

**HSS Straight Tooth Side & Face Milling Cutters**

Designed with strip land and tooth form to give strength and more chip clearance. Special note is to be taken of the form at the back of the teeth which gives greater support to the cutting edge.

The cutters are well adapted for a wide variety of production operations and are commonly used in pairs for straddle milling.



**HSS Staggered Tooth Side & Face Cutters**

Designed for deep slot operations in steel and in most soft materials. They have alternative right and left hand spiral teeth which provide ample chip clearance for fast stock removal.



**Straight Tooth Side & Face Cutters**

Diameter (Inch)	Bore Size	Cut Length	Number of Teeth	Weight each	Order Code CTL-060	List Price/1	Offer Price/1
3"	1"	5/32"	20	0.08kg	-2256B	£108.00	<b>£82.08</b>
3"	1"	3/16"	20	0.10kg	-2256G	£77.23	<b>£58.69</b>
3"	1"	1/4"	20	0.13kg	-2257H	£69.64	<b>£52.93</b>
3"	1"	1"	20	0.58kg	-2265R	£117.00	<b>£88.92</b>
4"	1"	7/32"	24	0.23kg	-2276R	£91.53	<b>£69.56</b>
4"	1"	1/4"	24	0.25kg	-2277E	£72.55	<b>£55.14</b>
4"	1"	5/16"	24	0.33kg	-2278F	£77.31	<b>£58.76</b>
4"	1"	3/8"	24	0.40kg	-2279G	£81.43	<b>£61.89</b>
4"	1"	1/2"	24	0.27kg	-2281J	£109.00	<b>£82.84</b>
6"	1"	1/4"	30	0.58kg	-2297B	£175.00	<b>£133.00</b>
6"	1"	5/16"	30	0.75kg	-2298C	£172.00	<b>£130.72</b>

**Staggered Tooth Side & Face Cutters**

Diameter (Inch)	Bore Size	Cut Length	Number of Teeth	Weight each	Order Code CTL-060	List Price/1	Offer Price/1
3"	1"	3/8"	16	0.19kg	-2353D	£85.71	<b>£65.14</b>
3"	1"	1/2"	16	0.19kg	-2355F	£94.64	<b>£71.93</b>
4"	1"	1/4"	18	0.23kg	-2362N	£96.43	<b>£73.29</b>
4"	1"	3/8"	18	0.35kg	-2364Q	£131.00	<b>£99.56</b>
4"	1"	1/2"	18	0.53kg	-2366S	£150.00	<b>£114.00</b>
5"	1"	1/4"	24	0.55kg	-2373A	£140.00	<b>£106.40</b>
5"	1"	1/2"	24	0.60kg	-2376D	£215.00	<b>£163.40</b>
6"	1"	1/4"	24	0.53kg	-2380H	£292.00	<b>£221.92</b>
6"	1"	3/8"	24	0.88kg	-2382K	£312.00	<b>£237.12</b>
6"	1"	1/2"	24	1.05kg	-2384M	£300.00	<b>£228.00</b>



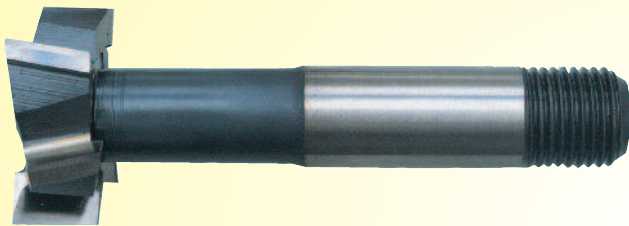
**HSS Threaded Shank T-Slot Cutters**

**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 six flutes and 18mm and 5/8" upwards have eight flutes. Made to **DIN 851**. Shank to **DIN 1835/D**.

Flute form 12° RH/LH

Metric Limits of Tolerance			Inch Limits of Tolerance		
Diameter	+0.13 - 0.13		Diameter	+0.005" - 0.005"	
Length	+0.13 - 0.13		Length	+0.005" - 0.005"	



**Metric Sizes**

Bolt Size	Head Depth	Diameter			Overall Length	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
M6.0	6.0	12.5	10.0	5.0	57.0	36g	-6550A	£61.41	<b>£30.71</b>
M8.0	8.0	16.0	10.0	6.5	62.0	41g	-6551B	£79.02	<b>£39.51</b>
M10.0	8.0	18.0	12.0	8.0	65.0	50g	-6552C	£91.18	<b>£45.59</b>
M12.0	10.0	22.0	12.0	10.0	74.0	52g	-6553D	£107.00	<b>£53.50</b>
M14.0	11.0	25.0	16.0	12.0	82.0	84g	-6554E	£123.00	<b>£61.50</b>
M16.0	12.0	28.0	16.0	13.0	85.0	159g	-6555F	£138.00	<b>£69.00</b>
M18.0	14.0	32.0	25.0	15.0	90.0	347g	-6556G	£166.00	<b>£83.00</b>
M20.0	16.0	36.0	25.0	17.0	103.0	298g	-6557H	£265.00	<b>£132.50</b>
M24.0	19.0	45.0	25.0	17.0	112.0	426g	-6559K	£502.00	<b>£251.00</b>
M36.0	22.0	50.0	32.0	25.0	124.0	960g	-6561M	£740.00	<b>£370.00</b>

**Inch Sizes**

Dia. Inch	Head Depth	Diameter			Overall Length	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
1/4"	1/4"	37/64"	1/2"	1/4"	2 3/8"	54g	-6350A	£78.95	<b>£39.48</b>
5/16"	5/16"	45/64"	1/2"	5/16"	2 9/16"	62g	-6351B	£89.42	<b>£44.71</b>
3/8"	23/64"	53/64"	1/2"	3/8"	2 11/16"	78g	-6352C	£108.00	<b>£54.00</b>
1/2"	15/32"	1 5/64"	1/2"	1/2"	3"	125g	-6354E	£138.00	<b>£69.00</b>
5/8"	37/64"	1 21/64"	1"	19/32"	4"	375g	-6355F	£220.00	<b>£110.00</b>
3/4"	11/16"	1 33/64"	1"	23/32"	4 5/16"	425g	-6356G	£314.00	<b>£157.00</b>
1"	29/32"	1 61/64"	1"	31/32"	5"	678g	-6358J	£498.00	<b>£249.00</b>

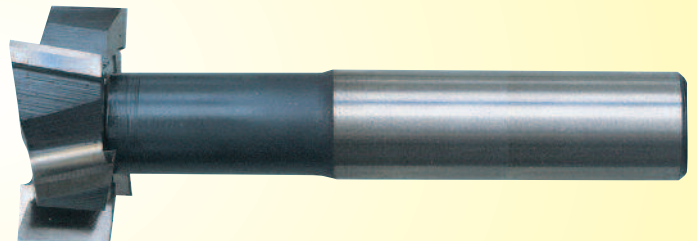
**HSS Plain Shank T-Slot Cutters**



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 six flutes and 18mm and 5/8" upwards have eight flutes. Made to **DIN 851**.

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	List Price/1	Offer Price/1
M6.0	6.0	12.5	10.0	5.0	57.0	36g	-4550A	£64.48	<b>£32.24</b>
M8.0	8.0	16.0	10.0	6.5	62.0	41g	-4551B	£82.97	<b>£41.49</b>
M10.0	8.0	18.0	12.0	8.0	65.0	50g	-4552C	£95.74	<b>£47.87</b>
M12.0	10.0	22.0	12.0	10.0	74.0	52g	-4553D	£112.00	<b>£56.00</b>
M14.0	11.0	25.0	16.0	12.0	82.0	84g	-4554E	£129.00	<b>£64.50</b>
M16.0	12.0	28.0	16.0	13.0	85.0	159g	-4555F	£145.00	<b>£72.50</b>
M18.0	14.0	32.0	25.0	15.0	90.0	347g	-4556G	£175.00	<b>£87.50</b>
M20.0	16.0	36.0	25.0	17.0	103.0	298g	-4557H	£278.00	<b>£139.00</b>



**HSS Threaded 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**. Shank to **DIN 1835/D**.

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

Inch Limits of Tolerance		
Diameter	+0.015"	-0.100"
Width	+0.000"	-0.001"



CUTTING TOOLS

**Metric Sizes**

Diameter (mm)	Width	Overall Length	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
10.5	2.0	57.0	44g	-6500A	£53.27	£26.64
10.5	3.0	57.0	44g	-6502C	£66.30	£33.15
11.0	3.5	54.0	11g	-6502J	£69.66	£34.83
13.5	2.5	57.0	44g	-6504E	£73.07	£36.54
13.5	3.0	57.0	45g	-6505F	£62.46	£31.23
13.5	4.0	57.0	45g	-6506G	£79.54	£39.77
16.5	2.5	57.0	46g	-6507H	£121.00	£60.50
16.5	3.0	57.0	46g	-6508J	£105.00	£52.50
16.5	4.0	57.0	46g	-6509K	£97.64	£48.82
16.5	5.0	57.0	46g	-6510L	£97.64	£48.82
19.5	3.0	57.0	46g	-6511M	£88.74	£44.37
19.5	4.0	57.0	46g	-6512N	£88.21	£44.11
19.5	5.0	57.0	50g	-6513P	£118.00	£59.00
19.5	6.0	57.0	51g	-6514C	£135.00	£67.50
22.5	4.0	63.5	55g	-6514Q	£114.00	£57.00
22.5	5.0	63.5	57g	-6515R	£116.00	£58.00
22.5	6.0	63.5	59g	-6516S	£110.00	£55.00
25.5	6.0	70.0	67g	-6518V	£128.00	£64.00
25.5	8.0	70.0	73g	-6520X	£126.00	£63.00
28.5	5.0	70.0	69g	-6521Y	£159.00	£79.50
28.5	6.0	70.0	79g	-6522Z	£152.00	£76.00
28.5	7.0	70.0	77g	-6524A	£158.00	£79.00
28.5	8.0	70.0	79g	-6525B	£142.00	£71.00
32.5	6.0	70.0	81g	-6527D	£146.00	£73.00
35.5	8.0	76.0	102g	-6532J	£195.00	£97.50
38.5	7.0	76.0	106g	-6534L	£200.00	£100.00
38.5	9.0	76.0	116g	-6536N	£223.00	£111.50

**Inch Sizes**

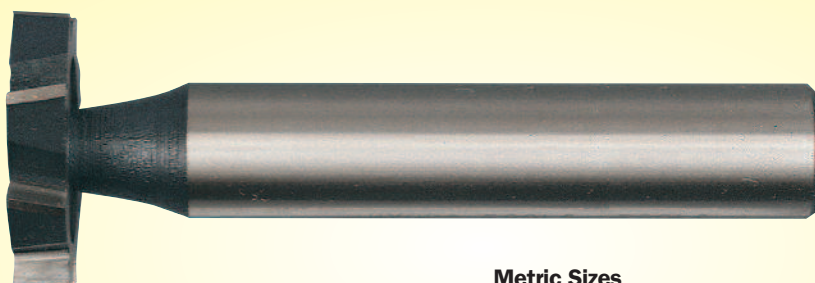
Cutter Number	Diameter (Inch)	Width	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
204	1/2"	1/16"	56g	-6458J	£61.82	£30.91
304	1/2"	3/32"	54g	-6459K	£58.77	£29.39
304	1/2"	1/8"	56g	-6461M	£58.39	£29.20
305	5/8"	3/32"	54g	-6460L	£90.52	£45.26
405	5/8"	1/8"	65g	-6462N	£90.52	£45.26
505	5/8"	5/32"	61g	-6464Q	£97.64	£48.82
406	3/4"	1/8"	68g	-6463P	£86.27	£43.14
506	3/4"	5/32"	69g	-6465R	£102.00	£51.00
606	3/4"	3/16"	70g	-6467T	£86.27	£43.14
507	7/8"	5/32"	69g	-6466S	£133.00	£66.50
607	7/8"	3/16"	89g	-6468V	£129.00	£64.50
707	7/8"	7/32"	82g	-6472Z	£151.00	£75.50
807	7/8"	1/4"	75g	-6477D	£94.97	£47.49
608	1"	3/16"	86g	-6469W	£108.00	£54.00
708	1"	7/32"	80g	-6474A	£142.00	£71.00
808	1"	1/4"	92g	-6478E	£97.64	£48.82
1008	1"	5/16"	110g	-6450A	£95.83	£47.92
609	1 1/8"	3/16"	112g	-6470X	£123.00	£61.50
809	1 1/8"	1/4"	111g	-6479F	£164.00	£82.00
1009	1 1/8"	5/16"	117g	-6451B	£151.00	£75.50
610	1 1/4"	3/16"	112g	-6471Y	£124.00	£62.00
810	1 1/4"	1/4"	114g	-6480G	£131.00	£65.50
1010	1 1/4"	5/16"	120g	-6452C	£154.00	£77.00
1210	1 1/4"	3/8"	130g	-6455F	£119.00	£59.50
812	1 1/2"	1/4"	153g	-6482J	£133.00	£66.50
1012	1 1/2"	5/16"	127g	-6454E	£168.00	£84.00
1211	1 3/8"	3/8"	119g	-6456G	£218.00	£109.00
1212	1 1/2"	3/8"	136g	-6457H	£141.00	£70.50

**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

**Metric Sizes**

Diameter (mm)	Width	Overall Length	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
10.5	2.0	57.0	44g	-4500A	£55.93	£27.97
10.5	3.0	57.0	44g	-4502C	£69.62	£34.81
13.5	2.5	57.0	44g	-4504E	£76.72	£38.36
13.5	3.0	57.0	45g	-4505F	£65.58	£32.79
13.5	4.0	57.0	45g	-4506G	£83.52	£41.76
16.5	2.5	57.0	46g	-4507H	£127.00	£63.50

**Metric Sizes**

Diameter (mm)	Width	Overall Length	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
16.5	3.0	57.0	46g	-4508J	£110.00	£55.00
16.5	4.0	57.0	46g	-4509K	£103.00	£51.50
16.5	5.0	57.0	46g	-4510L	£103.00	£51.50
19.5	3.0	57.0	46g	-4511M	£93.18	£46.59
19.5	4.0	57.0	46g	-4512N	£92.62	£46.31
19.5	5.0	57.0	50g	-4513P	£124.00	£62.00
19.5	6.0	57.0	51g	-4514C	£142.00	£71.00
22.5	4.0	63.5	55g	-4514Q	£120.00	£60.00
22.5	6.0	63.5	59g	-4516S	£122.00	£61.00
25.5	6.0	70.0	67g	-4518V	£134.00	£67.00
25.5	8.0	70.0	73g	-4520X	£133.00	£66.50
28.5	5.0	70.0	69g	-4521Y	£167.00	£83.50
32.5	6.0	70.0	81g	-4527D	£154.00	£77.00

**CONTRACT PRICES AVAILABLE FOR VOLUME PURCHASES**

All Prices Exclude V.A.T. © 2014



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

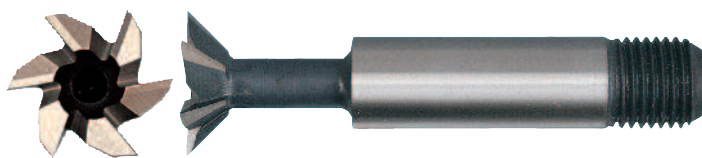
Designed to produce dovetail slideways in machine tool tables, jigs and fixtures. Bright finish, straight helix. Made to **DIN 1833**. Shank to **DIN 1835D**.

Metric Limits of Tolerance	Inch Limits of Tolerance
+0.25 - 0.00	+0.010 - 0.000



**HSS**

**45° Corner Angle - Metric (Form C)**



Diameter (mm)	Cut Length	Shank Dia.	Overall Length	Number of Teeth	Order Code SHR-061	List Price/1	Offer Price/1
13.0	3.0	12.0	63.5	6	-6200A	£68.62	<b>£34.31</b>
16.0	4.0	12.0	66.5	6	-6201B	£80.47	<b>£40.24</b>
19.0	5.5	12.0	66.5	6	-6202C	£89.82	<b>£44.91</b>
25.0	7.5	12.0	70.0	8	-6204E	£129.00	<b>£64.50</b>
32.0	8.5	16.0	74.5	8	-6206G	£171.00	<b>£85.50</b>

**45° Corner Angle - Inch (Form C)**

Diameter (Inch)	Cut Length	Shank Dia.	Overall Length	Number of Teeth	Order Code SHR-061	List Price/1	Offer Price/1
7/8"	1/4"	1/2"	2 <sup>11</sup> / <sub>16</sub> "	6	-6102C	£110.00	<b>£55.00</b>
1"	5/16"	1/2"	2 <sup>3</sup> / <sub>4</sub> "	6	-6103D	£109.00	<b>£54.50</b>
1 <sup>1</sup> / <sub>4</sub> "	1 <sup>1</sup> / <sub>2</sub> "	5/8"	2 <sup>15</sup> / <sub>16</sub> "	6	-6104E	£171.00	<b>£85.50</b>
1 <sup>3</sup> / <sub>8</sub> "	3/8"	1"	3 <sup>1</sup> / <sub>16</sub> "	8	-6105F	£278.00	<b>£139.00</b>

**45° Inverted - Metric (Form D)**



Diameter (mm)	Cut Length	Shank Dia.	Overall Length	Number of Teeth	Order Code SHR-061	List Price/1	Offer Price/1
13.0	3.0	12.0	63.5	6	-6039K	£93.56	<b>£46.78</b>
16.0	4.0	12.0	66.5	6	-6039Y	£112.00	<b>£56.00</b>
19.0	5.5	12.0	66.5	6	-6040F	£124.00	<b>£62.00</b>
20.0	6.0	12.0	63.0	6	-6040K	£135.00	<b>£67.50</b>
25.0	7.5	12.0	70.0	6	-6041G	£175.00	<b>£87.50</b>
32.0	8.5	16.0	74.5	8	-6041V	£235.00	<b>£117.50</b>
50.0	13.0	25.0	90.5	8	-6046A	£334.00	<b>£167.00</b>

**60° Corner Angle - Metric (Form C)**

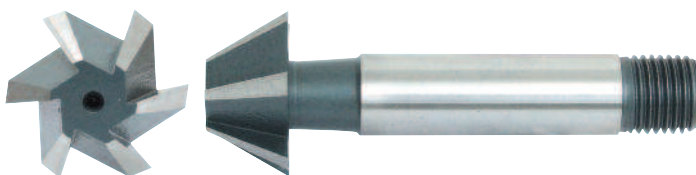


Diameter (mm)	Cut Length	Shank Dia.	Overall Length	Number of Teeth	Order Code SHR-061	List Price/1	Offer Price/1
13.0	4.0	12.0	63.5	6	-6150A	£65.27	<b>£32.64</b>
16.0	5.5	12.0	66.5	6	-6151B	£79.91	<b>£39.96</b>
19.0	7.0	12.0	66.5	6	-6152C	£89.82	<b>£44.91</b>
20.0	8.0	12.0	63.0	6	-6152P	£95.74	<b>£47.87</b>
25.0	12.0	12.0	70.0	8	-6154E	£129.00	<b>£64.50</b>
32.0	13.5	16.0	74.5	8	-6156G	£171.00	<b>£85.50</b>

**60° Corner Angle - Inch (Form C)**

Diameter (Inch)	Cut Length	Shank Dia.	Overall Length	Number of Teeth	Order Code SHR-061	List Price/1	Offer Price/1
1/2"	3/32"	1/2"	2 <sup>1</sup> / <sub>2</sub> "	6	-6050A	£61.20	<b>£30.60</b>
5/8"	7/32"	1/2"	2 <sup>5</sup> / <sub>8</sub> "	6	-6051B	£88.46	<b>£44.23</b>
3/4"	9/32"	1/2"	2 <sup>21</sup> / <sub>32</sub> "	6	-6052C	£81.29	<b>£40.65</b>
1"	15/32"	1/2"	2 <sup>3</sup> / <sub>4</sub> "	6	-6054E	£109.00	<b>£54.50</b>
1 <sup>1</sup> / <sub>4</sub> "	17/32"	5/8"	2 <sup>61</sup> / <sub>64</sub> "	8	-6056G	£171.00	<b>£85.50</b>
1 <sup>1</sup> / <sub>2</sub> "	5/8"	1"	3 <sup>5</sup> / <sub>16</sub> "	8	-6058J	£280.00	<b>£140.00</b>

**60° Inverted - Metric (Form D)**



Diameter (mm)	Cut Length	Shank Dia.	Overall Length	Number of Teeth	Order Code SHR-061	List Price/1	Offer Price/1
13.0	4.0	12.0	63.5	6	-6036B	£93.56	<b>£46.78</b>
16.0	5.5	12.0	66.5	6	-6036H	£112.00	<b>£56.00</b>
20.0	9.0	12.0	63.0	6	-6036P	£129.00	<b>£64.50</b>
25.0	12.0	12.0	70.0	6	-6037Q	£175.00	<b>£87.50</b>
32.0	13.5	16.0	74.5	8	-6038J	£235.00	<b>£117.50</b>

**60° Inverted - Inch (Form D)**

Diameter (Inch)	Cut Length	Shank Dia.	Overall Length	Number of Teeth	Order Code SHR-061	List Price/1	Offer Price/1
1"	15/32"	1/2"	2 <sup>3</sup> / <sub>4</sub> "	6	-6035A	£176.00	<b>£88.00</b>
1 <sup>1</sup> / <sub>2</sub> "	5/8"	1"	3 <sup>5</sup> / <sub>16</sub> "	8	-6035C	£212.00	<b>£106.00</b>

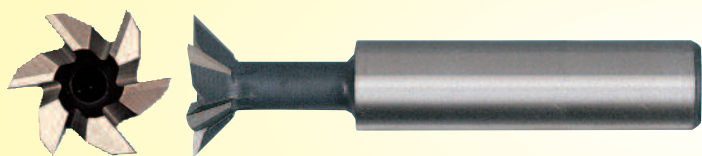
**HSS Plain Shank Dovetail Cutters (Single Angle Cutters)**

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

Ø Tolerances	
Metric	Inch
+0.25 - 0.00	+0.010 - 0.000

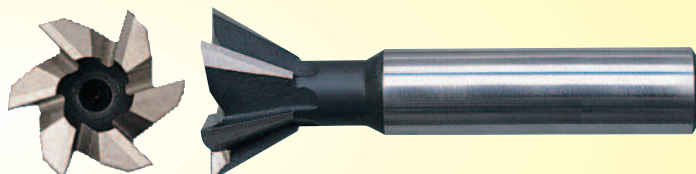
**HSS**

**45° Corner Angle - Metric (Form C)**



Diameter (mm)	Cut Length	Shank Dia.	Overall Length	Number of Teeth	Order Code SHR-061	List Price/1	Offer Price/1
13.0	3.0	12.0	63.5	6	-4200A	£72.05	<b>£36.03</b>
16.0	4.0	12.0	66.5	6	-4201B	£84.29	<b>£42.15</b>
19.0	5.5	12.0	66.5	6	-4202C	£94.31	<b>£47.16</b>
20.0	5.5	12.0	62.0	6	-4202P	£101.00	<b>£50.50</b>
25.0	7.5	12.0	70.0	8	-4204E	£135.00	<b>£67.50</b>
32.0	8.5	16.0	74.5	8	-4206G	£179.00	<b>£89.50</b>

**60° Corner Angle - Metric (Form C)**



Diameter (mm)	Cut Length	Shank Dia.	Overall Length	Number of Teeth	Order Code SHR-061	List Price/1	Offer Price/1
13.0	4.0	12.0	63.5	6	-4150A	£68.53	<b>£34.27</b>
16.0	5.5	12.0	66.5	6	-4151B	£83.91	<b>£41.96</b>
19.0	7.0	12.0	66.5	6	-4152C	£94.31	<b>£47.16</b>
20.0	8.0	12.0	63.0	6	-4152P	£101.00	<b>£50.50</b>
25.0	12.0	12.0	70.0	8	-4154E	£135.00	<b>£67.50</b>
32.0	13.5	16.0	74.5	8	-4156G	£179.00	<b>£89.50</b>

**SHANK MILLING CUTTERS**



**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**.

**HSS Plain Shank Corner Rounding Cutters**



**HSS**

Designed to produce convex corner radii. For milling structural, carburising 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".

**CUTTING TOOLS**



**Metric Sizes**

Radius (mm)	Head Dia.	Shank Dia.	Overall Length	Number of Teeth	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
2.0	12.0	12.0	60.5	4	50g	-6408Z	£43.50	<b>£21.75</b>
3.0	12.0	12.0	60.5	4	50g	-6410A	£58.87	<b>£29.44</b>
4.0	14.0	12.0	60.5	4	54g	-6411B	£81.08	<b>£40.54</b>
5.0	16.0	16.0	60.5	4	86g	-6412C	£69.95	<b>£34.98</b>
6.0	22.0	16.0	63.5	4	109g	-6413D	£98.84	<b>£49.42</b>
8.0	25.0	25.0	73.0	4	250g	-6414E	£124.00	<b>£62.00</b>
10.0	28.0	25.0	79.5	4	272g	-6415F	£159.00	<b>£79.50</b>
12.0	35.0	25.0	82.5	4	325g	-6416G	£235.00	<b>£117.50</b>

**Inch Sizes**

Radius (Inch)	Head Dia.	Shank Dia.	Overall Length	Number of Teeth	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
1/16"	3/8"	3/8"	2 3/8"	6	32g	-6397Y	£85.63	<b>£42.82</b>
3/32"	7/16"	3/8"	2 3/8"	6	34g	-6398Z	£85.63	<b>£42.82</b>
1/8"	1/2"	1/2"	2 3/8"	6	55g	-6400A	£45.58	<b>£22.79</b>
3/16"	5/8"	5/8"	2 3/8"	6	84g	-6401B	£58.20	<b>£29.10</b>
1/4"	13/16"	5/8"	2 1/2"	8	104g	-6402C	£64.17	<b>£32.09</b>
5/16"	15/16"	1"	2 7/8"	8	252g	-6403D	£105.00	<b>£52.50</b>
3/8"	1 1/16"	1"	3"	8	261g	-6404E	£124.00	<b>£62.00</b>
1/2"	1 3/8"	1"	3 3/4"	8	310g	-6406G	£144.00	<b>£72.00</b>

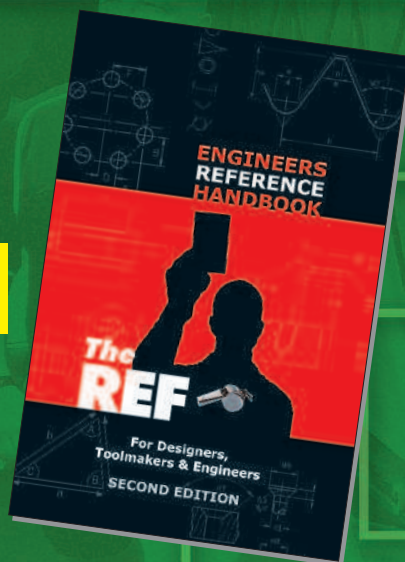
**Metric Sizes**

Radius (mm)	Head Dia.	Shank Dia.	Overall Length	Number of Teeth	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
2.0	12.0	12.0	60.5	4	50g	-4408Z	£45.68	<b>£22.84</b>
3.0	12.0	12.0	60.5	4	50g	-4410A	£61.81	<b>£30.91</b>
4.0	14.0	12.0	60.5	4	54g	-4411B	£85.13	<b>£42.57</b>
5.0	16.0	16.0	60.5	4	86g	-4412C	£73.45	<b>£36.73</b>
6.0	22.0	16.0	63.5	4	109g	-4413D	£104.00	<b>£52.00</b>
8.0	25.0	25.0	73.0	4	250g	-4414E	£131.00	<b>£65.50</b>
10.0	28.0	25.0	79.5	4	272g	-4415F	£167.00	<b>£83.50</b>
12.0	35.0	25.0	82.5	4	325g	-4416G	£246.00	<b>£123.00</b>

**Need to know about the PITCH?**  
**Want to see a CLEARANCE?**  
**Problems with CHIPPING?**



See Group **849** For Further Info



**Ask The REF**  
**ENGINEERS REFERENCE HANDBOOK**



- A handy pocket sized reference booklet of data charts and tables
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- 209 Pages, 9 sections
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**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**

**CUTTING TOOLS**

**SEE ALSO:**  
**2 Flute - Threaded**



**HSS-Co 5%** Page **132**

**HSS-Co 8%** Page **139**

**TiCN TiAlN**

Diameter Metric	Tolerances		Diameter Inch	Tolerance		
	Tolerance +	-		+	-	
up to 3.00	0.013	0.033	Over 1/2"	up to 1/2"	0.0630	0.0013
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 SHR-061	List Price/1	Offer Price/1
1.50	3.0	47.0	6.0	10g	-5600A	£24.84	£9.94
2.00	4.0	48.0	6.0	10g	-5601B	£18.47	£7.39
2.50	5.0	49.0	6.0	10g	-5602C	£23.20	£9.28
3.00	5.0	49.0	6.0	10g	-5603D	£18.47	£7.39
3.50	6.0	50.0	6.0	10g	-5604E	£23.20	£9.28
4.00	7.0	51.0	6.0	20g	-5605F	£18.47	£7.39
4.50	7.0	51.0	6.0	20g	-5606G	£23.20	£9.28
5.00	8.0	52.0	6.0	20g	-5607H	£18.47	£7.39
5.50	8.0	52.0	6.0	20g	-5608J	£23.20	£9.28
6.00	8.0	52.0	6.0	20g	-5609K	£18.47	£7.39
6.50	10.0	60.0	10.0	30g	-5610L	£22.64	£9.06
7.00	10.0	60.0	10.0	30g	-5611M	£17.85	£7.14
7.50	10.0	60.0	10.0	30g	-5612N	£27.22	£10.89
8.00	11.0	61.0	10.0	30g	-5613P	£17.51	£7.00
8.50	11.0	61.0	10.0	30g	-5614Q	£26.85	£10.74
9.00	11.0	61.0	10.0	40g	-5615R	£19.58	£7.83
9.50	11.0	61.0	10.0	40g	-5616S	£29.20	£11.68
10.00	13.0	63.0	10.0	40g	-5617T	£19.16	£7.66
10.50	13.0	70.0	12.0	50g	-5618V	£25.73	£10.29
11.00	13.0	70.0	12.0	50g	-5619W	£21.75	£8.70
11.50	13.0	70.0	12.0	50g	-5620X	£33.44	£13.38
12.00	16.0	73.0	12.0	50g	-5621Y	£20.18	£8.07
13.00	16.0	73.0	12.0	60g	-5622Z	£25.94	£10.38
14.00	16.0	73.0	12.0	60g	-5624A	£24.52	£9.81
15.00	16.0	73.0	16.0	60g	-5625B	£23.37	£9.35
16.00	19.0	79.0	16.0	120g	-5626C	£27.08	£10.83
17.00	19.0	79.0	16.0	120g	-5627D	£38.84	£15.54
18.00	19.0	79.0	16.0	120g	-5628E	£32.13	£12.85
19.00	19.0	79.0	16.0	130g	-5629F	£46.25	£18.50
20.00	22.0	82.0	16.0	140g	-5630G	£34.52	£13.81
21.00	22.0	88.0	25.0	330g	-5631H	£85.06	£34.02
22.00	22.0	88.0	25.0	320g	-5632J	£63.00	£25.20
23.00	22.0	88.0	25.0	340g	-5633K	£104.00	£41.60
24.00	26.0	102.0	25.0	350g	-5634L	£79.74	£31.90
25.00	26.0	102.0	25.0	330g	-5635M	£61.51	£24.60
26.00	26.0	102.0	25.0	350g	-5636N	£92.35	£36.94
27.00	26.0	102.0	25.0	360g	-5637P	£125.00	£50.00
28.00	26.0	102.0	25.0	330g	-5638Q	£96.67	£38.67
29.00	26.0	102.0	25.0	360g	-5639R	£142.00	£56.80
30.00	26.0	102.0	25.0	350g	-5640S	£94.47	£37.79
32.00	32.0	112.0	25.0	340g	-5641T	£131.00	£52.40
32.00	32.0	112.0	32.0	620g	-5642V	£131.00	£52.40
35.00	32.0	112.0	25.0	410g	-5645Y	£168.00	£67.20
35.00	32.0	112.0	32.0	700g	-5646Z	£168.00	£67.20
36.00	32.0	112.0	25.0	440g	-5648A	£171.00	£68.40
36.00	39.5	111.0	32.0	460g	-5649B	£170.00	£68.00
38.00	38.0	118.0	25.0	470g	-5650C	£230.00	£92.00
38.00	43.0	114.5	32.0	490g	-5651D	£230.00	£92.00
40.00	38.0	118.0	25.0	500g	-5652E	£204.00	£81.60
50.00	54.0	117.5	25.0	790g	-5660K	£301.00	£120.40

**Short Series S210T**

Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
1/16"	3/32"	1 29/32"	1/4"	10g	-5500A	£21.56	£10.78
5/64"	3/32"	1 15/16"	1/4"	10g	-5501B	£35.97	£17.99
3/32"	3/16"	2"	1/4"	10g	-5502C	£21.56	£10.78
7/64"	1/4"	2"	1/4"	10g	-5503D	£35.97	£17.99
1/8"	9/32"	2"	1/4"	10g	-5504E	£20.18	£10.09
9/64"	3/8"	2 1/16"	1/4"	10g	-5505F	£35.97	£17.99
5/32"	3/8"	2 1/16"	1/4"	10g	-5506G	£20.55	£10.28
11/64"	3/8"	2 1/16"	1/4"	10g	-5507H	£35.97	£17.99
3/16"	3/8"	2 1/16"	1/4"	10g	-5508J	£20.11	£10.06
13/64"	7/16"	2 3/16"	1/4"	10g	-5509K	£35.97	£17.99
7/32"	7/16"	2 3/16"	1/4"	10g	-5510L	£20.55	£10.28
15/64"	7/16"	2 7/32"	1/4"	10g	-5511M	£35.97	£17.99
1/4"	7/16"	2 7/32"	1/4"	10g	-5512N	£20.18	£10.09
17/64"	7/16"	2 11/32"	3/8"	20g	-5513P	£30.52	£15.26
3/16"	7/16"	2 11/32"	3/8"	20g	-5514Q	£44.72	£22.36
19/64"	1/2"	2 5/16"	3/8"	20g	-5515R	£33.22	£16.61
5/16"	1/2"	2 11/32"	3/8"	20g	-5516S	£17.71	£8.86
21/64"	9/16"	2 11/32"	3/8"	20g	-5517T	£33.98	£16.99
11/32"	9/16"	2 3/8"	3/8"	20g	-5518V	£24.32	£12.16
23/64"	9/16"	2 3/8"	3/8"	30g	-5519W	£35.23	£17.62
3/8"	9/16"	2 3/8"	3/8"	30g	-5520X	£18.22	£9.11
13/32"	5/8"	2 3/8"	3/8"	20g	-5522Z	£29.17	£14.59
27/64"	1 1/16"	2 9/16"	1/2"	40g	-5524A	£40.88	£20.44
7/16"	1 1/16"	2 9/16"	1/2"	30g	-5525B	£21.92	£10.96
29/64"	1 1/8"	2 9/16"	1/2"	12g	-5526C	£40.88	£20.44
15/32"	1 1/16"	2 9/16"	1/2"	40g	-5527D	£31.54	£15.77
31/64"	3/4"	2 5/8"	1/2"	40g	-5528E	£40.88	£20.44
1/2"	3/4"	2 5/8"	1/2"	40g	-5529F	£20.11	£10.06
17/32"	7/8"	2 11/16"	1/2"	230g	-5530G	£35.71	£17.86
9/16"	27/32"	2 23/32"	1/2"	240g	-5531H	£25.38	£12.69
19/32"	7/8"	2 27/32"	5/8"	250g	-5532J	£44.72	£22.36
5/8"	7/8"	2 27/32"	5/8"	260g	-5533K	£26.95	£13.48
21/32"	15/16"	2 7/8"	5/8"	290g	-5534L	£48.86	£24.43
11/16"	15/16"	2 29/32"	5/8"	280g	-5535M	£37.25	£18.63
23/32"	1"	2 31/32"	5/8"	280g	-5536N	£53.70	£26.85
3/4"	1"	3 1/32"	5/8"	300g	-5537P	£32.12	£16.06
13/16"	1"	3 1/32"	1"	240g	-5539R	£79.74	£39.87
7/8"	1"	3 15/16"	1"	330g	-5541T	£63.00	£31.50
15/16"	1 1/4"	4"	1"	230g	-5543W	£104.00	£52.00
1"	1 1/16"	3 3/4"	1"	340g	-5544X	£61.78	£30.89
1 1/16"	1 1/8"	3 11/16"	1"	390g	-5545Y	£109.00	£54.50
1 1/8"	1 1/16"	3 3/4"	1"	370g	-5546Z	£94.91	£47.46
1 1/4"	1 1/2"	4"	1"	400g	-5549B	£131.00	£65.50
1 1/4"	1 3/8"	4 5/8"	1 1/4"	500g	-5550C	£131.00	£65.50
1 3/8"	1 3/4"	4 11/16"	1"	580g	-5553F	£182.00	£91.00
1 7/16"	1 9/16"	4 3/16"	1 1/4"	620g	-5556J	£257.00	£128.50
1 1/2"	1 3/4"	4"	1"	620g	-5557K	£168.00	£84.00
1 3/4"	2"	4 9/16"	1"	560g	-5561P	£249.00	£124.50
1 3/4"	1 7/8"	4 11/16"	1 1/4"	700g	-5562Q	£249.00	£124.50
1 7/8"	2 1/8"	4 11/16"	1"	870g	-5563R	£354.00	£177.00
1 7/8"	2"	4 11/16"	1 1/4"	780g	-5564S	£354.00	£177.00
2"	2 1/4"	4 13/16"	1"	930g	-5565T	£356.00	£178.00
2"	2 1/4"	4 5/8"	1 1/4"	1000g	-5566V	£355.00	£177.50

**Plain Shank Milling Cutters 2 Flute Ball Nose**

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



**NEW**

**Regular Length**

Dia. (mm)	Flute Length	Overall Length	Shank Dia.	Order Code <b>SHR-061</b>	List Price/1	Offer Price/1	Dia. (mm)	Flute Length	Overall Length	Shank Dia.	Order Code <b>SHR-061</b>	List Price/1	Offer Price/1
3.00	5	49	6	<b>-3982C</b>	£26.73	<b>£13.37</b>	14.00	16	73	12	<b>-4000X</b>	£76.73	<b>£38.37</b>
4.00	7	51	6	<b>-3984E</b>	£26.73	<b>£13.37</b>	16.00	19	79	16	<b>-4002Z</b>	£78.93	<b>£39.47</b>
5.00	8	52	6	<b>-3986G</b>	£26.73	<b>£13.37</b>	18.00	19	79	16	<b>-4004B</b>	£119.00	<b>£59.50</b>
6.00	8	52	6	<b>-3988J</b>	£26.73	<b>£13.37</b>	20.00	22	88	20	<b>-4006D</b>	£123.00	<b>£61.50</b>
8.00	11	61	10	<b>-3992N</b>	£34.60	<b>£17.30</b>	22.00	22	88	20	<b>-4008F</b>	£123.00	<b>£61.50</b>
10.00	13	63	10	<b>-3996S</b>	£40.40	<b>£20.20</b>	25.00	26	102	25	<b>-4011J</b>	£166.00	<b>£83.00</b>
12.00	16	73	12	<b>-3998V</b>	£56.67	<b>£28.34</b>							

**WORKSHOP Assorted Milling Cutter Set - Screwed Shank HSS-Co**

**20 Piece Set**

Assorted set of 20 - inch and metric milling cutters and slot drills with screw shank. Supplied in plastic carry case.

