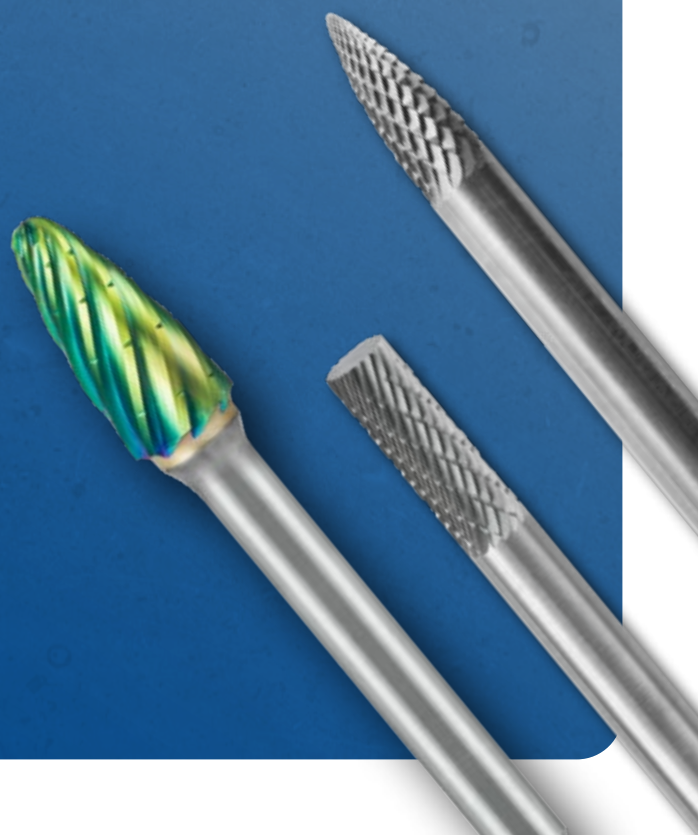


Garryson®

CUTTING CATALOGUE



1 CARBIDE BURRS

About Garryson

Technical Information

Operating Instructions

Guide To Running Speeds

1.1 NG6 Carbide Burrs

1.2 Diamond Cut Carbide Burrs
S-Cut Carbide Burrs

1.3 Inox Range Carbide Burrs

1.4 Steel Range Carbide Burrs

1.5 Aluminium Cut Carbide Burrs

1.6 Carbide Burr Kits

ABOUT GARRYSON

Garryson are a global precision engineering company manufacturing, supplying and distributing cutting tools to leading industrial companies from their 11 facilities around the world. With a legacy based on commitment to quality, they have been serving their customers from Garryson's headquarters in Cavan, Ireland, for almost 60 years.



All Garryson Burrs are braze tested to ensure optimum strength and the highest safety standards.

Garryson is committed to being the leading manufacturer and supplier of specialty abrasives, carbide burrs and routers in the world. Through continuous development of new and innovative products and services, using state-of-the-art technology and skilled motivated people, we strive to provide you with cost-effective solutions and the support you need to increase your competitive advantage.

TECHNICAL INFORMATION

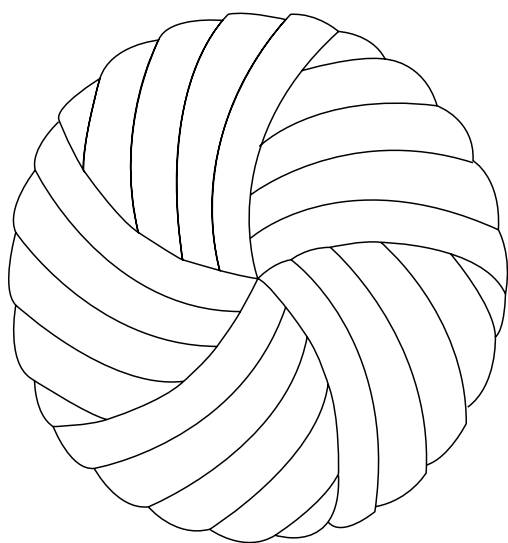
EVERY CARBIDE BURR IS BRAZE TESTED TO ENSURE OPTIMUM STRENGTH AND THE HIGHEST SAFETY STANDARDS.

All Garryson Carbide Burrs are produced on computerised, numerically controlled fluting machines. They have a specially developed tooth design providing a fast, clean cut right to the tip of the tool, with a more even tooth loading over the whole contour of the cutting head. They achieve a high rate of stock removal combined with a smooth finish on metal, plastics and other materials.

