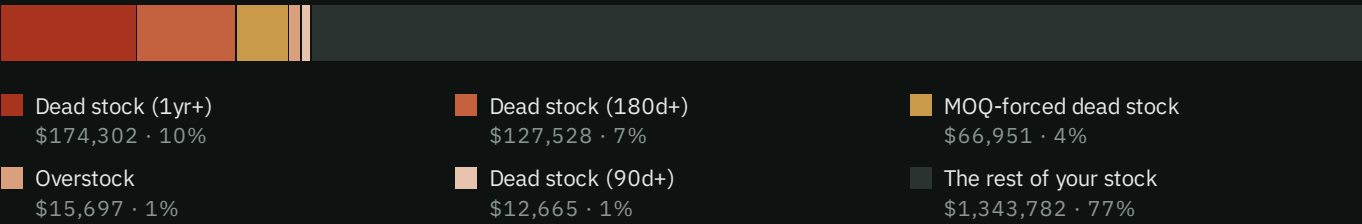


YOUR BUSINESS, READ FROM YOUR OWN RECORDS

Inventory and business health report

Summit HVAC & Plumbing Supply (sample) · data through 11 Oct 2026

WHERE YOUR STOCK MONEY IS TODAY



\$1,740,927 stock held, at cost	4.3 months of sales on the shelf; US wholesalers held 2.13 (2025)	92.4% of order lines shipped complete, last 4 weeks; a common target is 95% to 97%	\$397,145 of stock that will not sell on its own
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STOCK AGAINST SALES, LAST YEAR

Over the last 52 weeks your stock went from \$1,350,450 to \$1,724,431, up 28%. Sales over the same 11 months (Nov to Sep) were \$4,483,413, against \$4,624,508 a year earlier: down 3%.

Open the live demo →

naradaos.com

Sample report. Summit HVAC & Plumbing Supply (sample) is a fictional distributor. Its sales follow patterns measured in real parts-distribution data; its names, prices and seasons are our assumptions (Appendix C). Every figure was produced by Narada OS from its data files, exactly as it would be for a client.

Prepared 18 Oct 2026 · Every figure traces to a named calculation; the formulas are in Appendix A

Summit HVAC & Plumbing Supply (sample) at a glance

Everything in this report is read from these records: every sale, every purchase order and every stock reading, part by part and branch by branch.

	HOW MANY	DETAIL
Parts in the catalogue	10,146	7,719 sold in the last 12 months
Branches	3	9,406 part-and-branch lines in stock today
Stock held, at cost	\$1,740,927	today
Sales	\$4,844,091	the last 12 months
Customers who bought	1,000	the last 12 months
Invoices	36,523	56,686 invoice lines, last 12 months
Suppliers	20	35,082 purchase-order lines, last 12 months
Records from	2024-10-14	the earliest sale on file

In this report

1	Executive summary	9	Branches
2	Cash tied up in stock	10	Can the numbers be trusted
3	Dead, slow and excess stock	11	The digital twin, in brief
4	Service and stockouts	12	What Narada does about it
5	Buying and suppliers	A	How the figures are calculated
6	Demand and seasons	B	Benchmarks and sources
7	Customers	C	The data and its limits
8	Margin, receivables and the cash cycle		

What matters most, in money

YOUR BUSINESS, TESTED IN A DIGITAL TWIN

Replaying your last year with Narada buying: \$129,630 less tied up in stock, 4.5 points more of demand filled, and \$31,665 to \$46,294 a year less cost, against a price of \$24,000 a year. The full digital twin report is a separate document.

Four different kinds of money, each counted once per part. Each row adds up findings of one kind; the four rows are not added together: stock on the shelf is cash you hold once, the others are costs and margin over different periods.

WHAT	AMOUNT	OVER WHAT PERIOD
Stock that will not sell on its own, at cost	\$397,145	Today, held once
Margin at risk from parts running out	\$5,477	Until stock can land
Costs and lost margin that repeat	\$212,822	Per year
Costs and lost margin measured recently	\$32,861	The last 90 days

Also found, shown separately: running costs, per year \$14,648.

DO THIS FIRST

Clear the dead stock

\$45,274 to \$120,732

about this much cash back if you sell off the dead stock in chapter 3

Call Keller & Sons Plumbing

\$19,080

of margin a year at risk if their buying keeps falling (chapter 7)

Re-plan Cornerstone Climate Products

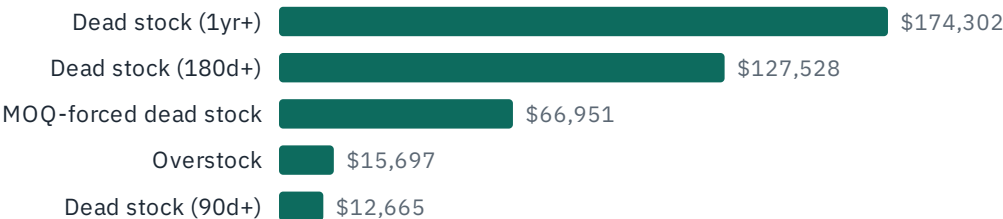
7.3% on time

of order lines, on \$497,678 of received orders; plan on its measured delivery time (chapter 5)

Picked for a clear first step and money you can see, not by size. The ranking below is by size.

Where to start, by size

Stock on the shelf, at cost today



Cost or lost margin, per year



The largest opportunities, with the next step

#	FINDING	PARTS OR ITEMS	VALUE	WHAT THE VALUE IS	NEXT STEP
1	Dead stock (1yr+)	1,013	\$174,302	Stock on the shelf, at cost today	Liquidate, bundle, or return to supplier to free the trapped cash.
2	MOQ cash trap	1,572	\$167,495	Cost or lost margin, per year	Ask the supplier for a smaller minimum or pack size on these parts, or buy them from a supplier with a lower minimum.
3	Dead stock (180d+)	495	\$127,528	Stock on the shelf, at cost today	Clear via markdown or write-off decision before it loses more value.
4	MOQ-forced dead stock	251	\$66,951	Stock on the shelf, at cost today	Renegotiate the MOQ, or move the forced excess via bundle, transfer, or return.
5	Customer quietly leaving	–	\$45,325	Cost or lost margin, per year	Call the customer and ask what changed (price, a part you were out of, a competitor) while the account is still active.
6	Low GMROI	2,728	\$28,288	Cost or lost margin, last 90 days	Review pricing, cost, or whether to keep carrying this line.
7	Overstock	437	\$15,697	Stock on the shelf, at cost today	Pause replenishment and redistribute or promote the excess.
8	Dead stock (90d+)	55	\$12,665	Stock on the shelf, at cost today	Liquidate, bundle, or return to supplier to free the trapped cash.
9	MOQ renegotiation	–	\$12,645	Saving per year	Renegotiate the minimum order quantity with the supplier.
10	Lifecycle decline	223	\$6,868	Margin over the next 90 days	Cut or stop reorders, clear the remaining stock with a markdown, and line up a replacement or discontinuation.

