THE NUTTY COMPANY INC
FASTENER SPECIALISTS SINCE 1977

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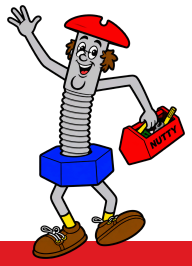


PRODUCT DATA SHEET

Solid Carbide Burs

Solid tungsten carbide rotary burs, made in the U.S.A. and precision ground with diamond wheels for consistent geometry, sharp cutting edges and vibration-free cutting. Titanium nitride (TiN) coated for a better finish and longer life. **1/4" shank** unless noted. Used for deburring, weld removal, shaping, porting and mold, die and pattern work.

1.0 Shapes & Uses



SA
Cylinder
Deburring, removing welds, flat surfaces



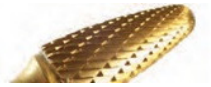
SC
Cylinder Radius End
Surface milling and contouring, inside corners with a radius



SD
Ball
Contouring, hollowing, hole deburring and milling



SE
Oval
Contouring and rounding edges



SF
Tree Radius End
Work on narrow contours and rounded concave cuts



SG
Tree Pointed End
Narrow contours, acute-angle areas and milling



SL
14° Taper Radius End
Narrow contours, deep slots and surface machining



SM
Cone
Narrow contours, countersinking and chamfering

2.0 Choose the Cut

Double Cut – chisel-type teeth with left- and right-hand spirals. Fast stock removal, fine finish and good control. For steels, stainless, cast iron, titanium and harder metals.

Non-Ferrous (NF) – open, aggressive flutes that clear chips and resist loading. For aluminum, copper, brass, zinc, magnesium and other soft metals.

X-Long – 6" long shank to reach into deep or hard-to-reach areas, such as engine blocks and ports.

Material	Double Cut	Non-Ferrous
Aluminum	–	✓
Brass	✓	✓
Bronze	✓	–
Cast iron	✓	–
Copper	–	✓
Carbon fiber	–	✓
Fiberglass	✓	–
Inconel	✓	–
Magnesium	–	✓
Plastics	✓	–
Hard rubber	✓	–
Steel 45–55 Rc	✓	–
Steel 55–60 Rc	✓	–
Steel – carbon	✓	–
Steel – nickel chrome	✓	–
Steel – stainless	✓	–
Steel – weldments	✓	–
Titanium	✓	–
Zinc	–	✓

3.0 Sizes in Stock (inches, 1/4" shank)

Cutter Diameter	Length of Cut	Double Cut	Non-Ferrous	X-Long (6" shank)
SA – Cylinder				
1/4"	5/8"	**BURSA1**	–	–
1/4"	1/2"	–	–	**BURSA1-L6**
3/8"	3/4"	**BURSA3**	–	**BURSA3-L6**
7/16"	1"	**BURSA4**	–	–
1/2"	1"	**BURSA5**	–	–
SC – Cylinder Radius End				
1/4"	5/8"	**BURSC1**	–	–
1/4"	3/4"	–	**BURSC1NF**	–
1/4"	1/2"	–	–	**BURSC1-L6**
3/8"	3/4"	**BURSC3**	**BURSC3NF**	**BURSC3-L6**
1/2"	1"	**BURSC5**	**BURSC5NF**	–
SD – Ball				
1/4"	7/32"	**BURSD1**	**BURSD1NF**	**BURSD1-L6**
3/8"	5/16"	**BURSD3**	**BURSD3NF**	**BURSD3-L6**
1/2"	7/16"	**BURSD5**	**BURSD5NF**	–
SE – Oval				
1/4"	3/8"	**BURSE1**	–	**BURSE1-L6**
3/8"	5/8"	**BURSE3**	**BURSE3NF**	**BURSE3-L6**
1/2"	7/8"	**BURSE5**	**BURSE5NF**	–
SF – Tree Radius End				
1/4"	3/4"	**BURSF1**	**BURSF1NF**	–
1/4"	1/2"	–	–	**BURSF1-L6**
3/8"	3/4"	**BURSF3**	**BURSF3NF**	**BURSF3-L6**
1/2"	1"	**BURSF5**	**BURSF5NF**	–
SG – Tree Pointed End				
1/4"	1/2"	–	–	**BURSG1-L6**
3/8"	3/4"	–	–	**BURSG3-L6**
1/2"	1"	**BURSG5**	–	–
SL – 14° Taper Radius End				
1/4"	5/8"	**BURSL1**	–	**BURSL1-L6**
3/8"	1-1/16"	**BURSL3**	–	**BURSL3-L6**
1/2"	1-1/8"	**BURSL4**	**BURSL4NF**	–
SM – Cone				
1/4"	1 (10°)	**BURSM3**	–	–
3/8"	5/8 (28°)	**BURSM4**	–	–
1/2"	7/8 (28°)	**BURSM5**	–	–

Also stocked: 8-piece TiN carbide bur kits BK8P-1, BK8P-3 and BK8P-5. Contact us for other shapes and sizes.

4.0 Speed Guide

Bur Dia.	Recommended RPM	Max. RPM
1/8"	40,000 – 70,000	90,000
3/16"	35,000 – 60,000	80,000
1/4"	30,000 – 50,000	70,000
5/16"	20,000 – 40,000	68,000
3/8"	20,000 – 40,000	66,000
7/16"	15,000 – 40,000	58,000
1/2"	15,000 – 40,000	50,000
5/8"	12,000 – 25,000	40,000
3/4"	10,000 – 20,000	33,000
1"	7,500 – 20,000	25,000

5.0 Usage Tips

- Use a **die grinder** (air or electric). Do not use carbide burs in portable drill motors – drills run much too slowly.
- Use **slower speeds for harder materials** and for long (6" shank) burs; **higher speeds for small burs**.
- Running burs below the recommended speed may cause chipping; running too fast wears the teeth early.
- Do not use worn tools or collets – they cause chatter and chipping.
- Apply light, constant pressure with a steady sweeping motion. Let the bur do the cutting.
- Always wear safety glasses and keep guards in place.

Disclaimer: The above is a compilation of data from various industry standards. The Nutty Company, Inc. has made every effort to present the data accurately. However, The Nutty Company, Inc. cannot be held liable for any claim traceable to any errors, typographical or otherwise, contained herein.



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