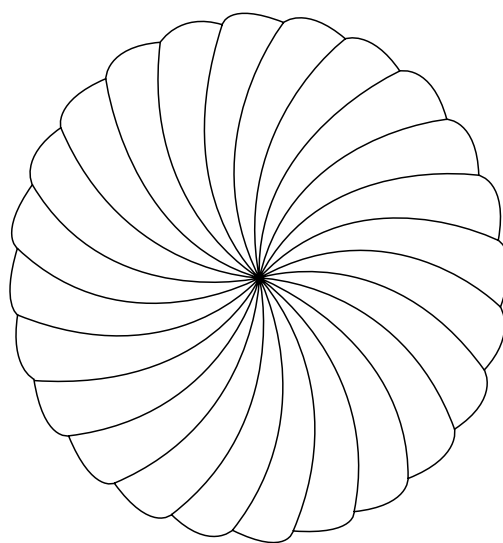
The pitch of tooth on a standard cut Burr will suffice for almost any operation on any material provided the running speeds are as those recommended. Pneumatic or high cycle electric grinding machines with a high standard of concentricity and torque will ensure the most effective service from a carbide burr.

Garryson Carbide Burrs are ideally suited for freehand stock removal, weld preparation and the finishing of mnemonic alloy steel components. These applications are generally found in aircraft, shipbuilding and other specialised industries. Significant time and cost savings are achieved when dressing and fettling cast components in iron, steel and non-ferrous foundries.

ALL GARRYSON RADIUS END CUTTING BURRS ARE PRODUCED WITH SKIP-FLUTE DESIGN, GIVING IMPROVED CUTTING ACTION AT THE TOOL END.



SKIP-FLUTE



TEETH-TO-CENTRE

CUTTING STYLES

Cut 'D'

Diamond Cut is a universal cutting style offering smooth operation with a high cutting action, producing short chips and no clogging problems. Ideal on stainless steel, carbon steel, nickel alloys and other hard metals. This is the most popular burr because of its easy, smooth operation and a full range is carried in Australia.

Cut 'A'

Aluminium Cut provides rapid stock removal on 'softer' materials and is ideal for use on aluminium, titanium, brass, and other aluminium alloys, soft non-ferrous metals, and thermoplastics. Produces easy chipflow and smooth operation. A full range is carried in Australia.

CARBIDE BURRS

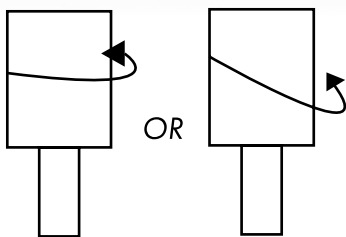
OPERATING INSTRUCTIONS FOR THE BEST RESULTS

Keep running speeds high - this will minimise tooth loading and therefore minimise chipping and maximise tooth life.

A speed chart is listed on the next page. Burrs must be run in high speed die grinders. Pistol drills are far too slow and will cause the burr to chatter and chip.

Apply constant movement and light pressure in a clockwise direction. The burr should be in contact with the job moving right to left and free running on the return. Excessive pressure will cause impact damage or tooth loading. Light pressure will also prevent burr from overheating.

Only keep 30% of the circumference of the burr in contact with the job at any time. Over 30% can cause the burr to jam. Only one side of the burr must be in contact at the same time. If both sides of the burr contact the job at once (e.g. in a hole) the burr will immediately jam and chip. Burrs must not come into contact with hard materials when they are not running. Rolling around in a tool box without the plastic case will cause tooth damage. Dropping the burr onto concrete or a steel bench will cause them to chip.



Signs of Misuse

1. If head has come off the shaft, it will generally be due to overheating, excessive pressure and/or no free running.

Signs of this are:

- Brazing has melted
- Tungsten head had changed colour to yellow/blue/black

2. Burr has been jammed in a corner or a hole.

Signs of this are:

- Collet/jaw score marks on the shank
- Radial/helical chipping of the tooth

3. Burr has a “chunk” of carbide chipped out, generally due to the burr being dropped (usually while still in the machine).

Signs of this are:

- No other damage to the burr
- Multiple minor chipping on or near the end of the burr
- Concrete residue in teeth of burr

4. Burr has been run slowly, i.e. in a pistol drill.

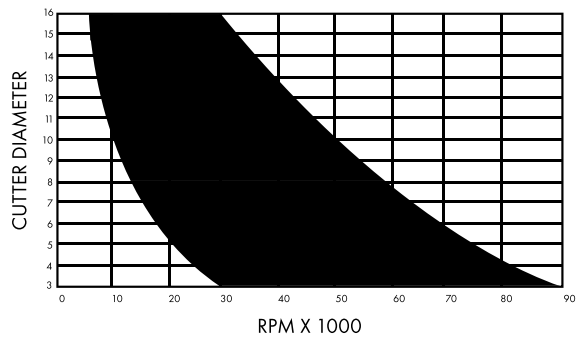
Signs of this are:

- Erratic chipping of burr
- Operator claims, ‘...it chipped as soon as I started using it.’

