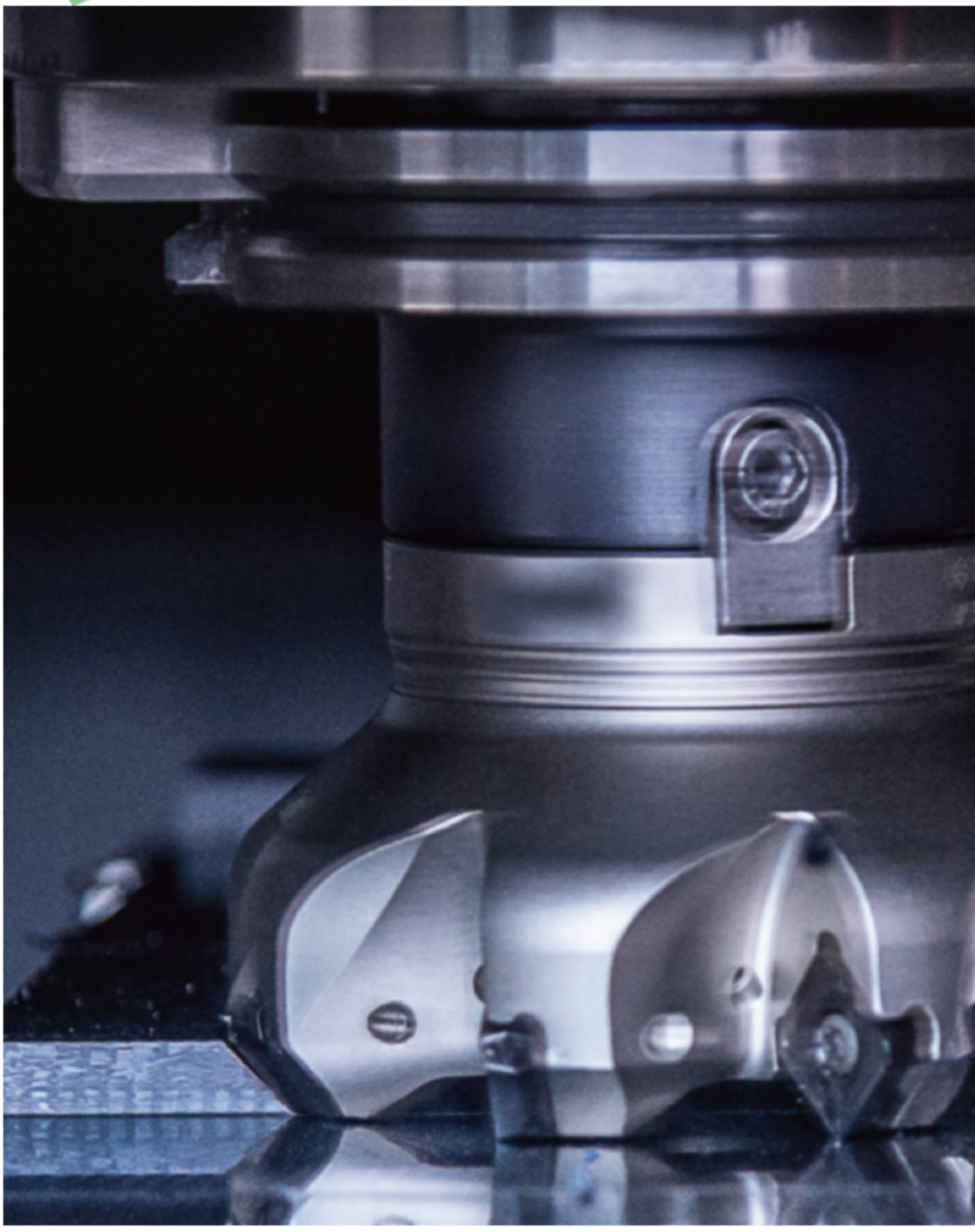


Milling

CONTENTS

Milling Inserts Technical Section

Selection system of CVD coated grades

Workpiece	Machning Type	Recom-mended grade	Recommen-ded cutting speed(m/min)	Application range 01	05	10	15	20	25	30	35	40	45	50
P	Medium to roughing	TCP9330	120-290					TCP9330						
	Medium to roughing	TCP9340	130-330							TCP9340				
	Interrupted roughing	TCP9350	100-270									TCP9350		
M	Medium to roughing	TCP9330	80-200					TCP9330						
	Medium to roughing	TCP9340	90-220						TCP9340					
	Interrupted roughing	TCP9350	80-100							TCP9350				
K	Medium to roughing	TCP9330	110-270				TCP9330							
	Medium to roughing	TCP9340	80-250						TCP9340					
	Finishing to semi-finishing	TCK5305	200-480		TCK5305									
	semi-finishing	TCK5315	130-310			TCK5315								
	light to heavy interrupted cuts.	TCK5325	140-230					TCK5325						
	light to heavy interrupted cuts.	TCK5335	110-160								TCK5335			

The features of CVD coated grades

Recomme-nded grade	ISO	Features
TCP9330	P20-P30 M20-M30 K15-K25	Medium hard CVD-coated grade (medium to thick coating) designed for medium to rough milling of low alloy steel & unalloy steel, applications in average cutting conditions for wet and dry machining. The first choice for roughing to semi-finish face milling.
TCP9340	P30-P40 M25-M35 K25-K30	Tough CVD-coated grade (medium thick coating) suited for tough and demanding medium to rough milling of steel, cast iron and hardened steel, applications for wet and dry machining. The first choice for rough shoulder milling and groove milling.
TCP9350	P35-P50 M30-M40	Toughest substrate with hard coating provides stable cutting and tool life for severeinterrupted and rough milling of steel and stainless steel.
TCK5315	K10-K25	Thigh wear-resistant substrates perfect combine with MT-TiCN, thick Al2O3 coating, ideal for ductile cast iron & grey cast iron at high cutting speed.
TCK5325	K20-K35	CVD-coated grade with high edge line security, wear-resistant & good toughness substrates perfect combine with MT-TiCN, thick Al2O3 coating, suitable for light to heavy interrupted cuts, the first choice grades for roughing & high metal removal rate of ductile cast iron & grey cast iron.
TCK5335	K30-K40	Hard CVD-coated grade with thick coating can withstand high temperatures without plastic deformation, are used for finishing to light rough milling of all cast iron in stable and wet conditions. Ideal for large diameter cutters.

Selection system of PVD coated grades

Workpiece	Machning Type	Recom-mended grade	Recommen-ded cutting speed(m/min)	Application range 01	05	10	15	20	25	30	35	40	45	50
P	Continuous finishing	TPM8115	150-280		TPM8115									
	light interrupted cuts.	TPM8125	180-360				TPM8125							
	Finishing to semi-finsihing	TPM8225	180-290				TPM8225							
	Roughing to semi-finishing	TPG4235	105-185						TPG4235					
	Interrupted roughing	TPM8135	100-150						TPM8135					
	Interrupted roughing	TPK4235H	75-135								TPK4235H			
M	Continuous finishing	TPM8115	150-250			TPM8115								
	light interrupted cuts.	TPM8125	110-270					TPM8125						
	Finishing to semi-finsihing	TPM8225	120-240					TPM8225						
	Roughing to semi-finsihing	TPG4235	100-230						TPG4235					
	Interrupted roughing	TPM8135	80-100									TPM8135		
K	Continuous finishing	TPM8115	140-230		TPM8115									
	light interrupted cuts.	TPM8125	110-180					TPM8125						
	Interrupted roghing	TPM8135	85-160						TPM8135					
	Interrupted roghing	TPK4235H	85-160						TPK4235H					
S	Continuous finishing	TPM8115	40-70		TPM8115									
	light interrupted cuts.	TPM8125	20-60					TPM8125						
	Finishing to semi-finsihing	TPM8225	30-60				TPM8225							
	Roughing to semi-finsihing	TPG4235	30-60						TPG4235					
	Interrupted roughing	TPM8135	30-50						TPM8135					
H	Finishing to semi-finsihing	HX200	35-65			HX200								
	Medium to roughing	HX400	35-50		HX400									

The features of PVD coated grades

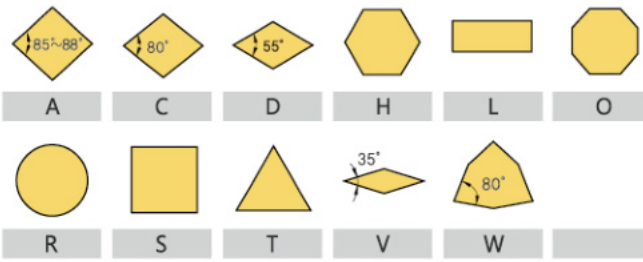
Recomme-nded grade	ISO		Features
TPM8115	P01-P15 K05-K15	M10-M20 S05-S15	2-4μm TiALN PVD coating combined with ultra fine grain substrates with high-toughness suitable for a variety of steel , stainless steel, cast iron & HRSA at high speed and continue machining. Strong cutting edge and excellent chipping resistance guarantees stable machining, longer tool life
TPM8125	P15-P35 K15-K35	M15-M35 S15-S30	1. 2-4μm TiALN PVD coating combined with ultra fine grain substrate with high toughness suitable for finishing to semi-finishing. 2. Basic material grade for milling steel parts and easy to cut/medium difficulty to process stainless steel. 3. High theraml shock resistance is suitable for light interrupted cut.
TPM8225	P10-P30 S15-S25	M20-M40	1. 2-4μm AlCrN+AlCrSiN PVD coating combined with ultra fine grain substrates with high-toughness suitable for martenstic stainless steel and austenitic stainless steel under difiicult working conditions and high temperature. 2. Used as the preferred material grade for machining high temperature alloys under unstable working conditions.3. It is recommended to process tempered steel and nickel-based material.
TPM8135	P20-P40	M25-M40	PVD coating combined with high-resistant substrates, suitable for stainless steel & low carbon steel in roughing to semi-finishing.
TPG4235	P20-P40 S20-S40	M20-M40	1. Superior universal grade for steel, cast iron, hard-to-cut materials and stainless steel with stable machinability .2. New coating and ultra fine grain provide wear resistance and oxidation resistance. 3.TiALN+TiN series new coatig.
TPK4235H	P35-P45	K25-K35	TiALN thick coating, optimized material grade for high wear resistance of milled steel and cast iron. It is also a general choice for low speed and unstable cutting conditions
HX200	H10-H20 M15-M35 S10-S20	P25-P35 K15-K25	The latest TiALN coating combined with the ultra-fine grained cemented carbide matrix provide good wear resistance and oxidation resistance. It is suitable for hardended steel below HRC58, cast iron and stainless steel at high speed milling.
HX400	H05-H15		1. Roughing grade for high hardened steel and pressed die steel . 2. Excellent wear resistance ideal for machining die steel and high hardened steel over HRC50

Milling Inserts Technical Section

S	P	K	R	12
1	2	3	4	5

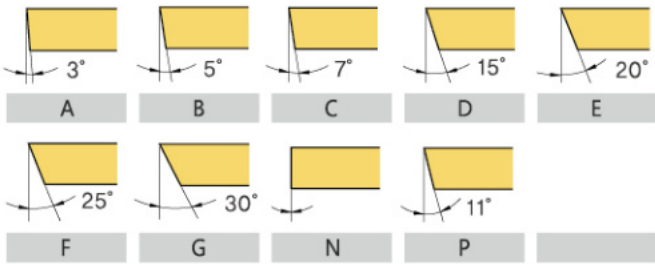
1 Insert shape

S P K N 12 03 ED S R -MX



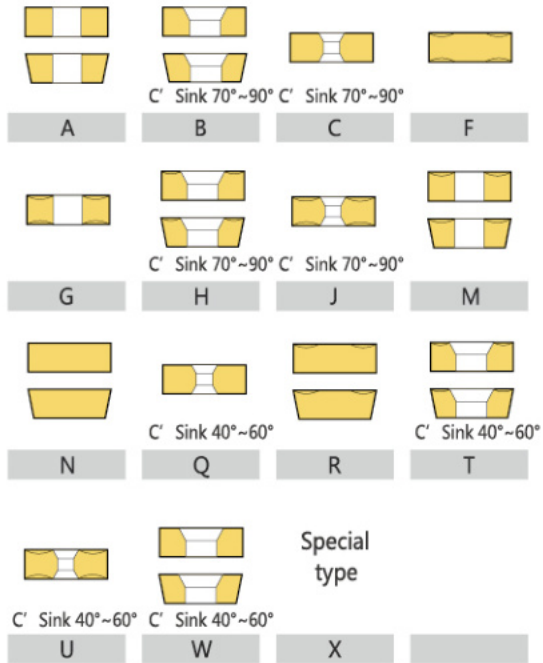
2 Relief angle

S P K N 12 03 ED S R -MX



4 Cross section type

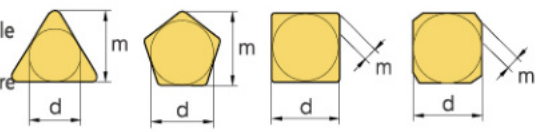
S P K N 12 03 ED S R -MX



3 Tolerance

S P K N 12 03 ED S R -MX

d: Inscribed circle
t: Thickness
m: Refer to figure



(mm)

Class	d	m	t
A	±0.025	±0.005	±0.025
C	±0.025	±0.013	±0.025
H	±0.013	±0.013	±0.025
E	±0.025	±0.025	±0.025
G	±0.025	±0.025	±0.13
J	±0.05~±0.15	±0.005	±0.025
K	±0.05~±0.15	±0.013	±0.025
L	±0.05~±0.15	±0.025	±0.025
M	±0.05~±0.15		±0.13
U			±0.13

Tolerance on C,E,H,M,O,P,R,S,T,W Insert Shape (exceptional case)

d	Tolerance on d		Tolerance on m	
	J,K,L,M,N	U N	M	U
6.35	±0.05			±0.13
9.525	±0.05			±0.13
12.7		±0.13	±0.13	±0.20
	±0.10		±0.15	±0.27
19.05	±0.10		±0.15	±0.27
25.4	±0.13	±0.25		

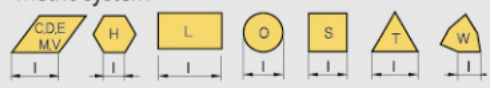
Tolerance on D Insert Shape (exceptional case)

d	Tolerance on d	Tolerance on m
6.35	±0.05	±0.11
9.525	±0.05	±0.11
12.7		±0.15
	±0.10	
19.05	±0.10	

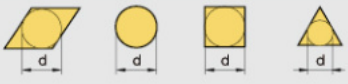
5 Cutting-edge length, diameter of inscribed circle

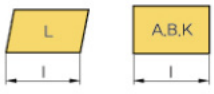
S P K N 12 03 ED S R -MX

Metric system



Inch system





rhombic insert indicate cutting-edge length instead of inscribed circle.

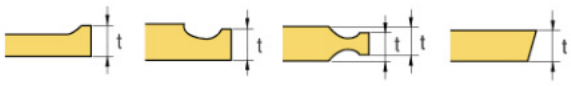
Cross over chart for "Metric" and "Inch" system

△	06	09	11	16	22	27	33	44
○ □	03	05	06	09	12	15	19	25
55°	04	06	07	11	15	19	23	31
80°	03	05	06	09	12	16	19	25
Inscribed circle								
Inch system	5	7						

03	ED	S	R	-	MX
6	7	8	9		10

6 Height of cutting-edge

S P K N 12 **03** E D S R - MX



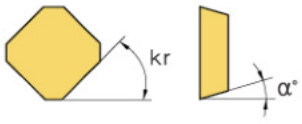
Symbol		Height of cutting-edge (t)	
Metric	Inch	mm	Inch
01	1 (2)	1.59	1/16
T0	1.125	1.79	
T1	1.2		5/64
02	1.5 (3)		3/32
T2	1.75		7/64
03	2		
T3	2.5	3.97	5/32
04	3	4.76	3/16
05	3.5	5.56	7/32
06	4	6.35	1/4
07	5	7.94	5/16
09	6	9.52	
11	7	11.11	7/16
12		12.70	1/2

( ) Symbol for small size insert

7 Nose radius (Nose R)

S P K N 12 03 **ED** S R - MX

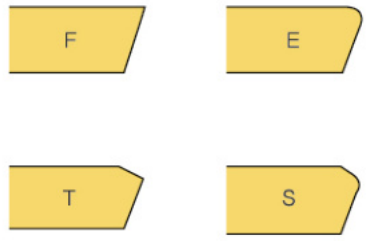
r		Symbol		r		Symbol	
mm	Inch	mm	Inch	mm	Inch	mm	Inch
00	0	0.0		12	3	1.2	3/64
02		0.2		15		1.5	
04	1	0.4	1/64	16	4	1.6	4/64
05		0.5		24	6	2.4	6/64
	2		2/64	32		3.2	
10		1.0		40		4.0	



Parallel land	Relief angle	
kr	*	
A - 45°	A - 3°	F - 25°
D - 60°	B - 5°	G - 30°
E - 75°	C - 7°	N - 0°
	D - 15°	P - 11°
P - 90°	E - 20°	
Z - Special		

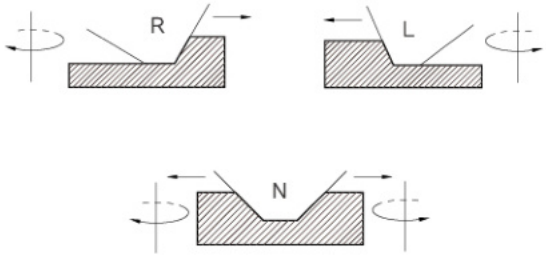
8 Edge preparation

S P K N 12 03 E D **S** R - MX



9 Hand

S P K N 12 03 E D S **R** - MX



10 Chip breaker for milling

S P K N 12 03 E D S R - **MX**

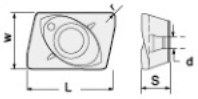
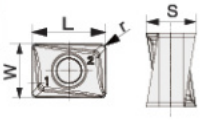
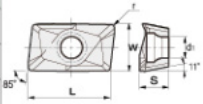
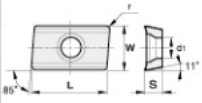
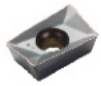
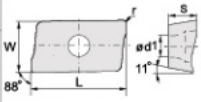
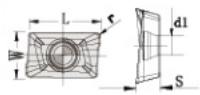
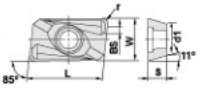
See catalogue for details

Milling Insert

Workpiece		TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H	TPK01
Steel	P	●	⚙	✱					●	⚙		✱	⚙	✱	
Stainless steel	M	⚙	✱						●	⚙	⚙	✱	⚙	✱	
Cast iron	K	⚙			●	●	⚙	⚙	●	⚙		✱	⚙	✱	✱
Non-ferrous metal	N														⚙
Heat resistant alloy, Titanium alloy	S								●	⚙	⚙	✱			
Hardened steel	H										⚙	✱	⚙	✱	

Machining Type

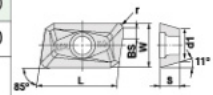
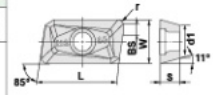
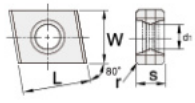
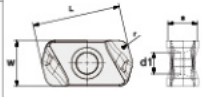
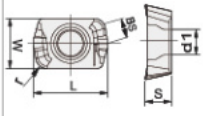
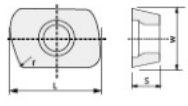
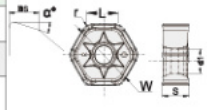
● Continuous cutting
⚙ General cutting
✱ Interrupted cutting

Inserts	Designation	CVD Coated							PVD Coated							Dimensions(mm)						Geometries
		TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H	TPK01	L	W	S	BS	r	d1	
ADMT 	070204R									●	○					4.300	7.000	2.45	-	0.4	2.00	
	070208R									●	○					4.300	7.000	2.45	-	0.8	2.00	
ANGX-GM 	090408PNR-GM									●						8.520	6.500	5.20	5.00	0.8	3.21	
	120508PNR-GM									●						13.670	10.000	9.15	3.50	0.8	4.70	
	170608PNR-GM															16.700	11.200	10.4	4.70	0.8	5.20	
APGT 	113502PDFR-G2														●	11.300	6.200	3.60	1.20	0.2	2.80	
	113504PDFR-G2														●	11.300	6.200	3.60	1.20	0.4	2.80	
	113508PDFR-G2														●	11.300	6.200	3.60	1.20	0.8	2.80	
	1604PDFR-G2														●	17.000	9.260	4.76	1.40	0.8	4.40	
APKT-AL 	11T304FR-AL														●	12.240	6.500	3.60	-	0.4	2.80	
	11T308FR-AL														●	12.240	6.500	3.60	-	0.8	2.80	
	160402FR-AL														●	16.880	9.800	4.76	-	0.2	4.40	
	160404FR-AL														●	16.880	9.800	4.76	-	0.4	4.40	
	160408FR-AL														●	16.880	9.800	4.76	-	0.8	4.40	
	160416FR-AL														●	16.880	9.800	4.76	-	1.6	4.40	
APKT 	1003PDR	●	●	●	●				●	●	●	●				10.900	6.700	3.50	1.20	0.5	2.85	
	1003PDSR															9.800	6.650	3.50	1.00	0.5	2.80	
APKT-GM 	11T304-GM	●	○	○	○				○	●	●	○				12.240	6.500	3.60	-	0.4	2.80	
	11T308-GM	●	●	○	○				○	●	●	○				12.240	6.500	3.60	-	0.8	2.80	
	160408-GM	○	●	●	●				●	●	●	●				17.877	9.330	5.76	-	0.8	4.40	
APMT-H2 	1135PDER-H2		●		●	○	●	○		●	●					11.000	6.350	3.50	1.20	0.8	2.80	
	1604PDER-H2		●		●	○	●	○		●	●					16.500	9.525	4.76	1.70	0.8	4.40	
	160416PDER-H2															16.310	9.330	4.76	-	1.6	4.40	
	160420PDER-H2															16.310	9.330	4.76	-	2.0	4.40	
	160430PDER-H2															16.310	9.330	4.76	-	3.0	4.40	

Workpiece		TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H	TPK01
Steel	P	●	⊛	✱					●	⊛		✱	⊛	✱	
Stainless steel	M	⊛	✱						●	⊛	⊛	✱	⊛	✱	
Cast iron	K	⊛			●	●	⊛	⊛	●	⊛		✱	⊛	✱	✱
Non-ferrous metal	N														⊛
Heat resistant alloy, Titanium alloy	S								●	⊛	⊛	✱			
Hardened steel	H										⊛	✱	⊛	✱	

Machining Type

● Continuous cutting
⊛ General cutting
✱ Interrupted cutting

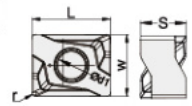
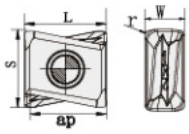
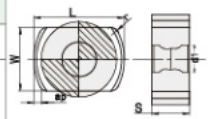
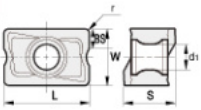
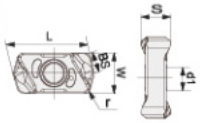
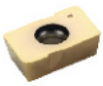
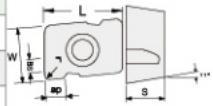
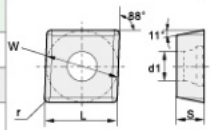
Inserts	Designation	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H	TPK01	L	W	S	BS	r	d1	Geometries
		CVD Coated							PVD Coated							Dimensions(mm)						
APMT-M2 	1135PDER-M2		●		●	○	●	○		●	●					11.000	6.350	3.50	1.20	0.8	2.80	
	1604PDER-M2		●		●	○	●	○		●	●					16.500	9.525	4.76	1.70	0.8	4.40	
APMT-XM 	1135PDER-XM		●		●	○	●	○		●	●					11.150	6.200	3.50	1.20	0.8	2.80	
	1604PDER-XM		●		●	○	●	○		●	●					17.300	9.350	4.76	1.70	0.8	4.40	
CNHX-GR 	100508-GR									●						10.300	10.030	5.40	-	0.8	4.70	
	120508-GR									●						12.700	11.000	5.60	-	0.8	4.70	
	160608-GR									●						16.000	12.000	6.40	-	0.8	5.90	
ENGU-GM 	11T310R-GM									●	●					11.900	6.200	3.96	-	1.0	3.45	
EPGT-GM 	060210R-GM									●	●					6.260	4.190	2.19	1.70	1.0	2.10	
EPNW 	0603TN-8									●	●					10.000	6.350	3.18	-	8.0	-	
HNGX 	0604ANSN-GM												●	●		10.500	-	4.76	0.09	-	3.70	
	0906ANSN-GM		●		●	●	●	●		●	●		●	●		16.500	-	6.35	0.12	-	4.90	
	0906ANSN-GR		●		●	●	●	●		●	●					16.500	-	6.35	0.20	-	4.90	

Milling Insert

Workpiece		TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H	TPK01
Steel	P	●	⚙	✖					●	⚙		✖	⚙	✖	
Stainless steel	M	⚙	✖						●	⚙	⚙	✖	⚙	✖	
Cast iron	K	⚙			●	●	⚙	⚙	●	⚙		✖	⚙	✖	✖
Non-ferrous metal	N														⚙
Heat resistant alloy, Titanium alloy	S								●	⚙	⚙	✖			
Hardened steel	H										⚙	✖	⚙	✖	

Machining Type

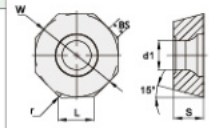
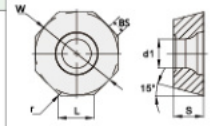
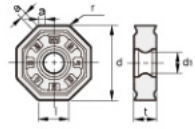
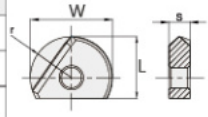
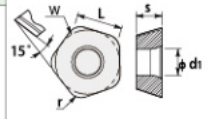
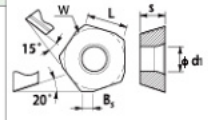
● Continuous cutting
⚙ General cutting
✖ Interrupted cutting

Inserts	Designation	CVD Coated							PVD Coated							Dimensions(mm)						Geometries
		TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H	TPK01	L	W	S	BS	r	d1	
LNGU-GM 	120508R-GM												●	●		12.000	9.500	5.96	-	0.8	4.50	
	160708R-GM												●	●		16.600	13.200	7.50	-	0.8	5.70	
LNKT-GH 	080404ER-GH															8.59	4.24	7.43	-	0.4	3.40	
	080408ER-GH															8.59	4.24	7.43	-	0.8	3.40	
	130608ER-GH															13.81	6.65	13.05	-	0.8	4.50	
	130612ER-GH															13.81	6.65	13.05	-	1.2	4.50	
	160708ER-GH															17.05	7.00	15.83	-	0.8	5.80	
	160712ER-GH															17.05	7.00	15.83		1.2	5.80	
LNMX-GM 	060310ER-GM									●	●					9.000	6.390	3.73	-	1.0	3.00	
	090415ER-GM									●	●					11.900	9.180	4.80	-	1.5	4.00	
LNMU-GM 	110408SRE-GM		●		●					●	●					12.000	6.600	4.83	0.90	0.8	3.50	
	15T608SRE-GM									●	●					16.900	10.000	6.96	1.80	0.8	4.50	
LNMU 	0303ZER-TW									●	●					11.500	6.000	4.30	3.2	1.2	2.75	
	0303ZER-TL									●	●					11.500	6.000	4.30	3.2	1.2	2.75	
MPHW 	060304EL															10.090	6.350	3.18	-	0.4	2.80	
	060308EL									●	●					10.060	6.350	3.18	-	0.8	2.80	
	060320EL										●					9.960	6.350	3.18	-	2.0	2.80	
	060304EL-0.5															10.090	6.350	3.18	0.50	0.4	2.80	
	060308EL-1.5															10.060	6.350	3.18	1.50	0.8	2.80	
MPHT-GM 	060304-GM	●	○	●	○			○		●	●					6.350	6.350	3.18	-	0.4	2.80	
	080305-GM	●	○	●	○			○		●	●					8.300	8.300	3.18	-	0.5	3.40	
	120408-GM	●	○	●	○			○		●	●					12.700	12.700	4.76	-	0.8	5.56	

Workpiece		TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H	TPK01
Steel	P	●	⚙	✱					●	⚙		✱	⚙	✱	
Stainless steel	M	⚙	✱						●	⚙	⚙	✱	⚙	✱	
Cast iron	K	⚙			●	●	⚙	⚙	●	⚙		✱	⚙	✱	✱
Non-ferrous metal	N														⚙
Heat resistant alloy, Titanium alloy	S								●	⚙	⚙	✱			
Hardened steel	H										⚙	✱	⚙	✱	

Machining Type

● Continuous cutting
⚙ General cutting
✱ Interrupted cutting

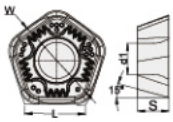
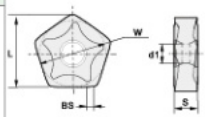
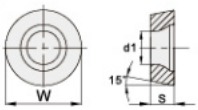
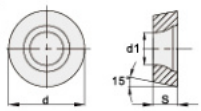
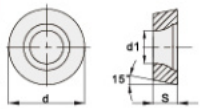
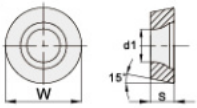
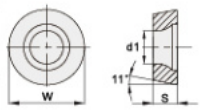
Inserts	Designation	CVD Coated							PVD Coated							Dimensions(mm)						Geometries
		TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H	TPK01	L	W	S	BS	r	d1	
ODHT-GM 	050408TN-GM									●	●					5.260	12.700	4.76	1.20	0.8	4.30	
ODHT-GH 	060508-GH									●	●					6.580	15.875	5.56	-	0.8	5.60	
ONHU-GM 	050408-GM									●						5.260	12.700	4.86	-	0.8	4.30	
	060408-GM									●						6.580	15.875	4.76	-	0.8	4.40	
	08T508-GM									●						8.390	20.200	5.77	-	0.8	5.30	
P3200 	D08									●						9.500	8.000	2.00	-	4.0	-	
	D10									●						11.500	10.000	2.50	-	5.0	-	
	D12									●						12.000	12.000	2.50	-	6.0	-	
	D16															14.000	16.000	3.00	-	8.0	-	
	D20															16.000	20.000	3.00	-	10.0	-	
	D25															21.500	25.000	4.00	-	12.5	-	
	D30															25.000	30.000	5.00	-	15.0	-	
	D32															26.000	32.000	5.00	-	16.0	-	
PDGW 	090530SR												●	●		9.000	13.500	5.47	-	3.0	5.50	
PDKX-GM 	0905ZEER-GM												●	●		9.000	13.500	5.47	2.00	-	5.50	

Milling Insert

Workpiece		TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H	TPK01
Steel	P	●	⚙	✖					●	⚙		✖	⚙	✖	
Stainless steel	M	⚙	✖						●	⚙	⚙	✖	⚙	✖	
Cast iron	K	⚙			●	●	⚙	⚙	●	⚙		✖	⚙	✖	✖
Non-ferrous metal	N														⚙
Heat resistant alloy, Titanium alloy	S								●	⚙	⚙	✖			
Hardened steel	H										⚙	✖	⚙	✖	

Machining Type

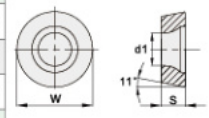
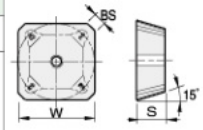
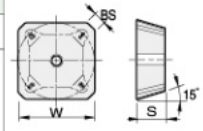
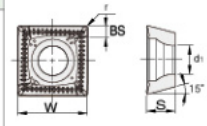
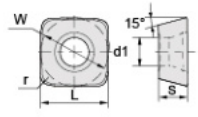
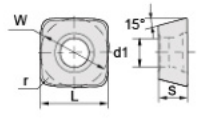
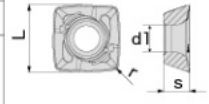
● Continuous cutting
⚙ General cutting
✖ Interrupted cutting

Inserts	Designation	CVD Coated							PVD Coated							Dimensions(mm)						Geometries
		TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H	TPK01	L	W	S	BS	r	d1	
PDKT-GM 	090530ER-GM												●	●		9.000	13.500	5.47	-	3.0	5.50	
PNMU-GM 	0905XNER-GM									●	●					14.600	12.200	5.56	2.00	-	4.70	
RDHX 	1003MOT									●	●					-	10.000	3.18	-	-	3.90	
	12T3MOT									●	●					-	12.000	3.97	-	-	3.90	
RDMW 	0501MOEN									●						-	5.000	1.59	-	-	2.00	
	0702MOEN									●						-	7.000	2.38	-	-	2.80	
RDMT 	08T2MOTN		●		○		○		○	●	●					-	8.000	2.78	-	-	2.80	
	10T3MOTN		●		○		○		○	●	●					-	10.000	3.97	-	-	3.90	
	1204MOTN		●		○		○		○	●	●						12.000	4.76	-	-	4.50	
	1604MOTN		●		○		○		○	●	●						16.000	4.76	-	-	5.00	
RDMX 	1003MOTN									●	●					-	10.000	3.18	-	-	3.90	
	12T3MOTN									●	●					-	12.000	3.97	-	-	3.90	
RPMW 	08T2MO		○		○		○			●	●					-	8.000	2.78	-	-	2.90	
	10T3MO		○		○		○			●	●					-	10.000	3.97	-	-	4.00	
	1204MO		○		○		○			●	●					-	12.000	4.76	-	-	5.00	
	1606MO		○		○		○			●	●					-	16.000	6.35	-	-	5.50	
	2006MO															-	20.000	6.35	-	-	5.50	

Workpiece		TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H	TPK01
Steel	P	●	⬌	✱					●	⬌		✱	⬌	✱	
Stainless steel	M	⬌	✱						●	⬌	⬌	✱	⬌	✱	
Cast iron	K	⬌			●	●	⬌	⬌	●	⬌		✱	⬌	✱	✱
Non-ferrous metal	N														⬌
Heat resistant alloy, Titanium alloy	S								●	⬌	⬌	✱			
Hardened steel	H										⬌	✱	⬌	✱	

Machining Type

● Continuous cutting
⬌ General cutting
✱ Interrupted cutting

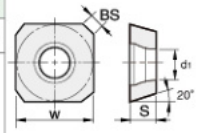
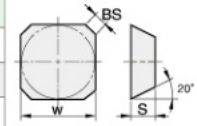
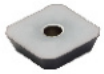
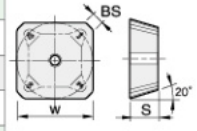
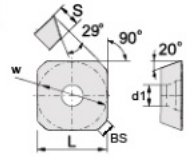
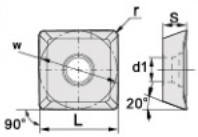
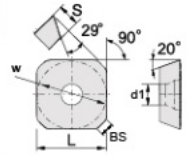
Inserts	Designation	CVD Coated							PVD Coated							Dimensions(mm)						Geometries
		TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H	TPK01	L	W	S	BS	r	d1	
RPMT-JS 	08T2MOE-JS		●		○		○			●	●					-	8.000	2.78	-	-	2.90	
	10T3MOE-JS		●		○		○			●	●					-	10.000	3.97	-	-	4.00	
	1204MOE-JS		●		○		○			●	●					-	12.000	4.76	-	-	5.00	
	1606MOE-JS		●		○		○			●	●					-	16.000	6.35	-	-	5.50	
SDKN-D3 	1203AESN-D3									●	●					-	12.700	3.18	2.08	-	-	
	1504AESN-D3									●	●					-	15.875	4.76	2.10	-	-	
SDKN-G2 	1203AESN-G2									●	●					-	12.700	3.18	2.08	-	-	
	1504AESN-G2									●	●					-	15.875	4.76	2.10	-	-	
SDMT-GM 	120408-GM									●	●					12.700	12.700	4.76	-	0.8	4.40	
SDMT-SM 	09T312-SM									●	●					9.525	9.525	3.97	-	1.2	4.00	
	120412-SM									●	●					12.700	12.700	4.76	-	1.2	4.40	
SDMT-GM 	120512-GM									●	●					12.700	12.700	5.65	-	1.2	4.30	
	150512-GM									●	●					15.950	15.950	5.65	-	1.2	5.50	
SDMX 	09T307SN									●						9.000	9.000	3.50	-	0.7	3.50	
	09T307SW									●	●					9.000	9.000	3.50	-	0.7	3.50	

Milling Insert

Workpiece		TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H	TPK01
Steel	P	●	⧗	✱					●	⧗		✱	⧗	✱	
Stainless steel	M	⧗	✱						●	⧗	⧗	✱	⧗	✱	
Cast iron	K	⧗			●	●	⧗	⧗	●	⧗		✱	⧗	✱	✱
Non-ferrous metal	N														⧗
Heat resistant alloy, Titanium alloy	S								●	⧗	⧗	✱			
Hardened steel	H										⧗	✱	⧗	✱	

Machining Type

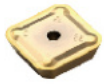
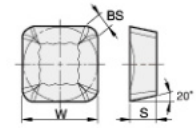
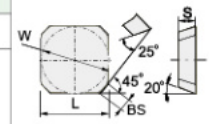
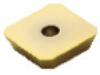
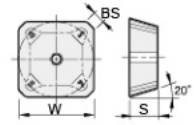
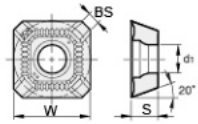
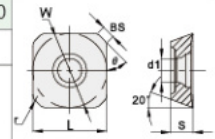
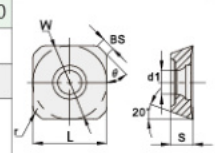
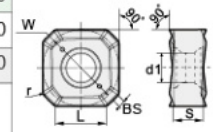
● Continuous cutting
⧗ General cutting
✱ Interrupted cutting

