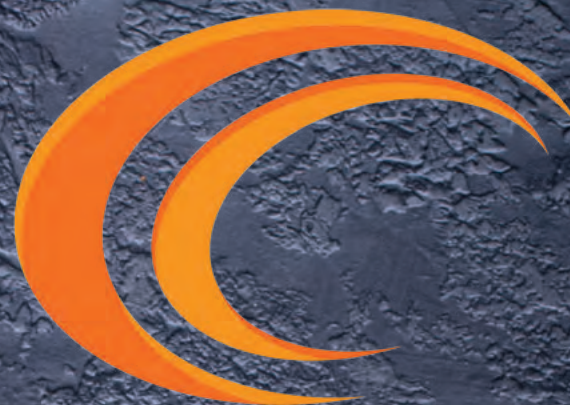




CORE CUTTER
SOLID CARBIDE CUTTING TOOLS

**Core Cutter, LLC • 362 Maine Avenue
Farmingdale, ME 04344**

**T: (207) 588-7519 • F: (207) 588-7614
www.corecutterusa.com**



Check Out What's New:

- **Added Over 900 Reduced Neck Options**
- **NEW! Customizable Long Reach Reduced Neck Blanks, Custom LBS at Time of Order**
- **NEW! 1" LOC Option for 1/4" Diameter**
- **NEW! .090 Radius Additions**
- **NEW! 60°, 82°, 100°, and 120° Chamfer Mill Series**
- **NEW Item EDPs are highlighted**

About Us

Core Cutter, LLC is a family owned and operated high performance carbide cutting tool manufacturer located in Farmingdale, Maine. We manufacture a variety of standard, modified and custom-made solid carbide tooling with fast turnaround from print to ship. We are honored to have the opportunity to present you with the fundamentals of our company:

Our Promise: We are committed to outstanding customer service and superior product quality. We promise to continually meet or exceed your expectations in all aspects of the cutting tool industry.

Our Team: The Core Cutter Family consists of exceptionally skilled engineers, machine operators, quality inspectors, technical support and customer service professionals. We are dedicated to providing you with 100% customer satisfaction from start to finish.

Our Focus: In order to continually meet our customers' needs, we remain focused on continual improvement in all aspects of carbide tool manufacturing. We are fueled by a passion for innovation, motivating us to design better tools, better processes and creative solutions to our customers' machining needs.

We look forward to being of service to you and your team.



James R. Graham, President/Owner

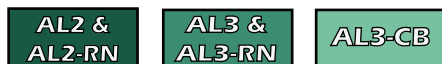


Catalog Offering

AL2 & AL2-RN		Page 9	2 Flute End Mill for Non-Ferrous Applications Hard Carbon Coated & Uncoated Options
AL3 & AL3-RN		Page 18	3 Flute End Mill for Non-Ferrous Applications Hard Carbon Coated & Uncoated Options
AL3-CB		Page 29	3 Flute Rougher for Non-Ferrous Applications Staggered Chipbreakers, Coated & Uncoated
QTR3		Page 31	3 Flute for Non-Ferrous & Ferrous Applications Miniature on 1/4" Shank, Alcrona Pro Coated, Variable Helix
VST4 & VST4-RN		Page 34	4 Flute End Mill for Ferrous Applications Latuma Coated, Variable Pitch
VST4-CB		Page 45	4 Flute Rougher for Ferrous Applications Staggered Chipbreakers, Latuma Coated, Variable Pitch
FEM5		Page 47	5 Flute Finisher for Ferrous Applications Latuma Coated, Square End Finisher
VST5 & VST5-RN		Page 49	5 Flute End Mill for Ferrous Applications Alcrona Pro Coated, Variable Pitch
VST5-CB		Page 60	5 Flute Rougher for Ferrous Applications Staggered Chipbreakers, Alcrona Pro Coated, Variable Pitch
VMF		Page 62	Multi-Flute End Mill for Ferrous Applications C-Max Coated, High Speed, Variable Pitch
VMF-CB		Page 64	Multi-Flute Rougher for Ferrous Applications Staggered Chipbreakers, C-Max Coated, Variable Pitch
CMS		Page 66	Straight Flute 60°, 90° & 120° Chamfer Mill Alcrona Pro Coated, 2 & 4 Flute Options
CMH		Page 68	Helical Flute 60°, 82°, 90°, 100° & 120° Chamfer Mill Alcrona Pro Coated, 2, 3 & 5 Flute Options

A Guide to Tool Coatings

Hard Carbon



A thin, dark black, smooth coating with a high hardness level. Hard Carbon's properties make it ideal for machining aluminum and other non-ferrous metals, while providing exceptional wear protection and allowing the tool to maintain a sharper cutting edge. Known as a DLC (Diamond Like Coating), Hard Carbon has a high thermal stability resulting in longer tool life.

Latuma



Dark grey in appearance, this coating has a high aluminum content, allowing superior oxidation resistance and hot hardness. Latuma is ideal for wet and dry machining of ferrous metals, and is designed to allow for higher cutting speeds and feed rates.

Alcrona Pro



Light grey in appearance, Alcrona Pro has a modified layer structure that allows for a broad range of applications. This versatile coating provides excellent wear resistance, thermal shock stability and hot hardness. Ideal for both wet and dry machining, Alcrona Pro is designed for high cutting speeds in ferrous metals.

C-Max



Dark grey with violet gradations, this coating provides optimum adhesion with a superior smooth finish, two key factors in optimizing edge strength. Used in high temperature applications on ferrous and hardened metals, C-Max maintains high thermal shock stability and wear protection that surpasses the competition. This proprietary Silicon infused coating is proven for durability and extended tool life.

Our Capabilities



Core Cutter is proud to offer a wide variety of carbide cutting tool services including, but not limited to: Design, Manufacture, Inspection, Edge Preparation, Tool Coatings and more. We are confident our tooling will exceed your expectations and improve productivity by reducing cycle time and increasing tool life. We design all of our products to perform at the highest level of machining in all applications. We specialize in quick deliveries on all standard, reconditioned and custom-made tooling.

Machinery:

CNC 5-Axis Tool & Cutter Grinders:

Walter Visions w/ Loaders

Walter Powers w/ Loaders

Schneeberger Gemini



Edge Preparation:

BelAir Drag Finishing Machines





Laser Marking:

Cobalt Dominator

Manual / NC Grinders:

Super Tec Cylindrical

Myford Cylindrical

#2 Cincinnati Grinders

Harig Surface Grinders

Tru-Tech Revolution Grinder

Inspection Equipment:

Walter Helicheck Pro

Flexbar Video Inspection

Jones & Lamson PC-14

Optical Comparators

Mitutoyo Optical
Comparator



Coatings:

We use Oerlikon Balzers® for all tool coatings. With pick up and drop off services every Monday, Wednesday and Friday, the turnaround for coated tools is convenient and fast. Our primary coating offerings are BALINIT ALCRONA PRO™ (Alcrona Pro), BALINIT LATUMA™ (Latuma, traditionally known as AlTiN) for ferrous materials, and BALINIT HARD CARBON™ (Hard Carbon) for non-ferrous materials. We are excited to offer the new C-MAX Coating, designed for the toughest milling applications. C-MAX now comes standard on our VMF Series End Mills.

Custom-Made Tooling

At Core Cutter, we understand that timing is everything. In this fast-paced industry, we pull ahead of the competition with our **quick turnaround** of custom-made tooling. From end mills, drills and form tools, to dovetails, countersinks and reamers, we specialize in top quality, high performance carbide tooling of all shapes and sizes.

Need assistance with a specific application? Our engineers are experienced in recommending, designing and building a variety of custom tailored tools to meet your machining needs. We are qualified to help you step by step through the troubleshooting, designing and manufacturing processes.

Need it fast? We are committed to providing the fastest possible deliveries, leading the industry in on-time order fulfillment. Custom-made tooling is quoted same day, whenever possible, eliminating unnecessary or lengthy manufacturing delays.

Guaranteed top quality. We are driven by our passion for excellence in all areas of tool manufacturing. We strictly use high quality carbide material, superior industry coatings and proven finishing processes, ensuring you always receive an exceptional, high performance product.



Tool Reconditioning & Modifications

We understand the importance of tool **value and cost savings**. One of the best ways to reduce machining costs is to recondition your used carbide tooling. However, it is essential to ensure that all of your reconditioned tooling maintains the same high quality performance and repeatability that you need. At Core Cutter, we provide factory reconditioning that will hold up to your most stringent demands.

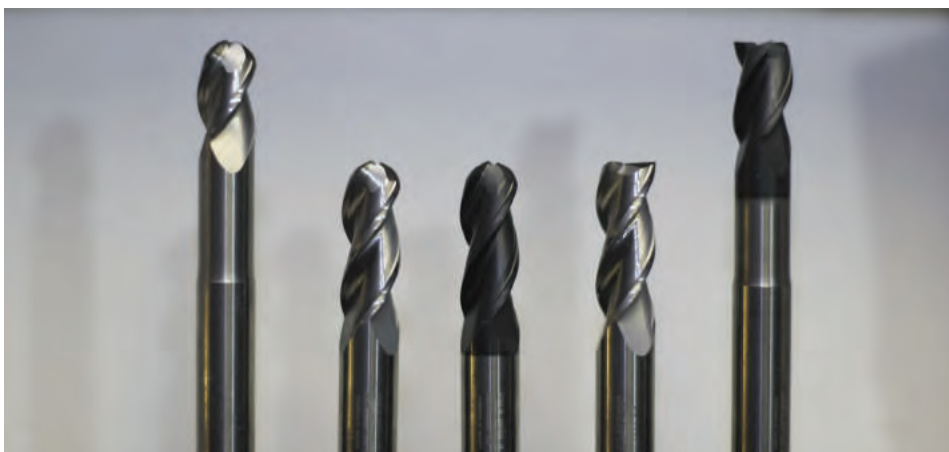
Looking for quality reconditioning?

Tool performance is our number one priority. We condition your tooling to the original manufacturer specifications and extend tool life with our edge prep process and superior industry coatings.

Need a modified tool?

Whether you are adding a corner radius, Weldon flat, or a custom alteration, let Core Cutter assist you in providing precision modified tooling that will stand up in the toughest applications.

Need it fast? We know that in order for you to be successful, you need to receive your reconditioned tooling as quickly as possible. We have created an easy-to-use standard tool reconditioning order form, in order to expedite the requisition process. In addition, we have dedicated on-site machinery, reserved for reconditioned and modified tooling as a priority. We are committed to providing the fastest deliveries possible to ensure that you always have what you need.



Standard Catalog Offering

Non- Ferrous AL2 & AL2-RN Series



SERIES: AL2

2 Flute, Aluminum & Non-Ferrous, Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	DESCRIPTION	STOCK CODE	UNCOATED EDP#	STOCK CODE	HARD CARBON EDP#
1/8"	1/8	1/4	1 1/2	2	SQ	AL2-S-0125-SQ	A	210000	A	210001
	1/8	1/4	1 1/2	2	0.015	AL2-S-0125-R015	A	210010	A	210011
	1/8	1/4	1 1/2	2	0.063	AL2-S-0125-R063 (BALL)	A	210040	A	210041
	1/8	3/8	2	2	SQ	AL2-SR-0125-SQ	A	210100	A	210101
	1/8	3/8	2	2	0.015	AL2-SR-0125-R015	B	210110	D	210111
	1/8	3/8	2	2	0.063	AL2-SR-0125-R063 (BALL)	A	210140	A	210141
	1/8	1/2	2 1/2	2	SQ	AL2-R-0125-SQ	A	210200	A	210201
	1/8	1/2	2 1/2	2	0.015	AL2-R-0125-R015	B	210210	D	210211
	1/8	1/2	2 1/2	2	0.063	AL2-R-0125-R063 (BALL)	A	210240	A	210241
3/16"	3/16	5/16	2	2	SQ	AL2-S-0187-SQ	A	200000	A	200001
	3/16	5/16	2	2	0.015	AL2-S-0187-R015	B	200010	D	200011
	3/16	5/16	2	2	0.094	AL2-S-0187-R094 (BALL)	A	200040	A	200041
	3/16	7/16	2	2	SQ	AL2-SR-0187-SQ	B	200100	D	200101
	3/16	7/16	2	2	0.015	AL2-SR-0187-R015	B	200110	D	200111
	3/16	7/16	2	2	0.094	AL2-SR-0187-R094 (BALL)	A	200140	A	200141
	3/16	9/16	2 1/2	2	SQ	AL2-R-0187-SQ	A	200200	A	200201
	3/16	9/16	2 1/2	2	0.015	AL2-R-0187-R015	B	200210	D	200211
	3/16	9/16	2 1/2	2	0.094	AL2-R-0187-R094 (BALL)	A	200240	A	200241
1/4"	1/4	3/8	2	2	SQ	AL2-S-0250-SQ	A	201000	A	201001
	1/4	3/8	2	2	0.015	AL2-S-0250-R015	B	201010	D	201011
	1/4	3/8	2	2	0.030	AL2-S-0250-R030	B	201020	D	201021
	1/4	3/8	2	2	0.060	AL2-S-0250-R060	B	201030	D	201031
	1/4	3/8	2	2	BALL	AL2-S-0250-R125 (BALL)	A	201040	A	201041
	1/4	1/2	2 1/2	2	SQ	AL2-SR-0250-SQ	A	201100	A	201101
	1/4	1/2	2 1/2	2	0.015	AL2-SR-0250-R015	B	201110	D	201111
	1/4	1/2	2 1/2	2	0.030	AL2-SR-0250-R030	B	201120	D	201121
	1/4	1/2	2 1/2	2	0.060	AL2-SR-0250-R060	B	201130	D	201131
	1/4	1/2	2 1/2	2	BALL	AL2-SR-0250-R125 (BALL)	A	201140	A	201141
	1/4	3/4	2 1/2	2	SQ	AL2-R-0250-SQ	A	201200	A	201201
	1/4	3/4	2 1/2	2	0.015	AL2-R-0250-R015	B	201210	D	201211
	1/4	3/4	2 1/2	2	0.030	AL2-R-0250-R030	B	201220	D	201221
	1/4	3/4	2 1/2	2	0.060	AL2-R-0250-R060	B	201230	D	201231
	1/4	3/4	2 1/2	2	BALL	AL2-R-0250-R125 (BALL)	A	201240	A	201241
	1/4	1 1/4	3	2	SQ	AL2-M-0250-SQ	A	201300	A	201301
	1/4	1 1/4	3	2	0.015	AL2-M-0250-R015	A	201310	A	201311
	1/4	1 1/4	3	2	0.030	AL2-M-0250-R030	A	201320	A	201321
	1/4	1 1/4	3	2	0.060	AL2-M-0250-R060	A	201330	A	201331
	1/4	1 1/4	3	2	BALL	AL2-M-0250-R125 (BALL)	A	201340	A	201341
5/16"	5/16	1/2	2	2	SQ	AL2-SR-0312-SQ	A	202100	A	202101
	5/16	1/2	2	2	0.015	AL2-SR-0312-R015	B	202110	D	202111
	5/16	1/2	2	2	0.030	AL2-SR-0312-R030	B	202120	D	202121
	5/16	1/2	2	2	BALL	AL2-SR-0312-R157 (BALL)	A	202140	A	202141
	5/16	3/4	2 1/2	2	SQ	AL2-R-0312-SQ	A	202200	A	202201
	5/16	3/4	2 1/2	2	0.015	AL2-R-0312-R015	B	202210	D	202211
	5/16	3/4	2 1/2	2	0.030	AL2-R-0312-R030	B	202220	D	202221
	5/16	3/4	2 1/2	2	BALL	AL2-R-0312-R157 (BALL)	A	202240	A	202241
	5/16	1 1/4	3	2	SQ	AL2-M-0312-SQ	A	202300	A	202301
	5/16	1 1/4	3	2	0.015	AL2-M-0312-R015	B	202310	D	202311
	5/16	1 1/4	3	2	0.030	AL2-M-0312-R030	B	202320	D	202321
	5/16	1 1/4	3	2	BALL	AL2-M-0312-R157 (BALL)	A	202340	A	202341
3/8"	3/8	1/2	2	2	SQ	AL2-S-0375-SQ	A	203000	A	203001
	3/8	1/2	2	2	0.015	AL2-S-0375-R015	B	203010	D	203011
	3/8	1/2	2	2	0.030	AL2-S-0375-R030	B	203020	D	203021
	3/8	1/2	2	2	0.060	AL2-S-0375-R060	B	203030	D	203031
	3/8	1/2	2	2	BALL	AL2-S-0375-R188 (BALL)	A	203040	A	203041

SERIES: AL2

2 Flute, Aluminum & Non-Ferrous, Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	DESCRIPTION	STOCK CODE	UNCOATED EDP#	STOCK CODE	HARD CARBON EDP#
3/8"	3/8	3/4	2 1/2	2	SQ	AL2-SR-0375-SQ	B	203100	D	203101
	3/8	3/4	2 1/2	2	0.015	AL2-SR-0375-R015	B	203110	D	203111
	3/8	3/4	2 1/2	2	0.030	AL2-SR-0375-R030	B	203120	D	203121
	3/8	3/4	2 1/2	2	0.060	AL2-SR-0375-R060	B	203130	D	203131
	3/8	3/4	2 1/2	2	BALL	AL2-SR-0375-R188 (BALL)	B	203140	D	203141
	3/8	7/8	3	2	SQ	AL2-SP-0375-SQ	B	293200	D	293201
	3/8	7/8	3	2	0.015	AL2-SP-0375-R015	B	293210	D	293211
	3/8	7/8	3	2	0.030	AL2-SP-0375-R030	B	293220	D	293221
	3/8	7/8	3	2	0.060	AL2-SP-0375-R060	B	293230	D	293231
	3/8	7/8	3	2	BALL	AL2-SP-0375-R188 (BALL)	B	293240	D	293241
	3/8	1	3	2	SQ	AL2-R-0375-SQ	A	203200	A	203201
	3/8	1	3	2	0.015	AL2-R-0375-R015	A	203210	A	203211
	3/8	1	3	2	0.030	AL2-R-0375-R030	B	203220	D	203221
	3/8	1	3	2	0.060	AL2-R-0375-R060	B	203230	D	203231
	3/8	1	3	2	BALL	AL2-R-0375-R188 (BALL)	A	203240	A	203241
	3/8	1 1/4	3	2	SQ	AL2-M-0375-SQ	B	203300	D	203301
	3/8	1 1/4	3	2	0.015	AL2-M-0375-R015	B	203310	D	203311
	3/8	1 1/4	3	2	0.030	AL2-M-0375-R030	B	203320	D	203321
	3/8	1 1/4	3	2	0.060	AL2-M-0375-R060	B	203330	D	203331
	3/8	1 1/4	3	2	BALL	AL2-M-0375-R188 (BALL)	A	203340	A	203341
	3/8	1 1/2	4	2	SQ	AL2-L-0375-SQ	A	203400	A	203401
	3/8	1 1/2	4	2	0.015	AL2-L-0375-R015	A	203410	A	203411
	3/8	1 1/2	4	2	0.030	AL2-L-0375-R030	B	203420	D	203421
	3/8	1 1/2	4	2	0.060	AL2-L-0375-R060	B	203430	D	203431
	3/8	1 1/2	4	2	BALL	AL2-L-0375-R188 (BALL)	B	203440	D	203441
1/2"	1/2	5/8	2 1/2	2	SQ	AL2-S-0500-SQ	A	205000	A	205001
	1/2	5/8	2 1/2	2	0.015	AL2-S-0500-R015	B	205010	D	205011
	1/2	5/8	2 1/2	2	0.030	AL2-S-0500-R030	A	205020	A	205021
	1/2	5/8	2 1/2	2	0.060	AL2-S-0500-R060	B	205030	D	205031
	1/2	5/8	2 1/2	2	0.125	AL2-S-0500-R125	B	205040	D	205041
	1/2	5/8	2 1/2	2	BALL	AL2-S-0500-R250 (BALL)	A	205050	A	205051
	1/2	1	3	2	SQ	AL2-SR-0500-SQ	A	205100	A	205101
	1/2	1	3	2	0.015	AL2-SR-0500-R015	B	205110	D	205111
	1/2	1	3	2	0.030	AL2-SR-0500-R030	A	205120	A	205121
	1/2	1	3	2	0.060	AL2-SR-0500-R060	B	205130	D	205131
	1/2	1	3	2	0.125	AL2-SR-0500-R125	B	205140	D	205141
	1/2	1	3	2	BALL	AL2-SR-0500-R250 (BALL)	B	205150	D	205151
	1/2	1 1/4	3	2	SQ	AL2-R-0500-SQ	A	205200	A	205201
	1/2	1 1/4	3	2	0.015	AL2-R-0500-R015	A	205210	A	205211
	1/2	1 1/4	3	2	0.030	AL2-R-0500-R030	A	205220	A	205221
	1/2	1 1/4	3	2	0.060	AL2-R-0500-R060	A	205230	A	205231
	1/2	1 1/4	3	2	0.125	AL2-R-0500-R125	A	205240	A	205241
	1/2	1 1/4	3	2	BALL	AL2-R-0500-R250 (BALL)	A	205250	A	205251
	1/2	1 1/2	4	2	SQ	AL2-M-0500-SQ	A	205300	A	205301
	1/2	1 1/2	4	2	0.015	AL2-M-0500-R015	B	205310	D	205311
	1/2	1 1/2	4	2	0.030	AL2-M-0500-R030	B	205320	D	205321
	1/2	1 1/2	4	2	0.060	AL2-M-0500-R060	B	205330	D	205331
	1/2	1 1/2	4	2	0.125	AL2-M-0500-R125	B	205340	D	205341
	1/2	1 1/2	4	2	BALL	AL2-M-0500-R250 (BALL)	B	205350	D	205351
	1/2	1 5/8	4	2	SQ	AL2-SP-0500-SQ	A	295300	A	295301
	1/2	1 5/8	4	2	0.015	AL2-SP-0500-R015	A	295310	A	295311
	1/2	1 5/8	4	2	0.030	AL2-SP-0500-R030	A	295320	A	295321
	1/2	1 5/8	4	2	0.060	AL2-SP-0500-R060	A	295330	A	295331
	1/2	1 5/8	4	2	0.125	AL2-SP-0500-R125	A	295340	A	295341
	1/2	1 5/8	4	2	BALL	AL2-SP-0500-R250 (BALL)	A	295350	A	295351

SERIES: AL2

2 Flute, Aluminum & Non-Ferrous, Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	DESCRIPTION	STOCK CODE	UNCOATED EDP#	STOCK CODE	HARD CARBON EDP#
1/2"	1/2	2	4	2	SQ	AL2-L-0500-SQ	A	205400	A	205401
	1/2	2	4	2	0.015	AL2-L-0500-R015	B	205410	D	205411
	1/2	2	4	2	0.030	AL2-L-0500-R030	B	205420	D	205421
	1/2	2	4	2	0.060	AL2-L-0500-R060	B	205430	D	205431
	1/2	2	4	2	0.125	AL2-L-0500-R125	B	205440	D	205441
	1/2	2	4	2	BALL	AL2-L-0500-R250 (BALL)	B	205450	D	205451
5/8"	5/8	3/4	3	2	SQ	AL2-S-0625-SQ	B	206000	D	206001
	5/8	3/4	3	2	0.030	AL2-S-0625-R030	B	206010	D	206011
	5/8	3/4	3	2	0.060	AL2-S-0625-R060	B	206020	D	206021
	5/8	3/4	3	2	0.125	AL2-S-0625-R125	B	206030	D	206031
	5/8	3/4	3	2	BALL	AL2-S-0625-R313 (BALL)	A	206040	A	206041
	5/8	1 1/4	3 1/2	2	SQ	AL2-SR-0625-SQ	A	206100	A	206101
	5/8	1 1/4	3 1/2	2	0.030	AL2-SR-0625-R030	B	206110	D	206111
	5/8	1 1/4	3 1/2	2	0.060	AL2-SR-0625-R060	B	206120	D	206121
	5/8	1 1/4	3 1/2	2	0.125	AL2-SR-0625-R125	B	206130	D	206131
	5/8	1 1/4	3 1/2	2	BALL	AL2-SR-0625-R313 (BALL)	B	206140	D	206141
	5/8	1 1/2	3 1/2	2	SQ	AL2-R-0625-SQ	A	206200	A	206201
	5/8	1 1/2	3 1/2	2	0.030	AL2-R-0625-R030	B	206210	D	206211
	5/8	1 1/2	3 1/2	2	0.060	AL2-R-0625-R060	B	206220	D	206221
	5/8	1 1/2	3 1/2	2	0.125	AL2-R-0625-R125	B	206230	D	206231
	5/8	1 1/2	3 1/2	2	BALL	AL2-R-0625-R313 (BALL)	A	206240	A	206241
	5/8	1 5/8	3 1/2	2	SQ	AL2-SP-0625-SQ	B	296200	D	296201
	5/8	1 5/8	3 1/2	2	0.030	AL2-SP-0625-R030	B	296210	D	296211
	5/8	1 5/8	3 1/2	2	0.060	AL2-SP-0625-R060	B	296220	D	296221
	5/8	1 5/8	3 1/2	2	0.125	AL2-SP-0625-R125	B	296230	D	296231
	5/8	1 5/8	3 1/2	2	BALL	AL2-SP-0625-R313 (BALL)	A	296240	A	296241
	5/8	2	4	2	SQ	AL2-M-0625-SQ	A	206300	A	206301
	5/8	2	4	2	0.030	AL2-M-0625-R030	B	206310	D	206311
	5/8	2	4	2	0.060	AL2-M-0625-R060	B	206320	D	206321
	5/8	2	4	2	0.125	AL2-M-0625-R125	B	206330	D	206331
	5/8	2	4	2	BALL	AL2-M-0625-R313 (BALL)	B	206340	D	206341
	5/8	2 1/2	5	2	SQ	AL2-L-0625-SQ	B	206400	D	206401
	5/8	2 1/2	5	2	0.030	AL2-L-0625-R030	B	206410	D	206411
	5/8	2 1/2	5	2	0.060	AL2-L-0625-R060	B	206420	D	206421
	5/8	2 1/2	5	2	0.125	AL2-L-0625-R125	B	206430	D	206431
	5/8	2 1/2	5	2	BALL	AL2-L-0625-R313 (BALL)	B	206440	D	206441
3/4"	3/4	1	3	2	SQ	AL2-S-0750-SQ	A	207000	A	207001
	3/4	1	3	2	0.030	AL2-S-0750-R030	B	207010	D	207011
	3/4	1	3	2	0.060	AL2-S-0750-R060	B	207020	D	207021
	3/4	1	3	2	0.125	AL2-S-0750-R125	B	207030	D	207031
	3/4	1	3	2	BALL	AL2-S-0750-R375 (BALL)	A	207040	A	207041
	3/4	1 1/2	4	2	SQ	AL2-SR-0750-SQ	A	207100	A	207101
	3/4	1 1/2	4	2	0.030	AL2-SR-0750-R030	B	207110	D	207111
	3/4	1 1/2	4	2	0.060	AL2-SR-0750-R060	B	207120	D	207121
	3/4	1 1/2	4	2	0.125	AL2-SR-0750-R125	B	207130	D	207131
	3/4	1 1/2	4	2	BALL	AL2-SR-0750-R375 (BALL)	A	207140	A	207141
	3/4	1 5/8	4	2	SQ	AL2-SP-0750-SQ	A	297100	A	297101
	3/4	1 5/8	4	2	0.030	AL2-SP-0750-R030	B	297110	D	297111
	3/4	1 5/8	4	2	0.060	AL2-SP-0750-R060	B	297120	D	297121
	3/4	1 5/8	4	2	0.125	AL2-SP-0750-R125	B	297130	D	297131
	3/4	1 5/8	4	2	BALL	AL2-SP-0750-R375 (BALL)	B	297140	D	297141
	3/4	2	5	2	SQ	AL2-R-0750-SQ	A	207200	A	207201
	3/4	2	5	2	0.030	AL2-R-0750-R030	B	207210	D	207211
	3/4	2	5	2	0.060	AL2-R-0750-R060	B	207220	D	207221
	3/4	2	5	2	0.125	AL2-R-0750-R125	B	207230	D	207231
	3/4	2	5	2	BALL	AL2-R-0750-R375 (BALL)	A	207240	A	207241

SERIES: AL2

2 Flute, Aluminum & Non-Ferrous, Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	DESCRIPTION	STOCK CODE	UNCOATED EDP#	STOCK CODE	HARD CARBON EDP#
3/4"	3/4	2 1/2	5	2	SQ	AL2-M-0750-SQ	A	207300	A	207301
	3/4	2 1/2	5	2	0.030	AL2-M-0750-R030	B	207310	D	207311
	3/4	2 1/2	5	2	0.060	AL2-M-0750-R060	B	207320	D	207321
	3/4	2 1/2	5	2	0.125	AL2-M-0750-R125	A	207330	A	207331
	3/4	2 1/2	5	2	BALL	AL2-M-0750-R375 (BALL)	B	207340	D	207341
	3/4	3	6	2	SQ	AL2-L-0750-SQ	B	207400	D	207401
	3/4	3	6	2	0.030	AL2-L-0750-R030	B	207410	D	207411
	3/4	3	6	2	0.060	AL2-L-0750-R060	B	207420	D	207421
	3/4	3	6	2	0.125	AL2-L-0750-R125	B	207430	D	207431
1"	1	1 3/4	4	2	SQ	AL2-SR-1000-SQ	B	208100	D	208101
	1	1 3/4	4	2	0.030	AL2-SR-1000-R030	B	208110	D	208111
	1	1 3/4	4	2	0.060	AL2-SR-1000-R060	B	208120	D	208121
	1	1 3/4	4	2	0.125	AL2-SR-1000-R125	B	208130	D	208131
	1	1 3/4	4	2	BALL	AL2-SR-1000-R500 (BALL)	B	208140	D	208141
	1	2 1/2	5	2	SQ	AL2-R-1000-SQ	A	208200	A	208201
	1	2 1/2	5	2	0.030	AL2-R-1000-R030	B	208210	D	208211
	1	2 1/2	5	2	0.060	AL2-R-1000-R060	B	208220	D	208221
	1	2 1/2	5	2	0.125	AL2-R-1000-R125	B	208230	D	208231
	1	2 1/2	5	2	BALL	AL2-R-1000-R500 (BALL)	A	208240	A	208241
	1	3	6	2	SQ	AL2-M-1000-SQ	A	208300	A	208301
	1	3	6	2	0.030	AL2-M-1000-R030	B	208310	D	208311
	1	3	6	2	0.060	AL2-M-1000-R060	B	208320	D	208321
	1	3	6	2	0.125	AL2-M-1000-R125	B	208330	D	208331
	1	3	6	2	BALL	AL2-M-1000-R500 (BALL)	B	208340	D	208341
	1	3 1/2	6	2	SQ	AL2-L-1000-SQ	B	208400	D	208401
	1	3 1/2	6	2	0.030	AL2-L-1000-R030	B	208410	D	208411
	1	3 1/2	6	2	0.060	AL2-L-1000-R060	B	208420	D	208421
	1	3 1/2	6	2	0.125	AL2-L-1000-R125	B	208430	D	208431
	1	3 1/2	6	2	BALL	AL2-L-1000-R500 (BALL)	B	208440	D	208441

Stock Code Key:

- (A) Factory Stock Item
- (B) Limited Stock (Ships in 3 - 5 Working Days)
- (C) Limited Stock (Ships in 2 Weeks)
- (D) Non Stock (Ships in 3 Weeks)

SERIES: AL2-RN

2 Flute, Reduced Neck, Aluminum & Non-Ferrous, Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	LENGTH BELOW SHANK (LBS)	DESCRIPTION	STOCK CODE	UNCOATED EDP#	STOCK CODE	HARD CARBON EDP#
1/8"	1/8	3/16	2	2	SQ	1/2	AL2-RN-R-0125-SQ	C	210700	D	210701
	1/8	3/16	2	2	0.015	1/2	AL2-RN-R-0125-R015	C	210710	D	210711
	1/8	3/16	2	2	BALL	1/2	AL2-RN-R-0125-R063 (BALL)	C	210740	D	210741
	1/8	3/16	2 1/2	2	SQ	3/4	AL2-RN-M-0125-SQ	C	210800	D	210801
	1/8	3/16	2 1/2	2	0.015	3/4	AL2-RN-M-0125-R015	C	210810	D	210811
	1/8	3/16	2 1/2	2	BALL	3/4	AL2-RN-M-0125-R063 (BALL)	C	210840	D	210841
3/16"	3/16	1/4	2 1/2	2	SQ	1/2	AL2-RN-R-0187-SQ	C	200700	D	200701
	3/16	1/4	2 1/2	2	0.015	1/2	AL2-RN-R-0187-R015	C	200710	D	200711
	3/16	1/4	2 1/2	2	BALL	1/2	AL2-RN-R-0187-R094 (BALL)	C	200740	D	200741
	3/16	1/4	3	2	SQ	3/4	AL2-RN-M-0187-SQ	C	200800	D	200801
	3/16	1/4	3	2	0.015	3/4	AL2-RN-M-0187-R015	C	200810	D	200811
	3/16	1/4	3	2	BALL	3/4	AL2-RN-M-0187-R094 (BALL)	C	200840	D	200841
	3/16	1/4	3	2	SQ	1	AL2-RN-L-0187-SQ	C	200900	D	200901
	3/16	1/4	3	2	0.015	1	AL2-RN-L-0187-R015	C	200910	D	200911
1/4"	1/4	3/8	2 1/2	2	SQ	3/4	AL2-RN-S-0250-SQ	C	201600	D	201601
	1/4	3/8	2 1/2	2	0.015	3/4	AL2-RN-S-0250-R015	C	201610	D	201611
	1/4	3/8	2 1/2	2	0.030	3/4	AL2-RN-S-0250-R030	C	201620	D	201621
	1/4	3/8	2 1/2	2	0.060	3/4	AL2-RN-S-0250-R060	C	201630	D	201631
	1/4	3/8	2 1/2	2	BALL	3/4	AL2-RN-S-0250-R125 (BALL)	C	201640	D	201641
	1/4	3/8	3	2	SQ	1	AL2-RN-SR-0250-SQ	C	201600N	D	201601N
	1/4	3/8	3	2	0.015	1	AL2-RN-SR-0250-R015	C	201610N	D	201611N
	1/4	3/8	3	2	0.030	1	AL2-RN-SR-0250-R030	C	201620N	D	201621N
	1/4	3/8	3	2	0.060	1	AL2-RN-SR-0250-R060	C	201630N	D	201631N
	1/4	3/8	3	2	BALL	1	AL2-RN-SR-0250-R125 (BALL)	C	201640N	D	201641N
	1/4	3/8	4	2	SQ	1 1/4	AL2-RN-R-0250-SQ	A	201700	A	201701
	1/4	3/8	4	2	0.015	1 1/4	AL2-RN-R-0250-R015	B	201710	D	201711
	1/4	3/8	4	2	0.030	1 1/4	AL2-RN-R-0250-R030	B	201720	D	201721
	1/4	3/8	4	2	0.060	1 1/4	AL2-RN-R-0250-R060	B	201730	D	201731
	1/4	3/8	4	2	BALL	1 1/4	AL2-RN-R-0250-R125 (BALL)	A	201740	A	201741
	1/4	3/8	4	2	SQ	1 1/2	AL2-RN-SP-0250-SQ	C	201800	D	201801
	1/4	3/8	4	2	0.015	1 1/2	AL2-RN-SP-0250-R015	C	201810	D	201811
	1/4	3/8	4	2	0.030	1 1/2	AL2-RN-SP-0250-R030	C	201820	D	201821
	1/4	3/8	4	2	0.060	1 1/2	AL2-RN-SP-0250-R060	C	201830	D	201831
	1/4	3/8	4	2	BALL	1 1/2	AL2-RN-SP-0250-R125 (BALL)	C	201840	D	201841
5/16"	5/16	1/2	3	2	SQ	1 1/4	AL2-RN-SR-0312-SQ	C	202600N	D	202601N
	5/16	1/2	3	2	0.015	1 1/4	AL2-RN-SR-0312-R015	C	202610N	D	202611N
	5/16	1/2	3	2	0.030	1 1/4	AL2-RN-SR-0312-R030	C	202620N	D	202621N
	5/16	1/2	3	2	BALL	1 1/4	AL2-RN-SR-0312-R063 (BALL)	C	202640N	D	202641N
	5/16	1/2	4	2	SQ	2	AL2-RN-M-0312-SQ	C	202800	D	202801
	5/16	1/2	4	2	0.015	2	AL2-RN-M-0312-R015	C	202810	D	202811
	5/16	1/2	4	2	0.030	2	AL2-RN-M-0312-R030	C	202820	D	202821
	5/16	1/2	4	2	BALL	2	AL2-RN-M-0312-R063 (BALL)	C	202840	D	202841
3/8"	3/8	5/8	3	2	SQ	1 5/8	AL2-RN-SR-0375-SQ	C	203600N	D	203601N
	3/8	5/8	3	2	0.015	1 5/8	AL2-RN-SR-0375-R015	C	203610N	D	203611N
	3/8	5/8	3	2	0.030	1 5/8	AL2-RN-SR-0375-R030	C	203620N	D	203621N
	3/8	5/8	3	2	0.060	1 5/8	AL2-RN-SR-0375-R060	C	203630N	D	203631N
	3/8	5/8	3	2	BALL	1 5/8	AL2-RN-SR-0375-R188 (BALL)	C	203640N	D	203641N
	3/8	5/8	4	2	SQ	2	AL2-RN-R-0375-SQ	A	203700	A	203701
	3/8	5/8	4	2	0.015	2	AL2-RN-R-0375-R015	B	203710	D	203711
	3/8	5/8	4	2	0.030	2	AL2-RN-R-0375-R030	B	203720	D	203721
	3/8	5/8	4	2	0.060	2	AL2-RN-R-0375-R060	B	203730	D	203731
	3/8	5/8	4	2	BALL	2	AL2-RN-R-0375-R188 (BALL)	A	203740	A	203741