Each row is one kind of finding across all branches, with what its value is beside it. Rows overlap and are different kinds of money, so they are not added up.

Health scorecard

MEASURE	YOURS	BENCHMARK	MEASURED AS
Stock value	\$1,740,927	–	On hand × unit cost, every branch
Turns	2.5x	–	Last 12 months, at each night's cost, before returns
Days of inventory	146 days	–	365 ÷ turns, last 12 months

MEASURE	YOURS	BENCHMARK	MEASURED AS
Return on stock	\$0.69 per \$1	–	Gross margin per \$1 of average stock, last 12 months
Gross margin	21.3%	–	On lines with both a price and a cost, last 4 weeks
In-stock rate	77.7%	–	Stocked parts, weighted by demand value, last 4 weeks
Line fill rate	92.4%	95.0% to 97.0%	Order lines shipped complete, last 4 weeks; placed orders only, see chapter 4
Stocked out now	19.1%	–	Parts at zero that sold in the last 90 days
Stock unsold for over a year	\$188,072	–	Stock value with no sale in 365 days
On time	85.8%	–	Against the first promised date, last 4 weeks
In full	100.0%	–	Received quantity at least what was ordered, last 4 weeks
Return rate	8.4%	–	Units returned ÷ units sold, last 4 weeks
Cash cycle	134 days	–	Days, 90-day basis: the Cash page figure as of the last nightly run
Overdue supplier order lines	315	–	Open lines past the first promised date; chapter 5 explains the three late-order counts
Months of sales in stock	4.3 months	2.1 months	Stock value at cost / average monthly sales, last 12 months

– = no public benchmark we could verify for distributors of this kind; the figure is still yours to track month to month.

CHAPTER 2

Cash tied up in stock

How much cash is sitting in stock, where, and is it earning its keep?

\$1,740,927

stock held, at cost

4.3 months

of sales on the shelf; US
wholesalers 2.13

\$435,232

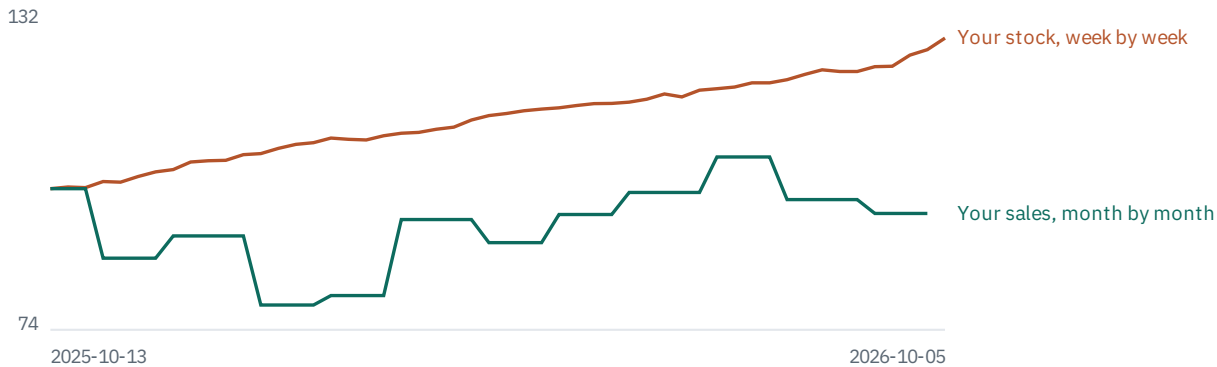
a year to keep it, at your holding
rate

WHAT WE FOUND

- You hold **\$1,740,927** of stock at cost, against \$4,844,091 of sales in the last 12 months.
- That is **4.3 months** of sales on the shelf. US hardware, plumbing and heating wholesalers held 2.13 months on average in 2025 (US Census Bureau).
- Keeping this stock costs about **\$435,232** a year at your holding rate of 25.0%. Most distributors carry 20% to 30% a year; bulky stock such as HVAC sits near the top (appendix B).

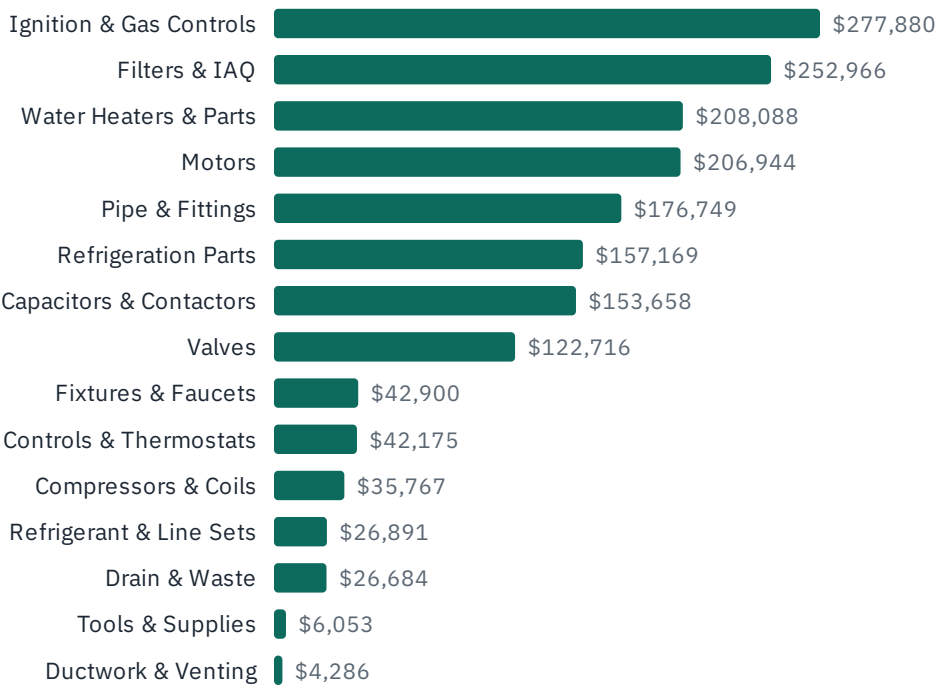
Stock against sales over the last year

Both lines start at 100; a line at 120 is 20% above where it started.



Over the last 52 weeks your stock went from \$1,350,450 to \$1,724,431, up 28%. Sales over the same 11 months (Nov to Sep) were \$4,483,413, against \$4,624,508 a year earlier: down 3%.

