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Course ID: S18

TOTAL PRODUCTIVE MAINTENANCE

Online course: 4 webinars, 4 hours each with practical work

1. Introduction to TPM

The objective of TPM is to maintain plant or equipment in good condition and at the same time optimise process output. This is achieved through collaboration between maintenance, production and engineering resources. The overall effect is a reduction in stoppages, an increase in process yield, and a reduction in cost i.e. no Breakdowns, no Small Stops or Slow Running, no Defects and no Accidents.

Operations personnel are more in control of their working environment, as their knowledge of how to manage machines is deepened. Maintenance personnel are freed from routine tasks to engage in more creative and value adding work e.g. tool design.

The Lean Ireland online TPM training course is an interactive live webinar series designed to empower operations, maintenance, engineering and quality personnel in the workplace. It is tailored to meet clients' needs. Course content is adapted to suit the sector and equipment type used in the process value stream.

2. What will I learn?

At the end of this online course you will

- understand Lean principles and the significance of good workplace layout in the effective management of equipment and machines;
- Understand the definition of the 6 big losses in manufacturing and know how to quantify them;
- understand the basic principles of TPM and associated foundations such as workplace organisation, quick changeover and standard work;
- understand the definition of overall equipment effectiveness (OEE) and know how to calculate it;
- have an action plan for embedding TPM in the designated area, including objectives, responsibilities, goals and measurement methods;
- Understand how to establish and manage performance metrics for the area, and
- have the ability and confidence to further improve and refine the TPM programme in the area.

In advance of the course, the client will designate a TPM facilitator/leader for course participants. This person may also attend the training course. It is the responsibility of the TPM facilitator to select a piece of equipment or area, in which the training participants will carry out practical work, in parallel with the webinars. The Lean Ireland consultant is available to discuss the training course and selection of a project area, with the TPM facilitator in advance of the course commencing.

3. How will I be supported?

During this online course, you will

- a) be able to listen to and interact with the online course tutor and other participants;
- b) be able to ask questions and complete online quizzes to self-assess your understanding of the topic;
- c) be able to download all online course recorded webinars for your own future use;
- d) be able to download soft copy presentation files, with data sets and case studies, for your own future use, and
- e) receive help and guidance as you undertake practical TPM work in your own workplace.

Total contact hours = 16 hours for all 4 webinars. In addition to the contact hours on webinars, participants are required to work on a small assignment between modules. On completion, you will receive a Lean Ireland certificate of completion.

4. TPM programme outline

Webinar	Description
S18 E01 4 hours	<ul style="list-style-type: none"> • Introductions • Objective of a TPM programme, TPM team and roles • Gemba walk (video prepared in advance) • Introduction to lean thinking and the 7 wastes • 5S workplace organisation, the foundation of TPM • Data review/collection on machine performance (safety, availability, utilisation, quality, yield, scrap, planned & unplanned maintenance, breakdown, set-up, clean down, changeover) • Action plan
S18 E02 4 hours	<ul style="list-style-type: none"> • Review of progress – presentation by TPM team • Regulatory requirements & business requirements • The 8 pillars of TPM – detailed review • Review of current performance measures (KPIs) and performance levels • Review of current maintenance strategy & systems, tools & equipment on site • The role of the operator, the role of maintenance • Evaluation of site performance vs. 8 pillars of TPM • Action plan
S18 E03 4 hours	<ul style="list-style-type: none"> • Review of progress – presentation by TPM team • Introduction to OEE: OEE data collection, representation & analysis, detailed review of the 6 big losses • First pass yield & rolled throughput yield • Suggestions for improvement (easiest first / biggest bottleneck) • Action plan
S18 E03 3. hours	<ul style="list-style-type: none"> • Review of progress – presentation by TPM team • Developing an overall TPM program for the organisation • Maintenance Schedule • Metric Selection • Maintenance excellence & training methodology • Next steps and review interval with facilitator (as required)

The webinars will be hosted on a secure Lean Ireland learning platform. Webinars are spaced to accommodate the practical work being completed by the team in the designated TPM area, typically one week apart.

5. Who should attend?

The TPM programme is designed for a cross functional team of personnel, principally maintenance, operations and engineering, who operate the equipment and act as team leads in the area. One attendee should be given overall responsibility for the on-going facilitation of TPM implementation in the area. This person should be identified and appointed in advance of the programme commencing.

6. Tailor your course

The TPM course is customised to meet client needs. In advance of and during the webinars, data from the client's selected area or machine, will be collected and reviewed. If the client would also like to incorporate assignments, or additional features (e.g. data analysis in Minitab, SPC charting) that can also be arranged. Also, the course can be hosted on any other suitable platform of the client's choice. Please contact us to discuss your needs.

7. Where can I find out more?

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