

Demand Forecast

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

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Demand Forecast

Log each SKU's monthly forecast and actual demand, and see accuracy, bias, hit rate and whether your forecast beats a simple moving average.

For: Demand planners, S&OP leads, production planners and supply-chain managers.

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Quick start

1. On Setup, set your tolerance band, accuracy and hit-rate targets and the baseline window, then list your SKUs.
2. On Forecast Log, add one row per SKU per month with your forecast; type the actual demand when the month closes.
3. Read the Check column: anything other than OK names the problem in words.
4. Open the Dashboard for accuracy, bias and forecast value added by month and SKU, and a suggested baseline for next month.

What is in the workbook

Start Here	Read this first: what the workbook does and how to use it.
Setup	Tolerance band, targets, the baseline window and the SKU list.
Forecast Log	One row per SKU per month: your forecast, and the actual demand once the month closes.
Dashboard	Forecast accuracy, bias, hit rate and value added by month and SKU, and a suggested baseline for next month.
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
Error	Forecast - actual (positive = over-forecast).	units
Absolute error	Forecast - actual .	units
Absolute % error	Forecast - actual / actual; blank when actual is 0.	%
Within tolerance	Yes when forecast - actual ≤ tolerance x actual, else No. Open months are blank.	Yes/No
Baseline	Average actual of the previous N closed months of the same SKU (N on Setup); blank until all N exist.	units
Baseline absolute error	Baseline - actual where both exist.	units

Quantity	How it is calculated	Units
Accuracy (1 - WAPE)	1 - sum of absolute errors / sum of actuals over the closed rows in view, floored at 0.	%
Bias	Sum of errors / sum of actuals over the closed rows in view.	%
Hit rate	Rows within tolerance / closed rows in view (the live calculator's accuracy rate).	%
Forecast value added	(Sum of baseline abs errors - sum of forecast abs errors) / sum of actuals, over closed rows that have a baseline: accuracy points gained over the moving average.	% points
Baseline next month	Per SKU: the average actual of the last N closed months, as a starting point for the next forecast, next to the forecast already logged.	units

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 Valves, 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.

Demand Forecast

Forecast accuracy, bias, hit rate and value added by month and SKU, and a suggested baseline for next month.

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SKU

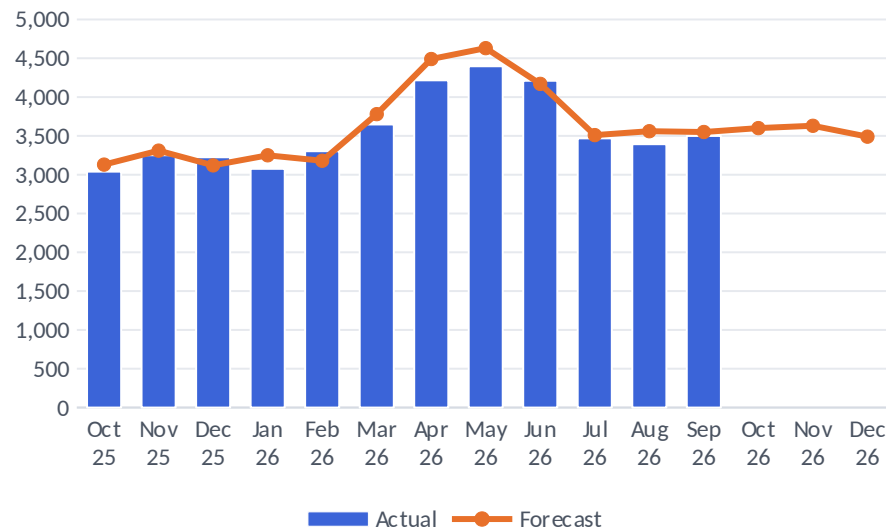
From month

To month

Showing 90 closed SKU-months and 24 open ones. Leave the filters blank to include everything.

FORECAST ACCURACY (1 - WAPE)	HIT RATE WITHIN TOLERANCE	BIAS (+ = OVER-FORECAST)	VALUE ADDED VS MOVING AVERAGE
90.6%	77.8%	+2.2%	+8.5%
Target 80.0%	Target 85.0%	Sum of errors / sum of actuals	Accuracy points gained over the baseline
On target	Below target		

Forecast vs actual demand by month



Forecast accuracy by SKU

