Machine Utilization Tracker

How-to guide: what the workbook does, how to use it and what every number means. mfgcalcs.com

Machine Utilization Tracker

Log each machine's day in hours and see utilization, idle time, downtime and why machines sit idle, by machine, day and week.

For: Production managers, schedulers, plant managers and anyone deciding whether a shop needs another machine or more work for the ones it has.

Version 1.0.0 · updated 24 November 2026

Quick start

1. On Setup, type your plant name and utilization target, then replace the example machines and idle reasons.
2. On Machine Log, add one row per machine per day: available hours, then the hours it ran, was down and sat idle.
3. For a day with idle hours, pick the main idle reason. Read the Check column: anything other than OK names the problem.
4. Open the Dashboard and use the machine and date filters to look at one machine or one week.

What is in the workbook

Start Here	Read this first: what the workbook does and how to use it.
Setup	Your plant, the utilization target and the dropdown lists.
Machine Log	One row per machine per day: available hours split into run, downtime and idle time.
Dashboard	Utilization, idle time and downtime, for the machine and dates you choose.
Method	How every number is calculated, with assumptions, limits and sources.
Verify	Self-check: the workbook's formulas recomputed on fixed inputs against an independent reference.
About MFG Calcs	Everything MFG Calcs offers, free: calculators, templates, tariff tools, data and the Calkee AI helper.

What each number means

Quantity	How it is calculated	Units
Available time	Typed per row: the hours the machine could have run that day, set by the shifts it was scheduled or staffed for (24 for round-the-clock running).	h
Run, downtime and idle time	Typed per row. Run = making product; downtime = stopped by breakdowns, repairs or maintenance; idle = able to run but not running.	h
Unassigned time	Available - run - downtime - idle. Zero when the day adds up; the Check column flags more than 0.05 h.	h

Quantity	How it is calculated	Units
Utilization	Run time / available time.	%
Idle share and downtime share	Idle time / available time and downtime / available time. Utilization + idle share + downtime share + unassigned share = 100%.	%
Gap to target	(Utilization - target) x 100, in percentage points; negative is below target.	pts
Area	Looked up from the Machines list on Setup by machine (INDEX/MATCH). Blank means the machine is not on the list, and the Check column says so.	-
Dashboard roll-ups	Every Dashboard figure is a SUMIFS over the Machine Log restricted to rows whose View date is filled in (inside the machine and date filters), e.g. utilization = SUMIFS(Run) / SUMIFS(Available).	-
Idle-reason Pareto	Idle hours per main idle reason, ranked largest first by COUNTIF ranks (ties keep list order), with each reason's share and the cumulative share. Helper columns AO:AQ on the Dashboard (hidden) hold the unsorted values and ranks.	h, %

Assumptions, limitations, sources and the self-check (the Verify sheet, which recomputes the workbook's formulas on fixed test inputs) are in the workbook. The last page shows the Dashboard with the example data for Halden Precision, a fictional business.

Free from MFG Calcs - keep this credit when you share it.

Engineering estimates for planning and improvement work. Verify the results against your own process, data and standards before you rely on them.

Machine Utilization Tracker

Utilization, idle time and downtime, for the machine and dates you choose.

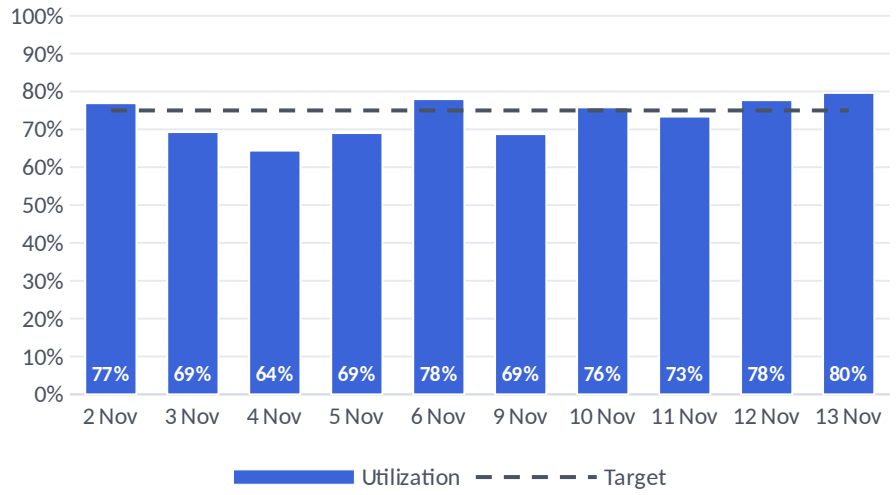
mfgcalcs.com

Machine | From | To

Showing 120 machine-days. Leave the filters blank to include everything; dates are inclusive.

UTILIZATION	IDLE SHARE	DOWNTIME SHARE	RUN HOURS
74.7%	21.5%	3.8%	1,374.3
Target 75.0%	Able to run, did not	Stopped by faults and repairs	Hours making product in view
Near target			

Utilization by day



Utilization by machine

