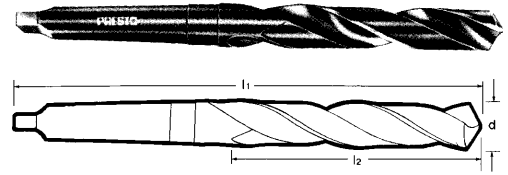


MORSE TAPER SHANK DRILLS

Standard Helix

BS 328 DIN 345 ISO 235/1



11 000 HSS **Range** **Finish**
 1/16"-4" P1 Blue
 2.00mm-100.00mm P1 Blue
 Point Angle 118°
 31/64, 12.00mm and above point thinned

No. 1 Morse Taper Shank					No. 1 Morse Taper Shank					No. 1 Morse Taper Shank				
Dia	Flute Length	Overall Length	Availability		Dia	Flute Length	Overall Length	Availability		Dia	Flute Length	Overall Length	Availability	
in	mm	mm	mm	mm	in	mm	mm	mm	mm	in	mm	mm	mm	mm
d	l ₂	l ₁			d	l ₂	l ₁			d	l ₂	l ₁		
1/16	20	101	•	•	15/64	57	138	•	•	3/8	87	168	•	•
5/64	24	105	•	•	6.00	57	138	•	•	9.60	87	168	•	•
	2.00	24	105	•	6.10	63	144	•	•	9.70	87	168	•	•
	2.25	27	108	•	6.20	63	144	•	•	9.75	87	168	•	•
3/32	30	111	•	•	6.25	63	144	•	•	9.80	87	168	•	•
	2.50	30	111	•	6.30	63	144	•	•	9.90	87	168	•	•
	2.75	33	114	•	1/4	63	144	•	•	25/64	87	168	•	•
7/64	33	114	•	•	6.40	63	144	•	•	10.00	87	168	•	•
	3.00	33	114	•	6.50	63	144	•	•	10.10	87	168	•	•
	3.10	36	117	•	6.60	63	144	•	•	10.20	87	168	•	•
1/8	36	117	•	•	6.70	63	144	•	•	10.25	87	168	•	•
	3.20	36	117	•	17/64	69	150	•	•	10.30	87	168	•	•
	3.25	36	117	•	6.75	69	150	•	•	13/32	87	168	•	•
	3.30	36	117	•	6.80	69	150	•	•	10.40	87	168	•	•
	3.40	39	120	•	6.90	69	150	•	•	10.50	87	168	•	•
	3.50	39	120	•	7.00	69	150	•	•	10.60	87	168	•	•
9/64	39	120	•	•	7.10	69	150	•	•	10.70	94	175	•	•
	3.60	39	120	•	9/32	69	150	•	•	27/64	94	175	•	•
	3.70	39	120	•	7.20	69	150	•	•	10.75	94	175	•	•
	3.75	39	120	•	7.25	69	150	•	•	10.80	94	175	•	•
	3.80	43	124	•	7.30	69	150	•	•	10.90	94	175	•	•
	3.90	43	124	•	7.40	69	150	•	•	11.00	94	175	•	•
5/32	43	124	•	•	7.50	69	150	•	•	11.10	94	175	•	•
	4.00	43	124	•	19/64	75	156	•	•	7/16	94	175	•	•
	4.10	43	124	•	7.60	75	156	•	•	11.20	94	175	•	•
	4.20	43	124	•	7.70	75	156	•	•	11.25	94	175	•	•
	4.25	43	124	•	7.75	75	156	•	•	11.30	94	175	•	•
	4.30	47	128	•	7.80	75	156	•	•	11.40	94	175	•	•
11/64	47	128	•	•	7.90	75	156	•	•	11.50	94	175	•	•
	4.40	47	128	•	5/16	75	156	•	•	29/64	94	175	•	•
	4.50	47	128	•	8.00	75	156	•	•	11.60	94	175	•	•
	4.60	47	128	•	8.10	75	156	•	•	11.70	94	175	•	•
	4.70	47	128	•	8.20	75	156	•	•	11.75	94	175	•	•
	4.75	47	128	•	8.25	75	156	•	•	11.80	94	175	•	•
3/16	52	133	•	•	8.30	75	156	•	•	11.90	101	182	•	•
	4.80	52	133	•	21/64	75	156	•	•	15/32	101	182	•	•
	4.90	52	133	•	8.40	75	156	•	•	12.00	101	182	•	•
	5.00	52	133	•	8.50	75	156	•	•	12.10	101	182	•	•
	5.10	52	133	•	8.60	81	162	•	•	12.20	101	182	•	•
13/64	52	133	•	•	8.70	81	162	•	•	12.25	101	182	•	•
	5.20	52	133	•	11/32	81	162	•	•	12.30	101	182	•	•
	5.25	52	133	•	8.75	81	162	•	•	31/64	101	182	•	•
	5.30	52	133	•	8.80	81	162	•	•	12.40	101	182	•	•
	5.40	57	138	•	8.90	81	162	•	•	12.50	101	182	•	•
	5.50	57	138	•	9.00	81	162	•	•	12.60	101	182	•	•
7/32	57	138	•	•	9.10	81	162	•	•	12.70	101	182	•	•
	5.60	57	138	•	23/64	81	162	•	•	1/2	101	182	•	•
	5.70	57	138	•	9.20	81	162	•	•	12.75	101	182	•	•
	5.75	57	138	•	9.25	81	162	•	•	12.80	101	182	•	•
	5.80	57	138	•	9.30	81	162	•	•	12.90	101	182	•	•
	5.90	57	138	•	9.40	81	162	•	•	13.00	101	182	•	•
					9.50	81	162	•	•	33/64	101	182	•	•

