

ROTTLER

F68A Multi Purpose Machining Center

PERFORMANCE RACING AND ENGINE BUILDING MACHINERY AND EQUIPMENT



THE CUTTING EDGE

F68A

Programmable Automatic Machining Center

Hardened Box Way Column



Precision Ball Screws



Turcite Coated Bedways

AC Servo Motors and Power Drawbar

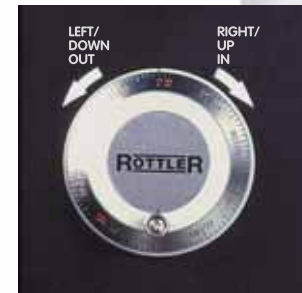


Touch Screen Control
INDUSTRY EXCLUSIVE
3 types of programming!

Only Rottler gives you simple, fast and easy programming of machine, with availability to use G code programming and direct motion programming that allow operators to program machine for any type of job.



Manual Handwheel



Hard Chrome Spindle
Cat 40 Taper

T-Slot Table

Features

- Precision Ball Screws
- Hard Chrome Spindle
- Hardened Box Way Column
- Cat 40 Taper
- T-Slot Table
- AC Servo Motors
- Power Draw Bar
- Turcite Coated Bed Ways
- Touch Screen Controls
- Eye Level Control Pendant
- Manual Handwheel
- New Motor Drive System
- Automatic Lubrication System

Benefits

- Give long trouble free life and accurate movement to ± 0.0005 or -0.0005
- Super hard finish resists wear for years of operation
- Ensures exceptional rigidity for accurate machining of parts and long life
- Industry Standard for versatility
- Allows operator to clamp or fixture any job quickly and easily
- Offer maximum torque and performance throughout the rpm range for precise accuracy and increased productivity
- Offers finger tip changing of cutting tools for fast machining of blocks, heads or parts.
- Reduces friction or smooth movement, long life and accuracy
- For fast easy programming of machine
- For easy viewing and less floor clutter
- Offers operator infinite control of machine movement in all axis for quick & easy set-up
- Offers you increased dependability and ease of service
- For years of trouble free life and reduced wear

Offers Versatility & Simplicity

Rottler Exclusive Touch Screen Programming

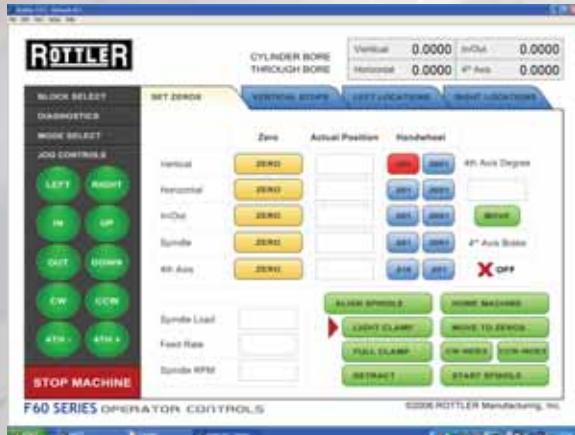
Just a few of the other operations available for Rottler owners:

Versatility



Mode Screen

Allows operator to select operation you want to perform. (Select Through Bore)



Set Zeroes

Simply set zeroes to begin set-up of block.



Vertical Stops

Allows operator to set machine to begin boring/stop boring. Also allows operator to offset bore at bottom of cylinder to clearance main web for cylinder honing.

THE CUTTING EDGE

Blueprint

Type locations from blueprint into machine.



Indicate

Older blocks that may not clean-up by blueprinting. Center bore and touch set button.



Probe

Machine will probe all eight bores and set dimensions for boring. Once finished touch start auto cycle to begin boring.

