

Industrial Tool Blanks & Collet Tools



Antares, Inc.

Providing Superior Cutting Tools to the
Engraving & Mold-Making Industries since 1952

Grinding Specifications & Designations

Antares Grinding Specifications:

Diameter Tolerance - Centerless Ground to $+.0000"/- .0005"$.

Split Tolerance - Precision Ground to $+.001"/- .000"$ of tool center.

Split Length - From $.250"$ to $.625"$ in proportion to length of tool.

Split Finish - Six micro-inch minimum for stronger points, sharper edges, and better finishes.

Special Split Lengths and Tolerances - Available on special orders at slightly increased cost.

Blank Designations & Split Designations:

All blank sizes are available in A (one end split), B (both ends split), and C (full round) blank designations. Most split blank sizes are available as sharpened tools, QR (quarter round) split blanks, and QR sharpened tools. Please see the price list for detailed split and sharpening options.

A = One End Split



B = Both Ends Split



C = Full Round Blank



Split Designations:



**Full Round Blank
(No Split)**



Half Round Split



Quarter Round Split

Solid Micrograin Carbide - Blanks

Micrograin Carbide is a superior grade of cutting tool material made from sub-micron size carbide particles. It is 50% stronger than conventional grade carbide.

- Excellent wear resistance.
- Resists chipping and breaking.
- Sharper cutting edges and finer points.
- Fewer resharpenings.
- Higher quality cuts and longer durability.

Standard Sizes - Blanks

| Size (inch) Diameter x Length | Part Number Prefix |
|----------------------------------|-----------------------|
| 1/16 × 2 | M062-20 |
| 3/32 × 2 | M093-20 |
| 1/8 × 1½ | M125-15 |
| 1/8 × 2 | M125-20 |
| 1/8 × 3 | M125-30 |
| 1/8 × 6 | M125-60 |
| 5/32 × 2 | M157-20 |
| 3/16 × 1½ | M187-15 |
| 3/16 × 2 | M187-20 |
| 3/16 × 3 | M187-30 |
| 3/16 × 4 | M187-40 |
| 3/16 × 6 | M187-60 |
| 1/4 × 2 | M250-20 |
| 1/4 × 3 | M250-30 |
| 1/4 × 4 | M250-40 |
| 1/4 × 6 | M250-60 |

| Size (inch) Diameter x Length | Part Number Prefix |
|----------------------------------|-----------------------|
| 5/16 × 2 | M312-20 |
| 5/16 × 3 | M312-30 |
| 5/16 × 4 | M312-40 |
| 5/16 × 6 | M312-60 |
| 3/8 × 2 | M375-20 |
| 3/8 × 3 | M375-30 |
| 3/8 × 4 | M375-40 |
| 3/8 × 6 | M375-60 |
| 1/2 × 3 | M500-30 |
| 1/2 × 4 | M500-40 |
| 1/2 × 6 | M500-60 |
| 5/8 × 4 | M625-40 |
| 5/8 × 6 | M625-60 |
| 3/4 × 4 | M750-40 |
| 3/4 × 6 | M750-60 |
| 1 × 4 | M1000-40 |
| 1 × 6 | M1000-60 |

Metric Sizes - Blanks

| Size (mm) Diameter x Length | Part Number Prefix |
|--------------------------------|-----------------------|
| 1.5 × 38 | M059-15 |
| 1.5 × 50 | M059-20 |
| 2.0 × 38 | M078-15 |
| 2.0 × 50 | M078-20 |
| 2.5 × 38 | M098-15 |
| 2.5 × 50 | M098-20 |
| 3.0 × 38 | M118-15 |
| 3.0 × 50 | M118-20 |
| 4.0 × 38 | M156-15 |
| 4.0 × 50 | M156-20 |
| 4.0 × 63 | M156-25 |
| 5.0 × 38 | M197-15 |
| 5.0 × 50 | M197-20 |
| 6.0 × 50 | M236-20 |
| 6.0 × 63 | M236-25 |
| 8.0 × 50 | M315-20 |
| 8.0 × 63 | M315-25 |
| 8.0 × 100 | M315-40 |
| 10.0 × 76 | M394-30 |
| 12.0 × 76 | M472-30 |
| 13.0 × 76 | M511-30 |
| 14.0 × 76 | M551-30 |
| 15.0 × 76 | M591-30 |

Material Classifications and Sharpening Styles

Material Classifications:

To meet your engraving needs, Antares manufactures tools with specific geometries for different material classifications. It is very important to use the proper cutter for the material being engraved. Please specify material classification when ordering.

FLX: Flexible engraving stock, soft plastics, soft wood

ACR: Acrylic, hard plastics, hard wood

BAL: Brass, aluminum, soft metals

SSS: Steel, Stainless steel, hard metals

PHN: Phenolic, Formica[®], Fiberglass[®]



Standard Cutters (STD)

Our most frequently used tool for engraving plastics and metals. Standard cutting tools produce a cut with a 30° side angle for plastics and a 40° side angle for metals. They are available in a variety of tip widths.



Parallel Engraving Cutters (PAR)

A tool sharpened parallel will produce a cut with straight edges compared to the "V" or angled cut from the standard tool. The smallest tip size available is .060". When ordering, **please specify the depth of the cut** required or material thickness if cutting completely through. Antares Parallel cutters are also available with a point for drilling holes.



Cutter Bevelers (CTBV)

Cuts out and bevels in one operation. A Cutter-Beveler has a parallel cutting edge which cuts through the material, while the angled edge produces a 45° bevel for a depth of 1/3 to 1/2 of the material thickness. This can be particularly handy for applications such as cutting out badges (on an engraving machine) or producing discs or odd shaped items, which are difficult or impossible to do with a beveler.



