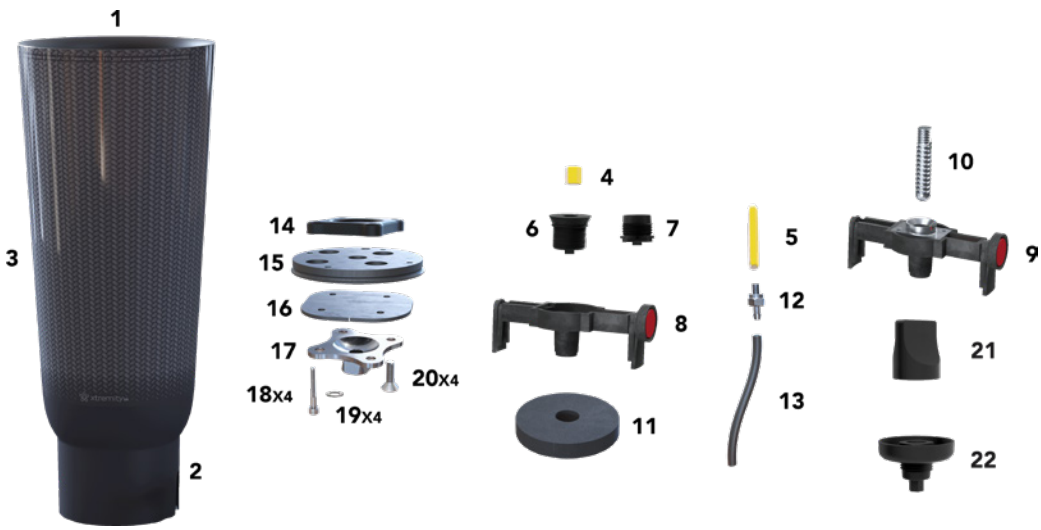
xtremity

Quick Start Guide

XtremityTT Socket System can be fabricated with or without a Distal End Pad. This guide will walk you through fabrications steps for use without a Distal End Pad.



Parts Key

1. XtremityTT Preform
2. Distal Base
3. Socket Applique
4. Air Valve Filter
5. Vacuum Port Filter
6. Suction Air Valve Base
7. DEP Compatible Suction Air Valve Base
8. Suction Bridge Assembly
9. Pin Lock Bridge Assembly
10. 1.5” Plunger Pin
11. Bridge Foam Spacer
12. Air Hose Barb
13. Vacuum Hose – Not included
14. Bolt Ring
15. Base Plate
16. Base Plate Cover
17. 4-Hole Pyramid Adapter – Not included
18. M4 Socket Head Screws
19. Lock Washers
20. M6 Flat Head Screws
21. DEP Valve Key
22. DEP Injection Valve

Fabrication Guide

XtremityTT Socket System

Video Instructions

Fig. 1

Proper sizing of the Preform is critical for successfully fabricating the XtremityTT Socket. Refer to the sizing chart for proper size selection.

1. Prepare Limb Model

- Remove all proximal brim buildups and excess plaster proximal to the trimlines to prevent overstretching and decrease resistance to achieving distal contact while pulling.
- Find the largest circumference measurement proximal to MPT and make sure it stays within the proper size range in relationship to the length from distal end (See Sizing Chart).
- Move your finished limb model to the vacuum stand. Using a straight vacuum pipe without a platen is preffered. If using a stand with a platen, add spacers between the model and vacuum stand to ensure the socket will not contact the stand once pulled. **(Fig. 1)**
- Apply a vacuum nylon.

Fig. 2

2. Heat

- Place the socket into the Xtremity Benchtop Heating Unit and ensure proper alignment on the pedestal. Place the lid over the socket base. If using size 26 or 26 plus, insert the rubber O-ring. **(Fig. 2)**
- To begin heating, press the POWER button to turn the unit on.
- Press START to accept the temperature.
- Press START again to accept the time and begin heating.
- The timer will start counting down once the heating unit reaches the set temperature.

3. Shape

- Ensure all supplies are laid out next to vacuum stand.
- Once the timer alarms, remove the socket from the heating unit by the socket base.
- Apply powder or silicone spray to the inside of the socket and gently prestretch the socket.
- Note the length and shape of your limb model to determine if you need to stretch the socket further down the socket or just the proximal end to allow your fingers inside for pulling.
- Identify the anterior logo on the outside of the socket to align with the anterior portion of the limb model. Using this logo and the medial and lateral Distal Base cutouts, ensure correct socket rotational alignment.

