



**Engine Rebuilding Equipment, Inc.**

**Rogers Machine Company**

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# Industrial Engine Machining Centers



**RMC-V120CNC**  
**Resurfacing a 3516 Caterpillar® Block**

The V80 and V120 are **true** simultaneous 3 axis, PC based **CNC controlled** machining centers equipped to handle precision diesel engine rebuilding. All of RMC's CNC based machines employ simple conversational menu driven programming as well as conventional "G" coding capabilities. RMC's factory trained support team will be with you every step of the way to make sure your RMC solution is a complete success.



**RMC's unique Probe System** functions like an automated coordinate measuring device, eliminating many tedious and time consuming manual measurements and guaranteeing faster and more accurate data input.

**The RMC V80 and 120 Industrial** offers quick, easy and accurate setup for performance block machining. The fixture maintains crankshaft to fire deck relationship for correct alignment of machined surfaces.

**RMC's Diesel line boring option** offers a one step process for machining line bore diameters accurately and efficiently.



**On the V80 or V120, RMC's diesel milling packages** make milling or decking the block or head surface fast, easy and accurate. Time after time, you can depend on maximum results with minimum hassle.



**Serving the Engine Rebuilding Industry for over 50 years**

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### **The V120cnc Industrial Machine Center**

RMC's most powerful CNC engine machining center is shown with a 16 cylinder diesel block.



**Easy to read and use control panels** on the V80 and V120 are mobile and include a full color LCD monitor and key pads.

#### **Standard Features**

Cat 50 Taper, 4,000rpm, 24/15 hp spindle motor  
Ultra bright, active matrix display  
Heavy duty spindle with (5) 90mm diam. bearings  
50mm diameter double nut table ball screw  
PC based, menu driven, conversational programming  
Rigid tapping and spindle orientation  
Coolant system with chip washdown  
Portable media drive for program transfer  
Setup and operator training by RMC technician

Rigid ways & fixed head design  
Graphic program verification  
24hp Wye/Delta 2 speed spindle motor  
Probe ready with macros  
AC digital servos 2300lb XYZ axes  
Heavy duty steel way covers & chip pans  
Toolbox and parts manual  
230 volt 3 phase 60 hz  
Lifting device for tool changing

#### **RMC's Three piece Adjustable Industrial Block Holding**

**Fixture** can make quick work of the largest diesel block decks. Accuracy and superior finish surfaces make the V80 and V120 the ideal choice for all large diesel shops and rebuilders.



#### **Optional packages**

##### **Work specific operations**

Finish boring range - 2.6" - 15.08"  
Rough boring range - 2.6" - 15.08"  
CBN Milling head 14 or 16"  
Tool setting fixture w/micrometer  
Medium Diesel Block Machining Package  
Large Diesel Block Mach Package  
Special Diesel Block Line Bore Package  
Digital probe measuring system  
360° rotary block fixture  
35 hp Spindle Motor Upgrade  
Full chip & coolant enclosure  
32-40 place auto tool changer

##### **Canned cycles for:**

Upper & lower sleeve repair  
Line Boring of mains  
Wireless probing for bore & deck locations  
Water hole repairs  
Tapping, reaming, multi pass decking  
Circular interpolation of holes  
Thrust facing

# **RMC**



Rough Boring



Finish Boring



Milling



Line Boring



Circular interpolation of Counterbore

## RMC Industrial Engine Machining Centers ...

We've applied RMC's 50 years of experience and engineering in the engine rebuilding equipment industry within a series of large scale CNC machines and combined that with RMC's own fixturing and tooling systems specifically designed for the diesel engine rebuilding industry.

Inverter drive, ball screws on all axis, servo feed motors, turcite coated ways with metal guards, chip guards and automatic tool changers have all been incorporated into the design. Probe systems, tooling packages and pre-programmed engine machining operations for specific applications means you are up and running quickly and efficiently.

Not only can you handle the requirements of diesel engine component machining, you can perform a wide variety of other conventional CNC milling, drilling, tapping operations as well.

Specifications	V80cnc	V120cnc
Boring range (various tooling)	0.98 - 15"	0.98 - 15"
Max boring depth (various tooling)	16"	16"
X axis Traverse	78"	120"
Y axis Traverse	33"	35"
Z axis Traverse	28"	30"
Spindle nose to table height	48"	54"
Spindle center to column	34"	34"
Rapid traverse (X-Y & Z axis)	0-300 ipm	400 ipm
Feed rate range	0-300 ipm	
Accuracy: Positioning	± .0004"	± .0004"
Repeatability	± .0002"	± .0002"
Table size (l x w)	86 x 32"	126 x 32"
Max weight on table	3,500 lbs	5,000 lbs
Main spindle motor vector drive	24/15 hp	24/15 hp
Spindle taper	Cat 50	Cat 50
Spindle speed in rpm	40 - 4,000 rpm	50 - 4,000 rpm
Floor space requirements	222 x 130 x 140"	302 x 110 x 140"
Net weight (w/o fixturing)	16,000 lbs	42,600 lbs
Electrical Requirements	220 volt	220 volt
Electrical Requirements	3 phase	3 phase



Lower Sleeve Repair



Probing

Please note: All features, descriptions and technical specifications are subject to change.



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