Fill Weight Giveaway

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

Fill Weight Giveaway

Log every filling run's overfill against the declared weight, see what it costs, and how much of it the run's spread does not need.

For: Packaging and production managers, quality and process engineers at food, beverage and consumer goods packers.

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Quick start

1. On Setup, type your plant and currency, your sigma cover, the lines, and the products with their declared weight, cost per pound and target giveaway.
2. On Runs, give each filling run a row: date, line, product, packages, the average fill and its standard deviation from the checkweigher.
3. Fix anything the Check column names.
4. Open the Dashboard: giveaway against target by run, what it costs, and the part the spread does not need.

What is in the workbook

Start Here	Read this first: what the workbook does and how to use it.
Setup	Plant, currency, sigma cover and near band, the lines, and the products with their declared weight, cost and target.
Runs	One row per filling run: packages, average fill and spread in; giveaway, its cost and the avoidable part out.
Dashboard	Giveaway against target for every run, what it costs, and the part the run's spread does not need.
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
Giveaway per package	Average fill - declared weight.	oz
Giveaway	Giveaway per package / declared weight.	%
Giveaway per run	Giveaway per package x packages / 16.	lb
Giveaway cost	Giveaway per run x cost per lb.	currency
Lowest safe average	Declared weight + sigma cover x standard deviation.	oz

Quantity	How it is calculated	Units
Avoidable per package and cost	Average fill - lowest safe average, never below 0; x packages / 16 x cost per lb.	oz, currency
Status	On target at or below the product's target; Near target up to the near band over it; Above target beyond.	-

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 Brookvale Snacks, 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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Giveaway against target for every run, what it costs, and the part the run's spread does not need.

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Brookvale Snacks (example): 12 runs, 140,000 packages of 3 products. Sigma cover 2.0. Amounts in USD.

RUNS	GIVEAWAY (LB)	GIVEAWAY COST (USD)	AVOIDABLE AT YOUR COVER (USD)
12	1,311	2,410	553
Rows on Runs	Product given away above label	Giveaway x cost per lb	Above the lowest safe average

Giveaway against target



Giveaway cost: needed for spread and avoidable

