

Variable Speed Lathe

Ray Foster

Model PR90

Operating and Maintenance Instructions



Sales, Service, and Technical Assistance
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Ray Foster

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You have purchased a fine quality product from *Ray Foster Dental Equipment*. Our unique Variable Speed Lathe provides up to 4,000 RPM, giving you more power, speed, and versatility than ever before in a counter top dental lathe.

IMPORTANT SAFETY INSTRUCTIONS

To reduce the risk of fire, electrical shock, injury to persons or damage when using your Variable Speed Lathe, follow basic safety precautions including the following:

- ✓ **Read** this manual before using your lathe. These safety instructions are for your protection and should be followed to reduce the risk of personnel injury or damage to the lathe.



- ✓ **Use proper grounding.** This unit is equipped with an approved three conductor cord and plug. It must be plugged into a three hole grounded receptacle.

- ✓ **Disconnect** the power cord before servicing or cleaning unit.



- ✓ **Always wear proper eye and face protection.** Safety glasses or face shields should be worn whenever operating the lathe. **Do not** wear loose clothing or jewelry and tie back long hair.



- ✓ **Always use a proper dust collection system** or wear a respirator to prevent the inhalation of dust particles.



- ✓ **Do Not Exceed Maximum R.P.M.** Use **ONLY** grinding stones, cutters, burrs, buffing wheels, and other tools that are rated above 4,000 RPM. Insufficiently rated tools may break apart, bend, or become loose causing serious personal injury.

- ✓ **Never** use or continue to use any accessory which appears to be damaged, loose, vibrating, or out of balance. Inspect each accessory for cracks or flaws before using it.

- ✓ **Keep work area clean and well lighted.** Clutter and poor lighting invites accidents.

- ✓ **For Laboratory Use Only.** The Variable Speed Lathe is intended for use by trained professional laboratory personnel only.

- ✓ **This polishing lathe is supplied without guards.** Operator safety may require guards and other suitable safety devices or procedures. These may be specified in safety codes and should be provided for each polishing application. These are neither provided by Ray Foster Dental Equipment nor are the responsibility of Ray Foster Dental Equipment. Safety devices are the responsibility of the end user.

INSTALLATION

The lathe is intended to fit on the counter top. The unit has good weight with a cast iron base and 4 rubber pads to keep it in place. If you prefer to mount it to the counter top or in a cabinet you can do so by removing the 4 rubber pads, 1 on each corner of the base, which exposes 4 – 1/4” holes.

OPERATION

The unit is controlled by a base mounted on/off speed control actuated by a dial knob. Turn the unit on by turning the knob clockwise. When the unit is on a RED indicator light will glow. Increase the speed by continuing to turn the knob clockwise. To turn the lathe off rotate the knob counterclockwise until you feel a “click”. The RED indicator light will turn off.

The lathe shafts have standard jeweler’s taper (1/4” per foot) with chuck ejector on both ends. Use tool chucks specifically designed to install on taper shaft. Be sure shaft is clean for a secure fit of the chuck. To remove an installed chuck, thread the chuck ejector in an outward direction until it comes in contact with the chuck. Slowly push the chuck off by continuing to rotate the ejector.

Use Ray Foster manufactured chucks for a guaranteed fit and true running.

MAINTENANCE

The motor bearings are lubricated for the life of the bearings. No lubrication is required.

Keep the lathe and work area clean and follow the safety instructions as noted above.

REPLACEMENT PARTS AND CHUCKS

Uses only Foster approved replacement parts, or their equivalent; do not circumvent established electrical safeguards. **Disconnect** unit from electrical outlet **before** attempting any repairs.

Item	Description
B603	Potentiometer w/Switch
B620	Motor Speed Control
B602	Knob
R424	Fuse, 20 amp

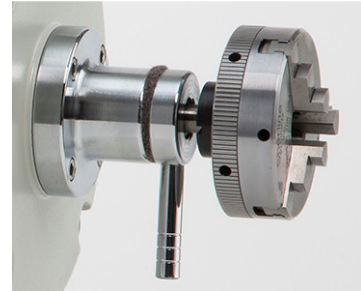
Precision lathe chucks for mounting on tapered shaft

Item	Description	Mount
<i>For rag polishing wheels and brushes</i>		
P91R	Spiral Chuck	Right
P91L	Spiral Chuck	Left
<i>For 1/2" wide x 3/4" diameter abrasive bands</i>		
P93R	Arbor Band Chuck	Right
P93L	Arbor Band Chuck	Left
<i>For wheels and stones 1/4" to 3/8" thick with 1/4" dia. arbor</i>		
P94R	Stone Chuck	Right
P94L	Stone Chuck	Left



B672 3-Jaw Chuck

Clamping capacity is 3/32" (2.35 mm) to 1-3/16" (30 mm). Parts can also be mounted by clamping internally. Maximum RPM 1,500. Can be mounted on right or left side.



Warranty

Ray Foster Dental Equipment warrants Variable Speed Lathes to be free of defects in material and workmanship for a period of two years from the date of purchase by the original user.

To obtain warranty service, the Polishing Lathe or defective part, together with proof of date of purchase, must be delivered freight prepaid to the factory in Huntington Beach, California. At its option, Ray Foster Dental Equipment Company will replace or repair the defect free of charge, providing the Dust Collector has not been subjected to abuse, neglect, damage, or used in a capacity other than which was intended.

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