Holder without coolant connector
Coolant connectors 632

For holders (SD.N…) OD turning

Illustration	Description	Dimensions	Order designation		Holder
	TORX screw	M4 × 11 TP15	MSP 40110 TP15	■	SDJN. 11

TORX screwdriver 664

Attention
Please note the legend 🗋6…

multidec®-ISO provides a well balanced range of tools for turning with rhombic 35° inserts and holders. Positive inserts with rounded cutting edges for roughing and sharp cutting edges for finishing are available.
These include a wide range of ground holders with hardened and nickel-plated surfaces for Swiss type automatic lathes with shank sizes from 8 to 20 mm and boring bars with diameters from 12 to 20 mm.





Advantages:
– Carbide and Cermet grades with chip breaker and coatings for all common materials
– Diamond range with CVD and PCD inserts for machining non-ferrous metals
– Cutting edge radius from 0.05 to 0.8 mm as standard
– Boring bars with steel- and carbide shanks



"IC" tool holder with integrated cooling

Cost-efficient processing of modern materials increasingly requires accurate control of the coolant at the cutting edge. Conveying the coolant as close as possible to the cutting edge is often a difficult task in the machine rooms of Swiss type turning lathes.
The multidec®-IC program offers a wide range of holders with integrated cooling. Because of the high precision and pressure, it is possible to discharge the chip quickly and safely from the cutting edge and the workpiece, which protects the cutting edge of the insert. This means significantly longer tool life as well as very reliable serial production.

Advantages:
– All holders feature five possible connectors for the coolant supply
– Constant coolant discharge means low build-up at front near the holder
– With or without high pressure, the coolant medium always hits the cutting edge precisely



"TWIN" holder with and without integrated coolant supply

The "TWIN" range allows you to work with two inserts on the same holder.
Different combinations are possible, and provide the user with a high degree of flexibility. Holders are available with shank cross-sections of 8 to 20 mm, with and without internal cooling.

Advantages:
– Twice the number of tools on the machine
– Two different turning operations are possible with a single tool holder
– All holders with an integrated coolant supply have five connecting options

Technical information 9



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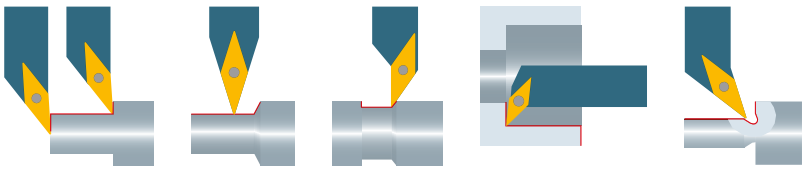
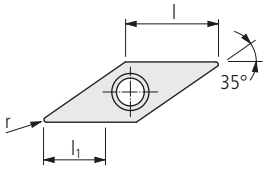
Coolant connectors and accessories 632

Inserts (Carbide / Cermet) — multidec®-ISO





VCGT … -A3





β: 30°
s: ±0.13
C: <0.002

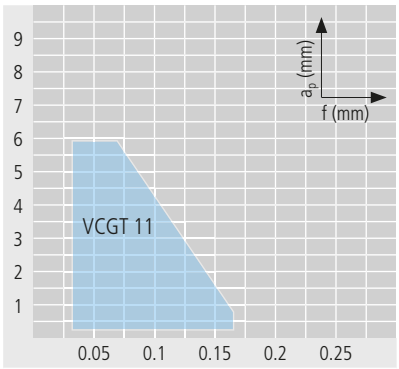
Order designation	Carbide 🗋19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			🗋279…
STANDARD-LINE																				
N																				
VCGT 0702006 FN -A3 …	■	■													6.8	0.06	3			SV…07…
VCGT 1103008 FN -A3 …	■	■		■											11.1	0.08	6			SV…11…
VCGT 1103015 FN -A3 …	■	■		■											11.1	0.15	6			SV…11…
VCGT 1103035 FN -A3 …	■	■		■											11.1	0.35	6			SV…11…

Accuracy class of UTILIS 🗋171



Application range of chip breaker — multidec®-ISO

Properties:
– polished rake
– ground clearance
– sharp cutting edge "F"
– submicrograin carbide, heat and wear resistent

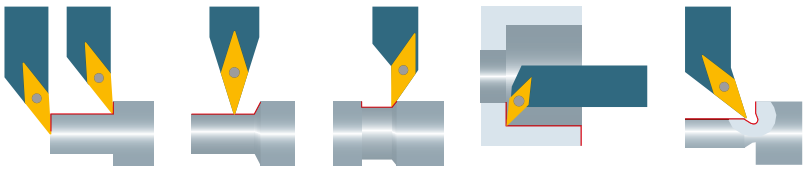


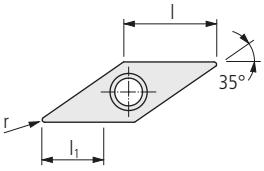
Optimal chip breaking

Application:
– micro finishing
– chip breaker for general application
– stainless steel, alloyed steel, titanium, super alloy, aluminum and synthetics reinforced/ composites

	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	–	–	–
▼▼	○	○	○	○	○	○	●	–	●
▼▼▼	●	●	●	●	●	●	●	–	●

Inserts (Carbide / Cermet) — multidec®-ISO









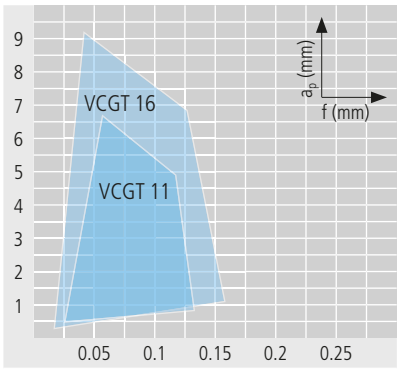
β: 25°
s: ±0.13
C: <0.002

VCGT … -PA5

Order designation	Carbide (19)									Cermet		Diamond			Dimensions					Holder (279…)
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
–	–	●	●	●	○	○	○	●	○	●	●	–	–	–						
–	●	–	●	○	○	●	●	●	○	●		–	–	–						
○	●	–	○	–	○	●	–	–	–	–	–	–	–	–						
●	○	–	–	–	○	○	–	○	–	–	–	●	●	●						
STANDARD-LINE															Accuracy class of UTILIS (171)					
N VCGT 110302 FN -PA5 …	■	■													11.1	0.2	6.8			SV…11…
VCGT 110304 FN -PA5 …	■	■													11.1	0.4	6.8			SV…11…
VCGT 160404 FN -PA5 …	■	■													16.6	0.4	8.9			SV…16…
VCGT 160408 FN -PA5 …	■	■													16.6	0.8	8.9			SV…16…

Application range of chip breaker — multidec®-ISO

Properties:
– polished rake
– ground clearance
– sharp cutting edge "F"
– submicrograin carbide, heat and wear resistent

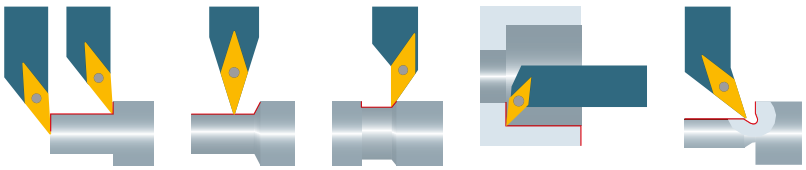


Optimal chip breaking

Application:
– finishing and micro finishing
– chip breaker for materials with difficult chip control
– stainless steel, alloyed steel, titanium, super alloy, aluminum and synthetics reinforced/ composites

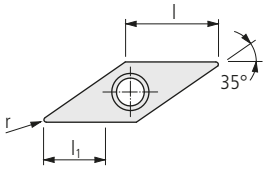
	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	○	–	○
▼▼	●	●	●	○	●	●	●	–	●
▼▼▼	●	●	●	○	●	●	●	–	●

Inserts (Carbide / Cermet) — multidec®-ISO





VCGT … -TOP5*





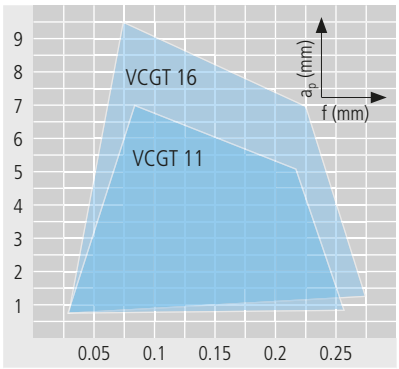
β: 25°
s: ±0.13
C: <0.002

Order designation	Carbide 19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			279…
STANDARD-LINE															Accuracy class of UTILIS 171					
L VCGT 110304 FL -TOP5 …	■	■													11.1	0.4	7			SV…11…
R VCGT 110304 FR -TOP5 …	■	■													11.1	0.4	7			SV…11…

* Description TOP 25

Application range of chip breaker — multidec®-ISO

Properties:
– polished rake and ground clearance
– sharp cutting edge "F"
– micrograin carbide, heat and wear resistent
– TOP system, for a better surface finish

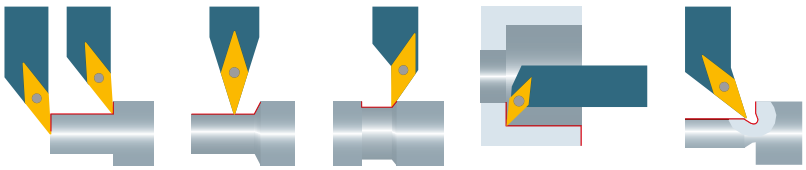


Optimal chip breaking

Application:
– finishing for 20–100 % higher feed rates compair to the standard
– chip breaker for materials with difficult chip control
– stainless steel, alloyed steel, titanium, super alloy, aluminum and synthetics reinforced/composites

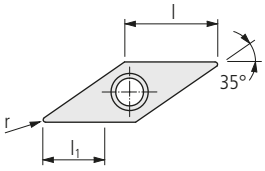
	I	II	III	IV	V	IV	VII	VIII	IX
▼	○	○	○	○	○	○	○	–	○
▼▼	●	●	●	○	●	●	●	–	●
▼▼▼	○	○	○	○	○	○	○	–	○

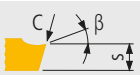
Inserts (Carbide / Cermet) — *multidec®-ISO*





VCGT … -PA7



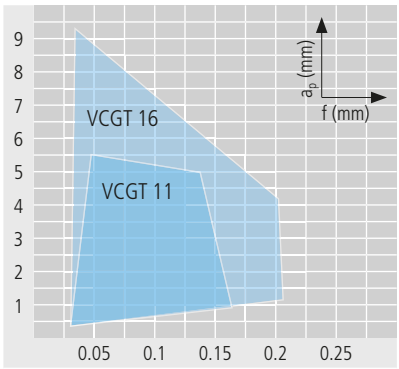


β: 27°
s: ±0.13
C: <0.002

Order designation	Carbide ▯19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						▯279…
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
STANDARD-LINE															Accuracy class of UTILIS ▯171					
N	VCGT 1103005 FN -PA7 …	■	■												11.1	0.05	5.5			SV…11…
	VCGT 110301 FN -PA7 …	■	■												11.1	0.1	5.5			SV…11…
	VCGT 110302 FN -PA7 …	■	■												11.1	0.2	5.5			SV…11…
	VCGT 110304 FN -PA7 …	■	■												11.1	0.4	5.5			SV…11…
	VCGT 110308 FN -PA7 …	■	■												11.1	0.8	5.5			SV…11…
	VCGT 160402 FN -PA7 …	■	■												16.6	0.2	8.9			SV…16…
	VCGT 160404 FN -PA7 …	■	■												16.6	0.4	8.9			SV…16…
	VCGT 160408 FN -PA7 …	■	■												16.6	0.8	8.9			SV…16…

Application range of chip breaker — *multidec®-ISO*

Properties:
– ground clearance
– sharp cutting edge "F"
– micrograin carbide, heat and wear resistent

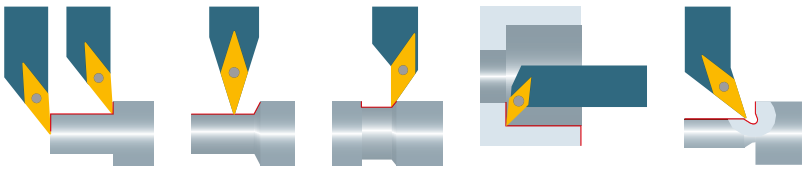


Optimal chip breaking

Application:
– micro finishing
– chip breaker for materials with good chip control
– stainless steel, alloyed steel, titanium, super alloy, aluminum and synthetics reinforced/ composites

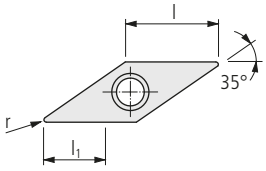
	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	○	–	○
▼▼	○	○	○	○	○	○	●	–	●
▼▼▼	●	●	●	○	●	●	●	–	●

Inserts (Carbide / Cermet) — multidec®-ISO





VCXT … -PA9

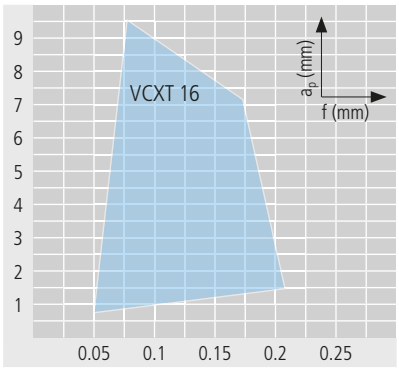




Order designation	Carbide ▯19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						▯279…
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
VALUE-LINE															Accuracy class of UTILIS ▯171					
N VCXT 160404 EN -PA9 …	■	■													16.6	0.4	8.9			SV…16…
VCXT 160408 EN -PA9 …	■	■													16.6	0.8	8.9			SV…16…

Application range of chip breaker — multidec®-ISO

Properties:
– high precision sintered insert
– rounded cutting edge "E"
– micrograin carbide, heat and wear resistent
– best performance-cost ratio

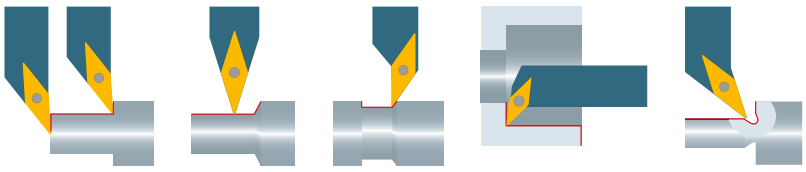


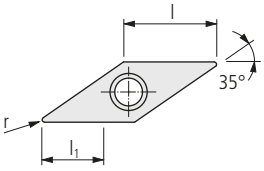
Optimal chip breaking

Application:
– finishing
– chip breaker for soft materials with good chip control
– alloyed steel, stainless steel, super alloy, titanium and aluminum

	I	II	III	IV	V	IV	VII	VIII	IX
▼	○	○	○	○	○	○	●	–	–
▼▼	●	●	●	●	●	●	○	–	–
▼▼▼	○	○	○	–	○	○	–	–	–

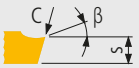
Inserts (Carbide / Cermet) — multidec®-ISO






VCGT 11


VCGT 16



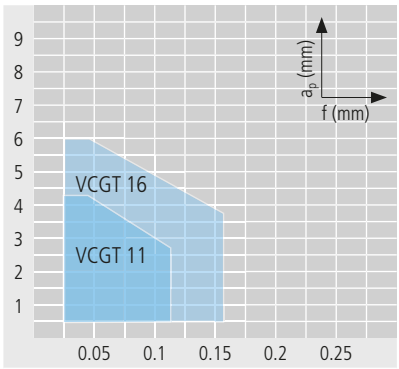
β: 8°
s: ±0.13
C: <0.01

VCGT … -PF

Order designation	Carbide (19)									Cermet			Diamond			Dimensions			Holder
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCM 10 MZ	UCVD 08	UPCD 15	UPCD 20	l	r	l_1	(279…)
–	–	●	●	●	○	○	●	○	●	●	●	–	–	–					
–	●	–	●	○	○	●	●	●	○	●	○	–	–	–					
○	●	–	○	–	○	●	–	–	–	–	–	–	–	–					
●	○	–	–	–	○	○	–	○	–	–	–	●	●	●					
STANDARD-LINE																Accuracy class of UTILIS (171)			
N																			
VCGT 110302 EN -PF …			■		■			■		■	■	■				11.1	0.2	4.8	SV…11…
VCGT 110304 EN -PF …			■		■			■		■	■	■				11.1	0.4	4.8	SV…11…
VCGT 110308 EN -PF …			■		■			■								11.1	0.8	4.8	SV…11…
VCGT 160404 EN -PF …										■	■	■				16.6	0.4	6	SV…16…
VCGT 160408 EN -PF …										■	■	■				16.6	0.8	6	SV…16…

Application range of chip breaker — multidec®-ISO

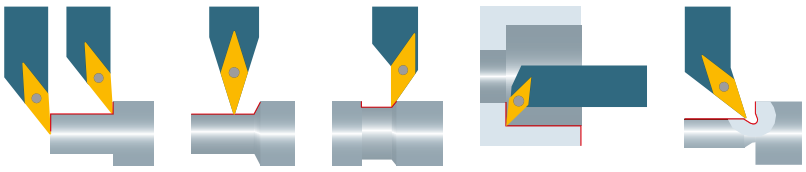
Properties:
– ground clearance
– little rounded cutting edge "E"
– carbide and cermet in different grades



Optimal chip breaking

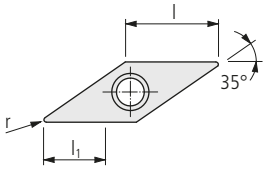
Application:
– finishing and micro finishing
– chip breaker for general application
– alloyed steel and stainless steel

	I	II	III	IV	V	IV	VII	VIII	IX
▼	○	○	○	–	○	○	–	–	–
▼▼	●	●	●	–	●	●	–	–	–
▼▼▼	●	●	●	–	●	●	–	–	–





VCMT … -PF





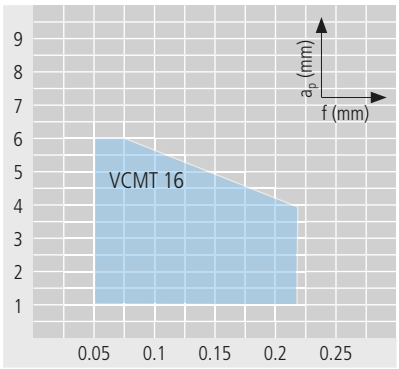
Order designation	Carbide 🗋19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			🗋279…
VALUE-LINE																				
N																				
VCMT 160404 EN -PF …			■		■			■							16.6	0.4	6			SV…16…
VCMT 160408 EN -PF …			■		■										16.6	0.8	6			SV…16…

Accuracy class of UTILIS 🗋171



Application range of chip breaker *multidec®-ISO*

Properties:
– sintered insert based on ISO standard
– rounded cutting edge "E"
– carbide and cermet in different grades

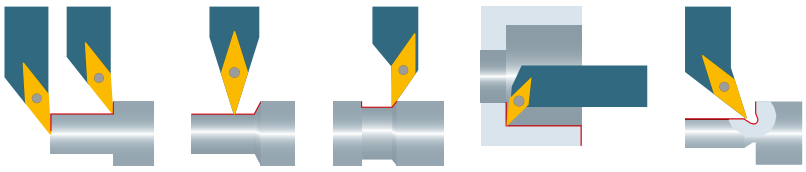


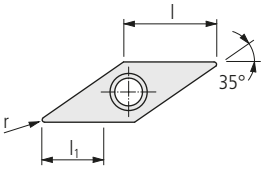
Optimal chip breaking

Application:
– roughing
– chip breaker for general application
– alloyed steel and stainless steel

	I	II	III	IV	V	IV	VII	VIII	IX
▼	●	●	●	–	●	●	–	–	–
▼▼	○	○	○	–	○	○	–	–	–
▼▼▼	–	–	–	–	–	–	–	–	–

Inserts (Carbide / Cermet) — multidec®-ISO







VCGT … -PF23

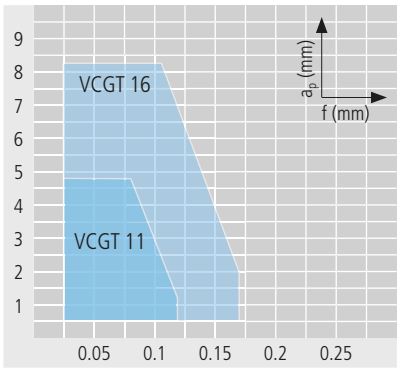


β: 12°
s: ±0.13
C: <0.002

Order designation	Carbide 🗋19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						🗋279…
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
STANDARD-LINE															Accuracy class of UTILIS 🗋171					
N VCGT 1103005 FN -PF23 …							■								11.1	0.05	4.8			SV…11…
VCGT 110301 FN -PF23 …							■								11.1	0.1	4.8			SV…11…
VCGT 110302 FN -PF23 …							■								11.1	0.2	4.8			SV…11…
VCGT 160401 FN -PF23 …							■								16.6	0.1	8.4			SV…16…
VCGT 160402 FN -PF23 …							■								16.6	0.2	8.4			SV…16…

Application range of chip breaker — multidec®-ISO

Properties:
– polished rake
– ground clearance
– sharp cutting edge "F"
– micrograin carbide

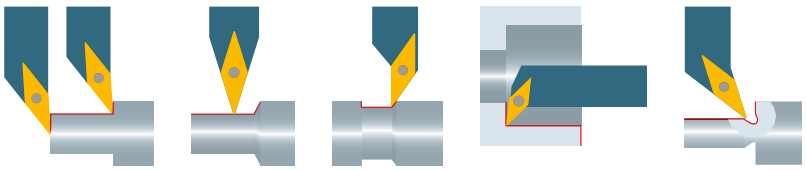


Optimal chip breaking

Application:
– micro finishing
– chip breaker for materials with difficult chip control
– alloyed steel and stainless steel

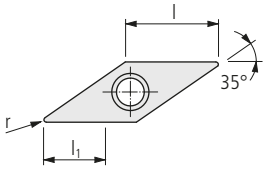
	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	–	–	–
▼▼	○	○	○	○	○	○	○	–	–
▼▼▼	●	●	●	○	●	●	○	–	○

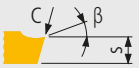
Inserts (Carbide / Cermet) — multidec®-ISO





VCGT … -PF33



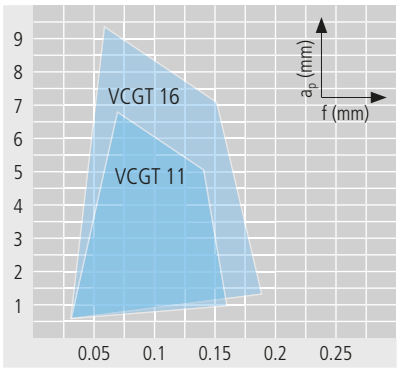


β: 12°
s: ±0.13
C: <0.002

Order designation	Carbide (19)									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			(279…)
STANDARD-LINE															Accuracy class of UTILIS (171)					
															– +					
N	VCGT 1103005 FN -PF33 …							■							11.1	0.05	4.8			SV…11…
	VCGT 110301 FN -PF33 …							■							11.1	0.1	4.8			SV…11…
	VCGT 110302 FN -PF33 …							■							11.1	0.2	4.8			SV…11…
	VCGT 110304 FN -PF33 …							■							11.1	0.4	4.8			SV…11…
	VCGT 160401 FN -PF33 …							■							16.6	0.1	8.4			SV…16…
	VCGT 160402 FN -PF33 …							■							16.6	0.2	8.4			SV…16…
	VCGT 160404 FN -PF33 …							■							16.6	0.4	8.4			SV…16…

Application range of chip breaker — multidec®-ISO

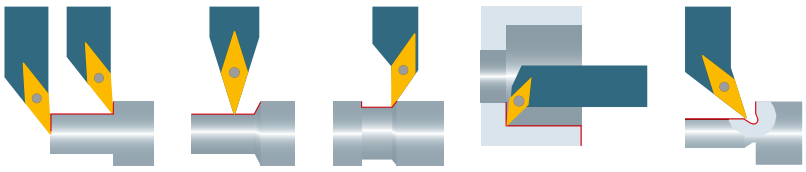
Properties:
– polished rake
– ground clearance
– sharp cutting edge "F"
– micrograin carbide

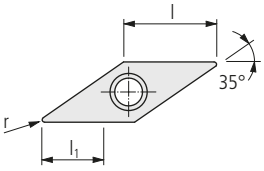


Optimal chip breaking

Application:
– micro finishing
– chip breaker for materials with difficult chip control
– alloyed steel and stainless steel

	I	II	III	IV	V	IV	VII	VIII	IX
▼	○	○	○	–	○	○	–	–	–
▼▼	●	●	●	–	●	●	–	–	–
▼▼▼	●	●	●	–	●	●	–	–	–







VCMT … -PF43

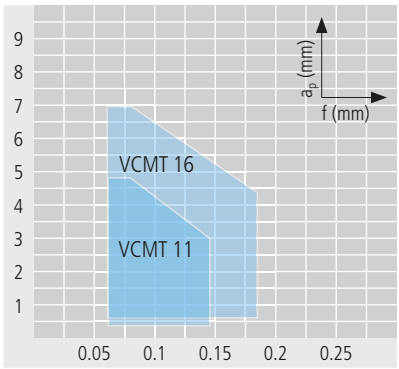


β: 12°
s: ±0.13
C: <0.02

Order designation	Carbide 🗋19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						🗋279…
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
VALUE-LINE															Accuracy class of UTILIS 🗋171					
N	VCMT 110302 EN -PF43 …						■								11.1	0.2	4.8			SV…11…
	VCMT 110304 EN -PF43 …						■								11.1	0.4	4.8			SV…11…
	VCMT 160404 EN -PF43 …						■								16.6	0.4	7			SV…16…

Application range of chip breaker *multidec®-ISO*

Properties:
– sintered insert based on ISO standard
– rounded cutting edge "E"
– micrograin carbide

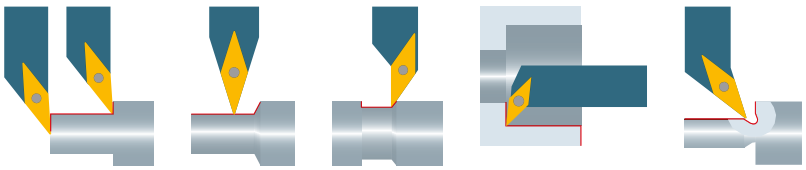


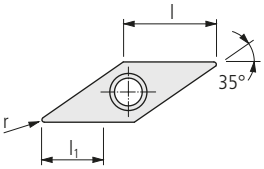
Optimal chip breaking

Application:
– roughing and finishing
– chip breaker for materials with difficult chip control
– alloyed steel and stainless steel

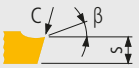
	I	II	III	IV	V	IV	VII	VIII	IX
▼	●	●	●	–	●	●	–	–	–
▼▼	●	●	●	–	●	●	–	–	–
▼▼▼	–	–	–	–	–	–	–	–	–

Inserts (Carbide / Cermet) — multidec®-ISO









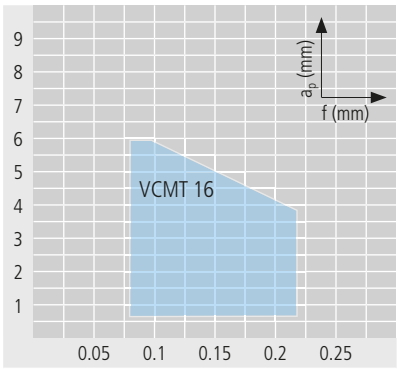
β: 8°
s: ±0.13
C: <0.02

VCMT … -PM

Order designation	Carbide ▯19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						▯279…
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
VALUE-LINE															Accuracy class of UTILIS ▯171					
N	VCMT 160404 EN -PM …			■		■			■						16.6	0.4	6			SV…16…
	VCMT 160408 EN -PM …			■		■			■						16.6	0.8	6			SV…16…

Application range of chip breaker — multidec®-ISO

Properties:
– sintered insert based on ISO standard
– rounded cutting edge "E"
– micrograin carbide

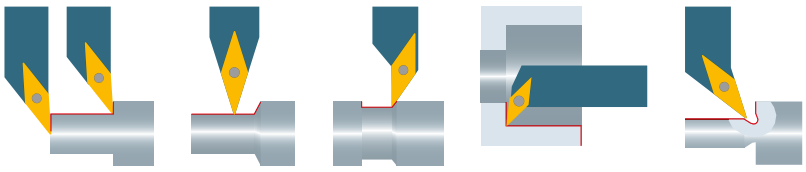


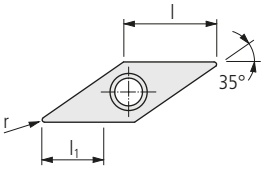
Optimal chip breaking

Application:
– roughing
– chip breaker for general application
– alloyed steel and stainless steel

	I	II	III	IV	V	IV	VII	VIII	IX
▼	●	●	●	–	●	●	–	–	–
▼▼	○	○	○	–	○	○	–	–	–
▼▼▼	–	–	–	–	–	–	–	–	–

Inserts (Carbide / Cermet) — multidec®-ISO







VCMT … -PMF



β: 8°
s: ±0.13
C: <0.02

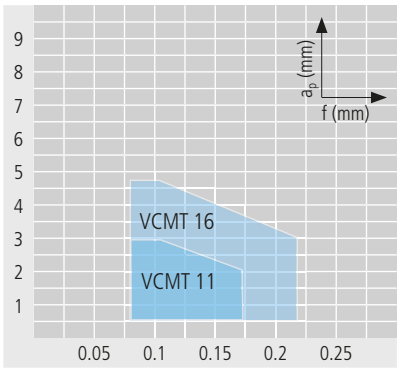
Order designation	Carbide 🗋19									Cermet			Diamond			Dimensions			Holder
	–	–	●	●	●	○	○	●	○	●	●	●	–	–	–				
	–	●	–	●	○	○	●	●	●	○	●	○	–	–	–				
	○	●	–	○	–	○	●	–	–	–	–	–	–	–	–				
	●	○	–	–	–	○	○	–	○	–	–	–	●	●	●				🗋279…
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCM 10 MZ	UCVD 08	UPCD 15	UPCD 20	l	r	l_1	
VALUE-LINE																			
N VCMT 110304 EN -PMF …												■				11.1	0.4	4.1	SV…11…
VCMT 160404 EN -PMF …												■				16.6	0.4	6	SV…16…
VCMT 160408 EN -PMF …												■				16.6	0.8	6	SV…16…

Accuracy class of UTILIS 🗋171



Application range of chip breaker — multidec®-ISO

Properties:
– sintered insert based on ISO standard
– rounded cutting edge "E"
– micrograin carbide

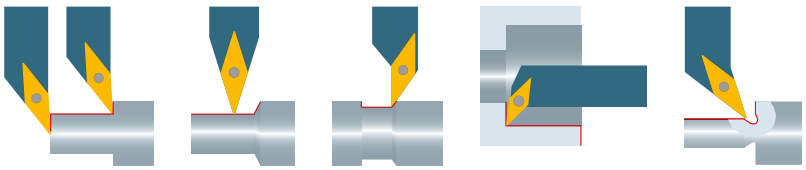


Optimal chip breaking

Application:
– roughing and finishing
– chip breaker for general application
– alloyed steel and stainless steel

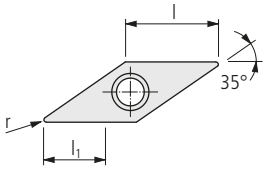
	I	II	III	IV	V	IV	VII	VIII	IX
▼	●	●	●	–	●	●	–	–	–
▼▼	●	●	●	–	●	●	–	–	–
▼▼▼	–	–	–	–	–	–	–	–	–

Inserts (Carbide / Cermet) — multidec®-ISO





VCMT … -PM25





β: 18°
s: ±0.13
C: <0.02

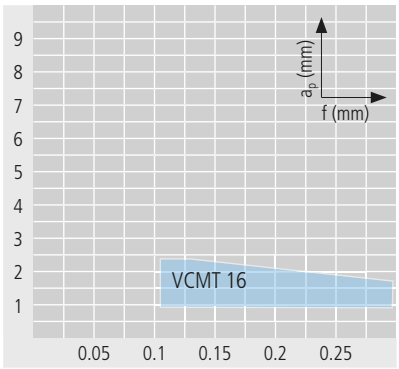
Order designation	Carbide 19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			279…
VALUE-LINE																				
N VCMT 160404 EN -PM25 …				■											16.6	0.4	2.2			SV…16…

Accuracy class of UTILIS 171



Application range of chip breaker — multidec®-ISO

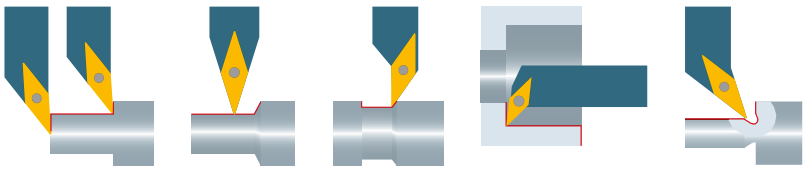
Properties:
– sintered insert based on ISO standard
– rounded cutting edge "E"
– carbide and cermet in different grades



Optimal chip breaking

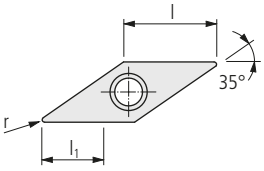
Application:
– roughing and finishing
– chip breaker for general application
– stainless steel

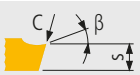
	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	–	–	–
▼▼	○	○	○	–	●	●	–	–	–
▼▼▼	–	–	–	–	–	–	–	–	–





VCMT … -PM55



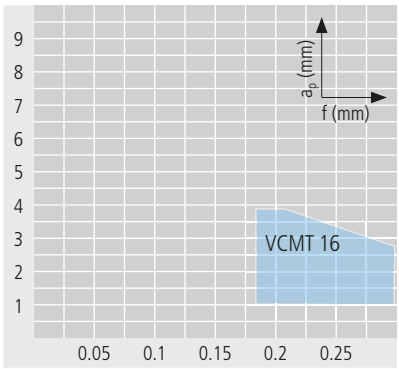


β: 16°
s: ±0.13
C: <0.02

Order designation	Carbide 19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						279…
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
VALUE-LINE															Accuracy class of UTILIS 171					
N VCMT 160404 EN -PM55 …				■											16.6	0.4	3			SV…16…
VCMT 160408 EN -PM55 …				■											16.6	0.8	3.4			SV…16…

Application range of chip breaker *multidec®-ISO*

Properties:
– sintered insert based on ISO standard
– rounded cutting edge "E"
– carbide and cermet in different grades

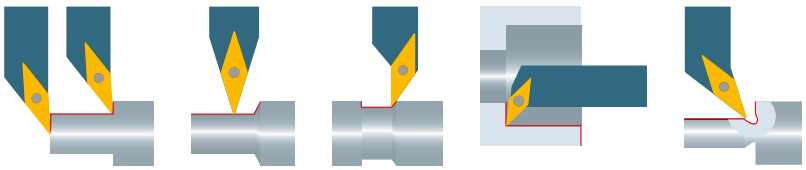


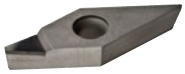
Optimal chip breaking

Application:
– roughing
– chip breaker for general application
– stainless steel

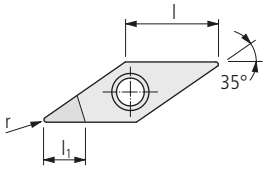
	I	II	III	IV	V	IV	VII	VIII	IX
▼	○	○	○	–	●	●	–	–	–
▼▼	–	–	–	–	–	–	–	–	–
▼▼▼	–	–	–	–	–	–	–	–	–

Inserts (Diamond)





VCGT …



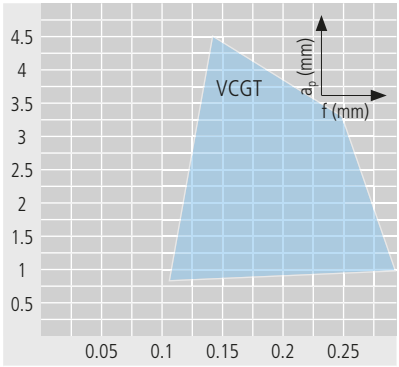


β: 7°
s: ±0.13
C: <0.002

Order designation	Carbide ▯19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						▯279…
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
STANDARD-LINE															Accuracy class of UTILIS ▯171					
N	VCGT 110301 FN …												■	■	11.1	0.1	5.4			SV…11…
	VCGT 110302 FN …												■	■	11.1	0.2	4.6			SV…11…
	VCGT 110304 FN …												■	■	11.1	0.4	3.9			SV…11…
	VCGT 110308 FN …												■		11.1	0.8	3.3			SV…11…
	VCGT 160401 FN …												■	■	16.6	0.1	6			SV…16…
	VCGT 160402 FN …												■	■	16.6	0.2	5.9			SV…16…
	VCGT 160404 FN …												■	■	16.6	0.4	5.5			SV…16…
	VCGT 160408 FN …												■		16.6	0.8	5			SV…16…
	VCGT 160412 FN …												■		16.6	1.2	4.5			SV…16…

Application range of chip breaker

Properties:
– sharp cutting edge "F"
– less cutting force
– positive cut

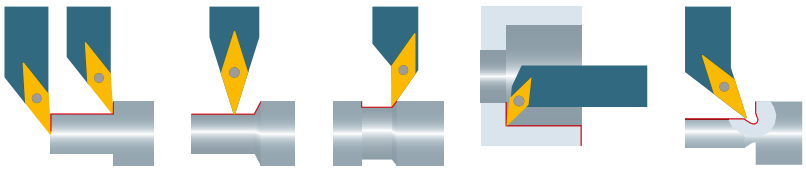


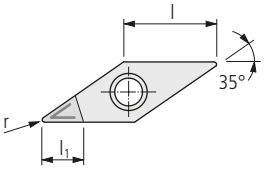
Optimal chip breaking

Application:
– finishing and micro finishing for unstable or thin-walled parts
– chip breaker for general application will generate continues chip
– aluminum, brass, copper, bronze, platinium, gold, synthetics and synthetics reinforced/composites
– Ideal for smallest tolerance and medium surface quality

	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	○	○	○
▼▼	–	–	–	–	–	–	●	●	●
▼▼▼	–	–	–	–	–	–	●	●	●

Inserts (Diamond) — multidec®-ISO







VCGT … -UWS

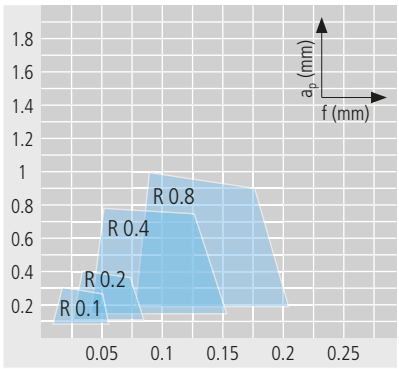


β: 15–20°
s: ±0.13
C: <0.002

Order designation	Carbide (19)									Cermet		Diamond			Dimensions					Holder
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			(279…)
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
STANDARD-LINE																				
															Accuracy class of UTILIS (171)					
N	VCGT 110302 FN -UWS …											■	■	■	11.1	0.2	4.6			SV…11…
	VCGT 110304 FN -UWS …											■	■	■	11.1	0.4	3.9			SV…11…
	VCGT 110308 FN -UWS …												■		11.1	0.8	3.3			SV…11…
	VCGT 160401 FN -UWS …											■	■		16.6	0.1	6			SV…16…
	VCGT 160402 FN -UWS …											■	■		16.6	0.2	5.9			SV…16…
	VCGT 160404 FN -UWS …											■	■	■	16.6	0.4	5.5			SV…16…
	VCGT 160408 FN -UWS …											■	■	■	16.6	0.8	5			SV…16…
	VCGT 160412 FN -UWS …											■	■	■	16.6	1.2	4.5			SV…16…

Application range of chip breaker — multidec®-ISO

Properties:
– sharp cutting edge "F"
– almost any cutting force
– high positive narrow chip breaker made by laser

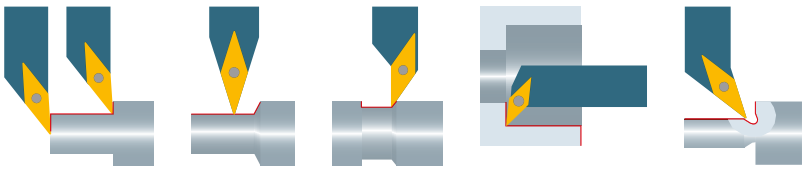


Optimal chip breaking

Application:
– micro finishing for unstable or thin-walled parts
– chip breaker for materials with difficult chip control
– synthetics reinforced/composites, aluminum, platinium, gold and synthetics
– Ideal for smallest tolerance and medium surface quality

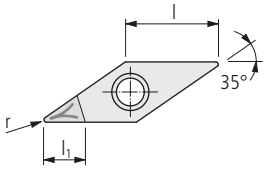
	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	–	–	–
▼▼	–	–	–	–	–	–	○	○	○
▼▼▼	–	–	–	–	–	–	●	●	●

Inserts (Diamond) — multidec®-ISO





VCGT … -UWN



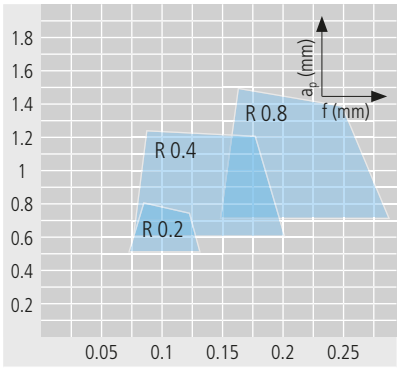


β: 15–20°
s: ±0.13
C: <0.005

Order designation	Carbide (□19)									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			□279…
STANDARD-LINE															Accuracy class of UTILIS □171					
N																				
VCGT 110302 FN -UWN …												■		■	11.1	0.2	4.6			SV…11…
VCGT 110304 FN -UWN …												■		■	11.1	0.4	3.9			SV…11…
VCGT 110308 FN -UWN …												■		■	11.1	0.8	3.3			SV…11…
VCGT 160402 FN -UWN …												■		■	16.6	0.2	5.9			SV…16…
VCGT 160404 FN -UWN …												■		■	16.6	0.4	5.5			SV…16…
VCGT 160408 FN -UWN …												■		■	16.6	0.8	5			SV…16…
VCGT 160412 FN -UWN …												■		■	16.6	1.2	4.5			SV…16…

Application range of chip breaker — multidec®-ISO

Properties:
– sharp cutting edge "F"
– higher cutting force
– high positive wide chip breaker made by laser

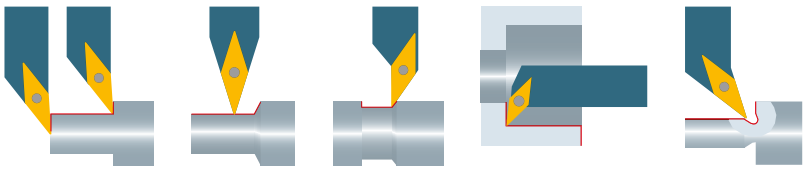


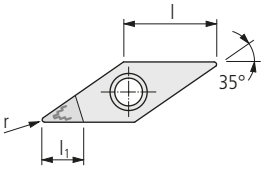
Optimal chip breaking

Application:
– finishing for stable or solid parts
– chip breaker for materials with difficult chip control
– synthetics reinforced/composites, aluminum, platinium, gold and synthetics
– Ideal for smallest tolerance and best surface quality

	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	○	○	○
▼▼	–	–	–	–	–	–	●	●	●
▼▼▼	–	–	–	–	–	–	–	–	–

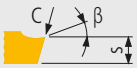
Inserts (Diamond) — multidec®-ISO







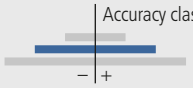
VCGT … -UWR



β: 15–20°
s: ±0.13
C: <0.005

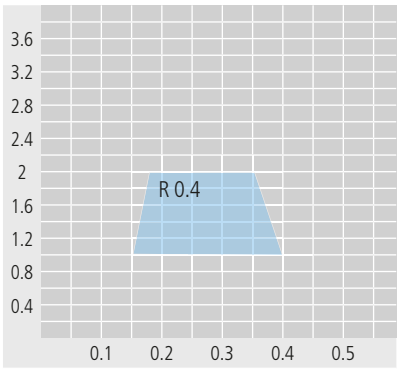
Order designation	Carbide 🗋19									Cermet		Diamond			Dimensions					Holder
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			🗋279…
STANDARD-LINE																				
N																				
VCGT 110304 FN -UWR …														■	11.1	0.4	3.9			SV…11…
VCGT 160404 FN -UWR …														■	16.6	0.4	5.5			SV…16…

Accuracy class of UTILIS 🗋171



Application range of chip breaker — multidec®-ISO

Properties:
– sharp cutting edge "F"
– higher cutting force
– high positive wide chip breaker made by laser

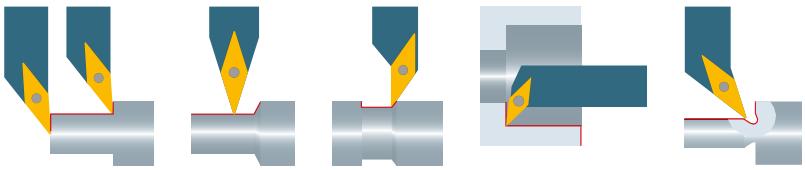


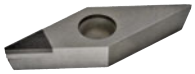
Optimal chip breaking

Application:
– machining of massive or solid parts
– chip breaker for materials with difficult chip control
– synthetics reinforced/composites, aluminum, platinium, gold and synthetics
– maximum metal removal rate

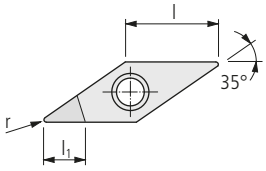
	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	○	○	○
▼▼	–	–	–	–	–	–	●	●	●
▼▼▼	–	–	–	–	–	–	–	–	–

Inserts (Diamond) — multidec®-ISO





VCGW …



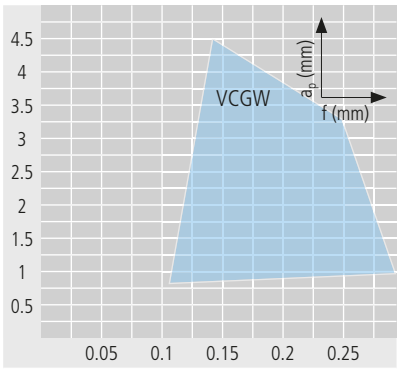


β: 0°
s: ±0.13
C: <0.002

Order designation	Carbide ▯19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						▯279…
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			
STANDARD-LINE															Accuracy class of UTILIS ▯171					
N	VCGW 110301 FN …													■	11.1	0.1	4.6			SV…11…
	VCGW 110302 FN …											■	■	■	11.1	0.2	4.6			SV…11…
	VCGW 110304 FN …											■	■	■	11.1	0.4	3.9			SV…11…
	VCGW 110308 FN …												■		11.1	0.8	3.3			SV…11…
	VCGW 160401 FN …													■	16.6	0.1	6			SV…16…
	VCGW 160402 FN …											■	■	■	16.6	0.2	5.9			SV…16…
	VCGW 160404 FN …											■	■	■	16.6	0.4	5.5			SV…16…
	VCGW 160408 FN …											■	■	■	16.6	0.8	5			SV…16…
	VCGW 160412 FN …												■	■	16.6	1.2	4.5			SV…16…

Application range of chip breaker — multidec®-ISO

Properties:
– sharp cutting edge "F"
– medium cutting force
– neutral cut



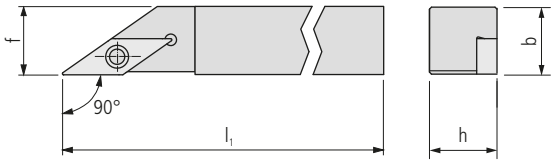
Optimal chip breaking

Application:
– finishing and micro finishing for stable or solid parts
– chip breaker for general application will generate continues chip
– aluminum, brass, copper, bronze, platinium, gold, synthetics and synthetics reinforced/composites
– Ideal for smallest tolerance and high surface quality

	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	○	○	○
▼▼	–	–	–	–	–	–	●	●	●
▼▼▼	–	–	–	–	–	–	●	●	●

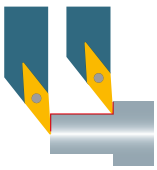




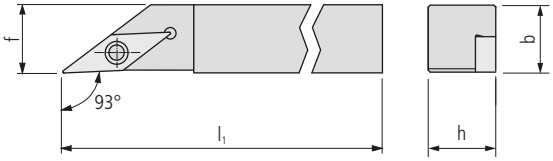


SVAC… U (90°)

Order designation				Dimensions								Inserts
L		R		h	b	l_1		f				260…
STANDARD-LINE				Accuracy class of UTILIS 171								
SVACL 0808 F11 U	■	SVACR 0808 F11 U	■	8	8	80		8				VC..1103..
SVACL 0808 H07 U	■	SVACR 0808 H07 U	■	8	8	100		8				VC..0702..
SVACL 0808 H11 U	■	SVACR 0808 H11 U	■	8	8	100		8				VC..1103..
SVACL 1010 F11 U	■	SVACR 1010 F11 U	■	10	10	80		10				VC..1103..
SVACL 1010 H07 U	■	SVACR 1010 H07 U	■	10	10	100		10				VC..0702..
SVACL 1010 H11 U	■	SVACR 1010 H11 U	■	10	10	100		10				VC..1103..
SVACL 1212 H07 U	■	SVACR 1212 H07 U	■	12	12	100		12				VC..0702..
SVACL 1212 H11 U	■	SVACR 1212 H11 U	■	12	12	100		12				VC..1103..





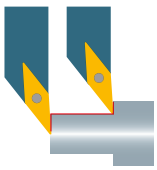


SVJC… U (93°)

Order designation L		Order designation R		Dimensions h	b	l_1		f				Inserts 260…
STANDARD-LINE								Accuracy class of UTILIS 171				
SVJCL 0808 F11 U	■	SVJCR 0808 F11 U	■	8	8	80		8				VC..1103..
SVJCL 0808 H07 U	■	SVJCR 0808 H07 U	■	8	8	100		8				VC..0702..
SVJCL 0808 H11 U	■	SVJCR 0808 H11 U	■	8	8	100		8				VC..1103..
SVJCL 1010 F11 U	■	SVJCR 1010 F11 U	■	10	10	80		10				VC..1103..
SVJCL 1010 H07 U	■	SVJCR 1010 H07 U	■	10	10	100		10				VC..0702..
SVJCL 1010 H11 U	■	SVJCR 1010 H11 U	■	10	10	100		10				VC..1103..
SVJCL 1212 H07 U	■	SVJCR 1212 H07 U	■	12	12	100		12				VC..0702..
SVJCL 1212 H11 U	■	SVJCR 1212 H11 U	■	12	12	100		12				VC..1103..
SVJCL 1616 K11 U	■	SVJCR 1616 K11 U	■	16	16	125		16				VC..1103..
SVJCL 1616 K16 U	■	SVJCR 1616 K16 U	■	16	16	125		16				VC..1604..
SVJCL 2020 K11 U	■	SVJCR 2020 K11 U	■	20	20	125		20				VC..1103..
SVJCL 2020 K16 U	■	SVJCR 2020 K16 U	■	20	20	125		20				VC..1604..

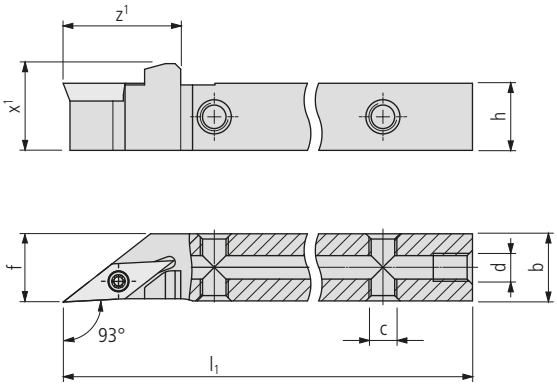
SVJC… U (93°) INCH

Order designation L		Order designation R		Dimensions h	b	l_1		f				Inserts 260…
STANDARD-LINE								Accuracy class of UTILIS 171				
SVJCL 3/8" F11 U	■	SVJCR 3/8" F11 U	■	9.525	9.525	80		9.525				VC..1103..
SVJCL 3/8" H07 U	■	SVJCR 3/8" H07 U	■	9.525	9.525	100		9.525				VC..0702..
SVJCL 3/8" H11 U	■	SVJCR 3/8" H11 U	■	9.525	9.525	100		9.525				VC..1103..
SVJCL 1/2" H07 U	■	SVJCR 1/2" H07 U	■	12.7	12.7	100		12.7				VC..0702..
SVJCL 1/2" H11 U	■	SVJCR 1/2" H11 U	■	12.7	12.7	100		12.7				VC..1103..
SVJCL 3/4" K11 U	■	SVJCR 3/4" K11 U	■	19.05	19.05	125		19.05				VC..1103..
SVJCL 3/4" K16 U	■	SVJCR 3/4" K16 U	■	19.05	19.05	125		19.05				VC..1604..



With internal cooling





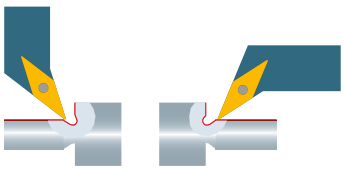
SVJC… U IC (93°)

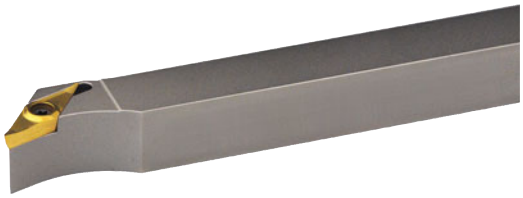
Order designation L	Order designation R	Dimensions h	b	l_1	z^1	x^1	c	d	f	Inserts 260…
PREMIUM-LINE		Accuracy class of UTILIS 171								
SVJCL 0808 H07 U IC	SVJCR 0808 H07 U IC	8	8	100	20	11.5	M5	M5	8	VC.. 0702..
SVJCL 0810 H11 U IC	SVJCR 0810 H11 U IC	8	10	100	21	11.5	M5	M5	10	VC.. 1103..
SVJCL 1010 H07 U IC	SVJCR 1010 H07 U IC	10	10	100	20	13.5	M5	M5	10	VC.. 0702..
SVJCL 1010 H11 U IC	SVJCR 1010 H11 U IC	10	10	100	21	13.5	M5	M5	10	VC.. 1103..
SVJCL 1212 H07 U IC	SVJCR 1212 H07 U IC	12	12	100	20	15.5	M5	M5	12	VC.. 0702..
SVJCL 1212 H11 U IC	SVJCR 1212 H11 U IC	12	12	100	21	15.5	M5	M5	12	VC.. 1103..
SVJCL 1616 K11 U IC	SVJCR 1616 K11 U IC	16	16	125	21	19.5	M5	G1/8"	16	VC.. 1103..
SVJCL 1616 K16 U IC	SVJCR 1616 K16 U IC	16	16	125	27	19.5	M5	G1/8"	16	VC.. 1604..
SVJCL 2020 K11 U IC	SVJCR 2020 K11 U IC	20	20	125	21	23.5	M5	G1/8"	20	VC.. 1103..
SVJCL 2020 K16 U IC	SVJCR 2020 K16 U IC	20	20	125	27	23.5	M5	G1/8"	20	VC.. 1604..

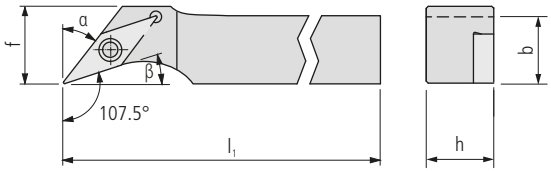
SVJC… U IC (93°) INCH

Order designation L	Order designation R	Dimensions h	b	l_1	z^1	x^1	c	d	f	Inserts 260…
PREMIUM-LINE		Accuracy class of UTILIS 171								
SVJCL 3/8" H07 U IC	SVJCR 3/8" H07 U IC	9.525	9.525	100	20	13	M5	M5	9.525	VC.. 0702..
SVJCL 3/8" H11 U IC	SVJCR 3/8" H11 U IC	9.525	9.525	100	21	13	M5	M5	9.525	VC.. 1103..
SVJCL 1/2" H07 U IC	SVJCR 1/2" H07 U IC	12.7	12.7	100	20	16.2	M5	M5	12.7	VC.. 0702..
SVJCL 1/2" H11 U IC	SVJCR 1/2" H11 U IC	12.7	12.7	100	21	16.2	M5	M5	12.7	VC.. 1103..
SVJCL 5/8" K11 U IC	SVJCR 5/8" K11 U IC	15.875	15.875	125	21	19.5	M5	G1/8"	15.875	VC.. 1103..
SVJCL 5/8" K16 U IC	SVJCR 5/8" K16 U IC	15.875	15.875	125	27	19.5	M5	G1/8"	15.875	VC.. 1604..
SVJCL 3/4" K11 U IC	SVJCR 3/4" K11 U IC	19.05	19.05	125	21	22.6	M5	G1/8"	19.05	VC.. 1103..
SVJCL 3/4" K16 U IC	SVJCR 3/4" K16 U IC	19.05	19.05	125	27	22.6	M5	G1/8"	19.05	VC.. 1604..

Scope of delivery: Holder without coolant connector
Coolant connectors 632





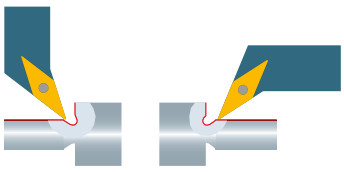


SVHC... U (107.5°)

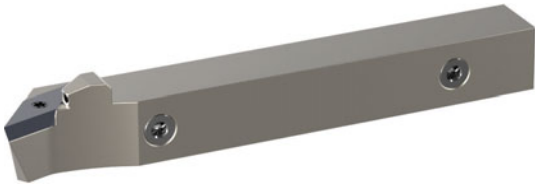
Order designation L		Order designation R		Dimensions h	b	l_1	f	α	β	Inserts 260...
STANDARD-LINE							Accuracy class of UTILIS 171			
SVHCL 0808 H07 U	■	SVHCR 0808 H07 U	■	8	8	100	8	37.5°	17.5°	VC..0702..
SVHCL 1010 H07 U	■	SVHCR 1010 H07 U	■	10	10	100	10	37.5°	17.5°	VC..0702..
SVHCL 1010 H11 U	■	SVHCR 1010 H11 U	■	10	10	100	13	37.5°	17.5°	VC..1103..
SVHCL 1212 H07 U	■	SVHCR 1212 H07 U	■	12	12	100	12	37.5°	17.5°	VC..0702..
SVHCL 1212 H11 U	■	SVHCR 1212 H11 U	■	12	12	100	13	37.5°	17.5°	VC..1103..
SVHCL 1616 K11 U	■	SVHCR 1616 K11 U	■	16	16	125	16	37.5°	17.5°	VC..1103..

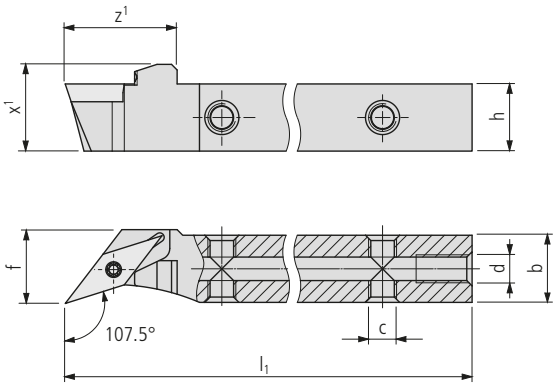
SVHC... U (107.5°) INCH

Order designation L		Order designation R		Dimensions h	b	l_1	f	α	β	Inserts 260...
STANDARD-LINE							Accuracy class of UTILIS 171			
SVHCL 3/8" H07 U	■	SVHCR 3/8" H07 U	■	9.525	9.525	100	9.525	37.5°	17.5°	VC..0702..
SVHCL 3/8" H11 U	■	SVHCR 3/8" H11 U	■	9.525	9.525	100	13	37.5°	17.5°	VC..1103..
SVHCL 1/2" H07 U	■	SVHCR 1/2" H07 U	■	12.7	12.7	100	12.7	37.5°	17.5°	VC..0702..
SVHCL 1/2" H11 U	■	SVHCR 1/2" H11 U	■	12.7	12.7	100	13	37.5°	17.5°	VC..1103..
SVHCL 5/8" K11 U	■	SVHCR 5/8" K11 U	■	15.875	15.875	125	16	37.5°	17.5°	VC..1103..



With internal cooling





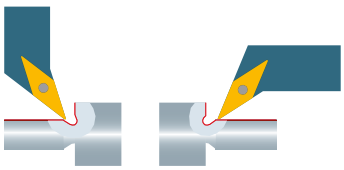
SVHC… U IC (107.5°)

Order designation L		Order designation R		Dimensions h	b	l_1	z^1	x^1	c	d	f	Inserts 260…
PREMIUM-LINE				Accuracy class of UTILIS 171								
SVHCL 0808 H07 U IC	■	SVHCR 0808 H07 U IC	■	8	8	100	18	11.5	M5	M5	8	VC..0702..
SVHCL 1010 H07 U IC	■	SVHCR 1010 H07 U IC	■	10	10	100	18	13.5	M5	M5	10	VC..0702..
SVHCL 1212 H07 U IC	■	SVHCR 1212 H07 U IC	■	12	12	100	18	15.5	M5	M5	12	VC..0702..
SVHCL 1212 H11 U IC	■	SVHCR 1212 H11 U IC	■	12	12	100	22	15.5	M5	M5	13	VC..1103..
SVHCL 1616 K11 U IC	■	SVHCR 1616 K11 U IC	■	16	16	125	22	19.5	M5	G1/8"	16	VC..1103..

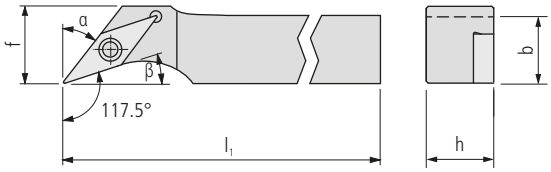
SVHC… U IC (107.5°) INCH

Order designation L		Order designation R		Dimensions h	b	l_1	z^1	x^1	c	d	f	Inserts 260…
PREMIUM-LINE				Accuracy class of UTILIS 171								
SVHCL 3/8" H07 U IC	■	SVHCR 3/8" H07 U IC	■	9.525	9.525	100	18	13	M5	M5	9.525	VC..0702..
SVHCL 1/2" H07 U IC	■	SVHCR 1/2" H07 U IC	■	12.7	12.7	100	18	16.2	M5	M5	12.7	VC..0702..
SVHCL 1/2" H11 U IC	■	SVHCR 1/2" H11 U IC	■	12.7	12.7	100	22	16.2	M5	M5	12.7	VC..1103..
SVHCL 5/8" K11 U IC	■	SVHCR 5/8" K11 U IC	■	15.875	15.875	125	22	19.4	M5	G1/8"	15.875	VC..1103..

Scope of delivery: Holder without coolant connector
Coolant connectors 632





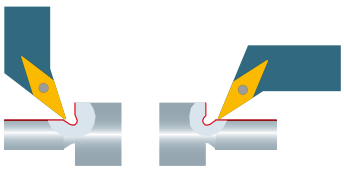


SVOC… U (117.5°)

Order designation L		Order designation R		Dimensions h	b	l_1	f	α	β	Inserts ▯260…
STANDARD-LINE				Accuracy class of UTILIS ▯171 – +						
SVOCL 0808 H07 U	■	SVOCR 0808 H07 U	■	8	8	100	10	27.5°	27.5°	VC..0702..
SVOCL 1010 H07 U	■	SVOCR 1010 H07 U	■	10	10	100	10	27.5°	27.5°	VC..0702..
SVOCL 1010 H11 U	■	SVOCR 1010 H11 U	■	10	10	100	16	27.5°	27.5°	VC..1103..
SVOCL 1212 H07 U	■	SVOCR 1212 H07 U	■	12	12	100	12	27.5°	27.5°	VC..0702..
SVOCL 1212 H11 U	■	SVOCR 1212 H11 U	■	12	12	100	16	27.5°	27.5°	VC..1103..
SVOCL 1616 K11 U	■	SVOCR 1616 K11 U	■	16	16	125	16	27.5°	27.5°	VC..1103..

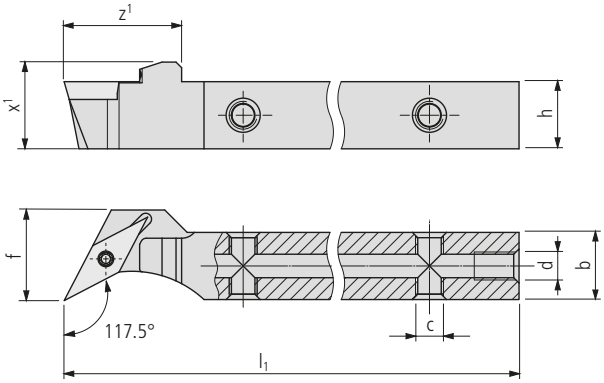
SVOC… U (117.5°) INCH

Order designation L		Order designation R		Dimensions h	b	l_1	f	α	β	Inserts ▯260…
STANDARD-LINE				Accuracy class of UTILIS ▯171 – +						
SVOCL 3/8" H07 U	■	SVOCR 3/8" H07 U	■	9.525	9.525	100	10	27.5°	27.5°	VC..0702..
SVOCL 3/8" H11 U	■	SVOCR 3/8" H11 U	■	9.525	9.525	100	16	27.5°	27.5°	VC..1103..
SVOCL 1/2" H07 U	■	SVOCR 1/2" H07 U	■	12.7	12.7	100	12.7	27.5°	27.5°	VC..0702..
SVOCL 1/2" H11 U	■	SVOCR 1/2" H11 U	■	12.7	12.7	100	16	27.5°	27.5°	VC..1103..
SVOCL 5/8" K11 U	■	SVOCR 5/8" K11 U	■	15.875	15.875	125	16	27.5°	27.5°	VC..1103..



With internal cooling





SVOC… U IC (117.5°)

Order designation L		Order designation R		Dimensions h	b	l_1	z^1	x^1	c	d	f	Inserts 260…
PREMIUM-LINE				Accuracy class of UTILIS 171								
SVOCL 0808 H07 U IC	■	SVOCR 0808 H07 U IC	■	8	8	100	18	11.5	M5	M5	10	VC..0702..
SVOCL 1010 H07 U IC	■	SVOCR 1010 H07 U IC	■	10	10	100	18	13.5	M5	M5	10	VC..0702..
SVOCL 1010 H11 U IC	■	SVOCR 1010 H11 U IC	■	10	10	100	22	13.5	M5	M5	16	VC..1103..
SVOCL 1212 H07 U IC	■	SVOCR 1212 H07 U IC	■	12	12	100	18	15.5	M5	M5	12	VC..0702..
SVOCL 1212 H11 U IC	■	SVOCR 1212 H11 U IC	■	12	12	100	22	15.5	M5	M5	16	VC..1103..
SVOCL 1616 K11 U IC	■	SVOCR 1616 K11 U IC	■	16	16	125	22	19.5	M5	G1/8"	16	VC..1103..

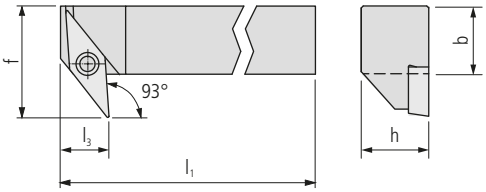
SVOC… U IC (117.5°) INCH

Order designation L		Order designation R		Dimensions h	b	l_1	z^1	x^1	c	d	f	Inserts 260…
PREMIUM-LINE				Accuracy class of UTILIS 171								
SVOCL 3/8" H07 U IC	■	SVOCR 3/8" H07 U IC	■	9.525	9.525	100	18	13	M5	M5	10	VC..0702..
SVOCL 3/8" H11 U IC	■	SVOCR 3/8" H11 U IC	■	9.525	9.525	100	22	13	M5	M5	16	VC..1103..
SVOCL 1/2" H07 U IC	■	SVOCR 1/2" H07 U IC	■	12.7	12.7	100	18	16.2	M5	M5	12.9	VC..0702..
SVOCL 1/2" H11 U IC	■	SVOCR 1/2" H11 U IC	■	12.7	12.7	100	22	16.2	M5	M5	16	VC..1103..
SVOCL 5/8" K11 U IC	■	SVOCR 5/8" K11 U IC	■	15.875	15.875	125	22	19.4	M5	G1/8"	15.875	VC..1103..

Scope of delivery: Holder without coolant connector
Coolant connectors 632

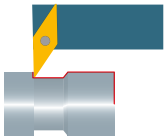


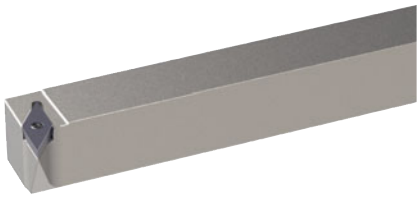


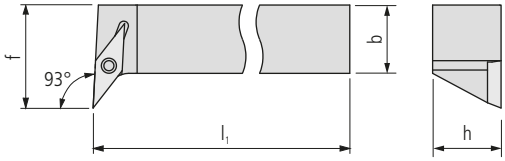


SVQC… (93°)

Order designation				Dimensions								Inserts
L		R		h	b	l_1		f		l_3		260…
STANDARD-LINE								Accuracy class of UTILIS 171				
SVQCL 0808 H07	■	SVQCR 0808 H07	■	8	8	100		13.5		6		VC..0702..
SVQCL 1010 H07	■	SVQCR 1010 H07	■	10	10	100		15.5		6		VC..0702..
SVQCL 1212 H07	■	SVQCR 1212 H07	■	12	12	100		17.5		6		VC..0702..
SVQCL 1212 H11	■	SVQCR 1212 H11	■	12	12	100		20		8.5		VC..1103..
SVQCL 1616 K11	■	SVQCR 1616 K11	■	16	16	125		24		8.5		VC..1103..

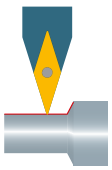




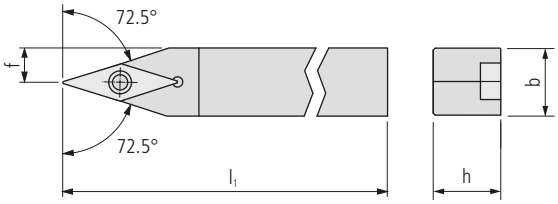


SVUC… (93°)

Order designation				Dimensions								Inserts
L		R		h	b	l_1		f				260…
STANDARD-LINE				Accuracy class of UTILIS 171								
SVUCL 0808 H07	■	SVUCR 0808 H07	■	8	8	100		13.5				VC..0702..
SVUCL 1010 H07	■	SVUCR 1010 H07	■	10	10	100		15.5				VC..0702..
SVUCL 1212 H07	■	SVUCR 1212 H07	■	12	12	100		17.5				VC..0702..
SVUCL 1212 H11	■	SVUCR 1212 H11	■	12	12	100		20				VC..1103..
SVUCL 1616 K11	■	SVUCR 1616 K11	■	16	16	125		24				VC..1103..
SVUCL 2020 K11	■	SVUCR 2020 K11	■	20	20	125		28				VC..1103..







SVVCN … U (72.5°)

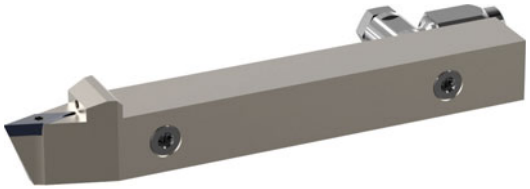
Order designation				Dimensions								Inserts
N				h	b	l_1		f				260…
STANDARD-LINE				Accuracy class of UTILIS 171								
SVVCN 0808 F11 U	■			8	8	80		4				VC..1103..
SVVCN 0808 H07 U	■			8	8	100		4				VC..0702..
SVVCN 0808 H11 U	■			8	8	100		4				VC..1103..
SVVCN 1010 F11 U	■			10	10	80		5				VC..1103..
SVVCN 1010 H07 U	■			10	10	100		5				VC..0702..
SVVCN 1010 H11 U	■			10	10	100		5				VC..1103..
SVVCN 1212 F11 U	■			12	12	80		6				VC..1103..
SVVCN 1212 H07 U	■			12	12	100		6				VC..0702..
SVVCN 1212 H11 U	■			12	12	100		6				VC..1103..
SVVCN 1616 H11 U	■			16	16	100		8				VC..1103..
SVVCN 2020 K11 U	■			20	20	125		10				VC..1103..
SVVCN 2020 K16 U	■			20	20	125		10				VC..1604..

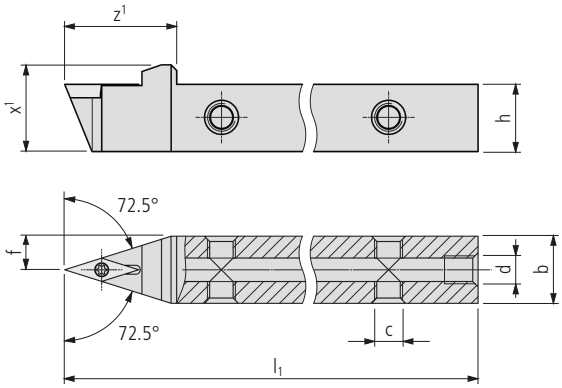
SVVCN … U (72.5°) INCH

Order designation				Dimensions								Inserts
L		R		h	b	l_1		f				260…
STANDARD-LINE				Accuracy class of UTILIS 171								
SVVCN 3/8" H07 U	■			9.525	9.525	100		4.76				VC..0702..
SVVCN 3/8" H11 U	■			9.525	9.525	100		4.76				VC..1103..
SVVCN 1/2" H07 U	■			12.7	12.7	100		6.35				VC..0702..
SVVCN 1/2" H11 U	■			12.7	12.7	100		6.35				VC..1103..
SVVCN 5/8" K11 U	■			15.875	15.875	125		7.93				VC..1103..
SVVCN 3/4" K11 U	■			19.05	19.05	125		9.525				VC..1103..
SVVCN 3/4" K16 U	■			19.05	19.05	125		9.525				VC..1604..



With internal cooling





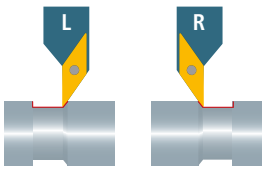
SVVCN … U IC (72.5°)

Order designation L	Order designation R	h	b	l_1	z^1	x^1	c	d	f	Inserts 260…
PREMIUM-LINE		Accuracy class of UTILIS 171								
SVVCN 0808 H07 U IC	■	8	8	100	20	11.5	M5	M5	4	VC..0702..
SVVCN 0810 H11 U IC	■	8	10	100	21	11.5	M5	M5	5	VC..1103..
SVVCN 1010 H07 U IC	■	10	10	100	20	13.5	M5	M5	5	VC..0702..
SVVCN 1010 H11 U IC	■	10	10	100	21	13.5	M5	M5	5	VC..1103..
SVVCN 1212 H07 U IC	■	12	12	100	20	15.5	M5	M5	6	VC..0702..
SVVCN 1212 H11 U IC	■	12	12	100	21	15.5	M5	M5	6	VC..1103..
SVVCN 1616 K11 U IC	■	16	16	125	21	19.5	M5	G1/8"	8	VC..1103..
SVVCN 2020 K11 U IC	■	20	20	125	21	23.5	M5	G1/8"	10	VC..1103..
SVVCN 2020 K16 U IC	■	20	20	125	27	23.5	M5	G1/8"	10	VC..1604..

SVVCN … U IC (72.5°) INCH

Order designation L	Order designation R	h	b	l_1	z^1	x^1	c	d	f	Inserts 260…
PREMIUM-LINE		Accuracy class of UTILIS 171								
SVVCN 3/8" H07 U IC	■	9.525	9.525	100	20	13	M5	M5	4.76	VC..0702..
SVVCN 3/8" H11 U IC	■	9.525	9.525	100	20	13	M5	M5	4.76	VC..1103..
SVVCN 1/2" H07 U IC	■	12.7	12.7	100	21	15.4	M5	M5	6.35	VC..0702..
SVVCN 1/2" H11 U IC	■	12.7	12.7	100	21	15.4	M5	M5	6.35	VC..1103..
SVVCN 5/8" K11 U IC	■	15.875	15.875	125	21	18.6	M5	G1/8"	7.94	VC..1103..
SVVCN 3/4" K11 U IC	■	19.05	19.05	125	21	22.6	M5	G1/8"	9.52	VC..1103..
SVVCN 3/4" K16 U IC	■	19.05	19.05	125	27	22.6	M5	G1/8"	9.52	VC..1604..

Scope of delivery: Holder without coolant connector
Coolant connectors 632





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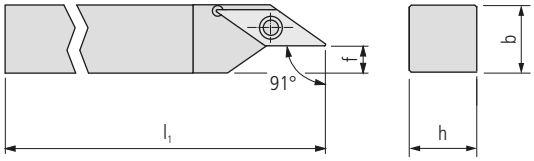


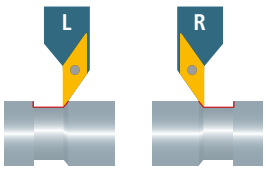
SVXC... U (91°)

Order designation L		Order designation R		Dimensions h	b	l_1	f	Inserts 260...
STANDARD-LINE				Accuracy class of UTILIS 171				
SVXCL 0808 H07 U	■	SVXCR 0808 H07 U	■	8	8	100	2.5	VC..0702..
SVXCL 1010 F11 U	■	SVXCR 1010 F11 U	■	10	10	80	3	VC..1103..
SVXCL 1010 H07 U	■	SVXCR 1010 H07 U	■	10	10	100	4.5	VC..0702..
SVXCL 1010 H11 U	■	SVXCR 1010 H11 U	■	10	10	100	3	VC..1103..
SVXCL 1212 H07 U	■	SVXCR 1212 H07 U	■	12	12	100	6.5	VC..0702..
SVXCL 1212 H11 U	■	SVXCR 1212 H11 U	■	12	12	100	5	VC..1103..
SVXCL 1616 K11 U	■	SVXCR 1616 K11 U	■	16	16	125	9	VC..1103..
SVXCL 2020 K16 U	■	SVXCR 2020 K16 U	■	20	20	125	9	VC..1604..

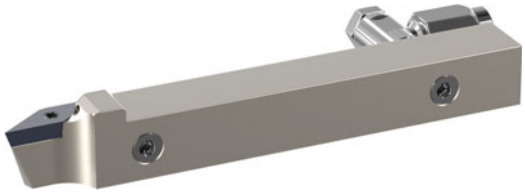
SVXC... U (91°) INCH

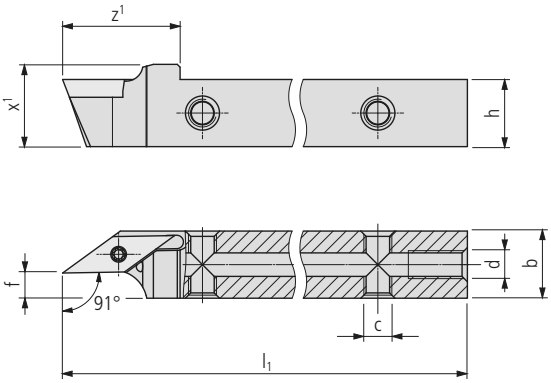
Order designation L		Order designation R		Dimensions h	b	l_1	f	Inserts 260...
STANDARD-LINE				Accuracy class of UTILIS 171				
SVXCL 3/8" F11 U	■	SVXCR 3/8" F11 U	■	9.525	9.525	80	2	VC..1103..
SVXCL 3/8" H07 U	■	SVXCR 3/8" H07 U	■	9.525	9.525	100	4	VC..0702..
SVXCL 3/8" H11 U	■	SVXCR 3/8" H11 U	■	9.525	9.525	100	2	VC..1103..
SVXCL 1/2" H07 U	■	SVXCR 1/2" H07 U	■	12.7	12.7	100	7.2	VC..0702..
SVXCL 1/2" H11 U	■	SVXCR 1/2" H11 U	■	12.7	12.7	100	5	VC..1103..
SVXCL 5/8" K11 U	■	SVXCR 5/8" K11 U	■	15.875	15.875	125	8	VC..1103..
SVXCL 3/4" K16 U	■	SVXCR 3/4" K16 U	■	19.05	19.05	125	8	VC..1604..

*** Attention**
Picture shows holder in the left-hand version



With internal cooling





SVXC… U IC (91°)

Order designation L		Order designation R		Dimensions h	b	l_1	z^1	x^1	c	d	f	Inserts 260…
PREMIUM-LINE				Accuracy class of UTILIS 171								
SVXCL 0808 H07 U IC	■	SVXCR 0808 H07 U IC	■	8	8	100	18	11.5	M5	M5	2.5	VC..0702..
SVXCL 1010 F11 U IC	■	SVXCR 1010 F11 U IC	■	10	10	80	21	12.7	M5	M5	3	VC..1103..
SVXCL 1010 H07 U IC	■	SVXCR 1010 H07 U IC	■	10	10	100	18	13.5	M5	M5	4.5	VC..0702..
SVXCL 1010 H11 U IC	■	SVXCR 1010 H11 U IC	■	10	10	100	21	12.7	M5	M5	3	VC..1103..
SVXCL 1212 H07 U IC	■	SVXCR 1212 H07 U IC	■	12	12	100	18	15.5	M5	M5	6.5	VC..0702..
SVXCL 1212 H11 U IC	■	SVXCR 1212 H11 U IC	■	12	12	100	21	14.7	M5	M5	5	VC..1103..
SVXCL 1616 K11 U IC	■	SVXCR 1616 K11 U IC	■	16	16	125	21	18.7	M5	G1/8"	9	VC..1103..
SVXCL 2020 K16 U IC	■	SVXCR 2020 K16 U IC	■	20	20	125	27	22	M5	G1/8"	9	VC..1604..

SVXC… U IC (91°) INCH

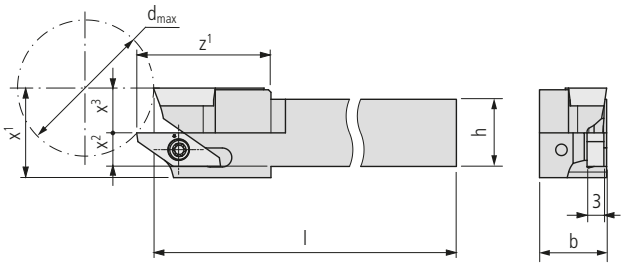
Order designation L		Order designation R		Dimensions h	b	l_1	z^1	x^1	c	d	f	Inserts 260…
PREMIUM-LINE				Accuracy class of UTILIS 171								
SVXCL 3/8" F11 U IC	■	SVXCR 3/8" F11 U IC	■	9.525	9.525	80	21	12.2	M5	M5	2	VC..1103..
SVXCL 3/8" H07 U IC	■	SVXCR 3/8" H07 U IC	■	9.525	9.525	100	18	13	M5	M5	4.02	VC..0702..
SVXCL 3/8" H11 U IC	■	SVXCR 3/8" H11 U IC	■	9.525	9.525	100	21	12.2	M5	M5	2	VC..1103..
SVXCL 1/2" H07 U IC	■	SVXCR 1/2" H07 U IC	■	12.7	12.7	100	18	16.2	M5	M5	7.19	VC..0702..
SVXCL 1/2" H11 U IC	■	SVXCR 1/2" H11 U IC	■	12.7	12.7	100	21	15.4	M5	M5	5	VC..1103..
SVXCL 5/8" K11 U IC	■	SVXCR 5/8" K11 U IC	■	15.875	15.875	125	21	18.6	M5	G1/8"	8	VC..1103..
SVXCL 3/4" K16 U IC	■	SVXCR 3/4" K16 U IC	■	19.05	19.05	125	27	22	M5	G1/8"	8	VC..1604..

Scope of delivery: Holder without coolant connector
Coolant connectors 632



"TWIN" version





SVJC. (93°)/1600… TWIN

Order designation		Dimensions								Inserts	
R R		h	b	l	z^1	x^1	x^2	x^3	d_{max}	260…	47…
STANDARD-LINE		Accuracy class of UTILIS 171									
SVJCR/1600R-0810 H07 Twin	■	8	10	100	24	16	4	8	24	VC..0702..	16…
SVJCR/1600R-1010 H07 Twin	■	10	10	100	24	16	5	8	24	VC..0702..	16…
SVJCR/1600R-1212 H07 Twin	■	12	12	100	24	16	6	8	24	VC..0702..	16…
SVJCR/1600R-0810 H11 Twin	■	8	10	100	24	16	4	8	24	VC..1103..	16…
SVJCR/1600R-1010 H11 Twin	■	10	10	100	24	16	5	8	24	VC..1103..	16…
SVJCR/1600R-1212 H11 Twin	■	12	12	100	24	16	6	8	24	VC..1103..	16…
SVJCR/1600R-1616 K11 Twin	■	16	16	125	24	20	8	10	36	VC..1103..	16…
SVJCR/1600R-2020 K11 Twin	■	20	20	125	24	24	8	14	68	VC..1103..	16…

SVJC. (93°)/1600… TWIN INCH

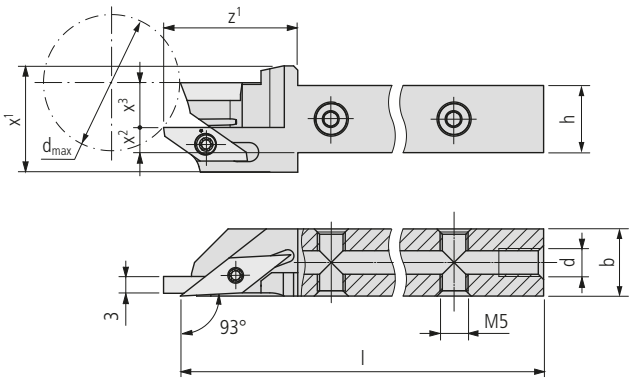
Order designation		Dimensions								Inserts	
R R		h	b	l	z^1	x^1	x^2	x^3	d_{max}	260…	47…
STANDARD-LINE		Accuracy class of UTILIS 171									
SVJCR/1600R-3/8" H07 Twin	■	9.525	9.525	100	24	16	4.76	8	24	VC..0702..	16…
SVJCR/1600R-1/2" H07 Twin	■	12.7	12.7	100	24	16	6.35	8	24	VC..0702..	16…
SVJCR/1600R-3/8" H11 Twin	■	9.525	9.525	100	24	16	4.76	8	24	VC..1103..	16…
SVJCR/1600R-1/2" H11 Twin	■	12.7	12.7	100	24	16	6.35	8	24	VC..1103..	16…
SVJCR/1600R-5/8" K11 Twin	■	15.875	15.875	125	24	20	7.94	10	36	VC..1103..	16…
SVJCR/1600R-3/4" K11 Twin	■	19.05	19.05	125	24	24	7.53	14	68	VC..1103..	16…

■ New



"TWIN" version with internal cooling





SVJC. (93°)/1600… TWIN IC

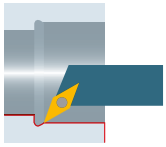
Order designation		Dimensions									Inserts	
		h	b	l	z^1	x^1	x^2	x^3	d	d_{max}	260…	47…
PREMIUM-LINE	Accuracy class of UTILIS 171											
SVJCR/1600R-0810 H07 Twin IC	■	8	10	100	24	19	2.5	8	M5	24	VC..0702..	16…
SVJCR/1600R-1010 H07 Twin IC	■	10	10	100	24	19	3.5	8	M5	24	VC..0702..	16…
SVJCR/1600R-1212 H07 Twin IC	■	12	12	100	24	19	4.5	8	M5	24	VC..0702..	16…
SVJCR/1600R-0810 H11 Twin IC	■	8	10	100	24	19	2.5	8	M5	24	VC..1103..	16…
SVJCR/1600R-1010 H11 Twin IC	■	10	10	100	24	19	3.5	8	M5	24	VC..1103..	16…
SVJCR/1600R-1212 H11 Twin IC	■	12	12	100	24	19	4.5	8	M5	24	VC..1103..	16…
SVJCR/1600R-1616 K11 Twin IC	■	16	16	125	24	23	6.5	10	G1/8"	36	VC..1103..	16…
SVJCR/1600R-2020 K11 Twin IC	■	20	20	125	24	27	6.5	14	G1/8"	68	VC..1103..	16…

SVJC. (93°)/1600… TWIN IC INCH

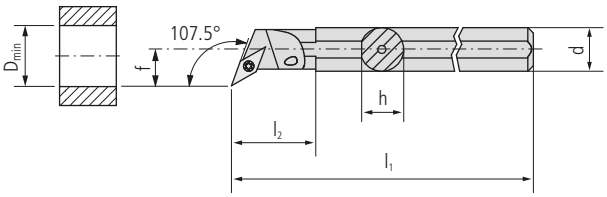
Order designation		Dimensions									Inserts	
		h	b	l	z^1	x^1	x^2	x^3	d	d_{max}	260…	47…
PREMIUM-LINE	Accuracy class of UTILIS 171											
SVJCR/1600R-3/8" H07 Twin IC	■	9.525	9.525	100	24	19	3.26	8	M5	24	VC..0702..	16…
SVJCR/1600R-1/2" H07 Twin IC	■	12.7	12.7	100	24	19	4.85	8	M5	24	VC..0702..	16…
SVJCR/1600R-3/8" H11 Twin IC	■	9.525	9.525	100	24	19	3.26	8	M5	24	VC..1103..	16…
SVJCR/1600R-1/2" H11 Twin IC	■	12.7	12.7	100	24	19	4.85	8	M5	24	VC..1103..	16…
SVJCR/1600R-5/8" K11 Twin IC	■	15.875	15.875	125	24	23	6.44	10	G1/8"	36	VC..1103..	16…
SVJCR/1600R-3/4" K11 Twin IC	■	19.05	19.05	125	24	27	6.03	14	G1/8"	68	VC..1103..	16…

Scope of delivery: Holder without coolant connector
Coolant connectors 632

■ New





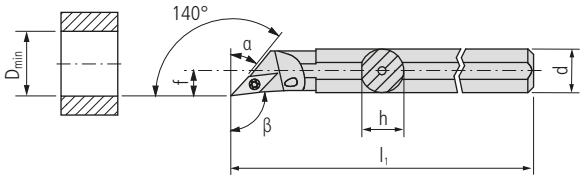


A... SVQC... (107.5°)

Order designation				Dimensions								Inserts
L		R		d	h	l_1	l_2	f	D_{min}			260...
STANDARD-LINE				Accuracy class of UTILIS 171								
A10 H SVQCL 07	■	A10 H SVQCR 07	■	10	9.5	100	23	8	16			VC..0702..
A12 K SVQCL 07	■	A12 K SVQCR 07	■	12	11.5	125	25	9	17			VC..0702..
A16 M SVQCL 07	■	A16 M SVQCR 07	■	16	15	150	29	11	20			VC..0702..
A16M SVQCL 11	■	A16M SVQCR 11	■	16	15	150	29	11	20			VC..1103..
A20Q SVQCL 11	■	A20Q SVQCR 11	■	20	18.5	180	32	13	25			VC..1103..

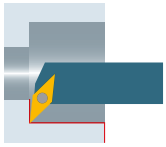




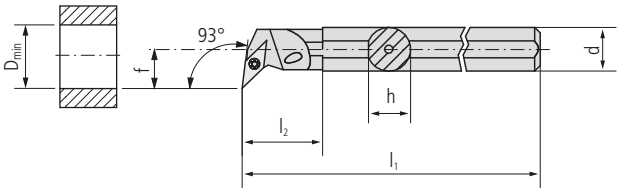


A... SVOC... (140°)

Order designation				Dimensions								Inserts
L		R		d	h	l_1		f	D_{min}	α	β	260...
STANDARD-LINE							Accuracy class of UTILIS 171					
A10 H SVOCL 07	■	A10 H SVOCR 07	■	10	9.5	100		6	16	50°	95°	VC..07..
A12 K SVOCL 07	■	A12 K SVOCR 07	■	12	11.5	125		7	17	50°	95°	VC..07..
A12K SVOCL 11	■	A12K SVOCR 11	■	12	11.5	125		7	17	50°	95°	VC..11..
A16 M SVOCL 07	■	A16 M SVOCR 07	■	16	15.5	150		9	20	50°	95°	VC..07..
A16M SVOCL 11	■	A16M SVOCR 11	■	16	15.5	150		9	20	50°	95°	VC..11..







A... SVUC... (93°)

Order designation				Dimensions								Inserts
L		R		d	h	l_1	l_2	f	D_{min}			260...
STANDARD-LINE												
								Accuracy class of UTILIS 171				
								– | +				
A10 K SVUCL 07	■	A10 K SVUCR 07	■	10	9.5	100	23	8	16			VC..0702..
A12 K SVUCL 07	■	A12 K SVUCR 07	■	12	11.5	125	25	9	17			VC..0702..
A16 M SVUCL 07	■	A16 M SVUCR 07	■	16	15.5	150	29	11	20			VC..0702..
A16M SVUCL 11	■	A16M SVUCR 11	■	16	15	150	29	11	20			VC..1103..
A20Q SVUCL 11	■	A20Q SVUCR 11	■	20	18.5	180	32	13	25			VC..1103..

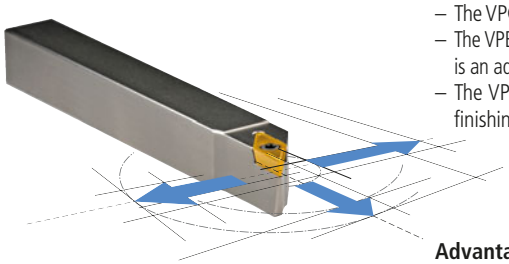
For holders (SV…) OD turning

Illustration	Description	Dimensions	Order designation		Holder
	TORX screw	M2 × 5.5 T06	MSP 20055 T06	■	SV… 07
		M2.5 × 6 T08	MSP 25060 T08	■	SV… 11
		M3.5 × 11 T15	MSP 35110 T15	■	SV… 16

For holders (… SV…) ID turning

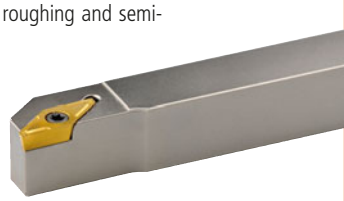
Illustration	Description	Dimensions	Order designation		Holder
	TORX screw	M2.5 × 6 T08	MSP 25060 T08	■	A12K SV… 11 A16M SV… 11 A20Q SV… 11

TORX screwdriver 🗋664



The "TOP" system with drag-cut permits an increase of the feed rate of up to 100 % compared to conventional ISO inserts.
– The VPGT 1003… F provides a sharp cutting edge for semi-finishing, finishing and micro-finishing.
– The VPET 1003… F provides a sharp cutting edge and the tolerance of its insert height is more precise. This is an advantage as the height does not have to be reset when changing the insert.
– The VPXT 1003… E is a directly pressed insert with rounded cutting edge for roughing and semi-finishing.





Advantages:
– Front turning, back turning and facing with one insert
– Carbide grades and coatings for steel, stainless steel and superalloys
– Cutting edge radius from 0 to 0.35 mm available as standard
– Heat-treated holders and boring bars
– Reinforced "V" type holders for front turning with high depths of cut



"IC" tool holder with integrated cooling

Cost-efficient processing of modern materials increasingly requires accurate control of the coolant at the cutting edge. Conveying the coolant as close as possible to the cutting edge is often a difficult task in the machine rooms of Swiss type turning lathes.
The multidec®-IC program offers a wide range of holders with integrated cooling. Because of the high precision and pressure, it is possible to discharge the chip quickly and safely from the cutting edge and the workpiece, which protects the cutting edge of the insert. This means significantly longer tool life as well as very reliable serial production.

Advantages:
– All holders feature five possible connectors for the coolant supply
– Constant coolant discharge means low build-up at front near the holder
– With or without high pressure, the coolant medium always hits the cutting edge precisely



"TWIN" holder with and without integrated coolant supply

The "TWIN" range allows you to work with two inserts on the same holder.
Different combinations are possible, and provide the user with a high degree of flexibility. Holders are available with shank cross-sections of 8 to 20 mm, with and without internal cooling.

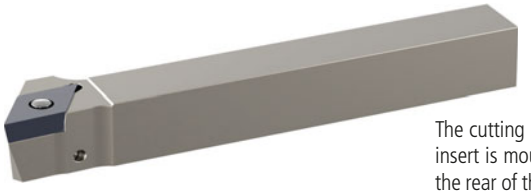
Advantages:
– Twice the number of tools on the machine
– Two different turning operations are possible with a single tool holder
– All holders with an integrated coolant supply have five connecting options



"Y-AXIS" holder with and without integrated coolant supply

Y-AXIS holders solve the chip control problems that can occur when cutting long-chip materials. With the Y-AXIS holder, the cutting edge is offset by 90° compared to the standard holder, whereby the chips fall in the bed of the machine. This prevents troublesome tumbling and flowing chips that can become caught on the cutting edge and damage it.

Benefits:
– Suitable for long chipping materials
– The problem of chip control is solved
– Holders with internal cooling
– All holders feature five possible connectors for the coolant supply



"FC" holder with quick cutting edge change system (fast change)

The cutting edge can be changed without unclamping the holder using the "FC" holder. The indexable insert is mounted using a specially developed knee lever which is operated using a clamping screw on the rear of the holder.

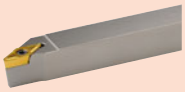
Advantages:
– Quick indexable insert change directly in the machine
– Holder with and without integrated coolant supply

Technical information 9



Inserts (carbide / cermet)

VPET … TOP 300
VPGT … TOP 301
VPXT … TOP 302



Holders (OD turning)

SVAP… (90°) 303
SVJP… (93°), SVJP… IC (93°) 304
SVJP…V (93°), SVJP…V IC (93°) 306
SVJP… FC (93°), SVJP… FC IC (93°) 308
SVJP…V FC (93°), SVJP…V FC IC (93°) 310
SVXP… (91°), SVXP… IC (91°) 312
SVJP. (93°)/1600… TWIN, SVJP. (93°)/1600… IC TWIN 314
SVJP. YA… (93°) Y-AXIS 318



Holders (ID turning)

SVJP… (92°) 319
A… SVOP… (143°) 320
SVQP… (92°) 321
SVUP… (92°) 322

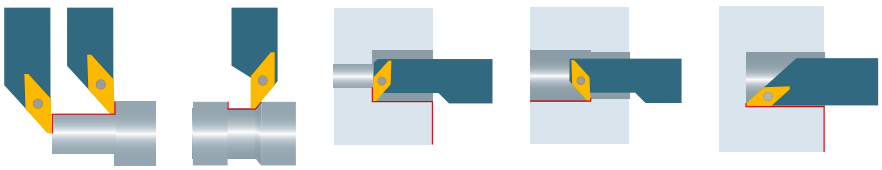


Replacement and spare parts 323



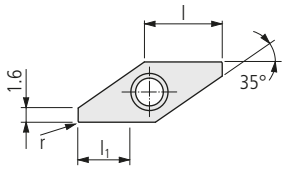
Coolant connectors and accessories 632

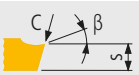
Inserts (Carbide / Cermet)





VPET … -TOP*





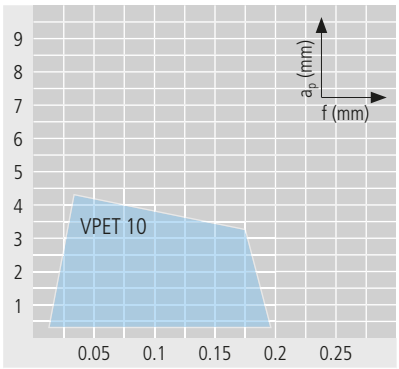
β: 12°
s: ±0.025
C: <0.002

Order designation	Carbide ▯19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			▯303…
PREMIUM-LINE															Accuracy class of UTILIS ▯171					
L VPET 1003ZZ FL -TOP …	■	■		■		■	■		■						8.9	0	4.5			SV… …
VPET 1003008 FL -TOP …	■	■		■		■	■		■						8.9	0.08	4.5			SV… …
VPET 1003015 FL - TOP …	■	■		■		■	■		■						8.9	0.15	4.5			SV… …
R VPET 1003ZZ FR -TOP …	■	■		■		■	■		■						8.9	0	4.5			SV… …
VPET 1003005 FR -TOP …						■	■								8.9	0.05	4.5			SV… …
VPET 1003008 FR -TOP …	■	■		■		■	■		■						8.9	0.08	4.5			SV… …
VPET 1003015 FR -TOP …	■	■		■		■	■		■						8.9	0.15	4.5			SV… …

* Description TOP ▯25

Application range of chip breaker

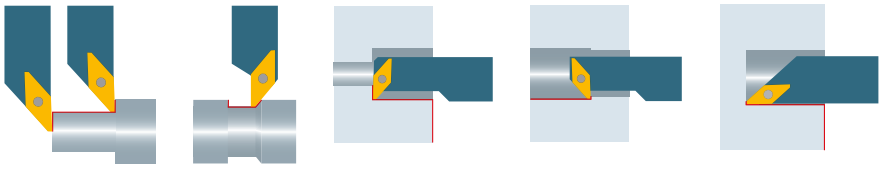
Properties:
– polished rake and ground clearance
– sharp cutting edge "F"
– submicrograin carbide, high toughness
– TOP system, for a better surface finish
– Closer tolerance "E"



Optimal chip breaking

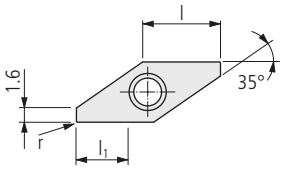
Application:
– finishing for 20–100 % higher feed rates compair to the standard
– chip breaker for general application
– stainless steel, alloyed steel and super alloy

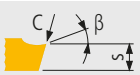
	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	–	–	–
▼▼	●	●	●	●	●	●	○	–	–
▼▼▼	●	●	●	●	●	●	○	–	–





VPGT … -TOP*





β: 12°
s: ±0.13
C: <0.002

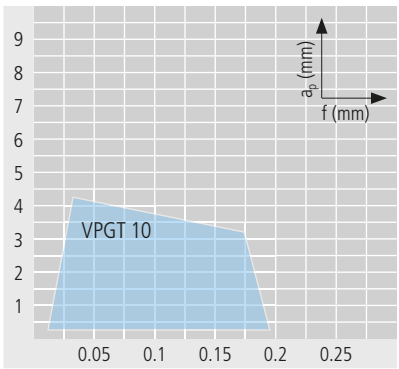
STANDARD-LINE

Order designation	Carbide ▯19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			▯303…
															Accuracy class of UTILIS ▯171					
L	VPGT 1003008 EL -TOP …						■	■		■					8.9	0.08	4.5			SV… …
L	VPGT 1003ZZ FL -TOP …	■	■		■		■	■		■					8.9	0	4.5			SV… …
L	VPGT 1003008 FL -TOP …	■	■		■		■	■		■					8.9	0.08	4.5			SV… …
L	VPGT 1003015 FL -TOP …	■	■		■		■	■		■					8.9	0.15	4.5			SV… …
R	VPGT 1003ZZ FR -TOP …	■	■		■		■	■		■					8.9	0	4.5			SV… …
R	VPGT 1003005 FR -TOP …						■	■							8.9	0.05	4.5			SV… …
R	VPGT 1003008 FR -TOP …	■	■		■		■	■		■					8.9	0.08	4.5			SV… …
R	VPGT 1003015 FR -TOP …	■	■		■		■	■		■					8.9	0.15	4.5			SV… …

* Description TOP ▯25

Application range of chip breaker *multidec®-TOP*

Properties:
– polished rake and ground clearance
– sharp cutting edge "F"
– submicrograin carbide, high toughness
– TOP system, for a better surface finish

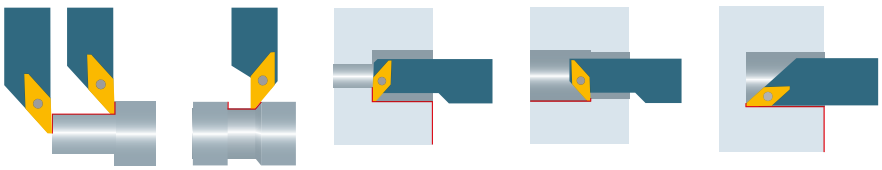


Optimal chip breaking

Application:
– finishing for 20–100 % higher feed rates compair to the standard
– chip breaker for general application
– stainless steel, alloyed steel and super alloy

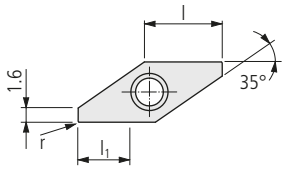
	I	II	III	IV	V	IV	VII	VIII	IX
▼	–	–	–	–	–	–	–	–	–
▼▼	●	●	●	●	●	●	○	–	–
▼▼▼	●	●	●	●	●	●	○	–	–

Inserts (Carbide / Cermet)





VPXT … -TOP*





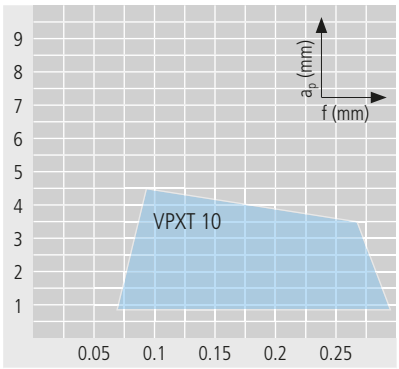
β: 12°
s: ±0.1
C: <0.02

Order designation	Carbide ▯19									Cermet		Diamond			Dimensions					Holder
	–	–	●	●	●	○	○	●	○	●	●	–	–	–						
	–	●	–	●	○	○	●	●	●	○	●	–	–	–						
	○	●	–	○	–	○	●	–	–	–	–	–	–	–						
	●	○	–	–	–	○	○	–	○	–	–	●	●	●						
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	l	r	l_1			▯303…
VALUE-LINE															Accuracy class of UTILIS ▯171					
L	VPXT 1003015 EL -TOP …			■											8.9	0.15	4.5			SV… …
	VPXT 1003035 EL -TOP …			■											8.9	0.35	4.5			SV… …
R	VPXT 1003015 ER -TOP …			■											8.9	0.15	4.5			SV… …
	VPXT 1003035 ER -TOP …			■											8.9	0.35	4.5			SV… …

* Description TOP ▯25

Application range of chip breaker

Properties:
– high precision sintered insert
– rounded cutting edge "E"
– submicrograin carbide, high toughness and hardnes
– TOP system, for a better surface finish
– best performance-cost ratio



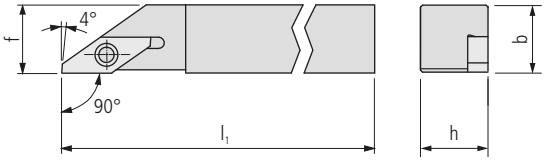
Optimal chip breaking

Application:
– finishing for 20–100 % higher feed rates compair to the standard
– chip breaker for general application
– alloyed steel, stainless steel and super alloy

	I	II	III	IV	V	IV	VII	VIII	IX
▼	●	●	●	○	●	●	–	–	–
▼▼	●	●	●	○	●	●	–	–	–
▼▼▼	–	–	–	–	–	–	–	–	–





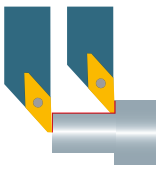


SVAP… (90°)

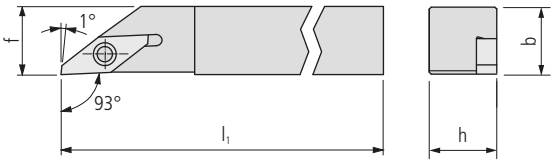
Order designation L		Order designation R		Dimensions h	b	l_1		f				Inserts ▯300…
STANDARD-LINE				Accuracy class of UTILIS ▯171								
SVAPL 0707 H10	■	SVAPR 0707 H10	■	7	7	100		7				VP..1003..
SVAPL 0708 H10	■	SVAPR 0708 H10	■	7	8	100		8				VP..1003..
SVAPL 0808 F10	■	SVAPR 0808 F10	■	8	8	80		8				VP..1003..
SVAPL 0808 H10	■	SVAPR 0808 H10	■	8	8	100		8				VP..1003..
SVAPL 1010 F10	■	SVAPR 1010 F10	■	10	10	80		10				VP..1003..
SVAPL 1010 H10	■	SVAPR 1010 H10	■	10	10	100		10				VP..1003..
SVAPL 1212 H10	■	SVAPR 1212 H10	■	12	12	100		12				VP..1003..

