

# Workshop: Continuous flow in production cells and lines

# The most effective method of processing materials into finished products

# **Target group**

The workshop is addressed to middle level management of companies, engineering staff, as well as every person who is willing to get acquainted with the rules of designing and improving cells and assembly lines in accordance with the concept of one piece flow.

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

- Low capacity of the assembly line and/or manufacturing cells.
- Excessive number of operators in a process.
- Surplus inventory on the assembly line and in the cell.
- Lack of uniform production standard.
- Lack of proper allocation of work among production employees.
- Waste of operators' waiting time.
- Lack of optimal distribution of machines resulting in occupying too much manufacturing space.

#### Overview

Organizing production in cells and/or on assembly lines as continuous flow manufacturing means that each part, item by item, is moved directly from one processing station to another. It is the most effective method of manufacturing materials into finished products. Owing to the implementation of continuous flow, it is possible to obtain high efficiency and superior quality, the shortest possible lead time, and enormous flexibility in filling orders.

#### Benefits for the company

- **Familiarity** with the rules of production design and improvement in accordance with the concept of continuous flow.
- **Reduced** operators' waiting time.
- **Reduced** production time.
- Efficient scheduling of manufacturing cells.
- **Delegating** an appropriate number of operators depending on the pace of production.

#### Benefits for the participant

- Ability to analyze the work of the assembly line and cell operators.
- Ability to define the level of workload on operators and machines with regard to the required pace of production.
- Ability to balance work among operators.
- Ability to reorganize cells and assembly lines in accordance with the concept of one piece flow.

# AGENDA



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Module 1	9:00 – 10:30 (10: 30 – 11: 45 coffee break)	<ul> <li>Introduction to one-piece flow in assembly lines</li> <li>Methodology of improving and reorganizing assembly lines and manufacturing cells</li> <li>Methods of analyzing the current state of assembly lines and manufacturing cells</li> <li>Analyzing an example of an assembly line process – group work</li> </ul>
Module 2	11:45 – 13:50	<ul> <li>Analyzing an example of an assembly line process – group work – continuation</li> <li>Ways of determining the current workload on employees and equipment</li> <li>Human and machine work – the traditional approach vs. the Lean approach</li> <li>Determining the required number of operators at a manufacturing cell</li> <li>Ways of dividing work among operators working at a manufacturing cell</li> <li>Analyzing work performed by operators at selected manufacturing cells and assembly lines – group work in the production hall</li> </ul>
13: 50 – 14: 20 Lunch		
Module 3	14:20 – 15:30 (15: 00 – 15: 15 coffee break)	<ul> <li>Analyzing the data collected in the production hall</li> <li>Preparing an Operator Balance Chart for selected manufacturing cells and assembly lines</li> <li>Determining the required number of operators for selected manufacturing cells and assembly lines</li> <li>Defining possible changes to be implemented at selected manufacturing cells and assembly lines</li> <li>Analyzing the expected results of changes implemented at manufacturing cells and assembly lines</li> </ul>
Module 4	15:30 – 16:30	<ul> <li>Presenting the results of group work</li> <li>Methods of standardizing work at manufacturing cells and assembly lines</li> <li>Workshop summary and closing</li> </ul>