

Vortex™ Reamer Driver

Instructions for use with 3D Printed Arches

1. **Remove Uncured Resin:**
 - o Carefully clean out any uncured resin from the straight screw channels. Ensure the channels are completely free of resin to avoid interference during driver use.
2. **Remove Debris:**
 - o Inspect the screw channels for any small particles of cured resin or other debris. Use appropriate tools to remove these particles, ensuring a clean and smooth surface within the channels.
3. **Verify Screw Seat:**
 - o Confirm that the screw seat is clear and properly shaped. Ensure there are no obstructions or irregularities that could hinder the seating of the screw.

How to Use Vortex REAMER Drivers

Using Vortex REAMER drivers correctly is crucial for achieving precise results when working with 3D printed arches. Follow these steps to ensure proper use:

1. **Preparation:**
 - o **Select the Correct Driver:** Choose the appropriate Vortex REAMER driver based on the size and type of screw you are working with.
 - o **Inspect the Driver:** Ensure the driver is clean, undamaged, and properly seated in the handpiece or manual driver handle before use.
2. **Engagement with the REAMER:**
 - o **Align the Driver:** Align the driver tip with the screw head, ensuring it is centered and seated correctly in the screw slot.
 - o **Apply Gentle Pressure:** Press the driver gently into the screw to engage it fully. Avoid applying excessive force, which could damage the screw seat.
3. **Driving the REAMER:**
 - o **Manual Use:** If using a manual driver handle, turn it slowly and steadily to drive the screw into the arch. Maintain a firm but controlled grip to avoid slippage.
 - o **Powered Handpiece:** If using a powered handpiece, set the appropriate speed (50rpm) and torque (15Ncm) according to the manufacturer's recommendations. Engage the screw seat slowly, allowing the reamer to cut cleanly without applying excessive force.
4. **Seating the REAMER:**
 - o **Monitor Progress:** As you drive the screw, periodically check the alignment and seating. Ensure the screw is threading smoothly into the channel.
 - o **Final Seating:** Once the REAMER is almost fully seated, reduce pressure to achieve the final seating without over-stressing the screw seat. This prevents damage to both the REAMER and the 3D printed arch.
5. **Final Inspection:**
 - o **Check REAMER Placement:** Ensure that the REAMER is fully seated where the head is flush with the surface of the screw seat, with no gaps or misalignment.
 - o **Assess the Length:** Based on your design you should see 1mm to 1.4mm of the REAMER extend from the base of the MUA. (See picture below)

Cleaning and Care Instructions for Vortex REAMER Drivers

1. **Immediate Cleaning After Use:**
 - o **Manual Cleaning:** Rinse the Vortex REAMER drivers immediately after use under lukewarm water to remove any debris or resin residue.
 - o **Brush Cleaning:** Use a soft-bristle brush to gently scrub the driver, focusing on the head, shank, and any grooves to ensure all particles are removed.
2. **Disinfection:**
 - o **Chemical Disinfection:** Soak the drivers in a mild disinfectant solution that is safe for dental instruments.
 - o **Avoid Harsh Chemicals:** Do not use bleach or corrosive chemicals, as they can damage the instrument's surface and reduce its lifespan.
3. **Drying:**

- **Thorough Drying:** After cleaning and disinfecting, ensure the drivers are thoroughly dried. Use a clean, lint-free cloth to wipe them down, and allow them to air dry completely before storage.
- **Prevent Rust:** Ensure no moisture remains on the instrument, especially in any crevices, to prevent rust or corrosion.
- 4. **Inspection Before Storage:**
 - **Visual Check:** Inspect the drivers for any signs of wear, damage, or residue. Check the tips for sharpness and integrity.
 - **Functionality Check:** Verify that the drivers are functioning smoothly without any resistance or irregularity.
- 5. **Proper Storage:**
 - **Dry Storage:** Store the Vortex REAMER drivers in a dry, clean environment, ideally in a sterilized instrument case or container.
 - **Avoid Contamination:** Keep the drivers separate from other tools or instruments that could cause contamination or mechanical damage.
 - **Regular Maintenance:** Periodically check stored instruments for any signs of corrosion or damage, and re-clean if necessary.
- 6. **Periodic Maintenance:**
 - **Lubrication:** Apply a small amount of instrument-grade lubricant to any moving parts, if applicable, to ensure smooth operation.
 - **Sharpening:** If the driver tips become dull over time, consider replacement.

Replacement Guidelines for Vortex REAMER Drivers

To maintain the highest level of precision and performance, it's important to replace your Vortex REAMER drivers at the appropriate intervals. Here are some general guidelines:

1. **Regular Inspection:**
 - **Visual Wear and Tear:** Inspect the drivers regularly for any visible signs of wear, such as dull tips, bent shafts, or corrosion.
 - **Decreased Performance:** If you notice a decline in performance, such as difficulty in engaging screws or reduced cutting efficiency, it may be time to replace the driver.
2. **Usage-Based Replacement:**
 - **High-Frequency Use:** For drivers used frequently (e.g., daily), consider replacing them every 4 months to ensure optimal performance.
 - **Moderate to Low-Frequency Use:** For drivers used less frequently (e.g., weekly), replacement every 12-18 months is recommended, depending on the condition of the instrument.
3. **Damage or Compromise:**
 - **Immediate Replacement:** If the driver is dropped, visibly damaged, or compromised in any way, replace it immediately to avoid any risk.

By following these steps, you can ensure that the Vortex REAMER drivers are used effectively, maintaining precision and integrity in your work with 3D printed arches.