

Iceross®

TT Seal-In Liner Systems



A complete range of advanced suspension systems



Improving comfort, control, and stability

Iceross® Seal-In Liner Systems

General advantages for TT



- Secure suspension without a sleeve
- Increased rotational control
- Increased knee flexion range & comfort
- Easy donning and doffing
- Reduced clearance requirements
- Designed for individual differences:
 - Limb length
 - Limb shape
 - Volume fluctuation

Iceross® TT Seal-In Systems



HSM™ : Dermo



HSM™ : Stabilo



X5: Dermo



X5: Dermo w/Wave

Iceross® Seal-In Liner

HSM™: Hypobaric Sealing Membrane



HSM™ : Dermo

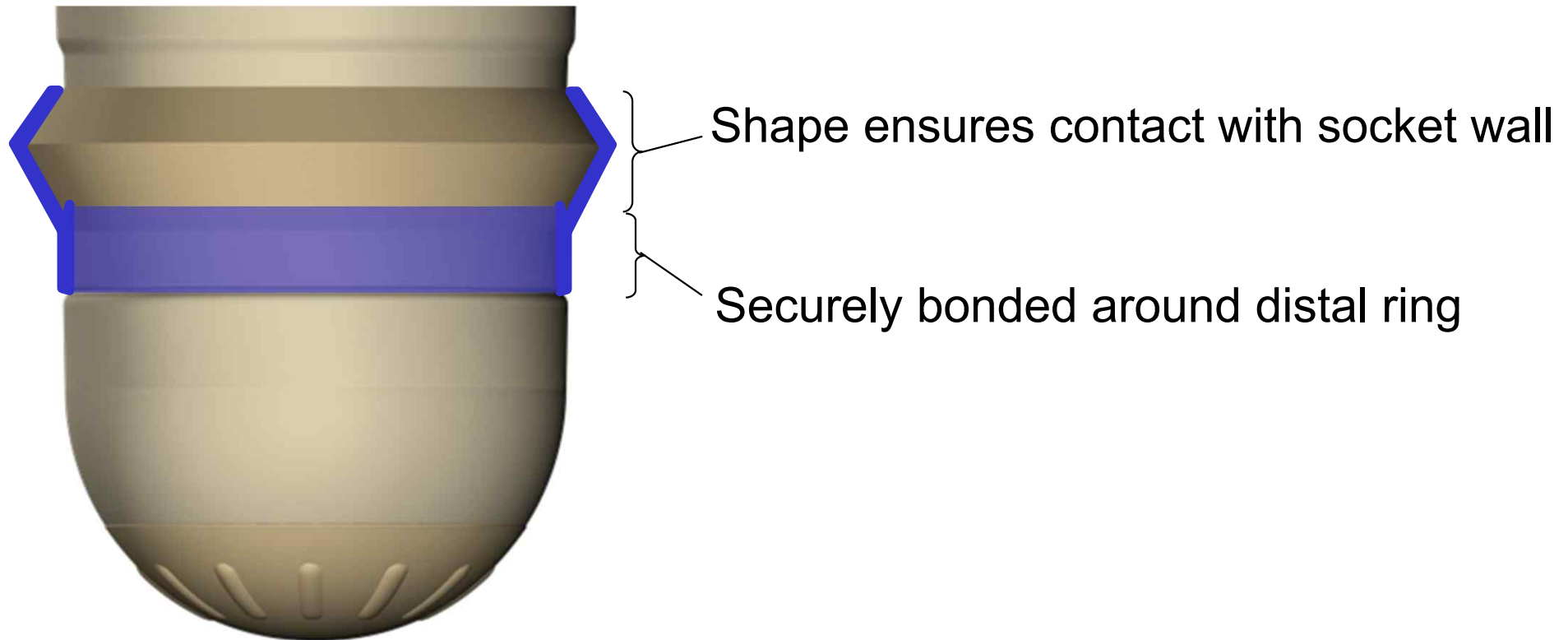


HSM™ : Stabilo

- Unique 'expanding' seal design (HSM™) for stability and security
- Variety of durometers for cushioning or stabilization
- Increased rotation control with HSM™ and distal cap
- Compensation for volume changes with socks

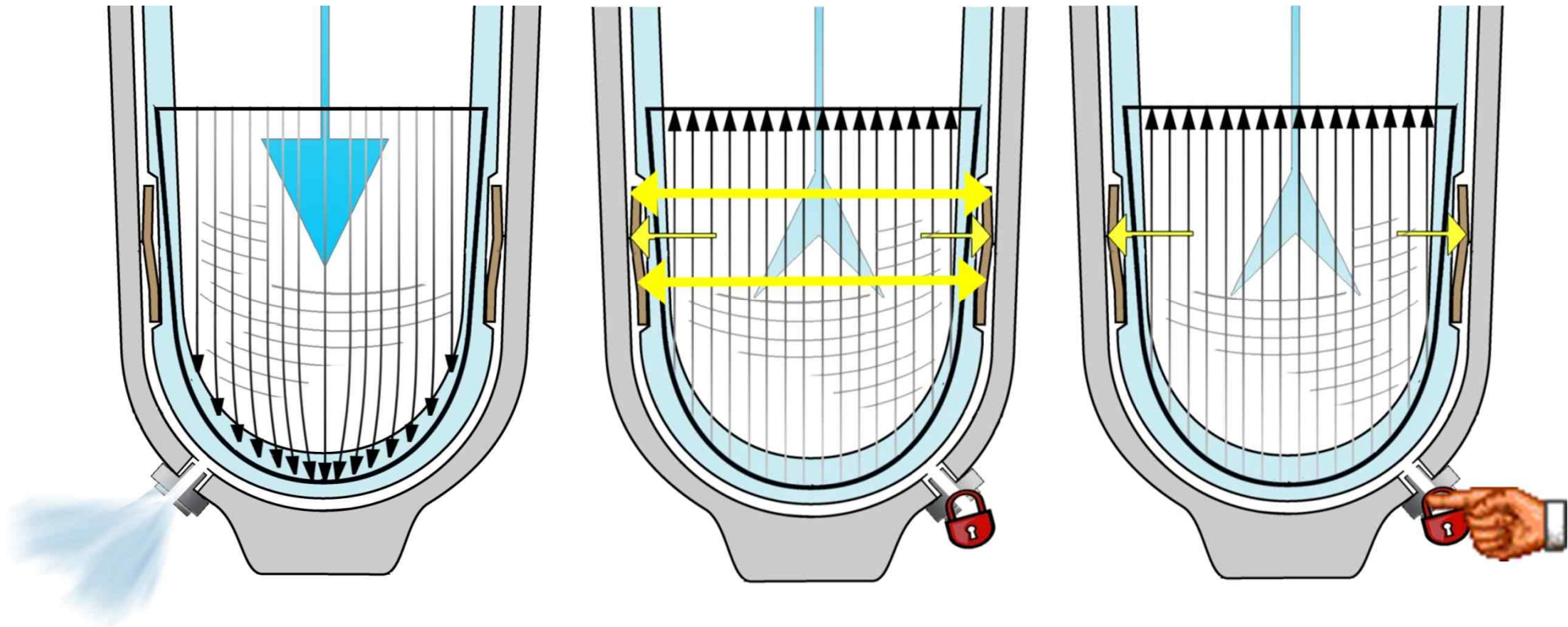
Iceross® Seal-In Liner

HSM™: Hypobaric Sealing Membrane



Iceross® Seal-In Liner

How does the HSM™ work?



#1: During donning
HSM flattens & air is
expelled through valve

#2: Negative pressure
expands HSM against
socket wall. Valve
creates lock.

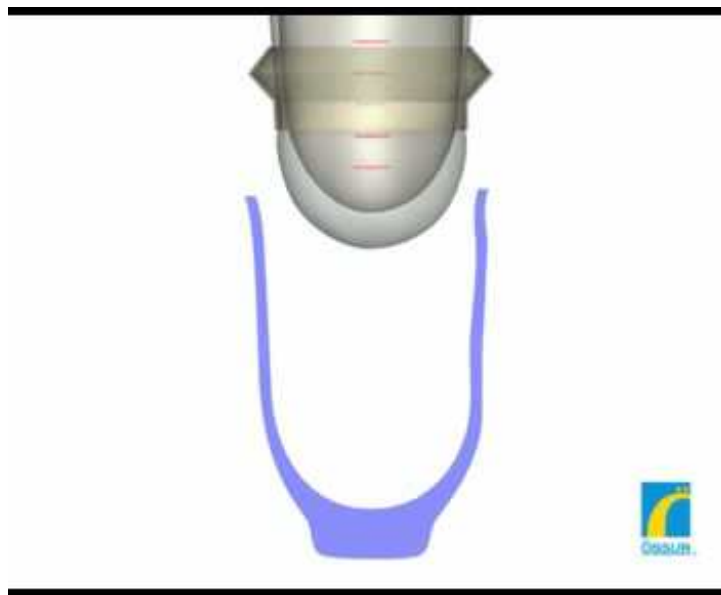
#3: HSM seal is
released by pressing
valve

Iceross® Seal-In Liner

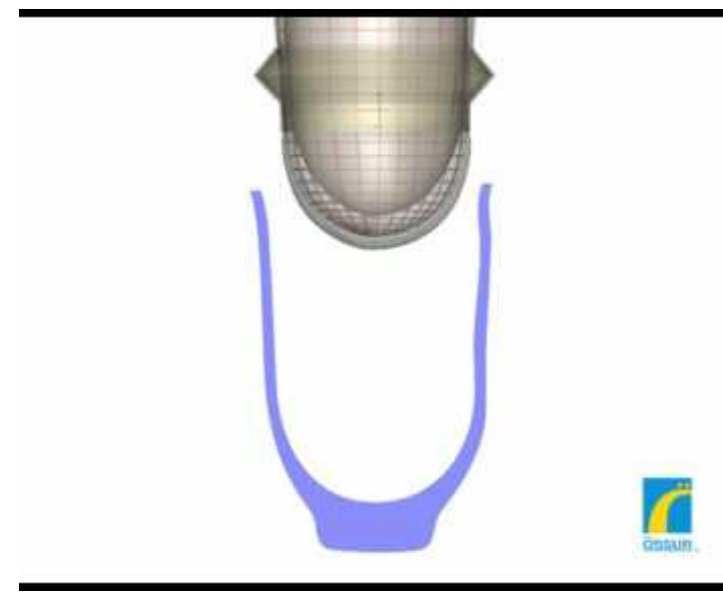
Matrix function



- Prevents stretching of the distal tissue
- Ensures the seal is properly seated



Without the MATRIX



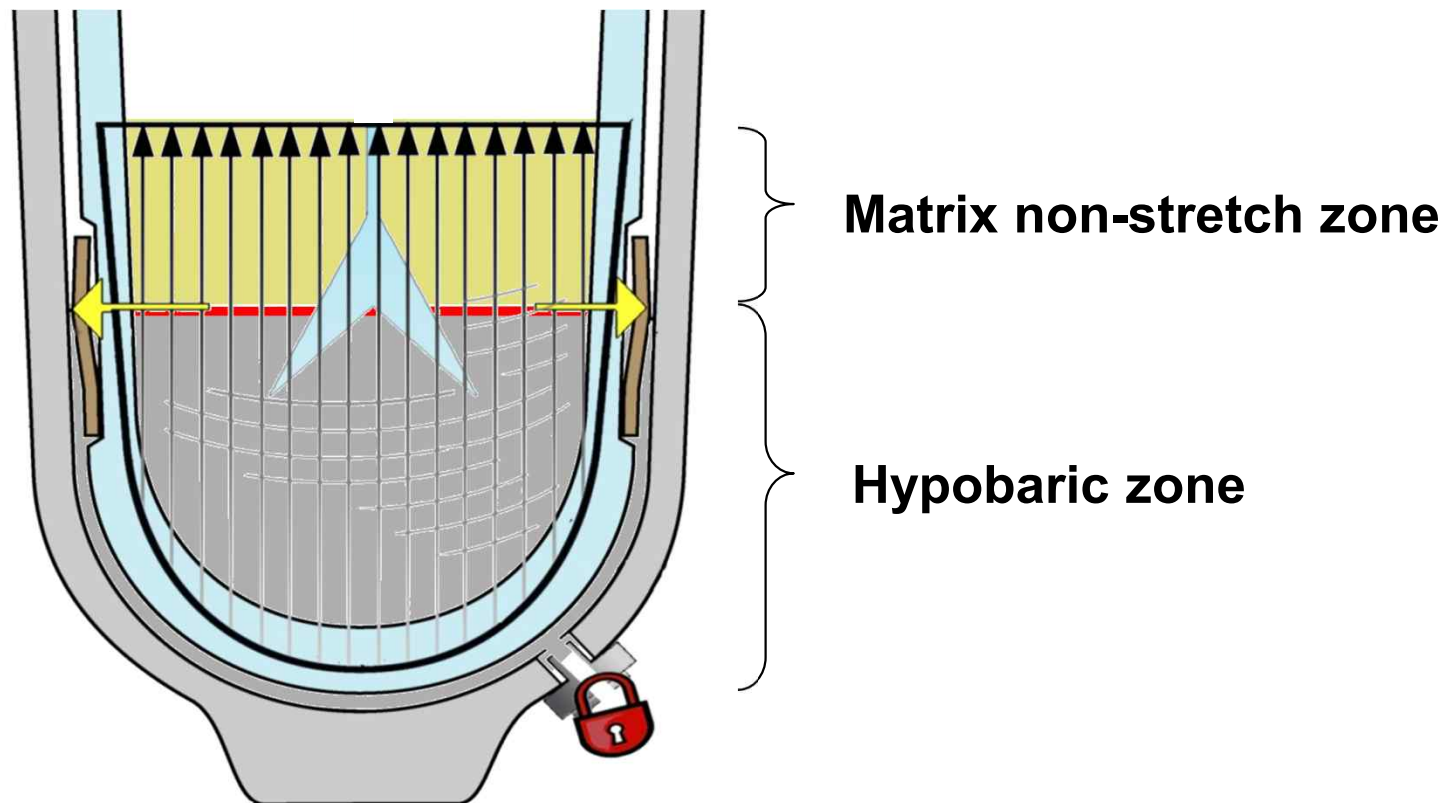
With the MATRIX

Iceross® Seal-In Liner

Matrix function



Minimises elongation above the HSM during swing phase

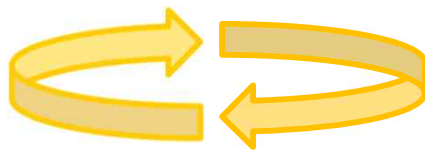


Iceross® Seal-In Liner

HSM™ + Distal Cap = rotational control



- HSM seal
 - Always in contact with socket wall (including use of socks)
- Silicone Distal Cap
 - Optimal pressure distribution
 - Improved silicone strength
 - Advanced Rotational Control (ARC™)



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Volume adjustment with HSM™



- Volume adjustment with socks
- Added underneath the HSM
- HSM holds socks in place
- No adjustment of distal tissues
- Maximum: 6 ply of socks

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HSM™: Dermo Seal-In



- DermoGel® Silicone
 - Softest durometer
- Active Skin Care:
 - Aloe Vera
 - Vaseline
- Available only with cover:
 - Sizes: 18-36cm
- Matrix Options:
 - 10cm
- Warranty: 6 months

HSM Dermo:
Ideal for bony,
scarred, and
sensitive limbs



Seal-In



Fabric Cover



Matrix



Aloe Vera



Silken Inner
Surface

Iceross® Seal-In Liner

HSM™: Stabilo Seal-In



**HSM Stabilo:
Ideal for soft
tissue stability**

- DermoSil® Silicone
 - Most firm durometer
- Active Skin Care:
 - Aloe Vera
 - Vaseline
- Available only with cover:
 - Sizes: 18-36cm
- Matrix Options:
 - 10cm
- Warranty: 6 months



