**CUTTING TOOLS** 

### HSS Multi-Diameter Step Drills

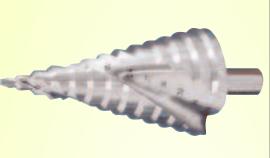


Countersinks Single Hole Manufactured from M35 HSS and used for the deburring and chamfering of most metals and plastics. Straight shank. Manufactured to BS 328: Part 5: 1983. Inclusive angle 90°.

**7** HSS-E Co 5%



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. HSS





HSS

Size	Range	Number of Steps	Weight each	Order Code SHR-019	Price/1 TB
0/5	4 - 12mm	5	30g	-0500K	901.00
0/9	4 - 12mm	9	30g	-0509K	1004.00
1	4 - 20mm	9	70g	-0510K	1313.00
2	4 - 30mm	11	200g	-0520K	2163.00
3	6 - 38mm	12	299g	-0530K	3348.00
5	4 - 39mm	14	320g	-0560K	3605.00
9	6 - 37mm	12	310g	-0600K	3219.00

# **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

**PIECES** 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 SHR-019	Price/1 TB
3	4 - 30mm	275g	-0260K	4893.00

# **HSS Taper Sheet & Tube Drills**

HSS

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 SHR-019	Price/1 TB
3 - 14mm	6	57	30g	-1100K	703.00
8 - 20mm	8	66	60g	-1110K	920.00
16 - 30mm	9	74	140g	-1120K	1743.00
26 - 40mm	9	85	300g	-1130K	4079.00

## HSS-Co 5%



Cutting	Shank	Overall	Weight	Order Code	Price/1
Range	Diameter	Length	each	KEN-020	TB
2 - 5mm	6	32.0	15g	-2090K	901.00
5 - 10mm	8	30.5	25g	-2100K	1029.00
10 - 15mm	10	37.5	25g	-2150K	1338.00
15 - 20mm	12	48.0	110g	-2200K	2368.00
20 - 25mm	15	56.5	225g	-2250K	3322.00

### HSS-E Co 5% **Countersinks Single Hole**

Manufactured from HSS-E cobalt for deburring and chamfering. Straight shank.

Manufactured to BS328: Part 5: 1983. Inclusive angle 90°.

HSS-Co 5%

HSS-Co 5%



Cutting	Shank	Overall	Weight	Order Code	Price/1
Range	Diameter	Length	each	SHR-020	TB
2 - 5mm	6	32.0	15g	-2090K	495.00
5 - 10mm	8	30.5	25g	-2100K	666.00
10 - 15mm	10	37.5	25g	-2150K	1028.00
15 - 20mm	12	48.0	110g	-2200K	2326.00
20 - 25mm	15	56.5	225g	-2250K	2746.00
25 - 30mm	15	55.0	315g	-2300K	3750.00

# HSS-Co 5% Countersink Set

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



Number	Shank Style	Weight	Order Code	Price/1
of Pieces		each	SHR-020	TB
6	Straight	1.2kg	-9020B	7555.00

**UTTING TOOLS** 

# SHERWOOD HSS-Co 5% 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: 3/16".





Diameter	Inc. Angle	Body Dia.	Overall Length	Order Code SHR-020	Price/1 TB
3/32"	100°	3/16"	21/2"	-5050D	655.00
3/32"	120°	3/16"	21/2"	-5054H	755.00
1/8"	100°	1/4"	21/2"	-5051E	755.00
1/8"	120°	1/4"	21/2"	-5055J	755.00
5/32"	100°	5/16"	21/2"	-5052F	755.00
3/16"	100°	3/8"	21/2"	-5053G	755.00
3/16"	120°	3/8"	21/2"	-5056K	855.00
	3/32" 3/32" 1/8" 1/8" 5/32" 3/16"	3/32" 100° 3/32" 120° 1/8" 100° 1/8" 120° 5/32" 100° 3/16" 100°	Diameter         Angle         Dia.           3/32"         100°         3/16"           3/32"         120°         3/16"           1/8"         100°         1/4"           1/8"         120°         1/4"           5/32"         100°         5/16"           3/16"         100°         3/8"	Angle Dia. Length  3/32" 100° 3/16" 21/2" 3/32" 120° 3/16" 21/2" 1/8" 100° 1/4" 21/2" 1/8" 120° 1/4" 21/2" 5/32" 100° 5/16" 21/2" 3/16" 100° 3/8" 21/2"	Diameter   Angle   Dia.   Length   SHR-020

