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LEADING QUALITY FOR 100 YEARS

TAKT TIME

WHAT IS IT?

Takt time is a dynamic metric used in manufacturing or service industries to synchronise production pace with customer demand. It is determined by dividing the available production time by the consumer demand. Its purpose is to provide reliable and predictable fulfilment of customer demand while simultaneously optimising efficiency, reducing waste, and balancing workloads.

WHEN AND HOW CAN I USE IT?

Takt time aids in planning and predicting workloads for consistent, repetitive processes where output capacity knowledge is vital. Teams collaborate by assessing customer demand, determining available production time and fine-tuning production rates accordingly.

Takt time – process cycle time chart

Cycle time (minutes)

Bottleneck / Constraint → Takt time

Process Step 1 Process Step 2 Process Step 3

CASE STUDY

A call centre handles 400 customer support requests daily, with eight hours of available working time per day, excluding breaks and training. To calculate takt time, divide the available working time (eight hours or 480 minutes) by customer demand (400 requests): takt time = 480/400 = 1.2 minutes per request. This means the call centre should handle one request every 1.2 minutes to meet customer demand, enabling them to optimise staffing levels, balance workload distribution, and maintain efficiency in the service industry.
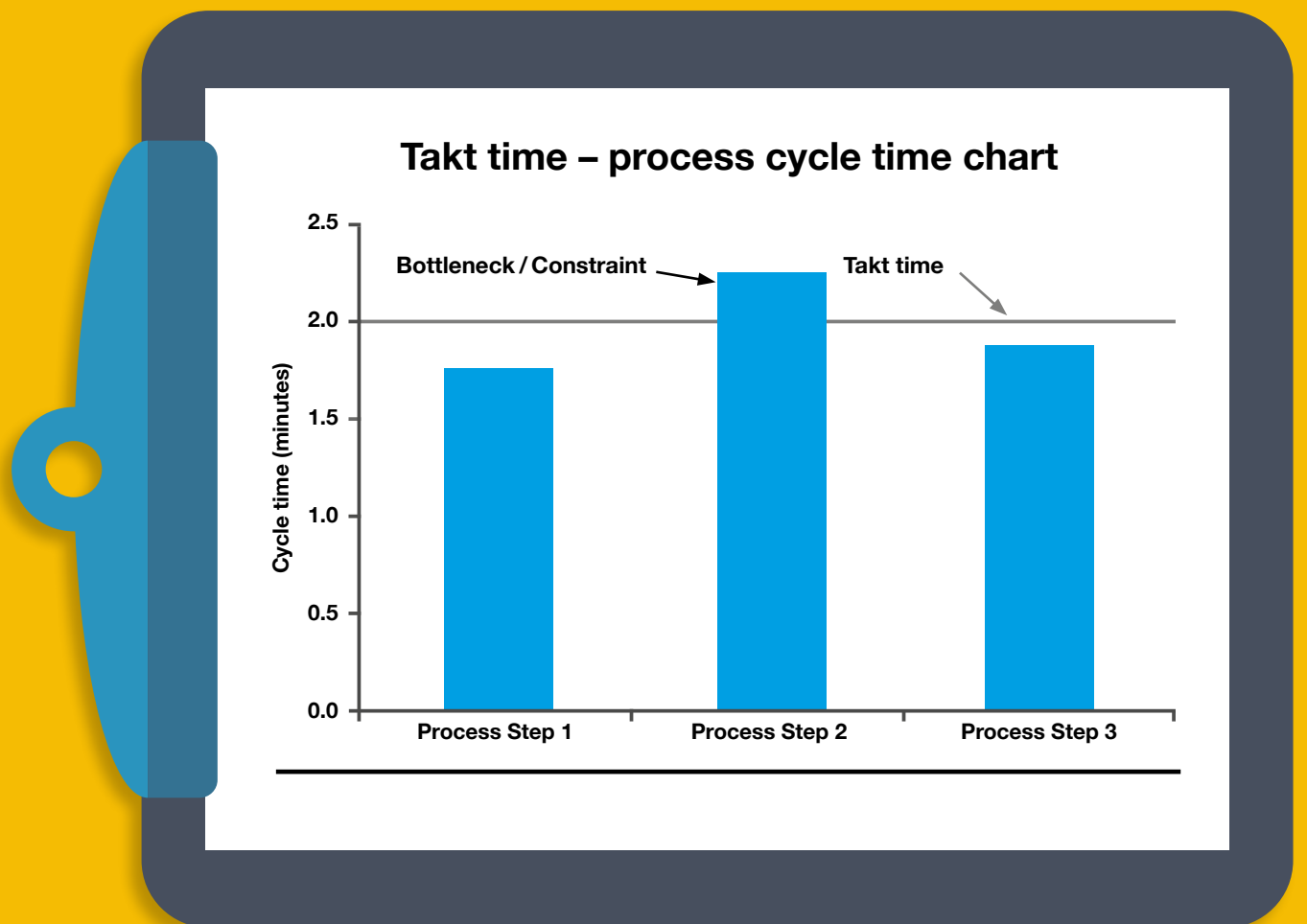
STEPS

1 **Determine customer demand** by identifying expected output within a specific time frame.

2 **Calculate net available time** by assessing total time for work, excluding non-productive activities.

3 **Compute takt time** by dividing net available time by customer demand, setting optimal production pace.

4 **Monitor, adjust, and adhere** to takt time for continuous process improvements.

DID YOU KNOW?

Takt time originated in 1930s manufacturing and was adapted by Toyota in the 1950s, evolving as a management tool to align processes with customer demand. The term derived from the German word 'taktzeit' meaning 'cycle time' or 'beat'.