

Discover the CENTROID advantage with the B4250 CNC Engine Block Machining Center: We provide the machine, tooling, software, and personalized on-site training you need to be successful. In addition to the included ready-to-run block programs, our conversational software gives you the power & flexibility to easily add new blocks and operations, so you'll never need to purchase additional programs or edit G-Code. The CNC control, digitizing probe, universal block fixture, and software are all made in the USA by CENTROID, allowing us to provide unmatched service and support. Contact your CENTROID representative today to start building race-winning engines with the B4250!



**CENTROID™**

**B4250**  
CNC Block Machining Center

Specifications	B4250	B4250 XL
Table Size:	20" x 49.5" (508x1257 mm)	23.6" x 66.9" (600x1700 mm)
Longitudinal travel (X):	42" (1067 mm)	58" (1473 mm)
Cross travel (Y):	24" (607mm)	26" (660 mm)
Vertical travel (Z):	34" (864 mm)	34" (864 mm)
Spindle nose to table top:	39" (991 mm)	39" (991 mm)
Spindle center to column:	30" (762 mm)	30" (762 mm)
Maximum table load:	2200 lbs (1000 kg)	2200 lbs (1000 kg)
Spindle power:	15 HP / (11 kW)	20 HP / (15 kW)
Spindle speed:	8000 RPM	10,000 RPM
Automatic Tool Changer:	24 Position Swing Arm	24 Position Swing Arm
Rapid feed rates (X, Y, Z):	X,Y 1000 IPM, Z 800 IPM	X,Y 1000 IPM, Z 800 IPM
Accuracy:	0.0005" (0.0127 mm)	0.0005" (0.0127 mm)
Repeatability:	0.0002" (0.006 mm)	0.0002" (0.006 mm)
Axis drive motors (X, Y, Z):	X,Y 2.9 kW Z 4.5kW AC servos	X,Y 2.9 kW Z 4.5kW AC servos
Axis way design:	Heavy Duty Linear guideways	Heavy Duty Linear guideways
Machine Footprint:	L 121" (3073 mm), W 97" (2462 mm), H 116" (2946 mm)	L 179" (4546 mm), W 89" (2260 mm), H 126" (3200 mm)
Weight:	Machine: 14,000 lbs (6350 kg)	Machine: 16,000 lbs (7257 kg)
Boring Diameter Range:	0.984" – 1.26" (25 – 32 mm), 2.68" – 5.91" (68 – 151 mm)*	0.984" – 1.26" (25 – 32 mm), 2.68" – 5.91" (68 – 151 mm)*
Boring Depth (Max):	9.5" (242 mm)*	9.5" (242 mm)*

\*as tooled

**Standard Tooling Package**



**Included Standard Tooling Package\*:**

- Cylinder Boring Tool
- Tool Setting Micrometer
- 12" Deck Surfacing Tool
- Lifter Boring Tool and Lifter Spot Facing Tool
- Cylinder Bore Chamfering Tool
- Main Cap Conversion Tooling
- CENTROID DP7 Digitizing Touch Probe. Specifically designed for long stylus operation, yields ultra precise measurements.



**Optional Features**

- Coolant Through Spindle (CTS)
- BT40 Spindle taper
- Mastercam CAD/CAM software
- Quick swap T-Slot Table

