AFS TUNGSTEN CARBIDE BURRS

DEBURR. SHAPE. PREPARE.

Technical sizes, cut selection and ordering codes for fabrication, engineering and maintenance.



CHOOSE THE CUT FOR THE MATERIAL

DIAMOND CUT / DC

For carbon steel, stainless steel, cast iron and tool steel. Also suited to titanium and cobalt alloys, hardwoods, composites and high-density fibreglass.

FLUTED CUT / FC

For aluminium, copper, brass, bronze and other soft non-ferrous metals. Also suited to softwood, toughened plastics and low-density fibreglass.

SELECT THE PROFILE. CHECK THE SIZE.

Profile	Shape	Typical application	Page
A	Cylinder - plain end	Straight sides and external surfaces	2
B	Cylinder - end cut	Sides, flat faces and shoulders	2
C	Bull nose	Rounded transitions and internal contours	3
D	Ball	Internal radii and concave profiles	3
E	Oval	Curved surfaces and blending	4
F	Rounded tree	Curved and tapered recesses	4
G	Pointed tree	Narrow angles and detailed profiling	5
H	Flame	Shaped recesses and weld access	5
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K	90-degree countersink	90-degree chamfers and countersinks	6
L	Ball-nosed cone	Tapered features with a radiused tip	6
M	Cone	V-shaped profiles and narrow angles	7
SETS	Four application sets	Hard metal, non-ferrous, XL and weld prep	8

ORDERING HELP

Quote the part number, material and required profile.
Our team can help select the burr and suitable tooling.

R H DAVEY WELDING SUPPLIES LTD
02380 339443 / sales@rhdaveywelding.co.uk / rhdaveywelding.co.uk
67-69 Quayside Road, Southampton, Hampshire SO18 1AE

CYLINDER - PLAIN END / CYLINDER - END CUT

A / CYLINDER - PLAIN END

Straight edges, external surfaces and side-wall machining. The plain end does not cut.



HMC/A61020/6
Length 19.2mm
Dia 9.6mm

Ordering code	Head Ø mm	Cutting length mm	Shank Ø mm	Overall length mm	Cut
HMC-A30314-6	3	14	3	38	DC
HMC-A60618-6	6	18	6	50	DC
HMC-A60820-6	8	19.2	6	64	DC
HMC-A61020-6	9.6	19.2	6	64	DC
HMC-A61020-3	9.6	19.2	6	64	FC
HMC-A61220-6	12.5	19.2	6	64	DC
HMC-A61225-6	12.5	25.4	6	70	DC
HMC-A61225-3	12.5	25.4	6	70	FC
HMC-A61525-6	15.8	25.4	6	70	DC
HMC-A61525-3	15.8	25.4	6	70	FC

B / CYLINDER - END CUT

Flat faces, shoulders and corners where both the side and end must cut.



HMC/B61020/6
Length 19.2mm
Dia 9.6mm

Ordering code	Head Ø mm	Cutting length mm	Shank Ø mm	Overall length mm	Cut
HMC-B30314-6	3	14	3	38	DC
HMC-B60618-6	6	18	6	50	DC
HMC-B60820-6	8	19.2	6	64	DC
HMC-B61020-6	9.6	19.2	6	64	DC
HMC-B61020-3	9.6	19.2	6	64	FC
HMC-B61220-6	12.5	19.2	6	64	DC
HMC-B61225-6	12.5	25.4	6	70	DC
HMC-B61525-6	15.8	25.4	6	70	DC

DC = diamond cut / hard metals. FC = fluted cut / soft non-ferrous metals. All dimensions in mm.

BULL NOSE / BALL

C / BULL NOSE

Internal contours, rounded transitions and side walls with a radiused end.



Ordering code	Head Ø mm	Cutting length mm	Shank Ø mm	Overall length mm	Cut
HMC-C30312-6	3	14	3	38	DC
HMC-C60618-6	6	18	6	50	DC
HMC-C60820-6	8	19.2	6	64	DC
HMC-C61020-6	9.6	19.2	6	64	DC
HMC-C61020-3	9.6	19.2	6	64	FC
HMC-C61220-6	12.5	19.2	6	64	DC
HMC-C61225-6	12.5	25.4	6	70	DC
HMC-C61225-3	12.5	25.4	6	70	FC
HMC-C61525-6	15.8	25.4	6	70	DC
HMC-C81525-6	15.8	25.4	8	70	DC

D / BALL

Concave profiles, internal radii and curved recesses.



