

# Cavitron and Midwest Maintenance

## Extending the Life of your Equipment

Scott A Reed  
DENTSPLY Professional  
Product Service  
Technical Trainer

## Equipment issues cost you...

- Time
- Schedule
- Service calls
- Repair costs

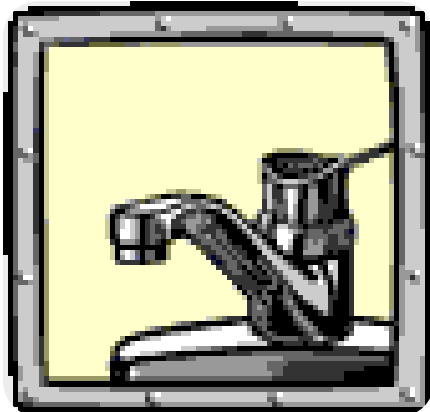


Let me show you some things that will make your equipment last longer and have fewer breakdowns.

# Cavitron Inserts



# Cleaning and Sterilization



- Remove any loose debris from the exterior surfaces
- **Use water only**



- **Do Not** clean with alcohol or disinfectant wipes
- Dries out o-rings and degrades plastic grip

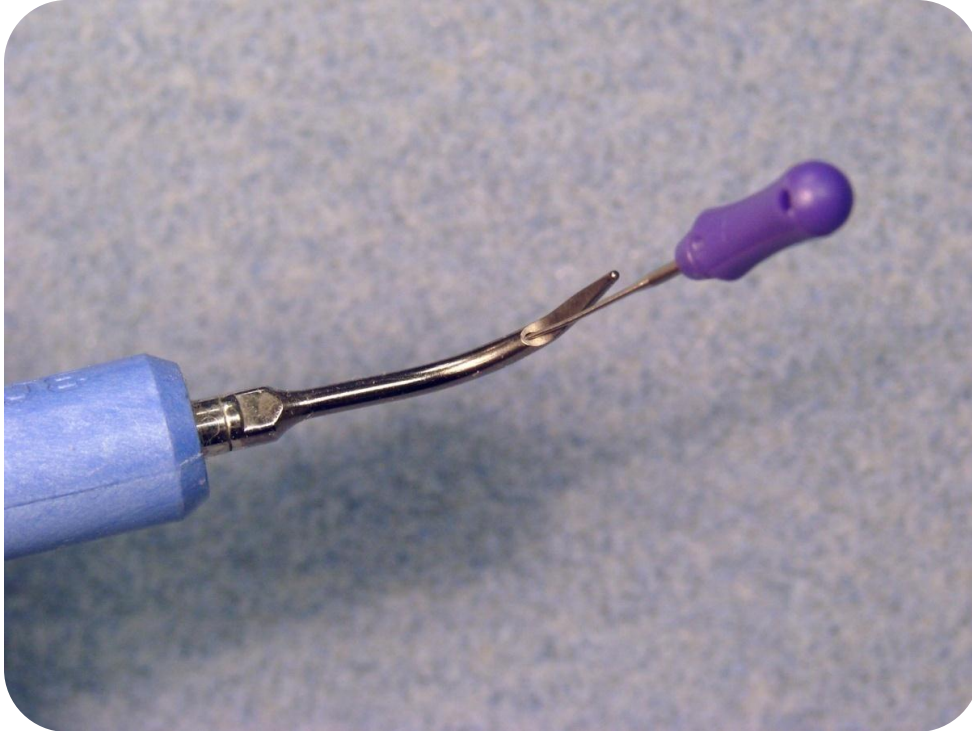
# Cleaning and Sterilization



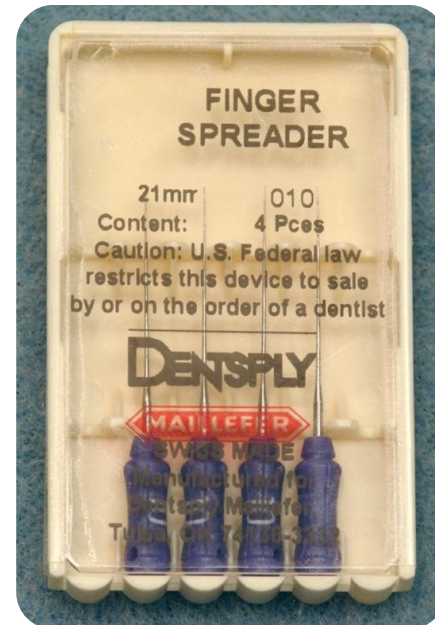
- **Sterilization** = Kills all bacteria
- **Decontamination** = surface disinfectant
- Steam autoclave
  - 273°F / 134°C
  - 12 minutes bagged, paper side up
  - 3 minutes un-bagged



# Clogged FSI Water Port



- No or low water flow
- Hot handpiece
- Insert pops out
- Clear clog with Finger Spreader



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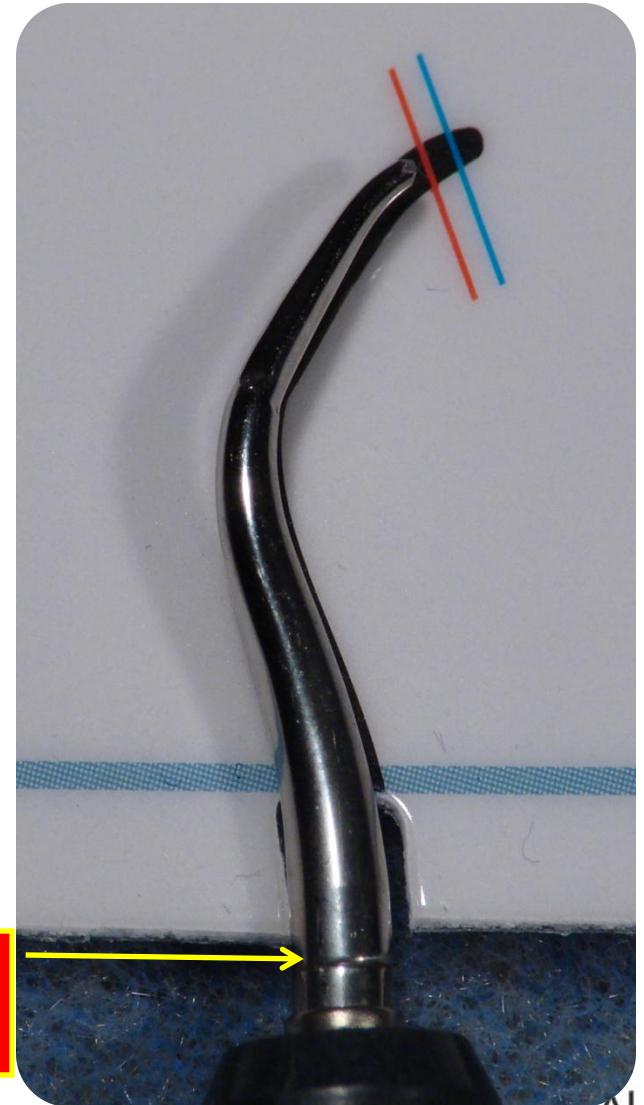


