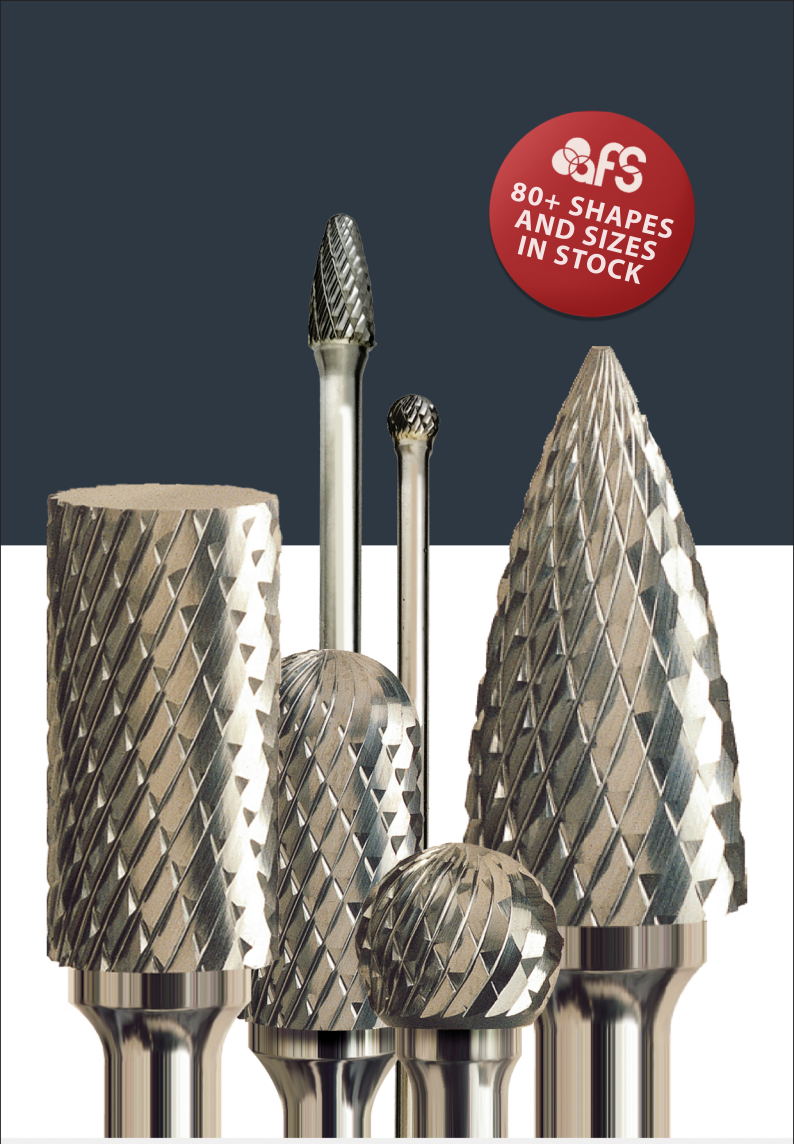


TUNGSTEN CARBIDE BURR COLLECTION

- CATALOGUE - CUTTING SPEEDS - TIPS -

ABRASIVE FINISHING SYSTEMS

Here at AFS we have developed an extensive range of high quality Tungsten Carbide Burrs in both Diamond and Fluted cut options and in a variety of shapes and sizes. Designed to give options for all industrial use.

Whatever you say about Carbide Burrs, one thing that is certainly true is that you will not change their shape. If you need to cut a particular profile then a burr that is nearly right is not right at all. With more than 80 different sizes, shapes and cut configurations we are sure to have the right burr for your needs.

CARBIDE BURR CUTTING SHAPE / CUTTING EDGE

Fluted Cut Burrs /3:
For Non-Ferrous Soft Metals.

Suitable for Aluminium, Copper, Brass, Bronze and other soft non-ferrous metals, softwoods, toughened plastics, and low-density fibreglass.

Diamond Cut Burrs /6:
For Hard Metals.

Suitable for Carbon Steels, Cast Iron, Tool and Stainless Steel as well as Titanium and Cobalt Alloys, hardwoods, composite materials, and high-density fibreglass.

RECOMMENDATIONS FOR OPTIMAL USE

Optimum power output and RPM of the power source (air powered or electric machine, flexible shaft system) are necessary conditions for a cost effective use of Carbide Burrs.

We would therefore recommend that you:

- For stationary use or when countersinking with 360° use of burr, work at 3,000 RPM or less.

- Only use rigid clamping systems / drivers as impact and chattering leads to premature wear.

- Minimum recommended clamping depth is 2/3 of the shaft length.

- For optimum burr performance we recommend high torque, high power tooling.

- The speed can be substantially increased with low stock removal.

