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

CORE CUTTER

SOLID CARBIDE CUTTING TOOLS

Check Out What's New:

- **Added Staggered Chipbreaker Options to AL3, VST4 and VST5 Series**

- **Added .020 Radius in VST4 & VST5 1/4" & 3/8" Diameters**

- **Increased Stock Levels!**

- **NEW! Corporate Video on Website!**

- **NEW! Dynamic 3 - 3 Flute Miniature Endmills with 1/4" Shank, Variable Helix**

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

CORE CUTTER
SOLID CARBIDE CUTTING TOOLS

Catalog Offering

AL2		Page 9	**2 Flute End Mill for Non-Ferrous Applications** Hard Carbon Coated & Uncoated Options
AL3		Page 15	**3 Flute End Mill for Non-Ferrous Applications** Hard Carbon Coated & Uncoated Options
AL3-CB		Page 21	**3 Flute Rougher for Non-Ferrous Applications** Staggered Chipbreakers, Coated & Uncoated
QTR3		Page 23	**3 Flute for Non-Ferrous & Ferrous Applications** Miniature on 1/4" Shank, Alcrona Pro Coated, Variable Helix
VST4		Page 26	**4 Flute End Mill for Ferrous Applications** Latuma Coated, Variable Pitch
VST4-CB		Page 32	**4 Flute Rougher for Ferrous Applications** Staggered Chipbreakers, Latuma Coated, Variable Pitch
FEM5		Page 34	**5 Flute Finisher for Ferrous Applications** Latuma Coated, Square End Finisher
VST5		Page 36	**5 Flute End Mill for Ferrous Applications** Alcrona Pro Coated, Variable Pitch
VST5-CB		Page 42	**5 Flute Rougher for Ferrous Applications** Staggered Chipbreakers, Alcrona Pro Coated, Variable Pitch
VMF		Page 44	**Multi-Flute End Mill for Ferrous Applications** C-Max Coated, High Speed, Variable Pitch
VMF-CB		Page 46	**Multi-Flute Rougher for Ferrous Applications** Staggered Chipbreakers, C-Max Coated, Variable Pitch
CMS90		Page 48	**Straight Flute 90° Chamfer Mill** Alcrona Pro Coated, 2 & 4 Flute Options
CMH90		Page 48	**Helical Flute 90° Chamfer Mill** Alcrona Pro Coated, 2, 3 & 5 Flute Options

A Guide to Tool Coatings

Hard Carbon

AL2 | AL3 | AL3-CB

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

VST4 | VST4-CB | FEM5

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

VST5 | VST5-CB | QTR3

CMS90 | CMH90

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

VMF | VMF-CB

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/ Loader

Walter Powers w/ Loader

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

Inspection Equipment:

Walter Helicheck Pro

Flexbar Video Inspection

Jones & Lamson PC-14
Optical Comparators

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.

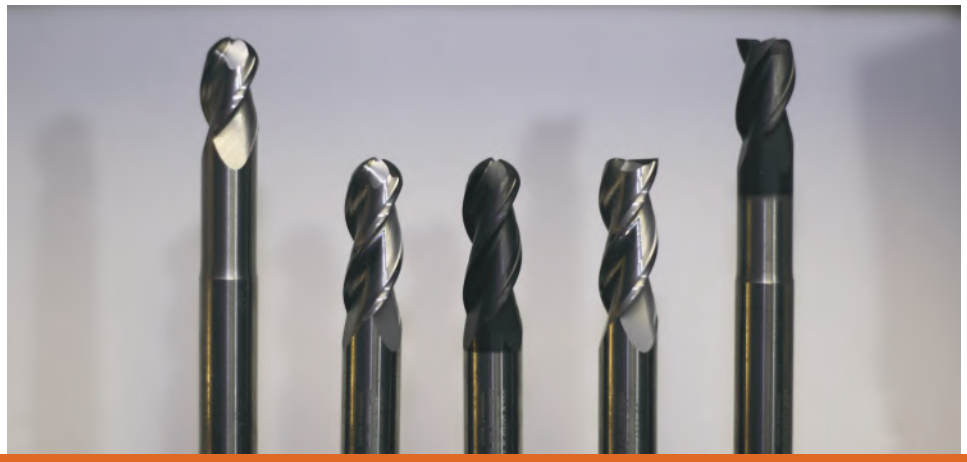
Looking for quality reconditioning?

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 Series

MADE IN THE USA

SERIES: AL2

2 Flute, 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	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	BALL		AL2-S-0125-R063 (BALL)	A	**210040**	A	**210041**
	1/8	3/8	2	2	SQ		AL2-SR-0125-SQ	A	**210100**	C	**210101**
	1/8	3/8	2	2	0.015		AL2-SR-0125-R015	B	**210110**	C	**210111**
	1/8	3/8	2	2	BALL		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**	C	**210211**
	1/8	1/2	2 1/2	2	BALL		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**	C	**200011**
	3/16	5/16	2	2	BALL		AL2-S-0187-R094 (BALL)	A	**200040**	A	**200041**
	3/16	7/16	2	2	SQ		AL2-SR-0187-SQ	B	**200100**	C	**200101**
	3/16	7/16	2	2	0.015		AL2-SR-0187-R015	B	**200110**	C	**200111**
	3/16	7/16	2	2	BALL		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**	C	**200211**
	3/16	9/16	2 1/2	2	BALL		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**	C	**201011**
	1/4	3/8	2	2	0.030		AL2-S-0250-R030	B	**201020**	C	**201021**
	1/4	3/8	2	2	0.060		AL2-S-0250-R060	B	**201030**	C	**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**	C	**201111**
	1/4	1/2	2 1/2	2	0.030		AL2-SR-0250-R030	B	**201120**	C	**201121**
	1/4	1/2	2 1/2	2	0.060		AL2-SR-0250-R060	B	**201130**	C	**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**	C	**201211**
	1/4	3/4	2 1/2	2	0.030		AL2-R-0250-R030	B	**201220**	C	**201221**
	1/4	3/4	2 1/2	2	0.060		AL2-R-0250-R060	B	**201230**	C	**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**
	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**	C	**201711**
	1/4	3/8	4	2	0.030	1 1/4	AL2-RN-R-0250-R030	B	**201720**	C	**201721**
	1/4	3/8	4	2	0.060	1 1/4	AL2-RN-R-0250-R060	B	**201730**	C	**201731**
	1/4	3/8	4	2	BALL	1 1/4	AL2-RN-R-0250-R125 (BALL)	A	**201740**	A	**201741**
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**	C	**202111**
	5/16	1/2	2	2	0.030		AL2-SR-0312-R030	B	**202120**	C	**202121**
	5/16	1/2	2	2	BALL		AL2-SR-0312-R157 (BALL)	B	**202140**	C	**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**	C	**202211**
	5/16	3/4	2 1/2	2	0.030		AL2-R-0312-R030	B	**202220**	C	**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	B	**202300**	C	**202301**
	5/16	1 1/4	3	2	0.015		AL2-M-0312-R015	B	**202310**	C	**202311**
	5/16	1 1/4	3	2	0.030		AL2-M-0312-R030	B	**202320**	C	**202321**
	5/16	1 1/4	3	2	BALL		AL2-M-0312-R157 (BALL)	B	**202340**	C	**202341**

SERIES: AL2

2 Flute, 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	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**	C	**203011**
	3/8	1/2	2	2	0.030		AL2-S-0375-R030	B	**203020**	C	**203021**
	3/8	1/2	2	2	0.060		AL2-S-0375-R060	B	**203030**	C	**203031**
	3/8	1/2	2	2	BALL		AL2-S-0375-R188 (BALL)	A	**203040**	A	**203041**
	3/8	3/4	2 1/2	2	SQ		AL2-SR-0375-SQ	B	**203100**	C	**203101**
	3/8	3/4	2 1/2	2	0.015		AL2-SR-0375-R015	B	**203110**	C	**203111**
	3/8	3/4	2 1/2	2	0.030		AL2-SR-0375-R030	B	**203120**	C	**203121**
	3/8	3/4	2 1/2	2	0.060		AL2-SR-0375-R060	B	**203130**	C	**203131**
	3/8	3/4	2 1/2	2	BALL		AL2-SR-0375-R188 (BALL)	B	**203140**	C	**203141**
	3/8	7/8	3	2	SQ		AL2-SP-0375-SQ	B	**293200**	C	**293201**
	3/8	7/8	3	2	0.015		AL2-SP-0375-R015	B	**293210**	C	**293211**
	3/8	7/8	3	2	0.030		AL2-SP-0375-R030	B	**293220**	C	**293221**
	3/8	7/8	3	2	0.060		AL2-SP-0375-R060	B	**293230**	C	**293231**
	3/8	7/8	3	2	BALL		AL2-SP-0375-R188 (BALL)	B	**293240**	C	**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**	C	**203221**
	3/8	1	3	2	0.060		AL2-R-0375-R060	B	**203230**	C	**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**	C	**203301**
	3/8	1 1/4	3	2	0.015		AL2-M-0375-R015	B	**203310**	C	**203311**
	3/8	1 1/4	3	2	0.030		AL2-M-0375-R030	B	**203320**	C	**203321**
	3/8	1 1/4	3	2	0.060		AL2-M-0375-R060	B	**203330**	C	**203331**
	3/8	1 1/4	3	2	BALL		AL2-M-0375-R188 (BALL)	B	**203340**	C	**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	B	**203410**	C	**203411**
	3/8	1 1/2	4	2	0.030		AL2-L-0375-R030	B	**203420**	C	**203421**
	3/8	1 1/2	4	2	0.060		AL2-L-0375-R060	B	**203430**	C	**203431**
	3/8	1 1/2	4	2	BALL		AL2-L-0375-R188 (BALL)	B	**203440**	C	**203441**
	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**	C	**203711**
	3/8	5/8	4	2	0.030	2	AL2-RN-R-0375-R030	B	**203720**	C	**203721**
	3/8	5/8	4	2	0.060	2	AL2-RN-R-0375-R060	B	**203730**	C	**203731**
	3/8	5/8	4	2	BALL	2	AL2-RN-R-0375-R188 (BALL)	A	**203740**	A	**203741**
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**	C	**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**	C	**205031**
	1/2	5/8	2 1/2	2	0.125		AL2-S-0500-R125	B	**205040**	C	**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**	C	**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**	C	**205131**
	1/2	1	3	2	0.125		AL2-SR-0500-R125	B	**205140**	C	**205141**
	1/2	1	3	2	BALL		AL2-SR-0500-R250 (BALL)	B	**205150**	C	**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**	C	**205311**
	1/2	1 1/2	4	2	0.030		AL2-M-0500-R030	B	**205320**	C	**205321**
	1/2	1 1/2	4	2	0.060		AL2-M-0500-R060	B	**205330**	C	**205331**

