

Optimizing Maintenance Through Lean Practices

Learn the tools and techniques to become a lean maintenance organization!



Create Partnerships
to Drive Daily
Continuous Improvement



10 Key Benefits of Attending This Workshop

1. Involve maintenance in your lean manufacturing strategy
2. Apply the lean manufacturing principles to your maintenance organization
3. Understand the impact of lean manufacturing on the maintenance organization
4. Apply lean expertise to maintenance
5. Increase your maintenance organization's efficiency
6. Eliminate the 7 wastes of maintenance
7. Reduce operating cost
8. Identify value-added maintenance tasks
9. Apply flow management techniques to maintenance practices
10. Mistake-proof maintenance tasks

Schedule

See the
Marshall
Institute
website for
current
dates and
locations.

Do These 7 Forms of Waste Plague Your Maintenance Department?

Waiting - for service and parts

Transportation - movement of craftsmen and parts

Inventory - Spare parts (right parts, right amount)

Correction/ Defects - Job reoccurrence

Unnecessary processing - un-required activity

Motion - Searching...documents, tools, parts.....

Over Production - Extra stock, obsolete parts, manning, Job reoccurrence...

If You Answered Yes to Any of These, You Should Sign up For an Upcoming Session Immediately!

"I think you have a great line-up, and after this experience I plan on attending more seminars and bringing more of my people with me,"

Tim Draime
Area Maintenance Manager
The Timken Company

"This is probably the most effective class I've attended in helping identify areas we need to continue our process towards WCM. Very good class! I'm recommending our production and maintenance guys attend together."

Alan Warmack
Maintenance Manager
B&W

 **Marshall Institute**

Register Online:
www.marshallinstitute.com

Call to Register:
1-800-637-0120

Don't Miss Out on this Cutting-Edge Utilization Improvement Process:

Did you know that up to 60% of your maintenance personnels' time may be spend on non-value added activities! That's right, wasted time. Wasted on activities which add no value to your organization's process or bottom line. There are many forms of waste in the production process that we have learned through our experiences in Lean Manufacturing. By comparison, it is now possible to apply these learnings in identifying and eliminating waste in the maintenance department.

Lean Manufacturing has proven to be a powerful process to optimize manufacturing in today's competitive environment. Marshall Institute's latest maintenance improvement process, **Lean Maintenance**, has taken the best of the lean world and applied it to maintenance optimization.

As manufacturers, both discreet and process, search for means of improving plant reliability, reducing manufacturing costs, and staying ahead of the competition, the practical application of lean methodologies to the maintenance function is now a reality. Many organizations use the term "lean maintenance." Marshall Institute is now applying the "true" methodologies of lean manufacturing to improving the maintenance organization.

Course Outline:

Need For Change

The World Has Changed!

External Pressures

Internal Pressures

Managing Change (5 Steps)

Managing Complex Change

- *Rate of Change*
- *Vision for Change*
- *Support for Change*

Maintenance Excellence

What is Maintenance Excellence?

- *Key Maintenance Activities*
- *Measures*
- *Preventive / Predictive Maintenance*
- *Planning and Scheduling*
- *Storeroom Control*
- *Computerized Maintenance Management Systems (CMMS)*
- *Reliability Improvement*
- *Reactive Maintenance*

**Improve
Maintenance
Process
Efficiency by
50-75%**

**Cut Waste...
Not Heads!**

Lean Basics

History of Lean Manufacturing

What is Lean Production?

- *Flow and Value*
- *Lean Production is...*
 - 7 Forms of Waste
 - 7 Principles for Lean Change
 - 7 Tools for Achieving Lean
 - Typical Lean Steps
 - Spaghetti Chart
 - Cell Layout - Equipment Configured to Product Flow

What is Batch Production?