Seal-In



Fabric Cover



Matrix



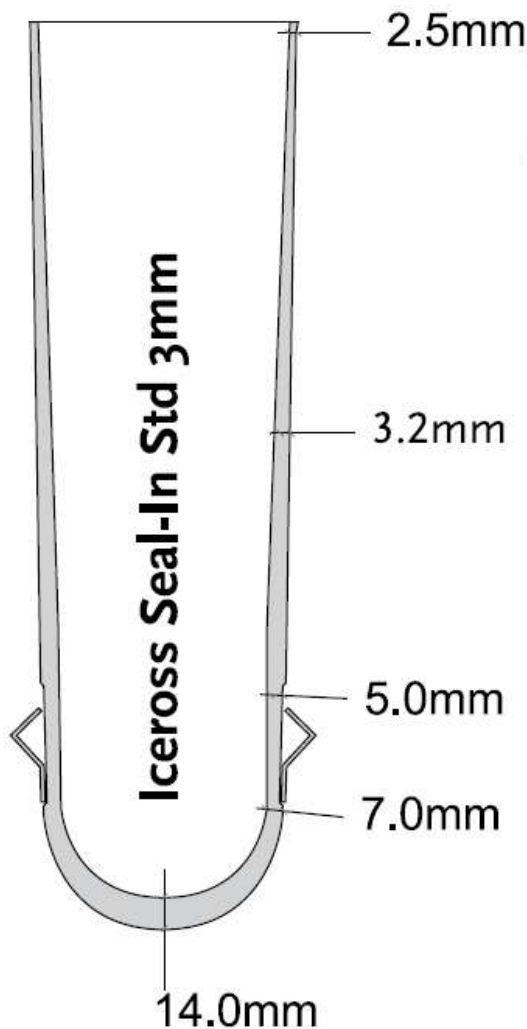
Aloe Vera



Silken Inner
Surface

Iceross® Seal-In Liner

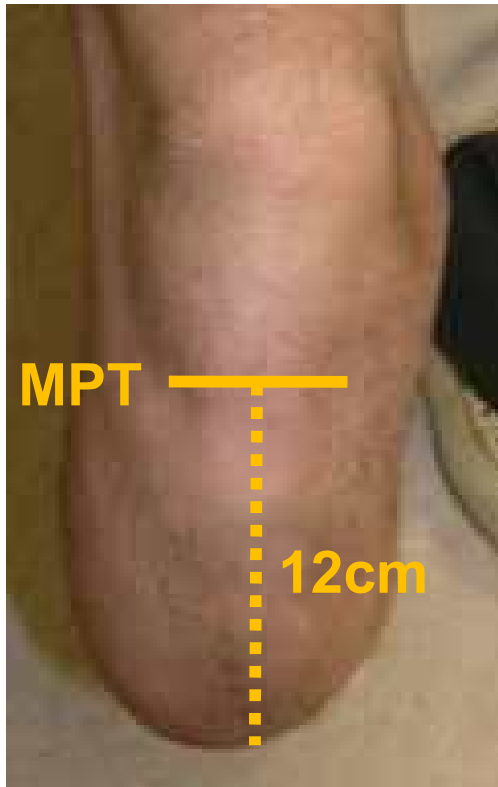
HSM™: Profile



- Unique for HSM Seal-In liners
- Increased silicone thickness distally
- WILL NOT retro-fit Iceross locking liners
- MAY NOT retro-fit Iceross X5 Seal-In liners

Iceross® Seal-In Liner

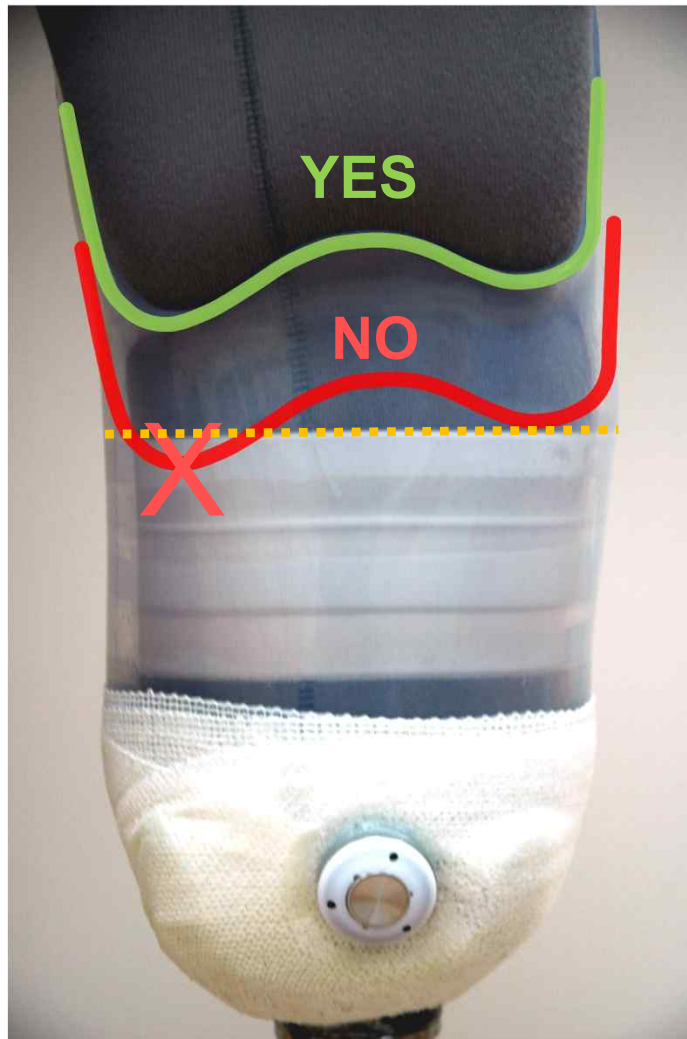
HSM™: Indications



- Limb shape: cylindrical
- Minimum limb length: 12cm (MPT to end of soft tissue)
- Stabilize redundant soft tissue (Stabilo)
- Require volume adjustment (socks)

Iceross® Seal-In Liner

HSM™: Indications



- Seal **MUST NOT** be visible above posterior wall of finished socket
 - **Minimum length: 12cm**
(from MPT to distal tissues)

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HSM™: Contraindications



HSM may not conform well to conical shapes

- Extremely conical limb shapes
- Limbs shorter than 12cm
- Sensitive tissue around HSM (fibular head, tibial shaft)
- Volume adjustment required is greater than 6 ply socks

Iceross® Seal-In Liner

HSM™: Evaluation checklist



- General:
 - ROM
 - Muscle strength
 - Knee stability
 - Sensitive areas
- For HSM liner:
 - Limb shape
 - Limb length
 - Tissue consistency
 - Sensitive and bony areas around HSM
 - Expected volume changes

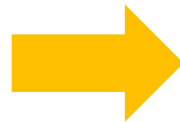
Iceross® Seal-In Liner

HSM™: Size selection



- Circumference measured 4cm from distal end
- Reduce 4cm circumference measure by 1.5cm
- Choose REDUCED size or next size below

Measurement @ 4cm level:
28cm

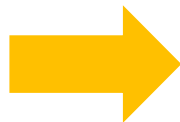


Reduce 1.5cm:
26.5cm

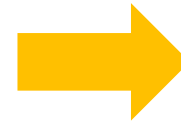


Select:
26.5cm liner

Measurement @ 4cm level:
26cm



Reduce 1.5cm:
24.5cm



Select:
23.5cm liner

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HSM™: Donning



- Invert liner completely
- Ensure no air space between end of liner and limb
- Some force required to 'flip' seal



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HSM™: Donning



- Seal perpendicular to limb axis



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Sizing verification: HSM™ tension



- HSM tactile check:
 - Difficult to pinch seal between fingers
 - Light tension between seal and fingertip
 - User feels comfortable

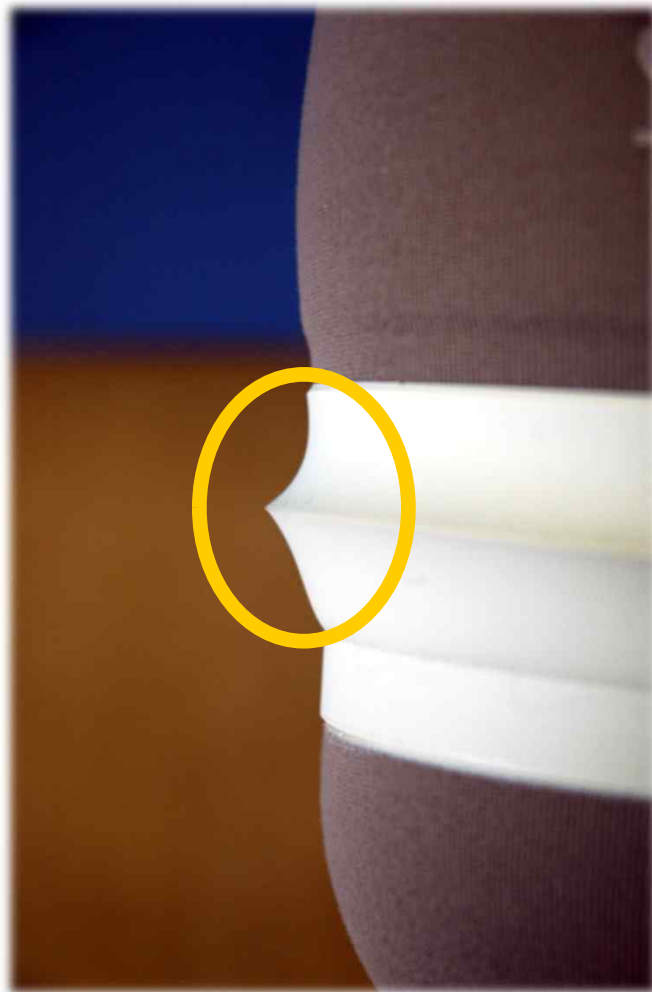


Iceross® Seal-In Liner

Sizing verification: HSM™ tension



- HSM visual check:
 - Some retention of HSM shape



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HSM™ tension



- Optimal selection
 - slight tension on upper edge of HSM



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HSM™ tension



- Small liner
 - excessive tension on upper edge of HSM



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HSM™ tension

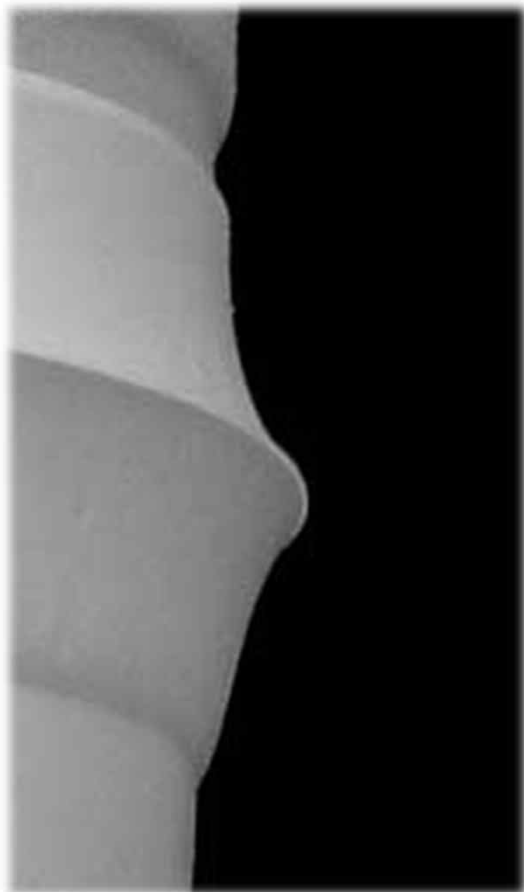


- Large liner
 - little or no tension on upper edge of HSM

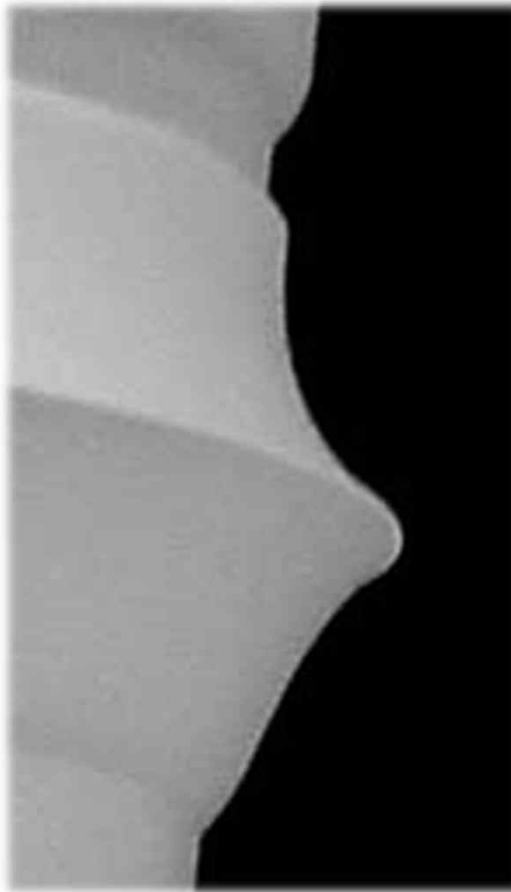


Iceross® Seal-In Liner

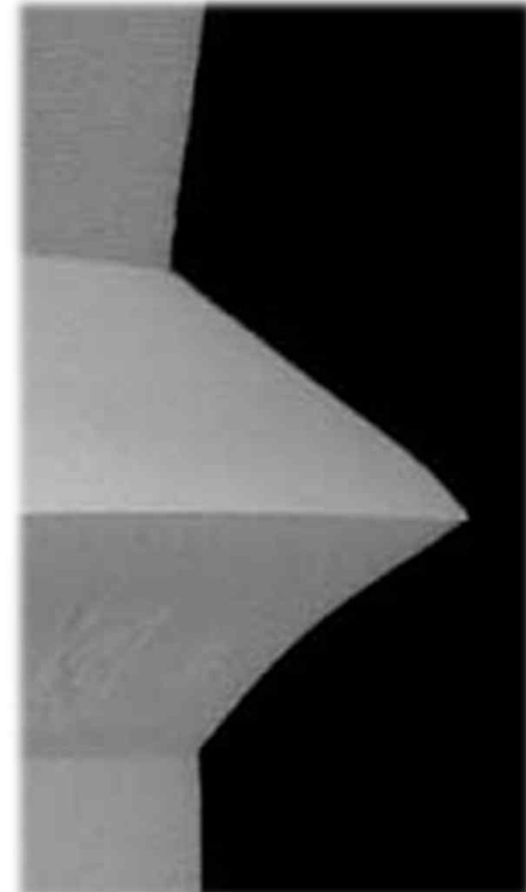
HSM™ tension



Small



Correct



Large

Iceross® Seal-In Liner

X5: Serial membrane



X5: Dermo



X5: Dermo w/Wave

- Repeated or 'serial' membranes multiply seal strength & increase security and stability
- Large sealing area increases rotational control & reduces distal pulling
- Flexible sealing membranes accommodate a variety of limb shapes
- Wave feature offers greater knee flexion and comfort
- Redundant seals reduce material stress and increase durability

Iceross® Seal-In Liner

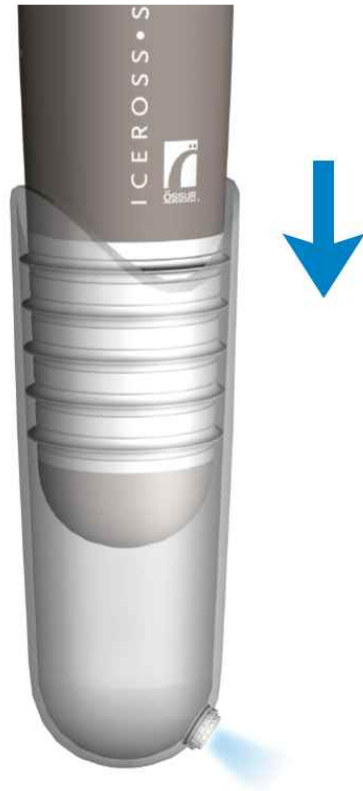
X5: Serial membrane



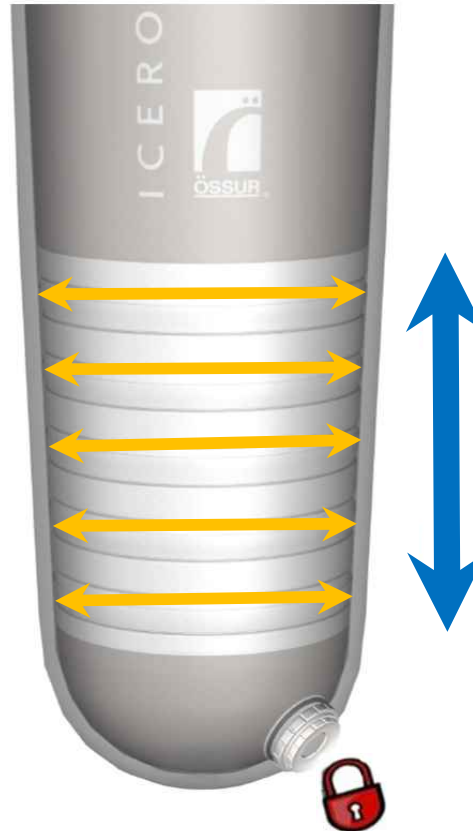
- Five flexible silicone seals are integrated into the liner
- Creates five hypobaric levels within the interface
- If any one seal is lost, security is maintained with the remaining seals
- Three seals are required to maintain secure suspension

Iceross® Seal-In Liner

How does the X5 serial membrane work?