SERIES: AL2

2 Flute, 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#
1/2"	1/2	1 1/2	4	2	0.125		AL2-M-0500-R125	B	**205340**	C	**205341**
	1/2	1 1/2	4	2	BALL		AL2-M-0500-R250 (BALL)	B	**205350**	C	**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**
	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**	C	**205411**
	1/2	2	4	2	0.030		AL2-L-0500-R030	B	**205420**	C	**205421**
	1/2	2	4	2	0.060		AL2-L-0500-R060	B	**205430**	C	**205431**
	1/2	2	4	2	0.125		AL2-L-0500-R125	B	**205440**	C	**205441**
	1/2	2	4	2	BALL		AL2-L-0500-R250 (BALL)	B	**205450**	C	**205451**
	1/2	3/4	3	2	SQ	1 1/4	AL2-RN-S-0500-SQ	B	**205600**	C	**205601**
	1/2	3/4	3	2	0.015	1 1/4	AL2-RN-S-0500-R015	B	**205610**	C	**205611**
	1/2	3/4	3	2	0.030	1 1/4	AL2-RN-S-0500-R030	B	**205620**	C	**205621**
	1/2	3/4	3	2	0.060	1 1/4	AL2-RN-S-0500-R060	B	**205630**	C	**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**	C	**205651**
	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**	C	**205711**
	1/2	3/4	4	2	0.030	2	AL2-RN-R-0500-R030	B	**205720**	C	**205721**
	1/2	3/4	4	2	0.060	2	AL2-RN-R-0500-R060	B	**205730**	C	**205731**
	1/2	3/4	4	2	0.125	2	AL2-RN-R-0500-R125	B	**205740**	C	**205741**
	1/2	3/4	4	2	BALL	2	AL2-RN-R-0500-R250 (BALL)	A	**205750**	A	**205751**
	1/2	3/4	5	2	SQ	2 1/2	AL2-RN-M-0500-SQ	B	**205800**	C	**205801**
	1/2	3/4	5	2	0.015	2 1/2	AL2-RN-M-0500-R015	B	**205810**	C	**205811**
	1/2	3/4	5	2	0.030	2 1/2	AL2-RN-M-0500-R030	B	**205820**	C	**205821**
	1/2	3/4	5	2	0.060	2 1/2	AL2-RN-M-0500-R060	B	**205830**	C	**205831**
	1/2	3/4	5	2	0.125	2 1/2	AL2-RN-M-0500-R125	B	**205840**	C	**205841**
	1/2	3/4	5	2	BALL	2 1/2	AL2-RN-M-0500-R250 (BALL)	B	**205850**	C	**205851**
	1/2	3/4	6	2	SQ	3 1/2	AL2-RN-L-0500-SQ	B	**205900**	C	**205901**
	1/2	3/4	6	2	0.015	3 1/2	AL2-RN-L-0500-R015	B	**205910**	C	**205911**
	1/2	3/4	6	2	0.030	3 1/2	AL2-RN-L-0500-R030	B	**205920**	C	**205921**
	1/2	3/4	6	2	0.060	3 1/2	AL2-RN-L-0500-R060	B	**205930**	C	**205931**
	1/2	3/4	6	2	0.125	3 1/2	AL2-RN-L-0500-R125	B	**205940**	C	**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	3/4	3	2	SQ		AL2-S-0625-SQ	B	**206000**	C	**206001**
	5/8	3/4	3	2	0.030		AL2-S-0625-R030	B	**206010**	C	**206011**
	5/8	3/4	3	2	0.060		AL2-S-0625-R060	B	**206020**	C	**206021**
	5/8	3/4	3	2	0.125		AL2-S-0625-R125	B	**206030**	C	**206031**
	5/8	3/4	3	2	BALL		AL2-S-0625-R313 (BALL)	B	**206040**	C	**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**	C	**206111**
	5/8	1 1/4	3 1/2	2	0.060		AL2-SR-0625-R060	B	**206120**	C	**206121**
	5/8	1 1/4	3 1/2	2	0.125		AL2-SR-0625-R125	B	**206130**	C	**206131**
	5/8	1 1/4	3 1/2	2	BALL		AL2-SR-0625-R313 (BALL)	B	**206140**	C	**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**	C	**206211**
	5/8	1 1/2	3 1/2	2	0.060		AL2-R-0625-R060	B	**206220**	C	**206221**
	5/8	1 1/2	3 1/2	2	0.125		AL2-R-0625-R125	B	**206230**	C	**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**	C	**296201**
	5/8	1 5/8	3 1/2	2	0.030		AL2-SP-0625-R030	B	**296210**	C	**296211**
	5/8	1 5/8	3 1/2	2	0.060		AL2-SP-0625-R060	B	**296220**	C	**296221**
	5/8	1 5/8	3 1/2	2	0.125		AL2-SP-0625-R125	B	**296230**	C	**296231**

SERIES: AL2

2 Flute, 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 5/8	3 1/2	2	BALL		AL2-SP-0625-R313 (BALL)	A	**296240**	A	**296241**
	5/8	2	4	2	SQ		AL2-M-0625-SQ	B	**206300**	C	**206301**
	5/8	2	4	2	0.030		AL2-M-0625-R030	B	**206310**	C	**206311**
	5/8	2	4	2	0.060		AL2-M-0625-R060	B	**206320**	C	**206321**
	5/8	2	4	2	0.125		AL2-M-0625-R125	B	**206330**	C	**206331**
	5/8	2	4	2	BALL		AL2-M-0625-R313 (BALL)	B	**206340**	C	**206341**
	5/8	2 1/2	5	2	SQ		AL2-L-0625-SQ	B	**206400**	C	**206401**
	5/8	2 1/2	5	2	0.030		AL2-L-0625-R030	B	**206410**	C	**206411**
	5/8	2 1/2	5	2	0.060		AL2-L-0625-R060	B	**206420**	C	**206421**
	5/8	2 1/2	5	2	0.125		AL2-L-0625-R125	B	**206430**	C	**206431**
	5/8	2 1/2	5	2	BALL		AL2-L-0625-R313 (BALL)	B	**206440**	C	**206441**
	5/8	1	5	2	SQ	2 1/2	AL2-RN-M-0625-SQ	B	**206800**	C	**206801**
	5/8	1	5	2	0.030	2 1/2	AL2-RN-M-0625-R030	B	**206810**	C	**206811**
	5/8	1	5	2	0.060	2 1/2	AL2-RN-M-0625-R060	B	**206820**	C	**206821**
	5/8	1	5	2	0.125	2 1/2	AL2-RN-M-0625-R125	B	**206830**	C	**206831**
	5/8	1	5	2	BALL	2 1/2	AL2-RN-M-0625-R313 (BALL)	B	**206840**	C	**206841**
3/4"	3/4	1	3	2	SQ		AL2-S-0750-SQ	B	**207000**	C	**207001**
	3/4	1	3	2	0.030		AL2-S-0750-R030	B	**207010**	C	**207011**
	3/4	1	3	2	0.060		AL2-S-0750-R060	B	**207020**	C	**207021**
	3/4	1	3	2	0.125		AL2-S-0750-R125	B	**207030**	C	**207031**
	3/4	1	3	2	BALL		AL2-S-0750-R375 (BALL)	B	**207040**	C	**207041**
	3/4	1 1/2	4	2	SQ		AL2-SR-0750-SQ	B	**207100**	C	**207101**
	3/4	1 1/2	4	2	0.030		AL2-SR-0750-R030	B	**207110**	C	**207111**
	3/4	1 1/2	4	2	0.060		AL2-SR-0750-R060	B	**207120**	C	**207121**
	3/4	1 1/2	4	2	0.125		AL2-SR-0750-R125	B	**207130**	C	**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**	C	**297111**
	3/4	1 5/8	4	2	0.060		AL2-SP-0750-R060	B	**297120**	C	**297121**
	3/4	1 5/8	4	2	0.125		AL2-SP-0750-R125	B	**297130**	C	**297131**
	3/4	1 5/8	4	2	BALL		AL2-SP-0750-R375 (BALL)	B	**297140**	C	**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**	C	**207211**
	3/4	2	5	2	0.060		AL2-R-0750-R060	B	**207220**	C	**207221**
	3/4	2	5	2	0.125		AL2-R-0750-R125	B	**207230**	C	**207231**
	3/4	2	5	2	BALL		AL2-R-0750-R375 (BALL)	A	**207240**	A	**207241**
	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**	C	**207311**
	3/4	2 1/2	5	2	0.060		AL2-M-0750-R060	B	**207320**	C	**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**	C	**207341**
	3/4	3	6	2	SQ		AL2-L-0750-SQ	B	**207400**	C	**207401**
	3/4	3	6	2	0.030		AL2-L-0750-R030	B	**207410**	C	**207411**
	3/4	3	6	2	0.060		AL2-L-0750-R060	B	**207420**	C	**207421**
	3/4	3	6	2	0.125		AL2-L-0750-R125	B	**207430**	C	**207431**
	3/4	3	6	2	BALL		AL2-L-0750-R375 (BALL)	B	**207440**	C	**207441**
	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**	C	**207711**
	3/4	1 1/8	4	2	0.060	2	AL2-RN-R-0750-R060	B	**207720**	C	**207721**
	3/4	1 1/8	4	2	0.125	2	AL2-RN-R-0750-R125	B	**207730**	C	**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	6	2	SQ	3	AL2-RN-M-0750-SQ	B	**207800**	C	**207801**
	3/4	1 1/8	6	2	0.030	3	AL2-RN-M-0750-R030	B	**207810**	C	**207811**
	3/4	1 1/8	6	2	0.060	3	AL2-RN-M-0750-R060	B	**207820**	C	**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**	C	**207841**