Actual contents of each set (sizes/brands) may vary from set to set.

**20 PIECES**



Number of Pieces	Type	Order Code <b>PRO-061</b>	List Price/1	Offer Price/1
20	Screwed Shank	<b>-0002A</b>	£359.96	<b>£89.99</b>

**Assorted Milling Cutter Set - Plain/Weldon Shank HSS-Co**

**20 Piece Set**

Assorted set of 20 - inch and metric milling cutters and slot drills with either plain or weldon shanks. Supplied in plastic carry case.

Actual contents of each set (sizes/brands) may vary from set to set.

**20 PIECES**



Number of Pieces	Type	Order Code <b>PRO-061</b>	List Price/1	Offer Price/1
20	Plain/Weldon Shank	<b>-0001A</b>	£359.96	<b>£89.99</b>

**CONTRACT PRICES AVAILABLE FOR VOLUME PURCHASES**

All Prices Exclude V.A.T. © 2014



**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**

**CUTTING TOOLS**

**SEE ALSO:  
2 Flute - Threaded**

**HSS-Co 5%** Page **132**

**HSS-Co 8%** Page **139**

**TiCN TiAlN**

Diameter Metric	Tolerances		Diameter Inch	Tolerance	
	Tolerance +	-		+	-
up to 3.00	0.013	0.033	up to 1/2"	0.0005	0.0013
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 SHR-061	List Price/1	Offer Price/1
2.00	3.0	51.0	6.0	11g	-5800A	£30.89	£12.36
2.50	6.5	54.0	6.0	11g	-5801B	£39.34	£15.74
3.00	11.0	60.5	6.0	11g	-5802C	£25.01	£10.00
3.50	12.5	66.5	6.0	12g	-5803D	£39.34	£15.74
4.00	12.5	66.5	6.0	15g	-5804E	£25.01	£10.00
4.50	12.5	66.5	6.0	15g	-5805F	£39.34	£15.74
5.00	12.5	70.0	6.0	15g	-5806G	£25.01	£10.00
5.50	16.0	76.0	6.0	17g	-5807H	£39.34	£15.74
6.00	16.0	76.0	6.0	19g	-5808J	£25.01	£10.00
6.50	16.0	76.0	10.0	25g	-5809K	£36.68	£14.67
7.00	16.0	76.0	10.0	30g	-5810L	£31.40	£12.56
7.50	16.0	76.0	10.0	38g	-5811M	£36.68	£14.67
8.00	19.0	79.5	10.0	40g	-5812N	£24.15	£9.66
8.50	22.0	82.5	10.0	43g	-5813P	£38.55	£15.42
9.00	22.0	82.5	10.0	45g	-5814Q	£29.49	£11.80
9.50	22.0	82.5	10.0	46g	-5815D	£32.68	£13.07
10.00	22.0	82.5	10.0	48g	-5815R	£24.40	£9.76
11.00	22.0	89.0	12.0	69g	-5816S	£32.61	£13.04
12.00	25.5	95.0	12.0	78g	-5817T	£25.42	£10.17
13.00	25.5	95.0	12.0	80g	-5818V	£44.72	£17.89
14.00	28.5	101.5	12.0	67g	-5819W	£33.33	£13.33
15.00	31.5	108.0	16.0	148g	-5820X	£49.88	£19.95
16.00	31.5	108.0	16.0	125g	-5821Y	£37.25	£14.90
17.00	35.0	114.5	16.0	149g	-5822Z	£69.72	£27.89
18.00	35.0	114.5	16.0	179g	-5824A	£47.30	£18.92
19.00	38.0	120.5	16.0	180g	-5825B	£82.32	£32.93
20.00	38.0	120.5	16.0	230g	-5826C	£51.69	£20.68
21.00	38.0	139.0	25.0	240g	-5826M	£141.00	£56.40
22.00	41.5	140.0	25.0	424g	-5827D	£107.00	£42.80
24.00	41.5	152.5	25.0	520g	-5828E	£126.00	£50.40
25.00	44.5	159.0	25.0	520g	-5829F	£92.35	£36.94
26.00	44.5	159.0	25.0	558g	-5830G	£177.00	£70.80
27.00	45.0	121.0	25.0	537g	-5830T	£226.00	£90.40
28.00	47.5	159.0	25.0	601g	-5831H	£185.00	£74.00
30.00	51.0	159.0	25.0	605g	-5832J	£168.00	£67.20
32.00	51.0	159.0	25.0	606g	-5833K	£219.00	£87.60
34.00	51.0	159.0	32.0	931g	-5836N	£269.00	£107.60
35.00	54.0	159.0	25.0	940g	-5837P	£318.00	£127.20
35.00	54.0	159.0	32.0	942g	-5838Q	£318.00	£127.20
38.00	93.0	159.0	32.0	931g	-5842V	£322.00	£128.80
40.00	63.5	159.0	32.0	923g	-5843W	£292.00	£116.80
40.00	63.5	159.0	32.0	1030g	-5844X	£292.00	£116.80
42.00	63.5	159.0	25.0	1040g	-5845X	£363.00	£145.20
48.00	80.0	159.0	32.0	1033g	-5845Y	£362.00	£144.80
44.00	63.5	159.0	32.0	2114g	-5846Z	£407.00	£162.80
45.00	57.0	159.0	25.0	1100g	-5848A	£322.00	£128.80
45.00	63.5	159.0	32.0	1180g	-5849B	£393.00	£157.20
*50.00	57.0	159.0	25.0	1250g	-5849L	£450.00	£180.00

**Long Series 5230T**

Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
1/16"	3/16"	2"	1/4"	14g	-5700A	£33.81	£16.91
3/32"	1/4"	2 1/8"	1/4"	15g	-5702C	£36.51	£18.26
1/8"	7/16"	2 1/2"	1/4"	15g	-5703D	£26.05	£13.03
5/32"	1/2"	2 3/4"	1/4"	14g	-5704E	£34.00	£17.00
3/16"	1/2"	2 3/4"	1/4"	17g	-5705F	£30.04	£15.02
7/32"	5/8"	3"	1/4"	18g	-5706G	£33.96	£16.98
1/4"	5/8"	3"	1/4"	19g	-5707H	£25.01	£12.51
9/32"	5/8"	3"	3/8"	36g	-5708J	£31.40	£15.70
5/16"	3/4"	3 1/2"	3/8"	40g	-5709K	£22.95	£11.48
3/8"	7/8"	3 1/4"	3/8"	50g	-5711M	£23.52	£11.76
13/32"	7/8"	3 1/2"	3/8"	60g	-5712N	£43.16	£21.58
7/16"	7/8"	3 1/2"	1/2"	74g	-5713P	£35.71	£17.86
15/32"	1"	3 3/4"	1/2"	76g	-5714Q	£53.57	£26.79
1/2"	1"	3 3/4"	1/2"	86g	-5715R	£27.96	£13.98
17/32"	1 1/8"	4"	1/2"	113g	-5716S	£53.57	£26.79
9/16"	1 1/8"	4"	1/2"	113g	-5717T	£44.18	£22.09
5/8"	1 1/4"	4 1/4"	5/8"	150g	-5719W	£36.95	£18.48
21/32"	1 3/8"	4 1/2"	5/8"	160g	-5720X	£102.00	£51.00
11/16"	1 3/8"	4 1/2"	5/8"	178g	-5721Y	£82.37	£41.19
3/4"	1 1/2"	4 3/4"	5/8"	188g	-5724A	£51.43	£25.72
25/32"	1 1/2"	4 3/4"	5/8"	250g	-5725B	£117.00	£58.50
13/16"	1 1/2"	5 1/2"	1"	300g	-5726C	£115.00	£57.50
*27/32"	1 5/8"	5 1/2"	1"	360g	-5726L	£132.00	£66.00
7/8"	1 5/8"	5 1/2"	1"	435g	-5727D	£107.00	£53.50
1"	1 3/4"	6 1/4"	1"	475g	-5729F	£101.00	£50.50
1 3/16"	2"	6 1/4"	1"	750g	-5732J	£222.00	£111.00
1 3/8"	2 1/8"	6 1/4"	1"	644g	-5735M	£329.00	£164.50
1 7/16"	2 7/8"	6 3/8"	1"	641g	-5736N	£341.00	£170.50
1 1/2"	2 1/4"	6 1/4"	1"	814g	-5738Q	£319.00	£159.50
1 1/2"	2 1/4"	6 1/4"	1 1/4"	896g	-5739R	£318.00	£159.00
1 5/8"	2 1/4"	6 1/4"	1"	910g	-5740S	£393.00	£196.50
1 3/4"	2 1/2"	6 1/4"	1 1/4"	1193g	-5742V	£448.00	£224.00

\*Based on **BS122: Part 4: 1980** though specific diameter is not included.



**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**

**CUTTING TOOLS**

**SEE ALSO:**  
**Ball Nose - Threaded**



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

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Diameter Metric		Tolerances		Diameter Inch		Tolerance	
		+	-			+	-
up to 3.00		0.013	0.033	Over 1/2"	up to 1/2"	0.0005	0.0013
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>	List Price/1	Offer Price/1
2.00	3.0	49.0	6.0	22g	<b>-5950A</b>	£30.93	<b>£15.47</b>
2.50	4.5	51.0	6.0	21g	<b>-5951B</b>	£43.77	<b>£21.89</b>
3.00	7.0	51.0	6.0	22g	<b>-5952C</b>	£30.24	<b>£15.12</b>
4.00	9.5	52.5	6.0	30g	<b>-5953D</b>	£30.93	<b>£15.47</b>
5.00	9.5	52.5	6.0	28g	<b>-5954E</b>	£30.93	<b>£15.47</b>
6.00	11.0	56.5	6.0	40g	<b>-5955F</b>	£30.93	<b>£15.47</b>
6.50	11.0	56.5	10.0	34g	<b>-5955R</b>	£41.89	<b>£20.95</b>
7.00	11.0	58.5	10.0	35g	<b>-5956G</b>	£36.39	<b>£18.20</b>
8.00	12.5	58.5	10.0	32g	<b>-5957H</b>	£28.71	<b>£14.36</b>
9.00	14.5	58.5	10.0	30g	<b>-5958J</b>	£36.83	<b>£18.42</b>
10.00	14.5	60.5	10.0	95g	<b>-5959K</b>	£32.84	<b>£16.42</b>
11.00	17.5	65.0	12.0	137g	<b>-5960L</b>	£57.48	<b>£28.74</b>
12.00	19.0	66.5	12.0	144g	<b>-5961M</b>	£38.26	<b>£19.13</b>
13.00	19.0	66.5	12.0	156g	<b>-5962N</b>	£69.74	<b>£34.87</b>
14.00	22.0	68.5	12.0	168g	<b>-5963P</b>	£61.32	<b>£30.66</b>
15.00	22.0	72.0	16.0	308g	<b>-5964Q</b>	£81.20	<b>£40.60</b>
16.00	22.0	72.0	16.0	308g	<b>-5965R</b>	£63.92	<b>£31.96</b>
17.00	24.0	73.0	16.0	340g	<b>-5966S</b>	£83.95	<b>£41.98</b>
18.00	24.0	74.0	16.0	342g	<b>-5967T</b>	£90.59	<b>£45.30</b>
19.00	25.5	77.0	16.0	359g	<b>-5968V</b>	£99.81	<b>£49.91</b>
20.00	25.5	77.0	16.0	372g	<b>-5969W</b>	£69.72	<b>£34.86</b>
22.00	25.5	100.0	25.0	600g	<b>-5970X</b>	£144.00	<b>£72.00</b>
24.00	25.5	103.0	25.0	800g	<b>-5971Y</b>	£154.00	<b>£77.00</b>
25.00	28.5	97.0	25.0	960g	<b>-5972Z</b>	£130.00	<b>£65.00</b>
30.00	30.0	93.5	25.0	605g	<b>-5976C</b>	£170.00	<b>£85.00</b>

**Short Series Type B210T**

Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code <b>SHR-061</b>	List Price/1	Offer Price/1
1/16"	3/32"	129/32"	1/4"	16g	<b>-5900A</b>	£31.31	<b>£15.66</b>
3/32"	3/16"	2"	1/4"	20g	<b>-5901B</b>	£41.38	<b>£20.69</b>
1/8"	9/32"	2"	1/4"	26g	<b>-5902C</b>	£30.93	<b>£15.47</b>
3/16"	3/8"	2 1/16"	1/4"	32g	<b>-5904E</b>	£30.93	<b>£15.47</b>
1/4"	7/16"	2 7/32"	1/4"	36g	<b>-5906G</b>	£30.93	<b>£15.47</b>
9/32"	7/16"	2 9/16"	3/8"	42g	<b>-5907H</b>	£36.83	<b>£18.42</b>
5/16"	1/2"	2 11/32"	3/8"	60g	<b>-5908J</b>	£35.22	<b>£17.61</b>
11/32"	9/16"	2 3/8"	3/8"	80g	<b>-5909K</b>	£37.53	<b>£18.77</b>
3/8"	9/16"	2 3/8"	3/8"	96g	<b>-5910L</b>	£32.48	<b>£16.24</b>
13/32"	5/8"	2 3/8"	3/8"	100g	<b>-5911M</b>	£46.70	<b>£23.35</b>
7/16"	11/16"	2 9/16"	1/2"	124g	<b>-5912N</b>	£52.26	<b>£26.13</b>
1/2"	3/4"	2 5/8"	1/2"	136g	<b>-5913P</b>	£37.11	<b>£18.56</b>
9/16"	27/32"	2 23/32"	1/2"	164g	<b>-5914Q</b>	£68.83	<b>£34.42</b>
5/8"	7/8"	2 27/32"	5/8"	248g	<b>-5915R</b>	£62.91	<b>£31.46</b>
11/16"	1 9/16"	3"	5/8"	295g	<b>-5916S</b>	£83.44	<b>£41.72</b>
3/4"	1"	3 1/32"	5/8"	360g	<b>-5917T</b>	£75.37	<b>£37.69</b>
1"	1 1/16"	3 3/4"	1"	410g	<b>-5921Y</b>	£121.00	<b>£60.50</b>

**HSS Threaded Shank Ball Nosed Slot Drills 2 Flute**

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

**HSS**

Tolerances as above



**Long Series Type B230T**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight per 5	Order Code <b>SHR-061</b>	List Price/1	Offer Price/1
3.00	11.0	60.5	6.0	55g	<b>-5935A</b>	£45.15	<b>£22.58</b>
4.00	12.5	66.5	6.0	74g	<b>-5935M</b>	£41.39	<b>£20.70</b>
5.00	12.5	70.0	6.0	71g	<b>-5936B</b>	£45.15	<b>£22.58</b>
6.00	16.0	76.0	6.0	99g	<b>-5936N</b>	£37.60	<b>£18.80</b>
7.00	16.0	76.0	10.0	184g	<b>-5937C</b>	£44.68	<b>£22.34</b>
8.00	19.0	79.5	10.0	201g	<b>-5937P</b>	£41.39	<b>£20.70</b>
9.00	22.0	82.5	10.0	226g	<b>-5938D</b>	£46.62	<b>£23.31</b>
10.00	22.0	82.5	10.0	237g	<b>-5938Q</b>	£42.11	<b>£21.06</b>
11.00	22.0	89.0	12.0	342g	<b>-5939E</b>	£68.99	<b>£34.50</b>
12.00	25.5	95.0	12.0	396g	<b>-5939R</b>	£57.18	<b>£28.59</b>
13.00	25.5	95.0	12.0	410g	<b>-5940F</b>	£92.93	<b>£46.47</b>
14.00	28.5	101.5	12.0	436g	<b>-5940S</b>	£86.49	<b>£43.25</b>
15.00	31.5	108.0	16.0	772g	<b>-5941G</b>	£101.00	<b>£50.50</b>
16.00	31.5	108.0	16.0	780g	<b>-5941T</b>	£82.78	<b>£41.39</b>
18.00	35.0	114.5	16.0	859g	<b>-5942V</b>	£117.00	<b>£58.50</b>
20.00	38.0	120.5	16.0	930g	<b>-5943W</b>	£97.63	<b>£48.82</b>
25.00	44.5	159.0	25.0	520g/1	<b>-5945L</b>	£174.00	<b>£87.00</b>
30.00	85.0	158.0	25.0	612g/1	<b>-5946M</b>	£230.00	<b>£115.00</b>

**Long Series Type B230T**

Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Weight	Order Code <b>SHR-061</b>	List Price/1	Offer Price/1
1/8"	1/2"	2 1/4"	1/4"	74g/5	<b>-5878W</b>	£49.09	<b>£24.55</b>
3/16"	1/2"	2 3/4"	1/4"	86g/5	<b>-5879X</b>	£53.57	<b>£26.79</b>
1/4"	5/8"	3"	1/4"	93g/5	<b>-5880Y</b>	£49.43	<b>£24.72</b>
5/16"	3/4"	3 1/8"	3/8"	190g/5	<b>-5881Z</b>	£47.10	<b>£23.55</b>
3/8"	7/8"	3 1/4"	3/8"	250g/5	<b>-5883A</b>	£52.01	<b>£26.01</b>
7/16"	7/8"	3 1/2"	1/2"	369g/5	<b>-5884B</b>	£74.10	<b>£37.05</b>
1/2"	1"	3 3/4"	1/2"	429g/5	<b>-5885C</b>	£63.00	<b>£31.50</b>
5/8"	1 1/4"	4 1/4"	5/8"	750g/5	<b>-5887E</b>	£94.65	<b>£47.33</b>
3/4"	1 1/2"	4 3/4"	5/8"	941g/5	<b>-5889G</b>	£129.00	<b>£64.50</b>
7/8"	1 5/8"	5 1/2"	1"	2177g/5	<b>-5890H</b>	£206.00	<b>£103.00</b>
1 1/8"	2 5/8"	6 3/8"	1"	544g/1	<b>-5892A</b>	£300.00	<b>£150.00</b>

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**GROUP 061 SHANK MILLING CUTTERS**

**SHERWOOD QUALITY CUTTING TOOLS 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**

**CUTTING TOOLS**

**SEE ALSO:  
Multi Flute - Threaded**

**HSS-Co 5%** Page 134  
**HSS-Co 8%** Page 142  
**TiCN TiAlN**

Diameter Metric	Tolerances		Diameter Inch	Tolerance	
	+	-		+	-
up to 38.00mm	0.0630	0.0130	up to 1/2"	0.0025	0.0005
Over 38.00mm	0.1250	0.0000	Over 1/2"	0.0050	0.0000



**Short Series E410T**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Number of Flutes	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
2.00	4.0	51.0	6.0	4	21g	-5100A	£27.44	£13.72
2.50	6.5	51.0	6.0	4	21g	-5101B	£32.31	£16.16
3.00	9.5	54.0	6.0	4	21g	-5102C	£18.47	£9.24
3.50	12.5	57.0	6.0	4	23g	-5103D	£30.87	£15.44
4.00	12.5	57.0	6.0	4	34g	-5104E	£18.47	£9.24
4.50	12.5	57.0	6.0	4	24g	-5105F	£30.87	£15.44
5.00	16.0	60.5	6.0	4	25g	-5106G	£18.47	£9.24
5.50	16.0	60.5	6.0	4	27g	-5107H	£30.87	£15.44
6.00	16.0	60.5	6.0	4	28g	-5108J	£18.47	£9.24
6.50	16.0	60.5	10.0	4	62g	-5109K	£24.46	£12.23
7.00	15.0	60.5	10.0	4	63g	-5110L	£17.71	£8.86
7.50	18.0	63.5	10.0	4	71g	-5111M	£26.29	£13.15
8.00	18.0	63.5	10.0	4	63g	-5112N	£16.49	£8.25
8.50	21.0	66.5	10.0	4	74g	-5113P	£26.69	£13.35
9.00	21.0	66.5	10.0	4	74g	-5114Q	£18.80	£9.40
9.50	21.0	66.5	10.0	4	77g	-5115R	£27.01	£13.51
10.00	21.0	66.5	10.0	4	77g	-5116S	£16.49	£8.25
10.50	19.0	66.5	12.0	4	107g	-5117T	£31.78	£15.89
11.00	19.0	66.5	12.0	4	112g	-5118V	£21.75	£10.88
11.50	22.5	70.0	12.0	4	115g	-5119W	£34.10	£17.05
12.00	24.0	70.0	12.0	4	116g	-5120X	£20.98	£10.49
13.00	24.5	70.0	16.0	4	129g	-5121Y	£25.38	£12.69
14.00	28.5	73.5	16.0	4	127g	-5122N	£24.52	£12.26
15.00	26.5	77.0	16.0	4	248g	-5123A	£31.61	£15.81
16.00	26.5	80.0	16.0	4	218g	-5124B	£28.52	£14.26
17.00	32.0	80.0	16.0	4	172g	-5125C	£46.77	£23.39
18.00	35.0	88.0	16.0	4	265g	-5126D	£33.14	£16.57
19.00	38.0	83.5	16.0	4	263g	-5127E	£49.13	£24.57
20.00	38.0	83.5	16.0	4	275g	-5128F	£37.10	£18.55
21.00	38.5	95.0	25.0	6	526g	-5129G	£88.89	£44.45
22.00	41.5	98.5	25.0	6	289g	-5130H	£79.38	£39.69
23.00	41.5	98.5	25.0	6	320g	-5131J	£108.00	£54.00
24.00	41.5	98.5	25.0	6	329g	-5132K	£101.00	£50.50
25.00	41.5	101.5	25.0	6	352g	-5133L	£66.12	£33.06
26.00	43.0	101.5	25.0	6	359g	-5134M	£131.00	£65.50
27.00	44.0	102.0	25.0	6	365g	-5135A	£143.00	£71.50
28.00	46.0	104.5	25.0	6	395g	-5135N	£116.00	£58.00
30.00	46.0	104.5	25.0	6	423g	-5136P	£125.00	£62.50
32.00	46.0	108.0	25.0	6	475g	-5137Q	£154.00	£77.00
32.00	51.0	112.5	32.0	6	606g	-5138R	£154.00	£77.00
35.00	52.5	111.0	25.0	6	569g	-5142W	£191.00	£95.50
38.00	55.5	114.5	25.0	6	570g	-5146A	£230.00	£115.00
38.00	55.5	114.5	32.0	6	680g	-5147B	£230.00	£115.00
40.00	58.5	117.5	25.0	8	642g	-5148C	£209.00	£104.50
40.00	55.5	117.5	32.0	8	733g	-5149D	£209.00	£104.50
44.00	60.0	119.0	32.0	6	861g	-5153H	£339.00	£169.50
50.00	65.0	127.0	25.0	8	982g	-5156B	£311.00	£155.50

**Short Series E410T**

Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Number of Flutes	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
1/16"	3/32"	2"	1/4"	2	14g	-5001A	£33.81	£16.91
3/32"	1/4"	1 29/32"	1/4"	2	11g	-5002B	£22.26	£11.13
1/8"	3/8"	2"	1/4"	4	11g	-5003C	£18.80	£9.40
5/32"	1/2"	2 1/8"	1/4"	4	16g	-5004D	£22.26	£11.13
3/16"	1/2"	2 1/4"	1/4"	4	13g	-5005E	£18.80	£9.40
7/32"	5/8"	2 1/4"	1/4"	4	15g	-5006F	£28.92	£14.46
1/4"	5/8"	2 3/8"	1/4"	4	18g	-5007G	£18.80	£9.40
9/32"	19/32"	2 3/8"	3/8"	4	31g	-5008H	£26.53	£13.27
5/16"	23/32"	2 3/8"	3/8"	4	32g	-5009J	£18.30	£9.15
11/32"	27/32"	2 1/2"	3/8"	4	33g	-5010K	£26.53	£13.27
3/8"	27/32"	2 5/8"	3/8"	4	34g	-5011L	£16.39	£8.20
13/32"	7/8"	2 5/8"	3/8"	4	34g	-5012M	£28.30	£14.15
7/16"	3/4"	2 5/8"	1/2"	4	55g	-5013N	£26.24	£13.12
15/32"	7/8"	2 3/4"	1/2"	4	61g	-5014P	£30.64	£15.32
1/2"	1 5/16"	2 3/4"	1/2"	4	65g	-5015Q	£20.55	£10.28
17/32"	1 1/8"	2 7/8"	1/2"	4	69g	-5016R	£38.57	£19.29
9/16"	1 1/8"	2 7/8"	1/2"	4	83g	-5017S	£28.85	£14.43
19/32"	1 1/16"	3 1/32"	5/8"	4	104g	-5018T	£46.16	£23.08
5/8"	1 1/16"	3 1/32"	5/8"	4	106g	-5019V	£28.65	£14.33
21/32"	1 1/16"	3 5/32"	5/8"	4	117g	-5020W	£47.93	£23.97
11/16"	1 3/8"	3 5/32"	5/8"	4	130g	-5021X	£50.65	£25.33
3/4"	1 1/2"	3 9/32"	5/8"	4	130g	-5023N	£37.12	£18.56
25/32"	1 1/2"	3 9/32"	5/8"	4	133g	-5024A	£75.11	£37.56
13/16"	1 1/2"	3 3/4"	1"	6	275g	-5025B	£93.01	£46.51
7/8"	1 5/8"	3 7/8"	1"	6	307g	-5026C	£87.13	£43.57
15/16"	1 5/8"	3 7/8"	1"	6	334g	-5027D	£94.75	£47.38
1"	1 11/16"	4"	1"	6	358g	-5028E	£65.56	£32.78
1 1/16"	1 11/16"	4"	1"	6	379g	-5029F	£116.00	£58.00
1 1/8"	1 13/16"	4 1/8"	1"	6	405g	-5030G	£122.00	£61.00
1 1/4"	1 15/16"	4 1/8"	1"	6	437g	-5032J	£130.00	£65.00
1 1/4"	2"	4 7/16"	1 1/4"	6	611g	-5033K	£130.00	£65.00
1 5/16"	1 5/16"	4 1/4"	1"	6	499g	-5034L	£197.00	£98.50
1 3/8"	2 1/16"	4 3/8"	1"	6	531g	-5036N	£209.00	£104.50
1 3/8"	2 3/8"	4 1/2"	1 1/4"	6	640g	-5037P	£209.00	£104.50
1 7/16"	2 5/16"	4 3/8"	1"	6	546g	-5038Q	£272.00	£136.00
1 1/2"	2 3/16"	4 7/16"	1"	6	568g	-5040S	£177.00	£88.50
1 1/2"	2 1/8"	4 9/16"	1 1/4"	6	712g	-5041T	£177.00	£88.50
1 5/8"	2 3/8"	4 5/8"	1"	6	634g	-5042V	£308.00	£154.00
1 5/8"	2 1/2"	4 1/2"	1 1/4"	8	774g	-5043W	£307.00	£153.50
1 3/4"	2 1/4"	4 1 1/16"	1 1/4"	8	874g	-5045A	£317.00	£158.50
1 3/4"	2 1/8"	4 3/4"	1"	8	720g	-5044X	£291.00	£145.50
1 7/8"	2 3/16"	4 7/8"	1"	8	750g	-5046N	£334.00	£167.00
1 7/8"	2 3/16"	4 7/8"	1 1/4"	8	988g	-5047A	£334.00	£167.00
2"	2 3/4"	5"	1"	8	1014g	-5048B	£351.00	£175.50



**HSS Threaded Shank End Mills  
4, 6 & 8 Flute**

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



HSS

CUTTING TOOLS

Diameter Metric		Tolerances		Diameter Inch		Tolerances	
		+	-			+	-
up to 38.00		0.0630	0.0130	up to 1/2"		0.0025	0.0005
Over 38.00		0.1250	0.0000	Over 1/2"		0.0050	0.0000



**Long Series E430T**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Number of Flutes	Weight each	Order Code	List Price/1	Offer Price/1
3.00	19.0	63.5	6.0	4	11g	-5401A	£20.71	£10.36
3.50	25.5	70.0	6.0	4	14g	-5402B	£33.98	£16.99
4.00	25.5	70.0	6.0	4	15g	-5403C	£20.71	£10.36
4.50	31.5	70.0	6.0	4	15g	-5404D	£26.21	£13.11
5.00	31.5	76.0	6.0	4	15g	-5405E	£20.71	£10.36
5.50	31.5	76.0	6.0	4	16g	-5406F	£33.91	£16.96
6.00	35.0	76.0	6.0	4	16g	-5407G	£20.71	£10.36
6.50	34.0	79.5	10.0	4	35g	-5408H	£29.92	£14.96
7.00	34.0	79.5	10.0	4	37g	-5409J	£27.08	£13.54
7.50	34.0	79.5	10.0	4	38g	-5410K	£29.92	£14.96
8.00	34.0	79.5	10.0	4	39g	-5411L	£20.11	£10.06
8.50	37.0	82.5	10.0	4	41g	-5412M	£31.87	£15.94
9.00	37.0	82.5	10.0	4	42g	-5413N	£28.30	£14.15
10.00	37.0	82.5	10.0	4	45g	-5414P	£20.18	£10.09
11.00	41.5	89.0	12.0	4	65g	-5415Q	£35.21	£17.61
12.00	49.5	95.0	12.0	4	71g	-5416R	£23.88	£11.94
13.00	50.0	95.0	12.0	4	96g	-5417S	£42.28	£21.14
14.00	57.0	101.5	12.0	4	88g	-5418T	£38.34	£19.17
15.00	58.5	108.5	16.0	4	132g	-5419V	£53.15	£26.58
16.00	58.5	108.5	16.0	4	138g	-5420W	£39.53	£19.77
17.00	67.0	115.0	16.0	4	156g	-5421X	£75.61	£37.81
18.00	70.0	115.0	16.0	4	165g	-5422Y	£57.14	£28.57
19.00	76.0	121.5	16.0	4	201g	-5423Z	£86.29	£43.15
20.00	76.0	121.5	16.0	4	206g	-5424A	£54.43	£27.22
22.00	85.5	143.0	25.0	6	369g	-5425B	£104.00	£52.00
24.00	92.0	149.0	25.0	6	440g	-5426C	£131.00	£65.50
25.00	100.0	157.0	25.0	6	465g	-5427D	£102.00	£51.00
26.00	98.5	157.0	25.0	6	501g	-5428E	£164.00	£82.00
30.00	98.5	157.0	25.0	6	597g	-5430G	£156.00	£78.00
32.00	100.0	159.0	25.0	6	663g	-5431H	£209.00	£104.50
34.00	100.0	159.0	25.0	6	769g	-5433K	£263.00	£131.50
34.00	110.0	165.0	32.0	6	980g	-5434L	£263.00	£131.50
35.00	100.0	159.0	25.0	6	809g	-5435M	£240.00	£120.00
35.00	110.0	164.0	32.0	6	896g	-5436N	£259.00	£129.50
36.00	112.0	160.0	25.0	6	780g	-5437P	£290.00	£145.00
36.00	105.0	163.0	32.0	6	955g	-5438Q	£311.00	£155.50
38.00	105.0	160.0	25.0	6	674g	-5439R	£317.00	£158.50
38.00	100.0	159.0	32.0	6	867g	-5440S	£317.00	£158.50
40.00	101.5	163.5	32.0	8	972g	-5442V	£306.00	£153.00
42.00	102.0	160.0	25.0	8	1030g	-5443T	£305.00	£152.50
42.00	106.0	162.0	32.0	8	1137g	-5443W	£372.00	£186.00
44.00	106.0	162.0	32.0	6	479g	-5444X	£457.00	£228.50
45.00	101.5	159.0	25.0	8	1247g	-5445Y	£356.00	£178.00
45.00	101.5	163.5	32.0	8	1412g	-5446Z	£356.00	£178.00

**Long Series E304T**

Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Number of Flutes	Weight each	Order Code	List Price/1	Offer Price/1
3/32"	25/64"	2 1/4"	1/4"	4	11g	-5301B	£37.04	£18.52
1/8"	3/4"	2 1/2"	1/4"	4	11g	-5302C	£21.56	£10.78
5/32"	1"	2 3/4"	1/4"	4	11g	-5303D	£37.04	£18.52
3/16"	1"	2 3/4"	1/4"	4	13g	-5304E	£28.12	£14.06
7/32"	1 1/4"	3"	1/4"	4	17g	-5305F	£37.04	£18.52
1/4"	1 1/4"	3"	1/4"	4	17g	-5306G	£21.56	£10.78
9/32"	1 11/32"	3 1/8"	3/8"	4	34g	-5307H	£28.12	£14.06
5/16"	1 11/32"	3 1/8"	3/8"	4	36g	-5308J	£23.91	£11.96
11/32"	1 15/32"	3 1/4"	3/8"	4	35g	-5309K	£29.97	£14.99
3/8"	1 5/8"	3 1/4"	3/8"	4	35g	-5310L	£19.16	£9.58
13/32"	1 1/2"	3 1/4"	3/8"	4	43g	-5311M	£37.91	£18.96
7/16"	1 5/8"	3 1/2"	1/2"	4	68g	-5312N	£35.91	£17.96
15/32"	1 7/8"	3 3/4"	1/2"	4	73g	-5313P	£45.84	£22.92
1/2"	1 15/16"	3 3/4"	1/2"	4	76g	-5314Q	£25.78	£12.89
9/16"	2 1/4"	4"	1/2"	4	85g	-5316S	£48.86	£24.43
19/32"	2 1/2"	4 1/4"	1/2"	4	130g	-5317T	£146.00	£73.00
5/8"	2 5/16"	4 3/2"	5/8"	4	135g	-5318V	£40.06	£20.03
21/32"	3"	4 1/2"	5/8"	4	150g	-5319W	£56.94	£28.47
11/16"	2 3/4"	4 17/32"	5/8"	4	155g	-5320X	£72.36	£36.18
23/32"	3"	4 3/4"	5/8"	4	170g	-5321Y	£61.36	£30.68
3/4"	3"	4 25/32"	5/8"	4	172g	-5322N	£54.00	£27.00
13/16"	3 1/16"	5 3/8"	1"	6	374g	-5323A	£129.00	£64.50
7/8"	3 3/8"	5 5/8"	1"	6	358g	-5324B	£129.00	£64.50
15/16"	3 5/8"	5 7/8"	1"	6	457g	-5325C	£142.00	£71.00
1"	3 15/16"	6 3/16"	1"	6	496g	-5326D	£94.91	£47.46
1 1/4"	3 3/8"	6 3/16"	1"	6	642g	-5330H	£209.00	£104.50
1 5/16"	4 1/8"	6 1/4"	1"	6	553g	-5332K	£384.00	£192.00
1 5/16"	4 15/16"	6 1/2"	1 1/4"	6	926g	-5333L	£384.00	£192.00
1 3/8"	3 15/16"	6 1/4"	1"	6	734g	-5334M	£311.00	£155.50
1 3/8"	4 1/4"	6 1/2"	1 1/4"	6	856g	-5335N	£311.00	£155.50
1 7/16"	2 11/16"	6 1/4"	1"	2	670g	-5336P	£311.00	£155.50
1 7/16"	4 7/16"	6 1/4"	1 1/4"	6	827g	-5337Q	£311.00	£155.50
1 1/2"	3 15/16"	6 1/4"	1"	6	847g	-5338R	£313.00	£156.50
1 1/2"	3 15/16"	6 1/4"	1 1/4"	6	966g	-5339S	£312.00	£156.00
1 5/8"	4 3/8"	6 3/8"	1"	6	966g	-5340T	£453.00	£226.50
1 5/8"	4"	6 3/4"	1 1/4"	8	1135g	-5341V	£420.00	£210.00
1 3/4"	4"	6 1/4"	1"	8	942g	-5342W	£348.00	£174.00
1 3/4"	4 1/16"	6 9/16"	1 1/4"	8	1224g	-5343X	£453.00	£226.50
2"	4"	6 1/4"	1"	8	1108g	-5344Y	£469.00	£234.50
2"	4 3/16"	6 1/2"	1 1/4"	8	1504g	-5345Z	£469.00	£234.50