#1: During donning flexible X5 seals compress & valve expells air



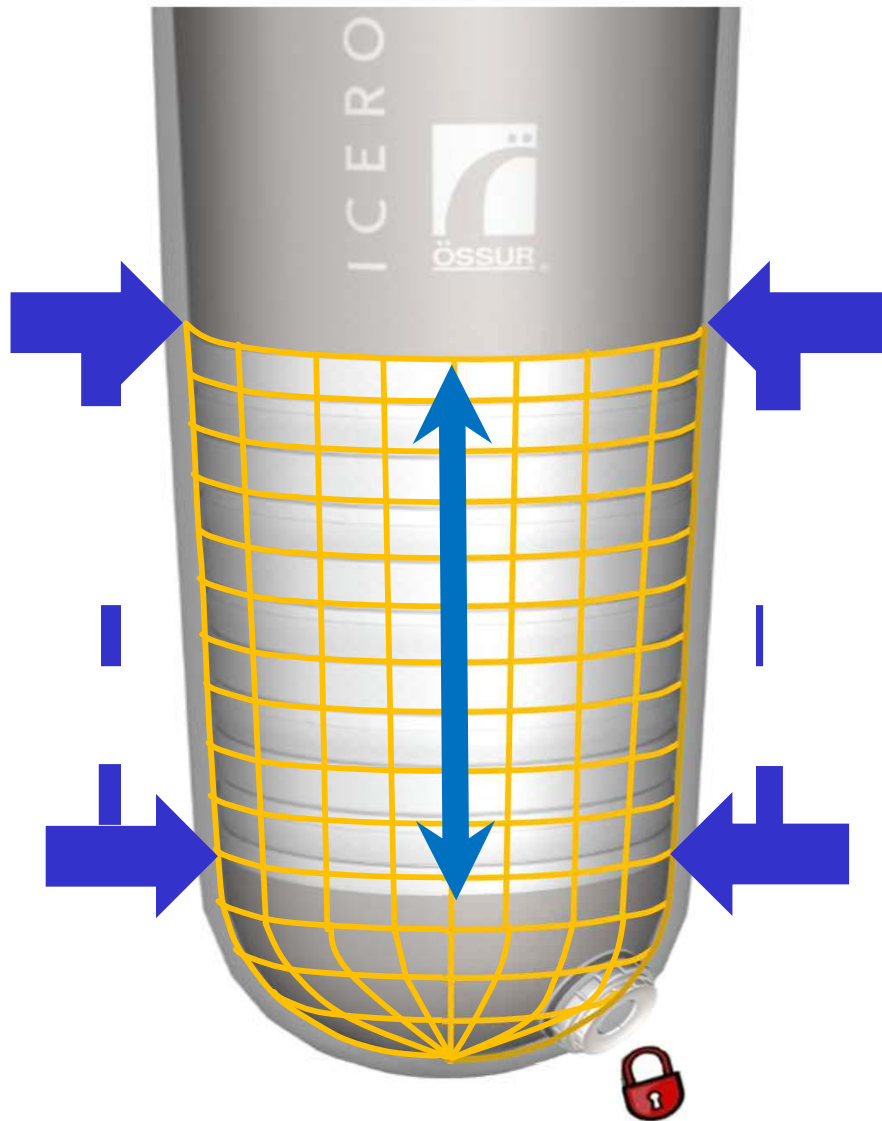
#2: Negative pressure develops between seals and socket end. Valve creates lock.



#3: Seals gradually release by pressing valve

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Matrix function



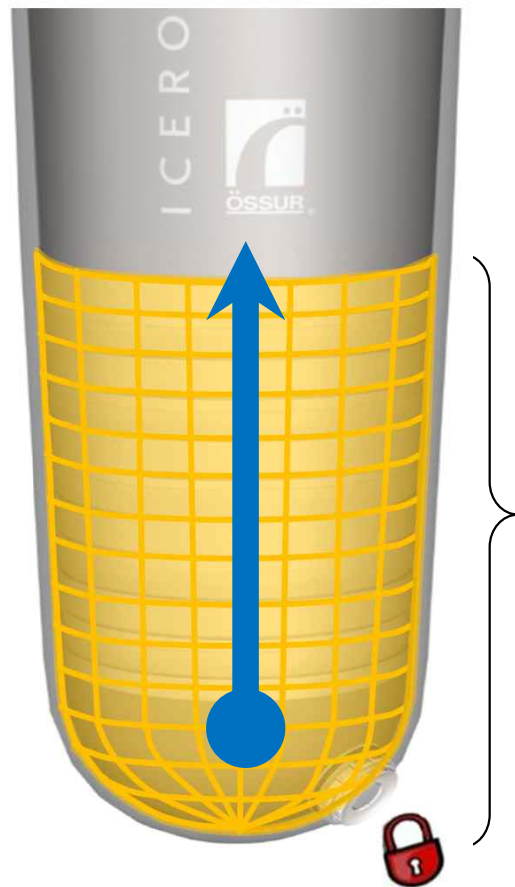
- Matrix runs entire length of X5 serial membrane
- Prevents stretching of the distal tissue
- Ensures the seal is properly seated

Iceross® Seal-In Liner

Matrix function



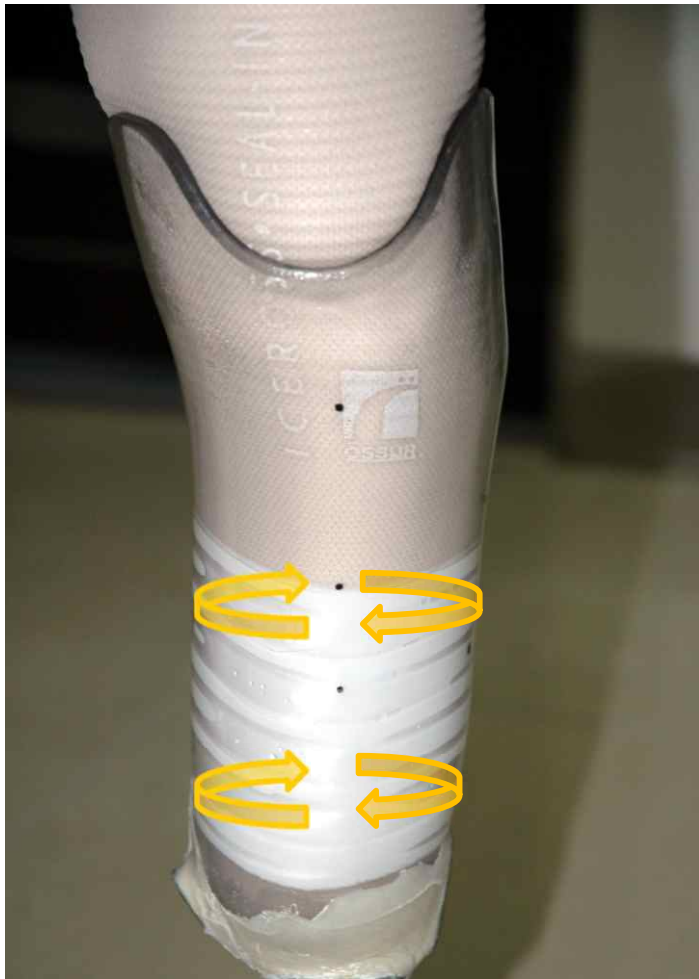
Matrix + X5 seal limits distal pulling of tissues during swing phase



MATRIX Non-stretch Zone & Hypobaric Zone
(extended proximally compared to HSM™ Seal-In)

Iceross® Seal-In Liner

X5 serial membrane = rotational control

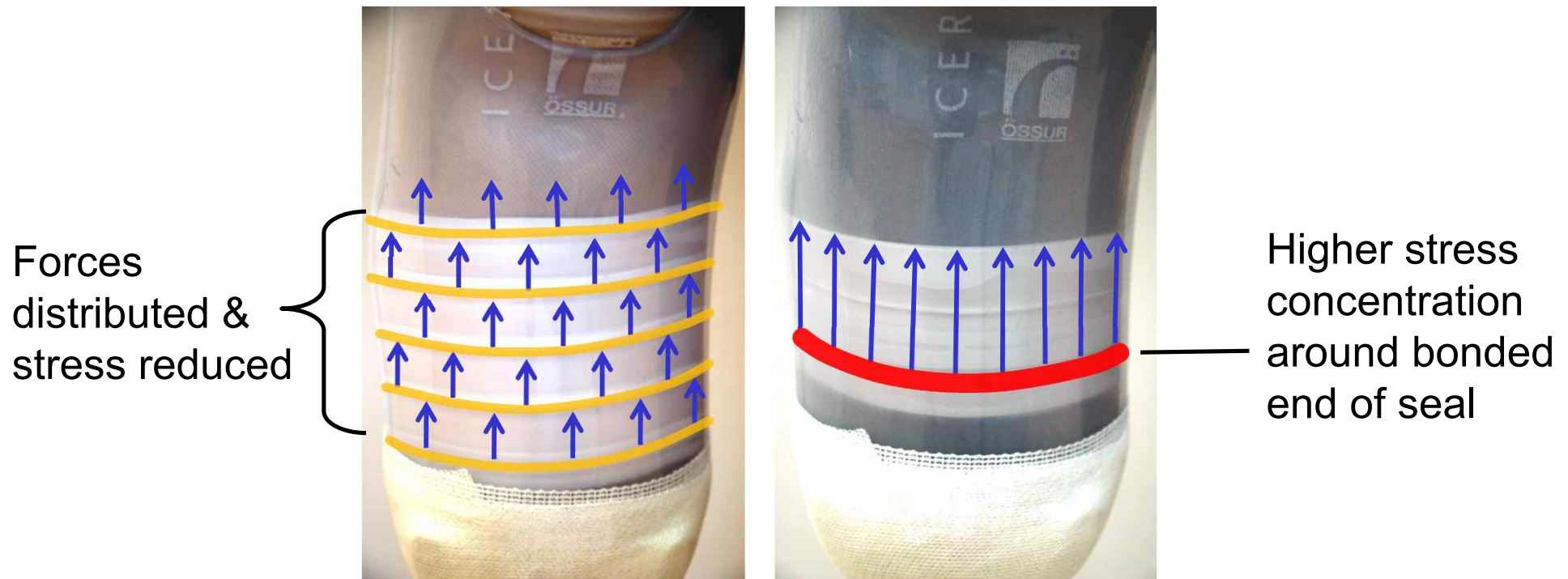


- Largest sealing surface area
- Frictional force against socket wall greatly increases rotational control
- Decreases peak pressures



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X5: Enhances seal durability



- X5 serial membrane utilizes DermoSil® silicone – most firm durometer
- Stiffer silicone durometer toughens each seal against wear
- Forces are shared among five seals; reducing stress per seal

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Volume adjustment with X5 serial membrane



- A minimal amount of volume adjustment is possible with the use of socks
- Must leave 3 seals exposed and fully contacting the socket walls
- Maximum: 3 ply socks

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X5: Dermo Seal-In



- DermoGel® Silicone
 - Softest durometer
- Active Skin Care:
 - Aloe Vera
 - Vaseline
 - Menthol
- Available only with cover:
 - Sizes: 18-36cm
- Matrix Options:
 - 10 to 13cm (according to liner size)
- Warranty: 6 months

X5 Dermo:
Ideal for bony,
scarred, and
sensitive limbs



Seal-In



Matrix



Aloe Vera



Menthol



Fabric Cover



Silken Inner
Surface

Iceross® Seal-In Liner

X5: Dermo Wave Seal-In



- DermoGel® Silicone
 - Softest durometer
- Active Skin Care:
 - Aloe Vera
 - Vaseline
 - Menthol
- Available only with cover:
 - Sizes: 18-36cm
- Matrix Options:
 - 10 to 13cm (according to liner size)
- Warranty: 6 months

**X5 Dermo Wave:
Addition of Wave for
easy & comfortable
knee flexion**



Seal-In



Matrix



Aloe Vera



Menthol



Fabric Cover



Silken Inner
Surface



Wave

Iceross® Seal-In Liner

X5: Dermo Wave Seal-In



- DermoGel® Silicone
 - Softest durometer
- Active Skin Care:
 - Aloe Vera
 - Vaseline
 - Menthol
- Available only with cover:
 - Sizes: 18-36cm
- Matrix Options:
 - 10 to 13cm (according to liner size)
- Warranty: 6 months

**X5 Dermo Wave:
Addition of Wave for
easy & comfortable
knee flexion**



Seal-In



Matrix



Aloe Vera



Menthol



Fabric Cover



Silken Inner
Surface



Wave

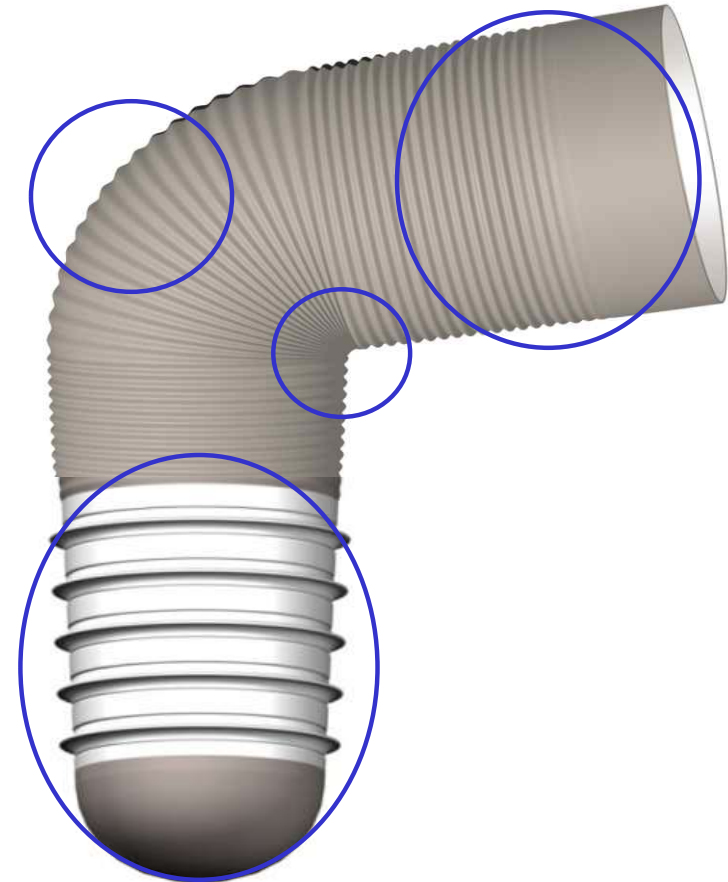
Iceross® Seal-In Liner

X5: *Reported benefits of Wave feature*



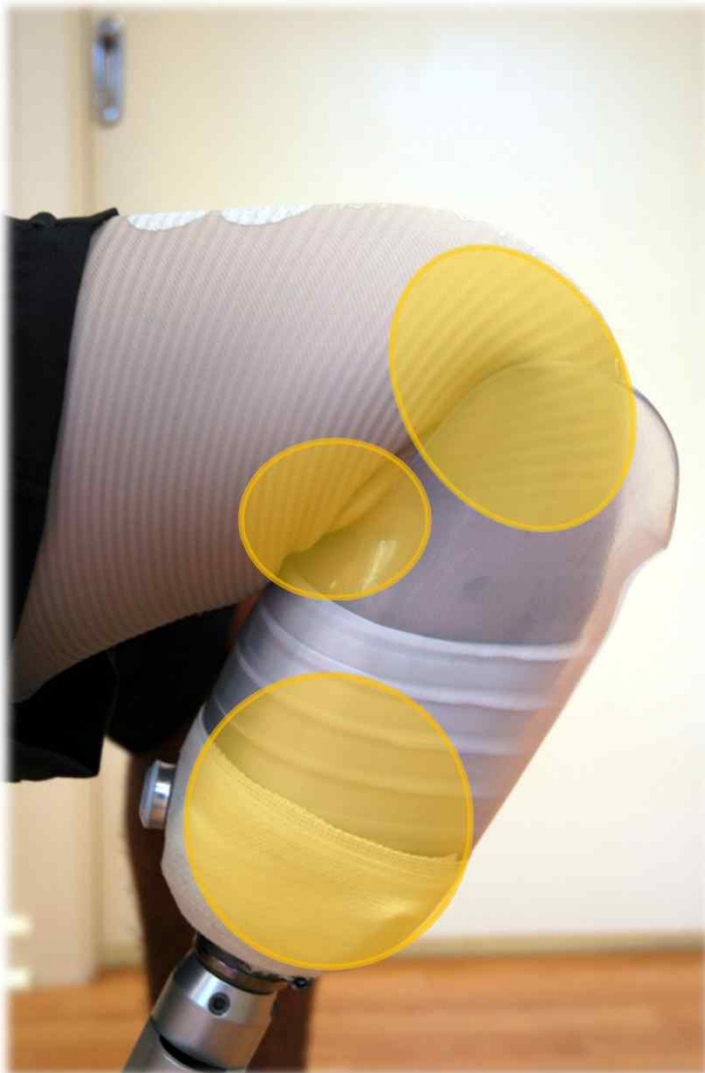
20% greater elasticity in liner:

- More comfortable knee flexion
- Reduced pressure in popliteal area and on patella
- Prevents liner sliding down
- Reduced distal pull



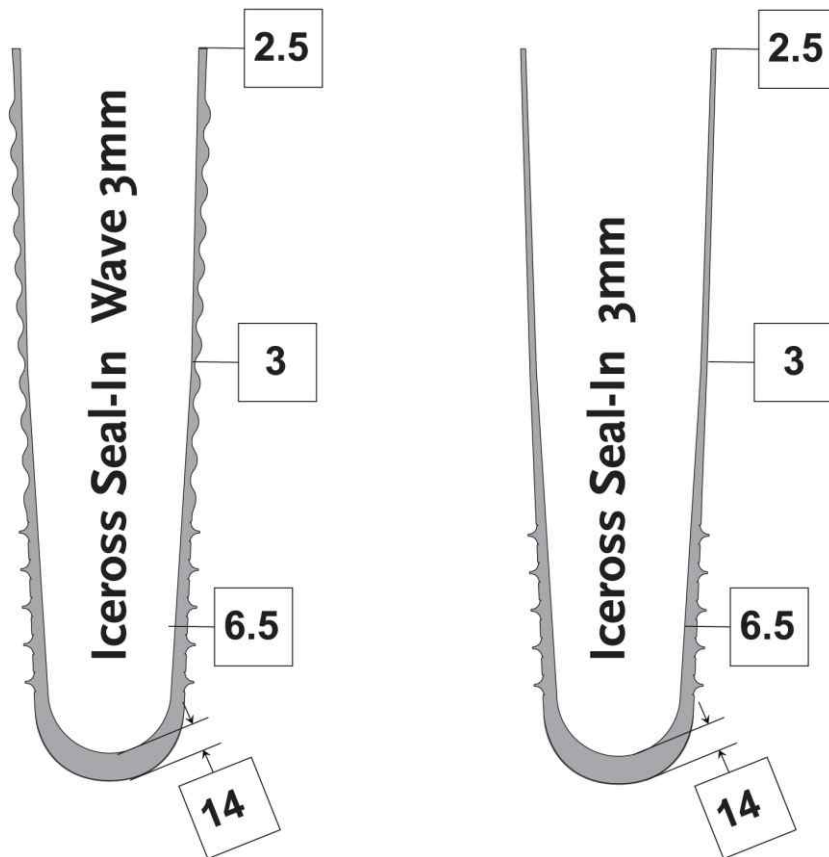
Iceross® Seal-In Liner

X5: *Reported benefits of Wave feature*



Iceross® Seal-In Liner

X5: Profiles



- Unique for X5 Seal-In liners
- Increased silicone thickness distally
- WILL NOT retro-fit Iceross locking liners
- MAY NOT retro-fit Iceross HSM™ Seal-In liners

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X5: Indications



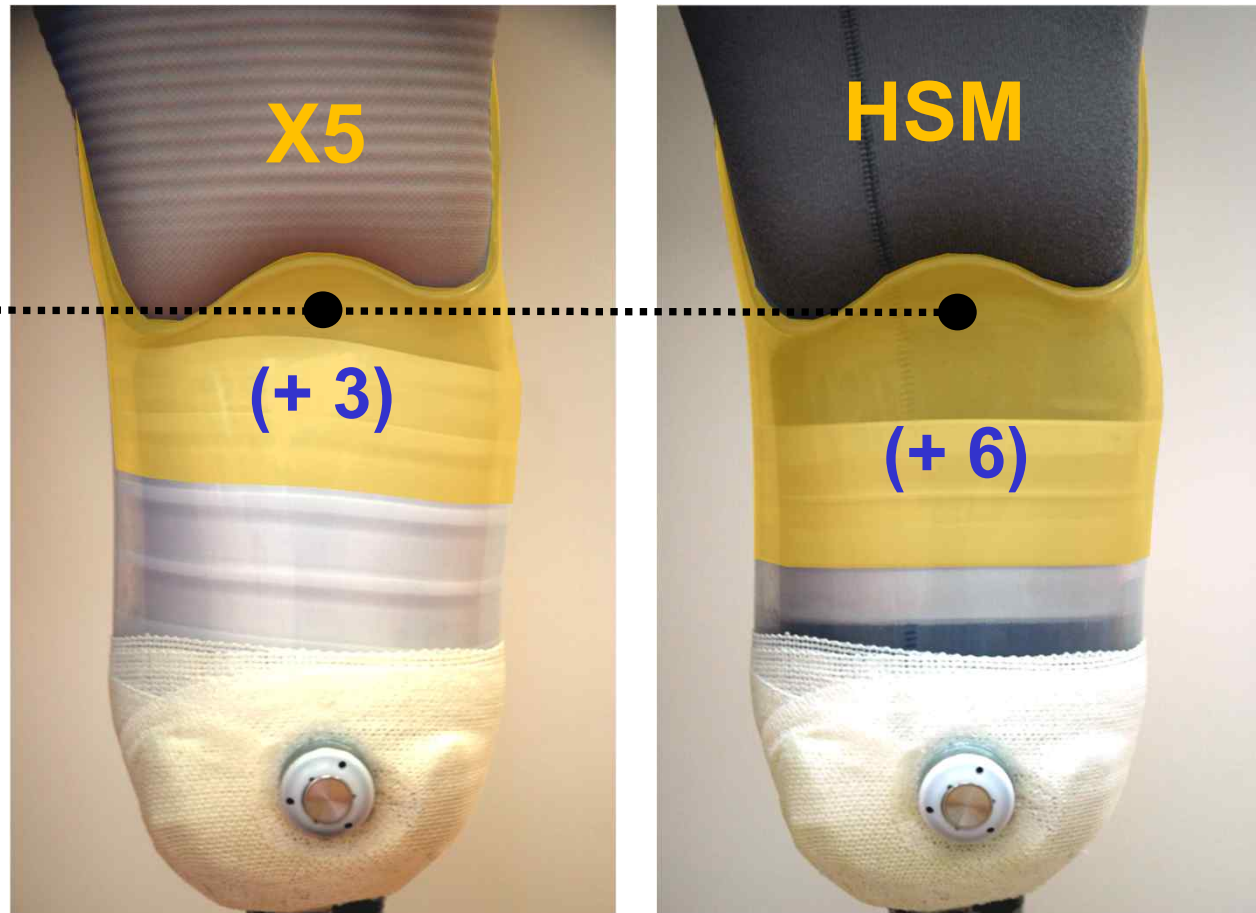
- Limb shape: variable
 - Serial membrane conforms to shape (conical, cylindrical, special)
- Volumetrically stable (limited or no need to add socks)
- Require easier knee flexion (Wave feature)
- Sensitive tissue over seal area (need to further reduce pressure peaks)

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Volume compensation: HSM™ vs. X5



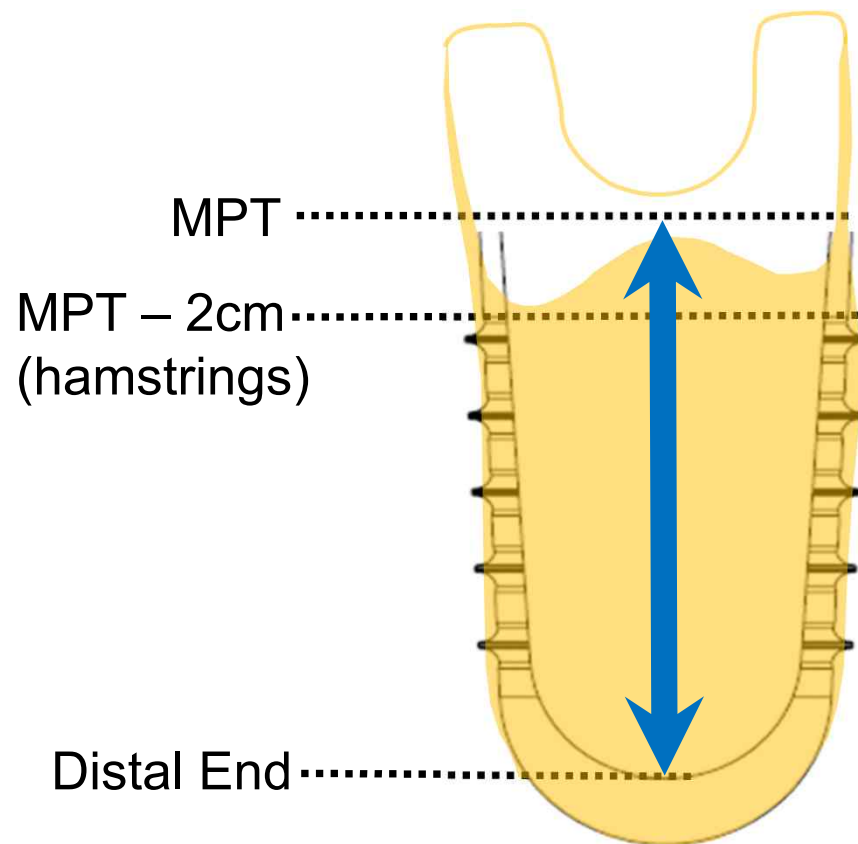
Shaded area
represents possible
sock coverage to
replace lost volume



HSM Seal-In will accommodate for greater volume change over greater area vs. X5 Seal-In. Select X5 Seal-In only for volumetrically stable individuals.

Iceross® Seal-In Liner

X5: Limb length considerations

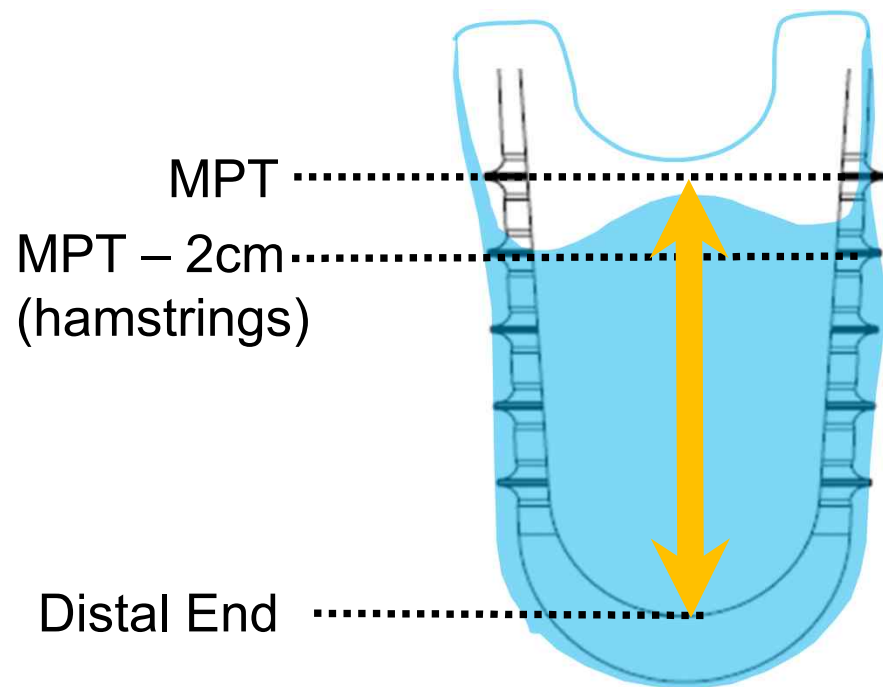


Liner Size	Minimum limb length (cm)
18	13
20	13
22	13
23,5	13
25	14
26,5	14
28	14
30	14
32	15
34	15
36	15

Minimum limb length to **CONTAIN ALL SEALS** within the socket.

Iceross® Seal-In Liner

X5: Limb length considerations

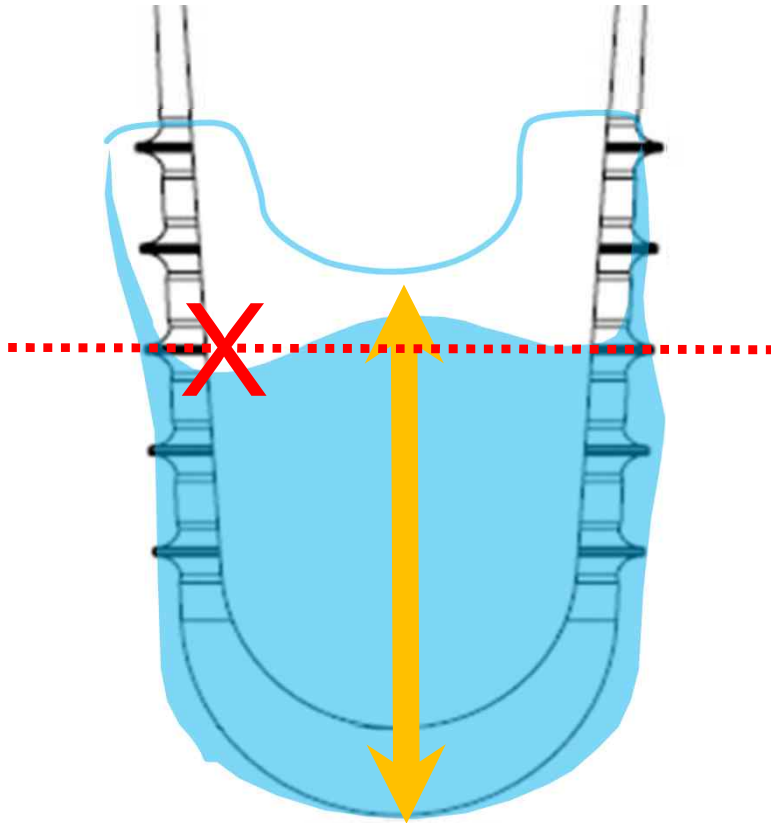


Liner Size	Minimum limb length (cm)
18	11
20	11
22	11
23,5	11
25	12
26,5	12
28	12
30	12
32	13
34	13
36	13

ABSOLUTE MINIMUM LENGTH. Socks may not be added.
Three seals must be fully contained within socket trim lines.

Iceross® Seal-In Liner

X5: Contraindications



- Seal crosses popliteal fold
- Limbs shorter than 11cm (depending on liner size)
- Unable to completely contain 3 seals within socket trim lines
- Volume adjustment required greater than 3 ply socks

Regarding short limbs: If only 3 seals are contained within the socket, volume adjustment WILL NOT be possible. If this is a requirement, HSM™ Seal-In liner OR locking liner should be considered.