SERIES: AL2

2 Flute, 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 3/4	4	2	SQ		AL2-SR-1000-SQ	B	**208100**	C	**208101**
	1	1 3/4	4	2	0.030		AL2-SR-1000-R030	B	**208110**	C	**208111**
	1	1 3/4	4	2	0.060		AL2-SR-1000-R060	B	**208120**	C	**208121**
	1	1 3/4	4	2	0.125		AL2-SR-1000-R125	B	**208130**	C	**208131**
	1	1 3/4	4	2	BALL		AL2-SR-1000-R500 (BALL)	B	**208140**	C	**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**	C	**208211**
	1	2 1/2	5	2	0.060		AL2-R-1000-R060	B	**208220**	C	**208221**
	1	2 1/2	5	2	0.125		AL2-R-1000-R125	B	**208230**	C	**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**	C	**208311**
	1	3	6	2	0.060		AL2-M-1000-R060	B	**208320**	C	**208321**
	1	3	6	2	0.125		AL2-M-1000-R125	B	**208330**	C	**208331**
	1	3	6	2	BALL		AL2-M-1000-R500 (BALL)	B	**208340**	C	**208341**
	1	3 1/2	6	2	SQ		AL2-L-1000-SQ	B	**208400**	C	**208401**
	1	3 1/2	6	2	0.030		AL2-L-1000-R030	B	**208410**	C	**208411**
	1	3 1/2	6	2	0.060		AL2-L-1000-R060	B	**208420**	C	**208421**
	1	3 1/2	6	2	0.125		AL2-L-1000-R125	B	**208430**	C	**208431**
	1	3 1/2	6	2	BALL		AL2-L-1000-R500 (BALL)	B	**208440**	C	**208441**
	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**	C	**208711**
	1	1 1/2	5	2	0.060	2 1/2	AL2-RN-R-1000-R060	B	**208720**	C	**208721**
	1	1 1/2	5	2	0.125	2 1/2	AL2-RN-R-1000-R125	B	**208730**	C	**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**	C	**208801**
	1	1 1/2	6	2	0.030	3 1/2	AL2-RN-M-1000-R030	B	**208810**	C	**208811**
	1	1 1/2	6	2	0.060	3 1/2	AL2-RN-M-1000-R060	B	**208820**	C	**208821**
	1	1 1/2	6	2	0.125	3 1/2	AL2-RN-M-1000-R125	B	**208830**	C	**208831**
	1	1 1/2	6	2	BALL	3 1/2	AL2-RN-M-1000-R500 (BALL)	B	**208840**	C	**208841**

Stock Code Key:

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

Standard Catalog Offering

Non- Ferrous
AL3 Series

MADE IN THE USA

SERIES: AL3

3 Flute, 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	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	BALL		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	BALL		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	BALL		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	BALL		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	BALL		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	BALL		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 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**
	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**
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	LENGTH BELOW SHANK (LBS)	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	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	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	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	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	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	BALL		AL3-L-0375-R188 (BALL)	A	**303440**	A	**303441**
	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	BALL	2	AL3-RN-R-0375-R188 (BALL)	A	**303740**	A	**303741**
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	0.125		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	0.125		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	0.125		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**
	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**

SERIES: AL3

3 Flute, 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#
1/2"	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	0.125		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	0.125		AL3-L-0500-R125	A	**305440**	A	**305441**
	1/2	2	4	3	BALL		AL3-L-0500-R250 (BALL)	A	**305450**	A	**305451**
	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**	C	**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**	C	**305631**
	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	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**	C	**305711**
	1/2	3/4	4	3	0.030	2	AL3-RN-R-0500-R030	A	**305720**	C	**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	0.125	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	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	0.125	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	0.125	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**
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**	C	**306021**
	5/8	3/4	3	3	0.125		AL3-S-0625-R125	A	**306030**	C	**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	0.125		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	0.125		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**	C	**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	B	**396220**	C	**396221**

SERIES: AL3

3 Flute, 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 5/8	3 1/2	3	0.125		AL3-SP-0625-R125	B	**396230**	C	**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	0.125		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	B	**306420**	C	**306421**
	5/8	2 1/2	5	3	0.125		AL3-L-0625-R125	B	**306430**	C	**306431**
	5/8	2 1/2	5	3	BALL		AL3-L-0625-R313 (BALL)	A	**306440**	A	**306441**
	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	B	**306820**	C	**306821**
	5/8	1	5	3	0.125	2 1/2	AL3-RN-M-0625-R125	B	**306830**	C	**306831**
	5/8	1	5	3	BALL	2 1/2	AL3-RN-M-0625-R313 (BALL)	B	**306840**	C	**306841**
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	0.125		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**	C	**307121**
	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**	C	**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	0.125		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	0.125		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	0.125		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	0.125		AL3-L-0750-R125	A	**307430**	A	**307431**
	3/4	3	6	3	BALL		AL3-L-0750-R375 (BALL)	A	**307440**	A	**307441**
	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	0.125	2	AL3-RN-R-0750-R125	A	**307730**	C	**307731**
	3/4	1 1/8	4	3	BALL	2	AL3-RN-R-0750-R375 (BALL)	A	**307740**	C	**307741**
	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	0.125	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**

SERIES: AL3

3 Flute, 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 3/4	4	3	SQ		AL3-SR-1000-SQ	A	**308100**	A	**308101**
	1	1 3/4	4	3	0.030		AL3-SR-1000-R030	A	**308110**	A	**308111**
	1	1 3/4	4	3	0.060		AL3-SR-1000-R060	A	**308120**	A	**308121**
	1	1 3/4	4	3	0.125		AL3-SR-1000-R125	A	**308130**	A	**308131**
	1	1 3/4	4	3	BALL		AL3-SR-1000-R500 (BALL)	A	**308140**	C	**308141**
	1	2 1/2	5	3	SQ		AL3-R-1000-SQ	A	**308200**	A	**308201**
	1	2 1/2	5	3	0.030		AL3-R-1000-R030	A	**308210**	A	**308211**
	1	2 1/2	5	3	0.060		AL3-R-1000-R060	A	**308220**	A	**308221**
	1	2 1/2	5	3	0.125		AL3-R-1000-R125	A	**308230**	A	**308231**
	1	2 1/2	5	3	BALL		AL3-R-1000-R500 (BALL)	A	**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**	C	**308321**
	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**
	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	0.125		AL3-L-1000-R125	A	**308430**	A	**308431**
	1	3 1/2	6	3	BALL		AL3-L-1000-R500 (BALL)	B	**308440**	C	**308441**
	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	0.125	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**
	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	B	**308820**	C	**308821**
	1	1 1/2	6	3	0.125	3 1/2	AL3-RN-M-1000-R125	B	**308830**	C	**308831**
	1	1 1/2	6	3	BALL	3 1/2	AL3-RN-M-1000-R500 (BALL)	B	**308840**	C	**308841**

Stock Code Key:

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

Standard Catalog Offering

Non- Ferrous AL3-CB Series

MADE IN THE USA

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	LENGTH BELOW SHANK (LBS)	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**	C	**301121C**
	1/4	3/4	2 1/2	3	0.030		AL3-R-0250-R030-CB	A	**301220C**	A	**301221C**
	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	1	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)

