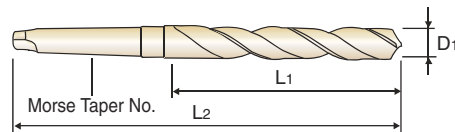
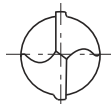




MORSE TAPER SHANK DRILLS

D1211 SERIES

HSS(M2) MORSE TAPER SHANK TWIST DRILL



ANSI

HSS



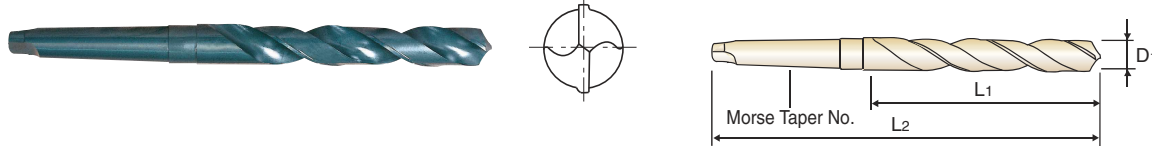
P.188

Unit : Inch

EDP No.	Diameter D1	Flute Length L1	Overall Length L2	Morse Taper No.	EDP No.	Diameter D1	Flute Length L1	Overall Length L2	Morse Taper No.
D1211032	1/2	4-3/8	8-1/4	2	D1211061	61/64	6-3/8	11	3
D1211033	33/64	4-5/8	8-1/2	2	D1211062	31/32	6-3/8	11	3
D1211034	17/32	4-5/8	8-1/2	2	D1211063	63/64	6-3/8	11	3
D1211035	35/64	4-7/8	8-3/4	2	D1211100	1	6-3/8	11	3
D1211036	9/16	4-7/8	8-3/4	2	D1211101	1-1/64	6-1/2	11-1/8	3
D1211037	37/64	4-7/8	8-3/4	2	D1211102	1-1/32	6-1/2	11-1/8	3
D1211038	19/32	4-7/8	8-3/4	2	D1211103	1-3/64	6-5/8	11-1/4	3
D1211039	39/64	4-7/8	8-3/4	2	D1211104	1-1/16	6-5/8	11-1/4	3
D1211040	5/8	4-7/8	8-3/4	2	D1211105	1-5/64	6-7/8	12-1/2	4
D1211041	41/64	5-1/8	9	2	D1211106	1-3/32	6-7/8	12-1/2	4
D1211042	21/32	5-1/8	9	2	D1211107	1-7/64	7-1/8	12-3/4	4
D1211043	43/64	5-3/8	9-1/4	2	D1211108	1-1/8	7-1/8	12-3/4	4
D1211044	11/16	5-3/8	9-1/4	2	D1211109	1-9/64	7-1/4	12-7/8	4
D1211045	45/64	5-5/8	9-1/2	2	D1211110	1-5/32	7-1/4	12-7/8	4
D1211046	23/32	5-5/8	9-1/2	2	D1211111	1-11/64	7-3/8	13	4
D1211047	47/64	5-7/8	9-3/4	2	D1211112	1-3/16	7-3/8	13	4
D1211048	3/4	5-7/8	9-3/4	2	D1211113	1-13/64	7-1/2	13-1/8	4
D1211049	49/64	6	9-7/8	2	D1211114	1-7/32	7-1/2	13-1/8	4
D1211050	25/32	6	9-7/8	2	D1211115	1-15/64	7-7/8	13-1/2	4
D1211051	51/64	6-1/8	10-3/4	3	D1211116	1-1/4	7-7/8	13-1/2	4
D1211052	13/16	6-1/8	10-3/4	3	D1211117	1-17/64	8-1/2	14-1/8	4
D1211053	53/64	6-1/8	10-3/4	3	D1211118	1-9/32	8-1/2	14-1/8	4
D1211054	27/32	6-1/8	10-3/4	3	D1211119	1-19/64	8-5/8	14-1/4	4
D1211055	55/64	6-1/8	10-3/4	3	D1211120	1-5/16	8-5/8	14-1/4	4
D1211056	7/8	6-1/8	10-3/4	3	D1211121	1-21/64	8-3/4	14-3/8	4
D1211057	57/64	6-1/8	10-3/4	3	D1211122	1-11/32	8-3/4	14-3/8	4
D1211058	29/32	6-1/8	10-3/4	3	D1211123	1-23/64	8-7/8	14-1/2	4
D1211059	59/64	6-1/8	10-3/4	3	D1211124	1-3/8	8-7/8	14-1/2	4
D1211060	15/16	6-1/8	10-3/4	3	D1211126	1-13/32	9	14-5/8	4

◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○		○		

HSS(M2) MORSE TAPER SHANK TWIST DRILL

Unit : Inch

EDP No.	Diameter D1	Flute Length L1	Overall Length L2	Morse Taper No.	EDP No.	Diameter D1	Flute Length L1	Overall Length L2	Morse Taper No.
D1211128	1-7/16	9-1/8	14-3/4	4	D1211160	1-15/16	10-3/8	17-3/8	5
D1211130	1-15/32	9-1/4	14-7/8	4	D1211162	1-31/32	10-3/8	17-3/8	5
D1211132	1-1/2	9-3/8	15	4	D1211200	2	10-3/8	17-3/8	5
D1211133	1-33/64	9-3/8	16-3/8	4	D1211202	2-1/32	10-3/8	17-3/8	5
D1211134	1-17/32	9-3/8	16-3/8	5	D1211204	2-1/16	10-1/4	17-3/8	5
D1211136	1-9/16	9-5/8	16-5/8	5	D1211206	2-3/32	10-1/4	17-3/8	5
D1211138	1-19/32	9-7/8	16-7/8	5	D1211208	2-1/8	10-1/4	17-3/8	5
D1211140	1-5/8	10	17	5	D1211210	2-5/32	10-1/4	17-3/8	5
D1211142	1-21/32	10-1/8	17-1/8	5	D1211212	2-3/16	10-1/4	17-3/8	5
D1211144	1-11/16	10-1/8	17-1/8	5	D1211214	2-7/32	10-1/8	17-3/8	5
D1211146	1-23/32	10-1/8	17-1/8	5	D1211216	2-1/4	10-1/8	17-3/8	5
D1211148	1-3/4	10-1/8	17-1/8	5	D1211220	2-5/16	10-1/8	17-3/8	5
D1211152	1-13/16	10-1/8	17-1/8	5	D1211224	2-3/8	10-1/8	17-3/8	5
D1211154	1-27/32	10-1/8	17-1/8	5	D1211228	2-7/16	11-1/4	18-3/4	5
D1211156	1-7/8	10-3/8	17-3/8	5	D1211232	2-1/2	11-1/4	18-3/4	5

◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○		○		

i-DREAM
DRILLSDREAM
DRILLSDREAM
DRILLS
-INOXDREAM
DRILLS
-ALUDREAM
DRILLS
-MQL TYPEDREAM
DRILLS
for HARDENED
STEELSSTANDARD
CARBIDE
DRILLSMULTI-1
DRILLS

HPD DRILLS

GOLD-P
DRILLSSTRAIGHT
SHANK
DRILLSAIRCRAFT
DRILLSSILVER &
DEMING
DRILLSTAPER
SHANK
DRILLSNC SPOTTING
DRILLSCOMBINATION
DRILL &
COUNTER
SINKSPADE
DRILLSTECHNICAL
DATA


HSS(M2) MORSE TAPER SHANK TWIST DRILL
D1211 SERIES

WORK MATERIAL	CARBON STEELS		CARBON STEELS		CARBON STEELS		ALLOY STEELS		ALLOY STEELS		STAINLESS STEELS	
HARDNESS			~ HRc23		~ HRc23 ~ 28		HRc23 ~ 34		HRc34 ~ 38		HRc23	
STRENGTH	~ 570 N/mm ²		~ 830 N/mm ²		830 ~ 950 N/mm ²		830 ~ 1110 N/mm ²		1110 ~ 1260 N/mm ²		830 N/mm ²	
DIAMETER	N	S	N	S	N	S	N	S	N	S	N	S
1/2	645	.0067	480	.0067	370	.0035	440	.0067	265	.0020	480	.0067
3/4	440	.0091	330	.0091	255	.0051	300	.0091	180	.0020	330	.0091
1	325	.0110	245	.0110	185	.0063	220	.0110	133	.0030	245	.0110
1-17/64	260	.0110	195	.0110	145	.0071	180	.0110	107	.0030	195	.0110
1-1/2	220	.0130	165	.0130	120	.0076	150	.0130	90	.0030	165	.0130
1-31/32	165	.0130	125	.0130	93	.0079	115	.0130	68	.0030	125	.0130
2-3/8	140	.0157	105	.0157	78	.0091	95	.0157	57	.0039	105	.0157

WORK MATERIAL	TOOL STEELS		CAST IRON		ALUMINUM ALLOYS		MAGNESIUM ALLOYS		ZINC ALLOYS		PLASTIC	
HARDNESS			~ HRc21									
STRENGTH	~ 270 N/mm ²		~ 800 N/mm ²									
DIAMETER	N	S	N	S	N	S	N	S	N	S	N	S
1/2	645	.0067	480	.0067	1200	.0100	1600	.0100	1200	.0100	645	.0067
3/4	440	.0091	330	.0091	820	.0118	1100	.0118	820	.0118	440	.0091
1	325	.0110	245	.0110	605	.0146	810	.0150	605	.0146	325	.0110
1-17/64	240	.0118	195	.0110	490	.0150	660	.0150	490	.0150	260	.0110
1-1/2	198	.0121	165	.0130	410	.0172	550	.0180	410	.0172	220	.0130
1-31/32	150	.0169	125	.0130	310	.0181	415	.0181	310	.0181	165	.0130
2-3/8	125	.0188	105	.0157	260	.0196	345	.0196	260	.0196	140	.0157

N = R.P.M

S = Inch per Revolution(inch/rev.)