Where the money sits, by category



How hard each category's stock works

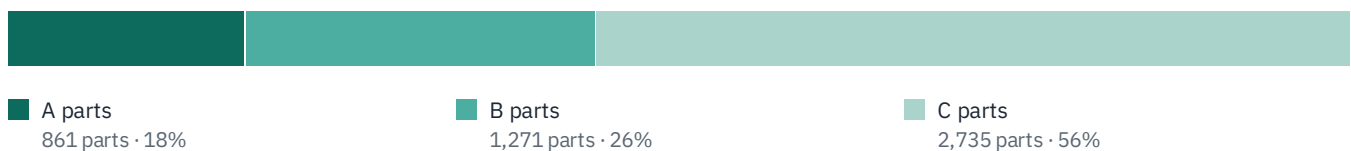
CATEGORY	STOCK VALUE NOW	GROSS MARGIN, 12 MONTHS	MARGIN EARNED PER \$1 OF STOCK, 12 MONTHS
Ignition & Gas Controls	\$277,880	21.5%	\$0.51 per \$1
Filters & IAQ	\$252,966	21.6%	\$0.50 per \$1
Water Heaters & Parts	\$208,088	21.3%	\$0.69 per \$1

CATEGORY	STOCK VALUE NOW	GROSS MARGIN, 12 MONTHS	MARGIN EARNED PER \$1 OF STOCK, 12 MONTHS
Motors	\$206,944	20.9%	\$0.76 per \$1
Pipe & Fittings	\$176,749	21.2%	\$0.87 per \$1
Refrigeration Parts	\$157,169	21.6%	\$0.51 per \$1
Capacitors & Contactors	\$153,658	22.2%	\$0.62 per \$1
Valves	\$122,716	22.8%	\$0.45 per \$1
Fixtures & Faucets	\$42,900	22.1%	\$0.95 per \$1
Controls & Thermostats	\$42,175	22.0%	\$1.19 per \$1
Compressors & Coils	\$35,767	21.7%	\$2.17 per \$1
Refrigerant & Line Sets	\$26,891	21.5%	\$2.10 per \$1
Drain & Waste	\$26,684	21.4%	\$0.48 per \$1
Tools & Supplies	\$6,053	23.2%	\$3.22 per \$1
Ductwork & Venting	\$4,286	23.0%	\$1.63 per \$1

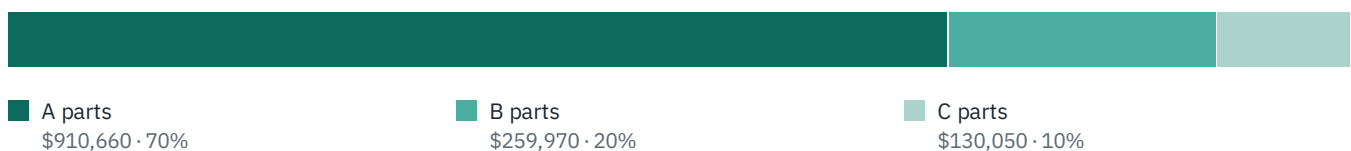
10 of 15 categories earned less than a dollar of margin a year for each dollar of stock they hold; the weakest are Valves (\$0.45 per \$1), Drain & Waste (\$0.48 per \$1), Filters & IAQ (\$0.50 per \$1). Cutting stock there gives up the least margin.

Your parts, by how much they sell (last 90 days)

Share of the parts you sold



Share of revenue



A parts are 18% of the parts you sold and bring 70% of the revenue; C parts are 56% of the parts and bring 10%. The long tail is where stock is easiest to over-hold.

How steady demand is: every part sold lands in the erratic group. Week to week, demand varies too much to count as steady. That is typical of a parts catalog where most parts sell in only some weeks, and it is why a plain average misjudges them.

Dead, slow and excess stock

Which stock will not sell on its own, and what can you get back for it?

\$397,145

of stock will not sell on its own

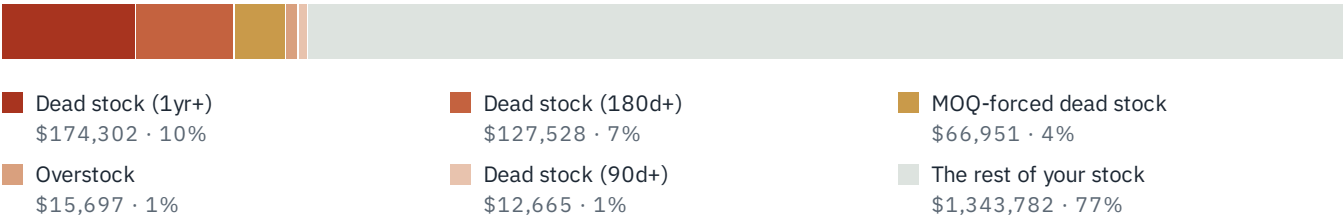
\$174,302

of it dead for a year or more, 1,013 part-branch lines

WHAT WE FOUND

- **\$397,145** of stock is stuck: dead, aged, overstocked or bought only to meet a supplier minimum.

Your whole stock, split by what it is doing



Inside the \$397,145

FINDING	PARTS OR ITEMS	VALUE	WHAT THE VALUE IS	NEXT STEP
Dead stock (1yr+)	1,013	\$174,302	Stock on the shelf, at cost today	Liquidate, bundle, or return to supplier to free the trapped cash.
Dead stock (180d+)	495	\$127,528	Stock on the shelf, at cost today	Clear via markdown or write-off decision before it loses more value.
MOQ-forced dead stock	251	\$66,951	Stock on the shelf, at cost today	Renegotiate the MOQ, or move the forced excess via bundle, transfer, or return.
Overstock	437	\$15,697	Stock on the shelf, at cost today	Pause replenishment and redistribute or promote the excess.
Dead stock (90d+)	55	\$12,665	Stock on the shelf, at cost today	Liquidate, bundle, or return to supplier to free the trapped cash.

If you cleared the \$301,830 of dead stock above (the 1yr+ and 180d+ rows) by selling it off, you would get back about \$45,274 to \$120,732 in cash, the 15% to 40% of cost marketplaces pay. Wholesale buyers pay 40% to 70% when they will take it (appendix B). The rest is written off, which reduces profit in the month you do it.

A part can sit in two rows (dead at one branch, overstocked at another), so the rows are not added up; the total above counts each part once. 'Stock unsold for over a year' on the scorecard counts days since the last sale; 'Dead stock (1yr+)' here judges each part against its own selling rhythm, so a part that normally sells once a year is not called dead. The age tiers are distinct: 180d+ means 180 days to a year, 1yr+ a year or more.

