

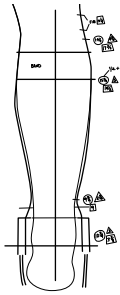
# TFC Upright

Fabrication Manual

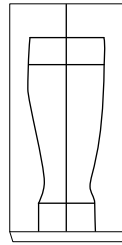
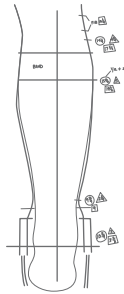
*Fillauer*®

# TFC Upright Contouring Process for AFO

Determine calf band position, ankle joint placement, and upright clearances using a standard tracing. Place tracing directly on 2 in. thick foam block (PN-700630) and firmly retrace lines leaving impressions in foam block. Darken impressions with pencil.

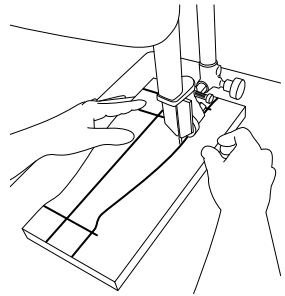


**Determine calf band position, ankle joint placement, and upright clearances using a standard tracing.**



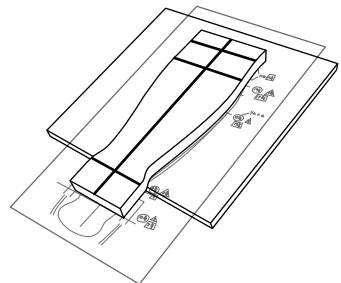
**Transfer tracing to 2 in. foam block and darken with pencil.**

With bandsaw cut 2 in. foam block to impression lines marked in previous step. Make sure calf band position and ankle joint axis are clearly marked horizontally for positioning.

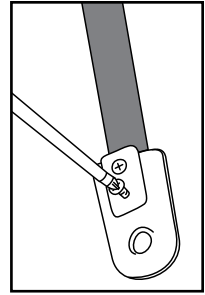
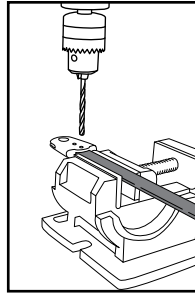


Contour calf band using conventional methods. Make sure that the calf band attachment areas are parallel to the upright positions. Bend stirrup into position and insure that ankle joint axis is square to the longitudinal axis.

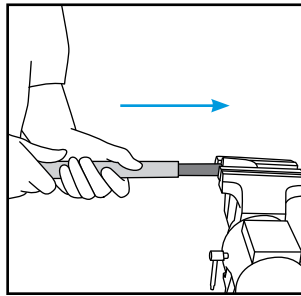
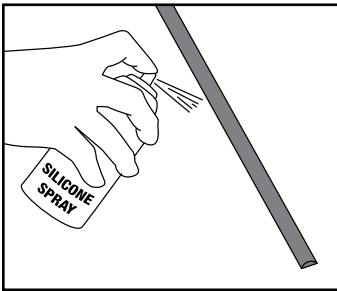
Place a sheet of 1/4 in. thick acrylic plastic over tracing to allow upright to lay flat against foam form when ankle joints are attached. Position foam block on plastic aligned over the tracing.



Mark attachment hole position using the ankle joint or drilling template. Drill attachment holes using a drill bit that corresponds to the correct attachment screw. Position TFC upright into joint attachment notch of the ankle joint. Using screws attach flattening plate over upright and secure them firmly.



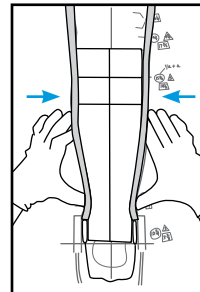
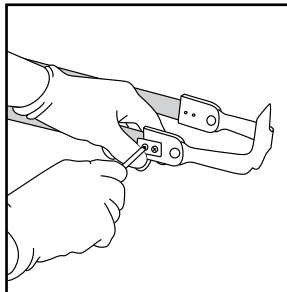
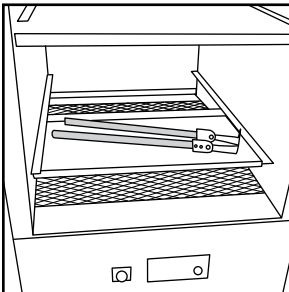
Spray a generous amount of silicone spray (PN-199026) on the upper upright. Slide forming/contouring sleeve over upright until it meets the joint.