**CONTRACT PRICES AVAILABLE FOR VOLUME PURCHASES**

All Prices Exclude V.A.T. © 2014



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

**HSS-Co 5%**



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

**SEE ALSO:**

**2 Flute - Threaded**



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**HSS**

**HSS-Co 8%**

**TiCN TiAlN**

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Diameter Metric	Tolerances		Diameter Inch	Tolerance	
	Tolerance +	Tolerance -		Tolerance +	Tolerance -
up to 3.00	0.013	0.033	up to 1/2"	0.0005	0.0013
Over 3.00 ~ up to 6.00	0.020	0.038	Over 1/2"	0.0005	0.0015
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			



**CUTTING TOOLS**

**Short Series**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
1.50	2.5	48.5	6.0	1g	-5664A	£30.87	£15.44
2.00	3.0	49.0	6.0	1g	-5665B	£22.31	£11.16
2.50	4.5	51.0	6.0	2g	-5666C	£28.03	£14.02
3.00	7.0	51.0	6.0	3g	-5667D	£22.31	£11.16
3.50	7.5	52.5	6.0	4g	-5668E	£28.03	£14.02
4.00	9.5	52.5	6.0	5g	-5669F	£22.31	£11.16
4.50	9.5	52.5	6.0	7g	-5670G	£28.03	£14.02
5.00	9.5	52.5	6.0	8g	-5671H	£22.31	£11.16
5.50	11.0	55.5	6.0	11g	-5672J	£28.03	£14.02
6.00	11.0	56.5	6.0	13g	-5673K	£22.31	£11.16
6.50	11.0	58.5	10.0	16g	-5674L	£27.36	£13.68
7.00	11.0	58.5	10.0	18g	-5674L	£21.56	£10.78
7.50	11.0	58.5	10.0	21g	-5675B	£32.86	£16.43
8.00	12.5	59.5	10.0	24g	-5675M	£21.15	£10.58
8.50	14.5	60.5	10.0	27g	-5676C	£32.42	£16.21
9.00	14.5	60.5	10.0	31g	-5676N	£23.62	£11.81
9.50	14.5	60.5	10.0	34g	-5677D	£35.29	£17.65
10.00	14.5	60.5	10.0	38g	-5677P	£23.13	£11.57
10.50	17.5	65.0	12.0	45g	-5678E	£31.08	£15.54
11.00	17.5	65.0	12.0	49g	-5678Q	£26.26	£13.13
12.00	19.0	66.5	12.0	60g	-5679R	£24.39	£12.20
13.00	19.0	66.5	12.0	71g	-5680G	£31.32	£15.66
14.00	22.0	68.5	12.0	84g	-5680S	£29.59	£14.80
15.00	22.0	72.0	16.0	102g	-5681H	£35.91	£17.96
16.00	22.0	72.0	16.0	116g	-5681T	£35.68	£17.84
17.00	24.0	72.0	16.0	131g	-5682J	£46.89	£23.45
18.00	24.0	72.0	16.0	147g	-5682V	£38.80	£19.40
19.00	25.5	77.0	16.0	175g	-5683K	£55.86	£27.93
20.00	25.5	77.0	16.0	194g	-5683W	£41.70	£20.85
22.00	25.5	100.0	25.0	304g	-5684X	£76.09	£38.05
25.00	27.0	95.0	25.0	373g	-5686A	£74.28	£37.14
28.00	30.0	95.0	25.0	468g	-5687B	£118.00	£59.00
30.00	30.0	93.5	25.0	529g	-5688C	£115.00	£57.50

**Short Series**

Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
1/16"	3/32"	1 <sup>29</sup> / <sub>32</sub> "	1/4"	2g	-5661A	£26.03	£13.02
3/32"	3/16"	2"	1/4"	5g	-5661E	£26.03	£13.02
1/8"	9/32"	2"	1/4"	3g	-5661J	£24.39	£12.20
5/32"	3/8"	2 <sup>1</sup> / <sub>16</sub> "	1/4"	3g	-5661N	£24.81	£12.41
3/16"	3/8"	2 <sup>1</sup> / <sub>16</sub> "	1/4"	5g	-5661R	£24.28	£12.14
7/32"	7/16"	2 <sup>3</sup> / <sub>16</sub> "	1/4"	13g	-5661V	£24.81	£12.41
1/4"	7/16"	2 <sup>7</sup> / <sub>32</sub> "	1/4"	14g	-5662A	£24.39	£12.20
5/16"	1/2"	2 <sup>1</sup> / <sub>16</sub> "	3/8"	30g	-5662E	£21.40	£10.70
3/8"	9/16"	2 <sup>3</sup> / <sub>8</sub> "	3/8"	31g	-5662J	£21.99	£11.00
1/2"	3/4"	2 <sup>5</sup> / <sub>8</sub> "	1/2"	59g	-5662R	£24.28	£12.14
9/16"	2 <sup>7</sup> / <sub>32</sub> "	2 <sup>2</sup> / <sub>32</sub> "	1/2"	66g	-5662V	£30.65	£15.33
5/8"	7/8"	2 <sup>7</sup> / <sub>32</sub> "	5/8"	97g	-5662X	£32.56	£16.28
3/4"	1"	3 <sup>1</sup> / <sub>32</sub> "	5/8"	118g	-5663C	£38.78	£19.39
1"	1 <sup>1</sup> / <sub>16</sub> "	3 <sup>3</sup> / <sub>4</sub> "	1"	319g	-5663J	£74.62	£37.31

**Long Series Type S231T**



Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
2.00	3.0	51.0	6.0	10g	-5853A	£38.54	£19.27
3.00	11.0	60.5	6.0	11g	-5855C	£30.22	£15.11
4.00	12.5	66.5	6.0	12g	-5857E	£30.22	£15.11
5.00	12.5	70.0	6.0	14g	-5859G	£30.22	£15.11
6.00	16.0	76.0	6.0	17g	-5861J	£30.22	£15.11
6.50	16.0	76.0	10.0	35g	-5861S	£50.31	£25.16
7.00	16.0	76.0	10.0	36g	-5862A	£29.17	£14.59
8.00	19.0	79.5	10.0	42g	-5862K	£29.17	£14.59
9.00	22.0	82.5	10.0	41g	-5863B	£35.63	£17.82
10.00	22.0	82.5	10.0	46g	-5863L	£29.49	£14.75
11.00	22.0	82.5	12.0	67g	-5863V	£39.39	£19.70
12.00	25.5	95.0	12.0	78g	-5864M	£32.11	£16.06
14.00	28.5	101.5	12.0	96g	-5865N	£40.26	£20.13
15.00	31.5	108.0	16.0	141g	-5865X	£60.25	£30.13
16.00	31.5	108.0	16.0	153g	-5866P	£45.00	£22.50
18.00	35.0	114.5	16.0	172g	-5867Q	£57.10	£28.55
20.00	38.0	120.5	16.0	191g	-5868R	£62.41	£31.21

**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**



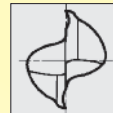
Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Order Code SHR-061	List Price/1	Offer Price/1
3.00	8	6	52.0	-3803A	£22.39	£11.20
4.00	11	6	55.0	-3804B	£22.39	£11.20
5.00	13	6	57.0	-3805C	£22.39	£11.20
6.00	13	6	57.0	-3806D	£22.39	£11.20
7.00	16	10	66.0	-3807E	£36.99	£18.50
8.00	19	10	69.0	-3808F	£32.88	£16.44
10.00	22	10	72.0	-3810H	£32.44	£16.22
12.00	26	12	83.0	-3812K	£40.03	£20.02
14.00	26	16	83.0	-3814M	£48.07	£24.04
16.00	32	16	92.0	-3816P	£53.39	£26.70
18.00	32	16	92.0	-3818R	£67.77	£33.89
20.00	38	20	104.0	-3820S	£76.00	£38.00
22.00	38	20	104.0	-3822T	£133.00	£66.50
25.00	45	25	121.0	-3825V	£128.00	£64.00

**Long Series**



Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Order Code SHR-061	List Price/1	Offer Price/1
3.00	12	6	56	-3955C	£18.72	£9.36
4.00	19	6	63	-3957E	£18.72	£9.36
5.00	24	6	68	-3959G	£18.72	£9.36
6.00	24	6	68	-3961J	£18.72	£9.36
8.00	38	10	88	-3962K	£26.71	£13.36
10.00	45	10	95	-3963L	£27.54	£13.77
12.00	53	12	110	-3964M	£31.39	£15.70
14.00	53	12	110	-3965N	£48.27	£24.14
16.00	63	16	123	-3966P	£48.29	£24.15
20.00	75	20	141	-3968R	£62.66	£31.33

**HSS-Co**





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



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

Diameter Metric	Tolerances		Diameter Inch	Tolerance	
	+	-		+	-
up to 38.00mm	0.0630	0.0130	up to 1"	0.0025	0.0005
Over 38.00mm	0.1250	0.0000	Over 1"	0.0050	0.0000

**HSS-Co 5%**



CUTTING TOOLS

**Regular Series Type 5321T**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
3.00	9.5	54.0	6.0	8g	-6021A	£30.56	<b>£15.28</b>
3.50	12.5	57.0	6.0	8g	-6021C	£33.02	<b>£16.51</b>
4.00	12.5	57.0	6.0	9g	-6021E	£30.64	<b>£15.32</b>
4.50	12.5	57.0	6.0	9g	-6021G	£35.19	<b>£17.60</b>
5.00	16.0	60.5	6.0	9g	-6021J	£30.27	<b>£15.14</b>
5.50	16.0	60.5	6.0	9g	-6021L	£38.86	<b>£19.43</b>
6.00	16.0	60.5	6.0	10g	-6021N	£30.51	<b>£15.26</b>
8.00	19.0	63.5	10.0	29g	-6021Q	£38.64	<b>£19.32</b>
10.00	22.0	66.5	10.0	32g	-6021S	£42.31	<b>£21.16</b>
12.00	25.5	71.5	12.0	48g	-6021V	£49.96	<b>£24.98</b>
14.00	28.5	74.5	12.0	56g	-6021X	£62.57	<b>£31.29</b>
16.00	32.0	80.0	16.0	96g	-6021Z	£74.98	<b>£37.49</b>
18.00	35.0	83.5	16.0	105g	-6022B	£85.11	<b>£42.56</b>
20.00	38.0	90.0	16.0	119g	-6022D	£99.35	<b>£49.68</b>
22.00	41.0	106.5	25.0	265g	-6022F	£130.00	<b>£65.00</b>
24.00	41.0	106.5	25.0	315g	-6022H	£176.00	<b>£88.00</b>
25.00	43.0	108.0	25.0	304g	-6022K	£168.00	<b>£84.00</b>
28.00	46.0	108.0	25.0	634g	-6022P	£203.00	<b>£101.50</b>
30.00	46.0	108.0	25.0	358g	-6022R	£210.00	<b>£105.00</b>
32.00	49.0	109.5	25.0	383g	-6022T	£301.00	<b>£150.50</b>
32.00	55.0	120.0	32.0	610g	-6022W	£301.00	<b>£150.50</b>
38.00	55.0	115.0	25.0	530g	-6023K	£426.00	<b>£213.00</b>

**Regular Series Type 5321T**

Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
3/32"	5/16"	2"	1/4"	2g	-6016E	£34.55	<b>£17.28</b>
1/8"	3/8"	2 1/8"	1/4"	4g	-6016G	£34.55	<b>£17.28</b>
5/32"	1/2"	2 1/4"	1/4"	13g	-6016K	£34.55	<b>£17.28</b>
3/16"	5/8"	2 3/8"	1/4"	13g	-6016N	£34.55	<b>£17.28</b>
7/32"	7/8"	2 3/8"	1/4"	14g	-6016R	£34.55	<b>£17.28</b>
1/4"	5/8"	2 3/8"	1/4"	19g	-6016V	£27.56	<b>£13.78</b>
9/32"	19/32"	2 3/8"	3/8"	24g	-6016Y	£49.67	<b>£24.84</b>
5/16"	3/4"	2 1/2"	3/8"	35g	-6017B	£42.87	<b>£21.44</b>
11/32"	27/32"	2 5/8"	3/8"	39g	-6017E	£55.79	<b>£27.90</b>
3/8"	7/8"	2 5/8"	3/8"	45g	-6017H	£33.40	<b>£16.70</b>
7/16"	1"	2 13/16"	1/2"	130g	-6017P	£50.90	<b>£25.45</b>
1/2"	1 5/16"	2 13/16"	1/2"	138g	-6017W	£38.61	<b>£19.31</b>
9/16"	1 1/8"	2 15/16"	1/2"	139g	-6017Z	£67.42	<b>£33.71</b>
5/8"	1 1/4"	3 5/32"	5/8"	212g	-6018C	£54.75	<b>£27.38</b>
3/4"	1 1/2"	3 17/32"	5/8"	246g	-6018J	£62.12	<b>£31.06</b>
1"	1 11/16"	4 1/4"	1 1/4"	412g	-6018X	£123.00	<b>£61.50</b>
1 1/4"	1 5/16"	4 5/16"	1 1/4"	613g	-6019G	£372.00	<b>£186.00</b>
1 1/2"	2 3/16"	4 1/2"	1"	1042g	-6019N	£430.00	<b>£215.00</b>
2"	2 1/4"	5"	1 1/4"	1040g	-6020P	£701.00	<b>£350.50</b>

**Long Series Type 5331T**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
3.00	12.0	56.0	6.0	4g	-6027A	£39.50	<b>£19.75</b>
4.00	19.0	63.0	6.0	7g	-6027E	£39.56	<b>£19.78</b>
4.50	19.0	63.0	6.0	9g	-6027G	£60.02	<b>£30.01</b>
5.00	24.0	68.0	6.0	12g	-6027J	£39.07	<b>£19.54</b>
5.50	24.0	68.0	6.0	14g	-6027L	£60.02	<b>£30.01</b>
6.00	24.0	68.0	6.0	17g	-6027N	£39.42	<b>£19.71</b>
8.00	38.0	88.0	10.0	32g	-6027V	£49.93	<b>£24.97</b>
10.00	45.0	95.0	10.0	52g	-6028B	£55.26	<b>£27.63</b>
12.00	53.0	110.0	12.0	86g	-6028F	£66.14	<b>£33.07</b>
16.00	63.0	123.0	16.0	175g	-6028P	£96.81	<b>£48.41</b>
20.00	75.0	135.0	16.0	305g	-6028W	£130.00	<b>£65.00</b>
22.00	75.0	141.0	25.0	539g	-6028Y	£279.00	<b>£139.50</b>
25.00	90.0	166.0	25.0	667g	-6029C	£237.00	<b>£118.50</b>
26.00	100.0	160.0	25.0	500g	-6029E	£346.00	<b>£173.00</b>
38.00	100.0	160.0	25.0	760g	-6029V	£499.00	<b>£249.50</b>
38.00	101.5	170.0	32.0	1604g	-6029X	£724.00	<b>£362.00</b>
40.00	100.0	160.0	32.0	845g	-6030C	£551.00	<b>£275.50</b>
50.00	100.0	170.0	32.0	1340g	-6030M	£1033.00	<b>£516.50</b>

**Long Series Type 5331T**



Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
1/8"	3/4"	2 1/2"	1/4"	4g	-6024K	£40.23	<b>£20.12</b>
3/16"	1 1/4"	2 3/4"	1/4"	10g	-6024N	£50.11	<b>£25.06</b>
1/4"	1 1/4"	3"	1/4"	19g	-6024R	£55.70	<b>£27.85</b>
3/8"	1 15/32"	3 1/4"	3/8"	47g	-6024Y	£70.31	<b>£35.16</b>
1/2"	1 15/16"	3 3/4"	1/2"	97g	-6025E	£84.74	<b>£42.37</b>
9/16"	1 1/8"	2 5/16"	1/2"	72g	-6025J	£92.44	<b>£46.22</b>
5/8"	2 5/16"	4 9/32"	5/8"	172g	-6025L	£110.00	<b>£55.00</b>
3/4"	3"	4 25/32"	5/8"	277g	-6025S	£141.00	<b>£70.50</b>
1 1/2"	3 5/16"	6 5/16"	1"	769g	-6026A	£409.00	<b>£204.50</b>
1 3/8"	4"	6 11/16"	1 1/4"	818g	-6026F	£491.00	<b>£245.50</b>
1 1/2"	4"	6 7/16"	1 1/4"	760g	-6026M	£724.00	<b>£362.00</b>
1 3/4"	4"	6 11/16"	1 1/4"	1158g	-6026Q	£512.00	<b>£256.00</b>
2"	4"	6 7/16"	1 1/4"	970g	-6026T	£1024.00	<b>£512.00</b>

**CONTRACT PRICES AVAILABLE FOR VOLUME PURCHASES**

All Prices Exclude V.A.T. © 2014



**HSS-Co 5% 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**.



**SEE ALSO:**

**Multi Flute - Threaded**



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**HSS-Co 8%**

**TiCN TiAlN**

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Diameter Metric	Tolerances		Diameter Inch	Tolerance	
	+	-		+	-
up to 38.00mm	0.0630	0.0130	up to 1½"	0.0025	0.0005
Over 38.00mm	0.1250	0.0000	Over 1½"	0.0050	0.0000

**HSS-Co 5%**



**Regular Series Type E411T**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Number of Flutes	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
1.50	2.5	51.0	6.0	2	10g	-5184Y	£48.71	£24.36
2.00	4.0	51.0	6.0	4	10g	-5185A	£33.13	£16.57
2.50	6.5	51.0	6.0	4	10g	-5186B	£39.01	£19.51
3.00	9.5	54.0	6.0	4	11g	-5187C	£22.31	£11.16
4.00	12.5	57.0	6.0	4	12g	-5189E	£22.31	£11.16
5.00	16.0	60.5	6.0	4	14g	-5191G	£22.31	£11.16
6.00	16.0	60.5	6.0	4	39g	-5193J	£22.31	£11.16
6.50	16.0	60.5	10.0	4	31g	-5193R	£29.54	£14.77
7.00	15.0	60.5	10.0	4	32g	-5193X	£21.40	£10.70
7.50	18.0	63.5	10.0	4	33g	-5194C	£31.76	£15.88
8.00	18.0	63.5	10.0	4	33g	-5194K	£19.89	£9.95
8.50	21.0	66.5	10.0	4	35g	-5194S	£32.23	£16.12
9.00	21.0	66.5	10.0	4	35g	-5194Y	£22.70	£11.35
9.50	21.0	66.5	10.0	4	37g	-5195D	£32.63	£16.32
10.00	21.0	66.5	10.0	4	39g	-5195L	£19.89	£9.95
11.00	19.0	66.5	12.0	4	54g	-5195Z	£26.26	£13.13
12.00	24.0	70.0	12.0	4	54g	-5196M	£25.32	£12.66
13.00	24.5	70.0	12.0	4	55g	-5197F	£34.83	£17.42
14.00	28.5	73.5	12.0	4	72g	-5197N	£29.59	£14.80
15.00	26.5	77.0	16.0	4	102g	-5198G	£38.16	£19.08
16.00	26.5	80.0	16.0	4	109g	-5198P	£34.44	£17.22
17.00	32.0	80.0	16.0	4	113g	-5199H	£56.50	£28.25
18.00	35.0	88.0	16.0	4	132g	-5199Q	£40.02	£20.01
19.00	38.0	83.5	16.0	4	132g	-5200J	£59.35	£29.68
20.00	38.0	84.5	16.0	4	135g	-5200R	£44.81	£22.41
22.00	41.5	98.5	25.0	6	186g	-5201S	£95.87	£47.94
25.00	41.5	101.5	25.0	6	346g	-5202T	£79.85	£39.93
30.00	46.0	104.5	25.0	6	414g	-5204W	£121.00	£60.50
32.00	46.0	108.0	25.0	6	456g	-5205X	£185.00	£92.50
40.00	58.5	117.5	25.0	8	670g	-5207K	£253.00	£126.50
50.00	65.0	127.0	25.0	8	974g	-5209C	£376.00	£188.00

**Regular Series Type E411T**

Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Number of Flutes	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
3/32"	1/4"	2"	1/4"	4	11g	-5158B	£26.88	£13.44
1/8"	3/8"	2 1/8"	1/4"	4	12g	-5159C	£22.70	£11.35
5/32"	1/2"	2 1/4"	1/4"	4	12g	-5160D	£26.88	£13.44
3/16"	1/2"	2 1/4"	1/4"	4	13g	-5161E	£22.70	£11.35
1/4"	5/8"	2 3/8"	1/4"	4	15g	-5163G	£22.70	£11.35
5/16"	23/32"	2 1/2"	3/8"	4	31g	-5165J	£22.11	£11.06
3/8"	27/32"	2 5/8"	3/8"	4	36g	-5166K	£19.81	£9.91
7/16"	3/4"	2 5/8"	1/2"	4	61g	-5167L	£31.69	£15.85
1/2"	15/16"	2 3/4"	1/2"	4	65g	-5168M	£24.81	£12.41
9/16"	1 1/8"	2 7/8"	1/2"	4	70g	-5169N	£34.84	£17.42
5/8"	1 1/16"	3 1/32"	5/8"	4	105g	-5170P	£34.60	£17.30
3/4"	1 1/2"	3 9/32"	5/8"	4	131g	-5172R	£44.84	£22.42
1"	1 11/16"	4"	1"	6	364g	-5176W	£79.20	£39.60



**WORKSHOP Assorted Milling Cutter Set - Screwed Shank**

**HSS-Co**

**20 Piece Set**  
Assorted set of 20 - inch and metric milling cutters and slot drills with screw shank. Supplied in plastic carry case.

Actual contents of each set (sizes/brands) may vary from set to set.



**Screwed Shank**



**20 PIECES**

Number of Pieces	Type	Order Code PRO-061	List Price/1	Offer Price/1
20	Screwed Shank	-0002A	£359.96	£89.99

**Assorted Milling Cutter Set - Plain/Weldon Shank**

**HSS-Co**

**20 Piece Set**  
Assorted set of 20 - inch and metric milling cutters and slot drills with either plain or weldon shanks. Supplied in plastic carry case.

Actual contents of each set (sizes/brands) may vary from set to set.



**Plain/Weldon Shank**



**20 PIECES**

Number of Pieces	Type	Order Code PRO-061	List Price/1	Offer Price/1
20	Plain/Weldon Shank	-0001A	£359.96	£89.99



**HSS-Co 5% Threaded Shank End Mills 4, 6 & 8 Flute**



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

Diameter Metric	Tolerances		Diameter Inch	Tolerance	
	+	-		+	-
up to 38.00	0.0630	0.0130	up to 1 1/2"	0.0025	0.0005
Over 38.00	0.1250	0.0000	Over 1 1/2"	0.0050	0.0000



**SEE ALSO:**  
**Multi Flute - Threaded**

Page **130** **HSS**

**HSS-Co 8%** Page **143**

**TiCN TiAlN**

**Long Series Type E431T**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Number of Flutes	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
3.00	19.0	63.5	6.0	4	11g	-5473A	£24.52	£12.26
4.00	25.5	70.0	6.0	4	12g	-5475C	£24.52	£12.26
5.00	31.5	76.0	6.0	4	14g	-5477E	£24.52	£12.26
6.00	31.5	76.0	6.0	4	16g	-5479G	£24.52	£12.26
8.00	34.0	79.5	10.0	4	33g	-5480H	£21.90	£10.95
10.00	37.0	82.5	10.0	4	44g	-5481J	£21.90	£10.95
12.00	49.5	95.0	12.0	4	69g	-5482K	£27.86	£13.93
14.00	57.0	101.5	12.0	4	100g	-5483L	£41.44	£20.72
16.00	58.5	108.5	16.0	4	136g	-5484M	£42.95	£21.48
18.00	70.0	115.0	16.0	4	164g	-5485N	£56.06	£28.03
20.00	76.0	121.5	16.0	4	191g	-5486P	£53.74	£26.87
25.00	100.0	157.0	25.0	6	492g	-5488R	£87.81	£43.91

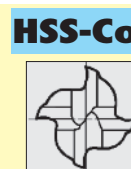
**Long Series Type E431T**

Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Number of Flutes	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
3/16"	1"	2 3/4"	1/4"	4	16g	-5453E	£33.95	£16.98
1/4"	1 1/4"	3"	1/4"	4	18g	-5455G	£26.03	£13.02
1/2"	1 15/16"	3 3/4"	1/2"	4	82g	-5460M	£31.13	£15.57
5/8"	2 5/16"	4 9/32"	5/8"	4	132g	-5462P	£48.36	£24.18
3/4"	3"	4 25/32"	5/8"	4	183g	-5464R	£65.22	£32.61
1"	3 15/16"	6 3/16"	1"	6	493g	-5466T	£115.00	£57.50

**HSS-Co Plain Shank Milling Cutters 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



**EXTENDED RANGE**

**Regular Length**

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Order Code SHR-061	List Price/1	Offer Price/1
3.00	8	6	52	-3703A	£16.67	£8.34
3.50	11	55	6	-3703F	£16.67	£8.34
4.00	11	6	55	-3704B	£16.67	£8.34
4.50	13	57	6	-3704G	£16.67	£8.34
5.00	13	6	57	-3705C	£16.67	£8.34
5.50	13	57	6	-3705H	£16.67	£8.34
6.00	13	6	57	-3706D	£16.67	£8.34
6.50	19	69	10	-3706J	£28.50	£14.25
7.00	16	10	66	-3707E	£25.09	£12.55
7.50	19	69	10	-3707K	£30.20	£15.10
8.00	19	10	69	-3708F	£20.57	£10.29
8.50	22	72	10	-3708L	£34.20	£17.10
9.00	19	10	69	-3709Q	£29.26	£14.63
9.50	22	72	10	-3709W	£36.50	£18.25
10.00	22	10	72	-3710G	£22.63	£11.32
10.50	22	79	12	-3710N	£38.50	£19.25
11.00	22	79	12	-3711V	£25.95	£12.98
12.00	26	12	83	-3712H	£24.64	£12.32
13.00	26	83	12	-3713J	£28.95	£14.48
14.00	26	16	83	-3714J	£34.94	£17.47
15.00	32	92	16	-3715K	£35.95	£17.98
16.00	32	16	92	-3716L	£36.99	£18.50
17.00	32	92	16	-3717V	£41.95	£20.98
18.00	32	16	92	-3718M	£45.19	£22.60
19.00	32	92	16	-3719V	£47.50	£23.75
20.00	38	20	104	-3720N	£48.69	£24.35
22.00	38	20	104	-3722P	£86.28	£43.14
25.00	45	25	121	-3725R	£97.03	£48.52
26.00	45	121	25	-3726S	£99.95	£49.98
28.00	45	121	25	-3728V	£120.00	£60.00
30.00	45	121	25	-3730X	£125.00	£62.50
7.00	38	88	10	-3879M	£22.68	£11.34

**Long Series**



Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Order Code SHR-061	List Price/1	Offer Price/1
3.00	12	6	56	-3873A	£18.72	£9.36
4.00	19	6	63	-3875C	£18.72	£9.36
5.00	24	6	68	-3877E	£18.72	£9.36
6.00	24	6	68	-3879G	£18.72	£9.36
8.00	38	10	88	-3880H	£26.71	£13.36
9.00	38	88	10	-3880V	£33.50	£16.75
10.00	45	10	95	-3881J	£27.54	£13.77
11.00	53	110	12	-3881P	£37.80	£18.90
12.00	53	12	110	-3882K	£31.39	£15.70
13.00	53	110	12	-3882Q	£49.68	£24.84
14.00	53	16	110	-3883K	£48.27	£24.14
15.00	63	123	16	-3883Q	£54.24	£27.12
16.00	63	16	123	-3884M	£48.29	£24.15
18.00	63	123	16	-3885N	£62.95	£31.48
20.00	75	20	141	-3886P	£62.66	£31.33
22.00	75	141	20	-3888Q	£79.00	£39.50
25.00	90	166	25	-3891T	£94.95	£47.48

**HSS-Co 8% 'RIPPAL' Ripper Cutters 3 Flute**

Centre cutting as standard. Operate at higher speeds and feeds than conventional shank milling cutters, removing more metal per minute. Power and workholding rigidity must be checked carefully before use. It is recommend that cutters are used with a consistent power feed to eliminate backlash. The unique cutting geometry gives a more efficient cutting action and reduced cutting time. High speed steel is less likely to chip or fracture reducing tool maintenance costs. Long cut lengths allow deeper axial cuts and greater metal removal per cut.



Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Weight each	930MP Weldon Shank Polished			1930M Combination Shank			930M Weldon Shank		
					Order Code SHR-163	List Price/1	Offer Price/1	Order Code SHR-163	List Price/1	Offer Price/1	Order Code SHR-163	List Price/1	Offer Price/1
12.00	26.0	83.0	12.0	68g	-3122K	£54.49	£38.14	-1122K	£39.89	£27.92	-	-	-
16.00	32.0	92.0	16.0	124g	-3163K	£75.04	£52.53	-	-	-	-	-	-
25.00	45.0	121.0	25.0	374g	-3254K	£132.00	£92.40	-	-	-	-	-	-
30.00	45.0	121.0	25.0	412g	-	-	-	-1304K	£160.00	£112.00	-	-	-
30.00	90.0	166.0	25.0	548g	-3309K	£280.00	£196.00	-1309K	£205.00	£143.50	-2309K	£205.00	£143.50
32.00	53.0	133.0	32.0	667g	-	-	-	-1325K	£254.00	£177.80	-	-	-

**CONTRACT PRICES AVAILABLE FOR VOLUME PURCHASES**

All Prices Exclude V.A.T. © 2014

CUTTING TOOLS

**GROUP 061 SHANK MILLING CUTTERS**



**HSS-Co 5% Threaded Shank Coarse Pitch Roughing Cutters**

**Knuckle Form**

For use when heavy metal removal and good surface finish are required. Bright finish. Flute type: 25° spiral, roughing truncated. Shank diameter to **js14**.



Metric Tolerances		Inch Tolerances	
Diameter	± 0.127mm	Diameter	± 0.005"



**HSS-Co 5% COARSE PITCH**

**Standard Series K412T**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Number of Flutes	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
6.00	16.0	60.5	6.0	3	26g	-6701A	£81.59	£40.80
8.00	18.0	63.5	10.0	3	66g	-6702B	£84.22	£42.11
9.00	25.0	68.0	9.0	4	35g	-6703C	£90.37	£45.19
10.00	21.0	66.5	10.0	3	85g	-6705E	£95.18	£47.59
11.00	22.0	68.0	11.0	4	57g	-6708B	£117.00	£58.50
12.00	24.0	70.0	12.0	4	116g	-6708H	£97.56	£48.78
13.00	28.0	70.0	10.0	4	60g	-6709J	£121.00	£60.50
14.00	28.5	73.0	12.0	4	131g	-6710K	£122.00	£61.00
16.00	26.0	77.0	16.0	4	212g	-6714P	£136.00	£68.00
17.00	38.0	80.0	15.0	4	115g	-6715Q	£166.00	£83.00
18.00	35.0	80.0	16.0	4	282g	-6716R	£149.00	£74.50
20.00	38.0	83.5	25.0	4	300g	-6717S	£149.00	£74.50
24.00	41.5	98.5	25.0	5	310g	-6721X	£223.00	£111.50
25.00	44.5	101.5	25.0	5	332g	-6722Y	£221.00	£110.50
26.00	45.0	102.0	23.0	6	350g	-6725A	£360.00	£180.00
28.00	46.0	104.5	25.0	6	385g	-6727C	£292.00	£146.00
30.00	46.0	104.5	25.0	6	418g	-6729E	£298.00	£149.00
32.00	50.0	108.0	25.0	6	450g	-6731G	£327.00	£163.50
32.00	53.0	113.0	32.0	6	610g	-6734K	£327.00	£163.50
34.00	50.0	108.0	25.0	6	500g	-6737B	£430.00	£215.00
35.00	55.0	110.0	25.0	6	545g	-6738F	£525.00	£262.50
35.00	55.0	115.0	32.0	6	690g	-6739K	£525.00	£262.50
45.00	57.0	119.0	32.0	6	1014g	-6751C	£645.00	£322.50
50.00	65.0	127.0	32.0	8	1065g	-6753E	£800.00	£400.00

**Standard Series K412T**

Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Number of Flutes	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
1/4"	5/8"	2 3/8"	1/4"	3	16g	-6601A	£75.98	£37.99
5/16"	3/4"	2 1/2"	3/8"	3	37g	-6602B	£84.69	£42.35
3/8"	5/8"	2 3/4"	3/8"	3	34g	-6603C	£95.55	£47.78
7/16"	7/8"	2 3/4"	1/2"	4	72g	-6604D	£134.00	£67.00
1/2"	1 5/16"	2 3/4"	1/2"	4	64g	-6605E	£98.22	£49.11
9/16"	1 1/8"	2 7/8"	1/2"	4	82g	-6607G	£125.00	£62.50
5/8"	1 1/16"	3 1/32"	5/8"	4	130g	-6608H	£138.00	£69.00
11/16"	1 1/2"	3 1/4"	5/8"	4	120g	-6610K	£170.00	£85.00
3/4"	1 1/2"	3 9/32"	5/8"	4	131g	-6611L	£158.00	£79.00
1 1/8"	1 13/16"	4 1/8"	1"	6	391g	-6618T	£350.00	£175.00
1 1/4"	1 15/16"	4 1/4"	1"	6	458g	-6620W	£401.00	£200.50
1 1/2"	2"	4 7/16"	1 1/4"	6	616g	-6622H	£369.00	£184.50
1 3/4"	2 3/16"	4 1/2"	1"	6	596g	-6626B	£479.00	£239.50
1 3/4"	2 1/2"	4 15/16"	1 1/4"	6	846g	-6629E	£769.00	£384.50
2"	2 9/16"	5"	1 1/4"	8	1147g	-6630F	£811.00	£405.50

**HSS-Co 5% Threaded Shank Coarse Pitch Roughing Cutters**

**Knuckle Form**

For use when high metal removal rates area required. Bright finish. Flute type: 25° spiral, roughing truncated. Shank diameter to **js14**.



**HSS-Co 5% COARSE PITCH**

**Long Series Type K432T**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Number of Flutes	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
6.00	37.0	76.0	6.0	4	20g	-6756F	£75.25	£37.63
7.00	37.0	80.0	8.0	4	39g	-6757G	£76.90	£38.45
9.00	40.0	82.0	10.0	4	45g	-6759J	£81.52	£40.76
10.00	37.0	82.5	10.0	3	44g	-6760A	£83.62	£41.81
11.00	45.0	90.0	11.0	4	66g	-6762C	£95.00	£47.50
12.00	49.5	95.0	12.0	4	69g	-6763D	£98.65	£49.33
13.00	50.0	95.0	13.0	4	78g	-6764P	£122.00	£61.00
15.00	58.5	108.5	16.0	4	104g	-6767H	£214.00	£107.00
16.00	58.5	108.5	16.0	4	139g	-6769K	£149.00	£74.50
17.00	70.0	115.0	15.0	4	153g	-6770L	£159.00	£79.50

**Long Series Type K432T Continued**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Number of Flutes	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
20.00	76.0	121.5	16.0	4	187g	-6773P	£197.00	£98.50
24.00	92.0	149.0	25.0	5	300g	-6778H	£359.00	£179.50
25.00	100.0	157.0	25.0	5	427g	-6779W	£322.00	£161.00
26.00	100.0	155.0	23.0	6	500g	-6780X	£338.00	£169.00
32.00	105.0	163.0	32.0	6	810g	-6791H	£488.00	£244.00
35.00	105.0	163.0	32.0	6	995g	-6794L	£682.00	£341.00
36.00	105.0	163.0	32.0	6	970g	-6795M	£715.00	£357.50

**Long Series Type K432T**

Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Number of Flutes	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
3/8"	1 15/32"	3 1/4"	3/8"	3	39g	-6652B	£109.00	£54.50
1/2"	1 15/16"	3 3/4"	1/2"	4	82g	-6654D	£130.00	£65.00
5/8"	2 9/16"	4 9/32"	5/8"	4	140g	-6656F	£167.00	£83.50
1 1/8"	3 7/8"	6 1/4"	1"	5	560g	-6663N	£325.00	£162.50

**Long Series Type K432T Continued**

Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Number of Flutes	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
1 1/4"	3 15/16"	6 1/4"	1"	6	642g	-6665Q	£479.00	£239.50
1 1/4"	4"	6 1/4"	1 1/2"	5	795g	-6667S	£523.00	£261.50
1 3/8"	4"	6 1/2"	1 1/4"	6	1005g	-6669S	£673.00	£336.50
1 1/2"	4"	6 1/2"	1 1/4"	6	1070g	-6671S	£749.00	£374.50
1 3/4"	4"	6 7/16"	1 1/4"	6	644g	-6673Z	£879.00	£439.50
2"	4"	6 7/16"	1 1/4"	8	677g	-6675A	£950.00	£475.00

**HSS-Co 5% Threaded Shank Standard Pitch Roughing Cutters Set - 4 Flute**

**Knuckle Form**

**3 Piece Set**  
8mm, 10mm and 12mm.  
Standard pitch roughing cutters.  
Supplied in plastic case.  
Manufactured to: **BS 122: Part 4: 1980.**



**STANDARD PITCH HSS-Co 5%**



**3 PIECES**

Number of Pieces	Weight each	Order Code PRO-061	List Price/1	Offer Price/1
3	142g	-0007A	£173.60	£24.30

**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**

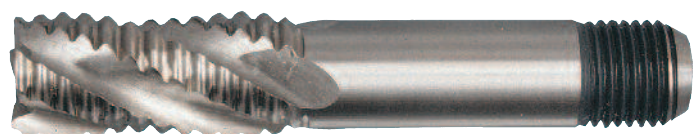
Dia. (mm)	Flute Length	Overall Length	Shank Dia.	No. of Flutes	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
6.00	15.0	58.0	6.0	4	13g	-2600A	£12.26	£6.13
8.00	20.0	70.0	10.0	4	36g	-2601B	£15.49	£7.75
10.00	28.0	75.0	10.0	4	36g	-2602C	£15.49	£7.75
12.00	33.0	85.0	12.0	4	71g	-2603D	£17.19	£8.60
16.00	38.0	90.0	16.0	4	131g	-2604E	£26.25	£13.13
20.00	47.0	110.0	20.0	4	228g	-2605F	£30.19	£15.10
25.00	52.0	125.0	25.0	4	401g	-2606G	£48.30	£24.15

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

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

**COARSE PITCH HSS-EV****Regular Series**

Dia. (mm)	Flute Length	Overall Length	Shank Dia.	No. of Flutes	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
6.00	13.0	57.0	6.0	4	13g	-2540A	£12.26	£6.13
8.00	19.0	69.0	10.0	4	35g	-2541B	£15.49	£7.75
10.00	22.0	72.0	10.0	4	37g	-2542C	£15.49	£7.75
12.00	26.0	83.0	12.0	4	71g	-2543D	£17.19	£8.60
16.00	32.0	92.0	16.0	4	131g	-2544E	£26.25	£13.13
20.00	38.0	104.0	20.0	4	228g	-2545F	£30.19	£15.10
25.00	45.0	121.0	25.0	4	407g	-2546G	£48.30	£24.15

**HSS-EV TiCN Coated Screwed Shank Fine Pitch Ripper Cutters**

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

**FINE PITCH HSS-EV TiCN****Regular Series**

Dia. (mm)	Flute Length	Overall Length	Shank Dia.	No. of Flutes	Weight each	Order Code SHR-061	List Price/1	Offer Price/1
8.00	20.0	70.0	10.0	4	35g	-2801B	£38.02	£19.01
10.00	28.0	75.0	10.0	4	37g	-2802C	£38.02	£19.01
12.00	33.0	85.0	12.0	4	71g	-2803D	£42.04	£21.02
16.00	38.0	90.0	16.0	4	131g	-2804E	£64.14	£32.07
20.00	47.0	110.0	20.0	4	228g	-2805F	£73.79	£36.90
25.00	52.0	125.0	25.0	4	407g	-2806G	£118.00	£59.00

**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 SHR-061	List Price/1	Offer Price/1
6.00	13.0	57.0	6.0	4	13g	-2560A	£12.26	£6.13
8.00	19.0	69.0	10.0	4	36g	-2561B	£15.49	£7.75
10.00	22.0	72.0	10.0	4	40g	-2562C	£15.49	£7.75
12.00	26.0	83.0	12.0	4	71g	-2563D	£17.19	£8.60
16.00	32.0	92.0	16.0	4	134g	-2564E	£26.25	£13.13
20.00	38.0	104.0	20.0	4	221g	-2565F	£30.19	£15.10
25.00	45.0	121.0	25.0	4	427g	-2566G	£48.30	£24.15

**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 SHR-061	List Price/1	Offer Price/1
6.00	15.0	58.0	6.0	4	16g	-2620A	£12.26	£6.13
8.00	20.0	70.0	10.0	4	36g	-2621B	£15.49	£7.75
10.00	28.0	75.0	10.0	4	41g	-2622C	£15.49	£7.75
12.00	33.0	85.0	12.0	4	74g	-2623D	£17.19	£8.60
16.00	38.0	90.0	16.0	4	125g	-2624E	£26.25	£13.13
20.00	47.0	110.0	20.0	4	232g	-2625F	£30.19	£15.10
25.00	52.0	125.0	25.0	4	402g	-2625G	£48.30	£24.15







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

**HSS-Co 8%**

**TiCN**

**TiAlN**



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

**HSS-Co 8% Uncoated**

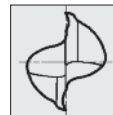
For general production machining.

