



suttontools

D140 -Morse Taper Shank Drills - Long Series -Sutton Tools

General purpose drill

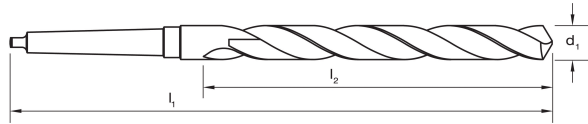
Features:

- Morse Taper Shank Drill Long Series
- Suitable for materials up to 900N/mm²

Specifications:

Designation:	N
Material:	HSS
Finish:	Blu
Max Cut Depth:	8xD
Shank Form:	MTS
Helix Angle:	R30
Point Tolerance:	H8
Point Angle:	118°
Point Form:	Form A
Cutting Edges:	ul
Standard:	DIN341

Range:



Item #	Diameter d1 (mm)	Length l1 (mm)	Length l2 (mm)	Diameter d2 (mm)
D1401000	10.00	197	116	MT#1
D1401050	10.50	197	116	MT#1
D1401100	11.00	206	125	MT#1
D1401150	11.50	206	125	MT#1
D1401200	12.00	215	134	MT#1
D1401250	12.50	215	134	MT#1
D1401300	13.00	215	134	MT#1
D1401350	13.50	223	142	MT#1
D1401400	14.00	223	142	MT#1
D1401450	14.50	245	147	MT#2
D1401500	15.00	245	147	MT#2
D1401550	15.50	251	153	MT#2
D1401600	16.00	251	153	MT#2
D1401650	16.50	257	159	MT#2
D1401700	17.00	257	159	MT#2
D1401750	17.50	263	165	MT#2
D1401800	18.00	263	165	MT#2
D1401850	18.50	269	171	MT#2
D1401900	19.00	269	171	MT#2
D1401950	19.50	275	177	MT#2
D1402000	20.00	275	177	MT#2
D1402050	20.50	282	184	MT#2
D1402100	21.00	282	184	MT#2
D1402200	22.00	289	191	MT#2
D1402300	23.00	296	198	MT#2
D1402400	24.00	327	206	MT#3
D1402500	25.00	327	206	MT#3
D1402600	26.00	335	214	MT#3
D1402800	28.00	343	222	MT#3
D1403000	30.00	351	230	MT#3
D1403200	32.00	397	248	MT#4

Applications:

ISO	VDI	Description	Condition	Hardness	Strength	Optimal
P	1	Steel - Non-alloy, cast & free cutting (~ 0.15 %C)	Annealed	125MPa	440MPa	●
P	2	Steel - Non-alloy, cast & free cutting (~ 0.45 %C)	Annealed	190MPa	640MPa	●
P	3	Steel - Non-alloy, cast & free cutting (~ 0.45 %C)	Quenched & Tempered	250MPa	840MPa	o
P	4	Steel - Non-alloy, cast & free cutting (~ 0.75 %C)	Annealed	270MPa	910MPa	o
P	5	Steel - Non-alloy, cast & free cutting (~ 0.75 %C)	Quenched & Tempered	300MPa	1010MPa	o
P	6	Steel - Low alloy & cast < 5% of alloying elements	Annealed	180MPa	610MPa	o
P	7	Steel - Low alloy & cast < 5% of alloying elements	Quenched & Tempered	275MPa	930MPa	o
P	8	Steel - Low alloy & cast < 5% of alloying elements	Quenched & Tempered	300MPa	1010MPa	o
P	9	Steel - Low alloy & cast < 5% of alloying elements	Quenched & Tempered	350HB	1180MPa	
P	10	Steel - High alloy, cast & tool	Annealed	200MPa	680MPa	o
P	11	Steel - High alloy, cast & tool	Hardened & Tempered	325HB	1100MPa	
P	12	Steel - Corrosion resistant & cast - Ferritic / Martensitic	Annealed	200HB	680MPa	
P	13	Steel - Corrosion resistant & cast - Martensitic	Quenched & Tempered	240HB	810MPa	
M	14.1	Stainless Steel - Austenitic	Age Hardened	180MPa	610MPa	o
M	14.2	Stainless Steel - Duplex		250MPa	840MPa	o
M	14.3	Stainless Steel - Precipitation Hardening		250HB	840MPa	
K	15	Cast Iron, Grey (GG) - Ferritic / Pearlitic		180MPa	610MPa	o
K	16	Cast Iron, Grey (GG) - Pearlitic		260MPa	880MPa	o
K	17	Cast Iron, Nodular (GGG) - Ferritic		160MPa	570MPa	o
K	18	Cast Iron, Nodular (GGG) - Pearlitic		250MPa	840MPa	o
K	19	Cast Iron, Malleable - Ferritic		130MPa	460MPa	o
K	20	Cast Iron, Malleable - Pearlitic		230MPa	780MPa	o
N	21	Aluminum & Magnesium, wrought alloy - Non Heat Treatable		60HB	210MPa	
N	22	Aluminum & Magnesium, wrought alloy - Heat Treatable	Age Hardened	100HB	360MPa	
N	23	Aluminum & Magnesium, cast alloy ≤12% Si - Non Heat Treatabl		75HB	270MPa	
N	24	Aluminum & Magnesium, cast alloy ≤12% Si - Heat Treatable	Age Hardened	90HB	320MPa	
N	25	Aluminum & Magnesium, cast alloy >12% Si - Non Heat Treatabl		130HB	460MPa	
N	26	Copper & Copper alloys (Brass/Bronze) - Free cutting, Pb > 1		110HB	390MPa	
N	27	Copper & Copper alloys (Brass/Bronze) - Brass (CuZn, CuSnZn)		90HB	320MPa	
N	28	Copper & Copper alloys (Brass/Bronze) - Bronze (CuSn)		100HB	360MPa	
N	29	Non-metallic - Thermosetting & fiber-reinforced plastics				
N	30	Non-metallic - Hard rubber, wood etc.				
S	31	High temperature alloys - Fe based	Annealed	200HB	680MPa	
S	32	High temperature alloys - Fe based	Age Hardened	280HB	950MPa	
S	33	High temperature alloys - Ni / Co based	Annealed	250HB	840MPa	
S	34	High temperature alloys - Ni / Co based	Age Hardened	350HB	1180MPa	
S	35	High temperature alloys - Ni / Co based	Cast	320HB	1080MPa	
S	36	Titanium & Titanium alloys - CP Titanium			400MPa	
S	37.1	Titanium & Titanium alloys - Alpha alloys			860MPa	
S	37.2	Titanium & Titanium alloys - Alpha / Beta alloys	Annealed		960MPa	
S	37.3	Titanium & Titanium alloys - Alpha / Beta alloys	Age Hardened		1170MPa	
S	37.4	Titanium & Titanium alloys - Beta alloys	Annealed		830MPa	
S	37.5	Titanium & Titanium alloys - Beta alloys	Age Hardened		1400MPa	
H	38.1	Hardened steel	Hardened & Tempered	45HRC		
H	38.2	Hardened steel	Hardened & Tempered	55HRC		

KEY

● Optimal o Effective



Steel



Stainless



Cast Iron



Non-Ferous Metals



Titanium & Super Alloys



Hard Materials

Applications:

ISO	VDI	Description	Condition	Hardness	Strength	Optimal
H	39.1	Hardened steel	Hardened & Tempered	58HRC		
H	39.2	Hardened steel	Hardened & Tempered	62HRC		
H	40	Cast Iron - Chilled	Cast	400MPa	1350MPa	o
H	41	Cast Iron	Hardened & Tempered	55HRC		

KEY

● Optimal o Effective ||
 P Steel
 M Stainless
 K Cast Iron
 N Non-Ferrous Metals
 S Titanium & Super Alloys
 H Hard Materials