# Worn Insert Tips



- Hot handpiece
- Loss of Stroke / Scaling Power
- 1 mm (Blue line) = 25% Loss
- 2 mm (Red Line) = 50% Loss

**Line up with edge of card**



# Re-Shaped or Bent Tips



- NO Sharpening
- NO Bending
- NO Re-shaping
- Do NOT drop on floor
- Insert will have low power



# Leaking between Insert and Handpiece



What now?

# Worn O-ring Replacement



# Worn O-ring Replacement

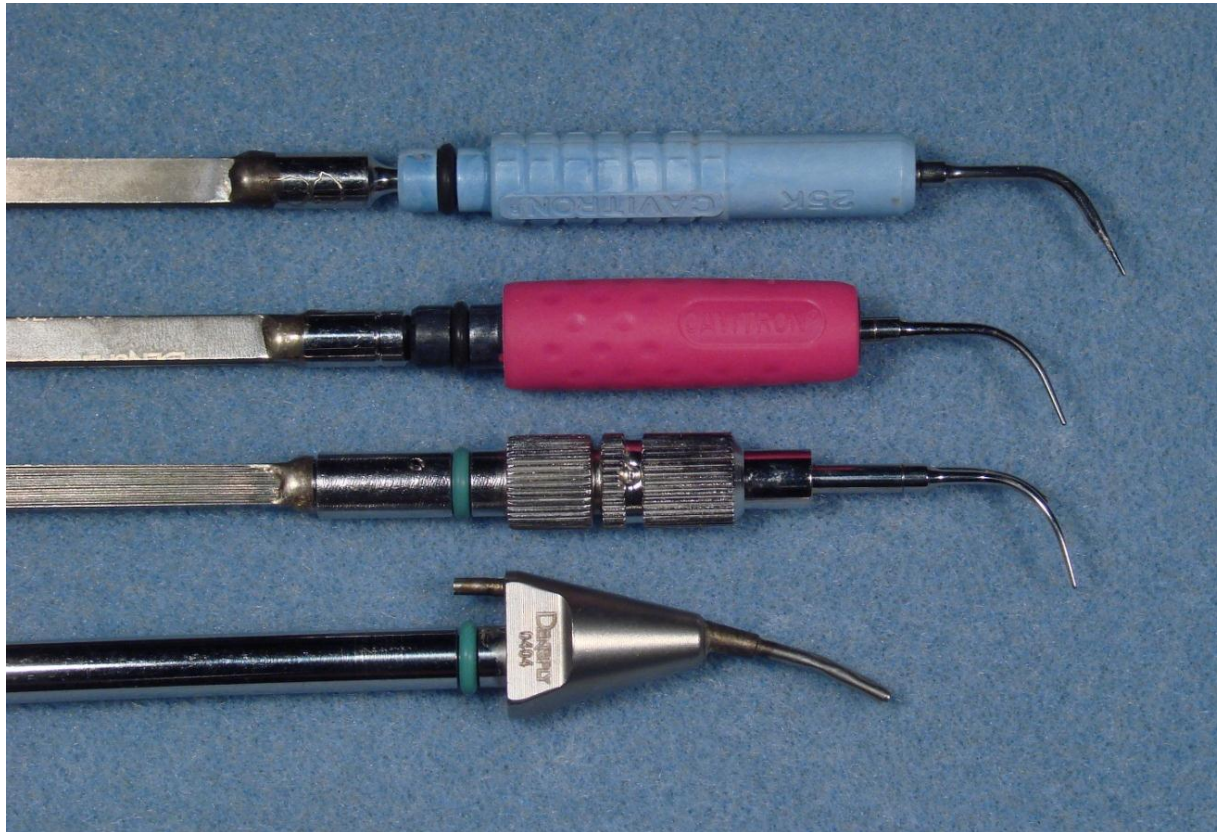


1. Remove worn o-ring
2. Select correct replacement o-ring



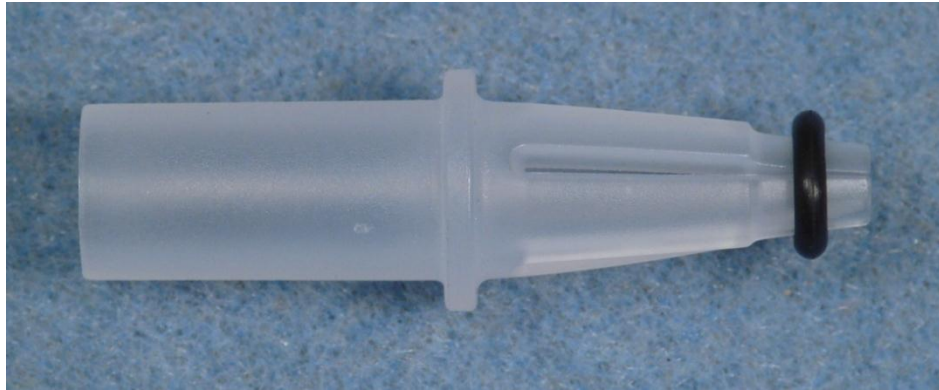


# Worn O-ring Replacement



- **Black o-ring = installed on plastic**
- **Green o-ring = installed on metal**