Iceross® Seal-In Liner

X5: Evaluation checklist



- General:
 - ROM
 - Muscle strength
 - Knee stability
 - Sensitive areas
- For X5 liner:
 - Limb length
 - Knee flexion requirements
 - Verify stable limb volume

Iceross® Seal-In Liner

X5: Size selection



- Circumference measured 4cm from distal end
- DO NOT REDUCE MEASURE
- Choose measured size or next size below

Measurement @ 4cm level:
28cm



Select:
28cm liner

Measurement @ 4cm level:
24cm



Select:
23.5cm liner

Iceross® Seal-In Liner

X5: Donning



- Spray serial membrane with lubricant spray (alcohol + water)
- Spray pen included with liner
- Invert liner completely
- Ensure no air space between end of liner and limb

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X5: Donning



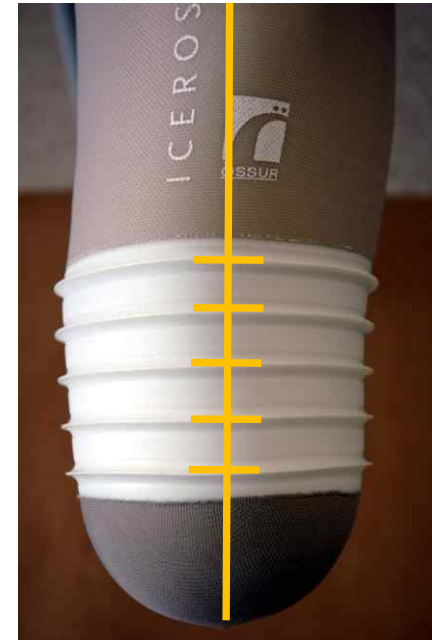
- Iceross Clean & Simple: Lubricant Spray bottles available (alcohol + water)
- Refillable spray pen included ONLY with X5 Seal-In liners
- Eases donning of liner & socket
- Enhances durability of seals

Iceross® Seal-In Liner

X5: Donning



- Serial membrane should slide easily with addition of lubricant
- Orientation of seals should run perpendicular to limb axis



Iceross® Seal-In Liner

Sizing verification: User feedback



- Rely on user feedback regarding fit of the X5 liner
- Former HSM™ users may feel more loose in the X5 than the previous HSM™ Seal-In system:
 - Normal and expected
 - No tension requirement for X5 serial membrane
 - Size is most likely correct

Iceross® Seal-In Liner

Casting procedure



- Same procedure for HSM™ and X5 Seal-In liner systems
- Recommended materials:
 - AP/ML gage
 - Tape measure
 - Marking pen
 - Lubricant spray (X5 Seal-In)
 - Cellophane wrap
 - Scissors
 - Gloves
 - Seal-In Liner
 - Plaster bandage (rigid)
 - Water

Iceross® Seal-In Liner

Casting procedure



- Measure ML dimension at widest portion of femoral condyles
- Ensure knee is 'unlocked' to measure smallest dimension
- Adjust tension on gage to achieve proper fit
- Verify comfort with patient
- Record measure

Iceross® Seal-In Liner

Casting procedure



- Measure AP dimension at MPT
- Ensure knee is 'unlocked' to measure smallest dimension
- Adjust tension on gage to achieve proper fit
- Verify comfort with patient
- Record measure

Iceross® Seal-In Liner

Casting procedure



- Invert most proximal portion of liner to adhere cellophane wrap

- Wrap limb with cellophane (proximal to distal)



- For HSM™, apply tension to flatten the seal

Iceross® Seal-In Liner

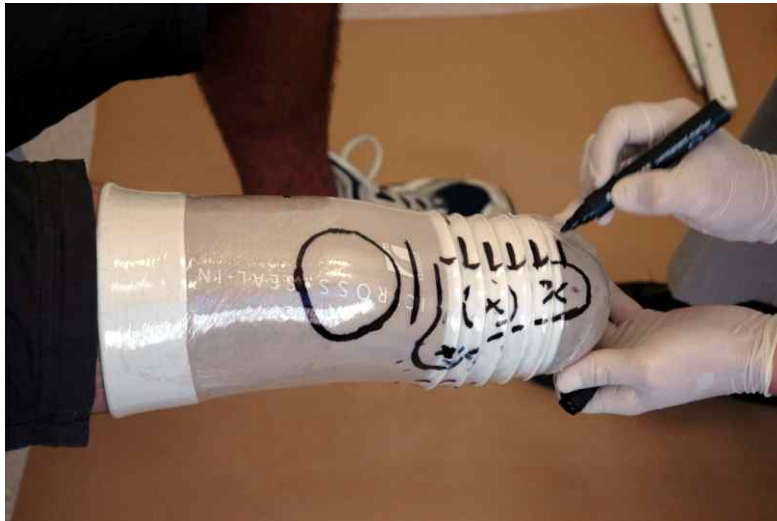
Casting procedure



- Palpate and mark all bony areas (outline the entire region):
 - Patella
 - MPT
 - Tibia (tubercles, end)
 - Medial tibial flare
 - Fibula (head, end)
 - Medial & lateral femoral condyles (proximal trimline)
- Mark any especially sensitive areas that may require relief

Iceross® Seal-In Liner

Casting procedure



- Indicate circumference measurements (MPT to distal end)
- Recommend measuring in 20mm increments below MPT
- X5: Mark & measure between each seal
- HSM™: Mark & measure directly above & below the seal

Iceross® Seal-In Liner

Casting procedure



- Measure circumferences
- Ensure consistency of tension and position relative to marks



- Record measures

Iceross® Seal-In Liner

Casting procedure



Measure	Patient	Cast	% Reduction	Goal	Final
ML	XX				
AP	XX				
C1 (MPT)	XXX				
C2	XXX				
C3	XXX				
C4	XXX				
C5	XXX				
C6	XXX				
C7	XXX				

It is also recommended to measure knee centre to floor to establish length.

Reduction tables are used to record measures and rectify positive model.

Iceross® Seal-In Liner

Casting procedure



- Apply plaster bandage from proximal to distal
- Ensure good distal coverage (5-6 layers)



- Work plaster bandage from anterior to posterior
- For HSM™, attempt to further flatten the seal

Iceross® Seal-In Liner

Casting procedure



- Grip excess bandage posteriorly into a 'fin'
- Work from proximal to distal until hardened

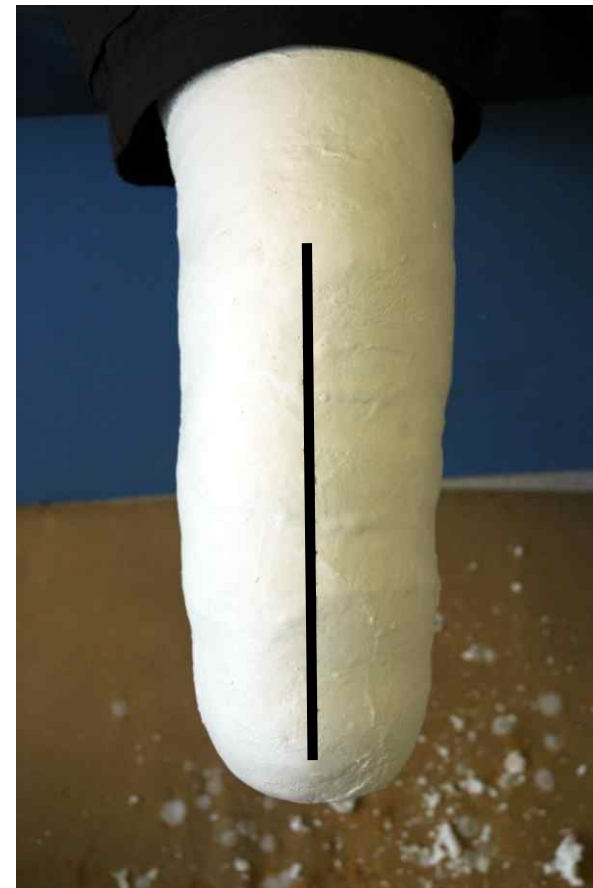


Iceross® Seal-In Liner

Casting procedure



- Draw anterior alignment line



Iceross® Seal-In Liner

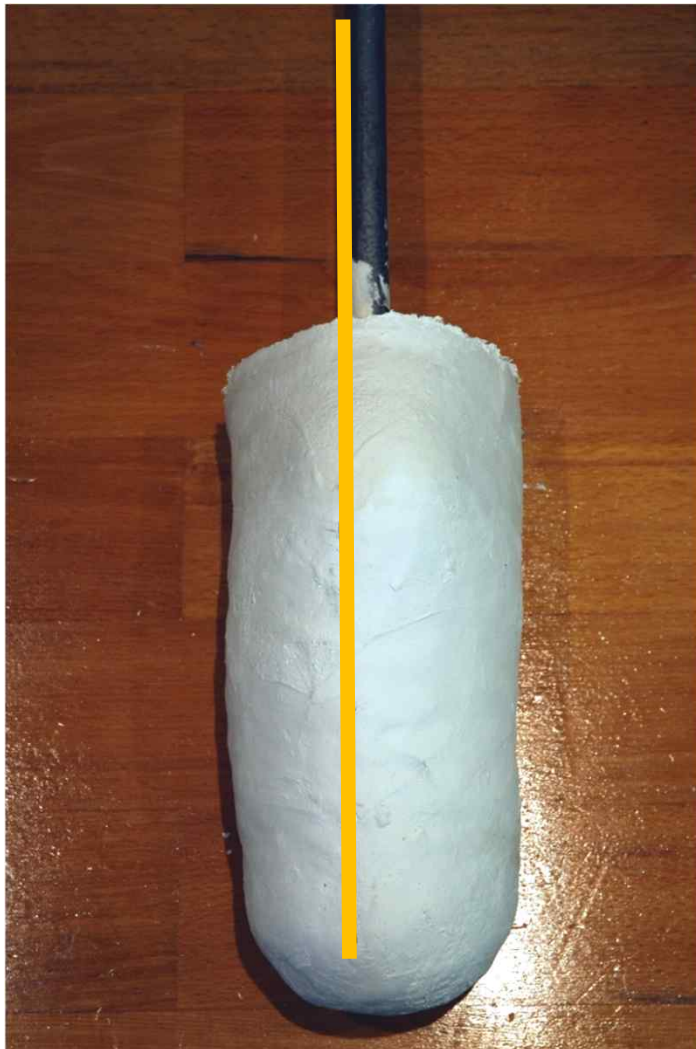
Casting procedure



- Remove and inspect cast
- Ensure good transfer of marks
- Remove cellophane and liner
- Check alignment line
- Prepare to fill model

Iceross® Seal-In Liner

Casting procedure



- Fill model with plaster
- Alignment line is parallel with pipe in coronal plane
- Add appropriate flexion in the sagittal plane

Iceross® Seal-In Liner

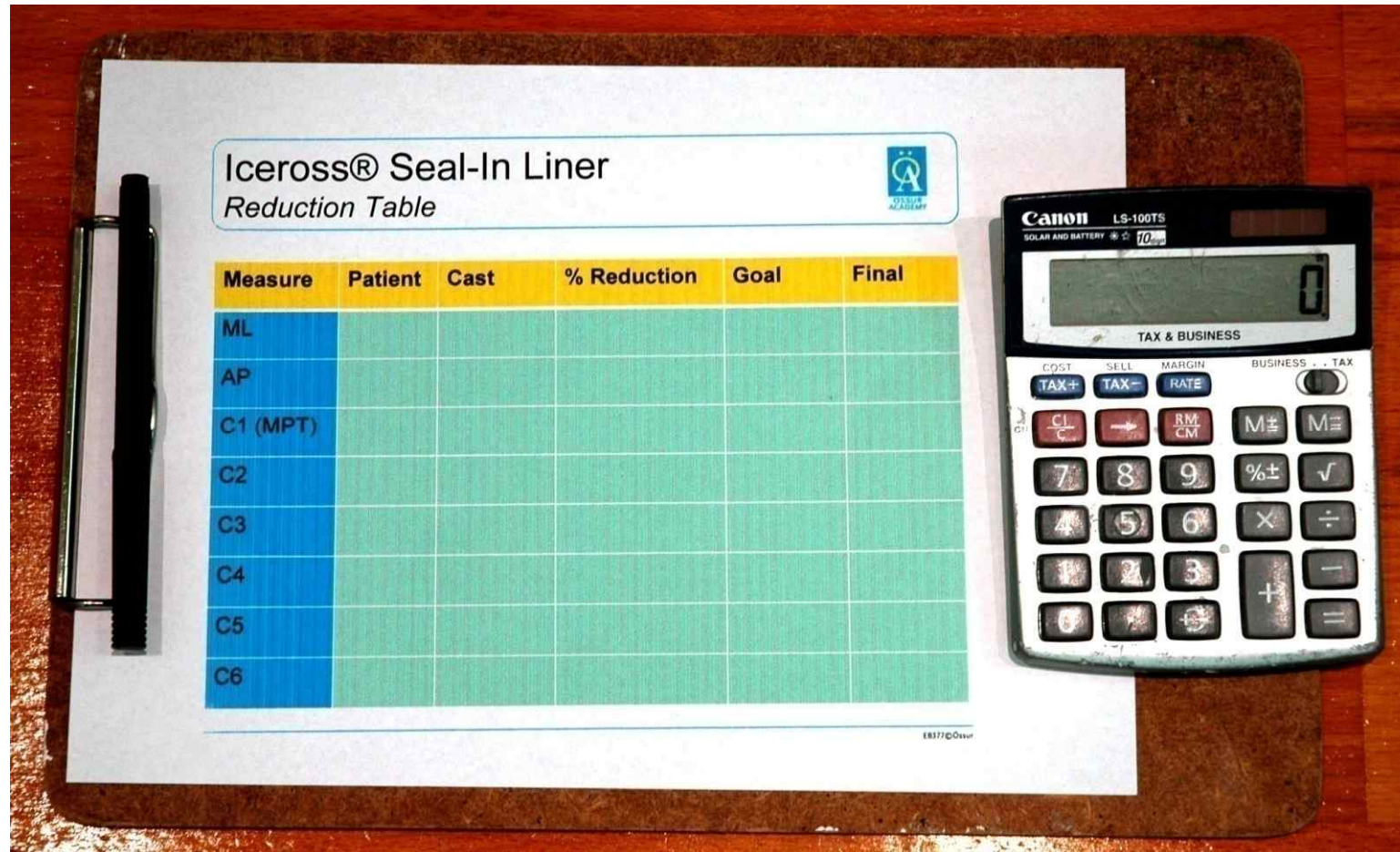
Modification procedure



- Procedure is similar for HSM™ and X5 Seal-In systems
- Recommended materials:
 - AP/ML calipers
 - Awl
 - Hammer
 - Hard & soft tape measures
 - Outside calipers
 - Sur-form (half, full, flat)
 - Indelible pencil
 - Utility knife
 - Wire brush
 - Bowl & spatula
 - Plaster

Iceross® Seal-In Liner

Modification procedure



Reduction table and calculator are required to track modifications

Iceross® Seal-In Liner

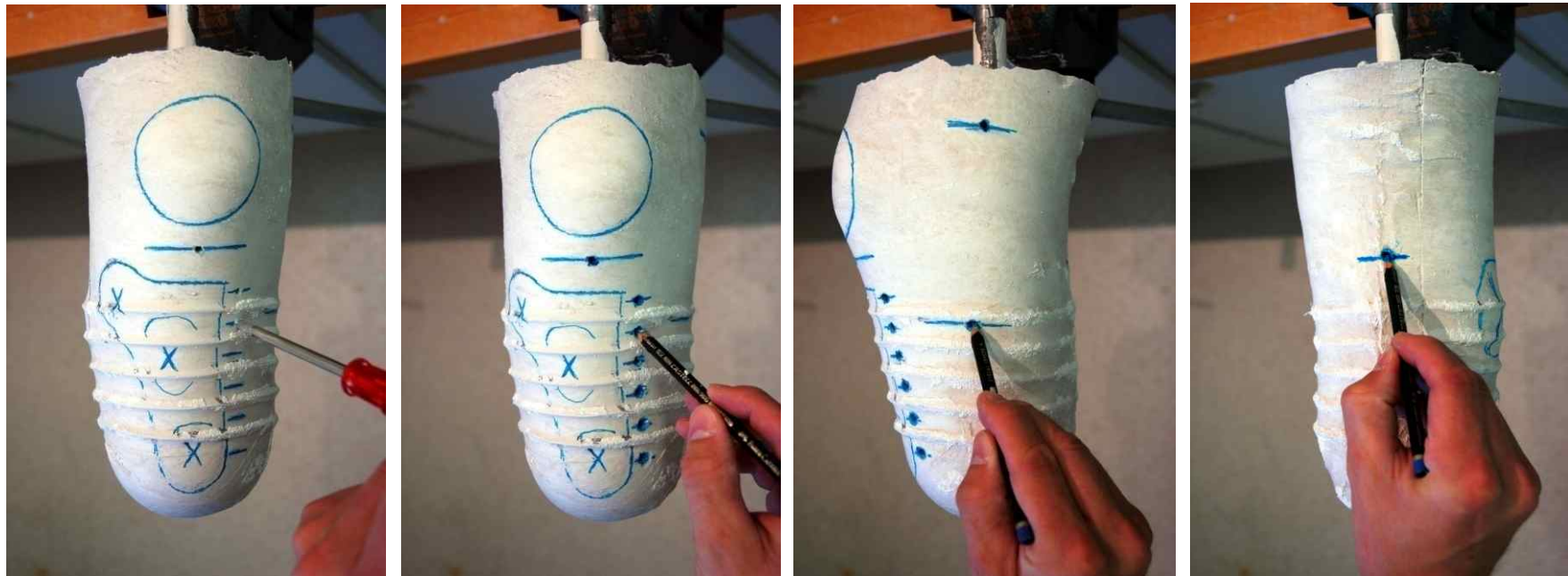
Modification procedure



Strip positive model and re-draw landmarks with indelible ink

Iceross® Seal-In Liner

Modification procedure

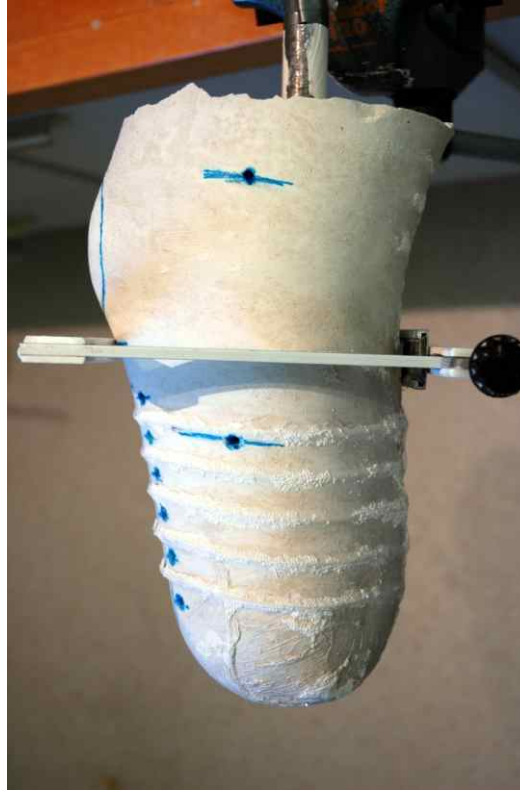


Transfer marks with awl and indellible ink:

- MPT level (anterior and posterior)
- Medial femoral condyle
- Medial tibial flare
- Circumferences

Iceross® Seal-In Liner

Modification procedure



Measure positive model: ML, AP, & circumferences

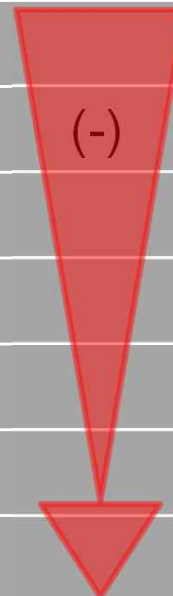
Positive model should always be larger than patient values

Iceross® Seal-In Liner

Modification procedure



Measure	Patient	Cast	% Reduction	Goal	Final
ML	XX	+XX	(-) To measure	XX	
AP	XX	+XX	(-) To measure	XX	
C1 (MPT)	XXX	+XXX	3%	YYY	
C2	XXX	+XXX	3%	YYY	
C3	XXX	+XXX	2%	YYY	
C4	XXX	+XXX	2%	YYY	
C5	XXX	+XXX	1%	YYY	
C6	XXX	+XXX	1%	YYY	
C7	XXX	+XXX	0%	XXX	



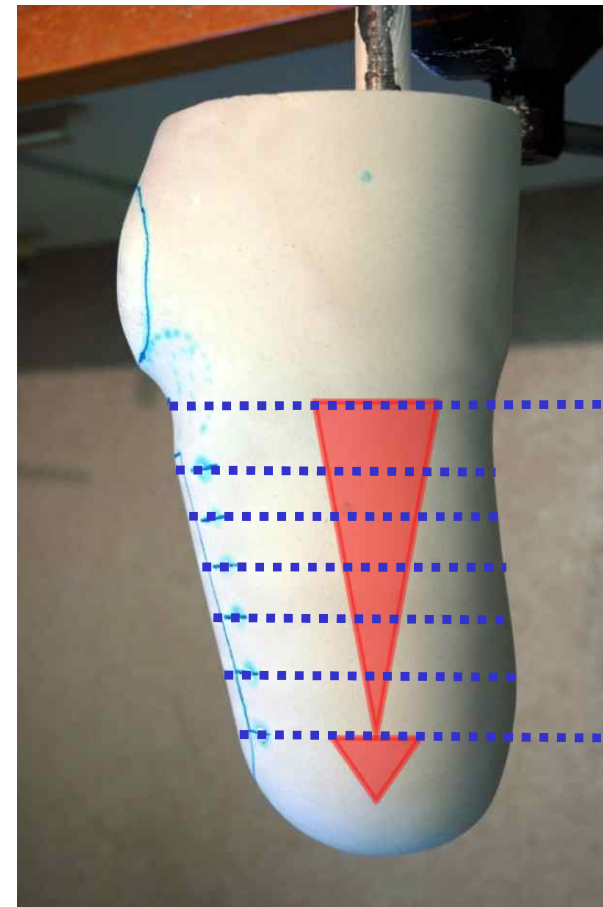
Record values. Estimate % reductions and calculate goals.

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Modification procedure



	% Reduction
C1	3%
C2	3%
C3	2%
C4	2%
C5	1%
C6	1%
C7	0%



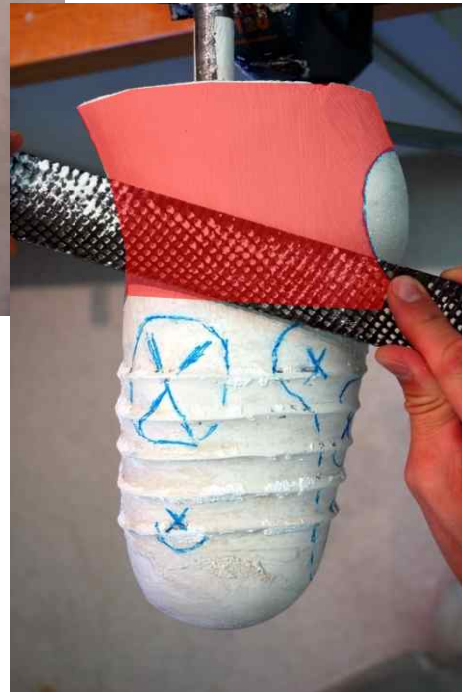
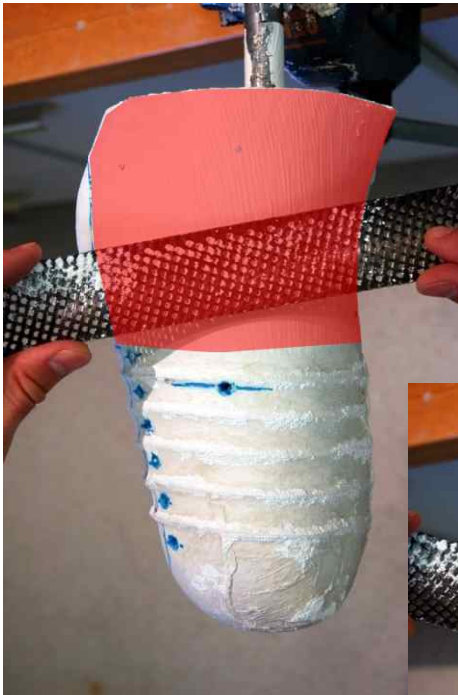
**MPT
(3%)**

**Distal
(0%)**

Example: For all Seal-In models, start with 3% graded reduction

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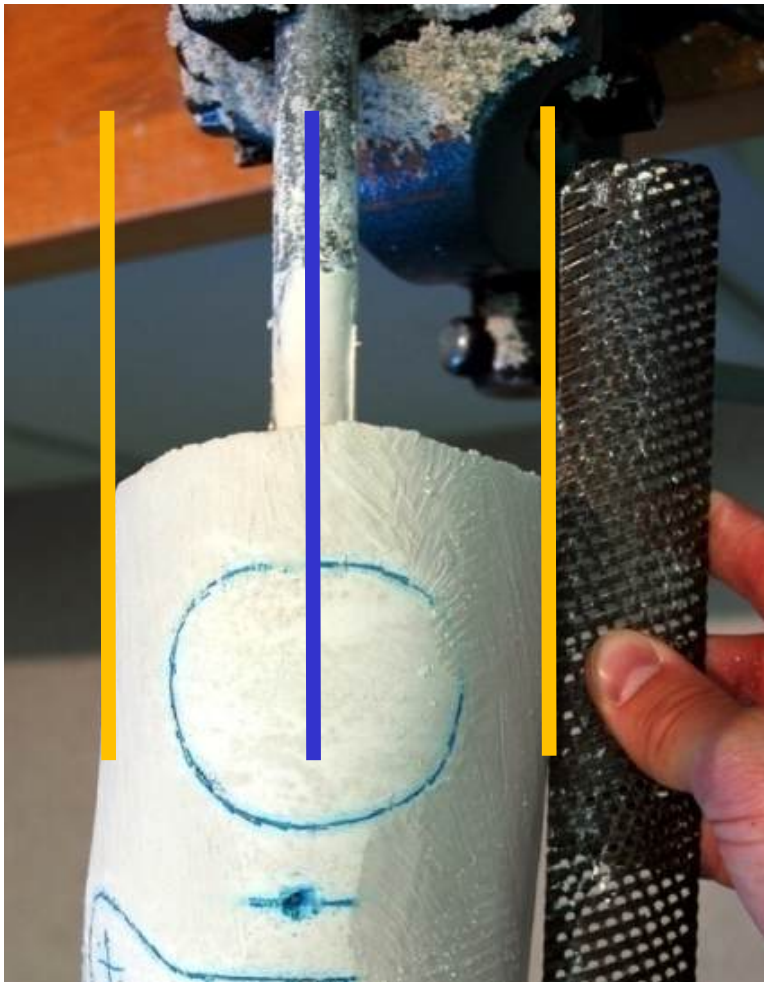
Modification procedure



- Reduce ML to patient measure
- Distribute reduction evenly

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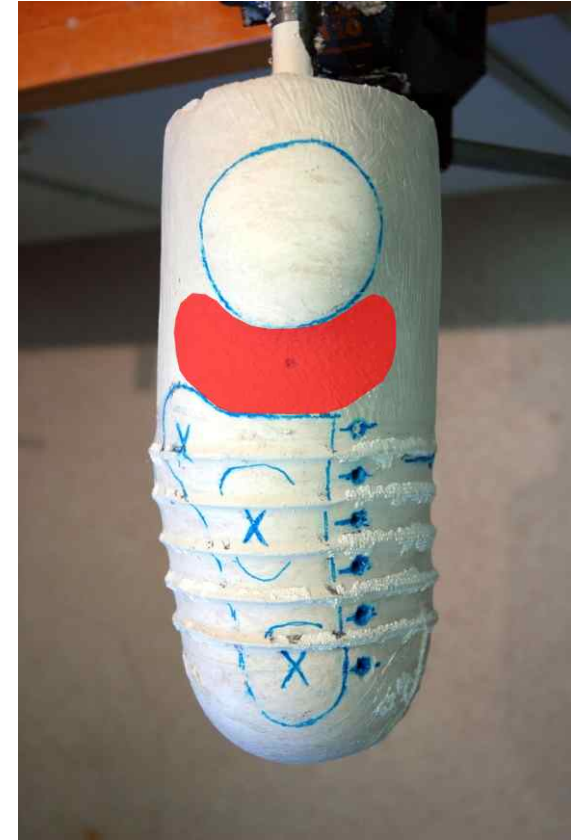
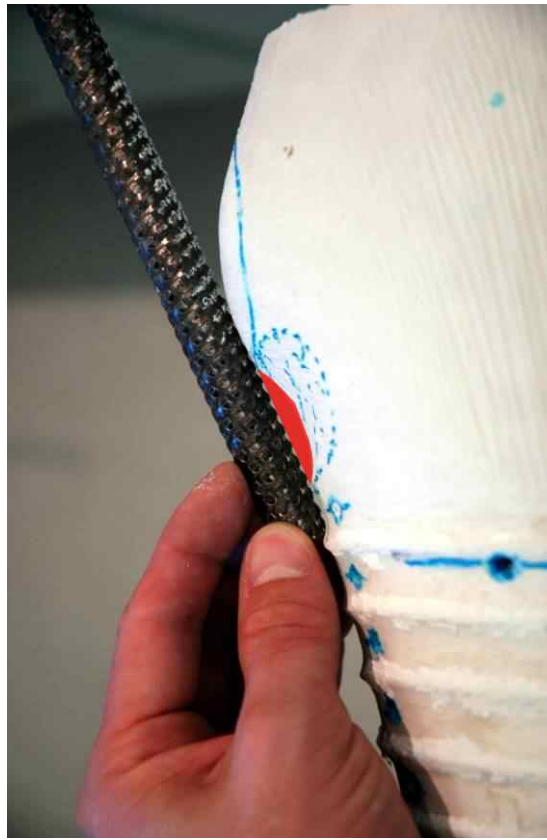
Modification procedure



- Flatten walls parallel to pipe

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Modification procedure

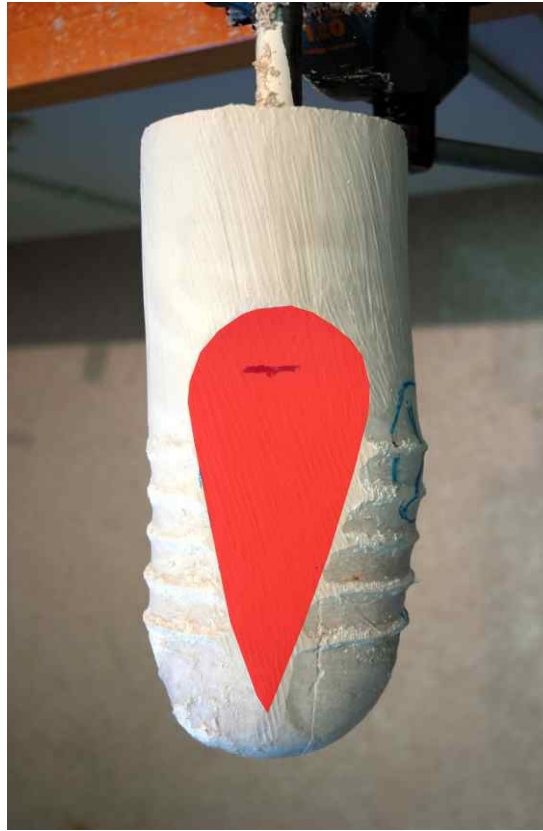


Reduce AP to patient measure: patellar tendon region by 4-5mm

Blend reduction into model

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Modification procedure

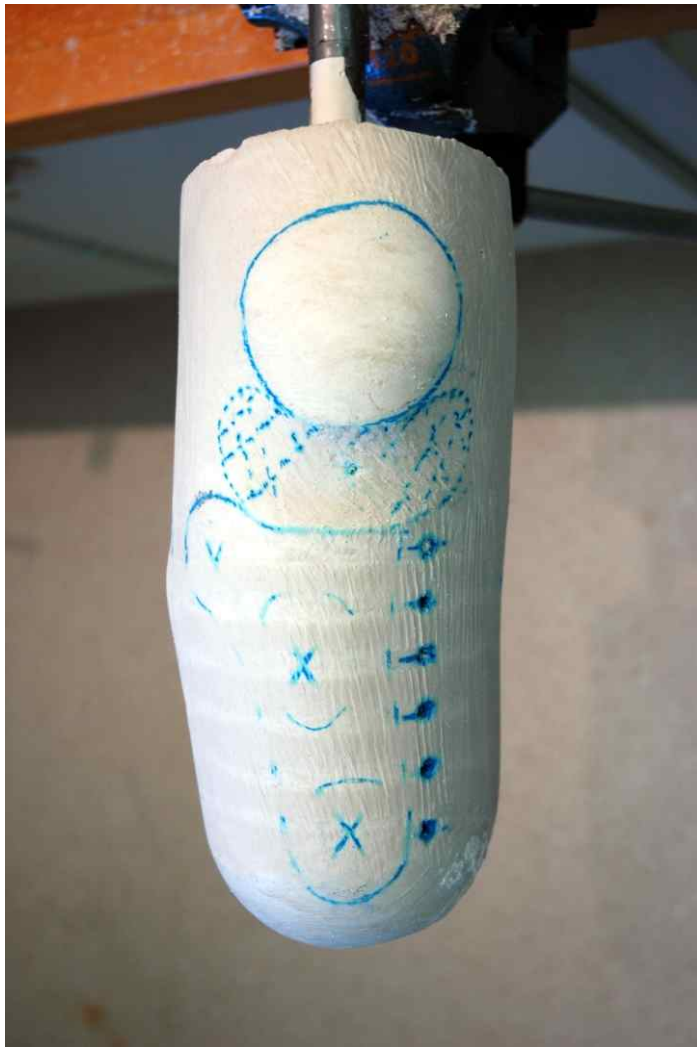


Reduce AP to patient measure: Flatten posterior of model in line of progression

Blend reduction into model

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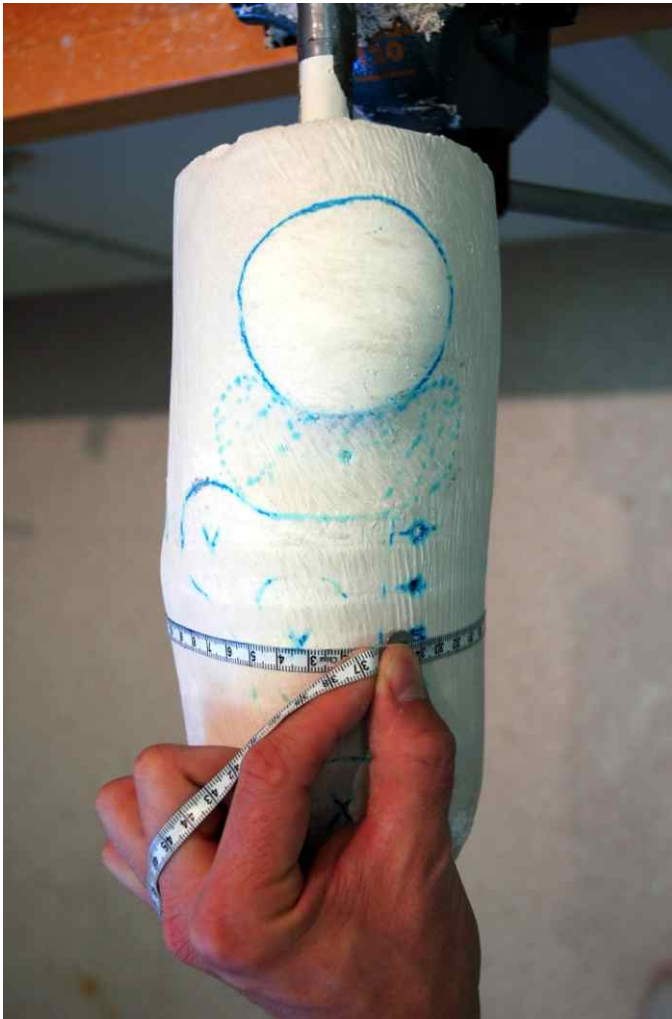
Modification procedure