- To avoid unnecessary material damage reduce cutting speed on poor heat conducting materials such as titanium and stainless steel.

- To ensure smooth operation burrs are manufactured with a soldered head. If subjected to excessive temperatures the soldering connection between burr head and shank becomes less rigid and head may tear off.

- Burr contact surface to the workpiece should not total more than a third of the circumference.

- When machining very cloying materials, the use of suitable cutting lubricant or grease is recommended to prevent the cut from clogging up.

RECOMMENDED ROTATIONAL SPEED RANGE

To determine the recommended cutting speed please see below:

1. Select the material group that is to be processed.
2. Determine the type of machining.
3. Select the cut.
4. Establish the cutting speed range.
5. Select the required burr diameter.
6. Cutting speed range and the burr diameter determine the recommended speed range (RPM).

Material Types		Aggression	Cutting Speed
Steel	Non-heat treated	High	7.5 - 15 ms^{-1}
		Low	8 - 10 ms^{-1}
	Hardened	High	4 - 6 ms^{-1}
		Low	6 - 7 ms^{-1}
Stainless Steel		High	4 - 7.5 ms^{-1}
		Low	6 - 7.5 ms^{-1}
Non-Ferrous Metals	Al, Cu, Brass	High	10 - 15 ms^{-1}
		Low	7 - 10 ms^{-1}
	Bronze, Ti, Co alloys	High	4 - 7.5 ms^{-1}
		Low	6 - 8 ms^{-1}
Cast Iron		High	10 - 15 ms^{-1}
		Low	8 - 10 ms^{-1}

	Cutting Speed (ms^{-1})				
	6	8	10	15	18
	Rotational Speed				
3mm	700	883	1066	1583	1950
6mm	350	450	533	800	983
8mm	266	333	400	600	733
10mm	216	266	316	483	583
12mm	183	216	266	400	500
16mm	133	166	200	300	366

A - CYLINDRICAL

Diameter (mm)	Burr Length (mm)	Spindle (mm)	Overall Length (mm)	Part Number
3	14	3	38	HMC/A30314/6
6	18	6	50	HMC/A60618/6
8	19.2	6	64	HMC/A60820/6
9.6	19.2	6	64	HMC/A61020/3
9.6	19.2	6	64	HMC/A61020/6
12.5	19.2	6	64	HMC/A61220/6
12.5	25.4	6	70	HMC/A61225/3
12.5	25.4	6	70	HMC/A61225/6
15.8	25.4	6	70	HMC/A61525/3
15.8	25.4	6	70	HMC/A61525/6

If the part number ends /3 it is Fluted Cut, /6 is Diamond Cut

B - CYLINDRICAL + END CUT

Diameter (mm)	Burr Length (mm)	Spindle (mm)	Overall Length (mm)	Part Number
3	14	3	38	HMC/B30314/6
6	18	6	50	HMC/B60618/6
8	19.2	6	64	HMC/B60820/6
9.6	19.2	6	64	HMC/B61020/3
9.6	19.2	6	64	HMC/B61020/6
12.5	19.2	6	64	HMC/B61220/6
12.5	25.4	6	70	HMC/B61225/6
15.8	25.4	6	70	HMC/B61525/6
15.8	25.4	8	70	HMC/B81525/6

Part numbers ending XL are Extra Long Carbide Burrs

C - BULL NOSE

Diameter (mm)	Burr Length (mm)	Spindle (mm)	Overall Length (mm)	Part Number
3	14	3	38	HMC/C30312/6
6.35	12.7	6	51	HMC/C30612/6
6	18	6	50	HMC/C60618/6
8	19.2	6	64	HMC/C60820/6
9.6	19.2	6	64	HMC/C61020/3
9.6	19.2	6	64	HMC/C61020/6
12.5	19.2	6	64	HMC/C61220/6
12.5	25.4	6	70	HMC/C61225/3
12.5	25.4	6	70	HMC/C61225/6
15.8	25.4	6	70	HMC/C61525/6
15.8	25.4	8	70	HMC/C81525/6
8	20	6	168	HMC/C60820/6XL

D - BALL

Diameter (mm)	Burr Length (mm)	Spindle (mm)	Overall Length (mm)	Part Number
3	2.7	3	38	HMC/D30303/6
6.35	5.7	3	45	HMC/D30606/6
6	5.7	6	50	HMC/D60606/6
8	7	6	52	HMC/D60808/6
9.6	8.5	6	54	HMC/D61010/3
9.6	8.5	6	54	HMC/D61010/6
12.5	11.4	6	56	HMC/D61212/6
15.8	14.4	6	59	HMC/D61515/6
15.8	14.4	8	68	HMC/D81515/6
9.5	8	6	158	HMC/D61010/6XL

