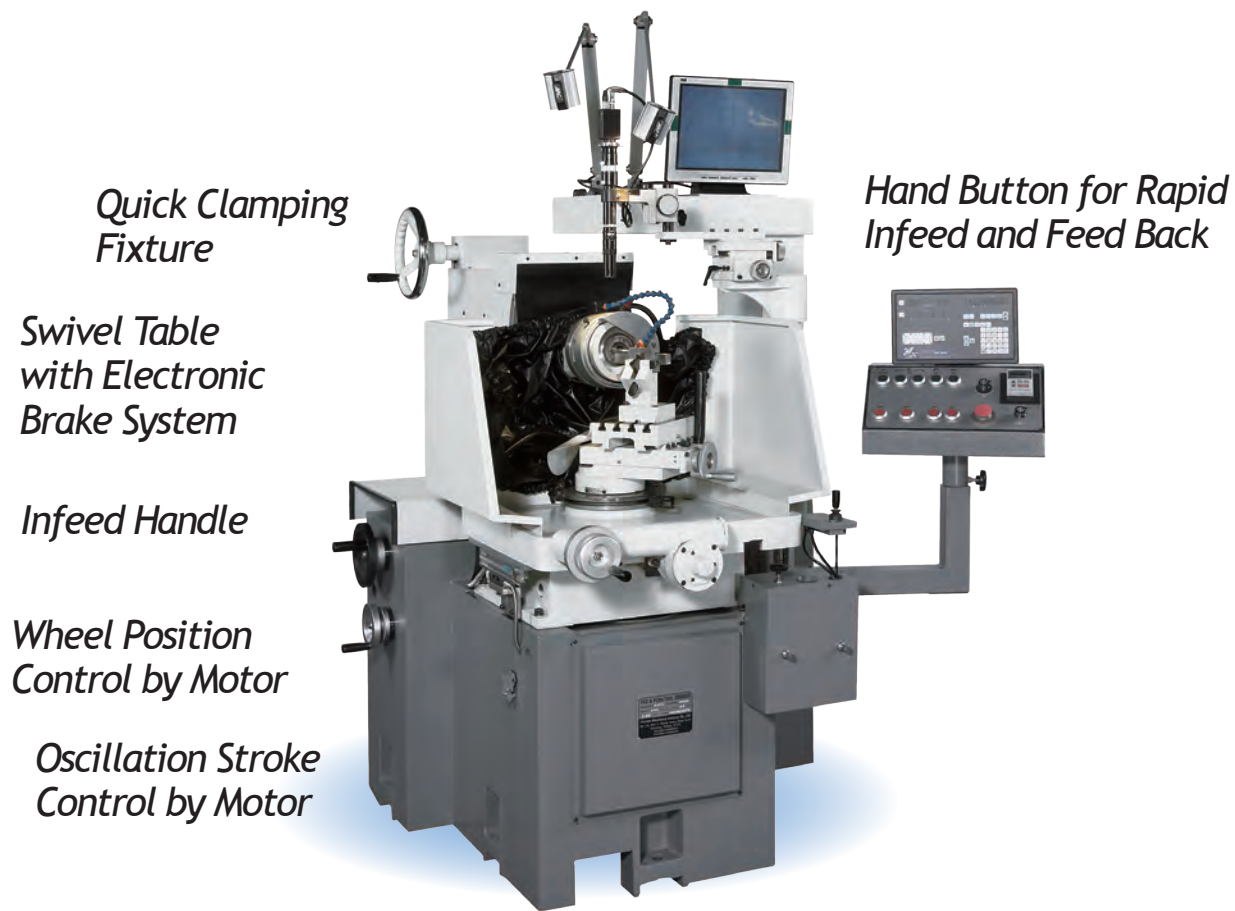


# RushMachinery

Grind better.



*Quick Clamping  
Fixture*

*Hand Button for Rapid  
Infeed and Feed Back*

*Swivel Table  
with Electronic  
Brake System*

*Infeed Handle*

*Wheel Position  
Control by Motor*

*Oscillation Stroke  
Control by Motor*

## Model FC-200D

### Polycrystalline Grinder

Economical manufacturing and regrinding of PCD, CVD, PCBN, Carbide and HSS tools.