**Distributor:**

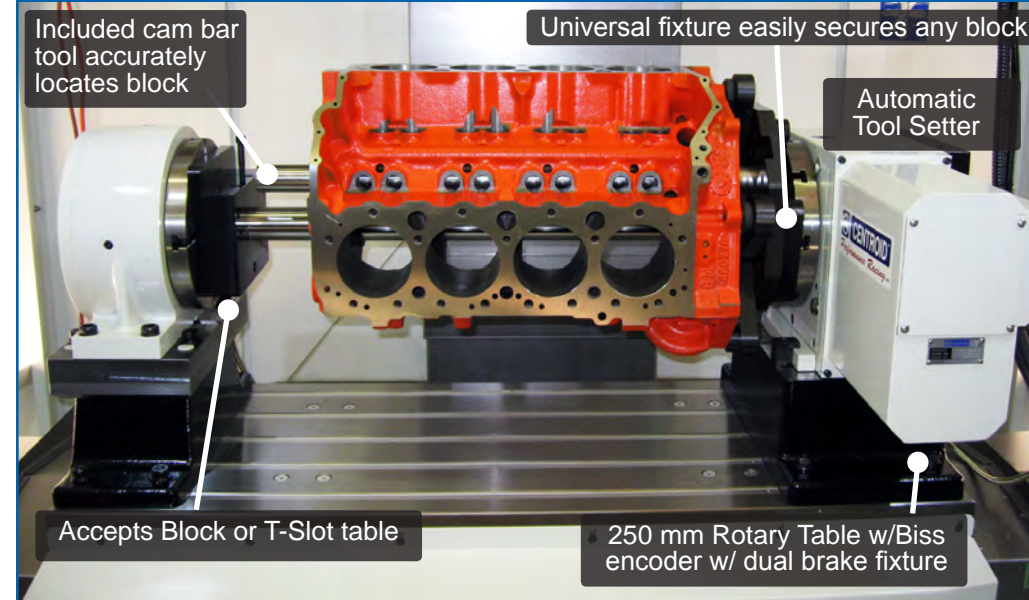


AZP Italia  
via Lombardini 1 - 27018 Vidigulfo Pavia  
Italy phone + 39 0382 696225  
[www.azpitalia.com](http://www.azpitalia.com)



**CENTROID**  
159 Gates Road  
Howard, PA 16841  
814.353.9256 ext. 101 Sales  
814.353.9265 Fax  
[www.centroidcnc.com](http://www.centroidcnc.com)

**Precision Universal Block Fixture**



**Warranty**

One year warranty for parts, labor and technical support.

**M400 CNC Control Features**

Standout CNC Features Include: Windows 7 OS, Touch screen, Intercon conversational software with Engine Block interface, auto digitizing and probing cycles, graphical program preview, automatic tool measurement, sub-programs and macros, rigid tapping, extensive canned cycles including threadmilling, cutter radius compensation, pockets, drilling, tapping, part scaling and mirroring and much more.

Standard block programs: Pre-loaded programs for Small and Big Block Chevrolet, Ford, and Chrysler with the ability to easily modify or create your own program for any block in minutes!

**Do More With a CENTROID!**

**CNC Blocks and Parts with the Same Machine**

CENTROID  
OP-7P  
S/N 1609  
MS PATENT  
8553662

# 1 Probe

Automated probing provides quick & easy block setup. Probe any standard or custom points, verify block data, and compare to blueprint.



# 2

## Select Program

Load existing or create new programs using digitized, blueprint, or custom data. No G-code required!

## Machine the Block

The selected operations are performed with the push of a button.

# 3

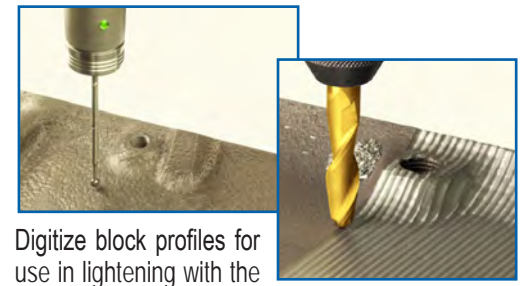
CENTROID									
Customer Information:									
Customer Name: Wilson Racing									
Tel. Number: 814-955-1212									
Block Name: Chevrolet 18 - Small Block 383									
Block Series: Decked, bored cylinders, bored liners									
Additional Notes: none									
Block Dimensions Information									
Number of Cylinders	Angle Between Bores	Block Deck Width	Block Deck Chamfer	Block Deck Spacing	Block Deck Depth	Block Deck Offset			
6	90.0000	18.0000	0.0000	4.8000	4.8000	0.0000			
Cylinder Bore Details									
Cylinder Number	Block X	Block Y	Block Z	Block R	Block Dia.	Block Dev.	X Deviation	Y Deviation	Block Deviation
1	2.4000	0.0000	2.1875	0.0013	8.0000	-0.0028	0.0032	0.0042	0.0042
2	8.8000	0.0000	8.2183	0.0017	8.0112	-0.0042	0.0037	0.0112	
3	11.2000	0.0000	11.1944	0.0044	8.0000	-0.0096	0.0046	0.0046	
4	13.6000	0.0000	13.5980	0.0041	8.0000	-0.0072	0.0041	0.0041	
5	13.2000	0.0000	13.2000	0.0000	8.0000	-0.0000	0.0000	0.0000	
6	7.8000	0.0000	7.4261	0.0229	8.0000	-0.0249	0.0221	0.0249	
7	13.0000	0.0000	12.8786	0.0886	8.0000	-0.0884	0.0886	0.0876	
8	16.8000	0.0000	16.4745	0.2055	8.0000	-0.2055	0.2055	0.2085	

