

**GROUP 010 BUTT WELDED TOOLS**



Page ..... **18**

**GROUP 016 DIE HEADS & CHASERS**



Page ..... **19**

**GROUP 017 THREAD RESTORERS**



Page ..... **19**

**GROUP 019 SHEET & TUBE DRILLS**




Page ..... **20**

**GROUP 020 COUNTERSINKS**



Page ..... **20-23**

**GROUP 021 COUNTERBORES**




Page ..... **24**

**GROUP 025 DRILLS**



Page ..... **24-51**

**GROUP 030 ENGINEERS FILES**




Page ..... **52,53**

**GROUP 031 PRECISION FILES**



Page ..... **54,55**

**GROUP 032 MILLED FILES**




Page ..... **56**

**GROUP 033 DIAMOND FILES**



Page ..... **57**

**GROUP 040 HACKSAW & POWERSAW BLADES**



Page ..... **58,59**

**GROUP 050 HOLESAWS**



Page ..... **60,61**

**GROUP 055 MASONRY DRILLS**



Page ..... **62**

**GROUP 057 SDS HAMMER DRILLS**




Page ..... **63**

**GROUP 061 SHANK MILLING CUTTERS**



Page ..... **64-87**

**GROUP 065 REAMERS**



Page ..... **88,89**

**GROUP 072 SAW BLADES**



Page ..... **90**

**GROUP 075 SCREW EXTRACTORS**



Page ..... **90**

**GROUP 085 HSS TAPS & DIES**



Page ..... **91-101**

**GROUP 085 PRODUCTION TAPS**



Page ..... **102-106**

**GROUP 090 TOOLBITS & PARTING-OFF BLADES**



Page ..... **107**

**GROUP 100 BRAZED TOOLS**



Page ..... **108,109**

**GROUP 106 ISO TOOLHOLDERS**



Page ..... **110-127**

**GROUP 109 DEBURRING TOOLS**



Page ..... **128-131**

**GROUP 120 INSERTS - ISO TURNING & MILLING**



Page ..... **132-139**

**GROUP 121 INDEXABLE THREADING**



Page ..... **140-141**

**GROUP 139 INDEXABLE MILLING CUTTERS**



Page ..... **142-148**

**GROUP 140 TOOLING ACCESSORIES**



Page ..... **149**

**GROUP 144 SPINDLE NOSE TOOLING**



Page ..... **150-154**

**GROUP 144 TAPPING CHUCKS & COLLETS**



Page ..... **155-157**

# SECTION 1 Contents



## CUTTING TOOLS

### Section 1 Product Groups 010 - 154

#### Product Grading



Production



Professional



Industrial



Workshop



Maintenance



Home Improver

Description	Group	Page
Brazed Tools	100	<b>108, 109</b>
Butt Welded Tools	010	<b>18</b>
Counterbores	021	<b>24</b>
Countersinks - Multi Flute	020	<b>21-23</b>
- Hole Type	020	<b>20</b>
Deburring Tools - Hand	109	<b>128-131</b>
Diamond Needle Files	033	<b>57</b>
Die Heads & Chaser	015/017	<b>19</b>
Dies & Die Nuts - HSS	085	<b>91-101</b>
Drills - Blacksmiths	025	<b>33</b>
- Blanks	025	<b>43</b>
- Centre	025	<b>26, 27</b>
- Extra Length	025	<b>49</b>
- Long Series	025	<b>46-48</b>
- Maintenance	025	<b>32-33</b>
- PCB	025	<b>25</b>
- Production	025	<b>45</b>
- Spotting	025	<b>24</b>
- Standard Length (Jobber)	025	<b>34-44</b>
- Stub Centering	025	<b>25</b>
- Stub Length	025	<b>28-31</b>
- Taper Shank	025	<b>50-51</b>
- Vent & Micro	025	<b>25</b>
Engineer's Files	030	<b>52, 53</b>
Hacksaw & Powersaw Blades	040	<b>58, 59</b>
Holesaws & Arbors	050	<b>60, 61</b>
Inserts - ISO Milling	120	<b>139</b>
- ISO Turning	120	<b>132-138</b>
- ISO Threading	121	<b>141</b>
Masonry Drills	055	<b>62</b>
Milled Tooth Files & Rasps	032	<b>56</b>
Milling Cutters, Indexable	139	<b>142-147</b>
Milling Cutters, Shank	061	<b>64-87</b>
Needle Files	031	<b>54</b>
Precision Files	031	<b>55, 57</b>
Pull Studs	140	<b>148</b>
Reamers	065	<b>88, 89</b>
Riffler Files	031	<b>55</b>
Saw Blades	072	<b>90</b>
Screw Extractors	075	<b>90</b>
Screw Drills	154	<b>31</b>
SDS Hammer Drills	057	<b>63</b>
Sheet & Tube Drills	019	<b>20</b>
Spindle Nose Tooling	144	<b>150-154</b>
Tapping Chucks & Collets	144	<b>156-157</b>
Tapping Head Sets	144	<b>155</b>
Taps - HSS Ground Thread	085	<b>91-101</b>
- HSS Production	085	<b>102-106</b>
Thread Restorers	017	<b>19</b>
Toolbits & Parting-off Blades	090	<b>107</b>
Tool Blocks	152	<b>149</b>
Toolholders - ISO External	106	<b>110-127</b>
Tooling Accessories	139	<b>148-149</b>

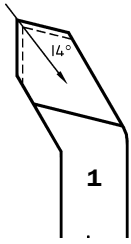
**GROUP 010 BUTT WELDED TOOLS**

**KENNEDY** *Butt-Welded*  
 QUALITY INDUSTRIAL TOOLING® **Tools**

Manufactured from top quality sintered steels. For use on a wide range of applications from roughing to finishing.  
 Manufactured to **BS 1296 : Part 3 : 1978.**



**Light Turning & Facing**



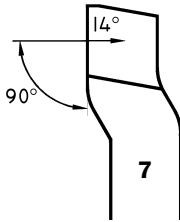
**Right Hand**



Shape No.1RH Rake & Clearance Angles	
Top Rake	14°
Front Clearance	6°
Approach Angle	-2°
Trail Angle	15°
Side Clearance	6°
Corner Radius	-

Shank (mm)	Overall Length	Order Code
12 x 12	100	<b>-0120K</b>
16 x 16	110	<b>-0160K</b>

**Knife or Side Cutting**



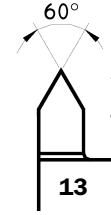
**Right Hand**



Shape No.7RH Rake & Clearance Angles	
Top Rake	14°
Front Clearance	6°
Approach Angle	-2°
Trail Angle	4 - 10°
Side Clearance	6°
Corner Radius	-

Shank (mm)	Overall Length	Order Code
12 x 12	100	<b>-1120K</b>
16 x 16	110	<b>-1160K</b>

**External Screw Cutting Right Hand**



**No Rake**  
**Also available for cutting left hand thread - No.13LH**

**No.13 RH**  
 (No.14 LH available on request)



Shape No.13RH Rake & Clearance Angles	
Top Rake	0°
Front Clearance	12°
Approach Angle	30°
Trail Angle	60°
Side Clearance	60°
Corner Radius	-

Shank (mm)	Overall Length	Order Code
12 x 12	100	<b>-2120K</b>
16 x 16	110	<b>-2160K</b>

**CUTTING TOOLS**

**Parting Off**



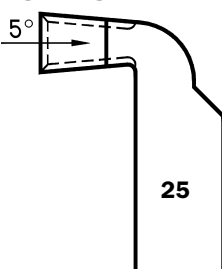
**Right Hand**



Shape No.16RH Rake & Clearance Angles	
Top Rake	5°
Front Clearance	6°
Approach Angle	90°
Trail Angle	0°
Side Clearance	1-2°
Corner Radius	-

Shank (mm)	Overall Length	Order Code
12 x 12	100	<b>-3120K</b>
16 x 16	110	<b>-3160K</b>

**Right Angle Recessing**



**Right Hand**



Shape No.25RH Rake & Clearance Angles	
Top Rake	5°
Front Clearance	6°
Approach Angle	0°
Trail Angle	2°
Side Clearance	3°
Corner Radius	-

Shank (mm)	Overall Length	Order Code
16 x 16	110	<b>-6160K</b>

**Facing**



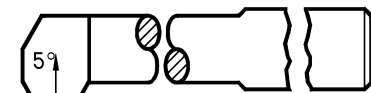
**Right Hand**



Shape No.19RH Rake & Clearance Angles	
Top Rake	14°
Front Clearance	6°
Approach Angle	-30°
Trail Angle	15°
Side Clearance	6°
Corner Radius	3 - 8°

Shank (mm)	Overall Length	Order Code
12 x 12	100	<b>-5120K</b>
16 x 16	110	<b>-5160K</b>

**Internal Screw Cutting Tools**



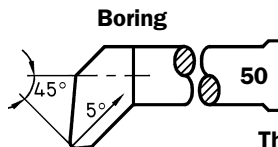
**50A**

**Right Hand**

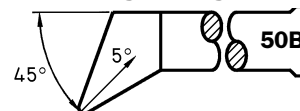
Shape No. 50A Rake & Clearance Angles	
Top Rake	5°
Front Clearance	6°
Approach Angle	0°
Trail Angle	1°
Side Clearance	1°
Corner Radius	-

Shank (mm)	Overall Length	Order Code
20 x 12	160	<b>-8620K</b>

**Boring Tools & Through Boring Tools**



**Through Boring**



**Right Hand**

Rake & Clearance Angles	Shape No.	
	50	50B
Top Rake	5°	5°
Front Clearance	6°	6°
Approach Angle	-1°	-45°
Trail Angle	4°	30°
Side Clearance	6°	6°
Corner Radius	-3°	-6°
Cutting Angle	30°	90°

Shank (mm)	Overall Length	Order Code	<b>KEN-010</b>	
			<b>No.50</b>	<b>No.50B</b>
12 x 12	160	<b>-8120K</b>	-	-
16 x 16	200	<b>-8160K</b>	<b>-9020K</b>	-



**Dieheads**

Coventry Dieheads allow produce clean and smooth threads for economy on short to medium production runs. The ease and simplicity in setting allows for minimum downtime when changing threads.

**Coventry Dieheads are suitable for a wide variety of machines:**

- Capstan and Turret Lathes.
- CNC or Automatic Screwing.
- Multi Spindle Automatics.
- Drilling Machines.



**NEW**



UNF: Throat Angle S20

**WS Style Coventry Die Heads**

Robust and reliable. Can be used on a variety of manual or automatic\* machines. Can be supplied with any other straight or tapered shank. Takes standard Coventry type chasers.

Repair parts readily available.  
\*Supplied with spring band closer.  
Set for single cut only.

Model	Capacity	Body Diameter	Shank Diameter	Order Code
WS6	1/4" (6mm)	1 1/2"	5/8"	<b>-0006A</b>
WS12	1/2" (12mm)	2 1/2"	1"	<b>-0012A</b>
WS20	3/4" (20mm)	3 7/16"	1 1/2"	<b>-0020A</b>

**HSS Diehead Chasers**

Coventry type chasers are supplied in sets of four. They are numbered and fitted into the die heads in numerical order in a clockwise direction facing the front of the head. They are marked with the thread form, TPI or pitch and diameter.

**Grade 'S' is supplied as standard for threading Mild Steel, Wrought Iron and Free Cutting Aluminium.**

Grades for threading other materials are also available including

**Grade M:** For Cast Iron, Phosphor Bronze, Gun Metal.

**Grade B:** For Brass.

**AM5/S5:** For High Tensile Steels and Free Cutting Stainless Steel.

**TiN Coated** chasers are also available on request.



**NEW**

**ISO Metric: Throat Angle S20**

Size x Pitch	Diehead Size	Weight each	Order Code
3 x 0.50	12mm	50g	<b>-1013N</b>
4 x 0.70	6mm	22g	<b>-1015Q</b>
	12mm	59g	<b>-1019V</b>
5 x 0.80	6mm	13g	<b>-1020W</b>
	12mm	58g	<b>-1024N</b>
6 x 1.00	12mm	59g	<b>-1030F</b>
	20mm	160g	<b>-1031G</b>
8 x 1.25	8mm	25g	<b>-1037N</b>
	12mm	55g	<b>-1041S</b>
	20mm	150g	<b>-1043V</b>
	25mm	58g	<b>-1044W</b>

Size x Pitch	Diehead Size	Weight each	Order Code
10 x 1.00	12mm	52g	<b>-1046J</b>
10 x 1.50	12mm	52g	<b>-1048A</b>
	20mm	150g	<b>-1050C</b>
12 x 1.25	12mm	50g	<b>-1053J</b>
	12mm	50g	<b>-1054G</b>
12 x 1.75	20mm	147g	<b>-1056J</b>
	25mm	235g	<b>-1058L</b>
14 x 2.00	20mm	145g	<b>-1061P</b>
	20mm	140g	<b>-1066V</b>
16 x 2.00	25mm	225g	<b>-1068X</b>
	32mm	355g	<b>-1069Y</b>

Size x Pitch	Diehead Size	Weight each	Order Code
18 x 2.50	20mm	135g	<b>-1071A</b>
	20mm	130g	<b>-1075E</b>
20 x 2.50	25mm	210g	<b>-1077G</b>
	32mm	355g	<b>-1079J</b>
24 x 3.00	25mm	205g	<b>-1085Q</b>
	32mm	320g	<b>-1086R</b>
27 x 3.00	32mm	340g	<b>-1089V</b>
30 x 3.50	32mm	400g	<b>-1091X</b>
	38mm	430g	<b>-1092Y</b>
36 x 4.00	38mm	480g	<b>-1095B</b>

**CUTTING TOOLS**

**SHERWOOD Thread Restoring Files**

Restore internal and external threads by filing, where the use of taps and dies are impractical. The restorer file overlaps several good threads and files the damaged ones. Restore right and left hand, internal and external threads. Long lasting, fast cutting teeth. Thread restoring files are available in ISO, Whit/BSF, UNF/UNC and BSP thread types.



Thread Type	Range	Weight each	Order Code
ISO	.80 to 3mm	133g	<b>-9020C</b>
Whit/BSF	10 tpi to 24 tpi	132g	<b>-9001A</b>
UNF/UNC	11 tpi to 24 tpi	130g	<b>-9010B</b>
BSP	11 tpi to 28 tpi	127g	<b>-9030D</b>

**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**



**HSS Multi Diameter Step Drills**



**HSS**

Produce good quality holes in a wide variety of materials, using either a bench drill or light pedestal drilling machine. Each tool cuts parallel holes in a range of specific sizes. For material up to 1/8" (3mm) thick.



Size	Range	No. of Steps	Weight each	Order Code
				<b>SHR-019</b>
0/5	4 - 12mm	5	30g	<b>-0500K</b>
0/9	4 - 12mm	9	30g	<b>-0509K</b>
1	4 - 20mm	9	70g	<b>-0510K</b>
2	4 - 30mm	11	200g	<b>-0520K</b>
3	6 - 38mm	12	299g	<b>-0530K</b>
5	4 - 39mm	14	320g	<b>-0560K</b>
9	6 - 37mm	12	310g	<b>-0600K</b>

**HSS Sheet Metal Step Drill Set**

Three piece stepped cone drill set manufactured from high speed steel, resulting in long tool life and extra durability. Each step produces specific sized, parallel holes, with the maximum material thickness being determined by the length of step. The drills are capable of producing or enlarging holes in sheet metals without the need for centre punch or pilot holes, and are designed for use with power tools or pedestal drilling machines for an extensive range of industrial applications.

**Sizes include:**

- 4 - 12mm (9 step, 6mm shank),
- 4 - 20mm (9 step, 8mm shank) and
- 4 - 30mm (14 step, 10mm shank).



Number of Pieces	Range	Weight	Order Code
			<b>SHR-019</b>
3	4 - 30mm	275g	<b>-0260K</b>

**HSS Taper Sheet & Tube Drills**

For producing clean holes in sheet metal and other thin walled materials. Efficient cutting geometry, no pre-drilled pilot hole and the diameter of the finished hole is infinitely variable within the range of each drill, according to depth of feed.



Range	Shank Diameter	Overall Length	Weight each	Order Code
				<b>SHR-019</b>
3 - 14mm	6	57	30g	<b>-1100K</b>
8 - 20mm	8	66	60g	<b>-1110K</b>
16 - 30mm	9	74	140g	<b>-1120K</b>
26 - 40mm	9	85	300g	<b>-1130K</b>



**HSS-E (5% Co) Countersinks Single Hole**



**HSS-Co 5%**

Manufactured from M35 HSS and used for the deburring and chamfering of most metals and plastics. Straight shank. Manufactured to **BS 328 : Part 5 : 1983.** Inclusive angle 90°



Cutting Range	Shank Diameter	Overall Length	Weight each	Order Code
				<b>KEN-020</b>
2 - 5mm	6	32.0	15g	<b>-2090K</b>
5 - 10mm	8	30.5	25g	<b>-2100K</b>
10 - 15mm	10	37.5	25g	<b>-2150K</b>
15 - 20mm	12	48.0	110g	<b>-2200K</b>
20 - 25mm	15	56.5	225g	<b>-2250K</b>



**HSS-E (5% Co) Countersinks Single Hole**



**HSS-Co 5%**

Manufactured from HSS-E cobalt for deburring and chamfering. Straight shank. Manufactured to **BS328 : Part 5 : 1983.** Inclusive angle 90°.



Cutting Range	Shank Diameter	Overall Length	Weight each	Order Code
				<b>SHR-020</b>
2 - 5mm	6	32.0	15g	<b>-2090K</b>
5 - 10mm	8	30.5	25g	<b>-2100K</b>
10 - 15mm	10	37.5	25g	<b>-2150K</b>
15 - 20mm	12	48.0	110g	<b>-2200K</b>
20 - 25mm	15	56.5	225g	<b>-2250K</b>
25 - 30mm	15	55.0	315g	<b>-2300K</b>

**Countersink Set**

**HSS-Co 5%**

**6**  
**PIECES**

**6 Piece Set**  
Straight shank, ground flute 90° angle. Sizes: 2 - 5mm, 5 - 10mm, 10 - 15mm, 15 - 20mm, 20 - 25mm and 25 - 30mm.



Number of Pieces	Shank Style	Weight each	Order Code
			<b>SHR-020</b>
6	Straight	1.2kg	<b>-9020B</b>



**3 Flute Piloted Countersinks**

For the production of high precision concentrically centred countersinks in most metals where pilot holes have been pre-drilled.

Shank diameter:  $\frac{3}{16}$ ".

**NEW**



**HSS-Co 5%**

Inclined Angles for Countersunk Socket Head Screws			
Thread Series	Standard	Thread Size	Countersink Angle
<b>Metric</b>	BS EN ISO 10642	up to M20 over M20	90°
<b>UNC/F</b>	ANSI B 18.3	No.0 to 1"	82°
<b>BSW/F</b>	BS 2470	1/8" TO 1"	90°
<b>BA</b>	BS 2470	8BA TO 0BA	90°



Product Number	Diameter	Inc. Angle	Body Dia.	Overall Length	Order Code
5802	$\frac{3}{32}$ "	100°	$\frac{3}{16}$ "	2 $\frac{1}{2}$ "	<b>-5050D</b>
5803	$\frac{3}{32}$ "	120°	$\frac{3}{16}$ "	2 $\frac{1}{2}$ "	<b>-5054H</b>
5810	$\frac{1}{8}$ "	100°	$\frac{1}{4}$ "	2 $\frac{1}{2}$ "	<b>-5051E</b>
5812	$\frac{1}{8}$ "	120°	$\frac{1}{4}$ "	2 $\frac{1}{2}$ "	<b>-5055J</b>
5821	$\frac{5}{32}$ "	100°	$\frac{5}{16}$ "	2 $\frac{1}{2}$ "	<b>-5052F</b>
5831	$\frac{3}{16}$ "	100°	$\frac{3}{8}$ "	2 $\frac{1}{2}$ "	<b>-5053G</b>
5832	$\frac{3}{16}$ "	120°	$\frac{3}{8}$ "	2 $\frac{1}{2}$ "	<b>-5056K</b>

Diameter	Inc. Angle	Body Dia.	Overall Length	Order Code
$\frac{3}{32}$ "	100°	.190	2 $\frac{1}{2}$ "	<b>-5057L</b>
$\frac{1}{8}$ "	100°	.252	2 $\frac{1}{2}$ "	<b>-5058M</b>
$\frac{5}{32}$ "	100°	.340	2 $\frac{1}{2}$ "	<b>-5059N</b>
$\frac{3}{16}$ "	100°	.405	2 $\frac{1}{2}$ "	<b>-5060P</b>
$\frac{1}{4}$ "	100°	.530	2 $\frac{1}{2}$ "	<b>-5061Q</b>

**HSS (5% Co) 3 Flute - Straight Shank**

**HSS-Co 5%**

90° Heavy Duty

Manufactured from HSS-E cobalt steel for deburring and chamfering of most metals and plastics.

Manufactured to **BS328 : Part 5 : 1983**.



Cutting Diameter	Shank Diameter	Order Code
8.0mm	8mm	<b>-0790K</b>
10.0mm	8mm	<b>-0890K</b>
12.5mm	8mm	<b>-0990K</b>
16.0mm	10mm	<b>-1090K</b>
20.0mm	10mm	<b>-1110K</b>
25.0mm	10mm	<b>-1130K</b>

**HSS (5% Co) 3 Flute - Taper Shank**

**HSS-Co 5%**

90° inclusive angle.



Cutting Diameter	Morse Taper	Order Code
16.0mm	1MT	<b>-1550K</b>
20.0mm	2MT	<b>-1570K</b>
25.0mm	2MT	<b>-1590K</b>
31.5mm	2MT	<b>-1690K</b>
40.0mm	3MT	<b>-1790K</b>
50.0mm	3MT	<b>-1890K</b>
63.0mm	4MT	<b>-1920K</b>

**Multi Flute - Straight Shank**

**HSS-Co 5%**

Rose Pattern

Inclusive angle 90°.

Overall length: 52mm.



Cutting Diameter	Shank Diameter	Order Code
9.5mm	4.8mm	<b>-2040K</b>
12.7mm	4.8mm	<b>-2060K</b>
15.8mm	6.3mm	<b>-2080K</b>

**KENNEDY Multi Flute - Straight Shank**



Rose Pattern

Inclusive angle 90°.

Overall length: 52mm.



Cutting Range	Shank Diameter	Order Code
9.5mm	4.8mm	<b>-2040K</b>
12.7mm	4.8mm	<b>-2060K</b>
15.8mm	6.3mm	<b>-2080K</b>

**Multi Flute - Straight Shank**

**HSS-Co 5%**

Heavy Duty

Inclusive angle 90°.

Overall length: 40mm.



Cutting Diameter	Shank Diameter	Order Code
12.7mm	6.3mm	<b>-2000K</b>

**Multi Flute - Straight Shank**

**HSS-Co 5%**

Heavy Duty

Inclusive angle 90°.

Overall length: 40mm.



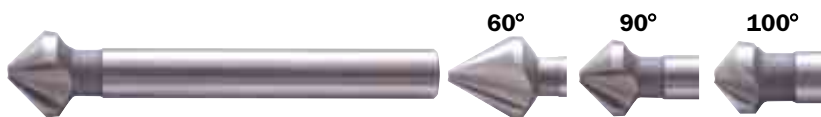
Cutting Diameter	Shank Diameter	Order Code
12.7mm	6.3mm	<b>-2000K</b>

**GROUP 020 COUNTERSINKS**

**SHERWOOD QUALITY CUTTING TOOLS HSS (5% Co) High Performance Countersinks**

**HSS-Co 5%**

A chatter-free cutter giving an excellent burr-free finish. Capable of deburring and countersinking in one stroke with no 'back-off' of tool. Also free countersinking of aluminium with no secondary bulge. For special applications and exotic materials, a choice of hard coatings is available.



Cutting Diameter	Shank (mm)	Length (mm)	Weight each	Order Code <b>SHR-020</b>		
				60° Countersink	90° Countersink	100° Countersink
6.3mm	5	45		-5950K	-	-5450K
8.3mm	6	46	12g	-6000K	-5000K	-5500K
10.4mm	6	47	13g	-6050K	-5050K	-5550K
12.4mm	8	58	24g	-6100K	-5100K	-5600K
16.5mm	8	60	29g	-6150K	-5150K	-5650K
20.5mm	10	65	48g	-6200K	-5200K	-5700K
25.0mm	10	69	70g	-6300K	-5250K	-5750K

**HSS (5% Co) Countersinks**

**HSS-Co 5%**

**3 Flute - Straight Shank**

Manufactured from M35 HSS and used for the deburring and chamfering of most metals and plastics.

Manufactured to **BS 328 : Part 5 : 1983**.

Inclusive angle 82°.



Cutting Diameter	Shank Diameter	Order Code <b>SHR-020</b>
10.0mm	8mm	-7100K
12.5mm	8mm	-7120K
16.0mm	10mm	-7160K
20.0mm	10mm	-7200K
25.0mm	10mm	-7250K

**HSS 90° Countersinks**

**HSS-Co 5%**

For all ferrous and non-ferrous metals as well as for hard plastics. General purpose chamfering/deburring and countersinking tool.

Bright finish, 3 flute, ground all over.

Made to **DIN 335**

**NEW**



Cutting Diameter	Shank (mm)	Length (mm)	Order Code <b>SHR-020</b>
6.0mm	5	45	-3060E
6.3mm	5	45	-3063J
8.3mm	6	50	-3083J
13.4mm	8	56	-3134Q
15.0mm	10	60	-3150G
19.0mm	10	63	-3190T
23.0mm	10	67	-3223G
30.0mm	12	71	-3230R

**KENNEDY QUALITY INDUSTRIAL TOOLING HSS (5% Co) Countersinks**



**3 Flute - Straight Shank**

Manufactured from M35 HSS and used for the deburring and chamfering of most metals and plastics.

Manufactured to

**BS 328 :**

**Part 5 : 1983.**

Inclusive angle 90°.

**HSS-Co 5%**



Cutting Diameter	Shank Diameter	Order Code <b>KEN-020</b>
8.0mm	8mm	-0790K
10.0mm	8mm	-0890K
12.5mm	8mm	-0990K
16.0mm	10mm	-1090K
20.0mm	10mm	-1110K
25.0mm	10mm	-1130K

**Countersink Set 90°**

**HSS-Co 5%**

**Contents:**

8, 10, 12.5, 16, 20, 25mm.

**6 PIECES**



Number of Pieces	Weight	Order Code <b>KEN-020</b>
6	620g	-1160K



**HSS (5% Co) Countersink Set - 90°**

**High Performance Multi Flute**  
Manufactured from HSS-E cobalt for deburring and chamfering. Straight shank, ground flute 90° angle. Sizes: 8, 10, 12.5, 16, 20 and 25mm. Manufactured to **BS328 : Part 5 : 1983.** Inclusive angle 90°.

**HSS-Co 5%**



**6  
PIECES**

Number of Pieces	Weight	Order Code
6	433g	<b>SHR-020 -9010A</b>

**HSS (5% Co) TiN Coated Countersink Set - 90°**

**6 Piece Set - High Performance Multi Flute**  
Manufactured from HSS-E cobalt for deburring and chamfering. Straight shank, ground flute 90° angle. Sizes: 6, 8, 10, 12.5, 16 and 20mm. Manufactured to **BS328 : Part 5 : 1983.** Inclusive angle 90°.

**NEW**



**HSS-Co 5%**

**TiN**



**6  
PIECES**

Number of Pieces	Weight	Order Code
6		<b>SHR-020 -8990Y</b>

**HSS (5% Co) Countersink Set - 100°**

**5 Piece High Performance Multi Flute**  
Manufactured from HSS-E cobalt for deburring and chamfering. Straight shank, ground flute 100° angle. Sizes: 6, 8, 10, 12.5, and 16mm. Manufactured to **BS328 : Part 5 : 1983.** Inclusive angle 100°.



**5  
PIECES**

Number of Pieces	Inclusive Angle	Order Code
5	100°	<b>SHR-020 -9130A</b>

**HSS (5% Co) Countersink Set - 60°**

**5 Piece High Performance Multi Flute**  
Manufactured from HSS-E cobalt for deburring and chamfering. Straight shank, ground flute 60° angle. Sizes: 6, 8, 10, 12.5, and 16mm. Manufactured to **BS328 : Part 5 : 1983.**

**HSS-Co 5%**

**NEW**



**5  
PIECES**

Number of Pieces	Inclusive Angle	Order Code
5	60°	<b>SHR-020 -8150A</b>

**CUTTING TOOLS**

**KENNEDY® Solid Carbide High Performance Premium Countersinks**

For the general purpose countersinking of tool steel, cast irons, high silicon aluminium, bronze and non-metallic materials such as resin fibre-glass and laminates. Available in three flute with eccentric relief and six flute with conventional relief. Manufactured to **USCTI Standards.**

**CARBIDE**

**3 Flute 90°**



\* Brazed steel shank

Cutting Diameter	Shank Diameter	Overall Length	Weight each	Order Code
1/4"	1/4"	2"	30g	<b>-0790K</b>
3/8"	1/4"*	2 <sup>13</sup> / <sub>16</sub> "	40g	<b>-0890K</b>
1/2"	1/4"*	2 <sup>7</sup> / <sub>8</sub> "	50g	<b>-0990K</b>
5/8"	3/8"*	3"	90g	<b>-1090K</b>
3/4"	1/2"*	3"	130g	<b>-1110K</b>

**6 Flute 90°**



\* Brazed steel shank

Cutting Diameter	Shank Diameter	Overall Length	Weight each	Order Code
1/4"	1/4"	2"	30g	<b>-1790K</b>
3/8"	1/4"*	2 <sup>13</sup> / <sub>16</sub> "	40g	<b>-1890K</b>
1/2"	1/4"*	2 <sup>7</sup> / <sub>8</sub> "	50g	<b>-1990K</b>
5/8"	3/8"*	3"	90g	<b>-2090K</b>
3/4"	1/2"*	3"	130g	<b>-2110K</b>



**Solid Counterbores**  
**HSS-Co 5%**

Spiral flute, 3 flute. Medium duty. Used for milling of pre-drilled holes to allow bolt or cap head screws to lie flush with the component surface.

Manufactured to **BS328: 5:1983**.

**Plain Shank**



Bolt Size	Pilot Dia.	Cutter Dia.	Overall Length	Weight each	Order Code
3mm	3.4	6.0	65.0	10g	<b>-3520K</b>
4mm	4.3	8.0	65.0	10g	<b>-3560K</b>
5mm	5.3	10.0	70.0	10g	<b>-3580K</b>
6mm	6.4	11.0	76.0	20g	<b>-3600K</b>

Bolt Size	Pilot Dia.	Cutter Dia.	Overall Length	Weight each	Order Code
8mm	8.4	15.0	87.3	60g	<b>-3620K</b>
10mm	10.5	18.0	89.0	70g	<b>-3640K</b>
12mm	13.0	20.0	108.0	110g	<b>-3660K</b>
16mm	17.0	26.0	125.0	225g	<b>-3700K</b>

**Plain Shank 7 Piece Set**

**Sizes:** M3, M4, M5, M6, M8, M10, M12.  
Manufactured to **BS328 : 5 : 1983**.

**7**  
**PIECES**



Number of Pieces	Weight each	Order Code
7	462g	<b>-9010A</b>

**Screwed Shank 7 Piece Set**

**Sizes:** M3, M4, M5, M6, M8, M10, M12.  
Manufactured to **BS328 : 5 : 1983**.

**7**  
**PIECES**



Number of Pieces	Weight each	Order Code
7	283g	<b>-9020B</b>

**CUTTING TOOLS**

**SHERWOOD QUALITY CUTTING TOOLS** **Spotting Drills**

**HSS**

Special drill for accurate and fast spotting on NC machines, jig drills and other capital-intensive boring machines. For countersinking and chamfering of tapping holes in one operation.

**Please note:** Only suitable for shallow depth drilling.

**90° Point**



**Series C520**

Diameter (mm)	Flute Length	Overall Length	Weight per 5	Order Code
3.00	12.0	46.0		<b>-2528Y</b>
4.00	12.0	46.0	20g	<b>-2528Z</b>
5.00	14.0	62.0		<b>-2529B</b>
6.00	16.0	66.0	65g	<b>-2529A</b>
8.00	21.0	79.0	135g	<b>-2530B</b>
10.00	24.0	89.0	265g	<b>-2531C</b>
12.00	30.0	102.0	434g	<b>-2532D</b>
14.00	33.0	107.0		<b>-2532N</b>
16.00	35.0	115.0	175g	<b>-2533E</b>
20.00	40.0	131.0	298g	<b>-2534F</b>
25.00	53.0	151.0		<b>-2534R</b>

**90° Point Set**

**Contents:**  
4.00, 6.00, 8.00,  
10.00 and 12.00mm

**NEW**



**5**  
**PIECES**

Number of Pieces	Order Code
5	<b>-9200K</b>

**120° Point**



**Series C530**

Diameter (mm)	Flute Length	Overall Length	Weight per 5	Order Code
6.00	20.0	66.0	100g	<b>-2535G</b>
8.00	16.0	79.0	155g	<b>-2536H</b>
10.00	21.0	89.0	265g	<b>-2537J</b>
12.00	30.0	102.0	434g	<b>-2538K</b>
16.00	35.0	115.0	175g	<b>-2539L</b>
20.00	40.0	131.0	298g	<b>-2540M</b>

**Carbide Spotting Drills**

**CARBIDE**

Designed for close tolerance hole location. Carbide spot drills are more wear resistant than HSS spot drills. Suitable for continuous production on aluminium, plastics, free cutting steels, cast iron, titanium and some aerospace materials. The stability of carbide makes the tool more rigid and less likely to deflect, maintaining a higher level of accuracy. Operators should note that continuous heavy shock loading may cause the tool to fail due to its brittleness.

**90° Point**



**Metric**

Diameter (mm)	Flute Length	Overall Length	Weight per 5	Order Code
4.00	10.0	40.0	40g	<b>-8540K</b>
6.00	16.0	50.0	100g	<b>-8560K</b>
8.00	23.0	60.0	155g	<b>-8580K</b>
10.00	24.0	70.0	265g	<b>-8600K</b>
12.00	25.0	70.0	434g	<b>-8620K</b>
16.00	30.0	80.0	175g	<b>-8660K</b>
20.00	35.0	100.0	298g	<b>-8700K</b>



**High Speed Steel  
SCD Drills**



Stub centering drills designed for sheet metal drilling and spot centering operations with a strong supporting web and a reduced chisel edge to help penetration.

**135° Split Point  
Series S510**



**HSS**

Diameter (mm)	Flute Length	Overall Length	Order Code SHR-025
2.0	14.0	43.0	<b>-1396A</b>
3.0	18.0	49.0	<b>-1396C</b>
4.0	18.0	55.0	<b>-1396E</b>
5.0	18.0	62.0	<b>-1396G</b>
6.0	18.0	70.0	<b>-1396J</b>

Diameter (Inch)	Flute Length	Overall Length	Order Code SHR-025
3/32"	9/16"	1 11/16"	<b>-1400C</b>
1/8"	11/16"	1 15/16"	<b>-1400F</b>
5/32"	11/16"	2 3/32"	<b>-1400J</b>
3/16"	11/16"	2 7/16"	<b>-1400M</b>
1/4"	3/4"	2 3/4"	<b>-1400Q</b>

**HSS Straight Shank Quick Spiral, Extra Length Vent Drills**

**QUICK SPIRAL**

Sherwood HSS quick spiral extra length Vent drills are designed for drilling the initial vent hole in aluminium tyre moulds, and are also used in the tyre industry for clean-out work post production where the high helix and extra reach are ideal for the efficient evacuation of waste rubber. Manufactured to works standard. 118° point angle.

**HSS**

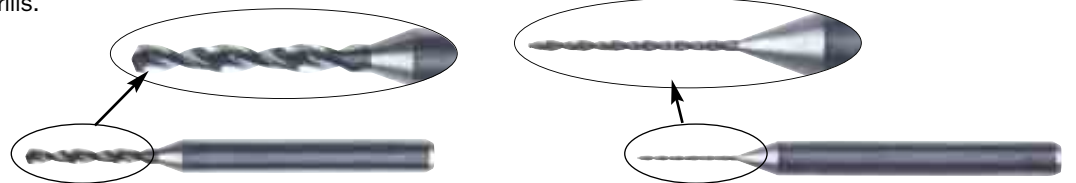


Metric Diameter (mm)	Flute Length	Overall Length	Order Code SHR-025
0.60	40.0	60.0	<b>-2180D</b>
0.70	40.0	76.0	<b>-2180H</b>
0.75	50.0	100.0	<b>-2181P</b>

**Carbide Printed Circuit Board Drills**

Solid carbide printed circuit board drills. Suitable for drilling through printed circuit boards. Shank diameter 3.175mm, 38mm overall length. Manufactured to **DIN 1899**.

**CARBIDE**



Metric Diameter (mm)	Flute Length	Order Code SHR-158
0.40	5.5	<b>-3004D</b>
0.45	5.5	<b>-3005E</b>
0.50	5.5	<b>-3006F</b>
0.55	7.0	<b>-3007G</b>
0.60	7.0	<b>-3008H</b>
0.65	7.0	<b>-3009J</b>
0.70	9.5	<b>-3010K</b>
0.75	9.5	<b>-3011L</b>
0.80	9.5	<b>-3012M</b>
0.85	9.5	<b>-3013N</b>

Metric Continued Diameter (mm)	Flute Length	Order Code SHR-158
0.90	9.5	<b>-3014P</b>
0.95	9.5	<b>-3015Q</b>
1.00	10.5	<b>-3016R</b>
1.10	10.5	<b>-3018T</b>
1.20	10.5	<b>-3020W</b>
1.25	10.5	<b>-3021X</b>
1.30	10.5	<b>-3022Y</b>
1.40	10.5	<b>-3025A</b>
1.50	10.0	<b>-3027C</b>

**Drilling Stack Height Limits for Drilling PCB Materials**

Includes allowance for entry, materials thickness, penetration into backing material, and flute/swarf clearance.

**Feed & Guidline for Drilling PCB Materials**

Values listed are for your guidance. Drill parameters should be evaluated for different applications.

Drill Dia. (mm)	Suggested Drilling Stack Height Limits for Carbide PCB Drills		
	1 High	2 High	3 High
0.40	3.3	4.9	-
0.45	3.4	5.0	-
0.50	3.6	5.2	-
0.55	3.7	5.3	-
0.60	3.8	5.4	-
0.65	3.9	5.5	-
0.70	4.1	5.7	7.3
0.75	4.2	5.8	7.4
0.80	4.3	5.9	7.5
0.85	4.4	6.0	7.6
0.90	4.6	6.2	7.8
0.95	4.7	6.3	7.9
1.00	4.8	6.4	8.0
1.10	5.1	6.7	8.3
1.20	5.3	6.9	8.5
1.25	5.4	7.0	8.6
1.30	5.6	7.2	8.8
1.40	5.8	7.4	9.0
1.50	6.1	7.7	9.3



Drill Dia. (mm)	Cutting Speed 120m/min		Cutting Speed 150m/min		Cutting Speed 180m/min				
	Spindle RPM	Feed mm/rev	Spindle RPM	Feed mm/rev	Spindle RPM	Feed mm/rev			
0.40	95,000	0.024	2.3	119,000	0.024	2.9	143,000	0.024	3.4
0.45	85,000	0.027	2.3	106,000	0.027	2.9	127,000	0.027	3.4
0.50	76,000	0.030	2.3	95,000	0.030	2.9	115,000	0.030	3.4
0.55	70,000	0.033	2.3	87,500	0.033	2.9	405,000	0.033	3.4
0.60	64,000	0.036	2.3	80,000	0.036	2.9	95,000	0.036	3.4
0.65	59,500	0.039	2.3	74,000	0.039	2.9	88,500	0.039	3.4
0.70	55,000	0.042	2.3	68,000	0.042	2.9	82,000	0.042	3.4
0.75	51,500	0.045	2.3	64,000	0.045	2.9	77,000	0.045	3.4
0.80	48,000	0.048	2.3	60,000	0.048	2.9	72,000	0.048	3.4
0.85	45,000	0.051	2.3	56,500	0.051	2.9	68,000	0.051	3.4
0.90	42,000	0.054	2.3	53,000	0.054	2.9	64,000	0.054	3.4
0.95	40,000	0.057	2.3	50,500	0.057	2.9	60,500	0.057	3.4
1.00	38,000	0.060	2.3	48,000	0.060	2.9	57,000	0.060	3.4
1.10	35,000	0.066	2.3	43,000	0.066	2.9	52,000	0.066	3.4
1.20	32,000	0.072	2.3	40,000	0.072	2.9	48,000	0.072	3.4
1.25	30,500	0.075	2.3	38,500	0.075	2.9	46,000	0.075	3.4
1.30	29,000	0.078	2.3	37,000	0.078	2.9	44,000	0.078	3.4
1.40	27,000	0.084	2.3	34,000	0.084	2.9	41,000	0.084	3.4
1.50	25,000	0.090	2.3	32,000	0.090	2.9	38,000	0.090	3.4

**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**

**CUTTING TOOLS**

**GROUP 025 CENTRE DRILLS**

**SHERWOOD QUALITY CUTTING TOOLS High Speed Steel Centre Drills**

Designed with spiral flutes and various lengths and forms to give high quality centre holes that suit most applications. 60° inclusive angle. Manufactured to **BS 328 : Part 2 : 1986, DIN 333A, ISO 866, ISO 2540, ISO 2541.**



**Inch Series C100**

Size	Diameter		Pilot Length		Overall Length	Order Code SHR-025
	Body	Pilot	Min	Max		
BS00	1/8"	0.025"	0.025"	0.030"	1 1/8"	-1827L
BS0	1/8"	1/32"	3/64"	1/16"	1 1/4"	-1828M
BS1	1/8"	3/64"	1/16"	5/64"	1 1/2"	-1829A
BS2	3/16"	1/16"	5/64"	3/32"	1 3/4"	-1830B
BS3	1/4"	3/32"	1/8"	5/32"	2"	-1831C
BS4	5/16"	1/8"	5/32"	3/16"	2 1/4"	-1832D
BS5	7/16"	3/16"	1/4"	9/32"	2 1/2"	-1833E
BS6	5/8"	1/4"	5/16"	3/8"	3"	-1835G
BS7	3/4"	5/16"	13/32"	15/32"	3 1/2"	-1836H

**4 Piece BS Set**

60° inclusive angle. Manufactured to **BS 328 : Part 2 : 1986, DIN 333A, ISO 866, ISO 2540, ISO 2541.** Sizes: BS2, BS3, BS4 and BS5.



**4  
PIECES**

Number of Pieces	Weight each	Order Code SHR-025
4	114g	-9100K

**HSS**

**High Speed Steel Centre Drills**

Designed with spiral flutes and various lengths and forms to give high quality centre holes that suit most applications. 60° inclusive angle. Manufactured to **BS 328 : Part 2 : 1986, DIN 333A, ISO 866, ISO 2540, ISO 2541.**



**HSS**



**Metric Series**

Diameter Body	Pilot Pilot	Pilot Length		Overall Length	Weight each	Order Code SHR-025
		Min	Max			
3.15	0.50	0.8	1.0	25.0	2g	-1842W
3.15	0.80	1.1	1.5	31.5	2g	-1843X
3.15	1.00	1.3	1.9	31.5	2g	-1844A
3.15	1.25	1.6	2.2	31.5	3g	-1845B
4.00	1.60	2.0	2.8	35.5	3g	-1846C
5.00	2.00	2.5	3.3	40.0	5g	-1847D
6.30	2.50	3.1	4.1	45.0	9g	-1848E
8.00	3.15	3.9	4.9	50.0	7g	-1849F
10.00	4.00	5.0	6.2	56.0	28g	-1850G
12.50	5.00	6.3	7.5	63.0	45g	-1851H
16.00	6.30	8.0	9.2	71.0	71g	-1852J
20.00	8.00	10.0	11.5	83.0	102g	-1852M
25.00	10.00	12.8	14.2	103.0	197g	-1852N

**5 Piece Metric Set**

60° inclusive angle. Manufactured to **BS 328 : Part 2 : 1986, DIN 333A, ISO 866, ISO 2540, ISO 2541.**

Sizes: 5 x 2mm, 6.3 x 2.5mm, 8 x 3.15mm, 10 x 4mm and 12.5 x 5mm.



**5  
PIECES**

Number of Pieces	Weight each	Order Code SHR-025
5		-9150K

**HSS**

**CUTTING TOOLS**

**SWISS+TECH HSS TiN Tipped Centre Drills**

Designed with spiral flutes and various lengths and forms to give high quality centre holes that suit most applications. TiN coating on working parts. 60° inclusive angle. Manufactured to **BS 328 : Part 2 : 1986, DIN 333A, ISO 866, ISO 2540, ISO 2541.**

**HSS TiN-tip**

**NEW**



Size	Diameter		Pilot Length		Overall Length	Order Code SWT-125
	Body	Pilot	Min	Max		
BS1	1/8"	3/64"	1/16"	5/64"	1 1/2"	-5133A
BS2	3/16"	1/16"	5/64"	3/32"	1 3/4"	-5134A
BS3	1/4"	3/32"	1/8"	5/32"	2"	-5135A
BS4	5/16"	1/8"	5/32"	3/16"	2 1/4"	-5136A
BS5	7/16"	3/16"	1/4"	9/32"	2 1/2"	-5137A

**HSS TiN Tipped Centre Drills**

Designed with spiral flutes and various lengths and forms to give high quality centre holes that suit most applications. TiN coating on working parts. 60° inclusive angle. Manufactured to **BS 328 : Part 2 : 1986, DIN 333A, ISO 866, ISO 2540, ISO 2541.**

**HSS TiN-tip**

**NEW**



Diameter Body	Pilot Pilot	Pilot Length		Overall Length	Weight each	Order Code SWT-125
		Min	Max			
6.30	2.50	3.1	4.1	45.0		-5145A
8.00	3.15	3.9	4.9	50.0		-5146A
10.00	4.00	5.0	6.2	56.0		-5147A



**High Speed Steel Extra Length Centre Drills**

Ground flute, for drilling centre holes on components prior to machining. Extra length drills particularly useful for drilling centre holes in recesses. Manufactured to **BS 328 : Part 1 : 1986, DIN333A : ISO 86, ISO2540, ISO2541.**



HSS



**Metric Series**

Diameter (mm)		Overall Length	Weight each	Order Code <b>SHR-024</b>
Body	Point			
4.00	1.00	120	19g	<b>-1866H</b>
5.00	1.60	120	25g	<b>-1866K</b>
6.00	2.00	120	31g	<b>-1866N</b>
8.00	2.50	120	49g	<b>-1866R</b>
10.00	3.15	120	69g	<b>-1866W</b>
12.50	5.0	120	86g	<b>-1866X</b>

**Inch Extra Length Series**

Size	Diameter		Overall Length	Order Code <b>SHR-024</b>
	Body	Pilot		
BS1	1/8"	3/64"	4"	<b>-1881A</b>
BS2	3/16"	1/16"	4"	<b>-1882B</b>
BS3	1/4"	3/32"	4"	<b>-1883C</b>
BS4	5/16"	1/8"	4"	<b>-1884D</b>
BS5	7/16"	3/16"	4"	<b>-1855E</b>

**HSS Bell Type Centre Drills**

Manufactured to **BS 328 : Part 2 : 1986, DIN 333, ISO 2540.**

HSS



**Inch Series**

Size	Diameter		Overall Length	Order Code <b>SHR-024</b>
	Body	Pilot		
BS1B	1/8"	3/64"	1 1/2"	<b>-1853A</b>
BS2B	3/16"	1/16"	1 3/4"	<b>-1854B</b>
BS3B	1/4"	3/32"	2"	<b>-1855C</b>
BS4B	1/8"	5/16"	2 1/4"	<b>-1856D</b>
BS5B	7/16"	5/32"	2 1/2"	<b>-1858F</b>
BS6B	5/8"	7/32"	3"	<b>-1860H</b>

**Metric Series**

Diameter		Overall Length	Order Code <b>SHR-024</b>
Body	Pilot		
4.00	1.00	35.5	<b>-1861K</b>
5.00	1.25	40.0	<b>-1861L</b>
6.30	1.60	45.0	<b>-1861N</b>
8.00	2.00	50.0	<b>-1861P</b>
10.00	2.50	56.0	<b>-1861Q</b>
11.20	3.15	60.0	<b>-1861R</b>
14.00	4.00	67.0	<b>-1861S</b>
18.00	5.00	75.0	<b>-1861T</b>
20.00	6.30	80.0	<b>-1861V</b>

**Carbide Centre Drills**

Used to produce 60° centres in components for subsequent manufacturing operations to be carried out. Tool life is extended and difficult materials may be drilled. 60° included angle. 118° drill point. Manufactured to **BS 328.**



CARBIDE

**Tolerances**  
Cutting Diameter +0.0005"  
Shank Diameter +0.0010"



**Inch Series**

Size	Diameter		Overall Length	Weight each	Order Code <b>SHR-158</b>
	Body	Drill			
BS1	1/8"	3/64"	1 1/2"	10g	<b>-8010K</b>
BS2	3/16"	5/64"	1 7/8"	10g	<b>-8020K</b>
BS3	1/4"	7/64"	2"	20g	<b>-8030K</b>
BS4	5/16"	1/8"	2 1/8"	30g	<b>-8040K</b>
BS5	7/16"	3/16"	2 3/4"	70g	<b>-8050K</b>
BS6	1/2"	7/32"	3"	90g	<b>-8060K</b>

**Metric Series**

Diameter		Pilot Length		Overall Length	Weight each	Order Code <b>SHR-158</b>
Body	Pilot	Min	Max			
4.00	1.60	2.0	2.8	35.5	3g	<b>-8110K</b>
5.00	2.00	2.5	3.3	40.0	5g	<b>-8120K</b>
6.30	2.50	3.1	4.1	45.0	9g	<b>-8130K</b>
8.00	3.15	3.9	4.9	50.0	7g	<b>-8140K</b>
10.00	4.00	5.0	6.2	56.0	28g	<b>-8150K</b>
12.50	5.00	6.3	7.5	63.0	45g	<b>-8160K</b>
16.00	6.30	8.0	9.2	71.0	123g	<b>-8180K</b>

**KENNEDY Carbide Centre Drills**

Used to produce 60° centres in components for subsequent manufacturing operations to be carried out. Tool life is extended and difficult materials may be drilled. 60° included angle. 118° drill point. Manufactured to **BS 328.**



CARBIDE

**Tolerances**  
Cutting Diameter +0.0005"  
Shank Diameter +0.0010"



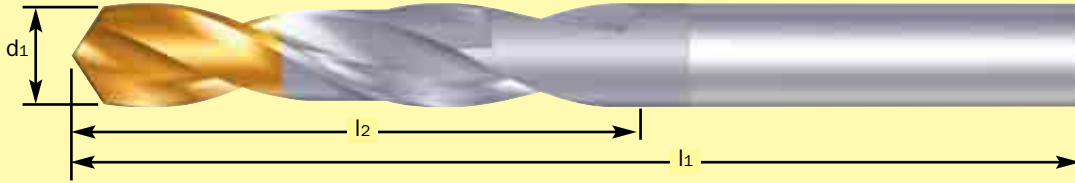
**Inch Series**

Size	Diameter		Overall Length	Weight each	Order Code <b>KEN-158</b>
	Body	Drill			
BS1	1/8"	3/64"	1 1/2"	10g	<b>-9010K</b>
BS2	3/16"	5/64"	1 7/8"	10g	<b>-9020K</b>
BS3	1/4"	7/64"	2"	20g	<b>-9030K</b>
BS4	5/16"	1/8"	2 1/8"	30g	<b>-9040K</b>
BS5	7/16"	3/16"	2 3/4"	70g	<b>-9050K</b>
BS6	1/2"	7/32"	3"	90g	<b>-9060K</b>

# GROUP 025 STUB DRILLS

## Dimensions - Stub Drills to BS 328 / DIN 1897

The majority of stub drills feature in this catalogue comply with the above standards in terms of overall and working dimensions. The tables of sizes below apply to all of these products. In order to save space in the catalogue we are not repeating these dimensions after this page. Any drills which are made to different standards/dimensions will have them listed accordingly in the tables for those products.



d1	Inch	Inch	l2	l1
mm	hs	Dec.	mm	mm
0.50		0.0196	3.0	20.0
0.60		0.0236	3.5	21.0
0.70		0.0275	4.5	23.0
0.79	1/32	0.0312	5.0	24.0
0.80		0.0314	5.0	24.0
0.90		0.0354	5.5	25.0
1.00		0.0393	6.0	26.0
1.10		0.0433	7.0	28.0
1.19	3/64	0.0468	8.0	30.0
1.20		0.0472	8.0	30.0
1.30		0.0511	8.0	30.0
1.40		0.0551	9.0	32.0
1.50		0.0590	9.0	32.0
1.59	1/16	0.0625	10.0	34.0
1.60		0.0629	10.0	34.0
1.70		0.0669	10.0	34.0
1.80		0.0708	11.0	36.0
1.90		0.0748	11.0	36.0
1.98	5/64	0.0779	12.0	38.0
2.00		0.0787	12.0	38.0
2.10		0.0826	12.0	38.0
2.20		0.0866	13.0	40.0
2.25		0.0885	13.0	40.0
2.30		0.0905	13.0	40.0
2.38	3/32	0.0937	14.0	43.0
2.40		0.0944	14.0	43.0
2.50		0.0984	14.0	43.0
2.60		0.1023	14.0	43.0
2.65		0.1043	14.0	43.0
2.70		0.1062	16.0	46.0
2.78	7/64	0.1094	16.0	46.0
2.80		0.1102	16.0	46.0
2.90		0.1141	16.0	46.0
3.00		0.1181	16.0	46.0
3.10		0.1220	18.0	49.0
3.18	1/8	0.1251	18.0	49.0
3.20		0.1259	18.0	49.0
3.25		0.1279	18.0	49.0
3.30		0.1299	18.0	49.0
3.40		0.1338	20.0	52.0
3.50		0.1377	20.0	52.0
3.57	9/64	0.1405	20.0	52.0
3.60		0.1417	20.0	52.0
3.70		0.1456	20.0	52.0

d1	Inch	Inch	l2	l1
mm	hs	Dec.	mm	mm
3.80		0.1496	22.0	55.0
3.90		0.1535	22.0	55.0
3.97	5/32	0.1562	22.0	55.0
4.00		0.1574	22.0	55.0
4.10		0.1614	22.0	55.0
4.20		0.1653	22.0	55.0
4.30		0.1692	24.0	58.0
4.37	11/64	0.1720	24.0	58.0
4.40		0.1732	24.0	58.0
4.50		0.1771	24.0	58.0
4.60		0.1811	24.0	58.0
4.70		0.1850	24.0	58.0
4.76	3/16	0.1874	26.0	62.0
4.80		0.1889	26.0	62.0
4.90		0.1929	26.0	62.0
5.00		0.1968	26.0	62.0
5.10		0.2007	26.0	62.0
5.16	13/64	0.2031	26.0	62.0
5.20		0.2047	26.0	62.0
5.30		0.2086	26.0	62.0
5.40		0.2125	28.0	66.0
5.50		0.2165	28.0	66.0
5.56	7/32	0.2188	28.0	66.0
5.60		0.2204	28.0	66.0
5.70		0.2244	28.0	66.0
5.80		0.2283	28.0	66.0
5.90		0.2322	28.0	66.0
5.95	15/64	0.2342	28.0	66.0
6.00		0.2362	28.0	66.0
6.10		0.2401	31.0	70.0
6.20		0.2440	31.0	70.0
6.30		0.2480	31.0	70.0
6.35	1/4	0.2500	31.0	70.0
6.40		0.2519	31.0	70.0
6.50		0.2559	31.0	70.0
6.60		0.2598	31.0	70.0
6.70		0.2637	31.0	70.0
6.80		0.2677	34.0	74.0
6.90		0.2716	34.0	74.0
7.00		0.2755	34.0	74.0
7.10		0.2795	34.0	74.0
7.14	9/32	0.2811	34.0	74.0
7.20		0.2834	34.0	74.0
7.30		0.2874	34.0	74.0

d1	Inch	Inch	l2	l1
mm	hs	Dec.	mm	mm
7.40		0.2913	34.0	74.0
7.50		0.2952	34.0	74.0
7.60		0.2992	37.0	79.0
7.70		0.3031	37.0	79.0
7.80		0.3070	37.0	79.0
7.90		0.3110	37.0	79.0
7.94	5/16	0.3125	37.0	79.0
8.00		0.3149	37.0	79.0
8.10		0.3188	37.0	79.0
8.20		0.3228	37.0	79.0
8.30		0.3267	37.0	79.0
8.40		0.3307	37.0	79.0
8.50		0.3346	37.0	79.0
8.60		0.3385	40.0	84.0
8.70		0.3425	40.0	84.0
8.73	11/32	0.3437	40.0	84.0
8.80		0.3464	40.0	84.0
8.90		0.3503	40.0	84.0
9.00		0.3543	40.0	84.0
9.10		0.3582	40.0	84.0
9.20		0.3622	40.0	84.0
9.30		0.3661	40.0	84.0
9.40		0.3700	40.0	84.0
9.50		0.3740	40.0	84.0
9.53	3/8	0.3751	43.0	89.0
9.60		0.3779	43.0	89.0
9.70		0.3818	43.0	89.0
9.80		0.3858	43.0	89.0
9.90		0.3897	43.0	89.0
10.00		0.3937	43.0	89.0
10.10		0.3976	43.0	89.0
10.20		0.4015	43.0	89.0
10.30		0.4055	43.0	89.0
10.32	13/32	0.4062	43.0	89.0
10.40		0.4094	43.0	89.0
10.50		0.4133	43.0	89.0
10.60		0.4173	43.0	89.0
10.70		0.4212	47.0	95.0
10.80		0.4251	47.0	95.0
10.90		0.4291	47.0	95.0
11.00		0.4330	47.0	95.0
11.10		0.4370	47.0	95.0
11.11	7/16	0.4374	47.0	95.0
11.20		0.4409	47.0	95.0

d1	Inch	Inch	l2	l1
mm	hs	Dec.	mm	mm
11.30		0.4448	47.0	95.0
11.50		0.4527	47.0	95.0
11.60		0.4566	47.0	95.0
11.70		0.4606	47.0	95.0
11.80		0.4645	47.0	95.0
11.90		0.4685	51.0	102.0
12.00		0.4724	51.0	102.0
12.10		0.4763	51.0	102.0
12.20		0.4803	51.0	102.0
12.50		0.4921	51.0	102.0
12.70	1/2	0.5000	51.0	102.0
13.00		0.5118	51.0	102.0
13.50		0.5314	54.0	107.0
14.00		0.5511	54.0	107.0
14.29	9/16	0.5625	56.0	111.0
14.50		0.5708	56.0	111.0
15.00		0.5905	56.0	111.0
15.50		0.6102	58.0	115.0
15.88	5/8	0.6251	58.0	115.0
16.00		0.6299	58.0	115.0
16.50		0.6496	60.0	119.0
17.00		0.6692	60.0	119.0
17.46	11/16	0.6874	62.0	123.0
17.50		0.6889	62.0	123.0
18.00		0.7086	62.0	123.0
18.50		0.7283	64.0	127.0
19.00		0.7480	64.0	127.0
19.05	3/4	0.7500	66.0	131.0
19.50		0.7677	66.0	131.0
20.00		0.7874	66.0	131.0
20.50		0.8070	68.0	136.0
20.64	13/16	0.8125	68.0	136.0
21.00		0.8267	68.0	136.0
22.00		0.8661	70.0	141.0
22.23	7/8	0.8751	70.0	141.0
23.00		0.9055	72.0	146.0
23.81	15/16	0.9374	75.0	151.0
24.00		0.9448	75.0	151.0
25.00		0.9842	75.0	151.0
25.40	1"	1.0000	78.0	156.0
26.99	1 1/16	1.0625	81.0	162.0
28.58	1 1/8	1.1251	84.0	168.0
30.16	1 3/16	1.1874	87.0	174.0
31.75	1 1/4	1.2500	90.0	180.0

CUTTING TOOLS

**FREE**



**Metric/Inch Conversion Wall Chart (A2 Size)**

**AVAILABLE ON REQUEST**  
CAT-849-0937A

Contact your local branch or representative.



**FREE**



**Tapping Drill Wall Chart (A2 Size)**

**AVAILABLE ON REQUEST**  
CAT-849-0938A

Contact your local branch or representative.





**High Speed Steel General Purpose Stub Drills - Bright Finish**

General purpose drills for use on automatics and turret lathes. Suitable for drilling steels, cast iron, alloy steel and malleable cast iron. Point angle: 118°, helix angle: normal, web thickness: standard, relief angle: 10° - 20°, tolerance of diameter: h8, tolerance of shank: f11. Manufactured to **BS 328: Part 1: 1986/DIN 1897**.



**HSS**

**DIN 1897** For Dimensions  
**BS 328** See Page 28



Metric		Metric		Metric		Metric	
Dia. (mm)	Order Code SHR-025	Dia. (mm)	Order Code SHR-025	Dia. (mm)	Order Code SHR-025	Dia. (mm)	Order Code SHR-025
2.00	-1170D	3.30	-1170W	4.90	-1171S	8.00	-1173Z
2.50	-1170L	3.50	-1170Z	5.00	-1171V	8.50	-1174J
3.00	-1170R	4.00	-1171E	6.00	-1172K	10.00	-1175K
3.20	-1170T	4.20	-1171H	7.00	-1172Y	12.00	-1177M

**High Speed Steel General Purpose Stub Drills**

General purpose drills for use on automatics and turret lathes. Suitable for drilling steels, cast iron, alloy steel and malleable cast iron. Point angle: 118°, helix angle: normal, web thickness: standard, relief angle: 10° - 20°, tolerance of diameter: h8, tolerance of shank: f11. Manufactured to **BS 328: Part 1: 1986/DIN 1897**.



**HSS**

**DIN 1897** For Dimensions  
**BS 328** See Page 28



**Series S100 - Metric**

Dia. (mm)	Order Code SHR-025	Dia. (mm)	Order Code SHR-025	Dia. (mm)	Order Code SHR-025	Dia. (mm)	Order Code SHR-025
1.00	-1227H	4.50	-1272G	7.30	-1300M	10.30	-1330V
1.50	-1233P	4.60	-1273H	7.40	-1301N	10.50	-1332X
1.80	-1236S	4.70	-1274J	7.50	-1302P	10.80	-1335A
2.00	-1240X	4.80	-1275K	7.60	-1303Q	11.00	-1337C
2.10	-1242N	4.90	-1276L	7.70	-1304R	11.50	-1342H
2.20	-1243A	5.00	-1277M	7.80	-1305S	12.00	-1347N
2.30	-1245C	5.10	-1278N	7.90	-1306T	12.20	-1349Q
2.40	-1246D	5.20	-1279P	8.00	-1307V	12.50	-1352T
2.50	-1248F	5.30	-1280Q	8.10	-1308W	13.00	-1357N
2.60	-1250H	5.40	-1281R	8.20	-1309X	13.50	-1359B
2.70	-1252K	5.50	-1282S	8.30	-1310Y	14.00	-1361D
2.80	-1253L	5.60	-1283T	8.40	-1311N	14.50	-1362E
2.90	-1255N	5.70	-1284V	8.50	-1312A	15.00	-1363F
3.00	-1257Q	5.80	-1285W	8.60	-1313B	15.50	-1364G
3.10	-1258R	5.90	-1286X	8.70	-1314C	16.00	-1365H
3.20	-1259S	6.00	-1287Y	8.80	-1315D	16.50	-1366J
3.30	-1260T	6.10	-1288N	8.90	-1316E	17.00	-1367K
3.40	-1261V	6.20	-1289A	9.00	-1317F	17.50	-1368L
3.50	-1262W	6.30	-1290B	9.10	-1318G	18.00	-1369M
3.60	-1263X	6.40	-1291C	9.20	-1319H	18.50	-1370N
3.70	-1264Y	6.50	-1292D	9.40	-1321K	19.00	-1371P
3.80	-1265N	6.60	-1293E	9.50	-1322L	19.50	-1372Q
3.90	-1266A	6.70	-1294F	9.60	-1323M	20.00	-1373R
4.00	-1267B	6.80	-1295G	9.70	-1324N	21.00	-1374S
4.10	-1268C	6.90	-1296H	9.80	-1325P	22.00	-1375T
4.20	-1269D	7.00	-1297J	10.00	-1327R	25.00	-1378X
4.30	-1270E	7.10	-1298K	10.10	-1328S		
4.40	-1271F	7.20	-1299L	10.20	-1329T		



**DIN 1897** For Dimensions  
**BS 328** See Page 28

**Series S100 - Inch**

Dia. (inch)	Order Code SHR-025	Dia. (mm)	Order Code SHR-025	Dia. (mm)	Order Code SHR-025	Dia. (mm)	Order Code SHR-025
1/16"	-1194C	3/16"	-1194L	11/32"	-1194X	9/16"	-1195M
3/32"	-1194E	13/64"	-1194M	39/32"	-1194S	5/8"	-1195R
1/8"	-1194G	7/32"	-1194N	3/8"	-1194Z	3/4"	-1196A
9/64"	-1194H	1/4"	-1194Q	13/32"	-1195B		
5/32"	-1194J	17/64"	-1194R	7/16"	-1195D		
11/64"	-1194K	5/16"	-1194V	1/2"	-1195H		

**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**

CUTTING TOOLS

**GROUP 025 STUB DRILLS**

**SWISS+TECH High Speed Steel TiN Coated Stub Drills Metric**

General purpose drill for use on automatics and turret lathes. Suitable for drilling steels, cast iron, alloy steel and malleable cast iron. TiN coating provides longer tool life or increased cutting speeds. Point angle: 118°, helix angle: normal, web thickness: normal, tolerance of diameter: h8, tolerance of shank: f11. Manufactured to **BS 328, DIN 1897 RN**.



**HSS TiN**

**EXTENDED RANGE**

**DIN 1897** For Dimensions  
**BS 328** See Page 28



**Series 2001 Metric**

Dia. (mm)	Order Code	Dia. (mm)	Order Code	Dia. (mm)	Order Code	Dia. (mm)	Order Code
SWT-125		SWT-125		SWT-125		SWT-125	
1.00	-2010A	3.20	-2032A	6.00	-2060A	8.60	-2086A
1.20	-2012A	3.30	-2033A	6.10	-2061A	9.00	-2090A
1.50	-2015A	3.50	-2035A	6.40	-2064A	10.00	-2100A
1.60	-2016A	4.00	-2040A	6.50	-2065A	10.20	-2102A
2.00	-2020A	4.20	-2042A	6.80	-2068A	12.00	-2120A
2.10	-2021A	4.50	-2045A	7.00	-2070A	13.00	-2130A
2.50	-2025A	5.00	-2050A	8.00	-2080A		
3.00	-2030A	5.20	-2052A	8.50	-2085A		

**HSS-Co. Heavy Duty Cobalt Stub Drills**

Heavy duty drill made of cobalt material with excellent heat resistance. For drilling steels up to 1,400N/mm<sup>2</sup>, stainless steel, heat resistant steels and bronze. Ideally suited for volume production on automatics. Point angle: 135°, helix angle: normal, web thickness: strengthened, tolerance of diameter: h8, tolerance of shank: f11. Manufactured to **BS 328, DIN 1897RN**. Point to **DIN 1412C**.

**HSS-Co**

**EXTENDED RANGE**

**DIN 1897** For Dimensions  
**BS 328** See Page 28



**Series 2010 Metric**

Dia. (mm)	Order Code	Dia. (mm)	Order Code	Dia. (mm)	Order Code	Dia. (mm)	Order Code
SWT-125		SWT-125		SWT-125		SWT-125	
1.00	-2210A	2.90	-2229A	5.20	-2252A	8.40	-2284A
1.10	-2211A	3.00	-2230A	5.50	-2255A	8.50	-2285A
1.20	-2212A	3.10	-2231A	6.00	-2260A	8.70	-2287A
1.30	-2213A	3.20	-2232A	6.10	-2261A	8.80	-2288A
1.50	-2215A	3.30	-2233A	6.20	-2262A	9.00	-2290A
1.60	-2216A	3.40	-2234A	6.40	-2264A	9.50	-2295A
1.70	-2217A	3.50	-2235A	6.50	-2265A	10.00	-2300A
1.80	-2218A	3.70	-2237A	6.80	-2268A	10.20	-2302A
2.00	-2220A	4.00	-2240A	7.00	-2270A	10.50	-2305A
2.10	-2221A	4.10	-2241A	7.20	-2272A	11.00	-2310A
2.30	-2223A	4.20	-2242A	7.50	-2275A	11.50	-2315A
2.40	-2224A	4.30	-2243A	7.70	-2277A	12.00	-2320A
2.50	-2225A	4.50	-2245A	7.80	-2278A	13.00	-2330A
2.60	-2226A	4.80	-2248A	8.00	-2280A		
2.70	-2227A	4.90	-2249A	8.10	-2281A		
2.80	-2228A	5.00	-2250A	8.20	-2282A		

**HSS-Co. TiN Coated Heavy Duty Stub Drills**

Heavy duty drill made of cobalt material with excellent heat resistance. For drilling steels up to 1,400N/mm<sup>2</sup>, stainless steel, heat resistant steels and bronze. Ideally suited for volume production on automatics. TiN coating provides longer tool life or increased cutting speeds. Point angle: 135°, helix angle: normal, web thickness: strengthened, tolerance of diameter: h8, tolerance of shank: f11. Manufactured to **BS 328, DIN 1897RN**. Point to **DIN 1412C**.

**HSS-Co**

**TiN**

**EXTENDED RANGE**

**DIN 1897** For Dimensions  
**BS 328** See Page 28



**Series 2020 Metric**

Dia. (mm)	Order Code	Dia. (mm)	Order Code	Dia. (mm)	Order Code	Dia. (mm)	Order Code
SWT-125		SWT-125		SWT-125		SWT-125	
1.00	-2410A	3.30	-2433A	5.20	-2452A	8.00	-2480A
1.50	-2415A	3.50	-2435A	5.50	-2455A	8.20	-2482A
1.60	-2416A	4.00	-2440A	6.00	-2460A	8.50	-2485A
2.00	-2420A	4.10	-2441A	6.10	-2461A	9.00	-2490A
2.20	-2422A	4.20	-2442A	6.20	-2462A	10.00	-2500A
2.40	-2424A	4.40	-2444A	6.40	-2464A	10.20	-2502A
2.50	-2425A	4.50	-2445A	6.50	-2465A	11.00	-2510A
2.60	-2426A	4.80	-2448A	6.80	-2468A	12.00	-2520A
3.00	-2430A	5.00	-2450A	7.00	-2470A	13.00	-2530A
3.20	-2432A	5.10	-2451A	7.50	-2475A		

**KENNEDY** *Carbide Stub Length Drills*  
QUALITY INDUSTRIAL TOOLING

For drilling into steel, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous materials and abrasive plastic.  
Point angle: 118°, helix angle: 30°, tolerance of diameter: h7, tolerance of shank: h6.  
Manufactured to **DIN 6539**.



**CARBIDE**



Metric				Metric				Metric			
Diameter (mm)	Flute Length	Overall Length	Order Code KEN-158	Diameter (mm)	Flute Length	Overall Length	Order Code KEN-158	Diameter (mm)	Flute Length	Overall Length	Order Code KEN-158
1.00	6.0	26.0	-3100K	3.00	16.0	46.0	-3300K	5.10	26.0	62.0	-3510K
1.10	6.0	26.0	-3110K	3.10	18.0	49.0	-3310K	5.20	26.0	62.0	-3520K
1.20	8.0	30.0	-3120K	3.20	18.0	49.0	-3320K	5.40	28.0	66.0	-3540K
1.30	8.0	30.0	-3130K	3.30	18.0	49.0	-3330K	5.50	28.0	66.0	-3550K
1.40	9.0	32.0	-3140K	3.40	20.0	52.0	-3340K	5.60	28.0	66.0	-3560K
1.50	9.0	32.0	-3150K	3.50	20.0	52.0	-3350K	6.00	28.0	66.0	-3600K
1.60	10.0	34.0	-3160K	3.60	20.0	52.0	-3360K	6.10	31.0	70.0	-3610K
1.70	10.0	34.0	-3170K	3.70	20.0	52.0	-3370K	6.20	31.0	70.0	-3620K
1.80	11.0	36.0	-3180K	3.80	22.0	55.0	-3380K	6.50	31.0	70.0	-3650K
2.00	12.0	38.0	-3200K	3.90	22.0	55.0	-3390K	7.00	34.0	74.0	-3700K
2.20	13.0	40.0	-3220K	4.00	22.0	55.0	-3400K	7.50	34.0	74.0	-3750K
2.30	13.0	40.0	-3230K	4.10	22.0	55.0	-3410K	8.00	37.0	79.0	-3800K
2.40	14.0	43.0	-3240K	4.20	22.0	55.0	-3420K	8.50	37.0	79.0	-3850K
2.50	14.0	43.0	-3250K	4.30	24.0	58.0	-3430K	9.00	40.0	84.0	-3900K
2.60	14.0	43.0	-3260K	4.50	24.0	58.0	-3450K	9.50	40.0	84.0	-3950K
2.70	16.0	46.0	-3270K	4.70	24.0	58.0	-3470K	10.00	43.0	89.0	-4100K
2.80	16.0	46.0	-3280K	4.80	26.0	62.0	-3480K	12.00	57.0	102.0	-4120K
2.90	16.0	46.0	-3290K	5.00	26.0	62.0	-3500K				

**SHERWOOD** *Solid Carbide Stub Drills*  
QUALITY CUTTING TOOLS

For drilling into steel, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous materials and abrasive plastic.  
Point angle: 118°, helix angle: 30°, tolerance of diameter: h7, tolerance of shank: h6.  
Manufactured to **Works Standard**.

**NEW**



**CARBIDE**



Metric				Metric				Metric			
Diameter (mm)	Flute Length	Overall Length	Order Code SHR-158	Diameter (mm)	Flute Length	Overall Length	Order Code SHR-158	Diameter (mm)	Flute Length	Overall Length	Order Code SHR-158
1.0mm	11.0	30.0	-3100K	4.0mm	22.0	50.0	-3400K	7.3mm	34.0	70.0	-3730K
1.1mm	11.0	30.0	-3110K	4.1mm	25.0	50.0	-3410K	7.5mm	34.0	70.0	-3750K
1.2mm	13.0	30.0	-3120K	4.2mm	25.0	50.0	-3420K	7.9mm	34.0	70.0	-3790K
1.3mm	13.0	30.0	-3130K	4.3mm	25.0	50.0	-3430K	8.0mm	34.0	70.0	-3800K
1.4mm	13.0	30.0	-3140K	4.4mm	25.0	50.0	-3440K	8.1mm	34.0	70.0	-3810K
1.5mm	13.0	30.0	-3150K	4.5mm	25.0	50.0	-3450K	8.2mm	34.0	70.0	-3820K
1.6mm	17.5	40.0	-3160K	4.6mm	25.0	50.0	-3460K	8.3mm	34.0	70.0	-3830K
1.7mm	17.5	40.0	-3170K	4.7mm	25.0	50.0	-3470K	8.5mm	34.0	70.0	-3850K
1.8mm	17.5	40.0	-3180K	4.8mm	25.0	50.0	-3480K	8.7mm	34.0	75.0	-3870K
1.9mm	17.5	40.0	-3190K	4.9mm	25.0	50.0	-3490K	9.0mm	34.0	75.0	-3900K
2.0mm	17.5	40.0	-3200K	5.0mm	25.0	50.0	-3500K	9.2mm	34.0	75.0	-3920K
2.1mm	17.5	40.0	-3210K	5.1mm	25.0	50.0	-3510K	9.5mm	34.0	75.0	-3950K
2.2mm	17.5	40.0	-3220K	5.2mm	25.0	50.0	-3520K	9.6mm	34.0	75.0	-3960K
2.3mm	17.5	40.0	-3230K	5.3mm	25.0	50.0	-3530K	9.8mm	34.0	75.0	-3980K
2.4mm	17.5	40.0	-3240K	5.4mm	25.0	50.0	-3540K	10.0mm	34.0	75.0	-4100K
2.5mm	17.5	40.0	-3250K	5.5mm	25.0	50.0	-3550K	10.2mm	50.0	100.0	-4102K
2.6mm	20.0	45.0	-3260K	5.6mm	25.0	50.0	-3560K	10.5mm	50.0	100.0	-4105K
2.7mm	20.0	45.0	-3270K	5.7mm	25.0	50.0	-3570K	11.0mm	50.0	100.0	-4110K
2.8mm	20.0	45.0	-3280K	5.8mm	25.0	50.0	-3580K	11.5mm	50.0	100.0	-4115K
2.9mm	20.0	45.0	-3290K	5.9mm	25.0	50.0	-3590K	12.0mm	50.0	100.0	-4120K
3.0mm	20.0	45.0	-3300K	6.0mm	25.0	50.0	-3600K	12.5mm	60.0	107.0	-4125K
3.1mm	22.0	50.0	-3310K	6.1mm	30.0	65.0	-3610K	13.0mm	60.0	107.0	-4130K
3.2mm	22.0	50.0	-3320K	6.2mm	30.0	65.0	-3620K	13.5mm	60.0	107.0	-4135K
3.3mm	22.0	50.0	-3330K	6.3mm	30.0	65.0	-3630K	14.0mm	60.0	107.0	-4140K
3.4mm	22.0	50.0	-3340K	6.4mm	30.0	65.0	-3640K	15.0mm	65.0	115.0	-4150K
3.5mm	22.0	50.0	-3350K	6.5mm	30.0	65.0	-3650K	16.0mm	65.0	115.0	-4160K
3.6mm	22.0	50.0	-3360K	6.8mm	30.0	65.0	-3680K	17.0mm	73.0	123.0	-4170K
3.7mm	22.0	50.0	-3370K	6.9mm	30.0	65.0	-3690K	18.0mm	73.0	123.0	-4180K
3.8mm	22.0	50.0	-3380K	7.0mm	30.0	65.0	-3700K	20.0mm	79.0	131.0	-4200K
3.9mm	22.0	50.0	-3390K								

**CUTTING TOOLS**

**Solid Carbide Screw Drills**

Primarily designed for removing broken taps or bolts without damaging the component surface. By drilling the core of a tap it is possible to remove the remaining pieces with a scribe. Select screw drill as per tap diameter. Steady manual feed component and spindle stability are vital. Drills should be running between 1500 and 3500 revs/min. A steady and continuous manual feed should be applied. No cutting fluid required.

**CARBIDE**



Type	Size	Weight each	Order Code KEN-154
SD2	2mm for M3*	10g	-1020K
SD3	3mm for M4 - M5*	10g	-1030K
SD4	4mm for M6 - M7*	20g	-1040K
SD5	5mm for M8 - M10*	30g	-1050K
SD6	6mm for M10 - M12*	30g	-1060K

\*or inch equivalent

**Solid Carbide Screw Drill Set**

**Contents:**  
SD2, SD3, SD4, SD5 and SD6.

**5**  
**PIECES**



Number of Pieces	Weight per set	Order Code KEN-154
5	80g	-1100K

**GROUP 025 MAINTENANCE DRILLS**

**SENATOR QUALITY TOOLING High Speed Steel Roll Forged Jobber Drills**

**For HSS Ground Flute Jobber Drills for industrial applications, please see page 36**



Senator jobber drills are roll forged from HSS, ensuring uninterrupted grain structure. This provides exceptional strength and durability. Tips are ground for effective cutting. Suitable for drilling wood, plastic, carbon and plain steels where the cutting efficiency of ground flute is not required.

Manufactured to **BS 328 : Part 1 : 1986 & DIN 338 Type N.**

**HSS**



**DIN 338**  
**BS 328**  
**For Dimensions See Pages 34-35**

Metric		Metric		Metric		Inch	
Dia. (mm)	Order Code SEN-025	Dia. (mm)	Order Code SEN-025	Dia. (mm)	Order Code SEN-025	Dia. (mm)	Order Code SEN-025
1.00	-0040N	3.70	-0089R	8.00	-0141Y	1/16"	-0001D
1.20	-0044S	3.80	-0091T	8.50	-0147E	3/32"	-0001F
1.30	-0046V	4.00	-0093W	9.00	-0153L	7/64"	-0001G
1.40	-0048X	4.10	-0094X	9.50	-0159S	1/8"	-0001H
1.50	-0050N	4.20	-0095Y	10.00	-0165N	9/64"	-0001J
1.60	-0052B	4.50	-0099C	10.20	-0167B	5/32"	-0001K
1.70	-0054D	4.80	-0103G	10.50	-0171F	3/16"	-0001M
1.80	-0056F	4.90	-0104H	11.00	-0177M	7/32"	-0001P
2.00	-0060K	5.00	-0105J	11.50	-0183T	1/4"	-0001R
2.40	-0068T	5.10	-0106K	12.00	-0189A	5/16"	-0001W
2.50	-0070W	5.20	-0107L	12.50	-0195G	3/8"	-0002A
2.70	-0074A	5.50	-0111Q	13.00	-0201N	7/16"	-0002E
2.80	-0076C	5.80	-0115V	14.00	-0213B	1/2"	-0002J
2.90	-0078E	6.00	-0117X				
3.00	-0080G	6.20	-0119N				
3.10	-0081H	6.50	-0123D				
3.20	-0083K	6.80	-0127H				
3.30	-0085M	7.00	-0129K				
3.50	-0087P	7.50	-0135R				

**High Speed Steel Roll Forged Jobber Drills**

Roll forged from HSS, ensuring uninterrupted grain structure. This provides exceptional strength and durability. Tips are ground for effective cutting. Suitable for drilling wood, plastic, carbon and plain steels where the cutting efficiency of ground flute is not required. Manufactured to **BS 328 : Part 1 : 1986 & DIN 338 Type N.**

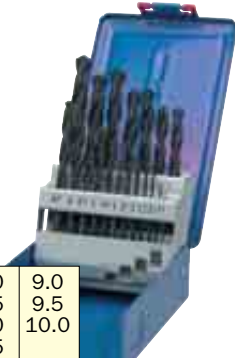
**x 0.5mm**  
**1.0 ~ 10.0**

**19**  
**PIECES**

**19 Piece Set**  
**Contents (mm):**

1.0	3.0	5.0	7.0	9.0
1.5	3.5	5.5	7.5	9.5
2.0	4.0	6.0	8.0	10.0
2.5	4.5	6.5	8.5	

Weight each **SEN-025**  
0.65kg **-9250K**



**x 0.5mm**  
**1.0 ~ 13.0**

**25**  
**PIECES**

**25 Piece Set**  
**Contents (mm):**

1.0	3.5	6.0	8.5	11.0
1.5	4.0	6.5	9.0	11.5
2.0	4.5	7.0	9.5	12.0
2.5	5.0	7.5	10.0	12.5
3.0	5.5	8.0	10.5	13.0

Weight each **SEN-025**  
1.60kg **-9150K**



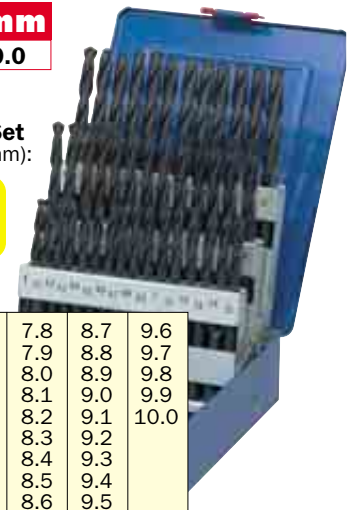
**x 0.1mm**  
**6.0 ~ 10.0**

**41 Piece Set**  
**Contents (mm):**

**41**  
**PIECES**

6.0	6.9	7.8	8.7	9.6
6.1	7.0	7.9	8.8	9.7
6.2	7.1	8.0	8.9	9.8
6.3	7.2	8.1	9.0	9.9
6.4	7.3	8.2	9.1	10.0
6.5	7.4	8.3	9.2	
6.6	7.5	8.4	9.3	
6.7	7.6	8.5	9.4	
6.8	7.7	8.6	9.5	

Weight each **SEN-025**  
2.10kg **-9110K**



**170 Piece Drill Set**

This handy jobber drill set is contains a comprehensive set of bits from 1.0 to 10mm x 0.5mm increments. Made from HSS with roll forged flutes they have exceptional strength and durability with ground tips for effective cutting. Suitable for wood, plastic, plain and carbon steels where the cutting efficiency of a ground flute is not required. Especially suited to 'non-rigid' applications i.e. in hand held power drills. Made to **BS328** and **DIN 338**. Supplied in strong fitted case with handle.

**NEW**

**x 0.5mm**  
**1.0 ~ 10.0**

**170 Piece Set**  
**Contents (mm):**

1.0 x 10	4.5 x 10	8.0 x 10
1.5 x 10	5.0 x 10	8.5 x 5
2.0 x 10	5.5 x 10	9.0 x 5
2.5 x 10	6.0 x 10	9.5 x 5
3.0 x 10	6.5 x 10	10.0 x 5
3.5 x 10	7.0 x 10	
4.0 x 10	7.5 x 10	

Weight each **SEN-025**  
3.8kg **-9300K**



**170**  
**PIECES**

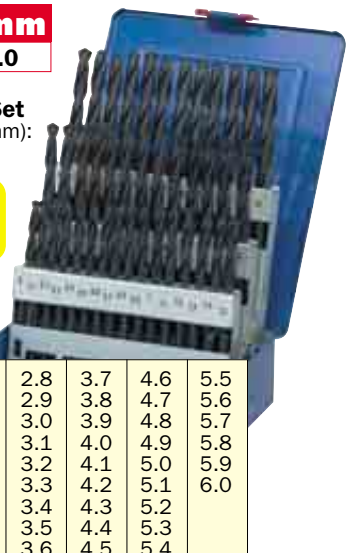
**x 0.1mm**  
**1.0 ~ 6.0**

**51 Piece Set**  
**Contents (mm):**

**51**  
**PIECES**

1.0	1.9	2.8	3.7	4.6	5.5
1.1	2.0	2.9	3.8	4.7	5.6
1.2	2.1	3.0	3.9	4.8	5.7
1.3	2.2	3.1	4.0	4.9	5.8
1.4	2.3	3.2	4.1	5.0	5.9
1.5	2.4	3.3	4.2	5.1	6.0
1.6	2.5	3.4	4.3	5.2	
1.7	2.6	3.5	4.4	5.3	
1.8	2.7	3.6	4.5	5.4	

Weight each **SEN-025**  
0.60kg **-9060K**



**MAINTENANCE DRILLS/BLACKSMITHS DRILLS**

**Assorted Drill Set**

**100 Piece**

Assorted inch and metric sizes up to 1/2" - 13mm. Straight shank. Supplied in a plastic case. Set contents may vary.

**100  
PIECES**



**SENATOR Multi-Purpose 'Dial-A-Drill' Set**

**18 Piece Drill Set**

Designed to satisfy countless tasks around the home and workshop - a drill bit for every job! Supplied in a robust 'dial a drill' case for easy selection and compact storage.

**Contents:**

- 6 x wood drills with 'lip and spur' self centering/self starting points. Suitable for all types of timber. Sizes 3, 4, 5, 6, 8, 10mm.
- 6 x masonry drills with TCT drill point. Suitable for tiles, ceramics and all light building materials. Sizes 3, 4, 5, 6, 8, 10mm.
- 6 x HSS drills (Jobber) with roll forged flutes. Suitable for use in portable powertools in all types of materials. Sizes 3, 4, 5, 6, 8, 10mm.

**18  
PIECES**



Weight each	Order Code
452g	<b>SEN-025</b>
	<b>-9500K</b>



**HSS Reduced Shank Drills (Blacksmiths)**

1/2" Parallel Shank. General purpose drills for light duty work, for drilling steels, cast iron, nickel brass, and graphite. Reduced parallel shank 1/2". Point angle: 118°, helix angle: normal, web thickness: standard, tolerance of diameter: h8, tolerance of shank: 0.01/0.08. Manufactured to works standard.



**HSS**



**Metric**

Diameter (mm)	Flute Length	Overall Length	Weight each	Order Code
13.00	78.0	150.0	129g	<b>-1805A</b>
13.50	78.0	150.0	133g	<b>-1805B</b>
14.00	78.0	150.0	133g	<b>-1806C</b>
14.50	78.0	150.0	141g	<b>-1806D</b>
15.00	78.0	150.0	148g	<b>-1807E</b>
15.50	78.0	150.0	145g	<b>-1807F</b>
16.00	78.0	150.0	158g	<b>-1808G</b>
16.50	78.0	150.0	165g	<b>-1808H</b>
17.00	78.0	150.0	178g	<b>-1809J</b>
17.50	78.0	150.0	185g	<b>-1809K</b>
18.00	78.0	150.0	191g	<b>-1810L</b>
18.50	78.0	150.0	191g	<b>-1810M</b>
19.00	78.0	150.0	191g	<b>-1811N</b>
19.50	85.0	150.0	191g	<b>-1811P</b>
20.00	85.0	150.0	201g	<b>-1812Q</b>
21.00	85.0	150.0	224g	<b>-1813R</b>
22.00	85.0	150.0	222g	<b>-1814S</b>
23.00	85.0	150.0	278g	<b>-1815T</b>
24.00	85.0	150.0	286g	<b>-1816V</b>
25.00	85.0	150.0	298g	<b>-1817W</b>
26.00	85.0	150.0	310g	<b>-1818X</b>
27.00	85.0	150.0	325g	<b>-1819Y</b>
28.00	85.0	150.0	330g	<b>-1820Z</b>
29.00	85.0	150.0	350g	<b>-1821A</b>
30.00	85.0	150.0	370g	<b>-1822B</b>
32.00	85.0	150.0	410g	<b>-1824D</b>

**Inch**

Diameter (Inch)	Flute Length	Overall Length	Weight each	Order Code
9/16"	3 1/16"	6"	141g	<b>-1764E</b>
19/32"	3 1/16"	6"	147g	<b>-1766G</b>
5/8"	3 1/16"	6"	156g	<b>-1768J</b>
41/64"	3 1/16"	6"	163g	<b>-1769K</b>
21/32"	3 1/16"	6"	167g	<b>-1770L</b>
11/16"	3 1/16"	6"	165g	<b>-1772N</b>
3/4"	3 1/16"	6"	186g	<b>-1776S</b>
13/16"	3 3/8"	6"	221g	<b>-1780X</b>
7/8"	3 3/8"	6"	238g	<b>-1784B</b>
15/16"	3 3/8"	6"	232g	<b>-1788F</b>
1"	3 3/8"	6"	294g	<b>-1792K</b>
1 1/16"	3 3/8"	6"	315g	<b>-1794M</b>
1 1/8"	3 3/8"	6"	350g	<b>-1796P</b>
1 1/4"	3 3/8"	6"	410g	<b>-1800T</b>

**HSS Reduced Shank Drill Set (Blacksmiths)**

**5 Piece Set Contents:**

14, 16, 18, 20 and 22mm.

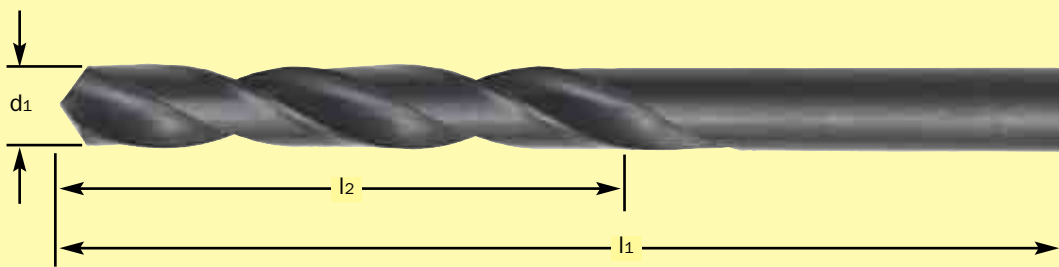
**5  
PIECES**



Number of Pieces	Order Code
5	<b>SHR-025</b>
	<b>-8960K</b>

**Dimensions - Jobber Drills to BS 328/DIN 338**

The majority of jobber drills featured in this catalogue comply with the above standards in terms of overall and working dimensions. The tables of sizes below apply to all of these products. In order to save space in the catalogue we are not repeating these dimensions after this page. Any drills which are made to different standards/dimensions will have them listed accordingly in the tables for those products.

