Fabrication/Installation Instructions

1. Use of molding dummies or a ***Tamarack hand-molding tool*** (T-740-1 series) is necessary to generate a properly fitting cavity for the Tamarack Flexure Joints™.

2. Position each molding dummy* so the midpoint is located on/near the axis of joint motion ***(Fig. A)*** and fix in place ***(Fig. B)***. Additional plaster build-up may be necessary when you plan to use dorsiflexion assist flexures (742 series). They bulge inward during plantar flexion.

3. If a stockinette is pulled over the molding dummies before vacuum forming, it must be very thin/sheer. Any excess stockinette thickness will prevent a proper, snug fit of the cavity around the flexure.

4. When vacuum forming the thermoplastic or laminating, a small amount of extra material may be added at the Achilles Tendon area for a broader plantar flexion stop, if desired.

5. After cooling (or thermosetting), remove the plastic shell from the model, and extract the molding dummies. Using a thin-bladed saw (a fine-toothed coping saw is best), separate the foot section from the calf section ***(Fig. C).*** Do not use a cast saw for foot-calf separation (too much material is lost along a ragged, wide cut line). Sharp edges along the separation line should be beveled off with a hand deburring tool ***(Fig. D).*** Sanding or grinding will reduce flexure coverage and lessen the ability of the cavity to properly anchor and control the flexure.

6.a. Free Motion (740 series) – Grind a small "V" anterior to the midline of each cavity ***(Fig. E).*** Ensure that the "V" does not extend back past the center of the cavity.

b. Dorsiflexion Assist (742 series) – Use a small radius tool to grind/form a "U" shaped anterior clearance ***(Fig. F).*** If plantar flexion range is required, remove material posteriorly as necessary ***(Fig. G)*** to provide needed clearance.

7. Use a ***Tamarack hand punch tool*** (T-740-2 series) to precisely locate and punch holes for the flexure anchoring screws ***(Fig. H).*** Large and medium flexures require 4.5mm (3/16 inch) diameter screw clearance hole; the pediatric size requires 4.0mm (5/32 inch) diameter.

8. Insert the Tamarack Flexure Joints™ and secure with the anchoring screws (Large and Medium, M4 x 9; Pediatric, M3.5 x 7). Depending upon the thickness of the plastic shell, it may be necessary to adjust the length of the screws. The screw must not protrude inside the AFO. Use a removable thread-locking compound on the screws. Longer screws are available on request.

9. A properly installed 740 series flexure will show no gapping along the separation cut except in the "V" or "U" shaped anterior clearance area.

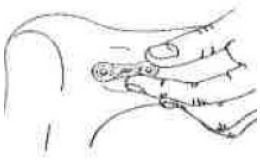

Fig. A

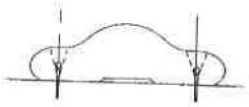

Fig. B

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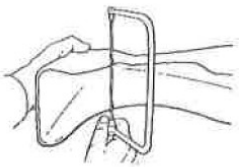

Fig. C

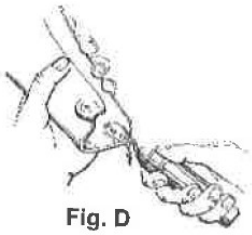

Fig. D

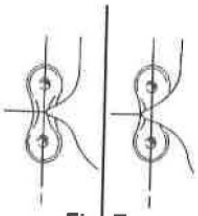

Fig. E

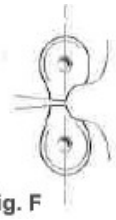

Fig. F

Fig. G

Fig. H

Tamarack Flexure Joint™ Selection Guide

Standard Flexure Installation: Models 740 & 742
Using the standard molding cavity, any model of the same size can be interchanged for a variety of assist levels. See the chart on the opposite side for assist levels of several combinations .

Variable Assist (TVA) Installation: Model 743 (not shown)
Using the TVA molding cavity, the amount of assist can be adjusted with a simple hex driver. Assist level options are continuous from near zero to over 50% above standard.

For more information, call 1-866-795-0057 or visit www.oandp.com/tamarack