- Remove ridges from seal impression equally
- Flat sur-form recommended
- Use caution around bony and sensitive areas
- Retain natural shape of limb

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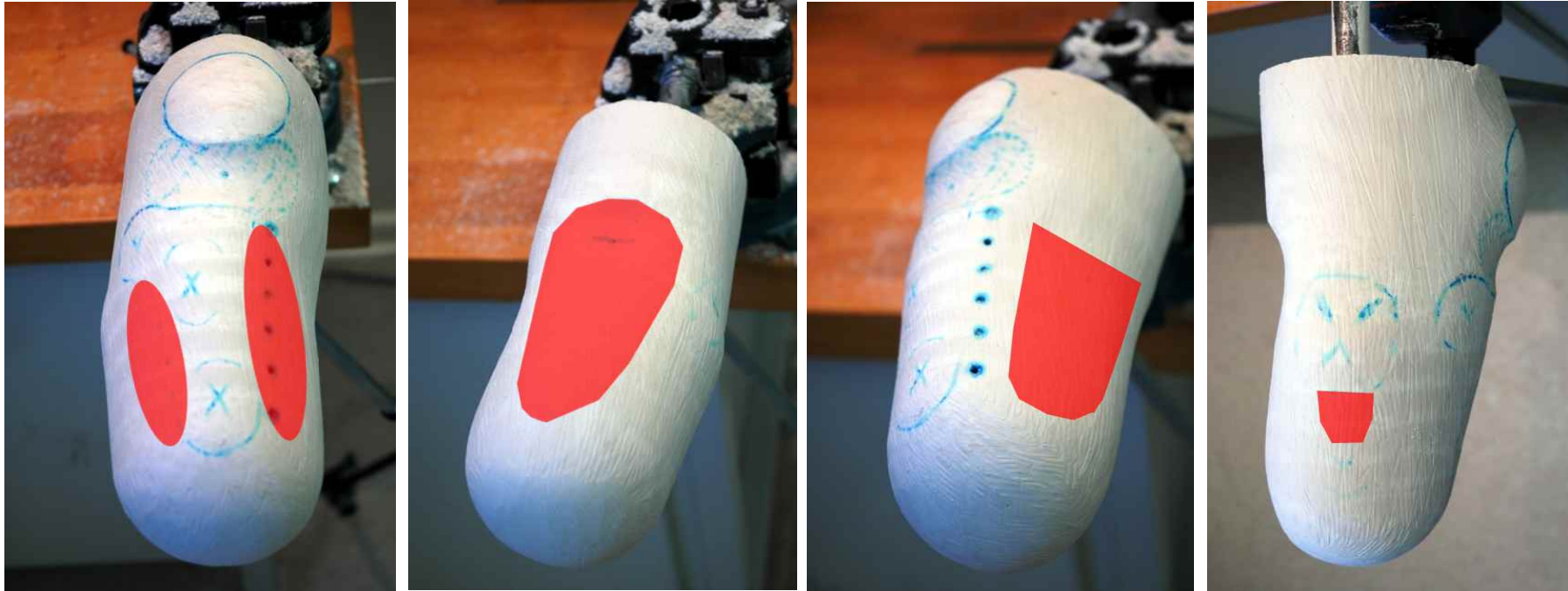
Modification procedure



- Measure circumferences to evaluate reduction status
- Continue reducing to goal using 3% graded reduction
- May require further reduction following check socket fitting depending on soft tissue consistency

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Modification procedure



Focus reductions over more pressure tolerant areas of the limb:

- Pre-tibial
- Medial tibial flare
- Posterior (distal)
- Fibular shaft (length permitting)

NO BUILD-UP REQUIRED

Iceross® Seal-In Liner

Modification procedure



Sand model for smooth surface – use caution over bony areas

Ensures good seal and enhances durability of sealing membrane

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Modification procedure

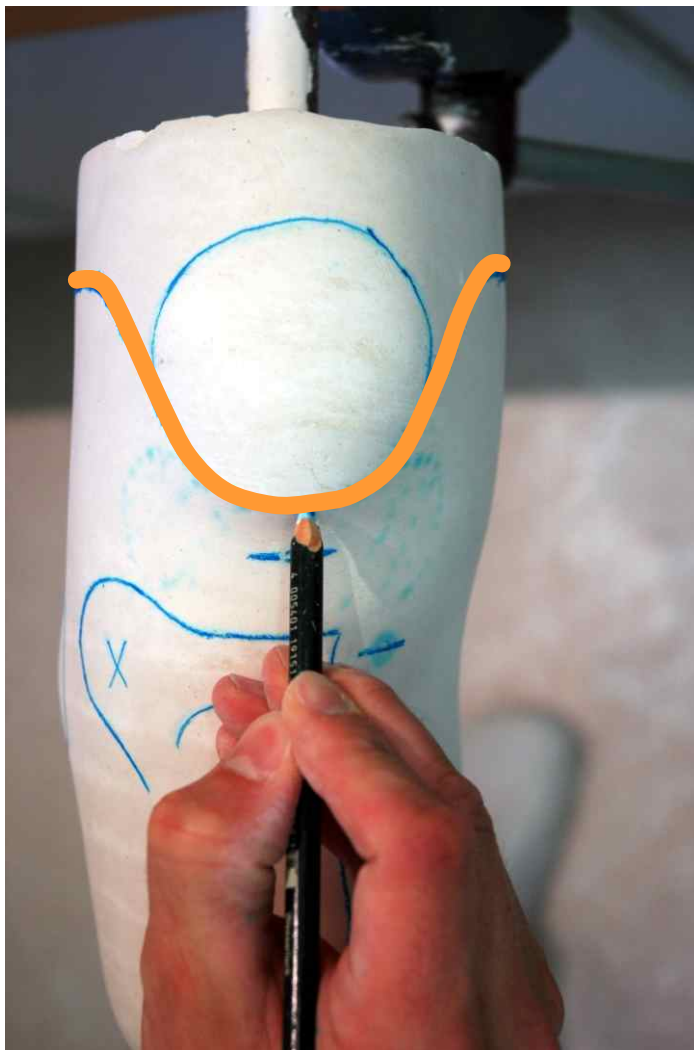


Measure	Patient	Cast	% Reduction	Goal	Final
ML	XX	+XX	(-) To measure	XX	XX
AP	XX	+XX	(-) To measure	XX	XX
C1 (MPT)	XXX	+XXX	3%	YYY	YYY
C2	XXX	+XXX	3% (-)	YYY	YYY
C3	XXX	+XXX	2%	YYY	YYY
C4	XXX	+XXX	2%	YYY	YYY
C5	XXX	+XXX	1%	YYY	YYY
C6	XXX	+XXX	1%	YYY	YYY
C7	XXX	+XXX	0%	XXX	XXX

Measure finished model. Verify dimensions match calculated goals.

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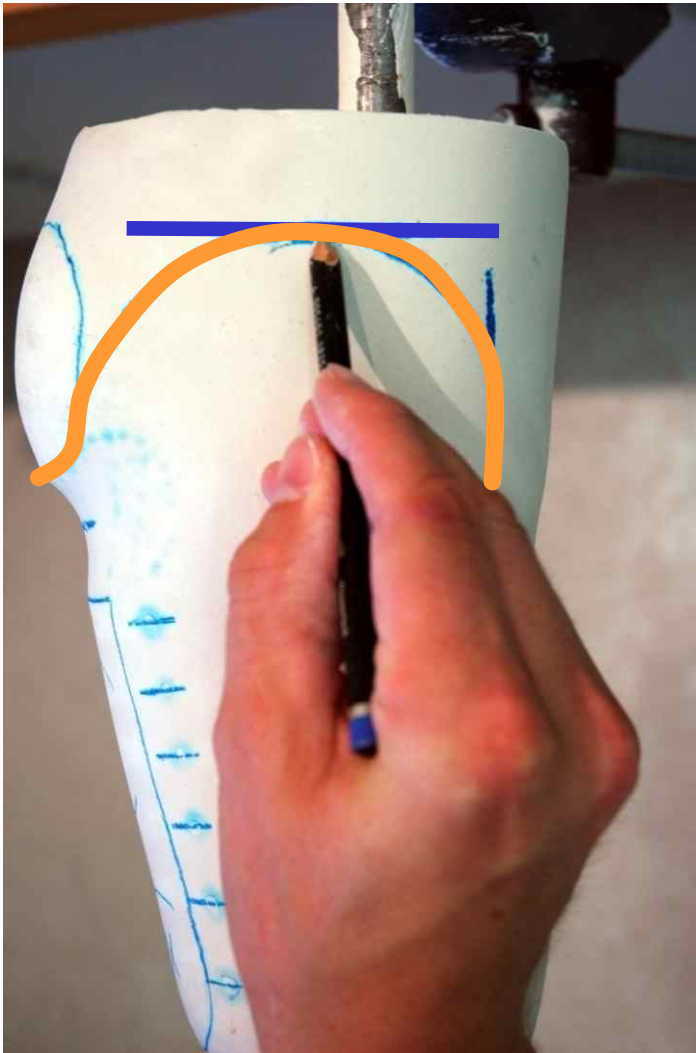
Modification procedure



- Establish anterior trim lines
- Follow patella borders
- Blend to medial and lateral trim

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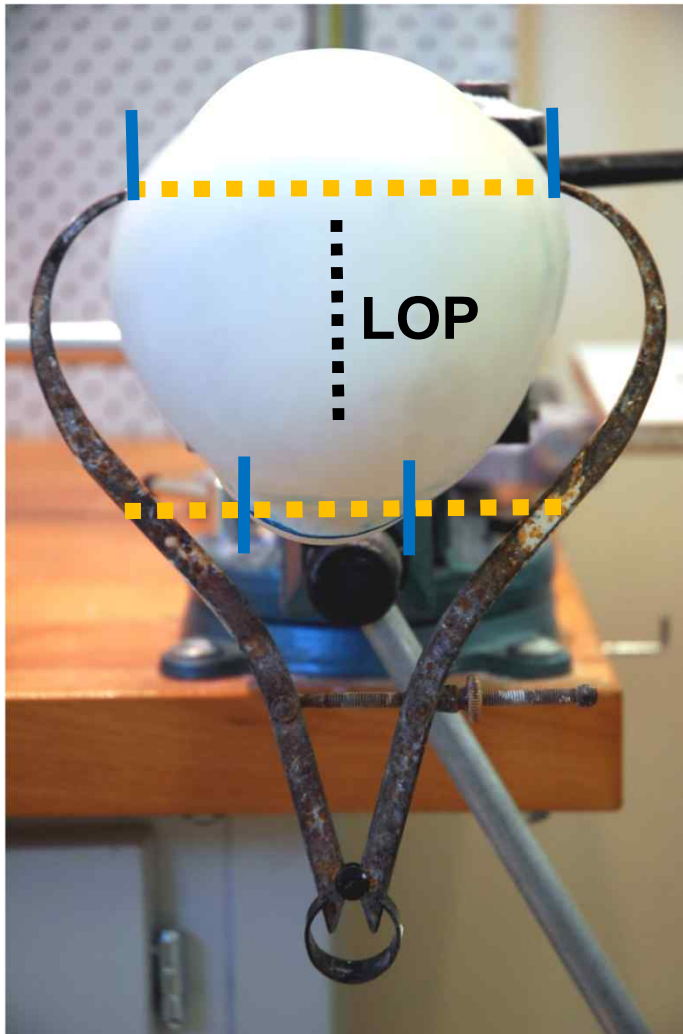
Modification procedure



- Establish medial & lateral trim lines
- Use medial femoral condyle as maximum initial height
- May be lowered or increased depending on knee stability

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Modification procedure

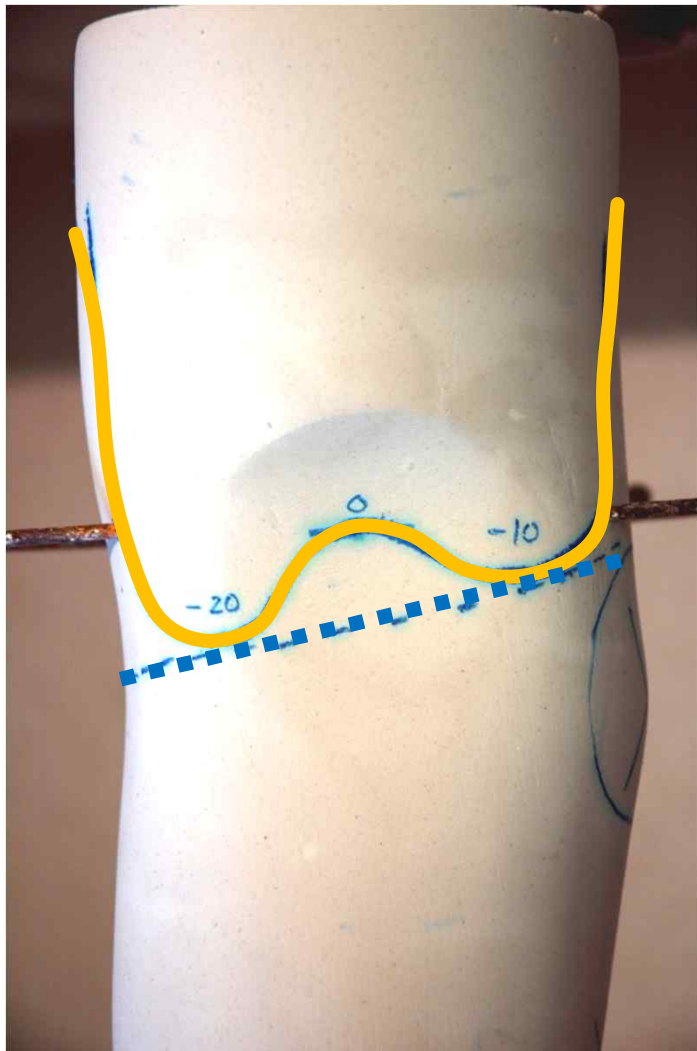


- Establish posterior trim lines
- ML-12mm = posterior exit
- Caliper level with patella



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Modification procedure



- Transfer MPT mark to posterior of model (most proximal trimline)
- Mark hamstring exits:
 - Medial: MPT-20mm
 - Lateral: MPT-10mm
- Finish marking posterior trim lines:
 - Medially sloping 'W' shape

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Fabrication procedure checklist



- Blister form check socket
- Transfer trim lines
- Transfer alignment line from pipe
- Grind socket and polish edges
- Install expulsion valve
- Align prosthesis

Iceross® Seal-In Liner

Icelock 551: Expulsion valve



- Push-button expulsion valve is required for any Seal-In liner socket
- Simple to install and clean
- Installed following socket manufacture – no dummies required
- Large aperture for fast air expulsion

