

#### **AGENDA**

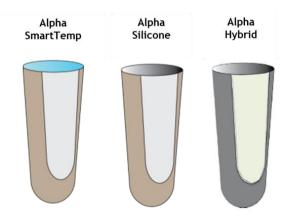
- Alpha Liner Family
- Choosing the Correct Alpha Liner
- Fitting and adjusting the Alpha Liner to a Limb Shape
- Shape Capture
  - Cast
  - Scan
- Modify Model for Initial Socket Fabrication





## **AGENDA**

- Socket Fittings and Delivery of Definitive
- Retrofitting







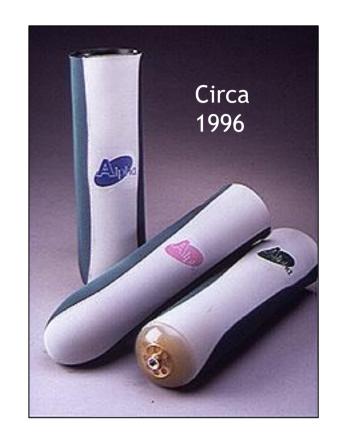


INTRODUCTION TO WILLOWWOOD

#### **EARLY ALPHA LINERS**

 The Alpha Liner was introduced in 1996, with one type of TPE (thermoplastic elastomer) gel

• 23 years later, we have an entire family of technologically advanced liners...





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WillowWood

RAM ALPHA HYBRI







**FABRICS** 

#### **ALPHA LINER FABRICS**

- Original
  - Controlled multi-directional stretch
  - Green/Gray

- MAX
  - Buff
  - Reduced multi-directional stretch
  - Reduced elongation properties









#### **ALPHA LINER FABRICS**

## Spirit

- Controlled multi-directional stretch
- Velcro<sup>®</sup>-type properties
- Buff



- Gray/Light Gray, Taupe/Light Gray, Taupe
- Unidirectional stretch (high circumferential stretch; minimal elongation)





## SELECT FABRIC FEATURES







## INTERFACE MATERIALS

#### CLASSIC



- High flow helps the Classic Gel adapt to uneven socket pressures
- Low rebound means that the liner will maintain this adapted shape

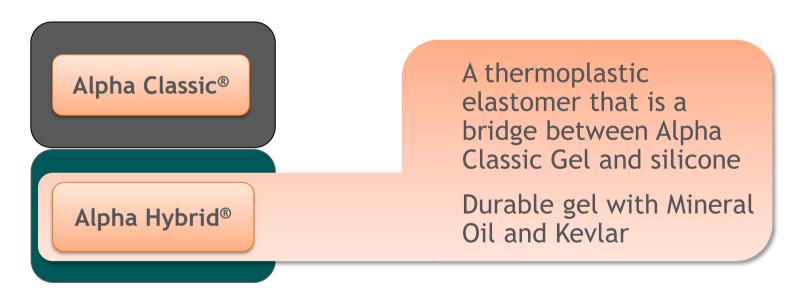




#### **HYBRID**



 Moderate flow and rebound characteristics to provide a balance of comfort and durability





#### SMARTTEMP TPE



Alpha SmartTemp®

TPE with Phase Change Material (PCM) responds to changing skin temperature

NOT Classic or Hybrid TPE Gel



### **SILICONE**



Alpha Silicone®

A proprietary blend of silicone, Vitamin E, and skin conditioners

Platinum cured medical grade silicone



### **SMARTTEMP**



Alpha SmartTemp®

Alpha Silicone with Outlast® responds to changing skin temperature

Utilizes Phase Change Materials (PCM)