# Worn O-ring Replacement



3. Push o-ring onto tool
4. Push tool onto end of insert





# Worn O-ring Replacement



5. Push tool up until the fingers reach the groove





# Worn O-ring Replacement



6. Roll o-ring into groove

7. Remove tool



# Prophy JET Nozzle Inserts



# Clogged Powder Tube



Solidified powder  
clogging center  
tube

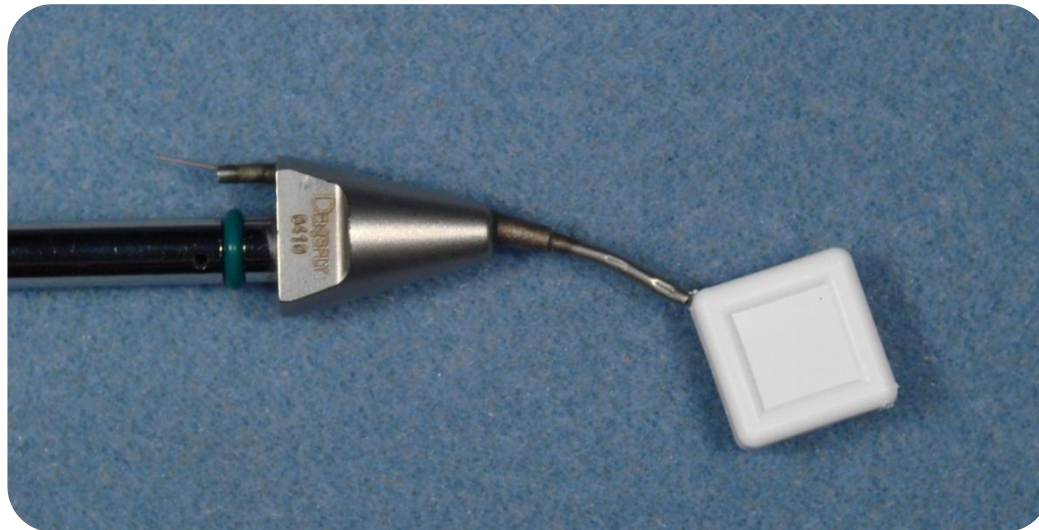
- Low / No air & powder flow



How is this prevented?

# Sterilization

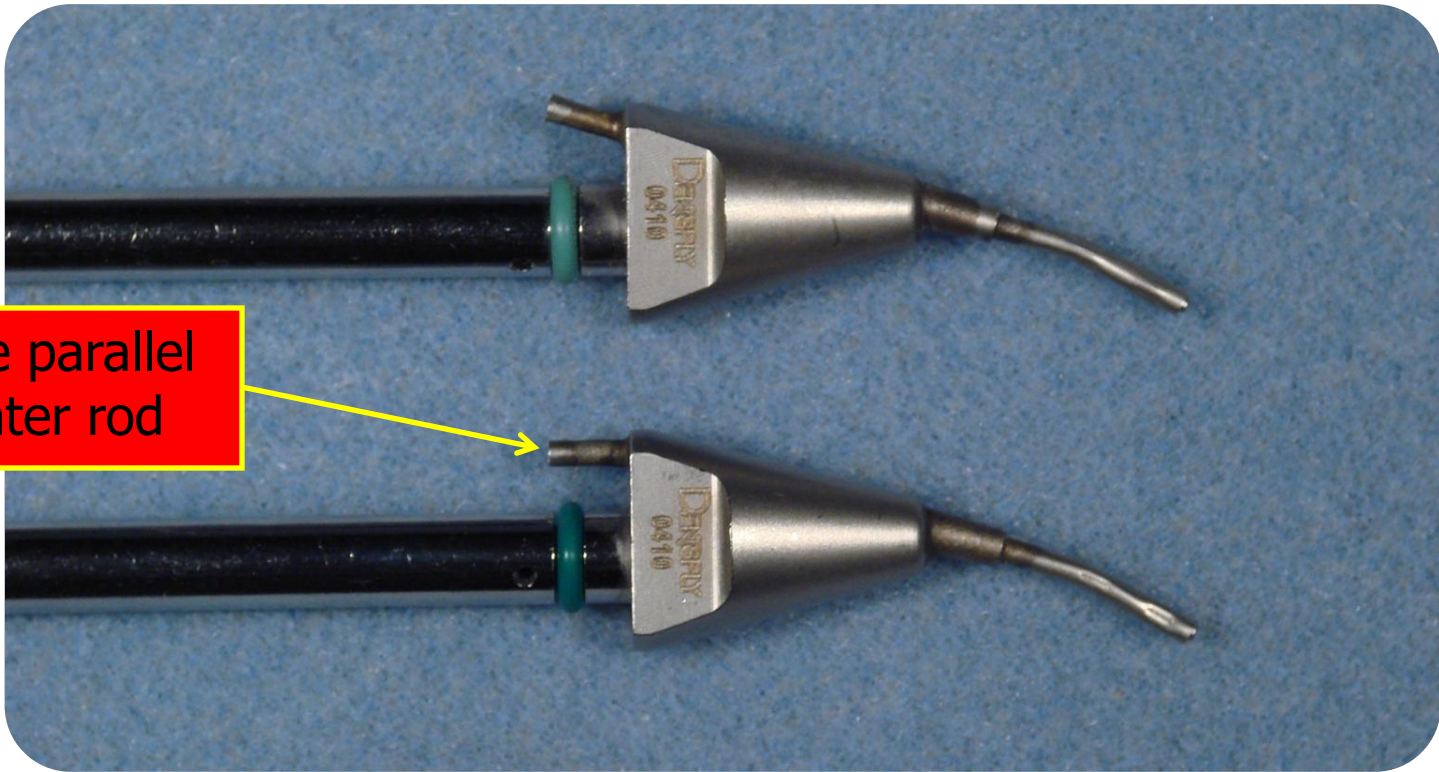
- Nozzle should be sterilized with cleaning wire in place
- Steam autoclave
  - 273°F / 134°C
  - 12 minutes bagged, paper side up
  - 3 minutes un-bagged





