

Raviraj Solanki

Mechanical Technician
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1 CAREER OBJECTIVE

To obtain a challenging position as a Mechanical Technician in the aerospace industry where I can utilize my skills in mechanical assembly, testing, and quality inspection to contribute to innovative space projects and ensure high standards of safety and performance.

2 SKILLS

- Mechanical assembly and fitting of aerospace components
- Use of precision tools (micrometres, torque wrenches, callipers)
- Interpretation of engineering drawings and schematics
- Satellite and aerospace component fitting (thrusters, panels, modules)
- Preventive maintenance of tools and equipment
- Knowledge of ISO, AS9100, ISRO, and aerospace standards

3 EXPERIENCE

Mechanical Technician

Azista-BST Aerospace Pvt Ltd, Ahmedabad, Gujarat

Jun 2021 – Present

- Participated in the mechanical assembly, integration, and fitting of satellite sub-systems and structures in accordance with ISRO standards and engineering drawings.
- Assisted in the installation of mechanical components such as panels, brackets, fasteners, and support structures for satellite payloads and bus systems.
- Ensured precise alignment and torque application during assembly using calibrated tools like torque wrenches, precision jigs, and fixtures.
- Assisted in the setup and execution of environmental tests for satellites, including vibration, thermal vacuum, acoustic, and shock testing, as per ISRO and aerospace standards.
- Supported mechanical integration and alignment of satellite components on test fixtures, vibration tables, and thermal chambers ensuring correct orientation and secure fastening.
- Supported setup of antennas, sensors, shielding enclosures, and absorption materials inside anechoic chambers or shielded rooms for emission and susceptibility tests.
- Followed cleanroom and ESD (Electrostatic Discharge) safety guidelines to protect sensitive satellite components during testing.

Mechanical Fitter

Space Application Centre, ISRO (Contractual Basis), Ahmedabad, Gujarat

Apr 2016 – Jul 2020

- Conducted thorough inspections of raw materials and components to ensure they met the required specifications and quality standards before being used in mechanical assemblies and projects.
- Inspected Aluminium Alloy 6061 16 Wave Guide Tubes, S.S. 304 spacecraft payload components, Fittings, Fasteners as per respective code and standard.
- Assisted in verifying material certifications, including mill test certificates (MTC) and other relevant documentation, to confirm traceability and compliance with engineering and quality requirements.
- Measured and verified material dimensions, tolerances, and surface finishes using a variety of hand tools and precision measuring instruments such as micrometres, Vernier callipers, and gauges.
- Performed material testing on various components, including hardness, tensile, and compression tests, to ensure mechanical properties met industry standards and project specifications.
- Verified chemical and physical properties of materials by reviewing mill test certificates (MTC), batch reports, and supplier documentation for conformity with applicable codes (ASTM, ISO, ISRO STD).

Apprentice Trainee

Space Application Centre, ISRO, Ahmedabad, Gujarat

Sep 2014 – Sep 2015

- Worked as an Apprentice Trainee in the Vibration Test Facility, supporting the testing and validation of aerospace components used in satellite systems.
- Assisted in setting up and operating vibration test equipment, including vibration shakers, accelerometers, and data acquisition systems, to simulate space-related stress on components.
- Worked closely with senior technicians and engineers to understand and implement vibration testing methodologies and standards such as ASTM, ISRO STD.

4 EDUCATION

ITI in Fitter

ITI, Sarkhej, Ahmedabad, Gujarat

Jan 2013

HSC

Apr 2013

HSC, Ahmedabad, Gujarat

SSC

Apr 2011

SSC, Ahmedabad, Gujarat
