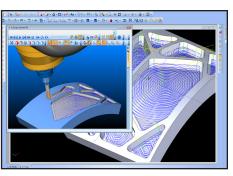
M-400 Options

- Precision Rotary Tables
- 2D & 3D Digitizing Software
- Probing Cycles
- DP-4, DP-7 Digitizing Probe
- TT-1, TT-2 Automatic Tool Setter
- Conversational Engraving Software
- ATC control
- Extended Work Coordinate Systems
- Rigid Tapping
- Unlimited Part Program Size
- Coordinate System Rotation
- Axis Pairing
- MPG Handwheel
- Console Arm, Floor Stand
- Offline Conversational (for desktop) or laptop PC)

Run 3rd party software of your choice

- Install and operate most any CAD or CAD/CAM software directly on the Centroid CNC control
- Allows operator to use a CAD or CAD/CAM program to look up part dimensions, create and modify part programs
- Utilize CAD/CAM part machining simulation backplot and verification features directly at the control.
- Open CAD files directly on control via USB or LAN
- · Run most any other windows compatible software or hardware: Skype, Teamviewer, G-code editors, Webcams, Microphones, Speakers, Wireless devices, backup Hard Drives, etc.





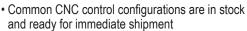
Smart automatic tool changer control*

- Carousel, Swingarm and Rack tool changers
- Control up to 200 tools
- Menu-driven tool changing w/o using G-code
- Random Access. Bidirectional
- Batch ATC Auto tool measure functionality

OEM, Pro Install or DIY CNC control systems for new install or retrofits



· Pre-engineered CNC control packages are available for: knee mills, bed mills, machining centers, boring mills, additive 3D printing, routers, and many other machine tools



- Custom built to any machine tool specifications
- Retrofit upgrade kits for good machines with obsolete controls
- Ready-to-run CNC systems for new machine



DIY CNC control kits



Ready to run pre-wired closed loop CNC systems with AC or DC Servo motors up to 8 axes, preconfigured I/O and pre-wired machine tool accessory cables customized to any machine tool.

Designed to last with over 37 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 CNC 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.

Certified worldwide support

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



CENTROID

159 Gates Road • Howard, PA 16841 Sales: (814) 353.9256 • Fax: (814) 353.9265 www.centroidcnc.com

*optional

CAD data input (DXF in) is by manual offline means

Distributor:

Applies to "D" version Export models.

"Numerical control" units have four axis simultaneous contouring

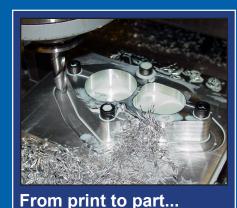
• US Patent 6.490.500 © Copyright 2008-2016 CENTROID 11-1-16 rev 13



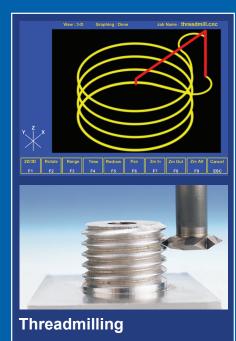
- Long product Life Cycle backed by affordable replacement CNC parts, repair, upgrades and support
- User-Friendly, Rock Solid, Factory Supported, Updateable Centroid CNC software
- Proven, Reliable CNC Software and CNC Hardware designed to work together
- Dedicated, Centroid manufactured Closed Loop CNC Motion Control CPU



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



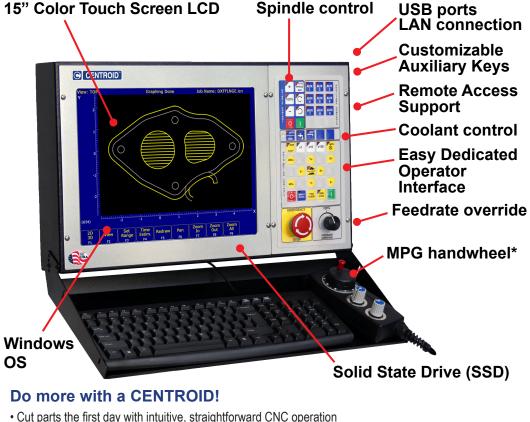
in minutes!





