

Academy Tech Tips

Air Channel Fabrication for Suction or Elevated Vacuum Systems

Instructions for fabricating a Definitive Socket with a sealed air-channel through the 6A94=3 four hole TEC plate are as follows:

- 1) TEC plate preparation: Drill a 7/32" hole (5.5mm) through plate (see Fig. 1) ensuring not to go through side groove of plate.
- 2) Next, bore out previous 7/32" hole from proximal end half-way through thickness of plate using a 6.5mm drill ensuring not to go through the side groove of the plate.
- 3) Place TEC plate into alignment jig and lower initial socket into place. Position 4Y308 styrene tubing into 6.5mm hole and trim proximal portion of tubing to match socket contour.
- 4) After styrene tubing has been trimmed to socket contour, use 5 minute epoxy adhesive to bond tubing to both TEC plate and socket.
- 5) After epoxy adhesive has cured, apply 636K17 light putty between plate and socket, being sure not to break bond of tubing between plate and socket.
- 6) Shape putty to allow for tie in groove (see Fig. 2) and laminate per normal lamination procedures.
- 7) After lamination has cured, take 3mm drill bit and drill hole into socket through fabricated air channel. Tap distal hole using a .25-.28 tap.
- 8) Apply 5 minute epoxy adhesive or 636K7 Orthocryl putty to threads of barb fitting and insert into plate.

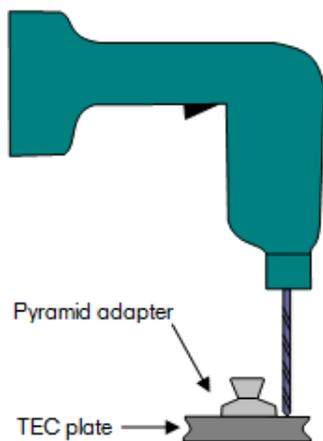


Figure 1

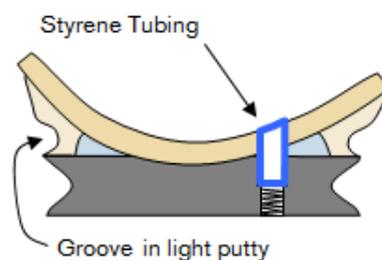


Figure 2

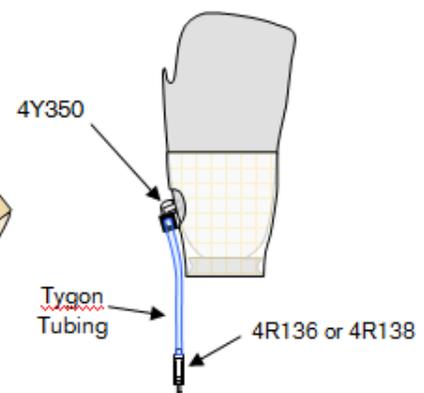


Figure 3

One Way Valve Installation Instructions

- 1) Install 4Y350 & 4Y344 filter barb fitting into test socket (see Fig. 3).
- 2) To create an airtight system, an airtight air channel must be created between the socket and the Filtered Barb Fittings. For best results keep barb fitting distal as possible on socket.
- 3) Test Socket set-up: If needed, grind through fiberglass/foam to expose 12mm (1/2") circular area in the posterior/medial area of the socket. Drill a 7/32" (5.5mm) hole in the middle of the circular area, then using a .25-.28 tap, thread the hole. Apply 5 minute epoxy to threads of barb fitting; insert and hand tighten into hole.
- 4) Definitive socket set-up: Laminate the socket in the usual way. If going through a thick socket wall or through the distal attachment plate, drill a 3/8" (10mm) hole through the distal end or socket wall. Secure from inside with Polyethylene Adhesive Tape, fill hole with laminating resin and let harden. Once resin has hardened, Drill a 7/32" (5.5mm) hole centrally into the sealing resin filling and cut a thread using a .25-.28 tap. Verify that the thread of the elbow connector is not longer than the laminate's wall thickness. If need be, use a washer. Apply 5 minute epoxy adhesive or Orthocryl putty to the thread. Screw the elbow connector into the prepared hole.
- 5) 4R136: Mount the one-way valve. The arrow on the valve shows the direction of air flow.
- 6) 4R138-5: Mount the one-way valve with small hexagon pointing towards the flexible tubing.
- 7) Slide the collar 1-1, 5cm down the length of the tubing. Attach tubing to the barb, slide the collar onto the barb and secure the tubing.

If you have any further questions, please contact Ottobock at 800 328 4058 and ask to speak with a member of our Professional and Clinical Services department.