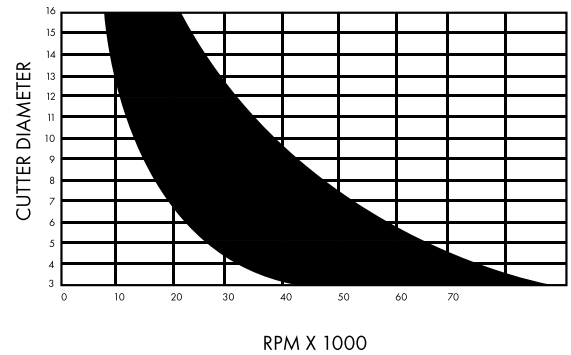
GUIDE TO RUNNING SPEEDS

| Size of Burr Material | 0.125" / 3mm | 0.250" / 6mm | 0.375" / 10mm | 0.500" / 13mm | 0.625" / 16mm |
|---|------------------|------------------|------------------|------------------|------------------|
| Aluminium, alloys, plastics (including hard, industrial), zinc base alloys, glass fibre | 30,000 to 90,000 | 15,000 to 17,000 | 10,000 to 50,000 | 7,000 to 38,000 | 6,000 to 30,000 |
| Brass, cast iron, copper, bronze | 45,000 to 90,000 | 22,500 to 60,000 | 15,000 to 40,000 | 11,000 to 30,000 | 9,000 to 24,000 |
| Unhardened steel | 60,000 to 90,000 | 45,000 to 60,000 | 30,000 to 40,000 | 22,500 to 30,000 | 18,000 to 24,000 |
| Ceramics, hardened alloy steels, nimonic alloys, stainless steel, titanium | 60,000 to 90,000 | 30,000 to 45,000 | 19,000 to 30,000 | 15,000 to 22,500 | 12,000 to 18,000 |

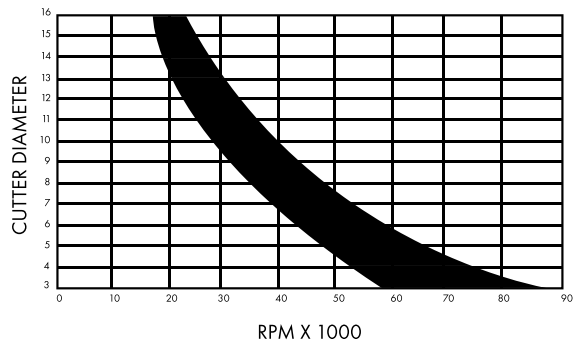
Soft materials, aluminium, plastics, zinc base alloys and glass fibres



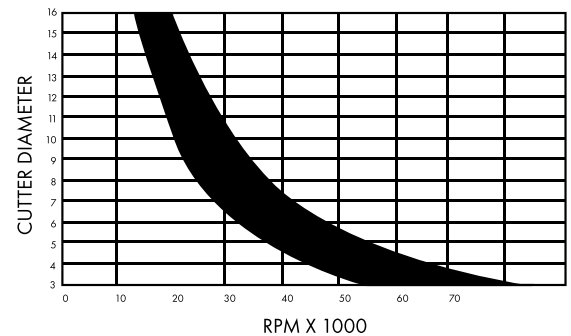
Brass, cast iron, copper, bronze



Unhardened steel



Ceramics, hardened steel, nimonic alloys, stainless steel and titanium



GENERAL NOTES ON USE

- It may be necessary to adjust the rates shown to achieve optimum performance in a particular application.
- Running below the optimum speed will encourage chipping.
- Hard materials use slower speeds.
- Using tools and collets that have become worn will also encourage chipping.
- Smaller burrs use a faster speed.
- Do not sink the burr for more than one third of its periphery.
- Apply constant movement and light pressure when in use.
- Running too fast will result in worn teeth.

Note: Maximum speed for all long series (150mm) burrs is 18,000 RPM

CARBIDE BURRS

Cutting Styles



Cut 'S'

Standard Cut is recommended for general de-burring and weld removal where a scratch free surface is paramount.

- Produces a fine finish
- Recommended for deburring, weld preparation and metal removal
- Steels, copper, cast iron, nickel alloys



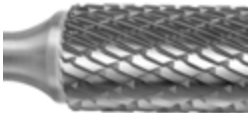
Cut 'C'

- Similar operating characteristics to standard cut
- Shorter metal chip produced
- Smoother cutting action on high tensile steels



Cut 'D'

Diamond Cut is a universal cutting style offering smooth operation with a high cutting action, producing short chips and no clogging problems. Ideal on stainless steel, carbon steel, nickel alloys and other hard materials. This is the most popular burr because of its easy and smooth operation.



