GRINDING
• Conventional and CNC Tool & Cutter Grinders
• Centerless Grinders, Center-type, Plain, Internal, Universal ID/OD,
  Very Large Roll Grinders
• Surface Grinders
• Rotary Surface Grinders

MILLING & DRILLING
Manual & CNC Mills & Drills, Deep-Hole Drills

MACHINING CENTERS
Vertical Machining Centers, Horizontal Machining Centers,
Bridge-Type Verticals, Gantry-Type Verticals

BORING MILLS
Horizontal Boring Mills
Precision CNC Jig Bores
Die/Mold Centers

TURNING
Conventional and CNC Engine Lathes,
Oil Field Lathes,
Teach Lathes,
Very Large Heavy-Duty Flatbed Lathes
Turning Centers
Vertical Turret Lathes
Once considered the machine tool capitol of the world, Cincinnati has been home for more than 20 machine tool builders. Dating back more than a hundred years, at least a dozen of those companies have put the Cincinnati name on their machines. A long and hallowed tradition of hand crafted quality and excellence has made the “CINCINNATI” name synonymous with machine tools and associated industrial products.

Now, “The Tradition Continues” with quality machine tools and industrial products from CINCINNATI MACHINES.

The internet and globalization have changed the world and how we do business forever. Many of the industrial products and machine tools that were once manufactured here in the U.S. are now available only from off-shore manufacturers. And as time goes on, it becomes more and more difficult for customers to locate and acquire quality reliable machine tools and industrial products.

CINCINNATI MACHINES has embraced the internet and globalization to bring you a world of quality industrial products with a name that you can recognize and trust. We search the globe and do the leg work for you, to bring you the very best machine tool and industrial product values. And, regardless of where these products are manufactured, you can buy with the confidence of knowing that CINCINNATI MACHINES will stand behind them.

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Call 1-888-999-5897 or Click-On www.cinmac.com for CINCINNATI, HEALD, or PRATT & WHITNEY

PARTS
#2 Universal Tool & Cutter Grinder

CINCINNATI MACHINES #2 Universal Tool & Cutter Grinder is the industry standard for precisely grinding cutters and tools of all kinds.

Precisely grind, sharpen and recondition parts and tools with complex shapes. Most tool grinding operations may be performed with the large compliment of standard tooling supplied with the machine. A wide variety of optional accessories, too numerous to list here are also available at extra cost.

See complete information at www.cinmac.com

Monaset XL/EZ Cutter Grinder

Monaset XL boasts seven axes movements on dual machine slide stacks plus its unique spiral mechanism that generates infinitely variable leads. The dual swivelling & dual linear slide workhead has proven to be a real asset when grinding radii. The offset slide for the grinding wheelhead permits the spindle centerline to be offset from the workhead centerline - a necessity when grinding convex or concave radii with centerline outside of the workpiece.

Monaset EZ retains all of these features while adding the accuracy and efficiency of ultra-precision linear and rotary encoder feedback readouts and CCD Optical system to enable the operator to see and grind minute work areas.

See complete information at www.cinmac.com

The Monaset grinder's combination swivelling turntable and moveable offset slide provide your shop with versatile capability to quickly setup and accurately generate convex and concave radii of varying sizes

Spiral Mechanism generates infinitely variable leads

V5A 5 Axis CNC Cutter Grinder

CINCINNATI MACHINES V5A/V5Ae 5 Axis CNC Cutter and Tool Grinder combines state-of-the-art control technology with rigid machine construction, ball screws, and linear guide ways to provide the ultimate in cutter grinding capabilities. With grinding head power up to 10-hp and spindle speeds up to 6000rpm, the rigid spindle allows up to (4) 4" dia grinding wheels to be mounted at once to provide maximum productivity and versatility.

Whether you are using conventional grinding wheels, CBN or diamond wheels, grinding toolsteel or carbide, or grinding one or one million parts, you will make quick work of the job with CINCINNATI MACHINES 5 Axis CNC Cutter and Tool Grinder.