Iceross® Seal-In Liner

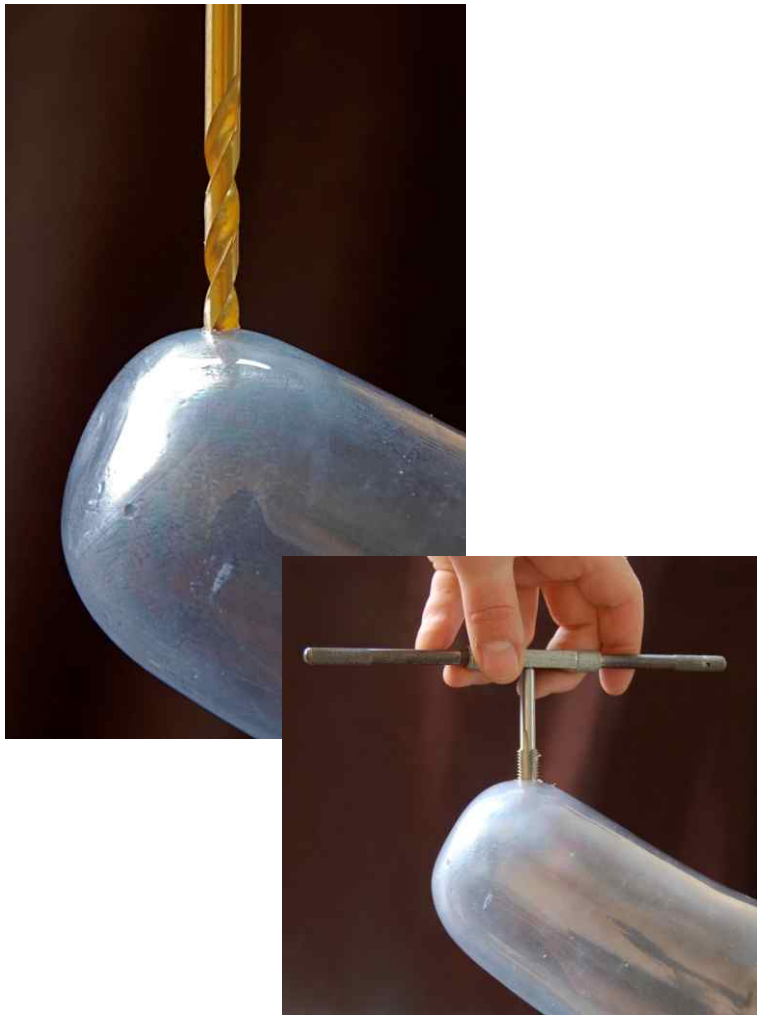
Icelock 551: Expulsion valve



- Robust aluminum body & seal
- M10 thread screws directly into the socket with hex key
- Low profile & small:
25mm diameter, 10mm build

Iceross® Seal-In Liner

Icelock 551 installation



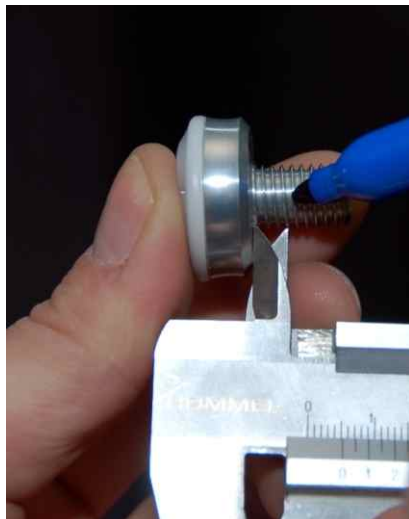
- Determine valve placement (anywhere below seal level)
- Drill hole perpendicular to socket face using 8.5mm drill bit
- Tap hole using M10X1.5 tap

Iceross® Seal-In Liner

Icelock 551 installation

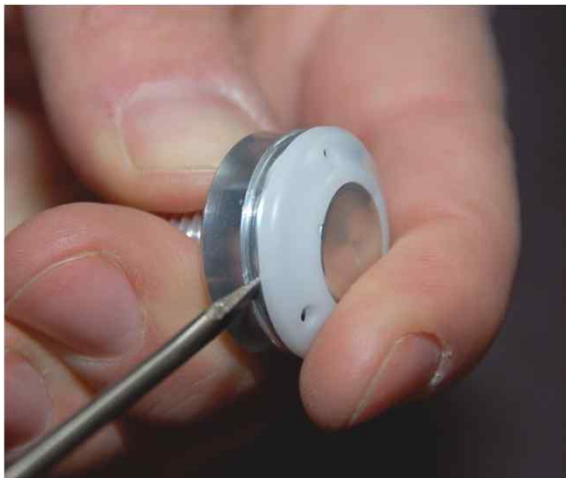


- Determine socket wall thickness with caliper
- Mark excess thread length (shortest length = 5mm)
- Cut excess thread with hacksaw (smooth edges)



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Icelock 551 installation



- Insert small flathead screwdriver into groove and twist to release
- Remove seal and clean all surfaces



Cap



Seal



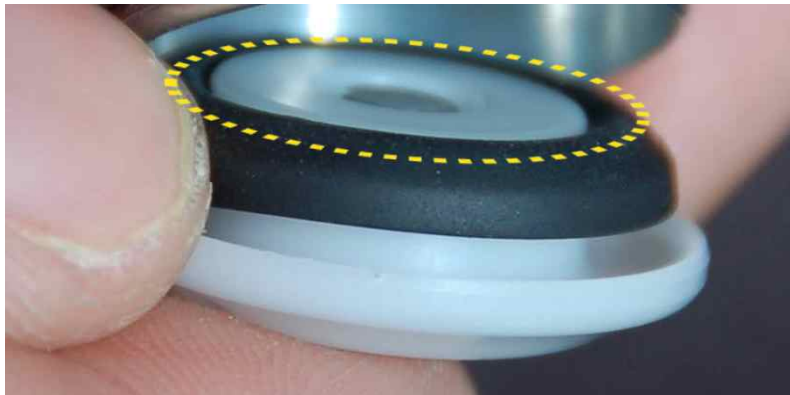
Housing

Iceross® Seal-In Liner

Icelock 551 installation

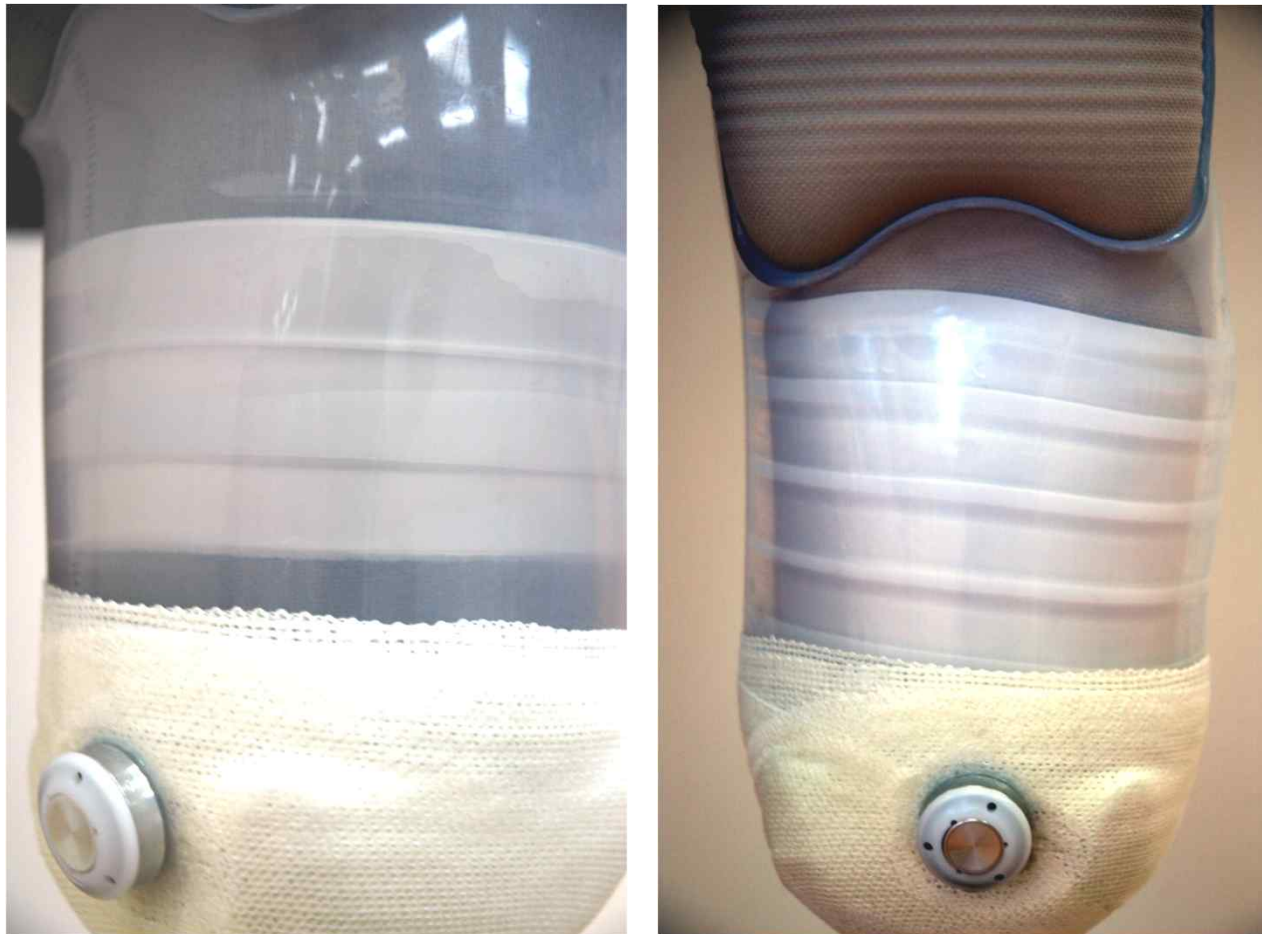


- Turn valve housing into socket using 5mm hex key
- Re-assemble valve (seal in proper orientation)
- Use silicone sealant to seal valve housing to socket wall



Iceross® Seal-In Liner

Icelock 551 positioning



Example: Valve installed anywhere below level of the seal

Iceross® Seal-In Liner

Alignment procedure



- Alignment Recommendation:
 - Ensure proper heel height
 - Match bisection of socket at MPT level
 - Match posterior-middle 1/3 mark on Flex-Foot
- Establish length of prosthesis (knee centre to floor measure)

Iceross® Seal-In Liner

Fitting



- Procedure is similar for HSM™ and X5 Seal-In liners
- Spray seal with lubricant spray (ONLY for X5)
- Invert liner completely (ensure no space distally)
- Roll-on liner & verify seal alignment

Iceross® Seal-In Liner

Fitting



- Spray seal and inside of socket with lubricant spray:
 - Eases socket donning
 - Reduces stress on seal (increases durability)
 - DO NOT SUBSTITUTE powders or lotions
- Ensure smooth inner surface of socket

Iceross® Seal-In Liner

Fitting



- Don socket and shift weight from side to side
- Repeat until total contact is achieved



Iceross® Seal-In Liner

Fitting



- Evaluate total surface bearing
- Adjust trim lines as required
- Mark any areas that require further modification or packing
- Mark and relieve any peak pressure areas
- Ensure total contact distally:
 - Clay ball test
 - Clay ball should flatten

Iceross® Seal-In Liner

Fitting



- For HSM™:
 - Seal flattens into recess
 - Even pressure around seal
 - No creasing
- If lack of pressure:
 - Further reduction required
 - Add sock
- If creasing of seal:
 - Re-don socket
 - Re-evaluate liner size (too large)

Iceross® Seal-In Liner

Fitting



- For X5:
 - Even pressure around seals
 - No peak pressure areas
- If lack of pressure:
 - Further reduction required
- If peak pressure:
 - Mark area and reduce pressure with further modification

MSS – Locking Liner Socket

Fitting



- Evaluate suspension of the prosthesis:
 - Sustained pull
 - Maximum knee flexion
 - No pistoning
- Adjust trim lines as necessary especially around hamstrings

Iceross® Seal-In Liner

Fitting



- Add socks to replace lost volume
- HSM™:
 - Sock placed underneath seal
 - 6 ply maximum
- X5:
 - Leave 3 seals fully exposed
 - 3 ply maximum

Iceross® Seal-In Liner

Fitting



- Doffing:
Press valve release button
- For HSM™, withdraw limb slowly from socket to reduce stress on seal

Iceross® Seal-In Liner

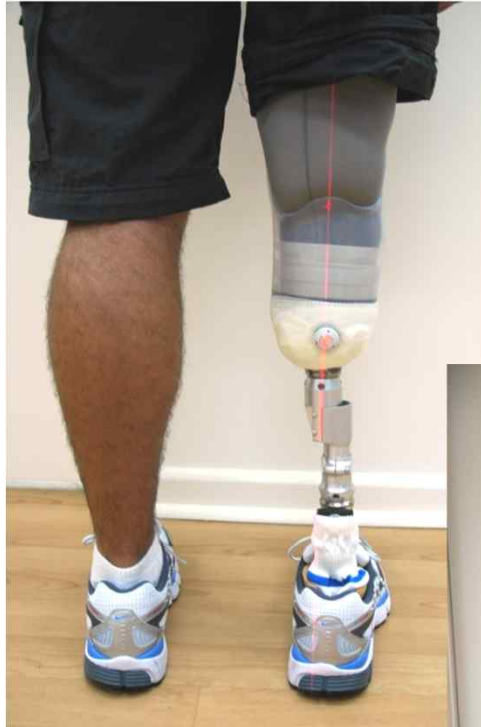
Fitting



- Evaluate length of the prosthesis with use of blocks
- Adjust length as necessary
- Pelvis should be level

Iceross® Seal-In Liner

Fitting



- Evaluate static alignment:
 - Coronal plane
 - Sagittal plane

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Fitting



- Evaluate dynamic alignment:
 - Coronal plane
 - Sagittal plane
- Make angular and linear adjustments:
 - Stabilize knee
 - Smooth roll-over

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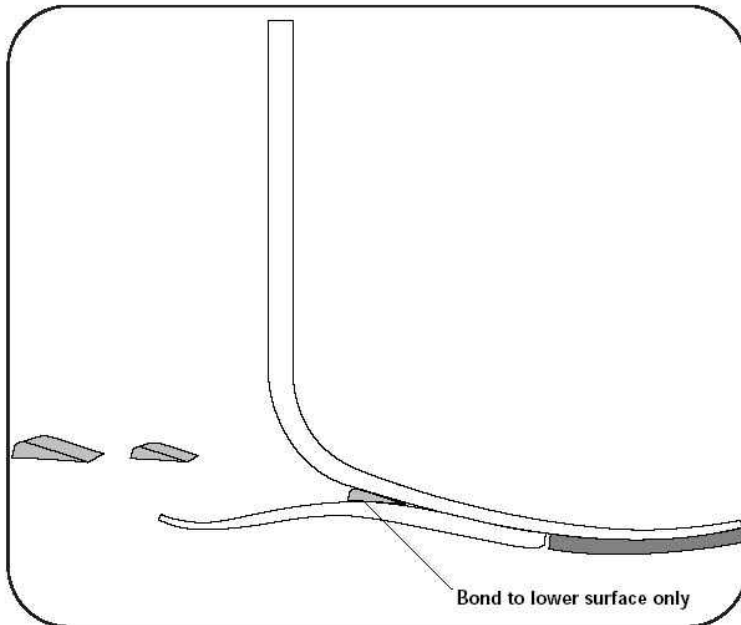
Fitting



- Smooth roll-over:
Adjust with heel wedges
- Soft Heel:
 - Knee in extension
 - Heel feels soft
 - Foot feels stiff
- Hard Heel:
 - Knee flexion thrust
 - Heel & foot feel stiff

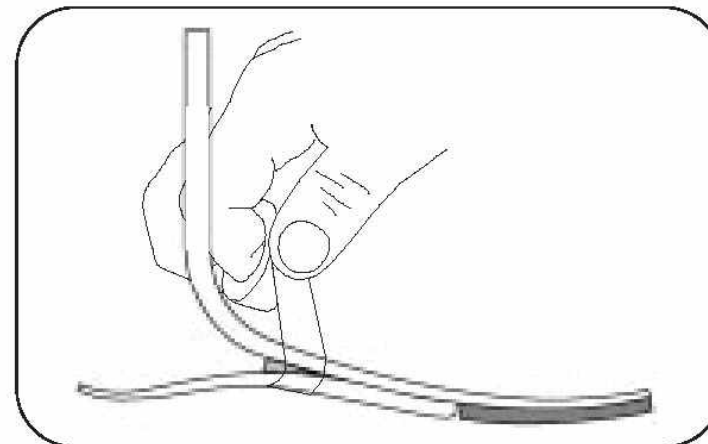
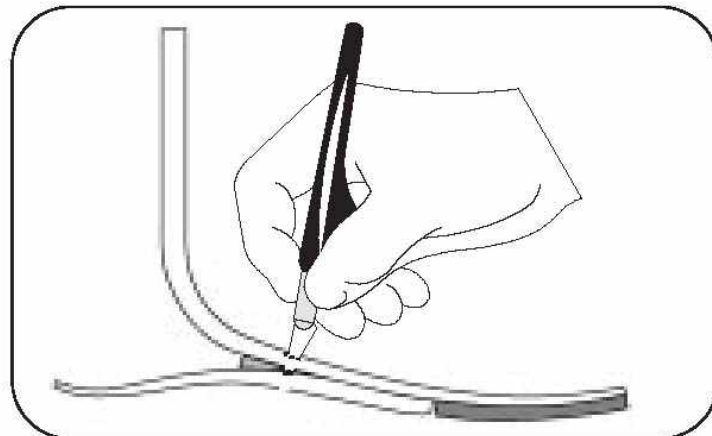
Iceross® Seal-In Liner

Fitting



Urethane Heel Wedges

- Temporary attachment first
- Permanent – ‘super-glue’
- Roughen both sides
- Adhesive heel side only
- ‘Split Toe’ – split wedge



Thank You