Inclined	d Angles for Count	ersunk Socket He	ad Screws
Thread Series	Standard	Countersink Angle	
Metric	BS EN ISO 10642	up to M20 over M20	90°
UNC/F	ANSI B 18.3	No.0 to 1"	82°
BSW/F	BS 2470	½" TO 1"	90°
BA	BS 2470	8BA TO OBA	90°

[	Diameter	Inc. Angle	Body Dia.	Overall Length	Order Code SHR-020	Price/1 TB
1	3/32"	100°	.190	21/2"	-5057L	855.00
	1/8"	100°	.252	21/2"	-5058M	855.00
	5/32"	100°	.340	21/2"	-5059N	955.00
1	3/16"	100°	.405	21/2"	-5060P	980.00
	1/4"	100°	.530	21/2"	-5061Q	1255.00

# HSS-Co 5% 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.

## HSS-Co 5% 3 Flute - Taper Shank

HSS-Co 5%

90° inclusive angle.



Cutting Diameter	Shank Diameter	Order Code SHR-020	Price/1 TB
8.0mm	8mm	-0790K	503.00
10.0mm	8mm	-0890K	641.00
12.5mm	8mm	-0990K	783.00
16.0mm	10mm	-1090K	783.00
20.0mm	10mm	-1110K	783.00
25.0mm	10mm	-1130K	899.00



Diameter         Diameter         SHR-020         TB           16.0mm         1MT         -1550K         4635.00           20.0mm         2MT         -1570K         6309.00           25.0mm         2MT         -1590K         7066.00           31.5mm         2MT         -1690K         8126.00           40.0mm         3MT         -1790K         11845.00           50.0mm         3MT         -1890K         16995.00           63.0mm         4MT         -1920K         19055.00	Cutting	Shank	Order Code	Price/1
20.0mm         2MT         -1570K         6309.00           25.0mm         2MT         -1590K         7066.00           31.5mm         2MT         -1690K         8126.00           40.0mm         3MT         -1790K         11845.00           50.0mm         3MT         -1890K         16995.00	Diameter	Diameter	SHR-020	TB
25.0mm         2MT         -1590K         7066.00           31.5mm         2MT         -1690K         8126.00           40.0mm         3MT         -1790K         11845.00           50.0mm         3MT         -1890K         16995.00	16.0mm	1MT	-1550K	4635.00
31.5mm     2MT     -1690K     8126.00       40.0mm     3MT     -1790K     11845.00       50.0mm     3MT     -1890K     16995.00	20.0mm	2MT	-1570K	6309.00
40.0mm 3MT -1790K 11845.00 50.0mm 3MT -1890K 16995.00	25.0mm	2MT	-1590K	7066.00
50.0mm 3MT <b>-1890K 16995.00</b>	31.5mm	2MT	-1690K	8126.00
	40.0mm	3MT	-1790K	11845.00
63.0mm 4MT <b>-1920K 19055.00</b>	50.0mm	3MT	-1890K	16995.00
	63.0mm	4MT	-1920K	19055.00

# HSS-Co 5% Multi Flute -Straight Shank

Rose Pattern Inclusive angle 90°. Overall length: 52mm.



HSS-Co 5%



HSS-Co 5% Multi Flute -Straight Shank

KEN-020

-2040K

-2060K

-2080K



**Rose Pattern** 

Cutting

Diameter

9.5mm

12.7mm

Inclusive angle 90°.

Overall length: 52mm.

