

ROTTLER

F69A Multi Purpose Machining Center

PERFORMANCE RACING AND ENGINE REMANUFACTURING MACHINERY & EQUIPMENT

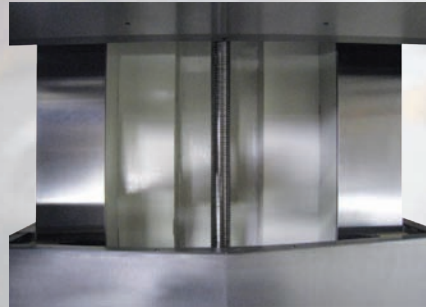


THE CUTTING EDGE

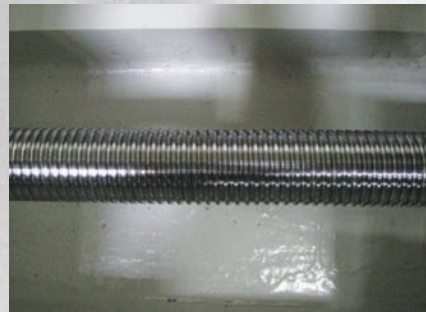
F69A

Programmable Automatic Machining Center

Precision Ground, Hardened Box Way Slideways are 28" (700mm) wide for increased rigidity and years of heavy duty high production machining.



Large diameter 40mm (1.58") Precision Ground Direct Drive Ball Screws for Rapid Feed Rates, Accurate Positioning and Repeatability.



Turcite Coated Bedways for reduced friction and accuracy.

AC Servo Motors and Power Drawbar

Hard Chrome Spindle

CAT40 Taper



Touch Screen Control INDUSTRY EXCLUSIVE

Two Operating Systems!

- 1: Rottler System for simple, fast and easy programming of common jobs such as boring, surfacing and line boring - anyone can learn in a few hours!
- 2: CAD/CAM System for advanced, CNC programming for making parts, engraving names, and much more.



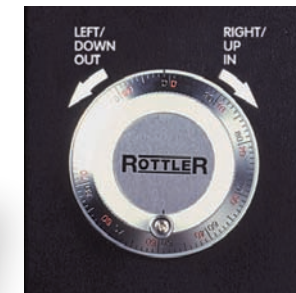
Features

- 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
- Direct Drive Ball Screws

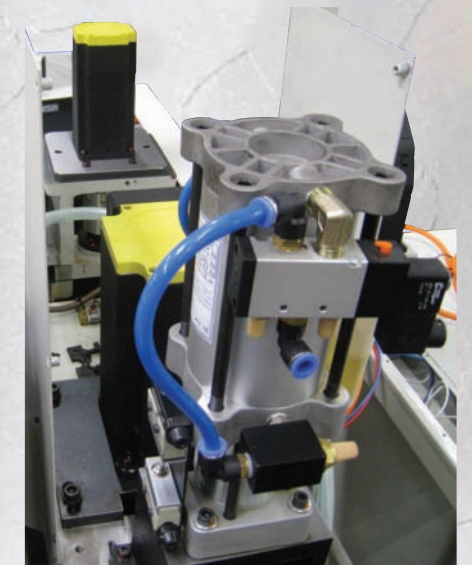
Benefits

- 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
- Increase accuracy and reduce maintenance

