



# Socket Interface Technology – **Silcare Breathe Cushion Liner** Casting and Rectification Guide

## Examination and History

Carry out a full examination of the residual limb, noting any scarring, sensitive or neuropathic areas and anatomical landmarks. Test the knee joint range of motion.



## Liner Selection

Determine correct liner size by measuring 4cm from distal end. Do not allow soft tissue to deform by pulling tape too tightly. Select liner size as measured or one size down if measuring between liner sizes. Consider taking this measure with the residual limb in a vertical position if necessary to include any redundant tissue.

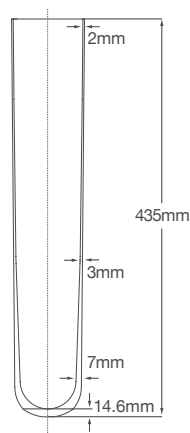
<b>SB</b>	<b>TT</b>	<b>CP</b>	<b>XX</b>	<b>L</b>
Silcare Breathe	Trans-tibial	Cushion Parallel	Size 22cm to 40cm*	Light Tone
*Note: 23.5 = 23, 26.5 = 26				

Amputation level: **Trans-tibial**

Activity level: **Medium to high**

Sizes available: 22, 23.5, 25, 26.5, 28, 30, 32, 34, 36, 40

Example part number: **SBTTCPXXL**



## Liner Donning

Fully invert and grip the liner as shown.



Roll liner along length of residual limb ensuring all the air is fully expelled. Air pockets in non-perforated liners could lead to skin irritation, excessive perspiration or movement of the liner.



It is recommended to keep the liner on the residual limb for 10 minutes to confirm fit and that the wearer does not experience any tingling or other adverse sensations.



## Casting Preparation

Wrap around residual limb and liner with cling wrap, ensuring all areas of the liner are covered and free from trapped air.

Apply wet casting sock and hold firmly in place with suspender (or similar). Patients with adequate hand strength may be able to assist with this. Identify and mark appropriate landmarks relating to your initial examination and your current clinical practice.

This would likely include:

- Patella
- Patella Tendon
- Fibula Head
- Crest of Tibia
- Other sensitive or problematic areas

Mark, measure and record stump circumferences at 2cm intervals using the patella tendon or a bony landmark as a reference point for consistency of future measurements.



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## Casting

It is recommended to use an anterior slab casting technique to achieve the best, most appropriate fitting total contact socket. However other casting techniques may provide similar results if the appropriate cast modifications are applied.

Prepare a 6-8 ply slab of 15cm plaster bandage, measuring the length from mid-patella to the distal end of the residuum. Ensure the slab captures the bony anatomy and is trimmed as necessary so as not to capture the soft tissue.

Flex the residuum slightly and apply slab of wet plaster to anterior residuum. Smooth in to surface anatomy to accurately capture adequate definition by working in either side of the tibial crest.





Allow plaster slab to dry before proceeding with the wrap cast. Wrapping 15cm plaster bandage in a figure of eight ensures accurate and complete coverage of the area. Smooth bandage into remainder of casting area to accurately capture the volume. Elastic bandage may be used if preferred.

Once the cast has dried, draw appropriate alignment lines before removing from patient.



## Rectification

Fill the plaster cast in the desired alignment and once set, remove the plaster bandage. It is recommended to cut down the posterior wall so as not to damage the cast over the anterior bony structures.



Ensure all marks transfer to positive plaster model.



Clean positive model to remove bandage debris. Take measurements of the positive cast and compare with recorded measure before calculating appropriate reduction. Our recommended volume reduction is:

- 3-5% proximal reduction, dependent on soft tissue coverage and bony anatomy.
- 0-1% distal reduction (as above).
- Ensure your measurements are accurate to ensure effective total contact.
- Take advantage of our Rectification Assistant to help with calculations.



Volume reduction should mainly be carried out in the posterior soft tissue area. Minor reductions are permitted in the para-tibial areas to accentuate the bony anatomy.

It is important to limit the amount of plaster additions to any total contact socket in order to accurately volume match the socket to the residual limb. However, it may be necessary to apply minimal relief to areas identified during your initial examination of the stump and also the posterior wall. We recommend the use of a dynamic test socket fitting to accurately determine the fit of the socket before proceeding to the definitive socket.

