



**Job Title:**

*Propulsion System Engineer*

**Direct Manager:**

*Program Manager*

**Context of the function:**

The System Engineer is responsible for ensuring that the overall design is aligned with the customer requirements. In all activities he works with the dedicated Core Team (Project Lead, Product Assurance & System Engineer). The Core Team is the direct link with all Customers and Major Subcontractors and the System Engineer is responsible for all technical aspects of this

In preliminary phases he is involved with Technical Trade-Offs and understanding the customer requirements. Once the requirements are well understood the System Engineer works with the R&D engineering departments (CAD, Structural, Thermal and Electrical) to ensure the design is well executed. As part of his activities he must support the design with various dedicated analysis.

The System Engineer will be responsible in creating the dedicated engineering documentation with the other Core Team members. Once the design is complete the System Engineer acts as interface to production to ensure the correct design is manufactured. When large suppliers/subcontractors are part of the project the System Engineer is responsible for managing all technical aspects of the Subcontract including creation of specifications, review of documentation and test results.

During the manufacturing and assembly of the System Engineer offers engineering support in order to allow full assembly to be completed. This includes supporting subassembly testing with procedures, reviewing build data and executing critical design choices.

Once assembly is complete the System Engineer is responsible for ensuring the unit is tested accordingly. He will be responsible for the test procedure and ensuring the dedicated Customer requirements are met during testing. On occasions the System Engineer will be directly involved with testing depending on the complexity of the test.

Once testing is complete the System Engineer is responsible for preparing the final engineering inputs to the End Item Data Packs and discussing all technical topics with the customer. During the delivery and post-delivery of the hardware the System Engineer will be responsible with closing out all technical question and actions further supporting the customer.

**Main Tasks:**

- Review Customer Documents and Execute Design Choices
- Perform analysis and system design tasks
- Critically Review Mechanical Designs, Structural/Thermal Analyses and Electronics Design from Support Engineering
- Creating documents for the data packages for the different design reviews (EQSR, PDR, CDR)
- Work with Core Team in creating the Verification Control Document.
- Creating test procedures
- Test coordination with the Test Department
- Giving support to Production and Test phases in the project



- The SE is the contact person towards the customer during the project, when it comes to technical related questions.
- The SE is the contact person towards the Subcontractors during the project, when it comes to technical related questions.

**Secondary tasks:**

- Testing

**Competences:**

The competencies required for this function are included in the annex (1 page) and a BSc or MSc level education in the fields of Mechanical Engineering or (Aero)space Engineering. The following key knowledge points are of interest.

- Chemical Propulsion
- Mechanical Engineering (Structural and Thermal Knowledge)
- Space Design Process Flow (EQSR, PDR, CDR, MRR, TRR, TRB, DRB)
- ECSS
- Analysis Tools ESA-RAD, MATLAB, LabVIEW
- Plume/Hydraulic Analysis
- AIT Engineering