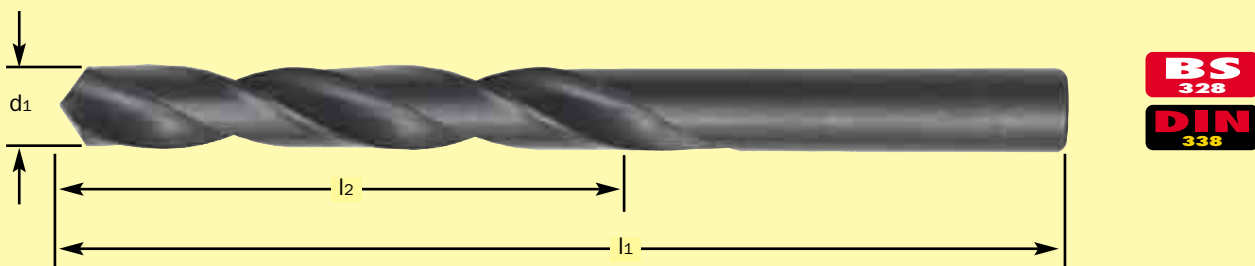


$d_1$	No/	Inch	$l_2$	$l_1$	$d_1$	No/	Inch	$l_2$	$l_1$	$d_1$	No/	Inch	$l_2$	$l_1$	$d_1$	No/	Inch	$l_2$	$l_1$
mm	Letter	Dec.	mm	mm	mm	Letter	Dec.	mm	mm	mm	Letter	Dec.	mm	mm	mm	Letter	Dec.	mm	mm
0.20		0.0078	2.5	19.0	0.94	63	0.0370	11.0	32.0	2.15		0.0846	27.0	53.0	3.66	27	0.1440	39.0	70.0
0.25		0.0098	3.0	19.0	0.95		0.0374	11.0	32.0	2.18	44	0.0858	27.0	53.0	3.70		0.1456	39.0	70.0
0.30		0.0118	3.0	19.0	0.97	62	0.0381	12.0	34.0	2.20		0.0866	27.0	53.0	3.73	26	0.1468	39.0	70.0
0.32		0.0125	4.0	19.0	0.98		0.0385	12.0	34.0	2.25		0.0885	27.0	53.0	3.75		0.1476	39.0	70.0
0.34	80	0.0133	4.0	19.0	0.99	61	0.0389	12.0	34.0	2.26	43	0.0889	27.0	53.0	3.80		0.1496	43.0	75.0
0.35		0.0137	4.0	19.0	1.00		0.0393	12.0	34.0	2.30		0.0905	27.0	53.0	3.80	25	0.1496	43.0	75.0
0.37	79	0.0145	4.0	19.0	1.02	60	0.0401	12.0	34.0	2.35		0.0925	27.0	53.0	3.86	24	0.1519	43.0	75.0
0.38		0.0149	4.0	19.0	1.04	59	0.0409	12.0	34.0	2.38	<sup>3</sup> / <sub>32</sub>	0.0937	30.0	57.0	3.90		0.1535	43.0	75.0
0.40	<sup>1</sup> / <sub>64</sub>	0.0157	5.0	20.0	1.05		0.0413	12.0	34.0	2.38	42	0.0937	30.0	57.0	3.91	23	0.1539	43.0	75.0
0.40		0.0157	5.0	20.0	1.07	58	0.0421	14.0	36.0	2.40		0.0944	30.0	57.0	3.97	<sup>5</sup> / <sub>32</sub>	0.1562	43.0	75.0
0.41	78	0.0161	5.0	20.0	1.09	57	0.0429	14.0	36.0	2.44	41	0.0960	30.0	57.0	3.99	22	0.157	43.0	75.0
0.42		0.0165	5.0	20.0	1.10		0.0433	14.0	36.0	2.45		0.0964	30.0	57.0	4.00		0.1574	43.0	75.0
0.45		0.0177	5.0	20.0	1.15		0.0452	14.0	36.0	2.49	40	0.098	30.0	57.0	4.04	21	0.1590	43.0	75.0
0.46	77	0.0181	5.0	20.0	1.18	56	0.0464	14.0	36.0	2.50		0.0984	30.0	57.0	4.09	20	0.1610	43.0	75.0
0.48		0.0188	5.0	20.0	1.19	<sup>3</sup> / <sub>64</sub>	0.0468	16.0	38.0	2.53	39	0.0996	30.0	57.0	4.10		0.1614	43.0	75.0
0.50		0.0196	6.0	22.0	1.20		0.0472	16.0	38.0	2.55		0.1003	30.0	57.0	4.20		0.1653	43.0	75.0
0.51	76	0.0200	6.0	22.0	1.25		0.0492	16.0	38.0	2.58	38	0.1015	30.0	57.0	4.22	19	0.1661	43.0	75.0
0.52		0.0204	6.0	22.0	1.30		0.0511	16.0	38.0	2.60		0.1023	30.0	57.0	4.25		0.1673	43.0	75.0
0.53	75	0.0208	6.0	22.0	1.32	55	0.0519	16.0	38.0	2.64	37	0.1039	30.0	57.0	4.30		0.1692	47.0	80.0
0.55		0.0216	7.0	24.0	1.35		0.0531	18.0	40.0	2.65		0.1043	30.0	57.0	4.31	18	0.1696	47.0	80.0
0.57	74	0.0224	7.0	24.0	1.40		0.0551	18.0	40.0	2.70		0.1062	33.0	61.0	4.37	<sup>11</sup> / <sub>64</sub>	0.172	47.0	80.0
0.58		0.0228	7.0	24.0	1.40	54	0.0551	18.0	40.0	2.71	36	0.1066	33.0	61.0	4.39	17	0.1728	47.0	80.0
0.60		0.0236	7.0	24.0	1.45		0.0570	18.0	40.0	2.75		0.1082	33.0	61.0	4.40		0.1732	47.0	80.0
0.61	73	0.0240	8.0	26.0	1.50		0.0590	18.0	40.0	2.78	<sup>7</sup> / <sub>64</sub>	0.1094	33.0	61.0	4.50		0.1771	47.0	80.0
0.62		0.0244	8.0	26.0	1.51	53	0.0594	20.0	43.0	2.79	35	0.1098	33.0	61.0	4.50	16	0.1771	47.0	80.0
0.64	72	0.0251	8.0	26.0	1.55		0.0610	20.0	43.0	2.80		0.1102	33.0	61.0	4.57	15	0.1799	47.0	80.0
0.65		0.0255	8.0	26.0	1.59	<sup>1</sup> / <sub>16</sub>	0.0625	20.0	43.0	2.82	34	0.1110	33.0	61.0	4.60		0.1811	47.0	80.0
0.66	71	0.0259	8.0	26.0	1.60		0.0629	20.0	43.0	2.85		0.1122	33.0	61.0	4.62	14	0.1818	47.0	80.0
0.68		0.0267	9.0	28.0	1.61	52	0.0633	20.0	43.0	2.87	33	0.1129	33.0	61.0	4.70		0.1850	47.0	80.0
0.70		0.0275	9.0	28.0	1.65		0.0649	20.0	43.0	2.90		0.1141	33.0	61.0	4.70	13	0.1850	47.0	80.0
0.71	70	0.0279	9.0	28.0	1.70		0.0669	20.0	43.0	2.95		0.1161	33.0	61.0	4.75		0.1870	47.0	80.0
0.72		0.0283	9.0	28.0	1.70	51	0.0669	22.0	46.0	2.95	32	0.1161	33.0	61.0	4.76	<sup>3</sup> / <sub>16</sub>	0.1874	52.0	86.0
0.74	69	0.0291	9.0	28.0	1.75		0.0688	22.0	46.0	3.00		0.1181	33.0	61.0	4.80		0.1889	52.0	86.0
0.75		0.0295	9.0	28.0	1.78	50	0.0700	22.0	46.0	3.05	31	0.1200	36.0	65.0	4.80	12	0.1889	52.0	86.0
0.78		0.0307	10.0	30.0	1.80		0.0708	22.0	46.0	3.10		0.1220	36.0	65.0	4.85	11	0.1909	52.0	86.0
0.79	<sup>1</sup> / <sub>32</sub>	0.0311	10.0	30.0	1.85		0.0728	22.0	46.0	3.15		0.1240	36.0	65.0	4.90		0.1929	52.0	86.0
0.79	68	0.0311	10.0	30.0	1.85	49	0.0728	22.0	46.0	3.18	<sup>1</sup> / <sub>8</sub>	0.1251	36.0	65.0	4.92	10	0.1937	52.0	86.0
0.80		0.0314	10.0	30.0	1.90		0.0748	22.0	46.0	3.20		0.1259	36.0	65.0	4.98	9	0.1960	52.0	86.0
0.81	67	0.0318	10.0	30.0	1.93	48	0.0759	24.0	49.0	3.25		0.1279	36.0	65.0	5.00		0.1968	52.0	86.0
0.82		0.0322	10.0	30.0	1.95		0.0767	24.0	49.0	3.26	30	0.1283	36.0	65.0	5.06	8	0.1992	52.0	86.0
0.84	66	0.0330	10.0	30.0	1.98	<sup>5</sup> / <sub>64</sub>	0.0779	24.0	49.0	3.30		0.1299	36.0	65.0	5.10		0.2007	52.0	86.0
0.85		0.0334	10.0	30.0	1.99	47	0.0783	24.0	49.0	3.40		0.1338	39.0	70.0	5.11	7	0.2011	52.0	86.0
0.88		0.0346	11.0	32.0	2.00		0.0787	24.0	49.0	3.45	29	0.1358	39.0	70.0	5.16	<sup>13</sup> / <sub>64</sub>	0.2031	52.0	86.0
0.89	65	0.0350	11.0	32.0	2.05		0.0807	24.0	49.0	3.50		0.1377	39.0	70.0	5.18	6	0.2039	52.0	86.0
0.90		0.0354	11.0	32.0	2.06	46	0.0811	24.0	49.0	3.57	<sup>9</sup> / <sub>64</sub>	0.1405	39.0	70.0	5.20		0.2047	52.0	86.0
0.91	64	0.0358	11.0	32.0	2.08	45	0.0818	24.0	49.0	3.57	28	0.1405	39.0	70.0	5.22	5	0.2055	52.0	86.0
0.92		0.0362	11.0	32.0	2.10		0.0826	24.0	49.0	3.60		0.1417	39.0	70.0	5.25		0.2066	52.0	86.0

**CUTTING TOOLS**

### Dimensions - Jobber Drills to BS 328/DIN 338

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d <sub>1</sub> mm h <sub>8</sub>	No/ Letter	Inch Dec.	l <sub>2</sub> mm	l <sub>1</sub> mm	d <sub>1</sub> mm h <sub>8</sub>	No/ Letter	Inch Dec.	l <sub>2</sub> mm	l <sub>1</sub> mm	d <sub>1</sub> mm h <sub>8</sub>	No/ Letter	Inch Dec.	l <sub>2</sub> mm	l <sub>1</sub> mm	d <sub>1</sub> mm h <sub>8</sub>	No/ Letter	Inch Dec.	l <sub>2</sub> mm	l <sub>1</sub> mm
5.30		0.2086	52.0	86.0	7.49	M	0.2948	69.0	109.0	9.92	<sup>25</sup> / <sub>64</sub>	0.3905	87.0	133.0	13.00		0.5118	101.0	151.0
5.31	4	0.2090	57.0	93.0	7.50		0.2952	69.0	109.0	10.00		0.3937	87.0	133.0	13.10	<sup>33</sup> / <sub>64</sub>	0.5157	101.0	151.0
5.40		0.2125	57.0	93.0	7.54	<sup>19</sup> / <sub>64</sub>	0.2968	75.0	117.0	10.08	X	0.3968	87.0	133.0	13.10		0.5157	101.0	151.0
5.41	3	0.2129	57.0	93.0	7.60		0.2992	75.0	117.0	10.10		0.3976	87.0	133.0	13.20		0.5196	101.0	151.0
5.50		0.2165	57.0	93.0	7.67	N	0.3019	75.0	117.0	10.20		0.4015	87.0	133.0	13.25		0.5216	108.0	160.0
5.56	<sup>7</sup> / <sub>32</sub>	0.2188	57.0	93.0	7.70		0.3031	75.0	117.0	10.25		0.4035	87.0	133.0	13.30		0.5236	108.0	160.0
5.60		0.2204	57.0	93.0	7.75		0.3051	75.0	117.0	10.26	Y	0.4039	87.0	133.0	13.40		0.5275	108.0	160.0
5.61	2	0.2208	57.0	93.0	7.80		0.3070	75.0	117.0	10.30		0.4055	87.0	133.0	13.49	<sup>17</sup> / <sub>32</sub>	0.5311	108.0	160.0
5.70		0.2244	57.0	93.0	7.90		0.3110	75.0	117.0	10.32	<sup>13</sup> / <sub>32</sub>	0.4062	87.0	133.0	13.50		0.5314	108.0	160.0
5.75		0.2263	57.0	93.0	7.94	<sup>5</sup> / <sub>16</sub>	0.3125	75.0	117.0	10.40		0.4094	87.0	133.0	13.60		0.5354	108.0	160.0
5.79	1	0.2279	57.0	93.0	8.00		0.3149	75.0	117.0	10.49	Z	0.4129	87.0	133.0	13.70		0.5393	108.0	160.0
5.80		0.2283	57.0	93.0	8.03	O	0.3161	75.0	117.0	10.50		0.4133	87.0	133.0	13.75		0.5413	108.0	160.0
5.90		0.2322	57.0	93.0	8.10		0.3188	75.0	117.0	10.60		0.4173	87.0	133.0	13.80		0.5433	108.0	160.0
5.94	A	0.2338	57.0	93.0	8.20		0.3228	75.0	117.0	10.70		0.4212	94.0	142.0	13.89	<sup>35</sup> / <sub>64</sub>	0.5468	108.0	160.0
5.95	<sup>15</sup> / <sub>64</sub>	0.2342	57.0	93.0	8.20	P	0.3228	75.0	117.0	10.72	<sup>27</sup> / <sub>64</sub>	0.4220	94.0	142.0	13.90		0.5472	108.0	160.0
6.00		0.2362	57.0	93.0	8.25		0.3248	75.0	117.0	10.75		0.4232	94.0	142.0	14.00		0.5511	108.0	160.0
6.00	B	0.2374	63.0	101.0	8.30		0.3267	75.0	117.0	10.80		0.4251	94.0	142.0	14.25		0.5610	114.0	169.0
6.10		0.2401	63.0	101.0	8.33	<sup>21</sup> / <sub>64</sub>	0.3279	75.0	117.0	10.90		0.4291	94.0	142.0	14.29	<sup>9</sup> / <sub>16</sub>	0.5625	114.0	169.0
6.15	C	0.2421	63.0	101.0	8.40		0.3307	75.0	117.0	11.00		0.4330	94.0	142.0	14.50		0.5708	114.0	169.0
6.20		0.2440	63.0	101.0	8.43	Q	0.3318	75.0	117.0	11.10		0.4370	94.0	142.0	14.68	<sup>37</sup> / <sub>64</sub>	0.5779	114.0	169.0
6.25		0.2460	63.0	101.0	8.50		0.3346	75.0	117.0	11.11	<sup>7</sup> / <sub>16</sub>	0.4374	94.0	142.0	14.75		0.5807	114.0	169.0
6.25	D	0.2460	63.0	101.0	8.60		0.3385	81.0	125.0	11.20		0.4409	94.0	142.0	15.00		0.5905	114.0	169.0
6.30		0.2480	63.0	101.0	8.61	R	0.3389	81.0	125.0	11.25		0.4429	94.0	142.0	15.08	<sup>19</sup> / <sub>32</sub>	0.5937	120.0	178.0
6.35	<sup>1</sup> / <sub>4</sub>	0.2500	63.0	101.0	8.70		0.3425	81.0	125.0	11.30		0.4448	94.0	142.0	15.25		0.6003	120.0	178.0
6.35	E	0.2500	63.0	101.0	8.73	<sup>11</sup> / <sub>32</sub>	0.3437	81.0	125.0	11.40		0.4488	94.0	142.0	15.48	<sup>39</sup> / <sub>64</sub>	0.6094	120.0	178.0
6.40		0.2519	63.0	101.0	8.75		0.3444	81.0	125.0	11.50		0.4527	94.0	142.0	15.50		0.6102	120.0	178.0
6.50		0.2559	63.0	101.0	8.80		0.3464	81.0	125.0	11.51	<sup>29</sup> / <sub>64</sub>	0.4531	94.0	142.0	15.75		0.6200	120.0	178.0
6.53	F	0.2570	63.0	101.0	8.84	S	0.3480	81.0	125.0	11.60		0.4566	94.0	142.0	15.88	<sup>5</sup> / <sub>8</sub>	0.6251	120.0	178.0
6.60		0.2598	63.0	101.0	8.90		0.3503	81.0	125.0	11.70		0.4606	94.0	142.0	16.00		0.6299	120.0	178.0
6.63	G	0.2610	63.0	101.0	9.00		0.3543	81.0	125.0	11.75		0.4625	94.0	142.0	16.27	<sup>41</sup> / <sub>64</sub>	0.6405	125.0	184.0
6.70		0.2637	63.0	101.0	9.09	T	0.3578	81.0	125.0	11.80		0.4645	94.0	142.0	16.50		0.6496	125.0	184.0
6.75	<sup>17</sup> / <sub>64</sub>	0.2657	69.0	109.0	9.10		0.3582	81.0	125.0	11.90		0.4685	101.0	151.0	16.67	<sup>21</sup> / <sub>32</sub>	0.6562	125.0	184.0
6.75		0.2657	69.0	109.0	9.13	<sup>23</sup> / <sub>64</sub>	0.3594	81.0	125.0	11.91	<sup>15</sup> / <sub>32</sub>	0.4688	101.0	151.0	17.00		0.6692	125.0	184.0
6.76	H	0.2661	69.0	109.0	9.20		0.3622	81.0	125.0	12.00		0.4724	101.0	151.0	17.07	<sup>43</sup> / <sub>64</sub>	0.6720	130.0	191.0
6.80		0.2677	69.0	109.0	9.25		0.3641	81.0	125.0	12.10		0.4763	101.0	151.0	17.46	<sup>11</sup> / <sub>16</sub>	0.6874	130.0	191.0
6.90		0.2716	69.0	109.0	9.30		0.3661	81.0	125.0	12.20		0.4803	101.0	151.0	17.50		0.6889	130.0	191.0
6.91	I	0.2720	69.0	109.0	9.35	U	0.3681	81.0	125.0	12.25		0.4822	101.0	151.0	18.00		0.7086	130.0	191.0
7.00		0.2755	69.0	109.0	9.40		0.3700	81.0	125.0	12.30		0.4842	101.0	151.0	18.5		0.7283	135.0	198.0
7.04	J	0.2771	69.0	109.0	9.50		0.3740	81.0	125.0	12.30	<sup>31</sup> / <sub>64</sub>	0.4842	101.0	151.0	19.00		0.7480	135.0	198.0
7.10		0.2795	69.0	109.0	9.53	<sup>3</sup> / <sub>8</sub>	0.3751	87.0	133.0	12.40		0.4881	101.0	151.0	19.50		0.7677	140.0	205.0
7.14	<sup>9</sup> / <sub>32</sub>	0.2811	69.0	109.0	9.58	V	0.3771	87.0	133.0	12.50		0.4921	101.0	151.0	20.00		0.7874	140.0	205.0
7.14	K	0.2811	69.0	109.0	9.60		0.3779	87.0	133.0	12.60		0.4960	101.0	151.0					
7.20		0.2834	69.0	109.0	9.70		0.3818	87.0	133.0	12.70		0.5000	101.0	151.0					
7.25		0.2854	69.0	109.0	9.75		0.3838	87.0	133.0	12.70	<sup>1</sup> / <sub>2</sub>	0.5000	101.0	151.0					
7.30		0.2874	69.0	109.0	9.80		0.3858	87.0	133.0	12.75		0.5019	101.0	151.0					
7.37	L	0.2901	69.0	109.0	9.80	W	0.3858	87.0	133.0	12.80		0.5039	101.0	151.0					
7.40		0.2913	69.0	109.0	9.90		0.3897	87.0	133.0	12.90		0.5078	101.0	151.0					

CUTTING TOOLS

**GROUP 025 STANDARD LENGTH DRILLS**

**SHERWOOD QUALITY CUTTING TOOLS HSS Jobber Drills Metric - Bright Finish**

General purpose drills for steels, cast steel, grey cast iron, malleable cast iron, nickel brass, aluminium alloy and graphite.  
Point angle: 118°, helix angle: normal, web thickness: standard, relief angle: 10°-20°, tolerance of diameter: h8, tolerance of shank: f11. Manufactured to **BS 328/DIN338RN**.



**For Dimensions See Pages 34-35**



**EXTENDED RANGE**

**HSS**

**METRIC**

**Bright Finish**

Drills with a bright finish are supplied in the as-ground condition and such tools are used generally in the machining of non-ferrous materials.



**Series J100 - Metric**

Dia. (mm)	Order Code SHR-025
1.00	-0231B
1.10	-0231D
1.20	-0231F
1.30	-0231H
1.40	-0231K
1.50	-0231M
1.60	-0231P
1.70	-0231R
1.80	-0231T
1.90	-0231W
1.95	-0231Y
2.00	-0232A
2.10	-0232C
2.20	-0232E
2.30	-0232G
2.40	-0232J
2.50	-0232L
2.60	-0232N
2.70	-0232Q
2.80	-0232S
2.90	-0232V
3.00	-0232X
3.10	-0232Z
3.20	-0233B
3.30	-0233D
3.40	-0233F
3.50	-0233H
3.60	-0233K
3.70	-0233M
3.80	-0233P
3.90	-0233R
4.00	-0233T
4.10	-0233W
4.20	-0233Y
4.30	-0234A
4.40	-0234C
4.50	-0234E
4.60	-0234G
4.70	-0234J
4.80	-0234L
4.90	-0234N
5.00	-0234Q
5.10	-0234S
5.20	-0234V
5.30	-0234X
5.40	-0234Z
5.50	-0235B
5.60	-0235D

Dia. (mm)	Order Code SHR-025
5.70	-0235F
5.80	-0235H
5.90	-0235K
6.00	-0235M
6.10	-0235P
6.20	-0235R
6.30	-0235T
6.40	-0235W
6.50	-0235Y
6.60	-0236A
6.70	-0236C
6.80	-0236E
6.90	-0236G
7.00	-0236J
7.10	-0236L
7.20	-0236N
7.30	-0236Q
7.40	-0236S
7.50	-0236V
7.60	-0236X
7.70	-0236Z
7.80	-0237B
7.90	-0237D
8.00	-0237F
8.10	-0237H
8.20	-0237K
8.30	-0237M
8.40	-0237P
8.50	-0237R
8.60	-0237T
8.70	-0237W
8.80	-0237Y
8.90	-0237Z
9.00	-0238A
9.10	-0238B
9.20	-0238C
9.30	-0238G
9.40	-0238H
9.50	-0238L
9.60	-0238N
9.70	-0238P
9.80	-0238Q
9.90	-0238R
10.00	-0238X
10.10	-0238Y
10.20	-0239B
10.40	-0239F
10.50	-0239H

Dia. (mm)	Order Code SHR-025
10.70	-0239L
10.80	-0239M
10.90	-0239N
11.00	-0239T
11.10	-0239V
11.20	-0239W
11.30	-0239X
11.40	-0239Y
11.50	-0239Z
11.60	-0240A
11.70	-0240B
11.80	-0240C
11.90	-0240D
12.00	-0240E
12.10	-0240F
12.20	-0240G
12.30	-0240H
12.40	-0240J
12.50	-0240K
12.60	-0240L
12.70	-0240M
12.80	-0240N
12.90	-0240P
13.00	-0240R
13.20	-0240T
13.70	-0240Z
13.80	-0241A
14.00	-0241C
14.25	-0241D
14.50	-0241E
14.75	-0241F
15.00	-0241G
15.25	-0241H
15.50	-0241J
15.75	-0241K
16.00	-0241L
16.50	-0241P
17.00	-0241R
17.50	-0241T
18.00	-0241V
18.50	-0241X
19.00	-0241Z
19.50	-0242B
20.00	-0242D

**Series J100 - Inch**

Dia. (inch)	Order Code SHR-025
1/64"	-0243A
1/32"	-0243B
3/64"	-0243C
1/16"	-0243D
5/64"	-0243E
3/32"	-0243F
7/64"	-0243G
1/8"	-0243H
9/64"	-0243J
5/32"	-0243K
11/64"	-0243L
3/16"	-0243M
13/64"	-0243N
7/32"	-0243P
15/64"	-0243Q
1/4"	-0243R
17/64"	-0243S
9/32"	-0243T
19/64"	-0243V
5/16"	-0243W
21/64"	-0243X
23/64"	-0243Z
3/8"	-0244A
25/64"	-0244B
13/32"	-0244C
27/64"	-0244D
7/16"	-0244E
29/64"	-0244F
15/32"	-0244G
1/2"	-0244J
17/32"	-0244L
9/16"	-0244N
37/64"	-0244P
39/64"	-0244R
5/8"	-0244S
21/32"	-0244V
11/16"	-0244X
3/4"	-0245B

**CUTTING TOOLS**

**HSS Jobber Drill Set - Bright Finish**

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

**25 PIECES**

**x 0.5mm**  
**1.0 ~ 13.0**

(mm)	2.5	4.5	6.5	8.5	10.5	12.5
1.0	3.0	5.0	7.0	9.0	11.0	13.0
1.5	3.5	5.5	7.5	9.5	11.5	
2.0	4.0	6.0	8.0	10.0	12.0	

Number of Pieces	Order Code SHR-025
25	-8520K



**HSS**

**METRIC**

**Bright Finish**



**HSS Jobber Drills - Metric - Steam Tempered**



General purpose drills for steels, cast steel, grey cast iron, malleable cast iron, nickel brass, aluminium alloy and graphite. Point angle: 118°, helix angle: normal, web thickness: standard, relief angle: 10°-20°, tolerance of diameter: h8, tolerance of shank: f11. Manufactured to **BS 328/DIN338RN**.

**DIN 338** For Dimensions  
**BS 328** See Pages  
**34-35**

**Black Finish (W-Finish)**

This is the most common surface finish and is the result of a steam tempering operation in which steam is passed over the product during a controlled tempering cycle, producing a black oxide layer. Black tools are generally recommended for ferrous applications where the oxide layer aids chip flow, helps to dissipate heat by retaining some coolant on the tool surface and also helps to prevent the tool from staining.

**HSS METRIC INCH**

**EXTENDED RANGE**



**PRICED PER 10**

**PRICED PER 1**

**Series J100**

Dia. (mm)	Order Code
<b>SHR-025</b>	
0.25	-0010X
0.30	-0012A
0.35	-0014F
0.40	-0016L
0.42	-0017N
0.45	-0018P
0.50	-0020R
0.52	-0021S
0.55	-0022T
0.58	-0023V
0.60	-0024W
0.62	-0025X
0.65	-0026Y
0.68	-0027N
0.70	-0028A
0.72	-0029B
0.75	-0030C
0.78	-0031D
0.80	-0032E
0.82	-0033F
0.85	-0034G
0.88	-0035H
0.90	-0036J
0.92	-0037K
0.95	-0038L
0.98	-0039M
1.00	-0040N
1.05	-0041P
1.10	-0042Q
1.15	-0043R
1.20	-0044S
1.25	-0045T
1.30	-0046V
1.35	-0047W
1.40	-0048X
1.45	-0049Y
1.50	-0050N
1.55	-0051A
1.60	-0052B
1.65	-0053C
1.70	-0054D
1.75	-0055E
1.80	-0056F
1.85	-0057G
1.90	-0058H
1.95	-0059J
2.00	-0060K
2.05	-0061L
2.10	-0062M
2.15	-0063N
2.20	-0064P
2.25	-0065Q
2.30	-0066R
2.35	-0067S
2.40	-0068T
2.45	-0069V
2.50	-0070W
2.55	-0071X
2.60	-0072Y
2.65	-0073N
2.70	-0074A
2.75	-0075B
2.80	-0076C
2.85	-0077D
2.90	-0078E
2.95	-0079F

Dia. (mm)	Order Code
<b>SHR-025</b>	
3.00	-0080G
3.10	-0081H
3.15	-0082J
3.20	-0083K
3.25	-0084L
3.30	-0085M
3.40	-0086N
3.45	-0087D
3.50	-0087P
3.60	-0088Q
3.65	-0089D
3.70	-0089R
3.75	-0090S
3.80	-0091T
3.90	-0092V
4.00	-0093W
4.05	-0094L
4.10	-0094X
4.20	-0095Y
4.25	-0096N
4.30	-0097A
4.40	-0098B
4.50	-0099C
4.60	-0100D
4.70	-0101E
4.75	-0102F
4.80	-0103G
4.85	-0103X
4.90	-0104H
5.00	-0105J
5.10	-0106K
5.20	-0107L
5.25	-0108M
5.30	-0109N
5.40	-0110P
5.50	-0111Q
5.60	-0112R
5.70	-0113S
5.75	-0114T
5.80	-0115V
5.90	-0116W
6.00	-0117X
6.10	-0118Y
6.20	-0119N
6.25	-0120A
6.30	-0121B
6.40	-0122C
6.50	-0123D
6.60	-0124E
6.70	-0125F
6.75	-0126G
6.80	-0127H
6.90	-0128J
7.00	-0129K
7.10	-0130L
7.20	-0131M
7.30	-0133P
7.40	-0134Q
7.50	-0135R
7.60	-0136S
7.70	-0137T
7.80	-0139W
7.90	-0140X
8.00	-0141Y
8.10	-0142N
8.20	-0143A

Dia. (mm)	Order Code
<b>SHR-025</b>	
8.25	-0144B
8.30	-0145C
8.40	-0146D
8.50	-0147E
8.60	-0148F
8.70	-0149G
8.75	-0150H
8.80	-0151J
8.90	-0152K
9.00	-0153L
9.10	-0154M
9.20	-0155N
9.30	-0157Q
9.40	-0158R
9.50	-0159S
9.60	-0160T
9.70	-0161V
9.80	-0163X
9.90	-0164Y
10.00	-0165N
10.10	-0166A
10.20	-0167B
10.25	-0168C
10.30	-0169D
10.40	-0170E
10.50	-0171F
10.60	-0172G
10.70	-0173H
10.80	-0175K
10.90	-0176L
11.00	-0177M
11.10	-0178N
11.20	-0179P
11.30	-0181R
11.40	-0182S
11.50	-0183T
11.60	-0184V
11.70	-0185W
11.80	-0187Y
11.90	-0188N
12.00	-0189A
12.10	-0190B
12.20	-0191C
12.25	-0192D
12.30	-0193E
12.40	-0194F
12.50	-0195G
12.60	-0196H
12.70	-0197J
12.80	-0199L
12.90	-0200M
13.00	-0201N
13.10	-0202P
13.20	-0203Q
13.30	-0205S
13.40	-0206T
13.50	-0207V
13.60	-0208W
13.70	-0209X
13.75	-0210Y
13.80	-0211N
13.90	-0212A
14.00	-0213B
14.25	-0214C
14.50	-0215D

Dia. (mm)	Order Code
<b>SHR-025</b>	
14.75	-0216E
15.00	-0217F
15.25	-0218G
15.50	-0219H
15.75	-0220J
16.00	-0221K
16.50	-0222L
17.00	-0223M
17.50	-0224N
18.00	-0225P
18.50	-0226Q
19.00	-0227R
19.50	-0228S
20.00	-0229T

**PRICED PER 10**

**Series J100**

Dia. (Inch)	Order Code
<b>SHR-025</b>	
1/64"	-0001A
1/32"	-0001B
3/64"	-0001C
1/16"	-0001D
5/64"	-0001E
3/32"	-0001F
7/64"	-0001G
1/8"	-0001H
9/64"	-0001J
5/32"	-0001K
11/64"	-0001L
3/16"	-0001M
13/64"	-0001N
7/32"	-0001P
15/64"	-0001Q
1/4"	-0001R
17/64"	-0001S
9/32"	-0001T
19/64"	-0001V
5/16"	-0001W
21/64"	-0001X
11/32"	-0001Y
23/64"	-0001Z
3/8"	-0002A
25/64"	-0002B
13/32"	-0002C
27/64"	-0002D
7/16"	-0002E
29/64"	-0002F
15/32"	-0002G
31/64"	-0002H
1/2"	-0002J
17/32"	-0002L
9/16"	-0002N
5/8"	-0002S
11/16"	-0002X
23/32"	-
3/4"	-0003B

**CUTTING TOOLS**

**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**

**GROUP 025 STANDARD LENGTH DRILLS**

**SHERWOOD QUALITY CUTTING TOOLS** **HSS Ground Flute Jobber Drill Sets**

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

**DIN 338** For Dimensions See Pages **34 - 35**  
**BS 328**

**x 0.5mm**  
**1.0 ~ 13.0**

(mm)	2.5	4.5	6.5	8.5	10.5	12.5
1.0	3.0	5.0	7.0	9.0	11.0	13.0
1.5	3.5	5.5	7.5	9.5	11.5	
2.0	4.0	6.0	8.0	10.0	12.0	

Number of Pieces **SHR-025**  
**25 -8500K**



**BEST SELLER**

**25 Piece**  
**"Bright Finish"**  
Also Available - See Right

**25**  
**PIECES**

**19**  
**PIECES**

**HSS** **HSS Jobber Drill Sets - Bright Finish**



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



**HSS**  
**25**  
**PIECES**

**Bright Finish**

**x 0.5mm**  
**1.0 ~ 13.0**

(mm)	2.5	4.5	6.5	8.5	10.5	12.5
1.0	3.0	5.0	7.0	9.0	11.0	13.0
1.5	3.5	5.5	7.5	9.5	11.5	
2.0	4.0	6.0	8.0	10.0	12.0	

Number of Pieces **SHR-025**  
**25 -8520K**

**HSS Ground Flute Select-A-Drill Set**

**19**  
**PIECES**

HSS Ground Flute jobber drills in a 'Dial-a-Drill' style case. With a clear top to view drills. Manufactured to **BS328, DIN 338N & ANSI B94 - 11M.**



**BEST SELLER**

**x 0.5mm**  
**1.0 ~ 10.0**

(mm)	2.0	3.5	5.0	6.5	8.0	9.5
1.0	2.5	4.0	5.5	7.0	8.5	10.0
1.5	3.0	4.5	6.0	7.5	9.0	

Number of Pieces **SHR-025**  
**19 -9000K**

**Assorted Drill Set**



**100 Piece**  
Assorted inch and metric sizes up to 1/2" - 13mm. Straight shank. Supplied in a plastic case. Set contents may vary.



**100**  
**PIECES**

Number of Pieces **PRO-901**  
**100 -0190A**

**CUTTING TOOLS**

**x 0.1mm**  
**1.0 ~ 6.0**

(mm)	1.6	2.3	3.0	3.7	4.4	5.1	5.8
1.0	1.7	2.4	3.1	3.8	4.5	5.2	5.9
1.1	1.8	2.5	3.2	3.9	4.6	5.3	6.0
1.2	1.9	2.6	3.3	4.0	4.7	5.4	
1.3	2.0	2.7	3.4	4.1	4.8	5.5	
1.4	2.1	2.8	3.5	4.2	4.9	5.6	
1.5	2.2	2.9	3.6	4.3	5.0	5.7	

Number of Pieces **SHR-025**  
**51 -8380K**

**51**  
**PIECES**



**x 0.5mm**  
**1.0 ~ 10.0**

(mm)	2.0	3.5	5.0	6.5	8.0	9.5
1.0	2.5	4.0	5.5	7.0	8.5	10.0
1.5	3.0	4.5	6.0	7.5	9.0	

Number of Pieces **SHR-025**  
**19 -8460K**



**32**  
**PIECES**

**x 0.5mm**  
**1.0 ~ 10.5**  
+Tapping sizes  
**1.9 to 10.2**

(mm)	2.5	3.5	5.1	7.5	10.0
1.0	2.6	3.8	5.5	7.9	10.2
1.5	2.9	4.0	6.0	8.0	10.5
1.9	3.0	4.2	6.5	8.5	
2.0	3.2	4.5	6.8	9.0	
2.1	3.3	5.0	7.0	9.5	

Number of Pieces **SHR-025**  
**32 -8470K**

**41**  
**PIECES**



**x 0.1mm**  
**6.0 ~ 10.0**

(mm)	6.5	7.1	7.7	8.3	8.9	9.5
6.0	6.6	7.2	7.8	8.4	9.0	9.6
6.1	6.7	7.3	7.9	8.5	9.1	9.7
6.2	6.8	7.4	8.0	8.6	9.2	9.8
6.3	6.9	7.5	8.1	8.7	9.3	9.9
6.4	7.0	7.6	8.2	8.8	9.4	10.0

Number of Pieces **SHR-025**  
**41 -8420K**



**HSS Ground Flute Tap & Drill Sets**

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

**HSS**

**28  
PIECES**



**METRIC** 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
----------	----------	-----------	-----

**Tapping Drills**

(mm) <b>2.5</b>	<b>3.3</b> <b>4.2</b>	<b>5.0</b> <b>6.8</b>	<b>8.5</b> <b>10.2</b>
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Number of Pieces	Order Code
28	<b>SHR-025 -9960K</b>



**HSS Ground Flute Jobber Drill Sets**

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

**15  
PIECES**



**X 1/32"**  
1/16" ~ 1/2"

1/16"	5/32"	1/4"	11/32"	7/16"
3/32"	3/16"	9/32"	3/8"	15/32"
1/8"	7/32"	5/16"	13/32"	1/2"

Number of Pieces	Order Code
15	<b>SHR-025 -8840K</b>

**15  
PIECES**



**GAUGE**

No.1 to 60  
Inclusive

Number of Pieces	Order Code
15	<b>SHR-025 -8880K</b>



For Dimensions See Pages 34 - 35



**HSS**

**13  
PIECES**



**X 1/64"**  
1/16" ~ 1/4"

1/16"	7/64"	5/32"	13/64"	1/4"
5/64"	1/8"	11/64"	7/32"	
3/32"	9/64"	3/16"	15/64"	

Number of Pieces	Order Code
13	<b>SHR-025 -8680K</b>

**29  
PIECES**

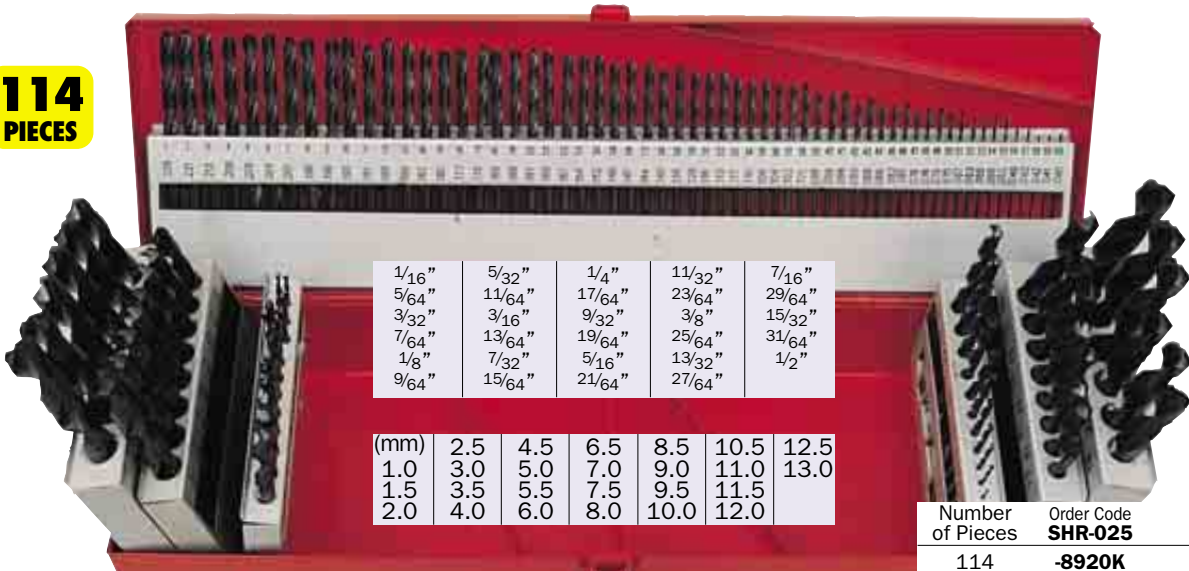


**X 1/64"**  
1/16" ~ 1/2"

1/16"	5/32"	1/4"	11/32"	7/16"
5/64"	11/64"	17/64"	23/64"	29/64"
3/32"	3/16"	9/32"	3/8"	15/32"
7/64"	13/64"	19/64"	25/64"	31/64"
1/8"	7/32"	5/16"	13/32"	1/2"
9/64"	19/64"	21/64"	27/64"	

Number of Pieces	Order Code
29	<b>SHR-025 -8800K</b>

**114  
PIECES**



1/16"	5/32"	1/4"	11/32"	7/16"
5/64"	11/64"	17/64"	23/64"	29/64"
3/32"	3/16"	9/32"	3/8"	15/32"
7/64"	13/64"	19/64"	25/64"	31/64"
1/8"	7/32"	5/16"	13/32"	1/2"
9/64"	15/64"	21/64"	27/64"	

(mm)	2.5	4.5	6.5	8.5	10.5	12.5
1.0	3.0	5.0	7.0	9.0	11.0	13.0
1.5	3.5	5.5	7.5	9.5	11.5	
2.0	4.0	6.0	8.0	10.0	12.0	

Number of Pieces	Order Code
114	<b>SHR-025 -8920K</b>

**x 0.5mm**  
1.0 ~ 13.0

**X 1/64"**  
1/16" ~ 1/2"

**GAUGE**  
No.1 to 60  
Inclusive

**GROUP 025 STANDARD LENGTH DRILLS**

**SWISS+TECH HSS Straight Shank TiN Tipped Jobber Drills**

Bright body with TiN coating on working part. For drilling in steel, cast steel alloyed and non-alloyed, grey cast iron, graphite and malleable cast iron. Point angle: 118°, helix angle: normal, web thickness: standard, relief angle: normal, tolerance of diameter: h8, tolerance of shank: f11. Manufactured to **BS 328, DIN 338**.

**DIN 338** For Dimensions See Pages 34-35  
**BS 328**



**HSS TiN-tip**



Metric		Inch Sizes	
Dia. (mm)	Order Code SWT-125	Dia. (inch)	Order Code SWT-125
1.00	-5010A	1/16"	-5002A
1.50	-5015A	3/32"	-5002L
1.60	-5016A	1/8"	-5003A
1.70	-5017A	9/64"	-5003L
1.80	-5018A	5/32"	-5004A
2.00	-5020A	3/16"	-5004L
2.10	-5021A	7/32"	-5005A
2.20	-5022A	1/4"	-5005L
2.30	-5023A	5/16"	-5006L
2.40	-5024A	3/8"	-5007A
2.50	-5025A	7/16"	-5007L
2.60	-5026A	1/2"	-5008A
2.70	-5027A		
2.80	-5028A		
2.90	-5029A		
3.00	-5030A		
3.10	-5031A		
3.20	-5032A		
3.30	-5033A		
3.40	-5034A		
3.50	-5035A		
3.60	-5036A		
3.70	-5037A		
3.80	-5038A		
3.90	-5039A		
4.00	-5040A		
4.10	-5041A		
4.20	-5042A		
4.30	-5043A		
4.40	-5044A		
4.50	-5045A		
4.60	-5046A		
4.70	-5047A		
4.80	-5048A		
4.90	-5049A		
5.00	-5050A		
5.10	-5051A		
5.20	-5052A		
5.30	-5053A		
5.40	-5054A		
5.50	-5055A		
5.70	-5057A		

**CUTTING TOOLS**

**HSS TiN Tipped Jobber Drill Sets**  
19 & 25 Piece Metric Sets

**19**  
PIECES

**x 0.5mm**  
1.0 ~ 10.0

**25**  
PIECES

**x 0.5mm**  
1.0 ~ 13.0

Number of Pieces	Order Code SWT-125
19	-9010A
25	-9020A

**HSS TiN Coated Jobber Drills**

General purpose drill, to drill steels with a tensile strength up to 1,000N/mm<sup>2</sup>, cast steel, grey cast iron, malleable cast iron, nickel brass and graphite. TiN coating provides longer tool life. Point angle: 118°, helix angle: normal, web thickness: normal, relief angle: normal, tolerance of diameter: h8, tolerance of shank: f11. Manufactured to **DIN 338 RN, DIN 338**.

**HSS TiN**

**DIN 338** For Dimensions See Pages 34-35  
**BS 328**



Series 1001							
Dia. (mm)	Order Code SWT-125	Dia. (mm)	Order Code SWT-125	Dia. (mm)	Order Code SWT-125	Dia. (mm)	Order Code SWT-125
1.00	-0010A	3.50	-0035A	5.50	-0055A	9.00	-0090A
1.20	-0012A	3.70	-0037A	6.00	-0060A	9.30	-0093A
1.50	-0015A	3.90	-0039A	6.10	-0061A	9.50	-0095A
1.60	-0016A	4.00	-0040A	6.20	-0062A	10.00	-0100A
1.80	-0018A	4.20	-0042A	6.50	-0065A	10.20	-0102A
2.00	-0020A	4.30	-0043A	6.70	-0067A	10.50	-0105A
2.10	-0021A	4.50	-0045A	6.80	-0068A	11.00	-0110A
2.20	-0022A	4.60	-0046A	7.00	-0070A	11.50	-0115A
2.50	-0025A	4.70	-0047A	7.50	-0075A	11.80	-0118A
2.80	-0028A	4.80	-0048A	7.70	-0077A	12.00	-0120A
3.00	-0030A	5.00	-0050A	7.80	-0078A	12.10	-0121A
3.10	-0031A	5.10	-0051A	8.00	-0080A	12.50	-0125A
3.20	-0032A	5.20	-0052A	8.50	-0085A	13.00	-0130A
3.30	-0033A	5.30	-0053A	8.70	-0087A		

**SWISS+TECH** HSS-Co. Straight Heavy Duty Drills

The addition of up to 8% cobalt allows higher speeds to be used without reducing the life of the tool, increasing productivity. 28° helix and 135° point. Point to **DIN 1412C**. Manufactured to **DIN 338 RN**.



HSS-Co

EXTENDED RANGE

**DIN 338** For Dimensions See Pages 34-35  
**BS 328**



**Series 1020**

Dia. (mm)	Order Code <b>SWT-125</b>	Dia. (mm)	Order Code <b>SWT-125</b>	Dia. (mm)	Order Code <b>SWT-125</b>	Dia. (mm)	Order Code <b>SWT-125</b>
1.00	-0410A	2.90	-0429A	5.10	-0451A	8.50	-0485A
1.10	-0411A	3.00	-0430A	5.20	-0452A	9.00	-0490A
1.20	-0412A	3.10	-0431A	5.30	-0453A	9.50	-0495A
1.40	-0414A	3.20	-0432A	5.50	-0455A	9.70	-0497A
1.50	-0415A	3.30	-0433A	5.80	-0458A	10.00	-0500A
1.60	-0416A	3.40	-0434A	5.90	-0459A	10.20	-0502A
1.70	-0417A	3.50	-0435A	6.00	-0460A	10.40	-0504A
1.80	-0418A	3.70	-0437A	6.40	-0464A	10.50	-0505A
1.90	-0419A	3.80	-0438A	6.50	-0465A	11.00	-0510A
2.00	-0420A	4.00	-0440A	6.70	-0467A	11.50	-0515A
2.10	-0421A	4.10	-0441A	6.80	-0468A	11.80	-0518A
2.20	-0422A	4.20	-0442A	7.00	-0470A	12.00	-0520A
2.40	-0424A	4.30	-0443A	7.20	-0472A	12.50	-0525A
2.50	-0425A	4.50	-0445A	7.50	-0475A	13.00	-0530A
2.60	-0426A	4.80	-0448A	8.00	-0480A		
2.70	-0427A	4.90	-0449A	8.20	-0482A		
2.80	-0428A	5.00	-0450A	8.30	-0483A		

**HSS-Co. Straight Shank Parabolic Drills**

Parabolic flute form drill with high heat resistance to non-alloyed and alloyed steels. Chipbreaking point performs well on long chipping materials with a tensile strength up to 1,300 N/mm<sup>2</sup>. Drills up to 5 x diameter. TiN coating provides longer tool life. Point angle: 130°. Helix angle: normal. Web thickness: strengthened. Relief angle: normal. Tolerance of diameter: h8. Tolerance of shank: f11. Supply unit. All diameters - 1 pce. Manufactured to **DIN 338 RN**.

HSS-Co

CUTTING TOOLS



**DIN 338** For Dimensions See Pages 34-35  
**BS 328**

**Series 1040**

Dia. (mm)	Order Code <b>SWT-125</b>	Dia. (mm)	Order Code <b>SWT-125</b>	Dia. (mm)	Order Code <b>SWT-125</b>	Dia. (mm)	Order Code <b>SWT-125</b>
1.00	-0810A	3.30	-0833A	5.00	-0850A	8.50	-0885A
3.00	-0830A	3.50	-0835A	6.00	-0860A	10.00	-0900A
3.20	-0832A	4.00	-0840A	8.00	-0880A	10.20	-0902A

**HSS-Co. Straight Shank High Helix Drills**

High helix drills, to drill long-chipping materials like aluminium, aluminium alloys, copper and plastics. Point angle: 130°. Helix angle: high. Web thickness: normal. Relief angle: normal. Tolerance of diameter: h8. Tolerance of shank: f11. Manufactured to **DIN 338 RN**.

HSS-Co

EXTENDED RANGE

**DIN 338** For Dimensions See Pages 34-35  
**BS 328**



**Series 1012**

Dia. (mm)	Order Code <b>SWT-125</b>	Dia. (mm)	Order Code <b>SWT-125</b>	Dia. (mm)	Order Code <b>SWT-125</b>	Dia. (mm)	Order Code <b>SWT-125</b>
1.00	-0210A	3.20	-0232A	5.00	-0250A	9.00	-0290A
1.30	-0213A	3.30	-0233A	5.20	-0252A	9.50	-0295A
1.40	-0214A	3.40	-0234A	5.50	-0255A	10.00	-0300A
1.50	-0215A	3.50	-0235A	6.00	-0260A	10.50	-0305A
1.70	-0217A	3.60	-0236A	6.10	-0261A	11.00	-0310A
1.80	-0218A	3.70	-0237A	6.50	-0265A	12.00	-0320A
2.00	-0220A	4.00	-0240A	6.80	-0268A	13.00	-0330A
2.50	-0225A	4.20	-0242A	7.00	-0270A		
2.60	-0226A	4.50	-0245A	7.50	-0275A		
3.00	-0230A	4.80	-0248A	8.50	-0285A		

PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR

**GROUP 025 STANDARD LENGTH DRILLS**

**SWISS+TECH HSS-Co. Straight Shank Heavy Duty TiN Coated Drills**

Heavy-duty drill used to drill steels with a tensile strength up to 1,400 N/mm<sup>2</sup>. Stainless steels, heat and acid resistant steels and phosphor bronze. TiN coating provides longer tool life. Point angle: 135°. Helix angle: normal. Web thickness: strengthened. Relief angle: normal. Tolerance of diameter: h8, Supply unit. All diameters - 1 pce. Manufactured to **DIN 338 RN**.



**HSS-Co TiN**



**DIN 338** For Dimensions See Pages 34-35  
**BS 328**

**Series 1033**

Dia. (mm)	Order Code SWT-125	Dia. (mm)	Order Code SWT-125	Dia. (mm)	Order Code SWT-125	Dia. (mm)	Order Code SWT-125
1.00	-0610A	2.80	-0628A	5.10	-0651A	8.20	-0682A
1.10	-0611A	3.00	-0630A	5.20	-0652A	8.50	-0685A
1.20	-0612A	3.20	-0632A	5.50	-0655A	8.70	-0687A
1.40	-0614A	3.30	-0633A	5.60	-0656A	9.00	-0690A
1.50	-0615A	3.40	-0634A	5.80	-0658A	9.50	-0695A
1.60	-0616A	3.50	-0635A	6.00	-0660A	9.70	-0697A
1.70	-0617A	3.60	-0636A	6.10	-0661A	10.00	-0700A
1.80	-0618A	3.90	-0639A	6.20	-0662A	10.20	-0702A
2.00	-0620A	4.00	-0640A	6.30	-0663A	10.50	-0705A
2.10	-0621A	4.10	-0641A	6.40	-0664A	11.00	-0710A
2.20	-0622A	4.20	-0642A	6.50	-0665A	12.00	-0720A
2.30	-0623A	4.30	-0643A	6.80	-0668A	12.50	-0725A
2.40	-0624A	4.50	-0645A	6.90	-0669A	13.00	-0730A
2.50	-0625A	4.80	-0648A	7.00	-0670A		
2.60	-0626A	4.90	-0649A	7.50	-0675A		
2.70	-0627A	5.00	-0650A	8.00	-0680A		

**HSS-Co. Straight Shank TiN Coated Parabolic Drills**

Parabolic flute form drill with high heat resistance to non-alloyed and alloyed steels. Chipbreaking point performs well on long chipping materials with a tensile strength up to 1,300 N/mm<sup>2</sup>. Drills up to 5 x diameter. TiN coating provides longer tool life. Point angle: 130°. Helix angle: normal. Web thickness: strengthened. Relief angle: normal. Tolerance of diameter: h8. Tolerance of shank: f1.1. Supply unit. All diameters - 1 pce. Manufactured to **DIN 338 RN**.

**HSS-Co TiN**



**DIN 338** For Dimensions See Pages 34-35  
**BS 328**

**Series 1050**

Dia. (mm)	Order Code SWT-125	Dia. (mm)	Order Code SWT-125	Dia. (mm)	Order Code SWT-125
2.50	-1025A	4.00	-1040A	6.00	-1060A
3.00	-1030A	5.00	-1050A	6.50	-1065A

**HSS-Co. Straight Shank TiN Coated High Helix Drills**

Heavy-duty drill for stainless steel, heat and acid-resistant steels, short chipping and high strength steels. High heat resistance allows drilling in titanium and titanium alloys. TiN coating provides longer tool life. Point angle: 130°. Helix angle: high. Web thickness: strengthened. Relief angle: normal. Tolerance of diameter: h8. Tolerance of shank: f1.1. Supply unit. All diameters - 1 pce. Manufactured to **DIN 338RN**.

**HSS-Co TiN**

**EXTENDED RANGE**



**DIN 338** For Dimensions See Pages 34-35  
**BS 328**

**Series 1060**

Dia. (mm)	Order Code SWT-125	Dia. (mm)	Order Code SWT-125	Dia. (mm)	Order Code SWT-125	Dia. (mm)	Order Code SWT-125
1.00	-1210A	3.30	-1233A	5.20	-1252A	8.70	-1287A
1.20	-1212A	3.50	-1235A	5.50	-1255A	9.00	-1290A
1.30	-1213A	4.00	-1240A	6.00	-1260A	9.50	-1295A
1.60	-1216A	4.20	-1242A	6.10	-1261A	10.00	-1300A
1.70	-1217A	4.30	-1243A	6.50	-1265A	10.20	-1302A
2.00	-1220A	4.50	-1245A	6.80	-1268A	10.50	-1305A
2.10	-1221A	4.70	-1247A	6.90	-1269A	10.70	-1307A
2.50	-1225A	4.80	-1248A	7.00	-1270A	11.00	-1310A
2.60	-1226A	4.90	-1249A	7.50	-1275A	12.00	-1320A
3.00	-1230A	5.00	-1250A	8.00	-1280A	12.50	-1325A
3.20	-1232A	5.10	-1251A	8.50	-1285A	13.00	-1330A



**HSS-Co 8% Straight Shank Heavy Duty Drills**



**HSS-Co 8%**

Heavy-duty drill made of 8% cobalt material with excellent heat resistance. To drill steels with tensile strength up to 1,400 N/mm<sup>2</sup>, very hard bronze, stainless steels as well as heat and acid resistant steels. Point angle: 135°. Helix angle: normal. Web thickness: strengthened. Relief angle: normal. Tolerance of diameter: h8. Tolerance of shank: f11. Supply unit. All diameters - 1 pce. Manufacturing Standard: **BS 328, DIN 338B.**



**DIN 338** For Dimensions  
**BS 328** See Pages  
**34-35**

**Metric**

Dia. (mm)	Order Code KEN-026	Dia. (mm)	Order Code KEN-026
1.00	-0200K	5.00	-1000K
1.10	-0220K	5.10	-1020K
1.20	-0240K	5.20	-1040K
1.30	-0260K	5.30	-1060K
1.40	-0280K	5.40	-1080K
1.50	-0300K	5.50	-1100K
1.60	-0320K	5.60	-1120K
1.70	-0340K	5.70	-1140K
1.80	-0360K	5.80	-1160K
1.90	-0380K	5.90	-1180K
2.00	-0400K	6.00	-1200K
2.20	-0440K	6.10	-1220K
2.30	-0460K	6.20	-1240K
2.40	-0480K	6.30	-1260K
2.50	-0500K	6.40	-1280K
2.60	-0520K	6.50	-1300K
2.70	-0540K	6.60	-1320K
2.80	-0560K	6.70	-1340K
3.00	-0600K	6.80	-1360K
3.10	-0620K	7.00	-1400K
3.20	-0640K	7.20	-1440K
3.30	-0660K	7.50	-1500K
3.40	-0680K	7.60	-1520K
3.50	-0700K	7.70	-1540K
3.60	-0720K	8.00	-1600K
3.70	-0740K	8.50	-1700K
3.80	-0760K	9.00	-1800K
3.90	-0780K	9.50	-1900K
4.00	-0800K	10.00	-2000K
4.10	-0820K	10.20	-2040K
4.20	-0840K	10.50	-2100K
4.30	-0860K	11.00	-2200K
4.40	-0880K	11.50	-2300K
4.50	-0900K	12.00	-2400K
4.60	-0920K	12.50	-2500K
4.80	-0960K	13.00	-2600K
4.90	-0980K		

**HSS-Co 8% Straight Shank Heavy Duty Drill Set**

19 Piece Metric

**19**  
**PIECES**



**x 0.5mm**  
**1.0 ~ 10.0**

Number of Pieces	Order Code KEN-026
19	-8460K

Inch		Dia. (inch)		Order Code KEN-026	
1/16"	-3040K	7/32"	-3140K		
3/32"	-3060K	1/4"	-3160K		
1/8"	-3080K	5/16"	-3200K		
5/32"	-3100K	11/32"	-3220K		
11/64"	-3110K	3/8"	-3240K		
3/16"	-3120K				

**CUTTING TOOLS**



**High Speed Steel Drill Blanks**

**HSS**

Jobber length blank hardened and ground all over. Accurately ground without back taper. Diameter tolerance: h8. Manufactured to **DIN 338.**



**DIN 338** For Dimensions  
**BS 328** See Pages  
**34-35**

**Series J400 - Metric**

Dia. (mm)	Order Code SHR-024	Dia. (mm)	Order Code SHR-024	Dia. (mm)	Order Code SHR-024	Dia. (mm)	Order Code SHR-024
1.00	-2398F	3.00	-2438N	5.00	-2462A	7.00	-2486B
1.10	-2400H	3.10	-2439A	5.10	-2463B	7.10	-2487C
1.20	-2402K	3.20	-2440B	5.20	-2464C	7.20	-2488D
1.30	-2404M	3.30	-2442D	5.30	-2466E	7.30	-2490F
1.40	-2406P	3.40	-2443E	5.40	-2467F	7.40	-2491G
1.50	-2408R	3.50	-2444F	5.50	-2468G	7.50	-2492H
1.60	-2410T	3.60	-2445G	5.60	-2469H	7.60	-2493J
1.70	-2412W	3.70	-2446H	5.70	-2470J	7.70	-2494K
1.80	-2414Y	3.80	-2448K	5.80	-2472L	7.80	-2496M
1.90	-2416A	3.90	-2449L	5.90	-2473M	7.90	-2497N
2.00	-2418C	4.00	-2450M	6.00	-2474N	8.00	-2498P
2.10	-2420E	4.10	-2451N	6.10	-2475P	8.50	-2504W
2.20	-2422G	4.20	-2452P	6.20	-2476Q	9.00	-2510C
2.30	-2424J	4.30	-2454R	6.30	-2478S	9.50	-2516J
2.40	-2426L	4.40	-2455S	6.40	-2479T	10.00	-2522Q
2.50	-2428N	4.50	-2456T	6.50	-2480V	11.00	-2524S
2.60	-2430Q	4.60	-2457V	6.60	-2481W	12.00	-2526V
2.70	-2432S	4.70	-2458W	6.70	-2482X	12.50	-2527W
2.80	-2434V	4.80	-2460Y	6.80	-2484N	13.00	-2528X
2.90	-2436X	4.90	-2461N	6.90	-2485A		

**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**

**GROUP 025 STANDARD LENGTH DRILLS**

**KENNEDY** Solid Carbide  
QUALITY INDUSTRIAL TOOLING Jobber Drills

For drilling steels, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy and light metal and abrasive plastic. Point angle 118°. Tolerance of diameter: h7. Tolerance of shank: h6. Supply unit. All diameters - 1 pce. Manufacturing Standard: **DIN 338, DIN338.**



**CARBIDE**



**DIN 338** For Dimensions See Pages 34-35  
**BS 328**

Metric		Metric		Metric		Inch Sizes	
Dia. (mm)	Order Code KEN-158	Dia. (mm)	Order Code KEN-158	Dia. (mm)	Order Code KEN-158	Dia. (inch)	Order Code KEN-158
1.00	-0100K	4.50	-0450K	9.00	-0900K	1/16"	-2040K
1.50	-0150K	5.00	-0500K	9.50	-0950K	3/32"	-2060K
1.60	-0160K	5.50	-0550K	10.00	-1000K	1/8"	-2080K
2.00	-0200K	6.00	-0600K	10.20	-1020K	5/32"	-2100K
2.50	-0250K	6.50	-0650K	10.50	-1050K	3/16"	-2120K
3.00	-0300K	6.80	-0680K	11.00	-1100K	13/64"	-2130K
3.30	-0330K	7.00	-0700K	11.50	-1150K	7/32"	-2140K
3.50	-0350K	7.50	-0750K	12.00	-1200K	1/4"	-2160K
4.00	-0400K	8.00	-0800K			5/16"	-2200K
4.20	-0420K	8.50	-0850K			3/8"	-2240K

**SHERWOOD** Solid Carbide  
QUALITY CUTTING TOOLS Jobber Drills

General purpose drills for drilling a wide variety of metallic and non-metallic materials. Point angle: 118°. Tolerance of diameter: h7. Tolerance of shank: h6. Supply unit. All diameters - 1 pce. Manufacturing Standard: **BS 328, DIN 338.**



**CARBIDE**



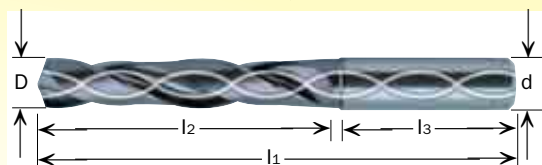
**DIN 338** For Dimensions See Pages 34-35  
**BS 328**

**CUTTING TOOLS**

Series J102 - Metric		Series J102 - Metric		Series J102 - Metric		Series J102 - Inch	
Dia. (mm)	Order Code SHR-158	Dia. (mm)	Order Code SHR-158	Dia. (mm)	Order Code SHR-158	Dia. (inch)	Order Code SHR-158
1.00	-5100K	4.80	-5480K	8.80	-5880K	1/16"	-4540K
1.10	-5110K	4.90	-5490K	8.90	-5890K	3/32"	-4560K
1.20	-5120K	5.00	-5500K	9.00	-5900K	1/8"	-4580K
1.30	-5130K	5.10	-5510K	9.10	-5910K	5/32"	-4600K
1.40	-5140K	5.20	-5520K	9.50	-5950K	3/16"	-4620K
1.50	-5150K	5.30	-5530K	9.70	-5970K	7/32"	-4640K
1.60	-5160K	5.40	-5540K	9.90	-5990K	1/4"	-4660K
1.70	-5170K	5.50	-5550K	10.00	-6000K	9/32"	-4680K
1.80	-5180K	5.60	-5560K	10.20	-6020K	5/16"	-4700K
1.90	-5190K	5.70	-5570K	10.30	-6030K	11/32"	-4720K
2.00	-5200K	5.80	-5580K	10.50	-6050K	3/8"	-4740K
2.10	-5210K	5.90	-5590K	10.60	-6060K	7/16"	-4780K
2.20	-5220K	6.00	-5600K	10.80	-6080K	1/2"	-4820K
2.30	-5230K	6.10	-5610K	11.00	-6100K		
2.40	-5240K	6.20	-5620K	11.10	-6110K		
2.50	-5250K	6.30	-5630K	11.20	-6120K		
2.60	-5260K	6.40	-5640K	11.50	-6150K		
2.70	-5270K	6.50	-5650K	11.80	-6180K		
2.80	-5280K	6.60	-5660K	11.90	-6190K		
2.90	-5290K	6.70	-5670K	12.00	-6200K		
3.00	-5300K	6.80	-5680K	12.10	-6210K		
3.10	-5310K	6.90	-5690K	12.20	-6220K		
3.20	-5320K	7.00	-5700K	12.50	-6250K		
3.30	-5330K	7.10	-5710K	12.70	-6270K		
3.40	-5340K	7.20	-5720K	13.00	-6300K		
3.50	-5350K	7.30	-5730K	13.20	-6320K		
3.60	-5360K	7.40	-5740K	13.50	-6350K		
3.70	-5370K	7.50	-5750K	14.00	-6400K		
3.80	-5380K	7.70	-5770K	14.50	-6450K		
3.90	-5390K	7.80	-5780K	15.00	-6500K		
4.00	-5400K	8.00	-5800K	15.50	-6550K		
4.10	-5410K	8.10	-5810K	16.00	-6600K		
4.20	-5420K	8.20	-5820K	16.50	-6650K		
4.30	-5430K	8.30	-5830K	17.00	-6700K		
4.40	-5440K	8.40	-5840K	17.50	-6750K		
4.50	-5450K	8.50	-5850K	18.00	-6800K		
4.60	-5460K	8.60	-5860K	19.00	-6900K		
4.70	-5470K	8.70	-5870K	20.00	-7000K		

Production drills featured in this catalogue comply with the above standard in terms of overall and working dimensions. The tables of sizes below apply to all of these products. In order to save space in the catalogue we are not repeating these dimensions after this page.

Any drills, which are made to different standards/dimensions, will have them listed accordingly in the tables for those products.



DIN 6537 - Short

3 X D Nominal

Cutting Diameter D mm	Shank Diameter d, mm	Overall Length l <sub>1</sub>	Flute Length l <sub>2</sub>	Shank Length l <sub>3</sub>
3.00 to 3.70	6.0	62.0	20.0	36.0
3.80 to 4.70	6.0	66.0	24.0	36.0
4.76 to 6.00	6.0	66.0	28.0	36.0
6.10 to 7.00	8.0	79.0	34.0	36.0
7.10 to 8.00	8.0	79.0	41.0	36.0
8.10 to 10.00	10.0	89.0	47.0	40.0
10.10 to 12.00	12.0	102.0	55.0	45.0
12.10 to 14.00	14.0	107.0	60.0	45.0
14.10 to 16.00	16.0	115.0	65.0	48.0
16.50 to 18.00	18.0	123.0	73.0	48.0
18.50 to 20.00	20.0	131.0	79.0	50.0

DIN 6537 - Long

5 X D Nominal

Cutting Diameter D mm	Shank Diameter d mm	Overall Length l <sub>1</sub>	Flute Length l <sub>2</sub>	Shank Length l <sub>3</sub>
3.00 to 3.70	6.0	66.0	28.0	36.0
3.80 to 4.70	6.0	74.0	36.0	36.0
4.76 to 6.00	6.0	82.0	44.0	36.0
6.10 to 8.00	8.0	91.0	53.0	36.0
8.10 to 10.00	10.0	103.0	61.0	40.0
10.10 to 12.00	12.0	118.0	71.0	45.0
12.10 to 14.00	14.0	124.0	77.0	45.0
14.10 to 16.00	16.0	133.0	83.0	48.0
16.50 to 18.00	18.0	143.0	93.0	48.0
18.50 to 20.00	20.0	153.0	101.0	50.0

Solid Carbide Q-Coat Drill

For drilling into general steel, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy and light metal, and abrasive plastic, self-centering.

Point angle: 140°, tolerance of diameter: m7, tolerance of shank: h6. Manufactured to DIN 6537.

CARBIDE

Q-Coat

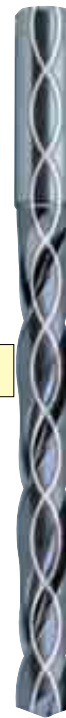
DIN 6537



3 X D



5 X D



CUTTING TOOLS



Diameter (mm)	Order Code SWT-158 3 X D Solid	Order Code SWT-158 3 X D Through Coolant	Order Code SWT-158 5 X D Solid	Order Code SWT-158 5 X D Through Coolant
3.00	-3530S	-	-5530S	-
3.30	-3533S	-	-	-
3.50	-3535S	-	-	-
4.00	-3540S	-3040C	-5540S	-5040C
4.20	-3542S	-3042C	-5542S	-
5.00	-3550S	-3050C	-5550S	-5050C
6.00	-3560S	-3060C	-5560S	-5060C
6.50	-	-3065C	-5565S	-
6.80	-3568S	-	-	-
7.00	-3570S	-3070C	-5570S	-5070C
7.50	-3575S	-	-	-
8.00	-3580S	-3080C	-5580S	-5080C
8.50	-3585S	-	-	-
9.00	-3590S	-3090C	-5590S	-5090C
10.00	-3600S	-3100C	-5600S	-5100C
10.20	-3602S	-	-	-
10.50	-3605S	-	-	-
11.00	-3610S	-3110C	-5610S	-5110C
12.00	-3620S	-3120C	-5620S	-
12.50	-3625S	-	-5625S	-5125C
13.00	-3630S	-	-5630S	-
13.50	-3635S	-	-5635S	-
14.00	-3640S	-	-5640S	-5140C
14.50	-3645S	-	-	-
15.00	-3650S	-	-5650S	-
16.00	-3660S	-	-	-

**GROUP 025 LONG SERIES DRILLS**

**SHERWOOD QUALITY CUTTING TOOLS** *HSS Straight Shank Long Series Drills - Steam Tempered*

General purpose drills to drill steels with tensile strength up to 1,000N/mm<sup>2</sup>, cast steel, grey cast iron, malleable cast iron, nickel brass and graphite. Point angle: 118°, helix angle: normal, web thickness: normal, relief angle: 10° - 20°, tolerance of diameter: h8, tolerance of f11.

Manufactured to **BS 328; Part 1: 1986, DIN 340 RN, ISO 494.**



**HSS**

**EXTENDED RANGE**



**Series L100**

Diameter (mm)	Flute Length	Overall Length	Weight per 10	Order Code SHR-025
1.00	33.0	56.0	8g	-1420A
1.10	37.0	60.0	8g	-1421B
1.20	41.0	65.0	9g	-1422C
1.30	41.0	65.0	11g	-1423D
1.40	45.0	70.0	11g	-1424E
1.50	45.0	70.0	14g	-1425F
1.60	50.0	76.0	14g	-1426G
1.70	50.0	76.0	14g	-1427H
1.80	53.0	80.0	16g	-1429K
1.90	53.0	80.0	18g	-1431M
2.00	56.0	85.0	21g	-1433P
2.10	56.0	85.0	21g	-1435R
2.20	59.0	90.0	24g	-1437T
2.30	59.0	90.0	27g	-1439W
2.35	59.0	90.0	27g	-1440X
2.40	62.0	95.0	32g	-1441Y
2.50	62.0	95.0	38g	-1443A
2.60	62.0	95.0	40g	-1445C
2.70	66.0	100.0	41g	-1447E
2.80	66.0	100.0	43g	-1449G
2.90	66.0	100.0	45g	-1451J
3.00	66.0	100.0	46g	-1453L
3.10	69.0	106.0	46g	-1454M
3.20	69.0	106.0	51g	-1455N
3.25	69.0	106.0	54g	-1456P
3.30	69.0	106.0	55g	-1457Q
3.40	73.0	112.0	56g	-1458R
3.50	73.0	112.0	57g	-1459S
3.60	73.0	112.0	77g	-1460T
3.70	73.0	112.0	68g	-1461V
3.80	78.0	119.0	75g	-1463X
3.90	78.0	119.0	80g	-1464Y
4.00	78.0	119.0	98g	-1465N
4.10	78.0	119.0	104g	-1466A
4.20	78.0	119.0	105g	-1467B
4.30	82.0	126.0	106g	-1469D
4.40	82.0	126.0	120g	-1470E
4.50	82.0	126.0	135g	-1471F
4.60	82.0	126.0	139g	-1472G
4.70	82.0	126.0	140g	-1473H
4.80	87.0	132.0	154g	-1475K
4.90	87.0	132.0	158g	-1476L
5.00	87.0	132.0	164g	-1477M
5.10	87.0	132.0	168g	-1478N
5.20	87.0	132.0	180g	-1479P
5.30	87.0	132.0	182g	-1481R
5.40	91.0	139.0	184g	-1482S
5.50	91.0	139.0	187g	-1483T
5.70	91.0	139.0	218g	-1485W
5.80	91.0	139.0	219g	-1487Y
5.90	91.0	139.0	231g	-1488N
6.00	91.0	139.0	238g	-1489A
6.10	97.0	148.0	265g	-1490B
6.20	97.0	148.0	270g	-1491C
6.30	97.0	148.0	284g	-1493E
6.40	97.0	148.0	300g	-1494F
6.50	97.0	148.0	314g	-1495G
6.60	97.0	148.0	336g	-1496H
6.70	97.0	148.0	338g	-1497J
6.80	102.0	156.0	344g	-1499L
6.90	102.0	156.0	344g	-1500M
7.00	102.0	156.0	345g	-1501N
7.10	102.0	156.0	354g	-1502P
7.20	102.0	156.0	361g	-1503Q
7.30	120.0	156.0	380g	-1505S
7.40	102.0	156.0	386g	-1506T
7.50	102.0	156.0	398g	-1507V
7.60	109.0	165.0	429g	-1508W
7.70	109.0	165.0	468g	-1509X
7.80	109.0	165.0	442g	-1511N
7.90	109.0	165.0	479g	-1512A
8.00	109.0	165.0	496g	-1513B
8.10	109.0	165.0	524g	-1514C
8.20	109.0	165.0	528g	-1515D
8.30	109.0	165.0	544g	-1517F
8.40	109.0	165.0	544g	-1518G
8.50	109.0	165.0	548g	-1519H
8.60	115.0	175.0	548g	-1520J

Diameter (mm)	Flute Length	Overall Length	Weight per 10	Order Code SHR-025
8.70	115.0	175.0	600g	-1521K
8.80	115.0	175.0	618g	-1523M
9.00	115.0	175.0	648g	-1525P
9.50	115.0	175.0	726g	-1531W
9.60	121.0	184.0	780g	-1532X
9.70	121.0	184.0	782g	-1533Y
9.80	121.0	184.0	794g	-1535A
9.90	121.0	184.0	808g	-1536B
10.00	121.0	184.0	822g	-1537C
10.10	121.0	184.0	878g	-1538D
10.20	121.0	184.0	904g	-1539E
10.40	121.0	184.0	896g	-1542H
10.50	121.0	184.0	882g	-1543J
10.70	128.0	195.0	984g	-1545L
10.80	128.0	195.0	996g	-1547N
11.00	128.0	195.0	1038g	-1549Q
11.20	128.0	195.0	1042g	-1551S
11.50	128.0	195.0	1178g	-1555X
11.70	128.0	195.0	1190g	-1557N
11.80	128.0	195.0	1208g	-1559B
12.00	134.0	205.0	1290g	-1561D
12.20	134.0	205.0	1372g	-1563F
12.50	134.0	205.0	1438g	-1567K
12.70	134.0	205.0	1478g	-1569M
13.00	134.0	205.0	1528g	-1573R
13.50	140.0	214.0	1810g	-1578X
14.00	140.0	214.0	2110g	-1583C
14.50	144.0	220.0	2240g	-1585E
15.00	144.0	220.0	2350g	-1587G
15.50	149.0	227.0	2460g	-1589J
16.00	149.0	227.0	2570g	-1591L
16.50	154.0	235.0	2920g	-1593N
17.00	154.0	235.0	2930g	-1595Q
17.50	158.0	241.0	3400g	-1597S
18.00	158.0	241.0	3590g	-1599V
20.00	166.0	254.0	4450g	-1607D

**CUTTING TOOLS**

**HSS Long Series Drill Set**

10 Piece Metric Set



<b>mm</b>	<b>10 PIECES</b>	
<b>2.0 ~ 10.0</b>		
2.0 x 85mm	4.0 x 119mm	8.0 x 165mm
2.5 x 95mm	4.5 x 126mm	10.0 x 184mm
3.0 x 100mm	5.0 x 132mm	
3.5 x 112mm	6.0 x 139mm	
Number of Pieces	Order Code	
10	<b>SHR-025</b>	
	<b>-8540K</b>	



**HSS Straight Shank Long Series Drills**

**EXTENDED RANGE**



**HSS**

General purpose high speed steel long series drills are designed for deep hole drilling of most materials. The drill has the same diameter on both the fluted section and the shank. Manufactured to **BS 328; Part 1: 1986, DIN 340 RN, ISO 494.**



**Series L100 - Inch Sizes**

Diameter (Inch)	Flute Length	Overall Length	Weight per 10	Order Code SHR-025	Diameter (Inch)	Flute Length	Overall Length	Weight per 10	Order Code SHR-025
1/32"	1 1/16"	1 7/8"	10g	-1404Z	15/64"	3 19/32"	5 15/32"	285g	-1405N
3/64"	1 5/8"	2 9/16"	15g	-1405A	1/4"	3 13/16"	5 13/16"	312g	-1405P
1/16"	1 31/32"	3"	20g	-1405B	17/64"	4"	6 1/8"	375g	-1405O
5/64"	2 7/32"	3 11/32"	25g	-1405C	9/32"	4"	6 3/8"	434g	-1405R
3/32"	2 7/16"	3 3/4"	35g	-1405D	19/64"	4 9/32"	6 1/2"	452g	-1405S
7/64"	2 19/32"	3 15/16"	55g	-1405E	5/16"	4 9/32"	6 1/2"	494g	-1405T
1/8"	2 23/32"	4 3/16"	70g	-1405F	11/32"	4 17/32"	6 7/8"	682g	-1405W
9/64"	2 7/8"	4 13/32"	90g	-1405G	3/8"	4 3/4"	7 1/4"	818g	-1405Y
5/32"	3 1/16"	4 11/16"	120g	-1405H	13/32"	4 3/4"	7 1/4"	1032g	-1406A
11/64"	3 7/32"	4 31/32"	150g	-1405J	7/16"	5 1/32"	7 11/16"	742g	-1406C
3/16"	3 7/16"	5 3/16"	150g	-1405K	31/64"	5 9/32"	8 1/16"	1512g	-1406F
13/64"	3 7/16"	5 3/16"	200g	-1405L	1/2"	5 9/32"	8 1/16"	1550g	-1406G
7/32"	3 19/32"	5 15/32"	230g	-1405M	9/16"	5 11/16"	8 21/32"	2110g	-1406L

**HSS Straight Shank Long Series Drills - Bright Finish**

General purpose drills to drill steels with tensile strength up to 1,000N/mm<sup>2</sup>, cast steel, grey cast iron, malleable cast iron, nickel brass and graphite. Point angle: 118°, helix angle: normal, web thickness: normal, relief angle: 10° - 20°, tolerance of diameter: h8, tolerance of f11.

Manufactured to **BS 328; Part 1: 1986, DIN 340 RN, ISO 494.**

Drills with a bright finish are supplied in the as-ground condition and such tools are used generally in the machining of non-ferrous materials.



**Series L100 - Bright Finish**

Diameter (mm)	Flute Length	Overall Length	Weight per 10	Order Code SHR-025	Diameter (mm)	Flute Length	Overall Length	Weight per 10	Order Code SHR-025
1.00	33.0	56.0	8g	-1630A	5.80	91.0	139.0	219g	-1633J
1.20	41.0	65.0	9g	-1630E	6.00	91.0	139.0	238g	-1633P
1.40	45.0	70.0	11g	-1630G	6.10	97.0	148.0	265g	-1633Q
1.50	45.0	70.0	14g	-1630J	6.20	97.0	148.0	270g	-1633R
1.60	50.0	76.0	14g	-1630K	6.30	97.0	148.0	284g	-1633S
2.00	56.0	85.0	21g	-1630Q	6.40	97.0	148.0	300g	-1633T
2.10	56.0	85.0	21g	-1630R	6.50	97.0	148.0	314g	-1633X
2.20	59.0	90.0	24g	-1630S	6.70	97.0	148.0	338g	-1634C
2.30	59.0	90.0	27g	-1630T	6.80	120.0	156.0	344g	-1634D
2.40	62.0	95.0	32g	-1630W	7.00	120.0	156.0	345g	-1634H
2.50	62.0	95.0	38g	-1630Y	7.20	102.0	156.0	361g	-1634K
2.60	62.0	95.0	40g	-1630Z	7.50	102.0	156.0	398g	-1634N
2.80	66.0	100.0	43g	-1631B	7.80	109.0	165.0	442g	-1634R
3.00	66.0	100.0	46g	-1631H	8.00	109.0	165.0	496g	-1635A
3.10	69.0	106.0	46g	-1631K	8.20	109.0	165.0	528g	-1635C
3.20	69.0	106.0	51g	-1631N	8.50	109.0	165.0	548g	-1635L
3.30	69.0	106.0	55g	-1631Q	9.00	115.0	175.0	648g	-1635Z
3.40	73.0	112.0	56g	-1631T	9.50	115.0	175.0	726g	-1636E
3.50	73.0	112.0	57g	-1631V	9.80	121.0	184.0	794g	-1636L
3.60	73.0	112.0	77g	-1631W	10.00	121.0	184.0	822g	-1636N
3.70	73.0	112.0	68g	-1631X	10.20	121.0	184.0	904g	-1636Q
3.80	78.0	119.0	75g	-1631Y	10.50	121.0	184.0	882g	-1636T
4.00	78.0	119.0	98g	-1632C	11.00	128.0	195.0	1038g	-1637A
4.10	78.0	119.0	104g	-1632D	11.50	128.0	195.0	1178g	-1637F
4.20	78.0	119.0	105g	-1632F	12.00	134.0	205.0	1290g	-1637P
4.30	82.0	126.0	106g	-1632G	12.50	134.0	205.0	1438g	-1637V
4.40	82.0	126.0	120g	-1632J	13.00	134.0	205.0	1528g	-1638Q
4.50	82.0	126.0	135g	-1632L	13.50	140.0	214.0	1810g	-1638W
4.80	87.0	132.0	154g	-1632R	14.00	140.0	214.0	2110g	-1639R
4.90	87.0	132.0	158g	-1632S	15.00	144.0	220.0	2350g	-1640S
5.00	87.0	132.0	164g	-1632W	16.00	149.0	227.0	2570g	-1641T
5.10	87.0	132.0	168g	-1632X	17.00	154.0	235.0	2930g	-1642V
5.20	87.0	132.0	180g	-1632Y	18.00	158.0	241.0	3590g	-1643W
5.30	87.0	132.0	182g	-1632Z	20.00	166.0	254.0	4450g	-1644X
5.50	91.0	139.0	187g	-1633F					

**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**

**CUTTING TOOLS**

**GROUP 025 LONG SERIES DRILLS**

**SWISS+TECH HSS-Co. Straight Shank Long Series Drills**

Heavy-duty drill used for deep holes in steels with a tensile strength up to 1,400 N/mm<sup>2</sup>. Stainless steels, heat and acid-resistant steels and hard bronze. Point angle: 135°. Helix angle: normal. Web thickness: strengthened. Relief angle: normal. Tolerance of diameter: h8. Tolerance of shank: f11. Manufacturing Standard: **DIN 340/BS328**.



**HSS-Co**

**EXTENDED RANGE**

**HEAVY DUTY**



**Series 4000 - Metric**

Diameter (mm)	Flute Length	Overall Length	Weight per 10	Order Code SWT-125
3.00	66.0	100.0	51g	<b>-4030A</b>
3.10	69.0	106.0	54g	<b>-4031A</b>
3.20	69.0	106.0	65g	<b>-4032A</b>
3.30	69.0	106.0	56g	<b>-4033A</b>
3.50	73.0	112.0	68g	<b>-4035A</b>
4.00	78.0	119.0	106g	<b>-4040A</b>
4.10	78.0	119.0	104g	<b>-4041A</b>
4.20	78.0	119.0	105g	<b>-4042A</b>
4.50	82.0	126.0	135g	<b>-4045A</b>
4.80	87.0	132.0	154g	<b>-4048A</b>
5.00	87.0	132.0	184g	<b>-4050A</b>
5.20	87.0	132.0	180g	<b>-4052A</b>
5.50	91.0	139.0	213g	<b>-4055A</b>

Diameter (mm)	Flute Length	Overall Length	Weight per 10	Order Code SWT-125
6.00	91.0	139.0	238g	<b>-4060A</b>
6.50	97.0	148.0	300g	<b>-4065A</b>
6.80	102.0	156.0	344g	<b>-4068A</b>
7.00	102.0	156.0	345g	<b>-4070A</b>
7.50	102.0	156.0	386g	<b>-4075A</b>
8.00	109.0	165.0	496g	<b>-4080A</b>
8.50	109.0	165.0	548g	<b>-4085A</b>
9.00	115.0	175.0	648g	<b>-4090A</b>
9.50	115.0	175.0	726g	<b>-4095A</b>
10.00	121.0	184.0	822g	<b>-4100A</b>
11.50	128.0	195.0	1168g	<b>-4115A</b>
12.00	134.0	205.0	1290g	<b>-4120A</b>

**HSS-Co. Straight Shank Long Series Parabolic Drills**

Parabolic flute form drill with high resistance to non-alloyed and alloyed steels. Chipbreaking point performs well on long chipping materials with a tensile strength up to 1,300 N/mm<sup>2</sup>. Drills up to 5 x diameter. Point angle: 130°. Helix angle: high. Web thickness: strengthened. Relief angle: normal. Tolerance of diameter: h8. Tolerance of shank: f11. Manufacturing Standard: **DIN 340**.

**HSS-Co**

**PARABOLIC**

**EXTENDED RANGE**



**Series 4010 - Metric**

Diameter (mm)	Flute Length	Overall Length	Weight per 10	Order Code SWT-125
3.00	66.0	100.0	51g	<b>-4230A</b>
3.20	69.0	106.0	63g	<b>-4232A</b>
4.00	78.0	119.0	106g	<b>-4240A</b>
4.20	78.0	119.0	106g	<b>-4242A</b>
4.50	82.0	126.0	135g	<b>-4245A</b>

Diameter (mm)	Flute Length	Overall Length	Weight per 10	Order Code SWT-125
5.00	87.0	132.0	184g	<b>-4250A</b>
6.00	91.0	139.0	238g	<b>-4260A</b>
6.50	97.0	148.0	320g	<b>-4265A</b>
8.00	109.0	165.0	496g	<b>-4280A</b>
8.50	109.0	165.0	555g	<b>-4285A</b>

**SWISS+TECH HSS-Co. Straight Shank TiN Coated Long Series Parabolic Drills**

Parabolic flute form drill with high resistance to non-alloyed and alloyed steels. Chipbreaking point performs well on long chipping materials with a tensile strength up to 1,300 N/mm<sup>2</sup>. Drills up to 5 x diameter. TiN coating provides longer tool life. Point angle 130°. Helix angle: high. Web thickness: strengthened. Relief angle: normal. Tolerance of diameter: h8. Tolerance of shank: f11. Manufacturing Standard: **DIN 340**.



**TiN HSS-Co**

**PARABOLIC**



**Series 4020 - Metric**

Diameter (mm)	Flute Length	Overall Length	Weight per 10	Order Code SWT-125
3.00	66.0	100.0	51g	<b>-4430A</b>
3.30	69.0	106.0	70g	<b>-4433A</b>
3.50	73.0	112.0	78g	<b>-4435A</b>
4.00	78.0	119.0	106g	<b>-4440A</b>
4.20	78.0	119.0	106g	<b>-4442A</b>

Diameter (mm)	Flute Length	Overall Length	Weight per 10	Order Code SWT-125
5.00	87.0	132.0	184g	<b>-4450A</b>
6.00	91.0	139.0	238g	<b>-4460A</b>
8.00	109.0	165.0	496g	<b>-4480A</b>
10.00	121.0	184.0	822g	<b>-4500A</b>



**HSS Extra Length Drills - Steam Tempered**

General-purpose drills for steels, cast steel, grey cast iron, malleable cast iron, nickel brass, aluminium alloy and graphite. Point angle: 118°, helix angle: normal, web thickness: standard, relief angle: 10° - 20°, tolerance of diameter: h8, tolerance of shank: f11. Manufactured to **BS 328 : Part 1 : 1986**.



HSS



**Series E100 - Metric**

Diameter (mm)	Flute Length	Overall Length	Weight each	Order Code SHR-024
1.50	80.0	125.0	1g	-2091B
1.50	100.0	160.0	1g	-2092C
2.00	80.0	125.0	2g	-2094E
2.00	100.0	160.0	2g	-2095F
2.00	200.0			-2095H
2.20	100.0	160.0	3g	-2096G
2.50	80.0	125.0	3g	-2097H
2.50	100.0	160.0	6g	-2098J
2.50	200.0			-2098L
3.00	100.0	160.0	6g	-2099K
3.00	150.0	200.0	7g	-2100L
3.00	200.0	250.0	7g	-2101M
3.30	100.0	160.0	8g	-2102N
3.30	200.0			-2102Q
3.50	100.0	160.0	8g	-2103P
3.50	150.0	200.0	12g	-2104Q
3.50	200.0	250.0	12g	-2105R
4.00	100.0	160.0	11g	-2107T
4.00	150.0	200.0	12g	-2108V
4.00	200.0	250.0	18g	-2109W
4.00	250.0	315.0	20g	-2110X
4.50	100.0	160.0	16g	-2111Y
4.50	150.0	200.0	16g	-2112N
4.50	200.0	250.0	23g	-2113A
4.50	250.0	315.0	28g	-2114B
5.00	100.0	160.0	17g	-2115C
5.00	150.0	200.0	20g	-2116D
5.00	200.0	250.0	23g	-2117E
5.00	250.0	315.0	34g	-2118F
5.00	300.0	400.0	39g	-2119G
5.50	150.0	200.0	27g	-2120H
5.50	200.0	250.0	35g	-2121J
6.00	150.0	200.0	29g	-2123L
6.00	200.0	250.0	17g	-2124M
6.00	250.0	315.0	42g	-2125N
6.00	300.0	400.0	57g	-2126P

Diameter (mm)	Flute Length	Overall Length	Weight each	Order Code SHR-024
6.50	150.0	200.0	35g	-2127Q
6.50	200.0	250.0	45g	-2128R
6.50	250.0	315.0	57g	-2129S
7.00	150.0	200.0	40g	-2130T
7.00	200.0	250.0	51g	-2131V
7.00	250.0	315.0	67g	-2132W
7.50	200.0	200.0	54g	-2133X
7.50	200.0	250.0	59g	-2134Y
7.50	250.0	315.0	73g	-2135N
8.00	200.0	250.0	59g	-2136A
8.00	250.0	315.0	79g	-2137B
8.00	300.0	400.0	100g	-2138C
8.50	200.0	250.0	70g	-2139D
8.50	250.0	315.0	89g	-2140E
9.00	200.0	250.0	76g	-2141F
9.00	250.0	315.0	95g	-2142G
9.00	300.0	400.0	137g	-2143H
9.50	200.0	250.0	91g	-2144J
9.50	250.0	315.0	91g	-2145K
10.00	200.0	250.0	93g	-2146L
10.00	250.0	315.0	100g	-2147M
10.00	300.0	400.0	153g	-2148N
10.50	200.0	250.0	111g	-2149P
10.50	250.0	315.0	134g	-2150Q
10.50	300.0	400.0	175g	-2151R
11.00	200.0	250.0	121g	-2152S
11.00	250.0	315.0	145g	-2153T
11.00	400.0			-2154V
12.00	200.0	250.0	153g	-2155W
12.00	250.0	315.0	168g	-2156X
12.00	300.0	400.0	239g	-2157Y
13.00	250.0	315.0	210g	-2158N
13.00	300.0	400.0	283g	-2159A
14.00	250.0	315.0	239g	-2160B
14.00	300.0	400.0	315g	-2161C

**Series E100 - Inch Sizes**

Diameter (mm)	Flute Length	Overall Length	Weight each	Order Code SHR-024
1/16"	80.0	125.0	1g	-1990A
1/16"	100.0	160.0	2g	-1991B
5/64"	80.0	125.0	2g	-1992C
5/64"	100.0	160.0	3g	-1993D
3/32"	80.0	125.0	4g	-1994E
3/32"	100.0	160.0	5g	-1995F
7/64"	100.0	160.0	6g	-1997H
1/8"	100.0	160.0	8g	-1998J
1/8"	150.0	200.0	10g	-1999K
1/8"	200.0	250.0	10g	-2000L
1/8"	250.0	315.0	14g	-2001M
9/64"	100.0	160.0	10g	-2002N
5/32"	100.0	160.0	12g	-2004Q
5/32"	150.0	200.0	14g	-2005R
5/32"	200.0	250.0	16g	-2006S
11/64"	100.0	160.0	14g	-2008V
11/64"	200.0	250.0	21g	-2010X
3/16"	100.0	160.0	17g	-2011Y
3/16"	150.0	200.0	19g	-2012N
3/16"	200.0	250.0	26g	-2013A
3/16"	300.0	400.0	23g	-2015C
13/64"	150.0	200.0	23g	-2016D
13/64"	200.0	250.0	28g	-2017E
7/32"	150.0	200.0	24g	-2019G
7/32"	200.0	250.0	36g	-2020H
15/64"	200.0	250.0	37g	-2023L
1/4"	150.0	200.0	32g	-2024M
1/4"	200.0	250.0	41g	-2025N
1/4"	250.0	315.0	49g	-2026P
1/4"	300.0	400.0	72g	-2027Q
17/64"	250.0	315.0	59g	-2031V
9/32"	150.0	200.0	52g	-2032W
9/32"	200.0	250.0	53g	-2033X
5/16"	150.0	200.0	54g	-2035N
5/16"	200.0	250.0	58g	-2036A
5/16"	300.0	400.0	100g	-2038C
21/64"	200.0	250.0	78g	-2040E
11/32"	200.0	250.0	77g	-2042G
11/32"	250.0	315.0	96g	-2043H
3/8"	150.0	200.0	72g	-2046Y
3/8"	200.0	250.0	85g	-2047M
3/8"	250.0	315.0	149g	-2048N

Diameter (mm)	Flute Length	Overall Length	Weight each	Order Code SHR-024
3/8"	300.0	400.0	139g	-2049P
13/32"	200.0	250.0	101g	-2051R
13/32"	250.0	315.0	125g	-2052S
7/16"	200.0	250.0	144g	-2054V
7/16"	250.0	315.0	191g	-2055W
7/16"	300.0	400.0	143g	-2056X
15/32"	250.0			-2057W
15/32"	315.0			-2057Y
1/2"	200.0	250.0	196g	-2059A
1/2"	250.0	315.0	215g	-2060B
1/2"	300.0	400.0	257g	-2061C

**HSS Extra Length Drill Set**

6 Piece Metric Set



<b>mm</b> 3.0 ~ 10.0	<b>6</b> PIECES	3.0 x 160mm 4.0 x 160mm	5.0 x 200mm 6.0 x 200mm	8.0 x 250mm 10.0 x 250mm
Number of Pieces	Order Code	SHR-025		
6	-8600K			

**GROUP 025 TAPER SHANK DRILLS**

**SHERWOOD** HSS Taper Shank  
QUALITY CUTTING TOOLS Drills - Metric



To drill steels with a tensile strength up to 1.000 N/mm<sup>2</sup>, cast steel, grey cast iron, malleable cast iron, nickel brass and graphite. Point angle: 118°, helix angle: normal, relief angle: normal, tolerance of diameter: h8. Manufacturing Standard: **DIN 345**.

