



BUSINESS PLAN · INDIA

Prefab Panels and Precast Manufacturing

The sale is made eighteen months before the order

BUILD MATERIALS

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This document is confidential and prepared for planning purposes. All financial figures are illustrative model assumptions for an Indian MSME context and must be validated against live quotes, local rates and professional advice before any investment or borrowing decision.

1. Executive Summary

This plan sets out a **Prefab Panels & Precast Manufacturing Unit** in India — a factory producing precast concrete wall panels, columns, beams, staircases, hollow-core slabs and boundary units, delivered and erected on site for developers, infrastructure contractors, industrial clients and institutional projects.

The decisive fact about this business is that the sale is made eighteen months before the order, by somebody who will not pay for it. A building cannot be precast unless it was designed to be precast — the grid, the connections, the tolerances and the element sizes are structural decisions taken at concept stage, and a scheme drawn for cast-in-situ cannot be converted afterwards at any price. So by the time a project reaches tender, the decision has already been made or already been lost, and it was made by a structural consultant or an architect who is not the buyer, has no commercial relationship with the manufacturer, and will never appear on the purchase order. A precast plant whose business development team is calling contractors at tender stage is arriving a year late to a decision that was taken without it. This plan therefore measures the thing that actually determines its order book: specification won at design stage rather than at tender stage rises from 31% to 74%, and the design and detailing team is nine people in a fifty-nine-person staff — unusually large for a manufacturer, because the product is designed before it is sold.

The second is that the element size is decided by the road and the crane, not by the architect. A panel must fit on a trailer that can legally travel the route, pass under the bridges on it, and be lifted by a crane at the radius the site can accommodate. An element that exceeds any of those is not an expensive element; it is an element that cannot be delivered. This is the third form the economic radius has taken in this vertical, and it is worth naming as such: the concrete plant's radius is TIME and cannot be crossed at any price; the block plant's is FREIGHT COST and can be crossed at a price; this one is a LEGAL AND PHYSICAL ENVELOPE — what the road permits and the crane can lift — and it constrains the product rather than the market. The plan designs inside it deliberately: design revisions forced by transport or crane constraints after drawing approval fall from 22% to 4%, and elements requiring over-dimensional cargo permits from 34% to 19%.

The third is that precast is economic through repetition, and Indian projects are frequently designed without any. A steel mould costs lakhs and makes exactly one shape. Spread over four hundred identical panels it is a rounding error; spread over forty it is the difference between a profitable contract and a loss. The manufacturer's margin is therefore decided by how repetitive his client's design is — a variable he does not control and must consequently price rather than absorb. This plan takes the position most of the industry avoids: the mould cost is quoted separately and visibly to the client rather than amortised invisibly into the element rate, moving from 0% to 100% of quotations, because a client who can see what non-repetition costs him will often standardise the design, and a client who cannot see it never will. Average casts per mould rise from 62 to 148 and moulds achieving fewer than twenty-five casts fall from 31% to 6%.

And the fourth is that the joint is the product, which sets the liability boundary this plan deliberately refuses to hide behind. A precast building's structural performance, its fire compartmentation and — most visibly — its resistance to water all live in the connections between elements rather than in the elements themselves. Every panel can be dimensionally perfect and the building can still leak. A supply-only manufacturer can prove his elements met specification and will be blamed for the leak anyway, because the client bought a wall and received a wall that lets water through. The choice is therefore to take erection scope and own the joint, or to supply only and be held responsible for something he did not control — and this plan takes the scope, moving supply-and-erect from 42% to 81% of turnover, with water-ingress complaints falling from 4.6 to 0.5 per

hundred units erected.

This plan models a plant requiring **₹11.90 crore** (₹3.60 crore promoter + ₹4.80 crore term loan + ₹2.30 crore equipment finance + ₹1.20 crore cash-credit limit), moving from **₹14.70 crore turnover and a ₹1.44 crore loss** to **₹31.86 crore turnover and ₹3.26 crore profit** by Year 3, with capacity utilisation rising from 46.7% to 90.0% against a break-even of 60–66%. (Precast concrete element manufacture and erection — figures illustrative.)

2. Business Description, Vision & Legal Structure

Concept: A precast plant run on design-stage specification, mould repetition priced openly, and erection scope taken rather than avoided.

Vision: To be the manufacturer the structural consultant names before the contractor is appointed.

Mission: Win it at design stage or accept it was never ours; design inside what the road and the crane allow; show the client what his non-repetition costs; cast nothing without released drawings and a paid mould; and own the joint.

