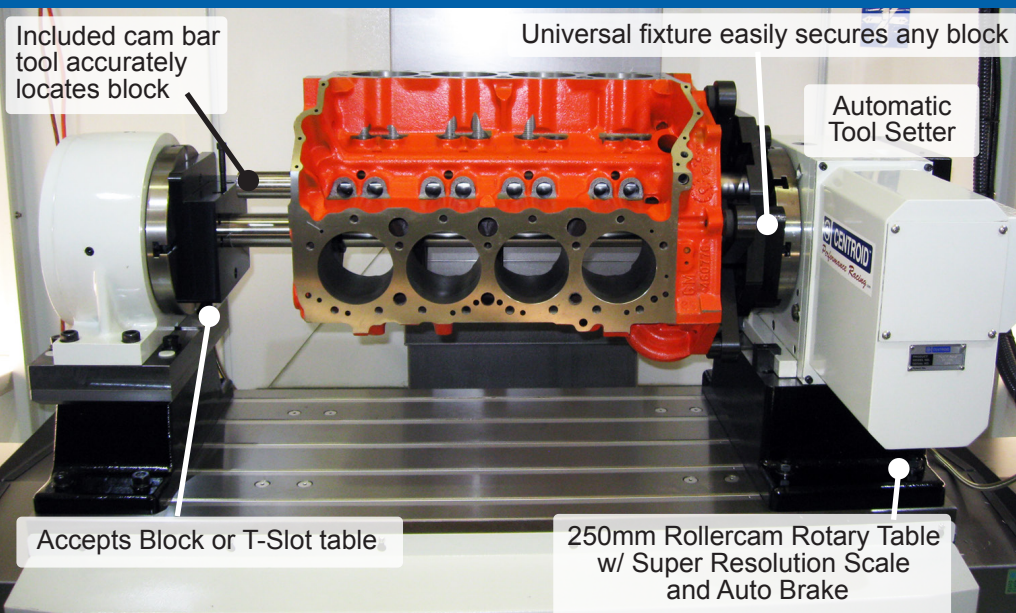


Specifications	B4250
Table Size:	20" x 49.5" (508x1257 mm)
Longitudinal travel (X):	42" (1067 mm)
Cross travel (Y):	24" (610 mm)
Vertical travel (Z):	37" (950 mm)
Spindle nose to table top:	4.7" - 41" (120-1041 mm)
Spindle center to column:	22" (559 mm)
Maximum table load:	2200 lbs (998 kg)
Spindle power:	20 HP / (15 kW)
Spindle speed:	10,000 RPM
Spindle Taper	CAT 40
Optional Spindle taper:	BT-40, short pull stud style (Optional)
Automatic Tool Changer:	24 Position Swing Arm (7kg/15.4lb. Max Tool Weight)
Rapid feed rates (X, Y, Z):	X,Y 1000 IPM, Z 800 IPM
Accuracy:	0.0005" (0.0127 mm)
Repeatability:	0.0002" (0.006 mm)
Axis drive motors (X, Y, Z):	Yaskawa AC Brushless Servos X,Y 2.9 kW Z 4.4kW
Axis way design:	Heavy Duty Linear guideways
Lifter Boring Diameter Range:	0.787" – 1.220" (20–31 mm), .984" - 1.575" (25-40 mm)
Cylinder Boring Ranges:	2.68" – 5.91" (68 – 151 mm)*, Max Depth 9.5" (242 mm)*
Coolant Pump	80 PSI, 85 Gallon Capacity
Machine Footprint:	L 130" (3300 mm), W 100" (2540 mm), Max H126" (3200 mm)
Weight:	Machine: 16,500 lbs (7500 kg)

Precision Universal Block Fixture



Warranty

One year warranty for parts, labor and technical support.

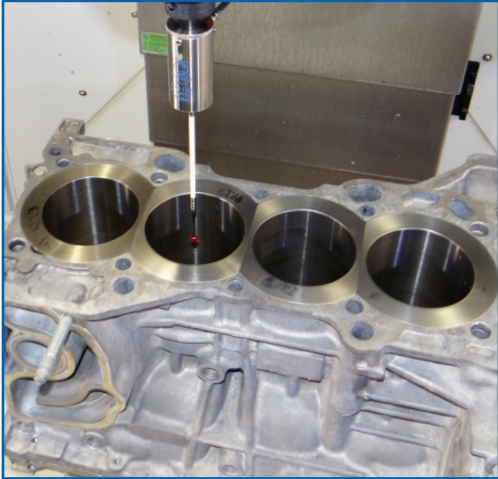
M400 CNC Control Features

Standout CNC Features Include: Windows 10 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. Create your own program for any block in minutes!



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
- CENTROID Digitizing Touch Probe.



Centroid's DP7 Digitizing Touch Probe. is specifically designed for long stylus operation, which yields ultra precise Block measurements.

