



ZenPower International
Providing Industry Expertise To Training
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TPM e-Book Series

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Title: TPM Implementation Strategies That Work (380 Pages)

It has been shown that modern Industrial Competitiveness is based on Methods-before-Technology. There is also consensus that Total Productive Maintenance as the magic wand of Japanese Manufacturing prowess. TPM is credited as the Manufacturing Methodology that has enabled Japan to achieve and sustain pre-eminence into the post-modern manufacturing world.

Japanese Organizations such as Toyota Motors are renowned for their proven ability to provide products at the lowest Cost possible, most reliable Quality and shortest Cycle-time. Such achievements are not achieved by Management decree or simply by the advantages of a lower cost base, but only through careful design, sustained nurture and effective implementation.

TPM's three-pronged strategy of Total Employee Involvement, Equipment Excellence and Skills Development are supported by sophisticated yet effective, systematic and analytical tools and processes. Success with the TPM program gives critical Manufacturing Excellence performances of near-zero defects and breakdowns as well as low same-type machine-to-machine variations. It can transform your manufacturing plant to compete successfully with the best-in-class and lay the foundation for other cutting-edge practices like JIT, Kamban, Demand Pull and other aspects of Lean.

Yet many Enterprises' experiences with TPM had been less than gratifying. Common complaints range from experiences that TPM took too many years to see results, or assertions that it is a Culture-bounded Methodology and even claims that it simply cannot deliver the promised results.

Are you looking to implementing TPM or doing a mid-term TPM strategic review? You would want the benefits of this Expert-Conference and get Industry-Proven advice. Inform yourself with this expert-level Industry-Based TPM Conference led by an experienced Industry TPM Consultant of various Industries such as Electronics, Semi-conductor, Power, Newsprint Paper Mill, Ceramic Tiles, Motor-cycle. Our Industry-Proven TPM Successes and hands-on consulting Experiences can make all the difference to you.

e-Book Description

- Original Publication with 380 pages of power-point lectures.
- Fully illustrated with worksheets and Case Studies.
- Teaching methodology proven in scores of extremely highly-rated in-house and public seminars.
- TPM Expert's 15 years' of various Industries hands-on experiences available to you.
- Authored by Moses Tan (MSc; BIT; Dip Electr.; Dip Ed) Principal Industry Consultant of ZenPower International, Singapore.



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This e-Book Learning Objectives are:

This industry-based and immensely informative expert-conference will provide the delegates from all types of manufacturing and process industries with the latest industry-tested and proven approaches to achieving the results promised in TPM and in a shorter time. Specifically, it will enable delegates to:

- Understand the 10-Pillar TPM Process, Tools and Methodology from the Conceptual and Implementation perspective.
- Construct and Establish measures for all TPM Pillar activities at both the micro and macro levels.
- Create and supply the proper structures at the Top, Middle and Bottom Organizational levels to support effective TPM implementation.
- Devise and innovate a fast-track Industry-tested TPM Implementation strategy of 2-to-3 years to shorten the implementation cycle and avoid Organizational fatigue which is a major cause of TPM Implementation failure.
- Offer your Maintenance Group a Professional Development incentive to overcome a common fear of redundancy which often works against TPM implementation in their company.
- Manage the Kai'zen culture development stages using Industry-Tested 3-staged development based on advanced psychological principles.
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e-Book CD License Price.

Corporate-Licensed e-Book (Printable with corporate-identity access password) at S\$500/= only.



Course Contents

1. Critical Success Factors in TPM Implementation and Common Pitfalls.

- 1.1 In-depth skills of TPM Processes, Tools and Implementation.
- 1.2 Be able to measure all what you are doing at micro and macro levels.
- 1.3 Provide appropriate resources in quality and quantity.
- 1.4 Just-do-it and make it FAST – don't let Organizational fatigue set in year 3.
- 1.5 Calm their fears and offer developmental experiences.
- 1.6 Know proven steps to build a Company Culture for excellence.
- 1.7 Round-Up and Q& A

2. Introduction to TPM

- 2.1 History of TPM.
- 2.2 The Loss or Waste Structure in Manufacturing.
- 2.3 The Overview of a TPM Development Program.
- 2.4 Organizing For Step-by-Step TPM Implementation.
- 2.5 Goals, Targets and Measurements in TPM.
- 2.6 The Cultural Challenges in TPM implementation.
- 2.7 Round Up and Q&A

3. Equipment OEE Methods of Improvements.

- 3.1 Methodology and Steps in Equipment OEE Improvement.
- 3.2 The Six Big machine Losses and definitions.
- 3.3 Defining and Understanding OEE (Overall Equipment Effectiveness)
- 3.4 OEE Analysis through graphical analysis for areas of opportunity.
- 3.5 Definition of Speed loss, defect loss, setup loss, MTBA, MTBF losses
- 3.6 Round-up and Q&A

4. Total Worker Involvement Through Autonomous Maintenance.

- 4.1 The Step-by-step approach for developing the 7-Steps in Autonomous Maintenance
- 4.2 The standards, objectives and detailed approach for the 7-Steps.
- 4.3 Sustaining of Autonomous Maintenance.
- 4.4 The critical role of harnessing Production Workers in Autonomous Maintenance.
- 4.5 Role of Top Management in promotion of Autonomous Maintenance.
- 4.6 Critical Role of Autonomous Maintenance in world-class manufacturing.
- 4.7 Round-Up and Q&A



5 Maintenance Competence Development In TPM Planned Maintenance Pillar.

- 5.1 Four Major Maintenance Competence levels – Daily Maintenance, General Inspection, Trouble-shooting , Major Overhauling and Improvements levels.
- 5.2 Maintenance Data systems for MTBF, MTTR, MTBA, OEE.
- 5.3 Role of Maintenance Department in 7-Steps of Autonomous Maintenance
- 5.4 Systematic Approach to developing proactive (Planned) maintenance instead of fire-fighting type of maintenance (Breakdown Maintenance)
- 5.5 Concepts of Time-Based Maintenance
- 5.6 Concepts of Condition-based Maintenance.
- 5.7 Defining and setting up Maintenance Personnel Maintenance competence training and development.
- 5.8 Round Up and Q&A

6 Case Study of A Well Implemented TPM Program.

- 6.1 Autonomous Maintenance results.
- 6.2 Equipment Improvements.
- 6.3 Measurements and TPM problem solving tools.

7 Zero Defects Through Quality Maintenance & Poka Yoke

- 7.1 Mindset That All defects exists through Man-Caused Mistakes.
- 7.2 Using Why-Why Analysis to find 'Mistakes' that causes defects.
- 7.3 Use Of P-M Analysis for Chronic defects.
- 7.4 Use of Optimizing Tools like Design Of Experiment, Taguchi Methods.
- 7.5 High Level Defects Mapping Using The Q-A Matrix.
- 7.6 Concepts of Mistake-Proofing (Poka Yoke) for zero defects.
- 7.7 Round-Up and Q&A

8. An Effective Fast-Track TPM Implementation Approach.

- 8.1 Usual Implementation Timelines achievable following usual JIPM-recommended implementation strategies.
- 8.2 Advantages and approach used in Fast-Track TPM Implementation to achieve about 50% reduction in implementation timeframe.
- 8.3 Round-Up and Q&A