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	C	**Q0622S**
	1/4	0.125	2 1/2	3	0.010		QTR3-0062-2XD-R010	Alcrona Pro	C	**Q0622R**
	1/4	0.125	2 1/2	3	BALL		QTR3-0062-2XD-R031 (BALL)	Alcrona Pro	C	**Q0622B**
	1/4	0.188	2 1/2	3	SQ		QTR3-0062-3XD-SQ	Alcrona Pro	C	**Q0623S**
	1/4	0.188	2 1/2	3	0.010		QTR3-0062-3XD-R010	Alcrona Pro	C	**Q0623R**
	1/4	0.188	2 1/2	3	BALL		QTR3-0062-3XD-R031 (BALL)	Alcrona Pro	C	**Q0623B**
	1/4	0.188	2 1/2	3	SQ	0.313	QTR3-RN-0062-5XD-SQ	Alcrona Pro	C	**Q0623SN**
	1/4	0.188	2 1/2	3	0.010	0.313	QTR3-RN-0062-5XD-R010	Alcrona Pro	C	**Q0623RN**
	1/4	0.188	2 1/2	3	BALL	0.313	QTR3-RN-0062-5XD-R031 (BALL)	Alcrona Pro	C	**Q0623BN**
	1/4	0.250	2 1/2	3	SQ		QTR3-0062-4XD-SQ	Alcrona Pro	C	**Q0624S**
	1/4	0.250	2 1/2	3	0.010		QTR3-0062-4XD-R010	Alcrona Pro	C	**Q0624R**
5/64"	1/4	0.156	2 1/2	3	SQ		QTR3-0078-2XD-SQ	Alcrona Pro	C	**Q0782S**
	1/4	0.156	2 1/2	3	0.010		QTR3-0078-2XD-R010	Alcrona Pro	C	**Q0782R**
	1/4	0.156	2 1/2	3	BALL		QTR3-0078-2XD-R039 (BALL)	Alcrona Pro	C	**Q0782B**
	1/4	0.234	2 1/2	3	SQ		QTR3-0078-3XD-SQ	Alcrona Pro	C	**Q0783S**
	1/4	0.234	2 1/2	3	0.010		QTR3-0078-3XD-R010	Alcrona Pro	C	**Q0783R**
	1/4	0.234	2 1/2	3	BALL		QTR3-0078-3XD-R039 (BALL)	Alcrona Pro	C	**Q0783B**
	1/4	0.234	2 1/2	3	SQ	0.390	QTR3-RN-0078-5XD-SQ	Alcrona Pro	C	**Q0783SN**
	1/4	0.234	2 1/2	3	0.010	0.390	QTR3-RN-0078-5XD-R010	Alcrona Pro	C	**Q0783RN**
	1/4	0.234	2 1/2	3	BALL	0.390	QTR3-RN-0078-5XD-R039 (BALL)	Alcrona Pro	C	**Q0783BN**
	1/4	0.313	2 1/2	3	SQ		QTR3-0078-4XD-SQ	Alcrona Pro	C	**Q0784S**
	1/4	0.313	2 1/2	3	0.010		QTR3-0078-4XD-R010	Alcrona Pro	C	**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	C	**Q0933SN**
	1/4	0.281	2 1/2	3	0.010	0.469	QTR3-RN-0093-5XD-R010	Alcrona Pro	C	**Q0933RN**
	1/4	0.281	2 1/2	3	BALL	0.469	QTR3-RN-0093-5XD-R047 (BALL)	Alcrona Pro	C	**Q0933BN**
	1/4	0.375	2 1/2	3	SQ		QTR3-0093-4XD-SQ	Alcrona Pro	C	**Q0934S**
	1/4	0.375	2 1/2	3	0.010		QTR3-0093-4XD-R010	Alcrona Pro	C	**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	C	**Q1093SN**
	1/4	0.328	2 1/2	3	0.010	0.547	QTR3-RN-0109-5XD-R010	Alcrona Pro	C	**Q1093RN**
	1/4	0.328	2 1/2	3	BALL	0.547	QTR3-RN-0109-5XD-R055 (BALL)	Alcrona Pro	C	**Q1093BN**
	1/4	0.438	2 1/2	3	SQ		QTR3-0109-4XD-SQ	Alcrona Pro	C	**Q1094S**
	1/4	0.438	2 1/2	3	0.010		QTR3-0109-4XD-R010	Alcrona Pro	C	**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**

NEW

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	SQ	0.625	QTR3-RN-0125-5XD-SQ	Alcrona Pro	C	**Q1253SN**
	1/4	0.375	2 1/2	3	0.015	0.625	QTR3-RN-0125-5XD-R015	Alcrona Pro	C	**Q1253RN**
	1/4	0.375	2 1/2	3	BALL	0.625	QTR3-RN-0125-5XD-R063 (BALL)	Alcrona Pro	C	**Q1253BN**
	1/4	0.500	2 1/2	3	SQ		QTR3-0125-4XD-SQ	Alcrona Pro	C	**Q1254S**
	1/4	0.500	2 1/2	3	0.015		QTR3-0125-4XD-R015	Alcrona Pro	C	**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	C	**Q1563SN**
	1/4	0.469	2 1/2	3	0.015	0.781	QTR3-RN-0156-5XD-R015	Alcrona Pro	C	**Q1563RN**
	1/4	0.469	2 1/2	3	BALL	0.781	QTR3-RN-0156-5XD-R078 (BALL)	Alcrona Pro	C	**Q1563BN**
	1/4	0.625	2 1/2	3	SQ		QTR3-0156-4XD-SQ	Alcrona Pro	C	**Q1564S**
	1/4	0.625	2 1/2	3	0.015		QTR3-0156-4XD-R015	Alcrona Pro	C	**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	0.563	2 1/2	3	SQ	0.937	QTR3-RN-0187-5XD-SQ	Alcrona Pro	C	**Q1873SN**
	1/4	0.563	2 1/2	3	0.015	0.937	QTR3-RN-0187-5XD-R015	Alcrona Pro	C	**Q1873RN**
	1/4	0.563	2 1/2	3	BALL	0.937	QTR3-RN-0187-5XD-R094 (BALL)	Alcrona Pro	C	**Q1873BN**
	1/4	0.750	2 1/2	3	SQ		QTR3-0187-4XD-SQ	Alcrona Pro	C	**Q1874S**
	1/4	0.750	2 1/2	3	0.015		QTR3-0187-4XD-R015	Alcrona Pro	C	**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	C	**Q2183SN**
	1/4	0.656	2 1/2	3	0.015	1.093	QTR3-RN-0218-5XD-R015	Alcrona Pro	C	**Q2183RN**
	1/4	0.656	2 1/2	3	BALL	1.093	QTR3-RN-0218-5XD-R109 (BALL)	Alcrona Pro	C	**Q2183BN**
	1/4	0.875	2 1/2	3	SQ		QTR3-0218-4XD-SQ	Alcrona Pro	C	**Q2184S**
	1/4	0.875	2 1/2	3	0.015		QTR3-0218-4XD-R015	Alcrona Pro	C	**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	C	**Q2503SN**
	1/4	0.750	2 1/2	3	0.015	1.250	QTR3-RN-0250-5XD-R015	Alcrona Pro	C	**Q2503RN**
	1/4	0.750	2 1/2	3	BALL	1.250	QTR3-RN-0250-5XD-R125 (BALL)	Alcrona Pro	C	**Q2503BN**
	1/4	1.000	2 1/2	3	SQ		QTR3-0250-4XD-SQ	Alcrona Pro	C	**Q2504S**
	1/4	1.000	2 1/2	3	0.015		QTR3-0250-4XD-R015	Alcrona Pro	C	**Q2504R**

NEW

Standard Catalog Offering

Ferrous
VST4 Series

MADE IN THE USA

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	LENGTH BELOW SHANK (LBS)	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	BALL		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	BALL		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	BALL		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	BALL		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	BALL		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	BALL		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	C	**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	C	**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	C	**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 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	C	**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**
	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**
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	LENGTH BELOW SHANK (LBS)	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	C	**402341**
3/8"	3/8	1/2	2	4	SQ		VST4-S-0375-SQ	Latuma	A	**403001**
	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	C	**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	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	C	**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	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	C	**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	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	C	**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	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	C	**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	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	C	**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	BALL		VST4-L-0375-R188 (BALL)	Latuma	A	**403441**
	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	BALL	2	VST4-RN-R-0375-R188 (BALL)	Latuma	A	**403741**
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	0.125		VST4-S-0500-R125	Latuma	A	**405041**
	1/2	5/8	2 1/2	4	BALL		VST4-S-0500-R250 (BALL)	Latuma	A	**405051**
	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**

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	LENGTH BELOW SHANK (LBS)	DESCRIPTION	COATING	STOCK CODE	EDP#
1/2"	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	0.125		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	0.125		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	0.125		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	0.125		VST4-L-0500-R125	Latuma	A	**405441**
	1/2	2	4	4	BALL		VST4-L-0500-R250 (BALL)	Latuma	A	**405451**
	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	0.125	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	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	0.125	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	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	0.125	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**
	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	0.125	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	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	0.125		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**