Inserts	Designation	CVD Coated							PVD Coated							Dimensions(mm)						Geometries
		TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H	TPK01	L	W	S	BS	r	d1	
SECA 	1204AFTN									●						-	12.700	4.76	2.66	-	5.56	
	1504AFTN															-	15.875	4.76	2.80	-	5.50	
SEEN 	1203AFTN		●		●					●	●					-	12.700	3.18	2.36	-	-	
	1504AFTN		●		●					●	●					-	15.875	4.76	2.40	-	-	
	1203AGTN		●		●					●	●					-	12.700	3.18	2.11	-	-	
	1504AGTN		●		●					●	●					-	15.875	4.76	2.64	-	-	
SEEN-D 	1203AFTN-D		●		●					●	●											
	1504AFTN-D		●		●					●	●											
	1203AGTN-D		●		●					●	●											
	1504AGTN-D		●		●					●	●											
	1504EEER-D																					
SEET-FM 	12T3-FM	●	●		●	○				●	●	○				13.400	13.400	3.97	2.55	-	4.10	
SEET-PM 	09T308PER-PM															9.525	9.525	4.01	-	0.8	3.30	
	120308PER-PM															13.308	13.308	4.04	-	0.8	4.10	
SEET-SM 	12T3-SM	●	●		●	○				●	●	○				13.400	13.400	3.97	2.55	-	4.10	

Workpiece		TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H	TPK01
Steel	P	●	⊜	✱					●	⊜		✱	⊜	✱	
Stainless steel	M	⊜	✱						●	⊜	⊜	✱	⊜	✱	
Cast iron	K	⊜			●	●	⊜	⊜	●	⊜		✱	⊜	✱	✱
Non-ferrous metal	N														⊜
Heat resistant alloy, Titanium alloy	S								●	⊜	⊜	✱			
Hardened steel	H										⊜	✱	⊜	✱	

Machining Type

● Continuous cutting
⊜ General cutting
✱ Interrupted cutting

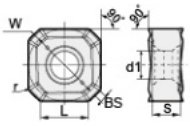
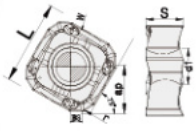
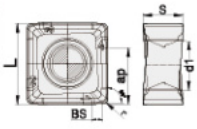
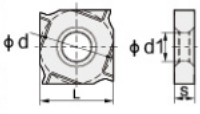
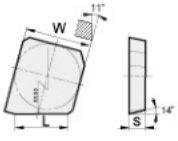
Inserts	Designation	CVD Coated							PVD Coated							Dimensions(mm)						Geometries
		TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H	TPK01	L	W	S	BS	r	d1	
SEER 	1203AFSN	○	●		●	○				●	●					-	12.700	3.18	1.40	1.0	-	
	1504AFSN	○	●		●	○				●	●					-	15.875	4.76	1.40	1.0	-	
SEKN 	1203AFTN	●	●		●					●	●	○				12.700	12.700	3.18	1.80	-	-	
	1504AFTN	●	●		●					●	●	○				15.875	15.875	4.76	1.60	-	-	
SEKN-D 	1203AFTN-D	●	●		●					●	●	○				12.700	12.700	3.18	1.80	-	-	
	1504AFTN-D	●	●		●					●	●	○				15.875	15.875	4.76	1.60	-	-	
SEKT 	1204AFTN	○	○	●	●					●	●	●				12.700	12.700	4.76	2.60	-	5.50	
SEHT-X45 	1204AFTN									●						12.700	12.700	4.76	2.60	-	5.50	
SEHT 	1204AFFN														●	12.700	12.700	4.76	2.60	-	5.50	
SNMX-GM 	1205ANN-GM	●	○	○	●	●	●	●		●	●	○				12.700	12.700	5.54	1.50	-	5.80	
	120512-GM	○	○	○	●	●	○	○		●	○	○				12.700	12.700	5.54	-	1.2	5.80	
	1506ANR-GM									●						15.000	15.000	5.60	1.30	0.9	5.50	

Milling Insert

Workpiece		TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H	TPK01
Steel	P	●	⚙	✱					●	⚙		✱	⚙	✱	
Stainless steel	M	⚙	✱						●	⚙	⚙	✱	⚙	✱	
Cast iron	K	⚙			●	●	⚙	⚙	●	⚙		✱	⚙	✱	✱
Non-ferrous metal	N														⚙
Heat resistant alloy, Titanium alloy	S								●	⚙	⚙	✱			
Hardened steel	H										⚙	✱	⚙	✱	

Machining Type

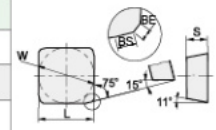
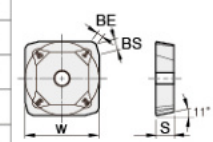
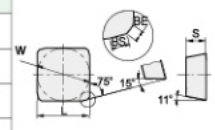
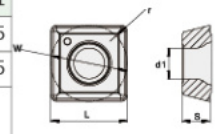
● Continuous cutting
⚙ General cutting
✱ Interrupted cutting

Inserts	Designation	CVD Coated							PVD Coated							Dimensions(mm)						Geometries
		TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H	TPK01	L	W	S	BS	r	d1	
SNMX-GR 	1506ANR-GR									●						15.000	15.000	5.60	1.30	0.9	5.50	
	1907ANR-GR				●					●						19.000	19.000	7.00	1.67	1.2	7.20	
SNMX-GM 	1206ENTN-GM	●	●			○	○	○	○	●	●					13.500	13.500	7.00	2.20	0.4	5.30	
SNMX-GM 	120612-GM		●							●	●					13.500	13.500	6.80	-	1.2	5.30	
	120616-GM															13.500	13.500	6.80	-	1.6	5.30	
SNEQ 	1202									○				●		12.700	12.700	2.30	-	-	5.20	
	1203									○				●		12.700	12.700	3.00	-	-	5.20	
	12T3									○				●		12.700	12.700	3.50	-	-	5.00	
	1204									○				●		12.700	12.700	4.00	-	-	5.00	
	12T4									○				●		12.700	12.700	4.50	-	-	5.00	
SPEX 	1203EDR-1				●										●	10.200	12.700	3.18	-	-	-	
	1203EDL-1				●										●	10.200	12.700	3.18	-	-	-	
	1504EDR-1				●										●	10.200	15.875	4.76	-	-	-	
	1504EDL-1				●										●	10.200	15.875	4.76	-	-	-	

Workpiece		TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H	TPK01
Steel	P	●	⚙	✱					●	⚙		✱	⚙	✱	
Stainless steel	M	⚙	✱						●	⚙	⚙	✱	⚙	✱	
Cast iron	K	⚙			●	●	⚙	⚙	●	⚙		✱	⚙	✱	✱
Non-ferrous metal	N														⚙
Heat resistant alloy, Titanium alloy	S								●	⚙	⚙	✱			
Hardened steel	H										⚙	✱	⚙	✱	

Machining Type

● Continuous cutting
⚙ General cutting
✱ Interrupted cutting

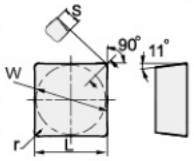
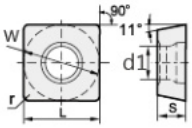
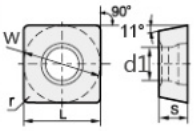
Inserts	Designation	CVD Coated							PVD Coated							Dimensions(mm)						Geometries
		TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H	TPK01	L	W	S	BS	r	d1	
SPKN	1203EDR	○	●		●		●		●	●	●				●	12.700	12.700	3.18	1.40	-	-	
	1203EDL	○	●		●		○		○	●	●				●	12.700	12.700	3.18	1.40	-	-	
	1504EDR	○	●		●		●		●	●	●				●	15.875	15.875	4.76	1.40	-	-	
	1504EDL	○	●		●		○		○	●	●				●	15.875	15.875	4.76	1.40	-	-	
	1203EDSR	○	●		●		○		○	●	●				●	12.700	12.700	3.18	1.40	-	-	
	1203EDSL															12.700	12.700	3.18	1.40	-	-	
	1504EDSR	○	●		●		○		○	●	●				●	15.875	15.875	4.76	1.40	-	-	
	1504EDSL															15.875	15.875	4.76	1.40	-	-	
	1203EDTR	○	●		●		○		○	●	●				●	12.700	12.700	3.18	1.40	-	-	
	1203EDTL															12.700	12.700	3.18	1.40	-	-	
	1504EDTR	○	●		●		○		○	●	●				●	15.875	15.875	4.76	1.40	-	-	
	1504EDTL															15.875	15.875	4.76	1.40	-	-	
SPKN-D	1203EDR-D	○	●		●		●		●	●	●				●	12.700	12.700	3.18	1.40			
	1203EDL-D	○	●		●		○		○	●	●				●	12.700	12.700	3.18	1.40	-	-	
	1504EDR-D	○	●		●		●		●	●	●				●	15.875	15.875	4.76	1.40	-	-	
	1504EDL-D	○	●		●		○		○	●	●				●	15.875	15.875	4.76	1.40	-	-	
	1203EDSR-D	○	●		●		○		○	●	●				●	12.700	12.700	3.18	1.40	-	-	
	1203EDSL-D															12.700	12.700	3.18	1.40	-	-	
	1504EDSR-D	○	●		●		○		○	●	●				●	15.875	15.875	4.76	1.40	-	-	
	1504EDSL-D															15.875	15.875	4.76	1.40	-	-	
	1203EDTR-D	○	●		●		○		○	●	●				●	12.700	12.700	3.18	1.40	-	-	
	1203EDTL-D															12.700	12.700	3.18	1.40	-	-	
	1504EDTR-D	○	●		●		○		○	●	●				●	15.875	15.875	4.76	1.40	-	-	
	1504EDTL-D															15.875	15.875	4.76	1.40	-	-	
SPKR	1203EDR															12.700	12.700	3.18	1.40	-	-	
	1203EDL															12.700	12.700	3.18	1.40	-	-	
	1504EDR															15.875	15.875	4.76	1.40	-	-	
	1504EDL															15.875	15.875	4.76	1.40	-	-	
SPMG	060204-Z									●	●	●				6.000	6.000	2.38	-	0.4	2.61	
	090408-Z									●	●	●				9.800	9.800	4.30	-	0.8	4.05	
	110408-Z									●	●	●				11.500	11.500	4.80	-	0.8	4.45	

Milling Insert

Workpiece		TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H	TPK01
Steel	P	●	⚙	✖					●	⚙		✖	⚙	✖	
Stainless steel	M	⚙	✖						●	⚙	⚙	✖	⚙	✖	
Cast iron	K	⚙			●	●	⚙	⚙	●	⚙		✖	⚙	✖	✖
Non-ferrous metal	N														⚙
Heat resistant alloy, Titanium alloy	S								●	⚙	⚙	✖			
Hardened steel	H										⚙	✖	⚙	✖	

Machining Type

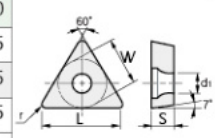
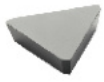
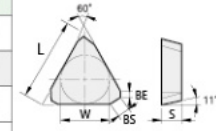
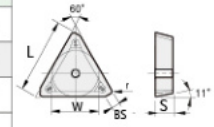
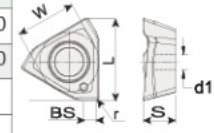
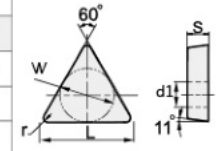
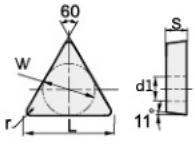
● Continuous cutting
⚙ General cutting
✖ Interrupted cutting

Inserts	Designation	CVD Coated							PVD Coated							Dimensions(mm)						Geometries
		TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H	TPK01	L	W	S	BS	r	d1	
SPMR 	090304															9.525	9.525	3.18	-	0.4	-	
	090308															9.525	9.525	3.18	-	0.8	-	
	120304		●		●					●	●					12.700	12.700	3.18	-	0.4	-	
	120308		●		●		●			●	●					12.700	12.700	3.18	-	0.8	-	
	120312		●		●					●	●					12.700	12.700	3.18	-	1.2	-	
SPMT 	120408				●	○					●	●				12.700	12.700	4.76	-	0.8	5.50	
	120412				●	○					●					12.700	12.700	4.76	-	1.2	5.50	
	120416				●	○										12.700	12.700	4.76	-	1.6	5.50	
	120420				●	○										12.700	12.700	4.76	-	2.0	5.50	
	120430				●	○										12.700	12.700	4.76	-	3.0	5.50	
SPMT-HM 	120408-HM										●					12.700	12.700	4.76	-	0.8	5.50	

Workpiece		TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H	TPK01
Steel	P	●	⚙	✖					●	⚙		✖	⚙	✖	
Stainless steel	M	⚙	✖						●	⚙	⚙	✖	⚙	✖	
Cast iron	K	⚙			●	●	⚙	⚙	●	⚙		✖	⚙	✖	●
Non-ferrous metal	N														⚙
Heat resistant alloy, Titanium alloy	S								●	⚙	⚙	✖			
Hardened steel	H										⚙	✖	⚙	✖	

Machining Type

● Continuous cutting
⚙ General cutting
✖ Interrupted cutting

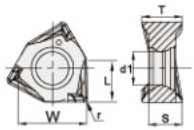
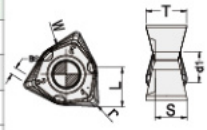
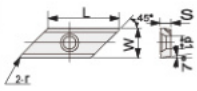
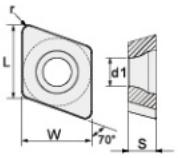
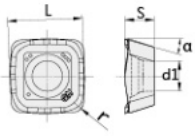
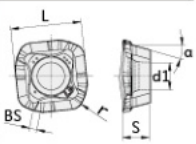
Inserts	Designation	CVD Coated							PVD Coated							Dimensions(mm)						Geometries
		TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H	TPK01	L	W	S	BS	r	d1	
TCEX-AR 	090204-AR									●						9.600	5.560	2.50	-	0.4	2.60	
	13T304-AR															13.400	7.900	3.97	-	0.4	4.05	
	16T304-AR									●						16.500	9.525	3.97	-	0.4	4.45	
	16T308-AR									●						16.500	9.525	3.97	-	0.8	4.45	
TPKN 	1603PDTR		●		●											16.500	9.525	3.18	1.00	-	-	
	1603PDSKR	●	●		●											16.500	9.525	3.18	1.00	-	-	
	2204PDTR	●	●	●	●						●					22.000	15.875	4.76	0.70	-	-	
	2204PDSKR		●	●	●											22.000	15.875	4.76	0.70	-	-	
TPKN-D 	1603PDTR-D				●					●	●					16.500	9.525	3.18	1.00	-	-	
	1603PDSKR-D				●					●	●					16.500	9.525	3.18	1.00	-	-	
	2204PDTR-D				●					●	●					22.000	15.875	4.76	0.70	-	-	
	2204PDSKR-D				●					●	●					22.000	15.875	4.76	0.70	-	-	
TPKT-GM 	100404R-GM									●	●					9.830	6.900	4.00	1.30	0.4	3.20	
	110408R-GM									●	●					9.830	6.900	4.00	1.30	0.8	3.20	
	150508R-GM									●						14.850	10.700	5.00	1.60	0.8	4.50	
TPMR 	090204															9.630	5.560	2.38	-	0.4	-	
	110304															11.000	6.350	3.18	-	0.4	-	
	110308															11.000	6.350	3.18	-	0.8	-	
	160304	●					●			●	●					16.500	9.525	3.18	-	0.4	-	
	160308	●					●			●	●					16.500	9.525	3.18	-	0.8	-	
	160312															16.500	9.525	3.18	-	1.2	-	
	220412															22.000	12.700	4.76	-	1.2	-	
TPUN 	090204															9.630	5.560	2.38	-	0.4	-	
	110304															11.000	6.350	3.18	-	0.4	-	
	110308															11.000	6.350	3.18	-	0.8	-	
	160304		●							●	●					16.500	9.525	3.18	-	0.4	-	
	160308		●		●					●	●					16.500	9.525	3.18	-	0.8	-	
	160312															16.500	9.525	3.18	-	1.2	-	
	220412		●		●					●	●					22.000	12.700	4.76	-	1.2	-	

Milling Insert

Workpiece		TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H	TPK01
Steel	P	●	⚙	✱					●	⚙		✱	⚙	✱	
Stainless steel	M	⚙	✱						●	⚙	⚙	✱	⚙	✱	
Cast iron	K	⚙			●	●	⚙	⚙	●	⚙		✱	⚙	✱	●
Non-ferrous metal	N														⚙
Heat resistant alloy, Titanium alloy	S								●	⚙	⚙	✱			
Hardened steel	H										⚙	✱	⚙	✱	

Machining Type

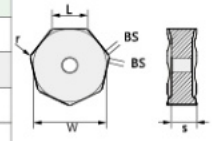
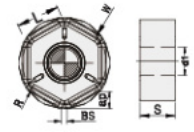
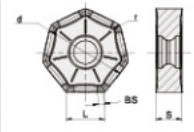
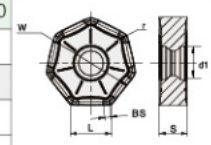
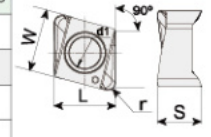
● Continuous cutting
⚙ General cutting
✱ Interrupted cutting

Inserts	Designation	CVD Coated							PVD Coated							Dimensions(mm)						Geometries
		TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H	TPK01	L	W	S	BS	r	d1	
WNGX 	040304R-GM															4.000	6.700	3.30	0.80	0.4	3.25	
	040308R-GM															4.000	6.700	3.30	0.40	0.8	3.25	
	080608R-GM	○	●		●	●	●	●		●	●					7.500	12.500	6.45	1.40	0.8	4.60	
	080612R-GM	○	●		●	●	●	●		●	●					7.500	12.480	6.45	1.00	1.2	4.60	
	080608R-GH	○	●		●	●	●	●		●	●					7.500	12.480	6.45	1.30	0.8	4.60	
	080612R-GH	○	●		●	●	●	●		●	●					7.500	12.480	6.45	0.90	1.2	4.60	
WNMU-GM 	040304EN-GM									●						4.200	6.700	3.060	0.40	0.4	3.25	
	080608EN-GM	●	●		●	●	○	○		●	●					8.700	14.020	6.650	1.30	0.8	6.20	
XCET 	170404ER									●					●	17.120	9.525	4.00	-	0.4	5.00	
	310404ER									●					●	30.150	12.700	4.50	-	0.4	5.50	
XDHW 	060210SN									●	●					6.500	6.500	2.38	-	1.0	2.95	
	10T310SN									●	●					10.000	10.000	3.97	-	1.0	3.95	
XOMT-GM 	100420R-GM									●	●					10.300	10.300	4.58	-	2.0	4.60	
	140520R-GM									●	●					14.140	14.140	5.56	-	2.0	5.80	
XOMT-LD 	140520R-LD									●	●					14.760	14.760	5.56	1.60	2.0	5.80	

Workpiece		TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H	TPK01
Steel	P	●	⬢	✱					●	⬢		✱	⬢	✱	
Stainless steel	M	⬢	✱						●	⬢	⬢	✱	⬢	✱	
Cast iron	K	⬢			●	●	⬢	⬢	●	⬢		✱	⬢	✱	●
Non-ferrous metal	N														⬢
Heat resistant alloy, Titanium alloy	S								●	⬢	⬢	✱			
Hardened steel	H										⬢	✱	⬢	✱	

Machining Type

● Continuous cutting
⬢ General cutting
✱ Interrupted cutting

Inserts	Designation	CVD Coated							PVD Coated							Dimensions(mm)						Geometries
		TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H	TPK01	L	W	S	BS	r	d1	
XNHF-GM 	070508-GM				●					●	●					7.000	14.500	5.00	-	0.8	-	
	090612-GM				●		●									9.000	19.050	5.68	-	1.2	-	
XNHU-ML 	0605ANR-MLW															6.000	13.700	6.20	1.00	1.0	4.90	
XNMU-GM 	0705ANN-GM				●					●	●					7.000	14.500	5.40	1.10	0.8	4.00	
XNMU-MM 	0906ANTN-MM		●		●	●				●	●					9.000	18.500	6.35	1.00	1.0	6.00	
YNKT-GM 	060308R-GM									●	●					6.600	6.600	4.67	-	0.8	3.25	

Toolfinder - Application Selection Guide

Cutters for face milling

			HRM	FM01	FM01.11	FM02	MFA
Type							
Page			488	494	494	496	500
A.A			90°	90°	90°	75°	90°
Max.cutting depth (mm)			9.0	15.5	39.0	6.0	14.0
Diameter range (mm)			ϕ40-ϕ250	ϕ40-ϕ250	ϕ50-ϕ100	ϕ80-ϕ100	ϕ40-ϕ200
Available insert			LN.U...	AP.T...	AP.T11T3..	AP.T...	LN.T...
Application	Facing		●	●	●	●	●
	Shouldering		●	●	●		●
	Slotting		●	●	●		●
	Plunge milling						
	Helical Milling		●	●	●		
	Ramping		●	●	●		
	Pocketing						
	Chamfering						
	Copying			●	●		●

Cutters for face milling

Type			MFA13N	ASPV06R	TFXND	ELN11R	ELS
							
Page			501	505	516	527	530
A.A			90°	90°	90°	90°	-
Max.cutting depth (mm)			70.0	3.0	7.5	1.0	2.0
Diameter range (mm)			□50-□100	ϕ40-ϕ63	ϕ50-ϕ250	ϕ40-ϕ63	ϕ50-ϕ160
Available insert			LN.U...	MPHW0603..	WN.X0806..	EN.U11T310	XOMT...
Application	Facing			●	●	●	●
	Shouldering		●	●	●	●	●
	Slotting			●	●	●	●
	Plunge milling						
	Helical Milling				●		
	Ramping				●		
	Pocketing						
	Chamfering			●			
	Copying			●	●		

Toolfinder - Application Selection Guide

Cutters for face milling

Type			EMR/EMRW	TRS	TRD	KM12	TWSX45
							
Page			541	546	549	556	558
A.A			-	-	-	45°	45°
Max.cutting depth (mm)			6.0	8.0	6.0	6.0	9.0
Diameter range (mm)			ϕ50-ϕ200	ϕ50-ϕ200	ϕ50-ϕ160	ϕ50-ϕ250	ϕ50-ϕ250
Available insert			RPM...	RDM...	RD.X...	SE..1204..	SN.X...
Application	Facing		●	●	●	●	●
	Shouldering						
	Slotting						
	Plunge milling						
	Helical Milling		●	●	●		
	Ramping		●	●	●	●	
	Pocketing						
	Chamfering					●	
	Copying		●	●	●		

Cutters for face milling

Type			TWSX75	TWSX88	SEPD	SSPD	SFPD
							
Page			560	562	564	564	564
A.A			75°	88°	45°	60°	19°
Max.cutting depth (mm)			9.5	12.0	4.5	5.5	2
Diameter range (mm)			ϕ50-ϕ250	ϕ50-ϕ200	ϕ50-ϕ160	ϕ50-ϕ160	ϕ50-ϕ125
Available insert			SN.X1206..	SN.X1206	PD..0905..	PD..0905..	PD..0905..
Application	Facing		●	●	●	●	●
	Shouldering						
	Slotting						
	Plunge milling						
	Helical Milling						
	Ramping						
	Pocketing						
	Chamfering						
	Copying						

Toolfinder - Application Selection Guide

Cutters for face milling

Type			MFPN66	MFHN45	TFXN45	MFXN45	SOD43
							
Page			567	569	571	573	575
A.A			66°	45°	45°	45°	45°
Max.cutting depth (mm)			8.0	5.0	4.0	4.4	4
Diameter range (mm)			ϕ50-ϕ250	ϕ50-ϕ200	ϕ63-ϕ200	ϕ40-ϕ160	ϕ40-ϕ200
Available insert			PN.U0905..	HN.X...	XN.F...	XN.U0705..	OD.T0605..
Application	Facing		•	•	•	•	•
	Shouldering						
	Slotting						
	Plunge milling						
	Helical Milling						
	Ramping			•			•
	Pocketing			•			•
	Chamfering			•			•
	Copying						

Cutters for Molds

Type			HRM03R	HRM03R	FM01	FM01.11	MEA
							
Page			487	487	493	493	498
A.A			90°	90°	90°	90°	90°
Max.cutting depth (mm)			9.0	43.0	15.5	58.0	12.5
Diameter range (mm)			ϕ25-ϕ40	ϕ40	ϕ12-ϕ40	ϕ20-ϕ40	ϕ25-ϕ50
Available insert			LN.U1205..	LN.U1205..	AP.T	AP.T11T3..	LN.T1306..
Application	Facing		●	●	●	●	●
	Shouldering		●	●	●	●	●
	Slotting		●	●	●	●	●
	Plunge milling		●		●		
	Helical Milling		●	●	●	●	
	Ramping		●	●	●	●	
	Pocketing						
	Chamfering						
	Copying						

Toolfinder - Application Selection Guide

Cutters for Molds

Type			MEA-W	ASPV06R	AMS07	CPE3	CNE4
							
Page			499	503	507	510	513
A.A			90°	90°	90°	90°	90°
Max.cutting depth (mm)			59	3.0	5.0	7.0	6.0
Diameter range (mm)			ϕ40-ϕ50	ϕ16-ϕ40	ϕ8-ϕ21	ϕ16-ϕ40	ϕ16-ϕ40
Available insert			LN.T1306..	MPHW0603..	ADMT0702..	TPKT1004..	YNKT060308
Application	Facing		●	●	●	●	●
	Shouldering		●	●	●	●	●
	Slotting			●	●	●	●
	Plunge milling						
	Helical Milling				●	●	●
	Ramping						
	Pocketing						
	Chamfering						
	Copying				●	●	●

Cutters for Molds

Type			ASR20	ELT06R	ELN11R	ELS	EMR
							
Page			518	522	525	529	538
A.A			-	-	-	-	-
Max.cutting depth (mm)			2.0	0.5	1	2.0	5.0
Diameter range (mm)			ϕ16-ϕ33	ϕ8-ϕ16	ϕ16-ϕ40	ϕ25-ϕ80	ϕ12-ϕ40
Available insert			EP.W0603..	EP.T0602..	EN.U11T3..	XO.T...	RPM...
Application	Facing		●	●	●	●	●
	Shouldering			●	●	●	
	Slotting		●	●	●	●	
	Plunge milling						
	Helical Milling		●				●
	Ramping						●
	Pocketing			●	●	●	
	Chamfering						
	Copying		●				●

Toolfinder - Application Selection Guide

Cutters for Molds

Type			EMRW	TRS	WGR	B45-AP	ECC
							
Page			540	543	551	580	586
A.A			-	-	-	45°	45°~60°
Max.cutting depth (mm)			6.0	6.0	15.0	-	20.5
Diameter range (mm)			ϕ25-ϕ50	ϕ8-ϕ40	ϕ8-ϕ30	ϕ13-ϕ40	ϕ20-ϕ55
Available insert			RPM.1204..	RDM...	P3200	APMT....	XECT
Application	Facing		●	●	●		●
	Shouldering				●		●
	Slotting				●		●
	Plunge milling						
	Helical Milling		●	●			
	Ramping		●	●			
	Pocketing						
	Chamfering					●	●
	Copying		●	●	●		

Cutters for Molds

Type			B45-SP	B45-AP	DX45	DX45/SSP45	SSP60
							
Page			578	580	584	583	583
A.A			45°	45°	45°	45°	60°
Max.cutting depth (mm)			-	-	7.6	11.3	11.83
Diameter range (mm)			ϕ16-ϕ46	ϕ13-ϕ40	ϕ13.8-ϕ22.5	ϕ13.8-ϕ22.5	ϕ13.8-ϕ22.5
Available insert			SPM...	AP.T...	TC.X...	S.X.	DC.X...
Application	Facing						
	Shouldering						
	Slotting						
	Plunge milling						
	Helical Milling						
	Ramping						
	Pocketing						
	Chamfering		•	•	•	•	•
	Copying						

Toolfinder - Application Selection Guide

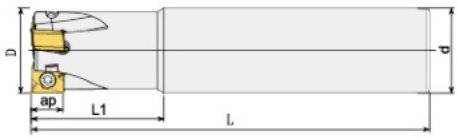
Side Cutters

Type			PT01-J	PT01	PT01-W	PT02-J	PT02
							
Page			588	589	590	592	593
A.A			-	-	-	-	-
Max.cutting depth (mm)			20.0	20.0	22.0	8.0	8.0
Diameter range (mm)			ϕ80-ϕ200	ϕ80-ϕ200	ϕ21-ϕ50	ϕ100-ϕ250	ϕ63-ϕ160
Available insert			MPHT...	MPHT...	MPHT...	SNEQ	SNEQ
Application	Facing						
	Shouldering						
	Slotting		●	●	●	●	●
	Plunge milling						
	Helical Milling						
	Ramping						
	Pocketing						
	Chamfering						
	Copying						

Side Cutters

			TSCN-J	TSCN	DCW60	DCW55	
Type							
Page			596	597	599	600	
A.A			-	-	60°	55°	
Max.cutting depth (mm)			22.0	24.0	-	-	
Diameter range (mm)			ϕ80-ϕ250	ϕ80-ϕ250	ϕ25-ϕ80	ϕ25-ϕ80	
Available insert			CN.X	CN.X	DC...	DC...	
Application	Facing						
	Shouldering						
	Slotting		●	●	●	●	
	Plunge milling						
	Helical Milling						
	Ramping						
	Pocketing						
	Chamfering						
	Copying						

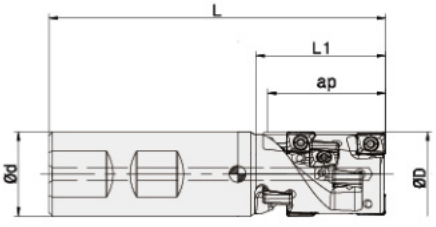
HRM Type Shoulder Endmill



mm

Designation		No.of Inserts	Dimension(mm)					Adapter	kg
			D	d	L1	L	ap		
HRM03R	2525-170L-2T	2	25	25	34	170	9.0	S	0.58
	3232-195L-2T	2	32	32	34	195	9.0	S	1.05
	2525-099L-2T-W	2	25	25	42	99	9.0	W	0.30
	3232-103L-3T-W	3	32	32	42	103	9.0	W	0.50
	4032-111L-4T-W	4	40	32	50	111	9.0	W	0.62

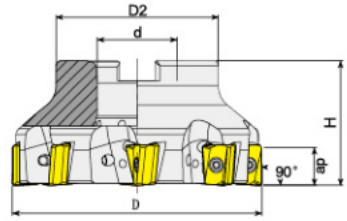
HRM Type Extended Flute Shoulder Endmill



mm

Designation		No.of flutes	No.of Inserts	Dimension(mm)					Adapter	kg
				D	d	L1	L	ap		
HRM03R	4032-043M-130L-2T-W	2	8	40	32	66	130	43	W	0.77

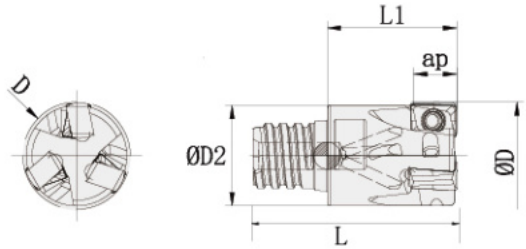
HRM Type Shell Mill



mm

Designation		No.of Inserts	Dimension(mm)					Arbor	kg
			D	D2	d	H	ap		
HRM03R	040-16-04T	4	40	35	16	40	9.0	A	0.23
	050-22-04T	4	50	42	22	40	9.0	A	0.35
	050-22-05T	5	50	42	22	40	9.0	A	0.36
	063-22-04T	4	63	49	22	40	9.0	A	0.55
	063-22-06T	6	63	49	22	40	9.0	A	0.50
	080-27-05T	5	80	57	27	50	9.0	B	1.18
	080-27-07T	7	80	57	27	50	9.0	B	1.02
	100-32-06T	6	100	67	32	50	9.0	B	1.78
	100-32-08T	8	100	67	32	50	9.0	B	2.01
	125-40-07T	7	125	87	40	63	9.0	B	3.44
	125-40-09T	9	125	87	40	63	9.0	B	3.38
HRM04R	063-22-04T	4	63	49	22	40	13.0	A	0.46
	063-22-05T	5	63	49	22	40	13.0	A	0.46
	080-27-04T	4	80	57	27	50	13.0	B	0.98
	080-27-06T	6	80	57	27	50	13.0	B	0.89
	100-32-05T	5	100	67	32	50	13.0	B	0.98
	100-32-07T	7	100	67	32	50	13.0	B	1.84
	125-40-06T	6	125	87	40	63	13.0	B	3.44
	125-40-08T	8	125	87	40	63	13.0	B	3.33
	160-40-08T	8	160	107	40	63	13.0	C	6.19
	200-60-10T	10	200	130	60	63	13.0	C	7.00
	250-60-12T	12	250	180	60	63	13.0	C	9.36

HRM Type Milling Modular



mm

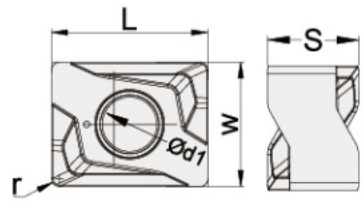
Designation		No.of Inserts	Dimension(mm)						kg
			D	M	D2	L1	ap	WF	
HRM03R	025-M12-2T	2	25	M12	21.0	33	55	9.0	0.12
	032-M16-2T	2	32	M16	29.0	43	66	9.0	0.22
	032-M16-3T	3	32	M16	29.0	43	66	9.0	0.23
	040-M16-3T	3	40	M16	29.0	43	66	9.0	0.30

Parts

TYPE		
	Insert screw	Wrench
HRM03R	L1060SSTX4.0-5.7P	SF-TPF15
HRM04R	L1250SSTX5.0-7.0P	SF-TPF20

Available Inserts

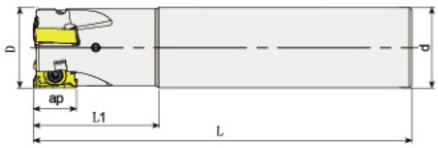
LNGU



Workpiece			Machining Type	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
Steel	P		●	⬌	✱					●	⬌		✱	⬌	✱
Stainless steel	M			✱						●	⬌	⬌	✱	⬌	✱
Cast iron	K		⬌			●	●	⬌	⬌	●	⬌		✱	⬌	✱
Non-ferrous metal	N	● Continuous cutting													
Heat resistant alloy, Titanium alloy	S	⬌ General cutting								●	⬌	⬌	✱		
Hardened steel	H	✱ Interrupted cutting										⬌	✱	⬌	✱

Designations		Dimensions(mm)					CVD Coated							PVD Coated					
		L	W	S	r	d1	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
LNGU-GM	120508R-GM	12.0	9.5	5.96	0.8	4.5												●	●
	160708R-GM	16.6	13.2	7.50	0.8	5.7												●	●

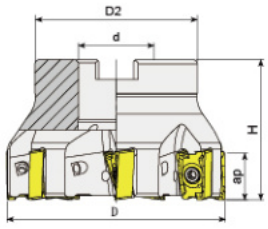
EPN Type Shoulder Endmill



mm

Designation		No.of Inserts	Dimension(mm)						kg
			D	d	L1	L	ap	Adapter	
EPN03R	1616-150L-2T	2	16	16	25	150	11.0	S	0.23
	1716-150L-2T	2	17	16	25	150	11.0	S	0.24
	2020-150L-3T	3	20	20	28	150	11.0	S	0.35
	2120-150L-3T	3	21	20	28	150	11.0	S	0.36
	2525-150L-4T	4	25	25	43	150	11.0	S	0.54
EPN04R	3232-150L-5T	5	32	32	49	150	11.0	S	0.89
	2525-150L-2T	2	25	25	43	150	15.5	S	0.53
	3232-150L-3T	3	32	32	49	150	15.5	S	0.87
	4032-150L-4T	4	40	32	49	150	15.5	S	0.93

EPN Type Shell Mill



mm

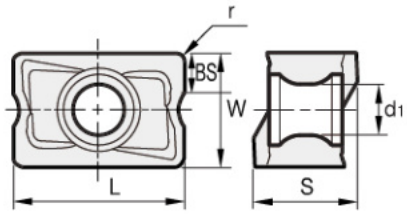
Designation		No.of Inserts	Dimension(mm)						kg
			D	d	D2	H	ap	Adapter	
EPN03R	050-22-07T	7	50	22	42	40	11.00	A	0.36
	063-22-07T	7	63	22	50	40	11.00	A	0.58
	080-27-08T	8	80	27	60	50	11.00	B	1.08
EPN04R	050-22-05T	5	50	22	42	40	15.50	A	0.32
	063-22-06T	6	63	22	50	40	15.50	A	0.52
	080-27-07T	7	80	27	60	50	15.50	B	1.05
	100-32-08T	8	100	32	80	50	15.50	B	1.55
	125-40-09T	9	125	40	90	63	15.50	B	3.11
	160-40-12T	12	160	40	110	63	15.50	C	5.51

Parts

TYPE		
	Insert screw	Wrench
EPN03R	L0760SSTX3.0-4.0P	TPF-08
EPN04R	L1060SSTX4.0-5.7P	TPF-15

Available Inserts

LNMU



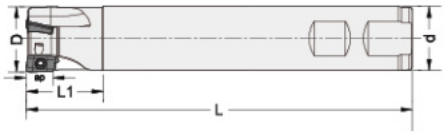
Workpiece			Machining Type	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
Steel	P		●	⧗	✱					●	⧗		✱	⧗	✱
Stainless steel	M			✱						●	⧗	⧗	✱	⧗	✱
Cast iron	K		⧗			●	●	⧗	⧗	●	⧗		✱	⧗	✱
Non-ferrous metal	N														
Heat resistant alloy, Titanium alloy	S									●	⧗	⧗	✱		
Hardened steel	H											⧗	✱	⧗	✱

● Continuous cutting
⧗ General cutting
✱ Interrupted cutting

Designations		Dimensions(mm)						CVD Coated							PVD Coated					
		L	W	S	BS	r	d1	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
LNMU-GM	110408SRE-GM	12.0	6.6	4.83	0.9	0.8	3.5									●	●			
	15T608SRE-GM	16.9	10.0	6.96	1.8	0.8	4.5									●	●			

