



Slat Jig

A slat jig will be needed to obtain the correct curvature of the slat. The Slat drawing is located on 7-F-13, cutout and trace on plywood. The length of the jig is 1830mm, which is the outboard length.



Check the jig with the Slat Ribs. Notice the front tip is cut off, this will allow the slat to fit in the jig correctly.

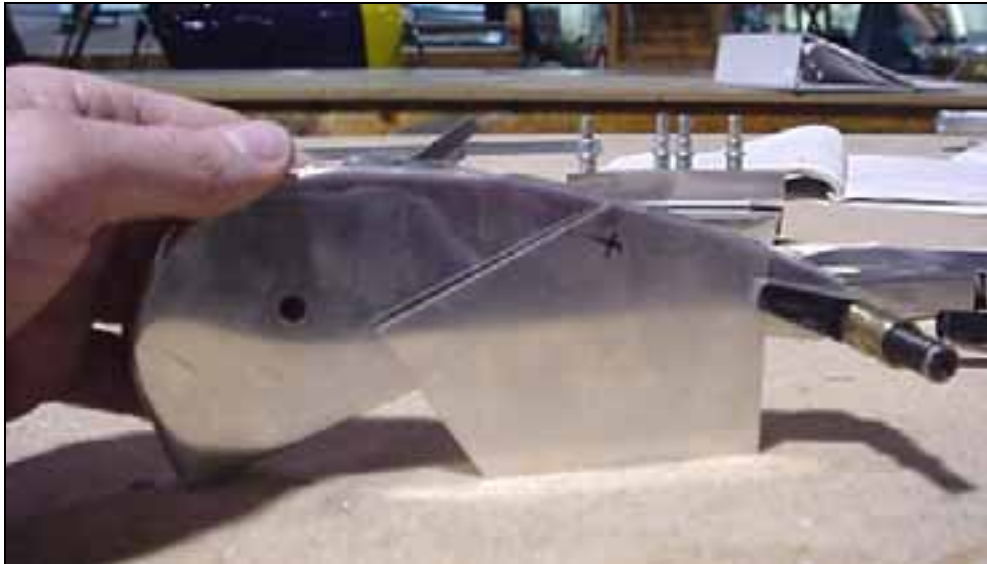


7S1-1 Slat Ribs
7S1-6 Slat Supports
"L" Angle

Installing the Slat Supports and bent 'L' Angle.



Cut the "L" Angle 120 mm. Cut two notches by drilling a hole in the angle (#20 drill). The first notch is 50mm from the end and 35mm up for the second notch.



7S1-1 Slat Rib
7S1-6 Support Brackets

Clamp the bracket 148mm from the front and 28mm for the height on the trailing edge; this will give 33mm from the rib to the bracket in the middle.



Drill and cleco the top two holes that hold the bracket. Draw a centerline on all side of the rib flanges.



“L” Angle

Clamp and mark the “L” Angle the for the rivet holes. Make sure the “L” follows the same shape as the rib.



Drill and cleco the “L” Angle to the bracket and rib. There will be a total of 6 A4 rivets in the rib.



7S1-3 OB Slat Skins
“L” Angle

Install the L angle inside the Slat skins, the middle of the L angle is in line with the middle rib.



Deburr and rivet the “L” Angle to the Slat Skin.



7S1-3 OB Slat Skins

Cutout the slots in the bottom of the slat skins to make room for the slat support brackets 7S1-6. For the Outboard skin the slot is 204mm from the inboard end and 1204mm between the two brackets. This is a good time to check the distance on the wing brackets 7V4-5. The slot is 90mm long and is 60mm from the 90deg bend end (drwg 7S2).



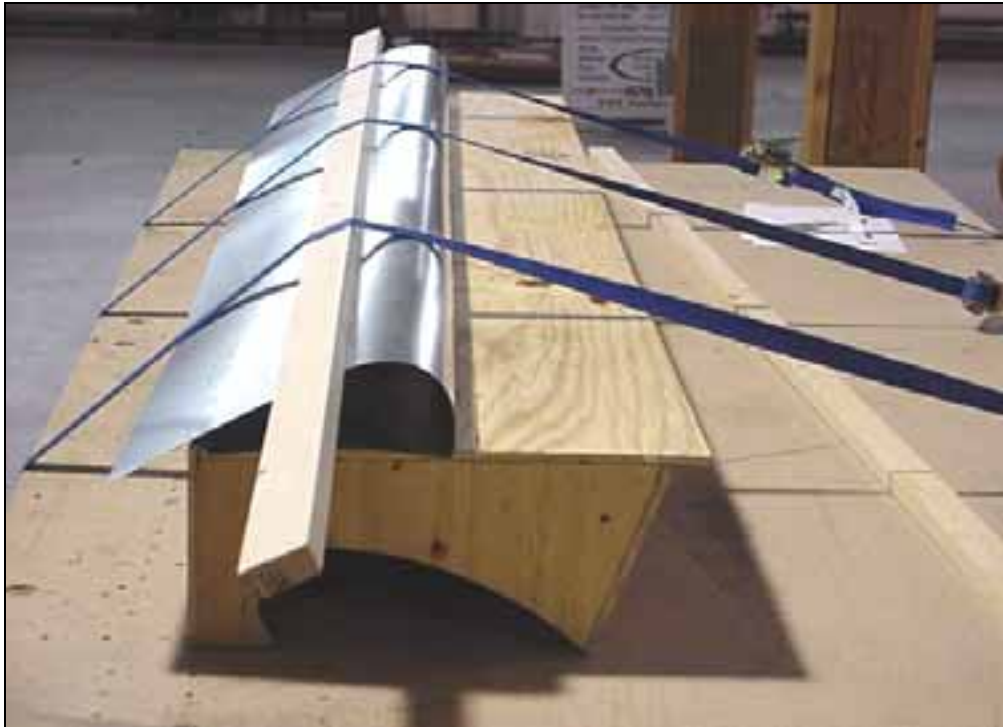
Cutting the slot is done by drilling several #30 holes and then filling.



