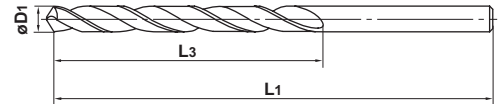


SD

Straight shank



● For general drilling.

Unit : mm

Order Number	Dia. D1	Flute Length L3	Overall Length L1	Stock
SDD0020	0.2	2.5	19	●
D0030	0.3	3	19	●
D0040	0.4	5	20	●
D0050	0.5	6	22	●
D0060	0.6	7	24	●
D0070	0.7	10	32	●
D0080	0.8	11	34	●
D0090	0.9	13	36	●
D0100	1.0	18	40	●
D0110	1.1	20	42	●
D0120	1.2	20	42	●
D0130	1.3	22	45	●
D0140	1.4	23	48	●
D0150	1.5	23	48	●
D0160	1.6	25	50	●
D0170	1.7	25	50	●
D0180	1.8	28	52	●
D0190	1.9	28	52	●
D0200	2.0	29	55	●
D0210	2.1	29	55	●
D0220	2.2	33	58	●
D0230	2.3	33	58	●
D0240	2.4	35	61	●
D0250	2.5	35	61	●
D0260	2.6	37	64	●
D0270	2.7	37	64	●
D0280	2.8	39	67	●
D0290	2.9	42	71	●
D0300	3.0	42	71	●
D0310	3.1	42	71	●
D0320	3.2	42	71	●
D0330	3.3	45	73	●
D0340	3.4	45	73	●
D0350	3.5	45	73	●
D0360	3.6	48	76	●
D0370	3.7	48	76	●
D0380	3.8	48	76	●
D0390	3.9	51	79	●

Order Number	Dia. D1	Flute Length L3	Overall Length L1	Stock
SDD0400	4.0	54	83	●
D0410	4.1	54	83	●
D0420	4.2	54	83	●
D0430	4.3	54	83	●
D0440	4.4	56	86	●
D0450	4.5	56	86	●
D0460	4.6	56	86	●
D0470	4.7	59	89	●
D0480	4.8	59	89	●
D0490	4.9	62	92	●
D0500	5.0	62	92	●
D0510	5.1	62	92	●
D0520	5.2	64	95	●
D0530	5.3	64	95	●
D0540	5.4	64	95	●
D0550	5.5	64	95	●
D0560	5.6	67	98	●
D0570	5.7	67	98	●
D0580	5.8	67	98	●
D0590	5.9	67	98	●
D0600	6.0	70	102	●
D0610	6.1	70	102	●
D0620	6.2	70	102	●
D0630	6.3	70	102	●
D0640	6.4	73	105	●
D0650	6.5	73	105	●
D0660	6.6	73	105	●
D0670	6.7	73	105	●
D0680	6.8	73	105	●
D0690	6.9	73	105	●
D0700	7.0	73	105	●
D0710	7.1	75	108	●
D0720	7.2	75	108	●
D0730	7.3	75	108	●
D0740	7.4	78	111	●
D0750	7.5	78	111	●
D0760	7.6	78	111	●
D0770	7.7	81	114	●

STRAIGHT SHANK DRILLS



HSS

CUTTING CONDITIONS

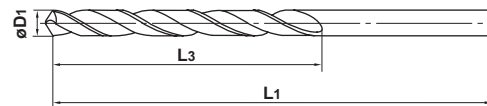
D191

D141

STRAIGHT SHANK DRILLS

SD

Straight shank



● For general drilling.

Unit : mm

Order Number	Dia. D1	Flute Length L3	Overall Length L1	Stock
SDD0780	7.8	81	114	●
D0790	7.9	81	114	●
D0800	8.0	81	114	●
D0810	8.1	84	117	●
D0820	8.2	84	117	●
D0830	8.3	84	117	●
D0840	8.4	87	121	●
D0850	8.5	87	121	●
D0860	8.6	87	121	●
D0870	8.7	87	121	●
D0880	8.8	89	124	●
D0890	8.9	89	124	●
D0900	9.0	89	124	●
D0910	9.1	89	124	●
D0920	9.2	92	127	●
D0930	9.3	92	127	●
D0940	9.4	92	127	●
D0950	9.5	92	127	●
D0960	9.6	95	130	●
D0970	9.7	95	130	●
D0980	9.8	95	130	●
D0990	9.9	95	130	●
D1000	10.0	95	130	●
D1010	10.1	98	133	●
D1020	10.2	98	133	●
D1030	10.3	98	133	●
D1040	10.4	98	133	●
D1050	10.5	100	137	●
D1060	10.6	100	137	●
D1070	10.7	100	137	●
D1080	10.8	103	140	●
D1090	10.9	103	140	●
D1100	11.0	103	140	●
D1110	11.1	103	140	●
D1120	11.2	106	143	●
D1130	11.3	106	143	●
D1140	11.4	106	143	●
D1150	11.5	106	143	●

Order Number	Dia. D1	Flute Length L3	Overall Length L1	Stock
SDD1160	11.6	109	146	●
D1170	11.7	109	146	●
D1180	11.8	109	146	●
D1190	11.9	109	146	●
D1200	12.0	111	149	●
D1210	12.1	111	149	●
D1220	12.2	111	149	●
D1230	12.3	111	149	●
D1240	12.4	114	152	●
D1250	12.5	114	152	●
D1260	12.6	114	152	●
D1270	12.7	114	152	●
D1280	12.8	114	152	●
D1290	12.9	114	152	●
D1300	13.0	114	152	●
D1350	13.5	122	168	●
D1400	14.0	122	168	●
D1450	14.5	122	168	●
D1500	15.0	132	181	●
D1550	15.5	132	181	●
D1600	16.0	132	181	●
D1650	16.5	132	181	●
D1700	17.0	143	194	●
D1750	17.5	143	194	●

DRILLING STRAIGHT SHANK DRILLS



HSS

D142

● : Inventory maintained in Japan.

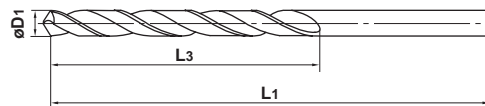
CUTTING CONDITIONS



D191

SD

Straight shank, 1/100mm



● The diameter tolerance is $0_{-0.007}$ mm.

Unit : mm

Order Number	Dia. D1	Flute Length L3	Overall Length L1	Stock
SDD0025	0.25	3	19	●
D0035	0.35	4	19	●
D0045	0.45	5	20	●
D0055	0.55	7	24	●
D0065	0.65	8	26	●
D0071	0.71	11	34	●
D0072	0.72	11	34	●
D0073	0.73	11	34	●
D0074	0.74	11	34	●
D0075	0.75	11	34	●
D0076	0.76	11	34	●
D0077	0.77	11	34	●
D0078	0.78	11	34	●
D0079	0.79	11	34	●
D0081	0.81	13	36	●
D0082	0.82	13	36	●
D0083	0.83	13	36	●
D0084	0.84	13	36	●
D0085	0.85	13	36	●
D0086	0.86	13	36	●
D0087	0.87	13	36	●
D0088	0.88	13	36	●
D0089	0.89	13	36	●
D0091	0.91	18	40	●
D0092	0.92	18	40	●
D0093	0.93	18	40	●
D0094	0.94	18	40	●
D0095	0.95	18	40	●
D0096	0.96	18	40	●
D0097	0.97	18	40	●
D0098	0.98	18	40	●
D0099	0.99	18	40	●
D0101	1.01	20	42	●
D0102	1.02	20	42	●
D0103	1.03	20	42	●
D0104	1.04	20	42	●
D0105	1.05	20	42	●
D0106	1.06	20	42	●

Order Number	Dia. D1	Flute Length L3	Overall Length L1	Stock
SDD0107	1.07	20	42	●
D0108	1.08	20	42	●
D0109	1.09	20	42	●
D0111	1.11	20	42	●
D0112	1.12	20	42	●
D0113	1.13	20	42	●
D0114	1.14	20	42	●
D0115	1.15	20	42	●
D0116	1.16	20	42	●
D0117	1.17	20	42	●
D0118	1.18	20	42	●
D0119	1.19	20	42	●
D0121	1.21	22	45	●
D0122	1.22	22	45	●
D0123	1.23	22	45	●
D0124	1.24	22	45	●
D0125	1.25	22	45	●
D0126	1.26	22	45	●
D0127	1.27	22	45	●
D0128	1.28	22	45	●
D0129	1.29	22	45	●
D0131	1.31	23	48	●
D0132	1.32	23	48	●
D0133	1.33	23	48	●
D0134	1.34	23	48	●
D0135	1.35	23	48	●
D0136	1.36	23	48	●
D0137	1.37	23	48	●
D0138	1.38	23	48	●
D0139	1.39	23	48	●
D0141	1.41	23	48	●
D0142	1.42	23	48	●
D0143	1.43	23	48	●
D0144	1.44	23	48	●
D0145	1.45	23	48	●
D0146	1.46	23	48	●
D0147	1.47	23	48	●
D0148	1.48	23	48	●

STRAIGHT SHANK DRILLS



HSS

CUTTING CONDITIONS

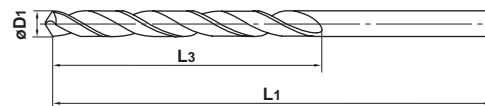
D191

D143

STRAIGHT SHANK DRILLS

SD

Straight shank, 1/100mm



● The diameter tolerance is $0_{-0.007}$ mm.