Manual Handwheel



T-Slot Table



AC Servo Motors

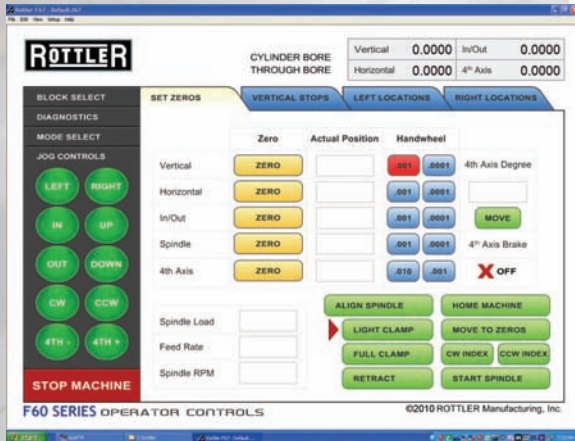
Offers Versatility & Simplicity

Rottler Exclusive Touch Screen Programming

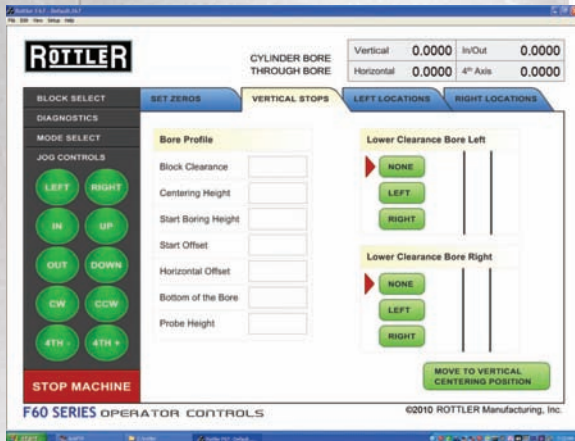
Just a few of the other operations available for Rottler owners:



Mode Screen
Allows operator to select operation to perform (Select Through Bore).



Set Zeroes
Simply set zeroes to begin set-up of block.

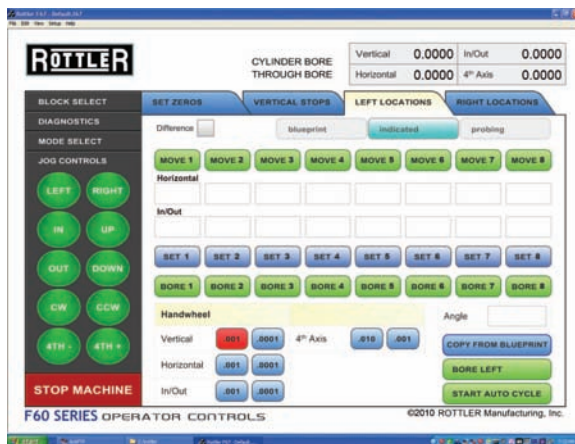


Vertical Stops
Allows operator to set machine to begin/stop boring. Also allows operator to offset bore at bottom of cylinder to clearance main web for cylinder honing.

Versatility



Blueprint
Type locations from blueprint into machine.



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

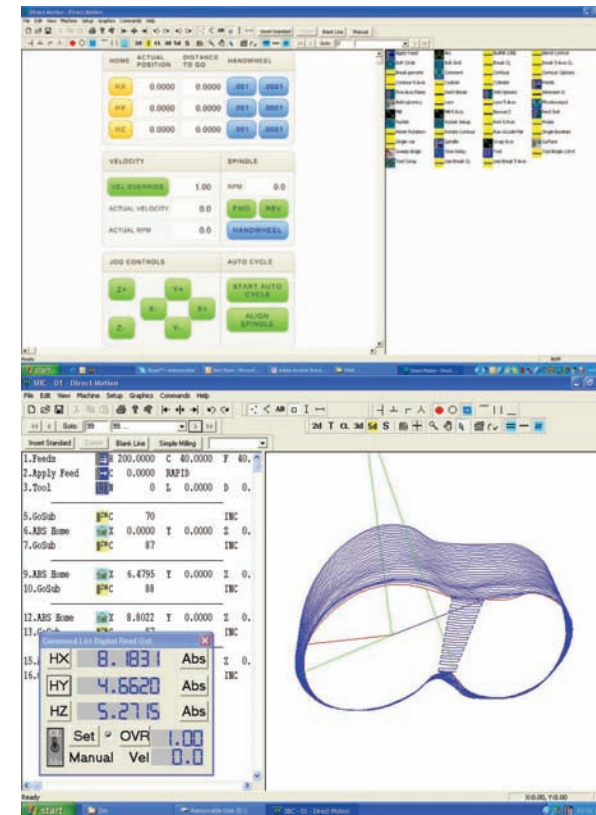


Probe
Machine will probe all eight bores and set dimensions for boring. Once finished touch "Start Auto Cycle" to begin boring.

