

Selas Fluid Processing Corporation  
Job Specification

Job Title:	Senior Mechanical Engineer
Reports to: (Position):	Chief Mechanical Engineer
Last Updated:	June 2010

Position Summary

The Senior Mechanical Engineer will be part of a multi-discipline project team, responsible for all activities involved in design, fabrication, installation, and troubleshooting of mechanical components and piping systems.

Key Areas of Responsibility

- Develop basic and detailed engineering for all mechanical equipment on assigned projects.
- Generate pipe class specifications for ASME B31.1 and B31.3 piping.
- Generate detailed design calculations including pressure part thickness, code calculations, fluid flow, relief valve sizing, and weight calculations.
- Generate specifications and purchasing packages for all mechanical equipment including piping, pressure vessels, fans, and waste heat recovery equipment.
- Responsible for completion of project tasks in a quality manner, within budget, and on schedule. Responsible for development of project schedules and drawing lists.
- Responsible for the application of relevant industry standards, codes and/or project specific standards.
- Review and approve vendor documentation for mechanical equipment and piping. Conduct inspections of mechanical equipment at vendor fabrication shops.
- Provide project direction for discipline Mechanical Engineers and guidance for Mechanical Design.
- Provide troubleshooting expertise for client and vendors, including installation/erection assistance at job sites.
- Generate project mechanical documentation including manual valve schedules, line lists, tie-in lists, equipment datasheets, pipe class specifications, equipment specifications, vendor scopes of supply and Bills of Material, installation sequences, and drawing revision records.
- Performs other responsibilities associated with this position as may be appropriate.

Required Skills

- Working knowledge of industry codes and standards required including ASME B31.1, ASME B31.3, ASME Section I, ASME Sect. VIII Div. 1, ASTM standards, API 530/560.
- Experience with process/power piping and pressure vessels required.
- Experience with piping isometric drawings required.
- Experience with welding, paint, and refractory systems required.
- Experience with pipe stress analysis (Caesar II) preferred.
- Effective computer skills: Microsoft Office software, Lotus Notes and other Company and discipline-specific software applications.
- Effective communication skills, both verbal and written, with superiors, peers, subordinates and other individuals inside and outside the Company.

Education/Experience

- Bachelor's Degree in Mechanical Engineering
- Minimum 8 years of related work experience designing fired heaters and/or furnaces.
- Registered Professional Engineer – preferred