**Note:** When applying forming/contouring sleeve, push the sleeve on by applying pressure to the sleeve at the proximal end of the upright. When removing sleeve, pull the sleeve off by applying pressure to the sleeve at the distal end of the upright.

**Caution:** Never place uprights in oven without contouring/forming sleeve. The fibers of the TFC upright will begin to delaminate and greatly decrease strength!

Place upright/joint/stirrup assembly in oven for 5 minutes at 450°, and then quickly tighten the attachment screws to flatten mounting area of upright. Remove upright/joint assembly from oven and contour against foam tracing form. Hold in place for approximately 3-4 minutes or until cool.

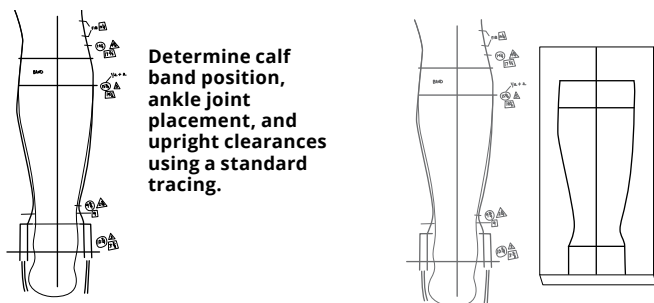


When completely cool, remove forming/contouring sleeves and flattening plates. Reattach uprights to ankle joints, drill calf band attachment holes and assemble brace. If necessary, joints may be adjusted and squared using a heat gun. Apply a low amount of heat to the uprights above the joints. When they become slightly malleable, remove heat, flex and extend joints until uprights are no longer malleable.

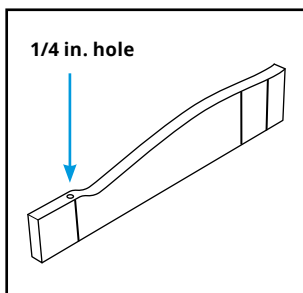
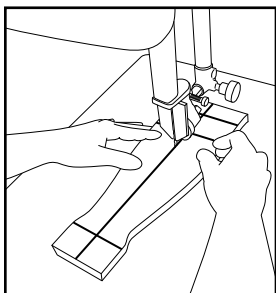
**Caution: Applying excessive heat for too long directly to upright without forming/contouring sleeve may damage upright.**

## TFC Upright Contouring Process for AFO Using Vacuum Station

Determine calf band position, ankle joint placement, and upright clearances using a standard tracing. Place tracing directly on 2 in. thick foam block (PN-700630) and firmly retrace lines leaving impressions in foam block. Darken impressions with pencil.

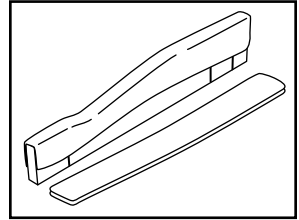


With bandsaw cut 2 in. foam block to impression lines marked in previous step and then using midline impression cut foam block in half. Make sure calf band position and ankle joint axis are clearly marked horizontally for positioning. Drill a  $\frac{1}{4}$  in. hole in both foam blocks at ankle joint axis.

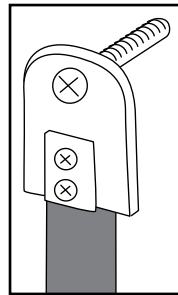
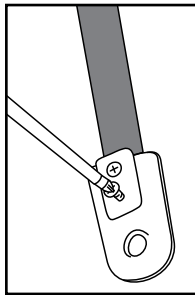
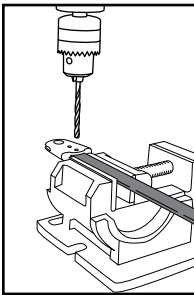


Contour calf band using conventional methods. Make sure that the calf band attachment areas are parallel to the upright positions. Bend stirrup into position and insure that ankle joint axis is square to the longitudinal axis.

