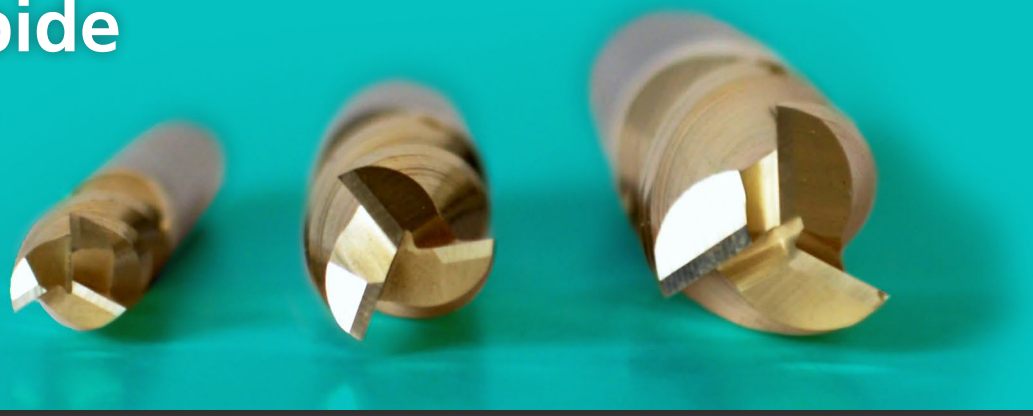
FACTooling™
Made in U.S.A.

Superior Carbide Cutting Tools

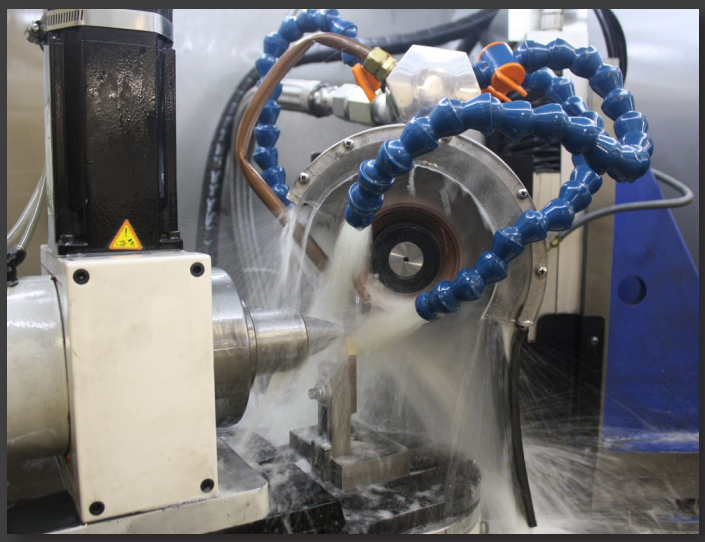


FACTooling, LLC
1250 Schweizer Road
Horseheads, NY 14845

www.factooling.com
607-331-4834

FACTooling™
Made in U.S.A.

FACTooling, LLC was launched in 2016 by a veteran team of carbide tooling manufacturers. With 40+ years of carbide tooling manufacturing as well as expertise in carbide materials manufacturing, machinery design and building, CNC machine operations, and most importantly tool and cutter grinding they set out to take advantage of their combined knowledge to make a company that can bring to market the highest quality carbide cutting tools at industry leading prices.



Our new, state of the art grinding machines make use of excellent Swiss CNC tool and cutter grinding software to make world class carbide end mills, compression router bits, counter sinks, specialized tooling and burrs. Because we are small we can offer our customers excellent service, price and turn-around of tools. For large tooling runs, we utilize automatic loading capability to keep our pricing down.

We have in house design capability with the latest 3D modeling software to bring your tools to life. We can create tools from your drawings, sketches, samples or even tool characteristics. Get us as much information as you can and we will work with you to make a great tool for your application.

We are dedicated to customer service and quality and understand the price pressures machine shops and manufacturing companies are under. Take advantage of our expertise and low overhead to buy the highest quality tools at exceptionally good prices.

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Speeds and Feeds Table

Solid Carbide end mills provide the machine operator greater rigidity, a stronger cutting tooth and better resistance to heat than high speed steel. Because of these qualities it can be run at higher speeds or surface feet/minute (SFM). Softer materials such as Aluminum, Brass, Copper and Plastic should be run at higher SFM. Typically the finish of the material being milled can be improved by increasing the SFM. Slower speeds should be used to mill harder materials like Steel, Cast Iron, Tool Steels and Nickel based alloys such as Stainless Steel and Inconel.

Feed rates also vary by material as well as the diameter of the end mill and the number of teeth on the end mill. Peripheral milling is typically done at higher feed rates than slot milling. Softer materials can be milled at higher feed rates than hard materials. Typically feed rates should be increased to eliminate chatter.

The chart below shows starting speeds and feeds that we recommend for most commonly machined materials.

Material	Speed (SFM)	Feed Rate per Tooth		
		1/8 Dia	1/4 Dia	1/2 Dia
Aluminum Based Materials	800 to 1300	.001	.002	.004
Brass / Non-Malleable	400 to 800	.001	.002	.0035
Copper Based Materials	500 to 900	.001	.002	.0035
Cast Iron	200 to 450	.001	.002	.003
Cast Steel	250 to 400	.001	.002	.003
Nickel Based Materials/Inconel	100 to 250	.0005	.001	.002
Plastic Based Materials	750 to 1500	.002	.004	.006
Mild Steel	250 to 550	.00075	.001	.0025
Tool Steel	100 to 250	.0005	.0008	.0015
Stainless Steel	100 to 400	.0005	.001	.0018
Titanium Based Materials	70 to 150	.00025	.00045	.009

Common Formulas for Milling

Want to Figure	Parameters	Equation
SFM (Surface Feet/Minute	RPM & End Mill Diameter	RPM/3.82 x EM Dia = SFM
RPM (Revolutions/Minute)	SFM & EM Diameter	SFM x 3.82 / EM Dia = RPM
IPT (Inch/tooth Chipload)	IPM, # Flutes & IPM	IPM / RPM / # Flutes = IPT
IPM (Inches/Minute)	RPM, # Flutes & IPT	RPM x # Flutes x IPT = IPM
IPR	IPM, RPM	IPM/RPM = IPR
Chip Load	IPM, RPM, # of Flutes	IPM/ (RPM x # of Flutes)