Legal structure options

- **Private Limited** — required in practice: ₹7.10 crore of secured borrowing, developer and infrastructure contracts, third-party proof-checking and institutional empanelment all presuppose it.
- **LLP** — workable for two or three promoters combining capital and technical capability, weaker for project finance and for large-client onboarding.
- **Proprietorship** — inappropriate, and specifically so: **this business erects heavy elements at height over occupied sites, and that liability should not be held personally.**

Regulatory anchor: a manufacturing licence load plus a construction one, because this business operates on somebody else's site as well as its own. **IS 15916 for structural design and detailing of precast concrete, alongside IS 456 and, where prestressed elements are made, IS 1343 — with connection design frequently subject to third-party proof-checking, which is a genuine review of the manufacturer's engineering rather than a formality. Factories Act registration with safety and welfare obligations; SPCB consent to establish and operate covering batching, dust and curing-water discharge. Statutory testing and certification of gantries, cranes, lifting beams, slings and shackles, with periodic re-certification — this equipment lifts multi-tonne elements over people and its inspection calendar is not administrative. Then: over-dimensional cargo permits, RTO route approvals and escort requirements for oversize movements, which govern what may lawfully be built as much as any structural code does; Building and Other Construction Workers Act registration and cess on erection scope, which supply-only manufacturers frequently overlook and which attaches the moment the plant's crew works on a client site; work-at-height and lifting-operation safety obligations, erection being the highest fatality-risk activity in this vertical after blasting; GST with input credit and e-way bills; and EPF and ESI across a large production workforce.**

3. Promoter & Ownership

Led by a promoter with precast, structural contracting or heavy-industrial manufacturing background. Three competences decide outcomes. *Engineering credibility with consultants*, because the order originates in a design office and a promoter who cannot discuss connection detailing, tolerance and erection sequence with a structural engineer will never be specified — this is a technical sale conducted a year before any commercial conversation. *Discipline about casting nothing on a promise*, since a precast element made for a project that stalls is not slow-moving stock, it is rubble. And *the willingness to price non-repetition openly*, which costs some orders and is the only way the business avoids absorbing a client's design

inefficiency as its own loss. Ownership, equity & investor terms are editable inputs.

4. Market Analysis — India

Indian precast adoption remains low against comparable markets but is rising, driven by construction-labour scarcity, schedule pressure on large projects, quality requirements on institutional and industrial work, and the growing use of precast in infrastructure — boundary walls, metro elements, drainage and utility structures — where repetition is inherent.

Demand drivers

- **Labour scarcity and rising site wages**, which move work from the site into a factory where it is supervised and repeatable.
- **Schedule certainty on large projects**, where precast decouples structure from weather and from site labour availability.
- **Infrastructure applications with inherent repetition** — boundary walls, culverts, drains, metro and utility elements — the easiest and most profitable precast work in India.
- **Industrial and warehousing construction**, where the grid is regular and the client values speed above architectural variety.
- **Institutional projects** — schools, hostels, hospitals — with repeating room modules.
- **Quality and finish consistency**, achievable in a factory and not on a monsoon-season site.

Market sizing (illustrative framing)

Layer	Definition	Indicative scale
TAM	Structural and enclosure work in the served region	Construction-activity defined
SAM	Projects DESIGNED for precast within the transport envelope	Design-decision bounded, not demand bounded
SOM (Yr 1-3)	Tonnage × contribution, constrained by utilisation and repetition	14,000 → 27,000 t; design-stage wins 31% → 74%

The addressable market for this plant is not "construction in the region" — it is the far smaller set of projects that were designed for precast, and treating the two as the same is the commonest error in proposals for this business. A developer with approved drawings for a conventional reinforced-concrete frame cannot switch to precast without redesigning the structure, re-approving it and losing months, so he will not — and a sales effort directed at him is spending money on a decision that has already closed. The real market is upstream: the consultants and architects who are drawing next year's projects now. Three consequences shape this plan. First, business development is technical and early — sample connection details, erection sequences, load tables and mould-repetition studies offered to design offices at concept stage, when the choice is still open and the manufacturer's input can shape the grid in his own favour. Second, the infrastructure and industrial segments are pursued ahead of architecturally varied residential work, because repetition is inherent in one and absent in the other — and repetition is this business's entire margin. Third, the plan reports design-stage versus tender-stage wins as a leading indicator, since the order book eighteen months from now is being decided in design offices this quarter and nothing in the current month's revenue reveals it.

5. Competition & Competitive Advantage

Landscape: other precast manufacturers, generally few in any region because the capital and the technical threshold are both high; **cast-in-situ construction, which is the real competitor and holds the overwhelming majority of Indian structural work**; site-casting by the contractor himself on large repetitive jobs, which removes the project entirely; captive precast yards set up by large developers and infrastructure contractors; and imported or licensed system suppliers at the premium end. **Because a precast element is engineered to a project rather than sold from a catalogue, competition is on engineering capability, delivery certainty and total installed cost — and almost never on rate per tonne, which is not comparable between two manufacturers offering different element designs.**

The business's edge

- **Presence in the design office a year before tender**, where the decision is actually taken.
- **Mould repetition priced openly**, which changes the client's design behaviour rather than absorbing its cost.
- **Erection scope taken**, so the joint has one owner.
- **Design inside the transport and lifting envelope**, avoiding elements that cannot be delivered.
- **Schedule certainty through the monsoon**, which the site-based competitor cannot offer.
- **Factory-controlled finish and tolerance**, verifiable before anything leaves the yard.