Shouldering

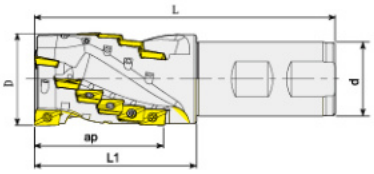
FM01 Type Shoulder Endmill



mm

Designation		No.of Inserts	Dimension(mm)						kg
			D	d	L1	L	ap	Adapter	
FM01.11	1216-085L-1T	1	12	16	25	85	10.5	S	0.10
	1616-090L-2T	2	16	16	25	90	10.5	S	0.10
	2020-100L-2T	2	20	20	30	100	10.5	S	0.20
	2525-115L-3T	3	25	25	35	115	10.5	S	0.40
	3232-125L-4T	4	32	32	40	125	10.5	S	0.70
FM01.16	2525-115L-2T	2	25	25	35	115	15.5	S	0.40
	3232-125L-3T	3	32	32	40	125	15.5	S	0.70
	4032-130L-4T	4	40	32	42	130	15.5	S	0.70

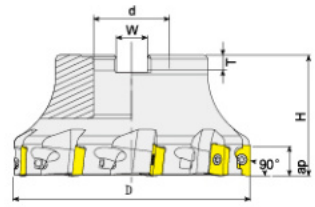
FM01 Type Extended Flute Endmill



mm

Designation		No.of flutes	No.of Inserts	Dimension(mm)					Adapter	kg
				D	d	L1	L	ap		
FM01.11	2020-029M-120L-1T-W	1	3	20	20	45	120	29.4	W	0.32
	2525-039M-130L-2T-W	2	8	25	25	55	130	38.9	W	0.40
	3232-048M-140L-2T-W	2	10	32	32	65	140	48.5	W	0.65
	4040-058M-150L-2T-W	2	14	40	40	75	150	58.0	W	0.75

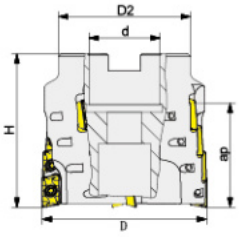
FM01 Type Shoulder Shell Mill



mm

Designation		No.of Inserts	Dimension(mm)						Arbor	kg
			D	d	H	W	T	ap		
FM01.11	040-16-05T	5	40	16	40	8.4	5.6	11.0	A	0.18
	050-22-06T	6	50	22	40	10.4	6.3	11.0	A	0.30
	063-22-08T	8	63	22	40	10.4	6.3	11.0	A	0.60
	080-27-08T	8	80	27	50	12.4	7.0	11.0	A	1.20
	100-32-10T	10	100	32	50	14.4	8.0	11.0	B	1.70
	125-40-10T	10	125	40	63	16.4	9.0	11.0	B	3.42
FM01.16	040-16-04T	4	40	16	40	8.4	5.6	15.5	A	0.17
	050-22-05T	5	50	22	40	10.4	6.3	15.5	A	0.30
	063-22-06T	6	63	22	40	10.4	6.3	15.5	A	0.50
	080-27-07T	7	80	27	50	12.4	7.0	15.5	A	1.10
	100-32-08T	8	100	32	50	14.4	8.0	15.5	B	1.60
	125-40-10T	10	125	40	63	16.4	9.0	15.5	B	3.20
	160-40-10T	10	160	40	63	16.4	9.0	15.5	B	6.30
	200-60-12T	12	200	60	63	25.7	14.0	15.5	C	8.10
	250-60-12T	12	250	60	63	25.7	14.0	15.5	C	11.20

FM01 Type Extended Flute Shell Mill

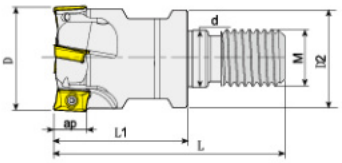


mm

Designation		No.of flute	No.of Inserts	Dimension(mm)					Arbor	kg
				D	d	D2	H	ap		
FM01.11	050-22-39M-04T	1	16	50	22	40	58	39.0	A	0.70
	063-27-39M-04T	2	16	63	27	50	58	39.0	A	0.90
	080-32-39M-05T	2	20	80	32	60	63	39.0	B	1.30
	100-40-39M-06T	2	24	100	40	80	63	39.0	B	2.00

Shouldering

FM01 Type Should Mill Modular



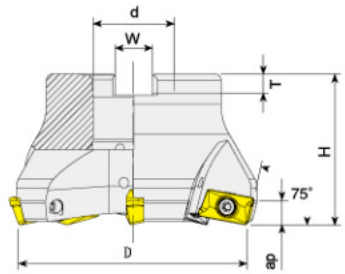
mm

Designation		No.of Inserts	Dimension(mm)							kg
			D	M	D2	L1	L	d	ap	
FM01.11	016-M08-2T	2	16	M8	14.5	25	42	8.5	11.0	0.04
	020-M10-2T	2	20	M10	18.0	30	51	10.5	11.0	0.07
	025-M12-3T	3	25	M12	23.0	35	59	12.5	11.0	0.04
	032-M16-4T	4	32	M16	29.0	40	67	17.0	11.0	0.23
	040-M16-5T	5	40	M16	29.0	40	67	17.0	11.0	0.25

Parts

TYPE		
	Insert screw	Wrench
FM01.11	L06555SSTX2.5-3.6P	TPF-08
FM01.16	L1060SSTX4.0-5.7P	TPF-15

FM02 Type Shoulder Shell Mill



mm

Designation		No.of Inserts	Dimension(mm)							kg
			D	d	H	W	T	ap	Arbor	
FM02.11	080-27-05T	5	80	27	50	12.4	7.0	4.0	B	1.20
	100-32-06T	6	100	32	63	14.4	8.0	4.0	B	2.33
FM02.16	080-27-04T	4	80	27	50	12.4	7.0	6.0	B	1.30
	100-32-05T	5	100	32	63	14.4	8.0	6.0	B	2.30

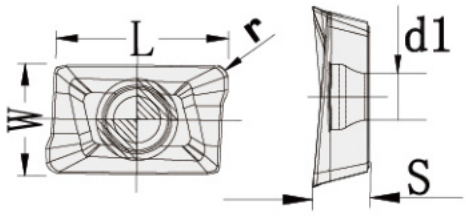
Parts

TYPE		
	Insert screw	Wrench
FM02.11	L06555SSTX2.5-3.6P	FF-TPF08
FM02.16	L1060SSTX4.0-5.7P	FF-TPF15

Shouldering

Available Inserts

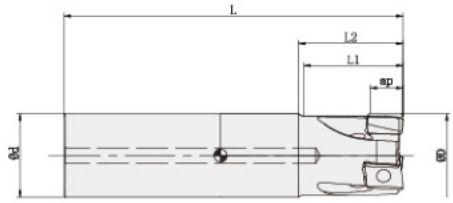
APKT



Workpiece			Machining Type	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
Steel	P			●	⚙	✱					●	⚙		✱	⚙	✱
Stainless steel	M				✱						●	⚙	⚙	✱	⚙	✱
Cast iron	K			⚙			●	●	⚙	⚙	●	⚙		✱	⚙	✱
Non-ferrous metal	N		● Continuous cutting													
Heat resistant alloy, Titanium alloy	S		⚙ General cutting								●	⚙	⚙	✱		
Hardened steel	H		✱ Interrupted cutting										⚙	✱	⚙	✱

Designations		Dimensions(mm)					CVD Coated							PVD Coated					
		L	W	S	r	d1	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
APKT-GM	11T308-GM	12.240	6.50	3.60	0.8	2.8		●		●					●	●			
	160408-GM	17.877	9.33	5.76	0.8	4.4		●		●					●	●			
APKT-QM	11T308-QM	12.240	6.64	3.60	0.8	2.8		○		○					○	○			
	160408-QM	17.877	9.33	5.76	0.8	4.4		○		○					○	○			

MEA Type Shoulder Endmill

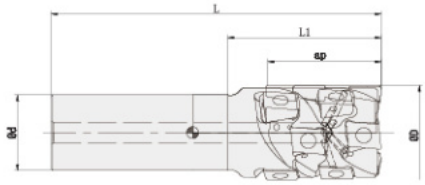


mm

Designation		No.of Inserts	Dimension(mm)						Adapter	kg
			D	d	L1	L2	L	ap		
MEA08N	1616-100L-2T	2	16	16	26	28	100	8.0	S	0.13
	2020-120L-2T	2	20	20	26	28	110	8.0	S	0.22
	2525-120L-3T	3	25	25	26	28	10	8.0	S	0.40
	3232-130L-3T	3	32	32	30	3	130	8.0	S	0.72
	4032-130L-4T	4	40	32	-	30	130	8.0	S	0.81
MEA13N	2525-120L-2T	2	25	25	33	35.0	120	12.5	S	0.39
	3232-130L-2T	2	32	32	38	40.0	130	12.5	S	0.72
	4032-130L-3T	3	40	32	-	40.0	120	12.5	S	0.81
	5032-130L-4T	4	50	32	-	36.5	130	12.5	S	0.96

Shouldering

MEA Type Extended Flute Shoulder Endmill



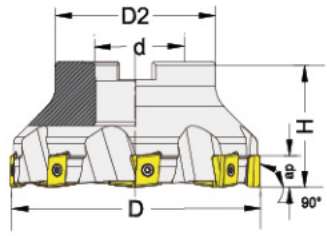
mm

Designation		No.of Inserts	No.of flutes	Dimension(mm)					Adapter	kg
				D	d	L1	L	ap		
MEA08N	2020-021M-110L-1T-W	63	1	20	20	30	110	21	W	0.22
	2525-027M-125L-2T-W	8	2	25	25	35	125	27	W	0.39
	3232-034M-140L-2T-W	10	2	32	32	50	140	34	W	0.74
	4032-040M-150L-3T-W	18	3	40	32	60	150	44	W	0.92
MEA13N	4032-036M-115L-2T-W	6	2	40	32	50	115	36.0	W	0.68
	4032-048M-125L-3T-W	12	3	40	32	65	125	48.0	W	0.70
	5040-047M-135L-3T-W	12	3	50	40	65	135	47.0	W	1.24
	5040-059M-135L-4T-W	20	4	50	40	65	135	59.0	W	1.21

Parts

TYPE		
	Insert screw	Wrench
MEA08N	L0760SSTX3.0-4.0P	TPF-08
MEA13N	L1060SSTX4.0-5.7P	TPF-15
MEA15N	L1455SSTX5.0-7.2P	TPF-20

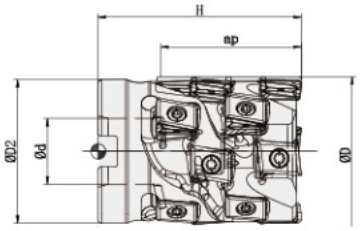
MFA Type Shell Mill



mm

Designation		No.of Inserts	Dimension(mm)					Adapter	kg
			D	D2	d	H	ap		
MFA08N	040-16-04T	5	40	38	16	40	8.00	A	0.23
	050-22-05T	6	50	48	22	40	8.00	A	0.36
	063-22-06T	6	63	60	22	40	8.00	A	0.60
	063-22-08T	8	63	60	22	40	8.00	A	0.62
	080-27-10T	10	80	60	27	50	8.00	B	0.84
MFA13N	040-16-04T	4	40	38	16	40	12.5	A	0.22
	040-16-05T	5	40	38	16	40	12.5	A	0.22
	050-22-05T	5	50	47	22	40	12.5	A	0.31
	050-22-06T	6	50	47	22	40	12.5	A	0.31
	063-22-06T	6	63	59	22	40	12.5	A	0.55
	063-22-08T	8	63	59	22	40	12.5	A	0.56
	080-27-07T	7	80	70	27	50	12.5	B	0.98
	080-27-10T	10	80	70	27	50	12.5	B	1.00
	100-32-09T	9	100	78	32	50	12.5	B	1.45
	100-32-13T	13	100	78	32	50	12.5	B	1.49
	125-40-11T	11	125	82	40	63	12.5	B	2.98
	125-40-16T	16	125	82	40	63	12.5	B	3.04
	160-40-13T	13	160	120	40	63	12.5	B	4.32
MFA16N	050-22-04T	4	50	48	22	40	16.00	A	0.36
	063-22-05T	5	63	60	22	40	16.00	A	0.60
	080-27-05T	5	80	63	27	50	16.00	B	0.84
	080-27-07T	7	80	63	27	50	16.00	B	0.91
	100-32-06T	6	100	80	32	50	16.00	B	1.44
	100-32-08T	8	100	80	32	50	16.00	B	1.50
	125-40-07T	7	125	82	40	63	16.00	B	2.42
	125-40-10T	10	125	82	40	63	16.00	B	2.46
	160-40-12T	12	160	105	40	63	16.00	C	4.28
	200-60-12T	12	200	135	60	63	16.00	C	5.40

MFA Type Extended Flute Shell Mill



mm

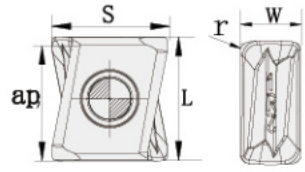
Designation		No.of Inserts	No.of flutes	Dimension(mm)					Adapter	kg
				D	d	D2	H	ap		
MFA13N	050-22-36M-03T	9	3	50	22	48	56	36.0	A	0.43
	050-22-47M-04T	16	4	50	22	48	68	47.0	A	0.54
	063-27-36M-04T	12	4	63	27	58	60	36.0	A	0.79
	063-27-59M-05T	25	5	63	27	58	80	59.0	A	1.09
	080-32-58M-05T	25	5	80	32	74	75	58.0	A	1.73
	080-32-70M-05T	30	5	80	32	74	111	70.0	A	2.65
	100-40-59M-06T	30	6	100	40	88	86	59.0	A	3.11

Parts

TYPE		
	Insert screw	Wrench
MFA08N	L0760SSTX3.0-4.0P	FF-TPF08
MFA13N	L1060SSTX4.0-5.7P	FF-TPF15
MFA15N	L1455SSTX5.0-7.2P	FF-TPF20

Available Inserts

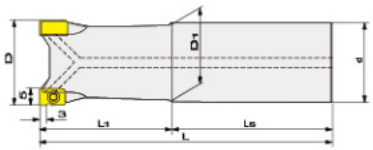
LNKT



Workpiece			Machining Type	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
Steel	P		●	⬌	✖					●	⬌		✖	⬌	✖
Stainless steel	M			✖						●	⬌	⬌	✖	⬌	✖
Cast iron	K		⬌			●	●	⬌	⬌	●	⬌		✖	⬌	✖
Non-ferrous metal	N	● Continuous cutting													
Heat resistant alloy, Titanium alloy	S	⬌ General cutting								●	⬌	⬌	✖		
Hardened steel	H	✖ Interrupted cutting										⬌	✖	⬌	✖

Designations		Dimensions(mm)					CVD Coated							PVD Coated					
		L	W	S	r	ap	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
LNKT-GH	080404ER-GH	8.59	4.24	7.43	0.4	8.0												●	●
	080408ER-GH	8.59	4.24	7.43	0.8	8.0													
	130608ER-GH	13.81	6.65	13.05	0.8	12.5									●			●	●
	130612ER-GH	13.81	6.65	13.05	1.2	12.5													
	160708ER-GH	17.05	7.00	15.83	0.8	16.0													
	160712ER-GH	17.05	7.00	15.83	1.2	16.0													

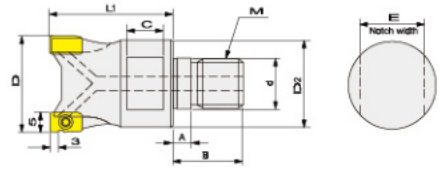
ASPV Type Endmill



mm

Designation		No.of Inserts	Dimension(mm)						Arbor	kg
			D1	L1	L	LS	d	D1		
ASPV06R	1616-100L-2T	2	16	30	100	70	16	14.5	S	0.12
	2020-100L-3T	3	20	30	100	70	20	18.0	S	0.21
	2020-150L-3T	3	20	30	150	120	20	18.0	S	0.34
	2525-150L-4T	4	25	40	150	110	25	23.0	S	0.35
	2525-200L-4T	4	25	40	200	160	25	23.0	S	0.59
	3025-150L-4T	4	30	50	150	100	25	28.0	S	0.38
	3025-200L-4T	4	30	50	200	150	25	28.0	S	0.62
	3232-150L-5T	5	32	50	150	100	32	30.0	S	0.60
	3232-200L-5T	5	32	50	200	150	32	30.0	S	1.00
	3532-150L-5T	5	35	50	150	100	32	31.0	S	0.70
	3532-200L-5T	5	35	50	200	150	32	31.0	S	1.10
	4032-150L-6T	6	40	50	150	100	32	31.0	S	0.80
	4032-200L-6T	6	40	50	200	150	32	31.0	S	1.20

ASPV Type Milling Modular

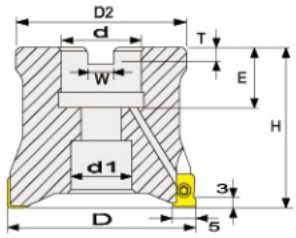


mm

Designation		No.of Inserts	Dimension(mm)									kg
			D	L1	d	M	D2	A	B	C	E	
ASPV06R	016-M08-2T	2	16	25	8.5	M8	12.8	5.5	17	8	10	0.03
	017-M08-2T	2	17	25	8.5	M8	14.5	5.5	17	8	10	0.03
	020-M10-3T	3	20	30	10.5	M10	17.8	5.5	19	10	15	0.05
	021-M10-3T	3	21	30	10.5	M10	17.8	5.5	19	10	15	0.05
	025-M12-4T	4	25	35	12.5	M12	20.8	5.5	22	10	17	0.09
	026-M12-4T	4	26	35	12.5	M12	20.8	5.5	22	10	17	0.10
	032-M16-5T	5	32	40	17.0	M16	28.8	6.0	23	12	22	0.19
	035-M16-5T	5	35	40	17.0	M16	28.8	6.0	23	12	22	0.21
	042-M16-6T	6	42	40	17.0	M16	28.8	6.0	23	12	22	0.25

Shouldering

ASPV Type Shell Mill



mm

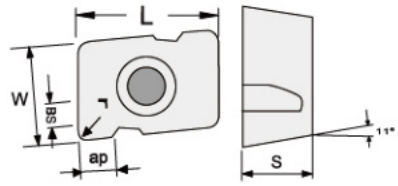
Designation		No.of Inserts	Dimension(mm)								arbor	kg
			D	H	d	d1	D2	W	T	E		
ASPV06R	040-16-06T	6	40	40	16	13.5	38	8.4	5.6	18	A	0.22
	050-22-07T	7	50	50	22	17.0	47	8.4	6.3	20	A	0.34
	063-22-08T	8	63	50	22	17.0	60	10.4	6.3	20	A	0.57

Parts

TYPE		
	Insert screw	Wrench
ASPV06R	L0655SSTX2.5-3.6P	TPF-08

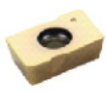
Available inserts

MPHW

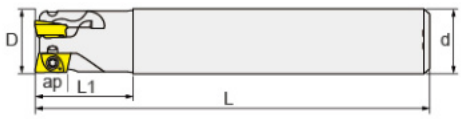


Workpiece			Machining Type	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
Steel	P		●	⚭	✱					●	⚭		✱	⚭	✱
Stainless steel	M			✱						●	⚭	⚭	✱	⚭	✱
Cast iron	K		⚭			●	●	⚭	⚭	●	⚭		✱	⚭	✱
Non-ferrous metal	N														
Heat resistant alloy, Titanium alloy	S									●	⚭	⚭	✱		
Hardened steel	H											⚭	✱	⚭	✱

● Continuous cutting
⚭ General cutting
✱ Interrupted cutting

Designations		Dimensions(mm)						CVD Coated							PVD Coated					
		L	W	ap	S	BS	r	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
MPHW 	060304EL	10.09	6.35	3.0	3.18	-	0.4													
	060308EL	10.06	6.35	3.0	3.18	-	0.8									●	●			
	060320EL	9.96	6.35	3.0	3.18	-	2.0									●	●			
	060304EL-0.5	10.09	6.35	3.0	3.18	0.5	0.4													
	060308EL-1.5	10.06	6.35	3.0	3.18	1.5	0.8													

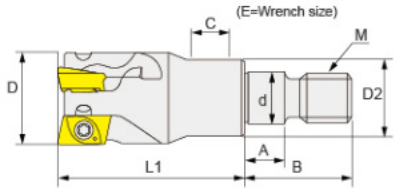
ASM Type Mini Shoulder Endmill



mm

Designation		No.of Inserts	Dimension(mm)					Adapter	kg
			D	d	L1	L	ap		
ASM07R	0810-120L-1T	1	8	10	20	120	5.0	S	0.06
	1010-120L-2T	2	10	10	20	120	5.0	S	0.09
	1212-120L-2T	2	12	12	20	120	5.0	S	0.11
	1212-080L-3T	3	12	12	20	80	5.0	S	0.07
	1412-120L-2T	2	14	12	20	120	5.0	S	0.12
	1616-115L-4T	4	16	16	20	115	5.0	S	0.16
	1616-160L-4T	4	16	16	25	160	5.0	S	0.23
	1716-160L-4T	4	17	16	25	160	5.0	S	0.23
	2020-160L-4T	5	20	20	25	160	5.0	S	0.38
	2020-105L-5T	5	20	20	25	140	5.0	S	0.25
	2120-160L-4T	4	21	20	25	160	5.0	S	0.38

ASM Type Mini Shoulder Mill Modular



mm

Designation		No.of Inserts	Dimension(mm)									kg
			D	M	D2	L1	d	A	B	C	ap	
ASM07R	010-M06-2T	2	10	M6	9.4	20	6.5	5.5	14.5	5.0	5.0	0.01
	011-M06-2T	2	11	M6	9.8	20	6.5	5.5	14.5	5.0	5.0	0.01
	012-M06-2T	2	12	M6	9.8	20	6.5	5.5	14.5	5.0	5.0	0.01
	013-M06-3T	3	13	M6	9.8	20	6.5	5.5	14.5	5.0	5.0	0.01
	014-M06-3T	3	14	M6	9.8	20	6.5	5.5	14.5	5.0	5.0	0.01
	016-M08-4T	4	16	M8	12.8	25	8.5	5.5	17.0	8.0	5.0	0.03
	017-M08-4T	4	17	M8	12.8	25	8.5	5.5	17.0	8.0	5.0	0.03
	020-M10-5T	5	20	M10	17.8	30	10.5	5.5	19.0	10.0	5.0	0.06
	021-M10-5T	5	21	M10	17.8	30	10.5	5.5	19.0	10.0	5.0	0.06
	025-M12-6T	6	25	M12	20.8	30	12.5	5.5	22.0	10.0	5.0	0.11
	026-M12-6T	6	26	M12	20.8	30	12.5	5.5	22.0	10.0	5.0	0.11
	032-M16-8T	8	32	M16	28.8	30	17.0	6.0	23.0	12.0	5.0	0.24

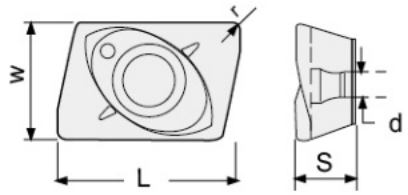
Parts

TYPE		
	Insert screw	Wrench
ASM07R	LS0455SSTX1.8-2.7P	TPF-06

Shouldering

Available Inserts

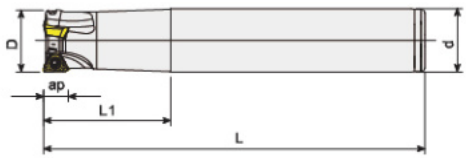
ADMT



Workpiece			Machining Type	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
Steel	P		●	⚙	✱					●	⚙		✱	⚙	✱
Stainless steel	M			✱						●	⚙	⚙	✱	⚙	✱
Cast iron	K		⚙			●	●	⚙	⚙	●	⚙		✱	⚙	✱
Non-ferrous metal	N	● Continuous cutting													
Heat resistant alloy, Titanium alloy	S	⚙ General cutting								●	⚙	⚙	✱		
Hardened steel	H	✱ Interrupted cutting										⚙	✱	⚙	✱

Designations		Dimensions(mm)					CVD Coated							PVD Coated					
		W	L	S	r	d1	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
ADMT	070204R	4.3	7.00	2.45	0.4	2.0									●	○			
	070208R	4.3	7.00	2.45	0.8	2.0									●	○			

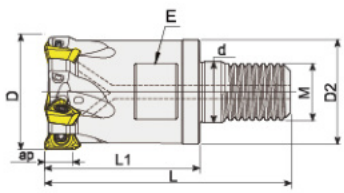
CPE3 Type Shoulder Endmill



mm

Designation		No.of Inserts	Dimension(mm)					Adapter	kg
			D	d	L1	L	ap		
CPE3	1616-100L-1T-10	1	16	16	20	100	7.0	S	0.12
	1616-160L-1T-10	1	16	16	25	160	7.0	S	0.22
	2020-160L-2T-10	2	20	20	40	160	7.0	S	0.39
	2020-200L-2T-10	2	20	20	30	200	7.0	S	0.47
	2120-200L-2T-10	2	21	20	30	200	7.0	S	0.47
	2525-160L-3T-10	3	25	25	40	160	7.0	S	0.62
	2525-200L-3T-10	3	25	25	40	200	7.0	S	0.76
	2625-250L-2T-10	2	26	25	30	250	7.0	S	0.93
	3232-250L-3T-10	3	32	32	60	250	7.0	S	1.49
	4032-200L-4T-10	4	40	32	40	200	7.0	S	1.26

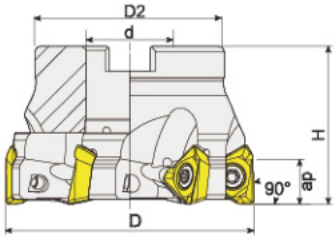
CPE3 Type Shoulder Mill Modular



mm

Designation		No.of Inserts	Dimension(mm)								kg
			D	M	D2	d	L1	L	E	ap	
CPE3	020-M10-2T-10	2	20	M10	18	10.5	35	55	15	7.0	0.07
	025-M12-3T-10	3	25	M12	21	12.5	35	57	17	7.0	0.10
	026-M12-3T-10	3	26	M12	21	12.5	35	57	17	7.0	0.10
	032-M16-4T-10	4	32	M16	29	17.0	43	68	22	7.0	0.22
	040-M16-5T-10	5	40	M16	29	17.0	43	68	22	7.0	0.27
	042-M16-6T-10	5	42	M16	29	17.0	43	68	22	7.0	0.30

CPE3 Type Shoulder Shell Mill



mm

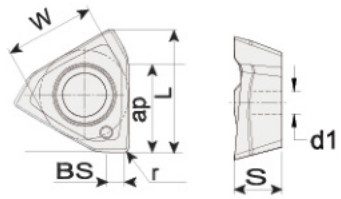
Designation		No.of Inserts	Dimension(mm)					Arbor	kg
			D	H	d	D2	ap		
CPE3	040-16-04T-10	4	40	40	16	38	7.0	A	0.30
	050-22-05T-10	5	50	40	22	45	7.0	A	0.40
	063-22-06T-10	6	63	40	22	47	7.0	A	0.50

Parts

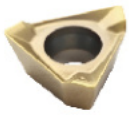
TYPE		
	Insert screw	Wrench
CPE3-10	L06555SSTX2.5-3.6P	TPF-08

Availale inserts

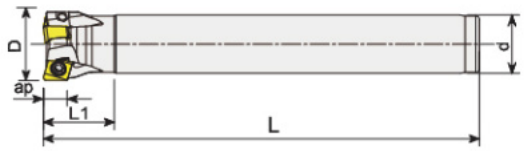
TPKT



Workpiece			Machining Type	
	Steel	P		● ⚙ ✱ ● ⚙ ✱ ✱ ⚙
	Stainless steel	M		✱ ● ⚙ ⚙ ✱ ⚙ ✱
	Cast iron	K		⚙ ● ● ⚙ ⚙ ● ⚙ ✱ ⚙ ✱
	Non-ferrous metal	N	● Continuous cutting	
	Heat resistant alloy, Titanium alloy	S	⚙ General cutting	● ⚙ ⚙ ✱
	Hardened steel	H	✱ Interrupted cutting	⚙ ✱ ⚙ ✱

Designations		Dimensions(mm)							CVD Coated							PVD Coated					
		L	W	S	BS	r	d1	ap	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
TPKT-GM 	100404R-GM	9.83	6.9	4.0	1.3	0.4	3.2	7.0		○		○					●	●			
	100408R-GM	9.83	6.9	4.0	1.3	0.8	3.2	7.0		○		○					●	●			

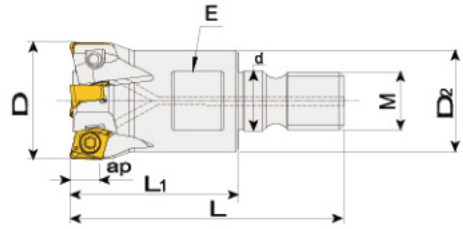
CNE4 Type Shoulder Endmill



mm

Designation		No.of Inserts	Dimension(mm)					Adapter	kg
			D	d	L1	L	ap		
CNE4	1616-100L-2T-06	2	16	16	25	100	6.0	S	0.13
	1616-160L-2T-06	2	16	16	25	160	6.0	S	0.21
	1716-160L-2T-06	2	17	16	25	160	6.0	S	0.21
	1716-200L-2T-06	2	17	16	25	200	6.0	S	0.28
	1816-160L-2T-06	2	18	16	25	160	6.0	S	0.21
	2020-100L-3T-06	3	20	20	25	100	6.0	S	0.24
	2020-160L-3T-06	3	20	20	25	160	6.0	S	0.36
	2120-160L-3T-06	3	21	20	25	160	6.0	S	0.36
	2120-200L-3T-06	3	21	20	25	200	6.0	S	0.50
	2525-160L-4T-06	4	25	25	30	160	6.0	S	0.41
	2525-200L-4T-06	4	25	25	30	200	6.0	S	0.71
	2625-160L-4T-06	4	26	25	30	160	6.0	S	0.41
	2625-200L-4T-06	4	26	25	30	200	6.0	S	0.71
	3232-160L-5T-06	5	32	32	35	160	6.0	S	0.72
	3232-200L-5T-06	5	32	32	35	200	6.0	S	1.19
	4032-200L-6T-06	6	40	32	40	200	6.0	S	0.90
	4032-250L-6T-06	6	40	32	40	250	6.0	S	1.49

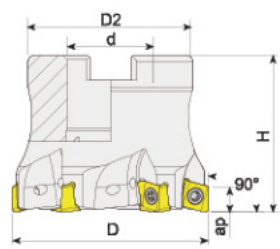
CNE4 Type Shoulder Mill Modular



mm

Designation		No.of Inserts	Dimension(mm)								kg
			D	M	D2	d	L1	L	E	ap	
CNE4	016-M08-2T-06	2	16	M8	13	8.5	23	40.5	10	6.0	0.03
	017-M08-2T-06	2	17	M8	13	8.5	23	40.5	10	6.0	0.03
	020-M10-3T-06	3	20	M10	18	10.5	35	55.0	15	6.0	0.07
	021-M10-3T-06	3	21	M10	18	10.5	35	55.0	15	6.0	0.08
	025-M12-4T-06	4	25	M12	21	12.5	35	57.0	17	6.0	0.10
	026-M12-4T-06	4	26	M12	21	12.5	35	57.0	17	6.0	0.12
	032-M16-5T-06	5	32	M16	29	17.0	43	68.0	22	6.0	0.24
	033-M16-5T-06	5	33	M16	29	17.0	43	68.0	22	6.0	0.26
	035-M16-5T-06	5	35	M16	29	17.0	43	68.0	22	6.0	0.27
	040-M16-6T-06	6	40	M16	29	17.0	43	68.0	22	6.0	0.30

CNE4 Type Shoulder Shell Mill



mm

Designation		No.of Inserts	Dimension(mm)					Arbor	kg
			D	H	d	D2	ap		
CNE4	040-16-05T-06	5	40	40	16	38	6.0	A	0.30
	050-22-06T-06	6	50	40	22	45	6.0	A	0.40
	063-22-07T-06	7	63	40	22	47	6.0	A	0.60

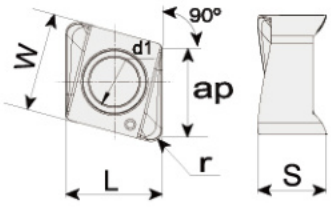
Shouldering

Parts

TYPE		
	Insert screw	Wrench
CNE4-06	L0760SSTX3.0-4.0P	TPF-08

Availale inserts

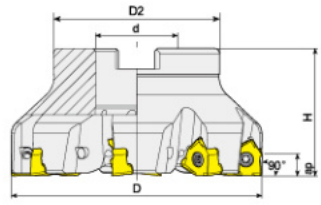
YNKT



Workpiece			Machining Type												
Steel	P	● Continuous cutting ⚙ General cutting ✖ Interrupted cutting	●	⚙	✖					●	⚙		✖	⚙	✖
Stainless steel	M			✖						●	⚙	⚙	✖	⚙	✖
Cast iron	K		⚙			●	●	⚙	⚙	●	⚙		✖	⚙	✖
Non-ferrous metal	N														
Heat resistant alloy, Titanium alloy	S									●	⚙	⚙	✖		
Hardened steel	H											⚙	✖	⚙	✖

Designations		Dimensions(mm)						CVD Coated							PVD Coated					
		L	W	S	r	d1	ap	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
YNKT-GM 	060308R-GM	6.6	6.6	4.67	0.8	3.25	6.0		●		●						●			

TFXND Type Shell Mill



mm

Designation		No.of Inserts	Dimension(mm)					arbor
			D	d	H	ap	D2	
TFXND	90050-22-04T	4	50	50	45	7.5	40	A
	90063-22-06T	6	63	22	45	7.5	47	A
	90080-27-07T	7	80	27	50	7.5	60	B
	90100-32-08T	8	100	32	52	7.5	70	B
	90125-40-10T	10	125	40	60	7.5	87	B
	90160-40-12T	12	160	40	63	7.5	102	C
	90200-60-14T	14	200	60	63	7.5	142	C
	90250-60-16T	16	250	60	63	7.5	142	C

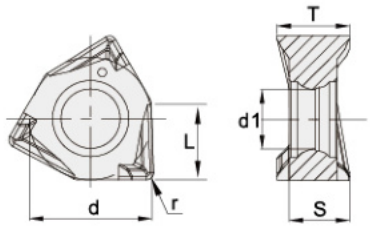
Parts

TYPE		
	Insert screw	Wrench
TFXND	L1060SSTX4-5.7P	FF-TPF15

Shouldering

Available inserts

WNGX

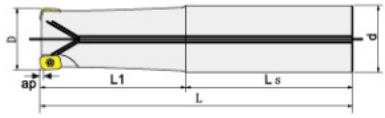


Workpiece			Machining Type												
Steel	P		●	⬌	✱					●	⬌		✱	⬌	✱
Stainless steel	M			✱						●	⬌	⬌	✱	⬌	✱
Cast iron	K		⬌			●	●	⬌	⬌	●	⬌		✱	⬌	✱
Non-ferrous metal	N														
Heat resistant alloy, Titanium alloy	S									●	⬌	⬌	✱		
Hardened steel	H											⬌	✱	⬌	✱

● Continuous cutting
⬌ General cutting
✱ Interrupted cutting

Designations		Dimensions(mm)						CVD Coated							PVD Coated					
		L	d	S	r	d1	T	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
WNGX-GM	080608R-GM	7.5	12.5	6.45	0.8	4.5	7.9	○	●		●	●	●	●		●	●		○	○
	080612R-GM	7.5	12.5	6.45	1.2	4.5	7.9	○	●		●	●	●	●		●	●		○	○
	080608R-GH	7.5	12.5	6.45	0.8	4.5	7.9	○	●		●	●	●	●		●	●		○	○
	080612R-GH	7.5	12.5	6.45	1.2	4.5	7.9	○	●		●	●	●	●		●	●		○	○

ASR High Feedrate Endmill



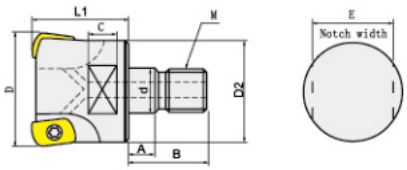
mm

Designation		No.of Inserts	Dimension(mm)						Adapter	kg
			D	d	ap	L1	L	LS		
ASR20	16-160-C16-2T	2	16	16	2	50	160	110	S	0.21
	17-160-C16-2T	2	17	16	2	30	160	130	S	0.21
	20-160-C20-2T	2	20	20	2	50	160	110	S	0.36
	21-160-C20-2T	2	21	20	2	30	160	130	S	0.36
	25-160-C25-3T	3	25	25	2	50	160	110	S	0.53
	25-200-C25-3T	3	25	25	2	50	200	150	S	0.59
	26-200-C25-3T	3	26	25	2	40	200	160	S	0.59
	32-160-C32-4T	4	32	32	2	75	160	85	S	1.00
	33-160-C32-4T	4	33	32	2	45	160	115	S	1.00
	33-200-C32-4T	4	33	32	2	45	200	155	S	1.10

Parts

TYPE		
	Insert screw	Wrench
ASR20	L0655SSTX2.5-3.6P	TPF-08

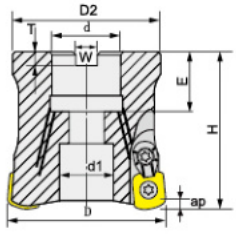
ASR Type Milling Modular



mm

Designation		No.of Inserts	Dimension(mm)									kg
			D	L1	d	D2	M	A	B	C	E	
ASR20	016-M08-2T	2	16	25	8.5	13	M8	5.5	17	10	10	0.03
	017-M08-2T	2	17	25	8.5	13	M8	5.5	17	10	10	0.03
	020-M10-3T	3	20	30	10.5	18	M10	6.0	19	10	15	0.05
	021-M10-3T	3	21	30	10.5	18	M10	6.0	19	10	15	0.05
	025-M12-4T	4	25	35	12.5	21	M12	7.0	22	10	17	0.09
	026-M12-4T	4	26	35	12.5	21	M12	7.0	22	10	17	0.09
	032-M16-5T	5	32	40	17.0	29	M16	7.0	23	12	22	0.19
	035-M16-5T	5	35	40	17.0	29	M16	7.0	23	12	22	0.23
	040-M16-6T	6	40	40	17.0	29	M16	7.0	23	12	22	0.26
	042-M16-6T	6	42	40	17.0	29	M16	7.0	23	12	22	0.28