### **SUMMARY**



Classic

Blend of thermoplastic elastomer (TPE) and mineral oil



Hybrid

A specialized blend of TPE and mineral oil



Silicone

Unique blend of silicone, Vitamin E, and skin conditioners



SmartTemp Silicone

Alpha Silicone with Outlast



**SmartTemp TPE** 

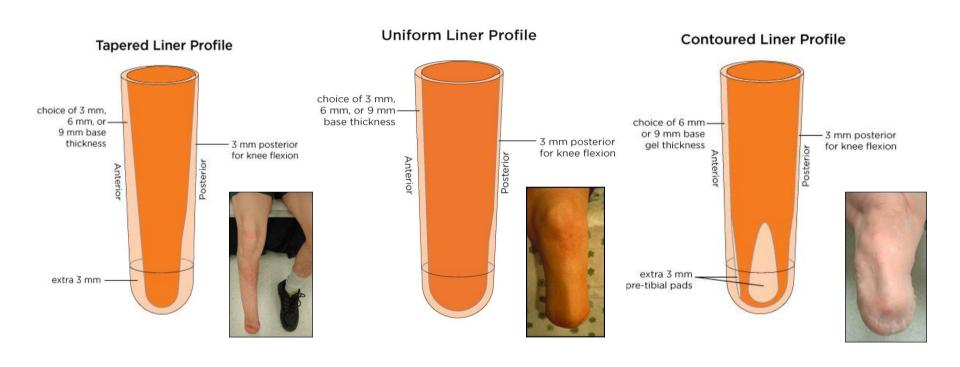
TPE with PCM





## TRANSTIBIAL PROFILES

#### **PROFILES**

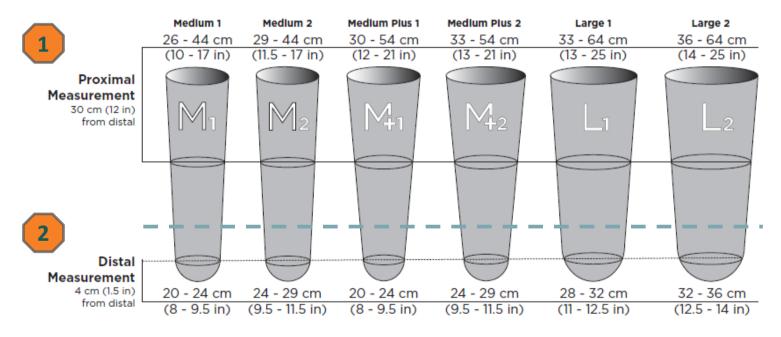


Profiles match the residual limb and your socket shapes



#### SIZING

## Measurement points







**PROGRESSIVE** 

## PROGRESSIVE PROFILE 2.5 mm **Behind Knee** Hybrid, Silicone, or SmartTemp & Proximal Select Fabric Locking or Cushion Accordion umbrella 6 mm Tibial Pad 9 mm Distal



## ACCORDION UMBRELLA

Conforms to the shape of the residual limb







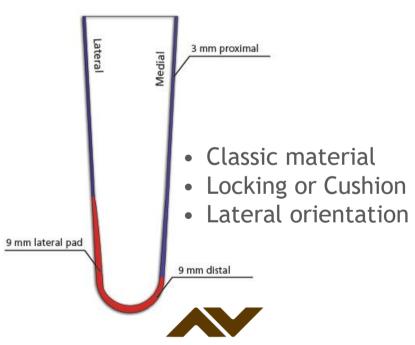


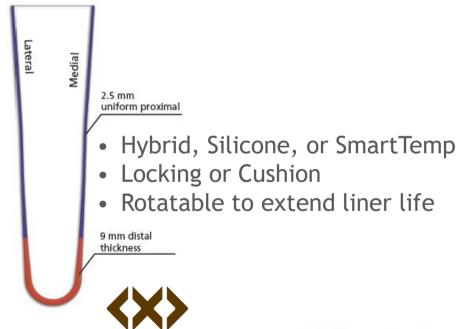
## TRANSFEMORAL PROFILES

#### TRANSFEMORAL PROFILES

## **AK Profile**

## Symmetrical Profile







#### ALPHA CLASSIC AK LINER

- Designed to optimize comfort for AK amputees
  - Spirit fabric for cushion
  - MAX fabric for locking
  - Standard umbrella
  - Built-in distal-lateral pad
  - 3 mm proximal thickness









