

Activity-Based Costing

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

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Activity-Based Costing

Assign overhead to products by the activities they use, compare it with a single plantwide rate, and see which products are really profitable.

For: Plant controllers, cost accountants, finance and pricing managers, and plant managers in manufacturing businesses with a mixed product range.

Version 1.0.0 · updated 15 October 2026

Quick start

1. On Setup, type your company, currency and period, choose the traditional allocation base (labour or machine hours) and set your margin target.
2. On Activities, list each overhead cost pool with its cost driver and, if you know it, its practical capacity.
3. On Products, type each product's volume, price, direct material, direct labour and hours per unit.
4. On Driver Usage, type how much of each driver every product used (setups, purchase orders, hours). Fix anything the Check columns name.
5. Open the Dashboard: margin by product under both methods, the overhead each method gives every product, and the activity rates.

What is in the workbook

Start Here	Read this first: what the workbook does and how to use it.
Setup	Company, currency and period, the traditional allocation base to compare with, and your margin target.
Activities	One row per overhead activity: its cost pool, cost driver and capacity in; activity rate and unused capacity out.
Products	One row per product: volume, price and direct cost in; overhead and unit cost by both methods, margins and the gap out.
Driver Usage	One row per product and activity: how much of the cost driver the product used, and the cost that assigns.
Dashboard	Which products the single rate over-costs and under-costs, margin by product under both methods, and the activity rates.
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
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Quantity	How it is calculated	Units
Driver volume	Sum of the activity's driver quantities on Driver Usage.	driver units
Activity rate	Cost pool / practical capacity; when no capacity is given, cost pool / driver volume.	currency/driver
Assigned cost	Driver quantity x activity rate, per Driver Usage row; summed per activity it is the cost assigned to products.	currency
Unused capacity	Cost pool - cost assigned to products: zero unless a practical capacity above the volume used is given.	currency
ABC overhead per unit	Sum of the product's assigned costs / its volume.	currency/unit
Plantwide rate	Overhead in all pools / (sum of volume x hours per unit on the Setup base).	currency/h
Traditional overhead per unit	Hours per unit on the Setup base (labour or machine) x plantwide rate.	currency/unit
Unit costs	Direct cost (material + direct labour) + ABC overhead, or + traditional overhead.	currency/unit
ABC vs traditional	ABC unit cost / traditional unit cost - 1; positive = the single rate under-costs the product.	%
Margins and status	(Price - unit cost) / price, by each method; the ABC margin is compared with the Setup target (Near target = within 5% below it).	%
Plant margin	(Revenue - direct cost - all overhead) / revenue. The same under both methods: ABC moves overhead between products, it does not change the total.	%

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 Brightwater Valves, 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.

Activity-Based Costing

Which products the single rate over-costs and under-costs, margin by product under both methods, and the activity rates.

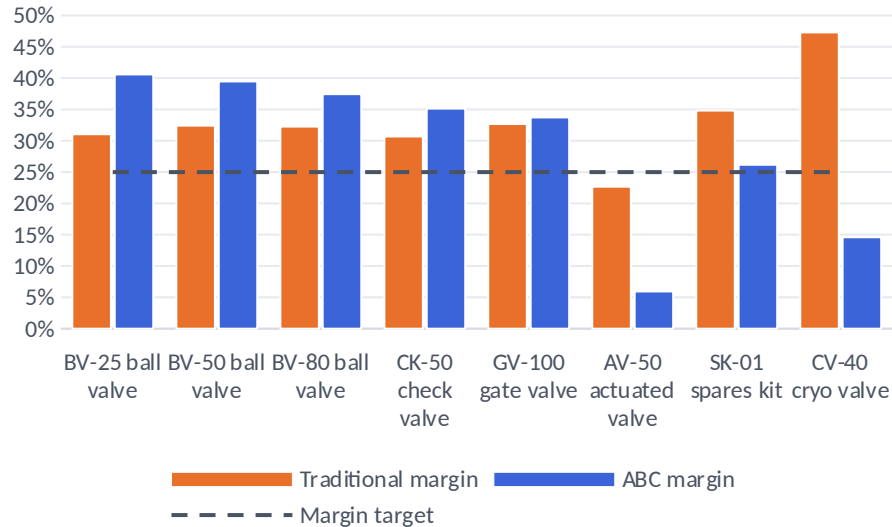
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Brightwater Valves (example) - FY 2026 budget

Traditional: all overhead spread by direct labour hours at one plantwide rate. ABC: each activity pool spread by its own cost driver. Amounts in USD.

OVERHEAD IN ACTIVITY POOLS (USD)	LOWEST PRODUCT MARGIN (ABC)	PRODUCTS BELOW THE MARGIN TARGET (ABC)	MOST UNDER-COSTED BY THE SINGLE RATE
1,200,000	5.9%	2	CV-40 cryo valve
Assigned by each activity's cost driver	Target 25.0%	Target 0	Largest ABC unit cost above traditional
	Below target	Above target	

Margin by product: traditional vs ABC



Overhead each method gives a product

