

2. NOSE CONE WORKSTATION INTEGRATION ASSEMBLY FIXTURE FOR A SPACE LAUNCH VEHICLE.

Problem Statement:

A Space Research Organisation approached us on carrying out the design and fabrication of a Nose Cone Workstation Integration assembly fixture for a Launch Vehicle. Our group company “Legend Technologies” is an established leader in providing manufacturing solutions to the Space Organisation, which made us the preferred choice for executing the project flawlessly.



Description of Scope of Work:

Detailed design and assembling is to be carried out for the workstation. The part manufacturing, assembly and erection had also to be executed.

Challenges:

- The total structure has a height of about 4m.
- The platforms that has to manufactured had a diameter of 5.5 m.
- Large C-Channels had to be prepared in lieu of non-availability of such large size structures.
- Strict machining dimensions had to followed pertaining to IS:2102 (M).

- Project Schedule of 1+ Month inclusive of Modelling, Fabrication and assembly.
- Many drawing obstacles had to be overcome to understand the relevant details.
- Interfacing of the various parts for such a large assembled structure.

Execution Strategy:

- Discussions and review mechanism with customer was carried out, and review's were carried out at regular intervals during the manufacturing phase with the customer.
- In-house production facilities were utilised to prepare non standard large parts.
- Outsourcing and the relevant time management was implemented for the quick project schedule.

Value Added:

- On-time, quality delivery, in spite of significant challenges
- Due to the induction of the production team from the inception phase, the product iterations were considerably reduced.
- Process Sheets for the individual parts were created and submitted.
- Project Duration was minimized by a staggered approach to the management of the project.