SVAP… (90°) INCH

Order designation L		Order designation R		Dimensions h	b	l_1		f				Inserts ▯300…
STANDARD-LINE				Accuracy class of UTILIS ▯171								
SVAPL 3/8" F10	■	SVAPR 3/8" F10	■	9.525	9.525	80		9.525				VP..1003..
SVAPL 3/8" H10	■	SVAPR 3/8" H10	■	9.525	9.525	100		9.525				VP..1003..
SVAPL 1/2" H10	■	SVAPR 1/2" H10	■	12.7	12.7	100		12.7				VP..1003..





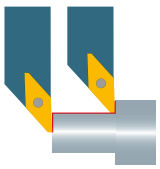


SVJP… (93°)

Order designation L		Order designation R		Dimensions h	b	l_1	f	Inserts 300…
STANDARD-LINE							Accuracy class of UTILIS 171	
SVJPL 0708 H10	■	SVJPR 0708 H10	■	7	8	100	8	VP..1003..
SVJPL 0808 F10	■	SVJPR 0808 F10	■	8	8	80	8	VP..1003..
SVJPL 0808 H10	■	SVJPR 0808 H10	■	8	8	100	8	VP..1003..
SVJPL 1010 F10	■	SVJPR 1010 F10	■	10	10	80	10	VP..1003..
SVJPL 1010 H10	■	SVJPR 1010 H10	■	10	10	100	10	VP..1003..
SVJPL 1212 H10	■	SVJPR 1212 H10	■	12	12	100	12	VP..1003..
SVJPL 1616 K10	■	SVJPR 1616 K10	■	16	16	125	16	VP..1003..
SVJPL 2020 K10	■	SVJPR 2020 K10	■	20	20	125	20	VP..1003..

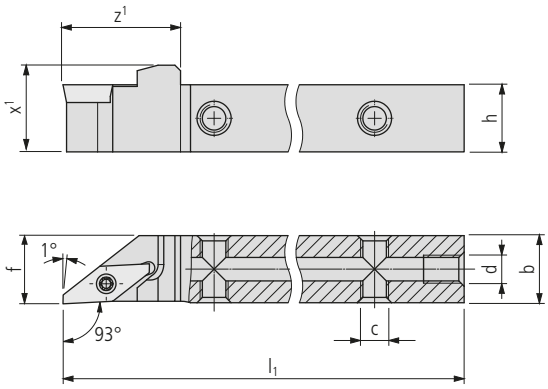
SVJP… (93°) INCH

Order designation L		Order designation R		Dimensions h	b	l_1	f	Inserts 300…
STANDARD-LINE							Accuracy class of UTILIS 171	
SVJPL 3/8" F10	■	SVJPR 3/8" F10	■	9.525	9.525	80	9.525	VP..1003..
SVJPL 3/8" H10	■	SVJPR 3/8" H10	■	9.525	9.525	100	9.525	VP..1003..
SVJPL 1/2" H10	■	SVJPR 1/2" H10	■	12.7	12.7	100	12.7	VP..1003..
SVJPL 5/8" K10	■	SVJPR 5/8" K10	■	15.875	15.875	125	15.875	VP..1003..
SVJPL 3/4" K10	■	SVJPR 3/4" K10	■	19.05	19.05	125	19.05	VP..1003..



With internal cooling





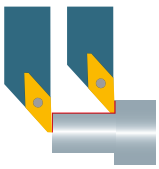
SVJP… IC (93°)

Order designation L		Order designation R		Dimensions h	b	l_1	z^1	x^1	c	d	f	Inserts 300…
PREMIUM-LINE				Accuracy class of UTILIS 171								
SVJPL 0810 H10 IC	■	SVJPR 0810 H10 IC	■	8	10	100	21	11.5	M5	M5	10	VP..1003..
SVJPL 1010 H10 IC	■	SVJPR 1010 H10 IC	■	10	10	100	21	13.5	M5	M5	10	VP..1003..
SVJPL 1212 H10 IC	■	SVJPR 1212 H10 IC	■	12	12	100	21	15.5	M5	M5	12	VP..1003..
SVJPL 1616 K10 IC	■	SVJPR 1616 K10 IC	■	16	16	125	21	19.5	M5	G1/8"	16	VP..1003..
SVJPL 2020 K10 IC	■	SVJPR 2020 K10 IC	■	20	20	125	21	23.5	M5	G1/8"	20	VP..1003..

SVJP… IC (93°) INCH

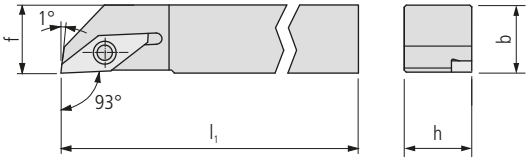
Order designation L		Order designation R		Dimensions h	b	l_1	z^1	x^1	c	d	f	Inserts 300…
PREMIUM-LINE				Accuracy class of UTILIS 171								
SVJPL 3/8" H10 IC	■	SVJPR 3/8" H10 IC	■	9.525	9.525	100	21	13	M5	M5	9.525	VP..1003..
SVJPL 1/2" H10 IC	■	SVJPR 1/2" H10 IC	■	12.7	12.7	100	21	16.2	M5	M5	12.7	VP..1003..
SVJPL 5/8" K10 IC	■	SVJPR 5/8" K10 IC	■	15.875	15.875	125	21	19.4	M5	G1/8"	15.875	VP..1003..
SVJPL 3/4" K10 IC	■	SVJPR 3/4" K10 IC	■	19.05	19.05	125	21	22.6	M5	G1/8"	19.05	VP..1003..

Scope of delivery: Holder without coolant connector
Coolant connectors 632



Strenghten type V



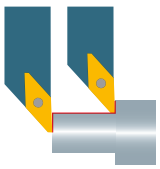


SVJP… V (93°)

Order designation L		Order designation R		Dimensions h	b	l_1	f	Inserts 300…
STANDARD-LINE				Accuracy class of UTILIS 171				
SVJPL 0810 F10 V	■	SVJPR 0810 F10 V	■	8	10	80	10	VP..1003..
SVJPL 0810 H10 V	■	SVJPR 0810 H10 V	■	8	10	100	10	VP..1003..
SVJPL 1010 F10 V	■	SVJPR 1010 F10 V	■	10	10	80	10	VP..1003..
SVJPL 1010 H10 V	■	SVJPR 1010 H10 V	■	10	10	100	10	VP..1003..
SVJPL 1212 H10 V	■	SVJPR 1212 H10 V	■	12	12	100	12	VP..1003..
SVJPL 1616 K10 V	■	SVJPR 1616 K10 V	■	16	16	125	16	VP..1003..
SVJPL 2020 K10 V	■	SVJPR 2020 K10 V	■	20	20	125	20	VP..1003..

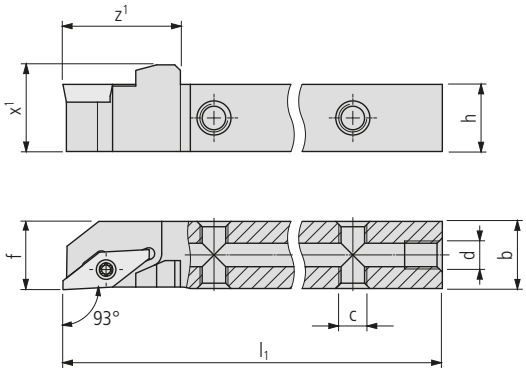
SVJP… V (93°) INCH

Order designation L		Order designation R		Dimensions h	b	l_1	f	Inserts 300…
STANDARD-LINE				Accuracy class of UTILIS 171				
SVJPL 3/8" F10 V	■	SVJPR 3/8" F10 V	■	9.525	9.525	80	9.525	VP..1003..
SVJPL 3/8" H10 V	■	SVJPR 3/8" H10 V	■	9.525	9.525	100	9.525	VP..1003..
SVJPL 1/2" H10 V	■	SVJPR 1/2" H10 V	■	12.7	12.7	100	12.7	VP..1003..
SVJPL 5/8" K10 V	■	SVJPL 5/8" K10 V	■	15.875	15.875	125	15.875	VP..1003..
SVJPL 3/4" K10 V	■	SVJPL 3/4" K10 V	■	19.05	19.05	125	19.05	VP..1003..



Strenghten type V with internal cooling





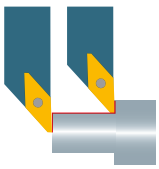
SVJP… V IC (93°)

Order designation L		Order designation R		Dimensions h	b	l_1	z^1	x^1	c	d	f	Inserts 300…
PREMIUM-LINE				Accuracy class of UTILIS 171								
SVJPL 0810 H10 V IC	■	SVJPR 0810 H10 V IC	■	8	10	100	21	11.5	M5	M5	10	VP..1003..
SVJPL 1010 H10 V IC	■	SVJPR 1010 H10 V IC	■	10	10	100	21	13.5	M5	M5	10	VP..1003..
SVJPL 1212 H10 V IC	■	SVJPR 1212 H10 V IC	■	12	12	100	21	15.5	M5	M5	12	VP..1003..
SVJPL 1616 K10 V IC	■	SVJPR 1616 K10 V IC	■	16	16	125	21	19.5	M5	G1/8"	16	VP..1003..
SVJPL 2020 K10 V IC	■	SVJPR 2020 K10 V IC	■	20	20	125	21	23.5	M5	G1/8"	20	VP..1003..

SVJP… V IC (93°) INCH

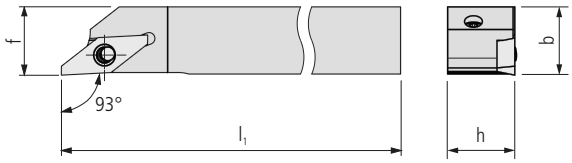
Order designation L		Order designation R		Dimensions h	b	l_1	z^1	x^1	c	d	f	Inserts 300…
PREMIUM-LINE				Accuracy class of UTILIS 171								
SVJPL 3/8" H10 V IC	■	SVJPR 3/8" H10 V IC	■	9.525	9.525	100	21	13	M5	M5	9.525	VP..1003..
SVJPL 1/2" H10 V IC	■	SVJPR 1/2" H10 V IC	■	12.7	12.7	100	21	16.2	M5	M5	12.7	VP..1003..
SVJPL 5/8" K10 V IC	■	SVJPR 5/8" K10 V IC	■	15.875	15.875	125	21	19.4	M5	G1/8"	15.875	VP..1003..
SVJPL 3/4" K10 V IC	■	SVJPR 3/4" K10 V IC	■	19.05	19.05	125	21	22.6	M5	G1/8"	19.05	VP..1003..

Scope of delivery: Holder without coolant connector
Coolant connectors 632



"FC" version (fast change)





SVJP… FC* (93°)

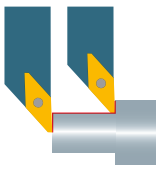
Order designation L		Order designation R		Dimensions h	b	l_1	f	Inserts ⬚300…
STANDARD-LINE							Accuracy class of UTILIS ⬚171	
SVJPL 1212 H10 FC	■	SVJPR 1212 H10 FC	■	12	12	100	12	VP..1003..
SVJPL 1616 K10 FC	■	SVJPR 1616 K10 FC	■	16	16	125	16	VP..1003..

SVJP… FC* (93°) INCH

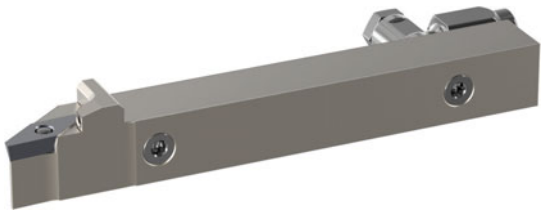
Order designation L		Order designation R		Dimensions h	b	l_1	f	Inserts ⬚300…
STANDARD-LINE							Accuracy class of UTILIS ⬚171	
SVJPL 1/2" H10 FC	■	SVJPR 1/2" H10 FC	■	12.7	12.7	100	12.7	VP..1003..
SVJPL 5/8" K10 FC	■	SVJPR 5/8" K10 FC	■	15.875	15.875	125	15.875	VP..1003..

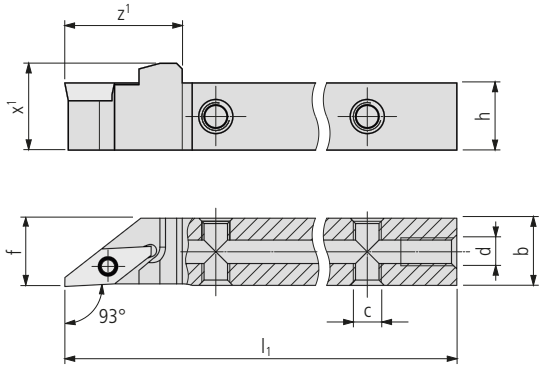
Spare parts (clamping bolts / screws) ⬚323

*** Note**
With this holder, the indexable insert is secured with a screw using a knee lever that can be operated from behind. This means the holder does not have to be unclamped to change the cutting edge.
Tighten the clamping screw to 1.2 Nm using a torque screwdriver.



"FC" version (fast change) with internal cooling





SVJP… FC* IC (93°)

Order designation L		Order designation R		Dimensions h	b	l_1	z^1	x^1	c	d	f	Inserts ▯300…
PREMIUM-LINE				Accuracy class of UTILIS ▯171								
SVJPL 1212 H10 FC IC	■	SVJPR 1212 H10 FC IC	■	12	12	100	21	15.5	M5	M5	12	VP..1003..
SVJPL 1616 K10 FC IC	■	SVJPR 1616 K10 FC IC	■	16	16	125	21	19.5	M5	G1/8"	16	VP..1003..

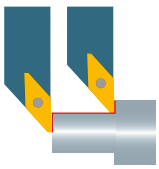
SVJP… FC* IC (93°) INCH

Order designation L		Order designation R		Dimensions h	b	l_1	z^1	x^1	c	d	f	Inserts ▯300…
PREMIUM-LINE				Accuracy class of UTILIS ▯171								
SVJPL 1/2" H10 FC IC	■	SVJPR 1/2" H10 FC IC	■	12.7	12.7	100	21	16.2	M5	M5	12.7	VP..1003..
SVJPL 5/8" K10 FC IC	■	SVJPR 5/8" K10 FC IC	■	15.875	15.875	125	21	19.4	M5	G1/8"	15.875	VP..1003..

Spare parts (clamping bolts / screws) ▯323

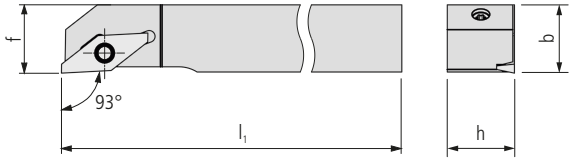
*** Note**
With this holder, the indexable insert is secured with a screw using a knee lever that can be operated from behind. This means the holder does not have to be unclamped to change the cutting edge.
Tighten the clamping screw to 1.2 Nm using a torque screwdriver.

Scope of delivery: Holder without coolant connector
Coolant connectors ▯632



Reinforced version V and version "FC" (fast change)





SVJP…V FC* (93°)

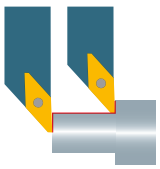
Order designation L		Order designation R		Dimensions h	b	l_1	f	Inserts 300…
STANDARD-LINE							Accuracy class of UTILIS 171	
SVJPL 1212 H10 V FC	■	SVJPR 1212 H10 V FC	■	12	12	100	12	VP..1003..
SVJPL 1616 K10 V FC	■	SVJPR 1616 K10 V FC	■	16	16	125	16	VP..1003..

SVJP…V FC* (93°) INCH

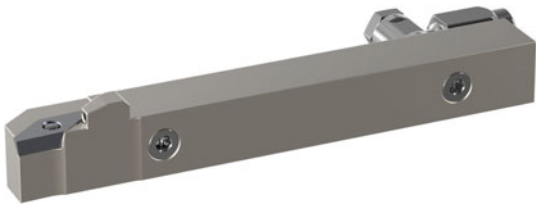
Order designation L		Order designation R		Dimensions h	b	l_1	f	Inserts 300…
STANDARD-LINE							Accuracy class of UTILIS 171	
SVJPL 1/2" H10 V FC	■	SVJPR 1/2" H10 V FC	■	12.7	12.7	100	12.7	VP..1003..
SVJPL 5/8" K10 V FC	■	SVJPR 5/8" K10 V FC	■	15.875	15.875	125	15.875	VP..1003..

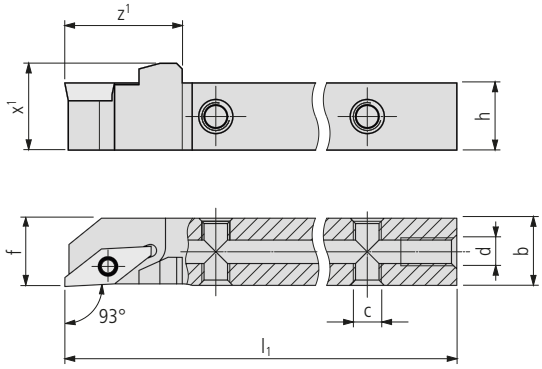
Spare parts (clamping bolts / screws) 323

*** Note**
With this holder, the indexable insert is secured with a screw using a knee lever that can be operated from behind. This means the holder does not have to be unclamped to change the cutting edge.
Tighten the clamping screw to 1.2 Nm using a torque screwdriver.



Reinforced version V and version "FC" (fast change) with internal cooling





SVJP…V FC* IC (93°)

Order designation L		Order designation R		Dimensions h	b	l_1	z^1	x^1	c	d	f	Inserts 300…
PREMIUM-LINE				Accuracy class of UTILIS 171								
SVJPL 1212 H10 V FC IC	■	SVJPR 1212 H10 V FC IC	■	12	12	100	21	15.5	M5	M5	12	VP..1003..
SVJPL 1616 K10 V FC IC	■	SVJPR 1616 K10 V FC IC	■	16	16	125	21	19.5	M5	G1/8"	16	VP..1003..

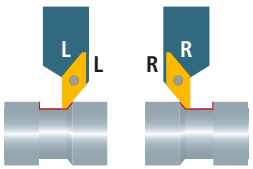
SVJP…V FC* IC (93°) INCH

Order designation L		Order designation R		Dimensions h	b	l_1	z^1	x^1	c	d	f	Inserts 300…
PREMIUM-LINE				Accuracy class of UTILIS 171								
SVJPL 1/2" H10 V FC IC	■	SVJPR 1/2" H10 V FC IC	■	12.7	12.7	100	21	15.5	M5	M5	12.7	VP..1003..
SVJPL 5/8" K10 V FC IC	■	SVJPR 5/8" K10 V FC IC	■	15.875	15.875	125	21	19.5	M5	G1/8"	15.875	VP..1003..

Spare parts (clamping bolts / screws) 323

*** Note**
With this holder, the indexable insert is secured with a screw using a knee lever that can be operated from behind. This means the holder does not have to be unclamped to change the cutting edge.
Tighten the clamping screw to 1.2 Nm using a torque screwdriver.

Scope of delivery: Holder without coolant connector
Coolant connectors 632





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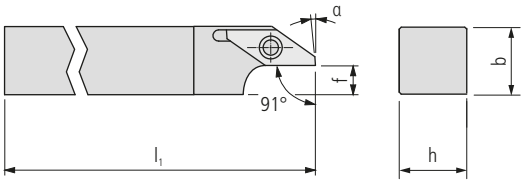


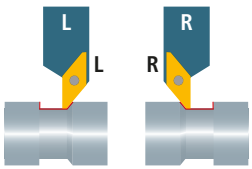
SVXP… (91°)

Order designation L		Order designation R		Dimensions h	b	l_1	f	α	Inserts 300…
STANDARD-LINE				Accuracy class of UTILIS 171					
SVXPL 0808 F10	■	SVXPR 0808 F10	■	8	8	80	1	3°	VP..1003..
SVXPL 0808 H10	■	SVXPR 0808 H10	■	8	8	100	1	3°	VP..1003..
SVXPL 1010 F10	■	SVXPR 1010 F10	■	10	10	80	3	3°	VP..1003..
SVXPL 1010 H10	■	SVXPR 1010 H10	■	10	10	100	3	3°	VP..1003..
SVXPL 1212 H10	■	SVXPR 1212 H10	■	12	12	100	5	3°	VP..1003..
SVXPL 1616 K10	■	SVXPR 1616 K10	■	16	16	125	9	3°	VP..1003..
SVXPL 2020 K10	■	SVXPR 2020 K10	■	20	20	125	13	3°	VP..1003..

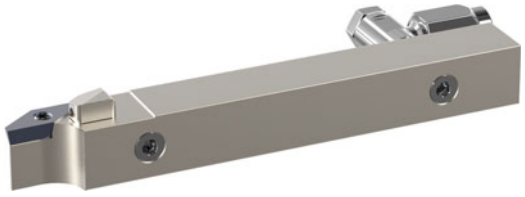
SVXP… (91°) INCH

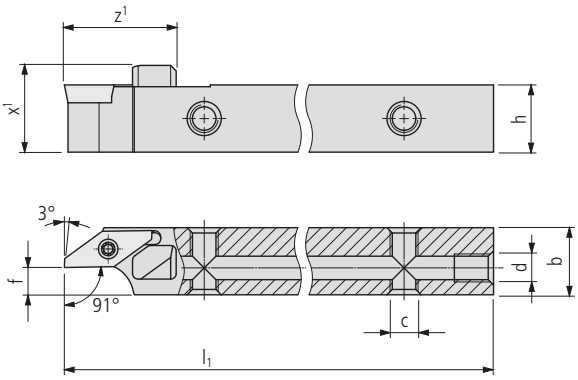
Order designation L		Order designation R		Dimensions h	b	l_1	f	α	Inserts 300…
STANDARD-LINE				Accuracy class of UTILIS 171					
SVXPL 3/8" F10	■	SVXPR 3/8" F10	■	9.525	9.525	80	2.5	3°	VP..1003..
SVXPL 3/8" H10	■	SVXPR 3/8" H10	■	9.525	9.525	100	2.5	3°	VP..1003..
SVXPL 1/2" H10	■	SVXPR 1/2" H10	■	12.7	12.7	100	5.7	3°	VP..1003..
SVXPL 5/8" K10	■	SVXPR 5/8" K10	■	15.875	15.875	125	8.8	3°	VP..1003..
SVXPL 3/4" K10	■	SVXPR 3/4" K10	■	19.05	19.05	125	12	3°	VP..1003..

*** Attention**
Picture shows holder in the left-hand version



With internal cooling





SVXP… IC (91°)

Order designation L		Order designation R		Dimensions h	b	l_1	z^1	x^1	f	c	d	Inserts 300…
PREMIUM-LINE				Accuracy class of UTILIS 171								
SVXPL 0808 H10 IC	■	SVXPR 0808 H10 IC	■	8	8	100	20	11.5	1	M5	M5	VP..1003..
SVXPL 1010 H10 IC	■	SVXPR 1010 H10 IC	■	10	10	100	20	13.5	3	M5	M5	VP..1003..
SVXPL 1212 H10 IC	■	SVXPR 1212 H10 IC	■	12	12	100	20	15.5	5	M5	M5	VP..1003..
SVXPL 1616 K10 IC	■	SVXPR 1616 K10 IC	■	16	16	125	20	19.5	9	M5	G1/8"	VP..1003..
SVXPL 2020 K10 IC	■	SVXPR 2020 K10 IC	■	20	20	125	20	23.5	13	M5	G1/8"	VP..1003..

SVXP… IC (91°) INCH

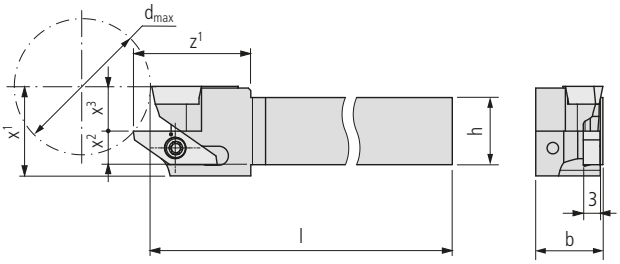
Order designation L		Order designation R		Dimensions h	b	l_1	z^1	x^1	f	c	d	Inserts 300…
PREMIUM-LINE				Accuracy class of UTILIS 171								
SVXPL 3/8" H10 IC	■	SVXPR 3/8" H10 IC	■	9.525	9.525	100	20	13	2.5	M5	M5	VP..1003..
SVXPL 1/2" H10 IC	■	SVXPR 1/2" H10 IC	■	12.7	12.7	100	20	16.2	5.7	M5	M5	VP..1003..
SVXPL 5/8" K10 IC	■	SVXPR 5/8" K10 IC	■	15.875	15.875	125	20	19.4	8.8	M5	G1/8"	VP..1003..
SVXPL 3/4" K10 IC	■	SVXPR 3/4" K10 IC	■	19.05	19.05	125	20	22.6	12	M5	G1/8"	VP..1003..

Scope of delivery: Holder without coolant connector
Coolant connectors 632



"TWIN" version





SVJP. (93°)/1600… TWIN (R-R)

Order designation		Dimensions									Inserts	
R R		h	b	l	z^1	x^1	x^2	x^3		d_{max}	300…	47…
STANDARD-LINE		Accuracy class of UTILIS 171										
SVJPR/1600R-0810 H10 Twin	■	8	10	100	21	16	4	8		23	VP..1003..	16…
SVJPR/1600R-1010 H10 Twin	■	10	10	100	21	16	5	8		23	VP..1003..	16…
SVJPR/1600R-1212 H10 Twin	■	12	12	100	21	16	6	8		23	VP..1003..	16…
SVJPR/1600R-1616 K10 Twin	■	16	16	125	21	20	8	10		34	VP..1003..	16…
SVJPR/1600R-2020 K10 Twin	■	20	20	125	21	24	8	14		63	VP..1003..	16…

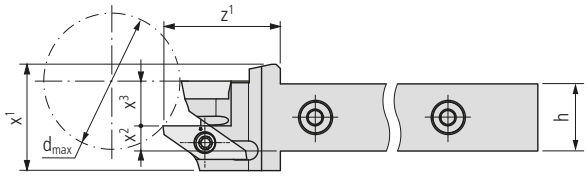
SVJP. (93°)/1600… TWIN INCH (R-R)

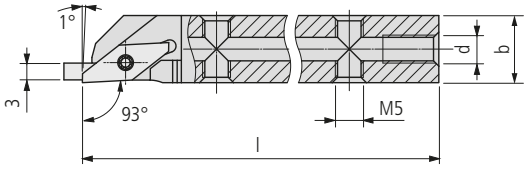
Order designation		Dimensions									Inserts	
R R		h	b	l	z^1	x^1	x^2	x^3		d_{max}	300…	47…
STANDARD-LINE		Accuracy class of UTILIS 171										
SVJPR/1600R-3/8" H10 Twin	■	9.525	9.525	100	21	16	4.76	8		23	VP..1003..	16…
SVJPR/1600R-1/2" H10 Twin	■	12.7	12.7	100	21	16	6.35	8		23	VP..1003..	16…
SVJPR/1600R-5/8" K10 Twin	■	15.875	15.875	125	21	20	7.94	10		34	VP..1003..	16…
SVJPR/1600R-3/4" K10 Twin	■	19.05	19.05	125	21	24	7.53	14		63	VP..1003..	16…



"TWIN" version with internal cooling







SVJP. (93°)/1600… TWIN IC (R-R)

Order designation		Dimensions									Inserts	
R R		h	b	l	z^1	x^1	x^2	x^3	d	d_{max}	300…	47…
PREMIUM-LINE		Accuracy class of UTILIS 171										
SVJPR/1600R-0810 H10 Twin IC	■	8	10	100	21	19	2.5	8	M5	23	VP..1003..	16…
SVJPR/1600R-1010 H10 Twin IC	■	10	10	100	21	19	3.5	8	M5	23	VP..1003..	16…
SVJPR/1600R-1212 H10 Twin IC	■	12	12	100	21	19	4.5	8	M5	23	VP..1003..	16…
SVJPR/1600R-1616 K10 Twin IC	■	16	16	125	21	23	6.5	10	G1/8"	34	VP..1003..	16…
SVJPR/1600R-2020 K10 Twin IC	■	20	20	125	21	27	6.5	14	G1/8"	63	VP..1003..	16…

SVJP. (93°)/1600… TWIN IC INCH (R-R)

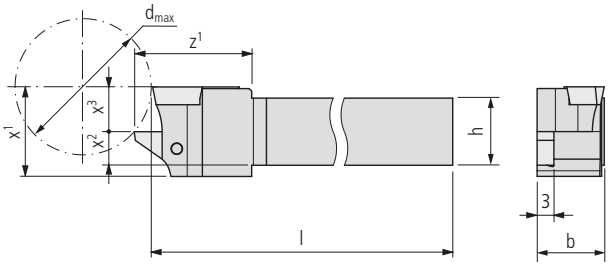
Order designation		Dimensions									Inserts	
R R		h	b	l	z^1	x^1	x^2	x^3	d	d_{max}	300…	47…
PREMIUM-LINE		Accuracy class of UTILIS 171										
SVJPR/1600R-3/8" H10 Twin IC	■	9.525	9.525	100	21	19	3.26	8	M5	23	VP..1003..	16…
SVJPR/1600R-1/2" H10 Twin IC	■	12.7	12.7	100	21	19	4.85	8	M5	23	VP..1003..	16…
SVJPR/1600R-5/8" K10 Twin IC	■	15.875	15.875	125	21	23	6.44	10	G1/8"	34	VP..1003..	16…
SVJPR/1600R-3/4" K10 Twin IC	■	19.05	19.05	125	21	27	6.03	14	G1/8"	63	VP..1003..	16…

Scope of delivery: Holder without coolant connector
Coolant connectors 632



"TWIN" version





SVJP. (93°)/1600… TWIN (R-L)

Order designation		Dimensions									Inserts	
R L		h	b	l	z^1	x^1	x^2	x^3		d_{max}	300…	47…
STANDARD-LINE		Accuracy class of UTILIS 171										
	SVJPR/1600L-0810 H10 Twin	8	10	100	21	16	4	8		23	VP..1003..	16…
	SVJPR/1600L-1010 H10 Twin	10	10	100	21	16	5	8		23	VP..1003..	16…
	SVJPR/1600L-1212 H10 Twin	12	12	100	21	16	6	8		23	VP..1003..	16…
	SVJPR/1600L-1616 K10 Twin	16	16	125	21	20	8	10		33	VP..1003..	16…
	SVJPR/1600L-2020 K10 Twin	20	20	125	21	24	8	12		63	VP..1003..	16…

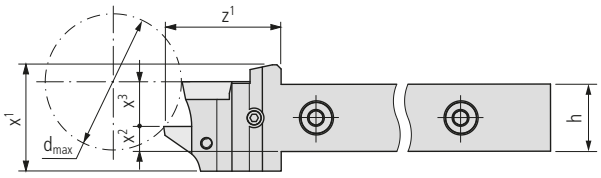
SVJP. (93°)/1600… TWIN INCH (R-L)

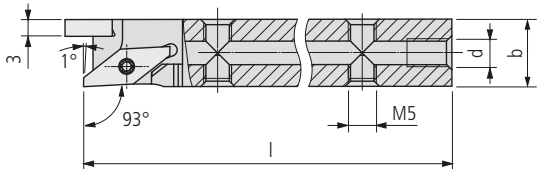
Order designation		Dimensions									Inserts	
R L		h	b	l	z^1	x^1	x^2	x^3		d_{max}	300…	47…
STANDARD-LINE		Accuracy class of UTILIS 171										
	SVJPR/1600L-3/8" H10 Twin	9.525	9.525	100	21	16	4.76	8		23	VP..1003..	16…
	SVJPR/1600L-1/2" H10 Twin	12.7	12.7	100	21	16	6.35	8		23	VP..1003..	16…
	SVJPR/1600L-5/8" K10 Twin	15.875	15.875	125	21	20	7.94	10		33	VP..1003..	16…
	SVJPR/1600L-3/4" K10 Twin	19.05	19.05	125	21	24	7.53	14		63	VP..1003..	16…



"TWIN" version with internal cooling







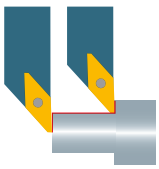
SVJP. (93°)/1600… TWIN IC (R-L)

Order designation		Dimensions									Inserts	
R L		h	b	l	z^1	x^1	x^2	x^3	d	d_{max}	300…	47…
PREMIUM-LINE		Accuracy class of UTILIS 171										
	SVJPR/1600L-0810 H10 Twin IC ■	8	10	100	21	19	2.5	8	M5	23	VP..1003..	16…
	SVJPR/1600L-1010 H10 Twin IC ■	10	10	100	21	19	3.5	8	M5	23	VP..1003..	16…
	SVJPR/1600L-1212 H10 Twin IC ■	12	12	100	21	19	4.5	8	M5	23	VP..1003..	16…
	SVJPR/1600L-1616 K10 Twin IC ■	16	16	125	21	23	6.5	10	G1/8"	33	VP..1003..	16…
	SVJPR/1600L-2020 K10 Twin IC ■	20	20	125	21	27	6.5	14	G1/8"	63	VP..1003..	16…

SVJP. (93°)/1600… TWIN IC INCH (R-L)

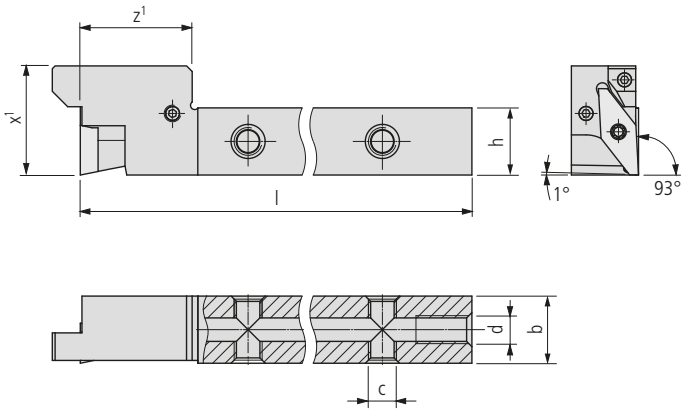
Order designation		Dimensions									Inserts	
R L		h	b	l	z^1	x^1	x^2	x^3	d	d_{max}	300…	47…
PREMIUM-LINE		Accuracy class of UTILIS 171										
	SVJPR/1600L-3/8" H10 Twin IC ■	9.525	9.525	100	21	19	3.26	8	M5	23	VP..1003..	16…
	SVJPR/1600L-1/2" H10 Twin IC ■	12.7	12.7	100	21	19	4.85	8	M5	23	VP..1003..	16…
	SVJPR/1600L-5/8" K10 Twin IC ■	15.875	15.875	125	21	23	6.44	10	G1/8"	33	VP..1003..	16…
	SVJPR/1600L-3/4" K10 Twin IC ■	19.05	19.05	125	21	27	6.03	14	G1/8"	63	VP..1003..	16…

Scope of delivery: Holder without coolant connector
Coolant connectors 632



"Y-AXIS" version with internal cooling





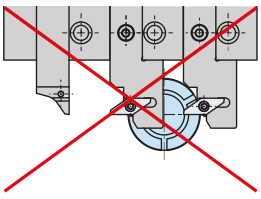
SVJP. YA… IC (93°)

Order designation L	Order designation R		Dimensions h	b	l_1	z^1	x^1	f	c	d	Inserts 300…
PREMIUM-LINE			Accuracy class of UTILIS 171								
	SVJPR YA-1212 H10-20 IC	■	12	12	100	20	19.5	M5	M5		VP.. 1003…
	SVJPR YA-1212 H10-25 IC	■	12	12	100	25	19.5	M5	M5		VP.. 1003…
	SVJPR YA-1212 H10-30 IC	■	12	12	100	30	19.5	M5	M5		VP.. 1003…
	SVJPR YA-1616 K10-20 IC	■	16	16	125	20	19.5	M5	G1/8		VP.. 1003…
	SVJPR YA-1616 K10-25 IC	■	16	16	125	25	19.5	M5	G1/8		VP.. 1003…
	SVJPR YA-1616 K10-30 IC	■	16	16	125	30	19.5	M5	G1/8		VP.. 1003…

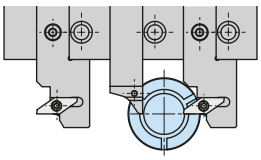
SVJP. YA… IC (93°) INCH

Order designation L	Order designation R		Dimensions h	b	l_1	z^1	x^1	f	c	d	Inserts 300…
PREMIUM-LINE			Accuracy class of UTILIS 171								
	SVJPR YA-1/2" H10-20 IC	■	12.7	12.7	100	20	19.5	M5	M5		VP.. 1003…
	SVJPR YA-1/2" H10-25 IC	■	12.7	12.7	100	25	19.5	M5	M5		VP.. 1003…
	SVJPR YA-1/2" H10-30 IC	■	12.7	12.7	100	30	19.5	M5	M5		VP.. 1003…
	SVJPR YA-5/8" K10-20 IC	■	15.875	15.875	125	20	19.5	M5	G1/8		VP.. 1003…
	SVJPR YA-5/8" K10-25 IC	■	15.875	15.875	125	25	19.5	M5	G1/8		VP.. 1003…
	SVJPR YA-5/8" K10-30 IC	■	15.875	15.875	125	30	19.5	M5	G1/8		VP.. 1003…

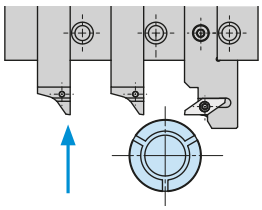
Usage notes:



To avoid problems, two Y-AXIS holders must not be mounted directly next to each other.



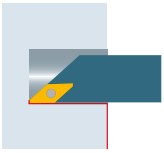
Mount a standard tool holder between the Y-AXIS holders.



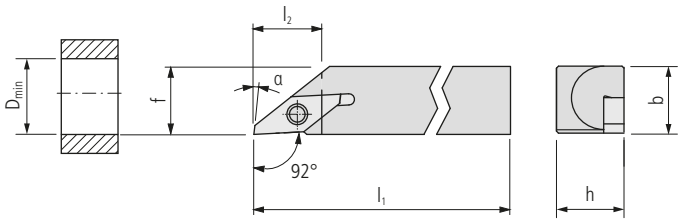
To prevent collisions, move back the holder in accordance with the overhanging length before changing the tool position.

Scope of delivery: Holder without coolant connector
Coolant connectors 632

■ New

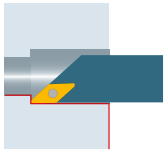


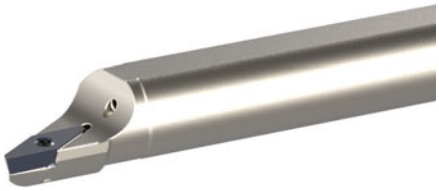


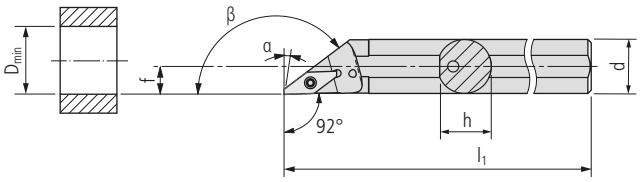


SVJP… (92°)

Order designation				Dimensions								Inserts
L		R		h	b	l_1	l_2	f	D_{min}	α		300…
STANDARD-LINE				Accuracy class of UTILIS 171								
SVJPL 1212 XH10	■	SVJPR 1212 XH10	■	12	12	100	12	12.2	16	2°		VP..1003..
SVJPL 1616 XK10	■	SVJPR 1616 XK10	■	16	16	125	12	16.2	16	2°		VP..1003..

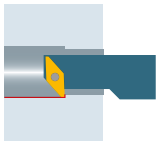




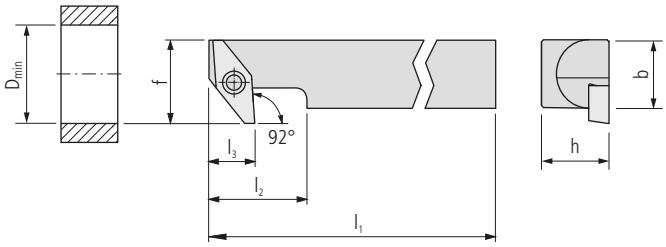


A... SVOP... (92°)

Order designation				Dimensions								Inserts
L		R		d	h	l_1		f	D_{min}	α	β	300...
STANDARD-LINE				Accuracy class of UTILIS 171								
A16M SVOPL 10	■	A16M SVOPR 10	■	16	15.3	150		8.3	20	2°	143°	VP..1003..

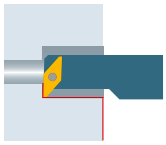




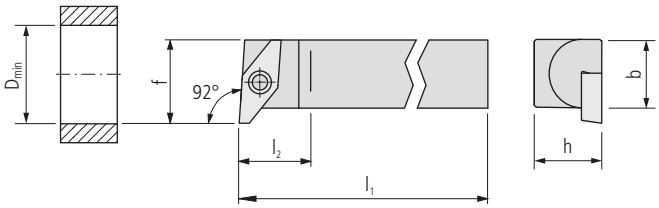


SVQP… (92°)

Order designation				Dimensions								Inserts
L		R		h	b	l_1	l_2	f	D_{min}	l_3		300…
STANDARD-LINE				Accuracy class of UTILIS 171								
SVQPL 1212 XH10	■	SVQPR 1212 XH10	■	12	12	100	12	15.7	16	7.7		VP..1003..
SVQPL 1616 XK10	■	SVQPR 1616 XK10	■	16	16	125	12	15.7	16	7.7		VP..1003..







SVUP… (92°)

Order designation				Dimensions								Inserts*
L		R		h	b	l_1	l_2	f	D_{min}			300…
STANDARD-LINE				Accuracy class of UTILIS 171								
SVUPL 1212 XH10	■	SVUPR 1212 XH10	■	12	12	100	12	15.7	17			VP..1003..
SVUPL 1616 XK10	■	SVUPR 1616 XK10	■	16	16	125	12	15.7	17			VP..1003..

*** Attention**
Right hand holder needs left hand insert!

For holders (SV.P…) OD turning

Illustration	Description	Dimensions	Order designation		Holder
	TORX screw	M2.5 × 6 T08	MSP 25060 T08	■	SV.P… 10

For holders (SV.P… FC) OD turning

Illustration	Description	Dimensions	Order designation		Holder
	Clamping bolts	3 × 10	MSP SB 35080 FC	■	SV.P… 10 FC
	Clamping screw	M3 × 10	MSP KS 30080 FC T06	■	SV.P… 10 FC

For holders (… SV.P…) ID turning

Illustration	Description	Dimensions	Order designation		Holder
	TORX screw	M2.5 × 6 T08	MSP 25060 T08	■	A16M SV.P… 10

TORX screwdriver 664

	Steel unalloyed			Steel low alloyed			Steel high alloyed			Titanium		
Hardness value (HB)	125–300			180–250			200–350			–		
Category	I			II			III			IV		
Machining method	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼
Cutting speeds	v_c (m/min)											
Cutting material carbide												
UHM 10	40–110	60–120	60–140	60–100	60–120	60–130	40–90	60–110	60–120	40–60	50–70	60–80
UHM 10 HX	60–180	60–220	60–260	60–170	60–200	60–240	50–160	60–180	60–220	40–120	50–130	50–150
UHM 10 MZ	180–300	220–400	250–500	150–280	200–320	250–400	120–280	180–320	180–320	–	–	–
UHM 20 HPX	150–200	180–220	200–260	80–150	100–180	160–220	70–100	90–150	120–180	50–100	60–120	60–140
UHM 20 MZ	130–180	160–220	180–260	100–160	110–180	130–220	70–150	110–160	130–190	–	–	–
UHM 30	30–70	50–80	50–100	30–60	40–80	40–90	30–50	30–70	30–80	40–50	25–60	30–70
UHM 30 HX	50–140	50–180	50–220	50–130	50–160	50–200	40–120	50–140	50–180	30–90	40–100	40–120
UHM 30 MZ	120–160	150–200	170–240	90–140	100–160	120–200	60–130	90–140	110–160	–	–	–
UHM 30 SX	50–120	50–180	50–200	50–100	50–140	50–180	40–90	50–120	50–160	–	–	–
Cutting material cermet												
UCM 10	–	180–300	220–350	–	140–250	180–300	–	140–180	160–200	–	–	–
UCM 10 HX	–	250–350	300–450	–	200–300	220–380	–	240–300	260–350	–	–	–
Cutting material diamond												
UCVD 08	–	–	–	–	–	–	–	–	–	–	–	–
UPCD 15	–	–	–	–	–	–	–	–	–	–	–	–
UPCD 20	–	–	–	–	–	–	–	–	–	–	–	–

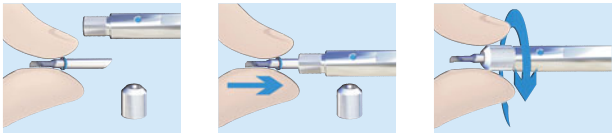
Feed (f) and depths of cut (a_p) 178…

	Stainless steel			Stainless steel			Aluminum			Brass		
Hardness value (HB)	180–220			220 –330			60–130			–		
Category	V			VI			VII			VIII		
Machining method	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼
Cutting speeds	v_c (m/min)											
Cutting material carbide												
UHM 10	40–100	40–110	40–120	30–70	30–80	30–80	100–1500	120–2000	160–2500	80–300	100–400	120–500
UHM 10 HX	50–140	50–180	50–220	40–100	50–110	50–130	140–2500	160–3000	200–3000	100–450	100–600	100–750
UHM 10 MZ	100–180	180–250	220–300	–	–	–	–	–	–	–	–	–
UHM 20 HPX	90–150	110–180	160–200	70–90	90–120	110–150	–	–	–	–	–	–
UHM 20 MZ	90–150	110–160	130–180	50–80	30–50	40–70	–	–	–	–	–	–
UHM 30	30–60	30–70	30–80	20–30	20–40	20–40	50–1000	60–1200	80–1500	40–100	50–140	50–160
UHM 30 HX	40–100	40–140	40–180	30–60	40–70	40–90	70–1500	80–2000	100–3000	50–150	50–200	50–250
UHM 30 MZ	80–130	100–140	110–160	40–80	50–90	90–110	–	–	–	–	–	–
UHM 30 SX	30–90	40–120	40–160	20–50	30–60	30–80	60–1200	80–2000	100–3000	50–120	50–180	50–200
Cutting material cermet												
UCM 10	–	140–180	150–220	–	70–90	70–110	–	–	–	–	–	–
UCM 10 HX	–	170–230	220–280	–	80–110	110–140	–	–	–	–	–	–
Cutting material diamond												
UCVD 08	–	–	–	–	–	–	–	300–2000	300–3000	–	250–1000	300–1500
UPCD 15	–	–	–	–	–	–	–	300–2000	300–3000	–	250–1000	300–1500
UPCD 20	–	–	–	–	–	–	–	300–2000	300–3000	–	250–1000	300–1500

Feed (f) and depths of cut (a_p) 178…

multidec®-BORE MICRO provides a wide range of inserts for miniaturized ID-turning (diameter between 0.5 and 8 mm). Sharp edges, small radii and ground surfaces guarantee accurate cutting. multidec-BORE MICRO is excellent for machining of common materials as well as exotic alloys.
multidec®-BORE MICRO carbide tools are available with wear-resistant coatings as well as uncoated.
The heat-treated tool-holder SDA … can be fixed in a usual chuck or ID tool station. The inserts can be replaced by hand without any measuring or adjusting of axial and radial position. The unique clamping nut ensures accurate location of the boring tool and prevents vibration.





Advantages:
- For internal machining methods with small diameters:
  - high positioning accuracy
  - internal cooling system and
  - smallest internal diameter of 0.5 mm
- Sharp cutting edges
- Different coatings are available
  - tenacious carbide grade
  - coated and uncoated

The Superclamp holder offers higher holding forces and better stability, needed especially for broaching, hard cutting with CBN and machining of finest surfaces with PCD, CVD-Diamond and MCD, in non-ferrous materials.



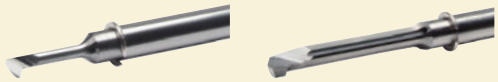
AKR-Mono is a holder for use on the outside turning position when no more inside holder fixing space is available.



Technical information 9

Application ID turning  328

Product lines and accuracy classes of UTILIS 
 330

Inserts  331

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Holder Superclamp  354

Holder AKR-Mono  355

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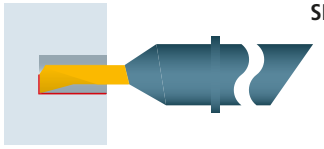
Inserts 332…

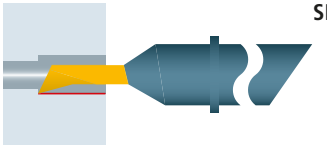
SDG/SXG



Front turning

Inserts 338…

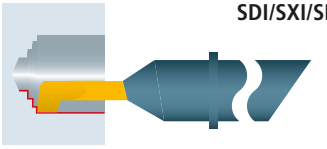
SDH



Turning and facing

Inserts 334…

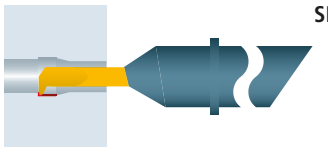
SDI/SXI/SDF/SXF



Turning and front turning

Inserts 339…

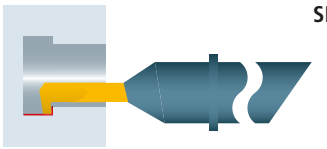
SDK



Back turning

Inserts 340…

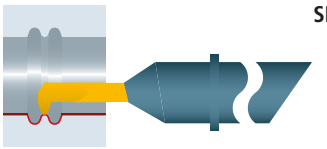
SDM



Turning

Inserts 341…

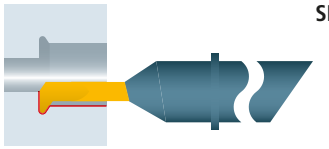
SDO



Turning

Inserts 342…

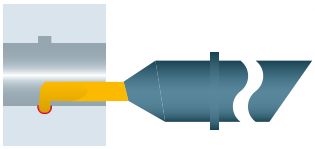
SDQ



Radius-grooving

Inserts 343…

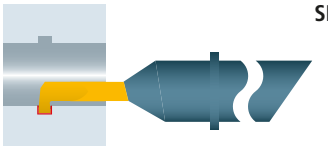
SDR



Grooving

Inserts 344…

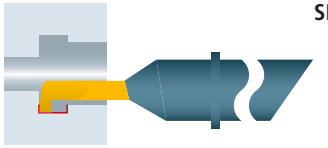
SDS



Grooving and Turning

Inserts 345…

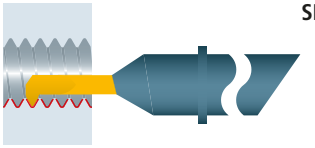
SDT



Threading (partial profile)

Inserts 346…

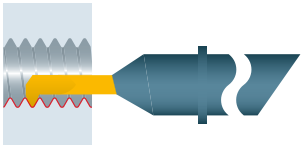
SDU



Threading (full profile)

Inserts 347…

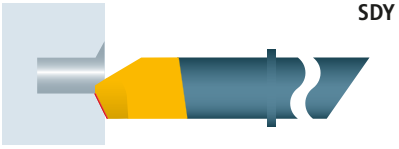
SDV



Chamfering

Inserts 🗋350…

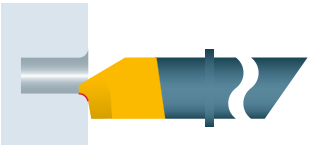
SDY



Radius

Inserts 🗋351…

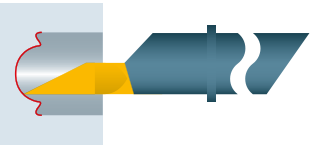
SDZ



Copy turning (axial)

Inserts 🗋348…

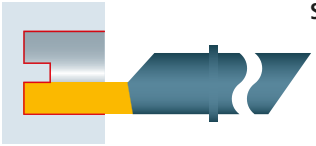
SXJ



Grooving (axial)

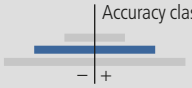
Inserts 🗋349…

SXP



Holders 🗋352…

All illustrations show right hand design. Left hand design is also available.

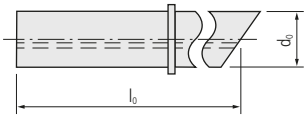
Product line	🗋7	Repeatability
PREMIUM-LINE		< 10 µm
STANDARD-LINE		< 20 µm
VALUE-LINE		< 50 µm

Legend 🗋6



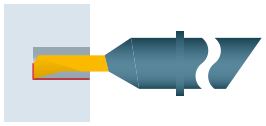
Blank





SD …

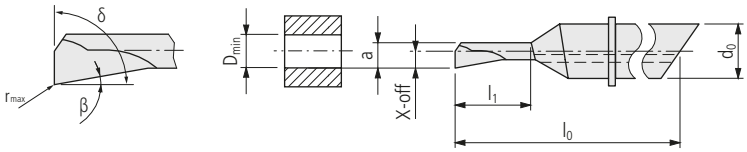
Order designation	Carbide 19		Dimensions		Holder
					352…
R	UHM 20		d_0	l_0	
PREMIUM-LINE			Accuracy class of UTILIS 330		
SD 448 R …	■		4	48	SDA 4…
SD 668 R …	■		6	68	SDA 6…
SD 882 R …	■		8	82	SDA 8…



Drilling and turning

UTILIS multidec swiss type tools



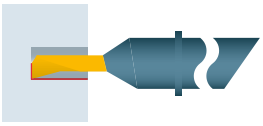


SDG …

Order designation	Carbide ▯19		Dimensions									Holder
	○	●										▯352…
	○	●										
	○	●										
	●	○										
R *	UHM 20	UHM 20 HX	D_{min}	l_1	d_0	a	X-off	l_0	r_{max}	β	δ	
PREMIUM-LINE			Accuracy class of UTILIS ▯330									
SDG 435 042 R …	■	■	0.42	1.5	4	0.38	0.21	35	0.01	2.5°	89.5°	SDA 4…
SDG 435 052 R …	■	■	0.52	1.8	4	0.47	0.26	35	0.02	2.5°	89.5°	SDA 4…
SDG 435 072 R …	■	■	0.72	2.4	4	0.65	0.36	35	0.03	2.5°	89.5°	SDA 4…
SDG 435 092 R …	■	■	0.92	3	4	0.83	0.46	35	0.02	2.5°	89.5°	SDA 4…
SDG 440 092 R …	■	■	0.92	3	4	0.83	0.46	40	0.03	2.5°	89.5°	SDA 4…
SDG 448 092 R …	■	■	0.92	5	4	0.83	0.46	48	0.03	2.5°	89.5°	SDA 4…
SDG 435 122 R …	■	■	1.22	3.9	4	1.10	0.61	35	0.03	2.5°	89.5°	SDA 4…
SDG 435 142 R …	■	■	1.42	4.5	4	1.28	0.71	35	0.02	2.5°	89.5°	SDA 4…
SDG 440 142 R …	■	■	1.42	4.5	4	1.28	0.71	40	0.04	2.5°	89.5°	SDA 4…
SDG 448 142 R …	■	■	1.42	7.5	4	1.28	0.71	48	0.04	2.5°	89.5°	SDA 4…
SDG 435 192 R …	■	■	1.92	6	4	1.73	0.96	35	0.03	2.5°	89.5°	SDA 4…
SDG 440 192 R …	■	■	1.92	6	4	1.73	0.96	40	0.04	2.5°	89.5°	SDA 4…
SDG 448 192 R …	■	■	1.92	10	4	1.73	0.96	48	0.04	2.5°	89.5°	SDA 4…
SDG 435 242 R …	■	■	2.42	7.5	4	2.18	1.21	35	0.03	2.5°	89.5°	SDA 4…
SDG 440 242 R …	■	■	2.42	7.5	4	2.18	1.21	40	0.05	2.5°	89.5°	SDA 4…
SDG 448 242 R …	■	■	2.42	12.5	4	2.18	1.21	48	0.05	2.5°	89.5°	SDA 4…
SDG 440 292 R …	■	■	2.92	9	4	2.63	1.46	40	0.05	2.5°	89.5°	SDA 4…
SDG 448 292 R …	■	■	2.92	15	4	2.63	1.46	48	0.05	2.5°	89.5°	SDA 4…
SDG 440 342 R …	■	■	3.42	10.5	4	3.08	1.71	40	0.06	2.5°	89.5°	SDA 4…
SDG 448 342 R …	■	■	3.42	17.5	4	3.08	1.71	48	0.06	2.5°	89.5°	SDA 4…
SDG 440 392 R …	■	■	3.92	12	4	3.53	1.96	40	0.06	2.5°	89.5°	SDA 4…
SDG 448 392 R …	■	■	3.92	20	4	3.53	1.96	48	0.06	2.5°	89.5°	SDA 4…
SDG 644 442 R …	■	■	4.42	9	6	3.98	2.21	44	0.07	2.5°	89.5°	SDA 6…
SDG 656 442 R …	■	■	4.42	18	6	3.98	2.21	56	0.07	2.5°	89.5°	SDA 6…
SDG 668 442 R …	■	■	4.42	27	6	3.98	2.21	68	0.07	2.5°	89.5°	SDA 6…
SDG 644 492 R …	■	■	4.92	10	6	4.43	2.46	44	0.07	2.5°	89.5°	SDA 6…
SDG 656 492 R …	■	■	4.92	20	6	4.43	2.46	56	0.07	2.5°	89.5°	SDA 6…
SDG 668 492 R …	■	■	4.92	30	6	4.43	2.46	68	0.07	2.5°	89.5°	SDA 6…
SDG 644 542 R …	■	■	5.42	11	6	4.88	2.71	44	0.08	2.5°	89.5°	SDA 6…
SDG 656 542 R …	■	■	5.42	22	6	4.88	2.71	56	0.08	2.5°	89.5°	SDA 6…
SDG 668 542 R …	■	■	5.42	33	6	4.88	2.71	68	0.08	2.5°	89.5°	SDA 6…
SDG 644 592 R …	■	■	5.92	12	6	5.33	2.96	44	0.08	2.5°	89.5°	SDA 6…
SDG 656 592 R …	■	■	5.92	24	6	5.33	2.96	56	0.08	2.5°	89.5°	SDA 6…
SDG 668 592 R …	■	■	5.92	36	6	5.33	2.96	68	0.08	2.5°	89.5°	SDA 6…
SDG 850 692 R …	■	■	6.92	14	8	6.23	3.46	50	0.09	2.5°	89.5°	SDA 8…
SDG 866 692 R …	■	■	6.92	28	8	6.23	3.46	66	0.09	2.5°	89.5°	SDA 8…
SDG 882 692 R …	■	■	6.92	42	8	6.23	3.46	82	0.09	2.5°	89.5°	SDA 8…
SDG 850 792 R …	■	■	7.92	16	8	7.13	3.96	50	0.1	2.5°	89.5°	SDA 8…
SDG 866 792 R …	■	■	7.92	32	8	7.13	3.96	66	0.1	2.5°	89.5°	SDA 8…
SDG 882 792 R …	■	■	7.92	48	8	7.13	3.96	82	0.1	2.5°	89.5°	SDA 8…

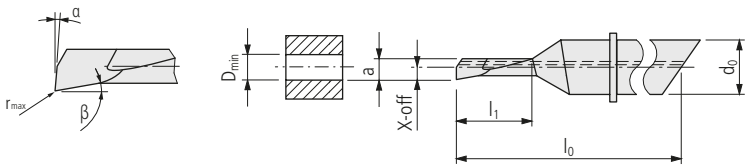
* Left execution and other coatings on demand

Legend ▯6



Drilling and turning
Strenghten type (for blind holes)

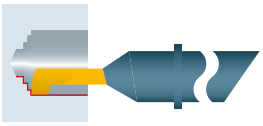




SXG …

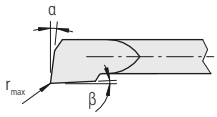
Order designation	Carbide		Dimensions										Holder
	○	●											352…
	○	●											
	○	●											
	●	○											
R *	UHM 20	UHM 20 HX	D_{min}	l_1	d_0	a	X-off	l_0	r_{max}	α	β		
PREMIUM-LINE			Accuracy class of UTILIS 330										
SXG 435 042 R …	■	■	0.42	1.5	4	0.38	0.21	35	0.02	0.5°	2.5°		SDA 4…
SXG 435 052 R …	■	■	0.52	1.8	4	0.47	0.26	35	0.02	0.5°	2.5°		SDA 4…
SXG 435 072 R …	■	■	0.72	2.4	4	0.65	0.36	35	0.03	0.5°	2.5°		SDA 4…
SXG 435 092 R …	■	■	0.92	3	4	0.83	0.46	35	0.02	0.5°	2.5°		SDA 4…
SXG 440 092 R …	■	■	0.92	5	4	0.83	0.46	40	0.02	0.5°	2.5°		SDA 4…
SXG 435 122 R …	■	■	1.22	3.9	4	1.1	0.61	35	0.03	0.5°	2.5°		SDA 4…
SXG 435 142 R …	■	■	1.42	4.5	4	1.28	0.71	35	0.02	0.5°	2.5°		SDA 4…
SXG 440 142 R …	■	■	1.42	7.5	4	1.28	0.71	40	0.02	0.5°	2.5°		SDA 4…
SXG 435 192 R …	■	■	1.92	6	4	1.73	0.96	35	0.02	0.5°	2.5°		SDA 4…
SXG 440 192 R …	■	■	1.92	10	4	1.73	0.96	40	0.02	0.5°	2.5°		SDA 4…
SXG 435 242 R …	■	■	2.42	7.5	4	2.18	1.21	35	0.02	0.5°	2.5°		SDA 4…
SXG 440 242 R …	■	■	2.42	12.5	4	2.18	1.21	40	0.02	0.5°	2.5°		SDA 4…
SXG 440 292 R …	■	■	2.92	9	4	2.63	1.46	40	0.02	0.5°	2.5°		SDA 4…
SXG 448 292 R …	■	■	2.92	15	4	2.63	1.46	48	0.02	0.5°	2.5°		SDA 4…
SXG 440 342 R …	■	■	3.42	10.5	4	3.08	1.71	40	0.02	0.5°	2.5°		SDA 4…
SXG 448 342 R …	■	■	3.42	17.5	4	3.08	1.71	48	0.02	0.5°	2.5°		SDA 4…
SXG 440 392 R …	■	■	3.92	12	4	3.53	1.96	40	0.02	0.5°	2.5°		SDA 4…
SXG 448 392 R …	■	■	3.92	20	4	3.53	1.96	48	0.02	0.5°	2.5°		SDA 4…
SXG 644 442 R …	■	■	4.42	9	6	3.98	2.21	44	0.02	0.5°	2.5°		SDA 6…
SXG 656 442 R …	■	■	4.42	18	6	3.98	2.21	56	0.02	0.5°	2.5°		SDA 6…
SXG 668 442 R …	■	■	4.42	27	6	3.98	2.21	68	0.02	0.5°	2.5°		SDA 6…
SXG 644 492 R …	■	■	4.92	10	6	4.43	2.46	44	0.02	0.5°	2.5°		SDA 6…
SXG 656 492 R …	■	■	4.92	20	6	4.43	2.46	56	0.02	0.5°	2.5°		SDA 6…
SXG 668 492 R …	■	■	4.92	30	6	4.43	2.46	68	0.02	0.5°	2.5°		SDA 6…
SXG 644 542 R …	■	■	5.42	11	6	4.88	2.71	44	0.02	0.5°	2.5°		SDA 6…
SXG 656 542 R …	■	■	5.42	22	6	4.88	2.71	56	0.02	0.5°	2.5°		SDA 6…
SXG 668 542 R …	■	■	5.42	33	6	4.88	2.71	68	0.02	0.5°	2.5°		SDA 6…
SXG 644 592 R …	■	■	5.92	12	6	5.33	2.96	44	0.02	0.5°	2.5°		SDA 6…
SXG 656 592 R …	■	■	5.92	24	6	5.33	2.96	56	0.02	0.5°	2.5°		SDA 6…
SXG 668 592 R …	■	■	5.92	36	6	5.33	2.96	68	0.02	0.5°	2.5°		SDA 6…
SXG 850 692 R …	■	■	6.92	14	8	6.23	3.46	50	0.02	0.5°	2.5°		SDA 8…
SXG 866 692 R …	■	■	6.92	28	8	6.23	3.46	66	0.02	0.5°	2.5°		SDA 8…
SXG 882 692 R …	■	■	6.92	42	8	6.23	3.46	82	0.02	0.5°	2.5°		SDA 8…
SXG 850 792 R …	■	■	7.92	16	8	7.13	3.96	50	0.02	0.5°	2.5°		SDA 8…
SXG 866 792 R …	■	■	7.92	32	8	7.13	3.96	66	0.02	0.5°	2.5°		SDA 8…
SXG 882 792 R …	■	■	7.92	48	8	7.13	3.96	82	0.02	0.5°	2.5°		SDA 8…

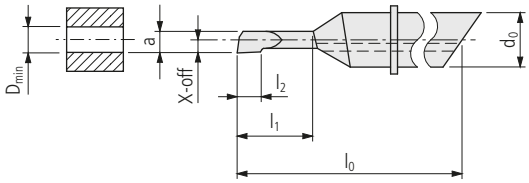
* Left execution and other coatings on demand



Turning and facing





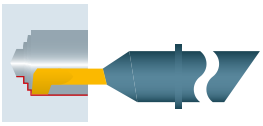


SDI …

Order designation	Carbide ▯19		Dimensions										Holder
	○ ○ ○ ●	● ● ● ○											▯352…
R *	UHM 20	UHM 20 HX	D_{min}	l_1	d_0	a	X-off	l_0	l_2	r_{max}	α	β	
PREMIUM-LINE			Accuracy class of UTILIS ▯330										
SDI 435 042 R …	■	■	0.42	1.5	4	0.38	0.21	35	0.5	0.01	0.5°	2.5°	SDA 4…
SDI 435 052 R …	■	■	0.52	1.8	4	0.47	0.26	35	0.6	0.02	0.5°	2.5°	SDA 4…
SDI 435 072 R …	■	■	0.72	2.4	4	0.65	0.36	35	0.8	0.02	0.5°	2.5°	SDA 4…
SDI 435 092 R …	■	■	0.92	3	4	0.83	0.46	35	1	0.02	0.5°	2.5°	SDA 4…
SDI 440 092 R …	■	■	0.92	3	4	0.83	0.46	40	1	0.02	0.5°	2.5°	SDA 4…
SDI 448 092 R …	■	■	0.92	5	4	0.83	0.46	48	1	0.02	0.5°	2.5°	SDA 4…
SDI 435 122 R …	■	■	1.22	3.9	4	1.10	0.61	35	1.3	0.02	0.5°	2.5°	SDA 4…
SDI 435 142 R …	■	■	1.42	4.5	4	1.28	0.71	35	1.5	0.02	0.5°	2.5°	SDA 4…
SDI 440 142 R …	■	■	1.42	4.5	4	1.28	0.71	40	1.5	0.02	0.5°	2.5°	SDA 4…
SDI 448 142 R …	■	■	1.42	7.5	4	1.28	0.71	48	1.5	0.02	0.5°	2.5°	SDA 4…
SDI 435 192 R …	■	■	1.92	6	4	1.73	0.96	35	2	0.03	0.5°	2.5°	SDA 4…
SDI 440 192 R …	■	■	1.92	6	4	1.73	0.96	40	2	0.02	0.5°	2.5°	SDA 4…
SDI 448 192 R …	■	■	1.92	10	4	1.73	0.96	48	2	0.02	0.5°	2.5°	SDA 4…
SDI 435 242 R …	■	■	2.42	7.5	4	2.18	1.21	35	2.5	0.03	0.5°	2.5°	SDA 4…
SDI 440 242 R …	■	■	2.42	7.5	4	2.18	1.21	40	2.5	0.02	0.5°	2.5°	SDA 4…
SDI 448 242 R …	■	■	2.42	12.5	4	2.18	1.21	48	2.5	0.02	0.5°	2.5°	SDA 4…
SDI 440 292 R …	■	■	2.92	9	4	2.63	1.46	40	3	0.02	0.5°	2.5°	SDA 4…
SDI 448 292 R …	■	■	2.92	15	4	2.63	1.46	48	3	0.02	0.5°	2.5°	SDA 4…
SDI 440 342 R …	■	■	3.42	10.5	4	3.08	1.71	40	3.5	0.02	0.5°	2.5°	SDA 4…
SDI 448 342 R …	■	■	3.42	17.5	4	3.08	1.71	48	3.5	0.02	0.5°	2.5°	SDA 4…
SDI 440 392 R …	■	■	3.92	12	4	3.53	1.96	40	4	0.02	0.5°	2.5°	SDA 4…
SDI 448 392 R …	■	■	3.92	20	4	3.53	1.96	48	4	0.02	0.5°	2.5°	SDA 4…
SDI 644 442 R …	■	■	4.42	9	6	3.98	2.21	44	4.5	0.02	0.5°	2.5°	SDA 6…
SDI 656 442 R …	■	■	4.42	18	6	3.98	2.21	56	4.5	0.02	0.5°	2.5°	SDA 6…
SDI 668 442 R …	■	■	4.42	27	6	3.98	2.21	68	4.5	0.02	0.5°	2.5°	SDA 6…
SDI 644 492 R …	■	■	4.92	10	6	4.43	2.46	44	5	0.02	0.5°	2.5°	SDA 6…
SDI 656 492 R …	■	■	4.92	20	6	4.43	2.46	56	5	0.02	0.5°	2.5°	SDA 6…
SDI 668 492 R …	■	■	4.92	30	6	4.43	2.46	68	5	0.02	0.5°	2.5°	SDA 6…
SDI 644 542 R …	■	■	5.42	11	6	4.88	2.71	44	5.5	0.02	0.5°	2.5°	SDA 6…
SDI 656 542 R …	■	■	5.42	22	6	4.88	2.71	56	5.5	0.02	0.5°	2.5°	SDA 6…
SDI 668 542 R …	■	■	5.42	33	6	4.88	2.71	68	5.5	0.02	0.5°	2.5°	SDA 6…
SDI 644 592 R …	■	■	5.92	12	6	5.33	2.96	44	6	0.02	0.5°	2.5°	SDA 6…
SDI 656 592 R …	■	■	5.92	24	6	5.33	2.96	56	6	0.02	0.5°	2.5°	SDA 6…
SDI 668 592 R …	■	■	5.92	36	6	5.33	2.96	68	6	0.02	0.5°	2.5°	SDA 6…
SDI 850 692 R …	■	■	6.92	14	8	6.23	3.46	50	7	0.02	0.5°	2.5°	SDA 8…
SDI 866 692 R …	■	■	6.92	28	8	6.23	3.46	66	7	0.02	0.5°	2.5°	SDA 8…
SDI 882 692 R …	■	■	6.92	42	8	6.23	3.46	82	7	0.02	0.5°	2.5°	SDA 8…
SDI 850 792 R …	■	■	7.92	16	8	7.13	3.96	50	8	0.02	0.5°	2.5°	SDA 8…
SDI 866 792 R …	■	■	7.92	32	8	7.13	3.96	66	8	0.02	0.5°	2.5°	SDA 8…
SDI 882 792 R …	■	■	7.92	48	8	7.13	3.96	82	8	0.02	0.5°	2.5°	SDA 8…

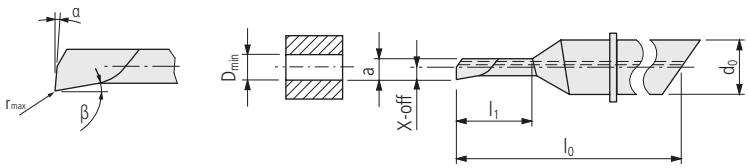
* Left execution and other coatings on demand

Legend ▯6



Turning and facing
Strenghten type (for blind holes)

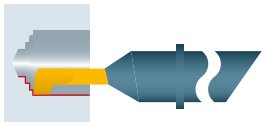




SXI …

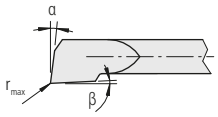
Order designation	Carbide		19	Dimensions													Holder
	○	●															352…
	○	●															
	○	●															
	●	○															
R *	UHM 20	UHM 20 HX		D_{min}	l_1	d_0	a	X-off	l_0	r_{max}	α	β					
PREMIUM-LINE				Accuracy class of UTILIS 330													
				– +													
SXI 435 042 R …	■	■		0.42	1.5	4	0.38	0.21	35	0.02	0.5°	2.5°					SDA 4…
SXI 435 052 R …	■	■		0.52	1.8	4	0.47	0.26	35	0.02	0.5°	2.5°					SDA 4…
SXI 435 072 R …	■	■		0.72	2.4	4	0.65	0.36	35	0.02	0.5°	2.5°					SDA 4…
SXI 435 092 R …	■	■		0.92	3	4	0.83	0.46	35	0.02	0.5°	2.5°					SDA 4…
SXI 440 092 R …	■	■		0.92	5	4	0.83	0.46	40	0.02	0.5°	2.5°					SDA 4…
SXI 435 122 R …	■	■		1.22	3.9	4	1.1	0.61	35	0.02	0.5°	2.5°					SDA 4…
SXI 435 142 R …	■	■		1.42	4.5	4	1.28	0.71	35	0.02	0.5°	2.5°					SDA 4…
SXI 440 142 R …	■	■		1.42	7.5	4	1.28	0.71	40	0.02	0.5°	2.5°					SDA 4…
SXI 435 192 R …	■	■		1.92	6	4	1.73	0.96	35	0.02	0.5°	2.5°					SDA 4…
SXI 440 192 R …	■	■		1.92	10	4	1.73	0.96	40	0.02	0.5°	2.5°					SDA 4…
SXI 435 242 R …	■	■		2.42	7.5	4	2.18	1.21	35	0.02	0.5°	2.5°					SDA 4…
SXI 440 242 R …	■	■		2.42	12.5	4	2.18	1.21	40	0.02	0.5°	2.5°					SDA 4…
SXI 440 292 R …	■	■		2.92	9	4	2.63	1.46	40	0.02	0.5°	2.5°					SDA 4…
SXI 448 292 R …	■	■		2.92	15	4	2.63	1.46	48	0.02	0.5°	2.5°					SDA 4…
SXI 440 342 R …	■	■		3.42	10.5	4	3.08	1.71	40	0.02	0.5°	2.5°					SDA 4…
SXI 448 342 R …	■	■		3.42	17.5	4	3.08	1.71	48	0.02	0.5°	2.5°					SDA 4…
SXI 440 392 R …	■	■		3.92	12	4	3.53	1.96	40	0.02	0.5°	2.5°					SDA 4…
SXI 448 392 R …	■	■		3.92	20	4	3.53	1.96	48	0.02	0.5°	2.5°					SDA 4…
SXI 644 442 R …	■	■		4.42	9	6	3.98	2.21	44	0.02	0.5°	2.5°					SDA 6…
SXI 656 442 R …	■	■		4.42	18	6	3.98	2.21	56	0.02	0.5°	2.5°					SDA 6…
SXI 668 442 R …	■	■		4.42	27	6	3.98	2.21	68	0.02	0.5°	2.5°					SDA 6…
SXI 644 492 R …	■	■		4.92	10	6	4.43	2.46	44	0.02	0.5°	2.5°					SDA 6…
SXI 656 492 R …	■	■		4.92	20	6	4.43	2.46	56	0.02	0.5°	2.5°					SDA 6…
SXI 668 492 R …	■	■		4.92	30	6	4.43	2.46	68	0.02	0.5°	2.5°					SDA 6…
SXI 644 542 R …	■	■		5.42	11	6	4.88	2.71	44	0.02	0.5°	2.5°					SDA 6…
SXI 656 542 R …	■	■		5.42	22	6	4.88	2.71	56	0.02	0.5°	2.5°					SDA 6…
SXI 668 542 R …	■	■		5.42	33	6	4.88	2.71	68	0.02	0.5°	2.5°					SDA 6…
SXI 644 592 R …	■	■		5.92	12	6	5.33	2.96	44	0.02	0.5°	2.5°					SDA 6…
SXI 656 592 R …	■	■		5.92	24	6	5.33	2.96	56	0.02	0.5°	2.5°					SDA 6…
SXI 668 592 R …	■	■		5.92	36	6	5.33	2.96	68	0.02	0.5°	2.5°					SDA 6…
SXI 850 692 R …	■	■		6.92	14	8	6.23	3.46	50	0.02	0.5°	2.5°					SDA 8…
SXI 866 692 R …	■	■		6.92	28	8	6.23	3.46	66	0.02	0.5°	2.5°					SDA 8…
SXI 882 692 R …	■	■		6.92	42	8	6.23	3.46	82	0.02	0.5°	2.5°					SDA 8…
SXI 850 792 R …	■	■		7.92	16	8	7.13	3.96	50	0.02	0.5°	2.5°					SDA 8…
SXI 866 792 R …	■	■		7.92	32	8	7.13	3.96	66	0.02	0.5°	2.5°					SDA 8…
SXI 882 792 R …	■	■		7.92	48	8	7.13	3.96	82	0.02	0.5°	2.5°					SDA 8…

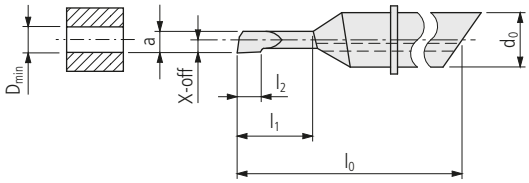
* Left execution and other coatings on demand



Turning and facing



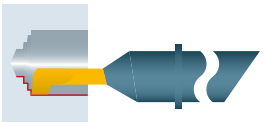




SDF …

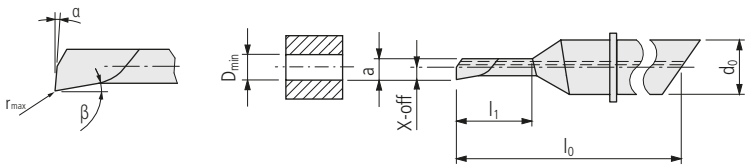
Order designation	Carbide ▯19		Dimensions										Holder
	○ ○ ○ ●	● ● ● ○											▯352…
R *	UHM 20	UHM 20 HX	D_{min}	l_1	d_0	a	X-off	l_0	l_2	r	α	β	
PREMIUM-LINE			Accuracy class of UTILIS ▯330										
SDF 435 042 R …	■	■	0.42	1.5	4	0.38	0.21	35	0.5	0.06	0.5°	2.5°	SDA 4…
SDF 435 092 R …	■	■	0.92	3	4	0.83	0.46	35	1	0.06	0.5°	2.5°	SDA 4…
SDF 440 092 R …	■	■	0.92	3	4	0.83	0.46	40	1	0.06	0.5°	2.5°	SDA 4…
SDF 448 092 R …	■	■	0.92	5	4	0.83	0.46	48	1	0.06	0.5°	2.5°	SDA 4…
SDF 435 142 R …	■	■	1.42	4.5	4	1.28	0.71	35	1.5	0.06	0.5°	2.5°	SDA 4…
SDF 440 142 R …	■	■	1.42	4.5	4	1.28	0.71	40	1.5	0.06	0.5°	2.5°	SDA 4…
SDF 448 142 R …	■	■	1.42	7.5	4	1.28	0.71	48	1.5	0.06	0.5°	2.5°	SDA 4…
SDF 435 192 R …	■	■	1.92	6	4	1.73	0.96	35	2	0.06	0.5°	2.5°	SDA 4…
SDF 440 192 R …	■	■	1.92	6	4	1.73	0.96	40	2	0.06	0.5°	2.5°	SDA 4…
SDF 448 192 R …	■	■	1.92	10	4	1.73	0.96	48	2	0.06	0.5°	2.5°	SDA 4…
SDF 435 242 R …	■	■	2.42	7.5	4	2.18	1.21	35	2.5	0.06	0.5°	2.5°	SDA 4…
SDF 440 242 R …	■	■	2.42	7.5	4	2.18	1.21	40	2.5	0.06	0.5°	2.5°	SDA 4…
SDF 448 242 R …	■	■	2.42	12.5	4	2.18	1.21	48	2.5	0.06	0.5°	2.5°	SDA 4…
SDF 440 292 R …	■	■	2.92	9	4	2.63	1.46	40	3	0.06	0.5°	2.5°	SDA 4…
SDF 448 292 R …	■	■	2.92	15	4	2.63	1.46	48	3	0.06	0.5°	2.5°	SDA 4…
SDF 440 342 R …	■	■	3.42	10.5	4	3.08	1.71	40	3.5	0.06	0.5°	2.5°	SDA 4…
SDF 448 342 R …	■	■	3.42	17.5	4	3.08	1.71	48	3.5	0.06	0.5°	2.5°	SDA 4…
SDF 440 392 R …	■	■	3.92	12	4	3.53	1.96	40	4	0.06	0.5°	2.5°	SDA 4…
SDF 448 392 R …	■	■	3.92	20	4	3.53	1.96	48	4	0.06	0.5°	2.5°	SDA 4…
SDF 644 442 R …	■	■	4.42	9	6	3.98	2.21	44	4.5	0.08	0.5°	2.5°	SDA 6…
SDF 656 442 R …	■	■	4.42	18	6	3.98	2.21	56	4.5	0.08	0.5°	2.5°	SDA 6…
SDF 668 442 R …	■	■	4.42	27	6	3.98	2.21	68	4.5	0.08	0.5°	2.5°	SDA 6…
SDF 644 492 R …	■	■	4.92	10	6	4.43	2.46	44	5	0.08	0.5°	2.5°	SDA 6…
SDF 656 492 R …	■	■	4.92	20	6	4.43	2.46	56	5	0.08	0.5°	2.5°	SDA 6…
SDF 668 492 R …	■	■	4.92	30	6	4.43	2.46	68	5	0.08	0.5°	2.5°	SDA 6…
SDF 644 542 R …	■	■	5.42	11	6	4.88	2.71	44	5.5	0.08	0.5°	2.5°	SDA 6…
SDF 656 542 R …	■	■	5.42	22	6	4.88	2.71	56	5.5	0.08	0.5°	2.5°	SDA 6…
SDF 668 542 R …	■	■	5.42	33	6	4.88	2.71	68	5.5	0.08	0.5°	2.5°	SDA 6…
SDF 644 592 R …	■	■	5.92	12	6	5.33	2.96	44	6	0.08	0.5°	2.5°	SDA 6…
SDF 656 592 R …	■	■	5.92	24	6	5.33	2.96	56	6	0.08	0.5°	2.5°	SDA 6…
SDF 668 592 R …	■	■	5.92	36	6	5.33	2.96	68	6	0.08	0.5°	2.5°	SDA 6…
SDF 850 692 R …	■	■	6.92	14	8	6.23	3.46	50	7	0.12	0.5°	2.5°	SDA 8…
SDF 866 692 R …	■	■	6.92	28	8	6.23	3.46	66	7	0.12	0.5°	2.5°	SDA 8…
SDF 882 692 R …	■	■	6.92	42	8	6.23	3.46	82	7	0.12	0.5°	2.5°	SDA 8…
SDF 850 792 R …	■	■	7.92	16	8	3.96	3.96	50	8	0.12	0.5°	2.5°	SDA 8…
SDF 866 792 R …	■	■	7.92	32	8	3.96	3.96	66	8	0.12	0.5°	2.5°	SDA 8…
SDF 882 792 R …	■	■	7.92	48	8	3.96	3.96	82	8	0.12	0.5°	2.5°	SDA 8…

* Left execution and other coatings on demand



Turning and facing
Strenghten type (for blind holes)

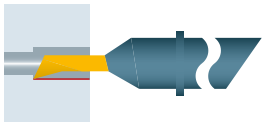




SXF …

Order designation	Carbide		Dimensions													Holder
	○ ○ ○ ●	● ● ● ○														352…
R *	UHM 20	UHM 20 HX	D_{min}	l_1	d_0	a	X-off	l_0	r	α	β					
PREMIUM-LINE			Accuracy class of UTILIS 330													
SXF 435 042 R …	■	■	0.42	1.5	4	0.38	0.21	35	0.06	0.5°	2.5°					SDA 4R …
SXF 435 092 R …	■	■	0.92	3	4	0.83	0.46	35	0.06	0.5°	2.5°					SDA 4R …
SXF 440 092 R …	■	■	0.92	5	4	0.83	0.46	40	0.06	0.5°	2.5°					SDA 4R …
SXF 435 142 R …	■	■	1.42	4.5	4	1.28	0.71	35	0.06	0.5°	2.5°					SDA 4R …
SXF 440 142 R …	■	■	1.42	7.5	4	1.28	0.71	40	0.06	0.5°	2.5°					SDA 4R …
SXF 435 192 R …	■	■	1.92	6	4	1.73	0.96	35	0.06	0.5°	2.5°					SDA 4R …
SXF 440 192 R …	■	■	1.92	10	4	1.73	0.96	40	0.06	0.5°	2.5°					SDA 4R …
SXF 435 242 R …	■	■	2.42	7.5	4	2.18	1.21	35	0.06	0.5°	2.5°					SDA 4R …
SXF 440 242 R …	■	■	2.42	12.5	4	2.18	1.21	40	0.06	0.5°	2.5°					SDA 4R …
SXF 440 292 R …	■	■	2.92	9	4	2.63	1.46	40	0.06	0.5°	2.5°					SDA 4R …
SXF 448 292 R …	■	■	2.92	15	4	2.63	1.46	48	0.06	0.5°	2.5°					SDA 4R …
SXF 440 342 R …	■	■	3.42	10.5	4	3.08	1.71	40	0.06	0.5°	2.5°					SDA 4R …
SXF 448 342 R …	■	■	3.42	17.5	4	3.08	1.71	48	0.06	0.5°	2.5°					SDA 4R …
SXF 440 392 R …	■	■	3.92	12	4	3.53	1.96	40	0.06	0.5°	2.5°					SDA 4R …
SXF 448 392 R …	■	■	3.92	20	4	3.53	1.96	48	0.06	0.5°	2.5°					SDA 4R …
SXF 644 442 R …	■	■	4.42	9	6	3.98	2.21	44	0.08	0.5°	2.5°					SDA 4R …
SXF 656 442 R …	■	■	4.42	18	6	3.98	2.21	56	0.08	0.5°	2.5°					SDA 4R …
SXF 668 442 R …	■	■	4.42	27	6	3.98	2.21	68	0.08	0.5°	2.5°					SDA 4R …
SXF 644 492 R …	■	■	4.92	10	6	4.43	2.46	44	0.08	0.5°	2.5°					SDA 4R …
SXF 656 492 R …	■	■	4.92	20	6	4.43	2.46	56	0.08	0.5°	2.5°					SDA 6R …
SXF 668 492 R …	■	■	4.92	30	6	4.43	2.46	68	0.08	0.5°	2.5°					SDA 6R …
SXF 644 542 R …	■	■	5.42	11	6	4.88	2.71	44	0.08	0.5°	2.5°					SDA 6R …
SXF 656 542 R …	■	■	5.42	22	6	4.88	2.71	56	0.08	0.5°	2.5°					SDA 6R …
SXF 668 542 R …	■	■	5.42	33	6	4.88	2.71	68	0.08	0.5°	2.5°					SDA 6R …
SXF 644 592 R …	■	■	5.92	12	6	5.33	2.96	44	0.08	0.5°	2.5°					SDA 6R …
SXF 656 592 R …	■	■	5.92	24	6	5.33	2.96	56	0.08	0.5°	2.5°					SDA 6R …
SXF 668 592 R …	■	■	5.92	36	6	5.33	2.96	68	0.08	0.5°	2.5°					SDA 6R …
SXF 850 692 R …	■	■	6.92	14	8	6.23	3.46	50	0.12	0.5°	2.5°					SDA 6R …
SXF 866 692 R …	■	■	6.92	8	8	6.23	3.46	66	0.12	0.5°	2.5°					SDA 6R …
SXF 882 692 R …	■	■	6.92	42	8	6.23	3.46	82	0.12	0.5°	2.5°					SDA 6R …
SXF 850 792 R …	■	■	7.92	16	8	3.96	3.96	50	0.12	0.5°	2.5°					SDA 6R …
SXF 866 792 R …	■	■	7.92	32	8	3.96	3.96	66	0.12	0.5°	2.5°					SDA 8R …
SXF 882 792 R …	■	■	7.92	48	8	3.96	3.96	82	0.12	0.5°	2.5°					SDA 8R …

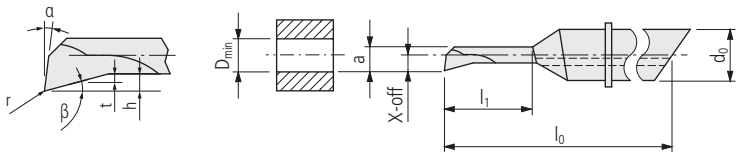
* Left execution and other coatings on demand



Front turning

UTILIS multidec swiss type tools

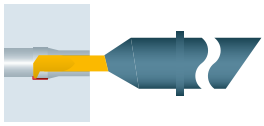




SDH …

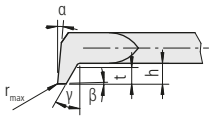
Order designation	Carbide ▯19		Dimensions											Holder
	○ ○ ○ ●	● ● ● ○												▯352…
R *	UHM 20	UHM 20 HX	D_{min}	l_1	d_0	a	X-off	h	t	l_0	r	α	β	
PREMIUM-LINE			Accuracy class of UTILIS ▯330 – +											
SDH 435 042 R …	■	■	0.42	1.5	4	0.38	0.21	0.09	0.07	35	0.05	7.5°	22.5°	SDA 4…
SDH 435 092 R …	■	■	0.92	3	4	0.83	0.46	0.19	0.15	35	0.05	7.5°	22.5°	SDA 4…
SDH 440 092 R …	■	■	0.92	3	4	0.83	0.46	0.21	0.16	40	0.05	7.5°	22.5°	SDA 4…
SDH 448 092 R …	■	■	0.92	5	4	0.83	0.46	0.21	0.16	48	0.05	7.5°	22.5°	SDA 4…
SDH 435 142 R …	■	■	1.42	4.5	4	1.28	0.71	0.3	0.23	35	0.05	7.5°	22.5°	SDA 4…
SDH 440 142 R …	■	■	1.42	4.5	4	1.28	0.71	0.31	0.23	40	0.05	7.5°	22.5°	SDA 4…
SDH 448 142 R …	■	■	1.42	7.5	4	1.28	0.71	0.31	0.23	48	0.05	7.5°	22.5°	SDA 4…
SDH 435 192 R …	■	■	1.92	6	4	1.73	0.96	0.4	0.31	35	0.05	7.5°	22.5°	SDA 4…
SDH 440 192 R …	■	■	1.92	6	4	1.73	0.96	0.41	0.31	40	0.05	7.5°	22.5°	SDA 4…
SDH 448 192 R …	■	■	1.92	10	4	1.73	0.96	0.41	0.31	48	0.05	7.5°	22.5°	SDA 4…
SDH 435 242 R …	■	■	2.42	7.5	4	2.18	1.21	0.51	0.39	35	0.05	7.5°	22.5°	SDA 4…
SDH 440 242 R …	■	■	2.42	7.5	4	2.18	1.21	0.52	0.39	40	0.05	7.5°	22.5°	SDA 4…
SDH 448 242 R …	■	■	2.42	12.5	4	2.18	1.21	0.52	0.39	48	0.05	7.5°	22.5°	SDA 4…
SDH 440 292 R …	■	■	2.92	9	4	2.63	1.46	0.62	0.47	40	0.05	7.5°	22.5°	SDA 4…
SDH 448 292 R …	■	■	2.92	15	4	2.63	1.46	0.62	0.47	48	0.05	7.5°	22.5°	SDA 4…
SDH 440 342 R …	■	■	3.42	10.5	4	3.08	1.71	0.72	0.54	40	0.05	7.5°	22.5°	SDA 4…
SDH 448 342 R …	■	■	3.42	17.5	4	3.08	1.71	0.72	0.54	48	0.05	7.5°	22.5°	SDA 4…
SDH 440 392 R …	■	■	3.92	12	4	3.53	1.96	0.83	0.62	40	0.05	7.5°	22.5°	SDA 4…
SDH 448 392 R …	■	■	3.92	20	4	3.53	1.96	0.83	0.62	48	0.05	7.5°	22.5°	SDA 4…
SDH 644 442 R …	■	■	4.42	9	6	3.98	2.21	0.93	0.7	44	0.05	7.5°	22.5°	SDA 6…
SDH 656 442 R …	■	■	4.42	18	6	3.98	2.21	0.93	0.7	56	0.05	7.5°	22.5°	SDA 6…
SDH 668 442 R …	■	■	4.42	27	6	3.98	2.21	0.93	0.7	68	0.05	7.5°	22.5°	SDA 6…
SDH 644 492 R …	■	■	4.92	10	6	4.43	2.46	1.04	0.78	44	0.05	7.5°	22.5°	SDA 6…
SDH 656 492 R …	■	■	4.92	20	6	4.43	2.46	1.04	0.78	56	0.05	7.5°	22.5°	SDA 6…
SDH 668 492 R …	■	■	4.92	30	6	4.43	2.46	1.04	0.78	68	0.05	7.5°	22.5°	SDA 6…
SDH 644 542 R …	■	■	5.42	11	6	4.88	2.71	1.14	0.85	44	0.05	7.5°	22.5°	SDA 6…
SDH 656 542 R …	■	■	5.42	22	6	4.88	2.71	1.14	0.85	56	0.05	7.5°	22.5°	SDA 6…
SDH 668 542 R …	■	■	5.42	33	6	4.88	2.71	1.14	0.85	68	0.05	7.5°	22.5°	SDA 6…
SDH 644 592 R …	■	■	5.92	12	6	5.33	2.96	1.24	0.93	44	0.05	7.5°	22.5°	SDA 6…
SDH 656 592 R …	■	■	5.92	24	6	5.33	2.96	1.24	0.93	56	0.05	7.5°	22.5°	SDA 6…
SDH 668 592 R …	■	■	5.92	36	6	5.33	2.96	1.24	0.93	68	0.05	7.5°	22.5°	SDA 6…
SDH 850 692 R …	■	■	6.92	14	8	6.23	3.46	1.45	1.09	50	0.05	7.5°	22.5°	SDA 8…
SDH 866 692 R …	■	■	6.92	28	8	6.23	3.46	1.45	1.09	66	0.05	7.5°	22.5°	SDA 8…
SDH 882 692 R …	■	■	6.92	42	8	6.23	3.46	1.45	1.09	82	0.05	7.5°	22.5°	SDA 8…
SDH 850 792 R …	■	■	7.92	16	8	7.13	3.96	1.66	1.24	50	0.05	7.5°	22.5°	SDA 8…
SDH 866 792 R …	■	■	7.92	32	8	7.13	3.96	1.66	1.24	66	0.05	7.5°	22.5°	SDA 8…
SDH 882 792 R …	■	■	7.92	48	8	7.13	3.96	1.66	1.24	82	0.05	7.5°	22.5°	SDA 8…

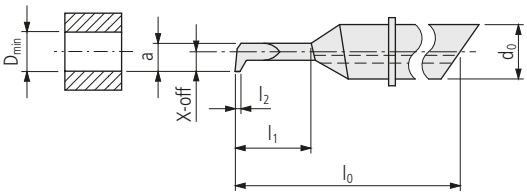
* Left execution and other coatings on demand



Turning and front turning



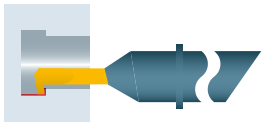




SDK …

Order designation	Carbide		Dimensions													Holder
R *	UHM 20	UHM 20 HX	D_{min}	l_1	d_0	a	X-off	h	t	l_0	l_2	r_{max}	α	β	γ	352…
PREMIUM-LINE			Accuracy class of UTILIS 330													
SDK 435 092 R …	■	■	0.92	1.5	4	0.83	0.46	0.23	0.15	35	0.5	0.02	0.5°	0.5°	30°	SDA 4…
SDK 440 092 R …	■	■	0.92	3	4	0.83	0.46	0.23	0.1	40	0.5	0.02	0.5°	0.5°	30°	SDA 4…
SDK 448 092 R …	■	■	0.92	5	4	0.83	0.46	0.23	0.1	48	0.5	0.02	0.5°	0.5°	30°	SDA 4…
SDK 435 142 R …	■	■	1.42	4.5	4	1.28	0.71	0.36	0.23	35	0.75	0.02	0.5°	0.5°	30°	SDA 4…
SDK 440 142 R …	■	■	1.42	4.5	4	1.28	0.71	0.36	0.2	40	0.75	0.02	0.5°	0.5°	30°	SDA 4…
SDK 448 142 R …	■	■	1.42	7.5	4	1.28	0.71	0.36	0.2	48	0.75	0.02	0.5°	0.5°	30°	SDA 4…
SDK 435 192 R …	■	■	1.92	6	4	1.73	0.96	0.48	0.32	35	1	0.03	0.5°	0.5°	30°	SDA 4…
SDK 440 192 R …	■	■	1.92	6	4	1.73	0.96	0.48	0.3	40	1	0.02	0.5°	0.5°	30°	SDA 4…
SDK 448 192 R …	■	■	1.92	10	4	1.73	0.96	0.48	0.3	48	1	0.02	0.5°	0.5°	30°	SDA 4…
SDK 435 242 R …	■	■	2.42	7.5	4	2.18	1.21	0.61	0.4	35	1.25	0.03	0.5°	0.5°	30°	SDA 4…
SDK 440 242 R …	■	■	2.42	7.5	4	2.18	1.21	0.61	0.4	40	1.25	0.02	0.5°	0.5°	30°	SDA 4…
SDK 448 242 R …	■	■	2.42	12.5	4	2.18	1.21	0.61	0.4	48	1.25	0.02	0.5°	0.5°	30°	SDA 4…
SDK 440 292 R …	■	■	2.92	9	4	2.63	1.46	0.73	0.5	40	1.5	0.02	0.5°	0.5°	30°	SDA 4…
SDK 448 292 R …	■	■	2.92	15	4	2.63	1.46	0.73	0.5	48	1.5	0.02	0.5°	0.5°	30°	SDA 4…
SDK 440 342 R …	■	■	3.42	10.5	4	3.08	1.71	0.86	0.6	40	1.75	0.02	0.5°	0.5°	30°	SDA 4…
SDK 448 342 R …	■	■	3.42	17.5	4	3.08	1.71	0.86	0.6	48	1.75	0.02	0.5°	0.5°	30°	SDA 4…
SDK 440 392 R …	■	■	3.92	12	4	3.53	1.96	0.98	0.7	40	2	0.02	0.5°	0.5°	30°	SDA 4…
SDK 448 392 R …	■	■	3.92	20	4	3.53	1.96	0.98	0.7	48	2	0.02	0.5°	0.5°	30°	SDA 4…
SDK 644 442 R …	■	■	4.42	9	6	3.98	2.21	1.11	0.7	44	2.25	0.02	0.5°	0.5°	30°	SDA 6…
SDK 656 442 R …	■	■	4.42	18	6	3.98	2.21	1.11	0.7	56	2.25	0.02	0.5°	0.5°	30°	SDA 6…
SDK 668 442 R …	■	■	4.42	27	6	3.98	2.21	1.11	0.7	68	2.25	0.02	0.5°	0.5°	30°	SDA 6…
SDK 644 492 R …	■	■	4.92	10	6	4.43	2.46	1.23	0.8	44	2.5	0.02	0.5°	0.5°	30°	SDA 6…
SDK 656 492 R …	■	■	4.92	20	6	4.43	2.46	1.23	0.8	56	2.5	0.02	0.5°	0.5°	30°	SDA 6…
SDK 668 492 R …	■	■	4.92	30	6	4.43	2.46	1.23	0.8	68	2.5	0.02	0.5°	0.5°	30°	SDA 6…
SDK 644 542 R …	■	■	5.42	11	6	4.88	2.71	1.36	0.9	44	2.75	0.02	0.5°	0.5°	30°	SDA 6…
SDK 656 542 R …	■	■	5.42	22	6	4.88	2.71	1.36	0.9	56	2.75	0.02	0.5°	0.5°	30°	SDA 6…
SDK 668 542 R …	■	■	5.42	33	6	4.88	2.71	1.36	0.9	68	2.75	0.02	0.5°	0.5°	30°	SDA 6…
SDK 644 592 R …	■	■	5.92	12	6	5.33	2.96	1.48	1	44	3	0.02	0.5°	0.5°	30°	SDA 6…
SDK 656 592 R …	■	■	5.92	24	6	5.33	2.96	1.48	1	56	3	0.02	0.5°	0.5°	30°	SDA 6…
SDK 668 592 R …	■	■	5.92	36	6	5.33	2.96	1.48	1	68	3	0.02	0.5°	0.5°	30°	SDA 6…
SDK 850 692 R …	■	■	6.92	14	8	6.23	3.46	1.73	1.2	50	3.5	0.02	0.5°	0.5°	30°	SDA 8…
SDK 866 692 R …	■	■	6.92	28	8	6.23	3.46	1.73	1.2	66	3.5	0.02	0.5°	0.5°	30°	SDA 8…
SDK 882 692 R …	■	■	6.92	42	8	6.23	3.46	1.73	1.2	82	3.5	0.02	0.5°	0.5°	30°	SDA 8…
SDK 850 792 R …	■	■	7.92	16	8	7.13	3.96	1.98	1.3	50	4	0.02	0.5°	0.5°	30°	SDA 8…
SDK 866 792 R …	■	■	7.92	32	8	7.13	3.96	1.98	1.3	66	4	0.02	0.5°	0.5°	30°	SDA 8…
SDK 882 792 R …	■	■	7.92	48	8	7.13	3.96	1.98	1.3	82	4	0.02	0.5°	0.5°	30°	SDA 8…

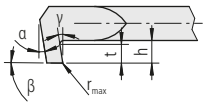
* Left execution and other coatings on demand

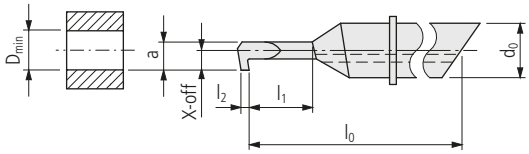


Back turning

UTILIS multidec swiss type tools



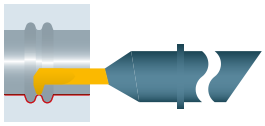




SDM …

Order designation	Carbide		19	Dimensions													Holder
	○	●															352…
	○	●															
	○	●															
	●	○															
R *	UHM 20	UHM 20 HX		D_{min}	l_1	d_0	a	X-off	h	t	l_0	l_2	r_{max}	α	β	γ	
PREMIUM-LINE				Accuracy class of UTILIS 330													
SDM 435 092 R …	■	■		0.92	1.5	4	0.83	0.46	0.23	0.15	35	0.5	0.02	30°	0.5°	0.5°	SDA 4…
SDM 440 092 R …	■	■		0.92	3	4	0.83	0.46	0.23	0.1	40	0.5	0.02	30°	0.5°	0.5°	SDA 4…
SDM 448 092 R …	■	■		0.92	5	4	0.83	0.46	0.23	0.1	48	0.5	0.02	30°	0.5°	0.5°	SDA 4…
SDM 435 142 R …	■	■		1.42	4.5	4	1.28	0.71	0.36	0.23	35	0.75	0.02	30°	0.5°	0.5°	SDA 4…
SDM 440 142 R …	■	■		1.42	4.5	4	1.28	0.71	0.36	0.2	40	0.75	0.02	30°	0.5°	0.5°	SDA 4…
SDM 448 142 R …	■	■		1.42	7.5	4	1.28	0.71	0.36	0.2	48	0.75	0.02	30°	0.5°	0.5°	SDA 4…
SDM 435 192 R …	■	■		1.92	6	4	1.73	0.96	0.48	0.32	35	1	0.03	30°	0.5°	0.5°	SDA 4…
SDM 440 192 R …	■	■		1.92	6	4	1.73	0.96	0.48	0.3	40	1	0.02	30°	0.5°	0.5°	SDA 4…
SDM 448 192 R …	■	■		1.92	10	4	1.73	0.96	0.48	0.3	48	1	0.02	30°	0.5°	0.5°	SDA 4…
SDM 435 242 R …	■	■		2.42	7.5	4	2.18	1.21	0.61	0.4	35	1.25	0.03	30°	0.5°	0.5°	SDA 4…
SDM 440 242 R …	■	■		2.42	7.5	4	2.18	1.21	0.61	0.4	40	1.25	0.02	30°	0.5°	0.5°	SDA 4…
SDM 448 242 R …	■	■		2.42	12.5	4	2.18	1.21	0.61	0.4	48	1.25	0.02	30°	0.5°	0.5°	SDA 4…
SDM 440 292 R …	■	■		2.92	9	4	2.63	1.46	0.73	0.5	40	1.5	0.02	30°	0.5°	0.5°	SDA 4…
SDM 448 292 R …	■	■		2.92	15	4	2.63	1.46	0.73	0.5	48	1.5	0.02	30°	0.5°	0.5°	SDA 4…
SDM 440 342 R …	■	■		3.42	10.5	4	3.08	1.71	0.86	0.6	40	1.75	0.02	30°	0.5°	0.5°	SDA 4…
SDM 448 342 R …	■	■		3.42	17.5	4	3.08	1.71	0.86	0.6	48	1.75	0.02	30°	0.5°	0.5°	SDA 4…
SDM 440 392 R …	■	■		3.92	12	4	3.53	1.96	0.98	0.7	40	2	0.02	30°	0.5°	0.5°	SDA 4…
SDM 448 392 R …	■	■		3.92	20	4	3.53	1.96	0.98	0.7	48	2	0.02	30°	0.5°	0.5°	SDA 4…
SDM 644 442 R …	■	■		4.42	9	6	3.98	2.21	1.11	0.7	44	2.25	0.02	30°	0.5°	0.5°	SDA 6…
SDM 656 442 R …	■	■		4.42	18	6	3.98	2.21	1.11	0.7	56	2.25	0.02	30°	0.5°	0.5°	SDA 6…
SDM 668 442 R …	■	■		4.42	27	6	3.98	2.21	1.11	0.7	68	2.25	0.02	30°	0.5°	0.5°	SDA 6…
SDM 644 492 R …	■	■		4.92	10	6	4.43	2.46	1.23	0.8	44	2.5	0.02	30°	0.5°	0.5°	SDA 6…
SDM 656 492 R …	■	■		4.92	20	6	4.43	2.46	1.23	0.8	56	2.5	0.02	30°	0.5°	0.5°	SDA 6…
SDM 668 492 R …	■	■		4.92	30	6	4.43	2.46	1.23	0.8	68	2.5	0.02	30°	0.5°	0.5°	SDA 6…
SDM 644 542 R …	■	■		5.42	11	6	4.88	2.71	1.36	0.9	44	2.75	0.02	30°	0.5°	0.5°	SDA 6…
SDM 656 542 R …	■	■		5.42	22	6	4.88	2.71	1.36	0.9	56	2.75	0.02	30°	0.5°	0.5°	SDA 6…
SDM 668 542 R …	■	■		5.42	33	6	4.88	2.71	1.36	0.9	68	2.75	0.02	30°	0.5°	0.5°	SDA 6…
SDM 644 592 R …	■	■		5.92	12	6	5.33	2.96	1.48	1	44	3	0.02	30°	0.5°	0.5°	SDA 6…
SDM 656 592 R …	■	■		5.92	24	6	5.33	2.96	1.48	1	56	3	0.02	30°	0.5°	0.5°	SDA 6…
SDM 668 592 R …	■	■		5.92	36	6	5.33	2.96	1.48	1	68	3	0.02	30°	0.5°	0.5°	SDA 6…
SDM 850 692 R …	■	■		6.92	14	8	6.23	3.46	1.73	1.2	50	3.5	0.02	30°	0.5°	0.5°	SDA 8…
SDM 866 692 R …	■	■		6.92	28	8	6.23	3.46	1.73	1.2	66	3.5	0.02	30°	0.5°	0.5°	SDA 8…
SDM 882 692 R …	■	■		6.92	42	8	6.23	3.46	1.73	1.2	82	3.5	0.02	30°	0.5°	0.5°	SDA 8…
SDM 850 792 R …	■	■		7.92	16	8	7.13	3.96	1.98	1.3	50	4	0.02	30°	0.5°	0.5°	SDA 8…
SDM 866 792 R …	■	■		7.92	32	8	7.13	3.96	1.98	1.3	66	4	0.02	30°	0.5°	0.5°	SDA 8…
SDM 882 792 R …	■	■		7.92	48	8	7.13	3.96	1.98	1.3	82	4	0.02	30°	0.5°	0.5°	SDA 8…

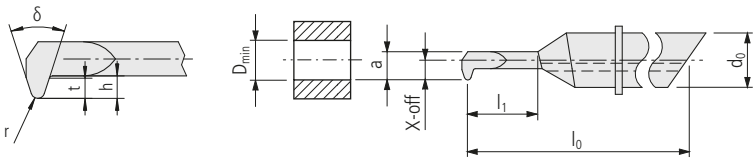
* Left execution and other coatings on demand



