northline
STRATEGY & OPERATIONS

STRATEGY INTO OPERATING DECISIONS

Capacity. With *conviction.*

A staged investment case for Aster's pump-remanufacturing operation.



Illustrative AI-generated workshop

OUR RECOMMENDATION

Commit £240k now. Keep £360k conditional.

PREPARED FOR

The Board
Aster Industrial Services

End-of-diagnostic decision paper
15 November 2026

01 DECISION PAPER

Buy capacity in stages. Preserve the right to stop.

Approve the first £240k investment. Bring the remaining £360k back to the board after year one, against explicit release conditions.

AUTHORISE NOW

£240k

A first assembly-and-test capacity increment of 2,000 standard jobs per year.

HOLD FOR A FRESH DECISION

£360k

A second 2,000-job increment, subject to demand, margin, execution and liquidity.

THE TRADE-OFF IN ONE SENTENCE

Give up £60k in the base case to retain the option that avoids £600k of loss in the low-demand case.

Scenario differences, not a probability-weighted option valuation. Low-case protection requires withholding the second tranche.

Why stage the commitment?

The investment can be separated into two increments. Staging limits the initial commitment while creating a review point before most capital is spent.

It produces £400k of three-year incremental net cash in the base case, compared with £460k for full expansion.

What would change our view?

Secure demand and sufficient funding could favour full expansion. Weak margins or insufficient cash could favour holding capacity.

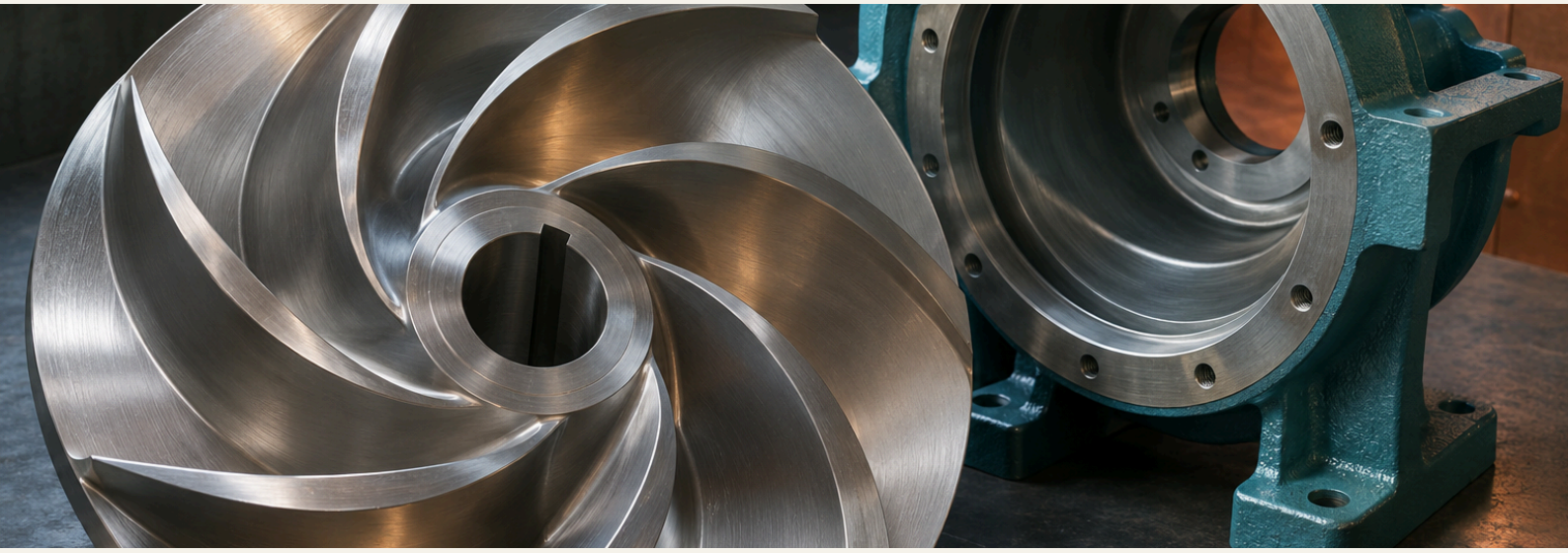
The first tranche is also conditional: validate the operating assumptions and a funded cash plan before placing orders.