**HSS-Co 8% TiCN Coated**

Extends cutter tool life and improves work material surface finish.

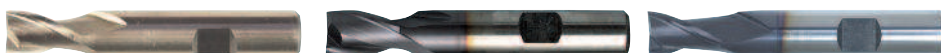
**HSS-Co 8% TiAlN Coated**

Dissipates and resists heat, reduces surface friction coupled with high surface hardness.



**Series 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	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1
2.00	4.0	6.0	48.0	104g	-0102A	£21.95	£9.88	-	-	-	-0162A	£27.42	£12.34
2.50	5.0	6.0	49.0	108g	-0102L	£27.57	£12.41	-0132L	£34.45	£15.50	-	-	-
3.00	5.0	6.0	49.0	110g	-0103A	£21.95	£9.88	-0133A	£27.42	£12.34	-0163A	£27.42	£12.34
3.50	6.0	6.0	50.0	111g	-0103L	£27.57	£12.41	-0133L	£34.45	£15.50	-	-	-
4.00	7.0	6.0	51.0	112g	-0104A	£21.95	£9.88	-0134A	£27.42	£12.34	-0164A	£27.42	£12.34
4.50	7.0	6.0	51.0	114g	-0104L	£27.57	£12.41	-	-	-	-	-	-
5.00	8.0	6.0	52.0	117g	-0105A	£21.95	£9.88	-0135A	£27.42	£12.34	-0165A	£27.42	£12.34
5.50	8.0	6.0	52.0	120g	-	-	-	-0135L	£34.45	£15.50	-	-	-
6.00	8.0	6.0	52.0	121g	-0106A	£21.95	£9.88	-0136A	£27.42	£12.34	-0166A	£27.42	£12.34
7.00	10.0	10.0	60.0	336g	-0107A	£21.21	£9.54	-	-	-	-	-	-
8.00	11.0	10.0	61.0	345g	-0108A	£20.80	£9.36	-0138A	£26.00	£11.70	-0168A	£26.00	£11.70
9.00	11.0	10.0	61.0	355g	-0109A	£23.27	£10.47	-	-	-	-	-	-
10.00	13.0	13.0	63.0	476g	-0110A	£22.76	£10.24	-0140A	£28.46	£12.81	-0170A	£28.46	£12.81
11.00	13.0	12.0	70.0	587g	-0111A	£26.20	£11.79	-	-	-	-	-	-
12.00	16.0	12.0	73.0	613g	-0112A	£24.64	£11.09	-0142A	£30.80	£13.86	-0172A	£30.80	£13.86
13.00	16.0	12.0	73.0	616g	-0113A	£32.87	£14.79	-	-	-	-0173A	£41.09	£18.49
14.00	16.0	12.0	73.0	615g	-0114A	£29.77	£13.40	-0144A	£37.21	£16.74	-	-	-
15.00	16.0	12.0	73.0	654g	-0115A	£34.65	£15.59	-0145A	£43.32	£19.49	-	-	-
16.00	19.0	16.0	79.0	1025g	-0116A	£34.65	£15.59	-0146A	£43.32	£19.49	-0176A	£43.32	£19.49
18.00	19.0	16.0	79.0	1086g	-0118A	£40.44	£18.20	-	-	-	-0178A	£50.55	£22.75
20.00	22.0	20.0	88.0	1423g	-0120A	£46.21	£20.79	-	-	-	-0180A	£57.76	£25.99
22.00	22.0	20.0	88.0	2004g	-0122A	£74.84	£33.68	-	-	-	-	-	-
25.00	26.0	25.0	102.0	3366g	-0125A	£82.64	£37.19	-0155A	£103.30	£46.49	-0185A	£103.30	£46.49

**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	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1
2.00	7.0	6.0	51.0	108g	-0202A	£30.17	£13.58	-	-	-	-0263A	£37.71	£16.97
3.00	8.0	6.0	52.0	108g	-0203A	£30.17	£13.58	-0233A	£37.71	£16.97	-0263A	£37.71	£16.97
4.00	11.0	6.0	55.0	114g	-0204A	£24.13	£10.86	-0234A	£30.17	£13.58	-0264A	£30.17	£13.58
5.00	13.0	6.0	57.0	121g	-0205A	£24.13	£10.86	-	-	-	-0265A	£30.17	£13.58
6.00	13.0	6.0	57.0	150g	-0206A	£24.13	£10.86	-0236A	£30.17	£13.58	-0266A	£30.17	£13.58
8.00	19.0	10.0	69.0	361g	-0208A	£22.88	£10.30	-0238A	£28.60	£12.87	-0268A	£28.60	£12.87
10.00	22.0	10.0	72.0	402g	-0210A	£25.04	£11.27	-0240A	£31.30	£14.09	-0270A	£31.30	£14.09
12.00	26.0	12.0	83.0	652g	-0212A	£27.10	£12.20	-0242A	£33.88	£15.25	-0272A	£33.88	£15.25
14.00	26.0	12.0	83.0	710g	-0214A	£32.75	£14.74	-	-	-	-	-	-
16.00	32.0	16.0	92.0	950g	-0216A	£38.12	£17.15	-0246A	£47.64	£21.44	-0276A	£47.64	£21.44
20.00	38.0	20.0	104.0	2114g	-0220A	£50.83	£22.87	-0250A	£63.54	£28.59	-0280A	£63.54	£28.59
22.00	38.0	20.0	104.0	2238g	-0222A	£82.32	£37.04	-	-	-	-	-	-
25.00	45.0	25.0	121.0	2400g	-0225A	£90.90	£40.91	-	-	-	-0285A	£113.63	£51.13

**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	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1
2.00	7.0	6.0	54.0	110g	-0302A	£36.70	£16.52	-	-	-	-	-	-
3.00	8.0	6.0	56.0	116g	-0303A	£29.71	£13.37	-	-	-	-	-	-
4.00	11.0	6.0	63.0	120g	-0304A	£29.71	£13.37	-	-	-	-	-	-
5.00	13.0	6.0	68.0	136g	-	-	-	-0335A	£37.14	£16.71	-	-	-
6.00	13.0	6.0	68.0	153g	-0306A	£29.71	£13.37	-0336A	£37.14	£16.71	-	-	-
8.00	19.0	10.0	88.0	442g	-0308A	£33.00	£14.85	-0338A	£41.25	£18.56	-	-	-
10.00	22.0	10.0	95.0	528g	-0310A	£38.73	£17.43	-0340A	£48.41	£21.78	-0370A	£48.41	£21.78
12.00	26.0	12.0	110.0	736g	-0312A	£46.65	£20.99	-0342A	£58.31	£26.24	-	-	-
14.00	26.0	12.0	110.0	843g	-	-	-	-0344A	£76.11	£34.25	-0374A	£76.11	£34.25
16.00	32.0	16.0	123.0	1734g	-0316A	£76.87	£34.59	-0346A	£96.09	£43.24	-	-	-
20.00	38.0	20.0	141.0	3064g	-0320A	£87.53	£39.39	-0350A	£109.41	£49.23	-0380A	£109.41	£49.23
22.00	38.0	20.0	141.0	3228g	-	-	-	-	-	-	-	-	-
25.00	45.0	25.0	166.0	5550g	-0325A	£141.90	£63.86	-0355A	£177.38	£79.82	-0385A	£177.38	£79.82



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

**HSS-Co 8%**

**TiCN**

**TiAlN**



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

**HSS-Co 8% Uncoated**

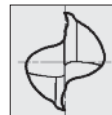
For general production machining.

**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.



**CUTTING TOOLS**

**Series 28**

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



Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Weight per 10	SDH-2TS HSS-Co 8%			SDN-2TS TiCN Coated			SDL-2TS TiAlN Coated		
					Order Code	List Price/1	Offer Price/1	Order Code	List Price/1	Offer Price/1	Order Code	List Price/1	Offer Price/1
2.00	4.0	6.0	48.0	102g	-2802A	£21.95	£9.88	-2832A	£27.42	£12.34	-2862A	£27.42	£12.34
2.50	5.0	6.0	49.0	102g	-2802L	£27.57	£12.41	-2832L	£34.45	£15.50	-	-	-
3.00	5.0	6.0	49.0	102g	-2803A	£21.95	£9.88	-2833A	£27.42	£12.34	-	-	-
3.50	6.0	6.0	50.0	102g	-2803L	£27.57	£12.41	-	-	-	-	-	-
4.00	7.0	6.0	51.0	105g	-2804A	£21.95	£9.88	-2834A	£27.42	£12.34	-2864A	£27.42	£12.34
4.50	7.0	6.0	51.0	108g	-2804L	£27.57	£12.41	-	-	-	-	-	-
5.00	8.0	6.0	52.0	110g	-2805A	£21.95	£9.88	-2835A	£27.42	£12.34	-2865A	£27.42	£12.34
5.50	8.0	6.0	52.0	110g	-2805L	£27.57	£12.41	-	-	-	-	-	-
6.00	8.0	6.0	52.0	110g	-2806A	£21.95	£9.88	-2836A	£27.42	£12.34	-2866A	£27.42	£12.34
7.00	10.0	10.0	60.0	380g	-2807A	£21.21	£9.54	-2837A	£26.51	£11.93	-2867A	£26.51	£11.93
8.00	11.0	10.0	61.0	338g	-2808A	£20.80	£9.36	-2838A	£26.00	£11.70	-2868A	£26.00	£11.70
9.00	11.0	10.0	61.0	353g	-2809A	£23.27	£10.47	-2839A	£29.07	£13.08	-	-	-
10.00	13.0	10.0	63.0	369g	-2810A	£22.76	£10.24	-2840A	£28.46	£12.81	-2870A	£28.46	£12.81
11.00	13.0	12.0	70.0	456g	-2811A	£26.20	£11.79	-2841A	£32.76	£14.74	-	-	-
12.00	16.0	12.0	73.0	600g	-2812A	£24.64	£11.09	-2842A	£30.80	£13.86	-2872A	£30.80	£13.86
13.00	16.0	12.0	73.0	608g	-2813A	£32.87	£14.79	-2843A	£41.09	£18.49	-2873A	£41.09	£18.49
14.00	16.0	12.0	73.0	631g	-2814A	£29.77	£13.40	-2844A	£37.21	£16.74	-	-	-
15.00	16.0	16.0	73.0	640g	-2815A	£34.65	£15.59	-2845A	£43.32	£19.49	-	-	-
16.00	19.0	16.0	79.0	1134g	-2816A	£34.65	£15.59	-2846A	£43.32	£19.49	-2876A	£43.32	£19.49
18.00	19.0	16.0	79.0	1200g	-2818A	£40.44	£18.20	-2848A	£50.55	£22.75	-2878A	£50.55	£22.75
20.00	22.0	20.0	88.0	1900g	-2820A	£46.21	£20.79	-2850A	£57.76	£25.99	-2880A	£57.76	£25.99
22.00	22.0	20.0	88.0	1902g	-2822A	£74.84	£33.68	-	-	-	-	-	-
25.00	26.0	25.0	102.0	3538g	-2825A	£82.64	£37.19	-	-	-	-	-	-

**Series 29**

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



Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Weight per 10	SDH-2TR HSS-Co 8%			SDN-2TR TiCN Coated			SDL-2TR TiAlN Coated		
					Order Code	List Price/1	Offer Price/1	Order Code	List Price/1	Offer Price/1	Order Code	List Price/1	Offer Price/1
2.00	7.0	6.0	51.0	102g	-2902A	£30.17	£13.58	-	-	-	-	-	-
3.00	8.0	6.0	52.0	104g	-2903A	£30.17	£13.58	-2933A	£37.71	£16.97	-	-	-
4.00	11.0	6.0	55.0	107g	-2904A	£24.13	£10.86	-2934A	£30.17	£13.58	-	-	-
5.00	13.0	6.0	57.0	110g	-2905A	£24.13	£10.86	-2935A	£30.17	£13.58	-	-	-
6.00	13.0	6.0	57.0	120g	-2906A	£24.13	£10.86	-2936A	£30.17	£13.58	-2966A	£30.17	£13.58
8.00	19.0	10.0	68.0	132g	-2908A	£22.88	£10.30	-2938A	£28.60	£12.87	-2968A	£28.60	£12.87
10.00	22.0	10.0	72.0	397g	-2910A	£25.04	£11.27	-2940A	£31.30	£14.09	-	-	-
12.00	26.0	12.0	83.0	652g	-2912A	£27.10	£12.20	-2942A	£33.88	£15.25	-2972A	£33.88	£15.25
14.00	26.0	12.0	83.0	707g	-2914A	£32.75	£14.74	-2944A	£40.93	£18.42	-	-	-
16.00	32.0	16.0	92.0	1261g	-2916A	£38.12	£17.15	-2946A	£47.64	£21.44	-2976A	£47.64	£21.44
20.00	38.0	20.0	104.0	2104g	-2920A	£50.83	£22.87	-2950A	£63.54	£28.59	-	-	-
22.00	38.0	20.0	104.0	2280g	-2922A	£82.32	£37.04	-2952A	£102.92	£46.31	-	-	-
25.00	45.0	25.0	121.0	3922g	-2925A	£90.90	£40.91	-	-	-	-	-	-

**Series 30**

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



Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Weight per 10	SDH-2TL HSS-Co 8%			SDN-2TL TiCN Coated		
					Order Code	List Price/1	Offer Price/1	Order Code	List Price/1	Offer Price/1
2.00	8.0	6.0	56.0	111g	-3002A	£36.70	£16.52	-	-	-
3.00	8.0	6.0	56.0	111g	-3003A	£29.71	£13.37	-3033A	£37.14	£16.71
4.00	11.0	6.0	63.0	114g	-3004A	£29.71	£13.37	-3034A	£37.14	£16.71
5.00	13.0	6.0	68.0	129g	-3005A	£29.71	£13.37	-3035A	£37.14	£16.71
6.00	13.0	6.0	68.0	128g	-3006A	£29.71	£13.37	-3036A	£37.14	£16.71
8.00	19.0	10.0	88.0	368g	-3008A	£33.00	£14.85	-	-	-
10.00	22.0	10.0	95.0	404g	-3010A	£38.73	£17.43	-3040A	£48.41	£21.78
12.00	26.0	12.0	110.0	666g	-3012A	£46.65	£20.99	-	-	-
14.00	26.0	12.0	110.0	710g	-3014A	£60.89	£27.40	-	-	-
16.00	32.0	16.0	123.0	950g	-3016A	£76.87	£34.59	-3046A	£96.09	£43.24
20.00	38.0	20.0	141.0	2114g	-3020A	£87.53	£39.39	-	-	-
22.00	38.0	20.0	141.0	2238g	-	-	-	-	-	-
25.00	45.0	25.0	166.0	2400g	-3025A	£141.90	£63.86	-3055A	£177.38	£79.82

**CONTRACT PRICES AVAILABLE FOR VOLUME PURCHASES**



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

**HSS-Co 8%**

**TiCN**

**TiAlN**



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

**HSS-Co 8% Uncoated**

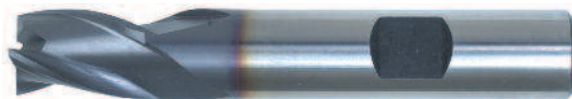
For general production machining.

**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	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1
2.00	4.0	6.0	48.0	107g	-0502A	£18.58	£8.36	-0532A	£23.22	£10.45	-0562A	£23.22	£10.45
3.00	5.0	6.0	49.0	109g	-0503A	£18.58	£8.36	-0533A	£23.22	£10.45	-0563A	£23.22	£10.45
4.00	7.0	6.0	51.0	112g	-0504A	£18.58	£8.36	-0534A	£23.22	£10.45	-0564A	£23.22	£10.45
5.00	8.0	6.0	52.0	117g	-0505A	£21.03	£9.46	-0535A	£26.29	£11.83	-0565A	£26.29	£11.83
6.00	8.0	6.0	52.0	123g	-0506A	£18.39	£8.28	-0536A	£22.99	£10.35	-0566A	£22.99	£10.35
7.00	10.0	10.0	60.0	339g	-0507A	£28.35	£12.76	-0537A	£30.25	£13.61	-	-	-
8.00	11.0	10.0	61.0	353g	-0508A	£20.09	£9.04	-0538A	£25.11	£11.30	-0568A	£25.11	£11.30
9.00	11.0	10.0	61.0	355g	-0509A	£23.95	£10.78	-	-	-	-	-	-
10.00	13.0	10.0	63.0	382g	-0510A	£25.18	£11.33	-0540A	£31.47	£14.16	-0570A	£31.47	£14.16
12.00	16.0	12.0	73.0	617g	-0512A	£29.04	£13.07	-0542A	£36.30	£16.34	-0572A	£36.30	£16.34
14.00	16.0	12.0	73.0	688g	-0514A	£36.16	£16.27	-0544A	£45.20	£20.34	-0574A	£45.20	£20.34
16.00	19.0	16.0	79.0	1220g	-0516A	£42.02	£18.91	-0546A	£52.53	£23.64	-0576A	£52.53	£23.64
20.00	22.0	20.0	88.0	1894g	-0520A	£56.71	£25.52	-0550A	£70.87	£31.89	-	-	-
25.00	26.0	25.0	102.0	3388g	-0525A	£105.59	£47.52	-	-	-	-0585A	£131.98	£59.39

**EXTENDED RANGE**



**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	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1
3.00	8.0	6.0	52.0	111g	-0603A	£21.52	£9.68	-0633A	£26.90	£12.11	-0663A	£26.90	£12.11
4.00	11.0	6.0	55.0	114g	-0604A	£21.52	£9.68	-0634A	£26.90	£12.11	-0664A	£26.90	£12.11
5.00	13.0	6.0	57.0	129g	-0605A	£23.21	£10.44	-0635A	£29.02	£13.06	-0665A	£29.02	£13.06
6.00	13.0	6.0	57.0	128g	-0606A	£22.02	£9.91	-0636A	£27.53	£12.39	-0666A	£27.53	£12.39
7.00	16.0	10.0	66.0	340g	-	-	-	-0637A	-	£13.48	-	-	-
8.00	19.0	10.0	69.0	368g	-0608A	£25.66	£11.55	-0638A	£32.08	£14.44	-0668A	£32.08	£14.44
9.00	19.0	10.0	69.0	-	-0609A	-	£12.58	-0639A	-	£13.84	-	-	-
10.00	22.0	10.0	72.0	404g	-0610A	£29.04	£13.07	-0640A	£36.30	£16.34	-0670A	£36.30	£16.34
12.00	26.0	12.0	83.0	666g	-0612A	£33.40	£15.03	-0642A	£41.75	£18.79	-0672A	£41.75	£18.79
11.00	22.0	12.0	79.0	-	-0611A	-	£14.83	-0641A	-	£16.31	-	-	-
13.00	26.0	12.0	83.0	-	-0613A	-	£17.53	-	-	-	-	-	-
14.00	26.0	12.0	83.0	710g	-0614A	£41.05	£18.47	-0644A	£51.32	£23.09	-0674A	£51.32	£23.09
16.00	32.0	16.0	92.0	950g	-0616A	£45.46	£20.46	-0646A	£56.83	£25.57	-0676A	£56.83	£25.57
18.00	38.0	20.0	104.0	2114g	-0618A	-	£23.83	-	-	-	-	-	-
20.00	38.0	20.0	104.0	2114g	-0620A	£68.93	£31.02	-0650A	£86.15	£38.77	-0680A	£86.15	£38.77
25.00	45.0	25.0	121.0	2400g	-0625A	£109.48	£49.27	-	-	-	-	-	-



**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	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1
3.00	12.0	6.0	56.0	49g	-0703A	£25.91	£11.66	-0733A	£32.38	£14.57	-0763A	£32.38	£14.57
4.00	19.0	6.0	63.0	59g	-0704A	£25.91	£11.66	-0734A	£32.38	£14.57	-0764A	£32.38	£14.57
5.00	24.0	6.0	68.0	69g	-0705A	£25.91	£11.66	-0735A	£32.38	£14.57	-0765A	£32.38	£14.57
6.00	24.0	6.0	68.0	72g	-0706A	£26.62	£11.98	-0736A	£33.28	£14.98	-0766A	£33.28	£14.98
8.00	38.0	10.0	88.0	206g	-0708A	£30.49	£13.72	-0738A	£38.12	£17.15	-0768A	£38.12	£17.15
10.00	45.0	10.0	95.0	245g	-0710A	£33.88	£15.25	-0740A	£42.35	£19.06	-0770A	£42.35	£19.06
12.00	53.0	12.0	110.0	379g	-0712A	£38.72	£17.42	-0742A	£48.40	£21.78	-0772A	£48.40	£21.78
14.00	53.0	12.0	110.0	420g	-0714A	£49.36	£22.21	-0744A	£61.70	£27.77	-0774A	£61.70	£27.77
16.00	63.0	16.0	123.0	746g	-0716A	£60.61	£27.27	-0746A	£75.77	£34.10	-0776A	£75.77	£34.10
20.00	75.0	20.0	141.0	1314g	-0720A	£88.46	£39.81	-0750A	£110.58	£49.76	-	-	-
22.00	75.0	20.0	141.0	1425g	-0722A	£89.95	£40.48	-	-	-	-	-	-
25.00	90.0	25.0	166.0	2415g	-0725A	£129.47	£58.26	-	-	-	-	-	-

**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**

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	List Price/1	Offer Price/1	Order Code	List Price/1	Offer Price/1	Order Code	List Price/1	Offer Price/1
3.00	5.0	6.0	49.0	10g	<b>-3203A</b>	£18.58	<b>£8.36</b>	<b>-3233A</b>	£23.22	<b>£10.45</b>	-	-	-
4.00	7.0	6.0	51.0	10g	<b>-3204A</b>	£18.58	<b>£8.36</b>	<b>-3234A</b>	£23.22	<b>£10.45</b>	<b>-3264A</b>	£23.22	<b>£10.45</b>
5.00	8.0	6.0	52.0	10g	<b>-3205A</b>	£21.03	<b>£9.46</b>	<b>-3235A</b>	£26.29	<b>£11.83</b>	<b>-3265A</b>	£26.29	<b>£11.83</b>
6.00	8.0	6.0	61.0	11g	<b>-3206A</b>	£18.39	<b>£8.28</b>	<b>-3236A</b>	£22.99	<b>£10.35</b>	<b>-3266A</b>	£22.99	<b>£10.35</b>
8.00	11.0	10.0	63.0	34g	<b>-3208A</b>	£20.09	<b>£9.04</b>	<b>-3238A</b>	£25.11	<b>£11.30</b>	<b>-3268A</b>	£25.11	<b>£11.30</b>
10.00	13.0	10.0	73.0	37g	<b>-3210A</b>	£25.18	<b>£11.33</b>	<b>-3240A</b>	£31.47	<b>£14.16</b>	<b>-3270A</b>	£31.47	<b>£14.16</b>
12.00	16.0	12.0	73.0	62g	<b>-3212A</b>	£29.04	<b>£13.07</b>	<b>-3242A</b>	£36.30	<b>£16.34</b>	<b>-3272A</b>	£36.30	<b>£16.34</b>
14.00	16.0	12.0	79.0	62g	<b>-3214A</b>	£36.16	<b>£16.27</b>	-	-	-	-	-	-
16.00	19.0	16.0	88.0	104g	<b>-3216A</b>	£42.02	<b>£18.91</b>	-	-	-	<b>-3276A</b>	£52.53	<b>£23.64</b>
20.00	22.0	20.0	88.0	187g	<b>-3220A</b>	£56.71	<b>£25.52</b>	-	-	-	<b>-3280A</b>	£70.87	<b>£31.89</b>
22.00	22.0	20.0	88.0	195g	<b>-3222A</b>	£87.48	<b>£39.37</b>	-	-	-	-	-	-
25.00	26.0	25.0	102.0	349g	<b>-3225A</b>	£105.59	<b>£47.52</b>	-	-	-	<b>-3285A</b>	£131.98	<b>£59.39</b>

**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	List Price/1	Offer Price/1	Order Code	List Price/1	Offer Price/1	Order Code	List Price/1	Offer Price/1
3.00	8.0	6.0	52.0	10g	<b>-3303A</b>	£21.52	<b>£9.68</b>	<b>-3333A</b>	£26.90	<b>£12.11</b>	<b>-3363A</b>	£26.90	<b>£12.11</b>
4.00	11.0	6.0	55.0	10g	<b>-3304A</b>	£21.52	<b>£9.68</b>	<b>-3334A</b>	£26.90	<b>£12.11</b>	<b>-3364A</b>	£26.90	<b>£12.11</b>
5.00	13.0	6.0	57.0	10g	<b>-3305A</b>	£23.21	<b>£10.44</b>	<b>-3335A</b>	£29.01	<b>£13.05</b>	<b>-3365A</b>	£29.01	<b>£13.05</b>
6.00	13.0	6.0	57.0	12g	<b>-3306A</b>	£22.02	<b>£9.91</b>	<b>-3336A</b>	£27.53	<b>£12.39</b>	<b>-3366A</b>	£27.53	<b>£12.39</b>
7.00	16.0	10.0	66.0	-	<b>-3307A</b>	-	<b>£10.80</b>	-	-	-	-	-	-
8.00	19.0	10.0	69.0	36g	<b>-3308A</b>	£25.66	<b>£11.55</b>	<b>-3338A</b>	£32.08	<b>£14.44</b>	<b>-3368A</b>	£32.08	<b>£14.44</b>
9.00	19.0	10.0	69.0	-	<b>-3309A</b>	-	<b>£12.65</b>	-	-	-	-	-	-
10.00	22.0	10.0	72.0	40g	<b>-3310A</b>	£29.04	<b>£13.07</b>	<b>-3340A</b>	£36.30	<b>£16.34</b>	<b>-3370A</b>	£36.30	<b>£16.34</b>
11.00	22.0	12.0	79.0	-	<b>-3311A</b>	-	<b>£14.40</b>	-	-	-	-	-	-
12.00	26.0	12.0	83.0	66g	<b>-3312A</b>	£33.40	<b>£15.03</b>	<b>-3342A</b>	£41.75	<b>£18.79</b>	<b>-3372A</b>	£41.75	<b>£18.79</b>
13.00	26.0	12.0	83.0	-	<b>-3313A</b>	-	<b>£17.10</b>	-	-	-	-	-	-
14.00	26.0	12.0	83.0	68g	<b>-3314A</b>	£41.05	<b>£18.47</b>	<b>-3344A</b>	£51.32	<b>£23.09</b>	<b>-3374A</b>	£51.32	<b>£23.09</b>
16.00	32.0	16.0	92.0	121g	<b>-3316A</b>	£45.46	<b>£20.46</b>	<b>-3346A</b>	£56.83	<b>£25.57</b>	<b>-3376A</b>	£56.83	<b>£25.57</b>
20.00	38.0	20.0	104.0	206g	<b>-3320A</b>	£68.93	<b>£31.02</b>	<b>-3350A</b>	£86.15	<b>£38.77</b>	<b>-3380A</b>	£86.15	<b>£38.77</b>
22.00	38.0	20.0	104.0	219g	<b>-3322A</b>	£84.56	<b>£38.05</b>	<b>-3352A</b>	£105.70	<b>£47.57</b>	-	-	-
25.00	45.0	25.0	121.0	364g	<b>-3325A</b>	£109.48	<b>£49.27</b>	<b>-3355A</b>	£136.85	<b>£61.58</b>	-	-	-

**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	List Price/1	Offer Price/1	Order Code	List Price/1	Offer Price/1	Order Code	List Price/1	Offer Price/1
3.00	12.0	6.0	65.0	10g	<b>-3403A</b>	£25.91	<b>£11.66</b>	<b>-3433A</b>	£32.38	<b>£14.57</b>	<b>-3463A</b>	£32.38	<b>£14.57</b>
4.00	19.0	6.0	63.0	11g	<b>-3404A</b>	£25.91	<b>£11.66</b>	<b>-3434A</b>	£32.38	<b>£14.57</b>	<b>-3464A</b>	£32.38	<b>£14.57</b>
5.00	24.0	6.0	68.0	13g	<b>-3405A</b>	£25.91	<b>£11.66</b>	-	-	-	<b>-3465A</b>	£32.38	<b>£14.57</b>
6.00	24.0	6.0	68.0	14g	<b>-3406A</b>	£26.62	<b>£11.98</b>	<b>-3436A</b>	£33.28	<b>£14.98</b>	<b>-3466A</b>	£33.28	<b>£14.98</b>
8.00	38.0	10.0	88.0	40g	<b>-3408A</b>	£30.49	<b>£13.72</b>	<b>-3438A</b>	£38.12	<b>£17.15</b>	<b>-3468A</b>	£38.12	<b>£17.15</b>
10.00	45.0	10.0	95.0	49g	<b>-3410A</b>	£33.88	<b>£15.25</b>	<b>-3440A</b>	£42.35	<b>£19.06</b>	<b>-3470A</b>	£42.35	<b>£19.06</b>
12.00	53.0	12.0	110.0	79g	<b>-3412A</b>	£38.72	<b>£17.42</b>	<b>-3442A</b>	£48.40	<b>£21.78</b>	<b>-3472A</b>	£48.40	<b>£21.78</b>
14.00	53.0	12.0	110.0	85g	<b>-3414A</b>	£49.36	<b>£22.21</b>	<b>-3444A</b>	£61.70	<b>£27.77</b>	-	-	-
16.00	63.0	16.0	123.0	142g	<b>-3416A</b>	£60.61	<b>£27.27</b>	<b>-3446A</b>	£75.76	<b>£34.09</b>	<b>-3476A</b>	£75.76	<b>£34.09</b>
20.00	75.0	20.0	141.0	259g	<b>-3420A</b>	£88.46	<b>£39.81</b>	<b>-3450A</b>	£110.58	<b>£49.76</b>	<b>-3480A</b>	£110.58	<b>£49.76</b>
22.00	75.0	20.0	141.0	280g	-	-	-	-	-	-	-	-	-
25.00	90.0	25.0	166.0	480g	<b>-3425A</b>	£129.47	<b>£58.26</b>	-	-	-	<b>-3485A</b>	£161.84	<b>£72.83</b>

**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**

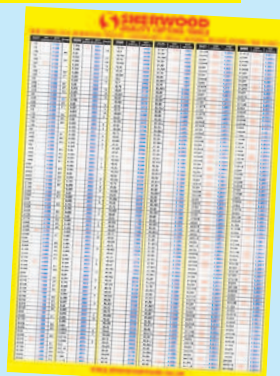
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**HSS-Co 8% Weldon Shank End Mills 4 & 6 Flute**

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%**

**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.



**EXTENDED RANGE**



**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	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1
2.00	7.0	6.0	51.0	4	108g	-0902A	£32.60	£14.67	-0932A	£40.74	£18.33	-0962A	£40.74	£18.33
3.00	8.0	6.0	52.0	4	111g	-0903A	£21.95	£9.88	-0933A	£27.42	£12.34	-0963A	£27.42	£12.34
4.00	11.0	6.0	55.0	4	117g	-0904A	£21.95	£9.88	-0934A	£27.42	£12.34	-0964A	£27.42	£12.34
5.00	13.0	6.0	57.0	4	126g	-0905A	£24.43	£10.99	-0935A	£30.54	£13.74	-0965A	£30.54	£13.74
6.00	13.0	6.0	57.0	4	133g	-0906A	£21.95	£9.88	-0936A	£27.42	£12.34	-0966A	£27.42	£12.34
7.00	16.0	10.0	66.0	4	332g	-0907A	£25.77	£11.60	-	-	-	-	-	-
8.00	19.0	10.0	69.0	4	375g	-0908A	£24.64	£11.09	-0938A	£30.80	£13.86	-0968A	£30.80	£13.86
9.00	19.0	10.0	69.0	4	-	-0909A	£26.95	£12.13	-	-	-	-	-	-
10.00	22.0	10.0	72.0	4	423g	-0910A	£27.72	£12.47	-0940A	£34.65	£15.59	-0970A	£34.65	£15.59
11.00	22.0	12.0	79.0	4	-	-0911A	£29.95	£13.48	-	-	-	-	-	-
12.00	26.0	12.0	83.0	4	688g	-0912A	£31.68	£14.26	-0942A	£39.60	£17.82	-0972A	£39.60	£17.82
13.00	26.0	12.0	83.0	4	-	-0913A	£35.95	£16.18	-	-	-	-	-	-
14.00	26.0	12.0	83.0	4	725g	-0914A	£39.09	£17.59	-0944A	£48.87	£21.99	-0974A	£48.87	£21.99
15.00	26.0	12.0	83.0	4	-	-0915A	£41.95	£18.88	-	-	-	-	-	-
16.00	32.0	16.0	92.0	4	1037g	-0916A	£43.11	£19.40	-0946A	£53.89	£24.25	-0976A	£53.89	£24.25
17.00	32.0	16.0	92.0	4	-	-0917A	£48.85	£21.98	-	-	-	-	-	-
18.00	32.0	16.0	92.0	4	1390g	-0918A	£54.22	£24.40	-0948A	£67.77	£30.50	-0978A	£67.77	£30.50
19.00	32.0	16.0	92.0	4	-	-0919A	£61.10	£27.50	-	-	-	-	-	-
20.00	38.0	20.0	104.0	4	2114g	-0920A	£65.77	£29.60	-0950A	£82.21	£36.99	-0980A	£82.21	£36.99
25.00	45.0	25.0	121.0	6	2400g	-0925A <sup>(1)</sup>	£116.60	£52.47	-0955A <sup>(2)</sup>	£145.75	£65.59	-0985A <sup>(3)</sup>	£145.75	£65.59

<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	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1
3.00	12.0	6.0	56.0	4	55g	-1003A	£24.61	£11.07	-1033A	£30.76	£13.84	-1063A	£30.76	£13.84
4.00	19.0	6.0	63.0	4	61g	-1004A	£24.88	£11.20	-1034A	£31.11	£14.00	-1064A	£31.11	£14.00
5.00	24.0	6.0	68.0	4	67g	-1005A	£24.88	£11.20	-1035A	£31.11	£14.00	-1065A	£31.11	£14.00
6.00	24.0	6.0	68.0	4	74g	-1006A	£25.51	£11.48	-1036A	£31.89	£14.35	-1066A	£31.89	£14.35
8.00	38.0	10.0	88.0	4	215g	-1008A	£29.04	£13.07	-1038A	£36.30	£16.34	-1068A	£36.30	£16.34
10.00	45.0	10.0	95.0	4	260g	-1010A	£31.68	£14.26	-1040A	£39.60	£17.82	-1070A	£39.60	£17.82
12.00	53.0	12.0	110.0	4	408g	-1012A	£36.96	£16.63	-1042A	£46.20	£20.79	-1072A	£46.20	£20.79
14.00	53.0	12.0	110.0	4	471g	-1014A	£47.10	£21.20	-1044A	£58.88	£26.50	-1074A	£58.88	£26.50
16.00	63.0	16.0	123.0	4	806g	-1016A	£57.76	£25.99	-1046A	£72.20	£32.49	-1076A	£72.20	£32.49
20.00	75.0	20.0	141.0	4	1433g	-1020A	£85.31	£38.39	-1050A	£106.63	£47.98	-1080A	£106.63	£47.98