"D-Max"

D-Max TDX Burrs have an extra strong tooth formation, making them ideal for heavy-duty fast stock removal on most ferrous metals.



Cut 'A'

Aluminium Cut provides rapid stock removal on 'softer' materials and is ideal for use on aluminium, titanium, brass, and other aluminium alloys, soft non-ferrous metals and thermoplastics. Produces easy chipflow and smooth operation.



Garryson end cut burrs are produced with 'skip flute', giving improved cutting action on the burr end.

Other Burrs Available

Metric Shanks

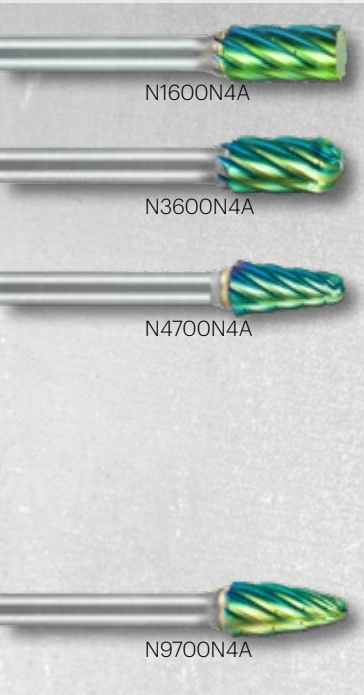
A limited range of standard burrs can be offered on 3mm and 6mm diameter shanks. Please discuss your requirements with our friendly customer service team.

Metric Shanks

For special applications where standard burr lengths are inadequate, a range of extended shank burrs is available.

NG6 BURRS

ATA's innovative new NEXT GENERATION 6 burr is the solution to speed up manufacturing processes in industry applications where rapid stock removal is required. Combined with the unique ACCELERATOR coating, stock removal is up to double that of leading premium quality competitor burs



| HEAD SHAPE | PART NO. | HEAD DIA. | HEAD LENGTH | SHANK DIA. | O/A LENGTH | INNER QTY | OUTER QTY |
|--|------------------|-----------|-------------|------------|------------|-----------|-----------|
| Cylinder (No End Cut) • Contour finishing • Right-angled corners | N1600N4A | 10 | 19 | 1/4" | 64 | 1 | 5 |
| | N1700N14A | 13 | 25 | 1/4" | 70 | 1 | 5 |
| Ball Nosed Cylinder • Contour finishing • Right-angled corners | N3600N4A | 10 | 19 | 1/4" | 64 | 1 | 5 |
| | N3700N14A | 13 | 25 | 1/4" | 70 | 1 | 5 |
| Ball Nosed Cone (14° included Angle) • Good for rounded edges and surface finishing in hard to reach areas • Great for tight and narrow angles, plus contours | | | | | | | |
| | N4700N4A | 13 | 25 | 1/4" | 75 | 1 | 5 |
| Ball Nosed Tree • Used for rounding off edges • Make concave cuts | | | | | | | |
| | N9700N4A | 13 | 25 | 1/4" | 70 | 1 | 5 |






1.2 D-CUT CARBIDE BURRS

DOUBLE-CUT (D-CUT) BURRS

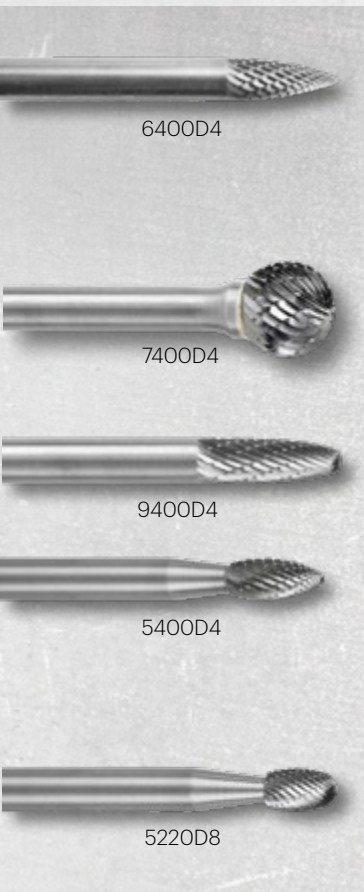
Ideal for cutting stainless and carbon steel, or other hard metals.

Great for metal removal, deburring and weld cleaning.

