



# INSTRUCTIONS FOR USE

## SAFETY

- This product is only to be used in lower limb prosthetic devices.
- This system is intended to produce elevated vacuum suspension for lower limb amputees already fit with an appropriate vacuum suspension socket. The socket should have a good fit with no voids. This is to help prevent blisters and to prevent tissue from being drawn into the voids or poor fit areas.
- This product should only be fit by trained prosthetic professionals.
- The vacuum pump heel, socket valve, and associated barb & tubing should be inspected often for signs of damage or excessive wear.
- Ensure that the tubing is properly secured at all times.

## CONTENTS AT ARRIVAL

- |                     |  |
|---------------------|--|
| 1. Vacuum pump heel | 5. Inline filter                       |
| 2. Straight barb    | 6. Socket right angle barb and housing |
| 3. Exhaust filter   | 7. Tube securing hook and loop tape    |
| 4. Tubing           |  |

## FUNCTION

The **RUSH FOOT EVAQ8** is a product designed to provide the user with an elevated vacuum suspension for a lower limb prosthesis. The vacuum pump compresses and expands throughout the gait cycle. The cycling of the vacuum pump pulls air from the socket, and after multiple steps, the system can achieve vacuum levels of **18 to 22 inHg**. The number of steps needed to achieve maximum vacuum levels depends on the free air in the system. This is determined by the fit of the socket, number of socks used, and length of tubing required.

## ASSEMBLY AND INSTALLATION

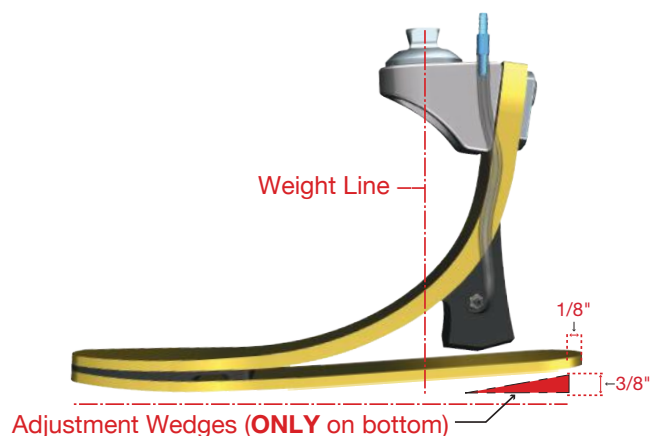
The **RUSH FOOT EVAQ8** system comes preassembled inside the heel of the **RUSH Foot®**. To connect the vacuum system to the socket:

1. Connect a short piece of the tubing (4) to the socket right angle barb (6).
2. Install the inline filter (5) into the distal end of the tubing (the inline filter may be placed anywhere in the tubing run between the socket and vacuum pump heel).
3. Connect a second piece of tubing (4) to the distal end of the inline filter (5) and route the tube to the medial side of the pylon or wrap the tubing around the pylon (to prevent damage to the tube or snagging while walking).
4. Cut the tubing (4) to desired length and connect to the straight barb (2) located in the recessed area of the vacuum pump heel (1).
5. Secure the tubing to the pylon using the included hook and loop tape (7) or other appropriate tape.

## TROUBLESHOOTING

If vacuum cannot be generated or maintained by the system, complete the following troubleshooting guide:

- Inspect tubing (4) for cracks, holes or other potential leaks.
- Reseat tubing at each connection point to ensure good seal.
- Inspect inline filter. Remove the inline filter (5) from the tubing and hold up to a light to look through it. If light can be seen through it, the filter is clean. If the light is blocked, blast air from a syringe through the inline filter (5) from distal to proximal end (reverse of normal flow) to attempt to clear the blockage. If blockage persists, the filter needs to be replaced.
- Inspect socket right angle valve (6) and installation area for leaks.
- Inspect socket expulsion valve (if used) and installation area for leaks.
- Inspect socket and suspension sleeve for potential leaks.



## MAINTENANCE

The **RUSH FOOT EVAQ8** Collection components may need periodic cleaning or replacement during the life cycle of the system and are not replaceable under the warranty as it is considered normal wear:

- Tubing (4)
- Inline filter (5)
- One-way valves housed inside the vacuum heel

### Periodic Inspection of the system:

- Visually inspect the tubing (4) for kinks, cracks, or wear that may leak air into the system. Replace tubing if any of these conditions exist.
- Remove the inline filter (5) from the tubing and hold up to a light to look through it. If light can be seen through it, the filter is clean. If light is blocked, blast air from a syringe through the inline filter (5) from distal to proximal end (reverse of normal flow) to attempt to clear the blockage. If blockage persists, the filter needs to be replaced.
- If the amount of vacuum pulled by the system decreases, the one-way valves contained in the vacuum heel may occasionally need to be cleaned and flushed with distilled water or isopropyl alcohol to ensure proper function. This procedure should be done only by a qualified professional.
- To flush the one-way valves and vacuum heel:
  1. Disconnect tubing from distal end of the inline filter.
  2. Remove the exhaust filter (3) and take care to not lose the one-way valve. The one-way valve may be inside the bottom of the exhaust filter, or may stay inside the vacuum heel until step 4 of this procedure which should dislodge the one-way valve from the housing.
  3. Place tubing still connected to heel in cup of distilled water or isopropyl alcohol, or connect syringe filled with distilled water or isopropyl alcohol to tubing.
  4. Slowly cycle the vacuum pump by gently compressing the heel to draw the distilled water or isopropyl alcohol into the system and cycle the water or alcohol through the heel and out the hole where the exhaust filter is installed.
  5. Once the distilled water or isopropyl alcohol exiting the heel is clear or 5-10 heel compressions have been performed (whichever is longer) remove the tubing from the water or alcohol source. Cycle the heel a few more times to push any remaining water or alcohol out of the heel. It may be beneficial to invert the foot and allow gravity to aid in removing the last bit of liquid out of the system.
  6. Remove the one-way valve from the exhaust filter (3) or retrieve the dislodged one-way valve from the exhaust side of the vacuum heel. Flush the one-way valve with distilled water or isopropyl alcohol using a syringe or with compressed air.
  7. Rinse the exhaust filter (3) with distilled water or isopropyl alcohol.
  8. Reinstall the one-way valve into the exhaust filter (3) as shown in Figure 1.
  9. Reinstall the exhaust filter (3) into the vacuum heel and torque to 14 in-lbs.
  10. Reconnect the tubing (4) to the inline filter (5) and socket.
- If the preceding procedure hasn't resolved the decreased vacuum pull, the one-way valves and tubing should be replaced.

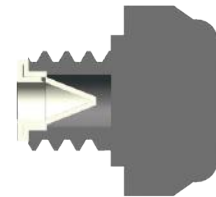


Figure 1

## WARRANTY

The **RUSH FOOT EVAQ8** has a warranty period of 36 months from the date the shipment is received by the customer, excluding the following normal wear parts: one-way valves, tubing, and inline filter.



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For detailed information on the RUSH Foot® collection, visit [rushfoot.com](http://rushfoot.com)