

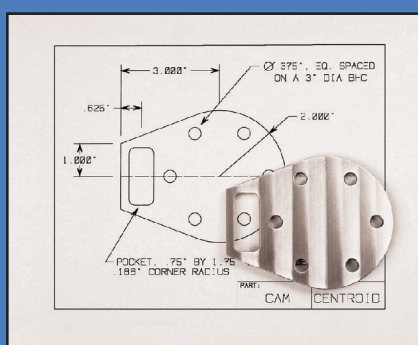


CENTROID™

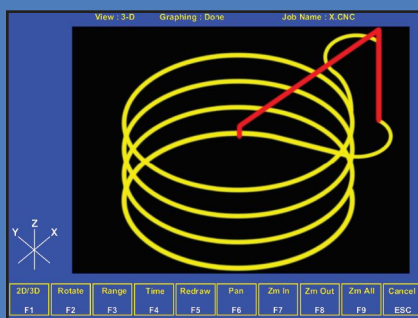
M-400 CNC Control For Mills



So Easy, You'll Cut Parts The First Day!



**From print to part...
in minutes!**



Threadmilling



**Easy file transfer with
USB, LAN & RS-232**

15" color LCD

Spindle control

USB 2.0 port

LAN connection

Coolant control

**Dedicated axis
jog buttons**

Feedrate override

MPG handwheel*

**Standard PC keyboard
or optional Fully Sealed**

Do more with a CENTROID!

- Cut parts the first day with intuitive, straightforward operation
- Increase production with faster setups and easier programming
- Expand your machining capabilities and compete on higher paying jobs without higher cost
- Three ways to program parts: Conversational, G&M Codes, and with most any CAD/CAM software.
- Connect easily to any computer system by using USB, LAN, or RS-232 (serial)

Advanced features include:

- 3 Axis with spindle control: Standard
- 4,5,6,7,8 Axis simultaneous contouring: Optional
- High-speed machining with superior accel/decel look ahead
- Digital servo amplifiers and motors
- Large, built-in solid state hard drive
- AC or DC servo motors
- Easy-to-use part and tool setup menus
- Large, easy-to-read color LCD display
- 3D tool path graphics, with runtime display
- Runs on Industry Standard G&M codes.
- USB ports for fast easy part program transfers.

Intercon conversational programming

- Quickly create part programs right at the control
- Easy "fill in the blank" menus
- Graphical help menu with math assistance for missing dimensions
- Software automatically generates the G-code
- No knowledge of G-codes necessary
- Check work instantly with 3D tool path graphics
- Drill, bore, and tap*
- Pockets: rectangular, circular and irregular with auto-cleanout, island avoidance and finish passes
- Repeat whole parts, events, or a matrix of holes
- Mirror and rotate whole parts or one entity
- Threadmilling: inside, outside, left and right
- Lines: end points and polar
- Arcs: EP & R, ER & R, CP & EP and 3-points
- Frames: inside and outside of rectangular, circular, helix, and irregular

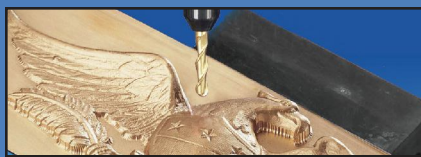
Rigid tapping

- Perfect, repeatable threads each and every time
- Allows use of solid tool holders with your tap
- Special deep hole tapping cycle for large-diameters and threadmilling for even larger diameters

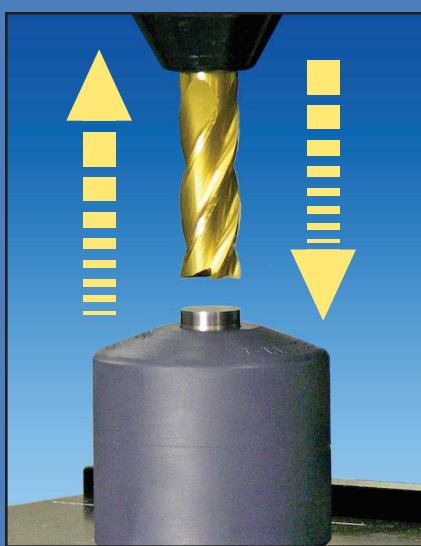




Automatic part setup with probing cycles*



High speed machining



Automatic tool setter*

Fast, menu-driven part & tool setups

From Left (-)

Part Pos ← X →

WCS #1 (G54)

Set Part 0/Position

- 1) Select Axis with F1
- 2) Jog to Touch Off on Pa
- 3) Edit the Value if Necess
- 4) Press F10 to Set Positi

Axis	Part Position	Edge Dian
X	0.0000	0.20

Next Axis Auto Probe Prev WCS

Tool # Ref Tool

Height Offset Diameter

H001	-1.1234	D001	0.1250
H002	-1.3562	D001	0.2500
H003	0.0600	D001	0.5000
H004	-0.1324	D001	0.3750
H005	-3.1749	D001	0.6750
H006	0.0000	D001	0.0000
H007	0.0000	D001	0.0000
H008	0.0000	D001	0.0000
H009	0.0000	D001	0.0000
H010	0.0000	D001	0.0000

Z Ref : 4.2598

Z Ref Manual Auto +.001 -.001

Probing Cycles*

- The DP-4 Probe with Probing cycles offers easy, push-button use
- Automatically set Part Zero position, quicker and more accurately than manual methods
- Finds edges, corners, bore centers, boss centers and fixture offsets & angles
- Coordinate System Rotation*, never manually tram a vise again