All single packs of Carbide Burrs are supplied sandwich packed

| | HEAD SHAPE | PART NO. | HEAD DIA. | HEAD LENGTH | SHANK DIA. | O/A LENGTH | INNER QTY | OUTER QTY |
|--|--|----------------|-----------|-------------|------------|------------|-----------|-----------|
|  1400D4 | Cylinder (No End Cut) <ul style="list-style-type: none"> Contour finishing Right-angled corners | 1400D4 | 6 | 19 | 1/4" | 50 | 1 | 5 |
| | | 1500D4 | 8 | 19 | 1/4" | 65 | 1 | 5 |
| | | 1600D4 | 10 | 19 | 1/4" | 65 | 1 | 5 |
| | | 1700D14 | 12 | 25 | 1/4" | 70 | 1 | 5 |
| | | 1700D4 | 12 | 19 | 1/4" | 65 | 1 | 5 |
|  1402D4 | Cylinder (with End Cut) <ul style="list-style-type: none"> Contour finishing | 1800D4 | 16 | 25 | 1/4" | 70 | 1 | 5 |
| | | 1402D4 | 6 | 19 | 1/4" | 50 | 1 | 5 |
| | | 1502D4 | 8 | 19 | 1/4" | 65 | 1 | 5 |
| | | 1602D4 | 10 | 19 | 1/4" | 65 | 1 | 5 |
| | | 1702D14 | 12 | 25 | 1/4" | 70 | 1 | 5 |
|  3400D4 | Ball Nosed Cylinder <ul style="list-style-type: none"> Contour finishing Right-angled corners | 1802D4 | 16 | 25 | 1/4" | 70 | 1 | 5 |
| | | 3400D4 | 6 | 19 | 1/4" | 50 | 1 | 5 |
| | | 3500D4 | 8 | 19 | 1/4" | 65 | 1 | 5 |
| | | 3600D4 | 10 | 19 | 1/4" | 65 | 1 | 5 |
| | | 3700D4 | 12 | 19 | 1/4" | 65 | 1 | 5 |
| | | 3700D14 | 12 | 25 | 1/4" | 70 | 1 | 5 |
|  2400D4 | Cone (Included Angle) <ul style="list-style-type: none"> Ideal for beveling, counter-boring and chamfering For getting into small, angled areas of your work piece Deburring gear teeth, heat exchanger fan blades, inside bevel edges and internal pipe edges | 3800D4 | 16 | 25 | 1/4" | 70 | 1 | 5 |
| | | 2400D4 | 6 | 19 | 1/4" | 50 | 1 | 5 |
| | | 2600D4 | 10 | 22 | 1/4" | 65 | 1 | 5 |
|  4600D14 | Ball Nosed Cone (14° included Angle) <ul style="list-style-type: none"> Good for rounded edges and surface finishing in hard to reach areas Great for tight and narrow angles, plus contours | 2700D14 | 13 | 25 | 1/4" | 70 | 1 | 5 |
| | | 4600D14 | 10 | 27 | 1/4" | 75 | 1 | 5 |
| | | 4600D4 | 10 | 19 | 1/4" | 65 | 1 | 5 |
| | | 4700D4 | 12 | 30 | 1/4" | 75 | 1 | 5 |
| | | 4800D4 | 16 | 33 | 1/4" | 78 | 1 | 5 |

JB1701



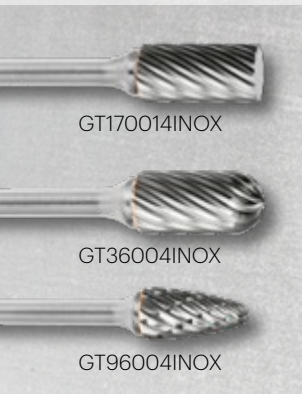
| HEAD SHAPE | PART NO. | HEAD DIA. | HEAD LENGTH | SHANK DIA. | O/A LENGTH | INNER QTY | OUTER QTY |
|---|---------------|-----------|-------------|------------|------------|-----------|-----------|
| Tree (Pointed End) <ul style="list-style-type: none"> For rounding off edges and making concave cuts Use the pointed end for cutting in hard to reach areas and small angled contours | 6400D4 | 6 | 16 | 1/4" | 50 | 1 | 5 |
| | 6500D4 | 10 | 19 | 1/4" | 65 | 1 | 5 |
| | 6800D4 | 13 | 25 | 1/4" | 70 | 1 | 5 |
| Ball <ul style="list-style-type: none"> Create concave cuts Shape or hollow out areas in your work piece | 7400D4 | 6 | 6 | 1/4" | 50 | 1 | 5 |
| | 7600D4 | 10 | 8 | 1/4" | 52 | 1 | 5 |
| | 7700D4 | 12 | 10 | 1/4" | 53 | 1 | 5 |
| Ball Nosed Tree <ul style="list-style-type: none"> Used for rounding off edges Make concave cuts | 9400D4 | 6 | 16 | 1/4" | 50 | 1 | 5 |
| | 9600D4 | 10 | 19 | 1/4" | 65 | 1 | 5 |
| | 9700D4 | 13 | 25 | 1/4" | 70 | 1 | 5 |
| Flame <ul style="list-style-type: none"> Designed for deburring and finishing elliptical surfaces in steel dies, forgings, castings and metal patterns | 5400D4 | 6 | 14 | 1/4" | 65 | 1 | 5 |
| | 5550D4 | 8 | 9 | 1/4" | 55 | 1 | 5 |
| | 5600D4 | 13 | 32 | 1/4" | 77 | 1 | 5 |
| Oval <ul style="list-style-type: none"> Great for smoothing out undercut areas Less prone to undercutting compared to other round burrs Ideal for adding curves to a surface Round nose is good for gently eating away under objects | 5220D8 | 3 | 6 | 1/4" | 38 | 1 | 5 |
| | 5500D4 | 10 | 16 | 1/4" | 60 | 1 | 5 |
| | 5700D4 | 13 | 19 | 1/4" | 67 | 1 | 5 |