# Connecting Tube

- Nozzle will be hard to insert in handpiece



Must be parallel  
to heater rod

# Cavitron Systems





# Water System

- Turn off water supply or disconnect water QD at the end of every day



# Water System Maintenance

- Recommended by Center For Disease Control (C.D.C.)
  - 2 Minute flush at beginning of day
  - 30 Seconds flush between patients
  - 30 Seconds flush at the end of the day



- Remove insert from handpiece
- Turn Water flow knob to maximum

# Purge Feature



- 2 minute timed cycle
- Improved time management
- Easier adherence to infection control guidelines

# Prophy System Maintenance



## At the End of Every Day

- Empty powder into storage jar
- Suction out bowl
- Purge air system (15 seconds)

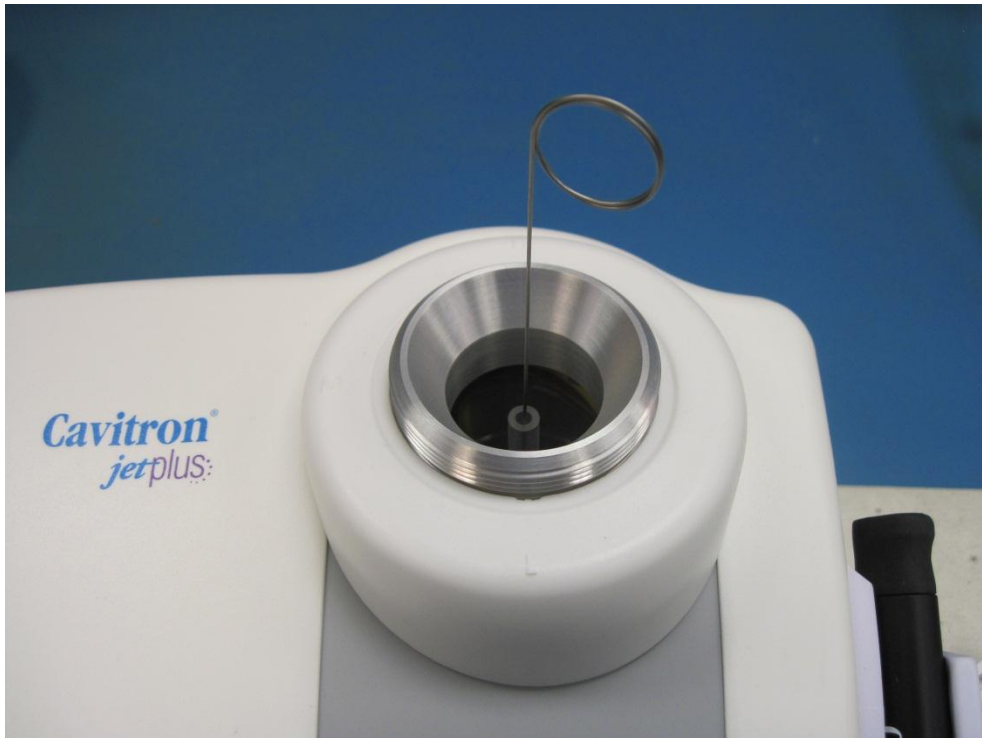
# Prophy System Maintenance



## At the Beginning of Every Day

- Purge air system (15 seconds)
- Fill bowl with powder
- Do not cover center tube
- Refill when powder tapers on bowl
- Screw on powder bowl cap

# CLEARING A CLOG - Low or No Powder Flow

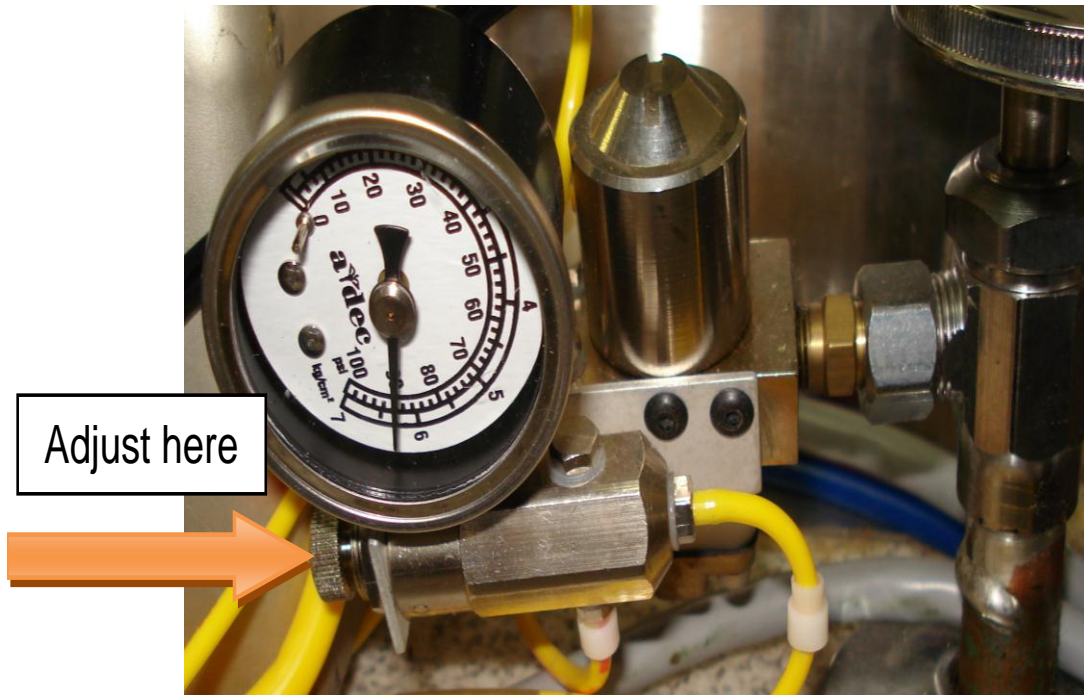


- If strong airflow is not heard or felt from the powder bowl center tube, J nozzle may be clogged. Insert the JET-Mate cleaning wire [81075] into the powder bowl center tube down into the small hole in the J nozzle to clear the clog.