Optional Features
• Coolant Through Spindle (CTS)
• BT40 Spindle taper
• Mastercam CAD/CAM software
• Quick swap T-Slot Table
• Main Cap Conversion Tooling



QR code B4250 webpage link



CENTROID
159 Gates Road
Howard, PA 16841
814.353.9256 ext. 101 Sales
814.353.9265 Fax
www.centroidcnc.com



CENTROID™

B4250
CNC Block Machining Center



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

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

4

Generate Report

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

CENTROID

• **Customer Information:**

• Customer Name: Wilson Racing

• Tel. Number: 814-555-1212

• **Block Details:**

• Block Name: Chevrolet V8 - Small Block 350

• Block Notes: decked, bored cylinders, bored lifters

• Additional Notes: none

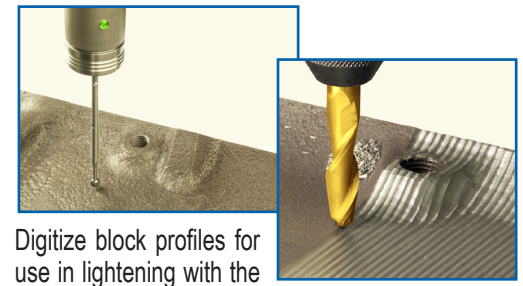
Block Database Information

Number of Cylinders	Angle Between Bores	Blueprint Deck Height	Blueprint Bore Diameter	Blueprint Bore Spacing	Blueprint Bore Depth	Blueprint Bank Offset
8.0000	90.0000	9.8250	4.0000	4.4000	6.0000	0.8800
Number of Lifters	Intake Lifter Angle	Exhaust Lifter Angle				
16.0000	41.0000	41.0000				