2 Model Sizes V5A and V5Ae with capacities up to

16" X axis, 9" Y axis, 10" Z axis, 360° C axis, 190° A axis

10" Max tool length, 8" Max tool dia, #40 or #50 Taper tools

4-Axis also available See complete info at www.cinmac.com
CINCINNATI MACHINES XG Series Centerless Grinders feature outboard supports for both the grinding and regulating wheels. This extra gripping power provides maximum rigidity for big machine performance in a very efficient compact package.

XG’s can be equipped to handle virtually any centerless grinding job, from 0.04” diameter up to 4” diameter.

CINCINNATI MACHINES Z-XG Centerless Grinder takes the XG design to a whole new level of rigidity and performance. It is a general purpose heavy-duty centerless grinder suitable for a wide variety of High Performance thrufeed and infeed centerless grinding applications. This kind of Performance and the ISO 9002 Quality, coupled with the very competitive pricing structure of the Z-XG Series, will put you ahead of your competition.

The Z-XG Series features 24” diameter grinding wheels and wheel widths up to 20”, and up to 50-hp spindle drive motors. Part diameter capacities up to 6” is standard.

CINCINNATI MACHINES XGS CNC Centerless Grinders feature Outboard Bearing Supports for both the grinding and regulating wheel spindles. The twin outboard bearing design provides maximum spindle rigidity with minimum spindle deflection. Add to that the standard 10,000 SFPM grinding wheel speed and the XGS is one high-performance grinder.
CINCINNATI MACHINES AccuSize Precision Internal Grinders are very versatile machines that allow the operator to perform a wide variety of Toolroom or Production type operations.

**QUICK SPECIFICATIONS**
- I.D. Grinding Range: 0.25" - 6" dia.
- Max grinding length: 6".
- Swing over bed: 20".
- Max swing in guard: 12.6".

**QUICK FEATURES**
- Production or Toolroom Cycles
- Automatic Grinding Cycles
- Automatic Truing Cycles
- Ballscrew Crossfeed Drive
- ISO 9002 Quality Standards

Twinternal is a CNC 2-Spindle 5-Axis Production Wizard for ID/OD work that allow you to complete many grinding jobs in just one setup.

See more about TwInternal at [www.cinmac.com](http://www.cinmac.com)

Choose a machine size to cover your range of parts and with the touch screen menu driven automatic cycles, you will be ready to tackle virtually any cylindrical grinding job that comes along.

**UNIVERSAL ID/OD/FACE GRINDING JUST GOT EASIER**

**EASY TO LEARN AND SET**
Simply select the desired grinding mode, then fill in the blanks to set total grinding amount, rough increment, fine increment, sparkout passes, feeding direction, parking position, and retracting clearance. Then press cycle start to complete the grinding cycle.
CNC MULTI-SURFACE AND ANGULAR STEP GRINDERS

CNC Multi-Surface and Angular Step-Grinders build upon the performance of the Universal Multi-Surface Grinding Centers by engineering in the additional features and performance of FANUC CNC and ballscrews. Add the swing-down internal grinding attachment, and your multi-surface grinding capabilities are virtually limitless.

The Angular Step-Grinder Models feature a different versatility with the ability to grind corners and shoulders with more rigidity for heavy-duty jobs. See more information on these and other Cincinnati Machines products at www.cinmac.com

LARGE HEAVY-DUTY CNC CENTERTYPE AND ROLL GRINDERS

Choose Universal Table-Type models from 10x20 up to 15x60
Traveling Wheelhead Universal machines from 12x79 up to 20x120
and fixed angle head machines from 12x14 up to 15x32

Cincinnati Machines
Large Heavy-Duty CNC Centertype & Roll Grinders are designed and built with heavy-duty castings to handle those large heavy-duty jobs. These machines are for those those really large parts like Steel Mill and printing rolls, large jet-liner landing gear, automotive axles, large motor armatures, etc. You can handle parts up to 120” diameter, more than 50’ long weighing 110 Tons.