HSS-Co 5%





Cutting Diameter	Shank Diameter	Order Code SHR-020	Price/1 TB
9.5mm	4.8mm	-2040K	480.00
12.7mm	4.8mm	-2060K	500.00
15.8mm	6.3mm	-2080K	690.00

### 15.8mm 6.3mm HSS-Co 5% Multi Flute -<mark>Straight Shank</mark>

Shank

Diameter

4.8mm

4.8mm

HSS-Co 5%

Price/1 TB

592.00

695.00 798.00

**Heavy Duty** Inclusive angle 90°.

**Heavy Duty** Inclusive angle 90°.

Straight Shank

HSS-Co 5% Multi Flute -

Overall length: 40mm.



Cutting	Shank	Order Code	Price/1
Diameter	Diameter	SHR-020	TB
12.7mm	6.3mm	-2000K	480.00



Cutting	Shank	Order Code	Price/1
Diameter	Diameter	<b>KEN-020</b>	TB
12.7mm	6.2mm	3000K	E92 00

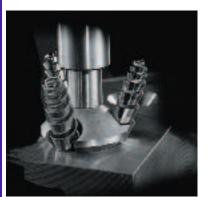
**CUTTING TOOLS** 

### <mark>n</mark> HSS-Co 5% High Performance 🚾 Countersinks



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.

HSS-Co 5%





Cutting	Shank	Length	Weight	Orde	Order Code SHR-020		
Diameter	(mm)	(mm)	each	60° Countersink	90° Countersink	100° Countersink	TB
6.3mm	5	45		-5950K	-	-5450K	399.00
8.3mm	6	46	12g	-6000K	-5000K	-5500K	385.00
10.4mm	6	47	13g	-6050K	-5050K	-5550K	525.00
12.4mm	8	58	24g	-6100K	-5100K	-5600K	535.00
16.5mm	8	60	29g	-6150K	-5150K	-5650K	795.00
20.5mm	10	65	48g	-6200K	-5200K	-5700K	1215.00
25.0mm	10	69	70g	-6300K	-5250K	-5750K	1530.00

### 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 82°.

# HSS (5% Co)

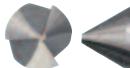
3 Flute - Straight Shank

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 SHR-020	Price/1 TB
8.5mm	8mm	-7090K	1100.00
10.0mm	8mm	-7100K	1200.00
12.5mm	8mm	-7120K	1460.00
16.0mm	10mm	-7160K	2050.00
20.0mm	10mm	-7200K	2550.00
25.0mm	10mm	-7250K	3500.00

# HSS-Co 5% 90° Countersinks

as for hard plastics. General purpose chamfering/deburring and

	Cutting	Shank	Order Code	Price/1
_	Diameter	Diameter	KEN-020	ТВ
	8.0mm	8mm	-0790K	464.00
	10.0mm	8mm	-0890K	530.00
	12.5mm	8mm	-0990K	592.00
Π	16.0mm	<b>10</b> mm	-1090K	695.00
	20.0mm	<b>10</b> mm	-1110K	798.00
	25.0mm	10mm	-1130K	1029.00

# HSS-Co 5%

For all ferrous and non-ferrous metals as well countersinking tool. Bright finish, 3 flute, ground all over. **Made to DIN 335**.

# **HSS-Co 5% Countersink Set 90°**

HSS-Co 5%

### 6 Piece Set

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

Straight shank, ground flute 90 angle. Manufactured to

BS328: Part 5: 1983.

Inclusive angle 90°.

Sizes: 8, 10, 12.5, 16, 20 and 25mm.