ASR High Feedrate Face Mill



mm

Designation		No.of Inserts	Dimension(mm)									kg
			D	d	W	T	H	D2	E	d1	ap	
ASR20	040-16-04T	4	40	16	8.4	5.6	42	38	18	13.5	2.0	0.22
	050-22-05T	5	50	22	10.4	6.3	50	47	20	17.0	2.0	0.42
	063-22-06T	6	63	22	10.4	6.3	50	60	20	17.0	2.0	0.62

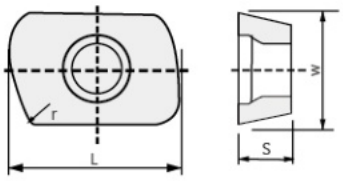
Parts

TYPE		
	Insert screw	Wrench
ASR20	L0655SSTX2.5-3.6P	TPF-08

Fast Feed Milling

Available inserts

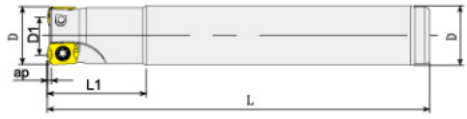
EP



Workpiece			Machining Type	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
Steel	P			●	⊛	✱					●	⊛		✱	⊛	✱
Stainless steel	M				✱						●	⊛	⊛	✱	⊛	✱
Cast iron	K			⊛			●	●	⊛	⊛	●	⊛		✱	⊛	✱
Non-ferrous metal	N		● Continuous cutting													
Heat resistant alloy, Titanium alloy	S		⊛ General cutting								●	⊛	⊛	✱		
Hardened steel	H		✱ Interrupted cutting										⊛	✱	⊛	✱

Designations		Dimensions(mm)				CVD Coated							PVD Coated					
		L	W	S	r	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
EPNW 	0603TN-8	10	6.35	3.18	8.0									●	●			

ELT Micro Type Endmill

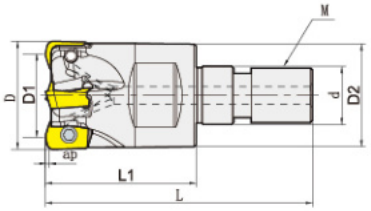


mm

Designation		No.of Inserts	Dimension(mm)								Adapter
			D	D1	d	L1	L	ap	Maximum rampinganglea	A.R	
ELT06R	0810-075L-1T	1	8	4.2	10	16	75	0.5	4°	+5°	S
	1010-080L-2T	2	10	6.2	10	20	80		3°		S
	1212-080L-3T	3	12	8.2	12	20	80		2°		S
	1412-080L-3T	3	14	10.2	12	20	80		1.5°		S
	1616-100L-4T	4	16	12.2	16	25	100		1.2°		S
	1716-100L-4T	4	17	13.2	16	25	100		1.2°		S

Fast Feed Milling

ELT Micro Type Milling Modular



mm

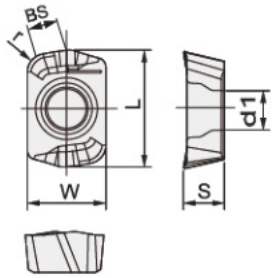
Designation		No.of Inserts	Dimension(mm)									
			D	D1	D2	d	L1	L	M1	ap	Maximum rampinganglea	A.R
ELT06R	008-M06-1T	1	8	4.2	9.2	6.5	17	31.5	M6	0.5	4°	+5°
	010-M06-2T	2	10	6.2	9.2	6.5	17	31.5	M6		3°	
	012-M06-3T	3	12	8.2	11.2	6.5	17	31.5	M6		2°	
	014-M06-3T	3	14	10.2	11.2	6.5	17	31.5	M6		1.5°	
	016-M08-4T	4	16	12.2	14.7	8.5	22	40.0	M8		1.2°	
	017-M08-4T	4	17	13.2	14.7	8.5	22	40.0	M8		1.2°	

Parts

TYPE		
	Insert screw	Wrench
ELT06R	L0455SSTX1.8-2.7P	TPF-06

Available inserts

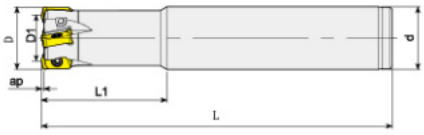
EPGT



Workpiece			Machining Type	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
	Steel	P		●	⚭	✱					●	⚭		✱	⚭	✱
	Stainless steel	M			✱						●	⚭	⚭	✱	⚭	✱
	Cast iron	K		⚭			●	●	⚭	⚭	●	⚭		✱	⚭	✱
	Non-ferrous metal	N	● Continuous cutting													
	Heat resistant alloy, Titanium alloy	S	⚭ General cutting								●	⚭	⚭	✱		
	Hardened steel	H	✱ Interrupted cutting										⚭	✱	⚭	✱

Designations		Dimensions(mm)						CVD Coated							PVD Coated					
		L	W	S	r	BS	d1	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
EPGT-GM	060210R-GM	6.26	4.19	2.19	1.0	1.7	2.1									●	●			

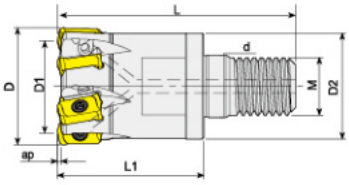
ELN Type Endmill



mm

Designation		No.of Inserts	Dimension(mm)							Adapter
			D	D1	d	L	L1	ap	A.R.	
ELN11R	1616-100L-2T	2	16	8	16	100	30	1	-10°	S
	1616-150L-2T	2	16	8	16	150	50			S
	1716-100L-2T	2	17	9	16	100	20			S
	1716-150L-2T	2	17	9	16	150	50			S
	2020-100L-3T	3	20	12	20	100	20			S
	2020-150L-3T	3	20	12	20	150	70			S
	2020-200L-3T	3	20	12	20	200	80			S
	2121-100L-3T	3	21	13	20	100	20			S
	2220-150L-3T	3	22	14	20	150	50			S
	2220-200L-3T	3	22	14	20	200	50			S
	2220-150L-4T	4	22	14	20	150	50			S
	2220-200L-4T	4	22	14	20	200	50			S
	2525-150L-4T	4	25	17	25	150	70			S
	2525-200L-4T	4	25	17	25	200	120			S
	2825-150L-4T	4	28	20	25	150	50			S
	2825-200L-4T	4	28	20	25	200	50			S
	2825-150L-5T	5	28	20	25	150	50			S
	2825-200L-5T	5	28	20	25	200	50			S
	3232-150L-5T	5	32	24	32	150	70			S
	3232-200L-5T	5	32	24	32	200	120			S
	3232-150L-6T	6	32	24	32	150	70			S
	3232-200L-6T	6	32	24	32	200	120			S
	3332-150L-6T	6	33	25	32	150	50			S
	3332-200L-6T	6	33	25	32	200	50			S
	3532-150L-6T	6	35	27	32	150	50			S
	3532-200L-6T	6	35	27	32	200	50			S
	4032-150L-6T	6	40	30	32	150	50			
	4032-200L-6T	6	40	30	32	200	50			

ELN Type Milling Modular

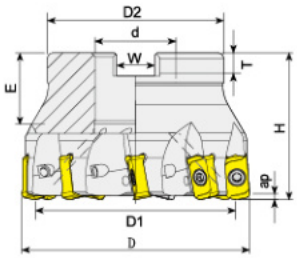


mm

Designation		No.of Inserts	Dimension(mm)								
			D	D1	D2	d	L	L1	M	ap	A.R.
ELN11R	016-M08-2T	2	16	8	14.7	8.5	43	25	M8	1	-10°
	017-M08-2T	2	17	9	14.7	8.5	43	25	M8		
	018-M08-2T	2	18	10	14.7	8.5	43	25	M8		
	020-M10-3T	3	20	12	18.7	10.5	49	30	M10		
	020-M10-4T	4	20	12	18.7	10.5	49	30	M10		
	022-M10-3T	3	22	14	18.7	10.5	49	30	M10		
	022-M10-4T	4	22	14	18.7	10.5	49	30	M10		
	025-M12-4T	4	25	17	23.0	12.5	57	35	M12		
	025-M12-5T	5	25	17	23.0	12.5	57	35	M12		
	028-M12-4T	4	28	20	23.0	12.5	57	35	M12		
	028-M12-5T	5	28	20	23.0	12.5	57	35	M12		
	032-M16-5T	5	32	24	30.0	17.0	63	40	M16		
	032-M16-6T	6	32	24	30.0	17.0	63	40	M16		

Fast Feed Milling

ELN Type Shell Mill



mm

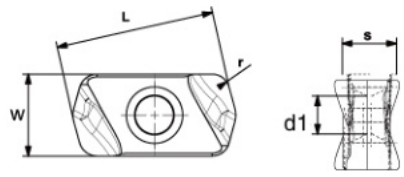
Designation		No.of Inserts	Dimension(mm)										
			D	D1	D2	d	H	E	T	W	ap	A.R.	Arbor
ELN11R	040-16-05T	5	40	32	38	16	40	19	5.6	8.4	1	-10°	A
	040-16-06T	6	40	32	38	16	40	19	5.6	8.4			A
	050-22-07T	7	50	42	47	22	50	21	6.3	10.4			A
	050-22-08T	8	50	42	47	22	50	21	6.3	10.4			A
	063-22-08T	8	63	55	60	22	50	21	6.3	10.4			A
	063-22-09T	9	63	55	60	22	50	21	6.3	10.4			A

Parts

TYPE		
	Insert screw	Wrench
ELN11R	L0760SSTX3.0-4.0P	TPF-08

Available inserts

ENGU

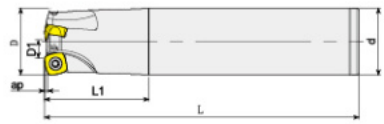


Workpiece			Machining Type												
Steel	P		●	⚙	✖					●	⚙		✖	⚙	✖
Stainless steel	M			✖						●	⚙	⚙	✖	⚙	✖
Cast iron	K		⚙			●	●	⚙	⚙	●	⚙		✖	⚙	✖
Non-ferrous metal	N														
Heat resistant alloy, Titanium alloy	S									●	⚙	⚙	✖		
Hardened steel	H											⚙	✖	⚙	✖

● Continuous cutting
⚙ General cutting
✖ Interrupted cutting

Designations		Dimensions(mm)					CVD Coated							PVD Coated					
		L	W	S	r	d1	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
ENGU-GM 	11T310R-GM	11.90	6.20	3.96	1.0	3.45									●	●			

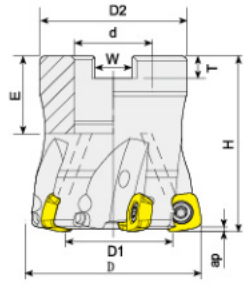
ELS Type Endmill



mm

Designation		No.of Inserts	Dimension(mm)									Adapter
			D	D1			d	L1	L	ap	A.R.	
				GM	LD	FL						
ELS10R	2525-150L-2T	2	25	8	12.5	11.5	125	60	150	1.5	-10°	S
	2525-200L-2T	2	25	8	12.5	11.5	25	120	200			S
	2825-150L-2T	2	28	11	15.5	14.5	25	40	150			S
	2825-200L-2T	2	28	11	15.5	14.5	25	40	200			S
	3232-150L-3T	3	32	15	19.5	18.5	32	70	150			S
	3232-200L-3T	3	32	15	19.5	18.5	32	120	200			S
	3532-150L-3T	3	35	18	22.5	21.5	32	50	150			S
	3532-200L-3T	3	35	18	22.5	21.5	32	50	200			S
	4032-150L-4T	4	40	23	27.5	26.5	32	50	150			S
	4032-200L-4T	4	40	23	27.5	26.5	32	50	200			S
	4032-250L-4T	4	40	23	27.5	26.5	32	50	250			S
ELS14R	5042-150L-3T	3	50	27	33.0	32.0	42	50	150	2.0		S
	6342-150L-4T	4	63	40	46.0	45.0	42	50	150			S
	8042-150L-5T	5	80	57	63.0	62.0	42	50	150			S

ELS Type Shell Mill

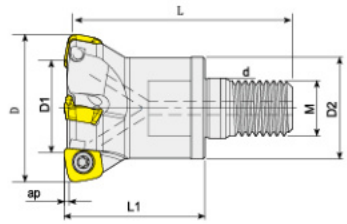


mm

Designation		No.of Inserts	Dimension(mm)												Arbor
			D	D1			D2	d	H	E	T	W	ap	A.R.	
				GM	LD	FL									
ELS10R	050-22-04T	4	50	33	37.5	36.5	47	22	50	21	6.3	10.4	1.5	+10°	A
	050-22-05T	5	50	33	37.5	36.5	47	22	50	21	6.3	10.4			A
	063-22-05T	5	63	46	50.5	49.5	60	22	50	21	6.3	10.4			A
	063-22-06T	6	63	46	50.5	49.5	60	22	50	21	6.3	10.4			A
	080-27-07T	7	80	63	67.5	66.5	76	27	63	24	7.0	12.4			B
ELS14R	050-22-04T	4	50	27	33	32	47	22	50	21	6.3	10.4	2.0		A
	063-22-05T	5	63	40	46	45	60	22	50	24	6.3	10.4			A
	080-27-06T	6	80	57	63	62	76	27	63	24	7.0	12.4			B
	100-32-07T	7	100	77	83	82	96	32	63	28	8.0	14.4			B
	125-40-07T	7	125	102	108	107	100	40	63	33	9.0	16.4			B
	160-40-08T	8	160	137	143	142	100	40	63	32	9.0	16.4			C

Fast Feed Milling

ELS Type Milling Modular



mm

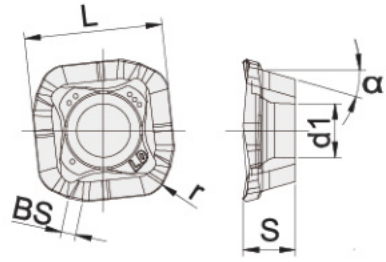
Designation		No.of Inserts	Dimension(mm)										
			D	D1			D2	d	L1	L	M	ap	A.R.
				GM	LD	FL							
ELS10R	025-M12-2T	2	25	8	12.5	11.5	23	12.5	35	57	M12	1.5	+10°
	028-M12-2T	2	28	11	15.5	14.5	23	12.5	35	57	M12		
	032-M16-3T	3	32	15	19.5	18.5	30	17.0	40	63	M16		
	035-M16-3T	3	35	18	22.5	21.5	30	17.0	40	63	M16		
	040-M16-4T	4	40	23	27.5	26.5	30	17.0	40	63	M16		

Parts

TYPE		
	Insert screw	Wrench
ELS10R	L1060SSTX4.0-5.7P	TPF-15
ELS14R	L1260SSTX5.0-7.0P	TPF-20

Available inserts

XOMT

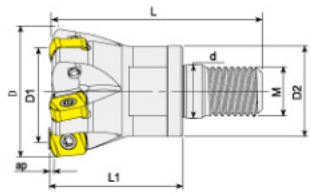


Workpiece			Machining Type												
	Steel	P	● Continuous cutting ⚙ General cutting ✖ Interrupted cutting	●	⚙	✖					●	⚙		✖	⚙	✖
	Stainless steel	M			✖						●	⚙	⚙	✖	⚙	✖
	Cast iron	K		⚙			●	●	⚙	⚙	●	⚙		✖	⚙	✖
	Non-ferrous metal	N														
	Heat resistant alloy, Titanium alloy	S									●	⚙	⚙	✖		
	Hardened steel	H											⚙	✖	⚙	✖

Designations		Dimensions(mm)						CVD Coated							PVD Coated					
		L	S	BS	r	d1	α	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
XOMT-GM	100420R-GM	10.30	4.58	-	2.0	4.6	16°									●	●			
	140520R-GM	14.14	5.56	-	2.0	5.8	16°									●	●			
XOMT-LD	140520R-LD	14.76	5.56	1.6	2.0	5.8	16°									●	●			
																				

Fast Feed Milling

ELX Type Milling Modular



mm

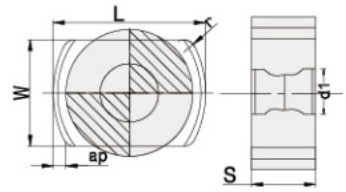
Designation		No.of Inserts	Dimension(mm)						
			D	D1	D2	M	L1	L	ap
ELX06R	016-M08-2T	2	16	9.4	13	M8	25	42.5	0.7
	018-M08-2T	2	18	11.1	13	M8	25	42.5	0.7
	020-M10-3T	3	20	12.4	18	M10	30	50.0	1.0
	025-M12-4T	4	25	17.3	21	M12	35	57.0	1.0
	032-M16-5T	5	32	24.3	29	M16	40	65.0	1.0
	035-M16-5T	5	35	27.3	29	M16	43	68.0	1.0
	040-M16-6T	6	40	32.2	29	M16	43	68.0	1.0
	042-M16-6T	6	42	34.2	29	M16	43	68.0	1.0
ELX09R	025-M12-3T	3	25	14.7	21	M12	35	57.0	1.5
	030-M16-3T	3	30	19.6	29	M16	43	68.0	1.5
	032-M16-4T	4	32	21.6	29	M16	43	68.0	1.5
	040-M16-5T	5	40	29.6	29	M16	43	68.0	1.5
	042-M16-5T	5	42	31.6	29	M16	43	68.0	1.5

Spare Parts

TYPE		
	Insert screw	Wrench
ELX06R	L0750SSTX3.0-4.0P	TPF-08
ELX09R	L0960SSTX4.0-5.7P	TPF-15

Available inserts

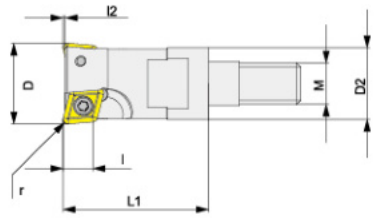
LNMX



Workpiece			Machining Type	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
Steel	P		● Continuous cutting	●	◐	✖					●	◐		✖	◐	✖
Stainless steel	M		◐ General cutting		✖						●	◐	◐	✖	◐	✖
Cast iron	K		✖ Interrupted cutting	◐			●	●	◐	◐	●	◐		✖	◐	✖
Non-ferrous metal	N															
Heat resistant alloy, Titanium alloy	S										●	◐	◐	✖		
Hardened steel	H												◐	✖	◐	✖

Designations		Dimensions(mm)						CVD Coated							PVD Coated					
		L	W	S	r	d1	ap	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
LNMX-GM 	060310ER-GM	9.0	6.39	3.73	1.0	3.0	1.0									●	●			
	090415ER-GM	11.9	9.18	4.80	1.5	4.0	1.5									●	●			

XDH Type Milling Modular



mm

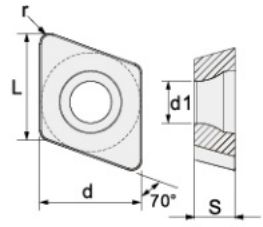
Designation		No.of Inserts	Dimension(mm)						
			D	D2	L1	M	I2	I	r
XDH06	016-M08-2T	2	16	13.8	28.5	M8	1.3	6.5	1.0
	020-M10-3T	3	20	18.0	28.5	M10	1.3	6.5	1.0
	025-M12-4T	4	25	21.0	32.5	M12	1.3	6.5	1.0
	030-M12-5T	5	30	21.0	32.5	M12	1.3	6.5	1.0
	035-M16-6T	6	35	29.0	42.5	M16	1.3	6.5	1.0
	042-M16-6T	6	42	29.0	42.5	M16	1.3	6.5	1.0
XDH10	025-M12-2T	2	25	21.0	32.0	M12	-	10.0	1.0
	030-M12-3T	3	30	21.0	32.0	M12	-	10.0	1.0
	032-M12-3T	3	32	21.0	32.0	M12	-	10.0	1.0
	035-M16-3T	3	35	29.0	42.0	M16	-	10.0	1.0
	042-M16-4T	4	42	29.0	42.0	M16	-	10.0	1.0

Spare Parts

TYPE		
	Insert screw	Wrench
XDH06	L0655SSTX2.5-3.6P	TPF-08
XDH10	L1060SSTX4.0-5.7P	TPF-15

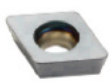
Available inserts

XDHW

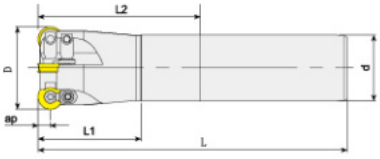


Workpiece			Machining Type	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
Steel	P		● Continuous cutting	●	⬌	✱					●	⬌		✱	⬌	✱
Stainless steel	M		⬌ General cutting		✱						●	⬌	⬌	✱	⬌	✱
Cast iron	K		✱ Interrupted cutting	⬌			●	●	⬌	⬌	●	⬌		✱	⬌	✱
Non-ferrous metal	N															
Heat resistant alloy, Titanium alloy	S										●	⬌	⬌	✱		
Hardened steel	H												⬌	✱	⬌	✱

Designations		Dimensions(mm)					CVD Coated							PVD Coated					
		L	d	S	r	d1	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
XDHW	060210SN	6.5	6.5	2.38	1.0	2.95									●	●			
	10T310SN	10.0	10.0	3.97	1.0	3.95									●	●			



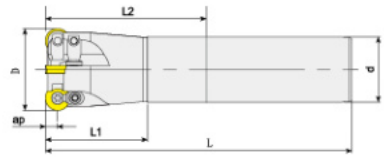
EMR Corner Radius Endmill



mm

Designation		No.of Inserts	Dimension(mm)						Adapter
			D	d	ap	L1	L2	L	
EMR-4R	12-130-C12-1T	1	12	12	4	40	-	130	S
	13-130-C12-1T	1	13	12		40	-	130	S
	16-130-C16-2T	2	16	16		40	-	130	S
	16-160-C16-2T	2	16	16		40	-	160	S
	16-160-C15-2T	2	16	15		40	-	160	S
	16-200-C16-2T	2	16	16		40	100	200	S
	16-200-C15-2T	2	16	16		40	-	200	S
	17-160-C16-2T	2	17	16		40	-	160	S
	17-200-C16-2T	2	17	16		50	-	200	S
	20-160-C20-2T	2	20	20		50	-	160	S
	20-200-C20-2T	2	20	20		50	100	200	S
	20-160-C19-2T	2	20	19		50	-	160	S
	20-200-C19-2T	2	20	19		50	-	200	S
	21-160-C20-2T	2	21	20		50	-	160	S
	21-200-C20-2T	2	21	20		50	-	200	S
EMR-5R	20-160-C20-2T	2	20	20	5	50	-	160	S
	20-200-C20-2T	2	20	20		50	100	200	S
	21-160-C20-2T	2	21	20		50	-	160	S
	21-200-C20-2T	2	21	20		50	-	200	S
	25-160-C20-2T	2	25	20		50	-	160	S
	25-160-C25-2T	2	25	25		50	-	160	S
	25-160-C24-2T	2	25	24		50	-	160	S

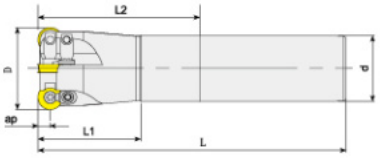
EMR Corner Radius Endmill



mm

Designation		No.of Inserts	Dimension(mm)						Adapter
			D	d	ap	L1	L2	L	
EMR-5R	25-200-C20-2T	2	25	20	5	50	-	200	S
	25-200-C25-2T	2	25	25		75	-	200	S
	25-200-C24-2T	2	25	24		50	-	200	S
	25-250-C25-2T	2	25	25		60	115	250	S
	25-250-C24-2T	2	25	24		50	-	250	S
	26-160-C25-2T	2	26	25		50	-	160	S
	26-200-C25-2T	2	26	25		50	-	200	S
	26-250-C25-2T	2	26	25		50	-	250	S
	30-110-C20-2T	2	30	20		40	-	110	S
	30-110-C3/4-2T	2	30	19.05		40	-	110	S
	30-160-C25-2T	2	30	25		50	-	160	S
	30-200-C25-2T	2	30	25		50	-	200	S
	30-250-C25-2T	2	30	25		60	–	250	S
	30-300-C25-2T	2	30	25		60	-	300	S
	30-300-C32-3T	2	30	32		60	-	300	S
	35-160-C32-2T	2	35	32		50	-	160	S
	35-160-C32-3T	3	35	32		50	-	160	S
	35-200-C32-2T	2	35	32		50	-	200	S
	35-200-C32-3T	3	35	32		50	–	200	S
	35-250-C32-3T	3	35	32		60	-	250	S
	35-300-C32-3T	3	35	32		60	-	300	S
	35-350-C32-3T	3	35	32		60	-	350	S

EMR Corner Radius Endmill



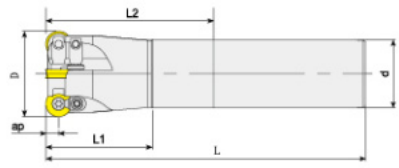
mm

Designation		No.of Inserts	Dimension(mm)						Adapter
			D	d	ap	L1	L2	L	
EMR-5R	35-400-C32-3T	3	35	32	5	60	-	400	S
	40-160-C32-4T	4	40	32		50	-	160	S
	40-200-C32-4T	4	40	32		50	-	200	S
	40-250-C32-4T	4	40	32		60	-	250	S
	40-300-C32-4T	4	40	32		60	-	300	S
	40-350-C32-4T	4	40	32		60	-	350	S

Parts

TYPE				
	Clamp	Clamp screw	Insert screw	Wrench
EMR-4R	Y-4R	YS30070PN	L0755SSTX3.0-4.0P	TPF-08
EMR-5R	Y-5R	YS35100PN	L0960SSTX4.0-5.7P	TPF-15

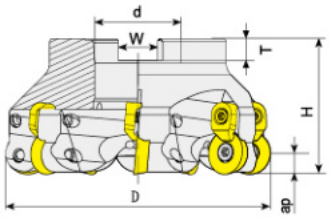
EMR Corner Radius Endmill



mm

Designation		No.of Inserts	Dimension(mm)						Adapter
			D	d	ap	L1	L2	L	
EMRW-6R	25-200-C25-2T	2	25	25	6	50	-	200	S
	25-250-C25-2T	2	25	25		60	-	250	S
	32-160-C32-2T	2	32	32		50	-	160	S
	32-200-C25-2T	2	32	25		50	-	200	S
	32-200-C32-2T	2	32	32		80	-	200	S
	32-250-C25-2T	2	32	25		60	-	250	S
	32-250-C32-2T	2	32	32		100	-	250	S
	35-160-C32-3T	3	35	32		50	-	160	S
	35-200-C32-3T	3	35	32		50		200	S
	35-250-C32-3T	3	35	32		60	-	250	S
	35-300-C32-3T	3	35	32		60	-	300	S
	35-350-C32-3T	3	35	32		60	-	350	S
	35-400-C32-3T	3	35	32		60	-	400	S
	40-160-C32-3T	3	40	32		50	-	160	S
	40-200-C32-3T	3	40	32		50	-	200	S
	40-250-C32-3T	3	40	32		60	-	250	S
	40-300-C32-3T	3	40	32		60	-	300	S
	40-350-C32-3T	3	40	32		60	-	350	S
	50-200-C32-4T	4	50	32		60	–	200	S
	50-250-C32-4T	4	50	32		60	-	250	S

EMR/EMRW Corner Radius Face Mill



mm

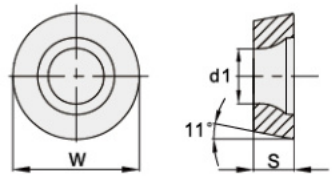
Designation		No.of Inserts	Dimension(mm)						
			D	d	ap	W	T	H	Arbor
EMR-5R	050-22-04T	4	50	22	5	10.4	6.3	50	A
	063-22-04T	4	63	22		10.4	6.3	50	A
	080-27-06T	6	80	27		12.4	7.0	50	A
	100-32-06T	6	100	32		14.4	7.0	50	A
	125-40-07T	7	125	40		16.4	9.0	63	A
	160-40-08T	8	160	40		16.4	9.0	63	B
EMRW-6R	050-22-04T	4	50	22	6	10.4	6.3	50	B
	063-22-04T	4	63	22		10.4	6.3	50	B
	080-27-06T	6	80	27		12.4	7.0	50	C
	100-32-06T	6	100	32		14.4	7.0	50	C
	125-40-07T	7	125	40		16.4	9.0	63	C
	160-40-08T	8	160	40		16.4	9.0	63	C
	200-60-09T	9	200	60		25.7	14.0	63	C

Parts

TYPE				
	Clamp	Clamp screw	Insert screw	Wrench
RMR-5R	Y-5R	YS35100PN	L0960SSTX4.0-5.7P	TPF-15
EMRW-6R	Y-6R	YS40100PN	L1060SSTX4.0-5.7P	TPF-15

Available inserts

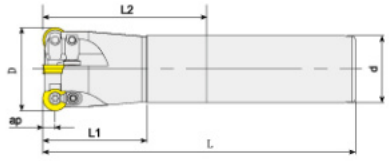
RP



Workpiece		Machining Type												
Steel	P	● Continuous cutting	●	⊛	✱					●	⊛		✱	⊛	✱
Stainless steel	M	⊛ General cutting		✱						●	⊛	⊛	✱	⊛	✱
Cast iron	K	✱ Interrupted cutting	⊛			●	●	⊛	⊛	●	⊛		✱	⊛	✱
Non-ferrous metal	N														
Heat resistant alloy, Titanium alloy	S									●	⊛	⊛	✱		
Hardened steel	H											⊛	✱	⊛	✱

Designations		Dimensions(mm)			CVD Coated							PVD Coated					
		W	S	d1	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
RPMW 	08T2MO	8.0	2.78	2.90	○	○		○		○			●	●	●		
	10T3MO	10.0	3.97	4.00	○	○		○		○			●	●	●		
	1204MO	12.0	4.76	4.50	○	○		○		○			●	●	●		
	1606MO	16.0	6.35	5.50	○	○		○		○			●	●	●		
	2006MO	20.0	6.35	5.50	○	○		○		○			●	●	●		
RPMT-JS 	08T2MOE-JS	8.0	2.78	2.90	○	○		○		○			●	●	●		
	10T3MOE-JS	10.0	3.97	4.00	○	○		○		○			●	●	●		
	1204MOE-JS	12.0	4.76	4.50	○	○		○		○			●	●	●		
	1606MOE-JS	16.0	6.35	5.50	○	○		○		○			●	●	●		
					○	○		○		○			●	●	●		

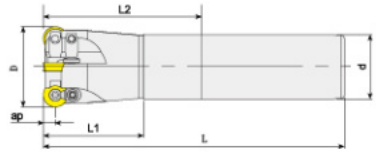
TRS Corner Radius End Mill



mm

Designation		No.of Inserts	Dimension(mm)					
			D	d	ap	L1	L2	L
TRS-2.5R	8-80-C8-1T	1	8	8	2.5	30	-	80
	10-120-C10-2T	2	10	10		40	-	120
	12-120-C12-2T	2	12	12		40	-	120
TRS-3.5R	10-120-C10-1T	1	10	10	3.5	40	–	120
	12-120-C12-1T	1	12	12		40	-	120
	16-120-C16-2T	2	16	16		40	-	120
	16-160-C16-2T	2	16	16		40	-	160
TRS-4R	12-130-C12-1T	1	12	12	4	40	-	130
	13-130-C12-1T	1	13	12		40	-	130
	16-160-C16-2T	2	16	16		40	-	160
	16-160-C15-2T	2	16	15		40	-	160
	16-200-C16-2T	2	16	16		40	100	200
	16-200-C15-2T	2	16	15		50	-	200
	17-160-C16-2T	2	17	16		40	-	160
	17-200-C16-2T	2	17	16		50	–	200
	20-160-C20-2T	2	20	20		50	-	160
	20-160-C19-2T	2	20	19		50	-	160
	20-200-C20-2T	2	20	20		50	100	200
	20-200-C19-2T	2	20	19		50	-	200
	21-160-C20-2T	2	21	20		50	-	160
	21-200-C20-2T	2	21	20		50	-	200
	20-160-C20-2T	2	20	20	5	50	-	160

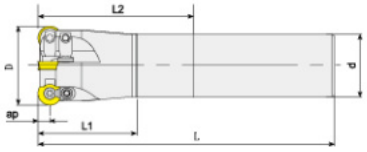
TRS Corner Radius End Mill



mm

Designation		No.of Inserts	Dimension(mm)						Adapter
			D	d	ap	L1	L2	L	
TRS-5R	20-200-C20-2T	2	20	20	5	50	100	200	S
	25-160-C25-2T	2	25	25		50	-	160	S
	25-160-C20-2T	2	25	20		50	-	160	S
	25-160-C24-2T	2	25	24		50	-	160	S
	25-200-C25-2T	2	25	25		60	-	200	S
	25-250-C25-2T	2	25	25		60	115	250	S
	26-160-C25-2T	2	26	25		50	-	160	S
	26-200-C25-2T	2	26	25		60	-	200	S
	30-160-C25-2T	2	30	25		50	-	160	S
	30-200-C25-2T	2	30	25		50	-	200	S
	30-250-C25-2T	2	30	25		60	-	250	S
	35-160-C32-2T	2	35	32		50	-	160	S
	35-200-C32-2T	2	35	32		50	-	200	S
	35-160-C32-3T	3	35	32		50	-	160	S
	35-200-C32-3T	3	35	32		50	-	200	S
	35-250-C32-3T	3	35	32		60	-	250	S
TRS-6R	32-160-C25-2T	2	32	25	6	50	-	160	S
	32-200-C25-2T	2	32	25		50	–	200	S
	32-250-C25-2T	2	32	25		60	-	250	S
	35-160-C25-3T	3	35	25		50	-	160	S
	35-200-C25-3T	3	35	25		50	-	200	S
	40-160-C32-3T	3	40	32		50	-	160	S

TRS Corner Radius End Mill



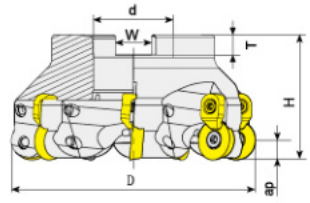
mm

Designation		No.of Inserts	Dimension(mm)						Adapter
			D	d	ap	L1	L2	L	
TRS-6R	40-200-C32-3T	3	40	32	6	50	-	200	S
	40-250-C32-3T	3	40	32		60	-	250	S
	40-300-C32-3T	3	40	32		60	-	300	S

Parts

TYPE				
	Clamp	Clamp screw	Insert screw	Wrench
TRS-2.5R	-	-	L0460SSTX2.0-2.8P	TPF-06
TRS-3.5R	-	-	L0655SSTX2.5-3.6P	TPF-08
TRS-4R	Y-4R	YS30070PN	L0755SSTX3.0-4.0P	TPF-08
TRS-5R	Y-5R	YS40090PN	L0960SSTX4.0-5.7P	TPF-15
TRS-6R	Y-6R	YS40100PN	L1060SSTX4.0-5.7P	TPF-15
TRS-8R	Y-8R	YS50120PN	L1260SSTX5.0-7.0P	TPF-20

TRS Corner Radius Face Mill



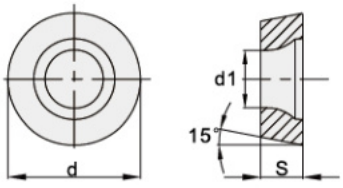
mm

Designation		No.of Inserts	Dimension(mm)						Arbor
			D	d	ap	W	T	H	
TRS-5R	050-22-04T	4	50	22	5	10.4	6.3	50	A
	063-22-04T	4	63	22		10.4	6.3	50	A
	080-27-06T	6	80	27		12.4	7.0	50	B
	100-32-06T	6	100	32		14.4	8.0	50	B
	125-40-07T	7	125	40		16.4	9.0	63	B
TRS-6R	050-22-04T	4	50	22	6	10.4	6.3	50	A
	063-22-04T	4	63	22		10.4	6.3	50	A
	080-27-06T	6	80	27		12.4	7.0	50	B
	100-32-06T	6	100	32		14.4	8.0	50	B
	125--40-07T	7	125	40		16.4	9.0	63	B
	160-40-08T	8	160	40		16.4	9.0	63	C
TRS-8R	063-22-04T	4	63	22	8	10.4	6.3	50	A
	080-27-05T	5	80	27		12.4	7.0	50	B
	100-32-06T	6	100	32		14.4	8.0	50	B
	125-40-06T	6	125	40		16.4	9.0	63	B
	160-40-08T	8	160	40		16.4	9.0	63	C
	200-60-09T	9	200	60		25.7	14.0	63	C

Profiling

Available inserts

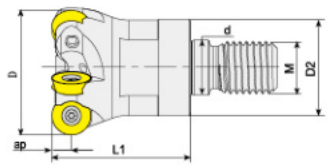
RDMW/RDMT



Workpiece			Machining Type												
	Steel	P	● Continuous cutting ⚙ General cutting ✱ Interrupted cutting	●	⚙	✱					●	⚙		✱	⚙	✱
	Stainless steel	M			✱						●	⚙	⚙	✱	⚙	✱
	Cast iron	K		⚙			●	●	⚙	⚙	●	⚙		✱	⚙	✱
	Non-ferrous metal	N														
	Heat resistant alloy, Titanium alloy	S									●	⚙	⚙	✱		
	Hardened steel	H											⚙	✱	⚙	✱

	Designations	Dimensions(mm)			CVD Coated							PVD Coated					
		d	S	d1	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
RDMW 	0501MOEN	5.00	1.59	2.0													
	0702MOEN	7.00	2.38	2.8													
RDMT 	08T2MOTN	8.0	2.78	2.8	○	○		○		○			●	●	●		
	10T3MOTN	10.0	3.97	3.9	○	○		○		○			●	●	●		
	1204MOTN	12.0	4.76	4.5	○	○		○		○			●	●	●		
	1604MOTN	16.0	4.76	5.0	○	○		○		○			●	●	●		

