

ROTTLER
THE CUTTING EDGE

VR10

Valve Refacing Machine
with Turcite Slideways



Machining Equipment
Created for Performance
Racing & Engine
Remanufacturing.

So Advanced, It's Simple.

VR10 VALVE REFACING MACHINE FEATURES

New Standards

The VR10 sets new standards in speed and accuracy for Performance Racing and Remanufacturing cylinder head work. The air operated 2 x 3 Ball Precision Chuck System eliminates collets. Valve face is machined concentric to the valve stem for improved sealing, better heat transfer and reduces mechanical stresses on valves.

Grinding Wheels

The VR10 is supplied standard with vitrified wheels, grinding oil and two diamond dressers. Special wheels available for grinding difficult metals such as Titanium, Inconell, etc.

Variable Valve Rotation Speed

Allows the operator to adjust surface speed for different diameter valves for best surface finish for a wide range of valve head diameters from small multi valve to large diesel valves.

Lubrication

Lubrication point provided with instruction labels ensuring long service life.

Fine Feed Handle and Depth Stop

Allows valves to be ground to the exact same length – a requirement for today's computer controlled engines.

Solid Cast Iron Construction

Dampens harmonics, eliminates chatter, and maintains accuracy for a long service life.

Stroking Handle

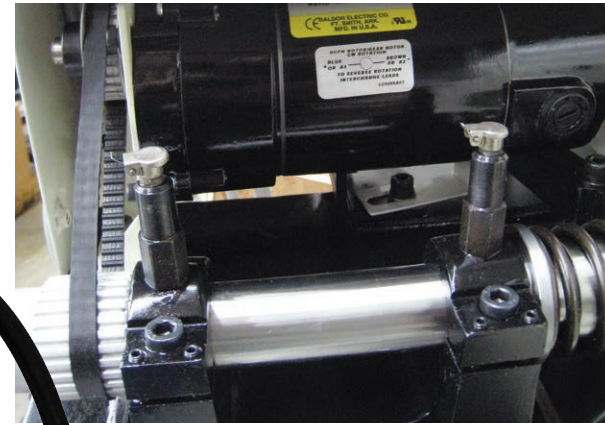
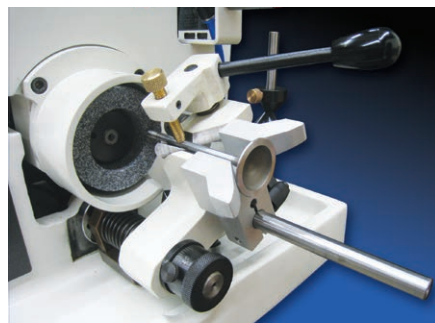
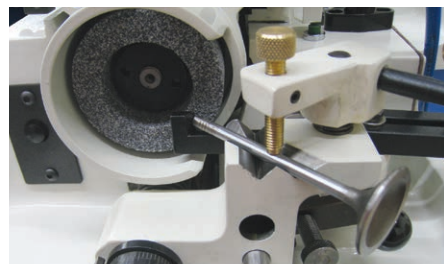
Featherlite stroking with Turcite coated slideways requires only one finger to move the wheel back and forth over the valve.

Control Panel

Variable Chuck Speed and Selector for Grinding or Wheel Dressing. Counter display shows how many valves have been ground.

Stem/Butt End Chamfering

Special stop arm allows the valve to be pressed against the stop while rotating resulting in equal chamfer on valve end. Stop arm pivots out of the way when not in use.

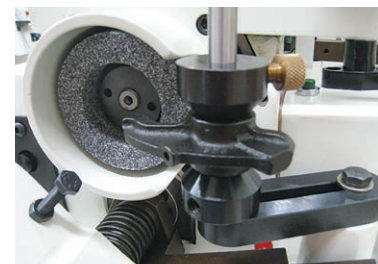


Counter

Digital counter automatically adds each valve that is ground so that the owner of the machine can easily see how many valves have been ground.

Stem/Butt End Grinding

Grind Valve Stem End square to the valve centerline. The V rest allows all valves in a set to be ground to the same distance from valve seat to stem end - essential for overhead camshaft type cylinder heads. Exact amount of material removed from the stem end can be measured with the micrometer adjustment system.



Optional Rocker Arm Attachment

Allows refacing of most shaft type rocker arms.

Precision Chuck System

The Rottler VR10 Precision Chuck is manufactured from the highest grade Bohler Tool Steel and hardened by Bohler for the highest grade hardened tool steel available in the world today. The chuck has 2 sets of 3 balls and is pneumatically operated for opening and closing allowing a wide diameter range of valves that can be ground without changing any parts – no wrenches or collets! The Precision Chuck gives extremely accurate **CONCEN** for improved sealing, better head transfer and reduces mechanical stresses on valves.



