

S&OP Monthly Plan

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

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S&OP Monthly Plan

Balance 12 months of demand, production, inventory and line capacity by product family, and see where the plan runs short, builds stock or overloads a line.

For: S&OP leads, supply and demand planners, operations and plant managers, and the finance partner in the S&OP meeting.

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Quick start

1. On Setup, set the currency, the first plan month and your days-of-supply policy, then list your lines (hours, uptime, yield) and product families (line, rate, price, opening inventory).
2. On Plan, set each month's working days, then give every family one row per month with the demand forecast and the production plan.
3. Read each row's closing inventory, days of supply and status, and the Check column.
4. Open the Dashboard: line utilisation by month, the demand-production-inventory balance and the family summary. Change the production plan until both are acceptable.

What is in the workbook

Start Here	Read this first: what the workbook does and how to use it.
Setup	Currency, plan start, inventory policy, utilisation thresholds, the production lines and the product families.
Plan	Working days per month, then one row per family per month: demand forecast and production plan in; inventory, days of supply, line load and revenue out.
Dashboard	Line utilisation by month, the balance of demand, production and inventory, and each family's plan.
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
Good rate	Family run rate x its line's yield (Setup).	units/h
Opening inventory	Opening stock on Setup + production - demand of the family's earlier plan months (SUMIFS).	units

Quantity	How it is calculated	Units
Closing inventory	Opening inventory + production plan - demand forecast. Negative = demand not covered that month.	units
Days of supply	Closing inventory / (demand / working days of the month).	days
Inventory status	Below target under the minimum days of supply, Above target over the maximum, On target between.	-
Load	Production plan / good rate: line hours the plan needs, scrap included.	h
Available hours	Working days x hours per day x uptime, per line and month.	h
Utilisation	Sum of the load of the line's families / available hours; heat map from the Near and Over thresholds.	%
Capacity	Rate x yield x working days x hours per day x uptime: the most good units of one family a line could make in the month alone (the live calculator's good capacity).	units
Revenue	Demand forecast x price per unit, in the Setup currency. Shortages are not deducted.	currency
Family summary	Per family over the plan: demand, production, production / demand, last month's closing inventory, months below or above policy, months short, revenue.	-

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 Ridgeway Garden Equipment, a fictional business.

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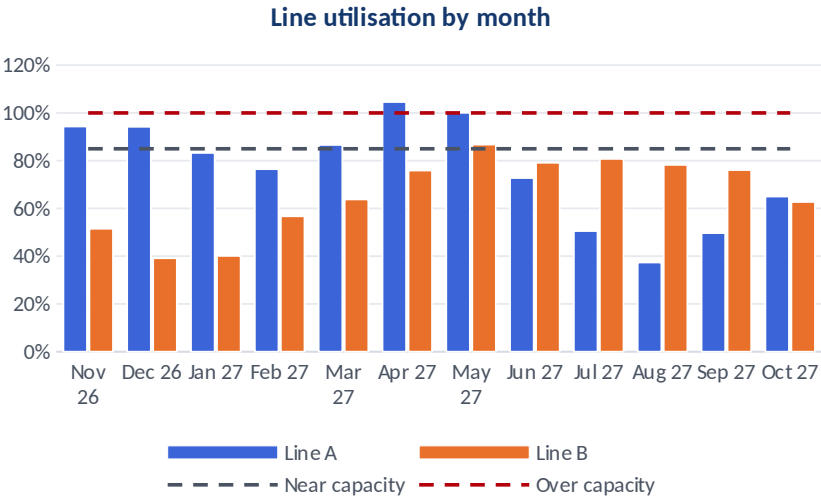
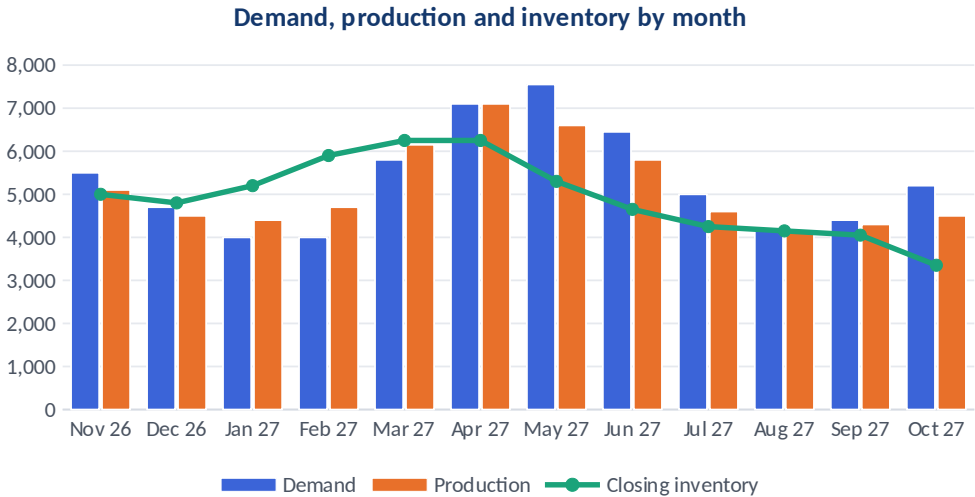
Engineering estimates for planning and improvement work. Verify the results against your own process, data and standards before you rely on them.

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Line utilisation by month, the balance of demand, production and inventory, and each family's plan.

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REVENUE PLAN (USD)	PRODUCTION / DEMAND	PEAK LINE UTILISATION	FAMILY-MONTHS SHORT
21,748,500	96.8%	105%	1
Demand forecast x price, 12 months	Over the plan, all families	Limit 100%	Limit 0
		Over capacity	Below target



Line utilisation = load / available hours (amber from Near capacity, red above Over capacity)

Utilisation	Nov 2026	Dec 2026	Jan 2027	Feb 2027	Mar 2027	Apr 2027	May 2027	Jun 2027	Jul 2027	Aug 2027	Sep 2027	Oct 2027
Line A	94%	94%	83%	76%	87%	105%	100%	73%	51%	37%	50%	65%
Line B	52%	39%	40%	57%	64%	76%	87%	79%	81%	78%	76%	63%