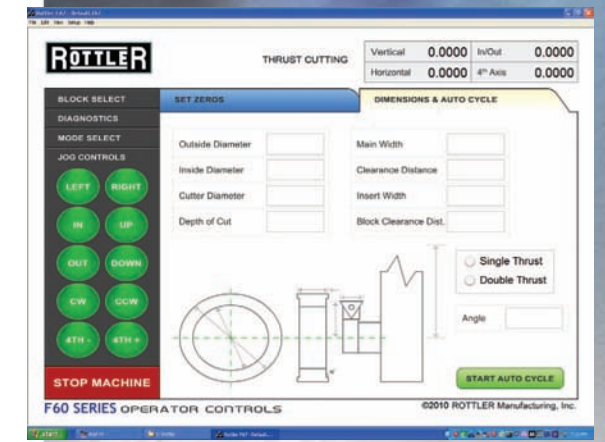
Fully Programmable Cycles

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

- Dimensions input through 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 programming and file transfer with CAD/CAM programs.



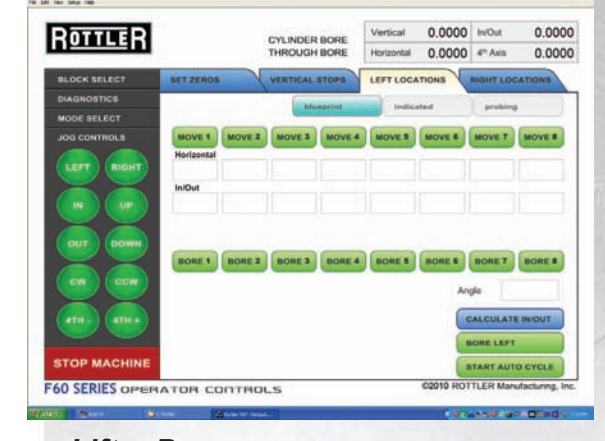
Rottler Cam
Rottler Cam software offers even more versatility, for machining parts, combustion chambers on cylinder heads, etc.



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



Crank Clearance
Stroker Crank & Rod Clearancing of blocks.

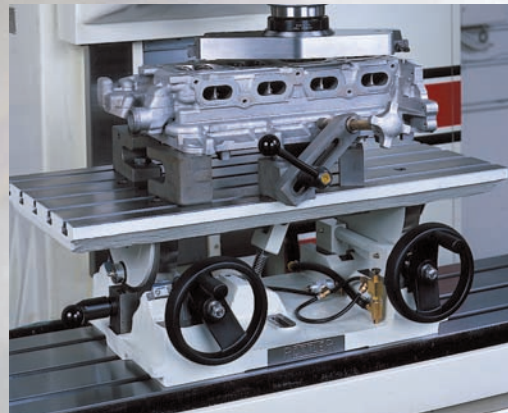


Lifter Bore
Operator can easily program lifter bore dimension by blueprinting, indicating or probing.

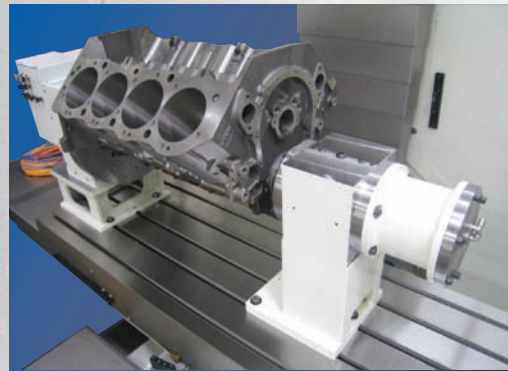
Fixtures



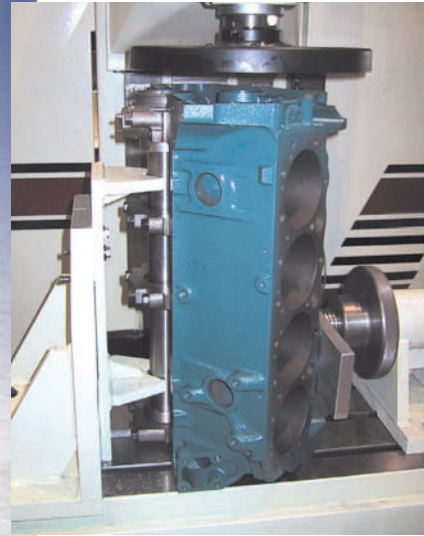
Rottler's new pivot table allows quick set-up for line boring.



