JUPITER PRIME

Consulting • Training • Advisory

جوبيتر برايم للاستشارات والتدريب

COURSE BROCHURE

Compressor and Pump Fleet Management for Plant Managers Training Course

14 – 18 February 2027
Amman

Compressor and Pump Fleet Management for Plant Managers Training Course

Ref: 1182_44408 **Date:** 14 – 18 February 2027 **Location:** Amman **Fees:** 4200 GBP

Compressor and Pump Fleet Management for Plant Managers is a 1-week training course for rotating equipment engineers and maintenance managers who build a fleet criticality and reliability register for one site. A plant may run hundreds of pumps and dozens of compressors, and a few bad actors usually consume most of the repair budget. Jupiter Prime Training delivers this course on compressor and pump fleet management for plant managers.

Why Compressor and Pump Fleet Management for Plant Managers Matters Now

Three forces push rotating equipment decisions up to management level. Production planners expect fewer unplanned trips as margins tighten, and a single compressor outage can stop a whole train. Finance teams ask why the same machines keep returning to the repair shop, so spending must be tied to evidence. Vendors increasingly sell service contracts that owners must judge. Fleets managed by criticality and data keep spares lean and uptime high; fleets left to habit drift into firefighting. The course rests on the asset management principles of ISO 55001 and the maintenance terminology of EN 13306.

Who Gains Most from Compressor and Pump Fleet Management for Plant Managers

- Engineers who own the rotating equipment fleet of a process unit or utility
- Maintenance managers who set budgets and priorities for machine overhauls
- Reliability leads who track bad actors and mean time between repairs
- Condition monitoring coordinators who run vibration and oil analysis routes
- Contract owners who manage vendor service agreements for compressors

A rotating equipment group from one refinery, gas plant or water utility gains most when several members attend together.

Compressor and Pump Fleet Management for Plant Managers Capabilities

Participants practise viewing compressors and pumps as a managed population rather than a queue of individual repairs.

- Assess machine criticality by production, safety and spare impact — maintenance priority setting
- Calculate mean time between repairs and identify bad actors — reliability investment
- Weigh surge control, seal and lubrication upgrades against repeat failures — engineering budget holders
- Design condition monitoring routes matched to machine criticality — monitoring coordinators
- Specify spares holding and overhaul intervals across the fleet — stores and planning
-

Communicate fleet performance and investment cases to plant leadership — operations directors

Key Compressor and Pump Fleet Management for Plant Managers Terms

- Bad Actor — a machine that fails far more often than its peers and absorbs a large share of repair effort.
- Mean Time Between Repairs MTBR — the average running time between repairs for a machine or group of machines.
- Surge — unstable flow reversal in a centrifugal compressor at low flow, causing vibration and possible damage.
- Criticality Ranking — a scoring of each machine by the consequences its failure has on safety, production and cost.
- Oil Analysis — laboratory testing of lubricant samples to detect wear metals, contamination and degradation.
- Dry Gas Seal — a non-contacting compressor seal that uses a thin gas film to prevent process leakage.

Compressor and Pump Fleet Management for Plant Managers Day by Day

Day 1: The Fleet View of Rotating Equipment

- Fleet Inventory and Equipment Hierarchy Build — Knowing What You Own
- Criticality Ranking Matrix for Pumps and Compressors — Attention Allocation
- Repair History Mining From CMMS Records — Bad Actor Lists
- Mean Time Between Repairs Benchmarking — Fleet Health Baseline
- Owner Versus Vendor Responsibility Split — Service Contract Scope

Day 2: Compressor Types and Surge Control

- Centrifugal, Reciprocating and Screw Compressor Comparison — Duty Fit
- Compressor Performance Maps — Operating Window Monitoring
- Anti-Surge Control Loops and Recycle Valves — Trip Avoidance
- Reciprocating Valve and Rider Band Wear — Overhaul Timing
- Dry Gas and Oil Seal Systems — Leakage and Upgrade Choices

Day 3: Condition Monitoring and Lubrication

- Vibration Route Design by Criticality — Data Collection Frequency
- Online Protection Versus Portable Monitoring — Instrumentation Spend
- Oil Analysis Sampling and Alarm Limits — Lubricant Health
- Lubrication Storage, Handling and Contamination Control — Bearing Life
- Alarm Response and Escalation Rules — From Signal to Work Order

Day 4: Fleet Reliability Planning

- Overhaul Interval Setting From Condition and History — Run or Repair
- Spares Pooling and Insurance Spares for Critical Machines — Stock Levels
- Standardisation of Pump Models and Seals — Fewer Part Numbers
- Bad Actor Elimination Projects — Engineering Fixes With Payback
- Fleet Performance Dashboard — Measures for Leadership Review

Day 5: Practising the Fleet Criticality and Reliability Register

- Case Study from a Gas Compression Station — Surge Trips and Seal Failures
- Case Study from a Municipal Water Pumping Network — Spares and Standardisation
- Investment Case Writing for a Bad Actor Fix — Approval Readiness
- Vendor Service Agreement Comparison — Scope and Performance Terms
- Fleet Criticality and Reliability Register Assembly — Peer Challenge and Handover

Applying Compressor and Pump Fleet Management for Plant Managers After the Course

- Rank every pump and compressor on one unit by criticality and list the top ten bad actors from repair history.
- Match vibration and oil analysis frequency to the new criticality ranking for those machines.

Compressor and Pump Fleet Management for Plant Managers Questions FAQ

What is compressor and pump fleet management for plant managers, and why does it matter now?

It is the practice of managing all of a site's compressors and pumps as one population, ranked by criticality and reliability data. It matters now because tighter margins leave little room for repeat failures.

Which roles gain most from compressor and pump fleet management for plant managers?

Rotating equipment engineers, maintenance managers and reliability leads gain most, along with contract owners for compressor service.

How does a compressor and pump fleet management course differ from a pump troubleshooting course?

It looks across the whole fleet rather than at one failing machine. A troubleshooting course diagnoses individual faults; here you rank machines, plan overhauls and spares and justify investment.

What do you bring back from compressor and pump fleet management for plant managers?

You bring back a register for one site. It ranks machines by criticality, lists bad actors, sets monitoring routes and records planned overhauls and spares.

Compressor and Pump Fleet Management for Plant Managers: The Way Forward

The fleet criticality and reliability register first informs which bad actor gets engineering attention next. Maintenance managers use it to set budgets, engineers to plan overhauls and planners to size spares. After its first use, revisit the criticality scores, because process changes and new spare arrangements can shift which machines matter most.