Speed Chart: D-Cut Burrs

| MATERIAL | 6MM DIAMETER | 8MM DIAMETER | 10MM DIAMETER | 12MM DIAMETER |
|---------------------|-----------------|-----------------|-----------------|-----------------|
| Steel | 13,000 - 32,000 | 10,000 - 24,000 | 8,000 - 19,000 | 7,000 - 16,000 |
| Stainless Steel | 13,000 - 19,000 | 10,000 - 14,000 | 8,000 - 11,000 | 7,000 - 9,000 |
| Brass/Copper/Bronze | 13,000 - 19,000 | 10,000 - 14,000 | 8,000 - 11,000 | 7,000 - 9,000 |
| Cast Iron | 24,000 - 32,000 | 10,000 - 24,000 | 14,000 - 19,000 | 12,000 - 16,000 |

1.3 INOX CARBIDE BURRS

INOX BURRS



| HEAD SHAPE | PART NO. | HEAD DIA. | HEAD LENGTH | SHANK DIA. | O/A LENGTH | INNER QTY | OUTER QTY |
|--|---------------------|-----------|-------------|------------|------------|-----------|-----------|
| Cylinder (No End Cut) • Contour finishing • Right-angled corners | GT170014INOX | 13 | 25 | 1/4" | 70 | 1 | 5 |
| | | | | | | | |
| Ball Nosed Cylinder • Contour finishing • Right-angled corners | GT36004INOX | 10 | 19 | 1/4" | 64 | 1 | 5 |
| | GT370014INOX | 13 | 25 | 1/4" | 70 | 1 | 5 |
| Ball Nosed Tree • Used for rounding off edges • Make concave cuts | GT96004INOX | 10 | 19 | 1/4" | 64 | 1 | 5 |
| | GT97004INOX | 13 | 25 | 1/4" | 70 | 1 | 5 |

Garryson Inox Range has a specifically designed geometry to suit growing market demands for stainless steel applications. This is a cost effective alternative to standard solutions due to the greater rate of stainless steel stock removal on Ferritic, Austenitic and Martensitic based materials.

- Developed cutting geometry generates high stock removal on Inox components
- High performance grinding ensures production savings and reduced downtime
- Specifically developed Inox cutting geometry reduces heat build up at cutting edge and work piece
- Manufactured from high quality sintered tungsten carbide guarantees high performance and increased durability
- High consistent quality

SPEED CHART: D-CUT/TiAIN COATED/XL

| MATERIAL | 6MM DIAMETER | 8MM DIAMETER | 10MM DIAMETER | 12MM DIAMETER |
|---------------------|-----------------|-----------------|-----------------|-----------------|
| Steel | 13,000 - 32,000 | 10,000 - 24,000 | 8,000 - 19,000 | 7,000 - 16,000 |
| Stainless Steel | 13,000 - 19,000 | 10,000 - 14,000 | 8,000 - 11,000 | 7,000 - 9,000 |
| Brass/Copper/Bronze | 13,000 - 19,000 | 10,000 - 14,000 | 8,000 - 11,000 | 7,000 - 9,000 |
| Cast Iron | 24,000 - 32,000 | 10,000 - 24,000 | 14,000 - 19,000 | 12,000 - 16,000 |

