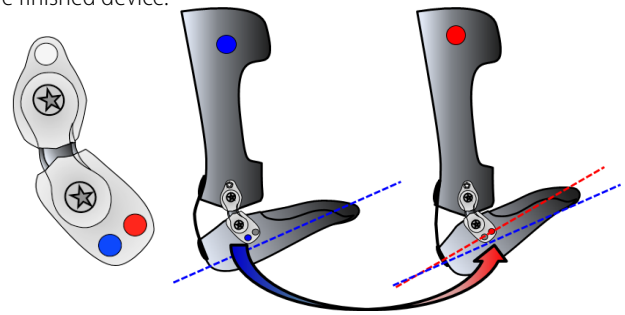
12. Procedures for Increasing Dorsiflexion Assist Range of Motion

Adjustable Assist Tamarack® Flexure Joint Caps

Model# 741-CAP-ADJ

- Featuring an additional anterior attachment point, the Adjustable Assist Tamarack Flexure Joint Caps provide up to 20% more dorsiflexion assist per side than traditional installations.
- For *standard installation*, secure adjustable assist cap in posterior position using supplied hardware
- When *increased dorsiflexion assist* is desired, secure adjustable assist cap in anterior position using supplied hardware
- Adjustable Assist cap may be mounted on either the footplate (recommended) or calf (optional) section of the finished device.



Adjustable Assist Tamarack Flexure Joint Cap mounting options, where blue indicates standard position and red indicates increased dorsiflexion assistance.

Recommended Fabrication Tools

(sold separately)

Tamarack® Hex Driver

Part # T-740-4

- Useful for installing adjustment screws on Tamarack Flexure Joints®
- Available in 2mm (pediatric) and 2.5mm (medium/large) sizes

Tamarack® Spanner Wrench

Part # T-740-3

- Useful tool to help align the flange nut for easier installation of dorsiflexion assist joints
- Aids disassembly of joints previously installed with thread locking compound
- Available in Large, Medium, or Pediatric sizes

How to purchase Tamarack® products:

BECKER

Becker Orthopedic
(800) 521-2192 toll-free
(248) 588-7480

For a list of distributors worldwide:
www.beckerorthopedic.com

⚠ **WARNING:** This product can expose you to chemicals including lead, which are known to the State of California to cause birth defects or other reproductive harm.
For more information go to: www.P65Warnings.ca.gov

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MADE IN MINNESOTA ★ U.S.A. ★

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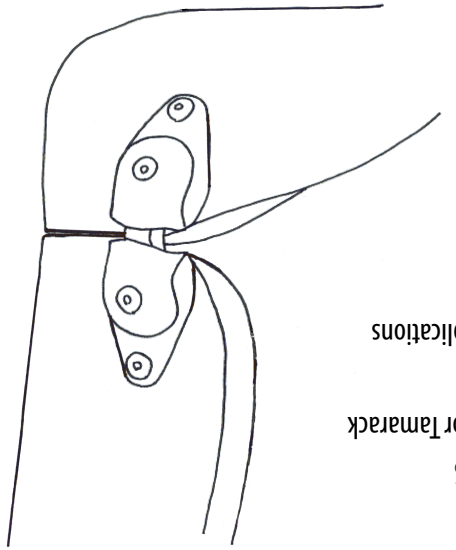


Tamarack Flexure Joint® Caps

A uniquely designed external mounting option for Tamarack Flexure Joints.

Ideal for both thermoplastic and carbon fiber applications

PACKAGE CONTENTS

(2) Tamarack Flexure Joint® Caps #1
(2) Tamarack Flexure Joint® Caps #2
(4) SheerBan® Cosmetic Patches
(4) Screws: M4 x 10mm (L/M) or M3.5 x 10mm (P)
(4) Screws: M4 x 6mm (L/M) or M3.5 x 5mm (P)
(4) Brass flange nuts, short barrel
(4) Black flange nuts, long barrel
(2) Tamarack Flexure Joint® Cap Drill Guides

TAMARACK FLEXURE JOINT®

Tamarack Flexure Joint® Caps

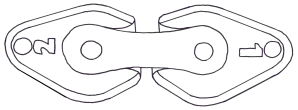
www.tamarackhti.com

Tamarack Flexure Joint Caps Fabrication Procedures *(for all models - standard model cap shown)*

Standard Assist Tamarack® Flexure Joint Caps Model# 741-CAP **Adjustable Assist Tamarack® Flexure Joint Caps** Model# 741-CAP-ADJ

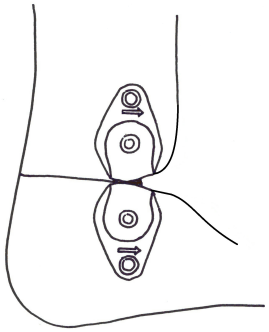
1. Tamarack Flexure Joint Caps are identified on the inside with either a 1 or 2 **(Fig. A)**. Tamarack Flexure Joints must be installed with one cap of each (1 & 2).