Also flagged, not in that total

FINDING	PARTS OR ITEMS	VALUE	WHAT THE VALUE IS	NEXT STEP
Committed overstock	146	\$5,158	On order above what is needed, at cost	Cut or delay the open purchase order before it ships: demand dropped after it was placed.
Slow mover	9	\$690	Margin over the next 60 days	Reduce future orders and consider promoting or redistributing the stock.

By branch, with the largest lines

BRANCH	KIND	VALUE	LARGEST LINES
BR-02	Dead stock (1yr+) 335 SKUs	\$65,692	Zone Damper Control, Standard, model AN3058, Tank Water Heater, 50 gal Natural Gas, model KA6058, Tank Water Heater, 50 gal Natural Gas, model UC5402
BR-01	Dead stock (1yr+) 353 SKUs	\$65,442	ECM Blower Motor, 1/2 HP Programmed, model WJ3633, Thermal Expansion Valve, 3-5 Ton R-410A, model DK6934, Thermal Expansion Valve, 2-3 Ton R-410A, model GH1784
BR-03	Dead stock (180d+) 166 SKUs	\$50,026	Tank Water Heater, 50 gal Electric, model BM7634, UV Lamp, Standard, model RC1883, UV Lamp, Standard, model TD1649
BR-01	Dead stock (180d+) 170 SKUs	\$48,784	Tank Water Heater, 40 gal Natural Gas, model ZX6707, UV Lamp, Standard, model RC1883, ECM Blower Motor, 1/2 HP Programmed, model UL2392
BR-03	Dead stock (1yr+) 325 SKUs	\$43,168	ECM Blower Motor, 3/4 HP Programmed, model XK9237, R-410A Refrigerant 25 lb, Cylinder, model XN6565, ECM Blower Motor, 1/2 HP Programmed, model HV2937
BR-03	MOQ-forced dead stock 91 SKUs	\$29,799	Condenser Fan Motor, 1/4 HP 1075 RPM, model VJ8917, Furnace Gas Valve, Single Stage, model JG9386, UV Lamp, Standard, model DK2101
BR-02	Dead stock (180d+) 159 SKUs	\$28,718	UV Lamp, Standard, model GC3046, Furnace Gas Valve, Two Stage, model KW5331, Thermal Expansion Valve, 3-5 Ton R-410A, model ZA7027
BR-01	MOQ-forced dead stock 83 SKUs	\$21,269	UV Lamp, Standard, model BX4474, UV Lamp, Standard, model BB2049, Service Valve, Standard, model JU3969

The 8 largest of 15. Every line is on the Clear Stock screen.

BR-01 holds the most stuck stock in these lines, \$143,966 (36%); BR-02 holds the least, \$120,754. Start clearing where the most sits.

Service and stockouts

How often do customers get what they ask for, and what runs out next?

92.4%

of order lines shipped complete, last 4 weeks

826

part-branch lines run out in the next 30 days

712

of them with nothing on order in time

WHAT WE FOUND

- **92.4%** of order lines shipped complete in the last 4 weeks; a common target is 95% to 97%. Line fill counts only orders your customers placed. When a part is out, many walk away without ordering, so line fill never sees them. Counting that missed demand too, your shelf filled 86.9% of what customers wanted over the last year (chapter 11).
- Parts in stock, weighted by what they sell: **77.7%**.
- **826** part-branch lines run out in the next 30 days; 712 of them have nothing on order that lands in time.
- Margin lost per day on what is already out: **\$112**. It stops as soon as stock lands.

The costliest lines to leave short

PART	DESCRIPTION	BRANCH	RUNS OUT	MARGIN LOST PER DAY ONCE OUT	FASTEST FIX
HV-IGN-9651	Pilot Assembly, Standard, model US7685	BR-01	25 days	\$5/day	move 16 from BR-03
HV-IGN-3087	Furnace Gas Valve, Single Stage, model AD3314	BR-02	out now	\$5/day	move 3 from BR-01
HV-CAP-4434	Hard Start Kit, Standard, model JD4996	BR-03	8 days	\$5/day	order
HV-WTR-8901	Tank Water Heater, 40 gal Natural Gas, model VF5757	BR-02	out now	\$5/day	move 1 from BR-03
HV-PIP-5508	Copper Pipe Type L, 1/2" x 10 ft, model TG6278	BR-01	22 days	\$5/day	order now
HV-FLT-4988	UV Lamp, Standard, model TL8766	BR-01	22 days	\$4/day	move 2 from BR-02
HV-PIP-5108	Copper Pipe Type L, 1/2" x 10 ft, model ZL7478	BR-01	8 days	\$4/day	move 2 from BR-03
HV-PIP-4210	PEX Tubing Coil, 3/4" x 300 ft White, model AG3146	BR-01	out now	\$3/day	order

The 8 largest of 15. Every line is on the Stock Watch screen.

Related findings

FINDING	PARTS OR ITEMS	VALUE	WHAT THE VALUE IS	NEXT STEP
Out of stock	654	\$4,481	Margin at risk until stock can land	Reorder immediately and expedite — you're losing sales while out.
Critically low stock	60	\$909	Margin at risk until stock can land	Expedite a reorder now — coverage is below the lead-time buffer.
At risk of stockout	47	\$86	Margin at risk until stock can land	Review and reorder before this becomes a stockout.
Customer often left short	5	not available	A count, no money value	Check the parts this customer is often short of: hold more of them, or cover them from another branch.

CHAPTER 5

Buying and suppliers

Are reorder settings, order sizes and suppliers working for you or against you?

WHAT WE FOUND

- ERP records and settings worth fixing: **\$14,417** still on order past its due date; **\$5,872** tied up in dead or unpriced stock; **\$3,102** a year from reorder rule drift; **\$1,468** a year to keep that dead stock (each check is in chapter 10).
- 2 of 20 suppliers deliver later than the lead time on file. The one that costs you most is Cornerstone Climate Products: only 7.3% of order lines arrived on time, across \$497,678 of received orders on file (promises 5 days and takes 10 days). The slowest, Maple Pipe Company, promises 21 days and takes 37 days on average.
- Supplier minimums are forcing buys well past what sells: see the minimum-order findings below.

Buying findings

FINDING	PARTS OR ITEMS	VALUE	WHAT THE VALUE IS	NEXT STEP
MOQ cash trap	1,572	\$167,495	Cost or lost margin, per year	Ask the supplier for a smaller minimum or pack size on these parts, or buy them from a supplier with a lower minimum.
Below reorder point	1,159	\$77,746	Cost to restock to the reorder point	Place a replenishment order to get back above the reorder point.
PO overdue	95	\$37,962	Ordered, not yet received	Chase the supplier for a firm delivery date, or escalate if it's gone quiet.

