SPECIALTY END MILLS







GLOBALLY RENOWNED

SPECIALTY END MILLS

FOR ROUGHING AND REAMING OF BALL JOINTS & TIE ROD ENDS





FEATURES & BENEFITS

We designed our Conical Automotive Tapers with a left hand spiral and right hand cut, to get the most out of the high speed steel and create a superior surface finish. The addition of a cylindric land design creates a smooth cutting tool that can handle the needs of the automotive industry. We pride ourselves on being an expert resource, to all our partners and industries, with results that can be reproduced without exception.

General Inquiries: 3890 Buchanann Ave SW Grand Rapids, MI 49548

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Custom Tooling:

E: quotes@conicaltool.com

W: conicalendmills.com/custom-tool-ordering



SERIES: ATX

For milling of ball joints and tie rod internal diameter holes; ferrous materials.



Four flute design to balance and improve tool engagement in hardened materials



Premium high speed steel improves rigidity, hardness and wear resistance for milling of easy to machine materials

Cylindrical land for excellent surface finishes



No end cut to increase tool stability and edge strength

Uncoated for versatility. More than 16 available coatings can be added to increase tool life for your specific application and material



Variable Core Design maximizes chip evacuation and provides increased rigidity when the cutter is fully engaged



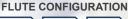






















MATERIAL







RESULTS

Designed for reaming ball joints and tie rod ends, the left hand spiral and right hand cut end mills, offer a slow spiral to avoid grabbing the material, while milling the intended area. At 1-1/2 Taper Per Foot, these tapered end mills are used on "through holes" or "predrilled holes" for heavy

construction vehicles, recreational vehicles (ATVs), buses, snowmobiles and golf carts. The simple fact is our end mills are astonishingly effective and leave no need for us to make claims when the results are irrefutable.

Series ATX: Premium High Speed Steel, 4 Flute, 12° Left Hand Slow Helix Subseries: ATX

Configuration: 1.5" Taper Per Foot, Varying Diameters, Regular & Long Length, 12° Left Hand Spiral, Right Hand Cut; Cylindrical Land; No End Cut

CONICAL TAPERED

AUTOMOTIVE TAPERS

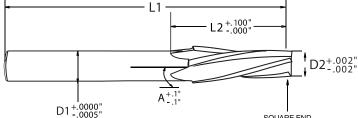


SERIES ATX - HIGH SPEED STEEL, 4 FLUTE, 12° LEFT HAND SLOW HELIX

SMOOTH CUTTING

A cylindric land design creates a smooth cutting tool that can handle the needs of the automotive industry. They offer a slow spiral to avoid grabbing the material. Used for heavy construction vehicles, recreational vehicles (ATVs), buses, snowmobiles and golf carts.

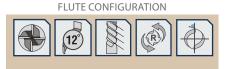
- Tapered Neck provides increased rigidity and strength
- Use for milling or sinking dies or mold cavities



· Increase shank diameter for better strength · Special flute design provides faster cutting D1 +.0000" -.0005" SQUARE END