# 4

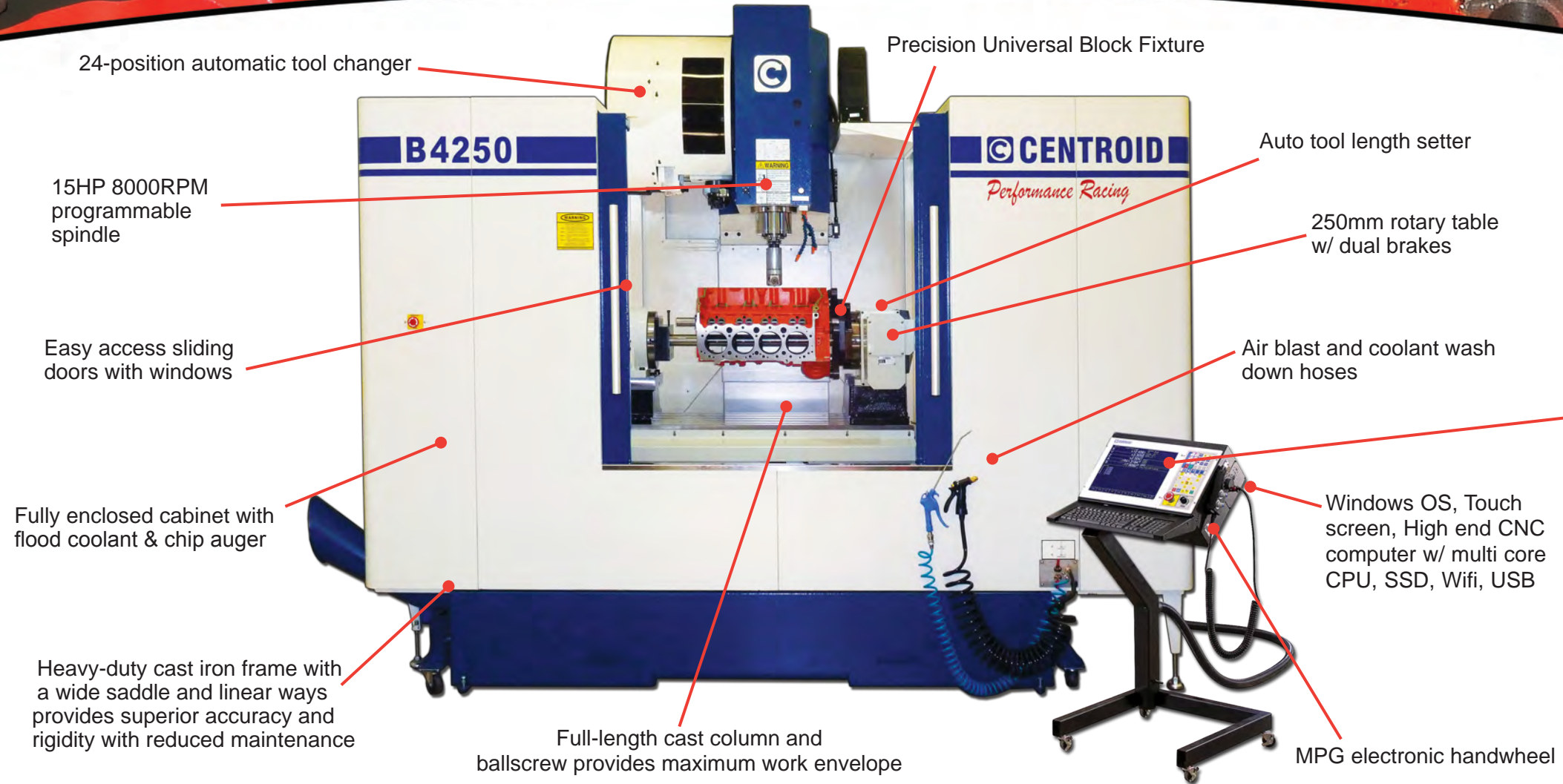
## Generate Report

Create detailed reports including blueprint data and deviations. Even add your own custom logo.