STEEL BURRS



| HEAD SHAPE | PART NO. | HEAD DIA. | HEAD LENGTH | SHANK DIA. | O/A LENGTH | INNER QTY | OUTER QTY |
|---|----------------------|-----------|-------------|------------|------------|-----------|-----------|
| Ball Nosed Cylinder • Contour finishing • Right-angled corners | GT36004STEEL | 10 | 19 | 1/4" | 64 | 1 | 5 |
| | GT370014STEEL | 13 | 25 | 1/4" | 70 | 1 | 5 |
| | GT38004STEEL | 16 | 25 | 1/4" | 70 | 1 | 5 |
| Flame • Designed for deburring and finishing elliptical surfaces in steel dies, forgings, castings and metal patterns | GT58504STEEL | 16 | 36 | 1/4" | 81 | 1 | 5 |
| | | | | | | | |
| Ball Nosed Tree • Used for rounding off edges • Make concave cuts | GT96004STEEL | 10 | 19 | 1/4" | 64 | 1 | 5 |
| | GT97004STEEL | 13 | 25 | 1/4" | 70 | 1 | 5 |
| Cylinder (with End Cut) • Contour finishing | GT16004STEEL | 10 | 19 | 1/4" | 64 | 1 | 5 |
| Cylinder (No End Cut) • Contour finishing • Right-angled corners | GT170014STEEL | 13 | 25 | 1/4" | 70 | 1 | 5 |

Garryson Steel Range Burrs are constructed with a specifically designed geometry to suit growing market demands for steel and cast steel applications

- Specifically developed geometry increases machining output on steel components compared to cuts 2,5 & 6
- Aggressive cutting form produces large chips with increased stock removal
- Specifically engineered steel cutting geometry generates lower heat at cutting edge
- High consistent quality




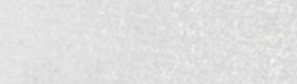
SPEED CHART: D-CUT/TiAIN COATED/XL

| MATERIAL | 6MM DIAMETER | 8MM DIAMETER | 10MM DIAMETER | 12MM DIAMETER |
|---------------------|-----------------|-----------------|-----------------|-----------------|
| Steel | 13,000 - 32,000 | 10,000 - 24,000 | 8,000 - 19,000 | 7,000 - 16,000 |
| Stainless Steel | 13,000 - 19,000 | 10,000 - 14,000 | 8,000 - 11,000 | 7,000 - 9,000 |
| Brass/Copper/Bronze | 13,000 - 19,000 | 10,000 - 14,000 | 8,000 - 11,000 | 7,000 - 9,000 |
| Cast Iron | 24,000 - 32,000 | 10,000 - 24,000 | 14,000 - 19,000 | 12,000 - 16,000 |

1.5 ALUMINIUM CARBIDE BURRS

ALUMINIUM CUT BURRS

Ideal for cutting aluminium and aluminium alloys, plastics and hard rubber.
 They are great for aluminium stock removal. **DO NOT USE** on steel or hard metals because chipping will occur.

| | HEAD SHAPE | PART NO. | HEAD DIA. | HEAD LENGTH | SHANK DIA. | O/A LENGTH | INNER QTY | OUTER QTY |
|--|---|----------------|-----------|-------------|------------|------------|-----------|-----------|
|  GT36004STEEL  GT58504STEEL  GT96004STEEL  GT16004STEEL | Cylinder (with End Cut) | TTA1604 | 10 | 19 | 1/4" | 64 | 1 | 5 |
| | • Contour finishing | TTA1704 | 13 | 25 | 1/4" | 70 | 1 | 5 |
| | Ball Nosed Cylinder | TTA3604 | 10 | 19 | 1/4" | 64 | 1 | 5 |
| | • Contour finishing • Right-angled corners | TTA3804 | 16 | 25 | 1/4" | 70 | 1 | 5 |
| | Ball Nosed Cone (Included Angle) | TTA4604 | 10 | 25 | 1/4" | | 1 | 5 |
| | • Good for rounded edges and surface finishing in hard to reach areas • Great for tight and narrow angles, plus contours | TTA4704 | 13 | 30 | 1/4" | | 1 | 5 |
| | Ball Nosed Tree | TTA9604 | 10 | 19 | 1/4" | | 1 | 5 |
| | • Used for rounding off edges • Make concave cuts | TTA9704 | 13 | 25 | 1/4" | | 1 | 5 |

SPEED CHART: ALUMINIUM CUT

| MATERIAL | 10MM DIAMETER | 12MM DIAMETER |
|----------------------------|-----------------|-----------------|
| Aluminium/Aluminium Alloys | 24,000 - 35,000 | 20,000 - 30,000 |
| Plastics/Hard Rubber | 16,000 - 35,000 | 13,000 - 30,000 |