FINDING	PARTS OR ITEMS	VALUE	WHAT THE VALUE IS	NEXT STEP
MOQ renegotiation	–	\$12,645	Saving per year	Renegotiate the minimum order quantity with the supplier.
Supplier delivery time varies	–	\$8,105	Running cost per year	Plan this supplier on its measured delivery time, not the one on file, and raise the late orders with them.
Panic buying pattern	–	not priced	Running cost per year	Order these parts earlier, at their reorder point: these orders went out with three days of stock or less left.
PO won't arrive in time	137	not available	A count, no money value	Expedite this PO or place a backup order — the current ETA arrives too late.
Supplier reliability risk	–	not priced	Running cost per year	Line up a second supplier for the parts this supplier delivers late, or hold more cover on them.

ERP Health: the checks with the most behind them

CHECK	WHAT WE SAW	VALUE
Dead & unpriced stock	1,529 items	\$1,468 a year
Purchase orders past their due date	101 items	\$14,417 on order

On time, by supplier, largest spend first

Share of order lines delivered on time · value of every received order on file (all history sent, not one year)

Reyes Brass Works		96.0% · \$516,547
Victory Manufacturing		95.6% · \$499,034
Cornerstone Climate Products		7.3% · \$497,678
Walsh Brass Works		93.5% · \$488,371
Frontier Manufacturing		95.9% · \$472,553
Watts Brass Works		94.4% · \$450,278
Granite Industries		93.6% · \$445,240
Stonebridge Pipe Company		94.8% · \$418,068
Allstar Controls		95.6% · \$412,903
Cedar Climate Products		93.6% · \$410,586
Maple Industries		92.7% · \$406,877
Apex Comfort Products		94.2% · \$404,300

Measured delivery time, slowest against promise first



Late orders are counted three ways in this report, each answering its own question. **PO overdue** (in the buying findings): open order lines past their delivery date when Narada last checked; an order with no date gets the supplier's usual delivery time. **ERP Health**: only lines with a due date in your ERP, past it on the last day of your data. **The scorecard**: every open line past the first date the supplier promised, even if that date was moved later. So the three counts differ.

The two supplier-minimum figures answer different questions. **MOQ cash trap**: what holding the extra stock that minimums force on you costs a year. **MOQ renegotiation**: what you would save a year if a supplier halved its minimum, after the cost of ordering more often, counted only on parts where that saves over \$500. Halving a minimum removes only part of the extra stock, so the saving is much smaller than the trap.

CHAPTER 6

Demand and seasons

What sells when, how predictable is it, and how good is the forecast?

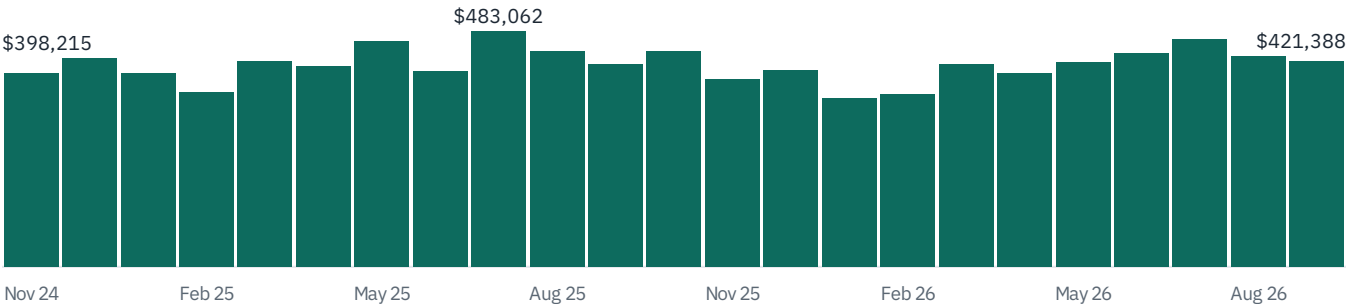
WHAT WE FOUND

- Of your larger categories, Motors swings most with the season: it sells 2.2x more around Jul than around Jan (three-month averages), so size its buys to the season, not to an average month.
- 9,362 of 9,377 forecast lines sell in only some weeks; a plain average misreads these.
- Summed over all parts, the forecast's error is 0.87x that of a plain 'same as before' guess; part by part it is not yet better than that guess: on a typical part its error is 1.39 times the guess's. The system rates its own confidence on this data as low: most parts sell too rarely to predict week by week.

Related findings

FINDING	PARTS OR ITEMS	VALUE	WHAT THE VALUE IS	NEXT STEP
High forecast error	–	\$5,749	Running cost per year	Add buffer and review manually until the demand signal stabilises.

Sales by month, last 23 full months



When each category sells (1.00 = an average month)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Pipe & Fittings	0.95	0.86	0.96	1.04	1.04	1.07	1.09	0.96	1.01	1.06	0.99	0.96
Ignition & Gas Controls	1.31	1.18	1.12	0.94	0.97	0.63	0.68	0.75	0.97	1.06	1.04	1.36
Filters & IAQ	0.99	0.83	1.05	1.18	1.13	1.01	0.88	0.90	1.10	1.10	0.94	0.90
Motors	0.47	0.57	0.97	0.77	1.08	1.23	1.45	1.42	1.08	1.25	0.86	0.84
Water Heaters & Parts	1.03	1.02	1.04	0.89	1.35	0.91	1.11	1.08	0.70	0.89	0.87	1.10
Capacitors & Contactors	0.70	0.72	1.04	0.95	1.14	1.23	1.36	1.16	1.08	1.03	0.85	0.74
Refrigeration Parts	0.67	0.61	0.97	0.96	1.03	1.33	1.39	1.15	1.25	1.04	0.79	0.82
Compressors & Coils	1.08	1.14	0.73	0.98	0.40	1.02	1.68	0.86	0.80	0.73	1.15	1.42
Valves	0.81	0.90	1.08	1.00	0.96	0.96	1.01	1.15	1.03	1.18	0.84	1.07
Refrigerant & Line Sets	0.51	0.66	0.82	1.04	1.03	1.04	1.48	1.41	1.11	1.24	0.89	0.75
Controls & Thermostats	0.97	0.63	1.10	1.04	1.30	0.65	0.97	1.07	1.04	1.19	1.04	1.00
Fixtures & Faucets	0.79	0.98	0.99	0.89	0.99	0.98	1.25	1.06	1.03	1.03	1.01	1.00
Tools & Supplies	0.86	0.83	1.26	0.87	1.25	1.02	1.28	1.03	0.69	0.66	1.32	0.93
Drain & Waste	0.93	0.90	0.95	1.01	1.07	1.09	1.16	1.03	1.03	1.05	0.87	0.91
Ductwork & Venting	0.94	0.70	1.06	0.73	1.09	1.04	1.09	1.15	1.01	1.10	1.05	1.02

CHAPTER 7

Customers

Who carries the business, and who is slipping away?