Twist Drills

Reamers

Taps & Dies

Milling Cutters

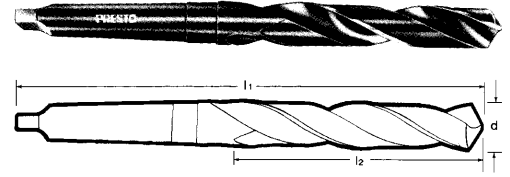
Milling Cutters

Technical

MORSE TAPER SHANK DRILLS

Standard Helix *continued*

BS 328 DIN 345 ISO 235/1



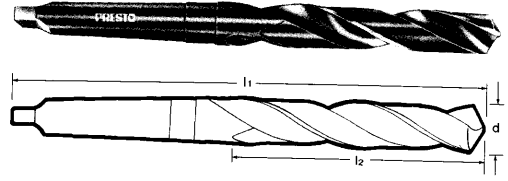
11 000 HSS **Range** **Finish**
 1/16"-4" P1 Blue
 2.00mm-100.00mm P1 Blue
 Point Angle 118°
 31/64, 12.00mm and above point thinned

Diameter					Flute Length					Overall Length				
in		mm		Availability	in		mm		Availability	in		mm		Availability
d		l ₂	l ₁		d		l ₂	l ₁		d		l ₂	l ₁	
	13.10	101	182	●		17.50	130	228	●		23.00	155	253	●
	13.20	101	182	●		17.60	130	228	●	29/32		155	253	●
	13.25	108	189	●		17.70	130	228	●	No. 3 Morse Taper Shank				
	13.30	108	189	●		17.75	130	228	●		23.25	155	276	●
17/32	13.40	108	189	●	45/64	17.80	130	228	●	59/64		155	276	●
	13.50	108	189	●		17.90	130	228	●		23.50	155	276	●
	13.60	108	189	●		18.00	130	228	●		23.75	160	281	●
	13.70	108	189	●		18.10	135	233	●	15/16		160	281	●
	13.75	108	189	●		18.20	135	233	●		24.00	160	281	●
35/64	13.80	108	189	●		18.25	135	233	●	61/64		160	281	●
	13.90	108	189	●	23/32	18.50	135	233	●		24.25	160	281	●
	14.00	108	189	●		18.50	135	233	●		24.50	160	281	●
No. 2 Morse Taper Shank					47/64	18.75	135	233	●	31/32		160	281	●
	14.10	114	212	●		18.80	135	233	●		24.75	160	281	●
	14.20	114	212	●		18.80	135	233	●	* 63/64		160	281	●
	14.25	114	212	●	3/4	19.00	135	233	●		25.00	160	281	●
9/16	14.50	114	212	●		19.10	140	238	●		25.25	165	286	●
	14.50	114	212	●		19.10	140	238	●	1		165	286	●
	14.60	114	212	●		19.20	140	238	●		25.50	165	286	●
37/64	14.75	114	212	●		19.25	140	238	●		25.75	165	286	●
	14.80	114	212	●		19.30	140	238	●	1.1/64		165	286	●
	14.90	114	212	●	49/64	19.30	140	238	●		26.00	165	286	●
	15.00	114	212	●		19.50	140	238	●	1.1/32		165	286	●
19/32	15.25	120	218	●		19.75	140	238	●		26.25	165	286	●
	15.30	120	218	●		19.80	140	238	●		26.50	165	286	●
39/64	15.50	120	218	●	25/32	19.80	140	238	●	1.3/64		170	291	●
	15.60	120	218	●		19.90	140	238	●		26.75	170	291	●
	15.75	120	218	●		20.00	140	238	●	1.1/16		170	291	●
5/8	15.90	120	218	●		20.20	145	243	●		27.00	170	291	●
	16.00	120	218	●	51/64	20.20	145	243	●		27.25	170	291	●
	16.10	125	223	●		20.25	145	243	●	1.5/64		170	291	●
	16.20	125	223	●		20.40	145	243	●		27.50	170	291	●
	16.25	125	223	●		20.50	145	243	●		27.75	170	291	●
