



Case Study

Single-Site Gas Plant Improves Maintenance Efficiency and Asset Reliability with SAP PM

Summary

A critical gas processing plant in India, managing over 12,000 pieces of equipment and 35 maintenance plans, was grappling with unplanned downtimes, operational inefficiencies, and high maintenance overhead due to outdated manual systems. To address these challenges, the plant implemented SAP Plant Maintenance (PM) in a greenfield deployment. The project centralized asset data, automated work order processes, and improved visibility into equipment performance. As a result, the plant reduced unplanned downtime, enhanced technician productivity, and gained better control over maintenance planning and spare parts inventory.

The Client

A single-site gas processing facility operating a complex asset base of over 12,000 equipment units across critical operations. The site handles high-throughput industrial processes with stringent safety and compliance mandates.

Business Scenario / Challenges

Prior to SAP PM, maintenance was tracked manually through spreadsheets and disconnected systems, leading to:

- Data silos across equipment, planning, and maintenance history
- High frequency of reactive maintenance and unplanned breakdowns
- Cumbersome work order creation and error-prone tracking
- Lack of visibility into asset health and historical performance trends
- Difficulty in managing 35 standalone maintenance plans
- Spare parts stockouts due to no linkage between maintenance and inventory

These gaps resulted in production disruptions, excess manual effort, and compliance challenges.

Objectives of SAP PM Implementation

The plant's goals were to:

- Centralize maintenance data in a single platform
- Enable proactive and preventive maintenance scheduling
- Streamline work order processes through automation
- Improve asset monitoring with analytics and reporting
- Link spare parts planning to maintenance activities
- Enhance compliance with accurate, auditable records

Solution and Implementation Approach

Given the single-site scope, a big bang approach was chosen for the greenfield SAP PM implementation. Key phases included:

- **Blueprinting:** Conducted collaborative workshops to document current processes and define SAP configurations using SAP Activate methodology
- **System Configuration:** Set up plant-specific organizational structures, equipment hierarchies, and maintenance workflows
- **Customization:** Developed custom reports, workflows, and validations for plant-specific needs
- **Testing:** Performed thorough unit, integration, and user acceptance testing to ensure system robustness
- **Data Migration:** Migrated cleansed master data and two years of maintenance history into SAP
- **Training:** Delivered structured training using a train-the-trainer model for maintenance teams
- **Go-Live:** Executed a full-scale go-live with post-launch support for stabilization

Solutions Deployed

- Equipment master data for 12,000+ assets
- Preventive Maintenance module with automated plans and condition-based triggers
- Breakdown maintenance management and repair workflows
- Digital work order lifecycle (creation, scheduling, execution, closure)
- Maintenance notifications with standardized reporting
- Spare parts management via MM integration
- Standard and custom analytics for maintenance KPIs and cost visibility
- (Planned) mobile technician access to support field operations post adoption

Results & Impact

- Increased maintenance efficiency and technician productivity
- Reduced unplanned downtimes and associated losses
- Improved asset reliability and equipment longevity
- Optimized resource and spare parts planning
- Strengthened compliance through traceable maintenance records
- Enabled data-driven decisions for budgeting and strategy

Why Maventic?

Maventic brought in strong SAP PM implementation experience, a disciplined delivery approach, and deep understanding of asset-intensive operations. Our ability to align system design with plant-specific workflows and drive adoption across maintenance teams ensured a successful transition to proactive maintenance practices.