31.8%

of revenue from your top 10 customers

19

customers buying clearly less than their peers

\$45,325

of margin a year if they keep going

WHAT WE FOUND

- Your top 10 customers bring **31.8%** of revenue.
- **19** customers are buying clearly less than your other customers did over the same weeks: about \$45,325 of margin a year if it continues. The 10 largest are below.

Customers quietly leaving

CUSTOMER	SALES A WEEK, BEFORE → AFTER	SINCE	YOUR OTHER CUSTOMERS	DROP SPECIFIC TO THEM	MARGIN A YEAR
Keller & Sons Plumbing	\$1,390 → \$132 (−90%)	2026-05-17	grew 20%	92%	\$19,080
Heritage Facility Services	\$544 → \$28 (−95%)	2026-05-31	grew 19%	96%	\$7,394
Trailhead Mechanical Contractors	\$421 → \$73 (−83%)	2026-07-19	fell 10%	81%	\$3,086
Apex Mechanical Contractors	\$278 → \$112 (−60%)	2026-05-31	grew 19%	66%	\$2,500
Blue Ribbon Heating & Air	\$248 → \$66 (−74%)	2026-07-19	fell 10%	71%	\$2,239
Clearview Homes	\$214 → \$55 (−74%)	2026-06-21	grew 3%	75%	\$2,142
Greenway Property Management	\$714 → \$347 (−51%)	2026-08-09	fell 29%	31%	\$2,069
Ironwood Rooter & Plumbing #3	\$158 → \$59 (−63%)	2026-05-31	grew 19%	69%	\$1,538
Garcia Remodeling	\$109 → \$12 (−89%)	2026-07-12	fell 1%	89%	\$969
Reyes & Sons Plumbing	\$115 → \$16 (−86%)	2026-07-05	grew 1%	86%	\$941

Drop specific to them = how far they fell beyond what your other customers did over the same weeks; only that part is valued, at their own margin.

Likely causes we could see

- **Heritage Facility Services:** Stockouts on your shelf: they were short-shipped 2 order line(s) on HV-PIP-5890, HV-FLT-9276 before orders fell (ordered 6 units, delivered 3).
- **Greenway Property Management:** Stockouts on your shelf: they were short-shipped 2 order line(s) on HV-IGN-3626, HV-PIP-4073 before orders fell (ordered 9 units, delivered 4).

Your largest customers, last 12 months

CUSTOMER	REVENUE	SHARE
Garcia Plumbing	\$248,026	5.1%
Highpoint Property Management	\$208,553	4.3%
O'Brien Remodeling #2	\$199,102	4.1%
Allstar Air Conditioning	\$167,972	3.5%

CUSTOMER	REVENUE	SHARE
Lawson & Sons Plumbing #2	\$162,658	3.4%
Jensen Remodeling	\$144,604	3.0%
Fischer Mechanical #3	\$134,216	2.8%
Keller Climate Control	\$99,724	2.1%
Cornerstone Homes	\$88,745	1.8%
Foxhill Homes	\$86,883	1.8%

CHAPTER 8

Margin, receivables and the cash cycle

How long does cash wait in stock and with customers, and where does margin leak?

134 days

from paying for stock to being paid for it

\$118,145

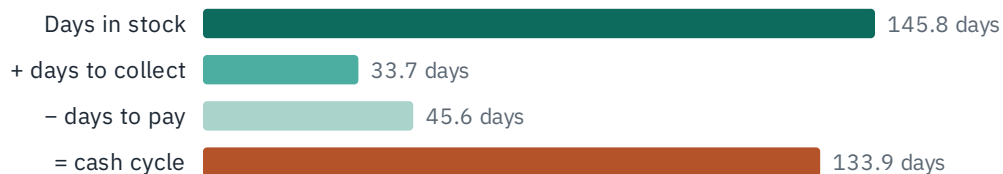
of invoices past due

WHAT WE FOUND

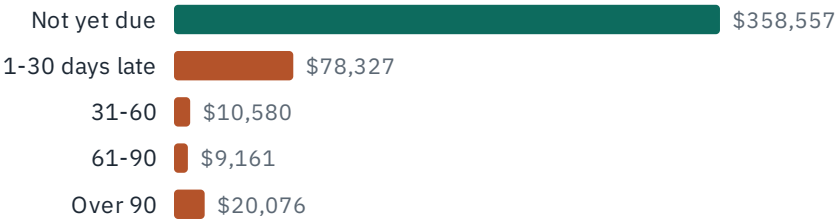
- Cash cycle: **134 days** from paying for stock to collecting for it (145.8 days in stock, plus 33.7 days to collect, minus 45.6 days to pay). The longest part of the cycle is stock sitting on the shelf (145.8 days): work on that first. At what you sell per day at cost, that is \$1,521,140 of cash tied up in the cycle: money paid out and not yet back, a different figure from the stock value.
- Open invoices \$476,702, of which **\$118,145** is past due.
- Pricing looks consistent — no material margin leakage or below-cost sales in this period.

The cash cycle, in its parts

Days to pay shorten the cycle: suppliers fund those days.



Open invoices by age



Related findings

FINDING	PARTS OR ITEMS	VALUE	WHAT THE VALUE IS	NEXT STEP
Low GMROI	2,728	\$28,288	Cost or lost margin, last 90 days	Review pricing, cost, or whether to keep carrying this line.
Part returned often	20	\$4,573	Cost or lost margin, last 90 days	Check why these parts come back (wrong part listed, a quality problem) before reordering them.
Cash tied up too long	–	not priced	Running cost per year	Work the longest part of the cycle first: clear stuck stock (days in stock) or chase overdue invoices (days to collect).

CHAPTER 9

Branches

Is stock in the branch that sells it?

WHAT WE FOUND

- 3 branches; stock turns range from 2.5x to 2.6x a year (last 12 months).
- Parts in stock range from 74.9% at BR-02 to 81.1% at BR-01, a 6-point gap: look at what BR-02 runs out of first.

Stock by branch

BRANCH	STOCK VALUE	STOCK TURNS, 12 MONTHS	LINE FILL, 4 WEEKS	IN STOCK, 4 WEEKS
BR-01	\$609,700	2.5x	92.0%	81.1%
BR-02	\$551,181	2.6x	93.2%	74.9%
BR-03	\$580,046	2.5x	92.1%	77.1%

Sales by branch

BRANCH	REVENUE, 12 MONTHS	GROSS MARGIN, 12 MONTHS
Branch 01	\$1,642,974	21.3%
Branch 02	\$1,640,148	21.6%
Branch 03	\$1,560,970	21.7%

Sales run from \$1,560,970 to \$1,642,974 a branch and gross margin from 21.3% to 21.7%: close to even, so no branch is carrying the others.