- ### Turnkey System Includes
- ✓ 4-Axis machining center
  - ✓ M400 CNC control
  - ✓ Precision Universal block fixture
  - ✓ Conversational block software
  - ✓ On-site personalized training
  - ✓ Standard tooling package
  - ✓ Digitizing probe
  - ✓ Auto tool length setter
  - ✓ 24-position ATC
  - ✓ MPG electronic handwheel



Digitize block profiles for use in lightening with the included probe and software. Copy and cut nearly any 3D shape, and reproduce hard-to-find or unavailable parts!



24-position automatic tool changer

15HP 8000RPM programmable spindle

Easy access sliding doors with windows

Fully enclosed cabinet with flood coolant & chip auger

Heavy-duty cast iron frame with a wide saddle and linear ways provides superior accuracy and rigidity with reduced maintenance

Full-length cast column and ballscrew provides maximum work envelope

Precision Universal Block Fixture

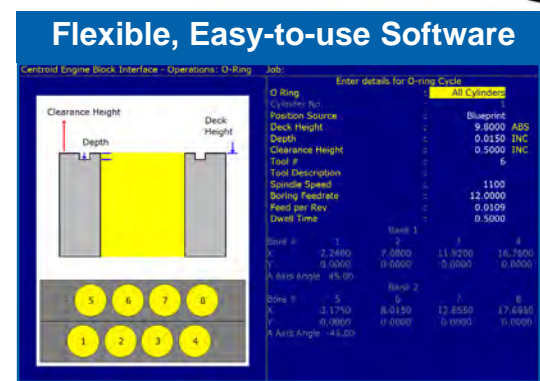
Auto tool length setter

250mm rotary table w/ dual brakes

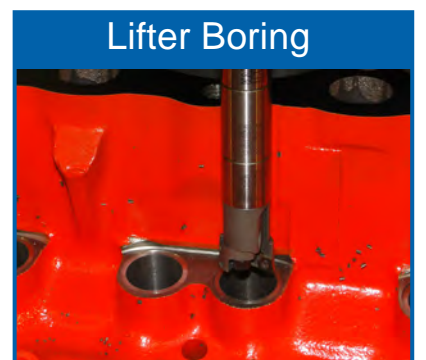
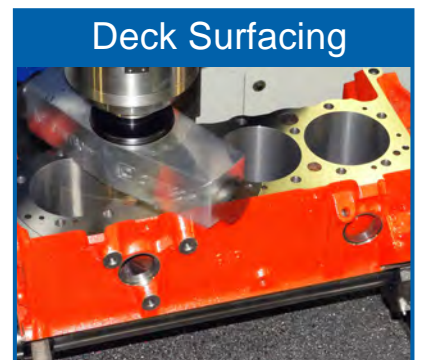
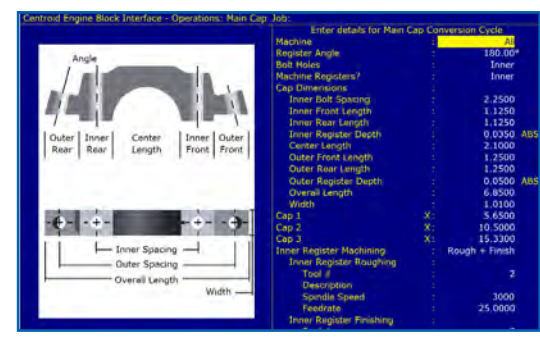
Air blast and coolant wash down hoses

Windows OS, Touch screen, High end CNC computer w/ multi core CPU, SSD, Wifi, USB

MPG electronic handwheel



CENTROID's innovative conversational block-machining software allows you to quickly create or modify programs for any block right at the machine. No G-code knowledge required.



Additional capabilities: O-ring Grooving, Chamfering, Spot Facing, Rigid Tapping, Block Slewing, Drilling, Pocketing, Lightening, & General Part Machining