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	LENGTH BELOW SHANK (LBS)	DESCRIPTION	COATING	STOCK CODE	EDP#
5/8"	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	0.125		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	0.125		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**
	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	C	**496221**
	5/8	1 5/8	3 1/2	4	0.125		VST4-SP-0625-R125	Latuma	C	**496231**
	5/8	1 5/8	3 1/2	4	BALL		VST4-SP-0625-R313 (BALL)	Latuma	C	**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	0.125		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	0.125		VST4-L-0625-R125	Latuma	A	**406431**
	5/8	2 1/2	5	4	BALL		VST4-L-0625-R313 (BALL)	Latuma	A	**406441**
	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	0.125	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**
3/4"	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	C	**407021**
	3/4	1	3	4	0.125		VST4-S-0750-R125	Latuma	C	**407031**
	3/4	1	3	4	BALL		VST4-S-0750-R375 (BALL)	Latuma	C	**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	0.125		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	0.125		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	0.125		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	0.125		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	0.125		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	LENGTH BELOW SHANK (LBS)	DESCRIPTION	COATING	STOCK CODE	EDP#
3/4"	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	0.125	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	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	0.125	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**
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	0.125		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	0.125		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	0.125		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	0.125		VST4-L-1000-R125	Latuma	A	**408431**
	1	3 1/2	6	4	BALL		VST4-L-1000-R500 (BALL)	Latuma	A	**408441**
	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	0.125	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	0.125	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**

Stock Code Key:

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

Standard Catalog Offering

Ferrous
VST4-CB Series

MADE IN THE USA

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	LENGTH BELOW SHANK (LBS)	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 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)

Standard Catalog Offering

Finisher
FEM5 Series

MADE IN THE USA

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)

Standard Catalog Offering

Ferrous
VST5 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	LENGTH BELOW SHANK (LBS)	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	BALL		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	BALL		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	BALL		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	BALL		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	BALL		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	BALL		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	C	**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	C	**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	C	**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 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**
	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**
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	LENGTH BELOW SHANK (LBS)	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	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	C	**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	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	C	**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	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	C	**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	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	C	**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	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	C	**503331**
	3/8	1 1/4	3	5	BALL		VST5-M-0375-R188 (BALL)	Alcrona Pro	C	**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	BALL		VST5-L-0375-R188 (BALL)	Alcrona Pro	A	**503441**
	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	BALL	2	VST5-RN-R-0375-R188 (BALL)	Alcrona Pro	A	**503741**
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	0.125		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**
	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**

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	LENGTH BELOW SHANK (LBS)	DESCRIPTION	COATING	STOCK CODE	EDP#
1/2"	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	0.125		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	0.125		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	0.125		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	0.125		VST5-L-0500-R125	Alcrona Pro	A	**505441**
	1/2	2	4	5	BALL		VST5-L-0500-R250 (BALL)	Alcrona Pro	A	**505451**
	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	0.125	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	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	0.125	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	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	0.125	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**
	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	0.125	3 1/2	VST5-RN-L-0500-R125	Alcrona Pro	C	**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	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	0.125		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**

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	LENGTH BELOW SHANK (LBS)	DESCRIPTION	COATING	STOCK CODE	EDP#
5/8"	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	0.125		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	0.125		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**
	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	0.125		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	C	**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	0.125		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	0.125		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**
	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	0.125	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**
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	0.125		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	0.125		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	0.125		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	0.125		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	0.125		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	0.125		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	LENGTH BELOW SHANK (LBS)	DESCRIPTION	COATING	STOCK CODE	EDP#
3/4"	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	0.125	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	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	0.125	3	VST5-RN-M-0750-R125	Alcrona Pro	C	**507831**
	3/4	1 1/8	6	5	BALL	3	VST5-RN-M-0750-R375 (BALL)	Alcrona Pro	A	**507841**
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	0.125		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	0.125		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	0.125		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	0.125		VST5-L-1000-R125	Alcrona Pro	C	**508431**
	1	3 1/2	6	5	BALL		VST5-L-1000-R500 (BALL)	Alcrona Pro	C	**508441**
	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	0.125	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	0.125	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**

Stock Code Key:

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

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, Light Roughing

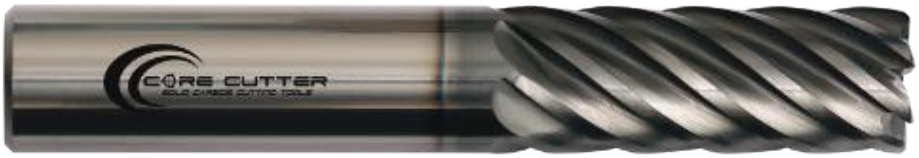
CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	LENGTH BELOW SHANK (LBS)	DESCRIPTION	COATING	STOCK CODE	EDP#
1/8"	1/8	1/4	1 1/2	5	0.015		VST5-S-0125-R015-CB	Alcrona Pro	A	**510011C**
	1/8	3/8	2	5	0.015		VST5-SR-0125-R015-CB	Alcrona Pro	A	**510111C**
	1/8	1/2	2 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 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	C	**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	2	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)

Standard Catalog Offering

Multi-Flute VMF Series



MADE IN THE USA

SERIES: VMF

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

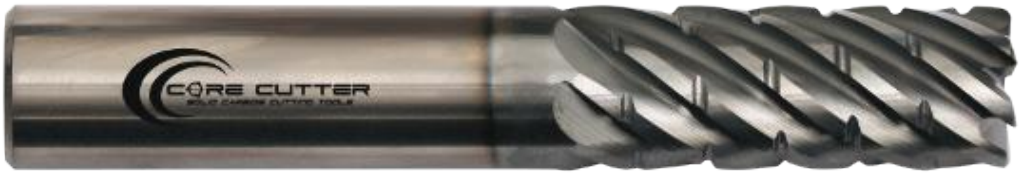
CUT DIA	SHANK DIA	LENGTH OF CUT (LOC)	OVERALL LENGTH (OAL)	# OF FLUTES	CORNER CONDITION	DESCRIPTION	COATING	STOCK CODE	EDP#
3/8"	3/8	3/4	2 1/2	7	SQ	VMF7-SR-0375-SQ	C-Max	A	**703101**
	3/8	3/4	2 1/2	7	0.015	VMF7-SR-0375-R015	C-Max	A	**703111**
	3/8	1	3	7	SQ	VMF7-R-0375-SQ	C-Max	A	**703201**
	3/8	1	3	7	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	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**

Stock Code Key:

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

Standard Catalog Offering

Multi-Flute VMF-CB Series



MADE IN THE USA

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	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)

Standard Catalog Offering

Chamfer Mills

CMS90 Series

CMH90 Series

MADE IN THE USA

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: 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**

Stock Code Key:

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

CORE CUTTER
SOLID CARBIDE CUTTING TOOLS

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	150 - 250	200 - 450	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	130 -300	80 - 140	40 - 90	90 - 160	90 - 160	80 - 120	100 - 160	80 - 160
1/4"	S	.0030	.0014	.0012	.0013	.0012	.0013	.0012	.0012	.0012	.0008	.0012	.0012	.0008	.0008	.0010
	HP	.0040	.0017	.0012	.0013	.0012	.0013	.0010	.0013	.0014	.0009	.0014	.0012	.0010	.0010	.0012
	LP	.0060	.0019	.0016	.0013	.0012	.0014	.0013	.0013	.0015	.0012	.0014	.0014	.0012	.0015	.0013
3/8"	S	.0050	.0018	.0016	.0016	.0015	.0016	.0015	.0015	.0018	.0014	.0016	.0015	.0015	.0012	.0015
	HP	.0060	.0018	.0016	.0018	.0015	.0015	.0015	.0016	.0018	.0014	.0016	.0016	.0016	.0012	.0016
	LP	.0080	.0025	.0022	.0022	.0016	.0016	.0016	.0016	.0018	.0015	.0022	.0018	.0018	.0015	.0018
1/2"	S	.0060	.0030	.0025	.0027	.0025	.0025	.0025	.0025	.0027	.0020	.0026	.0025	.0025	.0020	.0025
	HP	.0070	.0030	.0030	.0032	.0030	.0030	.0028	.0028	.0030	.0022	.0025	.0025	.0026	.0020	.0025
	LP	.0120	.0035	.0032	.0035	.0035	.0038	.0035	.0038	.0040	.0025	.0030	.0030	.0030	.0025	.0030
5/8"	S	.0070	.0035	.0030	.0030	.0030	.0030	.0030	.0030	.0035	.0025	.0035	.0030	.0030	.0025	.0030
	HP	.0090	.0038	.0035	.0030	.0030	.0030	.0030	.0035	.0035	.0028	.0035	.0030	.0030	.0025	.0030
	LP	.0150	.0040	.0040	.0040	.0040	.0040	.0040	.0040	.0044	.0030	.0040	.0038	.0038	.0030	.0035
3/4"	S	.0080	.0040	.0040	.0040	.0035	.0035	.0035	.0035	.0040	.0028	.0040	.0038	.0038	.0032	.0035
	HP	.0150	.0050	.0040	.0043	.0040	.0040	.0040	.0040	.0045	.0035	.0040	.0040	.0040	.0035	.0040
	LP	.0200	.0060	.0050	.0050	.0045	.0040	.0040	.0040	.0045	.0040	.0050	.0045	.0050	.0045	.0050
1"	S	.0100	.0050	.0040	.0040	.0040	.0040	.0040	.0040	.0050	.0038	.0050	.0042	.0042	.0040	.0045
	HP	.0150	.0060	.0060	.0050	.0050	.0050	.0045	.0045	.0050	.0040	.0050	.0045	.0045	.0040	.0045
	LP	.0200	.0070	.0060	.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

Core Cutter, LLC ▪ 362 Maine Ave, Farmingdale, ME 04344 ▪ (207) 588-7519 ▪ www.corecutterusa.com

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.

