

POWER TRANSFORMERS

Job Title: Junior Mechanical Design Engineer	Paterson Grade Level:
Department/Division: Engineering	Reporting Line: Senior Mechanical Designer / Deputy Chief Draughtsman
Direct Reports: None	Closing Date: 30 September 2026

Job Purpose

To provide accurate and timely mechanical design and drawing support for power transformer works orders and design change requests under the direct guidance of a senior engineer or designer. This role's primary function is to develop core competencies in transformer design principles by executing specific, well-defined design tasks to ensure technical compliance and prevent production delays or quality issues in the manufacturing process.

Authority Levels

This role operates under direct technical supervision and has limited independent authority.

- **Action Independence:** Authorised to independently execute assigned parts of a design project (e.g., a tank or specific components) and work based on the departmental schedule.
- **Escalation Requirement:** Must escalate all significant technical queries, design concept deviations, major non-conformance issues (NCRs/PIRs), and changes to the design scope to the direct line manager for review and final approval.
- **Corrective Action:** Has the authority to initiate minor drawing corrections/design changes in response to production/NCR queries, but these are subject to formal check and sign-off by a senior team member.

Key Responsibilities

1. Mechanical Design and Drawing Production:

- Execute mechanical design tasks for power transformer components (e.g., core, coil, tank, or specific parts) as allocated on the schedule. Produce detailed, accurate 3D models and 2D manufacturing drawings using 3D software.

2. Design Modification and Technical Support:

- Address and resolve production-raised technical queries and Non-Conformance Reports (NCRs/PIRs) by implementing necessary small design changes or drawing amendments. Provide timely technical clarification to the production floor.

3. Continuous Improvement & Automation:

- Investigate, develop, and implement solutions to automate or streamline repetitive design processes, specifically focusing on automatic drawing conversion or parameterization to reduce manual work and human error.

4. Technical Learning and Self-Development:

- Proactively engage in on-the-job learning, self-study, and formal training to acquire advanced mechanical design skills and software proficiency.

5. Quality and Design Compliance:

- Ensure all design work complies with Actom's quality procedures, relevant industry standards, and specific customer requirements. Maintain strict version control for all design outputs.

Human Capital Management

This role has no direct reports and does not involve any people management responsibilities.

Quality, Environment, Occupational Health & Safety Management Responsibilities

The Junior Mechanical Design Engineer is responsible for enforcing and adhering to the requirements of ISO 9001, ISO 14001, and ISO 18001 standards and related company management systems as they apply to the Technical Department.

Minimum Qualifications and Experience

- **Required Education:** A Diploma or Degree in Mechanical Engineering or a closely related field.
- **Relevant Experience:** 0 to 2 years of experience in a design/draughting role, with internship experience highly beneficial.
- **Essential Skills:** Proficiency in 3D CAD software (Inventor/Creo), basic knowledge of GD&T (Geometric Dimensioning and Tolerancing) principles, and a strong aptitude for analytical problem-solving and self-learning.

Other Responsibilities

- Actively attend and contribute to all regular departmental design and management meetings to ensure project alignment and communication with other departments.
- Participate in Continuous Improvement (CI) initiatives aimed at optimizing mechanical design processes and tools.

- Perform ad hoc duties as assigned by the line manager to support the department's operational goals.
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