Unit : mm

Order Number	Dia. D1	Flute Length L3	Overall Length L1	Stock
SDD0149	1.49	23	48	●
D0151	1.51	25	50	●
D0152	1.52	25	50	●
D0153	1.53	25	50	●
D0154	1.54	25	50	●
D0155	1.55	25	50	●
D0156	1.56	25	50	●
D0157	1.57	25	50	●
D0158	1.58	25	50	●
D0159	1.59	25	50	●
D0161	1.61	25	50	●
D0162	1.62	25	50	●
D0163	1.63	25	50	●
D0164	1.64	25	50	●
D0165	1.65	25	50	●
D0166	1.66	25	50	●
D0167	1.67	25	50	●
D0168	1.68	25	50	●
D0169	1.69	25	50	●
D0171	1.71	28	52	●
D0172	1.72	28	52	●
D0173	1.73	28	52	●
D0174	1.74	28	52	●
D0175	1.75	28	52	●
D0176	1.76	28	52	●
D0177	1.77	28	52	●
D0178	1.78	28	52	●
D0179	1.79	28	52	●
D0181	1.81	28	52	●
D0182	1.82	28	52	●
D0183	1.83	28	52	●
D0184	1.84	28	52	●
D0185	1.85	28	52	●
D0186	1.86	28	52	●
D0187	1.87	28	52	●
D0188	1.88	28	52	●
D0189	1.89	28	52	●
D0191	1.91	29	55	●

Order Number	Dia. D1	Flute Length L3	Overall Length L1	Stock
SDD0192	1.92	29	55	●
D0193	1.93	29	55	●
D0194	1.94	29	55	●
D0195	1.95	29	55	●
D0196	1.96	29	55	●
D0197	1.97	29	55	●
D0198	1.98	29	55	●
D0199	1.99	29	55	●
D0201	2.01	29	55	●
D0202	2.02	29	55	●
D0203	2.03	29	55	●
D0204	2.04	29	55	●
D0205	2.05	29	55	●
D0206	2.06	29	55	●
D0207	2.07	29	55	●
D0208	2.08	29	55	●
D0209	2.09	29	55	●
D0211	2.11	29	55	●
D0212	2.12	29	55	●
D0213	2.13	29	55	●
D0214	2.14	29	55	●
D0215	2.15	29	55	●
D0216	2.16	29	55	●
D0217	2.17	29	55	●
D0218	2.18	29	55	●
D0219	2.19	29	55	●
D0221	2.21	33	58	●
D0222	2.22	33	58	●
D0223	2.23	33	58	●
D0224	2.24	33	58	●
D0225	2.25	33	58	●
D0226	2.26	33	58	●
D0227	2.27	33	58	●
D0228	2.28	33	58	●
D0229	2.29	33	58	●
D0231	2.31	33	58	●
D0232	2.32	33	58	●
D0233	2.33	33	58	●

DRILLING STRAIGHT SHANK DRILLS



HSS

D144

● : Inventory maintained in Japan.

Unit : mm

Order Number	Dia. D1	Flute Length L3	Overall Length L1	Stock
SDD0234	2.34	33	58	●
D0235	2.35	33	58	●
D0236	2.36	33	58	●
D0237	2.37	33	58	●
D0238	2.38	33	58	●
D0239	2.39	33	58	●
D0241	2.41	35	61	●
D0242	2.42	35	61	●
D0243	2.43	35	61	●
D0244	2.44	35	61	●
D0245	2.45	35	61	●
D0246	2.46	35	61	●
D0247	2.47	35	61	●
D0248	2.48	35	61	●
D0249	2.49	35	61	●
D0251	2.51	35	61	●
D0252	2.52	35	61	●
D0253	2.53	35	61	●
D0254	2.54	37	64	●
D0255	2.55	37	64	●
D0256	2.56	37	64	●
D0257	2.57	37	64	●
D0258	2.58	37	64	●
D0259	2.59	37	64	●
D0261	2.61	37	64	●
D0262	2.62	37	64	●
D0263	2.63	37	64	●
D0264	2.64	37	64	●
D0265	2.65	37	64	●
D0266	2.66	37	64	●
D0267	2.67	37	64	●
D0268	2.68	37	64	●
D0269	2.69	37	64	●
D0271	2.71	37	64	●
D0272	2.72	39	67	●
D0273	2.73	39	67	●
D0274	2.74	39	67	●
D0275	2.75	39	67	●
D0276	2.76	39	67	●
D0277	2.77	39	67	●
D0278	2.78	39	67	●
D0279	2.79	39	67	●
D0281	2.81	39	67	●
D0282	2.82	39	67	●
D0283	2.83	39	67	●
D0284	2.84	39	67	●
D0285	2.85	39	67	●
D0286	2.86	39	67	●

Order Number	Dia. D1	Flute Length L3	Overall Length L1	Stock
SDD0287	2.87	39	67	●
D0288	2.88	39	67	●
D0289	2.89	42	71	●
D0291	2.91	42	71	●
D0292	2.92	42	71	●
D0293	2.93	42	71	●
D0294	2.94	42	71	●
D0295	2.95	42	71	●
D0296	2.96	42	71	●
D0297	2.97	42	71	●
D0298	2.98	42	71	●
D0299	2.99	42	71	●
D0305	3.05	42	71	●
D0315	3.15	42	71	●
D0325	3.25	42	71	●
D0335	3.35	45	73	●
D0345	3.45	45	73	●
D0355	3.55	45	73	●
D0365	3.65	48	76	●
D0375	3.75	48	76	●
D0385	3.85	51	79	●
D0395	3.95	51	79	●
D0405	4.05	54	83	●
D0415	4.15	54	83	●
D0425	4.25	54	83	●
D0435	4.35	54	83	●
D0445	4.45	56	86	●
D0455	4.55	56	86	●
D0465	4.65	59	89	●
D0475	4.75	59	89	●
D0485	4.85	59	89	●
D0495	4.95	62	92	●
D0505	5.05	62	92	●
D0515	5.15	62	92	●
D0525	5.25	64	95	●
D0535	5.35	64	95	●
D0545	5.45	64	95	●
D0555	5.55	64	95	●
D0565	5.65	67	98	●
D0575	5.75	67	98	●
D0585	5.85	67	98	●
D0595	5.95	67	98	●

STRAIGHT SHANK DRILLS



HSS

CUTTING CONDITIONS

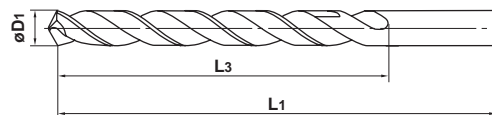
D191

D145

STRAIGHT SHANK DRILLS

KSD

Cobalt HSS, For stainless steel



$D1 < 2$

$2 \leq D1$

$2 \leq D1$

● Sharp edge geometry for stainless steels up to 200HB.

Unit : mm

Order Number	Dia. D1	Flute Length L3	Overall Length L1	Stock
KSDD0100	1.0	12	40	●
D0110	1.1	14	42	●
D0120	1.2	16	42	●
D0130	1.3	16	45	●
D0140	1.4	18	48	●
D0150	1.5	18	48	●
D0160	1.6	20	50	●
D0170	1.7	20	50	●
D0180	1.8	22	52	●
D0190	1.9	22	52	●
D0200	2.0	29	55	●
D0210	2.1	29	55	●
D0220	2.2	33	58	●
D0230	2.3	33	58	●
D0240	2.4	35	61	●
D0250	2.5	35	61	●
D0260	2.6	37	64	●
D0270	2.7	37	64	●
D0280	2.8	39	67	●
D0290	2.9	42	71	●
D0300	3.0	42	71	●
D0310	3.1	42	71	●
D0320	3.2	42	71	●
D0330	3.3	45	73	●
D0340	3.4	45	73	●
D0350	3.5	45	73	●
D0360	3.6	48	76	●
D0370	3.7	48	76	●
D0380	3.8	48	76	●
D0390	3.9	51	79	●
D0400	4.0	54	83	●
D0410	4.1	54	83	●
D0420	4.2	54	83	●
D0430	4.3	54	83	●
D0440	4.4	56	86	●
D0450	4.5	56	86	●
D0460	4.6	56	86	●
D0470	4.7	59	89	●

Order Number	Dia. D1	Flute Length L3	Overall Length L1	Stock
KSDD0480	4.8	59	89	●
D0490	4.9	62	92	●
D0500	5.0	62	92	●
D0510	5.1	62	92	●
D0520	5.2	64	95	●
D0530	5.3	64	95	●
D0540	5.4	64	95	●
D0550	5.5	64	95	●
D0560	5.6	67	98	●
D0570	5.7	67	98	●
D0580	5.8	67	98	●
D0590	5.9	67	98	●
D0600	6.0	70	102	●
D0610	6.1	70	102	●
D0620	6.2	70	102	●
D0630	6.3	70	102	●
D0640	6.4	73	105	●
D0650	6.5	73	105	●
D0660	6.6	73	105	●
D0670	6.7	73	105	●
D0680	6.8	73	105	●
D0690	6.9	73	105	●
D0700	7.0	73	105	●
D0710	7.1	75	108	●
D0720	7.2	75	108	●
D0730	7.3	75	108	●
D0740	7.4	78	111	●
D0750	7.5	78	111	●
D0760	7.6	78	111	●
D0770	7.7	81	114	●
D0780	7.8	81	114	●
D0790	7.9	81	114	●
D0800	8.0	81	114	●
D0810	8.1	84	117	●
D0820	8.2	84	117	●
D0830	8.3	84	117	●
D0840	8.4	87	121	●
D0850	8.5	87	121	●

STRAIGHT SHANK DRILLS



HSS

D148

● : Inventory maintained in Japan.

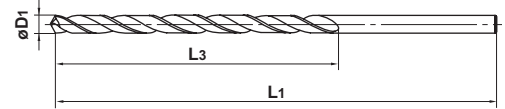
Unit : mm

Order Number	Dia. D1	Flute Length L3	Overall Length L1	Stock
KSDD0860	8.6	87	121	●
D0870	8.7	87	121	●
D0880	8.8	89	124	●
D0890	8.9	89	124	●
D0900	9.0	89	124	●
D0910	9.1	89	124	●
D0920	9.2	92	127	●
D0930	9.3	92	127	●
D0940	9.4	92	127	●
D0950	9.5	92	127	●
D0960	9.6	95	130	●
D0970	9.7	95	130	●
D0980	9.8	95	130	●
D0990	9.9	95	130	●
D1000	10.0	95	130	●
D1010	10.1	98	133	●
D1020	10.2	98	133	●
D1030	10.3	98	133	●
D1040	10.4	98	133	●
D1050	10.5	100	137	●
D1060	10.6	100	137	●
D1070	10.7	100	137	●
D1080	10.8	103	140	●
D1090	10.9	103	140	●
D1100	11.0	103	140	●
D1110	11.1	103	140	●
D1120	11.2	106	143	●
D1130	11.3	106	143	●
D1140	11.4	106	143	●
D1150	11.5	106	143	●
D1160	11.6	109	146	●
D1170	11.7	109	146	●
D1180	11.8	109	146	●
D1190	11.9	109	146	●
D1200	12.0	111	149	●
D1210	12.1	111	149	●
D1220	12.2	111	149	●
D1230	12.3	111	149	●
D1240	12.4	114	152	●
D1250	12.5	114	152	●
D1260	12.6	114	152	●
D1270	12.7	114	152	●
D1280	12.8	114	152	●
D1290	12.9	114	152	●
D1300	13.0	114	152	●

STRAIGHT SHANK DRILLS



HSS



● Widely used for deep hole drilling.

