

Technical expertise where we can offer consultancy

Machining

SAC can offer consultancy in the areas of precision machining, micro machining, development of special tools, process planning etc. SAC has developed workflow system for fabrication of components which is operational for many years and very useful for efficiently managing work flow and job monitoring. SAC offers technical consultancy in the following areas:

- Sheet Metal Forming (Rolling, Riveting, Qualified Clinching Processes)
- Press Tools (Die Sets)
- Precision Fitting & Assembly (Machine Tapping & Auto Helicoil Insertion)
- Welding for precision components (GTAW of Al & SS, Brazing) by qualified process
- Fabrication of structural Components from Aluminum honeycomb panels
- Development of Special Fixtures

Structural and Thermal Analysis

1. Structural and thermal analysis of the spacecraft payloads and their components.
2. Structural and thermal distortion analysis of the Earth Station Antennae and their components including RMS & PE Calculations of the antenna reflectors.
3. Holistic FEM analysis of super structure of Antenna & Sub Structure of RCC Raft with soil Structure Interaction studies using dynamic properties of soil.
4. Vibration Testing (Sine / Random / Shock) of the payloads and their components using electro-dynamic shakers.
5. In-situ vibration testing of the sites for on-site disturbances due to Pumps / generators / railway track induced vibrations to the antenna foundations / Machine foundations / shaker foundations with seismic masses.
6. Modal analyzer related activities for estimating features of Modal Model and for experimentally estimating the damping and mode shapes for correcting the FE Model for coupled mode analyses with spacecraft geometry. Its applications can also be entertained in civil Structures / building.
7. SAC has presently MCAE software & need industry support for AMC of MCAE Work horse FE software viz. NASTRAN / PATARAN, HYPER WORKS and RF MEMS software COVENTOR WARE.
8. SAC can take microscopic detailed structural / Thermal / Failure / Optimization / Failure Analyses reports for all the spacecraft payloads / electronic components / devices etc.