

Module: **Standard Work**

Element: **Standard in Process Stock**

# Aims & Objectives

**Target Audience** :Operations, Manufacturing Engineering.

**Purpose of Module** : To gain an understanding of Standard In Process Stock (SIPS)

## **Aims & Objectives :**

- Define SIPS
- To Learn how to calculate SIPS
- Gain an understanding of how SIPS fits into Standardised Work
- To raise awareness of how SIPS can eliminate Waste and support flow

# Welcome to the Standard In Process Stock Session

## Definition

Best combination of man and machine to achieve output with minimum labour, space, inventory and equipment.

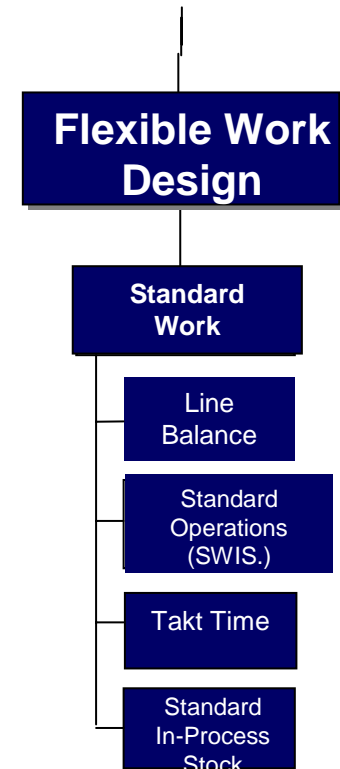
## Objectives

- To establish and clarify the guidelines for manufacturing Quality, Quantity, Manpower, Inventory, and Safety
- Provides a tool for Kaizen

**Where there is no standard there can be no KAIZEN**

# Elements of Standard Work

- Line Balancing
- Standard Work Instruction Sheets
- Takt time/ Cycle time
- Standard In Process Stock

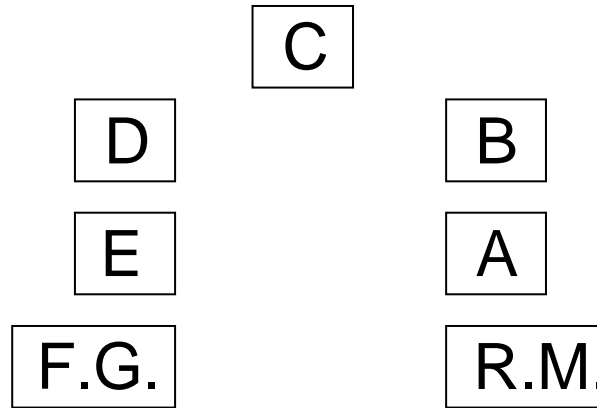


# What is Standard in Process Stock?

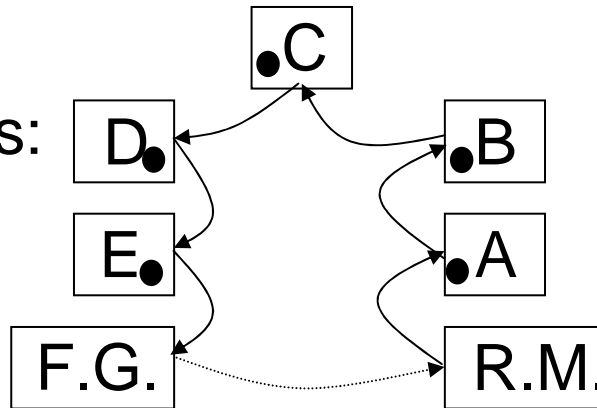
- **Standard** minimum number of pieces of **In Process Stock** required to run each activity (Machine operation) on demand
  - Automatic operations require **Standard In Process Stock** to enable the worker to be separated from the automatic cycle
  - No standard in process stock is required at manual operations

# Standard in Process Stock

All manual operations:  
SIPS = 0



All automatic operations:  
SIPS = 5



# How do we Calculate Standard in Process Stock?

Standard in Process Stock (SIPS) can be calculated using the following equation.

$$\text{SIPS} = \frac{\text{Machine Cycle Time}}{\text{Takt Time}}$$

# Worked Example

Takt time = 6 mins

SIPS = ?

