

Workshop: Value Stream Mapping in Mixed Model production

Reducing lead time in companies with Mixed Model production

Target group

All employees willing to implement Lean in their organizations. The workshop is particularly recommended to planners, production management and Lean coordinators who would like to extend their knowledge of preparing value stream maps for more complex cases.

Get the practical insight into solving problems and responding to challenges including:

- Complex materials and information flows in the company.
- Wide range of manufactured products.
- Unstable and fluctuating demand.
- Numerous unexpected changeovers.
- Surplus inventory of many products and long lead time of production orders.
- Flow disturbances caused by a wide range of products and lack of manufacturing flexibility.
- Difficulty in planning improvement actions for Mixed Model production based on a traditional mapping method.

Overview

The scope of the workshop concerns manufacturing companies whose offer is characterized by a wide range of manufactured products and a fluctuating demand for them. Such companies are unable to create dedicated manufacturing cells for particular products, and as a result, they are forced to use shared resources in the manufacturing process. In such diversified environment, it is necessary to apply appropriate methods of flow management in manufacturing.

Benefits for the company

- **Identifying** value streams in Mixed Model production.
- **Reduced** costs resulting from unplanned changeovers following the implementation of the concept of production cycles.
- **More** flexible production.
- **Reduced** production lead time.

Benefits for the participant

- **Ability** to select product families in case of manufacturing a considerable number of variants.
- **Ability** to select product families while taking into consideration the impact of processing time in particular processes.
- **Ability** to define practically the impact of failure rate and changeover time on production capacity and flexibility of the production process.

AGENDA – DAY ONE

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Module 1	9:00 – 10:30 (10:30 – 10:45 coffee break)	- Value stream mapping for complicated cases – the main differences in mapping simple and complex value streams - One or more value stream maps – how to deal with entangled material and information flows - VSM vs. MIFA, advantages and disadvantages of both tools, good and bad examples - Typical problems in Mixed Model production
Module 2	10:45 – 12:15	- Basic mistakes in mapping – group exercises - Symbols on the value stream map that you might have never seen before - In what cases, industries and situations mapping may not bring the expected results
12:15 – 13:00 Lunch		
Module 3	13:00 – 14:30 (14:30 – 14:45 coffee break)	- Practical part in the production hall – collecting data for a map of branched value streams - The art of correct determination of process data on a map for resources shared by different value streams
Module 4	14:45 – 16:30	- The rule of planning production based on total demand - Key questions in improving a value stream in which numerous variants are mass produced - How to select a product family correctly, examples of good solutions for different processes and industries - The algorithm of defining product families in Mixed Model production

AGENDA – DAY TWO

Module 1	9:00 – 10:30 (10:30 – 10:45 coffee break)	- Takt time in Mixed Model production - The influence of failure frequency of machines and devices on the changes designed in the value stream; adopting the perspective of the future state - The influence of changeover times on the changes designed in the value stream
Module 2	10:45 – 12:15	- Sequential pull system (FIFO queues) – a simulation game and group work - Rules to be observed in a sequential pull system - How to determine the maximum number of places in a FIFO queue - Materials and information flow in a value stream in which numerous variants are mass produced - Steering production in a value stream simulator – the concept of a scale
12:15 – 13:00 Lunch		
Module 3	13:00 – 14:30 (14:30 – 14:45 coffee break)	- Practical part in the production hall, value streams in which numerous variants and their particular elements are mass-produced 4 ways of scheduling production in complex value streams
Module 4	14:45 – 16:30	- Ways of preparing a good implementation plan for improvement subprojects, determining tasks in information flow loops and materials on a value stream map - How to get well-prepared for mapping and create a good workshop group - Workshop summary – Q&A session