Unit : mm

Order Number	Dia. D1	Flute Length L3	Overall Length L1	Stock
LSDD0100A100	1.0	25	100	●
D0100A150	1.0	25	150	●
D0110A100	1.1	25	100	●
D0110A150	1.1	25	150	●
D0120A100	1.2	25	100	●
D0120A150	1.2	25	150	●
D0130A100	1.3	30	100	●
D0130A150	1.3	30	150	●
D0140A100	1.4	30	100	●
D0140A150	1.4	30	150	●
D0150A100	1.5	30	100	●
D0150A150	1.5	30	150	●
D0160A100	1.6	40	100	●
D0160A150	1.6	40	150	●
D0170A100	1.7	40	100	●
D0170A150	1.7	40	150	●
D0180A100	1.8	40	100	●
D0180A150	1.8	40	150	●
D0190A100	1.9	40	100	●
D0190A150	1.9	40	150	●
D0200A100	2.0	50	100	●
D0200A125	2.0	65	125	●
D0200A150	2.0	75	150	●
D0210A100	2.1	50	100	●
D0210A150	2.1	75	150	●
D0220A100	2.2	50	100	●
D0220A150	2.2	75	150	●
D0230A100	2.3	50	100	●
D0230A150	2.3	75	150	●
D0240A100	2.4	50	100	●
D0240A150	2.4	75	150	●
D0250A100	2.5	50	100	●
D0250A125	2.5	65	125	●
D0250A150	2.5	75	150	●
D0260A100	2.6	50	100	●
D0260A150	2.6	75	150	●
D0270A100	2.7	50	100	●
D0270A150	2.7	75	150	●

Order Number	Dia. D1	Flute Length L3	Overall Length L1	Stock
LSDD0280A100	2.8	50	100	●
D0280A150	2.8	75	150	●
D0290A100	2.9	50	100	●
D0290A150	2.9	75	150	●
D0300A100	3.0	50	100	●
D0300A125	3.0	65	125	●
D0300A150	3.0	75	150	●
D0300A200	3.0	100	200	●
D0310A150	3.1	75	150	●
D0310A200	3.1	100	200	●
D0320A125	3.2	65	125	●
D0320A150	3.2	75	150	●
D0320A200	3.2	100	200	●
D0320A250	3.2	130	250	●
D0330A150	3.3	75	150	●
D0330A200	3.3	100	200	●
D0340A150	3.4	75	150	●
D0340A200	3.4	100	200	●
D0350A125	3.5	65	125	●
D0350A150	3.5	75	150	●
D0350A200	3.5	100	200	●
D0350A250	3.5	130	250	●
D0360A150	3.6	75	150	●
D0360A200	3.6	100	200	●
D0370A150	3.7	75	150	●
D0370A200	3.7	100	200	●
D0380A150	3.8	75	150	●
D0380A200	3.8	100	200	●
D0390A150	3.9	75	150	●
D0390A200	3.9	100	200	●
D0400A125	4.0	70	125	●
D0400A150	4.0	75	150	●
D0400A200	4.0	100	200	●
D0400A250	4.0	130	250	●
D0410A150	4.1	75	150	●
D0410A200	4.1	100	200	●
D0420A150	4.2	75	150	●
D0420A200	4.2	100	200	●

STRAIGHT SHANK DRILLS



CUTTING CONDITIONS

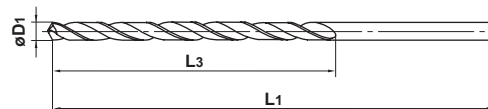
D191

D155

STRAIGHT SHANK DRILLS

LSD

Extra long



● Widely used for deep hole drilling.

Unit : mm

Order Number	Dia. D1	Flute Length L3	Overall Length L1	Stock
LSDD0430A150	4.3	75	150	●
D0430A200	4.3	100	200	●
D0440A150	4.4	75	150	●
D0440A200	4.4	100	200	●
D0450A125	4.5	70	125	●
D0450A150	4.5	75	150	●
D0450A200	4.5	100	200	●
D0450A250	4.5	130	250	●
D0460A150	4.6	90	150	●
D0460A200	4.6	100	200	●
D0470A150	4.7	90	150	●
D0470A200	4.7	100	200	●
D0480A150	4.8	90	150	●
D0480A200	4.8	100	200	●
D0480A250	4.8	130	250	●
D0490A150	4.9	90	150	●
D0490A200	4.9	100	200	●
D0500A150	5.0	90	150	●
D0500A200	5.0	100	200	●
D0500A250	5.0	130	250	●
D0500A300	5.0	150	300	●
D0510A200	5.1	100	200	●
D0510A250	5.1	130	250	●
D0520A200	5.2	100	200	●
D0520A250	5.2	130	250	●
D0530A200	5.3	100	200	●
D0530A250	5.3	130	250	●
D0530A300	5.3	150	300	●
D0540A200	5.4	100	200	●
D0540A250	5.4	130	250	●
D0540A300	5.4	150	300	●
D0550A150	5.5	90	150	●
D0550A200	5.5	100	200	●
D0550A250	5.5	130	250	●
D0550A300	5.5	150	300	●
D0560A200	5.6	100	200	●
D0560A250	5.6	130	250	●
D0570A200	5.7	100	200	●

Order Number	Dia. D1	Flute Length L3	Overall Length L1	Stock
LSDD0570A250	5.7	130	250	●
D0580A200	5.8	100	200	●
D0580A250	5.8	130	250	●
D0590A200	5.9	100	200	●
D0590A250	5.9	130	250	●
D0600A150	6.0	90	150	●
D0600A200	6.0	100	200	●
D0600A250	6.0	130	250	●
D0600A300	6.0	150	300	●
D0610A200	6.1	120	200	●
D0610A250	6.1	130	250	●
D0610A300	6.1	150	300	●
D0620A200	6.2	120	200	●
D0620A250	6.2	130	250	●
D0620A300	6.2	150	300	●
D0630A200	6.3	120	200	●
D0630A250	6.3	130	250	●
D0630A300	6.3	150	300	●
D0640A200	6.4	120	200	●
D0640A250	6.4	130	250	●
D0640A300	6.4	150	300	●
D0650A150	6.5	90	150	●
D0650A200	6.5	120	200	●
D0650A250	6.5	130	250	●
D0650A300	6.5	150	300	●
D0660A200	6.6	120	200	●
D0660A250	6.6	130	250	●
D0670A200	6.7	120	200	●
D0670A250	6.7	130	250	●
D0680A200	6.8	120	200	●
D0680A250	6.8	130	250	●
D0690A200	6.9	120	200	●
D0690A250	6.9	130	250	●
D0690A300	6.9	150	300	●
D0700A150	7.0	90	150	●
D0700A200	7.0	120	200	●
D0700A250	7.0	130	250	●
D0700A300	7.0	150	300	●

DRILLING | STRAIGHT SHANK DRILLS



HSS

D156

● : Inventory maintained in Japan.

Unit : mm

Order Number	Dia. D1	Flute Length L3	Overall Length L1	Stock
LSDD0710A200	7.1	120	200	●
D0710A250	7.1	130	250	●
D0710A300	7.1	150	300	●
D0720A200	7.2	120	200	●
D0720A250	7.2	130	250	●
D0720A300	7.2	150	300	●
D0730A200	7.3	120	200	●
D0730A250	7.3	130	250	●
D0730A300	7.3	150	300	●
D0740A250	7.4	130	250	●
D0740A300	7.4	150	300	●
D0750A150	7.5	90	150	●
D0750A200	7.5	120	200	●
D0750A250	7.5	130	250	●
D0750A300	7.5	150	300	●
D0760A200	7.6	120	200	●
D0760A250	7.6	130	250	●
D0760A300	7.6	150	300	●
D0770A200	7.7	120	200	●
D0770A250	7.7	130	250	●
D0770A300	7.7	150	300	●
D0780A200	7.8	120	200	●
D0780A250	7.8	130	250	●
D0780A300	7.8	150	300	●
D0790A200	7.9	120	200	●
D0790A250	7.9	130	250	●
D0800A150	8.0	90	150	●
D0800A200	8.0	120	200	●
D0800A250	8.0	130	250	●
D0800A300	8.0	150	300	●
D0810A250	8.1	130	250	●
D0810A300	8.1	180	300	●
D0810A350	8.1	200	350	●
D0820A250	8.2	130	250	●
D0820A300	8.2	180	300	●
D0830A250	8.3	130	250	●
D0830A300	8.3	180	300	●
D0840A200	8.4	120	200	●
D0840A250	8.4	130	250	●
D0840A300	8.4	180	300	●
D0850A200	8.5	120	200	●
D0850A250	8.5	130	250	●
D0850A300	8.5	180	300	●
D0850A350	8.5	200	350	●
D0860A250	8.6	130	250	●
D0870A250	8.7	130	250	●
D0870A300	8.7	180	300	●
D0880A200	8.8	120	200	●