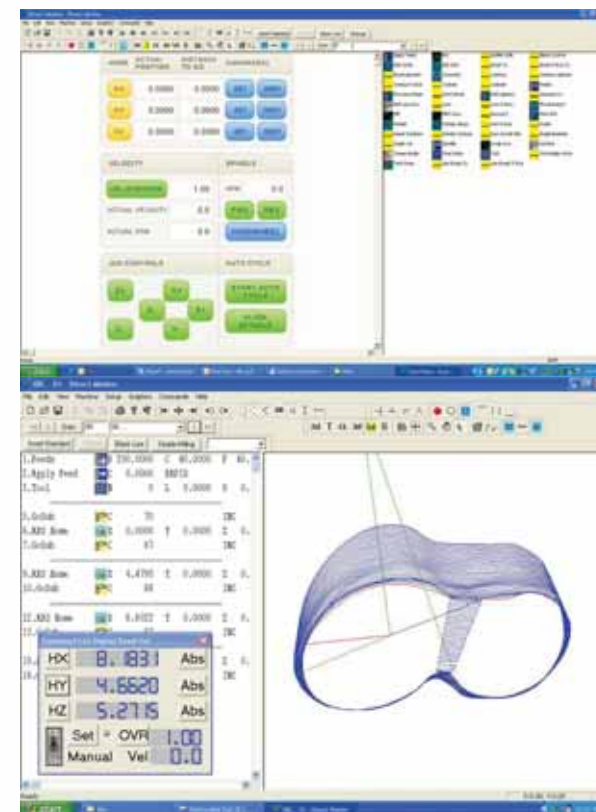


Fully Programmable Cycles

Simple 4 axis CNC control, PC based with Windows XP operating system.

Dimensions input thru touch screen:

- Bore Centers, Exact Depth, Speed, Feed, etc.
- Bores complete bank in Automatic Cycle.
- Lower Bore Relief, off center boring for Honing Clearance.
- Surfacing - Multiple Pass programmable for roughing and finishing - can remove any amount of material in one automatic cycle.
- Lifter Bore machining - bore housings and bushes to exact final size.
- Automatic line bore cycle completes all main bearing housings to within .0002".
- Face main line thrust bearing faces square to crankshaft centerline.
- Machine a radius for stroker crank connecting rod and bolt clearance.
- Rottler CAM CNC program allows G code program-ming and file transfer with CAD/CAM programs.



Direct Motion

Direct Motion software offers even more versatility, for machining parts, combustion chambers on cylinder heads, etc.



Thrust Cutting

Allows operator to easily program for thrust cutting on main cap.



Crank Clearance

Stroker Crank & Rod Clearancing of blocks.



Lifter Bore

Operator can easily program lifter bore dimension by blueprinting, indicating or probing

THE CUTTING EDGE

Fixtures



Rottler's new pivot table allows quick set-up for line boring.



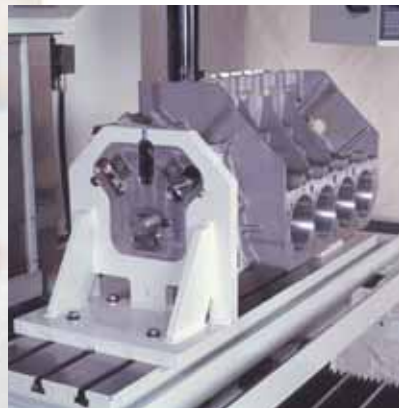
Rottler's patented 2 axis leveling table and universal quick clamping system for surfacing/ milling heads, blocks and manifolds with CBN and PCD tooling.



Rottler's NEW Universal Quick Load/Unload Automatic Rotate 4th Axis Fixture and Software allows the control to rotate the block or cylinder head during the automatic machining cycle.



The block end truing fixture quickly attaches to the 4th axis rollover fixture or the precision performance fixture for exact alignment of transmission and engine block. Dowel truing for centralizing transmission and crankshaft centerline



Precision Performance Fixture references from the centerlines of crankshaft and camshaft for machining operations – precise bore locations and square block deck height. Bore and surface a V8 block in less than 30 minutes.

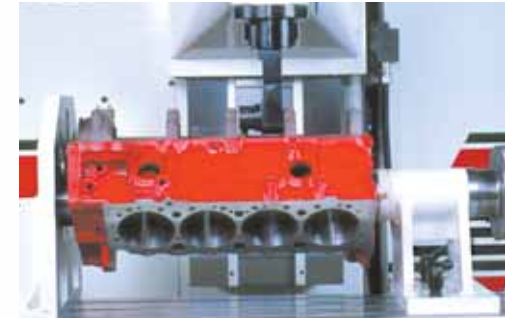


Lifter bore angles are accurately set with gage blocks in the Performance Fixture. Complete a lifter bushing job in less than one hour!



