

Lean Manufacturing

Aim

To help small and medium-sized companies to gain an appreciation of the principles and concepts of engineering excellence. The course is aimed at all levels of employees both at operator and senior executive level.

Objectives

By the end of the course, delegates will have an understanding of the concept of 'Lean Manufacturing', be able to identify the real cost of poor quality, have the ability to motivate employees and be able to challenge conventional financial thinking.

Course Content

- The concept of 'Lean Manufacturing'
- The features of a world class company
- Waste and the hidden factory
- Picking fruit
- Bench marking
- Value stream mapping
- The real cost of poor quality
- Problem solving tools
- The principles of JIT
- High commitment work teams
- Theory of constraints
- Performance measures
- Key points involved in setting up a Kaizen Blitz
- Cycle time and set up reduction
- Batches and flow
- Workplace improvement
- Creating a simple manufacturing cell
- Putting everything into the right time and place
- Implementing a cell layout
- Simplifying data
- Introduction to Six Sigma
- Total productive maintenance
- A look at conflicts in design and quality
- Failure mode and effect analysis

Duration: 2 days

Certification: Prospects Group Certificate

Set Up Reduction (SMED) Workshop

Objectives

The workshop is intended to familiarise attendees with principles of reducing set-up times. The workshop is a practical workshop. On completion of the workshop, a set-up will have been analysed and an action plan to implement the new method will have been prepared and agreed.

Course Content

The workshop is spread over two full days.

Day One

- Introduction to Single Minute Exchange Dies (SMED) classroom-based exercise
- The SMED methodology
- Video recording existing set-up

Day Two

- Analysis of the set-up
- Preparing the action plan
- Implementing the changes.

Duration: 2 days

Accreditation: Prospects Group Certificate

A Journey towards Manufacturing Excellence

Aim

To develop employers' understanding of 'lean thinking' and some of the tools involved. Managers can develop their 'lean' strategy based on this programme.

Objectives

- Understanding the need to become 'world-class'
- Using 'lean' tools and exercises to stimulate thoughts on the need to change
- Understanding the need to implement a culture change to improve the business
- How to select the correct techniques

Course Content

The workshop is spread over two days during which theory, discussion and practical exercises can pave the way to starting the journey towards manufacturing excellence.

- World class companies
- Identifying waste
- The cost of poor quality
- Lean thinking
- High commitment work teams
- 5Ss
- Theory of Constraints
- Flowing materials
- Flexibility in productivity issues
- Mistake proofing
- Reducing cycle times
- Set-up reduction
- Improving the workplace
- Total productive maintenance
- Value stream mapping
- Just in time
- Component tolerancing
- FMEA
- Introducing Six Sigma

Duration: 2 days

Accreditation: Prospects Group Certificate

Kan-ban Workshop

Objectives

During the workshop, those present will undertake a series of practical exercises using the 'Kando Kan-ban' tool. They will:

- Experience the need to change from batch to flow production
- Understand the need to customise products at the latest possible moment
- Realise the need to reduce inventory
- Learn to handle variety

Course Content

The 1-day programme includes an introduction to the following techniques:

- Kando Kan-ban – phase 1
- Kando Kan-ban – phase 2
- Material planning
- Types of Kan-ban
- Kando Kan-ban – phase 3
- Kando Kan-ban – phase 4
- Dealing with variety

Duration: 1 day

Accreditation: Prospects Group Certificate

Failure Mode and Effect Analysis Workshop

Aim

The workshop is intended to familiarise attendees with principles of Failure Mode Effect Analysis. During the workshop the design or process for one component will be discussed and the FMEA sheets completed.

Course Content

The 1-day workshop establishes the purpose of the FMEA and a discussion on the elements prepares the participants to start to prepare a 'real' FMEA.

Duration: 1 day

Accreditation: Prospects Group Certificate

An Introduction to Lean Thinking for Non-Manufacturing Organisations

Aim

This course is for any employee, at any level, within a non-manufacturing organisation, particularly those who are about to take part in a 'change' programme.

Objectives

This 1-day workshop combines formal presentations with a 'hands-on' exercise and discussion to introduce the concepts of lean thinking and to discuss its application within the organisation. It also includes applying the first tool of being lean – the 5Ss.