Fanuc CNC
ISO 9002

Available as traveling table-type or traveling wheelhead-type machine in dozens of sizes from 16” x 60” up to 120” x 630”

VERY LARGE PRECISION HEAVY-DUTY CNC CENTERTYPE AND ROLL GRINDERS
CINCINNATI MACHINES Precision Automatic Surface Grinders all feature heavy-ribbed meehanite castings with Vee and flat turcite coated table ways for smooth operation and accuracy. Each machine also includes dynamically balanced spindles and turcite cross ways.

Typical Way Grinding Applications

Multiple Heads Available

Available in a wide variety of sizes from 40x60 to 60x240

You can also select Fanuc CNC.

Choose from 6 available sizes from 6x18 to 20x60.

**Micron Z Ultra-Precision Surface Grinding Centers**

Micron Z Ultra-Precision Surface Grinding Centers are designed and built from the ground up to provide maximum ultra-precision surface grinding capabilities.

Micron Z starts with massive heavily ribbed meehanite castings, and it shows as these machines weigh-in at about 50% more than other machines this size. The very rigid spindle rotates in class 7 precision bearings and the associated spindle motor and drive train are precisely balanced to insure vibration free accurate operation.

The wheelhead travels vertically on precision linear guideways, and is driven by precision ballscrew and AC servo motor providing an incredible downfeed increment input of 0.000010". The saddle and table slide ways are hydrostatic, precisely hand scraped, and Turcite coated double vee design for maximum accuracy. The coolant and hydraulic systems are isolated for stability.

Also select Fanuc CNC

3 available sizes
8x20, 12x24, 16x32
CINCARNI MACHINES

Features a wide range of Radial Arm Drills ranging in size from an 8” dia. column, 30” arm and 2hp, up to a 20” dia. column, 103” arm and 15hp. All machine models feature massive and rigid meehanite castings, hardened and ground spindle, quill and gears to provide heavy-duty drilling capability at an affordable price.

Call 1-888-999-5897 or “Click-On” www.cinmac.com for more information
VECTOR Vertical Machining Centers bring you an amazing array of construction features and capabilities usually found only in large expensive machining centers. For example, VECTOR 880 includes Fanuc CNC, ISO 9002 Quality Standards, massive rigid casting construction, 10 hp continuous spindle, heavy-duty hard square ways, 16 tool changer, #40Cat V-Flange Tooling, 60-6000rpm, full chip and coolant guarding, Cavernous Work Envelope 34"X, 20"Y, 24"Z.

VECTOR is a General Purpose machine that shines the most when exposed to an environment with milling requirements for a wide range of materials including Aluminum, Cast-Iron, Tool Steel, Stainless, and Titanium.

Vector also offers a full range of available extra cost options, such as:
* Increased spindle horsepower
* Increased spindle speeds
* High speed machining
* Various Control Systems
* Various rotary index and contouring tables
* Thru-the-spindle coolant
* Chip conveyor

VC15 VC20 VC20 VC25
850 1000 1300 1600
15hp 20hp 20hp 25hp
#40 #40 #40 #50
CAT CAT CAT CAT
8000 8000 8000 6000
RPM RPM RPM RPM
33"X 42"X 52"X 63"X
20"Y 22"Y 26"Y 31"Y
24"Z 24"Z 30"Z
16tls 20tls 20tls 24tls

V-FORCE VERTICAL MACHINING CENTERS
V-Force Vertical Machining Centers are Heavy-Duty High-Performance Machining Centers. These Heavy-Duty machines are designed and built from the ground up under ISO 9002 Quality Standards and all models include Fanuc CNC,

THERE IS NO SUBSTITUTE FOR POWER AND RIGIDITY

VC15 VC20 VC20 VC25
850 1000 1300 1600
15hp 20hp 20hp 25hp
#40 #40 #40 #50
CAT CAT CAT CAT
8000 8000 8000 6000
RPM RPM RPM RPM
33"X 42"X 52"X 63"X
20"Y 22"Y 26"Y 31"Y
24"Z 24"Z 30"Z
16tls 20tls 20tls 24tls