High speed machining

- Run large, complex CAD/CAM or engraving programs without worry, with unlimited file size*
- High-block throughput, combined with superior 2000 line accel and decel lookahead
- Fast, smooth cuts accomplished at highest possible speed, while holding tight tolerances

Digitizing*

- Duplicate parts in 2D or 3D
- Perform grid, radial and contour/cam copy digitizing
- Automatically generates G-code from Digitizing, ready to cut the part, or export data to CAD/CAM
- Mold Magic software provides for “plug to mold” or “mold to plug” data manipulation with scaling and auto rough and finish passes



Automatic tool setter*

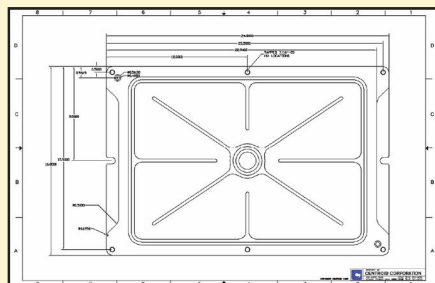
- Measure tool height offsets more quickly and accurately than manual methods
- One-touch operation sets tool heights within 0.0001" in seconds
- Press one button to measure all ATC tools

DXF Import *

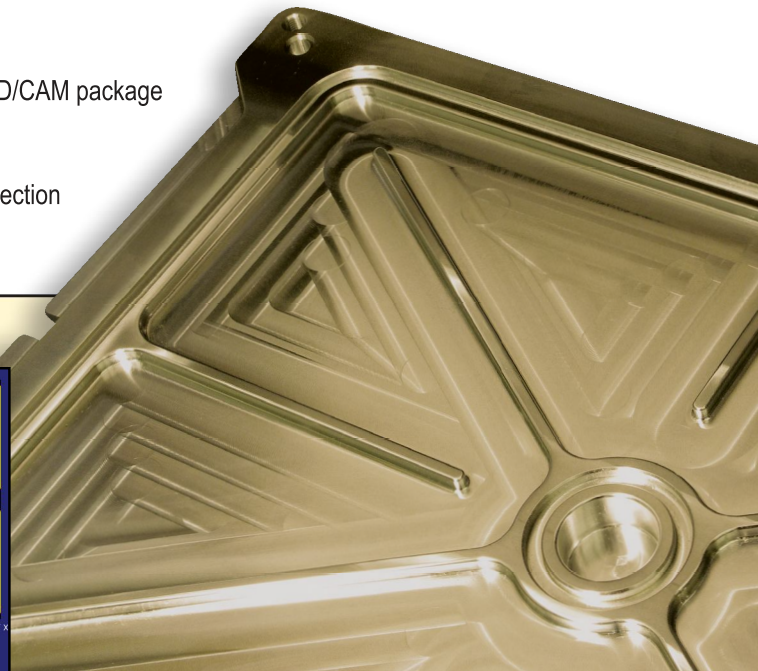
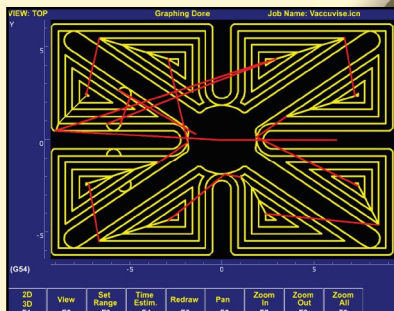
- Import DXF files from most CAD/CAM package
- One-touch DXF engraving
- Seamlessly import polylines
- Easily load files with USB connection

*optional

From DXF...



To part...



M-400 Options

- Precision rotary tables
- 2D & 3D digitizing software
- Probing cycles
- DP-4 digitizing probe
- TT-1 automatic tool setter
- Engraving software
- Smart ATC control
- Multiple Work Coordinate Systems
- User-definable macros & sub-programs
- Compression Tapping
- Rigid Tapping
- Scaling & Mirroring
- Unlimited part program size
- Coordinate System Rotation
- Sealed QWERTY keyboard
- MPG handwheel
- Console floor stand
- Electrical cabinet mounting stand

Engraving*

- Engrave letters, numbers, symbols & logos
- Import DXF CAD drawings
- Create programs on a Windows PC
- Engrave on arcs, spheres, slopes and more
- Create your own logos and characters from imported files
- Transfer designs using USB or LAN



Smart automatic tool changer control*

- Controls carousel or swing-arm tool changers
- Control up to 200 tools
- Menu-driven tool changing w/o using G-code

OEM & retrofit CNC control systems

- Pre-engineered CNC control packages are available for: kneemills, bedmills, machining centers, boring mills, routers, and water jets
- Specialty uses include: Automotive CNC machine tools, welders lasers, plasma cutters
- Common CNC control configurations are in stock and ready for immediate shipment
- CENTROID retrofit upgrade kits are perfect for good machines with obsolete controls



Designed to last, with over 31 years of experience

- CENTROID designs and manufactures its own state-of-the-art CNC control components. This allows us to provide the industry's most affordable replacement CNC parts and support long after the sale. Low CENTROID CNC control operating costs increase your bottom line.
- CENTROID is a U.S.-owned and operated company with thousands of CNC controls in operation worldwide
- US Patent 6,490,500

Certified worldwide support

- Worldwide network of factory certified technicians, provide fast and affordable CNC sales, training, service, installation and support.

Distributor:

Available from:
Machines in Motion Inc.
(877) 733-5500 toll free
cnc-machine-controls.com
cnc-retrofit.info



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*optional

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