Order Number	Dia. D1	Flute Length L3	Overall Length L1	Stock
LSDD0880A250	8.8	130	250	●
D0880A300	8.8	180	300	●
D0890A200	8.9	120	200	●
D0890A250	8.9	130	250	●
D0890A300	8.9	180	300	●
D0900A200	9.0	120	200	●
D0900A250	9.0	130	250	●
D0900A300	9.0	180	300	●
D0900A350	9.0	200	350	●
D0910A250	9.1	130	250	●
D0910A300	9.1	180	300	●
D0920A250	9.2	130	250	●
D0920A300	9.2	180	300	●
D0930A250	9.3	130	250	●
D0930A300	9.3	180	300	●
D0940A250	9.4	130	250	●
D0940A300	9.4	180	300	●
D0950A200	9.5	120	200	●
D0950A250	9.5	130	250	●
D0950A300	9.5	180	300	●
D0950A350	9.5	200	350	●
D0960A250	9.6	130	250	●
D0960A300	9.6	180	300	●
D0970A250	9.7	130	250	●
D0970A300	9.7	180	300	●
D0980A250	9.8	130	250	●
D0980A300	9.8	180	300	●
D0990A250	9.9	130	250	●
D0990A300	9.9	180	300	●
D1000A200	10.0	120	200	●
D1000A250	10.0	130	250	●
D1000A300	10.0	180	300	●
D1000A350	10.0	200	350	●
D1010A250	10.1	130	250	●
D1010A300	10.1	180	300	●
D1020A250	10.2	130	250	●
D1020A300	10.2	180	300	●
D1030A250	10.3	130	250	●
D1030A300	10.3	180	300	●
D1040A250	10.4	130	250	●
D1040A300	10.4	180	300	●
D1050A200	10.5	120	200	●
D1050A250	10.5	130	250	●
D1050A300	10.5	180	300	●
D1050A350	10.5	200	350	●
D1060A300	10.6	180	300	●
D1070A300	10.7	180	300	●
D1080A300	10.8	180	300	●

STRAIGHT SHANK DRILLS



HSS

CUTTING CONDITIONS

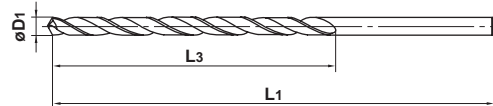
D191

D157

STRAIGHT SHANK DRILLS

LSD

Extra long



● Widely used for deep hole drilling.

Unit : mm

Order Number	Dia. D1	Flute Length L3	Overall Length L1	Stock
LSDD1090A300	10.9	180	300	●
D1100A200	11.0	120	200	●
D1100A250	11.0	130	250	●
D1100A300	11.0	180	300	●
D1100A350	11.0	200	350	●
D1110A250	11.1	130	250	●
D1110A350	11.1	200	350	●
D1120A250	11.2	130	250	●
D1120A350	11.2	200	350	●
D1130A250	11.3	130	250	●
D1130A350	11.3	200	350	●
D1140A250	11.4	130	250	●
D1140A350	11.4	200	350	●
D1150A200	11.5	120	200	●
D1150A250	11.5	130	250	●
D1150A300	11.5	180	300	●
D1150A350	11.5	200	350	●
D1200A200	12.0	120	200	●
D1200A250	12.0	130	250	●
D1200A300	12.0	180	300	●
D1200A350	12.0	200	350	●
D1250A200	12.5	120	200	●
D1250A250	12.5	130	250	●
D1250A300	12.5	180	300	●
D1250A350	12.5	200	350	●
D1300A200	13.0	120	200	●
D1300A250	13.0	130	250	●
D1300A300	13.0	180	300	●
D1300A350	13.0	200	350	●

STRAIGHT SHANK DRILLS



DRILLING

HSS

D158

● : Inventory maintained in Japan.

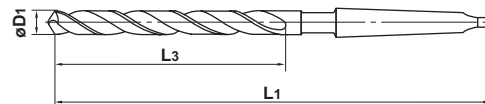
CUTTING CONDITIONS



D191

TD

Taper shank



● For general drilling.

Unit : mm

Order Number	Dia. D1	Flute Length L3	Overall Length L1	M.T.No.	Stock
TDD0300M1	3.0	38	115	1	●
D0310M1	3.1	45	122	1	●
D0320M1	3.2	45	122	1	●
D0330M1	3.3	45	122	1	●
D0340M1	3.4	45	122	1	●
D0350M1	3.5	45	122	1	●
D0360M1	3.6	50	128	1	●
D0370M1	3.7	50	128	1	●
D0380M1	3.8	50	128	1	●
D0390M1	3.9	50	128	1	●
D0400M1	4.0	50	128	1	●
D0410M1	4.1	55	135	1	●
D0420M1	4.2	55	135	1	●
D0430M1	4.3	55	135	1	●
D0440M1	4.4	55	135	1	●
D0450M1	4.5	55	135	1	●
D0460M1	4.6	60	140	1	●
D0470M1	4.7	60	140	1	●
D0480M1	4.8	60	140	1	●
D0490M1	4.9	60	140	1	●
D0500M1	5.0	60	140	1	●
D0510M1	5.1	65	145	1	●
D0520M1	5.2	65	145	1	●
D0530M1	5.3	65	145	1	●
D0540M1	5.4	65	145	1	●
D0550M1	5.5	65	145	1	●
D0560M1	5.6	68	148	1	●
D0570M1	5.7	68	148	1	●
D0580M1	5.8	68	148	1	●
D0590M1	5.9	68	148	1	●
D0600M1	6.0	68	148	1	●
D0610M1	6.1	72	152	1	●
D0620M1	6.2	72	152	1	●
D0630M1	6.3	72	152	1	●
D0640M1	6.4	72	152	1	●
D0650M1	6.5	72	152	1	●
D0660M1	6.6	75	155	1	●
D0670M1	6.7	75	155	1	●

Order Number	Dia. D1	Flute Length L3	Overall Length L1	M.T.No.	Stock
TDD0680M1	6.8	75	155	1	●
D0690M1	6.9	75	155	1	●
D0700M1	7.0	75	155	1	●
D0710M1	7.1	78	158	1	●
D0720M1	7.2	78	158	1	●
D0730M1	7.3	78	158	1	●
D0740M1	7.4	78	158	1	●
D0750M1	7.5	78	158	1	●
D0760M1	7.6	82	162	1	●
D0770M1	7.7	82	162	1	●
D0780M1	7.8	82	162	1	●
D0790M1	7.9	82	162	1	●
D0800M1	8.0	82	162	1	●
D0810M1	8.1	85	168	1	●
D0820M1	8.2	85	168	1	●
D0830M1	8.3	85	168	1	●
D0840M1	8.4	85	168	1	●
D0850M1	8.5	85	168	1	●
D0860M1	8.6	88	172	1	●
D0870M1	8.7	88	172	1	●
D0880M1	8.8	88	172	1	●
D0890M1	8.9	88	172	1	●
D0900M1	9.0	88	172	1	●
D0910M1	9.1	92	175	1	●
D0920M1	9.2	92	175	1	●
D0930M1	9.3	92	175	1	●
D0940M1	9.4	92	175	1	●
D0950M1	9.5	92	175	1	●
D0960M1	9.6	95	178	1	●
D0970M1	9.7	95	178	1	●
D0980M1	9.8	95	178	1	●
D0990M1	9.9	95	178	1	●
D1000M1	10.0	95	178	1	●
D1010M1	10.1	98	182	1	●
D1020M1	10.2	98	182	1	●
D1030M1	10.3	98	182	1	●
D1040M1	10.4	98	182	1	●
D1050M1	10.5	98	182	1	●

TAPER SHANK DRILLS

**HSS**

CUTTING CONDITIONS

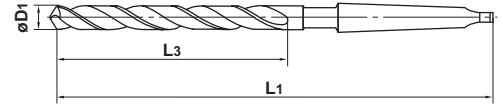
D191

D161

TAPER SHANK DRILLS

TD

Taper shank



● For general drilling.

Unit : mm

Order Number	Dia. D1	Flute Length L3	Overall Length L1	M.T.No.	Stock
TDD1060M1	10.6	102	185	1	●
D1070M1	10.7	102	185	1	●
D1080M1	10.8	102	185	1	●
D1090M1	10.9	102	185	1	●
D1100M1	11.0	102	185	1	●
D1110M1	11.1	105	188	1	●
D1120M1	11.2	105	188	1	●
D1130M1	11.3	105	188	1	●
D1140M1	11.4	105	188	1	●
D1150M1	11.5	105	188	1	●
D1160M1	11.6	108	192	1	●
D1170M1	11.7	108	192	1	●
D1180M1	11.8	108	192	1	●
D1190M1	11.9	108	192	1	●
D1200M1	12.0	108	192	1	●
D1210M1	12.1	112	195	1	●
D1220M1	12.2	112	195	1	●
D1230M1	12.3	112	195	1	●
D1240M1	12.4	112	195	1	●
D1250M1	12.5	112	195	1	●
D1260M1	12.6	115	198	1	●
D1270M1	12.7	115	198	1	●
D1280M1	12.8	115	198	1	●
D1290M1	12.9	115	198	1	●
D1300M1	13.0	115	198	1	●
D1310M1	13.1	118	202	1	●
D1320M1	13.2	118	202	1	●
D1330M1	13.3	118	202	1	●
D1340M1	13.4	118	202	1	●
D1350M1	13.5	118	202	1	●
D1360M1	13.6	122	205	1	●
D1370M1	13.7	122	205	1	●
D1380M1	13.8	122	205	1	●
D1390M1	13.9	122	205	1	●
D1400M1	14.0	122	205	1	●
D1410M2	14.1	122	222	2	●
D1420M2	14.2	122	222	2	●
D1430M2	14.3	122	222	2	●

Order Number	Dia. D1	Flute Length L3	Overall Length L1	M.T.No.	Stock
TDD1440M2	14.4	122	222	2	●
D1450M2	14.5	122	222	2	●
D1460M2	14.6	125	225	2	●
D1470M2	14.7	125	225	2	●
D1480M2	14.8	125	225	2	●
D1490M2	14.9	125	225	2	●
D1500M2	15.0	125	225	2	●
D1510M2	15.1	128	228	2	●
D1520M2	15.2	128	228	2	●
D1530M2	15.3	128	228	2	●
D1540M2	15.4	128	228	2	●
D1550M2	15.5	128	228	2	●
D1560M2	15.6	130	230	2	●
D1570M2	15.7	130	230	2	●
D1580M2	15.8	130	230	2	●
D1590M2	15.9	130	230	2	●
D1600M2	16.0	130	230	2	●
D1610M2	16.1	132	232	2	●
D1620M2	16.2	132	232	2	●
D1630M2	16.3	132	232	2	●
D1640M2	16.4	132	232	2	●
D1650M2	16.5	132	232	2	●
D1660M2	16.6	135	235	2	●
D1670M2	16.7	135	235	2	●
D1680M2	16.8	135	235	2	●
D1690M2	16.9	135	235	2	●
D1700M2	17.0	135	235	2	●
D1710M2	17.1	140	240	2	●
D1720M2	17.2	140	240	2	●
D1730M2	17.3	140	240	2	●
D1740M2	17.4	140	240	2	●
D1750M2	17.5	140	240	2	●
D1760M2	17.6	140	240	2	●
D1770M2	17.7	140	240	2	●
D1780M2	17.8	140	240	2	●
D1790M2	17.9	140	240	2	●
D1800M2	18.0	140	240	2	●
D1810M2	18.1	145	245	2	●

DRILLING TAPER SHANK DRILLS



HSS

D162

● : Inventory maintained in Japan.