# Prophy System Maintenance

Check for correct incoming air pressure. 65-100 psi.  
Recommended setting 80 psi.



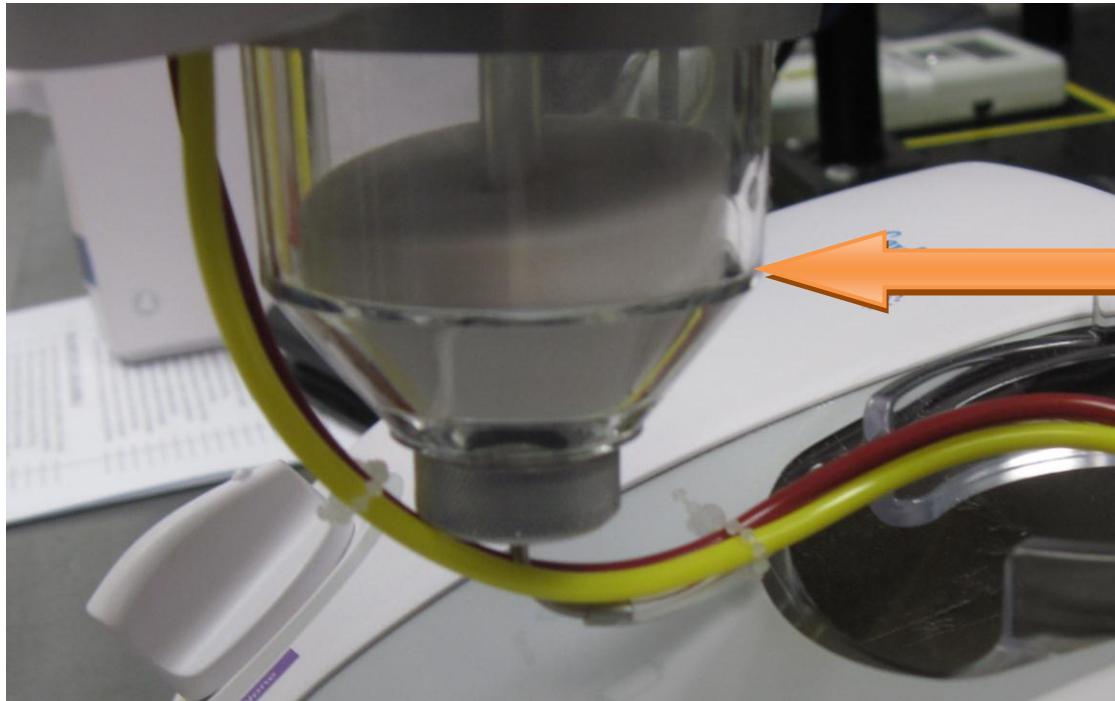
# Prophy System Maintenance

Check for continuous bleed air blowing from handpiece with unit on. If no air is felt, insert cleaning wire into JETmate handpiece to clear clog.



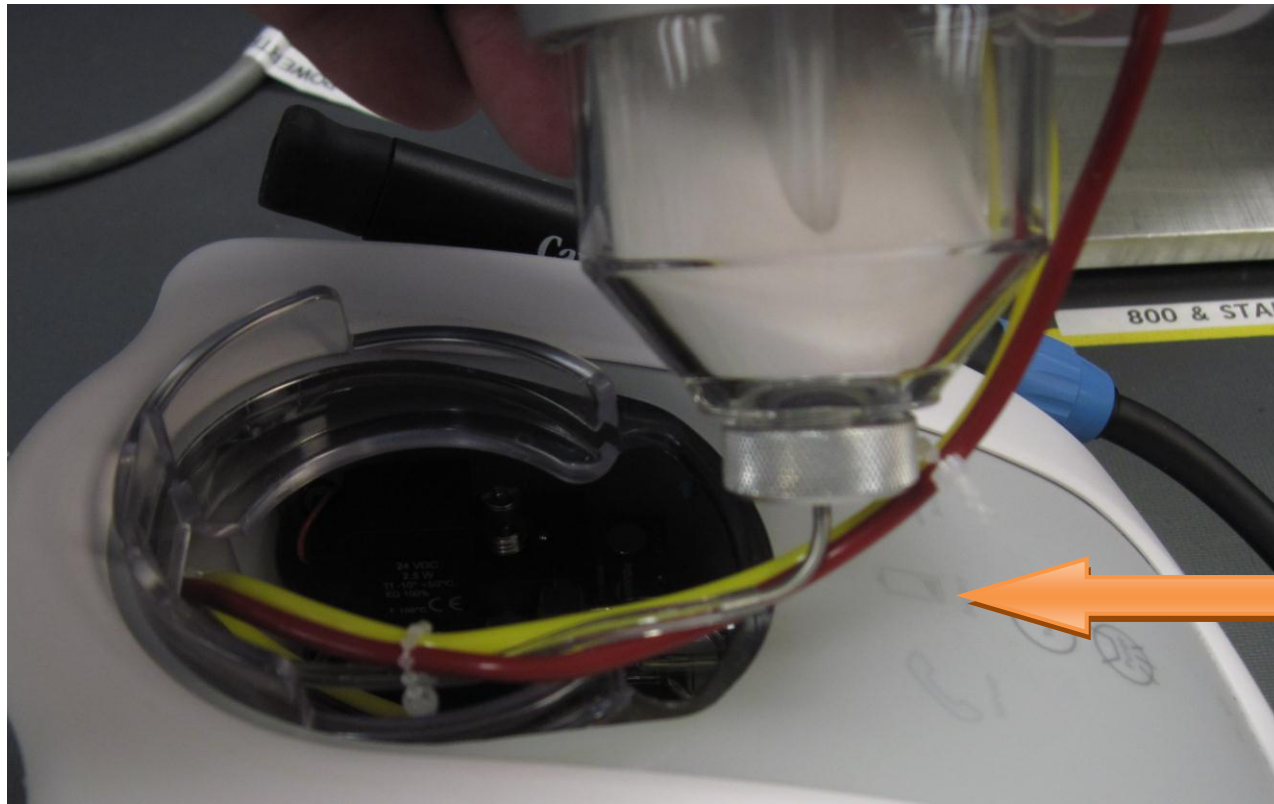
# Prophy System Maintenance

Ensure powder bowl is filled above the tapered portion of the clear bowl.



