

Aria™ Hybrid Valve

Part Nr./Ref: CA300-HYV



INSTALLATION INSTRUCTIONS

The Aria Hybrid Valve features auto-expulsion function with a push button release. It may be used for a variety of prosthetic suction socket applications that include suction suspension and/or elevated vacuum. It is appropriate for installation into ALL prosthetic socket materials.

Installation into Thermoplastic Materials

For installation into thermoplastic socket materials, use the enclosed Aria Valve Threaded Housing (Part Nr./Ref:CA200-THM).

1. Determine location for valve placement on your cast model and flatten that area so that the threaded housing sits flush on the model.
 2. Mark the location of the center hole of the threaded housing with a marker.
 3. Drill a 4mm (5/32") pilot hole at the location of the mark. This will be the hole for the enclosed mounting screw used to secure the threaded housing onto the cast.
 4. Drill a vacuum hole adjacent to the pilot hole. The vacuum hole should extend to the bottom of the cast model for optimal draw when vacuum forming.
 5. Securely mount threaded housing onto the cast model using the enclosed mounting screw and then press the enclosed self-adhesive disc over the screw head.
 6. Under vacuum, drape or blister mold thermoplastic material of choice. Be sure to guide the plastic material around the threaded housing to ensure that the plastic molds well around the shape of the housing.
 7. Once plastic is cooled, use a disc sander to grind plastic enough to expose the self adhesive disc. Remove self adhesive disc and continue sanding slowly until you reach the top of the mounting screw, then remove the screw.
 8. To insure a good seal, flatten surface of the socket where the valve will seat so that the entire perimeter of the Hybrid Valve rests flush with the socket wall.
 9. Screw the valve into the threaded housing until the valve sits flush against the outside of the socket wall.
- Determine trim length of threaded valve stem and mark.
9. Once marked, unscrew valve from the housing and sand the valve shank to the desired length.
 10. **IMPORTANT-** After valve shank is trimmed, disassemble the valve by resting on a table with button side up. Press down on edges of the outer aluminum cuff until it pushes free of the plastic portion of the valve. Insert a flat screw driver into the groove directly under the valve cap, gently twisting so that the cap pops off. Remove the spring, rubber diaphragm and vent spool. Use compressed air on valve and through valve stem to dislodge any debris that might have accumulated during the sanding process. Warm water may also be used if needed. After cleaning, replace vent spool, rubber diaphragm (plastic side up), center the spring then snap on the push button cap. Snap on the aluminum cuff.
 11. Apply silicone sealant around valve "O" ring before screwing valve into socket through threaded housing.

Installation into Pre-Existing Hard Sockets

1. After hard socket construction is complete, determine appropriate location for valve and mark.
2. Drill square to the socket wall with a metric 8.4mm-8.5mm drill bit. **MAKE SURE TO DRILL THE HOLE STRAIGHT, NOT AT AN ANGLE AS THIS COULD CAUSE VALVE SHANK TO SNAP WHEN SCREWING VALVE INTO THE SOCKET.**
3. Tap the hole using an M 10X1.5 tap
4. To insure a good seal, flatten surface of the socket where the valve will seat so that the entire perimeter of the Hybrid Valve rests flush with the socket wall.
5. Screw the valve into the hole until the valve is flush against the outside of the socket wall. Determine trim length of threaded valve stem and mark.
6. Once marked, unscrew valve from the socket and sand the valve shank to the desired length.
7. **IMPORTANT-** After valve shank is trimmed, disassemble the valve by resting on a table with button side up. Press down on edges of the outer aluminum cuff until it pushes free of the plastic portion of the valve. Insert a flat screw driver or Cypress Adaptive Aria Valve Tool into the groove directly under the valve cap, gently twisting so that the cap pops off. Remove the spring, rubber diaphragm and vent spool. Use compressed air on valve and through valve stem to dislodge any debris that might have accumulated during the sanding process. Warm water may also be used if needed. After cleaning, replace vent spool, rubber diaphragm (plastic side up), center the spring then snap on the push button cap. Snap on the aluminum cuff.
8. Apply silicone sealant around valve "O" ring before screwing valve into socket.

Instructions for Removing Aria Hybrid Valve from Socket Using Aria Valve Tool

To remove Aria Hybrid Valve from socket, use the Cypress Adaptive Aria Valve Tool to pop off the valve cap, exposing two holes on inside surface of valve body. Use the pronged end of the Aria Valve Tool and insert the two prongs into the two holes on inside surface of valve. Once prongs are engaged with the holes, use tool to easily unscrew valve from socket.