The competitor to beat is cast-in-situ, and the honest comparison is more nuanced than the industry's usual pitch — which is worth getting right, because overselling precast is how the category loses clients permanently. On rate per tonne of structure, precast is generally more expensive than in-situ in India, and a manufacturer who claims otherwise will be contradicted by the client's own quantity surveyor. The honest case rests on three things that do not appear in a rate comparison. **Time:** a factory has a roof, so casting continues through the monsoon while an in-situ site substantially stops — and on a project where finance costs run for every month of delay, schedule is money the rate comparison does not show. **Labour:** in-situ depends on site workforce availability that has become genuinely unreliable, whereas the factory workforce is supervised, repeat-trained and productive at a rate a site cannot match. **And consistency:** dimensional accuracy and finish achieved under a roof with steel moulds is not comparable to what shuttering on a monsoon site produces, which matters most on projects that will be audited or that carry an architectural finish. Where none of those three is worth anything to the client — a small, unreplicative, unhurried project with available labour — precast is the wrong answer and this plan says so, because the manufacturer who takes that job will lose money on it and the client will conclude the category does not work.

6. Elements, Moulds & the Repetition Question

Segment / element	Character	Economics
Infrastructure & boundary elements	Repetition inherent; the easiest profit	Highest casts per mould; pursued first
Industrial & warehousing structures	Regular grid, speed valued over variety	Good repetition; schedule-led buying
Institutional (schools, hostels, hospitals)	Repeating room modules	Documented, slow, reliable payment
Residential developer projects	Architecturally varied, mould-hungry	Taken selectively and priced for repetition

Average casts per mould	The whole economics in one number	62 → 104 → 148
Moulds achieving fewer than 25 casts	Uneconomic; a loss taken at quotation stage	31% → 14% → 6%
Mould cost quoted separately and visibly	Changes the client's design behaviour	0% → 68% → 100%
Cast only against released drawings AND a paid mould advance	Because a cancelled project leaves rubble	58% → 86% → 100%

Precast inventory has a property no other business in this vertical shares, and it should be understood before a single element is cast on a promise: a precast element made for one project fits no other building on earth. The tiles showroom's discontinued décor could still be sold to somebody at a discount; the block plant's yard stock would eventually clear; even the panel dealer's dead laminate has a buyer at the right price. A column cast to one project's grid, one project's connection detail and one project's reinforcement schedule has a resale value of zero, and a disposal cost that is positive — somebody must break it up and cart it away. So the ordinary manufacturing risk of building ahead of demand does not merely become expensive here; it becomes total. Three disciplines follow and none of them is negotiable. **Nothing is cast except against drawings formally released for construction, because a design still under revision will change and the change will be a demolition. The mould is paid for in advance by the client, which both funds the tooling and tests whether the project is real — a developer unwilling to fund a mould is telling the manufacturer something about his own financing that he has not said aloud. And billing is milestone-linked to casting and erection rather than to completion, so that a project stopping mid-way leaves an invoice rather than an inventory — yard stock for unreleased projects falls from ₹86 lakh to ₹18 lakh.**

7. Go-to-Market — the Design Office and the Erection Scope

Acquisition

- **Structural consultants and architects at concept stage**, the actual decision-makers, approached with engineering rather than with price.
- **Infrastructure and industrial clients directly**, where the buyer and the specifier are closer together.
- **Repeat developers** who have already built one precast project and understand the design discipline it requires.
- **Government and institutional empanelment**, slow to obtain and durable once held.
- **Plant visits**, which convert scepticism more effectively than any document.

Retention

- **Delivery to the erection programme**, since a crane standing idle on site is charged by the day.
- **Dimensional accuracy**, because an element out of tolerance is discovered hanging from a crane.
- **Joints that do not leak**, which is what the client will remember in year three.
- **Engineering support through design changes**, which every project has.