Stock one branch can spare for another

FINDING	PARTS OR ITEMS	VALUE	WHAT THE VALUE IS	NEXT STEP
Transfer opportunity	102	\$2,720	Sales kept until stock can land	Transfer stock from the overstocked branch to the short one instead of buying more.

CHAPTER 10

Can the numbers be trusted

Can the numbers in this report, and in your ERP, be trusted?

WHAT WE FOUND

- Of 32 checks and features, 29 run fully on your data, 1 partly and 2 not at all on this data (the reasons are listed below).
- ERP record problems found on the ERP Health page: **\$14,417** still on order past its due date; **\$5,872** tied up in dead or unpriced stock; **\$3,102** a year from reorder rule drift; **\$1,468** a year to keep that dead stock.

ERP records and settings

CHECK	WHAT WE SAW	VALUE
Dead & unpriced stock	1,529 items	\$1,468 a year
Purchase orders past their due date	101 items	\$14,417 on order

ERP setting findings

FINDING	PARTS OR ITEMS	VALUE	WHAT THE VALUE IS	NEXT STEP
Hard-to-forecast items	11	\$576	Running cost per year	Give these items a tighter review cycle or a wider buffer before the next order, rather than ordering to their average.
ERP settings out of date	23	\$218	Running cost per year	Open the ERP page, compare each setting against the figure beside it, and update the ones worth moving in your ERP.

What your data could not support yet

CHECK OR FEATURE	STATUS	WHY
Demand forecast	partial	needs 728 days of sales, has 727 (1 day short)
Expiry / shelf-life write-off risk	off	needs batch or lot records with expiry dates; none were in the files sent
Entering seasonal peak, Exiting seasonal peak	off	needs 730 days of sales, has 727 (3 days short)

CHAPTER 11

The digital twin, in brief

Would Narada's buying have done better than yours on your own last year?

WHAT WE FOUND

- Replaying your last year with Narada buying: \$129,630 less tied up in stock, 4.5 points more of demand filled, and \$31,665 to \$46,294 a year less cost, against a price of \$24,000 a year.

Demand filled from stock

86.9% → 91.4%

Average stock held

\$1.52M → \$1.39M

Pays for itself at a holding cost

above 13% to 14%

Copy against your real stock

within 0.3%

That break-even sits below the 20% to 30% most distributors carry, so Narada pays for itself at every holding cost this report tests.

The scorecard's 92.4% line fill is higher because it counts only orders customers placed, in the last 4 weeks. Demand filled here also counts customers who walked away while a part was out, across the whole year.

The full digital twin report is a separate document: how the twin was built and checked, the four settings side by side, and every source of value against the price.

What Narada does about it

Each problem this report found, and the job Narada does on it.

WHAT WE FOUND	THE FIGURES	WHAT NARADA DOES
Dead stock (180d+), Dead stock (1yr+), Dead stock (90d+), MOQ-forced dead stock, Overstock, Slow mover	Chapter 3	Lists every dead and overstocked part with the money in it, and makes the call per part: return it to the supplier, mark it down, or clear it.
Committed overstock	Chapter 3	Re-checks every open purchase order against demand that moved after you ordered, while there is still time to cut or cancel it.
At risk of stockout, Critically low stock, Customer often left short, Out of stock	Chapter 4	Clocks each part against its supplier's measured lead time and tells you the day to order, or which branch can cover it first.
Below reorder point, ERP reorder rules drifted, ERP settings out of date, Hard-to-forecast items	Chapter 5	Audits the reorder settings in your ERP against measured demand and lead times, and shows which ones drifted, when, and what they cost.
MOQ cash trap, MOQ renegotiation, PO overdue, PO won't arrive in time, Panic buying pattern	Chapter 5	Drafts the buy list per supplier with its minimums, pack sizes and free-freight line checked, and shows the working behind every quantity. You approve it and download the purchase order file for your ERP.
Supplier delivery time varies, Supplier reliability risk	Chapter 5	Measures each supplier's real delivery time and its spread, uses it in every order, and flags a supplier that is getting slower.
Customer quietly leaving	Chapter 7	Spots a customer buying less than your other customers did over the same weeks, before the account is gone.
Transfer opportunity	Chapter 9	Sees stock across every branch and covers a short branch from one with spare stock before suggesting a new buy.
Cash tied up too long, Low GMROI	Chapter 2 and 8	Tracks the cash cycle, stock turns and return on stock every night, so you see the trend and not only the month-end figure.

Week to week: your ERP exports reach Narada every night and the checks in this report re-run on them. Each morning you see what changed, what to do first and the money behind each item. Narada proposes and you approve: it never places an order or changes your ERP by itself.

See it on your own data

Send us your exports (a link from OneDrive, Google Drive or Dropbox is fine) and we replay your last year with Narada buying, free: the digital twin report shows what it would have done with your own parts, suppliers and customers, and you judge it.

[Open the live demo →](#)

naradaos.com

How the figures are calculated

Figures that look alike

THE FIGURES	WHY THEY DIFFER
Dead stock (1yr+) \$174,302 Stock unsold for over a year \$188,072	The first judges each part against its own selling rhythm, so a part that normally sells once a year is not dead. The second counts days since the last sale, whatever the part.
Line fill 92.4% Demand filled, last year 86.9%	Line fill counts order lines customers placed, last 4 weeks. Demand filled (the twin, chapter 11) also counts customers who walked away while a part was out, over the whole year, so it reads lower and is the fairer measure of service.
Line fill 92.4% In-stock rate 77.7%	Line fill counts order lines shipped complete in the last 4 weeks. In-stock counts stocked parts that had stock, weighted by how much they sell. A part can be out without any order arriving for it, so the two differ.
Days of inventory 146 days Months of sales in stock 4.3 months	Days of inventory is 365 divided by turns, at cost, over 12 months. Months of stock is today's stock at cost against sales at selling price, the basis of the Census benchmark, so it reads shorter than days of inventory.
Days of inventory 146 days Days in stock 146 days (cash cycle)	Days of inventory uses the last 12 months of turns. Days in stock uses the average stock over the last 90 days against cost of goods sold per day.

Money at stake, by kind

- Four kinds, never added together: stock on the shelf (at cost, today); costs and lost margin per year; costs and lost margin over the last 90 days; margin at risk until stock can land.
- Within each kind, each part at each branch is counted once, at its largest value, so two findings about the same stock never add up twice.
- Not counted, shown beside it: opportunities, running costs of ERP settings, overdue invoices and expiring stock.

