



J O B D E S C R I P T I O N

Job Title: *Process & Manufacturing Engineer*

Responsible to: *Production / Business Unit Manager*

Main Purpose:

To support the continuous improvement, development and optimisation of manufacturing processes across the Plumbing & Drainage business, with a particular focus on plastics processing, injection moulding, sheet extrusion and associated manufacturing technologies.

The role will focus on improving productivity, quality, safety, reliability and operational performance through the application of engineering principles, process improvement techniques, automation technologies, artificial intelligence and data-driven decision making.

The successful candidate will play a key role in developing future manufacturing capabilities, supporting the adoption of automation, digitalisation and AI-enabled solutions to drive operational excellence, improve manufacturing competitiveness and support the site's long-term growth strategy.

This position offers the opportunity to work on a broad range of projects including process optimisation, automation, digital manufacturing, new product introduction, equipment commissioning, continuous improvement initiatives and capital investment projects. It is suitable for graduates looking to develop a career in manufacturing engineering as well as experienced engineers seeking a challenging and rewarding role within a growing business

Main tasks and duties

Process Improvement & Manufacturing Excellence

- Analyse manufacturing processes and identify opportunities to improve safety, quality, productivity and cost performance.
- Optimise plastics processing operations, including injection moulding, sheet extrusion and downstream manufacturing processes.
- Develop, implement and standardise process settings, work methods and operating procedures.
- Lead or support continuous improvement initiatives using Lean Manufacturing, Six Sigma and structured problem-solving methodologies.
- Monitor process performance and establish corrective actions to reduce waste, downtime and process variation.

- Investigate manufacturing issues implement sustainable solutions through root cause analysis.
- Develop best practice manufacturing standards and ensure effective deployment across production operations.
- Define and track key process performance indicators to support continuous improvement objectives.
- Support initiatives aimed at improving machine utilisation, process capability and overall equipment effectiveness (OEE).
- Improve process capability and consistency through the application of scientific moulding, extrusion best practices and data-driven process control techniques.
- Support material trials and process validation activities involving virgin, recycled and engineered polymer materials.

Production & Operational Support

- Provide technical support to Production, Quality and Maintenance teams to resolve manufacturing and quality issues.
- Assist production teams in achieving safety, quality, output and efficiency targets.
- Conduct process audits to ensure adherence to established standards and procedures.
- Support troubleshooting of equipment, tooling and manufacturing process issues.
- Participate in daily operational reviews and continuous improvement activities.
- Assist in developing robust problem-solving capabilities across operational teams.
- Work collaboratively with cross-functional teams to implement sustainable operational improvements.

Automation & Technology Development

- Identify opportunities for automation and digital technologies to improve manufacturing performance.
- Support the specification, installation, commissioning and optimisation of automated and semi-automated equipment.
- Work with Engineering, Maintenance and external suppliers on automation projects and equipment upgrades.
- Assist with the development of long-term automation roadmaps aligned with business growth requirements.
- Contribute to improvements in manufacturing reliability through modern control and monitoring technologies.

- Support the implementation of robotics, machine vision, automated material handling and advanced manufacturing technologies where appropriate.
- Evaluate opportunities to improve process control through advanced sensors, intelligent monitoring systems and automation solutions.

Digital Manufacturing & AI-Enabled Improvement

- Identify opportunities to utilise Artificial Intelligence (AI), machine learning and digital technologies to improve manufacturing performance, process control and operational decision-making.
- Develop and implement AI-enabled solutions to support process optimisation, quality improvement, predictive maintenance, production planning and energy reduction initiatives.
- Evaluate emerging digital manufacturing technologies and AI tools and assess their applicability within the business.
- Leverage manufacturing and operational data to generate insights, predictive models and automated reporting systems.
- Develop data-driven monitoring systems for injection moulding and sheet extrusion operations to improve process stability, efficiency and product quality.
- Support the development of digital manufacturing capabilities, including real-time process monitoring, advanced analytics and intelligent automation.
- Collaborate with Production, Engineering, Quality and IT teams to improve the collection, analysis and utilisation of manufacturing data.
- Promote the use of AI-powered tools to enhance engineering problem-solving, root cause analysis, project delivery and technical documentation.
- Drive innovation through the identification, evaluation and implementation of Industry 4.0 technologies and digital transformation initiatives.

New Product & Process Introduction

- Support the industrialisation and launch of new products and manufacturing processes.
- Develop robust processing methods that achieve quality, throughput and cost objectives.
- Support new product introductions across injection moulding, sheet extrusion and associated manufacturing platforms.
- Establish process windows, control plans and operating standards for new and existing products.
- Plan, execute and report on process trials and improvement activities.

- Lead and support manufacturing trials relating to materials, tooling, extrusion dies, automation systems and process improvements.
- Assist with the commissioning and validation of new machinery, tooling and equipment.
- Ensure manufacturing processes are capable, repeatable and adequately documented before handover to production.
- Support capacity expansion projects and new manufacturing technology implementation.

Engineering Projects

- Participate in capital investment and engineering development projects.
- Assist in preparing technical justifications, project plans and business cases.
- Support equipment modifications, machine upgrades and process improvement projects.
- Liaise with equipment suppliers, contractors and technical specialists as required.
- Ensure projects are delivered safely, effectively and in accordance with agreed objectives.
- Support project reviews to ensure expected operational and financial benefits are achieved.

Data Analysis & Performance Reporting

- Analyse production, quality and equipment performance data to identify trends, risks and opportunities for improvement.
- Develop reports, dashboards and recommendations that support data-driven decision making.
- Support the development of manufacturing KPI systems and performance measurement tools.
- Utilise statistical and engineering analysis techniques to improve process understanding and performance.
- Provide regular updates to management on project progress, technical performance and improvement activities.
- Support the creation of visual management and digital reporting tools to improve operational visibility.

Training & Knowledge Development

- Support the training and development of operators, technicians and production personnel.
- Develop and maintain process documentation, work instructions and technical standards.
- Promote best practice in plastics processing, process control, continuous improvement and problem solving.
- Share technical knowledge and support capability development across manufacturing teams.
- Encourage the adoption of new technologies, digital tools and innovative manufacturing practices.
- Act as a champion for continuous improvement, automation and digital transformation initiatives.

Health, Safety & Compliance

- Ensure all engineering and improvement activities are carried out in accordance with Health & Safety legislation and company procedures.
- Support risk assessments, safe systems of work and engineering change management processes.
- Promote high standards of housekeeping and safe working practices.
- Ensure all new equipment, process changes, automation developments and digital systems are implemented safely and sustainably.
- Comply with company policies, procedures and quality management requirements.