

## Selas Fluid Job Specification

<b>Job Title:</b>	Mechanical Engineer
<b>Reports to:</b>	Chief Mechanical Engineer
<b>Last Updated:</b>	January 2012

### Position Summary

The Mechanical Engineer position researches, plans, and designs mechanical components and systems, and coordinates activities involved in design, fabrication, installation, and repair of mechanical components and piping.

### Key Areas of Responsibility

<ul style="list-style-type: none"> <li>• Developing efficient, cost effective, and acceptable design of mechanical components and piping as defined by proposal, client purchase order, SF standards, and governing codes, standards, and recommended practices. Work is performed with minimal supervision provided by a Senior/Chief Mechanical Engineer</li> </ul>
<ul style="list-style-type: none"> <li>• Completion of project tasks in a quality manner, within budget and on schedule</li> </ul>
<ul style="list-style-type: none"> <li>• Develop equipment orientation and location, including sketches as required</li> </ul>
<ul style="list-style-type: none"> <li>• Equipment application including fans, pumps, boilers, steam drums, air heaters, burners, valves, air pollution control equipment</li> </ul>
<ul style="list-style-type: none"> <li>• Detailed design calculations including pressure part thickness, code calculations, fluid flow, relief valve sizing, and weight calculations</li> </ul>
<ul style="list-style-type: none"> <li>• Generates 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</li> </ul>
<ul style="list-style-type: none"> <li>• Participate in project meetings with clients and vendors. International travel required</li> </ul>
<ul style="list-style-type: none"> <li>• Checking of SF calculations, drawings, and documents</li> </ul>
<ul style="list-style-type: none"> <li>• Checking of vendor calculations and drawings</li> </ul>
<ul style="list-style-type: none"> <li>• Assist with mechanical interface between structural and I&amp;C disciplines</li> </ul>
<ul style="list-style-type: none"> <li>• Assist in the generation of SF standard practices</li> </ul>
<ul style="list-style-type: none"> <li>• Provides direction to the design group for the preparation of mechanical drawings for fabrication and installation</li> </ul>
<ul style="list-style-type: none"> <li>• Performs other responsibilities associated with this position as may be appropriate</li> </ul>

### Required Skills

<ul style="list-style-type: none"> <li>• Proficient in MS Excel and Word</li> </ul>
<ul style="list-style-type: none"> <li>• Familiar with AutoCAD software and 3D modeling of equipment</li> </ul>
<ul style="list-style-type: none"> <li>• Familiar with pipe stress analysis (Caesar II stress analysis software preferred)</li> </ul>
<ul style="list-style-type: none"> <li>• Familiar with piping isometric drawings</li> </ul>
<ul style="list-style-type: none"> <li>• Good communication skills both written and oral</li> </ul>

<b>Education/Experience</b>
<ul style="list-style-type: none"><li>• Bachelor of Science Degree in Mechanical Engineering</li><li>• Minimum 2 years experience with fired heaters, furnaces, and piping; prefer up to 5 years experience</li></ul>