Fig. A



2. Flexure Joint Caps feature a directional arrow, which must point towards the anterior of the orthosis in standard applications **(Fig. B)**.

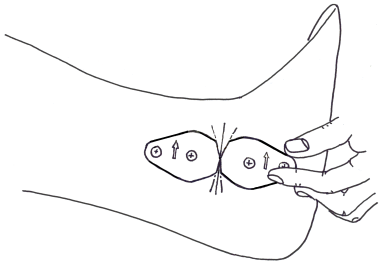
Fig. B



3. The Flexure Joint Caps require 4 anchoring holes on each side of the orthosis. Use the included *Drill Guide* to locate the holes and the trim lines.

4. Position the *Drill Guide* with the midpoint located on the desired axis of joint motion and the trim line rays correctly positioned **(Fig. C)**. Mark each anchoring hole location, the midpoint, and the required trim lines.

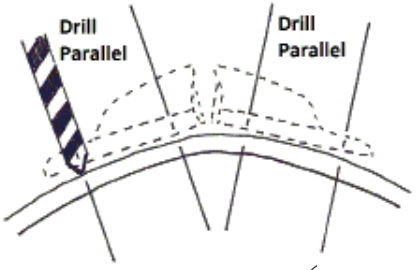
Fig. C



5. Drill pilot holes using a 3/32" (2.5mm) drill bit to accurately locate the anchoring holes for each cap.

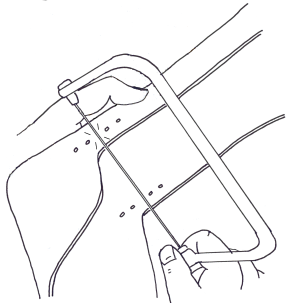
   Drill final anchoring holes using the drill bit size indicated on the included Drill Guide **(Fig. D)**.

Fig. D



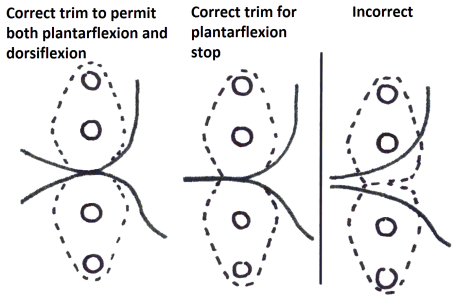
6. Using a thin-bladed saw, separate the orthosis into two sections **(Fig. E)**.

Fig. E



7. Using your previous trim line marks as a guide, remove material anterior or posterior of the anchoring holes to allow for the desired range of motion. Leave the narrowest possible trim line gap to provide sufficient material for properly mounting the Flexure Joint Caps **(Fig. F)**.

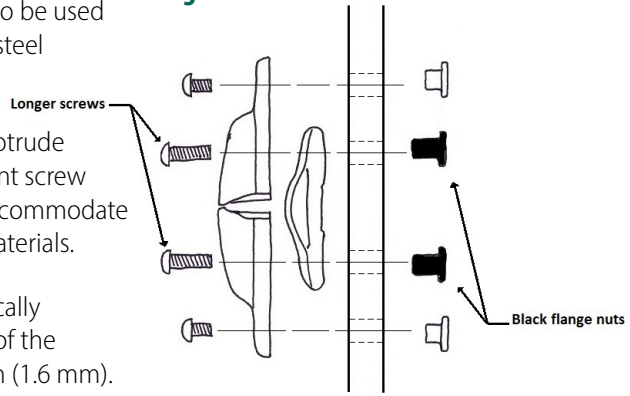
Fig. F



8. The longer stainless steel anchoring screws and black flange nuts should be used to secure the thicker part of each assembly. The brass flange nuts are to be used with the shorter stainless steel anchoring screws **(Fig. G)**.

   These screws must not protrude inside the orthosis; different screw lengths are available to accommodate different thicknesses of materials.

Fig. G

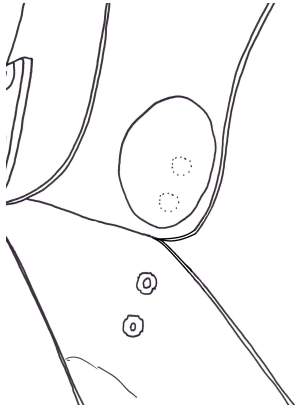


9. The flange nut heads typically protrude into the interior of the orthosis by 1/16 of an inch (1.6 mm). Recess if needed by counter-boring or heat-sinking.

10. Use a removable thread locking compound (Loctite® Threadlocker Blue 242® or equivalent) on all anchoring screws.

11. ShearBan® flange nut cover patches may be placed over the flange nuts. Each patch should cover two flange nuts **(Fig. H)**.

Fig. H



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