**HSS**



**Series T100**

Dia. (mm)	Flute Length	Overall Length	Order Code SHR-025
<b>1 Morse Taper</b>			
3.00	33	114	-2634E
3.30	36	117	-2638J
3.50	39	120	-2640L
4.00	43	123	-2646S
4.20	43	123	-2648V
4.50	47	128	-2652N
5.00	52	133	-2658F
5.10	52	133	-2659G
5.20	52	133	-2660H
5.30	52	133	-2662K
5.50	57	138	-2664M
6.00	57	138	-2670T
6.50	63	144	-2676A
6.80	69	150	-2680E
7.00	69	150	-2682G
7.50	69	150	-2688N
8.00	75	156	-2694W
8.20	75	156	-2696Y
8.50	75	156	-2700C
8.60	81	162	-2701D
8.70	81	162	-2702E
8.75	81	162	-2703F
8.80	81	162	-2704G
9.00	81	162	-2706J
9.50	81	162	-2712Q
9.70	87	168	-2714S
10.00	87	168	-2718X
10.20	87	168	-2720N
10.25	87	168	-2721A
10.30	87	168	-2722B
10.40	87	168	-2723C
10.50	87	168	-2724D
10.70	94	175	-2726F
10.80	94	175	-2728H
11.00	94	175	-2730K
11.20	94	175	-2732M
11.50	94	175	-2736R
11.70	94	175	-2738T
11.80	94	175	-2740W
12.00	101	182	-2742Y
12.20	101	182	-2744A
12.30	101	182	-2746C
12.40	101	182	-2747D
12.50	101	182	-2748E
12.70	101	182	-2750G
12.80	101	182	-2752J
13.00	101	182	-2754L
13.20	101	182	-2756N
13.30	108	189	-2758Q
13.50	108	189	-2760S
14.00	108	189	-2766N
14.10	114	212	-2766P
14.20	114	212	-2766S
14.25	114	212	-2767A
14.50	114	212	-2768B
14.75	114	212	-2769C
15.00	114	212	-2770D
15.10	120	218	-2770G
15.20	120	218	-2770L
15.25	120	218	-2771E
15.50	120	218	-2772F
15.75	120	218	-2773G

Dia. (mm)	Flute Length	Overall Length	Order Code SHR-025
<b>2 Morse Taper</b>			
16.00	120	218	-2774H
16.10	125	223	-2774N
16.20	125	223	-2774T
16.25	125	223	-2775J
16.50	125	223	-2776K
17.00	125	223	-2778M
17.25	130	228	-2779N
<b>2 Morse Taper</b>			
17.50	130	228	-2780P
17.75	130	228	-2781Q
18.00	130	228	-2782R
18.25	135	233	-2783S
18.50	135	233	-2784T
19.00	135	233	-2786W
19.25	140	238	-2787X
19.50	140	238	-2788Y
20.00	140	238	-2790A
20.25	145	243	-2791B
20.50	145	243	-2793D
20.75	145	243	-2794E
21.00	145	243	-2795F
21.25	150	248	-2796G
21.50	150	248	-2797H
21.75	150	248	-2798J
22.00	150	248	-2799K
22.25	150	248	-2800L
22.50	150	248	-2801M
23.00	150	248	-2803P
<b>3 Morse Taper</b>			
23.50	150	248	-2805R
24.00	160	281	-2807T
24.50	160	281	-2809W
25.00	160	281	-2811Y
25.50	165	286	-2813A
26.00	165	286	-2815C
26.50	165	286	-2817E
27.00	170	291	-2819G
27.50	170	291	-2821J
28.00	170	291	-2823L
28.50	175	296	-2825N
29.00	175	296	-2827Q
29.50	175	296	-2829S
30.00	175	296	-2831V
30.50	180	301	-2833X
31.00	180	301	-2835N
31.50	180	301	-2837B
<b>4 Morse Taper</b>			
32.00	185	334	-2839D
32.50	185	334	-2840E
33.00	185	334	-2842G
33.50	185	334	-2843H
34.00	190	339	-2844J
34.50	190	339	-2845K
35.00	190	339	-2846L
35.50	190	339	-2847M
36.00	195	344	-2848N
37.00	195	344	-2850Q
37.50	195	344	-2851R
38.00	200	349	-2852S
38.50	200	349	-2853T
39.00	200	349	-2854V
39.50	200	349	-2855W

Dia. (mm)	Flute Length	Overall Length	Order Code SHR-025
40.00	200	349	-2856X
41.00	205	354	-2858N
42.00	205	354	-2860B
43.00	210	359	-2862D
44.00	210	359	-2864F
45.00	210	359	-2866H
46.00	215	364	-2868K
47.00	215	364	-2870M
48.00	220	369	-2872P
49.00	220	369	-2874R
50.00	220	369	-2876T
<b>5 Morse Taper</b>			
55.00	230	417	-2882A
60.00	235	422	-2887F
65.00	245	432	-2892L
70.00	250	437	-2897R

**Series T100 - Inch**

Dia. (Inch)	Flute Length	Overall Length	Order Code SHR-025
<b>1 Morse Taper</b>			
3/16"	2 1/16"	5 1/4"	-2550J
1/4"	2 1/2"	5 11/16"	-2550N
17/64"	2 23/32"	5 29/32"	-2550P
5/16"	2 15/16"	6 1/8"	-2550S
11/32"	3 3/16"	6 3/8"	-2550V
3/8"	3 7/16"	6 5/8"	-2550X
13/32"	3 7/16"	6 5/8"	-2550Z
27/64"	3 11/16"	6 7/8"	-2551A
7/16"	3 11/16"	6 7/8"	-2551B
29/64"	3 11/16"	6 7/8"	-2551C
1/2"	3 31/32"	7 5/32"	-2551F
33/64"	3 31/32"	7 5/32"	-2551G
17/32"	4 1/4"	7 7/16"	-2551H
35/64"	4 1/4"	7 7/16"	-2551J
<b>2 Morse Taper</b>			
9/16"	4 1/2"	8 3/8"	-2551K
19/32"	4 3/4"	8 5/8"	-2551M
39/64"	4 3/4"	8 5/8"	-2551N
5/8"	4 3/4"	8 5/8"	-2551P
41/64"	4 7/8"	8 3/4"	-2551Q
21/32"	4 7/8"	8 3/4"	-2551R
11/16"	5 1/8"	9"	-2551T
23/32"	5 1/4"	9 1/8"	-2551W
<b>2 Morse Taper</b>			
3/4"	5 1/2"	9 3/8"	-2551Y
25/32"	5 1/2"	9 3/8"	-2552A
13/16"	5 3/4"	9 5/8"	-2552C
7/8"	5 7/8"	9 3/4"	-2552G
29/32"	6 1/8"	10"	-2552J
<b>3 Morse Taper</b>			
15/16"	6 1/4"	11"	-2552L
1"	6 1/2"	11 1/4"	-2552Q
1 1/16"	6 5/8"	11 3/8"	-2552V
1 1/8"	6 7/8"	11 5/8"	-2552Z
1 3/16"	7 1/8"	11 7/8"	-2553D
1 1/4"	7 1/4"	12"	-2553H
<b>4 Morse Taper</b>			
1 1/2"	7 7/8"	13 3/4"	-2554A
2"	8 7/8"	14 3/4"	-2555K

CUTTING TOOLS

**HSS-Co 5% Taper Shank Drills**

High heat resistant drill for drilling alloyed and unalloyed steels and castings with a tensile strength over 800N/mm<sup>2</sup>. Especially suitable for hot and cold rolled steels as well as case hardening and heat treatable steels. Manufactured to Type N **DIN 345**.



**HSS-Co. 5%**

**Series 345**

Dia. (mm)	Flute Length	Overall Length	Order Code SHR-026
<b>1 Morse Taper</b>			
12.00	101.0	182.0	-1825A
14.00	108.0	189.0	-1825E

Dia. (mm)	Flute Length	Overall Length	Order Code SHR-026
<b>2 Morse Taper</b>			
15.00	114.0	212.0	-1825G
16.00	120.0	218.0	-1825J
17.50	130.0	228.0	-1825M

Dia. (mm)	Flute Length	Overall Length	Order Code SHR-026
18.00	130.0	228.0	-1825N
19.00	135.0	233.0	-1825Q
20.00	140.0	238.0	-1825S
25.00	160.0	281.0	-1826D



**High Speed Steel Extra Length Taper Shank Drills - Metric**

General purpose drills for steels, cast steel, grey cast iron, malleable cast iron, nickel brass, aluminium, alloy and graphite. Point angle 118°, helix angle: normal, web thickness: standard, relief angle 8° - 20°, tolerance of diameter: h8. Made to **BS328 : 1 1986**.



**EXTENDED RANGE**

**HSS**



Dia. (mm)	Flute Length	Overall Length	Order Code SHR-024
<b>1 Morse Taper</b>			
4.50	65.0	150.0	-3904E
5.00	70.0	135.0	-3910L
5.50	65.0	150.0	-3914Q
6.00	110.0	200.0	-3950A
6.00	160.0	250.0	-3951B
6.00	200.0	300.0	-3951R
6.00	285.0	350.0	-3952C
6.50	160.0	250.0	-3954E
6.50	240.0	300.0	-3955F
7.00	110.0	200.0	-3956G
7.00	160.0	250.0	-3957H
7.50	160.0	250.0	-3960L
8.00	110.0	200.0	-3961M
8.00	160.0	250.0	-3962N
8.00	225.0	315.0	-3963P
8.00	310.0	400.0	-3964Q
8.50	110.0	200.0	-3966S
8.50	160.0	250.0	-3967T
8.50	225.0	315.0	-3968V
8.50	310.0	400.0	-3969W
9.00	110.0	200.0	-3970X
9.00	160.0	250.0	-3971Y
9.00	225.0	315.0	-3972N
9.50	160.0	250.0	-3975C
9.50	225.0	315.0	-3976D
10.00	160.0	250.0	-3978F
10.00	225.0	315.0	-3979G
10.00	310.0	400.0	-3980H
10.00	410.0	500.0	-3981J
10.50	215.0	300.0	-3981T

Dia. (mm)	Flute Length	Overall Length	Order Code SHR-024
<b>1 Morse Taper</b>			
10.50	290.0	375.0	-3981V
11.00	160.0	250.0	-3982K
11.00	225.0	315.0	-3983L
12.00	160.0	250.0	-3986P
12.00	225.0	315.0	-3987Q
12.00	310.0	400.0	-3988R
12.00	410.0	500.0	-3989S
13.00	160.0	250.0	-3990T
13.00	225.0	315.0	-3991V
13.00	310.0	400.0	-3992W
14.00	160.0	250.0	-3994Y
14.00	225.0	315.0	-3995N
14.00	310.0	400.0	-3996A
<b>2 Morse Taper</b>			
15.00	160.0	250.0	-3997B
15.00	225.0	315.0	-3998C
15.00	275.0	375.0	-3998X
15.00	310.0	400.0	-3999D
15.00	350.0	450.0	-3999M
16.00	215.0	315.0	-4001F
16.00	300.0	400.0	-4002G
16.00	400.0	500.0	-4003H
17.00	215.0	315.0	-4004J
17.00	300.0	400.0	-4005K
18.00	215.0	315.0	-4007M
18.00	300.0	400.0	-4008N
18.00	400.0	500.0	-4009P
19.00	215.0	315.0	-4011R
19.00	300.0	400.0	-4012S
20.00	215.0	315.0	-4015W

Dia. (mm)	Flute Length	Overall Length	Order Code SHR-024
<b>2 Morse Taper</b>			
20.00	300.0	400.0	-4016X
20.00	400.0	500.0	-4017Y
21.00	215.0	315.0	-4019A
21.00	300.0	400.0	-4020B
21.00	400.0	500.0	-4021C
22.00	215.0	315.0	-4022D
22.00	300.0	400.0	-4023E
22.00	400.0	500.0	-4024F
<b>3 Morse Taper</b>			
24.00	210.0	300.0	-4028R
24.00	275.0	400.0	-4029L
24.00	375.0	500.0	-4030M
25.00	275.0	400.0	-4032P
25.00	205.0	300.0	-4032E
25.00	375.0	500.0	-4033Q
26.00	275.0	400.0	-4035S
26.00	375.0	500.0	-4036T
28.00	375.0	500.0	-4041N
28.00	505.0	630.0	-4042A
30.00	275.0	400.0	-4043B
30.00	375.0	500.0	-4044C
32.00	450.0	575.0	-4045F
35.00	450.0	575.0	-4047B
40.00	450.0	575.0	-4048C
45.00	600.0	725.0	-4051B
50.00	600.0	725.0	-4055F

**High Speed Steel Extra Length Taper Shank Drills - Inch**

**HSS**



Series 2806, 2809, 2816, 2839, 2846, 2849

Dia. (Inch)	Flute Length	Overall Length	Order Code SHR-024
<b>1 Morse Taper</b>			
1/4"	160	250	-3731B
1/4"	300	400	-3733D
9/32"	110	200	-3737H
9/32"	240	300	-3739K
5/16"	110	200	-3743P
5/16"	310	380	-3745R
11/32"	110	200	-3753A
11/32"	160	250	-3754B
3/8"	110	200	-3761Y
3/8"	225	315	-3763L
13/32"	160	250	-3769S
13/32"	225	300	-3770T
7/16"	240	300	-3778C

Dia. (Inch)	Flute Length	Overall Length	Order Code SHR-024
<b>1 Morse Taper</b>			
15/32"	115	200	-3783H
15/32"	175	250	-3784J
1/2"	125	200	-3790Q
1/2"	300	375	-3792S
17/32"	160	250	-3800B
<b>2 Morse Taper</b>			
9/16"	115	200	-3806G
9/16"	215	315	-3808K
9/16"	300	380	-3809L
39/64"	215	315	-3817V
5/8"	215	315	-3820Y
5/8"	300	400	-3821N
11/16"	215	315	-3833M

Dia. (Inch)	Flute Length	Overall Length	Order Code SHR-024
<b>2 Morse Taper</b>			
11/16"	285	375	-3833Y
3/4"	215	315	-3845A
3/4"	300	400	-3846B
13/16"	515	600	-3853J
7/8"	285	375	-3866M
7/8"	400	500	-3867N
<b>3 Morse Taper</b>			
15/16"	330	450	-3874G
1"	265	380	-3877K
1"	375	500	-3879M
1 1/8"	275	400	-3885T

**CUTTING TOOLS**

**KENNEDY Morse Taper Tooling**

**Drill Drifts**

To release Morse Taper Tooling without damaging machine socket or tools.

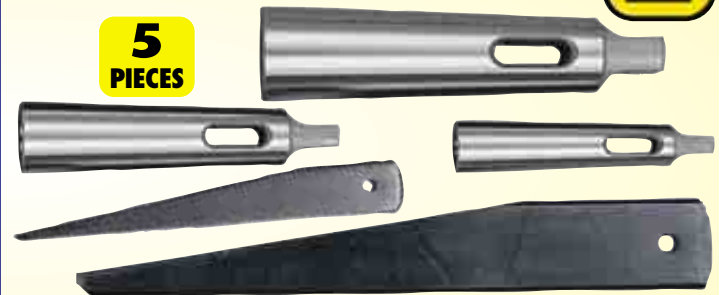


To Release Morse Taper	Weight each	Order Code KEN-482
0	40g	-9500K
1 & 2	80g	-9520K
3	220g	-9530K
4	380g	-9540K
5 & 6	760g	-9560K

**Drill Sleeve & Drift Set**

Set of three drill sleeves 1 - 2, 2 - 3, 3 - 4 MT. Fully hardened and ground inside and out. Two drill drifts to release 1 - 2 and 3 - 4 MT.

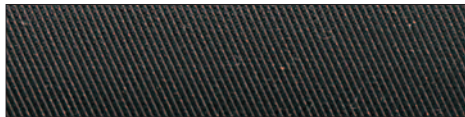
**5 PIECES**



No. of Pieces	Weight Set	Order Code KEN-482
5	995g	-9900K

Available in a comprehensive range of shapes and sizes.  
 Manufactured to **BS 498 : 1990** and **American Federal Standard GGG-f-325b**.

**Bastard Cut**



**Second Cut**

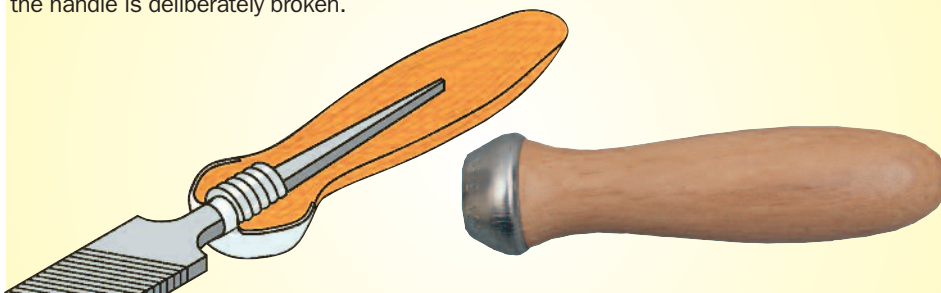


**Smooth Cut**



**Safety Wooden File Handles**

A split file handle can cause a serious industrial accident. Kennedy safety handles are rapidly becoming standard equipment in workshops. Firmly secured inside each handle and covered by a ferrule is a steel spring, this combination absorbs the pressure when the tang of the file is driven into the handle, prevent splitting or cracking. Once properly inserted the tang of the file is held in a vice like grip that under normal use is virtually impossible to remove, unless the handle is deliberately broken.



Handle Length	Size	Suitable File Length	Weight each	Order Code <b>KEN-531</b>	
75mm	0	4"	50g	<b>-5730K</b>	N/A
110mm	1	6" - 8"	50g	<b>-5740K</b>	N/A
125mm	2	10" - 12"	50g	<b>-5750K</b>	N/A
140mm	3	14" - 16"	50g	<b>-5760K</b>	N/A



**CUTTING TOOLS**

Overall Length	Type	Smooth Cut		Second Cut		Bastard Cut	
		Weight per 10	Order Code <b>KEN-030</b>	Weight per 10	Order Code <b>KEN-030</b>	Weight per 10	Order Code <b>KEN-030</b>
100mm (4")	Hand	0.27kg	<b>-0010K</b>	0.27kg	<b>-0020K</b>	0.27kg	<b>-0030K</b>
	Flat	0.27kg	<b>-0110K</b>	0.26kg	<b>-0120K</b>	0.26kg	<b>-0130K</b>
	Round	0.09kg	<b>-0210K</b>	0.09kg	<b>-0220K</b>	0.09kg	<b>-0230K</b>
	Half Round	0.29kg	<b>-0310K</b>	0.29kg	<b>-0320K</b>	0.29kg	<b>-0330K</b>
	Square	0.10kg	<b>-0410K</b>	0.10kg	<b>-0420K</b>	0.12kg	<b>-0430K</b>
	3 Square	0.27kg	<b>-0510K</b>	0.29kg	<b>-0520K</b>	0.31kg	<b>-0530K</b>
150mm (6")	Warding	0.11kg	<b>-0710K</b>	0.12kg	<b>-0720K</b>	0.12kg	<b>-0730K</b>
	Hand	0.73kg	<b>-2010K</b>	0.73kg	<b>-2020K</b>	0.77kg	<b>-2030K</b>
	Flat	0.74kg	<b>-2110K</b>	0.71kg	<b>-2120K</b>	0.71kg	<b>-2130K</b>
	Round	0.35kg	<b>-2210K</b>	0.34kg	<b>-2220K</b>	0.35kg	<b>-2230K</b>
	Half Round	0.72kg	<b>-2310K</b>	0.72kg	<b>-2320K</b>	0.72kg	<b>-2330K</b>
	Square	0.37kg	<b>-2410K</b>	0.40kg	<b>-2420K</b>	0.40kg	<b>-2430K</b>
	3 Square	0.86kg	<b>-2510K</b>	0.82kg	<b>-2520K</b>	0.82kg	<b>-2530K</b>
	Knife	0.59kg	<b>-2610K</b>	0.62kg	<b>-2620K</b>	0.62kg	<b>-2630K</b>
	Warding	0.35kg	<b>-2710K</b>	0.36kg	<b>-2720K</b>	0.36kg	<b>-2730K</b>
	Pillar	0.35kg	<b>-2810K</b>	0.35kg	<b>-2820K</b>	0.36kg	<b>-2830K</b>
175mm (7")	Double Ended	-	-	0.33kg	<b>-2930K</b>	-	-
	Taper Saw	-	-	0.88kg	<b>-2940K</b>	-	-
200mm (8")	Double Ended	-	-	0.34kg	<b>-3930K</b>	-	-
	Hand	1.70kg	<b>-4010K</b>	1.75kg	<b>-4020K</b>	1.60kg	<b>-4030K</b>
	Flat	1.35kg	<b>-4110K</b>	1.35kg	<b>-4120K</b>	1.35kg	<b>-4130K</b>
	Round	0.60kg	<b>-4210K</b>	0.60kg	<b>-4220K</b>	0.60kg	<b>-4230K</b>
	Half Round	1.50kg	<b>-4310K</b>	1.50kg	<b>-4320K</b>	1.55kg	<b>-4330K</b>
	Square	0.81kg	<b>-4410K</b>	0.85kg	<b>-4420K</b>	0.83kg	<b>-4430K</b>
	3 Square	2.00kg	<b>-4510K</b>	1.80kg	<b>-4520K</b>	1.90kg	<b>-4530K</b>
	Knife	1.35kg	<b>-4610K</b>	1.40kg	<b>-4620K</b>	1.30kg	<b>-4630K</b>
	Warding	1.00kg	<b>-4710K</b>	0.90kg	<b>-4720K</b>	0.76kg	<b>-4730K</b>
	Pillar	0.67kg	<b>-4810K</b>	0.85kg	<b>-4820K</b>	0.70kg	<b>-4830K</b>
	Millsaw	-	-	1.90kg	<b>-4920K</b>	-	-
225mm (9")	Double Ended	-	-	0.50kg	<b>-4930K</b>	-	-
	Taper Saw	-	-	0.72kg	<b>-4940K</b>	-	-
255mm (10")	Double Ended	-	-	0.75kg	<b>-5930K</b>	-	-
	Hand	3.00kg	<b>-6010K</b>	3.10kg	<b>-6020K</b>	3.10kg	<b>-6030K</b>
	Flat	2.90kg	<b>-6110K</b>	2.90kg	<b>-6120K</b>	2.70kg	<b>-6130K</b>
	Round	1.30kg	<b>-6210K</b>	1.30kg	<b>-6220K</b>	1.25kg	<b>-6230K</b>
	Half Round	2.55kg	<b>-6310K</b>	2.55kg	<b>-6320K</b>	2.60kg	<b>-6330K</b>
	Square	1.60kg	<b>-6410K</b>	1.70kg	<b>-6420K</b>	1.75kg	<b>-6430K</b>
	3 Square	1.85kg	<b>-6510K</b>	2.70kg	<b>-6520K</b>	3.00kg	<b>-6530K</b>
	Warding	-	-	1.60kg	<b>-6720K</b>	1.50kg	<b>-6730K</b>
	Pillar	-	-	2.60kg	<b>-6820K</b>	2.40kg	<b>-6830K</b>
	Millsaw	-	-	2.10kg	<b>-6910K</b>	-	-
305mm (12")	Double Ended	-	-	0.97kg	<b>-6930K</b>	-	-
	Hand	4.30kg	<b>-7010K</b>	4.35kg	<b>-7020K</b>	4.40kg	<b>-7030K</b>
	Flat	4.20kg	<b>-7110K</b>	4.30kg	<b>-7120K</b>	4.50kg	<b>-7130K</b>
	Round	2.50kg	<b>-7210K</b>	2.40kg	<b>-7220K</b>	2.45kg	<b>-7230K</b>
	Half Round	4.60kg	<b>-7310K</b>	4.35kg	<b>-7320K</b>	4.40kg	<b>-7330K</b>
	Square	3.20kg	<b>-7410K</b>	3.25kg	<b>-7420K</b>	1.40kg/5	<b>-7430K</b>
	3 Square	4.50kg	<b>-7510K</b>	4.95kg	<b>-7520K</b>	4.55kg	<b>-7530K</b>
1 Round Edge Mill	-	-	1.20kg/5	<b>-7910K</b>	-	-	
355mm (14")	Hand	3.70kg/5	<b>-8010K</b>	3.70kg/5	<b>-8020K</b>	3.40kg/5	<b>-8030K</b>
	Flat	2.23kg/5	<b>-8110K</b>	3.45kg/5	<b>-8120K</b>	3.30kg/5	<b>-8130K</b>
	Round	2.45kg/5	<b>-8210K</b>	2.50kg/5	<b>-8220K</b>	2.55kg/5	<b>-8230K</b>
	Half Round	2.90kg/5	<b>-8310K</b>	3.50kg/5	<b>-8320K</b>	3.55kg/5	<b>-8330K</b>
	Square	-	-	3.00kg/5	<b>-8420K</b>	3.07kg/5	<b>-8430K</b>
405mm (16")	3 Square	-	-	3.35kg/5	<b>-8520K</b>	3.50kg/5	<b>-8530K</b>
	Hand	-	-	5.15kg/5	<b>-9020K</b>	5.30kg/5	<b>-9030K</b>
	Flat	-	-	5.10kg/5	<b>-9120K</b>	5.00kg/5	<b>-9130K</b>
	Round	-	-	4.20kg/5	<b>-9220K</b>	4.12kg/5	<b>-9230K</b>
	Half Round	-	-	4.85kg/5	<b>-9320K</b>	4.75kg/5	<b>-9330K</b>
Square	-	-	-	-	4.45kg/5	<b>-9430K</b>	

**KENNEDY** *Engineer's Second Cut File Sets*  
QUALITY INDUSTRIAL TOOLING

**Contents (1 of each):** flat, hand, round, half-round three-square and square. Plus two file handles, supplied in PVC wallet. Manufactured to **BS498 : 1990 & US Federal Standards.**



**SENATOR** *Engineer's File Sets*  
QUALITY TOOLING

A selection of popular engineer's files suitable for filing and deburring on a wide variety of materials. Double cut teeth for rapid metal removal. Ideal for workshop or garage. Manufactured to **BS498:1990** and American Federal Standard **GGG-F-3256.**



**Contents (1 of each):** bastard cut hand; second cut flat, round and half round.

**NEW**

**4 PIECES**



**8 PIECES**

No. of Pieces	Set Size	Handle Size	Weight each	Order Code <b>KEN-030</b>
8	150mm (6")	75mm (3")	0.44kg	<b>-9860K</b>
8	200mm (8")	100mm (4")	0.89kg	<b>-9880K</b>
8	255mm (10")	125mm (5")	1.65kg	<b>-9900K</b>

Number of Pieces	Size	Order Code <b>SEN-030</b>
4	150mm (6")	<b>-9510K</b>
4	200mm (8")	<b>-9520K</b>
4	255mm (10")	<b>-9530K</b>

**Engineer's Double Cut File Set**

Bastard cut one side and 2nd cut on other.

**Contents:** (1 of each) three square, half round and round bastard cut files, flat, hand and square 'double cut'. 200mm (8"). Supplied with two file handles in plastic wallet.



**8 PIECES**

Number of Pieces	Order Code <b>KEN-030</b>
8	<b>-9930K</b>

**Engineer's Second Cut File Set**

A selection of popular engineer's files suitable for filing and deburring on a wide variety of materials. Ideal for workshop or garage. Double cut teeth for rapid metal removal.

**Contents (1 of each):**  
**Second cut**  
**Hand** - 305mm (12"), 255mm (10"), 200mm (8"), 125mm (5");  
**Flat** - 305mm (12"), 255mm (10"), 200mm (8"), 125mm (5");  
**Round** - 305mm (12"), 255mm (10"), 200mm (8");  
**Half round** - 305mm (12"), 255mm (10"), 200mm (8").



**14 PIECES**

Number of Pieces	Order Code <b>SEN-030</b>
14	<b>-9800K</b>

**Second Cut File Set**

**Contents:** (1 of each) 150mm (6") and 255mm (10") files; (3 of each) flat; (2 of each) half-round; (1 of each) round; 1 of 6 piece 16cm cut 2, needle file set.

**18 PIECES**

**For File Handles**

**See Group 531**



Needle file set in PVC wallet.

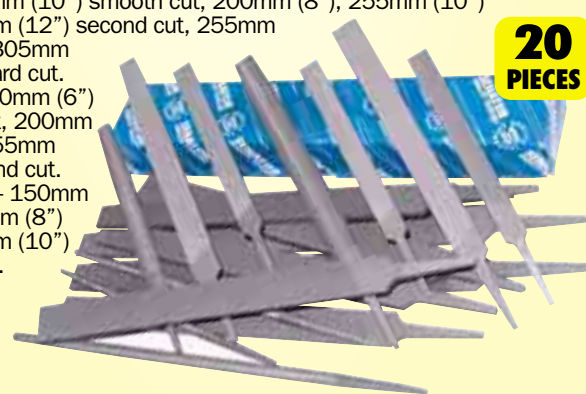
Number of Pieces	Order Code <b>KEN-030</b>
18	<b>-9990K</b>

**Engineer's File Set**

A selection of popular engineer's files suitable for filing and deburring on a wide variety of materials. Ideal for workshop or garage. Double cut teeth for rapid metal removal.

**Contents (1 of each):**  
**Hand** - 150mm (6") smooth cut, 150mm (6"), 200mm (8") and 255mm (10") second cut, 150mm (6") and 255mm (10") bastard cut.  
**Flat** - 255mm (10") smooth cut, 200mm (8"), 255mm (10") and 305mm (12") second cut, 255mm (10") and 305mm (12") bastard cut.  
**Round** - 150mm (6") smooth cut, 200mm (8") and 255mm (10") second cut.  
**Half round** - 150mm (6"), 200mm (8") and 255mm (10") second cut.

**20 PIECES**

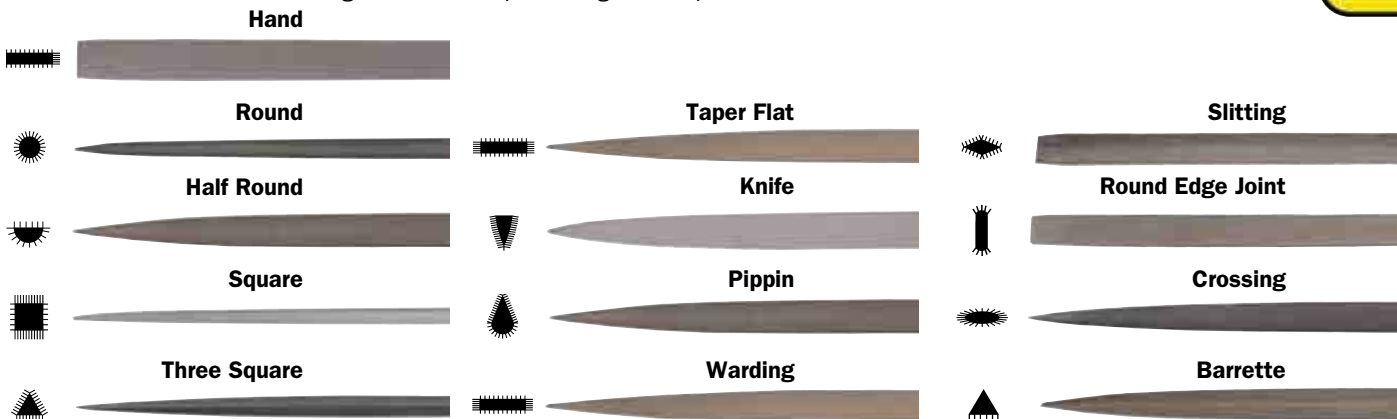


Number of Pieces	Order Code <b>SEN-030</b>
20	<b>-9840K</b>

**GROUP 031 NEEDLE FILES**

**KENNEDY Precision Needle Files**  
**Needle Pattern (Round Handle)**

Available in 14cm and 16cm lengths and a complete range of shapes. Manufactured to **BS 498:1990**.



Overall Length	Type	Weight per 10	Cut 0	Cut 2	Cut 4
			Order Code KEN-031	Order Code KEN-031	Order Code KEN-031
140mm (5½")	Hand	80g	-5000K	-5020K	-5040K
	Round	75g	-5200K	-5220K	-5240K
	Half Round	75g	-5300K	-5320K	-5340K
	Square	80g	-5400K	-5420K	-5440K
	3 Square	70g	-5500K	-5520K	-5540K
	Taper Flat	70g	-	-5560K	-5570K
	Knife	70g	-5600K	-5620K	-
	Warding	70g	-	-5720K	-5740K
	Slitting	80g	-	-5820K	-
	Crossing	75g	-	-5920K	-
	Barrette	80g	-	-5960K	-
	160mm (6½")	Hand	80g	-6000K	-6020K
Round		75g	-6200K	-6220K	-6240K
Half Round		75g	-6300K	-6320K	-6340K
Square		80g	-6400K	-6420K	-
3 Square		70g	-6500K	-6520K	-6540K
Taper Flat		70g	-	-6560K	-
Knife		70g	-6600K	-6620K	-
Warding		70g	-6700K	-6720K	-
Slitting		80g	-	-6820K	-
Crossing		75g	-	-6920K	-
Barrette		80g	-	-6960K	-

**CUTTING TOOLS**

**Needle File Sets**

Supplied in PVC Wallet. Manufactured to **BS 498:1990**.  
**Cut 2.**

**6 Piece Set (1 off each):**  
 Flat, Hand, Half Round, Round, Square, Three Square

**6  
PIECES**

**12 Piece Set (1 off each):**  
 Hand, Flat, Knife, Round, Half Round, Square, Three Square, Crossing, R/Edge Joint, Slitting, Warding, Barrette.

**12  
PIECES**



Number of Pieces	Weight each	Order Code KEN-031
<b>14cm</b>		
6	50g	-5980K
12	120g	-5990K
<b>16cm</b>		
6	70g	-6980K
12	150g	-6990K

**SENATOR QUALITY TOOLING**

**Needle File Sets**

Supplied in PVC Wallet. Manufactured to **BS 498:1990**. **Cut 2.**

**6 Piece Set (1 off each):**  
 Warding, Hand, Half Round, Round, Square, Three Square

**6  
PIECES**

**12 Piece Set (1 off each):**  
 Hand, Flat, Knife, Round, Half Round, Square, Three Square, Crossing, R/Edge Joint, Slitting, Warding, Barrette.

**12  
PIECES**



Number of Pieces	Weight each	Order Code SEN-031
<b>16cm</b>		
6	50g	-6980K
12	120g	-6990K

**KENNEDY** Precision  
QUALITY INDUSTRIAL TOOLING **Hand Files - Cut 2**

**NEW**



Available in tanged pattern 100mm (4") and 150mm (6") lengths. Manufactured to **BS 498: 1990**.

**Hand** - Parallel edges, one edge uncut. For flat filing, corner filing and deburring. Multi-purpose and for other work where a 'safe' or uncut edge is needed. Double cut.



**Round** - Diameter tapers towards point. Suitable for internal and external concave surfaces.



**Half-Round** - Edges and surfaces taper towards point. Dual application: suitable for concave surfaces and flat filing. For rapid removal of metal.



**Square** - Parallel edges, surfaces taper towards point. For groove, rectangular hole and internal corner filing. Preferable to a flat file because of its heavier section.



**Three Square** - Equilateral section (60° angles). Tapered towards point. For filing acute angles, internal corners and flat filing, clearing out square corners and for filing HSS tools after machining.



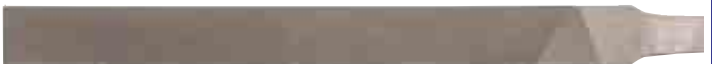
**Knife** - Two equal surfaces, tapered to knife point. For filing and deburring narrow grooves, slits and gear-teeth. Used principally by tool and die makers on work with acute angles.



**Warding** - Parallel surfaces, edges tapered to a point. For narrow grooves, keyways, slots etc. Warding files are used by locksmiths in repairing or filing ward notches in keys. Also suited for use in narrow spaces.



**Pillar** - Parallel edges, surfaces tapered towards end. Narrow version of hand file. For use where access is restricted. These files are designed for millwrights and mechanics for use in enlarging key-ways, slots, etc. close to the shoulder.



Overall Length	Type	Weight per 10	Order Code <b>KDY-031</b>	Offer
100mm (4")	Hand	300g	<b>-0020K</b>	
	Round	100g	<b>-0220K</b>	
	Half Round	210g	<b>-0320K</b>	
	Square	130g	<b>-0420K</b>	
	Three Square	220g	<b>-0520K</b>	
	Knife	220g	<b>-0620K</b>	
150mm (6")	Warding	230g	<b>-0720K</b>	
	Hand	690g	<b>-2020K</b>	
	Round	350g	<b>-2220K</b>	
	Half Round	540g	<b>-2320K</b>	
	Square	400g	<b>-2420K</b>	
	Three Square	480g	<b>-2520K</b>	
	Knife	470g	<b>-2620K</b>	
Warding	550g	<b>-2720K</b>		
Pillar	570g	<b>-2820K</b>		

**CUTTING TOOLS**

**KENNEDY** Diemakers  
QUALITY INDUSTRIAL TOOLING **Riffler Files**

**NEW**

**Swiss Pattern**  
Available in a complete range of shapes, the 15cm are used by diemakers, jewellers, silversmiths, engravers etc. All are double ended with the same cut both ends.



**15cm Riffler Files - Cut 2**

**Riffler File Sets**

**Set A**  
**15cm - Cut 2**  
**Contents**  
(1 of each):  
900, 911, 914, 916, 918, 940, 952, 957, 981, 983, 985 and 987.

**12**  
**PIECES**



Number of Pieces	Weight each	Order Code <b>KDY-031</b>
12	310g	<b>-9110K</b>

**Set B**  
**15cm - Cut 2**  
**Contents**  
(1 of each):  
905, 913, 915, 917, 931, 943, 955, 963, 982, 984, 986 and 996.

**12**  
**PIECES**



Number of Pieces	Weight each	Order Code <b>KDY-031</b>
12	310g	<b>-9120K</b>

Illustration	Style Number	Weight per 10	Order Code <b>KDY-031</b>
	900	120g	<b>-7020K</b>
	905	110g	<b>-7100K</b>
	911	120g	<b>-7180K</b>
	913	120g	<b>-7260K</b>
	914	120g	<b>-7300K</b>
	915	120g	<b>-7340K</b>
	916	110g	<b>-7380K</b>
	917	120g	<b>-7420K</b>

Illustration	Style Number	Weight per 10	Order Code <b>KDY-031</b>
	918	110g	<b>-7460K</b>
	931	120g	<b>-7620K</b>
	940	90g	<b>-7660K</b>
	943	120g	<b>-7780K</b>
	952	110g	<b>-7900K</b>
	955	120g	<b>-7980K</b>
	957	120g	<b>-8060K</b>
	963	120g	<b>-8220K</b>

Illustration	Style Number	Weight per 10	Order Code <b>KDY-031</b>
	981	120g	<b>-8620K</b>
	982	100g	<b>-8660K</b>
	983	100g	<b>-8700K</b>
	984	100g	<b>-8740K</b>
	985	140g	<b>-8780K</b>
	986	120g	<b>-8820K</b>
	987	130g	<b>-8860K</b>
	996	120g	<b>-9060K</b>

**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**

**GROUP 032 MILLED TOOTH FILES & RASPS**

**KENNEDY Milled Tooth Hand Files**  
QUALITY INDUSTRIAL TOOLING

Manufactured from alloy steel and feature undercut teeth that produce a more aggressive cut than conventional files and requires less operator effort. Suitable for use on a wide variety of materials including aluminium, steels, alloys, brass, copper, wood, plastics etc. Available as standard cut in four blade lengths and two tooth forms. Other styles are available on request.

**Please note:** Handles are not supplied as standard and should be ordered separately as required.

**Straight Tooth**



Overall Length	Weight per 10	Order Code KEN-032
200mm (8")	1.30kg	-2080K
255mm (10")	2.10kg	-2100K
305mm (12")	2.90kg	-2120K
355mm (14")	5.30kg	-2140K

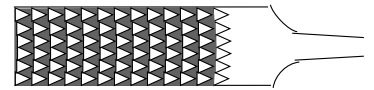
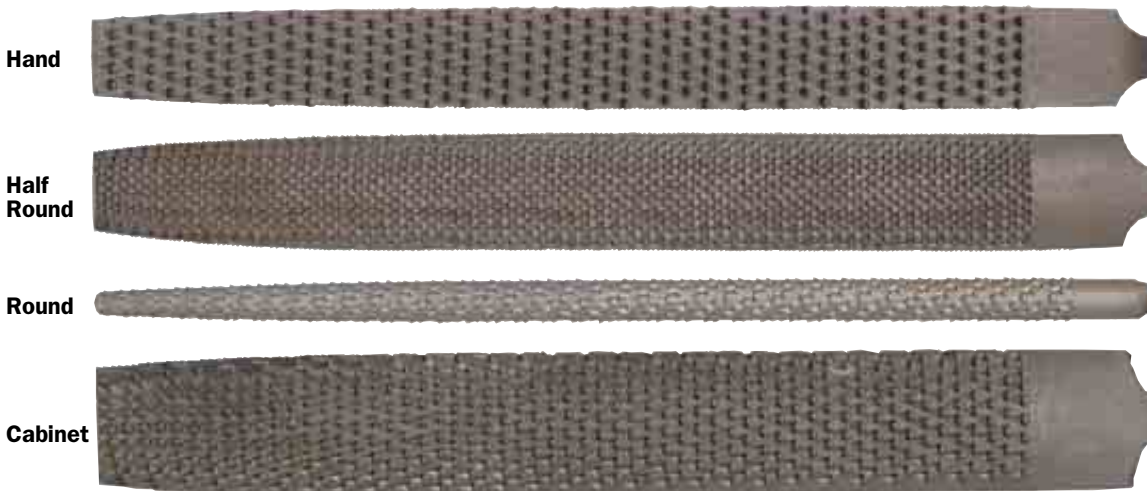


**Rasp Cut Files**

Series of individual teeth which are formed by a single pointed tool. Produces a rough cut that is used primarily on wood, hooves, aluminium and lead.

**Rasps**

Designed for general use and best suited to softer materials such as wood, plastics, fillers, leather and lead.

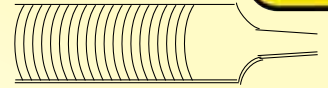


Overall Length	Type	Weight per 10	Smooth	Second	Bastard
			Order Code KEN-032	Order Code KEN-032	Order Code KEN-032
150mm (6")	Hand	0.80kg	-	-3020K	-3030K
	Half Round	0.80kg	-3110K	-	-3130K
	Round	0.80kg	-	-3220K	-3230K
200mm (8")	Hand	1.70kg	-3610K	-3620K	-3630K
	Half Round	1.50kg	-3710K	-3720K	-3730K
	Round	0.90kg	-	-	-3830K
	Cabinet	2.10kg	-	-3920K	-3930K
255mm (10")	Hand	2.75kg	-4210K	-4220K	-4230K
	Half Round	2.65kg	-4310K	-4320K	-4330K
	Round	1.70kg	-4410K	-4420K	-4430K
	Cabinet	3.00kg	-	-4520K	-4530K
305mm (12")	Hand	4.60kg	-	-4820K	-4830K
	Half Round	4.60kg	-	-4920K	-4930K
	Round	2.50kg	-	-5020K	-5030K
	Cabinet	4.00kg	-	-	-5130K

**Curved Tooth Files**

**Curved Cut**

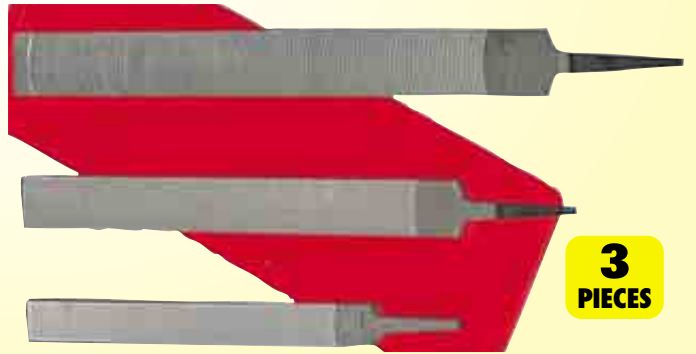
Teeth are arranged in curved contours across the file face. Normally used in automotive body shops for smoothing body panels.



Overall Length	Weight per 10	Order Code KEN-032
200mm (8")	1.30kg	-1080K
255mm (10")	2.00kg	-1100K
305mm (12")	4.00kg	-1120K
355mm (14")	5.90kg	-1140K

**Curved Tooth File Set**

**Contents:** (1 of each) Flat, 200mm (8"), 255mm (10") and 305mm (12") standard cut.



**3  
PIECES**

Number of Pieces	Weight each	Order Code KEN-032
3	765g	-1830K

**CUTTING TOOLS**



**GROUP  
531**

**KENNEDY** Industrial Diamond Coated Needle Files  
QUALITY INDUSTRIAL TOOLING



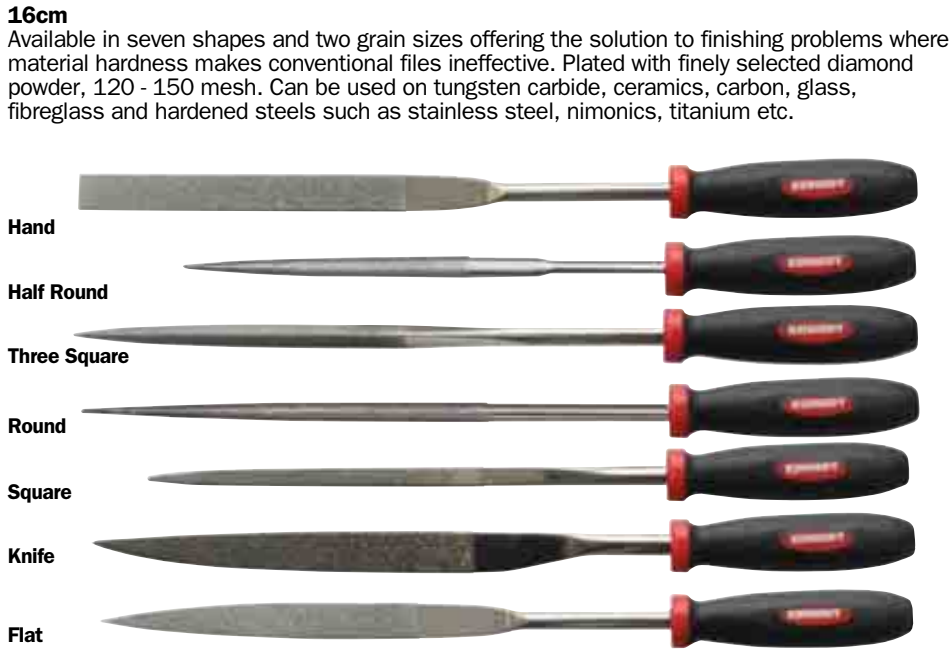
**DIAMOND FILES**

**Diamond Needle File Set**



**16cm**  
120/140 grain.

**Contents:**  
Hand, half round, three square, round, square and knife.



Type	Weight per 6	120/140 Grain		325/400 Grain	
		Order Code	Order Code	Order Code	Order Code
Hand	70g	<b>-0020K</b>	<b>KEN-033</b>	<b>-0220K</b>	<b>KEN-033</b>
H/Round	60g	<b>-0040K</b>	<b>KEN-033</b>	<b>-0240K</b>	<b>KEN-033</b>
3 Square	60g	<b>-0060K</b>	<b>KEN-033</b>	<b>-0260K</b>	<b>KEN-033</b>
Round	60g	<b>-0080K</b>	<b>KEN-033</b>	<b>-0280K</b>	<b>KEN-033</b>
Square	60g	<b>-0100K</b>	<b>KEN-033</b>	<b>-0300K</b>	<b>KEN-033</b>
Knife	60g	<b>-0120K</b>	<b>KEN-033</b>	<b>-0320K</b>	<b>KEN-033</b>
Flat	60g	<b>-0140K</b>	<b>KEN-033</b>	<b>-0340K</b>	<b>KEN-033</b>



**6 PIECES**

Number of Pieces	Weight each	Order Code
6	60g	<b>-0500K</b>

**Hardness Testing File Set**

Set of six precision testing files with specially curved tips which are designed to reach into bores, slots and grooves, which cannot otherwise be tested with conventional types of hardness testers. Each file has a non-slip grip colour coded handle for hardness assessment, with the Rockwell value printed on each. Files range from HRC 40 through HRC 65. Set comes complete with instructions and conversion chart Rockwell C to Vickers. Provides a quick and inexpensive way of testing work piece hardness.



**6 PIECES**

Number of Pieces	Weight each	Order Code
6	255g	<b>-9000K</b>

**SENATOR** QUALITY TOOLING **NEW**

**Diamond Riffler Files**

**14cm**  
Diamond files, with soft touch foam rubber handles for comfort.



Style	Order Code
905	<b>-2010K</b>
911	<b>-2020K</b>
940	<b>-2030K</b>
952	<b>-2040K</b>
961	<b>-2050K</b>
963	<b>-2060K</b>
985	<b>-2070K</b>

**Diamond Riffler & Needle File Set**

**14cm**  
**Contents 1 off each needle file:** flat, three square, slitting, and 1 off each style riffler: 985, 911, 905, 940, 952, 961 and 963.

**NEW**



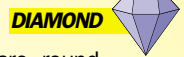
Number of Pieces	Weight each	Order Code
10		<b>-2700K</b>

**Diamond Needle File Set**

**16cm**  
150 grain (medium grade).  
With tapered handles.  
Supplied in PVC wallet.  
Suitable for light duty and workshop use.



**Contents:**  
Hand, half round, three square, round, square and knife.



**6 PIECES**

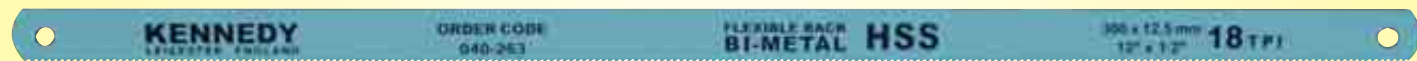
Number of Pieces	Weight each	Order Code
6	115g	<b>-0600K</b>

**CUTTING TOOLS**

**GROUP 040 HACKSAW & POWERSAW BLADES**

**KENNEDY** Flexible Back Bi-metal Hacksaw Blades  
QUALITY INDUSTRIAL TOOLING

The perfect combination of shatter resistant spring steel, used as the backing material, and tough, wear-resistant HSS teeth - Electron-beam welded together. Ideal for interrupted cuts in cramped places or where the blade is subject to stress caused by twisting or bending. Provides optimum tooth strength/life and reduced breakage and fracture when compared to traditional all-hard blades. **Made to BS 1919 : Part 1: 1993.**



Improved re-usable packaging

Length	Width	Thickness	TPI	Weight per 100	Order Code
10"	1/2"	.025	18T	1.50kg	<b>-2130K</b>
10"	1/2"	.025	24T	1.40kg	<b>-2250K</b>
10"	1/2"	.025	32T	1.40kg	<b>-2320K</b>
12"	1/2"	.025	14T	1.70kg	<b>-2510K</b>
12"	1/2"	.025	18T	1.70kg	<b>-2630K</b>
12"	1/2"	.025	24T	1.70kg	<b>-2750K</b>
12"	1/2"	.025	32T	1.70kg	<b>-2870K</b>

**TPI Selection Guide**

Group	Materials	Brinell Hardness HB	Rockwell Hardness HRC	Tensile Strength N/mm2	Number of Teeth per Inch Section thickness or diameter		
					Below 2mm	2 - 5 mm	Above 5mm
1.1	Mild steel	<200	-	<700	32	24	18
1.4 to 1.5	Alloy steel & tool steel low to medium	<260	<26	<850	32	24	18 - 24
1.6	High alloy steel	>340	>36	>1200	32	24	24
2.1	Stainless steels	<290	<30	<1000	32	24	28
3.1	Grey cast iron	<300	-	-	24 - 32	18 - 24	18
6.1	Asbestos and copper	-	-	<500	24 - 32	18 - 24	18
6.3	Brass and bronze	-	-	<500	24 - 32	18 - 24	18
7.1	Aluminium	-	-	<500	24 - 32	18 - 24	18
8.1	Hard plastic	-	-	-	24 - 32	18 - 24	18

**HSS All Hard Hacksaw Blades**

Fully hardened for extra long tooth life and maximum straightness of cut. For use where workpiece is held securely in place. **Made to BS 1919 : Part 1: 1993.**



Improved re-usable packaging

Length	Width	Thickness	TPI	Weight per 100	Order Code
10"	1/2"	.025	18T	1.40kg	<b>-3130K</b>
10"	1/2"	.025	24T	1.40kg	<b>-3250K</b>
12"	1/2"	.025	14T	1.70kg	<b>-3510K</b>
12"	1/2"	.025	18T	1.70kg	<b>-3630K</b>
12"	1/2"	.025	24T	1.70kg	<b>-3750K</b>
12"	1/2"	.025	32T	1.70kg	<b>-3870K</b>



**Industrial Saw Blades**

**Junior Hand Saw Blades**

Designed for use across a wide range of ferrous and non-ferrous materials. Suitable for mini hand saws and junior hacksaws. **Made to BS 6271 : 1990.**

Type	Length	TPI	Weight per 100	Order Code
Metal Pack 10	150mm (6")	32	420g	<b>-0620K</b>
Wood	150mm (6")	14	390g	<b>-0640K</b>



**Coping Saw Blades**

For cutting and shaping in wood. Supplied in packs of 10.



Length	TPI	Weight per 100	Order Code
150mm (6")	14	250g	<b>-1020K</b>

## KENNEDY Industrial Power / Machine Saw Blades

Designed for use across a wide range of ferrous and non-ferrous materials.

### Power Saw Blade Selection

#### Power Saw Hacksaw Blade Tooth Recommendations

TPI	Suitable for Section Width
18	up to 13mm (up to 1/2")
14	6 to 19mm (1/4" to 3/4")
10	8 to 25mm (5/16" to 1)
6	13 to 38mm (1/2" to 1 1/2")
4	19mm and above (3/4" and above)

Type of Machine	Coolant Required	Unannealed Tool Steel & Hard Metals	Annealed Tool Steel	Machinery Steel & Soft Metal
Light	No	40spm	50 - 60spm	50-60spm
Medium	No	40spm	50 - 60spm	50-60spm
Medium	Yes	60spm	60 - 90spm	100-110spm
Heavy	Yes	60spm	90spm	110-120spm
Ex. Heavy	Yes	60spm	90spm	110-120spm

#### 18 Teeth Per Inch

Recommended for cutting thin cross-sections such as tubing, small bars and light angle iron. Because blades are relatively thin they should be used only on light machines.

#### 10 - 14 Teeth Per Inch

Recommended for cutting small cross sections and hard stock. This is the most popular choice for machine shops that are cutting a wide variety of materials.

#### 4 - 6 Teeth Per Inch

Recommended for cutting large sections of softer ferrous metals, most alloy steels and all non-ferrous metals. The increased gullet clearance is able to handle heavy chips without clogging.

#### Operating Recommendations

Lower speeds and higher feed give best results. Ensure that the machine lifts the blade slightly on the return stroke. Exact speed and feed for each job can be established only from tests. The table below is to be used for guidance only.

When matching a section thickness against a suitable Blade TPI there are usually a number of blade options - Use coarse pitches (less TPI) for faster cutting and finer pitches (more TPI) for better surface finishes.

#### Speeds & Feeds - Recommended speeds, strokes per minute and TPI.

Group	Materials	Brinell Hardness HB	Rockwell Hardness HRC	Tensile Strength N/mm <sup>2</sup>	Cutting Speed m/min	Strokes Per Min	Section Thickness or diameter-Recommended TPI			
							Below 10mm	10-40 mm	40-80 mm	Above 80mm
1.1 to 1.2	General purpose steels mild and structural	<200	-	<700	25 - 35	70 - 90	14	10 - 6	6 - 4	4
1.3	Non-alloy, plain and medium carbon steels and castings	<260	<26	<850	20 - 30	50 - 70	14	10 - 6	6 - 4	4 - 3
1.4	Alloy steels generally low to medium steels and castings	<260	<26	<850	20 - 30	50 - 70	14	10 - 6	6 - 4	4 - 3
1.5	Medium to high alloy steels tool steels and steel castings	>260 <340	>26 <36	>850 <1200	18 - 28	40 - 60	14	10 - 6	6 - 4	4 - 3
1.6	Heat treated high alloy steels and castings	>340 <450	>36 <48	>1200 <1500	15 - 25	30 - 45	14	10 - 6	6 - 4	4 - 3
2.1 to 2.3	Stainless steels free machine and austenitic	<290	<30	<1000	10 - 25	40 - 60	14	10 - 6	6 - 4	4 - 3
3.1 to 3.2	Grey cast iron	<300	-	-	30 - 40	70 - 90	14	10 - 6	6 - 4	4 - 3
3.3 to 3.4	S.G. iron nodular and malleable	<300	-	-	30 - 40	70 - 90	14	10 - 6	6 - 4	4 - 3
6.1 to 6.3	Non ferrous metals brass, copper and bronze	-	-	<800	40 - 60	80 - 115	14	10 - 6	6 - 4	4 - 3
7.1 to 7.4	Aluminium alloys to zinc and magnesium	-	-	<50	40 - 60	80 - 115	14 - 10	10 - 6	6 - 4	4 - 3

## HSS All Hard Power Saw Blades

Recommended for cutting thin cross-sections such as tubing, small bars and light angle iron. Because blades are relatively thin they should be used only on light machines.



Length	Width	Thickness	TPI	Weight per 10	Order Code KEN-040
12"	5/8"	.032"	18T	0.36kg	-4630K
12"	1"	.050"	10T	0.78kg	-5030K
12"	1"	.050"	14T	0.79kg	-5040K
14"	1"	.050"	10T	0.93kg	-5130K
14"	1"	.050"	14T	0.80kg	-5140K
14"	1 1/4"	.062"	6T	1.30kg	-5200K
14"	1 1/4"	.062"	10T	1.30kg	-5220K
14"	1 1/4"	.062"	14T	1.30kg	-5230K
16"	1 1/4"	.062"	6T	1.40kg	-5390K
16"	1 1/4"	.062"	10T	0.90kg	-5410K
16"	1 1/4"	.062"	14T	1.60kg	-5420K
16"	1 1/2"	.062"	4T	2.20kg	-5490K
16"	1 1/2"	.062"	6T	2.20kg	-5500K
17"	1 1/4"	.062"	10T	1.80kg	-5530K
18"	1 1/4"	.062"	6T	1.90kg	-5550K
18"	1 1/4"	.062"	10T	1.60kg	-5570K
18"	1 1/2"	.075"	6T	2.55kg	-5650K
19"	1 3/4"	.088"	6T	3.80kg	-5720K
20"	1 1/2"	.075"	6T	3.20kg	-5750K
21"	1 1/2"	.075"	6T	3.00kg	-5770K
21"	1 1/2"	.075"	10T	3.00kg	-5790K
21"	1 3/4"	.088"	4T	4.40kg	-5810K
21"	1 3/4"	.088"	6T	5.30kg	-5820K
24"	2"	.100"	6T	6.30kg	-5960K

CUTTING TOOLS

**GROUP 050 HOLESAWS**

**KENNEDY Variable Pitch Bi-Metal HSS Holesaws**  
QUALITY INDUSTRIAL TOOLING

For producing high quality holes in wood, steel, brass, bronze, cast iron, aluminium and plastic. Featuring a very aggressive cutting action and M3 HSS cutting teeth to give a very smooth finish. Cuts up to 40% faster than constant pitch saws. The varying tooth pitch gives substantial reductions in noise by disrupting harmonics produced when sawing materials such as tubing, angle etc. Improved swarf clearance is also achieved requiring less effort to complete each cut. Tooth life is greatly extended, as is battery life when used with a cordless drill. Suitable for all uses: engineering, construction and maintenance.  
**4 to 6 teeth per inch.**  
**28.5mm (1 1/8") cutting depth.**



Cutting Dia. (mm)	Weight each	Order Code KEN-050
14 (9/16")	30g	-5140K
16 (5/8")	40g	-5160K
17 (11/16")	40g	-5170K
19 (3/4")	40g	-5190K
20 (25/32")	50g	-5200K
21 (13/16")	50g	-5210K
22 (7/8")	60g	-5220K
24 (15/16")	70g	-5240K
25 (1")	80g	-5250K
27 (1 1/16")	80g	-5270K
29 (1 1/8")	90g	-5290K
30 (1 3/16")	100g	-5300K
32 (1 1/4")	100g	-5320K
33 (1 5/16")	110g	-5330K
35 (1 3/8")	120g	-5350K
37 (1 7/16")	130g	-5370K
38 (1 1/2")	80g	-5380K
40 (1 9/16")	90g	-5400K
41 (1 5/8")	90g	-5410K
43 (1 11/16")	100g	-5430K
44 (1 3/4")	110g	-5440K
46 (1 13/16")	110g	-5460K
48 (1 7/8")	130g	-5480K
51 (2")	140g	-5510K
52 (2 1/16")	150g	-5520K
54 (2 1/8")	150g	-5540K
56 (2 3/16")	160g	-5560K
57 (2 1/4")	170g	-5570K

Cutting Dia. (mm)	Weight each	Order Code KEN-050
59 (2 5/16")	170g	-5590K
60 (2 3/8")	180g	-5600K
64 (2 1/2")	200g	-5640K
65 (2 9/16")	210g	-5650K
67 (2 5/8")	220g	-5670K
68 (2 11/16")	225g	-5680K
70 (2 3/4")	230g	-5700K
73 (2 7/8")	240g	-5730K
76 (3")	260g	-5760K
79 (3 1/8")	280g	-5790K
83 (3 1/4")	300g	-5830K
86 (3 3/8")	330g	-5860K
89 (3 1/2")	340g	-5890K
92 (3 5/8")	370g	-5920K
95 (3 3/4")	390g	-5950K
102 (4")	430g	-6020K
105 (4 1/8")	460g	-6050K
108 (4 1/4")	470g	-6080K
111 (4 3/8")	500g	-6110K
114 (4 1/2")	540g	-6140K
121 (4 3/4")	590g	-6210K
127 (5")	650g	-6270K
133 (5 1/4")	710g	-6330K
140 (5 1/2")	770g	-6400K
152 (6")	900g	-6520K
168 (6 11/16")	1060g	-6680K
177 (6 31/32")	1100g	-6770K

**Carbide Tipped Holesaws**

Kennedy® carbide tipped hole saws last up to 10 times longer than standard hole saws and resist wear and heat caused by friction much better than traditional holesaws, making them the best choice for cutting tough material such as tile, stainless steel. Use standard arbors.

Cutting Dia. (mm)	Order Code KEN-050
15 (19/32")	-7150K
16 (5/8")	-7160K
17 (11/16")	-7170K
18 (23/32")	-7180K
19 (3/4")	-7190K
20 (25/32")	-7200K
21 (13/16")	-7210K
22 (7/8")	-7220K
23 (29/32")	-7230K
24 (15/16")	-7240K
25 (1")	-7250K
26 (1 1/32")	-7260K
27 (1 1/16")	-7270K
28 (1 3/32")	-7280K
29 (1 1/8")	-7290K
30 (1 3/16")	-7300K
31 (1 7/32")	-7310K
32 (1 1/4")	-7320K
33 (1 5/16")	-7330K
34 (1 11/32")	-7340K
35 (1 3/8")	-7350K
36 (1 13/32")	-7360K
38 (1 1/2")	-7380K
40 (1 9/16")	-7400K
41 (1 5/8")	-7410K
44 (1 3/4")	-7440K
45 (1 25/32")	-7450K
48 (1 7/8")	-7480K
50 (1 31/32")	-7500K



Cutting Dia. (mm)	Order Code KEN-050
51 (2")	-7510K
54 (2 1/8")	-7540K
55 (5 5/32")	-7550K
57 (2 1/4")	-7570K
60 (2 3/8")	-7600K
64 (2 1/2")	-7640K
65 (2 9/16")	-7650K
67 (2 5/8")	-7670K
70 (2 3/4")	-7700K
75 (2 15/16")	-7750K
76 (3")	-7760K
80 (3 1/8")	-7800K
85 (3 11/32")	-7850K
95 (3 3/4")	-7950K
100 (3 7/8")	-8000K
102 (4")	-8002K
105 (4 1/8")	-8005K

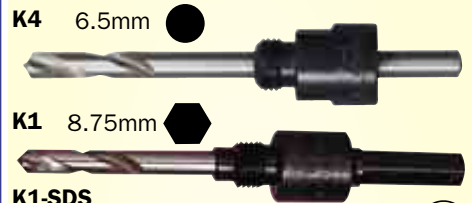
Holesaw Sizes	Use Arbor
14 to 30mm	K1 or K4
32 to 210mm	K2 or K10

**Holesaw Arbors**

Precision machined and threaded, guaranteeing a smooth secure fit to all popular brands of holesaws. Made from alloy steel. Suitable for use with all power tools.



**For Saw Sizes 14 to 30mm**

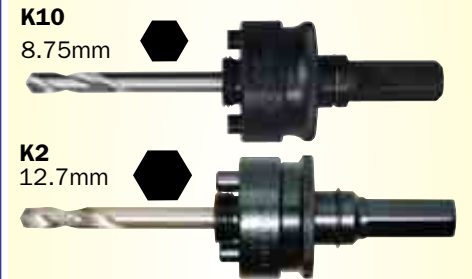


**K1-SDS**

Pilot supplied separately.

Product Number	Shank Size	Order Code KEN-050
K4	6.50mm Dia.	-1750K
K1	8.75mm Hex	-1600K
K1-SDS	SDS-Plus	-1550K

**For Saw Sizes 32 to 210mm**



**K10-SDS**

Pilot supplied separately.

Product Number	Shank Size	Order Code KEN-050
K10	8.75mm Hex	-1850K
K2	12.7mm Hex	-1650K
K10-SDS	SDS-Plus	-1560K

**Pilot Drills**

HSS, ground flute.



Product Number	To Suit Arbors	Weight each	Order Code KEN-050
K14C	All except K4	20g	-1930K
K14D	K4 only	30g	-1960K

**Ejector Spring**

Manufactured from hardened spring steel. Presses over pilot to give quick release of core piece after cut.



Part No	To Suit Saw Diameter	Weight each	Order Code KEN-050
K7	14 to 210mm	10g	-1970K



**KENNEDY** *Variable Pitch Bi-Metal*  
QUALITY INDUSTRIAL TOOLING **HSS Holesaw Kits**

For producing high quality holes in wood, steel, brass, bronze, cast iron, aluminium and plastic. Featuring a very aggressive cutting action and M3 HSS cutting teeth to give a very smooth finish. Cuts up to 40% faster than constant pitch saws. The varying tooth pitch gives substantial reductions in noise by disrupting harmonics produced when sawing materials such as tubing, angle etc. Improved swarf clearance is also achieved requiring less effort to complete each cut. Tooth life is greatly extended, as is battery life when used with a cordless drill. Suitable for all uses: engineering, construction and maintenance.  
**4 to 6 teeth per inch. 28.5mm (1 1/8") cutting depth.**

**Service Engineer's Kit**

**9 Piece**

Comprises of 22, 29, 35, 44, 51 and 64mm variable pitch bi-metal high speed steel holesaws with hardened cutting edges, K7 spring, K4 and K10 arbors with pilot drills. Supplied in a robust plastic carry case.



Number of Pieces	Weight each	Order Code
9	110g	<b>KEN-050</b> <b>-2400K</b>

**Electrician's Kit**

**9 Piece**

Comprises of 16, 20, 25, 32, 40 and 51mm variable pitch bi-metal high speed steel holesaws with hardened cutting edges, K7 Spring, K1 and K10 arbors with pilot drills. Supplied in a robust plastic carry case.



Number of Pieces	Weight each	Order Code
9	90g	<b>KEN-050</b> <b>-2300K</b>

**VARIABLE PITCH FOR IMPROVED ACTION**

**9**  
**PIECES**

**Tradesman's Compact Kits**

High quality variable pitch bi-metal high speed steel holesaws with hardened cutting edges. Supplied in a handy storage tube. Ideal size to fit into power tool cases and tool boxes.

**5 Piece:** Comprises of 16, 20, 25 and 30mm holesaws with K1 arbor.

**11 Piece:** Comprises of 16, 19, 20, 22, 25, 30, 32, 38 & 51mm holesaws with K1 and K10 arbors.



**GROUP 593**



**5**  
**PIECES**



**11**  
**PIECES**

Number of Pieces	Weight each	Order Code
5	30g	<b>KEN-050</b> <b>-2100K</b>
11	160g	<b>KEN-050</b> <b>-2500K</b>

**VARIABLE PITCH FOR IMPROVED ACTION**

Storage tubes fit into power tool cases and tool boxes



**Constant Pitch Bi-Metal HSS Holesaw Kit**

Featuring a constant pitch - First choice for cutting thin sheet materials up to 3mm thick. For producing high quality holes in wood, steel, brass, bronze, cast iron, aluminium and plastic. Featuring an hardened HSS cutting edge welded to a tough alloy steel body. Heavy duty shatter-resistant construction; virtually unbreakable.  
**6 teeth per inch. 38mm (1 1/2") cutting depth.**

**9 Piece Service Engineer's Kit**

Comprises of 22, 29, 35, 44, 51 and 64mm constant pitch bi-metal high speed steel holesaws with hardened cutting edges. Complete with K4 and K10 arbors and K7 Spring. Supplied in a robust plastic carry case.



**9**  
**PIECES**

Number of Pieces	Weight each	Order Code
9	1.20kg	<b>KEN-050</b> <b>-2000K</b>

**CUTTING TOOLS**

**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**

**GROUP 055 MASONRY DRILLS**

**KENNEDY Rotary Masonry Drill Bits**  
QUALITY INDUSTRIAL TOOLING

Tungsten carbide tipped with roll forged flutes. A general purpose mortar and masonry drill bit suitable for workshop and maintenance. Manufactured to **DIN 8039**.



**Standard Length**



**75.0mm to 120.0mm Length**

Diameter	Overall Length	Weight each	Order Code KEN-055
No.6 (4.0mm)	75.0	6g	-0060K
No.8 (5.0mm)	85.0	10g	-0080K
No.10 (5.5mm)	85.0	14g	-0100K
No.10A (6.0mm)	100.0	14g	-0110K
No.12 (6.5mm)	100.0	17g	-0120K

Diameter	Overall Length	Weight each	Order Code KEN-055
No.14 (7.0mm)	100.0	17g	-0140K
No.16 (8.0mm)	120.0	27g	-0160K
No.18 (9.0mm)	120.0	28g	-0180K
No.20 (10.0mm)	120.0	40g	-0200K
No.23 (12.0mm)	120.0	55g	-0450K

**Medium Length**



**150.0mm to 160.0mm Length**

Diameter	Overall Length	Weight each	Order Code KEN-055
No. 8 (5.0mm)	150.0	17g	-1080K
No.10 (5.5mm)	150.0	22g	-1100K
No.10A (6.0mm)	150.0	22g	-1110K
No.12 (6.5mm)	150.0	50g	-1120K
No.14 (7.0mm)	150.0	25g	-1140K
No.16 (8.0mm)	150.0	34g	-1160K
No.18 (9.0mm)	150.0	35g	-1180K
No.20 (10.0mm)	150.0	50g	-1200K

Diameter	Overall Length	Weight each	Order Code KEN-055
No.22 (11.0mm)	150.0	50g	-1220K
No.24 (13.0mm)	150.0	84g	-1240K
No.25 (14.0mm)	150.0	100g	-1250K
No.26 (16.0mm)	150.0	128g	-1260K
No.27 (18.0mm)	160.0	132g	-1270K
No.28 (20.0mm)	160.0	195g	-1280K
No.29 (22.0mm)	160.0	245g	-1290K
No.30 (25.0mm)	160.0	308g	-1300K

**Extra Length**



**300.0mm Length**

Diameter	Overall Length	Weight each	Order Code KEN-055
No.12 (6.5mm)	300.0	58g	-3120K
No.14 (7.0mm)	300.0	58g	-3140K
No.16 (8.0mm)	300.0	91g	-3160K
No.20 (10.0mm)	300.0	98g	-3200K
No.22 (11.0mm)	300.0	130g	-3220K
No.24 (13.0mm)	300.0	164g	-3240K

**400.0mm Length**

Diameter	Overall Length	Weight each	Order Code KEN-055
No.16 (8.0mm)	400.0	124g	-4160K
No.18 (9.0mm)	400.0	125g	-4180K
No.20 (10.0mm)	400.0	130g	-4200K
No.22 (11.0mm)	400.0	174g	-4220K
No.24 (13.0mm)	400.0	219g	-4240K

**CUTTING TOOLS**

**Rotary Masonry Drill Bit Sets**

**7 Piece - Standard Length**

Standard Length: No.6 x 75, No.8 x 85, No.10 x 85, No.10A x 100, No.12 x 100, No.16 x 120, No.20 x 120mm.

**7  
PIECES**

**7 Piece - Standard & Medium Length**

Standard Length:  
No.10 x 85,  
No.12 x 100,  
No.14 x 100,  
No.16 x 120,  
No.20 x 120.  
Medium length:  
No.24 x 150,  
No.26 x 150mm.

**7  
PIECES**

**16 Pieces - Standard & Medium Length**

Standard Length:  
No.6 x 75, No.8 x 85,  
No.10 x 85,  
No.10A x 100,  
No.14 x 100,  
No.16 x 120,  
No.18 x 120,  
No.20 x 120.  
Medium length:  
No.8 x 150, No.10 x 150,  
No.10A x 150,  
No.14 x 150, No.16 x 150,  
No.18 x 150, No.20 x 150, No.24 x 150mm.

**16  
PIECES**



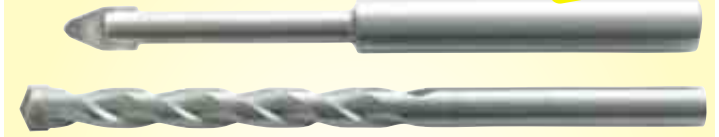
Number of Pieces	Weight each	Order Code KEN-055
7 - Standard	140g	-5070K
7 - Standard & Medium	400g	-5170K
16 - Standard & Medium	460g	-5320K

**KOBE Tile and Masonry Drill Sets**

**2  
PIECES**

2 piece set for drilling through glass, tiles, mirrors and ceramics. Set contains 1 x masonry drill bit and 1 x tile and glass drill bit.

**NEW**



Size	Order Code KBE-280
5.00mm	-7500K
6.00mm	-7510K
6.50mm	-7520K
7.00mm	-7530K
8.00mm	-7540K

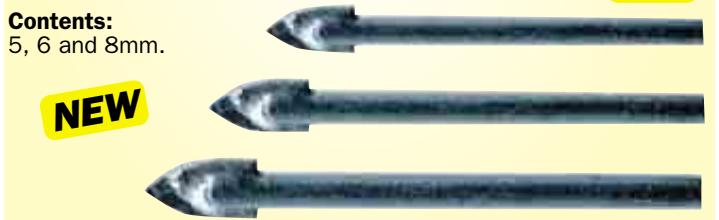
**Tile and Glass Drill Set**

**3  
PIECES**

3 piece drill bit set for drilling through glass, tiles, mirrors and ceramics.

**Contents:**  
5, 6 and 8mm.

**NEW**



Number of Pieces	Order Code KBE-280
3	-7560K

**KENNEDY** *QUALITY INDUSTRIAL TOOLING* **SDS-Style Fitting Hammer Drill Bits**



Tungsten carbide tipped and suitable for all SDS direct fitting hammer drills. High performance drill bits that withstand extreme heat generation ensuring maximum performance coupled with wear resistance. Manufactured to **DIN 8035**.



Diameter	Overall Length	Weight each	Order Code <b>KEN-057</b>
5.0mm	110.0	50g	<b>-1000K</b>
5.0mm	160.0	50g	<b>-1020K</b>
5.5mm	110.0	50g	<b>-1200K</b>
5.5mm	160.0	50g	<b>-1220K</b>
6.0mm	110.0	50g	<b>-1400K</b>
6.0mm	160.0	50g	<b>-1420K</b>
6.0mm	210.0	60g	<b>-1440K</b>
6.5mm	110.0	50g	<b>-1600K</b>
6.5mm	160.0	50g	<b>-1620K</b>
7.0mm	110.0	60g	<b>-1800K</b>
7.0mm	160.0	70g	<b>-1820K</b>
8.0mm	110.0	80g	<b>-2000K</b>
8.0mm	160.0	80g	<b>-2020K</b>
8.0mm	210.0	90g	<b>-2040K</b>
8.0mm	260.0	110g	<b>-2080K</b>
9.0mm	210.0	100g	<b>-2240K</b>
10.0mm	110.0	70g	<b>-2400K</b>
10.0mm	160.0	90g	<b>-2420K</b>
10.0mm	210.0	110g	<b>-2440K</b>
10.0mm	260.0	150g	<b>-2480K</b>
10.0mm	360.0	180g	<b>-2520K</b>
10.0mm	460.0	280g	<b>-2540K</b>
11.0mm	160.0	110g	<b>-2620K</b>
11.0mm	300.0	130g	<b>-2680K</b>
12.0mm	166.0	100g	<b>-2820K</b>
12.0mm	216.0	130g	<b>-2840K</b>
12.0mm	316.0	170g	<b>-2900K</b>
12.0mm	466.0	240g	<b>-2940K</b>
12.0mm	600.0	350g	<b>-2980K</b>
13.0mm	166.0	110g	<b>-3020K</b>
13.0mm	210.0	100g	<b>-3040K</b>

Diameter	Overall Length	Weight each	Order Code <b>KEN-057</b>
13.0mm	466.0	300g	<b>-3140K</b>
14.0mm	166.0	155g	<b>-3220K</b>
14.0mm	216.0	170g	<b>-3240K</b>
14.0mm	266.0	180g	<b>-3280K</b>
14.0mm	316.0	200g	<b>-3300K</b>
14.0mm	466.0	300g	<b>-3340K</b>
14.0mm	600.0	410g	<b>-3380K</b>
15.0mm	166.0	200g	<b>-3420K</b>
15.0mm	266.0	200g	<b>-3480K</b>
15.0mm	450.0	250g	<b>-3540K</b>
16.0mm	250.0	150g	<b>-3640K</b>
16.0mm	300.0	200g	<b>-3700K</b>
16.0mm	450.0	350g	<b>-3740K</b>
16.0mm	600.0	450g	<b>-3760K</b>
17.0mm	200.0	160g	<b>-3840K</b>
18.0mm	250.0	240g	<b>-4040K</b>
18.0mm	450.0	400g	<b>-4140K</b>
19.0mm	200.0	200g	<b>-4240K</b>
19.0mm	450.0	470g	<b>-4340K</b>
20.0mm	200.0	200g	<b>-4440K</b>
20.0mm	300.0	300g	<b>-4500K</b>
20.0mm	450.0	480g	<b>-4540K</b>
22.0mm	250.0	350g	<b>-4680K</b>
22.0mm	450.0	720g	<b>-4740K</b>
24.0mm	250.0	390g	<b>-4880K</b>
24.0mm	450.0	770g	<b>-4940K</b>
25.0mm	250.0	430g	<b>-5080K</b>
25.0mm	450.0	770g	<b>-5140K</b>
26.0mm	250.0	430g	<b>-5280K</b>
26.0mm	450.0	850g	<b>-5340K</b>

**SDS-Style Fitting Drill Bit Sets**

Tungsten carbide tipped and suitable for all SDS direct fitting hammer drills. High performance drill bits that withstand extreme heat generation ensuring maximum performance coupled with wear resistance. Manufactured to **DIN 8035**.

**7 Piece**

5, 6 and 8mm x 110mm overall length.  
6, 8, 10 and 12mm x 160mm overall length.

**7  
PIECES**



Number of Pieces	Order Code <b>KEN-057</b>
7	<b>-7000K</b>
9	<b>-7020K</b>

**9 Piece**

5, 5.5, 6 and 7mm x 160mm overall length.  
8 x 210mm, 8 x 260mm, 12 x 216mm,  
12 x 316mm and 16 x 250mm overall length.

**9  
PIECES**



**CUTTING TOOLS**

**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**

**GROUP 061 SHANK MILLING CUTTERS**

**SHERWOOD QUALITY CUTTING TOOLS** **HSS Threaded Shank T-Slot Cutters**

**HSS**

Used for machining T-slots on slide tables, fixtures etc. to **DIN 650**.  
For milling structural, carburising and heat treated steel up to 900N/mm<sup>2</sup>. Sizes up to 16mm and 1/2" have 6 flutes and 18mm and 5/8" upwards have 8 flutes.  
Made to **DIN 851**. Shank to **DIN 1835/D**.

Flute form **12° RH/LH**

**Metric Limits of Tolerance**

Diameter	+0.13 - 0.13
Length	+0.13 - 0.13



**Metric Sizes**

Bolt Size	Head Depth	Diameter			Overall Length	Weight each	Order Code SHR-061
		Cutter	Shank	Neck			
M6.0	6.0	12.5	10.0	5.0	57.0	36g	-6550A
M8.0	8.0	16.0	10.0	6.5	62.0	41g	-6551B
M10.0	8.0	18.0	12.0	8.0	65.0	50g	-6552C
M12.0	10.0	22.0	12.0	10.0	74.0	52g	-6553D
M14.0	11.0	25.0	16.0	12.0	82.0	84g	-6554E
M16.0	12.0	28.0	16.0	13.0	85.0	159g	-6555F
M18.0	14.0	32.0	25.0	15.0	90.0	347g	-6556G
M20.0	16.0	36.0	25.0	17.0	103.0	298g	-6557H
M24.0	19.0	45.0	25.0	17.0	112.0	426g	-6559K

**HSS Threaded Shank Corner Rounding Cutters**

**HSS**

Designed to produce convex corner radii. For milling structural, carburizing and heat treated steel up to 900N/mm<sup>2</sup>.  
Manufactured to works standards.  
5° RH Flutes.  
Bright finish, straight helix.  
Radii tolerance: ± 0.005".  
Shank to **DIN 1835/D**.



**Metric Sizes**

Radius (mm)	Head Dia.	Shank Dia.	Overall Length	No. of Teeth	Weight each	Order Code SHR-061
2.0	12.0	12.0	60.5	4	50g	-6408Z
3.0	12.0	12.0	60.5	4	50g	-6410A
4.0	14.0	12.0	60.5	4	54g	-6411B
5.0	16.0	16.0	60.5	4	86g	-6412C
6.0	22.0	16.0	63.5	4	109g	-6413D
8.0	25.0	25.0	73.0	4	250g	-6414E
10.0	28.0	25.0	79.5	4	272g	-6415F
12.0	35.0	25.0	82.5	4	325g	-6416G

**HSS Threaded Shank Woodruff Cutters**

**HSS**

**12mm/1/2" Shank Ø**  
Produces closed slots for woodruff keys to **DIN 6888**.  
For milling structural, carburising and heat treated steel up to 900N/mm<sup>2</sup>. Manufactured to **BS 122 : Part 4 : 1980**.  
Made to **DIN 850**. Shank to **DIN 1835/D**.

**Metric Limits of Tolerances**

Diameter	+ 0.000	-0.127
Width		
2 up to 4	- 0.014	-0.028
4 up to 7	- 0.020	-0.038
7mm up	- 0.025	-0.047



**Metric Sizes**

Diameter (mm)	Width	Overall Length	Weight each	Order Code SHR-061
10.5	2.0	57.0	44g	-6500A
10.5	3.0	57.0	44g	-6502C
13.5	2.5	57.0	44g	-6504E
13.5	3.0	57.0	45g	-6505F
13.5	4.0	57.0	45g	-6506G
16.5	2.5	57.0	46g	-6507H
16.5	3.0	57.0	46g	-6508J
16.5	4.0	57.0	46g	-6509K
16.5	5.0	57.0	46g	-6510L
19.5	3.0	57.0	46g	-6511M
19.5	4.0	57.0	46g	-6512N
19.5	5.0	57.0	50g	-6513P
19.5	6.0	57.0	51g	-6514C
22.5	4.0	63.5	55g	-6514Q
22.5	6.0	63.5	59g	-6516S
25.5	6.0	70.0	67g	-6518V
25.5	8.0	70.0	73g	-6520X
35.5	8.0	76.0	102g	-6532J
38.5	9.0	76.0	116g	-6536N

**HSS Threaded Shank Dovetail Cutters (Single Angle Cutters)**

**HSS**

Designed to produce dovetail slideways in machine tool tables, jigs and fixtures. Bright finish, straight helix.  
Made to **DIN 1833**. Shank to **DIN 1835D**.

45° Corner Angle - Metric (Form C)

**Ø Tolerances**

Metric	Inch
+0.25 - 0.00	+0.010 - 0.000



Diameter (mm)	Cut Length	Shank Dia.	Overall Length	No. of Teeth	Order Code SHR-061
13.0	3.0	12.0	63.5	6	-6200A
16.0	4.0	12.0	66.5	6	-6201B
19.0	5.5	12.0	66.5	6	-6202C
20.0	5.5	12.0	62.0	6	-6202P
25.0	7.5	12.0	70.0	8	-6204E
32.0	8.5	16.0	74.5	8	-6206G

60° Corner Angle - Metric (Form C)

**HSS**



Diameter (mm)	Cut Length	Shank Dia.	Overall Length	No. of Teeth	Order Code SHR-061
13.0	4.0	12.0	63.5	6	-6150A
16.0	5.5	12.0	66.5	6	-6151B
19.0	7.0	12.0	66.5	6	-6152C
20.0	8.0	12.0	63.0	6	-6152P
25.0	12.0	12.0	70.0	8	-6154E
32.0	13.5	16.0	74.5	8	-6156G



**HSS Plain Shank T-Slot Cutters**

Used for machining T-slots on slide tables, fixtures etc. to **DIN 650**.

For milling structural, carburising and heat treated steel up to 900N/mm<sup>2</sup>. Sizes up to 16mm and 1/2" have 6 flutes and 18mm and 5/8" upwards have 8 flutes.

Made to **DIN 851**.

Flute form **12° RH/LH**

**HSS**

**NEW**

**Metric Limits of Tolerance**

Diameter +0.13 - 0.13  
Length +0.13 - 0.13



**Metric Sizes**

Bolt Size	Head Depth	Diameter			Overall Length	Weight each	Order Code
		Cutter	Shank	Neck			
M6.0	6.0	12.5	10.0	5.0	57.0	36g	-4550A
M8.0	8.0	16.0	10.0	6.5	62.0	41g	-4551B
M10.0	8.0	18.0	12.0	8.0	65.0	50g	-4552C
M12.0	10.0	22.0	12.0	10.0	74.0	52g	-4553D
M14.0	11.0	25.0	16.0	12.0	82.0	84g	-4554E
M16.0	12.0	28.0	16.0	13.0	85.0	159g	-4555F
M18.0	14.0	32.0	25.0	15.0	90.0	347g	-4556G
M20.0	16.0	36.0	25.0	17.0	103.0	298g	-4557H

**HSS Plain Shank Corner Rounding Cutters**

Designed to produce convex corner radii. For milling structural, carburising and heat treated steel up to 900N/mm<sup>2</sup>.

Manufactured to work standards.

5° RH Flutes.

Bright finish, straight helix.

Radii tolerance: ± 0.005".

**HSS**

**NEW**



**Metric Sizes**

Radius (mm)	Head Dia.	Shank Dia.	Overall Length	No. of Teeth	Weight each	Order Code
SHR-061						
2.0	12.0	12.0	60.5	4	50g	-4408Z
3.0	12.0	12.0	60.5	4	50g	-4410A
4.0	14.0	12.0	60.5	4	54g	-4411B
5.0	16.0	16.0	60.5	4	86g	-4412C
6.0	22.0	16.0	63.5	4	109g	-4413D
8.0	25.0	25.0	73.0	4	250g	-4414E
10.0	28.0	25.0	79.5	4	272g	-4415F
12.0	35.0	25.0	82.5	4	325g	-4416G

**SHANK MILLING CUTTERS**

**HSS Plain Shank Woodruff Cutters**

12mm/1/2" Shank Ø

Produces closed slots for woodruff keys to **DIN 6888**. For milling structural, carburizing and heat treated steel up to 900N/mm<sup>2</sup>.

Manufactured to **BS 122 : Part 4 : 1980**.

Made to **DIN 850**.



**HSS**

**Metric Limits of Tolerances**

Diameter + 0.000 -0.127  
Width  
2 up to 4 - 0.014 -0.028  
4 up to 7 - 0.020 -0.038  
7mm up - 0.025 -0.047

**NEW**



**Metric Sizes**

Diameter (mm)	Width	Overall Length	Weight each	Order Code
SHR-061				
10.5	2.0	57.0	44g	-4500A
10.5	3.0	57.0	44g	-4502C
13.5	2.5	57.0	44g	-4504E
13.5	3.0	57.0	45g	-4505F
13.5	4.0	57.0	45g	-4506G
16.5	2.5	57.0	46g	-4507H
16.5	3.0	57.0	46g	-4508J
16.5	4.0	57.0	46g	-4509K
16.5	5.0	57.0	46g	-4510L
19.5	3.0	57.0	46g	-4511M
19.5	4.0	57.0	46g	-4512N
19.5	5.0	57.0	50g	-4513P
19.5	6.0	57.0	51g	-4514C
22.5	4.0	63.5	55g	-4514Q
22.5	6.0	63.5	59g	-4516S
25.5	6.0	70.0	67g	-4518V
25.5	8.0	70.0	73g	-4520X
28.5	5.0	70.0	69g	-4521Y
32.5	6.0	70.0	81g	-4527D

**HSS Plain Shank Dovetail Cutters (Single Angle Cutters)**

**HSS**

Designed to produce dovetail slideways in machine tool tables, jigs and fixtures. Bright finish, straight helix. Made to **DIN 1833**.

