



Maintenance & Reliability Management

Total Productive Maintenance (TPM) Implementation Steps

Course Introduction

Total Productive Maintenance (TPM) is a comprehensive approach to equipment maintenance that aims to maximize productivity and minimize downtime. TPM integrates maintenance into the daily activities of employees at all levels, fostering a culture of continuous improvement and efficiency. This course provides a step-by-step guide to implementing TPM, highlighting its benefits, methodologies, and impact on overall equipment effectiveness (OEE). Participants will gain practical insights into modern industrial performance approaches and learn strategies to improve maintenance operations.

Target Audience

- **Maintenance Professionals:** Engineers, technicians, supervisors, and managers responsible for maintenance operations.
- **Production & Operations Personnel:** Plant managers, production supervisors, and operations staff.
- **Quality & Reliability Engineers:** Those involved in process improvement and reliability engineering.
- **Lean & Continuous Improvement Practitioners:** Professionals seeking to integrate TPM with Lean methodologies.

Learning Objectives

- Understand the fundamentals of Total Productive Maintenance (TPM) and its significance in modern industry.
- Explain the relationship between TPM, Lean Manufacturing, and World-Class Manufacturing.
- Identify and apply key TPM pillars and strategies for successful implementation.

- Analyze equipment effectiveness and measure OEE to improve operational efficiency.
- Develop and implement a proactive maintenance strategy to reduce machine downtime.
- Utilize techniques to minimize equipment-related losses and enhance reliability.
- Foster a culture of continuous improvement within their organization.
- Apply TPM methodologies to achieve sustainable operational excellence.

Course Outline

• 01 DAY ONE

Module 1: Introduction to TPM

- 1.1 Overview of TPM and its objectives
- 1.2 The evolution of TPM in modern industries
- 1.3 Understanding TPM principles and benefits
- 1.4 Key elements of TPM implementation
- 1.5 TPM's role in World-Class Manufacturing
- 1.6 TPM benefits
- 1.7 TPM prerequisites

Module 2: Understanding Overall Equipment Effectiveness (OEE)

- 2.1 Definition and significance of OEE
- 2.2 Components of OEE: Availability, Performance, and Quality
- 2.3 Identifying and eliminating machine losses
- 2.4 Calculating and interpreting OEE results
- 2.5 Strategies for improving OEE
- 2.6 Case studies on OEE implementation
- 2.7 OEE exercise

Module 3: TPM Pillars and Implementation Strategies

- 3.1 Autonomous maintenance: Principles and benefits
- 3.2 Planned maintenance: Creating proactive maintenance plans
- 3.3 Focused improvement: Techniques to eliminate chronic losses
- 3.4 Education and training: Building a skilled workforce
- 3.5 Early equipment management: Ensuring reliability in new equipment

• 02 DAY TWO

Module 4: Developing a TPM Roadmap

- 4.1 Assessing current maintenance practices
- 4.2 Setting TPM goals and KPIs
- 4.3 Developing an action plan for TPM implementation
- 4.4 Engaging employees in the TPM journey
- 4.5 Overcoming challenges in TPM adoption

Module 5: Equipment Loss Analysis and Countermeasures

- 5.1 Understanding the Big Six Machine Losses
- 5.2 Identifying root causes of equipment inefficiencies
- 5.3 Implementing countermeasures to reduce losses
- 5.4 Applying predictive maintenance techniques
- 5.5 Measuring improvements in equipment reliability

• 03 DAY THREE

Module 6: Autonomous Maintenance in Action

- 6.1 Steps for implementing autonomous maintenance
- 6.2 Operator involvement in maintenance activities
- 6.3 Visual management and 5S for equipment upkeep

- 6.4 Conducting regular maintenance inspections
- 6.5 Standardizing autonomous maintenance practices

Module 7: Quality Maintenance and Continuous Improvement

- 7.1 Integrating TPM with quality management systems
- 7.2 Defect prevention and error-proofing techniques
- 7.3 Quality control vs. quality assurance
- 7.4 Establishing a feedback loop for process improvements
- 7.5 Case studies on successful TPM-driven quality improvement

• 04 DAY FOUR

Module 8: Planned Maintenance and Predictive Techniques

- 8.1 Importance of planned maintenance
- 8.2 Developing a preventive maintenance schedule
- 8.3 Predictive maintenance tools and technologies
- 8.4 Implementing condition-based monitoring
- 8.5 Analyzing maintenance data for decision-making

Module 9: Implementing TPM in Various Industries

- 9.1 Adapting TPM strategies for different industry sectors
- 9.2 Case studies on successful TPM implementations
- 9.3 Overcoming industry-specific TPM challenges
- 9.4 Measuring TPM success through key performance indicators

• 05 DAY FIVE

Module 10: Leadership and Culture Change for TPM Success

- 10.1 Role of leadership in driving TPM initiatives
- 10.2 Creating a TPM-oriented organizational culture
- 10.3 Employee engagement strategies for TPM sustainability
- 10.4 Continuous monitoring and improvement in TPM practices
- 10.5 Best practices for long-term TPM success

Module 11: TPM Performance Measurement and Continuous Development

- 11.1 Key metrics for evaluating TPM effectiveness
- 11.2 Conducting TPM audits and assessments
- 11.3 Refining TPM strategies based on data insights
- 11.4 Encouraging a culture of continuous improvement
- 11.5 Industry trends and future of TPM
- 11.6 Continuous improvement and development

Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
May 4, 2025	May 8, 2025	5 days	4250.00 \$	KSA - Jeddah
Sept. 22, 2025	Sept. 26, 2025	5 days	4950.00 \$	Austria - Vienna
Dec. 8, 2025	Dec. 12, 2025	5 days	4250.00 \$	UAE - Dubai