

# TOSHAN RATHORE

Mechanical Engineering Professional | Operations Management | Quality Control | Safety Compliance

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## SUMMARY

Results-driven Mechanical Engineering professional with **10+ years of progressive experience across aluminium manufacturing and thermal power operations**. Proven track record in leading large-scale production environments, optimizing process efficiency, and ensuring metallurgical quality and regulatory compliance. Specialized in wire rod mill operations and rotary furnace management, with strong capabilities in production planning, defect reduction, and cross-functional coordination. Adept at driving operational excellence, improving throughput, and maintaining high safety standards in complex industrial setups.

## CORE COMPETENCIES

Plant Operations & Production Leadership	Wire Rod Mill & Rotary Furnace Optimization
Metallurgical Process Control & Quality Assurance	Safety & Compliance (HIRA, LOTO, HSE Standards)
Manpower Planning & Shift Operations Management	Root Cause Analysis & CAPA Implementation
SOP Development, Audits & Compliance Management	Production Analytics & KPI Monitoring
Stakeholder Coordination (Operations, Logistics, Marketing)	Customer Issue Resolution & Quality Improvement
Cost-Saving & Continuous Improvement	

## SAFETY & COMPLIANCE EXPERTISE

Industrial Safety & HSE Practices	Hazard Identification & Risk Assessment (HIRA)	Safety Audits & Toolbox Talks
Lockout-Tagout (LOTO) Systems	Incident Investigation & Emergency Response	

## EXPERIENCE

### Assistant Manager

#### Diamond Power Infrastructure Ltd. (CCR)

04/2026 - Present Vadodara, Gujarat

Operations Leadership & Production Control

- Directed centralized control room (CCR) operations across 4 production units, ensuring synchronized throughput and process stability.
- Managed production of AL59 T4 M-Temper EC coils (9.5 mm & 7.5 mm) aligned with stringent customer specifications and metallurgical standards.
- Ensured furnace readiness, charge mix accuracy, and adherence to defined process parameters for consistent output quality.

Process Optimization & Quality Assurance

- Monitored critical rod parameters and conducted in-process quality validation to minimize defects and ensure compliance.
- Performed metal balance analysis to optimize yield, reduce process losses, and improve material efficiency.
- Tracked and analyzed HFO (Heavy Fuel Oil) consumption, driving cost optimization and energy efficiency initiatives.

Materials & Dispatch Management

- Controlled end-to-end scrap management lifecycle including segregation, recovery, and furnace charging optimization.
- Oversaw finished goods (FG) handling, inventory flow, and dispatch planning to ensure timely customer deliveries.

Team Leadership & SOP Governance

- Trained and supervised workforce to ensure strict adherence to SOPs, safety protocols, and operational discipline.
- Standardized operating procedures and reinforced process compliance across shifts and teams.

### Shift Engineer-Operations

#### VAAMAN Engineers India Ltd

10/2022 - 03/2026

(Client: Bharat Aluminium Co. Ltd. – Vedanta Group, Cast House 1)

- Directed end-to-end operations of wire rod mills and rotary furnace systems.
- Managed high-capacity mills (8 MT/hr & 3 MT/hr), ensuring productivity, quality consistency, and safety adherence.
- Supervised furnace output up to 12 MT/day with strict control over process parameters.
- Controlled alloy composition and batch preparation aligned with customer specifications.
- Monitored critical metallurgical variables to ensure defect-free production output.
- Analyzed operational data including downtime, manpower utilization, and production efficiency.
- Developed and maintained SOPs, work instructions, and audit-ready documentation systems.
- Delivered structured shift reports covering production status, quality deviations, and rework analysis.
- Collaborated with logistics and commercial teams for dispatch planning and material flow optimization.
- Led customer complaint resolution through root cause analysis and CAPA implementation.

## EXPERIENCE

### Assistant Engineer

#### Infab Projects Pvt. Ltd

03/2021 - 09/2022

- Executed production planning strategies to enhance throughput and operational efficiency.
- Diagnosed process inefficiencies and implemented corrective actions to reduce rejection rates.
- Coordinated with plant stakeholders to ensure uninterrupted production cycles.
- Supported quality improvement initiatives and customer issue resolution mechanisms.

### Supervisor – Thermal Power Operations

#### Nigam Enterprises

05/2018 - 02/2021

(NTPC, Korba – 600 MW Unit)

- Supervised plant operations and workforce deployment in a high-capacity thermal power environment.
- Ensured compliance with operational schedules, safety protocols, and maintenance standards.
- Monitored site activities to maintain efficiency and minimize operational disruptions.

### Supervisor

#### R.K. Construction

03/2015 - 04/2018 | Korba (600 MW)

- Managed execution of mechanical maintenance and project-related activities.
- Coordinated with engineering teams and contractors to deliver projects within timelines.
- Ensured adherence to safety and quality standards during execution phases.

## KEY ACHIEVEMENTS

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|---|--|
| <p>✔ <b>Defect Rate Reduction</b><br/>Successfully reduced defect rates by 20% in Wire Rod Mill operations.</p>   | <p>✔ <b>Productivity Improvement</b><br/>Improved productivity by 15% through effective resource management and process optimization.</p>  |
| <p>✔ <b>Furnace Output Growth</b><br/>Increased furnace output to 12 MT/day, exceeding company targets.</p>   | <p>✔ <b>Customer Complaint Resolution</b><br/>Resolved 30+ customer complaints, implementing effective corrective actions.</p>   |
| <p>✔ <b>Kaizen Excellence Recognition</b><br/>Awarded “Best Kaizen of the Year” for implementing high-impact process improvements leading to measurable operational gains.</p>                        | <p>✔ <b>Production &amp; Process Efficiency Optimization</b><br/>Improved production consistency and reduced variability through enhanced process monitoring, metal balance control, and fuel efficiency tracking.</p> |
| <p>✔ <b>Quality &amp; Compliance Strengthening</b><br/>Enhanced product quality and audit readiness by enforcing SOP adherence, structured inspections, and proactive defect prevention measures.</p> |  |

## SAFETY, AUDITS & CONTINUOUS IMPROVEMENT

- Enforced zero-compromise safety culture aligned with HSE standards across all CCR-controlled operations.
- Led Kaizen initiatives focused on process improvement, waste reduction, and productivity enhancement.
- Sustained 5S workplace practices to improve operational efficiency and audit readiness.
- Actively participated in internal and external audits; successfully managed monthly PV audits with full compliance.

## EDUCATION

### Bachelor of Engineering (Mechanical)

#### Rajiv Gandhi Technical University

08/2013 - 08/2013 | Bhopal, India

Percentage  
**70.12%** / 100%

### Higher Secondary (12th)

#### C.G. Board

2007 | Raipur, India

Percentage  
**65.20%** / 100%

### Secondary (10th)

#### C.G. Board

2005 | Raipur

Percentage  
**63.50%** / 100%

## DECLARATION

I confirm that the information provided above is accurate and reflects my professional experience and qualifications.