45° Corner Angle - Metric (Form C)

**NEW**

**Ø Tolerances**

Metric +0.25 - 0.00  
Inch +0.010 - 0.000



Diameter (mm)	Cut Length	Shank Dia.	Overall Length	No. of Teeth	Order Code
SHR-061					
13.0	3.0	12.0	63.5	6	-4200A
16.0	4.0	12.0	66.5	6	-4201B
19.0	5.5	12.0	66.5	6	-4202C
20.0	5.5	12.0	62.0	6	-4202P
25.0	7.5	12.0	70.0	8	-4204E
32.0	8.5	16.0	74.5	8	-4206G

60° Corner Angle - Metric (Form C)

**NEW**

**HSS**



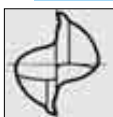
Diameter (mm)	Cut Length	Shank Dia.	Overall Length	No. of Teeth	Order Code
SHR-061					
13.0	4.0	12.0	63.5	6	-4150A
16.0	5.5	12.0	66.5	6	-4151B
19.0	7.0	12.0	66.5	6	-4152C
20.0	8.0	12.0	63.0	6	-4152P
25.0	12.0	12.0	70.0	8	-4154E
32.0	13.5	16.0	74.5	8	-4156G

**GROUP 061 SHANK MILLING CUTTERS**

**SHERWOOD QUALITY CUTTING TOOLS HSS Threaded Shank Slot Drills 2 Flute**

Used for milling keyways and slots.  
Bright finish.  
Flute type: 30° helix.  
Manufactured to **BS 122: Part 4: 1980.**

**HSS**



Diameter Metric	Tolerances	
	Tolerance +	Tolerance -
up to 3.00	0.013	0.033
Over 3.00 ~ up to 6.00	0.020	0.038
Over 6.00 ~ up to 10.00	0.025	0.046
Over 10.00 ~ up to 18.00	0.033	0.058
Over 18.00 ~ up to 30.00	0.041	0.071
Over 30.00	0.051	0.089



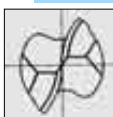
**Short Series S210T**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code <b>SHR-061</b>
4.00	7.0	51.0	6.0	20g	-5605F
5.00	8.0	52.0	6.0	20g	-5607H
6.00	8.0	52.0	6.0	20g	-5609K
7.00	10.0	60.0	10.0	30g	-5611M
8.00	11.0	61.0	10.0	30g	-5613P
9.00	11.0	61.0	10.0	40g	-5615R
10.00	13.0	63.0	10.0	40g	-5617T
12.00	16.0	73.0	12.0	50g	-5621Y
13.00	16.0	73.0	12.0	60g	-5622Z
14.00	16.0	73.0	12.0	60g	-5624A
15.00	16.0	73.0	16.0	60g	-5625B
16.00	19.0	79.0	16.0	120g	-5626C
17.00	19.0	79.0	16.0	120g	-5627D
18.00	19.0	79.0	16.0	120g	-5628E
19.00	19.0	79.0	16.0	130g	-5629F
20.00	22.0	82.0	16.0	140g	-5630G
22.00	22.0	88.0	25.0	320g	-5632J
24.00	26.0	102.0	25.0	350g	-5634L
25.00	26.0	102.0	25.0	330g	-5635M
26.00	26.0	102.0	25.0	350g	-5636N
28.00	26.0	102.0	25.0	330g	-5638Q
30.00	26.0	102.0	25.0	350g	-5640S
32.00	32.0	112.0	25.0	340g	-5641T
38.00	38.0	118.0	25.0	470g	-5650C
40.00	38.0	118.0	25.0	500g	-5652E

**HSS Threaded Shank Ball Nose 2 Flute End Mills (Slot Drills)**

Used for diesinking, slot milling and profile milling.  
Bright finish. Flute type: 30° helix.  
Manufactured to **BS 122 : Part 4 : 1980.**

**HSS**



Diameter Metric	Tolerances	
	Tolerance +	Tolerance -
up to 3.00	0.013	0.033
Over 3.00 ~ up to 6.00	0.020	0.038
Over 6.00 ~ up to 10.00	0.025	0.046
Over 10.00 ~ up to 18.00	0.033	0.058
Over 18.00 ~ up to 30.00	0.041	0.071
Over 30.00	0.051	0.089



**Short Series Type B210T**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code <b>SHR-061</b>
6.00	11.0	56.5	6.0	40g	-5955F
8.00	12.5	58.5	10.0	32g	-5957H
10.00	14.5	60.5	10.0	95g	-5959K
12.00	19.0	66.5	12.0	144g	-5961M

**HSS Threaded Shank 2 Flute End Mills (Slot Drills)**

Used for milling keyways and slots.  
Bright finish.  
Flute type: 30° helix.  
Manufactured to **BS 122: Part 4: 1980.**

**HSS**



Diameter Metric	Tolerances	
	Tolerance +	Tolerance -
up to 3.00	0.013	0.033
Over 3.00 ~ up to 6.00	0.020	0.038
Over 6.00 ~ up to 10.00	0.025	0.046
Over 10.00 ~ up to 18.00	0.033	0.058
Over 18.00 ~ up to 30.00	0.041	0.071
Over 30.00	0.051	0.089



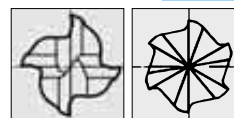
**Long Series 5230T**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code <b>SHR-061</b>
3.00	11.0	60.5	6.0	11g	-5802C
4.00	12.5	66.5	6.0	15g	-5804E
5.00	12.5	70.0	6.0	15g	-5806G
6.00	16.0	76.0	6.0	19g	-5808J
7.00	16.0	76.0	10.0	30g	-5810L
8.00	19.0	79.5	10.0	40g	-5812N
10.00	22.0	82.5	10.0	48g	-5815R
12.00	25.5	95.0	12.0	78g	-5817T
15.00	31.5	108.0	16.0	148g	-5820X
16.00	31.5	108.0	16.0	125g	-5821Y
18.00	35.0	114.5	16.0	179g	-5824A
20.00	38.0	120.5	16.0	230g	-5826C
22.00	41.5	140.0	25.0	424g	-5827D
24.00	41.5	152.5	25.0	520g	-5828E
25.00	44.5	159.0	25.0	520g	-5829F
26.00	44.5	159.0	25.0	558g	-5830G
28.00	47.5	159.0	25.0	601g	-5831H
30.00	51.0	159.0	25.0	605g	-5832J
32.00	51.0	159.0	25.0	606g	-5833K
40.00	63.5	159.0	32.0	923g	-5843W

**HSS Threaded Shank End Mills 4 & 6 Flute**

Used for profile milling and producing open slots.  
Bright finish. Flute type: 30° helix.  
Manufactured to **BS 122 : Part 4 : 1980.**

**HSS**



Diameter Metric	Tolerances	
	Tolerance +	Tolerance -
up to 38.00	0.0630	0.0130
Over 38.00	0.1250	0.0000



**Long Series E430T**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Flute No.	Weight each	Order Code <b>SHR-061</b>
3.00	19.0	63.5	6.0	4	11g	-5401A
4.00	25.5	70.0	6.0	4	15g	-5403C
4.50	31.5	70.0	6.0	4	15g	-5404D
5.00	31.5	76.0	6.0	4	15g	-5405E
6.00	35.0	76.0	6.0	4	16g	-5407G
7.00	34.0	79.5	10.0	4	37g	-5409J
8.00	34.0	79.5	10.0	4	39g	-5411L
10.00	37.0	82.5	10.0	4	45g	-5414P
12.00	49.5	95.0	12.0	4	71g	-5416R
14.00	57.0	101.5	12.0	4	88g	-5418T
16.00	58.5	108.5	16.0	4	138g	-5420W
18.00	70.0	115.0	16.0	4	165g	-5422Y
20.00	76.0	121.5	16.0	4	206g	-5424A
22.00	85.5	143.0	25.0	6	369g	-5425B
25.00	100.0	157.0	25.0	6	465g	-5427D



**HSS-Co 5% Threaded Shank Slot Drills 2 Flute**

Bright finish. Flute type: 30° helix.  
Manufactured to **BS 122: Part 4: 1980.**

**HSS-Co 5%**

Diameter Metric	Tolerances	
	Tolerance +	Tolerance -
up to 3.00	0.013	0.033
Over 3.00 ~ up to 6.00	0.020	0.038
Over 6.00 ~ up to 10.00	0.025	0.046
Over 10.00 ~ up to 18.00	0.033	0.058
Over 18.00 ~ up to 30.00	0.041	0.071
Over 30.00	0.051	0.089



**Short Series**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code <b>SHR-061</b>
1.50	2.5	48.5	6.0	1g	-5664A
2.00	3.0	49.0	6.0	1g	-5665B
2.50	4.5	51.0	6.0	2g	-5666C
3.00	7.0	51.0	6.0	3g	-5667D
4.00	9.5	52.5	6.0	5g	-5669F
4.50	9.5	52.5	6.0	7g	-5670G
5.00	9.5	52.5	6.0	8g	-5671H
6.00	11.0	56.5	6.0	13g	-5673K
6.50	11.0	58.5	10.0	16g	-5674A
7.00	11.0	58.5	10.0	18g	-5674L
8.00	12.5	59.5	10.0	24g	-5675M
9.00	14.5	60.5	10.0	31g	-5676N
10.00	14.5	60.5	10.0	38g	-5677P
11.00	17.5	65.0	12.0	49g	-5678Q
12.00	19.0	66.5	12.0	60g	-5679R
13.00	19.0	66.5	12.0	71g	-5680G
14.00	22.0	68.5	12.0	84g	-5680S
15.00	22.0	72.0	16.0	102g	-5681H
16.00	22.0	72.0	16.0	116g	-5681T
17.00	24.0	72.0	16.0	131g	-5682J
18.00	24.0	72.0	16.0	147g	-5682V
19.00	25.5	77.0	16.0	175g	-5683K
20.00	25.5	77.0	16.0	194g	-5683W
22.00	25.5	100.0	25.0	304g	-5684X
25.00	27.0	95.0	25.0	373g	-5686A
30.00	30.0	93.5	25.0	529g	-5688C

**SHANK MILLING CUTTERS**

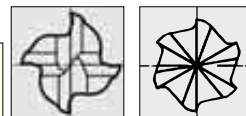
**HSS Threaded Shank End Mills Multi Flute**

Used for profile milling and producing open slots.  
Bright finish.  
Flute type : 30° helix.  
Manufactured to **BS 122 : Part 4 : 1980.**



**HSS-Co 5%**

Diameter Metric	Tolerances	
	Tolerance +	Tolerance -
up to 38.00mm	0.0630	0.0130
Over 38.00mm	0.1250	0.0000



**Regular Series Type E411T**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	No. of Flutes	Weight each	Order Code <b>SHR-061</b>
1.50	2.5	51.0	6.0	2	10g	-5184Y
2.00	4.0	51.0	6.0	4	10g	-5185A
2.50	6.5	51.0	6.0	4	10g	-5186B
3.00	9.5	54.0	6.0	4	11g	-5187C
3.50	12.5	57.0	6.0	4	15g	-5188D
4.00	12.5	57.0	6.0	4	12g	-5189E
5.00	16.0	60.5	6.0	4	14g	-5191G
6.00	16.0	60.5	6.0	4	39g	-5193J
6.50	16.0	60.5	10.0	4	31g	-5193R
7.00	15.0	60.5	10.0	4	32g	-5193X
7.50	18.0	63.5	10.0	4	33g	-5194C
8.00	18.0	63.5	10.0	4	33g	-5194K
8.50	21.0	66.5	10.0	4	35g	-5194S
9.00	21.0	66.5	10.0	4	35g	-5194Y
10.00	21.0	66.5	10.0	4	39g	-5195L
11.00	19.0	66.5	12.0	4	54g	-5195Z
12.00	24.0	70.0	12.0	4	54g	-5196M
13.00	24.5	70.0	12.0	4	55g	-5197F
14.00	28.5	73.5	12.0	4	72g	-5197N
15.00	26.5	77.0	16.0	4	102g	-5198G
16.00	26.5	80.0	16.0	4	109g	-5198P
17.00	32.0	80.0	16.0	4	113g	-5199H
18.00	35.0	88.0	16.0	4	132g	-5199Q
19.00	38.0	83.5	16.0	4	132g	-5200J
20.00	38.0	84.5	16.0	4	135g	-5200R
22.00	41.5	98.5	25.0	6	186g	-5201S
25.00	41.5	101.5	25.0	6	346g	-5202T
30.00	46.0	104.5	25.0	6	414g	-5204W

**HSS-Co 5% Threaded Shank Slot Drills 3 Flute**

Bright finish. Flute type: 30° helix.  
Manufactured to **BS 122: Part 4: 1980.**

**HSS-Co 5%**

Diameter Metric	Tolerances	
	Tolerance +	Tolerance -
up to 38.00mm	0.0630	0.0130
Over 38.00mm	0.1250	0.0000



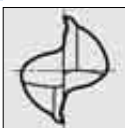
**Regular Series Type 5321T**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code <b>SHR-061</b>
3.00	9.5	54.0	6.0	8g	-6021A
3.50	12.5	57.0	6.0	8g	-6021C
4.00	12.5	57.0	6.0	9g	-6021E
5.00	16.0	60.5	6.0	9g	-6021J
5.50	16.0	60.5	6.0	9g	-6021L
6.00	16.0	60.5	6.0	10g	-6021N
8.00	19.0	63.5	10.0	29g	-6021Q
10.00	22.0	66.5	10.0	32g	-6021S
12.00	25.5	71.5	12.0	48g	-6021V
14.00	28.5	74.5	12.0	56g	-6021X
16.00	32.0	80.0	16.0	96g	-6021Z
18.00	35.0	83.5	16.0	105g	-6022B
20.00	38.0	90.0	16.0	119g	-6022D

**SWISS+TECH HSS-Co 8% Threaded Shank Slot Drills 2 Flute**

For general production. Centre cutting.  
Threaded shank to **DIN 1835D.**  
Cutting diameter to **e8.**  
Shank diameter to **h6.**

**HSS-Co 8%**



**Series 28**

**Short Series SDH-2TS Dimensions to DIN 327**

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Weight per 10	Order Code <b>SWT-163</b>
2.00	4.0	6.0	48.0	102g	-2802A
2.50	5.0	6.0	49.0	102g	-2802L
3.00	5.0	6.0	49.0	102g	-2803A
3.50	6.0	6.0	50.0	102g	-2803L
4.00	7.0	6.0	51.0	105g	-2804A
4.50	7.0	6.0	51.0	108g	-2804L
5.00	8.0	6.0	52.0	110g	-2805A
5.50	8.0	6.0	52.0	110g	-2805L
6.00	8.0	6.0	52.0	110g	-2806A
7.00	10.0	10.0	60.0	380g	-2807A
8.00	11.0	10.0	61.0	338g	-2808A
9.00	11.0	10.0	61.0	353g	-2809A
10.00	13.0	10.0	63.0	369g	-2810A
11.00	13.0	12.0	70.0	456g	-2811A
12.00	16.0	12.0	73.0	600g	-2812A
13.00	16.0	12.0	73.0	608g	-2813A
14.00	16.0	12.0	73.0	631g	-2814A
15.00	16.0	16.0	73.0	640g	-2815A
16.00	19.0	16.0	79.0	1134g	-2816A
18.00	19.0	16.0	79.0	1200g	-2818A
20.00	22.0	20.0	88.0	1900g	-2820A
22.00	22.0	20.0	88.0	1902g	-2822A
25.00	26.0	25.0	102.0	3538g	-2825A

**GROUP 061 SHANK MILLING CUTTERS**

**SHERWOOD QUALITY CUTTING TOOLS HSS-Co Plain Shank Milling Cutters 2 Flute**

Centre cutting, used for profile milling, milling keyways and producing open slots. Surface treatment: bright finish. Flute type: 30° Helix. Overall dimensions to **DIN 844**. Plain shank to **DIN 1835A**.



**Regular Length**

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Order Code <b>SHR-061</b>
3.00	8	6	52.0	<b>-3803A</b>
4.00	11	6	55.0	<b>-3804B</b>
5.00	13	6	57.0	<b>-3805C</b>
6.00	13	6	57.0	<b>-3806D</b>
7.00	16	10	66.0	<b>-3807E</b>
8.00	19	10	69.0	<b>-3808F</b>
10.00	22	10	72.0	<b>-3810H</b>

**Regular Length Continued**

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Order Code <b>SHR-061</b>
12.00	26	12	83.0	<b>-3812K</b>
14.00	26	16	83.0	<b>-3814M</b>
16.00	32	16	92.0	<b>-3816P</b>
18.00	32	16	92.0	<b>-3818R</b>
20.00	38	20	104.0	<b>-3820S</b>
22.00	38	20	104.0	<b>-3822T</b>
25.00	45	25	121.0	<b>-3825V</b>

**HSS-Co. Cobalt Long Series Milling Cutters 2 Flute**

Centre cutting, used for profile milling, milling keyways and producing open slots. Surface treatment: bright finish. Flute type: 30° Helix. Overall dimensions to **DIN 844**. Plain shank to **DIN 1835A**.

For general production machining.



**Long Series**

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Order Code <b>SHR-061</b>
3.00	12	6	56	<b>-3955C</b>
4.00	19	6	63	<b>-3957E</b>
5.00	24	6	68	<b>-3959G</b>
6.00	24	6	68	<b>-3961J</b>
8.00	38	10	88	<b>-3962K</b>

**Long Series Continued**

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Order Code <b>SHR-061</b>
10.00	45	10	95	<b>-3963L</b>
12.00	53	12	110	<b>-3964M</b>
14.00	53	12	110	<b>-3965N</b>
16.00	63	16	123	<b>-3966P</b>
20.00	75	20	141	<b>-3968R</b>

**HSS-Co. Plain Shank Milling Cutter 4 Flute**

Centre cutting, used for profile milling, milling keyways and producing open slots. Bright finish. Flute type: 30° Helix. Overall dimensions to **DIN 844**. Plain shank to **DIN 1835A**.

**Metric Tolerances**

Nominal Dia.	Limits of Tolerance
Up to 38mm	+0.0630 -0.0130
Above 38mm	+0.1250 -0.0000



**Regular Length**

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Order Code <b>SHR-061</b>
3.00	8	6	52	<b>-3703A</b>
4.00	11	6	55	<b>-3704B</b>
5.00	13	6	57	<b>-3705C</b>
6.00	13	6	57	<b>-3706D</b>
7.00	16	10	66	<b>-3707E</b>
8.00	19	10	69	<b>-3708F</b>
9.00	19	10	69	<b>-3709Q</b>
10.00	22	10	72	<b>-3710G</b>

**Regular Length Continued**

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Order Code <b>SHR-061</b>
12.00	26	12	83	<b>-3712H</b>
14.00	26	16	83	<b>-3714J</b>
16.00	32	16	92	<b>-3716L</b>
18.00	32	16	92	<b>-3718M</b>
20.00	38	20	104	<b>-3720N</b>
22.00	38	20	104	<b>-3722P</b>
25.00	45	25	121	<b>-3725R</b>

**HSS-Co. Plain Shank Milling Cutter 4 Flute**

Centre cutting, used for profile milling, milling keyways and producing open slots. Bright finish. Flute type: 30° Helix. Overall dimensions to **DIN 844**. Plain shank to **DIN 1835A**.

**Metric Tolerances**

Nominal Dia.	Limits of Tolerance
Up to 38mm	+0.0630 -0.0130
Above 38mm	+0.1250 -0.0000



**Long Series**

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Order Code <b>SHR-061</b>
3.00	12	6	56	<b>-3873A</b>
4.00	19	6	63	<b>-3875C</b>
5.00	24	6	68	<b>-3877E</b>
6.00	24	6	68	<b>-3879G</b>
8.00	38	10	88	<b>-3880H</b>

**Long Series Continued**

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Order Code <b>SHR-061</b>
10.00	45	10	95	<b>-3881J</b>
12.00	53	12	110	<b>-3882K</b>
14.00	53	16	110	<b>-3883K</b>
16.00	63	16	123	<b>-3884M</b>
20.00	75	20	141	<b>-3886P</b>

**CUTTING TOOLS**



**HSS-EV Threaded Shank  
Fine Pitch Ripper Cutters**

4 flute ripper cutters. Manufactured from sintered HSS-EV extra vanadium steel. Knuckle form, **h8** tolerance. Standard length. Dimensions to **DIN 844**. Shank to **DIN 1835D**.



**FINE PITCH HSS-EV**



**Regular Series**

Dia. (mm)	Flute Length	Overall Length	Shank Dia.	No. of Flutes	Weight each	Order Code
6.00	15.0	58.0	6.0	4	13g	<b>-2600A</b>
8.00	20.0	70.0	10.0	4	36g	<b>-2601B</b>
10.00	28.0	75.0	10.0	4	36g	<b>-2602C</b>
12.00	33.0	85.0	12.0	4	71g	<b>-2603D</b>

Dia. (mm)	Flute Length	Overall Length	Shank Dia.	No. of Flutes	Weight each	Order Code
16.00	38.0	90.0	16.0	4	131g	<b>-2604E</b>
20.00	47.0	110.0	20.0	4	228g	<b>-2605F</b>
25.00	52.0	125.0	25.0	4	401g	<b>-2606G</b>

**HSS-E Weldon Shank Coarse Pitch Ripper Cutters**

Industrial quality for shaping and forming metal components. 4 flute ripper cutters. Manufactured from sintered HSS-E extra vanadium steel. Knuckle form, **h8** tolerance, standard length. Shank to **DIN 1835D**.

**COARSE PITCH HSS-EV**



**Regular Series**

Dia. (mm)	Flute Length	Overall Length	Shank Dia.	No. of Flutes	Weight each	Order Code
6.00	13.0	57.0	6.0	4	13g	<b>-2560A</b>
8.00	19.0	69.0	10.0	4	36g	<b>-2561B</b>
10.00	22.0	72.0	10.0	4	40g	<b>-2562C</b>
12.00	26.0	83.0	12.0	4	71g	<b>-2563D</b>

Dia. (mm)	Flute Length	Overall Length	Shank Dia.	No. of Flutes	Weight each	Order Code
16.00	32.0	92.0	16.0	4	134g	<b>-2564E</b>
20.00	38.0	104.0	20.0	4	221g	<b>-2565F</b>
25.00	45.0	121.0	25.0	4	427g	<b>-2566G</b>

**HSS-EV Weldon Shank Fine Pitch Ripper Cutters**

4 flute ripper cutters. Manufactured from sintered HSS-EV extra vanadium steel. Knuckle form, **h8** tolerance. Standard length. Dimensions to **DIN 844**. Shank to **DIN 1835D**.

**FINE PITCH HSS-EV**



**Regular Series**

Dia. (mm)	Flute Length	Overall Length	Shank Dia.	No. of Flutes	Weight each	Order Code
6.00	15.0	58.0	6.0	4	16g	<b>-2620A</b>
8.00	20.0	70.0	10.0	4	36g	<b>-2621B</b>
10.00	28.0	75.0	10.0	4	41g	<b>-2622C</b>
12.00	33.0	85.0	12.0	4	74g	<b>-2623D</b>

Dia. (mm)	Flute Length	Overall Length	Shank Dia.	No. of Flutes	Weight each	Order Code
16.00	38.0	90.0	16.0	4	125g	<b>-2624E</b>
20.00	47.0	110.0	20.0	4	232g	<b>-2625F</b>
25.00	52.0	125.0	25.0	4	402g	<b>-2625G</b>

**FREE**



**Metric/Inch  
Conversion  
Wall Chart  
(A2 Size)**



**AVAILABLE  
ON REQUEST**

**CAT-849-0937A**

Contact your local branch or representative.

**FREE**



**Tapping Drill  
Wall Chart  
(A2 Size)**



**AVAILABLE  
ON REQUEST**

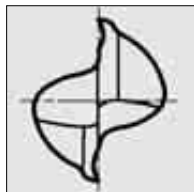
**CAT-849-0938A**

Contact your local branch or representative.

**GROUP 061 SHANK MILLING CUTTERS**

**SWISS+TECH HSS-Co 8% Weldon Shank Slot Drills 2 Flute**

Centre cutting. Weldon shank to **DIN 1835B**.  
Cutting diameter to **e8**. Shank diameter to **h6**.



**Series 01 Short Series** Dimensions to **DIN 327**



Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Weight per 10	SDH-2WS HSS-Co 8%		SDN-2WS TiCN Coated		SDL-2WS TiALN Coated	
					Order Code SWT-163	Order Code SWT-163	£li.nk	Order Code SWT-163		
2.00	4.0	6.0	48.0	104g	-0102A	-0132A	-	-0162A		
2.50	5.0	6.0	49.0	108g	-0102L	-0132L	-	-		
3.00	5.0	6.0	49.0	110g	-0103A	-0133A	-	-0163A		
3.50	6.0	6.0	50.0	111g	-0103L	-	-	-		
4.00	7.0	6.0	51.0	112g	-0104A	-0134A	-	-0164A		
4.50	7.0	6.0	51.0	114g	-0104L	-0134L	-	-		
5.00	8.0	6.0	52.0	117g	-0105A	-0135A	-	-0165A		
5.50	8.0	6.0	52.0	120g	-0105L	-	-	-0165L		
6.00	8.0	6.0	52.0	121g	-0106A	-0136A	-	-0166A		
7.00	10.0	10.0	60.0	336g	-0107A	-0137A	-	-0167A		
8.00	11.0	10.0	61.0	345g	-0108A	-0138A	-	-0168A		
9.00	11.0	10.0	61.0	355g	-0109A	-0139A	-	-0169A		
10.00	13.0	13.0	63.0	476g	-0110A	-0140A	-	-0170A		
11.00	13.0	12.0	70.0	587g	-0111A	-0141A	-	-		
12.00	16.0	12.0	73.0	613g	-0112A	-0142A	-	-0172A		
13.00	16.0	12.0	73.0	616g	-0113A	-0143A	-	-0173A		
14.00	16.0	12.0	73.0	615g	-0114A	-0144A	-	-0174A		
15.00	16.0	12.0	73.0	654g	-0115A	-0145A	-	-		
16.00	19.0	16.0	79.0	1025g	-0116A	-0146A	-	-0176A		
18.00	19.0	16.0	79.0	1086g	-0118A	-0148A	-	-		
20.00	22.0	20.0	88.0	1423g	-0120A	-0150A	-	-0180A		
25.00	26.0	25.0	102.0	3366g	-	-0155A	-	-		

**Series 02 Regular Series** Dimensions to **DIN 844**



Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Weight per 10	SDH-2WR HSS-Co 8%		SDN-2WR TiCN Coated		SDL-2WR TiALN Coated	
					Order Code SWT-163	Order Code SWT-163	Order Code SWT-163			
2.00	7.0	6.0	51.0	108g	-0202A	-	-0233A	-		
3.00	8.0	6.0	52.0	108g	-0203A	-	-0234A	-		
4.00	11.0	6.0	55.0	114g	-0204A	-	-	-		
5.00	13.0	6.0	57.0	121g	-0205A	-	-0235A	-		
6.00	13.0	6.0	57.0	150g	-0206A	-	-0236A	-		
8.00	19.0	10.0	69.0	361g	-0208A	-	-0238A	-		
10.00	22.0	10.0	72.0	402g	-0210A	-	-0240A	-		
12.00	26.0	12.0	83.0	652g	-0212A	-	-0242A	-		
14.00	26.0	12.0	83.0	710g	-0214A	-	-	-		
16.00	32.0	16.0	92.0	950g	-0216A	-	-0246A	-		
20.00	38.0	20.0	104.0	2114g	-0220A	-	-	-		
25.00	45.0	25.0	121.0	2400g	-0225A	-	-	-		

**Series 03 Long Series** Dimensions to **DIN 844**



Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Weight per 10	SDH-2WL HSS-Co 8%		SDN-2WL TiCN Coated		SDL-2WL TiALN Coated	
					Order Code SWT-163	Order Code SWT-163	Order Code SWT-163			
2.00	7.0	6.0	54.0	110g	-0302A	-	-0333A	-0362A		
3.00	8.0	6.0	56.0	116g	-0303A	-	-0334A	-0363A		
4.00	11.0	6.0	63.0	120g	-0304A	-	-	-0364A		
5.00	13.0	6.0	68.0	136g	-0305A	-	-0335A	-		
6.00	13.0	6.0	68.0	153g	-0306A	-	-0336A	-0366A		
8.00	19.0	10.0	88.0	442g	-0308A	-	-0338A	-0368A		
10.00	22.0	10.0	95.0	528g	-0310A	-	-0340A	-0370A		
12.00	26.0	12.0	110.0	736g	-0312A	-	-0342A	-0372A		
14.00	26.0	12.0	110.0	843g	-0314A	-	-	-		
16.00	32.0	16.0	123.0	1734g	-0316A	-	-	-0376A		
20.00	38.0	20.0	141.0	3064g	-0320A	-	-	-0380A		

**HSS-Co 8% TiCN TiALN**



- HSS-Co 8% Uncoated** For general production machining.
- HSS-Co 8% TiCN Coated** Extends cutter tool life and improves work material surface finish.
- HSS-Co 8% TiALN Coated** Dissipates and resists heat, reduces surface friction coupled with high surface hardness.

**CUTTING TOOLS**

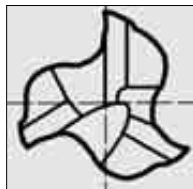
**SHANK MILLING CUTTERS**

**HSS-Co 8%** **TiCN** **TiAlN**



**SWISS+TECH HSS-Co 8% Weldon Shank Slot Drills 3 Flute**

Centre cutting. Weldon shank to **DIN 1835B**.  
Cutting diameter to **e8**.  
Shank diameter to **h6**.



- HSS-Co 8% Uncoated** For general production machining.
- HSS-Co 8% TiCN Coated** Extends cutter tool life and improves work material surface finish.
- HSS-Co 8% TiAlN Coated** Dissipates and resists heat, reduces surface friction coupled with high surface hardness.

**Series 05 Short Series** Dimensions to **DIN 327**



Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Weight per 10	SDH-3WS HSS-Co 8%	SDN-3WS TiCN Coated	SDL-3WS TiAlN Coated
					Order Code SWT-163	Order Code SWT-163	Order Code SWT-163
2.00	4.0	6.0	48.0	107g	-0502A	-0532A	-0562A
3.00	5.0	6.0	49.0	109g	-0503A	-0533A	-0563A
4.00	7.0	6.0	51.0	112g	-0504A	-0534A	-0564A
5.00	8.0	6.0	52.0	117g	-0505A	-0535A	-0565A
6.00	8.0	6.0	52.0	123g	-0506A	-0536A	-0566A
7.00	10.0	10.0	60.0	339g	-0507A	-0537A	-0567A
8.00	11.0	10.0	61.0	353g	-0508A	-0538A	-0568A
10.00	13.0	10.0	63.0	382g	-0510A	-0540A	-0570A
12.00	16.0	12.0	73.0	617g	-0512A	-0542A	-0572A
14.00	16.0	12.0	73.0	688g	-0514A	-0544A	-0574A
16.00	19.0	16.0	79.0	1220g	-0516A	-0546A	-0576A
20.00	22.0	20.0	88.0	1894g	-0520A	-0550A	-0580A
22.00	22.0	20.0	88.0	2002g	-0522A	-	-
25.00	26.0	25.0	102.0	3388g	-0525A	-	-

**Series 06 Regular Series** Dimensions to **DIN 844**



Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Weight per 10	SDH-3WR HSS-Co 8%	SDN-3WR TiCN Coated	SDL-3WR TiAlN Coated
					Order Code SWT-163	Order Code SWT-163	Order Code SWT-163
3.00	8.0	6.0	52.0	111g	-0603A	-0633A	-0663A
4.00	11.0	6.0	55.0	114g	-0604A	-0634A	-0664A
5.00	13.0	6.0	57.0	129g	-0605A	-0635A	-0665A
6.00	13.0	6.0	57.0	128g	-0606A	-0636A	-0666A
8.00	19.0	10.0	69.0	368g	-0608A	-0638A	-0668A
10.00	22.0	10.0	72.0	404g	-0610A	-0640A	-0670A
12.00	26.0	12.0	83.0	666g	-0612A	-0642A	-0672A
14.00	26.0	12.0	83.0	710g	-0614A	-0644A	-0674A
16.00	32.0	16.0	92.0	950g	-0616A	-0646A	-0676A
20.00	38.0	20.0	104.0	2114g	-0620A	-0650A	-0680A
22.00	38.0	20.0	104.0	2238g	-	-	-0682A
25.00	45.0	25.0	121.0	2400g	-0625A	-	-

**Series 07 Long Series** Dimensions to **DIN 844**



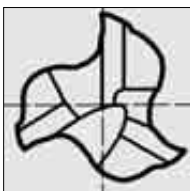
Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Weight per 5	SDH-3WL HSS-Co 8%	SDN-3WL TiCN Coated	SDL-3WL TiAlN Coated
					Order Code SWT-163	Order Code SWT-163	Order Code SWT-163
3.00	12.0	6.0	56.0	49g	-0703A	-0733A	-0763A
4.00	19.0	6.0	63.0	59g	-0704A	-0734A	-0764A
5.00	24.0	6.0	68.0	69g	-0705A	-0735A	-0765A
6.00	24.0	6.0	68.0	72g	-0706A	-0736A	-0766A
8.00	38.0	10.0	88.0	206g	-0708A	-0738A	-0768A
10.00	45.0	10.0	95.0	245g	-0710A	-0740A	-0770A
12.00	53.0	12.0	110.0	379g	-0712A	-0742A	-0772A
14.00	53.0	12.0	110.0	420g	-0714A	-0744A	-0774A
16.00	63.0	16.0	123.0	746g	-0716A	-0746A	-0776A
20.00	75.0	20.0	141.0	1314g	-0720A	-0750A	-0780A
22.00	75.0	20.0	141.0	1425g	-0722A	-	-
25.00	90.0	25.0	166.0	2415g	-0725A	-0755A	-0785A

**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**

**GROUP 061 SHANK MILLING CUTTERS**

**SWISS+TECH HSS-Co 8% Threaded Shank Slot Drills 3 Flute**

Centre cutting. Threaded shank to **DIN 1835D**.  
Cutting diameter to **e8**.  
Shank diameter to **h6**.



**Series 32**  
Short Series Dimensions to **DIN 327**



**HSS-Co 8%** **TiCN** **TiAlN**



- HSS-Co 8% Uncoated** For general production machining.
- HSS-Co 8% TiCN Coated** Extends cutter tool life and improves work material surface finish.
- HSS-Co 8% TiAlN Coated** Dissipates and resists heat, reduces surface friction coupled with high surface hardness.

**CUTTING TOOLS**

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Weight each	SDH-3TS HSS-Co 8%	SDN-3TS TiCN Coated	SDL-3TS TiAlN Coated
					Order Code SWT-163	Order Code SWT-163	Order Code SWT-163
3.00	5.0	6.0	49.0	10g	-3203A	-3233A	-
4.00	7.0	6.0	51.0	10g	-3204A	-3234A	-
5.00	8.0	6.0	52.0	10g	-3205A	-3235A	-
6.00	8.0	6.0	61.0	11g	-3206A	-3236A	-3266A
8.00	11.0	10.0	63.0	34g	-3208A	-3238A	-3268A
10.00	13.0	10.0	73.0	37g	-3210A	-3240A	-3270A
12.00	16.0	12.0	73.0	62g	-3212A	-3242A	-3272A
14.00	16.0	12.0	79.0	62g	-3214A	-	-
16.00	19.0	16.0	88.0	104g	-3216A	-3246A	-3276A
20.00	22.0	20.0	88.0	187g	-3220A	-3250A	-
22.00	22.0	20.0	88.0	195g	-3222A	-	-

**Series 33**  
Regular Series Dimensions to **DIN 844**



Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Weight each	SDH-3TR HSS-Co 8%	SDN-3TR TiCN Coated	SDL-3TR TiAlN Coated
					Order Code SWT-163	Order Code SWT-163	Order Code SWT-163
3.00	8.0	6.0	52.0	10g	-3303A	-3333A	-
4.00	11.0	6.0	55.0	10g	-3304A	-3334A	-3364A
5.00	13.0	6.0	57.0	10g	-3305A	-3335A	-3365A
6.00	13.0	6.0	57.0	12g	-3306A	-3336A	-3366A
8.00	19.0	10.0	69.0	36g	-3308A	-3338A	-3368A
10.00	22.0	10.0	72.0	40g	-3310A	-3340A	-3370A
12.00	26.0	12.0	83.0	66g	-3312A	-3342A	-3372A
14.00	26.0	12.0	83.0	68g	-3314A	-3344A	-3374A
16.00	32.0	16.0	92.0	121g	-3316A	-3346A	-3376A
20.00	38.0	20.0	104.0	206g	-3320A	-	-3380A
22.00	38.0	20.0	104.0	219g	-3322A	-	-
25.00	45.0	25.0	121.0	364g	-3325A	-	-

**Series 34**  
Long Series Dimensions to **DIN 844**



Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Weight each	SDH-3TL HSS-Co 8%	SDN-3TL TiCN Coated	SDL-3TL TiAlN Coated
					Order Code SWT-163	Order Code SWT-163	Order Code SWT-163
3.00	12.0	6.0	65.0	10g	-3403A	-3433A	-
4.00	19.0	6.0	63.0	11g	-3404A	-3434A	-3464A
5.00	24.0	6.0	68.0	13g	-3405A	-3435A	-
6.00	24.0	6.0	68.0	14g	-3406A	-3436A	-3466A
8.00	38.0	10.0	88.0	40g	-3408A	-3438A	-3468A
10.00	45.0	10.0	95.0	49g	-3410A	-3440A	-3470A
12.00	53.0	12.0	110.0	79g	-3412A	-3442A	-3472A
14.00	53.0	12.0	110.0	85g	-3414A	-3444A	-
16.00	63.0	16.0	123.0	142g	-3416A	-3446A	-3476A
20.00	75.0	20.0	141.0	259g	-3420A	-3450A	-

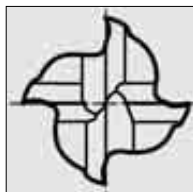
**SHANK MILLING CUTTERS**

**HSS-Co 8% TiCN TiALN**



**SWISS+TECH HSS-Co 8% Weldon Shank End Mills 4 & 6 Flute**

Centre cutting. Weldon shank to **DIN 1835B**.  
Shank cutting diameter  
3 - 6mm to +0.04 -0.0.  
8 - 20mm to +0.05 -0.0.



- HSS-Co 8% Uncoated** For general production machining.
- HSS-Co 8% TiCN Coated** Extends cutter tool life and improves work material surface finish.
- HSS-Co 8% TiALN Coated** Dissipates and resists heat, reduces surface friction coupled with high surface hardness.

**Series 09 Regular Series** Dimensions to **DIN 844**

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	No. of Flutes	Weight per 10	EMH-4WR HSS-Co 8%	EMN-4WR TiCN Coated	EML-4WR TiALN Coated
						Order Code SWT-163	Order Code SWT-163	Order Code SWT-163
2.00	7.0	6.0	51.0	4	108g	-0902A	-0932A	-0962A
3.00	8.0	6.0	52.0	4	111g	-0903A	-0933A	-0963A
4.00	11.0	6.0	55.0	4	117g	-0904A	-0934A	-0964A
5.00	13.0	6.0	57.0	4	126g	-0905A	-0935A	-0965A
6.00	13.0	6.0	57.0	4	133g	-0906A	-0936A	-0966A
7.00	16.0	10.0	66.0	4	332g	-0907A	-0937A	-0967A
8.00	19.0	10.0	69.0	4	375g	-0908A	-0938A	-0968A
10.00	22.0	10.0	72.0	4	423g	-0910A	-0940A	-0970A
12.00	26.0	12.0	83.0	4	688g	-0912A	-0942A	-0972A
14.00	26.0	12.0	83.0	4	725g	-0914A	-	-0974A
16.00	32.0	16.0	92.0	4	1037g	-0916A	-0946A	-0976A
18.00	32.0	16.0	92.0	4	1390g	-0918A	-	-0978A
20.00	38.0	20.0	104.0	4	2114g	-0920A	-0950A	-0980A
25.00	45.0	25.0	121.0	6	2400g	-0925A <sup>(4)</sup>	-0955A <sup>(2)</sup>	-0985A <sup>(3)</sup>

<sup>(1)</sup> EMH-6WR HSS-Co 8%

<sup>(2)</sup> EMN-6WR TiCN Coated

<sup>(3)</sup> EML-6WR TiALN Coated

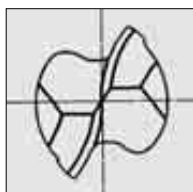
**Series 10 Long Series** Dimensions to **DIN 844**

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	No. of Flutes	Weight per 5	EMH-4WL HSS-Co 8%	EMN-4WL TiCN Coated	EML-4WL TiALN Coated
						Order Code SWT-163	Order Code SWT-163	Order Code SWT-163
3.00	12.0	6.0	56.0	4	55g	-1003A	-1033A	-1063A
4.00	19.0	6.0	63.0	4	61g	-1004A	-1034A	-1064A
5.00	24.0	6.0	68.0	4	67g	-1005A	-1035A	-1065A
6.00	24.0	6.0	68.0	4	74g	-1006A	-1036A	-1066A
8.00	38.0	10.0	88.0	4	215g	-1008A	-1038A	-1068A
10.00	45.0	10.0	95.0	4	260g	-1010A	-1040A	-1070A
12.00	53.0	12.0	110.0	4	408g	-1012A	-1042A	-1072A
14.00	53.0	12.0	110.0	4	471g	-1014A	-1044A	-1074A
16.00	63.0	16.0	123.0	4	806g	-1016A	-1046A	-1076A
20.00	75.0	20.0	141.0	4	1433g	-1020A	-1050A	-1080A

**HSS-Co. 8% Weldon Shank Ball Nose Slot Drills 2 Flute**

Centre cutting.  
Weldon shank to **DIN 1835B**.  
Cutting diameter to **e8**.  
Shank diameter to **h6**.

**HSS-Co 8% TiCN TiALN**



**Series 11 Short Series** Dimensions to **DIN 327**

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Weight per 5	SBH-2WS HSS-Co 8%	SBN-2WS TiCN Coated
					Order Code SWT-163	Order Code SWT-163
2.00	6.0	6.0	49.0	52g	-1102A	-1132A
3.00	6.0	6.0	49.0	54g	-1103A	-
4.00	6.0	6.0	51.0	55g	-1104A	-1134A
5.00	6.0	6.0	52.0	58g	-1105A	-
6.00	6.0	6.0	52.0	60g	-1106A	-1136A
8.00	10.0	10.0	61.0	170g	-1108A	-1138A
10.00	10.0	10.0	63.0	188g	-1110A	-1140A
12.00	12.0	12.0	73.0	306g	-1112A	-1142A
16.00	16.0	16.0	79.0	535g	-1116A	-1146A
20.00	20.0	20.0	88.0	944g	-1120A	-

**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**

**GROUP 061 SHANK MILLING CUTTERS**

**SWISS+TECH HSS-Co 8% Threaded Shank End Mills 4 & 6 Flute**

**HSS-Co 8%**



For general production machining.  
Centre cutting.  
Threaded shank to **DIN 1835D**.  
Shank cutting diameter to +0.04 -0.0.



**Series 36 Regular Series Dimensions to DIN 844**

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	No. of Flutes	Weight per 10	Order Code <b>SWT-163</b>	Diameter (mm)	Flute Length	Shank Diameter	Overall Length	No. of Flutes	Weight per 10	Order Code <b>SWT-163</b>
2.00	7.0	6.0	51.0	4	108g	<b>-3602A</b>	10.00	22.0	10.0	72.0	4	423g	<b>-3610A</b>
3.00	8.0	6.0	52.0	4	111g	<b>-3603A</b>	12.00	26.0	12.0	83.0	4	688g	<b>-3612A</b>
4.00	11.0	6.0	55.0	4	114g	<b>-3604A</b>	14.00	26.0	12.0	83.0	4	728g	<b>-3614A</b>
5.00	13.0	6.0	57.0	4	126g	<b>-3605A</b>	16.00	32.0	16.0	92.0	4	1220g	<b>-3616A</b>
6.00	13.0	6.0	57.0	4	133g	<b>-3606A</b>	18.00	32.0	16.0	92.0	4	1534g	<b>-3618A</b>
7.00	25.0	10.0	66.0	4	340g	<b>-3607A</b>	20.00	38.0	20.0	104.0	4	2114g	<b>-3620A</b>
8.00	19.0	10.0	69.0	4	375g	<b>-3608A</b>	25.00	45.0	25.0	121.0	6	2668g	<b>-3625A<sup>(1)</sup></b>

<sup>(1)</sup> EMH-6TR HSS-Co 8%

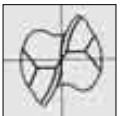


**Series 37 Long Series Dimensions to DIN 844**

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	No. of Flutes	Weight per 5	Order Code <b>SWT-163</b>	Diameter (mm)	Flute Length	Shank Diameter	Overall Length	No. of Flutes	Weight per 5	Order Code <b>SWT-163</b>
4.00	19.0	6.0	63.0	4	61g	<b>-3704A</b>	12.00	53.0	12.0	110.0	4	408g	<b>-3712A</b>
5.00	24.0	6.0	68.0	4	67g	<b>-3705A</b>	14.00	53.0	12.0	110.0	4	471g	<b>-3714A</b>
6.00	24.0	6.0	68.0	4	74g	<b>-3706A</b>	16.00	63.0	16.0	123.0	4	806g	<b>-3716A</b>
8.00	38.0	10.0	88.0	4	215g	<b>-3708A</b>	20.00	75.0	20.0	141.0	4	1433g	<b>-3720A</b>
10.00	45.0	10.0	95.0	4	260g	<b>-3710A</b>							

**HSS-Co. 8% Threaded Shank Ball Nosed Slot Drills 2 Flute**

Centre cutting.  
Threaded shank to **DIN 1835D**.  
Cutting diameter to **e8**.  
Shank diameter to **h6**.



**Series 40 Long Series Dimensions to DIN 844**

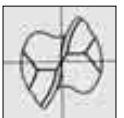
Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Weight each	Order Code <b>SWT-163</b>	Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Weight each	Order Code <b>SWT-163</b>
6.00	13.0	6.0	68.0	15g	<b>-4006A</b>	10.00	22.0	10.0	95.0	55g	<b>-4010A</b>
8.00	19.0	10.0	88.0	44g	<b>-4008A</b>	12.00	26.0	12.0	110.0	85g	<b>-4012A</b>

**HSS-Co 8% Weldon Shank Ball Nose Slot Drills 2 Flute**

Centre cutting. Weldon shank to **DIN 1835B**.  
Cutting diameter to **e8**.  
Shank diameter to **h6**.

**HSS-Co 8% TiCN TiAlN**

**HSS-Co 8% Uncoated** For general production machining.  
**HSS-Co 8% TiCN Coated** Extends cutter tool life and improves work material surface finish.



**Series 12 Long Series Dimensions to DIN 844**

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Weight per 5	Order Code <b>SWT-163</b>	Order Code <b>SWT-163</b>
3.00	8.0	6.0	56.0	55g	<b>-1203A</b>	-
4.00	11.0	6.0	63.0	60g	<b>-1204A</b>	-
5.00	13.0	6.0	68.0	70g	<b>-1205A</b>	<b>-1235A</b>
6.00	13.0	6.0	68.0	75g	<b>-1206A</b>	<b>-1236A</b>
8.00	19.0	10.0	88.0	110g	<b>-1208A</b>	<b>-1238A</b>
10.00	22.0	10.0	95.0	277g	<b>-1210A</b>	<b>-1240A</b>
12.00	26.0	12.0	110.0	435g	<b>-1212A</b>	<b>-1242A</b>



CUTTING TOOLS



**HSS-Co 8% Weldon Shank 50° High Helix End Mills 3 Flute**

Centre cutting.  
Weldon shank to **DIN 1835B**.  
Cutting diameter to **e8**.  
Shank diameter to **h6**.

**SHANK MILLING CUTTERS**

- HSS-Co 8% Uncoated** For general production machining.
- HSS-Co 8% TiCN Coated** Extends cutter tool life and improves work material surface finish.
- HSS-Co 8% TiAlN Coated** Dissipates and resists heat, reduces surface friction coupled with high surface hardness.



**HSS-Co 8%**



**Series 13 - EHH-3WR HSS-Co 8% Regular Series** Dimensions to **DIN 844**

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	No. of Flutes	Weight each	Order Code <b>SWT-163</b>
6.00	13.0	6.0	57.0	3	54g	<b>-1306A</b>
8.00	19.0	10.0	69.0	3	186g	<b>-1308A</b>
10.00	22.0	10.0	72.0	3	225g	<b>-1310A</b>

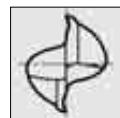
Diameter (mm)	Flute Length	Shank Diameter	Overall Length	No. of Flutes	Weight each	Order Code <b>SWT-163</b>
12.00	26.0	12.0	83.0	3	340g	<b>-1312A</b>
16.00	32.0	16.0	92.0	3	619g	<b>-1316A</b>
20.00	38.0	20.0	104.0	3	1079g	<b>-1320A</b>

**HSS-Co 8% Weldon Shank 42° High Helix Slot Drills 2 Flute For Aluminium**

Centre cutting.  
Weldon shank to **DIN 1835B**.  
Shank cutting diameter to **+0.04 -0.0**.



**HSS-Co 8%**



**Series 15 - SHH-2WR HSS-Co 8% Regular Length** Dimensions to **DIN 844**

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Weight per 5	Order Code <b>SWT-163</b>
3.00	8.0	6.0	52.0	55g	<b>-1503A</b>
4.00	11.0	6.0	55.0	56g	<b>-1504A</b>
5.00	13.0	6.0	57.0	60g	<b>-1505A</b>
6.00	13.0	6.0	57.0	62g	<b>-1506A</b>
8.00	19.0	10.0	69.0	175g	<b>-1508A</b>

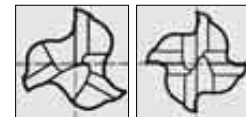
Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Weight per 5	Order Code <b>SWT-163</b>
10.00	22.0	10.0	72.0	190g	<b>-1510A</b>
12.00	26.0	12.0	83.0	326g	<b>-1512A</b>
16.00	32.0	16.0	92.0	603g	<b>-1516A</b>
18.00	32.0	16.0	92.0	663g	<b>-1518A</b>
20.00	38.0	20.0	104.0	1054g	<b>-1520A</b>

**HSS-Co 8% Weldon Shank Coarse Pitch Ripper Cutters**

Centre cutting.  
Weldon shank to **DIN 1835B**.  
Cutting diameter to **js12**.  
Shank diameter to **h6**.



**HSS-Co 8%** **TiCN** **TiAlN**



**Series 17 Regular Series** Dimensions to **DIN 844**

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	No of Flutes	Weight per 10	Order Code <b>SWT-163</b>		
						RCH-4WR HSS-Co 8%	RCN-4WR TiCN Coated	RCL-4WR TiAlN Coated
6.00	13.0	6.0	57.0	3	129g	<b>-1706A<sup>(1)</sup></b>	<b>-1736A<sup>(2)</sup></b>	-
8.00	19.0	10.0	69.0	3	311g	<b>-1708A<sup>(1)</sup></b>	<b>-1738A<sup>(2)</sup></b>	<b>-1768A<sup>(3)</sup></b>
10.00	22.0	10.0	72.0	4	337g	<b>-1710A</b>	<b>-1740A</b>	<b>-1770A</b>
12.00	26.0	12.0	83.0	4	690g	<b>-1712A</b>	<b>-1742A</b>	<b>-1772A</b>
16.00	32.0	16.0	92.0	4	1280g	<b>-1716A</b>	<b>-1746A</b>	<b>-1776A</b>
20.00	38.0	20.0	104.0	4	2224g	<b>-1720A</b>	<b>-1750A</b>	<b>-1780A</b>
25.00	45.0	25.0	121.0	5	4074g	<b>-1725A<sup>(4)</sup></b>	-	<b>-1785A<sup>(5)</sup></b>

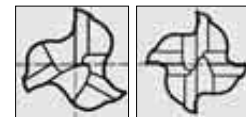
<sup>(1)</sup> RCH-3WL HSS-Co 8% <sup>(2)</sup> RCN-3WL TiCN Coated <sup>(3)</sup> RCL-3WL TiAlN Coated <sup>(4)</sup> RCH-5WL HSS-Co 8% <sup>(5)</sup> RCL-5WL TiAlN Coated

**HSS-Co 8% Weldon Shank Coarse Pitch Ripper Cutters**

Centre cutting. Weldon shank to **DIN 1835B**.  
Cutting diameter to **js12**.  
Shank diameter to **h6**.



**HSS-Co 8%** **TiCN**



**Series 18 Long Series** Dimensions to **DIN 844**

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	No. of Flutes	Weight Per 5	Order Code <b>SWT-163</b>	
						RCH-4WL HSS-Co 8%	RCN-4WL TiCN Coated
6.00	24.0	6.0	68.0	3	70g	-	<b>-1836A<sup>(2)</sup></b>
8.00	38.0	10.0	88.0	3	215g	<b>-1808A<sup>(1)</sup></b>	<b>-1838A<sup>(2)</sup></b>
10.00	45.0	10.0	95.0	4	259g	<b>-1810A</b>	<b>-1840A</b>
12.00	53.0	12.0	110.0	4	401g	<b>-1812A</b>	<b>-1842A</b>
16.00	63.0	16.0	123.0	4	804g	<b>-1816A</b>	<b>-1846A</b>
20.00	75.0	20.0	141.0	4	1132g	<b>-1820A</b>	<b>-1850A</b>
25.00	90.0	25.0	166.0	5	2627g	<b>-1825A<sup>(3)</sup></b>	-

<sup>(1)</sup> RCH-3WL HSS-Co 8% <sup>(2)</sup> RCN-3WL TiCN Coated <sup>(3)</sup> RCH-5WL HSS-Co 8%



**HSS-Co 8% Weldon Shank Coarse Pitch 37° High Helix for Aluminium Roughing End Mills 3 Flute**

Centre cutting.  
Weldon shank to **DIN 1835B**.  
Shank diameter to **h6**.

- HSS-Co 8% Uncoated** For general production machining.
- HSS-Co 8% TiCN Coated** Extends cutter tool life and improves work material surface finish.
- HSS-Co 8% TiAlN Coated** Dissipates and resists heat, reduces surface friction coupled with high surface hardness.



**HSS-Co 8%**



**Series 20 Regular Length Dimensions to DIN 844**

Diameter (mm)	Flute Length	Shank Dia.	Overall Length	Weight each	Order Code <b>SWT-163</b>	Diameter (mm)	Flute Length	Shank Dia.	Overall Length	Weight each	Order Code <b>SWT-163</b>
6.00	13.0	6.0	57.0	12g	<b>-2006A</b>	12.00	26.0	12.0	83.0	67g	<b>-2012A</b>
8.00	19.0	10.0	69.0	36g	<b>-2008A</b>	16.00	32.0	16.0	93.0	124g	<b>-2016A</b>
10.00	22.0	10.0	72.0	40g	<b>-2010A</b>	20.00	38.0	20.0	104.0	215g	<b>-2020A</b>

**HSS-Co 8% Weldon Shank Coarse Pitch 37° High Helix for Aluminium Roughing End Mills 3 Flute**

Centre cutting. Weldon shank to **DIN 1835B**.  
Shank diameter to **h6**.

**HSS-Co 8%**



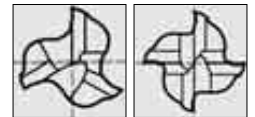
**Series 21 Long Series Dimensions to DIN 844**

Diameter (mm)	Flute Length	Shank Dia.	Overall Length	Weight each	Order Code <b>SWT-163</b>	Diameter (mm)	Flute Length	Shank Dia.	Overall Length	Weight each	Order Code <b>SWT-163</b>
10.00	45.0	10.0	95.0	49g	<b>-2110A</b>	16.00	63.0	16.0	123.0	149g	<b>-2116A</b>
12.00	53.0	12.0	110.0	78g	<b>-2112A</b>	20.00	75.0	20.0	141.0	263g	<b>-2120A</b>

**HSS-Co 8% Weldon Shank Fine Pitch Ripper Cutters**

Centre cutting.  
Weldon shank to **DIN 1835B**.  
Cutting diameter to **js12**.  
Shank diameter to **h6**.

**HSS-Co 8%** **TiCN** **TiAlN**



**Series 25 Regular Series Dimensions to DIN 844**

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	No of Flutes	Weight per 5	Order Code <b>SWT-163</b>	Order Code <b>SWT-163</b>	Order Code <b>SWT-163</b>
						<b>RFH-4WR HSS-Co 8%</b>	<b>RFN-4WR TiCN Coated</b>	<b>RFL-4WR TiAlN Coated</b>
6.00	13.0	6.0	57.0	3	65g	<b>-2506A<sup>(1)</sup></b>	<b>-2536A<sup>(2)</sup></b>	<b>-2566A<sup>(3)</sup></b>
8.00	19.0	10.0	69.0	3	186g	<b>-2508A<sup>(1)</sup></b>	<b>-2538A<sup>(2)</sup></b>	<b>-2568A<sup>(3)</sup></b>
10.00	22.0	10.0	72.0	4	212g	<b>-2510A</b>	<b>-2540A</b>	<b>-2570A</b>
12.00	26.0	12.0	83.0	4	356g	<b>-2512A</b>	<b>-2542A</b>	<b>-2572A</b>
16.00	32.0	16.0	92.0	4	642g	<b>-2516A</b>	<b>-2546A</b>	<b>-2576A</b>
20.00	38.0	20.0	104.0	4	1123g	<b>-2520A</b>	<b>-2550A</b>	<b>-2580A</b>
25.00	45.0	25.0	121.0	5	1310g	-	<b>-2555A<sup>(5)</sup></b>	<b>-2585A<sup>(6)</sup></b>

**Series 26 Long Series Dimensions to DIN 844**

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	No of Flutes	Weight per 5	Order Code <b>SWT-163</b>	Order Code <b>SWT-163</b>	Order Code <b>SWT-163</b>
						<b>RFH-4WL HSS-Co 8%</b>	<b>RFN-4WL TiCN Coated</b>	<b>RFL-4WL TiAlN Coated</b>
6.00	24.0	6.0	68.0	3	80g	<b>-2606A<sup>(1)</sup></b>	-	<b>-2666A<sup>(2)</sup></b>
8.00	38.0	10.0	88.0	3	212g	<b>-2608A<sup>(1)</sup></b>	-	<b>-2668A<sup>(2)</sup></b>
10.00	45.0	10.0	95.0	4	264g	<b>-2610A</b>	<b>-2640A</b>	<b>-2670A</b>
12.00	53.0	12.0	110.0	4	408g	<b>-2612A</b>	<b>-2642A</b>	<b>-2672A</b>
16.00	63.0	16.0	123.0	4	790g	<b>-2616A</b>	<b>-2646A</b>	<b>-2676A</b>
20.00	75.0	20.0	141.0	4	1411g	<b>-2620A</b>	<b>-2650A</b>	<b>-2680A</b>
25.00	90.0	25.0	166.0	5	2954g	<b>-2625A<sup>(3)</sup></b>	-	-

<sup>(1)</sup> RFH-3WL HSS Co 8% <sup>(2)</sup> RFL-3WL TiAlN Coated <sup>(3)</sup> RFH-5WL HSS Co 8%

CUTTING TOOLS



**HSS-E PM Cutters  
TiAlN Coated**



The combination of HSS-E PM and TiAlN produces a cutter that is ideally suited to dry and semi dry machining of:

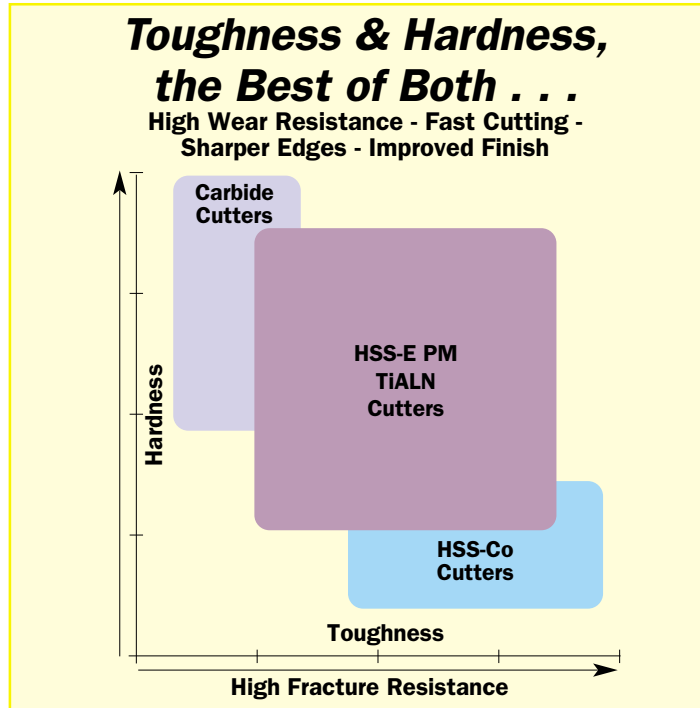
- Materials up to 45 HRC.
- Stainless steels
- Aerospace alloys.

**HSS-E PM** HSS-E PM is a sintered powder metallurgy HSS that combines the toughness associated with HSS-Co and the hardness benefits of carbide.

- Up to 25% higher cutting speed than HSS/HSS-Co. cutters.
- Up to 125% higher feed rates.
- Up to 100% longer cutter life.
- Reduced manufacturing costs.
- Improved productivity.
- Lower coolant usage and disposal costs.

**TiAlN** TiAlN is a multi layer coating capable of operating at higher speed and feed.

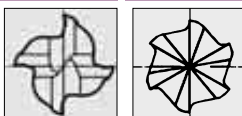
- Protects cutting edge under extreme conditions.
- Surface hardness 3000HV.
- Surface coefficient against steel 0.4.
- Thickness of coating 3 - 4µm.
- Maximum working temperature 800°C.
- Re-coating service also available.



**Weldon Shank HSS-E PM TiAlN Coated 45° High Helix Milling Cutters**

Centre cutting.  
Weldon shank to **DIN 1835B**.  
Cutting diameter to **k10**.  
Shank diameter to **h6**.

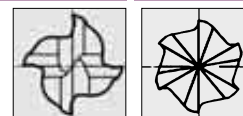
**HSS-E PM TiAlN**



**Weldon Shank HSS-E PM TiAlN Coated High Helix Cutters**

Centre cutting.  
Weldon shank to **DIN 1835B**.  
Cutting diameter to **k10**.  
Shank diameter to **h6**.

**HSS-E PM TiAlN**



**CUTTING TOOLS**

**Series 90 - EHP-4WR PM Coated Regular Series** Dimensions to **DIN 844**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	No. of Flutes	Order Code <b>SWT-165</b>
6.00	13.0	57.0	6.0	4	<b>-9006A</b>
8.00	19.0	69.0	10.0	4	<b>-9008A</b>
10.00	22.0	72.0	10.0	4	<b>-9010A</b>
12.00	26.0	83.0	12.0	4	<b>-9012A</b>
16.00	32.0	93.0	16.0	6	<b>-9016A</b>
20.00	38.0	104.0	20.0	6	<b>-9020A</b>
25.00	45.0	121.0	25.0	6	<b>-9025A<sup>(1)</sup></b>

<sup>(1)</sup> RFP-6WR PM Coated

**Series 92 - EHP-4WL PM Coated Long Series** Dimensions to **DIN 844**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	No. of Flutes	Order Code <b>SWT-165</b>
6.00	24.0	68.0	6.0	4	<b>-9206A</b>
8.00	38.0	88.0	10.0	4	<b>-9208A</b>
10.00	45.0	95.0	10.0	4	<b>-9210A</b>
12.00	53.0	110.0	12.0	4	<b>-9212A</b>
16.00	45.0	100.0	16.0	6	<b>-9216A</b>
20.00	58.0	122.0	20.0	6	<b>-9220A</b>
25.00	90.0	166.0	25.0	6	<b>-9225A<sup>(1)</sup></b>

<sup>(1)</sup> EHP-6WL PM Coated

**Weldon Shank HSS-E PM TiAlN Coated Fine Pitch Ripper Cutters**

Centre cutting. Shank to **DIN 1835B**. Cutting diameter to **js12**. Shank diameter to **h6**.

**HSS-E PM TiAlN**



**Series 96 - RFP-4WL PM Coated Long Series** Dimensions to **DIN 844**

Diameter (mm)	Flute Length	Overall Length	Shank Diameter	No of Flutes	Order Code <b>SWT-165</b>
6.00	24.0	68.0	6.0	4	<b>-9606A</b>
8.00	38.0	88.0	10.0	4	<b>-9608A</b>
10.00	45.0	95.0	10.0	5	<b>-9610A</b>
12.00	53.0	110.0	12.0	5	<b>-9612A</b>

Diameter (mm)	Flute Length	Overall Length	Shank Diameter	No of Flutes	Order Code <b>SWT-165</b>
16.00	63.0	123.0	16.0	5	<b>-9616A</b>
20.00	75.0	141.0	20.0	5	<b>-9620A</b>
25.00	90.0	166.0	25.0	6	<b>-9625A<sup>(1)</sup></b>

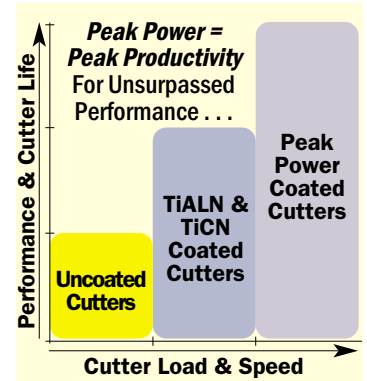
<sup>(1)</sup> RFP-6WL PM Coated

**SWISS+TECH Peak Power Coated Cutters**

**PEAK POWER** The latest addition of the Swiss+Tech range. Manufactured from premium High Speed Steel using the latest in Powdered Metallurgy, these cutters will produce a Powerful Milling performance when cutting difficult materials - even at high speeds.

- Designed to provide strength and rigidity
- Excellent geometry gives optimised cutting and minimises vibration at high speeds
- The range is further enhanced by the Peak Power coating
- Reduced manufacturing costs
- Greater wear resistance and hot-hardness than conventional TiAlN or TiCN coatings
- Suited to dry cutting applications
- Higher oxidation resistance

This coating results in the tools withstanding the high thermal loads associated with high speed applications.



**HSS-E PM Coated Fine Pitch Ripper**

Centre cutting. Weldon shank to **DIN 1835B**. Cutting diameter to **js12**. Shank diameter to **h6**. Dimensions to **DIN 844**.

**HSS-E PM**

**PEAK POWER**

Series 94 Regular



Peak Power Coated					
Diameter (mm)	Flute Length	Overall Length	Shank Diameter	No. of Flutes	Order Code <b>SWT-165</b>
6.00	13.0	57.0	6.0	3	<b>-9406A</b>
8.00	19.0	69.0	10.0	3	<b>-9408A</b>
10.00	22.0	72.0	10.0	4	<b>-9410A</b>
12.00	26.0	83.0	12.0	4	<b>-9412A</b>
16.00	32.0	94.0	16.0	4	<b>-9416A</b>
20.00	38.0	104.0	20.0	4	<b>-9420A</b>
25.00	45.0	121.0	25.0	5	<b>-9425A</b>

**HSS-E PM Coated 4 Flute End Mills**

Centre cutting. Weldon shank to **DIN 1835B**. Shank diameter to **h6**. Dimensions to **DIN 844**.

**HSS-E PM**

**PEAK POWER**

Series 95 Regular



Peak Power Coated					
Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Order Code <b>SWT-165</b>	
3.00	8.0	52.0	6.0	<b>-9503A</b>	
4.00	11.0	55.0	6.0	<b>-9504A</b>	
5.00	13.0	57.0	6.0	<b>-9505A</b>	
6.00	13.0	57.0	6.0	<b>-9506A</b>	
8.00	19.0	69.0	6.0	<b>-9508A</b>	
10.00	22.0	72.0	10.0	<b>-9510A</b>	
12.00	26.0	83.0	12.0	<b>-9512A</b>	
16.00	32.0	92.0	16.0	<b>-9516A</b>	
20.00	38.0	104.0	20.0	<b>-9520A</b>	

**CUTTING TOOLS**

**HSS-E PM 3 Flute End Mill Peak Power Set**

Weldon Shank - 7 Piece Set  
Centre cutting. To **Manufacturers Standards**. Weldon shank to **DIN 1835B**. Shank diameter to **h6**. Dimensions to **DIN 844**. **Contents:** 3, 4, 5, 6, 8, 10 and 12mm.

**HSS-E PM**

**PEAK POWER**

Series 93



**7  
PIECES**

Number of Pieces	Contents	Order Code <b>SWT-165</b>
7	3, 4, 5, 6, 8, 10, & 12mm	<b>-9350A</b>

**HSS-E PM 4 Flute End Mill Peak Power Set**

Weldon Shank - 6 Piece Set  
Centre cutting. To **Manufacturers Standards**. Weldon shank to **DIN 1835B**. Shank diameter to **h6**. Dimensions to **DIN 844**. **Contents:** 4, 6, 8, 10, 12 and 16mm.

**HSS-E PM**

**PEAK POWER**

Series 95



**6  
PIECES**

Number of Pieces	Contents	Order Code <b>SWT-165</b>
6	4, 6, 8, 10, 12 & 16mm	<b>-9550A</b>

**HSS-E PM Fine Pitch Ripper Peak Power Set**

Weldon Shank - 5 Piece Set  
Centre cutting. To **Manufacturers Standards**. Weldon shank to **DIN 1835B**. Shank diameter to **h6**. Dimensions to **DIN 844**. **Contents:** 6, 8, 10, 12 and 16mm.

**HSS-E PM**

**PEAK POWER**

Series 94



**Ø6 & Ø8  
- 3 Flute**



**Ø10 - Ø16  
- 4 Flute**

**5  
PIECES**

Number of Pieces	Contents	Order Code <b>SWT-165</b>
5	6, 8, 10, 12 & 16mm	<b>-9450A</b>

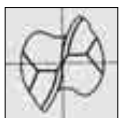
**HSS-E PM 2 Flute Ball Nose Slot Drill Peak Power Set**

Weldon Shank - 7 Piece Set  
Centre cutting. To **Manufacturers Standards**. Weldon shank to **DIN 1835B**. Shank diameter to **h6**. Dimensions to **DIN 844**. **Contents:** 3, 4, 5, 6, 8, 10 and 12mm.

**HSS-E PM**

**PEAK POWER**

Series 97



**7  
PIECES**

Number of Pieces	Contents	Order Code <b>SWT-165</b>
7	3, 4, 5, 6, 8, 10 & 12mm	<b>-9750A</b>



**Carbide Micrograin Plain Shank Milling Cutters**



**CARBIDE**

For optimum performance and maximum swarf removal when plunging, slotting and routing in light alloys, brass, aluminium, non-ferrous and other soft materials.  
 Manufactured to **USCTI Standards**.  
 Two flute for maximum swarf clearance.  
 Four flute for maximum rigidity.  
 (Three flute offer a combination of the advantages achieved with two and four flutes.)

Diameter Metric	Tolerances	
	+	-
Over 1.00 ~ up to 6.00	0.000	0.050
Over 6.00 ~ up to 25.00	0.000	0.080



**Regular Series**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code SHR-161	Order Code SHR-161	Order Code SHR-161
2.00	6.3	38.0	3.0	15g	-0040K	-3040K	-6040K
3.00	12.0	38.0	3.0	15g	-0060K	-3060K	-6060K
4.00	14.0	50.0	4.0	20g	-0080K	-3080K	-6080K
5.00	16.0	50.0	6.0	30g	-0100K	-3100K	-6100K
6.00	19.0	50.0	6.0	35g	-0120K	-3120K	-6120K
7.00	19.0	63.0	8.0	40g	-0140K	-3140K	-6140K
8.00	20.0	63.0	8.0	40g	-0160K	-3160K	-6160K
9.00	22.0	75.0	10.0	60g	-0180K	-3180K	-6180K
10.00	22.0	75.0	10.0	100g	-0200K	-3200K	-6200K
12.00	25.0	75.0	12.0	130g	-0240K	-3240K	-6240K
14.00	32.0	89.0	14.0	180g	-0280K	-3280K	-6280K
16.00	32.0	89.0	16.0	230g	-0320K	-3320K	-6320K
20.00	38.0	100.0	20.0	240g	-0400K	-3400K	-6400K

**OVER 2.5 MILLION CUTTERS SOLD EACH YEAR WORLDWIDE!**



**THE COMPLETE RANGE OF HSS TOOLING**

CUTTING TOOLS

**Bore Milling Cutters**



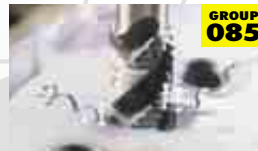
**Shank Milling Cutters**

**Countersinks & Counterbores**



**Straight & Taper Shank Drills**

**Hand & Machine Reamers**



**Hand & Machine Taps**

**Full Range of Sizes and Sets - Massive Stocks Available!**  
 mm, inch, DIN, ISO, UN, BS, and ANSI Standards

**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**



**Carbide Micrograin Plain Shank Milling Cutters**



**CARBIDE**



**2 Flute**

For optimum performance and maximum swarf removal when plunging, slotting and routing in light alloys, brass, aluminium, non-ferrous and other soft materials.

Manufactured to **Works Standards.**

Diameter Metric	Tolerances		Diameter Inch	Tolerance	
	+	-		+	-
Over 1.00 ~ up to 6.00	0.000	0.050	Over 1/16" ~ up to 1/4"	0.000	0.002
Over 6.00 ~ up to 25.00	0.000	0.080	Over 1/4" ~ up to 1"	0.000	0.003

**Regular Series - Metric**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code KEN-161
1.00	3.0	40.0	4.0	15g	-0020K
1.50	4.0	40.0	4.0	15g	-0030K
2.00	8.0	32.0	2.0	15g	-0040K
2.50	8.0	32.0	2.5	15g	-0050K
3.00	12.0	32.0	3.0	15g	-0060K
3.50	12.0	32.0	3.5	20g	-0070K
4.00	12.0	40.0	4.0	20g	-0080K
4.50	14.0	50.0	4.5	20g	-0090K
5.00	14.0	50.0	5.0	30g	-0100K
6.00	16.0	50.0	6.0	35g	-0120K
7.00	20.0	60.0	7.0	40g	-0140K
8.00	20.0	60.0	8.0	40g	-0160K
9.00	20.0	60.0	9.0	60g	-0180K
10.00	22.0	70.0	10.0	100g	-0200K
11.00	22.0	70.0	11.0	120g	-0220K
12.00	22.0	70.0	12.0	130g	-0240K
14.00	25.0	75.0	14.0	180g	-0280K
16.00	25.0	75.0	16.0	230g	-0320K
18.00	25.0	75.0	18.0	230g	-0360K
20.00	32.0	100.0	20.0	240g	-0400K



**Regular Series - Inch**

Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code KEN-161
1/16"	3/16"	1 1/2"	1/8"	10g	-0540K
3/32"	3/8"	1 1/2"	1/8"	10g	-0560K
1/8"	1/2"	1 1/2"	1/8"	10g	-0580K
11/64"	5/8"	2"	3/16"	20g	-0610K
3/16"	5/8"	2"	3/16"	20g	-0620K
1/4"	3/4"	2 1/2"	1/4"	30g	-0660K
5/16"	13/16"	2 1/2"	5/16"	45g	-0700K
3/8"	1"	2 1/2"	3/8"	60g	-0740K
1/2"	1"	3"	1/2"	165g	-0820K
3/4"	1 1/2"	4"	1"	640g	-0980K

**3 Flute**

Centre cutting as standard. Offer a combination of advantages achieved with two and four flutes giving profile and peripheral milling capability in addition to slotting and plunging. Manufactured to **Works Standards.**

**Regular Series - Metric**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code KEN-161
1.00	3.0	40.0	4.0	15g	-3020K
1.50	4.5	40.0	4.0	15g	-3030K
2.00	8.0	32.0	2.0	15g	-3040K
2.50	8.0	32.0	2.5	15g	-3050K
3.00	12.0	32.0	3.0	15g	-3060K
3.50	12.0	32.0	3.5	20g	-3070K
4.00	14.0	40.0	4.0	20g	-3080K
4.50	14.0	50.0	4.5	20g	-3090K
5.00	14.0	50.0	5.0	30g	-3100K
6.00	16.0	50.0	6.0	35g	-3120K
7.00	20.0	60.0	7.0	40g	-3140K
8.00	20.0	60.0	8.0	40g	-3160K
9.00	20.0	60.0	10.0	60g	-3180K
10.00	22.0	70.0	10.0	100g	-3200K
11.00	22.0	70.0	11.0	120g	-3220K
12.00	22.0	70.0	12.0	130g	-3240K
14.00	25.0	75.0	14.0	180g	-3280K
16.00	25.0	75.0	16.0	230g	-3320K
18.00	25.0	75.0	18.0	230g	-3360K
20.00	32.0	100.0	20.0	240g	-3400K
25.00	38.0	150.0	25.0	640g	-3500K

**Regular Series - Inch**

Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code KEN-161
1/8"	3/8"	1 1/2"	1/8"	10g	-3580K



**CARBIDE**



**4 Flute**

Centre cutting as standard. For maximum strength when milling harder materials where rapid swarf removal is not needed. Four flute milling cutters have one of the strongest tooth structures available in solid cutters.

Manufactured to **Works Standards.**

**Regular Series - Metric**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code KEN-161
1.00	3.0	40.0	4.0	15g	-6020K
1.50	4.5	40.0	4.0	15g	-6030K
2.00	8.0	32.0	2.0	15g	-6040K
2.50	9.5	32.0	2.5	15g	-6050K
3.00	12.0	32.0	3.0	15g	-6060K
3.50	12.0	32.0	3.5	20g	-6070K
4.00	14.0	40.0	4.0	20g	-6080K
4.50	14.0	50.0	4.5	20g	-6090K
5.00	14.0	50.0	5.0	30g	-6100K
6.00	16.0	50.0	6.0	35g	-6120K
7.00	20.0	60.0	8.0	40g	-6140K
8.00	20.0	60.0	8.0	40g	-6160K
9.00	20.0	60.0	9.0	60g	-6180K
10.00	22.0	70.0	10.0	100g	-6200K
11.00	22.0	70.0	11.0	120g	-6220K
12.00	22.0	70.0	12.0	130g	-6240K
14.00	25.0	75.0	14.0	180g	-6280K
16.00	25.0	75.0	16.0	230g	-6320K
18.00	25.0	75.0	18.0	230g	-6360K
20.00	32.0	100.0	20.0	240g	-6400K
25.00	38.0	100.0	25.0	640g	-6500K

**Regular Series - Inch**

Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Weight Each	Order Code KEN-161
1/16"	3/16"	1 1/2"	1/8"	10g	-6540K
3/32"	3/8"	1 1/2"	1/8"	10g	-6560K
1/8"	1/2"	1 1/2"	1/8"	10g	-6580K
3/16"	5/8"	2"	3/16"	20g	-6620K
7/32"	5/8"	2 1/2"	1/4"	30g	-6640K
1/4"	3/4"	2 1/2"	1/4"	30g	-6660K
5/16"	13/16"	2 1/2"	5/16"	45g	-6700K
3/8"	1"	2 1/2"	3/8"	60g	-6740K
7/16"	1"	2 3/4"	7/16"	90g	-6780K
1/2"	1"	3"	1/2"	165g	-6820K



**CARBIDE**



**CUTTING TOOLS**

# SHANK MILLING CUTTERS

## SWISS+TECH Carbide Plain Shank Milling Cutters

Centre cutting. To **Manufacturers Standards**.



### Series 45

**2 Flute - Short Series** Dimensions to **DIN 6535 HA**

Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Weight each	SDC-2PS Carbide		SDT-2PS TiCN Coated	
					Order Code	SWT-161	Order Code	SWT-161
2.00	8.0	32.0	2.0	3g	-4502A	-	-	-
2.50	8.0	32.0	2.5	4g	-4502L	-	-	-
3.00	12.0	32.0	3.0	4g	-4503A	-	-	-
4.00	12.0	40.0	4.0	7g	-4504A	-	-	-
5.00	14.0	50.0	5.0	13g	-4505A	-	-	-
6.00	16.0	50.0	6.0	18g	-4506A	-	-	-
7.00	20.0	60.0	7.0	37g	-4507A	-	-	-
8.00	20.0	60.0	8.0	37g	-4508A	-	-	-
9.00	20.0	60.0	9.0	49g	-4509A	-	-	-
10.00	22.0	70.0	10.0	68g	-4510A	-	-	-
12.00	22.0	70.0	12.0	96g	-4512A	-	-	-
14.00	25.0	75.0	14.0	134g	-4514A	-	-	-
16.00	25.0	75.0	16.0	172g	-4516A	-	-	-
20.00	32.0	100.0	20.0	360g	-4520A	-	-	-

**CARBIDE**



**Carbide Uncoated**

For general production machining.

**TiCN Coated**

Extends cutter tool life and improves work material surface finish.



### Series 48

**3 Flute - Short Series**

Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Weight each	SDC-3PS Carbide		SDT-3PS TiCN Coated	
					Order Code	SWT-161	Order Code	SWT-161
1.00	4.0	40.5	4.0	7g	-4801A	-4831A	-	-
1.50	4.5	40.0	4.0	7g	-4801L	-4831L	-	-
2.00	8.0	32.0	2.0	3g	-4802A	-4832A	-	-
2.50	8.0	32.0	2.5	3g	-4802L	-4832L	-	-
3.00	12.0	32.0	3.0	4g	-4803A	-4833A	-	-
3.50	12.0	32.0	3.5	4g	-4803L	-4833L	-	-
4.00	12.0	40.0	4.0	7g	-4804A	-4834A	-	-
4.50	12.0	50.0	4.5	11g	-4804L	-4834L	-	-
5.00	14.0	50.0	6.0	13g	-4805A	-4835A	-	-
6.00	16.0	50.0	6.0	18g	-4806A	-4836A	-	-
7.00	20.0	50.0	8.0	50g	-4807A	-4837A	-	-
8.00	20.0	60.0	8.0	37g	-4808A	-4838A	-	-
9.00	20.0	60.0	9.0	60g	-4809A	-	-	-
10.00	22.0	60.0	10.0	71g	-4810A	-4840A	-	-
12.00	22.0	60.0	12.0	100g	-4812A	-4842A	-	-
14.00	25.0	70.0	14.0	133g	-4814A	-	-	-
16.00	25.0	75.0	16.0	175g	-4816A	-	-	-
20.00	32.0	100.0	20.0	367g	-4820A	-	-	-

**CARBIDE TiCN**



### Series 50

**4 Flute - Short Series**

Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Weight each	EMC-4PS Carbide		EMT-4PS TiCN Coated	
					Order Code	SWT-161	Order Code	SWT-161
2.00	8.0	32.0	2.0	3g	-5002A	-5032A	-	-
2.50	8.0	32.0	2.5	3g	-5002L	-5032L	-	-
3.00	12.0	32.0	3.0	4g	-5003A	-5033A	-	-
4.00	12.0	40.0	4.0	7g	-5004A	-5034A	-	-
5.00	14.0	50.0	5.0	14g	-5005A	-5035A	-	-
6.00	16.0	50.0	6.0	19g	-5006A	-5036A	-	-
7.00	20.0	60.0	7.0	49g	-5007A	-5037A	-	-
8.00	20.0	60.0	8.0	39g	-5008A	-5038A	-	-
10.00	20.0	70.0	10.0	71g	-5010A	-5040A	-	-
12.00	22.0	70.0	12.0	102g	-5012A	-5042A	-	-
14.00	25.0	75.0	14.0	184g	-5014A	-5044A	-	-
16.00	25.0	75.0	16.0	386g	-5016A	-5046A	-	-
20.00	32.0	100.0	20.0	892g	-5020A	-5050A	-	-
25.00	46.0	150.0	25.0	895g	-5025A	-5055A	-	-

**CARBIDE TiCN**



### 6 Piece Sets

Dimensions to **DIN 844**. Cutting diameter to **js12**.

Shank diameter to **h6**.

**Contents:** 3, 4, 5, 6, 8 and 10mm.

**6  
PIECES**

**CARBIDE TiAlN**



Number of Flutes	Series No	Order Code
2	45	-4526A
3	48	-4890A
3	48 (TiAlN coated)	-4891A
4	50	-5028A



**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**

**GROUP 061 SHANK MILLING CUTTERS**

**SWISS+TECH Carbide Plain Shank Slot Drills 2 Flute Ball Nosed**

Centre cutting.  
To **Manufacturers Standards.**

**Carbide Uncoated**

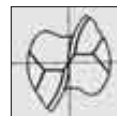
For general production machining.

**TiCN Coated**

Extends cutter tool life and improves work material surface finish.



**CARBIDE TiCN**



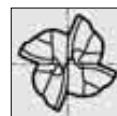
**Series 53 Short Series**

Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Weight each	SBC-2PS Carbide	SBT-2PS TiCN Coated
					Order Code SWT-161	Order Code SWT-161
2.00	4.0	48.0	6.0	17g	-5302A	-5332A
3.00	4.0	48.0	6.0	18g	-5303A	-5333A
4.00	6.0	50.0	6.0	19g	-5304A	-5334A
5.00	7.0	51.0	6.0	20g	-5305A	-5335A
6.00	7.0	51.0	6.0	20g	-5306A	-5336A
8.00	9.0	59.0	8.0	40g	-5308A	-5338A
10.00	10.0	60.0	10.0	63g	-5310A	-5340A
12.00	14.0	71.0	12.0	103g	-	-5342A

**Carbide Plain Shank End Mills 4 Flute Ball Nosed**

Cutting diameter to h10. Shank diameter to h6.  
Centre cutting. To **Manufacturers Standards.**

**CARBIDE TiCN**



**Series 56 Short Series**

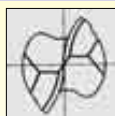
Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Weight each	EBC-4PS Carbide	EBT-4PS TiCN Coated
					Order Code SWT-161	Order Code SWT-161
2.00	4.0	48.0	3.0	17g	-5602A	-5632A
3.00	4.0	48.0	6.0	18g	-5603A	-5633A
4.00	6.0	50.0	6.0	19g	-5604A	-5634A
5.00	7.0	51.0	6.0	20g	-5605A	-5635A
6.00	7.0	51.0	6.0	21g	-5606A	-5636A
8.00	9.0	59.0	8.0	42g	-5608A	-5638A
10.00	10.0	60.0	10.0	65g	-5610A	-5640A
12.00	14.0	71.0	12.0	106g	-	-5642A

**CUTTING TOOLS**

**SHERWOOD QUALITY CUTTING TOOLS Carbide Micrograin Plain Shank Slot Drills 2 Flute Ball Nosed**

For optimum performance and maximum swarf removal when plunging, slotting and routing in most materials including brass, aluminium, non-ferrous and other soft materials.  
Manufactured to **USCTi Standards.**

**CARBIDE**



Diameter Metric	Tolerances	
	Tolerance +	Tolerance -
Over 1.00 ~ up to 6.00	0.000	0.050
Over 6.00 ~ up to 25.00	0.000	0.080



**Regular Series**

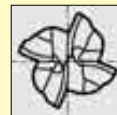
Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code SHR-161
2.00	4.0	38.0	3.0	10g	-1040K
3.00	6.0	38.0	3.0	10g	-1060K
4.00	8.0	50.0	4.0	15g	-1080K
5.00	10.0	50.0	6.0	25g	-1100K
6.00	12.0	50.0	6.0	25g	-1120K
7.00	19.0	63.0	8.0	45g	-1140K
8.00	20.0	63.0	8.0	55g	-1160K
10.00	22.0	75.0	10.0	90g	-1200K
12.00	25.0	75.0	12.0	120g	-1240K
16.00	32.0	89.0	16.0	250g	-1320K
20.00	38.0	100.0	20.0	420g	-1400K

**Solid Carbide Micrograin Plain Shank End Mills 4 Flute Ball Nosed**

For maximum strength when milling harder materials where rapid swarf removal is not needed. Four flute milling cutters have one of the strongest tooth structures available in solid cutters.  
Centre cutting as standard.  
Manufactured to **ANSI Standards.**



**CARBIDE**



Diameter Metric	Tolerances	
	Tolerance +	Tolerance -
Over 1.00 ~ up to 6.00	0.000	0.050
Over 6.00 ~ up to 25.00	0.000	0.080



**Regular Series**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code SHR-161
2.00	6.3	38.0	3.0	10g	-7040K
3.00	12.0	38.0	3.0	10g	-7060K
4.00	14.0	50.0	4.0	15g	-7080K
5.00	16.0	50.0	6.0	25g	-7100K
6.00	19.0	50.0	6.0	25g	-7120K
8.00	20.0	63.0	8.0	55g	-7160K
10.00	22.0	75.0	10.0	90g	-7200K
12.00	25.0	75.0	12.0	120g	-7240K
16.00	32.0	89.0	16.0	250g	-7320K
20.00	38.0	100.0	20.0	420g	-7400K



**Carbide Micrograin Plain Shank Slot Drills Ball Nosed**

**CARBIDE**

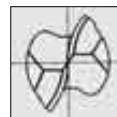


**2 Flute**

For optimum performance and maximum swarf removal when plunging, slotting and routing in most materials including brass, aluminium, non-ferrous and other soft materials.

Manufactured to **USCTI Standards**.

Diameter Metric	Tolerances		Diameter Inch	Tolerance	
	+	-		+	-
Over 1.00 ~ up to 6.00	0.000	0.050	Over 1/16" ~ up to 1/4"	0.000	0.002
Over 6.00 ~ up to 25.00	0.000	0.080	Over 1/4" ~ up to 1"	0.000	0.003



**Regular Series - 2 Flute - Metric**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code KEN-161
2.00	6.0	38.0	3.0	10g	-1040K
3.00	7.0	57.0	6.0	10g	-1060K
4.00	8.0	57.0	6.0	15g	-1080K
5.00	10.0	57.0	6.0	25g	-1100K
6.00	10.0	57.0	6.0	25g	-1120K
7.00	19.0	63.0	8.0	45g	-1140K
8.00	16.0	63.0	8.0	55g	-1160K
10.00	19.0	75.0	10.0	90g	-1200K
12.00	22.0	83.0	12.0	120g	-1240K
16.00	26.0	92.0	16.0	250g	-1320K
20.00	32.0	104.0	20.0	420g	-1400K

**Regular Series - 2 Flute - Inch**

Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code KEN-161
1/16"	1/8"	1 1/2"	1/8"	10g	-1540K
1/8"	1/2"	1 1/2"	1/8"	10g	-1580K
3/16"	5/8"	2"	3/16"	15g	-1620K
1/4"	3/4"	2 1/2"	1/4"	35g	-1660K
1/2"	1"	3"	1/2"	140g	-1820K

**Long Series - Metric**

Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Order Code KEN-161
3.00	30.0	75.0	3.0	-1930K
4.00	30.0	75.0	4.0	-1940K
5.00	40.0	100.0	5.0	-1950K
6.00	50.0	150.0	6.0	-1960K

**Long Series - Metric Continued**

Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Order Code KEN-161
8.00	50.0	150.0	8.0	-1980K
10.00	60.0	150.0	10.0	-1990K
12.00	50.0	150.0	15.0	-2000K
16.00	75.0	150.0	16.0	-2010K

**3 Flute**

Offer a combination of advantages achieved with two and four flutes giving profile and peripheral milling capability in addition to slotting and plunging. Chatter is also significantly reduced. Centre cutting as standard. Manufactured to **ANSI Standards**.

**CARBIDE**



**Regular Series - 3 Flute**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code KEN-161
2.00	6.0	38.0	3.0	15g	-4040K
3.00	10.0	38.0	3.0	15g	-4060K
4.00	14.0	50.0	4.0	20g	-4080K
5.00	16.0	50.0	6.0	30g	-4100K
6.00	19.0	50.0	6.0	35g	-4120K
8.00	20.0	63.0	8.0	40g	-4160K
10.00	22.0	75.0	10.0	100g	-4200K
12.00	25.0	75.0	12.0	130g	-4240K

**Regular Series - 3 Flute - Inch**

Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code KEN-161
1/8"	3/8"	1 1/2"	1/8"	10g	-4580K
1/4"	3/4"	2 1/2"	1/4"	30g	-4660K
3/8"	1"	2 1/2"	3/8"	60g	-4740K

**Long Series - 3 Flute**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code KEN-161
3.00	25.0	75.0	3.0	15g	-4930K
4.00	25.0	75.0	4.0	15g	-4940K
5.00	25.0	75.0	5.0	30g	-4950K
6.00	25.0	75.0	6.0	30g	-4960K

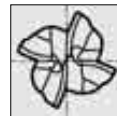
**Long Series - 3 Flute - Continued**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code KEN-161
8.00	25.0	75.0	8.0	40g	-4980K
10.00	38.0	100.0	10.0	100g	-4990K
12.00	50.0	100.0	12.0	130g	-4992K

**4 Flute**

For maximum strength when milling harder materials where rapid swarf removal is not needed. Four flute milling cutters have one of the strongest tooth structures available in solid cutters. Centre cutting as standard. Manufactured to **ANSI Standards**.

**CARBIDE**



**Regular Series - 4 Flute - Metric**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code KEN-161
2.0	6.3	38.0	3.0	10g	-7040K
3.0	12.0	38.0	3.0	10g	-7060K
4.0	14.0	50.0	4.0	15g	-7080K
5.0	16.0	50.0	6.0	25g	-7100K
6.0	19.0	50.0	6.0	25g	-7120K

**Regular Series - 4 Flute - Metric - Continued**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code KEN-161
7.0	19.0	63.0	8.0	45g	-7140K
8.0	20.0	63.0	8.0	55g	-7160K
10.0	22.0	75.0	10.0	90g	-7200K
12.0	25.0	75.0	12.0	120g	-7240K
16.0	32.0	89.0	16.0	250g	-7320K

**GROUP 061 SHANK MILLING CUTTERS**

**KENNEDY** Carbide Micrograin Plain Shank Slot Drills  
QUALITY INDUSTRIAL TOOLING

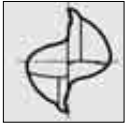
**Long Series - 2 Flute**

For optimum performance and maximum swarf removal when plunging, slotting and routing in most materials including brass, aluminium, non-ferrous and other soft materials. Manufactured to **USCTI Standards**.

Diameter Metric	Tolerances	
	Tolerance +	Tolerance -
Over 1.00 ~ up to 6.00	0.000	0.050
Over 6.00 ~ up to 25.00	0.000	0.080



**CARBIDE**



**Long Series - Metric**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code <b>KEN-161</b>
3.00	20.0	60.0	3.0	15g	<b>-1003K</b>
4.00	20.0	60.0	4.0	20g	<b>-1004K</b>
5.00	25.0	75.0	5.0	30g	<b>-1005K</b>
6.00	30.0	75.0	6.0	35g	<b>-1006K</b>
8.00	30.0	75.0	8.0	40g	<b>-1008K</b>

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code <b>KEN-161</b>
10.00	40.0	100.0	10.0	100g	<b>-1010K</b>
12.00	45.0	100.0	12.0	130g	<b>-1012K</b>
16.00	65.0	150.0	16.0	230g	<b>-1016K</b>
20.00	65.0	150.0	16.0	240g	<b>-1020K</b>

**Long Series - 3 Flute**



**CARBIDE**



**Long Series - Metric**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code <b>KEN-161</b>
3.00	25.0	75.0	3.0	15g	<b>-4003K</b>
4.00	25.0	75.0	4.0	20g	<b>-4004K</b>
5.00	25.0	75.0	6.0	30g	<b>-4005K</b>
6.00	25.0	75.0	6.0	35g	<b>-4006K</b>
8.00	25.0	75.0	8.0	40g	<b>-4008K</b>

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code <b>KEN-161</b>
10.00	38.0	100.0	10.0	100g	<b>-4010K</b>
12.00	50.0	100.0	12.0	130g	<b>-4012K</b>
16.00	75.0	150.0	16.0	230g	<b>-4016K</b>
20.00	75.0	150.0	20.0	240g	<b>-4020K</b>

**Long Series - 4 Flute**



**CARBIDE**



**Long Series - Metric**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code <b>KEN-161</b>
3.00	20.0	60.0	3.0	15g	<b>-9203K</b>
4.00	20.0	60.0	4.0	20g	<b>-9204K</b>
5.00	25.0	75.0	5.0	30g	<b>-9205K</b>
6.00	30.0	75.0	6.0	35g	<b>-9206K</b>
8.00	30.0	75.0	8.0	40g	<b>-9208K</b>

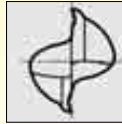
Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code <b>KEN-161</b>
10.00	40.0	100.0	10.0	100g	<b>-9210K</b>
12.00	45.0	100.0	12.0	130g	<b>-9212K</b>
16.00	65.0	150.0	16.0	230g	<b>-9216K</b>
20.00	65.0	150.0	20.0	240g	<b>-9220K</b>

**Solid Carbide Micrograin Plain Shank Slot Drills Double Ended**

**2 Flute**

For maximum strength when milling harder materials where rapid swarf removal is not needed. Manufactured to **ANSI Standards**.

**CARBIDE**



Diameter Metric	Tolerances	
	Tolerance +	Tolerance -
Over 1.00 ~ up to 6.00	0.000	0.050
Over 6.00 ~ up to 25.00	0.000	0.080



**Double Ended - Regular Series - Metric**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code <b>KEN-161</b>
2.00	4.0	38.0	3.0	10g	<b>-2040K</b>
3.00	6.0	38.0	3.0	10g	<b>-2060K</b>
4.00	8.0	50.0	4.0	15g	<b>-2080K</b>
5.00	10.0	63.0	5.0	20g	<b>-2100K</b>
6.00	12.0	63.0	6.0	30g	<b>-2120K</b>
8.00	12.0	63.0	8.0	50g	<b>-2160K</b>

**Solid Carbide Micrograin Plain Shank End Mills Double Ended**

**4 Flute**

For maximum strength when milling harder materials where rapid swarf removal is not needed. Four flute milling cutters have one of the strongest tooth structures available in solid cutters.

**CARBIDE**



Centre cutting. Manufactured to **ANSI Standards**.



**4 Flute - Regular Series - Metric**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code <b>KEN-161</b>
2.00	4.0	38.0	3.0	10g	<b>-8040K</b>
3.00	6.0	38.0	3.0	10g	<b>-8060K</b>
4.00	8.0	50.0	4.0	15g	<b>-8080K</b>
5.00	10.0	63.0	5.0	20g	<b>-8100K</b>
6.00	12.0	63.0	6.0	30g	<b>-8120K</b>
7.00	12.0	63.0	8.0	45g	<b>-8140K</b>
8.00	12.0	63.0	8.0	50g	<b>-8160K</b>
10.00	14.0	75.0	10.0	80g	<b>-8200K</b>
12.00	16.0	75.0	12.0	120g	<b>-8240K</b>

**CUTTING TOOLS**

**SWISS+TECH**

**Carbide Cutters Q-Coat Coated**

**Q-Coat** has been specifically developed to give carbide cutters the 'edge' when faced with severe machining conditions.

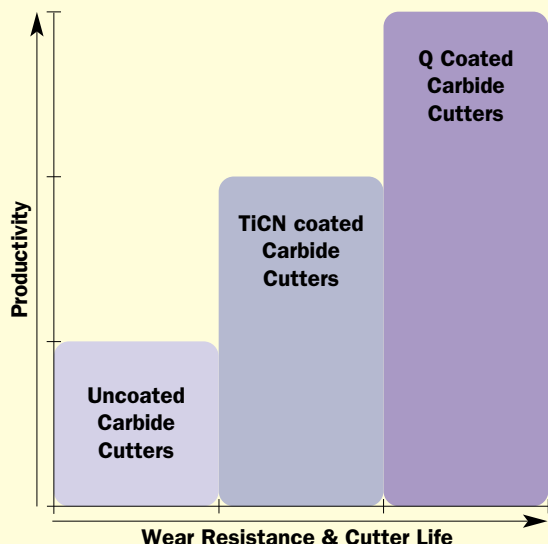
- Materials up to 66HRC.
- Dry Cutting.
- Die and Mould Machining
- Improved Productivity.
- Reduced coolant usage and disposal.
- Up to 100% longer cutter life.
- Reduced manufacturing costs.

A multi-layer coating capable of operating at higher speed and feed.

- Excellent oxidation resistance.
- High speed machining.
- Surface hardness 3300HV.
- Surface coefficient against steel 0.25.
- Thickness of coating 3 - 5µm.
- Maximum working temperature 850°C.
- Re-coating service also available.

**A Step Beyond Carbide . . .**

For Extreme Conditions - High Cutting Speeds



**Carbide Plain Shank Slot Drills 2 Flute**

Centre cutting. To **Manufacturers Standards**. Cutting diameter to **h10**. Shank diameter to **h6**. **SDQ-2PS Carbide Q-Coat**.