ADA Braille Dot Cutters (BR)

Tools to help comply with the Americans with Disabilities Act. We offer both braille dot cutters and tools for ADA cut-out-letters to meet the strict regulatory standards for signage. Our Braille Dot cutter is a tool that routs away the background material and leaves raised braille dots with rounded tops.



Quarter Round Engraving Cutters (QR)

A cutter with a secondary split perpendicular to that of a standard half round tool, to provide greater chip clearance. Effective for many applications such as engraving stainless steel and acrylic; and profiling soft materials. Specify part number with a suffix of "QR" and the material being engraved when ordering.



Profiler Engraving Cutters (PRO)

A cutter with a narrow profile effective for fine detail engraving and cutting out shapes where a slight bevel is acceptable. The standard angle on a Profiler is 15°. Recommended for applications where the smallest Parallel tip available is too wide or too fragile. Specify a classification of "PRO" and material when ordering.



Ballnose Cutters (BN)

A cutter with a radiused tip that produces a rounded rather than flat bottom. The cutter is extremely effective for reverse engraved, color filled acrylic. Available as a parallel tool (straight sides) or as a conical tool (angled sides). Parallel Ballnose cutters are available from .060" tip to the full shank diameter. Conical Ballnose are available from .010" to half the shank diameter.



ADA Cut-Out-Letter Cutters (COL)

The Cut Out Letter tool is a quarter round tool with a 22° cutting angle used to create raised characters in accordance to the Americans with Disabilities Act.

Antares SpiralFlute[®] Cutters

Antares SpiralFlute[®] Cutters are a hybrid between an engraving cutter and a RouterMill[®]. They provide the same cutting characteristics as a standard engraving cutter while benefitting from the strength of a fluted tool. This extra strength produces a tool that performs exceptionally well in harder materials such as stainless steel. SpiralFlute[®] Cutters are available in tip sizes ranging from .005" to .060". These tools produce the best results when used with relatively slow feed rates and cutting fluid. SpiralFlute[®] Cutters also work extremely well for engraving brass.



| Size | Part No. Prefix |
|-------------|-----------------|
| 3mm x 50mm | M11820ASF |
| 6mm x 50mm | M23620ASF |
| 1/8 x 2 | M12520ASF |
| 1/4 x 2 1/2 | M25025ASF |

High Speed Steel & Cobalt High Speed Steel Blanks

A = One End Split



B = Both Ends Split



C = Full Round Blank



High Speed Steel Blank Sizes (HSS)

| Size (inch) Diameter x Length | Part No. Prefix |
|----------------------------------|--------------------|
| 1/8 x 1½ | H12515 |
| 3/16 x 2 | H18720 |
| 1/4 x 2-1/4 | H2502.25 |
| 5/16 x 2-3/8 | H3122.375 |
| 3/8 x 2½ | H37525 |
| 1/2 x 2½ | H50025 |

Premium quality high speed steel. Hardened to 62-65 on the Rockwell scale. Same grinding specifications as our carbide blanks.

Cobalt High Speed Steel Blank Sizes

| Size (inch) Diameter x Length | Part No. Prefix |
|----------------------------------|--------------------|
| 1/8 x 2 | HC12520 |
| 3/16 x 3 | HC18730 |
| 1/4 x 3 | HC25030 |
| 5/16 x 3 | HC31230 |
| 3/8 x 3 | HC37530 |

Outstanding among the super alloy high speed steel grades. Cobalt high speed steel is harder than most grades making it tougher and more durable. As a result, it is highly effective for tools requiring maximum abrasion resistance and toughness. Hardened to 67-69 on the Rockwell scale.

Taper Shank Cutters



- 9/16" flute length.
- Cutter wrench flats on carbide tools.
- Precision taper for perfect fit.



Carbide Tipped Taper Shanks

| Part No. | Description |
|----------|---------------------|
| K0 | Not Sharpened |
| K0B | Rough Sharpened |
| K1 | Standard Sharpened |
| K1PRO | Profilers Sharpened |

HSS Taper Shanks

| Part No. | Description |
|----------|---------------------|
| H0 | Not Sharpened |
| H0B | Rough Sharpened |
| H1 | Standard Sharpened |
| H1PRO | Profilers Sharpened |

Cobalt HSS Taper Shanks

| Part No. | Description |
|----------|---------------------|
| HC0 | Not Sharpened |
| HC0B | Rough Sharpened |
| HC1 | Standard Sharpened |
| HC1PRO | Profilers Sharpened |

Half Round Blanks

Micrograin Carbide Half Rounds

| Size | Part No. |
|-----------|----------|
| 1/8 x 1½ | M12515D |
| 3/16 x 2 | M18720D |
| 1/4 x 2 | M25020D |
| 5/16 x 2½ | M31225D |
| 3/8 x 2½ | M37525D |

Half-Split entire length of tool.

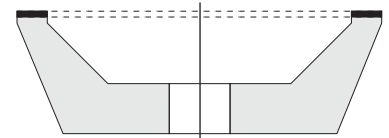


HSS Half Rounds

| Size | Part No. |
|------------|----------|
| 4mm x 50mm | H15620D |
| 6mm x 50mm | H23620D |

Diamond Grinding Wheels

Antares offers diamond grinding wheels for popular grinders including New Hermes®, Preis®, Deckel®, Kuhlmann®, Alexander®, Gorton®, and others.



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