DECISION OWNER

Board approval of phase one. COO accountable for delivery; CFO accountable for economics and the funding gate.

Demonstration case: all organisations, inputs and scenarios are fictional. No site audit, customer interviews or supplier quotations are claimed. The numerical basis is on page 8.

02 THE OPERATING CONTEXT



Illustrative AI-generated component study. The scenario concerns repeatable pump-remanufacturing work, not these specific components.

An operating decision. Not just a capital request.

The client and the mandate

Aster is a fictional industrial services business rebuilding standard pump modules. Its board has commissioned Northline to compare routes to additional assembly-and-test capacity.

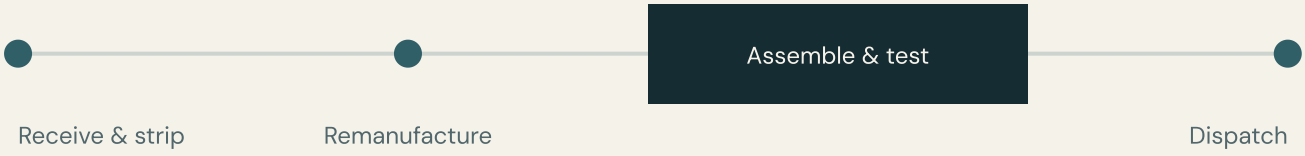
This paper represents the final recommendation from that illustrative diagnostic, before implementation is commissioned.

The scenario premise

Existing annual capacity is 12,000 standard job equivalents. Demand above that level is uncertain. Added assembly-and-test capacity is assumed to unlock the modelled throughput.

Other process stages are assumed to have headroom. A real diagnostic would need to establish that before investment.

ILLUSTRATIVE PROCESS · LOCATION OF THE ASSUMED CONSTRAINT



"Jobs" are standardised equivalents used to compare capacity and economics. The model assumes a constant mix and £140 contribution per job; it does not imply all pump repairs have equal effort or value.

03 DECISION PAPER

One programme. Two commitments.

The staged route reaches the same additional capacity as the full build, with a separate decision before the second increment.

STAGED CAPACITY ARCHITECTURE

COMMITMENT 01	BOARD GATE	COMMITMENT 02
£240k		£360k
+2,000 jobs / year	End of year 1	+4,000 jobs / year total
Assumed available from year 1		Assumed available from year 2

OPTION COMPARISON · INCREMENTAL TO EXISTING OPERATIONS

DECISION DIMENSION	HOLD	STAGE	FULL BUILD
Initial commitment	£0	£240k	£600k
Later capital commitment	None	£360k, conditional	None
Added capacity: Y1 / Y2 / Y3	0 / 0 / 0	2k / 4k / 4k jobs*	4k / 4k / 4k jobs
Base-case three-year net	£0	**£400k**	£460k
Low-case three-year net	£0	-£60k	-£660k

*If phase two is released. Without it, additional capacity stays at 2,000 jobs per year. Low-case net assumes phase two is withheld. Annual capacities are ceilings, not sales forecasts.

The case for full expansion

It serves 1,000 more jobs in the first base-case year. £140k extra job contribution less £80k extra fixed costs produces its £60k advantage.

The case for holding

It avoids all incremental investment risk. Demand above current capacity remains unserved; any customer-retention effect is excluded from the numbers.

04 DECISION PAPER

£400k net. A fully visible calculation.