Coating Information

Coating Category	Color	Application	Thick-ness in Microns	Micro-Hardness	Coefficient Of Friction	Oxidation Temp	Max. Working Temp	Process Temp
Titanium Nitride	Gold / Yellow	TiN coating is used on cutting tools, punches, dies and injection mold component to improve tool lifetime by a factor of three or more. It is well known for edge retentions and corrosion resistance and it is the ideal coating for application using expensive tooling such as injection molding and forming.	1-7	2200-2500	0.35	400° C / 750° F	660° C / 1220° F	375° C / 700 ° F
Titanium Carbo-Nitride	Blue-Gray	TiCN coating is the top choice for metal stamping, providing high abrasion resistance and a low coefficient due to its hardness with extreme toughness. It also prevents galling, seizing or cold welding, which provides and exceptional finish when cutting tough materials.	1-4	2800-3000	0.3	350° C / 670° F	450° C / 840° F	375° C / 700° F
Titanium Aluminum Nitride	Brown	TiAlN offers high temperature resistance which gives tools better life in high heat applications. The high-performance coating excels in abrasive and difficult-to-machine materials such as cast iron, aluminum alloys, tool steel, and nickel alloys.	1-4	3000-3300	0.35	660°C / 1100° F	800°C / 1470° F	375°C / 700° F
Aluminum Titanium Nitride	Black and Gray	AlTiN is one of the most abrasion resistant and hardest coating. It is ideal for dry cutting applications, machining high nickel alloys and hardened steel.	1-4	3000-3400	0.35	660°C / 1100° F	800° C / 1470° F	375° C / 700° F
Aluminum Chromium Nitride	Bright gray	AlCrN has advantages of higher heat resistance that AlTiN even under extreme mechanical stress. It also achieves a better adhesion and higher coating thickness than AlTiN that permits tooling to reach new performance levels.	1-4	3000-3200	0.35	900° C / 1650° F	1100° C / 2010° F	480° C / 900° F
Chromium Nitride	Silver Gray	As a combination of hardness and resistance, CrN is used as a coating material for corrosion resistance and in metal forming and plastic molding applications. The ability to endure conditions under high loads enables it to have the greatest adhesion and ductility of all PVD coatings. CrN is often used on medical implants and tools and is also a valuable component in advanced multicomponent coating system	1-7	1700-2000	0.15	500° C / 1020° F	600° C / 1110° F	375°C / 700° F
Zirconium Nitride	Light-Gold	Working well with non-ferrous materials, ZrN has the ability to reduce the build-up edge on cutting tools and leave a better surface finish on materials it machined. It is commonly used for medical devices, industrial parts (notably drill bits), automotive and aerospace components and other parts subject to high wear and corrosive environments.	1-4	2300-2500	0.35	400°C / 750° F	660° / 1100° F	375°C / 700° F

2 Flute End Mills for Soft Materials

For non-ferrous, softer materials such as Aluminum, Brass, Copper and Plastic, 2 flute end mills work well. Chip clearance is very high to prevent clogging. This end mill can be used to plunge, profile or ramp milling.

Our standard 2 flute tools come either uncoated or with a ZrN coating. We feel the ZrN coating is the most versatile and best performing coating for non-ferrous materials. It's more expensive than the typical TiN or TiCN coatings but we think it is worth it.

* *For BALLNOSE end mills enter a **B** as the last character in the part number. For example a 1/8" 2 flute uncoated end mill will have a part number or RCG2-125B.*
* *For CHAMFERED end mills enter a **C** as the last character in the part number. For example a 1/8" 2 flute uncoated end mill will have a part number or RCG2-125C. Standard Radius is .020". Any size can be requested.*
* **Z** at the end means **ZrN Coated**
(Coolant should be used on both uncoated and ZrN coated tools)

# of Flutes	Flute Dia	Shank Dia	OAL Length	Flute Length	Part Number
2	1/8	1/8	1-1/2	1/2	RCG2-125
2	1/8	1/8	1-1/2	1/2	RCG2-125Z
2	3/16	3/16	2	5/8	RCG2-187
2	3/16	3/16	2	5/8	RCG2-187Z
2	1/4	1/4	2-1/2	3/4	RCG2-250
2	1/4	1/4	2-1/2	3/4	RCG2-250Z
2	5/16	5/16	2-1/2	3/4	RCG2-312
2	5/16	5/16	2-1/2	3/4	RCG2-312Z
2	3/8	3/8	2-1/2	7/8	RCG2-375
2	3/8	3/8	2-1/2	7/8	RCG2-375Z
2	1/2	1/2	3	1	RCG2-500
2	1/2	1/2	3	1	RCG2-500Z

3 Flute End Mills for Multiple Applications

Our 3 flute end mills offer a great deal of flexibility because of the range of materials they cut well. It performs very well in the non-ferrous materials. It is also very effective in milling tool steels such as A2 and D2.

We offer the end mills uncoated, ZrN coated for softer materials and AlTiN for harder materials.

* *For CHAMFERED end mills enter a **C** as the last character in the part number. For example a 1/8" 3 flute uncoated end mill will have a part number or RCG3-125C. Standard Chamfer is .020". Any size can be requested.*
* *For Radius end mills enter an **R** as the last character in the part number. For example a 1/8" 3 flute uncoated end mill will have a part number or RCG3-125R. Standard Radius is .020". Any size can be requested.*
* **Z** at the end means **ZrN Coated**, **A** means **AlTiN Coated**
(Coolant should be used on both uncoated and ZrN coated tools)
(Coolant SHOULD NOT be used with AlTiN coated Tools)

# of Flutes	Flute Dia	Shank Dia	OAL Length	Flute Length	Part Number
3	1/8	1/8	1-1/2	1/2	RCG3-125
3	1/8	1/8	1-1/2	1/2	RCG3-125Z
3	1/8	1/8	1-1/2	1/2	RCG3-125A
3	3/16	3/16	2	5/8	RCG3-187
3	3/16	3/16	2	5/8	RCG3-187Z
3	3/16	3/16	2	5/8	RCG3-187A
3	1/4	1/4	2-1/2	3/4	RCG3-250
3	1/4	1/4	2-1/2	3/4	RCG3-250Z
3	1/4	1/4	2-1/2	3/4	RCG3-250A
3	5/16	5/16	2-1/2	3/4	RCG3-312
3	5/16	5/16	2-1/2	3/4	RCG3-312Z
3	5/16	5/16	2-1/2	3/4	RCG3-312A
3	3/8	3/8	2-1/2	7/8	RCG3-375
3	3/8	3/8	2-1/2	7/8	RCG3-375Z
3	3/8	3/8	2-1/2	7/8	RCG3-375A
3	1/2	1/2	3	1	RCG3-500
3	1/2	1/2	3	1	RCG3-500Z
3	1/2	1/2	3	1	RCG3-500A

4 Flute End Mills for Steel and Cast Iron

Our 4 flute end mills perform exceptionally well in most ferrous materials such as steel and cast iron. They also do well in plastics and hard bronze.

We offer the 4 flute end mills either uncoated or with an AlTiN coating. AlTiN offers excellent performance in harder materials and is great in high speed milling operations.