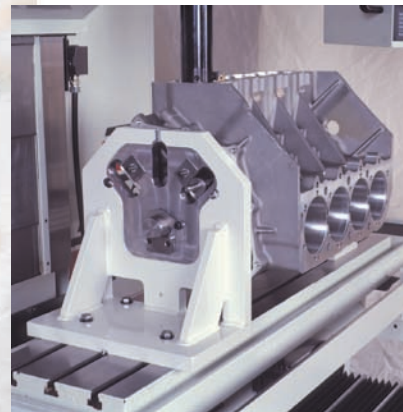
Rottler's patented two axis leveling table and universal quick clamping system for surfacing/ milling heads, blocks and manifolds with CBN and PCD tooling.



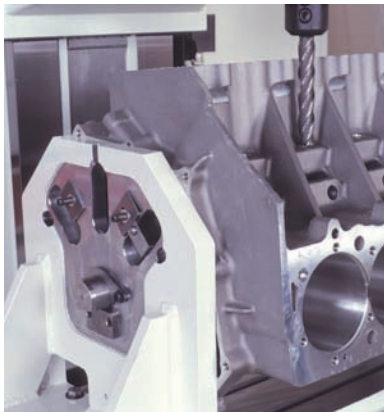
Rottler's Universal Quick Load/Unload Automatic Rotate 4th Axis Fixture and Software allows the control to rotate the block or cylinder head during the automatic machining cycle. Large V blocks can be rotated 360 degrees to allow special machining jobs such as stroker clearancing in same set up as boring, surfacing and lifter bore machining. The tail stock is pneumatically operated allowing easy and fast loading and unloading of heavy blocks.



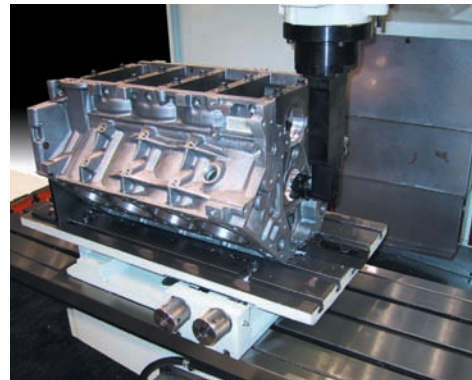
The block end truing fixture quickly attaches to the 4th axis rollover fixture or the precision performance fixture for exact alignment of transmission and engine block. Dowel truing for centralizing transmission and crankshaft centerline.



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.

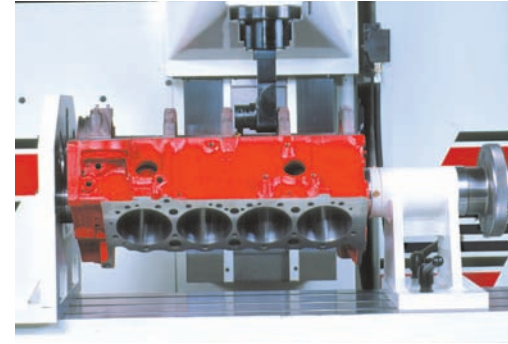


Lifter bore angles are accurately set with gage blocks in the Performance Fixture. Complete a lifter bushing job in less than one hour!



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.