## **HYBRID AK LINERS**

- Hybrid TPE gel
- Select fabric
  - One-way stretch fabric to control pistoning
- Symmetrical profile
- Locking and cushion options
- Accordion umbrella on locking version





#### SILICONE AND SMARTTEMP

- Select fabric
  - One-way stretch to control pistoning
- Symmetrical profile
- Locking and cushion options
- Accordion umbrella on locking version













## TRANSFEMORAL LINER SELECTION GUIDE

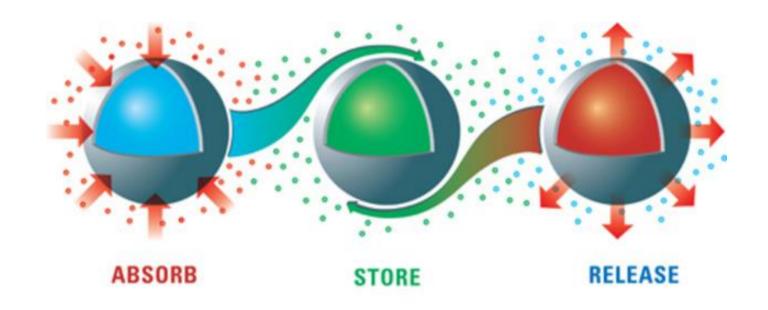
SmartTemp AK Liner Silicone AK Liner	Silicone	Symmetrical	Select Fabric (Locking & Cushion)
Hybrid AK Liner	Hybrid Gel	Symmetrical	Select Fabric (Locking & Cushion)
Classic AK Liner	Classic Gel	AK Profile	Spirit (Cushion) MAX (Locking)





**ALPHA SMARTTEMP** 

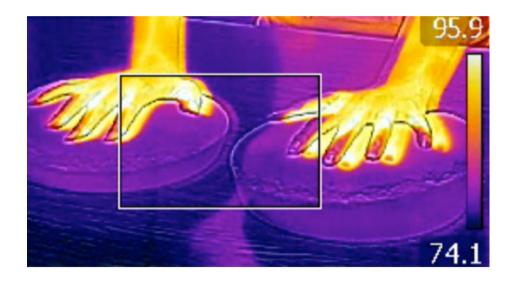
## PROACTIVE APPROACH





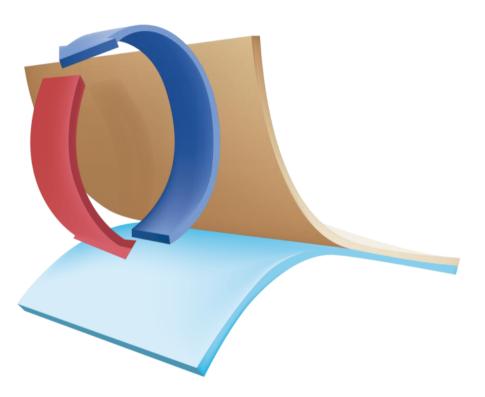
## PROACTIVE APPROACH

• Thermal imaging example?





## **HOW IT WORKS**



- Utilizes phase change materials (PCM) that proactively manages sweat by absorbing, storing and releasing heat for optimal thermal comfort
- Not wicking technology
- Does not prevent sweating;
   it delays the onset of sweat



### PERFORMANCE FACTORS

- 1. Lifestyle/Activities
- 2. Environment
- 3. Metabolism





## SILICONE/GEL DIFFERENCES

	SmartTemp Silicone	SmartTemp Gel
Softness	Softens as it heats up	Maintains TPE softness as it heats up
Fabricless option?	Yes	No
Formulation	Silicone featuring Outlast® PCM	TPE/PCM blend offering improved performance compared to Silicone/Outlast blend





**ALPHA DUO** 

# **CONSTRUCTION**



#### **CLINICIAN BENEFITS**

 TPE comfort against the skin

- Silicone exterior
  - Provides durability and stability
  - Fabric-free
    - No need to reflect
    - No lubricants