PLenty OF MUSCLE TO HANDLE THOSE TOUGH MATERIALS LIKE TOOL STEEL, STAINLESS, TITANIUM, AND INCONEL
SMART Series Machines

SMART Series Vertical Machining Centers are Hand-Crafted to World Class Engineering and Manufacturing Quality Standards. At the SMART factory Headquarters, Quality is more than a mind set, it is a culture. All critical parts such as, spindles, bearings, ball screws, and hydraulic units, etc are high-quality Japanese or Taiwan made and each component is quality inspected before assembly. The entire engineering and manufacturing process places much emphasis on the importance of design simplicity, efficiency, quality, and affordability. SMART machines include state-of-the-art heavy-duty meehanite castings that have been seasoned and annealed using the latest Hi-Tech processes. To ensure quality, all SMART machines are subjected to a grueling set of tests at the halfway mark, including a 48 hour run test, along with accuracy and other checks for machine fit etc. Final machine runoff testing is much more comprehensive, and includes complete Renishaw ball bar and accuracy testing, an additional 48 hour test run under normal machine load conditions, and finally a complete 150 point machine inspection.

SMART, SMARTe, & SMART-XT all feature Heavy-Duty Hard Box Ways for Maximum Rigidity and Performance

SMART Vertical Machining Centers

SMART VMC’s feature the Fanuc 0i-MD CNC, 16 Tool Changer, either CAT 40 taper tooling with 8,000 rpm, or CAT 50 Taper tooling and 6,000 rpm standard. SMART VMC’s are available with virtually any machines options that you may wish, such as spindle speeds to 15,000 rpm, up to 35 HP, up to 5 Axes, various coolant systems, and tool changers up to 32 tools and Arm-Type, various type chip conveyors.

Let us start custom-crafting your SMART VMC today
SMART-XT MEANS EXTREME MILLING

BIG PLUS 50 TAPER TOOLING FOR HARD MILLING
33 HP CONTINUOUS, 12000 RPM FANUC STATE-OF-THE-ART
2 SPEED HIGH-TORQUE HIGH-SPEED SPINDLE DRIVE/MOTOR
THAT DRIVES A HEAVY-DUTY BIG PLUS TAPER
SELF CONTAINED SPINDLE CARTRIDGE

(Size Specifications same as SMART 1100/1300/1600/2000 on next page)

SMARTi VMC’s are manufactured from the ground up to provide high-speed machining capability.
Fanuc 0i-MD CNC, 16 Tool Changer, up to 15,000 rpm CAT 40 Spindle, 1200 ipm Rapids, High-Quality
Heavy-Duty THK Linear Guide Ways XYZ, and positioning accuracies of +/- 0.0002” are standard.
SMART High-Speed High-Performance Horizontal Machining Center

SMART Horizontal Machining Centers provide up to 2,000 ipm rapid rates, 15,000 rpm, 33hp (continuous), 120 Tools, and 4400 lb payload.

Choose 4 or 5 Axes
Full Contouring or Indexing

SMART's Extreme width Y-Axis ways and Twin Ball Screw Drive provide maximum speed and performance.

15.7, 19.6, 24.8, or 31.4” Pallets

Automatic Pallet Changer

STANDARD!
**SMART** Series

CNC Horizontal Boring Mills

Several available sizes and configurations from 48”x80” up to 60” x120” with and without 22” W-Axis Quill

**SMART** Series

4&5 Axis High-Speed CNC Die/Mold Centers

CAD Designed
Castings are Naturally Seasoned, then subjected to State-of-the-art Annealing processes to provide a lifetime of Ultra-Rigid Stone-Steady Machining

Several available sizes and configurations.
Select 4 or 5 Axis (Indexing or Contouring)
40”x48” up to 72”x74”
Cat 50 6,000 or 10,000 rpm

0.00015” Positioning Accuracy, 0.0001 Repeatability (XYZ)
With 10 available sizes from 40”x60” up to 130” x 423”, Manual and CNC controlled Milling Heads from 3-5 Axes, and your choice of spindle speeds from 6,000 up to 12,000 rpm, SMART Gantry-Type Verticals can be hand-crafted to your exact requirement.