Unit : mm

Order Number	Dia. D1	Flute Length L3	Overall Length L1	M.T.No.	Stock
TDD1820M2	18.2	145	245	2	●
D1830M2	18.3	145	245	2	●
D1840M2	18.4	145	245	2	●
D1850M2	18.5	145	245	2	●
D1860M2	18.6	145	245	2	●
D1870M2	18.7	145	245	2	●
D1880M2	18.8	145	245	2	●
D1890M2	18.9	145	245	2	●
D1900M2	19.0	145	245	2	●
D1910M2	19.1	150	250	2	●
D1920M2	19.2	150	250	2	●
D1930M2	19.3	150	250	2	●
D1940M2	19.4	150	250	2	●
D1950M2	19.5	150	250	2	●
D1960M2	19.6	150	250	2	●
D1970M2	19.7	150	250	2	●
D1980M2	19.8	150	250	2	●
D1990M2	19.9	150	250	2	●
D2000M2	20.0	150	250	2	●
D2010M2	20.1	155	255	2	●
D2020M2	20.2	155	255	2	●
D2030M2	20.3	155	255	2	●
D2040M2	20.4	155	255	2	●
D2050M2	20.5	155	255	2	●
D2060M2	20.6	155	255	2	●
D2070M2	20.7	155	255	2	●
D2080M2	20.8	155	255	2	●
D2090M2	20.9	155	255	2	●
D2100M2	21.0	155	255	2	●
D2110M2	21.1	160	260	2	●
D2120M2	21.2	160	260	2	●
D2130M2	21.3	160	260	2	●
D2140M2	21.4	160	260	2	●
D2150M2	21.5	160	260	2	●
D2160M2	21.6	160	260	2	●
D2170M2	21.7	160	260	2	●
D2180M2	21.8	160	260	2	●
D2190M2	21.9	160	260	2	●
D2200M2	22.0	160	260	2	●
D2210M2	22.1	165	265	2	●
D2220M2	22.2	165	265	2	●
D2230M2	22.3	165	265	2	●
D2240M2	22.4	165	265	2	●
D2250M2	22.5	165	265	2	●
D2260M2	22.6	165	265	2	●
D2270M2	22.7	165	265	2	●
D2280M2	22.8	165	265	2	●
D2290M2	22.9	165	265	2	●

Order Number	Dia. D1	Flute Length L3	Overall Length L1	M.T.No.	Stock
TDD2300M2	23.0	165	265	2	●
D2310M3	23.1	165	285	3	●
D2320M3	23.2	165	285	3	●
D2330M3	23.3	165	285	3	●
D2340M3	23.4	165	285	3	●
D2350M3	23.5	165	285	3	●
D2360M3	23.6	165	285	3	●
D2370M3	23.7	165	285	3	●
D2380M3	23.8	165	285	3	●
D2390M3	23.9	165	285	3	●
D2400M3	24.0	165	285	3	●
D2410M3	24.1	165	285	3	●
D2420M3	24.2	165	285	3	●
D2430M3	24.3	165	285	3	●
D2440M3	24.4	165	285	3	●
D2450M3	24.5	165	285	3	●
D2460M3	24.6	165	285	3	●
D2470M3	24.7	165	285	3	●
D2480M3	24.8	165	285	3	●
D2490M3	24.9	165	285	3	●
D2500M3	25.0	165	285	3	●
D2510M3	25.1	165	285	3	●
D2520M3	25.2	165	285	3	●
D2530M3	25.3	165	285	3	●
D2540M3	25.4	165	285	3	●
D2550M3	25.5	165	285	3	●
D2560M3	25.6	165	285	3	●
D2570M3	25.7	165	285	3	●
D2580M3	25.8	165	285	3	●
D2590M3	25.9	165	285	3	●
D2600M3	26.0	165	285	3	●
D2610M3	26.1	170	290	3	●
D2620M3	26.2	170	290	3	●
D2630M3	26.3	170	290	3	●
D2640M3	26.4	170	290	3	●
D2650M3	26.5	170	290	3	●
D2660M3	26.6	170	290	3	●
D2670M3	26.7	170	290	3	●
D2680M3	26.8	170	290	3	●
D2690M3	26.9	170	290	3	●
D2700M3	27.0	170	290	3	●
D2710M3	27.1	175	295	3	●
D2720M3	27.2	175	295	3	●
D2730M3	27.3	175	295	3	●
D2740M3	27.4	175	295	3	●
D2750M3	27.5	175	295	3	●
D2760M3	27.6	175	295	3	●
D2770M3	27.7	175	295	3	●

TAPER SHANK DRILLS

DRILLING

HSS

CUTTING CONDITIONS

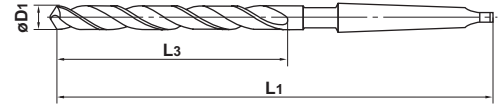
D191

D163

TAPER SHANK DRILLS

TD

Taper shank



● For general drilling.

Unit : mm

Order Number	Dia. D1	Flute Length L3	Overall Length L1	M.T.No.	Stock
TDD2780M3	27.8	175	295	3	●
D2790M3	27.9	175	295	3	●
D2800M3	28.0	175	295	3	●
D2810M3	28.1	180	300	3	●
D2820M3	28.2	180	300	3	●
D2830M3	28.3	180	300	3	●
D2840M3	28.4	180	300	3	●
D2850M3	28.5	180	300	3	●
D2860M3	28.6	180	300	3	●
D2870M3	28.7	180	300	3	●
D2880M3	28.8	180	300	3	●
D2890M3	28.9	180	300	3	●
D2900M3	29.0	180	300	3	●
D2910M3	29.1	185	305	3	●
D2920M3	29.2	185	305	3	●
D2930M3	29.3	185	305	3	●
D2940M3	29.4	185	305	3	●
D2950M3	29.5	185	305	3	●
D2960M3	29.6	185	305	3	●
D2970M3	29.7	185	305	3	●
D2980M3	29.8	185	305	3	●
D2990M3	29.9	185	305	3	●
D3000M3	30.0	185	305	3	●
D3010M3	30.1	190	310	3	●
D3020M3	30.2	190	310	3	●
D3030M3	30.3	190	310	3	●
D3040M3	30.4	190	310	3	●
D3050M3	30.5	190	310	3	●
D3060M3	30.6	190	310	3	●
D3070M3	30.7	190	310	3	●
D3080M3	30.8	190	310	3	●
D3090M3	30.9	190	310	3	●
D3100M3	31.0	190	310	3	●
D3110M3	31.1	195	315	3	●
D3120M3	31.2	195	315	3	●
D3130M3	31.3	195	315	3	●
D3140M3	31.4	195	315	3	●
D3150M3	31.5	195	315	3	●

Order Number	Dia. D1	Flute Length L3	Overall Length L1	M.T.No.	Stock
TDD3160M3	31.6	195	315	3	●
D3170M3	31.7	195	315	3	●
D3180M3	31.8	195	315	3	●
D3190M3	31.9	195	315	3	●
D3200M3	32.0	195	315	3	●
D3250M4	32.5	200	345	4	●
D3300M4	33.0	200	345	4	●
D3350M4	33.5	205	350	4	●
D3400M4	34.0	205	350	4	●
D3450M4	34.5	205	350	4	●
D3500M4	35.0	205	350	4	●
D3550M4	35.5	210	355	4	●
D3600M4	36.0	210	355	4	●
D3650M4	36.5	210	355	4	●
D3700M4	37.0	210	355	4	●
D3750M4	37.5	215	360	4	●
D3800M4	38.0	215	360	4	●
D3850M4	38.5	215	360	4	●
D3900M4	39.0	215	360	4	●
D3950M4	39.5	220	365	4	●
D4000M4	40.0	220	365	4	●
D4050M4	40.5	220	365	4	●
D4100M4	41.0	220	365	4	●
D4150M4	41.5	225	370	4	●
D4200M4	42.0	225	370	4	●
D4250M4	42.5	225	370	4	●
D4300M4	43.0	225	370	4	●
D4350M4	43.5	230	375	4	●
D4400M4	44.0	230	375	4	●
D4450M4	44.5	230	375	4	●
D4500M4	45.0	230	375	4	●
D4550M4	45.5	235	380	4	●
D4600M4	46.0	235	380	4	●
D4650M4	46.5	235	380	4	●
D4700M4	47.0	235	380	4	●
D4750M4	47.5	240	385	4	●
D4800M4	48.0	240	385	4	●
D4850M4	48.5	240	385	4	●

DRILLING TAPER SHANK DRILLS



HSS

D164

● : Inventory maintained in Japan.