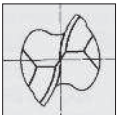
**HSS-Co 8% Weldon Shank Ball Nose Slot Drills 2 Flute**

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			SBL-2WS TiAlN Coated		
					Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1
2.00	5.0	6.0	49.0	52g	-1102A	£36.88	£16.60	-1132A	£46.10	£20.75	-	-	-
3.00	5.0	6.0	49.0	54g	-1103A	£36.88	£16.60	-	-	-	-1163A	£46.10	£20.75
4.00	7.0	6.0	51.0	55g	-1104A	£36.74	£16.53	-1134A	£45.94	£20.67	-1164A	£45.94	£20.67
5.00	8.0	6.0	52.0	58g	-1105A	£36.74	£16.53	-1135A	£45.94	£20.67	-1165A	£45.94	£20.67
6.00	8.0	6.0	52.0	60g	-1106A	£36.74	£16.53	-1136A	£45.94	£20.67	-	-	-
8.00	11.0	10.0	61.0	170g	-1108A	£41.36	£18.61	-1138A	£51.70	£23.27	-	-	-
10.00	13.0	10.0	63.0	188g	-1110A	£44.44	£20.00	-1140A	£55.55	£25.00	-1170A	£55.55	£25.00
12.00	16.0	12.0	73.0	306g	-1112A	£55.45	£24.95	-1142A	£69.31	£31.19	-1172A	£69.31	£31.19
16.00	19.0	16.0	79.0	535g	-1116A	£75.93	£34.17	-1146A	£94.92	£42.71	-1176A	£94.92	£42.71
20.00	22.0	20.0	88.0	944g	-1120A	£86.65	£38.99	-1150A	£108.31	£48.74	-	-	-



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

**HSS-Co 8%**

**TiCN**

**TiAlN**



Centre cutting.  
Threaded shank to **DIN 1835D**.  
Shank cutting diameter to +0.04 -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 36**

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



Diameter (mm)	Flute Length	Shank Diameter	Overall Length	No. of Flutes	Weight per 10	EMH-4TR HSS-Co 8%			EMN-4TR TiCN Coated			EML-4TR TiAlN Coated		
						Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1
2.00	7.0	6.0	51.0	4	108g	-3602A	£32.60	£14.67	-	-	-	-3662A	£40.74	£18.33
3.00	8.0	6.0	52.0	4	111g	-3603A	£21.95	£9.88	-3633A	£27.42	£12.34	-3663A	£27.42	£12.34
4.00	11.0	6.0	55.0	4	114g	-3604A	£21.95	£9.88	-3634A	£27.42	£12.34	-3664A	£27.42	£12.34
5.00	13.0	6.0	57.0	4	126g	-3605A	£24.43	£10.99	-3635A	£30.54	£13.74	-3665A	£30.54	£13.74
6.00	13.0	6.0	57.0	4	133g	-3606A	£21.95	£9.88	-3636A	£27.42	£12.34	-3666A	£27.42	£12.34
7.00	16.0	10.0	66.0	4	340g	-3607A	£25.77	£11.60	-3637A	£32.22	£14.50	-3667A	£32.22	£14.50
8.00	19.0	10.0	69.0	4	375g	-3608A	£24.64	£11.09	-3638A	£30.80	£13.86	-3668A	£30.80	£13.86
10.00	22.0	10.0	72.0	4	423g	-3610A	£27.72	£12.47	-3640A	£34.65	£15.59	-3670A	£34.65	£15.59
12.00	26.0	12.0	83.0	4	688g	-3612A	£31.68	£14.26	-3642A	£39.60	£17.82	-3672A	£39.60	£17.82
14.00	26.0	12.0	83.0	4	728g	-3614A	£39.09	£17.59	-3644A	£48.87	£21.99	-3674A	£48.87	£21.99
16.00	32.0	16.0	92.0	4	1220g	-3616A	£43.11	£19.40	-3646A	£53.89	£24.25	-3676A	£53.89	£24.25
18.00	32.0	16.0	92.0	4	1534g	-3618A	£54.22	£24.40	-3648A	£67.77	£30.50	-3678A	£67.77	£30.50
20.00	38.0	20.0	104.0	4	2114g	-3620A	£65.77	£29.60	-3650A	£82.21	£36.99	-3680A	£82.21	£36.99
25.00	45.0	25.0	121.0	6	2668g	-3625A <sup>(1)</sup>	£116.60	£52.47	-3655A <sup>(2)</sup>	£145.75	£65.59	-	-	-

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

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

**Series 37**

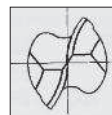
**Long Series** Dimensions to **DIN 844**



Diameter (mm)	Flute Length	Shank Diameter	Overall Length	No. of Flutes	Weight per 5	EMH-4TL HSS-Co 8%			EMN-4TL TiCN Coated			EML-4TL TiAlN Coated		
						Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1
3.00	12.0	6.0	56.0	4	55g	-	-	-	-	-	-	-3763A	£30.76	£13.84
4.00	19.0	6.0	63.0	4	61g	-3704A	£24.88	£11.20	-	-	-	-3764A	£31.11	£14.00
5.00	24.0	6.0	68.0	4	67g	-3705A	£24.88	£11.20	-	-	-	-3765A	£31.11	£14.00
6.00	24.0	6.0	68.0	4	74g	-3706A	£25.51	£11.48	-3736A	£31.89	£14.35	-3766A	£31.89	£14.35
8.00	38.0	10.0	88.0	4	215g	-3708A	£29.04	£13.07	-	-	-	-3768A	£36.30	£16.34
10.00	45.0	10.0	95.0	4	260g	-3710A	£31.68	£14.26	-3740A	£39.60	£17.82	-3770A	£39.60	£17.82
12.00	53.0	12.0	110.0	4	408g	-3712A	£36.96	£16.63	-3742A	£46.20	£20.79	-3772A	£46.20	£20.79
14.00	53.0	12.0	110.0	4	471g	-3714A	£47.10	£21.20	-	-	-	-3774A	£58.88	£26.50
16.00	63.0	16.0	123.0	4	806g	-3716A	£57.76	£25.99	-3746A	£72.20	£32.49	-3776A	£72.20	£32.49
20.00	75.0	20.0	141.0	4	1433g	-3720A	£85.31	£38.39	-3750A	£106.63	£47.98	-3780A	£106.63	£47.98

**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 39**

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



Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Weight per 5	SBH-2TS HSS-Co 8%			SBN-2TS TiCN Coated			SBL-2TS TiAlN Coated		
					Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1
2.00	5.0	6.0	49.0	52g	-3902A	£36.88	£16.60	-	-	-	-3962A	£46.10	£20.75
3.00	5.0	6.0	49.0	54g	-3903A	£36.88	£16.60	-3933A	£46.10	£20.75	-3963A	£46.10	£20.75
4.00	7.0	6.0	51.0	55g	-3904A	£36.74	£16.53	-3934A	£45.94	£20.67	-	-	-
5.00	8.0	6.0	52.0	58g	-3905A	£36.74	£16.53	-3935A	£45.94	£20.67	-	-	-
6.00	8.0	6.0	52.0	60g	-3906A	£36.74	£16.53	-3936A	£45.94	£20.67	-3966A	£45.94	£20.67
8.00	11.0	10.0	61.0	170g	-3908A	£41.36	£18.61	-	-	-	-3968A	£51.70	£23.27
9.00	13.0	10.0	63.0	184g	-3909A	£47.99	£21.60	-	-	-	-	-	-
10.00	13.0	10.0	63.0	188g	-3910A	£44.44	£20.00	-3940A	£55.55	£25.00	-3970A	£55.55	£25.00
12.00	16.0	12.0	73.0	306g	-3912A	£55.45	£24.95	-	-	-	-3972A	£69.31	£31.19
16.00	19.0	16.0	79.0	535g	-3916A	£75.93	£34.17	-	-	-	-	-	-
20.00	22.0	20.0	88.0	944g	-3920A	£86.65	£38.99	-	-	-	-	-	-

**Series 40**

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



Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Weight each	SBH-2TL HSS-Co 8%			SBN-2TL TiCN Coated			SBL-2TL TiAlN Coated		
					Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1
3.00	8.0	6.0	56.0	10g	-4003A	£53.64	£24.14	-	-	-	-	-	-
5.00	13.0	6.0	68.0	14g	-4005A	£53.64	£24.14	-	-	-	-	-	-
6.00	13.0	6.0	68.0	15g	-4006A	£44.67	£20.10	-	-	-	-	-	-
8.00	19.0	10.0	88.0	44g	-4008A	£52.81	£23.76	-	-	-	-	-	-
10.00	22.0	10.0	95.0	55g	-4010A	£56.77	£25.55	-	-	-	-	-	-
12.00	26.0	12.0	110.0	85g	-4012A	£80.09	£36.04	-	-	-	-	-	-

**CONTRACT PRICES AVAILABLE FOR VOLUME PURCHASES**

All Prices Exclude V.A.T. © 2014



**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**.



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

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Weight per 5	SBH-2WL HSS-Co 8%			SBN-2WL TiCN Coated			SBL-2WL TiAlN Coated			
					Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1	
3.00	8.0	6.0	56.0	55g	-1203A	£53.64	£24.14	-	-	-	-	-	-	-
4.00	11.0	6.0	63.0	60g	-1204A	£49.17	£22.13	-	-	-	-	-	-	-
5.00	13.0	6.0	68.0	70g	-	-	-	-1235A	£67.05	£30.17	-	-	-	-
6.00	13.0	6.0	68.0	75g	-1206A	£44.67	£20.10	-1236A	£55.84	£25.13	-1266A	£55.84	£25.13	-
8.00	19.0	10.0	88.0	110g	-1208A	£52.81	£23.76	-	-	-	-	-	-	-
10.00	22.0	10.0	95.0	277g	-1210A	£56.77	£25.55	-1240A	£70.96	£31.93	-1270A	£70.96	£31.93	-
12.00	26.0	12.0	110.0	435g	-1212A	£80.09	£36.04	-1242A	£100.11	£45.05	-1272A	£100.11	£45.05	-

**HSS-Co 8%**

**TiCN**

**TiAlN**

**HSS-Co 8% Uncoated**

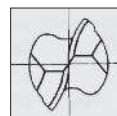
For general production machining.

**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.



**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**.



**Series 13  
Regular Series** Dimensions to **DIN 844**

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	No. of Flutes	Weight per 5	EHH-3WR HSS-Co 8%			EHN-3WR TiCN Coated			EHL-3WR TiAlN Coated		
						Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1
6.00	13.0	6.0	57.0	3	54g	-1306A	£26.62	£11.98	-1336A	£33.28	£14.98	-1366A	£33.28	£14.98
8.00	19.0	10.0	69.0	3	186g	-1308A	£31.94	£14.37	-1338A	£39.93	£17.97	-	-	-
10.00	22.0	10.0	72.0	3	225g	-1310A	£35.33	£15.90	-1340A	£44.17	£19.88	-	-	-
12.00	26.0	12.0	83.0	3	340g	-1312A	£40.66	£18.30	-1342A	£50.82	£22.87	-	-	-
16.00	32.0	16.0	92.0	3	619g	-1316A	£55.22	£24.85	-1346A	£69.04	£31.07	-1376A	£69.04	£31.07
20.00	38.0	20.0	104.0	3	1079g	-1320A	£85.04	£38.27	-1350A	£106.30	£47.84	-1380A	£106.30	£47.84

**HSS-Co 8%**

**TiCN**

**TiAlN**

**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**.



**Series 15  
Regular Length** Dimensions to **DIN 844**

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	Weight per 5	SHH-2WR HSS-Co 8%			SHN-2WR TiCN Coated			SHL-2WR TiAlN Coated		
					Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1
3.00	8.0	6.0	52.0	55g	-1503A	£25.91	£11.66	-	-	-	-	-	-
4.00	11.0	6.0	55.0	56g	-1504A	£22.98	£10.34	-	-	-	-	-	-
5.00	13.0	6.0	57.0	60g	-1505A	£22.98	£10.34	-	-	-	-	-	-
6.00	13.0	6.0	57.0	62g	-1506A	£23.72	£10.67	-1536A	£29.65	£13.34	-1567A	£40.33	£18.15
7.00	25.0	9.0	60.0	79g	-	-	-	-	-	-	-	-	-
8.00	19.0	10.0	69.0	175g	-1508A	£27.10	£12.20	-1538A	£33.88	£15.25	-	-	-
10.00	22.0	10.0	72.0	190g	-1510A	£31.46	£14.16	-1540A	£39.33	£17.70	-	-	-
12.00	26.0	12.0	83.0	326g	-1512A	£35.33	£15.90	-1542A	£44.17	£19.88	-	-	-
14.00	26.0	12.0	83.0	346g	-1514A	£43.00	£19.35	-	-	-	-	-	-
16.00	32.0	16.0	92.0	603g	-1516A	£48.38	£21.77	-1546A	£60.47	£27.21	-	-	-
20.00	38.0	20.0	104.0	1054g	-1520A	£75.76	£34.09	-	-	-	-	-	-

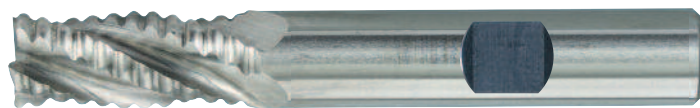
**HSS-Co 8%**

**TiCN**

**TiAlN**

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

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



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

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	No of Flutes	Weight per 10	RCH-4WR HSS-Co 8%			RCN-4WR TiCN Coated			RCL-4WR TiAlN Coated		
						Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1
6.00	13.0	6.0	57.0	3	129g	-1706A <sup>(1)</sup>	£32.43	£14.59	-1736A <sup>(2)</sup>	£40.54	£18.24	-1766A <sup>(3)</sup>	£40.54	£18.24
8.00	19.0	10.0	69.0	3	311g	-1708A <sup>(1)</sup>	£40.17	£18.08	-1738A <sup>(2)</sup>	£50.22	£22.60	-1768A <sup>(3)</sup>	£50.22	£22.60
10.00	22.0	10.0	72.0	4	337g	-1710A	£41.62	£18.73	-1740A	£52.03	£23.41	-1770A	£52.03	£23.41
12.00	26.0	12.0	83.0	4	690g	-1712A	£45.01	£20.25	-1742A	£56.27	£25.32	-1772A	£56.27	£25.32
16.00	32.0	16.0	92.0	4	1280g	-1716A	£60.13	£27.06	-1746A	£75.15	£33.82	-1776A	£75.15	£33.82
20.00	38.0	20.0	104.0	4	2224g	-1720A	£81.62	£36.73	-1750A	£102.01	£45.90	-1780A	£102.01	£45.90
25.00	45.0	25.0	121.0	5	4074g	-1725A <sup>(4)</sup>	£119.26	£53.67	-1755A <sup>(5)</sup>	£149.07	£67.08	-1785A <sup>(6)</sup>	£149.07	£67.08

<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> RCN-5WL TiCN Coated <sup>(6)</sup> RCL-5WL TiAlN Coated



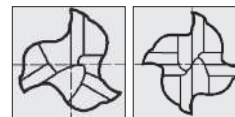
**HSS-Co 8% Weldon Shank Coarse Pitch Ripper Cutters**

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

**HSS-Co 8%**

**TiCN**

**TiAlN**



**Series 18**

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



Diameter (mm)	Flute Length	Shank Diameter	Overall Length	No. of Flutes	Weight Per 5	RCH-4WL HSS-Co 8%			RCN-4WL TiCN Coated			RCL-4WL TiAlN Coated		
						Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1
8.00	38.0	10.0	88.0	3	215g	-1808A <sup>(1)</sup>	£56.57	<b>£25.46</b>	-1838A <sup>(2)</sup>	£70.71	<b>£31.82</b>	-	-	-
10.00	45.0	10.0	95.0	4	259g	-1810A	£60.03	<b>£27.01</b>	-1840A	£75.03	<b>£33.76</b>	-	-	-
12.00	53.0	12.0	110.0	4	401g	-1812A	£65.35	<b>£29.41</b>	-1842A	£81.69	<b>£36.76</b>	-	-	-
16.00	63.0	16.0	123.0	4	804g	-1816A	£87.48	<b>£39.37</b>	-1846A	£109.35	<b>£49.21</b>	-	-	-
20.00	75.0	20.0	141.0	4	1132g	-1820A	£122.21	<b>£54.99</b>	-1850A	£152.77	<b>£68.75</b>	-	-	-
25.00	90.0	25.0	166.0	5	2627g	-1825A <sup>(4)</sup>	£179.08	<b>£80.59</b>	-1855A <sup>(5)</sup>	£223.85	<b>£100.73</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> RCN-5WL TiCN Coated

**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%**

**TiN**



**Series 20**

**Regular Length** Dimensions to **DIN 844**

Diameter (mm)	Flute Length	Shank Dia.	Overall Length	Weight each	RHH-3WR HSS-Co 8%			RHN-3WR TiN		
					Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1
6.00	13.0	6.0	57.0	12g	-2006A	£53.50	<b>£24.08</b>	-	-	-
8.00	19.0	10.0	69.0	36g	-2008A	£53.50	<b>£24.08</b>	-2028A	£66.88	<b>£30.10</b>
10.00	22.0	10.0	72.0	40g	-2010A	£43.56	<b>£19.60</b>	-2030A	£54.45	<b>£24.50</b>
12.00	26.0	12.0	83.0	67g	-2012A	£47.44	<b>£21.35</b>	-2032A	£59.30	<b>£26.69</b>
14.00	26.0	12.0	83.0	70g	-	-	-	-2034A	£66.58	<b>£29.96</b>
16.00	32.0	16.0	93.0	124g	-2016A	£62.56	<b>£28.15</b>	-2036A	£78.20	<b>£35.19</b>
20.00	38.0	20.0	104.0	215g	-2020A	£86.02	<b>£38.71</b>	-2040A	£107.53	<b>£48.39</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%**

**TiN**



**Series 21**

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

Diameter (mm)	Flute Length	Shank Dia.	Overall Length	Weight each	RHH-3WL HSS-Co 8%			RHN-3WR TiN		
					Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1
10.00	45.0	10.0	95.0	49g	-	-	-	-	-	-
12.00	53.0	12.0	110.0	78g	-2112A	£65.35	<b>£29.41</b>	-	-	-
14.00	53.0	12.0	110.0	89g	-2114A	£72.83	<b>£32.77</b>	-	-	-
16.00	63.0	16.0	123.0	149g	-2116A	£87.48	<b>£39.37</b>	-	-	-
20.00	75.0	20.0	141.0	263g	-2120A	£122.21	<b>£54.99</b>	-	-	-

**CONTRACT PRICES AVAILABLE FOR VOLUME PURCHASES**





**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**



**HSS-Co 8% Uncoated**

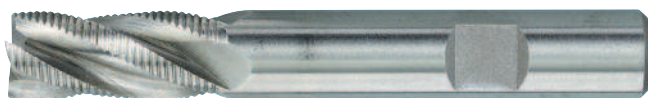
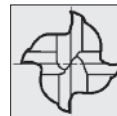
For general production machining.

**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 25  
Regular Series Dimensions to DIN 844**

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	No of Flutes	Weight per 5	RFH-4WR HSS-Co 8%			RFN-4WR TiCN Coated			RFL-4WR TiAlN Coated		
						Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1
6.00	13.0	6.0	57.0	3	65g	-2506A <sup>(1)</sup>	£49.37	£22.22	-2536A <sup>(2)</sup>	£61.71	£27.77	-2566A <sup>(3)</sup>	£61.71	£27.77
8.00	19.0	10.0	69.0	3	186g	-2508A <sup>(1)</sup>	£54.21	£24.39	-2538A <sup>(2)</sup>	£67.76	£30.49	-2568A <sup>(3)</sup>	£67.76	£30.49
10.00	22.0	10.0	72.0	4	212g	-2510A	£59.54	£26.79	-2540A	£74.43	£33.49	-2570A	£74.43	£33.49
12.00	26.0	12.0	83.0	4	356g	-2512A	£67.77	£30.50	-2542A	£84.71	£38.12	-2572A	£84.71	£38.12
14.00						-			-2544A		£43.18	-		
16.00	32.0	16.0	92.0	4	642g	-2516A	£94.34	£42.45	-2546A	£117.92	£53.06	-2576A	£117.92	£53.06
18.00						-			-2548A		£54.45	-		
20.00	38.0	20.0	104.0	4	1123g	-2520A	£94.34	£42.45	-2550A	£117.92	£53.06	-2580A	£117.92	£53.06
22.00						-			-2552A		£65.25	-		
25.00	45.0	25.0	121.0	5	1310g	-2525A <sup>(4)</sup>	£164.56	£74.05	-2555A <sup>(5)</sup>	£205.70	£92.57	-2585A <sup>(6)</sup>	£205.70	£92.57



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

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	No of Flutes	Weight per 5	RFH-4WL HSS-Co 8%			RFN-4WL TiCN Coated			RFL-4WL TiAlN Coated		
						Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1
6.00	24.0	6.0	68.0	3	80g	-2606A <sup>(1)</sup>	£64.87	£29.19	-2636A <sup>(2)</sup>	£81.08	£36.49	-2666A <sup>(3)</sup>	£81.08	£36.49
8.00	38.0	10.0	88.0	3	212g	-2608A <sup>(1)</sup>	£66.32	£29.84	-2638A <sup>(2)</sup>	£82.90	£37.31	-		
10.00	45.0	10.0	95.0	4	264g	-2610A	£77.95	£35.08	-2640A	£97.44	£43.85	-2670A	£97.44	£43.85
12.00	53.0	12.0	110.0	4	408g	-2612A	£94.38	£42.47	-2642A	£117.98	£53.09	-2672A	£117.98	£53.09
16.00	63.0	16.0	123.0	4	790g	-2616A	£134.31	£60.44	-2646A	£167.89	£75.55	-2676A	£167.89	£75.55
20.00	75.0	20.0	141.0	4	1411g	-2620A	£179.08	£80.59	-2650A	£223.85	£100.73	-2680A	£223.85	£100.73
25.00	90.0	25.0	166.0	5	2954g	-2625A <sup>(4)</sup>	£264.99	£119.25	-2655A <sup>(5)</sup>	£331.24	£149.06	-2685A <sup>(6)</sup>	£331.24	£149.06

<sup>(1)</sup> RFH-3WL HSS Co 8% <sup>(2)</sup> RFN-3WL TiCN Coated <sup>(3)</sup> RFL-3WL TiAlN Coated <sup>(4)</sup> RFH-5WL HSS Co 8% <sup>(5)</sup> RFN-5WL TiCN Coated <sup>(6)</sup> RFL-5WL TiAlN Coated

**HSS-Co 8% Threaded Shank Coarse Pitch Roughing End Mills**

Centre cutting.  
Threaded shank to **DIN 1835D**.  
Cutting diameter to **js12**.  
Shank diameter to **h6**.



**Series 42  
Regular Series Dimensions to DIN 844**

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	No of Flutes	Weight each	RCH-4TR HSS-Co 8%			RCN-4TR TiCN Coated			RCL-4TR TiAlN Coated		
						Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1
6.00	13.0	6.0	57.0	3	12g	-4206A <sup>(1)</sup>	£32.43	£14.59	-			-4266A <sup>(3)</sup>	£40.54	£18.24
8.00	19.0	10.0	69.0	3	36g	-4208A <sup>(1)</sup>	£40.17	£18.08	-4238A <sup>(2)</sup>	£50.22	£22.60	-4268A <sup>(3)</sup>	£50.22	£22.60
10.00	22.0	10.0	72.0	4	42g	-4210A	£41.62	£18.73	-4240A	£52.03	£23.41	-4270A	£52.03	£23.41
12.00	26.0	12.0	83.0	4	68g	-4212A	£45.01	£20.25	-4242A	£56.27	£25.32	-4272A	£56.27	£25.32
16.00	32.0	16.0	92.0	4	128g	-4216A	£60.13	£27.06	-4246A	£75.15	£33.82	-4276A	£75.15	£33.82
20.00	38.0	20.0	104.0	4	225g	-4220A	£81.62	£36.73	-4250A	£102.01	£45.90	-4280A	£102.01	£45.90
25.00	45.0	25.0	121.0	5	470g	-4225A <sup>(4)</sup>	£119.26	£53.67	-			-4285A <sup>(6)</sup>	£149.07	£67.08

<sup>(1)</sup> RCH-3TR HSS Co 8% <sup>(2)</sup> RCN-3TR TiCN Coated <sup>(3)</sup> RCL-3TR TiAlN Coated <sup>(4)</sup> RCH-5TR HSS Co 8% <sup>(5)</sup> RCN-5TR TiCN Coated <sup>(6)</sup> RCL-5TR TiAlN Coated



**Series 43  
Long Series Dimensions to DIN 844**

Diameter (mm)	Flute Length	Shank Diameter	Overall Length	No. of Flutes	Weight Each	RCH-4TL HSS-Co 8%			RCN-4TL TiCN Coated			RCL-4TL TiAlN Coated		
						Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1	Order Code SWT-163	List Price/1	Offer Price/1
6.00	24.0	6.0	68.0	3	13g	-4306A <sup>(1)</sup>	£56.57	£25.46	-4336A <sup>(2)</sup>	£70.71	£31.82	-4366A <sup>(3)</sup>	£70.71	£31.82
8.00	38.0	10.0	88.0	3	36g	-4308A <sup>(1)</sup>	£56.57	£25.46	-4338A <sup>(2)</sup>	£70.71	£31.82	-4368A <sup>(3)</sup>	£70.71	£31.82
10.00	45.0	10.0	95.0	4	53g	-4310A	£60.03	£27.01	-4340A	£66.03	£29.71	-4370A	£66.03	£29.71
12.00	53.0	12.0	110.0	4	81g	-4312A	£65.35	£29.41	-4342A	£71.89	£32.35	-4372A	£71.89	£32.35
16.00	63.0	16.0	123.0	4	128g	-4316A	£87.48	£39.37	-4346A	£96.23	£43.30	-4376A	£96.23	£43.30
20.00	75.0	20.0	141.0	4	280g	-4320A	£122.21	£54.99	-4350A	£134.43	£60.49	-4380A	£134.43	£60.49
25.00	90.0	25.0	166.0	5	520g	-4325A <sup>(4)</sup>	£179.08	£80.59	-			-4385A <sup>(6)</sup>	£196.99	£88.65

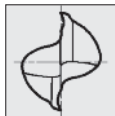
<sup>(1)</sup> RMH-3TL HSS Co 8% <sup>(2)</sup> RMN-3TL TiCN Coated <sup>(3)</sup> RML-3TL TiAlN Coated <sup>(4)</sup> RMH-5TL HSS Co 8% <sup>(5)</sup> RMN-5TL TiCN Coated <sup>(6)</sup> RML-5TL TiAlN Coated

**SHANK MILLING CUTTERS**

**GUHRING 2 Flute Weldon Shank Slot Drills**

**HSS-Co 8%**

Short rigid slot drills to suit all general purpose applications, including alloyed steels, stainless steels and non-ferrous materials. Uncoated.



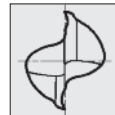
<b>3451</b>					
Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Order Code GUH-061	Offer Price/1
3.00	5.0	49.0	6.0	-6103A	£3.84
4.00	7.0	51.0	6.0	-6105C	£3.84
5.00	8.0	52.0	6.0	-6107E	£4.06
6.00	8.0	52.0	6.0	-6109G	£4.06
8.00	11.0	61.0	10.0	-6115Q	£5.34
10.00	13.0	63.0	10.0	-6119V	£5.93

**2 Flute Weldon Shank Slot Drills**

**HSS-Co 8%**

**FIRE COAT**

Short rigid slot drills to suit all general purpose applications, including alloyed steels, stainless steels and non-ferrous materials. Fire coated.



**Unique Fire Coating**

Applied in Guhrings own coating plants using the PVD process. All round coating can achieve two to three times the performance of TIN, and considerably better than TiAlN. Has excellent heat resistance as well as high toughness, therefore it is well-suited for interrupted cutting.

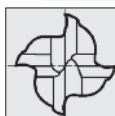
**UP TO 3x**  
Better performance than TIN Coating

<b>3663</b>					
Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Order Code GUH-061	Offer Price/1
3.00	5.0	49.0	6.0	-8353C	£8.71
4.00	7.0	51.0	6.0	-8354D	£8.36
5.00	8.0	52.0	6.0	-8355E	£8.59
6.00	8.0	52.0	6.0	-8356F	£8.13
8.00	11.0	61.0	10.0	-8358H	£10.57
10.00	13.0	63.0	10.0	-8360K	£12.54

**HSS-Co 8% Weldon Shank 4 Flute End Mills**

**HSS-Co 8%**

Short rigid end mills to suit all general purpose applications, including profiling centre cutting, alloyed steels, stainless steels and non-ferrous materials. Uncoated.



<b>3428</b>					
Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Order Code GUH-061	Offer Price/1
3.00	8.0	52.0	6.0	-5503A	£5.23
4.00	11.0	55.0	6.0	-5504B	£5.23
5.00	13.0	57.0	6.0	-5505C	£5.23
6.00	13.0	57.0	6.0	-5506D	£5.23
8.00	19.0	69.0	10.0	-5508F	£7.19
10.00	22.0	72.0	10.0	-5510H	£6.74

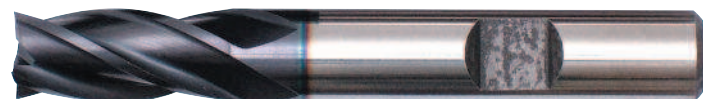
**4 Flute Weldon Shank End Mills**

**HSS-Co 8%**

**FIRE COAT**

Short rigid end mills to suit all general purpose profiling applications, including alloyed steels, stainless steels and non-ferrous materials. Centre cutting. Fire coated.

**UP TO 3x**  
Better performance than TIN Coating



<b>3670</b>					
Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Order Code GUH-061	Offer Price/1
3.00	8.0	52.0	6.0	-8553C	£10.22
4.00	11.0	55.0	6.0	-8555E	£10.22
5.00	13.0	57.0	6.0	-8557G	£10.22
6.00	13.0	57.0	6.0	-8559J	£10.22
8.00	19.0	69.0	10.0	-8563N	£13.93
10.00	22.0	72.0	10.0	-8567S	£13.93

**High Performance Unequal Helix Carbide Milling Cutters**

**CARBIDE**

Up to 60% higher feed rates. Longer tool life. Vibration free machining. Suitable for roughing and finishing. Increased surface quality. Made to **DIN 6527**.

**4 Flute Weldon Shank End Mill 40°/42°**

Bright finish. Uncoated. Suitable for aluminium and soft materials.

Sizes: 6, 8, 10, 12, 16 and 20mm.

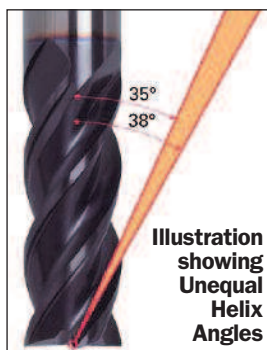


Illustration showing Unequal Helix Angles



<b>5534</b>					
Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Order Code GUR-161	Offer Price/1
6.00	13.0	57.0	6.0	-2906A	£14.57
8.00	19.0	63.0	8.0	-2908B	£19.50
10.00	22.0	72.0	10.0	-2910C	£27.49
12.00	26.0	83.0	12.0	-2912D	£36.18
16.00	32.0	92.0	16.0	-2916E	£58.76
20.00	38.0	104.0	20.0	-2920F	£90.59

**4 Flute Weldon Shank Fire Coated**

**CARBIDE**

**FIRE COAT**

35°/38°

Suitable for general purpose universal milling.

Sizes: 4, 5, 6, 8, 10, 12, 14, 16, 18 and 20mm.

**Unique Fire Coating**

Applied in Guhrings own coating plants using the PVD process. All round coating can achieve two to three times the performance of TIN, and considerably better than TiAlN. Has excellent heat resistance as well as high toughness, therefore it is well-suited for interrupted cutting.

**UP TO 3x**  
Better performance than TIN Coating



<b>5535</b>					
Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Order Code GUR-161	Offer Price/1
4.00	11.0	57.0	6.0	-3104K	£18.11
5.00	13.0	57.0	6.0	-3105L	£18.11
6.00	13.0	57.0	6.0	-3106M	£17.95
8.00	19.0	63.0	8.0	-3108A	£22.87
10.00	22.0	72.0	10.0	-3110B	£33.66
12.00	26.0	83.0	12.0	-3112C	£43.35
14.00	26.0	83.0	14.0	-3114D	£57.07
16.00	32.0	92.0	16.0	-3116E	£74.89
18.00	32.0	92.0	18.0	-3118F	£105.62
20.00	38.0	104.0	20.0	-3120G	£114.44



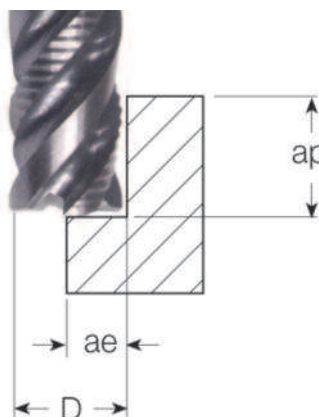
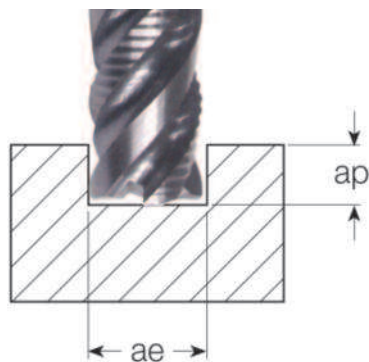
**Finisher**

**Rougher**

# FINISHRED

**2 Applications in 1 Solid Carbide Endmill**

**Feed recommendations**



**Solid Carbide End Mills**

**2 Applications in 1 Solid Carbide End Mill:**

- The EFS.. B44 end mill features 4 flutes with a 45° helix, two serrated flutes and two continuous flutes.
- The tool is fully effective and enables running at rough machining parameters, resulting in finish surface quality.
- Unique tool design reduces vibration at high load applications.
- The tool produces short and long chips simultaneously. This chip mixture is evacuated more easily than each individual chip type, which is an excellent solution for slotting and cavity milling applications.
- One tool change and setup time can be eliminated.
- A single tool replaces the roughing and finishing end mills, dramatically reducing cycle time and increasing productivity.
- Extra tool position is gained on the machine.
- Eliminates the need to keep a large amount of stock.
- 4 flutes: 2 serrated plus 2 continuous flutes.
- Excellent performance and tool life.
- Suitable for all types of steel. Excellent performance in machining titanium, inconel, stainless steel and high temperature alloys.

**FS-B44 FINISHRED 4 flute, medium length, 45° helix.**



Designation	∅	d	ap	L	Shank Type	C	Order Code <b>ISC-161</b>	<b>Offer Price/1</b>
EFS-B44 06-14C06-57	6.00	6.00	14.00	57.0	C	0.25	<b>-3530H</b>	<b>£60.17</b>
EFS-B44 08-18C08-63	8.00	8.00	18.00	63.0	C	0.30	<b>-3531H</b>	<b>£74.03</b>
EFS-B44 10-22C10-72	10.00	10.00	22.00	72.0	C	0.30	<b>-3532H</b>	<b>£103.41</b>
EFS-B44 12-26C12-83	12.00	12.00	26.00	83.0	C	0.40	<b>-3533L</b>	<b>£132.18</b>
EFS-B44 14-30C14-83	14.00	14.00	30.00	83.0	C	0.40	<b>-3534M</b>	<b>£144.63</b>
EFS-B44 16-34C16-92	16.00	16.00	34.00	92.0	C	0.60	<b>-3535M</b>	<b>£206.83</b>
EFS-B44 20-42C20-104	20.00	20.00	42.00	104.0	C	0.60	<b>-3536M</b>	<b>£336.67</b>

# SWISS+TECH

High Performance as Standard . . .

...Taking Productivity to **New Heights**



**Cutting Tools For Production Industry**  
**Drills - Milling Cutters - Taps**

**GROUP 061 SHANK MILLING CUTTERS**

**SHERWOOD QUALITY CUTTING TOOLS Carbide Micrograin Plain Shank Milling Cutters**

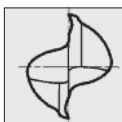
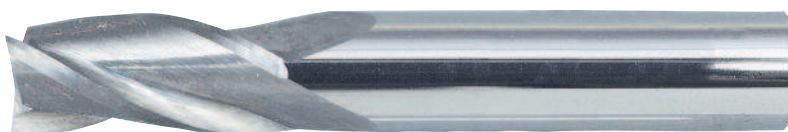


For optimum performance and maximum swarf removal when plunging, slotting and routing in light alloys, brass, aluminium, non-ferrous and other soft materials. Manufactured to **USCTI Standards**.

