POLE PREPARATION

NOTE:

- Extend the telescoping poles to full length by firmly "locking" each section of the pole in place. A good methodology is to position each half of the joint so that they are several inches apart (while still within each other), and then pull quickly and firmly. Do this for each pole.
- Prepare each of the 40/30 telescoping poles as shown in figure A below, for insertion into the plastic loops. The telescoping poles for the non-loop elements do not require this preparation. The non-loop poles utilize a plastic rain cap, shown in figure XX.
- On all the elements we now include double wall polyolefin heat shrink, part number #03630. Each telescoping pole uses 3 of the polyolefin heat shrink pieces, so on a 20m-6m element half, 3 pieces are used and on a 40/30 element half, six pieces are used. Once finished, the seal is secure and waterproof. This product requires a heat gun for activation of the adhesive. When positioning the heat shrink, place it so that the joint of the telescoping pole is centered in the middle of the heat shrink. Figure B below shows how this is done. Apply heat around the entire area of heat shrink. Note: There are 4 blue colored lines imprinted on the tubing. The joint is considered done being heated and waterproof when the lines change color to a yellowish green. Each line needs to change in color to ensure even adhesion temperatures. With this change, there is no longer any need to tape the joints on the loop elements.

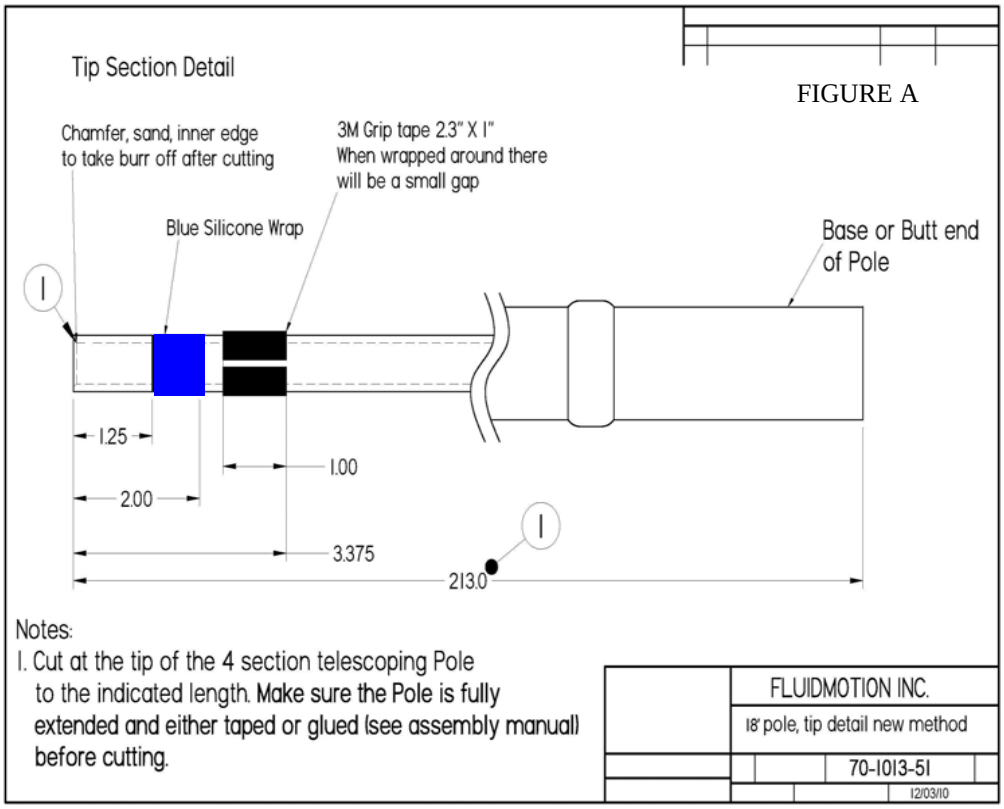
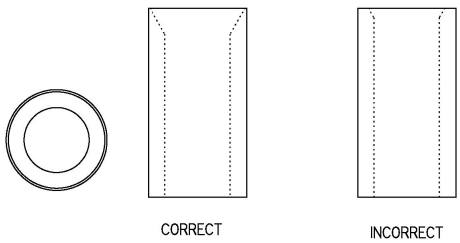


FIGURE B

There are three steps to completing the pole end preparation for the 40/30 loops:

Cut the tip of each 40/30 pole to the required 213" length, using hacksaw or similar cutting blade suit able for fiberglass. Refer to drawing 70-1013-51 for pole preparation details. Using the included conical grinding bit, chamfer the tip of each pole as shown below in figure C.

Figure C



Ensure the tip of the pole is clean by wiping with an unsoiled cloth. Apply the self adhesive grip tape as shown in Figure D and apply pressure for a few seconds to ensure the adhesive bonds to the pole. Do not apply tape at temperatures less than 50 degrees F. The edge of this tape is used as a marker to indicate where to position the sweep fitting and that determines the length of the loop. Make sure you position it reasonably close to what the drawing indicates so the element is even in length on both sides, as it looks better this way.