Unit : mm

Order Number	Dia. D1	Flute Length L3	Overall Length L1	M.T.No.	Stock
TDD4900M4	49.0	240	385	4	●
D4950M4	49.5	245	390	4	●
D5000M4	50.0	245	390	4	●
D5100M5	51.0	245	425	5	●
D5200M5	52.0	250	430	5	●
D5300M5	53.0	250	430	5	●
D5400M5	54.0	255	435	5	●
D5500M5	55.0	255	435	5	●
D5600M5	56.0	260	440	5	●
D5700M5	57.0	260	440	5	●
D5800M5	58.0	265	445	5	●
D5900M5	59.0	265	445	5	●
D6000M5	60.0	270	450	5	●
D6100M5	61.0	270	450	5	●
D6200M5	62.0	275	455	5	●
D6300M5	63.0	275	455	5	●
D6400M5	64.0	280	460	5	●
D6500M5	65.0	280	460	5	●
D6600M5	66.0	285	465	5	●
D6700M5	67.0	285	465	5	●
D6800M5	68.0	290	470	5	●
D6900M5	69.0	290	470	5	●
D7000M5	70.0	295	475	5	●
D7100M5	71.0	295	475	5	●
D7200M5	72.0	300	480	5	●
D7300M5	73.0	300	480	5	●
D7400M5	74.0	305	485	5	●
D7500M5	75.0	305	485	5	●

TAPER SHANK DRILLS



HSS

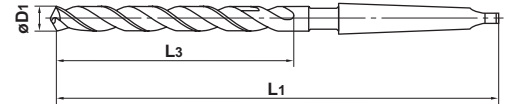
CUTTING CONDITIONS

D191

D165

TAPER SHANK DRILLS

KTD
Cobalt HSS



$D1 < 10, 35 < D1$ $10 \leq D1 \leq 35$ $16 \leq D1 \leq 35$ $35 < D1$

● Suitable for drilling of difficult-to-cut materials.

Unit : mm

Order Number	Dia. D1	Flute Length L3	Overall Length L1	M.T.No.	Stock
KTDD0500M1	5.0	60	140	1	●
D0550M1	5.5	65	145	1	●
D0600M1	6.0	68	148	1	●
D0650M1	6.5	72	152	1	●
D0700M1	7.0	75	155	1	●
D0750M1	7.5	78	158	1	●
D0800M1	8.0	82	162	1	●
D0850M1	8.5	85	168	1	●
D0900M1	9.0	88	172	1	●
D0950M1	9.5	92	175	1	●
D1000M1	10.0	95	178	1	●
D1010M1	10.1	98	182	1	●
D1020M1	10.2	98	182	1	●
D1030M1	10.3	98	182	1	●
D1040M1	10.4	98	182	1	●
D1050M1	10.5	98	182	1	●
D1060M1	10.6	102	185	1	●
D1070M1	10.7	102	185	1	●
D1080M1	10.8	102	185	1	●
D1090M1	10.9	102	185	1	●
D1100M1	11.0	102	185	1	●
D1110M1	11.1	105	188	1	●
D1120M1	11.2	105	188	1	●
D1130M1	11.3	105	188	1	●
D1140M1	11.4	105	188	1	●
D1150M1	11.5	105	188	1	●
D1160M1	11.6	108	192	1	●
D1170M1	11.7	108	192	1	●
D1180M1	11.8	108	192	1	●
D1190M1	11.9	108	192	1	●
D1200M1	12.0	108	192	1	●
D1210M2	12.1	112	212	2	●
D1220M2	12.2	112	212	2	●
D1230M2	12.3	112	212	2	●
D1240M2	12.4	112	212	2	●
D1250M2	12.5	112	212	2	●
D1260M2	12.6	115	215	2	●
D1270M2	12.7	115	215	2	●

Order Number	Dia. D1	Flute Length L3	Overall Length L1	M.T.No.	Stock
KTDD1280M2	12.8	115	215	2	●
D1290M2	12.9	115	215	2	●
D1300M2	13.0	115	215	2	●
D1310M2	13.1	118	218	2	●
D1320M2	13.2	118	218	2	●
D1330M2	13.3	118	218	2	●
D1340M2	13.4	118	218	2	●
D1350M2	13.5	118	218	2	●
D1360M2	13.6	122	222	2	●
D1370M2	13.7	122	222	2	●
D1380M2	13.8	122	222	2	●
D1390M2	13.9	122	222	2	●
D1400M2	14.0	122	222	2	●
D1410M2	14.1	122	222	2	●
D1420M2	14.2	122	222	2	●
D1430M2	14.3	122	222	2	●
D1440M2	14.4	122	222	2	●
D1450M2	14.5	122	222	2	●
D1460M2	14.6	125	225	2	●
D1470M2	14.7	125	225	2	●
D1480M2	14.8	125	225	2	●
D1490M2	14.9	125	225	2	●
D1500M2	15.0	125	225	2	●
D1510M2	15.1	128	228	2	●
D1520M2	15.2	128	228	2	●
D1530M2	15.3	128	228	2	●
D1540M2	15.4	128	228	2	●
D1550M2	15.5	128	228	2	●
D1560M2	15.6	130	230	2	●
D1570M2	15.7	130	230	2	●
D1580M2	15.8	130	230	2	●
D1590M2	15.9	130	230	2	●
D1600M2	16.0	130	230	2	●
D1610M2	16.1	132	232	2	●
D1620M2	16.2	132	232	2	●
D1630M2	16.3	132	232	2	●
D1640M2	16.4	132	232	2	●
D1650M2	16.5	132	232	2	●

DRILLING TAPER SHANK DRILLS



HSS

D166

● : Inventory maintained in Japan.

Unit : mm

Order Number	Dia. D1	Flute Length L3	Overall Length L1	M.T.No.	Stock
KTDD1660M2	16.6	135	235	2	●
D1670M2	16.7	135	235	2	●
D1680M2	16.8	135	235	2	●
D1690M2	16.9	135	235	2	●
D1700M2	17.0	135	235	2	●
D1710M2	17.1	140	240	2	●
D1720M2	17.2	140	240	2	●
D1730M2	17.3	140	240	2	●
D1740M2	17.4	140	240	2	●
D1750M2	17.5	140	240	2	●
D1760M2	17.6	140	240	2	●
D1770M2	17.7	140	240	2	●
D1780M2	17.8	140	240	2	●
D1790M2	17.9	140	240	2	●
D1800M2	18.0	140	240	2	●
D1810M2	18.1	145	245	2	●
D1820M2	18.2	145	245	2	●
D1830M2	18.3	145	245	2	●
D1840M2	18.4	145	245	2	●
D1850M2	18.5	145	245	2	●
D1860M2	18.6	145	245	2	●
D1870M2	18.7	145	245	2	●
D1880M2	18.8	145	245	2	●
D1890M2	18.9	145	245	2	●
D1900M2	19.0	145	245	2	●
D1910M2	19.1	150	250	2	●
D1920M2	19.2	150	250	2	●
D1930M2	19.3	150	250	2	●
D1940M2	19.4	150	250	2	●
D1950M2	19.5	150	250	2	●
D1960M2	19.6	150	250	2	●
D1970M2	19.7	150	250	2	●
D1980M2	19.8	150	250	2	●
D1990M2	19.9	150	250	2	●
D2000M2	20.0	150	250	2	●
D2010M3	20.1	155	275	3	●
D2020M3	20.2	155	275	3	●
D2030M3	20.3	155	275	3	●
D2040M3	20.4	155	275	3	●
D2050M3	20.5	155	275	3	●
D2060M3	20.6	155	275	3	●
D2070M3	20.7	155	275	3	●
D2080M3	20.8	155	275	3	●
D2090M3	20.9	155	275	3	●
D2100M3	21.0	155	275	3	●
D2110M3	21.1	160	280	3	●
D2120M3	21.2	160	280	3	●
D2130M3	21.3	160	280	3	●

Order Number	Dia. D1	Flute Length L3	Overall Length L1	M.T.No.	Stock
KTDD2140M3	21.4	160	280	3	●
D2150M3	21.5	160	280	3	●
D2160M3	21.6	160	280	3	●
D2170M3	21.7	160	280	3	●
D2180M3	21.8	160	280	3	●
D2190M3	21.9	160	280	3	●
D2200M3	22.0	160	280	3	●
D2210M3	22.1	165	285	3	●
D2220M3	22.2	165	285	3	●
D2230M3	22.3	165	285	3	●
D2240M3	22.4	165	285	3	●
D2250M3	22.5	165	285	3	●
D2260M3	22.6	165	285	3	●
D2270M3	22.7	165	285	3	●
D2280M3	22.8	165	285	3	●
D2290M3	22.9	165	285	3	●
D2300M3	23.0	165	285	3	●
D2310M3	23.1	165	285	3	●
D2320M3	23.2	165	285	3	●
D2330M3	23.3	165	285	3	●
D2340M3	23.4	165	285	3	●
D2350M3	23.5	165	285	3	●
D2360M3	23.6	165	285	3	●
D2370M3	23.7	165	285	3	●
D2380M3	23.8	165	285	3	●
D2390M3	23.9	165	285	3	●
D2400M3	24.0	165	285	3	●
D2410M3	24.1	165	285	3	●
D2420M3	24.2	165	285	3	●
D2430M3	24.3	165	285	3	●
D2440M3	24.4	165	285	3	●
D2450M3	24.5	165	285	3	●
D2460M3	24.6	165	285	3	●
D2470M3	24.7	165	285	3	●
D2480M3	24.8	165	285	3	●
D2490M3	24.9	165	285	3	●
D2500M3	25.0	165	285	3	●
D2510M3	25.1	165	285	3	●
D2520M3	25.2	165	285	3	●
D2530M3	25.3	165	285	3	●
D2540M3	25.4	165	285	3	●
D2550M3	25.5	165	285	3	●
D2560M3	25.6	165	285	3	●
D2570M3	25.7	165	285	3	●
D2580M3	25.8	165	285	3	●
D2590M3	25.9	165	285	3	●
D2600M3	26.0	165	285	3	●
D2650M3	26.5	170	290	3	●

TAPER SHANK DRILLS



HSS

CUTTING CONDITIONS

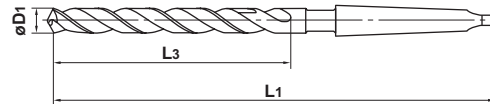
D191

D167

TAPER SHANK DRILLS

KTD

Cobalt HSS



$D1 < 10, 35 < D1$ $10 \leq D1 \leq 35$ $16 \leq D1 \leq 35$ $35 < D1$

● Suitable for drilling of difficult-to-cut materials.