# Prophy System Maintenance

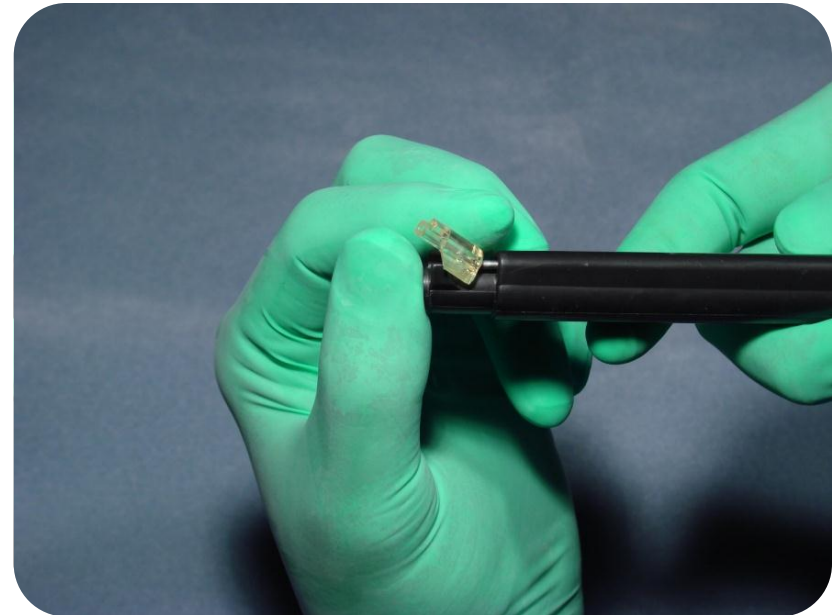
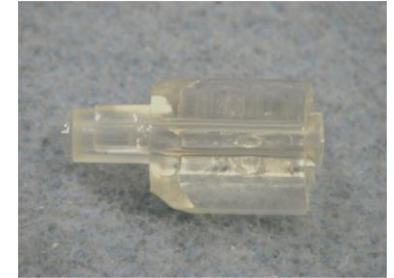
Ensure tubing and metal J nozzle is pointing towards the rear of unit. If not, loosen nut and position towards the rear of unit. Make sure tubing is not pinched or folded when placing bowl assembly into unit.



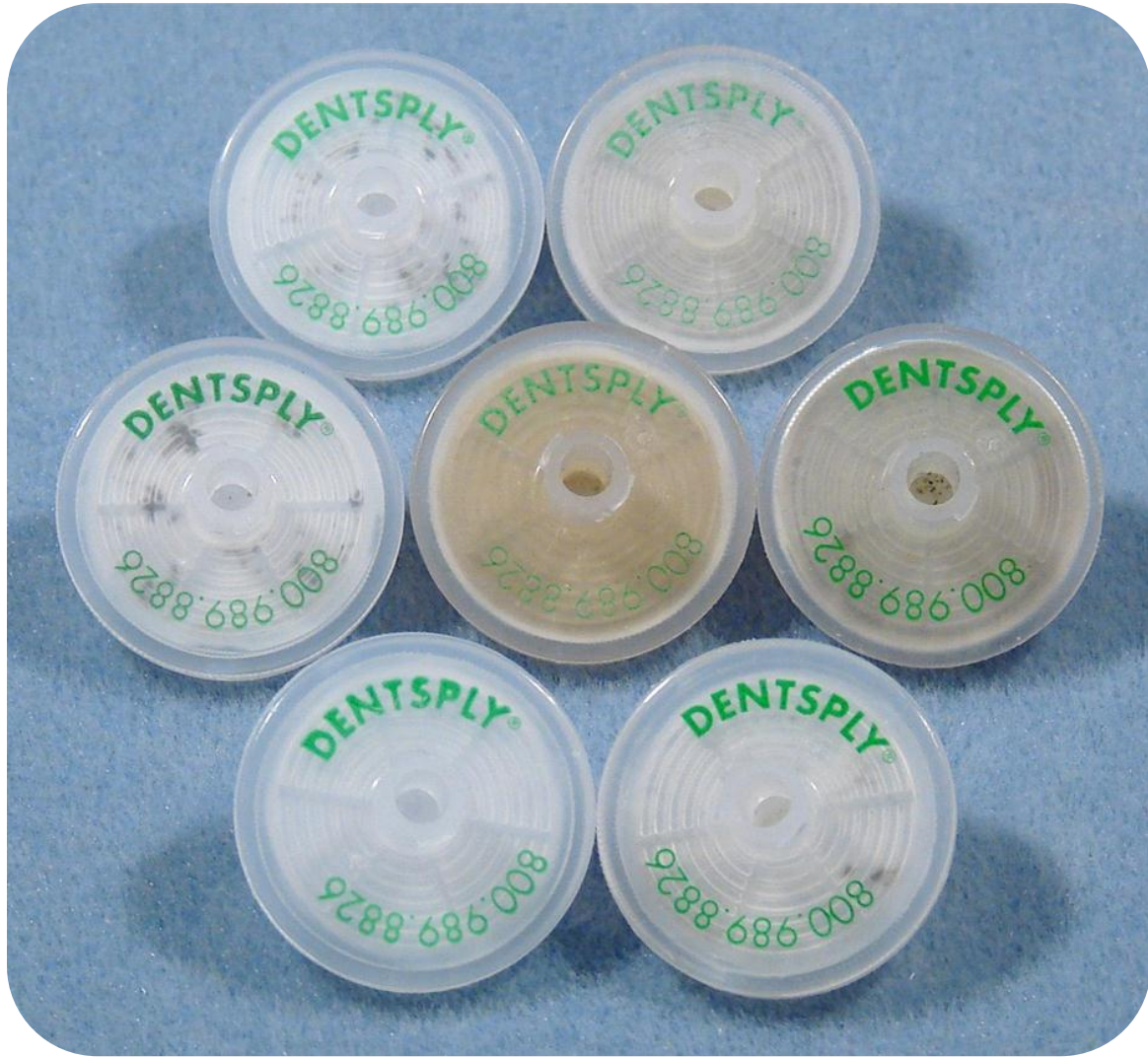
# Nozzle Grip/Molded Receptacle Replacement



- Replace when Deformed or Deteriorated







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# Water Filter

- Disposable
- User Replaceable
- Sold in 10 packs (Part #90158)





# Midwest Handpieces

Scott A Reed  
DENTSPLY Professional  
Product Service  
Technical Trainer

# High Speed Maintenance



# Maintenance Between Patients



- MIDWEST<sup>®</sup> Plus<sup>™</sup> Aerosol Spray
- Handpiece Lubricant and Cleaner

# Maintenance Between Patients

- ❑ Remove Bur from chuck.
- ❑ Scrub and rinse under warm water with a soft brush or sponge.