**CARBIDE Q-Coat**



**Series 60 - SDQ-2PS Carbide Q-Coat Short Series** Dimensions to **DIN 844**

Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Order Code <b>SWT-165</b>	Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Order Code <b>SWT-165</b>
3.00	8.0	45.0	6.0	<b>-6003A</b>	8.00	19.0	60.0	8.0	<b>-6008A</b>
4.00	11.0	45.0	6.0	<b>-6004A</b>	10.00	22.0	70.0	10.0	<b>-6010A</b>
5.00	13.0	50.0	6.0	<b>-6005A</b>	12.00	26.0	75.0	12.0	<b>-6012A</b>
6.00	13.0	50.0	6.0	<b>-6006A</b>	16.00	32.0	100.0	16.0	<b>-6016A</b>

**Carbide Plain Shank End Mills 4 Flute**

Centre cutting. To **Manufacturers Standards**. Cutting diameter to **h10**. Shank diameter to **h6**. **EMQ-4PS/L Carbide Q-Coat**.



**CARBIDE Q-Coat**



**Series 66 - EMQ-4PS Carbide Q-Coat Short Series** Dimensions to **DIN 844**

Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Order Code <b>SWT-165</b>	Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Order Code <b>SWT-165</b>
2.00	6.0	40.0	4.0	<b>-6602A</b>	8.00	19.0	60.0	8.0	<b>-6608A</b>
3.00	8.0	45.0	6.0	<b>-6603A</b>	10.00	22.0	70.0	10.0	<b>-6610A</b>
4.00	11.0	45.0	6.0	<b>-6604A</b>	12.00	26.0	75.0	12.0	<b>-6612A</b>
5.00	13.0	50.0	6.0	<b>-6605A</b>	16.00	32.0	100.0	16.0	<b>-6616A</b>
6.00	13.0	50.0	6.0	<b>-6606A</b>	20.00	38.0	105.0	20.0	<b>-6620A</b>

**Carbide Plain Shank End Mills 4 Flute**

Centre cutting. To **Manufacturers Standards**. Cutting diameter to **h10**. Shank diameter to **h6**. **EMQ-4PS/L Carbide Q-Coat**.



**CARBIDE Q-Coat**



**Series 68 - EMQ-4PL Carbide Q-Coat Long Series** Dimensions to **DIN 844**

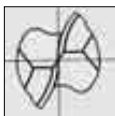
Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Order Code <b>SWT-165</b>	Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Order Code <b>SWT-165</b>
3.00	12.0	50.0	6.0	<b>-6803A</b>	10.00	30.0	90.0	10.0	<b>-6810A</b>
4.00	15.0	50.0	6.0	<b>-6804A</b>	12.00	30.0	90.0	12.0	<b>-6812A</b>
5.00	20.0	60.0	6.0	<b>-6805A</b>	16.00	50.0	110.0	16.0	<b>-6816A</b>
6.00	20.0	60.0	6.0	<b>-6806A</b>	20.00	55.0	110.0	20.0	<b>-6820A</b>
8.00	25.0	70.0	8.0	<b>-6808A</b>					

**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**

**SWISS+TECH** Carbide Plain Shank Slot Drills 2 Flute Ball Nose

Centre cutting.  
To **Manufacturers Standards**.  
Cutting diameter to **e8**.  
Shank diameter to **h6**.  
**Carbide Q-Coat**.

**CARBIDE Q-Coat**



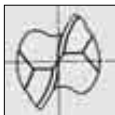
**Series 73 Long Reach**

Carbide Q-Coat						
Dia. (mm)	Shank Dia.	Length of Cut	Length Below Shank	Overall Length	Neck Dia.	Order Code <b>SWT-165</b>
0.60	4.0	0.9	6.0	35.0	0.55	<b>-7302A</b>
1.50	4.0	2.3	20.0	55.0	1.39	<b>-7310A</b>
2.00	4.0	3.0	16.0	50.0	1.91	<b>-7318A</b>
2.00	4.0	3.0	20.0	55.0	1.89	<b>-7320A</b>

**Carbide Plain Shank Slot Drills 2 Flute Ball Nose**

Centre cutting.  
To **Manufacturers Standards**.  
Cutting diameter to **h10**.  
Shank diameter to **h6**.  
**Carbide Q-Coat**.

**CARBIDE Q-Coat**



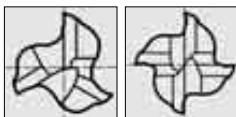
**Series 75 Regular Neck**

Carbide Q-Coat						
Dia. (mm)	Shank Dia.	Length of Cut	Length Below Shank	Overall Length	Neck Dia.	Order Code <b>SWT-165</b>
1.00	4.0	1.5	3.0	45.0	0.97	<b>-7510A</b>
1.50	4.0	2.3	6.0	45.0	1.47	<b>-7514A</b>

**Carbide Plain Shank Ripper Fine Pitch**

Centre cutting.  
To **Manufacturers Standards**.  
Cutting diameter to **e8**.  
Shank diameter to **h6**.  
**RFQ-3\*PR Carbide Q-Coat**.  
\*Number varies according to the number of flutes.

**CARBIDE Q-Coat**



**Series 82 - Regular Length Dimensions to DIN 844**

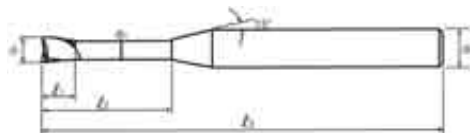
RFQ-3PR Q-Coat						
Diameter (mm)	Flute Length	Overall Length	Shank Diameter	No. of Flutes	Order Code <b>SWT-165</b>	
6.00	16.0	57.0	6.0	3.0	<b>-8206A</b>	
8.00	16.0	63.0	8.0	3.0	<b>-8208A</b>	
10.00	22.0	72.0	10.0	4.0	<b>-8210A</b>	
12.00	26.0	83.0	12.0	4.0	<b>-8212A</b>	
16.00	32.0	92.0	16.0	4.0	<b>-8216A</b>	
20.00	38.0	104.0	20.0	4.0	<b>-8220A</b>	

**Carbide Plain Shank Slot Drills 2 Flute**

Centre cutting. To **Manufacturers Standards**.  
Cutting diameter to **h10**.  
Shank diameter to **h6**.  
**Carbide Q-Coat**.



**CARBIDE Q-Coat**



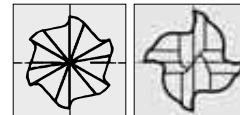
**Series 74 Long Reach**

Carbide Q-Coat						
Dia. (mm) (d1)	Shank Dia. (d2)	Length of Cut (l1)	Length Below Shk (l2)	Overall Length (l3)	Neck Dia. (d3)	Order Code <b>SWT-165</b>
0.50	4.0	0.7	6.0	45.0	0.45	<b>-7402A</b>
0.60	4.0	0.9	4.0	45.0	0.55	<b>-7404A</b>
1.00	4.0	1.5	8.0	45.0	0.95	<b>-7412A</b>
1.00	4.0	1.5	10.0	45.0	0.95	<b>-7414A</b>
1.20	4.0	1.8	12.0	45.0	1.13	<b>-7416A</b>
1.50	4.0	2.3	16.0	50.0	1.41	<b>-7418A</b>
2.00	4.0	3.0	14.0	50.0	1.93	<b>-7420A</b>
2.00	4.0	3.0	20.0	55.0	1.89	<b>-7422A</b>
3.00	6.0	4.5	14.0	50.0	2.85	<b>-7426A</b>
3.00	6.0	4.5	25.0	65.0	2.85	<b>-7428A</b>

**Carbide Plain Shank End Mills High Helix**

Centre cutting.  
To **Manufacturers Standards**.  
Cutting diameter to **e8**.  
Shank diameter to **h6**.  
**EHQ-6\*PR Carbide Q-Coat**.  
\*Number varies according to the number of flutes.

**CARBIDE Q-Coat**



**Series 72 Regular Length**

EHQ-6PR Carbide Q-Coat						
Diameter (mm)	Flute Length	Overall Length	Shank Diameter	No. of Flutes	Order Code <b>SWT-165</b>	
6.00	13.0	57.0	6.0	6.0	<b>-7206A</b>	
8.00	19.0	63.0	8.0	6.0	<b>-7208A</b>	
10.00	22.0	72.0	10.0	6.0	<b>-7210A</b>	
12.00	26.0	83.0	12.0	6.0	<b>-7212A</b>	
16.00	32.0	92.0	16.0	6.0	<b>-7216A</b>	
20.00	38.0	104.0	20.0	8.0	<b>-7220A</b>	

**FREE**

**SWISS+TECH**

**Decimal Conversion Wall Chart (A2 Size)**

**AVAILABLE ON REQUEST**

**CAT-849-2189A**

Contact your local branch or representative.

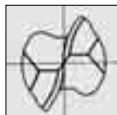


**SHANK MILLING CUTTERS - DIE & MOULD**

**SWISS+TECH Carbide Plain Shank Slot Drills Ball Nosed 2 Flute**

Centre cutting.  
To **Manufacturers Standards**.  
Cutting diameter to **e8**.  
Shank diameter to **h6**.  
**SBQ-2PR Carbide Q-Coat**.

**CARBIDE Q-Coat**



**Series 78 Regular Length**

**SBQ-2PR Carbide Q-Coat**

Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Order Code <b>SWT-165</b>
2.00	5.0	50.0	6.0	<b>-7802A</b>
2.50	6.0	60.0	6.0	<b>-7802L</b>
3.00	8.0	60.0	6.0	<b>-7803A</b>
4.00	8.0	70.0	6.0	<b>-7804A</b>
5.00	10.0	80.0	6.0	<b>-7805A</b>
6.00	12.0	90.0	6.0	<b>-7806A</b>
8.00	14.0	100.0	8.0	<b>-7808A</b>
10.00	18.0	100.0	10.0	<b>-7810A</b>
12.00	22.0	110.0	12.0	<b>-7812A</b>
16.00	30.0	140.0	16.0	<b>-7816A</b>

**Carbide Plain Shank Corner Radius Slot Drills 2 Flute**

Centre cutting.  
To **Manufacturers Standards**.  
Cutting diameter to **e8**.  
Shank diameter to **h6**.  
**SCQ-2PR Carbide Q-Coat**.

**CARBIDE Q-Coat**



**Series 85 Regular Series Dimensions to DIN 844**

**SCQ-2PR Carbide Q-Coat**

Diameter x Corner Radius (mm)	Flute Length	Overall Length	Shank Diameter	Order Code <b>SWT-165</b>
6.00 x 0.5	20	60	6	<b>-8504K</b>
6.00 x 1.0	20	60	6	<b>-8505K</b>
8.00 x 0.5	25	70	8	<b>-8506K</b>
8.00 x 1.0	25	70	8	<b>-8507K</b>
8.00 x 1.5	25	70	8	<b>-8508K</b>
8.00 x 2.0	25	70	8	<b>-8509K</b>
10.00 x 0.5	30	90	10	<b>-8510K</b>
10.00 x 1.0	30	90	10	<b>-8511K</b>
10.00 x 1.5	30	90	10	<b>-8512K</b>
10.00 x 2.0	30	90	10	<b>-8513K</b>
12.00 x 1.0	30	90	12	<b>-8515K</b>
12.00 x 1.5	30	90	12	<b>-8516K</b>
12.00 x 2.0	30	90	12	<b>-8517K</b>

**Carbide Plain Shank Corner Radius End Mills 4 Flute**

Centre cutting.  
To **Manufacturers Standards**.  
Cutting diameter to **e8**. Shank diameter to **h6**.  
**ECQ-4PR Carbide Q-Coat**.

**CARBIDE Q-Coat**



**Series 86 Regular Length**

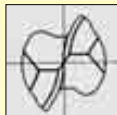
**ECQ-4PR Q-Coat**

Diameter x Corner Radius (mm)	Flute Length	Overall Length	Shank Diameter	Order Code <b>SWT-165</b>
6.00 x 0.5	20.0	60.0	6.0	<b>-8604K</b>
6.00 x 1.0	20.0	60.0	6.0	<b>-8605K</b>
8.00 x 0.5	25.0	70.0	8.0	<b>-8606K</b>
8.00 x 1.0	25.0	70.0	8.0	<b>-8607K</b>
8.00 x 1.5	25.0	70.0	8.0	<b>-8608K</b>
8.00 x 2.0	25.0	70.0	8.0	<b>-8609K</b>
10.00 x 0.5	30.0	90.0	10.0	<b>-8610K</b>
10.00 x 1.0	30.0	90.0	10.0	<b>-8611K</b>
10.00 x 1.5	30.0	90.0	10.0	<b>-8612K</b>
10.00 x 2.0	30.0	90.0	10.0	<b>-8613K</b>
12.00 x 0.5	30.0	90.0	12.0	<b>-8614K</b>
12.00 x 1.0	30.0	90.0	12.0	<b>-8615K</b>
12.00 x 1.5	30.0	90.0	12.0	<b>-8616K</b>

**Series 78 Regular Length SBQ-2PR Carbide Q-Coat. 7 Piece Set**

Contents: 2, 3, 4, 5, 6, 8 and 10mm.

**CARBIDE Q-Coat**



**7 PIECES**



Number of Pieces

Order Code **SWT-165**

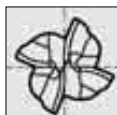
7

**-9890K**

**Carbide Plain Shank End Mills Ball Nosed 4 Flute**

Centre cutting.  
To **Manufacturers Standards**.  
Cutting diameter to **e8**.  
Shank diameter to **h6**.  
**EBQ-4PR Carbide Q-Coat**.

**CARBIDE Q-Coat**



**Series 80 Long Series Dimensions to DIN 844**

**EBQ-4PR Q-Coat**

Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Order Code <b>SWT-165</b>
2.00	5.0	50.0	6.0	<b>-8002A</b>
3.00	8.0	60.0	6.0	<b>-8003A</b>
4.00	8.0	70.0	6.0	<b>-8004A</b>
5.00	10.0	80.0	6.0	<b>-8005A</b>
6.00	12.0	90.0	6.0	<b>-8006A</b>
8.00	14.0	100.0	8.0	<b>-8008A</b>
10.00	18.0	100.0	10.0	<b>-8010A</b>
12.00	22.0	110.0	12.0	<b>-8012A</b>
16.00	30.0	140.0	16.0	<b>-8016A</b>



**CUTTING TOOLS**

**GROUP 065 REAMERS - HAND**

**SHERWOOD QUALITY CUTTING TOOLS** *Straight Shank Parallel Hand Reamers*

Used to produce a close tolerance surface finish by hand in almost any environment i.e. on site or in a workshop.  
Manufactured to **BS 328-4** and **DIN 206B**.



**HSS**

Tolerances			
Diameter Metric	Tolerance		
	+	-	
up to 3.00	0.008	0.007	
Over 3.00 ~ up to 6.00	0.010	0.005	
Over 6.00 ~ up to 10.00	0.012	0.006	
Over 10.00 ~ up to 18.00	0.015	0.008	
Over 18.00 ~ up to 30.00	0.017	0.009	
Over 30.00 ~ up to 50.00	0.021	0.012	



Diameter (mm)	Flute Length	Overall Length	Weight each	Order Code SHR-065
1.50	20.0	41.0	2g	-2100A
2.00	25.0	50.0	3g	-2103D
2.50	29.0	58.0	4g	-2105F
3.00	31.0	62.0	5g	-2107H
3.50	35.0	71.0	6g	-2109K
4.00	38.0	76.0	7g	-2110L
4.50	41.0	81.0	8g	-2111M
5.00	44.0	87.0	10g	-2112N
5.50	47.0	93.0	13g	-2113P
6.00	47.0	93.0	19g	-2114Q
6.50	50.0	100.0	23g	-2115R
7.00	54.0	107.0	26g	-2116S
7.50	54.0	107.0	30g	-2117T
8.00	58.0	115.0	38g	-2118V
8.50	58.0	115.0	43g	-2119W
9.00	62.0	124.0	56g	-2120X
9.50	62.0	124.0	59g	-2121Y
10.00	66.0	133.0	69g	-2122Z
10.50	66.0	133.0	78g	-2124A
11.00	71.0	142.0	91g	-2125B

Diameter (mm)	Flute Length	Overall Length	Weight each	Order Code SHR-065
11.50	71.0	142.0	100g	-2126C
12.00	76.0	152.0	114g	-2127D
12.50	76.0	152.0	121g	-2128E
13.00	76.0	152.0	133g	-2129F
13.50	81.0	163.0	163g	-2130G
14.00	81.0	163.0	163g	-2131H
15.00	81.0	163.0	187g	-2133K
16.00	87.0	175.0	237g	-2134L
17.00	87.0	175.0	269g	-2135M
18.00	93.0	188.0	319g	-2136N
19.00	93.0	188.0	336g	-2137P
20.00	100.0	201.0	348g	-2138Q
22.00	107.0	215.0	500g	-2140S
24.00	115.0	231.0	729g	-2142V
25.00	115.0	231.0	785g	-2143W
26.00	115.0	231.0	840g	-2144X
30.00	124.0	247.0	1200g	-2148B
40.00	152.0	305.0	2500g	-2158M

**Taper Shank Machine Reamers**

Used to produce a close tolerance surface finish by enlarging pre-drilled holes to a finished size. 45° bevelled lead.  
Manufactured to **BS 328-4**.

**HSS**

Tolerances (to H7)			
Diameter Metric	Tolerance		
	+	-	
Over 3.00 ~ up to 6.00	0.010	0.005	
Over 6.00 ~ up to 10.00	0.012	0.006	
Over 10.00 ~ up to 18.00	0.015	0.008	
Over 18.00 ~ up to 30.00	0.017	0.009	
Over 30.00 ~ up to 50.00	0.021	0.012	



Diameter (mm)	Flute Length	Overall Length	Morse Taper	Weight each	Order Code SHR-065
3.00	33.0	112.0	1	52g	-2350A
4.00	38.0	117.0	1	52g	-2352C
4.50	41.0	120.0	1	55g	-2353D
5.00	44.0	124.0	1	56g	-2354E
5.50	47.0	127.0	1	56g	-2355F
6.00	47.0	127.0	1	58g	-2356G
6.50	50.0	130.0	1	59g	-2357H
7.00	54.0	134.0	1	64g	-2358J
7.50	54.0	134.0	1	66g	-2359K
8.00	58.0	138.0	1	67g	-2360L
8.50	58.0	138.0	1	70g	-2361M
9.00	62.0	142.0	1	72g	-2362N
9.50	62.0	142.0	1	76g	-2363P
10.00	66.0	144.0	1	79g	-2364Q
10.50	66.0	144.0	1	81g	-2365R
11.00	71.0	151.0	1	88g	-2366S
11.50	71.0	151.0	1	96g	-2367T
12.00	76.0	156.0	1	108g	-2368V
12.50	76.0	156.0	1	111g	-2369W
13.00	76.0	156.0	1	122g	-2370X
13.50	81.0	161.0	1	130g	-2371Y
14.00	81.0	163.0	1	126g	-2372Z
14.50	81.0	181.0	2	200g	-2374A
15.00	81.0	181.0	2	230g	-2375B

Diameter (mm)	Flute Length	Overall Length	Morse Taper	Weight each	Order Code SHR-065
16.00	87.0	187.0	2	262g	-2377D
16.50	87.0	187.0	2	270g	-2378E
17.00	87.0	187.0	2	273g	-2379F
17.50	93.0	193.0	2	292g	-2379R
18.00	93.0	193.0	2	305g	-2380G
18.50	93.0	193.0	2	317g	-2380S
19.00	93.0	193.0	2	323g	-2381H
19.50	100.0	200.0	2	324g	-2381T
20.00	100.0	200.0	2	350g	-2382J
21.00	100.0	200.0	2	365g	-2383K
22.00	107.0	207.0	2	419g	-2384L
23.00	107.0	207.0	2	467g	-2385M
24.00	115.0	242.0	3	686g	-2386N
25.00	115.0	242.0	3	740g	-2387P
26.00	115.0	242.0	3	747g	-2388Q
27.00	124.0	251.0	3	901g	-2389R
28.00	124.0	251.0	3	884g	-2390S
30.00	124.0	251.0	3	990g	-2392V
32.00	133.0	293.0	4	1510g	-2394X
34.00	142.0	302.0	4	1726g	-2396Z
35.00	142.0	302.0	4	1751g	-2398A
40.00	152.0	312.0	4	2250g	-2403F
50.00	174.0	334.0	4	3630g	-2413R

**CUTTING TOOLS**

**REAMERS - CHUCKING, TAPER SHANK & HAND**



**Straight Shank Machine Reamers**

**HSS**

**Cobalt Straight Shank Chucking Reamers**

Manufactured to **DIN 212**.



**HSS-E**

Left hand spiral flute, right hand cutting. Manufactured to **BS 328-4**.

Tolerances (to H7)			
Diameter Metric	Tolerance		
	High +	Low -	
up to 3.00	0.008	0.004	
Over 3.00 ~ up to 6.00	0.010	0.005	
Over 6.00 ~ up to 10.00	0.012	0.006	
Over 10.00 ~ up to 18.00	0.015	0.008	

Tolerances (to H7)			
Diameter Metric	Tolerance		
	+	-	
up to 5.50	0.004	0.000	
Over 5.50	0.005	0.000	



Diameter (mm)	Flute Length	Overall Length	Weight each	Order Code <b>SHR-065</b>
2.00	25.0	50.0	3g	<b>-2220A</b>
2.50	29.0	58.0	3g	<b>-2221B</b>
3.00	31.0	62.0	3g	<b>-2222C</b>
3.50	33.0	66.0	4g	<b>-2223D</b>
4.00	38.0	76.0	5g	<b>-2224E</b>
5.00	44.0	87.0	8g	<b>-2226G</b>
6.00	47.0	93.0	18g	<b>-2228J</b>
7.00	54.0	107.0	17g	<b>-2229K</b>
8.00	58.0	115.0	20g	<b>-2230L</b>
9.00	62.0	124.0	31g	<b>-2231M</b>
10.00	66.0	133.0	55g	<b>-2232N</b>
11.00	71.0	142.0	69g	<b>-2232R</b>
12.00	76.0	152.0	87g	<b>-2233P</b>
13.00	78.0	152.0	97g	<b>-2234Q</b>
14.00	81.0	163.0	184g	<b>-2235R</b>
16.00	87.0	175.0	235g	<b>-2236S</b>

Diameter (mm)	Flute Length	Overall Length	Weight each	Order Code <b>SHR-065</b>
1.50	8.0	40.0	2g	<b>-2653Q</b>
2.00	11.0	49.0	3g	<b>-2655K</b>
2.50	14.0	57.0	4g	<b>-2657M</b>
3.00	15.0	61.0	5g	<b>-2659P</b>
4.00	19.0	75.0	9g	<b>-2662S</b>
5.00	23.0	86.0	14g	<b>-2664V</b>
5.50	26.0	93.0	21g	<b>-2665G</b>
6.00	26.0	93.0	25g	<b>-2665W</b>
7.00	31.0	109.0	31g	<b>-2666X</b>
8.00	33.0	117.0	41g	<b>-2667Y</b>
9.00	36.0	125.0	56g	<b>-2668Z</b>
10.00	38.0	133.0	73g	<b>-2669A</b>
11.00	41.0	142.0	84g	<b>-2670B</b>
12.00	44.0	151.0	90g	<b>-2671C</b>
13.00	44.0	151.0	96g	<b>-2672D</b>
14.00	47.0	160.0	101g	<b>-2673E</b>
15.00	50.0	162.0	111g	<b>-2674F</b>
16.00	52.0	170.0	117g	<b>-2675G</b>
18.00	56.0	182.0	227g	<b>-2677J</b>
20.00	60.0	195.0	450g	<b>-2679L</b>

**Taper Shank Extra Length Machine Reamers**

Used to produce a close tolerance surface finish in drilled holes to allow the fitting of hardened and ground taper pins in the building of jigs, fixtures and dies. Manufactured to **BS 328-4**.

**HSS**



Diameter (mm)	Flute Length	Overall Length	Morse Taper	Weight each	Order Code <b>SHR-064</b>
6.00	124.0	203.0	1	80g	<b>-2500A</b>
8.00	124.0	203.0	1	103g	<b>-2502C</b>
10.00	124.0	203.0	1	114g	<b>-2504E</b>
10.00	175.0	254.0	1	129g	<b>-2505F</b>
12.00	124.0	203.0	1	132g	<b>-2507H</b>

Diameter (mm)	Flute Length	Overall Length	Morse Taper	Weight each	Order Code <b>SHR-064</b>
12.00	175.0	254.0	1	188g	<b>-2508J</b>
12.00	225.0	305.0	1	228g	<b>-2509K</b>
16.00	154.0	254.0	2	361g	<b>-2510L</b>
16.00	205.0	305.0	2	411g	<b>-2511M</b>

**Straight Shank Hand Taper Pin Reamers**

Used to produce a close tolerance surface finish in taper holes to allow the fitting of hardened and ground taper pins in the building of jigs, fixtures and dies. Manufactured to **BS 328-4** and **DIN 9A**.

**HSS**

Tolerances		
Diameter Metric	Tolerance	
	+	-
Over 1.50 ~ up to 5.00	0.075	0.000
Over 5.00 ~ up to 20.00	0.125	0.000



Diameter (mm)	Dia. Range min max	Flute Length	Overall Length	Weight each	Order Code <b>SHR-065</b>
1.50	1.4 2.40	37	57	4g	<b>-2800A</b>
2.00	1.9 2.86	48	68	4g	<b>-2801B</b>
2.50	2.4 3.36	48	68	5g	<b>-2802C</b>
3.00	2.9 4.06	58	80	7g	<b>-2803D</b>
4.00	3.9 5.26	38	93	9g	<b>-2804E</b>
5.00	4.9 6.36	73	100	48g	<b>-2805F</b>
6.00	5.9 8.00	105	135	38g	<b>-2806G</b>

Diameter (mm)	Dia. Range min max	Flute Length	Overall Length	Weight each	Order Code <b>SHR-065</b>
8.00	7.9 10.80	145	180	39g	<b>-2807H</b>
10.00	9.9 13.40	175	215	89g	<b>-2808J</b>
12.00	11.8 16.00	210	255	145g	<b>-2809K</b>
13.00	12.8 16.74	210	255	295g	<b>-2810L</b>
14.00	13.8 17.74	210	255	355g	<b>-2811M</b>
16.00	15.8 20.40	230	280	475g	<b>-2812N</b>
20.00	19.8 24.80	250	310	814g	<b>-2813P</b>

**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**

**CUTTING TOOLS**



**HSS Small Diameter Slitting Saws**

Small circular saws. Hollow ground to give the clearance necessary for deep cutting.  
Note: Sizes up to 1½" diameter do not have keyways.



**HSS**



Inch			
Diameter (Inch)	Thickness	Bore	Order Code SHR-072
¾"	.025"	¼"	<b>-4807G</b>
¾"	1/16"	¼"	<b>-4810K</b>
2"	.025"	5/8"	<b>-4886V</b>
2"	3/64"	5/8"	<b>-4888X</b>
2"	1/16"	5/8"	<b>-4889Y</b>

**HSS Slitting Saws Fine/Coarse**

**HSS**

High speed steel slitting saws are hollow ground to give the clearance necessary for deep cutting. Available in coarse and fine teeth, number of teeth specified below. Supplied with keyways as standard. Manufactured to **BS122**.



Inch				
Diameter (Inch)	Thickness	Bore	Teeth	Order Code SHR-072
2½"	1/64"	1"	62	<b>-5008Z</b>
2½"	3/64"	1"	62	<b>-5011G</b>
2½"	1/16"	1"	62	<b>-5012H</b>
3"	1/64"	1"	74	<b>-5020G</b>
3"	1/32"	1"	30	<b>-5020L</b>
3"	1/32"	1"	74	<b>-5020Q</b>
3"	3/64"	1"	74	<b>-5021R</b>
3"	1/16"	1"	30	<b>-5022N</b>
3"	1/16"	1"	74	<b>-5022S</b>
3"	5/64"	1"	30	<b>-5023P</b>
3"	5/64"	1"	74	<b>-5023T</b>
3"	3/32"	1"	74	<b>-5024V</b>
3"	1/8"	1"	30	<b>-5026S</b>
3"	1/8"	1"	74	<b>-5026W</b>
3"	5/32"	1"	30	<b>-5027T</b>
3"	5/32"	1"	74	<b>-5027X</b>
3"	3/16"	1"	72	<b>-5028Y</b>
4"	1/64"	1"	100	<b>-5034X</b>
4"	1/32"	1"	36	<b>-5035B</b>
4"	1/32"	1"	100	<b>-5035L</b>
4"	3/63"	1"	100	<b>-5036M</b>
4"	1/16"	1"	36	<b>-5037D</b>
4"	1/16"	1"	100	<b>-5037N</b>
4"	5/64"	1"	36	<b>-5038E</b>
4"	5/64"	1"	100	<b>-5038P</b>
4"	3/32"	1"	100	<b>-5039Q</b>
4"	1/8"	1"	36	<b>-5041H</b>
4"	1/8"	1"	100	<b>-5041S</b>
4"	5/32"	1"	100	<b>-5042T</b>
5"	1/32"	1"	124	<b>-5049A</b>
5"	3/64"	1"	124	<b>-5050B</b>
5"	1/16"	1"	40	<b>-5050S</b>
5"	1/16"	1"	124	<b>-5051C</b>
5"	5/64"	1"	40	<b>-5051T</b>
5"	3/32"	1"	40	<b>-5052V</b>
5"	1/8"	1"	124	<b>-5054F</b>
6"	3/64"	1"	150	<b>-5058M</b>
6"	1/16"	1"	44	<b>-5059B</b>
6"	1/16"	1"	150	<b>-5059N</b>
6"	5/64"	1"	44	<b>-5060C</b>
6"	3/32"	1"	150	<b>-5061K</b>
6"	1/8"	1"	44	<b>-5062E</b>
6"	1/8"	1"	150	<b>-5062R</b>

**CUTTING TOOLS**

Metric				
Diameter (mm)	Thickness	Bore	Teeth	Order Code SHR-072
25.00	0.50	8.0	64	<b>-6025A</b>
25.00	0.60	8.0	64	<b>-6026B</b>
25.00	1.00	8.0	48	<b>-6028D</b>
25.00	1.60	8.0	40	<b>-6030F</b>
32.00	0.60	8.0	64	<b>-6045Y</b>
40.00	1.00	10.0	64	<b>-6067X</b>
40.00	1.60	10.0	64	<b>-6069Z</b>
50.00	2.00	13.0	64	<b>-6098E</b>
63.00	0.40	16.0	128	<b>-6112V</b>
63.00	1.00	16.0	100	<b>-6121D</b>
80.00	1.00	22.0	100	<b>-6149K</b>
80.00	2.00	22.0	80	<b>-6155R</b>
80.00	3.00	22.0	80	<b>-6159W</b>
100.00	1.00	22.0	128	<b>-6176N</b>

**KENNEDY Industrial Quality Screw Extractors**

Recommended for simple, low cost removal of broken screws, bolts etc, without damaging the threads of the component.



Extractor Number	Inch diameter for removing screws sized	Weight each	Order Code KEN-075
1	3/32 to 5/32	40g	<b>-1010K</b>
2	5/32 to 7/32	80g	<b>-1020K</b>
3	7/32 to 9/32	160g	<b>-1030K</b>
4	9/32 to 3/8	40g	<b>-1040K</b>
5	3/8 to 5/8	70g	<b>-1050K</b>
6	5/8 to 7/8	130g	<b>-1060K</b>
7	7/8 to 1½	210g	<b>-1070K</b>
8	1½ to 1¾	410g	<b>-1080K</b>
9	1¾ & above	690g	<b>-1090K</b>

**Screw Extractor Sets**







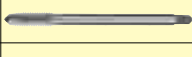

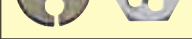
**4 Piece Sizes:**  
No.2, 3, 4 and 5.

**6 Piece Sizes:**  
No.1, 2, 3, 4, 5 and 6.




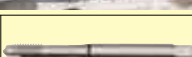
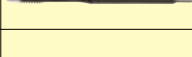




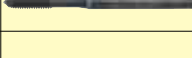


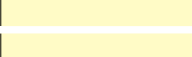
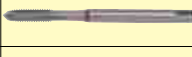


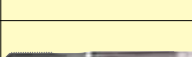
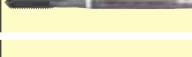

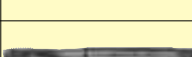
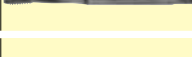
Number of Pieces	Weight each	Order Code KEN-075
4	130g	<b>-1140K</b>
6	250g	<b>-1160K</b>

**HSS Hand Taps**

ISO 529	SHERWOOD		METRIC		UNC		BSW	BSF	BA	BSPF	BSPT	NPT(F)	NPS(F)
			COARSE	FINE									
HSS Ground Thread For Hand & General Use	Taper-Second Plug		Page 92	Page 94	*	*	*	*	*	Page 98	Page 99	Page 100	Page 100
	Sets of Three		Page 92	Page 94	Page 96	*	Page 97	Page 97	Page 97	Page 98	*	*	*
	Spiral Point		Page 93	Page 95	*	*	*	*	*	Page 98	*	*	*
	Spiral Flute		Page 93	Page 95	*	*	*	*	*	Page 98	*	*	*
	Fluteless		Page 93	*	*	*	*	*	*	*	*	*	*
	Long Series		Page 93	*	*	*	*	*	*	*	*	*	*
	Dies		Page 92	Page 94	Page 96	Page 96	Page 97	Page 97	Page 97	Page 98	Page 99	Page 100	*
	Die Nuts		Page 92	Page 94	Page 96	Page 96	Page 97	*	*	Page 98	Page 99	Page 100	*

\*Where indicated these products are not shown in this catalogue but can be supplied on request. Please contact your local branch for more information.

**Production Taps**

DIN 371/6	SWISS+TECH		METRIC COARSE	BSPF
<b>BLACK RING MULTI APPLICATION</b>	Spiral Point For Through Holes		Page 102	
	Spiral Flute For Blind Holes		Page 102	
<b>YELLOW RING FOR STEELS</b>	Spiral Point For Through Holes		Page 103	Page 103
	Spiral Flute For Blind Holes		Page 103	Page 103
<b>BLUE RING FOR STAINLESS</b>	Spiral Point For Through Holes		Page 103	
	Spiral Flute - BLF For Shorter Blind Holes		Page 103	
	Spiral Flute - BLT For Deeper Blind Holes		Page 103	
<b>RED RING FOR ALLOY STEELS</b>	Spiral Point For Through Holes		Page 104	
	Spiral Flute For Blind Holes		Page 104	
<b>WHITE RING FOR CAST IRON</b>	Straight Flute For Through Holes		Page 104	
	Straight Flute For Blind Holes		Page 104	
<b>PURPLE RING FOR TITANIUM ALLOYS</b>	Left Hand Spiral Flute For Through Holes		Page 105	
	Spiral Flute For Blind Holes		Page 105	
<b>ORANGE RING FOR HI-TEMP ALLOYS</b>	Spiral Point For Through Holes		Page 105	
	Spiral Flute For Blind Holes		Page 105	
<b>GREEN RING FOR ALUMINIUM ALLOYS</b>	Spiral Point For Through Holes		Page 106	
	Spiral Flute For Blind Holes		Page 106	
<b>FOR BRASS/ALUMINIUM</b>	Fluteless For Through & Blind Holes		Page 106	



**CUTTING TOOLS**

**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**

**GROUP 085 HSS TAPS & DIES**

**SHERWOOD QUALITY CUTTING TOOLS Metric Coarse HSS Ground Thread Taps**

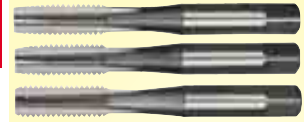
Straight Flute Individual Sizes  
ISO 529



**METRIC COARSE**



**HSS**



**Sets of Three**  
1 each, taper, second and plug lead

(1) Diameter and pitch not mentioned in ISO.

Size - Pitch (mm)	Thread Length	Overall Length	Shank Diameter	Weight each	Taper	Second	Plug
					Order Code SHR-085	Order Code SHR-085	Order Code SHR-085
M1.0 x 0.25	5.5	38.5	2.50	3g	-0100A	-0100B	-0100C
M1.4 x 0.30	7.0	40.0	2.50	3g	-	-	-
M1.6 x 0.35	8.0	41.0	2.50	3g	-0130A	-0130B	-0130C
M2.0 x 0.40	8.0	41.0	2.50	3g	-0160A	-0160B	-0160C
M2.2 x 0.45	9.5	44.0	2.80	4g	-	-	-
M2.5 x 0.45	9.5	44.5	2.80	4g	-0200A	-0200B	-0200C
M3.0 x 0.50	11.0	48.0	3.15	4g	-0230A	-0230B	-0230C
M3.0 x 0.60(1)	14.5	48.0	3.15	4g	-0240A	-0240B	-0240C
M3.5 x 0.60	13.0	50.0	3.55	4g	-0260A	-0260B	-0260C
M4.0 x 0.70	13.0	53.0	4.00	6g	-0280A	-0280B	-0280C
M4.0 x 0.75(1)	17.0	53.0	4.00	6g	-0290A	-0290B	-0290C
M4.5 x 0.75	12.0	53.0	4.50	6g	-0310A	-0310B	-0310C
M5.0 x 0.80	12.0	58.0	5.00	8g	-0330A	-0330B	-0330C
M5.0 x 0.90(1)	12.0	58.0	5.00	6g	-0340A	-0340B	-0340C
M6.0 x 1.00	19.0	66.0	6.30	14g	-0370A	-0370B	-0370C
M7.0 x 1.00	17.0	66.0	7.10	21g	-0390A	-0390B	-0390C
M8.0 x 1.25	22.0	72.0	8.00	23g	-0410A	-0410B	-0410C
M9.0 x 1.25	22.0	72.0	9.00	32g	-0420A	-0420B	-0420C
M10.0 x 1.50	24.0	80.0	10.00	39g	-0450A	-0450B	-0450C
M11.0 x 1.50	20.0	85.0	8.00	41g	-0460A	-0460B	-0460C
M12.0 x 1.75	23.0	89.0	9.00	48g	-0480A	-0480B	-0480C
M14.0 x 2.00	25.0	95.0	11.20	76g	-0510A	-0510B	-0510C
M16.0 x 2.00	25.0	102.0	12.50	100g	-0530A	-0530B	-0530C
M18.0 x 2.50	30.0	112.0	14.00	133g	-0550A	-0550B	-0550C
M20.0 x 2.50	30.0	112.0	14.00	144g	-0570A	-0570B	-0570C
M22.0 x 2.50	30.0	118.0	16.00	194g	-0590A	-0590B	-0590C
M24.0 x 3.00	36.0	130.0	18.00	260g	-0610A	-0610B	-0610C
M27.0 x 3.00	36.0	135.0	20.00	256g	-0640A	-0640B	-0640C
M30.0 x 3.50	42.0	138.0	20.00	380g	-0660A	-0660B	-0660C
M33.0 x 3.50	42.0	151.0	22.40	512g	-	-0680B	-
M36.0 x 4.00	48.0	162.0	25.00	646g	-0690A	-0690B	-0690C
M42.0 x 4.50	54.0	170.0	28.00	915g	-	-0710B	-0710C

Set of 3
Order Code SHR-085
-0100D
-0120D
-0130D
-0160D
-0180D
-0200D
-0230D
-0240D
-0260D
-0280D
-0290D
-0310D
-0330D
-0340D
-0370D
-0390D
-0410D
-0420D
-0450D
-0460D
-0480D
-0510D
-0530D
-0550D
-0570D
-0590D
-0610D
-0640D
-0660D
-0680D
-0690D
-0710D

CUTTING TOOLS

**Metric Coarse HSS Ground Thread Dies BS 1127**



Size - Pitch (mm)	Outside Diameter	Thickness	Weight each	Order Code SHR-086
M1.6 x 0.35	13/16"	1/4"	17g	-0090K
M2.0 x 0.40	13/16"	1/4"	13g	-0110K
M2.5 x 0.45	13/16"	1/4"	12g	-0130K
M3.0 x 0.50	13/16"	1/4"	14g	-0140K
M3.5 x 0.60	13/16"	1/4"	13g	-0150K
M4.0 x 0.70	13/16"	1/4"	13g	-0160K
M4.0 x 0.70	1"	3/8"	25g	-0410K
M5.0 x 0.80	1"	3/8"	24g	-0430K
M5.0 x 0.80	13/16"	1/4"	12g	-0180K
M6.0 x 1.00	13/16"	1/4"	12g	-0200K
M6.0 x 1.00	1"	3/8"	27g	-0440K
M6.0 x 1.00	15/16"	7/16"	54g	-0590K
M7.0 x 1.00	13/16"	1/4"	11g	-0210K
M8.0 x 1.25	1"	3/8"	27g	-0460K
M8.0 x 1.25	15/16"	7/16"	62g	-0610K
M8.0 x 1.25	1 1/2"	1/2"	85g	-0790K
M9.0 x 1.25	1"	3/8"	26g	-0470K
M10.0 x 1.50	1"	3/8"	26g	-0480K
M10.0 x 1.50	15/16"	7/16"	51g	-0630K
M10.0 x 1.50	1 1/2"	1/2"	85g	-0810K
M11.0 x 1.50	15/16"	7/16"	54g	-0640K
M12.0 x 1.75	15/16"	7/16"	54g	-0650K
M12.0 x 1.75	1 1/2"	1/2"	78g	-0830K
M12.0 x 1.75	2"	5/8"	156g	-1020K
M14.0 x 2.00	15/16"	7/16"	50g	-0660K
M14.0 x 2.00	1 1/2"	1/2"	73g	-0840K
M14.0 x 2.00	2"	5/8"	167g	-1030K
M16.0 x 2.00	1 1/2"	1/2"	72g	-0850K
M16.0 x 2.00	2"	5/8"	167g	-1040K
M18.0 x 2.50	1 1/2"	1/2"	96g	-0860K
M18.0 x 2.50	2"	5/8"	160g	-1050K
M20.0 x 2.50	1 1/2"	1/2"	66g	-0870K
M20.0 x 2.50	2"	5/8"	160g	-1060K
M22.0 x 2.50	2"	5/8"	157g	-1070K
M24.0 x 3.00	2"	5/8"	152g	-1080K
M30.0 x 3.50	3"	7/8"	471g	-1220K

**Metric Coarse HSS Ground Thread Die Nuts BS 1127**

**METRIC COARSE HSS**



Size - Pitch (mm)	Width	Thickness	Weight each	Order Code SHR-086
M3.0 x 0.50	0.71"	1/4"	11g	-1310K
M4.0 x 0.70	0.71"	1/4"	10g	-1330K
M5.0 x 0.80	0.71"	1/4"	11g	-1350K
M6.0 x 1.00	0.71"	1/4"	10g	-1360K
M7.0 x 1.00	0.82"	5/16"	16g	-1440K
M8.0 x 1.25	0.82"	5/16"	16g	-1450K
M9.0 x 1.25	0.92"	3/8"	25g	-1490K
M10.0 x 1.50	0.92"	3/8"	24g	-1500K
M12.0 x 1.75	1.10"	1/2"	36g	-1570K
M14.0 x 2.00	1.30"	5/8"	45g	-1600K
M16.0 x 2.00	1.30"	5/8"	48g	-1610K
M18.0 x 2.50	1.48"	11/16"	106g	-1640K
M20.0 x 2.50	1.48"	11/16"	140g	-1650K
M22.0 x 2.50	1.67"	13/16"	147g	-1690K
M24.0 x 3.00	2.05"	15/16"	274g	-1720K
M30.0 x 3.50	2.22"	11/16"	330g	-1760K
M36.0 x 4.00	2.76"	1 1/4"	489g	-1790K

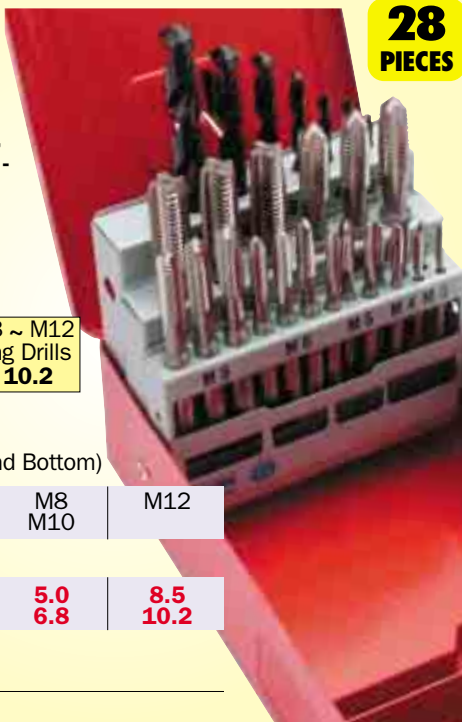


**HSS Ground Flute Tap & Drill Sets**

**HSS**

**28  
PIECES**

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



**METRIC** Taps M3 ~ M12  
+Tapping Drills  
**2.5 ~ 10.2**

**Tap & Drill**

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

M3 M4	M5 M6	M8 M10	M12
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**Tapping Drills**

(mm) <b>2.5</b>	<b>3.3</b> <b>4.2</b>	<b>5.0</b> <b>6.8</b>	<b>8.5</b> <b>10.2</b>
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Number of Pieces	Order Code
28	<b>SHR-025</b> <b>-9960K</b>

**Metric Coarse HSS Ground Thread Taps**

Spiral Point

**METRIC COARSE HSS**



Size - Pitch (mm)	Shank Diameter	A/F Square	Weight each	Order Code SHR-085
M1.6 x 0.35	2.50	2.00	9g	<b>-0130E</b>
M2.0 x 0.40	2.50	2.00	9g	<b>-0160E</b>
M2.5 x 0.45	2.80	2.24	9g	<b>-0200E</b>
M3.0 x 0.50	3.15	2.50	12g	<b>-0230E</b>
M3.5 x 0.60	3.55	2.80	12g	<b>-0260E</b>
M4.0 x 0.70	4.00	3.15	18g	<b>-0280E</b>
M4.5 x 0.75	4.50	3.55	18g	<b>-0310E</b>
M5.0 x 0.80	5.00	4.00	18g	<b>-0330E</b>
M6.0 x 1.00	6.30	5.00	45g	<b>-0370E</b>
M7.0 x 1.00	7.10	5.60	54g	<b>-0390E</b>
M8.0 x 1.25	8.00	6.30	72g	<b>-0410E</b>
M10.0 x 1.50	10.00	8.00	120g	<b>-0450E</b>
M12.0 x 1.75	9.00	7.10	149g	<b>-0480E</b>
M14.0 x 2.00	11.20	9.00	233g	<b>-0510E</b>
M16.0 x 2.00	12.50	10.00	307g	<b>-0530E</b>
M18.0 x 2.50	14.00	11.20	427g	<b>-0550E</b>
M20.0 x 2.50	14.00	11.20	459g	<b>-0570E</b>
M22.0 x 2.50	16.00	12.50	599g	<b>-0590E</b>
M24.0 x 3.00	18.00	14.00	826g	<b>-0610E</b>

**Straight Flute Long Series**

**METRIC COARSE HSS**



Size - Pitch (mm)	Thread Length	Overall Length	Shank Diameter	Weight Each	Taper	Second	Plug
					Order Code SHR-085	Order Code SHR-085	Order Code SHR-085
M3.0 x 0.50	11	66	2.24	5g	<b>-0230G</b>	<b>-0230H</b>	<b>-0230J</b>
M4.0 x 0.70	13	73	3.15	9g	<b>-0280G</b>	<b>-0280H</b>	<b>-0280J</b>
M5.0 x 0.80	16	79	4.00	13g	<b>-0330G</b>	<b>-0330H</b>	<b>-0330J</b>
M6.0 x 1.00	19	89	4.50	16g	<b>-0370G</b>	<b>-0370H</b>	<b>-0370J</b>
M8.0 x 1.25	22	97	6.30	30g	<b>-0410G</b>	<b>-0410H</b>	<b>-0410J</b>
M10.0 x 1.50	24	108	8.00	48g	<b>-0450G</b>	<b>-0450H</b>	<b>-0450J</b>
M12.0 x 1.75	29	119	9.00	68g	<b>-0480G</b>	<b>-0480H</b>	<b>-0480J</b>
M14.0 x 2.00	30	127	11.20	102g	-	-	<b>-0510H</b>
M16.0 x 2.00	32	137	12.50	130g	<b>-0530G</b>	<b>-0530H</b>	<b>-0530J</b>
M20.0 x 2.50	37	149	14.00	198g	-	-	<b>-0570H</b>

Spiral Flute

**METRIC COARSE HSS**



Size - Pitch (mm)	Shank Diameter	A/F Square	Weight each	Order Code SHR-085
2.00 - 0.40	2.50	2.00	9g	<b>-0160F</b>
2.50 - 0.45	2.80	2.24	9g	<b>-0200F</b>
3.00 - 0.50	3.15	2.50	12g	<b>-0230F</b>
3.50 - 0.60	3.55	2.80	12g	<b>-0260F</b>
4.00 - 0.70	4.00	3.15	18g	<b>-0280F</b>
5.00 - 0.80	5.00	4.00	24g	<b>-0330F</b>
6.00 - 1.00	6.30	5.00	33g	<b>-0370F</b>
7.00 - 1.00	7.10	5.60	51g	<b>-0390F</b>
8.00 - 1.25	8.00	6.30	69g	<b>-0410F</b>
10.00 - 1.50	10.00	8.00	114g	<b>-0450F</b>
12.00 - 1.75	9.00	7.10	147g	<b>-0480F</b>
14.00 - 2.00	11.20	9.00	167g	<b>-0510F</b>
16.00 - 2.00	12.50	10.00	304g	<b>-0530F</b>
18.00 - 2.50	14.00	11.20	420g	<b>-0550F</b>
20.00 - 2.50	14.00	11.20	448g	<b>-0570F</b>
22.00 - 2.50	16.00	12.50	584g	<b>-0590F</b>
24.00 - 3.00	18.00	14.00	795g	<b>-0610F</b>
30.00 - 3.50	20.00	16.00	953g	<b>-0660F</b>

Fluteless

**METRIC COARSE HSS**



Size - Pitch (mm)	Shank Diameter	Weight Each	Order Code SHR-085
2.00 - 0.40	2.50	9g	<b>-0160K</b>
2.50 - 0.45	2.80	12g	<b>-0200K</b>
3.00 - 0.50	3.15	12g	<b>-0230K</b>
3.50 - 0.60	3.55	12g	<b>-0260K</b>
4.00 - 0.70	4.00	18g	<b>-0280K</b>
5.00 - 0.80	5.00	24g	<b>-0330K</b>
6.00 - 1.00	6.30	33g	<b>-0370K</b>
8.00 - 1.25	8.00	69g	<b>-0410K</b>
10.00 - 1.50	10.00	114g	<b>-0450K</b>
12.00 - 1.75	9.00	147g	<b>-0480K</b>
16.00 - 2.00	12.50	304g	<b>-0530K</b>

**CUTTING TOOLS**

**GROUP 085 HSS TAPS & DIES**

**SHERWOOD QUALITY CUTTING TOOLS** *Metric Fine*  
**HSS Ground Thread Taps**

ISO 529  
Straight Flute Individual Sizes



(1) Diameter and pitch not mentioned in ISO.

Size - Pitch (mm)	Thread Length	Overall Length	Shank Diameter	Weight each	Taper	Second	Plug
					Order Code SHR-085	Order Code SHR-085	Order Code SHR-085
M2.0 x 0.45	8.0	41.0	2.50	3g	-0170A	-0170B	-0170C
M3.0 x 0.35	11.0	48.0	3.15	3g	-	-0220B	-
M3.5 x 0.35	13.0	50.0	3.55	4g	-	-0250B	-
M4.0 x 0.50	13.0	53.0	4.00	6g	-0270A	-0270B	-0270C
M4.5 x 0.50	13.0	53.0	4.50	5g	-0300A	-0300B	-
M5.0 x 0.50	16.0	58.0	5.00	9g	-0320A	-0320B	-0320C
M6.0 x 0.50	15.0	55.0	6.00	7g	-0355A	-0355B	-0355C
M6.0 x 0.75	19.0	66.0	6.30	17g	-0360A	-0360B	-0360C
M7.0 x 0.75	19.0	66.0	7.10	12g	-	-0380B	-
M8.0 x 0.75	19.0	72.0	8.00	22g	-0395A	-0395B	-0395C
M8.0 x 1.00 <sup>(1)</sup>	19.0	72.0	8.00	21g	-0400A	-0400B	-0400C
M10.0 x 0.75	20.0	80.0	10.00	36g	-0425A	-0425B	-0425C
M10.0 x 1.00 <sup>(1)</sup>	24.0	80.0	10.00	38g	-0430A	-0430B	-0430C
M10.0 x 1.25 <sup>(1)</sup>	20.0	80.0	10.00	45g	-0440A	-0440B	-0440C
M12.0 x 1.00	29.0	89.0	9.00	44g	-	-0465B	-
M12.0 x 1.25	29.0	89.0	9.00	46g	-0470A	-0470B	-0470C
M12.0 x 1.50	29.0	89.0	9.00	48g	-0475A	-0475B	-0475C
M14.0 x 1.00	30.0	95.0	11.20	71g	-	-0485B	-
M14.0 x 1.25	30.0	95.0	11.20	72g	-0490A	-0490B	-
M14.0 x 1.50	30.0	95.0	11.20	76g	-0500A	-0500B	-0500C
M16.0 x 1.00	32.0	102.0	12.50	96g	-0515A	-0515B	-0515C
M16.0 x 1.50	32.0	102.0	12.50	101g	-0520A	-0520B	-0520C
M18.0 x 1.00	37.0	112.0	14.00	130g	-	-0535B	-
M18.0 x 1.50	45.0	95.0	14.00	132g	-	-0540B	-0540C
M18.0 x 2.00	37.0	112.0	14.00	138g	-	-0545B	-
M20.0 x 1.00	37.0	112.0	14.00	146g	-	-0555B	-
M20.0 x 1.50	37.0	112.0	14.00	144g	-0560A	-0560B	-0560C
M20.0 x 2.00	37.0	112.0	14.00	132g	-	-0565B	-
M22.0 x 1.50	38.0	118.0	16.00	186g	-0580A	-0580B	-0580C
M24.0 x 1.50	45.0	130.0	18.00	254g	-0595A	-0595B	-0595C
M24.0 x 2.00	45.0	130.0	18.00	250g	-0600A	-0600B	-0600C
M25.0 x 1.50	45.0	130.0	18.00	260g	-0620A	-0620B	-0620C
M27.0 x 2.00	37.0	127.0	20.00	320g	-	-0630B	-
M30.0 x 1.50	37.0	127.0	20.00	398g	-	-0645B	-0645C
M30.0 x 2.00	37.0	127.0	20.00	366g	-0650A	-0650B	-0650C

**METRIC FINE**



**HSS**

Sets of Three  
1 each, taper, second and plug lead.

Order Code SHR-085	Set of 3
-	-
-0220D	-
-0250D	-
-0270D	-
-	-
-0320D	-
-0355D	-
-0360D	-
-0380D	-
-0395D	-
-0400D	-
-0425D	-
-0430D	-
-0440D	-
-0465D	-
-0470D	-
-0475D	-
-0485D	-
-0490D	-
-0500D	-
-0515D	-
-0520D	-
-0535D	-
-0540D	-
-0545D	-
-0555D	-
-0560D	-
-0565D	-
-0580D	-
-0595D	-
-0600D	-
-0620D	-
-	-
-0645D	-
-0650D	-

CUTTING TOOLS

**Metric Fine HSS Ground Thread Dies**

BS 1127



**METRIC FINE HSS**



Metric Fine

Size - Pitch (mm)	Outside Diameter	Thickness	Weight each	Order Code SHR-086
M4.0 x 0.50	13/16"	1/4"	12g	-1930K
M4.0 x 0.75	13/16"	1/4"	12g	-0165K
M5.0 x 0.50	13/16"	1/4"	12g	-1950K
M5.0 x 0.90	13/16"	1/4"	12g	-0185K
M6.0 x 0.50	13/16"	1/4"	12g	-0190K
M6.0 x 0.75	13/16"	1/4"	12g	-1980K
M8.0 x 0.75	1"	3/8"	27g	-2030K
M8.0 x 1.00	1"	3/8"	27g	-2040K
M10.0 x 0.75	1"	3/8"	26g	-2060K
M10.0 x 1.00	1"	3/8"	25g	-2070K
M10.0 x 1.25	1"	3/8"	25g	-2080K
M10.0 x 1.25	1 5/16"	7/16"	53g	-2130K
M12.0 x 1.00	1 5/16"	7/16"	50g	-2140K
M12.0 x 1.25	1 5/16"	7/16"	53g	-2150K
M12.0 x 1.50	1 5/16"	7/16"	53g	-2160K
M14.0 x 1.00	1 5/16"	7/16"	48g	-0655K
M14.0 x 1.25	1 5/16"	7/16"	48g	-2170K
M14.0 x 1.50	1 5/16"	7/16"	49g	-2180K
M16.0 x 1.00	1 1/2"	1/2"	68g	-2210K
M16.0 x 1.50	1 1/2"	1/2"	73g	-2220K
M18.0 x 1.00	2"	5/8"	-	-1045K
M18.0 x 1.50	1 1/2"	1/2"	74g	-2230K
M20.0 x 1.00	1 1/2"	1/2"	64g	-2240K
M20.0 x 1.50	1 1/2"	1/2"	66g	-2250K
M20.0 x 1.50	2"	5/8"	154g	-2330K
M22.0 x 1.50	2"	5/8"	178g	-2350K
M24.0 x 1.50	2"	5/8"	145g	-2370K
M24.0 x 2.00	2"	5/8"	153g	-2380K
M25.0 x 1.50	2"	5/8"	145g	-2390K
M27.0 x 3.00	2"	5/8"	-	-1090K
M30.0 x 1.50	3"	7/8"	-	-1215K
M30.0 x 2.00	3"	7/8"	-	-1216K

**Metric Fine HSS Ground Thread Die Nuts**

BS 1127

**METRIC FINE HSS**



Metric Fine

Size - Pitch (mm)	Width	Thickness	Weight each	Order Code SHR-086
M6.0 x 0.75	0.71"	1/4"	10g	-2550K
M8.0 x 1.00	0.82"	5/16"	16g	-2590K
M10.0 x 0.75	0.92"	3/8"	22g	-1495K
M10.0 x 1.00	0.92"	3/8"	22g	-2630K
M10.0 x 1.25	0.92"	3/8"	24g	-2640K
M12.0 x 1.00	1.10"	1/2"	35g	-2650K
M12.0 x 1.25	1.10"	1/2"	46g	-2660K
M12.0 x 1.50	1.10"	1/2"	52g	-2670K
M14.0 x 1.50	1.30"	5/8"	77g	-2770K
M16.0 x 1.00	1.30"	5/8"	70g	-2780K
M16.0 x 1.50	1.30"	5/8"	71g	-2790K
M18.0 x 1.50	1.48"	11/16"	102g	-2810K
M20.0 x 1.00	1.48"	11/16"	95g	-2820K
M20.0 x 1.50	1.48"	11/16"	92g	-2830K
M20.0 x 2.00	1.48"	11/16"	99g	-2840K
M22.0 x 1.50	1.67"	13/16"	146g	-2860K
M24.0 x 2.00	2.05"	15/16"	249g	-2890K



**Metric Fine HSS Ground Thread Taps**

**HSS**

**METRIC FINE**

ISO 529

Spiral Point



Size - Pitch (mm)	Shank Diameter	A/F Square	Weight each	Order Code SHR-085
M4.0 x 0.50	4.00	3.15	8g	<b>-0270E</b>
M5.0 x 0.50	5.00	4.00	10g	<b>-0320E</b>
M6.0 x 0.50	6.30	5.00	27g	<b>-0355E</b>
M6.0 x 0.75	6.30	5.00	27g	<b>-0360E</b>
M8.0 x 0.75	8.00	6.30	23g	<b>-0395E</b>
M8.0 x 1.00	8.00	6.30	23g	<b>-0400E</b>
M10.0 x 1.00	10.00	8.00	40g	<b>-0430E</b>
M10.0 x 1.25	10.00	8.00	40g	<b>-0440E</b>
M12.0 x 1.25	9.00	7.10	48g	<b>-0470E</b>
M12.0 x 1.50	9.00	7.10	40g	<b>-0475E</b>
M14.0 x 1.50	11.20	9.00	78g	<b>-0500E</b>
M16.0 x 1.50	12.50	10.00	82g	<b>-0520E</b>
M18.0 x 1.50	14.00	11.20	132g	<b>-0540E</b>
M22.0 x 1.50	16.00	12.50	185g	<b>-0580E</b>
M30.0 x 3.50	20.00	16.00	366g	<b>-0660E</b>

Spiral Flute

**HSS**

**METRIC FINE**



Size - Pitch (mm)	Shank Diameter	A/F Square	Weight each	Order Code SHR-085
M4.0 x 0.50	4.00	3.15	6g	<b>-0270F</b>
M5.0 x 0.50	5.00	4.00	10g	<b>-0320F</b>
M6.0 x 0.50	6.30	5.00	14g	<b>-0355F</b>
M6.0 x 0.75	6.30	5.00	14g	<b>-0360F</b>
M8.0 x 0.75	8.00	6.30	22g	<b>-0395F</b>
M8.0 x 1.00	8.00	6.30	22g	<b>-0400F</b>
M10.0 x 1.00	10.00	8.00	38g	<b>-0430F</b>
M10.0 x 1.25	10.00	8.00	37g	<b>-0440F</b>
M12.0 x 1.25	9.00	7.10	47g	<b>-0470F</b>
M12.0 x 1.50	9.00	7.10	48g	<b>-0475F</b>
M14.0 x 1.50	11.20	9.00	75g	<b>-0500F</b>
M16.0 x 1.50	12.50	10.00	82g	<b>-0520F</b>
M18.0 x 1.50	14.00	11.00	148g	<b>-0540F</b>
M20.0 x 1.50	14.00	11.20	131g	<b>-0560F</b>
M22.0 x 1.50	16.00	12.50	184g	<b>-0580F</b>

**Metric Coarse Left Hand Straight Flute Ground Thread Taps**

**METRIC COARSE**

**LEFT HAND**

**HSS**

ISO 529



Second Taps

Straight Flute Individual Sizes

Size - Pitch (mm)	Thread Length	Overall Length	Shank Diameter	Weight each	Order Code SHR-087
M3.0 x 0.50	11.0	48.0	3.15	4g	<b>-0230M</b>
M4.0 x 0.70	13.0	53.0	4.00	6g	<b>-0280M</b>
M5.0 x 0.80	16.0	58.0	5.00	9g	<b>-0330M</b>
M6.0 x 1.00	19.0	66.0	6.30	14g	<b>-0370M</b>
M8.0 x 1.25	22.0	72.0	8.00	26g	<b>-0410M</b>
M10.0 x 1.50	24.0	80.0	10.00	42g	<b>-0450M</b>
M12.0 x 1.75	23.0	89.0	9.00	48g	<b>-0480M</b>
M14.0 x 2.00	25.0	95.0	11.20	76g	<b>-0510M</b>
M16.0 x 2.00	25.0	102.0	12.50	102g	<b>-0530M</b>
M20.0 x 2.50	30.0	112.0	14.00	158g	<b>-0570M</b>

Sets of Three

1 each, taper, second and plug lead



Set of 3

Order Code SHR-087
<b>-0230P</b>
<b>-0280P</b>
<b>-0330P</b>
<b>-0370P</b>
<b>-0410P</b>
<b>-0450P</b>
<b>-0480P</b>
<b>-0510P</b>
<b>-0530P</b>
<b>-0570P</b>

**Metric HSS Ground Thread Left Hand Dies**

BS 1127

For use in diestocks to produce external screw threads.



**METRIC COARSE**

**LEFT HAND**

**HSS**

Size - Pitch (mm)	Outside Diameter	Thickness	Order Code SHR-087
M5.0 x 0.80	13/16"	1/4"	<b>-2360K</b>
M6.0 x 1.00	1"	3/8"	<b>-2530K</b>
M8.0 x 1.25	1"	3/8"	<b>-2550K</b>
M10.0 x 1.50	1"	3/8"	<b>-2570K</b>
M12.0 x 1.75	1 5/16"	7/16"	<b>-2740K</b>
M16.0 x 2.00	1 1/2"	1/2"	<b>-2970K</b>

**Machine Tapping Speeds**

Group	Materials Colour defines similar machineability	Hardness		Tensile Strength N/mm <sup>2</sup>	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 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 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 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	Through Hole	Spiral Point
	3.4 Malleable & Nodular Iron - Hard	200 - 300	-	-	4 - 6		
Aluminium	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		

**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:

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

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

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

**GROUP 085 HSS TAPS & DIES**

**SHERWOOD QUALITY CUTTING TOOLS** **UNC (Unified Coarse) HSS Ground Thread Tap Sets**

Sets of Three  
1 each, taper, second and plug lead  
ISO 529

Size - Pitch	Thread Length	Overall Length	Shank Diameter	Order Code SHR-085
1/4" x 20	19.0	66.0	6.30	-0850D
5/16" x 18	22.0	72.0	8.00	-0860D
3/8" x 16	24.0	80.0	10.00	-0870D
7/16" x 14	25.0	85.0	8.00	-0880D
1/2" x 13	29.0	89.0	9.00	-0890D
9/16" x 12	30.0	95.0	11.20	-0900D
5/8" x 11	32.0	102.0	12.50	-0910D
3/4" x 10	37.0	112.0	14.00	-0920D
7/8" x 9	38.0	118.0	16.00	-0930D
1" x 8	45.0	130.0	18.00	-0940D
1 1/4" x 7	51.0	151.0	22.40	-0960D

**UNC HSS**



Size - Pitch	Thread Length	Overall Length	Shank Diameter	Order Code SHR-085
No.2 x 56	9.5	44.5	2.80	-0770D
No.4 x 40	11.0	48.0	3.15	-0790D
No.6 x 32	13.0	50.0	3.55	-0810D
No.8 x 32	13.0	53.0	4.50	-0820D
No.10 x 24	16.0	58.0	5.00	-0830D

**UNC (Unified Coarse) HSS Ground Thread Dies**

BS 1127

**UNC HSS**



Size - Pitch	Outside Diameter	Thickness	Weight each	Order Code SHR-086
No.6 x 32	13/16"	1/4"	7g	-3020K
No.8 x 32	13/16"	1/4"	13g	-3030K
No.10 x 24	13/16"	1/4"	17g	-3040K
1/4" x 20	13/16"	3/8"	12g	-3060K
1/4" x 20	1"	3/8"	26g	-3220K
1/4" x 20	1 5/16"	7/16"	46g	-3340K
5/16" x 18	1"	3/8"	27g	-3230K
5/16" x 18	1 5/16"	7/16"	47g	-3350K
3/8" x 16	1"	3/8"	24g	-3240K
3/8" x 16	1 5/16"	7/16"	62g	-3360K
7/16" x 14	1"	3/8"	27g	-3250K
1/2" x 13	1 5/16"	7/16"	52g	-3380K
1/2" x 13	1 1/2"	1/2"	79g	-3480K
9/16" x 12	1 5/16"	7/16"	37g	-3390K
5/8" x 11	1 1/2"	1/2"	71g	-3500K
3/4" x 10	1 1/2"	1/2"	70g	-3510K
7/8" x 9	2"	5/8"	149g	-3660K
1" x 8	2"	5/8"	157g	-3670K

**UNC (Unified Coarse) HSS Ground Thread Die Nuts**

BS 1127

**UNC HSS**



Size - Pitch	Width	Thickness	Weight each	Order Code SHR-086
1/4" x 20	0.71"	1/4"	13g	-3920K
5/16" x 18	0.82"	5/16"	12g	-3950K
3/8" x 16	0.92"	3/8"	11g	-3970K
7/16" x 14	1.01"	7/16"	33g	-3990K
1/2" x 13	1.10"	1/2"	45g	-4010K
5/8" x 11	1.30"	5/8"	72g	-4040K
3/4" x 10	1.48"	1 1/16"	102g	-4070K
7/8" x 9	1.67"	13/16"	145g	-4090K
1" x 8	2.05"	15/16"	269g	-4110K

**UNF (Unified Fine) HSS Ground Thread Dies**

ISO 529

For use in diestocks to produce external screw threads.

**UNF HSS**



Size - Pitch	Outside Diameter	Thickness	Weight each	Order Code SHR-086
No.6 x 40	13/16"	1/4"	11g	-4280K
No.8 x 36	13/16"	1/4"	10g	-4290K
No.10 x 32	13/16"	1/4"	12g	-4300K
No.10 x 32	1"	3/8"	12g	-4470K
1/4" x 28	13/16"	1/4"	12g	-4320K
1/4" x 28	1"	3/8"	28g	-4490K
5/16" x 24	1"	3/8"	42g	-4500K
3/8" x 24	1"	3/8"	42g	-4510K
3/8" x 24	1 5/16"	7/16"	55g	-4640K
7/16" x 20	1"	3/8"	23g	-4520K
7/16" x 20	1 5/16"	7/16"	53g	-4650K
7/16" x 20	1 1/2"	1/2"	35g	-4770K
1/2" x 20	1 5/16"	7/16"	51g	-4660K
1/2" x 20	1 1/2"	1/2"	73g	-4780K
9/16" x 18	1 1/2"	1/2"	74g	-4790K
9/16" x 18	1 5/16"	7/16"	49g	-4670K
5/8" x 18	1 1/2"	1/2"	72g	-4800K
5/8" x 18	2"	5/8"	146g	-4960K
3/4" x 16	1 1/2"	1/2"	69g	-4810K
3/4" x 16	2"	5/8"	165g	-4970K
7/8" x 14	2"	5/8"	159g	-4980K
1" x 12	2"	5/8"	156g	-4990K

**UNF (Unified Fine) HSS Ground Thread Die Nuts**

BS 1127

**UNF HSS**



Size - Pitch	Width	Thickness	Weight each	Order Code SHR-086
1/4" x 28	0.71"	1/4"	10g	-5280K
5/16" x 24	0.82"	5/16"	20g	-5310K
3/8" x 24	0.92"	3/8"	24g	-5330K
7/16" x 20	1.10"	7/16"	33g	-5350K
1/2" x 20	1.10"	1/2"	44g	-5370K
9/16" x 18	1.30"	5/8"	76g	-5390K
5/8" x 18	1.30"	5/8"	72g	-5400K
3/4" x 16	1.48"	1 1/16"	101g	-5430K
7/8" x 14	1.67"	13/16"	148g	-5450K
1" x 12	2.05"	15/16"	272g	-5470K

CUTTING TOOLS



**BSW (British Standard Whitworth)  
HSS Ground Thread Tap Sets**

Sets of Three  
1 each, taper, second and plug lead  
ISO 529

**BSW**

**HSS**



Size - Pitch	Thread Length	Overall Length	Shank Diameter	Weight each	Order Code SHR-085
1/8" x 40	16.0	48.0	3.15		<b>-1320D</b>
3/16" x 24	16.0	58.0	5.00		<b>-1340D</b>
1/4" x 20	19.0	66.0	6.30		<b>-1360D</b>
5/16" x 18	22.0	72.0	8.00		<b>-1370D</b>
3/8" x 16	24.0	80.0	10.00		<b>-1380D</b>
7/16" x 14	25.0	85.0	8.00		<b>-1390D</b>
1/2" x 12	29.0	89.0	9.00		<b>-1400D</b>
5/8" x 11	32.0	102.0	12.50		<b>-1420D</b>
3/4" x 10	37.0	112.0	14.00		<b>-1430D</b>
7/8" x 9	38.0	118.0	16.00		<b>-1440D</b>
1" x 8	45.0	130.0	18.00		<b>-1450D</b>

**BSW (British Standard Whitworth)  
HSS Ground Thread Dies**

BS 1127

**BSW**

**HSS**



Size - Pitch	Outside Diameter	Thickness	Weight each	Order Code SHR-086
1/8" x 40	13/16"	1/4"	13g	<b>-5600K</b>
5/32" x 32	13/16"	1/4"	13g	<b>-5610K</b>
3/16" x 24	13/16"	1/4"	12g	<b>-5620K</b>
1/4" x 20	13/16"	1/4"	12g	<b>-5640K</b>
1/4" x 20	1"	3/8"	27g	<b>-5730K</b>
5/16" x 18	1"	3/8"	27g	<b>-5740K</b>
3/8" x 16	1"	3/8"	26g	<b>-5750K</b>
1/2" x 12	1 5/16"	7/16"	53g	<b>-5830K</b>
5/8" x 11	1 1/2"	1/2"	71g	<b>-5960K</b>
3/4" x 10	1 1/2"	1/2"	66g	<b>-5980K</b>

**BSW (British Standard Whitworth)  
HSS Ground Thread Die Nuts**

BS 1127

**BSW**

**HSS**



Size - Pitch	Width	Thickness	Weight each	Order Code SHR-086
1/4" x 20	0.71"	1/4"	10g	<b>-6490K</b>
5/16" x 18	0.82"	5/16"	16g	<b>-6570K</b>
3/8" x 16	0.92"	3/8"	25g	<b>-6590K</b>
1/2" x 12	1.10"	1/2"	44g	<b>-6630K</b>
5/8" x 11	1.30"	5/8"	78g	<b>-6660K</b>
3/4" x 10	1.48"	11/16"	102g	<b>-6700K</b>
7/8" x 9	1.67"	13/16"	144g	<b>-6740K</b>
1" x 8	2.05"	15/16"	265g	<b>-6780K</b>

**BSF (British Standard Fine)  
HSS Ground Thread Taps**

Sets of Three  
1 each, taper, second and plug lead  
ISO 529

**BSF**

**HSS**



Size - Pitch	Thread Length	Overall Length	Shank Diameter	Weight each	Order Code SHR-085
3/16" x 32	16.0	58.0	5.0		<b>-1600D</b>
1/4" x 26	19.0	66.0	6.3		<b>-1610D</b>
5/16" x 22	22.0	72.0	8.0		<b>-1630D</b>
3/8" x 20	24.0	80.0	10.0		<b>-1640D</b>
7/16" x 18	25.0	85.0	8.0		<b>-1650D</b>
1/2" x 16	29.0	89.0	9.0		<b>-1660D</b>
5/8" x 14	32.0	102.0	12.5		<b>-1680D</b>
3/4" x 12	37.0	112.0	14.0		<b>-1690D</b>

**BSF (British Standard Fine)  
HSS Ground Thread Dies**

BS 1127

**BSF**

**HSS**



Size - Pitch	Outside Diameter	Thickness	Weight each	Order Code SHR-086
3/16" x 32	13/16"	1/4"	12g	<b>-6950K</b>
1/4" x 26	13/16"	1/4"	12g	<b>-6980K</b>
1/4" x 26	1"	3/8"	27g	<b>-7020K</b>
5/16" x 22	1"	3/8"	27g	<b>-7030K</b>
3/8" x 20	1"	3/8"	26g	<b>-7040K</b>
3/8" x 20	1 5/16"	7/16"	51g	<b>-7100K</b>
1/2" x 16	1 5/16"	7/16"	54g	<b>-7120K</b>
5/8" x 14	1 1/2"	1/2"	73g	<b>-7250K</b>
3/4" x 12	1 1/2"	1/2"	67g	<b>-7270K</b>

**BA (British Association)  
HSS Ground Thread Taps**

Sets of Three  
1 each, taper,  
second and plug lead  
ISO 529

**BSF**

**HSS**



Size - Pitch	Shank Diameter	Weight per set	Order Code SHR-085
No.0 x 0.0394	6.30	48g	<b>-1800D</b>
No.2 x 0.0319	5.00	27g	<b>-1820D</b>
No.4 x 0.0260	3.55	18g	<b>-1840D</b>
No.6 x 0.0209	2.80	15g	<b>-1860D</b>
No.8 x 0.0169	2.80	19g	<b>-1880D</b>

**BA (British Association)  
HSS Ground Thread Dies**

BS 1127

**BA**

**HSS**



Pitch	Outside Diameter	Thickness	Weight each	Order Code SHR-086
No.8	13/16"	1/4"	10g	<b>-8180K</b>
No.6	13/16"	1/4"	11g	<b>-8200K</b>
No.5	13/16"	1/4"	10g	<b>-8210K</b>
No.4	13/16"	1/4"	12g	<b>-8220K</b>
No.3	13/16"	1/4"	12g	<b>-8230K</b>
No.2	13/16"	1/4"	12g	<b>-8240K</b>
No.0	13/16"	1/4"	11g	<b>-8260K</b>

**GROUP 085 HSS TAPS & DIES**

**SHERWOOD QUALITY CUTTING TOOLS** **BSPF (British Standard Pipe Fine) HSS Ground Thread Taps**

ISO 529



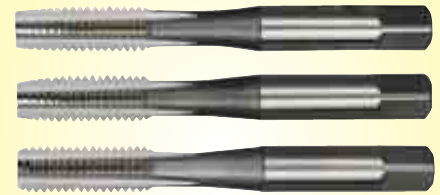
**Straight Flute Individual Sizes**

Size - Pitch	Thread Length	Overall Length	Shank Diameter	Weight each	Taper	Second	Plug
					Order Code SHR-085	Order Code SHR-085	Order Code SHR-085
1/8" x 28	15.0	59.0	8.0	26g	-2010A	-2010B	-2010C
1/4" x 19	19.0	67.0	10.0	47g	-2020A	-2020B	-2020C
3/8" x 19	21.0	75.0	12.5	75g	-2030A	-2030B	-2030C
1/2" x 14	26.0	87.0	16.0	137g	-2040A	-2040B	-2040C
5/8" x 14	26.0	91.0	18.0	191g	-	-2050B	-2050C
3/4" x 14	28.0	96.0	20.0	228g	-2060A	-2060B	-2060C
1" x 11	33.0	109.0	25.0	446g	-	-2080B	-2080C
1 1/4" x 11	36.0	119.0	31.5	775g	-	-2090B	-
1 1/2" x 11	37.0	125.0	35.5	1024g	-	-2100B	-2100C

Sets of Three  
1 each, taper, second  
and plug lead

**BSPF**

**HSS**



Set of 3

Order Code  
SHR-085

-2010D
-2020D
-2030D
-2040D
-2050D
-2060D
-2080D
-2090D
-

**BSPF (British Standard Pipe Fine) HSS Ground Thread Taps**

ISO 529

Spiral Point

**BSPF**

**HSS**



Size - Pitch	Shank Dia.	A/F Square	Weight each	Order Code SHR-085
1/8" x 28	8.0	6.3	24g	-2010E
1/4" x 19	10.0	8.0	51g	-2020E
3/8" x 19	12.5	10.0	85g	-2030E
1/2" x 14	16.0	12.5	143g	-2040E
3/4" x 14	20.0	16.0	250g	-2060E

**BSPF (British Standard Pipe Fine) HSS Ground Thread Taps**

ISO 529

Spiral Flute

**BSPF**

**HSS**



Size - Pitch	Shank Dia.	A/F Square	Weight each	Order Code SHR-085
1/8" x 28	8.0	6.3	24g	-2010F
1/4" x 19	10.0	8.0	51g	-2020F
3/8" x 19	12.5	10.0	85g	-2030F
1/2" x 14	16.0	12.5	143g	-2040F
3/4" x 14	20.0	16.0	250g	-2060F

**BSPF (British Standard Pipe Fine) HSS Ground Thread Dies**

BS 1127

**BSPF**

**HSS**



Size - Pitch	Outside Diameter	Thickness	Weight each	Order Code SHR-086
1/8" x 28	1"	3/8"	26g	-8620K
1/8" x 28	1 5/16"	7/16"	50g	-8640K
1/8" x 28	1 1/2"	1/2"	58g	-8680K
1/4" x 19	1 5/16"	7/16"	50g	-8650K
1/4" x 19	1 1/2"	1/2"	76g	-8690K
3/8" x 19	1 1/2"	1/2"	75g	-8700K
1/2" x 14	2"	5/8"	158g	-8760K
5/8" x 14	2"	5/8"	144g	-8770K
3/4" x 14	2"	5/8"	144g	-8780K
1" x 11	2 1/4"	1 1/16"	174g	-8860K

**BSPF (British Standard Pipe Fine) HSS Ground Thread Die Nuts**

BS 1127

**BSPF**

**HSS**



Size - Pitch	Width	Thickness	Weight each	Order Code SHR-086
1/8" x 28	0.92"	3/8"	23g	-8940K
1/4" x 19	1.10"	1/2"	43g	-8960K
3/8" x 19	1.30"	5/8"	80g	-8980K
1/2" x 14	1.67"	13/16"	161g	-9000K
3/4" x 14	2.05"	15/16"	247g	-9040K
1" x 11	2.58"	1 1/8"	428g	-9080K

**CUTTING TOOLS**



**BSPT (British Standard Pipe Taper)  
HSS Ground Thread Taps**

**BSPT HSS**

ISO 529

Plug - Straight Flute



Size - Pitch	Thread Length	Shank Diameter	Overall Length	Weight each	Order Code
1/8" x 28	15.0	8.0	59.0	29g	<b>-2200C</b>
1/4" x 19	19.0	10.0	67.0	50g	<b>-2210C</b>
3/8" x 19	21.0	12.5	75.0	66g	<b>-2220C</b>
1/2" x 14	26.0	16.0	87.0	142g	<b>-2230C</b>
3/4" x 14	28.0	20.0	96.0	241g	<b>-2240C</b>
1" x 11	33.0	25.0	109.0	267g	<b>-2250C</b>

**BSPT (British Standard Pipe Taper)  
HSS Ground Thread Dies**  
ISO 2284

**HSS**

**BSPT**

**BSPT (British Standard Pipe Taper)  
HSS Ground Thread Die Nuts**  
BS 1127

**HSS**

**BSPT**



Size - Pitch	Outside Diameter	Thickness	Weight each	Order Code
1/8" x 28	1"	3/8"	26g	<b>-9150K</b>
1/4" x 19	1 5/16"	7/16"	62g	<b>-9170K</b>
3/8" x 19	1 1/2"	1/2"	75g	<b>-9200K</b>
1/2" x 14	2"	5/8"	175g	<b>-9230K</b>
3/4" x 14	2"	5/8"	173g	<b>-9240K</b>

Size - Pitch	Width	Thickness	Weight each	Order Code
1/8" x 28	0.92"	3/8"	40g	<b>-9300K</b>
1/4" x 19	1.10"	1/2"	43g	<b>-9310K</b>
3/8" x 19	1.30"	5/8"	80g	<b>-9320K</b>
1/2" x 14	1.67"	1 3/16"	142g	<b>-9330K</b>

CUTTING TOOLS

**FREE**

**Wall Charts**



**Metric/Inch Conversion**

**A2**

Size  
420 wide  
x  
594mm high  
(16 1/2" x 23 1/2")

**Tapping Drill Size**



CAT-849-0937A

**AVAILABLE ON REQUEST**

Contact your local branch or representative

CAT-849-0938A

**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**

**GROUP 085 HSS TAPS & DIES**

**SHERWOOD QUALITY CUTTING TOOLS** **NPT (National Pipe Taper) HSS Ground Thread Taps**

ANSI 94.9  
Straight Flute

**HSS**

**NPT**



**Plug Lead**

Size - Pitch	Thread Length	Shank Diameter	Overall Length	Weight each	Order Code
1/16" x 27	1 1/16"	0.312	2 1/8"	20g	<b>-3010C</b>
1/8" x 27	3/4"	0.437	2 1/8"	50g	<b>-3020C</b>
1/4" x 18	1 1/16"	0.562	2 7/16"	70g	<b>-3030C</b>
3/8" x 18	1 1/16"	0.700	2 9/16"	100g	<b>-3040C</b>
1/2" x 14	1 3/8"	0.687	3 1/8"	180g	<b>-3050C</b>
3/4" x 14	1 3/8"	0.906	3 1/4"	230g	<b>-3060C</b>
1" x 11.5	1 3/4"	1.125	3 3/4"	420g	<b>-3070C</b>

**Straight Flute Interrupted Thread**

For reduced tapping friction.

**HSS**

**INTERRUPTED**

**NPT**



Size - Pitch	Thread Length	Shank Diameter	Overall Length	Weight each	Order Code
1/8" x 27	3/4"	0.437	2 1/8"	50g	<b>-3210C</b>
1/4" x 18	1 1/16"	0.562	2 7/16"	70g	<b>-3220C</b>
3/8" x 18	1 1/16"	0.700	2 9/16"	100g	<b>-3230C</b>
1/2" x 14	1 3/8"	0.687	3 1/8"	180g	<b>-3240C</b>

**NPT (National Pipe Taper) HSS Ground Thread Dies**

**HSS**

**NPT**



Size - Pitch	Outside Diameter	Thickness	Weight each	Order Code
1/8" x 27	1 5/16"	7/16"	44g	<b>-9400K</b>
1/4" x 18	1 5/16"	7/16"	69g	<b>-9410K</b>
1/4" x 18	1 1/2"	1/2"	88g	<b>-9430K</b>
3/8" x 18	1 1/2"	1/2"	80g	<b>-9440K</b>
1/2" x 14	2"	5/8"	159g	<b>-9470K</b>
3/4" x 14	2"	5/8"	189g	<b>-9480K</b>

**NPTF (National Pipe Taper Fuel) HSS Ground Thread Taps**

ANSI 94.9  
Straight Flute



**NPTF**

**HSS**



**Plug Lead**

Size - Pitch	Thread Length	Shank Diameter	Overall Length	Weight each	Order Code
1/8" x 27	3/4"	0.437	2 1/8"	50g	<b>-3410C</b>
1/4" x 18	1 1/16"	0.562	2 7/16"	91g	<b>-3420C</b>
3/8" x 18	1 1/16"	0.700	2 9/16"	105g	<b>-3430C</b>
1/2" x 14	1 3/8"	0.687	3 1/8"	205g	<b>-3440C</b>

**NPSF (National Pipe Standard Fuel) HSS Ground Thread Taps**

ANSI 94.9  
Straight Flute

**HSS**

**NPSF**



**Plug Lead**

Size - Pitch	Thread Length	Overall Length	Shank Diameter	Weight each	Order Code
1/8" x 27	3/4"	2 1/8"	0.437	45g	<b>-2910C</b>

**NPT (National Pipe Taper) HSS Ground Thread Die Nuts**

**HSS**

**NPT**



Taper 1 in 16 on dia. (shown exaggerated in diagram).

Size - Pitch	Width	Thickness	Weight each	Order Code
1/4" x 18	1.10"	1/2"	51g	<b>-9580K</b>
3/8" x 18	1.50"	5/8"	67g	<b>-9590K</b>
1/2" x 14	1.67"	13/16"	147g	<b>-9600K</b>

**CUTTING TOOLS**



**Metric Threading Set**



M2 - M16:

**HSS Ground Thread Taper and Second Taps:**

M2x0.40, M3x0.50, M4x0.70, M5x0.80, M6x1.00, M8x1.25, M10x1.50 and M12x1.75. Manufactured to ISO 529.

**Bar Type Tap Wrenches:** 1/16" - 1/4" and 3/16" - 1/2".

**Tapping Drills to Suit:** 1.6, 2.5, 3.3, 4.2, 5.0, 6.8, 8.5 and 10.2mm.

Made to BS 328/DIN 338N.

**1 3/16" O/D Split Dies:**

M2x0.40, M3x0.50, M4x0.70, M5x0.80 and M6x1.00.

**1" O/D Split Dies:**

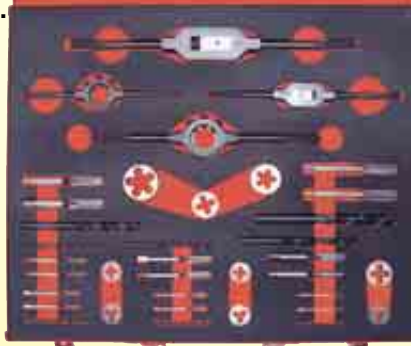
M8x1.25 and M10x1.50. Manufactured to BS 1127.

**Diestocks:**

1 3/16" O/D and 1" O/D.

**HSS Die Nuts:** M12x1.75 and M16x2.00.

Manufactured to BS 1127.



**METRIC COARSE**

**37  
PIECES**

Range	Number of Pieces	Order Code
M2 - M16	37	SHR-086 -9990K



**Metric Threading Set**



Metric M3 - M12

Comprehensive threading set containing machine ground HSS Taps and Dies in a metal box.

**Contents:**

**O/D Split Dies:** M3, M4, M5, M6, M8, M10 and M12.

**Ground Thread Taps** (1 of each, taper, second and plug lead): M3, M4, M5, M6, M8, M10 and M12.

**Bar Type Tap Wrench:**

M1 - M12 x 210mm.

**Die Stock:**

25 x 9 x 210mm.

**Metric Thread Pitch Gauge.**

**Flat Bladed**

**Screwdriver:** 6mm.



**32  
PIECES**

Range	Number of Pieces	Order Code
M3 - M162	32	SEN-086 -9980K

**UNC Threading Set**

No.10-3/4" UNC:

**HSSGT Straight Flute Taps:**

**Taper:** No. 10x24, 1/4"x20, 5/16"x18, 3/8"x16.

**Second:**

7/16"x14, 1/2"x13, 5/8"x11, 3/4"x10.

**Plug:**

No. 10x24, 1/4"x20, 5/16"x18, 3/8"x16.

**Bar Type Tap Wrenches:**

1/16" - 1/4" and 1/4" - 3/4".

**Tapping Drills to suit:** HSS S/S.

3.90, 5.10, 6.60, 8.00, 9.40, 10.80mm

**HSS 1" O/D Dies:**

1/4"x20, 5/16"x18, 3/8"x16.

**Diestock:**

1" O/D.

**HSS Die Nuts:**

7/16"x14, 1/2"x13, 5/8"x11, 3/4"x10.

**UNC**

**28  
PIECES**

Range	Number of Pieces	Order Code
10-3/4"UNC	28	SHR-086 -9994K

**BSW Threading Set**

3/16"-3/4" BSW:

**HSSGT Straight Flute Taps:**

**Taper:** 3/16"x24, 1/4"x20, 5/16"x18, 3/8"x16.

**Second:**

7/16"x14, 1/2" x12, 5/8"x11, 3/4"x10.

**Plug:**

3/8"x16, 5/16"x18, 1/4"x20, 3/16"x24.

**Bar Type Tap Wrenches:**

1/4" - 3/4" and 1/16" - 1/4".

**Tapping Drills to Suit:** HSS S/S.

3.70, 5.10, 6.50, 7.90, 9.30, 10.50mm

**HSS 1" O/D Dies:**

1/4"x2, 5/16"x18 and 3/8"x16.

**Diestock:**

1" O/D.

**HSS Die Nuts:**

7/16"x14, 1/2"x12, 5/8"x11 and 3/4"x10.

**BSW**

**28  
PIECES**

Range	Number of Pieces	Order Code
3/16-3/4"BSW	28	SHR-086 -9992K

**BSF Threading Set**

3/16"-3/4" BSF:

**HSSGT Straight Flute Taps:**

**Taper:** 3/16"x32, 1/4"x26, 5/16"x22, 3/8"x20.

**Second:**

3/4"x12, 7/16"x18, 5/8"x14 1/2"x16.

**Plug:**

3/16"x32, 1/4"x26, 5/16"x22, 3/8"x20.

**Bar Type Tap Wrenches:**

1/16" - 1/4" and 1/4" - 3/4".

**Tapping Drills to Suit:** HSS S/S.

4.00, 5.30, 6.80, 8.30, 9.70, 11.10mm

**HSS 1" O/D Split Dies:**

1/4"x26, 5/16"x22 and 3/8"x20.

**Diestock:**

1" O/D.

**HSS Die Nuts:**

7/16"x18, 1/2"x16, 5/8"x14 and 3/4"x12.

**BSF**

**28  
PIECES**

Range	Number of Pieces	Order Code
3/16-3/4"BSF	28	SHR-086 -9991K

**UNF Threading Set**

No.10-3/4" UNF:

**HSSGT Straight Flute Taps:**

**Taper:** No.10x32, 1/4"x28, 5/16"x24, 3/8"x24.

**Second:**

3/4"x16, 7/16"x20, 5/8"x18, 1/2"x20.

**Plug:**

No.10x32, 1/4"x28, 5/16"x24, 3/8"x24.

**Bar Type Tap Wrenches:**

1/16" - 1/4" and 1/4" - 3/4".

**Tapping Drills to Suit:** HSS S/S.

4.10, 5.50, 6.90, 8.50, 9.50, 11.50mm

**HSS 1" O/D Dies:**

1/4"x28, 5/16"x24, 3/8"x24.

**Diestock:**

1" O/D.

**HSS Die Nuts:**

7/16"x20, 1/2"x20, 5/8"x18, 3/4" x 16.

**UNF**

**28  
PIECES**

Range	Number of Pieces	Order Code
10-3/4"BSF	28	SHR-086 -9993K



CUTTING TOOLS

**GROUP 085 PRODUCTION TAPS**

**SWISS+TECH HSS-E 'Black Ring' Taps**

**MULTI APPLICATION**

The unique general purpose properties of these taps guarantee high productivity by reducing the amount of time spent changing taps for different materials and at the same time reduces the number of taps required by the machine shop.

Swiss+Tech 'Black Ring' machine taps with their wide range of applications are the result of years of experience in metal cutting. Responsible for our developments were the following demands from our main customers:

- Increase of a tap's versatility.
- Reducing the confusing type variety.
- Reducing the storage costs for the tools.
- Reducing the tool changing times.

For general tapping applications. For production tapping of specific materials a specialist tap may be more suitable. Manufactured to **DIN 371/376**.

**DIN 371/6**

Suitable for the following Material Groups

Group	Materials Colour defines similar machineability	Hardness		Tensile Strength N/mm <sup>2</sup>	Tapping Speed M/min
		Brinell HB	Rockwell HRC		
1.1	Mild Steel	<130	-	<400	10 - 15
1.2	Case Hardening & Structural Steel	<200	-	<700	10 - 15
1.3	Medium Carbon Steel	<260	<26	<850	5 - 10
1.4	Low Alloy Steel	<260	<26	<850	4 - 8
2.1	Free Machining Stainless	<230	<20	<800	2 - 5
2.2	Medium Strength Austenitic Stainless	<260	<26	<850	2 - 5
7.1	Unalloyed Aluminium Zinc - Magnesium	-	-	<150	15 - 20
7.2	Aluminium Alloy less than 5% Si	-	-	150 - 300	15 - 20
7.3	Aluminium Alloy 5% to 10% Si	<230	<20	<800	5 - 10

**Spiral Point - HSS-E Bright Finish**  
For through holes.  
Taper lead to **DIN form B**.  
Tapping tolerance to **6H**.