Fig. 3

- Place all 4 fingers of each hand inside the Preform and pull downward until it will not slide any further. **(Fig. 3)**
- If not achieving distal contact, insert Base Plate into the Distal Base and push downward while simultaneously massaging the Distal Base transition to prevent material from bulging out in this area. **(Fig. 4)**
- Ensure distal contact between the limb model and the socket. Place a piece of tape over the hole in the Distal Base. Pull a latex or similar sealing sleeve over the socket brim to achieve vacuum seal and apply vacuum. **(Fig. 5)**
- Once cool, remove from vacuum and draw trimlines. XtremityTT requires an anterior trimline of 2.5 cm proximal to MPT to maximize socket strength and maintain warranty. **(Fig. 6)**
- Trim, break out model, and smooth the proximal brim of the socket. Ensure the outer surface of the brim is smooth to preserve suspension sleeve life.

Fig. 4

Fig. 5

Fig. 6

4. Assemble

- Pin Lock system: **(Fig. 7)**
  - Insert the Pin Lock Bridge into the Distal Base. Then add the Bridge Foam Spacer.
- Suction system: **(Fig. 8)**
  - From the inside of the socket, screw the Air Valve Base into the hole in the distal socket using the 8mm hex wrench provided.
  - Press the Suction Release Bridge into the base.
  - Add the Bridge Foam Spacer.
- Vacuum system: **(Fig. 9)**
  - Drill a 5/32" hole through the Base Vacuum Port. Use a 10-32 tap to thread the Base Vacuum Port from the distal end and insert the Vacuum Port Filter.
  - Screw in the Air Hose Barb and connect the vacuum hose.
  - Screw the Air Valve Base into the hole in the distal socket using the 8mm hex wrench.
  - Insert the Suction Release Bridge and connect the vacuum hose. Then insert the Bridge Foam Spacer.
- **To install the Base Plate Assembly for all suspension systems:**
  - Attach a 4-hole distal adapter to the Base Plate Assembly using the M6 flat head screws, threading them through the Base Plate Assembly into the Bolt Ring. **(Fig. 10)**

Fig. 7

Fig. 8

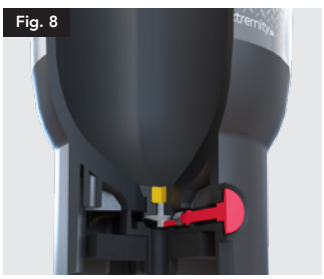
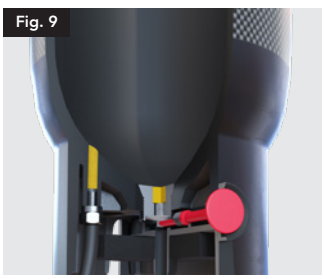


Fig. 9



- If using vacuum suspension, pass the vacuum hose through the hole in the Base Plate. **(Fig. 11)**
- Determine your initial offset direction when installing Base Plate Assembly onto the Distal Base. Using the M4 socket head screw, line up the Base Plate Assembly with the threaded insert in the Distal Base.
- Press the Base Plate Assembly into place and thread in the remaining screws.
- Adjust the Base Plate to the desired alignment, then tighten all screws.
- Loctite and Torque all screws:
    * M6 Flathead Screws: 13.2NM
    * M4 Socket Head Screws: 3.8N

Fig. 10

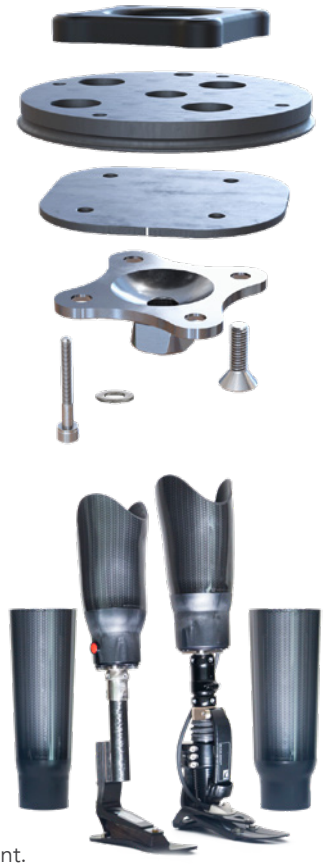


Fig. 11

5. Adjust

- Check the fit of the socket to identify areas that need adjustment.
- Use a heat gun to heat the area, keeping it at least 2 inches from the socket to ensure even heating. **(Fig. 12)**
- Wearing insulated gloves, adjust the socket as needed.
- Adjustments can be made at any time throughout the lifetime of the prosthesis.
- Do NOT use an open flame anywhere on the socket.
- Do NOT grind into the interior of the socket.

Fig. 12