

# INSTRUCTION MANUAL FOR POLISHING LATHE Models PR75 and PR52

### SAFETY NOTICE:

- **WARNING** Statements describe conditions that may lead to personnel injury including potentially fatal injuries if the machine is not properly used and warnings are not properly followed.
- **Caution** Statements describe conditions that may lead to equipment damage. Electrical shock can cause serious or fatal injury. Only qualified personnel should install, maintain or troubleshoot this equipment.
- WARNING: Do not operate this polishing lathe until you are sure that you are completely familiar with the safe operation of the polishing lathe, all accessories and safety equipment. Improper use can lead to severe injury. This manual defines proper use of this equipment. Contact Ray Foster Dental Equipment if you do not understand any procedure or operation concerning this polishing lathe or this manual.
- WARNING: Prevent electrical shock hazard and accidental machine operation. Always disconnect polishing lathe from the power source before servicing, or performing maintenance.
- WARNING: Use a holder when practical. It's safer than using your hand and it keeps hands away from wheel. Always keep hands at least 2 inches from wheels.
- WARNING: Avoid accidental starting. Make sure switch is in "OFF" position before connecting to power source.
- WARNING: Be sure the system is properly grounded before applying power. Do not apply power before you ensure that grounds are connected. Electrical shock can cause serious or fatal injury. Follow the National Electrical Code (NEC) and local codes for the safe installation of this equipment.
- WARNING: Always use safety glasses with side shields (or full face shield) when operating the polishing lathe. Do not use ordinary eyeglasses. Also use face or dust mask if cutting operation is dusty.
- WARNING: Unsuitable accessories or attachments added to this machine can create hazards. Ray Foster Dental Equipment accessories are specifically designed to be used with this polishing lathe. Use accessories or attachments only in the proper intended manner. Accessories or attachments obtained from another source may cause hazards. Consult the manufacturer before use.
- WARNING: Don't use in dangerous environment. Don't use polishing lathes in damp or wet locations, or expose them to rain. Electrical shock can cause serious or fatal injury. Follow the National Electrical Code (NEC) and local codes for the safe installation of this equipment.
- WARNING: Do not wear loose clothing, neckties, rings, bracelets, or other jewelry to get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.
- WARNING: When starting the polishing lathe for the first time, or after installing a replacement wheel, it is most important that the operator stand aside for at least one minute of rotation at full speed. This is the correct practice since wheels can disintegrate if they have received damage during shipping or handling.

#### SAFETY NOTICE Continued

- WARNING: Check damaged parts. Before further use of the polishing lathe, a guard or other part that is damaged should be carefully checked to assure that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
- WARNING: Never install a wheel that is damaged, such as a chip or crack on any surface. A damaged wheel can disintegrate while rotating at a high RPM or when work is placed against the wheel. This can severely harm the operator or others in the area.
- WARNING: Keep work area clean and well lighted. Clutter and poor lighting invites accidents.
- WARNING: Don't over reach. Keep proper footing and balance at all times. A rotating wheel can catchan article of clothing and cause personnel injury.
- WARNING: Dust created during polishing, grinding, and other activities may contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.
- WARNING: Never leave polishing lathe running unattended. Always turn power off after use.
- Caution: Don't force polishing lathe. It will do the job better and safer at the feed rate for which it was designed.
- Caution: Use right tool. Don't force tool or attachment to do a job for which it was not designed.
- Caution: Maintain polishing lathe with care. Keep polishing lathe clean for best and safest performance. Unsuitable accessories or attachments added to this polishing lathe may introduce hazards

Use wheels marked for safe operations at or over the maximum RPM rating on this polishing lathe. Using a wheel rated at a lower RPM than the machine is rated can cause a hazardous condition and result in short wheel life.

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

When you receive your unit, there are several things you should do immediately:

- 1. Observe the condition of the shipping container and report any damage immediately to the commercial carrier that delivered the product.
- 2. Verify that the part number you received is the same as the part number listed on your purchase order.
- 3. Place polishing lathe on solid bench. The polishing lathe must be installed on a rigid mounting surface.
- 4. Check polishing lathe nameplate to make certain the rating is correct for the power source, voltage and frequency.

#### Operation

- WARNING: Do not operate this polishing lathe until you are sure that you are completely familiar with the safe operation of the polishing lathe, all accessories and safety equipment. Improper use can lead to severe injury. This manual defines proper use of this equipment. Contact Ray Foster Dental Equipment if you do not understand any procedure or operation concerning this polishing lathe or this manual.
- WARNING: When starting the polishing lathe for the first time, or after installing a replacement wheel, it is most important that the operator stand aside for at least one minute of rotation at full speed. This is the correct practice since wheels can disintegrate if they have received damage during shipping or handling.

Check that the On/Off switch is in the "OFF" position, and the shaft moves freely. When starting the polishing lathe for the first time or after replacing a wheel, it is important that the operator stand aside for at least one minute of operation at speed. This will ensure that operation will be safe from debris. After connecting polishing lathe to power source, turn switch on. polishing lathe should come up to speed smoothly and without vibration. If polishing lathe does not, shut polishing lathe off immediately and determine reason. Always keep hands at least 2 inches from wheels. If the work piece is small, use a holder to keep hands 2 inches or more from wheels. Use extreme care when polishing irregularly shaped or small objects as they can be caught in the wheel and hurled outward with damaging force. Always polish from the front of the machine. If the work piece is caught by the wheel, the wheel will normally spin the piece downward. Polish on face (periphery) of the wheel only.

"Quick Chuck" on Laboratory Lathe model PR52 allows changing of chuck with motor running. On ejector type shaft, allow polishing lathe to come to a complete stop with motor off when changing chuck.

#### Maintenance

WARNING: Never install a wheel that is damaged, such as a chip or crack on any surface. A damaged wheel can disintegrate while rotating at a high RPM or when work is placed against the wheel. This can severely harm the operator or others in the area.

Replace worn wheel as necessary. The wheel should be replaced after the diameter is reduced by 2 inches from original size.

Motor and pulley bearings are lubricated for life and do not require additional lubrication.

For Ray Foster polishing lathes supplied with "Quick Chuck", see separate user Manual for Quick Chuck.

## Precision lathe chucks for mounting on tapered shaft

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

## LIMITED WARRANTY

Unless otherwise provided, Ray Foster 2-Speed Polishing Lathes are warranted against defects in workmanship and materials for a period of twenty four months. All warranty claims must be submitted to Ray Foster Dental Equipment prior to the expiration of the warranty period. If a Ray Foster product is defective due to workmanship or materials and the defect occurs during the warranty period, then Ray Foster Dental Equipment will either repair the product or replace it with a new one, whichever Ray Foster believes to be appropriate under the circumstances. Warranty service is available from Ray Foster's Customer Service Department in Huntington Beach, CA. All Ray Foster products requiring warranty service. **NOTE for PR52 Polishing Lathe**: Wells Quick Chuck is warranted by Wells Dental, Inc. Claims for warranty service on Wells Quick Chuck should be directed to Wells Dental, Inc. See Wells user manual enclosed.

Sales, Service, and Technical Assistance Call Toll Free 800 / 654-4519



Ray Foster Dental Equipment 5421 Commercial Drive Huntington Beach, CA 92649 714 / 897-7795, Fax 714 / 898 – 6013