*The Polycrystalline Tool Grinders grind angles and radii on standard and special turning and milling inserts, boring tools, milling cutters, grooving tools, reamers, and other special tools. The rigid construction with a 3-HP variable speed grinding spindle provides for vibration-free grinding and fast stock removal.*

*The Model FC-200D, FC-300D and the Model FC-500D feature a unique video optical system with*

*15-120x (zoom) magnification and a black and white video monitor. This system provides a higher magnification and/or a larger field of view than most machine-mounted optical comparator systems. In addition, the video camera moves with the worktable for easy set-up and for inspection. Their rigid construction and a 3 Hp variable speed grinding spindle allow for vibration-free grinding and fast stock removal.*



*The Model FC-500D is a larger, more versatile machine and features vertical grinding spindle travel, a wheel travel range of 500 mm and an oscillation stroke of 70mm. The Model FC-500D is also designed for grinding reamers, drills, end mills, and multi-step form tools.*



Rush Machinery provides innovative, practical, and top quality products that save time and money, and improve the way people grind tools.

## Machine Features

- One-piece cast iron base provides extra rigidity and minimizes vibration.
- Infeed slide and grinding head slide use Schneeberger precision linear ways for accuracy and long life.
- Oscillation is adjustable in position, stroke and frequency.
- Heavy duty cross table pivots with two pairs of precision (ABEC-7) angular contact bearings.
- Cross table pivots up to 240 degrees with two adjustable positioning stops and quickly locks in any position.
- Video Optical System, with a 15x - 120x (zoom) magnification range and a 12-inch monitor, allows for measurement and inspection of radii from .001" to .375" (.025mm to 9.5mm).
- Optical System moves with the worktable for easy setup and for inspection during or after grinding.
- The scale shown on the video monitor can be used to represent increments for various applications. The zoom optics provide magnifications from 15x to 120x.
- The magnification can be adjusted, using a sample of known size, and locked so that the scale will accurately show the desired increments.
- The "1" on the scale can represent: 1/32" (74x), 1/16" (37x), 1/8" (18x), 1mm (58x), .5mm (116x), .050" (46x), .020" (115x), etc..
- The work table moves rapidly to and from the grinding position under pneumatic control.
- Controls are conveniently placed for ease of use; the work table infeed handwheel can be fixed in position on the RH side or the LH side, depending on operator preference (RH mounting shown).

## Standard Accessories

- Push button controls for stroke length & position (FC-200D only)
- Pneumatic locking brake for workhead pivot
- Video optical system with 15-120x zoom and black and white monitor
- (2) halogen machine lamps
- 53 gallon flood coolant system with paper roll filter and (2) 5 micron cartridge filters
- 3 HP variable speed (500-4000 rpm) grinding spindle

- Variable grinding force (0-450N)
- 2-axis digital readout for infeed (.00005"/.001 mm increments) and angle (0.05 degree increments)
- Variable speed oscillation (0-50 strokes/min)
- (1) grinding wheel adaptor
- Solid quick-clamping fixture and work piece holders for 1/2", 5/8", 3/4", 1" & 1-1/4" square shanks
- Hex key set: .9, 1.5, 2, 2.5, 3, 4, 5, 6, 8, and 10 mm
- Open-end wrenches: 27 mm x 32 mm, 23 mm x 26 mm, and 8 mm x 10 mm
- Set of (7) leveling bolts and pads
- Central lubrication system (manual)
- Instruction and parts manual
- Machine setup and training by Rush Machinery personnel at your facility
- One-year warranty

## Optional Accessories: see PCD accessories brochure

- Brake truing device with offset bracket to mount in quick-clamping fixture
- Powered brake truing device allows truing of wheel without changing the tool set up. (FC-500D only)
- Round tool grinding attachment with 0-60 rpm variable speed drive and 24-position dividing plate. Comes with (23) ER40 collets to hold from 3 mm (1/8") to 26 mm (1") shank size
- Round tool grinding attachment with customer specified spindle taper and fine adjustment of angle. Comes with 24-position index plate and removable tail center. (FC-500D only)
- Universal quick-clamping fixture rotates 360 degrees and inclines -20 to +20 degrees in two planes to allow conical relief, cylindrical relief, or a combination of both. (Standard quick-clamping fixture is solid - for conical relief only). Includes 1/2", 5/8", 3/4", and 1" square work piece holders
- RushVision Software program allows importing of CAD drawings in .dxf file format via Real DWG® for video overlay (CAD generated drawing overlaid on live video image)

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