TRD Type Milling Modular

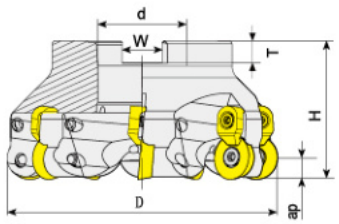


mm

Designation		No.of Inserts	Dimension(mm)					
			D	L1	D2	M	d	APmax
TRD2.5R	010-M06-2T	2	10	20	9.8	M6	6.5	1.5
	012M06-3T	3	12	20	10.0	M6	6.5	1.5
	015-M08-4T	4	15	20	13.5	M8	8.5	1.5
TRD3.5R	015-M08-2T	2	15	28	13.5	M8	8.5	2.0
	015-M08-3T	3	15	28	13.5	M8	10.5	2.0
	020-M10-4T	4	20	28	18.0	M10	12.5	2.0
	025-M12-5T	5	25	28	21.0	M12	12.5	2.0
TRD05R	020-M10-2T	2	20	32	18.0	M10	10.5	2.5
	025-M12-2T	2	25	32	21.0	M12	12.5	2.5
	025-M16-4T	3	25	32	21.0	M12	12.5	2.5
	030-M16-4T	4	30	42	29.0	M16	17.0	2.5
	035-M16-5T	5	35	42	29.0	M16	17.0	2.5
TRD06R	024-M12-2T	2	24	32	21.0	M12	12.5	3.0
	035-M16-3T	3	35	42	29.0	M16	17.0	3.0
	035-M16-4T	4	35	42	29.0	M16	17.0	3.0
	042-M16-4T	4	42	42	29.0	M16	17.0	3.0
	042-M16-5T	5	42	42	29.0	M16	17.0	3.0
TRD08R	032-M16-2T	2	32	42	29.0	M16	17.0	4.0

Profiling

TRD Corner Radius Face Mill



mm

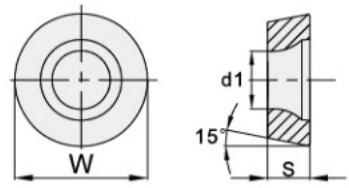
Designation		No.of Inserts	Dimension(mm)						Arbor
			D	d	a	W	T	H	
TRD05R	050-22-04T	4	50	22	5	10.4	6.3	50	A
	063-22-04T	4	63	22		10.4	6.3	50	A
	080-27-06T	6	80	27		12.4	7.0	50	B
	100-32-06T	6	100	32		14.4	8.0	50	B
	125-40-07T	7	125	40		16.4	9.0	63	B
TRD06R	050-22-04T	4	50	22	6	10.4	6.3	50	A
	063-22-04T	4	63	22		10.4	6.3	50	A
	080-27-06T	6	80	27		12.4	7.0	50	B
	100-32-06T	6	100	32		14.4	8.0	50	B
	125-40-07T	7	125	40		16.4	9.0	63	B
	160-40-08T	8	160	40		16.4	9.0	63	C

Spare Parts

TYPE				
	Clamp	Clamp screw	Insert screw	Wrench
TRD-2.5R	-	-	LS0460SSTX2.0-2.8P	TPF-06
TRD-3.5R	-	-	LS0655SSTX2.5-3.6P	TPF-08
TRD-5R	Y-5R	YS40090PN	LS1060SSTX3.5-5.0P	TPF-15
TRD-6R	Y-6R	YS40100PN	LS1060SSTX3.5-5.0P	TPF-15
TRD-8R	-	-	LS1260SSTX5.0-7.0P	TPF-20

Available inserts

RD*X

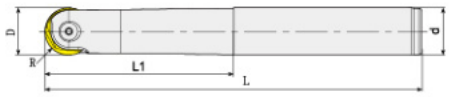


Workpiece			Machining Type												
Steel	P		●	⬢	✱					●	⬢		✱	⬢	✱
Stainless steel	M			✱						●	⬢	⬢	✱	⬢	✱
Cast iron	K		⬢			●	●	⬢	⬢	●	⬢		✱	⬢	✱
Non-ferrous metal	N														
Heat resistant alloy, Titanium alloy	S									●	⬢	⬢	✱		
Hardened steel	H											⬢	✱	⬢	✱

● Continuous cutting
⬢ General cutting
✱ Interrupted cutting

Designations		Dimensions(mm)			CVD Coated							PVD Coated					
		W	S	d1	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
RDHX	1003MOT	10.0	3.18	3.9	○	○		○		○			●	●			
	12T3MOT	12.0	3.97	3.9	○	○		○		○			●	●			
RDMX	1003MOTN	10.0	3.18	3.9	○	○		○		○			●	●			
	12T3MOTN	12.0	3.97	3.9	○	○		○		○			●	●			

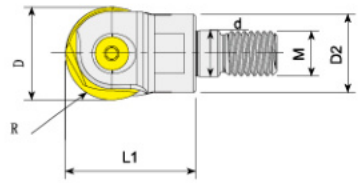
WGR Type Ball Precision Endmill



mm

Designation		No.of Inserts	Dimension(mm)					Spare parts		Adapter
			D	d	L1	L	R	Screw	wrench	
WGR	04R-C08-110L	1	8	8	25	110	4	TS30070B	T-8	S
	04R-C10-110L	1	8	10	25	110	4	TS30070B	T-8	S
	04R-C12-110L	1	8	12	55	140	4	TS30070B	T-8	S
	05R-C10-130L	1	10	10	30	130	5	TS40085B	T-15	S
	05R-C12-160L	1	10	12	30	160	5	TS40087B	T-15	S
	06R-C12-130L	1	12	12	32	130	6	TS50094B	T-20	S
	06R-C16-160L	1	12	16	58.5	160	6	TS50094B	T-20	S
	08R-C16-160L	1	16	16	65	160	8	TS50128B	T-20	S
	08R-C20-200L	1	16	20	65	200	8	TS50128B	T-20	S
	10R-C20-160L	1	20	20	45	160	10	TS20129B	T-20	S
	10R-C20-200L	1	20	20	76	200	10	TS50129B	T-20	S
	10R-C25-250L	1	20	25	120	250	10	TS50129B	T-20	S
	12.5R-C25-160L	1	25	25	45	160	12.5	TS60210B	T-25	S
	12.5R-C25-200L	1	25	25	76	200	12.5	TS60210B	T-25	S
	12.5R-C32-200L	1	25	32	98	200	12.5	TS60210B	T-25	S
	12.5R-C32-250L	1	25	32	120	250	12.5	TS60210B	T-25	S
	15R-C32-200L	1	30	32	80	200	15	TS80247B	T-30	S
	15R-C40-250L	1	30	40	121	250	15	TS80247B	T-30	S

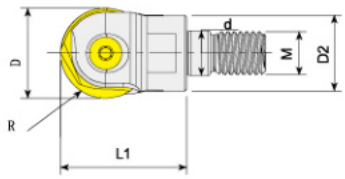
WGR Type Ball Precision Modular



mm

Designation		No.of Inserts	Dimension(mm)					Spare parts		R
			D	L1	d	M	D2	Screw	wrench	
WGR	008-M04	1	8	16	4.5	M4	9.2	TS30070B	T-8	4
	010-M05	1	10	20	5.5	M5	9.2	TS40087B	T15	5
	012-M06	1	12	20	6.5	M6	10.0	TS50094B	T20	6
	016-M08	1	16	28	8.5	M8	13.0	TS50128B	T20	8
	020-M10	1	20	30	10.5	M10	18.0	TS20129B	T20	10
	025-M12	1	25	35	12.5	M12	21.0	TS60210B	T-25	12.5
	030-M16	1	30	40	17.0	M16	29.0	TS80247B	T-30	15
	032-M16	1	32	40	17.0	M16	29.0	TS80247B	T-30	16

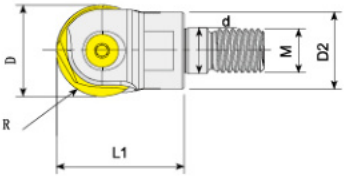
PPH Type Ball Precision Modular



mm

Designation		No.of Inserts	Dimension(mm)					Spare parts		R
			D	L1	d	M	D2	Screw	wrench	
PPH	008-M04	1	8	16	4.5	M4	9.2	TS30078B	T8	4
	010-M05	1	10	20	5.5	M5	9.2	TS30078B	T8	5
	012-M06	1	12	20	6.5	M6	10.0	TS35095B	T15	6
	016-M08	1	16	28	8.5	M8	13.0	TS40132B	T15	8
	020-M10	1	20	30	10.5	M10	18.0	TS50163B	T20	10
	025-M12	1	25	35	12.5	M12	21.0	TS60202B	T25	12.5
	030-M16	1	30	40	17.0	M16	29.0	TS80252B	T30	15

ABPF PPH Type Ball Precision Modular



mm

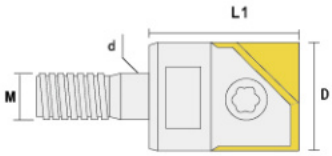
Designation		No.of Inserts	Dimension(mm)					Spare parts		R
			D	L1	d	M	D2	Screw	wrench	
ABPF	008-M04	1	8	16	4.5	M4	9.2	TS30067B	T-8	4
	010-M05	1	10	20	5.5	M5	9.2	TS35083B	T15	5
	012-M06	1	12	20	6.5	M6	10.0	TS50100B	T20	6
	016-M08	1	16	28	8.5	M8	13.0	TS50134B	T20	8
	020-M10	1	20	30	10.5	M10	18.0	TS60167B	T-25	10
	025-M12	1	25	35	12.5	M12	21.0	TS60218B	T-20	12.5
	030-M16	1	30	40	17.0	M16	29.0	TS80250B	T30	15

Available inserts

Workpiece			Machining Type	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
Steel	P		● Continuous cutting	●	⬌	✖					●	⬌		✖	⬌	✖
Stainless steel	M		⬌ General cutting		✖						●	⬌	⬌	✖	⬌	✖
Cast iron	K		✖ Interrupted cutting	⬌			●	●	⬌	⬌	●	⬌		✖	⬌	✖
Non-ferrous metal	N															
Heat resistant alloy, Titanium alloy	S										●	⬌	⬌	✖		
Hardened steel	H												⬌	✖	⬌	✖

Designations		Dimensions(mm)				CVD Coated							PVD Coated					
		W	L	S	r	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
P3200	D08	8.0	9.50	2.0	4.0									●				
	D10	10.0	11.50	2.5	5.0									●				
	D12	12.0	12.00	2.5	6.0									●				
	D16	16.0	14.00	3.0	8.0									●				
	D20	20.0	16.00	3.0	10.0									●				
	D25	25.0	21.50	4.0	12.5									●				
	D30	30.0	25.00	5.0	15.0									●				
	D32	32.0	26.00	5.0	16.0									●				
ZPFG	080	8.0	9.70	2.1	4.0													
	100	10.0	12.10	2.7	5.0													
	120	12.0	14.60	3.2	6.0													
	160	16.0	16.60	4.2	8.0													
	200	20.0	20.30	5.2	10.0													
	250	25.0	24.10	6.2	12.5													
	300	30.0	29.20	7.2	15.0													

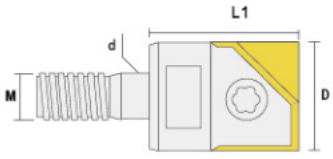
ARPF Type Ball Precision Modular



mm

Designation		No.of Inserts	Dimension(mm)				Spare parts	
			D	L1	d	M	Screw	wrench
ARPF	012-M06	1	12	20	6.5	M6	TS50100B	T20
	016-M08	1	16	28	8.5	M8	TS50134B	T20
	020-M10	1	20	30	10.5	M10	TS60167B	T25
	025-M12	1	25	35	12.5	M12	TS60218B	T30
	030-M16	1	30	40	17.0	M16	TS80250B	T30

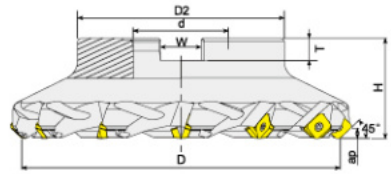
BNM Type Ball Precision Modular



mm

Designation		No.of Inserts	Dimension(mm)				Spare parts	
			D	L1	d	M	Screw	wrench
RNM	012-M06	1	12	20	6.5	M6	TS35095B	T15
	016-M08	1	16	28	8.5	M8	TS40132B	T15
	020-M10	1	20	30	10.5	M10	TS50163B	T20
	025-M12	1	25	35	12.5	M12	TS60202B	T25
	030-M16	1	30	40	17.0	M16	TS80252B	T30

KM Type Shell Mill



mm

Designation		No.of Inserts	Dimension(mm)							
			D	D2	d	W	T	H	ap	Arbor
KM12	050-22-04T	4	50	64	22	10.4	6.3	50	6.0	A
	063-22-04T	4	63	77	22	10.4	6.3	50	6.0	A
	080-27-05T	5	80	94	27	12.4	7.0	50	6.0	B
	100-32-05T	5	100	114	32	14.4	8.0	50	6.0	B
	125-40-06T	6	125	139	40	16.4	9.0	63	6.0	B
	160-40-06T	6	160	174	40	16.4	9.0	63	6.0	C
	200-60-08T	8	200	210	60	25.7	14.0	63	6.0	C
	250-60-10T	10	250	260	60	25.7	14.0	63	6.0	C

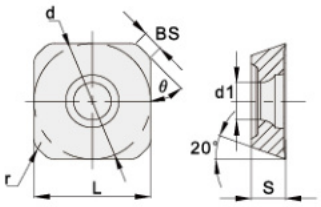
Parts

TYPE		
	Insert screw	Wrench
KM12	L1160SSTX5.0-7.0P	FF-TPF15

Slanted Shoulder & Chamfer

Available inserts

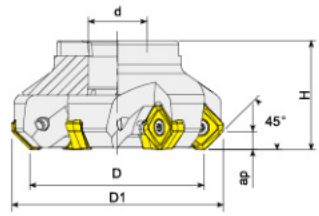
SE



Workpiece			Machining Type												
	Steel	P	● Continuous cutting ⚙ General cutting ✱ Interrupted cutting	●	⚙	✱					●	⚙		✱	⚙	✱
	Stainless steel	M			✱						●	⚙	⚙	✱	⚙	✱
	Cast iron	K		⚙			●	●	⚙	⚙	●	⚙		✱	⚙	✱
	Non-ferrous metal	N														
	Heat resistant alloy, Titanium alloy	S									●	⚙	⚙	✱		
	Hardened steel	H											⚙	✱	⚙	✱

Designations		Dimensions(mm)						CVD Coated							PVD Coated					
		L	S	d	BS	d1	θ	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
SEHT-X45 	1204AFSN-X45	12.7	4.76	12.7	2.64	5.5	45°									●				
SEKT 	1204AFTN	12.7	4.76	12.7	2.6	5.5	45°	○	○	●	●		○			●	●	●		

TWSX45 Type Shell Mill



mm

	Designation	No.of Inserts	Dimension(mm)					Arbor	kg
			D	D1	d	H	ap		
TWSX4512	050R-22-04T	4	50	64.8	22	40	6.50	A	0.50
	063R-22-06T	6	63	77.8	22	40	6.50	A	0.70
	080R-27-07T	7	80	94.8	27	50	6.50	B	1.20
	100R-32-08T	8	100	114.8	32	50	6.50	B	1.70
	100R-32-12T	12	100	114.8	32	50	6.50	B	1.70
	125R-40-10T	10	125	139.8	40	63	6.50	B	3.60
	125R-40-16T	16	125	139.8	40	63	6.50	B	3.70
	160R-40-12T	12	160	174.8	40	63	6.50	C	5.30
	160R-40-20T	20	160	174.8	40	63	6.50	C	5.40
	200R-60-14T	14	200	214.8	60	63	6.50	C	7.10
	200R-60-24T	24	200	214.8	60	63	6.50	C	7.10
	250R-60-16T	16	250	264.8	60	63	6.50	C	11.90
	250R-60-30T	30	250	264.8	60	63	6.50	C	12.00
	315R-60-18T	18	315	329.8	60	63	6.50	C	18.60
	315R-60-20T	20	315	329.8	60	63	6.50	C	18.60
TWSX4515	080R-27-06T	6	80	94.8	27	50	7.15	B	1.12
	100R-32-07T	7	100	114.8	32	50	7.15	B	1.62
	125R-40-08T	8	40	139.8	40	63	7.15	C	2.68
	160R-40-10T	10	40	174.8	40	63	7.15	C	4.16
	200R-60-12T	12	60	214.8	60	63	7.15	C	5.82
	250R-60-15T	15	60	264.8	60	63	7.15	C	8.58
	315R-60-20T	20	60	329.8	60	63	7.15	C	18.90
TWSX4519	125R-40-07T	7	125	142.6	40	63	9.00	B	3.00
	160R-40-09T	9	160	167.6	40	63	9.00	C	4.25
	200R-60-11T	11	200	217.6	60	63	9.00	C	6.18
	250R-60-13T	13	250	267.6	60	63	9.00	C	11.55
	315R-60-16T	16	315	332.6	60	63	9.00	D	20.90

Parts

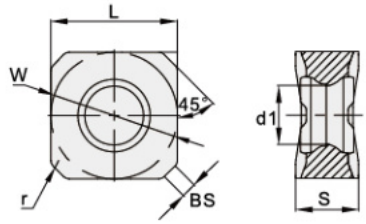
TYPE		
	Insert screw	Wrench
TWSX4512	L1360SSTX5.0-7.0P	FF-TPF20
TWSX4515	L1360SSTX5.0-7.2P	FF-TPF20
TWSX4519	L1645SSTX6.0-8.5P	FF-TPF25

Slanted Shoulder & Chamfer

Available inserts

SNMX

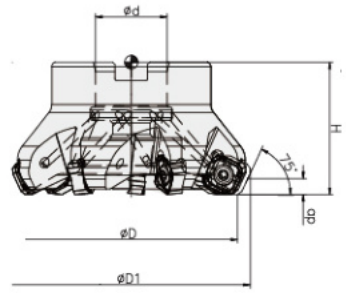
(Suitable for TWSX45 Type)



Workpiece			Machining Type												
	Steel	P	● Continuous cutting ⚙ General cutting ✱ Interrupted cutting	●	⚙	✱					●	⚙		✱	⚙	✱
	Stainless steel	M			✱						●	⚙	⚙	✱	⚙	✱
	Cast iron	K		⚙			●	●	⚙	⚙	●	⚙		✱	⚙	✱
	Non-ferrous metal	N														
	Heat resistant alloy, Titanium alloy	S									●	⚙	⚙	✱		
	Hardened steel	H											⚙	✱	⚙	✱

Designations		Dimensions(mm)						CVD Coated							PVD Coated					
		L	S	W	BS	d1	r	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
SNMX-GM 	1205ANN-GM	12.70	5.54	12.70	1.50	5.8	-	●	○	○	●	●	●	●		●	●	○		
	120512-GM	12.70	5.54	12.70	1.50	5.8	1.2	○	○	○	●	●	○	○		●	○	○		
	1506ANR-GM	5.00	5.60	15.00	1.30	5.5	0.9									●				
SNMX-GR 	1506ANR-GR	15.00	5.60	15.00	1.30	5.5	0.9									●				
	1907ANR-GR	19.00	7.00	19.00	1.67	7.2	1.0				●					●				

TWSX75 Type Shell Mill



mm

Designation		No.of Inserts	Dimension(mm)					Arbor	kg
			D	D1	d	ap	H		
TWSX7512	050-22-04T	4	50	55.4	22	9.5	40	A	0.40
	063-22-06T	6	63	68.4	22	9.5	40	A	0.60
	080-27-07T	7	80	85.4	27	9.5	50	A	1.30
	100-32-06T	8	100	105.4	32	9.5	50	A	1.90
	100-32-08T	12	100	105.4	32	9.5	50	A	1.90
	125-40-08T	10	125	130.4	40	9.5	63	B	3.20
	125-40-10T	16	125	130.4	40	9.5	63	B	3.20
	160-40-10T	12	160	165.4	40	9.5	63	C	4.70
	160-40-12T	20	160	165.4	40	9.5	63	C	4.70
	200-60-16T	16	200	205.4	60	9.5	63	C	6.40
	250-60-16T	20	250	255.3	60	9.5	63	C	11.70

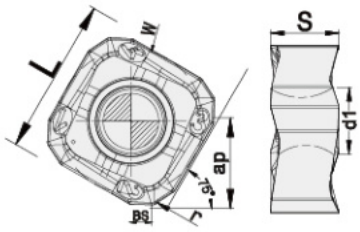
Parts

TYPE		
	Insert screw	Wrench
TWSX7512	L1060SSTX4.0-5.7P	FF-TPF15

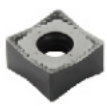
Slanted Shoulder & Chamfer

Available inserts

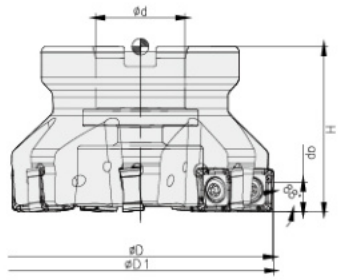
SNMX12
(Suitable for TWSX75 Type)



Workpiece			Machining Type											
Steel	P		● Continuous cutting	●	⬢	✱					●	⬢		✱	⬢	✱
Stainless steel	M		⬢ General cutting		✱						●	⬢	⬢	✱	⬢	✱
Cast iron	K		✱ Interrupted cutting	⬢			●	●	⬢	⬢	●	⬢		✱	⬢	✱
Non-ferrous metal	N															
Heat resistant alloy, Titanium alloy	S										●	⬢	⬢	✱		
Hardened steel	H												⬢	✱	⬢	✱

	Designations	Dimensions(mm)						CVD Coated							PVD Coated					
		L	S	W	BS	r	ap	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
SNMX-GM 	1206ENTN-GM	13.5	7.00	13.50	2.20	0.4	9.5	●	●		●	○	○	○	○	●	●			

TWSX88 Type Shell Mill



mm

Designation		No.of Inserts	Dimension(mm)					Arbor	kg
			D	D1	d	ap	H		
TWSX8812	050-22-05T	5	50	51.2	22	12.0	40	A	0.30
	063-22-06T	6	63	64.2	22	12.0	40	A	0.50
	080-27-07T	7	80	81.2	27	12.0	50	A	1.20
	080-27-09T	9	80	81.2	27	12.0	50	A	1.20
	100-32-08T	8	100	101.2	32	12.0	50	B	1.90
	100-32-11T	11	100	101.2	32	12.0	50	B	1.70
	125-40-10T	10	125	126.1	40	12.0	63	B	2.80
	125-40-14T	14	125	126.1	40	12.0	63	B	2.80
	160-40-12T	12	160	161.1	40	12.0	63	C	4.20
	160-40-18T	18	160	161.2	40	12.0	63	C	4.20
	200-40-14T	14	200	201.1	40	12.0	63	C	6.00
	200-40-22T	22	200	201.2	40	12.0	63	C	6.00

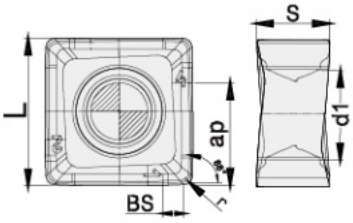
Parts

TYPE		
	Insert screw	Wrench
TWSX8812	L1060SSTX4.0-5.7P	FF-TPF15

Slanted Shoulder & Chamfer

Available inserts

SNMX12
(Suitable for TWSX88 Type)



Workpiece			Machining Type												
Steel	P			●	⊛	✱					●	⊛		✱	⊛	✱
Stainless steel	M				✱						●	⊛	⊛	✱	⊛	✱
Cast iron	K			⊛			●	●	⊛	⊛	●	⊛		✱	⊛	✱
Non-ferrous metal	N		● Continuous cutting													
Heat resistant alloy, Titanium alloy	S		⊛ General cutting								●	⊛	⊛	✱		
Hardened steel	H		✱ Interrupted cutting										⊛	✱	⊛	✱

Designations		Dimensions(mm)					CVD Coated							PVD Coated					
		L	S	BS	r	ap	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
SNMX-GM	120612-GM	13.5	6.8	-	1.2	12.0		●							●	●			
	120616-GM	13.5	6.8	-	1.6	12.0													

S*PD Type Shell Mill

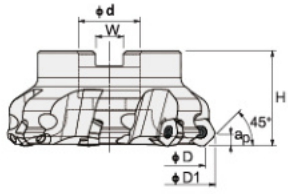


Fig.1

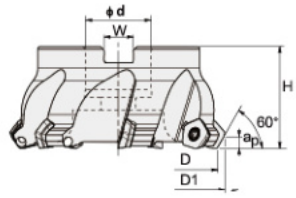


Fig.2

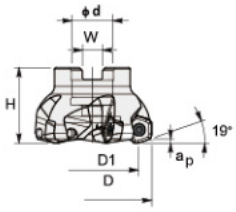


Fig.3

mm

Designation		No.of Inserts	Dimension(mm)							Arbor	kg	Fig.
			D	D1	d	H	W	F	ap			
SEPD09	050-22-04T	4	50	60.8	22	40	10.40	-	4.50	A	0.31	1
	063-22-05T	5	63	73.8	22	40	10.40	-	4.50	A	0.41	1
	080-27-06T	6	80	90.9	27	50	12.40	-	4.50	B	0.95	1
	100-32-07T	7	100	110.9	32	50	14.40	-	4.50	B	1.59	1
	125-40-07T	7	125	135.9	40	63	16.40	-	4.50	B	3.06	1
	160-40-09T	9	160	170.9	40	63	16.40	66.70	4.50	C	4.20	1
SSPD09	040-16-03T	3	40	46.8	16	40	8.40	-	5.50	A	0.18	2
	050-22-04T	4	50	58.8	22	40	10.40	-	5.50	A	0.26	2
	063-22-05T	5	63	71.8	22	40	10.40	-	5.50	A	0.34	2
	080-27-06T	6	80	88.8	27	50	12.40	-	5.50	B	0.81	2
	100-32-07T	7	100	108.9	32	50	14.40	-	5.50	B	1.54	2
	125-40-08T	8	125	133.9	40	63	16.40	-	5.50	B	2.78	2
	160-40-10T	10	160	168.9	40	63	16.40	66.70	5.50	C	4.51	2
SFPD09	050-22-04T	4	50	35.6	22	40	10.40	-	2.00	A	0.23	3
	050-22-05T	5	50	35.6	22	40	10.40	-	2.00	A	0.36	3
	063-22-05T	5	63	48.6	22	40	10.40	-	2.00	A	0.33	3
	063-22-06T	6	63	48.6	22	40	10.40	-	2.00	A	0.47	3
	080-27-05T	5	80	65.6	27	50	12.40	-	2.00	B	0.84	3
	080-27-06T	6	80	65.6	27	50	12.40	-	2.00	B	0.88	3
	100-32-06T	6	100	85.6	32	50	14.40	-	2.00	B	1.46	3
	100-32-08T	8	100	85.6	32	50	14.40	-	2.00	B	1.40	3
	125-40-08T	8	125	111.0	40	63	16.40	-	2.00	B	3.16	3
	125-40-10T	10	125	111.0	40	63	16.40	-	2.00	B	3.15	3

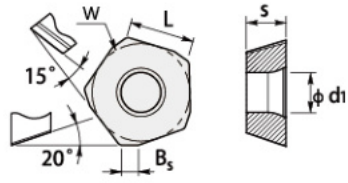
Slanted Shoulder & Chamfer

Parts

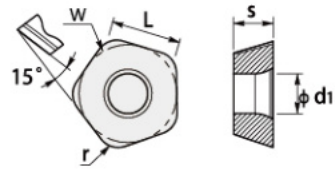
TYPE		
	Insert screw	Wrench
SEPD09	L1255SSTX4.5-6.4P	FF-TPF20
SSPD09	L1255SSTX4.5-6.4P	FF-TPF20
SFPD09	L1255SSTX4.5-6.4P	FF-TPF20

Available Inserts

PD**



Utility Inserts



Universal Inserts

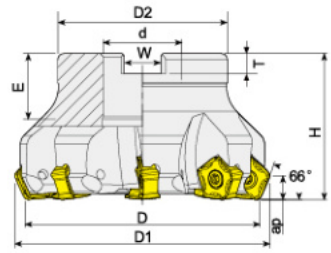
Workpiece			Machining Type													
Steel	P		●	⬌	✖					●	⬌		✖	⬌	✖
Stainless steel	M			✖						●	⬌	⬌	✖	⬌	✖
Cast iron	K		⬌			●	●	⬌	⬌	●	⬌		✖	⬌	✖
Non-ferrous metal	N														
Heat resistant alloy, Titanium alloy	S									●	⬌	⬌	✖		
Hardened steel	H											⬌	✖	⬌	✖

● Continuous cutting
⬌ General cutting
✖ Interrupted cutting

Designations		Dimensions(mm)						CVD Coated							PVD Coated					
		L	W	S	BS	r	d1	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
PDKX-GM 	0905ZEER-GM	9.00	13.50	5.47	2.00	-	5.5												●	●
PDKT-GM 	090530ER-GM	9.00	13.50	5.47	-	3.0	5.5												●	●
PDGW 	090530SR	9.00	13.50	5.47	-	3.0	5.5												●	●

Slanted Shoulder & Chamfer

MFPN Type Shell Mill



mm

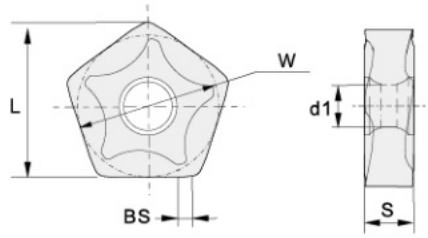
Designation		No.of Inserts	Dimension(mm)									Arbor
			D	D1	D2	d	H	E	T	W	ap	
MFPN66	050-22-04T	4	50	58	48	22	40	21	6.3	10.4	8	A
	050-22-05T	5	50	58	48	22	40	21	6.3	10.4	8	A
	063-22-05T	5	63	71	48	22	40	21	6.3	10.4	8	A
	063-22-07T	7	63	71	48	22	40	21	6.3	10.4	8	A
	080-27-06T	6	80	88	70	27	50	24	7.0	12.4	8	B
	080-27-09T	9	80	88	70	27	50	24	7.0	12.4	8	B
	100-32-07T	7	100	108	78	32	50	30	8.0	14.4	8	B
	100-32-11T	11	100	108	78	32	50	30	8.0	14.4	8	B
	125-40-09T	9	125	133	89	40	63	33	9.0	16.4	8	B
	125-40-13T	13	125	133	89	40	63	33	9.0	16.4	8	B
	160-40-11T	11	160	168	89	40	63	33	9.0	16.4	8	C
	160-40-15T	15	160	168	89	40	63	33	9.0	16.4	8	C
	200-60-13T	13	200	208	140	60	63	35	14.0	25.7	8	C
	200-60-17T	17	200	208	140	60	63	35	14.0	25.7	8	C
	250-60-15T	15	250	258	140	60	63	35	14.0	25.7	8	C
	250-60-19T	15	250	258	140	60	63	35	14.0	25.7	8	C

Spare Parts

TYPE		
	Insert screw	Wrench
MFPN66	L1060SSTX4.0-5.7P	FF-TPF15

Available inserts

PNMU

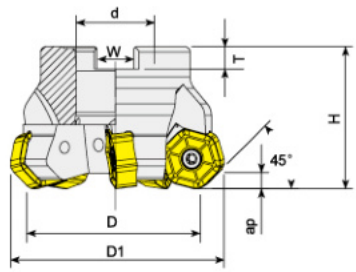


Workpiece			Machining Type												
Steel	P		● Continuous cutting	●	⚙	✖					●	⚙		✖	⚙	✖
Stainless steel	M		⚙ General cutting		✖						●	⚙	⚙	✖	⚙	✖
Cast iron	K		✖ Interrupted cutting	⚙			●	●	⚙	⚙	●	⚙		✖	⚙	✖
Non-ferrous metal	N															
Heat resistant alloy, Titanium alloy	S										●	⚙	⚙	✖		
Hardened steel	H												⚙	✖	⚙	✖

Designations		Dimensions(mm)					CVD Coated							PVD Coated					
		L	W	S	BS	d1	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
PNMU-GM 	0905XNER-GM	14.6	12.2	5.56	2.0	4.7		○		○					●	●			

Slanted Shoulder & Chamfer

MFHN45 Type Shell Mill



mm

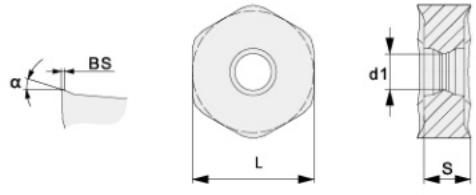
Designation		No.of Inserts	Dimension(mm)							Arbor	kg
			D	D1	d	H	W	T	ap		
MFHN45	6040-16-05T	5	40	47.3	16	40	8.4	5.6	3.0	A	0.37
	6050-22-04T	4	50	57.3	22	40	10.4	6.3	3.0	A	0.62
	6050-22-06T	6	50	57.3	22	40	10.4	6.3	3.0	A	0.41
	6063-22-06T	6	63	70.3	22	40	10.4	6.3	3.0	A	0.56
	6063-22-08T	8	63	70.3	22	40	10.4	6.3	3.0	A	0.69
	6080-27-07T	7	80	86.8	27	50	12.4	7.0	3.0	B	1.10
	6080-27-10T	10	80	86.8	27	50	12.4	7.0	3.0	B	1.19
	6100-32-08T	8	100	107.1	32	50	14.4	8.0	3.0	B	2.07
	6100-32-12T	12	100	107.1	32	50	14.4	8.0	3.0	B	1.82
	6125-40-10T	10	125	132.2	40	63	16.4	9.0	3.0	B	3.62
	6125-40-16T	16	125	132.2	40	63	16.4	9.0	3.0	B	3.62
MFHN45	8050-22-04T	4	50	61.7	22	40	10.4	6.3	5.0	A	0.38
	8063-22-06T	6	63	74.7	22	40	10.4	6.3	5.0	A	0.54
	8080-27-06T	6	80	91.7	27	50	12.4	7.0	5.0	B	1.06
	8080-27-08T	8	80	91.7	27	50	12.4	7.0	5.0	B	1.06
	8100-32-08T	8	100	111.7	32	50	14.4	8.0	5.0	B	1.76
	8100-32-10T	10	100	111.7	32	50	14.4	8.0	5.0	B	1.76
	8125-40-10T	10	125	136.7	40	63	16.4	9.0	5.0	B	3.36
	8125-40-12T	12	125	136.7	40	63	16.4	9.0	5.0	B	3.36
	8160-40-12T	12	160	171.7	40	63	16.4	9.0	5.0	C	6.46
	8160-40-14T	14	160	171.7	40	63	16.4	9.0	5.0	C	6.45
	8200-60-12T	12	200	211.7	60	63	25.7	14.0	5.0	C	11.37
	8250-60-14T	14	250	261.7	60	63	25.7	14.0	5.0	C	18.50
	8315-60-16T	16	315	326.7	60	63	25.7	14.0	5.0	C	37.00

Spare Parts

TYPE		
	Insert screw	Wrench
MFHN45-6	L0755SSTX3.0-4.0P	FF-TPF08
MFHN45-8	L1255SSTX4.5-6.4P	FF-TPF20

Available inserts

HNGX

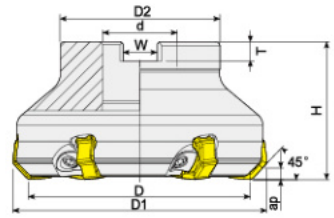


Workpiece			Machining Type												
Steel	P		● Continuous cutting	●	⊛	✱					●	⊛		✱	⊛	✱
Stainless steel	M		⊛ General cutting		✱						●	⊛	⊛	✱	⊛	✱
Cast iron	K		✱ Interrupted cutting	⊛			●	●	⊛	⊛	●	⊛		✱	⊛	✱
Non-ferrous metal	N															
Heat resistant alloy, Titanium alloy	S										●	⊛	⊛	✱		
Hardened steel	H												⊛	✱	⊛	✱

Designations		Dimensions(mm)					CVD Coated							PVD Coated					
		L	S	BS	d1	α	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
HNGX 	0604ANSN-GM	10.5	4.76	0.09	3.7	23°												●	●
	0906ANSN-GM	16.5	6.35	0.12	4.9	22°		●		●	●	●	●		●	●			
	0906ANSN-GR	16.5	6.35	0.20	4.9	17°		●		●	●	●	●		●	●		●	●

Slanted Shoulder & Chamfer

TFXN45 Type Shell Mill



mm

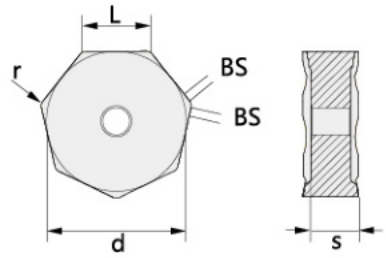
Designation		No.of Inserts	Dimension(mm)								Arbor
			D	D1	D2	d	H	ap	T	W	
TFXN4507	063-22-09T	9	63	71	53	22	50	4.0	6.3	10.4	A
	080-27-11T	11	80	88	65	27	50	4.0	7.0	12.4	B
	100-32-14T	14	100	108	80	32	50	4.0	8.0	14.4	B
	125-40-18T	18	125	133	80	40	63	4.0	9.0	16.4	B
	160-40-22T	22	160	168	115	40	63	4.0	9.0	16.4	C
	200-60-28T	28	200	208	160	60	63	4.0	14.0	25.7	C
TFXN4509	125-40-16T	16	125	317	80	40	63	6.0	9.0	16.4	B
	160-40-20T	20	160	172	115	40	63	6.0	9.0	16.4	C
	200-60-26T	26	200	212	160	60	63	6.0	14.0	25.7	C

Parts

TYPE			
	Clamping Wedge	Insert screw	Wrench
TFXN4507	Tk4507	TI2134	HW2.0L
TFXN4509	Tk4509	TI2157	HW4.0L

Available inserts

XNHF



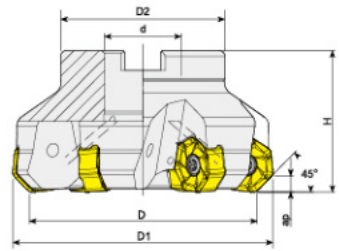
Workpiece		Machining Type	
Steel	P		
Stainless steel	M		
Cast iron	K		
Non-ferrous metal	N		
Heat resistant alloy, Titanium alloy	S		
Hardened steel	H		