- Recommended for WillowWood One® System
  - Vacuum or suction sockets

 Can be used with any WillowWood suspension sleeve



## SYMMETRICAL PROFILE

 For use in both transtibial and transfemoral 4.5 mm applications proximal 9 mm distal



**ALPHA BASIC** 

#### **ALPHA BASIC**

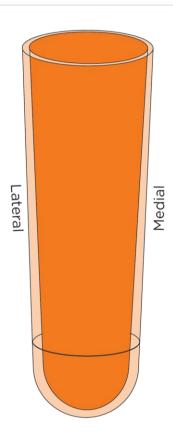
- Low activity patients
- Classic Gel
- Flexible fabric
- 6 mm symmetrical profile
- Cushion or Locking
- Retrofits other common liners
- Features one-way stretch fabric distally to minimize pistoning





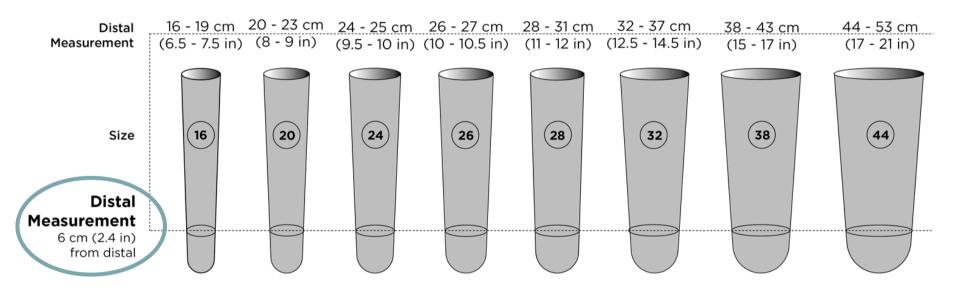
## ALPHA BASIC PROFILE

- 6 mm of gel throughout the liner
- Rotatable
  - Extends liner life





#### ALPHA BASIC SIZING







**ACCESSORIES** 

# ADJUSTING THE LINER



Volume Management Pads







**ALPHA DESIGN® LINERS** 



#### WHAT IS AN ALPHA DESIGN LINER?

- A custom liner profile where the pattern, placement and thickness of the interface material are specific to an individual
- Why use an Alpha DESIGN Liner?
  - For accommodation of residual limb shapes, sizes, and tissue integrity that fall outside the scope of an off-the-shelf (OTS) liner with or without gel cup/pad adjustment
- Transtibial and Transfemoral applications



#### ALPHA DESIGN LINER INTERFACE MATERIALS

Classic TPE Hybrid

3 mm through 25 mm anywhere in the liner

## Duo



4 mm through 25 mm anywhere in the liner



## ALPHA DESIGN LINER FABRICS

- Original
  - Green/Gray
  - Buff
  - Brown





- Spirit
  - Green/Gray
  - Buff
  - Brown

• MAX

• Buff





- Select
  - Gray
  - Taupe



## OPTIONS FOR CREATING A DESIGN LINER



#### **OMEGA**

 Gives you the most control over gel thickness and placement



## Alpha DESIGN App

 Allows you to scan and order using an iPad



Cast or Scan

 Submit via online order form



#### **SUMMARY**

- Alpha Liners have provided comfort and protection for amputees around the world for 23 years
- Suitable for transtibial and transfemoral amputees
- Can be used with a variety of suspension methods
- Can accommodate a wide range of activities and limbs

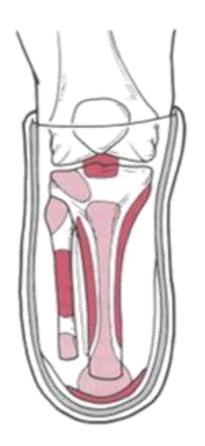




# **SELECTING A LINER**

#### **CONSIDERATIONS**

- Skin health
  - Perspiration, scars, uneven contours
- Padding and protection
  - How much and where?
- How will the prosthesis be held on?
  - Strap, suction, mechanical pin, elevated vacuum