- ❑ No Alcohol
- ❑ No Cavi wipes
- ❑ No Discide
- ❑ No disinfectant wipes

# Maintenance Between Patients



- Be sure to clean the fiber optic bundles.

# Maintenance Between Patients

- ❑ Select correct nozzle for back end of handpiece
- ❑ While holding can of Midwest Plus Aerosol Spray upright, insert nozzle fully into back end of handpiece with coupler removed. Spray a short one second burst.
- ❑ Install spare coupler or maintenance coupler onto handpiece.





# Maintenance Between Patients



- ❑ Run handpiece without bur using handpiece hose or Midwest Air Station. Run for 30 seconds or until normal speed is reached and all excess cleaner/lube is expelled.

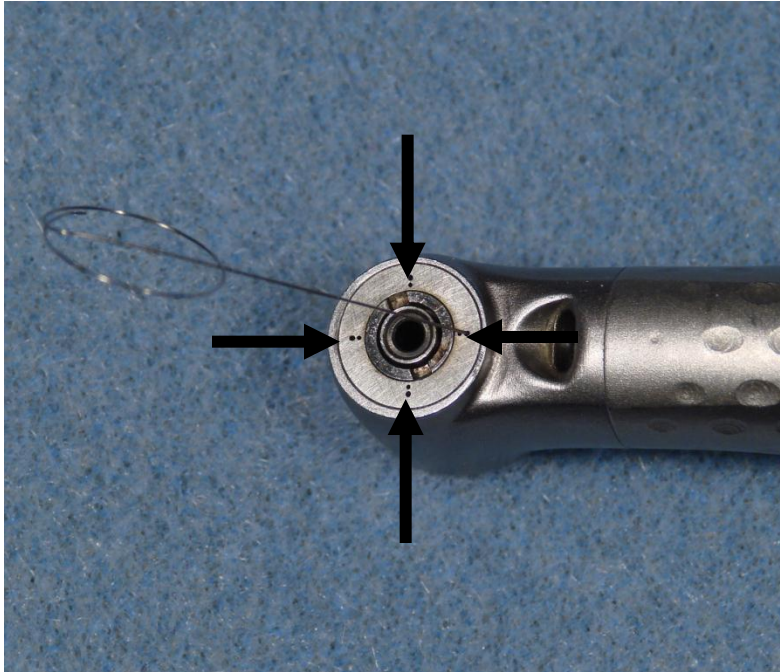
# Maintenance Between Patients



- ❑ Wipe off any excess lubricant on the outside of the handpiece.
- ❑ Insert handpiece into a sterilization bag.
- ❑ Sterilize handpiece
- ❑ Do not cool handpiece with water
- ❑ Handpiece is ready to use

# Weekly Maintenance

- Run the cleaning wire back and forth in the water spray hole or holes to loosen and remove any mineral debris.



# Weekly Maintenance

- Lubricate the coupler o-rings with Midwest Plus Handpiece Lubricant.





# Weekly Maintenance

- Place 1 drop of Midwest Plus Handpiece Lubricant into the chuck.



# MIDWEST Rhino XP<sup>®</sup> Maintenance



# Rhino XP<sup>®</sup> Maintenance

## Between Patients

- Scrub & Rinse angle under warm tap water
- Hold the Aerosol can upright
- Insert nozzle fully into Drive Air Tube
  - Shorter tube
  - Gold color on newer Handpieces
- Spray a 1 second burst



# Rhino XP<sup>®</sup> Maintenance

5. Run Rhino XP<sup>®</sup> motor for **30 seconds** or until normal speed is reached and all excess Cleaner/Lubricant is expelled