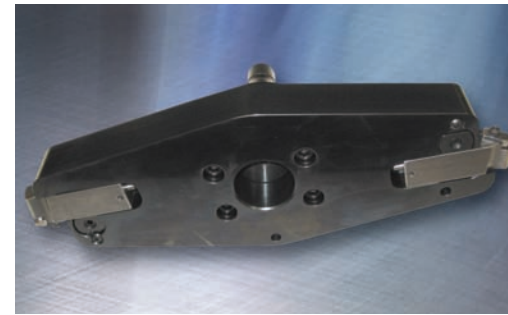
Tooling



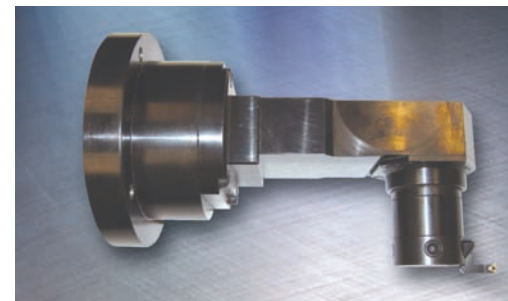
Precision line boring with Rottler's Special 90° Right Angle Drive with Insert Tooling provides perfectly round bores and straight lines! No honing necessary!



Single point Lifter Tooling 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.



Rottler Boring and Sleeving Cutterhead installed in massive heavy duty F69 Spindle.



Boring and Sleeving Cutterhead, tool holders and Digital Setting Fixture.



Edge Finder



Renishaw Wireless Probe for automatic centering of cylinder and lifter bores and deck height measurement.

F69A Specifications

Made in U.S.A.

Table Size	59" x 19.5" (1500mm x 500mm)
T-Slots (no. x wid. x dis.)	5 x 0.63" x 3.94" (3 x 16mm x 100mm)
Travels:	
X Travel (Horizontal)	39.3" (1000mm)
Y Travel (In/Out)	20" (510mm)
Z Travel (Vertical)	31.1" (790mm)
Spindle Nose to Table	8.92" – 40" (226mm - 1016mm)
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)

Specifications and design subject to change without notice.

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 D x H)	123" x 90" x 105" (3124 x 2286 x 2667mm)
Machine Weight	9000lb (4091kg)
Electrical Requirement	208/240V 50/60Hz Single Phase 30A
Air Requirement	100 lb psi 7 Bar
Paint Color Code	RAL9002 (Grey White)

Optional Equipment

Part Number

Description

650-3-59	Computer Controlled Automatic 4th Axis 360 Degree Quick Loading Block Roll Over Fixture
650-3-84	Overhead Camshaft V-Block and In-line Block Adapter for 4th Axis Fixture
650-3-1	Performance Block Fixture - Manual Roll Over - Crankshaft Centerline
650-3-30	Block End Truing Fixture
7241P	Universal Block and Head Fixture for Boring and Surfacing
7152A	Dual Axis Level
650-3-59F	Renishaw Automatic Wireless Probing including Software
650-2-1D	2"-4" (50.8mm - 101.6mm) Diameter range 7" (177.8mm) length
650-2-14B	2.9"-5" (73mm - 127mm) Diameter range 7" (177.8mm) length extendable
650-2-8E	10" (254mm) Diameter Surfacing/Milling Flycutterhead
650-2-8F	14" (360mm) Diameter Surfacing/Milling Flycutterhead
6303B	CBN Insert 3/8" (9.52mm) round for Surfacing Cast Iron
6303	PCD Insert 3/8" (9.52mm) round for Surfacing Aluminum
6303S	Special CBN Insert 3/8" (9.52mm) for Surfacing Aluminum Blocks with Iron Liners
7209M	Dual Axis Leveling Table for Cylinder Head and Manifold Surfacing
650-3-56	Line Bore Pivot Table including 90 Degree V Block Cradles
6753M	Main Line Boring Right Angle Drive for 1.9" - 5.6" (48mm- 142mm) Diameter Range with optional cutterheads
650-2-37A	Belt Drive Right Angle Drive for limited clearance between main bearing caps
6753N	Extended Right Angle Drive for Camshaft Line Boring for special applications
650-3-43T	Cam Line Bore Package for Roller Bearing Conversions
6648H	Single Point Micro Adjust Lifter Bore Tooling Package
650-2-11K	Quick Change Thread Tapping Holder

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