Advanced Spare Parts Optimization and Rationalization Course

4 – 8 April 2027
Johannesburg

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Training Center

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Ref: 1173_186643 **Date:** 4 – 8 April 2027 **Location:** Johannesburg **Fees:** 6000 Euro

Overview

Advanced Spare Parts Optimization and Rationalization Course is a one-week course for maintenance, reliability, inventory, procurement, asset management, and operations professionals who need a Spare Parts Rationalization and Cost-Risk Control Pack. Participants connect spare parts optimization, item master data quality, asset criticality, intermittent demand, stocking policy, standardization, interchangeability, and obsolescence control to balance availability with inventory cost. Agile Leaders Training Center develops advanced spare parts rationalization practice.

Who Should Attend

- Teams responsible for maintenance materials, work-order readiness, and parts availability
- Teams responsible for asset reliability, failure consequences, and critical-spares decisions
- Teams responsible for inventory policies, replenishment, and storeroom performance
- Teams responsible for sourcing, supplier lead times, and technical substitutions
- Teams responsible for asset lifecycle cost, data governance, and operational risk

The course assumes participants can interpret asset, work-order, usage, inventory, and supplier data at work; it leaves out introductory warehousing and system-specific configuration.

Departments and Industries

The course supports departments and industries that depend on asset availability and controlled spare-parts investment.

- Maintenance, reliability, engineering, inventory, and procurement departments
- Asset management, operations, supply chain, and finance functions
- Energy, utilities, process manufacturing, and mining organizations
- Transport, aviation, maritime, and logistics operators
- Healthcare, facilities, infrastructure, and public-service entities

Learning Objectives

By the end of this course, participants will be able to:

- Analyze item master quality and asset-spare relationships
- Build asset and spare-parts criticality classifications
- Apply demand, lead-time, service-level, and stocking-policy methods
- Evaluate duplicate, standardization, and interchangeability evidence
- Prioritize surplus, repairable, and obsolescence actions
- Use cost-risk measures to govern rationalization decisions

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Course Agenda

Day 1: Data, Assets, and Criticality

- ISO 55000 Asset Value and Lifecycle Decision Map
- Asset-Spare Where-Used Relationship Model
- Item Master Data Quality and Naming Checklist
- Failure Consequence and Asset Criticality Matrix
- Spare Parts Criticality and Risk Segmentation

Day 2: Demand and Stocking Policy

- ABC Consumption-Value Classification
- Intermittent Demand and Usage Profile
- Total Lead-Time Analysis Sheet
- Service-Level and Stockout-Risk Decision Matrix
- Minimum, Maximum, Safety Stock, and Reorder Policy

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Day 3: Standardization and Rationalization

- Duplicate Item Identification and Evidence Record
- Technical Specification Standardization Matrix
- Interchangeability and Substitution Assessment
- Repairable and Rotable Parts Policy Map
- Rationalization Approval and Decision Log

Day 4: Lifecycle Cost and Obsolescence

- Holding, Shortage, and Downtime Cost-Risk Model
- Slow-Moving, Surplus, and Excess Inventory Review
- Phase-In, Phase-Out, and Obsolescence Action Plan
- Supplier, Lead-Time, and Alternate-Source Risk Register
- Spare Parts Performance and Governance Dashboard

Day 5: Integrated Rationalization Practice

- Exercise: Clean and Classify a Spare Parts Dataset
- Exercise: Set Criticality and Stocking Policies
- Exercise: Test Duplicate and Interchangeability Decisions
- Exercise: Prioritize Surplus and Obsolescence Actions
- Capstone Exercise: Spare Parts Rationalization and Cost-Risk Control Pack

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Practical Exercises

The course uses suggested activities that connect maintenance evidence, inventory data, engineering judgment, and financial tradeoffs.

- Suggested activity: diagnose item master defects and map parts to critical assets
- Suggested activity: compare service-level and stocking-policy choices for intermittent demand
- Suggested activity: evaluate duplicate parts and document technical interchangeability evidence
- Suggested activity: present a cost-risk rationalization decision to maintenance, procurement, and finance stakeholders

FAQs

Who suits advanced spare parts optimization training?

Maintenance, reliability, inventory, procurement, asset management, and operations professionals suit the training. Participants should already interpret asset, work-order, usage, inventory, and supplier data.

How does spare parts optimization differ from general inventory management?

Spare parts optimization links stocking decisions to asset criticality, failure consequences, intermittent demand, maintenance plans, lead times, and downtime risk, while general inventory management often emphasizes recurring consumption and transaction flow.

How should critical spare parts be identified?

Critical spare parts should be identified by linking the part to asset importance, failure consequences, where-used evidence, supply lead time, substitutability, repair options, and the operational effect of a stockout.

When should duplicate spare parts be rationalized?

Duplicate spare parts should be rationalized when technical specifications, fit, function, quality, where-used evidence, and substitution risk support a controlled common item and the decision remains traceable.

How can spare parts obsolescence be controlled?

Spare parts obsolescence can be controlled through lifecycle status, usage trends, asset plans, supplier notices, alternate sources, repair options, phase-out rules, and documented disposition decisions.

Conclusion

Participants take back a Spare Parts Rationalization and Cost-Risk Control Pack containing data checks, criticality rules, demand profiles, stocking policies, rationalization decisions, an obsolescence plan, and performance measures. The pack makes cost and availability tradeoffs easier to review. It also aligns maintenance, engineering, inventory, procurement, operations, and finance decisions.