

# Total Productive Maintenance | Interactive eLearning

**Total Productive Maintenance (TPM) - WXML103-XX01XEN-E1**

Objective 6: Describe Six Big Losses That Affect Overall Equipment Effectiveness

### Breakdown Loss

A breakdown loss is a **malfunction**, resulting in complete or partial loss of a machine's production. Breakdown loss is the biggest loss of the six types and there are two types: function loss and function reduction loss.

Function loss often occurs suddenly and prevents the machine from operating. Examples of function loss include a tool breaking or a burned out motor. Function loss results in a reduced availability rate, which lowers overall **equipment** efficiency.



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## eLearning Course: MXLM103

This Total Productive Maintenance eLearning training course (TPM Manufacturing) focuses on overall equipment effectiveness, autonomous maintenance, and maintaining equipment. Learners will study methods of predictive maintenance and preventative maintenance like equipment cleaning methods, equipment inspection methods, how to eliminate contamination sources in inaccessible areas, and testing and developing lubrication standards. Within this total productive maintenance training course (TPM Maintenance), learners will also study how to implement an autonomous maintenance program, how to train personnel for that autonomous maintenance program, and how to utilize visual control methods. Finally, learners will study how to calculate overall equipment effectiveness, how to improve overall equipment effectiveness, and how to eliminate breakdown losses.

## Teach Lean Manufacturing Skills

### Comprehensive Lean Manufacturing TPM Curriculum Connected to Real-World Skills

Amatrol's Total Productive Maintenance eLearning curriculum is unique in that it thoughtfully combines in-depth theoretical knowledge with practical, hands-on skills. This powerful combination of knowledge and skills solidifies understanding and creates a strong foundation for pursuing more advanced skills.

For example, the Total Productive Maintenance eLearning course covers important topics, such as:

#### **Total Productive Maintenance**

This segment discusses TPM and elements of the method including Preventive Maintenance principles (or PM principles) and Predictive Maintenance (or PdM).

#### **Overall Equipment Effectiveness**

This segment discusses OEE and how it measures the success of a TPM program, how to calculate OEE, losses that affect OEE, processes for improving OEE, and methods for eliminating breakdown losses.

#### **Autonomous Maintenance**

This segment discusses the elements of an Autonomous Maintenance Program and how to implement a Lean Manufacturing AM program.

## **Maintaining Equipment**

This segment discusses methods of cleaning equipment, equipment inspection, eliminating contamination sources in inaccessible areas, developing and testing lubrication standards, training personnel in autonomous maintenance, and visual control methods for autonomous maintenance.

## **Highly-Interactive Multimedia**

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### **Highly-Interactive Multimedia Format Appeals to All Learning Styles**

Amatrol's [eLearning curriculum](#) features a highly-interactive multimedia format. Stunning 3D animations, videos, pictures, voiceovers of all text, and interactive quizzes and exercises bring learning to life. Amatrol's multimedia curriculum contains elements that will appeal to every learning style, keeping learners motivated and engaged.

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