* *For BALLNOSE end mills enter a **B** as the last character in the part number. For example a 1/8" 4 flute uncoated end mill will have a part number or RCG4-125B.*
* *For CHAMFERED end mills enter a **C** as the last character in the part number. For example a 1/8" 4 flute uncoated end mill will have a part number or RCG4-125C. Standard Chamfer is .020". Any size can be requested.*
* *For Radius end mills enter an **R** as the last character in the part number. For example a 1/8" 4 flute uncoated end mill will have a part number or RCG4-125R. Standard Radius is .020". Any size can be requested.*
* **A** at the end means **AlTiN Coated**
(Coolant should be used on uncoated tools)
(Coolant SHOULD NOT be used on AlTiN coated tools)

# of Flutes	Flute Dia	Shank Dia	OAL Length	Flute Length	Part Number
4	1/8	1/8	1-1/2	1/2	RCG4-125
4	1/8	1/8	1-1/2	1/2	RCG4-125A
4	3/16	3/16	2	5/8	RCG4-187
4	3/16	3/16	2	5/8	RCG4-187A
4	1/4	1/4	2-1/2	3/4	RCG4-250
4	1/4	1/4	2-1/2	3/4	RCG4-250A
4	5/16	5/16	2-1/2	3/4	RCG4-312
4	5/16	5/16	2-1/2	3/4	RCG4-312A
4	3/8	3/8	2-1/2	7/8	RCG4-375
4	3/8	3/8	2-1/2	7/8	RCG4-375A
4	1/2	1/2	3	1	RCG4-500
4	1/2	1/2	3	1	RCG4-500A

6 Flute End Mills for Finishing

Our 6 flute end mills are recommended for finishing passes and can be run at increased speeds and feeds where a perfect finish is required.

We offer the 6 flute end mills either uncoated or with an AlTiN coating. AlTiN offers excellent performance in harder materials and is great in high speed milling operations.

* **A** at the end means **AlTiN Coated**
(Coolant should be used on uncoated tools)
(Coolant SHOULD NOT be used on AlTiN coated tools)

# of Flutes	Flute Dia	Shank Dia	OAL Length	Flute Length	Part Number
6	1/4	1/4	2-1/2	3/4	RCG6-250
6	1/4	1/4	2-1/2	3/4	RCG6-250A
6	5/16	5/16	2-1/2	3/4	RCG6-312
6	5/16	5/16	2-1/2	3/4	RCG6-312A
6	3/8	3/8	2-1/2	7/8	RCG6-375
6	3/8	3/8	2-1/2	7/8	RCG6-375A
6	1/2	1/2	3	1	RCG6-500
6	1/2	1/2	3	1	RCG6-500A

High Performance High Helix End Mills (45 Degree Helix Angle)

FACTooling's high performance line of end mills continues to grow. We are happy to discuss different flute counts and geometries with you to develop the perfect tool for your application. Our most commonly purchased High Helix end mill has been the 45 degree end mill. Because of that we have decided to add it to our catalog.

We offer the 2 and 3 flute high helix end mills with ZrN coating as well as 3 and 4 flute end mills with AlTiN coating. The flute geometry combined with the effect of the coatings can improve the performance dramatically of the end mill in the right application.

However, we can also offer you other high performance coatings that will improve the end mills performance in specific materials like Inconel, hastalloy and waspalloy (nACRo) and titanium and other aerospace based materials (nACVIc). Please call us to discuss your application and we can give you more information to help you find the right tool and the right coating to maximize your efficiency.

2 Flute High Helix End Mills

* *For CHAMFERED end mills enter a **C** as the last character in the part number. For example a 1/8" 2 flute uncoated end mill will have a part number or RCG2-125ZC. Standard Chamfer is .020". Any size can be requested.*
* *For Radius end mills enter an **R** as the last character in the part number. For example a 1/8" 2 flute uncoated end mill will have a part number or RCG2-125ZR. Standard Radius is .020". Any size can be requested.*
* **Z** at the end means **ZrN Coated**
(Coolant should be used on ZrN coated tools)

# of Flutes	Flute Dia	Shank Dia	OAL Length	Flute Length	Part Number
2	1/8	1/8	1-1/2	1/2	HH2-125Z
2	3/16	3/16	2	5/8	HH2-187Z
2	1/4	1/4	2-1/2	3/4	HH2-250Z
2	5/16	5/16	2-1/2	3/4	HH2-312Z
2	3/8	3/8	2-1/2	7/8	HH2-375Z
2	1/2	1/2	3	1	HH2-500Z

3 Flute High Helix End Mills for Non-ferrous and Soft Materials

* **Z** at the end means **ZrN Coated**
(Coolant should be used on ZrN coated tools)

# of Flutes	Flute Dia	Shank Dia	OAL Length	Flute Length	Part Number
3	1/8	1/8	1-1/2	1/2	HH3-125Z
3	3/16	3/16	2	5/8	HH3-187Z
3	1/4	1/4	2-1/2	3/4	HH3-250Z
3	5/16	5/16	2-1/2	3/4	HH3-312Z
3	3/8	3/8	2-1/2	7/8	HH3-375Z
3	1/2	1/2	3	1	HH3-500Z

3 Flute High Helix End Mills for Hard Materials

* **A** at the end means **AlTiN Coated**
(Coolant SHOULD NOT be used on AlTiN coated tools)

# of Flutes	Flute Dia	Shank Dia	OAL Length	Flute Length	Part Number
3	1/8	1/8	1-1/2	1/2	HH3-125A
3	3/16	3/16	2	5/8	HH3-187A
3	1/4	1/4	2-1/2	3/4	HH3-250A
3	5/16	5/16	2-1/2	3/4	HH3-312A
3	3/8	3/8	2-1/2	7/8	HH3-375A
3	1/2	1/2	3	1	HH3-500A

4 Flute High Helix End Mills for Hard Materials

* **A** at the end means **AlTiN Coated**
(Coolant SHOULD NOT be used on AlTiN coated tools)

# of Flutes	Flute Dia	Shank Dia	OAL Length	Flute Length	Part Number
4	1/8	1/8	1-1/2	1/2	HH4-125A
4	3/16	3/16	2	5/8	HH4-187A
4	1/4	1/4	2-1/2	3/4	HH4-250A
4	5/16	5/16	2-1/2	3/4	HH4-312A
4	3/8	3/8	2-1/2	7/8	HH4-375A
4	1/2	1/2	3	1	HH4-500A

Variable Helix and Variable Geometry End Mills

Similar to 5 flute end mills, variable helix and variable geometry end mills can enhance the performance of end mills in specific applications and materials. Our state of the art machinery and software is fully capable of grinding tools with variable flutes.

The variable helix design reduces chatter and harmonics on the end mill. This in turn improves the finish of the materials and increases the material removal rates. While our standard Variable Helix line has a 38 degree helix, with so many high tech alloys on the market with significantly different machining qualities we have made a choice to make application specific variable helix end mills on a per customer basis. This way we can maximize the efficiency of the tools for your needs rather than asking the customer to conform to the limitations of a "catalog" cutter. Our customers are pleasantly surprised to find our prices for specific application end mills rivals that of the standard catalog end mills. Delivery of these tools is typically 15 to 25 business days. Contact us by phone at 607-331-4834 or email FACTooling@gmail.com to discuss your end mill needs with one of our engineers.