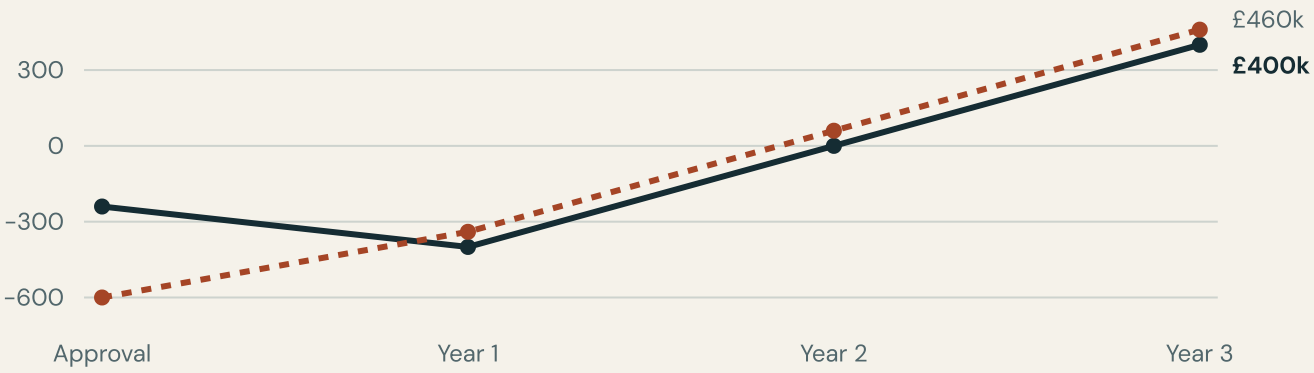
The staged base case serves 10,000 additional jobs across three years. At £140 contribution per job, that produces £1.40m before fixed costs and investment.

STAGED BASE CASE · INCREMENTAL CASH · £000 UNLESS STATED

DRIVER	APPROVAL	YEAR 1	YEAR 2	YEAR 3
Additional demand, jobs	—	3,000	4,500	6,000
Additional jobs served	—	2,000	4,000	4,000
Job contribution	—	280	560	560
Incremental fixed costs	—	(80)	(160)	(160)
Expansion spend	(240)	(360)	—	—
Net cash movement	**(240)**	**(160)**	**400**	**400**

Cumulative cash position

Solid: staged · Dashed: full · £000



Annual endpoints, not monthly cash timing. The staged year-one position includes the £360k second-phase payment. Parentheses in the table indicate outflows.

Phase two has only £40k of headroom.

Its two-year incremental case is £560k job contribution - £160k fixed costs - £360k investment = £40k. Revalidate the second tranche on its own merits.

Undiscounted, pre-tax incremental cash. Working capital, financing, residual value and effects on the existing business are excluded. Full assumptions: page 8.

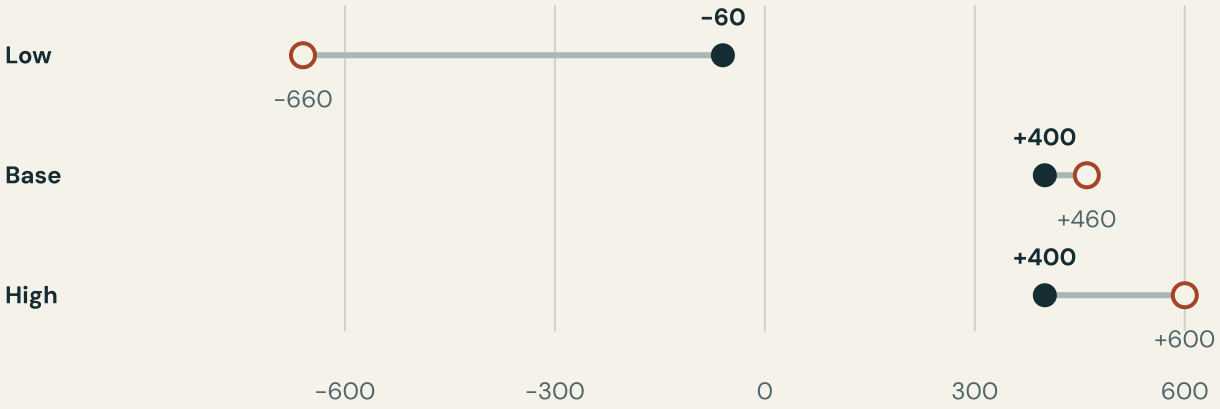
05 DECISION PAPER

The downside is asymmetric. The release gate should be too.

Staging limits loss when demand is weak. Full expansion captures more upside when demand is strong from the outset.

Three-year incremental net cash

● Staged · ○ Full · £000



SCENARIO	DEMAND ABOVE BASELINE · Y1 / Y2 / Y3	PHASE TWO
Low	1,000 / 1,000 / 1,000 jobs	Withheld
Base	3,000 / 4,500 / 6,000 jobs	Released after review
High	5,000 / 5,000 / 5,000 jobs	Released after review

Illustrative scenarios, not probabilities or a confidence interval. Committed capex is assumed unrecoverable within the period. Holding capacity produces £0 incremental net in all three scenarios.