Turning

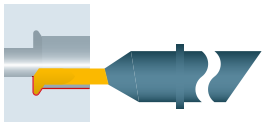


SDO …



Order designation	Carbide		Dimensions										Holder
	○ ○ ○ ●	● ● ● ○											▯352…
R *	UHM 20	UHM 20 HX	D_{min}	l_1	d_0	a	X-off	h	t	l_0	r	δ	
PREMIUM-LINE			Accuracy class of UTILIS ▯330										
SDO 435 092 R …	■	■	0.92	3	4	0.83	0.46	0.31	0.23	35	0.05	59°	SDA 4…
SDO 440 092 R …	■	■	0.92	3	4	0.83	0.46	0.31	0.2	40	0.05	59°	SDA 4…
SDO 448 092 R …	■	■	0.92	5	4	0.83	0.46	0.31	0.2	48	0.05	59°	SDA 4…
SDO 435 142 R …	■	■	1.42	4.5	4	1.28	0.71	0.47	0.36	35	0.05	59°	SDA 4…
SDO 440 142 R …	■	■	1.42	4.5	4	1.28	0.71	0.47	0.4	40	0.075	59°	SDA 4…
SDO 448 142 R …	■	■	1.42	7.5	4	1.28	0.71	0.47	0.4	48	0.075	59°	SDA 4…
SDO 435 192 R …	■	■	1.92	6	4	1.73	0.96	0.64	0.48	35	0.05	59°	SDA 4…
SDO 440 192 R …	■	■	1.92	6	4	1.73	0.96	0.64	0.5	40	0.1	59°	SDA 4…
SDO 448 192 R …	■	■	1.92	10	4	1.73	0.96	0.64	0.5	48	0.1	59°	SDA 4…
SDO 435 242 R …	■	■	2.42	7.5	4	2.18	1.21	0.81	0.61	35	0.05	59°	SDA 4…
SDO 440 242 R …	■	■	2.42	7.5	4	2.18	1.21	0.81	0.6	40	0.125	59°	SDA 4…
SDO 448 242 R …	■	■	2.42	12.5	4	2.18	1.21	0.81	0.6	48	0.125	59°	SDA 4…
SDO 440 292 R …	■	■	2.92	9	4	2.63	1.46	0.97	0.7	40	0.15	59°	SDA 4…
SDO 448 292 R …	■	■	2.92	15	4	2.63	1.46	0.97	0.7	48	0.15	59°	SDA 4…
SDO 440 342 R …	■	■	3.42	10.5	4	3.08	1.71	1.14	0.9	40	0.175	59°	SDA 4…
SDO 448 342 R …	■	■	3.42	17.5	4	3.08	1.71	1.14	0.9	48	0.175	59°	SDA 4…
SDO 440 392 R …	■	■	3.92	12	4	3.53	1.96	1.31	1	40	0.2	59°	SDA 4…
SDO 448 392 R …	■	■	3.92	20	4	3.53	1.96	1.31	1	48	0.2	59°	SDA 4…
SDO 644 442 R …	■	■	4.42	9	6	3.98	2.21	1.47	1.1	44	0.225	59°	SDA 6…
SDO 656 442 R …	■	■	4.42	18	6	3.98	2.21	1.47	1.1	56	0.225	59°	SDA 6…
SDO 668 442 R …	■	■	4.42	27	6	3.98	2.21	1.47	1.1	68	0.225	59°	SDA 6…
SDO 644 492 R …	■	■	4.92	10	6	4.43	2.46	1.64	1.2	44	0.25	59°	SDA 6…
SDO 656 492 R …	■	■	4.92	20	6	4.43	2.46	1.64	1.2	56	0.25	59°	SDA 6…
SDO 668 492 R …	■	■	4.92	30	6	4.43	2.46	1.64	1.2	68	0.25	59°	SDA 6…
SDO 644 542 R …	■	■	5.42	11	6	4.88	2.71	1.8	1.4	44	0.275	59°	SDA 6…
SDO 656 542 R …	■	■	5.42	22	6	4.88	2.71	1.8	1.4	56	0.275	59°	SDA 6…
SDO 668 542 R …	■	■	5.42	33	6	4.88	2.71	1.8	1.4	68	0.275	59°	SDA 6…
SDO 644 592 R …	■	■	5.92	12	6	5.33	2.96	1.97	1.5	44	0.3	59°	SDA 6…
SDO 656 592 R …	■	■	5.92	24	6	5.33	2.96	1.97	1.5	56	0.3	59°	SDA 6…
SDO 668 592 R …	■	■	5.92	36	6	5.33	2.96	1.97	1.5	68	0.3	59°	SDA 6…
SDO 850 692 R …	■	■	6.92	14	8	6.23	3.46	2.3	1.7	50	0.35	59°	SDA 8…
SDO 866 692 R …	■	■	6.92	28	8	6.23	3.46	2.3	1.7	66	0.35	59°	SDA 8…
SDO 882 692 R …	■	■	6.92	42	8	6.23	3.46	2.3	1.7	82	0.35	59°	SDA 8…
SDO 850 792 R …	■	■	7.92	16	8	7.13	3.96	2.64	2	50	0.4	59°	SDA 8…
SDO 866 792 R …	■	■	7.92	32	8	7.13	3.96	2.64	2	66	0.4	59°	SDA 8…
SDO 882 792 R …	■	■	7.92	48	8	7.13	3.96	2.64	2	82	0.4	59°	SDA 8…

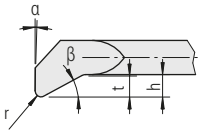
* Left execution and other coatings on demand

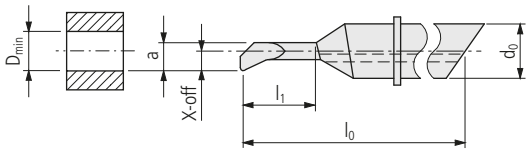


Turning

UTILIS multidec swiss type tools



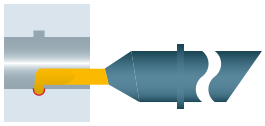




SDQ …

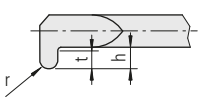
Order designation	Carbide		Dimensions											Holder
	○ ○ ○ ●	● ● ● ○												352…
R *	UHM 20	UHM 20 HX	D_{min}	l_1	d_0	a	X-off	h	t	l_0	r	α	β	
PREMIUM-LINE			Accuracy class of UTILIS 330											
SDQ 435 092 R …	■	■	0.92	1.5	4	0.83	0.46	0.31	0.23	35	0.05	0.5°	30.5°	SDA 4…
SDQ 440 092 R …	■	■	0.92	3	4	0.83	0.46	0.31	0.2	40	0.05	0.5°	30.5°	SDA 4…
SDQ 448 092 R …	■	■	0.92	5	4	0.83	0.46	0.31	0.2	48	0.05	0.5°	30.5°	SDA 4…
SDQ 435 142 R …	■	■	1.42	4.5	4	1.28	0.71	0.47	0.36	35	0.075	0.5°	30.5°	SDA 4…
SDQ 440 142 R …	■	■	1.42	4.5	4	1.28	0.71	0.47	0.4	40	0.075	0.5°	30.5°	SDA 4…
SDQ 448 142 R …	■	■	1.42	7.5	4	1.28	0.71	0.47	0.4	48	0.075	0.5°	30.5°	SDA 4…
SDQ 435 192 R …	■	■	1.92	6	4	1.73	0.96	0.64	0.48	35	0.1	0.5°	30.5°	SDA 4…
SDQ 440 192 R …	■	■	1.92	6	4	1.73	0.96	0.64	0.5	40	0.1	0.5°	30.5°	SDA 4…
SDQ 448 192 R …	■	■	1.92	10	4	1.73	0.96	0.64	0.5	48	0.1	0.5°	30.5°	SDA 4…
SDQ 435 242 R …	■	■	2.42	7.5	4	2.18	1.21	0.81	0.61	35	0.125	0.5°	30.5°	SDA 4…
SDQ 440 242 R …	■	■	2.42	7.5	4	2.18	1.21	0.81	0.6	40	0.125	0.5°	30.5°	SDA 4…
SDQ 448 242 R …	■	■	2.42	12.5	4	2.18	1.21	0.81	0.6	48	0.125	0.5°	30.5°	SDA 4…
SDQ 440 292 R …	■	■	2.92	9	4	2.63	1.46	0.97	0.7	40	0.15	0.5°	30.5°	SDA 4…
SDQ 448 292 R …	■	■	2.92	15	4	2.63	1.46	0.97	0.7	48	0.15	0.5°	30.5°	SDA 4…
SDQ 440 342 R …	■	■	3.42	10.5	4	3.08	1.71	1.14	0.9	40	0.175	0.5°	30.5°	SDA 4…
SDQ 448 342 R …	■	■	3.42	17.5	4	3.08	1.71	1.14	0.9	48	0.175	0.5°	30.5°	SDA 4…
SDQ 440 392 R …	■	■	3.92	12	4	3.53	1.96	1.31	1	40	0.2	0.5°	30.5°	SDA 4…
SDQ 448 392 R …	■	■	3.92	20	4	3.53	1.96	1.31	1	48	0.2	0.5°	30.5°	SDA 4…
SDQ 644 442 R …	■	■	4.42	9	6	3.98	2.21	1.47	1.1	44	0.225	0.5°	30.5°	SDA 6…
SDQ 656 442 R …	■	■	4.42	18	6	3.98	2.21	1.47	1.1	56	0.225	0.5°	30.5°	SDA 6…
SDQ 668 442 R …	■	■	4.42	27	6	3.98	2.21	1.47	1.1	68	0.225	0.5°	30.5°	SDA 6…
SDQ 644 492 R …	■	■	4.92	10	6	4.43	2.46	1.64	1.2	44	0.25	0.5°	30.5°	SDA 6…
SDQ 656 492 R …	■	■	4.92	20	6	4.43	2.46	1.64	1.2	56	0.25	0.5°	30.5°	SDA 6…
SDQ 668 492 R …	■	■	4.92	30	6	4.43	2.46	1.64	1.2	68	0.25	0.5°	30.5°	SDA 6…
SDQ 644 542 R …	■	■	5.42	11	6	4.88	2.71	1.8	1.4	44	0.275	0.5°	30.5°	SDA 6…
SDQ 656 542 R …	■	■	5.42	22	6	4.88	2.71	1.8	1.4	56	0.275	0.5°	30.5°	SDA 6…
SDQ 668 542 R …	■	■	5.42	33	6	4.88	2.71	1.8	1.4	68	0.275	0.5°	30.5°	SDA 6…
SDQ 644 592 R …	■	■	5.92	12	6	5.33	2.96	1.97	1.5	44	0.3	0.5°	30.5°	SDA 6…
SDQ 656 592 R …	■	■	5.92	24	6	5.33	2.96	1.97	1.5	56	0.3	0.5°	30.5°	SDA 6…
SDQ 668 592 R …	■	■	5.92	36	6	5.33	2.96	1.97	1.5	68	0.3	0.5°	30.5°	SDA 6…
SDQ 850 692 R …	■	■	6.92	14	8	6.23	3.46	2.3	1.7	50	0.35	0.5°	30.5°	SDA 8…
SDQ 866 692 R …	■	■	6.92	28	8	6.23	3.46	2.3	1.7	66	0.35	0.5°	30.5°	SDA 8…
SDQ 882 692 R …	■	■	6.92	42	8	6.23	3.46	2.3	1.7	82	0.35	0.5°	30.5°	SDA 8…
SDQ 850 792 R …	■	■	7.92	16	8	7.13	3.96	2.64	2	50	0.4	0.5°	30.5°	SDA 8…
SDQ 866 792 R …	■	■	7.92	32	8	7.13	3.96	2.64	2	66	0.4	0.5°	30.5°	SDA 8…
SDQ 882 792 R …	■	■	7.92	48	8	7.13	3.96	2.64	2	82	0.4	0.5°	30.5°	SDA 8…

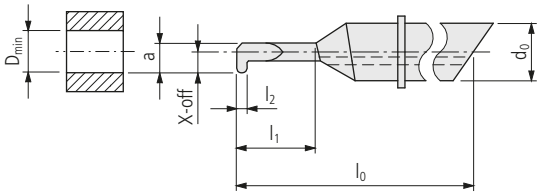
* Left execution and other coatings on demand



Radius-grooving



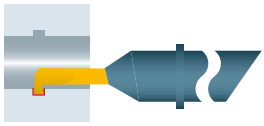




SDR …

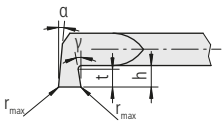
Order designation	Carbide		Dimensions										Holder
													352…
R *	UHM 20	UHM 20 HX	D_{min}	l_1	d_0	a	X-off	h	t	l_0	l_2	r	
PREMIUM-LINE			Accuracy class of UTILIS 330										
SDR 435 092 R …	■	■	0.92	3	4	0.83	0.46	0.3	0.2	35	0.2	0.1	SDA 4…
SDR 440 092 R …	■	■	0.92	5	4	0.83	0.46	0.3	0.2	40	0.2	0.1	SDA 4…
SDR 435 142 R …	■	■	1.42	4.5	4	1.28	0.71	0.38	0.25	35	0.25	0.125	SDA 4…
SDR 440 142 R …	■	■	1.42	7.5	4	1.28	0.71	0.38	0.25	40	0.25	0.125	SDA 4…
SDR 435 192 R …	■	■	1.92	6	4	1.73	0.96	0.45	0.3	35	0.3	0.15	SDA 4…
SDR 440 192 R …	■	■	1.92	10	4	1.73	0.96	0.45	0.3	40	0.3	0.15	SDA 4…
SDR 435 242 R …	■	■	2.42	7.5	4	2.18	1.21	0.53	0.35	35	0.35	0.175	SDA 4…
SDR 440 242 R …	■	■	2.42	12.5	4	2.18	1.21	0.53	0.35	40	0.35	0.175	SDA 4…
SDR 440 292 R …	■	■	2.92	9	4	2.63	1.46	0.6	0.4	40	0.4	0.2	SDA 4…
SDR 448 292 R …	■	■	2.92	15	4	2.63	1.46	0.6	0.4	48	0.4	0.2	SDA 4…
SDR 440 342 R …	■	■	3.42	10.5	4	3.08	1.71	0.68	0.45	40	0.45	0.225	SDA 4…
SDR 448 342 R …	■	■	3.42	17.5	4	3.08	1.71	0.68	0.45	48	0.45	0.225	SDA 4…
SDR 440 392 R …	■	■	3.92	12	4	3.53	1.96	0.75	0.5	40	0.5	0.25	SDA 4…
SDR 448 392 R …	■	■	3.92	20	4	3.53	1.96	0.75	0.5	48	0.5	0.25	SDA 4…
SDR 644 442 R …	■	■	4.42	9	6	3.98	2.21	0.83	0.55	44	0.55	0.275	SDA 6…
SDR 656 442 R …	■	■	4.42	18	6	3.98	2.21	0.83	0.55	56	0.55	0.275	SDA 6…
SDR 668 442 R …	■	■	4.42	27	6	3.98	2.21	0.83	0.55	68	0.55	0.275	SDA 6…
SDR 644 492 R …	■	■	4.92	10	6	4.43	2.46	0.9	0.6	44	0.6	0.3	SDA 6…
SDR 656 492 R …	■	■	4.92	20	6	4.43	2.46	0.9	0.6	56	0.6	0.3	SDA 6…
SDR 668 492 R …	■	■	4.92	30	6	4.43	2.46	0.9	0.6	68	0.6	0.3	SDA 6…
SDR 644 542 R …	■	■	5.42	11	6	4.88	2.71	0.98	0.65	44	0.65	0.325	SDA 6…
SDR 656 542 R …	■	■	5.42	22	6	4.88	2.71	0.98	0.65	56	0.65	0.325	SDA 6…
SDR 668 542 R …	■	■	5.42	33	6	4.88	2.71	0.98	0.65	68	0.65	0.325	SDA 6…
SDR 644 592 R …	■	■	5.92	12	6	5.53	2.96	1.05	0.7	44	0.7	0.35	SDA 6…
SDR 656 592 R …	■	■	5.92	24	6	5.53	2.96	1.05	0.7	56	0.7	0.35	SDA 6…
SDR 668 592 R …	■	■	5.92	36	6	5.53	2.96	1.05	0.7	68	0.7	0.35	SDA 6…

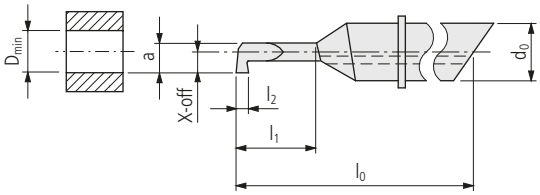
* Left execution and other coatings on demand



Grooving



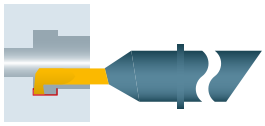




SDS …

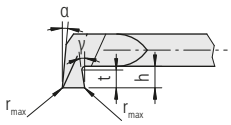
Order designation	Carbide		Dimensions												Holder
	○	●													352…
	○	●													
	○	●													
	●	○													
R *	UHM 20	UHM 20 HX	D_{min}	l_1	d_0	a	X-off	h	t	l_0	l_2	r_{max}	α	γ	
PREMIUM-LINE			Accuracy class of UTILIS 330												
SDS 435 092 R …	■	■	0.92	1.5	4	0.83	0.46	0.31	0.23	35	0.2	0.02	2°	2°	SDA 4…
SDS 440 092 R …	■	■	0.92	3	4	0.83	0.46	0.31	0.2	40	0.2	0.02	2°	2°	SDA 4…
SDS 448 092 R …	■	■	0.92	5	4	0.83	0.46	0.31	0.2	48	0.2	0.02	2°	2°	SDA 4…
SDS 435 142 R …	■	■	1.42	4.5	4	1.28	0.71	0.47	0.36	35	0.25	0.02	2°	2°	SDA 4…
SDS 440 142 R …	■	■	1.42	4.5	4	1.28	0.71	0.47	0.4	40	0.25	0.02	2°	2°	SDA 4…
SDS 448 142 R …	■	■	1.42	7.5	4	1.28	0.71	0.47	0.4	48	0.25	0.02	2°	2°	SDA 4…
SDS 435 192 R …	■	■	1.92	6	4	1.73	0.96	0.64	0.48	35	0.3	0.02	2°	2°	SDA 4…
SDS 440 192 R …	■	■	1.92	6	4	1.73	0.96	0.64	0.5	40	0.3	0.02	2°	2°	SDA 4…
SDS 448 192 R …	■	■	1.92	10	4	1.73	0.96	0.64	0.5	48	0.3	0.02	2°	2°	SDA 4…
SDS 435 242 R …	■	■	2.42	7.5	4	2.18	1.21	0.81	0.61	35	0.35	0.02	2°	2°	SDA 4…
SDS 440 242 R …	■	■	2.42	7.5	4	2.18	1.21	0.81	0.6	40	0.35	0.02	2°	2°	SDA 4…
SDS 448 242 R …	■	■	2.42	12.5	4	2.18	1.21	0.81	0.6	48	0.35	0.02	2°	2°	SDA 4…
SDS 440 292 R …	■	■	2.92	9	4	2.63	1.46	0.97	0.7	40	0.4	0.02	2°	2°	SDA 4…
SDS 448 292 R …	■	■	2.92	15	4	2.63	1.46	0.97	0.7	48	0.4	0.02	2°	2°	SDA 4…
SDS 440 342 R …	■	■	3.42	10.5	4	3.08	1.71	1.14	0.9	40	0.45	0.02	2°	2°	SDA 4…
SDS 448 342 R …	■	■	3.42	17.5	4	3.08	1.71	1.14	0.9	48	0.45	0.02	2°	2°	SDA 4…
SDS 440 392 R …	■	■	3.92	12	4	3.53	1.96	1.31	1	40	0.5	0.02	2°	2°	SDA 4…
SDS 448 392 R …	■	■	3.92	20	4	3.53	1.96	1.31	1	48	0.5	0.02	2°	2°	SDA 4…
SDS 644 442 R …	■	■	4.42	9	6	3.98	2.21	1.47	1.1	44	1	0.02	2°	2°	SDA 6…
SDS 656 442 R …	■	■	4.42	18	6	3.98	2.21	1.47	1.1	56	1	0.02	2°	2°	SDA 6…
SDS 668 442 R …	■	■	4.42	27	6	3.98	2.21	1.47	1.1	68	1	0.02	2°	2°	SDA 6…
SDS 644 492 R …	■	■	4.92	10	6	4.43	2.46	1.64	1.2	44	1.5	0.02	2°	2°	SDA 6…
SDS 656 492 R …	■	■	4.92	20	6	4.43	2.46	1.64	1.2	56	1.5	0.02	2°	2°	SDA 6…
SDS 668 492 R …	■	■	4.92	30	6	4.43	2.46	1.64	1.2	68	1.5	0.02	2°	2°	SDA 6…
SDS 644 542 R …	■	■	5.42	11	6	4.88	2.71	1.8	1.4	44	1	0.02	2°	2°	SDA 6…
SDS 656 542 R …	■	■	5.42	22	6	4.88	2.71	1.8	1.4	56	1	0.02	2°	2°	SDA 6…
SDS 668 542 R …	■	■	5.42	33	6	4.88	2.71	1.8	1.4	68	1	0.02	2°	2°	SDA 6…
SDS 644 592 R …	■	■	5.92	12	6	5.33	2.96	1.97	1.5	44	1.5	0.02	2°	2°	SDA 6…
SDS 656 592 R …	■	■	5.92	24	6	5.33	2.96	1.97	1.5	56	1.5	0.02	2°	2°	SDA 6…
SDS 668 592 R …	■	■	5.92	36	6	5.33	2.96	1.97	1.5	68	1.5	0.02	2°	2°	SDA 6…
SDS 850 692 R …	■	■	6.92	14	8	6.23	3.46	2.3	1.7	50	1.5	0.02	2°	2°	SDA 8…
SDS 866 692 R …	■	■	6.92	28	8	6.23	3.46	2.3	1.7	66	1.5	0.02	2°	2°	SDA 8…
SDS 882 692 R …	■	■	6.92	42	8	6.23	3.46	2.3	1.7	82	1.5	0.02	2°	2°	SDA 8…
SDS 850 792 R …	■	■	7.92	16	8	7.13	3.96	2.64	2	50	2	0.02	2°	2°	SDA 8…
SDS 866 792 R …	■	■	7.92	32	8	7.13	3.96	2.64	2	66	2	0.02	2°	2°	SDA 8…
SDS 882 792 R …	■	■	7.92	48	8	7.13	3.96	2.64	2	82	2	0.02	2°	2°	SDA 8…

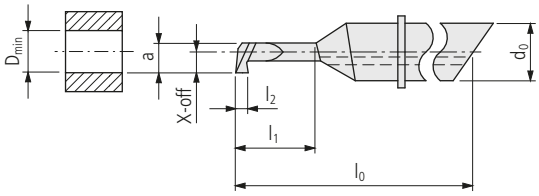
* Left execution and other coatings on demand



Grooving and turning



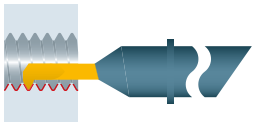




SDT …

Order designation	Carbide		Dimensions													Holder
	○ ○ ○ ●	● ● ● ○														352…
R *	UHM 20	UHM 20 HX	D_{min}	l_1	d_0	a	X-off	h	t	l_0	l_2	r_{max}	α	γ		
PREMIUM-LINE			Accuracy class of UTILIS 330													
SDT 440 392 R …	■	■	3.92	12	4	3.53	1.96	1.31	1	40	1	0.02	0°	1.5°		SDA 4…
SDT 448 392 R …	■	■	3.92	20	4	3.53	1.96	1.31	1	48	1	0.02	0°	1.5°		SDA 4…
SDT 644 592 R …	■	■	5.92	12	6	5.33	2.96	1.97	1.5	44	1.25	0.02	0°	1.5°		SDA 6…
SDT 656 592 R …	■	■	5.92	24	6	5.33	2.96	1.97	1.5	56	1.25	0.02	0°	1.5°		SDA 6…
SDT 668 592 R …	■	■	5.92	36	6	5.33	2.96	1.97	1.5	68	1.25	0.02	0°	1.5°		SDA 6…
SDT 850 792 R …	■	■	7.92	16	8	7.13	3.96	2.64	2	50	1.5	0.02	0°	1.5°		SDA 8…
SDT 866 792 R …	■	■	7.92	32	8	7.13	3.96	2.64	2	66	1.5	0.02	0°	1.5°		SDA 8…
SDT 882 792 R …	■	■	7.92	48	8	7.13	3.96	2.64	2	82	1.5	0.02	0°	1.5°		SDA 8…

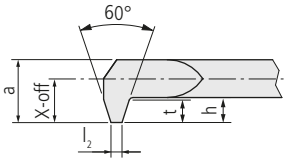
* Left execution and other coatings on demand

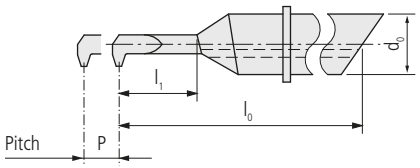


Threading (partial profile 60°)

UTILIS multidec swiss type tools





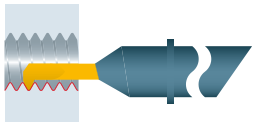


SDU …

Order designation	Carbide 19		Standard	Dimensions									Holder
	○ ●	● ●											352…
	○ ○	● ●											
	○ ●	● ○											
R *	UHM 20	UHM 20 HX	ISO DIN13	P	l_1	d_0	a	X-off	h	t	l_0	l_2	
PREMIUM-LINE				Accuracy class of UTILIS 330									
SDU 435 160 R …	■	■	M1.6–M2	0.35–0.4	3	4	1.1	0.8	0.5	0.35	35	0.02	SDA 4…
SDU 440 160 R …	■	■	M1.6–M2	0.35–0.4	4.8	4	1.1	0.8	0.5	0.35	40	0.02	SDA 4…
SDU 435 200 R …	■	■	M2–M3	0.4–0.5	4.5	4	1.3	1	0.6	0.45	35	0.03	SDA 4…
SDU 440 200 R …	■	■	M2–M3	0.4–0.5	6	4	1.3	1	0.6	0.45	40	0.03	SDA 4…
SDU 435 300 R …	■	■	M3–M4	0.5–0.7	6	4	2	1.5	0.9	0.6	35	0.04	SDA 4…
SDU 440 300 R …	■	■	M3–M4	0.5–0.7	9	4	2	1.5	0.9	0.6	40	0.04	SDA 4…
SDU 435 400 R …	■	■	M4–M5	0.7–0.8	7.5	4	2.7	2	1.2	0.8	35	0.05	SDA 4…
SDU 440 400 R …	■	■	M4–M5	0.7–0.8	12	4	2.7	2	1.2	0.8	40	0.05	SDA 4…
SDU 656 500 R …	■	■	M5–M6	0.8–1	15	6	3.8	2.05	1.2	0.9	56	0.06	SDA 6…
SDU 656 600 R …	■	■	M6–M7	1	18	6	4.6	2.45	1.2	0.9	56	0.07	SDA 6…
SDU 656 700 R …	■	■	M7–M8	1–1.25	21	6	5.6	2.95	1.4	1.1	56	0.08	SDA 6…

* Left execution and other coatings on demand

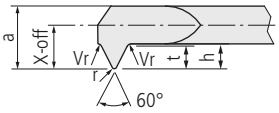
Application recommendation for number of passes at threading 164

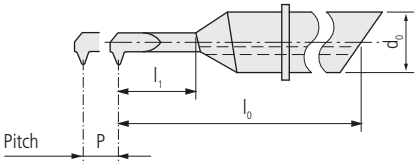


Threading (full profile metric)



SDV …

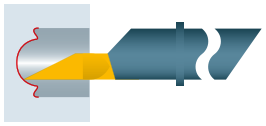




Order designation	Carbide		Standard	Dimensions										Holder
	○ ○ ○ ●	● ● ● ○												352…
R *	UHM 20	UHM 20 HX	ISO DIN13	P	l_1	d_0	a	X-off	h	t	l_0	r	Vr	
PREMIUM-LINE				Accuracy class of UTILIS 330										
SDV 435 100 R …	■	■	M1	0.25	3	4	0.6	0.5	0.2	0.162	35	0.02	0.04	SDA 4…
SDV 440 100 R …	■	■	M1	0.25	5	4	0.6	0.5	0.2	0.162	40	0.02	0.04	SDA 4…
SDV 435 120 R …	■	■	M1.2	0.25	3.6	4	0.76	0.6	0.2	0.162	35	0.02	0.04	SDA 4…
SDV 440 120 R …	■	■	M1.2	0.25	6	4	0.76	0.6	0.2	0.162	40	0.02	0.04	SDA 4…
SDV 435 140 R …	■	■	M1.4	0.3	4.2	4	0.92	0.7	0.23	0.194	35	0.02	0.05	SDA 4…
SDV 440 140 R …	■	■	M1.4	0.3	7	4	0.92	0.7	0.23	0.194	40	0.02	0.05	SDA 4…
SDV 435 160 R …	■	■	M1.6	0.35	4.8	4	1.08	0.8	0.26	0.227	35	0.03	0.05	SDA 4…
SDV 440 160 R …	■	■	M1.6	0.35	8	4	1.08	0.8	0.26	0.227	40	0.03	0.05	SDA 4…
SDV 435 180 R …	■	■	M1.8	0.35	5.4	4	1.24	0.9	0.26	0.227	35	0.03	0.05	SDA 4…
SDV 440 180 R …	■	■	M1.8	0.35	9	4	1.24	0.9	0.26	0.227	40	0.03	0.05	SDA 4…
SDV 435 200 R …	■	■	M2	0.4	6	4	1.4	1	0.3	0.258	35	0.03	0.05	SDA 4…
SDV 440 200 R …	■	■	M2	0.4	10	4	1.4	1	0.3	0.258	40	0.03	0.05	SDA 4…
SDV 435 220 R …	■	■	M2.2	0.45	6.6	4	1.56	1.1	0.33	0.287	35	0.03	0.05	SDA 4…
SDV 440 220 R …	■	■	M2.2	0.45	11	4	1.56	1.1	0.33	0.287	40	0.03	0.05	SDA 4…
SDV 435 250 R …	■	■	M2.5	0.45	7.5	4	1.8	1.25	0.33	0.287	35	0.03	0.05	SDA 4…
SDV 440 250 R …	■	■	M2.5	0.45	12.5	4	1.8	1.25	0.33	0.287	40	0.03	0.05	SDA 4…
SDV 440 300 R …	■	■	M3	0.5	9	4	2.2	1.5	0.37	0.316	40	0.04	0.06	SDA 4…
SDV 448 300 R …	■	■	M3	0.5	15	4	2.2	1.5	0.37	0.316	48	0.04	0.06	SDA 4…
SDV 440 350 R …	■	■	M3.5	0.6	10.5	4	2.6	1.75	0.43	0.374	40	0.04	0.06	SDA 4…
SDV 448 350 R …	■	■	M3.5	0.6	17.5	4	2.6	1.75	0.43	0.374	48	0.04	0.06	SDA 4…
SDV 440 400 R …	■	■	M4	0.7	12	4	3	2	0.5	0.432	40	0.05	0.06	SDA 4…
SDV 448 400 R …	■	■	M4	0.7	20	4	3	2	0.5	0.432	48	0.05	0.06	SDA 4…
SDV 644 500 R …	■	■	M5	0.8	10	6	3.8	2.5	0.57	0.5	44	0.05	0.07	SDA 6…
SDV 656 500 R …	■	■	M5	0.8	20	6	3.8	2.5	0.57	0.5	56	0.05	0.07	SDA 6…
SDV 668 500 R …	■	■	M5	0.8	30	6	3.8	2.5	0.57	0.5	68	0.05	0.07	SDA 6…
SDV 644 600 R …	■	■	M6/7	1	12	6	4.6	3	0.7	0.62	44	0.05	0.08	SDA 6…
SDV 668 600 R …	■	■	M6/7	1	36	6	4.6	3	0.7	0.62	68	0.05	0.08	SDA 6…
SDV 656 600 R …	■	■	M6/M7	1	24	6	4.6	3	0.7	0.62	56	0.05	0.08	SDA 6…
SDV 644 800 R …	■	■	M8	1.25	12	6	5.62	3	0.86	0.78	44	0.05	0.09	SDA 6…
SDV 656 800 R …	■	■	M8	1.25	24	6	5.62	3	0.86	0.78	56	0.05	0.09	SDA 6…
SDV 668 800 R …	■	■	M8	1.25	36	6	5.62	3	0.86	0.78	68	0.05	0.09	SDA 6…

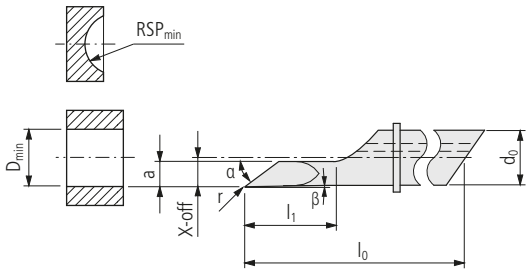
* Left execution and other coatings on demand

Application recommendation for number of passes at threading 164



Copy turning (axial)

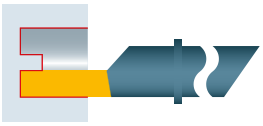




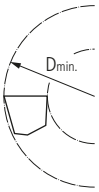
SXJ …

Order designation	Carbide		Dimensions										Holder
	○	●											352…
	○	●											
	○	●											
	●	○											
R *	UHM 20	UHM 20 HX	D$_{min}$	l$_1$	d$_0$	a	X-off	RSP$_{min}$	r	l$_0$	α	β	
PREMIUM-LINE			Accuracy class of UTILIS 330										
SXJ 435 042 R …	■	■	0.42	1.5	4	0.19	0.13	0.45	0.08	35	30°	1.5°	SDA 4…
SXJ 435 092 R …	■	■	0.92	3	4	0.41	0.38	0.95	0.08	35	30°	1.5°	SDA 4…
SXJ 440 092 R …	■	■	0.92	5	4	0.41	0.38	0.95	0.08	40	30°	1.5°	SDA 4…
SXJ 435 142 R …	■	■	1.42	4.5	4	0.64	0.63	1.45	0.08	35	30°	1.5°	SDA 4…
SXJ 440 142 R …	■	■	1.42	7.5	4	0.64	0.63	1.45	0.08	40	30°	1.5°	SDA 4…
SXJ 435 192 R …	■	■	1.92	6	4	0.86	0.88	1.95	0.08	35	30°	1.5°	SDA 4…
SXJ 440 192 R …	■	■	1.92	10	4	0.86	0.88	1.95	0.08	40	30°	1.5°	SDA 4…
SXJ 435 242 R …	■	■	2.42	7.5	4	1.09	1.13	2.45	0.08	35	30°	1.5°	SDA 4…
SXJ 440 242 R …	■	■	2.42	12.5	4	1.09	1.13	2.45	0.08	40	30°	1.5°	SDA 4…
SXJ 440 292 R …	■	■	2.92	9	4	1.31	1.38	2.95	0.08	40	30°	1.5°	SDA 4…
SXJ 448 292 R …	■	■	2.92	15	4	1.31	1.38	2.95	0.08	48	30°	1.5°	SDA 4…
SXJ 440 342 R …	■	■	3.42	10.5	4	1.54	1.63	3.45	0.08	40	30°	1.5°	SDA 4…
SXJ 448 342 R…	■	■	3.42	17.5	4	1.54	1.63	3.45	0.08	48	30°	1.5°	SDA 4…
SXJ 440 392 R …	■	■	3.92	12	4	1.76	1.88	3.95	0.08	40	30°	1.5°	SDA 4…
SXJ 448 392 R …	■	■	3.92	20	4	1.76	1.88	3.95	0.08	48	30°	1.5°	SDA 4…
SXJ 644 442 R …	■	■	4.42	9	6	1.99	2.09	4.45	0.12	44	30°	1.5°	SDA 6…
SXJ 656 442 R …	■	■	4.42	18	6	1.99	2.09	4.45	0.12	56	30°	1.5°	SDA 6…
SXJ 668 442 R …	■	■	4.42	27	6	1.99	2.09	4.45	0.12	68	30°	1.5°	SDA 6…
SXJ 644 492 R …	■	■	4.92	10	6	2.21	2.34	4.95	0.12	44	30°	1.5°	SDA 6…
SXJ 656 492 R …	■	■	4.92	20	6	2.21	2.34	4.95	0.12	56	30°	1.5°	SDA 6…
SXJ 668 492 R …	■	■	4.92	30	6	2.21	2.34	4.95	0.12	68	30°	1.5°	SDA 6…
SXJ 644 542 R …	■	■	5.42	11	6	2.44	2.59	5.45	0.12	44	30°	1.5°	SDA 6…
SXJ 656 542 R …	■	■	5.42	22	6	2.44	2.59	5.45	0.12	56	30°	1.5°	SDA 6…
SXJ 668 542 R …	■	■	5.42	33	6	2.44	2.59	5.45	0.12	68	30°	1.5°	SDA 6…
SXJ 644 592 R …	■	■	5.92	12	6	2.66	2.84	5.95	0.12	44	30°	1.5°	SDA 6…
SXJ 656 592 R …	■	■	5.92	24	6	2.66	2.84	5.95	0.12	56	30°	1.5°	SDA 6…
SXJ 668 592 R …	■	■	5.92	36	6	2.66	2.84	5.95	0.12	68	30°	1.5°	SDA 6…
SXJ 850 692 R …	■	■	6.92	14	8	3.11	3.3	6.95	0.16	50	30°	1.5°	SDA 8…
SXJ 866 692 R …	■	■	6.92	28	8	3.11	3.3	6.95	0.16	66	30°	1.5°	SDA 8…
SXJ 882 692 R …	■	■	6.92	42	8	3.11	3.3	6.95	0.16	82	30°	1.5°	SDA 8…
SXJ 850 792 R …	■	■	7.92	16	8	3.56	3.8	7.95	0.16	50	30°	1.5°	SDA 8…
SXJ 866 792 R …	■	■	7.92	32	8	3.56	3.8	7.95	0.16	66	30°	1.5°	SDA 8…
SXJ 882 792 R …	■	■	7.92	48	8	3.56	3.8	7.95	0.16	82	30°	1.5°	SDA 8…

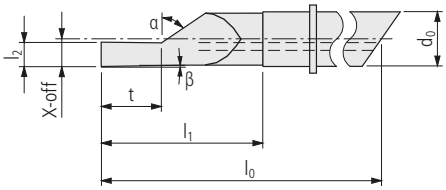
* Left execution and other coatings on demand



Grooving (axial)







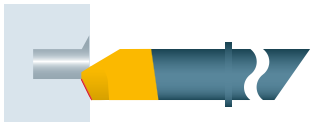
SXP …

Order designation	Carbide ▯19		Dimensions										Holder
	○ ●	●											▯352…
	○ ●	●											
	○ ●	●											
	●	○											
R *	UHM 20	UHM 20 HX	D_{min}	l_1	d_0	l_2	X-off	t	l_0	α	β		
PREMIUM-LINE			Accuracy class of UTILIS ▯330										
SXP 435 142 R …	■	■	1.42	4.5	4	0.35	0.71	0.8	35	45°	1.5°		SDA 4…
SXP 440 142 R …	■	■	1.42	7.5	4	0.35	0.71	0.8	40	45°	1.5°		SDA 4…
SXP 435 192 R …	■	■	1.92	6	4	0.35	0.96	0.8	35	45°	1.5°		SDA 4…
SXP 440 192 R …	■	■	1.92	10	4	0.35	0.96	0.8	40	45°	1.5°		SDA 4…
SXP 435 242 R …	■	■	2.42	7.5	4	0.35	1.21	0.8	35	45°	1.5°		SDA 4…
SXP 440 242 R …	■	■	2.42	12.5	4	0.35	1.21	0.8	40	45°	1.5°		SDA 4…
SXP 440 292 R …	■	■	2.92	9	4	0.35	1.46	0.8	40	45°	1.5°		SDA 4…
SXP 448 292 R …	■	■	2.92	15	4	0.35	1.46	0.8	48	45°	1.5°		SDA 4…
SXP 440 342 R …	■	■	3.42	10.5	4	0.35	1.71	0.8	40	45°	1.5°		SDA 4…
SXP 448 342 R …	■	■	3.42	17.5	4	0.35	1.71	0.8	48	45°	1.5°		SDA 4…
SXP 440 392 R …	■	■	3.92	12	4	0.35	1.96	0.8	40	45°	1.5°		SDA 4…
SXP 448 392 R …	■	■	3.92	20	4	0.35	1.96	0.8	48	45°	1.5°		SDA 4…
SXP 644 442 R …	■	■	4.42	9	6	0.5	2.21	1.2	44	45°	1.5°		SDA 6…
SXP 656 442 R …	■	■	4.42	18	6	0.5	2.21	1.2	56	45°	1.5°		SDA 6…
SXP 668 442 R …	■	■	4.42	27	6	0.5	2.21	1.2	68	45°	1.5°		SDA 6…
SXP 644 492 R …	■	■	4.92	10	6	0.5	2.46	1.2	44	45°	1.5°		SDA 6…
SXP 656 492 R …	■	■	4.92	20	6	0.5	2.46	1.2	56	45°	1.5°		SDA 6…
SXP 668 492 R …	■	■	4.92	30	6	0.5	2.46	1.2	68	45°	1.5°		SDA 6…
SXP 644 542 R …	■	■	5.42	11	6	0.5	2.71	1.2	44	45°	1.5°		SDA 6…
SXP 656 542 R …	■	■	5.42	22	6	0.5	2.71	1.2	56	45°	1.5°		SDA 6…
SXP 668 542 R …	■	■	5.42	33	6	0.5	2.71	1.2	68	45°	1.5°		SDA 6…
SXP 644 592 R …	■	■	5.92	12	6	0.5	2.96	1.2	44	45°	1.5°		SDA 6…
SXP 656 592 R …	■	■	5.92	24	6	0.5	2.96	1.2	56	45°	1.5°		SDA 6…
SXP 668 592 R …	■	■	5.92	36	6	0.5	2.96	1.2	68	45°	1.5°		SDA 6…
SXP 850 692 R …	■	■	6.92	14	8	0.75	3.46	1.6	50	45°	1.5°		SDA 8…
SXP 866 692 R …	■	■	6.92	28	8	0.75	3.46	1.6	66	45°	1.5°		SDA 8…
SXP 882 692 R …	■	■	6.92	42	8	0.75	3.46	1.6	82	45°	1.5°		SDA 8…
SXP 850 792 R …	■	■	7.92	16	8	0.75	3.96	1.6	50	45°	1.5°		SDA 8…
SXP 866 792 R …	■	■	7.92	32	8	0.75	3.96	1.6	66	45°	1.5°		SDA 8…
SXP 882 792 R …	■	■	7.92	48	8	0.75	3.96	1.6	82	45°	1.5°		SDA 8…

* Left execution and other coatings on demand

Pay attention to the "working situations" for the correct selection of the combinations of tools and inserts ▯28

Attention
The groove must not be made underneath the D_{min}-position.

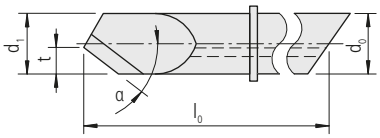


Chamfering

UTILIS multidec swiss type tools

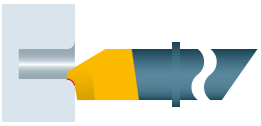


SDY …



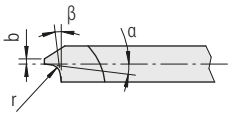
Order designation	Carbide		Dimensions						Holder
	○	●							352…
	○	●							
	○	●							
	●	○							
R *	UHM 20	UHM 20 HX	d_0	d_1	t	l_0	α		
PREMIUM-LINE			Accuracy class of UTILIS 330						
SDY 440 400-30 R …	■	■	4	4	1.75	40	30°		SDA 4…
SDY 440 400-45 R …	■	■	4	4	1.75	40	45°		SDA 4…
SDY 440 400-60 R …	■	■	4	4	1.75	40	60°		SDA 4…
SDY 644 600-30 R …	■	■	6	6	2.75	44	30°		SDA 6…
SDY 644 600-45 R …	■	■	6	6	2.75	44	45°		SDA 6…
SDY 644 600-60 R …	■	■	6	6	2.75	44	60°		SDA 6…

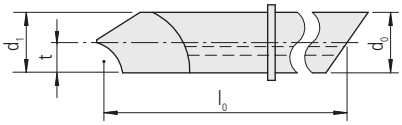
* Left execution and other coatings on demand



Radius





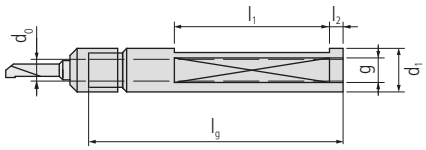


SDZ …

Order designation	Carbide		Dimensions													Holder
	○	●														352…
	○	●														
	○	●														
	●	○														
R *	UHM 20	UHM 20 HX	d_0	d_1	b	t	l_0	r	α	β						
PREMIUM-LINE			Accuracy class of UTILIS 330													
SDZ 440 400-03 R …	■	■	4	4	0.4	1.75	40	0.3	7°	7°						SDA 4…
SDZ 440 400-05 R …	■	■	4	4	0.4	1.75	40	0.5	7°	7°						SDA 4…
SDZ 440 400-10 R …	■	■	4	4	0.4	1.75	40	1	7°	7°						SDA 4…
SDZ 644 600-05 R …	■	■	6	6	0.6	2.75	44	0.5	7°	7°						SDA 6…
SDZ 644 600-10 R …	■	■	6	6	0.6	2.75	44	1.	7°	7°						SDA 6…
SDZ 644 600-15 R …	■	■	6	6	0.6	2.75	44	1.5	7°	7°						SDA 6…

* Left execution and other coatings on demand





SDA …

Order designation		Dimensions										Inserts
N		d_0	d_1	l_g	l_1	l_2	g					331…
PREMIUM-LINE						Accuracy class of UTILIS 330 – +						
SDA 4 060 07	■	4	7	60	–	–	M5					SD.4… / SX.4…
SDA 4 060 08	■	4	8	60	27	5	M5					SD.4… / SX.4…
SDA 4 100 08	■	4	8	100	59	5	R 1/8"					SD.4… / SX.4…
SDA 4 060 10	■	4	10	60	27	5	M5					SD.4… / SX.4…
SDA 4 100 10	■	4	10	100	59	5	R 1/8"					SD.4… / SX.4…
SDA 4 060 12	■	4	12	60	27	5	R 1/8"					SD.4… / SX.4…
SDA 4 120 12	■	4	12	120	75	5	R 1/8"					SD.4… / SX.4…
SDA 4 060 12.7	■	4	12.7	60	27	5	R 1/8"					SD.4… / SX.4…
SDA 4 120 12.7	■	4	12.7	120	75	5	R 1/8"					SD.4… / SX.4…
SDA 4 060 14	■	4	14	60	27	5	R 1/8"					SD.4… / SX.4…
SDA 4 120 14	■	4	14	120	75	5	R 1/8"					SD.4… / SX.4…
SDA 4 060 16	■	4	16	60	27	5	R 1/8"					SD.4… / SX.4…
SDA 4 120 16	■	4	16	120	75	5	R 1/8"					SD.4… / SX.4…
SDA 4 060 18	■	4	18	60	27	5	R 1/8"					SD.4… / SX.4…
SDA 4 120 18	■	4	18	120	75	5	R 1/8"					SD.4… / SX.4…
SDA 4 060 19.05	■	4	19.05	60	27	5	R 1/8"					SD.4… / SX.4…
SDA 4 120 19.05	■	4	19.05	120	75	5	R 1/8"					SD.4… / SX.4…
SDA 4 060 20	■	4	20	60	27	5	R 1/8"					SD.4… / SX.4…
SDA 4 120 20	■	4	20	120	75	5	R 1/8"					SD.4… / SX.4…
SDA 4 175 20	■	4	20	175	–	–	R 1/8"					SD.4… / SX.4…
SDA 4 060 22	■	4	22	60	27	5	R 1/8"					SD.4… / SX.4…
SDA 4 120 22	■	4	22	120	75	5	R 1/8"					SD.4… / SX.4…
SDA 4 060 25	■	4	25	60	27	5	R 1/8"					SD.4… / SX.4…
SDA 4 120 25	■	4	25	120	75	5	R 1/8"					SD.4… / SX.4…
SDA 4 060 25.4	■	4	25.4	60	27	5	R 1/8"					SD.4… / SX.4…
SDA 4 120 25.4	■	4	25.4	120	75	5	R 1/8"					SD.4… / SX.4…
SDA 4 060 28	■	4	28	60	27	5	R 1/8"					SD.4… / SX.4…
SDA 4 120 28	■	4	28	120	75	5	R 1/8"					SD.4… / SX.4…
SDA 6 065 12	■	6	12	65	27	5	R 1/8"					SD.6… / SX.6…
SDA 6 100 12	■	6	12	100	59	5	R 1/8"					SD.6… / SX.6…
SDA 6 065 12.7	■	6	12.7	65	27	5	R 1/8"					SD.6… / SX.6…
SDA 6 120 12.7	■	6	12.7	120	75	5	R 1/8"					SD.6… / SX.6…
SDA 6 065 14	■	6	14	65	27	5	R 1/8"					SD.6… / SX.6…
SDA 6 120 14	■	6	14	120	75	5	R 1/8"					SD.6… / SX.6…
SDA 6 065 16	■	6	16	65	27	5	R 1/8"					SD.6… / SX.6…
SDA 6 120 16	■	6	16	120	75	5	R 1/8"					SD.6… / SX.6…
SDA 6 065 18	■	6	18	65	27	5	R 1/8"					SD.6… / SX.6…
SDA 6 120 18	■	6	18	120	75	5	R 1/8"					SD.6… / SX.6…
SDA 6 065 19.05	■	6	19.05	65	27	5	R 1/8"					SD.6… / SX.6…
SDA 6 120 19.05	■	6	19.05	120	75	5	R 1/8"					SD.6… / SX.6…
SDA 6 065 20	■	6	20	65	27	5	R 1/8"					SD.6… / SX.6…
SDA 6 120 20	■	6	20	120	75	5	R 1/8"					SD.6… / SX.6…

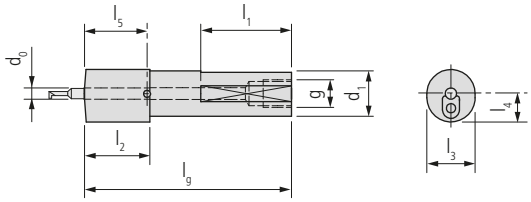
Continuation

SDA …

Order designation		Dimensions										Inserts
N		d_0	d_1	l_g	l_1	l_2	g					331…
PREMIUM-LINE		Accuracy class of UTILIS 330										
SDA 6 065 22	■	6	22	65	27	5	R 1/8"					SD.6… / SX.6…
SDA 6 120 22	■	6	22	120	75	5	R 1/8"					SD.6… / SX.6…
SDA 6 065 25	■	6	25	65	27	5	R 1/8"					SD.6… / SX.6…
SDA 6 120 25	■	6	25	120	75	5	R 1/8"					SD.6… / SX.6…
SDA 6 065 25.4	■	6	25.4	65	27	5	R 1/8"					SD.6… / SX.6…
SDA 6 120 25.4	■	6	25.4	120	75	5	R 1/8"					SD.6… / SX.6…
SDA 6 065 28	■	6	28	65	27	5	R 1/8"					SD.6… / SX.6…
SDA 6 120 28	■	6	28	120	75	5	R 1/8"					SD.6… / SX.6…
SDA 8 070 14	■	8	14	70	27	5	R 1/8"					SD.8… / SX.8…
SDA 8 100 14	■	8	14	100	59	5	R 1/8"					SD.8… / SX.8…
SDA 8 070 16	■	8	16	70	27	5	R 1/8"					SD.8… / SX.8…
SDA 8 120 16	■	8	16	120	75	5	R 1/8"					SD.8… / SX.8…
SDA 8 120 18	■	8	18	120	75	5	R 1/8"					SD.8… / SX.8…
SDA 8 070 19.05	■	8	19.05	70	27	5	R 1/8"					SD.8… / SX.8…
SDA 8 120 19.05	■	8	19.05	120	75	5	R 1/8"					SD.8… / SX.8…
SDA 8 070 20	■	8	20	70	27	5	R 1/8"					SD.8… / SX.8…
SDA 8 120 20	■	8	20	120	75	5	R 1/8"					SD.8… / SX.8…
SDA 8 070 22	■	8	22	70	27	5	R 1/8"					SD.8… / SX.8…
SDA 8 120 22	■	8	22	120	75	5	R 1/8"					SD.8… / SX.8…
SDA 8 070 25	■	8	25	70	27	5	R 1/8"					SD.8… / SX.8…
SDA 8 120 25	■	8	25	120	75	5	R 1/8"					SD.8… / SX.8…
SDA 8 070 25.4	■	8	25.4	70	27	5	R 1/8"					SD.8… / SX.8…
SDA 8 120 25.4	■	8	25.4	120	75	5	R 1/8"					SD.8… / SX.8…
SDA 8 070 28	■	8	28	70	27	5	R 1/8"					SD.8… / SX.8…
SDA 8 120 28	■	8	28	120	75	5	R 1/8"					SD.8… / SX.8…

Reduction sleeve 671



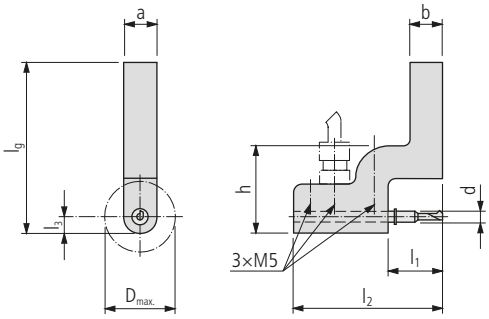


SDA … SC

Order designation		Dimensions										Inserts
N		d_0	d_1	l_g	l_1	l_2	l_3	l_4	l_5	g		331…
PREMIUM-LINE		Accuracy class of UTILIS 330										
SDA 4 073 050 07 SC	■	4	7	73	32	23	9	10	22.5	M5		SD.4… / SX.4…
SDA 4 073 050 08 SC	■	4	8	73	32	23	9	10	22.5	M5		SD.4… / SX.4…
SDA 4 073 050 10 SC	■	4	10	73	32	23	11	10	22.5	M5		SD.4… / SX.4…
SDA 4 073 050 12 SC	■	4	12	73	32	23	13	10	22.5	G1/8"		SD.4… / SX.4…
SDA 4 073 050 12.7 SC	■	4	12.7	73	32	23	13	10	22.5	G1/8"		SD.4… / SX.4…
SDA 4 073 050 16 SC	■	4	16	73	32	23	17	10	22.5	G1/8"		SD.4… / SX.4…
SDA 4 073 050 19.05 SC	■	4	19.05	73	32	23	20	10	22.5	G1/8"		SD.4… / SX.4…
SDA 4 133 110 19.05 SC	■	4	19.05	133	64	23	20	10	22.5	G1/8"		SD.4… / SX.4…
SDA 4 073 000 20 SC	■	4	20	73	32	–	20	10	22.5	G1/8"		SD.4… / SX.4…
SDA 4 133 000 25 SC	■	4	25	133	64	–	25	12.5	22.5	G1/8"		SD.4… / SX.4…
SDA 4 133 000 25.40 SC	■	4	25.4	133	64	–	25.4	12.7	22.5	G1/8"		SD.4… / SX.4…
SDA 4 073 000 28 SC	■	4	28	73	–	–	25	14	22.5	G1/8"		SD.4… / SX.4…
SDA 6 078 055 12 SC	■	6	12	78	32	23	13	11.2	26.2	G1/8"		SD.6… / SX.6…
SDA 6 078 055 12.7 SC	■	6	12.7	78	32	23	13	11.2	26.2	G1/8"		SD.6… / SX.6…
SDA 6 078 055 16 SC	■	6	16	78	32	23	17	11.2	26.2	G1/8"		SD.6… / SX.6…
SDA 6 078 055 19.05 SC	■	6	19.05	78	32	23	20	11.2	26.2	G1/8"		SD.6… / SX.6…
SDA 6 133 110 19.05 SC	■	6	19.05	133	64	23	20	11.2	26.2	G1/8"		SD.6… / SX.6…
SDA 6 078 055 20 SC	■	6	20	78	32	23	20	11.2	26.2	G1/8"		SD.6… / SX.6…
SDA 6 133 000 22 SC	■	6	22	133	64	–	22	11.5	26.2	G1/8"		SD.6… / SX.6…
SDA 6 078 000 28 SC	■	6	28	78	–	–	25	14	26.2	G1/8"		SD.6… / SX.6…
SDA 8 083 060 14 SC	■	8	14	83	32	23	17	12.3	27.9	G1/8"		SD.8… / SX.8…
SDA 8 083 060 16 SC	■	8	16	83	32	23	17	12.3	27.9	G1/8"		SD.8… / SX.8…
SDA 8 083 060 19.05 SC	■	8	19.05	83	32	23	20	12.3	27.9	G1/8"		SD.8… / SX.8…
SDA 8 083 060 20 SC	■	8	20	83	32	23	20	12.3	27.9	G1/8"		SD.8… / SX.8…
SDA 8 083 000 28 SC	■	8	28	83	–	–	25	14	27.9	G1/8"		SD.8… / SX.8…

Reduction sleeve 671





AKR M…

Order designation		Dimensions										Inserts
R		d	a	b	l_1	D_{max}	h	l_g	l_2	l_3		331…
PREMIUM-LINE		Accuracy class of UTILIS 330 (− / +)										
AKR M 0808x100 D4-3540	■	4	8	8	20	26	30	104	55	4		SD.4…/SX.4…
AKR M 0808x100 D4-48	■	4	8	8	30	26	30	104	65	4		SD.448…/SX.448…
AKR M 1010x100 D4-3540	■	4	10	10	20	26	31	105	55	5		SD.4…/SX.4…
AKR M 1010x100 D4-48	■	4	10	10	30	26	31	105	65	5		SD.448…/SX.448…
AKR M 1212x100 D4-3540	■	4	12	12	20	26	32	106	55	6		SD.4…/SX.4…
AKR M 1212x100 D4-48	■	4	12	12	30	26	32	106	65	6		SD.448…/SX.448…
AKR M 1/2"x100 D4-3540	■	4	12.7	12.7	20	26	32.5	106.5	55	6.5		SD.4…/SX.4…
AKR M 1/2"x100 D4-48	■	4	12.7	12.7	30	26	32.5	106.5	65	6.5		SD.448…/SX.448…
AKR M 1616x125 D4-3540	■	4	16	16	20	26	34	133	55	8		SD.4…/SX.4…
AKR M 1616x125 D4-48	■	4	16	16	30	26	34	133	65	8		SD.448…/SX.448…
AKR M 1010x100 D6-44	■	6	10	10	21.5	26	32	105	61	5		SD.644…/SX.644…
AKR M 1010x100 D6-56	■	6	10	10	33.5	26	32	105	73	5		SD.656…/SX.656…
AKR M 1010x100 D6-68	■	6	10	10	45.5	26	32	105	85	5		SD.668…/SX.668…
AKR M 1212x100 D6-44	■	6	12	12	21.5	26	33	106	61	6		SD.644…/SX.644…
AKR M 1212x100 D6-56	■	6	12	12	33.5	26	33	106	73	6		SD.656…/SX.656…
AKR M 1212x100 D6-68	■	6	12	12	45.5	26	33	106	85	6		SD.668…/SX.668…
AKR M 1/2"x100 D6-44	■	6	12.7	12.7	21.5	26	33.5	106.5	61	6.5		SD.644…/SX.644…
AKR M 1/2"x100 D6-56	■	6	12.7	12.7	33.5	26	33.5	106.5	73	6.5		SD.656…/SX.656…
AKR M 1/2"x100 D6-68	■	6	12.7	12.7	45.5	26	33.5	106.5	85	6.5		SD.668…/SX.668…
AKR M 1616x125 D6-44	■	6	16	16	21.5	26	35	133	61	8		SD.644…/SX.644…
AKR M 1616x125 D6-56	■	6	16	16	33.5	26	35	133	73	8		SD.656…/SX.656…
AKR M 1616x125 D6-68	■	6	16	16	45.5	26	35	133	85	8		SD.668…/SX.668…

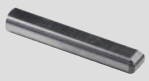
For holders (SDA …)

Illustration	Description	Dimensions	Order designation		Inserts	Holder
	Nut	M8 × 0.5	MSP SDA 4M	■		SDA 4…
		M12 × 0.6	MSP SDA 6M	■		SDA 6…
		M14 × 0.75	MSP SDA 8M	■		SDA 8…
	Aligning device		SDA 4X	■		SDA 4…
			SDA 6X	■		SDA 6…
			SDA 8X	■		SDA 8…
	Retaining ring		MSP SDA 4S	■	SD. 4…	
			MSP SDA 6S	■	SD. 6…	
			MSP SDA 8S	■	SD. 8…	

For holders (SDA …SC)

Illustration	Description	Dimensions	Order designation		Holder
	Grub screw	M4 × 15 L/R	MSP 40150 T08	■	SDA …SC
	Thrust piece		MSP SDA DS	■	SDA …SC
	Torx screwdriver	TX 08	MSP TX08 SDA SC	■	SDA …SC

For holders (AKR M…)

Illustration	Description	Dimensions	Order designation		Holder
	Clamping screw	M5 × 10	MSP 50100 IB2.5	■	AKR M…
	Allen key	SW 2.5	MSP IB2.5	■	AKR M…
	Stop-Pin	4 × 25	MSP 40250 AN D4	■	AKR M…D4
		6 × 30	MSP 60300 AN D6	■	AKR M…D6

Attention
Please note the legend 🗋6…

	Steel unalloyed			Steel low alloyed			Steel high alloyed			Titanium		
Hardness value (HB)	125–300			180–250			200–350			–		
Category	I			II			III			IV		
Machining method	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼
Cutting speeds	v_c (m/min)											
Cutting material carbide												
UHM 20	–	–	20–120	–	–	20–100	–	–	20–90	–	–	20–70
UHM 20 HX	–	–	30–160	–	–	30–140	–	–	30–130	–	–	30–100

	Stainless steel			Stainless steel			Aluminum			Brass		
Hardness value (HB)	180–220			220–330			60–130			–		
Category	V			VI			VII			VIII		
Machining method	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼
Cutting speeds	v_c (m/min)											
Cutting material carbide												
UHM 20	–	–	20–80	–	–	20–60	–	–	50–220	–	–	30–110
UHM 20 HX	–	–	30–120	–	–	30–100	–	–	60–350	–	–	50–180

Feed (f) and depths of cut (ap) 359

SDG – SXG – SDH – SDI – SXI – SDY – SDZ

	Steel unalloyed		Steel low alloyed		Steel high alloyed		Stainless steel		Titanium		Aluminum		Brass	
D (mm)	f (mm)	a_p (mm)	f (mm)	a_p (mm)	f (mm)	a_p (mm)	f (mm)	a_p (mm)	f (mm)	a_p (mm)	f (mm)	a_p (mm)	f (mm)	a_p (mm)
≤1	0.01–0.02	0.1–0.2	0.01–0.017	0.1–0.17	0.007–0.017	0.07–0.17	0.007–0.017	0.07–0.17	0.006–0.02	0.06–0.2	0.01–0.025	0.1–0.25	0.01–0.025	0.1–0.25
2	0.012–0.022	0.12–0.22	0.012–0.02	0.12–0.2	0.008–0.018	0.08–0.18	0.008–0.018	0.08–0.18	0.008–0.02	0.08–0.2	0.015–0.03	0.15–0.3	0.015–0.03	0.15–0.3
3	0.015–0.025	0.15–0.25	0.014–0.024	0.14–0.24	0.009–0.019	0.09–0.19	0.009–0.019	0.09–0.19	0.01–0.02	0.1–0.2	0.015–0.035	0.15–0.35	0.015–0.035	0.15–0.35
4	0.015–0.027	0.15–0.27	0.015–0.025	0.15–0.25	0.01–0.02	0.1–0.2	0.01–0.02	0.1–0.2	0.01–0.02	0.1–0.2	0.015–0.035	0.15–0.35	0.015–0.035	0.15–0.35
6	0.015–0.03	0.15–0.3	0.015–0.025	0.15–0.25	0.01–0.02	0.1–0.2	0.01–0.02	0.1–0.2	0.01–0.025	0.1–0.25	0.015–0.04	0.15–0.4	0.015–0.04	0.15–0.4
8	0.015–0.03	0.15–0.3	0.015–0.025	0.15–0.25	0.01–0.02	0.1–0.2	0.01–0.02	0.1–0.2	0.01–0.025	0.1–0.25	0.015–0.05	0.15–0.5	0.015–0.04	0.15–0.4

SDK – SDM – SDO – SDQ – SDT – SXJ – SXP

	Steel unalloyed		Steel low alloyed		Steel high alloyed		Stainless steel		Titanium		Aluminum		Brass	
D (mm)	f (mm)	a_p (mm)	f (mm)	a_p (mm)	f (mm)	a_p (mm)	f (mm)	a_p (mm)	f (mm)	a_p (mm)	f (mm)	a_p (mm)	f (mm)	a_p (mm)
≤1	0.01–0.02	0.1–0.2	0.01–0.017	0.1–0.17	0.007–0.015	0.07–0.15	0.007–0.015	0.07–0.15	0.006–0.012	0.06–0.12	0.007–0.012	0.07–0.12	0.007–0.012	0.07–0.12
2	0.01–0.022	0.1–0.22	0.01–0.02	0.1–0.2	0.008–0.017	0.08–0.17	0.008–0.017	0.08–0.17	0.008–0.015	0.08–0.15	0.01–0.015	0.1–0.15	0.01–0.015	0.1–0.15
3	0.01–0.025	0.1–0.25	0.01–0.022	0.1–0.22	0.009–0.02	0.09–0.2	0.009–0.02	0.09–0.2	0.008–0.017	0.08–0.17	0.01–0.02	0.1–0.2	0.01–0.02	0.1–0.2
4	0.01–0.025	0.1–0.25	0.01–0.025	0.1–0.25	0.01–0.022	0.1–0.22	0.01–0.022	0.1–0.22	0.008–0.02	0.08–0.2	0.01–0.025	0.1–0.25	0.01–0.025	0.1–0.25
6	0.01–0.025	0.1–0.25	0.01–0.025	0.1–0.25	0.01–0.025	0.1–0.25	0.01–0.025	0.1–0.25	0.008–0.02	0.08–0.2	0.01–0.03	0.1–0.3	0.01–0.03	0.1–0.3
8	0.01–0.025	0.1–0.25	0.01–0.025	0.1–0.25	0.01–0.025	0.1–0.25	0.01–0.025	0.1–0.25	0.008–0.02	0.08–0.2	0.01–0.035	0.1–0.35	0.01–0.03	0.1–0.3

SDR – SDS

Steel unalloyed	Steel low alloyed	Steel high alloyed	Stainless steel	Titanium	Aluminum	Brass
f (mm)	f (mm)	f (mm)	f (mm)	f (mm)	f (mm)	f (mm)
0.007–0.020	0.005–0.015	0.005–0.015	0.005–0.015	0.005–0.015	0.007–0.020	0.007–0.020

SDU – SDV (Threading)

Application recommendation for number of passes at threading 🗋164

Polygonal punching is a chip-removing procedure for manufacturing of inside profiles in holes which are usually not continuous. During this procedure, the tool is pushed into a hole in several so-called strokes, and the outline of the broaching tool is introduced into the workpiece.
We can supply square, hexagonal and TORX broaching tools made from carbide from our standard product range. We can also manufacture customised shapes and intermediate sizes on request.



Benefits:
- Short machining times
- Complex geometries with sharp edges are possible
- Full profile tools reduce the number of strokes
- Reliable process with long tool life

Technical information 9

Product lines and accuracy classes of UTILIS 362

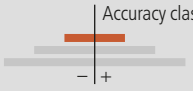
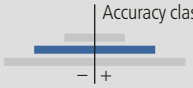
Broaching tool 363

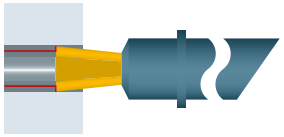
Accessories 625







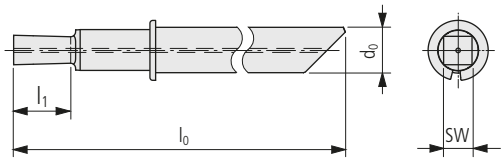
Product line	🗋 7	Repeatability
PREMIUM-LINE		< 10 µm
STANDARD-LINE		< 20 µm
VALUE-LINE		< 50 µm



Polygonal punching square



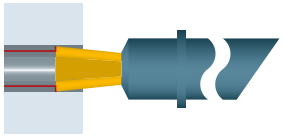
SD-BRS …



UTILIS multidec® swiss type tools

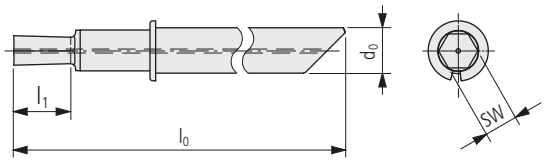
Order designation	Carbide 19	Dimensions									Holder
	○ ○ ○ ● UHM 20	SW	l_1	d_0	l_0						352…
PREMIUM-LINE		Accuracy class of UTILIS 362 (− +)									
SD-BRS 435 100 …	■	1	1.5	4	35						SDA 4…
SD-BRS 435 150 …	■	1.5	2	4	35						SDA 4…
SD-BRS 435 200 …	■	2	2.5	4	35						SDA 4…
SD-BRS 644 300 …	■	3	3.5	6	44						SDA 6…
SD-BRS 644 400 …	■	4	6	6	44						SDA 6…
SD-BRS 850 500 …	■	5	7	8	50						SDA 8…

■ New



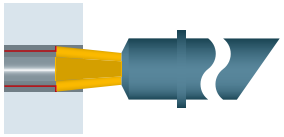
Polygonalpunching hexagonal





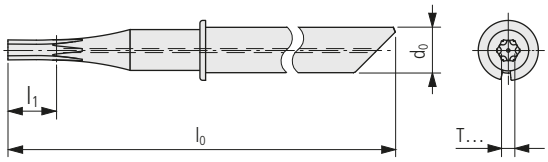
SD-BRH …

Order designation	Carbide 19	Dimensions									Holder
	UHM 20	SW	l_1	d_0	l_0						352…
PREMIUM-LINE		Accuracy class of UTILIS 362									
SD-BRH 435 100 …	■	1	1.5	4	35						SDA 4…
SD-BRH 435 150 …	■	1.5	2	4	35						SDA 4…
SD-BRH 435 200 …	■	2	2.5	4	35						SDA 4…
SD-BRH 435 300 …	■	3	3.5	4	35						SDA 4…
SD-BRH 644 400 …	■	4	6	6	44						SDA 6…
SD-BRH 850 500 …	■	5	7	8	50						SDA 8…
SD-BRH 850 600 …	■	6	8	8	50						SDA 8…



Polygonalpunching TORX





SD-BRT …

Order designation	Carbide 19	Standard	Dimensions								Holder
	UHM 20	ISO 10664	l_1	d_0	l_0						352…
PREMIUM-LINE			Accuracy class of UTILIS 362								
SD-BRT 440 002 …	■	T2	1.5	4	40						SDA 4…
SD-BRT 440 003 …	■	T3	1.5	4	40						SDA 4…
SD-BRT 440 006 …	■	T6	2.5	4	40						SDA 4…
SD-BRT 440 008 …	■	T8	2.5	4	40						SDA 4…
SD-BRT 440 010 …	■	T10	3.5	4	40						SDA 4…
SD-BRT 644 020	■	T20	6	6	44						SDA 6…
SD-BRT 644 030 …	■	T30	8	6	44						SDA 6…
SD-BRT 850 040 …	■	T40	9	8	50						SDA 8…

UTILIS multidec® swiss type tools

multidec®-DRILL contains of a wide range of high-precision solid carbide drills and centre drills. This includes the range from Ø 0.5 to 5 mm and centre drills with tip angles of 90°, 120° or 140°. multidec®-DRILL is characterised by its high stability and precision, and makes a decisive contribution to achieving high quality because of its excellent positioning capability and self-centering characteristic, and makes the work easier. The design also provides good chip removal and the tool life is increased significantly because of the coating (HX).



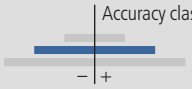
Benefits:
- High degree of accuracy and stability
- Self-centering
- Excellent positioning capability
- Good chip removal
- Complete range of solid carbide twist drills from Ø 0.5 - 5 mm
- Centre drills with tip angle of 90°, 120° or 140°
- Coating (HX) for longer tool life
- Diameter coordinated to metric thread sizes
- Intermediate sizes possible on request

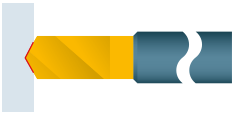
Technical information 9

Product lines and accuracy classes of UTILIS STANDARD-LINE 368

Center drills  369

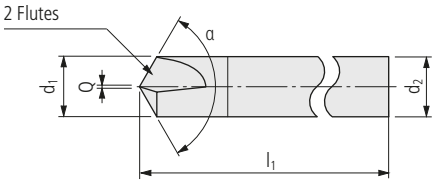
Drills  370

Product line	🗋 7	Repeatability
PREMIUM-LINE		< 10 µm
STANDARD-LINE		< 20 µm
VALUE-LINE		< 50 µm



Center drilling





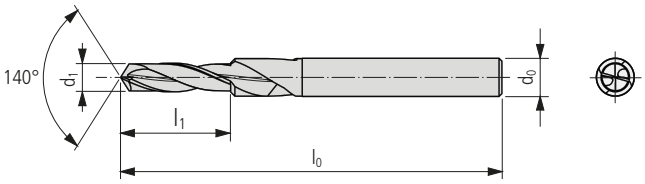
DRP …

Order designation	Carbide		Dimensions														
R	UHM 20	UHM 20 HX	d_1	d_2	l_1	Q	α										
PREMIUM-LINE			Accuracy class of UTILIS 368														
DRP 338 090 R …	■	■	3	3	38	0.04	90°										
DRP 338 120 R …	■	■	3	3	38	0.04	120°										
DRP 338 140 R …	■	■	3	3	38	0.04	140°										
DRP 442 090 R …	■	■	4	4	42	0.05	90°										
DRP 442 120 R …	■	■	4	4	42	0.05	120°										
DRP 442 140 R …	■	■	4	4	42	0.05	140°										
DRP 650 090 R …	■	■	6	6	50	0.06	90°										
DRP 650 120 R …	■	■	6	6	50	0.06	120°										
DRP 650 140 R …	■	■	6	6	50	0.06	140°										



Drilling



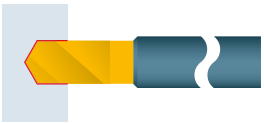


DRS …

UTILIS multidec® swiss type tools

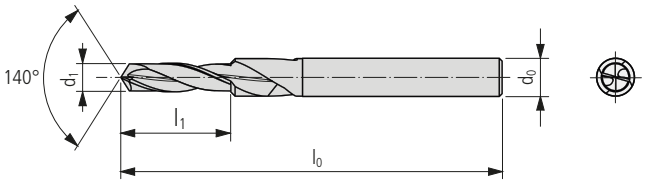
PREMIUM-LINE

Order designation	Carbide		Dimensions									Core hole drill for
	○ ○ ○ ●	● ● ● ○	d_1	l_1	d_0	l_0						ISO DIN13
	UHM 20	UHM 20 HX										
			Accuracy class of UTILIS 368 – +									
DRS 338 050 …	■	■	0.5	1.5	3	38						–
DRS 338 075 …	■	■	0.75	2.3	3	38						M 1
DRS 338 085 …	■	■	0.85	2.6	3	38						M 1.1
DRS 338 095 …	■	■	0.95	2.9	3	38						M 1.2
DRS 338 100 …	■	■	1	3	3	38						–
DRS 338 110 …	■	■	1.1	3.3	3	38						M 1.4
DRS 338 125 …	■	■	1.25	3.8	3	38						M 1.6
DRS 338 145 …	■	■	1.45	4.4	3	38						M 1.8
DRS 338 150 …	■	■	1.5	4.5	3	38						–
DRS 338 160 …	■	■	1.6	4.8	3	38						M 2
DRS 338 175 …	■	■	1.75	5.3	3	38						M 2.2
DRS 338 200 …	■	■	2	6	3	38						–
DRS 338 205 …	■	■	2.05	6.2	3	38						M 2.5
DRS 338 250 …	■	■	2.5	7.5	3	38						M 3
DRS 442 290 …	■	■	2.9	8.7	4	42						M 3.5
DRS 442 300 …	■	■	3.0	9.0	4	42						–
DRS 442 330 …	■	■	3.3	9.9	4	42						M 4
DRS 442 350 …	■	■	3.5	10.5	4	42						–
DRS 650 400 …	■	■	4	12	6	50						–
DRS 650 425 …	■	■	4.25	12.8	6	50						M 5
DRS 650 450 …	■	■	4.5	13.5	6	50						–
DRS 650 500 …	■	■	5	15	6	50						M 6



Drilling





DRL …

Order designation	Carbide 19		Dimensions									Core hole drill for
	○	●										
	○	●										
	○	●										
	●	○										
	UHM 20	UHM 20 HX	d_1	l_1	d_0	l_0						ISO DIN13
PREMIUM-LINE			Accuracy class of UTILIS 368 – +									
DRL 338 050 …	■	■	0.5	3	3	38						–
DRL 338 075 …	■	■	0.75	4.5	3	38						M 1
DRL 338 085 …	■	■	0.85	5.1	3	38						M 1.1
DRL 338 095 …	■	■	0.95	5.7	3	38						M 1.2
DRL 338 100 …	■	■	1	6	3	38						–
DRL 338 110 …	■	■	1.1	6.6	3	38						M 1.4
DRL 338 125 …	■	■	1.25	7.5	3	38						M 1.6
DRL 338 145 …	■	■	1.45	8.7	3	38						M 1.8
DRL 338 150 …	■	■	1.5	9	3	38						–
DRL 338 160 …	■	■	1.6	9.6	3	38						M 2
DRL 338 175 …	■	■	1.75	10.5	3	38						M 2.2
DRL 338 200 …	■	■	2	12	3	38						–
DRL 338 205 …	■	■	2.05	12.3	3	38						M 2.5
DRL 338 250 …	■	■	2.5	15	3	38						M 3
DRL 442 290 …	■	■	2.9	17.4	4	42						M 3.5
DRL 442 300 …	■	■	3	18	4	42						–
DRL 442 330 …	■	■	3.3	19.8	4	42						M 4
DRL 442 350 …	■	■	3.5	21	4	42						–
DRL 650 400 …	■	■	4	24	6	50						–
DRL 650 425 …	■	■	4.25	25.5	6	50						M 5
DRL 650 450 …	■	■	4.5	27	6	50						–
DRL 650 500 …	■	■	5	30	6	50						M 6

In thread milling, the thread is produced by helical interpolation. The cutting process enables threads with one or two teeth to be obtained with a nominal diameter of 1 mm or more.



Advantages:
- The thread depth is equal to the drill depth
- Lower torque than with tapping and roll form tapping
- Short milling chips avoid chip problems
- High Speed Cutting (HSC) possible
- Reliable process with longer life time

Technical information 9

Product lines and accuracy classes of UTILIS 374

Thread milling tools



WHS … 375
WHL … 376
WHA … 377
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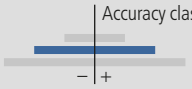
WHC … 379
WHD … 381

Cutting specification

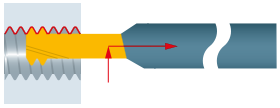


383

Application recommendation 385

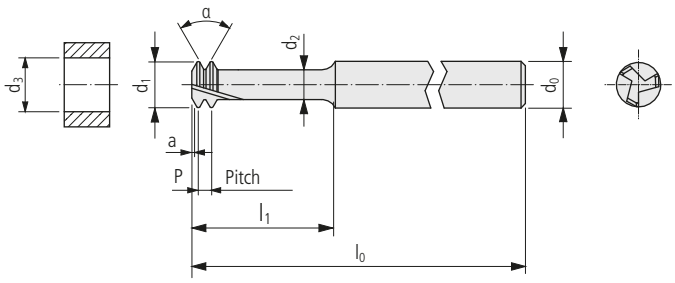
Product line 🗋7		Repeatability
PREMIUM-LINE		< 10 µm
STANDARD-LINE		< 20 µm
VALUE-LINE		< 50 µm

Legend 🗋6



3 flutes, 2 teeth (full profile metric)

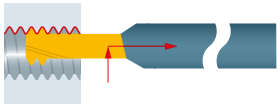




WHS … (Short version)

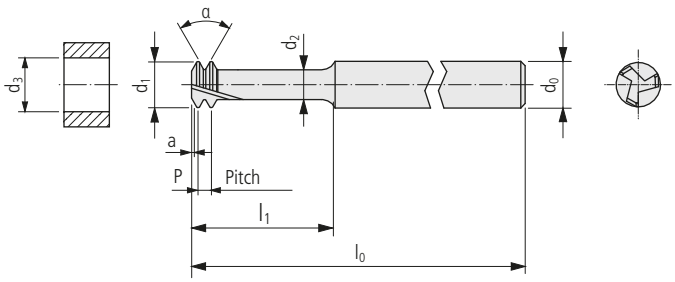
Order designation	Carbide		Standard	Dimensions								Core hole	
	○	●											
	○	●											
	○	●											
	●	○											
	UHM 20	UHM 20 HX	ISO DIN13	P	l_1	d_1	d_2	a	d_0	l_0	α	d_3	
PREMIUM-LINE				Accuracy class of UTILIS 374									
													− +
WHS 338 010 025 …	■	■	M1	0.25	2.3	0.64	0.24	0.03	3	38	60°	0.75	0/+0.03
WHS 338 012 025 …	■	■	M1.2	0.25	2.8	0.84	0.44	0.03	3	38	60°	0.95	0/+0.03
WHS 338 014 030 …	■	■	M1.4	0.3	3.2	0.98	0.53	0.03	3	38	60°	1.1	0/+0.04
WHS 338 016 035 …	■	■	M1.6	0.35	3.7	1.12	0.61	0.03	3	38	60°	1.25	0/+0.04
WHS 338 018 035 …	■	■	M1.8	0.35	4.1	1.32	0.81	0.03	3	38	60°	1.45	0/+0.04
WHS 338 020 040 …	■	■	M2	0.4	4.6	1.46	0.9	0.03	3	38	60°	1.6	0/+0.05
WHS 338 022 045 …	■	■	M2.2	0.45	5.1	1.6	0.98	0.03	3	38	60°	1.75	0/+0.05
WHS 338 023 040 …	■	■	M2.3	0.4	5.2	1.76	1.2	0.03	3	38	60°	1.9	0/+0.05
WHS 338 025 045 …	■	■	M2.5	0.45	5.8	1.9	1.28	0.03	3	38	60°	2.05	0/+0.05
WHS 338 030 050 …	■	■	M3	0.5	6.9	2.34	1.67	0.03	3	38	60°	2.5	0/+0.05
WHS 338 035 060 …	■	■	M3.5	0.6	8.1	2.71	1.93	0.03	3	38	60°	2.9	0/+0.06
WHS 442 040 070 …	■	■	M4	0.7	9.2	3.09	2.2	0.03	4	42	60°	3.3	0/+0.06
WHS 442 045 075 …	■	■	M4.5	0.75	10.4	3.53	2.56	0.03	4	42	60°	3.75	0/+0.07
WHS 442 050 080 …	■	■	M5	0.8	11.5	3.97	2.95	0.03	4	42	60°	4.2	0/+0.07

Application recommendation 385



3 flutes, 2 teeth (full profile metric)





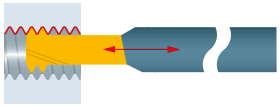
WHL … (Long version)

UTILIS multidec® swiss type tools

PREMIUM-LINE

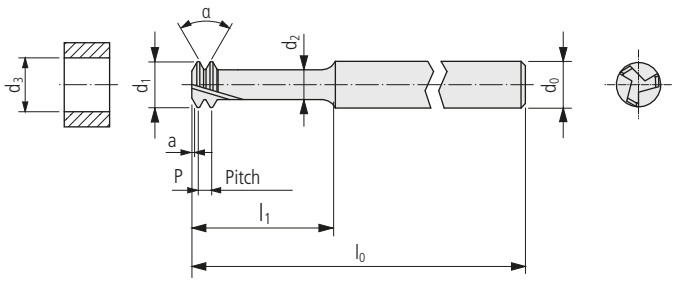
Order designation	Carbide		19	Standard	Dimensions								Core hole	
	○ ● ○ ●	● ● ● ○		ISO DIN13	P	l_1	d_1	d_2	a	d_0	l_0	α	d_3	
	UHM 20	UHM 20 HX												
					Accuracy class of UTILIS 374									
WHL 338 010 025 …	■	■		M1	0.25	4.6	0.64	0.24	0.03	3	38	60°	0.75	0/+0.03
WHL 338 012 025 …	■	■		M1.2	0.25	5.5	0.84	0.44	0.03	3	38	60°	0.95	0/+0.03
WHL 338 014 030 …	■	■		M1.4	0.3	6.4	0.98	0.53	0.03	3	38	60°	1.1	0/+0.04
WHL 338 016 035 …	■	■		M1.6	0.35	7.4	1.12	0.61	0.03	3	38	60°	1.25	0/+0.04
WHL 338 018 035 …	■	■		M1.8	0.35	8.3	1.32	0.81	0.03	3	38	60°	1.45	0/+0.04
WHL 338 020 040 …	■	■		M2	0.4	9.2	1.46	0.9	0.03	3	38	60°	1.6	0/+0.05
WHL 338 022 045 …	■	■		M2.2	0.45	10.1	1.6	0.98	0.03	3	38	60°	1.75	0/+0.05
WHL 338 023 040 …	■	■		M2.3	0.4	10.4	1.76	1.2	0.03	3	38	60°	1.9	0/+0.05
WHL 338 025 045 …	■	■		M2.5	0.45	11.5	1.9	1.28	0.03	3	38	60°	2.05	0/+0.05
WHL 338 030 050 …	■	■		M3	0.5	13.8	2.34	1.67	0.03	3	38	60°	2.5	0/+0.05
WHL 338 035 060 …	■	■		M3.5	0.6	16.1	2.71	1.93	0.03	3	38	60°	2.9	0/+0.06
WHL 442 040 070 …	■	■		M4	0.7	18.4	3.09	2.2	0.03	4	42	60°	3.3	0/+0.06
WHL 442 045 075 …	■	■		M4.5	0.75	20.7	3.53	2.56	0.03	4	42	60°	3.75	0/+0.07
WHL 442 050 080 …	■	■		M5	0.8	23	3.97	2.95	0.03	4	42	60°	4.2	0/+0.07

Application recommendation 385



3 flutes, 2 teeth (full profile metric)
Strenghten type



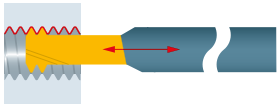


WHA … (Short version)

Order designation	Carbide ▯19		Standard	Dimensions								Core hole	
	○ ● ○ ● ○ ● ● ○												
	UHM 20	UHM 20 HX	ISO DIN13	P	l_1	d_1	d_2	a	d_0	l_0	α	d_3	
PREMIUM-LINE				Accuracy class of UTILIS ▯374									
WHA 338 010 025 …	■	■	M1.0	0.25	2.3	0.83	0.41	0.03	3	38	60°	0.75	0/+0.03
WHA 338 012 025 …	■	■	M1.2	0.25	2.8	1.03	0.61	0.03	3	38	60°	0.95	0/+0.03
WHA 338 014 030 …	■	■	M1.4	0.3	3.2	1.21	0.74	0.03	3	38	60°	1.1	0/+0.04
WHA 338 016 035 …	■	■	M1.6	0.35	3.7	1.39	0.88	0.03	3	38	60°	1.25	0/+0.04
WHA 338 018 035 …	■	■	M1.8	0.35	4.1	1.59	1.08	0.03	3	38	60°	1.45	0/+0.04
WHA 338 020 040 …	■	■	M2.0	0.4	4.6	1.76	1.19	0.03	3	38	60°	1.6	0/+0.05
WHA 338 022 045 …	■	■	M2.2	0.45	5.1	1.94	1.31	0.03	3	38	60°	1.75	0/+0.05
WHA 338 023 040 …	■	■	M2.3	0.4	5.2	2.06	1.49	0.03	3	38	60°	1.9	0/+0.05
WHA 338 025 045 …	■	■	M2.5	0.45	5.8	2.24	1.61	0.03	3	38	60°	2.05	0/+0.05
WHA 338 030 050 …	■	■	M3.0	0.5	6.9	2.72	2.04	0.03	3	38	60°	2.5	0/+0.05
WHA 442 035 060 …	■	■	M3.5	0.6	8.1	3.16	2.37	0.03	4	42	60°	2.9	0/+0.06
WHA 442 040 070 …	■	■	M4.0	0.7	9.2	3.62	2.71	0.03	4	42	60°	3.3	0/+0.06

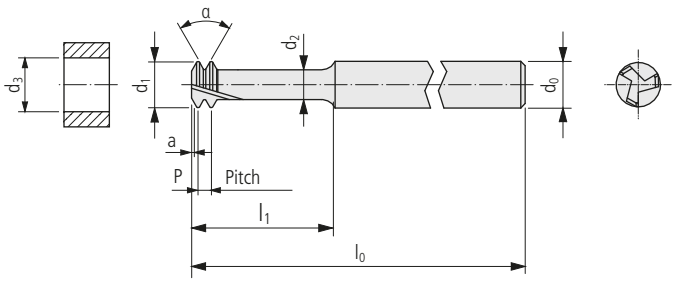
Application recommendation ▯385

UTILIS multidec® swiss type tools



3 flutes, 2 teeth (full profile metric)
Strenghten type





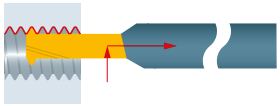
WHB … (Long version)

UTILIS multidec swiss type tools

PREMIUM-LINE

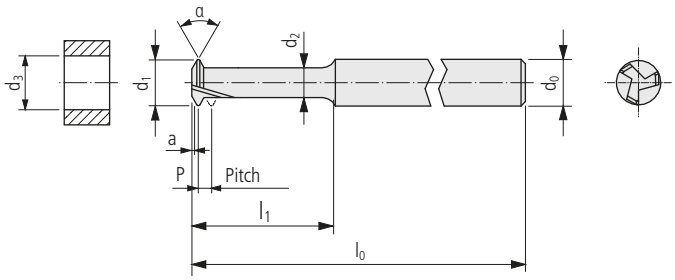
Order designation	Carbide		Standard	Dimensions								Core hole	
	○ ● ○ ●	● ● ● ○	ISO DIN13	P	l_1	d_1	d_2	a	d_0	l_0	α	d_3	
	UHM 20	UHM 20 HX											
				Accuracy class of UTILIS 374									
WHB 338 010 025 …	■	■	M1.0	0.25	4.6	0.83	0.41	0.03	3	38	60°	0.75	0/+0.03
WHB 338 012 025 …	■	■	M1.2	0.25	5.6	1.03	0.61	0.03	3	38	60°	0.95	0/+0.03
WHB 338 014 030 …	■	■	M1.4	0.3	6.4	1.21	0.74	0.03	3	38	60°	1.1	0/+0.04
WHB 338 016 035 …	■	■	M1.6	0.35	7.4	1.39	0.88	0.03	3	38	60°	1.25	0/+0.04
WHB 338 018 035 …	■	■	M1.8	0.35	8.2	1.59	1.08	0.03	3	38	60°	1.45	0/+0.04
WHB 338 020 040 …	■	■	M2.0	0.4	9.2	1.76	1.19	0.03	3	38	60°	1.6	0/+0.05
WHB 338 022 045 …	■	■	M2.2	0.45	10.2	1.94	1.31	0.03	3	38	60°	1.75	0/+0.05
WHB 338 023 040 …	■	■	M2.3	0.4	10.4	2.06	1.49	0.03	3	38	60°	1.9	0/+0.05
WHB 338 025 045 …	■	■	M2.5	0.45	11.6	2.24	1.61	0.03	3	38	60°	2.05	0/+0.05
WHB 338 030 050 …	■	■	M3.0	0.5	13.8	2.72	2.04	0.03	3	38	60°	2.5	0/+0.05
WHB 442 035 060 …	■	■	M3.5	0.6	16.2	3.16	2.37	0.03	4	42	60°	2.9	0/+0.06
WHB 442 040 070 …	■	■	M4.0	0.7	18.4	3.62	2.71	0.03	4	42	60°	3.3	0/+0.06

Application recommendation 385



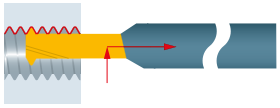
3 flutes, 1 tooth (full profile metric)





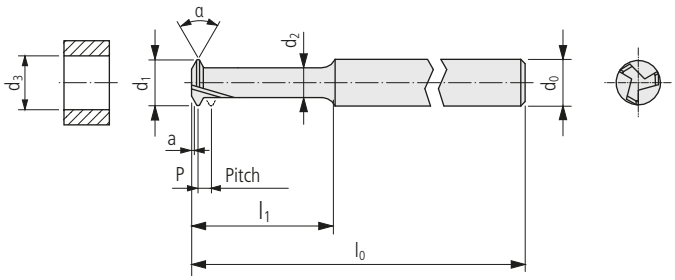
WHC … (Short version)

Order designation	Carbide		Standard	Dimensions								Core hole	
	○	●											
	○	●											
	○	●											
	●	○											
	UHM 20	UHM 20 HX	ISO DIN13	P	l_1	d_1	d_2	a	d_0	l_0	α	d_3	
PREMIUM-LINE				Accuracy class of UTILIS 374									
													– +
WHC 338 010 025 …	■	■	M1.0	0.25	2.5	0.68	0.3	0.03	3	38	60°	0.75	0/+0.03
WHC 338 012 025 …	■	■	M1.2	0.25	2.7	0.88	0.5	0.03	3	38	60°	0.95	0/+0.03
WHC 338 014 025 …	■	■	M1.4	0.25	2.9	1.08	0.7	0.03	3	38	60°	1.15	0/+0.03
WHC 338 016 025 …	■	■	M1.6	0.25	3.1	1.28	0.9	0.03	3	38	60°	1.35	0/+0.03
WHC 338 018 025 …	■	■	M1.8	0.25	3.3	1.48	1.1	0.03	3	38	60°	1.55	0/+0.03
WHC 338 020 025 …	■	■	M2.0	0.25	3.5	1.68	1.3	0.03	3	38	60°	1.75	0/+0.03
WHC 338 014 030 …	■	■	M1.4	0.3	3.2	1.02	0.58	0.03	3	38	60°	1.1	0/+0.04
WHC 338 016 030 …	■	■	M1.6	0.3	3.4	1.22	0.78	0.03	3	38	60°	1.3	0/+0.04
WHC 338 018 030 …	■	■	M1.8	0.3	3.6	1.42	0.98	0.03	3	38	60°	1.5	0/+0.04
WHC 338 020 030 …	■	■	M2.0	0.3	3.8	1.62	1.18	0.03	3	38	60°	1.7	0/+0.04
WHC 338 022 030 …	■	■	M2.2	0.3	4	1.82	1.38	0.03	3	38	60°	1.9	0/+0.04
WHC 338 016 035 …	■	■	M1.6	0.35	3.7	1.16	0.65	0.03	3	38	60°	1.25	0/+0.04
WHC 338 018 035 …	■	■	M1.8	0.35	3.9	1.36	0.85	0.03	3	38	60°	1.45	0/+0.04
WHC 338 020 035 …	■	■	M2.0	0.35	4.1	1.56	1.05	0.03	3	38	60°	1.65	0/+0.04
WHC 338 022 035 …	■	■	M2.2	0.35	4.3	1.76	1.25	0.03	3	38	60°	1.85	0/+0.04
WHC 338 025 035 …	■	■	M2.5	0.35	4.6	2.06	1.55	0.03	3	38	60°	2.15	0/+0.04
WHC 338 030 035 …	■	■	M3.0	0.35	5.1	2.56	2.05	0.03	3	38	60°	2.65	0/+0.04
WHC 338 035 035 …	■	■	M3.5	0.35	5.6	3.06	2.55	0.03	3	38	60°	3.15	0/+0.04
WHC 338 020 040 …	■	■	M2.0	0.4	4.4	1.50	0.92	0.03	3	38	60°	1.6	0/+0.05
WHC 338 022 040 …	■	■	M2.2	0.4	4.6	1.70	1.12	0.03	3	38	60°	1.8	0/+0.05
WHC 338 025 040 …	■	■	M2.5	0.4	4.9	2.00	1.42	0.03	3	38	60°	2.1	0/+0.05
WHC 338 030 040 …	■	■	M3	0.4	5.4	2.50	1.92	0.03	3	38	60°	2.6	0/+0.05
WHC 338 035 040 …	■	■	M3.5	0.4	5.9	2.98	2.4	0.03	3	38	60°	3.1	0/+0.05
WHC 338 022 045 …	■	■	M2.2	0.45	4.9	1.64	1	0.03	3	38	60°	1.75	0/+0.05
WHC 338 025 045 …	■	■	M2.5	0.45	5.2	1.94	1.3	0.03	3	38	60°	2.05	0/+0.05
WHC 338 030 045 …	■	■	M3	0.45	5.7	2.44	1.8	0.03	3	38	60°	2.55	0/+0.05
WHC 338 035 045 …	■	■	M3.5	0.45	6.2	2.94	2.3	0.03	3	38	60°	3.05	0/+0.05
WHC 442 040 045 …	■	■	M4	0.45	6.7	3.44	2.8	0.03	3	38	60°	3.55	0/+0.05
WHC 338 030 050 …	■	■	M3	0.5	6	2.38	1.68	0.03	3	38	60°	2.5	0/+0.05
WHC 338 035 050 …	■	■	M3.5	0.5	6.5	2.88	2.18	0.03	3	38	60°	3	0/+0.05
WHC 442 040 050 …	■	■	M4	0.5	7	3.38	2.68	0.03	4	42	60°	3.5	0/+0.05
WHC 442 045 050 …	■	■	M4.5	0.5	7.5	3.88	3.18	0.03	4	42	60°	4	0/+0.05
WHC 442 035 060 …	■	■	M3.5	0.6	7.1	2.75	1.95	0.03	4	42	60°	2.9	0/+0.06
WHC 442 040 060 …	■	■	M4	0.6	7.6	3.25	2.45	0.03	4	42	60°	3.4	0/+0.06
WHC 442 045 060 …	■	■	M4.5	0.6	8.1	3.75	2.95	0.03	4	42	60°	3.9	0/+0.06
WHC 442 040 070 …	■	■	M4	0.7	8.2	3.13	2.19	0.03	4	42	60°	3.3	0/+0.06
WHC 442 045 070 …	■	■	M4.5	0.7	8.7	3.63	2.71	0.03	4	42	60°	3.8	0/+0.06
WHC 442 045 075 …	■	■	M4.5	0.75	9	3.57	2.57	0.03	4	42	60°	3.75	0/+0.07
WHC 442 050 075 …	■	■	M5	0.75	9.5	3.98	2.98	0.03	4	42	60°	4.25	0/+0.07
WHC 442 050 080 …	■	■	M5	0.8	9.8	3.98	2.92	0.03	4	42	60°	4.2	0/+0.07



3 flutes, 1 tooth (full profile UNC/UNF)





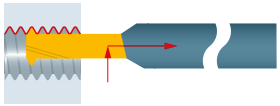
WHC … UNC … (INCH) (Short version)

Order designation	Carbide		19	Standard	Dimensions								Core hole	
	○	●												
	○	●												
	○	●												
	●	○												
	UHM 20	UHM 20 HX		ANSI B1.1	P (T/Inch)	P	l_1	d_1	d_2	d_0	l_0	α	d_3	
PREMIUM-LINE						Accuracy class of UTILIS 374								
WHC 338-01-64 UNC …	■	■		1-64	64	0.397	4.2	1.36	0.81	3	38	60°	1.5	0/+0.04
WHC 338-02-56 UNC …	■	■		2-56	56	0.454	4.9	1.62	1	3	38	60°	1.78	0/+0.05
WHC 338-03-48 UNC …	■	■		3-48	48	0.529	5.7	1.86	1.15	3	38	60°	2.05	0/+0.05
WHC 442-04-40 UNC …	■	■		4-40	40	0.635	6.7	2.06	1.22	4	42	60°	2.27	0/+0.06
WHC 442-05-40 UNC …	■	■		5-40	40	0.635	7	2.39	1.55	4	42	60°	2.59	0/+0.06
WHC 442-06-32 UNC …	■	■		6-32	32	0.794	8.3	2.52	1.49	4	42	60°	2.77	0/+0.07
WHC 442-08-32 UNC …	■	■		8-32	32	0.794	8.9	3.18	2.16	4	42	60°	3.42	0/+0.07

WHC … UNF … (INCH) (Short version)

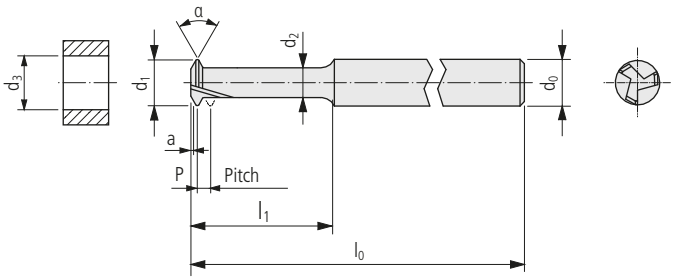
Order designation	Carbide		19	Standard	Dimensions								Core hole	
	○	●												
	○	●												
	○	●												
	●	○												
	UHM 20	UHM 20 HX		ANSI B1.1	P (T/Inch)	P	l_1	d_1	d_2	d_0	l_0	α	d_3	
PREMIUM-LINE						Accuracy class of UTILIS 374								
WHC 338-00-80 UNF …	■	■		0-80	80	0.317	3.4	1.12	0.67	3	38	60°	1.25	0/+0.04
WHC 338-01-72 UNF …	■	■		1-72	72	0.353	4	1.41	0.91	3	38	60°	1.55	0/+0.04
WHC 338-02-64 UNF …	■	■		2-64	64	0.396	4.1	1.69	1.14	3	38	60°	1.9	0/+0.04
WHC 338-03-56 UNF …	■	■		3-56	56	0.453	5.2	1.95	1.32	3	38	60°	2.15	0/+0.05
WHC 338-04-48 UNF …	■	■		4-48	48	0.529	6	2.19	1.46	3	38	60°	2.4	0/+0.05
WHC 338-05-44 UNF …	■	■		5-44	44	0.577	6.6	2.46	1.68	3	38	60°	2.7	0/+0.05
WHC 442-06-40 UNF …	■	■		6-40	40	0.635	7.3	2.72	1.87	4	42	60°	2.95	0/+0.06
WHC 442-08-36 UNF …	■	■		8-36	36	0.705	8.4	3.29	2.37	4	42	60°	3.5	0/+0.06
WHC 442-10-32 UNF …	■	■		10-32	32	0.794	9.6	3.84	2.82	4	42	60°	4.1	0/+0.07

Application recommendation 385



3 flutes, 1 tooth (full profile metric)

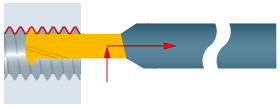




WHD … (Long version)

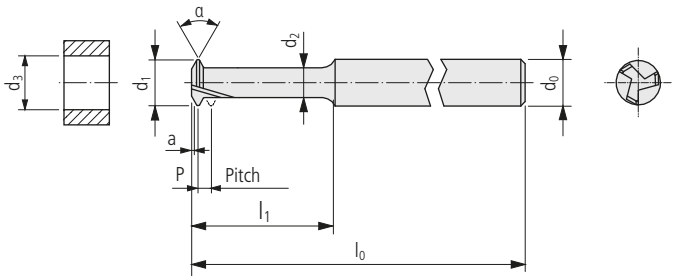
Order designation	Carbide		Standard	Dimensions								Core hole	
	UHM 20	UHM 20 HX	ISO DIN13	P	l_1	d_1	d_2	a	d_0	l_0	α	d_3	
PREMIUM-LINE				Accuracy class of UTILIS 374									
WHD 338 010 025 …	■	■	M1.0	0.25	3.5	0.68	0.3	0.03	3	38	60°	0.75	0/+0.03
WHD 338 012 025 …	■	■	M1.2	0.25	3.9	0.88	0.5	0.03	3	38	60°	0.95	0/+0.03
WHD 338 014 025 …	■	■	M1.4	0.25	4.3	1.08	0.7	0.03	3	38	60°	1.15	0/+0.03
WHD 338 016 025 …	■	■	M1.6	0.25	4.7	1.28	0.9	0.03	3	38	60°	1.35	0/+0.03
WHD 338 018 025 …	■	■	M1.8	0.25	5.1	1.48	1.1	0.03	3	38	60°	1.55	0/+0.03
WHD 338 020 025 …	■	■	M2.0	0.25	5.5	1.68	1.3	0.03	3	38	60°	1.75	0/+0.03
WHD 338 014 030 …	■	■	M1.4	0.3	4.6	1.02	0.58	0.03	3	38	60°	1.1	0/+0.04
WHD 338 016 030 …	■	■	M1.6	0.3	5	1.22	0.78	0.03	3	38	60°	1.3	0/+0.04
WHD 338 018 030 …	■	■	M1.8	0.3	5.4	1.42	0.98	0.03	3	38	60°	1.5	0/+0.04
WHD 338 020 030 …	■	■	M2.0	0.3	5.8	1.62	1.18	0.03	3	38	60°	1.7	0/+0.04
WHD 338 022 030 …	■	■	M2.2	0.3	6.2	1.82	1.38	0.03	3	38	60°	1.9	0/+0.04
WHD 338 016 035 …	■	■	M1.6	0.35	5.3	1.16	0.65	0.03	3	38	60°	1.25	0/+0.04
WHD 338 018 035 …	■	■	M1.8	0.35	5.7	1.36	0.85	0.03	3	38	60°	1.45	0/+0.04
WHD 338 020 035 …	■	■	M2.0	0.35	6.1	1.56	1.05	0.03	3	38	60°	1.65	0/+0.04
WHD 338 022 035 …	■	■	M2.2	0.35	6.5	1.76	1.25	0.03	3	38	60°	1.85	0/+0.04
WHD 338 025 035 …	■	■	M2.5	0.35	7.1	2.06	1.55	0.03	3	38	60°	2.15	0/+0.04
WHD 338 030 035 …	■	■	M3.0	0.35	8.1	2.56	2.05	0.03	3	38	60°	2.65	0/+0.04
WHD 338 035 035 …	■	■	M3.5	0.35	9.1	3.06	2.55	0.03	3	38	60°	3.15	0/+0.04
WHD 338 020 040 …	■	■	M2.0	0.4	6.4	1.50	0.93	0.03	3	38	60°	1.6	0/+0.05
WHD 338 022 040 …	■	■	M2.2	0.4	6.8	1.70	1.13	0.03	3	38	60°	1.8	0/+0.05
WHD 338 025 040 …	■	■	M2.5	0.4	7.4	2.00	1.43	0.03	3	38	60°	2.1	0/+0.05
WHD 338 030 040 …	■	■	M3	0.4	8.4	2.50	1.93	0.03	3	38	60°	2.6	0/+0.05
WHD 338 035 040 …	■	■	M3.5	0.4	9.4	2.98	2.41	0.03	3	38	60°	3.1	0/+0.05
WHD 338 022 045 …	■	■	M2.2	0.45	7.1	1.64	1.01	0.03	3	38	60°	1.75	0/+0.05
WHD 338 025 045 …	■	■	M2.5	0.45	7.7	1.94	1.31	0.03	3	38	60°	2.05	0/+0.05
WHD 338 030 045 …	■	■	M3	0.45	8.7	2.44	1.81	0.03	3	38	60°	2.55	0/+0.05
WHD 338 035 045 …	■	■	M3.5	0.45	9.7	2.94	2.31	0.03	3	38	60°	3.05	0/+0.05
WHD 442 040 045 …	■	■	M4	0.45	10.7	3.44	2.81	0.03	3	38	60°	3.55	0/+0.05
WHD 338 030 050 …	■	■	M3	0.5	9	2.38	1.69	0.03	3	38	60°	2.5	0/+0.05
WHD 338 035 050 …	■	■	M3.5	0.5	10	2.88	2.19	0.03	3	38	60°	3	0/+0.05
WHD 442 040 050 …	■	■	M4	0.5	11	3.38	2.69	0.03	4	42	60°	3.5	0/+0.05
WHD 442 045 050 …	■	■	M4.5	0.5	12	3.88	3.19	0.03	4	42	60°	4	0/+0.05
WHD 442 035 060 …	■	■	M3.5	0.6	10.6	2.75	1.95	0.03	4	42	60°	2.9	0/+0.06
WHD 442 040 060 …	■	■	M4	0.6	11.6	3.25	2.45	0.03	4	42	60°	3.4	0/+0.06
WHD 442 045 060 …	■	■	M4.5	0.6	12.6	3.75	2.95	0.03	4	42	60°	3.9	0/+0.06
WHD 442 040 070 …	■	■	M4	0.7	12.2	3.13	2.21	0.03	4	42	60°	3.3	0/+0.06
WHD 442 045 070 …	■	■	M4.5	0.7	13.2	3.63	2.71	0.03	4	42	60°	3.8	0/+0.06
WHD 442 045 075 …	■	■	M4.5	0.75	13.5	3.57	2.59	0.03	4	42	60°	3.75	0/+0.07
WHD 442 050 075 …	■	■	M5	0.75	14.5	3.98	3.00	0.03	4	42	60°	4.25	0/+0.07
WHD 442 050 080 …	■	■	M5	0.8	14.8	3.98	2.94	0.03	4	42	60°	4.2	0/+0.07