● Continuous cutting
⚭ General cutting
✖ Interrupted cutting

Designations		Dimensions(mm)					CVD Coated							PVD Coated					
		L	d	S	BS	r	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
XNHF-GM	070508-GM	7.0	14.5	5.50	-	0.8				●					●	●			
	090612-GM	9.0	19.05	5.68	-	1.2				●		●							

Slanted Shoulder & Chamfer

MFXN45 Type Shell Mill



mm

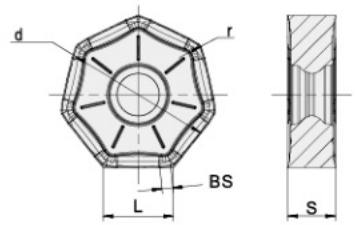
Designation		No.of Inserts	Dimension(mm)						Arbor
			D	D1	D2	d	H	ap	
MFXN4507	040-16-03T	3	40	49.8	37	16	40	4.4	A
	050-22-04T	4	50	59.8	42	22	40	4.4	A
	050-22-05T	5	50	59.8	42	22	40	4.4	A
	063-22-05T	5	63	72.8	53	22	40	4.4	A
	063-22-06T	6	63	72.8	53	22	40	4.4	A
	080-27-06T	6	80	89.8	65	27	50	4.4	B
	080-27-07T	7	80	89.8	65	27	50	4.4	B
	100-32-07T	7	100	109.8	80	32	50	4.4	B
	100-32-08T	8	100	109.8	80	32	50	4.4	B
	125-40-08T	8	125	134.8	80	40	63	4.4	B
	125-40-10T	10	125	134.8	80	40	63	4.4	B
	160-40-09T	9	160	169.8	115	40	63	4.4	C
	160-40-12T	12	160	169.8	115	40	63	4.4	C

Parts

TYPE		
	Insert screw	Wrench
MFXN4507	L1260SSTX3.5-5.3P	FF-TPF15

Available inserts

XNMU

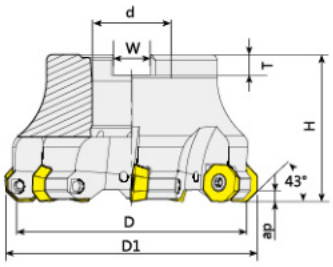


Workpiece			Machining Type	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
Steel	P		● Continuous cutting	●	⬌	✖					●	⬌		✖	⬌	✖
Stainless steel	M		⬌ General cutting		✖						●	⬌	⬌	✖	⬌	✖
Cast iron	K		✖ Interrupted cutting	⬌			●	●	⬌	⬌	●	⬌		✖	⬌	✖
Non-ferrous metal	N															
Heat resistant alloy, Titanium alloy	S										●	⬌	⬌	✖		
Hardened steel	H												⬌	✖	⬌	✖

Designations		Dimensions(mm)					CVD Coated							PVD Coated					
		L	d	S	BS	r	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
XNMU-GM 	0705ANN-GM	7.0	14.5	5.40	1.1	0.8				●	○				●	●	○		

Slanted Shoulder & Chamfer

SOD43 Type Shell Mill



mm

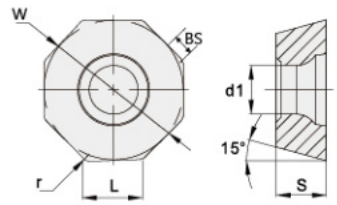
Designation		No.of Inserts	Dimension(mm)							Arbor
			D	D1	d	H	W	T	ap	
SOD4306	040-16-03T	3	40	50	16	40	8.4	5.6	4.0	A
	050-22-04T	4	50	60	22	40	10.4	6.3	4.0	A
	063-22-05T	5	63	72	22	40	10.4	6.3	4.0	A
	080-27-06T	6	80	90	27	50	12.4	7.0	4.0	A
	100-32-07T	7	100	110	32	50	14.4	8.0	4.0	B
	125-40-08T	8	125	135	40	63	16.4	9.0	4.0	B
	160-40-10T	10	160	170	40	63	16.4	9.0	4.0	C
	200-60-12T	12	200	210	60	63	25.7	14.0	4.0	C

Parts

TYPE		
	Insert screw	Wrench
SOD4306	L1260SSTX5.0-7.0P	FF-TPF20

Available inserts

ODHT

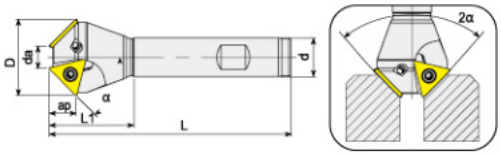


Workpiece			Machining Type	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
Steel	P		● Continuous cutting	●	⚙	✖					●	⚙		✖	⚙	✖
Stainless steel	M		⚙ General cutting		✖						●	⚙	⚙	✖	⚙	✖
Cast iron	K		✖ Interrupted cutting	⚙			●	●	⚙	⚙	●	⚙		✖	⚙	✖
Non-ferrous metal	N															
Heat resistant alloy, Titanium alloy	S										●	⚙	⚙	✖		
Hardened steel	H												⚙	✖	⚙	✖

Designations		Dimensions(mm)						CVD Coated							PVD Coated					
		L	W	S	BS	r	d1	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
ODHT-GH 	060508-GH	6.58	15.875	5.56	-	0.8	5.6									●	●			

Countersink & Chamfer

TC Type Chamfer Cutter



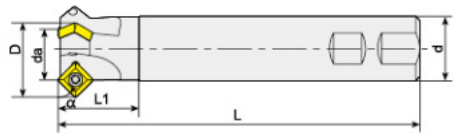
mm

Designation		No.of Inserts	Dimension(mm)							Available Inserts
			D	d	L1	L	da	ap	α	
B15°	TC11 C20T2-120ap18-22	2	22	20	30	120	18	9.7	15°	TC□□1102**
	TC16 C20T1-120ap13-19	1	20	20	30	120	13	14.9	15°	TC□□16T3**
	TC16 C20T2-120ap18-22	1	25	20	30	120	18	14.9	15°	
	TC16 C20T2-120ap25-32	1	30	20	40	120	25	14.9	15°	
B30°	TC16 C16T1-120ap6-20	1	20	16	30	120	6	13.4	30°	TC□□16T3**
	TC16 C20T2-120ap18-30	2	30	20	30	120	18	13.4	30°	
	TC16 C25T2-120ap19-30	2	30	25	30	120	19	13.4	30°	
	TC16 C25T2-120ap28-40	2	40	25	40	120	28	13.4	30°	
B45°	TC11 C12T1-120ap4-15	1	15	12	30	120	4	6.9	45°	TC□□1102**
	TC16 C16T2-120ap6-20	1	20	16	30	120	6	10.8	45°	TC□□16T3**
	TC16 C20T1-120ap6-20	1	20	20	30	120	6	10.8	45°	
	TC16 C20T1-150ap8-25	1	25	20	40	150	8	10.8	45°	
	TC16 C20T2-120ap14-30	2	30	20	30	120	14	10.8	45°	
	TC16 C25T2-120ap14-30	2	30	25	30	120	14	10.8	45°	
	TC16 C25T2-120ap20-40	2	40	25	40	120	20	10.8	45°	
	TC16 C25T2-120ap30-50	2	50	25	40	120	30	10.8	45°	
	TC16 C20T2-120ap45-60	2	60	25	45	120	45	10.8	45°	
B60°	TC11 C20T2-120ap6-20	2	20	20	30	120	6	5.0	60°	TC□□1102**
	TC11 C20T2-120ap10-25	2	25	20	30	120	10	5.0	60°	
	TC16 C16T1-120ap6-20	1	20	16	30	120	6	7.8	60°	TC□□16T3**
	TC16 C20T2-120ap10-30	2	30	20	30	120	10	7.8	60°	
	TC16 C25T2-120ap10-30	2	30	25	30	120	10	7.8	60°	
	TC16 C25T2-120ap17-40	2	40	25	30	120	17	7.8	60°	
B75°	TC16 C25T2-120ap13-40	2	40	25	30	120	13	4.0	75	TC□□16T3**

Parts

TYPE		
	Insert screw	Wrench
B-TC11	L0655SSTX2.5-3.6P	TPF-08
B-TC16	L0960SSTX3.5-5.3P	TPF-15

45° SP Type Chamfer Cutter



mm

Designation		No.of Inserts	Dimension(mm)						
			D	d	L1	L	da	α	Adapter
B45°SP05	C10-T1-120ap04-09	1	9	10	30	120	4	45°	S
	C12-T1-120ap04-09	1	9	12	30	120	4	45°	S
	C12-T1-120ap06-11	1	11	12	30	120	6	45°	S
	C12-T2-120ap10-14	2	14	12	30	120	10	45°	S
B45°SP06	C12-T1-120ap08-16	1	16	12	30	120	8	45°	S
B45°SP07	C20-T2-160ap17-25	2	25	20	35	160	17	45°	S
B45°SP09	C16-T1-120ap14-20	1	20	16	30	120	14	45°	S
B45°SP12	C20-T1-100ap12-23	1	23	20	40	100	12	45°	S
	W20-T1-100ap12-23	1	23	20	40	100	12	45°	W
	C25-T2-120ap25-36	2	36	25	40	120	25	45°	S
	W25-T2-120ap25-36	2	36	25	40	120	25	45°	W
	C32-T3-180ap32-43	3	43	32	50	180	32	45°	S
	W32-T3-180ap32-43	3	43	32	50	180	32	45°	W

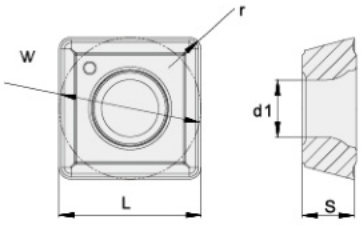
Parts

TYPE		
	Insert screw	Wrench
B45°SP05	L0460SSTX2.0-2.8P	TPF-06
B45°SP06	L0560SSTX2.2-3.0P	TPF-06
B45°SP07	L0560SSTX2.5-3.6P	TPF-08
B45°SP09	L0960SSTX3.5-5.0P	TPF-15
B45°SP12	L1260SSTX5.0-7.0P	TPF-20

Chamfering

Available inserts

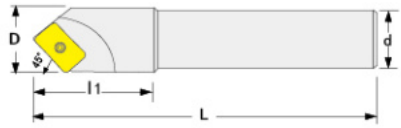
SPMG



Workpiece			Machining Type	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
Steel	P		● Continuous cutting	●	⬌	✱					●	⬌		✱	⬌	✱
Stainless steel	M		⬌ General cutting		✱						●	⬌	⬌	✱	⬌	✱
Cast iron	K		✱ Interrupted cutting	⬌			●	●	⬌	⬌	●	⬌		✱	⬌	✱
Non-ferrous metal	N															
Heat resistant alloy, Titanium alloy	S										●	⬌	⬌	✱		
Hardened steel	H												⬌	✱	⬌	✱

Designations		Dimensions(mm)					CVD Coated							PVD Coated					
		L	W	S	r	d1	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
SPMG-Z 	050204-Z	5.00	5.00	2.38	0.4	2.25									●	●			
	060204-Z	6.00	6.00	2.38	0.4	2.61									●	●			
	07T308-Z	7.94	7.94	3.97	0.8	2.85									●	●			
	090408-Z	9.80	9.80	4.30	0.8	4.05									●	●			
SPMT-HM 	120408-HM	12.7	12.70	4.76	0.8	5.50						●			●	●			

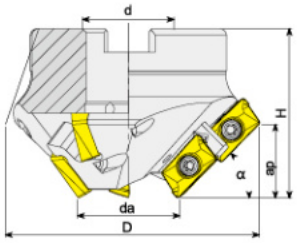
45° AP Type Chamfer Cutter



mm

Designation		No.of Inserts	Dimension(mm)				
			D	d	L1	L	Chamfering Range
B45°	AP11 C16T1-120ap4-13	1	13	16	30	120	4-13
	AP16 C16T1-120ap8-21	1	21	16	35	120	8-21
	AP16 C20T1-120ap8-21	1	21	20	35	120	8-21
	AP16 C20T2-120ap18-32	2	32	20	35	120	18-32
	AP16 C25T2-120ap25-40	2	40	25	35	120	25-40

AP Type Helix Chamfer Cutter



mm

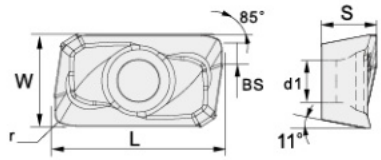
Designation		No.of flute	No.of Inserts	Dimension(mm)					
				D	da	d	H	ap	a
B15°	AP16-D3593-A27-Z0306	3	6	93	35	27	50	8.0	15
B30°	AP16-D3587-A27-Z0306	3	6	87	35	27	50	15.0	30
B45°	AP16-D3577-A27-Z0306	3	6	77	35	27	50	21.5	45
B60°	AP16-D3565-A22-Z0306	3	6	65	35	22	50	26.5	60
B75°	AP16-D3550-A22-Z0306	3	6	50	35	22	50	29.5	75

Parts

TYPE		
	Insert screw	Wrench
B-AP11	L0655SSTX2.5-3.6P	TPF-08
B-AP16	L0960SSTX4.0-5.7P	TPF-15

Available inserts

APMT



Workpiece			Machining Type	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
Steel	P		●	⬌	✱					●	⬌		✱	⬌	✱
Stainless steel	M			✱						●	⬌	⬌	✱	⬌	✱
Cast iron	K		⬌			●	●	⬌	⬌	●	⬌		✱	⬌	✱
Non-ferrous metal	N	● Continuous cutting													
Heat resistant alloy, Titanium alloy	S	⬌ General cutting								●	⬌	⬌	✱		
Hardened steel	H	✱ Interrupted cutting										⬌	✱	⬌	✱

Designations		Dimensions(mm)					CVD Coated							PVD Coated					
		L	W	S	BS	r	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
APMT-H2 	1135PDER-H2	11.0	6.350	3.50	1.2	0.80		●		●		●		●	●	●	●		
	1604PDER-H2	16.5	9.525	4.76	1.7	0.80		●		●		●		●	●	●	●		
APMT-M2 	1135PDER-M2	11.0	6.350	3.50	1.2	0.80		●		●		●		●	●	●	●		
	1604PDER-M2	16.5	9.525	4.76	1.7	0.80		●		●		●		●	●	●	●		

Spotting & Chamfer

90° Multi-pupose Chamfer Cutter

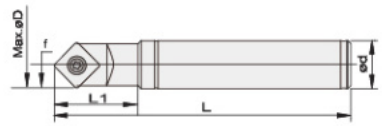


Fig.1

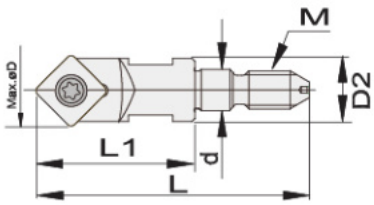
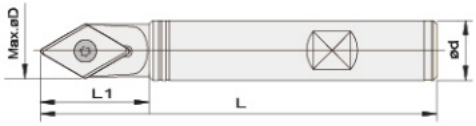


Fig.2

mm

Designation		No.of Inserts	Dimension(mm)								Spare parts	
			Dmax	d	f	L1	L	M	D2	Fig	Screw	wrench
DX45	SD06C08T1-080L	1	8	8.0	4.75	-	80	-	-	1	NS25065B	TPF-08
	SD09C12T1-120L	1	14	12.0	6.75	29	120	-	-	1	NS35080B	TPF-15
SSP	1008-20-M04-1T-06	1	10	4.5	4.75	20	32	M4	7.8	2	NS25065B	TPF-08
	1412-30-M06-1T-09	1	14	6.5	6.75	30	45	M6	11.0	2	NS35080B	TPF-15

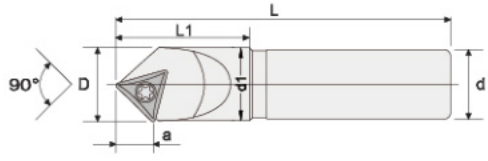
60° Multi-pupose Chamfer Cutter



mm

Designation		No.of Inserts	Dimension(mm)				Spare parts	
			Dmax	d	L1	L	Screw	wrench
SSP	0808-080L-60°-07	1	9	8.0	-	80	NS25065B	TPF-08
	1616-110L-60°-11	1	13	16.0	29	110	NS40080B	TPF-15

90° Multi-pupose Chamfer Cutter



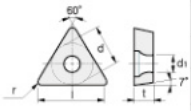
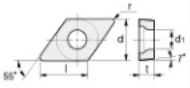
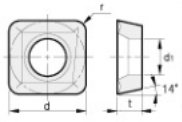
mm

Designation		No.of Inserts	Dimension(mm)						Spare parts	
			D	d1	d	a	L1	L	Screw	wrench
DX45	TC09R0.4-C12T1-120L	1	13.8	11.8	12	6.05	26	120	NS22050B	TPF-06
	TC16R0.4-C20T1-120L	1	22.5	19.0	20	11.30	50	120	NS40080B	TPF-15
	TC16R0.8-C20T1-120L	1	22.5	19.0	20	11.30	50	120	NS40080B	TPF-15

Spotting & Chamfer

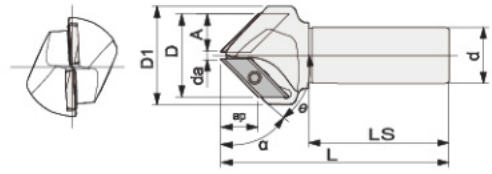
Available inserts

Workpiece		Machining Type	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
Steel	P	● Continuous cutting	●	⬢	✱					●	⬢		✱	⬢	✱
Stainless steel	M	⬢ General cutting		✱						●	⬢	⬢	✱	⬢	✱
Cast iron	K	✱ Interrupted cutting	⬢			●	●	⬢	⬢	●	⬢		✱	⬢	✱
Non-ferrous metal	N														
Heat resistant alloy, Titanium alloy	S									●	⬢	⬢	✱		
Hardened steel	H											⬢	✱	⬢	✱

Designations		Dimensions(mm)					CVD Coated							PVD Coated					
		L	W	S	r	d1	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
TCEX-AR 	090204E-AR	9.60	5.56	2.50	0.4	2.80									●				
	16T304E-AR	16.50	9.525	3.97	0.4	4.45									●				
	16T308E-AR	16.50	9.525	3.97	0.8	4.45									●				
DCEX-AR 	070204E-AR	7.80	6.35	2.38	0.4	2.80									●				
	11T304E-AR	11.60	9.525	3.97	0.4	4.40									●				
SDEX-AR 	060204E-AR	6.00	6.0	2.38	0.4	2.80									●				
	090408E-AR	9.53	9.53	4.80	0.8	4.40									●				

ECC Type Chamfer Cutter

Chamfering endmill, screw clamp system, for large parallelogram inserts



mm

Designation		No.of Inserts	Dimension(mm)										Arbor
			D1	D	d	da	A	L	LS	α	θ	ap	
ECC	17005R-30	2	26	20	12	11	7.5	78	40	30°	60°	13.5	S
	17005R-45	2	36	27	12	5	11.0	78	40	45°	45°	11.0	S
	17005R-60	2	44	32	12	5	13.5	78	40	60°	30°	7.5	S
	31005R-30	1	40	34	32	5	14.5	130	80	30°	60°	25.5	S
	31005R-45	2	56	46	32	5	20.5	130	80	45°	45°	20.5	S
	31005R-45-3071	2	81	71	32	30	20.5	130	80	45°	45°	20.5	S
	31005R-60	2	72	55	32	5	20.5	130	80	60°	30°	14.5	S

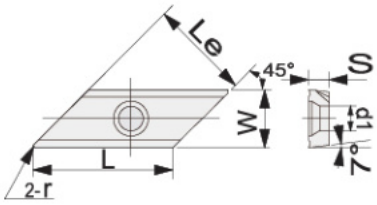
Parts

TYPE		
	Insert screw	Wrench
ECC-17	L1060SSTX4.0-5.7P	TPF-15
ECC-31	L1260SSTX5.0-7.0P	TPF-20

Chamfering

Available inserts

XCET

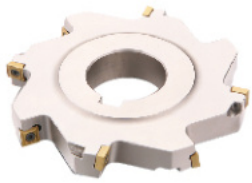


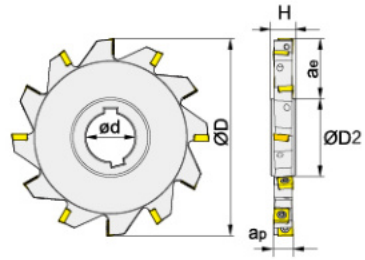
Workpiece			Machining Type	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
Steel	P		●	⊛	✱					●	⊛		✱	⊛	✱
Stainless steel	M			✱						●	⊛	⊛	✱	⊛	✱
Cast iron	K		⊛			●	●	⊛	⊛	●	⊛		✱	⊛	✱
Non-ferrous metal	N														
Heat resistant alloy, Titanium alloy	S									●	⊛	⊛	✱		
Hardened steel	H											⊛	✱	⊛	✱

● Continuous cutting
⊛ General cutting
✱ Interrupted cutting

Designations		Dimensions(mm)						CVD Coated							PVD Coated					
		L	W	S	Le	r	d1	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
XCET 	170404ER	17.12	9.525	4.0	12.0	0.4	5.0									●				
	310404ER	30.15	12.70	4.5	22.0	0.4	5.5									●				

PT01 Type Full Side Milling Cutter

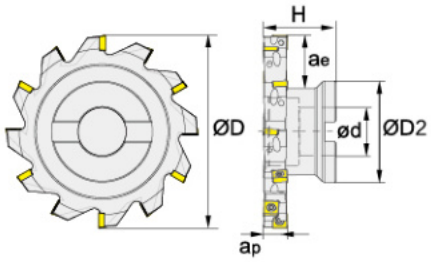




mm

Designation		No.of Inserts	Dimension(mm)						kg
			D	D2	d	ap	H	ae	
PT01.06	J27.080.10.ap08	10	80	41	27	8	12	17.6	0.20
	J32.100.14.ap08	14	100	47	32	8	12	25.1	0.30
	J32.100.14.ap10	14	100	47	32	10	14	25.1	0.40
	J40.125.16.ap10	16	125	55	40	10	14	33.6	0.60
PT01.08	J40.125.12.ap12	12	125	55	40	12	16	32.6	0.70
	J40.160.12.ap12	12	160	62	40	12	16	31.5	1.30
PT01.12	J40.160.12.ap16	12	160	62	40	16	20	47.6	1.60
	J40.160.12.ap18	12	160	62	40	18	24	47.3	1.90
	J40.160.12.ap20	12	160	62	40	20	26	47.3	2.10
	J50.200.14.ap16	14	200	72	50	16	20	62.6	2.50
	J50.200.14.ap18	14	200	72	50	18	24	62.3	2.90
	J50.200.14.ap20	14	200	72	50	20	26	62.3	3.30

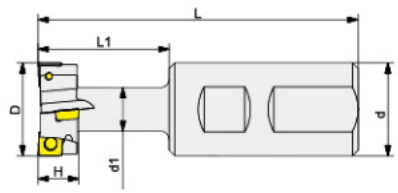
PTO1 Type Side Milling Cutter



mm

Designation		No.of Inserts	Dimension(mm)						Arbor	kg
			D	D2	d	ap	H	ae		
PT01.06	A22.080.10.ap08	10	80	45	22	8	40.0	21.0	A	0.40
	B27.100.14.ap08	14	100	55	27	8	40.0	24.5	B	0.60
	B27.100.14.ap10	14	100	55	27	10	40.0	24.5	B	0.70
	B32.125.16.ap10	16	125	65	32	10	45.0	33.3	B	1.10
PT01.08	B32.125.12.ap12	12	125	65	32	12	45.0	33.0	B	1.40
	B40.160.14.ap12	14	160	80	40	12	45.0	44.0	B	1.90
	C40.200.18.ap12	18	200	92	40	12	50.0	52.0	C	3.20
PT01.12	B32.125.12.ap16	12	125	65	32	16	50.0	33.0	B	2.30
	B40.160.12.ap16	12	160	80	40	16	60.0	45.0	B	2.30
	B40.160.12.ap18	12	160	80	40	18	60.0	45.0	B	2.40
	C40.200.14.ap16	14	200	92	40	16	50.0	52.0	C	3.60
	C40.200.14.ap18	14	200	92	40	18	50.0	52.0	C	3.90
	C40.200.14.ap20	14	200	92	40	20	50.0	52.0	C	4.20

PT01 Type T-Cutter



mm

Designation		No.of Inserts	Dimension(mm)					
			D	d	d1	L	L1	H
PT01.06	W25.021.01.H09	1	21	25	10	100	32	9
	W25.025.01.H11	1	25	25	12	100	35	11
PT01.08	W32.032.02.H14	2	32	32	15	110	45	14
PT01.12	W32.040.02.H18	2	40	32	19	125	55	18
	W40.050.02.H22	2	50	40	25	140	65	22

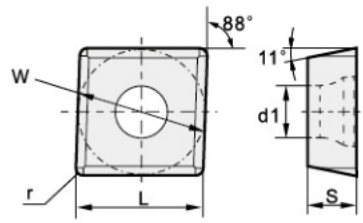
Parts

TYPE		
	Insert screw	Wrench
PT01.06	L0655SSTX2.5-3.6P	TFP-08
PT01.08	L0750SSTX3.0-4.0P	TFP-08
PT01.12	L1160SSTX5.0-7.0P	TFP-15

Slotting

Available inserts

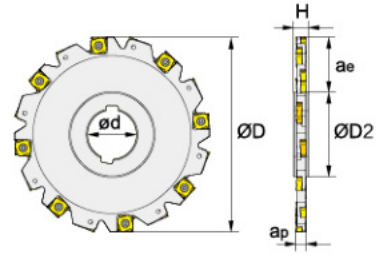
MPHT



Workpiece			Machining Type	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
Steel	P		● Continuous cutting	●	⊛	✱					●	⊛		✱	⊛	✱
Stainless steel	M		⊛ General cutting		✱						●	⊛	⊛	✱	⊛	✱
Cast iron	K		✱ Interrupted cutting	⊛			●	●	⊛	⊛	●	⊛		✱	⊛	✱
Non-ferrous metal	N															
Heat resistant alloy, Titanium alloy	S										●	⊛	⊛	✱		
Hardened steel	H												⊛	✱	⊛	✱

Designations		Dimensions(mm)					CVD Coated							PVD Coated					
		L	W	S	r	d1	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
MPHT-GM 	060304-GM	6.35	6.35	3.18	0.4	2.80	○	●	○	●			○		●	●	○		
	080305-GM	8.30	8.30	3.18	0.5	3.40	○	●	○	●			○		●	●	○		
	120408-GM	12.70	12.70	4.76	0.8	5.56	○	●	○	●			○		●	●	○		

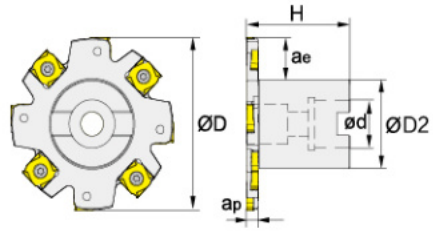
PT02 Type Full Side Milling Cutter



mm

Designation		No.of Inserts	Dimension(mm)						kg
			D	D2	d	ap	H	ae	
PT02.1202	J27.100.10.ap04	10	100	40.7	27	4	12	25	0.20
	J40.125.12.ap04	12	125	50.5	40	4	12	32	0.30
	J40.160.16.ap04	16	160	66.7	40	4	12	44	0.50
PT02.1203	J27.100.10.ap05	10	100	45.0	27	5	12	25	0.20
	J40.125.12.ap05	12	125	58.0	40	5	12	32	0.30
	J40.160.16.ap05	16	160	68.0	40	5	12	44	0.60
PT02.12T3	J27.100.10.ap06	10	100	45.0	27	6	12	25	0.30
	J40.125.12.ap06	12	125	58.0	40	6	12	32	0.40
	J40.160.16.ap06	16	160	68.0	40	6	12	44	0.70
	J50.200.18.ap06	18	200	72.0	50	6	12	62	1.10
	J50.250.24.ap06	24	250	72.0	50	6	12	87	1.70
PT02.1204	J27.100.10.ap07	10	100	45.0	27	7	12	25	0.30
	J40.125.12.ap07	12	125	58.0	40	7	12	32	0.40
	J40.160.16.ap07	16	160	68.0	40	7	12	44	0.80
	J50.200.18.ap07	18	200	72.0	50	7	12	62	1.20
	J50.250.24.ap07	24	250	72.0	50	7	12	87	1.90
PT02.12T4	J27.100.10.ap08	10	100	45.0	27	8	12	25	0.30
	J40.125.12.ap08	12	125	58.0	40	8	12	32	0.50
	J40.160.16.ap08	16	160	68.0	40	8	12	44	0.90
	J50.200.18.ap08	18	200	72.0	50	8	12	62	1.40
	J50.250.24.ap08	24	250	72.0	50	8	12	87	2.20

PT02 Type Full Side Milling Cutter



mm

Designation		No.of Inserts	Dimension(mm)						Arbor	kg
			D	D2	d	ap	H	ae		
PT02.1202	A22.063.06.ap04	6	63	32	22	4	40	14	A	0.20
	A22.080.08.ap04	8	80	40	22	4	50	18	A	0.40
	A27.100.10.ap04	10	100	48	27	4	50	23	A	0.60
PT02.1203	A22.063.06.ap05	6	63	32	22	5	40	14	A	0.20
	A22.080.08.ap05	8	80	40	22	5	50	18	A	0.40
	A27.100.10.ap05	10	100	48	27	5	50	23	A	0.70
PT02.12T3	A22.063.06.ap06	6	63	32	22	6	40	14	A	0.20
	A22.080.08.ap06	8	80	40	22	6	50	18	A	0.50
	A27.100.10.ap06	10	100	48	27	6	50	23	A	0.70
	B40.125.12.ap06	12	125	70	40	6	50	23	B	1.00
	B40.160.16.ap06	16	160	70	40	6	50	41	B	1.30
PT02.1204	A22.063.06.ap07	6	63	32	22	7	40	14	A	0.20
	A22.080.08.ap07	8	80	40	22	7	50	18	A	0.50
	A27.100.10.ap07	10	100	48	27	7	50	23	A	0.70
	B40.125.12.ap07	12	125	70	40	7	50	23	B	1.10
	B40.160.16.ap07	16	160	70	40	7	50	41	B	1.40
PT02.12T4	A22.063.06.ap08	6	63	32	22	8	40	14	A	0.20
	A22.080.08.ap08	8	80	40	22	8	50	18	A	0.50
	A27.100.10.ap08	10	100	48	27	8	50	23	A	0.80
	B40.125.12.ap08	12	125	70	40	8	50	23	B	1.10
	B40.160.16.ap08	16	160	70	40	8	50	41	B	1.50

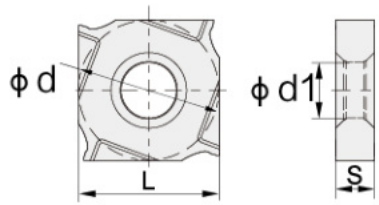
Parts

TYPE		
	Insert screw	Wrench
PT02.1202	191 M4.0x3.2X	FF-TPF09
PT02.1203	191 M4.0x3.2X	FF-TPF15
PT02.12T3	191 M4.0x5.1X	FF-TPF15
PT02.1204	191 M4.0x6.1X	FF-TPF15
PT02.12T4	191 M4.0x7.1X	FF-TPF15

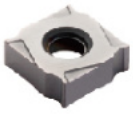
Slotting

Available Inserts

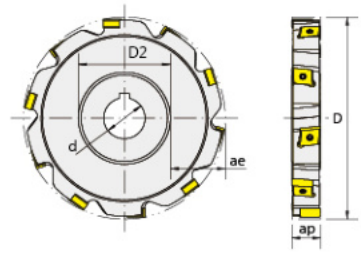
SNEQ



Workpiece			Machining Type	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
Steel	P		● Continuous cutting	●	⬌	✱					●	⬌		✱	⬌	✱
Stainless steel	M		⬌ General cutting		✱						●	⬌	⬌	✱	⬌	✱
Cast iron	K		✱ Interrupted cutting	⬌			●	●	⬌	⬌	●	⬌		✱	⬌	✱
Non-ferrous metal	N															
Heat resistant alloy, Titanium alloy	S										●	⬌	⬌	✱		
Hardened steel	H												⬌	✱	⬌	✱

Designations		Dimensions(mm)				CVD Coated							PVD Coated					
		L	d	S	d1	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
SNEQ 	1202	12.70	12.7	2.3	5.00									○			●	
	1203	12.70	12.7	3.0	5.00									○			●	
	12T3	12.70	12.7	3.5	5.00									○			●	
	1204	12.70	12.7	4.0	5.00									○			●	
	12T4	12.70	12.7	4.5	5.00									○			●	

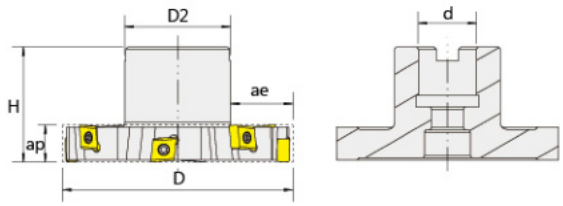
TSCN Type Full Side Milling Cutter



mm

Designation		No.of Inserts	Dimension(mm)					kg
			D	D2	d	ap	ae	
TSCN10	J27.080.06.ap14	6	80	44	27	14	18	0.30
	J27.100.08.ap14	8	100	48	27	14	26	0.50
	J32.125.10.ap14	10	125	55	32	14	35	0.90
	J40.160.12.ap14	12	160	68	40	14	46	1.09
	J50.200.16.ap14	16	200	78	50	14	61	1.79
	J50.250.20.ap14	20	250	86	50	14	82	2.88
TSCN12	J27.080.06.ap18	6	80	44	27	18	18	0.30
	J27.100.08.ap18	8	100	48	27	18	26	0.50
	J32.125.10.ap18	10	125	55	32	18	35	0.90
	J40.160.12.ap18	12	160	68	40	18	46	1.09
	J50.200.16.ap18	16	200	78	50	18	61	1.79
	J50.250.20.ap18	20	250	86	50	18	82	2.88
TSCN16	J27.080.06.ap22	6	80	44	27	22	18	0.30
	J27.100.08.ap22	8	100	48	27	22	26	0.50
	J32.125.10.ap22	10	125	55	32	22	35	0.90
	J40.160.12.ap22	12	160	68	40	22	46	1.09
	J50.200.16.ap22	16	200	78	50	22	61	1.79
	J50.250.20.ap22	20	250	86	50	22	82	2.88

TSCN Type Full Side Milling Cutter



mm

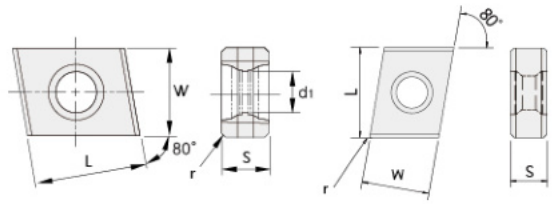
Designation		No.of Inserts	Dimension(mm)						Arbor	kg
			D	D2	d	ap	H	ae		
TSCN10	A27.080.06.ap16	6	80	48	27	16	50	15	A	0.35
	B27.100.08.ap16	8	100	48	27	16	50	25	B	0.61
	B32.125.10.ap16	10	125	58	32	16	50	32	B	1.01
	B40.160.12.ap16	12	160	70	40	16	50	43	B	1.75
	C40.200.16.ap16	16	200	88	40	16	50	55	C	2.63
	C60.250.20.ap16	20	250	112	60	16	50	68	C	5.86
TSCN12	A27.080.06.ap20	6	80	48	27	20	50	15	A	0.35
	B27.100.08.ap20	8	100	48	27	20	50	25	B	0.61
	B32.125.10.ap20	10	125	58	32	20	50	32	B	1.01
	B40.160.12.ap20	12	160	70	40	20	50	43	B	1.75
	C40.200.16.ap20	16	200	88	40	20	50	55	C	2.63
	C60.250.20.ap20	20	250	112	60	20	50	68	C	5.86
TSCN16	A27.080.06.ap24	6	80	48	27	24	50	15	A	0.35
	B27.100.08.ap24	8	100	48	27	24	50	25	B	0.61
	B32.125.10.ap24	10	125	58	32	24	50	32	B	1.01
	B40.160.12.ap24	12	160	70	40	24	50	43	B	1.75
	C40.200.16.ap24	16	200	88	40	24	50	55	C	2.63
	C60.250.20.ap24	20	250	112	60	24	50	68	C	5.86

Parts

TYPE		
	Insert screw	Wrench
TSCN10	L1160SSTX4.0-5.5P	FF-TPF15
TSCN12	L1160SSTX4.0-5.5P	FF-TPF15
TSCN16	L1360SSTX5.0-7.2P	FF-TPF20

Available Inserts

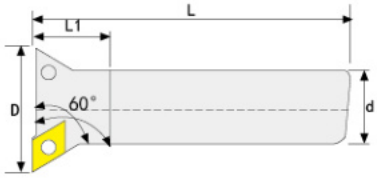
CNHX



Workpiece			Machining Type	
	Steel	P		
	Stainless steel	M		
	Cast iron	K		
	Non-ferrous metal	N	● Continuous cutting	
	Heat resistant alloy, Titanium alloy	S	⬌ General cutting	
	Hardened steel	H	✖ Interrupted cutting	

Designations		Dimensions(mm)					CVD Coated							PVD Coated					
		L	W	S	r	d1	TCP9330	TCP9340	TCP9350	TCK5215	TCK5315	TCK5225	TCK5325	TPM8115	TPM8125	TPM8225	TPM8135	TPG4235	TPK4235H
CNHX-GR 	100508-GR	10.3	10.03	5.4	0.8	4.7												●	
	120508-GR	12.7	11.00	5.6	0.8	4.7												●	
	160608-GR	16.0	12.00	6.4	0.8	5.9												●	

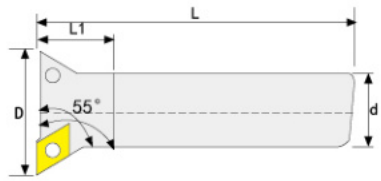
DCW60 Type Dovetail Slot Cutter



mm

Designation		No.of Inserts	Dimension(mm)				Available Inserts
			D	d	L1	L	
DCW60	25-C16-120L-2T-07	2	25	16	25	120	DC□□0702**
	25-C20-120L-2T-07	2	25	20	25	120	
	30-C20-120L-3T-07	3	30	20	25	120	
	40-C25-160L-3T-11	3	40	25	25	160	DC□□11T3**
	50-C32-160L-3T-11	3	50	32	30	160	
	60-C32-160L-4T-11	4	60	32	30	160	
	80-C32-160L-5T-11	5	80	32	30	160	

DCW55 Type Dovetail Slot Cutter



mm

Designation		No.of Inserts	Dimension(mm)				Available Inserts
			D	d	L1	L	
DCW55	25-C16-120L-2T-07	2	25	16	25	120	DC□□0702**
	25-C20-120L-2T-07	2	25	20	25	120	
	30-C20-120L-3T-07	3	30	20	25	120	
	40-C25-160L-3T-11	3	40	25	25	160	DC□□11T3**
	50-C32-160L-3T-11	3	50	32	30	160	
	60-C32-160L-4T-11	4	60	32	30	160	
	80-C32-160L-5T-11	5	80	32	30	160	

Parts

TYPE		
	Insert screw	Wrench
DCW-07	TS25060A	T-8
DCW-11	TS40090A	T-15

Carbide Holder

MFT Carbide Modular Head Holder

A: standard

B: customization

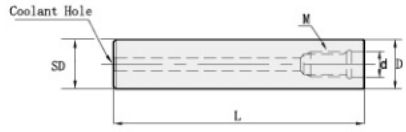


Fig1.