* *For CHAMFERED end mills enter a **C** as the last character in the part number. For example a 1/8" 2 flute uncoated end mill will have a part number or RCG2-125ZC. Standard Chamfer is .020". Any size can be requested.*
* *For Radius end mills enter an **R** as the last character in the part number. For example a 1/8" 2 flute uncoated end mill will have a part number or RCG2-125ZR. Standard Radius is .020". Any size can be requested.*

3 Flute Variable Helix End Mills for Non-ferrous and Soft Materials

* **Z** at the end means **ZrN Coated**
(Coolant should be used on ZrN coated tools)

# of Flutes	Flute Dia	Shank Dia	OAL Length	Flute Length	Part Number
3	1/8	1/8	1-1/2	½	VH3-125Z
3	3/16	3/16	2	5/8	VH3-187Z
3	¼	¼	2-1/2	¾	VH3-250Z
3	5/16	5/16	2-1/2	¾	VH3-312Z
3	3/8	3/8	2-1/2	7/8	VH3-375Z
3	½	½	3	1	VH3-500Z

3 Flute Variable Helix End Mills for Hard Materials

* **A** at the end means **AlTiN Coated**
(Coolant SHOULD NOT be used on AlTiN coated tools)

# of Flutes	Flute Dia	Shank Dia	OAL Length	Flute Length	Part Number
3	1/8	1/8	1-1/2	½	VH3-125A
3	3/16	3/16	2	5/8	VH3-187A
3	¼	¼	2-1/2	¾	VH3-250A
3	5/16	5/16	2-1/2	¾	VH3-312A
3	3/8	3/8	2-1/2	7/8	VH3-375A
3	½	½	3	1	VH3-500A

4 Flute Variable Helix End Mills for Hard Materials

* **A** at the end means **AlTiN Coated**
(Coolant SHOULD NOT be used on AlTiN coated tools)

# of Flutes	Flute Dia	Shank Dia	OAL Length	Flute Length	Part Number
4	1/8	1/8	1-1/2	½	VH4-125A
4	3/16	3/16	2	5/8	VH4-187A
4	¼	¼	2-1/2	¾	VH4-250A
4	5/16	5/16	2-1/2	¾	VH4-312A
4	3/8	3/8	2-1/2	7/8	VH4-375A
4	½	½	3	1	VH4-500A

Special Application Carbide End Mills and Drills

5 Flute End Mills

5 flute end mills offer outstanding performance in many applications. Though not part of our catalog at the moment, we work closely with our customers to develop custom 5 flute end mills at prices close to that of our competitor's catalog end mills. Delivery of these tools is typically 15 to 25 business days.

Contact us by phone at 607-331-4834 or email FACTooling@gmail.com to discuss your end mill needs with one of our engineers.

Specific Application Drills

FACTooling's state of the art machines and software are capable of making virtually every combination of tips and drill fluting patterns available. You can choose the number of flutes you would like, define the point in many ways including taper, split point, 2, 4 or 6 facets, delta, S-point and M-point to name a few, define the helix from 0 degrees to 60 degrees and with steps or without. These drills are ready to be put to work in your high performance machines to maximize your efficiencies. Coatings can of course be added to improve tool life and performance as well.

Contact us by phone at 607-331-4834 or email FACTooling@gmail.com to discuss your end mill needs with one of our engineers.

Burrs

FACTooling offers a full line of the highest quality burrs in the business. We have a burr that will meet your needs in terms of material removal and finish. They are used from industries as refined as dentists offices and jewelers up to the heaviest manufacturing industries such as steel foundries and shipyards.

General Purpose Burrs

SINGLE AND DOUBLE CUT – We offer a complete line general purpose burrs in both single cut and double cut fluting patterns. These tools perform very well in most typical applications for carbide burrs.

NON-FERROUS (ALUMACUT) – These burrs have a specially designed wide fluting pattern to maximize clearance for chips being removed from soft materials such as aluminum, bronze, and plastics.

HEAVY INDUSTRIAL CUT – These tools is designed with a more aggressive flute/tooth pattern than the double cut and intended for applications where faster material removal rates are required and the finish is less important. These burrs are preferred by steel fabrication operations like shipyards and welding shops.

FOUNDRY CUT – Are burrs with an extremely aggressive flute/tooth pattern for heavy chip removal in metal foundries specifically.

Outstanding Non-Ferrous/Alucut Burrs

SA Series (Cylinder Shape)

The tools in the Yellow Highlight are tools typically on the shelf or in production. Non-highlighted tools are made based on demand.

* FOR METRIC SHANK TOOLS ADD AN **M** TO THE END OF THE PART NUMBER

Shank Diameter	Head Diameter	Length of Cut	Overall Length	Single Cut Part Number	Double Cut Part Number	Non-Ferrous Alumacut	Heavy Industrial Cut	Foundry Cut
3/32	1/16	1/4	1-1/2	SA-61	SA-61D			
3/32	3/32	3/8	1-1/2	SA-63	SA-63D			
1/8	1/16	1/4	1-1/2	SA-41	SA-41D			
1/8	1/16	1/4	2	SA-41L2	SA-41L2D			
1/8	3/32	7/16	3	SA-42L3	SA-42L3D			
1/8	1/8	9/16	1-1/2	SA-43	SA-43D			
1/8	1/8	9/16	2	SA-43L2	SA-43L2D			
1/8	1/8	9/16	3	SA-43L3	SA-43L3D			
1/8	5/32	1/2	2	SA-52	SA-52D			
1/8	3/16	1/2	1	SA-53	SA-53D			
1/8	1/4	1/2	2	SA-51	SA-51D			
3/16	3/16	1/2	2	SA-81	SA-81D			
1/4	1/8	1/2	2	SA-11	SA-11D			
1/4	1/8	5/8	2	SA-12	SA-12D			
1/4	5/32	5/8	2	SA-13	SA-13D			
1/4	3/16	5/8	2	SA-14	SA-14D			
1/4	1/4	5/8	2	SA-1	SA-1D	SA-1NF	SA-1HI	SA-1FC
1/4	1/4	1	2	SA-1L	SA-1LD			
1/4	5/16	3/4	2-1/2	SA-2	SA-2D			
1/4	3/8	3/4	2-1/2	SA-3	SA-3D	SA-3NF	SA-1HI	SA-3FC
1/4	3/8	1	2-1/2	SA-3L	SA-3LD			
1/4	3/8	1-1/2	3-1/4	SA-3X	SA-3XD			
1/4	7/16	1	2-3/4	SA-4	SA-4D			
1/4	1/2	1	2-3/4	SA-5	SA-5D	SA-5NF	SA-5HC	SA-5FC
1/4	5/8	1	2-3/4	SA-6	SA-6D	SA-6NF	SA-6HC	SA-6FC
1/4	3/4	1/2	2-3/4	SA-15	SA-15D			
1/4	3/4	3/4	2-3/4	SA-16	SA-16D			
1/4	3/4	1	2-3/4	SA-7	SA-7D			
1/4	7/8	1	2-3/4	SA-8	SA-8D			
1/4	1	1	2-3/4	SA-9	SA-9D			

Extended Shank Lengths 6”

The tools in the Yellow Highlight are tools typically on the shelf or in production. Non-highlighted tools are made based on demand.