UTILIS multidec® swiss type tools



3 flutes, 1 tooth (full profile UNC/UNF)





WHD … UNC … (INCH) (Long version)

Order designation	Carbide		19	Standard	Dimensions								Core hole	
	○	●												
	○	●												
	○	●												
	●	○												
	UHM 20	UHM 20 HX		ANSI B1.1	P (T/Inch)	P	l_1	d_1	d_2	d_0	l_0	α	d_3	
PREMIUM-LINE						Accuracy class of UTILIS 374								
WHD 338-01-64 UNC …	■	■		1-64	64	0.397	6.1	1.36	0.81	3	38	60°	1.5	0/+0.04
WHD 338-02-56 UNC …	■	■		2-56	56	0.454	7.1	1.62	1	3	38	60°	1.78	0/+0.05
WHD 338-03-48 UNC …	■	■		3-48	48	0.529	8.2	1.86	1.15	3	38	60°	2.05	0/+0.05
WHD 442-04-40 UNC …	■	■		4-40	40	0.635	9.5	2.06	1.22	4	42	60°	2.27	0/+0.06
WHD 442-05-40 UNC …	■	■		5-40	40	0.635	10.2	2.39	1.55	4	42	60°	2.59	0/+0.06
WHD 442-06-32 UNC …	■	■		6-32	32	0.794	11.8	2.52	1.49	4	42	60°	2.77	0/+0.07
WHD 442-08-32 UNC …	■	■		8-32	32	0.794	13.1	3.18	2.16	4	42	60°	3.42	0/+0.07

WHD … UNF … (INCH) (Long version)

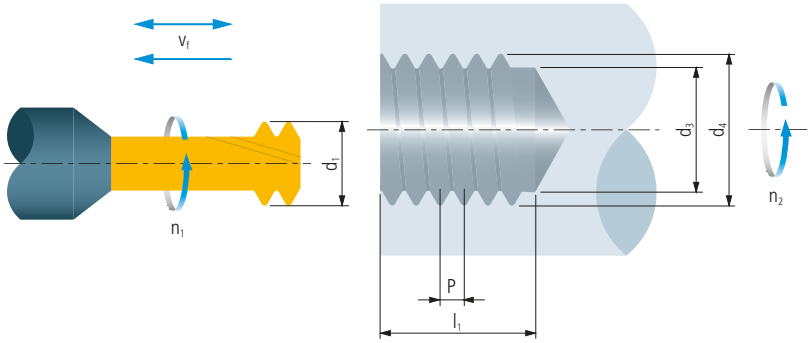
Order designation	Carbide		19	Standard	Dimensions								Core hole	
	○	●												
	○	●												
	○	●												
	●	○												
	UHM 20	UHM 20 HX		ANSI B1.1	P (T/Inch)	P	l_1	d_1	d_2	d_0	l_0	α	d_3	
PREMIUM-LINE						Accuracy class of UTILIS 374								
WHD 338-00-80 UNF …	■	■		0-80	80	0.317	5	1.12	0.67	3	38	60°	1.25	0/+0.04
WHD 338-01-72 UNF …	■	■		1-72	72	0.353	5.8	1.41	0.91	3	38	60°	1.55	0/+0.04
WHD 338-02-64 UNF …	■	■		2-64	64	0.396	6.8	1.69	1.14	3	38	60°	1.9	0/+0.04
WHD 338-03-56 UNF …	■	■		3-56	56	0.453	7.8	1.95	1.32	3	38	60°	2.15	0/+0.05
WHD 338-04-48 UNF …	■	■		4-48	48	0.529	8.9	2.19	1.46	3	38	60°	2.4	0/+0.05
WHD 338-05-44 UNF …	■	■		5-44	44	0.577	9.8	2.46	1.68	3	38	60°	2.7	0/+0.05
WHD 442-06-40 UNF …	■	■		6-40	40	0.635	10.8	2.72	1.87	4	42	60°	2.95	0/+0.06
WHD 442-08-36 UNF …	■	■		8-36	36	0.705	12.6	3.29	2.37	4	42	60°	3.5	0/+0.06
WHD 442-10-32 UNF …	■	■		10-32	32	0.794	14.4	3.84	2.82	4	42	60°	4.1	0/+0.07

Application recommendation 385

	Steel unalloyed			Steel low alloyed			Steel high alloyed			Titanium		
Hardness value (HB)	125–300			180–250			200–350			–		
Category	I			II			III			IV		
Machining method	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼
Cutting speeds	v_c (m/min)											
Cutting material carbide												
UHM 20	–	–	20–120	–	–	20–100	–	–	20–90	–	–	20–70
UHM 20 HX	–	–	30–160	–	–	30–140	–	–	30–130	–	–	30–100

	Stainless steel			Stainless steel			Aluminum			Brass		
Hardness value (HB)	180–220			220–330			60–130			–		
Category	V			VI			VII			VIII		
Machining method	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼
Cutting speeds	v_c (m/min)											
Cutting material carbide												
UHM 20	–	–	20–80	–	–	20–60	–	–	50–220	–	–	30–110
UHM 20 HX	–	–	30–120	–	–	30–100	–	–	60–350	–	–	50–180

Designation		Steel unalloyed	Steel low alloyed	Steel high alloyed	Titanium	Stainless steel	Aluminum	Brass	Synthetics
	P	f_z (mm)	f_z (mm)	f_z (mm)	f_z (mm)	f_z (mm)	f_z (mm)	f_z (mm)	f_z (mm)
WHS…	0.25	0.004–0.008	0.004–0.008	0.003–0.006	0.003–0.006	0.003–0.006	0.004–0.011	0.004–0.008	0.004–0.011
	0.3	0.004–0.010	0.004–0.010	0.003–0.007	0.003–0.007	0.003–0.007	0.005–0.013	0.004–0.010	0.005–0.013
	0.35	0.004–0.011	0.004–0.011	0.004–0.008	0.004–0.008	0.004–0.008	0.006–0.015	0.004–0.011	0.006–0.015
	0.4	0.005–0.013	0.005–0.013	0.004–0.010	0.004–0.010	0.004–0.010	0.007–0.021	0.005–0.013	0.007–0.021
	0.45	0.006–0.015	0.006–0.015	0.004–0.011	0.004–0.011	0.004–0.011	0.008–0.026	0.006–0.015	0.008–0.026
	0.5	0.007–0.021	0.007–0.021	0.005–0.013	0.005–0.013	0.005–0.013	0.010–0.030	0.007–0.021	0.010–0.030
	0.6	0.008–0.026	0.008–0.026	0.006–0.015	0.006–0.015	0.006–0.015	0.012–0.033	0.008–0.026	0.012–0.033
	0.7	0.010–0.030	0.010–0.030	0.007–0.021	0.007–0.021	0.007–0.021	0.015–0.035	0.010–0.030	0.015–0.035
	0.75	0.012–0.033	0.012–0.033	0.010–0.026	0.010–0.026	0.010–0.026	0.018–0.040	0.012–0.033	0.018–0.040
	0.8	0.015–0.035	0.015–0.035	0.012–0.030	0.012–0.030	0.012–0.030	0.020–0.045	0.015–0.035	0.020–0.045
WHL…	0.25	0.003–0.006	0.003–0.006	0.002–0.004	0.002–0.004	0.002–0.004	0.004–0.008	0.003–0.006	0.004–0.008
	0.3	0.003–0.007	0.003–0.007	0.002–0.005	0.002–0.005	0.002–0.005	0.004–0.010	0.003–0.007	0.004–0.010
	0.35	0.004–0.008	0.004–0.008	0.003–0.006	0.003–0.006	0.003–0.006	0.004–0.011	0.004–0.008	0.004–0.011
	0.4	0.004–0.010	0.004–0.010	0.003–0.007	0.003–0.007	0.003–0.007	0.005–0.013	0.004–0.010	0.005–0.013
	0.45	0.004–0.011	0.004–0.011	0.004–0.008	0.004–0.008	0.004–0.008	0.006–0.015	0.004–0.011	0.006–0.015
	0.5	0.005–0.013	0.005–0.013	0.004–0.010	0.004–0.010	0.004–0.010	0.007–0.021	0.005–0.013	0.007–0.021
	0.6	0.006–0.015	0.006–0.015	0.004–0.011	0.004–0.011	0.004–0.011	0.008–0.026	0.006–0.015	0.008–0.026
	0.7	0.007–0.021	0.007–0.021	0.005–0.013	0.005–0.013	0.005–0.013	0.010–0.030	0.007–0.021	0.010–0.030
	0.75	0.008–0.026	0.008–0.026	0.006–0.015	0.006–0.015	0.006–0.015	0.012–0.033	0.008–0.026	0.012–0.033
	0.8	0.010–0.030	0.010–0.030	0.007–0.021	0.007–0.021	0.007–0.021	0.015–0.035	0.010–0.030	0.015–0.035
WHA…	0.25	0.004–0.011	0.004–0.011	0.004–0.008	0.004–0.008	0.004–0.008	0.006–0.015	0.004–0.011	0.006–0.015
	0.3	0.005–0.013	0.005–0.013	0.004–0.010	0.004–0.010	0.004–0.010	0.007–0.021	0.005–0.013	0.007–0.021
	0.35	0.006–0.015	0.006–0.015	0.004–0.011	0.004–0.011	0.004–0.011	0.008–0.026	0.006–0.015	0.008–0.026
	0.4	0.007–0.021	0.007–0.021	0.005–0.013	0.005–0.013	0.005–0.013	0.010–0.030	0.007–0.021	0.010–0.030
	0.45	0.008–0.026	0.008–0.026	0.006–0.015	0.006–0.015	0.006–0.015	0.012–0.033	0.008–0.026	0.012–0.033
	0.5	0.010–0.030	0.010–0.030	0.007–0.021	0.007–0.021	0.007–0.021	0.015–0.035	0.010–0.030	0.015–0.035
	0.6	0.012–0.033	0.012–0.033	0.008–0.026	0.008–0.026	0.008–0.026	0.018–0.040	0.012–0.033	0.018–0.040
	0.7	0.015–0.035	0.015–0.035	0.010–0.030	0.010–0.030	0.010–0.030	0.020–0.045	0.015–0.035	0.020–0.045
	0.75	0.018–0.040	0.018–0.040	0.012–0.033	0.012–0.033	0.012–0.033	0.025–0.050	0.018–0.040	0.025–0.050
	0.8	0.020–0.045	0.020–0.045	0.015–0.035	0.015–0.035	0.015–0.035	0.030–0.060	0.020–0.045	0.030–0.060
WHB…	0.25	0.004–0.008	0.004–0.008	0.003–0.006	0.003–0.006	0.003–0.006	0.004–0.011	0.004–0.008	0.004–0.011
	0.3	0.004–0.010	0.004–0.010	0.003–0.007	0.003–0.007	0.003–0.007	0.005–0.013	0.004–0.010	0.005–0.013
	0.35	0.004–0.011	0.004–0.011	0.004–0.008	0.004–0.008	0.004–0.008	0.006–0.015	0.004–0.011	0.006–0.015
	0.4	0.005–0.013	0.005–0.013	0.004–0.010	0.004–0.010	0.004–0.010	0.007–0.021	0.005–0.013	0.007–0.021
	0.45	0.006–0.015	0.006–0.015	0.004–0.011	0.004–0.011	0.004–0.011	0.008–0.026	0.006–0.015	0.008–0.026
	0.5	0.007–0.021	0.007–0.021	0.005–0.013	0.005–0.013	0.005–0.013	0.010–0.030	0.007–0.021	0.010–0.030
	0.6	0.008–0.026	0.008–0.026	0.006–0.015	0.006–0.015	0.006–0.015	0.012–0.033	0.008–0.026	0.012–0.033
	0.7	0.010–0.030	0.010–0.030	0.007–0.021	0.007–0.021	0.007–0.021	0.015–0.035	0.010–0.030	0.015–0.035
	0.75	0.012–0.033	0.012–0.033	0.008–0.026	0.008–0.026	0.008–0.026	0.018–0.040	0.012–0.033	0.018–0.040
	0.8	0.015–0.035	0.015–0.035	0.010–0.030	0.010–0.030	0.010–0.030	0.020–0.045	0.015–0.035	0.020–0.045
WHC…	0.25	0.003–0.006	0.003–0.006	0.002–0.004	0.002–0.004	0.002–0.004	0.004–0.008	0.003–0.006	0.004–0.008
	0.3	0.003–0.007	0.003–0.007	0.002–0.005	0.002–0.005	0.002–0.005	0.004–0.010	0.003–0.007	0.004–0.010
	0.35	0.004–0.008	0.004–0.008	0.003–0.006	0.003–0.006	0.003–0.006	0.004–0.011	0.004–0.008	0.004–0.011
	0.4	0.004–0.010	0.004–0.010	0.003–0.007	0.003–0.007	0.003–0.007	0.005–0.013	0.004–0.010	0.005–0.013
	0.45	0.004–0.011	0.004–0.011	0.004–0.008	0.004–0.008	0.004–0.008	0.006–0.015	0.004–0.011	0.006–0.015
	0.5	0.005–0.013	0.005–0.013	0.004–0.010	0.004–0.010	0.004–0.010	0.007–0.021	0.005–0.013	0.007–0.021
	0.6	0.006–0.015	0.006–0.015	0.004–0.011	0.004–0.011	0.004–0.011	0.008–0.026	0.006–0.015	0.008–0.026
	0.7	0.007–0.021	0.007–0.021	0.005–0.013	0.005–0.013	0.005–0.013	0.010–0.030	0.007–0.021	0.010–0.030
	0.75	0.010–0.026	0.010–0.026	0.006–0.015	0.006–0.015	0.006–0.015	0.012–0.033	0.010–0.026	0.012–0.033
	0.8	0.012–0.030	0.012–0.030	0.007–0.021	0.007–0.021	0.007–0.021	0.015–0.035	0.012–0.030	0.015–0.035
WHD…	0.25	0.002–0.004	0.002–0.004	0.002–0.004	0.002–0.004	0.002–0.004	0.003–0.006	0.002–0.004	0.003–0.006
	0.3	0.002–0.005	0.002–0.005	0.002–0.004	0.002–0.004	0.002–0.004	0.003–0.007	0.002–0.005	0.003–0.007
	0.35	0.003–0.006	0.003–0.006	0.002–0.005	0.002–0.005	0.002–0.005	0.004–0.008	0.003–0.006	0.004–0.008
	0.4	0.003–0.007	0.003–0.007	0.002–0.005	0.002–0.005	0.002–0.005	0.004–0.010	0.003–0.007	0.004–0.010
	0.45	0.004–0.008	0.004–0.008	0.003–0.006	0.003–0.006	0.003–0.006	0.004–0.011	0.004–0.008	0.004–0.011
	0.5	0.004–0.010	0.004–0.010	0.003–0.007	0.003–0.007	0.003–0.007	0.005–0.013	0.004–0.010	0.005–0.013
	0.6	0.004–0.011	0.004–0.011	0.004–0.008	0.004–0.008	0.004–0.008	0.006–0.015	0.004–0.011	0.006–0.015
	0.7	0.005–0.013	0.005–0.013	0.004–0.010	0.004–0.010	0.004–0.010	0.007–0.021	0.005–0.013	0.007–0.021
	0.75	0.006–0.015	0.006–0.015	0.004–0.011	0.004–0.011	0.004–0.011	0.008–0.026	0.006–0.015	0.008–0.026
	0.8	0.007–0.021	0.007–0.021	0.005–0.013	0.005–0.013	0.005–0.013	0.010–0.030	0.007–0.021	0.010–0.030



$$v_f = z \cdot f_z \cdot n_1$$

$$n_1 = \frac{v_c \cdot 1000}{\pi \cdot d_1}$$

$$n_2 = \frac{v_f}{\pi \cdot d_1}$$

Explanation

v_f	Feed (mm/min)
d_1	Tool diameter (mm)
n_1	Tool revolutions (rev/min)
d_4	Work piece diameter (mm)
n_2	Revolutions (rev/min)
v_c	Cutting speed (m/min)
P	Pitch (mm)
l_1	Length of one milling pass (mm)
z	Number of teeth
d_3	Drilling diameter (mm)
f_z	Feed per tooth (mm)

Determine the drilling diameter

For the preparation of drilling before thread whirling, it is necessary to know at first the tolerance of the desired thread. To avoid overload of the tool the diameter must not exceed the max. diameter as mentioned in the following table.

Example: M 1.4, pitch 0.3, tolerance desired of the thread 6H on high level (1.11)
Diameter of the hole to be drilled min = 1.11 – (2 × 0.04) 1.03 mm minimum

Engraving is a chip-removing procedure for which ornaments, text and decorations are cut into the material. The removal of the material creates a surface structure which visually stands out against the background. Engravings manufactured in this way have the advantage of greater durability than other procedures.
The product range includes standardised, finished-ground carbide gravers which provide extremely good performance in all materials and also pre-ground semifinished products for grinding yourself.



Benefits:
– Standardised tools with point angle of 30° for engraving from 0.2 to 2 mm
– Pre-ground blanks, with lapped chip surface, available for individually grindable tools
– Sharp cutting edges
– Reliable process with long tool life

Technical information 9

Product lines and accuracy classes of UTILIS 388

Engraving graver

FGA … 389

FGB … 389

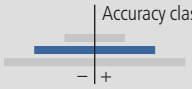
FGQ … 390

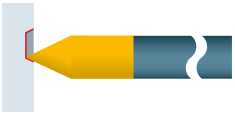
FGR … 390

STANDARD-LINE



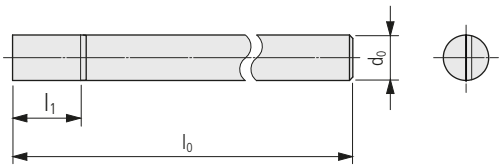


Product line	🗋 7	Repeatability
PREMIUM-LINE		< 10 µm
STANDARD-LINE		< 20 µm
VALUE-LINE		< 50 µm



Blank



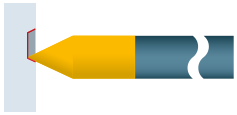


FGA …

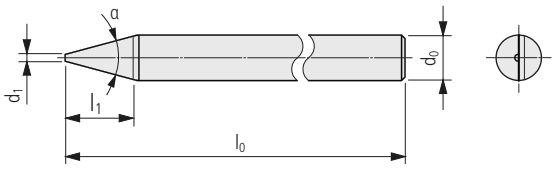
Order designation	Carbide 19	Dimensions			Holder
	UHM 20	l_1	l_0	d_0	
PREMIUM-LINE		Accuracy class of UTILIS 388			
FGA 020 032 …	■	3	32	2	
FGA 025 032 …	■	4	32	2.5	
FGA 030 036 …	■	5	36	3	
FGA 040 042 …	■	6	42	4	
FGA 050 050 …	■	8	50	5	
FGA 060 060 …	■	10	60	6	
FGA 080 060 …	■	12	60	8	
FGA 100 060 …	■	15	60	10	

FGB …

Order designation	Carbide 19	Dimensions			Holder
	UHM 20	l_1	l_0	d_0	
PREMIUM-LINE		Accuracy class of UTILIS 388			
FGB 020 042 …	■	4	42	2	
FGB 025 042 …	■	5	42	2.5	
FGB 030 050 …	■	6	50	3	
FGB 040 060 …	■	8	60	4	
FGB 050 075 …	■	10	75	5	
FGB 060 100 …	■	12	100	6	
FGB 080 100 …	■	16	100	8	
FGB 100 100 …	■	20	100	10	







FGQ …

Order designation	Carbide 19	Dimensions									Holder
	○ ○ ○ ● UHM 20	d_1	α	l_1	l_0	d_0					
PREMIUM-LINE						Accuracy class of UTILIS 388 – +					
FGQ 020 032 …	■	0.2	30°	3	32	2					
FGQ 025 032 …	■	0.4	30°	4	32	2.5					
FGQ 030 036 …	■	0.5	30°	5	36	3					
FGQ 040 042 …	■	0.6	30°	6	42	4					
FGQ 050 050 …	■	0.8	30°	8	50	5					
FGQ 060 060 …	■	1	30°	10	60	6					
FGQ 080 060 …	■	1.5	30°	12	60	8					
FGQ 100 060 …	■	2	30°	15	60	10					

FGR …

Order designation	Carbide 19	Dimensions									Holder
	○ ○ ○ ● UHM 20	d_1	α	l_1	l_0	d_0					
PREMIUM-LINE						Accuracy class of UTILIS 388 – +					
FGR 020 042 …	■	0.2	30°	4	42	2					
FGR 025 042 …	■	0.4	30°	5	42	2.5					
FGR 030 050 …	■	0.5	30°	6	50	3					
FGR 040 060 …	■	0.6	30°	8	60	4					
FGR 050 075 …	■	0.8	30°	10	75	5					
FGR 060 100 …	■	1	30°	12	100	6					
FGR 080 100 …	■	1.5	30°	16	100	8					
FGR 100 100 …	■	2	30°	20	100	10					

■ New

Legend 6

Attention
Please note the legend 🗋6…

multidec®-WHIRLING is a multiple cutter thread whirling tool system designed to significantly improve productivity – essential in today's mass production. Unlike single point threading which requires multiple passes, thread whirling produces a finished thread free from burr in a single pass. The use of up to 12 cutting inserts greatly reduces machining time.
For optimized use, UTILIS supplies variants for specific machines with different cutting diameters and lengths.



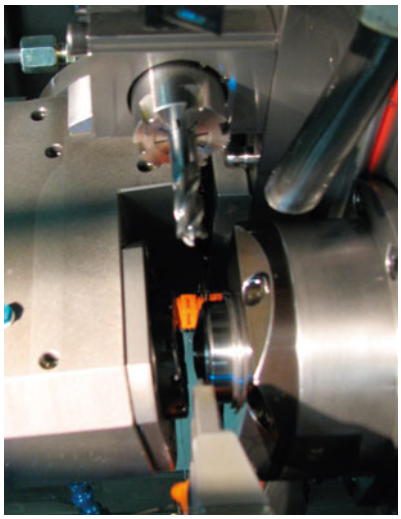




The inserts used in multidec®-WHIRLING are based on those in multidec®-CUT. This groove/lathe tool system is ideal for Swiss type turning machines with a maximum bar passage diameter of 10 mm. The inserts have two cutting edges that are screwed onto the holders with a repeat accuracy of < 0.01 mm.

Specialities and advantage:
- Up to 12 inserts increase productivity and reduce vibration considerably
- Little concentricity tolerance and high exchange accuracy of inserts < ±0.005 mm guarantee threads of high-quality
- Quick and simple change of the Whirling tool reduces set up time
- Threads without cutting ridge decrease re-machining of parts
- Using UTILIS standard blanks allows short delivery time and best possible coating for demanded application
- Whirling tools with different flight circles and multi start threads available





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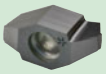
Whirling tool 400



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Whirling box, digital inclinometer and centring device 479



Special inserts 482



Replacement and spare parts 484

Usage recommendations and measurement of length difference 485



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MWT… (Type A)



xModular-System
Flexible, two-part system, which reduces set-up time with the fast change whirling ring (the adapter remains in the whirling device); guaranteed concentricity of ±0.005mm.

MWT… (Type B)

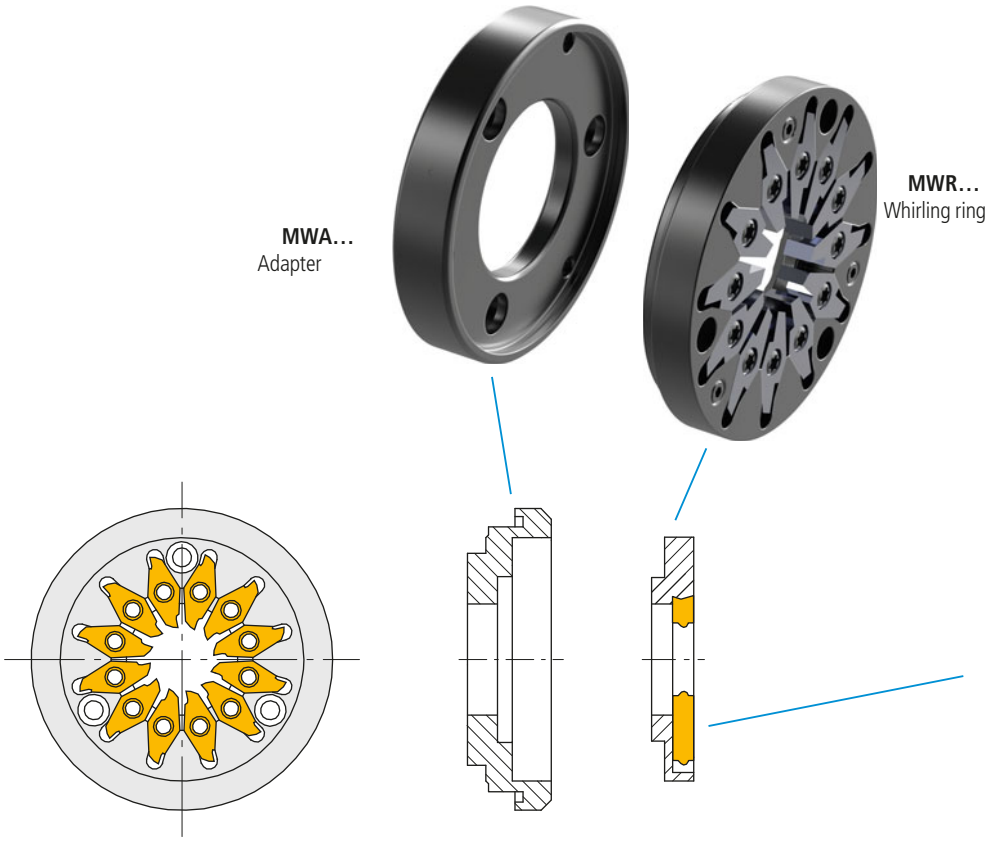


Mono-system
Highly compact single component system. This enables high concentricity of ±0.005mm to be achieved.

MWT… (Type C)



QuickChange-System
Unlike the xModular-System the whirling ring is removed or inserted by rotation. Here too, the guaranteed concentricity of ±0.005mm is maintained.





MWT… (HSK…)



MWT… (PSC…)



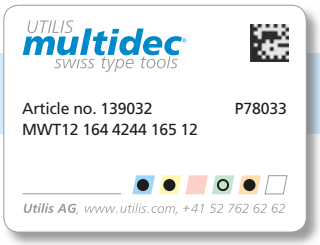
MWT… (ER…)

The designation of every part includes all important information according to the follwing system:

Whirling head

MWT12 164 4244 165 12

- Number of inserts {z}
- Length (e.g. 16.5 mm) {L_T}
- Maximum outer diameter {D_M}
- Diameter of whirling unit connection {D_A}
- Insert width (mm)
- Insert type
- Flight circle {D_F}
- Product line

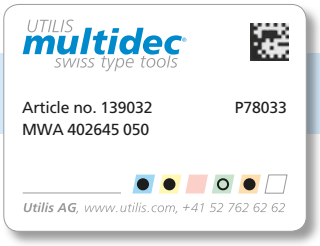


*

Adapter

MWA 402645 050

- Length (e.g. 5 mm) {L_A}
- Maximum outer diameter {D_K}
- Diameter of whirling ring connection
- Diameter of whirling unit side {D_A}
- Product line



*

Whirling ring

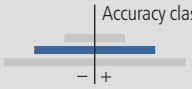
MWR12 164 2646 080 12

- Number of inserts {z}
- Length (e.g. 8 mm) {L_T}
- Maximum outer diameter {D_M}
- Diameter of adapter connection
- Insert width (mm)
- Insert type
- Flight circle {D_F}
- Product line



*

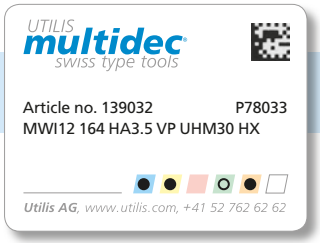
* Packaging Information 7

Product line	7	Repeatability
PREMIUM-LINE		< 10 µm
STANDARD-LINE		< 20 µm

Inserts

MWI12 164 HA3.5 VP UHM30 HX

- MWI12 — Product line
- 164 — Flight circle
- HA3.5 — Insert type
- VP — Insert width (mm)
- UHM30 — Geometry
- HX — Cutting material
- Coating

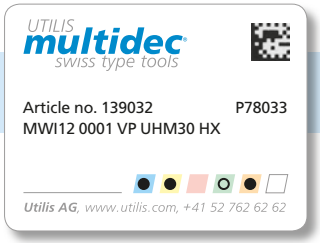


*

Special inserts

MWI12 0001 VP UHM30 HX

- MWI12 — Product line
- 0001 — Flight circle
- VP — Special execution
- UHM30 — Geometry
- HX — Cutting material
- Coating



*

* Packaging Information 346

Machine		Driven toolholder			
Manufacturer	Type	Manufacturer	Type		
			A	B	C
			⋮ 400	⋮ 460	⋮ 464
BENZINGER	TNI	WTO		■	
CITIZEN	A 20	CITIZEN		■	
		PCM	■		
	A 2 20	CITIZEN		■	
	A 3 20	CITIZEN		■	
	A 32	CITIZEN		■	
	A 2 32	CITIZEN		■	
	C 12	JARVIS	■		
	C 16	JARVIS	■		
		MADAULA	■		
		PCM	■		■
		W & F		■	
	C 20	PCM	■	■	
	C 32	CITIZEN		■	
		PCM	■	■	
	K 12	MADAULA		■	
		PCM		■	
	K 16	MADAULA		■	
		PCM		■	
	L 12 VII	PCM			■
	L 12	PCM	■	■	
	L 16	MADAULA	■		
		PCM	■	■	
		WTO		■	
	L 20	CITIZEN		■	
	L 2 20	CITIZEN		■	
	L 7 20	CITIZEN		■	
		JARVIS	■		
		MADAULA	■		
		PCM	■		
		WTO		■	
		W & F		■	
	L 25	JARVIS	■		
		MADAULA	■		
		PCM	■	■	
	L 32	CITIZEN		■	
		JARVIS	■		
		MADAULA	■		
		PCM	■	■	
	M 12	JARVIS	■		
		MADAULA	■		
		PCM	■		■
	M 16	JARVIS	■		
		MADAULA	■		
		PCM	■		■
		PCM	■		■
	M 4 16	CITIZEN		■	
	M 3 20	CITIZEN		■	
	M 4 20	CITIZEN		■	
	M 20	JARVIS	■		
		MADAULA	■		
		MT	■		
		PCM	■	■	
	M 3 32	CITIZEN		■	
	M 4 32	CITIZEN		■	
	M 32	JARVIS	■		
		MADAULA	■		
		MT	■		
		PCM	■	■	
DAESUNG NOMURA	NN 20	WTO		■	

Machine		Driven toolholder			
Manufacturer	Type	Manufacturer	Type		
			A	B	C
			⋮ 400	⋮ 460	⋮ 464
DMG MORI	NLX 2500	WTO		■	
	SPEED 12|7	PCM	■	■	
	SPEED 20|8	DMG		■	
	SPEED 20|11	DMG		■	
		PCM	■	■	
	SPRINT 20|8	DMG		■	
		MT	■		
	SPRINT 42|10	DMG		■	
DOOSAN	BMT 55	WTO		■	
	PUMA ST 20 G/GS	WTO		■	
	PUMA ST 20	WTO		■	
	PUMA ST 26 G/GS	WTO		■	
	PUMA ST 26	WTO		■	
	PUMA ST 32 G/GS	WTO		■	
	PUMA ST 32	WTO		■	
	PUMA ST 35 G/GS	WTO		■	
	PUMA ST 35	WTO		■	
	PUMA TT 1500	WTO		■	
	PUMA TT 1800 MS	WTO		■	
	PUMA TT 1800 SY	WTO		■	
	PUMA TT MS	WTO		■	
	PUMA TT SY	WTO		■	
	PUMA TT	WTO		■	
	BMT 45	WTO		■	
EMCO	BMT 55	WTO		■	
	Hyperturn 65	WTO		■	
	Maxxturn 65	WTO		■	
GANESH	SL 20	WTO		■	
GOODWAY	SW 20	WTO		■	
	SW 32	WTO		■	
	SW 42	WTO		■	
HANWHA	STL 32	MADAULA	■		
		WTO		■	
	STL 35	MADAULA	■		
		WTO		■	
	STL 38	MADAULA	■		
		WTO		■	
	STL 45	WTO		■	
	XD 12	MADAULA	■		
		WTO		■	
	XD 16	MADAULA	■		
		WTO		■	
	XD 20	MADAULA	■		
		WTO		■	
		W & F		■	
	XD 26	MADAULA	■		
		WTO	■	■	
	XD 32	ALPSTOOL	■		
		WTO		■	
	XD 35	WTO		■	
	XD 38	WTO		■	
	XDI 20	WTO		■	
	XE 20	WTO		■	
	XE 26	WTO		■	
HASEGAWA	JS 1 W	HASEGAWA	■		
JINN FA	JSL 20	JINN FA	■		
LEISTRITZ	LWN 90	LEISTRITZ	■		
MAIER	BASIC ML 20	MAIER	■		

UTILIS multidec® swiss type tools

Machine		Driven toolholder			
Manufacturer	Type	Manufacturer	Type		
			A	B	C
			⋮ 400	⋮ 460	⋮ 464
MANURHIN	KMK 426	WTO		■	
	KMK 432	WTO		■	
	KMK 526	WTO		■	
	KMK 532	WTO		■	
	KMK 626	WTO		■	
	KMK 632	WTO		■	
MAZAK	QTN 200 MS	WTO		■	
	QTN 200 MSY	WTO		■	
	QTN 200 M	WTO		■	
	QTN 200 MY	WTO		■	
	QTN 200	WTO		■	
	QTN 250 MS	WTO		■	
	QTN 250 MSY	WTO		■	
	QTN 250 M	WTO		■	
	QTN 250 MY	WTO		■	
	QTN 250	WTO		■	
	SQ 200 M	WTO		■	
	SQ 200	WTO		■	
	SQ 250 M	WTO		■	
	SQ 250	WTO		■	
	SQT 200 MS	WTO		■	
	SQT 200 MSY	WTO		■	
	SQT 200 M	WTO		■	
	SQT 200 MY	WTO		■	
	SQT 200	WTO		■	
	SQT 250 MS	WTO		■	
	SQT 250 MSY	WTO		■	
	SQT 250 M	WTO		■	
	SQT 250 MY	WTO		■	
	SQT 250	WTO		■	
MONNIER+ZAHNER	M 600	MONNIER+ZAHNER	■		
	M 621	MONNIER+ZAHNER	■		
NEXTURN	SA 20	PCM	■		
		WTO		■	
	SA 26	WTO		■	
	SA 32	PCM	■		
		WTO		■	
NOMURA	NN 16	PCM	■		
		MT	■		
		PCM	■		
	NN 20 UB 8	WTO		■	
	NN 32 YB 2	MT	■		

Machine		Driven toolholder			
Manufacturer	Type	Manufacturer	Type		
			A	B	C
			⋮ 400	⋮ 460	⋮ 464
STAR	ECAS 12	AERPIZ	■		
		MADAULA	■		
		STAR	■		
		WTO		■	
	ECAS 20	MADAULA	■		
		PCM		■	
		STAR	■		
		SU-matic	■		
		WTO	■	■	
	ECAS 32	STAR	■		
		WTO	■	■	
	SB 12	STAR	■		
		WTO		■	
	SB 16	WTO		■	
	SB 20	PCH	■		
		STAR	■		
		WTO		■	
	SR 10	MADAULA	■		
		PCM			■
		STAR	■		
		SU-matic	■		
	SR 16	MADAULA	■		
		STAR	■		
		SU-matic	■		
		WTO		■	
	SR 20	alpha ant	■		
		MADAULA	■		
		PCM	■		
		STAR	■		
		SU-matic	■		
		WTO		■	
		W & F		■	
	SR 32	MADAULA	■		
		STAR	■		
		SU-matic	■		
		WTO		■	
	SR 38	STAR	■		
	ST 20	STAR	■		
		WTO	■	■	
	ST 38	WTO	■	■	
		STAR	■		
	SV 12	MADAULA	■		
		STAR	■		
		WTO	■	■	
	SV 20	MADAULA	■		
		PCM	■		
		STAR	■		
		WTO	■	■	
	SV 32	MADAULA	■		
		STAR	■		
		WTO	■	■	
	SV 38	WTO	■	■	
	SW 12 R II	PCM			■
	SW 12	STAR	■		
		WTO		■	
		STAR	■		
		WTO		■	
TAKISAWA	TCY 160	WTO		■	
	TCY 200	WTO		■	

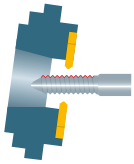
UTILIS multidec® swiss type tools

■ New

Legend 6

Machine		Driven toolholder			
Manufacturer	Type	Manufacturer	Type		
			A	B	C
			⋮ 400	⋮ 460	⋮ 464
TORNOS	CT 20	W & F		■	
	DECO 7	TORNOS	■		
	DECO 10	PCM	■		
		TORNOS	■		
		W & F	■		
	DECO 13	MADAULA	■		
		PCM	■		
		TORNOS	■		■
		W & F	■		
	DECO 16	W & F	■		
	DECO 20	ALBERTI UMBERTO	■		
		MADAULA	■		
		PCM	■		
		PIBOMULTI	■		
		TORNOS	■		
		W & F	■		
	DECO 26	MADAULA	■		
		PCM	■		
		PIBOMULTI	■		
		TORNOS	■		■
		W & F	■		
	DECO	WTO		■	
	EvoDECO 10	TORNOS	■		
	EvoDECO 16	MADAULA	■		
		PCM	■		
		TORNOS	■		■
		W & F	■		
	EvoDECO 20	TORNOS	■		■
	EvoDECO 32	TORNOS	■		■
	Gamma 20/6	MADAULA	■		
		TORNOS	■		
		W & F		■	
	MultiALPHA 6x32	TORNOS	■		
	MultiALPHA 8x20	TORNOS	■		
	MultiALPHA 8x28	TORNOS	■		
	MultiDECO 20/6	PIBOMULTI	■		
	MultiSIGMA 8x24	TORNOS	■		
	MultiSIGMA 8x28	TORNOS	■		
	MultiSWISS 6x14	TORNOS	■		
	SIGMA 20	MADAULA	■		
		TORNOS	■		
	SIGMA 32	TORNOS	■		
	SWISS GT 13	TORNOS	■		
	SWISS GT 26	TORNOS		■	
	SWISS ST 26	TORNOS	■		
TRAUB	TNK 36	TRAUB		■	
	TNL 12	TRAUB		■	
	TNL 18	TRAUB		■	
	TNL 26	TRAUB	■	■	
	TNL 32	TRAUB		■	

Machine		Driven toolholder			
Manufacturer	Type	Manufacturer	Type		
			A	B	C
			⋮ 400	⋮ 460	⋮ 464
TSUGAMI	B 0265	WTO		■	
	B 0266	WTO		■	
	B 0325	TSUGAMI	■		
		WTO		■	
	B 0326	TSUGAMI	■		
		WTO		■	
	B 0385	TSUGAMI	■		
		WTO		■	
	BH 20	TSUGAMI	■		
	BH 207	TSUGAMI	■		
	BH 38	TSUGAMI	■		
	HS 207	MADAULA	■		
	NP 16	PCM	■	■	
	S 205	MADAULA	■		
		TSUGAMI	■		
		WTO		■	
	S 206	SONGGIA	■		
		MADAULA	■		
		TSUGAMI	■		
		WTO		■	
	SS 20	TSUGAMI	■		
		WTO		■	
	SS 26	WTO		■	
	SS 32	TSUGAMI	■		
		WTO		■	
		UTILIS		■	

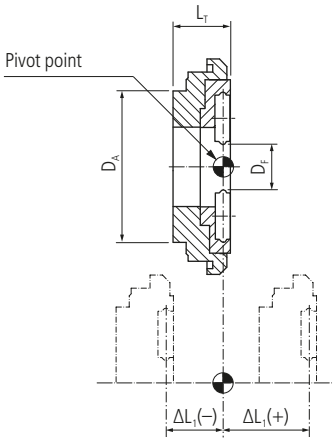


Type A

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…

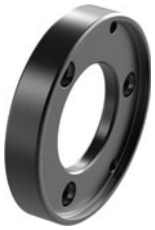


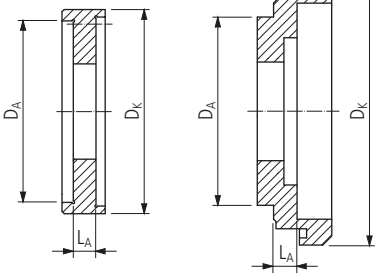
PREMIUM-LINE

UTILIS multidec® swiss type tools

Driven toolholder			Whirling tool										
Manufacturer	Type		Order designation		Dimensions								
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396								
			MWT06 164 4040 111 09	■	6	40	40	40	9	4	11.1	0
			MWT06 164 4040 116 09	■	6	40	40	40	9	4.5	11.6	0.4
			MWT06 164 4040 144 09	■	6	40	40	40	9	7.3	14.4	3.3
			MWT06 164 4040 154 09	■	6	40	40	40	9	8.3	15.4	4.3
			MWT06 164 4040 161 09	■	6	40	40	40	9	9	16.1	5
			MWT06 164 4040 181 09	■	6	40	40	40	9	11	18.1	7
			MWT06 164 4040 196 09	■	6	40	40	40	9	12.5	19.6	8.5
			MWT06 164 4040 231 09	■	6	40	40	40	9	16	23.1	12
			MWT12 164 4040 111 09	■	12	40	40	40	9	4	11.1	0
			MWT12 164 4040 116 09	■	12	40	40	40	9	4.5	11.6	0.4
			MWT12 164 4040 144 09	■	12	40	40	40	9	7.3	14.4	3.3
			MWT12 164 4040 154 09	■	12	40	40	40	9	8.3	15.4	4.3
			MWT12 164 4040 161 09	■	12	40	40	40	9	9	16.1	5
			MWT12 164 4040 181 09	■	12	40	40	40	9	11	18.1	7
			MWT12 164 4040 196 09	■	12	40	40	40	9	12.5	19.6	8.5
			MWT12 164 4040 231 09	■	12	40	40	40	9	16	23.1	12
			MWT12 164 4040 111 12	■	12	40	40	40	12	4	11.1	0
			MWT12 164 4040 116 12	■	12	40	40	40	12	4.5	11.6	0.4
AERPIZ	0M171-00	■	MWT12 164 4040 144 12	■	12	40	40	40	12	7.3	14.4	3.3
			MWT12 164 4040 154 12	■	12	40	40	40	12	8.3	15.4	4.3
			MWT12 164 4040 161 12	■	12	40	40	40	12	9	16.1	5
			MWT12 164 4040 181 12	■	12	40	40	40	12	11	18.1	7
			MWT12 164 4040 196 12	■	12	40	40	40	12	12.5	19.6	8.5
			MWT12 164 4040 231 12	■	12	40	40	40	12	16	23.1	12
			MWT15 164 4040 111 09	■	15	40	40	40	9	4	11.1	0
			MWT15 164 4040 116 09	■	15	40	40	40	9	4.5	11.6	0.4
			MWT15 164 4040 144 09	■	15	40	40	40	9	7.3	14.4	3.3
			MWT15 164 4040 154 09	■	15	40	40	40	9	8.3	15.4	4.3
			MWT15 164 4040 161 09	■	15	40	40	40	9	9	16.1	5
			MWT15 164 4040 181 09	■	15	40	40	40	9	11	18.1	7
			MWT15 164 4040 196 09	■	15	40	40	40	9	12.5	19.6	8.5
			MWT15 164 4040 231 09	■	15	40	40	40	9	16	23.1	12
			MWT06 164 4045 120 09	■	6	40	45	46	9	4	12	0
			MWT06 164 4045 125 09	■	6	40	45	46	9	4.5	12.5	0.5
			MWT06 164 4045 153 09	■	6	40	45	46	9	7.3	15.3	3.3
			MWT06 164 4045 163 09	■	6	40	45	46	9	8.3	16.3	4.3
			MWT06 164 4045 170 09	■	6	40	45	46	9	9	17	5
			MWT06 164 4045 190 09	■	6	40	45	46	9	11	19	7

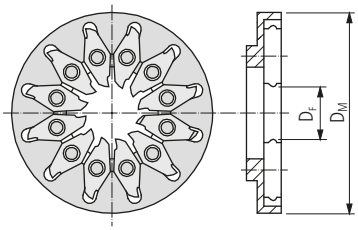
* Number of teeth





MWA…

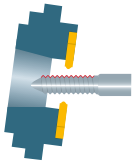




MWR…

Adapter	Whirling ring			
MWA 402540 040	MWR06 164 2540 091 09			
MWA 402540 045	MWR12 164 2546 080 09			
MWA 402540 073	MWR12 164 2546 080 12			
MWA 402540 083	MWR15 164 2546 080 09			
MWA 402540 090				
MWA 402540 110				
MWA 402540 125				
MWA 402540 160				

■ New

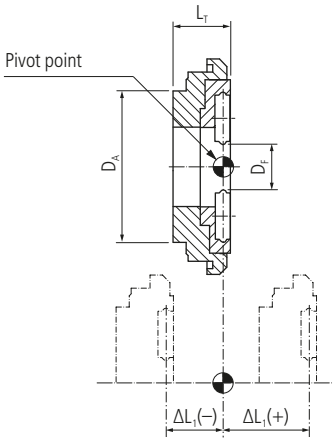


Type A

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…

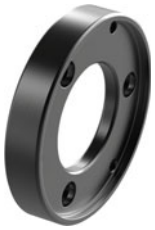


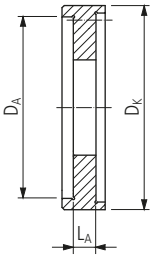
PREMIUM-LINE

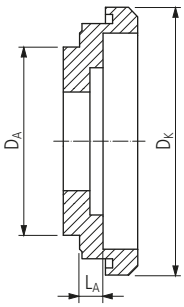
Driven toolholder			Whirling tool										
Manufacturer	Type		Order designation		Dimensions								
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396								
AERPIZ	0M171-00	■	MWT06 164 4045 205 09	■	6	40	45	46	9	12.5	20.5	8.5
			MWT06 164 4045 240 09	■	6	40	45	46	9	16	24	12
			MWT08 164 4045 120 09	■	8	40	45	46	9	4	12	0
			MWT08 164 4045 125 09	■	8	40	45	46	9	4.5	12.5	0.5
			MWT08 164 4045 153 09	■	8	40	45	46	9	7.3	15.3	3.3
			MWT08 164 4045 163 09	■	8	40	45	46	9	8.3	16.3	4.3
			MWT08 164 4045 170 09	■	8	40	45	46	9	9	17	5
			MWT08 164 4045 190 09	■	8	40	45	46	9	11	19	7
			MWT08 164 4045 205 09	■	8	40	45	46	9	12.5	20.5	8.5
			MWT08 164 4045 240 09	■	8	40	45	46	9	16	24	12
			MWT12 164 4045 120 09	■	12	40	45	46	9	4	12	0
			MWT12 164 4045 125 09	■	12	40	45	46	9	4.5	12.5	0.5
			MWT12 164 4045 153 09	■	12	40	45	46	9	7.3	15.3	3.3
			MWT12 164 4045 163 09	■	12	40	45	46	9	8.3	16.3	4.3
			MWT12 164 4045 170 09	■	12	40	45	46	9	9	17	5
			MWT12 164 4045 190 09	■	12	40	45	46	9	11	19	7
			MWT12 164 4045 205 09	■	12	40	45	46	9	12.5	20.5	8.5
			MWT12 164 4045 240 09	■	12	40	45	46	9	16	24	12
			MWT12 164 4045 120 12	■	12	40	45	46	12	4	12	0
			MWT12 164 4045 125 12	■	12	40	45	46	12	4.5	12.5	0.5
			MWT12 164 4045 153 12	■	12	40	45	46	12	7.3	15.3	3.3
			MWT12 164 4045 163 12	■	12	40	45	46	12	8.3	16.3	4.3
			MWT12 164 4045 170 12	■	12	40	45	46	12	9	17	5
			MWT12 164 4045 190 12	■	12	40	45	46	12	11	19	7
			MWT12 164 4045 205 12	■	12	40	45	46	12	12.5	20.5	8.5
			MWT12 164 4045 240 12	■	12	40	45	46	12	16	24	12
			MWT15 164 4045 120 09	■	15	40	45	46	9	4	12	0
			MWT15 164 4045 125 09	■	15	40	45	46	9	4.5	12.5	0.5
			MWT15 164 4045 153 09	■	15	40	45	46	9	7.3	15.3	3.3
			MWT15 164 4045 163 09	■	15	40	45	46	9	8.3	16.3	4.3
			MWT15 164 4045 170 09	■	15	40	45	46	9	9	17	5
			MWT15 164 4045 190 09	■	15	40	45	46	9	11	19	7
			MWT15 164 4045 205 09	■	15	40	45	46	9	12.5	20.5	8.5
			MWT15 164 4045 240 09	■	15	40	45	46	9	16	24	12

* Number of teeth

Continuation

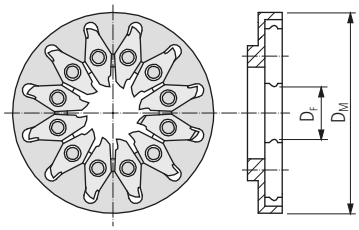






MWA...



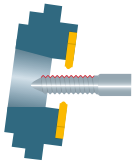


MWR...

Adapter	Whirling ring
MWA 402540 040	MWR06 164 2540 091 09
MWA 402540 045	MWR08 164 2546 080 09
MWA 402540 073	MWR12 164 2546 080 09
MWA 402540 083	MWR12 164 2546 080 12
MWA 402540 090	MWR15 164 2546 080 09
MWA 402540 110	
MWA 402540 125	
MWA 402540 160	

■ New

Legend 6

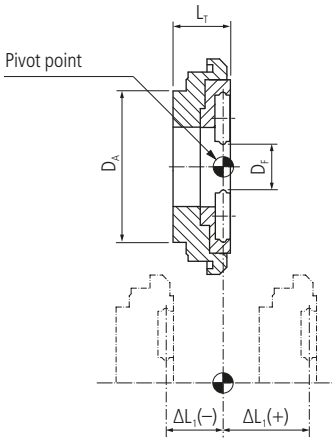


Type A

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…



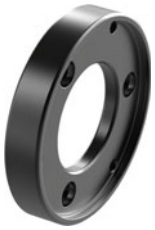
UTILIS multidec® swiss type tools

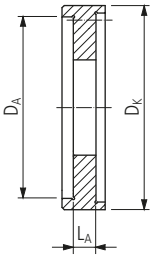
PREMIUM-LINE

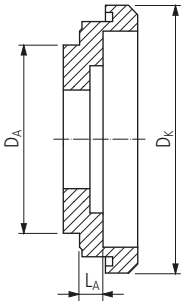
Driven toolholder			Whirling tool										
Manufacturer	Type		Order designation		Dimensions								
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396								
ALBERTI UMBERTO	ATO.DE.20.0800	■	MWT06 164 4055 103 09	■	6	40	55	55	9	2.3	10.3	0
			MWT06 164 4055 115 09	■	6	40	55	55	9	3.5	11.5	1.2
			MWT06 164 4055 153 09	■	6	40	55	55	9	7.3	15.3	5
			MWT08 164 4055 103 09	■	8	40	55	55	9	2.3	10.3	0
			MWT08 164 4055 115 09	■	8	40	55	55	9	3.5	11.5	1.2
			MWT08 164 4055 153 09	■	8	40	55	55	9	7.3	15.3	5
			MWT12 164 4055 103 09	■	12	40	55	55	9	2.3	10.3	0
			MWT12 164 4055 115 09	■	12	40	55	55	9	3.5	11.5	1.2
			MWT12 164 4055 153 09	■	12	40	55	55	9	7.3	15.3	5
			MWT12 164 4055 103 12	■	12	40	55	55	12	2.3	10.3	0
			MWT12 164 4055 115 12	■	12	40	55	55	12	3.5	11.5	1.2
			MWT12 164 4055 153 12	■	12	40	55	55	12	7.3	15.3	5
			MWT15 164 4055 103 09	■	15	40	55	55	9	2.3	10.3	0
			MWT15 164 4055 115 09	■	15	40	55	55	9	3.5	11.5	1.2
			MWT15 164 4055 153 09	■	15	40	55	55	9	7.3	15.3	5
			MWT15 164 4055 103 12	■	15	40	55	55	12	2.3	10.3	0
			MWT15 164 4055 115 12	■	15	40	55	55	12	3.5	11.5	1.2
			MWT15 164 4055 153 12	■	15	40	55	55	12	7.3	15.3	5
ALPSTOOL	ZZA08-13000	■	MWT08 164 4546 145 09	■	8	45	45	46	9	6.5	14.5	1
			MWT08 164 4546 240 09	■	8	45	45	46	9	16	24	8.5
			MWT08 164 4546 280 09	■	8	45	45	46	9	20	28	12.5
			MWT12 164 4546 145 09	■	12	45	45	46	9	6.5	14.5	1
			MWT12 164 4546 240 09	■	12	45	45	46	9	16	24	8.5
			MWT12 164 4546 280 09	■	12	45	45	46	9	20	28	12.5
			MWT12 164 4546 145 12	■	12	45	45	46	12	6.5	14.5	1
			MWT12 164 4546 240 12	■	12	45	45	46	12	16	24	8.5
			MWT12 164 4546 280 12	■	12	45	45	46	12	20	28	12.5
			MWT15 164 4546 145 09	■	15	45	45	46	9	6.5	14.5	1
			MWT15 164 4546 240 09	■	15	45	45	46	9	16	24	8.5
			MWT15 164 4546 280 09	■	15	45	45	46	9	20	28	12.5
			MWT15 164 4546 145 12	■	15	45	45	46	12	6.5	14.5	1
			MWT15 164 4546 240 12	■	15	45	45	46	12	16	24	8.5
			MWT15 164 4546 280 12	■	15	45	45	46	12	20	28	12.5
DMG	45x15	■	MWT08 164 4046 115 09	■	8	40	46	46	9	3.5	11.5	0
			MWT12 164 4046 115 09	■	12	40	46	46	9	3.5	11.5	0
			MWT12 164 4046 115 12	■	12	40	46	46	12	3.5	11.5	0
			MWT15 164 4046 115 09	■	15	40	46	46	9	3.5	11.5	0
			MWT15 164 4046 115 12	■	15	40	46	46	12	3.5	11.5	0

* Number of teeth

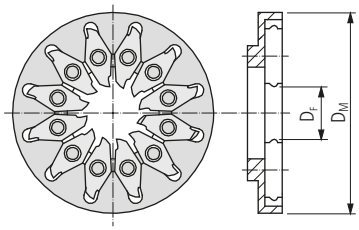
Continuation









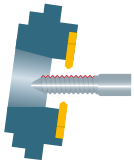


MWA…

MWR…

Adapter	Whirling ring
MWA 402645 035	MWR06 164 2646 080 09
MWA 402655 023	MWR08 164 2646 080 09
MWA 402655 035	MWR12 164 2646 080 09
MWA 402655 073	MWR12 164 2646 080 12
MWA 452645 065	MWR15 164 2646 080 09
MWA 452645 160	MWR15 164 2646 080 12
MWA 452645 200	

■ New

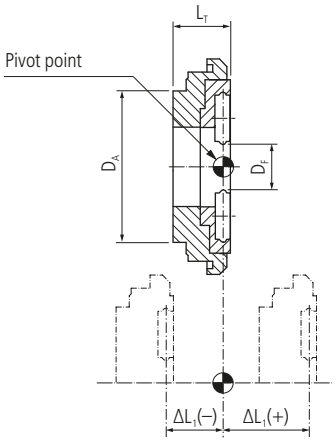


Type A

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…



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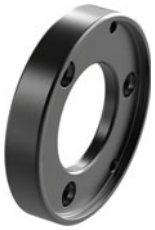
PREMIUM-LINE

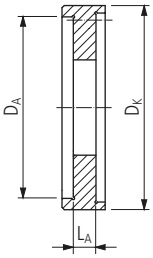
UTILIS multidec® swiss type tools

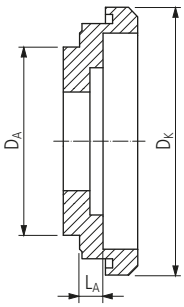
Driven toolholder			Whirling tool										
Manufacturer	Type		Order designation		Dimensions								
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396								
HASEGAWA	JS-1W	■	MWT12 164 9494 250 03	■	12	94	94	94	3	22.5	25	0
			MWT12 164 9494 250 09	■	12	94	94	94	9	22.5	25	0
			MWT12 164 9494 250 12	■	12	94	94	94	12	22.5	25	0
			MWT15 164 9494 250 09	■	15	94	94	94	9	22.5	25	0
JARVIS	LTR0128 LTR0132 LTR0139 LTR0168 LTR0183 CHS-1B6	■ ■ ■ ■ ■ ■	MWT06 164 4053 121 09	■	6	40	53	46	9	4.3	12.1	0
			MWT06 164 4053 131 09	■	6	40	53	46	9	5.3	13.1	1
			MWT08 164 4053 121 09	■	8	40	53	46	9	4.3	12.1	0
			MWT08 164 4053 131 09	■	8	40	53	46	9	5.3	13.1	1
			MWT12 164 4053 121 09	■	12	40	53	46	9	4.3	12.1	0
			MWT12 164 4053 131 09	■	12	40	53	46	9	5.3	13.1	1
			MWT12 164 4053 121 12	■	12	40	53	46	12	4.3	12.1	0
			MWT12 164 4053 131 12	■	12	40	53	46	12	5.3	13.1	1
			MWT15 164 4053 121 09	■	15	40	53	46	9	4.3	12.1	0
			MWT15 164 4053 131 09	■	15	40	53	46	9	5.3	13.1	1
			MWT15 164 4053 121 12	■	15	40	53	46	12	4.3	12.1	0
			MWT15 164 4053 131 12	■	15	40	53	46	12	5.3	13.1	1
JARVIS	LTR0131 LTR0169 LTR0170 CHS-2B6	■ ■ ■ ■	MWT06 164 3746 121 09	■	6	37	46	46	9	4.1	12.1	0
			MWT06 164 3746 221 09	■	6	37	46	46	9	14.1	22.1	10
			MWT08 164 3746 121 09	■	8	37	46	46	9	4.1	12.1	0
			MWT08 164 3746 221 09	■	8	37	46	46	9	14.1	22.1	10
			MWT12 164 3746 121 09	■	12	37	46	46	9	4.1	12.1	0
			MWT12 164 3746 221 09	■	12	37	46	46	9	14.1	22.1	10
			MWT12 164 3746 121 12	■	12	37	46	46	12	4.1	12.1	0
			MWT12 164 3746 221 12	■	12	37	46	46	12	14.1	22.1	10
			MWT15 164 3746 121 09	■	15	37	46	46	9	4.1	12.1	0
			MWT15 164 3746 221 09	■	15	37	46	46	9	14.1	22.1	10
			MWT15 164 3746 121 12	■	15	37	46	46	12	4.1	12.1	0
			MWT15 164 3746 221 12	■	15	37	46	46	12	14.1	22.1	10
JINN FA	STR 260100	■	MWT12 164 4244 155 09	■	12	42	42	44	9	7.5	15.5	0
			MWT12 164 4244 155 12	■	12	42	42	44	12	7.5	15.5	0
			MWT15 164 4244 155 12	■	15	42	42	44	12	7.5	15.5	0
LEISTRITZ	WR796	■	MWT12 164 4294 250 03	■	12	42	94	94	3	22	25	0
			MWT12 164 4294 250 09	■	12	42	94	94	9	22	25	0
			MWT12 164 4294 250 12	■	12	42	94	94	12	22	25	0
			MWT15 164 4294 250 09	■	15	42	94	94	9	22	25	0
LEISTRITZ	WR 926	■	MWT25 164 152170 200 09	■	25	152	170	58	9	10	20	-
			MWT25 164 152170 200 12	■	25	152	170	58	12	10	20	-

* Number of teeth

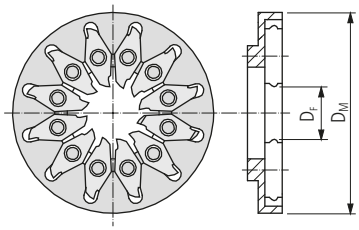
Continuation











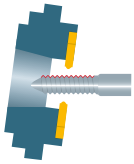
MWA…

MWR…

Adapter	Whirling ring
MWA 372646 041	MWR12 164 2644 080 09
MWA 372646 141	MWR12 164 2644 080 12
MWA 402652 043	MWR15 164 2644 080 12
MWA 402652 053	MWR06 164 2646 080 09
MWA 422642 075	MWR08 164 2646 080 09
MWA 423294 220	MWR12 164 2646 080 09
MWA 944294 225	MWR12 164 2646 080 12
MWA 1523917O 100	MWR15 164 2646 080 09
	MWR15 164 2646 080 12
	MWR25 164 3958 100 09
	MWR25 164 3958 100 12
	MWR12 164 4246 055 03
	MWR12 164 4246 055 09
	MWR12 164 4246 055 12
	MWR15 164 4246 055 09

■ New

Legend 6

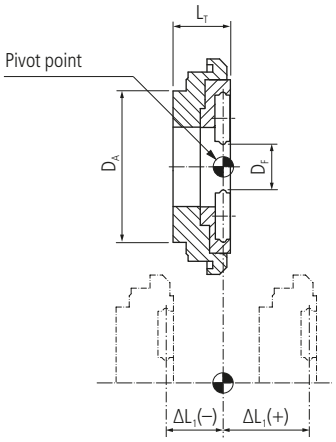


Type A

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…

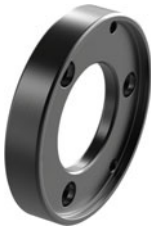


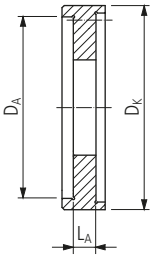
PREMIUM-LINE

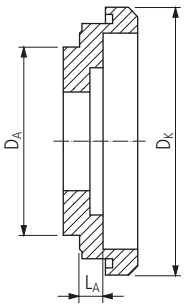
Driven toolholder			Whirling tool										
Manufacturer	Type		Order designation		Dimensions								
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396								
MADAULA	CZ.035.C16	■	MWT12 164 3546 169 03	■	12	35	46	46	3	8.9	16.9	0
			MWT12 164 3546 219 03	■	12	35	46	46	3	13.9	21.9	5
			MWT12 164 3546 169 09	■	12	35	46	46	9	8.9	16.9	0
			MWT12 164 3546 219 09	■	12	35	46	46	9	13.9	21.9	5
			MWT12 164 3546 169 12	■	12	35	46	46	12	8.9	16.9	0
			MWT12 164 3546 219 12	■	12	35	46	46	12	13.9	21.9	5
			MWT15 164 3546 169 09	■	15	35	46	46	9	8.9	16.9	0
			MWT15 164 3546 219 09	■	15	35	46	46	9	13.9	21.9	5

* Number of teeth

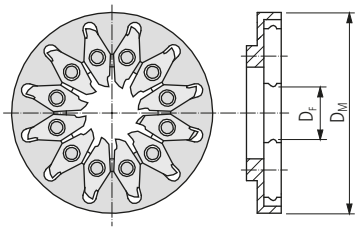
Continuation







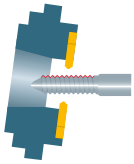




MWA...

MWR...

Adapter		Whirling ring			
MWA 354246 089	MWA 354246 139	MWR12 164 4246 055 03	MWR12 164 4246 055 09	MWR12 164 4246 055 12	MWR15 164 4246 055 09
■		■			
	■	■			
■			■		
	■		■		
■				■	
	■			■	
■					■
	■				■

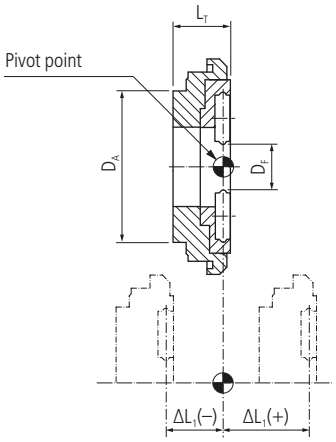


Type A

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…



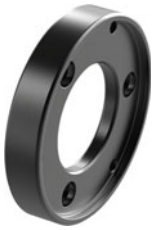
PREMIUM-LINE

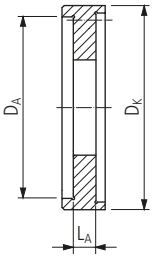
UTILIS multidec® swiss type tools

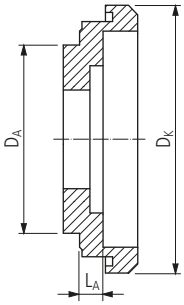
Driven toolholder			Whirling tool										
Manufacturer	Type		Order designation		Dimensions								
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396								
MADAULA	ST.035.34 P.035.00049 1110.00037	■ ■ ■	MWT06 164 4040 111 09	■	6	40	40	40	9	4	11.1	0
			MWT06 164 4040 116 09	■	6	40	40	40	9	4.5	11.6	0.4
			MWT06 164 4040 144 09	■	6	40	40	40	9	7.3	14.4	3.3
			MWT06 164 4040 154 09	■	6	40	40	40	9	8.3	15.4	4.3
			MWT06 164 4040 161 09	■	6	40	40	40	9	9	16.1	5
			MWT06 164 4040 181 09	■	6	40	40	40	9	11	18.1	7
			MWT06 164 4040 196 09	■	6	40	40	40	9	12.5	19.6	8.5
			MWT06 164 4040 231 09	■	6	40	40	40	9	16	23.1	12
			MWT12 164 4040 111 09	■	12	40	40	40	9	4	11.1	0
			MWT12 164 4040 116 09	■	12	40	40	40	9	4.5	11.6	0.4
			MWT12 164 4040 144 09	■	12	40	40	40	9	7.3	14.4	3.3
			MWT12 164 4040 154 09	■	12	40	40	40	9	8.3	15.4	4.3
			MWT12 164 4040 161 09	■	12	40	40	40	9	9	16.1	5
			MWT12 164 4040 181 09	■	12	40	40	40	9	11	18.1	7
			MWT12 164 4040 196 09	■	12	40	40	40	9	12.5	19.6	8.5
			MWT12 164 4040 231 09	■	12	40	40	40	9	16	23.1	12
			MWT12 164 4040 111 12	■	12	40	40	40	12	4	11.1	0
			MWT12 164 4040 116 12	■	12	40	40	40	12	4.5	11.6	0.4
			MWT12 164 4040 144 12	■	12	40	40	40	12	7.3	14.4	3.3
			MWT12 164 4040 154 12	■	12	40	40	40	12	8.3	15.4	4.3
			MWT12 164 4040 161 12	■	12	40	40	40	12	9	16.1	5
			MWT12 164 4040 181 12	■	12	40	40	40	12	11	18.1	7
			MWT12 164 4040 196 12	■	12	40	40	40	12	12.5	19.6	8.5
			MWT12 164 4040 231 12	■	12	40	40	40	12	16	23.1	12
			MWT15 164 4040 111 09	■	15	40	40	40	9	4	11.1	0
			MWT15 164 4040 116 09	■	15	40	40	40	9	4.5	11.6	0.4
			MWT15 164 4040 144 09	■	15	40	40	40	9	7.3	14.4	3.3
			MWT15 164 4040 154 09	■	15	40	40	40	9	8.3	15.4	4.3
			MWT15 164 4040 161 09	■	15	40	40	40	9	9	16.1	5
			MWT15 164 4040 181 09	■	15	40	40	40	9	11	18.1	7
			MWT15 164 4040 196 09	■	15	40	40	40	9	12.5	19.6	8.5
			MWT15 164 4040 231 09	■	15	40	40	40	9	16	23.1	12
			MWT06 164 4045 120 09	■	6	40	45	46	9	4	12	0
			MWT06 164 4045 125 09	■	6	40	45	46	9	4.5	12.5	0.5
			MWT06 164 4045 153 09	■	6	40	45	46	9	7.3	15.3	3.3
			MWT06 164 4045 163 09	■	6	40	45	46	9	8.3	16.3	4.3
			MWT06 164 4045 170 09	■	6	40	45	46	9	9	17	5
			MWT06 164 4045 190 09	■	6	40	45	46	9	11	19	7

* Number of teeth

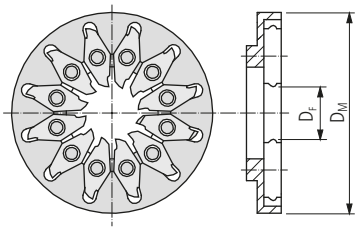
Continuation









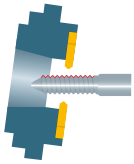


MWA…

MWR…

Adapter	Whirling ring
MWA 402540 040	MWR06 164 2540 091 09
MWA 402540 045	MWR12 164 2546 080 09
MWA 402540 073	MWR12 164 2546 080 12
MWA 402540 083	MWR15 164 2546 080 09
MWA 402540 090	
MWA 402540 110	
MWA 402540 125	
MWA 402540 160	

■ New

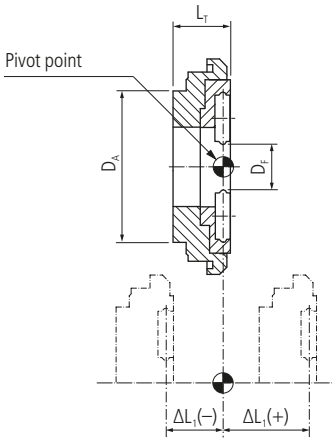


Type A

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…



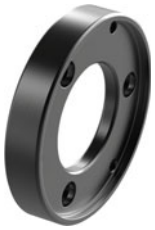
PREMIUM-LINE

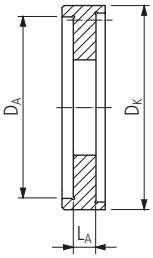
UTILIS multidec® swiss type tools

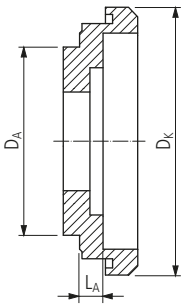
Driven toolholder			Whirling tool										
Manufacturer	Type		Order designation		Dimensions								
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396								
			MWT06 164 4045 205 09	■	6	40	45	46	9	12.5	20.5	8.5
			MWT06 164 4045 240 09	■	6	40	45	46	9	16	24	12
			MWT08 164 4045 120 09	■	8	40	45	46	9	4	12	0
			MWT08 164 4045 125 09	■	8	40	45	46	9	4.5	12.5	0.5
			MWT08 164 4045 153 09	■	8	40	45	46	9	7.3	15.3	3.3
			MWT08 164 4045 163 09	■	8	40	45	46	9	8.3	16.3	4.3
			MWT08 164 4045 170 09	■	8	40	45	46	9	9	17	5
			MWT08 164 4045 190 09	■	8	40	45	46	9	11	19	7
			MWT08 164 4045 205 09	■	8	40	45	46	9	12.5	20.5	8.5
			MWT08 164 4045 240 09	■	8	40	45	46	9	16	24	12
			MWT12 164 4045 120 09	■	12	40	45	46	9	4	12	0
			MWT12 164 4045 125 09	■	12	40	45	46	9	4.5	12.5	0.5
			MWT12 164 4045 153 09	■	12	40	45	46	9	7.3	15.3	3.3
			MWT12 164 4045 163 09	■	12	40	45	46	9	8.3	16.3	4.3
			MWT12 164 4045 170 09	■	12	40	45	46	9	9	17	5
			MWT12 164 4045 190 09	■	12	40	45	46	9	11	19	7
MADAULA	1110.00037	■	MWT12 164 4045 205 09	■	12	40	45	46	9	12.5	20.5	8.5
			MWT12 164 4045 240 09	■	12	40	45	46	9	16	24	12
			MWT12 164 4045 120 12	■	12	40	45	46	12	4	12	0
			MWT12 164 4045 125 12	■	12	40	45	46	12	4.5	12.5	0.5
			MWT12 164 4045 153 12	■	12	40	45	46	12	7.3	15.3	3.3
			MWT12 164 4045 163 12	■	12	40	45	46	12	8.3	16.3	4.3
			MWT12 164 4045 170 12	■	12	40	45	46	12	9	17	5
			MWT12 164 4045 190 12	■	12	40	45	46	12	11	19	7
			MWT12 164 4045 205 12	■	12	40	45	46	12	12.5	20.5	8.5
			MWT12 164 4045 240 12	■	12	40	45	46	12	16	24	12
			MWT15 164 4045 120 09	■	15	40	45	46	9	4	12	0
			MWT15 164 4045 125 09	■	15	40	45	46	9	4.5	12.5	0.5
			MWT15 164 4045 153 09	■	15	40	45	46	9	7.3	15.3	3.3
			MWT15 164 4045 163 09	■	15	40	45	46	9	8.3	16.3	4.3
			MWT15 164 4045 170 09	■	15	40	45	46	9	9	17	5
			MWT15 164 4045 190 09	■	15	40	45	46	9	11	19	7
			MWT15 164 4045 205 09	■	15	40	45	46	9	12.5	20.5	8.5
			MWT15 164 4045 240 09	■	15	40	45	46	9	16	24	12

* Number of teeth

Continuation

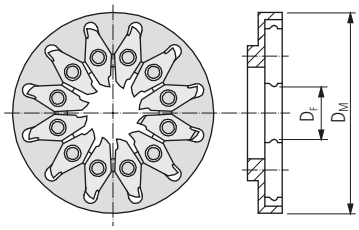






MWA…



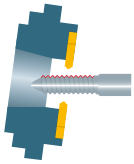


MWR…

Adapter	Whirling ring
MWA 402540 040	MWR06 164 2540 091 09
MWA 402540 045	MWR08 164 2546 080 09
MWA 402540 073	MWR12 164 2546 080 09
MWA 402540 083	MWR12 164 2546 080 12
MWA 402540 090	MWR15 164 2546 080 09
MWA 402540 110	
MWA 402540 125	
MWA 402540 160	

■ New

Legend 6

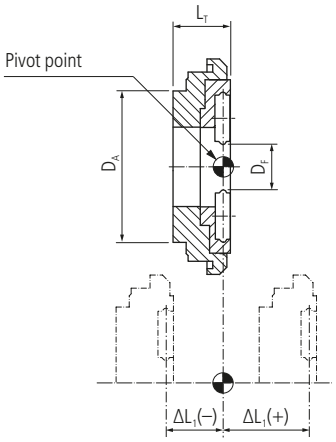


Type A

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…



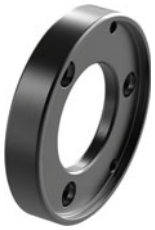
PREMIUM-LINE

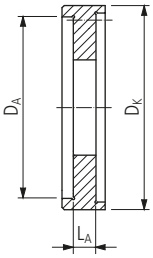
UTILIS multidec® swiss type tools

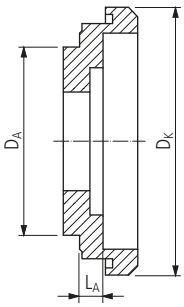
Driven toolholder			Whirling tool										
Manufacturer	Type		Order designation		Dimensions								
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396								
MADAULA	P.035.00064 1110.00054	■ ■	MWT06 164 4050 135 09	■	6	40	50	46	9	5.5	13.5	0
			MWT06 164 4050 191 09	■	6	40	50	46	9	11.1	19.1	5.6
			MWT08 164 4050 135 09	■	8	40	50	46	9	5.5	13.5	0
			MWT08 164 4050 191 09	■	8	40	50	46	9	11.1	19.1	5.6
			MWT12 164 4050 135 09	■	12	40	50	46	9	5.5	13.5	0
			MWT12 164 4050 191 09	■	12	40	50	46	9	11.1	19.1	5.6
			MWT12 164 4050 135 12	■	12	40	50	46	12	5.5	13.5	0
			MWT12 164 4050 191 12	■	12	40	50	46	12	11.1	19.1	5.6
			MWT15 164 4050 135 09	■	15	40	50	46	9	5.5	13.5	0
			MWT15 164 4050 191 09	■	15	40	50	46	9	11.1	19.1	5.6
			MWT15 164 4050 135 12	■	15	40	50	46	12	5.5	13.5	0
			MWT15 164 4050 191 12	■	15	40	50	46	12	11.1	19.1	5.6
	P.035.00022	■	MWT06 164 5067 120 09	■	6	50	67	46	9	4	12	0
			MWT06 164 5067 220 09	■	6	50	67	46	9	14	22	10
			MWT06 164 5067 260 09	■	6	50	67	46	9	18	26	14
			MWT08 164 5067 120 09	■	8	50	67	46	9	4	12	0
			MWT08 164 5067 220 09	■	8	50	67	46	9	14	22	10
			MWT08 164 5067 260 09	■	8	50	67	46	9	18	26	14
			MWT12 164 5067 120 09	■	12	50	67	46	9	4	12	0
			MWT12 164 5067 220 09	■	12	50	67	46	9	14	22	10
			MWT12 164 5067 260 09	■	12	50	67	46	9	18	26	14
			MWT12 164 5067 120 12	■	12	50	67	46	12	4	12	0
			MWT12 164 5067 220 12	■	12	50	67	46	12	14	22	10
			MWT12 164 5067 260 12	■	12	50	67	46	12	18	26	14
			MWT15 164 5067 120 09	■	15	50	67	46	9	4	12	0
			MWT15 164 5067 220 09	■	15	50	67	46	9	14	22	10
			MWT15 164 5067 260 09	■	15	50	67	46	9	18	26	14
			MWT15 164 5067 120 12	■	15	50	67	46	12	4	12	0
			MWT15 164 5067 220 12	■	15	50	67	46	12	14	22	10
			MWT15 164 5067 260 12	■	15	50	67	46	12	18	26	14

* Number of teeth

Continuation

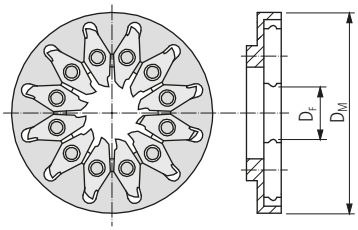






MWA…



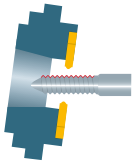


MWR…

Adapter	Whirling ring
MWA 402650 055	MWR06 164 2646 080 09
MWA 402650 111	MWR08 164 2646 080 09
MWA 502667 040	MWR12 164 2646 080 09
MWA 502667 140	MWR12 164 2646 080 12
MWA 502667 180	MWR15 164 2646 080 09
	MWR15 164 2646 080 12
	MWR15 164 3654 080 12

■ New

Legend 6

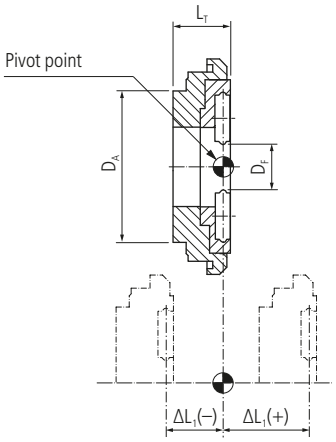


Type A

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…



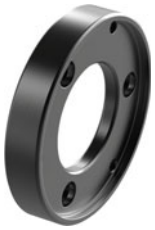
PREMIUM-LINE

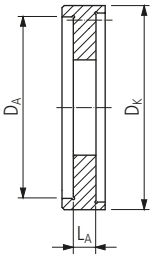
UTILIS multidec swiss type tools

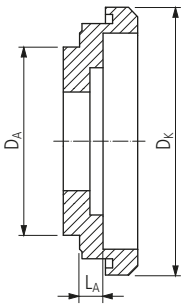
Driven toolholder			Whirling tool										
Manufacturer	Type		Order designation		Dimensions								
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396								
MADAULA	1110.00065	■	MWT06 164 4055 103 09	■	6	40	55	55	9	2.3	10.3	0
	9999.00444	■	MWT06 164 4055 115 09	■	6	40	55	55	9	3.5	11.5	1.2
	CZ.035.L16/L20	■	MWT06 164 4055 153 09	■	6	40	55	55	9	7.3	15.3	5
	CZ.035.L20N-15	■	MWT08 164 4055 103 09	■	8	40	55	55	9	2.3	10.3	0
	CZ.035.L25/L35	■	MWT08 164 4055 115 09	■	8	40	55	55	9	3.5	11.5	1.2
	DE.035.13/15	■	MWT08 164 4055 153 09	■	8	40	55	55	9	7.3	15.3	5
	HW.035.XD2-15	■	MWT12 164 4055 103 09	■	12	40	55	55	9	2.3	10.3	0
	P.035.00002	■	MWT12 164 4055 115 09	■	12	40	55	55	9	3.5	11.5	1.2
	P.035.00004	■	MWT12 164 4055 153 09	■	12	40	55	55	9	7.3	15.3	5
	P.035.00010	■	MWT12 164 4055 103 12	■	12	40	55	55	12	2.3	10.3	0
	P.035.00014	■	MWT12 164 4055 115 12	■	12	40	55	55	12	3.5	11.5	1.2
	P.035.00023	■	MWT12 164 4055 153 12	■	12	40	55	55	12	7.3	15.3	5
	P.035.00062	■	MWT15 164 4055 103 09	■	15	40	55	55	9	2.3	10.3	0
	P.035.00066	■	MWT15 164 4055 115 09	■	15	40	55	55	9	3.5	11.5	1.2
	P.035.00067	■	MWT15 164 4055 153 09	■	15	40	55	55	9	7.3	15.3	5
	TS.035.S205-15	■	MWT15 164 4055 103 12	■	15	40	55	55	12	2.3	10.3	0
			MWT15 164 4055 115 12	■	15	40	55	55	12	3.5	11.5	1.2
			MWT15 164 4055 153 12	■	15	40	55	55	12	7.3	15.3	5
MAIER	2-020-W15-2000	■	MWT06 164 4046 300 09	■	6	40	44	46	9	22	30	6
	2-020-W35-1001	■	MWT08 164 4046 240 09	■	8	40	46	46	9	16	24	12.5
			MWT08 164 4046 300 09	■	8	40	44	46	9	22	30	6
			MWT12 164 4046 240 09	■	12	40	46	46	9	16	24	12.5
			MWT12 164 4046 300 09	■	12	40	44	46	9	22	30	6
			MWT12 164 4046 240 12	■	12	40	46	46	12	16	24	12.5
			MWT12 164 4046 300 12	■	12	40	44	46	12	22	30	6
			MWT15 164 4046 240 09	■	15	40	46	46	9	16	24	12.5
			MWT15 164 4046 300 09	■	15	40	44	46	9	22	30	6
			MWT15 164 4046 240 12	■	15	40	46	46	12	16	24	12.5
			MWT15 164 4046 300 12	■	15	40	44	46	12	22	30	6

* Number of teeth

Continuation

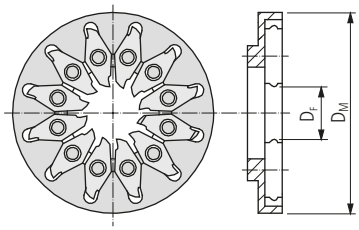






MWA…





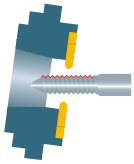
MWR…

Adapter	Whirling ring
MWA 402655 023	MWR06 164 2646 080 09
MWA 402655 035	MWR08 164 2646 080 09
MWA 402655 073	MWR12 164 2646 080 09
MWA 402644 160	MWR12 164 2646 080 12
MWA 402644 220	MWR15 164 2646 080 09
	MWR15 164 2646 080 12

UTILIS multidec® swiss type tools

■ New

Legend 6

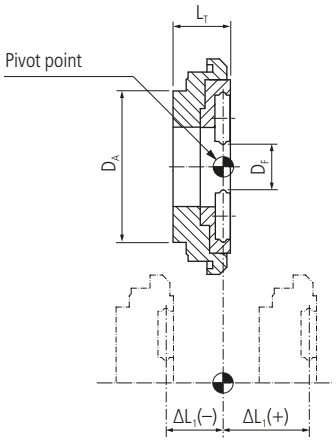


Type A

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…



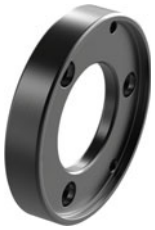
PREMIUM-LINE

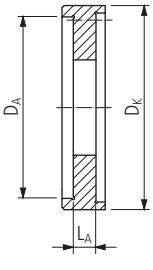
UTILIS multidec® swiss type tools

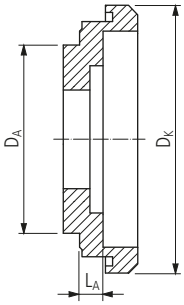
Driven toolholder			Whirling tool										
Manufacturer	Type		Order designation		Dimensions								
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396								
MADAULA	DE.035.S20 HW.035.STL HW.035.XD2 P.035.00010 P.035.00014	■ ■ ■ ■ ■	MWT12 164 4548 145 09	■	12	45	48	48	9	6.5	14.5	0
			MWT12 164 4548 240 09	■	12	45	48	48	9	16	24	9.5
			MWT12 164 4548 280 09	■	12	45	48	48	9	20	28	13.5
			MWT12 164 4548 145 12	■	12	45	48	48	12	6.5	14.5	0
			MWT12 164 4548 240 12	■	12	45	48	48	12	16	24	9.5
			MWT12 164 4548 280 12	■	12	45	48	48	12	20	28	13.5
			MWT15 164 4548 145 09	■	15	45	48	48	9	6.5	14.5	0
			MWT15 164 4548 240 09	■	15	45	48	48	9	16	24	9.5
			MWT15 164 4548 280 09	■	15	45	48	48	9	20	28	13.5
			MWT15 164 4548 145 12	■	15	45	48	48	12	6.5	14.5	0
			MWT15 164 4548 240 12	■	15	45	48	48	12	16	24	9.5
			MWT15 164 4548 280 12	■	15	45	48	48	12	20	28	13.5
	1110.00055 CZ.035.M12/M16 CZ.035.M12/M16T CZ.035.M12/M16T-15 CZ.035.M20/M32T CZ.035.M20/M32T P.035.00063	■ ■ ■ ■ ■ ■ ■	MWT12 164 4046 115 03	■	12	40	46	46	3	3.5	11.5	0
			MWT12 164 4046 130 03	■	12	40	46	46	3	5	13	1.5
			MWT12 164 4046 190 03	■	12	40	46	46	3	11	19	7.5
			MWT12 164 4046 240 03	■	12	40	46	46	3	16	24	12.5
			MWT12 164 4046 280 03	■	12	40	46	46	3	20	28	16.5
			MWT12 164 4046 115 09	■	12	40	46	46	9	3.5	11.5	0
			MWT12 164 4046 130 09	■	12	40	46	46	9	5	13	1.5
			MWT12 164 4046 190 09	■	12	40	46	46	9	11	19	7.5
			MWT12 164 4046 240 09	■	12	40	46	46	9	16	24	12.5
			MWT12 164 4046 280 09	■	12	40	46	46	9	20	28	16.5
			MWT12 164 4046 115 12	■	12	40	46	46	12	3.5	11.5	0
			MWT12 164 4046 130 12	■	12	40	46	46	12	5	13	1.5
			MWT12 164 4046 190 12	■	12	40	46	46	12	11	19	7.5
			MWT12 164 4046 240 12	■	12	40	46	46	12	16	24	12.5
			MWT12 164 4046 280 12	■	12	40	46	46	12	20	28	16.5
			MWT15 164 4046 115 09	■	15	40	46	46	9	3.5	11.5	0
			MWT15 164 4046 130 09	■	15	40	46	46	9	5	13	1.5
			MWT15 164 4046 190 09	■	15	40	46	46	9	11	19	7.5
			MWT15 164 4046 240 09	■	15	40	46	46	9	16	24	12.5
			MWT15 164 4046 280 09	■	15	40	46	46	9	20	28	16.5
MONNIER+ZAHNER	N92-00.00	■	MWT06 164 85128 295 09	■	6	85	128	128	9	2.1	29.5	0
			MWT08 164 85128 295 09	■	8	85	128	128	9	2.1	29.5	0
			MWT12 164 85128 295 09	■	12	85	128	128	9	2.1	29.5	0
			MWT12 164 85128 295 12	■	12	85	128	128	12	2.1	29.5	0
			MWT15 164 85128 295 09	■	15	85	128	128	9	2.1	29.5	0
			MWT15 164 85128 295 12	■	15	85	128	128	12	2.1	29.5	0

* Number of teeth

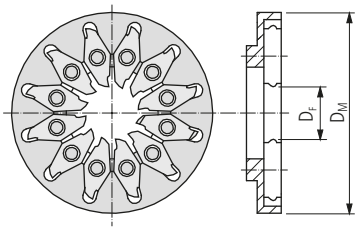
Continuation











MWA…

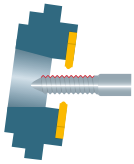
MWR…

Adapter	Whirling ring
MWA 404245 035	MWR06 164 2646 080 09
MWA 404245 050	MWR08 164 2646 080 09
MWA 404245 110	MWR12 164 2646 080 09
MWA 404245 160	MWR12 164 2646 080 12
MWA 404245 200	MWR15 164 2646 080 09
MWA 452645 065	MWR15 164 2646 080 12
MWA 452645 160	MWR12 164 2648 080 09
MWA 452645 200	MWR12 164 2648 080 12
MWA 8526128 215	MWR15 164 2648 080 09
	MWR15 164 2648 080 12
	MWR12 164 4246 055 03
	MWR12 164 4246 055 09
	MWR12 164 4246 055 12
	MWR15 164 4246 055 09

UTILIS multidec swiss type tools

■ New

Legend 6

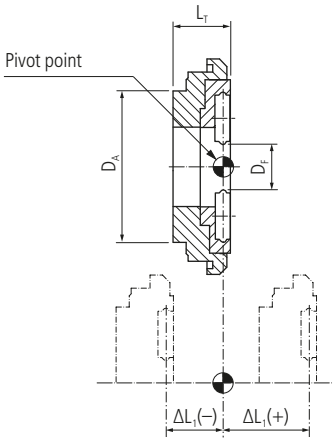


Type A

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…



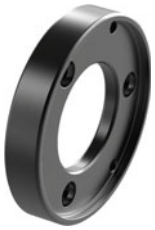
UTILIS multidec® swiss type tools

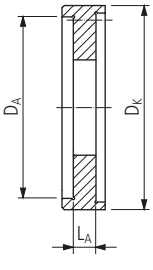
PREMIUM-LINE

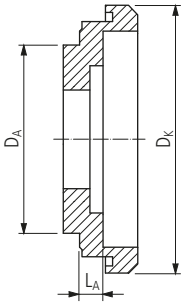
Driven toolholder			Whirling tool										
Manufacturer	Type		Order designation		Dimensions								
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396								
MT	CTZ0040112	■	MWT12 164 4046 115 03	■	12	40	46	46	3	3.5	11.5	0
			MWT12 164 4046 130 03	■	12	40	46	46	3	5	13	1.5
			MWT12 164 4046 190 03	■	12	40	46	46	3	11	19	7.5
			MWT12 164 4046 240 03	■	12	40	46	46	3	16	24	12.5
			MWT12 164 4046 280 03	■	12	40	46	46	3	20	28	16.5
			MWT12 164 4046 115 09	■	12	40	46	46	9	3.5	11.5	0
			MWT12 164 4046 130 09	■	12	40	46	46	9	5	13	1.5
			MWT12 164 4046 190 09	■	12	40	46	46	9	11	19	7.5
	NMR0010112	■	MWT12 164 4046 240 09	■	12	40	46	46	9	16	24	12.5
	NMR0070112	■	MWT12 164 4046 280 09	■	12	40	46	46	9	20	28	16.5
	SPC19210000	■	MWT12 164 4046 115 12	■	12	40	46	46	12	3.5	11.5	0
			MWT12 164 4046 130 12	■	12	40	46	46	12	5	13	1.5
			MWT12 164 4046 190 12	■	12	40	46	46	12	11	19	7.5
			MWT12 164 4046 240 12	■	12	40	46	46	12	16	24	12.5
			MWT12 164 4046 280 12	■	12	40	46	46	12	20	28	16.5
			MWT15 164 4046 115 09	■	15	40	46	46	9	3.5	11.5	0
			MWT15 164 4046 130 09	■	15	40	46	46	9	5	13	1.5
			MWT15 164 4046 190 09	■	15	40	46	46	9	11	19	7.5
			MWT15 164 4046 240 09	■	15	40	46	46	9	16	24	12.5
			MWT15 164 4046 280 09	■	15	40	46	46	9	20	28	16.5
PCM	DE13-W15	■	MWT06 164 4055 103 09	■	6	40	55	55	9	2.3	10.3	0
	DE20-W15	■	MWT06 164 4055 115 09	■	6	40	55	55	9	3.5	11.5	1.2
	GW-TDM-D13	■	MWT06 164 4055 153 09	■	6	40	55	55	9	7.3	15.3	5
	LSW-101	■	MWT08 164 4055 103 09	■	8	40	55	55	9	2.3	10.3	0
	GSW-261-000	■	MWT08 164 4055 115 09	■	8	40	55	55	9	3.5	11.5	1.2
			MWT08 164 4055 153 09	■	8	40	55	55	9	7.3	15.3	5
			MWT12 164 4055 103 09	■	12	40	55	55	9	2.3	10.3	0
			MWT12 164 4055 115 09	■	12	40	55	55	9	3.5	11.5	1.2
			MWT12 164 4055 153 09	■	12	40	55	55	9	7.3	15.3	5
			MWT12 164 4055 103 12	■	12	40	55	55	12	2.3	10.3	0
			MWT12 164 4055 115 12	■	12	40	55	55	12	3.5	11.5	1.2
			MWT12 164 4055 153 12	■	12	40	55	55	12	7.3	15.3	5
			MWT15 164 4055 103 09	■	15	40	55	55	9	2.3	10.3	0
			MWT15 164 4055 115 09	■	15	40	55	55	9	3.5	11.5	1.2
			MWT15 164 4055 153 09	■	15	40	55	55	9	7.3	15.3	5
			MWT15 164 4055 103 12	■	15	40	55	55	12	2.3	10.3	0
			MWT15 164 4055 115 12	■	15	40	55	55	12	3.5	11.5	1.2
			MWT15 164 4055 153 12	■	15	40	55	55	12	7.3	15.3	5

* Number of teeth

Continuation

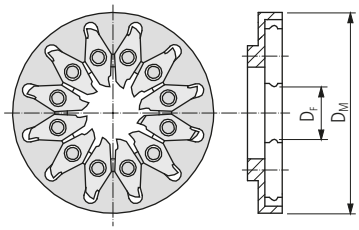






MWA…



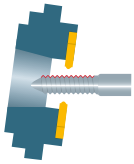


MWR…

Adapter	Whirling ring
MWA 402655 023	MWR06 164 2646 080 09
MWA 402655 035	MWR08 164 2646 080 09
MWA 402655 073	MWR12 164 2646 080 09
MWA 404245 035	MWR12 164 2646 080 12
MWA 404245 050	MWR15 164 2646 080 09
MWA 404245 110	MWR15 164 2646 080 12
MWA 404245 160	MWR12 164 4246 055 03
MWA 404245 200	MWR12 164 4246 055 09
	MWR12 164 4246 055 12
	MWR15 164 4246 055 09

■ New

Legend 6

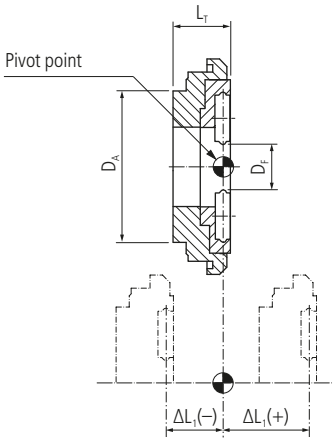


Type A

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…



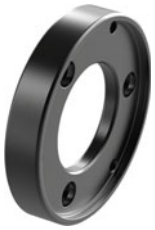
PREMIUM-LINE

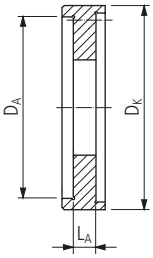
UTILIS multidec® swiss type tools

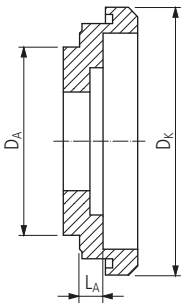
Driven toolholder			Whirling tool										
Manufacturer	Type		Order designation		Dimensions								
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396								
PCM	DE20-W15-II	■	MWT06 164 4057 105 09	■	6	40	57	46	9	2.5	10.5	0
			MWT06 164 4057 155 09	■	6	40	57	46	9	7.5	15.5	5
			MWT06 164 4057 170 09	■	6	40	57	46	9	9	17	6.5
			MWT06 164 4057 175 09	■	6	40	57	46	9	9.5	17.5	7
			MWT06 164 4057 205 09	■	6	40	57	46	9	12.5	20.5	10
			MWT08 164 4057 105 09	■	8	40	57	46	9	2.5	10.5	0
			MWT08 164 4057 155 09	■	8	40	57	46	9	7.5	15.5	5
			MWT08 164 4057 170 09	■	8	40	57	46	9	9	17	6.5
			MWT08 164 4057 175 09	■	8	40	57	46	9	9.5	17.5	7
			MWT08 164 4057 205 09	■	8	40	57	46	9	12.5	20.5	10
			MWT12 164 4057 105 09	■	12	40	57	46	9	2.5	10.5	0
			MWT12 164 4057 155 09	■	12	40	57	46	9	7.5	15.5	5
			MWT12 164 4057 170 09	■	12	40	57	46	9	9	17	6.5
			MWT12 164 4057 175 09	■	12	40	57	46	9	9.5	17.5	7
			MWT12 164 4057 205 09	■	12	40	57	46	9	12.5	20.5	10
			MWT12 164 4057 105 12	■	12	40	57	46	12	2.5	10.5	0
			MWT12 164 4057 155 12	■	12	40	57	46	12	7.5	15.5	5
			MWT12 164 4057 170 12	■	12	40	57	46	12	9	17	6.5
			MWT12 164 4057 175 12	■	12	40	57	46	12	9.5	17.5	7
			MWT12 164 4057 205 12	■	12	40	57	46	12	12.5	20.5	10
			MWT15 164 4057 105 09	■	15	40	57	46	9	2.5	10.5	0
			MWT15 164 4057 155 09	■	15	40	57	46	9	7.5	15.5	5
			MWT15 164 4057 170 09	■	15	40	57	46	9	9	17	6.5
			MWT15 164 4057 175 09	■	15	40	57	46	9	9.5	17.5	7
			MWT15 164 4057 205 09	■	15	40	57	46	9	12.5	20.5	10
			MWT15 164 4057 105 12	■	15	40	57	46	12	2.5	10.5	0
			MWT15 164 4057 155 12	■	15	40	57	46	12	7.5	15.5	5
			MWT15 164 4057 170 12	■	15	40	57	46	12	9	17	6.5
			MWT15 164 4057 175 12	■	15	40	57	46	12	9.5	17.5	7
			MWT15 164 4057 205 12	■	15	40	57	46	12	12.5	20.5	10

* Number of teeth

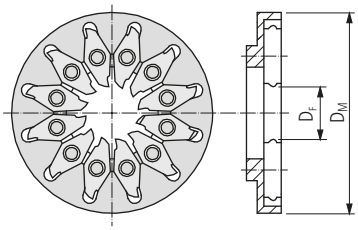
Continuation











MWA...

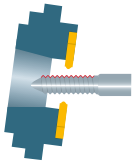
MWR...

Adapter	Whirling ring
MWA 402657 025	MWR06 164 2646 080 09
MWA 402657 075	MWR08 164 2646 080 09
MWA 402657 090	MWR12 164 2646 080 09
MWA 402657 095	MWR12 164 2646 080 12
MWA 402657 125	MWR15 164 2646 080 09
	MWR15 164 2646 080 12

UTILIS multidec® swiss type tools

■ New

Legend 6

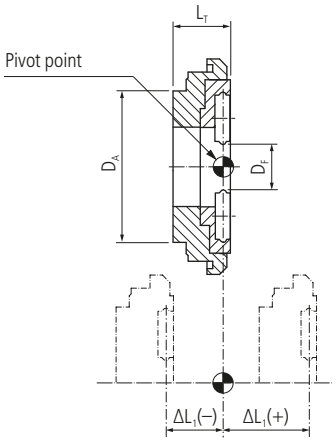


Type A

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…



PREMIUM-LINE

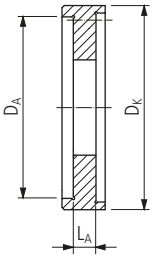
UTILIS multidec® swiss type tools

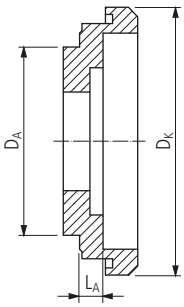
Driven toolholder			Whirling tool										
Manufacturer	Type		Order designation		Dimensions								
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396								
PCM	KSW-101-000	■	MWT12 164 4046 115 03	■	12	40	46	46	3	3.5	11.5	0
	LSW-101-L20-000	■	MWT12 164 4046 130 03	■	12	40	46	46	3	5	13	1.5
	LSW-215-000	■	MWT12 164 4046 190 03	■	12	40	46	46	3	11	19	7.5
	LSW-424-15	■	MWT12 164 4046 240 03	■	12	40	46	46	3	16	24	12.5
	LSW-424-II	■	MWT12 164 4046 280 03	■	12	40	46	46	3	20	28	16.5
	MSW-101-000	■	MWT12 164 4046 115 09	■	12	40	46	46	9	3.5	11.5	0
	NN20-W15	■	MWT12 164 4046 130 09	■	12	40	46	46	9	5	13	1.5
	SPW-1220	■	MWT12 164 4046 190 09	■	12	40	46	46	9	11	19	7.5
			MWT12 164 4046 240 09	■	12	40	46	46	9	16	24	12.5
			MWT12 164 4046 280 09	■	12	40	46	46	9	20	28	16.5
			MWT12 164 4046 115 12	■	12	40	46	46	12	3.5	11.5	0
			MWT12 164 4046 130 12	■	12	40	46	46	12	5	13	1.5
			MWT12 164 4046 190 12	■	12	40	46	46	12	11	19	7.5
			MWT12 164 4046 240 12	■	12	40	46	46	12	16	24	12.5
			MWT12 164 4046 280 12	■	12	40	46	46	12	20	28	16.5
			MWT15 164 4046 115 09	■	15	40	46	46	9	3.5	11.5	0
			MWT15 164 4046 130 09	■	15	40	46	46	9	5	13	1.5
			MWT15 164 4046 190 09	■	15	40	46	46	9	11	19	7.5
			MWT15 164 4046 240 09	■	15	40	46	46	9	16	24	12.5
			MWT15 164 4046 280 09	■	15	40	46	46	9	20	28	16.5

* Number of teeth

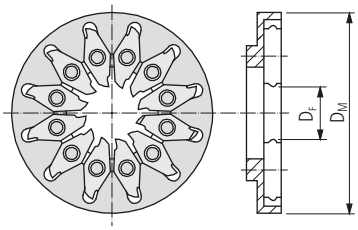
Continuation











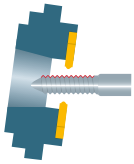
MWA...

MWR...

Adapter						Whirling ring			
MWA 404245 035	MWA 404245 050	MWA 404245 110	MWA 404245 160	MWA 404245 200		MWR12 164 4246 055 03	MWR12 164 4246 055 09	MWR12 164 4246 055 12	MWR15 164 4246 055 09
■						■			
	■					■			
		■				■			
			■			■			
				■		■			
■							■		
	■						■		
		■					■		
			■				■		
				■			■		
■								■	
	■							■	
		■						■	
			■					■	
				■				■	
■									■
	■								■
		■							■
			■						■
				■					■

■ New

Legend 6

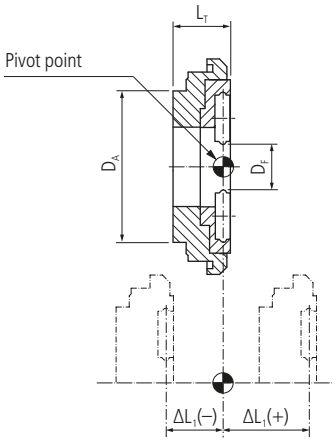


Type A

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…



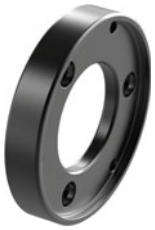
PREMIUM-LINE

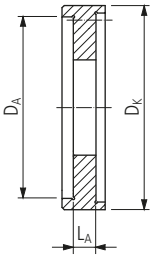
UTILIS multidec® swiss type tools

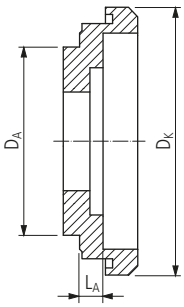
Driven toolholder			Whirling tool										
Manufacturer	Type		Order designation		Dimensions								
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396								
			MWT06 164 4040 111 09	■	6	40	40	40	9	4	11.1	0
			MWT06 164 4040 116 09	■	6	40	40	40	9	4.5	11.6	0.4
			MWT06 164 4040 144 09	■	6	40	40	40	9	7.3	14.4	3.3
			MWT06 164 4040 154 09	■	6	40	40	40	9	8.3	15.4	4.3
			MWT06 164 4040 161 09	■	6	40	40	40	9	9	16.1	5
			MWT06 164 4040 181 09	■	6	40	40	40	9	11	18.1	7
			MWT06 164 4040 196 09	■	6	40	40	40	9	12.5	19.6	8.5
			MWT06 164 4040 231 09	■	6	40	40	40	9	16	23.1	12
			MWT12 164 4040 111 09	■	12	40	40	40	9	4	11.1	0
			MWT12 164 4040 116 09	■	12	40	40	40	9	4.5	11.6	0.4
			MWT12 164 4040 144 09	■	12	40	40	40	9	7.3	14.4	3.3
			MWT12 164 4040 154 09	■	12	40	40	40	9	8.3	15.4	4.3
			MWT12 164 4040 161 09	■	12	40	40	40	9	9	16.1	5
			MWT12 164 4040 181 09	■	12	40	40	40	9	11	18.1	7
			MWT12 164 4040 196 09	■	12	40	40	40	9	12.5	19.6	8.5
			MWT12 164 4040 231 09	■	12	40	40	40	9	16	23.1	12
			MWT12 164 4040 111 12	■	12	40	40	40	12	4	11.1	0
			MWT12 164 4040 116 12	■	12	40	40	40	12	4.5	11.6	0.4
PCH	HP-681-72	■	MWT12 164 4040 144 12	■	12	40	40	40	12	7.3	14.4	3.3
			MWT12 164 4040 154 12	■	12	40	40	40	12	8.3	15.4	4.3
			MWT12 164 4040 161 12	■	12	40	40	40	12	9	16.1	5
			MWT12 164 4040 181 12	■	12	40	40	40	12	11	18.1	7
			MWT12 164 4040 196 12	■	12	40	40	40	12	12.5	19.6	8.5
			MWT12 164 4040 231 12	■	12	40	40	40	12	16	23.1	12
			MWT15 164 4040 111 09	■	15	40	40	40	9	4	11.1	0
			MWT15 164 4040 116 09	■	15	40	40	40	9	4.5	11.6	0.4
			MWT15 164 4040 144 09	■	15	40	40	40	9	7.3	14.4	3.3
			MWT15 164 4040 154 09	■	15	40	40	40	9	8.3	15.4	4.3
			MWT15 164 4040 161 09	■	15	40	40	40	9	9	16.1	5
			MWT15 164 4040 181 09	■	15	40	40	40	9	11	18.1	7
			MWT15 164 4040 196 09	■	15	40	40	40	9	12.5	19.6	8.5
			MWT15 164 4040 231 09	■	15	40	40	40	9	16	23.1	12
			MWT06 164 4045 120 09	■	6	40	45	46	9	4	12	0
			MWT06 164 4045 125 09	■	6	40	45	46	9	4.5	12.5	0.5
			MWT06 164 4045 153 09	■	6	40	45	46	9	7.3	15.3	3.3
			MWT06 164 4045 163 09	■	6	40	45	46	9	8.3	16.3	4.3
			MWT06 164 4045 170 09	■	6	40	45	46	9	9	17	5
			MWT06 164 4045 190 09	■	6	40	45	46	9	11	19	7

* Number of teeth

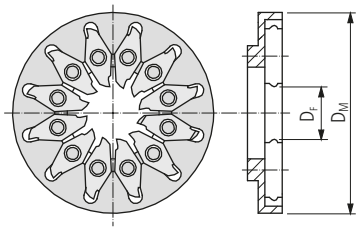
Continuation









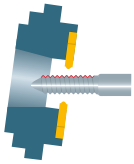


MWA...