Taking erection scope is the most consequential commercial decision in this plan and it is not obviously correct, so the reasoning should be explicit. Supply-only is simpler, less capital-hungry, carries no work-at-height liability and no BOCW obligation, and lets the manufacturer's responsibility end at the factory gate — which is precisely why most Indian precast manufacturers prefer it. The difficulty is that it ends his

responsibility only in contract, not in the client's mind. When a wall leaks, the client does not distinguish between an element that was correct and a joint that was sealed badly by a contractor's crew; he distinguishes between the wall he expected and the wall he got, and he attributes the difference to whoever made it. The manufacturer can win that argument and still lose the client, the reference and the consultant's next specification — which is the asset this entire business is built on. This plan therefore takes erection scope from 42% to 81% of turnover, accepting three real costs. Cranes, trailers and rigging equipment — 13.4% of project cost — plus a permanent erection and rigging crew. Work-at-height and lifting liability, which is the most dangerous exposure this business carries and is managed with certified equipment, tested rigging and trained riggers rather than with an indemnity clause. And BOCW registration and cess, which attaches the moment the crew steps onto a client site and which supply-only manufacturers routinely never encounter. What it buys is a single owner for the joint, and the ability to be judged on the building rather than on the element.

8. Operations Plan (design, mould, cast, cure, deliver, erect)

- **Design & detailing:** element breakdown, connection design and erection sequence developed with the consultant, and checked against the transport and lifting envelope before the drawing is approved rather than after — an element the trailer cannot carry is not a design, it is a delay.
- **Mould strategy:** repetition studied and reported at quotation, with the mould quoted as a separate visible line so the client can see what his design variation costs him.
- **Reinforcement & inserts:** cages jiggged rather than measured on the bed; lifting inserts, connection plates and service conduits positioned to a template, since an insert two centimetres out is discovered when the element is hanging.
- **Casting:** against released-for-construction drawings only, with the mould advance received; batch records and cube samples retained per element with the element's own identity.
- **Curing:** accelerated or steam curing to release the bed, with handling strength verified rather than assumed — a panel lifted below strength cracks at the insert and the crack is invisible until it is in the wall.
- **Yard & stacking:** elements stacked to the design's support points and sequenced to the erection programme, because a yard sorted by casting date rather than by erection order becomes a crane hunting for panels.
- **Transport:** route surveyed, permits obtained and escorts arranged for oversize movements; load restraint designed rather than improvised.
- **Erection:** certified cranes and tested rigging with trained riggers, method statements and exclusion zones — this is the highest fatality-risk activity in this vertical after blasting and it is treated accordingly.
- **Jointing:** grouting, sealing and waterproofing executed by the plant's own crew to a written procedure, with joints inspected and recorded — because the joint is the product and it is where the building will fail if it fails.
- **Billing:** milestone-linked to casting and erection rather than to project completion.

Control points

Area	Activity	Control point
The real constraint	Capacity utilisation against 60-66% break-even	46.7% → 70.0% → 90.0%
The whole economics	Average casts per mould / moulds under 25 casts	62 → 148 / 31% → 6%
Where the order is won	Specification won at design stage vs at tender	31% → 52% → 74%
Because a cancelled project is rubble	Cast only against released drawings + paid mould advance	58% → 100%

The joint has one owner	Supply-and-erect share / water-ingress complaints per 100 units	42% → 81% / 4.6 → 0.5
Designed inside the envelope	Revisions forced by transport or crane AFTER approval	22% → 11% → 4%
Quality that cannot be corrected later	Erection tolerance within specification / rework & breakage	88% → 99.4% / 3.8% → 1.4%
Concentration & credit	Top-3 project share of turnover / receivable days	72% → 51% / 84 → 68

Customer concentration in this business is worse than anywhere else in this vertical and it cannot be fixed quickly, which is a fact a promoter and a lender should both look at directly rather than around. Precast orders are large, few and long — three projects can be seventy per cent of a year's turnover, and this plan opens at 72% top-three concentration. A cement dealership with a concentrated book can win a dozen new accounts in a quarter; this plant cannot, because the projects it would need do not exist yet and the ones that do were designed eighteen months ago. The exposure is therefore structural rather than a failure of business development, and it compounds with the inventory problem: a single large client stopping does not merely remove revenue, it strands elements that no other buyer can use. Four responses run through the plan. Concentration reduced deliberately to 51% by Year 3, which is real progress and still high. Infrastructure and institutional work pursued for its different payment behaviour and its independence from the residential cycle. Milestone billing tied to casting and erection so that exposure at any moment is weeks of production rather than a project's worth. And the mould advance used as a solvency test as much as a funding mechanism — a client who will not fund tooling for the project he says is starting has answered a question the manufacturer should have asked.