Catalog Index

EDP#	Page#	EDP#	Page#	EDP#	Page#	EDP#	Page#	EDP#	Page#	EDP#	Page#
VMF 11 Flute		201700	9	203321	10	205340	11	206021	11	207120	12
118101	44	201701	9	203330	10	205341	11	206030	11	207121	12
118111	44	201710	9	203331	10	205350	11	206031	11	207130	12
118112	46	201711	9	203340	10	205351	11	206040	11	207131	12
118201	44	201720	9	203341	10	205400	11	206041	11	207140	12
118211	44	201721	9	203400	10	205401	11	206100	11	207141	12
118212	46	201730	9	203401	10	205410	11	206101	11	207200	12
118301	44	201731	9	203410	10	205411	11	206110	11	207201	12
118311	44	201740	9	203411	10	205420	11	206111	11	207210	12
118312	46	201741	9	203420	10	205421	11	206120	11	207211	12
AL2 Series		202100	9	203421	10	205430	11	206121	11	207220	12
200000	9	202101	9	203430	10	205431	11	206130	11	207221	12
200001	9	202110	9	203431	10	205440	11	206131	11	207230	12
200010	9	202111	9	203440	10	205441	11	206140	11	207231	12
200011	9	202120	9	203441	10	205450	11	206141	11	207240	12
200040	9	202121	9	203700	10	205451	11	206200	11	207241	12
200041	9	202140	9	203701	10	205600	11	206201	11	207300	12
200100	9	202141	9	203710	10	205601	11	206210	11	207301	12
200101	9	202200	9	203711	10	205610	11	206211	11	207310	12
200110	9	202201	9	203720	10	205611	11	206220	11	207311	12
200111	9	202210	9	203721	10	205620	11	206221	11	207320	12
200140	9	202211	9	203730	10	205621	11	206230	11	207321	12
200141	9	202220	9	203731	10	205630	11	206231	11	207330	12
200200	9	202221	9	203740	10	205631	11	206240	11	207331	12
200201	9	202240	9	203741	10	205640	11	206241	11	207340	12
200210	9	202241	9	205000	10	205641	11	206300	12	207341	12
200211	9	202300	9	205001	10	205650	11	206301	12	207400	12
200240	9	202301	9	205010	10	205651	11	206310	12	207401	12
200241	9	202310	9	205011	10	205700	11	206311	12	207410	12
201000	9	202311	9	205020	10	205701	11	206320	12	207411	12
201001	9	202320	9	205021	10	205710	11	206321	12	207420	12
201010	9	202321	9	205030	10	205711	11	206330	12	207421	12
201011	9	202340	9	205031	10	205720	11	206331	12	207430	12
201020	9	202341	9	205040	10	205721	11	206340	12	207431	12
201021	9	203000	10	205041	10	205730	11	206341	12	207440	12
201030	9	203001	10	205050	10	205731	11	206400	12	207441	12
201031	9	203010	10	205051	10	205740	11	206401	12	207700	12
201040	9	203011	10	205100	10	205741	11	206410	12	207701	12
201041	9	203020	10	205101	10	205750	11	206411	12	207710	12
201100	9	203021	10	205110	10	205751	11	206420	12	207711	12
201101	9	203030	10	205111	10	205800	11	206421	12	207720	12
201110	9	203031	10	205120	10	205801	11	206430	12	207721	12
201111	9	203040	10	205121	10	205810	11	206431	12	207730	12
201120	9	203041	10	205130	10	205811	11	206440	12	207731	12
201121	9	203100	10	205131	10	205820	11	206441	12	207740	12
201130	9	203101	10	205140	10	205821	11	206800	12	207741	12
201131	9	203110	10	205141	10	205830	11	206801	12	207800	12
201140	9	203111	10	205150	10	205831	11	206810	12	207801	12
201141	9	203120	10	205151	10	205840	11	206811	12	207810	12
201200	9	203121	10	205200	10	205841	11	206820	12	207811	12
201201	9	203130	10	205201	10	205850	11	206821	12	207820	12
201210	9	203131	10	205210	10	205851	11	206830	12	207821	12
201211	9	203140	10	205211	10	205900	11	206831	12	207830	12
201220	9	203141	10	205220	10	205901	11	206840	12	207831	12
201221	9	203200	10	205221	10	205910	11	206841	12	207840	12
201230	9	203201	10	205230	10	205911	11	207000	12	207841	12
201231	9	203210	10	205231	10	205920	11	207001	12	208100	12
201240	9	203211	10	205240	10	205921	11	207010	12	208101	12
201241	9	203220	10	205241	10	205930	11	207011	12	208110	12
201300	9	203221	10	205250	10	205931	11	207020	12	208111	12
201301	9	203230	10	205251	10	205940	11	207021	12	208120	12
201310	9	203231	10	205300	10	205941	11	207030	12	208121	12
201311	9	203240	10	205301	10	205950	11	207031	12	208130	12
201320	9	203241	10	205310	10	205951	11	207040	12	208131	12
201321	9	203300	10	205311	10	206000	11	207041	12	208140	12
201330	9	203301	10	205320	10	206001	11	207100	12	208141	12
201331	9	203310	10	205321	10	206010	11	207101	12	208200	13
201340	9	203311	10	205330	10	206011	11	207110	12	208201	13
201341	9	203320	10	205331	10	206020	11	207111	12	208210	13

EDP#	Page#
AL2 Series (Cont.)	
208211	13
208220	13
208221	13
208230	13
208231	13
208240	13
208241	13
208300	13
208301	13
208310	13
208311	13
208320	13
208321	13
208330	13
208331	13
208340	13
208341	13
208400	13
208401	13
208410	13
208411	13
208420	13
208421	13
208430	13
208431	13
208440	13
208441	13
208700	13
208701	13
208710	13
208711	13
208720	13
208721	13
208730	13
208731	13
208740	13
208741	13
208800	13
208801	13
208810	13
208811	13
208820	13
208821	13
208830	13
208831	13
208840	13
208841	13
210000	9
210001	9
210010	9
210011	9
210040	9
210041	9
210100	9
210101	9
210110	9
210111	9
210140	9
210141	9
210200	9
210201	9
210210	9
210211	9
210240	9
210241	9
293200	10
293201	10
293210	10

EDP#	Page#
293211	10
293220	10
293221	10
293230	10
293231	10
293240	10
293241	10
295300	11
295301	11
295310	11
295311	11
295320	11
295321	11
295330	11
295331	11
295340	11
295341	11
295350	11
295351	11
296200	11
296201	11
296210	11
296211	11
296220	11
296221	11
296230	11
296231	11
296240	12
296241	12
297100	12
297101	12
297110	12
297111	12
297120	12
297121	12
297130	12
297131	12
297140	12
297141	12
AL3 Series	
300000	15
300001	15
300010	15
300011	15
300040	15
300041	15
300100	15
300101	15
300110	15
300111	15
300140	15
300141	15
300200	15
300201	15
300210	15
300211	15
300240	15
300241	15
301000	15
301001	15
301010	15
301011	15
301020	15
301021	15
301030	15
301031	15
301040	15
301041	15
301100	15

EDP#	Page#
301101	15
301110	15
301111	15
301120	15
301121	15
301130	15
301131	15
301140	15
301141	15
301200	15
301201	15
301210	15
301211	15
301220	15
301221	15
301230	15
301231	15
301240	15
301241	15
301300	15
301301	15
301310	15
301311	15
301320	15
301321	15
301330	15
301331	15
301340	15
301341	15
301700	15
301701	15
301710	15
301711	15
301720	15
301721	15
301730	15
301731	15
301740	15
301741	15
302100	15
302101	15
302110	15
302111	15
302120	15
302121	15
302140	15
302141	15
302200	15
302201	15
302210	15
302211	15
302220	15
302221	15
302240	15
302241	15
302300	15
302301	15
302310	15
302311	15
302320	15
302321	15
302340	15
302341	15
303000	16
303001	16
303010	16
303011	16
303020	16
303021	16

EDP#	Page#
303030	16
303031	16
303040	16
303041	16
303100	16
303101	16
303110	16
303111	16
303120	16
303121	16
303130	16
303131	16
303140	16
303141	16
303200	16
303201	16
303210	16
303211	16
303220	16
303221	16
303230	16
303231	16
303240	16
303241	16
303300	16
303301	16
303310	16
303311	16
303320	16
303321	16
303330	16
303331	16
303340	16
303341	16
303400	16
303401	16
303410	16
303411	16
303420	16
303421	16
303430	16
303431	16
303440	16
303441	16
303700	16
303701	16
303710	16
303711	16
303720	16
303721	16
303730	16
303731	16
303740	16
303741	16
305000	16
305001	16
305010	16
305011	16
305020	16
305021	16
305030	16
305031	16
305040	16
305041	16
305050	16
305051	16
305100	16
305101	16
305110	16

