PREPARATION

A) Cleaning
All handpieces should be cleaned after each use.
1. Remove handpiece from delivery unit
2. Remove attachments and accessories from the handpiece
3. Remove all slow speed attachments (contra angles, prophy heads and nose cones) from motors
4. Remove all burs from handpieces before cleaning

B) Cleaning
1. Clean handpieces and attachments with a soft brush and water (if recommended by manufacturer, clean with alcohol)
2. Shake the handpiece and attachments free of water and wipe with a lint-free towel

Remember:
• Do not place in ultra-sonic unit (may damage the bearing cage and fibre optics)
• Never clean with bleach, chemical disinfectants or other harsh cleaning agents
• Never immerse handpieces

LUBRICATION

Simple lubrication of the handpiece before sterilization is the most effective measure to extend the life of a handpiece. Follow manufacturer’s guidelines for lubricating handpieces.

The HPE Dealer can provide specific instructions on how to lubricate each model of handpiece in the dental office.

A) Lubricating High Speed Handpieces
High speed handpieces should be lubricated after each use.
1. FOR DROP OIL: With the bur inserted, place lubricant (2 – 3 drops) into the air intake and run on purge unit for 5 – 10 seconds, or until all excess oil is expelled
2. FOR AEROSOL OIL: With the bur inserted, spray lubricant for 1 second into the air intake and run on purge unit for 5 – 10 seconds, or until all excess oil is expelled
3. If expelled oil is colored, repeat lubrication process until expelled oil is clear
4. Remove bur
5. Non-lube handpieces may also benefit from regular lubricating (See manufacturer’s instructions for use)
6. Do not leave Midwest levers open

B) Lubricating Slow Speed Handpieces and Accessories
Slow speed handpieces and accessories should be lubricated once a week.
1. Remove all slow speed attachments (contra angles, prophy heads and nose cones) from motors.
2. FOR DROP OIL: Place 2 – 3 drops of lubricant into inlet of handpiece and run for 30 seconds, or until all excess oil is expelled.
3. FOR AEROSOL OIL: Spray lubricant for 1 second into inlet of handpiece and run for 30 seconds, or until all excess oil is expelled.
4. It is important to lubricate until you see oil coming out of the handpiece head

Warning:
• Never run a handpiece without the bur installed
• Handpieces should be oiled prior to sterilization
• Avoid touching oil bottle to a handpiece that has been sterilized (to avoid cross-contamination)

STERILIZATION

Handpiece Experts recommends the use of steam sterilizers

Sterilization Procedure
Handpieces and accessories must be autoclaved before first use and before every use.
1. Separate and disassemble attachments, and cutting accessories from handpieces prior to sterilization
2. Follow manufacturer’s instructions on how to use autoclave unit
3. Bagging is not required for steam sterilizers
   • If you use autoclave bags, plastic bags are not recommended by HPE
   • Single-sided plastic is okay if left to dry and cool with paper side up
   • Do not stack bags after sterilization
4. Autoclave
5. Place on clean towel to cool and dry
6. After autoclaving, allow handpieces and accessories to cool gradually back to room temperature

Remember:
• Remove the burs and prophy cups (NEVER sterilize with bur inserted)
• Lever-operated chucks must be closed (open levers put extreme pressure on the bearings and cause turbine failure)
• NEVER cool a hot handpiece under cold water or by placing it in a refrigerator. This causes undue expansion and contraction and can seriously damage the handpiece.
• Allow drying cycle to complete before removing handpiece from the autoclave to ensure that all moisture has been removed
• Make sure the handpiece is completely cool and dry before operating
• Have autoclave unit serviced regularly by manufacturer’s representative

GENERAL MAINTENANCE AND TESTING

A) Air pressure on the air delivery units should be adjusted to the manufacturers’ recommended pressure. Too much pressure will cause over-revving which leads to premature turbine failure. Many offices increase air pressure to compensate for worn bearings, destroying turbines that are in good condition. It is better to put the worn handpieces aside for servicing.

B) Auto chucks should be oiled regularly to remove residue and alleviate bur sticking.

C) Do not cheat burs out as this causes premature chuck failure. ProDrive turbines are designed to safely extend the bur, without stressing the chuck.

In-Office Diagnostics:
The handpiece and equipment should be serviced:
• If you notice air leaks from the hose and handpiece
• If you operate the handpiece with bur inserted for 10 – 30 seconds and you hear unusual sounds (e.g., grinding or unusual frequency)
• If the bur can be pulled out of the handpiece while it is in the lock position
• If you detect excessive heat from the turbine area

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