SERIES: AL2-RN

2 Flute, Reduced Neck, Aluminum & Non-Ferrous, Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	LENGTH BELOW SHANK (LBS)	DESCRIPTION	STOCK CODE	UNCOATED EDP#	STOCK CODE	HARD CARBON EDP#
3/8"	3/8	5/8	4	2	SQ	2 1/2	AL2-RN-M-0375-SQ	C	203800	D	203801
	3/8	5/8	4	2	0.015	2 1/2	AL2-RN-M-0375-R015	C	203810	D	203811
	3/8	5/8	4	2	0.030	2 1/2	AL2-RN-M-0375-R030	C	203820	D	203821
	3/8	5/8	4	2	0.060	2 1/2	AL2-RN-M-0375-R060	C	203830	D	203831
	3/8	5/8	4	2	BALL	2 1/2	AL2-RN-M-0375-R188 (BALL)	C	203840	D	203841
	3/8	5/8	4	2	SQ	3	AL2-RN-L-0375-SQ	C	203900	D	203901
	3/8	5/8	5	2	0.015	3	AL2-RN-L-0375-R015	C	203910	D	203911
	3/8	5/8	5	2	0.030	3	AL2-RN-L-0375-R030	C	203920	D	203921
	3/8	5/8	5	2	0.060	3	AL2-RN-L-0375-R060	C	203930	D	203931
	3/8	5/8	5	2	BALL	3	AL2-RN-L-0375-R188 (BALL)	C	203940	D	203941
1/2"	1/2	3/4	3	2	SQ	1 1/4	AL2-RN-S-0500-SQ	B	205600	D	205601
	1/2	3/4	3	2	0.015	1 1/4	AL2-RN-S-0500-R015	B	205610	D	205611
	1/2	3/4	3	2	0.030	1 1/4	AL2-RN-S-0500-R030	B	205620	D	205621
	1/2	3/4	3	2	0.060	1 1/4	AL2-RN-S-0500-R060	B	205630	D	205631
	1/2	3/4	3	2	0.125	1 1/4	AL2-RN-S-0500-R125	A	205640	A	205641
	1/2	3/4	3	2	BALL	1 1/4	AL2-RN-S-0500-R250 (BALL)	B	205650	D	205651
	1/2	3/4	3	2	SQ	1 3/4	AL2-RN-SR-0500-SQ	C	205600N	D	205601N
	1/2	3/4	3	2	0.015	1 3/4	AL2-RN-SR-0500-R015	C	205610N	D	205611N
	1/2	3/4	3	2	0.030	1 3/4	AL2-RN-SR-0500-R030	C	205620N	D	205621N
	1/2	3/4	3	2	0.060	1 3/4	AL2-RN-SR-0500-R060	C	205630N	D	205631N
	1/2	3/4	3	2	0.125	1 3/4	AL2-RN-SR-0500-R125	C	205640N	D	205641N
	1/2	3/4	3	2	BALL	1 3/4	AL2-RN-SR-0500-R250 (BALL)	C	205650N	D	205651N
	1/2	3/4	4	2	SQ	2	AL2-RN-R-0500-SQ	A	205700	A	205701
	1/2	3/4	4	2	0.015	2	AL2-RN-R-0500-R015	B	205710	D	205711
	1/2	3/4	4	2	0.030	2	AL2-RN-R-0500-R030	B	205720	D	205721
	1/2	3/4	4	2	0.060	2	AL2-RN-R-0500-R060	B	205730	D	205731
	1/2	3/4	4	2	0.125	2	AL2-RN-R-0500-R125	B	205740	D	205741
	1/2	3/4	4	2	BALL	2	AL2-RN-R-0500-R250 (BALL)	A	205750	A	205751
	1/2	3/4	4	2	SQ	2 1/4	AL2-RN-SP-0500-SQ	C	205700N	D	205701N
	1/2	3/4	4	2	0.015	2 1/4	AL2-RN-SP-0500-R015	C	205710N	D	205711N
	1/2	3/4	4	2	0.030	2 1/4	AL2-RN-SP-0500-R030	C	205720N	D	205721N
	1/2	3/4	4	2	0.060	2 1/4	AL2-RN-SP-0500-R060	C	205730N	D	205731N
	1/2	3/4	4	2	0.125	2 1/4	AL2-RN-SP-0500-R125	C	205740N	D	205741N
	1/2	3/4	4	2	BALL	2 1/4	AL2-RN-SP-0500-R250 (BALL)	C	205750N	D	205751N
	1/2	3/4	5	2	SQ	2 1/2	AL2-RN-M-0500-SQ	B	205800	D	205801
	1/2	3/4	5	2	0.015	2 1/2	AL2-RN-M-0500-R015	B	205810	D	205811
	1/2	3/4	5	2	0.030	2 1/2	AL2-RN-M-0500-R030	B	205820	D	205821
	1/2	3/4	5	2	0.060	2 1/2	AL2-RN-M-0500-R060	B	205830	D	205831
	1/2	3/4	5	2	0.125	2 1/2	AL2-RN-M-0500-R125	A	205840	A	205841
	1/2	3/4	5	2	BALL	2 1/2	AL2-RN-M-0500-R250 (BALL)	B	205850	D	205851
	1/2	3/4	6	2	SQ	3 1/2	AL2-RN-L-0500-SQ	B	205900	D	205901
	1/2	3/4	6	2	0.015	3 1/2	AL2-RN-L-0500-R015	B	205910	D	205911
	1/2	3/4	6	2	0.030	3 1/2	AL2-RN-L-0500-R030	B	205920	D	205921
	1/2	3/4	6	2	0.060	3 1/2	AL2-RN-L-0500-R060	B	205930	D	205931
	1/2	3/4	6	2	0.125	3 1/2	AL2-RN-L-0500-R125	A	205940	A	205941
	1/2	3/4	6	2	BALL	3 1/2	AL2-RN-L-0500-R250 (BALL)	A	205950	A	205951
5/8"	5/8	1	4	2	SQ	2	AL2-RN-R-0625-SQ	C	206700	D	206701
	5/8	1	4	2	0.030	2	AL2-RN-R-0625-R030	C	206710	D	206711
	5/8	1	4	2	0.060	2	AL2-RN-R-0625-R060	C	206720	D	206721
	5/8	1	4	2	0.125	2	AL2-RN-R-0625-R125	C	206730	D	206731
	5/8	1	4	2	BALL	2	AL2-RN-R-0625-R313 (BALL)	C	206740	D	206741
	5/8	1	5	2	SQ	2 1/2	AL2-RN-M-0625-SQ	B	206800	D	206801
	5/8	1	5	2	0.030	2 1/2	AL2-RN-M-0625-R030	B	206810	D	206811
	5/8	1	5	2	0.060	2 1/2	AL2-RN-M-0625-R060	B	206820	D	206821
	5/8	1	5	2	0.125	2 1/2	AL2-RN-M-0625-R125	B	206830	D	206831
	5/8	1	5	2	BALL	2 1/2	AL2-RN-M-0625-R313 (BALL)	B	206840	D	206841

SERIES: AL2-RN

2 Flute, Reduced Neck, Aluminum & Non-Ferrous, Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	LENGTH BELOW SHANK (LBS)	DESCRIPTION	STOCK CODE	UNCOATED EDP#	STOCK CODE	HARD CARBON EDP#
5/8"	5/8	1	5	2	SQ	3 1/2	AL2-RN-L-0625-SQ	C	206900	D	206901
	5/8	1	5	2	0.030	3 1/2	AL2-RN-L-0625-R030	C	206910	D	206911
	5/8	1	5	2	0.060	3 1/2	AL2-RN-L-0625-R060	C	206920	D	206921
	5/8	1	5	2	0.125	3 1/2	AL2-RN-L-0625-R125	C	206930	D	206931
	5/8	1	5	2	BALL	3 1/2	AL2-RN-L-0625-R313 (BALL)	C	206940	D	206941
3/4"	3/4	1 1/8	4	2	SQ	1 3/4	AL2-RN-SR-0750-SQ	C	207600N	D	207601N
	3/4	1 1/8	4	2	0.030	1 3/4	AL2-RN-SR-0750-R030	C	207610N	D	207611N
	3/4	1 1/8	4	2	0.060	1 3/4	AL2-RN-SR-0750-R060	C	207620N	D	207621N
	3/4	1 1/8	4	2	0.125	1 3/4	AL2-RN-SR-0750-R125	C	207630N	D	207631N
	3/4	1 1/8	4	2	BALL	1 3/4	AL2-RN-SR-0750-R375 (BALL)	C	207640N	D	207641N
	3/4	1 1/8	4	2	SQ	2	AL2-RN-R-0750-SQ	A	207700	A	207701
	3/4	1 1/8	4	2	0.030	2	AL2-RN-R-0750-R030	B	207710	D	207711
	3/4	1 1/8	4	2	0.060	2	AL2-RN-R-0750-R060	B	207720	D	207721
	3/4	1 1/8	4	2	0.125	2	AL2-RN-R-0750-R125	B	207730	D	207731
	3/4	1 1/8	4	2	BALL	2	AL2-RN-R-0750-R375 (BALL)	A	207740	A	207741
	3/4	1 1/8	5	2	SQ	2 1/2	AL2-RN-SP-0750-SQ	C	207700N	D	207701N
	3/4	1 1/8	5	2	0.030	2 1/2	AL2-RN-SP-0750-R030	C	207710N	D	207711N
	3/4	1 1/8	5	2	0.060	2 1/2	AL2-RN-SP-0750-R060	C	207720N	D	207721N
	3/4	1 1/8	5	2	0.125	2 1/2	AL2-RN-SP-0750-R125	C	207730N	D	207731N
	3/4	1 1/8	5	2	BALL	2 1/2	AL2-RN-SP-0750-R375 (BALL)	C	207740N	D	207741N
	3/4	1 1/8	6	2	SQ	3	AL2-RN-M-0750-SQ	B	207800	D	207801
	3/4	1 1/8	6	2	0.030	3	AL2-RN-M-0750-R030	B	207810	D	207811
	3/4	1 1/8	6	2	0.060	3	AL2-RN-M-0750-R060	B	207820	D	207821
	3/4	1 1/8	6	2	0.125	3	AL2-RN-M-0750-R125	A	207830	A	207831
	3/4	1 1/8	6	2	BALL	3	AL2-RN-M-0750-R375 (BALL)	B	207840	D	207841
	3/4	1 1/8	6	2	SQ	4	AL2-RN-X-0750-SQ	C	207900N	D	207901N
	3/4	1 1/8	6	2	0.030	4	AL2-RN-X-0750-R030	C	207910N	D	207911N
	3/4	1 1/8	6	2	0.060	4	AL2-RN-X-0750-R060	C	207920N	D	207921N
	3/4	1 1/8	6	2	0.125	4	AL2-RN-X-0750-R125	C	207930N	D	207931N
	3/4	1 1/8	6	2	BALL	4	AL2-RN-X-0750-R375 (BALL)	C	207940N	D	207941N
1"	1	1 1/2	5	2	SQ	2 1/2	AL2-RN-R-1000-SQ	A	208700	A	208701
	1	1 1/2	5	2	0.030	2 1/2	AL2-RN-R-1000-R030	B	208710	D	208711
	1	1 1/2	5	2	0.060	2 1/2	AL2-RN-R-1000-R060	B	208720	D	208721
	1	1 1/2	5	2	0.125	2 1/2	AL2-RN-R-1000-R125	B	208730	D	208731
	1	1 1/2	5	2	BALL	2 1/2	AL2-RN-R-1000-R500 (BALL)	A	208740	A	208741
	1	1 1/2	6	2	SQ	3 1/2	AL2-RN-M-1000-SQ	B	208800	D	208801
	1	1 1/2	6	2	0.030	3 1/2	AL2-RN-M-1000-R030	B	208810	D	208811
	1	1 1/2	6	2	0.060	3 1/2	AL2-RN-M-1000-R060	B	208820	D	208821
	1	1 1/2	6	2	0.125	3 1/2	AL2-RN-M-1000-R125	B	208830	D	208831
	1	1 1/2	6	2	BALL	3 1/2	AL2-RN-M-1000-R500 (BALL)	B	208840	D	208841
	1	1 1/2	7	2	SQ	4 1/2	AL2-RN-L-1000-SQ	C	208900	D	208901
	1	1 1/2	7	2	0.030	4 1/2	AL2-RN-L-1000-R030	C	208910	D	208911
	1	1 1/2	7	2	0.060	4 1/2	AL2-RN-L-1000-R060	C	208920	D	208921
	1	1 1/2	7	2	0.125	4 1/2	AL2-RN-L-1000-R125	C	208930	D	208931
	1	1 1/2	7	2	BALL	4 1/2	AL2-RN-L-1000-R500 (BALL)	C	208940	D	208941

Stock Code Key:

- (A) Factory Stock Item
- (B) Limited Stock (Ships in 3 - 5 Working Days)
- (C) Limited Stock (Ships in 2 Weeks)
- (D) Non Stock (Ships in 3 Weeks)

SERIES: AL2-RN BLANKS

2 Flute, Un-Necked Blanks, LBS Necked to Size at Time of Order

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	LENGTH BELOW SHANK (LBS)	DESCRIPTION	STOCK CODE	UNCOATED EDP#	STOCK CODE	HARD CARBON EDP#
1/2"	1/2	3/4	7	2	SQ	Custom LBS	AL2-RN-7-0500-SQ	C	205700-BLK	D	205701-BLK
	1/2	3/4	7	2	0.015	Custom LBS	AL2-RN-7-0500-R015	C	205710-BLK	D	205711-BLK
	1/2	3/4	7	2	0.030	Custom LBS	AL2-RN-7-0500-R030	C	205720-BLK	D	205721-BLK
	1/2	3/4	7	2	0.060	Custom LBS	AL2-RN-7-0500-R060	C	205730-BLK	D	205731-BLK
	1/2	3/4	7	2	0.125	Custom LBS	AL2-RN-7-0500-R125	C	205740-BLK	D	205741-BLK
	1/2	3/4	7	2	BALL	Custom LBS	AL2-RN-7-0500-R250 (BALL)	C	205750-BLK	D	205751-BLK
	1/2	3/4	8	2	SQ	Custom LBS	AL2-RN-8-0500-SQ	C	205800-BLK	D	205801-BLK
	1/2	3/4	8	2	0.015	Custom LBS	AL2-RN-8-0500-R015	C	205810-BLK	D	205811-BLK
	1/2	3/4	8	2	0.030	Custom LBS	AL2-RN-8-0500-R030	C	205820-BLK	D	205821-BLK
	1/2	3/4	8	2	0.060	Custom LBS	AL2-RN-8-0500-R060	C	205830-BLK	D	205831-BLK
	1/2	3/4	8	2	0.125	Custom LBS	AL2-RN-8-0500-R125	C	205840-BLK	D	205841-BLK
	1/2	3/4	8	2	BALL	Custom LBS	AL2-RN-8-0500-R250 (BALL)	C	205850-BLK	D	205851-BLK
5/8"	5/8	1	7	2	SQ	Custom LBS	AL2-RN-7-0625-SQ	C	206700-BLK	D	206701-BLK
	5/8	1	7	2	0.030	Custom LBS	AL2-RN-7-0625-R030	C	206710-BLK	D	206711-BLK
	5/8	1	7	2	0.060	Custom LBS	AL2-RN-7-0625-R060	C	206720-BLK	D	206721-BLK
	5/8	1	7	2	0.125	Custom LBS	AL2-RN-7-0625-R125	C	206730-BLK	D	206731-BLK
	5/8	1	7	2	BALL	Custom LBS	AL2-RN-7-0625-R313 (BALL)	C	206740-BLK	D	206741-BLK
	5/8	1	8	2	SQ	Custom LBS	AL2-RN-8-0625-SQ	C	206800-BLK	D	206801-BLK
	5/8	1	8	2	0.030	Custom LBS	AL2-RN-8-0625-R030	C	206810-BLK	D	206811-BLK
	5/8	1	8	2	0.060	Custom LBS	AL2-RN-8-0625-R060	C	206820-BLK	D	206821-BLK
	5/8	1	8	2	0.125	Custom LBS	AL2-RN-8-0625-R125	C	206830-BLK	D	206831-BLK
	5/8	1	8	2	BALL	Custom LBS	AL2-RN-8-0625-R313 (BALL)	C	206840-BLK	D	206841-BLK
3/4"	3/4	1 1/8	7	2	SQ	Custom LBS	AL2-RN-7-0750-SQ	C	207700-BLK	D	207701-BLK
	3/4	1 1/8	7	2	0.030	Custom LBS	AL2-RN-7-0750-R030	C	207710-BLK	D	207711-BLK
	3/4	1 1/8	7	2	0.060	Custom LBS	AL2-RN-7-0750-R060	C	207720-BLK	D	207721-BLK
	3/4	1 1/8	7	2	0.125	Custom LBS	AL2-RN-7-0750-R125	C	207730-BLK	D	207731-BLK
	3/4	1 1/8	7	2	BALL	Custom LBS	AL2-RN-7-0750-R375 (BALL)	C	207740-BLK	D	207741-BLK
	3/4	1 1/8	8	2	SQ	Custom LBS	AL2-RN-8-0750-SQ	C	207800-BLK	D	207801-BLK
	3/4	1 1/8	8	2	0.030	Custom LBS	AL2-RN-8-0750-R030	C	207810-BLK	D	207811-BLK
	3/4	1 1/8	8	2	0.060	Custom LBS	AL2-RN-8-0750-R060	C	207820-BLK	D	207821-BLK
	3/4	1 1/8	8	2	0.125	Custom LBS	AL2-RN-8-0750-R125	C	207830-BLK	D	207831-BLK
	3/4	1 1/8	8	2	BALL	Custom LBS	AL2-RN-8-0750-R375 (BALL)	C	207840-BLK	D	207841-BLK
1"	1	1 1/2	7	2	SQ	Custom LBS	AL2-RN-7-1000-SQ	C	208700-BLK	D	208701-BLK
	1	1 1/2	7	2	0.030	Custom LBS	AL2-RN-7-1000-R030	C	208710-BLK	D	208711-BLK
	1	1 1/2	7	2	0.060	Custom LBS	AL2-RN-7-1000-R060	C	208720-BLK	D	208721-BLK
	1	1 1/2	7	2	0.125	Custom LBS	AL2-RN-7-1000-R125	C	208730-BLK	D	208731-BLK
	1	1 1/2	7	2	BALL	Custom LBS	AL2-RN-7-1000-R500 (BALL)	C	208740-BLK	D	208741-BLK
	1	1 1/2	8	2	SQ	Custom LBS	AL2-RN-8-1000-SQ	C	208800-BLK	D	208801-BLK
	1	1 1/2	8	2	0.030	Custom LBS	AL2-RN-8-1000-R030	C	208810-BLK	D	208811-BLK
	1	1 1/2	8	2	0.060	Custom LBS	AL2-RN-8-1000-R060	C	208820-BLK	D	208821-BLK
	1	1 1/2	8	2	0.125	Custom LBS	AL2-RN-8-1000-R125	C	208830-BLK	D	208831-BLK
	1	1 1/2	8	2	BALL	Custom LBS	AL2-RN-8-1000-R500 (BALL)	C	208840-BLK	D	208841-BLK

Stock Code Key:

- (A) Factory Stock Item
- (B) Limited Stock (Ships in 3 - 5 Working Days)
- (C) Limited Stock (Ships in 2 Weeks)
- (D) Non Stock (Ships in 3 Weeks)



Standard Catalog Offering

Non- Ferrous AL3 & AL3-RN Series



SERIES: AL3

3 Flute, Aluminum & Non-Ferrous, Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	DESCRIPTION	STOCK CODE	UNCOATED EDP#	STOCK CODE	HARD CARBON EDP#
1/8"	1/8	1/4	1 1/2	3	SQ	AL3-S-0125-SQ	A	310000	A	310001
	1/8	1/4	1 1/2	3	0.015	AL3-S-0125-R015	A	310010	A	310011
	1/8	1/4	1 1/2	3	0.063	AL3-S-0125-R063 (BALL)	A	310040	A	310041
	1/8	3/8	2	3	SQ	AL3-SR-0125-SQ	A	310100	A	310101
	1/8	3/8	2	3	0.015	AL3-SR-0125-R015	A	310110	A	310111
	1/8	3/8	2	3	0.063	AL3-SR-0125-R063 (BALL)	A	310140	A	310141
	1/8	1/2	2 1/2	3	SQ	AL3-R-0125-SQ	A	310200	A	310201
	1/8	1/2	2 1/2	3	0.015	AL3-R-0125-R015	A	310210	A	310211
	1/8	1/2	2 1/2	3	0.063	AL3-R-0125-R063 (BALL)	A	310240	A	310241
3/16"	3/16	5/16	2	3	SQ	AL3-S-0187-SQ	A	300000	A	300001
	3/16	5/16	2	3	0.015	AL3-S-0187-R015	A	300010	A	300011
	3/16	5/16	2	3	0.094	AL3-S-0187-R094 (BALL)	A	300040	A	300041
	3/16	7/16	2	3	SQ	AL3-SR-0187-SQ	A	300100	A	300101
	3/16	7/16	2	3	0.015	AL3-SR-0187-R015	A	300110	A	300111
	3/16	7/16	2	3	0.094	AL3-SR-0187-R094 (BALL)	A	300140	A	300141
	3/16	9/16	2 1/2	3	SQ	AL3-R-0187-SQ	A	300200	A	300201
	3/16	9/16	2 1/2	3	0.015	AL3-R-0187-R015	A	300210	A	300211
	3/16	9/16	2 1/2	3	0.094	AL3-R-0187-R094 (BALL)	A	300240	A	300241
1/4"	1/4	3/8	2	3	SQ	AL3-S-0250-SQ	A	301000	A	301001
	1/4	3/8	2	3	0.015	AL3-S-0250-R015	A	301010	A	301011
	1/4	3/8	2	3	0.030	AL3-S-0250-R030	A	301020	A	301021
	1/4	3/8	2	3	0.060	AL3-S-0250-R060	A	301030	A	301031
	1/4	3/8	2	3	BALL	AL3-S-0250-R125 (BALL)	A	301040	A	301041
	1/4	1/2	2 1/2	3	SQ	AL3-SR-0250-SQ	A	301100	A	301101
	1/4	1/2	2 1/2	3	0.015	AL3-SR-0250-R015	A	301110	A	301111
	1/4	1/2	2 1/2	3	0.030	AL3-SR-0250-R030	A	301120	A	301121
	1/4	1/2	2 1/2	3	0.060	AL3-SR-0250-R060	A	301130	A	301131
	1/4	1/2	2 1/2	3	BALL	AL3-SR-0250-R125 (BALL)	A	301140	A	301141
	1/4	3/4	2 1/2	3	SQ	AL3-R-0250-SQ	A	301200	A	301201
	1/4	3/4	2 1/2	3	0.015	AL3-R-0250-R015	A	301210	A	301211
	1/4	3/4	2 1/2	3	0.030	AL3-R-0250-R030	A	301220	A	301221
	1/4	3/4	2 1/2	3	0.060	AL3-R-0250-R060	A	301230	A	301231
	1/4	3/4	2 1/2	3	BALL	AL3-R-0250-R125 (BALL)	A	301240	A	301241
	1/4	1	3	3	SQ	AL3-SP-0250-SQ	C	391200	D	391201
	1/4	1	3	3	0.015	AL3-SP-0250-R015	C	391210	D	391211
	1/4	1	3	3	0.030	AL3-SP-0250-R030	C	391220	D	391221
	1/4	1	3	3	0.060	AL3-SP-0250-R060	C	391230	D	391231
	1/4	1	3	3	BALL	AL3-SP-0250-R125 (BALL)	C	391240	D	391241
	1/4	1 1/4	3	3	SQ	AL3-M-0250-SQ	A	301300	A	301301
	1/4	1 1/4	3	3	0.015	AL3-M-0250-R015	A	301310	A	301311
	1/4	1 1/4	3	3	0.030	AL3-M-0250-R030	A	301320	A	301321
	1/4	1 1/4	3	3	0.060	AL3-M-0250-R060	A	301330	A	301331
	1/4	1 1/4	3	3	BALL	AL3-M-0250-R125 (BALL)	A	301340	A	301341
5/16"	5/16	1/2	2	3	SQ	AL3-SR-0312-SQ	A	302100	A	302101
	5/16	1/2	2	3	0.015	AL3-SR-0312-R015	A	302110	A	302111
	5/16	1/2	2	3	0.030	AL3-SR-0312-R030	A	302120	A	302121
	5/16	1/2	2	3	BALL	AL3-SR-0312-R157 (BALL)	A	302140	A	302141
	5/16	3/4	2 1/2	3	SQ	AL3-R-0312-SQ	A	302200	A	302201
	5/16	3/4	2 1/2	3	0.015	AL3-R-0312-R015	A	302210	A	302211
	5/16	3/4	2 1/2	3	0.030	AL3-R-0312-R030	A	302220	A	302221
	5/16	3/4	2 1/2	3	BALL	AL3-R-0312-R157 (BALL)	A	302240	A	302241
	5/16	1 1/4	3	3	SQ	AL3-M-0312-SQ	A	302300	A	302301
	5/16	1 1/4	3	3	0.015	AL3-M-0312-R015	A	302310	A	302311
	5/16	1 1/4	3	3	0.030	AL3-M-0312-R030	A	302320	A	302321
	5/16	1 1/4	3	3	BALL	AL3-M-0312-R157 (BALL)	A	302340	A	302341

SERIES: AL3

3 Flute, Aluminum & Non-Ferrous, Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	DESCRIPTION	STOCK CODE	UNCOATED EDP#	STOCK CODE	HARD CARBON EDP#
3/8"	3/8	1/2	2	3	SQ	AL3-S-0375-SQ	A	303000	A	303001
	3/8	1/2	2	3	0.015	AL3-S-0375-R015	A	303010	A	303011
	3/8	1/2	2	3	0.030	AL3-S-0375-R030	A	303020	A	303021
	3/8	1/2	2	3	0.060	AL3-S-0375-R060	A	303030	A	303031
	3/8	1/2	2	3	0.090	AL3-S-0375-R090	C	303035	C	303036
	3/8	1/2	2	3	BALL	AL3-S-0375-R188 (BALL)	A	303040	A	303041
	3/8	3/4	2 1/2	3	SQ	AL3-SR-0375-SQ	A	303100	A	303101
	3/8	3/4	2 1/2	3	0.015	AL3-SR-0375-R015	A	303110	A	303111
	3/8	3/4	2 1/2	3	0.030	AL3-SR-0375-R030	A	303120	A	303121
	3/8	3/4	2 1/2	3	0.060	AL3-SR-0375-R060	A	303130	A	303131
	3/8	3/4	2 1/2	3	0.090	AL3-SR-0375-R090	C	303135	C	303136
	3/8	3/4	2 1/2	3	BALL	AL3-SR-0375-R188 (BALL)	A	303140	A	303141
	3/8	7/8	3	3	SQ	AL3-SP-0375-SQ	A	393200	A	393201
	3/8	7/8	3	3	0.015	AL3-SP-0375-R015	A	393210	A	393211
	3/8	7/8	3	3	0.030	AL3-SP-0375-R030	A	393220	A	393221
	3/8	7/8	3	3	0.060	AL3-SP-0375-R060	A	393230	A	393231
	3/8	7/8	3	3	0.090	AL3-SP-0375-R090	C	393235	C	393236
	3/8	7/8	3	3	BALL	AL3-SP-0375-R188 (BALL)	A	393240	A	393241
	3/8	1	3	3	SQ	AL3-R-0375-SQ	A	303200	A	303201
	3/8	1	3	3	0.015	AL3-R-0375-R015	A	303210	A	303211
	3/8	1	3	3	0.030	AL3-R-0375-R030	A	303220	A	303221
	3/8	1	3	3	0.060	AL3-R-0375-R060	A	303230	A	303231
	3/8	1	3	3	0.090	AL3-R-0375-R090	C	303235	C	303236
	3/8	1	3	3	BALL	AL3-R-0375-R188 (BALL)	A	303240	A	303241
	3/8	1 1/4	3	3	SQ	AL3-M-0375-SQ	A	303300	A	303301
	3/8	1 1/4	3	3	0.015	AL3-M-0375-R015	A	303310	A	303311
	3/8	1 1/4	3	3	0.030	AL3-M-0375-R030	A	303320	A	303321
	3/8	1 1/4	3	3	0.060	AL3-M-0375-R060	A	303330	A	303331
	3/8	1 1/4	3	3	0.090	AL3-M-0375-R090	C	303335	C	303336
	3/8	1 1/4	3	3	BALL	AL3-M-0375-R188 (BALL)	A	303340	A	303341
	3/8	1 1/2	4	3	SQ	AL3-L-0375-SQ	A	303400	A	303401
	3/8	1 1/2	4	3	0.015	AL3-L-0375-R015	A	303410	A	303411
	3/8	1 1/2	4	3	0.030	AL3-L-0375-R030	A	303420	A	303421
	3/8	1 1/2	4	3	0.060	AL3-L-0375-R060	A	303430	A	303431
	3/8	1 1/2	4	3	0.090	AL3-L-0375-R090	C	303435	C	303436
	3/8	1 1/2	4	3	BALL	AL3-L-0375-R188 (BALL)	A	303440	A	303441
1/2"	1/2	5/8	2 1/2	3	SQ	AL3-S-0500-SQ	A	305000	A	305001
	1/2	5/8	2 1/2	3	0.015	AL3-S-0500-R015	A	305010	A	305011
	1/2	5/8	2 1/2	3	0.030	AL3-S-0500-R030	A	305020	A	305021
	1/2	5/8	2 1/2	3	0.060	AL3-S-0500-R060	A	305030	A	305031
	1/2	5/8	2 1/2	3	0.090	AL3-S-0500-R090	C	305035	D	305036
	1/2	5/8	2 1/2	3	0.125	AL3-S-0500-R125	A	305040	A	305041
	1/2	5/8	2 1/2	3	BALL	AL3-S-0500-R250 (BALL)	A	305050	A	305051
	1/2	1	3	3	SQ	AL3-SR-0500-SQ	A	305100	A	305101
	1/2	1	3	3	0.015	AL3-SR-0500-R015	A	305110	A	305111
	1/2	1	3	3	0.030	AL3-SR-0500-R030	A	305120	A	305121
	1/2	1	3	3	0.060	AL3-SR-0500-R060	A	305130	A	305131
	1/2	1	3	3	0.090	AL3-SR-0500-R090	C	305135	D	305136
	1/2	1	3	3	0.125	AL3-SR-0500-R125	A	305140	A	305141
	1/2	1	3	3	BALL	AL3-SR-0500-R250 (BALL)	A	305150	A	305151
	1/2	1 1/4	3	3	SQ	AL3-R-0500-SQ	A	305200	A	305201
	1/2	1 1/4	3	3	0.015	AL3-R-0500-R015	A	305210	A	305211
	1/2	1 1/4	3	3	0.030	AL3-R-0500-R030	A	305220	A	305221
	1/2	1 1/4	3	3	0.060	AL3-R-0500-R060	A	305230	A	305231
	1/2	1 1/4	3	3	0.090	AL3-R-0500-R090	C	305235	D	305236
	1/2	1 1/4	3	3	0.125	AL3-R-0500-R125	A	305240	A	305241
	1/2	1 1/4	3	3	BALL	AL3-R-0500-R250 (BALL)	A	305250	A	305251

SERIES: AL3

3 Flute, Aluminum & Non-Ferrous, Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	DESCRIPTION	STOCK CODE	UNCOATED EDP#	STOCK CODE	HARD CARBON EDP#
1/2"	1/2	1 1/2	4	3	SQ	AL3-M-0500-SQ	A	305300	A	305301
	1/2	1 1/2	4	3	0.015	AL3-M-0500-R015	A	305310	A	305311
	1/2	1 1/2	4	3	0.030	AL3-M-0500-R030	A	305320	A	305321
	1/2	1 1/2	4	3	0.060	AL3-M-0500-R060	A	305330	A	305331
	1/2	1 1/2	4	3	0.090	AL3-M-0500-R090	C	305335	D	305336
	1/2	1 1/2	4	3	0.125	AL3-M-0500-R125	A	305340	A	305341
	1/2	1 1/2	4	3	BALL	AL3-M-0500-R250 (BALL)	A	305350	A	305351
	1/2	1 5/8	4	3	SQ	AL3-SP-0500-SQ	A	395300	A	395301
	1/2	1 5/8	4	3	0.015	AL3-SP-0500-R015	A	395310	A	395311
	1/2	1 5/8	4	3	0.030	AL3-SP-0500-R030	A	395320	A	395321
	1/2	1 5/8	4	3	0.060	AL3-SP-0500-R060	A	395330	A	395331
	1/2	1 5/8	4	3	0.090	AL3-SP-0500-R090	C	395335	D	395336
	1/2	1 5/8	4	3	0.125	AL3-SP-0500-R125	A	395340	A	395341
	1/2	1 5/8	4	3	BALL	AL3-SP-0500-R250 (BALL)	A	395350	A	395351
	1/2	2	4	3	SQ	AL3-L-0500-SQ	A	305400	A	305401
	1/2	2	4	3	0.015	AL3-L-0500-R015	A	305410	A	305411
	1/2	2	4	3	0.030	AL3-L-0500-R030	A	305420	A	305421
	1/2	2	4	3	0.060	AL3-L-0500-R060	A	305430	A	305431
	1/2	2	4	3	0.090	AL3-L-0500-R090	C	305435	D	305436
	1/2	2	4	3	0.125	AL3-L-0500-R125	A	305440	A	305441
	1/2	2	4	3	BALL	AL3-L-0500-R250 (BALL)	A	305450	A	305451
5/8"	5/8	3/4	3	3	SQ	AL3-S-0625-SQ	A	306000	A	306001
	5/8	3/4	3	3	0.030	AL3-S-0625-R030	A	306010	A	306011
	5/8	3/4	3	3	0.060	AL3-S-0625-R060	A	306020	D	306021
	5/8	3/4	3	3	0.090	AL3-S-0625-R090	C	306025	D	306026
	5/8	3/4	3	3	0.125	AL3-S-0625-R125	A	306030	D	306031
	5/8	3/4	3	3	BALL	AL3-S-0625-R313 (BALL)	A	306040	A	306041
	5/8	1 1/4	3 1/2	3	SQ	AL3-SR-0625-SQ	A	306100	A	306101
	5/8	1 1/4	3 1/2	3	0.030	AL3-SR-0625-R030	A	306110	A	306111
	5/8	1 1/4	3 1/2	3	0.060	AL3-SR-0625-R060	A	306120	A	306121
	5/8	1 1/4	3 1/2	3	0.090	AL3-SR-0625-R090	C	306125	D	306126
	5/8	1 1/4	3 1/2	3	0.125	AL3-SR-0625-R125	A	306130	A	306131
	5/8	1 1/4	3 1/2	3	BALL	AL3-SR-0625-R313 (BALL)	A	306140	A	306141
	5/8	1 1/2	3 1/2	3	SQ	AL3-R-0625-SQ	A	306200	A	306201
	5/8	1 1/2	3 1/2	3	0.030	AL3-R-0625-R030	A	306210	A	306211
	5/8	1 1/2	3 1/2	3	0.060	AL3-R-0625-R060	A	306220	A	306221
	5/8	1 1/2	3 1/2	3	0.090	AL3-R-0625-R090	C	306225	D	306226
	5/8	1 1/2	3 1/2	3	0.125	AL3-R-0625-R125	A	306230	A	306231
	5/8	1 1/2	3 1/2	3	BALL	AL3-R-0625-R313 (BALL)	A	306240	A	306241
	5/8	1 5/8	3 1/2	3	SQ	AL3-SP-0625-SQ	A	396200	A	396201
	5/8	1 5/8	3 1/2	3	0.030	AL3-SP-0625-R030	A	396210	A	396211
	5/8	1 5/8	3 1/2	3	0.060	AL3-SP-0625-R060	A	396220	A	396221
	5/8	1 5/8	3 1/2	3	0.090	AL3-SP-0625-R090	C	396225	D	396226
	5/8	1 5/8	3 1/2	3	0.125	AL3-SP-0625-R125	A	396230	A	396231
	5/8	1 5/8	3 1/2	3	BALL	AL3-SP-0625-R313 (BALL)	A	396240	A	396241
	5/8	2	4	3	SQ	AL3-M-0625-SQ	A	306300	A	306301
	5/8	2	4	3	0.030	AL3-M-0625-R030	A	306310	A	306311
	5/8	2	4	3	0.060	AL3-M-0625-R060	A	306320	A	306321
	5/8	2	4	3	0.090	AL3-M-0625-R090	C	306325	D	306326
	5/8	2	4	3	0.125	AL3-M-0625-R125	A	306330	A	306331
	5/8	2	4	3	BALL	AL3-M-0625-R313 (BALL)	A	306340	A	306341
	5/8	2 1/2	5	3	SQ	AL3-L-0625-SQ	A	306400	A	306401
	5/8	2 1/2	5	3	0.030	AL3-L-0625-R030	A	306410	A	306411
	5/8	2 1/2	5	3	0.060	AL3-L-0625-R060	A	306420	A	306421
	5/8	2 1/2	5	3	0.090	AL3-L-0625-R090	C	306425	D	306426
	5/8	2 1/2	5	3	0.125	AL3-L-0625-R125	B	306430	D	306431
	5/8	2 1/2	5	3	BALL	AL3-L-0625-R313 (BALL)	A	306440	A	306441