Cam tunnel modifications and roller bearing conversions. Some blocks allow main and cam line to be bored in one set up with extended slim line right angle drive.

Tooling



Precision line boring with Rottler's Special 90° Right Angle Drive with Insert Tooling provides perfectly round bores and straight lines! No honing necessary!



Single point Lifter Tooling and digital setting fixture for boring, facing and finishing lifter bores and bushes.



CBN cutter plate available in 10" (250mm) and 14" (360mm).



Thrust cutter for small block Chevy main thrusts installed in 90 degree right angle drive for main line boring. Circular interpolation allows Rottler machines to cut thrust on any block.



Connecting Rod bore tooling installed in massive F68A spindle.



Renishaw probe.



Edge finder.



Boring and Sleeving Cutterhead, tool holders and Digital Setting Fixture

F68A Specifications

MADE IN U.S.A.

Table Size	60" x 17" (1500mm x 430mm)
T-Slots (no. x wid. x dis.)	3 x 0.63" x 3.94" (3 x 16mm x 100mm)
Travels:	
X Travel (Horizontal)	40" (1020mm)
Y Travel (In/Out)	20" (510mm)
Z Travel (Vertical)	26" (650mm)
Spindle Nose to Table	9" – 35" (228 - 889mm)
Spindle Center to Column	20.9" (530mm)
Spindle:	
Spindle Taper	Cat 40
Spindle Diameter	5.50" (140mm)
Spindle Rotation Speed	1 – 1800 rpm (Optional 3400 rpm)

Performance:	
Rapid Travel - X,Y	200 IPM (5m/min.)
Rapid Travel - Z	150 IPM (3.75m/min.)
Feed Rate	.001" - .060" (.02 - 1.5mm) per rev.
Repeatability	±0.0002" (±.005mm)
Motors:	
Spindle Motor	5 HP (3.7kW) 150 in-lb (15Nm)
3 Axis Motors	40 in-lb (4Nm)
AC Servo Brushless Motors and Axis Motors	
General:	
Floor Space (L x W x H)	131" x 81" x 104" (3.3 x 2.0 x 2.6m)
Machine Weight	8000lb (3530kg)
Electrical Requirement	208/240V 50/60Hz Single Phase 30A
Air Requirement	100 lb psi 7 Bar

Specifications and design subject to change without notice.

Optional Equipment

Part Number	Description
650-3-59	Computer Controlled Automatic 4th Axis Block Roll Over Fixture
650-3-1	Performance 90 degree V block fixture
650-3-30	Block End Truing Fixture Assembly
7241P	Rottler Universal Head & Block fixture assembly
7152A	Dual Axis Level Assembly
650-2-44Q	3 Dimensional Electronic Position Finder
650-3-59F	Automatic Wireless Probing
650-2-1D	Cylinder Boring Head Assembly – 2 to 4 inch diameter 7 inches length
650-2-14B	Cylinder Boring Head assembly – 2.9 to 5.0 diameter 7 inches length
650-2-8E	10 inch Cutter Head Assembly for milling
650-2-8F	14 inch Cutter Head Assembly for milling
6303B	CBN insert 3/8 diameter round
6303M	PCD insert 3/8 diameter round
7209M	Dual axis Leveling Table
6753M	Main Line boring 90 degree right angle drive assembly 1.9 to 5.6 diameter includes .700, 1.05, & 1.50 spacer
650-2-37A	Special Belt drive 90 degree right angle drive assembly for limited clearance between bearing caps 1.9 to 4.0 diameter
6753N	Special Extended main line bore 90 degree right angle drive assembly complete with narrow cutter head & tooling 1.9 to 2.4 diameter (minimum distance between bearing caps is 3.08.
650-3-1A	Lower End Machining Package assembly
650-3-56	Line Bore Pivot Table
650-3-43T	Cam Line Bore Tooling Package
6648H	Lifter Bore Tooling Package
650-2-11K	Quick change tap holder cartridge assembly with adaptor



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