Ordering code	Head Ø mm	Cutting length mm	Shank Ø mm	Overall length mm	Cut
HMC-D30303-6	3	2.7	3	38	DC
HMC-D60606-6	6	5.7	6	50	DC
HMC-D30606-6	6.35	5.7	3	45	DC
HMC-D60808-6	8	7	6	52	DC
HMC-D61010-6	9.6	8.5	6	54	DC
HMC-D61010-3	9.6	8.5	6	54	FC
HMC-D61212-6	12.5	11.4	6	56	DC
HMC-D61515-6	15.8	14.4	6	59	DC
HMC-D61515-3	15.8	14.4	6	59	FC
HMC-D81515-6	15.8	14.4	8	68	DC

DC = diamond cut / hard metals. FC = fluted cut / soft non-ferrous metals. All dimensions in mm.

OVAL / ROUNDED TREE

E / OVAL

Curved surfaces, rounded profiles and blending internal contours.



Ordering code	Head Ø mm	Cutting length mm	Shank Ø mm	Overall length mm	Cut
HMC-E30306-6	3	5	3	38	DC
HMC-E60610-6	6	10	6	50	DC
HMC-E61015-6	9.6	15.8	6	60	DC
HMC-E61220-6	12.5	22.2	6	67	DC
HMC-E61525-6	15.8	25.4	6	70	DC
HMC-E81525-6	15.8	25.4	8	70	DC

F / ROUNDED TREE

Rounded contours and access into curved, tapered recesses.



Ordering code	Head Ø mm	Cutting length mm	Shank Ø mm	Overall length mm	Cut
HMC-F30312-6	3	14	3	38	DC
HMC-F60618-6	6	18	6	50	DC
HMC-F60820-6	8	20	6	65	DC
HMC-F61020-6	9.6	19.2	6	65	DC
HMC-F61020-3	9.6	19.2	6	65	FC
HMC-F61220-6	12.5	19.2	6	70	DC
HMC-F61225-6	12.5	25.4	6	70	DC
HMC-F61225-3	12.5	25.4	6	70	FC
HMC-F61525-6	15.8	25.5	6	70	DC

DC = diamond cut / hard metals. FC = fluted cut / soft non-ferrous metals. All dimensions in mm.

POINTED TREE / FLAME

G / POINTED TREE

Narrow angles, tapered contours and detailed profiling with a pointed tip.



Ordering code	Head Ø mm	Cutting length mm	Shank Ø mm	Overall length mm	Cut
HMC-G60618-6	6	18	6	60	DC
HMC-G30612-6	6.35	12.7	3	51	DC
HMC-G60820-6	8	19.2	6	65	DC
HMC-G61020-6	9.6	19.2	6	65	DC
HMC-G61220-6	12.5	19.2	6	65	DC
HMC-G61225-6	12.5	25.4	6	70	DC
HMC-G61525-6	15.8	25.4	6	70	DC

H / FLAME

Curved recesses, contours and shaped access around welds.



Ordering code	Head Ø mm	Cutting length mm	Shank Ø mm	Overall length mm	Cut
HMC-H60820-6	8	19.2	6	64	DC
HMC-H61232-6	12.5	31.8	6	77	DC
HMC-H61535-6	15.8	36.5	6	82	DC

DC = diamond cut / hard metals. FC = fluted cut / soft non-ferrous metals. All dimensions in mm.

COUNTERSINKS / BALL-NOSED CONE

J / COUNTERSINK 60 DEGREES

60-degree countersinking and chamfering at the specified apex angle.



Ordering code	Head Ø mm	Cutting length mm	Shank Ø mm	Overall length mm	Cut
HMC-J61210-6	12.5	10.8	6	59	DC
HMC-J61512-6	15.8	14.5	6	62	DC

K / COUNTERSINK 90 DEGREES

90-degree countersinking and chamfering at the specified apex angle.