SERIES: AL3

3 Flute, Aluminum & Non-Ferrous, Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	DESCRIPTION	STOCK CODE	UNCOATED EDP#	STOCK CODE	HARD CARBON EDP#
3/4"	3/4	1	3	3	SQ	AL3-S-0750-SQ	A	307000	A	307001
	3/4	1	3	3	0.030	AL3-S-0750-R030	A	307010	A	307011
	3/4	1	3	3	0.060	AL3-S-0750-R060	A	307020	A	307021
	3/4	1	3	3	0.090	AL3-S-0750-R090	C	307025	D	307026
	3/4	1	3	3	0.125	AL3-S-0750-R125	A	307030	A	307031
	3/4	1	3	3	BALL	AL3-S-0750-R375 (BALL)	A	307040	A	307041
	3/4	1 1/2	4	3	SQ	AL3-SR-0750-SQ	A	307100	A	307101
	3/4	1 1/2	4	3	0.030	AL3-SR-0750-R030	A	307110	A	307111
	3/4	1 1/2	4	3	0.060	AL3-SR-0750-R060	A	307120	D	307121
	3/4	1 1/2	4	3	0.090	AL3-SR-0750-R090	C	307125	D	307126
	3/4	1 1/2	4	3	0.125	AL3-SR-0750-R125	A	307130	A	307131
	3/4	1 1/2	4	3	BALL	AL3-SR-0750-R375 (BALL)	A	307140	A	307141
	3/4	1 5/8	4	3	SQ	AL3-SP-0750-SQ	A	397100	A	397101
	3/4	1 5/8	4	3	0.030	AL3-SP-0750-R030	A	397110	A	397111
	3/4	1 5/8	4	3	0.060	AL3-SP-0750-R060	A	397120	A	397121
	3/4	1 5/8	4	3	0.090	AL3-SP-0750-R090	C	397125	D	397126
	3/4	1 5/8	4	3	0.125	AL3-SP-0750-R125	A	397130	A	397131
	3/4	1 5/8	4	3	BALL	AL3-SP-0750-R375 (BALL)	A	397140	A	397141
	3/4	2	5	3	SQ	AL3-R-0750-SQ	A	307200	A	307201
	3/4	2	5	3	0.030	AL3-R-0750-R030	A	307210	A	307211
	3/4	2	5	3	0.060	AL3-R-0750-R060	A	307220	A	307221
	3/4	2	5	3	0.090	AL3-R-0750-R090	C	307225	D	307226
	3/4	2	5	3	0.125	AL3-R-0750-R125	A	307230	A	307231
	3/4	2	5	3	BALL	AL3-R-0750-R375 (BALL)	A	307240	A	307241
	3/4	2 1/2	5	3	SQ	AL3-M-0750-SQ	A	307300	A	307301
	3/4	2 1/2	5	3	0.030	AL3-M-0750-R030	A	307310	A	307311
	3/4	2 1/2	5	3	0.060	AL3-M-0750-R060	A	307320	A	307321
	3/4	2 1/2	5	3	0.090	AL3-M-0750-R090	C	307325	D	307326
	3/4	2 1/2	5	3	0.125	AL3-M-0750-R125	A	307330	A	307331
	3/4	2 1/2	5	3	BALL	AL3-M-0750-R375 (BALL)	A	307340	A	307341
	3/4	3	6	3	SQ	AL3-L-0750-SQ	A	307400	A	307401
	3/4	3	6	3	0.030	AL3-L-0750-R030	A	307410	A	307411
	3/4	3	6	3	0.060	AL3-L-0750-R060	A	307420	A	307421
	3/4	3	6	3	0.090	AL3-L-0750-R090	C	307425	D	307426
	3/4	3	6	3	0.125	AL3-L-0750-R125	A	307430	A	307431
	3/4	3	6	3	BALL	AL3-L-0750-R375 (BALL)	A	307440	A	307441
1"	1	1 3/4	4	3	SQ	AL3-SR-1000-SQ	AL3	308100	A	308101
	1	1 3/4	4	3	0.030	AL3-SR-1000-R030	AL3	308110	A	308111
	1	1 3/4	4	3	0.060	AL3-SR-1000-R060	AL3	308120	A	308121
	1	1 3/4	4	3	0.090	AL3-SR-1000-R090	AL3	308125	D	308126
	1	1 3/4	4	3	0.125	AL3-SR-1000-R125	AL3	308130	A	308131
	1	1 3/4	4	3	BALL	AL3-SR-1000-R500 (BALL)	AL3	308140	A	308141
	1	2 1/2	5	3	SQ	AL3-R-1000-SQ	AL3	308200	A	308201
	1	2 1/2	5	3	0.030	AL3-R-1000-R030	AL3	308210	A	308211
	1	2 1/2	5	3	0.060	AL3-R-1000-R060	AL3	308220	A	308221
	1	2 1/2	5	3	0.090	AL3-R-1000-R090	AL3	308225	D	308226
	1	2 1/2	5	3	0.125	AL3-R-1000-R125	AL3	308230	A	308231
	1	2 1/2	5	3	BALL	AL3-R-1000-R500 (BALL)	AL3	308240	A	308241
	1	3	6	3	SQ	AL3-M-1000-SQ	A	308300	A	308301
	1	3	6	3	0.030	AL3-M-1000-R030	A	308310	A	308311
	1	3	6	3	0.060	AL3-M-1000-R060	A	308320	A	308321
	1	3	6	3	0.090	AL3-M-1000-R090	C	308325	D	308326
	1	3	6	3	0.125	AL3-M-1000-R125	A	308330	A	308331
	1	3	6	3	BALL	AL3-M-1000-R500 (BALL)	A	308340	A	308341

SERIES: AL3

3 Flute, Aluminum & Non-Ferrous, Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	DESCRIPTION	STOCK CODE	UNCOATED EDP#	STOCK CODE	HARD CARBON EDP#
1"	1	3 1/2	6	3	SQ	AL3-L-1000-SQ	A	308400	A	308401
	1	3 1/2	6	3	0.030	AL3-L-1000-R030	A	308410	A	308411
	1	3 1/2	6	3	0.060	AL3-L-1000-R060	A	308420	A	308421
	1	3 1/2	6	3	0.090	AL3-L-1000-R090	C	308425	D	308426
	1	3 1/2	6	3	0.125	AL3-L-1000-R125	A	308430	A	308431
	1	3 1/2	6	3	BALL	AL3-L-1000-R500 (BALL)	B	308440	D	308441

Stock Code Key:

- (A) Factory Stock Item
- (B) Limited Stock (Ships in 3 - 5 Working Days)
- (C) Limited Stock (Ships in 2 Weeks)
- (D) Non Stock (Ships in 3 Weeks)

SERIES: AL3-RN

3 Flute, Reduced Neck, Aluminum & Non-Ferrous, Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	LENGTH BELOW SHANK (LBS)	DESCRIPTION	STOCK CODE	UNCOATED EDP#	STOCK CODE	HARD CARBON EDP#
1/8"	1/8	3/16	2	3	SQ	1/2	AL3-RN-R-0125-SQ	C	310700	D	310701
	1/8	3/16	2	3	0.015	1/2	AL3-RN-R-0125-R015	C	310710	D	310711
	1/8	3/16	2	3	BALL	1/2	AL3-RN-R-0125-R063 (BALL)	C	310740	D	310741
	1/8	3/16	2 1/2	3	SQ	3/4	AL3-RN-M-0125-SQ	C	310800	D	310801
	1/8	3/16	2 1/2	3	0.015	3/4	AL3-RN-M-0125-R015	C	310810	D	310811
	1/8	3/16	2 1/2	3	BALL	3/4	AL3-RN-M-0125-R063 (BALL)	C	310840	D	310841
3/16"	3/16	1/4	2 1/2	3	SQ	1/2	AL3-RN-R-0187-SQ	C	300700	D	300701
	3/16	1/4	2 1/2	3	0.015	1/2	AL3-RN-R-0187-R015	C	300710	D	300711
	3/16	1/4	2 1/2	3	BALL	1/2	AL3-RN-R-0187-R094 (BALL)	C	300740	D	300741
	3/16	1/4	3	3	SQ	3/4	AL3-RN-M-0187-SQ	C	300800	D	300801
	3/16	1/4	3	3	0.015	3/4	AL3-RN-M-0187-R015	C	300810	D	300811
	3/16	1/4	3	3	BALL	3/4	AL3-RN-M-0187-R094 (BALL)	C	300840	D	300841
	3/16	1/4	3	3	SQ	1	AL3-RN-L-0187-SQ	C	300900	D	300901
	3/16	1/4	3	3	0.015	1	AL3-RN-L-0187-R015	C	300910	D	300911
1/4"	1/4	3/8	2 1/2	3	SQ	3/4	AL3-RN-S-0250-SQ	C	301600	D	301601
	1/4	3/8	2 1/2	3	0.015	3/4	AL3-RN-S-0250-R015	C	301610	D	301611
	1/4	3/8	2 1/2	3	0.030	3/4	AL3-RN-S-0250-R030	C	301620	D	301621
	1/4	3/8	2 1/2	3	0.060	3/4	AL3-RN-S-0250-R060	C	301630	D	301631
	1/4	3/8	2 1/2	3	BALL	3/4	AL3-RN-S-0250-R125 (BALL)	C	301640	D	301641
	1/4	3/8	3	3	SQ	1	AL3-RN-SR-0250-SQ	C	301600N	D	301601N
	1/4	3/8	3	3	0.015	1	AL3-RN-SR-0250-R015	C	301610N	D	301611N
	1/4	3/8	3	3	0.030	1	AL3-RN-SR-0250-R030	C	301620N	D	301621N
	1/4	3/8	3	3	0.060	1	AL3-RN-SR-0250-R060	C	301630N	D	301631N
	1/4	3/8	3	3	BALL	1	AL3-RN-SR-0250-R125 (BALL)	C	301640N	D	301641N
	1/4	3/8	4	3	SQ	1 1/4	AL3-RN-R-0250-SQ	A	301700	A	301701
	1/4	3/8	4	3	0.015	1 1/4	AL3-RN-R-0250-R015	A	301710	A	301711
	1/4	3/8	4	3	0.030	1 1/4	AL3-RN-R-0250-R030	A	301720	A	301721
	1/4	3/8	4	3	0.060	1 1/4	AL3-RN-R-0250-R060	A	301730	A	301731
	1/4	3/8	4	3	BALL	1 1/4	AL3-RN-R-0250-R125 (BALL)	A	301740	A	301741
	1/4	3/8	4	3	SQ	1 1/2	AL3-RN-SP-0250-SQ	C	301800	D	301801
	1/4	3/8	4	3	0.015	1 1/2	AL3-RN-SP-0250-R015	C	301810	D	301811
	1/4	3/8	4	3	0.030	1 1/2	AL3-RN-SP-0250-R030	C	301820	D	301821
	1/4	3/8	4	3	0.060	1 1/2	AL3-RN-SP-0250-R060	C	301830	D	301831
	1/4	3/8	4	3	BALL	1 1/2	AL3-RN-SP-0250-R125 (BALL)	C	301840	D	301841
5/16"	5/16	1/2	3	3	SQ	1 1/4	AL3-RN-SR-0312-SQ	C	302600N	D	302601N
	5/16	1/2	3	3	0.015	1 1/4	AL3-RN-SR-0312-R015	C	302610N	D	302611N
	5/16	1/2	3	3	0.030	1 1/4	AL3-RN-SR-0312-R030	C	302620N	D	302621N
	5/16	1/2	3	3	BALL	1 1/4	AL3-RN-SR-0312-R063 (BALL)	C	302640N	D	302641N
	5/16	1/2	4	3	SQ	2	AL3-RN-M-0312-SQ	C	302800	D	302801
	5/16	1/2	4	3	0.015	2	AL3-RN-M-0312-R015	C	302810	D	302811
	5/16	1/2	4	3	0.030	2	AL3-RN-M-0312-R030	C	302820	D	302821
	5/16	1/2	4	3	BALL	2	AL3-RN-M-0312-R063 (BALL)	C	302840	D	302841
3/8"	3/8	5/8	3	3	SQ	1 5/8	AL3-RN-SR-0375-SQ	C	303600N	D	303601N
	3/8	5/8	3	3	0.015	1 5/8	AL3-RN-SR-0375-R015	C	303610N	D	303611N
	3/8	5/8	3	3	0.030	1 5/8	AL3-RN-SR-0375-R030	C	303620N	D	303621N
	3/8	5/8	3	3	0.060	1 5/8	AL3-RN-SR-0375-R060	C	303630N	D	303631N
	3/8	5/8	3	3	0.090	1 5/8	AL3-RN-SR-0375-R090	C	303635N	D	303636N
	3/8	5/8	3	3	BALL	1 5/8	AL3-RN-SR-0375-R188 (BALL)	C	303640N	D	303641N
	3/8	5/8	4	3	SQ	2	AL3-RN-R-0375-SQ	A	303700	A	303701
	3/8	5/8	4	3	0.015	2	AL3-RN-R-0375-R015	A	303710	A	303711
	3/8	5/8	4	3	0.030	2	AL3-RN-R-0375-R030	A	303720	A	303721
	3/8	5/8	4	3	0.060	2	AL3-RN-R-0375-R060	A	303730	A	303731
	3/8	5/8	4	3	0.090	2	AL3-RN-R-0375-R090	C	303735	D	303736
	3/8	5/8	4	3	BALL	2	AL3-RN-R-0375-R188 (BALL)	A	303740	A	303741

SERIES: AL3-RN

3 Flute, Reduced Neck, Aluminum & Non-Ferrous, Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	LENGTH BELOW SHANK (LBS)	DESCRIPTION	STOCK CODE	UNCOATED EDP#	STOCK CODE	HARD CARBON EDP#
3/8"	3/8	5/8	4	3	SQ	2 1/2	AL3-RN-M-0375-SQ	C	303800	D	303801
	3/8	5/8	4	3	0.015	2 1/2	AL3-RN-M-0375-R015	C	303810	D	303811
	3/8	5/8	4	3	0.030	2 1/2	AL3-RN-M-0375-R030	C	303820	D	303821
	3/8	5/8	4	3	0.060	2 1/2	AL3-RN-M-0375-R060	C	303830	D	303831
	3/8	5/8	4	3	0.090	2 1/2	AL3-RN-M-0375-R090	C	303835	D	303836
	3/8	5/8	4	3	BALL	2 1/2	AL3-RN-M-0375-R188 (BALL)	C	303840	D	303841
	3/8	5/8	5	3	SQ	3	AL3-RN-L-0375-SQ	C	303900	D	303901
	3/8	5/8	5	3	0.015	3	AL3-RN-L-0375-R015	C	303910	D	303911
	3/8	5/8	5	3	0.030	3	AL3-RN-L-0375-R030	C	303920	D	303921
	3/8	5/8	5	3	0.060	3	AL3-RN-L-0375-R060	C	303930	D	303931
	3/8	5/8	5	3	0.090	3	AL3-RN-L-0375-R090	C	303935	D	303936
	3/8	5/8	5	3	BALL	3	AL3-RN-L-0375-R188 (BALL)	C	303940	D	303941
1/2"	1/2	3/4	3	3	SQ	1 1/4	AL3-RN-S-0500-SQ	A	305600	A	305601
	1/2	3/4	3	3	0.015	1 1/4	AL3-RN-S-0500-R015	B	305610	D	305611
	1/2	3/4	3	3	0.030	1 1/4	AL3-RN-S-0500-R030	A	305620	A	305621
	1/2	3/4	3	3	0.060	1 1/4	AL3-RN-S-0500-R060	B	305630	D	305631
	1/2	3/4	3	3	0.090	1 1/4	AL3-RN-S-0500-R090	C	305635	D	305636
	1/2	3/4	3	3	0.125	1 1/4	AL3-RN-S-0500-R125	A	305640	A	305641
	1/2	3/4	3	3	BALL	1 1/4	AL3-RN-S-0500-R250 (BALL)	A	305650	A	305651
	1/2	3/4	3	3	SQ	1 3/4	AL3-RN-SR-0500-SQ	C	305600N	D	305601N
	1/2	3/4	3	3	0.015	1 3/4	AL3-RN-SR-0500-R015	C	305610N	D	305611N
	1/2	3/4	3	3	0.030	1 3/4	AL3-RN-SR-0500-R030	C	305620N	D	305621N
	1/2	3/4	3	3	0.060	1 3/4	AL3-RN-SR-0500-R060	C	305630N	D	305631N
	1/2	3/4	3	3	0.090	1 3/4	AL3-RN-SR-0500-R090	C	305635N	D	305636N
	1/2	3/4	3	3	0.125	1 3/4	AL3-RN-SR-0500-R125	C	305640N	D	305641N
	1/2	3/4	3	3	BALL	1 3/4	AL3-RN-SR-0500-R250 (BALL)	C	305650N	D	305651N
	1/2	3/4	4	3	SQ	2	AL3-RN-R-0500-SQ	A	305700	A	305701
	1/2	3/4	4	3	0.015	2	AL3-RN-R-0500-R015	B	305710	D	305711
	1/2	3/4	4	3	0.030	2	AL3-RN-R-0500-R030	A	305720	A	305721
	1/2	3/4	4	3	0.060	2	AL3-RN-R-0500-R060	A	305730	A	305731
	1/2	3/4	4	3	0.090	2	AL3-RN-R-0500-R090	C	305735	D	305736
	1/2	3/4	4	3	0.125	2	AL3-RN-R-0500-R125	A	305740	A	305741
	1/2	3/4	4	3	BALL	2	AL3-RN-R-0500-R250 (BALL)	A	305750	A	305751
	1/2	3/4	4	3	SQ	2 1/4	AL3-RN-SP-0500-SQ	C	305700N	D	305701N
	1/2	3/4	4	3	0.015	2 1/4	AL3-RN-SP-0500-R015	C	305710N	D	305711N
	1/2	3/4	4	3	0.030	2 1/4	AL3-RN-SP-0500-R030	C	305720N	D	305721N
	1/2	3/4	4	3	0.060	2 1/4	AL3-RN-SP-0500-R060	C	305730N	D	305731N
	1/2	3/4	4	3	0.090	2 1/4	AL3-RN-SP-0500-R090	C	305735N	D	305736N
	1/2	3/4	4	3	0.125	2 1/4	AL3-RN-SP-0500-R125	C	305740N	D	305741N
	1/2	3/4	4	3	BALL	2 1/4	AL3-RN-SP-0500-R250 (BALL)	C	305750N	D	305751N
	1/2	3/4	5	3	SQ	2 1/2	AL3-RN-M-0500-SQ	A	305800	A	305801
	1/2	3/4	5	3	0.015	2 1/2	AL3-RN-M-0500-R015	A	305810	A	305811
	1/2	3/4	5	3	0.030	2 1/2	AL3-RN-M-0500-R030	A	305820	A	305821
	1/2	3/4	5	3	0.060	2 1/2	AL3-RN-M-0500-R060	A	305830	A	305831
	1/2	3/4	5	3	0.090	2 1/2	AL3-RN-M-0500-R090	C	305835	D	305836
	1/2	3/4	5	3	0.125	2 1/2	AL3-RN-M-0500-R125	A	305840	A	305841
	1/2	3/4	5	3	BALL	2 1/2	AL3-RN-M-0500-R250 (BALL)	A	305850	A	305851
	1/2	3/4	6	3	SQ	3 1/2	AL3-RN-L-0500-SQ	A	305900	A	305901
	1/2	3/4	6	3	0.015	3 1/2	AL3-RN-L-0500-R015	A	305910	A	305911
	1/2	3/4	6	3	0.030	3 1/2	AL3-RN-L-0500-R030	A	305920	A	305921
	1/2	3/4	6	3	0.060	3 1/2	AL3-RN-L-0500-R060	A	305930	A	305931
	1/2	3/4	6	3	0.090	3 1/2	AL3-RN-L-0500-R090	C	305935	D	305936
	1/2	3/4	6	3	0.125	3 1/2	AL3-RN-L-0500-R125	A	305940	A	305941
	1/2	3/4	6	3	BALL	3 1/2	AL3-RN-L-0500-R250 (BALL)	A	305950	A	305951

SERIES: AL3-RN

3 Flute, Reduced Neck, Aluminum & Non-Ferrous, Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	LENGTH BELOW SHANK (LBS)	DESCRIPTION	STOCK CODE	UNCOATED EDP#	STOCK CODE	HARD CARBON EDP#
5/8"	5/8	1	4	3	SQ	2	AL3-RN-R-0625-SQ	C	306700	D	306701
	5/8	1	4	3	0.030	2	AL3-RN-R-0625-R030	C	306710	D	306711
	5/8	1	4	3	0.060	2	AL3-RN-R-0625-R060	C	306720	D	306721
	5/8	1	4	3	0.090	2	AL3-RN-R-0625-R090	C	306725	D	306726
	5/8	1	4	3	0.125	2	AL3-RN-R-0625-R125	C	306730	D	306731
	5/8	1	4	3	BALL	2	AL3-RN-R-0625-R313 (BALL)	C	306740	D	306741
	5/8	1	5	3	SQ	2 1/2	AL3-RN-M-0625-SQ	A	306800	A	306801
	5/8	1	5	3	0.030	2 1/2	AL3-RN-M-0625-R030	A	306810	A	306811
	5/8	1	5	3	0.060	2 1/2	AL3-RN-M-0625-R060	A	306820	A	306821
	5/8	1	5	3	0.090	2 1/2	AL3-RN-M-0625-R090	C	306825	D	306826
	5/8	1	5	3	0.125	2 1/2	AL3-RN-M-0625-R125	B	306830	D	306831
	5/8	1	5	3	BALL	2 1/2	AL3-RN-M-0625-R313 (BALL)	B	306840	D	306841
	5/8	1	5	3	SQ	3 1/2	AL3-RN-L-0625-SQ	C	306900	D	306901
	5/8	1	5	3	0.030	3 1/2	AL3-RN-L-0625-R030	C	306910	D	306911
	5/8	1	5	3	0.060	3 1/2	AL3-RN-L-0625-R060	C	306920	D	306921
	5/8	1	5	3	0.090	3 1/2	AL3-RN-L-0625-R090	C	306925	D	306926
3/4"	3/4	1 1/8	4	3	SQ	1 3/4	AL3-RN-SR-0750-SQ	C	307600N	D	307601N
	3/4	1 1/8	4	3	0.030	1 3/4	AL3-RN-SR-0750-R030	C	307610N	D	307611N
	3/4	1 1/8	4	3	0.060	1 3/4	AL3-RN-SR-0750-R060	C	307620N	D	307621N
	3/4	1 1/8	4	3	0.090	1 3/4	AL3-RN-SR-0750-R090	C	307625N	D	307626N
	3/4	1 1/8	4	3	0.125	1 3/4	AL3-RN-SR-0750-R125	C	307630N	D	307631N
	3/4	1 1/8	4	3	BALL	1 3/4	AL3-RN-SR-0750-R375 (BALL)	C	307640N	D	307641N
	3/4	1 1/8	4	3	SQ	2	AL3-RN-R-0750-SQ	A	307700	A	307701
	3/4	1 1/8	4	3	0.030	2	AL3-RN-R-0750-R030	A	307710	A	307711
	3/4	1 1/8	4	3	0.060	2	AL3-RN-R-0750-R060	A	307720	A	307721
	3/4	1 1/8	4	3	0.090	2	AL3-RN-R-0750-R090	C	307725	D	307726
	3/4	1 1/8	4	3	0.125	2	AL3-RN-R-0750-R125	A	307730	D	307731
	3/4	1 1/8	4	3	BALL	2	AL3-RN-R-0750-R375 (BALL)	A	307740	D	307741
	3/4	1 1/8	5	3	SQ	2 1/2	AL3-RN-SP-0750-SQ	C	307700N	D	307701N
	3/4	1 1/8	5	3	0.030	2 1/2	AL3-RN-SP-0750-R030	C	307710N	D	307711N
	3/4	1 1/8	5	3	0.060	2 1/2	AL3-RN-SP-0750-R060	C	307720N	D	307721N
	3/4	1 1/8	5	3	0.090	2 1/2	AL3-RN-SP-0750-R090	C	307725N	D	307726N
	3/4	1 1/8	5	3	0.125	2 1/2	AL3-RN-SP-0750-R125	C	307730N	D	307731N
	3/4	1 1/8	5	3	BALL	2 1/2	AL3-RN-SP-0750-R375 (BALL)	C	307740N	D	307741N
	3/4	1 1/8	6	3	SQ	3	AL3-RN-M-0750-SQ	A	307800	A	307801
	3/4	1 1/8	6	3	0.030	3	AL3-RN-M-0750-R030	A	307810	A	307811
	3/4	1 1/8	6	3	0.060	3	AL3-RN-M-0750-R060	A	307820	A	307821
	3/4	1 1/8	6	3	0.090	3	AL3-RN-M-0750-R090	C	307825	D	307826
	3/4	1 1/8	6	3	0.125	3	AL3-RN-M-0750-R125	A	307830	A	307831
	3/4	1 1/8	6	3	BALL	3	AL3-RN-M-0750-R375 (BALL)	A	307840	A	307841
	3/4	1 1/8	6	3	SQ	4	AL3-RN-X-0750-SQ	C	307900N	D	307901N
	3/4	1 1/8	6	3	0.030	4	AL3-RN-X-0750-R030	C	307910N	D	307911N
	3/4	1 1/8	6	3	0.060	4	AL3-RN-X-0750-R060	C	307920N	D	307921N
	3/4	1 1/8	6	3	0.090	4	AL3-RN-X-0750-R090	C	307925N	D	307926N
	3/4	1 1/8	6	3	0.125	4	AL3-RN-X-0750-R125	C	307930N	D	307931N
	3/4	1 1/8	6	3	BALL	4	AL3-RN-X-0750-R375 (BALL)	C	307940N	D	307941N
1"	1	1 1/2	5	3	SQ	2 1/2	AL3-RN-R-1000-SQ	A	308700	A	308701
	1	1 1/2	5	3	0.030	2 1/2	AL3-RN-R-1000-R030	A	308710	A	308711
	1	1 1/2	5	3	0.060	2 1/2	AL3-RN-R-1000-R060	A	308720	A	308721
	1	1 1/2	5	3	0.090	2 1/2	AL3-RN-R-1000-R090	C	308725	D	308726
	1	1 1/2	5	3	0.125	2 1/2	AL3-RN-R-1000-R125	A	308730	A	308731
	1	1 1/2	5	3	BALL	2 1/2	AL3-RN-R-1000-R500 (BALL)	A	308740	A	308741

SERIES: AL3-RN

3 Flute, Reduced Neck, Aluminum & Non-Ferrous, Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	LENGTH BELOW SHANK (LBS)	DESCRIPTION	STOCK CODE	UNCOATED EDP#	STOCK CODE	HARD CARBON EDP#
1"	1	1 1/2	6	3	SQ	3 1/2	AL3-RN-M-1000-SQ	A	308800	A	308801
	1	1 1/2	6	3	0.030	3 1/2	AL3-RN-M-1000-R030	A	308810	A	308811
	1	1 1/2	6	3	0.060	3 1/2	AL3-RN-M-1000-R060	A	308820	A	308821
	1	1 1/2	6	3	0.090	3 1/2	AL3-RN-M-1000-R090	C	308825	D	308826
	1	1 1/2	6	3	0.125	3 1/2	AL3-RN-M-1000-R125	A	308830	A	308831
	1	1 1/2	6	3	BALL	3 1/2	AL3-RN-M-1000-R500 (BALL)	B	308840	A	308841
	1	1 1/2	7	3	SQ	4 1/2	AL3-RN-L-1000-SQ	C	308900	D	308901
	1	1 1/2	7	3	0.030	4 1/2	AL3-RN-L-1000-R030	C	308910	D	308911
	1	1 1/2	7	3	0.060	4 1/2	AL3-RN-L-1000-R060	C	308920	D	308921
	1	1 1/2	7	3	0.090	4 1/2	AL3-RN-L-1000-R090	C	308925	D	308926
	1	1 1/2	7	3	0.125	4 1/2	AL3-RN-L-1000-R125	C	308930	D	308931
	1	1 1/2	7	3	BALL	4 1/2	AL3-RN-L-1000-R500 (BALL)	C	308940	D	308941

Stock Code Key:

- (A) Factory Stock Item
- (B) Limited Stock (Ships in 3 - 5 Working Days)
- (C) Limited Stock (Ships in 2 Weeks)
- (D) Non Stock (Ships in 3 Weeks)

SERIES: AL3-RN BLANKS

3 Flute, Un-Necked Blanks, LBS Necked to Size at Time of Order

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	LENGTH BELOW SHANK (LBS)	DESCRIPTION	STOCK CODE	UNCOATED EDP#	STOCK CODE	HARD CARBON EDP#
1/2"	1/2	3/4	7	3	SQ	Custom LBS	AL3-RN-7-0500-SQ	C	305700-BLK	D	305701-BLK
	1/2	3/4	7	3	0.015	Custom LBS	AL3-RN-7-0500-R015	C	305710-BLK	D	305711-BLK
	1/2	3/4	7	3	0.030	Custom LBS	AL3-RN-7-0500-R030	C	305720-BLK	D	305721-BLK
	1/2	3/4	7	3	0.060	Custom LBS	AL3-RN-7-0500-R060	C	305730-BLK	D	305731-BLK
	1/2	3/4	7	3	0.090	Custom LBS	AL3-RN-7-0500-R090	C	305735-BLK	D	305736-BLK
	1/2	3/4	7	3	0.125	Custom LBS	AL3-RN-7-0500-R125	C	305740-BLK	D	305741-BLK
	1/2	3/4	7	3	BALL	Custom LBS	AL3-RN-7-0500-R250 (BALL)	C	305750-BLK	D	305751-BLK
	1/2	3/4	8	3	SQ	Custom LBS	AL3-RN-8-0500-SQ	C	305800-BLK	D	305801-BLK
	1/2	3/4	8	3	0.015	Custom LBS	AL3-RN-8-0500-R015	C	305810-BLK	D	305811-BLK
	1/2	3/4	8	3	0.030	Custom LBS	AL3-RN-8-0500-R030	C	305820-BLK	D	305821-BLK
	1/2	3/4	8	3	0.060	Custom LBS	AL3-RN-8-0500-R060	C	305830-BLK	D	305831-BLK
	1/2	3/4	8	3	0.090	Custom LBS	AL3-RN-8-0500-R090	C	305835-BLK	D	305836-BLK
	1/2	3/4	8	3	0.125	Custom LBS	AL3-RN-8-0500-R125	C	305840-BLK	D	305841-BLK
	1/2	3/4	8	3	BALL	Custom LBS	AL3-RN-8-0500-R250 (BALL)	C	305850-BLK	D	305851-BLK
5/8"	5/8	1	7	3	SQ	Custom LBS	AL3-RN-7-0625-SQ	C	306700-BLK	D	306701-BLK
	5/8	1	7	3	0.030	Custom LBS	AL3-RN-7-0625-R030	C	306710-BLK	D	306711-BLK
	5/8	1	7	3	0.060	Custom LBS	AL3-RN-7-0625-R060	C	306720-BLK	D	306721-BLK
	5/8	1	7	3	0.090	Custom LBS	AL3-RN-7-0625-R090	C	306725-BLK	D	306726-BLK
	5/8	1	7	3	0.125	Custom LBS	AL3-RN-7-0625-R125	C	306730-BLK	D	306731-BLK
	5/8	1	7	3	BALL	Custom LBS	AL3-RN-7-0625-R313 (BALL)	C	306740-BLK	D	306741-BLK
	5/8	1	8	3	SQ	Custom LBS	AL3-RN-8-0625-SQ	C	306800-BLK	D	306801-BLK
	5/8	1	8	3	0.030	Custom LBS	AL3-RN-8-0625-R030	C	306810-BLK	D	306811-BLK
	5/8	1	8	3	0.060	Custom LBS	AL3-RN-8-0625-R060	C	306820-BLK	D	306821-BLK
	5/8	1	8	3	0.090	Custom LBS	AL3-RN-8-0625-R090	C	306825-BLK	D	306826-BLK
3/4"	3/4	1 1/8	7	3	SQ	Custom LBS	AL3-RN-7-0750-SQ	C	307700-BLK	D	307701-BLK
	3/4	1 1/8	7	3	0.030	Custom LBS	AL3-RN-7-0750-R030	C	307710-BLK	D	307711-BLK
	3/4	1 1/8	7	3	0.060	Custom LBS	AL3-RN-7-0750-R060	C	307720-BLK	D	307721-BLK
	3/4	1 1/8	7	3	0.090	Custom LBS	AL3-RN-7-0750-R090	C	307725-BLK	D	307726-BLK
	3/4	1 1/8	7	3	0.125	Custom LBS	AL3-RN-7-0750-R125	C	307730-BLK	D	307731-BLK
	3/4	1 1/8	7	3	BALL	Custom LBS	AL3-RN-7-0750-R375 (BALL)	C	307740-BLK	D	307741-BLK
	3/4	1 1/8	8	3	SQ	Custom LBS	AL3-RN-8-0750-SQ	C	307800-BLK	D	307801-BLK
	3/4	1 1/8	8	3	0.030	Custom LBS	AL3-RN-8-0750-R030	C	307810-BLK	D	307811-BLK
	3/4	1 1/8	8	3	0.060	Custom LBS	AL3-RN-8-0750-R060	C	307820-BLK	D	307821-BLK
	3/4	1 1/8	8	3	0.090	Custom LBS	AL3-RN-8-0750-R090	C	307825-BLK	D	307826-BLK
1"	1	1 1/2	7	3	SQ	Custom LBS	AL3-RN-7-1000-SQ	C	308700-BLK	D	308701-BLK
	1	1 1/2	7	3	0.030	Custom LBS	AL3-RN-7-1000-R030	C	308710-BLK	D	308711-BLK
	1	1 1/2	7	3	0.060	Custom LBS	AL3-RN-7-1000-R060	C	308720-BLK	D	308721-BLK
	1	1 1/2	7	3	0.090	Custom LBS	AL3-RN-7-1000-R090	C	308725-BLK	D	308726-BLK
	1	1 1/2	7	3	0.125	Custom LBS	AL3-RN-7-1000-R125	C	308730-BLK	D	308731-BLK
	1	1 1/2	7	3	BALL	Custom LBS	AL3-RN-7-1000-R500 (BALL)	C	308740-BLK	D	308741-BLK
	1	1 1/2	8	3	SQ	Custom LBS	AL3-RN-8-1000-SQ	C	308800-BLK	D	308801-BLK
	1	1 1/2	8	3	0.030	Custom LBS	AL3-RN-8-1000-R030	C	308810-BLK	D	308811-BLK
	1	1 1/2	8	3	0.060	Custom LBS	AL3-RN-8-1000-R060	C	308820-BLK	D	308821-BLK
	1	1 1/2	8	3	0.090	Custom LBS	AL3-RN-8-1000-R090	C	308825-BLK	D	308826-BLK
	1	1 1/2	8	3	0.125	Custom LBS	AL3-RN-8-1000-R125	C	308830-BLK	D	308831-BLK
	1	1 1/2	8	3	BALL	Custom LBS	AL3-RN-8-1000-R500 (BALL)	C	308840-BLK	D	308841-BLK



