Suction Insert Installation



Before installing the Alpha Suction Insert onto the socket, apply the enclosed epoxy to the hole in the Distal Adapter that is offset to the lateral side. Allow the epoxy to dry completely before installing the Suction Insert.



Attach the Suction Insert and the Ohio Willow Wood 4-hole adapter of choice onto the socket using the four M6 attachment screws.

Check to make sure that the length of exposed screw to engage with the Suction Insert is between .16" (4 mm) and .35" (9 mm). Apply Loctite 242 (or equivalent) and torque the screws to 9 ft-lbs or 12 Nm.

The length of exposed screw to engage with the Suction Insert must be between .16" (4 mm) and .35" (9 mm).

free the body...free the spirit® 15441 Scioto Darby Road Mt. Sterling, OH 43143 phone 740.869.3377 / 800.848.4930 fax 740.869.4374 www.owwco.com

EC REP Ohio Willow Wood Company B.V. Keizersgracht 62/64 1015 CS Amsterdam The Netherlands





Alpha Suction Insert

Fabrication Instructions

Please read thoroughly before fabricating a socket using the Alpha Suction Insert.

Warranty

The warranty for the Alpha Suction Insert is one year (allowing three weeks from the date of purchase for installation). Use of the Alpha Suction Insert for amputees whose modified body weight is more than 250 lbs (115 kg) or who engage in extremely high and abusive activity is against Ohio Willow Wood's recommendations and will void the one-year warranty. Modified body weight is defined as the weight of the amputee plus any loads carried by the amputee. "Extremely high and abusive activities" are defined as activities such as skydiving, karate, and judo; activities that could result in injury to an individual's natural feet; and activities that expose the prosthesis to corrosives such as salt water.

Warranty Disclaimer

Ohio Willow Wood warrants that each product manufactured will, at the time of delivery, be of workmanlike quality and substantially free of defects. OHIO WILLOW WOOD MAKES NO OTHER WARRANTY, IMPLIED, OR EXPRESSED, AND MAKES NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. This warranty shall terminate immediately upon an action to combine our products with other materials or in any manner to change the nature of our products. The sole remedy is replacement of the products or credit for the products. Ohio Willow Wood's liability shall not exceed the purchase price of the product. Ohio Willow Wood shall not be liable for any indirect, incidental, or consequential damage.

Ohio Willow Wood Retention of Rights

Ohio Willow Wood retains all intellectual property rights reflected or incorporated in its physical products, regardless of the transfer of the physical products to another party or parties.

Items included with the Alpha Suction Insert:

- 1 Suction Insert
- 1 Distal Adapter Assembly:
 - 1 Distal Adapter
 - 1 Fabricating Post
 - 1 Metal Forming Plate
 - 4 M6 x 12 Socket Head Capscrews
- 1 Alpha Lock Transfer Block
- 1 Hardware Kit:
 - 4 Finishing Nails
 - 4 M6 x 30 Flat Head Capscrews
 - 1 Post Ring
 - 1 Round Sticker / Set of Post Stickers
- 1 Fast Setting Epoxy
- 1 Titanium 4-Hole Pyramid (700-AIS501 only)

Preparation of the Positive Model



- 1. Modify the positive model according to the Alpha Liner Instructional Booklet.
- 2. Shave ¹/₂" (12 mm) off the distal end of the positive model to provide a flat surface that is the same diameter as the Fabricating Post.
- Place the Fabricating Post on the distal end of the model, with the Dowel Pin oriented to the lateral side. Secure the Fabricating Post with the four Finishing Nails that were included with the Fabricating Post. Drive the nails in until they are just below the surface of the Fabricating Post.

Note: The transition between the Fabricating Post and the model should be smooth. Blend in with sanding screen if necessary.

4. Pull a nylon hose over the Fabricating Post and the model. Tie off the hose at the groove on the Fabricating Post. Pull the rest of the nylon hose down onto the model. Cut a small hole in the nylon hose to expose the Dowel Pin.



 To fabricate a thermoplastic socket, proceed to the next section. To fabricate a laminated socket, proceed to "For a Laminated Socket".

Snap the Distal Adapter into

Post. The side of the Distal

place on the Fabricating

Adapter marked "Lateral

Side" should point toward

the lateral side of the model.

Snap the Post Ring onto the

Place a Round Sticker in the

center of the Distal Adapter,

onto each of the four raised

Place the Metal Forming

same temperature that is

used to heat the socket

material) for fifteen to

4. Fabricate a thermoplastic

socket using standard

5. After the socket has cooled

Remove the stickers.

sufficiently, sand material

away to expose the stickers.

Wearing protective gloves,

Forming Plate from the oven.

Attach the Forming Plate to

the Distal Adapter with the

Tighten the capscrews until

four M6 x 12 capscrews.

remove the heated Metal

twenty minutes.

procedures.

Plate in an oven (set at the

surfaces of the Distal Adapter.

and place a Post Sticker

Fabrication Post.

2.

3.

For a Thermoplastic Socket





Sand away thermoplastic material to expose the Post Sticker





Plate to cool.9. Remove the Metal Forming Plate.

8.

 Remove the model from the socket. Trim the socket as desired, and proceed to "Suction Insert Installation".

For a Laminated Socket



- 1. Remove and discard the two o-rings from the Distal Adapter.
- Distal Adapter PVA bag Tape Tape VA bag

bag at groove

Re-tape

over the cut

Tie off

in both

groove

6

- Snap the Distal Adapter into place on the Fabricating Post. The side of the Distal Adapter marked "Lateral Side" should point toward the lateral side of the model. Snap the Post Ring onto the Fabrication Post.
- 3. Apply a PVA bag over the nylon hose and the Distal Adapter. Tape the bag off in the upper groove of the Distal Adapter.
 - Cut the tape and the bag off in the groove and remove the excess.

4.

5. Re-tape over the cut so that resin cannot flow behind the bag.

Pull carbon braid or a stockinette onto the model and tie it off in both grooves of the Distal Adapter. Pull the rest of the stockinette or braid back onto the model.

the Metal Forming Plate is flat against the raised surfaces of the Distal Adapter. Allow the Metal Forming Plate to cool.





- 7. Fold the carbon tape lengthwise into thirds so that it will fit completely within the channels on the Distal Adapter.
- Place the strips of carbon tape into each of the channels on the Distal Adapter.
- 9. Fill the pinholes in the Fabrication Post and the pinhole in the Metal Forming Plate with putty.
- Apply lubricant to the threads of the four M6 x 12 capscrews. Attach the Metal Forming Plate to the Distal Adapter with the four M6 x 12 capscrews.
- 11. Apply the desired layup, and tie the layup off in the groove formed between the Metal Forming Plate and the Distal Adapter. Pull the rest of the layup down onto the model.
- 12. Proceed with the lamination, using standard procedures.
- 13. After the lamination has set, remove the M6 x 12 capscrews and the Metal Forming Plate.
- Remove the socket from the model. Trim the socket as desired, and proceed to "Suction Insert Installation" below.