Cutting Dia.	Shank (mm)	Length (mm)	Order Code SHR-020	Price/1 TB
6.0mm	5	45	-3060E	355.00
6.3mm	5	45	-3063J	355.00
9 2mm	6	50	20021	455.00

	Dia.	(111111)	(111111)	3HK-020	ID	
_	6.0mm	5	45	-3060E	355.00	_
	6.3mm	5	45	-3063J	355.00	
	8.3mm	6	50	-3083J	455.00	
	13.4mm	8	56	-3134Q	455.00	_
	15.0mm	10	60	-3150G	505.00	
	19.0mm	10	63	-3190T	705.00	
_	23.0mm	10	67	-3223G	905.00	_
	30 0mm	12	71	-3330D	1/50 00	

6 **PIECES** 

Number of Pieces	Weight	Order Code KEN-020	Price/1 TB
6	620g	-1160K	3398.00

**CUTTING TOOLS** 

### HSS-Co 5% 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. Manufactured to

BS328 : Part 5 : 1983. Inclusive angle 90°.

Sizes: 8, 10, 12.5, 16, 20 and 25mm.



HSS-Co 5%

6 **PIECES** 

Number	Inclusive	Order Code	Price/1
of Pieces	Angle	SHR-020	TB
6	90°	-9010A	3555.00

## HSS-Co 5% Countersink Set - 100°

5 Piece Set **High Performance Multi Flute** Manufactured from HSS-E cobalt for deburring and chamfering. Straight shank, ground flute 100° angle. Manufactured to

BS328 : Part 5 : 1983. Inclusive angle 100°.

Sizes: 6, 8, 10, 12.5 and 16mm.





### HSS-Co 5% 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. Manufactured to

BS328: Part 5: 1983. Inclusive angle 90°.

6

**PIECES** 

Sizes: 6, 8, 10, 12.5, 16 and 20mm.



Order Code Inclusive Number Price/1 SHR-020 of Pieces Angle 90° -8990Y 2800.00

## HSS-Co 5% Countersink Set - 60°

5 Piece Set **High Performance Multi Flute** Manufactured from HSS-E cobalt for deburring and chamfering. Straight shank, ground flute 60° angle. Manufactured to

BS328: Part 5: 1983.

Sizes: 6, 8, 10, 12.5

**PIECES** 

and 16mm.



HSS-Co 5%

Number of Pieces	Inclusive	Order Code	Price/1
	Angle	SHR-020	TB
5	60°	-8150A	2500.00

### **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 KEN-120	Price/1 TB	
<sup>1</sup> / <sub>4</sub> " (6.3mm)	<sup>1</sup> / <sub>4</sub> " (6.3mm)	2" (50mm)	30g	-0790K	980.00	
3/8" (9.5mm)	<sup>1</sup> / <sub>4</sub> " (6.3mm)*	213/16" (73mm)	40g	-0890K	1150.00	
½" (12.7mm)	<sup>1</sup> / <sub>4</sub> " (6.3mm)*	2 <sup>7</sup> / <sub>8</sub> " (75mm)	50g	-0990K	1400.00	
5/8" (16.0mm)	3/8" (9.5mm)*	3" (76mm)	90g	-1090K	1650.00	
3/4" (19 0mm)	1/2" (12 7mm)*	3" (76mm)	130g	-1110K	2100 00	

### 6 Flute 90°



				* Brazed s	steel shank
Cutting Diameter	Shank Diameter	Overall Length	Weight each	Order Code KEN-120	Price/1 TB
<sup>1</sup> / <sub>4</sub> " (6.3mm)	<sup>1</sup> / <sub>4</sub> " (6.3mm)	2" (50mm)	30g	-1790K	999.00
3/8" (9.5mm)	<sup>1</sup> / <sub>4</sub> " (6.3mm)*	2 <sup>13</sup> / <sub>16</sub> " (73mm)	40g	-1890K	1150.00
<sup>1</sup> / <sub>2</sub> " (12.7mm)	<sup>1</sup> / <sub>4</sub> " (6.3mm)*	2 <sup>7</sup> / <sub>8</sub> " (75mm)	50g	-1990K	1400.00
5/8" (16.0mm)	<sup>3</sup> / <sub>8</sub> " (9.5mm)*	3" (76mm)	90g	-2090K	2950.00
3/4" (10 0mm)	1/2" (12.7mm)*		130g	-2110K	3386 00