Standard Catalog Offering

Non- Ferrous AL3-CB Series



SERIES: AL3-CB

3 Flute, Staggered Chipbreakers, Aluminum & Non-Ferrous, Roughing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	DESCRIPTION	STOCK CODE	UNCOATED EDP#	STOCK CODE	HARD CARBON EDP#
1/8"	1/8	1/4	1 1/2	3	0.015	AL3-S-0125-R015-CB	A	310010C	C	310011C
	1/8	3/8	2	3	0.015	AL3-SR-0125-R015-CB	A	310110C	A	310111C
	1/8	1/2	2 1/2	3	0.015	AL3-R-0125-R015-CB	A	310210C	A	310211C
3/16"	3/16	5/16	2	3	0.015	AL3-S-0187-R015-CB	A	300010C	C	300011C
	3/16	7/16	2	3	0.015	AL3-SR-0187-R015-CB	A	300110C	A	300111C
	3/16	9/16	2 1/2	3	0.015	AL3-R-0187-R015-CB	A	300210C	A	300211C
1/4"	1/4	3/8	2	3	0.030	AL3-S-0250-R030-CB	A	301020C	A	301021C
	1/4	1/2	2 1/2	3	0.030	AL3-SR-0250-R030-CB	A	301120C	D	301121C
	1/4	3/4	2 1/2	3	0.030	AL3-R-0250-R030-CB	A	301220C	A	301221C
	1/4	1	3	3	0.030	AL3-SP-0250-R030-CB	C	391220C	D	391221C
	1/4	1 1/4	3	3	0.030	AL3-M-0250-R030-CB	A	301320C	A	301321C
5/16"	5/16	1/2	2	3	0.030	AL3-SR-0312-R030-CB	A	302120C	A	302121C
	5/16	3/4	2 1/2	3	0.030	AL3-R-0312-R030-CB	A	302220C	A	302221C
	5/16	1 1/4	3	3	0.030	AL3-M-0312-R030-CB	A	302320C	A	302321C
3/8"	3/8	1/2	2	3	0.030	AL3-S-0375-R030-CB	A	303020C	A	303021C
	3/8	3/4	2 1/2	3	0.030	AL3-SR-0375-R030-CB	A	303120C	A	303121C
	3/8	7/8	3	3	0.030	AL3-SP-0375-R030-CB	A	393220C	A	393221C
	3/8	1	3	3	0.030	AL3-R-0375-R030-CB	A	303220C	A	303221C
	3/8	1 1/4	3	3	0.030	AL3-M-0375-R030-CB	A	303320C	C	303321C
	3/8	1 1/2	4	3	0.030	AL3-L-0375-R030-CB	A	303420C	A	303421C
1/2"	1/2	5/8	2 1/2	3	0.030	AL3-S-0500-R030-CB	A	305020C	A	305021C
	1/2	1	3	3	0.030	AL3-SR-0500-R030-CB	A	305120C	A	305121C
	1/2	1 1/4	3	3	0.030	AL3-R-0500-R030-CB	A	305220C	A	305221C
	1/2	1 1/2	4	3	0.030	AL3-M-0500-R030-CB	A	305320C	A	305321C
	1/2	1 5/8	4	3	0.030	AL3-SP-0500-R030-CB	A	395320C	A	395321C
	1/2	2	4	3	0.030	AL3-L-0500-R030-CB	A	305420C	A	305421C
5/8"	5/8	3/4	3	3	0.030	AL3-S-0625-R030-CB	A	306010C	A	306011C
	5/8	1 1/4	3 1/2	3	0.030	AL3-SR-0625-R030-CB	A	306110C	A	306111C
	5/8	1 1/2	3 1/2	3	0.030	AL3-R-0625-R030-CB	A	306210C	A	306211C
	5/8	1 5/8	3 1/2	3	0.030	AL3-SP-0625-R030-CB	B	396210C	C	396211C
	5/8	2	4	3	0.030	AL3-M-0625-R030-CB	A	306310C	A	306311C
	5/8	2 1/2	5	3	0.030	AL3-L-0625-R030-CB	A	306410C	A	306411C
3/4"	3/4	1	3	3	0.030	AL3-S-0750-R030-CB	A	307010C	A	307011C
	3/4	1 1/2	4	3	0.030	AL3-SR-0750-R030-CB	A	307110C	A	307111C
	3/4	1 5/8	4	3	0.030	AL3-SP-0750-R030-CB	B	397110C	C	397111C
	3/4	2	5	3	0.030	AL3-R-0750-R030-CB	A	307210C	A	307211C
	3/4	2 1/2	5	3	0.030	AL3-M-0750-R030-CB	A	307310C	A	307311C
	3/4	3	6	3	0.030	AL3-L-0750-R030-CB	A	307410C	A	307411C
1"	1	1 3/4	4	3	0.030	AL3-SR-1000-R030-CB	A	308110C	A	308111C
	1	2 1/2	5	3	0.030	AL3-R-1000-R030-CB	A	308210C	A	308211C
	1	3	6	3	0.030	AL3-M-1000-R030-CB	A	308310C	A	308311C
	1	3 1/2	6	3	0.030	AL3-L-1000-R030-CB	A	308410C	C	308411C

Stock Code Key:

- (A) Factory Stock Item
- (B) Limited Stock (Ships in 3 - 5 Working Days)
- (C) Limited Stock (Ships in 2 Weeks)
- (D) Non Stock (Ships in 3 Weeks)

Standard Catalog Offering

Dynamic 3 QTR3 Series



SERIES: DYNAMIC 3 (QTR3)

3 Flute, 1/4" Shank, Variable Pitch/Helix, Ferrous & Non-Ferrous Materials, Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	LENGTH BELOW SHANK (LBS)	DESCRIPTION	COATING	STOCK CODE	EDP#
1/16"	1/4	0.125	2 1/2	3	SQ		QTR3-0062-2XD-SQ	Alcrona Pro	A	Q0622S
	1/4	0.125	2 1/2	3	0.010		QTR3-0062-2XD-R010	Alcrona Pro	A	Q0622R
	1/4	0.125	2 1/2	3	BALL		QTR3-0062-2XD-R031 (BALL)	Alcrona Pro	A	Q0622B
	1/4	0.188	2 1/2	3	SQ		QTR3-0062-3XD-SQ	Alcrona Pro	A	Q0623S
	1/4	0.188	2 1/2	3	0.010		QTR3-0062-3XD-R010	Alcrona Pro	A	Q0623R
	1/4	0.188	2 1/2	3	BALL		QTR3-0062-3XD-R031 (BALL)	Alcrona Pro	A	Q0623B
	1/4	0.188	2 1/2	3	SQ	0.313	QTR3-RN-0062-5XD-SQ	Alcrona Pro	A	Q0623SN
	1/4	0.188	2 1/2	3	0.010	0.313	QTR3-RN-0062-5XD-R010	Alcrona Pro	A	Q0623RN
	1/4	0.188	2 1/2	3	BALL	0.313	QTR3-RN-0062-5XD-R031 (BALL)	Alcrona Pro	A	Q0623BN
	1/4	0.250	2 1/2	3	SQ		QTR3-0062-4XD-SQ	Alcrona Pro	A	Q0624S
	1/4	0.250	2 1/2	3	0.010		QTR3-0062-4XD-R010	Alcrona Pro	A	Q0624R
5/64"	1/4	0.156	2 1/2	3	SQ		QTR3-0078-2XD-SQ	Alcrona Pro	A	Q0782S
	1/4	0.156	2 1/2	3	0.010		QTR3-0078-2XD-R010	Alcrona Pro	A	Q0782R
	1/4	0.156	2 1/2	3	BALL		QTR3-0078-2XD-R039 (BALL)	Alcrona Pro	A	Q0782B
	1/4	0.234	2 1/2	3	SQ		QTR3-0078-3XD-SQ	Alcrona Pro	A	Q0783S
	1/4	0.234	2 1/2	3	0.010		QTR3-0078-3XD-R010	Alcrona Pro	A	Q0783R
	1/4	0.234	2 1/2	3	BALL		QTR3-0078-3XD-R039 (BALL)	Alcrona Pro	A	Q0783B
	1/4	0.234	2 1/2	3	SQ	0.390	QTR3-RN-0078-5XD-SQ	Alcrona Pro	A	Q0783SN
	1/4	0.234	2 1/2	3	0.010	0.390	QTR3-RN-0078-5XD-R010	Alcrona Pro	A	Q0783RN
	1/4	0.234	2 1/2	3	BALL	0.390	QTR3-RN-0078-5XD-R039 (BALL)	Alcrona Pro	A	Q0783BN
	1/4	0.313	2 1/2	3	SQ		QTR3-0078-4XD-SQ	Alcrona Pro	A	Q0784S
	1/4	0.313	2 1/2	3	0.010		QTR3-0078-4XD-R010	Alcrona Pro	A	Q0784R
3/32"	1/4	0.188	2 1/2	3	SQ		QTR3-0093-2XD-SQ	Alcrona Pro	A	Q0932S
	1/4	0.188	2 1/2	3	0.010		QTR3-0093-2XD-R010	Alcrona Pro	A	Q0932R
	1/4	0.188	2 1/2	3	BALL		QTR3-0093-2XD-R047 (BALL)	Alcrona Pro	A	Q0932B
	1/4	0.281	2 1/2	3	SQ		QTR3-0093-3XD-SQ	Alcrona Pro	A	Q0933S
	1/4	0.281	2 1/2	3	0.010		QTR3-0093-3XD-R010	Alcrona Pro	A	Q0933R
	1/4	0.281	2 1/2	3	BALL		QTR3-0093-3XD-R047 (BALL)	Alcrona Pro	A	Q0933B
	1/4	0.281	2 1/2	3	SQ	0.469	QTR3-RN-0093-5XD-SQ	Alcrona Pro	A	Q0933SN
	1/4	0.281	2 1/2	3	0.010	0.469	QTR3-RN-0093-5XD-R010	Alcrona Pro	A	Q0933RN
	1/4	0.281	2 1/2	3	BALL	0.469	QTR3-RN-0093-5XD-R047 (BALL)	Alcrona Pro	A	Q0933BN
	1/4	0.375	2 1/2	3	SQ		QTR3-0093-4XD-SQ	Alcrona Pro	A	Q0934S
	1/4	0.375	2 1/2	3	0.010		QTR3-0093-4XD-R010	Alcrona Pro	A	Q0934R
7/64"	1/4	0.219	2 1/2	3	SQ		QTR3-0109-2XD-SQ	Alcrona Pro	A	Q1092S
	1/4	0.219	2 1/2	3	0.010		QTR3-0109-2XD-R010	Alcrona Pro	A	Q1092R
	1/4	0.219	2 1/2	3	BALL		QTR3-0109-2XD-R055 (BALL)	Alcrona Pro	A	Q1092B
	1/4	0.328	2 1/2	3	SQ		QTR3-0109-3XD-SQ	Alcrona Pro	A	Q1093S
	1/4	0.328	2 1/2	3	0.010		QTR3-0109-3XD-R010	Alcrona Pro	A	Q1093R
	1/4	0.328	2 1/2	3	BALL		QTR3-0109-3XD-R055 (BALL)	Alcrona Pro	A	Q1093B
	1/4	0.328	2 1/2	3	SQ	0.547	QTR3-RN-0109-5XD-SQ	Alcrona Pro	A	Q1093SN
	1/4	0.328	2 1/2	3	0.010	0.547	QTR3-RN-0109-5XD-R010	Alcrona Pro	A	Q1093RN
	1/4	0.328	2 1/2	3	BALL	0.547	QTR3-RN-0109-5XD-R055 (BALL)	Alcrona Pro	A	Q1093BN
	1/4	0.438	2 1/2	3	SQ		QTR3-0109-4XD-SQ	Alcrona Pro	A	Q1094S
	1/4	0.438	2 1/2	3	0.010		QTR3-0109-4XD-R010	Alcrona Pro	A	Q1094R
1/8"	1/4	0.250	2 1/2	3	SQ		QTR3-0125-2XD-SQ	Alcrona Pro	A	Q1252S
	1/4	0.250	2 1/2	3	0.015		QTR3-0125-2XD-R015	Alcrona Pro	A	Q1252R
	1/4	0.250	2 1/2	3	BALL		QTR3-0125-2XD-R063 (BALL)	Alcrona Pro	A	Q1252B
	1/4	0.375	2 1/2	3	SQ		QTR3-0125-3XD-SQ	Alcrona Pro	A	Q1253S
	1/4	0.375	2 1/2	3	0.015		QTR3-0125-3XD-R015	Alcrona Pro	A	Q1253R
	1/4	0.375	2 1/2	3	BALL		QTR3-0125-3XD-R063 (BALL)	Alcrona Pro	A	Q1253B
	1/4	0.375	2 1/2	3	SQ	0.625	QTR3-RN-0125-5XD-SQ	Alcrona Pro	A	Q1253SN

SERIES: DYNAMIC 3 (QTR3)

3 Flute, 1/4" Shank, Variable Pitch/Helix, Ferrous & Non-Ferrous Materials, Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	LENGTH BELOW SHANK (LBS)	DESCRIPTION	COATING	STOCK CODE	EDP#
1/8"	1/4	0.375	2 1/2	3	0.015	0.625	QTR3-RN-0125-5XD-R015	Alcrona Pro	A	Q1253RN
	1/4	0.375	2 1/2	3	BALL	0.625	QTR3-RN-0125-5XD-R063 (BALL)	Alcrona Pro	A	Q1253BN
	1/4	0.500	2 1/2	3	SQ		QTR3-0125-4XD-SQ	Alcrona Pro	A	Q1254S
	1/4	0.500	2 1/2	3	0.015		QTR3-0125-4XD-R015	Alcrona Pro	A	Q1254R
5/32"	1/4	0.313	2 1/2	3	SQ		QTR3-0156-2XD-SQ	Alcrona Pro	A	Q1562S
	1/4	0.313	2 1/2	3	0.015		QTR3-0156-2XD-R015	Alcrona Pro	A	Q1562R
	1/4	0.313	2 1/2	3	BALL		QTR3-0156-2XD-R078 (BALL)	Alcrona Pro	A	Q1562B
	1/4	0.469	2 1/2	3	SQ		QTR3-0156-3XD-SQ	Alcrona Pro	A	Q1563S
	1/4	0.469	2 1/2	3	0.015		QTR3-0156-3XD-R015	Alcrona Pro	A	Q1563R
	1/4	0.469	2 1/2	3	BALL		QTR3-0156-3XD-R078 (BALL)	Alcrona Pro	A	Q1563B
	1/4	0.469	2 1/2	3	SQ	0.781	QTR3-RN-0156-5XD-SQ	Alcrona Pro	A	Q1563SN
	1/4	0.469	2 1/2	3	0.015	0.781	QTR3-RN-0156-5XD-R015	Alcrona Pro	A	Q1563RN
	1/4	0.469	2 1/2	3	BALL	0.781	QTR3-RN-0156-5XD-R078 (BALL)	Alcrona Pro	A	Q1563BN
	1/4	0.625	2 1/2	3	SQ		QTR3-0156-4XD-SQ	Alcrona Pro	A	Q1564S
	1/4	0.625	2 1/2	3	0.015		QTR3-0156-4XD-R015	Alcrona Pro	A	Q1564R
3/16"	1/4	0.375	2 1/2	3	SQ		QTR3-0187-2XD-SQ	Alcrona Pro	A	Q1872S
	1/4	0.375	2 1/2	3	0.015		QTR3-0187-2XD-R015	Alcrona Pro	A	Q1872R
	1/4	0.375	2 1/2	3	BALL		QTR3-0187-2XD-R094 (BALL)	Alcrona Pro	A	Q1872B
	1/4	0.563	2 1/2	3	SQ		QTR3-0187-3XD-SQ	Alcrona Pro	A	Q1873S
	1/4	0.563	2 1/2	3	0.015		QTR3-0187-3XD-R015	Alcrona Pro	A	Q1873R
	1/4	0.563	2 1/2	3	BALL		QTR3-0187-3XD-R094 (BALL)	Alcrona Pro	A	Q1873B
	1/4	0.625	2 1/2	3	0.094		QTR3-0187-3.3XD-R094 (BALL)	Alcrona Pro	A	Q18733B
	1/4	0.625	2 1/2	3	0.015		QTR3-0187-3.3XD-R015	Alcrona Pro	A	Q18733R
	1/4	0.625	2 1/2	3	SQ		QTR3-0187-3.3XD-SQ	Alcrona Pro	A	Q18733S
	1/4	0.563	2 1/2	3	SQ	0.937	QTR3-RN-0187-5XD-SQ	Alcrona Pro	A	Q1873SN
	1/4	0.563	2 1/2	3	0.015	0.937	QTR3-RN-0187-5XD-R015	Alcrona Pro	A	Q1873RN
	1/4	0.563	2 1/2	3	BALL	0.937	QTR3-RN-0187-5XD-R094 (BALL)	Alcrona Pro	A	Q1873BN
	1/4	0.750	2 1/2	3	SQ		QTR3-0187-4XD-SQ	Alcrona Pro	A	Q1874S
	1/4	0.750	2 1/2	3	0.015		QTR3-0187-4XD-R015	Alcrona Pro	A	Q1874R
7/32"	1/4	0.438	2 1/2	3	SQ		QTR3-0218-2XD-SQ	Alcrona Pro	A	Q2182S
	1/4	0.438	2 1/2	3	0.015		QTR3-0218-2XD-R015	Alcrona Pro	A	Q2182R
	1/4	0.438	2 1/2	3	BALL		QTR3-0218-2XD-R109 (BALL)	Alcrona Pro	A	Q2182B
	1/4	0.656	2 1/2	3	SQ		QTR3-0218-3XD-SQ	Alcrona Pro	A	Q2183S
	1/4	0.656	2 1/2	3	0.015		QTR3-0218-3XD-R015	Alcrona Pro	A	Q2183R
	1/4	0.656	2 1/2	3	BALL		QTR3-0218-3XD-R109 (BALL)	Alcrona Pro	A	Q2183B
	1/4	0.656	2 1/2	3	SQ	1.093	QTR3-RN-0218-5XD-SQ	Alcrona Pro	B	Q2183SN
	1/4	0.656	2 1/2	3	0.015	1.093	QTR3-RN-0218-5XD-R015	Alcrona Pro	B	Q2183RN
	1/4	0.656	2 1/2	3	BALL	1.093	QTR3-RN-0218-5XD-R109 (BALL)	Alcrona Pro	A	Q2183BN
	1/4	0.875	2 1/2	3	SQ		QTR3-0218-4XD-SQ	Alcrona Pro	A	Q2184S
	1/4	0.875	2 1/2	3	0.015		QTR3-0218-4XD-R015	Alcrona Pro	A	Q2184R
1/4"	1/4	0.500	2 1/2	3	SQ		QTR3-0250-2XD-SQ	Alcrona Pro	A	Q2502S
	1/4	0.500	2 1/2	3	0.015		QTR3-0250-2XD-R015	Alcrona Pro	A	Q2502R
	1/4	0.500	2 1/2	3	BALL		QTR3-0250-2XD-R125 (BALL)	Alcrona Pro	A	Q2502B
	1/4	0.750	2 1/2	3	SQ		QTR3-0250-3XD-SQ	Alcrona Pro	A	Q2503S
	1/4	0.750	2 1/2	3	0.015		QTR3-0250-3XD-R015	Alcrona Pro	A	Q2503R
	1/4	0.750	2 1/2	3	BALL		QTR3-0250-3XD-R125 (BALL)	Alcrona Pro	A	Q2503B
	1/4	0.750	2 1/2	3	SQ	1.250	QTR3-RN-0250-5XD-SQ	Alcrona Pro	B	Q2503SN
	1/4	0.750	2 1/2	3	0.015	1.250	QTR3-RN-0250-5XD-R015	Alcrona Pro	B	Q2503RN
	1/4	0.750	2 1/2	3	BALL	1.250	QTR3-RN-0250-5XD-R125 (BALL)	Alcrona Pro	B	Q2503BN
	1/4	1.000	2 1/2	3	SQ		QTR3-0250-4XD-SQ	Alcrona Pro	A	Q2504S
	1/4	1.000	2 1/2	3	0.015		QTR3-0250-4XD-R015	Alcrona Pro	A	Q2504R

Standard Catalog Offering

Ferrous VST4 & VST4-RN Series



SERIES: VST4

4 Flute, Variable Pitch, Steel/Stainless Steel/Hi-Temp Alloys/Cast Iron, Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	DESCRIPTION	COATING	STOCK CODE	EDP#
1/8"	1/8	1/4	1 1/2	4	SQ	VST4-S-0125-SQ	Latuma	A	410001
	1/8	1/4	1 1/2	4	0.015	VST4-S-0125-R015	Latuma	A	410011
	1/8	1/4	1 1/2	4	0.063	VST4-S-0125-R063 (BALL)	Latuma	A	410041
	1/8	3/8	2	4	SQ	VST4-SR-0125-SQ	Latuma	A	410101
	1/8	3/8	2	4	0.015	VST4-SR-0125-R015	Latuma	A	410111
	1/8	3/8	2	4	0.063	VST4-SR-0125-R063 (BALL)	Latuma	A	410141
	1/8	1/2	2 1/2	4	SQ	VST4-R-0125-SQ	Latuma	A	410201
	1/8	1/2	2 1/2	4	0.015	VST4-R-0125-R015	Latuma	A	410211
	1/8	1/2	2 1/2	4	0.063	VST4-R-0125-R063 (BALL)	Latuma	A	410241
3/16"	3/16	5/16	2	4	SQ	VST4-S-0187-SQ	Latuma	A	400001
	3/16	5/16	2	4	0.015	VST4-S-0187-R015	Latuma	A	400011
	3/16	5/16	2	4	0.094	VST4-S-0187-R094 (BALL)	Latuma	A	400041
	3/16	7/16	2	4	SQ	VST4-SR-0187-SQ	Latuma	A	400101
	3/16	7/16	2	4	0.015	VST4-SR-0187-R015	Latuma	A	400111
	3/16	7/16	2	4	0.094	VST4-SR-0187-R094 (BALL)	Latuma	A	400141
	3/16	9/16	2 1/2	4	SQ	VST4-R-0187-SQ	Latuma	A	400201
	3/16	9/16	2 1/2	4	0.015	VST4-R-0187-R015	Latuma	A	400211
	3/16	9/16	2 1/2	4	0.094	VST4-R-0187-R094 (BALL)	Latuma	A	400241
1/4"	1/4	3/8	2	4	SQ	VST4-S-0250-SQ	Latuma	A	401001
	1/4	3/8	2	4	0.015	VST4-S-0250-R015	Latuma	A	401011
	1/4	3/8	2	4	0.020	VST4-S-0250-R020	Latuma	A	401016
	1/4	3/8	2	4	0.030	VST4-S-0250-R030	Latuma	A	401021
	1/4	3/8	2	4	0.060	VST4-S-0250-R060	Latuma	A	401031
	1/4	3/8	2	4	BALL	VST4-S-0250-R125 (BALL)	Latuma	A	401041
	1/4	1/2	2 1/2	4	SQ	VST4-SR-0250-SQ	Latuma	A	401101
	1/4	1/2	2 1/2	4	0.015	VST4-SR-0250-R015	Latuma	A	401111
	1/4	1/2	2 1/2	4	0.020	VST4-SR-0250-R020	Latuma	A	401116
	1/4	1/2	2 1/2	4	0.030	VST4-SR-0250-R030	Latuma	A	401121
	1/4	1/2	2 1/2	4	0.060	VST4-SR-0250-R060	Latuma	A	401131
	1/4	1/2	2 1/2	4	BALL	VST4-SR-0250-R125 (BALL)	Latuma	A	401141
	1/4	3/4	2 1/2	4	SQ	VST4-R-0250-SQ	Latuma	A	401201
	1/4	3/4	2 1/2	4	0.015	VST4-R-0250-R015	Latuma	A	401211
	1/4	3/4	2 1/2	4	0.020	VST4-R-0250-R020	Latuma	A	401216
	1/4	3/4	2 1/2	4	0.030	VST4-R-0250-R030	Latuma	A	401221
	1/4	3/4	2 1/2	4	0.060	VST4-R-0250-R060	Latuma	A	401231
	1/4	3/4	2 1/2	4	BALL	VST4-R-0250-R125 (BALL)	Latuma	A	401241
	1/4	1	3	4	SQ	VST4-SP-0250-SQ	Latuma	C	491201
	1/4	1	3	4	0.015	VST4-SP-0250-R015	Latuma	C	491211
	1/4	1	3	4	0.020	VST4-SP-0250-R020	Latuma	C	491216
	1/4	1	3	4	0.030	VST4-SP-0250-R030	Latuma	C	491221
	1/4	1	3	4	0.060	VST4-SP-0250-R060	Latuma	C	491231
	1/4	1	3	4	BALL	VST4-SP-0250-R125 (BALL)	Latuma	C	491241
	1/4	1 1/4	3	4	SQ	VST4-M-0250-SQ	Latuma	A	401301
	1/4	1 1/4	3	4	0.015	VST4-M-0250-R015	Latuma	A	401311
	1/4	1 1/4	3	4	0.020	VST4-M-0250-R020	Latuma	A	401316
	1/4	1 1/4	3	4	0.030	VST4-M-0250-R030	Latuma	A	401321
	1/4	1 1/4	3	4	0.060	VST4-M-0250-R060	Latuma	A	401331
	1/4	1 1/4	3	4	BALL	VST4-M-0250-R125 (BALL)	Latuma	A	401341
5/16"	5/16	1/2	2	4	SQ	VST4-SR-0312-SQ	Latuma	A	402101
	5/16	1/2	2	4	0.015	VST4-SR-0312-R015	Latuma	A	402111
	5/16	1/2	2	4	0.030	VST4-SR-0312-R030	Latuma	A	402121
	5/16	1/2	2	4	BALL	VST4-SR-0312-R157 (BALL)	Latuma	A	402141
	5/16	3/4	2 1/2	4	SQ	VST4-R-0312-SQ	Latuma	A	402201
	5/16	3/4	2 1/2	4	0.015	VST4-R-0312-R015	Latuma	A	402211
	5/16	3/4	2 1/2	4	0.030	VST4-R-0312-R030	Latuma	A	402221
	5/16	3/4	2 1/2	4	BALL	VST4-R-0312-R157 (BALL)	Latuma	A	402241

SERIES: VST4

4 Flute, Variable Pitch, Steel/Stainless Steel/Hi-Temp Alloys/Cast Iron, Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	DESCRIPTION	COATING	STOCK CODE	EDP#
5/16"	5/16	1 1/4	3	4	SQ	VST4-M-0312-SQ	Latuma	A	402301
	5/16	1 1/4	3	4	0.015	VST4-M-0312-R015	Latuma	A	402311
	5/16	1 1/4	3	4	0.030	VST4-M-0312-R030	Latuma	A	402321
	5/16	1 1/4	3	4	BALL	VST4-M-0312-R157 (BALL)	Latuma	A	402341
3/8"	3/8	1/2	2	4	SQ	VST4-S-0375-SQ	Latuma	A	403001
	3/8	1/2	2	4	0.015	VST4-S-0375-R015	Latuma	A	403011
	3/8	1/2	2	4	0.020	VST4-S-0375-R020	Latuma	A	403016
	3/8	1/2	2	4	0.030	VST4-S-0375-R030	Latuma	A	403021
	3/8	1/2	2	4	0.060	VST4-S-0375-R060	Latuma	A	403031
	3/8	1/2	2	4	0.090	VST4-S-0375-R090	Latuma	C	403036
	3/8	1/2	2	4	BALL	VST4-S-0375-R188 (BALL)	Latuma	A	403041
	3/8	3/4	2 1/2	4	SQ	VST4-SR-0375-SQ	Latuma	A	403101
	3/8	3/4	2 1/2	4	0.015	VST4-SR-0375-R015	Latuma	A	403111
	3/8	3/4	2 1/2	4	0.020	VST4-SR-0375-R020	Latuma	A	403116
	3/8	3/4	2 1/2	4	0.030	VST4-SR-0375-R030	Latuma	A	403121
	3/8	3/4	2 1/2	4	0.060	VST4-SR-0375-R060	Latuma	A	403131
	3/8	3/4	2 1/2	4	0.090	VST4-SR-0375-R090	Latuma	C	403136
	3/8	3/4	2 1/2	4	BALL	VST4-SR-0375-R188 (BALL)	Latuma	A	403141
	3/8	7/8	3	4	SQ	VST4-SP-0375-SQ	Latuma	A	493201
	3/8	7/8	3	4	0.015	VST4-SP-0375-R015	Latuma	A	493211
	3/8	7/8	3	4	0.020	VST4-SP-0375-R020	Latuma	A	493216
	3/8	7/8	3	4	0.030	VST4-SP-0375-R030	Latuma	A	493221
	3/8	7/8	3	4	0.060	VST4-SP-0375-R060	Latuma	A	493231
	3/8	7/8	3	4	0.090	VST4-SP-0375-R090	Latuma	C	493236
	3/8	7/8	3	4	BALL	VST4-SP-0375-R188 (BALL)	Latuma	A	493241
	3/8	1	3	4	SQ	VST4-R-0375-SQ	Latuma	A	403201
	3/8	1	3	4	0.015	VST4-R-0375-R015	Latuma	A	403211
	3/8	1	3	4	0.020	VST4-R-0375-R020	Latuma	A	403216
	3/8	1	3	4	0.030	VST4-R-0375-R030	Latuma	A	403221
	3/8	1	3	4	0.060	VST4-R-0375-R060	Latuma	A	403231
	3/8	1	3	4	0.090	VST4-R-0375-R090	Latuma	C	403236
	3/8	1	3	4	BALL	VST4-R-0375-R188 (BALL)	Latuma	A	403241
	3/8	1 1/4	3	4	SQ	VST4-M-0375-SQ	Latuma	A	403301
	3/8	1 1/4	3	4	0.015	VST4-M-0375-R015	Latuma	A	403311
	3/8	1 1/4	3	4	0.020	VST4-M-0375-R020	Latuma	A	403316
	3/8	1 1/4	3	4	0.030	VST4-M-0375-R030	Latuma	A	403321
	3/8	1 1/4	3	4	0.060	VST4-M-0375-R060	Latuma	A	403331
	3/8	1 1/4	3	4	0.090	VST4-M-0375-R090	Latuma	C	403336
	3/8	1 1/4	3	4	BALL	VST4-M-0375-R188 (BALL)	Latuma	A	403341
	3/8	1 1/2	4	4	SQ	VST4-L-0375-SQ	Latuma	A	403401
	3/8	1 1/2	4	4	0.015	VST4-L-0375-R015	Latuma	A	403411
	3/8	1 1/2	4	4	0.020	VST4-L-0375-R020	Latuma	A	403416
	3/8	1 1/2	4	4	0.030	VST4-L-0375-R030	Latuma	A	403421
	3/8	1 1/2	4	4	0.060	VST4-L-0375-R060	Latuma	A	403431
	3/8	1 1/2	4	4	0.090	VST4-L-0375-R090	Latuma	C	403436
	3/8	1 1/2	4	4	BALL	VST4-L-0375-R188 (BALL)	Latuma	A	403441
1/2"	1/2	5/8	2 1/2	4	SQ	VST4-S-0500-SQ	Latuma	A	405001
	1/2	5/8	2 1/2	4	0.015	VST4-S-0500-R015	Latuma	A	405011
	1/2	5/8	2 1/2	4	0.030	VST4-S-0500-R030	Latuma	A	405021
	1/2	5/8	2 1/2	4	0.060	VST4-S-0500-R060	Latuma	A	405031
	1/2	5/8	2 1/2	4	0.090	VST4-S-0500-R090	Latuma	C	405036
	1/2	5/8	2 1/2	4	0.125	VST4-S-0500-R125	Latuma	A	405041
	1/2	5/8	2 1/2	4	BALL	VST4-S-0500-R250 (BALL)	Latuma	A	405051

SERIES: VST4

4 Flute, Variable Pitch, Steel/Stainless Steel/Hi-Temp Alloys/Cast Iron, Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	DESCRIPTION	COATING	STOCK CODE	EDP#
1/2"	1/2	1	3	4	SQ	VST4-SR-0500-SQ	Latuma	A	405101
	1/2	1	3	4	0.015	VST4-SR-0500-R015	Latuma	A	405111
	1/2	1	3	4	0.030	VST4-SR-0500-R030	Latuma	A	405121
	1/2	1	3	4	0.060	VST4-SR-0500-R060	Latuma	A	405131
	1/2	1	3	4	0.090	VST4-SR-0500-R090	Latuma	C	405136
	1/2	1	3	4	0.125	VST4-SR-0500-R125	Latuma	A	405141
	1/2	1	3	4	BALL	VST4-SR-0500-R250 (BALL)	Latuma	A	405151
	1/2	1 1/4	3	4	SQ	VST4-R-0500-SQ	Latuma	A	405201
	1/2	1 1/4	3	4	0.015	VST4-R-0500-R015	Latuma	A	405211
	1/2	1 1/4	3	4	0.030	VST4-R-0500-R030	Latuma	A	405221
	1/2	1 1/4	3	4	0.060	VST4-R-0500-R060	Latuma	A	405231
	1/2	1 1/4	3	4	0.090	VST4-R-0500-R090	Latuma	C	405236
	1/2	1 1/4	3	4	0.125	VST4-R-0500-R125	Latuma	A	405241
	1/2	1 1/4	3	4	BALL	VST4-R-0500-R250 (BALL)	Latuma	A	405251
	1/2	1 1/2	4	4	SQ	VST4-M-0500-SQ	Latuma	A	405301
	1/2	1 1/2	4	4	0.015	VST4-M-0500-R015	Latuma	A	405311
	1/2	1 1/2	4	4	0.030	VST4-M-0500-R030	Latuma	A	405321
	1/2	1 1/2	4	4	0.060	VST4-M-0500-R060	Latuma	A	405331
	1/2	1 1/2	4	4	0.090	VST4-M-0500-R090	Latuma	C	405336
	1/2	1 1/2	4	4	0.125	VST4-M-0500-R125	Latuma	A	405341
	1/2	1 1/2	4	4	BALL	VST4-M-0500-R250 (BALL)	Latuma	A	405351
	1/2	1 5/8	4	4	SQ	VST4-SP-0500-SQ	Latuma	A	495301
	1/2	1 5/8	4	4	0.015	VST4-SP-0500-R015	Latuma	A	495311
	1/2	1 5/8	4	4	0.030	VST4-SP-0500-R030	Latuma	A	495321
	1/2	1 5/8	4	4	0.060	VST4-SP-0500-R060	Latuma	A	495331
	1/2	1 5/8	4	4	0.090	VST4-SP-0500-R090	Latuma	C	495336
	1/2	1 5/8	4	4	0.125	VST4-SP-0500-R125	Latuma	A	495341
	1/2	1 5/8	4	4	BALL	VST4-SP-0500-R250 (BALL)	Latuma	A	495351
	1/2	2	4	4	SQ	VST4-L-0500-SQ	Latuma	A	405401
	1/2	2	4	4	0.015	VST4-L-0500-R015	Latuma	A	405411
	1/2	2	4	4	0.030	VST4-L-0500-R030	Latuma	A	405421
	1/2	2	4	4	0.060	VST4-L-0500-R060	Latuma	A	405431
	1/2	2	4	4	0.090	VST4-L-0500-R090	Latuma	C	405436
	1/2	2	4	4	0.125	VST4-L-0500-R125	Latuma	A	405441
	1/2	2	4	4	BALL	VST4-L-0500-R250 (BALL)	Latuma	A	405451
5/8"	5/8	3/4	3	4	SQ	VST4-S-0625-SQ	Latuma	A	406001
	5/8	3/4	3	4	0.030	VST4-S-0625-R030	Latuma	A	406011
	5/8	3/4	3	4	0.060	VST4-S-0625-R060	Latuma	C	406021
	5/8	3/4	3	4	0.090	VST4-S-0625-R090	Latuma	C	406026
	5/8	3/4	3	4	0.125	VST4-S-0625-R125	Latuma	C	406031
	5/8	3/4	3	4	BALL	VST4-S-0625-R313 (BALL)	Latuma	A	406041
	5/8	1 1/4	3 1/2	4	SQ	VST4-SR-0625-SQ	Latuma	A	406101
	5/8	1 1/4	3 1/2	4	0.030	VST4-SR-0625-R030	Latuma	A	406111
	5/8	1 1/4	3 1/2	4	0.060	VST4-SR-0625-R060	Latuma	A	406121
	5/8	1 1/4	3 1/2	4	0.090	VST4-SR-0625-R090	Latuma	C	406126
	5/8	1 1/4	3 1/2	4	0.125	VST4-SR-0625-R125	Latuma	A	406131
	5/8	1 1/4	3 1/2	4	BALL	VST4-SR-0625-R313 (BALL)	Latuma	A	406141
	5/8	1 1/2	3 1/2	4	SQ	VST4-R-0625-SQ	Latuma	A	406201
	5/8	1 1/2	3 1/2	4	0.030	VST4-R-0625-R030	Latuma	A	406211
	5/8	1 1/2	3 1/2	4	0.060	VST4-R-0625-R060	Latuma	A	406221
	5/8	1 1/2	3 1/2	4	0.090	VST4-R-0625-R090	Latuma	C	406226
	5/8	1 1/2	3 1/2	4	0.125	VST4-R-0625-R125	Latuma	A	406231
	5/8	1 1/2	3 1/2	4	BALL	VST4-R-0625-R313 (BALL)	Latuma	A	406241

