

**BEGINNING
THE
LEAN IMPLEMENTATION
SETTING STRATEGIES TO:**

- ELIMINATE WASTE
- REDUCE LEADTIMES
- EXPOSE CAPACITY
 - GROW SALES
 - WORK SMARTER
(USING LESS ENERGY)

BEGINNING LEAN IMPLEMENTATION

Questions that need to be answered:

The LEAN journey cannot be properly started without knowing the current situation and demonstrating an understanding of why there is a need for change. Several questions need to be answered to facilitate this.

- **Current Status** – Where are we currently? This question must be answered in terms of five primary element; Manufacturing Flow, Organization, Process Control, Metrics and Logistics.
- **The Need to Change** - Why do we need to change? This question must be answered in terms of business health (profits, growth, morale, markets conditions).
- **The Importance of Change** - Why is it important for us to change? This question must be answered in terms of the company leaders' motivation for improvement.
- **Basic Understanding of Lean as an Improvement Strategy** - What business drivers have caused this intrusion of Lean? This question must be answered in terms of understanding the answers to the first three questions and a basic understanding of the benefits and costs of LEAN as a business strategy.
- **The Importance of Buy-in** - Why should we participate? This question must be answered in terms of understanding the benefits of improvement and the WIIFM for the business leaders and the employees.

The five primary elements of Lean Manufacturing:

- Manufacturing Flow
 - Product/quantity assessment (product grouping)
 - Process Mapping
 - Routing analysis (process work, content, volume)
 - TAKT Calculations
 - Workload balancing
 - Kanban sizing
 - Cell layout
 - Standardized Work
 - One-piece (ship set) flow

- Organization
 - Product-focused, multi-disciplined teams
 - Lean manager development
 - Touch labor cross-training skills matrix
 - Training
(lean awareness, cell control, metrics, SPC, continuous improvement, team problem solving tools, etc.)
 - Communication plan
 - Roles and responsibilities

- Process Control
 - Total Productive Maintenance
 - Mistake-Proofing
 - Rapid Changeovers
 - Visual Work Instructions
 - Visual Controls
 - Continuous Improvement
 - Line stop understanding/capability
 - SPC
 - Workplace Organization

- Metrics
 - On-time delivery
 - Process lead-time
 - Total cost
 - Quality yield
 - Inventory (turns)
 - Space utilization
 - Travel distance
 - Productivity (Throughput)
 - Business growth

- Logistics
 - Forward plan
 - Mixed-model manufacturing
 - Level loading
 - Workable work (Materials, tooling, software, work instructions, demand and skilled [capable] workers)
 - Kanban pull signals
 - A,B,C parts handling
 - A - High value/Complex/Long lead time
 - B - Medium value/Medium lead time
 - C – Low value/Short lead time
 - Service cell agreements
 - Customer / supplier alignment
 - Operational rules

DON'T EVEN THINK ABOUT STARTING LEAN BEFORE COMPLETELY ANSWERING THE PRIMARY QUESTIONS PRESENTED ABOVE. LEAN WILL FAIL WITHOUT A PASSIONATE AND COMMITTED ORGANIZATION.