#### **CONSIDERATIONS**

- Limb shape & length
- Overall health
- Lifestyle
- Activities
- Opinion/preference

A collaboration between you and your patient





# MODIFICATION GUIDE

#### MODIFICATION GUIDE

Material Thickness	Modification
3 mm	3 - 5 %*
6 mm	5 - 7 %*
9 mm	7 - 9 %*
Progressive	5 - 7 %*
DESIGN Liner	Use base material thickness and refer to above

- Reduce volume circumferentially maintain shape
- DO NOT reduce length

\*Depends on underlying anatomy and tissue coverage on residual limb





RETROFITTING ALPHA LINERS

#### BENEFITS OF RETROFITTING

- Create ONE socket for multiple activity purposes
- Transition easily from one material to another
- Allow material technologies to benefit the user without the need for multiple sockets/prostheses
- Create best practice rehabilitation plans

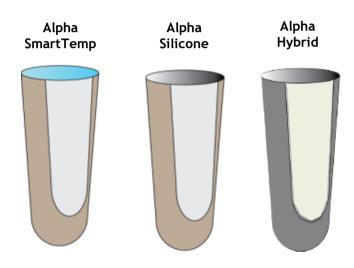


#### RETROFITTING

WillowWood interface materials may be retrofit with like profiles and umbrella styles.