* FOR METRIC SHANK TOOLS ADD AN **M** TO THE END OF THE PART NUMBER

Shank Diameter	Head Diameter	Length of Cut	Overall Length	Single Cut Part Number	Double Cut Part Number	Non-Ferrous Alumacut	Heavy Industrial Cut	Foundry Cut
1/4	1/4	1/2	6-1/2	SA-1L6	SA-1L6D			
1/4	3/8	1	6-3/4	SA-3L6	SA-3L6D	SA-3L6NF	SA-3L6HC	SA-3L6FC
1/4	1/2	1	7	SA-5L6	SA-5L6D	SA-5L6NF	SA-5L6HC	SA-5L6FC

SB Series (Cylinder with End Cut Shape)

The tools in the Yellow Highlight are tools typically on the shelf or short lead time. Non-highlighted tools are made based on demand.

* FOR METRIC SHANK TOOLS ADD AN **M** TO THE END OF THE PART NUMBER

Shank Diameter	Head Diameter	Length of Cut	Overall Length	Single Cut Part Number	Double Cut Part Number	Non-Ferrous Alumacut	Heavy Industrial Cut	Foundry Cut
1/8	1/16	1/4	1-1/2	SB-41	SB-41D			
1/8	1/16	1/4	2	SB-41L2	SB-41L2D			
1/8	1/16	1/4	3	SB-41L3	SB-41L3D			
1/8	3/32	7/16	1-1/2	SB-42	SB-42D			
1/8	3/32	7/16	2	SB-42L2	SB-42L2D			
1/8	3/32	7/16	3	SB-42L3	SB-42L3D			
1/8	1/8	9/16	1-1/2	SB-43	SB-43D			
1/8	1/8	9/16	2	SB-43L2	SB-43L2D			
1/8	1/8	9/16	3	SB-43L3	SB-43L3D			
1/8	1/4	3/16	1-11/16	SB-51	SB-51D			
1/4	1/8	1/2	2	SB-11	SB-11D			
1/4	5/32	5/8	2	SB-13	SB-13D			
1/4	3/16	5/8	2	SB-14	SB-14D			
1/4	1/4	5/8	2	SB-1	SB-1D	SB-1NF	SB-1HC	SB-FC
1/4	1/4	1	2	SB-1L	SB-1LD			
1/4	5/16	3/4	2-1/2	SB-2	SB-2D			
1/4	3/8	3/4	2-1/2	SB-3	SB-3D	SB-3NF	SB-3HC	SB-3FC
1/4	3/8	1	2-1/2	SB-3L	SB-3LD			
1/4	3/8	1-1/2	3-1/4	SB-3X	SB-3XD			
1/4	7/16	1	2-3/4	SB-4	SB-4D			
1/4	1/2	1	2-3/4	SB-5	SB-5D	SB-5NF	SB-5HC	SB-5FC
1/4	5/8	1	2-3/4	SB-6	SB-6D	SB-6NF	SB-6HC	SB-6FC
1/4	3/4	1/2	2-3/4	SB-15	SB-15D			
1/4	3/4	3/4	2-3/4	SB-16	SB-16D			
1/4	3/4	1	2-3/4	SB-7	SB-7D			
1/4	7/8	1	2-3/4	SB-8	SB-8D			
1/4	1	1	2-3/4	SB-9	SB-9D			

Extended Shank Lengths 6”

The tools in the Yellow Highlight are tools typically on the shelf or short lead time. Non-highlighted tools are made based on demand.

* FOR METRIC SHANK TOOLS ADD AN **M** TO THE END OF THE PART NUMBER

Shank Diameter	Head Diameter	Length of Cut	Overall Length	Single Cut Part Number	Double Cut Part Number	Non-Ferrous Alumacut	Heavy Industrial Cut	Foundry Cut
1/4	1/4	1/2	6-1/2	SB-1L6	SB-1L6D			
1/4	3/8	1	6-3/4	SB-3L6	SB-3L6D	SB-3L6NF	SB-3L6HC	SB-3L6FC
1/4	1/2	1	7	SB-5L6	SB-5L6D	SB-5L6NF	SB-5L6HC	SB-5L6FC

SC Series (Cylinder with Radius Shape)

The tools in the Yellow Highlight are tools typically on the shelf or short lead time. Non-highlighted tools are made based on demand.

* FOR METRIC SHANK TOOLS ADD AN **M** TO THE END OF THE PART NUMBER

Shank Diameter	Head Diameter	Length of Cut	Overall Length	Single Cut Part Number	Double Cut Part Number	Non-Ferrous Alumacut	Heavy Industrial Cut	Foundry Cut
3/32	3/32	3/8	1-1/2	SC-61	SC-61D			
1/8	3/32	7/16	1-1/2	SC-41	SC-41D			
1/8	1/8	9/16	1-1/2	SC-42	SC-42D			
1/8	1/8	9/16	2	SC-42L2	SC-42L2D			
1/8	1/8	9/16	3	SC-42L3	SC-42L3D			
1/8	5/32	1/2	2	SC-52	SC-52D			
1/8	3/16	1/2	2	SC-53	SC-53D			
1/8	1/4	1/2	2	SC-51	SC-51D			
3/16	3/16	1/2	2	SC-81	SC-81D			
1/4	1/8	1/2	2	SC-11	SC-11D			
1/4	1/8	5/8	2	SC-12	SC-12D			
1/4	5/32	5/8	2	SC-13	SC-13D			
1/4	3/16	5/8	2	SC-14	SC-14D			
1/4	1/4	5/8	1-3/4	SC-1	SC-1D	SC-1NF	SC-1HC	SC-1FC
1/4	1/4	1	1-3/4	SC-1L	SC-1LD			
1/4	5/16	3/4	2-1/2	SC-2	SC-2D			
1/4	3/8	3/4	2-1/2	SC-3	SC-3D	SC-3NF	SC-3HC	SC-3FC
1/4	3/8	1	2-1/2	SC-3L	SC-3LD			
1/4	3/8	1-1/2	3-1/4	SC-3X	SC-3XD			
1/4	7/16	1	2-3/4	SC-4	SC-4D			
1/4	1/2	1	2-3/4	SC-5	SC-5D	SC-5NF	SC-5HC	SC-5FC
1/4	5/8	1	2-3/4	SC-6	SC-6D	SC-6NF	SC-6HC	SC-6FC
1/4	3/4	1/2	2-3/4	SC-15	SC-15D			
1/4	3/4	3/4	2-3/4	SC-16	SC-16D			
1/4	3/4	1	2-3/4	SC-7	SC-7D			
1/4	1	1	2-3/4	SC-9	SC-9D			

Extended Shank Lengths

The tools in the Yellow Highlight are tools typically on the shelf or short lead time. Non-highlighted tools are made based on demand.