9. Standards, Lifting & Site Compliance (India)

- IS 15916 for structural design and detailing of precast concrete, with IS 456 and IS 1343 where prestressed elements are produced — and connection design frequently subject to third-party proof-checking, which is a genuine engineering review rather than a formality.
- Statutory testing and certification of gantries, cranes, lifting beams, slings and shackles with periodic re-certification — this equipment lifts multi-tonne elements over people, and its inspection calendar is not administrative.
- Over-dimensional cargo permits, RTO route approvals and escort requirements, which govern what may lawfully be built as much as any structural code does.
- Building and Other Construction Workers Act registration and cess on erection scope — it attaches the moment the plant's crew works on a client site, and supply-only manufacturers routinely never encounter it.
- Work-at-height, lifting-operation and exclusion-zone obligations, erection being the highest fatality-risk activity in this vertical after blasting.
- Factories Act registration with safety and welfare obligations; SPCB consent for batching, dust and curing-water discharge.
- GST with input credit and e-way bills; works-contract treatment where supply-and-erect is billed as a composite.
- EPF and ESI across a large production workforce, and contractor compliance where erection labour is partly engaged through agencies.

10. Organisation & Manpower Plan

Role	Yr 1	Yr 2	Yr 3
Promoter / plant head	1	1	2
Production supervision & mould setting	6	8	11
Erection supervision & rigging	5	7	10
Design, BIM & detailing	4	6	9
Project management & client coordination	3	5	7
Dispatch, transport & permits	3	4	6
Accounts, credit control & admin	3	4	6
Business development at design stage	2	3	4
QC / laboratory (reporting to the promoter, not to production)	2	3	4
Staff total	29	41	59
Plus production and erection crews carried in the labour cost line rather than in salaries: 60 → 95 → 130 . Total employment 89 → 189.			

Two allocations state the plan's thesis in payroll form. Nine people in design, BIM and detailing plus four in design-stage business development, in a fifty-nine-person staff, is heavy for a manufacturer and is the direct consequence of a product that is designed before it is sold — this function is not overhead on the factory, it is the factory's order book being written eighteen months early. And QC reports to the promoter rather than to production, the rule this library has applied to cancellation authority, credit limits, stock ageing, concrete cube results, block cure enforcement, hardware range review, panel grade testing and quarry boundary survey: **a control that reports to the party it constrains is not a control — and here the constrained party is the one whose bed must be released today.**

11. Implementation Timeline & Milestones

Phase	Timeline	Milestone
Setup	Month 0–9	Land secured with yard sized for erection-sequenced stacking, SPCB and factory consents obtained, casting beds, batching and steam curing commissioned, gantries and cranes certified before first lift, design and BIM capability built ahead of production, anchor project specified at design stage before commissioning
Launch	Year 1	14,000 t, ₹14.70cr turnover, ₹1.44cr loss; utilisation 46.7% against a 66.2% break-even; casts per mould 62; supply-and-erect 42%; design-stage wins 31%
Build	Year 2	21,000 t; utilisation 70.0% against 60.0% break-even; casts per mould 104; mould cost quoted openly on 68%; supply-and-erect 64%; ₹23.52cr turnover, ₹1.03cr profit
Scale	Year 3	27,000 t; utilisation 90.0%; ₹31.86cr turnover, ₹3.26cr profit; ROCE 23.0%; casts per mould 148; design-stage wins 74%; supply-and-erect 81%; water-ingress 0.5 per 100 units; concentration down to 51%

12. Financial Plan (Illustrative)

All figures are illustrative model assumptions for an Indian context, shown so the promoter can replace them with live rates. **Utilisation, mould repetition and erection scope are the levers. Rate per tonne is barely one, because two manufacturers quoting different element designs are not quoting comparable products.**

12.1 Project cost & means of finance

Capital requirement	₹
Casting beds, initial mould set, batching plant & steam curing	3,20,00,000
Yard, gantry cranes, storage racks & site development	2,40,00,000
Trailers, erection cranes & lifting equipment	1,60,00,000
Land / long-lease deposit	1,40,00,000
Working capital (WIP, project stock & receivables)	1,20,00,000
Launch & initial operating losses	1,10,00,000
Design, BIM, detailing setup & software	32,00,000
Consents, licences, legal & deposits	28,00,000
Laboratory, testing & certification	22,00,000
Technology (ERP, production control, element tracking)	18,00,000
Total project cost	11,90,00,000
Term loan (plant, yard & land)	4,80,00,000
Promoter contribution	3,60,00,000
Equipment finance (cranes, trailers, lifting)	2,30,00,000
Cash-credit / working-capital limit	1,20,00,000

12.2 Projected Profit & Loss (3 years)

Particulars	Year 1	Year 2	Year 3
TONNAGE DELIVERED / realisation per tonne	14,000 / ₹10,500	21,000 / ₹11,200	27,000 / ₹11,800
TURNOVER (net of GST)	14,70,00,000	23,52,00,000	31,86,00,000
Materials (cement, aggregate, reinforcement, inserts, admixture)	7,94,00,000	11,76,00,000	14,97,00,000
Gross margin	6,76,00,000	11,76,00,000	16,89,00,000
Gross margin %	46.0%	50.0%	53.0%
Production & erection labour (mould setting, rebar, casting, finishing, rigging)	1,84,00,000	2,64,00,000	3,50,00,000
Transport, cramage & erection (trailers, permits, hired lifting)	1,47,00,000	2,10,00,000	2,64,00,000
Salaries (design, production supervision, projects, QC, admin)	84,00,000	1,10,00,000	1,42,00,000