www.centroidcnc.com

• 15" touch screen LCD display • 3D tool path graphics with runtime display 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 · Check work instantly with 3D tool path graphics · No knowledge of G-codes necessary • Drilling cycles: Deep hole, Chip breaking, Regular · Drill BHC, Drill array, Drill repeat · Lines: end points and polar



- Increase profit and production with faster setups, easier programming, and reliable operation
- Expand your machining capabilities and compete on higher paying jobs with affordable options
- Windows OS: Connect easily to any computer system by using USB, LAN, or Internet Remote access

Advanced features include:

- 4 axis with spindle control standard
- 5,6,7,8 axis simultaneous contouring optional
- DSP high block throughput & high-speed machining with 2000 line accel/decel lookahead
- Digital servo drives, AC or DC servo motors
- Standard Solid State Drive (SSD)
- Easy-to-use part and tool setup menus
- Runs on industry standard G & M codes
- Compatible with popular CAD/CAM systems
- Remote Access support via internet connection
- Windows OS, easy networking & file transfers
- Custom UI Screens for special applications
- Run 3rd party software of your choice
- Subprograms, WCS and Macros
- Laser ballscrew mapping
- One button push for common machine tool functions

- 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 handed
- Arcs: EP & R, CP & A, CP & EP and 3-points
- · Frames: inside and outside of rectangular, circular
- Teach mode
- Easy 4th axis programming
- 3D Print Additive canned cycles

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 diameters to large to tap

*optional



Automatic Part Setup with CNC Probing Cycles*



Automatic tool setter*

CNC Probing Cycles*

- Touch probe with Probing cycles offers accurate part and fixture setup with the push of a button
- Automatically set Part Zero position,
 - quicker and more accurately than manual methods
- Finds edges, corners, bore centers, boss centers and fixture offsets & angles in seconds
- Automatic Coordinate System Rotation*, never manually tram a vise again
- Reset fixture locations automatically, never use a center finder again
- · Much faster and more accurate than indicating by hand
- DP-4 Kinematic seat: all around high performance probe
- Specialized DP-7: Solid State design for long styli
- Reliable Plug and Play CNC Probing
- · Easy menu driven fill-in-the-blank probing cycles

High Speed Machining

- DSP High-block throughput, combined with 2000 line accel and decel lookahead
- Fast, smooth cuts accomplished at highest possible speed while holding tight tolerances
- Run large CAD/CAM, Digitizing or Engraving programs with unlimited file size, no DNC necessary

CNC 2D and 3D Digitizing*

- Duplicate parts in 2D or 3D
- Easy menu-driven fill-in-the-blank digitizing cycles
- Perform grid, radial, contour & wall following digitizing
- Automatically generates G-code and Cloud Point Data Export data to most any CAD/CAM system
- for further editing and shape manipulation Autonomous cylinder head port & combustion digitizing
 - Probe and Software designed to work together

Automatic tool setter*

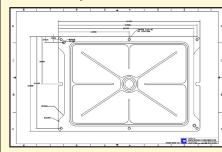
- Effortlessly measure tool heights
- Repeatable results for consistent part production
- · Faster and more accurate than manual methods.
- Significantly reduce setup time
- One-touch operation sets tool heights within 0.0001" in seconds
- Menu-driven automatic tool measurement
- TT-1 conductive, TT-2 non-conductive probes

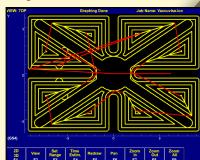
To part...

*optional

From print...

Built-in conversational programming for quick part creation without a CAD/CAM system or G&M-code knowledge.









CNC Digitizing