

TAKT Time

Definition

In German, Takt means "beat". It can also be interpreted as "cycle", "rhythm" or "rate time". Some definitions refer to Takt as the baton of an orchestra conductor.

Takt time is the rate at which the customer requires your company to manufacture products. Takt time is the number of work minutes per day divided by the number of orders per day.

N_C = Number of your customer orders per day (unit / day)

N_W = Number of working minutes per day (minutes / day)

$$\text{Takt Time (min/units)} = \frac{N_W}{N_C}$$

The Lean Manufacturing process uses Takt Time as the rate at which a completed product needs to be manufactured in order to meet customer demand.

Takt Time advantages

Using the Takt time will allow:

- Synchronization of the production to the customer orders:
 - o Pull scheduling is enabled
 - o Over production is limited, as well as over inventory
- A stable production with no interruptions
 - o Production rhythm is Takt Time
 - o Regular working pace for the operators,
 - o WIP reduced and problems in the process will be more easily pointed out
- An easier work process and dimensioning design
- Immediate feed back on performance, easier employees motivation

Takt Time Requirements

- Flexible and Multi-skilled workforce, willing to accept changes in their day-to-day work area and processes
- Flexible working processes and equipment, given the fact that a Takt Time variation can lead to increase or decrease of needed staff for the same operations.

As a conclusion, Takt Time is a powerful tool but shouldn't be changed continuously. This is to be used according to the long term orders forecast more than on a daily or even a weekly basis.