Depreciation (plant, moulds, cranes, yard, trailers)	86,00,000	92,00,000	1,00,00,000
Mould manufacture & project-specific tooling	62,00,000	78,00,000	1,10,00,000
Finance cost (term loan, equipment finance, cash credit)	68,00,000	70,00,000	68,00,000
Plant operating, power, steam curing & consumables	48,00,000	72,00,000	96,00,000
Land lease, yard & site cost	34,00,000	38,00,000	44,00,000
Design, BIM, detailing & third-party proof-checking	22,00,000	30,00,000	46,00,000
Rework, breakage in handling & erection damage	28,00,000	32,00,000	42,00,000
Insurance, admin & compliance	20,00,000	26,00,000	34,00,000
Bad debt & write-offs	18,00,000	26,00,000	34,00,000
Testing, QC & certification	12,00,000	16,00,000	21,00,000
Technology (ERP, BIM, production control)	7,00,000	9,00,000	12,00,000
Total expenses	8,20,00,000	10,73,00,000	13,63,00,000
Net profit / (loss) before tax	(1,44,00,000)	1,03,00,000	3,26,00,000
Net margin (on turnover)	(9.80%)	4.38%	10.23%
AVERAGE CAPITAL EMPLOYED	11,40,00,000	12,80,00,000	14,20,00,000
RETURN ON CAPITAL EMPLOYED	(12.6%)	8.0%	23.0%
CAPACITY UTILISATION (30,000 t nominal)	46.7%	70.0%	90.0%
BREAK-EVEN TONNAGE / as % of capacity	19,860 / 66.2%	17,990 / 60.0%	18,880 / 62.9%
CONTRIBUTION PER TONNE / fixed cost base	₹2,457 / ₹4.88cr	₹3,419 / ₹6.15cr	₹4,015 / ₹7.58cr
AVERAGE CASTS PER MOULD / moulds under 25 casts	62 / 31%	104 / 14%	148 / 6%
Mould cost quoted separately & visibly to the client	0%	68%	100%
SPECIFICATION WON AT DESIGN STAGE vs at tender stage	31%	52%	74%
Cast only against released drawings + paid mould advance	58%	86%	100%
Yard stock of elements for projects not yet released	86,00,000	42,00,000	18,00,000
SUPPLY-AND-ERECT SHARE / water-ingress complaints per 100 units	42% / 4.6	64% / 1.7	81% / 0.5
Revisions forced by transport or crane after approval / OD-cargo permit elements	22% / 34%	11% / 26%	4% / 19%
Erection tolerance within specification · rework & breakage · top-3 share · receivable days	88% · 3.8% · 72% · 84	97% · 2.2% · 61% · 76	99.4% · 1.4% · 51% · 68

12.3 Unit economics & break-even

- This plan uses the manufacturing metric form the RMC plant established and the block plant confirmed — utilisation against break-even and contribution per unit, not GMROI — because the inventory here is work

in progress on a specific project rather than saleable stock. Year 1 runs 46.7% against a 66.2% break-even, and that gap IS the ₹1.44 crore loss.

- Contribution per tonne rises from ₹2,457 to ₹4,015 while realisation rises only ₹1,300, so roughly half the improvement is repetition and erection scope rather than price. Casts per mould more than doubling is worth more to this business than any rate increase it could negotiate.
- A mould costing ₹4 lakh over 148 casts adds ₹2,700 to an element; over 25 casts it adds ₹16,000. That single arithmetic is why the mould line is quoted openly — the client is choosing between two very different prices and is usually unaware that his design is what decides which one he pays.
- Break-even arrives in Year 2 and the ramp is genuinely long — a precast proposal showing Year-1 profit is describing a plant that already had a captive anchor project, and should be read as such.
- Year-3 return of 23.0% is high for this vertical and is entirely contingent on repetition. The same plant running the same tonnage at 62 casts per mould instead of 148 does not earn it, which is why the plan reports casts per mould as a control point and not as a statistic.

