

## **Introduction to the Concepts of Lean Thinking**

Introduction, What is lean thinking, Dealing with change - “Who Moved My Cheese?”, Getting people involved, Conducting effective meetings for lean implementation.

## **The Elements of Lean**

Why we do things the way we do - history of manufacturing, Starting a new paradigm of a non-blaming culture, Understanding waste, Defining value-added activities, 7 wastes, Overview of the elements of lean.

## **Workplace Organization – Implementing the 5S Program**

The importance of workplace organization, Understanding the 5S method for workplace organization, How to implement the 5S method - the best place to start, getting people involved is the key, Conducting the workplace survey, Setting up a temporary hold area, Sorting, Stabilize with shadow boards and improved layout, Cleaning to shine, Standardize operations, Developing the discipline to sustain the reorganized workplace.

## **Keeping People Motivated and Involved in Your Company’s Lean Implementation**

Identifying what motivates employees, Motivating employees - traditional methods, Guidelines for effective encouragement, Negative reinforcement, Alternative methods, How to be a good Lean Implementation leader and facilitator.

## **Lean Implementation Beyond the 5S’s**

How to know what kind of lean manufacturing will help your organization, Understanding processes, Preparing effective flow charts, Identifying and understanding key process indicators, Establishing product families, Identifying the processes and/or areas where lean is most likely going to be effective, Gathering the information you will need before planning lean initiatives.

## **The Theory of Constraints**

Book review: “The Goal” by Eliyahu Goldratt, Understanding the constraints of manufacturing and other operations, Identifying the pacer process, What happens when improvements are implemented on processes other than the pacer process, strategies for implementing continuous improvement using Eliyahu Goldratt’s theory of constraints.

## **The Importance of Quality Management/Control for Lean Implementation Effectiveness**

Why quality is so important, Basic concepts of quality management, Why SPC can be a very good quality management tool for lean implementation when used correctly, Myth of 100% inspection, Understanding sampling inspection, Conducting an effective quality evaluation of the products to be considered for lean manufacturing.

## **Workplace Layout**

Understanding your production flow, From batch processing to continuous flow, Job shop, Flow shop, Strategies to balance and level capacities, Cellular manufacturing strategies, 1-piece production, Implementing a Kanban system.

## **Value Stream Analysis**

Thinking in terms of value stream, Preparing a current state value stream map, Understanding and determining TAKT time, Setting the new goal to meet TAKT, Preparing the future state value stream map.

## **Setup Reduction**

Definition of setup, Traditional setup methods, When setup is a problem, Identifying setup problems, Typical causes of setup delays, Establishing a setup goal, Classifying setup time, Strategies for analyzing and reducing setup times, Internal and external setup, Setup reduction techniques.

## **Setting Up a KAIZEN Event**

A typical KAIZEN event, How to get started, What must be done before a KAIZEN event, Planning and scheduling the KAIZEN event, Conducting and Leading the KAIZEN event activities, initializing production after the KAIZEN event, Evaluating results.

## **Total Productive Maintenance**

The concept of TPM beyond preventive maintenance, The 6 big hitters in the production loss column, Setting up a TPM program.