



Metric Fine HSS Ground Thread Taps

HSS

ISO 529

Spiral Point/Gun Nose

METRIC FINE

... = Metric Spark Plug
* = Metric Conduit



Size - Pitch (mm)	Shank Diameter	A/F Square	Weight each	Order Code SHR-085	Price/1 THB
Metric Fine					
M5.0 x 0.50	5.00	4.00	10g	-0320E	1166.00
M6.0 x 0.75	6.30	5.00	27g	-0360E	819.00
M8.0 x 1.00	8.00	6.30	23g	-0400E	956.00
M10.0 x 1.25	10.00	8.00	40g	-0440E	1617.00
M12.0 x 1.25	9.00	7.10	48g	-0470E	2142.00
M14.0 x 1.50	11.20	9.00	78g	-0500E	2342.00
M16.0 x 1.50	12.50	10.00	82g	-0520E	1859.00
M18.0 x 1.50	14.00	11.20	132g	-0540E	3644.00
M20.0 x 1.50	14.00	11.20	159g	-0560E	5166.00
M22.0 x 1.50	16.00	12.50	185g	-0580E	5103.00
ISO Metric Special Pitch					
M10.0 x 1.00	10.00	8.00	40g	-0430E	1239.00
M12.0 x 1.50	9.00	7.10	40g	-0475E	1701.00

Spiral Flute

... = Metric Spark Plug
* = Metric Conduit

METRIC FINE HSS



Size - Pitch (mm)	Shank Diameter	A/F Square	Weight each	Order Code SHR-085	Price/1 THB
Metric Fine					
M4.0 x 0.50	4.00	3.15	6g	-0270F	704.00
M5.0 x 0.50	5.00	4.00	10g	-0320F	1481.00
M8.0 x 1.00	8.00	6.30	22g	-0400F	1271.00
M10.0 x 1.25	10.00	8.00	37g	-0440F	1932.00
M12.0 x 1.25	9.00	7.10	47g	-0470F	2331.00
M14.0 x 1.50	11.20	9.00	75g	-0500F	2993.00
M16.0 x 1.50	12.50	10.00	82g	-0520F	3098.00
M18.0 x 1.50	14.00	11.00	148g	-0540F	4358.00
M20.0 x 1.50	14.00	11.20	131g	-0560F	5324.00
ISO Metric Special Pitch					
M10.0 x 1.00	10.00	8.00	38g	-0430F	1512.00
M12.0 x 1.50	9.00	7.10	48g	-0475F	2079.00
M14.0 x 1.25	11.20	9.00	75g	-0490F	3108.00

HSS Taps & Dies

HSS Ground Flute Tap & Drill Set

Industrial quality. Ground flute, blue finish.
Supplied in indexing metal cases.
Manufactured to BS328 : Part 1 : 1986,
DIN 338N & ANSI B94 -11M.

HSS

METRIC COARSE



28
PIECES

METRIC

Tap & Drill

Taps M3 ~ M12
+ Tapping Drills
2.5 ~ 10.2

28 Piece Tap & Drill Set
Taps (Taper, Second and Bottom)

M3 M4	M5 M6	M8 M10	M12
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Tapping Drills

(mm)	3.3	5.0	8.5
2.5	4.2	6.8	10.2

Number of Pieces	Order Code SHR-025	Price/1 THB
28	-9960K	5817.00

Machine Tapping Speeds

Group	Materials Colour defines similar machineability	Hardness		Tensile Strength N/mm ²	Cutting Speed M/min	Hole Type	Tap Type
		Brinell HB	Rockwell HRC				
Carbon	1.1 Mild Steel	<130	-	<400	15 - 20	Various Through Hole Blind Hole	Straight Flute Spiral Point/ Gun Nose Spiral Flute
	1.2 Case Hardening & Structural Steel	<200	-	<700	15 - 20		
	1.3 Medium Carbon Steel	<260	<26	<850	15 - 20		
Alloy	1.4 Low Alloy Steel	<260	<26	<850	10 - 15	Through Hole Blind Hole	Spiral Point/ Gun Nose Spiral Flute
	1.5 Medium to High Alloy Steel	260 - 340	26 - 36	850 - 1200	6 - 10		
	1.6 Heat Treated Steel	340 - 450	36 - 48	1200 - 1500	4 - 6		
Stainless Steels	2.1 Free Machining Stainless	<230	<20	<800	8 - 10	Through Hole Blind Hole	Spiral Point/ Gun Nose Spiral Flute
	2.2 Medium Strength Austenitic Stainless	<290	<30	<1000	6 - 8		
	2.3 Difficult to Machine, Duplex Stainless	<340	<36	<1200	4 - 6		
Cast Iron	3.1 Grey Cast Iron - Soft	<180	-	-	18 - 25	Blind & Through Hole	Straight Flute
	3.2 Grey Cast Iron - Hard	180 - 300	-	-	15 - 18		
	3.3 Malleable & Nodular Iron	<220	-	-	8 - 12		
Aluminium	3.4 Malleable & Nodular Iron - Hard	200 - 300	-	-	4 - 6	Through Hole	Spiral Point/ Gun Nose
	7.1 Unalloyed Aluminium - Zinc - Magnesium	-	-	<150	20 - 25	Blind & Through Hole	Fluteless
	7.2 Aluminium Alloy less than 5% Si	-	-	150 - 300	17 - 22		
	7.3 Aluminium Alloy 5% to 10% Si	-	-	200 - 500	15 - 20		
	7.4 Aluminium Alloy above 10% Si	-	-	200 - 500	12 - 15	Blind & Through Hole	Straight Flute (for Cast Irons)

Power Requirements For Taps

Many factors are involved when considering power requirements for a particular application. Factors such as the choice of tap design, tapping drill size, depth of threaded hole, lubricant and tapping speed all play a part in determining these requirements.

To estimate the power requirements for varying percentage thread depths, the following general formula and constants may be used:

$$\text{Tapping Power (KW)} = \frac{C \times D \times p^2 \times N \times K}{10000}$$

$$\text{HP} = \text{KW} \times 1.341$$

Where **D** = Thread Diameter (mm)
P = Pitch (mm)
N = Spindle speed RPM
K = Material Factor Constant
C = A constant based on % thread depth, as follows:

C	% Thread Depth
0.231	60
0.326	75
0.433	80