Go to [www.cinmac.com](http://www.cinmac.com) and click-on Bridge/Gantry or call 1-888-999-5897
With more than a dozen available sizes from 118” x 118” up to 196” x 551”, Manual and CNC controlled Milling Heads from 3-5 Axes, and your choice of spindle speeds up to 24,000 rpm, MaXor Gantry-Type Verticals can be hand-crafted to your exact requirement.

Go to www.cinmac.com and click-on Bridge/Gantry or call 1-888-999-5897 for more information.

Unique CAD-Designed Box-in-Box Construction provides optimized castings for maximum rigidity with High Traverse rates of 1,000 ipm.
Python SERIES ENGINE LATHES

PYTHON is an intermediate size heavy-duty gap-bed engine lathe with a very impressive list of quality construction features, such as:

- *4.125" thru-hole (D1-11)
- *Rapid traverse longitudinal
- *Crosslide backlash eliminator
- *15 HP Main Motor
- *16 speeds 10 - 1395 rpm
- *16" gap width

You will also find a large complement of available tooling and optional accessories.

Ti Series Teach Lathes
Anaconda Large Heavy-Duty Engine Lathes

DUAL CARRIAGE SETUP

Precision-built to your specific Oil-Field or Large Turning Requirements

DUAL TOOL-POSTS SETUP

BIG BORES TO 24”

VERY LARGE HEAVY-DUTY AND OIL-COUNTRY LATHES AVAILABLE IN HUNDREDS OF SIZES

FRONT/REAR CHUCKS

FEED-THRU STEADY RESTS SYSTEM

35” TO 100” SWING
6” TO 24” THRU-HOLE
UP TO 100HP
60” TO 480” CENTERS
50 TON CAPACITY

VARIOUS CHUCKS, FACEPLATES, STEADIES, SEMI-AUTO TURNING/THREADING CYCLES, TAPER AND/OR TRACER ATTACHMENTS
CF Flatbed Series Large Heavy-Duty CNC Flatbed Lathes

HEAVY-DUTY HARD WAYS
BIG BORES TO 24”
FRONT/REAR CHUCKS

Live-Tooling
C-Axis & Y-Axis

VERY LARGE HEAVY-DUTY AND OIL-COUNTRY LATHES AVAILABLE IN HUNDREDS OF SIZES

- 35” TO 80” SWING
- 6” TO 24” THRU-HOLE
- UP TO 100HP
- 60” TO 1000” CENTERS
- 50 TON CAPACITY

DUAL-CARRIAGE SETUP
DUAL TOOL-POSTS SETUP
VARIOUS CHUCKS, FACEPLATES, STEADIES, FEED THRU STEADY CAPABILITY
Omega Ω
Small High-Speed Turning Centers
Up to 6,000-rpm, 600-ipm, 1200-ipm Z, Slant Bed Design, Very Affordable, Available Live-Tooling, Probes, Bar-Feeders, Choice of CNC

Teach-In CNC also available

SMART Series
High-Speed Production Turning Centers

Heavy-Duty Rock-Solid Meehanite Castings

Up to 6,000 rpm and 25 HP

SMART Turning Centers are Hand-Crafted to include virtually any features you may require, including a variety of Chucks, Collet Systems, Static or Live-Tooling, Turret or Gang-Type Tool Holding, Parts Catchers, Bar-Feeders, Tool and or Part Setting Probes, etc
CS/CSX Series Large Slantbed Turning Centers

Up to 45” Swing, 205” Centers, 60-HP, and 24” Bores

With up to 40 Tons of Machine, we are talking Serious Turning

Quality Built to your specific large or Oil Field Turning requirements

Precision Heavy-Duty Castings

With Hard Box Ways

FANUC 18i-TC
Cinturion Series Vertical Turning Centers

Precision Heavy-Duty Castings With Hard Box Ways

4’ Up to 20’ Tables, 20’ Turning Diameter, 72” Cutting Height
Huge Weight Capacity

10 Available Sizes and Models

Your Choice of Turrets, Live Tooling with Tool Changers, CF Servo Axis

Pallet Changers

Up to 100 Ton Machine Weight