**Notes**

1. Seal inhibitor surface to nozzle seat with silicone RTV.
2. Chamfer inside edge of holes and inside edge of casing end 0.015”.
3. Bond dowel to support disc and Rod-grain with epoxy adhesive.
4. Tap 1/8 NPT.
5. Lubricate o-rings and mating surfaces with silicone grease.
6. Chamfer inside edge of holes and inside edge of casing end 0.015”.
7. Allow to cure completely.
8. Coat Tubing and inhibitor surface (propellant side) only with epoxy adhesive.
9. Coarse threads to be with two counts, typical 0.25” i.d. in.
10. Alloy steel socket head cap screws, 180 ksi UTS.
11. Stainless steel (300 series) machine screw. Reduce head diameter to 0.264”.

**Materials**

- **Casing**: 6061-T6 aluminum alloy or equivalent.
- **Nozzle**: SAE 1018 mild steel, 12L14 steel alloy, or equivalent.
- **Bulkhead**: 6061-T6 aluminum alloy or equivalent.
- **Inhibitor/casting tube**: Posterboard, multilayered as required to achieve nominal diameter (close sliding fit).
- **End Inhibitors**: Posterboard or equivalent, 0.025” thickness.
- **Support Disc**: Hardwood or equivalent.
- **Propellant**: RNX-57 or RNX-71V.

**PARADIGM SOLID ROCKET MOTOR**

**J-Class**

**Design**: R. Nakka

**Rev**: NC-1 (Jan. 2008)

**Date**: Nov. 2005