ATA has selected an assortment of the most popular burs for use in general application. These sets are presented in robust packaging that is:

- Easy to carry
- Compact
- Recyclable

8 PIECE 10 DIAMETER KIT

| PART NO. | INCLUSIONS | INNER QTY | OUTER QTY | PACK TYPE |
|-------------|------------|-----------|-----------|-----------|
| 3759 | As Below | 1 | 5 | Box |

| ITEM & HEAD SHAPE | HEAD DIA. | HEAD LENGTH | SHANK DIA. | OVERALL LENGTH |
|-------------------------------|-----------|-------------|------------|----------------|
| 1600D4 - Cylinder, No End Cut | 10 | 19 | 1/4" | 65 |
| 2600D4 - Cone | 10 | 22 | 1/4" | 65 |
| 3600D4 - Ball Nosed Cylinder | 10 | 19 | 1/4" | 65 |
| 4600D4 - Ball Nosed Cone | 10 | 19 | 1/4" | 65 |
| 5500D4 - Oval | 10 | 16 | 1/4" | 65 |
| 6500D4 - Tree, Pointed End | 10 | 19 | 1/4" | 65 |
| 7600D4 - Ball | 10 | 8 | 1/4" | 52 |
| 9600D4 - Ball Nose Tree | 10 | 19 | 1/4" | 65 |

8 PIECE 13 DIAMETER KIT

| PART NO. | INCLUSIONS | INNER QTY | OUTER QTY | PACK TYPE |
|-------------|------------|-----------|-----------|-----------|
| 5009 | As Below | 1 | 5 | Box |

| HEAD SHAPE | HEAD DIA. | HEAD LENGTH | SHANK DIA. | OVERALL LENGTH |
|-------------------------------|-----------|-------------|------------|----------------|
| 1700D4 - Cylinder, No End Cut | 12 | 19 | 1/4" | 65 |
| 2700D14 - Cone | 13 | 25 | 1/4" | 70 |
| 3700D14 - Ball Nosed Cylinder | 12 | 25 | 1/4" | 70 |
| 4700D4 - Ball Nosed Cone | 12 | 30 | 1/4" | 75 |
| 5600D4 - Flame | 13 | 32 | 1/4" | 77 |
| 6800D4 - Tree, Pointed End | 13 | 25 | 1/4" | 70 |
| 7700D4 - Ball | 12 | 10 | 1/4" | 53 |
| 9700D - Ball Nose Tree | 13 | 25 | 1/4" | 70 |

1.6 KITS



JBK5



JBKA4

5 PIECE D-CUT KIT

| PART NO. | INCLUSIONS | INNER QTY | OUTER QTY | PACK TYPE |
|----------|------------|-----------|-----------|-----------|
| JBK5 | As Below | 1 | 5 | Box |

| HEAD SHAPE | HEAD DIA. | HEAD LENGTH | SHANK DIA. | OVERALL LENGTH |
|--------------------------------|-----------|-------------|------------|----------------|
| 1602D4 - Cylinder with End Cut | 10 | 19 | 1/4" | 65 |
| 3700D14 - Ball Nosed Cylinder | 12 | 25 | 1/4" | 70 |
| 3600D4 - Ball Nosed Cylinder | 10 | 19 | 1/4" | 65 |
| 9700D - Ball Nose Tree | 13 | 25 | 1/4" | 70 |
| 9600D4 - Ball Nose Tree | 10 | 19 | 1/4" | 65 |

4 PIECE A-CUT KIT

| PART NO. | INCLUSIONS | INNER QTY | OUTER QTY | PACK TYPE |
|----------|------------|-----------|-----------|-----------|
| JBKA4 | As Below | 1 | 5 | Box |

| HEAD SHAPE | HEAD DIA. | HEAD LENGTH | SHANK DIA. | OVERALL LENGTH |
|-------------------------------|-----------|-------------|------------|----------------|
| TTA3604 - Ball Nosed Cylinder | 10 | 19 | 1/4" | 64 |
| Cone | 13 | | 1/4" | |
| Ball Nosed Cylinder | 13 | | 1/4" | |
| Ball Nosed Cone | 13 | | 1/4" | |
| Oval | 13 | | 1/4" | |
| Tree | 13 | | 1/4" | |
| Ball | 13 | | 1/4" | |
| Ball Nosed Tree | 13 | | 1/4" | |



**FOR GENERAL ENQUIRIES AND MORE INFORMATION
ON JOSCO PRODUCTS, PLEASE CONTACT US AT:**

6 Silkwood Drive, Carrum Downs VIC 3201

P 03 8794 4300 E customerservice@josco.com.au