Stock trapped on the shelf

- Trapped = dead and overstocked parts you can act on now + other stuck parts + the branch-level summaries that fold many parts into one line.
- It equals the headline's 'Stock that will not sell on its own' line (rows are rounded one by one, so they can differ from it by a dollar or two).

Stock value now

- Stock value = for every part at every branch, its newest stock count x its unit cost. A part with no cost on file is valued at nothing and listed as unpriced.

Return on stock (GMROI)

- $\text{GMROI} = \text{gross margin earned over the window} / \text{average stock value at cost, scaled to a year.}$
- Below 1.5 is flagged; below 1.0 means each dollar of stock earned less than a dollar of margin in a year.

The cash cycle

- $\text{Days in stock} = \text{average stock at cost} / \text{cost of goods sold per day (last 90 days).}$
- $\text{Days to collect} = \text{open invoices weighted by how old they are.}$
- $\text{Days to pay} = \text{suppliers' payment terms, weighted by what you buy from each. A supplier with no terms on file is left out and named, never given a guessed term.}$
- $\text{Cash cycle} = \text{days in stock} + \text{days to collect} - \text{days to pay.}$
- $\text{Working capital tied up} = \text{cash cycle} \times \text{cost of goods sold per day.}$

Receivables

- Every receivables figure reads the same open invoices: unpaid, with a balance. Overdue = past its due date. Ageing buckets count days past due.

What runs out before the next delivery

- For each part: $\text{stock on the shelf} + \text{stock already on order that lands in time, against expected sales over the supplier's lead time.}$
- Listed when the shelf empties before an order can arrive.

Margin lost per day while out of stock

- For each part already out or about to run out: $\text{expected units missed per day} \times \text{the margin on each unit. It assumes nothing is done, and stops when stock lands.}$

ERP settings worth fixing

- The total of three checks of the reorder settings in your ERP: reorder points that drifted from measured demand, settings left unchanged after demand moved, and items too erratic to forecast with one setting. A part can appear in more than one check; each consequence is real and none is netted out.

Safety stock held because of a supplier

- Extra stock a part needs only because its supplier's delivery time varies: safety stock with the supplier's real delivery spread, minus safety stock if that supplier always delivered on the same day.

A customer quietly leaving

- Each customer's weekly revenue over 180 days is scanned for a lasting step down.
- The drop is measured against what the rest of your customers did in the same weeks, so a quiet season is not counted as a loss.
- $\text{Value} = \text{the shortfall a year} \times \text{that customer's own margin.}$

What Narada is worth on your book

- The replay is your last year, rebuilt and run twice: once on your own orders (it must land within 3% of your stock and 1 point of your fill), once on Narada's. Each week only the history up to that week is used.

- Every year = less stock × what holding stock costs you (20%, 25% or 30% a year) + the margin on sales Narada kept × the share of short customers who would have bought elsewhere (31% or 40%). Buying time is shown apart: supplier orders × 10 to 30 minutes × \$35 to \$55 an hour (our assumption; put in your own).
- Once = your average stock minus Narada's: cash freed. Its yearly holding cost is already in the yearly figure, so the two are never added.
- Price = Planner's band for your average stock (\$1M to \$2M: \$2,000 a month). The multiple is the yearly value divided by the yearly price.

The health measures (scorecard)

- Each night's figures are stored per branch as a numerator and a denominator, so a month or the whole business adds up by summing both halves, never by averaging percentages. Each measure's definition is printed beside it.

APPENDIX B

Benchmarks and sources

Only benchmarks we could read on the source page are used. Where no public figure exists for a measure (dead-stock share and fill rate for HVAC and plumbing distributors among them), the report shows your own figure and says so.

BENCHMARK	HOW TO READ IT	SOURCE
95% to 97% of stocked order lines filled complete, a common target	the source counts stocked lines filled by the customer's requested date; our figure counts every order line shipped complete	Effective Inventory Management (J. Schreibfeder), 'Analyzing Stockouts to Improve Customer Service', 2022-02-09 https://effectiveinventory.com/analyzing-stockouts-to-improve-customer-service/
US hardware, plumbing and heating wholesalers held 2.13 months of sales in stock on average in 2025	a whole-channel average (all firm sizes, equipment included); stock at cost against sales at selling price, the same basis as our figure	U.S. Census Bureau, Monthly Wholesale Trade, NAICS 4237, not seasonally adjusted: 2025 average month-end inventories \$45,769M / average monthly sales \$21,498M https://fred.stlouisfed.org/data/I4237IM144NCEN
a distributor's yearly holding cost is 20% to 30% of stock value, about 25% typical; bulky stock such as HVAC near the top	money tied up, space, insurance, damage and shrinkage together. Both sources put a distributor near 25%; the replay also tries 20%, where Narada's savings come out smallest, and 30% for bulky stock	Azzi, Battini, Faccio, Persona and Sgarbossa, 'Inventory holding costs measurement: a multi-case study', International Journal of Logistics Management 25(1), 2014 ('25 percent is the minimum reasonable value'); J. Bader, The Distribution Team ('about 25% annually') https://www.emerald.com/ijlm/article/25/1/109/135053
dead stock sold off brings back about 15% to 40% of its cost	the marketplace range; wholesale buyers pay 40% to 70%, auctions 10% to 30%. Trade and vendor figures, not independent studies	MAAS Companies, 'Liquidate surplus inventory: a 2026 guide'; J. Bader, The Distribution Team (about 10% of a distributor's stock was returnable to the maker) https://distributionteam.com/resources/liquidating-dead-inventory-vendor-returns

The data and its limits

Report version 1, prepared 18 Oct 2026.

- Sales, stock, purchase orders, receivables, returns and the item, supplier and customer lists, with sales through 2026-10-11.
- Figures are as of the date on the cover. A figure marked 'not available' could not be computed from the files provided; nothing is estimated to fill the gap.
- Every figure is rounded to the dollar on its own, so parts printed beside a total can differ from it by a dollar or two.
- This sample distributor was generated by Narada's test data generator. Its sales pass nine checks against real parts-distribution data (how often parts sell, how concentrated sales are across parts and customers, order sizes). Its prices are assumptions. Its seasons follow US shipments of air conditioners, heat pumps and water heaters (AHRI) and US hardware, plumbing and heating wholesale sales (Census); heating parts are assumed to mirror cooling parts six months apart.

Words used in this report

- **SKU**: one part number; at a branch it is one line of stock
- **MOQ**: a supplier's minimum order quantity, or the pack size it sells in
- **GMROI**: gross margin earned in a year for each dollar of average stock at cost
- **Line fill**: the share of order lines shipped complete
- **ABC-XYZ**: A/B/C = how much revenue a part brings; X/Y/Z = how steady its demand is
- **Proving run**: last year replayed week by week, your orders against Narada's