SERIES: VST4

4 Flute, Variable Pitch, Steel/Stainless Steel/Hi-Temp Alloys/Cast Iron, Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	DESCRIPTION	COATING	STOCK CODE	EDP#
5/8"	5/8	1 5/8	3 1/2	4	SQ	VST4-SP-0625-SQ	Latuma	A	496201
	5/8	1 5/8	3 1/2	4	0.030	VST4-SP-0625-R030	Latuma	A	496211
	5/8	1 5/8	3 1/2	4	0.060	VST4-SP-0625-R060	Latuma	A	496221
	5/8	1 5/8	3 1/2	4	0.090	VST4-SP-0625-R090	Latuma	C	496226
	5/8	1 5/8	3 1/2	4	0.125	VST4-SP-0625-R125	Latuma	A	496231
	5/8	1 5/8	3 1/2	4	BALL	VST4-SP-0625-R313 (BALL)	Latuma	A	496241
	5/8	2	4	4	SQ	VST4-M-0625-SQ	Latuma	A	406301
	5/8	2	4	4	0.030	VST4-M-0625-R030	Latuma	A	406311
	5/8	2	4	4	0.060	VST4-M-0625-R060	Latuma	A	406321
	5/8	2	4	4	0.090	VST4-M-0625-R090	Latuma	C	406326
	5/8	2	4	4	0.125	VST4-M-0625-R125	Latuma	A	406331
	5/8	2	4	4	BALL	VST4-M-0625-R313 (BALL)	Latuma	A	406341
	5/8	2 1/2	5	4	SQ	VST4-L-0625-SQ	Latuma	A	406401
	5/8	2 1/2	5	4	0.030	VST4-L-0625-R030	Latuma	A	406411
	5/8	2 1/2	5	4	0.060	VST4-L-0625-R060	Latuma	A	406421
	5/8	2 1/2	5	4	0.090	VST4-L-0625-R090	Latuma	C	406426
3/4"	5/8	2 1/2	5	4	0.125	VST4-L-0625-R125	Latuma	A	406431
	5/8	2 1/2	5	4	BALL	VST4-L-0625-R313 (BALL)	Latuma	A	406441
	3/4	1	3	4	SQ	VST4-S-0750-SQ	Latuma	A	407001
	3/4	1	3	4	0.030	VST4-S-0750-R030	Latuma	A	407011
	3/4	1	3	4	0.060	VST4-S-0750-R060	Latuma	A	407021
	3/4	1	3	4	0.090	VST4-S-0750-R090	Latuma	C	407026
	3/4	1	3	4	0.125	VST4-S-0750-R125	Latuma	A	407031
	3/4	1	3	4	BALL	VST4-S-0750-R375 (BALL)	Latuma	A	407041
	3/4	1 1/2	4	4	SQ	VST4-SR-0750-SQ	Latuma	A	407101
	3/4	1 1/2	4	4	0.030	VST4-SR-0750-R030	Latuma	A	407111
	3/4	1 1/2	4	4	0.060	VST4-SR-0750-R060	Latuma	A	407121
	3/4	1 1/2	4	4	0.090	VST4-SR-0750-R090	Latuma	C	407126
	3/4	1 1/2	4	4	0.125	VST4-SR-0750-R125	Latuma	A	407131
	3/4	1 1/2	4	4	BALL	VST4-SR-0750-R375 (BALL)	Latuma	A	407141
	3/4	1 5/8	4	4	SQ	VST4-SP-0750-SQ	Latuma	A	497101
	3/4	1 5/8	4	4	0.030	VST4-SP-0750-R030	Latuma	A	497111
	3/4	1 5/8	4	4	0.060	VST4-SP-0750-R060	Latuma	A	497121
	3/4	1 5/8	4	4	0.090	VST4-SP-0750-R090	Latuma	C	497126
	3/4	1 5/8	4	4	0.125	VST4-SP-0750-R125	Latuma	C	497131
	3/4	1 5/8	4	4	BALL	VST4-SP-0750-R375 (BALL)	Latuma	A	497141
	3/4	2	5	4	SQ	VST4-R-0750-SQ	Latuma	A	407201
	3/4	2	5	4	0.030	VST4-R-0750-R030	Latuma	A	407211
	3/4	2	5	4	0.060	VST4-R-0750-R060	Latuma	A	407221
	3/4	2	5	4	0.090	VST4-R-0750-R090	Latuma	C	407226
	3/4	2	5	4	0.125	VST4-R-0750-R125	Latuma	A	407231
	3/4	2	5	4	BALL	VST4-R-0750-R375 (BALL)	Latuma	A	407241
	3/4	2 1/2	5	4	SQ	VST4-M-0750-SQ	Latuma	A	407301
	3/4	2 1/2	5	4	0.030	VST4-M-0750-R030	Latuma	A	407311
	3/4	2 1/2	5	4	0.060	VST4-M-0750-R060	Latuma	A	407321
	3/4	2 1/2	5	4	0.090	VST4-M-0750-R090	Latuma	C	407326
	3/4	2 1/2	5	4	0.125	VST4-M-0750-R125	Latuma	A	407331
	3/4	2 1/2	5	4	BALL	VST4-M-0750-R375 (BALL)	Latuma	A	407341
	3/4	3	6	4	SQ	VST4-L-0750-SQ	Latuma	A	407401
	3/4	3	6	4	0.030	VST4-L-0750-R030	Latuma	A	407411
	3/4	3	6	4	0.060	VST4-L-0750-R060	Latuma	A	407421
	3/4	3	6	4	0.090	VST4-L-0750-R090	Latuma	C	407426
	3/4	3	6	4	0.125	VST4-L-0750-R125	Latuma	A	407431
	3/4	3	6	4	BALL	VST4-L-0750-R375 (BALL)	Latuma	A	407441

SERIES: VST4

4 Flute, Variable Pitch, Steel/Stainless Steel/Hi-Temp Alloys/Cast Iron, Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	DESCRIPTION	COATING	STOCK CODE	EDP#
1"	1	1 3/4	4	4	SQ	VST4-SR-1000-SQ	Latuma	A	408101
	1	1 3/4	4	4	0.030	VST4-SR-1000-R030	Latuma	A	408111
	1	1 3/4	4	4	0.060	VST4-SR-1000-R060	Latuma	A	408121
	1	1 3/4	4	4	0.090	VST4-SR-1000-R090	Latuma	C	408126
	1	1 3/4	4	4	0.125	VST4-SR-1000-R125	Latuma	A	408131
	1	1 3/4	4	4	BALL	VST4-SR-1000-R500 (BALL)	Latuma	A	408141
	1	2 1/2	5	4	SQ	VST4-R-1000-SQ	Latuma	A	408201
	1	2 1/2	5	4	0.030	VST4-R-1000-R030	Latuma	A	408211
	1	2 1/2	5	4	0.060	VST4-R-1000-R060	Latuma	A	408221
	1	2 1/2	5	4	0.090	VST4-R-1000-R090	Latuma	C	408226
	1	2 1/2	5	4	0.125	VST4-R-1000-R125	Latuma	A	408231
	1	2 1/2	5	4	BALL	VST4-R-1000-R500 (BALL)	Latuma	A	408241
	1	3	6	4	SQ	VST4-M-1000-SQ	Latuma	A	408301
	1	3	6	4	0.030	VST4-M-1000-R030	Latuma	A	408311
	1	3	6	4	0.060	VST4-M-1000-R060	Latuma	A	408321
	1	3	6	4	0.090	VST4-M-1000-R090	Latuma	C	408326
	1	3	6	4	0.125	VST4-M-1000-R125	Latuma	A	408331
	1	3	6	4	BALL	VST4-M-1000-R500 (BALL)	Latuma	A	408341
	1	3 1/2	6	4	SQ	VST4-L-1000-SQ	Latuma	A	408401
	1	3 1/2	6	4	0.030	VST4-L-1000-R030	Latuma	A	408411
	1	3 1/2	6	4	0.060	VST4-L-1000-R060	Latuma	A	408421
	1	3 1/2	6	4	0.090	VST4-L-1000-R090	Latuma	C	408426
	1	3 1/2	6	4	0.125	VST4-L-1000-R125	Latuma	A	408431
	1	3 1/2	6	4	BALL	VST4-L-1000-R500 (BALL)	Latuma	A	408441

Stock Code Key:

- (A) Factory Stock Item
- (B) Limited Stock (Ships in 3 - 5 Working Days)
- (C) Limited Stock (Ships in 2 Weeks)
- (D) Non Stock (Ships in 3 Weeks)

SERIES: VST4-RN

4 Flute, Reduced Neck, Steel/Stainless Steel/Hi-Temp Alloys/Cast Iron, Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	LENGTH BELOW SHANK (LBS)	DESCRIPTION	COATING	STOCK CODE	EDP#
1/8"	1/8	3/16	2	4	SQ	1/2	VST4-RN-R-0125-SQ	Latuma	C	410701
	1/8	3/16	2	4	0.015	1/2	VST4-RN-R-0125-R015	Latuma	C	410711
	1/8	3/16	2	4	BALL	1/2	VST4-RN-R-0125-R063 (BALL)	Latuma	C	410741
	1/8	3/16	2 1/2	4	SQ	3/4	VST4-RN-M-0125-SQ	Latuma	C	410801
	1/8	3/16	2 1/2	4	0.015	3/4	VST4-RN-M-0125-R015	Latuma	C	410811
	1/8	3/16	2 1/2	4	BALL	3/4	VST4-RN-M-0125-R063 (BALL)	Latuma	C	410841
3/16"	3/16	1/4	2 1/2	4	SQ	1/2	VST4-RN-R-0187-SQ	Latuma	C	400701
	3/16	1/4	2 1/2	4	0.015	1/2	VST4-RN-R-0187-R015	Latuma	C	400711
	3/16	1/4	2 1/2	4	BALL	1/2	VST4-RN-R-0187-R094 (BALL)	Latuma	C	400741
	3/16	1/4	3	4	SQ	3/4	VST4-RN-M-0187-SQ	Latuma	C	400801
	3/16	1/4	3	4	0.015	3/4	VST4-RN-M-0187-R015	Latuma	C	400811
	3/16	1/4	3	4	BALL	3/4	VST4-RN-M-0187-R094 (BALL)	Latuma	C	400841
	3/16	1/4	3	4	SQ	1	VST4-RN-L-0187-SQ	Latuma	C	400901
	3/16	1/4	3	4	0.015	1	VST4-RN-L-0187-R015	Latuma	C	400911
	3/16	1/4	3	4	BALL	1	VST4-RN-L-0187-R094 (BALL)	Latuma	C	400941
1/4"	1/4	3/8	2 1/2	4	SQ	3/4	VST4-RN-S-0250-SQ	Latuma	C	401601
	1/4	3/8	2 1/2	4	0.015	3/4	VST4-RN-S-0250-R015	Latuma	C	401611
	1/4	3/8	2 1/2	4	0.020	3/4	VST4-RN-S-0250-R020	Latuma	C	401616
	1/4	3/8	2 1/2	4	0.030	3/4	VST4-RN-S-0250-R030	Latuma	C	401621
	1/4	3/8	2 1/2	4	0.060	3/4	VST4-RN-S-0250-R060	Latuma	C	401631
	1/4	3/8	2 1/2	4	BALL	3/4	VST4-RN-S-0250-R125 (BALL)	Latuma	C	401641
	1/4	3/8	3	4	SQ	1	VST4-RN-SR-0250-SQ	Latuma	C	401601N
	1/4	3/8	3	4	0.015	1	VST4-RN-SR-0250-R015	Latuma	C	401611N
	1/4	3/8	3	4	0.020	1	VST4-RN-SR-0250-R020	Latuma	C	401616N
	1/4	3/8	3	4	0.030	1	VST4-RN-SR-0250-R030	Latuma	C	401621N
	1/4	3/8	3	4	0.060	1	VST4-RN-SR-0250-R060	Latuma	C	401631N
	1/4	3/8	3	4	BALL	1	VST4-RN-SR-0250-R125 (BALL)	Latuma	C	401641N
	1/4	3/8	4	4	SQ	1 1/4	VST4-RN-R-0250-SQ	Latuma	A	401701
	1/4	3/8	4	4	0.015	1 1/4	VST4-RN-R-0250-R015	Latuma	A	401711
	1/4	3/8	4	4	0.020	1 1/4	VST4-RN-R-0250-R020	Latuma	C	401716
	1/4	3/8	4	4	0.030	1 1/4	VST4-RN-R-0250-R030	Latuma	A	401721
	1/4	3/8	4	4	0.060	1 1/4	VST4-RN-R-0250-R060	Latuma	A	401731
	1/4	3/8	4	4	BALL	1 1/4	VST4-RN-R-0250-R125 (BALL)	Latuma	A	401741
	1/4	3/8	4	4	SQ	1 1/2	VST4-RN-SR-0250-SQ	Latuma	C	401801
	1/4	3/8	4	4	0.015	1 1/2	VST4-RN-SP-0250-R015	Latuma	C	401811
	1/4	3/8	4	4	0.020	1 1/2	VST4-RN-SP-0250-R020	Latuma	C	401816
	1/4	3/8	4	4	0.030	1 1/2	VST4-RN-SP-0250-R030	Latuma	C	401821
	1/4	3/8	4	4	0.060	1 1/2	VST4-RN-SP-0250-R060	Latuma	C	401831
	1/4	3/8	4	4	BALL	1 1/2	VST4-RN-SP-0250-R125 (BALL)	Latuma	C	401841
5/16"	5/16	1/2	3	4	SQ	1 1/4	VST4-RN-SR-0312-SQ	Latuma	C	402601N
	5/16	1/2	3	4	0.015	1 1/4	VST4-RN-SR-0312-R015	Latuma	C	402611N
	5/16	1/2	3	4	0.030	1 1/4	VST4-RN-SR-0312-R030	Latuma	C	402621N
	5/16	1/2	3	4	BALL	1 1/4	VST4-RN-SR-0312-R063 (BALL)	Latuma	C	402641N
	5/16	1/2	4	4	SQ	2	VST4-RN-M-0312-SQ	Latuma	C	402801
	5/16	1/2	4	4	0.015	2	VST4-RN-M-0312-R015	Latuma	C	402811
	5/16	1/2	4	4	0.030	2	VST4-RN-M-0312-R030	Latuma	C	402821
	5/16	1/2	4	4	BALL	2	VST4-RN-M-0312-R063 (BALL)	Latuma	C	402841
3/8"	3/8	5/8	3	4	SQ	1 5/8	VST4-RN-SR-0375-SQ	Latuma	C	403601N
	3/8	5/8	3	4	0.015	1 5/8	VST4-RN-SR-0375-R015	Latuma	C	403611N
	3/8	5/8	3	4	0.020	1 5/8	VST4-RN-SR-0375-R020	Latuma	C	403616N
	3/8	5/8	3	4	0.030	1 5/8	VST4-RN-SR-0375-R030	Latuma	C	403621N
	3/8	5/8	3	4	0.060	1 5/8	VST4-RN-SR-0375-R060	Latuma	C	403631N
	3/8	5/8	3	4	0.090	1 5/8	VST4-RN-SR-0375-R090	Latuma	C	403636N
	3/8	5/8	3	4	BALL	1 5/8	VST4-RN-SR-0375-R188 (BALL)	Latuma	C	403641N

SERIES: VST4-RN

4 Flute, Reduced Neck, Steel/Stainless Steel/Hi-Temp Alloys/Cast Iron, Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	LENGTH BELOW SHANK (LBS)	DESCRIPTION	COATING	STOCK CODE	EDP#
3/8"	3/8	5/8	4	4	SQ	2	VST4-RN-R-0375-SQ	Latuma	A	403701
	3/8	5/8	4	4	0.015	2	VST4-RN-R-0375-R015	Latuma	A	403711
	3/8	5/8	4	4	0.020	2	VST4-RN-R-0375-R020	Latuma	C	403716
	3/8	5/8	4	4	0.030	2	VST4-RN-R-0375-R030	Latuma	A	403721
	3/8	5/8	4	4	0.060	2	VST4-RN-R-0375-R060	Latuma	A	403731
	3/8	5/8	4	4	0.090	2	VST4-RN-R-0375-R090	Latuma	C	403736
	3/8	5/8	4	4	BALL	2	VST4-RN-R-0375-R188 (BALL)	Latuma	A	403741
	3/8	5/8	4	4	SQ	2 1/2	VST4-RN-M-0375-SQ	Latuma	C	403801
	3/8	5/8	4	4	0.015	2 1/2	VST4-RN-M-0375-R015	Latuma	C	403811
	3/8	5/8	4	4	0.020	2 1/2	VST4-RN-M-0375-R020	Latuma	C	403816
	3/8	5/8	4	4	0.030	2 1/2	VST4-RN-M-0375-R030	Latuma	C	403821
	3/8	5/8	4	4	0.060	2 1/2	VST4-RN-M-0375-R060	Latuma	C	403831
	3/8	5/8	4	4	0.090	2 1/2	VST4-RN-M-0375-R090	Latuma	C	403836
	3/8	5/8	4	4	BALL	2 1/2	VST4-RN-M-0375-R188 (BALL)	Latuma	C	403841
	3/8	5/8	5	4	SQ	3	VST4-RN-L-0375-SQ	Latuma	C	403901
	3/8	5/8	5	4	0.015	3	VST4-RN-L-0375-R015	Latuma	C	403911
	3/8	5/8	5	4	0.020	3	VST4-RN-L-0375-R020	Latuma	C	403916
	3/8	5/8	5	4	0.030	3	VST4-RN-L-0375-R030	Latuma	C	403921
	3/8	5/8	5	4	0.060	3	VST4-RN-L-0375-R060	Latuma	C	403931
	3/8	5/8	5	4	0.090	3	VST4-RN-L-0375-R090	Latuma	C	403936
	3/8	5/8	5	4	BALL	3	VST4-RN-L-0375-R188 (BALL)	Latuma	C	403941
1/2"	1/2	3/4	3	4	SQ	1 1/4	VST4-RN-S-0500-SQ	Latuma	A	405601
	1/2	3/4	3	4	0.015	1 1/4	VST4-RN-S-0500-R015	Latuma	A	405611
	1/2	3/4	3	4	0.030	1 1/4	VST4-RN-S-0500-R030	Latuma	A	405621
	1/2	3/4	3	4	0.060	1 1/4	VST4-RN-S-0500-R060	Latuma	A	405631
	1/2	3/4	3	4	0.090	1 1/4	VST4-RN-S-0500-R090	Latuma	C	405636
	1/2	3/4	3	4	0.125	1 1/4	VST4-RN-S-0500-R125	Latuma	A	405641
	1/2	3/4	3	4	BALL	1 1/4	VST4-RN-S-0500-R250 (BALL)	Latuma	A	405651
	1/2	3/4	3	4	SQ	1 3/4	VST4-RN-SR-0500-SQ	Latuma	C	405601N
	1/2	3/4	3	4	0.015	1 3/4	VST4-RN-SR-0500-R015	Latuma	C	405611N
	1/2	3/4	3	4	0.030	1 3/4	VST4-RN-SR-0500-R030	Latuma	C	405621N
	1/2	3/4	3	4	0.060	1 3/4	VST4-RN-SR-0500-R060	Latuma	C	405631N
	1/2	3/4	3	4	0.090	1 3/4	VST4-RN-SR-0500-R090	Latuma	C	405636N
	1/2	3/4	3	4	0.125	1 3/4	VST4-RN-SR-0500-R125	Latuma	C	405641N
	1/2	3/4	3	4	BALL	1 3/4	VST4-RN-SR-0500-R250 (BALL)	Latuma	C	405651N
	1/2	3/4	4	4	SQ	2	VST4-RN-R-0500-SQ	Latuma	A	405701
	1/2	3/4	4	4	0.015	2	VST4-RN-R-0500-R015	Latuma	A	405711
	1/2	3/4	4	4	0.030	2	VST4-RN-R-0500-R030	Latuma	A	405721
	1/2	3/4	4	4	0.060	2	VST4-RN-R-0500-R060	Latuma	A	405731
	1/2	3/4	4	4	0.090	2	VST4-RN-R-0500-R090	Latuma	C	405736
	1/2	3/4	4	4	0.125	2	VST4-RN-R-0500-R125	Latuma	A	405741
	1/2	3/4	4	4	BALL	2	VST4-RN-R-0500-R250 (BALL)	Latuma	A	405751
	1/2	3/4	4	4	SQ	2 1/4	VST4-RN-SP-0500-SQ	Latuma	C	405701N
	1/2	3/4	4	4	0.015	2 1/4	VST4-RN-SP-0500-R015	Latuma	C	405711N
	1/2	3/4	4	4	0.030	2 1/4	VST4-RN-SP-0500-R030	Latuma	C	405721N
	1/2	3/4	4	4	0.060	2 1/4	VST4-RN-SP-0500-R060	Latuma	C	405731N
	1/2	3/4	4	4	0.090	2 1/4	VST4-RN-SP-0500-R090	Latuma	C	405736N
	1/2	3/4	4	4	0.125	2 1/4	VST4-RN-SP-0500-R125	Latuma	C	405741N
	1/2	3/4	4	4	BALL	2 1/4	VST4-RN-SP-0500-R250 (BALL)	Latuma	C	405751N
	1/2	3/4	5	4	SQ	2 1/2	VST4-RN-M-0500-SQ	Latuma	A	405801
	1/2	3/4	5	4	0.015	2 1/2	VST4-RN-M-0500-R015	Latuma	A	405811
	1/2	3/4	5	4	0.030	2 1/2	VST4-RN-M-0500-R030	Latuma	A	405821
	1/2	3/4	5	4	0.060	2 1/2	VST4-RN-M-0500-R060	Latuma	A	405831
	1/2	3/4	5	4	0.090	2 1/2	VST4-RN-M-0500-R090	Latuma	C	405836
	1/2	3/4	5	4	0.125	2 1/2	VST4-RN-M-0500-R125	Latuma	A	405841
	1/2	3/4	5	4	BALL	2 1/2	VST4-RN-M-0500-R250 (BALL)	Latuma	A	405851

SERIES: VST4-RN

4 Flute, Reduced Neck, Steel/Stainless Steel/Hi-Temp Alloys/Cast Iron, Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	LENGTH BELOW SHANK (LBS)	DESCRIPTION	COATING	STOCK CODE	EDP#
1/2"	1/2	3/4	6	4	SQ	3 1/2	VST4-RN-L-0500-SQ	Latuma	A	405901
	1/2	3/4	6	4	0.015	3 1/2	VST4-RN-L-0500-R015	Latuma	A	405911
	1/2	3/4	6	4	0.030	3 1/2	VST4-RN-L-0500-R030	Latuma	A	405921
	1/2	3/4	6	4	0.060	3 1/2	VST4-RN-L-0500-R060	Latuma	A	405931
	1/2	3/4	6	4	0.090	3 1/2	VST4-RN-L-0500-R090	Latuma	C	405936
	1/2	3/4	6	4	0.125	3 1/2	VST4-RN-L-0500-R125	Latuma	A	405941
	1/2	3/4	6	4	BALL	3 1/2	VST4-RN-L-0500-R250 (BALL)	Latuma	A	405951
5/8"	5/8	1	4	4	SQ	2	VST4-RN-R-0625-SQ	Latuma	C	406701
	5/8	1	4	4	0.030	2	VST4-RN-R-0625-R030	Latuma	C	406711
	5/8	1	4	4	0.060	2	VST4-RN-R-0625-R060	Latuma	C	406721
	5/8	1	4	4	0.090	2	VST4-RN-R-0625-R090	Latuma	C	406726
	5/8	1	4	4	0.125	2	VST4-RN-R-0625-R125	Latuma	C	406731
	5/8	1	4	4	BALL	2	VST4-RN-R-0625-R313 (BALL)	Latuma	C	406741
	5/8	1	5	4	SQ	2 1/2	VST4-RN-M-0625-SQ	Latuma	A	406801
	5/8	1	5	4	0.030	2 1/2	VST4-RN-M-0625-R030	Latuma	A	406811
	5/8	1	5	4	0.060	2 1/2	VST4-RN-M-0625-R060	Latuma	A	406821
	5/8	1	5	4	0.090	2 1/2	VST4-RN-M-0625-R090	Latuma	C	406826
	5/8	1	5	4	0.125	2 1/2	VST4-RN-M-0625-R125	Latuma	A	406831
	5/8	1	5	4	BALL	2 1/2	VST4-RN-M-0625-R313 (BALL)	Latuma	A	406841
	5/8	1	5	4	SQ	3 1/2	VST4-RN-L-0625-SQ	Latuma	C	406901
	5/8	1	5	4	0.030	3 1/2	VST4-RN-L-0625-R030	Latuma	C	406911
	5/8	1	5	4	0.060	3 1/2	VST4-RN-L-0625-R060	Latuma	C	406921
	5/8	1	5	4	0.090	3 1/2	VST4-RN-L-0625-R090	Latuma	C	406926
	5/8	1	5	4	0.125	3 1/2	VST4-RN-L-0625-R125	Latuma	C	406931
	5/8	1	5	4	BALL	3 1/2	VST4-RN-L-0625-R313 (BALL)	Latuma	C	406941
3/4"	3/4	1 1/8	4	4	SQ	1 3/4	VST4-RN-SR-0750-SQ	Latuma	C	407601N
	3/4	1 1/8	4	4	0.030	1 3/4	VST4-RN-SR-0750-R030	Latuma	C	407611N
	3/4	1 1/8	4	4	0.060	1 3/4	VST4-RN-SR-0750-R060	Latuma	C	407621N
	3/4	1 1/8	4	4	0.090	1 3/4	VST4-RN-SR-0750-R090	Latuma	C	407626N
	3/4	1 1/8	4	4	0.125	1 3/4	VST4-RN-SR-0750-R125	Latuma	C	407631N
	3/4	1 1/8	4	4	BALL	1 3/4	VST4-RN-SR-0750-R375 (BALL)	Latuma	C	407641N
	3/4	1 1/8	4	4	SQ	2	VST4-RN-R-0750-SQ	Latuma	A	407701
	3/4	1 1/8	4	4	0.030	2	VST4-RN-R-0750-R030	Latuma	A	407711
	3/4	1 1/8	4	4	0.060	2	VST4-RN-R-0750-R060	Latuma	A	407721
	3/4	1 1/8	4	4	0.090	2	VST4-RN-R-0750-R090	Latuma	C	407726
	3/4	1 1/8	4	4	0.125	2	VST4-RN-R-0750-R125	Latuma	A	407731
	3/4	1 1/8	4	4	BALL	2	VST4-RN-R-0750-R375 (BALL)	Latuma	A	407741
	3/4	1 1/8	5	4	SQ	2 1/2	VST4-RN-SP-0750-SQ	Latuma	C	407701N
	3/4	1 1/8	5	4	0.030	2 1/2	VST4-RN-SP-0750-R030	Latuma	C	407711N
	3/4	1 1/8	5	4	0.060	2 1/2	VST4-RN-SP-0750-R060	Latuma	C	407721N
	3/4	1 1/8	5	4	0.090	2 1/2	VST4-RN-SP-0750-R090	Latuma	C	407726N
	3/4	1 1/8	5	4	0.125	2 1/2	VST4-RN-SP-0750-R125	Latuma	C	407731N
	3/4	1 1/8	5	4	BALL	2 1/2	VST4-RN-SP-0750-R375 (BALL)	Latuma	C	407741N
	3/4	1 1/8	6	4	SQ	3	VST4-RN-M-0750-SQ	Latuma	A	407801
	3/4	1 1/8	6	4	0.030	3	VST4-RN-M-0750-R030	Latuma	A	407811
	3/4	1 1/8	6	4	0.060	3	VST4-RN-M-0750-R060	Latuma	A	407821
	3/4	1 1/8	6	4	0.090	3	VST4-RN-M-0750-R090	Latuma	C	407826
	3/4	1 1/8	6	4	0.125	3	VST4-RN-M-0750-R125	Latuma	A	407831
	3/4	1 1/8	6	4	BALL	3	VST4-RN-M-0750-R375 (BALL)	Latuma	A	407841
	3/4	1 1/8	6	4	SQ	4	VST4-RN-X-0750-SQ	Latuma	C	407901N
	3/4	1 1/8	6	4	0.030	4	VST4-RN-X-0750-R030	Latuma	C	407911N
	3/4	1 1/8	6	4	0.060	4	VST4-RN-X-0750-R060	Latuma	C	407921N
	3/4	1 1/8	6	4	0.090	4	VST4-RN-X-0750-R090	Latuma	C	407926N
	3/4	1 1/8	6	4	0.125	4	VST4-RN-X-0750-R125	Latuma	C	407931N
	3/4	1 1/8	6	4	BALL	4	VST4-RN-X-0750-R375 (BALL)	Latuma	C	407941N

SERIES: VST4-RN

4 Flute, Reduced Neck, Steel/Stainless Steel/Hi-Temp Alloys/Cast Iron, Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	LENGTH BELOW SHANK (LBS)	DESCRIPTION	COATING	STOCK CODE	EDP#
1"	1	1 1/2	6	4	SQ	2 1/2	VST4-RN-R-1000-SQ	Latuma	A	408701
	1	1 1/2	6	4	0.030	2 1/2	VST4-RN-R-1000-R030	Latuma	A	408711
	1	1 1/2	6	4	0.060	2 1/2	VST4-RN-R-1000-R060	Latuma	A	408721
	1	1 1/2	6	4	0.090	2 1/2	VST4-RN-R-1000-R090	Latuma	C	408726
	1	1 1/2	6	4	0.125	2 1/2	VST4-RN-R-1000-R125	Latuma	A	408731
	1	1 1/2	6	4	BALL	2 1/2	VST4-RN-R-1000-R500 (BALL)	Latuma	A	408741
	1	1 1/2	6	4	SQ	3 1/2	VST4-RN-M-1000-SQ	Latuma	A	408801
	1	1 1/2	6	4	0.030	3 1/2	VST4-RN-M-1000-R030	Latuma	A	408811
	1	1 1/2	6	4	0.060	3 1/2	VST4-RN-M-1000-R060	Latuma	A	408821
	1	1 1/2	6	4	0.090	3 1/2	VST4-RN-M-1000-R090	Latuma	C	408826
	1	1 1/2	6	4	0.125	3 1/2	VST4-RN-M-1000-R125	Latuma	A	408831
	1	1 1/2	6	4	BALL	3 1/2	VST4-RN-M-1000-R500 (BALL)	Latuma	A	408841
	1	1 1/2	7	4	SQ	4 1/2	VST4-RN-L-1000-SQ	Latuma	C	408901
	1	1 1/2	7	4	0.030	4 1/2	VST4-RN-L-1000-R030	Latuma	C	408911
	1	1 1/2	7	4	0.060	4 1/2	VST4-RN-L-1000-R060	Latuma	C	408921
	1	1 1/2	7	4	0.090	4 1/2	VST4-RN-L-1000-R090	Latuma	C	408926
	1	1 1/2	7	4	0.125	4 1/2	VST4-RN-L-1000-R125	Latuma	C	408931
	1	1 1/2	7	4	BALL	4 1/2	VST4-RN-L-1000-R500 (BALL)	Latuma	C	408941

Stock Code Key:

- (A) Factory Stock Item
- (B) Limited Stock (Ships in 3 - 5 Working Days)
- (C) Limited Stock (Ships in 2 Weeks)
- (D) Non Stock (Ships in 3 Weeks)