* FOR METRIC SHANK TOOLS ADD AN **M** TO THE END OF THE PART NUMBER

Shank Diameter	Head Diameter	Length of Cut	Overall Length	Single Cut Part Number	Double Cut Part Number	Non-Ferrous Alumacut	Heavy Industrial Cut	Foundry Cut
1/4	1/4	1/2	6-1/2	SC-1L6	SC-1L6D			
1/4	3/8	3/4	6-3/4	SC-3L6	SC-3L6D	SC-3L6NF	SC-3L6HC	SC-3L6FC
1/4	1/2	1	7	SC-5L6	SC-5L6D	SC-5L6NF	SC-5L6HC	SC-5L6FC

SD Series (Ball Shape)

The tools in the Yellow Highlight are tools typically on the shelf or short lead time. Non-highlighted tools are made based on demand.

* FOR METRIC SHANK TOOLS ADD AN **M** TO THE END OF THE PART NUMBER

Shank Diameter	Head Diameter	Length of Cut	Overall Length	Single Cut Part Number	Double Cut Part Number	Non-Ferrous Alumacut	Heavy Industrial Cut	Foundry Cut
3/32	3/32	3/32	1-1/2	SD-61	SD-61D			
1/8	3/32	3/32	1-1/2	SD-41	SD-41D			
1/8	1/8	1/8	1-1/2	SD-42	SD-42			
1/8	1/8	1/8	2	SD-42L2	SD-42L2D			
1/8	1/8	1/8	3	SD-42L3	SD-42L3D			
1/8	3/16	3/16	1-11/16	SD-53	SD-53D			
1/8	1/4	7/32	1-11/16	SD-51	SD-51D			
3/16	3/16	5/32	2	SD-81	SD-81D			
1/4	1/8	3/32	2	SD-11	SD-11D			
1/4	3/16	1/8	2	SD-14	SD-14D			
1/4	1/4	7/32	2	SD-1	SD-1D	SD-1NF	SD-1HC	SD-1FC
1/4	5/16	1/4	2-1/32	SD-2	SD-2D			SD-2FC
1/4	3/8	5/16	2-5/64	SD-3	SD-3D	SD-3NF	SD-3HC	SD-3FC
1/4	7/16	3/8	2-9/64	SD-4	SD-4D			SD-4FC
1/4	1/2	7/16	2-13/64	SD-5	SD-5D	SD-5NF	SD-5HC	SD-5FC
1/4	5/8	9/16	2-5/16	SD-6	SD-6D	SD-6NF	SD-6HC	SD-6FC
1/4	3/4	11/16	2-7/16	SD-7	SD-7D			
1/4	1	15/16	2-11/16	SD-9	SD-9D			

Extended Length Shanks 6”

The tools in the Yellow Highlight are tools typically on the shelf or short lead time. Non-highlighted tools are made based on demand.

* FOR METRIC SHANK TOOLS ADD AN **M** TO THE END OF THE PART NUMBER

Shank Diameter	Head Diameter	Length of Cut	Overall Length	Single Cut Part Number	Double Cut Part Number	Non-Ferrous Alumacut	Heavy Industrial Cut	Foundry Cut
1/4	1/4	7/32	6-7/32	SD-1L6	SD-1L6D			
1/4	3/8	3/8	6-3/8	SD-L36	SD-3L6D	SD-3L6NF	SD-3L6HC	SD-3L6FC
1/4	1/2	1/2	6-1/2	SD-5L6	SD-5L6D	SD-5L6NF	SD-5L6HC	SD-5L6FC

SE Series (Oval or Egg Shape)

The tools in the Yellow Highlight are tools typically on the shelf or short lead time. Non-highlighted tools are made based on demand.

* FOR METRIC SHANK TOOLS ADD AN **M** TO THE END OF THE PART NUMBER

Shank Diameter	Head Diameter	Length of Cut	Overall Length	Single Cut Part Number	Double Cut Part Number	Non-Ferrous Alumacut	Heavy Industrial Cut	Foundry Cut
3/32	3/32	1/8	1-1/2	SE-61	SE-61D			
1/8	1/8	7/32	1-1/2	SE-41	SE-41D			
1/8	1/8	7/32	2	SE-41L2	SE-41L2D			
1/8	1/8	7/32	3	SE-41L3	SE-41L3D			
1/8	3/16	9/32	1-78	SE-53	SE-53D			
1/8	1/4	3/8	1-7/8	SE-51	SE-51D			
3/16	3/16	9/32	2	SE-81	SE-81D			
1/4	3/16	5/16	2	SE-11	SE-11D			
1/4	1/4	3/8	2	SE-1	SE-1D	SE-1NF	SE-1HC	SE-1FC
1/4	3/8	5/8	2-3/8	SE-3	SE-3D	SE-3NF	SE-3HC	SE-3FC
1/4	1/2	7/8	2-5/8	SE-5	SE-5D	SE-5NF	SE-5HC	SE-5FC
1/4	5/8	1	2-3/4	SE-6	SE-6D	SE-6NF	SE-6HC	SE-6FC
1/4	3/4	1	2-3/4	SE-7	SE-7D			

Extended Shank Lengths 6”

The tools in the Yellow Highlight are tools typically on the shelf or short lead time. Non-highlighted tools are made based on demand.

* FOR METRIC SHANK TOOLS ADD AN **M** TO THE END OF THE PART NUMBER

Shank Diameter	Head Diameter	Length of Cut	Overall Length	Single Cut Part Number	Double Cut Part Number	Non-Ferrous Alumacut	Heavy Industrial Cut	Foundry Cut
1/4	1/4	3/8	6-3/8	SE-1L6	SE-1L6D			
1/4	3/8	5/8	6-5/8	SE-3L6	SE-3L6D	SE-3L6NF	SE-3L6HC	SE-3L6FC
1/4	1/2	7/8	6-7/8	SE-5L6	SE-5L6D	SE-5L6NF	SE-5L6HC	SE-5LFC

SF Series (Tree Radius Shape)

The tools in the Yellow Highlight are tools typically on the shelf or short lead time. Non-highlighted tools are made based on demand.