MWR...

Adapter	Whirling ring
MWA 402540 040	MWR06 164 2540 091 09
MWA 402540 045	MWR12 164 2546 080 09
MWA 402540 073	MWR12 164 2546 080 12
MWA 402540 083	MWR15 164 2546 080 09
MWA 402540 090	
MWA 402540 110	
MWA 402540 125	
MWA 402540 160	

■ New

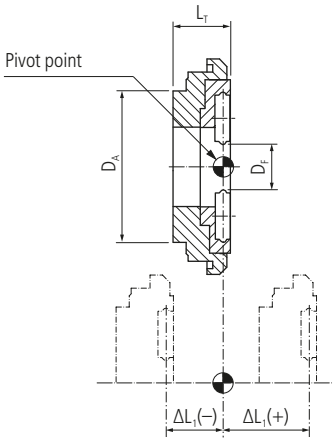


Type A

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…



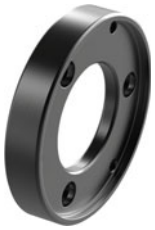
PREMIUM-LINE

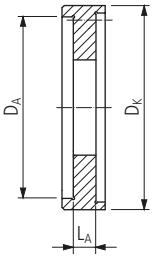
UTILIS multidec® swiss type tools

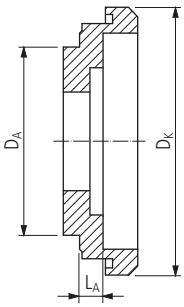
Driven toolholder			Whirling tool										
Manufacturer	Type		Order designation		Dimensions								
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396								
PCH	HP-681-72	■	MWT06 164 4045 205 09	■	6	40	45	46	9	12.5	20.5	8.5
			MWT06 164 4045 240 09	■	6	40	45	46	9	16	24	12
			MWT08 164 4045 120 09	■	8	40	45	46	9	4	12	0
			MWT08 164 4045 125 09	■	8	40	45	46	9	4.5	12.5	0.5
			MWT08 164 4045 153 09	■	8	40	45	46	9	7.3	15.3	3.3
			MWT08 164 4045 163 09	■	8	40	45	46	9	8.3	16.3	4.3
			MWT08 164 4045 170 09	■	8	40	45	46	9	9	17	5
			MWT08 164 4045 190 09	■	8	40	45	46	9	11	19	7
			MWT08 164 4045 205 09	■	8	40	45	46	9	12.5	20.5	8.5
			MWT08 164 4045 240 09	■	8	40	45	46	9	16	24	12
			MWT12 164 4045 120 09	■	12	40	45	46	9	4	12	0
			MWT12 164 4045 125 09	■	12	40	45	46	9	4.5	12.5	0.5
			MWT12 164 4045 153 09	■	12	40	45	46	9	7.3	15.3	3.3
			MWT12 164 4045 163 09	■	12	40	45	46	9	8.3	16.3	4.3
			MWT12 164 4045 170 09	■	12	40	45	46	9	9	17	5
			MWT12 164 4045 190 09	■	12	40	45	46	9	11	19	7
			MWT12 164 4045 205 09	■	12	40	45	46	9	12.5	20.5	8.5
			MWT12 164 4045 240 09	■	12	40	45	46	9	16	24	12
			MWT12 164 4045 120 12	■	12	40	45	46	12	4	12	0
			MWT12 164 4045 125 12	■	12	40	45	46	12	4.5	12.5	0.5
			MWT12 164 4045 153 12	■	12	40	45	46	12	7.3	15.3	3.3
			MWT12 164 4045 163 12	■	12	40	45	46	12	8.3	16.3	4.3
			MWT12 164 4045 170 12	■	12	40	45	46	12	9	17	5
			MWT12 164 4045 190 12	■	12	40	45	46	12	11	19	7
			MWT12 164 4045 205 12	■	12	40	45	46	12	12.5	20.5	8.5
			MWT12 164 4045 240 12	■	12	40	45	46	12	16	24	12
			MWT15 164 4045 120 09	■	15	40	45	46	9	4	12	0
			MWT15 164 4045 125 09	■	15	40	45	46	9	4.5	12.5	0.5
			MWT15 164 4045 153 09	■	15	40	45	46	9	7.3	15.3	3.3
			MWT15 164 4045 163 09	■	15	40	45	46	9	8.3	16.3	4.3
			MWT15 164 4045 170 09	■	15	40	45	46	9	9	17	5
			MWT15 164 4045 190 09	■	15	40	45	46	9	11	19	7
			MWT15 164 4045 205 09	■	15	40	45	46	9	12.5	20.5	8.5
			MWT15 164 4045 240 09	■	15	40	45	46	9	16	24	12

* Number of teeth

Continuation

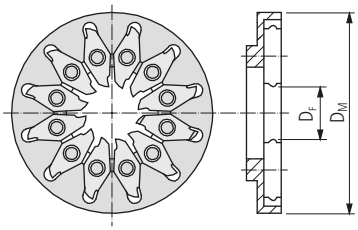






MWA...



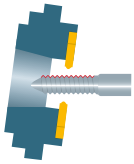


MWR...

Adapter	Whirling ring
MWA 402540 040	MWR06 164 2540 091 09
MWA 402540 045	MWR08 164 2546 080 09
MWA 402540 073	MWR12 164 2546 080 09
MWA 402540 083	MWR12 164 2546 080 12
MWA 402540 090	MWR15 164 2546 080 09
MWA 402540 110	
MWA 402540 125	
MWA 402540 160	

■ New

Legend 6

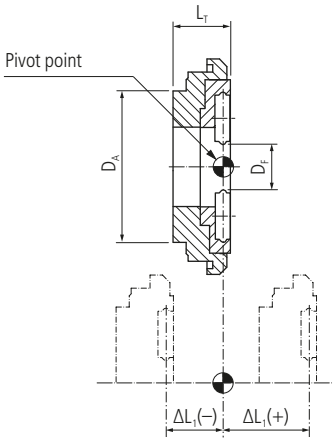


Type A

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…



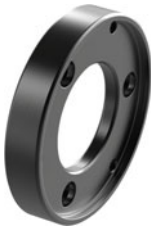
PREMIUM-LINE

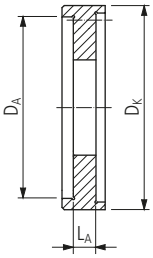
UTILIS multidec® swiss type tools

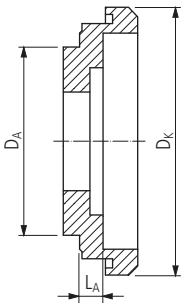
Driven toolholder			Whirling tool										
Manufacturer	Type		Order designation		Dimensions								
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396								
			MWT06 164 4040 111 09	■	6	40	40	40	9	4	11.1	0
			MWT06 164 4040 116 09	■	6	40	40	40	9	4.5	11.6	0.4
			MWT06 164 4040 144 09	■	6	40	40	40	9	7.3	14.4	3.3
			MWT06 164 4040 154 09	■	6	40	40	40	9	8.3	15.4	4.3
			MWT06 164 4040 161 09	■	6	40	40	40	9	9	16.1	5
			MWT06 164 4040 181 09	■	6	40	40	40	9	11	18.1	7
			MWT06 164 4040 196 09	■	6	40	40	40	9	12.5	19.6	8.5
			MWT06 164 4040 231 09	■	6	40	40	40	9	16	23.1	12
			MWT12 164 4040 111 09	■	12	40	40	40	9	4	11.1	0
			MWT12 164 4040 116 09	■	12	40	40	40	9	4.5	11.6	0.4
			MWT12 164 4040 144 09	■	12	40	40	40	9	7.3	14.4	3.3
			MWT12 164 4040 154 09	■	12	40	40	40	9	8.3	15.4	4.3
			MWT12 164 4040 161 09	■	12	40	40	40	9	9	16.1	5
			MWT12 164 4040 181 09	■	12	40	40	40	9	11	18.1	7
			MWT12 164 4040 196 09	■	12	40	40	40	9	12.5	19.6	8.5
			MWT12 164 4040 231 09	■	12	40	40	40	9	16	23.1	12
			MWT12 164 4040 111 12	■	12	40	40	40	12	4	11.1	0
			MWT12 164 4040 116 12	■	12	40	40	40	12	4.5	11.6	0.4
PCM	GSW-251-PR- 1-A	■	MWT12 164 4040 144 12	■	12	40	40	40	12	7.3	14.4	3.3
	SR20J-W20-3D	■	MWT12 164 4040 154 12	■	12	40	40	40	12	8.3	15.4	4.3
			MWT12 164 4040 161 12	■	12	40	40	40	12	9	16.1	5
			MWT12 164 4040 181 12	■	12	40	40	40	12	11	18.1	7
			MWT12 164 4040 196 12	■	12	40	40	40	12	12.5	19.6	8.5
			MWT12 164 4040 231 12	■	12	40	40	40	12	16	23.1	12
			MWT15 164 4040 111 09	■	15	40	40	40	9	4	11.1	0
			MWT15 164 4040 116 09	■	15	40	40	40	9	4.5	11.6	0.4
			MWT15 164 4040 144 09	■	15	40	40	40	9	7.3	14.4	3.3
			MWT15 164 4040 154 09	■	15	40	40	40	9	8.3	15.4	4.3
			MWT15 164 4040 161 09	■	15	40	40	40	9	9	16.1	5
			MWT15 164 4040 181 09	■	15	40	40	40	9	11	18.1	7
			MWT15 164 4040 196 09	■	15	40	40	40	9	12.5	19.6	8.5
			MWT15 164 4040 231 09	■	15	40	40	40	9	16	23.1	12
			MWT06 164 4045 120 09	■	6	40	45	46	9	4	12	0
			MWT06 164 4045 125 09	■	6	40	45	46	9	4.5	12.5	0.5
			MWT06 164 4045 153 09	■	6	40	45	46	9	7.3	15.3	3.3
			MWT06 164 4045 163 09	■	6	40	45	46	9	8.3	16.3	4.3
			MWT06 164 4045 170 09	■	6	40	45	46	9	9	17	5
			MWT06 164 4045 190 09	■	6	40	45	46	9	11	19	7

* Number of teeth

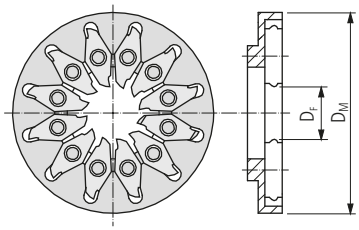
Continuation











MWA...

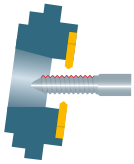
MWR...

Adapter	Whirling ring
MWA 402540 040	MWR06 164 2540 091 09
MWA 402540 045	MWR12 164 2546 080 09
MWA 402540 073	MWR12 164 2546 080 12
MWA 402540 083	MWR15 164 2546 080 09
MWA 402540 090	
MWA 402540 110	
MWA 402540 125	
MWA 402540 160	

■ New

Legend 6

UTILIS multidec® swiss type tools

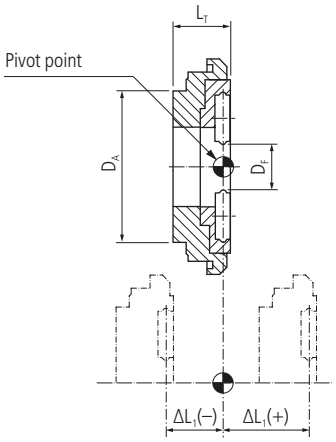


Type A

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…



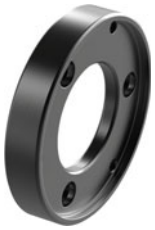
PREMIUM-LINE

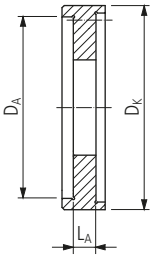
UTILIS multidec® swiss type tools

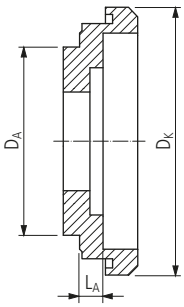
Driven toolholder			Whirling tool										
Manufacturer	Type		Order designation		Dimensions								
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396								
PCM	SR20J-W20-3D	■	MWT06 164 4045 205 09	■	6	40	45	46	9	12.5	20.5	8.5
			MWT06 164 4045 240 09	■	6	40	45	46	9	16	24	12
			MWT08 164 4045 120 09	■	8	40	45	46	9	4	12	0
			MWT08 164 4045 125 09	■	8	40	45	46	9	4.5	12.5	0.5
			MWT08 164 4045 153 09	■	8	40	45	46	9	7.3	15.3	3.3
			MWT08 164 4045 163 09	■	8	40	45	46	9	8.3	16.3	4.3
			MWT08 164 4045 170 09	■	8	40	45	46	9	9	17	5
			MWT08 164 4045 190 09	■	8	40	45	46	9	11	19	7
			MWT08 164 4045 205 09	■	8	40	45	46	9	12.5	20.5	8.5
			MWT08 164 4045 240 09	■	8	40	45	46	9	16	24	12
			MWT12 164 4045 120 09	■	12	40	45	46	9	4	12	0
			MWT12 164 4045 125 09	■	12	40	45	46	9	4.5	12.5	0.5
			MWT12 164 4045 153 09	■	12	40	45	46	9	7.3	15.3	3.3
			MWT12 164 4045 163 09	■	12	40	45	46	9	8.3	16.3	4.3
			MWT12 164 4045 170 09	■	12	40	45	46	9	9	17	5
			MWT12 164 4045 190 09	■	12	40	45	46	9	11	19	7
			MWT12 164 4045 205 09	■	12	40	45	46	9	12.5	20.5	8.5
			MWT12 164 4045 240 09	■	12	40	45	46	9	16	24	12
			MWT12 164 4045 120 12	■	12	40	45	46	12	4	12	0
			MWT12 164 4045 125 12	■	12	40	45	46	12	4.5	12.5	0.5
			MWT12 164 4045 153 12	■	12	40	45	46	12	7.3	15.3	3.3
			MWT12 164 4045 163 12	■	12	40	45	46	12	8.3	16.3	4.3
			MWT12 164 4045 170 12	■	12	40	45	46	12	9	17	5
			MWT12 164 4045 190 12	■	12	40	45	46	12	11	19	7
			MWT12 164 4045 205 12	■	12	40	45	46	12	12.5	20.5	8.5
			MWT12 164 4045 240 12	■	12	40	45	46	12	16	24	12
			MWT15 164 4045 120 09	■	15	40	45	46	9	4	12	0
			MWT15 164 4045 125 09	■	15	40	45	46	9	4.5	12.5	0.5
			MWT15 164 4045 153 09	■	15	40	45	46	9	7.3	15.3	3.3
			MWT15 164 4045 163 09	■	15	40	45	46	9	8.3	16.3	4.3
			MWT15 164 4045 170 09	■	15	40	45	46	9	9	17	5
			MWT15 164 4045 190 09	■	15	40	45	46	9	11	19	7
			MWT15 164 4045 205 09	■	15	40	45	46	9	12.5	20.5	8.5
			MWT15 164 4045 240 09	■	15	40	45	46	9	16	24	12

* Number of teeth

Continuation

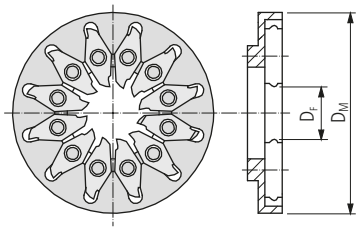






MWA…



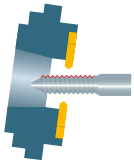


MWR…

Adapter	Whirling ring
MWA 402540 040	MWR06 164 2540 091 09
MWA 402540 045	MWR08 164 2546 080 09
MWA 402540 073	MWR12 164 2546 080 09
MWA 402540 083	MWR12 164 2546 080 12
MWA 402540 090	MWR15 164 2546 080 09
MWA 402540 110	
MWA 402540 125	
MWA 402540 160	

■ New

Legend 6

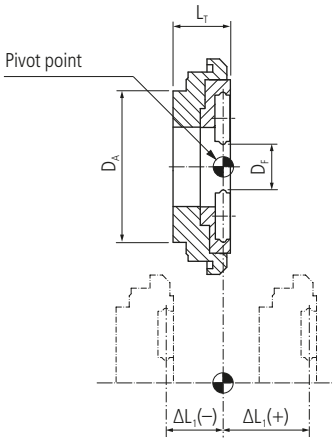


Type A

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…



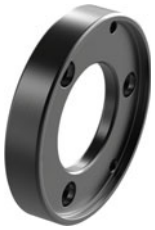
UTILIS multidec® swiss type tools

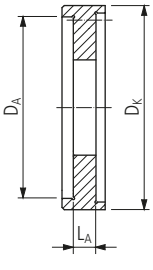
PREMIUM-LINE

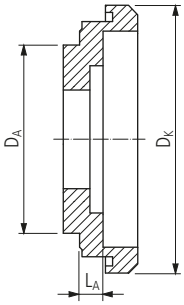
Driven toolholder			Whirling tool										
Manufacturer	Type		Order designation		Dimensions								
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396								
PCM	BSW-215 NESA-32-000	■ ■	MWT06 164 4046 172 09	■	6	40	45	46	9	9.2	17.2	0
			MWT06 164 4046 242 09	■	6	40	45	46	9	16.2	24.2	7
			MWT08 164 4046 172 09	■	8	40	45	46	9	9.2	17.2	0
			MWT08 164 4046 242 09	■	8	40	45	46	9	16.2	24.2	7
			MWT12 164 4046 172 09	■	12	40	45	46	9	9.2	17.2	0
			MWT12 164 4046 242 09	■	12	40	45	46	9	16.2	24.2	7
			MWT12 164 4046 172 12	■	12	40	45	46	12	9.2	17.2	0
			MWT12 164 4046 242 12	■	12	40	45	46	12	16.2	24.2	7
			MWT15 164 4046 172 09	■	15	40	45	46	9	9.2	17.2	0
			MWT15 164 4046 242 09	■	15	40	45	46	9	16.2	24.2	7
			MWT15 164 4046 172 12	■	15	40	45	46	12	9.2	17.2	0
			MWT15 164 4046 242 12	■	15	40	45	46	12	16.2	24.2	7
	LSW-420	■	MWT12 164 4546 155 03	■	12	45	45	46	3	10	15.5	0
			MWT12 164 4546 155 09	■	12	45	45	46	9	10	15.5	0
			MWT12 164 4546 155 12	■	12	45	45	46	2	10	15.5	0
			MWT15 164 4546 155 09	■	15	45	45	46	9	10	15.5	0
	LSW-424-000	■	MWT12 164 3546 169 03	■	12	35	46	46	3	8.9	16.9	0
			MWT12 164 3546 219 03	■	12	35	46	46	3	13.9	21.9	5
			MWT12 164 3546 169 09	■	12	35	46	46	9	8.9	16.9	0
			MWT12 164 3546 219 09	■	12	35	46	46	9	13.9	21.9	5
			MWT12 164 3546 169 12	■	12	35	46	46	12	8.9	16.9	0
			MWT12 164 3546 219 12	■	12	35	46	46	12	13.9	21.9	5
			MWT15 164 3546 169 09	■	15	35	46	46	9	8.9	16.9	0
			MWT15 164 3546 219 09	■	15	35	46	46	9	13.9	21.9	5
	SV20-W15	■	MWT08 164 4555 130 09	■	8	45	55	46	9	5	13	0
			MWT12 164 4555 130 09	■	12	45	55	46	9	5	13	0
			MWT12 164 4555 130 12	■	12	45	55	46	12	5	13	0
			MWT15 164 4555 130 09	■	15	45	55	46	9	5	13	0
			MWT15 164 4555 130 12	■	15	45	55	46	12	5	13	0
	DE10-W15	■	MWT06 164 4242 115 07	■	6	42	42	42	7	3.5	11.5	0
			MWT06 164 4242 135 07	■	6	42	42	42	7	5.5	13.5	2
			MWT06 164 4242 165 07	■	6	42	42	42	7	8.5	16.5	5
			MWT06 164 4242 185 07	■	6	42	42	42	7	10.5	18.5	7
			MWT06 164 4242 115 09	■	6	42	42	42	9	3.5	11.5	0
			MWT06 164 4242 135 09	■	6	42	42	42	9	5.5	13.5	2
			MWT06 164 4242 165 09	■	6	42	42	42	9	8.5	16.5	5
			MWT06 164 4242 185 09	■	6	42	42	42	9	10.5	18.5	7

* Number of teeth

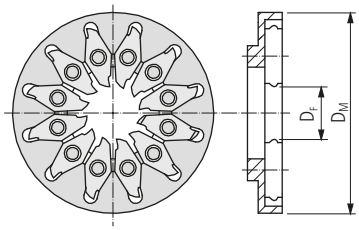
Continuation











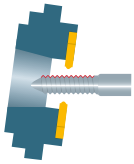
MWA…

MWR…

Adapter	Whirling ring
MWA 354246 089	MWR06 164 2042 080 07
MWA 354246 139	MWR06 164 2042 080 09
MWA 402645 092	MWR06 164 2646 080 09
MWA 402645 162	MWR08 164 2646 080 09
MWA 422042 035	MWR12 164 2646 080 09
MWA 422042 055	MWR12 164 2646 080 12
MWA 422042 085	MWR15 164 2646 080 09
MWA 422042 105	MWR15 164 2646 080 12
MWA 452655 050	MWR15 164 2648 080 12
MWA 454245 100	MWR12 164 4246 055 03
	MWR12 164 4246 055 09
	MWR12 164 4246 055 12

■ New

Legend 6

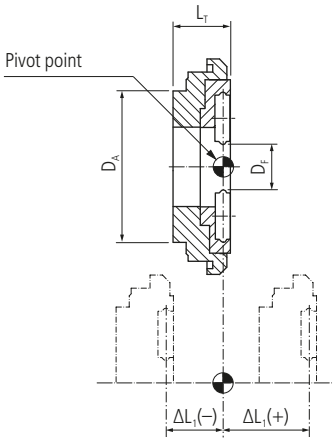


Type A

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…

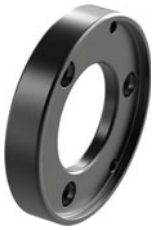


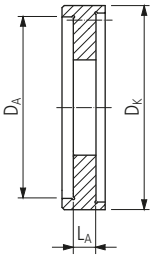
PREMIUM-LINE

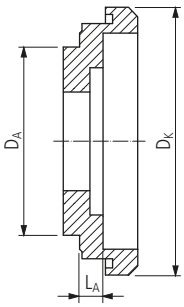
Driven toolholder			Whirling tool									
Manufacturer	Type		Order designation		Dimensions							
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396							
PIBOMULTI	TOR-D20-TB24-000	■	MWT06 164 4057 105 09	■	6	40	57	46	9	2.5	10.5	0
			MWT06 164 4057 155 09	■	6	40	57	46	9	7.5	15.5	5
			MWT06 164 4057 170 09	■	6	40	57	46	9	9	17	6.5
			MWT06 164 4057 175 09	■	6	40	57	46	9	9.5	17.5	7
			MWT06 164 4057 205 09	■	6	40	57	46	9	12.5	20.5	10
			MWT08 164 4057 105 09	■	8	40	57	46	9	2.5	10.5	0
			MWT08 164 4057 155 09	■	8	40	57	46	9	7.5	15.5	5
			MWT08 164 4057 170 09	■	8	40	57	46	9	9	17	6.5
			MWT08 164 4057 175 09	■	8	40	57	46	9	9.5	17.5	7
			MWT08 164 4057 205 09	■	8	40	57	46	9	12.5	20.5	10
			MWT12 164 4057 105 09	■	12	40	57	46	9	2.5	10.5	0
			MWT12 164 4057 155 09	■	12	40	57	46	9	7.5	15.5	5
			MWT12 164 4057 170 09	■	12	40	57	46	9	9	17	6.5
			MWT12 164 4057 175 09	■	12	40	57	46	9	9.5	17.5	7
			MWT12 164 4057 205 09	■	12	40	57	46	9	12.5	20.5	10
	TOR-D20-TB24-100	■	MWT12 164 4057 105 12	■	12	40	57	46	12	2.5	10.5	0
			MWT12 164 4057 155 12	■	12	40	57	46	12	7.5	15.5	5
			MWT12 164 4057 170 12	■	12	40	57	46	12	9	17	6.5
			MWT12 164 4057 175 12	■	12	40	57	46	12	9.5	17.5	7
			MWT12 164 4057 205 12	■	12	40	57	46	12	12.5	20.5	10
			MWT15 164 4057 105 09	■	15	40	57	46	9	2.5	10.5	0
			MWT15 164 4057 155 09	■	15	40	57	46	9	7.5	15.5	5
			MWT15 164 4057 170 09	■	15	40	57	46	9	9	17	6.5
			MWT15 164 4057 175 09	■	15	40	57	46	9	9.5	17.5	7
			MWT15 164 4057 205 09	■	15	40	57	46	9	12.5	20.5	10
			MWT15 164 4057 105 12	■	15	40	57	46	12	2.5	10.5	0
			MWT15 164 4057 155 12	■	15	40	57	46	12	7.5	15.5	5
			MWT15 164 4057 170 12	■	15	40	57	46	12	9	17	6.5
			MWT15 164 4057 175 12	■	15	40	57	46	12	9.5	17.5	7
			MWT15 164 4057 205 12	■	15	40	57	46	12	12.5	20.5	10

* Number of teeth

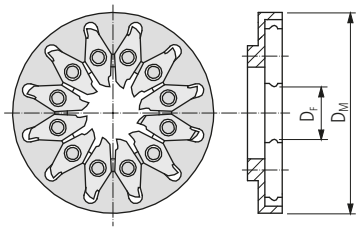
Continuation











MWA...

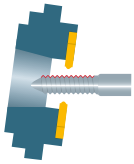
MWR...

Adapter	Whirling ring
MWA 402657 025	MWR06 164 2646 080 09
MWA 402657 075	MWR08 164 2646 080 09
MWA 402657 090	MWR12 164 2646 080 09
MWA 402657 095	MWR12 164 2646 080 12
MWA 402657 125	MWR15 164 2646 080 09
	MWR15 164 2646 080 12

UTILIS multidec® swiss type tools

■ New

Legend 6

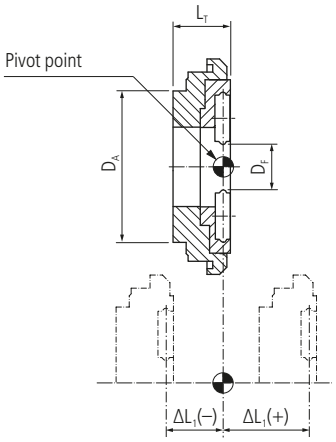


Type A

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…

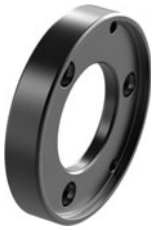


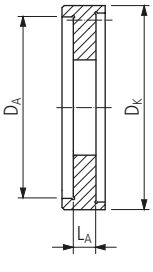
PREMIUM-LINE

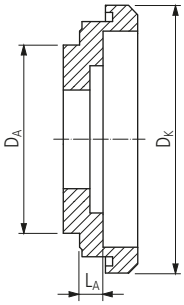
Driven toolholder			Whirling tool										
Manufacturer	Type		Order designation		Dimensions								
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396								
SONGGIA	TSS260100	■	MWT12 164 4548 145 09	■	12	45	48	48	9	6.5	14.5	0
			MWT12 164 4548 240 09	■	12	45	48	48	9	16	24	9.5
			MWT12 164 4548 280 09	■	12	45	48	48	9	20	28	13.5
			MWT12 164 4548 145 12	■	12	45	48	48	12	6.5	14.5	0
			MWT12 164 4548 240 12	■	12	45	48	48	12	16	24	9.5
			MWT12 164 4548 280 12	■	12	45	48	48	12	20	28	13.5
			MWT15 164 4548 145 09	■	15	45	48	48	9	6.5	14.5	0
			MWT15 164 4548 240 09	■	15	45	48	48	9	16	24	9.5
			MWT15 164 4548 280 09	■	15	45	48	48	9	20	28	13.5
			MWT15 164 4548 145 12	■	15	45	48	48	12	6.5	14.5	0
			MWT15 164 4548 240 12	■	15	45	48	48	12	16	24	9.5
			MWT15 164 4548 280 12	■	15	45	48	48	12	20	28	13.5
STAR	10159-00	■	MWT06 164 3346 165 09	■	6	33	46	46	9	8.5	16.5	0
			MWT08 164 3346 165 09	■	8	33	46	46	9	8.5	16.5	0
			MWT12 164 3346 165 09	■	12	33	46	46	9	8.5	16.5	0
			MWT12 164 3346 165 12	■	12	33	46	46	12	8.5	16.5	0
			MWT15 164 3346 165 09	■	15	33	46	46	9	8.5	16.5	0
			MWT15 164 3346 165 12	■	15	33	46	46	12	8.5	16.5	0

* Number of teeth

Continuation

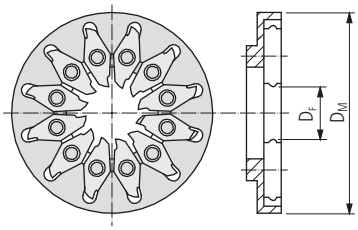






MWA…

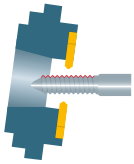




MWR…

Adapter	Whirling ring
MWA 332646 085	MWR06 164 2646 080 09
MWA 452645 065	MWR08 164 2646 080 09
MWA 452645 160	MWR12 164 2646 080 09
MWA 452645 200	MWR12 164 2646 080 12
	MWR15 164 2646 080 09
	MWR15 164 2646 080 12
	MWR12 164 2648 080 09
	MWR12 164 2648 080 12
	MWR15 164 2648 080 09
	MWR15 164 2648 080 12

■ New

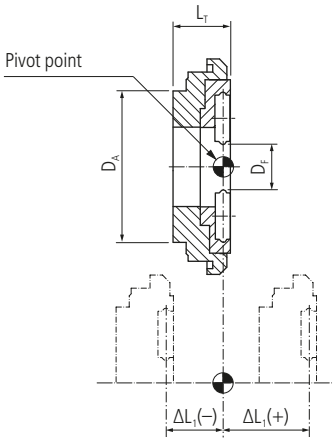


Type A

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…



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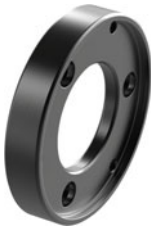
PREMIUM-LINE

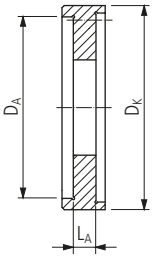
UTILIS multidec swiss type tools

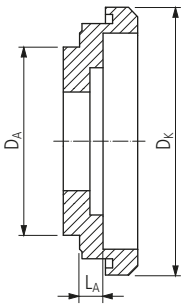
Driven toolholder			Whirling tool										
Manufacturer	Type		Order designation		Dimensions								
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396								
STAR	0M171-00	■	MWT06 164 4040 111 09	■	6	40	40	40	9	4	11.1	0
	101-72-00	■	MWT06 164 4040 116 09	■	6	40	40	40	9	4.5	11.6	0.4
	421-73-00	■	MWT06 164 4040 144 09	■	6	40	40	40	9	7.3	14.4	3.3
	431-72-00	■	MWT06 164 4040 154 09	■	6	40	40	40	9	8.3	15.4	4.3
	541-78-00	■	MWT06 164 4040 161 09	■	6	40	40	40	9	9	16.1	5
	581-71	■	MWT06 164 4040 181 09	■	6	40	40	40	9	11	18.1	7
	591-72-00	■	MWT06 164 4040 196 09	■	6	40	40	40	9	12.5	19.6	8.5
	661-72-00	■	MWT06 164 4040 231 09	■	6	40	40	40	9	16	23.1	12
	681-72-00	■	MWT12 164 4040 111 09	■	12	40	40	40	9	4	11.1	0
	7.074.191	■	MWT12 164 4040 116 09	■	12	40	40	40	9	4.5	11.6	0.4
	7.076.225	■	MWT12 164 4040 144 09	■	12	40	40	40	9	7.3	14.4	3.3
	7.170.882	■	MWT12 164 4040 154 09	■	12	40	40	40	9	8.3	15.4	4.3
			MWT12 164 4040 161 09	■	12	40	40	40	9	9	16.1	5
			MWT12 164 4040 181 09	■	12	40	40	40	9	11	18.1	7
			MWT12 164 4040 196 09	■	12	40	40	40	9	12.5	19.6	8.5
			MWT12 164 4040 231 09	■	12	40	40	40	9	16	23.1	12
			MWT12 164 4040 111 12	■	12	40	40	40	12	4	11.1	0
			MWT12 164 4040 116 12	■	12	40	40	40	12	4.5	11.6	0.4
			MWT12 164 4040 144 12	■	12	40	40	40	12	7.3	14.4	3.3
			MWT12 164 4040 154 12	■	12	40	40	40	12	8.3	15.4	4.3
			MWT12 164 4040 161 12	■	12	40	40	40	12	9	16.1	5
			MWT12 164 4040 181 12	■	12	40	40	40	12	11	18.1	7
			MWT12 164 4040 196 12	■	12	40	40	40	12	12.5	19.6	8.5
			MWT12 164 4040 231 12	■	12	40	40	40	12	16	23.1	12
			MWT15 164 4040 111 09	■	15	40	40	40	9	4	11.1	0
			MWT15 164 4040 116 09	■	15	40	40	40	9	4.5	11.6	0.4
			MWT15 164 4040 144 09	■	15	40	40	40	9	7.3	14.4	3.3
			MWT15 164 4040 154 09	■	15	40	40	40	9	8.3	15.4	4.3
			MWT15 164 4040 161 09	■	15	40	40	40	9	9	16.1	5
			MWT15 164 4040 181 09	■	15	40	40	40	9	11	18.1	7
			MWT15 164 4040 196 09	■	15	40	40	40	9	12.5	19.6	8.5
			MWT15 164 4040 231 09	■	15	40	40	40	9	16	23.1	12
			MWT06 164 4045 120 09	■	6	40	45	46	9	4	12	0
			MWT06 164 4045 125 09	■	6	40	45	46	9	4.5	12.5	0.5
			MWT06 164 4045 153 09	■	6	40	45	46	9	7.3	15.3	3.3
			MWT06 164 4045 163 09	■	6	40	45	46	9	8.3	16.3	4.3
			MWT06 164 4045 170 09	■	6	40	45	46	9	9	17	5
			MWT06 164 4045 190 09	■	6	40	45	46	9	11	19	7

* Number of teeth

Continuation

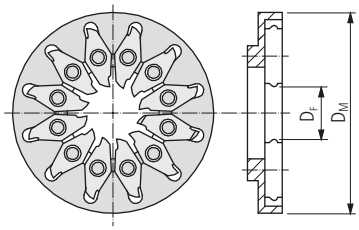






MWA…



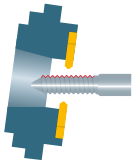


MWR…

Adapter	Whirling ring
MWA 402540 040	MWR06 164 2540 091 09
MWA 402540 045	MWR12 164 2546 080 09
MWA 402540 073	MWR12 164 2546 080 12
MWA 402540 083	MWR15 164 2546 080 09
MWA 402540 090	
MWA 402540 110	
MWA 402540 125	
MWA 402540 160	

■ New

UTILIS multidec® swiss type tools

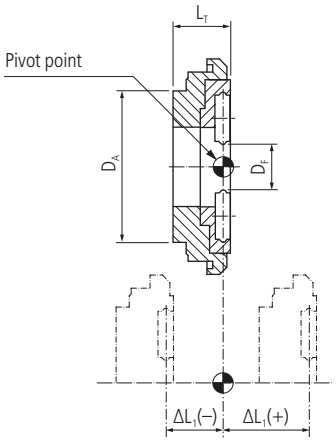


Type A

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…



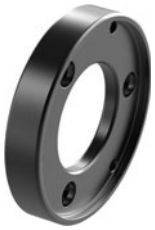
PREMIUM-LINE

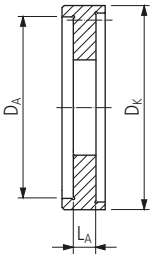
UTILIS multidec® swiss type tools

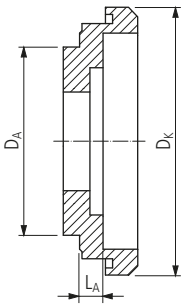
Driven toolholder			Whirling tool										
Manufacturer	Type		Order designation		Dimensions								
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396								
STAR	0M171-00 101-72-00 421-73-00 431-72-00 541-78-00 581-71 591-72-00 661-72-00 681-72-00 7.074.191 7.076.225 7.170.882	■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■	MWT06 164 4045 205 09	■	6	40	45	46	9	12.5	20.5	8.5
			MWT06 164 4045 240 09	■	6	40	45	46	9	16	24	12
			MWT08 164 4045 120 09	■	8	40	45	46	9	4	12	0
			MWT08 164 4045 125 09	■	8	40	45	46	9	4.5	12.5	0.5
			MWT08 164 4045 153 09	■	8	40	45	46	9	7.3	15.3	3.3
			MWT08 164 4045 163 09	■	8	40	45	46	9	8.3	16.3	4.3
			MWT08 164 4045 170 09	■	8	40	45	46	9	9	17	5
			MWT08 164 4045 190 09	■	8	40	45	46	9	11	19	7
			MWT08 164 4045 205 09	■	8	40	45	46	9	12.5	20.5	8.5
			MWT08 164 4045 240 09	■	8	40	45	46	9	16	24	12
			MWT12 164 4045 120 09	■	12	40	45	46	9	4	12	0
			MWT12 164 4045 125 09	■	12	40	45	46	9	4.5	12.5	0.5
			MWT12 164 4045 153 09	■	12	40	45	46	9	7.3	15.3	3.3
			MWT12 164 4045 163 09	■	12	40	45	46	9	8.3	16.3	4.3
			MWT12 164 4045 170 09	■	12	40	45	46	9	9	17	5
			MWT12 164 4045 190 09	■	12	40	45	46	9	11	19	7
			MWT12 164 4045 205 09	■	12	40	45	46	9	12.5	20.5	8.5
			MWT12 164 4045 240 09	■	12	40	45	46	9	16	24	12
			MWT12 164 4045 120 12	■	12	40	45	46	12	4	12	0
			MWT12 164 4045 125 12	■	12	40	45	46	12	4.5	12.5	0.5
			MWT12 164 4045 153 12	■	12	40	45	46	12	7.3	15.3	3.3
			MWT12 164 4045 163 12	■	12	40	45	46	12	8.3	16.3	4.3
			MWT12 164 4045 170 12	■	12	40	45	46	12	9	17	5
			MWT12 164 4045 190 12	■	12	40	45	46	12	11	19	7
			MWT12 164 4045 205 12	■	12	40	45	46	12	12.5	20.5	8.5
			MWT12 164 4045 240 12	■	12	40	45	46	12	16	24	12
			MWT15 164 4045 120 09	■	15	40	45	46	9	4	12	0
			MWT15 164 4045 125 09	■	15	40	45	46	9	4.5	12.5	0.5
			MWT15 164 4045 153 09	■	15	40	45	46	9	7.3	15.3	3.3
			MWT15 164 4045 163 09	■	15	40	45	46	9	8.3	16.3	4.3
			MWT15 164 4045 170 09	■	15	40	45	46	9	9	17	5
			MWT15 164 4045 190 09	■	15	40	45	46	9	11	19	7
			MWT15 164 4045 205 09	■	15	40	45	46	9	12.5	20.5	8.5
			MWT15 164 4045 240 09	■	15	40	45	46	9	16	24	12

* Number of teeth

Continuation

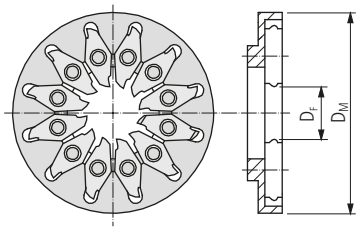






MWA…





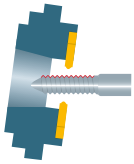
MWR…

Adapter	Whirling ring
MWA 402540 040	MWR06 164 2540 091 09
MWA 402540 045	MWR08 164 2546 080 09
MWA 402540 073	MWR12 164 2546 080 09
MWA 402540 083	MWR12 164 2546 080 12
MWA 402540 090	MWR15 164 2546 080 09
MWA 402540 110	
MWA 402540 125	
MWA 402540 160	

UTILIS multidec® swiss type tools

■ New

Legend 6

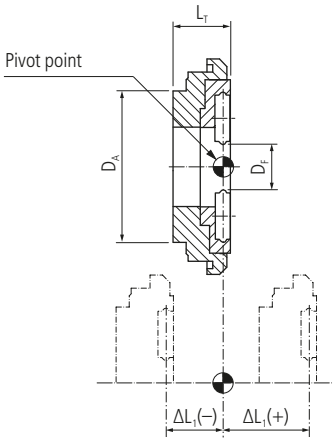


Type A

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…



PREMIUM-LINE

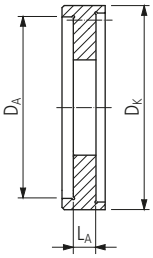
UTILIS multidec® swiss type tools

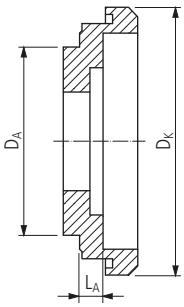
Driven toolholder			Whirling tool										
Manufacturer	Type		Order designation		Dimensions								
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396								
STAR	7.073.586 7.073.590 7.073.670 7.073.671 7.073.765	■ ■ ■ ■ ■	MWT12 164 4044 135 09	■	12	40	44	44	9	5.5	13.5	0
			MWT12 164 4044 200 09	■	12	40	44	44	9	12	20	6.5
			MWT12 164 4044 250 09	■	12	40	44	44	9	17	25	11.5
			MWT12 164 4044 135 12	■	12	40	44	44	12	5.5	13.5	0
			MWT12 164 4044 200 12	■	12	40	44	44	12	12	20	6.5
			MWT12 164 4044 250 12	■	12	40	44	44	12	17	25	11.5
			MWT15 164 4044 135 12	■	15	40	44	44	12	5.5	13.5	0
			MWT15 164 4044 200 12	■	15	40	44	44	12	12	20	6.5
			MWT15 164 4044 250 12	■	15	40	44	44	12	17	25	11.5

* Number of teeth

Continuation

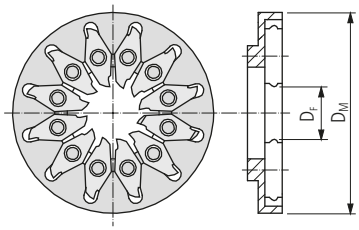






MWA…

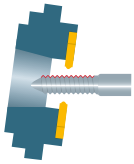




MWR…

Adapter			Whirling ring		
MWA 402640 055	MWA 402640 120	MWA 402640 170	MWR12 164 2644 080 09	MWR12 164 2644 080 12	MWR15 164 2644 080 12
■			■		
	■		■		
		■	■		
■				■	
	■			■	
		■		■	
■					■
	■				■
		■			■

UTILIS multidec® swiss type tools

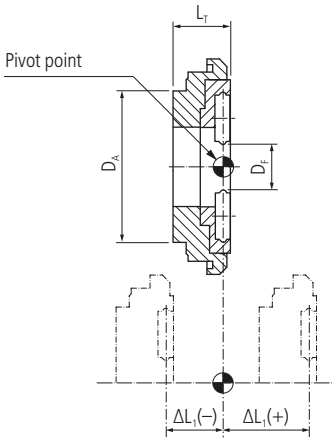


Type A

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…



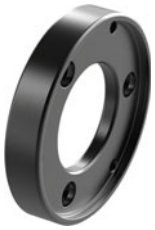
PREMIUM-LINE

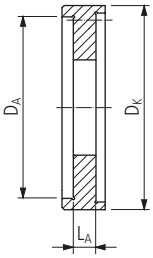
UTILIS multidec® swiss type tools

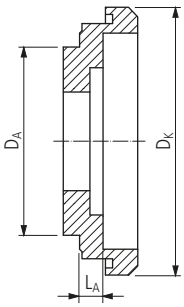
Driven toolholder			Whirling tool										
Manufacturer	Type		Order designation		Dimensions								
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396								
			MWT06 164 4040 111 09	■	6	40	40	40	9	4	11.1	0
			MWT06 164 4040 116 09	■	6	40	40	40	9	4.5	11.6	0.4
			MWT06 164 4040 144 09	■	6	40	40	40	9	7.3	14.4	3.3
			MWT06 164 4040 154 09	■	6	40	40	40	9	8.3	15.4	4.3
			MWT06 164 4040 161 09	■	6	40	40	40	9	9	16.1	5
			MWT06 164 4040 181 09	■	6	40	40	40	9	11	18.1	7
			MWT06 164 4040 196 09	■	6	40	40	40	9	12.5	19.6	8.5
			MWT06 164 4040 231 09	■	6	40	40	40	9	16	23.1	12
			MWT12 164 4040 111 09	■	12	40	40	40	9	4	11.1	0
			MWT12 164 4040 116 09	■	12	40	40	40	9	4.5	11.6	0.4
			MWT12 164 4040 144 09	■	12	40	40	40	9	7.3	14.4	3.3
			MWT12 164 4040 154 09	■	12	40	40	40	9	8.3	15.4	4.3
			MWT12 164 4040 161 09	■	12	40	40	40	9	9	16.1	5
			MWT12 164 4040 181 09	■	12	40	40	40	9	11	18.1	7
			MWT12 164 4040 196 09	■	12	40	40	40	9	12.5	19.6	8.5
			MWT12 164 4040 231 09	■	12	40	40	40	9	16	23.1	12
			MWT12 164 4040 111 12	■	12	40	40	40	12	4	11.1	0
			MWT12 164 4040 116 12	■	12	40	40	40	12	4.5	11.6	0.4
SU-matic	AWS 1:1	■	MWT12 164 4040 144 12	■	12	40	40	40	12	7.3	14.4	3.3
			MWT12 164 4040 154 12	■	12	40	40	40	12	8.3	15.4	4.3
			MWT12 164 4040 161 12	■	12	40	40	40	12	9	16.1	5
			MWT12 164 4040 181 12	■	12	40	40	40	12	11	18.1	7
			MWT12 164 4040 196 12	■	12	40	40	40	12	12.5	19.6	8.5
			MWT12 164 4040 231 12	■	12	40	40	40	12	16	23.1	12
			MWT15 164 4040 111 09	■	15	40	40	40	9	4	11.1	0
			MWT15 164 4040 116 09	■	15	40	40	40	9	4.5	11.6	0.4
			MWT15 164 4040 144 09	■	15	40	40	40	9	7.3	14.4	3.3
			MWT15 164 4040 154 09	■	15	40	40	40	9	8.3	15.4	4.3
			MWT15 164 4040 161 09	■	15	40	40	40	9	9	16.1	5
			MWT15 164 4040 181 09	■	15	40	40	40	9	11	18.1	7
			MWT15 164 4040 196 09	■	15	40	40	40	9	12.5	19.6	8.5
			MWT15 164 4040 231 09	■	15	40	40	40	9	16	23.1	12
			MWT06 164 4045 120 09	■	6	40	45	46	9	4	12	0
			MWT06 164 4045 125 09	■	6	40	45	46	9	4.5	12.5	0.5
			MWT06 164 4045 153 09	■	6	40	45	46	9	7.3	15.3	3.3
			MWT06 164 4045 163 09	■	6	40	45	46	9	8.3	16.3	4.3
			MWT06 164 4045 170 09	■	6	40	45	46	9	9	17	5
			MWT06 164 4045 190 09	■	6	40	45	46	9	11	19	7

* Number of teeth

Continuation

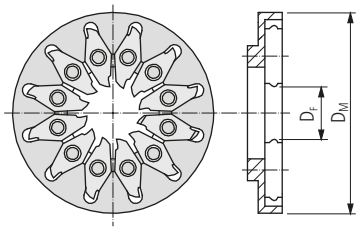






MWA...

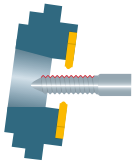




MWR...

Adapter	Whirling ring
MWA 402540 040	MWR06 164 2540 091 09
MWA 402540 045	MWR12 164 2546 080 09
MWA 402540 073	MWR12 164 2546 080 12
MWA 402540 083	MWR15 164 2546 080 09
MWA 402540 090	
MWA 402540 110	
MWA 402540 125	
MWA 402540 160	

■ New

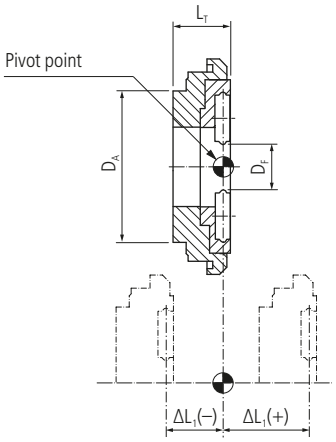


Type A

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…



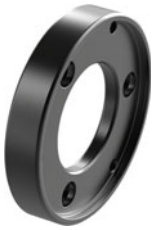
PREMIUM-LINE

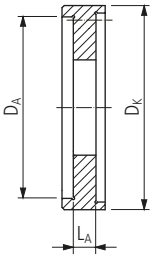
UTILIS multidec® swiss type tools

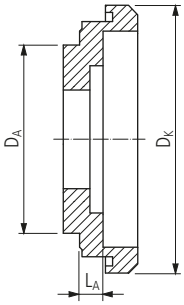
Driven toolholder			Whirling tool									
Manufacturer	Type		Order designation		Dimensions							
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396							
	260448	■	MWT12 164 44M50 120 12	■	12	44	M50	46	12	3	12	0
			MWT06 164 4242 115 07	■	6	42	42	42	7	3.5	11.5	0
			MWT06 164 4242 135 07	■	6	42	42	42	7	5.5	13.5	2
			MWT06 164 4242 165 07	■	6	42	42	42	7	8.5	16.5	5
	305217	■	MWT06 164 4242 185 07	■	6	42	42	42	7	10.5	18.5	7
	305218	■	MWT06 164 4242 115 09	■	6	42	42	42	9	3.5	11.5	0
			MWT06 164 4242 135 09	■	6	42	42	42	9	5.5	13.5	2
			MWT06 164 4242 165 09	■	6	42	42	42	9	8.5	16.5	5
			MWT06 164 4242 185 09	■	6	42	42	42	9	10.5	18.5	7
			MWT06 164 4057 105 09	■	6	40	57	46	9	2.5	10.5	0
			MWT06 164 4057 155 09	■	6	40	57	46	9	7.5	15.5	5
			MWT06 164 4057 170 09	■	6	40	57	46	9	9	17	6.5
			MWT06 164 4057 175 09	■	6	40	57	46	9	9.5	17.5	7
			MWT06 164 4057 205 09	■	6	40	57	46	9	12.5	20.5	10
			MWT08 164 4057 105 09	■	8	40	57	46	9	2.5	10.5	0
			MWT08 164 4057 155 09	■	8	40	57	46	9	7.5	15.5	5
			MWT08 164 4057 170 09	■	8	40	57	46	9	9	17	6.5
			MWT08 164 4057 175 09	■	8	40	57	46	9	9.5	17.5	7
	226-1900	■	MWT08 164 4057 205 09	■	8	40	57	46	9	12.5	20.5	10
	199223	■	MWT12 164 4057 105 09	■	12	40	57	46	9	2.5	10.5	0
TORNOS	306101	■	MWT12 164 4057 155 09	■	12	40	57	46	9	7.5	15.5	5
	306432	■	MWT12 164 4057 170 09	■	12	40	57	46	9	9	17	6.5
	307087	■	MWT12 164 4057 175 09	■	12	40	57	46	9	9.5	17.5	7
	307180	■	MWT12 164 4057 205 09	■	12	40	57	46	9	12.5	20.5	10
	398541	■	MWT12 164 4057 105 12	■	12	40	57	46	12	2.5	10.5	0
	418302	■	MWT12 164 4057 155 12	■	12	40	57	46	12	7.5	15.5	5
	472088	■	MWT12 164 4057 170 12	■	12	40	57	46	12	9	17	6.5
	992381	■	MWT12 164 4057 175 12	■	12	40	57	46	12	9.5	17.5	7
	1013013	■	MWT12 164 4057 205 12	■	12	40	57	46	12	12.5	20.5	10
	3281-Y691	■	MWT15 164 4057 105 09	■	15	40	57	46	9	2.5	10.5	0
	462-2365	■	MWT15 164 4057 155 09	■	15	40	57	46	9	7.5	15.5	5
	462-2370	■	MWT15 164 4057 170 09	■	15	40	57	46	9	9	17	6.5
			MWT15 164 4057 175 09	■	15	40	57	46	9	9.5	17.5	7
			MWT15 164 4057 205 09	■	15	40	57	46	9	12.5	20.5	10
			MWT15 164 4057 105 12	■	15	40	57	46	12	2.5	10.5	0
			MWT15 164 4057 155 12	■	15	40	57	46	12	7.5	15.5	5
			MWT15 164 4057 170 12	■	15	40	57	46	12	9	17	6.5
			MWT15 164 4057 175 12	■	15	40	57	46	12	9.5	17.5	7
			MWT15 164 4057 205 12	■	15	40	57	46	12	12.5	20.5	10

* Number of teeth

Continuation

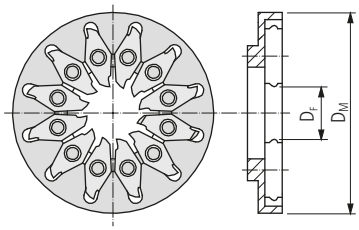






MWA…



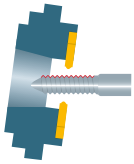


MWR…

Adapter	Whirling ring
MWA 402657 025	MWR06 164 2042 080 07
MWA 402657 075	MWR06 164 2042 080 09
MWA 402657 090	MWR06 164 2646 080 09
MWA 402657 095	MWR08 164 2646 080 09
MWA 402657 125	MWR12 164 2646 080 09
MWA 422042 035	MWR12 164 2646 080 12
MWA 422042 055	MWR15 164 2646 080 09
MWA 422042 085	MWR15 164 2646 080 12
MWA 422042 105	MWR12 164 4446 090 12
MWA 462M50 030	

■ New

Legend 6

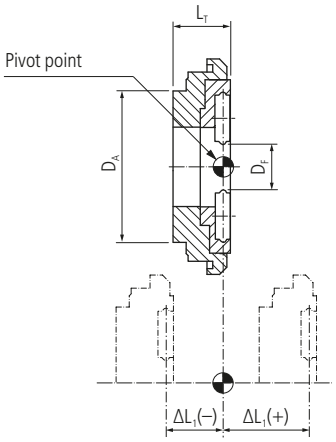


Type A

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…



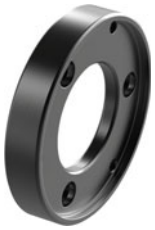
PREMIUM-LINE

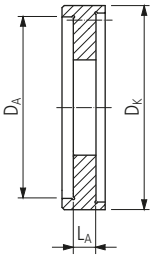
Driven toolholder			Whirling tool										
Manufacturer	Type		Order designation		Dimensions								
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396								
TORNOS	306279 306281 417627	■ ■ ■	MWT06 164 5067 120 09	■	6	50	67	46	9	4	12	0
			MWT06 164 5067 220 09	■	6	50	67	46	9	14	22	10
			MWT06 164 5067 260 09	■	6	50	67	46	9	18	26	14
			MWT08 164 5067 120 09	■	8	50	67	46	9	4	12	0
			MWT08 164 5067 220 09	■	8	50	67	46	9	14	22	10
			MWT08 164 5067 260 09	■	8	50	67	46	9	18	26	14
			MWT12 164 5067 120 09	■	12	50	67	46	9	4	12	0
			MWT12 164 5067 220 09	■	12	50	67	46	9	14	22	10
			MWT12 164 5067 260 09	■	12	50	67	46	9	18	26	14
			MWT12 164 5067 120 12	■	12	50	67	46	12	4	12	0
			MWT12 164 5067 220 12	■	12	50	67	46	12	14	22	10
			MWT12 164 5067 260 12	■	12	50	67	46	12	18	26	14
			MWT15 164 5067 120 09	■	15	50	67	46	9	4	12	0
			MWT15 164 5067 220 09	■	15	50	67	46	9	14	22	10
			MWT15 164 5067 260 09	■	15	50	67	46	9	18	26	14
			MWT15 164 5067 120 12	■	15	50	67	46	12	4	12	0
			MWT15 164 5067 220 12	■	15	50	67	46	12	14	22	10
			MWT15 164 5067 260 12	■	15	50	67	46	12	18	26	14
	462-2360	■	MWT06 164 4050 105 09	■	6	40	50	50	9	2.5	10.5	0
			MWT06 164 4050 175 09	■	6	40	50	50	9	9.5	17.5	7
			MWT06 164 4050 205 09	■	6	40	50	50	9	12.5	20.5	10
			MWT08 164 4050 105 09	■	8	40	50	50	9	2.5	10.5	0
			MWT08 164 4050 175 09	■	8	40	50	50	9	9.5	17.5	7
			MWT08 164 4050 205 09	■	8	40	50	50	9	12.5	20.5	10
			MWT12 164 4050 105 09	■	12	40	50	50	9	2.5	10.5	0
			MWT12 164 4050 175 09	■	12	40	50	50	9	9.5	17.5	7
			MWT12 164 4050 205 09	■	12	40	50	50	9	12.5	20.5	10
			MWT12 164 4050 105 12	■	12	40	50	50	12	2.5	10.5	0
			MWT12 164 4050 175 12	■	12	40	50	50	12	9.5	17.5	7
			MWT12 164 4050 205 12	■	12	40	50	50	12	12.5	20.5	10
			MWT15 164 4050 105 09	■	15	40	50	50	9	2.5	10.5	0
			MWT15 164 4050 175 09	■	15	40	50	50	9	9.5	17.5	7
			MWT15 164 4050 205 09	■	15	40	50	50	9	12.5	20.5	10
			MWT15 164 4050 105 12	■	15	40	50	50	12	2.5	10.5	0
			MWT15 164 4050 175 12	■	15	40	50	50	12	9.5	17.5	7
			MWT15 164 4050 205 12	■	15	40	50	50	12	12.5	20.5	10

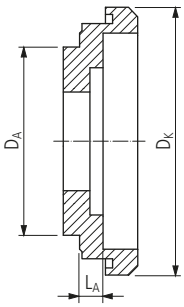
* Number of teeth

UTILIS multidec swiss type tools

Continuation

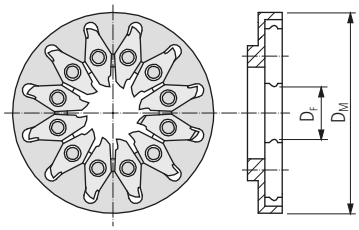






MWA…





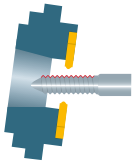
MWR…

Adapter	Whirling ring
MWA 402650 025	MWR06 164 2646 080 09
MWA 402650 095	MWR08 164 2646 080 09
MWA 402650 125	MWR12 164 2646 080 09
MWA 502667 040	MWR12 164 2646 080 12
MWA 502667 140	MWR15 164 2646 080 09
MWA 502667 180	MWR15 164 2646 080 12

UTILIS multidec® swiss type tools

■ New

Legend 6

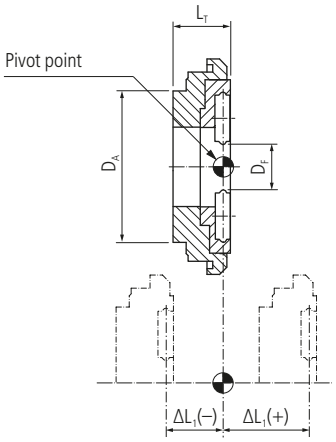


Type A

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…



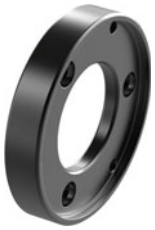
PREMIUM-LINE

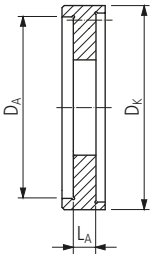
UTILIS multidec swiss type tools

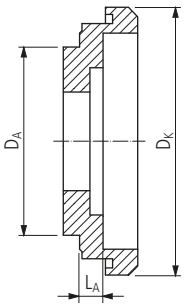
Driven toolholder			Whirling tool									
Manufacturer	Type		Order designation		Dimensions							
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396							
TRAUB	836461	■	MWT06 164 54106 120 09	■	6	54	106	46	9	4	12	0
			MWT06 164 54106 130 09	■	6	54	106	46	9	5	13	1
			MWT08 164 54106 120 09	■	8	54	106	46	9	4	12	0
			MWT08 164 54106 130 09	■	8	54	106	46	9	5	13	1
			MWT12 164 54106 120 09	■	12	54	106	46	9	4	12	0
			MWT12 164 54106 120 12	■	12	54	106	46	12	4	12	0
	836046	■	MWT12 164 54106 130 09	■	12	54	106	46	9	5	13	1
			MWT12 164 54106 130 12	■	12	54	106	46	12	5	13	1
			MWT15 164 54106 120 09	■	15	54	106	46	9	4	12	0
			MWT15 164 54106 120 12	■	15	54	106	46	12	4	12	0
			MWT15 164 54106 130 09	■	15	54	106	46	9	5	13	1
			MWT15 164 54106 130 12	■	15	54	106	46	12	5	13	1
	987510	■	MWT06 164 2842 179 07	■	6	28	42	42	7	6.9	17.9	0
	987910	■	MWT06 164 2842 179 09	■	6	28	42	42	9	6.9	17.9	0
	989520	■	MWT06 164 M3442 194 07	■	6	M34	42	42	7	-	19.4	0
			MWT06 164 M3442 194 09	■	6	M34	42	42	9	-	19.4	0
TSUGAMI	3268-Y271	■	MWT06 164 5265 166 09	■	6	52	46	65	9	8.7	16.6	0
			MWT06 164 5265 220 09	■	6	52	46	65	9	14	22	5.3
			MWT08 164 5265 166 09	■	8	52	46	65	9	8.7	16.6	0
			MWT08 164 5265 220 09	■	8	52	46	65	9	14	22	5.3
	3263-Y480	■	MWT12 164 5265 166 09	■	12	52	46	65	9	8.7	16.6	0
	3263-Y481	■	MWT12 164 5265 220 09	■	12	52	46	65	9	14	22	5.3
	3234-Y342 UZ.	■	MWT12 164 5265 166 12	■	12	52	46	65	12	8.7	16.6	0
	3234-Y343 GUZ.	■	MWT12 164 5265 220 12	■	12	52	46	65	12	14	22	5.3
			MWT15 164 5265 166 09	■	15	52	46	65	9	8.7	16.6	0
			MWT15 164 5265 220 09	■	15	52	46	65	9	14	22	5.3
			MWT15 164 5265 166 12	■	15	52	46	65	12	8.7	16.6	0
			MWT15 164 5265 220 12	■	15	52	46	65	12	14	22	5.3

* Number of teeth

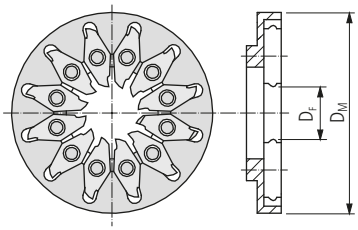
Continuation







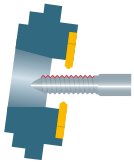




MWA…

MWR…

Adapter	Whirling ring
MWA 282042 069	MWR06 164 2042 080 07
MWA M342042 114	MWR06 164 2042 080 09
MWA 522665 087	MWR06 164 2646 080 09
MWA 522665 140	MWR08 164 2646 080 09
MWA 5426106 040	MWR12 164 2646 080 09
MWA 5426106 050	MWR12 164 2646 080 12
	MWR15 164 2646 080 09
	MWR15 164 2646 080 12

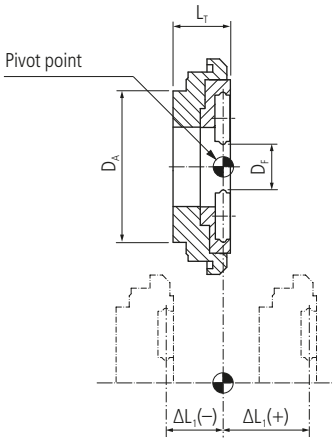


Type A

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…



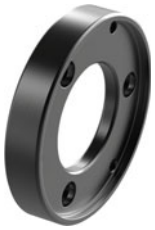
PREMIUM-LINE

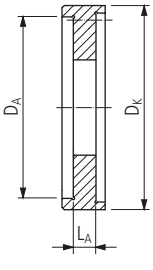
UTILIS multidec® swiss type tools

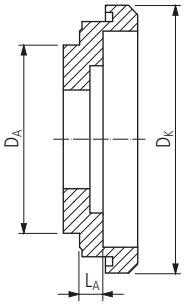
Driven toolholder			Whirling tool										
Manufacturer	Type		Order designation		Dimensions								
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396								
TSUGAMI	3281-Y451	■	MWT06 164 5252 160 09	■	6	52	52	46	9	8	16	0
			MWT06 164 5252 190 09	■	6	52	52	46	9	11	19	3
			MWT06 164 5252 220 09	■	6	52	52	46	9	14	22	6
			MWT08 164 5252 160 09	■	8	52	52	46	9	8	16	0
			MWT08 164 5252 190 09	■	8	52	52	46	9	11	19	3
			MWT08 164 5252 220 09	■	8	52	52	46	9	14	22	6
			MWT12 164 5252 160 09	■	12	52	52	46	9	8	16	0
			MWT12 164 5252 190 09	■	12	52	52	46	9	11	19	3
			MWT12 164 5252 220 09	■	12	52	52	46	9	14	22	6
			MWT12 164 5252 160 12	■	12	52	52	46	12	8	16	0
			MWT12 164 5252 190 12	■	12	52	52	46	12	11	19	3
			MWT12 164 5252 220 12	■	12	52	52	46	12	14	22	6
			MWT15 164 5252 160 09	■	15	52	52	46	9	8	16	0
			MWT15 164 5252 190 09	■	15	52	52	46	9	11	19	3
			MWT15 164 5252 220 09	■	15	52	52	46	9	14	22	6
			MWT15 164 5252 160 12	■	15	52	52	46	12	8	16	0
			MWT15 164 5252 190 12	■	15	52	52	46	12	11	19	3
			MWT15 164 5252 220 12	■	15	52	52	46	12	14	22	6
	3268-Y452	■										
	3268-Y453	■										
	3268-Y454	■										
	3268-Y455	■										
WTO	419900001-44	■	MWT12 164 4044 135 09	■	12	40	44	44	9	5.5	13.5	0
			MWT12 164 4044 200 09	■	12	40	44	44	9	12	20	6.5
			MWT12 164 4044 250 09	■	12	40	44	44	9	17	25	11.5
			MWT12 164 4044 135 12	■	12	40	44	44	12	5.5	13.5	0
			MWT12 164 4044 200 12	■	12	40	44	44	12	12	20	6.5
			MWT12 164 4044 250 12	■	12	40	44	44	12	17	25	11.5
			MWT15 164 4044 135 12	■	15	40	44	44	12	5.5	13.5	0
			MWT15 164 4044 200 12	■	15	40	44	44	12	12	20	6.5
			MWT15 164 4044 250 12	■	15	40	44	44	12	17	25	11.5
	419900002-44	■										
	419900005-44 67969	■										
	TN762002	■										
	419900001-44	■	MWT06 164 4046 300 09	■	6	40	44	46	9	22	30	6
			MWT08 164 4046 240 09	■	8	40	46	46	9	16	24	12.5
			MWT08 164 4046 300 09	■	8	40	44	46	9	22	30	6
			MWT12 164 4046 240 09	■	12	40	46	46	9	16	24	12.5
			MWT12 164 4046 300 09	■	12	40	44	46	9	22	30	6
			MWT12 164 4046 240 12	■	12	40	46	46	12	16	24	12.5
			MWT12 164 4046 300 12	■	12	40	44	46	12	22	30	6
			MWT15 164 4046 240 09	■	15	40	46	46	9	16	24	12.5
			MWT15 164 4046 300 09	■	15	40	44	46	9	22	30	6
			MWT15 164 4046 240 12	■	15	40	46	46	12	16	24	12.5
			MWT15 164 4046 300 12	■	15	40	44	46	12	22	30	6
	TN762002	■										

* Number of teeth

Continuation

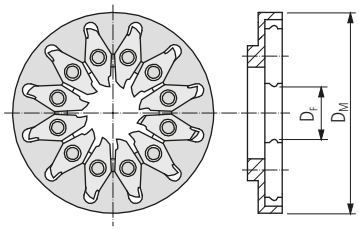






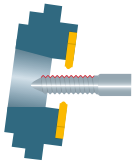
MWA…





MWR…

Adapter	Whirling ring
MWA 402640 055	MWR06 164 2644 080 09
MWA 402640 120	MWR12 164 2644 080 09
MWA 402640 170	MWR15 164 2644 080 09
MWA 402644 160	MWR15 164 2644 080 12
MWA 402644 220	MWR06 164 2646 080 09
MWA 5226 080	MWR08 164 2646 080 09
MWA 5226 110	MWR12 164 2646 080 09
MWA 5226 140	MWR12 164 2646 080 12
	MWR15 164 2646 080 09
	MWR15 164 2646 080 12

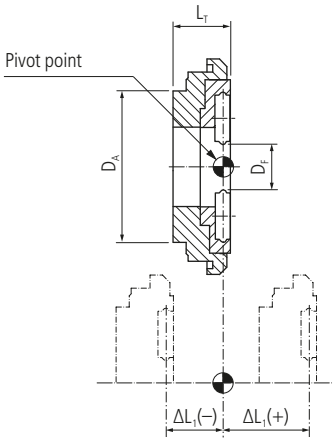


Type A

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…



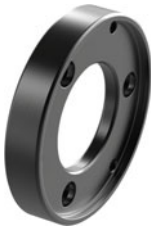
PREMIUM-LINE

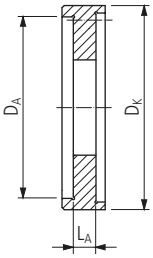
UTILIS multidec swiss type tools

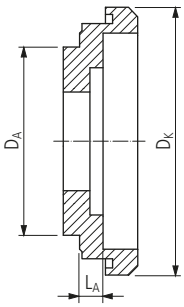
Driven toolholder			Whirling tool										
Manufacturer	Type		Order designation		Dimensions								
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396								
W & F	AG.SPI.Z35.0200.002 MPU.Z35.0800.GA	■	MWT06 164 4055 103 09	■	6	40	55	55	9	2.3	10.3	0
			MWT06 164 4055 115 09	■	6	40	55	55	9	3.5	11.5	1.2
			MWT06 164 4055 153 09	■	6	40	55	55	9	7.3	15.3	5
			MWT08 164 4055 103 09	■	8	40	55	55	9	2.3	10.3	0
			MWT08 164 4055 115 09	■	8	40	55	55	9	3.5	11.5	1.2
			MWT08 164 4055 153 09	■	8	40	55	55	9	7.3	15.3	5
			MWT12 164 4055 103 09	■	12	40	55	55	9	2.3	10.3	0
			MWT12 164 4055 115 09	■	12	40	55	55	9	3.5	11.5	1.2
			MWT12 164 4055 153 09	■	12	40	55	55	9	7.3	15.3	5
			MWT12 164 4055 103 12	■	12	40	55	55	12	2.3	10.3	0
			MWT12 164 4055 115 12	■	12	40	55	55	12	3.5	11.5	1.2
			MWT12 164 4055 153 12	■	12	40	55	55	12	7.3	15.3	5
			MWT15 164 4055 103 09	■	15	40	55	55	9	2.3	10.3	0
			MWT15 164 4055 115 09	■	15	40	55	55	9	3.5	11.5	1.2
			MWT15 164 4055 153 09	■	15	40	55	55	9	7.3	15.3	5
			MWT15 164 4055 103 12	■	15	40	55	55	12	2.3	10.3	0
			MWT15 164 4055 115 12	■	15	40	55	55	12	3.5	11.5	1.2
			MWT15 164 4055 153 12	■	15	40	55	55	12	7.3	15.3	5
	MPU.TO.0800.DE10	■	MWT06 164 4242 115 07	■	6	42	42	42	7	3.5	11.5	0
			MWT06 164 4242 135 07	■	6	42	42	42	7	5.5	13.5	2
			MWT06 164 4242 165 07	■	6	42	42	42	7	8.5	16.5	5
			MWT06 164 4242 185 07	■	6	42	42	42	7	10.5	18.5	7
			MWT06 164 4242 115 09	■	6	42	42	42	9	3.5	11.5	0
			MWT06 164 4242 135 09	■	6	42	42	42	9	5.5	13.5	2
			MWT06 164 4242 165 09	■	6	42	42	42	9	8.5	16.5	5
			MWT06 164 4242 185 09	■	6	42	42	42	9	10.5	18.5	7

* Number of teeth

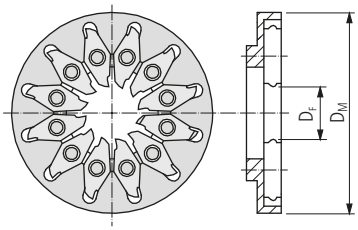
Continuation











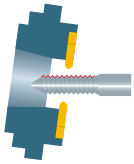
MWA…

MWR…

Adapter	Whirling ring
MWA 402655 023	MWR06 164 2042 080 07
MWA 402655 035	MWR06 164 2042 080 09
MWA 402655 073	MWR06 164 2646 080 09
MWA 422042 035	MWR08 164 2646 080 09
MWA 422042 055	MWR12 164 2646 080 09
MWA 422042 085	MWR12 164 2646 080 12
MWA 422042 105	MWR15 164 2646 080 09
	MWR15 164 2646 080 12

■ New

Legend 6

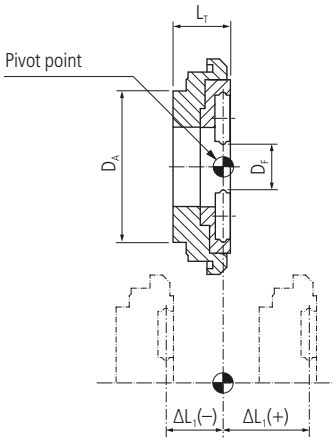


Type A

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…

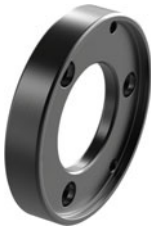


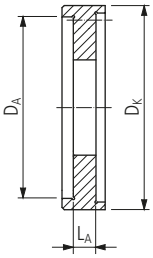
PREMIUM-LINE

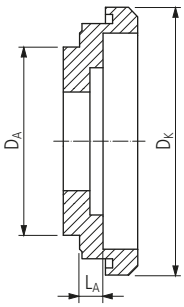
Driven toolholder			Whirling tool										
Manufacturer	Type		Order designation		Dimensions								
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396								
W & F	MPU.TO.0800.DE13	■	MWT06 164 4057 105 09	■	6	40	57	46	9	2.5	10.5	0
	MPU.TO.0800.DE20	■	MWT06 164 4057 155 09	■	6	40	57	46	9	7.5	15.5	5
	MPU.TO.0800.DE20S	■	MWT06 164 4057 170 09	■	6	40	57	46	9	9	17	6.5
	MPU.TO.M800.DE20	■	MWT06 164 4057 175 09	■	6	40	57	46	9	9.5	17.5	7
			MWT06 164 4057 205 09	■	6	40	57	46	9	12.5	20.5	10
			MWT08 164 4057 105 09	■	8	40	57	46	9	2.5	10.5	0
			MWT08 164 4057 155 09	■	8	40	57	46	9	7.5	15.5	5
			MWT08 164 4057 170 09	■	8	40	57	46	9	9	17	6.5
			MWT08 164 4057 175 09	■	8	40	57	46	9	9.5	17.5	7
			MWT08 164 4057 205 09	■	8	40	57	46	9	12.5	20.5	10
			MWT12 164 4057 105 09	■	12	40	57	46	9	2.5	10.5	0
			MWT12 164 4057 155 09	■	12	40	57	46	9	7.5	15.5	5
			MWT12 164 4057 170 09	■	12	40	57	46	9	9	17	6.5
			MWT12 164 4057 175 09	■	12	40	57	46	9	9.5	17.5	7
			MWT12 164 4057 205 09	■	12	40	57	46	9	12.5	20.5	10
			MWT12 164 4057 105 12	■	12	40	57	46	12	2.5	10.5	0
			MWT12 164 4057 155 12	■	12	40	57	46	12	7.5	15.5	5
			MWT12 164 4057 170 12	■	12	40	57	46	12	9	17	6.5
			MWT12 164 4057 175 12	■	12	40	57	46	12	9.5	17.5	7
			MWT12 164 4057 205 12	■	12	40	57	46	12	12.5	20.5	10
			MWT15 164 4057 105 09	■	15	40	57	46	9	2.5	10.5	0
			MWT15 164 4057 155 09	■	15	40	57	46	9	7.5	15.5	5
			MWT15 164 4057 170 09	■	15	40	57	46	9	9	17	6.5
			MWT15 164 4057 175 09	■	15	40	57	46	9	9.5	17.5	7
			MWT15 164 4057 205 09	■	15	40	57	46	9	12.5	20.5	10
			MWT15 164 4057 105 12	■	15	40	57	46	12	2.5	10.5	0
			MWT15 164 4057 155 12	■	15	40	57	46	12	7.5	15.5	5
			MWT15 164 4057 170 12	■	15	40	57	46	12	9	17	6.5
			MWT15 164 4057 175 12	■	15	40	57	46	12	9.5	17.5	7
			MWT15 164 4057 205 12	■	15	40	57	46	12	12.5	20.5	10

* Number of teeth

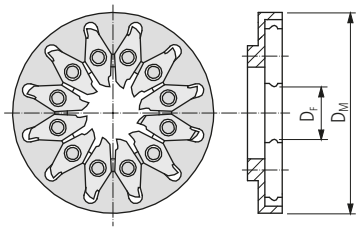
Continuation











MWA...

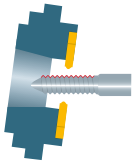
MWR...

Adapter	Whirling ring
MWA 402657 025	MWR06 164 2646 080 09
MWA 402657 075	MWR08 164 2646 080 09
MWA 402657 090	MWR12 164 2646 080 09
MWA 402657 095	MWR12 164 2646 080 12
MWA 402657 125	MWR15 164 2646 080 09
	MWR15 164 2646 080 12

UTILIS multidec® swiss type tools

■ New

Legend 6

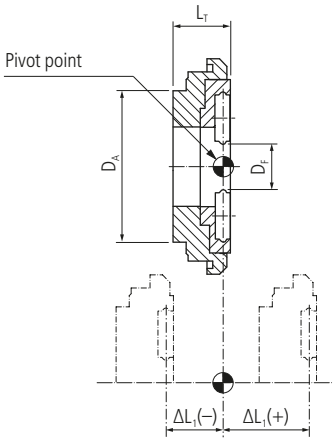


Type B

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…



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UTILIS multidec® swiss type tools

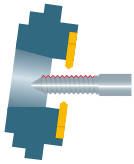
PREMIUM-LINE

Driven toolholder			Whirling tool										
Manufacturer	Type		Order designation		Dimensions								
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396								
CITIZEN	BTW-1000	■	MWT12 164 3347 145 09	■	12	33	47	–	9	–	14.5	0
	BTW-2000	■	MWT12 164 3347 145 12	■	12	33	47	–	12	–	14.5	0
	BTW-5000	■	MWT12 164 3347 170 09	■	12	33	47	–	9	–	17	2.5
	BTW-6000	■	MWT12 164 3347 170 12	■	12	33	47	–	12	–	17	2.5
	BTW-3000	■	MWT12 166 3347 145 09	■	12	33	47	–	9	–	14.5	0
	BTW-3100	■	MWT12 166 3347 145 12	■	12	33	47	–	12	–	14.5	0
	BTW-4000	■	MWT12 166 3347 170 09	■	12	33	47	–	9	–	17	2.5
			MWT12 166 3347 170 12	■	12	33	47	–	12	–	17	2.5
			MWT12 168 3347 145 09	■	12	33	47	–	9	–	14.5	0
			MWT12 164 2546 070 09	■	12	25	46	–	9	–	7	0
			MWT12 164 2546 070 12	■	12	25	46	–	12	–	7	0
DMG	2123031	■	MWT12 164 4249 120 09	■	12	42	49	49	9	–	12	0
	2647002	■										
	2723028	■										
	2858071	■										
	2646709	■										
MADAULA	CZ.035.K12/K16	■	MWT06 164 2035 165 07	■	6	20	35	35	7	–	16.5	0
	CZ.035.K12/K16-15	■	MWT06 164 2035 165 09	■	6	20	35	35	9	–	16.5	0
	CZ.035.M12/M16	■	MWT06 164 2035 225 07	■	6	20	35	35	7	–	22.5	4
	CZ.035.M12/M16T-15	■	MWT06 164 2035 225 09	■	6	20	35	35	9	–	22.5	4
	CZ.035.M20/M32T	■	MWT06 164 2035 240 09	■	6	20	35	35	9	–	24	7.5
	CZ.035.M20/M32T	■	MWT08 164 2038 185 09	■	8	20	38	38	9	–	18.5	2
	P.035.00063	■	MWT08 164 2038 200 09	■	8	20	38	38	9	–	20	3.5
	1110.00055	■	MWT08 164 2038 225 09	■	8	20	38	38	9	–	22.5	4
			MWT12 164 4045 100 09	■	12	40	45	–	9	–	10	0
	P.035.00083	■	MWT06 164 4253 388 09	■	6	42	53	53	9	–	38.8	0
			MWT06 164 4253 415 09	■	6	42	53	53	9	–	41.5	2.7
			MWT06 164 4253 428 09	■	6	42	53	53	9	–	42.8	4
			MWT06 164 4253 460 09	■	6	42	53	53	9	–	46	7.2
			MWT08 164 4253 388 09	■	8	42	53	53	9	–	38.8	0
MAIER	MAIER MLK	■	MWT06 164 3333 180 07	■	6	33	33	–	7	–	18	0
			MWT06 164 3333 180 08	■	6	33	33	–	8	–	18	0
MT	CTZ0040112	■	MWT12 164 4045 100 09	■	12	40	45	–	9	–	10	0
	NMR0010112	■										
	NMR0070112	■										
	SPC1921000	■										

* Number of teeth

■ New

Legend 6

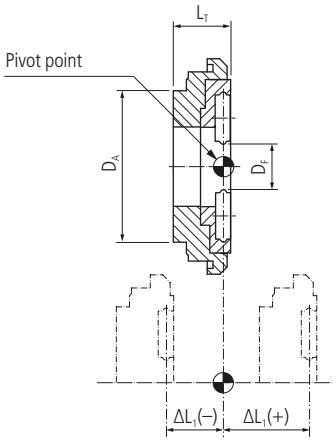


Type B

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…

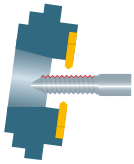


Driven toolholder			Whirling tool									
Manufacturer	Type		Order designation		Dimensions							
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
PREMIUM-LINE											Accuracy class of UTILIS 396	
PCM	E20-WI-000	■	MWT06 164 2035 165 07	■	6	20	35	35	7	–	16.5	0
	GSW-101-000	■	MWT06 164 2035 165 09	■	6	20	35	35	9	–	16.5	0
	LSW-515-000	■	MWT06 164 2035 225 07	■	6	20	35	35	7	–	22.5	4
	LSW-515-PR	■	MWT06 164 2035 225 09	■	6	20	35	35	9	–	22.5	4
	KSW-101-000	■	MWT06 164 2035 240 09	■	6	20	35	35	9	–	24	7.5
	LSW-101-L20-000	■	MWT08 164 2038 185 09	■	8	20	38	38	9	–	18.5	2
	LSW-215-000	■	MWT08 164 2038 200 09	■	8	20	38	38	9	–	20	3.5
	LSW-424-15	■	MWT08 164 2038 225 09	■	8	20	38	38	9	–	22.5	4
	MSW-101-000	■	MWT12 164 4045 100 09	■	12	40	45	–	9	–	10	0
	NN20-W15	■										
	SPW-1220	■										
STAR	7.073.590	■	MWT12 164 4044 100 09	■	12	40	44	–	9	–	10	0
			MWT12 164 4044 100 12	■	12	40	44	–	12	–	10	0
	7.074.260	■	MWT12 164 4253 310 09	■	12	42	53	53	9	–	31	0
			MWT12 164 4253 335 09	■	12	42	53	53	9	–	33.5	2.5
			MWT12 164 4253 385 09	■	12	42	53	53	9	–	38.5	7.5
	7.079.555	■	MWT12 164 4253 405 09	■	12	42	53	53	9	–	40.5	9.5
			MWT12 164 4253 310 12	■	12	42	53	53	12	–	31	0
			MWT12 164 4253 335 12	■	12	42	53	53	12	–	33.5	2.5
			MWT12 164 4253 385 12	■	12	42	53	53	12	–	38.5	7.5
			MWT12 164 4253 405 12	■	12	42	53	53	12	–	40.5	9.5
TORNOS	307232	■	MWT06 164 3151 200 07	■	6	31	51	–	7	–	20	0
	386251	■	MWT06 164 3151 200 09	■	6	31	51	–	9	–	20	0
	398856	■										
	417165	■										
	417174	■										
TRAUB	836461	■	MWT06 164 54106 130 09	■	6	54	106	46	9	5	13	1
			MWT12 164 54106 130 09	■	12	54	106	46	9	5	13	1
			MWT12 164 54106 130 12	■	12	54	106	46	12	5	13	1
	836046	■	MWT15 164 54106 130 09	■	15	54	106	46	9	5	13	1
			MWT15 164 54106 130 12	■	15	54	106	46	12	5	13	1
			MWT25 166 54106 140 12	■	25	54	106	–	12	–	14	0

* Number of teeth

■ New

Legend 6

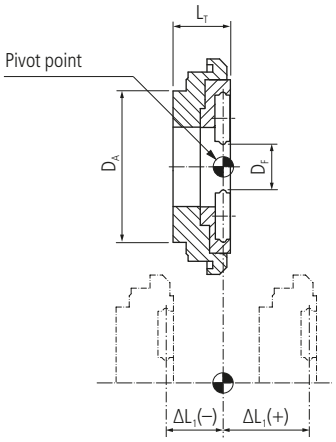


Type B

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…



UTILIS multidec® swiss type tools

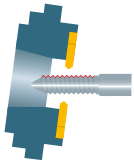
PREMIUM-LINE

Driven toolholder			Whirling tool									
Manufacturer	Type		Order designation		Dimensions							
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396							
TRAUB	900884	■	MWT12 164 4158 065 12	■	12	41	–	58	12	–	6.5	0
			MWT12 164 4158 080 12	■	12	41	–	58	12	–	8	1.5
	984769	■	MWT15 164 4158 065 12	■	15	41	–	58	12	–	6.5	0
			MWT25 164 4158 065 09	■	25	41	–	58	9	–	6.5	0
	984770	■	MWT25 164 4158 080 09	■	25	41	–	58	9	–	8	1.5
	W7045009	■	MWT15 164 4158 115 12	■	15	41	–	58	12	–	11.5	5
	W7045012	■	MWT06 164 3776 068 09	■	6	37	76	–	9	–	6.8	0
	W7045055	■	MWT06 164 3776 078 09	■	6	37	76	–	9	–	7.8	0
	987320	■	MWT12 164 3776 068 03	■	12	37	76	–	3	–	6.8	0
			MWT12 164 3776 068 09	■	12	37	76	–	9	–	6.8	0
			MWT12 164 3776 068 12	■	12	37	76	–	12	–	6.8	0
TRAUB	989520	■	MWT06 164 M3442 171 09	■	6	M34	42	–	9	–	17.1	–
WTO	419900000-00, -25, -32, -35, -39, -40, -46, -50, -55	■	MWT06 164 4244 165 09	■	6	42	44	44	9	–	16.5	6
			MWT06 164 4244 195 09	■	6	42	44	44	9	–	19.5	9
	419900001-00, -32, -35	■	MWT12 164 4244 105 09	■	12	42	44	44	9	–	10.5	0
	419900002-30, -32, -34, -55	■	MWT12 164 4244 105 12	■	12	42	44	44	12	–	10.5	0
	419900003-30, -32, -55	■	MWT12 164 4244 165 09	■	12	42	44	44	9	–	16.5	6
	419900004-30, -32	■	MWT12 164 4244 165 12	■	12	42	44	44	12	–	16.5	6
	419900005-30, -44	■	MWT12 164 4244 205 09	■	12	42	44	44	9	–	20.5	10
	419900006-30	■	MWT12 164 4244 205 12	■	12	42	44	44	12	–	20.5	10
	419900007-30, -44	■	MWT12 164 4244 305 09	■	12	42	44	44	9	–	30.5	20
	419900008-44	■	MWT12 164 4244 305 12	■	12	42	44	44	12	–	30.5	20
	419900009-30	■	MWT15 164 4244 140 09	■	15	42	44	44	9	–	14	3.5
	419942000-31, -32, -35, -39, -46, -50	■	MWT15 164 4244 185 09	■	15	42	44	44	9	–	18.5	8
	419942000-00, -25, -40, -55	■	MWT15 164 4244 205 09	■	15	42	44	44	9	–	20.5	10
	419942001-35	■	MWT15 164 4244 205 12	■	15	42	44	44	12	–	20.5	10
	419942001-00, -32	■										
	419942002-30, -32, -34	■										
	419942002-55	■										
	419942003-32	■										
	419942003-30, -55	■										
	419942004-30, -32	■										
	419942005-30, -34, -44	■										
	419942006-30	■										
	419942007-30, -44	■										
	419942008-44	■										
	419942009-30	■										
	419954004-34	■										
	TN762004	■										

* Number of teeth

■ New

Legend 6

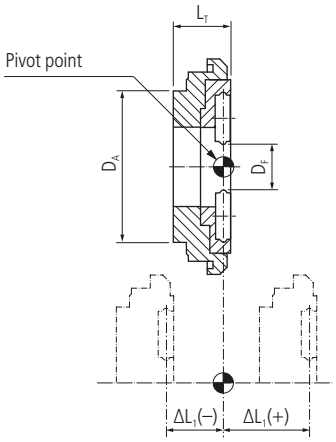


Type B

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…

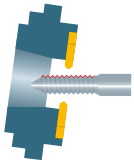


Driven toolholder			Whirling tool									
Manufacturer	Type		Order designation		Dimensions							
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
PREMIUM-LINE										Accuracy class of UTILIS 396		
WTO	419900000-45	■	MWT06 164 5456 125 07	■	6	54	56	56	7	–	12.5	0
	419900001-46, -60	■	MWT06 164 5456 125 09	■	6	54	56	56	9	–	12.5	0
	419900002-35	■	MWT12 164 5456 125 09	■	12	54	56	56	9	–	12.5	0
	419900003-34, -35	■	MWT12 164 5456 125 12	■	12	54	56	56	12	–	12.5	0
	419900004-34	■	MWT15 164 5456 125 09	■	15	54	56	56	9	–	12.5	0
	419900005-32	■	MWT15 164 5456 125 12	■	15	54	56	56	12	–	12.5	0
	419900006-32	■	MWT25 164 5456 125 09	■	25	54	56	56	9	–	12.5	0
	419900007-32	■	MWT25 164 5456 125 12	■	25	54	56	56	12	–	12.5	0
	419900010-30, -44	■	MWT12 164 5456 175 09	■	12	54	56	56	9	–	17.5	5
	419900011-30, -44	■	MWT12 164 5456 175 12	■	12	54	56	56	12	–	17.5	5
	419900012-30	■	MWT15 164 5456 175 09	■	15	54	56	56	9	–	17.5	5
	419900013-30	■	MWT25 164 5456 175 09	■	25	54	56	56	9	–	17.5	5
	419954000-45	■	MWT25 164 5456 175 12	■	25	54	56	56	12	–	17.5	5
	419954001-39, -46	■										
	419954002-35	■										
	419954003-34, -35	■										
	419954005-32	■										
	419954006-32	■										
	419954007-32	■										
	419954010-30, -44	■										
	419954011-30, -44	■										
	419954012-30	■										
	419954013-30	■										
	TN762006	■										
W & F	MPU.M0800.C16	■	MWT06 164 WF55 093 07	■	6	WF	55	55	7	–	9.3	0
	MPU.TO.0800.DE20S	■	MWT06 164 WF55 143 07	■	6	WF	55	55	7	–	14.3	5
	MPU.TO.M0800.CT20	■	MWT06 164 WF55 173 07	■	6	WF	55	55	7	–	17.3	8
	MPU.TO.M800.DE20	■	MWT06 164 WF55 093 09	■	6	WF	55	55	9	–	9.3	0
	MPU.Z30.M0800.XD20	■	MWT06 164 WF55 143 09	■	6	WF	55	55	9	–	14.3	5
	MPU.Z31.M0800.L20	■	MWT06 164 WF55 173 09	■	6	WF	55	55	9	–	17.3	8
	MPU.Z34.M0800.SR20	■	MWT12 164 WF55 093 09	■	12	WF	55	55	9	–	9.3	0
	MPU.Z35.M0800.GA	■	MWT12 164 WF55 143 09	■	12	WF	55	55	9	–	14.3	5
	MPU.LSW.101.M0800.L20N	■	MWT12 164 WF55 173 09	■	12	WF	55	55	9	–	17.3	8
	WFW.M0800.R-K HSK	■	MWT12 164 WF55 093 12	■	12	WF	55	55	12	–	9.3	0
			MWT12 164 WF55 143 12	■	12	WF	55	55	12	–	14.3	5
			MWT12 164 WF55 173 12	■	12	WF	55	55	12	–	17.3	8
			MWT15 164 WF55 093 09	■	15	WF	55	55	9	–	9.3	0
			MWT15 164 WF55 093 12	■	15	WF	55	55	12	–	9.3	0

* Number of teeth

■ New

Legend 6

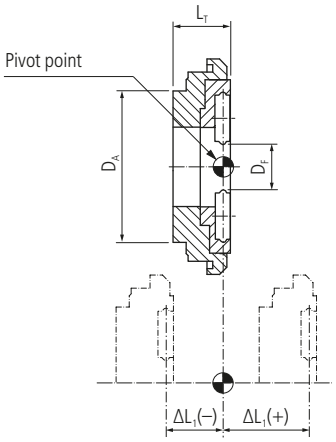


Type C

Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT…

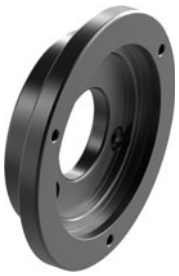


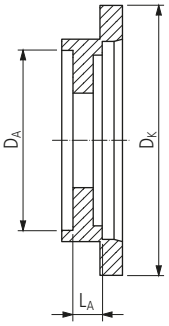
UTILIS multidec® swiss type tools

PREMIUM-LINE

Driven toolholder			Whirling tool										
Manufacturer	Type		Order designation		Dimensions								
					D_F	D_A	D_K	D_M	z*	L_A	L_T	ΔL_1 ±
					Accuracy class of UTILIS 396								
MADAULA	CZ.035.C16	■	MWT12 164 3546 169 03 QC	■	12	42	46	46	3	8.9	16.9	0
PCM	LSW-215-000	■	MWT12 164 4060 130 09 QC	■	12	40	60	60	9	11	13	0
	NN20-W15	■	MWT12 164 4060 130 12 QC	■	12	40	60	60	12	11	13	0
	LSW-424-000	■	MWT12 164 3546 169 03 QC	■	12	42	46	46	3	8.9	16.9	0
	GSW-210	■	MWT06 164 252838 120 07	■	6	25	38	28	7	6.5	12	0
			MWT06 164 252838 120 09	■	6	25	38	28	9	6.5	12	0
	SR-10J-GSW-010	■	MWT06 164 2536 126 07	■	6	28	36	36	7	6.6	12.6	0
			MWT06 164 2536 126 09	■	6	28	36	36	9	6.6	12.6	0
TORNOS	306101	■	MWT06 164 4057 105 07 QC	■	6	40	57	57	7	2	10.5	0
			MWT06 164 4057 155 07 QC	■	6	40	57	57	7	7	15.5	5
			MWT06 164 4057 185 07 QC	■	6	40	57	57	7	10	18.5	8
			MWT06 164 4057 205 07 QC	■	6	40	57	57	7	12	20.5	10
			MWT06 164 4057 105 09 QC	■	6	40	57	57	9	2	10.5	0
			MWT06 164 4057 155 09 QC	■	6	40	57	57	9	7	15.5	5
			MWT06 164 4057 185 09 QC	■	6	40	57	57	9	10	18.5	8
			MWT06 164 4057 205 09 QC	■	6	40	57	57	9	12	20.5	10
			MWT08 164 4057 105 09 QC	■	8	40	57	57	9	2	10.5	0
			MWT08 164 4057 155 09 QC	■	8	40	57	57	9	7	15.5	5
			MWT08 164 4057 185 09 QC	■	8	40	57	57	9	10	18.5	8
			MWT08 164 4057 205 09 QC	■	8	40	57	57	9	12	20.5	10
			MWT12 164 4057 105 09 QC	■	12	40	57	57	9	2	10.5	0
			MWT12 164 4057 155 09 QC	■	12	40	57	57	9	7	15.5	5
			MWT12 164 4057 185 09 QC	■	12	40	57	57	9	10	18.5	8
			MWT12 164 4057 205 09 QC	■	12	40	57	57	9	12	20.5	10
			MWT12 164 4057 105 12 QC	■	12	40	57	57	12	2	10.5	0
			MWT12 164 4057 155 12 QC	■	12	40	57	57	12	7	15.5	5
			MWT12 164 4057 185 12 QC	■	12	40	57	57	12	10	18.5	8
			MWT12 164 4057 205 12 QC	■	12	40	57	57	12	12	20.5	10
			MWT15 164 4057 105 09 QC	■	15	40	57	57	9	2	10.5	0
			MWT15 164 4057 155 09 QC	■	15	40	57	57	9	7	15.5	5
			MWT15 164 4057 185 09 QC	■	15	40	57	57	9	10	18.5	8
			MWT15 164 4057 205 09 QC	■	15	40	57	57	9	12	20.5	10
			MWT15 164 4057 105 12 QC	■	15	40	57	57	12	2	10.5	0
			MWT15 164 4057 155 12 QC	■	15	40	57	57	12	7	15.5	5
			MWT15 164 4057 185 12 QC	■	15	40	57	57	12	10	18.5	8
			MWT15 164 4057 205 12 QC	■	15	40	57	57	12	12	20.5	10

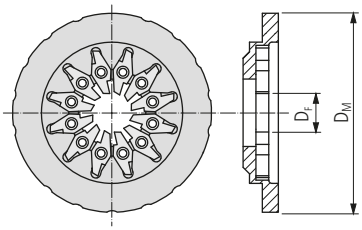
* Number of teeth





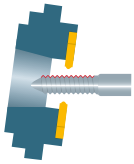
MWA…





MWR…

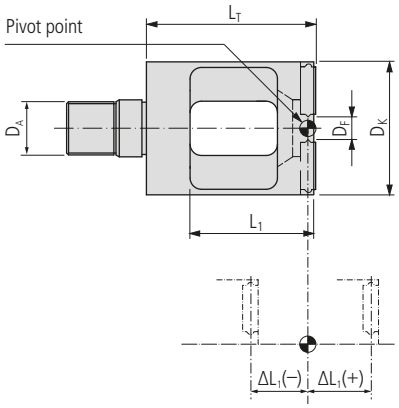
Adapter	Whirling ring
MWA 25M2438 065	MWR06 164 4646 085 07 QC
MWA 252836 066	MWR06 164 4646 085 09 QC
MWA 354046 089 QC	MWR08 164 4646 085 09 QC
MWA 404460 110 QC	MWR12 164 4646 085 09 QC
MWA 404657 020 QC	MWR12 164 4646 085 12 QC
MWA 404657 070 QC	MWR15 164 4646 085 09 QC
MWA 404657 100 QC	MWR15 164 4646 085 12 QC
MWA 404657 120 QC	MWR06 164 M2435 055 07
	MWR06 164 M2435 055 09
	MWR06 164 2536 060 07 QC
	MWR06 164 2536 060 09 QC
	MWR12 164 4046 080 03 QC
	MWR12 164 4460 020 09 QC
	MWR12 164 4460 020 12 QC



Attention
Only valid for inserts with 4 mm thickness (ΔL_1)



MWT… (TORNOS)

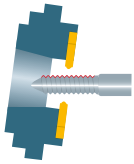


Driven toolholder			Whirling tool		Dimensions							
Manufacturer	Type		Order designation		D_F	D_A	D_K	z*	L_T	L_1		ΔL_1 ±
PREMIUM-LINE								Accuracy class of UTILIS 396				
TORNOS	305115	■	MWT06 164 M1435 440 07	■	6	M14	35	7	44	32.5		0

* Number of teeth

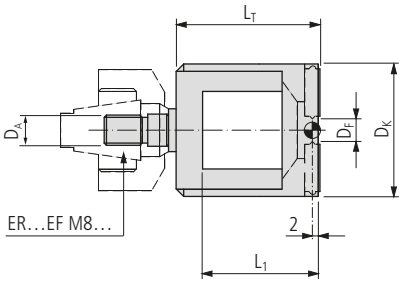
UTILIS multidec® swiss type tools

Legend 6



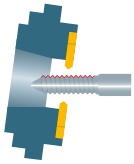


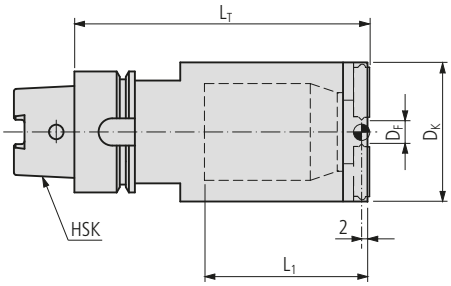
MWT… (ER)



Driven toolholder			Whirling tool									
Manufacturer	Type		Order designation		Dimensions							
					D_F	D_A	D_K	z*	L_T	L_1		
PREMIUM-LINE										Accuracy class of UTILIS 396		
TORNOS	305115	■	MWT06 164 M1435 440 07	■	6	M14	35	7	44	32.5		
	418212	■	MWT12 164 M1441 440 09	■	12	M14	41	9	44	32.5		
	570952	■										
UTILIS	ER…EF…	■	MWT06 164 0400 07	■	6	M8	35	7	40	32.5		

* Number of teeth
** Collets 670



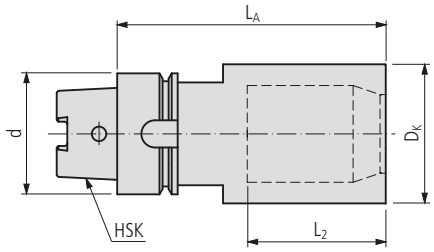


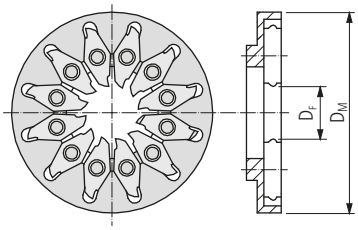


MWT… HSK…

Driven toolholder			Whirling tool									
Manufacturer	Type		Order designation		Dimensions							
					D_F	D_A	D_K	D_M	z*	L_T	L_1	
PREMIUM-LINE										Accuracy class of UTILIS 396		
UTILIS	A 40	■	MWT06 164 2646 0950 09 HSK40 A	■	6	HSK40 A	46	46	9	89	95	
			MWT08 164 2646 0950 09 HSK40 A	■	8	HSK40 A	46	46	9	89	95	
			MWT12 164 2646 0950 09 HSK40 A	■	12	HSK40 A	46	46	9	89	95	
			MWT12 164 2646 0950 12 HSK40 A	■	12	HSK40 A	46	46	12	89	95	
			MWT15 164 2646 0950 09 HSK40 A	■	15	HSK40 A	46	46	9	89	95	
			MWT15 164 2646 0950 12 HSK40 A	■	15	HSK40 A	46	46	12	89	95	
	C 40	■	MWT25 164 3958 0710 09 HSK40 C	■	25	HSK40 C	58	58	9	61	71	
			MWT25 164 3958 0710 12 HSK40 C	■	25	HSK40 C	58	58	12	61	71	
	E 40	■	MWT06 164 2646 0920 09 HSK40 E	■	6	HSK40 E	46	46	9	86	92	
			MWT06 164 2646 0950 09 HSK40 E	■	6	HSK40 E	46	46	9	89	95	
			MWT08 164 2646 0920 09 HSK40 E	■	8	HSK40 E	46	46	9	86	92	
			MWT08 164 2646 0950 09 HSK40 E	■	8	HSK40 E	46	46	9	89	95	
			MWT12 164 2646 0920 09 HSK40 E	■	12	HSK40 E	46	46	9	86	92	
			MWT12 164 2646 0950 09 HSK40 E	■	12	HSK40 E	46	46	9	89	95	
			MWT12 164 2646 0920 12 HSK40 E	■	12	HSK40 E	46	46	12	86	92	
			MWT12 164 2646 0950 12 HSK40 E	■	12	HSK40 E	46	46	12	89	95	
			MWT15 164 2646 0920 09 HSK40 E	■	15	HSK40 E	46	46	9	86	92	
			MWT15 164 2646 0950 09 HSK40 E	■	15	HSK40 E	46	46	9	89	95	
			MWT15 164 2646 0920 12 HSK40 E	■	15	HSK40 E	46	46	12	86	92	
			MWT15 164 2646 0950 12 HSK40 E	■	15	HSK40 E	46	46	12	89	95	

* Number of teeth







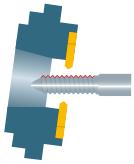
MWA HSK…

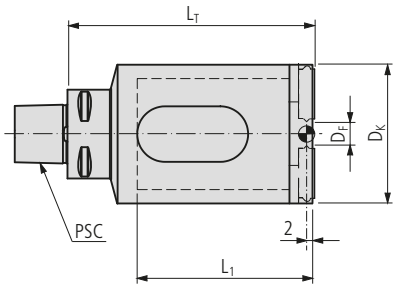


MWR…

Adapter				Whirling ring								
MWA HSK40A 890	MWA HSK40C 610	MWA HSK40E 860	MWA HSK40E 890	MWR06 164 2646 080 09	MWR08 164 2646 080 09	MWR12 164 2646 080 09	MWR12 164 2646 080 12	MWR15 164 2646 080 09	MWR15 164 2646 080 12	MWR25 164 3958 100 09	MWR25 164 3958 100 12
■	■	■	■	■							
■	■	■	■		■						
■	■	■	■			■					
■	■	■	■				■				
■	■	■	■					■			
■	■	■	■						■		
	■									■	
	■										■
		■	■	■							
		■	■	■							
		■	■		■						
		■	■		■						
		■	■			■					
		■	■			■					
		■	■				■				
		■	■				■				
		■	■					■			
		■	■					■			
		■	■						■		
		■	■						■		
		■	■							■	
		■	■							■	

■ New



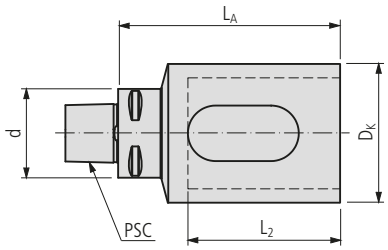


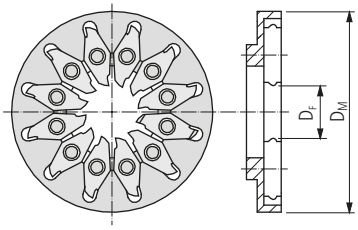


MWT… PSC…

Driven toolholder			Whirling tool									
Manufacturer	Type		Order designation		Dimensions							
					D_F	D_A	D_K	D_M	z*	L_T	L_1	
PREMIUM-LINE										Accuracy class of UTILIS 396		
UTILIS	PSC	■	MWT06 164 PSC3250 0880 09	■	6	PSC32	50	46	9	80	88	
			MWT08 164 PSC3250 0880 09	■	8	PSC32	50	46	9	80	88	
			MWT12 164 PSC3250 0880 09	■	12	PSC32	50	46	9	80	88	
			MWT12 164 PSC3250 0880 12	■	12	PSC32	50	46	12	80	88	
			MWT15 164 PSC3250 0880 09	■	15	PSC32	50	46	9	80	88	
			MWT15 164 PSC3250 0880 12	■	15	PSC32	50	46	12	80	88	

* Number of teeth







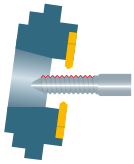
MWA PSC…



MWR…

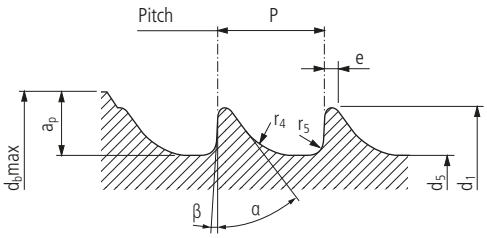
Adapter	Whirling ring					
MWA PSC3250 800	MWR06 164 2646 080 09	MWR08 164 2646 080 09	MWR12 164 2646 080 09	MWR12 164 2646 080 12	MWR15 164 2646 080 09	MWR15 164 2646 080 12
■	■					
■		■				
■			■			
■				■		
■					■	
■						■

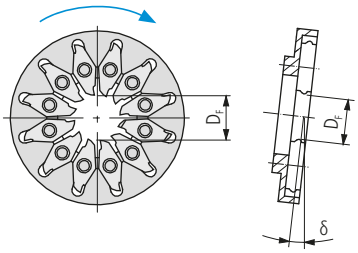
■ New



Threadwhirling full profile







MWI… HA… VP

Order designation	Carbide						Standard	Dimensions												
	–	–	○	●	○	○														
	–	●	○	●	○	●														
	○	●	○	○	○	●														
	●	○	–	–	●	○														
	UHM 10	UHM 10 HX	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	ISO 5835	D_F*	d_1 0/-0.15	d_5	Tolerance	P	δ	e	r_4	r_5	α / β	a_p	$d_b$max
STANDARD-LINE											Accuracy class of UTILIS 396									
MWI06 164 HA1.5 VP …	■	■	■	■	■	■	HA1.5	6	1.5	1.1	0/-0.1	0.5	7.3°	0.1	0.3	0.1	35°/3°	3	7
MWI06 164 HA2.0 VP …	■	■	■	■	■	■	HA2.0	6	2	1.3	0/-0.1	0.6	6.9°	0.1	0.4	0.1	35°/3°	3	7
MWI06 164 HA2.7 VP …	■	■	■	■	■	■	HA2.7	6	2.7	1.9	0/-0.15	1	8.1°	0.1	0.6	0.2	35°/3°	3	7.5
MWI12 164 HA1.5 VP …	■	■	■	■	■	■	HA1.5	12	1.5	1.1	0/-0.1	0.5	7.3°	0.1	0.3	0.1	35°/3°	4	9
MWI12 164 HA2.0 VP …	■	■	■	■	■	■	HA2.0	12	2	1.3	0/-0.1	0.6	6.9°	0.1	0.4	0.1	35°/3°	4	9
MWI12 164 HA2.7 VP …	■	■	■	■	■	■	HA2.7	12	2.7	1.9	0/-0.15	1	8.1°	0.1	0.6	0.2	35°/3°	4	9.5
MWI12 164 HA3.5 VP …	■	■	■	■	■	■	HA3.5	12	3.5	2.4	0/-0.15	1.25	7.9°	0.1	0.8	0.2	35°/3°	4	10
MWI12 164 HA4.0 VP …	■	■	■	■	■	■	HA4.0	12	4	2.9	0/-0.15	1.5	8.1°	0.1	0.8	0.2	35°/3°	4	10.5
MWI12 164 HA4.5 VP …	■	■	■	■	■	■	HA4.5	12	4.5	3	0/-0.15	1.75	8.6°	0.1	1	0.3	35°/3°	4	11
MWI12 164 HA5.0 VP …	■	■	■	■	■	■	HA5.0	12	5	3.5	0/-0.15	1.75	7.6°	0.1	1	0.3	35°/3°	4	11

MWI… HB… VP

Order designation	Carbide						Standard	Dimensions												
	–	–	○	●	○	○														
	–	●	○	●	○	●														
	○	●	○	○	○	●														
	●	○	–	–	●	○														
	UHM 10	UHM 10 HX	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	ISO 5835	D_F*	d_1 0/-0.15	d_5	Tolerance	P	δ	e	r_4	r_5	α / β	a_p	$d_b$max
STANDARD-LINE											Accuracy class of UTILIS 396									
MWI12 164 HB4.0 VP …	■	■	■	■	■	■	HB4.0	12	4	1.9	0/-0.15	1.75	11°	0.1	0.8	0.3	25°/5°	4	9.5
MWI12 164 HB6.5 VP …	■	■	■	■	■	■	HB6.5	12	6.5	3	0/-0.15	2.75	10.6°	0.2	1.2	0.8	25°/5°	4	11

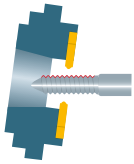
Execution of special thread profil 490

*** Note**
The flight circle (D_F) of the insert must match that of the whirling head.

■ New

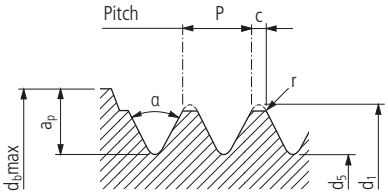
Legend 6

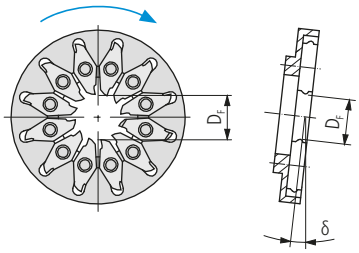
UTILIS multidec® swiss type tools



Threadwhirling full profile







MWI… HC… VP

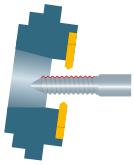
Order designation	Carbide ▯19						Standard	Dimensions												
	–	–	○	●	○	○														
	–	●	○	●	○	●														
	○	●	○	○	○	●														
	●	○	–	–	●	○														
	UHM 10	UHM 10 HX	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	ISO 9268	D_F*	d_1 min.	d_1 max.	d_5 min.	d_5 max.	P	δ	c	r	α	a_p	$d_b$max
STANDARD-LINE													Accuracy class of UTILIS ▯396							
MWI06 164 HC2.9 VP …	■	■	■	■	■	■	HC2.9	6	2.79	2.9	2.03	2.18	1.06	7.76°	0.1	0.05	60°	3	8.5
MWI06 164 HC3.5 VP …	■	■	■	■	■	■	HC3.5	6	3.43	3.53	2.51	2.64	1.27	7.61°	0.1	0.05	60°	3	9
MWI06 164 HC3.9 VP …	■	■	■	■	■	■	HC3.9	6	3.78	3.91	2.77	2.92	1.27	6.89°	0.1	0.05	60°	3	9.5
MWI06 164 HC4.2 VP …	■	■	■	■	■	■	HC4.2	6	4.09	4.22	2.95	3.25	1.27	6.36°	0.1	0.05	60°	3	10
MWI12 164 HC2.9 VP …	■	■	■	■	■	■	HC2.9	12	2.79	2.9	2.03	2.18	1.06	7.76°	0.1	0.05	60°	4	10.5
MWI12 164 HC3.5 VP …	■	■	■	■	■	■	HC3.5	12	3.43	3.53	2.51	2.64	1.27	7.61°	0.1	0.05	60°	4	11
MWI12 164 HC3.9 VP …	■	■	■	■	■	■	HC3.9	12	3.78	3.91	2.77	2.92	1.27	6.89°	0.1	0.05	60°	4	11.5
MWI12 164 HC4.2 VP …	■	■	■	■	■	■	HC4.2	12	4.09	4.22	2.95	3.25	1.27	6.36°	0.1	0.05	60°	4	12

Execution of special thread profil ▯490

* **Note**
The flight circle {D_F} of the insert must match that of the whirling head.

