

ARC ENGINEERING INC.

POSITION TITLE: MECHANICAL DESIGNER

MAIN FUNCTION:

Provide quality designs complete with related technical information, as part of a mechanical team including coordination with architectural and/or multidiscipline engineering teams.

OVERVIEW:

ARC Engineering works on a wide range of commercial, institutional, and industrial projects. The work includes Plumbing, Fire Protection, and HVAC work.

Our firm fosters an environment of collaboration, excellence and growth.

We seek self-starting enthusiastic individuals with good oral and written communication skills, initiative and ability to work as a team player.

The successful candidate will be involved in the design of a variety of interesting projects and the delivery of services to our valued clients.

DUTIES:

- Write technical reports.
- Assist with the preparation of design briefs which are based on client requirements which include functional, aesthetic, cost, and schedule criteria.
- Conduct site visits to understand existing conditions and responsibility for verification of existing systems.
- Develop alternate mechanical concepts that consider capital and operating costs, life expectancy, performance, and compatibility with other design elements.
- Working and general knowledge of codes and standards including OBC, NFPA, ASHRAE, SMACNA, ASPE, ACGIH, TSSA, MOE, CSA standards etc.
- Develop selected mechanical concepts, including major equipment and general ductwork and piping arrangements, space requirements; and electrical and structural load requirements.

- Estimate preliminary loads and select major equipment.
 - Prepare engineering concept sketches and designs from selected preliminary concept sketches, preliminary engineering calculations, outline specification sheets and other supporting technical data.
 - Convey concepts to CAD staff, and overview the drawing production work.
 - Check and verify design drawings to conform to specifications and design data
 - Prepare contracts and tender documents
 - Prepare construction specifications,
 - Coordinate drawings with other disciplines including architectural, structural, civil, and electrical works, and specialists including acoustic, and emissions; quantity surveying; equipment specialists; and environmental.
 - Maintain clear and organized files including; concept sketches, design brief, design calculations, equipment selections, specifications, drawings, tender documents, field reviews etc. in accordance with standard filing procedures.
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EMPLOYMENT REQUIREMENTS:

- Certified Engineering Technologist (CET), Professional Engineer of Ontario (P.Eng), or demonstrated and substantial experience in design work.
- LEED or Green building design is an additional benefit but is not required.
- Experience in AutoCAD would be an additional benefit but is not required.
- Continuing educational courses are an asset including, plumbing, NFPA 13, 14, 96, Air side design, noise and vibration, boilers and applications, chillers and applications, HVAC equipment, hydronic design, control and instrumentation, testing and balancing etc.
- Candidates with ICI experience (Institutional, Commercial, and Industrial) will be preferred.
- Candidates with HVAC, plumbing, and fire protection experience will be preferred.
- A seasoned individual with a minimum of five to ten years of related experience is preferable but strong candidates with less experience will be considered.
- Possess good verbal and written communication skills (in English).
- Desirable character traits include: professionalism and integrity; punctuality and deadline responsibility; ownership and accountability; and initiative.
- Desirable skills include problem solving abilities multi-dimensional visualization, understanding of system functionality, and appreciation for constructability.