**METRIC HSS-E**

**SPIRAL POINT FOR THROUGH HOLES**



ISO Metric

Size - Pitch (mm)	(l1) Overall Length	(l2) Thread Length	(d2) Shank Dia.	A/F Square	Weight each	Order Code <b>SWT-185</b>
M3 x 0.50	56	2.5	3.5	2.7	5g	<b>-8509X</b>
M4 x 0.70	63	3.3	4.5	3.4	8g	<b>-8515X</b>
M5 x 0.80	70	4.2	6.0	4.9	14g	<b>-8518X</b>
M6 x 1.00	80	5.0	6.0	4.9	18g	<b>-8521X</b>
M8 x 1.25	90	6.8	8.0	6.2	33g	<b>-8527X</b>
M10 x 1.50	100	8.5	10.0	8.0	56g	<b>-8530X</b>
M12 x 1.75	110	10.2	9.0	7.0	61g	<b>-8533X</b>
M16 x 2.00	110	14.0	12.0	9.0	100g	<b>-8539X</b>
M20 x 2.50	140	17.5	16.0	12.0	210g	<b>-8542X</b>

**HSS-E 'Black Ring' M3 - M8 Spiral Point**

**5 Piece Tap Set**

'Black Ring' machine taps for general tapping applications suitable for steels, low alloy steels, stainless steels and non-ferrous materials.

Manufactured to **DIN371/376**.

Tapping tolerance to **6H**.

**Spiral Point - HSS-E Bright Finish**

For through holes.

Taper lead to **DIN form B**.

Contents:

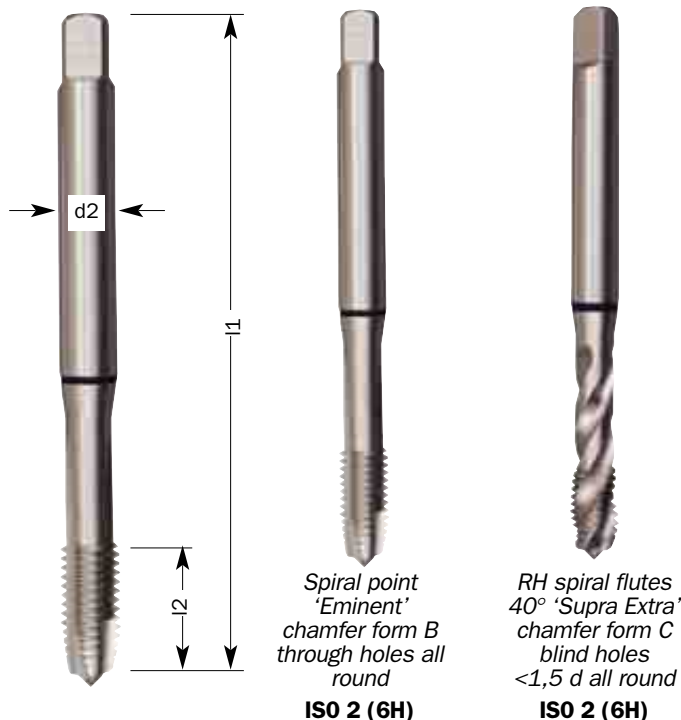
Pitch sizes	Thread length
M3 x 0.5mm	2.5mm
M4 x 0.7mm	3.3mm
M5 x 0.8mm	4.2mm
M6 x 1.0mm	5.0mm
M8 x 1.25mm	6.8mm



Number of Pieces  
**5**

Order Code  
**SWT-185**  
**-9900X**

The tool geometry (with up to 138 parameters) has been developed and optimised during long-term tests in co-operation with users for the different sections of structural steel, aluminum casting, machining steel, VA-steels, heat-resistant steels and tool steels. Selected hard coatings increase the range of applications. The objective of developing Swiss+Tech's 'Black Ring' Taps was the realisation of narrower tolerances and more efficient cutting times for the thread production.



Spiral point 'Eminent' chamfer form B through holes all round  
**ISO 2 (6H)**

RH spiral flutes 40° 'Supra Extra' chamfer form C blind holes <1.5 d all round  
**ISO 2 (6H)**

**Spiral Flute**  
For blind holes.  
Taper lead to **DIN form C**.  
Tapping tolerance to **6H**.

**METRIC HSS-E**

**SPIRAL FLUTE FOR BLIND HOLES**



ISO Metric

Size - Pitch (mm)	(l1) Overall Length	(l2) Thread Length	(d2) Shank Dia.	A/F Square	Weight each	Order Code <b>SWT-185</b>
M3 x 0.50	56	2.5	3.5	2.7	5g	<b>-8559X</b>
M4 x 0.70	63	3.3	4.5	3.4	8g	<b>-8565X</b>
M5 x 0.80	70	4.2	6.0	4.9	14g	<b>-8568X</b>
M6 x 1.00	80	5.0	6.0	4.9	17g	<b>-8571X</b>
M8 x 1.25	90	6.8	8.0	6.2	31g	<b>-8577X</b>
M10 x 1.50	100	8.5	10.0	8.0	53g	<b>-8580X</b>
M12 x 1.75	110	10.2	9.0	7.0	57g	<b>-8583X</b>
M16 x 2.00	110	14.0	12.0	9.0	91g	<b>-8589X</b>
M20 x 2.50	140	17.5	16.0	12.0	195g	<b>-8592X</b>

**HSS-E 'Black Ring' M3 - M8 Spiral Flute**

**5 Piece Tap Set**

'Black Ring' machine taps for general tapping applications suitable for steels, low alloy steels, stainless steels and non-ferrous materials.

Manufactured to **DIN371/376**.

Tapping tolerance to **6H**.

**Spiral Flute - HSS-E Bright Finish**

For blind holes.

Taper lead to **DIN form C**.

Contents:

Pitch sizes	Thread length
M3 x 0.5mm	2.5mm
M4 x 0.7mm	3.3mm
M5 x 0.8mm	4.2mm
M6 x 1.0mm	5.0mm
M8 x 1.25mm	6.8mm



Number of Pieces  
**5**

Order Code  
**SWT-185**  
**-9910X**

**SWISS+TECH HSS "Yellow Ring" Taps**

Manufactured to **DIN 371/376**



**Suitable for the following Material Groups**

Group	Materials	Brinell Hardness HB	Tensile Strength N/mm2	Tapping Speed M/min
1.1	Mild soft steel & free machining non-alloy low carbon steel	up to 130	up to 400	10 - 20
1.2	Non-alloy case hardening, structural & low to medium carbon steel	up to 200	up to 700	10 - 15
1.3	Non-alloy, plain and medium carbon steel and castings	up to 260	up to 850	5 - 10
1.4	Generally low to medium alloy steel and castings	up to 260	up to 850	4 - 9
2.1	Soft & generally easy to machine ferritic, martensitic stainless steel & castings	up to 230	up to 880	4 - 6
6.3	Brass (beta - short chip) & soft bronze	-	up to 500	15 - 20

**Spiral Point - HSS-EV Oxidised Finish**

For through holes.  
Taper lead to **DIN form B**.  
(3.5 x P to 5.5 x P).  
Tapping tolerance to **6H**.



**HSS-EV**

**SPIRAL POINT FOR THROUGH HOLES**

**ISO Metric Coarse**

Size - Pitch (mm)	Overall Length	Thread Length	Shank Dia.	A/F Square	Weight each	Order Code <b>SWT-185</b>
M2.0 x 0.40	45.0	8.0	2.8	2.1	4g	<b>-0003Y</b>
M3.0 x 0.50	56.0	11.0	3.5	2.7	5g	<b>-0009Y</b>
M4.0 x 0.70	63.0	13.0	4.5	3.4	8g	<b>-0015Y</b>
M5.0 x 0.80	70.0	15.0	6.0	4.9	13g	<b>-0018Y</b>
M6.0 x 1.00	80.0	17.0	6.0	4.9	17g	<b>-0021Y</b>
M8.0 x 1.25	90.0	20.0	8.0	6.0	32g	<b>-0027Y</b>
M10.0 x 1.50	100.0	22.0	10.0	8.0	55g	<b>-0030Y</b>
M12.0 x 1.75	110.0	24.0	9.0	7.0	61g	<b>-0033Y</b>
M16.0 x 2.00	110.0	27.0	12.0	9.0	108g	<b>-0039Y</b>

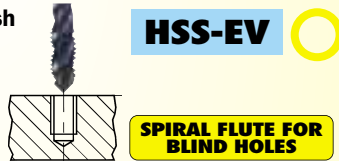
**BSP - British Standard Pipe DIN 5156**



Size - Pitch	Overall Length	Thread Length	Shank Dia.	Square Size	Weight each	Order Code <b>SWT-185</b>
1/8" x 28	90.0	20.0	7.0	5.5	16g	<b>-0902Y</b>
1/4" x 19	100.0	22.0	11.0	9.0	48g	<b>-0904Y</b>
3/8" x 19	100.0	22.0	12.0	9.0	69g	<b>-0906Y</b>
1/2" x 14	125.0	25.0	16.0	12.0	152g	<b>-0908Y</b>

**Spiral Flute - HSS-EV Oxidised Finish**

For blind holes.  
Taper lead to **DIN form C** (3 x P).  
Tapping tolerance:  
Spiral flute to **6H**.



**HSS-EV**

**SPIRAL FLUTE FOR BLIND HOLES**

**ISO Metric Coarse**

Helix angle **40°**. Tapping depth **2.5 x D**.

Size - Pitch (mm)	Overall Length	Thread Length	Shank Dia.	A/F Square	Weight each	Order Code <b>SWT-185</b>
M2.0 x 0.40	45.0	8.0	2.8	2.1	5g	<b>-0503Y</b>
M3.0 x 0.50	56.0	6.0	3.5	2.7	5g	<b>-0509Y</b>
M3.5 x 0.60	56.0	7.0	4.0	3.0	6g	<b>-0512Y</b>
M4.0 x 0.70	63.0	7.0	4.5	3.4	8g	<b>-0515Y</b>
M5.0 x 0.80	70.0	8.0	6.0	4.9	13g	<b>-0518Y</b>
M6.0 x 1.00	80.0	10.0	6.0	4.9	16g	<b>-0521Y</b>
M8.0 x 1.25	90.0	13.0	8.0	6.2	30g	<b>-0527Y</b>
M10.0 x 1.50	100.0	15.0	10.0	8.0	45g	<b>-0530Y</b>
M12.0 x 1.75	110.0	18.0	9.0	7.0	56g	<b>-0533Y</b>
M16.0 x 2.00	110.0	20.0	12.0	9.0	95g	<b>-0539Y</b>

**BSP - British Standard Pipe Bright Finish DIN5156**



Size - Pitch	Overall Length	Thread Length	Shank Dia.	Square Size	Weight each	Order Code <b>SWT-185</b>
1/8" x 28	90.0	20.0	7.0	5.5	16g	<b>-0932Y</b>
1/4" x 19	100.0	22.0	11.0	9.0	48g	<b>-0934Y</b>
3/8" x 19	100.0	22.0	12.0	9.0	69g	<b>-0936Y</b>
1/2" x 14	125.0	25.0	16.0	12.0	152g	<b>-0938Y</b>
3/4" x 14	140.0	28.0	20.0	16.0	305g	<b>-0942Y</b>

**HSS 'Blue Ring' Taps**

Manufactured to **DIN 371/376**



**Suitable for the following Material Groups**

Group	Materials	Brinell Hardness HB	Tensile Strength N/mm2	Tapping Speed M/min
2.1	Soft and generally easy to machine ferritic & martensitic stainless steel and castings	up to 230	up to 800	4 - 6
2.2	Medium strength & reasonable to machine austenitic stainless steel and castings	up to 290	up to 1000	4 - 6
2.3	Hard & generally difficult to machine ferritic & austenitic stainless steel & castings	up to 340	up to 1200	3 - 6

**Note:** Fluteless taps may also be used on stainless steel. See 'Green Ring' **FLUTELESS** on page 192.

**Spiral Point - HSS-EV Oxidised Finish**

For through holes.  
Taper lead to **DIN form B** (3.5 x P to 5.5 x P).  
Tapping tolerance to **6HX**.



**HSS-EV**

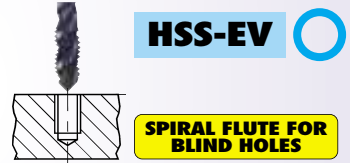
**SPIRAL POINT FOR THROUGH HOLES**

**ISO Metric Coarse**

Size - Pitch (mm)	Overall Length	Thread Length	Shank Dia.	A/F Square	Weight each	Order Code <b>SWT-185</b>
M2.0 x 0.40	45.0	8.0	2.8	2.1	4g	<b>-2003B</b>
M3.0 x 0.50	56.0	11.0	3.5	2.7	5g	<b>-2009B</b>
M4.0 x 0.70	63.0	13.0	4.5	3.4	8g	<b>-2015B</b>
M5.0 x 0.80	70.0	15.0	6.0	4.9	13g	<b>-2018B</b>
M6.0 x 1.00	80.0	17.0	6.0	4.9	17g	<b>-2021B</b>
M8.0 x 1.25	90.0	20.0	8.0	6.0	32g	<b>-2027B</b>
M10.0 x 1.50	100.0	22.0	10.0	8.0	55g	<b>-2030B</b>
M12.0 x 1.75	110.0	24.0	9.0	7.0	61g	<b>-2033B</b>
M16.0 x 2.00	110.0	27.0	12.0	9.0	108g	<b>-2039B</b>

**Spiral Flute (BLT) - HSS-EV Oxidised Finish**

For deep blind holes. Taper lead to **DIN form C** (2 x P to 3 x P).  
Tapping tolerance to **6H**.



**HSS-EV**

**SPIRAL FLUTE FOR BLIND HOLES**

**'Biteless Taper' ISO Metric Coarse**

Helix angle **45°**

Size - Pitch (mm)	Overall Length	Thread Length	Shank Dia.	A/F Square	Weight each	Order Code <b>SWT-185</b>
M2.0 x 0.40	45.0	8.0	2.8	2.1	5g	<b>-2503B</b>
M3.0 x 0.50	56.0	6.0	3.5	2.7	5g	<b>-2509B</b>
M4.0 x 0.70	63.0	7.0	4.5	3.4	8g	<b>-2515B</b>
M5.0 x 0.80	70.0	8.0	6.0	4.9	13g	<b>-2518B</b>
M6.0 x 1.00	80.0	11.0	6.0	4.9	16g	<b>-2521B</b>
M8.0 x 1.25	90.0	13.0	8.0	6.2	30g	<b>-2527B</b>
M10.0 x 1.50	100.0	15.0	10.0	8.0	45g	<b>-2530B</b>
M12.0 x 1.75	110.0	18.0	9.0	7.0	56g	<b>-2533B</b>
M16.0 x 2.00	110.0	20.0	12.0	9.0	95g	<b>-2539B</b>

**Spiral Flute (BLF) - HSS-EV Oxidised Finish**

For shorter blind holes.  
Taper lead to **DIN form C** (3 x P).  
Tapping tolerance to **6H**.



**HSS-EV**

**SPIRAL FLUTE FOR BLIND HOLES**

**'Biteless Flat' ISO Metric Coarse**

Helix angle **45°**.

Size - Pitch (mm)	Overall Length	Thread Length	Shank Dia.	A/F Square	Weight each	Order Code <b>SWT-185</b>
M3.0 x 0.50	56.0	6.0	3.5	2.7	5g	<b>-3009B</b>
M4.0 x 0.70	63.0	7.0	4.5	3.4	8g	<b>-3015B</b>
M5.0 x 0.80	70.0	8.0	6.0	4.9	13g	<b>-3018B</b>
M6.0 x 1.00	80.0	11.0	6.0	4.9	16g	<b>-3021B</b>
M8.0 x 1.25	90.0	13.0	8.0	6.2	30g	<b>-3027B</b>
M10.0 x 1.50	100.0	15.0	10.0	8.0	45g	<b>-3030B</b>
M12.0 x 1.75	110.0	18.0	9.0	7.0	56g	<b>-3033B</b>
M16.0 x 2.00	110.0	20.0	12.0	9.0	95g	<b>-3039B</b>

**GROUP 085 PRODUCTION TAPS**

**SWISS+TECH HSS 'Red Ring' Taps**

Manufactured to **DIN 371/376**



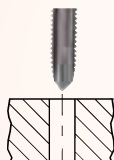
Suitable for the following Material Groups

Group	Materials	Brinell Hardness HB	Tensile Strength N/mm <sup>2</sup>	Tapping Speed M/min
1.4	Generally low to medium alloy steel and castings	up to 260	up to 850	5 - 10
1.5	Medium to high alloy steel tool steel and steel castings	up to 340	up to 1200	4 - 8

**Spiral Point - HSS-Co Bright Finish**

For through holes. Taper lead to **DIN form B** (3.5 x P to 5.5 x P). Tapping tolerance to **6HX**.

**HSS-Co.**



**SPIRAL POINT FOR THROUGH HOLES**



**ISO Metric Coarse**

Size - Pitch (mm)	Overall Length	Thread Length	Shank Dia.	A/F Square	Weight each	Order Code <b>SWT-185</b>
M2.0 x 0.40	45.0	8.0	2.8	2.1	4g	<b>-1003R</b>
M3.0 x 0.50	56.0	11.0	3.5	2.7	5g	<b>-1009R</b>
M4.0 x 0.70	63.0	13.0	4.5	3.4	8g	<b>-1015R</b>
M5.0 x 0.80	70.0	15.0	6.0	4.9	13g	<b>-1018R</b>
M6.0 x 1.00	80.0	17.0	6.0	4.9	17g	<b>-1021R</b>
M8.0 x 1.25	90.0	20.0	8.0	6.2	32g	<b>-1027R</b>
M10.0 x 1.50	100.0	22.0	10.0	8.0	58g	<b>-1030R</b>
M12.0 x 1.75	110.0	24.0	9.0	7.0	61g	<b>-1033R</b>
M16.0 x 2.00	110.0	27.0	12.0	9.0	108g	<b>-1039R</b>

**HSS 'White Ring' Taps**

Manufactured to **DIN 371/376**



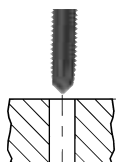
Suitable for the following Material Groups

Group	Materials	Brinell Hardness HB	Tensile Strength N/mm <sup>2</sup>	Tapping Speed M/min
3.1	Grey cast iron Hardness soft to medium	up to 130	up to 400	8 - 12
3.2	Grey cast iron Hardness medium to hard	up to 200	up to 700	4 - 6
3.3	Malleable and nodular irons Hardness soft to medium	up to 260	up to 850	4 - 6
3.4	Malleable and nodular irons Hardness medium to hard	up to 200	up to 700	4 - 6

**Straight Flute - HSS-EV Nitride Finish**

For through holes. Taper lead to **DIN form D** (taper) 3.5 x P to 5 x P). Tapping tolerance to **6HX**.

**HSS-EV**



**METRIC COARSE**

**STRAIGHT FLUTE FOR THROUGH HOLES**



**ISO Metric Coarse**

Size - Pitch (mm)	Overall Length	Thread Length	Shank Dia.	A/F Square	Weight each	Order Code <b>SWT-185</b>
M2.0 x 0.40	45.0	8.0	2.8	2.1	4g	<b>-3503W</b>
M3.0 x 0.50	56.0	11.0	3.5	2.7	5g	<b>-3509W</b>
M4.0 x 0.70	63.0	13.0	4.5	3.4	8g	<b>-3515W</b>
M5.0 x 0.80	70.0	15.0	6.0	4.9	13g	<b>-3518W</b>
M6.0 x 1.00	80.0	17.0	6.0	4.9	17g	<b>-3521W</b>
M8.0 x 1.25	90.0	20.0	8.0	6.2	32g	<b>-3527W</b>
M10.0 x 1.50	100.0	22.0	10.0	8.0	55g	<b>-3530W</b>
M12.0 x 1.75	110.0	24.0	9.0	7.0	61g	<b>-3533W</b>

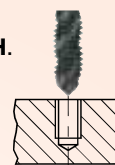
**Spiral Flute - HSS-EV Oxidised Finish**

For blind holes. Taper lead to **DIN form C** (3 x P). Tapping tolerance: spiral flute to **6H**.



**HSS-EV**

**SPIRAL FLUTE FOR BLIND HOLES**



**ISO Metric Coarse**

Helix angle 40°. Tapping depth 2.5 x D.

Size - Pitch (mm)	Overall Length	Thread Length	Shank Dia.	A/F Square	Weight each	Order Code <b>SWT-185</b>
M2.0 x 0.40	45.0	3.0	2.8	2.1	5g	<b>-1503R</b>
M3.0 x 0.50	56.0	6.0	3.5	2.7	5g	<b>-1509R</b>
M4.0 x 0.70	63.0	7.0	4.5	3.4	8g	<b>-1515R</b>
M5.0 x 0.80	70.0	8.0	6.0	4.9	13g	<b>-1518R</b>
M6.0 x 1.00	80.0	10.0	6.0	4.9	16g	<b>-1521R</b>
M8.0 x 1.25	90.0	13.0	8.0	6.2	30g	<b>-1527R</b>
M10.0 x 1.50	100.0	15.0	10.0	8.0	45g	<b>-1530R</b>
M12.0 x 1.75	110.0	18.0	9.0	7.0	56g	<b>-1533R</b>
M16.0 x 2.00	110.0	20.0	12.0	9.0	95g	<b>-1539R</b>

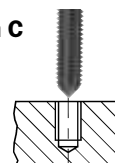


**Straight Flute - HSS-EV Nitride Finish**

For blind holes. Plug/bottoming lead to **DIN form C** (2 x P to 3 x P). Tapping tolerance to **6HX**.

**HSS-EV**

**METRIC COARSE**



**STRAIGHT FLUTE FOR BLIND HOLES**



**ISO Metric Coarse**

Size - Pitch (mm)	Overall Length	Thread Length	Shank Dia.	A/F Square	Weight each	Order Code <b>SWT-185</b>
M2.0 x 0.40	45.0	8.0	2.8	2.1	4g	<b>-4003W</b>
M2.5 x 0.45	50.0	9.0	2.8	2.1	4g	<b>-4006W</b>
M3.0 x 0.50	56.0	11.0	3.5	2.7	5g	<b>-4009W</b>
M4.0 x 0.70	63.0	13.0	4.5	3.4	8g	<b>-4015W</b>
M5.0 x 0.80	70.0	15.0	6.0	4.9	13g	<b>-4018W</b>
M6.0 x 1.00	80.0	17.0	6.0	4.9	17g	<b>-4021W</b>
M8.0 x 1.25	90.0	20.0	8.0	6.2	32g	<b>-4027W</b>
M10.0 x 1.50	100.0	22.0	10.0	8.0	58g	<b>-4030W</b>
M12.0 x 1.75	110.0	24.0	9.0	7.0	61g	<b>-4033W</b>
M14.0 x 2.00	110.0	30.0	11.0	9.0	78g	<b>-4036W</b>
M16.0 x 2.00	110.0	27.0	12.0	9.0	108g	<b>-4039W</b>



CUTTING TOOLS

**SWISS+TECH HSS 'Orange Ring' Taps**



Manufactured to DIN 371/376

**Suitable for the following Material Groups**

Group	Materials	Brinell Hardness HB	Tensile Strength N/mm <sup>2</sup>	Tapping Speed M/min
4.3	Titanium alloys of a hard and very hard to machine nature	-	up to 1250	3 - 6
5.1	Heat resistant super alloys including iron based high temperature alloys	-	up to 500	6 - 6
5.2	Heat resistant super alloys, cobalt or nickel based medium to hard to machine	-	up to 900	3 - 6
5.3	Heat resistant super alloys, cobalt or nickel based hard to very hard to machine	-	up to 1200	3 - 6

**Spiral Point - HSS-PM Nitride & Oxide Finish**

For through holes.

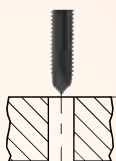
Taper lead to **DIN form B**

(3.5 x P to 5.5 x P).

Tapping tolerance to **6HX**.



**METRIC COARSE**



**SPIRAL POINT FOR THROUGH HOLES**



**ISO Metric Coarse**

Size - Pitch (mm)	Overall Length	Thread Length	Shank Dia.	A/F Square	Weight each	Order Code <b>SWT-185</b>
M3.0 x 0.50	56.0	11.0	3.5	2.7	5g	<b>-5509N</b>
M4.0 x 0.70	63.0	13.0	4.5	3.4	8g	<b>-5515N</b>
M5.0 x 0.80	70.0	15.0	6.0	4.9	13g	<b>-5518N</b>
M6.0 x 1.00	80.0	17.0	6.0	4.9	17g	<b>-5521N</b>
M8.0 x 1.25	90.0	20.0	8.0	6.0	32g	<b>-5527N</b>
M10.0 x 1.50	100.0	22.0	10.0	8.0	55g	<b>-5530N</b>
M12.0 x 1.75	110.0	24.0	9.0	7.0	61g	<b>-5533N</b>
M16.0 x 2.00	110.0	27.0	12.0	9.0	108g	<b>-5539N</b>

**Spiral Flute - HSS-PM Nitride & Oxide Finish**

For blind holes.

Taper lead to **DIN form C**.

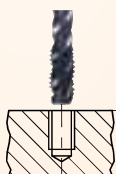
This tap has the special chamfer lead of (3 x P).

Tapping tolerance:

spiral flute to **6H**.



**METRIC COARSE**



**SPIRAL FLUTE FOR BLIND HOLES**



**ISO Metric Coarse**

Helix angle 40°. Tapping depth 2.5 x D.

Size - Pitch (mm)	Overall Length	Thread Length	Shank Dia.	A/F Square	Weight each	Order Code <b>SWT-185</b>
M3.0 x 0.50	56.0	6.0	3.5	2.7	5g	<b>-6009N</b>
M4.0 x 0.70	63.0	7.0	4.5	3.4	9g	<b>-6015N</b>
M5.0 x 0.80	70.0	8.0	6.0	4.9	13g	<b>-6018N</b>
M6.0 x 1.00	80.0	10.0	6.0	4.9	16g	<b>-6021N</b>
M8.0 x 1.25	90.0	13.0	8.0	6.2	30g	<b>-6027N</b>
M10.0 x 1.50	100.0	15.0	10.0	8.0	51g	<b>-6030N</b>
M12.0 x 1.75	110.0	18.0	9.0	7.0	56g	<b>-6033N</b>
M14.0 x 2.00	110.0	20.0	11.0	9.0	63g	<b>-6036N</b>
M16.0 x 2.00	110.0	20.0	12.0	9.0	95g	<b>-6039N</b>

**HSS 'Purple Ring' Taps**



Manufactured to DIN 371/376.



**Suitable for the following Material Groups**

Group	Materials	Brinell Hardness HB	Tensile Strength N/mm <sup>2</sup>	Tapping Speed M/min
4.1	Titanium alloy (also pure nickel)	-	-	3 - 9
4.2	Titanium alloy medium and hard to machine	-	up to 900	6 - 9
4.3	Titanium alloys of a hard and very hard to machine nature	-	up to 1200	6 - 9

**Spiral Flute - HSS-PM Nitride Finish**

**Right Hand Cutting - Left Hand**

For blind holes. Left hand spiral.

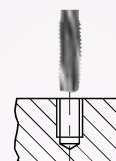
Taper lead to **DIN form D**

(3.5 x P to 5 x P).

Tapping tolerance to **6HX**.



**METRIC COARSE**



**LEFT HAND SPIRAL FLUTE FOR BLIND HOLES**



**ISO Metric Coarse**

Helix angle 15°.

Size - Pitch (mm)	Overall Length	Thread Length	Shank Dia.	A/F Square	Weight each	Order Code <b>SWT-185</b>
M3.0 x 0.50	56.0	11.0	3.5	2.7	5g	<b>-4509P</b>
M4.0 x 0.70	63.0	13.0	4.5	3.4	8g	<b>-4515P</b>
M5.0 x 0.80	70.0	16.0	6.0	4.9	14g	<b>-4518P</b>
M6.0 x 1.00	80.0	19.0	6.0	4.9	17g	<b>-4521P</b>
M8.0 x 1.25	90.0	22.0	8.0	6.2	32g	<b>-4527P</b>
M10.0 x 1.50	100.0	24.0	10.0	8.0	55g	<b>-4530P</b>
M12.0 x 1.75	110.0	29.0	9.0	7.0	63g	<b>-4533P</b>
M16.0 x 2.00	110.0	32.0	12.0	9.0	111g	<b>-4539P</b>

**Spiral Flute - HSS-PM Nitride Finish**

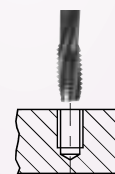
For blind holes.

Taper lead to **DIN form B** (3 x P).

Tapping tolerance to **6HX**.



**METRIC COARSE**



**SPIRAL FLUTE FOR BLIND HOLES**



**ISO Metric Coarse**

Helix angle 15°. Tapping depth 2.5 x D.

Size - Pitch (mm)	Overall Length	Thread Length	Shank Dia.	A/F Square	Weight each	Order Code <b>SWT-185</b>
M3.0 x 0.50	56.0	6.0	3.5	2.7	5g	<b>-5009P</b>
M4.0 x 0.70	63.0	7.0	4.5	3.4	8g	<b>-5015P</b>
M5.0 x 0.80	70.0	8.0	6.0	4.9	14g	<b>-5018P</b>
M6.0 x 1.00	80.0	10.0	6.0	4.9	17g	<b>-5021P</b>
M8.0 x 1.25	90.0	13.0	8.0	6.2	32g	<b>-5027P</b>
M10.0 x 1.50	100.0	15.0	10.0	8.0	55g	<b>-5030P</b>
M12.0 x 1.75	110.0	18.0	9.0	7.0	63g	<b>-5033P</b>

**SWISS+TECH HSS 'Green Ring' Taps**

Manufactured to **DIN 371/376**.



**Suitable for the following Material Groups**

Group	Materials	Brinell Hardness HB	Tensile Strength N/mm <sup>2</sup>	Tapping Speed M/min
7.1	Unalloyed aluminium, magnesium and zinc	-	up to 150	20 - 30
7.2	Aluminium alloy less than 5% silicon magnesium & zinc alloys (long chip)	-	up to 1200	20 - 30
7.3	Aluminium alloy 5% to 10% silicon	-	up to 500	15 - 20
7.4	Aluminium alloy 5% to 10% silicon	-	up to 500	15 - 20

**Spiral Point - HSS-EV Nitride Finish**

For through holes.  
Taper lead to **DIN form B** (3.5 x P to 5.5 x P).  
Tapping tolerance to **6HX**.



**SPIRAL POINT FOR THROUGH HOLES**

**METRIC COARSE**



**ISO Metric Coarse**

Size - Pitch (mm)	Overall Length	Thread Length	Shank Dia.	A/F Square	Weight each	Order Code <b>SWT-185</b>
M2.0 x 0.40	45.0	8.0	2.8	2.1	4g	<b>-6503G</b>
M3.0 x 0.50	56.0	11.0	3.5	2.7	5g	<b>-6509G</b>
M4.0 x 0.70	63.0	13.0	4.5	3.4	8g	<b>-6515G</b>
M5.0 x 0.80	70.0	15.0	6.0	4.9	13g	<b>-6518G</b>
M6.0 x 1.00	80.0	17.0	6.0	4.9	17g	<b>-6521G</b>
M8.0 x 1.25	90.0	20.0	8.0	6.2	32g	<b>-6527G</b>
M10.0 x 1.50	100.0	22.0	10.0	8.0	58g	<b>-6530G</b>
M12.0 x 1.75	110.0	24.0	9.0	7.0	61g	<b>-6533G</b>

**Spiral Flute - HSS-EV Nitride Finish**

For blind holes. Taper lead to **DIN form C** (2 x P to 3 x P). Tapping tolerance to **6H**.



**SPIRAL FLUTE FOR BLIND HOLES**

**METRIC COARSE**



**ISO Metric Coarse**

Helix angle 45°. Tapping depth 2.5 x D.

Size - Pitch (mm)	Overall Length	Thread Length	Shank Dia.	A/F Square	Weight each	Order Code <b>SWT-185</b>
M2.0 x 0.40	45.0	8.0	2.8	2.1	5g	<b>-7003G</b>
M2.5 x 0.45	50.0	9.0	2.8	2.1	5g	<b>-7006G</b>
M3.0 x 0.50	56.0	11.0	3.5	2.7	5g	<b>-7009G</b>
M3.5 x 0.60	56.0	13.0	4.0	3.0	6g	<b>-7012G</b>
M4.0 x 0.70	63.0	13.0	4.5	3.4	8g	<b>-7015G</b>
M5.0 x 0.80	70.0	16.0	6.0	4.9	13g	<b>-7018G</b>
M6.0 x 1.00	80.0	19.0	6.0	4.9	16g	<b>-7021G</b>
M7.0 x 1.00	80.0	19.0	7.0	5.5	19g	<b>-7024G</b>
M8.0 x 1.25	90.0	22.0	8.0	6.2	30g	<b>-7027G</b>
M10.0 x 1.50	100.0	24.0	10.0	8.0	45g	<b>-7030G</b>
M12.0 x 1.75	110.0	29.0	9.0	7.0	56g	<b>-7033G</b>
M14.0 x 2.00	110.0	30.0	11.0	9.0	83g	<b>-7036G</b>
M16.0 x 2.00	110.0	32.0	12.0	9.0	95g	<b>-7039G</b>

**HSS 'Green Ring' Fluteless Taps**



For cold forming of threads in ductile materials such as aluminium, brass, copper, carbon steels, zinc, magnesium alloys and even some stainless steels. The forming operation does not create chips so swarf contamination and blockage is illuminated and tap breakage reduced. Because there is no consideration for chip evacuation, the taps can be run at higher cutting speeds and reduced cycle times. Lubrication grooves are a feature of all taps of M3.0 and over. Manufactured to **DIN 371/376**.

**Suitable for the following Material Groups**

Group	Materials	Brinell Hardness HB	Tensile Strength N/mm <sup>2</sup>	Tapping Speed M/min
6.1	Copper	-	up to 500	8 - 12
6.2	Brass (alpha - long chip)	-	up to 800	15 - 20
7.1	Unalloyed aluminium, magnesium and zinc	-	up to 150	20 - 30
7.2	Aluminium alloy less than 5% silicon magnesium & zinc alloys (long chip)	-	up to 1200	20 - 30

**Fluteless - HSS-EV Bright Finish**

For through and blind holes.  
Taper lead to **DIN form B** (3.5 x P to 5.5 x P).  
Tapping tolerance to **6H**.



**FLUTELESS FOR THROUGH AND BLIND HOLES**

**METRIC COARSE**



**ISO Metric Coarse**

Size - Pitch (mm)	Overall Length	Thread Length	Shank Dia.	A/F Square	Weight each	Order Code <b>SWT-185</b>
M2.0 x 0.40	45.0	8.0	2.8	2.1	4g	<b>-7503G</b>
M3.0 x 0.50	56.0	11.0	3.5	2.7	5g	<b>-7509G</b>
M4.0 x 0.70	63.0	13.0	4.5	3.4	8g	<b>-7515G</b>
M5.0 x 0.80	70.0	15.0	6.0	4.9	13g	<b>-7518G</b>
M6.0 x 1.00	80.0	17.0	6.0	4.9	17g	<b>-7521G</b>
M8.0 x 1.25	90.0	20.0	8.0	6.2	32g	<b>-7527G</b>
M10.0 x 1.50	100.0	22.0	10.0	8.0	58g	<b>-7530G</b>
M12.0 x 1.75	110.0	24.0	9.0	7.0	61g	<b>-7533G</b>

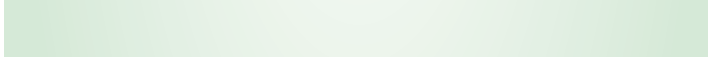
**Fluteless - HSS-EV (TiN Coated)**

For through and blind holes.  
Taper lead to **DIN form B** (3.5 x P to 5.5 x P).  
Tapping tolerance to **6H**.



**FLUTELESS FOR THROUGH AND BLIND HOLES**

**METRIC COARSE**



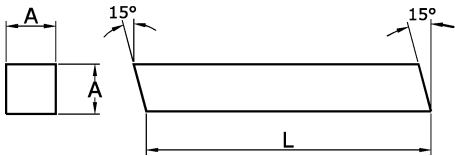
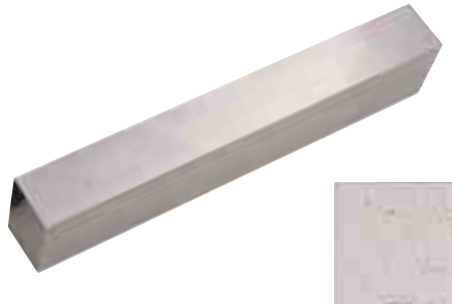
**ISO Metric Coarse**

Size - Pitch (mm)	Overall Length	Thread Length	Shank Dia.	A/F Square	Weight each	Order Code <b>SWT-185</b>
M2.0 x 0.40	45.0	8.0	2.8	2.1	4g	<b>-8003G</b>
M3.0 x 0.50	56.0	11.0	3.5	2.7	5g	<b>-8009G</b>
M4.0 x 0.70	63.0	13.0	4.5	3.4	8g	<b>-8015G</b>
M5.0 x 0.80	70.0	15.0	6.0	4.9	13g	<b>-8018G</b>
M6.0 x 1.00	80.0	17.0	6.0	4.9	17g	<b>-8021G</b>
M8.0 x 1.25	90.0	20.0	8.0	6.2	32g	<b>-8027G</b>
M10.0 x 1.50	100.0	22.0	10.0	8.0	58g	<b>-8030G</b>
M12.0 x 1.75	110.0	24.0	9.0	7.0	61g	<b>-8033G</b>



Cut faster, 'stand up' longer and reduce costs. Square and rectangular toolbits supplied with 15° bevelled ends. Parting-off blades supplied with 2° side taper, 10° bevel (top and bottom).

**HSS Square Inch**



**HSS**

A	L	Weight each	Order Code KEN-090
1/4"	3"	25g	-0060K
1/4"	4"	33g	-0070K
5/16"	3"	40g	-0110K
5/16"	4"	52g	-0130K
3/8"	3"	56g	-0160K
3/8"	4"	75g	-0180K
3/8"	6"	112g	-0190K
1/2"	4"	130g	-0270K
1/2"	6"	200g	-0280K
5/8"	4"	210g	-0300K
5/8"	6"	310g	-0330K
3/4"	5"	374g	-0360K
3/4"	8"	600g	-0380K

**5% Cobalt Square Inch**

**HSS-Co. 5%**

A	L	Weight each	Order Code KEN-090
3/16"	4"	14g	-3040K
1/4"	3"	25g	-3060K
5/16"	2 1/2"	32g	-3100K
5/16"	4"	52g	-3130K
3/8"	4"	75g	-3180K
3/8"	6"	112g	-3190K
1/2"	4"	130g	-3270K
1/2"	6"	200g	-3280K
5/8"	6"	310g	-3330K
3/4"	4"	300g	-3350K

**5% Cobalt Square Metric**

**HSS-Co. 5%**

A (mm)	L (mm)	Weight each	Order Code KEN-090
5.00	80.0	10g	-3500K
6.00	40.0	15g	-3600K
6.00	80.0	22g	-3610K
6.00	100.0	30g	-3620K
6.00	160.0	44g	-3640K
8.00	80.0	50g	-3670K
8.00	100.0	52g	-3680K
8.00	160.0	90g	-3700K
8.00	200.0	110g	-3710K
10.00	80.0	70g	-3730K
10.00	100.0	81g	-3740K
10.00	125.0	110g	-3750K
10.00	160.0	122g	-3760K
12.00	100.0	120g	-3800K
12.00	125.0	152g	-3810K
12.00	160.0	190g	-3820K
14.00	100.0	155g	-3860K
16.00	100.0	210g	-3920K
16.00	160.0	335g	-3925K
20.00	160.0	440g	-3930K
20.00	200.0	650g	-3940K
25.00	160.0	760g	-3950K
25.00	200.0	1010g	-3960K

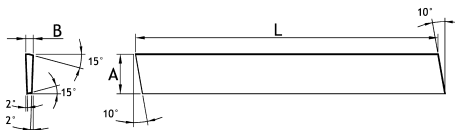
**5% Cobalt Rectangular Inch**



**HSS-Co. 5%**

B x A	L	Weight each	Order Code KEN-090
3/16" - 1/2"	6"	72g	-5100K
1/4" - 3/8"	4"	50g	-5110K
1/4" - 1/2"	4"	70g	-5120K
5/16" - 1/2"	6"	120g	-5130K
3/8" - 1/2"	4"	100g	-5140K
3/8" - 1/2"	6"	150g	-5150K
3/8" - 5/8"	4"	125g	-5160K
3/8" - 5/8"	6"	190g	-5170K
3/8" - 3/4"	4"	150g	-5180K
5/8" - 3/4"	6"	230g	-5190K
3/8" - 1"	6"	300g	-5200K
1/2" - 5/8"	6"	240g	-5210K
1/2" - 3/4"	4"	200g	-5220K
1/2" - 3/4"	6"	315g	-5240K
1/2" - 1"	6"	390g	-5250K
5/8" - 1"	6"	490g	-5290K

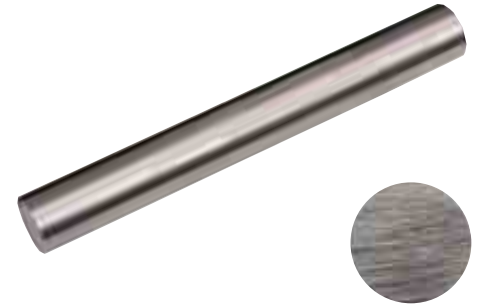
**5% Cobalt Parting-Off Inch**



**HSS-Co. 5%**

B x A	L	Weight each	Order Code KEN-090
3/32" - 1/2"	4 1/2"	22g	-5410K
3/32" - 5/8"	5"	30g	-5430K
1/8" - 3/4"	6"	60g	-5450K
1/8" - 7/8"	7"	80g	-5470K
3/16" - 1"	8"	160g	-5490K
3/16" - 1 1/8"	9"	200g	-5510K

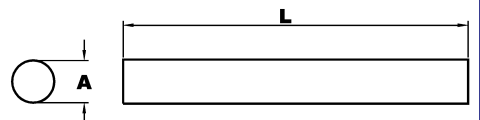
**HSS Round Inch**



**HSS**

A	L	Weight each	Order Code KEN-090
1/4"	4"	27g	-1150K
5/16"	4"	42g	-1180K
3/8"	4"	60g	-1210K
1/2"	4"	110g	-1260K
1/2"	6"	160g	-1280K
5/8"	4"	170g	-1290K
3/4"	4"	240g	-1310K

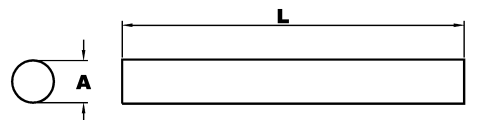
**5% Cobalt Round Inch**



**HSS-Co. 5%**

A	L	Weight each	Order Code KEN-090
1/4"	4"	27g	-4150K
3/8"	4"	60g	-4210K
1/2"	4"	110g	-4260K

**5% Cobalt Round Metric**



**HSS-Co. 5%**

A (mm)	L (mm)	Weight each	Order Code KEN-090
4.00	80.0	8g	-4510K
5.00	80.0	12g	-4530K
6.00	80.0	18g	-4550K
6.00	100.0	24g	-4570K
8.00	80.0	31g	-4590K
8.00	100.0	40g	-4630K
8.00	160.0	63g	-4650K
10.00	100.0	65g	-4690K
10.00	125.0	90g	-4710K
12.00	100.0	94g	-4770K
12.00	160.0	141g	-4810K
16.00	125.0	160g	-4870K
16.00	160.0	250g	-4890K
20.00	100.0	260g	-4930K

**CUTTING TOOLS**



**Brazed Tip Turning & Boring Tools**

Manufactured in three standard grades. (All sizes are nominal.)  
Manufactured to **ISO DIN BHMA Standards**.

**P40** **P40:** Roughing to heavy roughing of steel and steel castings using heavy feeds and low to medium cutting speeds. Also used under unfavourable conditions, particularly where intermittent cutting is involved. This grade is also suitable for planing operations and for machining manganese steel.

**P30** **P30:** Carbide tipped tools are suitable for heavy duty turning and boring on all classes of steel. Suitable also for interrupted cutting and machining at low speeds and heavy feeds.

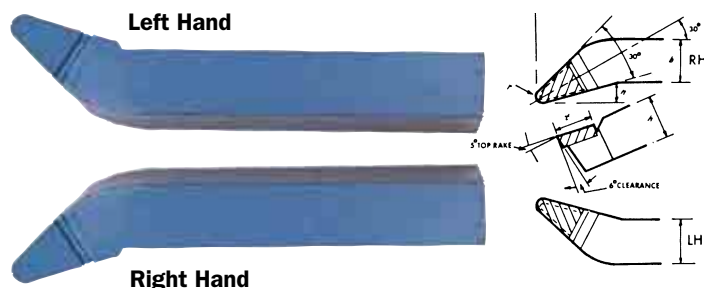
**K20** **K20:** General purpose tools for most applications. Ideal for machining cast iron, non-ferrous metals, bakelite etc. Combines wear resistance with toughness when rough turning at moderate cutting speeds. Suitable for high feed rates.

**Straight Round Nosed Turning Tools**



Tool No.	Cut	Shank Height x Width	Weight each	Order Code <b>KEN-100</b>		
				P40	P30	K20
010	N	3/8" x 3/8"	160g	-	<b>-0100K</b>	-
012	N	1/2" x 1/2"	190g	-	<b>-0140K -0150K</b>	-
016	N	5/8" x 5/8"	240g	-	<b>-0190K -0200K</b>	-
020	N	3/4" x 3/4"	410g	-	<b>-0230K -0240K</b>	-
024	N	1" x 3/4"	520g	-	<b>-0270K</b>	-
026	N	1" x 1"	760g	-	<b>-0310K -0320K</b>	-

**Cranked Round Nosed Turning Tools**



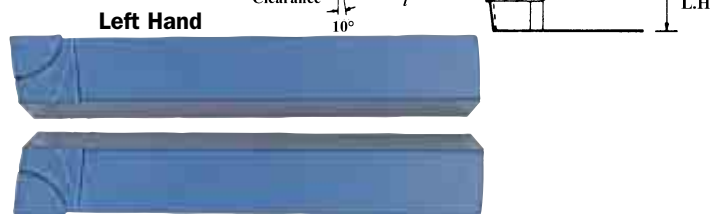
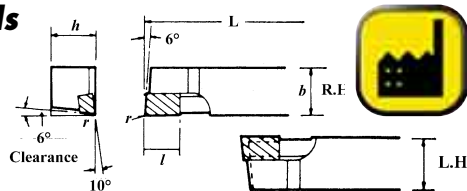
Tool No.	Cut	Shank Height x Width	Weight each	Order Code <b>KEN-100</b>		
				P40	P30	K20
10	RH	3/8" x 3/8"	70g	-	<b>-0470K -0480K</b>	-
11	LH	3/8" x 3/8"	70g	-	<b>-0490K</b>	-
12	RH	1/2" x 1/2"	110g	-	<b>-0510K -0520K</b>	-
13	LH	1/2" x 1/2"	110g	-	<b>-0530K -0540K</b>	-
16	RH	5/8" x 5/8"	240g	-	<b>-0590K -0600K</b>	-
17	LH	5/8" x 5/8"	240g	-	<b>-0610K</b>	-
20	RH	3/4" x 3/4"	410g	-	<b>-0690K -0700K</b>	-
21	LH	3/4" x 3/4"	410g	-	<b>-0710K -0720K</b>	-
26	RH	1" x 1"	720g	-	<b>-0820K</b>	-
27	LH	1" x 1"	720g	-	<b>-0840K</b>	-

**Light Turning & Boring Tools**



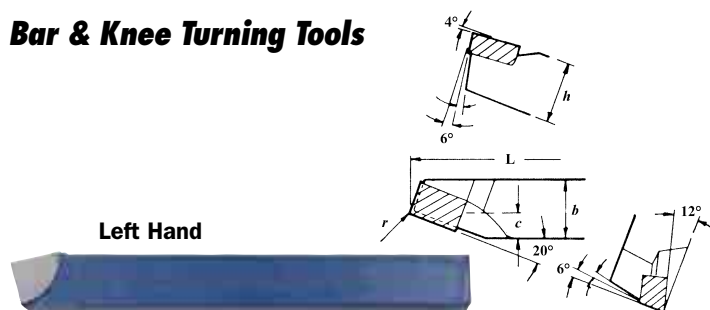
Tool No.	Cut	Shank Height x Width	Weight each	Order Code <b>KEN-100</b>		
				P40	P30	K20
40	N	3/8" x 3/8"	70g	-	<b>-1000K</b>	-
44	N	1/2" x 1/2"	120g	-	<b>-1060K -1070K</b>	-
60	N	3/4" x 3/4"	430g	-	<b>-1660K</b>	-

**Bar Turning Tools**



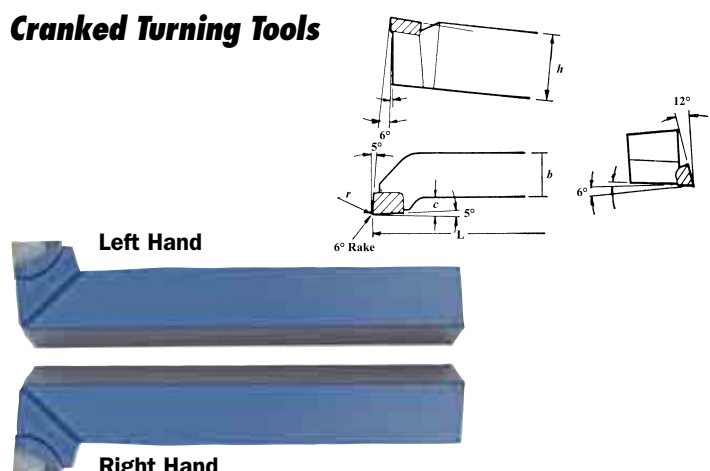
Tool No.	Cut	Shank Height x Width	Weight each	Order Code <b>KEN-100</b>		
				P40	P30	K20
100	RH	3/8" x 3/8"	70g	-	<b>-2010K -2030K</b>	-
101	LH	3/8" x 3/8"	70g	-	<b>-2040K</b>	-
102	RH	1/2" x 1/2"	120g	<b>-2055K</b>	<b>-2060K -2080K</b>	-
103	LH	1/2" x 1/2"	120g	-	<b>-2100K</b>	-
106	RH	5/8" x 5/8"	260g	-	<b>-2180K -2190K</b>	-
107	LH	5/8" x 5/8"	260g	-	<b>-2230K</b>	-
110	RH	3/4" x 3/4"	440g	-	<b>-2280K -2290K</b>	-
111	LH	3/4" x 3/4"	440g	-	<b>-2300K</b>	-
116	RH	1" x 1"	810g	-	<b>-2410K</b>	-

**Bar & Knee Turning Tools**



Tool No.	Cut	Shank Height x Width	Weight each	Order Code <b>KEN-100</b>		
				P40	P30	K20
132	RH	1/2" x 1/2"	120g	-	<b>-2550K</b>	-
140	RH	3/4" x 3/4"	430g	-	<b>-2610K</b>	-
141	LH	3/4" x 3/4"	430g	-	<b>-2630K</b>	-

**Cranked Turning Tools**

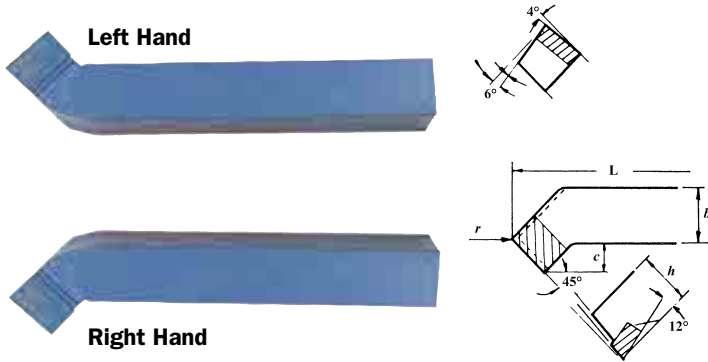


Tool No.	Cut	Shank Height x Width	Weight each	Order Code <b>KEN-100</b>		
				P40	P30	K20
160	RH	3/8" x 3/8"	70g	-	<b>-2780K -2790K</b>	-
161	LH	3/8" x 3/8"	70g	-	<b>-2800K</b>	-
162	RH	1/2" x 1/2"	130g	<b>-2825K -2830K -2860K</b>	-	-
163	LH	1/2" x 1/2"	130g	<b>-2865K -2870K -2880K</b>	-	-
166	RH	5/8" x 5/8"	270g	<b>-2930K -2940K -2960K</b>	-	-
167	LH	5/8" x 5/8"	270g	<b>-2965K -2970K -2990K</b>	-	-
170	RH	3/4" x 3/4"	460g	<b>-3030K -3040K -3070K</b>	-	-
171	LH	3/4" x 3/4"	460g	<b>-3075K -3080K -3090K</b>	-	-
176	RH	1" x 1"	880g	-	<b>-3200K -3230K</b>	-
177	LH	1" x 1"	880g	-	<b>-3240K</b>	-

**CUTTING TOOLS**

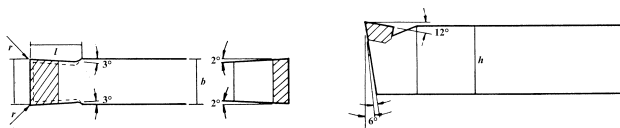


**KENNEDY** Brazed Tip Cranked  
QUALITY INDUSTRIAL TOOLING Turning & Facing Tools



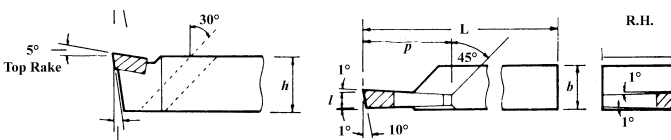
Tool No.	Cut	Shank Height x Width	Weight each	Order Code <b>KEN-100</b>		
				P40	P30	K20
192	RH	1/2" x 1/2"	110g	-	-3410K	-3420K
193	LH	1/2" x 1/2"	110g	-	-	-3440K
196	RH	5/8" x 5/8"	260g	-3490K	-3500K	-3510K
197	LH	5/8" x 5/8"	260g	-	-3520K	-
200	RH	3/4" x 3/4"	430g	-3680K	-3690K	-3710K
201	LH	3/4" x 3/4"	430g	-3715K	-3720K	-3730K
206	RH	1" x 1"	790g	-	-	-3850K
207	LH	1" x 1"	790g	-3855K	-	-3880K

**Straight Recessing Tools**



Tool No.	Cut	Shank Height x Width	Weight each	Order Code <b>KEN-100</b>		
				P40	P30	K20
230	N	3/8" x 3/8"	64g	-	-4370K	-
232	N	1/2" x 1/2"	120g	-	-4460K	-4490K
236	N	5/8" x 5/8"	250g	-	-4620K	-4640K
240	N	3/4" x 3/4"	430g	-4800K	-4810K	-4830K
242	N	1" x 5/8"	440g	-	-	-4900K

**Parting Off Tools**



Tool No.	Tip	Shank Height x Width	Weight each	Order Code <b>KEN-100</b>		
				P40	P30	K20
260	3/32"	5/8" x 3/8"	120g	-5200K	-5210K	-5220K
262	1/8"	3/4" x 1/2"	220g	-5260K	-5270K	-5280K
264	3/16"	1" x 5/8"	390g	-5320K	-5330K	-5350K
265	1/4"	1" x 3/4"	480g	-5420K	-5430K	-
270	3/32"	5/8" x 3/8"	110g	-	-5610K	-5630K
272	1/8"	3/4" x 1/2"	220g	-5680K	-5690K	-5710K
274	3/16"	1" x 5/8"	390g	-5740K	-5750K	-5770K
275	1/4"	1" x 3/4"	460g	-5810K	-5820K	-5840K
276	5/16"	1 1/4" x 3/4"	700g	-5870K	-5880K	-5900K

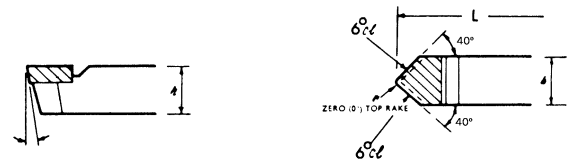
**Square Shank Boring Tools Held at 90° in Bar**



Right Hand

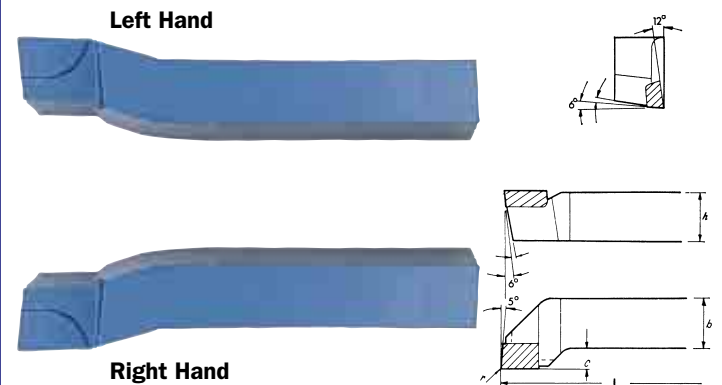
Tool No.	Cut	Shank H	Shank W	Weight each	Order Code <b>KEN-100</b>		
					P40	P30	K20
280	RH	1/4"	1/4"	11g	-	-6180K	-
288	RH	1/2"	1/2"	109g	-	-6340K	-

**Square Shank Boring Tools Held at 80° in Bar**



Tool No.	Cut	Shank H	Shank W	Weight each	Order Code <b>KEN-100</b>		
					P40	P30	K20
300	N	1/4"	1/4"	11g	-	-6580K	-
308	N	3/8"	3/8"	16g	-	-6750K	-
316	N	1/2"	1/2"	109g	-	-6920K	-

**Cranked Knife Turning Tools**



Tool No.	Cut	Shank Height x Width	Weight each	Order Code <b>KEN-100</b>		
				P40	P30	K20
2130	RH	3/8" x 3/8"	70g	-	-8970K	-
2132	RH	1/2" x 1/2"	120g	-	-9010K	-9020K
2133	LH	1/2" x 1/2"	120g	-	-9030K	-9040K
2136	RH	5/8" x 5/8"	260g	-9220K	-9230K	-9250K
2137	LH	5/8" x 5/8"	260g	-	-9260K	-
2140	RH	3/4" x 3/4"	430g	-9380K	-9390K	-9400K
2141	LH	3/4" x 3/4"	430g	-	-9420K	-
2144	RH	1" x 3/4"	540g	-	-9570K	-
2145	LH	1" x 3/4"	540g	-	-9600K	-
2146	RH	1" x 1"	800g	-	-9670K	-9680K

# INDEXA-SEIKI™

## Indexable Toolholders & Boring Bars

Illustrated are a few basic tool styles from a range that covers the majority of applications in turning. Generally Indexable toolholders use shims made of carbide that lie underneath the inserts in the holder pockets, fixed by means of a pin or screw. They provide clearance and maximum support which is achieved for the insert to absorb the cutting force. In the event of insert fracture, they protect the toolholder from damage.

### C-Style Top Clamp

Especially suitable for boring and medium to heavy external turning operations, using positive rakes, various chip breakers and extra side clearance. The clamp is brought down onto the insert by a screw through the clamp. The clamp is designed and positioned so as not to hamper chip flow. When the screw is loosened the clamp lifts and a lug at the back of the clamp keeps it in position. The insert is securely fixed in the two-sided pocket by the positive, direct screw clamp action which gives solid clamping of insert types with no centre hole



External



Internal

### M-Style Combination Clamp & Pin

Suitable for turning and boring operations that require better accessibility than the lever system. The insert is clamped by a top clamp pushing the insert towards a fixed pin. The clamp improves rigidity by wedging the insert against the fixed pin and also clamping the insert down. The insert is held very securely but released through just a slight turn of the screw. The design also provides a clear top face. This design does not provide the same clamping stability as the two sided pocket design of the lever lock type.



External



Internal

CUTTING TOOLS

### Cartridge Units

Many boring, external and combination operations require a number of cuts to be made in a single feed of the tool. In other operations it is wise to distribute the depth of cut on several cutting edges. For this purpose special tools are designed based on standard cartridge units. Compared to tools with fixed insert seats the use of built-in tools gives the following advantage: Relatively small positional tolerances can be maintained. If the tool has to be changed, due to minor modification of the workpiece, the built-in units can be adjusted rather than the entire tool. An expensive tool is not damaged should there be an accident.

These items are available on request. Please contact your distributor for further information.



C-Style



S-Style



P-Style

Widest range of styles and sizes. All compatible with ISO inserts. Complete range of spares in stock. Full technical support services provided.

**Performance Tooling**  
**Assured Quality**

# INDEXA-SEIKI™

## Indexable Toolholders & Boring Bars

Illustrated are a few basic tool styles from a range that covers the majority of applications in turning. Generally Indexable toolholders use shims made of carbide that lie underneath the inserts in the holder pockets, fixed by means of a pin or screw. They provide clearance and maximum support which is achieved for the insert to absorb the cutting force. In the event of insert fracture, they protect the toolholder from damage.

### P-Style Lever lock

For external turning and boring of larger diameter holes. Versatile general purpose system for light to heavy machining, utilising a wide range of negative/positive inserts to cover most applications. Inserts are clamped using the centre hole. A pivoted lever tilts by adjustment of the clamping screw. The lever forces the insert backwards into the pocket locating it firmly against two sides giving excellent stability and locating accuracy. This will ensure unobstructed chip flow over the insert top face. Easy to operate for quick indexing.



External



Internal

### S-Style Screw-On

For the internal machining of small diameters and for external light roughing to finishing of smaller work pieces. Offers secure insert clamping, excellent repeatability, uninterrupted chip clearance, requires little space and few spares. Suitable for copy turning due to the positive insert being positioned neutrally in the toolholder, giving constant clearance around the periphery ensuring a clean cut, excellent surface finish and long tool life. The single screw, screws into a hole in the insert pocket holding both insert and shim in place.



External

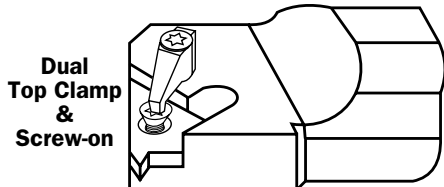


Internal

Carbide Shank Boring Bars also available

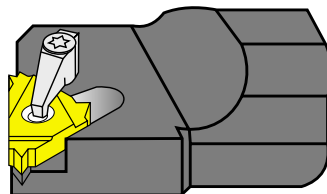
CUTTING TOOLS

### Threading Tools



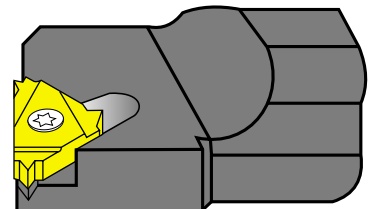
Dual Top Clamp & Screw-on

can be used as



Top Clamp only

or



Screw-on only

Widest range of styles and sizes. All compatible with ISO inserts. Complete range of spares in stock. Full technical support services provided.

**Performance Tooling**  
**Assured Quality**

**External Toolholders - ISO Designation**

**1 Clamping System**

<b>C</b>	Clamp
<b>D</b>	"One-Double"
<b>M</b>	Clamp & Pin
<b>P</b>	Lever
<b>S</b>	Screw

**3 Lead Angle**

<b>B</b>		<b>C</b>		<b>D</b>		<b>F</b>	
<b>G</b>		<b>J</b>		<b>K</b>		<b>L</b>	
<b>N</b>		<b>S</b>		<b>T</b>		<b>U</b>	
<b>V</b>		<b>W</b>					

**5 Hand**

<b>R</b>	
<b>L</b>	
<b>N</b>	

**9 Cutting Edge Length**

Expressed in millimetres			
<b>C, D, K, V</b>			
<b>S</b>			
	<b>T</b>		
<b>R</b>		<b>W</b>	

**1 P 2 C 3 K 4 N 5 R 6 20 7 20 8 K 9 12**

**2 Insert Shape**

<b>C</b>	<b>D</b>	<b>K</b>
<b>R</b>	<b>S</b>	<b>T</b>
<b>V</b>	<b>W</b>	

**4 Clearance**

<b>B</b>	
<b>C</b>	
<b>N</b>	
<b>P</b>	

**6 Shank Height**

Expressed in millimetres
Single Digit Nos. preceded by '0' e.g. h=8mm is indicated by 08

**7 Shank Width**

Expressed in millimetres
Single Digit Nos. preceded by '0' e.g. b=8mm is indicated by 08

**8 Tool Length**

Length in millimetres			
<b>D</b>	60	<b>M</b>	150
<b>E</b>	70	<b>P</b>	170
<b>F</b>	80	<b>Q</b>	180
<b>H</b>	100	<b>R</b>	200
<b>K</b>	125	<b>S</b>	250

**CUTTING TOOLS**

**Boring Bars - Additional Designation**

**1 Bar Type**

<b>S</b>	Solid Steel Bar
<b>A</b>	Solid Steel With Through Coolant
<b>C</b>	Carbide Shank
<b>E</b>	Carbide Shank with Through Coolant
<b>T</b>	Anti-Vibration Carbide Reinforced Steel Shank

**3 Bar Length**

Length in millimetres			
<b>J</b>	110	<b>S</b>	250
<b>K</b>	125	<b>T</b>	300
<b>M</b>	150	<b>U</b>	350
<b>Q</b>	180	<b>V</b>	400
<b>R</b>	200	<b>W</b>	450

**Cartridges - Additional Designation**

**Note:** Cutting Edge Lengths are detailed to the lowest whole number e.g. 12.7mm=12mm

- 1** Clamping System
- 2** Insert Shape
- 3** Lead Angle
- 4** Clearance
- 5** Hand
- 8** Cutting Edge Length

**Note:** Details as above see External Toolholders

**1 S 2 50 3 W 4 P 5 S 6 K 7 N 8 R 9 19**

**1 P 2 T 3 F 4 N 5 R 6 16 7 CA 8 16**

**2 Basic Diameter**

Expressed in millimetres	
Single Digit Nos. preceded by '0' e.g. b=8mm is indicated by 08	

<b>4</b> Clamping System	<b>7</b> Clearance
<b>5</b> Insert Shape	<b>8</b> Hand
<b>6</b> Lead Angle	<b>9</b> Cutting Edge Length
<b>Note:</b> Details as above see External Toolholders	

**6 Cutting Edge Height**

Expressed in millimetres	
Single Digit Nos. preceded by '0' e.g. h <sub>1</sub> =8mm is indicated by 08	

**7 Type of Tool**

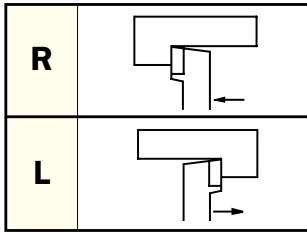
<b>'C'</b>	Indicates Cartridge
<b>'A'</b>	Indicates that Holder is designed to ISO 5611

**THREADING TOOLHOLDERS - ISO DESIGNATION**

**1 Clamping System**

<b>D</b>	Top Clamp + Screw-on
<b>S</b>	Screw-on
<b>C</b>	Top Clamp

**3 Hand**



**6 Tool Length**

Length in millimetres			
<b>H</b>	100	<b>S</b>	250
<b>K</b>	125		
<b>M</b>	150		
<b>P</b>	170		
<b>R</b>	200		

**7 Cutting Edge length**

	l	ic
<b>06</b>	6mm	5/32"
<b>08</b>	8mm	3/16"
<b>11</b>	11mm	1/4"
<b>16</b>	16.5mm	3/8"
<b>22</b>	22mm	1/2"

**1 D 2 E 3 R 4 16 5 16 6 H 7 16**

**2 Type of holder**

<b>E</b>	External
<b>I or N</b>	Internal

**4 Shank Height**

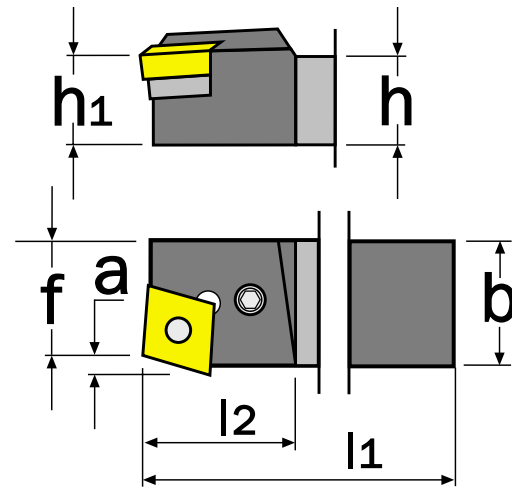
Round Shank (Boring Bars) = 00  
 For Rectangular Shanks, Height is expressed in mm  
 Single Digit Nos. preceded by '0'  
 E.g. h=8mm is indicated by 08

**5 Shank Width**

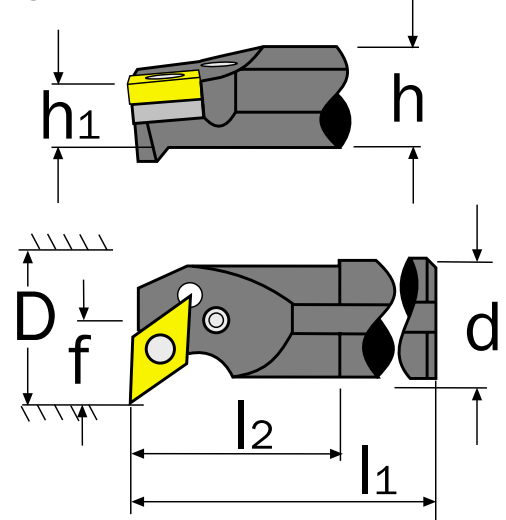
Round Shank (Boring Bars) = Diameter in mm  
 For Rectangular Shanks, Width is expressed in mm  
 Single Digit Nos. preceded by '0'  
 E.g. h=8mm is indicated by 08

**Dimensional Notation**

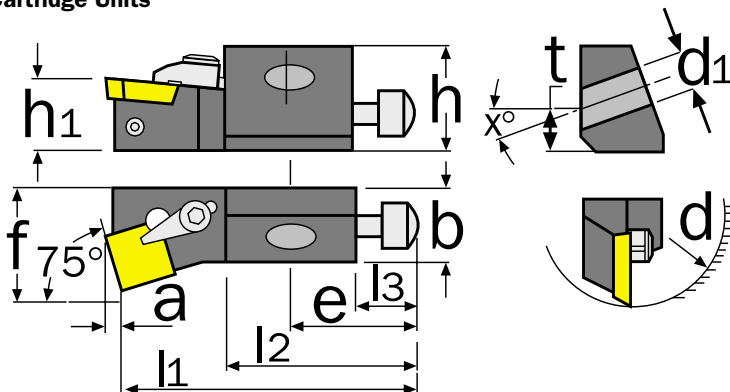
**External Toolholders**



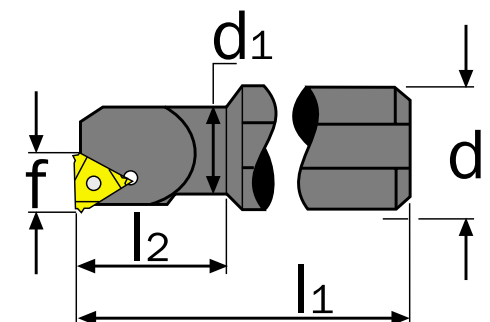
**Boring Bars**



**Cartridge Units**



**Threading Toolholders**



**GROUP 106 TOOLHOLDERS - ISO EXTERNAL**

**INDEXA-SEIKI Top Clamp External Toolholders** Continued



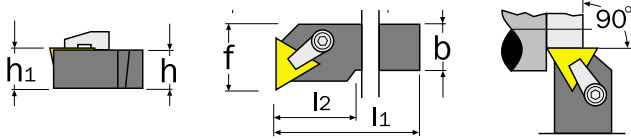
**CTFP R**

90° approach for 11° positive triangular inserts.



**Inserts** See Group 120

Sizes **11** = 1103  
 Sizes **16** = 1603



**Spares to Suit** Contact your local branch for prices

Shim	Shim Pin	Clamp Set					Hex Key
Order Code <b>IND-107</b>							Order Code <b>KEN-601</b>
<b>-2050K</b>	<b>-2950K</b>	<b>-4250K</b> <b>-4300K</b>	-	-	-	-	<b>-1250K</b> <b>-1300K</b>

Designation	Dimensions (mm)						Weight each	Order Code
	h=h1	b	l1	l2	f			
CTFP....							<b>IND-106</b>	
R 1616H <b>11</b>	16	16	100	22	20	203g	<b>-0900K</b>	
R 2020K <b>16</b>	20	20	125	22	25	400g	<b>-0940K</b>	

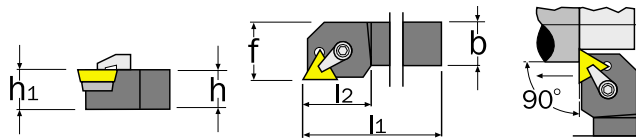
**CTGP R/L**

90° approach for 11° positive triangular inserts.



**Inserts** See Group 120

Sizes **11** = 1103  
 Sizes **16** = 1603



**Spares to Suit** Contact your local branch for prices

Shim	Shim Pin	Clamp Set					Hex Key
Order Code <b>IND-107</b>							Order Code <b>KEN-601</b>
<b>-2050K</b>	<b>-2950K</b>	<b>-4200K</b> <b>-4300K</b>	-	-	-	-	<b>-1250K</b> <b>-1300K</b>

Designation	Dimensions (mm)						Weight each	Order Code
	h=h1	b	l1	l2	f			
CTGP....							<b>IND-106</b>	
R 1212F <b>11</b>	12	12	80	18	16	98g	<b>-1040K</b>	
L 1212F <b>11</b>						97g	<b>-1050K</b>	
R 1616H <b>11</b>	16	16	100	22	20	207g	<b>-1060K</b>	
R 2020K <b>16</b>	20	20	125	28	25	397g	<b>-1100K</b>	
L 2020K <b>16</b>						395g	<b>-1110K</b>	
R 2525M <b>16</b>	25	25	150	28	32	744g	<b>-1120K</b>	
L2525M <b>16</b>						744g	<b>-1130K</b>	

**Combination Top Clamp & Pinlock External Toolholders**

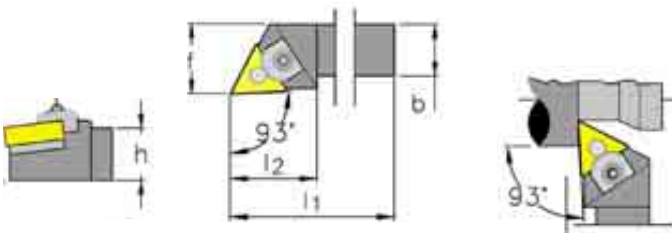
**MTJN R**

93° approach for negative triangular inserts.



**Inserts** See Group 120

Sizes : **16** = 1604



**Spares to Suit** Contact your local branch for prices

Shim	Lock Pin	Clamp					
Order Code <b>IND-107</b>							
<b>-2087K</b>	<b>-1480K</b>	<b>-0943K</b>	-	-	-	-	-

Designation	Dimensions (mm)						Weight each	Order Code
	h=h1	b	l1	l2	f			
MTJN....							<b>IND-106</b>	
R 2020K <b>16</b>	20	20	125	34	25	427g	<b>-1300K</b>	
R 2525M <b>16</b>	25	25	150	34	32	753g	<b>-1320K</b>	

**CUTTING TOOLS**



**INDEXA-SEIKI Top Clamp External Toolholders**

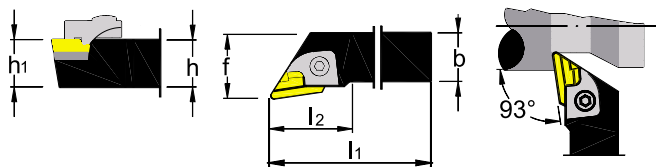
**CKJN R/L**

93° approach for 55° negative parallelogram inserts.



**Inserts** See Group 120  
Sizes **16** = 1604\_\_

**KN\_X**



**Spares to Suit** Contact your local branch for prices

Shim	Shim Pin	Claw	Clamp Screw	Spring	Spring Pin	Hex Key
Order Code <b>IND-107</b>						Order Code <b>KEN-601</b>
<b>-1930K</b>	<b>-2945K</b>	<b>-0670K</b>	<b>-1280K</b>	<b>-0830K</b>	<b>-0840K</b>	<b>-1300K</b>
<b>-1940K</b>	<b>-2945K</b>	<b>-0680K</b>	<b>-1280K</b>	<b>-0830K</b>	<b>-0840K</b>	<b>-1300K</b>

Designation CKJN....	Dimensions (mm)					Weight each	Order Code <b>IND-106</b>
	h=h <sub>1</sub>	b	l <sub>1</sub>	l <sub>2</sub>	f		
R 2525M <b>16</b>	25	25	150	34	32	734g	<b>-0240K</b>
L 2525M <b>16</b>						736g	<b>-0250K</b>

**CSDP N**

45° approach for 11° positive square inserts.

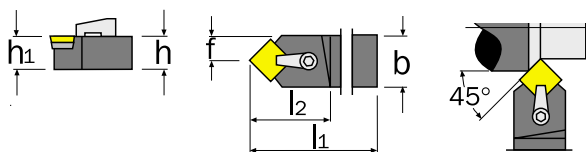


**Inserts** See Group 120  
Sizes **09** = 0903\_\_  
Sizes **12** = 1203\_\_

**SP\_R**



**SP\_N**



**Spares to Suit** Contact your local branch for prices

Shim	Shim Pin	Clamp Set				Hex Key
Order Code <b>IND-107</b>						Order Code <b>KEN-601</b>
<b>-1950K</b>	<b>-2950K</b>	<b>-4200K</b>	-	-	-	<b>-1250K</b>
<b>-2000K</b>	<b>-2950K</b>	<b>-4300K</b>	-	-	-	<b>-1300K</b>

Designation CSDP....	Dimensions (mm)					Weight each	Order Code <b>IND-106</b>
	h=h <sub>1</sub>	b	l <sub>1</sub>	l <sub>2</sub>	f		
N 1616H <b>09</b>	16	16	100	22	8.0	194g	<b>-0420K</b>
N 2020K <b>12</b>	20	20	125	28	10.0	380g	<b>-0460K</b>

**CSSP R/L**

45° approach for 11° positive square inserts.

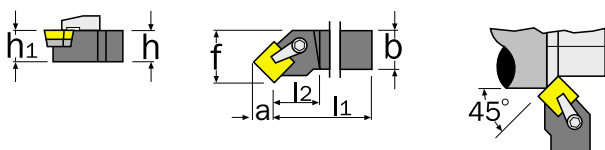


**Inserts** See Group 120  
Sizes **12** = 1203\_\_

**SP\_R**



**SP\_N**



**Spares to Suit** Contact your local branch for prices

Shim	Shim Pin	Clamp Set				Hex Key
Order Code <b>IND-107</b>						Order Code <b>KEN-601</b>
<b>-2000K</b>	<b>-2950K</b>	<b>-4300K</b>	-	-	-	<b>-1300K</b>

Designation CSSP....	Dimensions (mm)						Weight each	Order Code <b>IND-106</b>
	h=h <sub>1</sub>	b	l <sub>1</sub>	l <sub>2</sub>	f	a		
R 2525M <b>12</b>	25	25	150	28	32	8.3	745g	<b>-0600K</b>

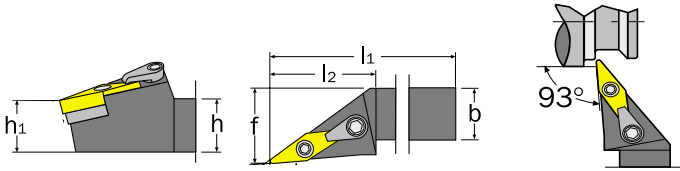


**MVJN R/L**

93° approach for negative 35° rhombic inserts.



**Inserts** See Group 120  
Sizes **16** = 1604\_\_



**Spares to Suit** Contact your local branch for prices

Shim	Lock Pin	Clamp	Clamp Screw			Shim Key	Clamp Key
Order Code <b>IND-107</b>						Order Code <b>KEN-601</b>	
<b>-2100K</b>	<b>-1600K</b>	<b>-0600K</b>	<b>-0900K</b>	-	-	<b>-1200K</b>	<b>-1300K</b>
<b>-2100K</b>	<b>-1600K</b>	<b>-0600K</b>	<b>-0900K</b>	-	-	<b>-1200K</b>	<b>-1300K</b>

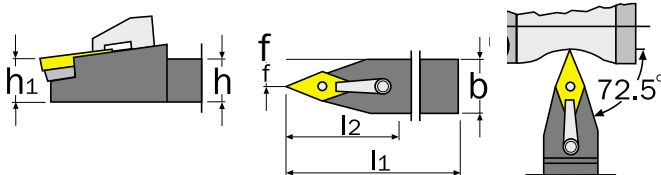
Designation	Dimensions (mm)					Weight each	Order Code
	h=h1	b	l1	l2	f		
R 2020K <b>16</b>	20	20	125	37	25	395g	<b>-1500K</b>
L 2020K <b>16</b>	20	20	125	37	25	398g	<b>-1510K</b>
R 2525M <b>16</b>	25	25	150	37	32	679g	<b>-1520K</b>
L 2525M <b>16</b>	25	25	150	37	32	688g	<b>-1530K</b>

**MVJN N**

72.5° approach for negative 35° rhombic inserts.



**Inserts** See Group 120  
Size **16** = 1604\_\_



**Spares to Suit** Contact your local branch for prices

Shim	Lock Pin	Clamp	Clamp Screw			Shim Key	Clamp Key
Order Code <b>IND-107</b>						Order Code <b>KEN-601</b>	
<b>-2100K</b>	<b>-1600K</b>	<b>-0600K</b>	<b>-0900K</b>	-	-	<b>-1200K</b>	<b>-1300K</b>
<b>-2100K</b>	<b>-1600K</b>	<b>-0600K</b>	<b>-0900K</b>	-	-	<b>-1200K</b>	<b>-1300K</b>

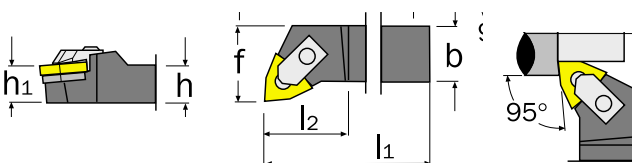
Designation	Dimensions (mm)					Weight each	Order Code
	h=h1	b	l1	l2	f		
N 2020K <b>16</b>	20	20	125	48	10.0	379g	<b>-1580K</b>
N 2525M <b>16</b>	25	25	150	48	12.5	675g	<b>-1600K</b>

**MWLN R/L**

95° approach for negative 80° trigon inserts.



**Inserts** See Group 120  
Size **08** = 0804\_\_



**Spares to Suit** Contact your local branch for prices

Shim	Lock Pin	Clamp	Clamp Screw			Shim Key	Clamp Key
Order Code <b>IND-107</b>						Order Code <b>KEN-601</b>	
<b>-2920K</b>	<b>-1680K</b>	<b>-0940K</b>	<b>-1880K</b>	-	-	<b>-1250K</b>	<b>-1500K</b>
<b>-2920K</b>	<b>-1680K</b>	<b>-0940K</b>	<b>-1880K</b>	-	-	<b>-1250K</b>	<b>-1500K</b>

Designation	Dimensions (mm)					Weight each	Order Code
	h=h1	b	l1	l2	f		
R 2020K <b>08</b>	20	20	125	34	25	453g	<b>-1680K</b>
L 2020K <b>08</b>	20	20	125	34	25	465g	<b>-1690K</b>
R 2525M <b>08</b>	25	25	150	34	32	789g	<b>-1700K</b>
L 2525M <b>08</b>	25	25	150	34	32	776g	<b>-1710K</b>



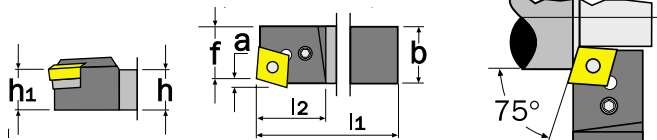
**INDEXA-SEIKI Lever Lock External Toolholders**

**PCBN R/L**

75° approach for negative 80° rhombic inserts.



**Inserts** See Group 120  
 Sizes **12** = 1204\_\_  
 Sizes **16** = 1606\_\_



**Spares to Suit** Contact your local branch for prices

Shim	Shim Pin	Lever	Lever Screw				Hex Key
Order Code <b>IND-107</b>							Order Code <b>KEN-601</b>
<b>-2150K</b>	<b>-3100K</b>	<b>-1050K</b>	<b>-1400K</b>	-	-	-	<b>-1300K</b>

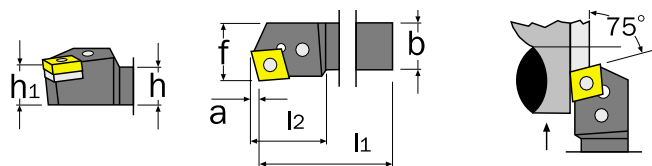
Designation	Dimensions (mm)						Weight each	Order Code
PCBN....	h=h <sub>1</sub>	b	l <sub>1</sub>	l <sub>2</sub>	f	a		<b>IND-106</b>
R 2525M <b>12</b>	25	25	150	28	22	3.1	730g	<b>-1762K</b>

**PCKN R/L**

75° approach for negative 80° rhombic inserts.



**Inserts** See Group 120  
 Sizes **12** = 1204\_\_



**Spares to Suit** Contact your local branch for prices

Shim	Shim Pin	Lever	Lever Screw				Hex Key
Order Code <b>IND-107</b>							Order Code <b>KEN-601</b>
<b>-2150K</b>	<b>-3100K</b>	<b>-1050K</b>	<b>-1400K</b>	-	-	-	<b>-1300K</b>

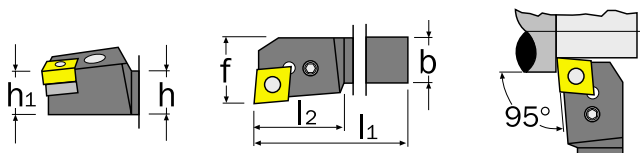
Designation	Dimensions (mm)						Weight each	Order Code
PCKN....	h=h <sub>1</sub>	b	l <sub>1</sub>	l <sub>2</sub>	f	a		<b>IND-106</b>
R 2525M <b>12</b>	25	25	150	34	22	3.8	760g	<b>-1860K</b>

**PCLN R/L**

95° approach for negative 80° rhombic inserts.



**Inserts** See Group 120  
 Sizes **09** = 0903\_\_  
 Sizes **12** = 1204\_\_  
 Sizes **16** = 1606\_\_  
 Sizes **19** = 1906\_\_



**Spares to Suit** Contact your local branch for prices

Shim	Shim Pin	Lever	Lever Screw				Hex Key
Order Code <b>IND-107</b>							Order Code <b>KEN-601</b>
<b>-2150K</b>	<b>-3100K</b>	<b>-1260K</b>	<b>-1500K</b>	-	-	-	<b>-1300K</b>
<b>-2130K</b>	<b>-3050K</b>	<b>-0950K</b>	<b>-1300K</b>	-	-	-	<b>-1250K</b>
<b>-2150K</b>	<b>-3100K</b>	<b>-1050K</b>	<b>-1400K</b>	-	-	-	<b>-1300K</b>
<b>-2150K</b>	<b>-3100K</b>	<b>-1050K</b>	<b>-1400K</b>	-	-	-	<b>-1300K</b>
<b>-2860K</b>	<b>-3150K</b>	<b>-1220K</b>	<b>-1590K</b>	-	-	-	<b>-1300K</b>
<b>-2150K</b>	<b>-3100K</b>	<b>-1050K</b>	<b>-1400K</b>	-	-	-	<b>-1300K</b>

Designation	Dimensions (mm)						Weight each	Order Code
PCLN....	h=h <sub>1</sub>	b	l <sub>1</sub>	l <sub>2</sub>	f	a		<b>IND-106</b>
R 1616H <b>12</b>	16	16	100	26	20		206g	<b>-1960K</b>
R 2020K <b>09</b>	20	20	125	28	25		406g	<b>-1980K</b>
R 2020K <b>12</b>	20	20	125	28	25		404g	<b>-2000K</b>
L 2020K <b>12</b>							404g	<b>-2010K</b>
R 2525M <b>12</b>	25	25	150	28	25		742g	<b>-2040K</b>
L 2525M <b>12</b>	25	25	150	28	32		738g	<b>-2050K</b>
R 2525M <b>16</b>	25	25	150	34	32		743g	<b>-2060K</b>
L 2525M <b>16</b>	25	25	150	34	32		749g	<b>-2070K</b>
R 3225P <b>12</b>	32	25	170	28	32		1067g	<b>-2100K</b>
L 3225P <b>12</b>							1045g	<b>-2210K</b>

**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**

**CUTTING TOOLS**

**GROUP 106 TOOLHOLDERS - ISO EXTERNAL**

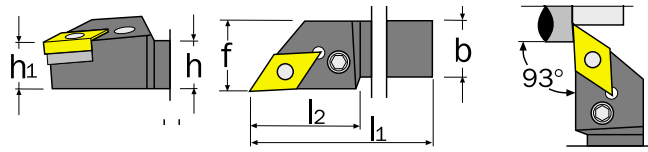
**INDEXA-SEIKI Lever Lock External Toolholders** Continued

**PDJN R/L**

93° approach for negative 55° rhombic inserts.



**Inserts** See Group 120  
 Sizes **11** = 1104\_\_  
 Sizes **15** = 1506\_\_  
 = 1504\_\_ (optional)  
**DN\_A** **DN\_G**



Designation PDJN....	Dimensions (mm)					Weight each	Order Code <b>IND-106</b>
	h=h1	b	l1	l2	f		
R 2020K <b>11</b>	20	20	125	30	25	386g	<b>-2380K</b>
R 2020K <b>15</b>	20	20	125	34	25	383g	<b>-2400K</b>
L 2020K <b>15</b>	20	20	125	34	25	393g	<b>-2410K</b>
R 2525M <b>11</b>	25	25	150	33	32	715g	<b>-2420K</b>
L 2525M <b>11</b>	25	25	150	33	32	715g	<b>-2430K</b>
R 2525M <b>15</b>	25	25	150	34	32	726g	<b>-2440K</b>
L 2525M <b>15</b>	25	25	150	34	32	720g	<b>-2450K</b>

**Spares to Suit** Contact your local branch for prices

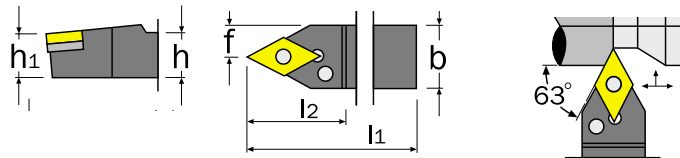
1104_ Shim	1506_ Shim	1504_ Shim	Shim Pin	Lever	Lever Screw		Hex Key
Order Code <b>IND-107</b>							Order Code <b>KEN-601</b>
<b>-2800K</b>	-	-	<b>-3050K</b>	<b>-0950K</b>	<b>-1300K</b>	-	<b>-1250K</b>
-	<b>-2250K</b>	<b>-2270K</b>	<b>-3100K</b>	<b>-1100K</b>	<b>-1410K</b>	-	<b>-1300K</b>
<b>-2800K</b>	-	-	<b>-3050K</b>	<b>-0950K</b>	<b>-1300K</b>	-	<b>-1250K</b>
-	<b>-2250K</b>	<b>-2270K</b>	<b>-3100K</b>	<b>-1100K</b>	<b>-1410K</b>	-	<b>-1300K</b>

**PDNN R**

63° approach for negative 55° rhombic inserts



**Inserts** See Group 120  
 Sizes **15** = 1506\_\_  
 = 1504\_\_ (optional)  
**DN\_A** **DN\_G**



Designation PDNN....	Dimensions (mm)					Weight each	Order Code <b>IND-106</b>
	h=h1	b	l1	l2	f		
R 2525M <b>15</b>	25	25	150	34	12.5	689g	<b>-2580K</b>

**Spares to Suit** Contact your local branch for prices

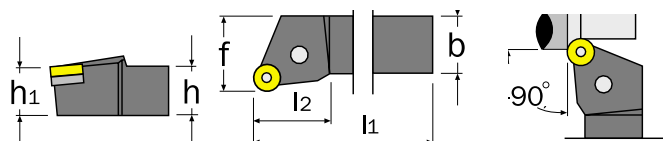
1506_ Shim	1504_ Shim	Shim Pin	Lever	Lever Screw			Hex Key
Order Code <b>IND-107</b>							Order Code <b>KEN-601</b>
<b>-2250K</b>	<b>-2270K</b>	<b>-3100K</b>	<b>-1100K</b>	<b>-1410K</b>	-	-	<b>-1300K</b>

**PRSN R**

90° approach for negative round inserts



**Inserts** See Group 120  
 Size **12** = 120400  
 Sizes **19** = 190600  
**RN\_A** **RN\_G**



Designation PRSN....	Dimensions (mm)					Weight each	Order Code <b>IND-106</b>
	h=h1	b	l1	l2	f		
R 2525M <b>12</b>	25	25	150	28	32	715g	<b>-2840K</b>

**Spares to Suit** Contact your local branch for prices

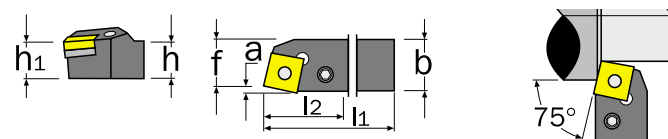
Shim	Shim Pin	Lever	Lever Screw				Hex Key
Order Code <b>IND-107</b>							Order Code <b>KEN-601</b>
<b>-2350K</b>	<b>-3100K</b>	<b>-1050K</b>	<b>-1400K</b>	-	-	-	<b>-1300K</b>

**PSBN R/L**

75° approach for negative square inserts.



**Inserts** See Group 120  
 Sizes **09** = 0903\_\_  
 Sizes **12** = 1204\_\_  
 Sizes **19** = 1906\_\_  
**SN\_A** **SN\_G**



Designation PSBN....	Dimensions (mm)						Weight each	Order Code <b>IND-106</b>
	h=h1	b	l1	l2	f	a		
L 2020K <b>12</b>	20	20	125	28	17	3	390g	<b>-2950K</b>
R 2525M <b>12</b>	25	25	150	28	22	3	716g	<b>-2960K</b>

**Spares to Suit** Contact your local branch for prices

Shim	Shim Pin	Lever	Lever Screw				Hex Key
Order Code <b>IND-107</b>							Order Code <b>KEN-601</b>
<b>-2500K</b>	<b>-3100K</b>	<b>-1050K</b>	<b>-1400K</b>	-	-	-	<b>-1300K</b>
<b>-2500K</b>	<b>-3100K</b>	<b>-1050K</b>	<b>-1400K</b>	-	-	-	<b>-1300K</b>

**CUTTING TOOLS**

**INDEXA-SEIKI Lever Lock External Toolholders** Continued

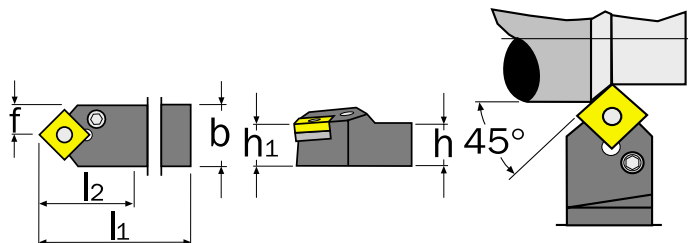


**PSDN N**

45° straight approach for negative square inserts.



