Starved and Blocked Time Tracker

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



Starved and Blocked Time Tracker

Log every station's starved and blocked minutes by shift, compare their share of observed time with your limit, and see the output they cost at the constraint.

For: Industrial and manufacturing engineers, line supervisors and continuous improvement teams balancing flow on assembly and packaging lines.

Version 1.0.0 · updated 12 November 2026

Quick start

1. On Setup, type your line, the flow loss limit and the constraint station, and list your stations with their name and running rate.
2. On Observations, give each station a row each shift: date, observed minutes, starved minutes and blocked minutes.
3. Fix anything the Check column names.
4. Open the Dashboard: starved and blocked share by station, and the output lost at the constraint.

What is in the workbook

Start Here	Read this first: what the workbook does and how to use it.
Setup	Line, the flow loss limit, the constraint station, and the stations with their running rate.
Observations	One row per station per shift: observed, starved and blocked minutes in; shares, margin and output lost out.
Dashboard	Starved and blocked share of every station against your limit, and the output the constraint loses.
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
Starved and blocked share	Starved minutes / observed; blocked minutes / observed.	%
Total share and margin	Starved share + blocked share; flow loss limit - total, in points.	%, points
Status	Within limits when the total share is no more than the limit; otherwise Out of limits.	-

Quantity	How it is calculated	Units
Minutes lost and output lost if constraint	Starved + blocked minutes; / 60 x the station's rate.	min, units
Station over the log	Sums of observed, starved and blocked minutes, then the same ratios.	%

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 Fairfield Engine Assembly, 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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Starved and blocked share of every station against your limit, and the output the constraint loses.

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Fairfield Engine Assembly (example): 7 stations, constraint OP40. Flow loss limit 5%.

HOURS OBSERVED	STARVED AND BLOCKED SHARE	STATIONS OVER THE LIMIT	OUTPUT LOST AT THE CONSTRAINT
262.5	**9.0%**	**6**	**73.3**
All stations, all shifts	Target 5.0%	Over the whole log	Units, over the whole log
	Above target		

Starved and blocked share by station



Output lost if each were the constraint