Fig1.

The size of the clearance space is customized according to customer requirements

mm

Designation		Dimension(mm)					Shape
		D	SD	d	L	M	
MFT08	08-100-M04	8.0	8	4.5	100	M4	Fig.1
MFT10	10-100-M05	10.1	10	5.5	100	M5	
	10-150-M05	10.0	10	5.5	150	M5	
	10-100-M06	10.0	10	6.5	100	M6	
	10-150-M06	10.0	10	6.5	150	M6	
MFT12	12-100-M06	12.0	12	6.5	100	M6	
	12-150-M06	12.0	12	6.5	150	M6	
	12-200-M06	12.0	12	6.5	200	M6	
MFT15	15-100-M08	15.0	15	8.5	100	M8	
	15-150-M08	15.0	15	8.5	150	M8	
	15-200-M08	15.0	15	8.5	200	M8	
	15-250-M08	15.0	15	8.5	250	M8	
MFT15.6	15.6-100-M08	15.6	15.6	8.5	100	M8	
	15.6-150-M08	15.6	15.6	8.5	150	M8	
	15.6-200-M08	15.6	15.6	8.5	200	M8	
	15.6-250-M08	15.6	15.6	8.5	250	M8	
MFT16	16-100-M08	16.0	16	8.5	100	M8	
	16-150-M08	16.0	16	8.5	150	M8	
	16-200-M08	16.0	16	8.5	200	M8	
	16-250-M08	16.0	16	8.5	250	M8	
MFT19	19-100-M10	19.0	19	10.5	100	M10	
	19-200-M10	19.0	19	10.5	200	M10	
	19-250-M10	19.0	19	10.5	250	M10	
MFT20	20-100-M10	20.0	20	10.5	100	M10	
	20-150-M10	20.0	20	10.5	150	M10	
	20-200-M10	20.0	20	10.5	200	M10	
	20-250-M10	20.0	20	10.5	250	M10	
MFT24	24-150-M12	24.0	24	12.5	150	M12	
	24-200-M12	24.0	24	12.5	200	M12	
	24-250-M12	24.0	24	12.5	250	M12	
	24-300-M12	24.0	24	12.5	300	M12	

MFT Carbide Modular Head Holder

A: standard

B: customization

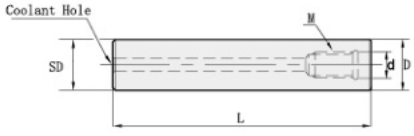


Fig1.

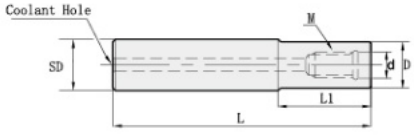


Fig1.

The size of the clearance space is customized according to customer requirements

mm

Designation		Dimension(mm)					Shape
		D	SD	d	L	M	
MFT25	25-150-M12	25.0	25	12.5	150	M12	Fig.1
	25-200-M12	25.0	25	12.5	200	M12	
	25-250-M12	25.0	25	12.5	250	M12	
	25-300-M12	25.0	25	12.5	300	M12	
MFT32	32-200-M16	32.0	32	17.0	200	M16	
	32-250-M16	32.0	32	17.0	250	M16	
	32-300-M16	32.0	32	17.0	300	M16	
	32-350-M16	32.0	32	17.0	350	M16	
	32-400-M16	32.0	32	17.0	400	M16	

※ Type B does not have any invventory,which needs to be produced,And can also be custo mized according to the custo mer′ s size

mm

Designation		Dimension(mm)						Shape
		D	SD	d	L1	L	M	
MFT10	9.5-100-M06	9.5	10	5.5	40	100	M6	Fig.2
	9.5-150-M06	9.5	10	5.5	80	150	M6	
MFT12	11.5-100-M06	11.5	12	6.5	40	100	M6	
	11.5-150-M06	11.5	12	6.5	80	150	M6	
	11.5-200-M06	11.5	12	6.5	120	200	M6	
MFT16	15.5-100-M08	15.5	16	8.5	40	100	M8	
	15.5-150-M08	15.5	16	8.5	80	150	M8	
	15.5-200-M08	15.5	16	8.5	120	200	M8	
	15.5-250-M08	15.5	16	8.5	160	250	M8	
MFT20	19.5-100-M10	19.5	20	10.5	40	100	M10	
	19.5-150-M10	19.5	20	10.5	80	150	M10	
	19.5-200-M10	19.5	20	10.5	120	200	M10	
	19.5-250-M10	19.5	20	10.5	160	250	M10	
MFT25	24.3-150-M12	24.3	25	12.5	70	150	M12	
	24.3-200-M12	24.3	25	12.5	100	200	M12	
	24.3-250-M12	24.3	25	12.5	150	250	M12	
	24.3-300-M12	24.3	25	12.5	200	300	M12	

MFT Carbide Modular Head Holder

A: standard

B: customization

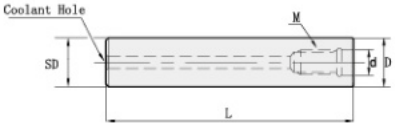


Fig1.

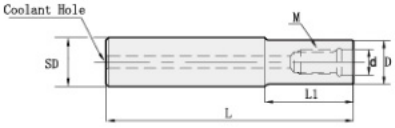


Fig1.

The size of the clearance space is customized according to customer requirements

mm

Designation		Dimension(mm)						Shape
		D	SD	d	L1	L	M	
MFT32	29.0-150-M16	29.0	32	17.0	70	150	M16	Fig.2
	29.0-200-M16	29.0	32	17.0	120	200	M16	
	29.0-250-M16	29.0	32	17.0	150	250	M16	
	29.0-300-M16	29.0	32	17.0	200	300	M16	
	29.0-350-M16	29.0	32	17.0	250	350	M16	
	29.0-400-M16	29.0	32	17.0	300	400	M16	

TOOTOOL®

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Solid Carbide Endmill Code System

4	D	B	E	040
1	2	3	4	5

1 No. Of flutes

4 D B E 040 04 200 V10 060 X

2. Flutes

2

3. Flutes

3

4. Flutes

4

6. Flutes

6

2 Series

4 D B E 040 04 200 V10 060 X

D: Graphite, Non-ferrous Endmill
N: Endmill for general usage
V: Variable Endmill

CP: Composite Router Endmill
A: Aluminum Endmill
SP: Stainless Steel

R: Ronghing ,Endmill
A: Micro, Endmill

3 Type

4 D B E 040 04 200 V10 060 X

Flat typ

F

Ball type

B

Radius type

R

4 Endmill

4 D B E 040 04 200 V10 060 X

5 Cutting dia

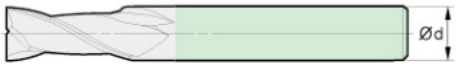
4 D B E 040 04 200 V10 060 X

Notation	ØD (mm)
040	Ø4.0
060	Ø6.0
080	Ø8.0
100	Ø10.0

04	200	V10	60	X
6	7	8	9	10

6 Shank diameter

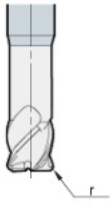
4 D B E 040 **04** 200 V10 060 X



Shank diameter	
Notation	Ød (mm)
06	Ø6
08	Ø8
10	Ø10
12	Ø12
16	Ø16

7 Corner radius

4 D B E 040 04 **200** V10 060 X



Corner radius	
Notation	R (mm)
020	r 0.2
050	r 0.5
100	r 1.0
150	r 1.5

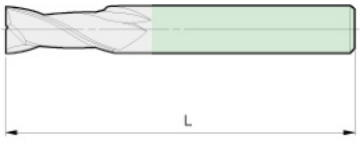
8 Taper length

4 D B E 040 04 200 **V10** 060 X

Taper length	
Notation	(mm)
V05	5
V10	10
V15	15

9 Over length

4 D B E 040 04 200 V10 **060** X



Overall length	
Notation	L (mm)
050	50
080	80
100	100

10 Over length

4 D B E 040 04 200 V10 060 **X**

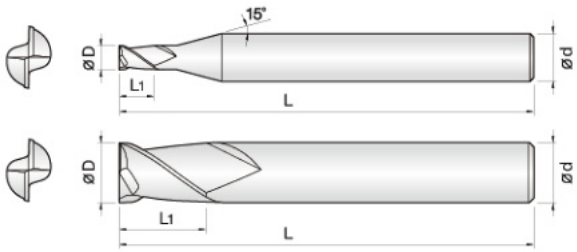
X: Special

※ This code system is only for common endmills

H Endmill

2 Flutes Standard Length Endmills

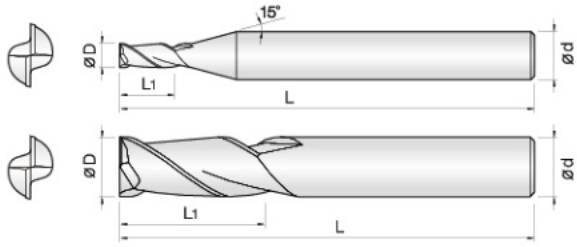
ØD	Tolerance
Ø1~Ø12	0.00~0.02
Ø12.1~Ø20	0.00~0.03



(mm)

Order Code		φD	φd	L1	L	Coating ~HRC52 TT550	Coating HRC50~62 TS600	Coating HRC52~68 N400
2NFE	01004000V03050	1.0	4	3	50	●	●	●
	01504000V04050	1.5	4	4	50			
	02002000V06050	2.0	2	6	50			
	02004000V06050	2.0	4	6	50	●	●	●
	02504000V08050	2.5	4	8	50			
	03003000V08050	3.0	3	8	50	●	●	●
	03004000V08050	3.0	4	8	50	●	●	●
	03504000V11050	3.5	4	11	50			
	04004000V11050	4.0	4	11	50	●	●	●
	05005000V13050	5.0	5	13	50	●	●	●
	05006000V13050	5.0	6	13	50	●	●	●
	06006000V15050	6.0	6	15	50	●	●	●
	07008000V20060	7.0	8	20	60	●	●	●
	08008000V20060	8.0	8	20	60	●	●	●
	09010000V25075	9.0	10	25	75	●	●	●
	10010000V25075	10.0	10	25	75	●	●	●
	12012000V30075	12.0	12	30	75	●	●	●
	14014000V35080	14.0	14	35	80	●	●	●
	16016000V45100	16.0	16	45	100	●	●	●
	18018000V45100	18.0	18	45	100			
	20020000V45100	20.0	20	45	100			

2 Flutes Long Length Endmills



ØD	Tolerance
Ø1~Ø12 Ø12.1~Ø20	0.00~0.02 0.00~0.03

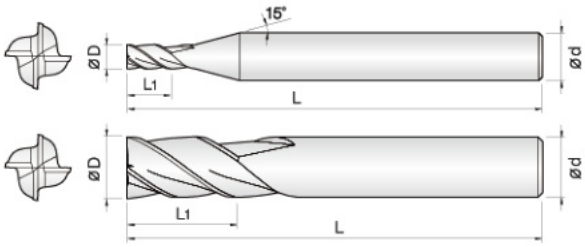
(mm)

Order Code		φD	φd	L1	L	Coating		
						~HRC52	HRC50~62	HRC52~68
						TT550	TS600	N400
2NFE	03003000V09075	3.0	3	9	75	●	●	●
	03004000V09075	3.0	4	9	75	●	●	●
	03003000V12100	3.0	3	12	100	●	●	●
	03004000V12100	3.0	4	12	100	●	●	●
	04004000V12075	4.0	4	12	75	●	●	●
	04004000V16100	4.0	4	16	100	●	●	●
	06006000V18075	6.0	6	18	75	●	●	●
	06006000V24100	6.0	6	24	100	●	●	●
	06006000V30150	6.0	6	30	150	●	●	●
	08008000V24075	8.0	8	24	75	●	●	●
	08008000V32100	8.0	8	32	100	●	●	●
	08008000V40150	8.0	8	40	150	●	●	●
	10010000V40100	10.0	10	40	100	●	●	●
	10010000V50150	10.0	10	50	150	●	●	●
	12012000V45100	12.0	12	45	100	●	●	●
	12012000V60150	12.0	12	60	150	●	●	●
	14014000V45100	14.0	14	45	100	●	●	●
	14014000V60150	14.0	14	60	150	●	●	●
	16016000V60150	16.0	16	60	150	●	●	●
	20020000V60150	20.0	20	60	150			

H Endmill

4 Flutes Standard Length Endmills

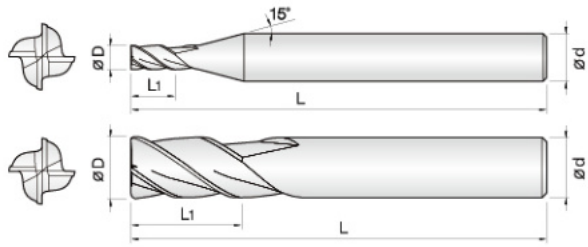
ØD	Tolerance
Ø1~Ø12	0.00~0.02
Ø12.1~Ø20	0.00~0.03



(mm)

Order Code		φD	φd	L1	L	Coating ~HRC52 TT550	Coating HRC50~62 TS600	Coating HRC52~68 N400
4NFE	01004000V03050	1.0	4	3	50	●	●	●
	01504000V04050	1.5	4	4	50			
	02002000V06050	2.0	2	6	50			
	02004000V06050	2.0	4	6	50	●	●	●
	02504000V08050	2.5	4	8	50			
	03003000V08050	3.0	3	8	50	●	●	●
	03004000V08050	3.0	4	8	50	●	●	●
	03504000V11050	3.5	4	11	50			
	04004000V11050	4.0	4	11	50	●	●	●
	05005000V13050	5.0	5	13	50	●	●	●
	05006000V13050	5.0	6	13	50	●	●	●
	06006000V15050	6.0	6	15	50	●	●	●
	07008000V20060	7.0	8	20	60	●	●	●
	08008000V20060	8.0	8	20	60	●	●	●
	09010000V25075	9.0	10	25	75	●	●	●
	10010000V25075	10.0	10	25	75	●	●	●
	12012000V30075	12.0	12	30	75	●	●	●
	14014000V35080	14.0	14	35	80	●	●	●
	16016000V45100	16.0	16	45	100	●	●	●
	18018000V45100	18.0	18	45	100			
	20020000V45100	20.0	20	45	100			

4 Flutes Long Length Endmills



ØD	Tolerance
Ø1~Ø12	0.00~0.02
Ø12.1~Ø20	0.00~0.03

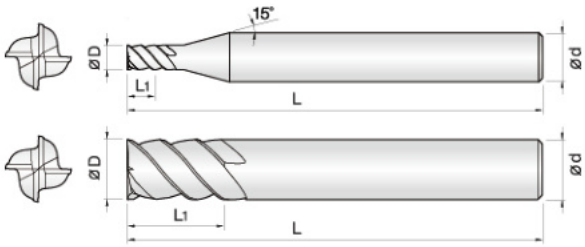
(mm)

Order Code		φD	φd	L1	L	Coating		
						~HRC52	HRC50~62	HRC52~68
						TT550	TS600	N400
4NFE	03003000V09075	3.0	3	9	75	●	●	●
	03004000V09075	3.0	4	9	75	●	●	●
	03003000V12100	3.0	3	12	100	●	●	●
	03004000V12100	3.0	4	12	100	●	●	●
	04004000V12075	4.0	4	12	75	●	●	●
	04004000V16100	4.0	4	16	100	●	●	●
	06006000V18075	6.0	6	18	75	●	●	●
	06006000V24100	6.0	6	24	100	●	●	●
	06006000V30150	6.0	6	30	150	●	●	●
	08008000V24075	8.0	8	24	75	●	●	●
	08008000V32100	8.0	8	32	100	●	●	●
	08008000V40150	8.0	8	40	150	●	●	●
	10010000V40100	10.0	10	40	100	●	●	●
	10010000V50150	10.0	10	50	150	●	●	●
	12012000V45100	12.0	12	45	100	●	●	●
	12012000V60150	12.0	12	60	150	●	●	●
	14014000V45100	14.0	14	45	100	●	●	●
	14014000V60150	14.0	14	60	150	●	●	●
	16016000V60150	16.0	16	60	150	●	●	●
	20020000V60150	20.0	20	60	150			

H Endmill

4 Flutes High Speed Helix 45° Endmills

ØD	Tolerance
Ø1~Ø12	0.00~0.02
Ø12.1~Ø20	0.00~0.03

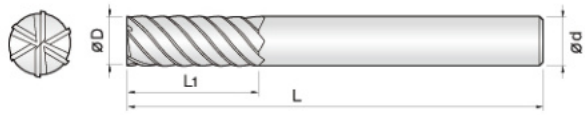


(mm)

Order Code		φD	φd	L1	L	Coating ~HRC52 TT550	Coating HRC50~62 TS600	Coating HRC52~68 N400
4NFE	01004000V03050S	1.0	4	3	50			
	01504000V04050S	1.5	4	4	50			
	02004000V06050S	2.0	4	6	50			
	02504000V08050S	2.5	4	8	50			
	03004000V08050S	3.0	4	8	50			
	04004000V11050S	4.0	4	11	50			
	05006000V16050S	5.0	6	16	50			
	06006000V16050S	6.0	6	16	50			
	08008000V20060S	8.0	8	20	60			
	10010000V25075S	10.0	10	25	75			
	12012000V30075S	12.0	12	30	75			
	14014000V40100S	14.0	14	40	100			
	16016000V45100S	16.0	16	45	100			
	18018000V45100S	18.0	18	45	100			
	20020000V45100S	20.0	20	45	100			

6 Flutes High Speed Helix 45° Endmills

ØD	Tolerance
Ø1~Ø12 Ø12.1~Ø20	0.00~0.02 0.00~0.03

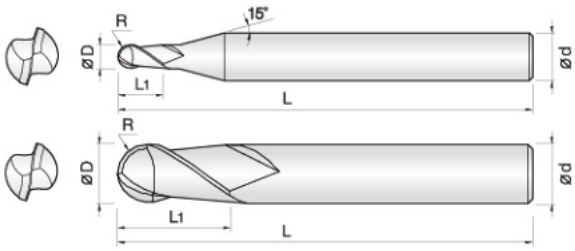


(mm)

Order Code		φD	φd	L1	L	Coating		
						~HRC52	HRC50~62	HRC52~68
						TT550	TS600	N400
6NFE	06006000V15050S	6.0	6	16	50			
	08008000V20060S	8.0	8	20	60			
	10010000V25075S	10.0	10	25	75			
	12012000V30075S	12.0	12	30	75			
	16016000V45100S	16.0	16	45	100			
	20020000V45100S	20.0	20	45	100			

2 Flutes Standard Length Ball Endmills

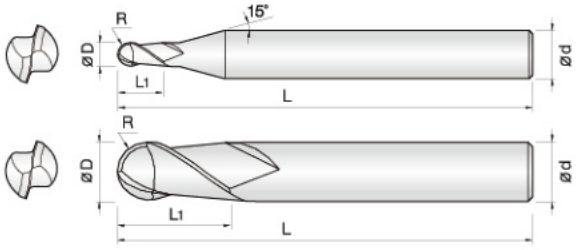
ØD	Tolerance
Ø1~Ø12	0.00~0.02
Ø12.1~Ø20	0.00~0.03



(mm)

Order Code		φD	φd	L1	L	R	Coating ~HRC52 TT550	Coating HRC50~62 TS600	Coating HRC52~68 N400
2NBE	01004050V02050	1.0	4	2	50	0.50	●	●	●
	01504075V03050	1.5	4	3	50	0.75	●	●	●
	02004100V04050	2.0	4	4	50	1.00	●	●	●
	02504125V05050	2.5	4	5	50	1.25	●	●	●
	03003150V06050	3.0	3	6	50	1.50	●	●	●
	03004150V06050	3.0	4	6	50	1.50	●	●	●
	03504175V07050	3.5	4	7	50	1.75	●	●	●
	04004200V08050	4.0	4	8	50	2.00	●	●	●
	05005250V10050	5.0	5	10	50	2.50	●	●	●
	05006250V10050	5.0	6	10	50	2.50	●	●	●
	06006300V12050	6.0	6	12	50	3.00	●	●	●
	08008400V16060	8.0	8	16	60	4.00	●	●	●
	10010500V20075	10.0	10	20	75	5.00	●	●	●
	12012600V25075	12.0	12	25	75	6.00	●	●	●
	16016800V30100	16.0	16	30	100	8.00	●	●	●

2 Flutes Long Length Ball Endmills



ØD	Tolerance
Ø1~Ø12	0.00~0.02
Ø12.1~Ø20	0.00~0.03

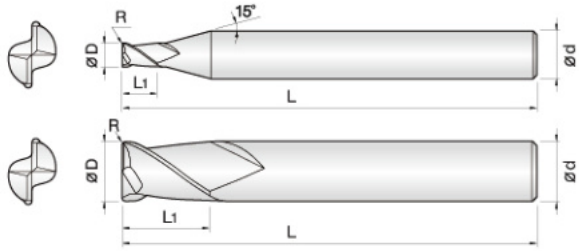
(mm)

Order Code		φD	φd	L1	L	R	Coating		
							~HRC52	HRC50~62	HRC52~68
							TT550	TS600	N400
2NBE	04004200V08075	4.0	4	8	75	2.00	●	●	●
	04004200V08100	4.0	4	8	100	2.00	●	●	●
	06006300V12075	6.0	6	12	75	3.00	●	●	●
	06006300V12100	6.0	6	12	100	3.00	●	●	●
	08008400V16075	8.0	8	16	75	4.00	●	●	●
	08008400V16100	8.0	8	16	100	4.00	●	●	●
	08008400V16150	8.0	8	16	150	4.00	●	●	●
	10010500V20100	10.0	10	20	100	5.00	●	●	●
	10010500V20150	10.0	10	20	150	5.00	●	●	●
	12012600V24100	12.0	12	24	100	6.00	●	●	●
	12012600V24150	12.0	12	24	150	6.00	●	●	●

H Endmill

2 Flutes Corner Radius Endmills

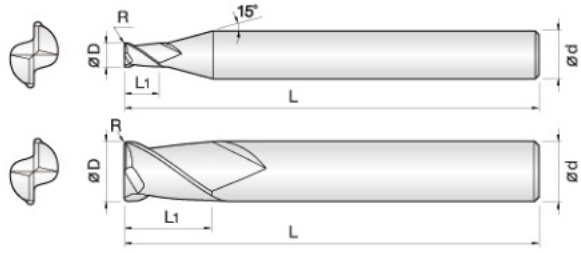
ØD	Tolerance
Ø1~Ø12	0.00~0.02
Ø12.1~Ø20	0.00~0.03



(mm)

Order Code		φD	φd	L1	L	R	Coating ~HRC52 TT550	Coating HRC50~62 TS600	Coating HRC52~68 N400
2NRE	01004020V03050	1.0	4	3	50	0.2			
	01504020V04050	1.5	4	4	50	0.2			
	02004020V05050	2.0	4	5	50	0.2			
	02004050V05050	2.0	4	5	50	0.5			
	03003020V08050	3.0	3	8	50	0.2			
	03004020V08050	3.0	4	8	50	0.2	●	●	●
	03003050V08050	3.0	3	8	50	0.5	●	●	●
	03004050V08050	3.0	4	8	50	0.5	●	●	●
	04004020V10050	4.0	4	10	50	0.2	●	●	●
	04004050V10050	4.0	4	10	50	0.5	●	●	●
	04004050V10075	4.0	4	10	75	0.5	●	●	●
	04004050V12100	4.0	4	12	100	0.5			
	04004100V10050	4.0	4	10	50	1.0	●	●	●
	04004100V10075	4.0	4	10	75	1.0	●	●	●
	06006020V15050	6.0	6	15	50	0.2	●	●	●
	06006050V15050	6.0	6	15	50	0.5	●	●	●
	06006050V15075	6.0	6	15	75	0.5	●	●	●
	06006050V18100	6.0	6	18	100	0.5	●	●	●
	06006100V15050	6.0	6	15	50	1.0	●	●	●
	06006100V15075	6.0	6	15	75	1.0	●	●	●
	06006100V18100	6.0	6	18	100	1.0	●	●	●
	08008050V20060	8.0	8	20	60	0.5	●	●	●
	08008050V20075	8.0	8	20	75	0.5	●	●	●
	08008050V24100	8.0	8	24	100	0.5	●	●	●
	08008050V32150	8.0	8	32	150	0.5			
	08008100V20060	8.0	8	20	60	1.0	●	●	●
	08008100V20075	8.0	8	20	75	1.0	●	●	●
	08008100V24100	8.0	8	24	100	1.0	●	●	●
	08008150V20060	8.0	8	20	60	1.5	●	●	●

2 Flutes Corner Radius Endmills



ØD	Tolerance
Ø1~Ø12	0.00~0.02
Ø12.1~Ø20	0.00~0.03

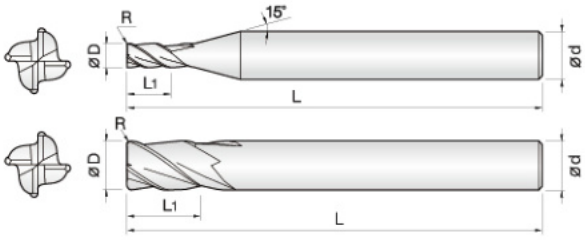
(mm)

Order Code		φD	φd	L1	L	R	Coating		
							~HRC52	HRC50~62	HRC52~68
							TT550	TS600	N400
2NRE	08008150V20075	8.0	8	20	75	1.5	●	●	●
	08008150V24100	8.0	8	24	100	1.5	●	●	●
	10010050V25075	10.0	10	25	75	0.5	●	●	●
	10010100V25075	10.0	10	25	75	1.0	●	●	●
	10010100V30100	10.0	10	30	100	1.0	●	●	●
	10010100V40150	10.0	10	40	150	1.0			
	10010150V25075	10.0	10	25	75	1.5	●	●	●
	10010150V30100	10.0	10	30	100	1.5	●	●	●
	10010150V40150	10.0	10	40	150	1.5			
	12012050V30075	12.0	12	30	75	0.5	●	●	●
	12012100V30075	12.0	12	30	75	1.0	●	●	●
	12012100V35100	12.0	12	35	100	1.0	●	●	●
	12012150V30075	12.0	12	30	75	1.5	●	●	●
	12012150V35100	12.0	12	35	100	1.5	●	●	●
	12012200V30075	12.0	12	30	75	2.0	●	●	●
	12012200V35100	12.0	12	35	100	2.0	●	●	●

H Endmill

4 Flutes Corner Radius Endmills

ØD	Tolerance
Ø1~Ø12 Ø12.1~Ø20	0.00~0.02 0.00~0.03

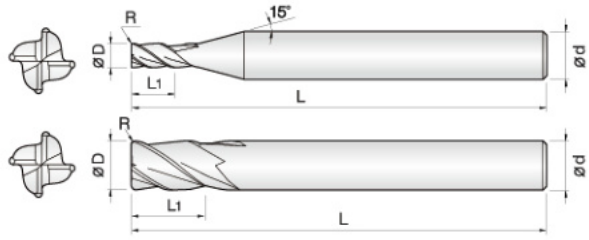


(mm)

Order Code		φD	φd	L1	L	R	Coating ~HRC52 TT550	Coating HRC50~62 TS600	Coating HRC52~68 N400
4NRE	01004020V03050	1.0	4	3	50	0.2			
	01504020V04050	1.5	4	4	50	0.2			
	02004020V05050	2.0	4	5	50	0.2			
	02004050V05050	2.0	4	5	50	0.5			
	03003020V08050	3.0	3	8	50	0.2			
	03004020V08050	3.0	4	8	50	0.2	●	●	●
	03003050V08050	3.0	3	8	50	0.5	●	●	●
	03004050V08050	3.0	4	8	50	0.5	●	●	●
	04004020V10050	4.0	4	10	50	0.2	●	●	●
	04004050V10050	4.0	4	10	50	0.5	●	●	●
	04004050V10075	4.0	4	10	75	0.5	●	●	●
	04004050V12100	4.0	4	12	100	0.5			
	04004100V10050	4.0	4	10	50	1.0	●	●	●
	04004100V10075	4.0	4	10	75	1.0	●	●	●
	06006020V15050	6.0	6	15	50	0.2	●	●	●
	06006050V15050	6.0	6	15	50	0.5	●	●	●
	06006050V15075	6.0	6	15	75	0.5	●	●	●
	06006050V18100	6.0	6	18	100	0.5	●	●	●
	06006100V15050	6.0	6	15	50	1.0	●	●	●
	06006100V15075	6.0	6	15	75	1.0	●	●	●
	06006100V18100	6.0	6	18	100	1.0	●	●	●
	08008050V20060	8.0	8	20	60	0.5	●	●	●
	08008050V20075	8.0	8	20	75	0.5	●	●	●
	08008050V24100	8.0	8	24	100	0.5	●	●	●
	08008050V32150	8.0	8	32	150	0.5			
	08008100V20060	8.0	8	20	60	1.0	●	●	●
	08008100V20075	8.0	8	20	75	1.0	●	●	●
	08008100V24100	8.0	8	24	100	1.0	●	●	●
	08008150V20060	8.0	8	20	60	1.5	●	●	●

4 Flutes Corner Radius Endmills

ØD	Tolerance
Ø1~Ø12	0.00~0.02
Ø12.1~Ø20	0.00~0.03

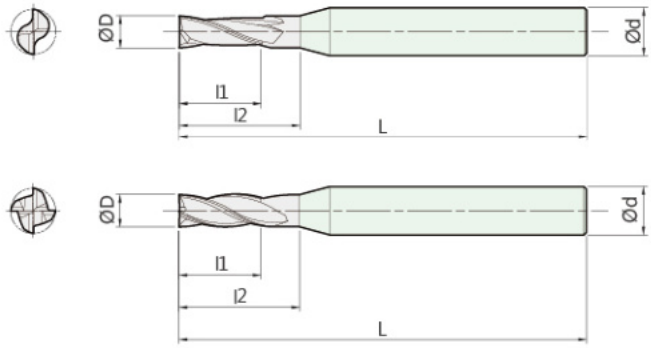


(mm)

Order Code		φD	φd	L1	L	R	Coating ~HRC52 TT550	Coating HRC50~62 TS600	Coating HRC52~68 N400
4NRE	08008150V20075	8.0	8	20	75	1.5	●	●	●
	08008150V24100	8.0	8	24	100	1.5	●	●	●
	10010050V25075	10.0	10	25	75	0.5	●	●	●
	10010100V25075	10.0	10	25	75	1.0	●	●	●
	10010100V30100	10.0	10	30	100	1.0	●	●	●
	10010100V40150	10.0	10	40	150	1.0			
	10010150V25075	10.0	10	25	75	1.5	●	●	●
	10010150V30100	10.0	10	30	100	1.5	●	●	●
	10010150V40150	10.0	10	40	150	1.5			
	12012050V30075	12.0	12	30	75	0.5	●	●	●
	12012100V30075	12.0	12	30	75	1.0	●	●	●
	12012100V35100	12.0	12	35	100	1.0	●	●	●
	12012150V30075	12.0	12	30	75	1.5	●	●	●
	12012150V35100	12.0	12	35	100	1.5	●	●	●
	12012200V30075	12.0	12	30	75	2.0	●	●	●
	12012200V35100	12.0	12	35	100	2.0	●	●	●

D Endmill

2&4 Flutes Endmills for Graphite

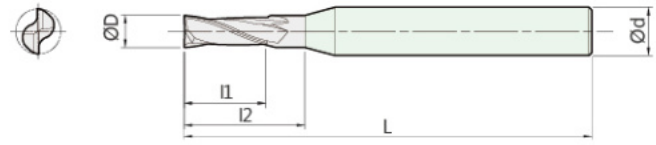


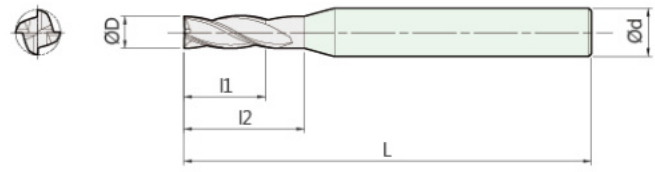
ØD	Tolerance
~Ø5.9	0.00~0.02
Ø6.0~	0.00~0.03

(mm)

Order Code		φD	φd	l1	l2	L	No.of flutes
2DFE	00504000N05050	0.5	4	1.0	5	50	2
	00604000N06050	0.6	4	1.2	6	50	2
	00604000N08050	0.6	4	1.2	8	50	2
	00804000N08050	0.8	4	2.0	8	50	2
	01004000V03060	1.0	4	3.0	-	60	2
	01004000N06060	1.0	4	3.0	6	60	2
	01004000N10060	1.0	4	3.0	10	60	2
	01004000N15060	1.0	4	3.0	15	60	2
	01004000N20060	1.0	4	3.0	20	60	2
4DFE	01504000V04060	1.5	4	4.0	-	60	4
	01504000N10060	1.5	4	4.0	10	60	4
	01504000N15060	1.5	4	4.0	15	60	4
	01504000N20080	1.5	4	4.0	20	80	4
	01504000N25080	1.5	4	4.0	25	80	4
	02004000V06060	2.0	4	6.0	-	60	4
	02004000N10060	2.0	4	6.0	10	60	4
	02004000N12060	2.0	4	6.0	12	60	4
	02004000N15060	2.0	4	6.0	15	60	4
	02004000N20080	2.0	4	6.0	20	80	4
	02004000N25080	2.0	4	6.0	25	80	4
	02004000N30080	2.0	4	6.0	30	80	4
	03004000V09050	3.0	4	9.0	-	50	4
	03004000N20080	3.0	4	9.0	20	80	4
	03004000N25080	3.0	4	9.0	25	80	4
	03004000N30080	3.0	4	9.0	30	80	4
	04004000V12050	4.0	4	12.0	-	50	4
	04004000N20060	4.0	4	10.0	20	60	4
	04004000N25060	4.0	4	10.0	25	60	4
	04004000N20080	4.0	4	10.0	20	80	4

2&4 Flutes Endmills for Graphite





ØD	Tolerance
~Ø5.9	0.00~0.02
Ø6.0~	0.00~0.03

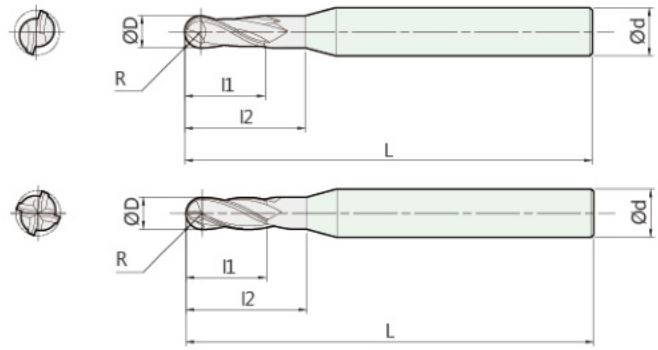
(mm)

Order Code		φD	φd	l1	l2	L	No.of flutes
4DFE	04004000N25080	4.0	4	10.0	25	80	4
	06006000N30080	6.0	6	18.0	30	80	4
	06006000N40110	6.0	6	18.0	40	110	4
	06006000N50150	6.0	6	18.0	50	150	4
	08008000N40110	8.0	8	20.0	40	110	4
	08008000N50150	8.0	8	20.0	50	150	4
	10010000V40110	10.0	10	30.0	40	110	4
	10010000N50150	10.0	10	30.0	50	150	4
	12012000N50110	12.0	12	30.0	50	110	4
	12012000N60150	12.0	12	30.0	60	150	4

D Endmill

2&4 Flutes Ball Endmills for Graphite

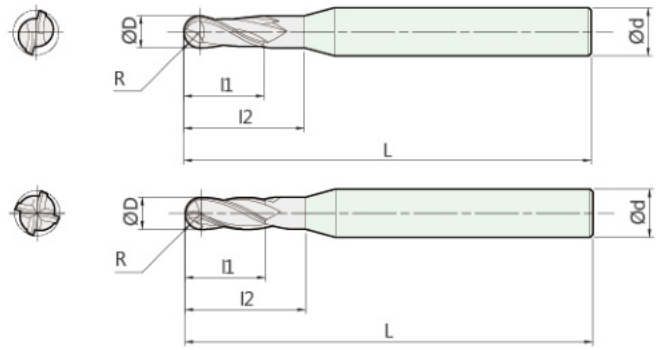
ØD	Tolerance
~Ø5.9	0.00~0.02
Ø6.0~	0.00~0.03



(mm)