Optional Chucks available for Wide Range of Valves

Standard chuck grinds most common valves. Optional chucks available for very small and short valves as well as large diameter valves up to .750" 19mm stem diameter.

Adjustable Pillar Bearings

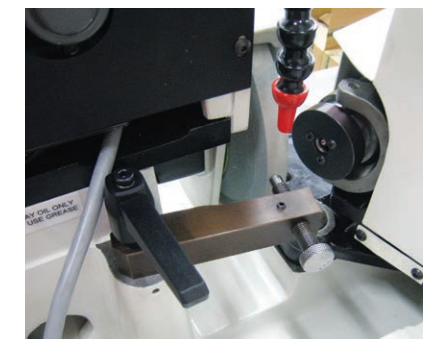
To be able to grind valves to **CONCEN** in tenths and microns, the chuck bearings must have minimum clearance.



Base Cabinet

Optional Base Storage Cabinet includes a large 5 gal (20 liter) removable coolant tank with replaceable paper filter system. Coolant tank has drain plug and is easily removed for quick cleaning. This large capacity filtered coolant system

allows machine use for months and months with no cleaning or maintenance required saving time and money. Shelf allows a secure place for storing measuring instruments.



Dresser

Main Wheel Diamond Dresser is mounted on the machine for quick dressing with minimum material removal. Just swing the dresser into place and the point of the diamond is exactly where it was set for the last dressing

STANDARD EQUIPMENT

- Pneumatic Operated Quick Action 2 X 3 Ball Precision Chuck System
- Grinding wheel slideways are coated with Turcite for reduced friction and extended life
- Motor controller converts single phase incoming power to 3 phase motor for vibration free grinding
- Variable Valve Rotation Speed up to 250RPM
- End Stop System to grind valves in a set to equal length from butt end to seat face
- Butt Grinding and Chamfering Device including micrometer and adjustable V Nest
- Main Wheel and Stem End/Butt Wheel Dressing Devices mounted on the machine
- Main Grinding Wheel 7.0" (180mm) Diameter, General Purpose (VTRW-8)
- Butt Grinding Wheel 3.0" (75mm) Diameter, General Purpose (VTRW-9)
- Diamond dresser for dressing main and butt grinding wheel (VTRW-4)
- Grinding Oil Pump and Grinding Oil
- Adjustable Work light
- Tools and Wrenches including chuck assembly tool
- Operation and Spare Parts Manual
- Paint Color Code: RAL9002 (Grey White)
- Electrical requirements: VR10 available in 2 versions: 115V, 20A, 1Ph and 230V, 10A, 1Ph.
- Voltage must be specified when ordering a machine.

SPECIFICATIONS

	INCH	METRIC
Valve Stem Diameter Range with Standard Chuck	0.157" to 0.562"	4mm to 14mm
Valve Stem Diameter Range with Optional Chucks	0.138" to .750"	3.5mm to 19mm
Valve Stem Length Range with Standard Chuck	2.125" to 10.250"	54mm to 260mm
Valve Stem Length Range with Optional Chucks	1.220" to 10.250"	31mm to 260mm
Valve Head Diameter Range	0.781" to 4.000"	20mm to 102mm
Valve Total Length Range	3.500" to 12.500"	89mm to 317mm
Above Specifications may vary depending on seat angle		
Valve Face Angle Range	15° to 50°	
Valve Grinding Wheel Diameter	7.000"	178mm
Butt Grinding Wheel Diameter	3.000"	76mm
Valve & Butt Grinding Wheel Speed	3450 RPM at 60Hz & 2850 at 50Hz	
Valve Rotation Speed	20 to 250 RPM	
Coolant Capacity with Cabinet	5 Gallon	20 Liter
Coolant Capacity without Cabinet	1 Gallon	5 Liter
Air Pressure Requirement	90 Psi	6 Bar
Electricals Requirement	115V, 20A, 1Ph and 230V, 10A, 1Ph - 50/60Hz	
Valve Grinding Motor Power	0.5 HP, AC	0.375 KW, AC
Valve Rotation Motor Power	0.083 HP, DC	0.062KW, DC
Grinding Oil Pump Power	.025HP 300GPH	02KW 20LPM
Working Dimensions	33" D x 48" L x 63" H	838 D x 1220 L x 1600mm H
Shipping Dimensions	36" D x 36" L x 57" H	915 D x 915 L x 1450mm H
Shipping Weight	506 Lbs	230 Kg
Paint Color Code	RAL9002 (Grey White)	

Specifications and design subject to change without notice.

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