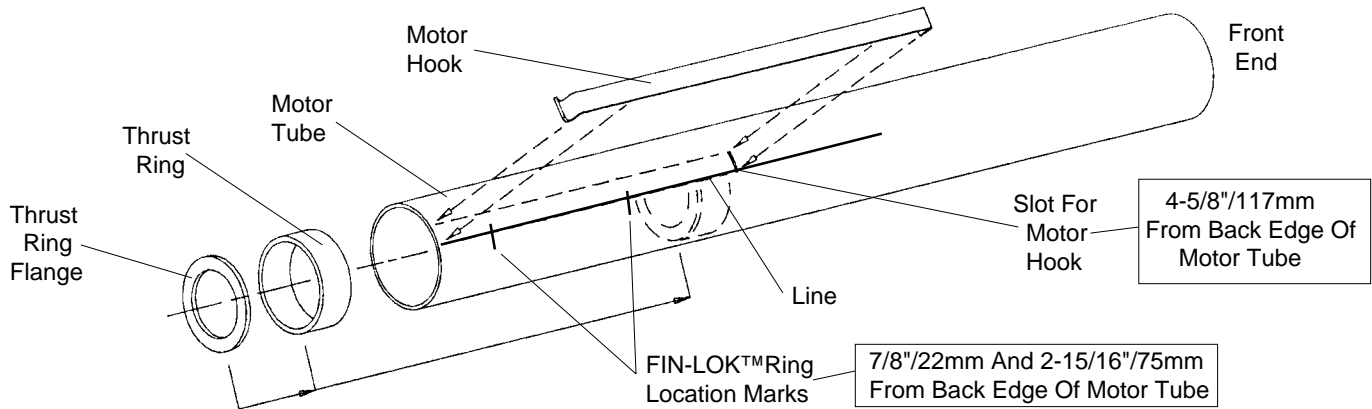
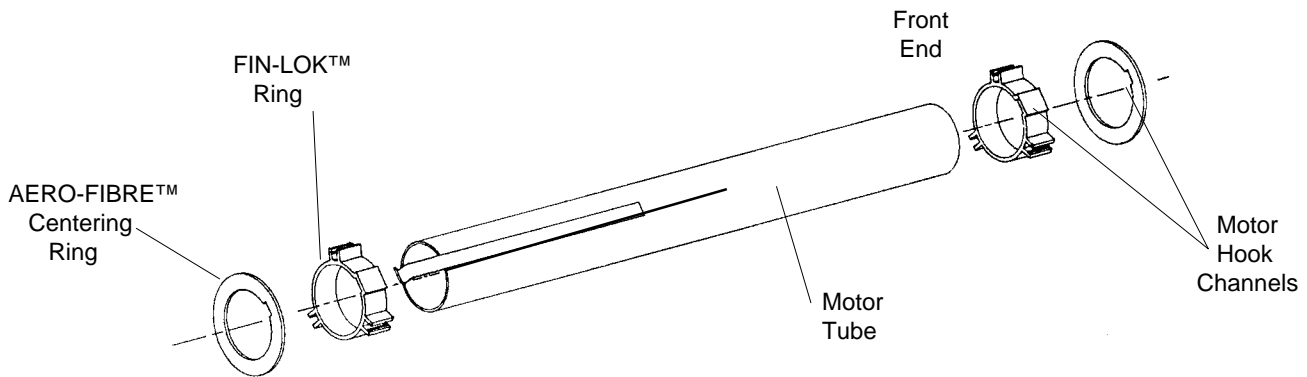


### MOTOR TUBE ASSEMBLY



1. Cement the thrust ring flange (1/16"/1.6 mm thick) to the thrust ring (7/16"/11 mm long). Set the thrust ring assembly aside to dry.
2. Find the line drawn along the side of the motor tube. Using the Location Guide printed along the top edge of this instruction sheet, cut a 1/4" (6 mm) long slot 4-5/8" (117mm) from the back end of the motor tube and next to the line on the motor tube as shown.
3. Using the Location Guide, make a mark along the motor tube line 2-15/16" (75 mm) from the **back end** of the motor tube. This mark locates where the **back edge** of the front FIN-LOK™ ring will be. Make another mark 7/8" (22 mm) from the **back end** of the motor tube. This mark locates where the **front edge** of the rear most FIN-LOK™ ring will be.
4. Insert the tab of the motor hook into the slot cut into the motor tube. **Use a small dowel to apply several drops of cement around the inside the motor tube just behind where the motor hook comes through the motor tube wall.** Then, with the thrust ring flange facing the back, insert the thrust ring assembly into the motor tube. Use the motor adaptor to push the thrust ring assembly forward until it stops against the tab of the motor hook. Remove the motor adaptor.