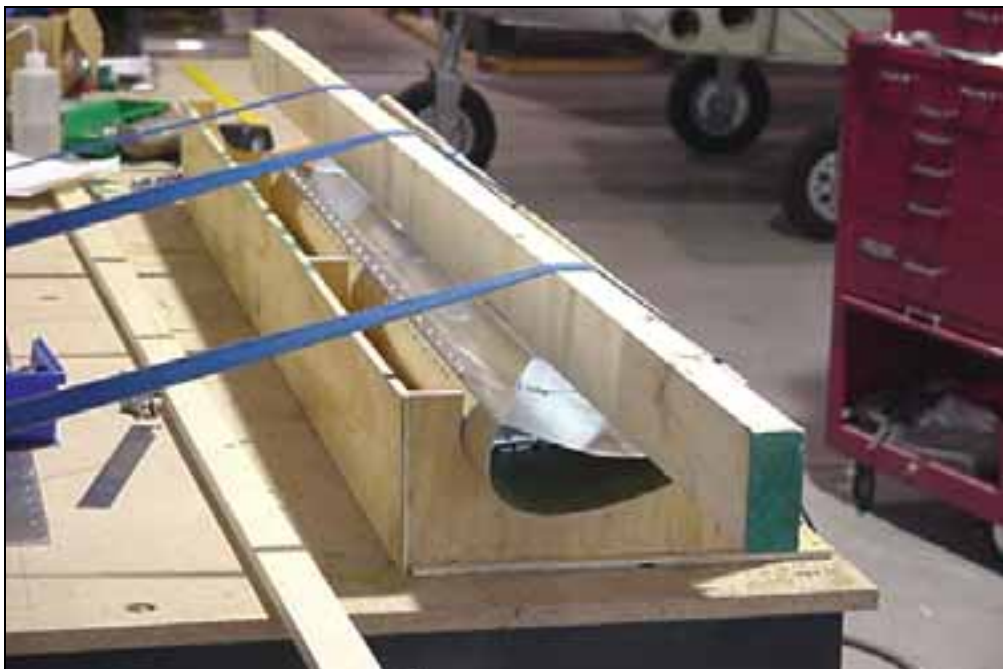
Place the rib inside the skin, press the nose firmly into the bend and radius of the skin. Drill the most forward hole position into the ribs, lower flange and cleco. The two outside ribs are with the brackets and the center rib is just a rib with out the support bracket. Best results will be obtained if the center rib is drilled first then either outside rib next. Debur the rib and rivet the rib to the skin.



At this time the slat jig will be used upside down. Cut two slots in the jig for the support brackets to go through. Then position the bracket through the slots of the jig.



Using a small board and three straps will bring the skin over the ribs nicely. Make sure not to over tighten the straps. Line up the rib centerlines with the holes; then drill and cleco.



This is the inboard slat being made.

Turn the jig over and place the slat inside. Using a 2 by 4 and three straps works very nicely.



Once the slat is positioned; the center 'Z' can be drilled (A4).



After drilling the 'Z' the slat will have to be unstrapped and cleco from the other side for the placement of 7S1-4 and 7S1-5. The slat will have to be strapped down for the placement of 7S1-4 and 7S1-5.



7S1-4 Slat Trailing Edges
7S1-5 Slat Trailing Edges

Layout two rivet lines on the slat trailing edges and position it on the slat, pitch 40.



7S1-4 Slat Trailing Edges
7S1-5 Slat Trailing Edges

Drill and cleco the trailing edge to the slat. The trailing end is drilled with #40 for the AN470-A-3-3 Soft Solid Rivets.



7S1-4 Slat Trailing Edges
7S1-5 Slat Trailing Edges

After drilling the trailing edge, the front edge can be drilled with #30. Debur and apply corrosion protection.



7S1-3 OB Slat Skins

There will be a cutout in the zee bends to make room for the fiberglass tips and for the overlap of the I/B and O/B, the cutout is 20mm by 20mm.



Cleco and rivet the slat together. The trailing edge uses AN470-A-3-3 Soft Solid Rivet.



7S2-1 Fiberglass Slat Tip

Install the fiberglass tip to the slat O/B end using A4 pitch 40. After the O/B slat is made the I/B slat can be built in the same manner as the O/B slat. The inboard end will have a fiberglass tip also.