

Downtime Tracker

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

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Downtime Tracker

Log every machine stop with its reason, start and end time, and see downtime hours, the cost of the stops and the biggest reasons update as you type.

For: Shift supervisors, maintenance leads, reliability and continuous-improvement engineers, and plant managers.

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Quick start

1. On Setup, type your plant name, currency label and weekly unplanned downtime limit, then replace the example machines (with the value of a stopped hour), shifts and reason codes.
2. On Downtime Log, add one row per stop: date, shift, machine, reason, start and end time, and any repair or recovery charges.
3. Read the Check column: anything other than OK names the problem in words.
4. Open the Dashboard and use the machine and date filters to review one machine, one week or the whole log.

What is in the workbook

Start Here	Read this first: what the workbook does and how to use it.
Setup	Your plant, currency, targets and the dropdown lists.
Downtime Log	One row per stop: when it started and ended, why, and what it cost.
Dashboard	Downtime hours, cost and the reasons behind them, 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.

What each number means

Quantity	How it is calculated	Units
Minutes	MOD(end - start, 1) x 1440, rounded to whole minutes. An end earlier than the start is read as the next day, so a stop that runs past midnight is right; stops longer than 24 h must be split into one row per day.	min
Type and loss category	Looked up from the reason code on Setup (INDEX/MATCH). Planned stops are changeovers and scheduled maintenance inside shift time; everything else is unplanned.	-

Quantity	How it is calculated	Units
Loss rate	Looked up from the machine on Setup: the contribution or cost lost per stopped hour (your estimate).	currency/h
Production loss (est.)	Minutes / 60 x loss rate.	currency
Total cost (est.)	Production loss + repair cost (parts, outside labour, call-out and recovery charges typed on the row).	currency
Week	Monday of the stop's date: date - WEEKDAY(date, 2) + 1.	date
Downtime hours	Sum of minutes / 60 over the rows in view, split by type (Unplanned, Planned).	h
Latest week, unplanned	Unplanned hours in the last week that has stops in view (the bottom row of the weekly block), compared with the weekly limit on Setup: On target up to 90% of the limit, Near target from 90% to 100%, Above target over it. The weekly block uses the same words.	h
Average unplanned stop	Unplanned minutes / unplanned stops: a short average with many stops points to chronic nuisance stops, a long one to breakdowns and spares.	min
Cost per downtime hour	Total cost / downtime hours over the rows (Verify checks it; it is the calculator's average cost per hour).	currency/h
Pareto	Downtime minutes per reason code, 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.	min, %

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 Kestrel Stamping, a fictional business.

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

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Downtime hours, cost and the reasons behind them, for the machine and dates you choose.

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Machine

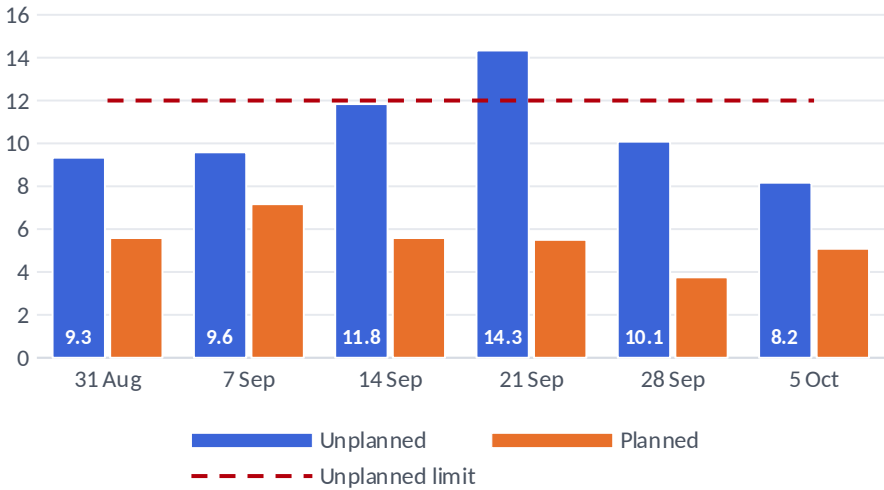
From

To

Showing 175 stops for all machines. Leave the filters blank to include everything; dates are inclusive.

UNPLANNED DOWNTIME (H)	LATEST WEEK, UNPLANNED (H)	UNPLANNED STOPS	UNPLANNED COST (USD, EST.)
63.3	8.2	126	65,603
All unplanned stops in view	Limit 12.0 On target	Count of unplanned rows in view	Production loss + repair charges

Downtime by week (hours)



Downtime Pareto (minutes)