12.4 Projected Cash Flow — Year 1 (quarterly, illustrative)

Particulars (₹)	Q1	Q2 monsoon	Q3	Q4
Opening balance	1,10,00,000	78,00,000	46,00,000	32,00,000
Collections from customers	3,12,00,000	2,86,00,000	3,54,00,000	3,68,00,000
Payments to suppliers, labour, transport, interest & overheads	3,44,00,000	3,18,00,000	3,68,00,000	3,84,00,000
Closing balance	78,00,000	46,00,000	32,00,000	16,00,000

The monsoon quarter behaves differently here from everywhere else in this vertical, and the difference is one of this business's genuine selling points rather than an accounting detail. The cement dealership, the block plant, the quarry and the concrete plant all lose a quarter to rain because their customers' sites stop. A precast factory has a roof. Casting continues at full rate through the monsoon; only erection is interrupted, and even that less than in-situ work is, because a crane setting a finished element in a two-hour dry window achieves what a shuttered and poured slab cannot. So the plant's Q2 dip is a delivery dip rather than a production one, and elements cast in the monsoon are erected the moment the weather turns — which is precisely the schedule certainty that justifies precast's price premium to a developer paying interest every month. Two cash consequences follow. First, working capital rises through the monsoon rather than falling, because production continues while erection billing slows — the opposite of the rest of the vertical, and a facility sized on the vertical's usual pattern will be wrong. Second, milestone billing must recognise casting as well as erection, or the plant funds a quarter of production against no invoice at all — which is a contracting decision made before the project starts and cannot be repaired afterwards.

12.5 Key Performance Indicators to Monitor

- The real constraint: utilisation against break-even tonnage; contribution per tonne; bed turns per day; yard throughput against erection programme.
- The economics: casts per mould by project; moulds under 25 casts; mould cost quoted openly; repetition ratio at quotation stage.
- Where the order is won: design-stage versus tender-stage specification; consultant engagement pipeline; concept-stage proposals issued — the leading indicator of an order book eighteen months out.

- **Risk of rubble:** elements cast against released drawings with paid mould advance; yard stock for unreleased projects; milestone billing currency.
- **The joint and the lift:** supply-and-erect share; water-ingress complaints; erection tolerance; rework and breakage; lifting-equipment certification currency; work-at-height incidents and near misses recorded.

13. Funding Requirement & Bankability

Total ask: **₹4.80 crore term loan, ₹2.30 crore equipment finance and a ₹1.20 crore cash-credit limit** against ₹3.60 crore promoter contribution. Four points. **First, the asset mix splits cleanly: cranes, trailers and lifting equipment are standard and resaleable and carry their own security, while casting beds, moulds and yard infrastructure are largely single-purpose with limited forced-sale value — so the term component should be sized against land, yard and plant, and the equipment component against equipment. Second, the working-capital assessment must recognise that this business's inventory is not stock: elements cast for a project have no alternative buyer and a zero realisable value in a disposal, so a drawing-power calculation treating precast WIP as inventory is calculating against something that would be broken up and carted away. Third, the diagnostic question is repetition and design-stage pipeline, not turnover. A promoter who can state his casts per mould, his moulds under twenty-five casts and his design-stage specification rate is running the business; one who quotes plant capacity and an order book is quoting the last eighteen months rather than the next. Fourth, treat customer concentration as a covenant with realistic expectations attached — 72% top-three exposure is genuinely high and cannot be reduced quickly, because the projects that would reduce it are being designed now and will order next year.**

13.1 Funding utilisation

Use of funds	₹	% of total
Casting beds, initial mould set, batching plant & steam curing	3,20,00,000	26.9%
Yard, gantry cranes, storage racks & site development	2,40,00,000	20.2%
Trailers, erection cranes & lifting equipment	1,60,00,000	13.4%
Land / long-lease deposit	1,40,00,000	11.8%
Working capital (WIP, project stock & receivables)	1,20,00,000	10.1%
Launch & initial operating losses	1,10,00,000	9.2%
Design, BIM, detailing setup & software	32,00,000	2.7%
Consents, licences, legal & deposits	28,00,000	2.4%
Laboratory, testing & certification	22,00,000	1.8%
Technology (ERP, production control, element tracking)	18,00,000	1.5%
Total	11,90,00,000	100%

