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## **COMPANY**

Sertco Industries, Inc. is a designer and manufacturer of high speed reciprocating natural gas compressor packages located in Okemah, Oklahoma. Demand for wellhead compression equipment both nationally and internationally has prompted the need for the additional engineering position. Sertco packages its own proprietary aluminum reciprocating compressor and is expanding into smaller compressor designs. New packages are being developed for other applications including vapor recovery.

## **POSITION**

Application and design engineer.

## **SUMMARY**

Engineer will report to the President and Vice President of Operations. No supervisory skills are required for the position. Engineer will be responsible for assisting with design, engineering and compliance with technical specifications on various natural gas compressor skid projects. Duties will also include research, development and testing of specific components or problematic mechanical issues.

## **RESPONSIBILITIES / DUTIES**

- Lead or assist with compressor package development from conception to production.
- Review customer technical specifications for package design.
- Performance and sizing of gas compression equipment.
- Prepare technical proposals and preliminary documentation including P & ID's, PFD's, scheduling, price quotes, data sheets, assist with drawings, bills of material, system diagrams and any calculations.
- Coordinate design of vessels including scrubbers and cooling equipment.
- Prepare process descriptions and control narratives related to electrical control of packages.
- Understand engineering economics and conduct efficiency, cost and reliability analysis.
- Ability to confirm details of all equipment with suppliers in order to meet customer specifications and meet order deadlines or manufacturing schedules.
- Coordinate final design with procurement and production personnel.
- Review any final drawings and documentation prior to fabrication and assembly.
- Provide support to manufacturing through completion of packages, final inspections and testing prior to shipping.
- Troubleshooting of problems on compressor packages that develop during testing.
- Provide technical support to customers and field personnel as required.

## **EXPERIENCE / KNOWLEDGE / SKILLS**

### **Critical skills to be considered for the position include:**

- Understanding of natural gas compression and all associated characteristics is required.
- Understanding of well completion techniques and formation/reservoir characteristics.
- Ability to size control valves, piping and PSV's using process information.
- General understanding of natural gas engines and electric drive motors.
- General understanding of reciprocating, screw and vane type compressors.
- Competent in 12/24 VDC electrical systems as well as 3 phase 480V electrical drive systems.
- Knowledge of hazardous area classifications, applications and CSA/UL/FM approved devices.
- Knowledge of ASME Section VIII Division 1, ASME B31.3 and ANSI flange standards.
- Knowledge of fabrication, assembly of components and steel piping systems.
- Familiarity with stainless steel tubing and equipment for control systems.
- Technical support in the development of PFD's, P & ID's, review models and GA drawings.
- Full comprehension of P & ID symbols and standards.
- Microsoft Excel, Word and related software.

### **Additional skills or knowledge in the following areas will be extremely beneficial:**

- Experience with thermodynamic, stress and load calculations of compression equipment and engines.
- Experience with materials, machining and manufacturing.
- Familiarity with API and other standards related to gas compression.
- Experience with European Directives in CE marking of equipment – ATEX, PED, Machinery Directive and others.
- Understanding of any codes and standards in other countries Sertco is active such as GOST.
- 3D modelling using Solid Works.

## **EDUCATION / QUALIFICATIONS**

- Bachelor's degree in engineering, mechanical preferred.
- 5 years of proven experience in design of gas compressors or rotating machinery with at least 2 years of compressor packaging experience will be considered in lieu of bachelor's degree.
- Adept at technical writing skills – technical reports, manuals and scope of work or supply.
- Ability to read, write and speak the English language.
- Strong communications skills with customers and fellow employees.