EDP#	Page#
305111	16
305120	16
305121	16
305130	16
305131	16
305140	16
305141	16
305150	16
305151	16
305200	16
305201	16
305210	16
305211	16
305220	16
305221	16
305230	16
305231	16
305240	16
305241	16
305250	16
305251	16
305300	16
305301	16
305310	16
305311	16
305320	16
305321	16
305330	16
305331	16
305340	17
305341	17
305350	17
305351	17
305400	17
305401	17
305410	17
305411	17
305420	17
305421	17
305430	17
305431	17
305440	17
305441	17
305450	17
305451	17
305600	17
305601	17
305610	17
305611	17
305620	17
305621	17
305630	17
305631	17
305640	17
305641	17
305650	17
305651	17
305700	17
305701	17
305710	17
305711	17
305720	17
305721	17
305730	17
305731	17
305740	17
305741	17
305750	17
305751	17

EDP#	Page#
305800	17
305801	17
305810	17
305811	17
305820	17
305821	17
305830	17
305831	17
305840	17
305841	17
305850	17
305851	17
305900	17
305901	17
305910	17
305911	17
305920	17
305921	17
305930	17
305931	17
305940	17
305941	17
305950	17
305951	17
306000	17
306001	17
306010	17
306011	17
306020	17
306021	17
306030	17
306031	17
306040	17
306041	17
306100	17
306101	17
306110	17
306111	17
306120	17
306121	17
306130	17
306131	17
306140	17
306141	17
306200	17
306201	17
306210	17
306211	17
306220	17
306221	17
306230	17
306231	17
306240	17
306241	17
306300	18
306301	18
306310	18
306311	18
306320	18
306321	18
306330	18
306331	18
306340	18
306341	18
306400	18
306401	18
306410	18
306411	18
306420	18

EDP#	Page#
AL3 Series (Cont.)	
306421	18
306430	18
306431	18
306440	18
306441	18
306800	18
306801	18
306810	18
306811	18
306820	18
306821	18
306830	18
306831	18
306840	18
306841	18
307000	18
307001	18
307010	18
307011	18
307020	18
307021	18
307030	18
307031	18
307040	18
307041	18
307100	18
307101	18
307110	18
307111	18
307120	18
307121	18
307130	18
307131	18
307140	18
307141	18
307200	18
307201	18
307210	18
307211	18
307220	18
307221	18
307230	18
307231	18
307240	18
307241	18
307300	18
307301	18
307310	18
307311	18
307320	18
307321	18
307330	18
307331	18
307340	18
307341	18
307400	18
307401	18
307410	18
307411	18
307420	18
307421	18
307430	18
307431	18
307440	18
307441	18
307700	18
307701	18
307710	18

EDP#	Page#
307711	18
307720	18
307721	18
307730	18
307731	18
307740	18
307741	18
307800	18
307801	18
307810	18
307811	18
307820	18
307821	18
307830	18
307831	18
307840	18
307841	18
308100	19
308101	19
308110	19
308111	19
308120	19
308121	19
308130	19
308131	19
308140	19
308141	19
308200	19
308201	19
308210	19
308211	19
308220	19
308221	19
308230	19
308231	19
308240	19
308241	19
308300	19
308301	19
308310	19
308311	19
308320	19
308321	19
308330	19
308331	19
308340	19
308341	19
308400	19
308401	19
308410	19
308411	19
308420	19
308421	19
308430	19
308431	19
308440	19
308441	19
308700	19
308701	19
308710	19
308711	19
308720	19
308721	19
308730	19
308731	19
308740	19
308741	19
308800	19
308801	19

EDP#	Page#
308810	19
308811	19
308820	19
308821	19
308830	19
308831	19
308840	19
308841	19
310000	15
310001	15
310010	15
310011	15
310040	15
310041	15
310100	15
310101	15
310110	15
310111	15
310140	15
310141	15
310200	15
310201	15
310210	15
310211	15
310240	15
310241	15
393200	16
393201	16
393210	16
393211	16
393220	16
393221	16
393230	16
393231	16
393240	16
393241	16
395300	17
395301	17
395310	17
395311	17
395320	17
395321	17
395330	17
395331	17
395340	17
395341	17
395350	17
395351	17
396200	17
396201	17
396210	17
396211	17
396220	17
396221	17
396230	18
396231	18
396240	18
396241	18
397100	18
397101	18
397110	18
397111	18
397120	18
397121	18
397130	18
397131	18
397140	18
397141	18
AL3-CB Series	

EDP#	Page#
300010C	21
300011C	21
300110C	21
300111C	21
300210C	21
300211C	21
301020C	21
301021C	21
301120C	21
301121C	21
301220C	21
301221C	21
301320C	21
301321C	21
302120C	21
302121C	21
302220C	21
302221C	21
302320C	21
302321C	21
303020C	21
303021C	21
303120C	21
303121C	21
303220C	21
303221C	21
303320C	21
303321C	21
303420C	21
303421C	21
305020C	21
305021C	21
305120C	21
305121C	21
305220C	21
305221C	21
305320C	21
305321C	21
305420C	21
305421C	21
306010C	21
306011C	21
306110C	21
306111C	21
306210C	21
306211C	21
306310C	21
306311C	21
306410C	21
306411C	21
307010C	21
307011C	21
307110C	21
307111C	21
307210C	21
307211C	21
307310C	21
307311C	21
307410C	21
307411C	21
308110C	21
308111C	21
308210C	21
308211C	21
308310C	21
308311C	21
308410C	21
308411C	21
310010C	21

EDP#	Page#
310011C	21
310110C	21
310111C	21
310210C	21
310211C	21
393220C	21
393221C	21
395320C	21
395321C	21
396210C	21
396211C	21
397110C	21
397111C	21
VST4 Series	
400001	26
400011	26
400041	26
400101	26
400111	26
400141	26
400201	26
400211	26
400241	26
401001	26
401011	26
401016	26
401021	26
401031	26
401041	26
401101	26
401111	26
401116	26
401121	26
401131	26
401141	26
401201	26
401211	26
401216	26
401221	26
401231	26
401241	26
401301	26
401311	26
401316	26
401321	26
401331	26
401341	26
401701	26
401711	26
401716	26
401721	26
401731	26
401741	26
402101	26
402111	26
402121	26
402141	26
402201	26
402211	26
402221	26
402241	26
402301	27
402311	27
402321	27
402341	27
403001	27
403011	27
403016	27
403021	27

EDP#	Page#
403031	27
403041	27
403101	27
403111	27
403116	27
403121	27
403131	27
403141	27
403201	27
403211	27
403216	27
403221	27
403231	27
403241	27
403301	27
403311	27
403316	27
403321	27
403331	27
403341	27
403401	27
403411	27
403416	27
403421	27
403431	27
403441	27
403701	27
403711	27
403716	27
403721	27
403731	27
403741	27
405001	27
405011	27
405021	27
405031	27
405041	27
405051	27
405101	27
405111	27
405121	27
405131	27
405141	28
405151	28
405201	28
405211	28
405221	28
405231	28
405241	28
405251	28
405301	28
405311	28
405321	28
405331	28
405341	28
405351	28
405401	28
405411	28
405421	28
405431	28
405441	28
405451	28
405601	28
405611	28
405621	28
405631	28
405641	28
405651	28
405701	28

EDP#	Page#
VST4 Series (Cont.)	
405711	28
405721	28
405731	28
405741	28
405751	28
405801	28
405811	28
405821	28
405831	28
405841	28
405851	28
405901	28
405911	28
405921	28
405931	28
405941	28
405951	28
406001	28
406011	28
406021	28
406031	28
406041	28
406101	28
406111	28
406121	29
406131	29
406141	29
406201	29
406211	29
406221	29
406231	29
406241	29
406301	29
406311	29
406321	29
406331	29
406341	29
406401	29
406411	29
406421	29
406431	29
406441	29
406801	29
406811	29
406821	29
406831	29
406841	29
407001	29
407011	29
407021	29
407031	29
407041	29
407101	29
407111	29
407121	29
407131	29
407141	29
407201	29
407211	29
407221	29
407231	29
407241	29
407301	29
407311	29
407321	29
407331	29
407341	29
407401	29

EDP#	Page#
407411	29
407421	29
407431	29
407441	29
407701	30
407711	30
407721	30
407731	30
407741	30
407801	30
407811	30
407821	30
407831	30
407841	30
408101	30
408111	30
408121	30
408131	30
408141	30
408201	30
408211	30
408221	30
408231	30
408241	30
408301	30
408311	30
408321	30
408331	30
408341	30
408401	30
408411	30
408421	30
408431	30
408441	30
408701	30
408711	30
408721	30
408731	30
408741	30
408801	30
408811	30
408821	30
408831	30
408841	30
410001	26
410011	26
410041	26
410101	26
410111	26
410141	26
410201	26
410211	26
410241	26
493201	27
493211	27
493216	27
493221	27
493231	27
493241	27
495301	28
495311	28
495321	28
495331	28
495341	28
495351	28
496201	29
496211	29
496221	29
496231	29