* FOR METRIC SHANK TOOLS ADD AN **M** TO THE END OF THE PART NUMBER

Shank Diameter	Head Diameter	Length of Cut	Overall Length	Single Cut Part Number	Double Cut Part Number	Non-Ferrous Alumacut	Heavy Industrial Cut	Foundry Cut
3/32	3/32	1/4	1-1/2	SF-61	SF-61D			
1/8	1/8	1/4	1-1/2	SF-41	SF-41D			
1/8	1/8	1/2	1-1/2	SF-42	SF-42D			
1/8	1/8	1/2	2	SF-42L2	SF-42L2D			
1/8	1/8	1/2	3	SF-42L3	SF-42L3D			
1/8	3/16	1/2	2	SF-53	SF-53D			
1/8	1/4	1/2	2	SF-51	SF-51D			
3/16	3/16	1/2	2	SF-81	SF-81D			
1/4	1/8	1/2	2	SF-11	SF-11D			
1/4	1/4	5/8	2	SF-1	SF-1D	SF-1NF	SF-1HC	SF-1FC
1/4	3/8	3/4	2-1/2	SF-3	SF-3D	SF-3NF	SF-3HC	SF-3FC
1/4	7/16	1	2-3/4	SF-4	SF-4D			SF-3FC
1/4	1/2	3/4	2-1/2	SF-13	SF-13D			
1/4	1/2	1	2-3/4	SF-5	SF-5D	SF-5NF	SF-5HC	SF-5FC
1/4	5/8	1	2-3/4	SF-6	SF-6D	SF-6NF	SF-6HC	SF-6FC
1/4	3/4	1	2-3/4	SF-7	SF-7D			
1/4	3/4	1-1/4	3	SF-14	SF-14D			
1/4	3/4	1-1/2	3	SF-15	SF-15D			

Extended Shank Lengths 6”

The tools in the Yellow Highlight are tools typically on the shelf or short lead time. Non-highlighted tools are made based on demand.

* FOR METRIC SHANK TOOLS ADD AN **M** TO THE END OF THE PART NUMBER

Shank Diameter	Head Diameter	Length of Cut	Overall Length	Single Cut Part Number	Double Cut Part Number	Non-Ferrous Alumacut	Heavy Industrial Cut	Foundry Cut
1/4	1/4	1/2	6-1/2	SF-1L6	SF-1L6D			
1/4	3/8	3/4	6-3/4	SF-3L6	SF-3L6D	SF-3L6NF	SF-3L6HC	SF-3L6FC
1/4	1/2	1	7	SF-5L6	SF-5L6D	SF-5L6NF	SF-5L6HC	SF-5L6FC

SG Series (Tree Point Shank)

The tools in the Yellow Highlight are tools typically on the shelf or short lead time. Non-highlighted tools are made based on demand.

* FOR METRIC SHANK TOOLS ADD AN **M** TO THE END OF THE PART NUMBER

Shank Diameter	Head Diameter	Length of Cut	Overall Length	Single Cut Part Number	Double Cut Part Number	Non-Ferrous Alumacut	Heavy Industrial Cut	Foundry Cut
3/32	3/32	1/4	1-1/2	SG-61	SG-61D			
1/8	1/8	1/4	1-1/2	SG-41	SG-41D			
1/8	1/8	5/16	1-1/2	SG-42	SG-42D			
1/8	1/8	3/8	1-1/2	SG-43	SG-43D			
1/8	1/8	1/2	1-1/2	SG-44	SG-44D			
1/8	1/8	1/2	2	SG-44L2	SG-44L2D			
1/8	1/8	1/2	3	SG-44L3	SG-44L3D			
1/8	3/16	1/2	2	SG-53	SG-53D			
1/8	1/4	1/2	2	SG-51	SG-51D			
3/16	3/16	1/2	2	SG-81	SG-81D			
1/4	1/4	5/8	2	SG-1	SG-1D			SG-1FC
1/4	5/16	3/4	2-1/2	SG-2	SG-2D			
1/4	3/8	3/4	2-1/2	SG-3	SG-3D			SG-3FC
1/4	1/2	3/4	2-1/2	SG-13	SG-13D			
1/4	1/2	1	2-3/4	SG-5	SG-5D			SG-5NC
1/4	5/8	1	2-3/4	SG-6	SG-6D			
1/4	3/4	1	2-3/4	SG-7	SG-7D			
1/4	3/4	1-1/2	3-1/4	SG-15	SG-15D			

Extended Shank Length 6”

The tools in the Yellow Highlight are tools typically on the shelf or short lead time. Non-highlighted tools are made based on demand.

* FOR METRIC SHANK TOOLS ADD AN **M** TO THE END OF THE PART NUMBER

Shank Diameter	Head Diameter	Length of Cut	Overall Length	Single Cut Part Number	Double Cut Part Number	Non-Ferrous Alumacut	Heavy Industrial Cut	Foundry Cut
1/4	1/4	1/2	6-1/2	SG-1L6	SG-1L6D			
1/4	3/8	3/4	6-3/4	SG-3L6	SG-3L6D			SG-3L6FC
1/4	1/2	1	7	SG-5L6	SG-5L6D			SG-5L6FC

SH Series (Flame Shape)

The tools in the Yellow Highlight are tools typically on the shelf or short lead time. Non-highlighted tools are made based on demand.

* FOR METRIC SHANK TOOLS ADD AN **M** TO THE END OF THE PART NUMBER

Shank Diameter	Head Diameter	Length of Cut	Overall Length	Single Cut Part Number	Double Cut Part Number	Non-Ferrous Alumacut	Heavy Industrial Cut	Foundry Cut
1/8	1/8	1/4	1-1/2	SH-41	SH-41D			
1/8	1/8	1/4	2	SH-41L2	SH-41L2D			
1/8	1/8	1/4	3	SH—41L3	SH-41L3D			
1/8	3/16	3/8	2	SH-53	SH-53D			
1/4	1/4	5/8	2	SH-1	SH-1D			SH-1FC
1/4	5/16	3/4	2-1/2	SH-2	SH-2D			SH-2FC
1/4	1/2	1-1/4	3	SH-5	SH-5D	SH-5NF	SH-5HC	SH-5FC
1/4	5/8	1-7/16	3-3/16	SH-6	SH-6D			
1/4	3/4	1-5/8	3-3/8	SH-7	SH-7D			

Extended Shank Lengths 6”

The tools in the Yellow Highlight are tools typically on the shelf or short lead time. Non-highlighted tools are made based on demand.

* FOR METRIC SHANK TOOLS ADD AN **M** TO THE END OF THE PART NUMBER

Shank Diameter	Head Diameter	Length of Cut	Overall Length	Single Cut Part Number	Double Cut Part Number	Non-Ferrous Alumacut	Heavy Industrial Cut	Foundry Cut
1/4	5/16	3/4	6-3/4	SH-2L6	SH-2L6D			SH-2L6FC
1/4	1/2	1-1/4	7-1/4	SH-5L6	SH-5L6D	SH-5L6NF		SH-5L6FC

SJ Series (60° included angle)

The tools in the Yellow Highlight are tools typically on the shelf or short lead time. Non-highlighted tools are made based on demand.