SERIES: VST4-RN BLANKS

4 Flute, Un-Necked Blanks, LBS Necked to Size at Time of Order

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	LENGTH BELOW SHANK (LBS)	DESCRIPTION	COATING	STOCK CODE	EDP#
1/2"	1/2	3/4	7	4	SQ	Custom LBS	VST4-RN-7-0500-SQ	Latuma	C	405701-BLK
	1/2	3/4	7	4	0.015	Custom LBS	VST4-RN-7-0500-R015	Latuma	C	405711-BLK
	1/2	3/4	7	4	0.030	Custom LBS	VST4-RN-7-0500-R030	Latuma	C	405721-BLK
	1/2	3/4	7	4	0.060	Custom LBS	VST4-RN-7-0500-R060	Latuma	C	405731-BLK
	1/2	3/4	7	4	0.090	Custom LBS	VST4-RN-7-0500-R090	Latuma	C	405736-BLK
	1/2	3/4	7	4	0.125	Custom LBS	VST4-RN-7-0500-R125	Latuma	C	405741-BLK
	1/2	3/4	7	4	BALL	Custom LBS	VST4-RN-7-0500-R250 (BALL)	Latuma	C	405751-BLK
	1/2	3/4	8	4	SQ	Custom LBS	VST4-RN-8-0500-SQ	Latuma	C	405801-BLK
	1/2	3/4	8	4	0.015	Custom LBS	VST4-RN-8-0500-R015	Latuma	C	405811-BLK
	1/2	3/4	8	4	0.030	Custom LBS	VST4-RN-8-0500-R030	Latuma	C	405821-BLK
	1/2	3/4	8	4	0.060	Custom LBS	VST4-RN-8-0500-R060	Latuma	C	405831-BLK
	1/2	3/4	8	4	0.090	Custom LBS	VST4-RN-8-0500-R090	Latuma	C	405836-BLK
	1/2	3/4	8	4	0.125	Custom LBS	VST4-RN-8-0500-R125	Latuma	C	405841-BLK
	1/2	3/4	8	4	BALL	Custom LBS	VST4-RN-8-0500-R250 (BALL)	Latuma	C	405851-BLK
5/8"	5/8	1	7	4	SQ	Custom LBS	VST4-RN-7-0625-SQ	Latuma	C	406701-BLK
	5/8	1	7	4	0.030	Custom LBS	VST4-RN-7-0625-R030	Latuma	C	406711-BLK
	5/8	1	7	4	0.060	Custom LBS	VST4-RN-7-0625-R060	Latuma	C	406721-BLK
	5/8	1	7	4	0.090	Custom LBS	VST4-RN-7-0625-R090	Latuma	C	406726-BLK
	5/8	1	7	4	0.125	Custom LBS	VST4-RN-7-0625-R125	Latuma	C	406731-BLK
	5/8	1	7	4	BALL	Custom LBS	VST4-RN-7-0625-R313 (BALL)	Latuma	C	406741-BLK
	5/8	1	8	4	SQ	Custom LBS	VST4-RN-8-0625-SQ	Latuma	C	406801-BLK
	5/8	1	8	4	0.030	Custom LBS	VST4-RN-8-0625-R030	Latuma	C	406811-BLK
	5/8	1	8	4	0.060	Custom LBS	VST4-RN-8-0625-R060	Latuma	C	406821-BLK
	5/8	1	8	4	0.090	Custom LBS	VST4-RN-8-0625-R090	Latuma	C	406826-BLK
	5/8	1	8	4	0.125	Custom LBS	VST4-RN-8-0625-R125	Latuma	C	406831-BLK
	5/8	1	8	4	BALL	Custom LBS	VST4-RN-8-0625-R313 (BALL)	Latuma	C	406841-BLK
3/4"	3/4	1 1/8	7	4	SQ	Custom LBS	VST4-RN-7-0750-SQ	Latuma	C	407701-BLK
	3/4	1 1/8	7	4	0.030	Custom LBS	VST4-RN-7-0750-R030	Latuma	C	407711-BLK
	3/4	1 1/8	7	4	0.060	Custom LBS	VST4-RN-7-0750-R060	Latuma	C	407721-BLK
	3/4	1 1/8	7	4	0.090	Custom LBS	VST4-RN-7-0750-R090	Latuma	C	407726-BLK
	3/4	1 1/8	7	4	0.125	Custom LBS	VST4-RN-7-0750-R125	Latuma	C	407731-BLK
	3/4	1 1/8	7	4	BALL	Custom LBS	VST4-RN-7-0750-R375 (BALL)	Latuma	C	407741-BLK
	3/4	1 1/8	8	4	SQ	Custom LBS	VST4-RN-8-0750-SQ	Latuma	C	407801-BLK
	3/4	1 1/8	8	4	0.030	Custom LBS	VST4-RN-8-0750-R030	Latuma	C	407811-BLK
	3/4	1 1/8	8	4	0.060	Custom LBS	VST4-RN-8-0750-R060	Latuma	C	407821-BLK
	3/4	1 1/8	8	4	0.090	Custom LBS	VST4-RN-8-0750-R090	Latuma	C	407826-BLK
	3/4	1 1/8	8	4	0.125	Custom LBS	VST4-RN-8-0750-R125	Latuma	C	407831-BLK
	3/4	1 1/8	8	4	BALL	Custom LBS	VST4-RN-8-0750-R375 (BALL)	Latuma	C	407841-BLK
1"	1	1 1/2	7	4	SQ	Custom LBS	VST4-RN-7-1000-SQ	Latuma	C	408701-BLK
	1	1 1/2	7	4	0.030	Custom LBS	VST4-RN-7-1000-R030	Latuma	C	408711-BLK
	1	1 1/2	7	4	0.060	Custom LBS	VST4-RN-7-1000-R060	Latuma	C	408721-BLK
	1	1 1/2	7	4	0.090	Custom LBS	VST4-RN-7-1000-R090	Latuma	C	408726-BLK
	1	1 1/2	7	4	0.125	Custom LBS	VST4-RN-7-1000-R125	Latuma	C	408731-BLK
	1	1 1/2	7	4	BALL	Custom LBS	VST4-RN-7-1000-R500 (BALL)	Latuma	C	408741-BLK
	1	1 1/2	8	4	SQ	Custom LBS	VST4-RN-8-1000-SQ	Latuma	C	408801-BLK
	1	1 1/2	8	4	0.030	Custom LBS	VST4-RN-8-1000-R030	Latuma	C	408811-BLK
	1	1 1/2	8	4	0.060	Custom LBS	VST4-RN-8-1000-R060	Latuma	C	408821-BLK
	1	1 1/2	8	4	0.090	Custom LBS	VST4-RN-8-1000-R090	Latuma	C	408826-BLK
	1	1 1/2	8	4	0.125	Custom LBS	VST4-RN-8-1000-R125	Latuma	C	408831-BLK
	1	1 1/2	8	4	BALL	Custom LBS	VST4-RN-8-1000-R500 (BALL)	Latuma	C	408841-BLK



Standard Catalog Offering

Ferrous VST4-CB Series



SERIES: VST4-CB

4 Flute, Variable Pitch, Staggered Chipbreakers, Steel/Stainless Steel/Hi-Temp Alloys/Cast Iron, Roughing

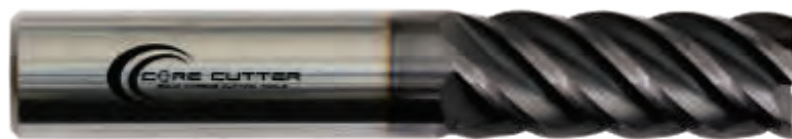
CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	DESCRIPTION	COATING	STOCK CODE	EDP#
1/8"	1/8	1/4	1 1/2	4	0.015	VST4-S-0125-R015-CB	Latuma	A	410011C
	1/8	3/8	2	4	0.015	VST4-SR-0125-R015-CB	Latuma	A	410111C
	1/8	1/2	2 1/2	4	0.015	VST4-R-0125-R015-CB	Latuma	A	410211C
3/16"	3/16	5/16	2	4	0.015	VST4-S-0187-R015-CB	Latuma	A	400011C
	3/16	7/16	2	4	0.015	VST4-SR-0187-R015-CB	Latuma	A	400111C
	3/16	9/16	2 1/2	4	0.015	VST4-R-0187-R015-CB	Latuma	A	400211C
1/4"	1/4	3/8	2	4	0.030	VST4-S-0250-R030-CB	Latuma	A	401021C
	1/4	1/2	2 1/2	4	0.030	VST4-SR-0250-R030-CB	Latuma	A	401121C
	1/4	3/4	2 1/2	4	0.030	VST4-R-0250-R030-CB	Latuma	A	401221C
	1/4	1	3	4	0.030	VST4-SP-0250-R030-CB	Latuma	C	491221C
	1/4	1 1/4	3	4	0.030	VST4-M-0250-R030-CB	Latuma	A	401321C
5/16"	5/16	1/2	2	4	0.030	VST4-SR-0312-R030-CB	Latuma	A	402121C
	5/16	3/4	2 1/2	4	0.030	VST4-R-0312-R030-CB	Latuma	A	402221C
	5/16	1 1/4	3	4	0.030	VST4-M-0312-R030-CB	Latuma	A	402321C
3/8"	3/8	1/2	2	4	0.030	VST4-S-0375-R030-CB	Latuma	A	403021C
	3/8	3/4	2 1/2	4	0.030	VST4-SR-0375-R030-CB	Latuma	A	403121C
	3/8	7/8	3	4	0.030	VST4-SP-0375-R030-CB	Latuma	A	493221C
	3/8	1	3	4	0.030	VST4-R-0375-R030-CB	Latuma	A	403221C
	3/8	1 1/4	3	4	0.030	VST4-M-0375-R030-CB	Latuma	A	403321C
	3/8	1 1/2	4	4	0.030	VST4-L-0375-R030-CB	Latuma	A	403421C
1/2"	1/2	5/8	2 1/2	4	0.030	VST4-S-0500-R030-CB	Latuma	A	405021C
	1/2	1	3	4	0.030	VST4-SR-0500-R030-CB	Latuma	A	405121C
	1/2	1 1/4	3	4	0.030	VST4-R-0500-R030-CB	Latuma	A	405221C
	1/2	1 1/2	4	4	0.030	VST4-M-0500-R030-CB	Latuma	A	405321C
	1/2	1 5/8	4	4	0.030	VST4-SP-0500-R030-CB	Latuma	A	495321C
	1/2	2	4	4	0.030	VST4-L-0500-R030-CB	Latuma	A	405421C
5/8"	5/8	3/4	3	4	0.030	VST4-S-0625-R030-CB	Latuma	A	406011C
	5/8	1 1/4	3 1/2	4	0.030	VST4-SR-0625-R030-CB	Latuma	A	406111C
	5/8	1 1/2	3 1/2	4	0.030	VST4-R-0625-R030-CB	Latuma	A	406211C
	5/8	1 5/8	3 1/2	4	0.030	VST4-SP-0625-R030-CB	Latuma	A	496211C
	5/8	2	4	4	0.030	VST4-M-0625-R030-CB	Latuma	A	406311C
	5/8	2 1/2	5	4	0.030	VST4-L-0625-R030-CB	Latuma	C	406411C
3/4"	3/4	1	3	4	0.030	VST4-S-0750-R030-CB	Latuma	A	407011C
	3/4	1 1/2	4	4	0.030	VST4-SR-0750-R030-CB	Latuma	A	407111C
	3/4	1 5/8	4	4	0.030	VST4-SP-0750-R030-CB	Latuma	A	497111C
	3/4	2	5	4	0.030	VST4-R-0750-R030-CB	Latuma	A	407211C
	3/4	2 1/2	5	4	0.030	VST4-M-0750-R030-CB	Latuma	A	407311C
	3/4	3	6	4	0.030	VST4-L-0750-R030-CB	Latuma	A	407411C
1"	1	1 3/4	4	4	0.030	VST4-SR-1000-R030-CB	Latuma	A	408111C
	1	2 1/2	5	4	0.030	VST4-R-1000-R030-CB	Latuma	A	408211C
	1	3	6	4	0.030	VST4-M-1000-R030-CB	Latuma	A	408311C
	1	3 1/2	6	4	0.030	VST4-L-1000-R030-CB	Latuma	A	408411C

Stock Code Key:

- (A) Factory Stock Item
- (B) Limited Stock (Ships in 3 - 5 Working Days)
- (C) Limited Stock (Ships in 2 Weeks)
- (D) Non Stock (Ships in 3 Weeks)

Standard Catalog Offering

Finisher FEM5 Series



SERIES: FEM5

5 Flute, Steel/Stainless Steel/Hi-Temp Alloys/Cast Iron, Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	LENGTH BELOW SHANK (LBS)	DESCRIPTION	COATING	STOCK CODE	EDP#
1/8"	1/8	1/4	1 1/2	5	SQ		FEM5-S-0125-SQ	Latuma	A	540001
	1/8	1/2	2 1/2	5	SQ		FEM5-R-0125-SQ	Latuma	A	540201
3/16"	3/16	5/16	2	5	SQ		FEM5-S-0187-SQ	Latuma	A	550001
	3/16	9/16	2 1/2	5	SQ		FEM5-R-0187-SQ	Latuma	A	550201
1/4"	1/4	3/8	2	5	SQ		FEM5-S-0250-SQ	Latuma	A	551001
	1/4	1/2	2 1/2	5	SQ		FEM5-SR-0250-SQ	Latuma	A	551101
	1/4	3/4	2 1/2	5	SQ		FEM5-R-0250-SQ	Latuma	A	551201
5/16"	5/16	1/2	2	5	SQ		FEM5-SR-0312-SQ	Latuma	A	552101
	5/16	3/4	2 1/2	5	SQ		FEM5-R-0312-SQ	Latuma	A	552201
3/8"	3/8	1/2	2	5	SQ		FEM5-S-0375-SQ	Latuma	A	553001
	3/8	1	2 1/2	5	SQ		FEM5-R-0375-SQ	Latuma	A	553201
	3/8	1 1/4	3	5	SQ		FEM5-M-0375-SQ	Latuma	A	553301
1/2"	1/2	5/8	2 1/2	5	SQ		FEM5-S-0500-SQ	Latuma	A	555001
	1/2	1	3	5	SQ		FEM5-SR-0500-SQ	Latuma	A	555101
	1/2	1 1/4	3	5	SQ		FEM5-R-0500-SQ	Latuma	A	555201
	1/2	1 5/8	4	5	SQ		FEM5-SP-0500-SQ	Latuma	A	545301
	1/2	2	4	5	SQ		FEM5-L-0500-SQ	Latuma	A	555401
5/8"	5/8	3/4	3	5	SQ		FEM5-S-0625-SQ	Latuma	A	556001
	5/8	1 1/4	3 1/2	5	SQ		FEM5-R-0625-SQ	Latuma	A	556101
	5/8	1 5/8	3 1/2	5	SQ		FEM5-SP-0625-SQ	Latuma	A	546201
	5/8	2	4	5	SQ		FEM5-M-0625-SQ	Latuma	A	556301
	5/8	2 1/2	5	5	SQ		FEM5-L-0625-SQ	Latuma	A	556401
3/4"	3/4	1	3	5	SQ		FEM5-S-0750-SQ	Latuma	A	557001
	3/4	1 5/8	4	5	SQ		FEM5-SP-0750-SQ	Latuma	A	547101
	3/4	2	5	5	SQ		FEM5-R-0750-SQ	Latuma	A	557201
	3/4	2 1/2	5	5	SQ		FEM5-M-0750-SQ	Latuma	A	557301

Stock Code Key:

- (A) Factory Stock Item
- (B) Limited Stock (Ships in 3 - 5 Working Days)
- (C) Limited Stock (Ships in 2 Weeks)
- (D) Non Stock (Ships in 3 Weeks)

Standard Catalog Offering

Ferrous VST5 & VST5-RN Series



SERIES: VST5

5 Flute, Variable Pitch, Steel/Stainless/Hi-Temp Alloys/Cast Iron/Hardened Steel, Light Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	DESCRIPTION	COATING	STOCK CODE	EDP#
1/8"	1/8	1/4	1 1/2	5	SQ	VST5-S-0125-SQ	Alcrona Pro	A	510001
	1/8	1/4	1 1/2	5	0.015	VST5-S-0125-R015	Alcrona Pro	A	510011
	1/8	1/4	1 1/2	5	0.063	VST5-S-0125-R063 (BALL)	Alcrona Pro	A	510041
	1/8	3/8	2	5	SQ	VST5-SR-0125-SQ	Alcrona Pro	A	510101
	1/8	3/8	2	5	0.015	VST5-SR-0125-R015	Alcrona Pro	A	510111
	1/8	3/8	2	5	0.063	VST5-SR-0125-R063 (BALL)	Alcrona Pro	A	510141
	1/8	1/2	2 1/2	5	SQ	VST5-R-0125-SQ	Alcrona Pro	A	510201
	1/8	1/2	2 1/2	5	0.015	VST5-R-0125-R015	Alcrona Pro	A	510211
	1/8	1/2	2 1/2	5	0.063	VST5-R-0125-R063 (BALL)	Alcrona Pro	A	510241
3/16"	3/16	5/16	2	5	SQ	VST5-S-0187-SQ	Alcrona Pro	A	500001
	3/16	5/16	2	5	0.015	VST5-S-0187-R015	Alcrona Pro	A	500011
	3/16	5/16	2	5	0.094	VST5-S-0187-R094 (BALL)	Alcrona Pro	A	500041
	3/16	7/16	2	5	SQ	VST5-SR-0187-SQ	Alcrona Pro	A	500101
	3/16	7/16	2	5	0.015	VST5-SR-0187-R015	Alcrona Pro	A	500111
	3/16	7/16	2	5	0.094	VST5-SR-0187-R094 (BALL)	Alcrona Pro	A	500141
	3/16	9/16	2 1/2	5	SQ	VST5-R-0187-SQ	Alcrona Pro	A	500201
	3/16	9/16	2 1/2	5	0.015	VST5-R-0187-R015	Alcrona Pro	A	500211
	3/16	9/16	2 1/2	5	0.094	VST5-R-0187-R094 (BALL)	Alcrona Pro	A	500241
1/4"	1/4	3/8	2	5	SQ	VST5-S-0250-SQ	Alcrona Pro	A	501001
	1/4	3/8	2	5	0.015	VST5-S-0250-R015	Alcrona Pro	A	501011
	1/4	3/8	2	5	0.020	VST5-S-0250-R020	Alcrona Pro	A	501016
	1/4	3/8	2	5	0.030	VST5-S-0250-R030	Alcrona Pro	A	501021
	1/4	3/8	2	5	0.060	VST5-S-0250-R060	Alcrona Pro	A	501031
	1/4	3/8	2	5	BALL	VST5-S-0250-R125 (BALL)	Alcrona Pro	A	501041
	1/4	1/2	2 1/2	5	SQ	VST5-SR-0250-SQ	Alcrona Pro	A	501101
	1/4	1/2	2 1/2	5	0.015	VST5-SR-0250-R015	Alcrona Pro	A	501111
	1/4	1/2	2 1/2	5	0.020	VST5-SR-0250-R020	Alcrona Pro	A	501116
	1/4	1/2	2 1/2	5	0.030	VST5-SR-0250-R030	Alcrona Pro	A	501121
	1/4	1/2	2 1/2	5	0.060	VST5-SR-0250-R060	Alcrona Pro	A	501131
	1/4	1/2	2 1/2	5	BALL	VST5-SR-0250-R125 (BALL)	Alcrona Pro	A	501141
	1/4	3/4	2 1/2	5	SQ	VST5-R-0250-SQ	Alcrona Pro	A	501201
	1/4	3/4	2 1/2	5	0.015	VST5-R-0250-R015	Alcrona Pro	A	501211
	1/4	3/4	2 1/2	5	0.020	VST5-R-0250-R020	Alcrona Pro	A	501216
	1/4	3/4	2 1/2	5	0.030	VST5-R-0250-R030	Alcrona Pro	A	501221
	1/4	3/4	2 1/2	5	0.060	VST5-R-0250-R060	Alcrona Pro	A	501231
	1/4	3/4	2 1/2	5	BALL	VST5-R-0250-R125 (BALL)	Alcrona Pro	A	501241
	1/4	1	3	5	SQ	VST5-SP-0250-SQ	Alcrona Pro	C	591201
	1/4	1	3	5	0.015	VST5-SP-0250-R015	Alcrona Pro	C	591211
	1/4	1	3	5	0.020	VST5-SP-0250-R020	Alcrona Pro	C	591216
	1/4	1	3	5	0.030	VST5-SP-0250-R030	Alcrona Pro	C	591221
	1/4	1	3	5	0.060	VST5-SP-0250-R060	Alcrona Pro	C	591231
	1/4	1	3	5	BALL	VST5-SP-0250-R125 (BALL)	Alcrona Pro	C	591241
	1/4	1 1/4	3	5	SQ	VST5-M-0250-SQ	Alcrona Pro	A	501301
	1/4	1 1/4	3	5	0.015	VST5-M-0250-R015	Alcrona Pro	A	501311
	1/4	1 1/4	3	5	0.020	VST5-M-0250-R020	Alcrona Pro	C	501316
	1/4	1 1/4	3	5	0.030	VST5-M-0250-R030	Alcrona Pro	A	501321
	1/4	1 1/4	3	5	0.060	VST5-M-0250-R060	Alcrona Pro	C	501331
	1/4	1 1/4	3	5	BALL	VST5-M-0250-R125 (BALL)	Alcrona Pro	A	501341
5/16"	5/16	1/2	2	5	SQ	VST5-SR-0312-SQ	Alcrona Pro	A	502101
	5/16	1/2	2	5	0.015	VST5-SR-0312-R015	Alcrona Pro	A	502111
	5/16	1/2	2	5	0.030	VST5-SR-0312-R030	Alcrona Pro	A	502121
	5/16	1/2	2	5	BALL	VST5-SR-0312-R157 (BALL)	Alcrona Pro	A	502141
	5/16	3/4	2 1/2	5	SQ	VST5-R-0312-SQ	Alcrona Pro	A	502201
	5/16	3/4	2 1/2	5	0.015	VST5-R-0312-R015	Alcrona Pro	A	502211
	5/16	3/4	2 1/2	5	0.030	VST5-R-0312-R030	Alcrona Pro	A	502221
	5/16	3/4	2 1/2	5	BALL	VST5-R-0312-R157 (BALL)	Alcrona Pro	A	502241

SERIES: VST5

5 Flute, Variable Pitch, Steel/Stainless/Hi-Temp Alloys/Cast Iron/Hardened Steel, Light Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	DESCRIPTION	COATING	STOCK CODE	EDP#
5/16"	5/16	1 1/4	3	5	SQ	VST5-M-0312-SQ	Alcrona Pro	A	502301
	5/16	1 1/4	3	5	0.015	VST5-M-0312-R015	Alcrona Pro	A	502311
	5/16	1 1/4	3	5	0.030	VST5-M-0312-R030	Alcrona Pro	A	502321
	5/16	1 1/4	3	5	BALL	VST5-M-0312-R157 (BALL)	Alcrona Pro	A	502341
3/8"	3/8	1/2	2	5	SQ	VST5-S-0375-SQ	Alcrona Pro	A	503001
	3/8	1/2	2	5	0.015	VST5-S-0375-R015	Alcrona Pro	A	503011
	3/8	1/2	2	5	0.020	VST5-S-0375-R020	Alcrona Pro	A	503016
	3/8	1/2	2	5	0.030	VST5-S-0375-R030	Alcrona Pro	A	503021
	3/8	1/2	2	5	0.060	VST5-S-0375-R060	Alcrona Pro	A	503031
	3/8	1/2	2	5	0.090	VST5-S-0375-R090	Alcrona Pro	C	503036
	3/8	1/2	2	5	BALL	VST5-S-0375-R188 (BALL)	Alcrona Pro	A	503041
	3/8	3/4	2 1/2	5	SQ	VST5-SR-0375-SQ	Alcrona Pro	A	503101
	3/8	3/4	2 1/2	5	0.015	VST5-SR-0375-R015	Alcrona Pro	A	503111
	3/8	3/4	2 1/2	5	0.020	VST5-SR-0375-R020	Alcrona Pro	A	503116
	3/8	3/4	2 1/2	5	0.030	VST5-SR-0375-R030	Alcrona Pro	A	503121
	3/8	3/4	2 1/2	5	0.060	VST5-SR-0375-R060	Alcrona Pro	A	503131
	3/8	3/4	2 1/2	5	0.090	VST5-SR-0375-R090	Alcrona Pro	C	503136
	3/8	3/4	2 1/2	5	BALL	VST5-SR-0375-R188 (BALL)	Alcrona Pro	A	503141
	3/8	7/8	3	5	SQ	VST5-SP-0375-SQ	Alcrona Pro	A	593201
	3/8	7/8	3	5	0.015	VST5-SP-0375-R015	Alcrona Pro	A	593211
	3/8	7/8	3	5	0.020	VST5-SP-0375-R020	Alcrona Pro	A	593216
	3/8	7/8	3	5	0.030	VST5-SP-0375-R030	Alcrona Pro	A	593221
	3/8	7/8	3	5	0.060	VST5-SP-0375-R060	Alcrona Pro	C	593231
	3/8	7/8	3	5	0.090	VST5-SP-0375-R090	Alcrona Pro	C	593236
	3/8	7/8	3	5	BALL	VST5-SP-0375-R188 (BALL)	Alcrona Pro	A	593241
	3/8	1	3	5	SQ	VST5-R-0375-SQ	Alcrona Pro	A	503201
	3/8	1	3	5	0.015	VST5-R-0375-R015	Alcrona Pro	A	503211
	3/8	1	3	5	0.020	VST5-R-0375-R020	Alcrona Pro	A	503216
	3/8	1	3	5	0.030	VST5-R-0375-R030	Alcrona Pro	A	503221
	3/8	1	3	5	0.060	VST5-R-0375-R060	Alcrona Pro	A	503231
	3/8	1	3	5	0.090	VST5-R-0375-R090	Alcrona Pro	C	503236
	3/8	1	3	5	BALL	VST5-R-0375-R188 (BALL)	Alcrona Pro	A	503241
	3/8	1 1/4	3	5	SQ	VST5-M-0375-SQ	Alcrona Pro	A	503301
	3/8	1 1/4	3	5	0.015	VST5-M-0375-R015	Alcrona Pro	A	503311
	3/8	1 1/4	3	5	0.020	VST5-M-0375-R020	Alcrona Pro	C	503316
	3/8	1 1/4	3	5	0.030	VST5-M-0375-R030	Alcrona Pro	A	503321
	3/8	1 1/4	3	5	0.060	VST5-M-0375-R060	Alcrona Pro	A	503331
	3/8	1 1/4	3	5	0.090	VST5-M-0375-R090	Alcrona Pro	C	503336
	3/8	1 1/4	3	5	BALL	VST5-M-0375-R188 (BALL)	Alcrona Pro	A	503341
	3/8	1 1/2	4	5	SQ	VST5-L-0375-SQ	Alcrona Pro	A	503401
	3/8	1 1/2	4	5	0.015	VST5-L-0375-R015	Alcrona Pro	A	503411
	3/8	1 1/2	4	5	0.020	VST5-L-0375-R020	Alcrona Pro	C	503416
	3/8	1 1/2	4	5	0.030	VST5-L-0375-R030	Alcrona Pro	A	503421
	3/8	1 1/2	4	5	0.060	VST5-L-0375-R060	Alcrona Pro	A	503431
	3/8	1 1/2	4	5	0.090	VST5-L-0375-R090	Alcrona Pro	C	503436
	3/8	1 1/2	4	5	BALL	VST5-L-0375-R188 (BALL)	Alcrona Pro	A	503441
1/2"	1/2	5/8	2 1/2	5	SQ	VST5-S-0500-SQ	Alcrona Pro	A	505001
	1/2	5/8	2 1/2	5	0.015	VST5-S-0500-R015	Alcrona Pro	A	505011
	1/2	5/8	2 1/2	5	0.030	VST5-S-0500-R030	Alcrona Pro	A	505021
	1/2	5/8	2 1/2	5	0.060	VST5-S-0500-R060	Alcrona Pro	A	505031
	1/2	5/8	2 1/2	5	0.090	VST5-S-0500-R090	Alcrona Pro	C	505036
	1/2	5/8	2 1/2	5	0.125	VST5-S-0500-R125	Alcrona Pro	A	505041
	1/2	5/8	2 1/2	5	BALL	VST5-S-0500-R250 (BALL)	Alcrona Pro	A	505051

SERIES: VST5

5 Flute, Variable Pitch, Steel/Stainless/Hi-Temp Alloys/Cast Iron/Hardened Steel, Light Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	DESCRIPTION	COATING	STOCK CODE	EDP#
1/2"	1/2	1	3	5	SQ	VST5-SR-0500-SQ	Alcrona Pro	A	505101
	1/2	1	3	5	0.015	VST5-SR-0500-R015	Alcrona Pro	A	505111
	1/2	1	3	5	0.030	VST5-SR-0500-R030	Alcrona Pro	A	505121
	1/2	1	3	5	0.060	VST5-SR-0500-R060	Alcrona Pro	A	505131
	1/2	1	3	5	0.090	VST5-SR-0500-R090	Alcrona Pro	C	505136
	1/2	1	3	5	0.125	VST5-SR-0500-R125	Alcrona Pro	A	505141
	1/2	1	3	5	BALL	VST5-SR-0500-R250 (BALL)	Alcrona Pro	A	505151
	1/2	1 1/4	3	5	SQ	VST5-R-0500-SQ	Alcrona Pro	A	505201
	1/2	1 1/4	3	5	0.015	VST5-R-0500-R015	Alcrona Pro	A	505211
	1/2	1 1/4	3	5	0.030	VST5-R-0500-R030	Alcrona Pro	A	505221
	1/2	1 1/4	3	5	0.060	VST5-R-0500-R060	Alcrona Pro	A	505231
	1/2	1 1/4	3	5	0.090	VST5-R-0500-R090	Alcrona Pro	C	505236
	1/2	1 1/4	3	5	0.125	VST5-R-0500-R125	Alcrona Pro	A	505241
	1/2	1 1/4	3	5	BALL	VST5-R-0500-R250 (BALL)	Alcrona Pro	A	505251
	1/2	1 1/2	4	5	SQ	VST5-M-0500-SQ	Alcrona Pro	A	505301
	1/2	1 1/2	4	5	0.015	VST5-M-0500-R015	Alcrona Pro	A	505311
	1/2	1 1/2	4	5	0.030	VST5-M-0500-R030	Alcrona Pro	A	505321
	1/2	1 1/2	4	5	0.060	VST5-M-0500-R060	Alcrona Pro	A	505331
	1/2	1 1/2	4	5	0.090	VST5-M-0500-R090	Alcrona Pro	C	505336
	1/2	1 1/2	4	5	0.125	VST5-M-0500-R125	Alcrona Pro	A	505341
	1/2	1 1/2	4	5	BALL	VST5-M-0500-R250 (BALL)	Alcrona Pro	A	505351
	1/2	1 5/8	4	5	SQ	VST5-SP-0500-SQ	Alcrona Pro	A	595301
	1/2	1 5/8	4	5	0.015	VST5-SP-0500-R015	Alcrona Pro	A	595311
	1/2	1 5/8	4	5	0.030	VST5-SP-0500-R030	Alcrona Pro	A	595321
	1/2	1 5/8	4	5	0.060	VST5-SP-0500-R060	Alcrona Pro	A	595331
	1/2	1 5/8	4	5	0.090	VST5-SP-0500-R090	Alcrona Pro	C	595336
	1/2	1 5/8	4	5	0.125	VST5-SP-0500-R125	Alcrona Pro	A	595341
	1/2	1 5/8	4	5	BALL	VST5-SP-0500-R250 (BALL)	Alcrona Pro	A	595351
	1/2	2	4	5	SQ	VST5-L-0500-SQ	Alcrona Pro	A	505401
	1/2	2	4	5	0.015	VST5-L-0500-R015	Alcrona Pro	A	505411
	1/2	2	4	5	0.030	VST5-L-0500-R030	Alcrona Pro	A	505421
	1/2	2	4	5	0.060	VST5-L-0500-R060	Alcrona Pro	A	505431
	1/2	2	4	5	0.090	VST5-L-0500-R090	Alcrona Pro	C	505436
	1/2	2	4	5	0.125	VST5-L-0500-R125	Alcrona Pro	A	505441
	1/2	2	4	5	BALL	VST5-L-0500-R250 (BALL)	Alcrona Pro	A	505451
5/8"	5/8	3/4	3	5	SQ	VST5-S-0625-SQ	Alcrona Pro	A	506001
	5/8	3/4	3	5	0.030	VST5-S-0625-R030	Alcrona Pro	A	506011
	5/8	3/4	3	5	0.060	VST5-S-0625-R060	Alcrona Pro	A	506021
	5/8	3/4	3	5	0.090	VST5-S-0625-R090	Alcrona Pro	C	506026
	5/8	3/4	3	5	0.125	VST5-S-0625-R125	Alcrona Pro	A	506031
	5/8	3/4	3	5	BALL	VST5-S-0625-R313 (BALL)	Alcrona Pro	A	506041
	5/8	1 1/4	3 1/2	5	SQ	VST5-SR-0625-SQ	Alcrona Pro	A	506101
	5/8	1 1/4	3 1/2	5	0.030	VST5-SR-0625-R030	Alcrona Pro	A	506111
	5/8	1 1/4	3 1/2	5	0.060	VST5-SR-0625-R060	Alcrona Pro	A	506121
	5/8	1 1/4	3 1/2	5	0.090	VST5-SR-0625-R090	Alcrona Pro	C	506126
	5/8	1 1/4	3 1/2	5	0.125	VST5-SR-0625-R125	Alcrona Pro	A	506131
	5/8	1 1/4	3 1/2	5	BALL	VST5-SR-0625-R313 (BALL)	Alcrona Pro	A	506141
	5/8	1 1/2	3 1/2	5	SQ	VST5-R-0625-SQ	Alcrona Pro	A	506201
	5/8	1 1/2	3 1/2	5	0.030	VST5-R-0625-R030	Alcrona Pro	A	506211
	5/8	1 1/2	3 1/2	5	0.060	VST5-R-0625-R060	Alcrona Pro	A	506221
	5/8	1 1/2	3 1/2	5	0.090	VST5-R-0625-R090	Alcrona Pro	C	506226
	5/8	1 1/2	3 1/2	5	0.125	VST5-R-0625-R125	Alcrona Pro	A	506231
	5/8	1 1/2	3 1/2	5	BALL	VST5-R-0625-R313 (BALL)	Alcrona Pro	A	506241

SERIES: VST5

5 Flute, Variable Pitch, Steel/Stainless/Hi-Temp Alloys/Cast Iron/Hardened Steel, Light Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	DESCRIPTION	COATING	STOCK CODE	EDP#
5/8"	5/8	1 5/8	3 1/2	5	SQ	VST5-SP-0625-SQ	Alcrona Pro	A	596201
	5/8	1 5/8	3 1/2	5	0.030	VST5-SP-0625-R030	Alcrona Pro	A	596211
	5/8	1 5/8	3 1/2	5	0.060	VST5-SP-0625-R060	Alcrona Pro	C	596221
	5/8	1 5/8	3 1/2	5	0.090	VST5-SP-0625-R090	Alcrona Pro	C	596226
	5/8	1 5/8	3 1/2	5	0.125	VST5-SP-0625-R125	Alcrona Pro	C	596231
	5/8	1 5/8	3 1/2	5	BALL	VST5-SP-0625-R313 (BALL)	Alcrona Pro	A	596241
	5/8	2	4	5	SQ	VST5-M-0625-SQ	Alcrona Pro	A	506301
	5/8	2	4	5	0.030	VST5-M-0625-R030	Alcrona Pro	A	506311
	5/8	2	4	5	0.060	VST5-M-0625-R060	Alcrona Pro	A	506321
	5/8	2	4	5	0.090	VST5-M-0625-R090	Alcrona Pro	C	506326
	5/8	2	4	5	0.125	VST5-M-0625-R125	Alcrona Pro	A	506331
	5/8	2	4	5	BALL	VST5-M-0625-R313 (BALL)	Alcrona Pro	A	506341
	5/8	2 1/2	5	5	SQ	VST5-L-0625-SQ	Alcrona Pro	A	506401
	5/8	2 1/2	5	5	0.030	VST5-L-0625-R030	Alcrona Pro	A	506411
	5/8	2 1/2	5	5	0.060	VST5-L-0625-R060	Alcrona Pro	C	506421
	5/8	2 1/2	5	5	0.090	VST5-L-0625-R090	Alcrona Pro	C	506426
	5/8	2 1/2	5	5	0.125	VST5-L-0625-R125	Alcrona Pro	A	506431
	5/8	2 1/2	5	5	BALL	VST5-L-0625-R313 (BALL)	Alcrona Pro	C	506441
3/4"	3/4	1	3	5	SQ	VST5-S-0750-SQ	Alcrona Pro	A	507001
	3/4	1	3	5	0.030	VST5-S-0750-R030	Alcrona Pro	A	507011
	3/4	1	3	5	0.060	VST5-S-0750-R060	Alcrona Pro	A	507021
	3/4	1	3	5	0.090	VST5-S-0750-R090	Alcrona Pro	C	507026
	3/4	1	3	5	0.125	VST5-S-0750-R125	Alcrona Pro	A	507031
	3/4	1	3	5	BALL	VST5-S-0750-R375 (BALL)	Alcrona Pro	A	507041
	3/4	1 1/2	4	5	SQ	VST5-SR-0750-SQ	Alcrona Pro	A	507101
	3/4	1 1/2	4	5	0.030	VST5-SR-0750-R030	Alcrona Pro	A	507111
	3/4	1 1/2	4	5	0.060	VST5-SR-0750-R060	Alcrona Pro	A	507121
	3/4	1 1/2	4	5	0.090	VST5-SR-0750-R090	Alcrona Pro	C	507126
	3/4	1 1/2	4	5	0.125	VST5-SR-0750-R125	Alcrona Pro	A	507131
	3/4	1 1/2	4	5	BALL	VST5-SR-0750-R375 (BALL)	Alcrona Pro	A	507141
	3/4	1 5/8	4	5	SQ	VST5-SP-0750-SQ	Alcrona Pro	A	597101
	3/4	1 5/8	4	5	0.030	VST5-SP-0750-R030	Alcrona Pro	A	597111
	3/4	1 5/8	4	5	0.060	VST5-SP-0750-R060	Alcrona Pro	A	597121
	3/4	1 5/8	4	5	0.090	VST5-SP-0750-R090	Alcrona Pro	C	597126
	3/4	1 5/8	4	5	0.125	VST5-SP-0750-R125	Alcrona Pro	A	597131
	3/4	1 5/8	4	5	BALL	VST5-SP-0750-R375 (BALL)	Alcrona Pro	A	597141
	3/4	2	5	5	SQ	VST5-R-0750-SQ	Alcrona Pro	A	507201
	3/4	2	5	5	0.030	VST5-R-0750-R030	Alcrona Pro	A	507211
	3/4	2	5	5	0.060	VST5-R-0750-R060	Alcrona Pro	A	507221
	3/4	2	5	5	0.090	VST5-R-0750-R090	Alcrona Pro	C	507226
	3/4	2	5	5	0.125	VST5-R-0750-R125	Alcrona Pro	A	507231
	3/4	2	5	5	BALL	VST5-R-0750-R375 (BALL)	Alcrona Pro	A	507241
	3/4	2 1/2	5	5	SQ	VST5-M-0750-SQ	Alcrona Pro	A	507301
	3/4	2 1/2	5	5	0.030	VST5-M-0750-R030	Alcrona Pro	A	507311
	3/4	2 1/2	5	5	0.060	VST5-M-0750-R060	Alcrona Pro	A	507321
	3/4	2 1/2	5	5	0.090	VST5-M-0750-R090	Alcrona Pro	C	507326
	3/4	2 1/2	5	5	0.125	VST5-M-0750-R125	Alcrona Pro	A	507331
	3/4	2 1/2	5	5	BALL	VST5-M-0750-R375 (BALL)	Alcrona Pro	C	507341
	3/4	3	6	5	SQ	VST5-L-0750-SQ	Alcrona Pro	A	507401
	3/4	3	6	5	0.030	VST5-L-0750-R030	Alcrona Pro	A	507411
	3/4	3	6	5	0.060	VST5-L-0750-R060	Alcrona Pro	A	507421
	3/4	3	6	5	0.090	VST5-L-0750-R090	Alcrona Pro	C	507426
	3/4	3	6	5	0.125	VST5-L-0750-R125	Alcrona Pro	A	507431
	3/4	3	6	5	BALL	VST5-L-0750-R375 (BALL)	Alcrona Pro	A	507441

