

# Carve-Aire™

## Hi-Speed Lab Turbine Handpiece Maintenance Instructions

### Important Notice

It is recommended that upon disassembly, the handpiece be wiped of any accumulated grease or debris with a clean cloth only. **DO NOT USE ANY SOLVENTS TO CLEAN THE HANDPIECE.** Please note that 3 rubber O-rings and 1 flat rubber gasket have been included with your new Rotor Assembly. It is strongly recommended that the 2 large rubber O-rings (one in front nose cone and one in the rear distributor) and the flat rubber gasket (in-between the back rotor bearing and rear distributor) be replaced. The small rubber O-ring should also be placed on the tip of the Rotor Assembly near the front opening of the chuck. This will insure maximum performance and provide maximum service life from your new rotor.

**DO NOT REASSEMBLE HANDPIECE W/OUT THE FLAT RUBBER GASKET OR DAMAGE WILL OCCUR TO ROTOR AND HANDPIECE.**

Please note that the chuck in the rotor assembly is secured with a liquid thread locking compound to ensure the chuck will not loosen during operation. When removing the chuck, it may be necessary to heat a small instrument to approximately 300°F (150°C) and apply the heated instrument to the square opening of the chuck for 10 to 15 seconds to allow heat to loosen the compound. It may be necessary to repeat this procedure a few times in order to free the chuck from the rotor assembly.

### Bur-Gripping, Quick Change Chuck System

For bur changes

To insert the bur-

- (1) Select an FG bur and place into chuck
- (2) While holding black portion of handpiece, place bur changing tool over front of handpiece so that bur rests against metal disc inside bur changing tool.
- (3) Press handpiece into bur changing tool until a click is heard.

**Important:** always FULLY SEAT burs *before* operation. Never run handpiece without a bur in the chuck.

To remove the bur-

- (1) Hold black portion of handpiece firmly in one hand and push gray metal rear portion of handpiece forward with other hand.

### Replacing the Rotor/Chuck Assembly

- (1) Remove the bur
- (2) While holding the black portion of the handpiece, rotate front portion of handpiece counter-clockwise. Remove front portion of handpiece.
- (3) Lift rotor housing away from handpiece. Carefully separate the two halves of the rotor housing and push the rotor away from top section by placing an FG bur into chuck. A patented dust shield is permanently mounted on the outer housing of the turbine ball bearing and fitted around the FG chuck. This device prevents dust particles and foreign matter from entering vital parts of the rotor.
- (4) Reverse this procedure when installing the replacement rotor.

**NOTE:** When replacing the rotor into the front portion of the rotor housing, the round hole and rubber grommet must be placed into the front housing; whereas the square hole faces toward the rear housing.



Chuck Removal Tool

### Replacing the Chuck

- (1) Remove the rotor as outlined above.
- (2) Insert chuck tool into the square end of the chuck.
- (3) Hold the rotor securely with a protective cloth and turn the chuck removal tool clockwise to loosen and remove chuck.
- (4) Remove the chuck from the rotor. Reassemble the new chuck after applying a small drop of fast-drying adhesive to the chuck threads.
- (5) Turn the chuck tool counter-clockwise to tighten into place. Replace the rotor.

### Lubricating the Carve-Aire™ Handpiece

After 3 to 5 hours of operation and/or the end of each working day, the Carve-Aire™ handpiece must be lubricated with a special medical lubricant, using the supplied lubricating tool.

Lubricating the handpiece is a quick and simple procedure which will ensure optimum life and performance from your unit.

- (1) Remove bur from handpiece
- (2) Remove protective cover from the tip of lubricating tool. Rotate the knurled housing of tool, while holding front portion, until a small amount of grease appears at the tip of the lubricating tool.
- (3) Insert tip of lubricating tool completely into chuck of handpiece.
- (4) While holding handpiece and front portion of lubricating tool in one hand, rotate the knurled housing of lubricating tool one-half turn clockwise.
- (5) Remove lubricating tool and replace protective cover over the tip of tool.
- (6) Using soft cloth, wipe any excess grease off the handpiece.

Your handpiece is now ready for operation.

To replace the lubricating cartridge, simply remove the knurled housing by turning it counter-clockwise and pulling out the lubricating cartridge. Insert the replacement cartridge, turning the knurled housing in a clockwise direction until a small amount of grease appears on the tip of the lubricating tool.



Lubricating Tool