EDP#	Page#
496241	29
497101	29
497111	29
497121	29
497131	29
497141	29
VST4-CB Series	
400011C	32
400111C	32
400211C	32
401021C	32
401121C	32
401221C	32
401321C	32
402121C	32
402221C	32
402321C	32
403021C	32
403121C	32
403221C	32
403321C	32
403421C	32
405021C	32
405121C	32
405221C	32
405321C	32
405421C	32
406011C	32
406111C	32
406211C	32
406311C	32
406411C	32
407011C	32
407111C	32
407211C	32
407311C	32
407411C	32
408111C	32
408211C	32
408311C	32
408411C	32
410011C	32
410111C	32
410211C	32
493221C	32
495321C	32
496211C	32
497111C	32
FEM5 Series	
540001	34
540201	34
545301	34
546201	34
547101	34
550001	34
550201	34
551001	34
551101	34
551201	34
552101	34
552201	34
553001	34
553201	34
553301	34
555001	34
555101	34
555201	34
555401	34
556001	34

EDP#	Page#
556101	34
556301	34
556401	34
557001	34
557201	34
557301	34
VST5 Series	
500001	36
500011	36
500041	36
500101	36
500111	36
500141	36
500201	36
500211	36
500241	36
501001	36
501011	36
501016	36
501021	36
501031	36
501041	36
501101	36
501111	36
501116	36
501121	36
501131	36
501141	36
501201	36
501211	36
501216	36
501221	36
501231	36
501241	36
501301	36
501311	36
501316	36
501321	36
501331	36
501341	36
501701	36
501711	36
501716	36
501721	36
501731	36
501741	36
502101	36
502111	36
502121	36
502141	36
502201	36
502211	36
502221	36
502241	36
502301	37
502311	37
502321	37
502341	37
503001	37
503011	37
503016	37
503021	37
503031	37
503041	37
503101	37
503111	37
503116	37
503121	37
503131	37

EDP#	Page#
503141	37
503201	37
503211	37
503216	37
503221	37
503231	37
503241	37
503301	37
503311	37
503316	37
503321	37
503331	37
503341	37
503401	37
503411	37
503416	37
503421	37
503431	37
503441	37
503701	37
503711	37
503716	37
503721	37
503731	37
503741	37
505001	37
505011	37
505021	37
505031	37
505041	37
505051	37
505101	37
505111	37
505121	37
505131	37
505141	38
505151	38
505201	38
505211	38
505221	38
505231	38
505241	38
505251	38
505301	38
505311	38
505321	38
505331	38
505341	38
505351	38
505401	38
505411	38
505421	38
505431	38
505441	38
505451	38
505601	38
505611	38
505621	38
505631	38
505641	38
505651	38
505701	38
505711	38
505721	38
505731	38
505741	38
505751	38
505801	38
505811	38

EDP#	Page#
505821	38
505831	38
505841	38
505851	38
505901	38
505911	38
505921	38
505931	38
505941	38
505951	38
506001	38
506011	38
506021	38
506031	38
506041	38
506101	38
506111	38
506121	39
506131	39
506141	39
506201	39
506211	39
506221	39
506231	39
506241	39
506301	39
506311	39
506321	39
506331	39
506341	39
506401	39
506411	39
506421	39
506431	39
506441	39
506801	39
506811	39
506821	39
506831	39
506841	39
507001	39
507011	39
507021	39
507031	39
507041	39
507101	39
507111	39
507121	39
507131	39
507141	39
507201	39
507211	39
507221	39
507231	39
507241	39
507301	39
507311	39
507321	39
507331	39
507341	39
507401	39
507411	39
507421	39
507431	39
507441	39
507701	40
507711	40
507721	40
507731	40

EDP#	Page#
VST5 Series (Cont.)	
507741	40
507801	40
507811	40
507821	40
507831	40
507841	40
508101	40
508111	40
508121	40
508131	40
508141	40
508201	40
508211	40
508221	40
508231	40
508241	40
508301	40
508311	40
508321	40
508331	40
508341	40
508401	40
508411	40
508421	40
508431	40
508441	40
508701	40
508711	40
508721	40
508731	40
508741	40
508801	40
508811	40
508821	40
508831	40
508841	40
510001	36
510011	36
510041	36
510101	36
510111	36
510141	36
510201	36
510211	36
510241	36
593201	37
593211	37
593216	37
593221	37
593231	37
593241	37
595301	38
595311	38
595321	38
595331	38
595341	38
595351	38
596201	39
596211	39
596221	39
596231	39
596241	39
597101	39
597111	39
597121	39
597131	39
597141	39
VST5-CB Series	

EDP#	Page#
500011C	42
500111C	42
500211C	42
501021C	42
501121C	42
501221C	42
501321C	42
502121C	42
502221C	42
502321C	42
503021C	42
503121C	42
503221C	42
503321C	42
503421C	42
505021C	42
505121C	42
505221C	42
505321C	42
505421C	42
506011C	42
506111C	42
506211C	42
506311C	42
506411C	42
507011C	42
507111C	42
507211C	42
507311C	42
507411C	42
508111C	42
508211C	42
508311C	42
508411C	42
510011C	42
510111C	42
510211C	42
593221C	42
595321C	42
596211C	42
597111C	42
VMF7 Series	
703101	44
703111	44
703112	46
703201	44
703211	44
703212	46
705101	44
705121	44
705122	46
705201	44
705221	44
705222	46
705301	44
705321	44
705322	46
706101	44
706111	44
706112	46
706301	44
706311	44
706312	46
707101	44
707111	44
707112	46
707301	44
707311	44
707312	46

EDP#	Page#
707401	44
707411	44
707412	46
708101	44
708111	44
708112	46
708201	44
708211	44
708212	46
708301	44
708311	44
708312	46
VMF9 Series	
907101	44
907111	44
907112	46
907301	44
907311	44
907312	46
907401	44
907411	44
907412	46
908101	44
908111	44
908112	46
908201	44
908211	44
908212	46
908301	44
908311	44
908312	46
CMH90 Series	
H09021	48
H09022	48
H09033	48
H09034	48
H09035	48
H09036	48
H09053	48
H09054	48
H09055	48
H09056	48
QTR3 Series	
Q0622B	23
Q0622R	23
Q0622S	23
Q0623B	23
Q0623BN	23
Q0623R	23
Q0623RN	23
Q0623S	23
Q0623SN	23
Q0624R	23
Q0624S	23
Q0782B	23
Q0782R	23
Q0782S	23
Q0783B	23
Q0783BN	23
Q0783R	23
Q0783RN	23
Q0783S	23
Q0783SN	23
Q0784R	23
Q0784S	23
Q0932B	23
Q0932R	23
Q0932S	23
Q0933B	23

EDP#	Page#
Q0933BN	23
Q0933R	23
Q0933RN	23
Q0933S	23
Q0933SN	23
Q0934R	23
Q0934S	23
Q1092B	23
Q1092R	23
Q1092S	23
Q1093B	23
Q1093BN	23
Q1093R	23
Q1093RN	23
Q1093S	23
Q1093SN	23
Q1094R	23
Q1094S	23
Q1252B	23
Q1252R	23
Q1252S	23
Q1253B	23
Q1253BN	24
Q1253R	23
Q1253RN	24
Q1253S	23
Q1253SN	24
Q1254R	24
Q1254S	24
Q1562B	24
Q1562R	24
Q1562S	24
Q1563B	24
Q1563BN	24
Q1563R	24
Q1563RN	24
Q1563S	24
Q1563SN	24
Q1564R	24
Q1564S	24
Q1872B	24
Q1872R	24
Q1872S	24
Q1873B	24
Q1873BN	24
Q1873R	24
Q1873RN	24
Q1873S	24
Q1873SN	24
Q1874R	24
Q1874S	24
Q2182B	24
Q2182R	24
Q2182S	24
Q2183B	24
Q2183BN	24
Q2183R	24
Q2183RN	24
Q2183S	24
Q2183SN	24
Q2184R	24
Q2184S	24
Q2502B	24
Q2502R	24
Q2502S	24
Q2503B	24
Q2503BN	24
Q2503R	24
Q2503RN	24

EDP#	Page#
Q2503S	24
Q2503SN	24
Q2504R	24
Q2504S	24
CMS90 Series	
S09021	48
S09022	48
S09023	48
S09024	48
S09025	48
S09026	48
S09043	48
S09044	48
S09045	48
S09046	48

How to Order

Please contact your local distributor for pricing and availability of our standard products. To find your local distributor, please call us directly at (207) 588-7519.

CORE CUTTER
SOLID CARBIDE CUTTING TOOLS

Core Cutter, LLC

362 Maine Avenue
Farmingdale, ME 04344

P: (207) 588-7519

F: (207) 588-7614
www.corecutterusa.com

Core Cutter, LLC
362 Maine Avenue
Farmingdale, ME 04344
T: (207) 588-7519
F: (207) 588-7614
www.corecutterusa.com

REV 2021A