**Inserts** See Group 120  
Size **12** = 1204\_\_  
Size **19** = 1906\_\_



**Spares to Suit** Contact your local branch for prices

Shim	Shim Pin	Lever	Lever Screw				Hex Key
Order Code <b>IND-107</b>							Order Code <b>KEN-601</b>
<b>-2500K</b>	<b>-3100K</b>	<b>-1050K</b>	<b>-1400K</b>	-	-	-	<b>-1300K</b>
<b>-2500K</b>	<b>-3100K</b>	<b>-1050K</b>	<b>-1400K</b>	-	-	-	<b>-1300K</b>
<b>-2550K</b>	<b>-3200K</b>	<b>-1250K</b>	<b>-1580K</b>	-	-	-	<b>-1400K</b>

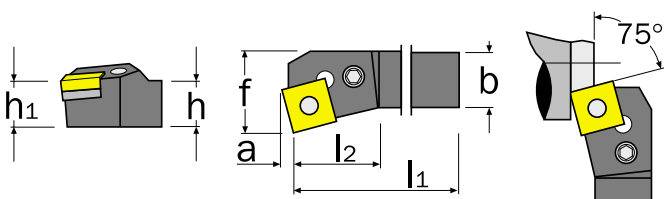
Designation	Dimensions (mm)					Weight each	Order Code
PSDN...	h=h <sub>1</sub>	b	l <sub>1</sub>	l <sub>2</sub>	f		<b>IND-106</b>
N 2020K <b>12</b>	20	20	125	28	10.0		<b>-3220K</b>
N 2525M <b>12</b>	25	25	150	28	12.5		<b>-3240K</b>
N 3225P <b>19</b>	32	25	170	42	12.5		<b>-3280K</b>

**PSKN R/L**

75° approach for negative square inserts.



**Inserts** See Group 120  
Size **12** = 1204\_\_



**Spares to Suit** Contact your local branch for prices

Shim	Shim Pin	Lever	Lever Screw				Hex Key
Order Code <b>IND-107</b>							Order Code <b>KEN-601</b>
<b>-2500K</b>	<b>-3100K</b>	<b>-1050K</b>	<b>-1400K</b>	-	-	-	<b>-1300K</b>

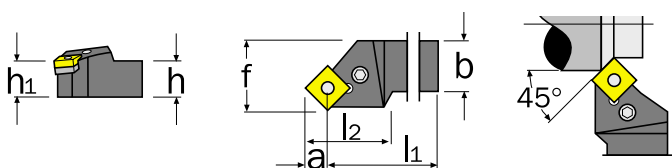
Designation	Dimensions (mm)						Weight each	Order Code
PSKN...	h=h <sub>1</sub>	b	l <sub>1</sub>	l <sub>2</sub>	f	a	<b>IND-106</b>	
R 2525M <b>12</b>	25	25	150	28	32	3.1	<b>-3360K</b>	

**PSSN R/L**

45° offset approach for negative square inserts.



**Inserts** See Group 120  
Size **12** = 1204\_\_  
Size **19** = 1906\_\_



**Spares to Suit** Contact your local branch for prices

Shim	Shim Pin	Lever	Lever Screw				Hex Key
Order Code <b>IND-107</b>							Order Code <b>KEN-601</b>
<b>-2500K</b>	<b>-3100K</b>	<b>-1050K</b>	<b>-1400K</b>	-	-	-	<b>-1300K</b>
<b>-2500K</b>	<b>-3100K</b>	<b>-1050K</b>	<b>-1400K</b>	-	-	-	<b>-1300K</b>
<b>-2710K</b>	<b>-3150K</b>	<b>-1220K</b>	<b>-1590K</b>	-	-	-	<b>-1300K</b>

Designation	Dimensions (mm)						Weight each	Order Code
PSSN...	h=h <sub>1</sub>	b	l <sub>1</sub>	l <sub>2</sub>	f	a	<b>IND-106</b>	
R 2020K <b>12</b>	20	20	125	28	25	8.3	<b>-3540K</b>	
L 2020K <b>12</b>							<b>-3550K</b>	
R 2525M <b>12</b>	25	25	150	28	32	8.3	<b>-3560K</b>	
L 2525M <b>12</b>							<b>-3570K</b>	
R 3232P <b>19</b>	32	32	170	42	40	12.5	<b>-3660K</b>	
L 3232P <b>19</b>							<b>-3670K</b>	

**GROUP 106 TOOLHOLDERS - ISO EXTERNAL**

**INDEXA-SEIKI Lever Lock External Toolholders** Continued

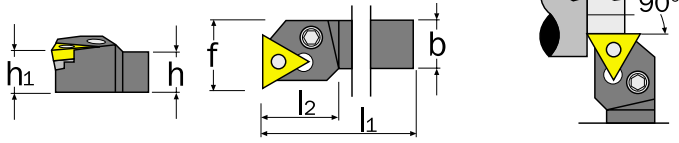
**PTFN R/L**

90° approach for negative triangular inserts.



Inserts See Group 120  
Sizes **16** = 1604\_\_

TN\_A TN\_G



**Spares to Suit** Contact your local branch for prices

Shim	Shim Pin	Lever	Lever Screw				Hex Key
Order Code <b>IND-107</b>							
							Order Code <b>KEN-601</b>
<b>-2450K</b>	<b>-3050K</b>	<b>-0950K</b>	<b>-1300K</b>	-	-	-	<b>-1250K</b>
<b>-2450K</b>	<b>-3050K</b>	<b>-0950K</b>	<b>-1300K</b>	-	-	-	<b>-1250K</b>

Designation	Dimensions (mm)					Weight each	Order Code
	h=h1	b	l1	l2	f		
PTFN....							<b>IND-106</b>
R 2020K <b>16</b>	20	20	125	22	25		<b>-3680K</b>
R 2525M <b>16</b>	25	25	150	22	32		<b>-3740K</b>

**PTGN R/L**

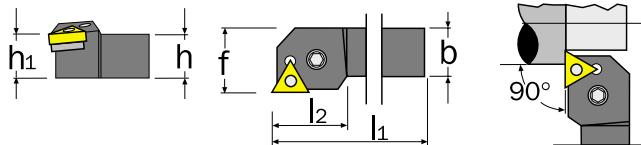
90° approach for negative triangular inserts.



Inserts See Group 120

Size **16** = 1604\_\_  
Size **22** = 2204\_\_

TN\_A TN\_G



**Spares to Suit** Contact your local branch for prices

Shim	Shim Pin	Lever	Clamp Screw				Hex Key
Order Code <b>IND-107</b>							
							Order Code <b>KEN-601</b>
<b>-2450K</b>	<b>-3050K</b>	<b>-0950K</b>	<b>-1300K</b>	-	-	-	<b>-1250K</b>
<b>-2450K</b>	<b>-3050K</b>	<b>-0950K</b>	<b>-1300K</b>	-	-	-	<b>-1250K</b>
<b>-2450K</b>	<b>-3050K</b>	<b>-0950K</b>	<b>-1300K</b>	-	-	-	<b>-1250K</b>
<b>-2450K</b>	<b>-3050K</b>	<b>-0950K</b>	<b>-1300K</b>	-	-	-	<b>-1250K</b>
<b>-2600K</b>	<b>-3100K</b>	<b>-1050K</b>	<b>-1400K</b>	-	-	-	<b>-1300K</b>

Designation	Dimensions (mm)					Weight each	Order Code
	h=h1	b	l1	l2	f		
PTGN....							<b>IND-106</b>
R 1616H <b>16</b>	16	16	100	22	20		<b>-3900K</b>
R 2020K <b>16</b>	20	20	125	25	25		<b>-3940K</b>
L 2020K <b>16</b>	20	20	125	22	25		<b>-3950K</b>
R 2525M <b>16</b>	25	25	150	22	32		<b>-3960K</b>
L 2525M <b>16</b>	25	25	150	22	32		<b>-3970K</b>
R 2525M <b>22</b>	25	25	150	28	32		<b>-3980K</b>

**PWLN R/L**

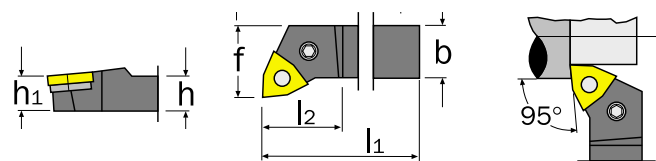
95° approach for negative 80° trigon inserts.



Inserts See Group 120

Size **06** = 0604\_\_  
Size **08** = 0804\_\_

WN\_A WN\_G



**Spares to Suit** Contact your local branch for prices

Shim	Shim Pin	Lever	Clamp Screw				Hex Key
Order Code <b>IND-107</b>							
							Order Code <b>KEN-601</b>
<b>-2083K</b>	<b>-3050K</b>	<b>-0950K</b>	<b>-1300K</b>	-	-	-	<b>-1250K</b>
<b>-2083K</b>	<b>-3050K</b>	<b>-0950K</b>	<b>-1300K</b>	-	-	-	<b>-1250K</b>
<b>-2084K</b>	<b>-3100K</b>	<b>-1050K</b>	<b>-1400K</b>	-	-	-	<b>-1300K</b>
<b>-2084K</b>	<b>-3100K</b>	<b>-1050K</b>	<b>-1400K</b>	-	-	-	<b>-1300K</b>
<b>-2083K</b>	<b>-3050K</b>	<b>-0950K</b>	<b>-1300K</b>	-	-	-	<b>-1250K</b>
<b>-2083K</b>	<b>-3050K</b>	<b>-0950K</b>	<b>-1300K</b>	-	-	-	<b>-1250K</b>
<b>-2084K</b>	<b>-3100K</b>	<b>-1050K</b>	<b>-1400K</b>	-	-	-	<b>-1300K</b>

Designation	Dimensions (mm)					Weight each	Order Code
	h=h1	b	l1	l2	f		
PWLN....							<b>IND-106</b>
R 1616H <b>06</b>	16	16	100	21	20		<b>-4080K</b>
R 2020K <b>06</b>	20	20	125	25	25		<b>-4090K</b>
L 2020K <b>06</b>	20	20	125	25	25		<b>-4092K</b>
R 2020K <b>08</b>	20	20	125	25	25		<b>-4100K</b>
L 2020K <b>08</b>	20	20	125	25	25		<b>-4110K</b>
R 2525M <b>06</b>	25	25	150	34	32		<b>-4114K</b>
R 2525M <b>08</b>	25	25	150	34	32		<b>-4120K</b>
L 2525M <b>08</b>	25	25	150	34	32		<b>-4130K</b>

**INDEXA-SEIKI**

**Screw-On External Toolholders** Continued

Inserts See Group 120

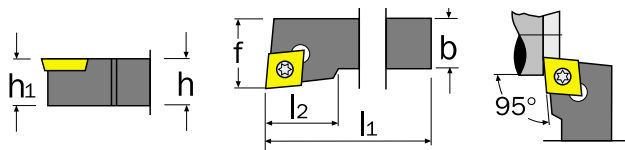
Size **06** = 0602\_\_  
 Size **09** = 09T3\_\_  
 Size **12** = 1204\_\_

**CC\_T**



**SCLC R/L**

95° approach for 7° positive  
 80° rhombic inserts.



**Spares to Suit** Contact your local branch for prices

Shim	Shim Screw	Insert Screw					Torx Key
Order Code <b>IND-107</b>							
-	-	<b>-3250K</b>	-	-	-	-	<b>-5070K</b>
-	-	<b>-3270K</b>	-	-	-	-	<b>-5150K</b>
-	-	<b>-4480K</b>	-	-	-	-	<b>-5150K</b>
-	-	<b>-4490K</b>	-	-	-	-	<b>-5150K</b>
-	-	<b>-4500K</b>	-	-	-	-	<b>-5150K</b>
-	-	<b>-4505K</b>	-	-	-	-	<b>-5150K</b>
<b>-2180K</b>	<b>-1575K</b>	<b>-1275K</b>	-	-	-	-	<b>-5200K</b>
<b>-2180K</b>	<b>-1575K</b>	<b>-1275K</b>	-	-	-	-	<b>-5200K</b>

Designation SCLC....	Dimensions (mm)						Weight each	Order Code <b>IND-106</b>
	h=h <sub>1</sub>	b	l <sub>1</sub>	l <sub>2</sub>	f			
R 1010E <b>06</b>	10	10	70	10	12		<b>-4420K</b>	
R 1212F <b>09</b>	12	12	80	16	16		<b>-4460K</b>	
L 1212F <b>09</b>	12	12	80	16	16		<b>-4470K</b>	
R 1616H <b>09</b>	16	16	100	16	20		<b>-4480K</b>	
L 1616H <b>09</b>	16	16	100	16	20		<b>-4490K</b>	
R 2020K <b>09</b>	20	20	125	20.5	25		<b>-4500K</b>	
L 2020K <b>09</b>	20	20	125	20.5	25		<b>-4505K</b>	
R 2020K <b>12</b>	20	20	125	25	25		<b>-4510K</b>	
R 2525M <b>12</b>	25	25	150	25	32		<b>-4520K</b>	

**SDJC R/L**

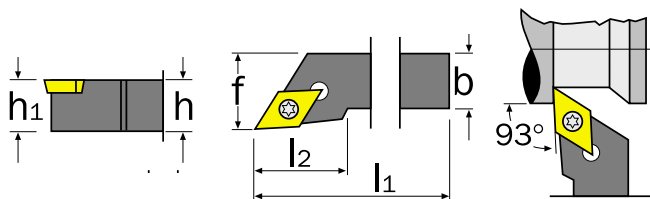
93° approach for 7° positive  
 55° rhombic inserts.



Inserts See Group 120

Size **07** = 0702\_\_  
 Size **11** = 11T3\_\_

**DC\_T**



**Spares to Suit** Contact your local branch for prices

Shim	Shim Screw	Insert Screw					Torx Key
Order Code <b>IND-107</b>							
-	-	<b>-3250K</b>	-	-	-	-	<b>-5070K</b>
-	-	<b>-3250K</b>	-	-	-	-	<b>-5070K</b>
-	-	<b>-3400K</b>	-	-	-	-	<b>-5150K</b>
<b>-2246K</b>	<b>-1570K</b>	<b>-3400K</b>	-	-	-	-	<b>-5150K</b>
<b>-2246K</b>	<b>-1570K</b>	<b>-3400K</b>	-	-	-	-	<b>-5150K</b>
<b>-2246K</b>	<b>-1570K</b>	<b>-3400K</b>	-	-	-	-	<b>-5150K</b>
<b>-2246K</b>	<b>-1570K</b>	<b>-3400K</b>	-	-	-	-	<b>-5150K</b>

Designation SDJC....	Dimensions (mm)						Weight each	Order Code <b>IND-106</b>
	h=h <sub>1</sub>	b	l <sub>1</sub>	l <sub>2</sub>	f			
R 1010E <b>07</b>	10	10	70	16	12		<b>-4540K</b>	
R 1212F <b>07</b>	12	12	80	18	16		<b>-4560K</b>	
R 1212F <b>11</b>	12	12	80	18	16		<b>-4580K</b>	
L 1212F <b>11</b>	12	12	80	18	16		<b>-4590K</b>	
R 1616H <b>11</b>	16	16	100	22	20		<b>-4620K</b>	
L 1616H <b>11</b>	16	16	100	22	20		<b>-4630K</b>	
R 2020K <b>11</b>	20	20	125	22	25		<b>-4640K</b>	
L 2020K <b>11</b>	20	20	125	22	25		<b>-4650K</b>	
R 2525M <b>11</b>	25	25	150	22	32		<b>-4660K</b>	
L 2525M <b>11</b>	25	25	150	22	32		<b>-4670K</b>	

**SDNC N**

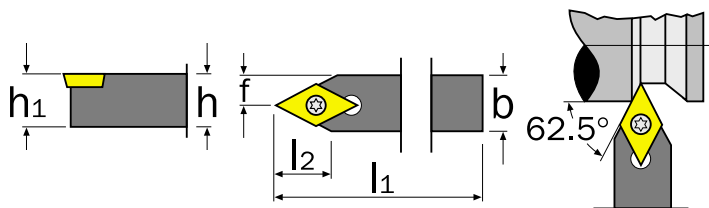
62.5° approach for 7° positive  
 55° rhombic inserts.



Inserts See Group 120

Size **07** = 0702\_\_  
 Size **11** = 11T3\_\_

**DC\_T**



**Spares to Suit** Contact your local branch for prices

Shim	Shim Screw	Insert Screw					Torx Key
Order Code <b>IND-107</b>							
-	-	<b>-3250K</b>	-	-	-	-	<b>-5070K</b>
-	-	<b>-3250K</b>	-	-	-	-	<b>-5070K</b>
<b>-2246K</b>	<b>-1570K</b>	<b>-3400K</b>	-	-	-	-	<b>-5150K</b>
<b>-2246K</b>	<b>-1570K</b>	<b>-3400K</b>	-	-	-	-	<b>-5150K</b>

Designation SDNC....	Dimensions (mm)						Weight each	Order Code <b>IND-106</b>
	h=h <sub>1</sub>	b	l <sub>1</sub>	l <sub>2</sub>	f			
N 1010E <b>07</b>	10	10	70	16	5.0		<b>-4720K</b>	
N 1212F <b>07</b>	12	12	80	18	6.0		<b>-4740K</b>	
N 1616H <b>11</b>	16	16	100	22	8.0		<b>-4780K</b>	
N 2020K <b>11</b>	20	20	125	22	10.0		<b>-4800K</b>	

**GROUP 106 TOOLHOLDERS - ISO EXTERNAL**

**INDEXA-SEIKI Screw-On External Toolholders** Continued

**SRDC N**

90° approach for positive round inserts.



Inserts See Group 120

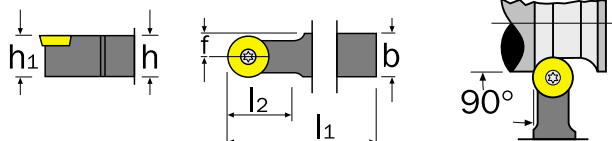
Sizes **06** = 0602MO.

Sizes **08** = 0803MO.

RC\_M



RC\_T



**Spares to Suit** Contact your local branch for prices

Insert Screw									Torx Key
Order Code <b>IND-107</b>									
<b>-3250K</b>	-	-	-	-	-	-	-	-	<b>-5070K</b>
<b>-3264K</b>	-	-	-	-	-	-	-	-	<b>-5090K</b>
<b>-3250K</b>	-	-	-	-	-	-	-	-	<b>-5070K</b>
<b>-3264K</b>	-	-	-	-	-	-	-	-	<b>-5090K</b>

**SSDC N**

45° approach for 7° positive square inserts.

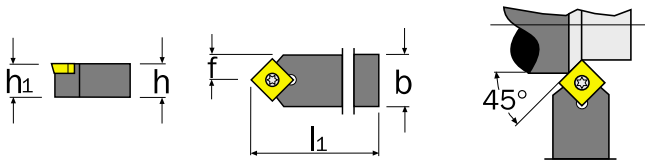


Inserts See Group 120

Sizes **09** = 09T3\_\_

Sizes **12** = 1204\_\_

SC\_T



**Spares to Suit** Contact your local branch for prices

Shim	Shim Screw	Insert Screw							Torx Key
Order Code <b>IND-107</b>									
-	-	<b>-3270K</b>	-	-	-	-	-	-	<b>-5150K</b>
<b>-2090K</b>	<b>-1575K</b>	<b>-3270K</b>	-	-	-	-	-	-	<b>-5150K</b>
		<b>-1275K</b>	-	-	-	-	-	-	<b>-5200K</b>

**SSSC R/L**

45° approach for 7° positive square inserts.

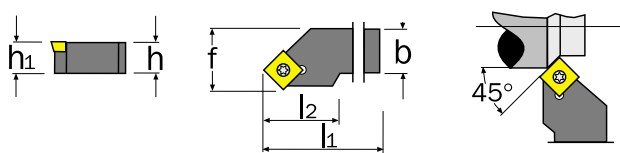


Inserts See Group 120

Size **09** = 09T3\_\_

Size **12** = 1204\_\_

SC\_T



**Spares to Suit** Contact your local branch for prices

Shim	Shim Screw	Insert Screw							Torx Key
Order Code <b>IND-107</b>									
-	-	<b>-3270K</b>	-	-	-	-	-	-	<b>-5150K</b>
<b>-2090K</b>	<b>-1570K</b>	<b>-3270K</b>	-	-	-	-	-	-	<b>-5150K</b>
		<b>-1275K</b>	-	-	-	-	-	-	<b>-5200K</b>

**STFC R/L**

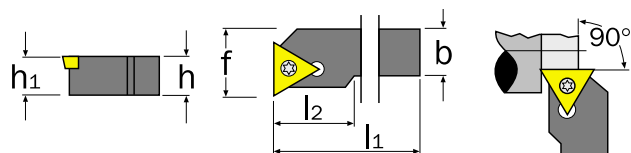
90° approach for 7° positive triangular inserts.



Inserts See Group 120

Size **11** = 1102\_\_

TC\_T



**Spares to Suit** Contact your local branch for prices

		Insert Screw							Torx Key
Order Code <b>IND-107</b>									
-	-	<b>-3250K</b>	-	-	-	-	-	-	<b>-5070K</b>

CUTTING TOOLS

**INDEXA-SEIKI**

**Screw-On External Toolholders** Continued

Inserts See Group 120

Sizes **11** = 1102\_\_

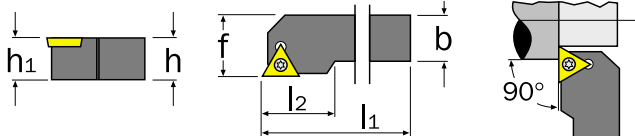
Sizes **16** = 16T3\_\_

TC\_T



**STGC R/L**

90° approach for 7° positive triangular inserts.



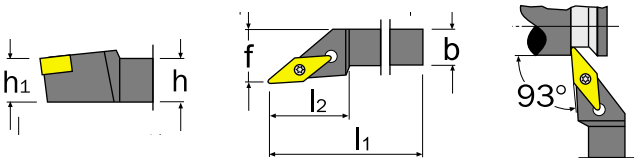
Spares to Suit Contact your local branch for prices

Order Code <b>IND-107</b>								
-	-	<b>-3250K</b>	-	-	-	-	-	<b>-5070K</b>
-	-	<b>-3250K</b>	-	-	-	-	-	<b>-5070K</b>
<b>-2087K</b>	<b>-1570K</b>	<b>-3400K</b>	-	-	-	-	-	<b>-5150K</b>
<b>-2087K</b>	<b>-1570K</b>	<b>-3400K</b>	-	-	-	-	-	<b>-5150K</b>

Designation	Dimensions (mm)					Weight each	Order Code
	STGC....	h=h1	b	l1	l2		
R 1212F <b>11</b>	12	12	12	80	18	16	<b>-5660K</b>
R 1616H <b>11</b>	16	16	16	100	22	20	<b>-5680K</b>
R 2020K <b>16</b>	20	20	20	125	22	25	<b>-5740K</b>
L 2020K <b>16</b>	20	20	20	125	22	25	<b>-5750K</b>
R 2525M <b>16</b>	25	25	25	150	22	32	<b>-5760K</b>

**SVJN R/L**

93° approach for 35° negative rhombic inserts.



Inserts See Group 120

Size **12** = 12T3\_\_

VN\_G



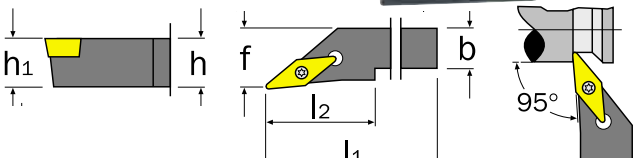
Spares to Suit Contact your local branch for prices

Order Code <b>IND-107</b>									Order Code <b>KEN-601</b>
-	-	<b>-3520K</b>	-	-	-	-	-	<b>-5090K</b>	<b>-0080K</b>
-	-	<b>-3520K</b>	-	-	-	-	-	<b>-5090K</b>	-

Designation	Dimensions (mm)					Weight each	Order Code
	SVJN....	h=h1	b	l1	l2		
R 2020K <b>12</b>	20	20	20	125	22	25	<b>-5830K</b>
L 2020K <b>12</b>	20	20	20	125	22	25	<b>-5840K</b>
R 2525M <b>12</b>	25	25	25	150	31	32	<b>-5850K</b>

**SVLB R/L**

95° approach for 5° positive 35° rhombic inserts.



Inserts See Group 120

Size : **16** = 1604

VB\_T

VB\_A

VB\_M



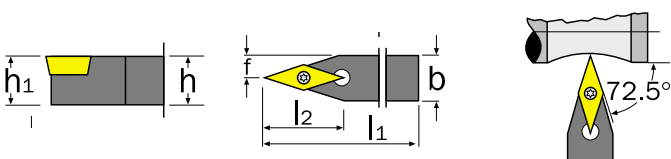
Spares to Suit Contact your local branch for prices

Order Code <b>IND-107</b>								
<b>-2910K</b>	<b>-1570K</b>	<b>-3400K</b>	-	-	-	-	-	<b>-5150K</b>
<b>-2910K</b>	<b>-1570K</b>	<b>-3400K</b>	-	-	-	-	-	<b>-5150K</b>

Designation	Dimensions (mm)					Weight each	Order Code
	SVLB....	h=h1	b	l1	l2		
R 2020K <b>16</b>	20	20	20	125	42	25	<b>-5940K</b>
L 2020K <b>16</b>	20	20	20	125	42	25	<b>-5950K</b>
R 2525M <b>16</b>	25	25	25	150	42	32	<b>-6020K</b>
L 2525M <b>16</b>	25	25	25	150	42	32	<b>-6030K</b>

**SVVB N**

72.5° approach for 5° positive 35° rhombic inserts.



Inserts See Group 120

Size : **16** = 1604

VB\_T

VB\_A

VB\_M



Spares to Suit Contact your local branch for prices

Order Code <b>IND-107</b>								
<b>-2910K</b>	<b>-1570K</b>	<b>-3400K</b>	-	-	-	-	-	<b>-5150K</b>
<b>-2910K</b>	<b>-1570K</b>	<b>-3400K</b>	-	-	-	-	-	<b>-5150K</b>

Designation	Dimensions (mm)					Weight each	Order Code
	SVVB....	h=h1	b	l1	l2		
N 2020K <b>16</b>	20	20	20	125	28	10.6	<b>-6080K</b>
N 2525M <b>16</b>	25	25	25	150	28	13.1	<b>-6100K</b>

**GROUP 106 TOOLHOLDERS - ISO BORING**

**INDEXA-SEIKI Lever Lock Boring Bars**

**CTFP R/L**

90° approach for 11° positive triangular inserts.

Inserts See Group 120

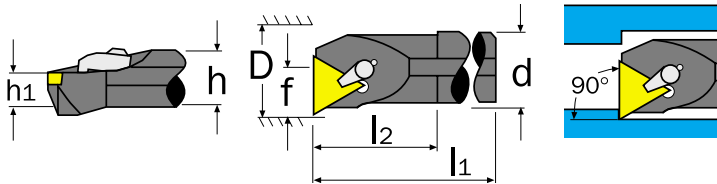
Sizes 11 = 1103\_\_

Sizes 16 = 1603\_\_

TP\_R



TP\_N



Spares to Suit Contact your local branch for prices

ISO Designation	dg7	h	h1	l1	l2	f	Dmin	Weight each	Order Code
S12M CTFPR 11	12	11	5.5	150	25	9	16		<b>IND-106</b> -6400K
S16R CTFPR 11	16	15	7.5	200	30	11	20		-6410K
S20S CTFPR 11	20	18	9.0	250	35	13	24		-6420K
S25T CTFPR 16	25	23	11.5	300	40	17	31		-6460K
S32U CTFPR 16	32	30	15.0	350	50	22	39		-6480K

Shim	Shim Pin	Clamp Set					Hex Key
Order Code <b>IND-107</b>							Order Code <b>KEN-601</b>
-	-	-4250K	-	-	-	-	-1250K
-	-	-4210K	-	-	-	-	-1250K
-	-	-4210K	-	-	-	-	-1250K
-	-	-4220K	-	-	-	-	-1300K
-2050K	-2950K	-4300K	-	-	-	-	-1300K

**Top Clamp & Pin Lock Boring Bars**

**MWLN R/L**

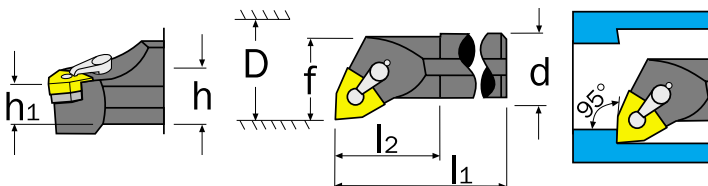
95° approach for 80° negative trigon inserts.

Inserts See Group 120

Sizes 08 = 0804\_\_

WN\_A

WN\_G



Spares to Suit Contact your local branch for prices

ISO Designation	dg7	h	h1	l1	l2	f	Dmin	Weight each	Order Code
S25T MWLN R 08	25	23	11.5	300	40	17	31		<b>IND-106</b> -6770K
S32U MWLN R 08	32	30	15.0	350	50	22	39		-6776K
S40V MWLN R 08	40	37	18.5	400	60	27	48		-6782K

Shim	Lock Pin	Clamp Set	Clamp Screw				Shim Key	Hex Key
Order Code <b>IND-107</b>							Order Code <b>KEN-601</b>	
-	-1490K	-0940K	-1880K	-	-	-	-1250K	-1500K
-2920K	-1680K	-0940K	-1880K	-	-	-	-1250K	-1500K
-2920K	-1680K	-0940K	-1880K	-	-	-	-1250K	-1500K

**PCLN R/L**

95° approach for 80° negative rhombic inserts.

Inserts See Group 120

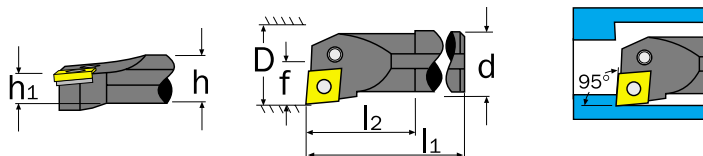
Sizes 09 = 0903\_\_

Sizes 12 = 1204\_\_

Sizes 16 = 1606\_\_

CN\_A

CN\_G



Spares to Suit Contact your local branch for prices

ISO Designation	dg7	h	h1	l1	l2	f	Dmin	Weight each	Order Code
S25T PCLN R 09	25	23	11.5	300	33	17.0	32		<b>IND-106</b> -6800K
S25T PCLN R 12	25	23	11.5	300	40	17.0	31		-6820K
S25T PCLN L 12	25	23	11.5	300	40	17.0	31		-6830K
S32U PCLN R 12	32	30	15.0	350	50	22.0	39		-6840K
S32U PCLN L 12	32	30	15.0	350	50	22.0	39		-6850K
S40V PCLN R 12	40	37	18.5	400	60	27.0	48		-6860K
S40V PCLN L 12	40	37	18.5	400	60	27.0	48		-6870K
S50W PCLN R 16	50	47	23.5	450	65	35.0	61		-6880K

Shim	Shim Pin	Lever	Lever Screw				Hex Key
Order Code <b>IND-107</b>							Order Code <b>KEN-601</b>
-	-3050K	-0950K	-1450K	-	-	-	-1250K
-	-3100K	-1150K	-1450K	-	-	-	-1250K
-2150K	-3100K	-1260K	-1500K	-	-	-	-1300K
-2150K	-3100K	-1260K	-1500K	-	-	-	-1300K
-2860K	-3150K	-1220K	-1590K	-	-	-	-1300K

**PDUN R/L**

93° approach for  
55° negative rhombic inserts.

**Inserts** See Group 120

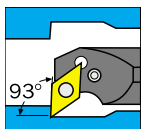
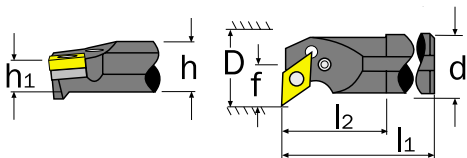
Sizes **11** = 1104\_\_

Sizes **15** = 1506\_\_

**DN\_A**



**DN\_G**



**Spares to Suit** Contact your local branch for prices

Shim	Shim Pin	Lever	Lever Screw				Hex Key
Order Code <b>IND-107</b>							Order Code <b>KEN-601</b>

ISO Designation	dg7	h	h1	l1	l2	f	Dmin	Weight each	Order Code
S25T PDUNR	11	25	25	15.0	300	50	22	30	<b>-6940K</b>
S32U PDUNR	15	32	30	15.0	350	50	22	39	<b>-6960K</b>
S40V PDUNR	15	40	37	18.5	400	60	27	48	<b>-6980K</b>

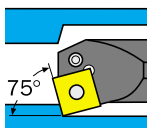
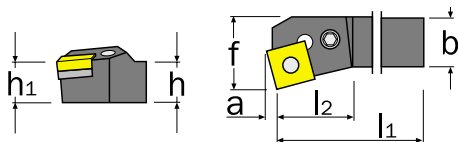
**PSKN R**

75° approach for  
negative square inserts.

**Inserts** See Group 120

Sizes **12** = 1204\_\_

**SN\_G**



**Spares to Suit** Contact your local branch for prices

Shim	Shim Pin	Lever	Lever Screw				Hex Key
Order Code <b>IND-107</b>							Order Code <b>KEN-601</b>

ISO Designation	dg7	h	h1	l1	l2	f	a	Dmin	Weight each	Order Code
S25T PSKNR	12	25	23	11.5	300	40	17	3.1	31	<b>-7020K</b>

**PTFN R/L**

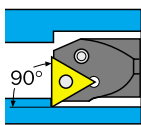
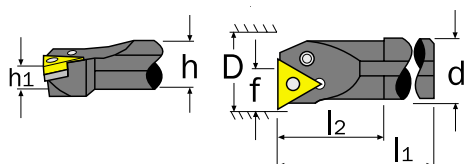
90° approach for  
negative triangular inserts.

**Inserts** See Group 120

Sizes **16** = 1604\_\_

Sizes **22** = 2204\_\_

**TN\_G**



**Spares to Suit** Contact your local branch for prices

Shim	Shim Pin	Lever	Lever Screw				Hex Key
Order Code <b>IND-107</b>							Order Code <b>KEN-601</b>

ISO Designation	dg7	h	h1	l1	l2	f	Dmin	Weight each	Order Code
S25T PTFNR	16	25	23	11.5	300	40	17	31	<b>-7200K</b>
S32U PTFNR	16	32	30	15.0	350	50	22	39	<b>-7240K</b>

**GROUP 106 TOOLHOLDERS - ISO BORING**

**INDEXA-SEIKI Lever Lock Boring Bars** Continued

**PWLN R/L**

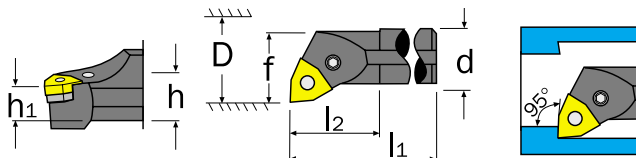
95° approach for negative  
80° Trigon inserts.



Inserts See Group 120

Sizes **06** = 0604\_\_  
Sizes **08** = 0804\_\_

WN\_G



**Spares to Suit** Contact your local branch for prices

Shim	Shim Pin	Lever	Lever Screw					Hex Key
Order Code <b>IND-107</b>								
-	-	<b>-1000K</b>	<b>-1350K</b>	-	-	-	-	<b>-1250K</b>
-	-	<b>-1000K</b>	<b>-1350K</b>	-	-	-	-	<b>-1250K</b>
<b>-2083K</b>	<b>-3050K</b>	<b>-0950K</b>	<b>-1300K</b>	-	-	-	-	<b>-1250K</b>
-	-	<b>-1260K</b>	<b>-1500K</b>	-	-	-	-	<b>-1300K</b>

**Screw-On Boring Bars SCLC R/L**

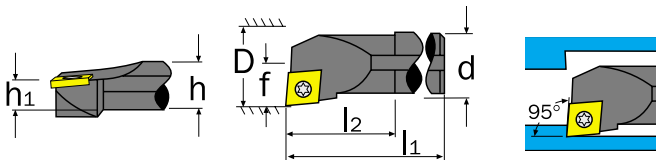
95° approach for 7° positive  
80° rhombic inserts.



Inserts See Group 120

Sizes **06** = 0602\_\_  
Sizes **09** = 09T3\_\_

CC\_T



**Spares to Suit** Contact your local branch for prices

Insert Screw								Torx Key
Order Code <b>IND-107</b>								
-	<b>-3250K</b>	-	-	-	-	-	-	<b>-5070K</b>
-	<b>-3250K</b>	-	-	-	-	-	-	<b>-5070K</b>
-	<b>-3250K</b>	-	-	-	-	-	-	<b>-5070K</b>
-	<b>-3350K</b>	-	-	-	-	-	-	<b>-5150K</b>
-	<b>-3350K</b>	-	-	-	-	-	-	<b>-5150K</b>
-	<b>-3350K</b>	-	-	-	-	-	-	<b>-5150K</b>
-	<b>-3350K</b>	-	-	-	-	-	-	<b>-5150K</b>

**CUTTING TOOLS**

**Screw-on Boring Bars (Through Coolant)**

95° approach. Uses CCMT 06 inserts.

**WITH THROUGH COOLANT**

Inserts See Group 120

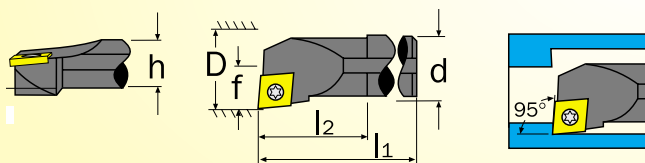
Sizes **06** = 0602\_\_

CC\_T



**QBC-06 Quad Bore Holder Set — SCLC R**

A set featuring 4 SCLCR 95° approach screw-on boring bars in 6, 8, 10 and 12mm diameter, the bars use a CCMT 06 insert. For small diameter bores on manual and CNC lathes.



**Spares to Suit** Contact your local branch for prices

Insert Screw								Torx Key
Order Code <b>IND-107</b>								
-	<b>-5240K</b>	-	-	-	-	-	-	<b>-5070K</b>

ISO Designation	dg7	h	l1	l2	f	Dmin	Weight each	Order Code
A0608H SCLC	06	6	7	100	25	4	8	<b>-7530K</b>
A0810J SCLC	06	8	9	110	32	6	12	<b>-7532K</b>
A01012K SCLC	06	10	11	125	38	7	14	<b>-7534K</b>
A01216M SCLCR	06	12	15	150	50	9	18	<b>-7536K</b>
Set of all 4 above								<b>-9980K</b>

**INDEXA-SEIKI Screw-On Boring Bars**

**SDUC R/L**

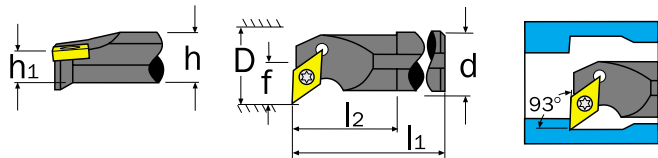
93° approach for 7° positive  
55° rhombic inserts.

Inserts See Group 120

Sizes **07** = 0702\_\_

Sizes **11** = 11T3\_\_

**DC\_T**



**Spares to Suit** Contact your local branch for prices

Insert Screw										Torx Key
Order Code <b>IND-107</b>										
-	<b>-3250K</b>	-	-	-	-	-	-	-	-	<b>-5070K</b>
-	<b>-3250K</b>	-	-	-	-	-	-	-	-	<b>-5070K</b>
-	<b>-3270K</b>	-	-	-	-	-	-	-	-	<b>-5150K</b>
-	<b>-3270K</b>	-	-	-	-	-	-	-	-	<b>-5150K</b>

ISO Designation	dg7	h	h <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	f	D <sub>min</sub>	Weight each	Order Code
S120 SDUCR <b>07</b>	12	11	5.5	180	25	9	16		<b>IND-106</b> <b>-7660K</b>
S16R SDUCR <b>07</b>	16	15	7.5	200	30	11	20		<b>-7680K</b>
S16R SDUCL <b>07</b>	16	15	7.5	200	30	11	20		<b>-7690K</b>
S20S SDUCR <b>11</b>	20	18	9.0	250	35	13	24		<b>-7720K</b>
S20S SDUCL <b>11</b>	20	18	9.0	250	35	13	24		<b>-7730K</b>
S25T SDUCR <b>11</b>	25	23	11.5	300	40	17	31		<b>-7740K</b>
S25T SDUCL <b>11</b>	25	23	11.5	300	40	17	31		<b>-7750K</b>

**STFC R/L**

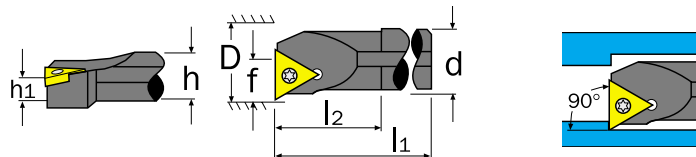
90° approach for 7° positive  
triangular inserts.

Inserts See Group 120

Sizes **11** = 1102\_\_

Sizes **16** = 16T3\_\_

**TC\_T**



**Spares to Suit** Contact your local branch for prices

Insert Screw										Torx Key
Order Code <b>IND-107</b>										
-	<b>-3260K</b>	-	-	-	-	-	-	-	-	<b>-5060K</b>
-	<b>-3250K</b>	-	-	-	-	-	-	-	-	<b>-5070K</b>
-	<b>-3250K</b>	-	-	-	-	-	-	-	-	<b>-5070K</b>
-	<b>-3250K</b>	-	-	-	-	-	-	-	-	<b>-5070K</b>
-	<b>-3270K</b>	-	-	-	-	-	-	-	-	<b>-5150K</b>

ISO Designation	dg7	h	h <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	f	D <sub>min</sub>	Weight each	Order Code
S10K STFCR <b>11</b>	10	9	4.5	125	25	7	13		<b>IND-106</b> <b>-7840K</b>
S120 STFCR <b>11</b>	12	11	5.5	180	25	9	16		<b>-7880K</b>
S16R STFCR <b>11</b>	16	15	7.5	200	30	11	20		<b>-7920K</b>
S20S STFCR <b>11</b>	20	18	9.0	250	35	13	24		<b>-7940K</b>
S25T STFCR <b>16</b>	25	23	11.5	300	40	17	31		<b>-7955K</b>

**SCLC R/L**

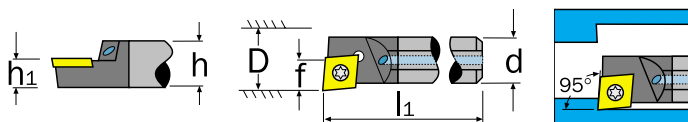
95° approach for 7° positive  
80° rhombic inserts.

Inserts See Group 120

Sizes **06** = 0602\_\_

Sizes **09** = 09T3\_\_

**CC\_T**



**Spares to Suit** Contact your local branch for prices

Insert Screw										Torx Key
Order Code <b>IND-107</b>										
<b>-3248K</b>	-	-	-	-	-	-	-	-	-	<b>-5080K</b>
<b>-3248K</b>	-	-	-	-	-	-	-	-	-	<b>-5080K</b>
<b>-3350K</b>	-	-	-	-	-	-	-	-	-	<b>-5150K</b>

ISO Designation	øh8	h <sub>1</sub>	h	l <sub>1</sub>	f	D <sub>min</sub>	Weight each	Order Code
E10M SCLCR <b>06</b>	10	5	9	150	5.5	12		<b>IND-106</b> <b>-7340K</b>
E12M SCLCR <b>06</b>	12	6	11	150	6.5	14		<b>-7420K</b>
E16R SCLCR <b>09</b>	16	8	14	200	8.5	18		<b>-7460K</b>

**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**

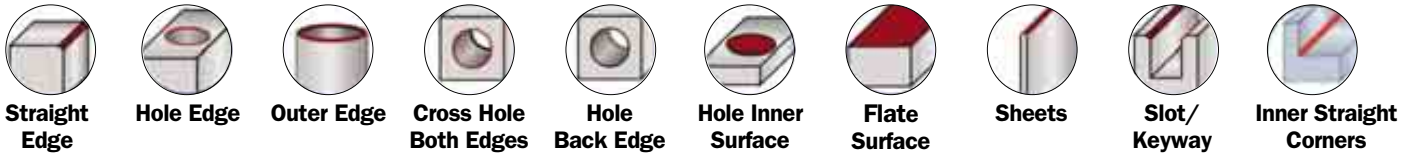
**SWISS+BURR Modular Deburring Tools**



An interchangeable system of handle, holders and blades designed to cover all hand applications of deburring. Made up of HSS and carbide blades, countersinks and scrapers along with ergonomically designed handles. This is one of the most comprehensive ranges available.

Blades are interchangeable with commonly available brands including Kennedy®, Noga®, Ruko®, Seco®, Snap-Tap® and Stellram®.

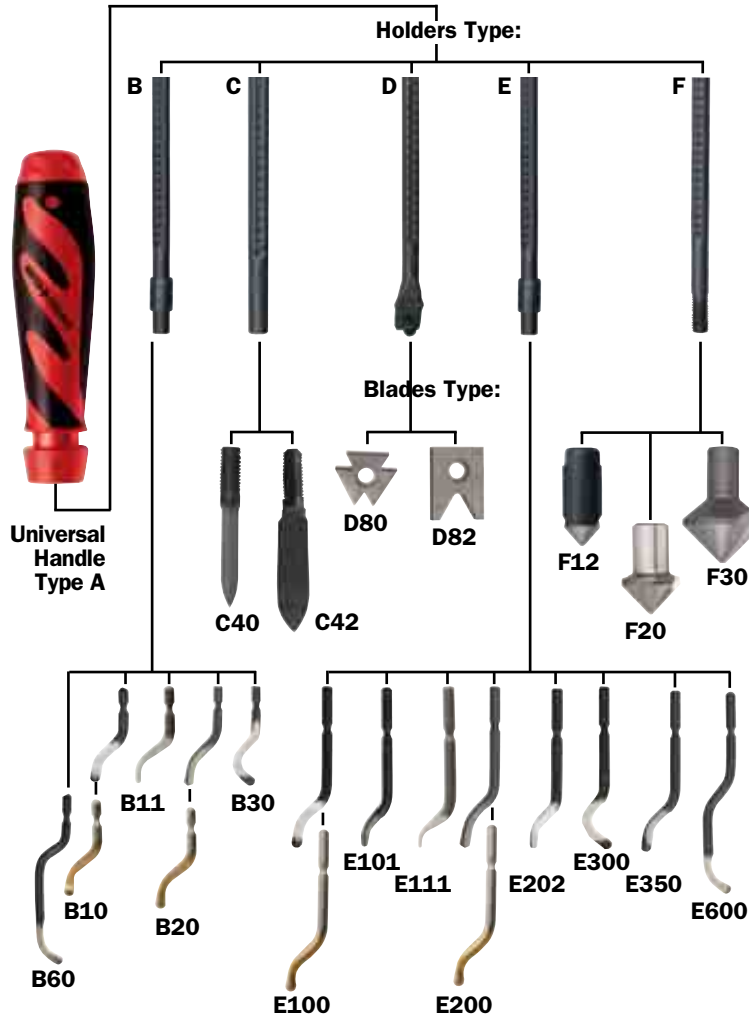
**Application Range**



**Industry Sectors**



**Material Range**



**Universal Ergonomic Handle**

Modern ergonomic handle design, with an easy to use spring release mechanism. Pulling back on the locking head collar releases the telescopic blade holder for optimal length. Works with all **SWISS+BURR** holders and blades.



Type	To Suit	Weight each	Order Code
A	B, C, D, E & F Holders	130g	<b>-1010A</b>

**Holders**

Type	Suitable For Type	Weight each	Order Code
B	B Blades	50g	<b>-1020B</b>
C	C Scrapers	40g	<b>-1200K</b>
D	D Corner Chamfering Blades	50g	<b>-1300R</b>
E	E Blades	40g	<b>-1400A</b>
F	F Countersinks	50g	<b>-1600P</b>



**Heavy Duty Slim Grip Handle SB2000**

**SWISS+BURR** hand deburring tools are a fast effective and efficient way of deburring holes, slots and edges. **SWISS+BURR** is a totally modular system of interchangeable handles, holders and blades designed to cover all applications. A choice of HSS or carbide blades, countersinks and scrapers are available to suit your specific application. **SWISS+BURR** blades are also interchangeable with commonly available brands including Kennedy®, Noga®, Ruko®, Seco®, Snap-Tap® and Stellram®.

**NEW**



Type	Suitable for Type	Weight each	Order Code
SB2000	E Blades		<b>-6010A</b>

**SWISS+BURR** *Modular Deburring Tools*

**Application Table (by Material)**

Material Blade	Steel	Aluminium	Copper	Brass	Cast Iron	Plastics	Stainless Steel	Hardened Steels
B10	•	•	•			•		
B10 TiN	•	•	•			•	•	
B10 HSSCo	•	•	•			•	•	
B11	•	•	•			•		
B20				•	•	•		
B20 TiN				•	•	•		
B30	•	•	•			•		
B60	•	•	•			•		
C40/C42	•	•	•	•	•		•	
D80/D82	•	•	•	•	•	•	•	•
E100/E101	•	•	•			•		
E100 TiN	•	•	•			•	•	•
E111	•	•	•			•		
E200/E202				•	•	•		
E200 TiN				•	•	•		
E300	•	•	•			•		
E350				•	•			
E600	•	•	•			•		
F12/F20/F30	•	•	•	•	•	•	•	
N80	•	•	•			•	•	
N80K	•	•	•	•	•	•	•	

**Light Duty Blades**

**B10**

HSS Blade for straight and hole edge deburring.



HSS-Co



TiN



**B11**

B10 geometry with thin nose for small diameter holes down to 2mm.



**B20**

HSS Blade for straight and hole edge deburring, blade design allows clockwise and anti-clockwise movement.



TiN



**B30**

HSS Blade for Cross-Hole and both edges, blade will simultaneously deburr the inside and outside of the hole. For use on holes up to 4mm thick.



**B60**

HSS Blade for deburring back edges on holes, will remove burrs from the back edge of holes up to 20mm thick.



Type	Description	Weight each	Order Code <b>SWT-109</b>
B10	Steel & Aluminium	30g/10	<b>-1030C</b>
B10 TiN	Steel & Aluminium	30g/10	<b>-1031B</b>
B10 HSSCo	Steel & Aluminium	30g/10	<b>-1031M</b>
B11	Steel & Aluminium	30g/10	<b>-1032C</b>
B20 TiN	Steel & Aluminium	30g/10	<b>-1041B</b>
B20	Brass & Cast Iron	30g/10	<b>-1040D</b>
B30	Sheet & Tubing, Front & Rear Cut	20g/10	<b>-1050E</b>
B60	Rear Cut - Extra Length	30g/10	<b>-1060F</b>

**DEBURRING TOOLS - HAND**

**Modular Deburring Tools**



**Heavy Duty Blades**

**E100**



TiN

HSS heavy duty blade for use on straight and hole edges, for deburring materials with spiral chips.

**E101**



HSS heavy duty blade for use on straight and hole edges, E style shank with B10 cutting geometry, for use on materials with spiral chips and holes with minimum diameter of 2mm.

**E111**



HSS heavy duty blade is for straight and hole edge deburring, for use on materials with spiral chips, steel, aluminium, copper and plastic.

**E200**



TiN

HSS heavy duty blade for use on straight and hole edges, blade design allows clockwise and anti-clockwise movement for use on materials with powdery chips.

**E202**



HSS heavy duty blade for use on straight and hole edges, E style shank with B20 cutting geometry, blade design allows clockwise and anti clockwise movement for use on materials with powdery chips.

**E300**



HSS heavy duty blade for use on cross-hole and both edges, blade will simultaneously deburr the inside and outside of the hole up to 6mm thick. For use on materials with spiral chips.

**E350**



HSS heavy duty blade for use on straight and hole edges, blade design allows clockwise and anti-clockwise movement for use on materials with powdery chips.

**E600**



Heavy duty blade for removing burrs from the back edges of holes up to 20mm thick.

Type	Description	Weight each	Order Code <b>SWT-109</b>
E100	Steel & Aluminium	40g/10	<b>-1420C</b>
E100 TiN	Steel & Aluminium	40g/10	<b>-1421B</b>
E101	Steel & Aluminium, Extra Fine Point	50g/10	<b>-1430D</b>
E111	Steel & Aluminium	40g/10	<b>-1431B</b>
E200	Brass & Cast Iron	40g/10	<b>-1440E</b>
E200 TiN	Steel & Aluminium	40g/10	<b>-1441B</b>
E202	Brass & Cast Iron, Extra Fine Point	40g/10	<b>-1450F</b>
E300	Sheet & Tubing, Front & Rear Cut	50g/10	<b>-1460G</b>
E350	For Deburring Grooves	40g/10	<b>-1480J</b>
E600	Rear Cut - Extra Length	30g/ 5	<b>-1500L</b>

**CUTTING TOOLS**

**GROUP 109 DEBURRING TOOLS - HAND**

**SWISS+BURR B4 Hand Deburring Set**

The **SWISS+BURR™** B4 deburring set is a popular choice for deburring holes, slots and edges on metals and plastics.

The **B4 set contains: SWISS+BURR™** 1x Universal handle, 1x B-holder, B10 and B20 blades.



**4  
PIECES**

Number of Pieces	Description	Weight each	Order Code SWT-109
4	B4 Hand Deburring Set		<b>-5020B</b>

**E5 Heavy Duty Hand Deburring Set**

For holes, slots and edges.

The **SWISS+BURR™** E-Type modular hand deburring system is supplied with high speed steel blades, and scrapers along with an ergonomically designed handle and blade holder.

The **E5 set contains: SWISS+BURR™** 1x Universal handle, 1x E-holder, 1x E100 blade, 1x E101 blade, 1x E200 blade.



**5  
PIECES**



Number of Pieces	Description	Weight each	Order Code SWT-109
5	E5 Hand Deburring Set		<b>-5050E</b>

**B & C Standard Duty Deburring & Scraping Set**

The **SWISS+BURR™** B & C Standard Duty Deburring and Scraping Set is ideal for general deburring and scraping use on holes, slots and edges.

The set contains: **SWISS+BURR™** 1x Type A Universal handle, 1x Type B Blade holder, 1x B10, 1x B11, 1x B20 TiN, 1x B30, 1x B60, 1x B70 carbide tipped, 1x Type C scraper and 1x C40 Triangular scraper.



**NEW**

**11  
PIECES**

Number of Pieces	Description	Weight each	Order Code SWT-109
11	B & C Deburring Set		<b>-5021B</b>

**E & C Heavy Duty Deburring & Scraping Set**

The **SWISS+BURR™** E & C Standard Duty Deburring and Scraping Set is ideal for intense deburring and scraping use on holes, slots and edges.

The set contains: **SWISS+BURR™** 1x Type A Universal handle, 1x Type C scraper, 1x C42 triangular scraper, 1x Type E blade holder, 1x E100 TiN blade, 1x E111 blade, 1x E200 blade, 1x E300 two sided blade, 1x E600 rear cutting blade and 1x E700 blade.



**NEW**

**11  
PIECES**

Number of Pieces	Description	Weight each	Order Code SWT-109
11	E & C Heavy Duty Set		<b>-5061B</b>

**E7 Heavy Duty Hand Deburring Set**

For holes, slots and edges.

Modern ergonomic handle design, with an easy to use spring release mechanism. Pulling back on the locking head collar releases the telescopic blade holder for optimal length.

Works with all **SWISS+BURR™** holders and blades.

The **E7 set contains: SWISS+BURR™** 1x Universal handle, 1x E-holder, 1x E100 blade, 1x E101 blade, 1x E200 blade, 1x E202 blade, 1x E300 blade.



**7  
PIECES**

Number of Pieces	Description	Weight each	Order Code SWT-109
7	E Hand Deburring Set		<b>-5060F</b>

**Diamond Coated Filing & Deburring Set**

The set contains: **SWISS+BURR™** 1x Extra Close handle, 1x E100S and 1x E400 blades plus five different shaped diamond coated files: rectangular, square, triangular, round and half round.



**NEW**

**8  
PIECES**



Number of Pieces	Description	Weight each	Order Code SWT-109
8	Filing & Deburring Set		<b>-1350Z</b>

**CUTTING TOOLS**

**SWISS+BURR C3 Hand Scraper Set**

Three cutting edges which when combined with a telescopic holder allow easy access to deburr small holes etc in difficult positions.

The C3 set contains: SWISS+BURR™ 1x ergonomic handle, 1x C type blade holder, and 1x C42 blade.

**3  
PIECES**



Number of Pieces	Description	Weight each	Order Code
3	C3 Scraper Set		<b>SWT-109</b> <b>-5030C</b>

**Scraper Blades**

**C40 HSS Small Triangular Scraper (4.00mm)**

For precision work on back edge and inner surface of holes and flat surfaces.



**C42 HSS Small Triangular Scraper (8.00mm)**

For precision work on back edge and inner surface of holes and flat surfaces.



Type	Description	Weight each	Order Code
C40	Triangular 4 x 20mm	10g	<b>-1220M</b>
C42	Triangular 8 x 30mm	10g	<b>-1230N</b>

**D3 Hand Deburring Set**

For scraping surfaces and deburring sheet metal up to 3mm thick.

The D3 set contains: SWISS+BURR™ 1x ergonomic handle, 1x D type blade holder and 1x D80 blade.

**3  
PIECES**



Number of Pieces	Description	Weight each	Order Code
3	D3 Hand Deburring Set		<b>SWT-109</b> <b>-5040D</b>

**Corner Chamfering Blades**

**D80 Solid Carbide Blade**

For sheet metal and flat surfaces, for scraping surfaces and deburring sheet metal up to 3mm thick.

**D82 Solid Carbide Heavy Duty Blade**

With double edge for deburring sheet metal, for deburring sheet metal up to 9mm thick.



Type	Description	Weight each	Order Code
D80	Sheet up to 3mm	5g	<b>-1340V</b>
D82	Sheet up to 8mm	9g	<b>-1350W</b>

**DB3 Double Burr Hand Deburring Set**

For deburring materials with single or double straight edges up to 14.00mm thick, blade holder fitted with safety hand guard.

The DB3 set contains: SWISS+BURR™ 1x ergonomic handle, 1x blade holder and 2x N80 blades.

**3  
PIECES**



Number of Pieces	Description	Weight each	Order Code
3	DB3 Double Burr Hand Deburring Set		<b>SWT-109</b> <b>-2400K</b>

**N80 Replacement Blade**

HSS double edged round blade for straight edge and sheet metal deburring on materials with spiral chips.



Type	Description	Weight each	Order Code
N80	Blade for Type DB3	10g/2	<b>SWT-109</b> <b>-2080M</b>

**DEBURRING TOOLS - HAND**

**F3 Hand Chamfering & Countersinking Set**



For hole edges up to 20.00mm.

The F3 set contains:

SWISS+BURR™ 1x ergonomic handle, 1x F type blade holder and 1x F20 countersink.

**3  
PIECES**



Number of Pieces	Description	Weight each	Order Code
3	B4 Deburring Set		<b>SWT-109</b> <b>-5070G</b>

**Countersinks - 90° Included Angle**

**F12**

HSS countersink for hole edges up to 12mm dia.

**F20**

HSS countersink for hole edges up to 20mm dia.

**F30**

HSS countersink for hole edges up to 30mm dia.



Type	Description	Weight each	Order Code
F12 (C12)	Drilled holes up to 12mm Diameter	30g/1	<b>SWT-109</b> <b>-1610Q</b>
F20 (C20)	Drilled holes up to 20mm Diameter	30g/1	<b>-1620R</b>
F30 (C30)	Drilled holes up to 30mm Diameter	90g/1	<b>-1630S</b>

**KB3 Keyway Burr Hand Deburring Set**

3 Piece Set

For deburring and cleaning edges of internal and external keyways and slots up to 15mm.

The KB3 set contains: SWISS+BURR™ 1x ergonomic handle, 1x blade holder and 1x N80K blade.

**3  
PIECES**



Number of Pieces	Description	Weight each	Order Code
3	KB3 Keyway Hand Deburring Set		<b>SWT-109</b> <b>-2500M</b>

**N80K Replacement Blade**

HSS blade with eight cutting edges for slots and keyways up to 15.00mm wide.



Type	Description	Weight each	Order Code
N80K	Blade for Type KB3	10g/2	<b>SWT-109</b> <b>-2090N</b>

**Mini Burr Set**

Lightweight reinforced plastic handle with easy grip and pocket clip. Handle will hold all E style heavy duty blades, supplied with 1x E100 blade. Removable cap for blade storage.

**2  
PIECES**



Number of Pieces	Description	Weight each	Order Code
2	Mini Burr Set		<b>SWT-109</b> <b>-2600P</b>

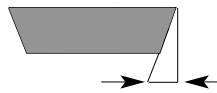
**CUTTING TOOLS**

**1 Shape**

Symbol	Shape	Nose Angle	Figure
H	Hexagonal	120°	
O	Octagonal	135°	
P	Pentagonal	108°	
S	Square	90°	
T	Triangular	60°	
C	Rhombic	80°	
D		55°	
E		75°	
F		50°	
M		86°	
V		35°	
W	Trigon	80°	
L	Rectangular	90°	
A	Parallelogram	85°	
B		82°	
K		55°	
R	Round	-	

**2 Relief Angle**

Symbol	Relief Angle
A	3°
B	5°
C	7°
D	15°
E	20°
F	25°
G	30°
N	0
P	11°
O	Others

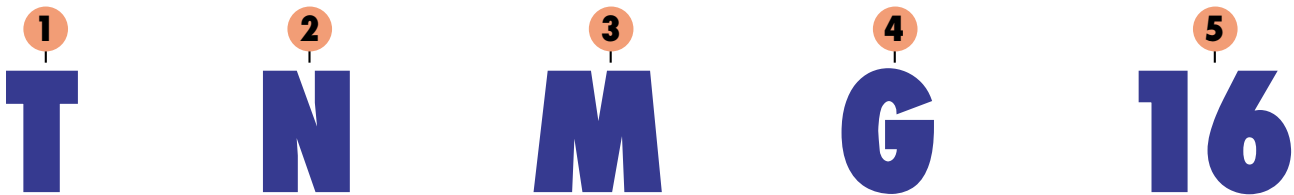


**3 Accuracy**

Symbol (class)	Tolerance (mm)		
	Corner Height (m)	Thickness (s) (s)	I.C. Dia. (d)
A	±0.005	±0.025	±0.025
F	±0.005	±0.025	±0.013
C	±0.013	±0.025	±0.025
H	±0.013	±0.025	±0.013
E	±0.025	±0.025	±0.025
G	±0.025	±0.13	±0.025
J	±0.025	±0.13	±0.05 } * ±0.13 } *
K	±0.01	±0.025	±0.05 } * ±0.13 } *
L	±0.025	±0.025	±0.05 } * ±0.13 } *
M	±0.08 } * ±0.18 } *	±0.13	±0.05 } * ±0.13 } *
N	±0.08 } * ±0.18 } *	±0.025	±0.05 } * ±0.13 } *
U	±0.13 } * ±0.38 } *	±0.13	±0.08 } * ±0.25 } *

\* Details of accuracy will vary according to shape and size of insert - further details are available on request.

**CUTTING TOOLS**



**4 Groove and Hole**

Symbol	Shape of Hole	Chipbreaker	Shape
N	Without Hole	Without	
R		Single-sided	
F		Double-sided	
A	Cylindrical Hole	Without	
M		Single-sided	
G		Double-sided	
W	With partly cylindrical hole, double-side 40° - 60°	Without	
T		Single-sided	
Q	With partly cylindrical hole, double-side 40° - 60° Countersink	Without	
U		Double-sided	
B	With partly cylindrical hole, single-side 70° - 90° Countersink	Without	
H		Single-sided	
C	With partly cylindrical hole, single-side 70° - 90° Countersink	Without	
J		Double-sided	
X	Special Type		

**5 Cutting Edge Length**

R		S		C		W		T		D		V		K		I.C. dia. (mm)
Symbol	Length	Symbol	Length	Symbol	Length	Symbol	Length	Symbol	Length	Symbol	Length	Symbol	Length	Symbol	Length	
03	3.97	03	3.97	03	4.0	02	2.7	06	6.9	04	4.8	-	-	-	-	3.97
-	-	04	4.76	04	4.8	L3	-	08	8.2	05	5.8	-	-	-	-	4.76
05	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.0
-	-	05	5.56	05	5.6	03	3.8	09	9.6	06	6.8	-	-	-	-	5.56
06	6.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.0
-	-	06	6.35	06	6.5	04	4.3	11	11.0	07	7.8	-	-	-	-	6.35
-	-	07	7.94	08	8.1	05	5.4	13	13.8	09	9.7	-	-	-	-	7.94
08	8.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.0
09	9.525	09	9.525	09	9.7	06	6.5	16	16.5	11	11.6	16	16.6	16	19.7	9.525
10	10.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.0
12	12.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.0
12	12.7	12	12.7	12	12.9	08	8.7	22	22.0	15	15.5	22	22.1	-	-	12.70
15	15.875	15	15.875	16	16.1	10	10.9	27	27.5	19	19.4	-	-	-	-	15.875
16	16.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16.0
19	19.05	19	19.05	19	19.3	13	13.0	33	33.0	23	23.3	-	-	-	-	19.05
20	20.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20.0
-	-	22	22.225	22	22.6	-	-	38	38.5	27	27.1	-	-	-	-	22.225
25	25.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.0
25	25.4	25	25.4	25	25.8	-	-	44	44.0	31	31.0	-	-	-	-	25.4
31	31.75	31	31.75	32	32.2	-	-	55	55.0	38	38.8	-	-	-	-	31.75
32	32.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32.0

Note: For the insert shape "K", the rule for the relationship between the symbol and the dimension differs from those of other shapes.

Detailed accuracy for **J, K, L, M, N,** and **U** classes  
For inserts whose corner angle is larger than 55°

Inscribed circle	Tolerance on inscribed circle dia. (d)		Tolerance on corner height (m)		Insert Shapes applied
	J, K, L, M, N	U	J, K, L, M, N	U	
6.35	±0.05	±0.08	±0.08	±0.13	<b>H</b> <b>M</b>
9.525					<b>O</b> <b>R</b>
12.70	±0.08	±0.13	±0.13	±0.20	<b>P</b>
15.875	±0.10	±0.18	±0.15	±0.27	<b>S</b>
19.05					<b>T</b>
25.40	±0.13	±0.25	±0.18	±0.38	<b>C</b> <b>E</b> <b>M</b>

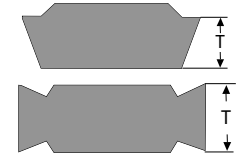
**7a** Edge Preparation (Milling Inserts)

Rake Angle	
<b>A</b>	14°
<b>D</b>	60°
<b>E</b>	75°
<b>F</b>	85°
<b>P</b>	90°
Special	

Relief Angle	
<b>A</b>	3°
<b>B</b>	5°
<b>C</b>	7°
<b>D</b>	15°
<b>E</b>	20°
<b>F</b>	25°
<b>G</b>	30°
<b>N</b>	0°
<b>P</b>	11°
<b>Z</b>	Special

**Note on insert thickness**  
For chipbreaker inserts, the thickness is defined as 'T' (height from the bottom face to the cutting edge) shown in the figure below



**6** Thickness

Symbol	Thickness
<b>01</b>	1.59
<b>02</b>	2.38
<b>T2</b>	2.78
<b>03</b>	3.18
<b>T3</b>	3.97
<b>04</b>	4.76
<b>05</b>	5.56
<b>06</b>	6.35
<b>07</b>	7.94
<b>09</b>	9.52



For D-type inserts whose corner angles are 55°

Inscribed circle	Tolerance on inscribed circle dia. (d)	Tolerance on corner height (m)	Insert Shapes applied
6.35	±0.05	±0.011	<b>D</b>
9.525			
12.70	±0.08	±0.15	
15.875	±0.10	±0.11	
19.05			

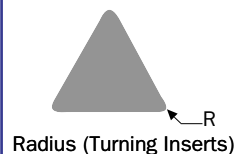
Note: The tolerance for shape V may be increased more than the value above.

**6** **04**      **7** **7a** **08**      **8** **T**      **9** **N** - **10** **XX**

(Optional Symbols)

**7** Corner Radius

Symbol	Corner Radius (mm)
<b>00</b>	0.03
<b>02</b>	0.2
<b>04</b>	0.4
<b>08</b>	0.8
<b>12</b>	1.2
<b>16</b>	1.6
<b>20</b>	2.0
<b>24</b>	2.4
<b>28</b>	2.8
<b>32</b>	3.2

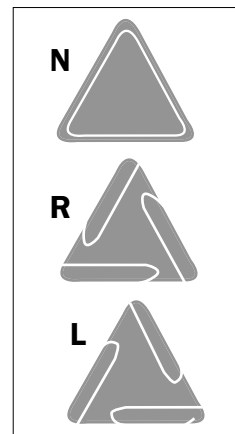


**8** Symbols of major cutting edge (Milling Inserts)

Symbol	Condition of Cutting Edge	Shape
<b>F</b>	Sharp Edge	
<b>E</b>	Honed Rounded edge	
<b>T</b>	Chamfered edge	
<b>S</b>	Combination Chamfered & honed edge	

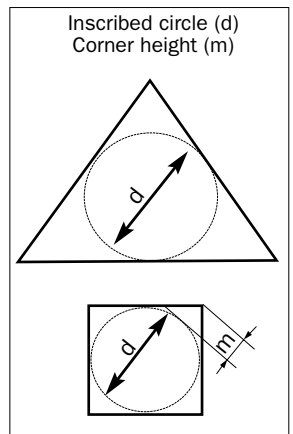
**9** Hand of Insert

Symbol	Hand
<b>R</b>	Right
<b>L</b>	Left
<b>N</b>	Neutral



**10** Chipbreaker

Chipbreakers are not part of ISO designation. Each manufacturer designates a chipbreaker in their own way.



**QX500** (ISO **P10-P25**) Cermet. For high speed finishing and light cutting. Will remain a high class surface finish. Mainly used on steels and can be applied to finish some Stainless steels and Cast Irons.

**QX505** (ISO **K05-K15**) Coated. Used for finishing, semi finishing and medium roughing of Cast Irons including Malleable and Nodular Irons, at high speed.

**QX510** (ISO **P01-P15 M10-M15 K01-K20**) Coated. Used for finishing on Steels and Stainless Steels, suitable also for turning Cast Irons including Malleable irons at high speeds.

**QX5020** (ISO **P10-P35 M10-M30 K10-K30**) CVD Coated. An excellent general purpose grade for medium roughing on Steels, Stainless and Cast Irons.

**QX530** (ISO **P25-P35 M15-M25**) Coated. Turning grade for Steels, Cast Steels and Stainless Steels. A good general purpose Steel grade for roughing.

**QX5030** (ISO **P20-P40 M20-M30**) CVD Coated. Medium / rough turning and intermediate cutting of steel / stainless steel. Combination of toughest substrate and alumina coating (MT-TiCN + TiC + AL2O3 + TiN) having superior chipping resistance provide wide coverage.

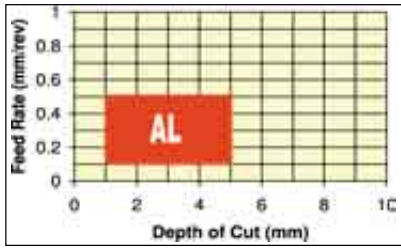
**QX535S** (ISO **M10-M30**) CVD Coated. For roughing and finishing turning applications on a wide variety of Stainless Steels.

**QX8010** (ISO **M10 S10**) Coated. Excellent grade giving superior results on heat resistant super alloys, especially for the aerospace industry. TiAlN based coating ensures high wear resistance on these demanding materials.

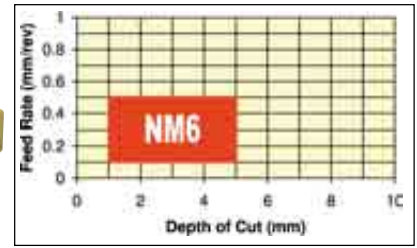
**K10** (ISO **K05-K20**) Uncoated. Used in combination with a high rake geometry for matching Aluminiums, Plastics and other soft Non-Ferrous materials.

Material Description	Brinell Hardness HB	Rockwell Hardness HRC	Tensile Strength N/mm <sup>2</sup>	Speed - m/min											
				QX500	QX505	QX510	QX5020	QX530	QX5030	QX535S	QX8010	K10			
<b>1.1</b> Mild, soft & free machining non-alloy low carbon steels	-130	-	-400	200-270	200-300	180-350	150-200	150-200							
<b>1.2</b> Non-alloy, case hardening, structural & low to medium carbon steels	-200	-	-700	180-250	200-300	150-320	130-180	130-180							
<b>1.3</b> Non alloy, plain & medium carbon steels & castings	-260	-26	-850	150-220	200-300	130-280	110-150	120-150							
<b>1.4</b> Generally low to medium alloy steels & castings	-260	-26	-850	140-210	170-250	140-210	110-140	120-140							
<b>1.5</b> Medium to high alloy steels, tool steels & steel	260-340	26-48	850-1200	140-200	200-200	130-200	100-120	100-120							
<b>1.6</b> Heat treated high alloy steels & castings	340-450	36-48	1200-1500	110-180	90-180	100-170	70-90	70-90							
<b>2.1</b> Soft, generally easy to machine Ferritic & Martensitic steels & castings	-230	-20	-800	90-190		110-220	70-120	80-120							
<b>2.2</b> Medium, reasonable to machine Austenitic stainless steels & castings	-290	-30	-1000	70-160	100-220	70-140	60-100	70-120	80-170	30-60					
<b>2.3</b> Hard, difficult to machine Ferritic & Austenitic (duplex) stainless & castings	-340	-36	-1200				50-90	50-90	70-120	80-120	30-70				
<b>3.1</b> Grey cast iron - soft to medium	-180			175-280	200-420	150-250	190-400								
<b>3.2</b> Grey cast iron - medium to hard	180-300			160-250	160-340	100-180	150-300								
<b>3.3</b> Malleable & Nodular iron - soft to medium	-220			175-280	110-300	150-250	120-250								
<b>3.4</b> Malleable & Nodular irons - medium to hard	220-300			160-250	100-280	100-180	100-200								
<b>4.1</b> Pure Titanium (also pure Nickel)									30-70						
<b>4.2</b> Titanium alloys of a medium & hard nature									30-70						
<b>4.3</b> Titanium alloys of a hard & very hard nature									30-50						
<b>5.1</b> Heat resistant super alloys including iron based high temperature alloys									30-50						
<b>5.2</b> Heat resistant super alloys, cobalt or nickel based, medium to hard to machine									30-50						
<b>5.3</b> Heat resistant super alloys, cobalt or nickel based, hard or very hard to machine									30-50						
<b>6.1</b> Copper			-500	200-250										200-500	
<b>6.2</b> Brass (Alpha - long chip)			-800	200-250										200-500	
<b>6.3</b> Brass (Beta - short chip) & soft Bronze			-800	200-250										100-500	
<b>6.4</b> High strength Bronze			-1200												
<b>7.1</b> Unalloyed: Aluminium, Magnesium & Zinc			-150	300-500										400-700	
<b>7.2</b> Aluminium alloys less than 5% Si Magnesium & Zinc alloys (long chip)			150-300	300-500										400-700	
<b>7.3</b> Aluminium alloys 5% to 10% Si			200-500	300-500										400-600	
<b>7.4</b> Aluminium alloys above 10% Si (short chip)			200-500											300-500	
<b>8.1</b> Thermoplastics														400-700	
<b>8.2</b> Thermo-setting plastics														400-700	
<b>8.3</b> Reinforced plastics & composite materials														200-500	

**AL** - High positive breaker specifically for Aluminium Alloys.

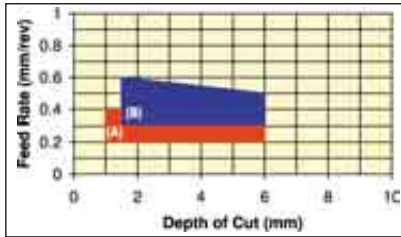


**NM6** - General application medium breaker used on negative inserts with tougher grades.

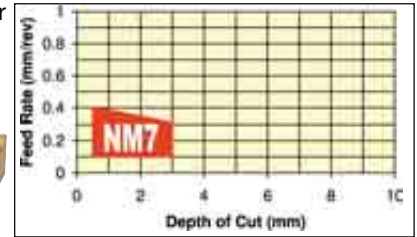


**L11 / R11** - General purpose breaker for copy turning.

(A): 05 L/R11  
(B): 10 L/R11



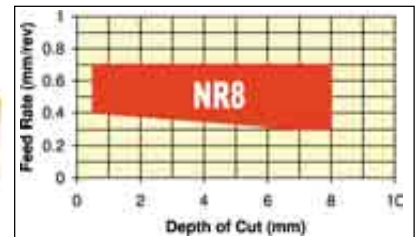
**NM7** - A ripple edge breaker ideal for copy turning where cut depth varies and chip control is very important. Use with grade QX520 on Steels, Stainless and Malleable Irons.



**NF1** - Finishing breaker used on small VNMG 12 inserts.



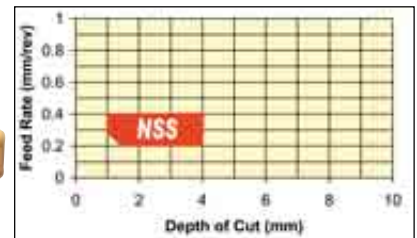
**NR8** - Roughing breaker for Steels and Stainless with grades QX520.



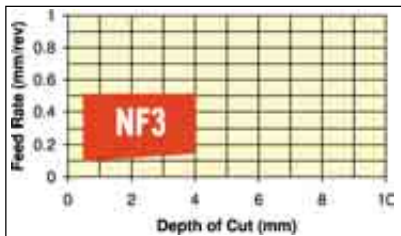
**NF2** - A finishing chipbreaker associated with QX500 cermet will provide excellent surface finishes at high speeds on the majority of ferrous materials.



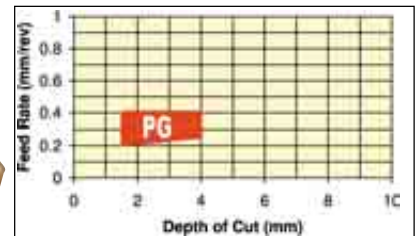
**NSS** - Finishing Chipbreaker. Used on Exotic Alloys (Aerospace/HRSA), and Stainless in conjunction with QX8010 Grade.



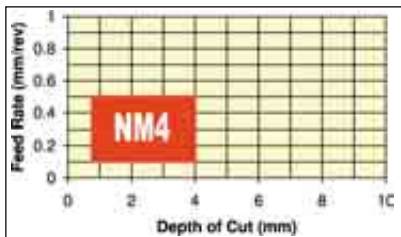
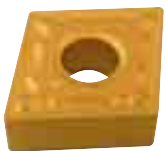
**NF3** - Finishing chipbreaker for negative inserts used with QX510 for finishing Steel or finish and medium cutting on Cast Iron.



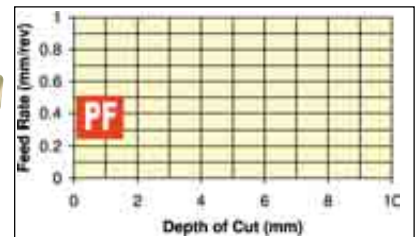
**PG** - General application finishing and light to medium roughing in conjunction with SPMR & TPRM positive inserts.



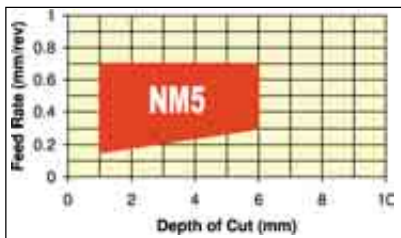
**NM4** - Medium breaker used on negative inserts for light to medium roughing.



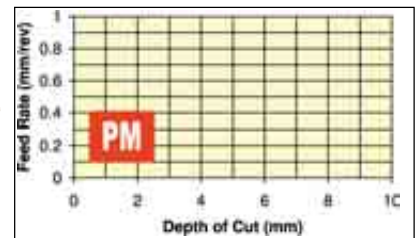
**PF** - Finishing breaker used on positive inserts for general application.



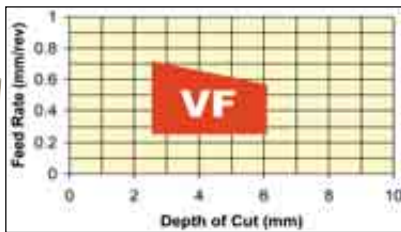
**NM5** - General chipbreaker for medium roughing or semi finishing on Steels and Stainless in combination with grades QX510 and QX520.



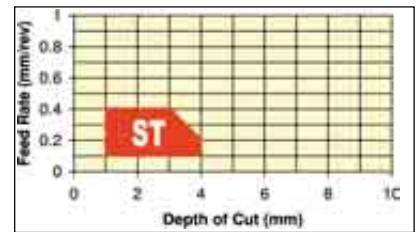
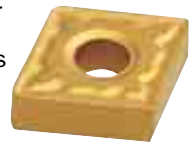
**PM** - Medium breaker used on positive inserts for general application.



**VF** - General purpose chipbreaker with a radius groove, used with negative inserts. For light to medium cutting across a wide application band.



**ST** - Light to medium roughing breaker used in conjunction with QX535S grade for turning Stainless Steels.



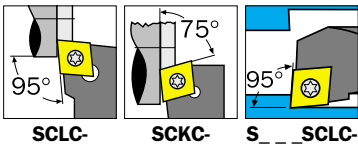
**CCGT**

P	STEEL
M	STAINLESS STEEL
K	CAST IRON
N	ALUMINIUM
S	SUPER ALLOYS
H	HARDENED STEEL
Chip Breaker	
PF	Finish
AL	Med Cut (Alum)



Grade	ISO Designation			P	M	K	N	S	H
	P	M	K						
K10	-	-	05-20	✓	✓	✓	✓	✓	✓
QX500	10-25	-	-	✓	✓	✓	✓	✓	✓
QX520	10-35	10-30	10-30	✓	✓	✓	✓	✓	✓

Suitable for External/Internal Toolholders:



Insert Size	Chip-breaker	Grade	Order Code
<b>060202</b>	AL	K10	<b>-0121N</b>
	PF	QX500	<b>-0223A</b>
<b>060204</b>	PF	QX520	<b>-0223D</b>
<b>09T302</b>	AL	K10	<b>-0151N</b>
	PF	QX500	<b>-0263A</b>
<b>09T304</b>	PF	QX520	<b>-0263D</b>
	AL	K10	<b>-0161N</b>
<b>120408</b>	AL	K10	<b>-0191N</b>

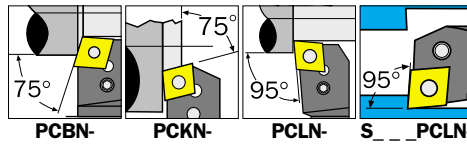
**CNMG**

Chip Breaker	
NF3	Finish
NM5	Med Cut



Grade	ISO Designation			P	M	K	N	S	H
	P	M	K						
QX520	10-35	10-30	10-30	✓	✓	✓			

Suitable for External/Internal Toolholders:



Insert Size	Chip-breaker	Grade	Order Code
<b>120404</b>	NF3	QX520	<b>-0707D</b>
	NM5	QX520	<b>-0709D</b>
<b>120408</b>	NF3	QX520	<b>-0717D</b>
	NM5	QX520	<b>-0720D</b>

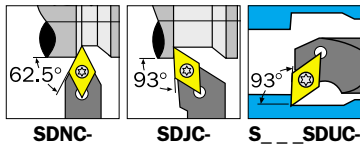
**DCMT**

Chip Breaker	
PM	Med Cut



Grade	ISO Designation			P	M	K	N	S	H
	P	M	K						
QX520	10-35	10-30	10-30	✓	✓	✓	✓	✓	✓
QX5020	10-35	10-30	10-30	✓	✓	✓	✓	✓	✓

Suitable for Internal/External Toolholders:



Insert Size	Chip-breaker	Grade	Order Code
<b>070204</b>	PM	QX520	<b>-1314D</b>
<b>11T304</b>	PM	QX520	<b>-1328D</b>
<b>11T308</b>	PM	QX5020	<b>-1335G</b>

**CUTTING TOOLS**

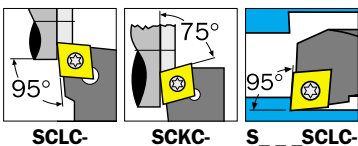
**CCMT**

Chip Breaker	
PM	Med Cut



Grade	ISO Designation			P	M	K	N	S	H
	P	M	K						
QX500	05-15	-	-	✓	✓	✓	✓	✓	✓
QX520	10-35	10-30	10-30	✓	✓	✓	✓	✓	✓
QX5020	10-35	10-30	10-30	✓	✓	✓	✓	✓	✓

Suitable for External/Internal Toolholders:



Insert Size	Chip-breaker	Grade	Order Code
<b>060202</b>	PM	QX500	<b>-0351A</b>
	PM	QX5020	<b>-0351G</b>
<b>060204</b>	PM	QX500	<b>-0355A</b>
	PM	QX520	<b>-0355D</b>
<b>09T304</b>	PM	QX500	<b>-0403A</b>
	PM	QX520	<b>-0403D</b>
<b>09T308</b>	PM	QX500	<b>-0406A</b>

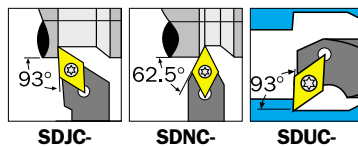
**DCGT**

Chip Breaker	
PF	Finish
AL	Med Cut (Alum)



Grade	ISO Designation			P	M	K	N	S	H
	P	M	K						
K10	-	-	05-20	✓					
QX530	20-40	20-30	-	✓	✓				

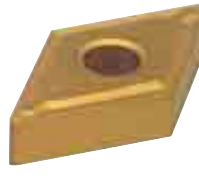
Suitable for Internal/External Toolholders:



Insert Size	Chip-breaker	Grade	Order Code
<b>070204</b>	AL	K10	<b>-1031N</b>
<b>11T304</b>	PF	QX530	<b>-1263E</b>
	AL	K10	<b>-1061N</b>
<b>11T308</b>	AL	K10	<b>-1071N</b>

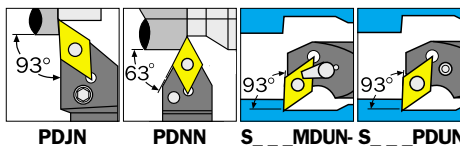
**DNMG**

Chip Breaker	
NM5	Med Cut



Grade	ISO Designation			P	M	K	N	S	H
	P	M	K						
QX520	10-35	10-30	10-30	✓	✓	✓	✓	✓	✓

Suitable for Internal/External Toolholders:



Insert Size	Chip-breaker	Grade	Order Code
<b>150408</b>	NM5	QX520	<b>-1637D</b>
<b>150604</b>	NM5	QX520	<b>-1695D</b>



**GROUP 106**

**YAMALOY**  
YAMALDY TOOLING - JAPAN

Think **POSITIVE...** and **NEGATIVE**

**YAMALOY**  
YAMALDY TOOLING - JAPAN

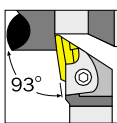
**KNUX**

Chip Breaker	Application
L11	Rough
R11	Rough



Grade	ISO Designation			P	M	K	N	S	H
	P	M	K						
QX520	10 - 35	10 - 30	10 - 30	✓	✓	✓			
QX530	20 - 40	20 - 30	-	✓	✓				
QX5030	25 - 35	15 - 25	-	✓	✓				

Suitable for External Toolholders:

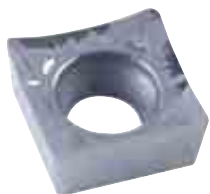


CKJN-

Insert Size	Chip-breaker	Grade	Order Code
<b>KNUX</b>			<b>YML-120</b>
	L11	QX5030	-2223H
160405	R11	QX520	-2213D
	R11	QX530	-2213E

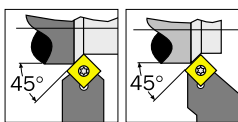
**SCGT**

Chip Breaker	Application
AL	Medium (Alum)



Grade	ISO Designation			P	M	K	N	S	H
	P	M	K						
K10	-	-	05 - 20						✓

Suitable for External Toolholders:



SSDC-

SSSC-

Insert Size	Chip-breaker	Grade	Order Code
<b>SCGT</b>			<b>YML-120</b>
09T308	AL	K10	-4169N

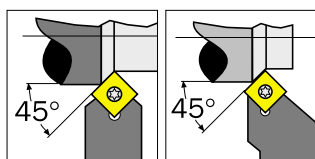
**SCMT**

Chip Breaker	Application
PM	Medium



Grade	ISO Designation			P	M	K	N	S	H
	P	M	K						
QX520	10 - 35	10 - 30	10 - 30	✓	✓	✓			

Suitable for External Toolholders:



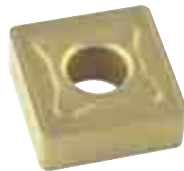
SSDC-

SSSC-

Insert Size	Chip-breaker	Grade	Order Code
<b>SCMT</b>			<b>YML-120</b>
09T304	PM	QX520	-0425D

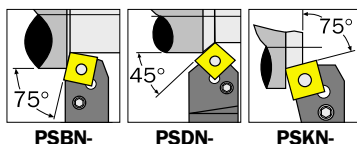
**SNMG**

Chip Breaker	Application
NM5	Med Cut
NM6	Med Cut
ST	Med Cut
NM7	Med/Rough
NR8	Rough
NR9	Rough



Grade	ISO Designation			P	M	K	N	S	H
	P	M	K						
QX520	10 - 35	10 - 30	10 - 30	✓	✓	✓			
QX5030	25 - 35	15 - 25	-	✓	✓				

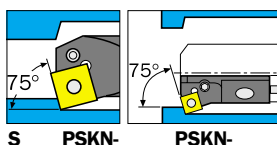
Suitable for Internal/External Toolholders:



PSBN-

PSDN-

PSKN-



S\_\_PSKN-

PSKN-

Insert Size	Chip-breaker	Grade	Order Code
<b>SNMG</b>			<b>YML-120</b>
150404	NM7	QX520	-5293D
120408	NM6	QX5030	-5336H
	NM7	QX520	-5340D
	NR8	QX520	-5339D

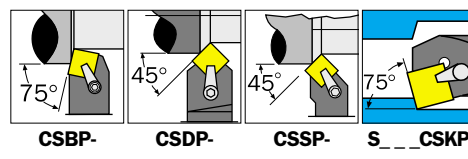
**SPMR**

Chip Breaker	Application
PG	Medium



Grade	ISO Designation			P	M	K	N	S	H
	P	M	K						
QX520	10 - 35	10 - 30	10 - 30	✓	✓	✓			
QX530	20 - 40	20 - 30	-	✓	✓				
QX5020	10 - 35	10 - 30	10 - 30	✓	✓	✓			
QX5030	25 - 35	15 - 25	-	✓	✓				

Suitable for Internal/External Toolholders:



CSBP-

CSDP-

CSSP-

S\_\_CSKP

Insert Size	Chip-breaker	Grade	Order Code
<b>SPMR</b>			<b>YML-120</b>
120304	PG	QX520	-6642D
120308	PG	QX5020	-6662G

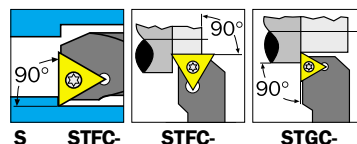
**TCGT**

Chip Breaker	Application
PF	Finish
AL	Medium



Grade	ISO Designation			P	M	K	N	S	H
	P	M	K						
K10	-	-	05 - 20						✓
QX5020	10 - 35	10 - 30	10 - 30	✓	✓	✓			

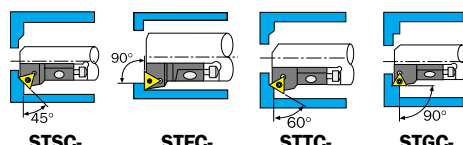
Suitable for Internal/External Toolholders:



S\_\_STFC-

STFC-

STGC-



STSC-

STFC-

STTC-

STGC-

Insert Size	Chip-breaker	Grade	Order Code
<b>TCGT</b>			<b>YML-120</b>
110202	AL	K10	-6931N
110204	AL	K10	-6941N
16T304	PF	QX5020	-7073G
	AL	K10	-6971N
16T308	AL	K10	-6981N

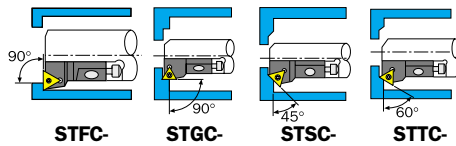
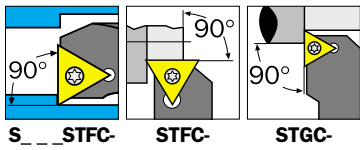
**TCMT**

Chip Breaker	Application
PM	Med Cut



Grade	ISO Designation			P	M	K	N	S	H
	P	M	K						
QX500	10 - 25	-	-	✓	✓	✓			
QX520	10 - 35	10 - 30	10 - 30	✓	✓	✓			
QX5020	10 - 35	10 - 30	10 - 30	✓	✓	✓			

Suitable for Internal/External Toolholders:



Insert Size	Chip-breaker	Grade	Order Code
<b>110204</b>	PM	QX500	-7120A
	PM	QX520	-7120D
<b>16T304</b>	PM	QX500	-7140A
<b>16T308</b>	PM	QX5020	-7145G

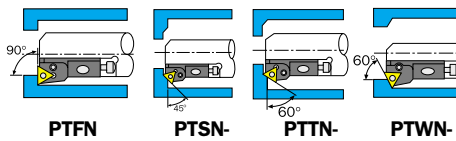
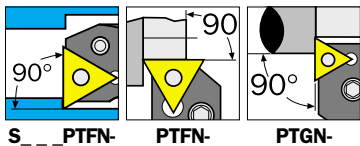
**TNMG**

Chip Breaker	Application
NF2	Finish
NF3	Finish
NM5	Med Cut
NM6	Med Cut
NM7	Med Cut



Grade	ISO Designation			P	M	K	N	S	H
	P	M	K						
QX500	10 - 25	-	-	✓	✓	✓			
QX520	10 - 35	10 - 30	10 - 30	✓	✓	✓			
QX5030	25 - 35	15 - 25	-	✓	✓	✓			

Suitable for Internal/External Toolholders:



Insert Size	Chip-breaker	Grade	Order Code
<b>160404</b>	NF2	QX500	-7520A
	NM5	QX520	-7519D
	NM6	QX5030	-7516H
	NM7	QX520	-7518D
<b>160408</b>	NF3	QX520	-7527D
	NM5	QX520	-7529D
	NM6	QX5030	-7526H
	NM7	QX520	-7528D
<b>220408</b>	NM5	QX520	-7562D

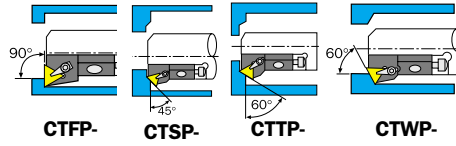
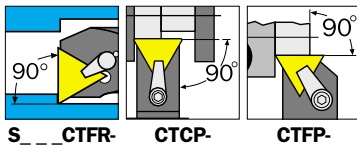
**TPMR**

Chip Breaker	Application
PG	Med/Cut



Grade	ISO Designation			P	M	K	N	S	H
	P	M	K						
QX520	10 - 35	10 - 30	10 - 30	✓	✓	✓			
QX530	20 - 40	20 - 30	-	✓	✓	✓			
QX5020	10 - 35	10 - 30	10 - 30	✓	✓	✓			
QX5030	25 - 35	15 - 25	-	✓	✓	✓			

Suitable for Internal/External Toolholders:



Insert Size	Chip-breaker	Grade	Order Code
<b>110304</b>	PG	QX5020	-8742G
	PG	QX5030	-8742H
<b>110308</b>	PG	QX530	-8752E
<b>160304</b>	PG	QX520	-8772D
	PG	QX530	-8772E
<b>160308</b>	PG	QX520	-8782D
	PG	QX5030	-8782H

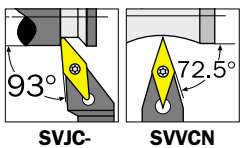
**VCGT**

Chip Breaker	Application
AL	Med Cut



Grade	ISO Designation			P	M	K	N	S	H
	P	M	K						
K10	-	-	05 - 20				✓		

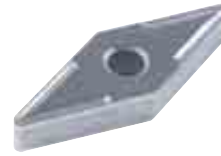
Suitable for External Toolholders:



Insert Size	Chip-breaker	Grade	Order Code
<b>160404</b>	AL	K10	-9141N
<b>160408</b>	AL	K10	-9151N
<b>160412</b>	AL	K10	-9161N

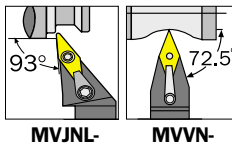
**VNMG**

Chip Breaker	Application
NFI	Finish
VF	Finish



Grade	ISO Designation			P	M	K	N	S	H
	P	M	K						
QX500	10 - 25	-	-	✓	✓	✓			
QX520	10 - 35	10 - 30	10 - 30	✓	✓	✓			
QX530	20 - 40	20 - 30	-	✓	✓	✓			
QX5030	25 - 35	15 - 25	-	✓	✓	✓			

Suitable for External Toolholders:



Insert Size	Chip-breaker	Grade	Order Code
<b>12T302</b>	NFI	QX530	-9402E
<b>12T304</b>	NFI	QX500	-9404A
	NFI	QX530	-9404E
<b>12T308</b>	NFI	QX5030	-9408H
<b>160404</b>	VF	QX520	-9415D

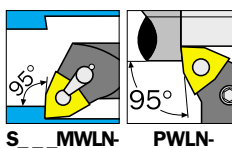
**WNMG**

Chip Breaker	Application
NSS	Light/Medium
NM4	Med Cut
NM5	Med Cut
NM6	Med Cut



Grade	ISO Designation			P	M	K	N	S	H
	P	M	K						
QX520	10 - 35	10 - 30	10 - 30	✓	✓	✓			
QX5030	25 - 35	15 - 25	-	✓	✓	✓			
QX8010	10	10	10	✓	✓	✓			

Suitable for Internal/External Toolholders:



Insert Size	Chip-breaker	Grade	Order Code
<b>060404</b>	NM4	QX520	-9774D
<b>060408</b>	NSS	QX8010	-9780K
<b>080404</b>	NM5	QX520	-9827D
<b>080408</b>	NM6	QX5030	-9836H

CUTTING TOOLS

**Insert Grade**

**K20** **K20** Micrograin uncoated. For cast iron, aluminium alloy, other non-ferrous materials including titanium and nickel alloy.

