A560 Machine Specifications

<table>
<thead>
<tr>
<th>Feature</th>
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24 Tool, Auto Tool Changer

- 24 Tool, Auto Tool Changer
- A560-109-06
- 24 Tool, Auto Tool Changer

20,000 RPM Spindle w/Chiller

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Auto Tool Length Measurement

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Auto Tool Length Measurement

- High Quality 20K: 40-later spindle delivers much more power then the other guys. The A560 can safely machine a large variety of materials providing superior surface finishes.  Cleveland the low end torque necessary for drilling, tapping & roughing out material, 100% cycle spindle operation.
- Eliminates operator error and increases accuracy. Auto Tool Length measurement actually shows up out of setting tools. Menu driven, push button measurement only takes a few seconds for each tool. More accurate and much faster then setting tools by hand.
- All-around Machining Center
- T-Slot Table
- A560-109-06
- 24 Tool, Auto Tool Changer

Built-on T-slot table to hold any part.

Converting a machine into a general machining center. Allows you to quickly switch from heads or blocks to general machining, T-slot table accepts: parts, vises, custom fixtures, & cylinder heads with standard hardware.

Includes Air with CENTROID's own machining solutions. Designed and manufactured in-house specifically for cylinder head and block surfacing. T-slot table accepts cylinder heads for surfacing.

A560 Optional Equipment

- Coolant Through the Spindle (CTS) & T-Slot Cylinder Head Surfacing Fixture - O-Ring Groove Tapping
- Stroker Clearance Tooling
- Main Conventon Tapping
- Additional Cylinder Head/Mounting Plates
- Specialized Steer Boring Tooling
- Cam and Cam Locustor Ring Set
- Head Drilling Service
- Additional Operator Training
- CNC Programming
- Engineering Services
- On-site Service, Maintenance and Support

Benefits of A560:

- Customized on-one-one training, tailored to each customer's specific needs.
- One number to call for every component in the system. Direct support phone numbers.
- Personalized service and support. Support available outside M-F 9-5.
- One number to call for every component in the system. Direct support phone numbers.
- Internet enabled with on machine remote access troublesome programming & assistance.

Includes Software:

- Mastercam® is a registered trademark of CNC Software, Inc.
- Copyright © 2010-2019 CENTROID rev21 11-7-19
- (814) 353-9256 ext.101
- sales@centroidcnc.com
- www.centroidperformanceracing.com
- 159 Gaines Rd., Howard, PA 15841
- (816) 353-0386 ext.101
- (574) 353-0203 Fax
- sales@centroidcnc.com

All-around Machining Center

- 24 Tool, Auto Tool Changer
- A560-109-06
- 24 Tool, Auto Tool Changer

In addition to...

- On-site Service, Maintenance and Support
- Additional Clyinder Head Mounting Plates
- Coolant Through the Spindle (CTS) & T-Slot Cylinder Head Surfacing Fixture
- O-Ring Groove Tapping
- Stroker Clearance Tooling
- Main Conventon Tapping
- Additional Cylinder Head/Mounting Plates
- Specialized Steer Boring Tooling
- Cam and Cam Locustor Ring Set
- Head Drilling Service
- Additional Operator Training
- CNC Programming
- Engineering Services
- On-site Service, Maintenance and Support

Included Software:

- Mastercam® Multi-Axis with Part Expert. Verify and tool path Masachine, the CENTROID CNC controller includes a built-in "Simulator" menu, which allows the user to simulate every function before machining.
- Extra NC-20, "Memory" memory, AutoCAD and AutoCAD LT software. CENTROID's cam and loading software, .fae file size, advanced block background, sub programs and macros, part and cycle language, tooling, CNC programming, etc.
- Internet enabled with on machine remote access troublesome programming & assistance.

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For code A580

- 24 Tool, Auto Tool Changer
- A560-109-06
- 24 Tool, Auto Tool Changer

In addition to...

- On-site Service, Maintenance and Support
- Additional Clyinder Head Mounting Plates
- Coolant Through the Spindle (CTS) & T-Slot Cylinder Head Surfacing Fixture
- O-Ring Groove Tapping
- Stroker Clearance Tooling
- Main Conventon Tapping
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- Internet enabled with on machine remote access troublesome programming & assistance.
Digitize

With up to 9.0” of lift, the A560 easily reaches into the wall o’lternate port designs. Heads are digitized in 5-Axis right on the machine – no need to purchase additional equipment to digitize your race-winning designs.

Create

The digitized data is exported to Mastercam where surfaces are created and edited. 5-axis toolpaths are created on your desktop PC or laptop, no need to tie up the machine to program a cylinder head. The machine can be running a job while you are programming the next head in the comfort of your office, home, remotely etc.

CNC Port

The CNC programs are copied into the CENTROID CNC control via USB, Ethernet or WiFi. A new casting is loaded into the machine and the porting begins. The A560 machines exact copies of your ports for the ultimate in consistency and power gains.

Turnkey System Includes

- 5-Axis machining center
- 5400 5-Axis CNC control
- Patented articulating head design
- Mastercam CAD/CAM software
- Personalized CNC porting training
- Digitizing probe & software
- Cylinder head fixture plate
- Auto tool length setter
- MPG electronic handwheel
- Industry’s best warranty
- MPG electronic handwheel
- Auto brake and MPG electronic handwheel
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Personalized Training

Fully enclosed cabinet with flood coolant wash down

Wide door opening for easier loading/unloading of large parts

Easy fixtures accommodate a wide range of cylinder heads

Heavy duty cast iron frame with linear guideways provide superior accuracy and rigidity for amazing surface finishes. The A560 weighs in at 14,000 lbs.

Combustion Chambers

Machine ported combustion chambers every time. By combining CENTROID’s high end spindle, 40 taper, 27Hp, High Torque 20,000 RPM spindle, CENTROID’s advanced ball end mill technology, and Mastercam’s advanced tools, you can quickly remedy any post-ported designs with results superior to other methods and machines.

CNC machine both cylinder heads and blocks with the A560 Port Block. Zero swap over time with no fixtures to maneuver, realign or reposition. Equipped with automatic block CNC blueprinting, the machine locates existing dimensions and allows you to adjust and modify for machining exactly where you want the features to be located. Control size, angle and location of a feature accurately with the push of a button. Build in blue print database, modify on-the-fly & save your own custom block programs.

User-Friendly 5-Axis CNC

Simple to operate, the CENTROID CNC control is designed with the operator in mind. Graphically assisted part and tool setups along with simplified menus and an easy to read display ensures every operator will be machining spastic cylinder heads in no time. Windows 10, SSD, touch screen, remote assistance, internet ready, the control software is designed specifically for cylinder head porting that simplify the process and create locomotive ball end mill toolpaths with reduced run-time and superior surface finish. CENTROID’s articular head design allows you to adjust and modify for machining exactly where you want the features to be located. Control size, angle and location of a feature accurately with the push of a button. Build in blue print database, modify on-the-fly, save your own custom block programs.

Block Option: Port Block, Same Machine, Same Fixture

Additional capabilities: Lifter Boring, Chambering, Curing groove, Spot facing, Engraving, Rigid Tapping, Threadrolling, Drilling, Four Rod Main Conversion, Pocketing, Block Sleeveing and general machining. See video of all these operations and more on our website.