■ New

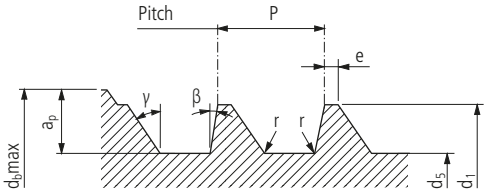
Legend ▯6

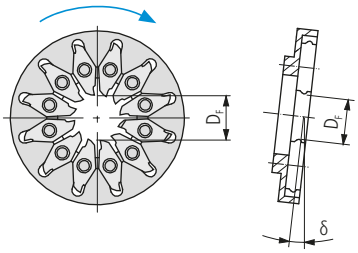


Threadwhirling full profile



MWI... HD... VP





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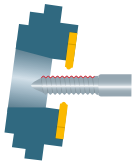
STANDARD-LINE

Order designation	Carbide ▯19						Standard	Dimensions												
	UHM 10	UHM 10 HX	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	ISO 9268	D_F*	d_1 ±0.03	d_5 ±0.03		P	δ	e	r	γ	β	a_p	$d_b$max
											Accuracy class of UTILIS ▯396 – +								
MWI06 164 HD4.0 VP ...	■	■	■	■	■	■	HD4.0	6	4	2.92		1.59	8.36°	0.1	0.01	45°	10°	3	9.5
MWI06 164 HD4.5 VP ...	■	■	■	■	■	■	HD4.5	6	4.5	2.92		2.18	10.64°	0.1	0.01	45°	10°	3	10
MWI12 164 HD4.0 VP ...	■	■	■	■	■	■	HD4.0	12	4	2.92		1.59	8.36°	0.1	0.01	45°	10°	4	11.5
MWI12 164 HD4.5 VP ...	■	■	■	■	■	■	HD4.5	12	4.5	2.92		2.18	10.64°	0.1	0.01	45°	10°	4	12

Execution of special thread profil ▯490

*** Note**
The flight circle {D_F} of the insert must match that of the whirling head.

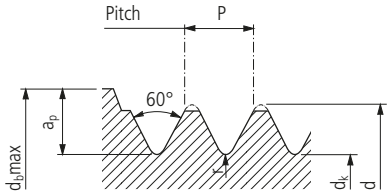
■ New

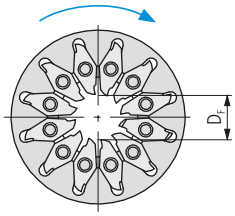


Threadwhirling full profile



MWI… M… VP





Order designation	Carbide ▯19						Standard	Dimensions											
	– – ○ ● ○ ○ – ● ○ ● ○ ● ○ ● ○ ○ ○ ● ● ○ – – ● ○						ISO DIN13	D_F*	d	d_K		P	δ				r	a_p	$d_b$max
	UHM 10	UHM 10 HX	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX													
PREMIUM-LINE								Accuracy class of UTILIS ▯396											
MWI06 164 M1.4 VP …	■	■	■	■	■	■	M1.4	6	1.4	1.012		0.3	4.53°				0.033	3	6.5
MWI06 164 M1.6 VP …	■	■	■	■	■	■	M1.6	6	1.6	1.151		0.35	4.63°				0.041	3	7
MWI06 164 M2x0.25 VP …	■	■	■	■	■	■	M2×0.25	6	2	1.693		0.25	2.5°				0.036	3	7.5
MWI06 164 M2 VP …	■	■	■	■	■	■	M2	6	2	1.509		0.4	4.17°				0.048	3	7
MWI06 164 M3x0.35 VP …	■	■	■	■	■	■	M3×0.35	6	3	2.571		0.35	2.3°				0.051	3	8.5
MWI06 164 M3 VP …	■	■	■	■	■	■	M3	6	3	2.387		0.5	3.39°				0.062	3	8
MWI12 164 M1.6 VP …	■	■	■	■	■	■	M1.6	12	1.6	1.151		0.35	4.63°				0.041	4	9
MWI12 164 M2x0.25 VP …	■	■	■	■	■	■	M2×0.25	12	2	1.693		0.25	2.5°				0.036	4	9.5
MWI12 164 M2 VP …	■	■	■	■	■	■	M2	12	2	1.509		0.4	4.17°				0.048	4	9
MWI12 164 M2.5 VP …	■	■	■	■	■	■	M2.5	12	2.5	1.928		0.45	3.7°				0.055	4	9.5
MWI12 164 M3x0.35 VP …	■	■	■	■	■	■	M3×0.35	12	3	2.571		0.35	2.3°				0.051	4	10.5
STANDARD-LINE								Accuracy class of UTILIS ▯396											
MWI12 164 M3 VP …	■	■	■	■	■	■	M3	12	3	2.387		0.5	3.39°				0.062	4	10
MWI12 164 M3.5 VP …	■	■	■	■	■	■	M3.5	12	3.5	2.744		0.6	3.5°				0.077	4	8.5
MWI12 164 M4x0.5 VP …	■	■	■	■	■	■	M4×0.5	12	4	3.387		0.5	2.5°				0.072	4	11
MWI12 164 M4 VP …	■	■	■	■	■	■	M4	12	4	3.141		0.7	3.58°				0.091	4	11
MWI12 164 M5x0.5 VP …	■	■	■	■	■	■	M5×0.5	12	5	4.387		0.5	1.9°				0.072	4	12
MWI12 164 M5 VP …	■	■	■	■	■	■	M5	12	5	4.019		0.8	3.24°				0.105	4	11.5
MWI12 164 M6x0.75 VP …	■	■	■	■	■	■	M6×0.75	12	6	5.08		0.75	2.5°				0.108	4	13
MWI12 164 M6 VP …	■	■	■	■	■	■	M6	12	6	4.773		1	3.39°				0.134	4	12.5
MWI12 164 M7 VP …	■	■	■	■	■	■	M7	12	7	5.753		1	2.86°				0.134	4	13.5
MWI12 164 M8x0.75 VP …	■	■	■	■	■	■	M8×0.75	12	8	7.08		0.75	1.8°				0.108	4	15
MWI12 164 M8 VP …	■	■	■	■	■	■	M8	12	8	6.466		1.25	3.15°				0.17	4	14
MWI12 164 M8x1.0 VP …	■	■	■	■	■	■	M8×1	12	8	6.773		1	2.5°				0.144	4	14.5
MWI12 164 M10x0.75 VP …	■	■	■	■	■	■	M10×0.75	12	10	9.08		0.75	1.4°				0.108	4	17
MWI12 164 M10x1.0 VP …	■	■	■	■	■	■	M10×1	12	10	8.773		1	1.9°				0.144	4	16.5
MWI12 164 M10x1.25 VP …	■	■	■	■	■	■	M10×1.25	12	10	8.466		1.25	2.5°				0.18	4	16
MWI12 164 M10 VP …	■	■	■	■	■	■	M10	12	10	8.16		1.5	3.01°				0.207	4	16

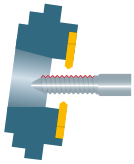
Execution of special thread profil ▯490

*** Note**
The flight circle {D_F} of the insert must match that of the whirling head.

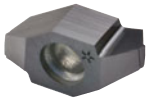
■ New

Legend ▯6

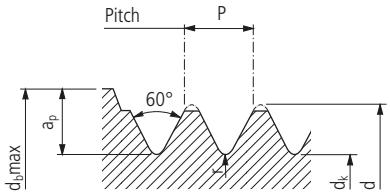
UTILIS multidec swiss type tools

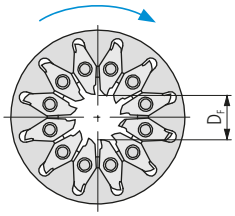


Threadwhirling full profile



MWI…UNC VP





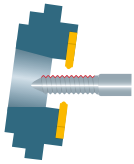
Order designation	Carbide ▯19						Standard**	Dimensions											
	UHM 10	UHM 10 HX	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	ANSI B1.1	D_F*	d	d_K		P	δ				r	a_p	$d_b$max
PREMIUM-LINE												Accuracy class of UTILIS ▯396							
MWI12 164 01-64UNC VP …	■	■	■	■	■	■	01-64	12	1.854	1.347		0.397	4.51°				0.047	4	9.5
MWI12 164 02-56UNC VP …	■	■	■	■	■	■	02-56	12	2.184	1.608		0.454	4.35°				0.055	4	10
STANDARD-LINE												Accuracy class of UTILIS ▯396							
MWI12 164 03-48UNC VP …	■	■	■	■	■	■	03-48	12	2.515	1.845		0.529	4.42°				0.066	4	10
MWI12 164 04-40UNC VP …	■	■	■	■	■	■	04-40	12	2.845	2.046		0.635	4.73°				0.082	4	10.5
MWI12 164 05-40UNC VP …	■	■	■	■	■	■	05-40	12	3.175	2.376		0.635	4.17°				0.082	4	11
MWI12 164 06-32UNC VP …	■	■	■	■	■	■	06-32	12	3.505	2.511		0.794	4.8°				0.105	4	11
MWI12 164 08-32UNC VP …	■	■	■	■	■	■	08-32	12	4.166	3.172		0.794	3.94°				0.105	4	12
MWI12 164 10-24UNC VP …	■	■	■	■	■	■	10-24	12	4.826	3.508		1.058	4.62°				0.143	4	12.5
MWI12 164 12-24UNC VP …	■	■	■	■	■	■	12-24	12	5.486	4.168		1.058	3.99°				0.143	4	13
MWI12 164 1/4-20UNC VP …	■	■	■	■	■	■	1/4-20	12	6.35	4.772		1.27	4.16°				0.173	4	14
MWI12 164 5/16-18UNC VP …	■	■	■	■	■	■	5/16-18	12	7.95	6.199		1.411	3.63°				0.194	4	15.5
MWI12 164 3/8-16UNC VP …	■	■	■	■	■	■	3/8-16	12	9.525	7.557		1.588	3.39°				0.219	4	17

** Tolerance class 2A and 3A on customer request

Execution of special thread profil ▯490

*** Note**
The flight circle {D_F} of the insert must match that of the whirling head.

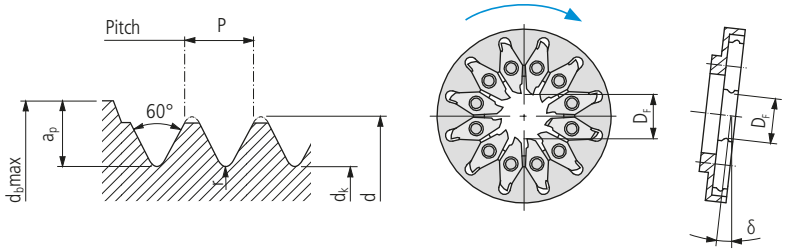
■ New



Threadwhirling full profile



MWI…UNF VP

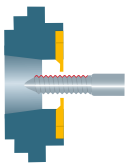


Order designation	Carbide ▯19						Standard**	Dimensions											
	UHM 10	UHM 10 HX	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	ANSI B1.1	D_F*	d	d_K		P	δ				r	a_p	$d_b$max
PREMIUM-LINE											Accuracy class of UTILIS ▯396 – +								
MWI12 164 00-80UNF VP …	■	■	■	■	■	■	00-80	12	1.524	1.114		0.318	4.38°				0.036	4	9
MWI12 164 01-72UNF VP …	■	■	■	■	■	■	01-72	12	1.854	1.401		0.353	3.95°				0.041	4	9.5
MWI12 164 02-64UNF VP …	■	■	■	■	■	■	02-64	12	1.727	1.22		0.397	4.90°				0.047	4	9.5
MWI12 164 03-56UNF VP …	■	■	■	■	■	■	03-56	12	2.515	1.938		0.454	3.71°				0.055	4	10
STANDARD-LINE											Accuracy class of UTILIS ▯396 – +								
MWI12 164 04-48UNF VP …	■	■	■	■	■	■	04-48	12	2.845	2.176		0.529	3.84°				0.066	4	10.5
MWI12 164 05-44UNF VP …	■	■	■	■	■	■	05-44	12	3.175	2.447		0.577	3.74°				0.073	4	11
MWI12 164 06-40UNF VP …	■	■	■	■	■	■	06-40	12	3.505	2.706		0.635	3.72°				0.082	4	11
MWI12 164 08-36UNF VP …	■	■	■	■	■	■	08-36	12	4.166	3.28		0.706	3.45°				0.092	4	12
MWI12 164 10-32UNF VP …	■	■	■	■	■	■	10-32	12	4.826	3.832		0.794	3.34°				0.105	4	10.5
MWI12 164 12-28UNF VP …	■	■	■	■	■	■	12-28	12	5.486	4.354		0.907	3.36°				0.121	4	11
MWI12 164 1/4-28UNF VP …	■	■	■	■	■	■	1/4-28	12	6.35	5.217		0.907	2.86°				0.121	4	14
MWI12 164 5/16-24UNF VP …	■	■	■	■	■	■	5/16-24	12	7.95	6.632		1.058	2.65°				0.143	4	15.5
MWI12 164 3/8-24UNF VP …	■	■	■	■	■	■	3/8-24	12	9.525	8.207		1.058	2.18°				0.143	4	17.5

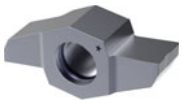
** Tolerance class 2A and 3A on customer request

Execution of special thread profil ▯490

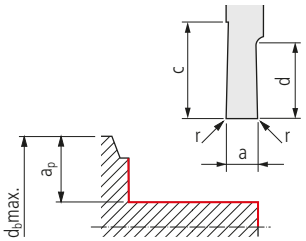
*** Note**
The flight circle {D_F} of the insert must match that of the whirling head.

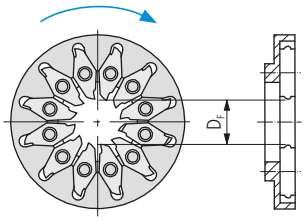


Cylindrical whirling



MWI... 1603...





Order designation	Carbide ▯19							Dimensions										
	UHM 10	UHM 10 HX	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX		D_F*	a	c	d					r	a_p	$d_b$max
STANDARD-LINE															Accuracy class of UTILIS ▯396 – +			
MWI12 1603-0.4-3.5 …	■	■	■	■	■	■		12	4	4	4					0.05	4	$d+(2\times a_p)$
MWI12 1605-3.5-3.5 …	■	■	■	■	■	■		12	3.5	3.5	3.5					0.05	4	$d+(2\times a_p)$

*** Note**
The flight circle {D_F} of the insert must match that of the whirling head.

The multidec®-WHIRLING box contains tools for daily use on the machine. The protective foam inlay ensures that the parts are always located at the same place in the case.
Spaces are provided for the whirling head for specific applications and the matching whirling plates (4 unmounted sets in all). Dummies can be supplied optionally to protect vacant plate positions.



Illustration with whirling head and plates (these have to be ordered separately)

Contents:
– Handle for torque screwdriver 1.2 Nm
– Alternative torque screwdriver blade for Torx screws
– Allen key
– High performance grease
– Spare screws for the whirling adapter and whirling ring
– Spare Torx screws for the indexing plates

STARTER-SET

Order designation	
Starter-Set	■

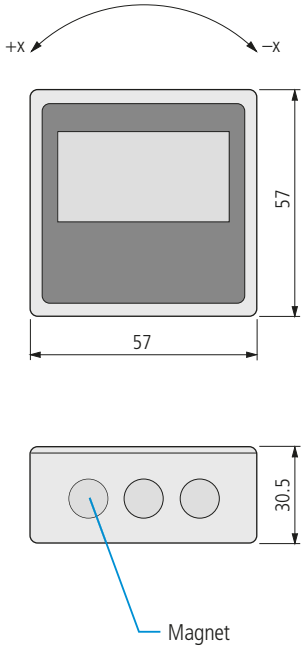
The digital inclinometer gives you more flexibility in machine set-up and adjusting the thread pitch angle. The calculation and complicated movement by a certain distance are not required, particularly since the space situation in machines is not always the best.
The UMI DI-490 (MEMS principle = Micro-Electro-Mechanical System) consists of a compact housing. Three magnets on the underside makes the attachment in the machine compartment easier. The zero point can be calibrated and stored internally, in order to change between relative and absolute measurement at any time.



UMI …

Order designation	
UMI DI-490	■

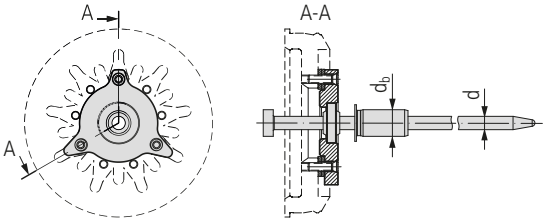
Technical data:
- Measuring accuracy 0.2°
- Measuring range (X) 4 × 90°
- Display resolution 0.05°
- Temperature range 0 to 40 °C
- Weight 200 g
- Protection class IP54



■ New

Centering device for manual adjustment of the point height compensation with 3 different sizes of centering adapter for the guide bushing.





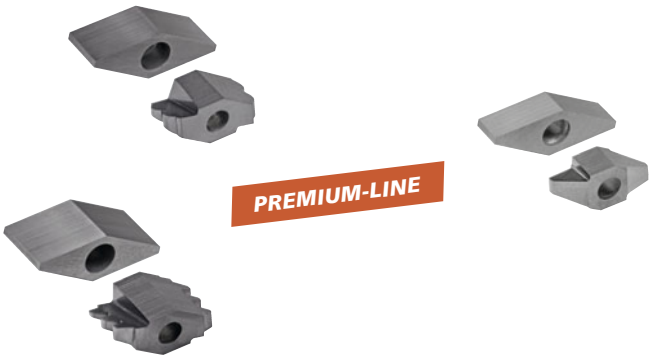
MWV…

Order designation		Dimensions			
		D_F	d	d_b	z
MWV06 07 402000	■	6	4	6, 8, 10	7
MWV06 00 402000	■	6	4	6, 8, 10	9, 12
MWV12 00 402000	■	12	4	6, 8, 10	9, 12
MWV15 00 402000	■	15	4	6, 8, 10	9, 12
MWV25 00 402000	■	25	4	6, 8, 10	9, 12

TORX screwdriver □664

Explanation:
D_F Cutting edge flying circle
d Needle diameter
d_b Bar diameter of guide bushing
z Number of whirling tool teeth

UTILIS multidec® swiss type tools



Product description
Development and production of multidec® tools for your own specific needs.

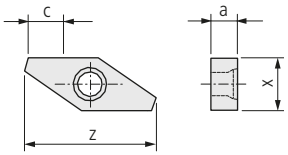
Customer's situation
A special machining method makes it impossible or difficult to use tools from the standard multidec® range. You need a special insert, a special tool or coating which is not included in our standard product range.

UTILIS solution
After detailed consultation, we will develop and make the best multidec® solution for your particular needs. Normally this will be done using standard blanks which enable the special tools to be produced and delivered quickly and at reasonable cost. The familiar multidec® quality is of course always guaranteed.

Advantages:
– UTILIS know-how and quality also for special tools
– Standard blanks permit fast and reasonably priced delivery
– Tools developed to meet your specific needs

Blank

1601-4…/-6…/-8…





1601…

Order designation	Carbide ▯19						Dimensions						Holder
	UHM10	UHM 10 HX	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX	a	c	x	z			
STANDARD-LINE							Accuracy class of UTILIS ▯396						
1601-4-5 N …	■	■	■	■	■	■	4	5	6	16			MWR… / MWT…
1601-6-5 N …			■	■	■	■	6	5	6	16			MWR… / MWT…
1601-8-5 N …					■	■	8	5	6	16			MWR… / MWT…

Execution of special thread profil ▯482

For inserts

Illustration	Description	Dimensions	Order designation		Inserts
	TORX screw	M2.5 × 6	MSP 25060 T08	■	MWI…
		M2.5 × 7	MSP 25070 T08	■	
		M2.5 × 9	MSP 25090 T08	■	
	UTILIS MWI-Dummy		MWI DUMMY	■	

For whirling tool/adapter

Illustration	Description	Dimensions	Order designation		Holder
	Flat-head socket screw	M3 × 8	MSP 30080 SE IB2.5	■	MWR… MWT…
		M3 × 12	MSP 30120 SE IB2.5	■	
		M4 × 6	MSP 40060 SE IB2.5	■	
		M4 × 10	MSP 40100 SE IB2.5	■	
		M4 × 12	MSP 40120 SE IB2.5	■	
		M4 × 14	MSP 40140 SE IB2.5	■	
	Socket head screw	M3 × 4	MSP 30040 IB2.5	■	MWA… MWR… MWT…
		M3 × 6	MSP 30060 IB2.5	■	
		M3 × 7	MSP 30070 IB2.5	■	
		M3 × 8	MSP 30080 IB2.5	■	
		M3 × 10	MSP 30100 IB2.5	■	
		M3 × 12	MSP 30120 IB2.5	■	
		M3 × 16	MSP 30160 IB2.5	■	
		M3 × 20	MSP 30200 IB2.5	■	
		M3 × 25	MSP 30250 IB2.5	■	
		M4 × 8	MSP 40080 IB3	■	
		M4 × 10	MSP 40100 IB3	■	
		M4 × 12	MSP 40120 IB3	■	
		M4 × 14	MSP 40140 IB3	■	
		M4 × 16	MSP 40160 IB3	■	
	Socket head screw DIN 7984	M3 × 8	MSP 30080 NK IB2.5	■	
		M3 × 16	MSP 30160 NK IB2.5	■	
	Butt head screw	M4 × 6	MSP 40060 LK IB2.5	■	MWA… MWT…
		M4 × 10	MSP 40100 LK IB2.5	■	
		M4 × 16	MSP 40160 LK IB2.5	■	
	TORX screw	M3 × 7.3	MSP 30073 T08	■	MWA… MWR… MWT…
		M3 × 9	MSP 30090 T08	■	
		M3 × 11	MSP 30110 TP09 Torx Plus	■	
		M3 × 16	MSP 30160 TP08 Torx Plus	■	
		M3 × 7.3	MSP 30073 T10	■	
		M4 × 9	MSP 40090 T15	■	
		M4 × 11	MSP 40110 TP15 Torx Plus	■	
		M4 × 14.4	MSP 40144 TP15 Torx Plus	■	
	Set screw / grub srew	M3 × 5	MSP 30050 IB1.5	■	MWR… MWT…
	Allen key	SW 1.5	MSP IB1.5	■	MWT… MWR… MWA…
		SW 2	MSP IB2	■	
		SW 2.5	MSP IB2.5	■	
		SW 3	MSP IB3	■	
		SW 4	MSP IB4	■	
		SW 5	MSP IB5	■	
		SW 6	MSP IB6	■	
		SW 8	MSP IB8	■	
		SW 10	MSP IB10	■	
	TORX screwdriver	T08	MSP TX-S08	■	MWT… MWR… MWA…
		T09	MSP TX-S09	■	
		T10	MSP TX-S10	■	
		T15	MSP TX-S15	■	
		TP08	MSP TXP-S08 Torx Plus	■	
		TP09	MSP TXP-S09 Torx Plus	■	
		TP10	MSP TXP-S10 Torx Plus	■	
		TP15	MSP TXP-S15 Torx Plus	■	

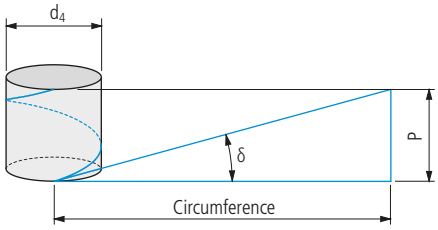
TORX screwdriver 664

■ New

Legend 6

$$\tan \delta = \frac{P}{\pi \cdot d_4}$$

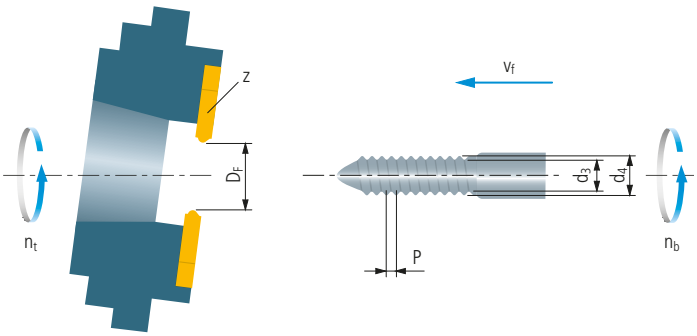
$$\delta = \frac{\arctan \cdot P}{\pi \cdot d_4}$$



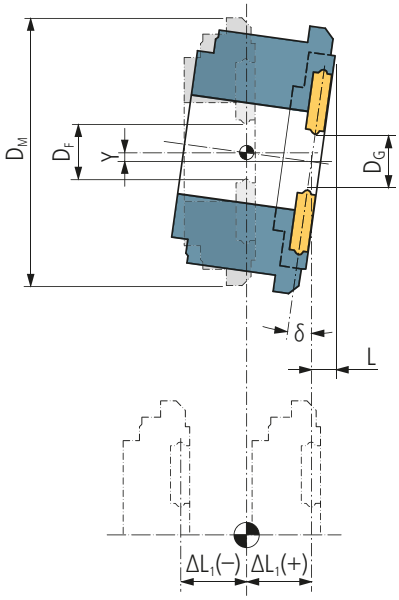
$$v_f = z \cdot f_z \cdot n_t$$

$$n_t = \frac{v_c \cdot 1000}{\pi \cdot D_F}$$

$$n_b = \frac{v_f}{\pi \cdot d_3}$$



$$Y = \sin \delta \cdot \Delta L_1$$



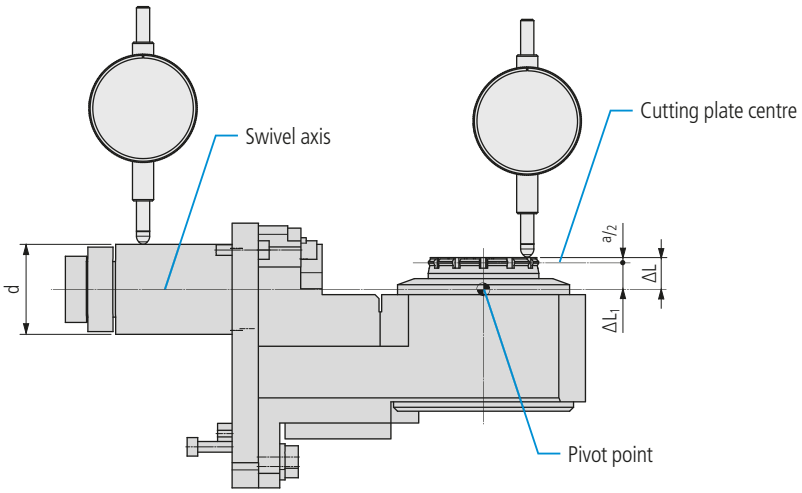
Please visit our website **www.utilis.com** for further thread whirling calculations

Explanation

d_3	Core diameter (mm)
d_4	Thread diameter of work piece (mm)
D_F	Flight circle (mm)
D_G	Max. bar passage diameter (mm)
D_M	Ring diameter outside (mm)
f_z	Feed per tooth (mm)
L	Overhang length (mm)
ΔL_1	Positioning relative to the pivot point (mm)
n_t	Tool revolutions (rev/min)
n_b	Work piece revolutions (rev/min)
P	Pitch (mm)
v_f	Work piece feed (mm/min)
v_c	Cutting speed (m/min)
Y	Tip height adjustment
z	Number of teeth
δ	Lead angle (°)

The measurement of the length difference ΔL_1 is appropriate for determination when the following situations exist:
– New whirling tool or holder
– Checking the ΔL_1
– After a machine collision
– Point height compensation

Outside the machine the length difference ΔL_1 must be determined using the height measuring device for calculating the point height and correcting it if necessary using the following procedure:



1. The swivel axis is usually the centre axis of the arbor. In order to do this, the diameter d must be measured and halved. This position must be zeroed and used as a reference for further measurement.

2. We take the uppermost surface of the cutting edge as the second measuring point. The difference results in ΔL

3. Use dimension a/2 (half the cutting edge width) in accordance with the whirling tool designation for the remaining calculation. The length difference ΔL_1 is calculated from this, whereby the exact point height compensation can be adjusted.

See usage examples 🗋485

Whirling tool designation	a/2	ΔL	$\Delta L_1 = \Delta L - a/2$
MWT.. 164 … … …	2		
MWT.. 166 … … …	3		
MWT.. 168 … … …	4		

Attention
Please note the legend 🗋6…

Overhang length

Angle	Distance (Ring diameter outside)						
δ	L (D_M = 25)	L (D_M = 42)	L (D_M = 44)	L (D_M = 45)	L (D_M = 46)	L (D_M = 48)	L (D_M = 58)
0°	2	2	2	2	2	2	2
1°	2.4	2.7	2.8	2.8	2.8	2.8	3
2°	2.9	3.5	3.5	3.6	3.6	3.7	4
3°	3.3	4.2	4.3	4.4	4.4	4.5	5
4°	3.7	4.9	5.1	5.1	5.2	5.4	6.1
5°	4.2	5.7	5.8	5.9	6	6.2	7.1
6°	4.6	6.4	6.6	6.7	6.8	7	8.1
7°	5.1	7.2	7.4	7.5	7.6	7.9	9.1
8°	5.5	7.9	8.2	8.3	8.5	8.7	10.2
9°	6	8.7	9	9.1	9.3	9.6	11.2
10°	6.4	9.4	9.8	9.9	10.1	10.5	12.2
11°	6.9	10.2	10.6	10.7	10.9	11.3	13.3
12°	7.3	10.9	11.4	11.6	11.8	12.2	14.3
13°	7.8	11.7	12.2	12.4	12.6	13.1	15.4
14°	8.2	12.5	13	13.2	13.5	14	16.5
15°	8.7	13.3	13.8	14.1	14.3	14.9	17.5
16°	9.2	14	14.6	14.9	15.2	15.8	18.6
17°	9.6	14.8	15.5	15.8	16.1	16.7	19.7
18°	10.1	15.6	16.3	16.6	16.9	17.6	20.8
19°	10.6	16.5	17.2	17.5	17.8	18.5	22
20°	11.1	17.3	18	18.4	18.7	19.5	23.1
21°	11.6	18.1	18.9	19.3	19.7	20.4	24.3
22°	12.1	19	19.8	20.2	20.6	21.4	25.4
23°	12.6	19.8	20.7	21.1	21.5	22.4	26.6
24°	13.1	20.7	21.6	22	22.5	23.4	27.8
25°	13.7	21.6	22.5	23	23.5	24.4	29

Max. bar passage diameter

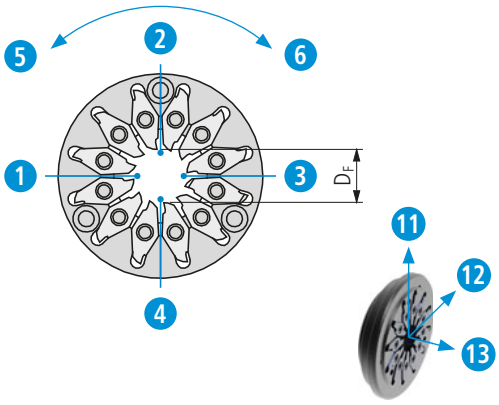
Angle	Distance			
δ	D_G	D_G	D_G	D_G
0° (D_F = D_G)	**6**	**12**	**15**	**25**
1°	6	12	15	25
2°	6	11.99	14.99	24.98
3°	5.99	11.98	14.98	24.97
4°	5.99	11.97	14.96	24.94
5°	5.98	11.95	14.94	24.9
6°	5.97	11.93	14.92	24.86
7°	5.96	11.91	14.89	24.81
8°	5.94	11.88	14.85	24.76
9°	5.93	11.85	14.82	24.69
10°	5.91	11.82	14.77	24.62
11°	5.89	11.78	14.72	24.54
12°	5.87	11.74	14.67	24.45
13°	5.85	11.69	14.62	24.36
14°	5.82	11.64	14.55	24.26
15°	5.8	11.59	14.49	24.15
16°	5.77	11.54	14.42	24.03
17°	5.74	11.48	14.34	23.91
18°	5.71	11.41	14.27	23.78
19°	5.67	11.35	14.18	23.64
20°	5.64	11.28	14.1	23.49
21°	5.6	11.2	14	23.34
22°	5.56	11.13	13.91	23.18
23°	5.52	11.05	13.81	23.01
24°	5.48	10.96	13.7	22.84
25°	5.44	10.88	13.59	22.66

UTILIS multidec® swiss type tools

	Steel unalloyed			Steel low alloyed			Steel high alloyed			Titanium		
Hardness value (HB)	125–300			180–250			200–350			–		
Category	I			II			III			IV		
Machining method	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼
Feed per tooth	f_z (mm)											
	–	0.02–0.15	0.005–0.08	–	0.02–0.15	0.005–0.08	–	0.02–0.15	0.005–0.08	–	0.01–0.08	0.005–0.05
Depths of cut	a_p (mm)											
MWI06	3											
MWI12/15/25	4											
Cutting speeds	v_c (m/min)											
Cutting material carbide												
UHM 20	–	50–80	50–100	–	40–80	40–90	–	30–70	30–80	–	50–80	80–120
UHM 20 HPX	–	80–180	120–220	–	50–140	100–180	–	50–120	80–160	–	80–120	100–150
UHM 30	–	50–80	50–100	–	40–80	40–90	–	30–70	30–80	–	50–80	80–120
UHM 30 HX	–	80–180	120–220	–	50–140	100–180	–	50–120	80–160	–	80–120	100–150

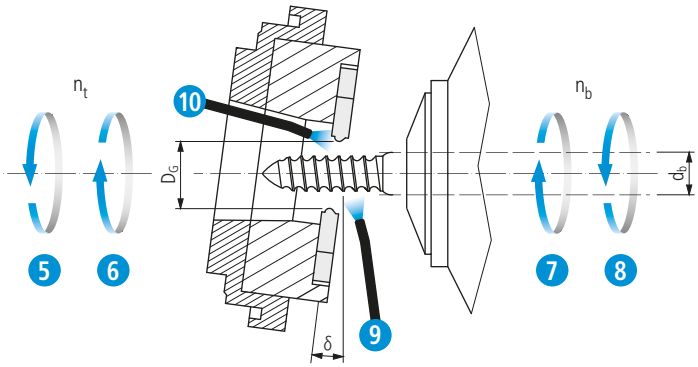
	Stainless steel			Stainless steel			Aluminum			Brass		
Hardness value (HB)	180–220			220–330			60–130			–		
Category	V			VI			VII			VIII		
Machining method	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼
Feed per tooth	f_z (mm)											
	–	0.01–0.1	0.005–0.05	–	0.01–0.1	0.005–0.05	–	–	–	–	0.02–0.15	0.005–0.1
Depths of cut	a_p (mm)											
MWI06	3											
MWI12/15/25	4											
Cutting speeds	v_c (m/min)											
Cutting material carbide												
UHM 20	–	50–100	50–150	–	30–70	40–80	–	–	–	–	50–140	50–160
UHM 20 HPX	–	80–150	100–250	–	50–100	70–120	–	–	–	–	–	–
UHM 30	–	50–100	50–150	–	30–70	40–80	–	–	–	–	50–140	50–160
UHM 30 HX	–	80–150	100–250	–	50–100	70–120	–	–	–	–	–	–

Cutting position



Turning direction of whirling unit

Turning direction of the bar



Machine specifications					
Manufacturer					
Type					
Manufacturer of driven tool					
Type of driven tool					
Flight circle D_F	[mm]	6	12	15	25
Mounting place (turret, gang rack, elsewhere)					
Enter axes (X, Y, Z)		11	12	13	
High pressure cooling?	[bar]	≤30	>30	No	
Cooling direction		9		10	
Turning direction of whirling unit	[n_t]				
	$n_t = n_b$	5		6	

Material					
Designation	(DIN)				
Bar diameter	[d_b]				
Turning direction of the bar	[n_b]				
	$n_b = n_t$	7		8	
Cutting position		1	2	3	4

Insert				
Thread drawing	(No.)			
Full profile		Yes		No
Number of thread starts		1	2	3
Coating		Yes		No

Company

Responsible person

Road

Postal code, City

Phone

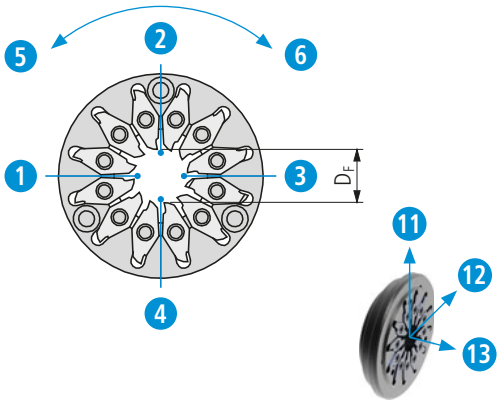
Fax

E-mail

UTILIS® Tooling for High Technology

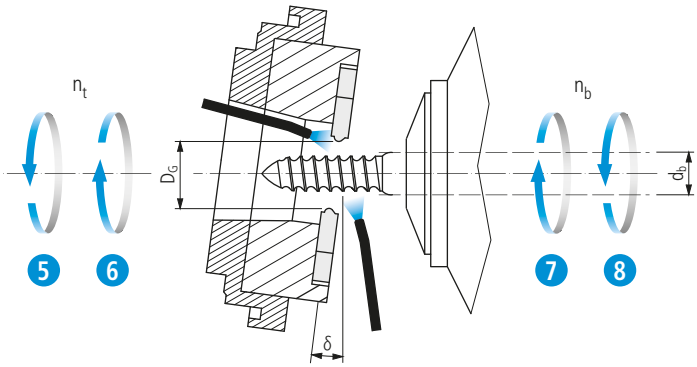
■ ***Utilis AG, Precision Tools***
Kreuzlingerstrasse 22, CH-8555 Müllheim, Switzerland
Phone +41 52 762 62 62, Fax +41 52 762 62 00
info@utilis.com, www.utilis.com

Cutting position



Turning direction of whirling unit

Turning direction of the bar



Machine specifications

Turning direction of whirling unit	[n_t]	☐		☐
	$n_t = n_b$	5		6
High-pressure cooling in place?	[bar]	☐	☐	☐
		≤30	>30	No
Is the guide bush set flush?		☐		☐
		Yes		No
Distance to the guide bush	[<d_b]			

Driven tool

Manufacturer				
Type				
Has the gradient angle been set?	[°]	☐		☐
		Yes		No
Enter axes (X, Y, Z)		☐	☐	☐
		11	12	13
Center height corrected?		☐		☐
		Yes		No
Type of whirling head				
Concentricity set to max. 5 µm?		☐		☐
		Yes		No
Condition of whirling head	(MWT…)			

Material

Bar diameter	[d_b]				
Turning direction of the bar	[n_b]	☐		☐	
	$n_b = n_t$	7		8	
Cutting position		☐	☐	☐	☐
		1	2	3	4
Cutting speed / feed	[v_f / f_z]				
Problem with chips?		☐		☐	
		Yes		No	
Vibrations?		☐		☐	
		Yes		No	

Insert

Order designation			
Cutting edge screwed tight with 1.2 Nm?	☐		☐
	Yes		No
Centre of profile at point of rotation?	☐		☐
	Yes		No
Distance to point of rotation	[mm]		
Cutting from the same production batch?	☐		☐
	Yes		No
Are cutting edges evenly worn?	☐		☐
	Yes		No
Cutting edges cleaned prior to fitting/change?	☐		☐
	Yes		No

UTILIS multidec® swiss type tools

Tool Systems enables UTILIS inserts to be used on various well-known lathe tool systems.
High quality UTILIS inserts like multidec®-CUT, -TOP and -BORE MICRO can therefore also be fitted on other manufacturers' cutting tool interfaces. This gives users maximum flexibility and independence.
On the following pages, UTILIS proposes a wide range of holders for tool systems and machine-based tool systems.

Tool systems for turning machines and Swiss-type automatic lathes



multidec®-SHORT

multidec®-MODULINE





multidec®-BACKTOOLS

multidec®-TECKO





multidec®-KM™/UT

multidec®-HSK





multidec®-PSC

Tool system for turn-mill machines

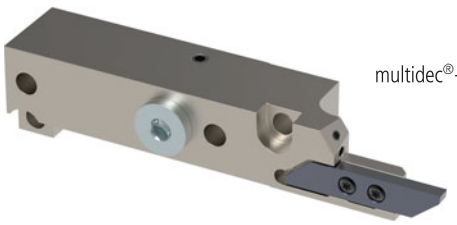


multidec®-MULTITASK

Machine-based tool systems



multidec®-ESCOMATIC



multidec®-TORNOS DECO

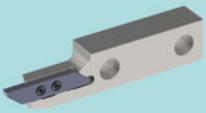
Technical information 9

Tool systems for turning machines and Swiss type automatic lathes

Overview multidec®-SHORT  495

Overview multidec®-BACKTOOLS  503

Overview multidec®-MODULINE  533

Overview multidec®-TECKO  543

Overview multidec®-KM™  549

Overview multidec®-HSK  561

Overview multidec®-PSC  573

Tool system for turn-mill machines

Overview multidec®-MULTITASK  583

Machine-based tool systems

Overview multidec®-ESCOMATIC  607

Overview multidec®-TORNOS DECO  615

Accessories  625

multidec®-SHORT is a range of holders with short holders multidec®-CUT, -ISO and -TOP indexable inserts. All holders are equipped with internal cooling.



Benefits:
- All holders feature three connecting options for the coolant supply
- Fixed coolant discharge, therefore low build-up at front at the holder
- With or without high pressure, the coolant medium always hits the cutting edge precisely

Compatibility with QS quick tool change system:
multidec®-SHORT holders can also be used in the QS quick tool change system from Sandvik Coromant. The coolant transfer tube can be screwed into the holder at the rear fur using the internal coolant supply.



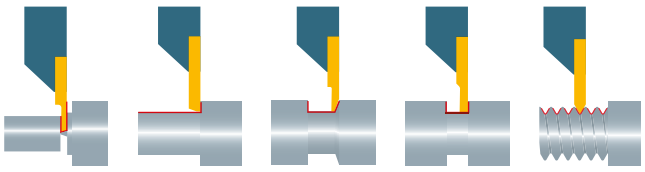
Technical information 9



Holders 496

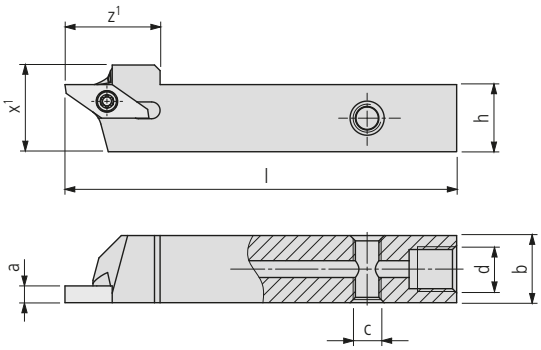


Replacement and spare parts 501





"SHORT" version with internal cooling



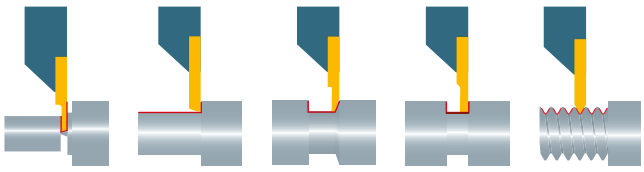
1600… IC-S

Order designation				Dimensions								Inserts
L		R		h	b	l	a	z^1	x^1	c	d	47…
PREMIUM-LINE				Accuracy class of UTILIS 41								
1600-12x70 L IC-S	■	1600-12x70 R IC-S	■	12	12	70	3	17	15.5	M5	M8×1	16…
1600-16x70 L IC-S	■	1600-16x70 R IC-S	■	16	16	70	3	17	19.5	M5	M8×1	16…

1600… IC-S INCH

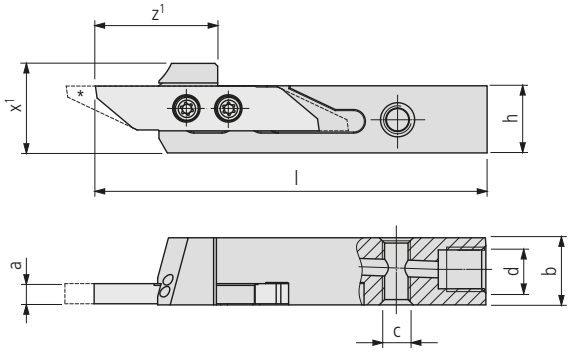
Order designation				Dimensions								Inserts
L		R		h	b	l	a	z^1	x^1	c	d	47…
PREMIUM-LINE				Accuracy class of UTILIS 41								
1600-1/2"x70 L IC-S	■	1600-1/2"x70 R IC-S	■	12.7	12.7	70	3	17	16.2	M5	M8×1	16…
1600-5/8"x70 L IC-S	■	1600-5/8"x70 R IC-S	■	15.875	15.875	70	3	17	19.375	M5	M8×1	16…

Scope of delivery: Holder without coolant connector
Coolant connectors 633





"SHORT" version with internal cooling



3000… IC-S

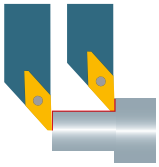
Order designation L		Order designation R		Dimensions h	b	l	a	z^1	x^1	c	d	Inserts 107…
PREMIUM-LINE				Accuracy class of UTILIS 41								
3000-12x70 L IC-S	■	3000-12x70 R IC-S	■	12	12	70	3	22	16	M5	M8×1	30…
3000-16x70 L IC-S	■	3000-16x70 R IC-S	■	16	16	70	3	22	20	M5	M8×1	30…

3000… IC-S INCH

Order designation L		Order designation R		Dimensions h	b	l	a	z^1	x^1	c	d	Inserts 107…
PREMIUM-LINE				Accuracy class of UTILIS 41								
3000-1/2"x70 L IC-S	■	3000-1/2"x70 R IC-S	■	12.7	12.7	70	3	22	16.7	M5	M8×1	30…
3000-5/8"x70 L IC-S	■	3000-5/8"x70 R IC-S	■	15.875	15.875	70	3	22	19.875	M5	M8×1	30…

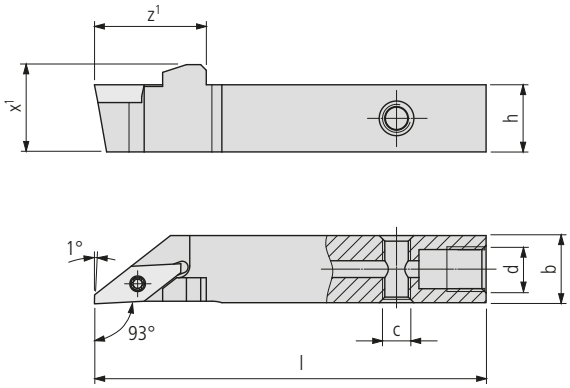
• Long insert z^1 + 5 mm

Scope of delivery: Holder without coolant connector
Coolant connectors 633



"SHORT" version with internal cooling





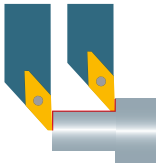
SVJP… IC-S (93°)

Order designation L		Order designation R		Dimensions h	b	l	z^1	x^1	c	d		Inserts 299…
PREMIUM-LINE								Accuracy class of UTILIS 171				
SVJPL 12 E10 IC-S	■	SVJPR 12 E10 IC-S	■	12	12	70	20	15.6	M5	M8 × 1		VP..1003..
SVJPL 16 E10 IC-S	■	SVJPR 16 E10 IC-S	■	16	16	70	20	19.6	M5	M8 × 1		VP..1003..

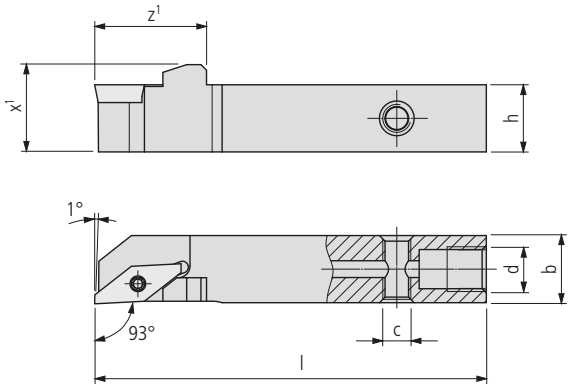
SVJP… IC-S (93°) INCH

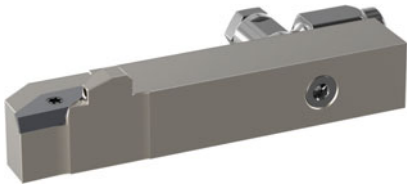
Order designation L		Order designation R		Dimensions h	b	l	z^1	x^1	c	d		Inserts 299…
PREMIUM-LINE								Accuracy class of UTILIS 171				
SVJPL 1/2" E10 IC-S	■	SVJPR 1/2" E10 IC-S	■	12.7	12.7	70	20	16.3	M5	M8 × 1		VP..1003..
SVJPL 5/8" E10 IC-S	■	SVJPR 5/8" E10 IC-S	■	15.875	15.875	70	20	19.475	M5	M8 × 1		VP..1003..

Scope of delivery: Holder without coolant connector
Coolant connectors 633



Reinforced version V "SHORT" with internal cooling





SVJP… V IC-S (93°)

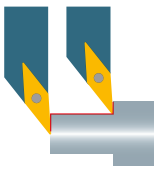
Order designation L		Order designation R		Dimensions h	b	l	z1	x1	c	d		Inserts 299…
PREMIUM-LINE				Accuracy class of UTILIS 171								
SVJPL 12 E10 V IC-S	■	SVJPR 12 E10 V IC-S	■	12	12	70	20	15.6	M5	M8 × 1		VP..1003..
SVJPL 16 E10 V IC-S	■	SVJPR 16 E10 V IC-S	■	16	16	70	20	19.6	M5	M8 × 1		VP..1003..

SVJP… V IC-S (93°) INCH

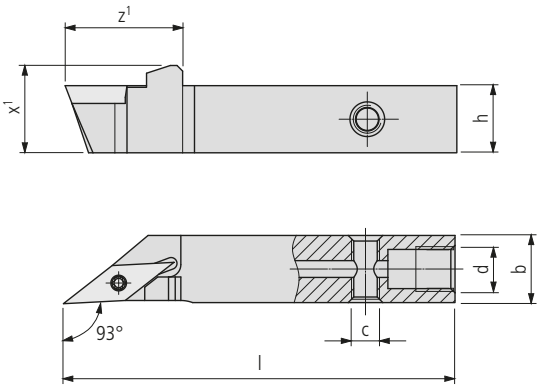
Order designation L		Order designation R		Dimensions h	b	l	z1	x1	c	d		Inserts 299…
PREMIUM-LINE				Accuracy class of UTILIS 171								
SVJPL 1/2" E10 V IC-S	■	SVJPR 1/2" E10 V IC-S	■	12.7	12.7	70	20	16.3	M5	M8 × 1		VP..1003..
SVJPL 5/8" E10 V IC-S	■	SVJPR 5/8" E10 V IC-S	■	15.875	15.875	70	20	19.475	M5	M8 × 1		VP..1003..

Scope of delivery: Holder without coolant connector
Coolant connectors 633

UTILIS multidec® swiss type tools



"SHORT" version with internal cooling





SVJC… IC-S (93°)

Order designation L		Order designation R		Dimensions h	b	l	z^1	x^1	c	d		Inserts 259…
PREMIUM-LINE								Accuracy class of UTILIS 171				
SVJCL 12 E07 IC-S	■	SVJCR 12 E07 IC-S	■	12	12	70	20	15.6	M5	M8 × 1		VC..0702..
SVJCL 12 E11 IC-S	■	SVJCR 12 E11 IC-S	■	12	12	70	21	15.6	M5	M8 × 1		VC..1103..
SVJCL 16 E11 IC-S	■	SVJCR 16 E11 IC-S	■	16	16	70	21	19.6	M5	M8 × 1		VC..1103..

SVJC… IC-S (93°) INCH

Order designation L		Order designation R		Dimensions h	b	l	z^1	x^1	c	d		Inserts 259…
PREMIUM-LINE								Accuracy class of UTILIS 171				
SVJCL 1/2" E07 IC-S	■	SVJCR 1/2" E07 IC-S	■	12.7	12.7	70	20	16.3	M5	M8 × 1		VC..0702..
SVJCL 1/2" E11 IC-S	■	SVJCR 1/2" E11 IC-S	■	12.7	12.7	70	21	16.3	M5	M8 × 1		VC..1103..
SVJCL 5/8" E11 IC-S	■	SVJCR 5/8" E11 IC-S	■	15.875	15.875	70	21	19.475	M5	M8 × 1		VC..1103..

Scope of delivery: Holder without coolant connector
Coolant connectors 633

Illustration	Description	Dimensions	Order designation		Holder
	TORX screw	M2.5 × 6 T08	MSP 25060 T08	■	1600… SV.P.10 SV… 11
		M3 × 9 T08	MSP 30090 T08	■	3000…
		M2 × 5.5	MSP 20055 T06	■	VC… 07

TORX screwdriver 665

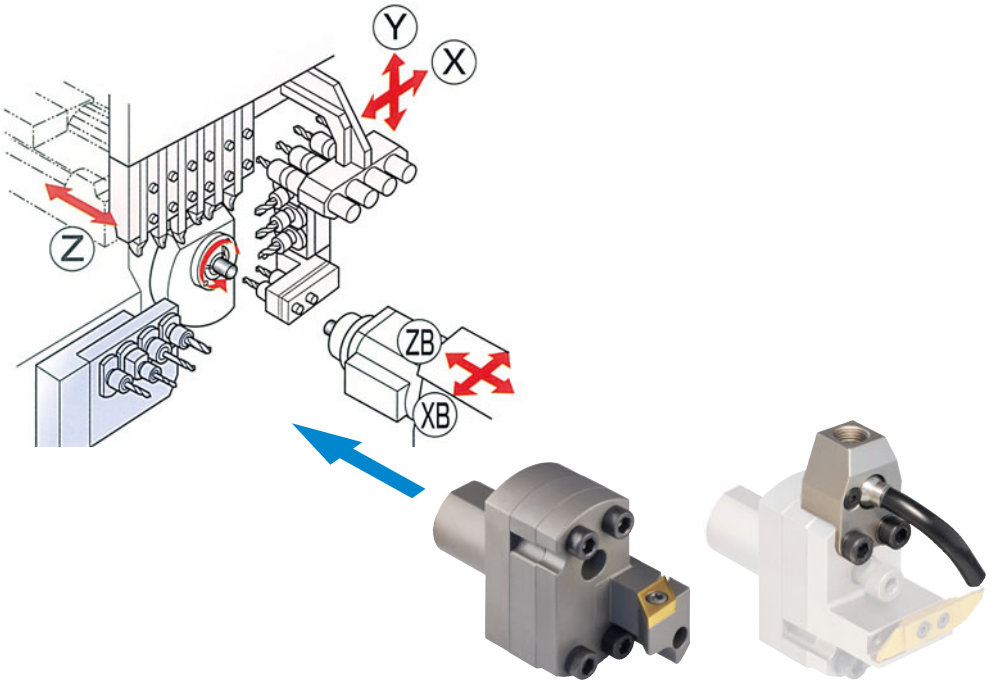
UTILIS multidec swiss type tools

multidec®-BACKTOOLS is a product range used for reverse-side machining on Swiss type turning machines with counter spindles. The tool enables a part to be fully machined in a single operation.

This modular system is characterized by outstanding stability and versatility.



Advantages:
- Complete machining in a single operation is possible
- High stability
- Modular design
  - Basic tool holder
  - Spacer
  - Insert holder
- Precise and convenient center height adjustment by means of an excentric screw for machines without Y-axis (±0.5 mm)
- Internal cooling possible
- Basic tool holder for common machines



Technical information 9

Mounting 504



Basic tool holders 505



Basic tool holders for PCM broading toolholder 513



Holders for inserts 514



Holders for OD turning tools 523



Collet holders 524



Holders for ID turning tools of multidec®-BORE MICRO 525



Holders for ID turning tools 526



Reduction sleeve 527



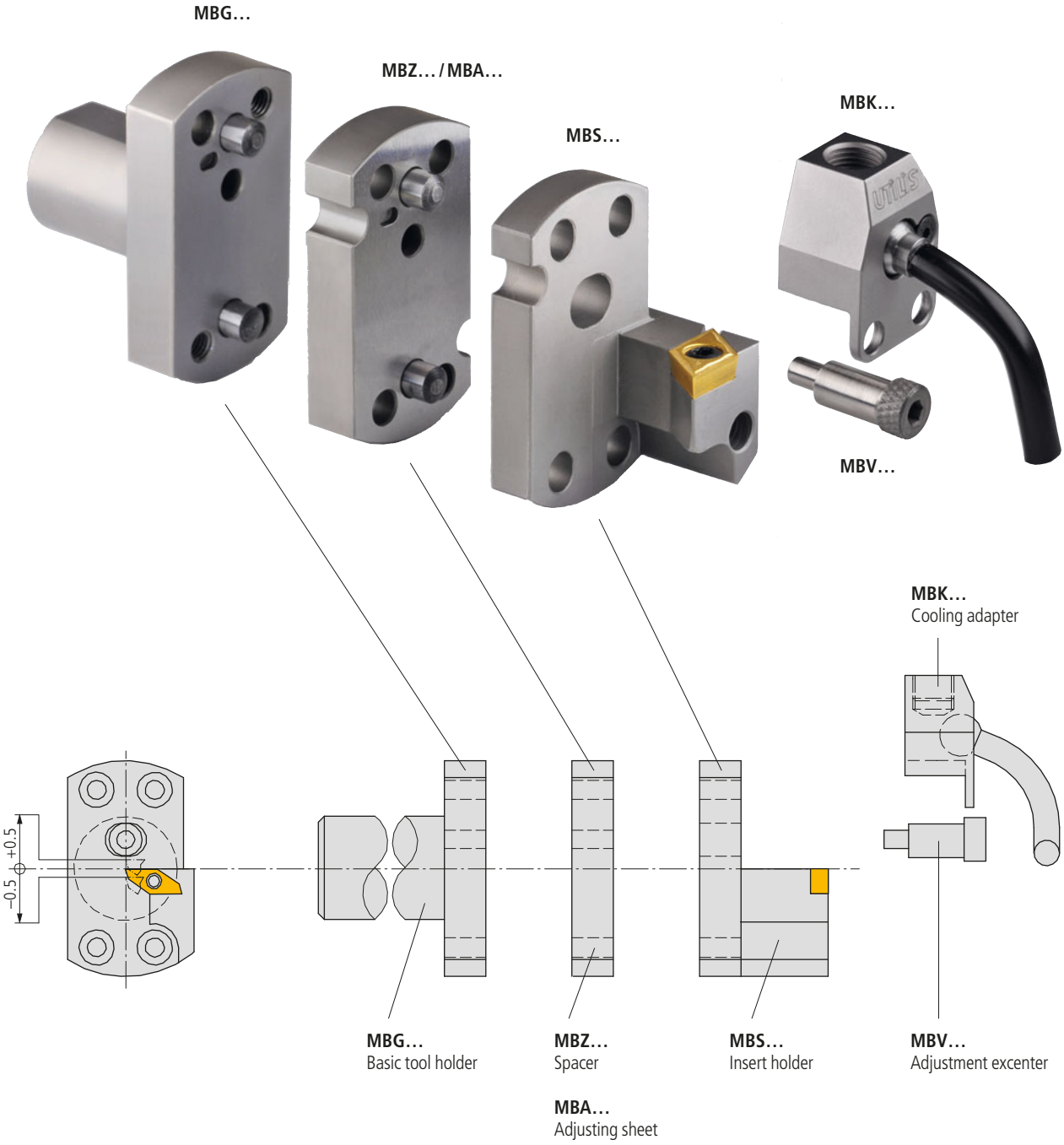
Spacer and adjusting sheet 528



Cooling adapter 530



Replacement and spare parts 613



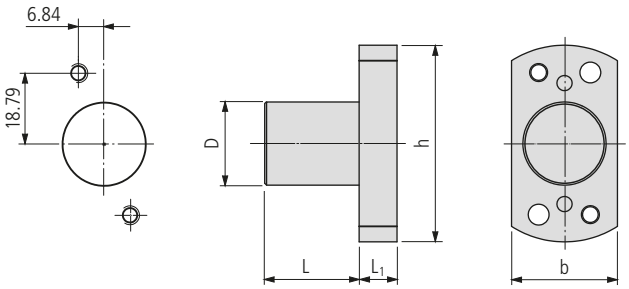
UTILIS multidec® swiss type tools

Compatibility overview

Basic tool holder	Spacer (optional)	Insert holder, collet holders and tool holders
MBG … B02	MBZ ST 02-…	MBS …02
MBG … B05	MBZ ST 05-…	MBS …05
MBG … B90*	MBZ ST 90-…	MBS …90

* Height not adjustable (only for machines with Y axis)



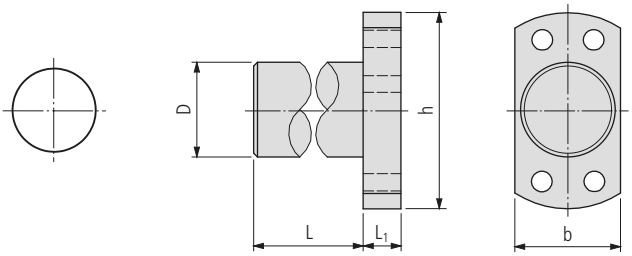


MBG 01 …

Order designation		Dimensions D	L	b	h	L_1	Shape	Type of machine	Spacer	Insert holder
MBG 01 2200 025 B02	■	22	25	28	52	10		STAR SR10J/SR20R ECAS 12/20, SR32J*	MBZ ST 02-…	MBS … 02
MBG 01 2300 019 B02	■	23	19	28	49	16		HANWHA XD 12H	MBZ ST 02-…	MBS … 02

* Valid from machine number …161



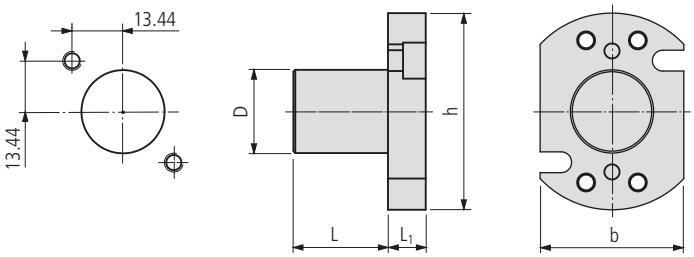


MBG 02 …

Order designation		Dimensions					Shape	Type of machine	Spacer	Insert holder
		D	L	b	h	L_1				
MBG 02 1587 040 B02	■	5/8" (15.875)	40	28	52	10		CITIZEN R07, TSUGAMI BS20B	MBZ ST 02-…	MBS … 02
MBG 02 1600 019 B02	■	16	19	28	52	10		MANURHIN KMX 4/13	MBZ ST 02-…	MBS … 02
MBG 02 1600 020 B02	■	16	20	28	52	10		STAR RNC16B	MBZ ST 02-…	MBS … 02
MBG 02 1905 060 B02	■	3/4" (19.05)	60	28	52	10		CITIZEN C16, L20, M16	MBZ ST 02-…	MBS … 02
MBG 02 2000 030 B02	■	20	30	28	52	10		TSUGAMI S205	MBZ ST 02-…	MBS … 02
MBG 02 2000 040 B02	■	20	40	28	52	10		GILDEMEISTER Sprint20, HANWHA SL12H, TSUGAMI B012, B020, S205	MBZ ST 02-…	MBS … 02
MBG 02 2000 060 B02	■	20	60	28	52	10		TSUGAMI BS12, BS20	MBZ ST 02-…	MBS … 02
MBG 02 2000 070 B02	■	20	70	28	52	10		TORNOS Gamma 20	MBZ ST 02-…	MBS … 02
MBG 02 2000 100 B02	■	20	100	28	52	10		MANHURIN Swing 7-13, TORNOS DECO (7/10, 13, 20), CITIZEN K16	MBZ ST 02-…	MBS … 02
MBG 02 2200 015 B02	■	22	15	28	52	10		STAR SR10J	MBZ ST 02-…	MBS … 02
MBG 02 2200 070 B02	■	22	70	28	52	10		STAR SA16, SB16, TORNOS Delta 20, Gamma 20	MBZ ST 02-…	MBS … 02
MBG 02 2500 035 B02	■	25	35	28	52	10		TSUGAMI Piastra	MBZ ST 02-…	MBS … 02
MBG 02 2500 050 B02	■	25	50	28	52	10		MANHURIN Swing 10-20, 10-26, 10-32	MBZ ST 02-…	MBS … 02
MBG 02 2500 060 B02	■	25	60	28	52	10		CITIZEN L20, HANWHA STL32/35H, STL33/35J	MBZ ST 02-…	MBS … 02
MBG 02 2500 100 B02	■	25	100	28	52	10		MANHURIN KMX5/20, 5/26, 5/32, Swing 7-20, 7-26, TORNOS DECO (7/10, 13, 20)	MBZ ST 02-…	MBS … 02
MBG 02 2540 070 B02	■	1" (25.4)	70	28	52	10		CITIZEN C32, L32, M32	MBZ ST 02-…	MBS … 02
MBG 02 2800 006 B02	■	28	6	28	52	10		HANWHA SL26/35HPD	MBZ ST 02-…	MBS … 02
MBG 02 2800 040 B02	■	28	40	28	52	10		TRAUB TNL12	MBZ ST 02-…	MBS … 02
MBG 02 2800 078 B02	■	28	78	28	52	10		TRAUB TNL/C 12, TNL/C 12K	MBZ ST 02-…	MBS … 02
MBG 02 3200 025 B02	■	32	25	28	52	10		HANWHA XD32	MBZ ST 02-…	MBS … 02
MBG 02 3200 070 B02	■	32	70	32	52	10		TORNOS Delta 38-5a	MBZ ST 02-…	MBS … 02
MBG 02 3300 040 B02	■	33	40	35	52	10		HANWHA XD20/32 H, -J	MBZ ST 02-…	MBS … 02
MBG 02 3400 044 B02	■	34	44	35	52	10		HANWHA SL20/26/35HPII	MBZ ST 02-…	MBS … 02

UTILIS multidec® swiss type tools

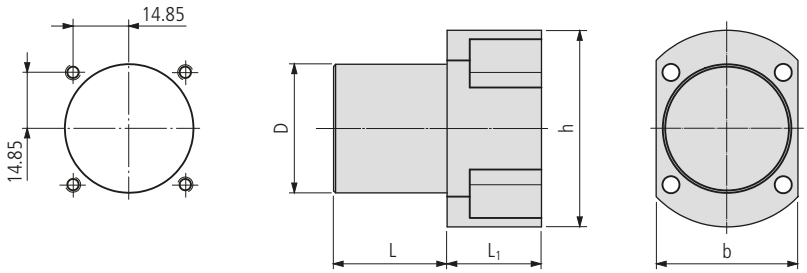




MBG 03 …

Order designation		Dimensions D	L	b	h	L_1	Shape	Type of machine	Spacer	Insert holder
MBG 03 2200 025 B02	■	22	25	38	52	10		STAR SR32, SR32J	MBZ ST 02-…	MBS … 02
MBG 03 3100 015 B02	■	31	15	38	52	10		CITIZEN A32-VII	MBZ ST 02-…	MBS … 02

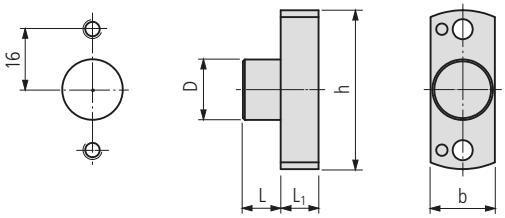




MBG 04 …

Order designation		Dimensions D	L	b	h	L_1	Shape	Type of machine	Spacer	Insert holder
MBG 04 3400 018 B02 IC	■	34	18	38	52	25		MAIER MLK DY36	MBZ ST 02-… IC	MBS … 02 IC
MBG 04 3400 030 B02 IC	■	34	30	38	52	25		MAIER ML12C, ML16C, ML16D, ML20/26/32	MBZ ST 02-… IC	MBS … 02 IC
MBG 04 3400 025 B90	■	34	25	37.5	37.5	8		STAR SV-38R	MBZ ST 90-	MBS … 90

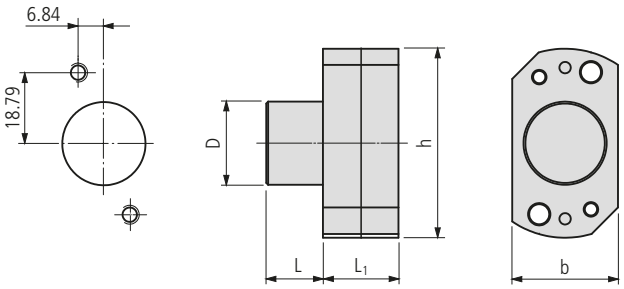




MBG 05 …

Order designation		Dimensions D	L	b	h	L_1	Shape	Type of machine	Spacer	Insert holder
MBG 05 1500 010 B05	■	15	10	17	51	10		HANWHA XD12H	MBZ ST 05-…	MBS … 05
MBG 05 1600 010 B05	■	16	10	17	51	10		STAR SR10J	MBZ ST 05-…	MBS … 05



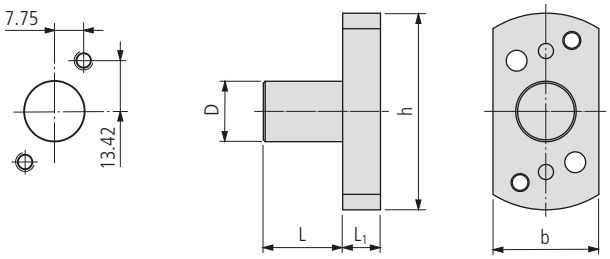


MBG 06 …

Order designation		Dimensions D	L	b	h	L_1	Shape	Type of machine	Spacer	Insert holder
MBG 06 2200 015 B06*	■	22	15	28	50	20		STAR SR10J	MBZ ST 02-…	MBS … 02

* With adjusting sheet

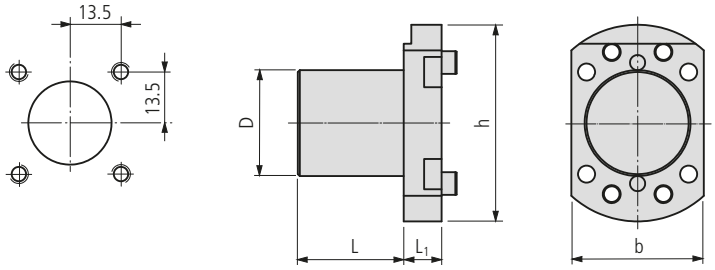




MBG 07 …

Order designation		Dimensions					Shape	Type of machine	Spacer	Insert holder
		D	L	b	h	L_1				
MBG 07 1600 021 B02	■	16	21	28	25	10	●	STAR SR16, SR20	MBZ ST 02-…	MBS … 02

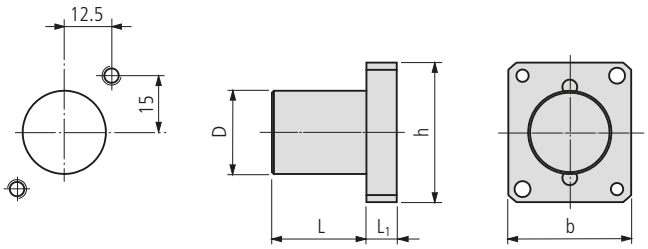




MBG 08 …

Order designation		Dimensions					Shape	Type of machine	Spacer	Insert holder
		D	L	b	h	L_1				
MBG 08 2800 028 B02	■	28	28	35	25	10	●	TORNOS CT20	MBZ ST 02-…	MBS … 02

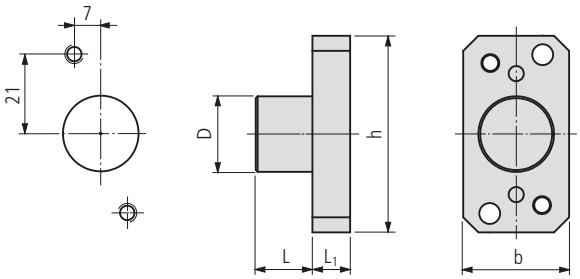




MBG 09 …

Order designation		Dimensions D	L	b	h	L_1	Shape	Type of machine	Spacer	Insert holder
MBG 09 2200 025 B90	■	22	25	32.5	37	8		STAR SW-20, SR-20W	MBZ ST 90-…	MBS … 90
MBG 09 2500 015 B90	■	25	15	32.5	37	8		TSUGAMI BO 326 EII	MBZ ST 90-…	MBS … 90
MBG 09 2500 050 B90	■	25	50	32.5	37	8		HANWHA XDI 20	MBZ ST 90-…	MBS … 90





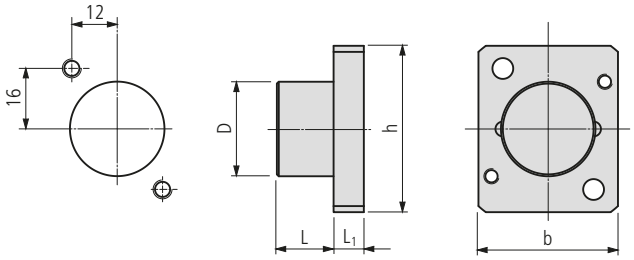
MBG 10 …

Order designation		Dimensions D	L	b	h	L_1	Shape	Type of machine	Spacer	Insert holder
MBG 10 2000 015 B02	■	20	15	28	25	10		STAR SR10J	MBZ ST 02-…	MBS … 02

* Check hole pattern

■ New



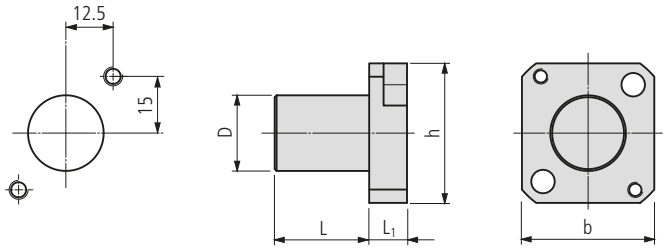


MBG 12 …

Order designation		Dimensions D	L	b	h	L_1	Shape	Type of machine	Spacer	Insert holder
MBG 12 2500 015 B90*	■	25	15	44	36.9	8	●	TSUGAMI BO 266, BO 326	MBZ ST 90-	MBS … 90

* With adjusting sheet



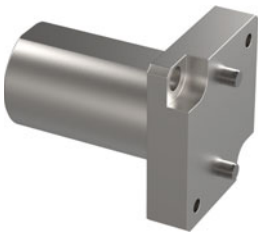


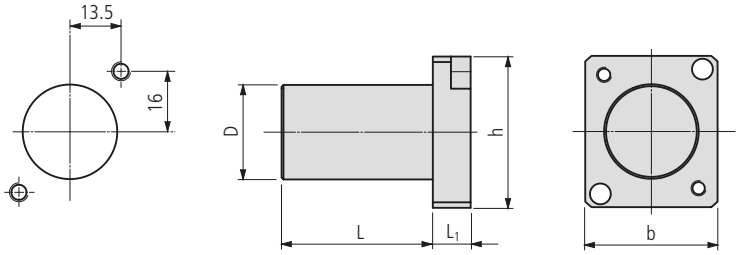
MBG 13 …

Order designation		Dimensions D	L	b	h	L_1	Shape	Type of machine	Spacer	Insert holder
MBG 13 2000 025 B90*	■	20	25	36.9	36.9	10	●	TORNOS GT13, GT26	MBZ ST 90-	MBZ ST 90-

* With adjusting sheet

UTILIS multidec® swiss type tools



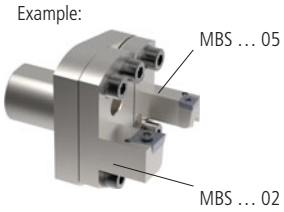


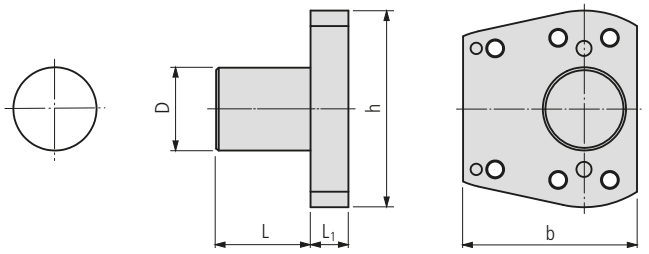
MBG 14 …

Order designation		Dimensions D	L	b	h	L_1	Shape	Type of machine	Spacer	Insert holder
MBG 14 2500 040 B90*	■	25	40	35	40	10		NEXTURN SR20XII	MBZ ST 90-	MBZ ST 90-

* With adjusting sheet





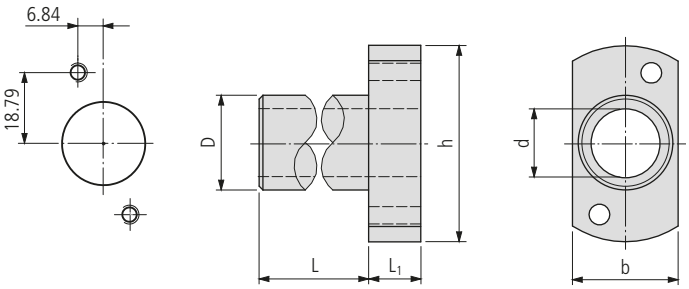


MBG 02 … B02 05

Order designation		Dimensions D	L	b	h	L_1	Shape	Type of machine	Spacer	Insert holder
MBG 02 1905 040 B02 05*	■	3/4" /(19.05)	40	46	52	10		Various*	MBZ ST 02/05-…	MBS … 02/05
MBG 02 2200 025 B02 05*	■	22	25	46	52	10		STAR SR20R SR32J	MBZ ST 02/05-…	MBS … 02/05

* Check hole pattern



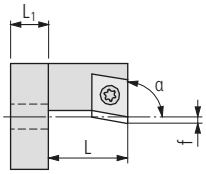


MBG-T …

Order designation		Dimensions						Shape	Type of machine
		D	L	d	b	h	L_1		
MBG-T 02 10 2200 025	■	22	25	10	28	52	15	●	STAR SR10J, SA16, SB16, SB20E, SB20G, SB20N
MBG-T 02 16 2200 025	■	22	25	16	28	52	15	●	STAR SA 16, SB 16, SR10J



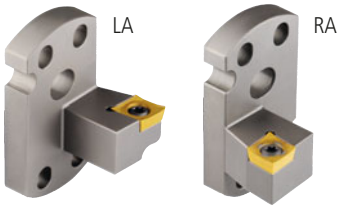


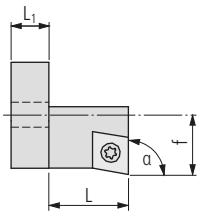


MBS …-CC

Order designation L		Order designation R		Dimensions α	f	L	L_1	Basic tool holder MBG…	Spacer MBZ…	Inserts 177…
MBS 090-CC L 06 I02*	■	MBS 090-CC R 06 I02*	■	90°		20	8	MBG … B02	MBZ ST 02- …	CC.. 0602…
MBS 093-CC L 06 I02*	■	MBS 093-CC L 06 I02*	■	93°		20	8	MBG … B02	MBZ ST 02- …	CC.. 0602…
MBS 090-CC L 09 I02*	■	MBS 090-CC R 09 I02*	■	90°		20	8	MBG … B02	MBZ ST 02- …	CC.. 09T3…
		MBS 090-CC R 09 I02 IC*	■	90°		20	8	MBG … B02 IC	MBZ ST 02- … IC	CC.. 09T3…
MBS 093-CC L 09 I02*	■	MBS 093-CC R 09 I02*	■	93°		20	8	MBG … B02	MBZ ST 02- …	CC.. 09T3…
MBS 093-CC L 09 I02-30*	■	MBS 093-CC R 09 I02-30*	■	93°		30	8	MBG … B02	MBZ ST 02- …	CC.. 09T3…
MBS 095-CC L 09 I02*	■	MBS 095-CC R 09 I02*	■	95°		20	8	MBG … B02	MBZ ST 02-…	CC.. 09T3…
MBS 093-CC L 06 I05*	■	MBS 093-CC R 06 I05*	■	93°		20	8	MBG … B05	MBZ ST 05- …	CC.. 0602…
MBS 095-CC L 09 I05*	■	MBS 095-CC L 09 I05*	■	95°		20	8	MBG … B05	MBZ ST 05-…	CC.. 09T3…
		MBS 090-CC R 06 I90	■	90°	-5	20	7	MBG … B90	MBZ ST 90- …	CC.. 0602…
		MBS 090-CC R 09 I90	■	90°		20	7	MBG … B90	MBZ ST 90- …	CC.. 09T3…

* Setting the centre height with adjustment excenter MBV E04

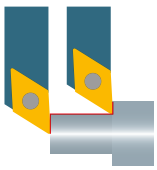




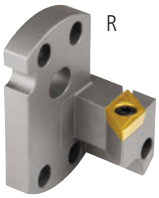
MBS …-CC .A

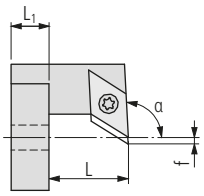
Order designation L		Order designation R		Dimensions α	f	L	L_1	Basic tool holder MBG…	Spacer MBZ…	Inserts 177…
MBS 090-CC LA 06 I02*	■	MBS 090-CC RA 06 I02*	■	90°	18	20	8	MBG … B02	MBZ ST 02- …	CC.. 0602…
MBS 090-CC LA 09 I02*	■	MBS 090-CC RA 09 I02*	■	90°	18	20	8	MBG … B02	MBZ ST 02-…	CC.. 09T3…
MBS 093-CC LA 06 I02*	■	MBS 093-CC RA 06 I02*	■	93°	18	20	8	MBG … B02	MBZ ST 02-…	CC.. 0602…
MBS 093-CC LA 09 I02*	■	MBS 093-CC RA 09 I02*	■	93°	18	20	8	MBG … B02	MBZ ST 02-…	CC.. 09T3…
MBS 093-CC LA 09 I02-30*	■	MBS 093-CC RA 09 I02-30*	■	93°	18	30	8	MBG … B02	MBZ ST 02-…	CC.. 09T3…
MBS 095-CC LA 09 I02*	■	MBS 095-CC RA 09 I02*	■	95°	18	20	8	MBG … B02	MBZ ST 02- …	CC.. 09T3…
MBS 093-CC LA 06 I05*	■	MBS 093-CC RA 06 I05*	■	93°	12.5	20	8	MBG … B05	MBZ ST 05-…	CC.. 0602…
MBS 095-CC LA 09 I05*	■	MBS 095-CC RA 09 I05*	■	95°	12.5	20	8	MBG … B05	MBZ ST 05- …	CC.. 09T3…
MBS 095-CC LA 09 I90	■			95°	16.25	20	7	MBG … B90	MBZ ST 90-…	CC.. 09T3…

* Setting the centre height with adjustment excenter MBV E04









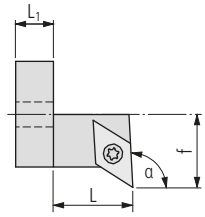
MBS …-DC

Order designation L		Order designation R		Dimensions α	f	L	L_1	Basic tool holder MBG…	Spacer MBZ…	Inserts 205…
MBS 093-DC L 07 I02*	■	MBS 093-DC R 07 I02*	■	93°		20	8	MBG … B02	MBZ ST 02- …	DC.. 0702…
MBS 093-DC L 11 I02*	■	MBS 093-DC R 11 I02*	■	93°		20	8	MBG … B02	MBZ ST 02- …	DC.. 11T3…
		MBS 093-DC R 11 I02 IC*	■	93°		20	8	MBG … B02 IC	MBZ ST 02- … IC	DC.. 11T3…
MBS 093-DC L 11 I02 30*	■	MBS 093-DC R 11 I02 30*	■	93°		30	8	MBG … B02	MBZ ST 02- …	DC.. 11T3…
MBS 093-DC L 11 I02 40*	■	MBS 093-DC R 11 I02 40*	■	93°		40	8	MBG … B02	MBZ ST 02- …	DC.. 11T3…
MBS 093-DC-L 07 I05*	■	MBS 093-DC R 07 I05*	■	93°		20	8	MBG … B05	MBZ ST 05- …	DC.. 0702…
MBS 093-DC L 07 I90	■	MBS 093-DC R 07 I90	■	93°	-2.25	20	7	MBG … B90	MBZ ST 90- …	DC.. 0702…
MBS 093-DC L 11 I90	■	MBS 093-DC R 11 I90	■	93°		20	7	MBG … B90	MBZ ST 90- …	DC.. 11T3…
MBS 093-DC L 11 I90 30	■	MBS 093-DC R 11 I90 30	■	93°		30	7	MBG … B90	MBZ ST 90- …	DC.. 11T3…

* Setting the centre height with adjustment excenter MBV E04



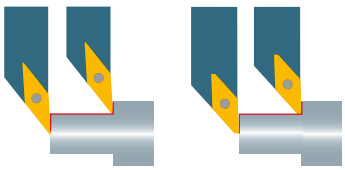


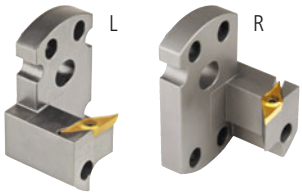


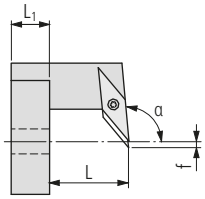
MBS …-DC .A

Order designation L		Order designation R		Dimensions α	f	L	L_1	Basic tool holder MBG…	Spacer MBZ…	Inserts 205…
MBS 093-DC LA 07 I02*	■	MBS 093-DC RA 07 I02*	■	93°	18	20	8	MBG … B02	MBZ ST 02-…	DC.. 0702…
MBS 093-DC LA 11 I02*	■	MBS 093-DC RA 11 I02*	■	93°	18	20	8	MBG … B02	MBZ ST 02- …	DC.. 11T3…
MBS 093-DC LA 11 I02-30*	■	MBS 093-DC RA 11 I02-30*	■	93°	18	30	8	MBG … B02	MBZ ST 02-…	DC.. 11T3...
MBS 093-DC LA 11 I02-40*	■	MBS 093-DC RA 11 I02-40*	■	93°	18	40	8	MBG … B02	MBZ ST 02-…	DC.. 11T3...
MBS 093-DC LA 07 I05*	■	MBS 093-DC RA 07 I05*	■	93°	8.5	20	8	MBG … B05	MBZ ST 05- …	DC.. 0702…
MBS 093-DC LA 07 I90	■	MBS 093-DC RA 07 I90	■	93°	17	20	7	MBG … B90	MBZ ST 90- …	DC.. 0702…
MBS 093-DC LA 11 I90	■	MBS 093-DC RA 11 I90	■	93°	17	20	7	MBG … B90	MBZ ST 90-…	DC.. 11T3...
MBS 093-DC LA 11 I90-30*	■			93°	17	30	7	MBG … B90	MBZ ST 90-…	DC.. 11T3...

* Setting the centre height with adjustment excenter MBV E04



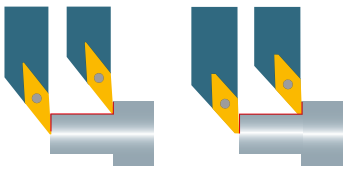




MBS …-VC

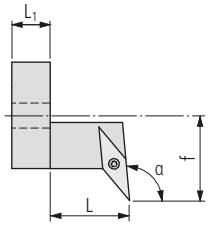
Order designation L		Order designation R		Dimensions α	f	L	L_1	Basic tool holder MBG…	Spacer MBZ…	Inserts 259…
MBS 0725-VC L 11 I02*	■	MBS 0725-VC R 11 I02*	■	72.5°		20	8	MBG … B02	MBZ ST 02- …	VC.. 1103…
MBS 093-VC L 07 I02*	■	MBS 093-VC R 07 I02*	■	93°		20	8	MBG … B02	MBZ ST 02- …	VC.. 0702…
MBS 093-VC L 11 I02*	■	MBS 093-VC R 11 I02*	■	93°		20	8	MBG … B02	MBZ ST 02- …	VC.. 1103…
MBS 095-VC L 11 I02*	■	MBS 095-VC R 11 I02*	■	95°		20	8	MBG … B02	MBZ ST 02- …	VC.. 1103…
MBS 093-VC L 11 I02-30*	■	MBS 093-VC R 11 I02-30*	■	93°		30	8	MBG … B02	MBZ ST 02- …	VC.. 1103…
MBS 095-VC L 11 I02-40*	■	MBS 095-VC R 11 I02-40*	■	95°		40	8	MBG … B02	MBZ ST 02- …	VC.. 1103…
MBS 110-VC L 11 I02*	■	MBS 110-VC R 11 I02*	■	110°		20	8	MBG … B02	MBZ ST 02- …	VC.. 1103…
MBS 1175-VC L 11 I02*	■	MBS 1175-VC R 11 I02*	■	117.5°		20	8	MBG … B02	MBZ ST 02- …	VC.. 1103…
MBS 140-VC L 11 I02*	■	MBS 140-VC R 11 I02*	■	140°		23	8	MBG … B02	MBZ ST 02- …	VC.. 1103…
		MBS 1625-VC N 11 I02*	■	162.5°		25	8	MBG … B02	MBZ ST 02- …	VC.. 1103…
MBS 093-VC L 07 I05*	■	MBS 093-VC R 07 I05*	■	93°		20	8	MBG … B02	MBZ ST 02- …	VC.. 0702…
MBS 093-VC L 07 I90	■	MBS 093-VC R 07 I90	■	93°		20	7	MBG … B02	MBZ ST 02- …	VC.. 0702…
MBS 093-VC L 11 I90	■	MBS 093-VC R 11 I90	■	93°	2.25	20	8	MBG … B90	MBZ ST 90- …	VC.. 1103…
MBS 095-VC L 11 I90	■	MBS 095-VC R 11 I90	■	95°	2.25	20	7	MBG … B90	MBZ ST 90- …	VC.. 1103…
MBS 095-VC L 11 I90 IC	■	MBS 095-VC R 11 I90 IC	■	95°	2.25	20	7	MBG … B90	MBZ ST 90- … IC	VC.. 1103…
		MBS 095-VC R 11 I90-30	■	95°		30	7	MBG … B90	MBZ ST 02- …	VC.. 1103…
		MBS 110-VC R 11 I90	■	110°		20	7	MBG … B90	MBZ ST 02- …	VC.. 1103…
		MBS 1625-VC N 11 I90	■	162.5°		25	7	MBG … B90	MBZ ST 90- …	VC.. 1103…

* Setting the centre height with adjustment excenter MBV E04





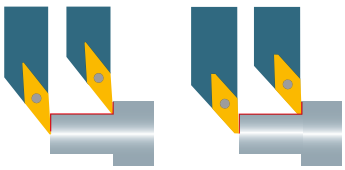


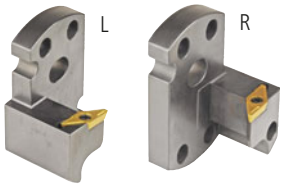


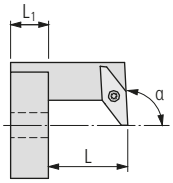
MBS …-VC .A

Order designation L		Order designation R		Dimensions α	f	L	L_1	Basic tool holder MBG…	Spacer MBZ…	Inserts 259…
MBS 725-VC LA 11 I02*	■	MBS 725-VC RA 11 I02*	■	72.5°	18	25	8	MBG … B02	MBZ ST 02- …	VC.. 1103…
MBS 093-VC LA 11 I02*	■	MBS 093-VC RA 11 I02*	■	93°	18	20	8	MBG … B02	MBZ ST 02- …	VC.. 1103…
MBS 093-VC LA 11 I02-30*	■	MBS 093-VC RA 11 I02-30*	■	93°	18	30	8	MBG … B02	MBZ ST 02- …	VC.. 1103…
MBS 095-VC LA 11 I02*	■	MBS 095-VC RA 11 I02*	■	95°	18	20	8	MBG … B02	MBZ ST 02- …	VC.. 1103…
MBS 095-VC LA 11 I02-40*	■	MBS 095-VC RA 11 I02-40*	■	95°	18	40	8	MBG … B02	MBZ ST 02- …	VC.. 1103…
MBS 110-VC LA 11 I02*	■	MBS 110-VC RA 11 I02*	■	110°	18	20	8	MBG … B02	MBZ ST 02- …	VC.. 1103…
MBS 1175-VC LA 11 I02*	■	MBS 1175-VC RA 11 I02*	■	117.5°	18	20	8	MBG … B02	MBZ ST 02- …	VC.. 1103…
MBS 140-VC LA 11 I02*	■	MBS 140-VC RA 11 I02*	■	140°	18	23	8	MBG … B02	MBZ ST 02- …	VC.. 1103…
MBS 093-VC LA 11 I90	■	MBS 093-VC RA 11 I90	■	93°	17	20	7	MBG … B90	MBZ ST 02- …	VC.. 1103…

* Setting the centre height with adjustment excenter MBV E04



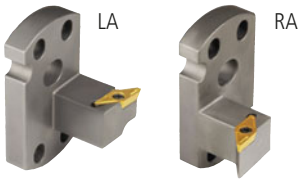


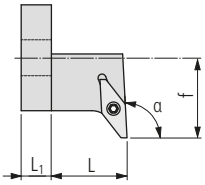


MBS …-VP

Order designation L		Order designation R		Dimensions α		L	L_1	Basic tool holder MBG…	Spacer MBZ…	Inserts 299…
MBS 093-VP L 10 I02*	■	MBS 093-VP R 10 I02*	■	93°		20	8	MBG … B02	MBZ ST 02- …	VP.. 1003…
MBS 093-VP L 10 I90	■	MBS 093-VP R 10 I90	■	93°		20	7	MBG … B90	MBZ ST 90- …	VP.. 1003…

* Setting the centre height with adjustment excenter MBV E04





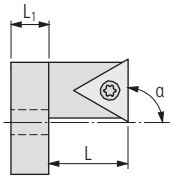
MBS …-VP .A

Order designation L		Order designation R		Dimensions α	f	L	L_1	Basic tool holder MBG…	Spacer MBZ…	Inserts 299…
MBS 093-VP LA 10 I02*	■	MBS 093-VP RA 10 I02*	■	93°	28	20	8	MBG … B02	MBZ ST 02- …	VP.. 1003…
MBS 093-VP LA 10 I02	■	MBS 093-VP RA 10 I02	■	93°	17	20	8	MBG … B02	MBZ ST 02- …	VP.. 1003…

* Setting the centre height with adjustment excenter MBV E04





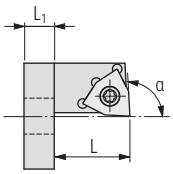


MBS …-TC

Order designation				Dimensions				Basic tool holder	Spacer	Inserts
L		R		α		L	L_1	MBG…	MBZ…	
MBS 090-TC L 11 I02*	■	MBS 090-TC R 11 I02*	■	90°		20	8	MBG … B02	MBZ ST 02- …	TC.. 1102…

* Setting the centre height with adjustment excenter MBV E04





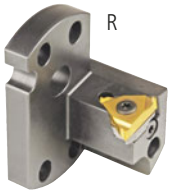
MBS …-W0134

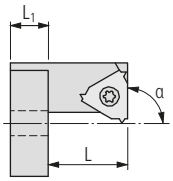
Order designation				Dimensions				Basic tool holder	Spacer	Inserts
L		R		α		L	L_1	MBG…	MBZ…	
MBS 093-W0134 L I02*	■	MBS 093-W0134 R I02*	■	93°		20	8	MBG … B02	MBZ ST 02- …	W0134…

* Setting the centre height with adjustment excenter MBV E04

UTILIS multidec® swiss type tools





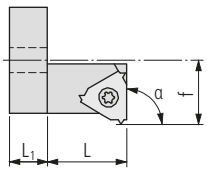


MBS …-16 ER

Order designation L		Order designation R		Dimensions α		L	L_1	Basic tool holder MBG…	Spacer MBZ…	Inserts
MBS 090-16 ER L I02	■	MBS 090-16 ER R I02*	■	90°		20	8	MBG … B02	MBZ ST 02- …	16ER
MBS 090-16 ER L I02-30*	■	MBS 090-16 ER R I02-30*	■	90°		30	8	MBG … B02	MBZ ST 02- …	16ER
MBS 090-16 ER L I02-40*	■	MBS 090-16 ER R I02-40*	■	90°		40	8	MBG … B02	MBZ ST 02- …	16ER
		MBS 090-16 ER RA I90	■	90°		20	7	MBG … B90	MBZ ST 90- …	16ER
		MBS 090-16 ER RA I90-31	■	90°		31	7	MBG … B90	MBZ ST 90- …	16ER

* Setting the centre height with adjustment excenter MBV E04

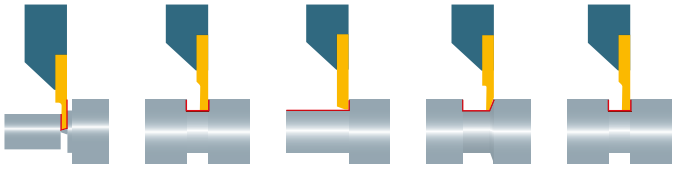


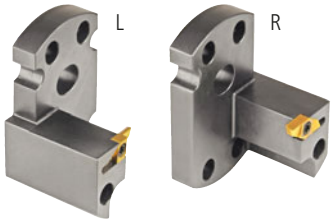


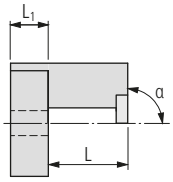
MBS …-16 ER .A

Order designation L		Order designation R		Dimensions α	f	L	L_1	Basic tool holder MBG…	Spacer MBZ…	Inserts
MBS 090-16 ER LA I02*	■	MBS 090-16 ER RA I02*	■	90°	17.66	20	8	MBG … B02	MBZ ST 02- …	16ER
MBS 090-16 ER LA I02-30*	■	MBS 090-16 ER RA I02-30*	■	90°	17.66	30	8	MBG … B02	MBZ ST 02- …	16ER
MBS 090-16 ER LA I02-40*	■	MBS 090-16 ER RA I02 40*	■	90°	17.66	40	8	MBG … B02	MBZ ST 02- …	16ER

* Setting the centre height with adjustment excenter MBV E04



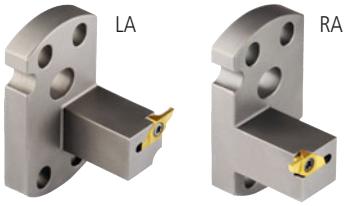


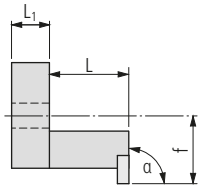


MBS …-Cut …

Order designation L		Order designation R		Dimensions α		L	L_1	Basic tool holder MBG…	Spacer MBZ…	Inserts 47…
MBS 090-Cut L 16 I02*	■	MBS 090-Cut R 16 I02*	■	90°		23	8	MBG … B02	MBZ ST 02- …	16…
MBS 135-Cut L 16 I02*	■	MBS 135-Cut R 16 I02*	■	135°		23	8	MBG … B02	MBZ ST 02- …	16…
MBS 090-Cut L 16 I05*	■	MBS 090-Cut R 16 I05*	■	90°		23	8	MBG … B05	MBZ ST 05- …	16…
MBS 090-Cut L 16 I90	■	MBS 090-Cut R 16 I90	■	90°		23	7	MBG … B90	MBZ ST 90- …	16…

* Setting the centre height with adjustment excenter MBV E04

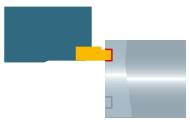




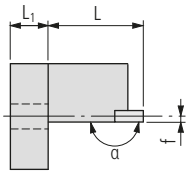
MBS …-Cut .A …

Order designation L		Order designation R		Dimensions α	f	L	L_1	Basic tool holder MBG…	Spacer MBZ…	Inserts 47…
MBS 090-Cut LA 16 I02*	■	MBS 090-Cut RA 16 I02*	■	90°	18.6	23	8	MBG … B02	MBZ ST 02- …	16…
MBS 135-Cut LA 16 I02*	■	MBS 135-Cut RA 16 I02*	■	135°	18.5	23	8	MBG … B02	MBZ ST 02- …	16…
MBS 090-Cut LA 16 I05*	■	MBS 090-Cut RA 16 I05*	■	90°	13	23	8	MBG … B05	MBZ ST 05- …	16…
MBS 090-Cut LA 16 I90	■	MBS 090-Cut RA 16 I90	■	90°	20.75	23	7	MBG … B90	MBZ ST 90- …	16…

* Setting the centre height with adjustment excenter MBV E04





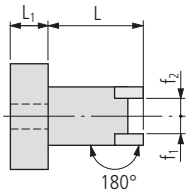


MBS 180-Cut …

Order designation				Dimensions				Basic tool holder	Spacer	Inserts
L		R		α	f	L	L_1	MBG…	MBZ…	47…
		MBS 180-Cut 16 I02*	■	180°		20	8	MBG … B02	MBZ ST 02- …	16…
		MBS 180-Cut 16 I05*	■	180°		20	8	MBG … B05	MBZ ST 05- …	16…
		MBS 180-Cut 16 I90	■	180°	-6.25	20	7	MBG … B90	MBZ ST 90- …	16…

* Setting the centre height with adjustment excenter MBV E04



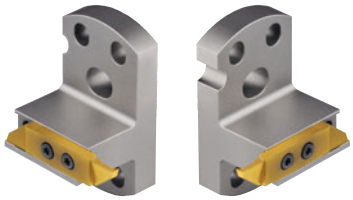


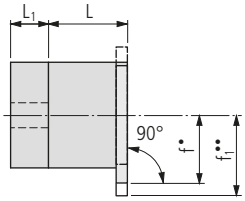
MBS 180-Cut … twin .