The margin gate is binding.

At £140 contribution per job, phase two needs at least 3,858 jobs of annual demand above existing capacity in each of Y2 and Y3 to break even within this horizon.

The proposed gate is ≥4,000 per year, supported by evidence for both years. At that gate, the two-year cushion is £40k.

CONTRIBUTION SENSITIVITY

PER JOB	ANNUAL DEMAND HURDLE*
£120	4,167
£140	**3,858**
£160	3,625

*Whole jobs, rounded up; equal demand in Y2 and Y3. The £120 hurdle exceeds the 4,000-job expansion ceiling.

06 DECISION PAPER

Make the next commitment an earned decision.

Separate authority to begin from authority to complete the programme. The board retains the second investment decision.

01

Before orders: validate phase one.

COO validates scope and commissioning. CFO checks contribution, fixed costs and a funded monthly cash plan. Resolve material deviations before the £240k commitment.

02

During year one: measure the operating reality.

Track throughput, contribution, service quality, demand and cash monthly. Report phase one separately. Avoid non-cancellable phase-two commitments before the gate.

03

At year-end: return to the board.

If any release condition fails, hold phase two. Revise the case before requesting fresh approval.

PHASE-TWO CONDITIONS · ALL REQUIRED

GATE	REQUIRED EVIDENCE	OWNER
Demand	≥4,000 incremental jobs per year in Y2 and Y3. Distinguish firm work, pipeline and repeat assumptions.	Commercial lead
Economics	≥£140 contribution/job; added fixed costs ≤£80k/year. Rerun the case on observed performance.	CFO
Execution	Capex ≤£360k; credible commissioning to make capacity available at the start of Y2.	COO
Liquidity	Monthly cash forecast including working capital and a board-agreed minimum cash reserve.	CFO

PROPOSED RESOLUTION · FOR DISCUSSION

Approve phase one up to £240,000, conditional on COO and CFO validation. Withhold the £360,000 second tranche pending a separate board decision. Require an updated case for material changes in scope, timing or economics.

07 DECISION PAPER

The basis of the recommendation.

A transparent illustrative model, with clear boundaries. Every consequential input is disclosed below.

ASSUMPTION REGISTER · FICTIONAL CASE INPUTS

INPUT	VALUE	VALIDATE IN A REAL ENGAGEMENT
Existing annual capacity	12,000 standard job equivalents	Throughput, mix and bottleneck
Additional demand	Low: 1,000 / 1,000 / 1,000 Base: 3,000 / 4,500 / 6,000 High: 5,000 / 5,000 / 5,000	Orders, conversion, repeat work and capacity across the process
Added annual capacity	Staged: 2,000, then 4,000 if released Full: 4,000 from year one	Engineering and commissioning
Contribution per job	£140 after all volume-variable costs	Price, mix and delivery costs
Annual added fixed costs	Phase one: £80k Both phases or full build: £160k	Staffing and operating budget
Capital payments	Staged: £240k at approval, £360k at end of Y1 if released Full: £600k at approval	Supplier quotes, contract terms and payment milestones
Period and timing	Three full operating years; no ramp-up or downtime	Delivery plan and cash timing

Reproduce the model

Served jobs = lower of additional demand and additional capacity.

Net cash = sum of (served jobs × contribution − incremental fixed costs) − committed capex.

Phase-two hurdle = 2,000 + (360,000 ÷ 2 + 80,000) ÷ contribution/job. Round up.

Understand its limits

Undiscounted, unlevered, pre-tax incremental cash. Excludes working capital, financing, tax, residual value and effects on existing operations.

Contribution is treated as same-period cash. Scenarios have no assigned probabilities. The figures are neither forecasts nor an investment valuation.

IDENTITY, IMAGERY AND ENGAGEMENT STATUS

Northline is an original demonstration consultancy identity. Aster Industrial Services and its pump-remanufacturing scenario are fictional. Imagery was generated for this example; it does not document a facility, intervention or observed finding. The paper illustrates an end-of-diagnostic client deliverable. It is not an approved investment, a consulting proposal or a statement of fees.