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	
	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**



Regular Series					2 FLUTE			3 FLUTE			4 FLUTE		
Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code SHR-161	List Price/1	Offer Price/1	Order Code SHR-161	List Price/1	Offer Price/1	Order Code SHR-161	List Price/1	Offer Price/1
2.00	6.3	38.0	3.0	15g	-0040K	£5.20	£4.37	-3040K	£5.20	£4.37	-6040K	£5.20	£4.37
3.00	12.0	38.0	3.0	15g	-0060K	£5.20	£4.37	-3060K	£5.20	£4.37	-6060K	£5.20	£4.37
4.50	16.0	50.0	5.0	25g	-0090K	£34.90	£29.32	-	-	-	-	-	-
4.00	14.0	50.0	4.0	20g	-0080K	£5.94	£4.99	-3080K	£5.94	£4.99	-6080K	£5.94	£4.99
5.00	16.0	50.0	5.0	30g	-0100K	£7.68	£6.45	-3100K	£7.68	£6.45	-6100K	£7.68	£6.45
6.00	19.0	50.0	6.0	35g	-0120K	£8.18	£6.87	-3120K	£8.18	£6.87	-6120K	£8.18	£6.87
7.00	19.0	63.0	8.0	40g	-0140K	£11.27	£9.47	-3140K	£11.27	£9.47	-6140K	£11.27	£9.47
8.00	20.0	63.0	8.0	40g	-0160K	£11.88	£9.98	-3160K	£11.88	£9.98	-6160K	£11.88	£9.98
9.00	22.0	75.0	10.0	60g	-0180K	£18.45	£15.50	-3180K	£18.45	£15.50	-6180K	£18.45	£15.50
10.00	22.0	75.0	10.0	100g	-0200K	£16.34	£13.73	-3200K	£16.34	£13.73	-6200K	£16.34	£13.73
12.00	25.0	75.0	12.0	130g	-0240K	£23.03	£19.35	-3240K	£23.03	£19.35	-6240K	£23.03	£19.35
14.00	32.0	89.0	14.0	180g	-0280K	£36.39	£30.57	-3280K	£36.39	£30.57	-6280K	£36.39	£30.57
16.00	32.0	89.0	16.0	230g	-0320K	£41.58	£34.93	-3320K	£41.58	£34.93	-6320K	£41.58	£34.93
20.00	38.0	100.0	20.0	240g	-0400K	£71.70	£60.23	-3400K	£71.70	£60.23	-6400K	£71.70	£60.23

**Carbide Micrograin Plain Shank Slot Drills 2 Flute Ball Nosed**

**CARBIDE**

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



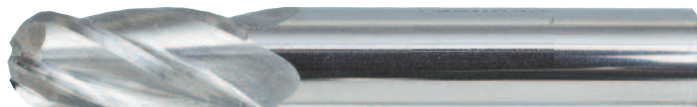
Regular Series						
Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code SHR-161	Offer Price/1
2.00	4.0	38.0	3.0	10g	-1040K	£11.44
3.00	6.0	38.0	3.0	10g	-1060K	£9.35
4.00	8.0	50.0	4.0	15g	-1080K	£12.47
5.00	10.0	50.0	6.0	25g	-1100K	£14.46
6.00	12.0	50.0	6.0	25g	-1120K	£12.27
7.00	19.0	63.0	8.0	45g	-1140K	£17.05
8.00	20.0	63.0	8.0	55g	-1160K	£15.50
10.00	22.0	75.0	10.0	90g	-1200K	£20.48
12.00	25.0	75.0	12.0	120g	-1240K	£27.45
16.00	32.0	89.0	16.0	250g	-1320K	£44.71
20.00	38.0	100.0	20.0	420g	-1400K	£72.79

**Solid Carbide Micrograin Plain Shank End Mills 4 Flute Ball Nosed**

**CARBIDE**

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**.

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	Offer Price/1
2.00	6.3	38.0	3.0	10g	-7040K	£11.44
3.00	12.0	38.0	3.0	10g	-7060K	£9.35
4.00	14.0	50.0	4.0	15g	-7080K	£12.47
5.00	16.0	50.0	6.0	25g	-7100K	£14.46
6.00	19.0	50.0	6.0	25g	-7120K	£12.27
8.00	20.0	63.0	8.0	55g	-7160K	£15.50
10.00	22.0	75.0	10.0	90g	-7200K	£20.48
12.00	25.0	75.0	12.0	120g	-7240K	£27.45
16.00	32.0	89.0	16.0	250g	-7320K	£44.71
20.00	38.0	100.0	20.0	420g	-7400K	£72.79

**Product Promotions Available Throughout the Year**

**Major Debit/Credit Cards Accepted**



**Carbide Micrograin Plain Shank Milling Cutters**

**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	List Price/1	Offer Price/1
1.00	3.0	40.0	4.0	15g	-0020K	£17.07	<b>£8.54</b>
1.50	4.0	40.0	4.0	15g	-0030K	£17.07	<b>£8.54</b>
2.00	8.0	32.0	2.0	15g	-0040K	£17.07	<b>£8.54</b>
2.50	8.0	32.0	2.5	15g	-0050K	£17.07	<b>£8.54</b>
3.00	12.0	32.0	3.0	15g	-0060K	£14.61	<b>£7.31</b>
3.50	12.0	32.0	3.5	20g	-0070K	£21.72	<b>£10.86</b>
4.00	12.0	40.0	4.0	20g	-0080K	£18.14	<b>£9.07</b>
4.50	14.0	50.0	4.5	20g	-0090K	£25.99	<b>£13.00</b>
5.00	14.0	50.0	5.0	30g	-0100K	£25.99	<b>£13.00</b>
6.00	16.0	50.0	6.0	35g	-0120K	£26.98	<b>£13.49</b>
7.00	20.0	60.0	7.0	40g	-0140K	£34.92	<b>£17.46</b>
8.00	20.0	60.0	8.0	40g	-0160K	£33.70	<b>£16.85</b>
9.00	20.0	60.0	9.0	60g	-0180K	£47.94	<b>£23.97</b>
10.00	22.0	70.0	10.0	100g	-0200K	£51.32	<b>£25.66</b>
11.00	22.0	70.0	11.0	120g	-0220K	£70.50	<b>£35.25</b>
12.00	22.0	70.0	12.0	130g	-0240K	£76.00	<b>£38.00</b>
14.00	25.0	75.0	14.0	180g	-0280K	£106.04	<b>£53.02</b>
16.00	25.0	75.0	16.0	230g	-0320K	£120.24	<b>£60.12</b>
18.00	25.0	75.0	18.0	230g	-0360K	£173.46	<b>£86.73</b>
20.00	32.0	100.0	20.0	240g	-0400K	£205.18	<b>£102.59</b>

**Regular Series - Inch**

Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code KEN-161	List Price/1	Offer Price/1
3/64"	7/64"	1 1/2"	1/8"	10g	-0520K	£25.60	<b>£12.80</b>
5/64"	3/16"	1 1/2"	1/8"	10g	-0550K	£16.96	<b>£8.48</b>
3/32"	3/8"	1 1/2"	1/8"	10g	-0560K	£17.02	<b>£8.51</b>
1/8"	1/2"	1 1/2"	1/8"	10g	-0580K	£15.55	<b>£7.78</b>
5/32"	1/2"	2"	3/16"	20g	-0600K	£21.67	<b>£10.84</b>
11/64"	5/8"	2"	3/16"	20g	-0610K	£20.04	<b>£10.02</b>
3/16"	5/8"	2"	3/16"	20g	-0620K	£20.11	<b>£10.06</b>
15/64"	3/4"	2 1/2"	1/4"	20g	-0650K	£30.07	<b>£15.04</b>
1/4"	3/4"	2 1/2"	1/4"	30g	-0660K	£31.54	<b>£15.77</b>
19/64"	13/16"	2 1/2"	5/16"	40g	-0690K	£37.62	<b>£18.81</b>
5/16"	13/16"	2 1/2"	5/16"	45g	-0700K	£37.41	<b>£18.71</b>
3/8"	1"	2 1/2"	3/8"	60g	-0740K	£46.70	<b>£23.35</b>
1/2"	1"	3"	1/2"	165g	-0820K	£77.05	<b>£38.53</b>
3/4"	1 1/2"	4"	1"	640g	-0980K	£163.36	<b>£81.68</b>
7/8"	1 1/2"	4"	7/8"	700g	-1000K	£193.33	<b>£96.67</b>

**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	List Price/1	Offer Price/1
1.00	3.0	40.0	4.0	15g	-3020K	£17.07	<b>£8.54</b>
1.50	4.5	40.0	4.0	15g	-3030K	£17.07	<b>£8.54</b>
2.00	8.0	32.0	2.0	15g	-3040K	£17.07	<b>£8.54</b>
2.50	8.0	32.0	2.5	15g	-3050K	£17.07	<b>£8.54</b>
3.00	12.0	32.0	3.0	15g	-3060K	£14.61	<b>£7.31</b>
3.50	12.0	32.0	3.5	20g	-3070K	£21.72	<b>£10.86</b>
4.00	14.0	40.0	4.0	20g	-3080K	£18.14	<b>£9.07</b>
4.50	14.0	50.0	4.5	20g	-3090K	£25.99	<b>£13.00</b>
5.00	14.0	50.0	5.0	30g	-3100K	£25.99	<b>£13.00</b>
6.00	16.0	50.0	6.0	35g	-3120K	£26.98	<b>£13.49</b>
7.00	20.0	60.0	7.0	40g	-3140K	£34.92	<b>£17.46</b>
8.00	20.0	60.0	8.0	40g	-3160K	£33.70	<b>£16.85</b>
9.00	20.0	60.0	10.0	60g	-3180K	£47.94	<b>£23.97</b>
10.00	22.0	70.0	10.0	100g	-3200K	£51.32	<b>£25.66</b>
11.00	22.0	70.0	11.0	120g	-3220K	£70.50	<b>£35.25</b>
12.00	22.0	70.0	12.0	130g	-3240K	£76.00	<b>£38.00</b>
14.00	25.0	75.0	14.0	180g	-3280K	£106.04	<b>£53.02</b>
16.00	25.0	75.0	16.0	230g	-3320K	£120.24	<b>£60.12</b>
18.00	25.0	75.0	18.0	230g	-3360K	£173.46	<b>£86.73</b>
20.00	32.0	100.0	20.0	240g	-3400K	£205.18	<b>£102.59</b>
25.00	38.0	150.0	25.0	640g	-3500K	£320.65	<b>£160.33</b>

**Regular Series - Inch**

Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code KEN-161	List Price/1	Offer Price/1
1/16"	3/16"	1 1/2"	1/8"	10g	-3540K	£17.05	<b>£8.53</b>
3/32"	9/32"	1 1/2"	1/8"	10g	-3560K	£17.05	<b>£8.53</b>
1/8"	3/8"	1 1/2"	1/8"	10g	-3580K	£15.55	<b>£7.78</b>
5/32"	1/2"	2"	3/16"	20g	-3600K	£21.67	<b>£10.84</b>
3/16"	5/8"	2"	3/16"	20g	-3620K	£20.11	<b>£10.06</b>
7/32"	5/8"	2 1/2"	1/4"	30g	-3640K	£30.91	<b>£15.46</b>
1/4"	3/4"	2 1/2"	1/4"	30g	-3660K	£31.54	<b>£15.77</b>
5/16"	13/16"	2 1/2"	5/16"	45g	-3700K	£37.41	<b>£18.71</b>
3/8"	1"	2 1/2"	3/8"	60g	-3740K	£46.70	<b>£23.35</b>
13/32"	1"	2 3/4"	7/16"	70g	-3760K	£70.66	<b>£35.33</b>
29/64"	1"	3"	1/2"	95g	-3800K	£89.59	<b>£44.80</b>
1/2"	1"	3"	1/2"	140g	-3820K	£77.05	<b>£38.53</b>
5/8"	1 1/4"	3 1/2"	5/8"	230g	-3900K	£110.02	<b>£55.01</b>
1"	1 1/2"	4"	1"	350g	-3990K	£248.75	<b>£124.38</b>

**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	List Price/1	Offer Price/1
1.00	3.0	40.0	4.0	15g	-6020K	£17.07	<b>£8.54</b>
1.50	4.5	40.0	4.0	15g	-6030K	£17.07	<b>£8.54</b>
2.00	8.0	32.0	2.0	15g	-6040K	£17.07	<b>£8.54</b>
2.50	9.5	32.0	2.5	15g	-6050K	£17.07	<b>£8.54</b>
3.00	12.0	32.0	3.0	15g	-6060K	£14.61	<b>£7.31</b>
3.50	12.0	32.0	3.5	20g	-6070K	£21.72	<b>£10.86</b>
4.00	14.0	40.0	4.0	20g	-6080K	£18.14	<b>£9.07</b>
4.50	14.0	50.0	4.5	20g	-6090K	£25.99	<b>£13.00</b>
5.00	14.0	50.0	5.0	30g	-6100K	£25.99	<b>£13.00</b>
6.00	16.0	50.0	6.0	35g	-6120K	£26.98	<b>£13.49</b>
7.00	20.0	60.0	7.0	40g	-6140K	£34.92	<b>£17.46</b>
8.00	20.0	60.0	8.0	40g	-6160K	£33.70	<b>£16.85</b>
9.00	20.0	60.0	9.0	60g	-6180K	£47.94	<b>£23.97</b>
10.00	22.0	70.0	10.0	100g	-6200K	£51.32	<b>£25.66</b>
11.00	22.0	70.0	11.0	120g	-6220K	£70.50	<b>£35.25</b>
12.00	22.0	70.0	12.0	130g	-6240K	£76.00	<b>£38.00</b>
14.00	25.0	75.0	14.0	180g	-6280K	£106.04	<b>£53.02</b>
16.00	25.0	75.0	16.0	230g	-6320K	£120.24	<b>£60.12</b>
18.00	25.0	75.0	18.0	230g	-6360K	£173.46	<b>£86.73</b>
20.00	32.0	100.0	20.0	240g	-6400K	£205.18	<b>£102.59</b>
25.00	38.0	100.0	25.0	640g	-6500K	£320.65	<b>£160.33</b>

**Regular Series - Inch**

Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Weight Each	Order Code KEN-161	List Price/1	Offer Price/1
1/32"	5/64"	1 1/2"	1/8"	10g	-6520K	£21.78	<b>£10.89</b>
3/64"	7/64"	1 1/2"	1/8"	10g	-6530K	£25.73	<b>£12.87</b>
1/16"	3/16"	1 1/2"	1/8"	10g	-6540K	£17.05	<b>£8.53</b>
3/32"	3/8"	1 1/2"	1/8"	10g	-6560K	£17.05	<b>£8.53</b>
1/8"	1/2"	1 1/2"	1/8"	10g	-6580K	£15.55	<b>£7.78</b>
5/32"	1/2"	2"	3/16"	20g	-6600K	£21.67	<b>£10.84</b>
11/64"	5/8"	2"	3/16"	20g	-6610K	£20.04	<b>£10.02</b>
3/16"	5/8"	2"	3/16"	20g	-6620K	£20.11	<b>£10.06</b>
7/32"	5/8"	2 1/2"	1/4"	30g	-6640K	£30.91	<b>£15.46</b>
15/64"	3/4"	2 1/2"	1/4"	30g	-6650K	£30.07	<b>£15.04</b>
1/4"	3/4"	2 1/2"	1/4"	30g	-6660K	£31.54	<b>£15.77</b>
9/32"	3/4"	2 1/2"	5/16"	30g	-6680K	£36.34	<b>£18.17</b>
5/16"	13/16"	2 1/2"	5/16"	45g	-6700K	£37.41	<b>£18.71</b>
3/8"	1"	2 1/2"	3/8"	60g	-6740K	£46.70	<b>£23.35</b>
7/16"	1"	2 3/4"	7/16"	90g	-6780K	£62.88	<b>£31.44</b>
15/32"	1"	3"	1/2"	110g	-6800K	£74.61	<b>£37.31</b>
1/2"	1"	3"	1/2"	165g	-6820K	£77.05	<b>£38.53</b>

**GROUP 061 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	List Price/1	Offer Price/1	Order Code SWT-161	List Price/1	Offer Price/1
2.00	8.0	32.0	2.0	3g	-4502A	£18.77	£9.39	-4532A	£23.96	£11.98
2.50	8.0	32.0	2.5	4g	-4502L	£18.77	£9.39	-4532L	£23.96	£11.98
3.00	12.0	32.0	3.0	4g	-4503A	£16.07	£8.04	-4533A	£20.89	£10.45
4.00	12.0	40.0	4.0	7g	-4504A	£19.96	£9.98	-4534A	£24.84	£12.42
5.00	14.0	50.0	5.0	13g	-4505A	£28.59	£14.30	-4535A	£33.72	£16.86
6.00	16.0	50.0	6.0	18g	-4506A	£29.67	£14.84	-4536A	£34.56	£17.28
7.00	20.0	60.0	7.0	37g	-4507A	£38.41	£19.21	-4537A	£46.16	£23.08
8.00	20.0	60.0	8.0	37g	-4508A	£37.07	£18.54	-4538A	£44.45	£22.23
9.00	20.0	60.0	9.0	49g	-4509A	£52.74	£26.37	-4539A	£60.40	£30.20
10.00	22.0	70.0	10.0	68g	-4510A	£56.46	£28.23	-4540A	£63.96	£31.98
12.00	22.0	70.0	12.0	96g	-4512A	£83.61	£41.81	-4542A	£96.38	£48.19
14.00	25.0	75.0	14.0	134g	-4514A	£116.65	£58.33	-4544A	£129.24	£64.62
16.00	25.0	75.0	16.0	172g	-4516A	£132.26	£66.13	-4546A	£144.78	£72.39
20.00	32.0	100.0	20.0	360g	-4520A	£225.69	£112.85	-4550A	£251.06	£125.53



**Series 48**  
3 Flute - Short Series

Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Weight each	SDC-3PS Carbide			SDT-3PS TiCN Coated			SDL-3PS TiAlN Coated		
					Order Code SWT-161	List Price/1	Offer Price/1	Order Code SWT-161	List Price/1	Offer Price/1	Order Code SWT-161	List Price/1	Offer Price/1
1.00	4.0	40.5	4.0	7g	-4801A	£18.77	£9.39	-4831A	£23.96	£11.98	-	-	-
1.50	4.5	40.0	4.0	7g	-4801L	£18.77	£9.39	-4831L	£23.96	£11.98	-	-	-
2.00	8.0	32.0	2.0	3g	-4802A	£18.77	£9.39	-4832A	£23.96	£11.98	-4862A	£23.96	£11.98
2.50	8.0	32.0	2.5	3g	-4802L	£18.77	£9.39	-4832L	£23.96	£11.98	-	-	-
3.00	12.0	32.0	3.0	4g	-4803A	£16.07	£8.04	-4833A	£20.89	£10.45	-4863A	£20.89	£10.45
3.50	12.0	32.0	3.5	4g	-4803L	£23.91	£11.96	-4833L	£29.02	£14.51	-	-	-
4.00	12.0	40.0	4.0	7g	-4804A	£19.96	£9.98	-4834A	£24.84	£12.42	-4864A	£24.84	£12.42
4.50	12.0	50.0	4.5	11g	-4804L	£28.59	£14.30	-4834L	£33.72	£16.86	-	-	-
5.00	14.0	50.0	6.0	13g	-4805A	£28.59	£14.30	-4835A	£33.72	£16.86	-4865A	£33.72	£16.86
5.50	16.0	50.0	6.0	16g	-4805L	£29.25	£14.63	-	-	-	-	-	-
6.00	16.0	50.0	6.0	18g	-4806A	£29.67	£14.84	-4836A	£34.56	£17.28	-4866A	£34.56	£17.28
6.50	20.0	50.0	8.0	25g	-4806L	£34.95	£17.48	-	-	-	-4867L	-	£19.66
7.00	20.0	50.0	8.0	50g	-4807A	£38.41	£19.21	-4837A	£46.16	£23.08	-	-	-
7.50	20.0	60.0	8.0	55g	-4807L	£37.95	£18.98	-	-	-	-	-	-
8.00	20.0	60.0	8.0	37g	-4808A	£37.07	£18.54	-4838A	£44.45	£22.23	-4868A	£44.45	£22.23
9.00	20.0	60.0	9.0	60g	-4809A	£52.74	£26.37	-4839A	£60.40	£30.20	-4869A	-	-
10.00	22.0	60.0	10.0	71g	-4810A	£56.46	£28.23	-4840A	£63.96	£31.98	-4870A	£63.96	£31.98
11.00	22.0	60.0	12.0	90g	-	-	-	-	-	-	-4871A	£63.96	£31.98
12.00	22.0	60.0	12.0	100g	-4812A	£83.61	£41.81	-4842A	£96.38	£48.19	-4872A	£96.38	£48.19
14.00	25.0	70.0	14.0	133g	-4814A	£116.65	£58.33	-4844A	£129.24	£64.62	-	-	-
16.00	25.0	75.0	16.0	175g	-4816A	£132.26	£66.13	-4846A	£144.78	£72.39	-4876A	£144.78	£72.39
20.00	32.0	100.0	20.0	367g	-4820A	£225.69	£112.85	-4850A	£251.06	£125.53	-4880A	£251.06	£125.53

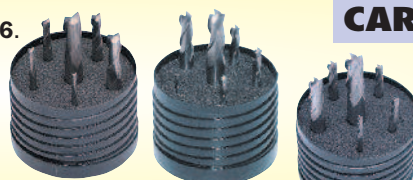


**Series 50**  
4 Flute - Short Series

Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Weight each	EMC-4PS Carbide			EMT-4PS TiCN Coated		
					Order Code SWT-161	List Price/1	Offer Price/1	Order Code SWT-161	List Price/1	Offer Price/1
2.00	8.0	32.0	2.0	3g	-5002A	£18.77	£9.39	-5032A	£23.96	£11.98
2.50	8.0	32.0	2.5	3g	-5002L	£18.77	£9.39	-5032L	£23.96	£11.98
3.00	12.0	32.0	3.0	4g	-5003A	£16.07	£8.04	-5033A	£20.89	£10.45
3.50	12.0	32.0	3.5	4g	-5003L	£19.85	£9.93	-	-	-
4.00	12.0	40.0	4.0	7g	-5004A	£19.96	£9.98	-5034A	£24.84	£12.42
5.00	14.0	50.0	5.0	14g	-5005A	£28.59	£14.30	-5035A	£33.72	£16.86
6.00	16.0	50.0	6.0	19g	-5006A	£29.67	£14.84	-5036A	£34.56	£17.28
6.50	20.0	50.0	8.0	25g	-5006L	£34.95	£17.48	-	-	-
7.00	20.0	60.0	7.0	49g	-5007A	£38.41	£19.21	-5037A	£46.16	£23.08
7.50	20.0	60.0	8.0	55g	-5007L	£37.95	£18.98	-	-	-
8.00	20.0	60.0	8.0	39g	-5008A	£37.07	£18.54	-5038A	£44.45	£22.23
9.00	20.0	60.0	9.0	60g	-5009A	£52.73	£26.37	-5039A	£59.32	£29.66
10.00	20.0	70.0	10.0	71g	-5010A	£56.46	£28.23	-5040A	£63.96	£31.98
11.00	22.0	60.0	12.0	90g	-5011A	£77.55	£38.78	-5041A	£87.24	£43.62
12.00	22.0	70.0	12.0	102g	-5012A	£83.61	£41.81	-5042A	£96.38	£48.19
14.00	25.0	75.0	14.0	184g	-5014A	£116.65	£58.33	-5044A	£129.24	£64.62
16.00	25.0	75.0	16.0	386g	-5016A	£132.26	£66.13	-5046A	£144.78	£72.39
20.00	32.0	100.0	20.0	892g	-5020A	£225.69	£112.85	-5050A	£251.06	£125.53
25.00	46.0	150.0	25.0	895g	-5025A	£352.72	£176.36	-5055A	£377.51	£188.76

**6 Piece Sets**  
Dimensions to DIN 844. Cutting diameter to js12. Shank diameter to h6.  
Contents: 3, 4, 5, 6, 8 and 10mm.

Number of Flutes	Series Number	Order Code SWT-161	List Price/1	Offer Price/1
2	45	-4526A	£78.54	£39.27
3	48	-4890A	£78.54	£39.27
4	50	-5028A	£78.54	£39.27



**6 PIECES**

**CARBIDE TiCN**

**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



**Carbide Micrograin Plain Shank Slot Drills**

**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		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



**Long Series - Metric**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code KEN-161	List Price/1	Offer Price/1
3.00	20.0	60.0	3.0	15g	-1003K	£31.38	<b>£18.83</b>
4.00	20.0	60.0	4.0	20g	-1004K	£33.51	<b>£20.11</b>
5.00	25.0	75.0	5.0	30g	-1005K	£41.15	<b>£24.69</b>
6.00	30.0	75.0	6.0	35g	-1006K	£43.70	<b>£26.22</b>
8.00	30.0	75.0	8.0	40g	-1008K	£59.47	<b>£35.68</b>
10.00	40.0	100.0	10.0	100g	-1010K	£85.84	<b>£51.50</b>
12.00	45.0	100.0	12.0	130g	-1012K	£126.20	<b>£75.72</b>
16.00	65.0	150.0	16.0	230g	-1016K	£245.09	<b>£147.05</b>
20.00	65.0	150.0	16.0	240g	-1020K	£466.77	<b>£280.06</b>
25.00	75.0	150.0	25.0	270g	-1025K	£548.53	<b>£329.12</b>

**Long Series - Inch**

Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code KEN-161	List Price/1	Offer Price/1
1/4"	1 1/8"	3"	1/4"	30g	-1026K	£48.45	<b>£29.07</b>
3/8"	1 1/8"	3"	5/16"	60g	-1030K	£87.80	<b>£52.68</b>
3/4"	2 1/4"	5"	3/4"	90g	-1034K	£327.34	<b>£196.40</b>

**Long Series - 3 Flute**



**CARBIDE**

**Long Series - Metric**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code KEN-161	List Price/1	Offer Price/1
3.00	25.0	75.0	3.0	15g	-4003K	£31.38	<b>£18.83</b>
4.00	25.0	75.0	4.0	20g	-4004K	£33.51	<b>£20.11</b>
5.00	25.0	75.0	6.0	30g	-4005K	£41.15	<b>£24.69</b>
6.00	25.0	75.0	6.0	35g	-4006K	£43.70	<b>£26.22</b>

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code KEN-161	List Price/1	Offer Price/1
8.00	25.0	75.0	8.0	40g	-4008K	£59.47	<b>£35.68</b>
10.00	38.0	100.0	10.0	100g	-4010K	£85.84	<b>£51.50</b>
12.00	50.0	100.0	12.0	130g	-4012K	£126.20	<b>£75.72</b>
16.00	75.0	150.0	16.0	230g	-4016K	£245.09	<b>£147.05</b>

**Long Series - 4 Flute**



**CARBIDE**

**Long Series - Metric**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code KEN-161	List Price/1	Offer Price/1
3.00	20.0	60.0	3.0	15g	-9203K	£31.38	<b>£18.83</b>
4.00	20.0	60.0	4.0	20g	-9204K	£33.51	<b>£20.11</b>
5.00	25.0	75.0	5.0	30g	-9205K	£41.15	<b>£24.69</b>
6.00	30.0	75.0	6.0	35g	-9206K	£43.70	<b>£26.22</b>
8.00	30.0	75.0	8.0	40g	-9208K	£59.47	<b>£35.68</b>
10.00	40.0	100.0	10.0	100g	-9210K	£85.84	<b>£51.50</b>
12.00	45.0	100.0	12.0	130g	-9212K	£126.20	<b>£75.72</b>
16.00	65.0	150.0	16.0	230g	-9216K	£245.09	<b>£147.05</b>
20.00	65.0	150.0	20.0	240g	-9220K	£466.77	<b>£280.06</b>

**Long Series - Inch**

Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code KEN-161	List Price/1	Offer Price/1
1/8"	3/4"	2 1/4"	1/8"	20g	-9000K	£62.09	<b>£37.25</b>
1/4"	1 1/8"	3"	1/4"	30g	-9020K	£48.45	<b>£29.07</b>
5/16"	1 1/8"	3"	5/16"	60g	-9060K	£66.01	<b>£39.61</b>
3/8"	1 3/4"	4"	3/8"	160g	-9120K	£87.80	<b>£52.68</b>
1/2"	2"	4 1/2"	1/2"	190g	-9150K	£126.08	<b>£75.65</b>
1/2"	3"	6"	1/2"	260g	-9170K	£183.93	<b>£110.36</b>



**Carbide Plain Shank Slot Drills 45° Helix for Aluminium**

For profiling, slotting and drilling with special geometry for aluminiums, copper alloys and other non-ferrous materials. Very sharp edges for smooth action in soft materials minimising chip sticking to the edge. Centre cutting for drilling.

**2 Flute - Standard Series**



Cutter Designation	Dia (mm)	Flute Length	Overall Length	Shank Dia.	Order Code DIJ-161	List Price/1	Offer Price/1
AL-SEES2020	2.00	7.0	40.0	4.0	-1213C	£20.10	<b>£18.09</b>
AL-SEES2025	2.50	9.0	40.0	4.0	-1214D	£20.10	<b>£18.09</b>
AL-SEES2030	3.00	11.0	50.0	6.0	-1215E	£24.99	<b>£22.49</b>
AL-SEES2040	4.00	14.0	50.0	6.0	-1216F	£26.08	<b>£23.47</b>
AL-SEES2050	5.00	17.0	50.0	6.0	-1217G	£29.88	<b>£26.89</b>
AL-SEES2060	6.00	17.0	50.0	6.0	-1218H	£29.88	<b>£26.89</b>
AL-SEES2080	8.00	22.0	65.0	8.0	-1220K	£40.75	<b>£36.68</b>
AL-SEES2090	9.00	22.0	70.0	10.0	-1221L	£48.34	<b>£43.51</b>
AL-SEES2100	10.00	28.0	75.0	10.0	-1222M	£50.51	<b>£45.46</b>
AL-SEES2120	12.00	28.0	80.0	12.0	-1224P	£70.06	<b>£63.05</b>
AL-SEES2160	16.00	40.0	95.0	16.0	-1228T	£106.46	<b>£95.81</b>
AL-SEES2200	20.00	45.0	115.0	20.0	-1232Y	£174.36	<b>£156.92</b>

**2 Flute - Long Series**



**CARBIDE**

Cutter Designation	Dia (mm)	Flute Length	Overall Length	Shank Dia.	Order Code DIJ-161	List Price/1	Offer Price/1
AL-SEEL2030	3.00	22.0	65.0	6.0	-1010A	£41.28	<b>£37.15</b>
AL-SEEL2040	4.00	26.0	65.0	6.0	-1011B	£43.46	<b>£39.11</b>
AL-SEEL2050	5.00	32.0	75.0	6.0	-1012C	£45.63	<b>£41.07</b>
AL-SEEL2060	6.00	32.0	75.0	6.0	-1013D	£52.14	<b>£46.93</b>
AL-SEEL2080	8.00	42.0	95.0	8.0	-1015F	£69.53	<b>£62.58</b>
AL-SEEL2090	9.00	42.0	110.0	10.0	-1016G	£83.65	<b>£75.29</b>
AL-SEEL2100	10.00	53.0	120.0	10.0	-1017H	£98.85	<b>£88.97</b>
AL-SEEL2120	12.00	53.0	120.0	12.0	-1019K	£118.41	<b>£106.57</b>

**3 Flute - Standard Series**



Cutter Designation	Dia (mm)	Flute Length	Overall Length	Shank Dia.	Order Code DIJ-161	List Price/1	Offer Price/1
AL-SEES3060	6.00	9.0	55.0	6.0	-1416F	£40.75	<b>£36.68</b>
AL-SEES3080	8.00	12.0	65.0	8.0	-1418H	£55.39	<b>£49.85</b>
AL-SEES3100	10.00	15.0	65.0	8.0	-1420K	£62.47	<b>£56.22</b>
AL-SEES3200	20.00	30.0	115.0	20.0	-1430V	£227.04	<b>£204.34</b>

**3 Flute - Long Series**



**CARBIDE**

Cutter Designation	Dia (mm)	Flute Length	Overall Length	Shank Dia.	Order Code DIJ-161	List Price/1	Offer Price/1
AL-SEES3060-LS	6.00	9.0	80.0	4.0	-1616F	£56.50	<b>£50.85</b>
AL-SEES3080-LS	8.00	12.0	100.0	6.0	-1618H	£60.83	<b>£54.75</b>
AL-SEES3100-LS	10.00	15.0	130.0	8.0	-1620K	£96.14	<b>£86.53</b>
AL-SEES3120-LS	12.00	18.0	150.0	10.0	-1622M	£128.18	<b>£115.36</b>
AL-SEES3140-LS	14.00	21.0	160.0	12.0	-1624P	£148.28	<b>£133.45</b>

**CONTRACT PRICES AVAILABLE FOR VOLUME PURCHASES**

All Prices Exclude V.A.T. © 2014





**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	List Price/1	Offer Price/1
2.00	6.0	38.0	3.0	10g	-1040K	£21.17	<b>£12.70</b>
3.00	7.0	57.0	6.0	10g	-1060K	£18.34	<b>£11.00</b>
4.00	8.0	57.0	6.0	15g	-1080K	£25.42	<b>£15.25</b>
5.00	10.0	57.0	6.0	25g	-1100K	£32.11	<b>£19.27</b>
6.00	10.0	57.0	6.0	25g	-1120K	£34.96	<b>£20.98</b>
7.00	19.0	63.0	8.0	45g	-1140K	£46.37	<b>£27.82</b>
8.00	16.0	63.0	8.0	55g	-1160K	£42.69	<b>£25.61</b>
10.00	19.0	75.0	10.0	90g	-1200K	£68.21	<b>£40.93</b>
12.00	22.0	83.0	12.0	120g	-1240K	£107.55	<b>£64.53</b>
14.00	32.0	89.0	14.0	140g	-1280K	£153.76	<b>£92.26</b>
16.00	26.0	92.0	16.0	250g	-1320K	£165.88	<b>£99.53</b>
20.00	32.0	104.0	20.0	420g	-1400K	£298.08	<b>£178.85</b>

**Long Series - Metric**

Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Order Code KEN-161	List Price/1	Offer Price/1
3.00	30.0	75.0	3.0	-1930K	£35.02	<b>£21.01</b>
4.00	30.0	75.0	4.0	-1940K	£37.49	<b>£22.49</b>
5.00	40.0	100.0	5.0	-1950K	£47.04	<b>£28.22</b>
6.00	50.0	150.0	6.0	-1960K	£52.54	<b>£31.52</b>

**Regular Series - 2 Flute - Inch**

Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code KEN-161	List Price/1	Offer Price/1
1/32"	5/64"	1 1/2"	1/8"	10g	-1520K	£26.78	<b>£16.07</b>
3/64"	7/64"	1 1/2"	1/8"	10g	-1530K	£30.54	<b>£18.32</b>
1/16"	1/8"	1 1/2"	1/8"	10g	-1540K	£21.10	<b>£12.66</b>
5/64"	3/16"	1 1/2"	1/8"	10g	-1550K	£32.16	<b>£19.30</b>
3/32"	9/32"	1 1/2"	1/8"	10g	-1560K	£21.10	<b>£12.66</b>
1/8"	1/2"	1 1/2"	1/8"	10g	-1580K	£20.35	<b>£12.21</b>
3/16"	5/8"	2"	3/16"	15g	-1620K	£27.35	<b>£16.41</b>
1/4"	3/4"	2 1/2"	1/4"	35g	-1660K	£39.41	<b>£23.65</b>
5/16"	13/16"	2 1/2"	5/16"	50g	-1700K	£47.40	<b>£28.44</b>
1/2"	1"	3"	1/2"	140g	-1820K	£101.66	<b>£61.00</b>

**Long Series - Metric Continued**

Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Order Code KEN-161	List Price/1	Offer Price/1
8.00	50.0	150.0	8.0	-1980K	£71.34	<b>£42.80</b>
10.00	60.0	150.0	10.0	-1990K	£102.96	<b>£61.78</b>
12.00	50.0	150.0	15.0	-2000K	£151.22	<b>£90.73</b>
16.00	75.0	150.0	16.0	-2010K	£306.22	<b>£183.73</b>

**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	List Price/1	Offer Price/1
2.00	6.0	38.0	3.0	15g	-4040K	£21.17	<b>£12.70</b>
3.00	10.0	38.0	3.0	15g	-4060K	£18.34	<b>£11.00</b>
4.00	14.0	50.0	4.0	20g	-4080K	£25.42	<b>£15.25</b>
5.00	16.0	50.0	6.0	30g	-4100K	£32.11	<b>£19.27</b>
6.00	19.0	50.0	6.0	35g	-4120K	£34.96	<b>£20.98</b>
8.00	20.0	63.0	8.0	40g	-4160K	£42.69	<b>£25.61</b>
9.00	22.0	75.0	10.0	60g	-4180K	£70.62	<b>£42.37</b>
10.00	22.0	75.0	10.0	100g	-4200K	£68.21	<b>£40.93</b>
12.00	25.0	75.0	12.0	130g	-4240K	£107.55	<b>£64.53</b>

**Long Series - 3 Flute - Metric**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code KEN-161	List Price/1	Offer Price/1
3.00	25.0	75.0	3.0	15g	-4930K	£35.02	<b>£21.01</b>
4.00	25.0	75.0	4.0	15g	-4940K	£37.49	<b>£22.49</b>
5.00	25.0	75.0	5.0	30g	-4950K	£47.04	<b>£28.22</b>
6.00	25.0	75.0	6.0	30g	-4960K	£52.50	<b>£31.50</b>
8.00	25.0	75.0	8.0	40g	-4980K	£52.54	<b>£31.52</b>
10.00	38.0	100.0	10.0	100g	-4990K	£71.34	<b>£42.80</b>
12.00	50.0	100.0	12.0	130g	-4992K	£151.22	<b>£90.73</b>
20.00	58.0	125.0	20.0		-5000K	£518.30	<b>£310.98</b>



**Regular Series - 3 Flute - Inch**

Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code KEN-161	List Price/1	Offer Price/1
3/32"	9/32"	1 1/2"	1/8"		-4560K	£21.10	<b>£12.66</b>
1/8"	3/8"	1 1/2"	1/8"	10g	-4580K	£20.35	<b>£12.21</b>
5/32"	1/2"	2"	3/16"		-4600K	£27.35	<b>£16.41</b>
3/16"	5/8"	2"	3/16"		-4620K	£27.35	<b>£16.41</b>
1/4"	3/4"	2 1/2"	1/4"	30g	-4660K	£39.41	<b>£23.65</b>
3/8"	1"	2 1/2"	3/8"	60g	-4740K	£58.64	<b>£35.18</b>
9/16"	1 1/8"	3 1/2"	9/16"		-4830K	£119.37	<b>£71.62</b>

**Long Series - 3 Flute - Inch**

Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code KEN-161	List Price/1	Offer Price/1
1/4"	1 1/8"	3"	1/4"		-5018K	£49.80	<b>£29.88</b>
3/8"	1 1/8"	3"	3/8"		-5022K	£55.75	<b>£33.45</b>

**4 Flute** Four flute milling cutters have one of the strongest tooth structures available in solid cutters. Centre cutting as standard. Manufactured to **ANSI Standards**.