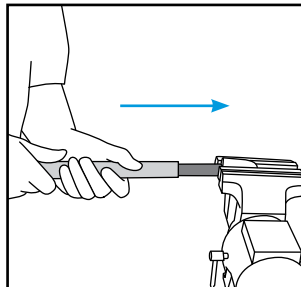
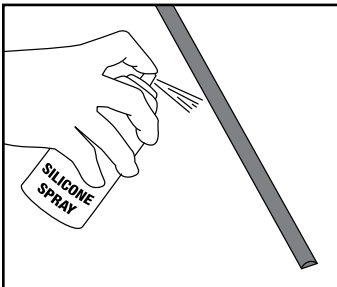
Cover foam blocks with cotton stockinette and place in vacuum station with leg profile facing up. Cut extra stockinette strips the same length to place over upright/joint assemblies during forming.



Mark attachment hole position using the ankle joint or drilling template. Drill attachment holes using a drill bit that corresponds to the correct attachment screw. Position TFC upright into joint attachment notch of the ankle joint. Using screws attach flattening plate over upright and secure them firmly. Replace joint axis screws with 1 in. long screws of the appropriate thread type. This will ensure proper positioning of joints onto foam blocks.



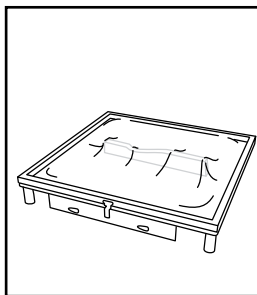
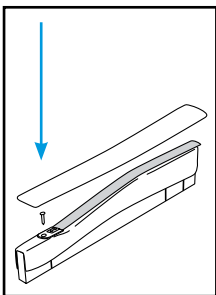
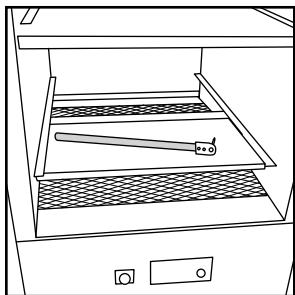
Spray a generous amount of silicone spray (PN-199026) on the upper upright. Slide forming/contouring sleeve over upright until it meets the joint.



**Note:** When applying forming/contouring sleeve, push the sleeve on by applying pressure to the sleeve at the proximal end of the upright. When removing sleeve, pull the sleeve off by applying pressure to the sleeve at the distal end of the upright.

**Caution:** Never place uprights in oven without contouring/forming sleeve. The fibers of the TFC upright will begin to delaminate and greatly decrease strength!

Place upright/joint assemblies in oven for 5 minutes at 450°, then quickly tighten the attachment screws to flatten mounting area of upright. Remove upright/joint assemblies from oven and position them onto the foam blocks, align joint screws with the holes in the foam blocks to maintain proper ankle axis. Place the extra stockinette strips over the upright/joint assemblies to allow vacuum to wick out air from around upright/joint assemblies. Close vacuum bladder and apply vacuum.



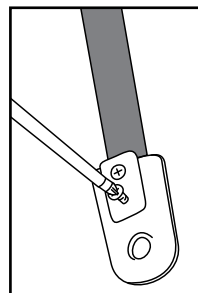
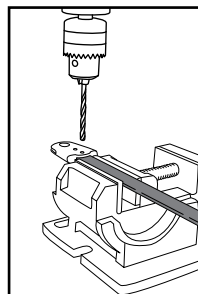
When completely cool, remove forming/contouring sleeves and flattening plates. Reattach uprights to ankle joints, drill calf band attachment holes and assemble brace. If necessary, joints may be adjusted and squared using a heat gun. Apply a low amount of heat to the uprights above the joints. When they become slightly malleable, remove heat, flex and extend joints until uprights are no longer malleable.