Ordering code	Head Ø mm	Cutting length mm	Shank Ø mm	Overall length mm	Cut
HMC-K61004-6	9.6	4.3	6	53	DC
HMC-K61206-6	12.5	6.8	6	55	DC
HMC-K81508-6	15.8	8	8	57	DC

L / BALL-NOSED CONE

Tapered features and contours with a radiused tip.



Ordering code	Head Ø mm	Cutting length mm	Shank Ø mm	Overall length mm	Cut
HMC-L30312-6	3	14	3	38	DC
HMC-L60618-6	6	16	6	50	DC
HMC-L60822-6	8	22	6	70	DC
HMC-L61026-6	9.6	27	6	75	DC
HMC-L61533-6	15.8	33.3	6	78	DC

DC = diamond cut / hard metals. FC = fluted cut / soft non-ferrous metals. All dimensions in mm.

CONE PROFILES / USE AND SETUP

M / CONE

V-shaped profiles, narrow angles and pointed contour work.



Ordering code	Head Ø mm	Cutting length mm	Shank Ø mm	Overall length mm	Cut
HMC-M30315-6	3	15	3	38	DC
HMC-M60620-6	6	20	6	58	DC
HMC-M61020-6	9.6	20	6	64	DC
HMC-M61222-6	12.5	25.4	6	70	DC

GET THE BEST FROM THE BURR

MATCH THE COLLET

Use a collet that matches the shank diameter. An 8mm shank needs an 8mm collet; it is not interchangeable with 6mm.

CLAMP RIGIDLY

AFS recommends clamping at least two-thirds of the shank length. Keep overhang to the minimum required; poor rigidity and chatter accelerate wear.

CONTROL THE CONTACT

Limit burr engagement to no more than one-third of its circumference. Use controlled movement rather than forcing the burr into the work.

MANAGE HEAT

Reduce cutting speed on stainless steel and titanium. Excess heat can weaken the brazed head-to-shank joint.

PREVENT LOADING

Use the fluted cut for soft non-ferrous metals. A suitable cutting lubricant can help prevent sticky material from clogging the cut.

SET THE SPEED FOR THE JOB

Match RPM to material, head diameter and setup. Obtain the permitted operating speed for the burr, especially extra-long versions. Never exceed the lowest applicable tool or burr limit.

CARBIDE BURR SETS

FOUR SETS. PRACTICAL PROFILE CHOICES.

Order using the set code. The tables identify every burr supplied and its technical dimensions.

HMC-SET-01

HARD METAL

5-piece set. Diamond cut.



AFS contents code	Head Ø	Cut length	Shank Ø	Overall
HMC/A61020/6	9.6	19.2	6	64
HMC/D61212/6	12.5	11.4	6	56
HMC/F61225/6	12.5	25.4	6	70
HMC/H60820/6	8	19.2	6	64
HMC/L60822/6	8	22	6	70

Contents dimensions in mm.

HMC-SET-02

NON-FERROUS METALS

5-piece set. Fluted cut.



AFS contents code	Head Ø	Cut length	Shank Ø	Overall
HMC/A61225/3	12.5	25.4	6	70
HMC/B61020/3	9.6	19.2	6	64
HMC/C61020/3	9.6	19.2	6	64
HMC/D61010/3	9.6	8.5	6	54
HMC/F61020/3	9.6	19.2	6	65

Contents dimensions in mm.

HMC-SET-03

EXTRA-LONG HARD METAL

3-piece set. Extended access.



AFS contents code	Head Ø	Cut length	Shank Ø	Overall
HMC/C60820/6XL	8	20	6	168
HMC/D61010/6XL	9.5	8	6	158
HMC/F61020/6XL	9.6	19	6	169

Contents dimensions in mm.

HMC-SET-04

04

WELD PREPARATION

5-piece set. Diamond cut.



AFS contents code	Head Ø	Cut length	Shank Ø	Overall
HMC/C61020/6	9.6	19.2	6	64
HMC/E61015/6	9.6	15.8	6	60
HMC/F61020/6	9.6	19.2	6	65
HMC/G61220/6	12.5	19.2	6	65
HMC/H61232/6	12.5	31.8	6	77

Contents dimensions in mm.