

MRP Planner

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

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MRP Planner

Net weekly gross requirements against stock, open orders and safety stock, and get planned orders, release weeks and the releases that are already late.

For: Production and material planners, buyers and small-plant owners running MRP without an ERP module, or checking one.

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Quick start

1. On Setup, set the plan start (a Monday), then list your items with on hand, safety stock, lead time in weeks and order multiple.

2. On MRP Lines, add one row per item per week with the gross requirement and any scheduled receipt already on order.

3. Read the Check column, then each row's planned receipt, release week and release status.

4. Open the Dashboard: pick an item to see its MRP record, and use the release matrix as the buyer's action list.

What is in the workbook

Start Here	Read this first: what the workbook does and how to use it.
Setup	Plan start and the item master: on hand, safety stock, lead time and order multiple for every item.
MRP Lines	One row per item per week: gross requirement and scheduled receipts in; net requirement, planned orders and releases out.
Dashboard	The MRP record for the item you pick, planned releases by item and week, and the releases already late.
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
Uncovered	Safety stock + gross requirements to date - on hand - scheduled receipts to date (SUMIFS by item up to this week). What new orders must cover by the end of the week.	units
Cumulative planned receipts	Order multiple x CEILING(largest uncovered amount up to this week / order multiple). Equals the week-by-week MRP total for lot-for-lot and order-multiple rules.	units

Quantity	How it is calculated	Units
Planned receipt	Cumulative planned receipts to this week - those to the week before.	units
Net requirement	$\text{MAX}(0, \text{uncovered} - \text{planned receipts before this week}) = \text{MAX}(0, \text{safety stock} - (\text{last week's projected on hand} + \text{receipts} - \text{gross}))$.	units
Projected on hand	On hand + receipts to date + planned receipts to date - gross to date (= safety stock - uncovered + cumulative planned). Never below safety stock once orders are placed.	units
Release week	Week of a planned receipt - 7 x lead time (days). Overdue when before the plan start; Due soon in week 1.	date
Planned release	Planned receipts due lead-time weeks after this week (SUMIFS).	units
MRP record	For the item picked on the Dashboard: SUMIFS of the MRP Lines by item and week.	units
Item summary	Per item: planned orders (count of weeks with a planned receipt), planned quantity, first release date, releases due this week and overdue (count and quantity).	-

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 Tamsin Air Systems, 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.

MRP Planner

The MRP record for the item you pick, planned releases by item and week, and the releases already late.

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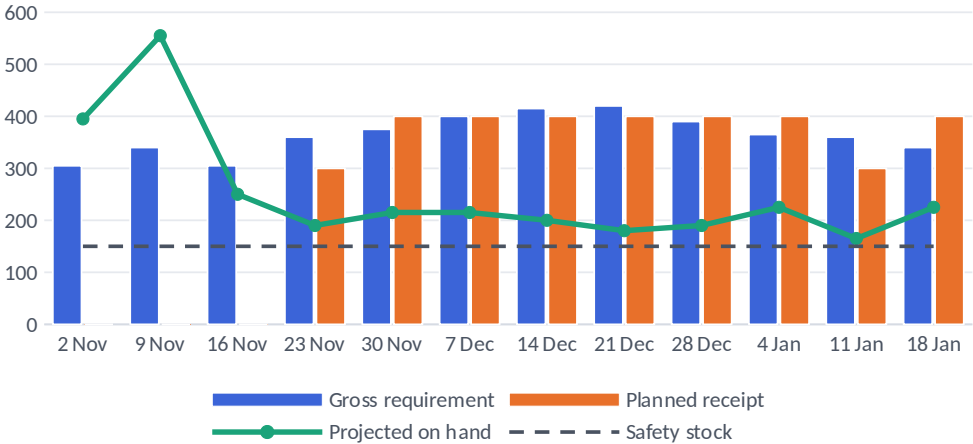
Item for the MRP record

PCB-C2

Controller board (pcs): on hand 700, safety stock 150, lead time 6 wk, order multiple 100

PLANNED ORDERS IN THE PLAN	RELEASES DUE THIS WEEK	RELEASES ALREADY OVERDUE	ITEMS WITH AN OVERDUE RELEASE
61	4	3	1
Planned receipts over 12 weeks	Release date in week 1	Limit 0	Expedite or reschedule demand
		Overdue	

MRP record for the picked item



Planned releases by week, all items (orders)