**QK25C** **QK25C (K15 - K30)** Coated. For milling cast irons.

**QM3535** **QM3535 (P20 - P35)** PVD TiAlN Coated for milling of steel. Comprehensive grade which covers wide application range due to substrate providing optimal wear resistance and toughness.

**QP25** **QP25 (P25)** Uncoated. For medium and finish milling of steels.

**QP25C** **QP25C (P10 - P35)** CVD coated. Milling grade for steel and some stainless steels.

**QP30P** **QP30P (P10 - P35)** PVD Coated. Milling grade for steel and some stainless steels.

**QP30T** **QP30T (P10 - P35)** PVD Coated. Milling grade for steel and some stainless steels.

**QP40** **QP40 (P40)** Uncoated. For rough medium and finish milling of tough Steels and Stainless Steels including interrupted cutting.

**QX530** **QX530 (P20 - P40, M20 - M30)** Coated. A good general purpose steel grade for roughing. Use on steels, cast steel and stainless steel.

**Chipbreaker**

Chip Breaker	Application
<b>AL</b>	Aluminium & non Ferrous (Polished)
<b>EM</b>	Medium
<b>MF</b>	Finish/Light
<b>MM</b>	Medium/Light Roughing

**APKT**



Insert Size	Chip-breaker	Grade	Order Code
<b>APKT</b>			<b>YML-120</b>
<b>1003PDR</b>	EM	<b>QK25C</b>	<b>-0028X</b>
	EM	<b>QP30P</b>	<b>-0028W</b>
<b>1604PDR</b>	AL	<b>K20</b>	<b>-0029K</b>
	-	<b>QP30P</b>	<b>-0030W</b>
<b>1604PDTR</b>	-	<b>QK25C</b>	<b>-0030X</b>
	-	<b>K20</b>	<b>-0031V</b>
<b>1604PDR</b>	-	<b>QP30T</b>	<b>-0035W</b>

**SEHT**



Insert Size	Chip-breaker	Grade	Order Code
<b>SEHT</b>			<b>YML-120</b>
<b>1204AFTN</b>	-	<b>K20</b>	<b>-4430V</b>
<b>120408</b>	-	<b>QP25C</b>	<b>-4430W</b>
<b>120408</b>	-	<b>QP25C</b>	<b>-4432W</b>

**SNKN**



Insert Size	Chip-breaker	Grade	Order Code
<b>SNKN</b>			<b>YML-120</b>
<b>1204-ENN</b>	-	<b>QP25</b>	<b>-5227P</b>

**OFKR**



Insert Size	Chip-breaker	Grade	Order Code
<b>OFKR</b>			<b>YML-120</b>
<b>05T308</b>	MF	<b>QP25C</b>	<b>-2388W</b>

**SEHW**



Insert Size	Chip-breaker	Grade	Order Code
<b>SEHW</b>			<b>YML-120</b>
<b>1204AFTN05</b>	-	<b>K20</b>	<b>-4445V</b>
	-	<b>QP25C</b>	<b>-4445W</b>

**SPKN**



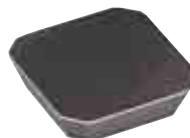
Insert Size	Chip-breaker	Grade	Order Code
<b>SPKN</b>			<b>YML-120</b>
<b>1203EDR</b>	-	<b>K20</b>	<b>-6328V</b>
	-	<b>QM3535</b>	<b>-6338M</b>
<b>1203EDTR</b>	-	<b>QP25</b>	<b>-6338P</b>
	-	<b>QP40</b>	<b>-6338S</b>
<b>1504EDTR</b>	-	<b>QP25</b>	<b>-6368P</b>

**OFKT**



Insert Size	Chip-breaker	Grade	Order Code
<b>OFKT</b>			<b>YML-120</b>
<b>05T308-SN</b>	MM	<b>QP25C</b>	<b>-2384W</b>

**SEKN**



Insert Size	Chip-breaker	Grade	Order Code
<b>SEKN</b>			<b>YML-120</b>
<b>1203AFFN</b>	-	<b>K20</b>	<b>-4517V</b>
<b>1203AFTN</b>	-	<b>QP25</b>	<b>-4527P</b>
	-	<b>QP40</b>	<b>-4527S</b>

**TPKN**



Insert Size	Chip-breaker	Grade	Order Code
<b>TPKN</b>			<b>YML-120</b>
<b>1603PPR</b>	-	<b>K20</b>	<b>-8428V</b>
	-	<b>QM3535</b>	<b>-8438M</b>
<b>1603PPTR</b>	-	<b>QP25</b>	<b>-8438P</b>
	-	<b>QP40</b>	<b>-8438S</b>
<b>2204PDR</b>	-	<b>K20</b>	<b>-8458V</b>
<b>2204PDSR</b>	-	<b>QM3535</b>	<b>-8468M</b>
	-	<b>QP25</b>	<b>-8468P</b>
<b>2204PDTR</b>	-	<b>QP40</b>	<b>-8468S</b>

**SDMT**



Insert Size	Chip-breaker	Grade	Order Code
<b>SDMT</b>			<b>YML-120</b>
<b>12T308</b>	-	<b>QX530</b>	<b>-4280E</b>

**SEKR**



Insert Size	Chip-breaker	Grade	Order Code
<b>SEKR</b>			<b>YML-120</b>
<b>1203AFTN05</b>	-	<b>K20</b>	<b>-4617V</b>
	-	<b>QP25C</b>	<b>-4627W</b>

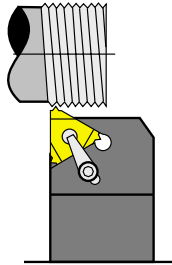
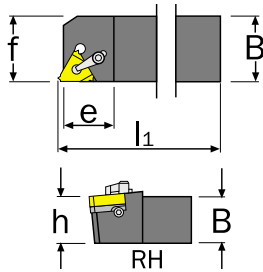
# GROUP 121 INDEXABLE THREADING

## INDEXA-SEIKI Threading Toolholders - Dual Top Clamp & Screw-on

Example shows **DIR** - Internal, but clamping is identical to **DER/L** - External. Standard Helix is 1.5°.

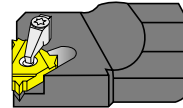


### External Dual DER/L - External.



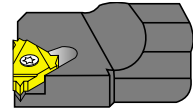
#### Top Clamp only

can be used as



#### Screw-on only

OR



**Suitable Inserts** See Group 121  
**ER** = Right Hand **EL** = Left Hand  
 Sizes **16** = 16ER/L  
**22** = 22ER/L

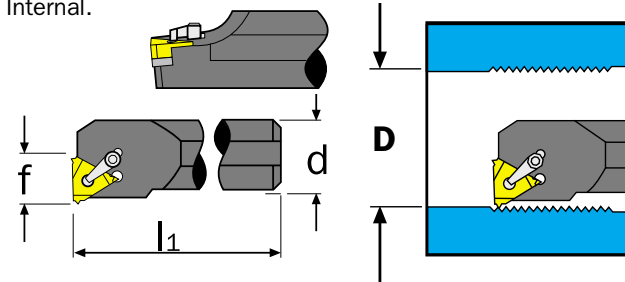


#### Spares to Suit

Clamp Set	Anvil	Shim Screw	Insert Screw	Torx Key
Order Code <b>IND-107</b>	Order Code <b>IND-107</b>	Order Code <b>IND-107</b>	Order Code <b>IND-107</b>	Order Code <b>IND-107</b>
<b>-0620K</b>	<b>-2930K</b>	<b>-3780K</b>	<b>-3430K</b>	<b>-5090K</b>
<b>-0620K</b>	<b>-2930K</b>	<b>-3780K</b>	<b>-3430K</b>	<b>-5150K</b>
<b>-0620K</b>	<b>-2930K</b>	<b>-3780K</b>	<b>-3430K</b>	<b>-5090K</b>
<b>-0620K</b>	<b>-2960K</b>	<b>-3780K</b>	<b>-3430K</b>	<b>-5150K</b>
<b>-0620K</b>	<b>-2930K</b>	<b>-3780K</b>	<b>-3430K</b>	<b>-5090K</b>
<b>-0620K</b>	<b>-2960K</b>	<b>-3780K</b>	<b>-3430K</b>	<b>-5150K</b>
<b>-0630K</b>	<b>-2940K</b>	<b>-3790K</b>	<b>-3440K</b>	<b>-5150K</b>

ISO Designation	Dimensions					Weight each	Order Code <b>IND-106</b>
	h	B	l <sub>1</sub>	f	e		
DER 1212H <b>16</b>	12	12	100	16	22	199g	<b>-8080K</b>
DER 1616H <b>16</b>	16	16	100	16	22	208g	<b>-8100K</b>
DER 2020K <b>16</b>	20	20	125	20	22	400g	<b>-8000K</b>
DEL 2020K <b>16</b>	20	20	125	20	22	400g	<b>-8010K</b>
DER 2525M <b>16</b>	25	25	150	25	22	736g	<b>-8020K</b>
DEL 2525M <b>16</b>	25	25	150	25	22	735g	<b>-8030K</b>
DER 2525M <b>22</b>	25	25	150	25	28	745g	<b>-8040K</b>

### Internal Dual DIR - Internal.



**Suitable Inserts** See Group 121  
**IR** = Right Hand  
 Sizes **16** = 16IR  
**22** = 221R



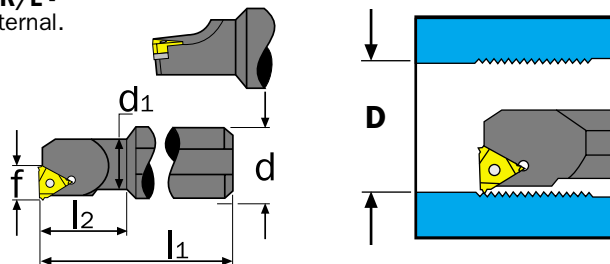
#### Spares to Suit

Clamp Set	Anvil	Shim Screw	Insert Screw	Torx Key
Order Code <b>IND-107</b>	Order Code <b>IND-107</b>	Order Code <b>IND-107</b>	Order Code <b>IND-107</b>	Order Code <b>IND-107</b>
<b>-0620K</b>	<b>-2960K</b>	<b>-3780K</b>	<b>-3430K</b>	<b>-5090K</b>
<b>-0620K</b>	<b>-2960K</b>	<b>-3780K</b>	<b>-3430K</b>	<b>-5100K</b>
<b>-0620K</b>	<b>-2960K</b>	<b>-3780K</b>	<b>-3430K</b>	<b>-5090K</b>
<b>-0630K</b>	<b>-2980K</b>	<b>-3790K</b>	<b>-3440K</b>	<b>-5150K</b>
<b>-0630K</b>	<b>-2980K</b>	<b>-3790K</b>	<b>-3440K</b>	<b>-5150K</b>

ISO Designation	Dimensions (mm)					Weight each	Order Code <b>IND-106</b>
	d	l <sub>1</sub>	f	Dmin			
DIR 0020P <b>16</b>	20	170	13.7	24		699g	<b>-8240K</b>
DIR 0025R <b>16</b>	25	200	16.2	29		725g	<b>-8260K</b>
DIR 0032S <b>16</b>	32	250	19.7	36		1455g	<b>-8300K</b>
DIR 0025R <b>22</b>	25	200	18.1	29		751g	<b>-8280K</b>
DIR 0032S <b>22</b>	32	250	21.6	36		1472g	<b>-8320K</b>

### Screw-on

#### SIR/L - Internal.



**Suitable Inserts** See Group 121  
**IR** = Right hand **IL** = Left Hand  
 Sizes **06** = 06IR/L  
**08** = 08IR/L  
**11** = 11IR/L  
**16** = 16IR/L  
**22** = 22IR/L



#### Spares to Suit

Insert Screw	Torx Key
Order Code <b>IND-107</b>	Order Code <b>IND-107</b>
<b>-3419K</b>	<b>-5080K</b>
<b>-3420K</b>	<b>-5070K</b>
<b>-3420K</b>	<b>-5150K</b>
<b>-3420K</b>	<b>-5150K</b>
<b>-3430K</b>	<b>-5150K</b>
<b>-3430K</b>	<b>-5150K</b>
<b>-3430K</b>	<b>-5150K</b>
<b>-3440K</b>	<b>-5200K</b>

ISO Designation	Dimensions							Weight each	Order Code <b>IND-106</b>
	d	d <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	f	DMin			
SIR 0007K <b>08</b>	16	6.6	125	18	5.3	7.8	174g	<b>-8350K</b>	
SIR 0010H <b>11</b>	10	10	100	-	7.4	12.0	160g	<b>-8360K</b>	
SIR 0010K <b>11</b>	16	10	125	25	7.4	12.0	175g	<b>-8380K</b>	
SIL 0010K <b>11</b>	16	10	125	25	7.4	12.0	172g	<b>-8390K</b>	
SIR 0013M <b>16</b>	16	13	150	32	10.2	16.0	217g	<b>-8400K</b>	
SIR 0016P <b>16</b>	20	16	170	40	11.7	19.0	369g	<b>-8420K</b>	
SIL 0016P <b>16</b>	20	16	170	40	11.7	19.0	364g	<b>-8430K</b>	
SIR 0020P <b>22</b>	20	20	170	-	15.6	24.0	406g	<b>-8440K</b>	

CUTTING TOOLS

**YAMALOY** ISO Threading Insert Designation  
YAMALOY TOOLING - JAPAN

**Insert Grade Description**

**QMA** (P20-P40/K20-K30) Coated. Sintered chipbreaker with a multi layer TiAlN PVD coated sub-micrograin grade. Provides high quality threads for most materials including exotic alloys and stainless steels. Best performance is achieved at medium to high cutting speeds.

**16 ER 12 UN QMA**

**L**  
06  
08  
11  
16  
22  
27  
33

**I.C.**  
5/32"  
3/16"  
1/4"  
3/8"  
1/2"  
5/8"  
3/4"

**E=EXTERNAL**  
**I=INTERNAL**

**R=RIGHT HAND**  
**L=LEFT HAND**

**FULL PROFILES:**

Pitch in mm: 0.35 - 8  
or TPI (Threads per inch) 64 - 4

**ISO**  
UN  
WHIT  
NPT  
NPTF  
BSPT

**CARBIDE GRADE**

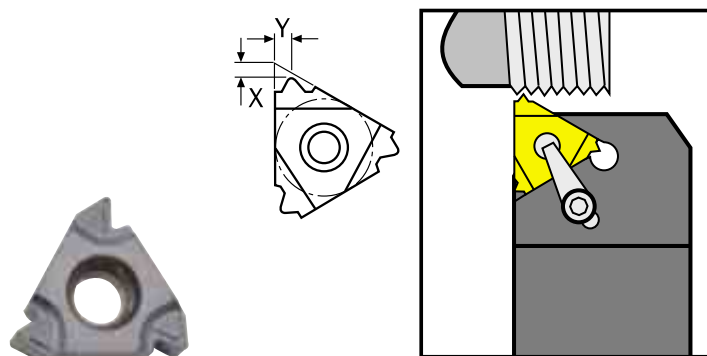
**PARTIAL PROFILES**

A N  
G 60≡  
AG 55≡

**ISO Metric**

**External Right Hand**

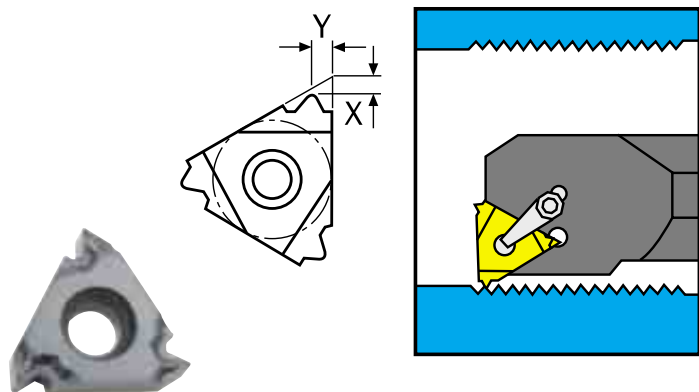
11 ER available on request.



Insert Designation	TPI	X mm	Y mm	Grade	Weight per 10	Order Code YML-121
16 ER 1.00 ISO	1.00	0.7	0.7	QMA	70g	-1044Y
16 ER 1.25 ISO	1.25	0.8	0.9	QMA	70g	-1045J
16 ER 1.50 ISO	1.50	0.8	1.0	QMA	70g	-1045U
16 ER 1.75 ISO	1.75	0.9	1.2	QMA	65g	-1046E
16 ER 2.00 ISO	2.00	1.0	1.3	QMA	60g	-1046Q
16 ER 2.50 ISO	2.50	1.1	1.5	QMA	60g	-1047A
16 ER 3.00 ISO	3.00	1.2	1.6	QMA	60g	-1047L

**ISO Metric**

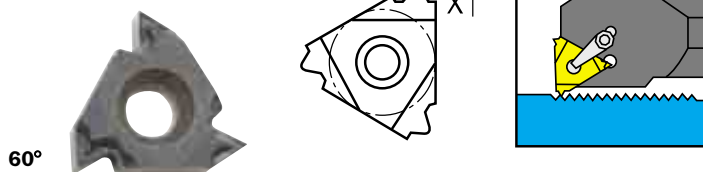
**Internal Right Hand**



Insert Designation	TPI	X mm	Y mm	Grade	Weight per 10	Order Code YML-121
16 IR 1.00 ISO	1.00	0.6	0.7	QMA	70g	-1210Y
16 IR 1.50 ISO	1.50	0.8	1.0	QMA	65g	-1211U
16 IR 2.00 ISO	2.00	1.0	1.3	QMA	65g	-1212Q
16 IR 2.50 ISO	2.50	1.1	1.5	QMA	60g	-1213L
16 IR 3.00 ISO	3.00	1.1	1.5	QMA	60g	-1213W

**Partial Profiles**

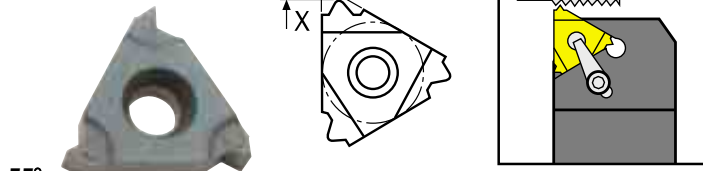
**Internal Right Hand**



Insert Designation	Pitch Range mm	TPI	X mm	Y mm	Grade	Weight per 10	Order Code YML-121
16 IR AG60	0.5-3.0	48-8	1.2	1.7	QMA	60g	-0208A

**Partial Profiles**

**External Right Hand**



Insert Designation	Pitch Range mm	TPI	X mm	Y mm	Grade	Weight per 10	Order Code YML-121
16 ER AG55	0.5-3.0	48-8	1.2	1.7	QMA	60g	-0542A

**60°**

Insert Designation	Pitch Range mm	TPI	X mm	Y mm	Grade	Weight per 10	Order Code YML-121
16 ER A60	0.5-1.5	48-16	0.8	0.9	QMA	60g	-0041Q
16 ER AG60	0.5-3.0	48-8	1.2	1.7	QMA	60g	-0042A

**Metric B-Type Toolholder & Threading Kit**

QMA grade inserts (P20 - P40, K20 - K30).  
Contents: 1x 16ER B 1.00 ISO insert, 1x 16ER B 1.25 ISO insert, 1x 16ER B 1.50 ISO insert, 1x 16ER B 1.75 ISO insert, 1x 16ER B 2.00 ISO insert, 1x DER 2020 K16 toolholder, 1x T15 torx key.  
Supplied in plastic tube.



**TOOLHOLDER + 5 INSERTS**

Number of Pieces	Order Code
6	PRO-121 -0001A



**INDEXA-SEIKI XP-90C 'APT' 90° Shell Mills**



Positive 90° approach milling cutter, using size 10/16 inserts allowing depth passes and high feed per teeth. Torx screw allows for good chip evacuation. Plasma Ion coating offers longer tool life and greater hardness that is more resistant to wear. Through coolant as standard.



**XP XTRA PLASMA COATED BODY**

Insert Size	Feed Per Tooth (Fz) mm
APXT 10	0.05 - 0.20
APXT 16	0.10 - 0.30

**XP-90C End Mills For AP\_T 10 Inserts**

D	z	H	C	L	Inserts	Order Code IND-139
10	1	20	10	80	APKT1003	-4800K
12	1	20	12	80		-4820K
16	2	25	16	90	APXT1003	-4860K
20	3	25	20	110		-4900K

**XP-90C End Mills For AP\_T 16 Inserts**

D	z	H	C	L	Inserts	Order Code IND-139
20	1	37	20	115	APKT1604	-5000K
25	2	40	25	117		-5020K
32	3	40	25	126	APXT1604	-5040K
40	4	50	32	136		-5060K

For Inserts See Below

Spares	Arbor Screw	Clamp Screw	Flag Torx Key	Driver
To Suit		Order Code <b>IND-107</b>		Order Code <b>KEN-603</b>
10-20 Dia (APKT 10)	-	-5240K	-	-0080D
20-25 Dia (APKT 16)	-	-5270K	-5150K	-0150D
32-40 Dia (APKT 16)	-	-5270K	-5150K	-0150D

**XP-90C 'APT' 90° Shell Mills**

Positive 90° approach milling cutter, using size 16 inserts allowing depth passes and high feed per teeth. Torx screw allows for good chip evacuation. Plasma Ion coating offers longer tool life and greater hardness that is more resistant to wear. Through coolant as standard.



**XP XTRA PLASMA COATED BODY**

Feed Per Tooth (Fz) mm
0.10 - 0.30
See Page 145 for Cutting speed Information

**XP-90C Shell Mills For APKT 16 Inserts**

D	z	B	C	L	Inserts	Order Code IND-139
50	4	22	10.4	50	APKT1604	-3920K
63	5	22	10.4	50		-3940K
80	6	27	12.7	50	APXT1604	-3960K
100	7	32	14.4	63		-3980K

Spares	Arbor Screw	Clamp Screw	Flag Torx Key	Driver
To Suit		Order Code <b>IND-107</b>		Order Code <b>KEN-603</b>
50 & 63 Dia	-5354K			
80 Dia (APKT 16)	-5354K	-5270K		-0150D
100 Dia	-5355K			



**Insert Grade Selection**

Designation	Grade	To Suit	Weight each	Order Code YML-120
APKT 1003 PDR	QK25C	APT	27g	-0028X
	QP30P	Shell Mills	35g	-0028W
APXT 1604 PDTR	K20	Combination	85g	-0031V
	QK25C	End, APT	92g	-0030X
	QP30P	Shell Mills	85g	-0030W

**Insert Grade Description**



**K20** (K20) Micrograin uncoated. For cast irons, aluminium alloys, other non-ferrous materials including titaniums and nickel alloys.

**QK25C** (K15-K30) Coated. For milling cast irons.

**QP30P** (P10-P35) PVD coated. Milling grade for steels and some stainless steels.

**GROUP 139 INDEXABLE MILLING CUTTERS**

**INDEXA-SEIKI XP-90C '4 Square' 90° Shell Mills**

Positive 90° cutter with an exact angle of 90°, square insert allowing depth passes and high feed per teeth. Torx style insert pocket with shim seats to protect the body in case of accident. Plasma Ion coating offers longer tool life and greater hardness that is more resistant to wear. Through coolant as standard.

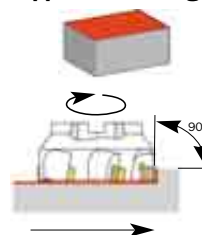
**XP XTRA PLASMA COATED BODY**



Feed Per Tooth (mm)
0.04 - 0.30
See Page 147 for Cutting Speed Information



**Application Range**



**Spares to suit**

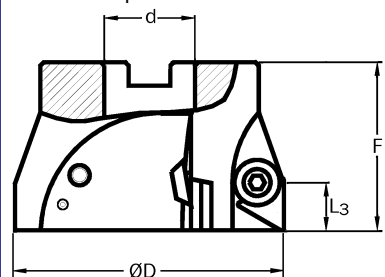
Arbor Screw	Shim	Shim Pin	Clamp Screw	Driver
Order Code <b>IND-107</b>				Order Code <b>KEN-603</b>
<b>-5354K</b>				
<b>-5354K</b>	<b>-2490K</b>	<b>-1570K</b>	<b>-3400K</b>	<b>-0150D</b>
<b>-5356K</b>				
<b>-5357K</b>				

**XP-90C '4 Square' 90° Shell Mills for SDMT 12 inserts**

Dia (mm)	d	H	Z	Weight each	Order Code <b>IND-139</b>
63	22	50	5	459g	<b>-7500K</b>
80	27	50	6	999g	<b>-7520K</b>
100	32	50	6	1669g	<b>-7540K</b>
125	40	63	7	3533g	<b>-7560K</b>

**'Tri Square' 90° Shell Mills**

Uses top clamping triangular inserts to produce a 90° shoulder at the edge of a milled face. This is of major benefit when taking a number of cuts across a face as the shoulder produced is without steps.



**For TPKN 1603**



Dia (mm)	d	F	L3	Z	Weight each	Order Code <b>IND-139</b>
63	27	50	13	4	655g	<b>-3400K</b>
80	32	50	13	5	1200g	<b>-3420K</b>
100	40	50	13	6	1746g	<b>-3440K</b>

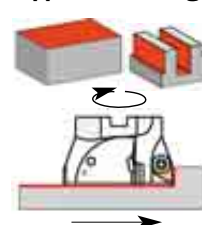
**For TPKN 2204**



Dia (mm)	d	F	L3	Z	Weight each	Order Code <b>IND-139</b>
100	40	50	18	5	1546g	<b>-3460K</b>
125	40	63	18	6	2777g	<b>-3480K</b>
160	40	63	18	7	4357g	<b>-3500K</b>



**Application Range**



Insert Size	Feed Per Tooth (Fz) mm
TPKN 16	0.05 - 0.20
TPKN 22	0.10 - 0.30
See Page 147 for Cutting Speed Information	

**Spares to suit**

Arbor Screw	Shim	Shim Pin	Clamp Screw	Clamp Ring
Order Code <b>IND-107</b>				
<b>-5354K</b>				
<b>-5355K</b>	<b>-5360K</b>	<b>-5362K</b>	<b>-0050K</b>	<b>-0440K</b>
<b>-5357K</b>				
Order Code <b>IND-107</b>				
<b>-5357K</b>	<b>-5361K</b>	<b>-5380K</b>	<b>-0060K</b>	<b>-0500K</b>

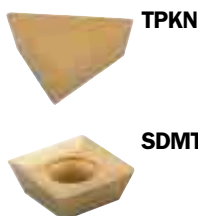
**Hexagon Keys**

To Suit	Order Code <b>00</b>
Clamp Wrench (Insert 1603)	<b>-1400K</b>
Clamp Wrench (Insert 2204)	<b>-1500K</b>



**Inserts**

Designation	Grade	To Suit	Order Code <b>YML-120</b>
TPKN 1603 PPR	K20	Tri-Sq	<b>-8428V</b>
TPKN 1603 PPTR	QP25	Tri-Sq	<b>-8438P</b>
	QP40	Tri-Sq	<b>-8438S</b>
TPKN 2204 PDR	K20	Tri-Sq	<b>-8458V</b>
TPKN 2204 PDTR	QP25	Tri-Sq	<b>-8468P</b>
	QP40	Tri-Sq	<b>-8468S</b>
SDMT 12T308	QX530	4 Sq	<b>-4280E</b>



**Insert Grade Selection**

**K20** (K20) Micrograin uncoated. For cast irons, aluminium alloys and other non-ferrous materials including titaniums and nickel alloys.

**QP25** (P25) Uncoated. For medium and finish milling of steels.

**QP40** (P40) Uncoated. For rough medium and finish milling of tough steels and stainless steels including interrupted cutting.

**QX530** (P20-P40 M20-M30) Coated. Turning grade for steels, cast steels and stainless steels. A good general purpose steel grade for roughing.

**YAMALOY** Speed Recommendations for Yamaloy Milling Inserts  
YAMALOY TOOLING - JAPAN

Use the following table with the specific feed rates of the cutter used (found on the specific cutter page). Feed rates may vary according to work material and machine conditions but the following can be used as a general guide.

Steel Group	Materials Colour Defines Similar Machineability	Brinell Hardness HB	Rockwell Hardness HRC	Tensile Strength N/mm <sup>2</sup>	Speed M/min					
					K20	QK25C	QP25/ QP30P	QP30P	QP40	QX530
1.1	Mild, soft and free machining non-alloy low carbon steels	up to 130	-	up to 400	-	-	140 - 200	180 - 250	80 - 50	150 - 200
1.2	Non-alloy, case hardening, structural and low to medium carbon steels	up to 200	-	up to 700	-	-	130 - 180	150 - 230	75 - 110	130 - 180
1.3	Non-alloy, plain and medium carbon steels and castings	up to 260	up to 26	up to 850	-	-	130 - 160	140 - 210	75 - 95	110 - 150
1.4	Generally low to medium alloy steels and castings	up to 260	up to 26	up to 850	-	-	120 - 160	130 - 200	70 - 90	110 - 140
1.5	Medium to high alloy steels, tool steels and castings	from 260 up to 340	from 26 up to 48	from 850 up to 1200	-	-	110 - 150	120 - 180	65 - 85	100 - 120
1.6	Heat treated alloy steels and castings	up to 230	up to 20	from 1200 up to 1500	-	-	80 - 120	110 - 150	60 - 80	70 - 90
2.1	Soft and generally easy to machine ferritic and martensitic stainless steels and castings	up to 290	up to 30	up to 800	-	-	130 - 180	150 - 200	70 - 100	80 - 120
2.2	Medium strength and easy to machine austenitic stainless steels and castings	up to 340	up to 36	up to 1000	-	-	120 - 170	130 - 180	70 - 100	60 - 100
2.3	Hard and generally difficult to machine ferritic and austenitic (duplex) stainless steels and castings	up to 180	-	up to 1200	-	-	-	40 - 50	25 - 40	50 - 90
3.1	Grey cast iron Hardness - soft to medium	from 180 up to 300	-	-	120 - 150	150 - 250	-	-	-	-
3.2	Grey cast iron Hardness - medium to hard	up to 220	-	-	90 - 130	120 - 200	-	-	-	-
3.3	Malleable and nodular iron - soft to medium	from 220 to 300 max	-	-	80 - 110	150 - 250	-	-	-	-
3.4	Malleable and nodular iron - medium to hard	-	-	-	70 - 100	120 - 200	-	-	-	-
4.1	Pure titanium (also pure nickel)	-	-	up to 700	200 - 300	-	-	-	-	-
4.2	Titanium alloys of a medium and hard nature	-	-	up to 900	50 - 80	-	-	-	-	-
4.3	Titanium alloys of a hard and very hard nature	-	-	from 900 up to 1250	20 - 50	-	-	-	-	-
5.1	Heat resistant super alloys including iron based high temperature alloys	-	-	up to 500	15 - 35	-	-	-	-	-
5.2	Heat resistant super alloys, cobalt or nickel based, of a medium to hard nature to machine	-	-	up to 900	15 - 35	-	-	-	-	-
5.3	Heat resistant super alloys, cobalt or nickel based, of a hard or very hard nature to machine	-	-	from 900 up to 1200	20 - 50	-	-	-	-	-
6.1	Copper	-	-	up to 500	250 - 400	-	-	-	-	-
6.2	Brass (alpha - long chip)	-	-	up to 800	200 - 400	-	-	-	-	-
6.3	Brass (beta - short chip) and soft bronze	-	-	up to 800	200 - 800	-	-	-	-	-
6.4	High strength bronze	-	-	up to 1200	50 - 120	-	-	-	-	-
7.1	Unalloyed: aluminium, magnesium & zinc	-	-	up to 150	500 - 900	-	-	-	-	-
7.2	Aluminium alloys less than 5% Si magnesium and zinc alloys (long chip)	-	-	from 150 up to 300	600 - 900	-	-	-	-	-
7.3	Aluminium alloys 5% to 10% Si	-	-	from 200 up to 500	300 - 600	-	-	-	-	-
7.4	Aluminium alloys above 10% Si (short chip)	-	-	from 200 up to 500	200 - 500	-	-	-	-	-
8.1	Thermoplastics	-	-	-	300 - 700	-	-	-	-	-
8.2	Thermo-setting plastics	-	-	-	300 - 500	-	-	-	-	-
8.3	Reinforced plastics & composite materials	-	-	-	100 - 300	-	-	-	-	-

**CUTTING TOOLS**

**GROUP 139 INDEXABLE MILLING CUTTERS**

**INDEXA-SEIKI QMC 06 Quad Milling Holder Set**

Small diameter Indexable End Mills are taking a CCMT 06 insert. Ideal for use on manual and CNC milling machines where reach and clearance are required.



Uses **CCMT 06/CCGT 06** inserts.

**Feed Per Rev (mm)**  
0.02 - 0.10

Dia. (mm)	d	L	L1	L2	Order Code
08	12	120	95	25	<b>IND-139</b>
10	12	120	95	25	<b>-9010K</b>
12	12	120	95	25	
16	16	120	95	25	

**Insert Grade Description**

**QX520 (P10-P35 M10-M30 K10-K30)** Coated. An excellent general purpose grade for medium roughing on steels, stainless and cast irons.

**K10 (K10)** Uncoated. Used in combination with a high rake geometry for machining aluminium, plastics and other soft non-ferrous materials.

**QX500 (QX500)** (P10-P25 Cemet). For high speed finishing and light roughing. Will maintain a high class surface finish. Mainly used on steels and can be applied to finishing some stainless steels and cast irons.



**Spares**

Description	To Suit	Order Code
Insert Screw	Quad Mill	<b>-5240K</b>
T8 Torx Key	Quad Mill	<b>-5080K</b>

**Insert Grade Selection**

Designation	Grade	To Suit	Order Code
CCMT060204-PM	QX500	Quad Mill	<b>-0355A</b>
	QX520	Quad Mill	<b>-0355D</b>
CCGT060202-AL	K10	Quad Mill	<b>-0121N</b>

**Speed & Feed Recommendations for Quad Mills**

Specific feed rates may vary according to work material and machine conditions but the following can be used as a general guide.

Steel Group	Materials Colour defines similar machineability	Speed-M/Min						
		Brinell Hardness HB	Rockwell Hardness HRC	Tensile Strength N/mm <sup>2</sup>	QX500	QX520	QX530	K10
<b>1.1</b>	Mild, soft and free machining non-alloy low carbon steels	up to 130	-	up to 400	200-270	180-350	150-200	
<b>1.2</b>	Non-alloy, case hardening, structural and low to medium carbon steels	up to 200	-	up to 700	180-250	150-320	130-180	
<b>1.3</b>	Non alloy, plain and medium carbon steels and castings	up to 260	up to 26	up to 850	150-220	130-280	110-150	
<b>1.4</b>	Generally low to medium alloy steels and castings	up to 260	up to 26	up to 850	140-210	140-210	110-140	
<b>1.5</b>	Medium to high alloy steels, tool steels and steel castings	from 260 up to 340	from 26 up to 48	from 850 up to 1200	140-200	130-200	100-120	
<b>1.6</b>	Heat treated high alloy steels and castings	from 340 up to 450	from 36 up to 48	from 1200 up to 1500	110-180	100-170	70-90	
<b>2.1</b>	Soft & generally easy to machine Ferritic & Martensitic stainless steels & castings	up to 230	up to 20	up to 800	90-190	110-220		
<b>2.2</b>	Medium strength & reasonable to machine Austenitic stainless steels & castings	up to 290	up to 30	up to 1000	70-160	70-140	60-100	
<b>2.3</b>	Hard & generally difficult to machine Ferritic & Austenitic (duplex) stainless steels & castings	up to 340	up to 36	up to 1200			50-90	
<b>3.1</b>	Grey cast iron Hardness - soft to medium	up to 180	-		175-280	190-400		
<b>3.2</b>	Grey cast iron Hardness - medium to hard	from 180 up to 300	-		160-250	150-300		
<b>3.3</b>	Malleable and Nodular irons - soft to medium	up to 220	-		200-250			
<b>3.4</b>	Malleable and Nodular irons - medium to hard	from 220 up to 300	-		200-250			
<b>6.1</b>	Copper	-	-	up to 500	200-250			100-500
<b>6.2</b>	Brass (Alpha - long chip)	-	-	up to 800	300-500			400-700
<b>6.3</b>	Brass (Beta - short chip) & soft Bronze	-	-	up to 800	300-500			400-700
<b>7.1</b>	Unalloyed: Aluminium, Magnesium & Zinc	-	-	up to 150	300-500			400-600
<b>7.2</b>	Aluminium alloys less than 5% Si Magnesium & Zinc alloys (long chip)	-	-	from 150 up to 300				300-500
<b>7.3</b>	Aluminium alloys 5% to 10% Si	-	-	from 200 up to 500				400-700
<b>7.4</b>	Aluminium alloys above 10% Si (short chip)	-	-	from 200 up to 500				400-700
<b>8.1</b>	Thermoplastics							200-500
<b>8.2</b>	Thermo-setting plastics							
<b>8.3</b>	Reinforced plastics & composite materials							

**CUTTING TOOLS**

**INDEXA-SEIKI Multi-Pro Spot Drills & Chamfer Mills**

A spotting drill with all the advantages of indexable inserts - reduced tool maintenance time, increased performance, lower inventory cost and no regrinding requirements. The insert clamping method ensures accurate and secure location with quick change-over times. Multi-pro has a unique geometry which allows cutting over the centre line, using carbide, without chipping of the cutting edge. This versatile tool may be used to 'spot' holes prior to drilling, as a means to guide the drill and keep the hole straight, to keep size and accurately position, relative to the datum. NB. The 118° inclusive tool is recommended for 'spotting' prior to drilling with 118° point drills.

Countersinks may be produced prior to drilling to provide a corner break on a drilled hole, a chamfer conforming to drawing specifications, a lead in for a subsequent tapping operation, or a full countersink to accommodate a screw head. Corner chamfers on edges, contours and bores can be machined as light deburring operations or full depth chamfers. Multi-pro may be used to produce vee grooves for fluid channels, locations for round components and grip pattern or serrations on jaws and clamp pads.



SCM1045C

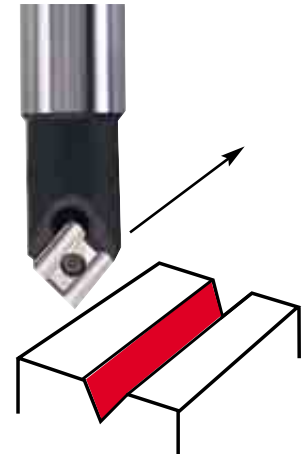
SC1645C

SC1630C



Hole Chamfer

Vee Groove Milling



**Application Range**

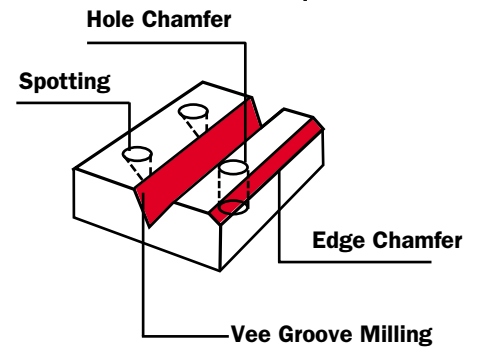


**'Multi Pro Mini' - Uses C22 GUX Inserts**

Designation	Cutting Diameter	Overall Length	Included Angle	Shank Diameter	Weight each	Order Code
SCM 1045C	8mm	105mm	90°	10mm	78g	<b>-8050K</b>

**'Multi Pro Standard' - Uses C32 GUX Inserts**

Designation	Cutting Diameter	Overall Length	Included Angle	Shank Diameter	Weight each	Order Code
SC 1645C	13mm	110mm	90°	16mm	174g	<b>-8545K</b>
SC 1630C	16mm	110mm	118°	16mm	184g	<b>-8530K</b>



Spotting

Hole Chamfer

Edge Chamfer

Vee Groove Milling

**Insert Grade Description**

**QM10** (ISO P10/M10/K10) Tin Coated Multi-purpose grade for general use, can cut the majority of ferrous and non-ferrous materials used in industry.



**QS20** (ISO P20) Uncoated Grade for steel and stainless steel application.

**QC10** (ISO K10) Uncoated Grade for cast irons, aluminiums, and non-ferrous materials.

**Inserts**

Designation	Grade	To Suit	Order Code
C22 GUX	QM10	Multi-Pro Mini	<b>-0080N</b>
C32 GUX	QS20	Multi-Pro	<b>-0102P</b>
C32 GUX	QC10	Standard	<b>-0100N</b>

**Spares**

Insert Screw	Order Code
To suit SCM1045C	<b>-3249K</b>
To suit SC1645C & SC1630C	<b>-4800K</b>

**Speed & Feed Recommendations for Multi-Pro**

Group	Materials	Rockwell Hardness HRC	Recommended Grade	Cutting Speed M/min	Type of Operation	Feed/Rev		
						Pro Mini 105mm	Pro Standard 110mm	Pro Mini 165mm
1.1 to 1.3	Alloy Steels and castings	from 36 up to 45	QS20 QM10	80~100	Spot Drilling Chamfer Milling	0.020 0.050	0.026 0.070	0.013 0.040
1.4 to 1.6	Tool and die steels	from 45 up to 55	QS20 QM10	55~65	Spot Drilling Chamfer Milling	0.012 0.030	0.016 0.050	0.008 0.020
2.1 to 2.3	Stainless steels	up to 36	QS20 QM10	70~90	Spot Drilling Chamfer Milling	0.020 0.040	0.026 0.060	0.013 0.030
3.1 to 3.4	Cast irons	-	QC10 QM10	100~120	Spot Drilling Chamfer Milling	0.034 0.050	0.045 0.070	0.022 0.040
6.1 to 6.6	Copper alloys brass and bronze	-	QC10 QM10	120~150	Spot Drilling Chamfer Milling	0.034 0.050	0.045 0.070	0.022 0.040
7.1 to 7.4	Aluminium alloys	-	QC10 QM10	120~150	Spot Drilling Chamfer Milling	0.034 0.050	0.045 0.070	0.022 0.040

**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**

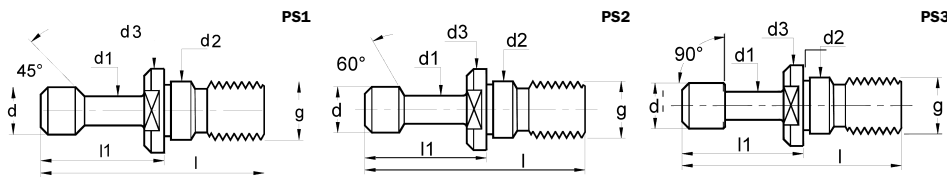
CUTTING TOOLS

**INDEXA-SEIKI Standard Pull Studs**

**BT-MAS 403**



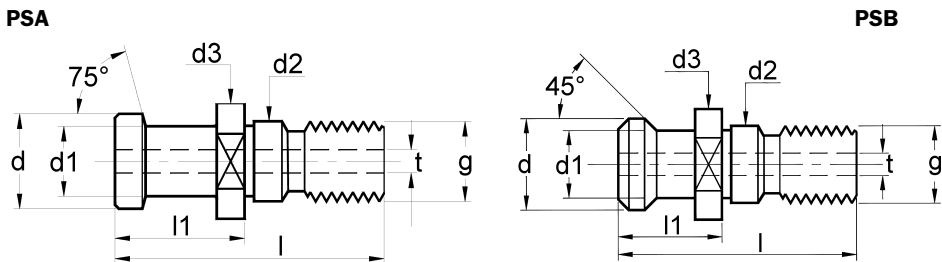
**EXTENDED RANGE**



**BT-MAS 403**

Product Number	Dimensions (mm)							Order Code
Taper - Type	l	l1	d	d1	d2	d3	g	IND-140
BT30 - PS1	43.0	23.0	11.0	7.0	12.5	16.5	M12	-9230K
BT40 - PS1	60.0	35.0	15.0	10.0	17.0	23.0	M16	-9240K
BT40 - PS2	60.0	35.0	15.0	10.0	17.0	23.0	M16	-9242K
BT40 - PS3	60.0	35.0	15.0	10.0	17.0	23.0	M16	-9243K
BT50 - PS1	85.0	45.0	23.0	17.0	25.0	38.0	M24	-9250K
BT50 - PS2	85.0	45.0	23.0	17.0	25.0	38.0	M24	-9252K
BT50 - PS3	85.0	45.0	23.0	17.0	25.0	38.0	M24	-9253K

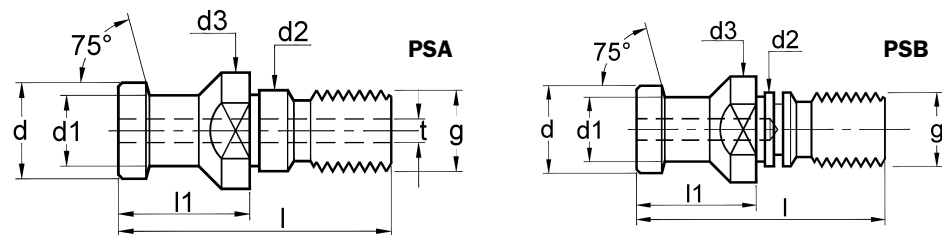
**DIN 69871/A**



**ISO 7388/2 (DIN 69871/A) (SQ = Square Shoulder)**

Product Number	Dimensions (mm)							Order Code	
Taper-Shoulder-Type	l	l1	d	d1	d2	d3	t	g	IND-140
DN40-SQ-PSB	44.5	16.4	18.9	12.9	17.0	22.5	7.5	M16	-9142K
DN50-SQ-PSB	65.5	25.5	29.0	19.6	25.0	36.0	11.5	M24	-9152K

**DIN 69872**



**DIN 69872 (CH = Chamfered Shoulder)**

Product Number	Dimensions (mm)							Order Code	
Taper-Shoulder-Type	l	l1	d	d1	d2	d3	t	g	IND-140
DN40-CH-PSA	54.0	26.0	19.0	14.0	17.0	23.0	7.5	M16	-9040K
DN50-CH-PSA	74.0	34.0	28.0	21.0	25.0	36.0	11.5	M24	-9050K

**Tool Locking Fixtures**



**Universal**

Made from Cast aluminium with machined carbon steel fittings, these fixtures are an invaluable asset in your machine shop. Universal in use, suitable for BT, DIN and CAT tool holders. Designed to give maximum protection for your tool holder whilst enabling strong gripping power to be exerted in both horizontal and vertical positions. It is tough but remains light in weight and its compact design makes it ideal for mounting on a work table or tool cart.

Overall Dimensions (L x W x H)

**Taper size 40:** 200 x 155 x 100mm

**Taper size 50:** 270 x 210 x 145mm



Taper Size	Weight each	Order Code
BT-DIN-CAT		IND-140
40	1.9kg	-6640K
50	4.2kg	-6650K

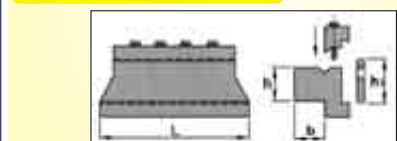
**Tool Blocks**

For use on manual and CNC lathes, this universal style tool block will accurately clamp all parting blades of the corresponding width, 26mm or 32mm.

The rigid clamping method allows blades to be set securely for varying depths of cut.



**Compatible with Self-Grip 'SGFH' Do-Grip 'DGFH' Tang-Grip 'TGFH'**



Product Number	h1	L	h & b	Order Code
DPTS-2620	26	87	20	-1160K
DPTS-2625	26	87	25	-1162K
DPTS-3220	32	100	20	-1170K
DPTS-3225	32	110	25	-1172K
DPTS-3232	32	120	32	-1174K

**Industrial Drill Chuck Arbors**

Precision machined, fully hardened and ground to give maximum surface contact.

**Morse Taper Drive to Jacobs Taper**



Description	Overall Length	Weight each	Order Code <b>KEN-442</b>
No.1 MT x 1JT	90mm	70g	<b>-9110K</b>
No.1 MT x 2JT	95mm	80g	<b>-9120K</b>
No.1 MT x 6JT	96mm	100g	<b>-9160K</b>
No.1 MT x 33JT	95mm	90g	<b>-9190K</b>
No.2 MT x 1JT	100mm	150g	<b>-9210K</b>
No.2 MT x 2JT	105mm	160g	<b>-9220K</b>
No.2 MT x 3JT	115mm	220g	<b>-9230K</b>
No.2 MT x 4JT	125mm	370g	<b>-9240K</b>
No.2 MT x 6JT	110mm	180g	<b>-9260K</b>
No.2 MT x 33JT	110mm	180g	<b>-9290K</b>
No.3 MT x 1JT	120mm	310g	<b>-9310K</b>
No.3 MT x 2JT	125mm	330g	<b>-9320K</b>
No.3 MT x 3JT	135mm	380g	<b>-9330K</b>
No.3 MT x 4JT	145mm	520g	<b>-9340K</b>
No.3 MT x 6JT	130mm	340g	<b>-9360K</b>
No.3 MT x 33JT	125mm	340g	<b>-9390K</b>
No.4 MT x 2JT	135mm	700g	<b>-9420K</b>
No.4 MT x 3JT	160mm	730g	<b>-9430K</b>
No.4 MT x 6JT	155mm	690g	<b>-9460K</b>
No.4 MT x 33JT	155mm	680g	<b>-9490K</b>
No.5 MT x 3JT	190mm	1700g	<b>-9530K</b>

**Bridgeport Drive to Jacobs Taper**



Description	Overall Length	Weight each	Order Code <b>KEN-442</b>
R8 x 1JT	130mm	420g	<b>-9610K</b>
R8 x 2JT	135mm	440g	<b>-9620K</b>
R8 x 3JT	145mm	510g	<b>-9630K</b>
R8 x 6JT	135mm	450g	<b>-9660K</b>
R8 x 33JT	135mm	460g	<b>-9690K</b>

**Morse Taper Drive to Threaded**



Description	Overall Length	Weight each	Order Code <b>KEN-442</b>
No.1 MT 1/2 x 20	92mm	100g	<b>-1120K</b>
No.1 MT 3/8 x 24	95mm	80g	<b>-1380K</b>
No.2 MT 1/2 x 20	105mm	170g	<b>-2120K</b>
No.2 MT 3/8 x 24	105mm	170g	<b>-2380K</b>
No.2 MT 5/8 x 16	105mm	180g	<b>-2580K</b>
No.3 MT 1/2 x 20	125mm	360g	<b>-3120K</b>
No.3 MT 5/8 x 16	125mm	370g	<b>-3580K</b>

**KD Type - Morse Taper Shank to Din Taper Arbors**  
Fully hardened and ground Morse Taper to **DIN 228**.  
Chuck taper to **DIN 238**.



Morse Taper	Chuck Taper	Overall length	Order Code <b>KEN-442</b>
No.2 MT	B12	106.5mm	<b>-5220K</b>
No.2 MT	B16	111.5mm	<b>-5260K</b>
No.3 MT	B12	125.0mm	<b>-5320K</b>
No.3 MT	B16	134.0mm	<b>-5360K</b>
No.4 MT	B16	159.0mm	<b>-5420K</b>
No.4 MT	B22	176.0mm	<b>-5460K</b>



**INDEXA Indexa T-Slot Clamping Kits**

Designed to save set up time and solve most T-Slot clamping problems. All Components are manufactured from **S45C (JIS)/CK45 (DIN)** grade non-alloy carbon steel. Heat treated to HRC 28 - 32 and have a manganese phosphate surface finish. Supplied in a robust plastic case.

**Contents:**

Engineers Studs (4 off each): 75, 100, 125, 150, 175 & 200mm long. Step Blocks (4 off each): 28, 35 & 98mm high. Step Clamps (2 off each): 64, 100 & 150mm long. Nuts Extension 4 off Flanged 6 off T-slot 6 off.



T-Slot Size	Thread Size	Part Number	Weight each	Order Code <b>IND-425</b>
12mm	M10	TK10	9kg	<b>-3610T</b>
14mm	M12	TK12	10kg	<b>-3612T</b>
16mm	M14	TK14	11kg	<b>-3614T</b>
18mm	M16	TK16	14kg	<b>-3616T</b>
20mm	M18	TK18	20.5kg	<b>-3618T</b>



**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**

**GROUP 144 SPINDLE NOSE TOOLING**

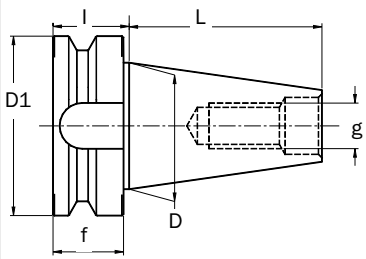
**INDEXA-SEIKI**

**BT**

**Japanese Standard  
BT-MAS 403**

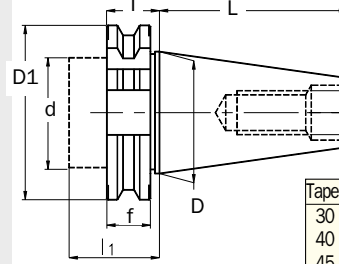
**International Standards  
DIN 69871/A - ISO7388/1 - NFE 62540**

Commonly interchangeable with ANSI/Caterpillar Shanks



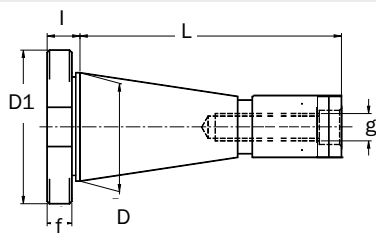
Taper	D	D1	f	g	l	L
30	31.75	46	20	M12	22	48.4
35	38.10	53	22	M12	24	56.5
40	44.45	63	25	M16	27	65.4
45	57.15	85	30	M20	33	82.8
50	69.85	100	35	M24	38	101.8

**DIN**



Taper	D	D1	d max	f	g	L	l	l1min
30	31.75	50	45	15.9	M12	47.8	19.1	35
40	44.45	63.55	50	15.9	M16	68.4	19.1	35
45	57.15	82.55	63	15.9	M20	82.7	19.1	35
50	69.85	97.5	80	15.9	M24	101.75	19.1	35

**ISO** Including Quick Change.



**ISO Standard  
ISO R 297-2583 - DIN 2080**



**Quick Change**

Taper	D	D1	L	f	l	g
30	31.75	46.0	69	8.76	10.7	M12
40	44.45	63.5	93	7.98	9.9	M16

**ISO**

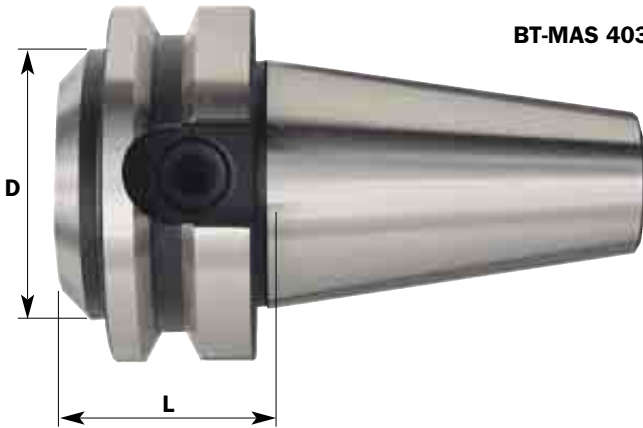
Taper	D	D1	f	g	l	L	L1
30	31.75	50	8	M12	9.61	68.39	-
40	44.45	63	10	M16	11.6	93.40	7
45	57.15	80	12	M20	15.2	106.8	-
50	69.85	97.5	12	M24	15.2	126.8	13

**SL - Sidelock Adaptors**

**Short Length**

For weldon shank cutters, adaptors and tapping chucks. Manufactured to stringent quality standards.

**BT-MAS 403**



Shank	Spigot Diameter	L	D	Weight each	Order Code
BT40	SL12	40	42	1.04kg	<b>-3449K</b>
BT40	SL20	37	50	1.07kg	<b>-3453K</b>
BT40	SL25	60	63	1.58kg	<b>-3455K</b>
BT40	SL32	70	72	2.00kg	<b>-3457K</b>

**Standard Length**

For weldon shank cutters, adaptors and tapping chucks. Manufactured to stringent quality standards.

**BT-MAS 403**



Shank	Spigot Diameter	L	D	Weight each	Order Code
BT40	SL20	63	48	817g	<b>-3414K</b>
	SL06	50	25	1091g	<b>-3432K</b>
	SL08	50	28	1109g	<b>-3440K</b>
BT40	SL10	63	35	1234g	<b>-3448K</b>
	SL12	63	42	1341g	<b>-3450K</b>
	SL16	63	48	1420g	<b>-3452K</b>
BT50	SL20	63	52	1471g	<b>-3454K</b>
	SL25	90	65	2295g	<b>-3456K</b>
	SL32	100	72	2870g	<b>-3458K</b>
BT50	SL20	80	52	4166g	<b>-3500K</b>
	SL25	100	65	4787g	<b>-3502K</b>
	SL32	105	72	4990g	<b>-3504K</b>

**FM - Face Mill Adaptors**

From an extensive programme of quality spindle nose tooling, used with an extensive range of face and shell mills.

**BT = BT-MAS 403 (See main picture)**

**DN = DIN69871/A.....**



**IS = ISO/DIN 2080/**

**QC = ISO/DIN 2080 Quick Change.....**



Shank	Spigot Diameter	L	D	Weight each	Order Code
DN40	FM22	60	50	1554g	<b>-4610K</b>
	FM22	120	40	2167g	<b>-4612K</b>
	FM27	60	50	1602g	<b>-4614K</b>
	FM27	120	48	2705g	<b>-4616K</b>
	FM32	60	78	2326g	<b>-4618K</b>
QC40	FM40	60	89	2626g	<b>-4622K</b>
	FM22	37	40	1125g	<b>-4810K</b>
	FM22	90	40	1845g	<b>-4812K</b>
QC40	FM27	37	48	1275g	<b>-4814K</b>
	FM32	37	58	1558g	<b>-4818K</b>
	FM40	37	70	2025g	<b>-4822K</b>

**BT-MAS 403**



Shank	Spigot Diameter	L	D	Weight each	Order Code
IS50	FM40	40	70	3.6kg	<b>-4850K</b>
	FM16	52	36	1.2kg	<b>-4907K</b>
	FM22	52	50	1.5kg	<b>-4910K</b>
BT40	FM22	120	40	2.2kg	<b>-4912K</b>
	FM27	52	50	1.5kg	<b>-4914K</b>
	FM27	120	48	2.7kg	<b>-4916K</b>
BT40	FM32	52	78	2.2kg	<b>-4918K</b>
	FM32	120	58	3.5kg	<b>-4920K</b>
	FM40	60	89	2.9kg	<b>-4922K</b>
BT50	FM22	65	40	4.1kg	<b>-4934K</b>
	FM22	100	40	5.1kg	<b>-4938K</b>
	FM27	65	48	4.5kg	<b>-4940K</b>
	FM40	78	70	5.2kg	<b>-4950K</b>

**CUTTING TOOLS**



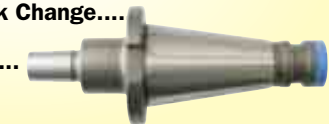
**INDEXA-SEIKI Chuck Adaptors**

JTA — Jacobs Taper Adaptors - For use with Kennedy, Jacobs, Rohm etc, drill chucks.

BT = BT-MAS 403... (See main picture)

DN = DIN69871/A.....

QC = ISO/DIN 2080 Quick Change.....



BT-MAS 403

Shank	Jacobs Taper	L	Weight each	Order Code
DN40	JT6	40	3366g	<b>IND-144</b> -5048K
QC30	JT6	21	411g	-5210K
QC40	JT33	40	799g	-5244K
	JT6	40	985g	-5248K

Shank	Jacobs Taper	L	Weight each	Order Code
BT40	JT33	42	1145g	-5444K
	JT6	42	1152g	-5448K

**MT-Morse Taper Adaptors**

With internal morse taper socket. For use on drilling machines etc. For drills, core drills, reamers etc. Manufactured to stringent quality standards.

BT = BT-MAS 403.....(See main picture)

DN = DIN 69871/A.....

QC = ISO/DIN 2080 Quick Change.....



BT-MAS 403

Shank	Morse Taper	L	D	Weight each	Order Code
DN40	2	50	32	949g	<b>IND-144</b> -5626K
	3	70	40	1098g	-5630K
	4	95	48	1342g	-5634K
DN50	3	65	40	3278g	-5674K
	4	95	48	3193g	-5680K
	5	105	63	3356g	-5684K
QC40	2	50	32	882g	-5826K
	3	65	40	1008g	-5830K
	4	95	48	1304g	-5834K

Shank	Morse Taper	L	D	Weight each	Order Code
BT40	1	50	25	1033g	-5922K
	2	50	32	1050g	-5926K
	3	70	40	1186g	-5930K
	4	95	48	1394g	-5934K

**CUTTING TOOLS**

**FREE**

**SWISS+TECH**

**Tapping Drill Size (A2 Size)**

**AVAILABLE ON REQUEST**

CAT-849-2188A

Contact your local branch or representative.



**FREE**

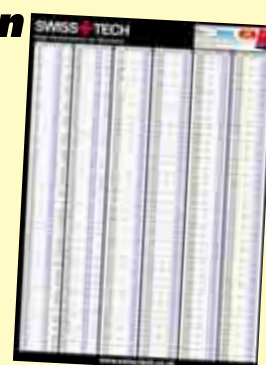
**SWISS+TECH**

**Decimal Conversion Wall Chart (A2 Size)**

**AVAILABLE ON REQUEST**

CAT-849-2189A

Contact your local branch or representative.



**GROUP 144 SPINDLE NOSE TOOLING**

**INDEXA-SEIKI ER - Collet Chucks**

Europe's most popular collet system. Collapsing collet design can be used for a range of diameters and maintains concentricity for drilling and milling. Long reach options available to give access into deep recesses.



**BT = BT-MAS 403.....(See main picture)**

**DN = DIN69871/A.....**

**IS = ISO/DIN 2080/.....**



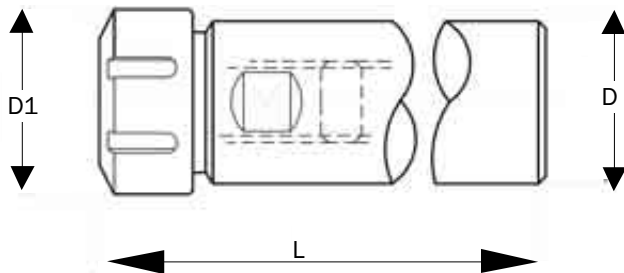
**BT-MAS 403**

**CUTTING TOOLS**

**DN = DIN 69871/A**

Shank	Collet Diameter	L	D	Weight each	Order Code IND-144
DN40	ER16	100	28	929g	<b>-2710K</b>
	ER16	150	28	1608g	<b>-2712K</b>
	ER25	60	42	1119g	<b>-2714K</b>
	ER32	70	50	1253g	<b>-2716K</b>
	ER32	130	50	1744g	<b>-2718K</b>
	ER40	70	63	1293g	<b>-2720K</b>

**Straight Shank - Mini Extension**

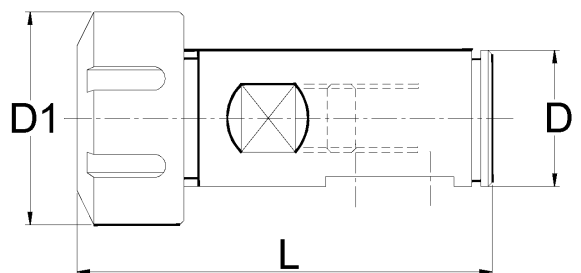


Product Number	Collet Diameter	D <sub>1</sub>	L	D	Weight each	Order Code IND-144
SSE20	ER16	22	160	20	305g	<b>-2880K</b>

**BT = BT-MAS 403**

Shank	Collet Diameter	L	D	Weight each	Order Code IND-144
BT30	ER16	60	32	539g	<b>-2792K</b>
	ER32	60	50	1100g	<b>-2796K</b>
	ER16	60	32	1002g	<b>-2798K</b>
	ER16	100	28	1240g	<b>-2800K</b>
BT40	ER16	150	28	1240g	<b>-2802K</b>
	ER25	60	42	1155g	<b>-2804K</b>
	ER32	70	50	1299g	<b>-2806K</b>
	ER32	130	50	2177g	<b>-2808K</b>
	ER40	70	63	1334g	<b>-2810K</b>
BT50	ER16	100	28	3827g	<b>-2816K</b>
	ER16	150	28	4186g	<b>-2818K</b>
	ER32	70	50	3807g	<b>-2832K</b>
	ER32	130	50	4664g	<b>-2834K</b>
	ER40	80	63	4041g	<b>-2836K</b>

**Straight Shank**

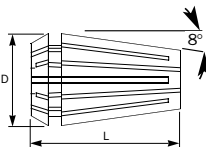


Product Number	Collet Diameter	D <sub>1</sub>	L	D	Weight each	Order Code IND-144
SS32	ER32	50	098	32	655g	<b>-2850K</b>
SS40	ER32	50	118	40	913g	<b>-2860K</b>

**INDEXA-SEIKI ER - Single Angle Collets**

Collet Dimensions (mm)

Type	Capacity	D	L
ER16	0.5-10	17.0	27.0
ER25	1.0-16	26.0	35.0
ER20	3.0-13	21.0	31.5
ER32	2.0-20	33.0	40.0
ER40	3.0-26	41.0	46.0



Range mm	Weight each	Order Code <b>IDX-144</b>
<b>ER16</b>		
1.0-0.5	26g	<b>-3200K</b>
2.0-1.0	25g	<b>-3210K</b>
3.0-2.0	27g	<b>-3220K</b>
4.0-3.0	28g	<b>-3230K</b>
5.0-4.0	22g	<b>-3240K</b>
6.0-5.0	19g	<b>-3250K</b>
7.0-6.0	19g	<b>-3260K</b>
8.0-7.0	17g	<b>-3270K</b>
9.0-8.0	21g	<b>-3280K</b>
10.0-9.0	15g	<b>-3290K</b>
<b>ER20</b>		
3.0-2.0	41g	<b>-3312K</b>
4.0-3.0	40g	<b>-3314K</b>
5.0-4.0	40g	<b>-3316K</b>
6.0-5.0	42g	<b>-3318K</b>
7.0-6.0	44g	<b>-3320K</b>
8.0-7.0	25g	<b>-3322K</b>
9.0-8.0	36g	<b>-3324K</b>
10.0-9.0	36g	<b>-3326K</b>
11.0-10.0	32g	<b>-3328K</b>
12.0-11.0	31g	<b>-3330K</b>
13.0-12.0	25g	<b>-3332K</b>
<b>ER25</b>		
2.0-1.0	74g	<b>-3400K</b>
3.0-2.0	76g	<b>-3410K</b>
4.0-3.0	75g	<b>-3420K</b>
5.0-4.0	76g	<b>-3430K</b>
6.0-5.0	75g	<b>-3440K</b>
7.0-6.0	72g	<b>-3450K</b>
8.0-7.0	73g	<b>-3460K</b>
9.0-8.0	71g	<b>-3470K</b>
10.0-9.0	68g	<b>-3480K</b>
11.0-10.0	67g	<b>-3490K</b>
12.0-11.0	65g	<b>-3500K</b>
13.0-12.0	59g	<b>-3510K</b>
14.0-13.0	55g	<b>-3520K</b>
15.0-14.0	52g	<b>-3530K</b>
16.0-15.0	46g	<b>-3540K</b>
<b>ER32</b>		
3.0-2.0	140g	<b>-3700K</b>
4.0-3.0	141g	<b>-3710K</b>
5.0-4.0	146g	<b>-3720K</b>
6.0-5.0	147g	<b>-3730K</b>
7.0-6.0	145g	<b>-3740K</b>
8.0-7.0	148g	<b>-3750K</b>
9.0-8.0	145g	<b>-3760K</b>
10.0-9.0	141g	<b>-3770K</b>
11.0-10.0	139g	<b>-3780K</b>
12.0-11.0	134g	<b>-3790K</b>
13.0-12.0	133g	<b>-3800K</b>
14.0-13.0	128g	<b>-3810K</b>
15.0-14.0	123g	<b>-3820K</b>
16.0-15.0	119g	<b>-3830K</b>
17.0-16.0	112g	<b>-3840K</b>
18.0-17.0	103g	<b>-3850K</b>
19.0-18.0	101g	<b>-3860K</b>
20.0-19.0	44g	<b>-3870K</b>
<b>ER40</b>		
4.0-3.0	252g	<b>-4000K</b>
5.0-4.0	268g	<b>-4010K</b>
6.0-5.0		<b>-4020K</b>
7.0-6.0	263g	<b>-4030K</b>
8.0-7.0	274g	<b>-4040K</b>
9.0-8.0	261g	<b>-4050K</b>
10.0-9.0	278g	<b>-4060K</b>
11.0-10.0	276g	<b>-4070K</b>
12.0-11.0	274g	<b>-4080K</b>
13.0-12.0	268g	<b>-4090K</b>
14.0-13.0	263g	<b>-4100K</b>
15.0-14.0	258g	<b>-4110K</b>
16.0-15.0		<b>-4120K</b>
17.0-16.0	248g	<b>-4130K</b>
18.0-17.0	242g	<b>-4140K</b>
19.0-18.0	238g	<b>-4150K</b>
20.0-19.0	224g	<b>-4160K</b>
21.0-20.0	216g	<b>-4170K</b>
22.0-21.0	207g	<b>-4180K</b>
23.0-22.0	194g	<b>-4190K</b>
24.0-23.0	186g	<b>-4200K</b>
25.0-24.0	176g	<b>-4210K</b>
26.0-25.0	165g	<b>-4220K</b>

**ER - Collet Sets**

Manufactured from hardened and tempered high alloy steel. All supplied in hard wearing bench cases. Conform to **DIN 6499**.

- ER16: Number of collets: 9. Range 1.0 - 10.0mm.
- ER20: Number of collets: 11. Range 2.0 - 13.0mm.
- ER25: Number of collets: 15. Range 1.0 - 16.0mm.
- ER32: Number of collets: 18. Range 2.0 - 20.0mm.
- ER40: Number of collets: 23. Range 3.0 - 26.0mm.



Collet Type	Weight each	Order Code <b>IDX-144</b>
ER16	535g	<b>-9010K</b>
ER20	637g	<b>-9015K</b>
ER25	1207g	<b>-9020K</b>

Collet Type	Weight each	Order Code <b>IDX-144</b>
ER32	4.8kg	<b>-9030K</b>
ER40	5.5kg	<b>-9040K</b>

**ER Industrial Hook Wrench**

For ER8/ER40 collet nuts. Adjustable size, drop forged steel. Single hand adjustment. One spanner will cover 35 - 105 collet nuts. To suit collets: ER 8, 16, 25, 32 and 40. Metric sizes: 35, 50, 60, 70, 80, 90 and 105mm.



Description	Weight each	Order Code <b>IND-140</b>
Adjustable	500g	<b>-8100K</b>

**Spanners**

Suitable for all collet chucks including straight shank.



Chuck Type	Order Code <b>KEN-580</b>
ER16 Mini	<b>-5160K</b>
ER16	<b>-5300K</b>
ER25	<b>-5400K</b>
ER32	<b>-5450K</b>
ER40	<b>-5680K</b>

**GROUP 144 SPINDLE NOSE TOOLING**

**INDEXA-SEIKI Shank Adaptors**

**KC3 — Adaptors**

Combination shank. Allows Kennedy and Clarkson throw-away milling cutters to be used with standard 16mm weldon and screwed chucks/collets.



Diameter	Bore	Overall Length	Weight each	Order Code
16mm	1/4"	70mm	158g	<b>-3512K</b>
16mm	6mm	70mm	158g	<b>-3518K</b>
16mm	10mm	81mm	158g	<b>-3520K</b>

**Weldon Shank Adaptors**

Allows existing weldon shank side lock arbors to hold smaller shank cutters.



Shank	Spigot Diameter	L	D	Weight each	Order Code
SS20	SL10	30	35	225g	<b>-3530K</b>

**R8 Shank Sidelock Adaptors**

For Bridgeport type turret milling machine spindles to accept weldon shank (DIN 1835B) cutters.



Shank	Bore Size	Weight each	Order Code
R8	SL20	1209g	<b>-3568K</b>
R8	SL25	1952g	<b>-3570K</b>

**R8 Shank Morse Adaptors**



Shank	Bore Size	Weight each	Order Code
R8	MT1	400g	<b>-5592K</b>
R8	MT2	332g	<b>-5594K</b>
R8	MT3	881g	<b>-5596K</b>

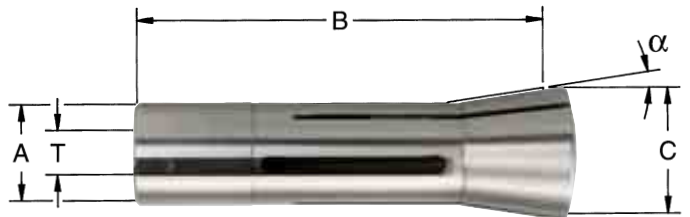
**R8 Shank Face Mill Adaptors**



Shank	Spigot Size	d	s	Gauge Length (L)	Weight each	Order Code
R8	FM16	16	6	15	512g	<b>-4970K</b>
	FM22	22	10	15	696g	<b>-4972K</b>
	FM27	27	12	15	741g	<b>-4974K</b>
	FM32	32	16	17	938g	<b>-4976K</b>

**R8 Collets for Bridgeport**

Used directly in the machine spindle for general purpose milling and drilling operations, collets have dedicated bores for specific cutter shank sizes.



Dimensions: A = 24.1mm, B = 102.3mm, C = 31.5mm T = 7/16" UNF. Angle: α = 8°25'.

Bore Size	Weight each	Order Code
3.0mm	291g	<b>-3622K</b>
6.0mm	298g	<b>-3580K</b>
8.0mm	304g	<b>-3630K</b>
10.0mm	297g	<b>-3582K</b>
11.0mm	299g	<b>-3634K</b>
12.0mm	295g	<b>-3584K</b>
14.0mm	283g	<b>-3638K</b>
16.0mm	275g	<b>-3586K</b>
20.0mm	209g	<b>-3588K</b>
1/4"	301g	<b>-3590K</b>
3/8"	298g	<b>-3592K</b>
1/2"	291g	<b>-3594K</b>
5/8"	276g	<b>-3596K</b>
3/4"	229g	<b>-3598K</b>
7/8"	281g	<b>-3700K</b>

**CUTTING TOOLS**



**INDEXA-SEIKI** Tapping Head Sets

Adjustable torque control protects against tap breakage/overload. Auto-reverse withdraws the tap without reversing the machine spindle. Each set is supplied complete with two rubber flex collets, two Morse arbors, kick bar and wrenches. Suitable for use with ISO, DIN and ANSI taps. These tapping heads are suitable for light and medium duty applications not for production machining. Range capacity is nominal sizes only and is dependent on Tap shank dimensions (ISO or DIN).



Model JSN-7  
IND- 144-8010K



Model JSN-12  
IND- 144-8020K



Model JSN-20  
IND- 144-8030K



CUTTING TOOLS



Model	Range	Morse Taper	Recommended Max. Speed	Reverse Ratio	Body Diameter	Overall Length	Clockwise Compression	Self Feed*	Clockwise Expansion	Weight each	Order Code
JSN-7	M2-7	1 & 3	1500 RPM	01:01.6	52mm	130mm	5.0mm	3.5mm	10.0mm	2.10kg	<b>-8010K</b>
JSN12	M4-12	3 & 4	1000 RPM	01:01.8	75mm	156mm	5.0mm	4.5mm	14.0mm	4.20kg	<b>-8020K</b>
JSN-20	M8-20	3 & 4	600 RPM	01:01.7	90mm	205mm	6.0mm	6.0mm	14.0mm	7.00kg	<b>-8030K</b>

**Flexible Rubber Collet Sets**

To suit Indexa-Seiki tapping heads. Supplied as sets of two collets.

Tapping Head	Contact Length	Cone Angle	Outside Diameter	Weight each	Order Code
JSN - 7	12mm	36°	15mm	10g	<b>-9600K</b>
JSN - 12	12mm	36°	22mm	20g	<b>-9610K</b>
JSN - 20	12mm	36°	26mm	40g	<b>-9620K</b>

**Arbors**

Suitable for	Morse taper to Jacobs taper	Overall Length	Weight Each	Order Code
JSN-7 & JSN-12	1MT x 6JT	96mm	100g	<b>-9160K</b>
	2MT x 6JT	110mm	180g	<b>-9260K</b>
	3MT x 6JT	130mm	340g	<b>-9360K</b>
	4MT x 6JT	155mm	690g	<b>-9460K</b>
JSN-20	3MT x M20 x 2.5			<b>-9430K</b>
	4MT x M20 x 2.5			<b>-9440K</b>

**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**

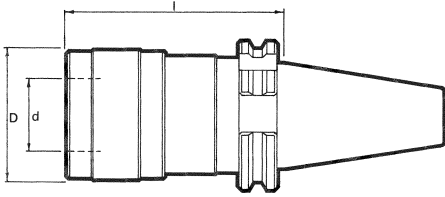
**GROUP 144 TAPPING CHUCKS & COLLETS**

**INDEXA-SEIKI Tapping Chucks - Tension & Compression Type**

With axial compensation. Suitable for use on boring machines and machining centres.

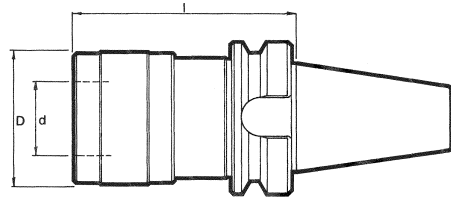


**ISO/DIN 69871-A Taper Shank**



Collet Size(d)	Shank Size	Dimensions D	l	Tapping Range	Compression Range	Extension Range	Order Code
SC19	DN40	38.0	60	M3-M12	9.0	9.0	<b>-8630K</b>
	DN50	38.0	62	M3-M12	9.0	9.0	<b>-8640K</b>
SC31	DN40	55.0	100	M6-M20	15.0	15.0	<b>-8632K</b>
	DN50	55.0	83	M6-M20	15.0	15.0	<b>-8642K</b>

**MAS 403 BT Taper Shank**

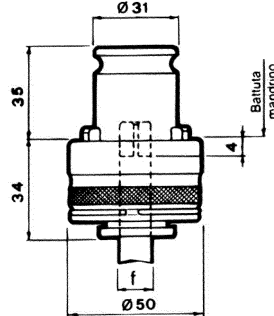
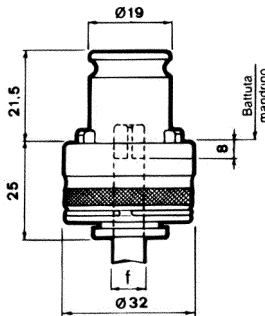


Collet Size(d)	Shank Size	Dimensions D	l	Tapping Range	Compression Range	Extension Range	Order Code
SC19	BT40	38.0	68	M3-M12	9.0	9.0	<b>-8610K</b>
	BT50	38.0	80	M3-M12	15.0	15.0	<b>-8620K</b>
SC31	BT40	55.0	93	M6-M20	15.0	15.0	<b>-8612K</b>
	BT50	55.0	102	M6-M20	15.0	15.0	<b>-8622K</b>

**CUTTING TOOLS**

**Tapping Collets**

Slipping clutch type. To suit tension and compression type tapping chucks shown above.



Size (d)	For DIN Taps				Dimensions		Order Code
	352	371	374	376	Shank	A/F	
SC19/1							<b>IDX-144</b>
335	M3	M3			3.5	2.7	<b>-9230K</b>
445	M4	M4			4.5	3.4	<b>-9232K</b>
645			M6	M6	4.5	3.4	<b>-9234K</b>
56	M5	M5			6.0	4.9	<b>-9220K</b>
6649	M6	M6			6.0	4.9	<b>-9238K</b>
86	M8		M8	M8	6.0	4.9	<b>-9222K</b>
88		M8			8.0	6.2	<b>-9224K</b>
997		M9			9.0	7.0	<b>-9236K</b>
107	M10		M10	M10	7.0	5.5	<b>-9226K</b>
1010		M10			10.0	8.0	<b>-9280K</b>
11862	M11		M11	M11	8.0	6.2	<b>-9240K</b>
129	M12		M12	M12	9.0	7.0	<b>-9228K</b>

Size (d)	For DIN Taps				Dimensions		Order Code
	352	371	374	376	Shank	A/F	
SC31/2							<b>IDX-144</b>
6649		M6			6.0	4.9	<b>-9314K</b>
8649	M8		M8	M8	6.0	4.9	<b>-9316K</b>
88		M8			8.0	6.2	<b>-9300K</b>
997		M9			9.0	7.0	<b>-9306K</b>
107	M10		M10	M10	7.0	5.5	<b>-9302K</b>
1010		M10			10.0	8.0	<b>-9360K</b>
11862	M11		M11	M11	8.0	6.2	<b>-9318K</b>
129	M12		M12	M12	9.0	7.0	<b>-9304K</b>
1411	M14		M14	M14	11.0	9.0	<b>-9308K</b>
1612	M16		M16	M16	12.0	9.0	<b>-9310K</b>
181411	M18		M18	M18	14.0	11.0	<b>-9320K</b>
2016	M20		M20	M20	16.0	12.0	<b>-9312K</b>

Size (d)	For ISO 529 Taps				Dimensions		Order Code
	Metric	UNC/UNF BSW/BSF	BA/BSP		Shank	A/F	
SC19/1							<b>IDX-144</b>
3315	M3	4 / 5	1/8"	5BA	3.15	2.50	<b>-9274K</b>
0044	M4		5/32"		4.00	3.15	<b>-9260K</b>
0046	M4.5	8		3BA	4.50	3.55	<b>-9262K</b>
55	M5	10	3/16"	2BA	5.00	4.00	<b>-9270K</b>
0053	M5.5	12	7/32"	1BA	5.60	4.50	<b>-9268K</b>
663	M6	1/4"	1/4"	OBA	6.30	5.00	<b>-9272K</b>
0082	M8	5/16"	5/16"		8.00	6.30	<b>-9264K</b>
1010	M10	3/8"	3/8"		10.00	8.00	<b>-9280K</b>
0121	M12	1/2"	1/2"		9.00	7.10	<b>-9266K</b>

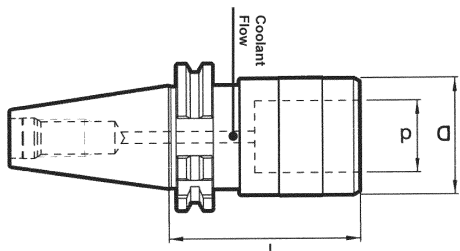
Size (d)	For ISO 529 Taps				Dimensions		Order Code
	Metric	UNC/UNF BSW/BSF	BA/BSP		Shank	A/F	
SC31/2							<b>IDX-144</b>
663	M6	1/4"	1/4"	OBA	6.3	5.0	<b>-9346K</b>
0082	M8	5/16"	5/16"		8.0	6.3	<b>-9340K</b>
1010	M10	3/8"	3/8"		10.0	8.0	<b>-9360K</b>
0121	M12	1/2"	1/2"		9.0	7.1	<b>-9344K</b>
14112	M14	9/16"	9/16"		11.2	9.0	<b>-9352K</b>
16125	M16	5/8"	5/8"		12.5	10.0	<b>-9354K</b>
1814112	M18				14.0	11.2	<b>-9356K</b>
2014	M20	3/4"	3/4"		14.0	11.2	<b>-9348K</b>
2216	M22	7/8"	7/8"		16.0	12.5	<b>-9350K</b>
001814	M24	1"	1"		18.0	14.0	<b>-9342K</b>



**INDEXA-SEIKI Tapping Chucks - Rigid Type (No Compression)**

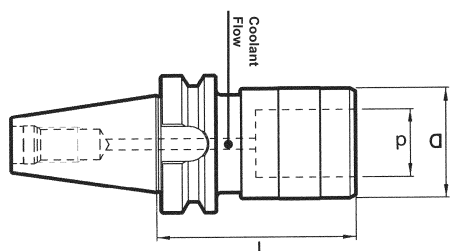
With through coolant. Suitable for use on CNC machines set up for rigid tapping.

**ISO/DIN 69871-A Taper Shank**



Collet Size (d)	Shank Size	Dimensions		Tapping Range	Order Code
		D	I		IND-144
SC19	DN40	33.0	59	M3-M12	<b>-8530K</b>
	DN50	33.0	75	M3-M12	<b>-8540K</b>
SC31	DN40	50.0	86	M6-M20	<b>-8532K</b>
	DN50	50.0	98	M6-M20	<b>-8542K</b>

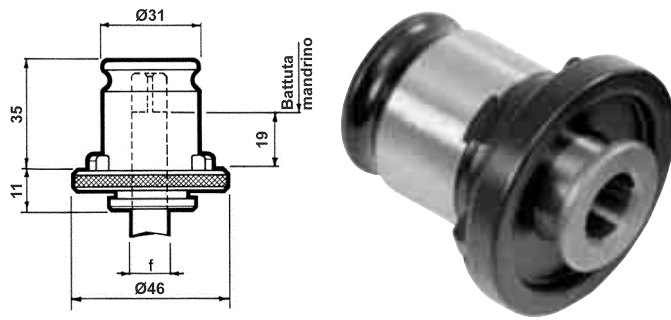
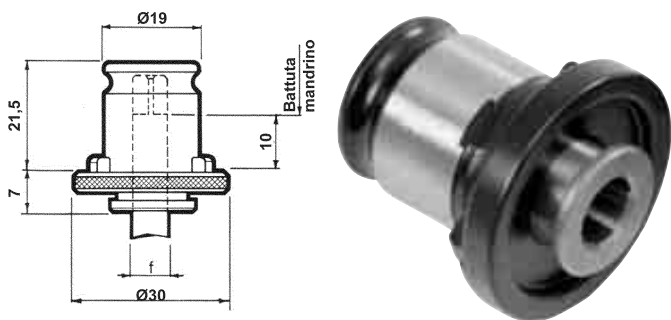
**MAS 403 BT Taper Shank**



Collet Size (d)	Shank Size	Dimensions		Tapping Range	Order Code
		D	I		IND-144
SC19	BT40	33.0	67	M3-M12	<b>-8510K</b>
	BT50	33.0	78	M3-M12	<b>-8520K</b>
SC31	BT40	50.0	90	M6-M20	<b>-8512K</b>
	BT50	50.0	101	M6-M20	<b>-8522K</b>

**Tapping Collets**

Rigid type. To suit Rigid Type tapping chucks shown above.



Size (d)	For DIN Taps				Dimensions		Order Code
	352	371	374	376	Shank	A/F	
3527	M3	M3	M5	M5	3.5	2.7	<b>-9108K</b>
4534	M4	M4			4.5	3.4	<b>-9110K</b>
649	M5-M8	M5-M6	M8	M8	6.0	4.9	<b>-9102K</b>
862		M8	M11	M11	8.0	6.2	<b>-9106K</b>
755	M10	M7	M10	M10	7.0	5.5	<b>-9104K</b>
97	M12	M9	M12	M12	9.0	7.0	<b>-9100K</b>
108		M10			10.0	8.0	<b>-9140K</b>

Size (d)	For DIN Taps				Dimensions		Order Code
	352	371	374	376	Shank	A/F	
649	M5-M8	M5-M6	M8	M8	6.0	4.9	<b>-9166K</b>
862	M11	M8	M11	M11	8.0	6.2	<b>-9170K</b>
97	M12	M9	M12	M12	9.0	7.0	<b>-9160K</b>
755	M10		M10	M10	7.0	5.5	<b>-9168K</b>
108		M10			10.0	8.0	<b>-9200K</b>
119	M14		M14	M14	11.0	9.0	<b>-9162K</b>
129	M16		M16	M16	12.0	9.0	<b>-9164K</b>
1411	M18		M18	M18	14.0	11.0	<b>-9172K</b>
1612	M20		M20	M20	16.0	12.0	<b>-9174K</b>

Size (d)	For ISO 529 Taps				Dimensions		Order Code
	Metric	UNC/UNF	BSW/BSF	BA	Shank	A/F	
31525	M3	4/5	1/8"	5BA	3.15	2.50	<b>-9132K</b>
0044	M4		5/32"		4.00	3.15	<b>-9120K</b>
0046	M4.5	8		3BA	4.50	3.55	<b>-9122K</b>
54	M5	10	3/16"	2BA	5.00	4.00	<b>-9128K</b>
635	M6	1/4"	1/4"	OBA	6.30	5.00	<b>-9130K</b>
0082	M8/M11	5/16"/7/16"	5/16"/7/16"		8.00	6.30	<b>-9124K</b>
0121	M9/M12	1/2"	1/2"		9.00	7.10	<b>-9126K</b>
108	M10	3/8"	3/8"		10.00	8.00	<b>-9140K</b>

Size (d)	For ISO 529 Taps				Dimensions		Order Code
	Metric	UNC/UNF	BSW/BSF	BA/BSP	Shank	A/F	
635	M6	1/4"	1/4"	OBA	6.3	5.0	<b>-9184K</b>
755	M7				7.0	5.5	<b>-9186K</b>
0082	M8/M11	5/16"/7/16"	5/16"/7/16"	1/8" BSP	8.0	6.3	<b>-9180K</b>
0121	M9/M12	1/2"	1/2"		9.0	7.1	<b>-9182K</b>
108	M10	3/8"	3/8"	1/4" BSP	10.0	8.0	<b>-9200K</b>
1129	M14	9/16"	9/16"		11.2	9.0	<b>-9188K</b>
12510	M16	5/8"	5/8"	3/8" BSP	12.5	10.0	<b>-9192K</b>
14112	M18/M20	3/4"	3/4"		14.0	11.2	<b>-9194K</b>
16125	M22	7/8"	7/8"		16.0	12.5	<b>-9196K</b>
1814	M24	1"	1"	5/8" BSP	18.0	14.0	<b>-9190K</b>

**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**