Unit : mm

Order Number	Dia. D1	Flute Length L3	Overall Length L1	M.T.No.	Stock
KTDD2700M3	27.0	170	290	3	●
D2750M4	27.5	175	320	4	●
D2800M4	28.0	175	320	4	●
D2850M4	28.5	180	325	4	●
D2900M4	29.0	180	325	4	●
D2950M4	29.5	185	330	4	●
D3000M4	30.0	185	330	4	●
D3050M4	30.5	190	335	4	●
D3100M4	31.0	190	335	4	●
D3150M4	31.5	195	340	4	●
D3200M4	32.0	195	340	4	●
D3300M4	33.0	200	345	4	●
D3400M4	34.0	205	350	4	●
D3500M4	35.0	205	350	4	●
D3600M4	36.0	210	355	4	●
D3700M4	37.0	210	355	4	●
D3800M4	38.0	215	360	4	●
D3900M4	39.0	215	360	4	●
D4000M4	40.0	220	365	4	●
D4100M4	41.0	220	365	4	●
D4200M4	42.0	225	370	4	●
D4300M4	43.0	225	370	4	●
D4400M4	44.0	230	375	4	●
D4500M4	45.0	230	375	4	●
D4600M4	46.0	235	380	4	●
D4700M4	47.0	235	380	4	●
D4800M4	48.0	240	385	4	●
D4900M4	49.0	240	385	4	●
D5000M4	50.0	245	390	4	●

TAPER SHANK DRILLS

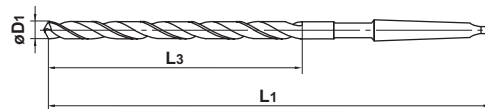
DRILLING

HSS

● : Inventory maintained in Japan.

CUTTING CONDITIONS

D191



● For deep hole drilling.

Unit : mm

Order Number	Dia. D1	Flute Length L3	Overall Length L1	M.T.No.	Stock
LTDD0600A200M1	6.0	100	200	1	●
D0600A250M1	6.0	150	250	1	●
D0600A300M1	6.0	200	300	1	●
D0600A350M1	6.0	225	350	1	●
D0650A250M1	6.5	150	250	1	●
D0650A300M1	6.5	200	300	1	●
D0650A350M1	6.5	225	350	1	●
D0700A250M1	7.0	150	250	1	●
D0700A300M1	7.0	200	300	1	●
D0700A350M1	7.0	225	350	1	●
D0750A250M1	7.5	150	250	1	●
D0750A300M1	7.5	200	300	1	●
D0750A350M1	7.5	225	350	1	●
D0800A250M1	8.0	150	250	1	●
D0800A300M1	8.0	200	300	1	●
D0800A350M1	8.0	225	350	1	●
D0850A250M1	8.5	150	250	1	●
D0850A300M1	8.5	200	300	1	●
D0850A350M1	8.5	225	350	1	●
D0900A250M1	9.0	150	250	1	●
D0900A300M1	9.0	200	300	1	●
D0900A350M1	9.0	225	350	1	●
D0950A250M1	9.5	150	250	1	●
D0950A300M1	9.5	200	300	1	●
D0950A350M1	9.5	225	350	1	●
D0950A400M1	9.5	250	400	1	●
D1000A250M1	10.0	150	250	1	●
D1000A300M1	10.0	200	300	1	●
D1000A350M1	10.0	225	350	1	●
D1000A400M1	10.0	250	400	1	●
D1050A250M1	10.5	150	250	1	●
D1050A300M1	10.5	200	300	1	●
D1050A350M1	10.5	225	350	1	●
D1050A400M1	10.5	250	400	1	●
D1100A250M1	11.0	150	250	1	●
D1100A300M1	11.0	200	300	1	●
D1100A350M1	11.0	225	350	1	●
D1100A400M1	11.0	250	400	1	●

Order Number	Dia. D1	Flute Length L3	Overall Length L1	M.T.No.	Stock
LTDD1150A250M1	11.5	150	250	1	●
D1150A300M1	11.5	200	300	1	●
D1150A350M1	11.5	225	350	1	●
D1150A400M1	11.5	250	400	1	●
D1200A250M1	12.0	150	250	1	●
D1200A300M1	12.0	200	300	1	●
D1200A350M1	12.0	225	350	1	●
D1200A400M1	12.0	250	400	1	●
D1250A250M1	12.5	150	250	1	●
D1250A300M1	12.5	200	300	1	●
D1250A350M1	12.5	225	350	1	●
D1250A400M1	12.5	250	400	1	●
D1300A250M1	13.0	150	250	1	●
D1300A300M1	13.0	200	300	1	●
D1300A350M1	13.0	225	350	1	●
D1300A400M1	13.0	250	400	1	●
D1350A300M1	13.5	200	300	1	●
D1350A350M1	13.5	225	350	1	●
D1350A400M1	13.5	250	400	1	●
D1350A450M1	13.5	300	450	1	●
D1350A500M1	13.5	350	500	1	●
D1350A600M1	13.5	400	600	1	●
D1400A300M1	14.0	200	300	1	●
D1400A350M1	14.0	225	350	1	●
D1400A400M1	14.0	250	400	1	●
D1400A450M1	14.0	300	450	1	●
D1400A500M1	14.0	350	500	1	●
D1400A600M1	14.0	400	600	1	●
D1450A300M2	14.5	175	300	2	●
D1450A350M2	14.5	225	350	2	●
D1450A400M2	14.5	250	400	2	●
D1450A450M2	14.5	300	450	2	●
D1450A500M2	14.5	350	500	2	●
D1450A600M2	14.5	400	600	2	●
D1500A300M2	15.0	175	300	2	●
D1500A350M2	15.0	225	350	2	●
D1500A400M2	15.0	250	400	2	●
D1500A450M2	15.0	300	450	2	●

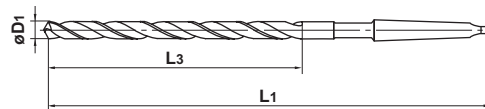
TAPER SHANK DRILLS



HSS

TAPER SHANK DRILLS

LTD
Extra long



● For deep hole drilling.

Unit : mm

Order Number	Dia. D1	Flute Length L3	Overall Length L1	M.T.No.	Stock
LTDD1500A500M2	15.0	350	500	2	●
D1500A600M2	15.0	400	600	2	●
D1550A300M2	15.5	175	300	2	●
D1550A350M2	15.5	225	350	2	●
D1550A400M2	15.5	250	400	2	●
D1550A450M2	15.5	300	450	2	●
D1550A500M2	15.5	350	500	2	●
D1550A600M2	15.5	400	600	2	●
D1600A300M2	16.0	175	300	2	●
D1600A350M2	16.0	225	350	2	●
D1600A400M2	16.0	250	400	2	●
D1600A450M2	16.0	300	450	2	●
D1600A500M2	16.0	350	500	2	●
D1600A600M2	16.0	400	600	2	●
D1650A300M2	16.5	175	300	2	●
D1650A350M2	16.5	225	350	2	●
D1650A400M2	16.5	250	400	2	●
D1650A450M2	16.5	300	450	2	●
D1650A500M2	16.5	350	500	2	●
D1650A600M2	16.5	400	600	2	●
D1700A300M2	17.0	175	300	2	●
D1700A350M2	17.0	225	350	2	●
D1700A400M2	17.0	250	400	2	●
D1700A450M2	17.0	300	450	2	●
D1700A500M2	17.0	350	500	2	●
D1700A600M2	17.0	400	600	2	●
D1750A300M2	17.5	175	300	2	●
D1750A350M2	17.5	225	350	2	●
D1750A400M2	17.5	250	400	2	●
D1750A450M2	17.5	300	450	2	●
D1750A500M2	17.5	350	500	2	●
D1750A600M2	17.5	400	600	2	●
D1800A300M2	18.0	175	300	2	●
D1800A350M2	18.0	225	350	2	●
D1800A400M2	18.0	250	400	2	●
D1800A450M2	18.0	300	450	2	●
D1800A500M2	18.0	350	500	2	●
D1800A600M2	18.0	400	600	2	●

Order Number	Dia. D1	Flute Length L3	Overall Length L1	M.T.No.	Stock
LTDD1850A300M2	18.5	175	300	2	●
D1850A350M2	18.5	225	350	2	●
D1850A400M2	18.5	250	400	2	●
D1850A450M2	18.5	300	450	2	●
D1850A500M2	18.5	350	500	2	●
D1850A600M2	18.5	400	600	2	●
D1900A300M2	19.0	175	300	2	●
D1900A350M2	19.0	225	350	2	●
D1900A400M2	19.0	250	400	2	●
D1900A450M2	19.0	300	450	2	●
D1900A500M2	19.0	350	500	2	●
D1900A600M2	19.0	400	600	2	●
D1950A300M2	19.5	175	300	2	●
D1950A350M2	19.5	225	350	2	●
D1950A400M2	19.5	250	400	2	●
D1950A450M2	19.5	300	450	2	●
D1950A500M2	19.5	350	500	2	●
D1950A600M2	19.5	400	600	2	●
D2000A300M2	20.0	175	300	2	●
D2000A350M2	20.0	225	350	2	●
D2000A400M2	20.0	250	400	2	●
D2000A450M2	20.0	300	450	2	●
D2000A500M2	20.0	350	500	2	●
D2000A600M2	20.0	400	600	2	●
D2050A350M2	20.5	225	350	2	●
D2050A400M2	20.5	250	400	2	●
D2050A450M2	20.5	300	450	2	●
D2050A500M2	20.5	350	500	2	●
D2050A600M2	20.5	400	600	2	●
D2100A350M2	21.0	225	350	2	●
D2100A400M2	21.0	250	400	2	●
D2100A450M2	21.0	300	450	2	●
D2100A500M2	21.0	350	500	2	●
D2100A600M2	21.0	400	600	2	●
D2150A350M2	21.5	225	350	2	●
D2150A400M2	21.5	250	400	2	●
D2150A450M2	21.5	300	450	2	●
D2150A500M2	21.5	350	500	2	●

DRILLING TAPER SHANK DRILLS



HSS

D174

● : Inventory maintained in Japan.

