

## Procedure 3.100A

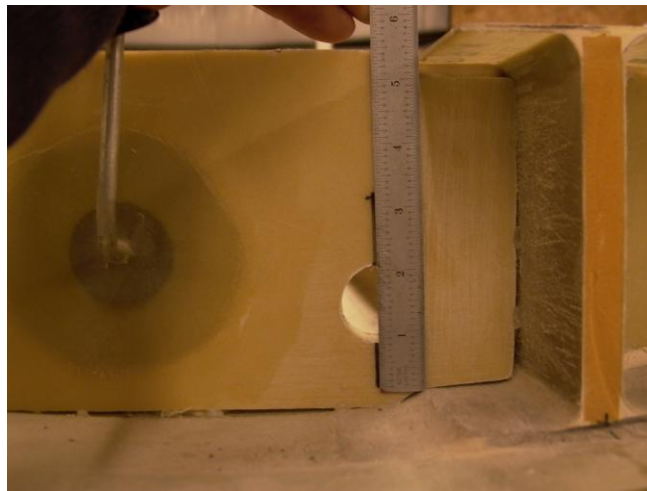
**FUEL PROBE INSTALLATION****Step 1. LOCATE PROBE BUSHING LOCATIONS.**

Using  $\frac{3}{4}$ " wide by 12" ruler or straight edge, mark vertical lines onto ribs  $\frac{3}{4}$ " forward of cap edges. (BL 36.00-176.00) For forward/aft location as shown (Fig. 100.1), use edges of top and bottom spar caps for line reference and up from wing spar cap edge as follows:

|             |       |  |
|-------------|-------|--|
| BL 36.00 –  | Rib Q | 7.05"  |
| BL 55.25 –  | Rib M | 6.30"  |
| BL 74.50 –  | Rib A | 5.70"  |
| BL 91.12 –  | Rib D | 5.10"  |
| BL 117.34 – | Rib E | 4.05"  |
| BL 143.34 – | Rib F | 2.95"  |
| BL 176.00 – | Rib G | 1.50" - 1.25" diameter hole ' <u>Micro</u> ' system only |

Note: These may not be exact. You can open up hole for better fit.

If using a probe other than visions Microsystems, as shown in pictures, all location dimensions are good, except hole diameters may change at bushings and outboard base collar. Check your parts before holesawing locations.



**Fig. 100.1**

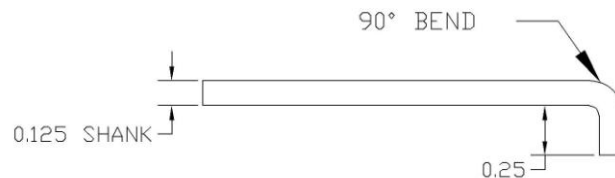
**Step 2. DRILLING PROBE HOLE IN RIBS**

Drill #30 pilot hole thru ribs, then holesaw diameter required for probe parts in package. Now do what's called "a dry run," meaning install all bushings, probe, and base to see how it fits. See if it slides in and out easily and no binding occurs. It may be necessary to support a few places across span of probe in middle area to prevent bowing. This alignment is very important if you plan on ever removing or replacing probe.

Note: Suggest doing one wing at a time.

**Step 3. PREP FOR BOND INSTALLATION OF BUSHING AND BASE OF FUEL PROBE.**

When fit is done, removed probe, base, and bushings. Using a bent nail or equivalent, install in Dremmel tool, snake, or small drill motor (Fig. 100.2 and 100.3).



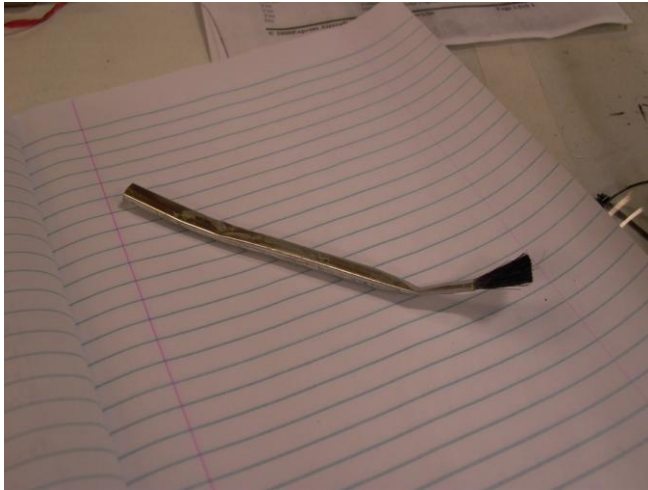
**Fig. 100.2**



**Fig. 100.3**

Use this tool to 'flick' foam from or remove foam between rib sides at hole locations. This creates cavity for Mill-Cabo filler, to be injected through holes (next) to hold or bond bushings position.

Then drill # 30 injection holes into both sides of all hole locations. Use a 5cc or equivalent syringe. Drill syringe tip outlet to #30 diameter hole to help Cabo squeeze out into cavities. Start mixing Mill-Cabo (no MEKP yet). Mix 60 gr. batches of resin, then mix 1 Tablespoon Mill-Fiber and add Cabosil until each batch is the consistency of peanut butter. Do not MEKP yet. Weigh approx. 25 grs resin, paint inside of each hole with bent 6" grease brush (Fig. 100.4), coating exposed foam inside cavities of each location with resin. Then wax and install probe with bushings at each location (6) places plus base collar, BL 176.00. Position in final place. Begin injection process ASAP. Add MEKP to mixed up batch of resin, mill Fiber, Cabosil. Stir well, and using tongue suppressor, pack syringe with Mill-Cabo and inject bushing holes one at a time until cavity is filled completely around bushing (Fig. 100.5). Clean up excess squeeze-out and radius around outside, move to next location.



**Fig. 100.4**



**Fig. 100.5**

**Step 4. INSTALL OUTBOARD PROBE BASE MOUNT**

At outboard fuel probe base collar add Mill-Cabo radius to inboard face of probe base mount as shown (Fig. 100.6). Let stand until cured.

**Fig. 100.6****Fig. 100.7****Fig. 100.8**

**Step 5. FINAL CHECK AND INSTALL**

Remove probe, clean-up bushings and sand prep outboard base on inboard side (Cabo radius) and add 2 ply 7781 over top. Let cure. Trim flush.

Now see if probe will go back inside wing. (Fig. 100.7 and 100.8) Good Luck!

Note: If probe does not go back into wing completely, find the bad bushing or bushings, holesaw cut, re-align and re-install bushing with Mill-Cabo.