Course Content

- What is lean thinking?
- The system, not the process
- Where can it be applied within the organisation?
- The concept of 'adding value'
- The seven wastes: Identifying the wastes in the organisation
- Discussing how to eliminate them
- The theory of constraints
- Constraints
- Bottlenecks
- The five steps
- The concept of 'pull'
- Applying TOC to the capacity and demand model
- Using 'flow' rather than 'batches' in a process
- The lean thinking exercise
- The first tool of becoming lean
- The Five Ss

Duration: 1 day

Accreditation: Prospects Group Certificate

More Lean Tools for Non-Manufacturing Organisation

Aim

This programme aims to equip delegates with additional lean thinking techniques.

Objectives

The workshop is intended to familiarise attendees with the concepts of lean thinking and its application throughout the business. On completion of the workshop, those present will have a basic understanding of a number of lean techniques and will have discussed how these techniques could be applied within their own areas.

Course Content

The 1-day programme includes an introduction to the following techniques:

- A brief history of 'lean'
- Visual management
- Workplace organisation
- Cycle time reduction
- Problem solving tools
- Mistake proofing
- Set-up reduction
- Set-up reduction exercise
- Total productive maintenance

- Value stream mapping

Duration: 1 day

Accreditation: Prospects Group Certificate

Statistical Process Control (SPC) Workshop

Aim

This programme is designed to give first line operators the skills needed to apply Statistical Process Control systems.

Objectives

The workshop is intended to familiarise attendees in Statistical Process Control and its application within a plant.

Course Content

The 1-day workshop established covers:

- An introduction to SPC
- Preparation
- Statistical tools
- Control Charts
- Control Charts for variables
- Control charts for attributes
- Interpretation of Control Charts
- Process Capability

Duration: 1 day

Accreditation: Prospects Group Certificate

Value Stream Mapping Workshop

Aim

This programme is designed to be delivered in the workplace and equips delegates with the skills to apply Value Stream Mapping, and identify and eliminate waste.

Objectives

To familiarise team members with the concept of Value Stream Mapping by:

- Examining an existing process and preparing its current state map
- Discussing the waste streams and areas of non-added value
- Brainstorming how to eliminate these wastes
- Preparing the future state map
- Developing an action plan for implementation

Course Content

One week prior to programme, half-day session to:

- Meet multi-disciplinary team
- Walk through the process
- Understand issues
- Establish key measures

- Agree outcomes
- View facility and equipment for programme

Day One

- Introduction to Value Stream Mapping
- Understand symbols
- Discuss current value stream
- Start to collect data and map current process

Day Two

- Continue to collect data and prepare current state map

Day Three

- Concept and additional tools
- Identify wastes
- Clarify any queries
- Brainstorm changes

Day Four

- Continue to brainstorm future state
- Prepare future state map
- Develop action plan

Day Five (half day)

- Complete action plan
- Present and discuss findings

Duration: 6 days

Accreditation: Prospects Group Certificate

Facilitating Lean Thinking

Aim

The programme is aimed at employees who are or who will become the champions or facilitators of change. The workshop is based on a journey towards manufacturing excellence, but goes in to much greater depth.

Objectives

- To develop a greater understanding of the key tools to implement a change programme
- To be able to immediately apply the tools from the workshop in a plant-based project
- Learn how to lead the culture change

Course Content

The 6-day programme (3 x 2 days) is outlined below:

Day One

- How to assess a plant
- Waste
- Benchmarking
- Managing projects

- MRP – theory and practice
- Scheduling production

Day Two

- 5Ss
- Improving the workplace
- Cycle time reduction
- Set-up reduction
- Mistake proofing
- Personal project

Day Three

- Theory of constraints
- Flowing materials
- Problem solving tools
- Total productive maintenance
- Value Stream Mapping

Day Four

- Kaizen Blitz
- The Visual Factory
- Project Management
- Kan-ban types
- Work Teams

Day Five

- Performance measures
- Process capability
- Dealing with variety
- FMEA
- Personal project

Day Six

- Types of plants
- Six Sigma
- Lean with Six Sigma
- Creating an action plan
- Project presentations

This workshop is presented by two full-time facilitators who work with the members to coach and develop their individual skills. The content of the programme is equally divided between presentations, discussion and practical exercises.

Duration: 6 days

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