Test Chamber Utilization

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

Test Chamber Utilization

Track every environmental test chamber's utilization of its calibrated hours against target, with the idle hours and the chambers running out of slack.

For: Reliability and test lab managers, validation engineers and lab schedulers running thermal, humidity, HALT and combined-environment chambers.

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Quick start

1. On Setup, type your lab, target utilization, near band and high-load threshold, and list your chambers with their type.
2. On Months, give each chamber a row each month: period hours, calibration and PM hours, downtime hours and occupied test hours.
3. Fix anything the Check column names.
4. Open the Dashboard: utilization against target for the latest month, where each chamber's hours went, and the trend.

What is in the workbook

Start Here	Read this first: what the workbook does and how to use it.
Setup	Lab, target utilization, the near band, the high-load threshold, and the chambers.
Months	One row per chamber per month: period, calibration, downtime and occupied hours in; available hours, utilization and status out.
Dashboard	Chamber utilization of calibrated hours against target for the latest month, and the lab's trend.
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
Available hours	Period hours - calibration and PM - downtime.	h
Idle hours	Available hours - occupied hours.	h
Utilization and gap	Occupied / available hours; (target - utilization) x 100.	%, points
Status	Near capacity at or above the high-load threshold; On target at or above target; Near target within the near band; Below target further under.	-

Quantity	How it is calculated	Units
Lab and month totals	Total occupied over total available hours.	%

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 Corvel Reliability Lab, 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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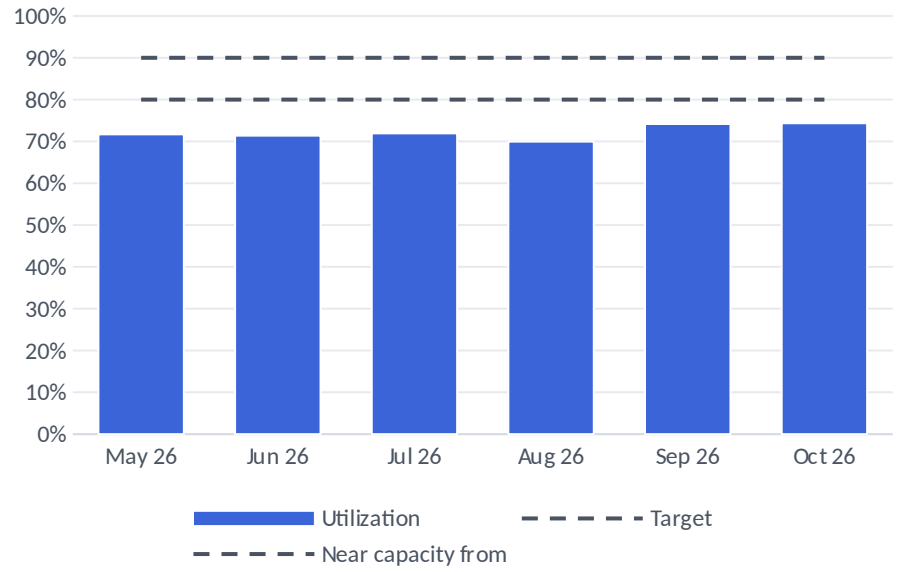
Chamber utilization of calibrated hours against target for the latest month, and the lab's trend.

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Corvel Reliability Lab (example): latest month October 2026. Target 80%; near capacity from 90%.

LAB UTILIZATION	IDLE CALIBRATED HOURS	CHAMBERS NEAR CAPACITY	CHAMBERS BELOW TARGET
74.3%	**946**	**1**	**2**
Occupied / available, latest month	Available, not occupied	At or above the high-load threshold	Further under than the near band

Lab utilization by month against target



Where each chamber's hours went, latest month