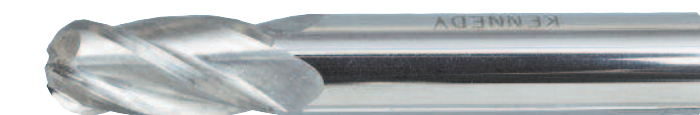
**CARBIDE**

**Regular Series - 4 Flute - Metric**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code KEN-161	List Price/1	Offer Price/1
1.5	4.5	38.0	3.0	10g	-7030K	£25.70	<b>£15.42</b>
2.0	6.3	38.0	3.0	10g	-7040K	£21.17	<b>£12.70</b>
3.0	12.0	38.0	3.0	10g	-7060K	£18.34	<b>£11.00</b>
3.5	12.0	50.0	4.0	10g	-7070K	£30.98	<b>£18.59</b>
4.0	14.0	50.0	4.0	15g	-7080K	£25.42	<b>£15.25</b>
5.0	16.0	50.0	6.0	25g	-7100K	£32.11	<b>£19.27</b>
6.0	19.0	50.0	6.0	25g	-7120K	£34.96	<b>£20.98</b>
7.0	19.0	63.0	8.0	45g	-7140K	£46.37	<b>£27.82</b>
8.0	20.0	63.0	8.0	55g	-7160K	£42.69	<b>£25.61</b>
9.0	22.0	75.0	10.0	65g	-7180K	£64.49	<b>£38.69</b>
10.0	22.0	75.0	10.0	90g	-7200K	£68.21	<b>£40.93</b>
11.0	25.0	75.0	12.0	100g	-7220K	£99.25	<b>£59.55</b>
12.0	25.0	75.0	12.0	120g	-7240K	£107.55	<b>£64.53</b>
16.0	32.0	89.0	16.0	250g	-7320K	£165.88	<b>£99.53</b>

**Long Series - 4 Flute - Metric**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code KEN-161	List Price/1	Offer Price/1
3.00	25.0	75.0	3.0	15g	-7930K	£35.02	<b>£21.01</b>
4.00	25.0	75.0	4.0	25g	-7940K	£37.49	<b>£22.49</b>
5.00	25.0	75.0	5.0	30g	-7950K	£47.04	<b>£28.22</b>
6.00	25.0	75.0	6.0	30g	-7960K	£52.54	<b>£31.52</b>
10.00	38.0	100.0	10.0	100g	-7990K	£102.96	<b>£61.78</b>
12.00	50.0	100.0	12.0	130g	-7992K	£151.22	<b>£90.73</b>
14.00	75.0	150.0	14.0	180g	-7994K	£252.38	<b>£151.43</b>
16.00	75.0	150.0	16.0	230g	-7996K	£306.22	<b>£183.73</b>
25.00	75.0	150.0	25.0	280g	-8005K	£555.69	<b>£333.41</b>



**Regular Series - 4 Flute - Inch**

Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code KEN-161	List Price/1	Offer Price/1
1/32"	5/64"	1 1/2"	1/8"		-7520K	£26.89	<b>£16.13</b>
3/32"	3/8"	1 1/2"	1/8"	10g	-7560K	£21.10	<b>£12.66</b>
1/8"	1/2"	1 1/2"	1/8"	10g	-7580K	£20.35	<b>£12.21</b>
3/16"	5/8"	2"	3/16"	15g	-7620K	£27.35	<b>£16.41</b>
1/4"	3/4"	2 1/2"	1/4"	35g	-7660K	£39.41	<b>£23.65</b>
5/16"	13/16"	2 1/2"	5/16"	45g	-7700K	£47.40	<b>£28.44</b>
3/8"	1"	2 1/2"	3/8"	55g	-7740K	£58.64	<b>£35.18</b>
7/16"	1"	2 3/4"	7/16"	65g	-7760K	£85.70	<b>£51.42</b>
1"	1 1/2"	4"	1"	160g	-7860K	£275.80	<b>£165.48</b>

**Long Series - 4 Flute - Inch**

Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code KEN-161	List Price/1	Offer Price/1
1/8"	1"	3"	1/8"		-8014K	£65.63	<b>£39.38</b>
1/4"	1"	3"	1/4"		-8018K	£85.89	<b>£51.53</b>
5/16"	1"	3"	5/16"		-8020K	£113.49	<b>£68.09</b>
1"	2 1/4"	5"	1"		-8032K	£551.61	<b>£330.97</b>

**SHANK MILLING CUTTERS**

**Carbide Uncoated**

For general production machining.

**TiCN Coated**

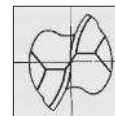
Extends cutter tool life and improves work material surface finish.



**SWISS+TECH**

**Carbide Plain Shank Slot Drills 2 Flute Ball Nosed**

Centre cutting.  
To **Manufacturers Standards**.

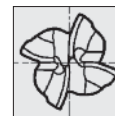


**Series 53 Short Series**

Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Weight each	SBC-2PS Carbide			SBT-2PS TiCN Coated		
					Order Code	List Price/1	Offer Price/1	Order Code	List Price/1	Offer Price/1
2.00	4.0	48.0	6.0	17g	<b>-5302A</b>	£28.50	<b>£17.10</b>	<b>-5332A</b>	£28.39	<b>£17.03</b>
3.00	4.0	48.0	6.0	18g	<b>-5303A</b>	£23.95	<b>£14.37</b>	<b>-5333A</b>	£25.11	<b>£15.07</b>
4.00	6.0	50.0	6.0	19g	<b>-5304A</b>	£27.95	<b>£16.77</b>	<b>-5334A</b>	£32.84	<b>£19.70</b>
5.00	7.0	51.0	6.0	20g	<b>-5305A</b>	£35.32	<b>£21.19</b>	<b>-5335A</b>	£40.46	<b>£24.28</b>
6.00	7.0	51.0	6.0	20g	<b>-5306A</b>	£38.45	<b>£23.07</b>	<b>-5336A</b>	£43.45	<b>£26.07</b>
8.00	9.0	59.0	8.0	40g	<b>-5308A</b>	£46.96	<b>£28.18</b>	<b>-5338A</b>	£54.44	<b>£32.66</b>
10.00	10.0	60.0	10.0	63g	<b>-5310A</b>	£75.03	<b>£45.02</b>	<b>-5340A</b>	£82.60	<b>£49.56</b>
12.00	14.0	71.0	12.0	103g	<b>-5312A</b>	£118.31	<b>£70.99</b>	<b>-5342A</b>	£130.93	<b>£78.56</b>
16.00	16.0	76.0	16.0	186g	<b>-5316A</b>	£182.47	<b>£109.48</b>	<b>-5346A</b>	£201.62	<b>£120.97</b>

**Carbide Plain Shank End Mills 4 Flute Ball Nosed**

Centre cutting. To **Manufacturers Standards**  
Cutting diameter to **h10**. Shank diameter to **h6**.

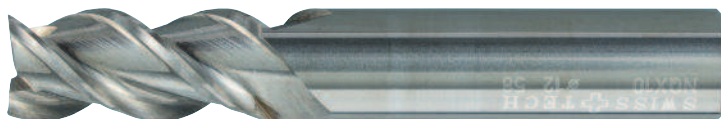


**Series 56 Short Series**

Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Weight each	EBC-4PS Carbide			EBT-4PS TiCN Coated		
					Order Code	List Price/1	Offer Price/1	Order Code	List Price/1	Offer Price/1
2.00	4.0	48.0	3.0	17g	<b>-5602A</b>	£28.50	<b>£17.10</b>	<b>-5632A</b>	£28.39	<b>£17.03</b>
3.00	4.0	48.0	6.0	18g	<b>-5603A</b>	£23.95	<b>£14.37</b>	<b>-5633A</b>	£25.11	<b>£15.07</b>
4.00	6.0	50.0	6.0	19g	<b>-5604A</b>	£27.95	<b>£16.77</b>	<b>-5634A</b>	£32.84	<b>£19.70</b>
5.00	7.0	51.0	6.0	20g	<b>-5605A</b>	£35.32	<b>£21.19</b>	<b>-5635A</b>	£40.46	<b>£24.28</b>
6.00	7.0	51.0	6.0	21g	<b>-5606A</b>	£38.45	<b>£23.07</b>	<b>-5636A</b>	£43.45	<b>£26.07</b>
8.00	9.0	59.0	8.0	42g	<b>-5608A</b>	£46.96	<b>£28.18</b>	<b>-5638A</b>	£54.44	<b>£32.66</b>
10.00	10.0	60.0	10.0	65g	<b>-5610A</b>	£75.03	<b>£45.02</b>	<b>-5640A</b>	£82.60	<b>£49.56</b>
12.00	14.0	71.0	12.0	106g	<b>-5612A</b>	£118.31	<b>£70.99</b>	<b>-5642A</b>	£130.93	<b>£78.56</b>

**Carbide Plain Shank Slot Drills 3 Flute High Helix**

Centre cutting.  
To **Manufacturers Standards**.



**Series 58 Regular Series**

Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Weight each	SHC-3PR Carbide			SHT-3PR TiCN Coated		
					Order Code	List Price/1	Offer Price/1	Order Code	List Price/1	Offer Price/1
6.00	16.0	50.0	6.0	18g	<b>-5806A</b>	£55.16	<b>£33.10</b>	<b>-5836A</b>	£60.23	<b>£36.14</b>
8.00	19.0	60.0	6.0	37g	<b>-5808A</b>	£64.35	<b>£38.61</b>	<b>-5838A</b>	£71.95	<b>£43.17</b>
10.00	22.0	60.0	10.0	66g	<b>-5810A</b>	£80.74	<b>£48.44</b>	<b>-5840A</b>	£88.42	<b>£53.05</b>
12.00	26.0	60.0	10.0	104g	<b>-5812A</b>	£115.81	<b>£69.49</b>	-	-	-
16.00	25.0	75.0	16.0	361g	<b>-5816A</b>	£303.66	<b>£182.20</b>	-	-	-

**CONTRACT PRICES AVAILABLE FOR VOLUME PURCHASES**

All Prices Exclude V.A.T. © 2014

**GROUP 061 SHANK MILLING CUTTERS**



**Solid Carbide Micrograin Plain Shank Slot Drills Double Ended**

**CARBIDE**



**2 Flute**

For maximum strength when milling harder materials where rapid swarf removal is not needed.

Manufactured to **ANSI 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



**Double Ended - Regular Series - Metric**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code <b>KEN-161</b>	List Price/1	Offer Price/1
2.00	4.0	38.0	3.0	10g	<b>-2040K</b>	£21.72	<b>£13.03</b>
3.00	6.0	38.0	3.0	10g	<b>-2060K</b>	£17.79	<b>£10.67</b>
4.00	8.0	50.0	4.0	15g	<b>-2080K</b>	£24.66	<b>£14.80</b>
5.00	10.0	63.0	5.0	20g	<b>-2100K</b>	£32.00	<b>£19.20</b>
6.00	12.0	63.0	6.0	30g	<b>-2120K</b>	£33.70	<b>£20.22</b>
8.00	12.0	63.0	8.0	50g	<b>-2160K</b>	£43.86	<b>£26.32</b>

**Solid Carbide Micrograin Plain Shank End Mills Double Ended**

**CARBIDE**

**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. 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>	List Price/1	Offer Price/1
2.00	4.0	38.0	3.0	10g	<b>-8040K</b>	£21.72	<b>£13.03</b>
3.00	6.0	38.0	3.0	10g	<b>-8060K</b>	£17.79	<b>£10.67</b>
4.00	8.0	50.0	4.0	15g	<b>-8080K</b>	£24.66	<b>£14.80</b>
5.00	10.0	63.0	5.0	20g	<b>-8100K</b>	£32.00	<b>£19.20</b>
6.00	12.0	63.0	6.0	30g	<b>-8120K</b>	£33.70	<b>£20.22</b>
7.00	12.0	63.0	8.0	45g	<b>-8140K</b>	£45.30	<b>£27.18</b>
8.00	12.0	63.0	8.0	50g	<b>-8160K</b>	£43.86	<b>£26.32</b>
10.00	14.0	75.0	10.0	80g	<b>-8200K</b>	£66.79	<b>£40.07</b>
12.00	16.0	75.0	12.0	120g	<b>-8240K</b>	£93.40	<b>£56.04</b>

**4 Flute - Regular Series - Inch**

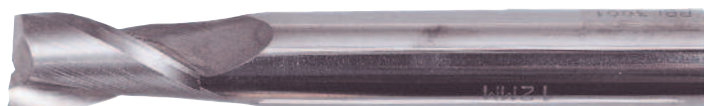
Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Weight Each	Order Code <b>KEN-161</b>	List Price/1	Offer Price/1
1/16"	1/8"	1 1/2"	1/8"	10g	<b>-8540K</b>	£21.67	<b>£13.00</b>
3/32"	3/16"	1 1/2"	1/8"	10g	<b>-8560K</b>	£21.67	<b>£13.00</b>
7/32"	1/2"	2 1/2"	1/4"	30g	<b>-8640K</b>	£38.59	<b>£23.15</b>

**Carbide Plain Shank Al-Karb Ultrafine Micrograin Milling Cutters Slot Drills for Aluminium**

**CARBIDE**

**2 Flute**

Centre cutting as standard. An advanced tool geometry designed for cutting aluminium and other non-metallic, non-ferrous materials requiring high machining rates. Al-Karb cutters will out-perform conventional end mills on these materials as the flute design allows maximum chip removal.



**Short Series - Metric**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code <b>KEN-161</b>	List Price/1	Offer Price/1
3.00	8.0	57.0	6.0	15g	<b>-9700K</b>	£15.49	<b>£9.29</b>
4.00	11.0	57.0	6.0	15g	<b>-9720K</b>	£22.24	<b>£13.34</b>
5.00	13.0	57.0	6.0	30g	<b>-9740K</b>	£30.60	<b>£18.36</b>
6.00	13.0	57.0	6.0	35g	<b>-9750K</b>	£29.06	<b>£17.44</b>
8.00	19.0	63.0	8.0	40g	<b>-9760K</b>	£32.98	<b>£19.79</b>
10.00	22.0	72.0	10.0	100g	<b>-9770K</b>	£61.17	<b>£36.70</b>
12.00	26.0	83.0	12.0	130g	<b>-9780K</b>	£78.25	<b>£46.95</b>
16.00	26.0	83.0	14.0	230g	<b>-9790K</b>	£129.35	<b>£77.61</b>

**Short Series - Inch**

Diameter (Inch)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code <b>KEN-161</b>	List Price/1	Offer Price/1
1/2"	1"	3"	1/2"	140g	<b>-9910K</b>	£78.25	<b>£46.95</b>

**Carbide Plain Shank 60° High Helix End Mills**

**CARBIDE**

**3 Flute**

Suitable for the high speed machining of titanium inconel, stainless steel and steel alloys.

Cutting diameter to **h10**.

Shank diameter to **h6**.

Dimensions to **DIN**.



**Short Series**

Diameter (mm)	Flute Length	Overall Length	Shank Dia.	Weight each	Order Code <b>KEN-161</b>	List Price/1	Offer Price/1
6.00	13.0	57.0	6.0	35g	<b>-5060K</b>	£50.14	<b>£30.08</b>
8.00	19.0	69.0	8.0	40g	<b>-5080K</b>	£58.50	<b>£35.10</b>
10.00	22.0	72.0	10.0	100g	<b>-5100K</b>	£73.40	<b>£44.04</b>
12.00	26.0	83.0	12.0	130g	<b>-5120K</b>	£105.29	<b>£63.17</b>
16.00	32.0	92.0	16.0	230g	<b>-5160K</b>	£276.06	<b>£165.64</b>

**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.

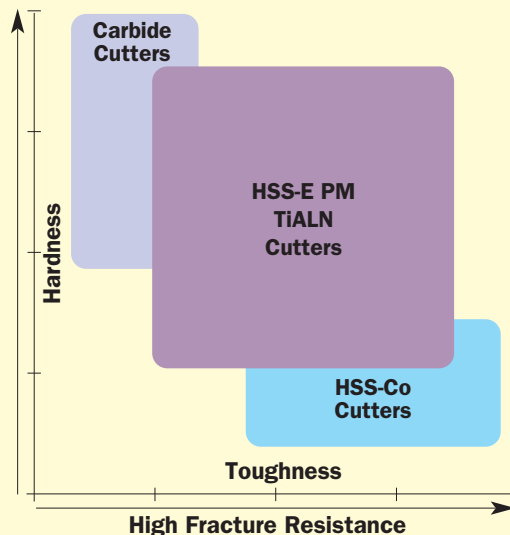
- Up to 25% higher cutting speed than HSS/HSS-Co. cutters.
- Up to 125% higher feed rates.
- Up to 100% longer cutter life.
- Reduced manufacturing costs.
- Improved productivity.
- Lower coolant usage and disposal costs.

**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.

**Toughness & Hardness,  
the Best of Both . . .**

High Wear Resistance - Fast Cutting -  
Sharper Edges - Improved Finish

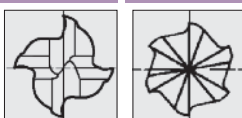


**CUTTING TOOLS**

**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**



**Series 90**  
Regular Series Dimensions to **DIN 844**

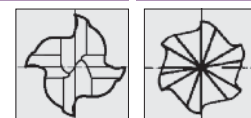
Diameter (mm)	Flute Length	Overall Length	Shank Dia.	No. of Flutes	EHP-4WR PM Coated	
					Order Code SWT-165	Offer Price/1
6.00	13.0	57.0	6.0	4	<b>-9006A</b>	<b>£13.77</b>
8.00	19.0	69.0	10.0	4	<b>-9008A</b>	<b>£16.30</b>
10.00	22.0	72.0	10.0	4	<b>-9010A</b>	<b>£18.29</b>
12.00	26.0	83.0	12.0	4	<b>-9012A</b>	<b>£20.25</b>
16.00	32.0	93.0	16.0	6	<b>-9016A</b>	<b>£28.89</b>
20.00	38.0	104.0	20.0	6	<b>-9020A</b>	<b>£43.50</b>
25.00	45.0	121.0	25.0	6	<b>-9025A<sup>(1)</sup></b>	<b>£61.78</b>

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

**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**



**Series 92**  
Long Series Dimensions to **DIN 844**

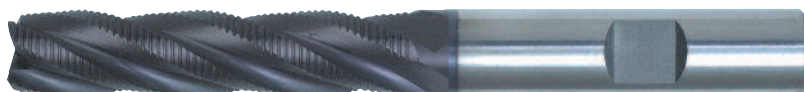
Diameter (mm)	Flute Length	Overall Length	Shank Dia.	No. of Flutes	EHP-4WL PM Coated	
					Order Code SWT-165	Offer Price/1
6.00	24.0	68.0	6.0	4	<b>-9206A</b>	<b>£16.86</b>
8.00	38.0	78.0	10.0	4	<b>-9208A</b>	<b>£19.12</b>
10.00	45.0	95.0	10.0	4	<b>-9210A</b>	<b>£20.81</b>
12.00	53.0	110.0	12.0	4	<b>-9212A</b>	<b>£25.02</b>
16.00	45.0	100.0	16.0	6	<b>-9216A</b>	<b>£37.95</b>
20.00	58.0	122.0	20.0	6	<b>-9220A</b>	<b>£56.20</b>
25.00	90.0	166.0	25.0	6	<b>-9225A<sup>(1)</sup></b>	<b>£82.40</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**  
Long Series Dimensions to **DIN 844**

Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Number of Flutes	RFP-4WL PM Coated	
					Order Code SWT-165	Offer Price/1
6.00	24.0	68.0	6.0	4	<b>-9606A</b>	<b>£23.20</b>
8.00	38.0	88.0	10.0	4	<b>-9608A</b>	<b>£26.72</b>
10.00	45.0	95.0	10.0	5	<b>-9610A</b>	<b>£29.35</b>
12.00	53.0	110.0	12.0	5	<b>-9612A</b>	<b>£34.61</b>
16.00	63.0	123.0	16.0	5	<b>-9616A</b>	<b>£50.51</b>
20.00	75.0	141.0	20.0	5	<b>-9620A</b>	<b>£72.22</b>
25.00	90.0	166.0	25.0	6	<b>-9625A<sup>(1)</sup></b>	<b>£109.56</b>

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

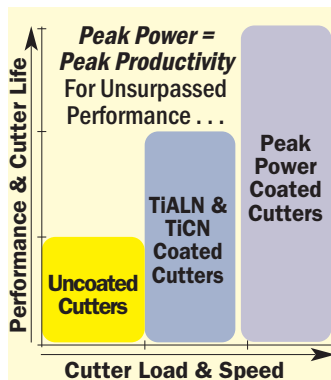
**CONTRACT PRICES AVAILABLE FOR VOLUME PURCHASES**



**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 3 Flute End Mills**

**HSS-E PM**

Centre cutting. Weldon shank to **DIN 1835B**. Shank diameter to **h6**. Dimensions to **DIN 844**.

**PEAK POWER**



**Series 93 Regular**

Peak Power Coated						
Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Order Code <b>SWT-165</b>	Offer Price/1	
2.00	4.0	48.0	6.0	-9302A	£10.52	
3.00	5.0	49.0	6.0	-9303A	£10.52	
4.00	7.0	51.0	6.0	-9304A	£10.52	
5.00	8.0	52.0	6.0	-9305A	£10.52	
6.00	8.0	52.0	6.0	-9306A	£10.52	
8.00	11.0	61.0	10.0	-9308A	£16.62	
10.00	13.0	63.0	10.0	-9310A	£17.20	
12.00	16.0	73.0	12.0	-9312A	£21.79	
16.00	19.0	79.0	16.0	-9316A	£28.61	
20.00	22.0	88.0	20.0	-9320A	£46.83	

**HSS-E PM Coated 4 Flute End Mills**

**HSS-E PM**

Centre cutting. Weldon shank to **DIN 1835B**. Shank diameter to **h6**. Dimensions to **DIN 844**.

**PEAK POWER**



**Series 95 Regular**

Peak Power Coated						
Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Order Code <b>SWT-165</b>	Offer Price/1	
3.00	8.0	52.0	6.0	-9503A	£12.17	
4.00	11.0	55.0	6.0	-9504A	£12.17	
5.00	13.0	57.0	6.0	-9505A	£12.17	
6.00	13.0	57.0	6.0	-9506A	£12.17	
8.00	19.0	69.0	6.0	-9508A	£18.33	
10.00	22.0	72.0	10.0	-9510A	£18.98	
12.00	26.0	83.0	12.0	-9512A	£25.22	
14.00	26.0	83.0	12.0	-9514A	£28.10	
16.00	32.0	92.0	16.0	-9516A	£33.34	
20.00	38.0	104.0	20.0	-9520A	£54.28	

**HSS-E PM Fine Pitch Ripper Cutters**

**HSS-E PM**

45° high helix, fine pitch, centre cutting. Weldon shank to **DIN 1835B**. Shank diameter to **h6**. Dimensions to **DIN 844**.

**PEAK POWER**



**Series 98 Regular**

Peak Power Coated						
Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Order Code <b>SWT-165</b>	Offer Price/1	
5.00	13.0	57.0	6.0	-9805A	£21.10	
6.00	13.0	57.0	6.0	-9806A	£21.10	
8.00	19.0	69.0	10.0	-9808A	£28.27	
10.00	22.0	72.0	10.0	-9810A	£28.99	
12.00	26.0	83.0	12.0	-9812A	£35.43	
16.00	32.0	92.0	16.0	-9816A	£48.94	

**HSS-E PM Coated 2 Flute Slot Drills**

Centre cutting. Weldon shank to **DIN 1835B**. Shank diameter to **h6**. Dimensions to **DIN 844**.

**HSS-E PM**

**PEAK POWER**



**Series 91 Regular**

Peak Power Coated						
Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Order Code <b>SWT-165</b>	Offer Price/1	
2.00	4.0	47.0	6.0	-9102A	£10.52	
3.00	5.0	49.0	6.0	-9103A	£10.52	
4.00	7.0	51.0	6.0	-9104A	£10.52	
5.00	8.0	52.0	6.0	-9105A	£10.52	
6.00	8.0	52.0	6.0	-9106A	£10.52	
8.00	11.0	61.0	10.0	-9108A	£16.62	
10.00	13.0	63.0	10.0	-9110A	£17.20	
12.00	16.0	73.0	12.0	-9112A	£21.79	
14.00	16.0	73.0	12.0	-9114A	£23.64	
16.00	19.0	79.0	16.0	-9116A	£28.61	
20.00	22.0	88.0	20.0	-9120A	£46.83	

**HSS-E PM Coated Fine Pitch Ripper**

**HSS-E PM**

Centre cutting. Weldon shank to **DIN 1835B**. Cutting diameter to **js12**. Shank diameter to **h6**. Dimensions to **DIN 844**.

**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>	Offer Price/1	
6.00	13.0	57.0	6.0	3	-9406A	£19.26	
8.00	19.0	69.0	10.0	3	-9408A	£22.24	
10.00	22.0	72.0	10.0	4	-9410A	£24.57	
12.00	26.0	83.0	12.0	4	-9412A	£28.89	
16.00	32.0	94.0	16.0	4	-9416A	£39.18	
20.00	38.0	104.0	20.0	4	-9420A	£50.47	
25.00	45.0	121.0	25.0	5	-9425A	£68.40	

**HSS-E PM Coated 2 Flute Ball Nosed Slot Drills**

**HSS-E PM**

**PEAK POWER**

Centre cutting. Weldon shank to **DIN 1835B**. Shank diameter to **h6**. Dimensions to **DIN 844**.



**Series 97 Regular**

Peak Power Coated						
Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Order Code <b>SWT-165</b>	Offer Price/1	
3.00	5.0	49.0	6.0	-9703A	£13.99	
4.00	7.0	51.0	6.0	-9704A	£13.99	
5.00	8.0	52.0	6.0	-9705A	£13.99	
6.00	8.0	52.0	6.0	-9706A	£13.99	
8.00	11.0	61.0	10.0	-9708A	£19.98	
10.00	13.0	63.0	10.0	-9710A	£20.59	
12.00	16.0	73.0	12.0	-9712A	£26.25	
16.00	19.0	79.0	16.0	-9716A	£33.96	

**HSS-E PM Coated Coarse Pitch Ripper Cutters**

**HSS-E PM**

**PEAK POWER**

Centre cutting. Weldon shank to **DIN 1835B**. Shank diameter to **h6**. Dimensions to **DIN 844**.



**Series 99 Regular**

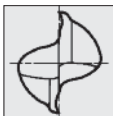
Peak Power Coated							
Diameter (mm)	Flute Length	Overall Length	Shank Diameter	No. of Flutes	Order Code <b>SWT-165</b>	Offer Price/1	
6.00	13.0	57.0	6.0	3	-9906A	£19.12	
8.00	19.0	69.0	10.0	3	-9908A	£25.74	
10.00	22.0	72.0	10.0	4	-9910A	£26.42	
12.00	26.0	83.0	12.0	4	-9912A	£30.70	
16.00	32.0	92.0	16.0	4	-9916A	£42.73	
20.00	38.0	104.0	20.0	4	-9920A	£61.06	



**HSS-E PM 2 Flute 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**



**7**  
**PIECES**



**Series 91**

Number of Pieces	Contents	Order Code <b>SWT-165</b>	List Price/1	Offer Price/1
7	3, 4, 5, 6, 8, 10, & 12mm	<b>-9150A</b>	£113.56	<b>£68.14</b>

**HSS-E PM High Helix Fine Pitch Ripper 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:** 5, 6, 8, 10, 12 and 16mm.

**HSS-E PM**  
**PEAK POWER**



**6**  
**PIECES**



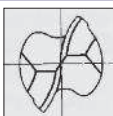
**Series 98**

Number of Pieces	Contents	Order Code <b>SWT-165</b>	List Price/1	Offer Price/1
6	5, 6, 8, 10, 12 and 16mm	<b>-9850A</b>	£208.37	<b>£125.02</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**



**7**  
**PIECES**



**Series 97**

Number of Pieces	Contents	Order Code <b>SWT-165</b>	List Price/1	Offer Price/1
7	3, 4, 5, 6, 8, 10 & 12mm	<b>-9750A</b>	£190.73	<b>£114.44</b>

**HSS-E PM Coarse 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:** 8, 10, 12, 16 and 20mm.

**HSS-E PM**  
**PEAK POWER**



**5**  
**PIECES**



**Series 99**

Number of Pieces	Contents	Order Code <b>SWT-165</b>	List Price/1	Offer Price/1
5	8, 10, 12, 16 & 20mm	<b>-9950A</b>	£238.14	<b>£142.88</b>



**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.

**EXTENDED RANGE**

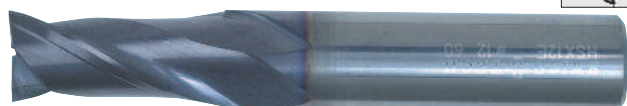
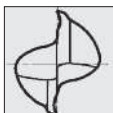
A multi-layer coating capable of operating at higher speed and feed.

- 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.

**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**



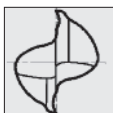
**Series 60 Short Series** Dimensions to **DIN 844**

SDQ-2PS Carbide Q-Coat					
Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Order Code <b>SWT-165</b>	Offer Price/1
1.00	2.5	45.0	4.0	-6001A	£25.50
2.00	6.0	45.0	4.0	-6002A	£20.79
3.00	8.0	45.0	6.0	-6003A	£17.51
4.00	11.0	45.0	6.0	-6004A	£17.51
5.00	13.0	50.0	6.0	-6005A	£18.97
6.00	13.0	50.0	6.0	-6006A	£20.45
7.00	16.0	60.0	8.0	-6007A	£25.17
8.00	19.0	60.0	8.0	-6008A	£27.37
9.00	19.0	70.0	8.0	-6009A	£34.74
10.00	22.0	70.0	10.0	-6010A	£37.58
12.00	26.0	75.0	12.0	-6012A	£49.63
16.00	32.0	100.0	16.0	-6016A	£96.27

**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**

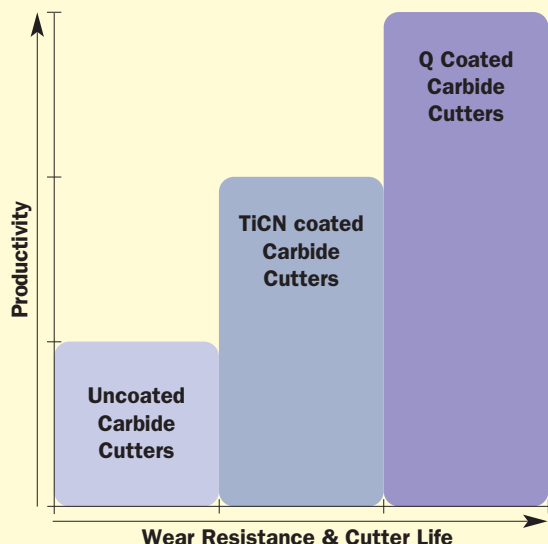


**Series 62 Long Series** Dimensions to **DIN 844**

SDQ-2PL Carbide Q-Coat					
Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Order Code <b>SWT-165</b>	Offer Price/1
3.00	12.0	50.0	6.0	-6203A	£41.97
4.00	15.0	50.0	6.0	-6204A	£43.79
5.00	20.0	60.0	6.0	-6205A	£48.52
6.00	20.0	60.0	6.0	-6206A	£52.92
8.00	25.0	70.0	8.0	-6208A	£69.35
10.00	30.0	90.0	10.0	-6210A	£97.09
12.00	30.0	90.0	12.0	-6212A	£115.03
16.00	50.0	110.0	16.0	-6216A	£190.09
20.00	55.0	110.0	20.0	-6220A	£292.89

**A Step Beyond Carbide . . .**

For Extreme Conditions - High Cutting Speeds



**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 Short Series** Dimensions to **DIN 844**

EMQ-4PS Carbide Q-Coat					
Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Order Code <b>SWT-165</b>	Offer Price/1
2.00	6.0	40.0	4.0	-6602A	£20.79
3.00	8.0	45.0	6.0	-6603A	£17.51
4.00	11.0	45.0	6.0	-6604A	£17.51
5.00	13.0	50.0	6.0	-6605A	£18.97
6.00	13.0	50.0	6.0	-6606A	£20.45
7.00	16.0	60.0	8.0	-6607A	£25.17
8.00	19.0	60.0	8.0	-6608A	£27.37
9.00	19.0	70.0	10.0	-6609A	£34.74
10.00	22.0	70.0	10.0	-6610A	£37.58
11.00	22.0	75.0	12.0	-6611A	£47.37
12.00	26.0	75.0	12.0	-6612A	£49.63
14.00	26.0	85.0	14.0	-6614A	£66.56
16.00	32.0	100.0	16.0	-6616A	£96.27
18.00	32.0	100.0	18.0	-6618A	£112.48
20.00	38.0	105.0	20.0	-6620A	£135.43
25.00	45.0	120.0	25.0	-6625A	£218.30

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

EMQ-4PL Carbide Q-Coat					
Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Order Code <b>SWT-165</b>	Offer Price/1
3.00	12.0	50.0	6.0	-6803A	£41.97
4.00	15.0	50.0	6.0	-6804A	£43.79
5.00	20.0	60.0	6.0	-6805A	£48.52
6.00	20.0	60.0	6.0	-6806A	£52.92
8.00	25.0	70.0	8.0	-6808A	£69.35
10.00	30.0	90.0	10.0	-6810A	£97.09
12.00	30.0	90.0	12.0	-6812A	£115.03
16.00	50.0	110.0	16.0	-6816A	£190.09

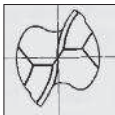
**SHANK MILLING CUTTERS - DIE & MOULD**



**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**



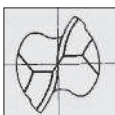
**Series 73 Long Reach**

Dia. (mm)	Shank Dia	Length of Cut	Length Below Shank	Overall Length	Neck Dia.	Carbide Q-Coat	
						Order Code <b>SWT-165</b>	Offer Price/1
0.60	4.0	0.9	6.0	35.0	0.55	-7302A	£37.97
0.80	4.0	1.2	8.0	45.0	0.75	-7304A	£37.97
1.00	4.0	1.5	8.0	45.0	0.95	-7306A	£36.16
1.00	4.0	1.5	12.0	45.0	0.93	-7308A	£37.97
1.50	4.0	2.3	20.0	55.0	1.39	-7310A	£36.16
1.60	4.0	2.4	16.0	50.0	1.51	-7312A	£36.16
2.00	4.0	3.0	12.0	50.0	1.93	-7316A	£36.16
2.00	4.0	3.0	16.0	50.0	1.91	-7318A	£37.97
2.00	4.0	3.0	20.0	55.0	1.89	-7320A	£39.04

**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**



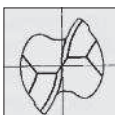
**Series 75 Regular Neck**

Dia. (mm)	Shank Dia.	Length of Cut	Length Below Shank	Overall Length	Neck Dia.	Carbide Q-Coat	
						Order Code <b>SWT-165</b>	Offer Price/1
0.40	4.0	0.6	1.0	45.0	0.36	-7502A	£56.77
0.50	4.0	0.7	2.0	45.0	0.45	-7504A	£56.77
0.60	4.0	0.9	2.0	45.0	0.55	-7506A	£56.77
0.80	4.0	1.2	2.0	45.0	0.75	-7508A	£44.19
1.00	4.0	1.5	3.0	45.0	0.97	-7510A	£41.98
1.50	4.0	2.3	6.0	45.0	1.47	-7514A	£44.19
2.00	4.0	3.0	4.0	45.0	1.97	-7516A	£41.98
3.00	6.0	4.5	8.0	50.0	2.85	-7518A	£47.12
3.50	6.0	4.5	8.0	50.0	2.85	-7520A	£47.12
4.00	6.0	6.0	10.0	60.0	3.85	-7522A	£49.69

**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**



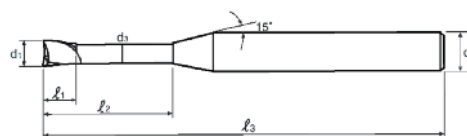
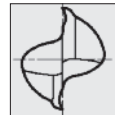
**Series 78 Regular Length**

Diameter (mm)	Flute Length	Overall Length	Shank Diameter	SBQ-2PR Carbide Q-Coat	
				Order Code <b>SWT-165</b>	Offer Price/1
1.00	2.5	50.0	4.0	-7801A	£24.09
1.50	4.0	50.0	4.0	-7801L	£24.09
2.00	5.0	50.0	6.0	-7802A	£24.09
2.50	6.0	60.0	6.0	-7802L	£24.09
3.00	8.0	60.0	6.0	-7803A	£27.73
4.00	8.0	70.0	6.0	-7804A	£27.73
5.00	10.0	80.0	6.0	-7805A	£29.19
6.00	12.0	90.0	6.0	-7806A	£30.30
8.00	14.0	100.0	8.0	-7808A	£40.13
10.00	18.0	100.0	10.0	-7810A	£50.36
12.00	22.0	110.0	12.0	-7812A	£63.86
16.00	30.0	140.0	16.0	-7816A	£124.01
20.00	38.0	160.0	20.0	-7820A	£188.46

**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**



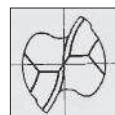
**Series 74 Long Reach**

Dia. (mm)	Shank Dia. (d2)	Length of Cut (L1)	Length Below Shk (L2)	Overall Length (L3)	Neck Dia. (d3)	Carbide Q-Coat	
						Order Code <b>SWT-165</b>	Offer Price/1
0.50	4.0	0.7	6.0	45.0	0.45	-7402A	£30.67
0.60	4.0	0.9	4.0	45.0	0.55	-7404A	£30.67
0.70	4.0	1.0	8.0	45.0	0.65	-7406A	£30.67
0.80	4.0	1.2	4.0	45.0	0.75	-7408A	£30.67
1.00	4.0	1.5	8.0	45.0	0.95	-7412A	£30.67
1.00	4.0	1.5	10.0	45.0	0.95	-7414A	£31.89
1.20	4.0	1.8	12.0	45.0	1.13	-7416A	£30.67
1.50	4.0	2.3	16.0	50.0	1.41	-7418A	£31.89
2.00	4.0	3.0	14.0	50.0	1.93	-7420A	£30.67
2.00	4.0	3.0	20.0	55.0	1.89	-7422A	£31.89
2.50	4.0	3.7	20.0	60.0	2.40	-7424A	£30.67
3.00	6.0	4.5	14.0	50.0	2.85	-7426A	£30.67
3.00	6.0	4.5	25.0	65.0	2.85	-7428A	£31.89

**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**



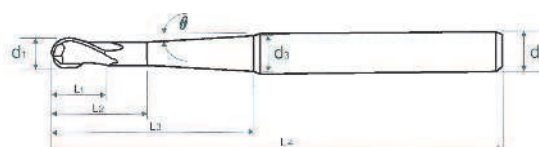
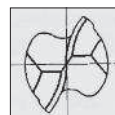
**Series 77 Long Neck**

Dia. (mm)	Shank Dia.	Length of Cut	Length Below Shank	Overall Length	Neck Dia.	Carbide Q-Coat	
						Order Code <b>SWT-165</b>	Offer Price/1
0.60	4.0	0.9	4.0	45.0	0.55	-7706A	£60.96

**Carbide Plain Shank End Mills 2 Flute Ball Nose**

Centre cutting.  
To **Manufacturers Standards**.  
Cutting diameter to **h10**.  
Shank diameter to **h6**.  
**Carbide Q-Coat**.