Order designation				Dimensions				Basic tool holder	Spacer	Inserts
N				f_1	f_2	L	L_1	MBG…	MBZ…	47…
MBS 180-Cut 16 I02 twin N*	■			-4.5	4.5	20	8	MBG … B02	MBZ ST 02- …	16…
MBS 180-Cut 16 I02 twin R*	■			3	11	20	8	MBG … B02	MBZ ST 02- …	16…

* Setting the centre height with adjustment excenter MBV E04







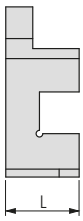
MBS 090-Cut N 30 …

Order designation		Dimensions				Basic tool holder	Spacer	Inserts
N		f	f_1	L	L_1	MBG…	MBZ…	107…
MBS 090-Cut N 30 I02*	■	27	33	20	8	MBG … B02	MBZ ST 02- …	30…
MBS 090-Cut N 30 I90	■	29	35	20	7	MBG … B90	MBZ ST 90- …	30…

• Short insert; •• Long insert

* Setting the centre height with adjustment excenter MBV E04



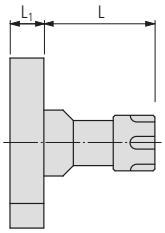


MBS 090 1212 …

Order designation		Dimensions	Basic tool holder	Spacer	Type of holder
L		L	MBG…	MBZ…	
MBS 090 1212 T02*	■	22	MBG … B02	MBZ ST 02- …	12 × 12
MBS 090 1212 T90	■	22	MBG … B90	MBZ ST 90- …	12 × 12

* Setting the centre height with adjustment excenter MBV E04





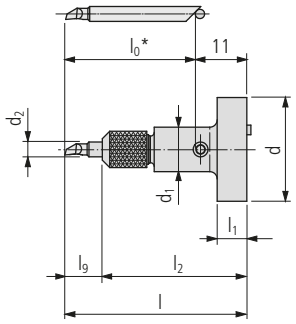
MBS E…

Order designation	N	Dimensions L	L_1	Basic tool holder MBG…	Spacer MBZ…	Type
MBS E08 20 C02	■	20	8	MBG … B02	MBZ ST 02- …	ER08
MBS E08 30 C02	■	30	8	MBG … B02	MBZ ST 02- …	ER08
MBS E11 25 C02		25	8	MBG … B02	MBZ ST 02- …	ER11
MBS E11 35 C02	■	35	8	MBG … B02	MBZ ST 02- …	ER11
MBS E16 25 C02	■	25	8	MBG … B02	MBZ ST 02- …	ER16
MBS E16 35 C02		35	8	MBG … B02	MBZ ST 02- …	ER16
MBS E20 35 C02	■	35	8	MBG … B02	MBZ ST 02- …	ER20
MBS E20 45 C02		45	8	MBG … B02	MBZ ST 02- …	ER20
MBS E08 20 C05	■	20	8	MBG … B05	MBZ ST 05- …	ER08
MBS E08 30 C05	■	30	8	MBG … B05	MBZ ST 05- …	ER08
MBS E11 25 C05		25	8	MBG … B05	MBZ ST 05- …	ER11
MBS E11 35 C05	■	35	8	MBG … B05	MBZ ST 05- …	ER11
MBS E08 20 C90	■	20	7	MBG … B90	MBZ ST 90- …	ER08
MBS E08 30 C90	■	30	7	MBG … B90	MBZ ST 90- …	ER08
MBS E11 25 C90	■	25	7	MBG … B90	MBZ ST 90- …	ER11
MBS E11 35 C90	■	35	7	MBG … B90	MBZ ST 90- …	ER11
MBS E16 25 C90	■	25	7	MBG … B90	MBZ ST 90- …	ER16
MBS E16 35 C90	■	35	7	MBG … B90	MBZ ST 90- …	ER16
MBS E20 25 C90	■	25	7	MBG … B90	MBZ ST 90- …	ER20
MBS E20 35 C90	■	35	7	MBG … B90	MBZ ST 90 -…	ER20



MBS SDA…

$l = l_0 + 11$
$l_9 = l - l_2$



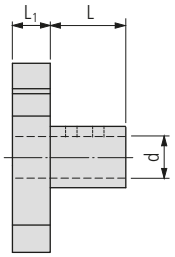
Order designation	N	Dimensions d_1	d_2	L_2	L_1	Basic tool holder MBG…	Spacer MBZ…	Inserts 331…
MBS SDA4 IT02 IC	■	12	4	35	8	MBG … B02	MBZ ST 02-…	SD. 4… / SX. 4…
MBS SDA6 IT02 IC	■	15	6	38	8	MBG … B02	MBZ ST 02-…	SD. 6… / SX. 6…
MBS SDA8 IT02 IC	■	18	8	40	8	MBG … B02	MBZ ST 02-…	SD. 8… / SX. 8…
MBS SDA4 IT05 IC	■	12	4	35	8	MBG … B05	MBZ ST 05-…	SD. 4… / SX. 4…

UTILIS multidec® swiss type tools

■ New

Legend 6





MBS … IT..

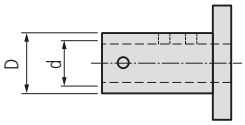
Order designation		Dimensions			Basic tool holder	Spacer	
N		d	L	L_1	MBG…	MBZ…	
MBS 10 IT02	■	10	13	8	MBG … B02	MBZ ST 02- …	
MBS 12 IT02	■	12	13	8	MBG … B02	MBZ ST 02- …	
MBS 14 IT02	■	14	13	8	MBG … B02	MBZ ST 02- …	
MBS 10 IT05	■	10	13	8	MBG … B05	MBZ ST 05- …	
MBS 10 IT90	■	10	14	7	MBG … B90	MBZ ST 90- …	
MBS 12 IT90	■	12	13	7	MBG … B90	MBZ ST 90- …	

UTILIS multidec® swiss type tools

■ New

Legend 6





MBR …

Order designation		Dimensions	
		D	d
MBR D10-02	■	10	2
MBR D10-03	■	10	3
MBR D10-04	■	10	4
MBR D10-05	■	10	5
MBR D10-06	■	10	6
MBR D10-07	■	10	7
MBR D10-08	■	10	8
MBR D12-04	■	12	4
MBR D12-05	■	12	5
MBR D12-06	■	12	6
MBR D12-07	■	12	7
MBR D12-08	■	12	8
MBR D12-09	■	12	9
MBR D12-10	■	12	10

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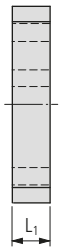
IC



MBZ …

Order designation		Dimensions L_1	Basic tool holder MBG…	Insert holder, collet holders and tool holders MBS…
MBZ ST 02-10	■	10	MBG … B02	MBS … 02
MBZ ST 02-20	■	20	MBG … B02	MBS … 02
MBZ ST 02-20 IC	■	20	MBG … B02	MBS … 02 IC
MBZ ST 02-25	■	25	MBG … B02	MBS … 02
MBZ ST 02-25 IC	■	25	MBG … B02	MBS … 02 IC
MBZ ST 02-30	■	30	MBG … B02	MBS … 02
MBZ ST 02-30 IC	■	30	MBG … B02	MBS … 02 IC
MBZ ST 05-10	■	10	MBG … B05	MBS … 05
MBZ ST 05-20	■	20	MBG … B05	MBS … 05
MBZ ST 90-10	■	10	MBG … B90	MBS … 90
MBZ ST 90-20	■	20	MBG … B90	MBS … 90
MBZ ST 90-20 IC	■	20	MBG … B90	MBS … 90 IC
MBZ ST 90-25 IC	■	25	MBG … B90	MBS … 90 IC
MBZ ST 90-30	■	30	MBG … B90	MBS … 90

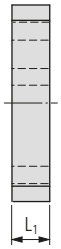
Matching allen head screws 🗋531

UTILIS multidec® swiss type tools

■ New

Legend 🗋6





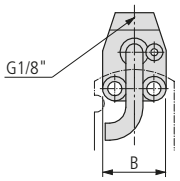
MBA …

Order designation		Dimensions	Basic tool holder	Insert holder, collet holders and tool holders
		L_1	MBG…	MBS…
MBA 02-05	■	10	MBG … B02	MBS … 05
MBA 06-02*	■	10	MBG … B06	MBS … 02

* Included with basic holders MBG … B06

UTILIS multidec® swiss type tools

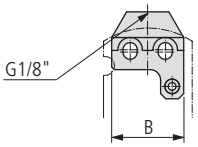




MBK Cool Flex

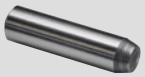
Order designation		Dimensions	Basic tool holder	Spacer	Insert holder, collet holders and tool holders
N		B	MBG…	MBZ…	MBS…
MBK Cool Flex	■	22.3	MBG … B02	MBZ ST 02-…	MBS …02





MBK Cool Fix

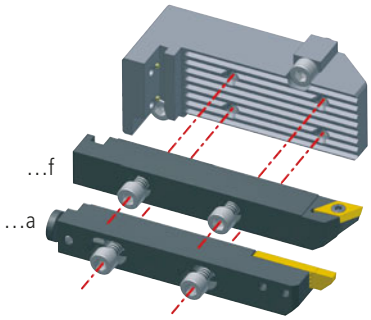
Order designation				Dimensions	Basic tool holder	Spacer	Insert holder, collet holders and tool holders
L		R		B	MBG…	MBZ…	MBS…
MBK Cool Fix L	■	MBK Cool Fix R	■	28	MBG … B02	MBZ ST 02-…	MBS …02

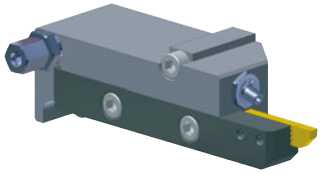
Illustration	Description	Dimensions	Order designation		Inserts
	Adjustment excenter		MBV E04	■	
	Adjustment excenter mini		MBV E05	■	
	TORX screw	M2.5 × 6 T08	MSP 25060 T08	■	CC06, DC07, TC11, VC11, VP10, 1600…
		M2.5 × 7 T08	MSP 25070 T08	■	1600… 4
		M2.5 × 9 T08	MSP 25090 T08	■	1600… 6 1600… 8
		M3 × 7.3 T08	MSP 30073 T08	■	3000-08… 3000…A
		M3 × 9 T08	MSP 30090 T08	■	3000…
		M3.5 × 11 T15	MSP 35110T15	■	CC09, DC11
		M3 × 12 T10	MSP UNC 540120T10	■	16ER…
	Shim screw		MSP UNC 540070 T10	■	16ER…
	Anvil		YE3	■	16ER…
	Socket head screw	M4 × 12 DIN912	MSP M412	■	
		M4 × 20 DIN912	MSP M420	■	
		M4 × 35 DIN912	MSP M435	■	
		M4 × 40 DIN912	MSP M440	■	
		M4 × 45 DIN912	MSP M445	■	
		M4 × 50 DIN912	MSP M450	■	
		M5 × 16 DIN912	MSP M516	■	
		M5 × 25 DIN912	MSP M525	■	
		M5 × 35 DIN912	MSP M535	■	
		M5 × 45 DIN912	MSP M545	■	
	L-piece for MBS 090 1212 T02	8 × 8	MSP A0808 T02	■	
		10 × 10	MSP A1010 T02	■	
	Flat-head socket cap screw	M3 × 6 DIN7991	MSP M306	■	
		M3 × 8 DIN7991	MSP M308	■	
	Clamping screw for MBS 090 1212 T02	M6 × 10 DIN913	MSP 60100 IB3	■	
	Elastic washer	M4/4.3/10/0.6	MSP US-4	■	
		M5/5.3/9.2/0.45	MSP US-5	■	
	Cylindrical pin without spacer	$Ø6_{h6}$ × 12 DIN6325	MSP ZS612	■	
	Cylindrical pin for spacer MBZ ST 02-10	$Ø6_{h6}$ × 25 DIN6325	MSP ZS625	■	
	Cylindrical pin for spacer MBZ ST 02-20	$Ø6_{h6}$ × 35 DIN6325	MSP ZS635	■	
	Cylindrical pin for spacer MBZ ST 02-30	$Ø6_{h6}$ × 45 DIN6325	MSP ZS645	■	

TORX screwdriver 664

multidec®-MODULINE is a modular tooling system with an ideal range of options designed to meet the requirements of different machines available on the market.
Grooves along the length of its base ensure excellent rigidity and precise positioning. Longitudinal positioning is ensured by a fixed (…f) or adjustable (…a) peg held in place under pressure by a sprung bearing.
A specific MODULINE tool holder plate can replace the original plate. This way, gains in reliability and tool changeover speed are very high.







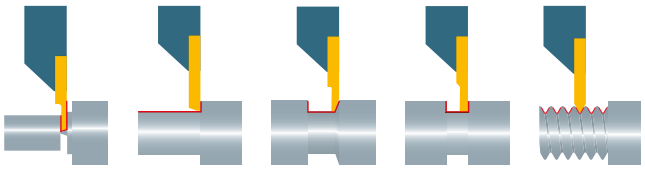
Special features and advantages:
- More tool holders per available space bring a significant productivity gain
- Easy and quick tool replacement, with presetting on fixed or adjustable length
- Stable and reliable tool location system with longitudinal serrations and large square shanks
- Versatile tooling system, easy to use, possible combination with standard tools and coolant supply devices
- Wide range of holders for multidec®-ISO, -TOP and -CUT inserts
- Applitec-compatible

UTILIS multidec® swiss type tools

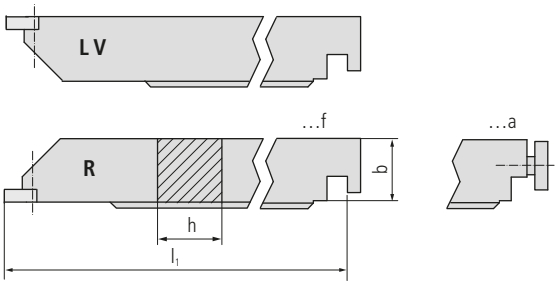
Technical information 9

Holders    534

Replacement and spare parts  541





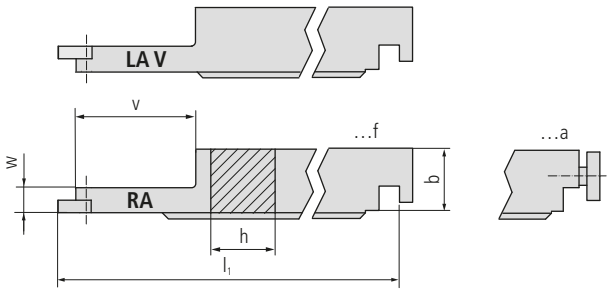


UML… 1600…

V: offset

Order designation L		Order designation R		Dimensions h	b	l_1	Inserts 47…
UML12a CUT 1600 L V	■	UML12a CUT 1600 R	■	12	15	110	16..
UML12f CUT 1600 L V	■	UML12f CUT 1600 R	■	12	15	110	16..
UML16a CUT 1600 L V	■	UML16a CUT 1600 R	■	16	16	118	16..
UML16f CUT 1600 L V	■	UML16f CUT 1600 R	■	16	16	118	16..
UML20a CUT 1600 L V	■	UML20a CUT 1600 R	■	20	20	85	16..
UML20f CUT 1600 L V	■	UML20f CUT 1600 R	■	20	20	85	16..

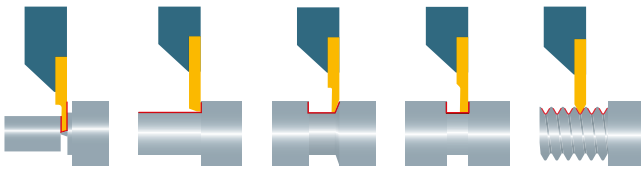




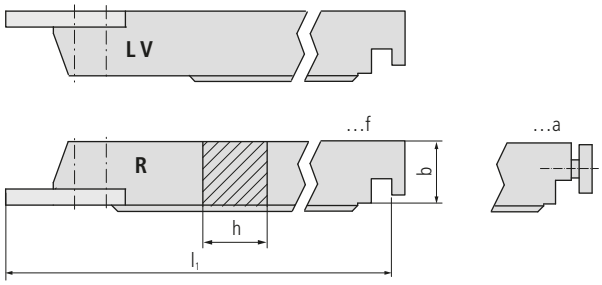
UML… 1600… A

V: offset

Order designation L		Order designation R		Dimensions h	b	l_1	v	w	Inserts 47…
UML12a CUT 1600 LA V	■	UML12a CUT 1600 RA	■	12	15	110	34	6	16..
UML12f CUT 1600 LA V	■	UML12f CUT 1600 RA	■	12	15	110	34	6	16..
UML16a CUT 1600 LA V	■	UML16a CUT 1600 RA	■	16	16	118	34	6	16..
UML16f CUT 1600 LA V	■	UML16f CUT 1600 RA	■	16	16	118	34	6	16..
UML20a CUT 1600 LA V	■	UML20a CUT 1600 RA	■	20	20	85	32	6	16..
UML20f CUT 1600 LA V	■	UML20f CUT 1600 RA	■	20	20	85	32	6	16..





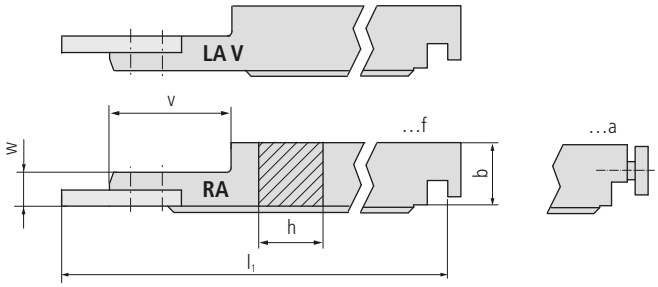


UML… 3000…

V: offset

Order designation L		Order designation R		Dimensions h	b	l_1	Inserts 107…
UML12a CUT 3000 L V	■	UML12a CUT 3000 R	■	12	15	110	30..
UML12f CUT 3000 L V	■	UML12f CUT 3000 R	■	12	15	110	30..
UML16a CUT 3000 L V	■	UML16a CUT 3000 R	■	16	16	118	30..
UML16f CUT 3000 L V	■	UML16f CUT 3000 R	■	16	16	118	30..
UML20a CUT 3000 L V	■	UML20a CUT 3000 R	■	20	20	85	30..
UML20f CUT 3000 L V	■	UML20f CUT 3000 R	■	20	20	85	30..



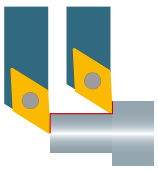


UML… 3000… A

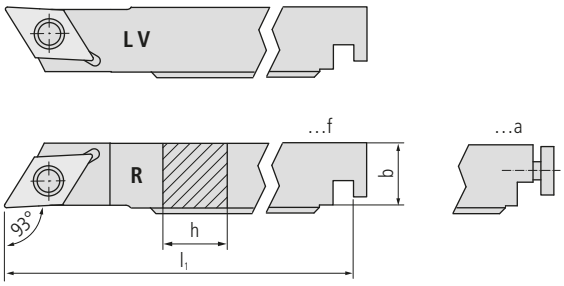
V: offset

Order designation L		Order designation R		Dimensions h	b	l_1	v	w	Inserts 107…
UML12a CUT 3000 LA V	■	UML12a CUT 3000 RA	■	12	15	110	28	8	30..
UML12f CUT 3000 LA V	■	UML12f CUT 3000 RA	■	12	15	110	28	8	30..
UML16a CUT 3000 LA V	■	UML16a CUT 3000 RA	■	16	16	118	28	8	30..
UML16f CUT 3000 LA V	■	UML16f CUT 3000 RA	■	16	16	118	28	8	30..
UML20a CUT 3000 LA V	■	UML20a CUT 3000 RA	■	20	20	85	32	8	30..
UML20f CUT 3000 LA V	■	UML20f CUT 3000 RA	■	20	20	85	32	8	30..

UTILIS multidec swiss type tools







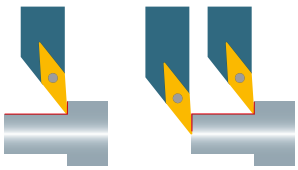
UML… SDJC… (93°)

V: offset

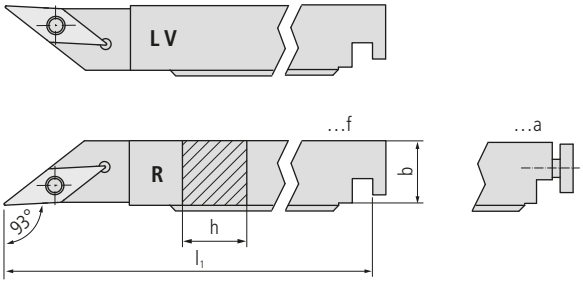
Order designation				Dimensions			Inserts
L		R		h	b	l_1	205…
		UML12a SDJCR 07	■	12	15	110	DC..0702..
		UML12f SDJCR 07	■	12	15	110	DC..0702..
UML12a SDJCL 11 V	■	UML12a SDJCR 11	■	12	15	110	DC..11T3..
		UML12f SDJCR 11	■	12	15	110	DC..11T3..
		UML16a SDJCR 07	■	16	16	118	DC..0702..
		UML16f SDJCR 07	■	16	16	118	DC..0702..
UML16a SDJCL 11 V	■	UML16a SDJCR 11	■	16	16	118	DC..11T3..
		UML16f SDJCR 11	■	16	16	118	DC..11T3..
		UML20a SDJCR 11	■	20	20	85	DC..11T3..
		UML20f SDJCR 11	■	20	20	85	DC..11T3..

UTILIS multidec swiss type tools

Legend 6







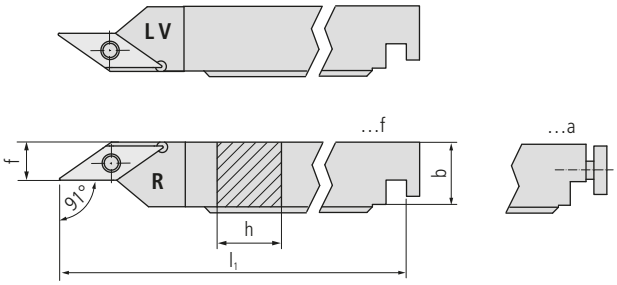
UML… SVJC… (93°)

V: offset

Order designation				Dimensions								Inserts
L		R		h	b	l_1						259…
UML12a SVJCL 11 V	■	UML12a SVJCR 11	■	12	15	110						VC..1103..
		UML12f SVJCR 11	■	12	15	110						VC..1103..
UML16a SVJCL 11 V	■	UML16a SVJCR 11	■	16	16	118						VC..1103..
		UML16f SVJCR 11	■	16	16	118						VC..1103..
		UML20a SVJCR 11	■	20	20	85						VC..1103..
		UML20f SVJCR 11	■	20	20	85						VC..1103..







UML… SVXC… (91°)

V: offset

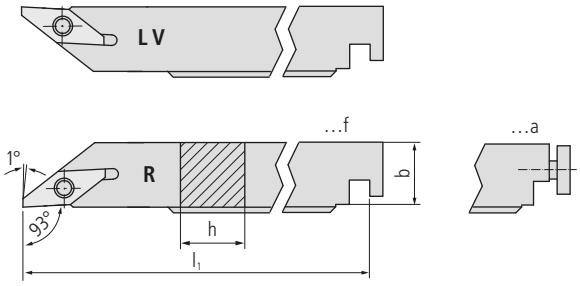
Order designation				Dimensions							Inserts
L		R		h	b	l_1		f			259…
UML12a SVXCL 11 V	■	UML12a SVXCR 11	■	12	15	110		5.4			VC..1103..
UML12f SVXCL 11 V	■	UML12f SVXCR 11	■	12	15	110		5.4			VC..1103..
UML16a SVXCL 11 V	■	UML16a SVXCR 11	■	16	16	118		8.9			VC..1103..
UML16f SVXCL 11 V	■	UML16f SVXCR 11	■	16	16	118		8.9			VC..1103..
UML20a SVXCL 11 V	■	UML20a SVXCR 11	■	20	20	85		10.4			VC..1103..
UML20f SVXCL 11 V	■	UML20f SVXCR 11	■	20	20	85		10.4			VC..1103..

UTILIS multidec® swiss type tools

Legend 6







UML… SVJP… (93°)

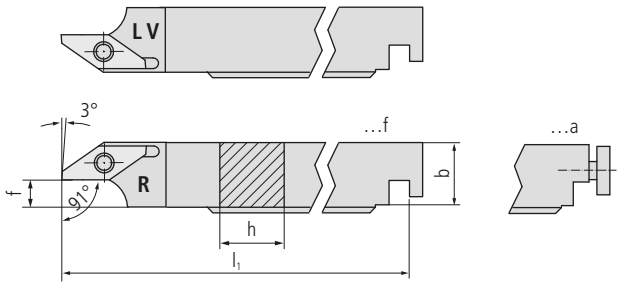
V: offset

Order designation				Dimensions								Inserts
L		R		h	b	l_1						299…
UML12a SVJPL 10 V	■	UML12a SVJPR 10	■	12	15	110						VP..1003..
UML12f SVJPL 10 V	■	UML12f SVJPR 10	■	12	15	110						VP..1003..
UML16a SVJPL 10 V	■	UML16a SVJPR 10	■	16	16	118						VP..1003..
UML16f SVJPL 10 V	■	UML16f SVJPR 10	■	16	16	118						VP..1003..
UML20a SVJPL 10 V	■	UML20a SVJPR 10	■	20	20	85						VP..1003..
UML20f SVJPL 10 V	■	UML20f SVJPR 10	■	20	20	85						VP..1003..

UTILIS multidec swiss type tools







UML… SVXP… (91°)

V: offset

Order designation				Dimensions								Inserts
L		R		h	b	l_1		f				299…
UML12a SVXPL 10 V	■	UML12a SVXPR 10	■	12	15	110		5				VP..1003..
UML12f SVXPL 10 V	■	UML12f SVXPR 10	■	12	15	110		5				VP..1003..
UML16a SVXPL 10 V	■	UML16a SVXPR 10	■	16	16	118		9				VP..1003..
UML16f SVXPL 10 V	■	UML16f SVXPR 10	■	16	16	118		9				VP..1003..
UML20a SVXPL 10 V	■	UML20a SVXPR 10	■	20	20	85		13				VP..1003..
UML20f SVXPL 10 V	■	UML20f SVXPR 10	■	20	20	85		13				VP..1003..

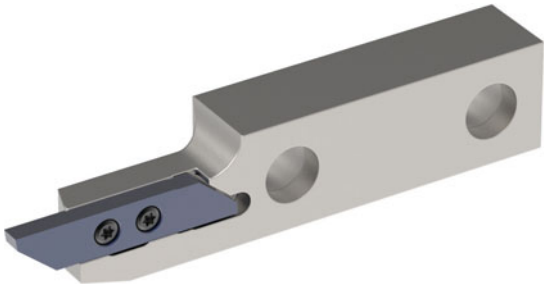
Illustration	Description	Dimensions	Order designation		Holder
	TORX screw	M2.5 × 6 T08	MSP 25060 T08	■	UML… 1600… UML… SV.P… 10 UML… SV…11
		M3 × 7.3 T08	MSP 30073 T08	■	UML… 3000…A
		M3 × 9 T08	MSP 30090 T08	■	UML… 3000…
		M3.5 × 11 T15	MSP 35110 T15	■	UML… SD…11

TORX screwdriver 664

multidec®-TECKO is a modular tooling change system from automatic-lathes with the advantage to increase the number of insert-holders in the machine. The system consists of base plates adapted on the current machines and insert-holders, which can be fixed fast and with high precision, due to the two "Quicklock"-screws.
UTILIS propose adapted toolholders for inserts multidec®-CUT and multidec®-TOP.



Advantages:
- Quick and accurate change of toolholders
- Nickel plated toolholders made from heat treated steel
- Utilisation of high quality multidec® inserts





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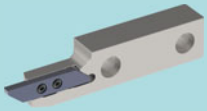
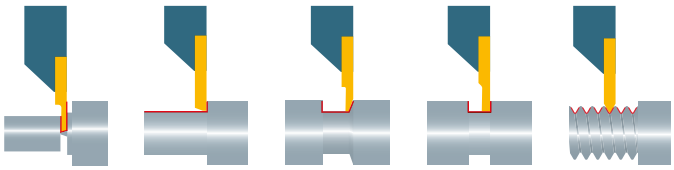
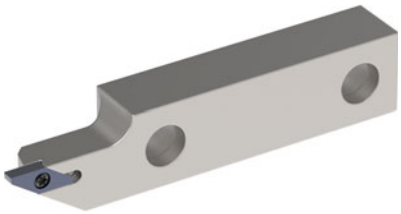


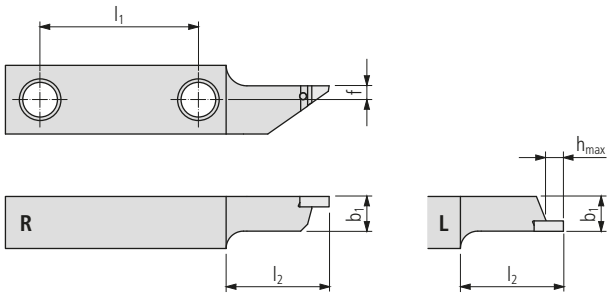
Holders 544



Replacement and spare parts 547



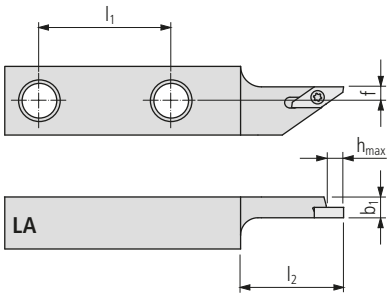




TECKO .. CUT 1600 .

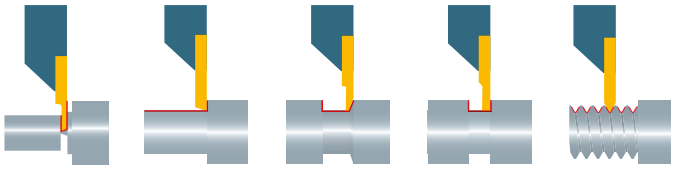
Order designation L		Order designation R		Size TECKO	Dimensions l_1	h_{max}	b_1	l_2	f				Inserts 47…
TECKO 38 CUT 1600 L	■	TECKO 38 CUT 1600 R	■	38	38	5	10	30	4				16…
TECKO 50 CUT 1600 L	■	TECKO 50 CUT 1600 R	■	50	50	5	10	30	4				16…

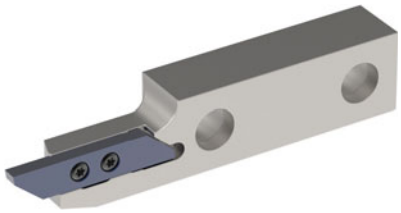


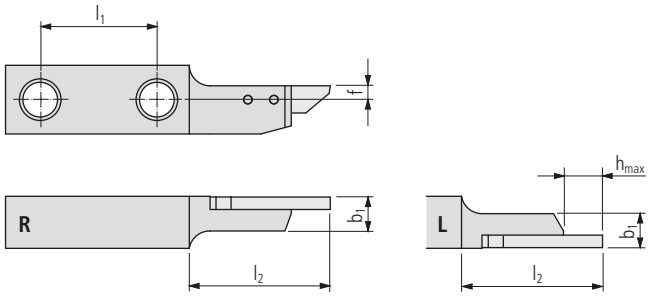


TECKO .. CUT 1600 .A

Order designation L		Order designation R		Size TECKO	Dimensions l_1	h_{max}	b_1	l_2	f				Inserts 47…
TECKO 38 CUT 1600 LA	■			38	38	5	6	30	4				16…
TECKO 50 CUT 1600 LA	■			50	50	5	6	30	4				16…

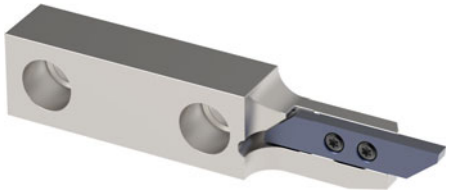


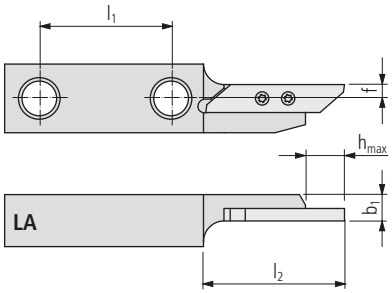




TECKO .. CUT 3000 .

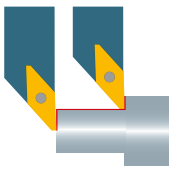
Order designation				Size	Dimensions									Inserts
L		R		TECKO	l_1	h_{max}	b_1	l_2	f					107…
TECKO 38 CUT 3000 L	■	TECKO 38 CUT 3000 R	■	38	38	10	10	30	4					30…

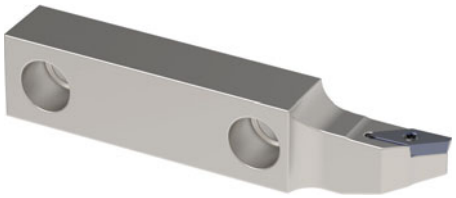


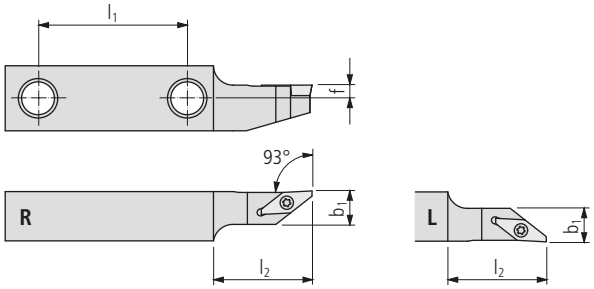


TECKO .. CUT 3000 .A

Order designation				Size	Dimensions									Inserts
L		R		TECKO	l_1	h_{max}	b_1	l_2	f					107…
TECKO 38 CUT 3000 LA	■			38	38	10	7.8	30	4					30…

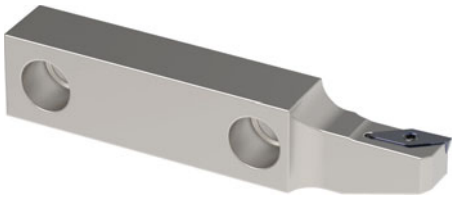


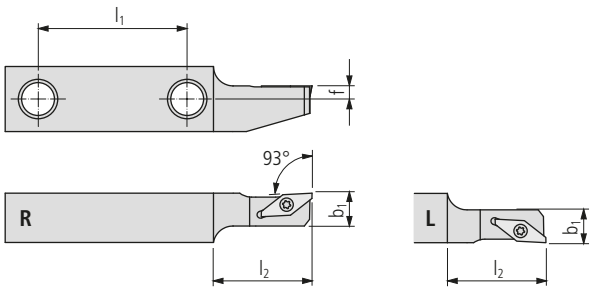




TECKO .. SVJP… (93°)

Order designation				Size	Dimensions									Inserts
L		R		TECKO	l_1		b_1	l_2	f					299…
TECKO 38 SVJPL 10	■	TECKO 38 SVJPR 10	■	38	38		10	30	4					VP…10…
TECKO 50 SVJPL 10	■	TECKO 50 SVJPR 10	■	50	50		10	30	4					VP…10…



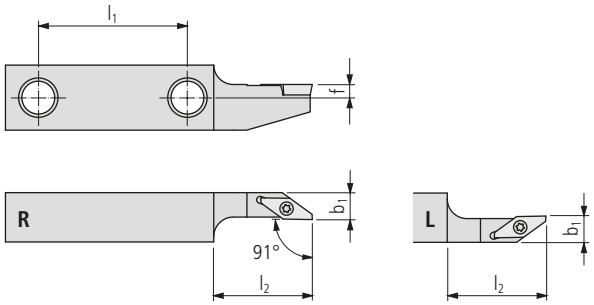


TECKO .. SVJP… V (93°)

Order designation				Size	Dimensions									Inserts
L		R		TECKO	l_1		b_1	l_2	f					299…
TECKO 38 SVJPL 10 V	■	TECKO 38 SVJPR 10 V	■	38	38		10	30	4					VP…10…
TECKO 50 SVJPL 10 V	■	TECKO 50 SVJPR 10 V	■	50	50		10	30	4					VP…10…







TECKO .. SVXP… (91°)

Order designation L		Order designation R		Size TECKO	Dimensions l_1	b_1	l_2	f	Inserts* 299…
TECKO 38 SVXPL 10	■	TECKO 38 SVXPR 10	■	38	38	8	30	4	VP…10…
TECKO 50 SVXPL 10	■	TECKO 50 SVXPR 10	■	50	50	8	30	4	VP…10…

*** Attention**
Right hand holder needs left hand insert!

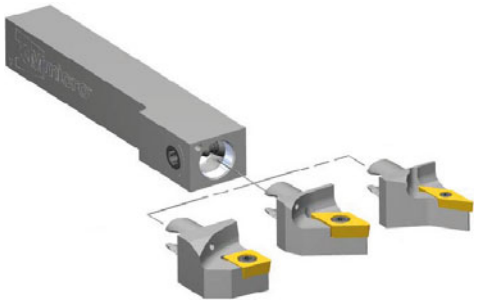
Replacement and spare parts *multidec®-TECKO*

Illustration	Description	Dimensions	Order designation		Holder
	TORX screw	M2.5 × 8 T08	MSP 25060 T08	■	TECKO.. CUT 1600, TECKO.. SV.P.1003..
		M3 × 9 T08	MSP 30090 T08	■	TECKO.. CUT 3000.

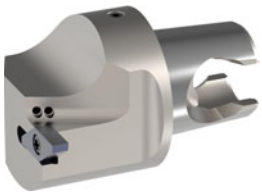
TORX screwdriver 664

multidec®-KM™ is a precise and robust quick-change system for automatic lathes with an interface to ISO standard 26622.
For the KM Micro, KM Mini and TS systems UTILIS offers suitable holders for multidec®-CUT, multidec®-TOP inserts and for multidec®-BORE MICRO cutting edges.

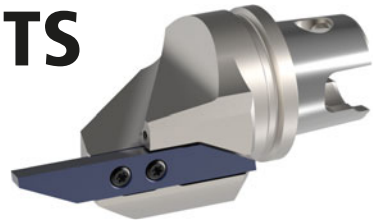
KM™ Micro QUICK-CHANGE TOOLING



KM™ Mini QUICK-CHANGE TOOLING



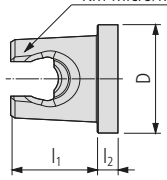
TS



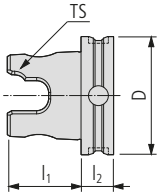
KM is a Trademark of Kennametall Inc.

Advantages:
- Fast and simple installation of KM basic tool holders into the existing tool positions
- Quick tool changes
- Heat-treated steel tool holders with internal cooling
- High-quality multidec® cutting edges

KM Micro/Mini



TS



Size	System			Dimensions		
		Kennametal Widia	Ceratizit	D	l_1	l_2
12	KM Micro	KM12		12	13	–
16		KM16		16	14.3	–
20	KM Mini	KM20		20	18	–
25		KM25		25	20	–
32	TS	KM32	UT32	32	20	8
40		KM40	UT40	40	25	11

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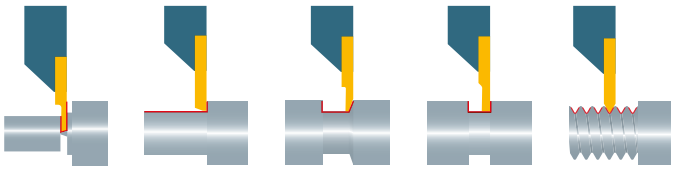
Holders (OD turning) 550

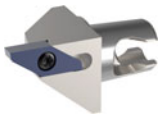


Holders (ID turning) 557

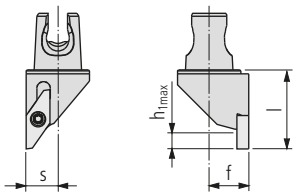


Replacement and spare parts 559





KM 12/16/20 CUT 1600 .



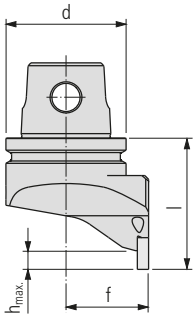
Order designation				Dimensions										Inserts
L		R		KM		f	l				s	h_{max}		▯47…
KM 12 CUT 1600 L	■	KM 12 CUT 1600 R	■	12		8	20				6	5		16…
KM 16 CUT 1600 L	■	KM 16 CUT 1600 R	■	16		10	20				8	5		16…
KM 20 CUT 1600 L	■	KM 20 CUT 1600 R	■	20		12	25				9.5	5		16…



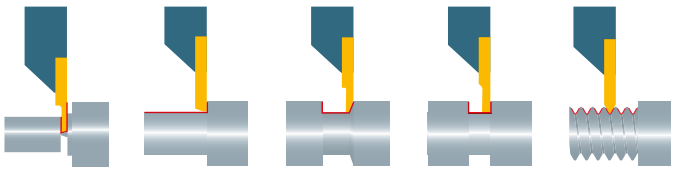
KM 25 CUT 1600 …

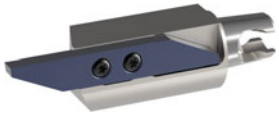


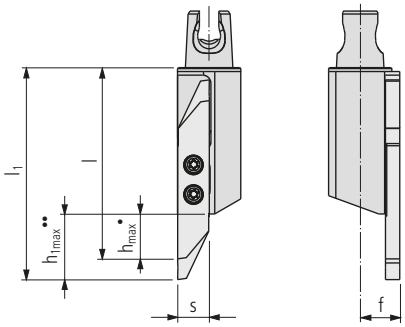
KM 32/40 CUT 1600 …



Order designation				Dimensions										Inserts
L		R		KM	d	f	l					h_{max}		▯47…
KM 25 CUT 1600 L IC	■	KM 25 CUT 1600 R IC	■	25	25	17	25					5		16…
KM 32 CUT 1600 L IC	■	KM 32 CUT 1600 R IC	■	32	32	22	35					5		16…
KM 40 CUT 1600 L IC	■	KM 40 CUT 1600 R IC	■	40	40	27	40					5		16…







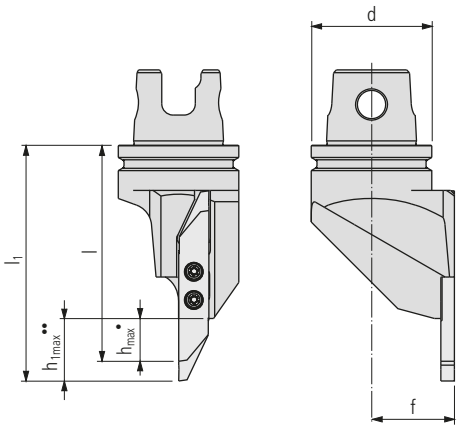
KM 12/16 CUT 3000 …

Order designation L		Order designation R		Dimensions KM	f	l	l_1	s	h_{max}	h_{1max}	Inserts 107…
KM 12 CUT 3000 L	■	KM 12 CUT 3000 R	■	12	8	43	–	6	10	–	30…
KM 16 CUT 3000 L	■	KM 16 CUT 3000 R	■	16	10	48	54	8	10	16	30…

• Short insert; •• Long insert





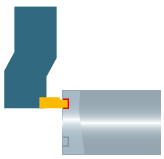


KM 20/25 CUT 3000 … **KM 32/40 CUT 3000 …**

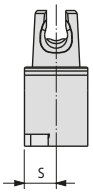
Order designation L		Order designation R		Dimensions KM	d	f	l	l_1	h_{max}	h_{1max}	Inserts 107…
KM 20 CUT 3000 L IC	■	KM 20 CUT 3000 R IC	■	20	20	12	50	56	10	16	30…
KM 25 CUT 3000 L IC	■	KM 25 CUT 3000 R IC	■	25	25	17	46	52	10	16	30…
KM 32 CUT 3000 L IC	■	KM 32 CUT 3000 R IC	■	32	32	22	57	63	10	16	30…
KM 40 CUT 3000 L IC	■	KM 40 CUT 3000 R IC	■	40	40	27	57	63	10	16	30…

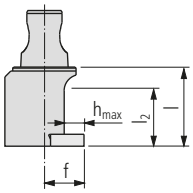
• Short insert; •• Long insert

UTILIS multidec® swiss type tools



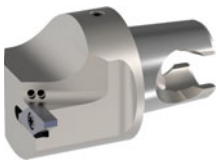




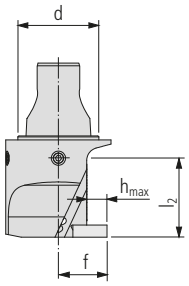


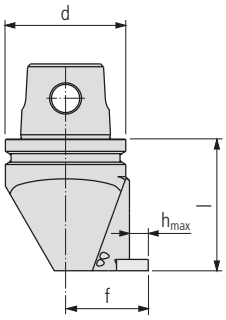
KM 12/16 CUT 1600-90 …

Order designation L		Order designation R		Dimensions KM	f	l	l_2	s	h_{max}	Inserts 47…
KM 12 CUT 1600-90 L	■	KM 12 CUT 1600-90 R	■	12	8	20	14	6	5	16…
KM 16 CUT 1600-90 L	■	KM 16 CUT 1600-90 R	■	16	10	20	14	8	5	16…





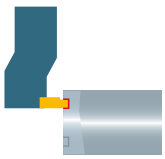




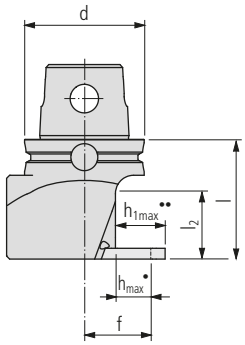
KM 20/25 CUT 1600-90 … **KM 32/40 CUT 1600-90 …**

Order designation L		Order designation R		Dimensions KM	d	f	l	l_2	h_{max}	Inserts 47…
KM 20 CUT 1600-90 L IC	■	KM 20 CUT 1600-90 R IC	■	20	20	12	25	19	5	16…
KM 25 CUT 1600-90 L IC	■	KM 25 CUT 1600-90 R IC	■	25	25	17	25	19	5	16…
KM 32 CUT 1600-90 L IC	■	KM 32 CUT 1600-90 R IC	■	32	32	22	35	–	5	16…
KM 40 CUT 1600-90 L IC	■	KM 40 CUT 1600-90 R IC	■	40	40	27	40	–	5	16…

UTILIS multidec® swiss type tools



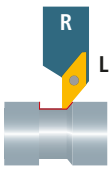




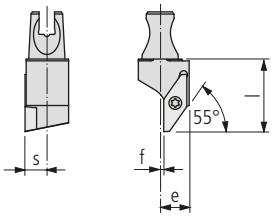
KM 32/40 CUT 3000-90 …

Order designation				Dimensions											Inserts
L		R		KM	d	f	l	l_2				h_{max}	h_{1max}		107…
KM 32 CUT 3000-90 L IC	■	KM 32 CUT 3000-90 R IC	■	32	32	22	35	19				10	16		30…
KM 40 CUT 3000-90 L IC	■	KM 40 CUT 3000-90 R IC	■	40	40	27	40	22				10	16		30…

• Short insert; •• Long insert



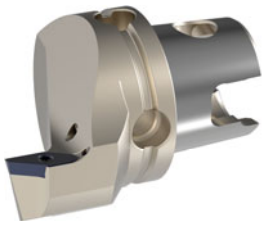


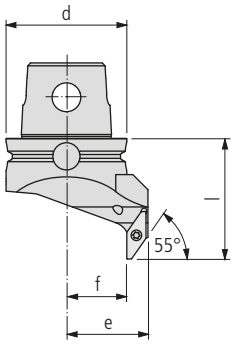


KM 12/16/20 SVXP… (55°)

Order designation L		Order designation R		Dimensions KM	f	l	e	s	Inserts* 299…
KM 12 SVXPL 10	■	KM 12 SVXPR 10	■	12	1	20	8	6	VP..1003..
KM 16 SVXPL 10	■	KM 16 SVXPR 10	■	16	3	20	10	8	VP..1003..
KM 20 SVXPL 10	■	KM 20 SVXPR 10	■	20	5.5	25	10.5	9.5	VP..1003..



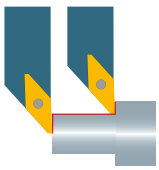




KM 25 SVXP… (55°) **KM 32/40 SVXP… (55°)**

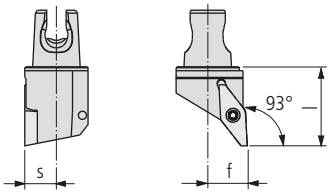
Order designation L		Order designation R		Dimensions KM	d	f	l	e	Inserts* 299…
KM 25 SVXPL 10 IC	■	KM 25 SVXPR 10 IC	■	25	25	10	25	17	VP..1003..
KM 32 SVXPL 10 IC	■	KM 32 SVXPR 10 IC	■	32	32	15	35	22	VP..1003..
KM 40 SVXPL 10 IC	■	KM 40 SVXPR 10 IC	■	40	40	20	40	27	VP..1003..

*** Attention**
Right hand holder needs left hand insert!





KM 12/16 SVJP… (93°)

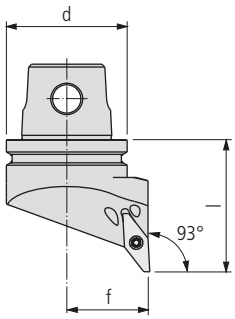


Order designation				Dimensions										Inserts
L		R		KM		f	l				s			299…
KM 12 SVJPL 10	■	KM 12 SVJPR 10	■	12		8	20				6			VP..1003..
KM 16 SVJPL 10	■	KM 16 SVJPR 10	■	16		10	20				8			VP..1003..





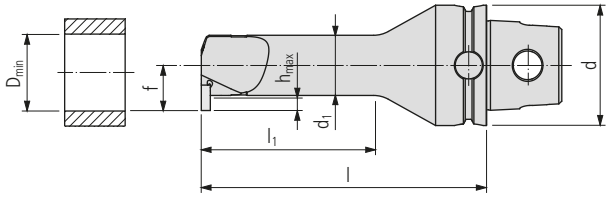
KM 20/25 SVJP… (93°) **KM 32/40 SVJP… (93°)**



Order designation				Dimensions										Inserts
L		R		KM	d	f	l							299…
KM 20 SVJPL 10 IC	■	KM 20 SVJPR 10 IC	■	20	20	12	25							VP..1003..
KM 25 SVJPL 10 IC	■	KM 25 SVJPR 10 IC	■	25	25	17	25							VP..1003..
KM 32 SVJPL 10 IC	■	KM 32 SVJPR 10 IC	■	32	32	22	35							VP..1003..
KM 40 SVJPL 10 IC	■	KM 40 SVJPL 10 IC	■	40	40	27	40							VP..1003..





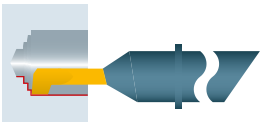


KM .. CUT 1600… RD

Order designation				Dimensions											Inserts*
L		R		KM	d	f	l	D_{min}	l_1		d_1		h_{max}		▯47…
KM 32 CUT 1600-12 RD L IC	■	KM 32 CUT 1600-12 RD R IC	■	32	32	11	75	17.5	36		12		3		16…
KM 32 CUT 1600-16 RD L IC	■	KM 32 CUT 1600-16 RD R IC	■	32	32	13	75	21	48		16		4		16…
KM 32 CUT 1600-20 RD L IC	■	KM 32 CUT 1600-20 RD R IC	■	32	32	15	75	25	60		20		4		16…
KM 40 CUT 1600-12 RD L IC	■	KM 40 CUT 1600-12 RD R IC	■	40	40	11	77	17.5	36		12		3		16…
KM 40 CUT 1600-16 RD L IC	■	KM 40 CUT 1600-16 RD R IC	■	40	40	13	77	21	48		16		4		16…
KM 40 CUT 1600-20 RD L IC	■	KM 40 CUT 1600-20 RD R IC	■	40	40	15	77	25	60		20		4		16…

*** Attention**
Right hand holder needs left hand insert!

UTILIS multidec® swiss type tools

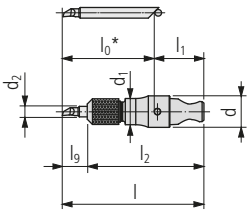


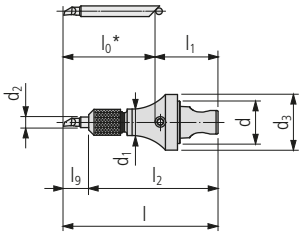


KM 12 SDA…



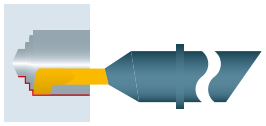
KM 16 SDA…



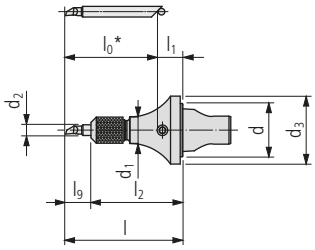


Order designation	N	Dimensions KM	d	l	l_9	l_1	l_2	d_1	d_2	d_3	Inserts 331…
KM 12 SDA-4	■	12	12	l_0+l_1	l–l_2	6	31.5	10	4	–	SD.4… / SX.4…
KM 12 SDA-6	■	12	12	l_0+l_1	l–l_2	6	35.5	15	6	15	SD.6… / SX.6…
KM 12 SDA-8	■	12	12	l_0+l_1	l–l_2	6	37.5	18	8	18	SD.8… / SX.8…
KM 16 SDA-4 IC	■	16	16	l_0+l_1	l–l_2	9	34.5	10	4	21	SD.4… / SX.4…
KM 16 SDA-6 IC	■	16	16	l_0+l_1	l–l_2	9	38.5	15	6	21	SD.6… / SX.6…
KM 16 SDA-8 IC	■	16	16	l_0+l_1	l–l_2	9	40.5	18	8	21	SD.8… / SX.8…

* The length of the insert is variable





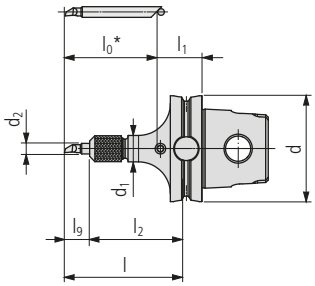


KM 20/25 SDA…

Order designation	N	Dimensions KM	d	l	l_9	l_1	l_2	d_1	d_2	d_3	Inserts 331…
KM 20 SDA-4 IC	■	20	20	l_0+l_1	l–l_2	9	34.5	10	4	25.5	SD.4… / SX.4…
KM 20 SDA-6 IC	■	20	20	l_0+l_1	l–l_2	9	38.5	15	6	25.5	SD.6… / SX.6…
KM 20 SDA-8 IC	■	20	20	l_0+l_1	l–l_2	9	40.5	18	8	25.5	SD.8… / SX.8…
KM 25 SDA-4 IC	■	25	25	l_0+l_1	l–l_2	9	34.5	10	4	30	SD.4… / SX.4…
KM 25 SDA-6 IC	■	25	25	l_0+l_1	l–l_2	9	38.5	15	6	30	SD.6… / SX.6…
KM 25 SDA-8 IC	■	25	25	l_0+l_1	l–l_2	9	40.5	18	8	30	SD.8… / SX.8…

* The length of the insert is variable





KM 32/40 SDA…

Order designation	N	Dimensions KM	d	l	l_9	l_1	l_2	d_1	d_2	Inserts 331…
KM 32 SDA-4 IC	■	32	32	l_0+l_1	l–l_2	15	40.5	10	4	SD.4… / SX.4…
KM 32 SDA-6 IC	■	32	32	l_0+l_1	l–l_2	15	44.5	15	6	SD.6… / SX.6…
KM 32 SDA-8 IC	■	32	32	l_0+l_1	l–l_2	15	46.5	18	8	SD.8… / SX.8…
KM 40 SDA-4 IC	■	40	40	l_0+l_1	l–l_2	17	42.5	10	4	SD.4… / SX.4…
KM 40 SDA-6 IC	■	40	40	l_0+l_1	l–l_2	17	46.5	15	6	SD.6… / SX.6…
KM 40 SDA-8 IC	■	40	40	l_0+l_1	l–l_2	17	48.5	18	8	SD.8… / SX.8…

* The length of the insert is variable

UTILIS multidec® swiss type tools

Illustration	Description	Dimensions	Order designation		Holder	Inserts
	TORX screw	M2.5 × 8 T08	MSP 25060 T08	■	KM.. CUT 1600, KM.. SV.P.10	
		M3 × 9 T08	MSP 30090 T08	■	KM.. CUT 3000.	
	Nut	M8 × 0.5	MSP SDA 4M	■	KM..SDA-4.	
		M12 × 0.6	MSP SDA 6M	■	KM..SDA-6.	
		M14 × 0.75	MSP SDA 8M	■	KM..SDA-8.	
	Aligning device		SDA 4X	■	KM..SDA-4.	
			SDA 6X	■	KM..SDA-6.	
			SDA 8X	■	KM..SDA-8.	
	Retaining ring		MSP SDA 4S	■		SD. 4… SX. 4…
			MSP SDA 6S	■		SD. 6… SX. 6…
			MSP SDA 8S	■		SD. 8… SX. 8…

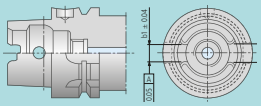
TORX screwdriver 664

Use of the multidec®-HSK-system with ISO 12164/DIN 69893 standardized attachment has become increasingly widespread in recent years. This system makes the customer independent from specific tool system, which is a great advantage. Simplicity, precision and reliability: these are the criteria that customers place on modern tool systems. HSK tools largely satisfy these demands and help to maximize productivity. The program comprises a wide selection of tool holders for both OD and ID turning on lathes. The standard range has been developed in size 32 and form "C" for manual tool changing. Now we propose a new size 40 in form HSK-T for the automatic- and manual tool change. Other HSK shapes and sizes are available on request.



Advantages:
- Large program of toolholders in heat-treatable steel, with internal cooling, available from stock
- Holder with high rigidity and repeat accuracy
- High precision in positioning of cutting edge, cause of the axial positioning and the close tolerance of the holder keyway HSK-T standard ISO 12164
- Utilisation of high quality UTILIS multidec®-inserts

Technical information 9

HSK-versions  562

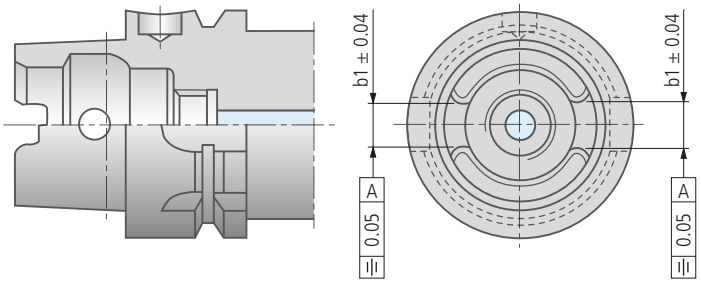
Holders (IOD turning)  564

Holders (ID turning)  568

Closing plug  570

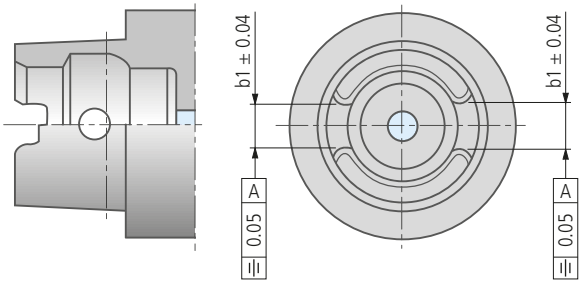
Replacement and spare parts  571

HSK – Form A



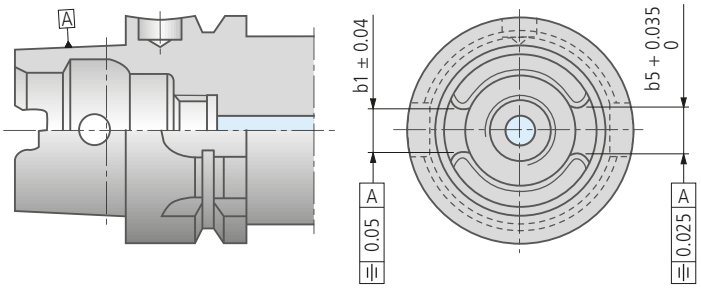
– Used on machining centers, milling machines, turning machines, special machines with automatic tool change
– Central, axial coolant supply through coolant tube
– Torque transmission via two key slots at end of taper
– Two slots on collar for tool magazine, location edge hole for data carrier in collar

HSK – Form C



– Preferably used for spindles on transfer lines and spezial machines without automatic tool change or for short bore spindles and tool extensions and reductions
– Central, axial coolant supply
– Torque transmission via two key slots at end of taper

HSK – Form T

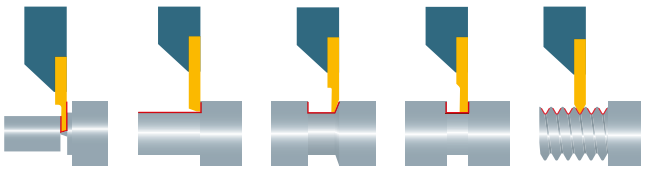


Tighter tolerance for perfect change precision
The "T" stands for "Turning". HSK-T combines the basic shape of the HSK taper in form A/C and differs by closer tolerances of the cam grooves on the cone of the tools.
This important feature for turning assures accurate radial positioning (center height).

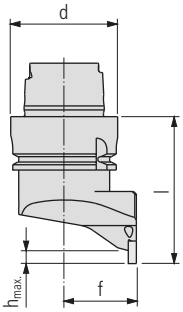
Execution with form B, D, E and F on request

UTILIS multidec® swiss type tools

Attention
Please note the legend 🗋6…



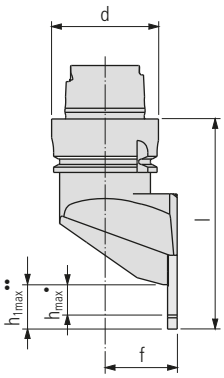




HSK… CUT 1600 .

Order designation				Form / Size	Dimensions							Inserts
L		R		HSK	d	f	l			h_{max}		47…
HSK-C32 CUT 1600 L	■	HSK-C32 CUT 1600 R	■	C32	32	22	40			5		16…
HSK-T40 CUT 1600 L	■	HSK-T40 CUT 1600 R	■	A40 / C40	40	27	55			5		16…

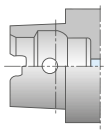




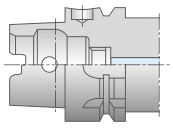
HSK… CUT 3000 .

Order designation				Form / Size	Dimensions							Inserts
L		R		HSK	d	f	l			h_{max}	h_{1max}	107…
HSK-C32 CUT 3000 L	■	HSK-C32 CUT 3000 R	■	C32	32	22	50			10	16	30…
HSK-T40 CUT 3000 L	■	HSK-T40 CUT 3000 R	■	A40 / C40	40	27	73			10	16	30…

• Short insert; •• Long insert

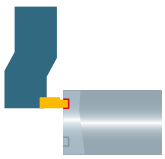


HSK-C…

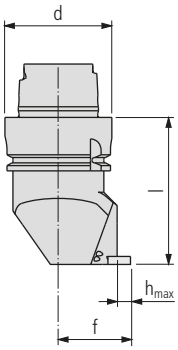


HSK-T (A/C)…

Versions 562…



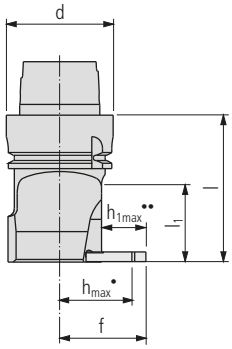




HSK… CUT 1600-90 .

Order designation L		Order designation R		Form / Size HSK	Dimensions d	f	l	h_{max}	Inserts* 47…
HSK-C32 CUT 1600-90 L	■	HSK-C32 CUT 1600-90 R	■	C32	32	22	40	5	16…
HSK-T40 CUT 1600-90 L	■	HSK-T40 CUT 1600-90 R	■	A40 / C40	40	27	55	5	16…



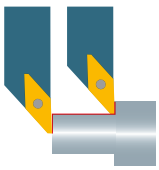


HSK… CUT 3000-90 .

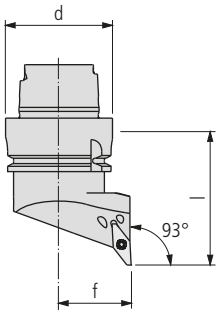
Order designation L		Order designation R		Form / Size HSK	Dimensions d	f	l	l_1	h_{max}	h_{1max}	Inserts* 107…
HSK-C32 CUT 3000-90 L	■	HSK-C32 CUT 3000-90 R	■	C32	32	22	40	24	10	–	30…
HSK-T40 CUT 3000-90 L	■	HSK-T40 CUT 3000-90 R	■	A40 / C40	40	27	55	30	10	16	30…

• Short insert; •• Long insert

*** Attention**
Right hand holder needs left hand insert!

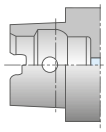




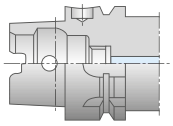


HSK… SVJP… (93°)

Order designation				Form / Size	Dimensions								Inserts
L		R		HSK	d	f	l						299…
HSK-C32 SVJPL 10	■	HSK-C32 SVJPR 10	■	C32	32	22	40						VP…1003…
HSK-T40 SVJPL 10	■	HSK-T40 SVJPR 10	■	A40 / C40	40	27	55						VP…1003…



HSK-C…

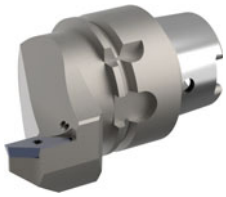


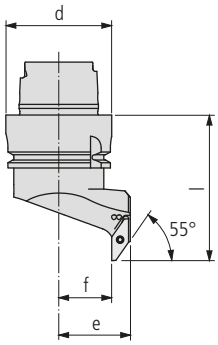
HSK-T (A/C)…

Versions 562…

UTILIS multidec® swiss type tools



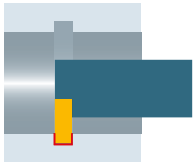




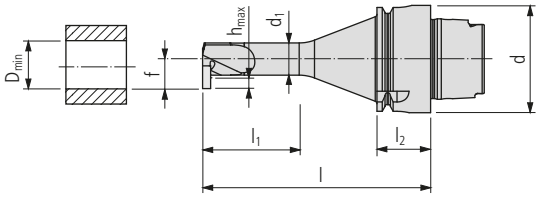
HSK… SVXP… (55°)

Order designation				Form / Size	Dimensions								Inserts*
L		R		HSK	d	f	l	e					299…
HSK-C32 SVXPL 10	■	HSK-C32 SVXPR 10	■	C32	32	15	40	22					VP…1003…
HSK-T40 SVXPL 10	■	HSK-T40 SVXPR 10	■	A40 / C40	40	20	55	27					VP…1003…

*** Attention**
Right hand holder needs left hand insert!



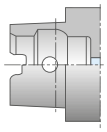




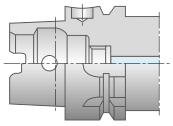
HSK… CUT 1600… RD

Order designation L		Order designation R		Form / Size HSK	Dimensions d	f	l	D_{min}	l_1	l_2	d_1	h_{max}	Inserts* 47…
HSK-C32 CUT 1600-12 RD L	■	HSK-C32 CUT 1600-12 RD R	■	C32	32	11	75	17.5	36	10	12	3	16…
HSK-C32 CUT 1600-16 RD L	■	HSK-C32 CUT 1600-16 RD R	■	C32	32	13	75	21	48	10	16	4	16…
HSK-C32 CUT 1600-20 RD L	■	HSK-C32 CUT 1600-20 RD R	■	C32	32	15	75	25	60	10	20	4	16…
HSK-T40 CUT 1600-12 RD L	■	HSK-T40 CUT 1600-12 RD R	■	A40 / C40	40	11	85	17.5	36	20	12	3	16…
HSK-T40 CUT 1600-16 RD L	■	HSK-T40 CUT 1600-16 RD R	■	A40 / C40	40	13	85	21	48	20	16	4	16…
HSK-T40 CUT 1600-20 RD L	■	HSK-T40 CUT 1600-20 RD R	■	A40 / C40	40	15	85	25	60	20	20	4	16…

*** Attention**
Right hand holder needs left hand insert!



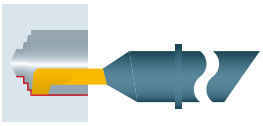
HSK-C…

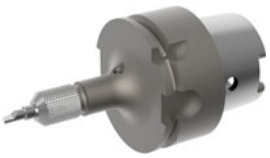


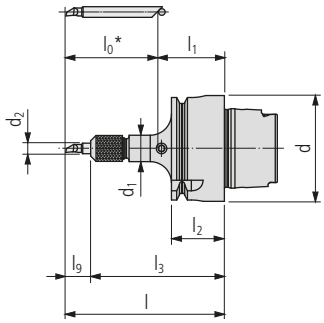
HSK-T (A/C)…

Versions 562…

UTILIS multidec® swiss type tools



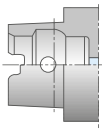




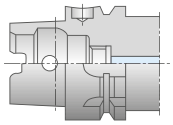
HSK… SDA…

Order designation	N	Form / Size HSK	Dimensions d	l	l_9	l_1	l_2	l_3	d_1	d_2	Inserts 331…
HSK-C32 SDA-4	■	C32	32	l_0+l_1	$l-l_3$	15	10	40.5	10	4	SD.4…/SX.4…
HSK-C32 SDA-6	■	C32	32	l_0+l_1	$l-l_3$	15	10	44.5	15	6	SD.6…/SX.6…
HSK-C32 SDA-8	■	C32	32	l_0+l_1	$l-l_3$	15	10	46.5	18	8	SD.8…/SX.8…
HSK-T40 SDA-4	■	A40 / C40	40	l_0+l_1	$l-l_3$	25	20	50.5	10	4	SD.4…/SX.4…
HSK-T40 SDA-6	■	A40 / C40	40	l_0+l_1	$l-l_3$	25	20	54.5	15	6	SD.6…/SX.6…
HSK-T40 SDA-8	■	A40 / C40	40	l_0+l_1	$l-l_3$	25	20	56.5	18	8	SD.8…/SX.8…

* The length of the insert is variable



HSK-C…

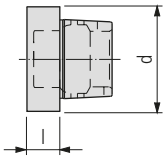


HSK-T (A/C)…

Versions 562…

UTILIS multidec® swiss type tools





HSK... VS

Order designation		Form / Size	Dimensions	
		HSK	d	l
HSK-C32 VS	■	C32	32	10
HSK-C40 VS	■	C40	40	15

UTILIS multidec® swiss type tools

For holders (CUT/SC/SD/SV…) OD turning

Illustration	Description	Dimensions	Order designation		Holder
	TORX screw	M2.5 × 6 T08	MSP 25060 T08	■	HSK … CUT 1600 … HSK … SV.P …
		M3 × 9 T08	MSP 30090 T08	■	HSK … CUT 3000 …

For holders (CUT/SC/SD/SV…) ID turning

Illustration	Description	Dimensions	Order designation		Holder	Inserts
	TORX screw	M2.5 × 6 T08	MSP 25060 T08	■	HSK … CUT 1600 … RD	
	Nut	M8 × 0.5	MSP SDA 4M	■	HSK..SDA-4.	
		M12 × 0.6	MSP SDA 6M	■	HSK..SDA-6.	
		M14 × 0.75	MSP SDA 8M	■	HSK..SDA-8.	
	Aligning device		SDA 4X	■	HSK..SDA-4.	
			SDA 6X	■	HSK..SDA-6.	
			SDA 8X	■	HSK..SDA-8.	
	Retaining ring		MSP SDA 4S	■		SD. 4… SX. 4…
			MSP SDA 6S	■		SD. 6… SX. 6…
			MSP SDA 8S	■		SD. 8… SX. 8…

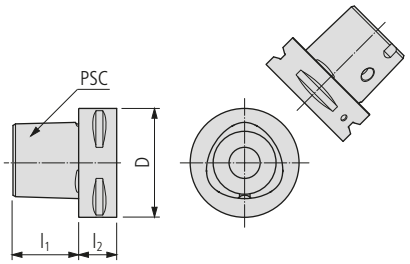
TORX screwdriver 664

UTILIS multidec® swiss type tools

multidec®-PSC is a flexible and modular quick change toolholder-system, with a polygon-connection compliant with ISO 26623-1 standard. High torque transmission is one basic advantage of the system. The program includes tool holders suitable for turning machines with multidec®-CUT, multidec®-TOP and multidec®-BORE MICRO inserts.



Advantages:
- Connection with high rigidity, repeat accuracy and self-centering
- Quick change of toolholders
- Toolholders with heat-treatable steel and internal cooling
- Utilisation of high quality multidec® inserts



Size		Dimensions		
PSC	Sandvik Coromant Capto®	D	l_1	l_2
32	C3	32	19	15
40	C4	40	24	20
50	C5	50	30	20
63	C6	63	38	22
80	C8	80	48	30
100	C10	100	60	32

UTILIS multidec® swiss type tools

Technical information 9



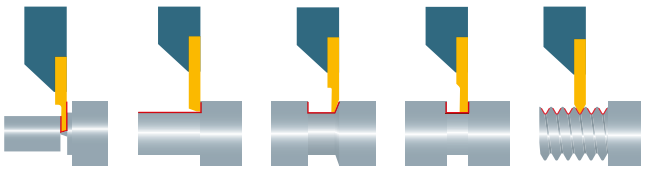
Holders (OD turning) 574



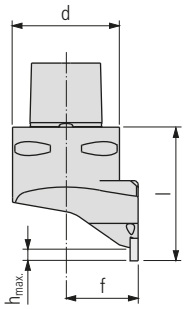
Holders (ID turning) 578



Replacement and spare parts 580



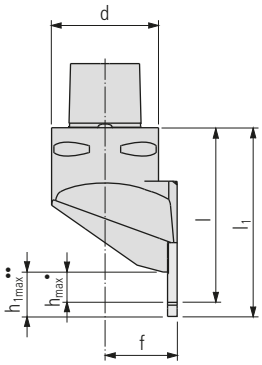




PSC … CUT 1600 .

Order designation				Size	Dimensions									Inserts
L		R		PSC	d	f	l				h_{max}			47…
PSC 32 CUT 1600 L	■	PSC 32 CUT 1600 R	■	32	32	22	40				5			16…
PSC 40 CUT 1600 L	■	PSC 40 CUT 1600 R	■	40	40	27	50				5			16…



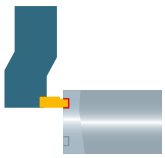


PSC … CUT 3000 .

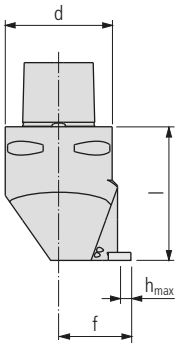
Order designation				Size	Dimensions									Inserts
L		R		PSC	d	f	l	l_1			h_{max}	h_{1max}		107…
PSC 32 CUT 3000 L	■	PSC 32 CUT 3000 R	■	32	32	22	60	66			10	16		30…
PSC 40 CUT 3000 L	■	PSC 40 CUT 3000 R	■	40	40	27	65	71			10	16		30…

• Short insert; •• Long insert

UTILIS multidec swiss type tools



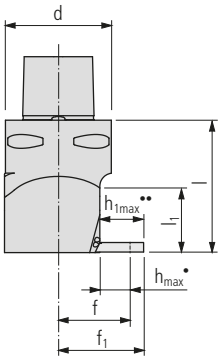




PSC … CUT 1600-90 .

Order designation L		Order designation R		Size PSC	Dimensions d	f	l	h_{max}	Inserts* 47…
PSC 32 CUT 1600-90 L	■	PSC 32 CUT 1600-90 R	■	32	32	22	40	5	16…
PSC 40 CUT 1600-90 L	■	PSC 40 CUT 1600-90 R	■	40	40	27	50	5	16…



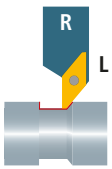


PSC … CUT 3000-90 .

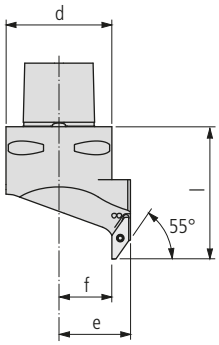
Order designation L		Order designation R		Size PSC	Dimensions d	f	f_1	l	l_1	h_{max}	h_{1max}	Inserts* 107…
PSC 32 CUT 3000-90 L	■	PSC 32 CUT 3000-90 R	■	32	32	22	27	40	19	10	16	30…
PSC 40 CUT 3000-90 L	■	PSC 40 CUT 3000-90 R	■	40	40	27	32	50	25	10	16	30…

• Short insert; •• Long insert

*** Attention**
Right hand holder needs left hand insert!





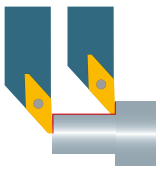


PSC … SVXP… (55°)

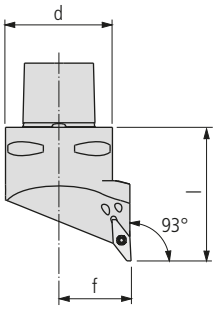
Order designation				Size	Dimensions									Inserts*
L		R		PSC	d	f	l	e						299…
PSC 32 SVXPL 10	■	PSC 32 SVXPR 10	■	32	32	15	40	22						VP…1003…
PSC 40 SVXPL 10	■	PSC 40 SVXPR 10	■	40	40	22	50	27						VP…1003…

*** Attention**
Right hand holder needs left hand insert!

UTILIS multidec® swiss type tools





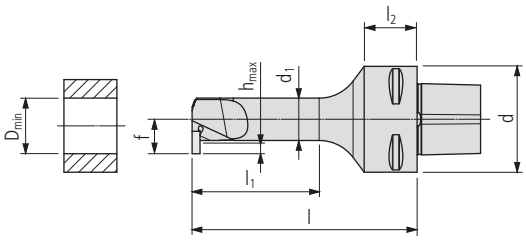


PSC … SVJP… (93°)

Order designation				Size	Dimensions									Inserts
L		R		PSC	d	f	l							299…
PSC 32 SVJPL 10	■	PSC 32 SVJPR 10	■	32	32	22	40							VP…1003…
PSC 40 SVJPL 10	■	PSC 40 SVJPR 10	■	40	40	27	50							VP…1003…





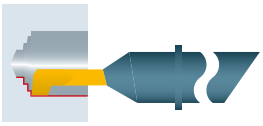


PSC … CUT 1600… RD

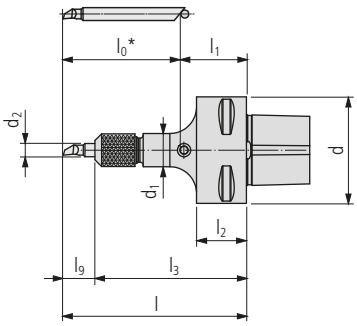
Order designation				Size	Dimensions									Inserts*
L		R		PSC	d	f	l	D_{min}	l_1	l_2	d1		h_{max}	47…
PSC 32 CUT 1600-12 RD L	■	PSC 32 CUT 1600-12 RD R	■	32	32	11	80	17.5	36	15	12		3	16…
PSC 32 CUT 1600-16 RD L	■	PSC 32 CUT 1600-16 RD R	■	32	32	13	80	21	48	15	16		4	16…
PSC 32 CUT 1600-20 RD L	■	PSC 32 CUT 1600-20 RD R	■	32	32	15	80	25	60	15	20		4	16…
PSC 40 CUT 1600-12 RD L	■	PSC 40 CUT 1600-12 RD R	■	40	40	11	85	17.5	36	20	12		3	16…
PSC 40 CUT 1600-16 RD L	■	PSC 40 CUT 1600-16 RD R	■	40	40	13	85	21	48	20	16		4	16…
PSC 40 CUT 1600-20 RD L	■	PSC 40 CUT 1600-20 RD R	■	40	40	15	85	25	60	20	20		4	16…

*** Attention**
Right hand holder needs left hand insert!

UTILIS multidec® swiss type tools







PSC … SDA…

Order designation		Size	Dimensions								Inserts
N		PSC	d	l	l_9	l_1	l_2	l_3	d_1	d_2	331…
PSC 32 SDA-4	■	32	32	l_0+l_1	$l-l_3$	20	15	45.5	10	4	SD.4…/SX.4…
PSC 32 SDA-6	■	32	32	l_0+l_1	$l-l_3$	20	15	49.5	15	6	SD.6…/SX.6…
PSC 32 SDA-8	■	32	32	l_0+l_1	$l-l_3$	20	15	51.5	18	8	SD.8…/SX.8…
PSC 40 SDA-4	■	40	40	l_0+l_1	$l-l_3$	25	20	50.5	10	4	SD.4…/SX.4…
PSC 40 SDA-6	■	40	40	l_0+l_1	$l-l_3$	25	20	54.5	15	6	SD.6…/SX.6…
PSC 40 SDA-8	■	40	40	l_0+l_1	$l-l_3$	25	20	56.5	18	8	SD.8…/SX.8…

For holders (CUT/TOP…) OD turning

Illustration	Description	Dimensions	Order designation		Holder
	TORX screw	M2.5 × 6 T08	MSP 25060 T08	■	PSC … CUT 1600 … PSC … SV.P …
		M3 × 9 T08	MSP 30090 T08	■	PSC … CUT 3000 …

For holders (CUT…) ID turning

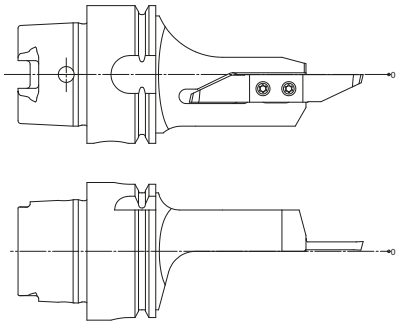
Illustration	Description	Dimensions	Order designation		Holder	Inserts
	TORX screw	M2.5 × 6 T08	MSP 25060 T08	■	PSC … CUT 1600 … RD	
	Nut	M8 × 0.5	MSP SDA 4M	■	PSC..SDA-4.	
		M12 × 0.6	MSP SDA 6M	■	PSC..SDA-6.	
		M14 × 0.75	MSP SDA 8M	■	PSC..SDA-8.	
	Aligning device		SDA 4X	■	PSC..SDA-4.	
			SDA 6X	■	PSC..SDA-6.	
			SDA 8X	■	PSC..SDA-8.	
	Retaining ring		MSP SDA 4S	■		SD. 4… SX. 4…
			MSP SDA 6S	■		SD. 6… SX. 6…
			MSP SDA 8S	■		SD. 8… SX. 8…

TORX screwdriver 664

Attention
Please note the legend 🗋6…

Solid and compact tools are an enormous advantage for turning operations on multitask machines. Specially-designed tools must be used with the machine spindle during the turning process that can allow work to be done very close to the main or opposed spindle. Any errors in the height of the cutting edge and torsional forces should also be kept to a minimum.
With the HSK-E40, HSK-T32, HSK-T40, HSK-A40 and PSC 40 (Capto C4) spindles, this sophisticated range of tools offers ideal solutions for modern turning and milling centers.





Advantages:
- Monoblock tools with interchangeable inserts
- Compact and solid design
- The insert is positioned on the center line (guaranteeing a very accurate cutting edge height and high repeatability while also reducing of the load on the spindle)
- All tools are equipped with integrated coolant supply
- The high quality UTILIS inserts from the multidec®-CUT, -ISO, -TOP and -BORE MICRO series can be used

Technical information 9

Holders HSK-T32/T40/A40 … (OD turning)  584

Holders HSK-T32/T40/A40 … (ID turning)  590

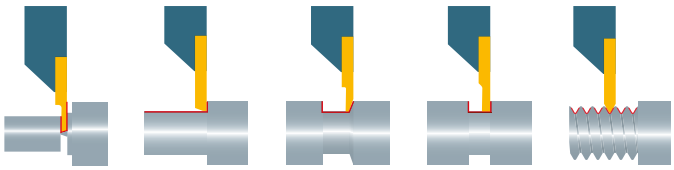
Holders PSC 40 … (OD turning)  591

Holders PSC 40 … (ID turning)  597

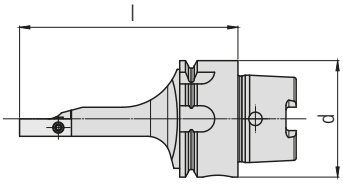
Holders HSK-E40 … WM (OD turning for Willemin-Macodel machines)  598

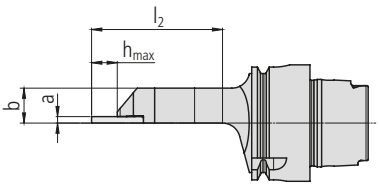
Holders HSK-E40 … WM (ID turning for Willemin-Macodel machines)  604

Replacement and spare parts  605





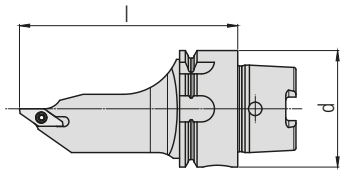


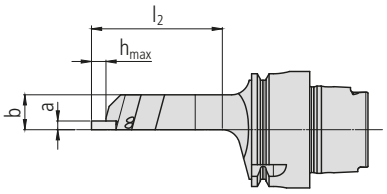


HSK-… MT CUT 500 .

Order designation L		Order designation R		Form / Size HSK	Dimensions d	b	l	l_2	a			h_{max}	Inserts 43…
HSK-T32 MT CUT 500 L	■	HSK-T32 MT CUT 500 R	■	T32	32	12	65	35	2			8.5	50.
HSK-T40 MT CUT 500 L	■	HSK-T40 MT CUT 500 R	■	T40	40	12	75	45	2			8.5	50.
HSK-A40 MT CUT 500 L	■	HSK-A40 MT CUT 500 R	■	A40	40	12	75	45	2			8.5	50.

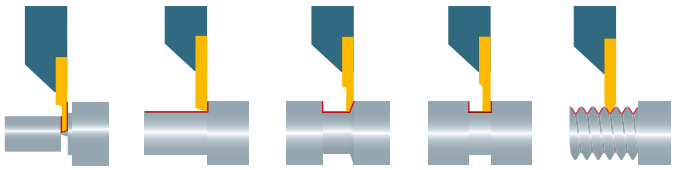




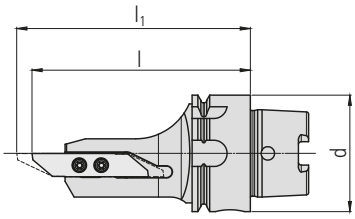


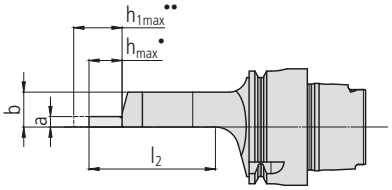
HSK-… MT CUT 1600 .

Order designation L		Order designation R		Form / Size HSK	Dimensions d	b	l	l_2	a			h_{max}	Inserts 47…
HSK-T32 MT CUT 1600 L	■	HSK-T32 MT CUT 1600 R	■	T32	32	12	65	35	3			5	16..
HSK-T40 MT CUT 1600 L	■	HSK-T40 MT CUT 1600 R	■	T40	40	12	75	45	3			5	16..
HSK-A40 MT CUT 1600 L	■	HSK-A40 MT CUT 1600 R	■	A40	40	12	75	45	3			5	16..







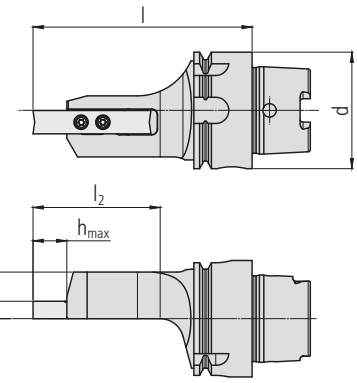


HSK-… MT CUT 3000 .

Order designation L		Order designation R		Form / Size HSK	Dimensions d	b	l	l_1	l_2	a	h_{max}	h_{1max}	Inserts 107…
HSK-T32 MT CUT 3000 L	■	HSK-T32 MT CUT 3000 R	■	T32	32	12	65	–	35	3.5	10	–	30..
HSK-T40 MT CUT 3000 L	■	HSK-T40 MT CUT 3000 R	■	T40	40	12	75	80	45	3.5	10	16	30..
HSK-A40 MT CUT 3000 L	■	HSK-A40 MT CUT 3000 R	■	A40	40	12	75	80	45	3.5	10	16	30..

• Short insert; •• Long insert

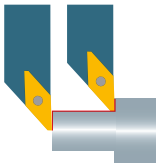




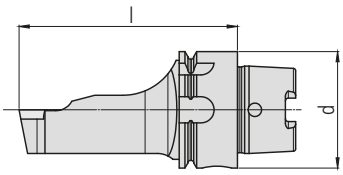
HSK-… MT CUT 3600 .

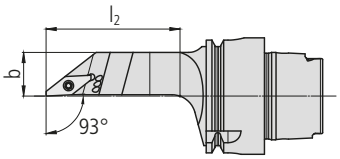
Order designation L		Order designation R		Form / Size HSK	Dimensions d	b	l	l_2	a			h_{max}	Inserts 155…
HSK-T40 MT CUT 3600 L	■	HSK-T40 MT CUT 3600 R	■	T40	40	16	75	43	6			10	36..
HSK-A40 MT CUT 3600 L	■	HSK-A40 MT CUT 3600 R	■	A40	40	16	75	43	6			10	36..

UTILIS multidec® swiss type tools



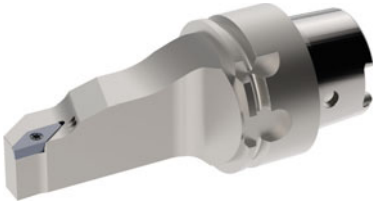


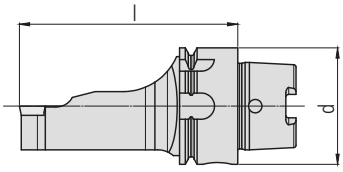


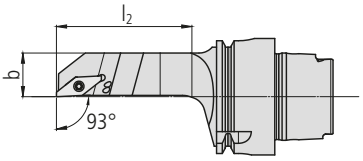


HSK-… MT SVJP… (93°)

Order designation L		Order designation R		Form / Size HSK	Dimensions d	b	l	l_2					Inserts 299…
HSK-T32 MT SVJPL 10	■	HSK-T32 MT SVJPR 10	■	T32	32	12	65	36					VP.. 1003..
HSK-T40 MT SVJPL 10	■	HSK-T40 MT SVJPR 10	■	T40	40	15	75	46					VP.. 1003..
HSK-A40 MT SVJPL 10	■	HSK-A40 MT SVJPR 10	■	A40	40	15	75	46					VP.. 1003..







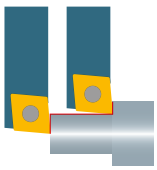
HSK-… MT SVJP… V (93°)

Order designation L		Order designation R		Form / Size HSK	Dimensions d	b	l	l_2					Inserts 299…
HSK-T32 MT SVJPL 10 V	■	HSK-T32 MT SVJPR 10 V	■	T32	32	12	65	36					VP.. 1003..
HSK-T40 MT SVJPL 10 V	■	HSK-T40 MT SVJPR 10 V	■	T40	40	15	75	46					VP.. 1003..
HSK-A40 MT SVJPL 10 V	■	HSK-A40 MT SVJPR 10 V	■	A40	40	15	75	46					VP.. 1003..

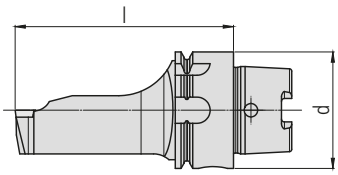
UTILIS multidec® swiss type tools

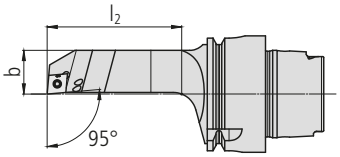
■ New

Legend 6



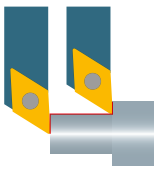




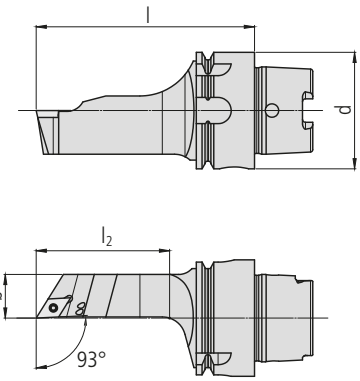


HSK-… MT SCLC… (95°)

Order designation				Form / Size	Dimensions								Inserts
L		R		HSK	d	b	l	l_2					177…
HSK-T32 MT SCLCL 06	■	HSK-T32 MT SCLCR 06	■	T32	32	15	65	35					CC.. 0602..
HSK-T32 MT SCLCL 09	■	HSK-T32 MT SCLCR 09	■	T32	32	15	65	35					CC.. 09T3..
HSK-T40 MT SCLCL 06	■	HSK-T40 MT SCLCR 06	■	T40	40	15	75	45					CC.. 0602..
HSK-T40 MT SCLCL 09	■	HSK-T40 MT SCLCR 09	■	T40	40	15	75	45					CC.. 09T3..
HSK-A40 MT SCLCL 06	■	HSK-A40 MT SCLCR 06	■	A40	40	15	75	45					CC.. 0602..
HSK-A40 MT SCLCL 09	■	HSK-A40 MT SCLCR 09	■	A40	40	15	75	45					CC.. 09T3..

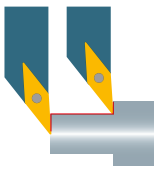




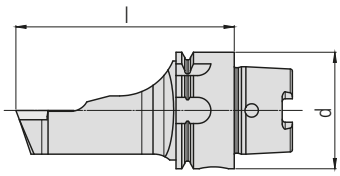


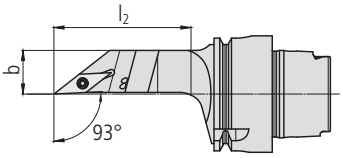
HSK-… MT SDJC… (93°)

Order designation				Form / Size	Dimensions								Inserts
L		R		HSK	d	b	l	l_2					205…
HSK-T32 MT SDJCL 07	■	HSK-T32 MT SDJCR 07	■	T32	32	12	65	36					DC.. 0702..
HSK-T32 MT SDJCL 11	■	HSK-T32 MT SDJCR 11	■	T32	32	12.5	65	37					DC.. 11T3..
HSK-T40 MT SDJCL 07	■	HSK-T40 MT SDJCR 07	■	T40	40	15	75	46					DC.. 0702..
HSK-T40 MT SDJCL 11	■	HSK-T40 MT SDJCR 11	■	T40	40	15	75	46					DC.. 11T3..
HSK-A40 MT SDJCL 07	■	HSK-A40 MT SDJCR 07	■	A40	40	15	75	46					DC.. 0702..
HSK-A40 MT SDJCL 11	■	HSK-A40 MT SDJCR 11	■	A40	40	15	75	46					DC.. 11T3..



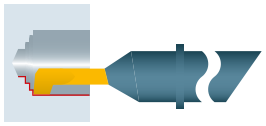




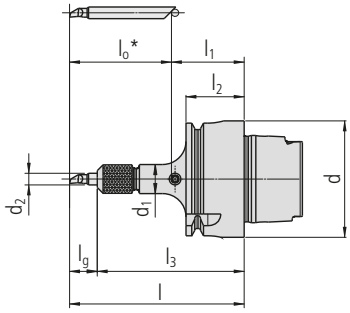


HSK-… MT SVJC… (93°)

Order designation				Form / Size	Dimensions								Inserts
L		R		HSK	d	b	l	l_2					259…
HSK-T32 MT SVJCL 07	■	HSK-T32 MT SVJCR 07	■	T32	32	12	65	36					VC.. 0702..
HSK-T32 MT SVJCL 11	■	HSK-T32 MT SVJCR 11	■	T32	32	12	65	36					VC.. 1103..
HSK-T40 MT SVJCL 07	■	HSK-T40 MT SVJCR 07	■	T40	40	15	75	46					VC.. 0702..
HSK-T40 MT SVJCL 11	■	HSK-T40 MT SVJCR 11	■	T40	40	15	75	46					VC.. 1103..
HSK-T40 MT SVJCL 13	■	HSK-T40 MT SVJCR 13	■	T40	40	15	75	46					VC.. 1303..
HSK-A40 MT SVJCL 07	■	HSK-A40 MT SVJCR 07	■	A40	40	15	75	46					VC.. 0702..
HSK-A40 MT SVJCL 11	■	HSK-A40 MT SVJCR 11	■	A40	40	15	75	46					VC.. 1103..
HSK-A40 MT SVJCL 13	■	HSK-A40 MT SVJCR 13	■	A40	40	15	75	46					VC.. 1303..



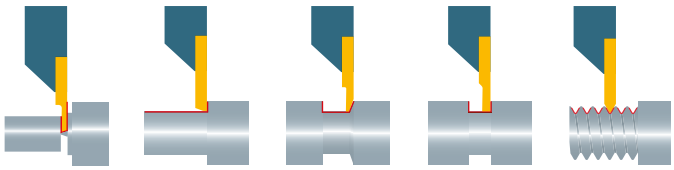




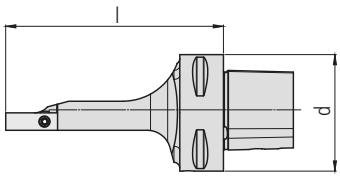
HSK-… SDA.

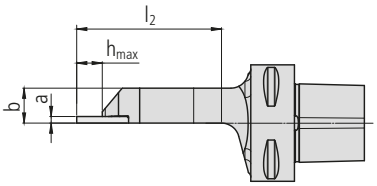
Order designation			Form / Size	Dimensions								Inserts
N			HSK	d	l	l_g	l_1	l_2	l_3	d_1	d_2	331…
HSK-T32 SDA-4	■		T32	32	l_0+l_1	l–l_3	25	20	50.5	10	4	SD.4… / SX.4..
HSK-T32 SDA-6	■		T32	32	l_0+l_1	l–l_3	25	20	54.5	15	6	SD.6… / SX.6..
HSK-T32 SDA-8	■		T32	32	l_0+l_1	l–l_3	25	20	56.5	18	8	SD.8… / SX.8..
HSK-T40 SDA-4	■		T40	40	l_0+l_1	l–l_3	25	20	50.5	10	4	SD.4… / SX.4..
HSK-T40 SDA-6	■		T40	40	l_0+l_1	l–l_3	25	20	54.5	15	6	SD.6… / SX.6..
HSK-T40 SDA-8	■		T40	40	l_0+l_1	l–l_3	25	20	56.5	18	8	SD.8… / SX.8..
HSK-A40 SDA-4	■		A40	40	l_0+l_1	l–l_3	25	20	50.5	10	4	SD.4… / SX.4..
HSK-A40 SDA-6	■		A40	40	l_0+l_1	l–l_3	25	20	54.5	15	6	SD.6… / SX.6..
HSK-A40 SDA-8	■		A40	40	l_0+l_1	l–l_3	25	20	56.5	18	8	SD.8… / SX.8..

* The length of the insert is variable





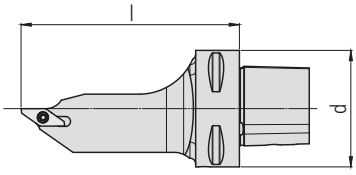


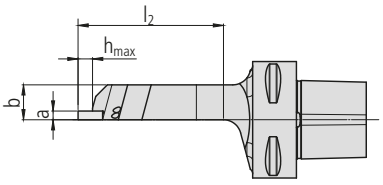


PSC 40 MT CUT 500 .

Order designation				Form / Size	Dimensions								Inserts
L		R		PSC	d	b	l	l_2	a			h_{max}	43…
PSC 40 MT CUT 500 L	■	PSC 40 MT CUT 500 R	■	40	40	12	75	50	2			8.5	50.

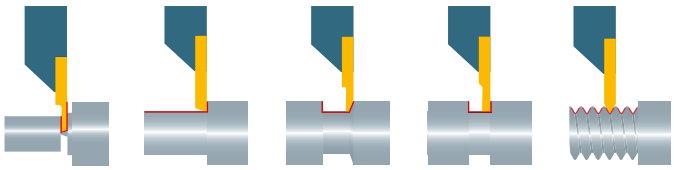




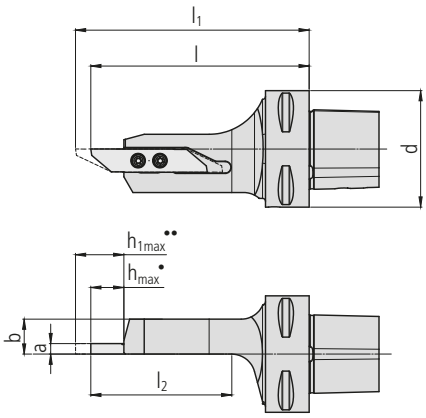


PSC 40 MT CUT 1600 .

Order designation				Form / Size	Dimensions								Inserts
L		R		PSC	d	b	l	l_2	a			h_{max}	47…
PSC 40 MT CUT 1600 L	■	PSC 40 MT CUT 1600 R	■	40	40	12	75	50	3			5	16..





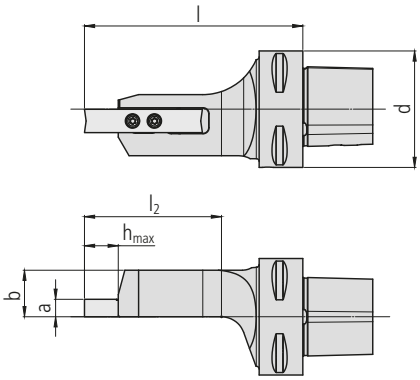


PSC 40 MT CUT 3000 .

Order designation				Form / Size	Dimensions								Inserts
L		R		PSC	d	b	l	l_1	l_2	a	h_{max}	$h1_{max}$	107…
PSC 40 MT CUT 3000 L	■	PSC 40 MT CUT 3000 R	■	40	40	12	75	80	48	3.5	10	16	30..

• Short insert; •• Long insert

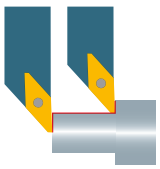




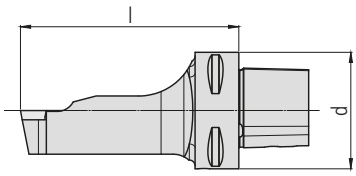
PSC 40 MT CUT 3600 .

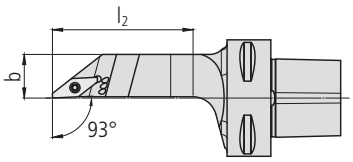
Order designation				Form / Size	Dimensions								Inserts
L		R		PSC	d	b	l	l_2	a			h_{max}	155…
PSC 40 MT CUT 3600 L	■	PSC 40 MT CUT 3600 R	■	40	40	16	75	47	6			10	36..

UTILIS multidec® swiss type tools





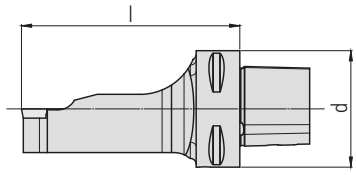


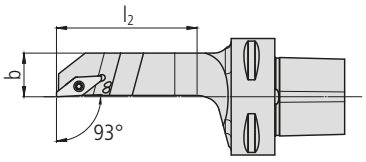


PSC 40 MT SVJP… (93°)

Order designation				Form / Size	Dimensions								Inserts
L		R		PSC	d	b	l	l_2					299…
PSC 40 MT SVJPL 10	■	PSC 40 MT SVJPR 10	■	40	40	15	75	48					VP.. 1003..

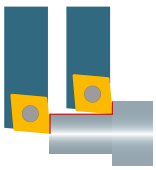




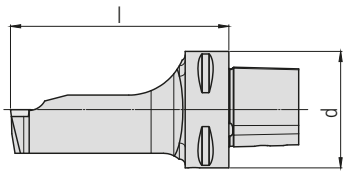


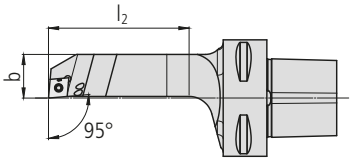
PSC 40 MT SVJP… V (93°)

Order designation				Form / Size	Dimensions								Inserts
L		R		PSC	d	b	l	l_2					299…
PSC 40 MT SVJPL 10 V	■	PSC 40 MT SVJPR 10 V	■	40	40	15	75	48					VP.. 1003..



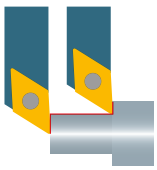




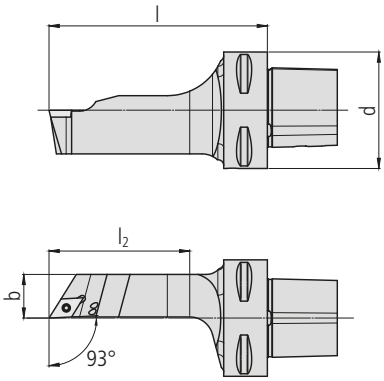


PSC 40 MT SCLC… (95°)

Order designation				Form / Size	Dimensions								Inserts
L		R		PSC	d	b	l	l_2					177…
PSC 40 MT SCLCL 06	■	PSC 40 MT SCLCR 06	■	40	40	15	75	48					CC.. 0602..
PSC 40 MT SCLCL 09	■	PSC 40 MT SCLCR 09	■	40	40	15	75	48					CC.. 09T3..

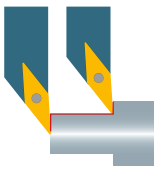




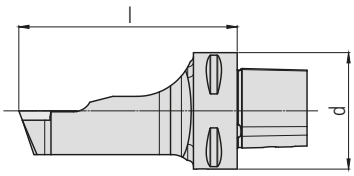


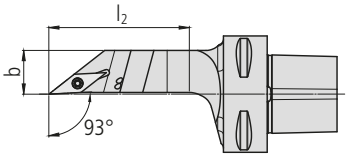
PSC 40 MT SDJC… (93°)

Order designation				Form / Size	Dimensions								Inserts
L		R		PSC	d	b	l	l_2					205…
PSC 40 MT SDJCL 07	■	PSC 40 MT SDJCR 07	■	40	40	15	75	48					DC.. 0702..
PSC 40 MT SDJCL 11	■	PSC 40 MT SDJCR 11	■	40	40	15	75	48					DC.. 11T3..



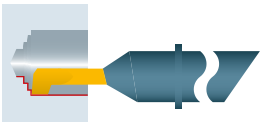




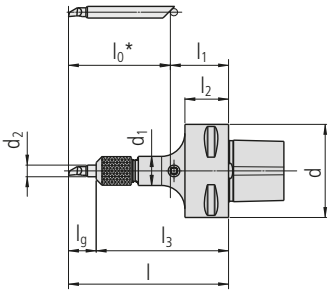


PSC 40 MT SVJC… (93°)

Order designation L		Order designation R		Form / Size PSC	Dimensions d	b	l	l_2					Inserts 259…
PSC 40 MT SVJCL 07	■	PSC 40 MT SVJCR 07	■	40	40	15	75	50					VC.. 0702..
PSC 40 MT SVJCL 11	■	PSC 40 MT SVJCR 11	■	40	40	15	75	50					VC.. 1103..
PSC 40 MT SVJCL 13	■	PSC 40 MT SVJCR 13	■	40	40	15	75	50					VC.. 1303..



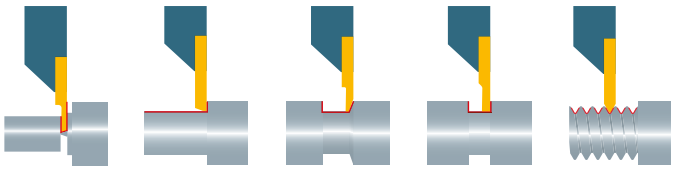




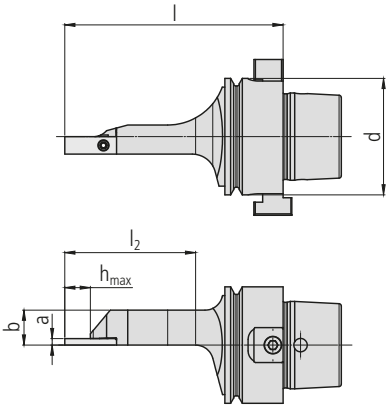
PSC 40 SDA .

Order designation	N	Form / Size	Dimensions								Inserts
		PSC	d	l	l_9	l_1	l_2	l_3	d_1	d_2	331…
PSC 40 SDA-4	■	40	40	l_0+l_1	$l-l_3$	25	20	50.5	10	4	SD.4… / SX.4..
PSC 40 SDA-6	■	40	40	l_0+l_1	$l-l_3$	25	20	54.5	15	6	SD.6… / SX.6..
PSC 40 SDA-8	■	40	40	l_0+l_1	$l-l_3$	25	20	56.5	18	8	SD.8… / SX.8..

