

PROCEDURE 3.020

INSTALLATION OF UNI ON SHEAR WEBS

In this procedure...

Uni-Directional Cloth will be added to the front and aft Shear Webs.

Step 1. Remove Rib Q from Wing.

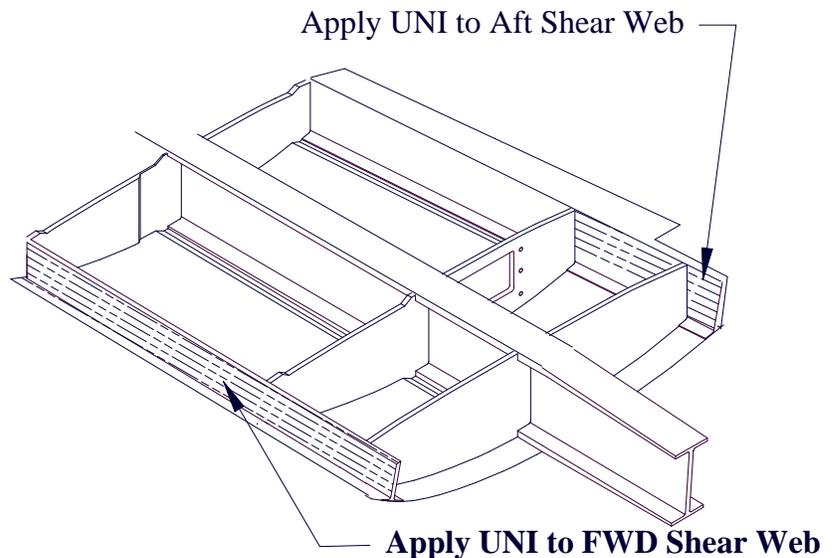
Rib Q has been installed in the wing for shipping. It is secured with a small amount of hot glue. Gently apply heat from a heat gun and remove this rib and set it aside. **(Caution: Too much concentrated heat can cause foam to warp and burn.)**

Remove all remnants of hot glue from the wing skin.

Step 2. Install Uni-directional cloth on front and rear shear web.

Laminate 2 layers of Uni-directional cloth on the fore and aft side of the forward shear web from Rib A to the inboard end of the shear web.

Laminate 1 layer of 7781 Bi-directional cloth over the Uni cloth overlapping it onto the wing skin 1.5 inches

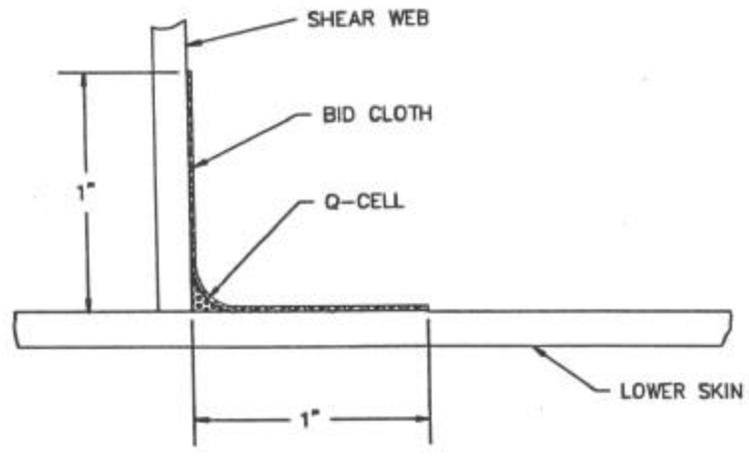


Step 3 Apply Q-Cell Fillet and Fiberglass Tape.

Apply a Q-cell fillet along the entire joint and on both sides of all ribs and the forward shear web. Form a 1/4" to 3/8" radius with a Popsicle stick. Try to be as clean as possible. Wipe any drips or smears with a rag dipped in acetone before it cures. After the Q-cell cures, remember to inspect it for proper shape. Sand any bumps or jagged edges until smooth.

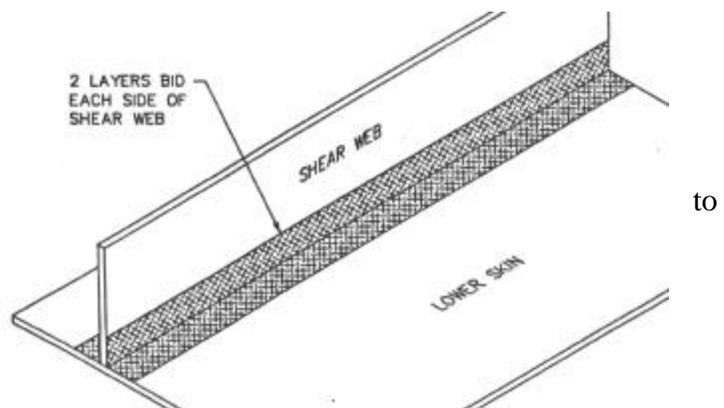
Cut long strips of BID cloth 3" wide on a 45° bias. Stretch the cloth gently lengthwise, so the width is approximately 2" wide. This is how the cloth should be shaped when laid up.

Hold the cloth strips up to each seam to be laminated and cut in to the proper length. Repeat with each seam until the correct amount of strips required in each length are cut. There will be 2 layers of BID on each seam.



Mix resin to laminate the ribs and forward shear web.

Before beginning to laminate, lay some scrap paper on the wing skin where any resin or tools will be laid. This will prevent resin from getting on the wing parts. Laminate the ribs and shear webs the upper wing skin. Two layers per side are required on all seams. The first seam to lay-up should be the rib and wing skin seam. Take the first ply and gently stretch it out to the correct shape. Lay half of the strip onto the rib and half onto the wing skin. Wet out the cloth using the resin and a brush. Remove any bubbles before going on to the next ply. Apply the second ply over the first one and wet it out. After both plies are laid up and wet out, remove any bubbles and excess resin using a brush or squeegee. Do this to all ribs and shear webs.



Remember to inspect all lay-ups for air bubbles and fit prior to the resin curing.