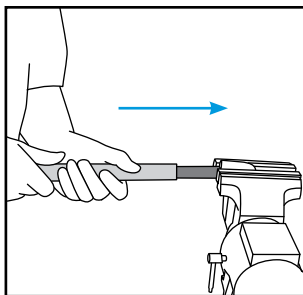
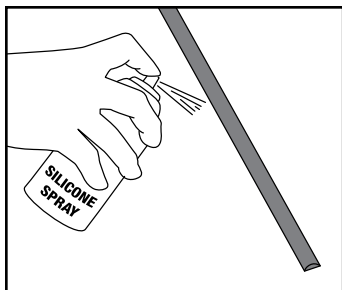
**Caution: Applying excessive heat for too long directly to upright without forming/contouring sleeve may damage upright.**

## Plastic & TFC Upright Contouring Process for AFO

Mark attachment hole position using the ankle joint or drilling template. Drill attachment holes using a drill bit that corresponds to the correct attachment screw. Position TFC upright into joint attachment notch of the ankle joint. Using screws attach flattening plate over upright and secure them firmly.

Spray a generous amount of silicone spray (PN-199026) on the upper upright. Slide forming/contouring sleeve over upright until it meets the joint.

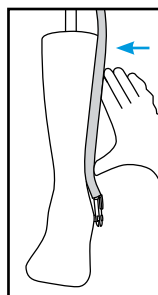
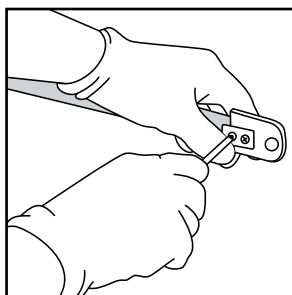
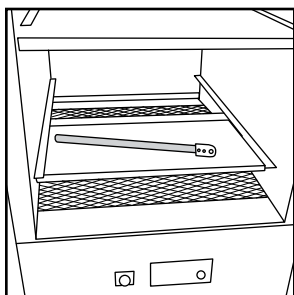




**Note:** When applying forming/contouring sleeve, push the sleeve on by applying pressure to the sleeve at the proximal end of the upright. When removing sleeve, pull the sleeve off by applying pressure to the sleeve at the distal end of the upright.

**Caution:** Never place uprights in oven without contouring/forming sleeve. The fibers of the TFC upright will begin to delaminate and greatly decrease strength!

Place upright/joint assembly in oven for 5 minutes at 450°, and then quickly tighten the attachment screws to flatten mounting area of upright. Remove upright/joint assembly from oven and contour to mold. Hold in place for approximately 3-4 minutes or until cool.



**Note:** A 1/8 in. spacer should be used at ankle joint location to account for contouring sleeve thickness during contouring process.

When completely cool, remove forming/contouring sleeve and flattening plate. Reattach upright to joint, drill calf cuff attachment holes and assemble brace. If necessary, joints may be squared using a heat gun. Apply a low amount of heat to the uprights above the joints. When they become slightly malleable, remove heat, flex and extend joints until uprights are no longer malleable.

**Caution:** Applying excessive heat for too long directly to upright without forming/contouring sleeve may damage upright.

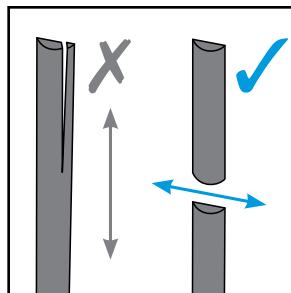
## Care

TFC Uprights may be cleaned with mild soap and water. Harsh chemicals such as acetone and solvents can damage the TFC material.

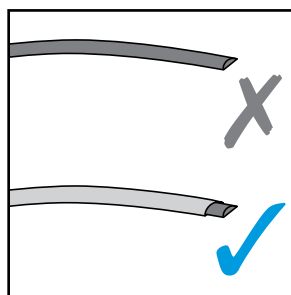
## Warranty

Fillauer LLC will warrant the TFC Upright to be free of defects in material or workmanship for a period of one year.

The warranty will be voided if material is removed from the width or thickness of the upright by grinding or cutting. Warranty will also be voided if forming/contouring sleeve is not used when placed in oven. Evidence of obvious abuse or misuse will also void the warranty.



**Warranty will be voided if material is removed from the width or thickness of the upright by grinding or cutting. Modifying the length by cutting is acceptable.**



**Warranty will also be voided if forming/contouring sleeve is not used when reshaping the upright.**

# Fillauer®

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