

# JOB DESCRIPTION

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**Job Title:** JUNIOR ENGINEER (Graduate)

**Responsible to:** APRS – Design and Proposals Engineer

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## **Job Function**

Reporting to the Contracts Manager, APRS Dartford Operation, the Junior Engineer will, after extensive training, be responsible for the design and procurement of industrial refrigeration systems primarily for the chilled process and food industry.

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## **Accountabilities (but not limited to):**

1. Responsible for detailed refrigeration system design and configuration.
  2. Preparation of thermal design calculations using standard computer programmes and from first principles including determination of refrigeration heat loads and pipe work pressure losses.
  3. Selection of heat exchangers, vessels, refrigerant controls, compressors, pumps and system components.
  4. Responsible for the preparation of system design and control instructions, datasheets, Piping and Instrumentation Diagrams (P&ID), General Arrangement drawings, equipment manuals.
  5. Responsible for checking and approval of suppliers' drawings and technical offers to ensure the equipment meets the design requirements.
  6. To check and approve refrigeration piping and instrument diagrams, plant arrangement drawings and control systems prior to manufacture.
  7. Responsible for providing technical assistance to Clients including attendance at Hazop reviews.
  8. To provide technical assistance to other members of the organization.
  9. To attend site meetings with clients at the enquiry and post sales stage to provide technical assistance.
  10. To perform mechanical design and analysis of frames, vessels, piping and other elements of the vessel and compressor skids.
  11. To ensure that the Company's technical and safety standards are maintained in accordance with Health & Safety Practices as outlined in the Company Health and Safety Procedures and to make recommendations for improvements as necessary.
  12. To adhere to Company Policy of Quality Standards.
  13. To perform other related duties as assigned or requested.
  14. To deliver projects on time, within budget and according to specifications.
  15. To coordinate the design, procurement, assembly, delivery and commissioning of equipment.
  16. To assist commissioning of equipment on site.
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## **Dimensions**

Undertakes work on contracts up to £5m value. Works on own initiative. Works with and in future Oversees the work of other design engineers and draughtsman where appropriate. Designs and drawings reviewed and approved by the design and contracts manager within their local office. The candidate will be given opportunity to work in different areas of the department with experienced personnel (Design, Sales, Project Management, Drawing, Electrical and Controls, Documentation and others).

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## **Knowledge/Experience/Training Required:**

- A minimum 2:1 degree or higher in Mechanical, Electrical, Process or Chemical Engineering
- An appreciation and understanding of thermodynamics
- A knowledge and understanding of refrigeration circuits would be beneficial
- Computer Literate, skills in Mathcad, AutoCAD and Solidworks are desirable
- Allowed to work in the UK (holder of UK Work Permit or European Union national)
- Good communicator with ability to work on own initiative as well as within a team
- Ability to develop and maintain efficient and effective client relationships
- Good problem solving skills
- A UK Driving Licence is beneficial.
- Enthusiastic, self-motivated with outstanding personal presentation.