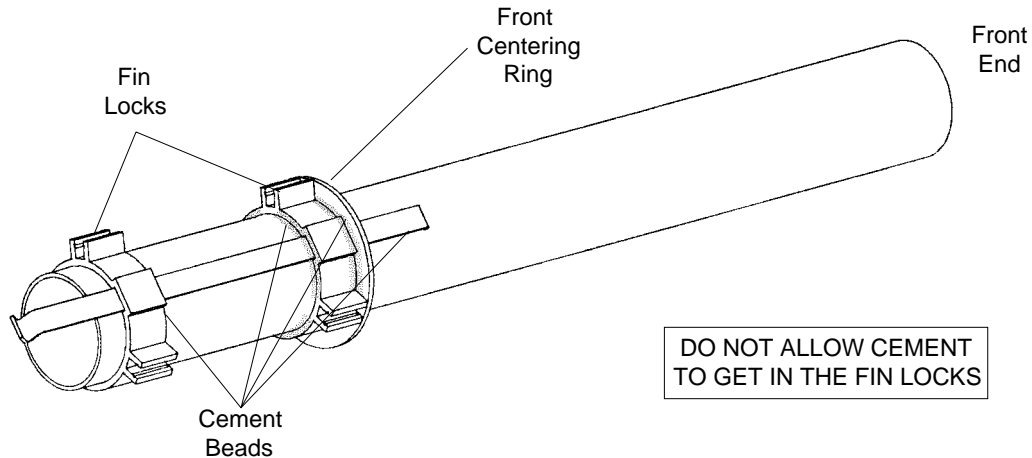
### FIN-LOK™ ASSEMBLY



**NOTE:** FROM THIS POINT ON, DO NOT USE ANY CEMENT UNTIL REACHING ASSEMBLY STEP 5.

1. With their motor hook channels aligned with the motor hook, slide a FIN-LOK™ ring and then an AERO-FIBRE™ centering ring over the **front end** of the motor tube. Push on the centering ring until the **back edge** of the FIN-LOK™ ring is moved to the forward most mark made in Step 3 above. (**NOTE:** The rings are designed to be a tight fit on the motor tube. If the rings are difficult to slide onto the motor tube, round the inside edges of the rings with sandpaper. If the FIN-LOK™ rings need to be turned after they are on the motor tube, use a small piece of cloth to provide a better grip.)
2. Slide the other FIN-LOK™ ring and then a centering ring over the **back end** of the motor tube. Push on the centering ring until the **front edge** of the FIN-LOK™ ring is at the rear-most mark made in Step 3.
3. Using the line on the motor tube as a guide, gently twist the back centering ring slightly until the fin locks of the back FIN-LOK™ ring are aligned with the fin locks of the front FIN-LOK™ ring.

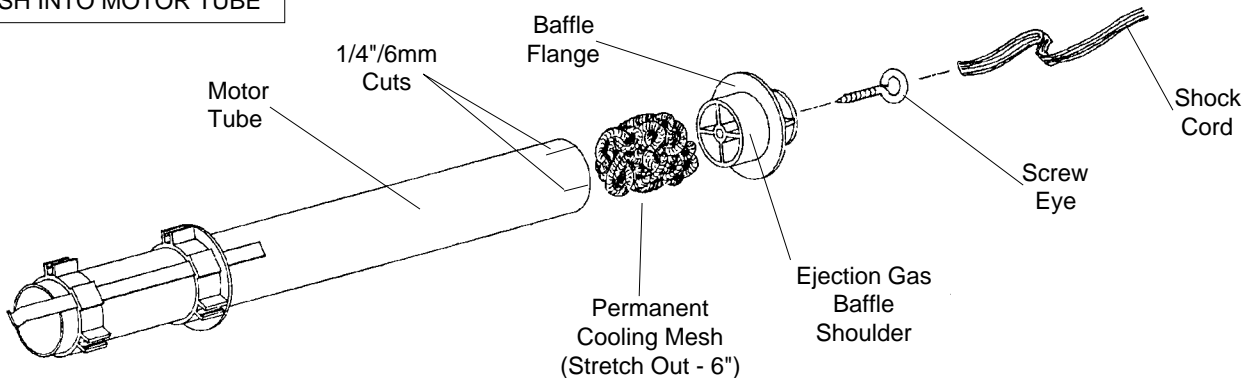
## FIN-LOK™ ASSEMBLY (CONT.)



4. Test the proper positioning and alignment of the FIN-LOK™ rings by snapping the fins into the fin locks. If any fin does not snap into place, check to see that each FIN-LOK™ ring is the correct distance from the back end of the motor tube and that the fin has no plastic flashing left from production that may be preventing a proper fit. Remove any plastic flashing with a hobby knife or sandpaper. After making any adjustments, carefully remove the fins **and the back centering ring**. Check that the front centering ring is still positioned next to and touching the front FIN-LOK™ ring.
5. Apply a bead of cement where the front centering ring meets the motor tube. Without getting cement into any of the finlocks, apply cement only to the areas BETWEEN the finlocks where the front FIN-LOK™ ring meets the front centering ring and the motor tube.
6. Without getting cement into any of the fin locks, apply cement only to the areas BETWEEN the fin locks where only the **front edge** of the back FIN-LOK™ ring meets the motor tube. **DO NOT** apply cement to the back edge of the back FIN-LOK™ ring. (**NOTE:** The unique AEROTECH FIN-LOK™ fin mounting system carries and distributes aerodynamic and thrust loads throughout an integrated rocket structure in a manner found in large aerospace vehicles. Loads are primarily borne by structural members and not cement.)
7. Apply a bead of cement around the motor hook forward of the front centering ring.

## LABYRINTH™ ASSEMBLY

**DO NOT CEMENT COOLING MESH INTO MOTOR TUBE**



1. Make four 1/4" (6mm) long cuts, 90 degrees apart, in the front end of the motor tube.
2. Stretch out the cooling mesh to about 6" (15cm) in length. Insert the cooling mesh into the **front end** of the motor tube. (**NOTE:** Do **not** cement the mesh into the motor tube.)
3. Apply a thin film of cement to the front 2/3rd's of the shoulder of the ejection gas baffle and insert the baffle shoulder all the way into the front end of the motor tube.
4. **Apply beads of cement where the baffle meets the motor tube and into each of the cuts in the motor tube.**
5. Screw a screw eye all the way into the hole at the front end of the baffle. Securely tie an end of the shock cord to the screw eye with a square knot. (**CAUTION:** Do **not** put cement on the knot of the shock cord. Cement will weaken the shock cord.)