Making Materials Flow

Introduction

This workshop will teach you how to create a material movement and handling system for purchased parts from the receiving door to the shipping door. It focuses on how to transition from a mass-production material-handling system to a Lean system that reliably supplies purchased parts to continuous-flow cells, small-batch processing, and traditional assembly lines.

Objectives

At the end of the workshop you should be able to:

- Create and populate a PFEP (Plan For Every Part.)
- Understand how to develop and operate a supermarket for purchased parts.
- Calculate an appropriate number of kanban cards using a given formula.
- Determine route travel time for system standardization.

Note: This workshop will not go into detail on the plant-to-plant side of material movement.

Workshop Benefits

You’ll learn how to implement a Lean material-handling system for purchased parts that delivers precise quantities of parts, precisely when they’re needed, to precisely where they’re needed – the fingertips of production operators.

The benefits of a Lean material-handling system include:

- Fewer material handlers.
- Less time spent by operators retrieving parts.
- Higher plant inventory turns.
- Less inventory.
- Fewer forklifts.
- Less forklift recordable incidents.
- Higher production output.
- Less overtime.
- Less expedited delivery costs.

Topics that will be examined include:

Through instruction, discussion, video, and hands-on workshop exercises, this workshop guides you through the implementation sequence and the use of formulas, forms, and rules so you know “what to do Monday morning” when you return to work. The instructor will also lead you through the formulas for calculating the number of kanban cards, rules for designing internal routes and determining route travel times, and how to sustain and improve the system with standard work.

This workshop transfers to you the knowledge and tools needed to develop an efficient, reliable material-delivery system for purchased parts in a lean environment. You’ll learn a step-by-step method for developing and implementing a facility-wide system that supports continuous flow.
Workshop contents include:

- Why a material delivery system is necessary.
- Where to begin the implementation.
- What is a Plan For Every Part (PFEP.)
- How to compile the PFEP Information.
- How to size a purchased parts supermarket.
- Maximum and minimum inventory levels.
- The types of pull signals.
- How to get parts from a supermarket to manufacturing.
- Different conveyance devices.
- Standard work for the materials department.
- How to calculate the time it takes to deliver material.
- How to sustain the changes.

**Agenda**

- Developing the Plan For Every Part (PFEP.)
  - How PFEP fosters accurate and controlled inventory reduction.
  - Why this is the foundation for the continuous improvement of a facility’s material-handling system.
- Building the purchased-parts market.
  - Eliminate the waste of hoarding, searching for parts, and storing inventory throughout a facility.
  - Learn the formulas and methods to size and operate the market.
- Designing delivery routes
  - Learn the principles and calculations to designing the routes.
  - Turn a sprawling, messy plant into an organized community where operators get the parts they need—when needed and in the quantity needed—delivered right to their fingertips.
  - Improve not only inventory and flow but also safety and housekeeping.
- Implementing pull signals
  - Allow operators to pull just what they need while focusing on producing value for customers.
  - Learn four steps to creating a pull system, keeping inventory under control.
  - Learn how to calculate the number of pull signals needed and how often to deliver material.
- Continuously improving the system.

**Related Books**

- Making Materials Flow
- Creating Continuous Flow
- Creating Level Pull
- Learning to See

**Notes**

- **Attendance** - 1 Day Course
- **Class size** - Maximum 12 people per day
- **Timings** - Each day will run from 09:00 - 17:00
- **Cost** - £395.00 (Consultant Rate £450)* per delegate per day with a 15% discount when 2 or more people from the same organisation attend
- **Materials** - A PDF copy of the materials will be available via the Lean Enterprise Academy website. Participants will also receive a copy of Making Materials Flow by Rick Harris, Chris Harris and Earl Wilson
- **Facilities** - Refreshments and lunches will be provided by LEA

*Please note prices exclude VAT at the standard rate of 20%

**We are situated in a listed building which unfortunately does not have disabled access. On occasions where disabled access is required we will move the workshops to a local hotel in Ross on Wye.

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**We can also run these workshops in-house at your convenience, if you would like to explore this option please contact us at events@leanuk.org or call +44 (0)1600 890590**

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**Follow up (optional):**

LEA provides an ongoing coaching and mentoring service for organisations involved in making Lean transformations. A3s developed by the organisation can be reviewed at 30/60/90 day intervals. This provides the organisation with help and direction in sustaining the learning from the workshop process and helps highlight further learning opportunities that can be pulled, as and when required, by the organisation.

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**Book online at [www.leanuk.org](http://www.leanuk.org)**

The lessons learnt during this workshop fit within the Process Improvement element of the Lean Transformation Framework.