

Materials Engineer | Metallurgical Engineer | Process and Project Engineering | Lean Manufacturing | R&D | QMS

A dynamic professional, adept at employing critical thinking and astute observation to drive organizational success. Demonstrating exceptional interpersonal and management skills, coupled with a passion for continuous improvement, I excel in problem-solving and delivering innovative solutions.



TECHNICAL SKILLS

Continuous Improvement (IATF)

Lean Six Sigma

Lean Manufacturing

Kaizen

Project Management

PFMEA

Production Planning

Material Planning

SAP (MM)

Solidworks/Pro E

Process Flow Diagrams

Life Cycle Assessment (LCA)

Metallography

Mechanical/Material Testing

Microsoft Office Suite

Injection Molding

EDUCATION

MSc in Materials Engineering & Nanotechnology Politecnico Di Milano (Technical University of Milan)

01/2020 – 12/2022

Milan, Italy

BSc in Metallurgical Engineering NED University of Engineering & Technology

01/2014 – 10/2017

Karachi, Pakistan

WORK EXPERIENCE

Process Engineer (Research & Development) Onecircle | Keykeg Ltd.

10/2023 – Present

Plastic Containers Manufacturing

Den Helder, The Netherlands

Achievements/Tasks

- Translating new product designs and innovations for injection molded parts, into mass production processes.
- Conducting feasibility studies and process evaluations to identify opportunities for improvement in both R&D and Production workflows.
- Analyzing data from experiments (CO₂ and O₂ content control), trials, and production runs to identify trends, troubleshoot issues, and optimize process parameters of blow molders for plastic container production.
- Providing technical support to Production team to resolve process-related issues and ensuring smooth production operations.
- Communicating project updates, findings, and recommendations to key stakeholders, including senior management, to ensure alignment and support for quality and performance improvement efforts.

Production Process Engineer Aisha Steel Mills Pvt. Ltd

12/2018 – 01/2020

Sheet Metal Forming and Surface Treatment

Karachi, Pakistan

Achievements/Tasks

- Led the successful erection and commissioning of a Continuous Galvanizing Line as Project Engineer, ensuring on-time project completion, while managing cross-functional teams, overseeing equipment installation, testing, and commissioning processes.
- Managed a team of 18 Process Operators later as Production Process Engineer, implementing lean manufacturing principles for improved efficiency and quality, including production and material planning.
- Oversaw annealing furnace operations, zinc composition, Chromate passivation processes, and facilitated timely material planning.
- Maintained production and QC records, ensuring compliance with QA standards.
- Conducted training sessions on 5S and Kaizen principles, implementing continuous improvement and empowering team members to enhance operational efficiency.

WORK EXPERIENCE

Production Process Engineer AB Engineering Pvt. Ltd

11/2017 – 10/2018
Automotive Parts Production

Karachi, Pakistan

Achievements/Tasks

- Ensured compliance with quality standards (ITAF 16949 and ISO 9001), managed production reports, and optimized designs for automotive sub-parts on Solidworks.
- Improved production planning to meet quotas and collaborated with teams to improve process efficiency.
- Identified, rectified and optimized process related hindrances, and executed maintenance plans to minimize downtime.
- Maintained and analyzed Key Performance Indicators (KPIs), enabling data-driven continuous improvement initiatives across the department.
- Trained operators in safety and 5S compliance and promoted a culture of safe and efficient work environment.

Quality Control Engineer Razzaque Steels Pvt. Ltd

08/2016 – 08/2017
Metal Forming/Shaping and Heat Treatment

Karachi, Pakistan

Achievements/Tasks

- Conducted comprehensive material testing on production samples acquired by cutting via arc welding, ensuring compliance with quality standards.
- Developed timely testing plans for stock materials, contributing to the quality control process and product integrity.
- Supervised and coordinated Spectrometer testing of samples sourced from raw billets, cross checking the material's chemical composition met specifications.
- Provided crucial Adjustment Criteria for Thermo-mechanical Treatment parameters to optimize material properties.
- Generated detailed reports complying with ISO 9001 standards, documenting testing results and ensuring adherence to quality and compliance requirements.

RESEARCH & DEVELOPMENT

Research Assistant (Politecnico di Milano) (03/2022 – 11/2022)

- Collaborated in researching Vanadium-based Conversion Coatings as Chromium alternatives.
- Enhanced coating parameters for efficiency and shorter processing times.
- Conducted life cycle assessment, prepared samples, and performed material analysis via SEM and EDX.
- Performed PFMEA analysis for coating suitability in real life scenario.

Optimization of R.S welding parameters for better microstructure of HAZ in 316L Stainless Steel (01/2017 – 09/2017)

- The purpose of this Research was to find the optimize the welding parameters to acquire the best resistance spot weld without reducing the HAZ material integrity.
- Two Stainless Steel grades 316L and 304L were used for comparative study.
- Emphasis was placed upon improvement of mechanical properties w.r.t the changes in micro-structure in Heat Affected Zone (HAZ).

ACHIEVEMENTS/CERTIFICATIONS

Six Sigma: Green Belt (2023)

Politecnico di Milano Career Service Award (2022)

MS Office Professionals (2016)

SAP ERP Essentials (2023)

Managing Emergencies and PPE Compliance (2020)

HONOR AWARDS

Politecnico di Milano Career Service Award (2022)

Politecnico di Milano

Mentorship Award for Best Team Lead (10/2019)

Aisha Steel Mills Pvt Ltd

LANGUAGES

English
Native or Bilingual Proficiency

Urdu/Hindi
Native or Bilingual Proficiency

Italian
Limited Working Proficiency

Dutch
Elementary Proficiency

NOTE

Willing to relocate as per requirement.