

Production Headcount Plan

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

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Production Headcount Plan

Turn monthly demand into required people by department, plan hires against leavers, and see the gap, the overtime to cover it and the labour cost for the year.

For: Plant and operations managers, HR business partners, production planners and plant controllers preparing the annual plan.

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Quick start

1. On Setup, type paid hours per day, the absence rate, the productive share and your overtime rules, then the working days of each month and your departments with standard hours per unit, current heads and loaded rate.
2. On Headcount Plan, keep one row per department per month and type the demand in units, the planned hires and the expected leavers.
3. Read the Status column: Near target means the gap is covered by overtime within your cap; Below target means it is not.
4. Open the Dashboard to see when and where the plan is short, the overtime it needs and the labour cost; adjust hires until the red goes.

What is in the workbook

Start Here	Read this first: what the workbook does and how to use it.
Setup	Plan settings, the working-day calendar and the departments with their work content, heads and rates.
Headcount Plan	One row per department per month: demand, hires and leavers in; required FTE, gap, overtime and cost out.
Dashboard	When and where the plan is short of people, the overtime it needs, and the labour cost.
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
Required hours	Demand (units) x standard hours per unit of the department (Setup).	h

Quantity	How it is calculated	Units
Paid hours per FTE	Working days of the month (Setup calendar) x paid hours per working day.	h
Productive hours per FTE	Paid hours per FTE x (1 - absence rate) x productive share of attended time.	h
Required FTE	Required hours / productive hours per FTE.	FTE
Planned heads	Heads at start + SUMIFS of hires - SUMIFS of leavers for the department in all months up to and including this one.	people
Gap	Planned heads - required FTE; negative = short of people.	heads
Capacity	Planned heads x productive hours per FTE: standard hours delivered in straight time.	h
Attended hours	Planned heads x paid hours per FTE x (1 - absence rate).	h
Overtime needed	MAX(0, required hours - capacity) / productive share: attended overtime that earns the missing standard hours.	h
Overtime share	Overtime needed / attended hours, compared with the overtime cap.	%
Status	On target when the gap is 0 or more; Near target when short but the overtime share is within the cap; Below target when it is beyond the cap.	-
Labour cost	(Planned heads x paid hours per FTE + overtime hours x overtime factor) x loaded rate. Paid absence is inside paid hours.	currency
Dashboard roll-ups	SUMIFS of the plan columns by month or by department and month; the monthly overtime share is SUM(overtime) / SUM(attended 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 Ridgeway Pumps, 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.

Production Headcount Plan

When and where the plan is short of people, the overtime it needs, and the labour cost.

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Ridgeway Pumps (example): 4 departments, 12 months from Jan 2027. Heads at start 84; money in USD.

LARGEST SHORTFALL (HEADS)	DEPT-MONTHS BEYOND OVERTIME CAP	OVERTIME NEEDED (H)	LABOUR COST (USD)
5.0	11	7,368	6,424,109
Biggest gap in one department-month	Target 0 Above target	Over the plan, all departments	Straight time + overtime, plan total