6. Dry thoroughly

7. Bag & sterilize

8. The Rhino XP<sup>®</sup> motor is ready to use and does not need to be re-lubricated.





# MIDWEST<sup>®</sup> Shorty<sup>®</sup> MIDWEST<sup>®</sup> RDH<sup>®</sup> Maintenance

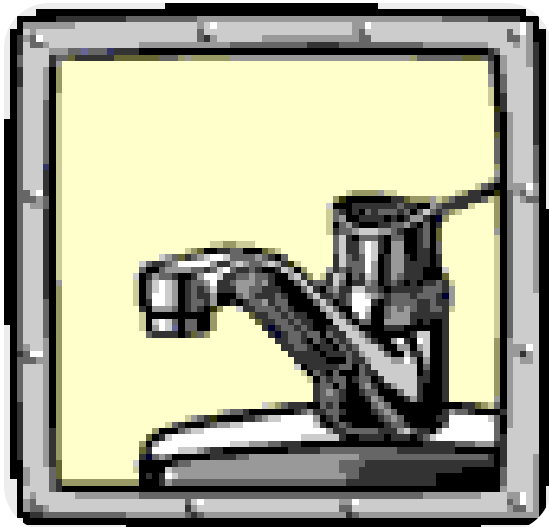


# Shorty® - RDH Maintenance

- Do NOT use MIDWEST® Plus™ Aerosol



# Shorty® - RDH Maintenance



## Between Patients

- Scrub & Rinse under warm tap water

# Shorty® - RDH Maintenance



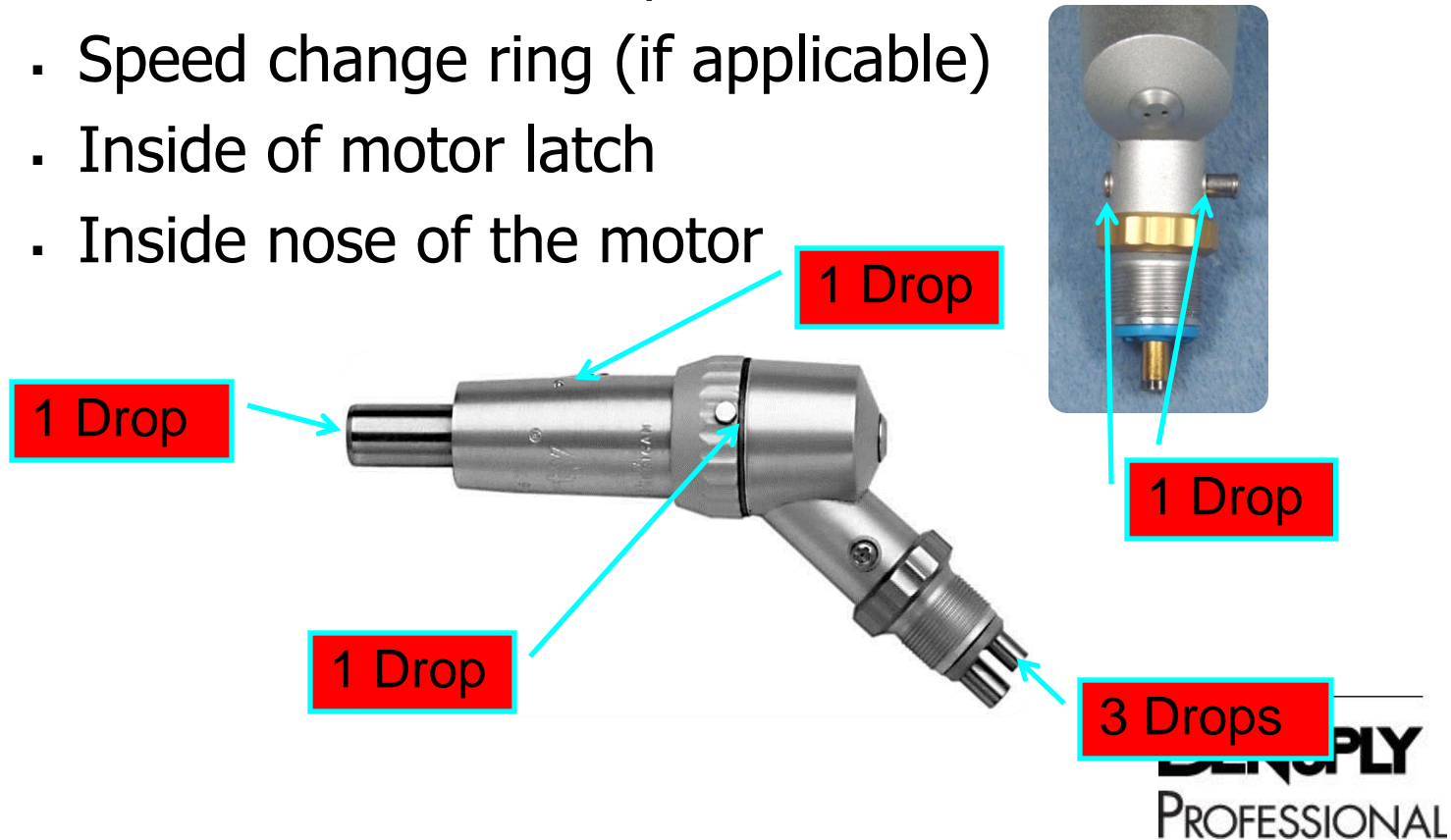
- Lubricate with Midwest® Plus™ lubricant by putting **3 drops** into the drive air tube
- Run motor for **30 seconds** or until normal speed is reached and all excess lubricant is expelled
- Dry thoroughly
- Bag & sterilize
- The motor is ready to use





# Shorty® Weekly Maintenance

- Place **3 drops** of lubricant into drive air tube
- Place **1 drop** on:
  - Each side of forward/reverse valve
  - Speed change ring (if applicable)
  - Inside of motor latch
  - Inside nose of the motor



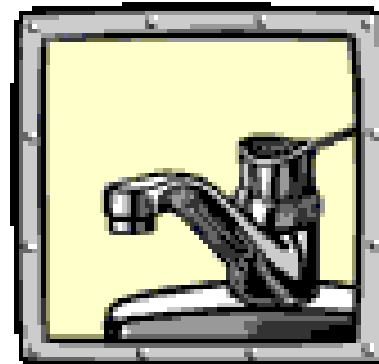
# MIDWEST<sup>®</sup> Attachments

## Maintenance



# Attachment Maintenance

- After each use or as-needed for **ALL** Attachments:
  - Scrub and rinse parts under warm tap water
  - Dry thoroughly



# Attachment Maintenance

- Place **3 Drops** of Lubricant into back end of Angle or Attachment
- Run Attachment on Low Speed Motor or Midwest<sup>®</sup> Air Station for a minimum of **30 seconds** or until it reaches normal speed
- Bag and Sterilize
- Ready to use and re-lubrication is not necessary



# Weekly Attachment Maintenance



## Lubrication: Sheaths

- 1 drop into each gear on neck of sheath
- 3 drops into backend of sheath





# Weekly Attachment Maintenance



## Lubrication:

### Straight Attachment and U-style Adapter

- 1 drop into chuck
- 3 drops into backend of angle



# Weekly Attachment Maintenance



## **Lubrication:**

### Angle Heads

- 1 drop into neck of head
- 1 drop onto each end of the head gear and shaft assembly



# Carbide Bur Care

- Clean burs in ultrasonic cleaner
- Dip burs in Surgical Milk (rust inhibitor) for 30 seconds
- Steam sterilize at 134°C for a minimum of 3 minutes
- Burs should be dried and stored in a moisture free environment





# Thank You!



You will be rewarded for  
maintaining your  
equipment with years of  
trouble free use!