C

Machine  
CT-30min

D

Machine  
CT-36

B

Machine  
CT-60min

E

Manual

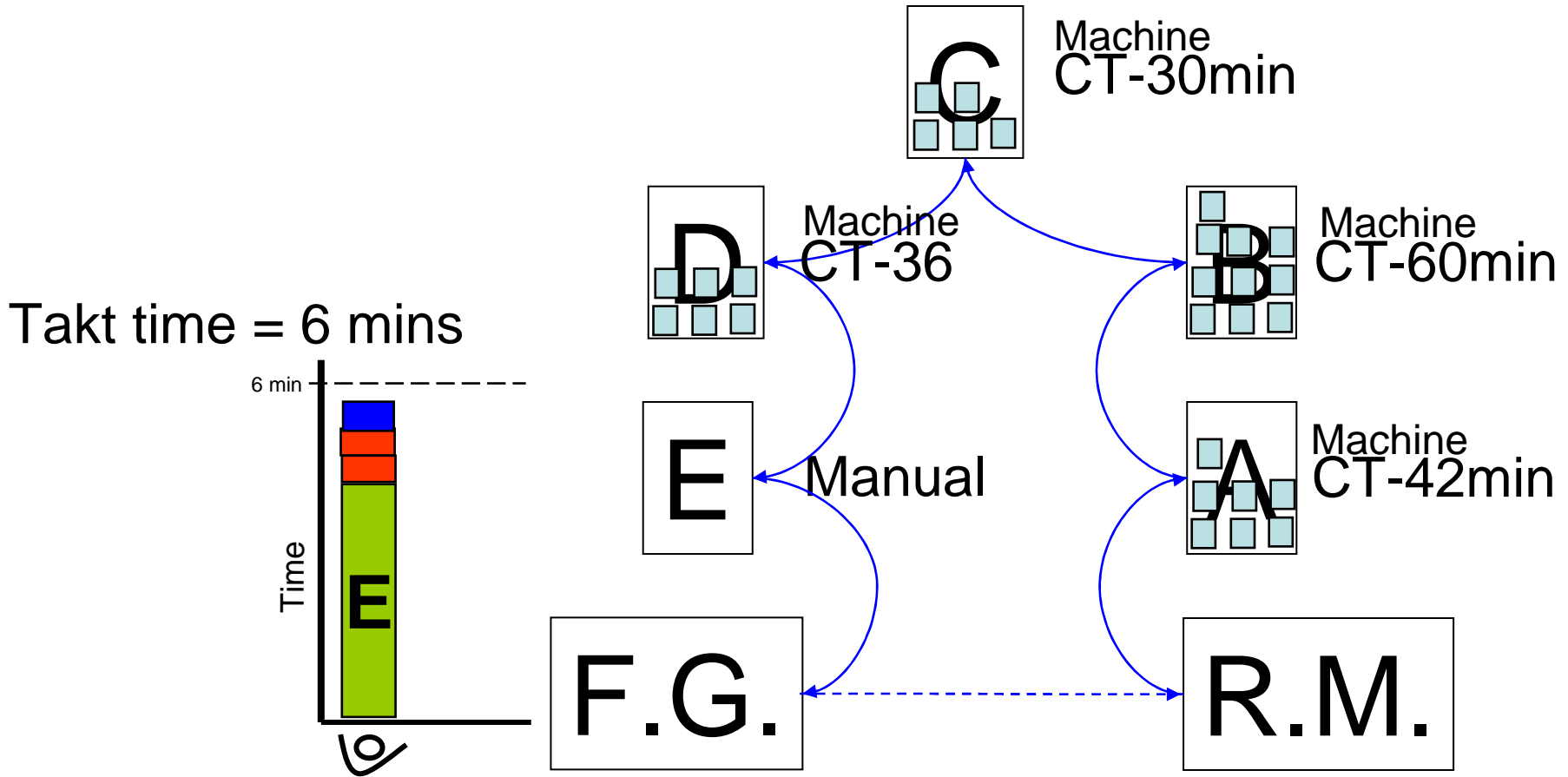
A

Machine  
CT-42min

F.G.

R.M.

# Worked Example



Therefore with **SIPS** and **Balanced manual ops**, a part will move **every 6 mins**

# Review of Standard in Process Stock

Incorrect Standard In-Process Stock causes waste in the sequence.

Key points to review are:-

- Is the quantity set for standard in-process stock correct?
- Is the quantity set for standard in-process stock strictly observed?
- Is the stock in the process really necessary?
- If the stock is necessary, is it at the minimum quantity?

IDEAS:-

- ✓ Only carry standard in-process stock required
- ✓ Locate display board at location requiring standard in-process stock, and display the quantity standard

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Did we Succeed ?