- *Batch Production Vs. Lean Production*

Lean Advantages

Disadvantages of Batch Production

Flow Simulation

- *Hands-On Exercise*

Improvement Tools

Key Principles of Waste Elimination

Identifying Value

Current State Analysis Tools

- *Product Quality Analysis*
- *Takt Time: Customer Demand*
- *Process Mapping*
- *Spaghetti Charts*

Current State Analysis Summary

- *Forms of Waste*
- *Principles for Lean Change*
- *Tools for Achieving Lean*
 - 5S
 - Visual Controls
 - Cell Design / Flow
 - Pull Systems
 - Quick Change
 - Total Productive Maintenance
 - Mistake Proofing

Application to Maintenance

Techniques

Categories for Implementing Lean Maintenance

Steps to Lean Maintenance

- *Define*
- *Assess*
- *Apply*
- *Control*

Additional Benefits

A step-by-step implementation process.

A manual full of useful forms and checksheets.

Free follow-up phone support.

Instructor

Greg Folts, Director of Operations, is a highly passionate, motivated consultant/instructor with over twenty years' experience implementing TPM, 5S, lean production, setup reduction, Six Sigma and ACE initiatives in a diversified set of industrial settings. He has conducted over 100 TPM, 5S, Autonomous Care, and TPM Coordinator's Workshops along with Steering Committee training and implementation of Lean Manufacturing. In addition, Mr. Folts has conducted over 30 Kaizen events in the areas of setup reduction, 5S, business process improvement and flow (Lean Production and T.O.C.) at facilities in the US and Europe.

Mr. Folts has attended United Technologies' ITO University and studied ACE (Achieving Competitive Excellence), has a Six Sigma Black Belt from General Electric/Motorola University, as well as training in the Toyota Production System by Shingijutsu (Sensei Ninno and Sensei Oba).

Who Should Attend

This course is designed to benefit every level of personnel, providing the most up-to-date facts and techniques on the maintenance technology that is revolutionizing the way our industry operates. It examines the importance of creating Lean Maintenance in a Lean Manufacturing environment and how Lean Maintenance integrates with other maintenance improvement initiatives. A "must" for Plant Managers, Production Managers, Continuous Improvement Managers, Lean Production Practitioners, Plant Engineers, Maintenance Superintendents, Maintenance Managers, and Reliability Managers. No prior Lean Manufacturing knowledge is required.

In-House Seminars

This program can be customized and presented at your facility.

For more information on bringing this seminar to your site, call Glenna or Teri at 1-800-637-0120.

60% of your maintenance crafts people's time may be spent on non-value added activities ... WASTE!

Optimizing Maintenance Through Lean Practices

**Your people know the solutions—this program introduces
the tools to create action plans and STOP THE WASTE!**

**You'll benefit more by having 100 people addressing small problems everyday...
Create a partnership between production and maintenance working together towards reliability!**

Contact

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Seminar Dates / Hotel Information

Optimizing Maintenance Through Lean Practices:

**See www.marshallinstitute.com for
up-to-date course schedules and
hotel information.**

Price Discounts

1-2	\$795 per person
3-4	\$745 per person
5-10	\$720 per person



Cancellation Policy

Due to limited class size, we cannot accept cancellations within 10 business days of the program. Cancellations are subject to the entire seminar fee, which you may apply toward a future seminar. Please note that if you do not cancel and do not attend, you are still responsible for payment. Substitutions may be made at any time. Registrations are accepted on a first-come, first-serve basis. Seminars start at 9:00 a.m. on the first day and 8:00 a.m. on the following days.

Accommodations

Complete hotel information will be sent to you upon registration. Please make your room reservations directly with the hotel, mentioning MARSHALL INSTITUTE to assure the discount rate. (Rooms are held at each location for a limited time). Marshall Institute reserves the right to cancel seminars with two weeks' notice. Fees will be refunded in full or applied to other programs of your choice. We regret we cannot be responsible for non-refundable travel arrangements.

Seminar Registration Form

Name: _____ Title: _____
Company: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____ Fax: _____ Email: _____

Method of Payment

(Make checks payable to Marshall Institute, Inc).

Payment Type: Check Visa MasterCard American Express Purchase Order #

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