Figure D

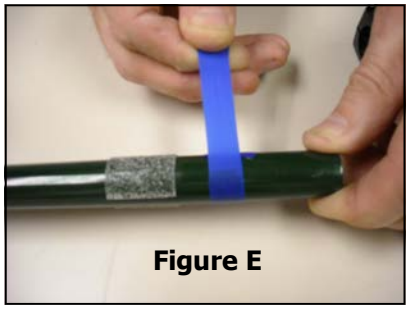


Figure E

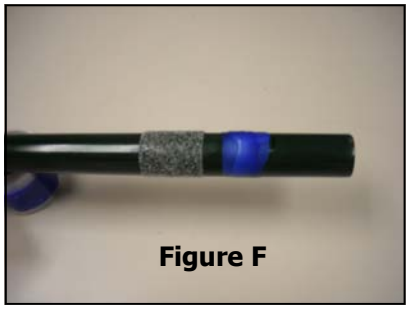


Figure F

Apply 2.5 inches of the blue silicon tape as shown in Figure E and F. Stretch the tape so it is about half of the normal .5 inch width as you apply it. The silicon tape is intended for a single use, that is why more than needed is supplied, so if you ever take the coupler apart, re-do the silicon seal using the leftover tape. Starting at 2 inches from the tip of the pole wrap two complete wraps while stretching the tape to one-half of it's normal width. The wraps should start at the 2 inch mark, go down to the 1.25 inch mark and finish back at the 2 inch point. This ensures there are no loose "flaps" of silicon on the leading edge of the seal that will roll up or catch when the tip is inserted into the coupler. The silicon tape sticks to itself permanently but needs some pressure applied for a few seconds to start the bonding. This new method requires NO LUBRICANT so do not put anything on the pole tip.

Assemble as described in the manual using a screwdriver or two to spread the sweep fitting, as shown in figure G, and push the pole tip in while slowly rotating it until the grip tape has just fully slid entirely into the sweep fitting so the edge of the grip tape lines up with the outside edge of the sweep fitting as shown in figure H.

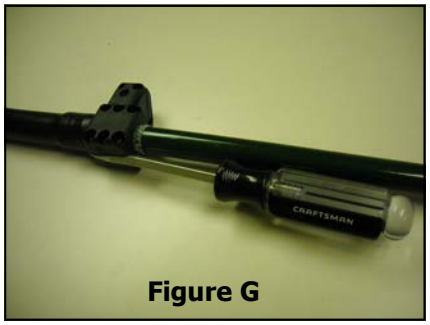


Figure G

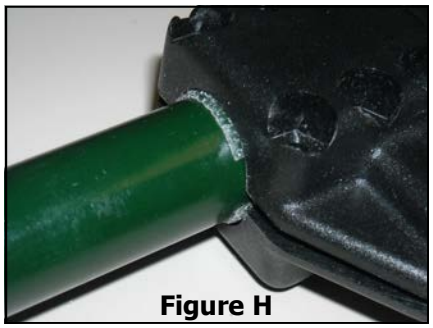
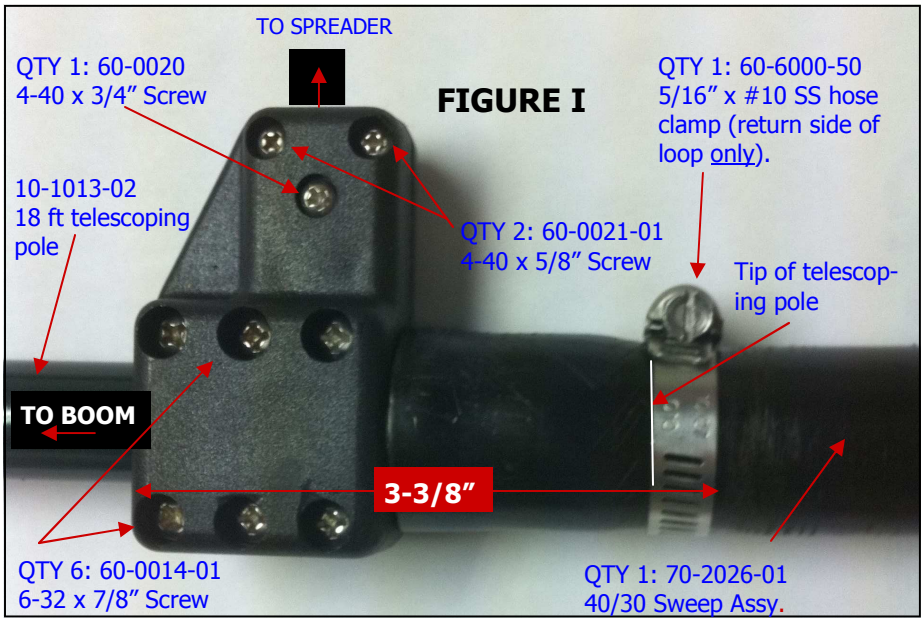


Figure H

The loop coupler allows the pole to extend about 1 inch into the polyethylene sweep tube, eliminating any possible water build up that could freeze onto the copper tape and trap the element. Install the 6-32 screws and tighten them, starting with the middle screw on each side and then the outside two. Go back and recheck tightness on each screw because as each screw is tightened it may cause the others next to it to loosen up.



After cutting the telescoping pole to the proper length, use the supplied conical grinding stone (PN 09-1025) and a powered drill to chamfer the inside of each loop pole tip. This will form a transition ramp to guide the bullet into the pole. Refer to figure C for the proper chamfering method. Accuracy is important when assembling the pole tip. The blue silicone wrap must be located underneath the portion of the plastic sweep material that the stainless steel guidance clamp is tightened over. In addition, the tip of the pole must line up with the clamp edge as shown in the above picture.

Place the 5/16" wide x #10 stainless hose clamp as shown in figure I on the side of the sweep that aligns with the element return tube ONLY. The hose clamp is not needed on the side of the sweep that aligns with the EHU tube and as accurately as possible, the goal is to have the marked edge of the clamp and the end of the fiberglass pole aligned with each other. Tighten the clamp snugly, wait at least ten minutes and retighten.

Repeat for each loop element