* The length of the insert is variable

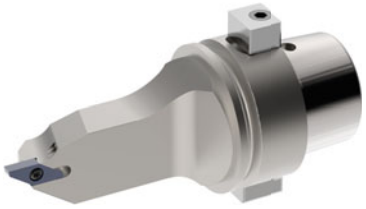


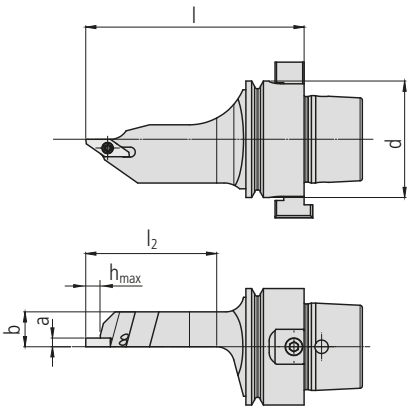




HSK-E40 MT CUT 500 … WM

Order designation L		Order designation R		Form / Size	Dimensions								Inserts
				HSK	d	b	l	l_2	a			h_{max}	43…
HSK-E40 MT CUT 500 L WM	■	HSK-E40 MT CUT 500 R WM	■	E40	40	12	75	45	2			8.5	50.

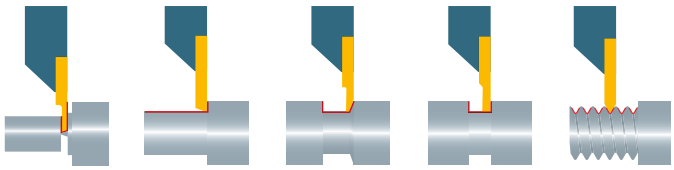




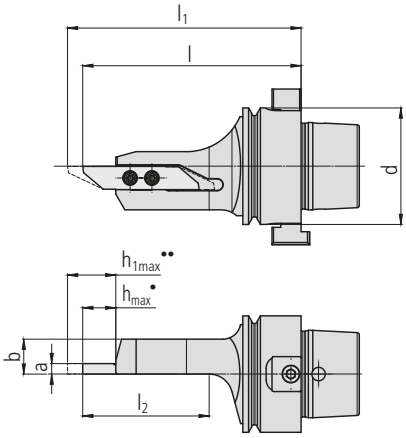
HSK-E40 MT CUT 1600 … WM

Order designation L		Order designation R		Form / Size	Dimensions								Inserts
				HSK	d	b	l	l_2	a			h_{max}	47…
HSK-E40 MT CUT 1600 L WM	■	HSK-E40 MT CUT 1600 R WM	■	E40	40	12	75	45	3			5	16..

UTILIS multidec® swiss type tools





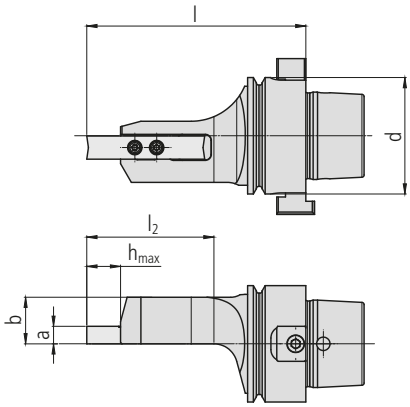


HSK-E40 MT CUT 3000 … WM

Order designation				Form / Size	Dimensions								Inserts
L		R		HSK	d	b	l	l_1	l_2	a	h_{max}	$h1_{max}$	107…
HSK-E40 MT CUT 3000 L WM	■	HSK-E40 MT CUT 3000 R WM	■	E40	40	12	75	80	43	3.5	10	16	30..

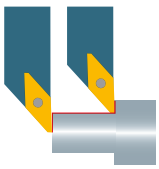
• Short insert; •• Long insert



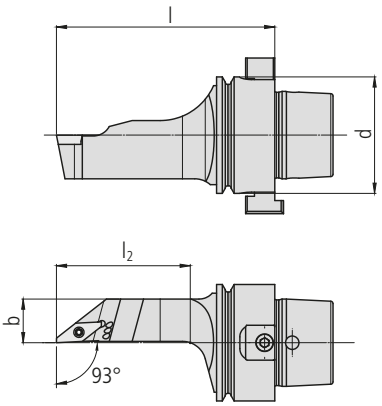


HSK-E40 MT CUT 3600 … WM

Order designation				Form / Size	Dimensions								Inserts
L		R		HSK	d	b	l	l_2	a			h_{max}	155…
HSK-E40 MT CUT 3600 L WM	■	HSK-E40 MT CUT 3600 R WM	■	E40	40	16	75	44	6			10	36..



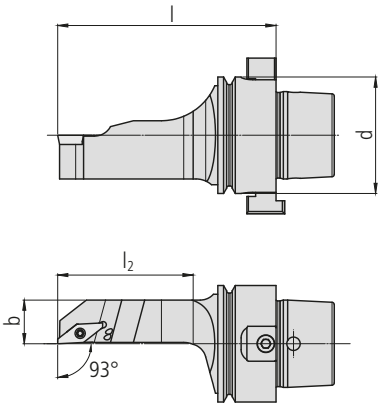




HSK-E40 MT SVJP… WM (93°)

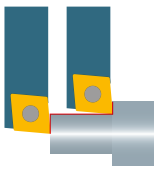
Order designation				Form / Size	Dimensions								Inserts
L		R		HSK	d	b	l	l_2					299…
HSK-E40 MT SVJPL 10 WM	■	HSK-E40 MT SVJPR 10 WM	■	E40	40	15	75	46					VP.. 1003..



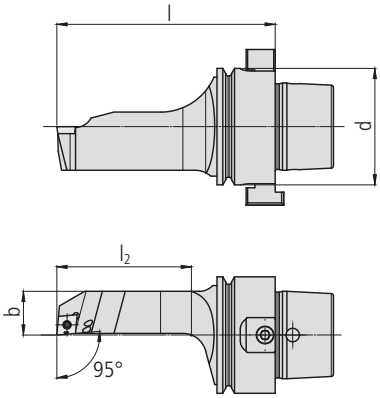


HSK-E40 MT SVJP… V WM (93°)

Order designation				Form / Size	Dimensions								Inserts
L		R		HSK	d	b	l	l_2					299…
HSK-E40 MT SVJPL 10 V WM	■	HSK-E40 MT SVJPR 10 V WM	■	E40	40	15	75	46					VP.. 1003..

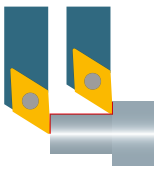




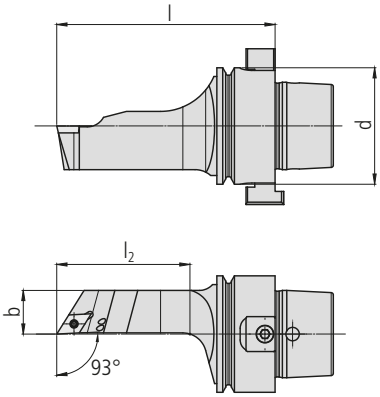


HSK-E40 MT SCLC… WM (95°)

Order designation				Form / Size	Dimensions								Inserts
L		R		HSK	d	b	l	l_2					177…
HSK-E40 MT SCLCL 06 WM	■	HSK-E40 MT SCLCR 06 WM	■	E40	40	15	75	47					CC.. 0602..
HSK-E40 MT SCLCL 09 WM	■	HSK-E40 MT SCLCR 09 WM	■	E40	40	15	75	47					CC.. 09T3..

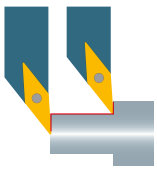




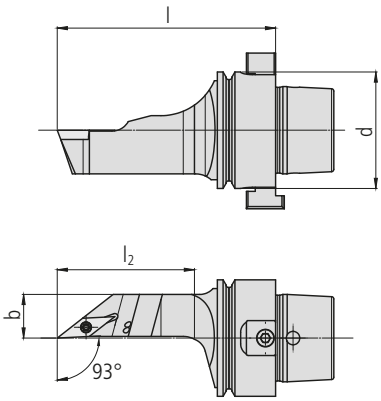


HSK-E40 MT SDJC… WM (93°)

Order designation				Form / Size	Dimensions								Inserts
L		R		HSK	d	b	l	l_2					205…
HSK-E40 MT SDJCL 07 WM	■	HSK-E40 MT SDJCR 07 WM	■	E40	40	15	75	46					DC.. 0702..
HSK-E40 MT SDJCL 11 WM	■	HSK-E40 MT SDJCR 11 WM	■	E40	40	15	75	46					DC.. 11T3..





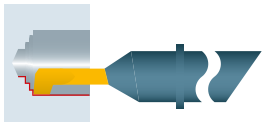


HSK-E40 MT SVJC… WM (93°)

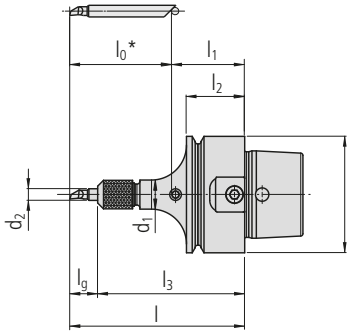
Order designation				Form / Size	Dimensions								Inserts
L		R		HSK	d	b	l	l_2					259…
HSK-E40 MT SVJCL 07 WM	■	HSK-E40 MT SVJCR 07 WM	■	E40	40	15	75	45					VC.. 0702..
HSK-E40 MT SVJCL 11 WM	■	HSK-E40 MT SVJCR 11 WM	■	E40	40	15	75	45					VC.. 1103..
HSK-E40 MT SVJCL 13 WM	■	HSK-E40 MT SVJCR 13 WM	■	E40	40	15	75	45					VC.. 1303..

UTILIS multidec® swiss type tools

■ New







HSK-E40 MT SDA . WM

Order designation	N	Form / Size	Dimensions								Inserts
		HSK	d	l	l_g	l_1	l_2	l_3	d_1	d_2	331…
HSK-E40 MT SDA-4 WM	■	E40	40	l_0+l_1	$l-l_3$	25	20	50.5	10	4	SD.4… / SX.4..
HSK-E40 MT SDA-6 WM	■	E40	40	l_0+l_1	$l-l_3$	25	20	54.5	15	6	SD.6… / SX.6..
HSK-E40 MT SDA-8 WM	■	E40	40	l_0+l_1	$l-l_3$	25	20	56.5	18	8	SD.8… / SX.8..

* The length of the insert is variable

UTILIS multidec® swiss type tools

For holders (CUT/SV/SC/SD) OD turning

Illustration	Description	Dimensions	Order designation		Holder
	TORX screw	M2 × 5.5 T06	MSP 20055 T06	■	… SV.. 07
		M2.5 × 6 T08	MSP 25060 T08	■	… CUT 500 … CUT 1600 … SC.. 06 … SD.. 07 … SV.P 10 … SV..11
		M3 × 9 T08	MSP 30090 T08	■	… CUT 3000 … SV..13
		M3 × 11 TP09	MSP 30110 TP09	■	… CUT 3600
		M3.5 × 11 T15	MSP 35110 T15	■	… SC.. 09 … SD.. 11

For holders (SDA) ID turning

Illustration	Description	Dimensions	Order designation		Holder	Inserts
	Nut	M8 × 0.5	MSP SDA 4M	■	… SDA-4.	
		M12 × 0.6	MSP SDA 6M	■	… SDA-6.	
		M14 × 0.75	MSP SDA 8M	■	… SDA-8.	
	Aligning device		SDA 4X	■	… SDA-4.	
			SDA 6X	■	… SDA-6.	
			SDA 8X	■	… SDA-8.	
	Retaining ring		MSP SDA 4S	■		SD. 4… SX. 4…
			MSP SDA 6S	■		SD. 6… SX. 6…
			MSP SDA 8S	■		SD. 8… SX. 8…

TORX screwdriver 664

UTILIS multidec® swiss type tools

■ New

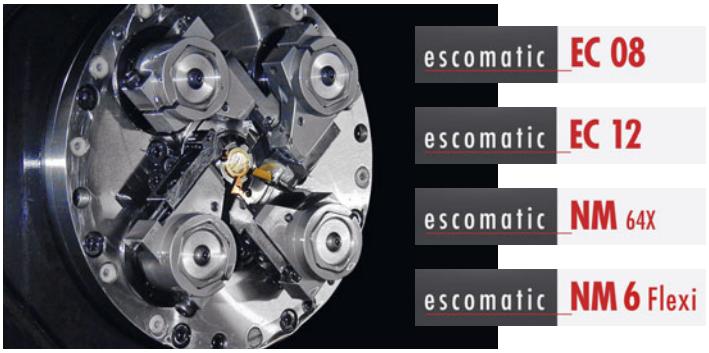
Legend 6

ESCOMATIC machines are known as versatile and flexible automatic turning centers for the low cost manufacture of complex work pieces in small and large batch sizes. Material is fed from the coil with a straightening unit or from a bar loader. UTILIS has developed a range of insert holders for various machine types.

Advantages:
- elaborate program of toolholders, available from stock
- nickelized toolholders with heat-treatable steel
- utilisation of high quality multidec® inserts
- quick change of inserts in the machine or presetting outside of the machine
- significant reduction of machine downtimes

TOURS AUTOMATIQUES esco





For the rotating tool heads of machine types EC08, EC12, Newmach NM 64X and NM 6 Flexi, the program includes tool holders which are suitable for multidec®-CUT, multidec®-TOP and ISO standard inserts.





For the machine type D6, we recommend a new exchange kit. This new holder and insert system will replace the old system with monobloc tools.





ESCO offers a modification of the existing chuck on the D2, D4 and D5 machine types, where the basic holders for the cranks can be replaced with insert holders. Following this modification, holders for UTILIS inserts can then be attached.
Important: In order to guarantee perfect functionality, modifications may only made by ESCO. UTILIS only supplies the holders and the corresponding inserts.

The following machine types can be modified:
D2, D2 Flex Speed, D5 Flex Speed, D2-CNC, D2-CNC-UP, D4, D5, D5-CNC, D5-Twin and D5-Ultra

Technical information 9



Support 608



Holders 609



Replacement and spare parts 613



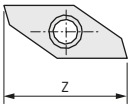
ESCO D6…

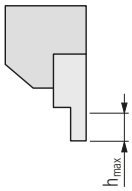
Order designation		Machine type	Holder 609…
ESCO D6-9-38-B	■	D6	ESCO D6-12…

UTILIS multidec® swiss type tools





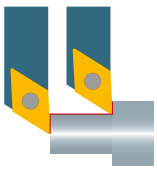




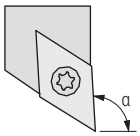
ESCO … CUT 1600 .

Order designation	Execution L	Execution N	Execution R	Machine type	Dimensions z	Dimensions h_{max}	Inserts 47…
ESCO 503-0679 CUT 1600 R			■	EC 08	15–16	5	16…
ESCO 503-0403 CUT 1600 R*			■	EC 08	13–14	4	16…
ESCO 403-0875 CUT 1600 R*			■	EC 12	13–14	4	16…
ESCO 303-1711 CUT 1600 R			■	NM 64 X	15–16	5	16…
ESCO 303-2126 CUT 1600 R			■	NM 64 X	14–15	5	16…
ESCO 303-2125 CUT 1600 R			■	NM 64 X	14.5–15.5	4.5	16…
ESCO 303-1657 CUT 1600 R*			■	NM 64 X	13–14	4	16…
ESCO D6-12-5451 CUT 1600 R			■	D6	15	5	16…
ESCO D6-12-5452 CUT 1600 L	■			D6	15	5	16…
ESCO D2-R-6353 CUT 1600 R*			■	D2, D4, D5	14	4	16…
ESCO D2-R-6353-1 CUT 1600 R			■	D2, D4, D5	15	5	16…

*** Attention**
The total length (z) of the CUT 16… cutting edges is 15 mm. If this length falls below any significant extent, the travel distance of the holder may no longer be sufficient to reach the centre. In this case, a switch to another holder for shorter indexable inserts must take place.

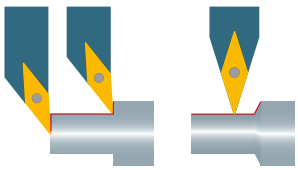




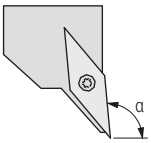


ESCO … DC …

Order designation	Execution L	Execution N	Execution R	Machine type	Dimensions α			Inserts 205…
ESCO 503-0333 DC 0702 R			■	EC 08	92°			DC..0702..
ESCO 503-0629 DC 0702 L	■			EC 08	92°			DC..0702..
ESCO 403-0653 DC 0702 R			■	EC 12	92°			DC..0702..
ESCO 303-1760 DC 0702 R			■	NM 64X	92°			DC..0702..
ESCO D6-12-5458 DC 0702 R			■	D6	92°			DC..0702..
ESCO D6-12-5457 DC 0702 L	■			D6	92°			DC..0702..



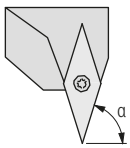




ESCO … VC …

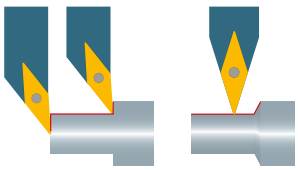
Order designation	Execution L	Execution N	Execution R	Machine type	Dimensions α	Inserts 259…
ESCO 503-0262 VC 0702 R			■	EC 08	92°	VC..0702..(R<0.1)
ESCO 503-0483 VC 0702 R			■	EC 08	92°	VC..0702..(R≥0.1)
ESCO 503-0583 VC 0702 L	■			EC 08	92°	VC..0702..(R≥0.1)
ESCO 503-0404 VC 1103 R			■	EC 08	92°	VC..1103..
ESCO 303-2127 VC 0702 L	■			NM 64 X	92°	VC..0702..(R<0.03)
ESCO 303-1637 VC 0702 R			■	NM 64 X	92°	VC..0702..(R<0.03)
ESCO 303-1640 VC 0702 R			■	NM 64 X	92°	VC..0702..(R≥0.03)
ESCO D6-12-5455 VC 1103 R			■	D6	92°	VC..1103..
ESCO D6-12-5454 VC 1103 L	■			D6	92°	VC..1103..



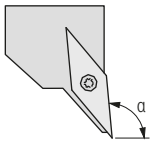


ESCO … VC … N

Order designation	Execution L	Execution N	Execution R	Machine type	Dimensions α	Inserts 259…
ESCO 503-0482 VC 0702 N		■		EC 08	72.5°	VC..0702..
ESCO 303-1642 VC 0702 N		■		NM 64 X	72.5°	VC..0702..



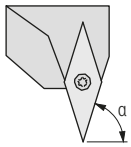




ESCO … VB …

Order designation	Execution			Machine type	Dimensions			Inserts
	L	N	R		α			
ESCO 403-0674 VB 1103 R			■	EC 12	92°			VB..1103
ESCO 403-0696 VB 1103 L	■			EC 12	92°			VB..1103





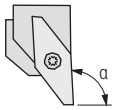
ESCO … VB … N

Order designation	Execution			Machine type	Dimensions			Inserts
	L	N	R		α			
ESCO 403-0679 VB 1103 N		■		EC 12	72.5°			VB..1103





ESCO … VP …



Order designation	Execution L	Execution N	Execution R	Machine type	Dimensions α	Inserts 299…
ESCO 503-0335 VP 1003 R			■	EC 08	92°	VP..1003..
ESCO 403-0293 VP 1003 R			■	EC 12	90°	VP..1003..
ESCO 403-0594 VP 1003 R			■	EC 12	92°	VP..1003..
ESCO 403-0652 VP 1003 L	■			EC 12	92°	VP..1003..
ESCO D6-12-5456 VP 1003 R			■	D6	92°	VP..1003..
ESCO D6-12-5453 VP 1003 L	■			D6	92°	VP..1003..

Illustration	Description	Dimensions	Order designation		Holder
	TORX screw	M2 × 5.5 T06	MSP 20055 T06	■	ESCO… VC 0702 .
		M2.5 × 6 T08	MSP 25060 T08	■	ESCO… CUT 1600 . ESCO… VP 1003 . ESCO… VB 1103 . ESCO… VC 1103 . ESCO… DC 0702 .
	Special allen head screw	M4 × 12	ESCO D6-4-409 IB3	■	ESCO D6-9-38-B
	Socket head screw	M4 × 10	MSP 40100 IB3	■	ESCO D6-12…
		M4 × 12	MSP 40120 IB3	■	
	Set screw	M3 × 25	MSP 30250 IB1.5	■	ESCO D6-9-38-B
	Allen key	SW 1.5	MSP IB1.5	■	MSP 30… IB1.5
		SW 3	MSP IB3	■	MSP 40… IB3

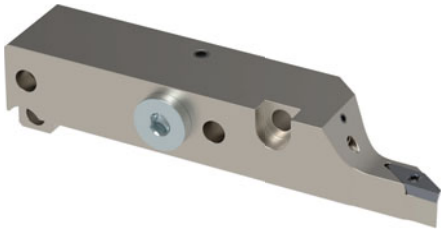
UTILIS multidec® swiss type tools

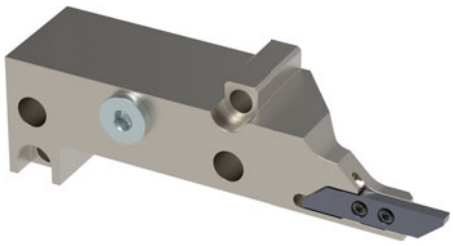
Cut-off operation near the spindle or the sub-spindle is frequently difficult with standard-tool holders. The cutting edge is to far away or the tool holder collides with the spindle. Adapted special tool holders are the solution in this case.
This program proposes to use multidec®-CUT and -TOP inserts, adapted tool holders and modules for machines of DECO 7, DECO 10, EvoDECO 10, DECO 13, EvoDECO 16, DECO 20, DECO 26 and EvoDECO 32.

TORNOS



Advantages:
- Adapted tool-holders with internal cooling, nickel plated and made from heat treated steel, available from stock
- Increased stability by direct attachment of tool holders on the machine base plate
- Cutting edge near the spindle/sub-spindle
- Cut-off of small parts without problems
- Utilisation of high quality multidec®-CUT inserts





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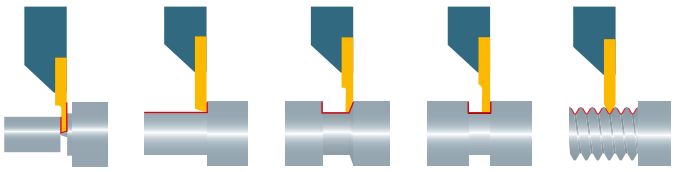
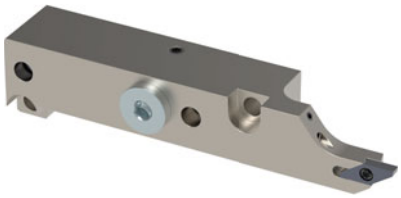
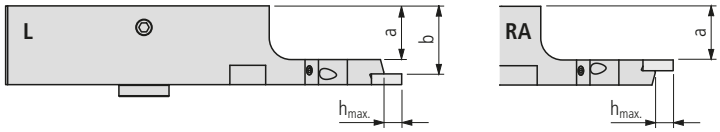
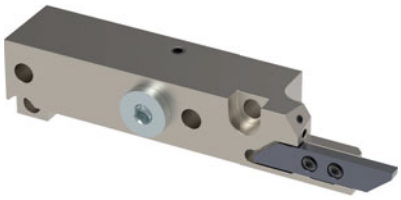


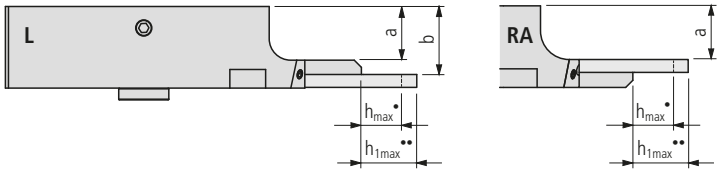




DECO… 7/10 CUT 1600 …

Order designation				Dimensions				Machine type	Inserts
L		R		a	b	h_{max}			47…
DECO/EVO 7/10 CUT 1600 L IC	■	DECO/EVO 7/10 CUT 1600 RA IC	■	15	19	5		DECO 7/10, EvoDECO 10	16…



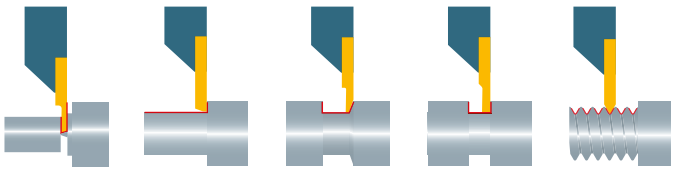


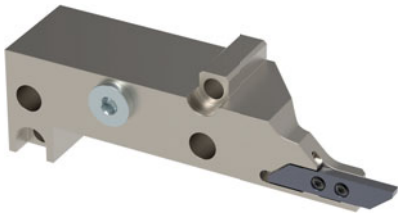
DECO… 7/10 CUT 3000 …

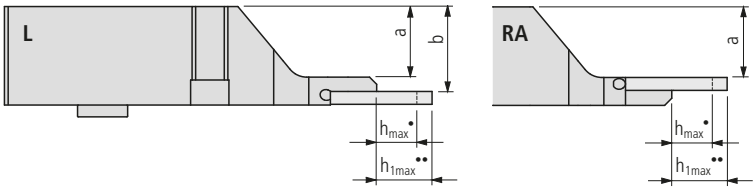
Order designation				Dimensions				Machine type	Inserts
L		R		a	b	h_{max}	h_{1max}		107…
DECO/EVO 7/10 CUT 3000 L IC	■	DECO/EVO 7/10 CUT 3000 RA IC	■	15	19	10	–	DECO 7/10, EvoDECO 10	30 …

• Short insert; •• Long insert

UTILIS multidec swiss type tools



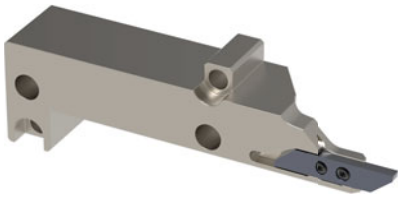


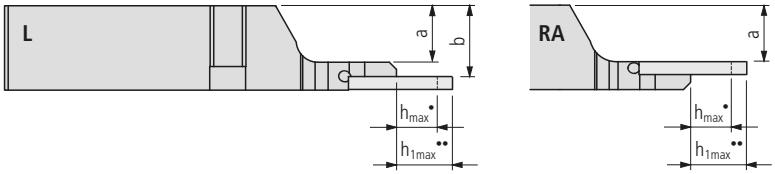


DECO… 13/16 CUT 3000 …

Order designation				Dimensions				Machine type	Inserts
L		R		a	b	h_{max}	h_{1max}		107…
DECO/EVO 13/16 CUT 3000 L IC	■	DECO/EVO 13/16 CUT 3000 RA IC	■	25	29	10	–	DECO 13, EvoDECO 16	30…

• Short insert; •• Long insert

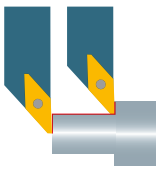


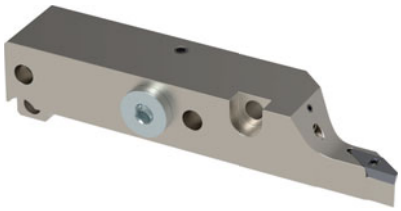


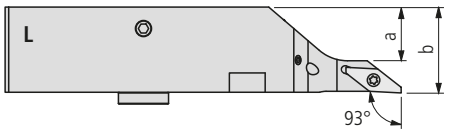
DECO… 20/26/32 CUT 3000 …

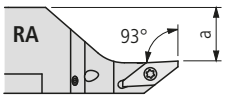
Order designation				Dimensions				Machine type	Inserts
L		R		a	b	h_{max}	h_{1max}		107…
DECO/EVO 20/26/32 CUT 3000 L IC	■	DECO/EVO 20/26/32 CUT 3000 RA IC	■	20	24	10	16	DECO 20/26, Evo DECO 32	30…

• Short insert; •• Long insert





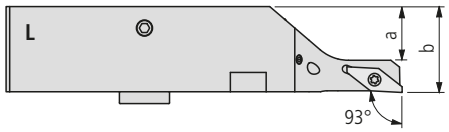


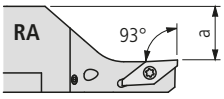


DECO… 7/10 SVJP … (93°)

Order designation				Dimensions				Machine type	Inserts
L		R		a	b				299…
DECO/EVO 7/10 SVJP L IC	■	DECO/EVO 7/10 SVJP RA IC	■	15	24			DECO 7/10, EvoDECO 10	VP 1003..

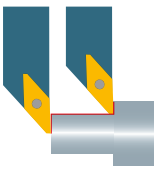


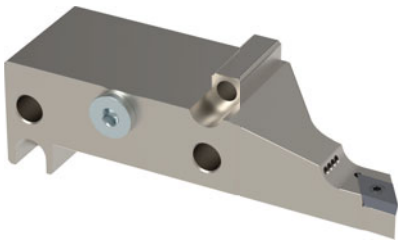


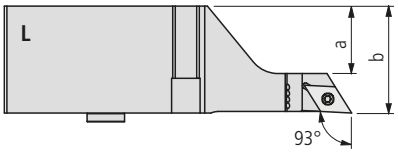


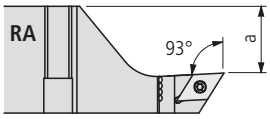
DECO… 7/10 SVJP … V (93°)

Order designation				Dimensions				Machine type	Inserts
L		R		a	b				299…
DECO/EVO 7/10 SVJP L V IC	■	DECO/EVO 7/10 SVJP RA V IC	■	15	24			DECO 7/10, EvoDECO 10	VP 1003..





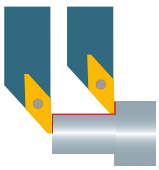


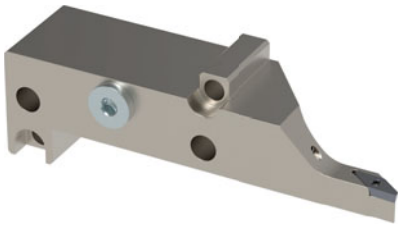


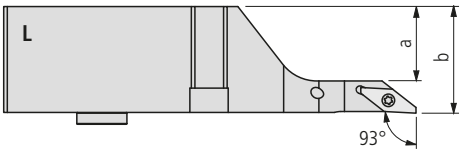
DECO… 13/16 SDJC … (93°)

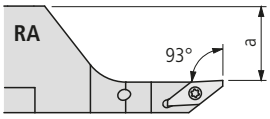
Order designation				Dimensions				Machine type	Inserts
L		R		a	b				205…
DECO/EVO 13/16 SDJC L IC	■	DECO/EVO 13/16 SDJC RA IC	■	25	40			DECO 13, EvoDECO 16	DC.. 11T3..

UTILIS multidec® swiss type tools



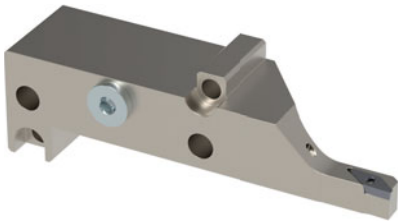


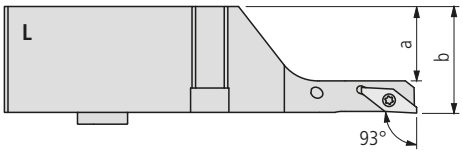


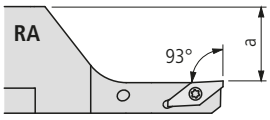


DECO… 13/16 SVJP … (93°)

Order designation				Dimensions		Machine type	Inserts
L		R		a	b		299…
DECO/EVO 13/16 SVJP L IC	■	DECO/EVO 13/16 SVJP RA IC	■	25	34	DECO 13, EvoDECO 16	VP 1003..



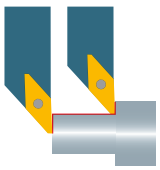


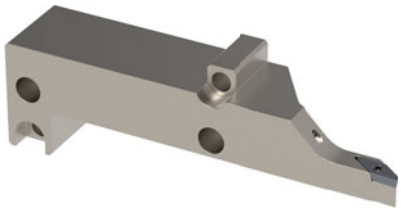


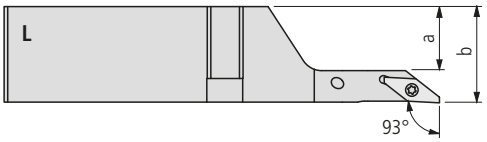
DECO… 13/16 SVJP … V (93°)

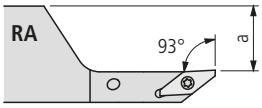
Order designation				Dimensions		Machine type	Inserts
L		R		a	b		299…
DECO/EVO 13/16 SVJP L V IC	■	DECO/EVO 13/16 SVJP RA V IC	■	25	34	DECO 13, EvoDECO 16	VP 1003..

UTILIS multidec swiss type tools



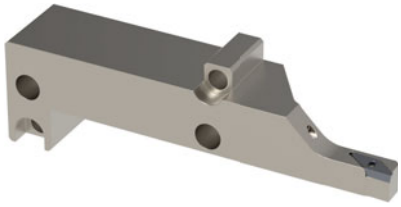


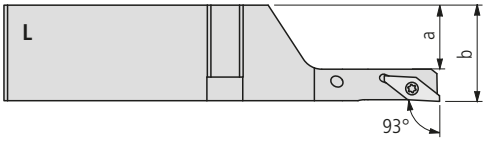


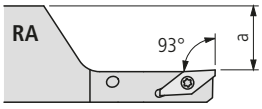


DECO… 20/26/32 SVJP … (93°)

Order designation				Dimensions				Machine type	Inserts
L		R		a	b				299…
DECO/EVO 20/26/32 SVJP L IC	■	DECO/EVO 20/26/32 SVJP RA IC	■	20	29			DECO 20/26, EvoDECO 32	VP 1003..

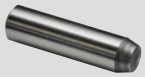






DECO… 20/26/32 SVJP … V (93°)

Order designation				Dimensions				Machine type	Inserts
L		R		a	b				299…
DECO/EVO 20/26/32 SVJP L V IC	■	DECO/EVO 20/26/32 SVJP RA V IC	■	20	29			DECO 20/26, EvoDECO 32	VP 1003..

Illustration	Description	Dimensions	Order designation		Holder
	TORX screw	M2.5 × 6 T08	MSP 25060 T08	■	DECO/EVO… CUT 1600.. DECO/EVO…SVJP..
		M3 × 9 T08	MSP 30090 T08	■	DECO/EVO… CUT 3000..
	Cylindrical pin	ø5 h6 × 24	MSP ZS524	■	DECO/EVO 7/10…
		ø5 h6 × 24	MSP ZS524 special	■	DECO/EVO 7/10…
	Socket head screw	M5 × 30 IB4	MSP 50300 IB4	■	DECO/EVO 7/10…
		M6 × 40 IB5	MSP 60400 IB5	■	DECO/EVO 13/16…
		M6 × 35 IB5	MSP 60350 IB5	■	DECO/EVO 20/26/32…
	Allen key	SW 4	MSP IB4	■	MSP 50… IB4
		SW 5	MSP IB5	■	MSP 60… IB5
	Screw plug	G1/8" IB5	MSP VSR G1/8 IB5	■	DECO/EVO 7/10… DECO/EVO 13/16…

TORX screwdriver 664

UTILIS multidec® swiss type tools

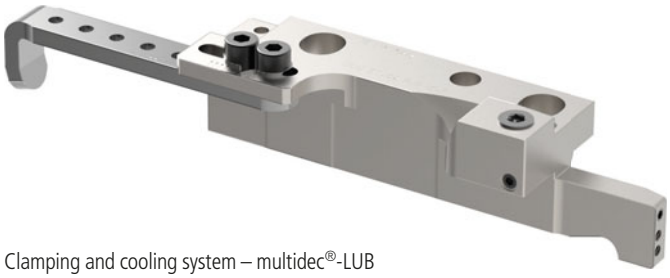
■ New

Legend 6

Attention
Please note the legend 🗋6…

UTILIS multidec® swiss type tools

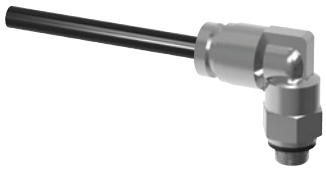
Accessories are well-suited products to be used in combination with cutting tools in different machining applications. They aren't related to a specific tool system.



Clamping and cooling system – multidec®-LUB



Coolant connections





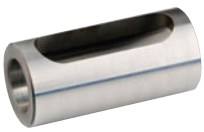
Monoblock ER tool holder – multidec®-TAPER-IN



Sscrewdriver



Collets



Reduction sleeves

Technical information 9

Clamping and cooling system



Overview – multidec®-LUB 626

Coolant connections



Overview of high pressure and low pressure 632

Monoblock ER tool holder



Overview – multidec®-TAPER-IN 656

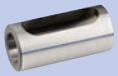
Screwdriver



Overview 664

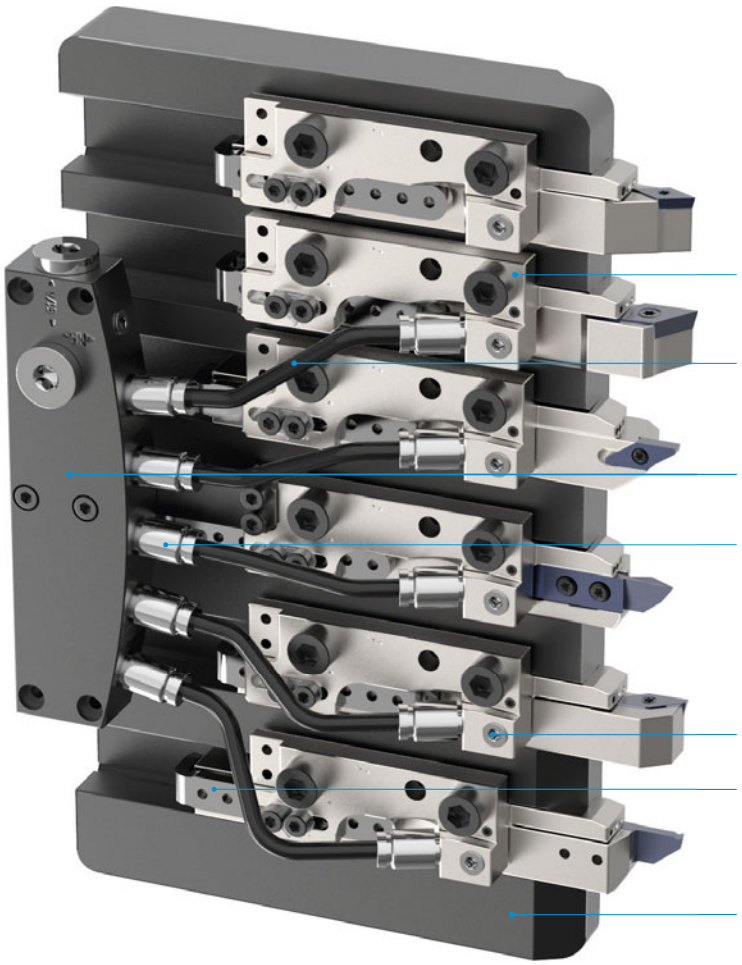


Collets 670



Reduction sleeves 671

The multidec®-LUB clamping shim directs the coolant precisely onto the tool insert, even at low pressure. The flexible stop allows for the tool holder to be replaced safely and quickly. The supply of coolant under high and low pressure is made through a distributor block or directly in the multidec®-LUB clamping shim.
Coolant distributors with two to eight outlets, hoses in a range of different versions and lengths, plus diverse fittings and quick couplings are available as accessories for complete high-pressure and low-pressure solutions.



Benefits:
- Simple installation through replacement of the original clamping shim with the multidec®-LUB clamping shim
- The service life of the insert is increased as the removal of chips and heat is improved thanks to the precise positioning of the cooling on the cutting edge
- Increased process reliability
- Use of the clamping shim at pressures of 30 to 200 bar or 435 to 2900 psi
- Quick and safe replacement of the insert thanks to integrated stop
- Tool holders without internal cooling (IC) can continue to be used
- The clamping shim can be used under high and low pressure
- For right-hand and left-hand tool holders
- the clamping shim has two connecting options for the coolant supply
- Different coolant distributors, hoses and push-in fittings for high and low pressure
- Torque screwdriver for precise clamping of the tools

Technical information 9



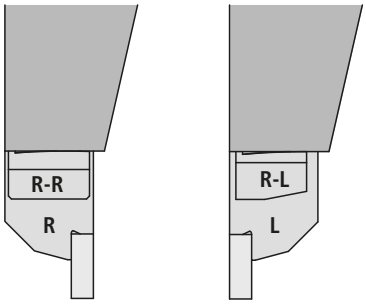
Clamping shims 628



Replacement and spare parts 630

Order guideline 631





MLU… IC CITIZEN

R-R: Clamping shim for right-hand holders "R"; **R-L:** Clamping shim for left-hand holders "L"

Type of machine	Tool plate	Holder	Positions	Order designation			
R07	QFT4308	8×8	T11–T12	MLU CI-12 R-R IC-F	■	MLU CI-12 R-L IC-F	■
L12	GTF7020	8×8	T1–T6	MLU CI-10 R-R IC-F	■	MLU CI-10 R-L IC-F	■
L12	GTF7010L	⅜" (9.525)	T1–T6	MLU CI-07 R-R IC-F	■	MLU CI-07 R-L IC-F	■
C16, K12, K16, M16	GTF6010, BTF1010, GTF5110, GTF5210	10×10	T1–T6	MLU CI-02 R-R IC-F	■	MLU CI-02 R-L IC-F	■
K12, L12	GTF7010	10×10	T1–T6	MLU CI-09 R-R IC-F	■	MLU CI-09 R-L IC-F	■
L16	GTF3110	10×10	T1–T4	MLU CI-14 R-R IC-F	■	MLU CI-14 R-L IC-F	■
A20, K12, K16, L20, M16	BTF1012, GTF3812	12×12	T1–T6	MLU CI-01 R-R IC-F	■	MLU CI-01 R-L IC-F	■
A20, L20	GTF3612, BTF2212, BTF2412	12×12	T2–T5	MLU CI-01 R-R IC-F	■	MLU CI-01 R-L IC-F	■
A20, M20	BTF2413, GTF2513	12×12	T1–T6	MLU CI-05 R-R IC-F	■	MLU CI-05 R-L IC-F	■
A20, L20	BTF2213, BTF2413, GTF3113	½" (12.7)	T2–T6	MLU CI-03 R-R IC-F	■	MLU CI-03 R-L IC-F	■
M32	GTF5216, GTF5816	16×16, ⅝" (15.875)	T1–T5	MLU CI-08 R-R IC-F	■	MLU CI-08 R-L IC-F	■
L25, L32	GTF4016, GTF4516	16×16, ⅝" (15.875)	T11–T15	MLU CI-08 R-R IC-F	■	MLU CI-08 R-L IC-F	■
L20	BTF2413, GTF3612	16×16, ⅝" (15.875)	T1 (Cut Off)	MLU CI-08 R-R IC-F	■	MLU CI-08 R-L IC-F	■

MLU… IC STAR

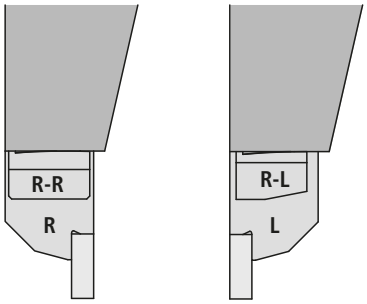
Type of machine	Tool plate	Holder	Positions	Order designation			
SR-10J	691-01	8×8	T1–T6	MLU ST-01 R-R IC-F	■	MLU ST-01 R-L IC-F	■
SR-16R, SR-20R, RII	541-01	12×12	T1–T6	MLU ST-07 R-R IC-F	■	MLU ST-07 R-L IC-F	■
SR-20J, RIII, RIV, SB-16	0E0-62, 680-62, 0W0-62, 481-02	12×12	T2–T6	MLU ST-07 R-R IC-F	■	MLU ST-07 R-L IC-F	■
SW-20, ECAS-12/20	571-03	12×12	T1–T4	MLU ST-07 R-R IC-F	■	MLU ST-07 R-L IC-F	■
SW-20, ECAS-12/20	571-01	12×12	T11–T12	MLU ST-07 R-R IC-F	■	MLU ST-07 R-L IC-F	■
SR-20J, RIII, SB-16	0E0-62, 680-62, 481-02	12×12	T1 (Cut Off)	MLU ST-08 R-R IC-F	■	MLU ST-08 R-L IC-F	■
SR-20RIV	0W0-62	12×12	T1 (Cut Off)	MLU ST-09 R-R IC-F	■	MLU ST-09 R-L IC-F	■
SV-12, 20	421-01, 421-91	12×12, ½" (12.7)	T3–T5	MLU ST-10 R-R IC-F	■	MLU ST-10 R-L IC-F	■
SV-12, 20	421-01, 421-91	12×12, ½" (12.7)	T1 (Cut Off), T2	MLU ST-11 R-R IC-F	■	MLU ST-11 R-L IC-F	■
SR-32J	670-62	16×16, ⅝" (15.875)	T2–T6	MLU ST-03 R-R IC-F	■	MLU ST-03 R-L IC-F	■
SR-32J	670-62	16×16, ⅝" (15.875)	T1 (Cut Off)	MLU ST-02 R-R IC-F	■	MLU ST-02 R-L IC-F	■
SV-32	421-04	16×16	T2–T4	MLU ST-13 R-R IC-F	■	MLU ST-13 R-L IC-F	■
SV-32	421-04	16×16	T1 (Cut Off)	MLU ST-12 R-R IC-F	■	MLU ST-12 R-L IC-F	■

MLU… IC TSUGAMI

Type of machine	Tool plate	Holder	Positions	Order designation			
BH, BO, BS, S		12×12	T1–T8, T18–T24	MLU TS-02 R-R IC-F	■	MLU TS-02 R-L IC-F	■
H207, SS207, SS207-5AX		12×12	T4–T8, T18–T21	MLU TS-01 R-R IC-F	■	MLU TS-01 R-L IC-F	■
BH20		12×12	T1 (Cut Off)	MLU TS-04 R-R IC-F	■	MLU TS-04 R-L IC-F	■
HS237		16×16	T1–T5	MLU TS-06 R-R IC-F	■	MLU TS-06 R-L IC-F	■

Continued on next page

Continuation



MLU… IC TORNOS

R-R: Clamping shim for right-hand holders "R"; **R-L:** Clamping shim for left-hand holders "L"

Type of machine	Tool plate	Holder	Positions	Order designation			
GT13, DT13	390224, 390223	12 × 12	T1–T5	MLU TO-06 R-R IC-F	■	MLU TO-06 R-L IC-F	■
GT13, DT13	390224	12 × 12	T1 (Cut Off)	MLU TO-07 R-R IC-F	■	MLU TO-07 R-L IC-F	■
CT20/5	2000118	12 × 12	T1–T6	MLU TO-05 R-R IC-F	■	MLU TO-05 R-L IC-F	■
SWISS GT26	386209	16 × 16	T1–T5	MLU TO-04 R-R IC-F	■	MLU TO-04 R-L IC-F	■
SWISS GT26	386210	16 × 16	T2–T4	MLU TO-03 R-R IC-F	■	MLU TO-03 R-L IC-F	■
SWISS GT26	386210	16 × 16	T1, T2 (Cut Off)	MLU TO-02 R-R IC-F	■	MLU TO-02 R-L IC-F	■

MLU… IC HANWHA

Type of machine	Tool plate	Holder	Positions	Order designation			
XD12 J, SL16 S		12 × 12	T1–T6	MLU HA-01 R-R IC-F	■	MLU HA-01 R-L IC-F	■
XD20 H, XD20 J, SL200		12 × 12	T1–T6	MLU HA-02 R-R IC-F	■	MLU HA-02 R-L IC-F	■

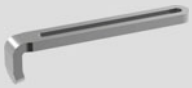
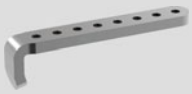
MLU… IC DMG

Type of machine	Tool plate	Holder	Positions	Order designation			
Sprint 20		12 × 12	T1–T5	MLU GM-01 R-R IC-F	■	MLU GM-01 R-L IC-F	■
Sprint 32/42 linear classic	Mainside	16 × 16	T1–T5	MLU GM-02 R-R IC-F	■	MLU GM-02 R-L IC-F	■
Sprint 32/42 linear classic	Backside	12 × 12	T1–T3	MLU GM-03 R-R IC-F	■	MLU GM-03 R-L IC-F	■

Scope of delivery: Clamping shim with stop

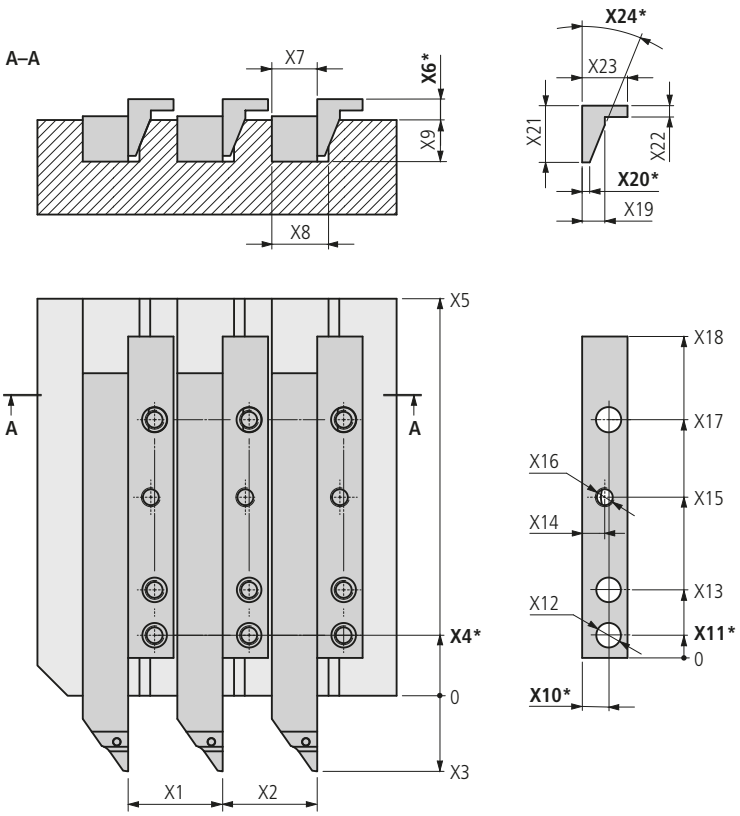
Coolant connectors 632
Torque screwdriver 664

Attention
Tighten the multidec®-LUB clamping shim using the torque screwdriver according to the marking on the shim.

Illustration	Description	Dimensions	Order designation	
	Pointer		MLU 68-01	■
	Allen head screw	M3 × 6 DIN912	MSP30060 IB2.5	■
	Washer	M3/3.2/7/0.5	MSP US-3	■
	Screw plug	M5 × 4	MSP VSR M5	■
	Stop	L 42	MLU 42 AN-A	■
		L 50	MLU 50 AN-A	■
		L 60	MLU 60 AN-A	■
	Stop	L 54	MLU 54 AN-I	■

In order to determine the correct multidec®-LUB clamping shim, we require the exact dimensions of the tool plate and clamping shim.
Therefore, please send these to us as a sample for measurement or use the form to send us the required information.

IMPORTANT:
The positions in the tool plate are not always identical. Therefore, measure the position where you want to use the multidec®-LUB clamping shim exactly.



Machine data	
Manufacturer	
Type	
Year of manufacture	
Serial number	
Plate number	
Shaft cross-section	

Dimensions	(mm)
X1	
X2	
X3	
X4*	
X5	
X6*	
X7	
X8	

Dimensions	(mm)
X9	
X10*	
X11*	
X12	
X13	
X14	
X15	
X16	

Dimensions	(mm)
X17	
X18	
X19	
X20*	
X21	
X22	
X23	
X24*	

*** Important dimension: Enter exact measurement!**

Company

Responsible person

Road

Postal code, City

Phone

Fax

E-mail

UTILIS® Tooling for High Technology

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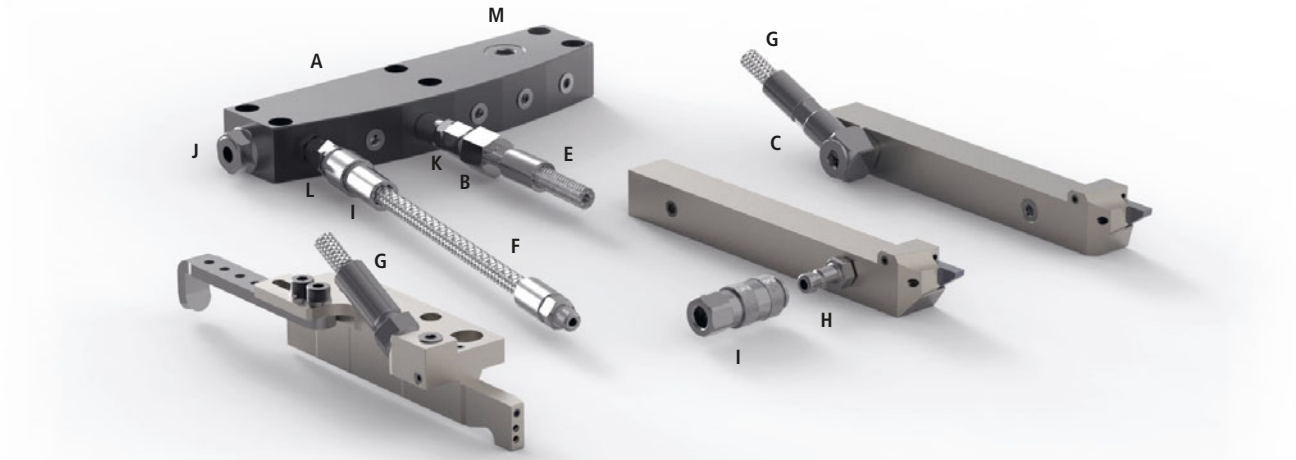
Kreuzlingerstrasse 22, CH-8555 Müllheim, Switzerland
Phone +41 52 762 62 62, Fax +41 52 762 62 00
info@utilis.com, www.utilis.com

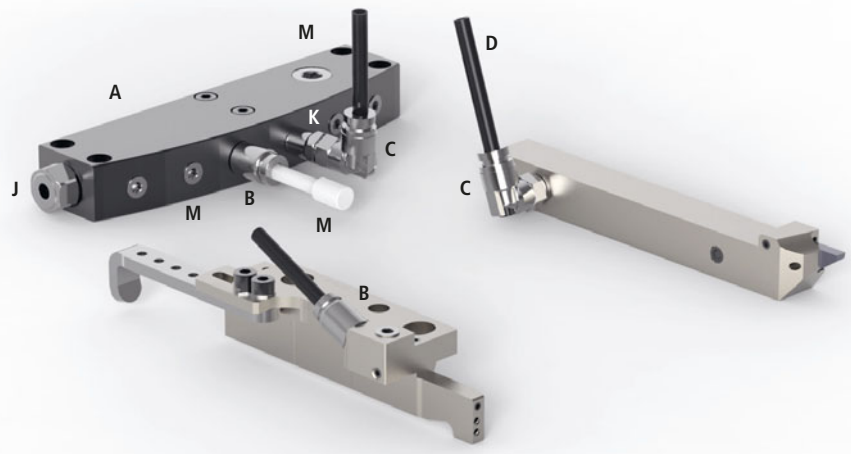
The newly developed high-pressure solution from UTILIS (up to a maximum of 200 bar or 2900 psi) ensures optimal delivery of coolant to the insert.
The highly compact and robust design and the stainless steel finish are the main features of this product.
The product range includes several straight and pivoting unions with connection diameters of 4 mm and several quick connections. The use thereof dispenses with the laborious task of unscrewing the high-pressure tubes. This increases efficiency by minimising machine downtime.
The high-pressure hoses are available in a wide variety of lengths with different connections.
Reduction unions, extensions, screw connections, spare parts and coolant distributors round off the product range.

Benefits:
– flexible enough to be used with all multidec® product lines with internal cooling
– can be used within a temperature range of –60 to +250 °C or –76 to +482 °F
– can be used up to a maximum operating pressure of 200 bar or 2900 psi



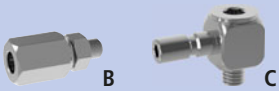
The range associated with the low-pressure solution for operating pressures up to a maximum of 30 bar or 435 psi includes a straight union and a swivel-type union with a connecting diameter of 4 mm when a polyurethane tube is being used.
As with our high-pressure solution, we offer reduction unions, extensions, closing plugs, and sealing rings.
The polyurethane tube with an external diameter of 4 mm is 1000 mm long. This allows you to cut it to the length you need on a case-by-case basis.
A well-balanced range of compact coolant distributors made of light metal completes the offer.

Benefits:
– flexible enough to be used with all multidec® product lines with internal cooling
– can be used within a temperature range from –40 to +100 °C or –40 to +212°F
– can be used up to a maximum operating pressure of 30 bar or 435 psi (test pressure of 30 bar or 435 psi)
– corrosion-resistant and compact design

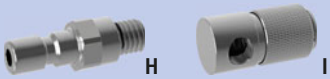


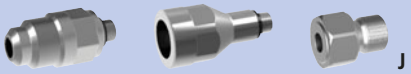
Coolant connections – high pressure

Coolant distributors  A 634

Unions  B C 635

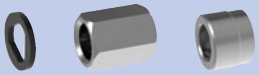
Tubes  E/F/G 636

Quick change connectors  H I 639

Reduction unions  J 641

Extensions / Screw connections  K L 642

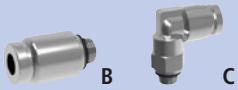
Screw and closing plugs  M 644

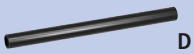
Replacement parts  645

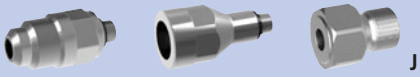
Assembly examples / Installation instructions  646

Coolant connections – low pressure

Coolant distributors  A 648

Unions  B C 649

Coolant tubes  D 650

Reduction unions  J 651

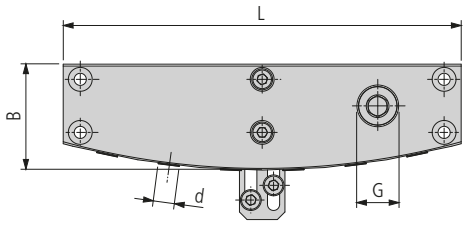
Extensions  K 652

Screw and closing plugs  M 653

Replacement parts  654

Installation instructions  655





MLU KV … S (Small)

Order designation		Dimensions G		B	d	L				Connections Inputs G	Outputs d	Item
MLU KV 2-2 S	■	G1/8		24	M5	23				2	2	A
MLU KV 4-3 S	■	G1/8		24	M5	45				3	4	
MLU KV 6-3 S	■	G1/8		24	M5	65				3	6	
MLU KV 8-3 S	■	G1/8		24	M5	85				3	8	

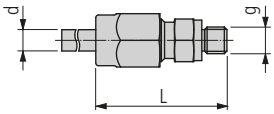
MLU KV … L (Large)

Order designation		Dimensions G		B	d	L				Connections Inputs G	Outputs d	Item
MLU KV 2-2 L	■	G1/8		25	M5	35				2	2	A
MLU KV 4-3 L	■	G1/8		25	M5	68				3	4	
MLU KV 6-3 L	■	G1/8		28	M5	105				3	6	
MLU KV 8-3 L	■	G1/8		25	M5	138				3	8	

Replacement parts 645

maximum 200 bar/2900 psi



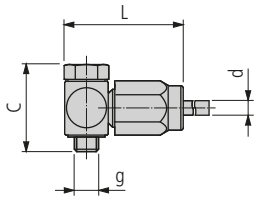


MSP UGVR …

Order designation		Dimensions							Version	Item
		g		d	L					
MSP UGVR M5-4	■	M5		4	27				straight	**B**
MSP UGVR G1/8-4	■	G1/8		4	32					
MSP UGVR PT1/8	■	PT1/8		4	32					

No sealing ring required





MSP USVR …

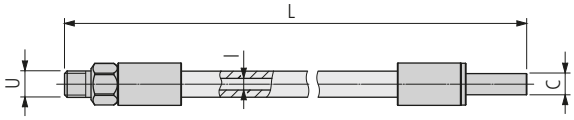
Order designation		Dimensions							Version	Item
		g		d	L	C				
MSP USVR M5-4	■	M5		4	28	21			pivoting	**C**
MSP USVR G1/8-4	■	G1/8		4	37	30				
MSP USVR M5-M5	■	M5		M5	19	16				

No sealing ring required

Replacement parts 645

maximum 200 bar/2900 psi





MSP UHPT … M5-4

Order designation		Dimensions								Version	Item
						L	C	U	I		
MSP UHPT 100 M5-4	■					100	4	M5	3	Connecting piece/ thread	**E**
MSP UHPT 150 M5-4	■					150	4	M5	3		
MSP UHPT 200 M5-4	■					200	4	M5	3		
MSP UHPT 250 M5-4	■					250	4	M5	3		
MSP UHPT 300 M5-4	■					300	4	M5	3		
MSP UHPT 400 M5-4	■					400	4	M5	3		
MSP UHPT 500 M5-4	■					500	4	M5	3		

No sealing ring required

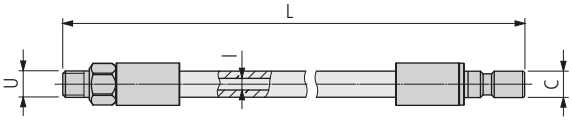
MSP UHPTB … M5-4

Order designation		Dimensions								Version	Item
						L	C	U	I		
MSP UHPTB 100 M5-4	■					100	4	M5	3.7	Connecting piece/ thread	**E**
MSP UHPTB 150 M5-4	■					150	4	M5	3.7		
MSP UHPTB 200 M5-4	■					200	4	M5	3.7		
MSP UHPTB 250 M5-4	■					250	4	M5	3.7		
MSP UHPTB 300 M5-4	■					300	4	M5	3.7		
MSP UHPTB 400 M5-4	■					400	4	M5	3.7		
MSP UHPTB 500 M5-4	■					500	4	M5	3.7		

No sealing ring required

maximum 200 bar/2900 psi





MSP UHPT … M5

Order designation		Dimensions								Version	Item
						L	C	U	I		
MSP UHPT 100 NM-M5	■					100	NM	M5	3		
MSP UHPT 150 NM-M5	■					150	NM	M5	3		
MSP UHPT 200 NM-M5	■					200	NM	M5	3		
MSP UHPT 250 NM-M5	■					250	NM	M5	3	Connector/thread	**F**
MSP UHPT 300 NM-M5	■					300	NM	M5	3		
MSP UHPT 400 NM-M5	■					400	NM	M5	3		
MSP UHPT 500 NM-M5	■					500	NM	M5	3		

No sealing ring required

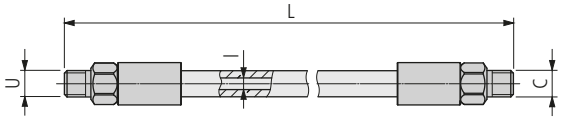
MSP UHPTB … M5

Order designation		Dimensions								Version	Item
						L	C	U	I		
MSP UHPTB 100 NM-M5	■					100	NM	M5	3.7		
MSP UHPTB 150 NM-M5	■					150	NM	M5	3.7		
MSP UHPTB 200 NM-M5	■					200	NM	M5	3.7		
MSP UHPTB 250 NM-M5	■					250	NM	M5	3.7	Connector/thread	**F**
MSP UHPTB 300 NM-M5	■					300	NM	M5	3.7		
MSP UHPTB 400 NM-M5	■					400	NM	M5	3.7		
MSP UHPTB 500 NM-M5	■					500	NM	M5	3.7		

No sealing ring required

maximum 200 bar/2900 psi





MSP UHPT … M5-M5

Order designation		Dimensions								Version	Item
						L	C	U	I		
MSP UHPT 100 M5-M5	■					100	M5	M5	3		
MSP UHPT 150 M5-M5	■					150	M5	M5	3		
MSP UHPT 200 M5-M5	■					200	M5	M5	3		
MSP UHPT 250 M5-M5	■					250	M5	M5	3	Thread/thread	**G**
MSP UHPT 300 M5-M5	■					300	M5	M5	3		
MSP UHPT 400 M5-M5	■					400	M5	M5	3		
MSP UHPT 500 M5-M5	■					500	M5	M5	3		

No sealing ring required

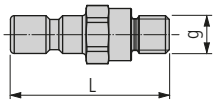
MSP UHPTB … M5-M5

Order designation		Dimensions								Version	Item
						L	C	U	I		
MSP UHPTB 100 M5-M5	■					100	M5	M5	3.7		
MSP UHPTB 150 M5-M5	■					150	M5	M5	3.7		
MSP UHPTB 200 M5-M5	■					200	M5	M5	3.7		
MSP UHPTB 250 M5-M5	■					250	M5	M5	3.7	Thread/thread	**G**
MSP UHPTB 300 M5-M5	■					300	M5	M5	3.7		
MSP UHPTB 400 M5-M5	■					400	M5	M5	3.7		
MSP UHPTB 500 M5-M5	■					500	M5	M5	3.7		

No sealing ring required

maximum 200 bar/2900 psi



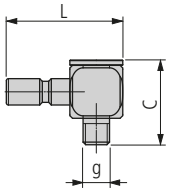


MSP UNM … (Plug)

Order designation		Dimensions g	L	Version	Item
MSP UNM M5	■	M5	21	Plug	**H**

No sealing ring required



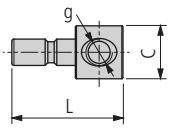


MSP USNM …

Order designation		Dimensions g	L	C	Version	Item
MSP USNM M5	■	M5	22	16	Connector pivoting by 90°	**H**

No sealing ring required





MSP UANM …

Order designation		Dimensions g	L	C	Version	Item
MSP UANM M5	■	M5	21	10	Connector 90°	**H**

No sealing ring required

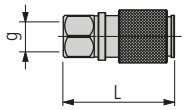
Replacement parts 🗋645

UTILIS® Tooling for High Technology

maximum 200 bar/2900 psi



MSP UCF M5 (Plug)

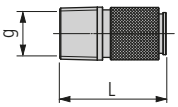


Order designation	Dimensions		Version	Item
	g	L		
MSP UCF M5 ■	M5	21	Coupling	I

No sealing ring required



MSP UCF PT…

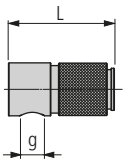


Order designation	Dimensions		Version	Item
	g	L		
MSP UCF PT1/8 ■	PT1/8	20	Coupling	I

No sealing ring required



MSP UACF …



Order designation	Dimensions		Version	Item
	g	L		
MSP UACF M5 ■	M5	20	Coupling 90°	I

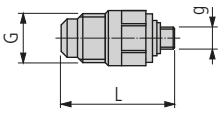
No sealing ring required

Replacement parts 645

maximum 200 bar/2900 psi



MSP RVR …

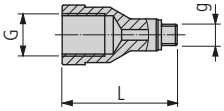


Order designation		Dimensions G	g	L	Version	Item
MSP RVR M5-7/16-20 UNF	■	7/16-20 UNF	M5	29	–	J

Including sealing ring



MSP RVR …

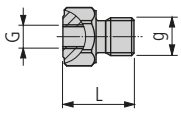


Order designation		Dimensions G	g	L	Version	Item
MSP RVR 100 M5-M6	■	M6	M5	15	–	J
MSP RVR 185 M5-M8x1	■	M8×1	M5	23		
MSP RVR 225 M5-M10x1	■	M10×1	M5	27		
MSP RVR 225 M5-G1/8"	■	G1/8"	M5	27		

Including sealing ring



MSP RVR …

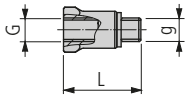


Order designation		Dimensions G	g	L	Version	Item
MSP RVR 100 M6-M5	■	M5	M6	18	–	J
MSP RVR 70 M8x1-M5	■	M5	M8×1	15		
MSP RVR 70 M10x1-M5	■	M5	M10×1	15		
MSP RVR 70 G1/8"-M5	■	M5	G1/8"	15		

No sealing ring required

maximum 200 bar/2900 psi





MSP VL …

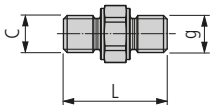
Order designation		Dimensions G	g			L				Version	Item
MSP VL 100 M5-M5	■	M5	M5			10				–	**K**
MSP VL 200 M5-M5	■	M5	M5			20					
MSP VL 400 M5-M5	■	M5	M5			40					

Including sealing ring

Replacement parts 645

maximum 200 bar/2900 psi



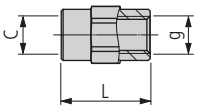


MSP EVRA …

Order designation		Dimensions								Version	Item
			g			L	C				
MSP EVRA M5-M5	■		M5			12	M5			–	**L**

No sealing ring required





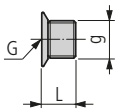
MSP EVRI …

Order designation		Dimensions								Version	Item
			g			L	C				
MSP EVRI M5-M5	■		M5			14	M5			–	**L**

No sealing ring required

maximum 200 bar/2900 psi



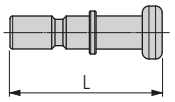


MSP VSR …

Order designation		Dimensions								Version	Item
		g	G			L					
MSP VSR G1/8" IB5	■	G1/8"	IB5			11				–	**M**
MSP VSR M5 IB2.5	■	M5	IB2.5			4					
MSP VSR M8x1 IB4	■	M8×1	IB4			5.5					

Including sealing ring





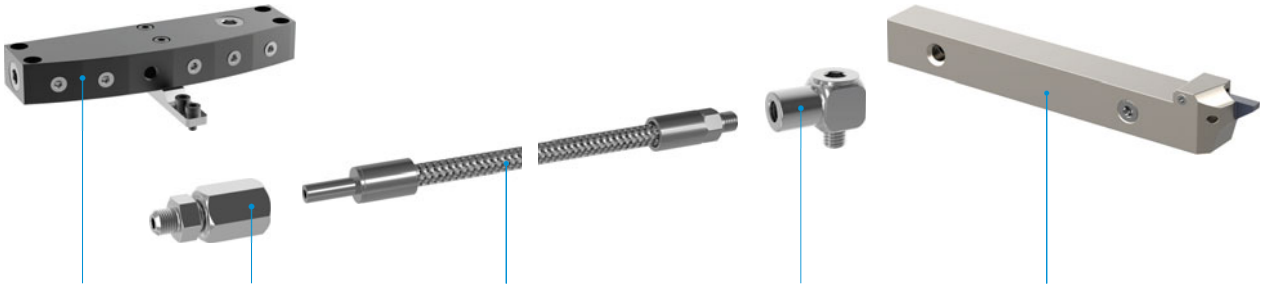
MSP LMN

Order designation		Dimensions								Version	Item
						L					
MSP LNM	■					23				–	**M**

No sealing ring required

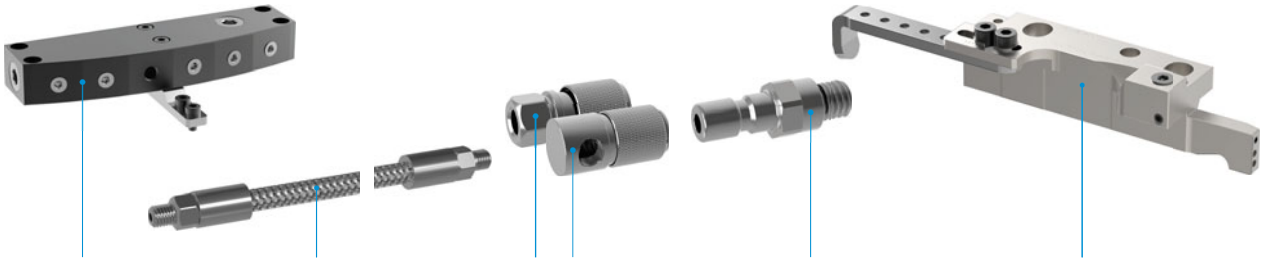
Illustration	Description	Dimensions	Order designation		Item
	Sealing ring	5	MSP USK-M5	■	**J, K**
	Nut for clamping ring	4	MSP UCN4	■	**B, C**
	Clamping ring for tube connection	4	MSP UCR4	■	**B, C**

Example with unions



Coolant distributor | Union | Tube | Union | Holder with integrated cooling (IC)

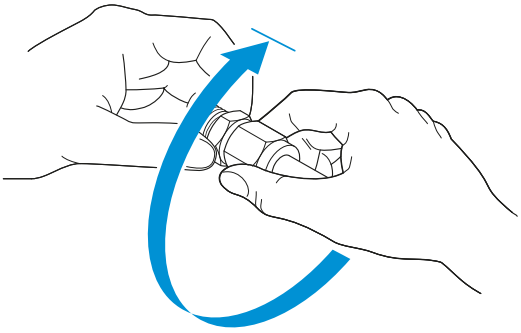
Example with quick connections

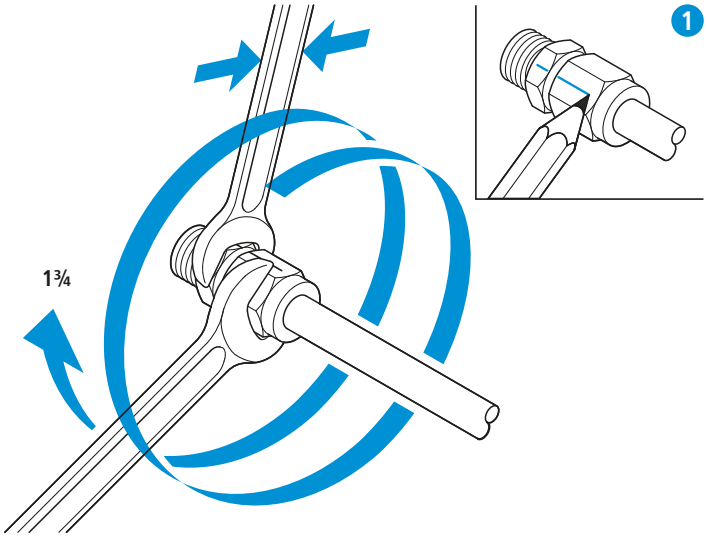


Coolant distributor | Tube | Quick connections | Quick connection | Clamping wedge with integrated cooling

Initial assembly

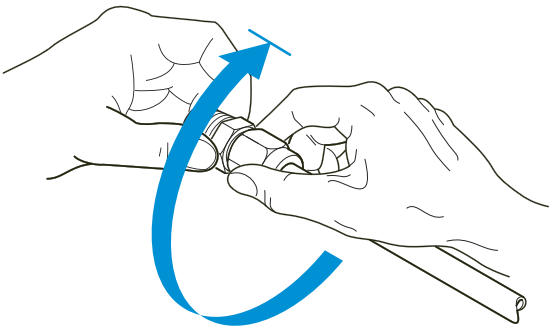
1. Screw on the union nut by hand until finger-tight. At the same time, push the tube against the fitting.
2. Tighten down the union nut through **1¾ rotations** using an open-end wrench.
   ❶ Making a mark will assist in correct rotation. Hold the adaptor with a second wrench to prevent it turning.

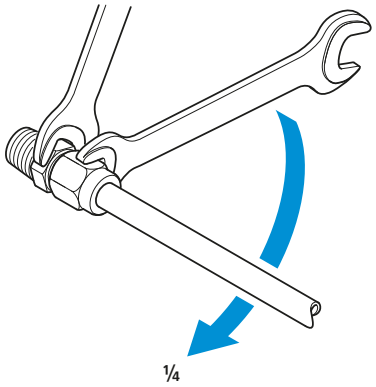




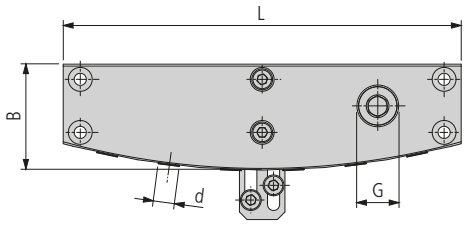
Repeat assembly

When refitting the same tube union, screw the union nut back on by hand until finger-tight and tighten down the union nut with an open-end wrench with **¼ of a rotation** for the final fit.
In the event of repeat fitting, parts must be lubricated.









MLU KV … S (Small)

Order designation		Dimensions G		B	d	L				Connections Inputs G	Outputs d	Item
MLU KV 2-2 S	■	G1/8		24	M5	23				2	2	A
MLU KV 4-3 S	■	G1/8		24	M5	45				3	4	
MLU KV 6-3 S	■	G1/8		24	M5	65				3	6	
MLU KV 8-3 S	■	G1/8		25	M5	85				3	8	

MLU KV … L (Large)

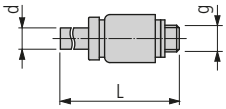
Order designation		Dimensions G		B	d	L				Connections Inputs G	Outputs d	Item
MLU KV 2-2 L	■	G1/8		25	M5	35				2	2	A
MLU KV 4-3 L	■	G1/8		25	M5	68				3	4	
MLU KV 6-3 L	■	G1/8		28	M5	105				3	6	
MLU KV 8-3 L	■	G1/8		25	M5	138				3	8	

Replacement parts 654

maximum 30 bar/435 psi

Plug connectors



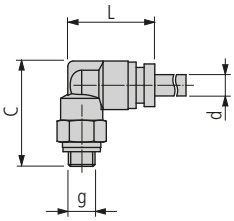


MSP STVR …

Order designation		Dimensions								Version	Item
			g		d	L					
MSP STVR M5-4	■		M5		4	17				straight	**B**

Including sealing ring





MSP EWR …

Order designation		Dimensions								Version	Item
			g		d	L	C				
MSP EWR M5-4	■		M5		4	18	21			pivoting by 90°	**C**

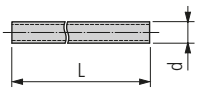
Including sealing ring

Replacement parts 654

UTILIS® Tooling for High Technology

maximum 30 bar/435 psi



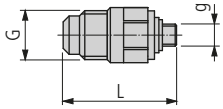


MSP KSK…

Order designation		Dimensions								Version	Item
					d	L					
MSP KSK-4	■				4	1000				–	**D**

maximum 30 bar/435 psi



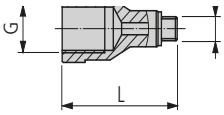


MSP RVR …

Order designation		Dimensions G	g	L	Version	Item
MSP RVR M5-7/16-20 UNF	■	7/16-20 UNF	M5	29	–	**J**

Including sealing ring



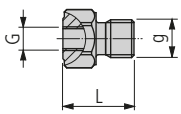


MSP RVR …

Order designation		Dimensions G	g	L	Version	Item
MSP RVR 100 M5-M6	■	M6	M5	15	–	**J**
MSP RVR 185 M5-M8x1	■	M8×1	M5	23		
MSP RVR 225 M5-M10x1	■	M10×1	M5	27		
MSP RVR 225 M5-G1/8"	■	G1/8"	M5	27		

Including sealing ring





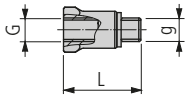
MSP RVR …

Order designation		Dimensions G	g	L	Version	Item
MSP RVR 100 M6-M5	■	M5	M6	18	–	**J**
MSP RVR 70 M8x1-M5	■	M5	M8×1	15		
MSP RVR 70 M10x1-M5	■	M5	M10×1	15		
MSP RVR 70 G1/8"-M5	■	M5	G1/8"	15		

No sealing ring required

maximum 30 bar/435 psi





MSP VL …

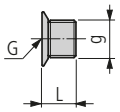
Order designation		Dimensions								Version	Item
		G	g			L					
MSP VL 100 M5-M5	■	M5	M5			10				–	**K**
MSP VL 200 M5-M5	■	M5	M5			20					
MSP VL 400 M5-M5	■	M5	M5			40					

Including sealing ring

Replacement parts 654

maximum 30 bar/435 psi



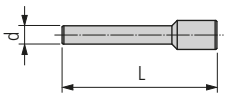


MSP VSR …

Order designation		Dimensions								Version	Item
		g	G			L					
MSP VSR G1/8" IB5	■	G1/8"	IB5			11				–	**M**
MSP VSR M5 IB2.5	■	M5	IB2.5			4					
MSP VSR M8x1 IB4	■	M8×1	IB4			5.5					

Including sealing ring





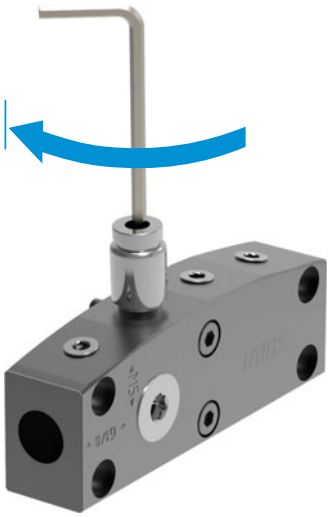
MSP VSK…

Order designation		Dimensions								Version	Item
					d	L					
MSP VSK-4	■				4	32				–	**M**

Illustration	Description	Dimension	Order designation		Item
	Sealing ring	5	MSP USK-M5	■	**B, C, J, K**

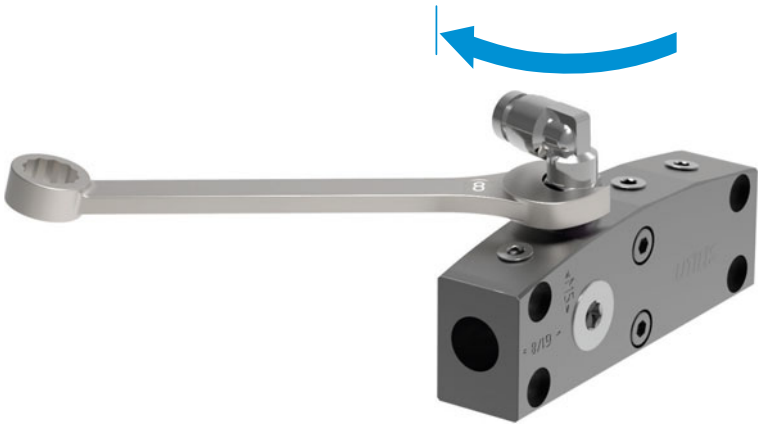
Installation of the straight plug connector

1. Screw on the straight plug connector by hand until finger-tight.
2. With the Allen key, thoroughly tighten the straight plug connector (as shown) through the opening for the connection using the force of your fingers only.

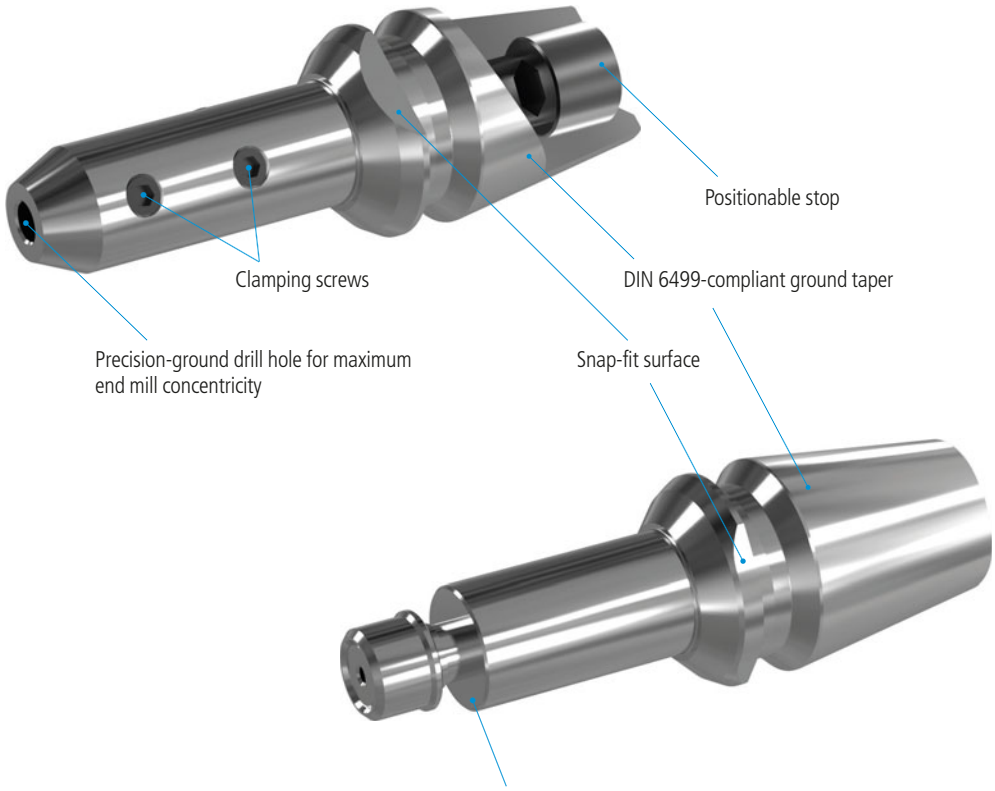


Installation of the swivel-type plug connector

1. Screw on the swivel plug connector by hand until finger-tight.
2. With an open-end wrench, thoroughly tighten the swivel-type plug connector (as shown) using a normal amount of force.



multidec®-TAPER-IN is a tool holder serie that has been specially developed to be used on Swiss type turning machines. These tool holders have a monoblock design in order to achieve the highest possible stability. The multidec®-TAPER-IN tool holders can be used in any driven or stationary spindle compliant with the DIN 6499 standard.



Benefits:
- Ideally suited to Swiss-type turning machines (profile turning)
- Direct fit in the collet chuck with ER cone
- No special clamping nuts are needed
- Monoblock design for reduced added tolerance
- High stability
- Ground surfaces
- Holder for ER sizes 8, 11, 16, 20 and 25
- Concentric accuracy of 0.005 mm
- Stop screw adjustable on both sides for tool positioning

Technical information 9

Monoblock ER tool holder (for end mills) 658



Monoblock ER tool holder (for saw blades and side mills) 660



Replacement and spare parts 662



For end mills



Fig. 1

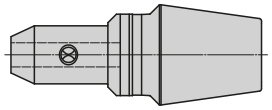
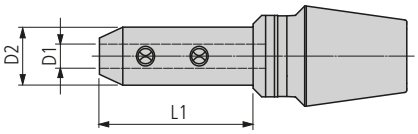


Fig. 2



MTIM ER …

Order designation		Dimensions							
		ER	D1	L1	D2				Fig.
MTIM ER8-1.00-10	■	8	1	10	6.4				1
MTIM ER8-1.00-15	■	8	1	15	6.4				1
MTIM ER8-1.50-10	■	8	1.5	10	6.4				1
MTIM ER8-1.50-15	■	8	1.5	15	6.4				1
MTIM ER8-1.59-10	■	8	1.59	10	6.4				1
MTIM ER8-1.59-15	■	8	1.59	15	6.4				1
MTIM ER8-2.00-10	■	8	2	10	6.4				1
MTIM ER8-2.00-15	■	8	2	15	6.4				1
MTIM ER8-3.00-10	■	8	3	10	7				1
MTIM ER8-3.00-15	■	8	3	15	7				1
MTIM ER8-3.18-10	■	8	3.18	10	7				1
MTIM ER8-3.18-15	■	8	3.18	15	7				1
MTIM ER11-1.59-10	■	11	1.59	10	6.4				1
MTIM ER11-2.00-10	■	11	2	10	6.4				1
MTIM ER11-3.00-10	■	11	3	10	8				1
MTIM ER11-3.00-15	■	11	3	15	8				1
MTIM ER11-3.00-20	■	11	3	20	8				2
MTIM ER11-3.18-10	■	11	3.18	10	8				1
MTIM ER11-3.18-15	■	11	3.18	15	8				1
MTIM ER11-3.18-20	■	11	3.18	20	8				2
MTIM ER11-4.00-15	■	11	4	15	8				1
MTIM ER11-4.00-20	■	11	4	20	8				2
MTIM ER16-1.00-16	■	16	1	16	6.4				1
MTIM ER16-1.50-16	■	16	1.5	16	6.4				1
MTIM ER16-1.59-16	■	16	1.59	16	6.4				1
MTIM ER16-2.00-16	■	16	2	16	6.4				1
MTIM ER16-1.00-16	■	16	1	16	6.4				1
MTIM ER16-1.50-16	■	16	1.5	16	6.4				1
MTIM ER16-1.59-16	■	16	1.59	16	6.4				1
MTIM ER16-2.00-16	■	16	2	16	6.4				1
MTIM ER16-3.00-16	■	16	3	16	9.5				1
MTIM ER16-3.00-25	■	16	3	25	9.5				2
MTIM ER16-3.18-16	■	16	3.18	16	9.5				1
MTIM ER16-3.18-25	■	16	3.18	25	9.5				2
MTIM ER16-4.00-16	■	16	4	16	9.5				1
MTIM ER16-4.00-25	■	16	4	25	9.5				2
MTIM ER16-4.76-16	■	16	4.76	16	9.5				1
MTIM ER16-4.76-25	■	16	4.76	25	9.5				2
MTIM ER16-5.00-16	■	16	5	16	9.5				1
MTIM ER16-5.00-25	■	16	5	25	9.5				2
MTIM ER20-3.00-25	■	20	3	25	9.5				2
MTIM ER20-3.18-16	■	20	3.18	16	9.5				1
MTIM ER20-3.18-25	■	20	3.18	25	9.5				2
MTIM ER20-4.00-14	■	20	4	14	9.5				1
MTIM ER20-4.00-16	■	20	4	16	9.5				1

Continuation

MTIM ER …

Order designation		Dimensions							Fig.
		ER	D1	L1	D2				
MTIM ER20-4.00-25	■	20	4	25	9.5				2
MTIM-ER20-4.76-14	■	20	4.76	14	11.4				1
MTIM ER20-4.76-25	■	20	4.76	25	11.4				2
MTIM ER20-5.00-14	■	20	5	14	11.4				1
MTIM ER20-5.00-25	■	20	5	25	11.4				2
MTIM ER20-6.00-14	■	20	6	14	12.5				1
MTIM ER20-6.00-25	■	20	6	25	12.5				2
MTIM ER20-6.35-14	■	20	6.35	14	12.5				1
MTIM ER20-6.35-25	■	20	6.35	25	12.5				2
MTIM ER25-3.00-25	■	25	3	25	10				2
MTIM ER25-3.18-25	■	25	3.18	25	10				2
MTIM ER25-4.00-25	■	25	4	25	10				2
MTIM ER25-4.76-25	■	25	4.76	25	12.5				2
MTIM ER25-5.00-25	■	25	5	25	12.5				2
MTIM ER25-6.00-25	■	25	6	25	12.5				2
MTIM ER25-6.35-25	■	25	6.35	25	12.5				2
MTIM ER25-7.00-25	■	25	7	25	16				2
MTIM ER25-7.94-25	■	25	7.94	25	16				2
MTIM ER25-8.00-25	■	25	8	25	16				2

For saw blades and side mills



Fig. 1

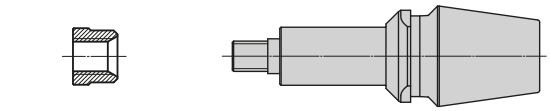
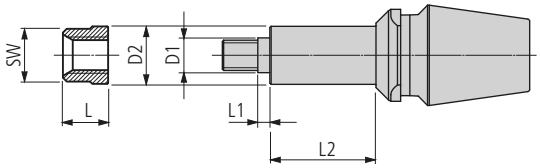


Fig. 2



MTIS ER …

Order designation		Dimensions							Saw blade thickness	
		ER	D1	D2	L1	L2	L	SW	Fig. 1	Fig. 2
MTIS ER11-3.00-10	■	11	3	6.35	1.27	10	5	5	1.2–3	0.13–2
MTIS ER11-3.00-14	■	11	3	6.35	1.27	14	5	5	1.2–3	0.13–2
MTIS ER11-3.00-19	■	11	3	6.35	1.27	19	5	5	1.2–3	0.13–2
MTIS ER11-3.00-25	■	11	3	6.35	1.27	25	5	5	1.2–3	0.13–2
MTIS ER11-3.18-10	■	11	3.18	6.35	1.27	10	5	5	1.2–3	0.13–2
MTIS ER11-3.18-14	■	11	3.18	6.35	1.27	14	5	5	1.2–3	0.13–2
MTIS ER11-3.18-19	■	11	3.18	6.35	1.27	19	5	5	1.2–3	0.13–2
MTIS ER11-3.18-25	■	11	3.18	6.35	1.27	25	5	5	1.2–3	0.13–2
MTIS ER11-4.76-10	■	11	4.76	8	1.27	10	5	7	1.2–3	0.13–2
MTIS ER11-4.76-14	■	11	4.76	8	1.27	14	5	7	1.2–3	0.13–2
MTIS ER11-4.76-19	■	11	4.76	8	1.27	19	5	7	1.2–3	0.13–2
MTIS ER11-4.76-25	■	11	4.76	8	1.27	25	5	7	1.2–3	0.13–2
MTIS ER11-5.00-10	■	11	5	8	1.27	10	5	7	1.2–3	0.13–2
MTIS ER11-5.00-14	■	11	5	8	1.27	14	5	7	1.2–3	0.13–2
MTIS ER11-5.00-19	■	11	5	8	1.27	19	5	7	1.2–3	0.13–2
MTIS ER11-5.00-25	■	11	5	8	1.27	25	5	7	1.2–3	0.13–2
MTIS ER11-6.00-10	■	11	6	8	1.27	10	6.35	7	1.2–3	0.13–2
MTIS ER11-6.00-14	■	11	6	8	1.27	14	6.35	7	1.2–3	0.13–2
MTIS ER11-6.00-19	■	11	6	8	1.27	19	6.35	7	1.2–3	0.13–2
MTIS ER11-6.00-25	■	11	6	8	1.27	25	6.35	7	1.2–3	0.13–2
MTIS ER16-3.00-18	■	16	3	6.35	1.27	18	6.35	5	1.2–3	0.13–2.5
MTIS ER16-3.00-24	■	16	3	6.35	1.27	24	6.35	5	1.2–3	0.13–2.5
MTIS ER16-3.18-18	■	16	3.18	6.35	1.27	18	6.35	5	1.2–3	0.13–2.5
MTIS ER16-3.18-24	■	16	3.18	6.35	1.27	24	6.35	5	1.2–4	0.13–2.5
MTIS ER16-4.76-18	■	16	4.76	9.53	1.27	18	6.35	8	1.2–4	0.13–2.5
MTIS ER16-4.76-24	■	16	4.76	9.53	1.27	24	6.35	8	1.2–4	0.13–2.5
MTIS ER16-5.00-18	■	16	5	9.53	1.27	18	6.35	8	1.2–4	0.13–2.5
MTIS ER16-5.00-24	■	16	5	9.53	1.27	24	6.35	8	1.2–4	0.13–2.5
MTIS ER16-6.00-18	■	16	6	9.53	1.27	18	6.35	8	1.2–4	0.13–2
MTIS ER16-6.00-24	■	16	6	9.53	1.27	24	6.35	8	1.2–4	0.13–2
MTIS ER16-6.35-18	■	16	6.35	9.53	1.27	18	6.35	8	1.2–4	0.13–2.5
MTIS ER16-6.35-24	■	16	6.35	9.53	1.27	24	6.35	8	1.2–4	0.13–2.5
MTIS ER16-7.94-18	■	16	7.94	10	1.27	18	6.35	9	1.2–4	0.13–2.5
MTIS ER16-7.94-24	■	16	7.94	10	1.27	24	6.35	9	1.2–4	0.13–2.5
MTIS ER16-8.00-18	■	16	8	10	1.27	18	6.35	9	1.2–4	0.13–2.5
MTIS ER16-8.00-24	■	16	8	10	1.27	24	6.35	9	1.2–4	0.13–2.5
MTIS ER20-3.00-18	■	20	3	6.35	1.27	18	6.35	5	1.2–3	0.13–3
MTIS ER20-3.00-30	■	20	3	6.35	1.27	30	6.35	5	1.2–3	0.13–3
MTIS ER20-3.18-18	■	20	3.18	6.35	1.27	18	6.35	5	1.2–3	0.13–3
MTIS ER20-3.18-30	■	20	3.18	6.35	1.27	30	6.35	5	1.2–3	0.13–3
MTIS ER20-4.76-18	■	20	4.76	9.53	1.27	18	6.35	8	1.2–4	0.13–3
MTIS ER20-4.76-30	■	20	4.76	9.53	1.27	30	6.35	8	1.2–4	0.13–3
MTIS ER20-5.00-18	■	20	5	9.53	1.27	18	6.35	8	1.2–4	0.13–3
MTIS ER20-5.00-30	■	20	5	9.53	1.27	30	6.35	8	1.2–4	0.13–3
MTIS ER20-6.00-18	■	20	6	9.53	1.27	18	6.35	8	1.2–4	0.13–3

Continuation

MTIS ER …

Order designation		Dimensions							Saw blade thickness	
		ER	D1	D2	L1	L2	L	SW	Fig. 1	Fig. 2
MTIS ER20-6.00-30	■	20	6	9.53	1.27	30	6.35	8	1.2–4	0.13–3
MTIS ER20-6.35-18	■	20	6.35	9.53	1.27	18	6.35	8	1.2–4	0.13–3
MTIS ER20-6.35-30	■	20	6.35	9.53	1.27	30	6.35	8	1.2–4	0.13–3
MTIS ER20-7.94-18	■	20	7.94	10	1.27	18	6.35	9	1.2–4	0.13–3
MTIS ER20-7.94-30	■	20	7.94	10	1.27	30	6.35	9	1.2–4	0.13–3
MTIS ER20-8.00-18	■	20	8	10	1.27	18	6.35	9	1.2–4	0.13–3
MTIS ER20-8.00-30	■	20	8	10	1.27	30	6.35	9	1.2–4	0.13–3
MTIS ER20-9.52-18	■	20	9.52	12.5	1.27	18	7	11	1.2–4	0.13–3
MTIS ER20-9.52-30	■	20	9.52	12.5	1.27	30	7	11	1.2–4	0.13–3
MTIS ER20-10.0-18	■	20	10	12.5	1.27	18	7	11	1.2–6	0.13–4
MTIS ER20-10.0-30	■	20	10	12.5	1.27	30	7	11	1.2–6	0.13–4

Including clamping nuts

For tool clamp

Illustration	Description	Dimensions	Order designation		Tool holder
	Clamping screw	M2 × 2	MSP 20020 IB0.9	■	MTIM ER8…
		M3 × 3	MSP 30030 IB1.5		MTIM ER11… / MTIM ER16… / MTIM ER20-3.00–5.00 / MTIM ER25-3.00–5.00
		M4 × 4	MSP 40040 IB2		MTIM ER20-6.00–6.35 / MTIM ER 25-6.00–8.00
	Allen key	SW 0.9	MSP IB0.9	■	MTIM ER8…

For positionable stop

Illustration	Description	Dimensions	Order designation		Tool holder
	Headless screw with hexagon socket (double-sided)	M4 × 4	MSP 40040 IB2	■	MTIM ER8…
		M6 × 5	MSP 60050 AN IB3-2.5		MTIM ER11…
		M8 × 6	MSP 80060 AN IB4-2.5		MTIM ER16… / MTIM ER20…
		M10 × 21	MSP 100210 AN IB5-2.5		MTIM ER25…

For side mill holder

Illustration	Description	Dimensions	Order designation		Tool holder
	Clamping nut	M3 × 0.5	MSP TI 03.00 ER11		MTIS ER11-3.00… / MTIS ER11-3.18…
		M3 × 0.5	MSP TI 03.00 ER16-ER20		MTIS ER16-3.00… / MTIS ER16-3.18… / MTIS ER20-3.00… / MTIS ER20-3.18…
		10-32 UNF	MSP TI 04.76 ER16-ER20		MTIS ER16-4.76… / MTIS ER20-4.76…
		10-32 UNF	MSP TI 05.00 ER11		MTIS ER11-4.76… / MTIS ER11-5.00…
		M5 × 0.8	MSP TI 05.00 ER16-ER20		MTIS ER16-5.00… / MTIS ER20-5.00…
		M6 × 1	MSP TI 06.00 ER11		MTIS ER11-6.00…
		M6 × 1	MSP TI 06.00 ER16-ER20		MTIS ER16-6.00… / MTIS ER20-6.00…
		¼-32 UNF	MSP TI 06.35 ER16-ER20		MTIS ER16-6.35… / MTIS ER20-6.35…
		5/16-32 UNF	MSP TI 08.00 ER16-ER20		MTIS ER16-7.94… / MTIS ER16-8.00… / MTIS ER20-7.94… / MTIS ER20-8.00…
		⅜-32 UNF	MSP TI 10.00 ER20		MTIS ER20-9.52… / MTIS ER20-10.00…

For spindle-connection

Illustration	Description	Dimensions	Order designation		Tool holder
	Clamping nut	M10 × 0.75	Hi-Q / ERM 8	■	ER8
		M13 × 0.75	Hi-Q / ERM 11	■	ER11
		M19 × 1	Hi-Q / ERM 16	■	ER16
		M24 × 1	Hi-Q / ERM 20	■	ER20
		M30 × 1	Hi-Q / ERM 25	■	ER25

Attention
Please note the legend 🗋6…

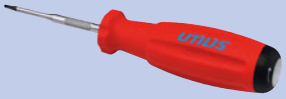
Maximum possible hardness combined with high toughness are essential for any high quality tool.
Use of a special alloy gives our blades exceptional toughness and elasticity even at a hardness of 58 to 60 HRC.
The special surface structure of the handle gives a firm grip even with wet and oily hands.
Safe working and a long tool life are guaranteed with this screwdriver.



Technical information 9



TORX 666



TORX torque 667



Allen torque 668



Replaceable blades 669





MSP TX…

Order designation		Dimensions				Screw
		TORX	TORX PLUS	Allen head	Torque (Nm)	
MSP TX05	■	T05				M… T 05
MSP TX06	■	T06				M… T 06
MSP TX07	■	T07				M… T 07
MSP TX08	■	T08				M… T 08
MSP TX09	■	T09				M… T 09
MSP TX10	■	T10				M… T 10
MSP TX15	■	T15				M… T 15
MSP TX20	■	T20				M… T 20
MSP TXP06	■		TP06			M… TP 06
MSP TXP07	■		TP07			M… TP 07
MSP TXP08	■		TP08			M… TP 08
MSP TXP09	■		TP09			M… TP 09
MSP TXP10	■		TP10			M… TP 10
MSP TXP15	■		TP15			M… TP 15
MSP TXP20	■		TP20			M… TP 20



MSP TX... D*

Order designation		Dimensions				Screw
		TORX	TORX PLUS	Allen head	Torque (Nm)	
MSP TX06 D	■	T06			0.6	M... T 06
MSP TX07 D	■	T07			0.9	M... T 07
MSP TX08 D	■	T08			1.2	M... T 08
MSP TX09 D	■	T09			1.4	M... T 09
MSP TX10 D	■	T10			2	M... T 10
MSP TX15 D	■	T15			3	M... T 15
MSP TX20 D	■	T20			3	M... T 20
MSP TXP06 D	■		TP06		0.6	M... TP 06
MSP TXP07 D	■		TP07		0.9	M... TP 07
MSP TXP08 D	■		TP08		1.2	M... TP 08
MSP TXP09 D	■		TP09		1.4	M... TP 09
MSP TXP10 D	■		TP10		2	M... TP 10
MSP TXP15 D	■		TP15		3	M... TP 15
MSP TXP20 D	■		TP20		3	M... TP 20

* Preset with replaceable blade (TORX and TORX PLUS can be used with the same handle)

Replaceable blades 669



MSP GHEX ... D*

Order designation		Dimensions				Screw
		TORX	TORX PLUS	Allen head	Torque (Nm)	
MSP GHEX 2.9 D	■			M4	2.9	M4
MSP GHEX 6.0 D	■			M5	6	M5
MSP GHEX 10.0 D	■			M6	10	M6

* Preset with replaceable blade

Replaceable blades 669



MSP KTX… D (TORX torque)

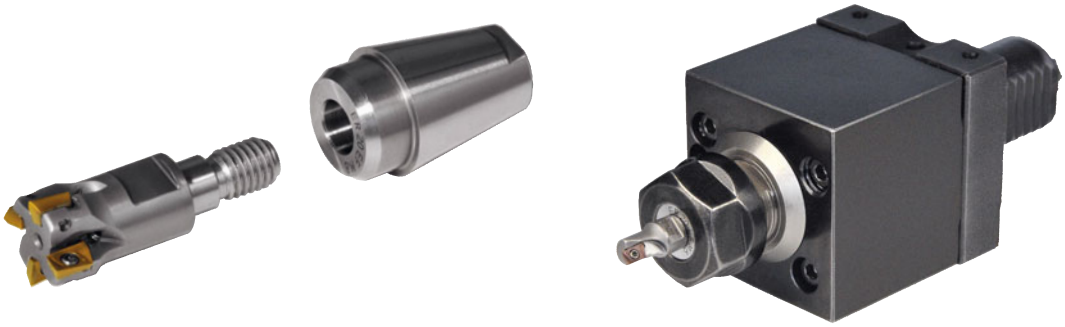
Order designation		Dimensions				Screw
		TORX	TORX PLUS	Allen head		
MSP KTX06 D	■	T06				M… T 06
MSP KTX07 D	■	T07				M… T 07
MSP KTX08 D	■	T08				M… T 08
MSP KTX09 D	■	T09				M… T 09
MSP KTX10 D	■	T10				M… T 10
MSP KTX15 D	■	T15				M… T 15
MSP KTX20 D	■	T20				M… T 20
MSP KTXP06 D	■		TP06			M… TP 06
MSP KTXP07 D	■		TP07			M… TP 07
MSP KTXP08 D	■		TP08			M… TP 08
MSP KTXP09 D	■		TP09			M… TP 09
MSP KTXP10 D	■		TP10			M… TP 10
MSP KTXP15 D	■		TP15			M… TP 15
MSP KTXP20 D	■		TP20			M… TP 20



MSP KHEX … D (Allen torque)

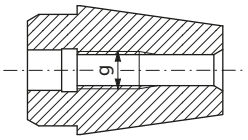
Order designation		Dimensions				Screw
		TORX	TORX PLUS	Allen head		
MSP KHEX IB3 D	■			IB3		M4
MSP KHEX IB4 D	■			IB4		M5
MSP KHEX IB5 D	■			IB5		M6

These collets are made in-house by UTILIS and can be supplied from stock. They are manufactured for universal use with all screw-fitted milling cutters which have the same interface-specific application. To be used as ER adapters they offer several advantages, even by comparison with full carbide shank milling cutters.



Special features and advantages:
- Short and stable tool clamping
- Suitable for use on both, Swiss type lathes and regular short turning lathes
- Fewer vibrations than carbide endmill (less wear/tool breakage)
- Lower tool costs
- Higher cutting parameters than carbide endmill
- Also suitable for low power machines
- Concentricity <0.005 mm



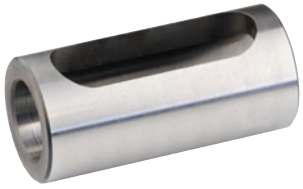


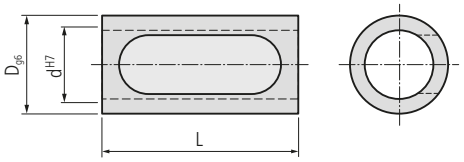
ER.. EF ..

Order designation		Dimensions g						Collet type
ER16 EF M6	■	M6						ER16
ER16 EF M8	■	M8						ER16
ER20 EF M6	■	M6						ER20
ER20 EF M8	■	M8						ER20
ER20 EF M10	■	M10						ER20
ER25 EF M6	■	M6						ER25
ER25 EF M8	■	M8						ER25
ER25 EF M10	■	M10						ER25
ER32 EF M6	■	M6						ER32
ER32 EF M8	■	M8						ER32
ER32 EF M10	■	M10						ER32

The reduction sleeve gives the possibility fixing small tools in to the machine tool fixtures with bigger diameters. This small investment is an extremely flexible and economic solution giving an independent solution for different tool fixing situations.







MRH …

Order designation		Dimensions		
		D_{g6}	d_{H7}	L
MRH 15875 1230	■	15.875	12	30
MRH 1600 1230	■	16	12	30
MRH 1905 0840	■	19.05	8	40
MRH 1905 1240	■	19.05	12	40
MRH 1905 1640	■	19.05	16	40
MRH 2000 1040	■	20	10	40
MRH 2000 1240	■	20	12	40
MRH 2000 1640	■	20	16	40
MRH 2200 1240	■	22	12	40
MRH 2200 1640	■	22	16	40
MRH 2500 1240	■	25	12	40
MRH 2500 1640	■	25	16	40
MRH 2500 2040	■	25	20	40
MRH 2540 1240	■	25.4	12	40
MRH 2540 1640	■	25.4	16	40
MRH 2540 2040	■	25.4	20	40
MRH 3300 2040	■	33	20	40
MRH 3300 2240	■	33	22	40
MRH 3300 2540	■	33	25	40

Concentricity < 0.01 mm

500… 45
500… INCH 45
501… 44
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1600… 00 RD 87
1600… 00 RD INCH 87
1600…4 80
1600…6 80
1600… 6-8 90 RD . IC 93
1600…8 81
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1600… 90 91
1600… 90 RD 92
1600… 90 ST 90
1600… 90 ST A 88
1600… 90 ST A INCH 88
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1600/1600… TWIN IC 85
1600/1600… TWIN IC INCH 85
1600/1600… TWIN INCH 84
1600… A 82
1600… A INCH 82
1600… AV 83
1600… AV INCH 83
1600… IC 79
1600… IC INCH 79
1600… IC-S 496
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1602… N SC 55
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