* FOR METRIC SHANK TOOLS ADD AN **M** TO THE END OF THE PART NUMBER

Shank Diameter	Head Diameter	Length of Cut	Overall Length	Single Cut Part Number	Double Cut Part Number	Non-Ferrous Alumacut	Heavy Industrial Cut	Foundry Cut
1/8	1/8	3/32	1-1/2	SJ-42	SJ-42D			
1/4	1/4	3/16	2	SJ-1	SJ-1D			
1/4	3/8	5/16	2-3/16	SJ-3	SJ-3D			
1/4	1/2	7/16	2-19/64	SJ-5	SJ-5D			
1/4	5/8	9/16	2-5/16	SJ-6	SJ-6D			
1/4	3/4	11/16	2-7/16	SJ-7	SJ-7D			
1/4	1	15/16	2-11/16	SJ-9	SJ-9D			

SK Series (90° included angle)

The tools in the Yellow Highlight are tools typically on the shelf or short lead time. Non-highlighted tools are made based on demand.

* FOR METRIC SHANK TOOLS ADD AN **M** TO THE END OF THE PART NUMBER

Shank Diameter	Head Diameter	Length of Cut	Overall Length	Single Cut Part Number	Double Cut Part Number	Non-Ferrous Alumacut	Heavy Industrial Cut	Foundry Cut
1/8	1/8	1/16	1-1/2	SK-42	SK-42D			
1/4	1/4	1/8	2	SK-1	SK-1D			
1/4	3/8	3/16	2-1/16	SK-3	SK-3D			
1/4	1/2	1/4	2-1/8	SK-5	SK-5D			
1/4	3/4	3/8	2-1/4	SK-7	SK-7D			
1/4	1	1/2	2-1/4	SK-9	SK-9D			

SL Series (14° Cone Radius End Shape)

The tools in the Yellow Highlight are tools typically on the shelf or short lead time. Non-highlighted tools are made based on demand.

* FOR METRIC SHANK TOOLS ADD AN **M** TO THE END OF THE PART NUMBER

Shank Diameter	Head Diameter	Length of Cut	Overall Length	Single Cut Part Number	Double Cut Part Number	Non-Ferrous Alumacut	Heavy Industrial Cut	Foundry Cut
1/8	1/8	3/8	1-1/2	SL-41	SL-41D			
1/8	1/8	1/2	1-1/2	SL-42	SL-42D			
1/8	1/8	1/2	2	SL-42L2	SL-42L2D			
1/8	1/8	1/2	3	SL-42L3	SL-42L3D			
1/8	3/16	1/2	2	SL-53	SL-53D			
3/16	3/16	7/16	2	SL-81	SL-81D			
1/4	1/4	5/8	2	SL-1	SL-1D	SL-1NF	SL-1HC	SL-1FC
1/4	5/16	7/8	2-3/4	SL-2	SL-2D	SL-2NF	SL-2HC	SL-2FC
1/4	3/8	1-1/16	2-15/16	SL-3	SL-3D	SL-3NF	SL-3HC	SL-3FC
1/4	1/2	1-1/8	3	SL-4	SL-4D	SL-4NF	SL-4HC	SL-4FC
1/4	5/8	1-3/16	3-1/16	SL-5	SL-5D			
1/4	5/8	1-5/16	3-3/16	SL-6	SL-6D			
1/4	3/4	1-1/2	3-3/8	SL-7	SL-7D			

Extended Shank Lengths 6”

The tools in the Yellow Highlight are tools typically on the shelf or short lead time. Non-highlighted tools are made based on demand.

* FOR METRIC SHANK TOOLS ADD AN **M** TO THE END OF THE PART NUMBER

Shank Diameter	Head Diameter	Length of Cut	Overall Length	Single Cut Part Number	Double Cut Part Number	Non-Ferrous Alumacut	Heavy Industrial Cut	Foundry Cut
1/4	1/4	5/8	6-5/8	SL-1L6	SL-1L6D			
1/4	3/8	1-1/16	7-1/16	SL-3L6	SL-3L6D	SL-3L6NF	SL-3L6HC	SL-3L6FC
1/4	1/2	1-1/8	7-1/8	SL-4L6	SL-4L6D	SL-4L6NF	SL-4L6HC	SL-4-6FC

SM Series (Pointed Cone Shape)

The tools in the Yellow Highlight are tools typically on the shelf or short lead time. Non-highlighted tools are made based on demand.

* FOR METRIC SHANK TOOLS ADD AN **M** TO THE END OF THE PART NUMBER

Shank Diameter	Head Diameter	Length of Cut	Overall Length	Single Cut Part Number	Double Cut Part Number	Non-Ferrous Alumacut	Heavy Industrial Cut	Foundry Cut
3/32	3/32	1/4	1-1/2	SM-61	SM-61D			
1/8	1/8	11/32	1-1/2	SM-41	SM-41D			
1/8	1/8	7/16	1-1/2	SM-42	SM-42D			
1/8	1/8	7/16	2	SM-42L2	SM-42L2D			
1/8	1/8	7/16	3	SM-42L3	SM-42L3D			
1/8	1/8	5/8	1-1/2	SM-43	SM-43D			
1/8	3/16	1/2	2	SM-53	SM-53D			
1/8	1/4	1/2	2	SM-51	SM-51D			
1/4	1/4	1/2	2	SM-1	SM-1D			
1/4	1/4	3/4	2	SM-2	SM-2D			
1/4	1/4	1	2	SM-3	SM-3D			
1/4	3/8	5/8	2-1/2	SM-4	SM-4D			
1/4	1/2	7/8	2-3/4	SM-5	SM-5D			
1/4	5/8	1	2-7/8	SM-6	SM-6D			

SN Series (Inverted Taper Shape)

The tools in the Yellow Highlight are tools typically on the shelf or short lead time. Non-highlighted tools are made based on demand.

* FOR METRIC SHANK TOOLS ADD AN **M** TO THE END OF THE PART NUMBER

Shank Diameter	Head Diameter	Length of Cut	Overall Length	Single Cut Part Number	Double Cut Part Number	Non-Ferrous Alumacut	Heavy Industrial Cut	Foundry Cut
3/32	3/32	1/8	1-1/2	SN-61	SN-61D			
1/8	3/32	1/8	1-1/2	SN-41	SN-41D			
1/8	1/8	3/16	1-1/2	SN-42	SN-42D			
1/8	3/16	1/4	1-3/4	SN-53	SN-53D			
1/8	1/4	1/4	1-3/4	SN-51	SN-51D			
3/16	3/16	1/4	2	SN-61	SN-61D			
1/4	1/4	5/16	2	SN-1	SN-1D			
1/4	3/8	3/8	2-1/8	SN-2	SN-2D			
1/4	1/2	1/2	2-1/4	SN-4	SN-4D			
1/4	5/8	3/4	2-1/2	SN-6	SN-6D			
1/4	3/4	5/8	2-3/8	SN-7	SN-7D			

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FACTooling, LLC
1250 Schweizer Road
Horseheads, NY 14845

www.factooling.com
607-331-4834