SERIES: VST5

5 Flute, Variable Pitch, Steel/Stainless/Hi-Temp Alloys/Cast Iron/Hardened Steel, Light Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	DESCRIPTION	COATING	STOCK CODE	EDP#
1"	1	1 3/4	4	5	SQ	VST5-SR-1000-SQ	Alcrona Pro	A	508101
	1	1 3/4	4	5	0.030	VST5-SR-1000-R030	Alcrona Pro	A	508111
	1	1 3/4	4	5	0.060	VST5-SR-1000-R060	Alcrona Pro	C	508121
	1	1 3/4	4	5	0.090	VST5-SR-1000-R090	Alcrona Pro	C	508126
	1	1 3/4	4	5	0.125	VST5-SR-1000-R125	Alcrona Pro	A	508131
	1	1 3/4	4	5	BALL	VST5-SR-1000-R500 (BALL)	Alcrona Pro	A	508141
	1	2 1/2	5	5	SQ	VST5-R-1000-SQ	Alcrona Pro	A	508201
	1	2 1/2	5	5	0.030	VST5-R-1000-R030	Alcrona Pro	A	508211
	1	2 1/2	5	5	0.060	VST5-R-1000-R060	Alcrona Pro	A	508221
	1	2 1/2	5	5	0.090	VST5-R-1000-R090	Alcrona Pro	C	508226
	1	2 1/2	5	5	0.125	VST5-R-1000-R125	Alcrona Pro	A	508231
	1	2 1/2	5	5	BALL	VST5-R-1000-R500 (BALL)	Alcrona Pro	A	508241
	1	3	6	5	SQ	VST5-M-1000-SQ	Alcrona Pro	A	508301
	1	3	6	5	0.030	VST5-M-1000-R030	Alcrona Pro	A	508311
	1	3	6	5	0.060	VST5-M-1000-R060	Alcrona Pro	C	508321
	1	3	6	5	0.090	VST5-M-1000-R090	Alcrona Pro	C	508326
	1	3	6	5	0.125	VST5-M-1000-R125	Alcrona Pro	C	508331
	1	3	6	5	BALL	VST5-M-1000-R500 (BALL)	Alcrona Pro	A	508341
	1	3 1/2	6	5	SQ	VST5-L-1000-SQ	Alcrona Pro	A	508401
	1	3 1/2	6	5	0.030	VST5-L-1000-R030	Alcrona Pro	A	508411
	1	3 1/2	6	5	0.060	VST5-L-1000-R060	Alcrona Pro	C	508421
	1	3 1/2	6	5	0.090	VST5-L-1000-R090	Alcrona Pro	C	508426
	1	3 1/2	6	5	0.125	VST5-L-1000-R125	Alcrona Pro	C	508431
	1	3 1/2	6	5	BALL	VST5-L-1000-R500 (BALL)	Alcrona Pro	C	508441

Stock Code Key:

- (A) Factory Stock Item
- (B) Limited Stock (Ships in 3 - 5 Working Days)
- (C) Limited Stock (Ships in 2 Weeks)
- (D) Non Stock (Ships in 3 Weeks)

SERIES: VST5-RN

5 Flute, Reduced Neck, Steel/Stainless/Hi-Temp Alloys/Cast Iron/Hardened Steel, Lt Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	LENGTH BELOW SHANK (LBS)	DESCRIPTION	COATING	STOCK CODE	EDP#
1/8"	1/8	3/16	2	5	SQ	1/2	VST5-RN-R-0125-SQ	Alcrona Pro	C	510701
	1/8	3/16	2	5	0.015	1/2	VST5-RN-R-0125-R015	Alcrona Pro	C	510711
	1/8	3/16	2	5	BALL	1/2	VST5-RN-R-0125-R063 (BALL)	Alcrona Pro	C	510741
	1/8	3/16	2 1/2	5	SQ	3/4	VST5-RN-M-0125-SQ	Alcrona Pro	C	510801
	1/8	3/16	2 1/2	5	0.015	3/4	VST5-RN-M-0125-R015	Alcrona Pro	C	510811
	1/8	3/16	2 1/2	5	BALL	3/4	VST5-RN-M-0125-R063 (BALL)	Alcrona Pro	C	510841
3/16"	3/16	1/4	2 1/2	5	SQ	1/2	VST5-RN-R-0187-SQ	Alcrona Pro	C	500701
	3/16	1/4	2 1/2	5	0.015	1/2	VST5-RN-R-0187-R015	Alcrona Pro	C	500711
	3/16	1/4	2 1/2	5	BALL	1/2	VST5-RN-R-0187-R094 (BALL)	Alcrona Pro	C	500741
	3/16	1/4	3	5	SQ	3/4	VST5-RN-M-0187-SQ	Alcrona Pro	C	500801
	3/16	1/4	3	5	0.015	3/4	VST5-RN-M-0187-R015	Alcrona Pro	C	500811
	3/16	1/4	3	5	BALL	3/4	VST5-RN-M-0187-R094 (BALL)	Alcrona Pro	C	500841
	3/16	1/4	3	5	SQ	1	VST5-RN-L-0187-SQ	Alcrona Pro	C	500901
	3/16	1/4	3	5	0.015	1	VST5-RN-L-0187-R015	Alcrona Pro	C	500911
1/4"	3/16	1/4	3	5	BALL	1	VST5-RN-L-0187-R094 (BALL)	Alcrona Pro	C	500941
	1/4	3/8	2 1/2	5	SQ	3/4	VST5-RN-S-0250-SQ	Alcrona Pro	C	501601
	1/4	3/8	2 1/2	5	0.015	3/4	VST5-RN-S-0250-R015	Alcrona Pro	C	501611
	1/4	3/8	2 1/2	5	0.020	3/4	VST5-RN-S-0250-R020	Alcrona Pro	C	501616
	1/4	3/8	2 1/2	5	0.030	3/4	VST5-RN-S-0250-R030	Alcrona Pro	C	501621
	1/4	3/8	2 1/2	5	0.060	3/4	VST5-RN-S-0250-R060	Alcrona Pro	C	501631
	1/4	3/8	2 1/2	5	BALL	3/4	VST5-RN-S-0250-R125 (BALL)	Alcrona Pro	C	501641
	1/4	3/8	3	5	SQ	1	VST5-RN-SR-0250-SQ	Alcrona Pro	C	501601N
	1/4	3/8	3	5	0.015	1	VST5-RN-SR-0250-R015	Alcrona Pro	C	501611N
	1/4	3/8	3	5	0.020	1	VST5-RN-SR-0250-R020	Alcrona Pro	C	501616N
	1/4	3/8	3	5	0.030	1	VST5-RN-SR-0250-R030	Alcrona Pro	C	501621N
	1/4	3/8	3	5	0.060	1	VST5-RN-SR-0250-R060	Alcrona Pro	C	501631N
	1/4	3/8	3	5	BALL	1	VST5-RN-SR-0250-R125 (BALL)	Alcrona Pro	C	501641N
	1/4	3/8	4	5	SQ	1 1/4	VST5-RN-R-0250-SQ	Alcrona Pro	A	501701
	1/4	3/8	4	5	0.015	1 1/4	VST5-RN-R-0250-R015	Alcrona Pro	A	501711
	1/4	3/8	4	5	0.020	1 1/4	VST5-RN-R-0250-R020	Alcrona Pro	C	501716
	1/4	3/8	4	5	0.030	1 1/4	VST5-RN-R-0250-R030	Alcrona Pro	A	501721
	1/4	3/8	4	5	0.060	1 1/4	VST5-RN-R-0250-R060	Alcrona Pro	A	501731
	1/4	3/8	4	5	BALL	1 1/4	VST5-RN-R-0250-R125 (BALL)	Alcrona Pro	A	501741
	1/4	3/8	4	5	SQ	1 1/2	VST5-RN-SP-0250-SQ	Alcrona Pro	C	501801
	1/4	3/8	4	5	0.015	1 1/2	VST5-RN-SP-0250-R015	Alcrona Pro	C	501811
	1/4	3/8	4	5	0.020	1 1/2	VST5-RN-SP-0250-R020	Alcrona Pro	C	501816
	1/4	3/8	4	5	0.030	1 1/2	VST5-RN-SP-0250-R030	Alcrona Pro	C	501821
	1/4	3/8	4	5	0.060	1 1/2	VST5-RN-SP-0250-R060	Alcrona Pro	C	501831
	1/4	3/8	4	5	BALL	1 1/2	VST5-RN-SP-0250-R125 (BALL)	Alcrona Pro	C	501841
5/16"	5/16	1/2	3	5	SQ	1 1/4	VST5-RN-SR-0312-SQ	Alcrona Pro	C	502601N
	5/16	1/2	3	5	0.015	1 1/4	VST5-RN-SR-0312-R015	Alcrona Pro	C	502611N
	5/16	1/2	3	5	0.030	1 1/4	VST5-RN-SR-0312-R030	Alcrona Pro	C	502621N
	5/16	1/2	3	5	BALL	1 1/4	VST5-RN-SR-0312-R063 (BALL)	Alcrona Pro	C	502641N
	5/16	1/2	4	5	SQ	2	VST5-RN-M-0312-SQ	Alcrona Pro	C	502801
	5/16	1/2	4	5	0.015	2	VST5-RN-M-0312-R015	Alcrona Pro	C	502811
	5/16	1/2	4	5	0.030	2	VST5-RN-M-0312-R030	Alcrona Pro	C	502821
3/8"	5/16	1/2	4	5	BALL	2	VST5-RN-M-0312-R063 (BALL)	Alcrona Pro	C	502841
	3/8	5/8	3	5	SQ	1 5/8	VST5-RN-SR-0375-SQ	Alcrona Pro	C	503601N
	3/8	5/8	3	5	0.015	1 5/8	VST5-RN-SR-0375-R015	Alcrona Pro	C	503611N
	3/8	5/8	3	5	0.020	1 5/8	VST5-RN-SR-0375-R020	Alcrona Pro	C	503616N
	3/8	5/8	3	5	0.030	1 5/8	VST5-RN-SR-0375-R030	Alcrona Pro	C	503621N
	3/8	5/8	3	5	0.060	1 5/8	VST5-RN-SR-0375-R060	Alcrona Pro	C	503631N
	3/8	5/8	3	5	0.090	1 5/8	VST5-RN-SR-0375-R090	Alcrona Pro	C	503636N
	3/8	5/8	3	5	BALL	1 5/8	VST5-RN-SR-0375-R188 (BALL)	Alcrona Pro	C	503641N

SERIES: VST5-RN

5 Flute, Reduced Neck, Steel/Stainless/Hi-Temp Alloys/Cast Iron/Hardened Steel, Lt Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	LENGTH BELOW SHANK (LBS)	DESCRIPTION	COATING	STOCK CODE	EDP#
3/8"	3/8	5/8	4	5	SQ	2	VST5-RN-R-0375-SQ	Alcrona Pro	A	503701
	3/8	5/8	4	5	0.015	2	VST5-RN-R-0375-R015	Alcrona Pro	A	503711
	3/8	5/8	4	5	0.020	2	VST5-RN-R-0375-R020	Alcrona Pro	C	503716
	3/8	5/8	4	5	0.030	2	VST5-RN-R-0375-R030	Alcrona Pro	A	503721
	3/8	5/8	4	5	0.060	2	VST5-RN-R-0375-R060	Alcrona Pro	A	503731
	3/8	5/8	4	5	0.090	2	VST5-RN-R-0375-R090	Alcrona Pro	C	503736
	3/8	5/8	4	5	BALL	2	VST5-RN-R-0375-R188 (BALL)	Alcrona Pro	A	503741
	3/8	5/8	4	5	SQ	2 1/2	VST5-RN-M-0375-SQ	Alcrona Pro	C	503801
	3/8	5/8	4	5	0.015	2 1/2	VST5-RN-M-0375-R015	Alcrona Pro	C	503811
	3/8	5/8	4	5	0.020	2 1/2	VST5-RN-M-0375-R020	Alcrona Pro	C	503816
	3/8	5/8	4	5	0.030	2 1/2	VST5-RN-M-0375-R030	Alcrona Pro	C	503821
	3/8	5/8	4	5	0.060	2 1/2	VST5-RN-M-0375-R060	Alcrona Pro	C	503831
	3/8	5/8	4	5	0.090	2 1/2	VST5-RN-M-0375-R090	Alcrona Pro	C	503836
	3/8	5/8	4	5	BALL	2 1/2	VST5-RN-M-0375-R188 (BALL)	Alcrona Pro	C	503841
	3/8	5/8	5	5	SQ	3	VST5-RN-L-0375-SQ	Alcrona Pro	C	503901
	3/8	5/8	5	5	0.015	3	VST5-RN-L-0375-R015	Alcrona Pro	C	503911
	3/8	5/8	5	5	0.020	3	VST5-RN-L-0375-R020	Alcrona Pro	C	503916
	3/8	5/8	5	5	0.030	3	VST5-RN-L-0375-R030	Alcrona Pro	C	503921
	3/8	5/8	5	5	0.060	3	VST5-RN-L-0375-R060	Alcrona Pro	C	503931
	3/8	5/8	5	5	0.090	3	VST5-RN-L-0375-R090	Alcrona Pro	C	503936
	3/8	5/8	5	5	BALL	3	VST5-RN-L-0375-R188 (BALL)	Alcrona Pro	C	503941
1/2"	1/2	3/4	3	5	SQ	1 1/4	VST5-RN-S-0500-SQ	Alcrona Pro	A	505601
	1/2	3/4	3	5	0.015	1 1/4	VST5-RN-S-0500-R015	Alcrona Pro	A	505611
	1/2	3/4	3	5	0.030	1 1/4	VST5-RN-S-0500-R030	Alcrona Pro	A	505621
	1/2	3/4	3	5	0.060	1 1/4	VST5-RN-S-0500-R060	Alcrona Pro	A	505631
	1/2	3/4	3	5	0.090	1 1/4	VST5-RN-S-0500-R090	Alcrona Pro	C	505636
	1/2	3/4	3	5	0.125	1 1/4	VST5-RN-S-0500-R125	Alcrona Pro	A	505641
	1/2	3/4	3	5	BALL	1 1/4	VST5-RN-S-0500-R250 (BALL)	Alcrona Pro	A	505651
	1/2	3/4	3	5	SQ	1 3/4	VST5-RN-SR-0500-SQ	Alcrona Pro	C	505601N
	1/2	3/4	3	5	0.015	1 3/4	VST5-RN-SR-0500-R015	Alcrona Pro	C	505611N
	1/2	3/4	3	5	0.030	1 3/4	VST5-RN-SR-0500-R030	Alcrona Pro	C	505621N
	1/2	3/4	3	5	0.060	1 3/4	VST5-RN-SR-0500-R060	Alcrona Pro	C	505631N
	1/2	3/4	3	5	0.090	1 3/4	VST5-RN-SR-0500-R090	Alcrona Pro	C	505636N
	1/2	3/4	3	5	0.125	1 3/4	VST5-RN-SR-0500-R125	Alcrona Pro	C	505641N
	1/2	3/4	3	5	BALL	1 3/4	VST5-RN-SR-0500-R250 (BALL)	Alcrona Pro	C	505651N
	1/2	3/4	4	5	SQ	2	VST5-RN-R-0500-SQ	Alcrona Pro	A	505701
	1/2	3/4	4	5	0.015	2	VST5-RN-R-0500-R015	Alcrona Pro	C	505711
	1/2	3/4	4	5	0.030	2	VST5-RN-R-0500-R030	Alcrona Pro	A	505721
	1/2	3/4	4	5	0.060	2	VST5-RN-R-0500-R060	Alcrona Pro	A	505731
	1/2	3/4	4	5	0.090	2	VST5-RN-R-0500-R090	Alcrona Pro	C	505736
	1/2	3/4	4	5	0.125	2	VST5-RN-R-0500-R125	Alcrona Pro	A	505741
	1/2	3/4	4	5	BALL	2	VST5-RN-R-0500-R250 (BALL)	Alcrona Pro	A	505751
	1/2	3/4	4	5	SQ	2 1/4	VST5-RN-SP-0500-SQ	Alcrona Pro	C	505701N
	1/2	3/4	4	5	0.015	2 1/4	VST5-RN-SP-0500-R015	Alcrona Pro	C	505711N
	1/2	3/4	4	5	0.030	2 1/4	VST5-RN-SP-0500-R030	Alcrona Pro	C	505721N
	1/2	3/4	4	5	0.060	2 1/4	VST5-RN-SP-0500-R060	Alcrona Pro	C	505731N
	1/2	3/4	4	5	0.090	2 1/4	VST5-RN-SP-0500-R090	Alcrona Pro	C	505736N
	1/2	3/4	4	5	0.125	2 1/4	VST5-RN-SP-0500-R125	Alcrona Pro	C	505741N
	1/2	3/4	4	5	BALL	2 1/4	VST5-RN-SP-0500-R250 (BALL)	Alcrona Pro	C	505751N
	1/2	3/4	5	5	SQ	2 1/2	VST5-RN-M-0500-SQ	Alcrona Pro	A	505801
	1/2	3/4	5	5	0.015	2 1/2	VST5-RN-M-0500-R015	Alcrona Pro	A	505811
	1/2	3/4	5	5	0.030	2 1/2	VST5-RN-M-0500-R030	Alcrona Pro	A	505821
	1/2	3/4	5	5	0.060	2 1/2	VST5-RN-M-0500-R060	Alcrona Pro	A	505831
	1/2	3/4	5	5	0.090	2 1/2	VST5-RN-M-0500-R090	Alcrona Pro	C	505836
	1/2	3/4	5	5	0.125	2 1/2	VST5-RN-M-0500-R125	Alcrona Pro	A	505841
	1/2	3/4	5	5	BALL	2 1/2	VST5-RN-M-0500-R250 (BALL)	Alcrona Pro	A	505851

SERIES: VST5-RN

5 Flute, Reduced Neck, Steel/Stainless/Hi-Temp Alloys/Cast Iron/Hardened Steel, Lt Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	LENGTH BELOW SHANK (LBS)	DESCRIPTION	COATING	STOCK CODE	EDP#
1/2"	1/2	3/4	6	5	SQ	3 1/2	VST5-RN-L-0500-SQ	Alcrona Pro	A	505901
	1/2	3/4	6	5	0.015	3 1/2	VST5-RN-L-0500-R015	Alcrona Pro	A	505911
	1/2	3/4	6	5	0.030	3 1/2	VST5-RN-L-0500-R030	Alcrona Pro	A	505921
	1/2	3/4	6	5	0.060	3 1/2	VST5-RN-L-0500-R060	Alcrona Pro	A	505931
	1/2	3/4	6	5	0.090	3 1/2	VST5-RN-L-0500-R090	Alcrona Pro	C	505936
	1/2	3/4	6	5	0.125	3 1/2	VST5-RN-L-0500-R125	Alcrona Pro	A	505941
	1/2	3/4	6	5	BALL	3 1/2	VST5-RN-L-0500-R250 (BALL)	Alcrona Pro	A	505951
5/8"	5/8	1	4	5	SQ	2	VST5-RN-R-0625-SQ	Alcrona Pro	C	506701
	5/8	1	4	5	0.030	2	VST5-RN-R-0625-R030	Alcrona Pro	C	506711
	5/8	1	4	5	0.060	2	VST5-RN-R-0625-R060	Alcrona Pro	C	506721
	5/8	1	4	5	0.090	2	VST5-RN-R-0625-R090	Alcrona Pro	C	506726
	5/8	1	4	5	0.125	2	VST5-RN-R-0625-R125	Alcrona Pro	C	506731
	5/8	1	4	5	BALL	2	VST5-RN-R-0625-R313 (BALL)	Alcrona Pro	C	506741
	5/8	1	5	5	SQ	2 1/2	VST5-RN-M-0625-SQ	Alcrona Pro	A	506801
	5/8	1	5	5	0.030	2 1/2	VST5-RN-M-0625-R030	Alcrona Pro	A	506811
	5/8	1	5	5	0.060	2 1/2	VST5-RN-M-0625-R060	Alcrona Pro	A	506821
	5/8	1	5	5	0.090	2 1/2	VST5-RN-M-0625-R090	Alcrona Pro	C	506826
	5/8	1	5	5	0.125	2 1/2	VST5-RN-M-0625-R125	Alcrona Pro	A	506831
	5/8	1	5	5	BALL	2 1/2	VST5-RN-M-0625-R313 (BALL)	Alcrona Pro	A	506841
	5/8	1	5	5	SQ	3 1/2	VST5-RN-L-0625-SQ	Alcrona Pro	C	506901
	5/8	1	5	5	0.030	3 1/2	VST5-RN-L-0625-R030	Alcrona Pro	C	506911
	5/8	1	5	5	0.060	3 1/2	VST5-RN-L-0625-R060	Alcrona Pro	C	506921
	5/8	1	5	5	0.090	3 1/2	VST5-RN-L-0625-R090	Alcrona Pro	C	506926
	5/8	1	5	5	0.125	3 1/2	VST5-RN-L-0625-R125	Alcrona Pro	C	506931
	5/8	1	5	5	BALL	3 1/2	VST5-RN-L-0625-R313 (BALL)	Alcrona Pro	C	506941
3/4"	3/4	1 1/8	4	5	SQ	1 3/4	VST5-RN-SR-0750-SQ	Alcrona Pro	C	507601N
	3/4	1 1/8	4	5	0.030	1 3/4	VST5-RN-SR-0750-R030	Alcrona Pro	C	507611N
	3/4	1 1/8	4	5	0.060	1 3/4	VST5-RN-SR-0750-R060	Alcrona Pro	C	507621N
	3/4	1 1/8	4	5	0.090	1 3/4	VST5-RN-SR-0750-R090	Alcrona Pro	C	507626N
	3/4	1 1/8	4	5	0.125	1 3/4	VST5-RN-SR-0750-R125	Alcrona Pro	C	507631N
	3/4	1 1/8	4	5	BALL	1 3/4	VST5-RN-SR-0750-R375 (BALL)	Alcrona Pro	C	507641N
	3/4	1 1/8	4	5	SQ	2	VST5-RN-R-0750-SQ	Alcrona Pro	A	507701
	3/4	1 1/8	4	5	0.030	2	VST5-RN-R-0750-R030	Alcrona Pro	A	507711
	3/4	1 1/8	4	5	0.060	2	VST5-RN-R-0750-R060	Alcrona Pro	C	507721
	3/4	1 1/8	4	5	0.090	2	VST5-RN-R-0750-R090	Alcrona Pro	C	507726
	3/4	1 1/8	4	5	0.125	2	VST5-RN-R-0750-R125	Alcrona Pro	A	507731
	3/4	1 1/8	4	5	BALL	2	VST5-RN-R-0750-R375 (BALL)	Alcrona Pro	A	507741
	3/4	1 1/8	5	5	SQ	2 1/2	VST5-RN-SP-0750-SQ	Alcrona Pro	C	507701N
	3/4	1 1/8	5	5	0.030	2 1/2	VST5-RN-SP-0750-R030	Alcrona Pro	C	507711N
	3/4	1 1/8	5	5	0.060	2 1/2	VST5-RN-SP-0750-R060	Alcrona Pro	C	507721N
	3/4	1 1/8	5	5	0.090	2 1/2	VST5-RN-SP-0750-R090	Alcrona Pro	C	507726N
	3/4	1 1/8	5	5	0.125	2 1/2	VST5-RN-SP-0750-R125	Alcrona Pro	C	507731N
	3/4	1 1/8	5	5	BALL	2 1/2	VST5-RN-SP-0750-R375 (BALL)	Alcrona Pro	C	507741N
	3/4	1 1/8	6	5	SQ	3	VST5-RN-M-0750-SQ	Alcrona Pro	A	507801
	3/4	1 1/8	6	5	0.030	3	VST5-RN-M-0750-R030	Alcrona Pro	A	507811
	3/4	1 1/8	6	5	0.060	3	VST5-RN-M-0750-R060	Alcrona Pro	A	507821
	3/4	1 1/8	6	5	0.090	3	VST5-RN-M-0750-R090	Alcrona Pro	C	507826
	3/4	1 1/8	6	5	0.125	3	VST5-RN-M-0750-R125	Alcrona Pro	A	507831
	3/4	1 1/8	6	5	BALL	3	VST5-RN-M-0750-R375 (BALL)	Alcrona Pro	A	507841
	3/4	1 1/8	6	5	SQ	4	VST5-RN-X-0750-SQ	Alcrona Pro	C	507901N
	3/4	1 1/8	6	5	0.030	4	VST5-RN-X-0750-R030	Alcrona Pro	C	507911N
	3/4	1 1/8	6	5	0.060	4	VST5-RN-X-0750-R060	Alcrona Pro	C	507921N
	3/4	1 1/8	6	5	0.090	4	VST5-RN-X-0750-R090	Alcrona Pro	C	507926N
	3/4	1 1/8	6	5	0.125	4	VST5-RN-X-0750-R125	Alcrona Pro	C	507931N
	3/4	1 1/8	6	5	BALL	4	VST5-RN-X-0750-R375 (BALL)	Alcrona Pro	C	507941N

SERIES: VST5-RN

5 Flute, Reduced Neck, Steel/Stainless/Hi-Temp Alloys/Cast Iron/Hardened Steel, Lt Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	LENGTH BELOW SHANK (LBS)	DESCRIPTION	COATING	STOCK CODE	EDP#
1"	1	1 1/2	6	5	SQ	2 1/2	VST5-RN-R-1000-SQ	Alcrona Pro	A	508701
	1	1 1/2	6	5	0.030	2 1/2	VST5-RN-R-1000-R030	Alcrona Pro	A	508711
	1	1 1/2	6	5	0.060	2 1/2	VST5-RN-R-1000-R060	Alcrona Pro	C	508721
	1	1 1/2	6	5	0.090	2 1/2	VST5-RN-R-1000-R090	Alcrona Pro	C	508726
	1	1 1/2	6	5	0.125	2 1/2	VST5-RN-R-1000-R125	Alcrona Pro	C	508731
	1	1 1/2	6	5	BALL	2 1/2	VST5-RN-R-1000-R500 (BALL)	Alcrona Pro	A	508741
	1	1 1/2	6	5	SQ	3 1/2	VST5-RN-M-1000-SQ	Alcrona Pro	A	508801
	1	1 1/2	6	5	0.030	3 1/2	VST5-RN-M-1000-R030	Alcrona Pro	A	508811
	1	1 1/2	6	5	0.060	3 1/2	VST5-RN-M-1000-R060	Alcrona Pro	C	508821
	1	1 1/2	6	5	0.090	3 1/2	VST5-RN-M-1000-R090	Alcrona Pro	C	508826
	1	1 1/2	6	5	0.125	3 1/2	VST5-RN-M-1000-R125	Alcrona Pro	C	508831
	1	1 1/2	6	5	BALL	3 1/2	VST5-RN-M-1000-R500 (BALL)	Alcrona Pro	A	508841
	1	1 1/2	7	5	SQ	4 1/2	VST5-RN-L-1000-SQ	Alcrona Pro	C	508901
	1	1 1/2	7	5	0.030	4 1/2	VST5-RN-L-1000-R030	Alcrona Pro	C	508911
	1	1 1/2	7	5	0.060	4 1/2	VST5-RN-L-1000-R060	Alcrona Pro	C	508921
	1	1 1/2	7	5	0.090	4 1/2	VST5-RN-L-1000-R090	Alcrona Pro	C	508926
	1	1 1/2	7	5	0.125	4 1/2	VST5-RN-L-1000-R125	Alcrona Pro	C	508931
	1	1 1/2	7	5	BALL	4 1/2	VST5-RN-L-1000-R500 (BALL)	Alcrona Pro	C	508941

Stock Code Key:

- (A) Factory Stock Item
- (B) Limited Stock (Ships in 3 - 5 Working Days)
- (C) Limited Stock (Ships in 2 Weeks)
- (D) Non Stock (Ships in 3 Weeks)

SERIES: VST5-RN BLANKS

5 Flute, Un-Necked Blanks, LBS Necked to Size at Time of Order

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	LENGTH BELOW SHANK (LBS)	DESCRIPTION	COATING	STOCK CODE	EDP#
1/2"	1/2	3/4	7	5	SQ	Custom LBS	VST5-RN-7-0500-SQ	Alcrona Pro	C	505701-BLK
	1/2	3/4	7	5	0.015	Custom LBS	VST5-RN-7-0500-R015	Alcrona Pro	C	505711-BLK
	1/2	3/4	7	5	0.030	Custom LBS	VST5-RN-7-0500-R030	Alcrona Pro	C	505721-BLK
	1/2	3/4	7	5	0.060	Custom LBS	VST5-RN-7-0500-R060	Alcrona Pro	C	505731-BLK
	1/2	3/4	7	5	0.090	Custom LBS	VST5-RN-7-0500-R090	Alcrona Pro	C	505736-BLK
	1/2	3/4	7	5	0.125	Custom LBS	VST5-RN-7-0500-R125	Alcrona Pro	C	505741-BLK
	1/2	3/4	7	5	BALL	Custom LBS	VST5-RN-7-0500-R250 (BALL)	Alcrona Pro	C	505751-BLK
	1/2	3/4	8	5	SQ	Custom LBS	VST5-RN-8-0500-SQ	Alcrona Pro	C	505801-BLK
	1/2	3/4	8	5	0.015	Custom LBS	VST5-RN-8-0500-R015	Alcrona Pro	C	505811-BLK
	1/2	3/4	8	5	0.030	Custom LBS	VST5-RN-8-0500-R030	Alcrona Pro	C	505821-BLK
	1/2	3/4	8	5	0.060	Custom LBS	VST5-RN-8-0500-R060	Alcrona Pro	C	505831-BLK
	1/2	3/4	8	5	0.090	Custom LBS	VST5-RN-8-0500-R090	Alcrona Pro	C	505836-BLK
	1/2	3/4	8	5	0.125	Custom LBS	VST5-RN-8-0500-R125	Alcrona Pro	C	505841-BLK
	1/2	3/4	8	5	BALL	Custom LBS	VST5-RN-8-0500-R250 (BALL)	Alcrona Pro	C	505851-BLK
5/8"	5/8	1	7	5	SQ	Custom LBS	VST5-RN-7-0625-SQ	Alcrona Pro	C	506701-BLK
	5/8	1	7	5	0.030	Custom LBS	VST5-RN-7-0625-R030	Alcrona Pro	C	506711-BLK
	5/8	1	7	5	0.060	Custom LBS	VST5-RN-7-0625-R060	Alcrona Pro	C	506721-BLK
	5/8	1	7	5	0.090	Custom LBS	VST5-RN-7-0625-R090	Alcrona Pro	C	506726-BLK
	5/8	1	7	5	0.125	Custom LBS	VST5-RN-7-0625-R125	Alcrona Pro	C	506731-BLK
	5/8	1	7	5	BALL	Custom LBS	VST5-RN-7-0625-R313 (BALL)	Alcrona Pro	C	506741-BLK
	5/8	1	8	5	SQ	Custom LBS	VST5-RN-8-0625-SQ	Alcrona Pro	C	506801-BLK
	5/8	1	8	5	0.030	Custom LBS	VST5-RN-8-0625-R030	Alcrona Pro	C	506811-BLK
	5/8	1	8	5	0.060	Custom LBS	VST5-RN-8-0625-R060	Alcrona Pro	C	506821-BLK
	5/8	1	8	5	0.090	Custom LBS	VST5-RN-8-0625-R090	Alcrona Pro	C	506826-BLK
	5/8	1	8	5	0.125	Custom LBS	VST5-RN-8-0625-R125	Alcrona Pro	C	506831-BLK
	5/8	1	8	5	BALL	Custom LBS	VST5-RN-8-0625-R313 (BALL)	Alcrona Pro	C	506841-BLK
3/4"	3/4	1 1/8	7	5	SQ	Custom LBS	VST5-RN-7-0750-SQ	Alcrona Pro	C	507701-BLK
	3/4	1 1/8	7	5	0.030	Custom LBS	VST5-RN-7-0750-R030	Alcrona Pro	C	507711-BLK
	3/4	1 1/8	7	5	0.060	Custom LBS	VST5-RN-7-0750-R060	Alcrona Pro	C	507721-BLK
	3/4	1 1/8	7	5	0.090	Custom LBS	VST5-RN-7-0750-R090	Alcrona Pro	C	507726-BLK
	3/4	1 1/8	7	5	0.125	Custom LBS	VST5-RN-7-0750-R125	Alcrona Pro	C	507731-BLK
	3/4	1 1/8	7	5	BALL	Custom LBS	VST5-RN-7-0750-R375 (BALL)	Alcrona Pro	C	507741-BLK
	3/4	1 1/8	8	5	SQ	Custom LBS	VST5-RN-8-0750-SQ	Alcrona Pro	C	507801-BLK
	3/4	1 1/8	8	5	0.030	Custom LBS	VST5-RN-8-0750-R030	Alcrona Pro	C	507811-BLK
	3/4	1 1/8	8	5	0.060	Custom LBS	VST5-RN-8-0750-R060	Alcrona Pro	C	507821-BLK
	3/4	1 1/8	8	5	0.090	Custom LBS	VST5-RN-8-0750-R090	Alcrona Pro	C	507826-BLK
	3/4	1 1/8	8	5	0.125	Custom LBS	VST5-RN-8-0750-R125	Alcrona Pro	C	507831-BLK
	3/4	1 1/8	8	5	BALL	Custom LBS	VST5-RN-8-0750-R375 (BALL)	Alcrona Pro	C	507841-BLK
1"	1	1 1/2	7	5	SQ	Custom LBS	VST5-RN-7-1000-SQ	Alcrona Pro	C	508701-BLK
	1	1 1/2	7	5	0.030	Custom LBS	VST5-RN-7-1000-R030	Alcrona Pro	C	508711-BLK
	1	1 1/2	7	5	0.060	Custom LBS	VST5-RN-7-1000-R060	Alcrona Pro	C	508721-BLK
	1	1 1/2	7	5	0.090	Custom LBS	VST5-RN-7-1000-R090	Alcrona Pro	C	508726-BLK
	1	1 1/2	7	5	0.125	Custom LBS	VST5-RN-7-1000-R125	Alcrona Pro	C	508731-BLK
	1	1 1/2	7	5	BALL	Custom LBS	VST5-RN-7-1000-R500 (BALL)	Alcrona Pro	C	508741-BLK
	1	1 1/2	8	5	SQ	Custom LBS	VST5-RN-8-1000-SQ	Alcrona Pro	C	508801-BLK
	1	1 1/2	8	5	0.030	Custom LBS	VST5-RN-8-1000-R030	Alcrona Pro	C	508811-BLK
	1	1 1/2	8	5	0.060	Custom LBS	VST5-RN-8-1000-R060	Alcrona Pro	C	508821-BLK
	1	1 1/2	8	5	0.090	Custom LBS	VST5-RN-8-1000-R090	Alcrona Pro	C	508826-BLK
	1	1 1/2	8	5	0.125	Custom LBS	VST5-RN-8-1000-R125	Alcrona Pro	C	508831-BLK
	1	1 1/2	8	5	BALL	Custom LBS	VST5-RN-8-1000-R500 (BALL)	Alcrona Pro	C	508841-BLK