E - OVAL

Diameter (mm)	Burr Length (mm)	Spindle (mm)	Overall Length (mm)	Part Number
3	5	3	38	HMC/E30306/6
6	10	6	50	HMC/E60610/6
8	15	6	60	HMC/E60815/6
9.6	15.8	6	60	HMC/E61015/6
12.5	22.2	6	67	HMC/E61220/6
15.8	25.4	6	70	HMC/E61525/6
15.8	25.4	8	70	HMC/E81525/6

F - ROUND TREE

Diameter (mm)	Burr Length (mm)	Spindle (mm)	Overall Length (mm)	Part Number
3	14	3	38	HMC/F30312/6
3	12	3	58	HMC/F30612/6
6	18	6	50	HMC/F60618/6
8	20	6	65	HMC/F60820/6
9.6	19.2	6	65	HMC/F61020/3
9.6	19.2	6	65	HMC/F61020/6
12.5	19.2	6	70	HMC/F61220/6
12.5	25.4	6	70	HMC/F61225/3
12.5	25.4	6	70	HMC/F61225/6
15.8	25.5	6	70	HMC/F61525/6
8	19	6	168	HMC/F60820/6XL
9.6	19	6	169	HMC/F61020/6XL

G - POINTED TREE

Diameter (mm)	Burr Length (mm)	Spindle (mm)	Overall Length (mm)	Part Number
6.35	12.7	3	51	HMC/G30612/6
6	18	6	60	HMC/G60618/6
8	19.2	6	65	HMC/G60820/6
9.6	19.2	6	65	HMC/G61020/6
12.5	19.2	6	65	HMC/G61220/6
12.5	25.4	6	70	HMC/G61225/6
15.8	25.4	6	70	HMC/G61525/6

H - FLAME

Diameter (mm)	Burr Length (mm)	Spindle (mm)	Overall Length (mm)	Part Number
3	6	3	38	HMC/H30306/6
8	19.2	6	64	HMC/H60820/6
12.5	31.8	6	77	HMC/H61232/6
15.8	36.5	6	82	HMC/H61535/6

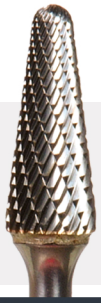
J + K - COUNTER SINK

Diameter (mm)	Burr Length (mm)	Spindle (mm)	Overall Length (mm)	Part Number
12.5	10.8	6	59	HMC/J61210/6
15.8	14.5	6	62	HMC/J61512/6
9.6	4.3	6	53	HMC/K61004/6
12.5	6.8	6	55	HMC/K61206/6
15.8	8	8	57	HMC/K81508/6

Shape J = 60° at apex

Shape K = 90° at apex

L - BALL NOSED CONE



Diameter (mm)	Burr Length (mm)	Spindle (mm)	Overall Length (mm)	Part Number
3	14	3	38	HMC/L30312/6
6	16	6	50	HMC/L60618/6
8	22	6	70	HMC/L60822/6
9.6	27	6	75	HMC/L61026/6
12.5	28	6	77	HMC/L61228/6
15.8	33.3	6	78	HMC/L61533/6

M + N - CONE & INVERTED

Diameter (mm)	Burr Length (mm)	Spindle (mm)	Overall Length (mm)	Part Number
3	15	3	38	HMC/M30315/6
6	20	6	58	HMC/M60620/6
9.6	20	6	64	HMC/M61020/6
12.5	25.4	6	70	HMC/M61222/6
8	12.7	6	57	HMC/N61212/6
12	12.7	6	164	HMC/N61212/6XL

EXTRA LONG - VARIOUS

Diameter (mm)	Burr Length (mm)	Spindle (mm)	Overall Length (mm)	Part Number
8	20	6	168	HMC/C60820/6XL
9.5	8	6	158	HMC/D61010/6XL
8	19	6	168	HMC/F60820/6XL
9.6	19	6	169	HMC/F61020/6XL
12	12.7	6	164	HMC/N61212/6XL

CARBIDE BURR SETS

HMC/SET/01
FOR HARD METAL

Including: HMC/A61020/6, HMC/D61212/6, HMC/F61225/6, HMC/H60820/6, HMC/L60822/6

HMC/SET/02
FOR SOFT METAL

Including: HMC/A61225/3, HMC/B61020/3, HMC/C61020/3, HMC/D61010/3, HMC/F61020/3

HMC/SET/03
EXTRA LONG BURRS

Including: HMC/C60820/6XL, HMC/D61010/6XL, HMC/F61020/6XL

HMC/SET/04
FOR WELD PREP

Including: HMC/C61020/6, HMC/E61015/6, HMC/F61020/6, HMC/G61220/6, HMC/H61232/6

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