Order Code		φD	φd	l1	l2	L	R	No.of flutes
2DBE	00504025N05050	0.5	4	1.2	5	50	0.25	2
	00504025N10050	0.5	4	1.2	10	50	0.25	2
	00604030N06050	0.6	4	1.5	6	50	0.30	2
	00604030N08050	0.6	4	1.5	8	50	0.30	2
	00604030N10050	0.6	4	1.5	10	50	0.30	2
	00604030N15050	0.6	4	1.5	15	50	0.30	2
	01004050V03060	1.0	4	3.0	-	60	0.50	2
	01004050N06060	1.0	4	2.5	6	60	0.50	2
	01004050N08060	1.0	4	2.5	8	60	0.50	2
	01004050N10060	1.0	4	2.5	10	60	0.50	2
	01004050N15060	1.0	4	2.5	15	60	0.50	2
	01004050N20060	1.0	4	2.5	20	60	0.50	2
	01004050N10080	1.0	4	2.5	10	80	0.50	2
	01004050N15080	1.0	4	2.5	15	80	0.50	2
	01004050N20080	1.0	4	2.5	20	80	0.50	2
	01504075N08060	1.5	4	4.0	8	60	0.75	2
	01504075N12060	1.5	4	4.0	12	60	0.75	2
	01504075N15060	1.5	4	4.0	15	60	0.75	2
	01504075N20060	1.5	4	4.0	20	60	0.75	2
	01504075N25080	1.5	4	4.0	25	80	0.75	2
	01504075N30080	1.5	4	4.0	30	80	0.75	2
	02004100V05060	2.0	4	5.0	-	60	1.00	2
	02004100N08060	2.0	4	5.0	8	60	1.00	2
	02004100N10060	2.0	4	5.0	10	60	1.00	2
	02004100N15060	2.0	4	5.0	15	60	1.00	2
	02004100N20060	2.0	4	5.0	20	60	1.00	2
	02004100N16080	2.0	4	5.0	16	80	1.00	2
	02004100N20080	2.0	4	5.0	20	80	1.00	2
	02004100N25080	2.0	4	5.0	25	80	1.00	2

2&4 Flutes Ball Endmills for Graphite



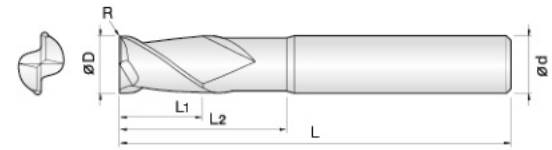
ØD	Tolerance
~Ø5.9	0.00~0.02
Ø6.0~	0.00~0.03

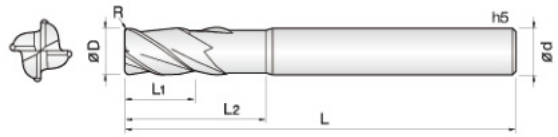
(mm)

	Order Code	φD	φd	l1	l2	L	R	No.of flutes
2DBE	02004100N30080	2.0	4	5.0	30	80	1.00	2
	03004150V08060	3.0	4	8.0	-	60	1.50	2
	03004150N20080	3.0	4	7.5	20	80	1.50	2
	03004150N25080	3.0	4	7.5	25	80	1.50	2
	03004150N30100	3.0	4	7.5	30	100	1.50	2
	04004200V10050	4.0	4	10.0	-	50	2.00	2
	04004200N20080	4.0	4	10.0	20	80	2.00	2
	04004200N30080	4.0	4	10.0	30	80	2.00	2
	04004200N30100	4.0	4	10.0	30	100	2.00	2
	06006300N30080	6.0	6	15.0	30	80	3.00	2
4DBE	06006300N40110	6.0	6	15.0	40	110	3.00	4
	06006300N50150	6.0	6	15.0	50	150	3.00	4
	08008400N40110	8.0	8	20.0	40	110	4.00	4
	08008400N50150	8.0	8	20.0	50	150	4.00	4
	10010500V40110	10.0	10	30.0	40	110	5.00	4
	10010500N50150	10.0	10	30.0	50	150	5.00	4
	12012600N50110	12.0	12	30.0	50	110	6.00	4
	12012600N60150	12.0	12	30.0	60	150	6.00	4

D Endmill

2&4 Flutes Corner Radius Endmills for Graphite



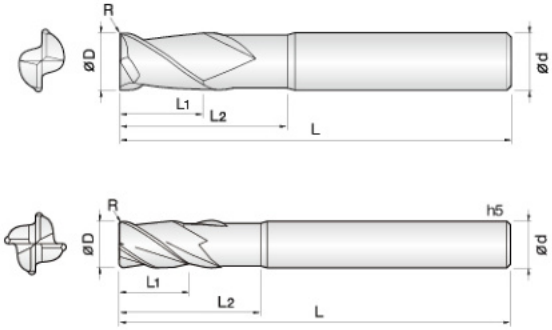


ØD	Tolerance
~Ø5.9	0.00~0.02
Ø6.0~	0.00~0.03

(mm)

Order Code		φD	φd	L1	L2	L	R	No.of flutes
2DRE	00504005N07050	0.5	4	1.0	7	50	0.05	2
	00504005N10050	0.5	4	1.0	10	50	0.05	2
	00804005N06050	0.8	4	2.0	6	50	0.05	2
	00804005N08050	0.8	4	2.0	8	50	0.05	2
	01004010N12050	1.0	4	2.5	12	50	0.10	2
	01004020N10050	1.0	4	2.5	10	50	0.20	2
4DRE	01504020N10050	1.5	4	3.0	10	50	0.20	4
	02004010N15050	2.0	4	5.0	15	50	0.10	4
	02004020N10060	2.0	4	5.0	10	60	0.20	4
	02004020N15060	2.0	4	5.0	15	60	0.20	4
	02004020N20080	2.0	4	5.0	20	80	0.20	4
	02004020N25080	2.0	4	5.0	25	80	0.20	4
	03004010N18050	3.0	4	8.0	18	50	0.10	4
	03004020N20080	3.0	4	8.0	20	80	0.20	4
	03004020N25080	3.0	4	8.0	25	80	0.20	4
	03004020N30080	3.0	4	8.0	30	80	0.20	4
	04004020V12050	4.0	4	12.0	-	50	0.20	4
	04004020N16060	4.0	4	10.0	16	60	0.20	4
	04004030V12060	4.0	4	12.0	-	60	0.30	4
	04004020N20080	4.0	4	10.0	20	80	0.20	4
	04004020N25080	4.0	4	10.0	25	80	0.20	4
	04004020N30080	4.0	4	10.0	30	80	0.20	4
	04004050N20080	4.0	4	10.0	20	80	0.50	4
	04004050N30080	4.0	4	10.0	30	80	0.50	4
	04004050N30100	4.0	4	10.0	30	100	0.50	4
	06006020N30080	6.0	6	15.0	30	80	0.20	4
	06006030N30080	6.0	6	15.0	30	80	0.30	4
	06006050N40110	6.0	6	15.0	40	110	0.50	4
	06006050N50150	6.0	6	15.0	50	150	0.50	4

2&4 Flutes Corner Radius Endmills for Graphite

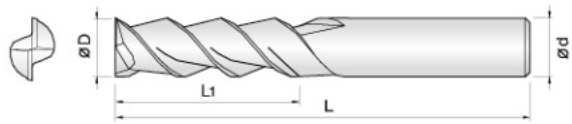


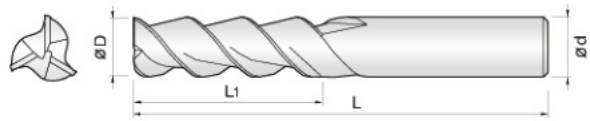
ØD	Tolerance
~Ø5.9	0.00~0.02
Ø6.0~	0.00~0.03

(mm)

Order Code		φD	φd	L1	L2	L	R	No.of flutes
4DRE	08008050N40110	8.0	8	20.0	40	110	0.50	4
	08008050N50150	8.0	8	20.0	50	150	0.50	4
	10010050N40110	10.0	10	25.0	40	110	0.50	4
	10010050N60150	10.0	10	25.0	60	150	0.50	4
	12012050N50110	12.0	12	30.0	50	110	0.50	4
	12012050N60150	12.0	12	30.0	60	150	0.50	4

2&3 Flutes 45°Helix End Mills for Aluminum





ØD	Tolerance
Ø1~Ø12	0.00~0.02
Ø12.1~Ø20	0.00~0.03

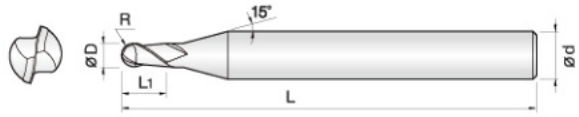
(mm)

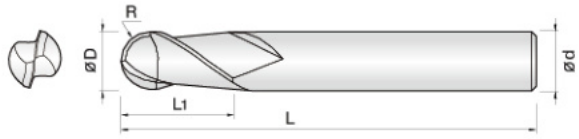
Order Code		φD	φd	L1	L	Carbide Non-coated TPK01	Carbide Coated PDL025	Fig.
2AFE	01004000V03050	1.0	4	3	50	●		1
	01504000V04050	1.5	4	4	50	●		1
	02004000V06050	2.0	4	6	50	●		1
	02504000V08050	2.5	4	8	50	●		1
	03003000V08050	3.0	3	8	50	●		1
	03004000V08050	3.0	4	8	50	●		1
	04004000V11050	4.0	4	11	50	●		1
	05006000V13050	5.0	6	13	50	●		1
	06006000V13050	6.0	6	13	50	●		1
	08008000V20060	8.0	8	20	60	●		1
	10010000V25075	10.0	10	25	75	●		1
	12012000V30075	12.0	12	30	75	●		1
	14014000V45080	14.0	14	45	80	●		1
	16016000V45100	16.0	16	45	100	●		1
	18018000V45100	18.0	18	45	100	●		1
	20020000V45100	20.0	20	45	100	●		1
	02004000V08100	2.0	4	8	100	●		1
	03003000V09075	3.0	3	9	75	●		1
	03003000V12100	3.0	3	12	100	●		1
	03004000V12100	3.0	4	12	100	●		1
	04004000V12075	4.0	4	12	75	●		1
	04004000V16100	4.0	4	16	100	●		1
	06006000V18075	6.0	6	18	75	●		1
	06006000V24100	6.0	6	24	100	●		1
	06006000V30150	6.0	6	30	150	●		1
	08008000V24075	8.0	8	24	75	●		1
	08008000V32100	8.0	8	32	100	●		1
	08008000V40150	8.0	8	40	150	●		1
	08008000V40200	8.0	8	40	200	●		1
	10010000V40100	10.0	10	40	100	●		1
	10010000V50150	10.0	10	50	150	●		1
	10010000V50200	10.0	10	50	200	●		1
	12012000V45100	12.0	12	45	100	●		1
	12012000V60150	12.0	12	60	150	●		1

(mm)

	Order Code	φD	φd	L1	L	Carbide Non-coated TPK01	Carbide Coated PDL025	Fig.
	12012000V60200	12.0	12	60	200	●		1
	14014000V45100	14.0	14	45	100	●		1
	14014000V60150	14.0	14	60	150	●		1
	14014000V60200	14.0	14	60	200	●		1
	16016000V60150	16.0	16	60	150	●		1
	16016000V60200	16.0	16	60	200	●		1
	18018000V60150	18.0	18	60	150	●		1
	20020000V60150	20.0	20	60	150	●		1
	20020000V60200	20.0	20	60	200	●		1
3AFE	01004000V03050	1.0	4	3	50	●		2
	01504000V04050	1.5	4	4	50	●		2
	02004000V06050	2.0	4	6	50	●		2
	02504000V08050	2.5	4	8	50	●		2
	03003000V08050	3.0	3	8	50	●		2
	03004000V08050	3.0	4	8	50	●		2
	04004000V11050	4.0	4	11	50	●		2
	05006000V13050	5.0	6	13	50	●		2
	06006000V13050	6.0	6	13	50	●		2
	08008000V20060	8.0	8	20	60	●		2
	10010000V25075	10.0	10	25	75	●		2
	12012000V30075	12.0	12	30	75	●		2
	14014000V45080	14.0	14	45	80	●		2
	16016000V45100	16.0	16	45	100	●		2
	18018000V45100	18.0	18	45	100	●		2
	20020000V45100	20.0	20	45	100	●		2
	02004000V08100	2.0	4	8	100	●		2
	03003000V09075	3.0	3	9	75	●		2
	03003000V12100	3.0	3	12	100	●		2
	03004000V12100	3.0	4	12	100	●		2
	04004000V12075	4.0	4	12	75	●		2
	04004000V16100	4.0	4	16	100	●		2
	06006000V18075	6.0	6	18	75	●		2
	06006000V24100	6.0	6	24	100	●		2
	06006000V30150	6.0	6	30	150	●		2
	08008000V24075	8.0	8	24	75	●		2
	08008000V32100	8.0	8	32	100	●		2
	08008000V40150	8.0	8	40	150	●		2
	08008000V40200	8.0	8	40	200	●		2
	10010000V40100	10.0	10	40	100	●		2
	10010000V50150	10.0	10	50	150	●		2
	10010000V50200	10.0	10	50	200	●		2
	12012000V45100	12.0	12	45	100	●		2
	12012000V60150	12.0	12	60	150	●		2
	12012000V60200	12.0	12	60	200	●		2
	14014000V45100	14.0	14	45	100	●		2
	14014000V60150	14.0	14	60	150	●		2
	14014000V60200	14.0	14	60	200	●		2
	16016000V60150	16.0	16	60	150	●		2
	16016000V60200	16.0	16	60	200	●		2
	18018000V60150	18.0	18	60	150	●		2
	20020000V60150	20.0	20	60	150	●		2
	20020000V60200	20.0	20	60	200	●		2

2 Flutes 45°Helix Ball End Mills for Aluminum



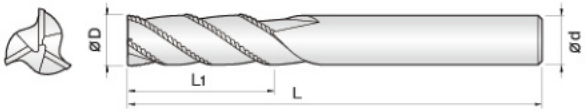


ØD	Tolerance
Ø1~Ø12	0.00~0.02

(mm)

Order Code		φD	φd	L1	L	R	Carbide	
							Non-coated	Coated
							TPK01	PDL025
2ABE	01004050V02050	1.0	4	2	50	0.50	●	
	01504075V03050	1.5	4	3	50	0.75	●	
	02004100V04050	2.0	4	4	50	1.00	●	
	02504125V05050	2.5	4	5	50	1.25	●	
	03004150V06050	3.0	4	6	50	1.50	●	
	04004200V08050	4.0	4	8	50	2.00	●	
	04006200V08050	4.0	6	8	50	2.00	●	
	05006250V10050	5.0	6	10	50	2.50	●	
	06006300V12050	6.0	6	12	50	3.00	●	
	08008400V16060	8.0	8	16	60	4.00	●	
	10010500V20075	10.0	10	20	75	5.00	●	
	12012600V24075	12.0	12	24	75	6.00	●	
	12012600V24100	12.0	12	24	100	6.00	●	

3 Flutes 45°Helix Roughing End Mills for Aluminum



ØD	Tolerance
Ø1~Ø12	0.00~0.02

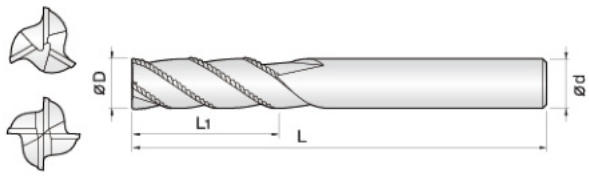
(mm)

Order Code		φD	φd	L1	L	Carbide	
						Non-coated	Coated
						TPK01	PDL025
3RAFE	04004000V10050	4.0	4	10	50	●	
	05006000V13050	5.0	6	13	50	●	
	06006000V16050	6.0	6	16	50	●	
	08008000V20060	8.0	8	20	60	●	
	10010000V25075	10.0	10	25	75	●	
	12012000V30075	12.0	12	30	75	●	
	16016000V45100	16.0	16	45	100	●	
	20020000V45100	20.0	20	45	100	●	

R Endmill

3&4 Flutes Roughing End Mills

ØD	Tolerance
Ø5~Ø20	0.00~0.05

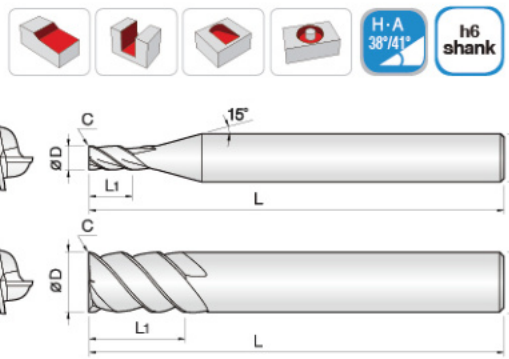


(mm)

Order Code		φD	φd	L1	L	Coating ~HRC52 TT550	Coating HRC50~62 TS600	Coating HRC52~68 N400
3RFE	04004000V10050	4.0	4	10	50	●	●	●
	05006000V13050	5.0	6	13	50	●	●	●
	06006000V16050	6.0	6	16	50	●	●	●
	08008000V20060	8.0	8	20	60	●	●	●
	10010000V25075	10.0	10	25	75	●	●	●
	12012000V30075	12.0	12	30	75	●	●	●
	16016000V45100	16.0	16	45	100	●	●	●
	20020000V45100	20.0	20	45	100			
4RFE	04004000V10050	4.0	4	10	50	●	●	●
	05006000V13050	5.0	6	13	50	●	●	●
	06006000V16050	6.0	6	16	50	●	●	●
	08008000V20060	8.0	8	20	60	●	●	●
	10010000V25075	10.0	10	25	75	●	●	●
	12012000V30075	12.0	12	30	75	●	●	●
	16016000V45100	16.0	16	45	100	●	●	●
	20020000V45100	20.0	20	45	100			

4 Flutes Variable Helix End Mills for SUS & HRSA etc

ØD	Tolerance
Ø2.5~Ø9	0.00~0.02
Ø10~Ø16	0.00~0.03

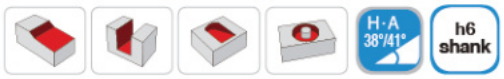


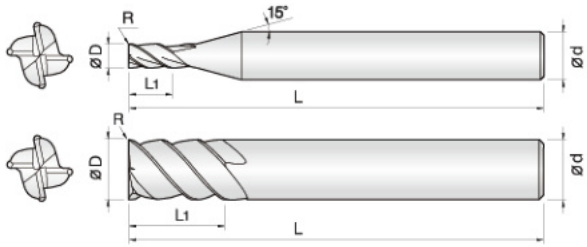
(mm)

	Order Code	φD	φd	L1	Avoidance diameter	L	C A Shield Edge	C B Shield Edge	Carbide HRC62 TSM600	Carbide HRC62 PDL025
4VFE	03004000V08050	3.0	4	8	-	50			●	
	04004000V10050	4.0	4	10	-	50			●	
	05005000V13050	5.0	5	13	-	50			●	
	05006000V13050	5.0	6	13	-	50			●	
	06006000V15050	6.0	6	15	-	50			●	
	08008000V20060	8.0	8	20	-	60			●	
	10010000V25075	10.0	10	25	-	75			●	
	12012000V30075	12.0	12	30	-	75			●	
	14014000V35100	14.0	14	35	-	100			●	
	16016000V40100	16.0	16	40	-	100			●	
	18018000V40100	18.0	18	40	-	100			●	
	20020000V45100	20.0	20	45	-	100			●	
	04004000V10075	4.0	4	10	-	75			●	
	06006000V15075	6.0	6	15	-	75			●	
	08008000V20075	8.0	8	20	-	75			●	
	04004000V12100	4.0	4	12	-	100			●	
	06006000V18100	6.0	6	18	-	100			●	
	08008000V24100	8.0	8	24	-	100			●	
	10010000V30100	10.0	10	30	-	100			●	
	12012000V36100	12.0	12	36	-	100			●	
	06006000V18150	6.0	6	18	5.8	150			●	
	08008000V24150	8.0	8	24	7.8	150			●	
	10010000V30150	10.0	10	30	9.8	150			●	
	12012000V36150	12.0	12	36	11.8	150			●	
	14014000V42150	14.0	14	42	13.8	150			●	
	16016000V48150	16.0	16	48	15.8	150				
	18018000V54150	18.0	18	54	17.8	150				
	20020000V60150	20.0	20	60	19.8	150				

S Endmill

4 Flutes Variable Helix End Mills for SUS & HRSA etc





ØD	Tolerance
Ø2.5~Ø9	0.00~0.02
Ø10~Ø16	0.00~0.03

(mm)

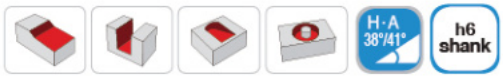
	Order Code	φD	φd	L1	Avoidance diameter	L	R	Carbide ~HRC62 TSM600	Carbide ~HRC62 PDL025
4VFE	03004050V08050	3.0	4	8	-	50	0.5	●	
	04004050V10050	4.0	4	10	-	50	0.5	●	
	04004100V10050	4.0	4	10	-	50	1.0	●	
	05005050V13050	5.0	5	13	-	50	0.5	●	
	05005100V13050	5.0	5	13	-	50	1.0	●	
	05006050V13050	5.0	6	13	-	50	0.5	●	
	05006100V13050	5.0	6	13	-	50	1.0	●	
	06006050V15050	6.0	6	15	-	50	0.5	●	
	06006100V15050	6.0	6	15	-	50	1.0	●	
	08008050V20060	8.0	8	20	-	60	0.5	●	
	08008100V20060	8.0	8	20	-	60	1.0	●	
	08008200V20060	8.0	8	20	-	60	2.0	●	
	10010050V25075	10.0	10	25	-	75	0.5	●	
	10010100V25075	10.0	10	25	-	75	1.0	●	
	10010200V25075	10.0	10	25	-	75	2.0	●	
	12012050V30075	12.0	12	30	-	75	0.5	●	
	12012100V30075	12.0	12	30	-	75	1.0	●	
	12012200V30075	12.0	12	30	-	75	2.0	●	
	14014050V35100	14.0	14	35	-	100	0.5	●	
	14014100V35100	14.0	14	35	-	100	1.0	●	
	14014200V35100	14.0	14	35	-	100	2.0	●	
	16016050V40100	16.0	16	40	-	100	0.5	●	
	16016100V40100	16.0	16	40	-	100	1.0	●	
	16016200V40100	16.0	16	40	-	100	2.0	●	
	18018050V40100	18.0	18	40	-	100	0.5	●	
	18018100V40100	18.0	18	40	-	100	1.0	●	
	18018200V40100	18.0	18	40	-	100	2.0	●	
	20020050V45100	20.0	20	45	-	100	0.5	●	
	20020100V45100	20.0	20	45	-	100	1.0	●	

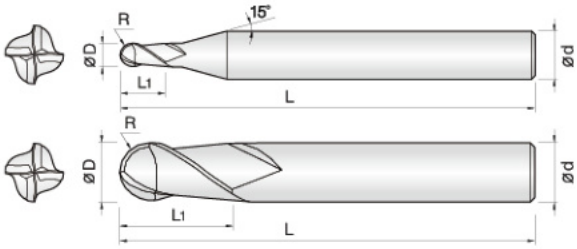
(mm)

	Order Code	φD	φd	L1	Avoidance diameter	L	R	Carbide ~HRC62 TSM600	Carbide ~HRC62 PDL025
4VFE	20020200V45100	20.0	20	45	-	100	2.0	●	●
	04004050V10075	4.0	4	10	-	75	0.5	●	●
	04004100V10075	4.0	4	10	-	75	1.0	●	●
	06006050V15075	6.0	6	15	-	75	0.5	●	●
	06006100V15075	6.0	6	15	-	75	1.0	●	●
	08008050V20075	8.0	8	20	-	75	0.5	●	●
	08008100V20075	8.0	8	20	-	75	1.0	●	●
	08008200V20075	8.0	8	20	-	75	2.0	●	●
	04004050V12100	4.0	4	12	-	100	0.5	●	●
	04004100V12100	4.0	4	12	-	100	1.0	●	●
	06006050V18100	6.0	6	18	-	100	0.5	●	●
	06006100V18100	6.0	6	18	-	100	1.0	●	●
	08008050V24100	8.0	8	24	-	100	0.5	●	●
	08008100V24100	8.0	8	24	-	100	1.0	●	●
	08008200V24100	8.0	8	24	-	100	2.0	●	●
	10010050V30100	10.0	10	30	-	100	0.5	●	●
	10010100V30100	10.0	10	30	-	100	1.0	●	●
	10010200V30100	10.0	10	30	-	100	2.0	●	●
	12012050V36100	12.0	12	36	-	100	0.5	●	●
	12012100V36100	12.0	12	36	-	100	1.0	●	●
	12012200V36100	12.0	12	36	-	100	2.0	●	●
	06006050V18150	6.0	6	18	5.8	150	0.5	●	●
	06006100V18150	6.0	6	18	5.8	150	1.0	●	●
	08008050V24150	8.0	8	24	7.8	150	0.5	●	●
	08008100V24150	8.0	8	24	7.8	150	1.0	●	●
	08008200V24150	8.0	8	24	7.8	150	2.0	●	●
	10010050V30150	10.0	10	30	9.8	150	0.5	●	●
	10010100V30150	10.0	10	30	9.8	150	1.0	●	●
	10010200V30150	10.0	10	30	9.8	150	2.0	●	●
	12012050V36150	12.0	12	36	11.8	150	0.5	●	●
	12012100V36150	12.0	12	36	11.8	150	1.0	●	●
	12012200V36150	12.0	12	36	11.8	150	2.0	●	●
	14014050V42150	14.0	14	42	13.8	150	0.5	●	●
	14014100V42150	14.0	14	42	13.8	150	1.0	●	●
	14014200V42150	14.0	14	42	13.8	150	2.0	●	●
	16016050V48150	16.0	16	48	15.8	150	0.5	●	●
	16016100V48150	16.0	16	48	15.8	150	1.0	●	●
	16016200V48150	16.0	16	48	15.8	150	2.0	●	●
	18018050V54150	18.0	18	54	17.8	150	0.5		
	18018100V54150	18.0	18	54	17.8	150	1.0		
	18018200V54150	18.0	18	54	17.8	150	2.0		
	20020050V60150	20.0	20	60	19.8	150	0.5		
	20020100V60150	20.0	20	60	19.8	150	1.0		
	20020200V60150	20.0	20	60	19.8	150	2.0		

4 Flutes Variable Helix Ball End Mills for SUS & HRSA etc

ØD	Tolerance
Ø2.5~Ø9	0.00~0.02
Ø10~Ø16	0.00~0.03

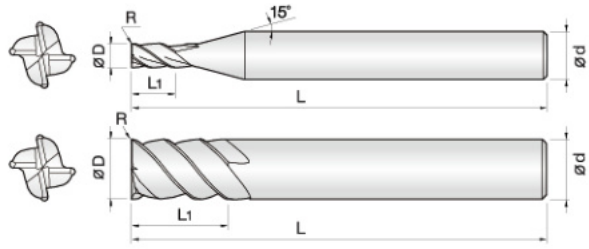




(mm)

Order Code		φD	φd	L1	Avoidance diameter	L	R	Carbide ~HRC62 TSM600	Carbide ~HRC62 PDL025
4VBE	03004150V06050	3.0	4	6	-	50	1.5	●	
	04004200V08050	4.0	4	8	-	50	2.0	●	
	05005250V10050	5.0	5	10	-	50	2.5	●	
	05006250V10050	5.0	6	10	-	50	2.5	●	
	06006300V12050	6.0	6	12	-	50	3.0	●	
	08008400V16060	8.0	8	16	-	60	4.0	●	
	10010500V20075	10.0	10	20	-	75	5.0	●	
	12012600V24075	12.0	12	24	-	75	6.0	●	
	04004200V08075	4.0	4	8	-	75	2.0	●	
	06006300V12075	6.0	6	12	-	75	3.0	●	
	08008400V16075	8.0	8	16	-	75	4.0	●	
	04004200V08100	4.0	4	8	-	75	2.0		
	06006300V12100	6.0	6	12	-	100	3.0		
	08008400V16100	8.0	8	16	-	100	4.0		
	10010500V20100	10.0	10	20	-	100	5.0		
	12012600V24100	12.0	12	24	-	100	6.0		

4 Flutes Non Symmetry Corner Radius End Mills for SUS



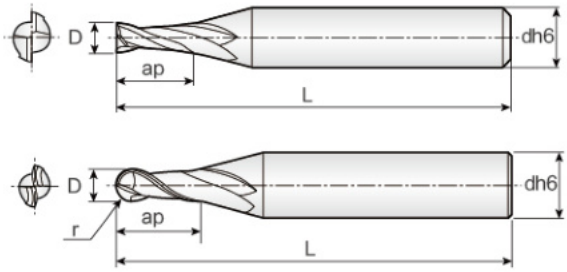
ØD	Tolerance
Ø2.5~Ø9	0.00~0.02
Ø10~Ø16	0.00~0.03

(mm)

Order Code		φD	φd	L1	L	R	Carbide ~HRC62 TSM600	Carbide ~HRC62 PDL025
4SPFE	04004050V10050	4.0	4	10	50	0.5	●	
	06006050V15050	6.0	6	15	50	0.5	●	
	08008050V20060	8.0	8	20	60	0.5	●	
	10010050V25075	10.0	10	25	75	0.5	●	
	12012050V30075	12.0	12	30	75	0.5	●	
	16016050V40100	16.0	16	40	100	0.5		
	16016100V40100	16.0	16	40	100	1.0		

2 Flutes Micro End Mills

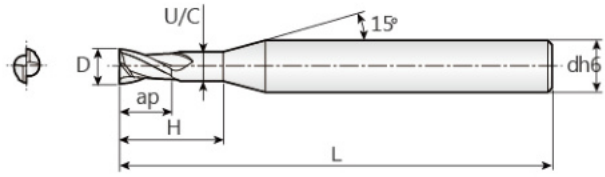
ØD	Tolerance
AII	0.00~0.012

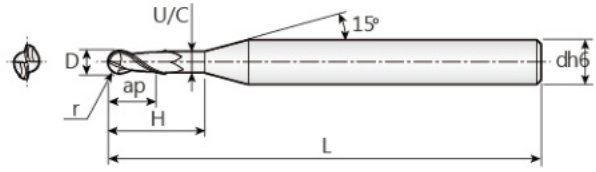


(mm)

	Order Code	φD	φd	L1	L	R	Coating ~HRC52 TT550	Coating HRC50~62 TS600	Coating HRC52~68 N400
2MFE	00204000V004050	0.2	4	0.4	50	-	●	●	●
	00304000V006050	0.3	4	0.6	50	-	●	●	●
	00404000V008050	0.4	4	0.8	50	-	●	●	●
	00504000V010050	0.5	4	1.0	50	-	●	●	●
	00604000V012050	0.6	4	1.2	50	-	●	●	●
	00704000V014050	0.7	4	1.4	50	-	●	●	●
	00804000V016050	0.8	4	1.6	50	-	●	●	●
	00904000V018050	0.9	4	1.8	50	-	●	●	●
	01004000V025050	1.0	4	2.5	50	-	●	●	●
	01204000V040050	1.2	4	4.0	50	-	●	●	●
	01504000V040050	1.5	4	4.0	50	-	●	●	●
2MBE	00204010V004050	0.2	4	0.4	50	0.10	●	●	●
	00304015V006050	0.3	4	0.6	50	0.15	●	●	●
	00404020V008050	0.4	4	0.8	50	0.20	●	●	●
	00504025V010050	0.5	4	1.0	50	0.25	●	●	●
	00604030V012050	0.6	4	1.2	50	0.30	●	●	●
	00704035V014050	0.7	4	1.4	50	0.35	●	●	●
	00804040V016050	0.8	4	1.6	50	0.40	●	●	●
	00904045V018050	0.9	4	1.8	50	0.45	●	●	●
	01004050V025050	1.0	4	2.5	50	0.50	●	●	●
	01204060V030050	1.2	4	3.0	50	0.60	●	●	●
	01504075V040050	1.5	4	4.0	50	0.75	●	●	●

2 Flutes Micro Rib End Mills





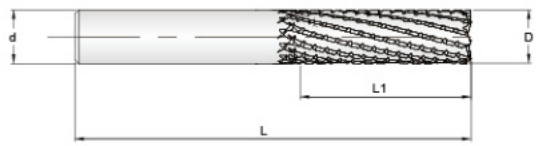
ØD	Tolerance
AII	0.00~0.015

(mm)

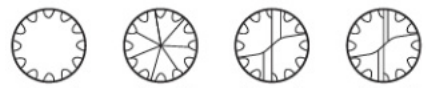
	Order Code	φD	φd	L1	L2	L	UC	R	Coating ~HRC52 TT550	HRC50~62 TS600	HRC52~68 N400
2RMFE	00204000N010050	0.2	4	0.4	1.0	50	-	-	●	●	●
	00304000N015050	0.3	4	0.6	1.5	50	-	-	●	●	●
	00404000N020050	0.4	4	0.8	2.0	50	0.37	-	●	●	●
	00504000N025050	0.5	4	1.0	2.5	50	0.45	-	●	●	●
	00604000N030050	0.6	4	1.2	3.0	50	0.55	-	●	●	●
	00704000N035050	0.7	4	1.4	3.5	50	0.65	-	●	●	●
	00804000N040050	0.8	4	1.6	4.0	50	0.75	-	●	●	●
	00904000N045050	0.9	4	1.8	4.5	50	0.85	-	●	●	●
	01004000N060050	1.0	4	1.8	6.0	50	0.97	-	●	●	●
	01204000N080050	1.2	4	1.8	8.0	50	1.17	-	●	●	●
	01504000N100050	1.5	4	2.3	10.0	50	1.45	-	●	●	●
2RMBE	00204010N010050	0.2	4	0.4	1.0	50	-	0.10	●	●	●
	00304015N015050	0.3	4	0.6	1.5	50	-	0.15	●	●	●
	00404020N020050	0.4	4	0.8	2.0	50	0.36	0.20	●	●	●
	00504025N025050	0.5	4	1.0	2.5	50	0.45	0.25	●	●	●
	00604030N030050	0.6	4	1.2	3.0	50	0.55	0.30	●	●	●
	00704035N035050	0.7	4	1.4	3.5	50	0.65	0.35	●	●	●
	00804040N040050	0.8	4	1.6	4.0	50	0.75	0.40	●	●	●
	00904045N045050	0.9	4	1.8	4.5	50	0.85	0.45	●	●	●
	01004050N060050	1.0	4	1.8	6.0	50	0.97	0.50	●	●	●
	01204060N080050	1.2	4	1.8	8.0	50	1.17	0.60	●	●	●
	01504075N100050	1.5	4	2.3	10.0	50	1.45	0.75	●	●	●

CR Endmill

Solid Carbide, CFRP Routers with Chip Breaker Helical Flutes



ØD	Tolerance
Ø4~12	0.02~0.08



Type 1 No End Cut | Type 2 Burr End | Type 3 End Mill End | Type 4 Drill End

INCH SIZES

(mm)

Order Code				D		d	L1	L	No.of flutes
Type1	Type2	Type3	Type4	Fraction	Decimal				
2CPR0125V005003	6CPHR0125V005003	4CPHR0125V005003	4CPDR0125V005003	1/8	0.1250	1/8	1/2	3	Multi Fltues
2CPR0250V010003	6CPHR0250V010003	4CPHR0250V010003	4CPDR0250V010003	1/4	0.2500	1/4	1	3	Multi Fltues
2CPR0375V010003	6CPHR0375V010003	4CPHR0375V010003	4CPDR0375V010003	3/8	0.3750	3/8	1	3	Multi Fltues
2CPR0500V015004	6CPHR0500V015004	4CPHR0500V015004	4CPDR0500V015004	1/2	0.5000	1/2	1-1/2	4	Multi Fltues

METRIC SIZES

(mm)

Order Code				D	d	L1	L	No.of flutes
Type1	Type2	Type3	Type4					
2CPR03003000V09050	6CPHR03003000V09050	4CPHR03003000V09050	4CPDR03003000V09050	3.0	3	9	50	Multi Fltues
2CPR06006000V18065	6CPHR06006000V18065	4CPHR06006000V18065	4CPDR06006000V18065	6.0	6	18	65	Multi Fltues
2CPR08008000V24070	6CPHR08008000V24070	4CPHR08008000V24070	4CPDR08008000V24070	8.0	8	24	70	Multi Fltues
2CPR10010000V30080	6CPHR10010000V30080	4CPHR10010000V30080	4CPDR10010000V30080	10.0	10	30	80	Multi Fltues
2CPR12012000V36100	6CPHR12012000V36100	4CPHR12012000V36100	4CPDR12012000V36100	12.0	12	36	100	Multi Fltues

Solid Carbide, CFRP Routers with Chip Breaker Helical Flutes

ØD	Tolerance
Ø6~12	0.00~0.03

Fig.1

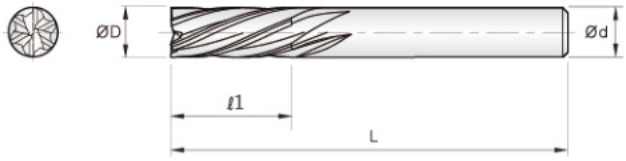
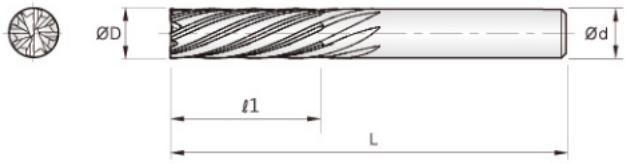


Fig.2



INCH SIZES

(mm)

Order Code		D		d	L1	L2	L	No.of flutes
without chipbreaker	with chipbreaker	Fraction	Decimal					
6CPNR0250V010003	6CPRR0250V010003	1/4	0.2500	1/4	1	3	3	6
6CPNR0375V010003	6CPRR0375V010003	3/8	0.3750	3/8	1	3	3	6
6CPNR0500V015004	6CPRR0500V015004	1/2	0.5000	1/2	1-1/2	4	4	6

METRIC SIZES

(mm)

Order Code		D	d	L1	L2	L	No.of flutes
without chipbreaker	with chipbreaker						
6CPNR06006000V18065	6CPRR06006000V18065	6.0	6	18	65	65	6
6CPNR08008000V24070	6CPRR08008000V24070	8.0	8	24	70	70	6
6CPNR10010000V30080	6CPRR10010000V30080	10.0	10	30	80	80	6
6CPNR12012000V36100	6CPRR12012000V36100	12.0	12	36	100	100	6