Standard Catalog Offering

Ferrous VST5-CB Series



SERIES: VST5-CB

5 Flute, Variable Pitch, Staggered Chipbreakers, Steel/Stainless/Hi-Temp Alloys/Cast Iron/Hardened Steel, Lt Roughing

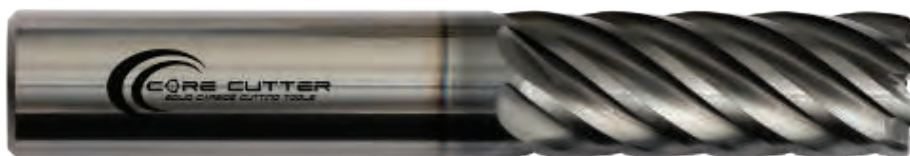
CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	DESCRIPTION	COATING	STOCK CODE	EDP#
1/8"	1/8	1/4	1 1/2	5	0.015	VST5-S-0125-R015-CB	Alcrona Pro	A	510011C
	1/8	3/8	2	5	0.015	VST5-SR-0125-R015-CB	Alcrona Pro	A	510111C
	1/8	1/2	2 1/2	5	0.015	VST5-R-0125-R015-CB	Alcrona Pro	A	510211C
3/16"	3/16	5/16	2	5	0.015	VST5-S-0187-R015-CB	Alcrona Pro	A	500011C
	3/16	7/16	2	5	0.015	VST5-SR-0187-R015-CB	Alcrona Pro	A	500111C
	3/16	9/16	2 1/2	5	0.015	VST5-R-0187-R015-CB	Alcrona Pro	A	500211C
1/4"	1/4	3/8	2	5	0.030	VST5-S-0250-R030-CB	Alcrona Pro	A	501021C
	1/4	1/2	2 1/2	5	0.030	VST5-SR-0250-R030-CB	Alcrona Pro	A	501121C
	1/4	3/4	2 1/2	5	0.030	VST5-R-0250-R030-CB	Alcrona Pro	A	501221C
	1/4	1	3	5	0.030	VST5-SP-0250-R030-CB	Alcrona Pro	C	591221C
	1/4	1 1/4	3	5	0.030	VST5-M-0250-R030-CB	Alcrona Pro	A	501321C
5/16"	5/16	1/2	2	5	0.030	VST5-SR-0312-R030-CB	Alcrona Pro	A	502121C
	5/16	3/4	2 1/2	5	0.030	VST5-R-0312-R030-CB	Alcrona Pro	A	502221C
	5/16	1 1/4	3	5	0.030	VST5-M-0312-R030-CB	Alcrona Pro	A	502321C
3/8"	3/8	1/2	2	5	0.030	VST5-S-0375-R030-CB	Alcrona Pro	A	503021C
	3/8	3/4	2 1/2	5	0.030	VST5-SR-0375-R030-CB	Alcrona Pro	A	503121C
	3/8	7/8	3	5	0.030	VST5-SP-0375-R030-CB	Alcrona Pro	A	593221C
	3/8	1	3	5	0.030	VST5-R-0375-R030-CB	Alcrona Pro	A	503221C
	3/8	1 1/4	3	5	0.030	VST5-M-0375-R030-CB	Alcrona Pro	A	503321C
	3/8	1 1/2	4	5	0.030	VST5-L-0375-R030-CB	Alcrona Pro	A	503421C
1/2"	1/2	5/8	2 1/2	5	0.030	VST5-S-0500-R030-CB	Alcrona Pro	A	505021C
	1/2	1	3	5	0.030	VST5-SR-0500-R030-CB	Alcrona Pro	A	505121C
	1/2	1 1/4	3	5	0.030	VST5-R-0500-R030-CB	Alcrona Pro	A	505221C
	1/2	1 1/2	4	5	0.030	VST5-M-0500-R030-CB	Alcrona Pro	A	505321C
	1/2	1 5/8	4	5	0.030	VST5-SP-0500-R030-CB	Alcrona Pro	A	595321C
	1/2	2	4	5	0.030	VST5-L-0500-R030-CB	Alcrona Pro	A	505421C
5/8"	5/8	3/4	3	5	0.030	VST5-S-0625-R030-CB	Alcrona Pro	A	506011C
	5/8	1 1/4	3 1/2	5	0.030	VST5-SR-0625-R030-CB	Alcrona Pro	A	506111C
	5/8	1 1/2	3 1/2	5	0.030	VST5-R-0625-R030-CB	Alcrona Pro	A	506211C
	5/8	1 5/8	3 1/2	5	0.030	VST5-SP-0625-R030-CB	Alcrona Pro	A	596211C
	5/8	2	4	5	0.030	VST5-M-0625-R030-CB	Alcrona Pro	A	506311C
	5/8	2 1/2	5	5	0.030	VST5-L-0625-R030-CB	Alcrona Pro	A	506411C
3/4"	3/4	1	3	5	0.030	VST5-S-0750-R030-CB	Alcrona Pro	A	507011C
	3/4	1 1/2	4	5	0.030	VST5-SR-0750-R030-CB	Alcrona Pro	A	507111C
	3/4	1 5/8	4	5	0.030	VST5-SP-0750-R030-CB	Alcrona Pro	A	597111C
	3/4	2	5	5	0.030	VST5-R-0750-R030-CB	Alcrona Pro	A	507211C
	3/4	2 1/2	5	5	0.030	VST5-M-0750-R030-CB	Alcrona Pro	A	507311C
	3/4	3	6	5	0.030	VST5-L-0750-R030-CB	Alcrona Pro	A	507411C
1"	1	1 3/4	4	5	0.030	VST5-SR-1000-R030-CB	Alcrona Pro	A	508111C
	1	2 1/2	5	5	0.030	VST5-R-1000-R030-CB	Alcrona Pro	A	508211C
	1	3	6	5	0.030	VST5-M-1000-R030-CB	Alcrona Pro	A	508311C
	1	3 1/2	6	5	0.030	VST5-L-1000-R030-CB	Alcrona Pro	C	508411C

Stock Code Key:

- (A) Factory Stock Item
- (B) Limited Stock (Ships in 3 - 5 Working Days)
- (C) Limited Stock (Ships in 2 Weeks)
- (D) Non Stock (Ships in 3 Weeks)

Standard Catalog Offering

Multi-Flute VMF Series



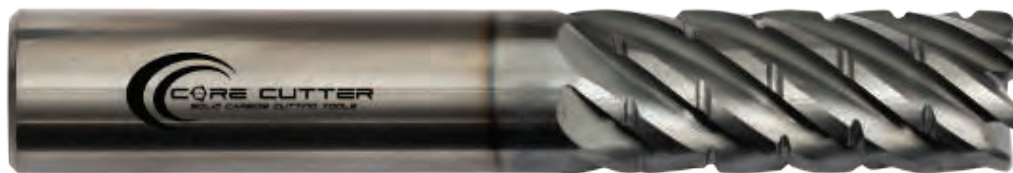
SERIES: VMF

Multi-Flute, Variable Pitch, Steel/Stainless Steel/Hi-Temp Alloys/Cast Iron/Hardened Steel
High Speed Roughing & Finishing

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	DESCRIPTION	COATING	STOCK CODE	EDP#
3/8"	3/8	3/4	2 1/2	7	SQ	VMF7-SR-0375-SQ	C-Max	A	703101
	3/8	3/4	2 1/2	7	0.015	VMF7-SR-0375-R015	C-Max	A	703111
	3/8	1	3	7	SQ	VMF7-R-0375-SQ	C-Max	A	703201
	3/8	1	3	7	0.015	VMF7-R-0375-R015	C-Max	A	703211
1/2"	1/2	1	3	7	SQ	VMF7-SR-0500-SQ	C-Max	A	705101
	1/2	1	3	7	0.030	VMF7-SR-0500-R030	C-Max	A	705121
	1/2	1 1/4	3	7	SQ	VMF7-R-0500-SQ	C-Max	A	705201
	1/2	1 1/4	3	7	0.030	VMF7-R-0500-R030	C-Max	A	705221
	1/2	1 1/2	4	7	SQ	VMF7-M-0500-SQ	C-Max	A	705301
	1/2	1 1/2	4	7	0.030	VMF7-M-0500-R030	C-Max	A	705321
5/8"	5/8	1 1/4	3 1/2	7	SQ	VMF7-SR-0625-SQ	C-Max	A	706101
	5/8	1 1/4	3 1/2	7	0.030	VMF7-SR-0625-R030	C-Max	A	706111
	5/8	2	4	7	SQ	VMF7-M-0625-SQ	C-Max	A	706301
	5/8	2	4	7	0.030	VMF7-M-0625-R030	C-Max	A	706311
3/4"	3/4	1 1/2	4	7	SQ	VMF7-SR-0750-SQ	C-Max	A	707101
	3/4	1 1/2	4	7	0.030	VMF7-SR-0750-R030	C-Max	A	707111
	3/4	1 1/2	4	9	SQ	VMF9-SR-0750-SQ	C-Max	C	907101
	3/4	1 1/2	4	9	0.030	VMF9-SR-0750-R030	C-Max	A	907111
	3/4	1 5/8	4	7	SQ	VMF7-SP-0750-SQ	C-Max	A	797101
	3/4	1 5/8	4	7	0.030	VMF7-SP-0750-R030	C-Max	A	797111
	3/4	2 1/2	5	7	SQ	VMF7-M-0750-SQ	C-Max	A	707301
	3/4	2 1/2	5	7	0.030	VMF7-M-0750-R030	C-Max	A	707311
	3/4	2 1/2	5	9	SQ	VMF9-M-0750-SQ	C-Max	C	907301
	3/4	2 1/2	5	9	0.030	VMF9-M-0750-R030	C-Max	A	907311
	3/4	3	6	7	SQ	VMF7-L-0750-SQ	C-Max	C	707401
	3/4	3	6	7	0.030	VMF7-L-0750-R030	C-Max	A	707411
	3/4	3	6	9	SQ	VMF9-L-0750-SQ	C-Max	C	907401
	3/4	3	6	9	0.030	VMF9-L-0750-R030	C-Max	A	907411
1"	1	1 3/4	4	7	SQ	VMF7-SR-1000-SQ	C-Max	A	708101
	1	1 3/4	4	7	0.030	VMF7-SR-1000-R030	C-Max	A	708111
	1	1 3/4	4	9	SQ	VMF9-SR-1000-SQ	C-Max	C	908101
	1	1 3/4	4	9	0.030	VMF9-SR-1000-R030	C-Max	C	908111
	1	1 3/4	4	11	SQ	VMF11-SR-1000-SQ	C-Max	C	118101
	1	1 3/4	4	11	0.030	VMF11-SR-1000-R030	C-Max	C	118111
	1	2 1/2	5	7	SQ	VMF7-R-1000-SQ	C-Max	A	708201
	1	2 1/2	5	7	0.030	VMF7-R-1000-R030	C-Max	A	708211
	1	2 1/2	5	9	SQ	VMF9-R-1000-SQ	C-Max	C	908201
	1	2 1/2	5	9	0.030	VMF9-R-1000-R030	C-Max	A	908211
	1	2 1/2	5	11	SQ	VMF11-R-1000-SQ	C-Max	C	118201
	1	2 1/2	5	11	0.030	VMF11-R-1000-R030	C-Max	A	118211
	1	3	6	7	SQ	VMF7-M-1000-SQ	C-Max	A	708301
	1	3	6	7	0.030	VMF7-M-1000-R030	C-Max	A	708311
	1	3	6	9	SQ	VMF9-M-1000-SQ	C-Max	C	908301
	1	3	6	9	0.030	VMF9-M-1000-R030	C-Max	C	908311
	1	3	6	11	SQ	VMF11-M-1000-SQ	C-Max	C	118301
	1	3	6	11	0.030	VMF11-M-1000-R030	C-Max	C	118311

Standard Catalog Offering

Multi-Flute VMF-CB Series



SERIES: VMF-CB

Multi-Flute, Variable Pitch, Steel/Stainless Steel/Hi-Temp Alloys/Cast Iron/Hardened Steel
High Speed Roughing (Staggered Chipbreakers)

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	DESCRIPTION	COATING	STOCK CODE	EDP#
3/8"	3/8	3/4	2 1/2	7	0.015	VMF7-SR-0375-R015-CB	C-Max	A	703112
	3/8	1	3	7	0.015	VMF7-R-0375-R015-CB	C-Max	A	703212
1/2"	1/2	1	3	7	0.030	VMF7-SR-0500-R030-CB	C-Max	A	705122
	1/2	1 1/4	3	7	0.030	VMF7-R-0500-R030-CB	C-Max	A	705222
	1/2	1 1/2	4	7	0.030	VMF7-M-0500-R030-CB	C-Max	A	705322
5/8"	5/8	1 1/4	3 1/2	7	0.030	VMF7-SR-0625-R030-CB	C-Max	A	706112
	5/8	2	4	7	0.030	VMF7-M-0625-R030-CB	C-Max	A	706312
3/4"	3/4	1 1/2	4	7	0.030	VMF7-SR-0750-R030-CB	C-Max	A	707112
	3/4	1 1/2	4	9	0.030	VMF9-SR-0750-R030-CB	C-Max	A	907112
	3/4	1 5/8	4	7	0.030	VMF7-SP-0750-R030-CB	C-Max	A	797112
	3/4	2 1/2	5	7	0.030	VMF7-M-0750-R030-CB	C-Max	A	707312
	3/4	2 1/2	5	9	0.030	VMF9-M-0750-R030-CB	C-Max	A	907312
	3/4	3	6	7	0.030	VMF7-L-0750-R030-CB	C-Max	A	707412
	3/4	3	6	9	0.030	VMF9-L-0750-R030-CB	C-Max	A	907412
1"	1	1 3/4	4	7	0.030	VMF7-SR-1000-R030-CB	C-Max	A	708112
	1	1 3/4	4	9	0.030	VMF9-SR-1000-R030-CB	C-Max	C	908112
	1	1 3/4	4	11	0.030	VMF11-SR-1000-R030-CB	C-Max	C	118112
	1	2 1/2	5	7	0.030	VMF7-R-1000-R030-CB	C-Max	A	708212
	1	2 1/2	5	9	0.030	VMF9-R-1000-R030-CB	C-Max	A	908212
	1	2 1/2	5	11	0.030	VMF11-R-1000-R030-CB	C-Max	A	118212
	1	3	6	7	0.030	VMF7-M-1000-R030-CB	C-Max	A	708312
	1	3	6	9	0.030	VMF9-M-1000-R030-CB	C-Max	C	908312
	1	3	6	11	0.030	VMF11-M-1000-R030-CB	C-Max	C	118312

Stock Code Key:

- (A) Factory Stock Item
- (B) Limited Stock (Ships in 3 - 5 Working Days)
- (C) Limited Stock (Ships in 2 Weeks)
- (D) Non Stock (Ships in 3 Weeks)

Standard Catalog Offering

Chamfer Mills CMS Series



SERIES: CMS60
60° Chamfer Mill, Straight Flute

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	WEB THICKNESS	DESCRIPTION	COATING	STOCK CODE	EDP#
1/8	1/8	.108	1 1/2	2	.015	CMS60-2-0125	Alcrona Pro	A	S06021
3/16	3/16	.162	2	2	.018	CMS60-2-0187	Alcrona Pro	A	S06022
1/4	1/4	.216	2 1/2	2	.020	CMS60-2-0250	Alcrona Pro	A	S06023
1/4	1/4	.216	2 1/2	4	.020	CMS60-4-0250	Alcrona Pro	A	S06043
3/8	3/8	.324	2 1/2	2	.035	CMS60-2-0375	Alcrona Pro	A	S06024
3/8	3/8	.324	2 1/2	4	.035	CMS60-4-0375	Alcrona Pro	A	S06044
1/2	1/2	.433	3	2	.040	CMS60-2-0500	Alcrona Pro	A	S06025
1/2	1/2	.433	3	4	.040	CMS60-4-0500	Alcrona Pro	A	S06045
5/8	5/8	.541	3	2	.040	CMS60-2-0625	Alcrona Pro	A	S06026
5/8	5/8	.541	3	4	.040	CMS60-4-0625	Alcrona Pro	A	S06046

SERIES: CMS90
90° Chamfer Mill, Straight Flute

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	WEB THICKNESS	DESCRIPTION	COATING	STOCK CODE	EDP#
1/8	1/8	.062	1 1/2	2	.015	CMS90-2-0125	Alcrona Pro	A	S09021
3/16	3/16	.093	2	2	.018	CMS90-2-0187	Alcrona Pro	A	S09022
1/4	1/4	.125	2 1/2	2	.020	CMS90-2-0250	Alcrona Pro	A	S09023
1/4	1/4	.125	2 1/2	4	.020	CMS90-4-0250	Alcrona Pro	A	S09043
3/8	3/8	.187	2 1/2	2	.035	CMS90-2-0375	Alcrona Pro	A	S09024
3/8	3/8	.187	2 1/2	4	.035	CMS90-4-0375	Alcrona Pro	A	S09044
1/2	1/2	.250	3	2	.040	CMS90-2-0500	Alcrona Pro	A	S09025
1/2	1/2	.250	3	4	.040	CMS90-4-0500	Alcrona Pro	A	S09045
5/8	5/8	.313	3	2	.040	CMS90-2-0625	Alcrona Pro	A	S09026
5/8	5/8	.313	3	4	.040	CMS90-4-0625	Alcrona Pro	A	S09046

SERIES: CMS120
120° Chamfer Mill, Straight Flute

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	WEB THICKNESS	DESCRIPTION	COATING	STOCK CODE	EDP#
1/8	1/8	.037	1 1/2	2	.015	CMS120-2-0125	Alcrona Pro	A	S12021
3/16	3/16	.056	2	2	.018	CMS120-2-0187	Alcrona Pro	A	S12022
1/4	1/4	.075	2 1/2	2	.020	CMS120-2-0250	Alcrona Pro	A	S12023
1/4	1/4	.075	2 1/2	4	.020	CMS120-4-0250	Alcrona Pro	A	S12043
3/8	3/8	.112	2 1/2	2	.035	CMS120-2-0375	Alcrona Pro	A	S12024
3/8	3/8	.112	2 1/2	4	.035	CMS120-4-0375	Alcrona Pro	A	S12044
1/2	1/2	.150	3	2	.040	CMS120-2-0500	Alcrona Pro	A	S12025
1/2	1/2	.150	3	4	.040	CMS120-4-0500	Alcrona Pro	A	S12045
5/8	5/8	.180	3	2	.040	CMS120-2-0625	Alcrona Pro	A	S12026
5/8	5/8	.180	3	4	.040	CMS120-4-0625	Alcrona Pro	A	S12046

Standard Catalog Offering

Chamfer Mills CMH Series



SERIES: CMH60
60° Chamfer Mill, Helical Flute

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	TIP DIA	DESCRIPTION	COATING	STOCK CODE	EDP#
1/8	1/8	.087	1 1/2	2	.025	CMH60-2-0125	Alcrona Pro	A	H06021
3/16	3/16	.128	2	2	.040	CMH60-2-0187	Alcrona Pro	A	H06022
1/4	1/4	.165	2 1/2	3	.060	CMH60-3-0250	Alcrona Pro	A	H06033
1/4	1/4	.165	2 1/2	5	.060	CMH60-5-0250	Alcrona Pro	A	H06053
3/8	3/8	.264	2 1/2	3	.070	CMH60-3-0375	Alcrona Pro	A	H06034
3/8	3/8	.264	2 1/2	5	.070	CMH60-5-0375	Alcrona Pro	A	H06054
1/2	1/2	.364	3	3	.080	CMH60-3-0500	Alcrona Pro	A	H06035
1/2	1/2	.364	3	5	.080	CMH60-5-0500	Alcrona Pro	A	H06055
5/8	5/8	.463	3	3	.090	CMH60-3-0625	Alcrona Pro	A	H06036
5/8	5/8	.463	3	5	.090	CMH60-5-0625	Alcrona Pro	A	H06056
3/4	3/4	.562	3	3	.100	CMH60-3-0750	Alcrona Pro	A	H06037
3/4	3/4	.562	3	5	.100	CMH60-5-0750	Alcrona Pro	A	H06057

SERIES: CMH82
82° Chamfer Mill, Helical Flute

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	TIP DIA	DESCRIPTION	COATING	STOCK CODE	EDP#
1/8	1/8	.058	1 1/2	2	.025	CMH82-2-0125	Alcrona Pro	A	H08221
3/16	3/16	.089	2	2	.040	CMH82-2-0187	Alcrona Pro	A	H08222
1/4	1/4	.109	2 1/2	3	.060	CMH82-3-0250	Alcrona Pro	A	H08233
1/4	1/4	.109	2 1/2	5	.060	CMH82-5-0250	Alcrona Pro	A	H08253
3/8	3/8	.175	2 1/2	3	.070	CMH82-3-0375	Alcrona Pro	A	H08234
3/8	3/8	.175	2 1/2	5	.070	CMH82-5-0375	Alcrona Pro	A	H08254
1/2	1/2	.242	3	3	.080	CMH82-3-0500	Alcrona Pro	A	H08235
1/2	1/2	.242	3	5	.080	CMH82-5-0500	Alcrona Pro	A	H08255
5/8	5/8	.308	3	3	.090	CMH82-3-0625	Alcrona Pro	A	H08236
5/8	5/8	.308	3	5	.090	CMH82-5-0625	Alcrona Pro	A	H08256

SERIES: CMH90
90° Chamfer Mill, Helical Flute

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	TIP DIA	DESCRIPTION	COATING	STOCK CODE	EDP#
1/8	1/8	.050	1 1/2	2	.025	CMH90-2-0125	Alcrona Pro	A	H09021
3/16	3/16	.074	2	2	.040	CMH90-2-0187	Alcrona Pro	A	H09022
1/4	1/4	.095	2 1/2	3	.060	CMH90-3-0250	Alcrona Pro	A	H09033
1/4	1/4	.095	2 1/2	5	.060	CMH90-5-0250	Alcrona Pro	A	H09053
3/8	3/8	.153	2 1/2	3	.070	CMH90-3-0375	Alcrona Pro	A	H09034
3/8	3/8	.153	2 1/2	5	.070	CMH90-5-0375	Alcrona Pro	A	H09054
1/2	1/2	.210	3	3	.080	CMH90-3-0500	Alcrona Pro	A	H09035
1/2	1/2	.210	3	5	.080	CMH90-5-0500	Alcrona Pro	A	H09055
5/8	5/8	.268	3	3	.090	CMH90-3-0625	Alcrona Pro	A	H09036
5/8	5/8	.268	3	5	.090	CMH90-5-0625	Alcrona Pro	A	H09056
3/4	3/4	.325	3	3	.100	CMH90-3-0750	Alcrona Pro	A	H09037
3/4	3/4	.325	3	5	.100	CMH90-5-0750	Alcrona Pro	A	H09057

SERIES: CMH100

100° Chamfer Mill, Helical Flute

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	TIP DIA	DESCRIPTION	COATING	STOCK CODE	EDP#
1/8	1/8	.042	1 1/2	2	.025	CMH100-2-0125	Alcrona Pro	A	H10021
3/16	3/16	.062	2	2	.040	CMH100-2-0187	Alcrona Pro	A	H10022
1/4	1/4	.080	2 1/2	3	.060	CMH100-3-0250	Alcrona Pro	A	H10033
1/4	1/4	.080	2 1/2	5	.060	CMH100-5-0250	Alcrona Pro	A	H10053
3/8	3/8	.128	2 1/2	3	.070	CMH100-3-0375	Alcrona Pro	A	H10034
3/8	3/8	.128	2 1/2	5	.070	CMH100-5-0375	Alcrona Pro	A	H10054
1/2	1/2	.176	3	3	.080	CMH100-3-0500	Alcrona Pro	A	H10035
1/2	1/2	.176	3	5	.080	CMH100-5-0500	Alcrona Pro	A	H10055
5/8	5/8	.224	3	3	.090	CMH100-3-0625	Alcrona Pro	A	H10036
5/8	5/8	.224	3	5	.090	CMH100-5-0625	Alcrona Pro	A	H10056

SERIES: CMH120

120° Chamfer Mill, Helical Flute

CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	TIP DIA	DESCRIPTION	COATING	STOCK CODE	EDP#
1/8	1/8	.029	1 1/2	2	.025	CMH120-2-0125	Alcrona Pro	A	H12021
3/16	3/16	.043	2	2	.040	CMH120-2-0187	Alcrona Pro	A	H12022
1/4	1/4	.055	2 1/2	3	.060	CMH120-3-0250	Alcrona Pro	A	H12033
1/4	1/4	.055	2 1/2	5	.060	CMH120-5-0250	Alcrona Pro	A	H12053
3/8	3/8	.088	2 1/2	3	.070	CMH120-3-0375	Alcrona Pro	A	H12034
3/8	3/8	.088	2 1/2	5	.070	CMH120-5-0375	Alcrona Pro	A	H12054
1/2	1/2	.121	3	3	.080	CMH120-3-0500	Alcrona Pro	A	H12035
1/2	1/2	.121	3	5	.080	CMH120-5-0500	Alcrona Pro	A	H12055
5/8	5/8	.154	3	3	.090	CMH120-3-0625	Alcrona Pro	A	H12036
5/8	5/8	.154	3	5	.090	CMH120-5-0625	Alcrona Pro	A	H12056
3/4	3/4	.195	3	3	.100	CMH120-3-0750	Alcrona Pro	A	H12037
3/4	3/4	.195	3	5	.100	CMH120-5-0750	Alcrona Pro	A	H12057

Stock Code Key:

- (A) Factory Stock Item
- (B) Limited Stock (Ships in 3 - 5 Working Days)
- (C) Limited Stock (Ships in 2 Weeks)
- (D) Non Stock (Ships in 3 Weeks)



SFPM / Chipload Chart

PERFORMANCE YOU
CAN TRUST, QUALITY
YOU CAN MEASURE

Materials	Aluminum	Carbon Steels	Alloy Steel	Stainless				Cast Iron		High Temp Alloys				Tool Steels		Mold Steel
Description	2024, 6061, 7075	10XX, 11XX, 13XX, 15XX	40XX, 41XX, 42XX, 43XX, 44XX, 86XX Series	303	304, 304L, 316, 316L	410, 416, 420, 430F, 440C	13-8PH, 15-4PH, 16-6PH, 17-4PH	Gray	Ductile	Inconel 600 / 718, A286, Haynes	Pure Titanium	Wrought/ Cast 6AL4, ASTM 1, 2 & 3 Alpha - Beta	A2, S7, H1, H13	D2	P20	
SFM <32RC	800-2000	200 - 450	150 - 300	150 - 350	200 - 450	80 - 250	80 - 250	250 - 450	120 - 350	70 - 120	140 - 220	140 - 200	90 - 140	250 - 450	150 - 250	
SFM >32RC		100 - 250	80 - 200	80 - 200	100 - 250	90 - 125	90 - 125	130 - 300	80 - 140	40 - 90	90 - 160	90 - 160	80 - 120	100 - 160	80 - 160	
1/4"	S	.0014	.0012	.0013	.0012	.0013	.0012	.0012	.0012	.0008	.0012	.0012	.0008	.0008	.0010	
	HP	.0017	.0012	.0013	.0012	.0013	.0010	.0013	.0014	.0009	.0014	.0012	.0010	.0010	.0012	
	LP	.0019	.0016	.0013	.0012	.0014	.0013	.0013	.0015	.0012	.0014	.0014	.0012	.0015	.0013	
3/8"	S	.0050	.0018	.0016	.0015	.0016	.0015	.0015	.0018	.0014	.0016	.0015	.0015	.0012	.0015	
	HP	.0060	.0018	.0018	.0015	.0015	.0015	.0016	.0018	.0014	.0016	.0016	.0016	.0012	.0016	
	LP	.0080	.0025	.0022	.0016	.0016	.0016	.0016	.0018	.0015	.0022	.0018	.0018	.0015	.0018	
1/2"	S	.0060	.0030	.0027	.0025	.0025	.0025	.0025	.0027	.0020	.0026	.0025	.0025	.0020	.0025	
	HP	.0070	.0030	.0032	.0030	.0030	.0028	.0028	.0030	.0022	.0025	.0025	.0026	.0020	.0025	
	LP	.0120	.0035	.0035	.0035	.0038	.0035	.0038	.0040	.0025	.0030	.0030	.0030	.0025	.0030	
5/8"	S	.0070	.0035	.0030	.0030	.0030	.0030	.0030	.0035	.0025	.0035	.0030	.0030	.0025	.0030	
	HP	.0090	.0038	.0030	.0030	.0030	.0030	.0035	.0035	.0028	.0035	.0030	.0030	.0025	.0030	
	LP	.0150	.0040	.0040	.0040	.0040	.0040	.0040	.0044	.0030	.0040	.0038	.0038	.0030	.0035	
3/4"	S	.0080	.0040	.0040	.0035	.0035	.0035	.0035	.0040	.0028	.0040	.0038	.0038	.0032	.0035	
	HP	.0150	.0050	.0043	.0040	.0040	.0040	.0040	.0045	.0035	.0040	.0040	.0040	.0035	.0040	
	LP	.0200	.0060	.0050	.0045	.0040	.0040	.0040	.0045	.0040	.0050	.0045	.0050	.0045	.0050	
1"	S	.0100	.0050	.0040	.0040	.0040	.0040	.0040	.0050	.0038	.0050	.0042	.0042	.0040	.0045	
	HP	.0150	.0060	.0050	.0050	.0045	.0045	.0045	.0050	.0040	.0050	.0045	.0045	.0040	.0045	
	LP	.0200	.0070	.0065	.0060	.0060	.0060	.0060	.0070	.0055	.0070	.0060	.0060	.0050	.0055	
Stub and Regular Length				S = Slotting Axial Depth up to .5 X Diameter				HP = Heavy Peripheral Axial DOC = LOC Radial DOC = .5 X Diameter				LP = Light Profile Axial DOC = LOC Radial WOC = .15 X Diameter				
Medium Length				S = Slotting Not Recommended				HP = Heavy Peripheral Axial DOC = up to 1 X Diameter Radial DOC = .2 X Diameter				LP = Light Profile Axial DOC = up to 1.5 X Diameter Radial WOC = .1 X Diameter				

Terms and Conditions

Authorized Distribution

The Core Cutter product lines are sold through a national network of independent industrial distributors. These distributors are selected based on their commitment to customer service, technical expertise and commitment to quality. Please contact Customer Service to find your Authorized Core Cutter Distributor.

Commitment to Quality

Core Cutter, LLC is committed to high quality, high performance carbide tooling. In order to better serve our customers, we reserve the right to make changes to our products as is needed to comply with our rigorous Commitment to Quality. As such, this catalog may not represent current tooling specifications, or designs modified after its issue date and therefore does not justify any claims.

Product Safety

Any cutting tool may be subject to breaking and/or shattering under improper use. Government regulations require the use of safety glasses and other protective equipment in the vicinity of use. Additionally, the use of cutting tools can produce potentially hazardous dusts and/or mists, the particles of which can cause health related issues. To avoid adverse health effects, always use proper ventilation and consult the Safety Data Sheet for other recommendations.

Product Warranty

Core Cutter will repair or replace any of our products that are evaluated and determined to be defective in either materials and/or workmanship for up to one (1) year from the purchase date of said product. This warranty shall not apply to any Core Cutter product that has been altered, reconditioned/repaired, misused or exposed to improper or unrecommended operating parameters and/or procedures.

Returned Product

Core Cutter honors new, unmodified, quality condition returned standard catalog tooling purchased within six (6) months for full refund. New, unmodified, quality condition standard catalog tooling purchased within one (1) year can be returned for merchandise credit and is subject to a 5% Restocking Fee. All returned product must be accompanied by a Core Cutter supplied Return Merchandise Authorization (RMA). Custom-made, modified, used, and/or damaged tooling will not be accepted for return unless subject to Product Warranty. Please contact our Customer Service to obtain an RMA.

Damaged Product

All product is shipped FOB factory via thirdparty parcel and freight carriers. It is the responsibility of the receiver to notify Core Cutter immediately if a package is missing or damaged. Our Customer Service will assist you in filing claims proceedings directly with the carrier. To ensure fast resolution, please keep the original damaged packaging and/or photographs, when applicable.

Over or Under Shipments

All custom-made and modified tooling is subject to a +/-10% (or 1 piece) over/under shipment policy.

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206411	11	207310	12	208101	12	210000	9	297131	11	208710-BLK	16
206420	11	207311	12	208110	12	210001	9	297140	11	208711-BLK	16
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206431	11	207330	12	208121	12	210040	9	205701-BLK	16	208730-BLK	16
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206741	14	207440	12	208231	12	210240	9	205801-BLK	16	208840-BLK	16
206800	14	207441	12	208240	12	210241	9	205810-BLK	16	208841-BLK	16
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206821	14	207620N	15	208311	12	210740	13	205831-BLK	16	300011	18
206830	14	207621N	15	208320	12	210741	13	205840-BLK	16	300040	18
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206921	15	207710	15	208411	12	293210	10	206721-BLK	16	300201	18
206930	15	207710N	15	208420	12	293211	10	206730-BLK	16	300210	18
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206940	15	207711N	15	208430	12	293221	10	206740-BLK	16	300240	18
206941	15	207720	15	208431	12	293230	10	206741-BLK	16	300241	18
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207010	11	207721N	15	208700	15	293241	10	206810-BLK	16	300710	23
207011	11	207730	15	208701	15	295300	10	206811-BLK	16	300711	23
207020	11	207730N	15	208710	15	295301	10	206820-BLK	16	300740	23
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300211C	29	391220C	29	401731	39	403641N	39	405651	40	406826	41
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301221C	29	396210C	29	401831	39	403736	40	405721	40	406926	41
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407031	37	408311	38	496241	37	403121C	45	500711	54	502611N	54
407041	37	408321	38	497101	37	403221C	45	500741	54	502621N	54
407101	37	408326	38	497111	37	403321C	45	500801	54	502641N	54
407111	37	408331	38	497121	37	403421C	45	500811	54	502801	54
407121	37	408341	38	497126	37	405021C	45	500841	54	502811	54
407126	37	408401	38	497131	37	405121C	45	500901	54	502821	54
407131	37	408411	38	497141	37	405221C	45	500911	54	502841	54
407141	37	408421	38	405701-BLK	43	405321C	45	500941	54	503001	50
407201	37	408426	38	405711-BLK	43	405421C	45	501001	49	503011	50
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407221	37	408441	38	405731-BLK	43	406111C	45	501016	49	503021	50
407226	37	408701	42	405736-BLK	43	406211C	45	501021	49	503031	50
407231	37	408711	42	405741-BLK	43	406311C	45	501031	49	503036	50
407241	37	408721	42	405751-BLK	43	406411C	45	501041	49	503041	50
407301	37	408726	42	405801-BLK	43	407011C	45	501101	49	503101	50
407311	37	408731	42	405811-BLK	43	407111C	45	501111	49	503111	50
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407331	37	408811	42	405836-BLK	43	407411C	45	501131	49	503131	50
407341	37	408821	42	405841-BLK	43	408111C	45	501141	49	503136	50
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407421	37	408841	42	406711-BLK	43	408411C	45	501216	49	503211	50
407426	37	408901	42	406721-BLK	43	410011C	45	501221	49	503216	50
407431	37	408911	42	406726-BLK	43	410111C	45	501231	49	503221	50
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407611N	41	408931	42	406801-BLK	43	493221C	45	501311	49	503241	50
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407626N	41	410001	34	406821-BLK	43	496211C	45	501321	49	503311	50
407631N	41	410011	34	406826-BLK	43	497111C	45	501331	49	503316	50
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407701N	41	410111	34	407701-BLK	43	540201	47	501601N	54	503336	50
407711	41	410141	34	407711-BLK	43	545301	47	501611	54	503341	50
407711N	41	410201	34	407721-BLK	43	546201	47	501611N	54	503401	50
407721	41	410211	34	407726-BLK	43	547101	47	501616	54	503411	50
407721N	41	410241	34	407731-BLK	43	550001	47	501616N	54	503416	50
407726	41	410701	39	407741-BLK	43	550201	47	501621	54	503421	50
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407821	41	491216	34	408711-BLK	43	553301	47	501716	54	503631N	54
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407831	41	491231	34	408726-BLK	43	555101	47	501731	54	503641N	54
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407901N	41	493201	35	408741-BLK	43	555401	47	501801	54	503711	55
407911N	41	493211	35	408801-BLK	43	556001	47	501811	54	503716	55
407921N	41	493216	35	408811-BLK	43	556101	47	501816	54	503721	55
407926N	41	493221	35	408821-BLK	43	556301	47	501821	54	503731	55
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408221	38	496201	37	401321C	45	500141	49	502301	50	503911	55
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An American flag is draped diagonally across the right side of the image. The top-left corner of the flag features the blue field with white stars, while the bottom-right corner shows the red and white stripes. The flag is set against a dark, heavily textured background that resembles rough stone or concrete. The lighting creates highlights and shadows on the fabric of the flag and the surface it rests on.

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