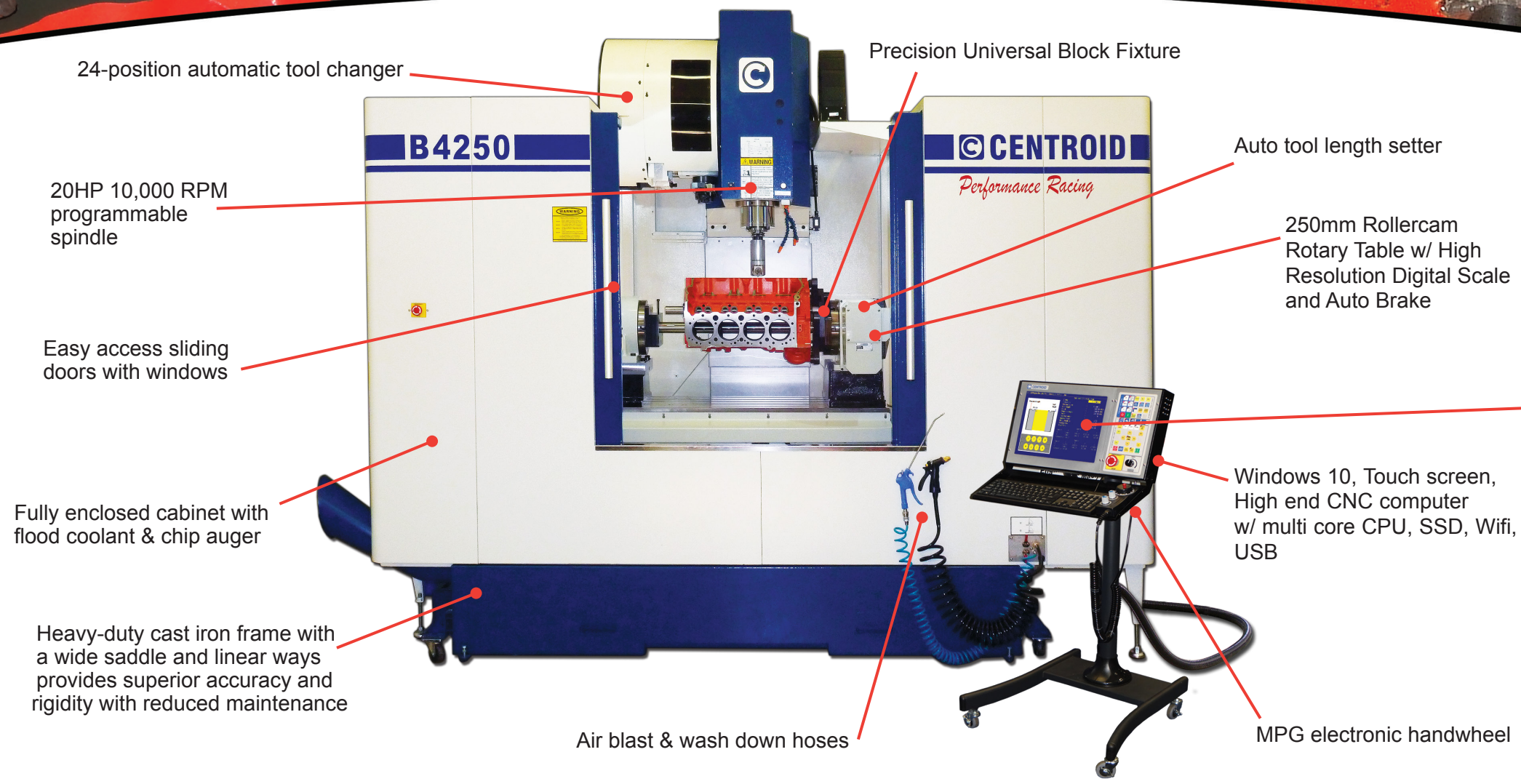
Cylinder Bore Details

Cylinder Number	Blueprint X	Blueprint Y	Blueprint Z	Blueprint Bore Dia.	X Deviation	Y Deviation	Z Deviation
1	2.4000	0.0000	2.3872	0.0032	4.0082	-0.0028	0.0032
2	6.8000	0.0000	6.7953	0.0037	4.8112	-0.0047	0.0037
3	11.2000	0.0000	11.1944	0.0046	4.0098	-0.0056	0.0046
4	15.6000	0.0000	15.5961	0.0061	4.0087	-0.0032	0.0061
5	2.0000	0.0000	3.2758	0.0052	4.8103	-0.0042	0.0052
6	7.8000	0.0000	7.6751	0.0021	4.0099	-0.0049	0.0021
7	12.8000	0.0000	12.0748	0.0066	4.0076	-0.0054	0.0066
8	16.8000	0.0000	16.4745	0.0055	4.0085	-0.0055	0.0055

- 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!



Flexible, Easy-to-use Software

Centroid Engine Block Interface - Operations: O-Ring Job: Enter details for O-Ring Cycle

Clearance Height	Deck Height	Depth	Clearance Height	Tool #	Tool Description	Spindle Speed	Boring Feedrate	Feed per Rev	Dwell Time
9.8000	4.0000	0.0150	0.5000	6		1100	12.0000	0.0109	0.5000

Bank 1

Bore #	1	2	3	4
X	2.2400	7.0800	11.9200	16.7600
Y	0.0000	0.0000	0.0000	0.0000
A Axis Angle	45.00			

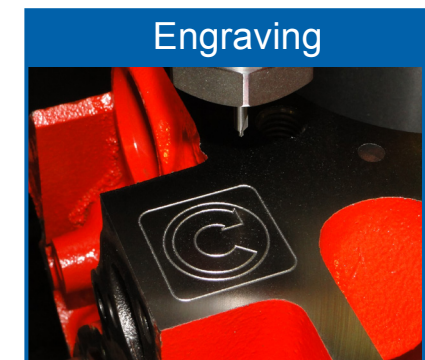
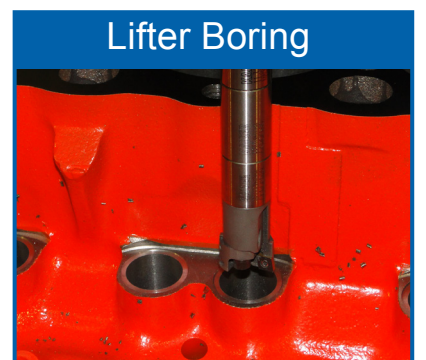
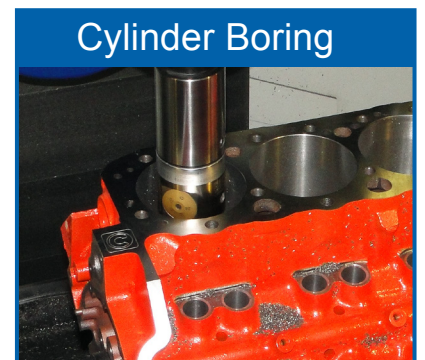
Bank 2

Bore #	5	6	7	8
X	3.1750	8.0150	12.8550	17.6950
Y	0.0000	0.0000	0.0000	0.0000
A Axis Angle	-45.00			

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.

Centroid Engine Block Interface - Operations: Main Cap Job: Enter details for Main Cap Conversion Cycle

Machine Register Angle	180.00°
Boe Holes	Inner
Machine Registers?	Inner
Cap Dimensions	
Inner Bore Spacing	2.2500
Inner Front Length	1.1250
Inner Rear Length	1.1250
Inner Register Depth	0.0350
Center Length	2.1000
Outer Front Length	1.2500
Outer Rear Length	1.2500
Outer Register Depth	0.0500
Overall Length	6.8500
Width	1.0100
Cap 1	X: 5.5500
Cap 2	X: 10.5000
Cap 3	X: 15.3300
Inner Register Machining	
Inner Register Roughing	Rough + Finish
Tool #	2
Description	
Spindle Speed	3000
Feedrate	25.0000
Inner Register Finishing	



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