

DIPAK KHAVALA

Maintenance Engineer | Project Engineer

Process & Manufacturing Industries | Plant Maintenance | Project Management

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PROFESSIONAL SUMMARY

Mechanical Engineer with 6.5+ years of hands-on experience in plant maintenance, project execution, and operations management across process and manufacturing industries. Currently leading a maintenance team of 80+ across 7 multi-site plants with an annual maintenance budget of ~₹2.5 crore, having reduced equipment breakdown frequency by 50% through strategic spare parts planning and vendor development. Proven track record in managing multi-equipment environments including compressors, hydraulic systems, utilities, and production machinery. Adept at developing preventive/predictive maintenance systems, delivering capital improvement projects end-to-end, and leading cross-functional teams to drive plant reliability, reduce downtime, and control maintenance costs.

KEY COMPETENCIES

Plant Maintenance Planning	Project Management & Execution	Preventive & Predictive Maintenance
Breakdown Analysis & RCA	Utilities & Facility Management	Vendor & Contractor Management
Budget & Cost Control	5S, Kaizen & Lean Practices	Safety & Compliance (ISO Audits)
Spare Parts & Inventory Management	MIS Reporting & Documentation	SAP PM Module

PROFESSIONAL EXPERIENCE

Blue Planet Environmental Solutions India Pvt. Ltd.

Manager – Operations & Maintenance

1.5 Years

Maintenance & Reliability

- Led a maintenance team of 80+ technicians, supervisors, and contractors across 7 multi-site process plants, ensuring maximum plant availability and minimum downtime.
- Developed and executed Preventive, Predictive, and Breakdown Maintenance (PPM/PDM/BDM) programs for compressors, blowers, pumps, hydraulic/pneumatic systems, and utility equipment.
- Reduced equipment breakdown frequency from 20% to 10% (a 50% improvement) through strategic spare parts planning and new vendor development.
- Conducted technical audits and condition assessments of process plants (3 TPD to 100 TPD); identified critical failure modes and recommended corrective actions.
- Implemented H₂S reduction systems and process modifications, improving equipment life and operational safety.

Project Management

- Prepared and executed detailed revamping and improvement projects — from cost estimation and vendor finalization to site execution and commissioning.
- Designed and implemented heat exchanger systems for process moisture control and dew point management.
- Supported commissioning, startup, and stabilization of multiple plants, coordinating with cross-functional teams.
- Managed annual maintenance budget of ~₹2.5 crore across 7 sites (~₹3 lakh/site/month), covering spare parts planning, cost control, and capex/opex reporting.

Reporting & Coordination

- Generated weekly and monthly MIS reports for senior management review, tracking KPIs like equipment availability, breakdown frequency, and maintenance costs.
- Coordinated with OEM vendors, contractors, and procurement teams for maintenance scheduling and project execution.

Equipment Expertise

- High Pressure Compressors (HPC), Air Compressors, Vacuum Pumps, Roots Blowers, Biogas Blowers, Gas Chillers, Heat Exchangers, Agitators, Mixers, Crushers, Shredders, Solid Liquid Separators, Hydraulic Systems, Pneumatic Systems, Submersible & Dosing Pumps, DG Sets, VFD Drives, EOT Cranes.

Metamorphosis India Pvt. Ltd. (MEIPL) – ERW Tube Manufacturer

Graduate Engineer Trainee → Asst. Engineer → Engineer – Maintenance

5 Years

Maintenance Management

- Managed end-to-end maintenance activities: preventive, predictive, breakdown, and shutdown maintenance for a high-throughput tube manufacturing facility.
- Performed Root Cause Analysis (RCA) for recurring failures and implemented permanent corrective actions, reducing breakdown frequency significantly.
- Developed and maintained machine history records, Standard Operating Procedures (SOPs), and maintenance standards for all critical equipment.
- Managed maintenance stores, spare parts inventory, and SAP PM entries for proper asset lifecycle tracking.

Quality, Safety & Continuous Improvement

- Actively participated in ISO audits and safety audits, ensuring full compliance with regulatory and quality standards.
- Implemented 5S and Kaizen initiatives in the maintenance department, improving workplace organization and process efficiency.
- Supervised maintenance technicians and contractors during planned and emergency maintenance activities.

Key Achievements

- Reduced machine breakdown frequency through structured preventive maintenance planning.
- Improved equipment reliability and plant availability through predictive maintenance practices.
- Successfully executed major machine overhauls and planned shutdown maintenance without impacting production schedules.
- Developed maintenance SOPs and machine-wise maintenance standards from scratch.

Equipment Expertise

- Tube Mill Lines, Flying Shear Cutters, Slitting Machines, Draw Benches, Hydro Testers, Straightening Machines, Gearboxes, Centrifugal Pumps, Cooling Towers, Hydraulic Power Packs, Hydraulic & Pneumatic Cylinders, EOT Cranes, Boilers, ACE Furnaces, Welding & Drilling Machines, Material Handling Systems.

EDUCATION

Bachelor of Engineering – Mechanical Engineering

CGPA: 7.41 / 10

Wadia College of Engineering, Pune

TECHNICAL SKILLS

Maintenance Systems	PPM, PDM, BDM, RCA, Condition Monitoring, FMEA
Plant Systems	Compressors, Boilers, Hydraulics, Pneumatics, Utilities (DG, HVAC, Cooling Towers)
Project Skills	Cost Estimation, Vendor Management, Commissioning, Revamping, Shutdown Planning
Software & Tools	SAP PM, MS Office (Excel, Word, PowerPoint), MIS Reporting
Quality & Safety	ISO Audits, GMP Principles, 5S, Kaizen, Safety Inspections