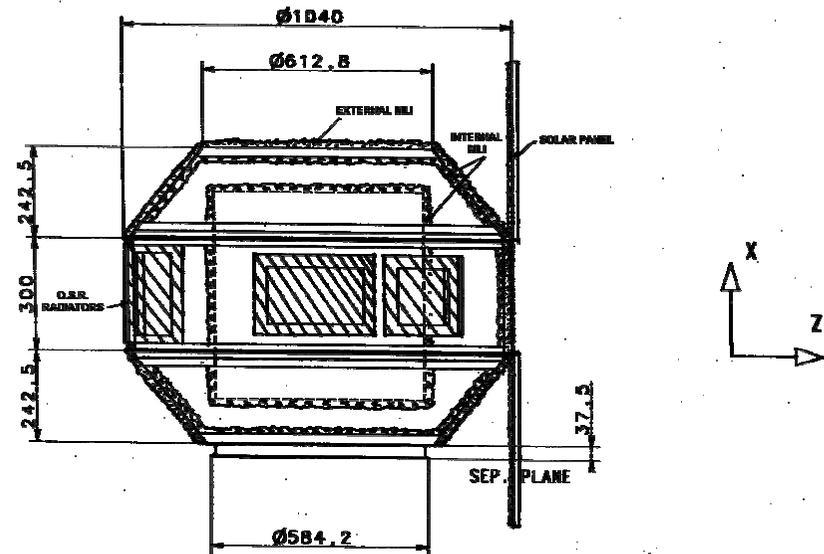


**THERMAL CONTROL**

- Driving requirement is temperature stability of the test masses:  $dT/dt < 0.2 \text{ } ^\circ\text{C/day}$
- Requirement is met by high efficiency thermal insulation, and minimisation of thermal conduction and power dissipation in the payload compartment
- Multi stage thermal insulation is realised by covering with MLI blankets (effective  $\epsilon = 0.01$ ) the external surfaces and the solar array backside, the inner side of the main structure, and the outer and inner side of the PGB
- Because of the high insulation and thermal inertia, the time to steady state is very long if the initial temperature is far from the equilibrium temperature. For the design assessment,  $\Delta T = 10^\circ\text{C}$  was assumed



*Spacecraft thermal configuration*