#### Requirements:

- 1. Same Profile
- 2. Same liner size
- Same cushion or locking design







**ONLINE RESOURCES** 

#### FIND YOUR LINER PART NUMBER

www.willowwoodco.com

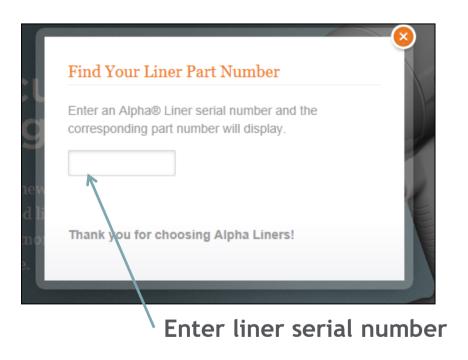


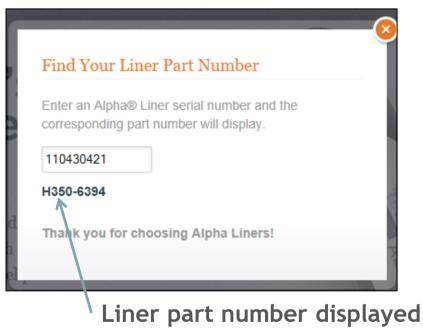






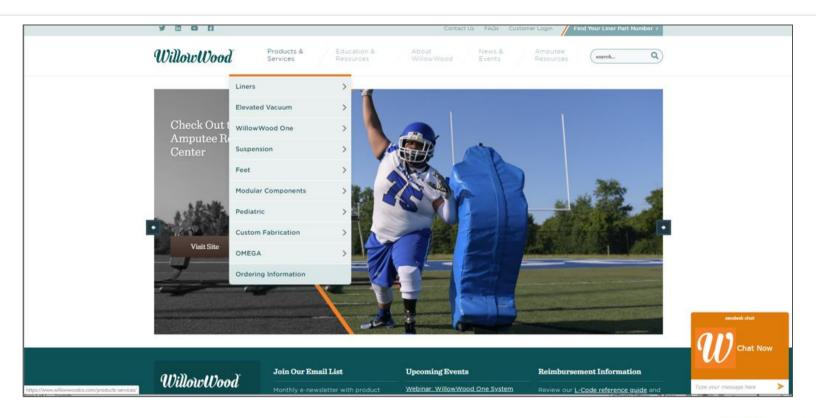
#### FIND YOUR LINER PART NUMBER





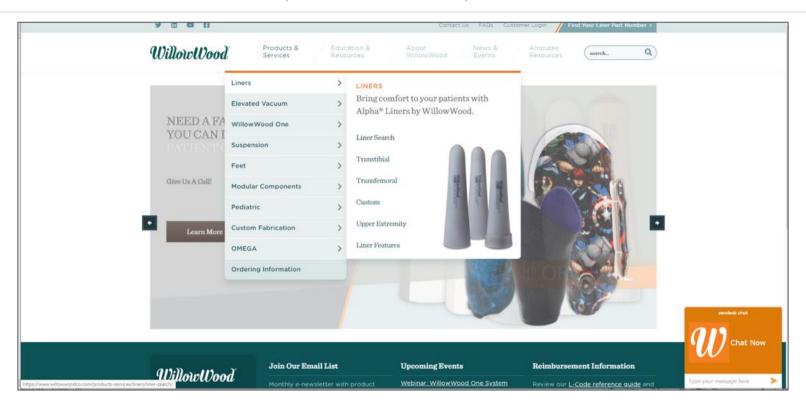


# LINER SEARCH TOOL



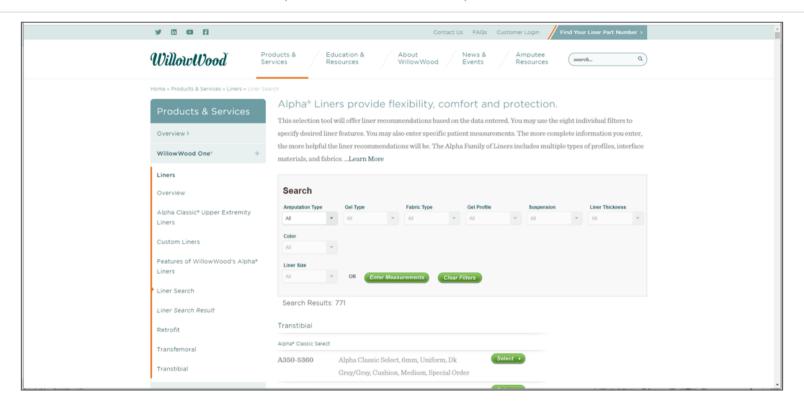


# LINER SEARCH TOOL(CONTINUED)



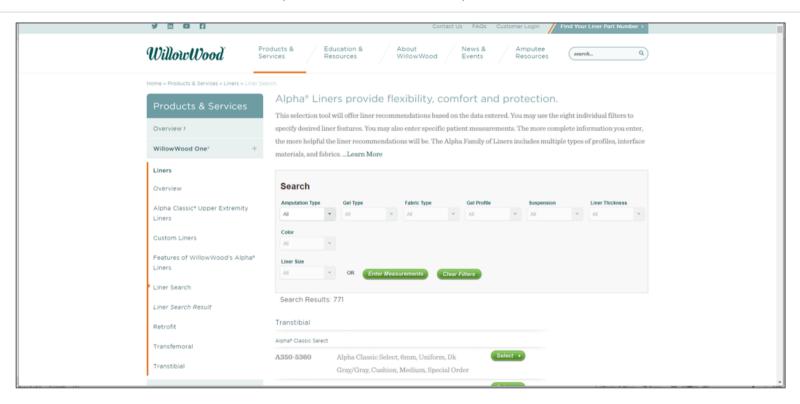


# LINER SEARCH TOOL(CONTINUED)





# LINER SEARCH TOOL(CONTINUED)







**USE AND CARE** 

## **HYGIENE**

- Daily washing
  - Wash (side without logo) with soap; rinse
  - Dry (fabric or logo side out) flat or on drying stand\*
- Weekly disinfecting
  - Wipe (side without logo) with isopropyl alcohol and rinse with water
- No need for lubricants, powders, or mineral oil







**WARRANTY** 





## LINER WARRANTY

- 12-month warranty
- 30-day trial period

Casting liners available