41/64	16.30	125	223	●	13/16	20.50	145	243	●	1.3/32		170	291	●
	16.50	125	223	●		20.75	145	243	●		28.00	170	291	●
	16.60	125	223	●	53/64	21.00	145	243	●	1.7/64		175	296	●
21/32	16.75	125	223	●		21.00	145	243	●		28.25	175	296	●
	17.00	125	223	●		21.20	145	243	●		28.50	175	296	●
43/64	17.10	130	228	●		21.25	150	248	●	1.1/8		175	296	●
	17.25	130	228	●		21.30	150	248	●		28.75	175	296	●
	17.30	130	228	●	27/32	21.30	150	248	●	1.9/64		175	296	●
11/16	17.30	130	228	●		21.50	150	248	●		29.00	175	296	●
						21.75	150	248	●		29.25	175	296	●
					55/64	22.00	150	248	●	1.5/32		175	296	●
						22.00	150	248	●		29.50	175	296	●
					7/8	22.25	150	248	●		29.75	175	296	●
						22.25	150	248	●	1.11/64		175	296	●
						22.40	150	248	●		30.00	175	296	●
						22.50	155	253	●	1.3/16		180	301	●
					57/64	22.50	155	253	●		30.25	180	301	●
						22.75	155	253	●		30.50	180	301	●

MORSE TAPER SHANK DRILLS

Standard Helix *continued*

BS 328 DIN 345 ISO 235/1



11 000 HSS

Range 1/16"-4"
2.00mm-100.00mm

Finish P1 Blue
P1 Blue

Point Angle 118°
31/64, 12.00mm and above point thinned

Dia in	Dia mm	Flute Length mm l ₂	Overall Length mm l ₁	Availability
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Dia in	Dia mm	Flute Length mm l ₂	Overall Length mm l ₁	Availability
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72.00	255	442	•
2.27/32	255	442	•
73.00	255	442	•
2.7/8	255	442	•
2.29/32	255	442	•
74.00	255	442	•
2.15/16	255	442	•
75.00	255	442	•
2.31/32	260	447	•
76.00	260	447	•
3	260	447	•

3.13/16	280	534	•
97.00	280	534	•
98.00	280	534	•
3.7/8	280	534	•
99.00	280	534	•
100.00	280	534	•
3.15/16	280	534	•
4	285	539	•

No. 6 Morse Taper Shank

3.1/32	260	514	•
77.00	260	514	•
3.1/16	260	514	•
78.00	260	514	•
3.3/32	260	514	•
79.00	260	514	•
3.1/8	260	514	•
80.00	260	514	•
3.5/32	265	519	•
3.3/16	265	519	•
81.00	265	519	•
3.7/32	265	519	•
82.00	265	519	•
3.1/4	265	519	•
83.00	265	519	•
3.9/32	265	519	•
84.00	265	519	•
3.5/16	265	519	•
3.11/32	265	519	•
85.00	265	519	•
3.3/8	270	524	•
86.00	270	524	•
3.13/32	270	524	•
87.00	270	524	•
3.7/16	270	524	•
88.00	270	524	•
3.15/32	270	524	•
3.1/2	270	524	•
89.00	270	524	•
90.00	270	524	•
3.9/16	275	529	•
91.00	275	529	•
92.00	275	529	•
3.5/8	275	529	•
93.00	275	529	•
3.11/16	275	529	•
94.00	275	529	•
95.00	275	529	•
3.3/4	280	534	•
96.00	280	534	•