**CARBIDE Q-Coat**



**Series 79 Taper Neck**

Dia. (mm) (d1)	Shank Dia. (d2)	Length of Cut (L1)	Length Below Shk (L2)	Overall Length (L3)	Neck Dia. (d3)	Carbide Q-Coat	
						Order Code <b>SWT-165</b>	Offer Price/1
3.00	6.0	6.0	52.0	90.0	5.3	-7903A	£53.89
8.00	10.0	14.0	55.0	120.0	10.0	-7908A	£119.93
12.00	16.0	22.0	83.0	160.0	15.0	-7912A	£188.46

**CONTRACT PRICES AVAILABLE FOR VOLUME PURCHASES**

All Prices Exclude V.A.T. © 2014

**CUTTING TOOLS**



**SWISS+TECH**

**Carbide Plain Shank End Mills 4 Flute**

Centre cutting.  
To **Manufacturers Standards**.  
Cutting diameter to **h10**.  
Shank diameter to **h6**.  
**Carbide Q-Coat**.

**CARBIDE Q-Coat**



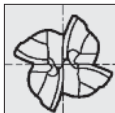
**Series 69 52° Hi-Helix**

Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Carbide Q-Coat	
				Order Code <b>SWT-165</b>	Offer Price/1
4.00	12.0	60.0	6.0	<b>-6904A</b>	<b>£38.80</b>
6.00	15.0	60.0	6.0	<b>-6906A</b>	<b>£44.39</b>
8.00	20.0	75.0	8.0	<b>-6908A</b>	<b>£54.40</b>
10.00	25.0	80.0	10.0	<b>-6910A</b>	<b>£73.20</b>
12.00	12.0	100.0	30.0	<b>-6912A</b>	<b>£93.01</b>
16.00	40.0	110.0	16.0	<b>-6916A</b>	<b>£179.49</b>

**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**



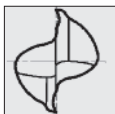
**Series 80 - Regular Length Dimensions to DIN 844**

Diameter (mm)	Flute Length	Overall Length	Shank Diameter	EBQ-4PR Q-Coat	
				Order Code <b>SWT-165</b>	Offer Price/1
2.00	5.0	50.0	6.0	<b>-8002A</b>	<b>£31.30</b>
3.00	8.0	60.0	6.0	<b>-8003A</b>	<b>£36.07</b>
4.00	8.0	70.0	6.0	<b>-8004A</b>	<b>£36.07</b>
5.00	10.0	80.0	6.0	<b>-8005A</b>	<b>£37.95</b>
6.00	12.0	90.0	6.0	<b>-8006A</b>	<b>£39.37</b>
8.00	14.0	100.0	8.0	<b>-8008A</b>	<b>£52.18</b>
10.00	18.0	100.0	10.0	<b>-8010A</b>	<b>£65.47</b>
12.00	22.0	110.0	12.0	<b>-8012A</b>	<b>£83.22</b>
16.00	30.0	140.0	16.0	<b>-8016A</b>	<b>£161.54</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**



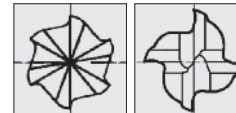
**Series 85 Regular Series Dimensions to DIN 844**

Diameter x Corner Radius (mm)	Flute Length	Overall Length	Shank Diameter	SCQ-2PR Carbide Q-Coat	
				Order Code <b>SWT-165</b>	Offer Price/1
6.00 x 0.5	20	60	6	<b>-8504K</b>	<b>£28.60</b>
6.00 x 1.0	20	60	6	<b>-8505K</b>	<b>£28.60</b>
8.00 x 0.5	25	70	8	<b>-8506K</b>	<b>£52.61</b>
8.00 x 1.0	25	70	8	<b>-8507K</b>	<b>£52.71</b>
8.00 x 1.5	25	70	8	<b>-8508K</b>	<b>£52.71</b>
8.00 x 2.0	25	70	8	<b>-8509K</b>	<b>£52.71</b>
10.00 x 0.5	30	90	10	<b>-8510K</b>	<b>£52.61</b>
10.00 x 1.0	30	90	10	<b>-8511K</b>	<b>£52.71</b>
10.00 x 1.5	30	90	10	<b>-8512K</b>	<b>£52.71</b>
10.00 x 2.0	30	90	10	<b>-8513K</b>	<b>£52.71</b>
12.00 x 1.0	30	90	12	<b>-8515K</b>	<b>£69.49</b>
12.00 x 1.5	30	90	12	<b>-8516K</b>	<b>£69.49</b>
12.00 x 2.0	30	90	12	<b>-8517K</b>	<b>£69.49</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**.

**CARBIDE Q-Coat**



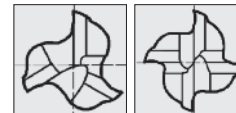
**Series 72 Regular Length**

Diameter (mm)	Flute Length	Overall Length	Shank Diameter	No. of Flutes	EHQ-6PR Carbide Q-Coat	
					Order Code <b>SWT-165</b>	Offer Price/1
3.00	8.0	57.0	6.0	4.0	<b>-7203A</b>	<b>£26.56</b>
4.00	11.0	57.0	6.0	4.0	<b>-7204A</b>	<b>£26.56</b>
5.00	13.0	57.0	6.0	4.0	<b>-7205A</b>	<b>£26.56</b>
6.00	13.0	57.0	6.0	6.0	<b>-7206A</b>	<b>£30.23</b>
8.00	19.0	63.0	8.0	6.0	<b>-7208A</b>	<b>£37.23</b>
10.00	22.0	72.0	10.0	6.0	<b>-7210A</b>	<b>£49.63</b>
12.00	26.0	83.0	12.0	6.0	<b>-7212A</b>	<b>£63.00</b>
16.00	32.0	92.0	16.0	6.0	<b>-7216A</b>	<b>£121.56</b>
20.00	38.0	104.0	20.0	8.0	<b>-7220A</b>	<b>£177.86</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**.

**CARBIDE Q-Coat**



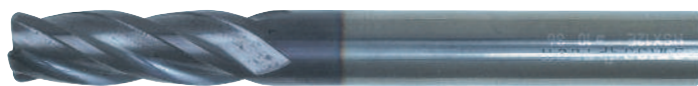
**Series 82 - Regular Length Dimensions to DIN 844**

Diameter (mm)	Flute Length	Overall Length	Shank Diameter	Number of Flutes	RFQ-3PR Q-Coat	
					Order Code <b>SWT-165</b>	Offer Price/1
6.00	16.0	57.0	6.0	3.0	<b>-8206A</b>	<b>£35.87</b>
8.00	16.0	63.0	8.0	3.0	<b>-8208A</b>	<b>£44.49</b>
10.00	22.0	72.0	10.0	4.0	<b>-8210A</b>	<b>£59.61</b>
12.00	26.0	83.0	12.0	4.0	<b>-8212A</b>	<b>£75.55</b>
16.00	32.0	92.0	16.0	4.0	<b>-8216A</b>	<b>£145.23</b>
20.00	38.0	104.0	20.0	4.0	<b>-8220A</b>	<b>£213.76</b>
25.00	54.0	122.0	25.0	5.0	<b>-8225A</b>	<b>£320.63</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**



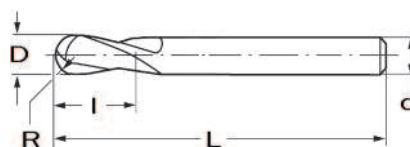
**Series 86 Regular Length**

Diameter x Corner Radius (mm)	Flute Length	Overall Length	Shank Diameter	ECQ-4PR Q-Coat	
				Order Code <b>SWT-165</b>	Offer Price/1
6.00 x 0.5	20.0	60.0	6.0	<b>-8604K</b>	<b>£30.66</b>
6.00 x 1.0	20.0	60.0	6.0	<b>-8605K</b>	<b>£30.66</b>
8.00 x 0.5	25.0	70.0	8.0	<b>-8606K</b>	<b>£41.06</b>
8.00 x 1.0	25.0	70.0	8.0	<b>-8607K</b>	<b>£41.06</b>
8.00 x 1.5	25.0	70.0	8.0	<b>-8608K</b>	<b>£41.06</b>
8.00 x 2.0	25.0	70.0	8.0	<b>-8609K</b>	<b>£41.06</b>
10.00 x 0.5	30.0	90.0	10.0	<b>-8610K</b>	<b>£56.40</b>
10.00 x 1.0	30.0	90.0	10.0	<b>-8611K</b>	<b>£56.40</b>
10.00 x 1.5	30.0	90.0	10.0	<b>-8612K</b>	<b>£56.40</b>
10.00 x 2.0	30.0	90.0	10.0	<b>-8613K</b>	<b>£56.40</b>
12.00 x 0.5	30.0	90.0	12.0	<b>-8614K</b>	<b>£74.45</b>
12.00 x 1.0	30.0	90.0	12.0	<b>-8615K</b>	<b>£74.45</b>
12.00 x 1.5	30.0	90.0	12.0	<b>-8616K</b>	<b>£74.45</b>
12.00 x 2.0	30.0	90.0	12.0	<b>-8617K</b>	<b>£74.45</b>

**SHANK MILLING CUTTERS - DIE & MOULD**

**OSG Carbide Ultra WX Coated Long Shank 2 Flute Ball Nosed End Mills**

High performance micro grain carbide with Ultra WX coating (multi layered composite TiAlN). For ultra high speed machine centres. For use on material up to 50HRC.



**CARBIDE**  
**Ultra WX**

**CUTTING TOOLS**

**Series WX-EBD - Metric**

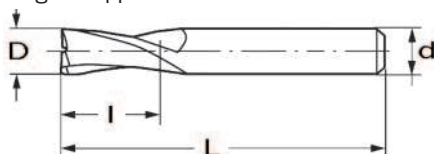
Dimensions (mm)					Order Code	Offer
R	D	L	I	d	OSG-161	Price/1
0.20	0.4	40	0.8	4	-0502A	£38.84
0.25	0.5	40	1.1	4	-0502K	£36.63
0.30	0.6	40	1.1	4	-0503L	£36.63
0.40	0.8	40	2.0	4	-0504H	£34.99
0.50	1.0	50	2.5	4	-0505Y	£33.21
0.60	1.2	50	3.0	4	-0506P	£38.84
0.70	1.4	50	3.5	4	-0507R	£38.84

Dimensions (mm)					Order Code	Offer
R	D	L	I	d	OSG-161	Price/1
0.75	1.5	50	4.0	4	-0508B	£38.84
0.80	1.6	50	4.0	4	-0508T	£38.84
1.00	2.0	50	5.0	6	-0510L	£29.21
1.25	2.5	60	6.0	6	-0525T	£43.73
1.50	3.0	60	8.0	6	-0555T	£34.85
1.75	3.5	70	8.0	6	-0575P	£51.00
2.00	4.0	70	8.0	6	-0578Q	£33.82

Dimensions (mm)					Order Code	Offer
R	D	L	I	d	OSG-161	Price/1
2.50	5.0	80	10	6	-0585R	£39.45
3.00	6.0	90	12	6	-0590T	£42.10
4.00	8	100	14	8	-0600E	£62.14
5.00	10	100	18	10	-0610P	£79.62
6.00	12	110	22	12	-0620Q	£102.61

**Carbide Ultra WX Coated 2 Flute End Mills**

High performance micro grain carbide with Ultra WX coating (multi layered composite TiAlN). For high speed milling in a wide range of applications. Stub length centre cutting with sharp corner edge.



**CARBIDE**  
**Ultra WX**

**Series WX-EDS - Metric**

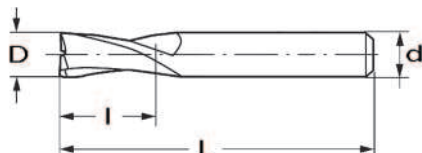
Dimensions (mm)				Order Code	Offer
D	L	I	d	OSG-161	Price/1
0.20	40	0.4	4	-1002A	£42.27
0.30	40	0.6	4	-1003B	£36.99
0.40	40	0.8	4	-1004C	£36.99
0.50	40	1.0	4	-1005D	£19.47
0.60	40	1.2	4	-1006E	£31.13
0.70	40	1.4	4	-1007F	£30.58
0.80	40	1.6	4	-1008G	£19.47
0.90	40	2.0	4	-1009H	£26.84

Dimensions (mm)				Order Code	Offer
D	L	I	d	OSG-161	Price/1
1.00	40	2.5	4	-1010J	£17.37
1.50	40	4.0	4	-1015Q	£17.37
1.80	40	5.0	4	-1018V	£17.37
2.00	40	6.0	4	-1020X	£17.37
2.50	40	8.0	4	-1025D	£17.37
3.00	45	8.0	6	-1030P	£21.81
4.00	45	11.0	6	-1040K	£22.79
5.00	50	13.0	6	-1050K	£24.61

Dimensions (mm)				Order Code	Offer
D	L	I	d	OSG-161	Price/1
6.00	50	13.0	6	-1060K	£25.59
7.00	60	16.0	8	-1070K	£49.63
8.00	60	19.0	8	-1080K	£37.82
9.00	70	19.0	10	-1090K	£66.45
10.00	70	22.0	10	-1100K	£46.57
12.00	75	26.0	12	-1200K	£62.85

**Carbide Ultra WX Coated 2 Flute End Mills - 35° Helix**

Short series for ultra high speed machining centres. High performance micro grain carbide with Ultra WX coating (multi layered composite TiAlN). Centre cutting. Cutting length: 1.5 x D.



**CARBIDE**  
**Ultra WX**

**Series WX-G-EDSS - Metric**

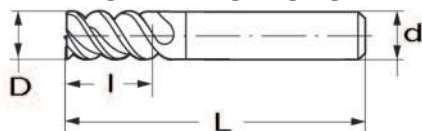
Dimensions (mm)				Order Code	Offer
D	L	I	d	OSG-161	Price/1
1.00	40	1.5	4	-1501A	£18.53
1.50	40	2.3	4	-1501R	£18.53
2.00	40	3.0	4	-1502B	£18.53
2.50	40	3.7	4	-1502R	£18.53

Dimensions (mm)				Order Code	Offer
D	L	I	d	OSG-161	Price/1
3.00	50	4.5	6	-1503C	£23.27
4.00	50	6.0	6	-1504D	£24.31
5.00	50	7.5	6	-1505E	£26.25
6.00	50	9.0	6	-1506F	£27.30

Dimensions (mm)				Order Code	Offer
D	L	I	d	OSG-161	Price/1
8.00	60	12.0	8	-1508H	£40.35
10.00	70	15.0	10	-1510K	£49.68
12.00	75	18.0	12	-1512M	£67.04

**Carbide Ultra WX Coated 3 Flute End Mills - 45° Helix**

Short series for ultra high speed machining centres. High performance micro grain carbide with Ultra WX coating (multi layered composite TiAlN). For contouring and slotting, roughing and finishing. For stainless, titanium and steels ~10 to 52 HRC. Centre cutting. Cutting length: 1.5 x D.



**CARBIDE**  
**Ultra WX**

**Series WX-G-ETSS - Metric**

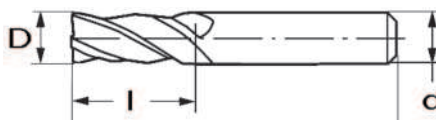
Dimensions (mm)				Order Code	Offer
D	L	I	d	OSG-161	Price/1
3.00	50	4.5	6	-1803C	£28.27
4.00	50	6.0	6	-1804D	£28.27

Dimensions (mm)				Order Code	Offer
D	L	I	d	OSG-161	Price/1
5.00	50	7.5	6	-1805E	£29.58
6.00	50	9.0	6	-1806F	£31.62

Dimensions (mm)				Order Code	Offer
D	L	I	d	OSG-161	Price/1
8.00	60	12.0	8	-1808H	£46.42
10.00	70	15.0	10	-1810K	£56.66

**Carbide Ultra WX Coated 4 Flute End Mills - 30° Helix**

Short series for ultra high speed machining centres. High performance micro grain carbide with Ultra WX coating (multi layered composite TiAlN). Centre cutting. Cutting length: 1.5 x D.



**CARBIDE**  
**Ultra WX**

**Series WX-EMS - Metric**

Dimensions (mm)				Order Code	Offer
D	L	I	d	OSG-161	Price/1
2.00	40	6.0	4	-1600Q	£24.76
2.50	40	8.0	4	-1602T	£24.76
3.00	45	8.0	6	-1603D	£25.02

Dimensions (mm)				Order Code	Offer
D	L	I	d	OSG-161	Price/1
4.00	45	11.0	6	-1604C	£25.99
5.00	50	13.0	6	-1605D	£27.67
6.00	50	13.0	6	-1606E	£30.04

Dimensions (mm)				Order Code	Offer
D	L	I	d	OSG-161	Price/1
8.00	60	19.0	8	-1608G	£42.54
10.00	70	22.0	10	-1610J	£58.81
12.00	75	26.0	12	-1612L	£71.03

**CONTRACT PRICES AVAILABLE FOR VOLUME PURCHASES**

All Prices Exclude V.A.T. © 2014

**GROUP 062 THROWAWAY MILLING CUTTERS**

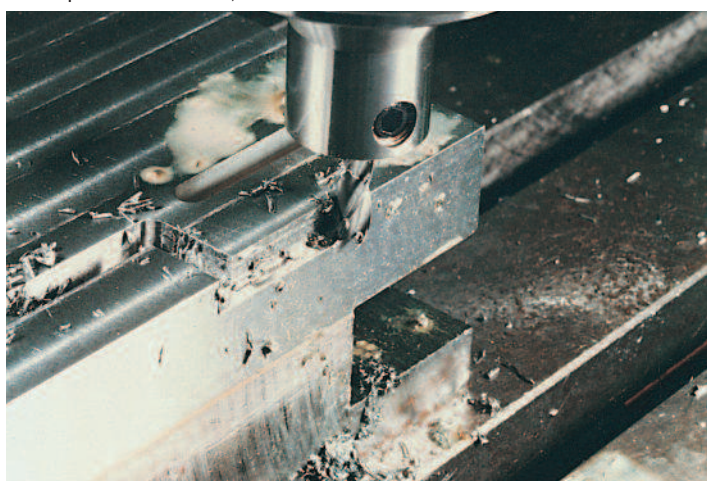
**KENNEDY HSS-Co 5% KC3 3\* Flute Throwaway Milling Cutters**  
QUALITY INDUSTRIAL TOOLING



Suitable for slot drilling and end milling. Cutters are held in adaptors/chucks by the action of a set screw which locates on the shank flat giving quick and easy cutter change.

\*Except: 1mm cutters, 2mm and 1/16" ball nose cutters all of which have two flutes.

**CUTTING TOOLS**



Tolerances			
Diameter Metric	Tolerance +	Tolerance -	Diameter Inch
Over 1.00 ~ up to 3.00	0.013	0.033	Over 1/16" ~ up to 1/4"
Over 3.00 ~ up to 6.00	0.020	0.020	0.0005 0.0013

**Short Series**

**HSS-Co 5%**



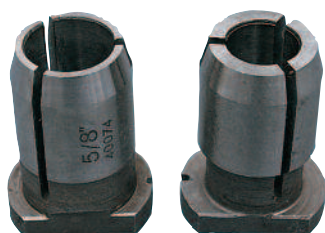
Shank Diameter: 1.00 ~ 6.00 = 6.00mm, 7.00 ~ 10.00 = 10.00mm

Diameter (mm)	Flute Length	Overall Length	Chuck Clearance	Weight each	Order Code KEN-062	List Price/1	Offer Price/1
1.00	2.0	24.5	8.5	10g	-0010K	£8.28	<b>£5.96</b>
1.50	2.5	24.5	8.5	10g	-0020K	£8.28	<b>£5.96</b>
2.00	3.0	25.5	9.5	10g	-0040K	£8.28	<b>£5.96</b>
2.50	4.0	26.0	10.5	10g	-0060K	£8.28	<b>£5.96</b>
3.00	4.5	28.0	11.0	10g	-0080K	£8.28	<b>£5.96</b>
3.50	5.5	30.0	12.0	10g	-0100K	£8.28	<b>£5.96</b>
4.00	6.5	32.5	12.5	10g	-0120K	£8.28	<b>£5.96</b>
4.80	7.5	36.0	13.5	10g	-0155K	£8.28	<b>£5.96</b>
5.00	7.5	36.0	13.5	10g	-0160K	£8.28	<b>£5.96</b>
5.50	7.5	36.0	13.5	10g	-0190K	£8.28	<b>£5.96</b>
5.75	9.5	36.0	15.0	10g	-0195K	£8.28	<b>£5.96</b>
6.00	9.5	36.0	15.0	10g	-0200K	£8.28	<b>£5.96</b>
7.00	10.5	46.0	19.7	20g	-0220K	£8.28	<b>£5.96</b>
8.00	11.0	47.5	19.7	30g	-0240K	£12.62	<b>£9.09</b>
10.00	13.0	51.5	20.5	35g	-0280K	£12.62	<b>£9.09</b>

Shank Diameter: 1/4"

Diameter (Inch)	Flute Length	Overall Length	Chuck Clearance	Weight each	Order Code KEN-062	List Price/1	Offer Price/1
1/16"	3/32"	31/32"	11/32"	10g	-0540K	£8.60	<b>£6.19</b>
3/32"	5/32"	11/16"	25/64"	10g	-0560K	£8.60	<b>£6.19</b>
1/8"	3/16"	13/32"	7/16"	10g	-0580K	£8.60	<b>£6.19</b>
5/32"	1/4"	19/32"	1/2"	10g	-0600K	£8.60	<b>£6.19</b>
3/16"	9/32"	111/32"	17/32"	10g	-0620K	£8.60	<b>£6.19</b>
7/32"	5/16"	113/32"	17/32"	10g	-0640K	£8.60	<b>£6.19</b>
1/4"	3/8"	113/32"	19/32"	15g	-0660K	£8.60	<b>£6.19</b>

**Collets For Autolock Chucks**



Part Number	Size (mm)	Weight each	Order Code CTL-062	List Price/1	Offer Price/1
40M71	6.00		-7010A	£55.78	<b>£50.20</b>
40M92	8.00		-7010Y	£57.45	<b>£51.71</b>
40M72	10.00		-7010B	£55.78	<b>£50.20</b>
40M73	12.00		-7010C	£55.78	<b>£50.20</b>
40M74	16.00		-7010D	£55.78	<b>£50.20</b>
40M77	25.00		-7010G	£111.58	<b>£100.42</b>

**Long Series**

**HSS-Co 5%**



Diameter (mm)	Flute Length	Overall Length	Chuck Clearance	Weight each	Order Code KEN-062	List Price/1	Offer Price/1
1.50	4.0	28.0	10.0	10g	-1020K	£9.32	<b>£6.71</b>
2.00	4.5	29.0	11.0	10g	-1040K	£9.32	<b>£6.71</b>
2.50	6.5	32.0	12.5	10g	-1060K	£9.32	<b>£6.71</b>
3.00	7.5	34.0	14.5	10g	-1080K	£9.32	<b>£6.71</b>
3.50	8.5	36.5	15.0	10g	-1100K	£9.32	<b>£6.71</b>
4.00	9.5	39.0	16.0	10g	-1120K	£9.32	<b>£6.71</b>
4.50	11.0	42.0	17.5	10g	-1140K	£9.32	<b>£6.71</b>
5.00	12.5	44.5	17.5	10g	-1160K	£9.32	<b>£6.71</b>
5.50	14.5	46.0	19.0	10g	-1180K	£9.32	<b>£6.71</b>
6.00	16.0	44.5	20.5	10g	-1200K	£9.32	<b>£6.71</b>
8.00	19.0	55.5	27.9	30g	-1240K	£10.93	<b>£7.87</b>
10.00	22.5	61.5	31.6	40g	-1280K	£14.06	<b>£10.12</b>

Diameter (Inch)	Flute Length	Overall Length	Chuck Clearance	Weight each	Order Code KEN-062	List Price/1	Offer Price/1
1/16"	5/32"	13/32"	13/32"	10g	-1540K	£10.54	<b>£7.59</b>
5/64"	7/32"	13/16"	15/32"	10g	-1550K	£10.54	<b>£7.59</b>
3/32"	1/4"	11/4"	1/2"	10g	-1560K	£10.54	<b>£7.59</b>
7/64"	1/4"	19/32"	17/32"	10g	-1570K	£10.54	<b>£7.59</b>
1/8"	5/16"	111/32"	9/16"	10g	-1580K	£10.54	<b>£7.59</b>
9/64"	5/16"	17/16"	19/32"	10g	-1590K	£10.54	<b>£7.59</b>
5/32"	3/8"	117/32"	5/8"	10g	-1600K	£10.54	<b>£7.59</b>
11/64"	3/8"	119/32"	21/32"	10g	-1610K	£10.54	<b>£7.59</b>
3/16"	7/16"	121/32"	11/16"	10g	-1620K	£10.54	<b>£7.59</b>
13/64"	7/16"	111/16"	11/16"	12g	-1630K	£10.54	<b>£7.59</b>
7/32"	1/2"	13/4"	11/16"	12g	-1640K	£10.54	<b>£7.59</b>
15/64"	1/2"	113/16"	3/4"	12g	-1650K	£10.54	<b>£7.59</b>
1/4"	5/8"	13/4"	13/16"	12g	-1660K	£10.54	<b>£7.59</b>

**Ball Nose**

**HSS-Co 5%**



Diameter (mm)	Flute Length	Overall Length	Chuck Clearance	Weight each	Order Code KEN-062	List Price/1	Offer Price/1
2.00	3.0	31.5	11.0	10g	-2040K	£16.00	<b>£11.52</b>
2.50	4.5	35.0	12.5	10g	-2060K	£16.00	<b>£11.52</b>
3.00	7.5	34.0	14.5	10g	-2080K	£16.00	<b>£11.52</b>
4.00	9.5	39.0	16.0	10g	-2120K	£16.00	<b>£11.52</b>
5.00	12.5	44.5	17.5	11g	-2160K	£16.00	<b>£11.52</b>
6.00	16.0	44.5	20.5	11g	-2200K	£16.00	<b>£11.52</b>

Diameter (Inch)	Flute Length	Overall Length	Chuck Clearance	Weight each	Order Code KEN-062	List Price/1	Offer Price/1
1/16"	1/8"	11/4"	7/32"	10g	-2540K	£16.63	<b>£11.97</b>
3/32"	3/16"	13/8"	1/2"	10g	-2560K	£16.63	<b>£11.97</b>
1/8"	5/16"	111/32"	9/16"	10g	-2580K	£16.63	<b>£11.97</b>
5/32"	3/8"	117/32"	5/8"	10g	-2600K	£16.63	<b>£11.97</b>
3/16"	7/16"	121/32"	11/16"	10g	-2620K	£16.63	<b>£11.97</b>
7/32"	1/2"	13/4"	11/16"	11g	-2640K	£16.63	<b>£11.97</b>
1/4"	5/8"	13/4"	13/16"	15g	-2660K	£16.63	<b>£11.97</b>

Set Contents: short series 1, 2, 3, 4, 5 and 6mm, long series 2, 3, 4, 5 and 6mm.

**HSS-Co 5%**



**11  
PIECES**

Number of Pieces	Weight each	Order Code KEN-062	List Price/1	Offer Price/1
11	100g	-9000K	£84.95	<b>£56.07</b>

**THROWAWAY MILLING CUTTERS**

**KENNEDY** **HSS-Co 5% TiN KC3 Coated**  
**Throwaway Milling Cutters**

TiN-Coated to allow elevated cutting speeds and help to extend tool life.



Short Series

**HSS-Co 5% TiN**



Diameter (mm)	Flute Length	Overall Length	Chuck Clearance	Weight each	Order Code KEN-062	List Price/1	Offer Price/1
1.00	2.0	24.5	8.5	10g	-3010K	£8.28	£5.96
1.50	2.5	24.5	8.5	10g	-3020K	£12.25	£8.82
2.00	3.0	25.5	9.5	10g	-3040K	£11.16	£8.04
2.50	4.0	26.0	10.5	10g	-3060K	£11.16	£8.04
3.00	4.5	28.0	11.0	10g	-3080K	£11.16	£8.04
3.50	5.5	30.0	12.0	10g	-3100K	£11.16	£8.04
4.00	6.5	32.5	12.5	10g	-3120K	£11.16	£8.04
5.00	7.5	36.0	13.5	10g	-3160K	£11.16	£8.04
6.00	9.5	36.0	15.0	10g	-3200K	£11.16	£8.04

Diameter (Inch)	Flute Length	Overall Length	Chuck Clearance	Weight each	Order Code KEN-062	List Price/1	Offer Price/1
3/32"	5/32"	1 1/16"	25/64"	10g	-3560K	£11.16	£8.04
5/32"	1/4"	1 9/32"	1/2"	10g	-3600K	£11.16	£8.04
7/32"	5/16"	1 13/32"	17/32"	10g	-3640K	£11.16	£8.04

Long Series

**HSS-Co 5% TiN**



Diameter (mm)	Flute Length	Overall Length	Chuck Clearance	Weight each	Order Code KEN-062	List Price/1	Offer Price/1
1.50	4.0	28.0	10.0	10g	-4020K	£13.03	£9.38
2.00	4.5	29.0	11.0	10g	-4040K	£11.78	£8.48
2.50	6.5	32.0	12.5	10g	-4060K	£11.78	£8.48
3.00	7.5	34.0	14.5	10g	-4080K	£11.78	£8.48
3.50	8.5	36.5	15.0	10g	-4100K	£11.78	£8.48
4.00	9.5	39.0	16.0	10g	-4120K	£11.78	£8.48
4.50	11.0	42.0	17.5	10g	-4140K	£11.78	£8.48
5.00	12.5	44.5	17.5	10g	-4160K	£11.78	£8.48
5.50	14.5	46.0	19.0	10g	-4180K	£11.78	£8.48
6.00	16.0	44.5	20.5	10g	-4200K	£11.78	£8.48

Diameter (Inch)	Flute Length	Overall Length	Chuck Clearance	Weight each	Order Code KEN-062	List Price/1	Offer Price/1
3/32"	1/4"	1 1/4"	1/2"	10g	-4560K	£11.78	£8.48
1/8"	5/16"	1 11/32"	9/16"	10g	-4580K	£11.78	£8.48
3/16"	7/16"	1 21/32"	11/16"	10g	-4620K	£11.78	£8.48
1/4"	5/8"	1 3/4"	13/16"	12g	-4660K	£11.78	£8.48

**HSS-Co 5% TiCN-Coated Throwaway Milling Cutters**

**HSS-Co 5% TiCN**

With a micro hardness of 3000HV and a maximum working temperature of 400°C, giving them a better resistance to abrasive wear than TiN coated cutters.



Short Series

Diameter (mm)	Flute Length	Overall Length	Chuck Clearance	Weight each	Order Code KEN-062	List Price/1	Offer Price/1
1.00	2.0	24.5	8.5	10g	-5010K	£26.76	£19.27
1.50	2.5	24.5	8.5	10g	-5020K	£14.57	£10.49
2.00	3.0	25.5	9.5	10g	-5040K	£13.54	£9.75
2.50	4.0	26.0	10.5	10g	-5060K	£13.54	£9.75
3.00	4.5	28.0	11.0	10g	-5080K	£13.54	£9.75
3.50	5.5	30.0	12.0	10g	-5100K	£13.54	£9.75
4.00	6.5	32.5	12.5	10g	-5120K	£13.54	£9.75
5.00	7.5	36.0	13.5	10g	-5160K	£13.54	£9.75
6.00	9.5	36.0	15.0	10g	-5200K	£13.54	£9.75

Diameter (Inch)	Flute Length	Overall Length	Chuck Clearance	Weight each	Order Code KEN-062	List Price/1	Offer Price/1
5/32"	1/4"	1 9/32"	1/2"	10g	-5600K	£13.54	£9.75
7/32"	1/4"	1 3/8"	17/32"	10g	-5640K	£13.54	£9.75
1/4"	3/8"	1 13/32"	19/32"	15g	-5660K	£13.54	£9.75

Long Series

**HSS-Co 5% TiCN**



Diameter (mm)	Flute Length	Overall Length	Chuck Clearance	Weight each	Order Code KEN-062	List Price/1	Offer Price/1
1.50	4.0	28.0	10.0	10g	-6020K	£15.37	£11.07
2.00	4.5	29.0	11.0	10g	-6040K	£14.11	£10.16
2.50	6.5	32.0	12.5	10g	-6060K	£14.11	£10.16
3.00	7.5	34.0	14.5	10g	-6080K	£14.11	£10.16
3.50	8.5	36.5	15.0	10g	-6100K	£14.11	£10.16
4.00	9.5	39.0	16.0	10g	-6120K	£14.11	£10.16
4.50	11.0	42.0	17.5	10g	-6140K	£14.11	£10.16
5.00	12.5	44.5	17.5	10g	-6160K	£14.11	£10.16
5.50	14.5	46.0	19.0	10g	-6180K	£14.11	£10.16
6.00	16.0	44.5	20.5	10g	-6200K	£14.11	£10.16

**Micro-Grain Solid Carbide Throwaway Milling Cutters**

For high volume production. Compatible with standard automatic locking chucks and spindle adaptors (available on request).

**CARBIDE**



Short Series

Diameter (mm)	Flute Length	Overall Length	Chuck Clearance	Weight each	Order Code KEN-162	List Price/1	Offer Price/1
2.00	3.0	25.5	9.5	10g	-0040K	£15.59	£12.16
3.00	4.5	28.0	11.0	10g	-0080K	£15.59	£12.16
3.50	5.5	30.0	12.0	10g	-0100K	£17.20	£13.42
4.00	6.5	32.5	12.5	10g	-0120K	£15.59	£12.16
5.00	7.5	36.0	13.5	10g	-0160K	£15.59	£12.16
6.00	9.5	36.0	15.0	10g	-0200K	£35.50	£27.69

Diameter (Inch)	Flute Length	Overall Length	Chuck Clearance	Weight each	Order Code KEN-162	List Price/1	Offer Price/1
5/32"	1/4"	1 9/32"	1/2"	10g	-0600K	£16.22	£12.65
3/16"	9/32"	1 11/32"	17/32"	10g	-0620K	£17.48	£13.63
7/32"	5/16"	1 13/32"	17/32"	10g	-0640K	£17.48	£13.63

Long Series

**CARBIDE**



Diameter (mm)	Flute Length	Overall Length	Chuck Clearance	Weight each	Order Code KEN-162	List Price/1	Offer Price/1
2.00	4.5	29.0	11.0	10g	-1040K	£17.52	£13.67
3.00	7.5	34.0	14.5	10g	-1080K	£17.52	£13.67
5.00	12.5	44.5	17.5	10g	-1160K	£17.52	£13.67
6.00	16.0	44.5	20.5	10g	-1200K	£17.52	£13.67

Diameter (Inch)	Flute Length	Overall Length	Chuck Clearance	Weight each	Order Code KEN-162	List Price/1	Offer Price/1
1/16"	5/32"	1 3/32"	13/32"	10g	-1540K	£22.23	£17.34
5/32"	3/8"	1 17/32"	5/8"	10g	-1600K	£19.76	£15.41
3/16"	7/16"	1 21/32"	11/16"	10g	-1620K	£21.29	£16.61
7/32"	1/2"	1 3/4"	11/16"	12g	-1640K	£21.47	£16.75

**CONTRACT PRICES AVAILABLE FOR VOLUME PURCHASES**