



Manufacturing and Average Costs

How Data Fusion values the stock you consume and produce — and what gets sent back to Sage

Introduction

When you manufacture, two things happen to your stock: components are consumed, and a finished item is created. Both have to be valued.

Because Data Fusion keeps a separate average cost for every warehouse, the value used depends on which warehouse each component is taken from. The same works order, run against different warehouses, will produce a finished item with a different cost — and every one of those figures is correct.

Each component line has its own warehouse. The "Draw from" selector sets them all in one go, and you can then change any individual line. So a single works order can take one component from Johannesburg and another from George, with each valued where it actually came from.

This guide explains how that works, and what Sage receives at the end of it.

⚠ Important: This builds on the rules in Additional Costs on Receiving & Warehouse Transfers. The two rules that matter here are the same — stock coming in re-blends a warehouse's average; stock going out never changes it.

Key Terms

Term	What It Means
Draw warehouse	The warehouse a component is taken from. Set for every line at once using the "Draw from" selector, and changeable line by line afterwards.
Destination warehouse	Where the finished item is placed. Often the same warehouse, but it doesn't have to be.
Component cost	What a component is worth in the warehouse that line is drawn from — that warehouse's own average.
Finished item cost	Total component value used, plus any BOM additional costs, divided by the quantity made.
Backflush	Consuming components automatically according to the BOM, rather than picking them line by line.

The Short Version

Each component is valued at the average cost of the warehouse that line is drawn from.

Taking them out does not change that average — only the quantity falls.

The finished item's cost is built from those component values.

The finished item goes into the destination warehouse and re-blends that warehouse's average.

Both steps are posted to Sage, which keeps a single average for the whole company.

Worked Example

Component X is held in two places:

Warehouse	Quantity	Average cost
Johannesburg	100	R11.00
George	50	R12.00

The BOM uses 2 × Component X per finished item, and carries R3.00 of additional cost per unit. You are making 10.

If you draw from Johannesburg

	Calculation
Components consumed	$20 \times R11.00 = R220.00$
BOM additional costs	$10 \times R3.00 = R30.00$
Total	R250.00
Finished item cost	R25.00 each

Johannesburg is left with 80 units, still at R11.00. George is untouched.

If you draw from George instead

	Calculation
Components consumed	$20 \times R12.00 = R240.00$
BOM additional costs	$10 \times R3.00 = R30.00$
Total	R270.00
Finished item cost	R27.00 each

George is left with 30 units, still at R12.00. Johannesburg is untouched.

Same works order. Same quantity. R2.00 per unit difference: that is not an error — it reflects what the stock in that warehouse actually cost you.

If you draw from both

Because the warehouse is set per line, a works order can take part of its components from one warehouse and part from another. Say this finished item also needs 1 × Component Y, held only in George at R4.00, while Component X is drawn from Johannesburg:

Component	Drawn from	Calculation
Component X	Johannesburg	$20 \times R11.00 = R220.00$
Component Y	George	$10 \times R4.00 = R40.00$
BOM additional costs		$10 \times R3.00 = R30.00$
Total		R290.00
Finished item cost		R29.00 each

Each line is valued where it actually came from. Johannesburg drops 20 units and keeps its R11.00 average; George drops 10 units of Component Y and keeps its own average. Neither warehouse is revalued by the other.

What Gets Posted to Sage

Sage holds one average cost per item for the entire company. It has no concept of your warehouses.

Data Fusion posts two adjustments for every manufacture:

Step	What Sage receives
Components consumed	A stock reduction for each component, valued at the cost of the warehouse that line came from
Finished item produced	A stock increase, valued at the calculated finished item cost

Each adjustment re-calculates Sage's single company-wide average, using Sage's own total quantity on hand.

Why Sage's figure won't match either warehouse

Carrying on the example above. Across both warehouses you hold 150 units worth R1,700, so Sage shows an average of about R11.33 — a blend of the R11.00 and R12.00 stock.

Now you draw 20 units from Johannesburg at R11.00:

	Quantity	Value
Sage before	150	R1,700
Removed	20	R220
Sage after	130	R1,480
Sage's new average		R11.38

Sage's average has gone up slightly, even though you only removed stock. That is because you removed stock that was cheaper than the company-wide average, so what remains is worth a little more per unit.

Meanwhile Johannesburg is still R11.00 and George is still R12.00 — both unchanged and both correct.

⚠ Important: Sage's average cost is not meant to match any single warehouse. It is a company-wide figure covering all your stock everywhere. Data Fusion's per-warehouse figures are the ones that reflect what each location actually paid.

Which Cost Is Used — All Cases

Data Fusion works down this list until it finds a figure:

The average cost of the warehouse that component line is drawn from. Used whenever that warehouse has costed stock movements for the component. This is the normal case.

The cost recorded on the works order line. A snapshot taken when the works order was raised. Only used if the component has never held costed stock in that warehouse.

Sage's current average cost for the item. Only if both of the above are zero.

Zero. Allowed, and correct, for genuinely free stock such as consignment goods.

The Options You Have

Choosing where each component comes from.

This is the single biggest influence on what your finished item costs. Use the "Draw from" selector to set every line at once, then change any line that should come from somewhere else. Always pick the warehouse whose stock is genuinely being used.

Make and keep, or make and move.

You can produce the finished item into the same warehouse you drew from, or into a different one. The cost travels with it either way — moving it does not change its value.

Part manufacture.

You can make part of a works order now and the rest later. Each run is valued at the warehouse's average at the time of that run, so two batches from the same works order can cost differently if stock was received in between. BOM additional costs are charged per unit produced, so a part manufacture only carries its own share.

Common Mistakes to Avoid

Expecting the same works order to cost the same everywhere. It won't and shouldn't. The cost follows the warehouse.

Expecting Sage's average to match a warehouse figure. Sage has one number for the whole company. Data Fusion has one per warehouse. They will differ, by design.

Being surprised that Sage's average moved when you only consumed stock. Removing stock that was cheaper or dearer than the company-wide average shifts that average. This is arithmetic, not an error.

Assuming drawing components devalues the source warehouse. It doesn't. The quantity drops; the average stays exactly where it was.

Manufacturing from the wrong warehouse to "get a better cost". The finished item's value should reflect the stock actually consumed. Choosing a warehouse to influence the cost misstates your margins.

Manual edits to an average cost directly in Sage behave differently and are covered separately.