TIP & END









SERIES ATX - 1.	.5" TAPER/FT,	REGULAR	& LONG	LENGTHS
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3/8 0.375 0.875 3/4 0.750 4 4.000 65/8 6.625 1/2 0.500 1/2 0.500 2 2.000 43/8 4.375 1/2 0.500 1.000 3/4 0.750 4 4.000 65/8 6.625 5/8 0.625 1.125 1 1.000 4 4.000 67/8 6.875 1.5"Taper Per Foot 3/4 0.750 1.000 3/4 0.750 2 2.000 45/8 4.625 1.000 3/4 0.750 2 2.000 45/8 4.625 0 AT-1016 4Z06	SERIES / TX 1.5 1/TI ER/TT, RECOEM & ECINO LENGTHS											4 4 4 4 4		
3/8 0.375 0.625 1/2 0.500 2 2.000 43/8 4.375 0.875 3/4 0.750 4 4.000 65/8 6.625 0 AT-616 4702 1/2 0.500 1.000 3/4 0.750 4 4.000 65/8 6.625 1/2 0.500 2 2.000 43/8 4.375 0 AT-808 4703 3° 34′35″ 5/8 0.625 1.125 1 1.000 4 4.000 67/8 6.875 1.5″Taper Per Foot 3/4 0.750 2 2.000 45/8 4.625 0 AT-1016 4706 1.5″Taper Per Foot 3/4 0.750 1.000 3/4 0.750 2 2.000 45/8 4.625 0 AT-1016 4706	PER SIDE	DIAMETER		DIAMETER	DIAN	METER	LENGTH		LENGTH			END		
3/8 0.375 0.875 3/4 0.750 4 4.000 65/8 6.625 1/2 0.500 1/2 0.500 2 2.000 43/8 4.375 1/2 0.500 1.000 3/4 0.750 4 4.000 65/8 6.625 5/8 0.625 1.125 1 1.000 4 4.000 67/8 6.875 1.5"Taper Per Foot 3/4 0.750 1.000 3/4 0.750 2 2.000 45/8 4.625 1.000 3/4 0.750 2 2.000 45/8 4.625 0 AT-1016 4Z06	(A)	(0	12)	(D1)	(1	01)		(L2)	(L1)			PART #	EDP#
1/2	1.5"Taper Per	3/8	0 375	0.625	1/2	0.500	2	2.000	4 3/8	4.375	4		AT-608	4Z01S
1/2 0.500 1.000 3/4 0.750 4 4.000 65/8 6.625			0.575	0.875	3/4	0.750	4	4.000	6 5/8	6.625		0	AT-616	4Z02S
1.000 3/4 0.750 4 4.000 65/8 6.625		1/2 0	0.500	0.750	1/2	0.500	2	2.000	4 3/8	4.375			AT-808	4Z03S
3° 34'35"			0.500	1.000	3/4	0.750	4	4.000	6 5/8	6.625		0	AT-816	4Z04S
1.5"Taper Per Foot 3/4 0.750 1.000 3/4 0.750 2 2.000 45/8 4.625 4 © AT-1208 4Z07		5/8 0	0.625	0.875	3/4	0.750	2	2.000	4 5/8	4.625		0	AT-1008	4Z05S
Foot 3/4 0.750 1.000 3/4 0.750 2 2.000 45/8 4.625 \odot AT-1208 47/07			0.025	1.125	1	1.000	4	4.000	6 7/8	6.875		0	AT-1016	4Z06S
5/1 0.750		3/4	0.750	1.000	3/4	0.750	2	2.000	4 5/8	4.625		0	AT-1208	4Z07S
			0.750	1.250	1	1.000	4	4.000	6 7/8	6.875		0	AT-1216	4Z08S
		7/8 0.87	0.875	1.125	1	1.000	2	2.000	4 7/8	4.875		0	AT-1408	4Z09S
			0.075	1.375	1 1/4	1.250	4	4.000	6 7/8	6.875		0	AT-1416	4Z10S
1.250 1 1.000 2 2.000 47/8 4.875 © AT-1608 47/1		1	1 000	1.250	1	1.000	2	2.000	4 7/8	4.875		0	AT-1608	4Z11S
			1.000	1.500	1 1/4	1.250	4	4.000	67/8	6.875		0	AT-1616	4Z12S

∩ indicates center hole in tip

CUSTOM TOOL ORDERING

TO SOLVE MACHINING CHALLENGES

"JUST IN TIME" AVAILABILITY

WE'LL HELP YOU FIND THE SOLUTION

Along with our standard tool offerings, Conical Tool Company manufactures custom carbide and high speed steel end mills and cutters. Whether a variation of a standard tool or specialized tool meant to combine multiple processes into one pass, our custom tools improve performance and reduce cycle time at the best value in the industry.

COMBINE MULTIPLE PROCESSES

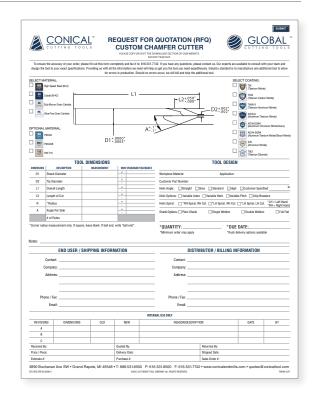
DECREASED PART CYCLE TIME

REDUCED COST PER PIECE

INCREASED PROFIT PER JOB

IMPROVED CUTTING TOOL PERFORMANCE

MANUFACTURED TO YOUR SPECIFICATIONS





SEE PAGES 27-36 FOR DETAILS
VISIT CONICALENDMILLS.COM
OR CALL (888) 531-8500



REQUEST FOR QUOTE

We can modify our standard tools or manufacture a highly specialized tool to your exact specifications. Request for Quote documents for custom tools are on the following pages. We cannot process your quote without this form. RFQ's are typically returned within 24 hours. A full list of definitions and acronyms can be found on pages 80-81. If you need assistance with your custom tool design or have any questions, please contact us.





70 YEARS OF INNOVATION







DRIVING PROSPERITY

Conical Automotive tapers do not have an end cut, or specific tip design, which results in added stability and edge strength. Finding ways to make something stronger, faster and more efficient, is one of our favorite past times. A four flute design improves balance and tool engagement in hardened materials. Finally, a cylindrical land ties everything together for excellent surface finishes.

Conical Automotive Tapers enhance the normal roughing and reaming processes of ball joints and tie rod ends, launching you across the finish line before the competition. We invite you to join us in our effort to drive prosperity in the market and look forward to accelerating your progress today.

ACCELERATING PROGRESS

Conical Automotive Tapers are used to make parts that drive progress throughout the world, which includes everything from public transportation, to recreational vehicles and agriculture. We are proud to put our name on something that means so much to so many people. And we will always strive to make innovative contributions to every industry we are aligned with, especially the automotive industry, which continues to change at an unprecedented rate.

Global Cutting Tools Conical Tool Company

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