Unit : mm

Order Number	Dia. D1	Flute Length L3	Overall Length L1	M.T.No.	Stock
LTDD2150A600M2	21.5	400	600	2	●
D2200A350M2	22.0	225	350	2	●
D2200A400M2	22.0	250	400	2	●
D2200A450M2	22.0	300	450	2	●
D2200A500M2	22.0	350	500	2	●
D2200A600M2	22.0	400	600	2	●
D2250A350M2	22.5	225	350	2	●
D2250A400M2	22.5	250	400	2	●
D2250A450M2	22.5	300	450	2	●
D2250A500M2	22.5	350	500	2	●
D2250A600M2	22.5	400	600	2	●
D2300A350M2	23.0	225	350	2	●
D2300A400M2	23.0	250	400	2	●
D2300A450M2	23.0	300	450	2	●
D2300A500M2	23.0	350	500	2	●
D2300A600M2	23.0	400	600	2	●
D2350A350M3	23.5	200	350	3	●
D2350A400M3	23.5	250	400	3	●
D2350A450M3	23.5	300	450	3	●
D2350A500M3	23.5	350	500	3	●
D2350A600M3	23.5	400	600	3	●
D2400A350M3	24.0	200	350	3	●
D2400A400M3	24.0	250	400	3	●
D2400A450M3	24.0	300	450	3	●
D2400A500M3	24.0	350	500	3	●
D2400A600M3	24.0	400	600	3	●
D2450A350M3	24.5	200	350	3	●
D2450A400M3	24.5	250	400	3	●
D2450A450M3	24.5	300	450	3	●
D2450A500M3	24.5	350	500	3	●
D2450A600M3	24.5	400	600	3	●
D2500A350M3	25.0	200	350	3	●
D2500A400M3	25.0	250	400	3	●
D2500A450M3	25.0	300	450	3	●
D2500A500M3	25.0	350	500	3	●
D2500A600M3	25.0	400	600	3	●
D2550A400M3	25.5	250	400	3	●
D2550A450M3	25.5	300	450	3	●
D2550A500M3	25.5	350	500	3	●
D2550A600M3	25.5	400	600	3	●
D2600A400M3	26.0	250	400	3	●
D2600A450M3	26.0	300	450	3	●
D2600A500M3	26.0	350	500	3	●
D2600A600M3	26.0	400	600	3	●
D2650A400M3	26.5	250	400	3	●
D2650A450M3	26.5	300	450	3	●
D2650A500M3	26.5	350	500	3	●
D2650A600M3	26.5	400	600	3	●

Order Number	Dia. D1	Flute Length L3	Overall Length L1	M.T.No.	Stock
LTDD2700A400M3	27.0	250	400	3	●
D2700A450M3	27.0	300	450	3	●
D2700A500M3	27.0	350	500	3	●
D2700A600M3	27.0	400	600	3	●
D2750A400M3	27.5	250	400	3	●
D2750A450M3	27.5	300	450	3	●
D2750A500M3	27.5	350	500	3	●
D2750A600M3	27.5	400	600	3	●
D2800A400M3	28.0	250	400	3	●
D2800A450M3	28.0	300	450	3	●
D2800A500M3	28.0	350	500	3	●
D2800A600M3	28.0	400	600	3	●
D2850A400M3	28.5	250	400	3	●
D2850A450M3	28.5	300	450	3	●
D2850A500M3	28.5	350	500	3	●
D2850A600M3	28.5	400	600	3	●
D2900A400M3	29.0	250	400	3	●
D2900A450M3	29.0	300	450	3	●
D2900A500M3	29.0	350	500	3	●
D2900A600M3	29.0	400	600	3	●
D2950A400M3	29.5	250	400	3	●
D2950A450M3	29.5	300	450	3	●
D2950A500M3	29.5	350	500	3	●
D2950A600M3	29.5	400	600	3	●
D3000A400M3	30.0	250	400	3	●
D3000A450M3	30.0	300	450	3	●
D3000A500M3	30.0	350	500	3	●
D3000A600M3	30.0	400	600	3	●
D3050A450M3	30.5	300	450	3	●
D3050A500M3	30.5	350	500	3	●
D3050A600M3	30.5	400	600	3	●
D3100A450M3	31.0	300	450	3	●
D3100A500M3	31.0	350	500	3	●
D3100A600M3	31.0	400	600	3	●
D3150A450M3	31.5	300	450	3	●
D3150A500M3	31.5	350	500	3	●
D3150A600M3	31.5	400	600	3	●
D3200A450M3	32.0	300	450	3	●
D3200A500M3	32.0	350	500	3	●
D3200A600M3	32.0	400	600	3	●
D3300A500M4	33.0	350	500	4	●
D3300A600M4	33.0	400	600	4	●
D3400A500M4	34.0	350	500	4	●
D3400A600M4	34.0	400	600	4	●
D3500A500M4	35.0	350	500	4	●
D3500A600M4	35.0	400	600	4	●
D3600A500M4	36.0	350	500	4	●
D3600A600M4	36.0	400	600	4	●

TAPER SHANK DRILLS

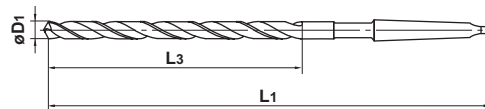


HSS

D175

TAPER SHANK DRILLS

LTD
Extra long



● For deep hole drilling.

Unit : mm

Order Number	Dia. D1	Flute Length L3	Overall Length L1	M.T.No.	Stock
LTDD3700A500M4	37.0	350	500	4	●
D3700A600M4	37.0	400	600	4	●
D3800A500M4	38.0	350	500	4	●
D3800A600M4	38.0	400	600	4	●
D3900A500M4	39.0	350	500	4	●
D3900A600M4	39.0	400	600	4	●
D4000A500M4	40.0	350	500	4	●
D4000A600M4	40.0	400	600	4	●

TAPER SHANK DRILLS



HSS

D176

● : Inventory maintained in Japan.

SD, KSD, HSD, LSD, TD, KTD

Work material	Structural steel SS Carbon steel S-C (-25HRC)		Alloy steel SCM Tool steel SK (-35HRC)		Alloy steel SCM Die steel SKD (-40HRC)		Cast iron FC	
Dia. (mm)	Revolution (min ⁻¹)	Feed rate (mm/rev)	Revolution (min ⁻¹)	Feed rate (mm/rev)	Revolution (min ⁻¹)	Feed rate (mm/rev)	Revolution (min ⁻¹)	Feed rate (mm/rev)
0.5	6,000	0.01	5,000	0.008	4,000	0.005	6,000	0.01
1.0	5,000	0.02	4,000	0.01	2,800	0.008	5,000	0.02
2.0	3,000	0.05	2,500	0.03	1,800	0.02	3,000	0.05
3.0	2,100	0.10	1,800	0.08	1,200	0.05	2,300	0.10
6.0	1,100	0.18	900	0.15	600	0.13	1,100	0.18
8.0	800	0.20	670	0.18	450	0.15	900	0.20
10.0	650	0.22	540	0.20	350	0.18	700	0.22
12.0	520	0.24	450	0.22	300	0.20	600	0.24
15.0	420	0.28	360	0.24	240	0.22	470	0.28
20.0	320	0.33	270	0.26	180	0.24	350	0.33
25.0	250	0.36	210	0.28	145	0.26	280	0.36
30.0	210	0.40	180	0.30	120	0.28	230	0.40
40.0	160	0.42	130	0.32	90	0.30	180	0.42

Work material	Stainless steel				Copper alloy, Brass		Aluminium alloy	
	Martensitic AISI 420 Ferritic AISI 430		Austenitic AISI 304 Precipitation hardening ASTM 630					
Dia. (mm)	Revolution (min ⁻¹)	Feed rate (mm/rev)	Revolution (min ⁻¹)	Feed rate (mm/rev)	Revolution (min ⁻¹)	Feed rate (mm/rev)	Revolution (min ⁻¹)	Feed rate (mm/rev)
0.5	5,000	0.01	4,000	0.01	6,000	0.01	10,000	0.02
1.0	4,000	0.02	3,000	0.02	5,000	0.02	7,000	0.04
2.0	2,200	0.05	1,500	0.04	3,000	0.05	5,000	0.08
3.0	1,600	0.10	1,000	0.07	2,100	0.10	4,200	0.13
6.0	800	0.18	530	0.10	1,100	0.18	2,100	0.23
8.0	600	0.20	400	0.13	800	0.20	1,600	0.28
10.0	480	0.22	310	0.15	650	0.22	1,200	0.33
12.0	400	0.24	250	0.17	520	0.24	1,000	0.38
15.0	320	0.26	170	0.20	420	0.26	850	0.42
20.0	240	0.28	130	0.23	320	0.28	630	0.45
25.0	190	0.32	100	0.24	250	0.32	500	0.48
30.0	160	0.35	85	0.25	210	0.35	400	0.50
40.0	120	0.38	65	0.28	160	0.38	300	0.52

- 1) Please reduce the cutting conditions when drilling a deep hole.
- 2) This table only shows standard cutting conditions with water-soluble cutting fluids. Please make corrections or adjustments depending on the application.

Reduction rate of cutting conditions for hole drilling

Drilling depth	Reduction rate of cutting speed	Reduction rate of feed	Drilling depth	Reduction rate of cutting speed	Reduction rate of feed
4D	10%	10%	8D	30%	20%
5D	10%	15%	10D	30%	25%
6D	20%	20%	15D	40%	30%
7D	20%	20%	20D	40%	45%

D : Drill dia.