14. Risk Analysis & Mitigation

Risk	Mitigation
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The sale is made eighteen months early, by somebody who will not pay for it	A BUILDING CANNOT BE PRECAST UNLESS IT WAS DESIGNED TO BE PRECAST — THE GRID, CONNECTIONS, TOLERANCES AND ELEMENT SIZES ARE STRUCTURAL DECISIONS TAKEN AT CONCEPT STAGE, AND A SCHEME DRAWN FOR CAST-IN-SITU CANNOT BE CONVERTED AFTERWARDS AT ANY PRICE. SO BY THE TIME A PROJECT REACHES TENDER THE DECISION HAS ALREADY BEEN MADE OR ALREADY BEEN LOST, AND IT WAS MADE BY A STRUCTURAL CONSULTANT OR ARCHITECT WHO IS NOT THE BUYER, HAS NO COMMERCIAL RELATIONSHIP WITH THE MANUFACTURER AND WILL NEVER APPEAR ON THE PURCHASE ORDER. A PRECAST PLANT CALLING CONTRACTORS AT TENDER STAGE IS ARRIVING A YEAR LATE TO A DECISION TAKEN WITHOUT IT — AND THE ADDRESSABLE MARKET IS NOT "CONSTRUCTION IN THE REGION" BUT THE FAR SMALLER SET OF PROJECTS DESIGNED FOR PRECAST → business development conducted as ENGINEERING at concept stage (connection details, erection sequences, load tables, mould-repetition studies offered to design offices while the choice is still open, shaping the grid in the manufacturer's own favour); nine people in design and detailing plus four in design-stage development within a fifty-nine-person staff, BECAUSE THE PRODUCT IS DESIGNED BEFORE IT IS SOLD; and design-stage versus tender-stage wins reported as A LEADING INDICATOR (31%→74%), since THE ORDER BOOK EIGHTEEN MONTHS FROM NOW IS BEING DECIDED IN DESIGN OFFICES THIS QUARTER AND NOTHING IN THE CURRENT MONTH'S REVENUE REVEALS IT
The road and the crane decide the element, not the architect	A PANEL MUST FIT A TRAILER THAT CAN LEGALLY TRAVEL THE ROUTE, PASS UNDER ITS BRIDGES, AND BE LIFTED BY A CRANE AT THE RADIUS THE SITE ALLOWS. AN ELEMENT EXCEEDING ANY OF THOSE IS NOT AN EXPENSIVE ELEMENT, IT IS AN ELEMENT THAT CANNOT BE DELIVERED. THIS IS THE THIRD FORM THE ECONOMIC RADIUS HAS TAKEN IN THIS VERTICAL: THE CONCRETE PLANT'S IS TIME AND CANNOT BE CROSSED AT ANY PRICE; THE BLOCK PLANT'S IS FREIGHT COST AND CAN BE CROSSED AT A PRICE; THIS ONE IS A LEGAL AND PHYSICAL ENVELOPE — WHAT THE ROAD PERMITS AND THE CRANE CAN LIFT — AND IT CONSTRAINS THE PRODUCT RATHER THAN THE MARKET → the envelope checked BEFORE drawing approval rather than after, since AN ELEMENT THE TRAILER CANNOT CARRY IS NOT A DESIGN, IT IS A DELAY (revisions forced after approval 22%→4%; OD-permit elements 34%→19%); route surveys, permits and escorts arranged as a standing process rather than per crisis; and load restraint designed rather than improvised
Precast is economic through repetition, and Indian projects are often designed without any	A STEEL MOULD COSTS LAKHS AND MAKES EXACTLY ONE SHAPE. SPREAD OVER FOUR HUNDRED IDENTICAL PANELS IT IS A ROUNDING ERROR; OVER FORTY IT IS THE DIFFERENCE BETWEEN A PROFITABLE CONTRACT AND A LOSS — A ₹4 LAKH MOULD ADDS ₹2,700 TO AN ELEMENT OVER 148 CASTS AND ₹16,000 OVER 25. SO THE MANUFACTURER'S MARGIN IS DECIDED BY HOW REPETITIVE HIS CLIENT'S DESIGN IS, A VARIABLE HE DOES NOT CONTROL AND MUST THEREFORE PRICE RATHER THAN ABSORB → THE MOULD QUOTED AS A SEPARATE VISIBLE LINE RATHER THAN AMORTISED INVISIBLY INTO THE ELEMENT RATE (0%→100%), BECAUSE A CLIENT WHO CAN SEE WHAT NON-REPETITION COSTS HIM WILL OFTEN STANDARDISE THE DESIGN AND A CLIENT WHO CANNOT SEE IT NEVER WILL; repetition studied and reported at quotation; infrastructure and industrial segments pursued ahead of architecturally varied residential work BECAUSE REPETITION IS INHERENT IN ONE AND ABSENT IN THE OTHER, AND REPETITION IS THIS BUSINESS'S ENTIRE MARGIN (casts per mould 62→148; moulds under 25 casts 31%→6%)

The joint is the product, and supply-only does not escape the blame	A PRECAST BUILDING'S STRUCTURAL PERFORMANCE, FIRE COMPARTMENTATION AND — MOST VISIBLY — WATER RESISTANCE ALL LIVE IN THE CONNECTIONS RATHER THAN IN THE ELEMENTS. EVERY PANEL CAN BE DIMENSIONALLY PERFECT AND THE BUILDING CAN STILL LEAK. SUPPLY-ONLY IS SIMPLER, LESS CAPITAL-HUNGRY AND CARRIES NO WORK-AT-HEIGHT OR BOCW LIABILITY, WHICH IS WHY MOST INDIAN MANUFACTURERS PREFER IT — BUT IT ENDS RESPONSIBILITY ONLY IN CONTRACT, NOT IN THE CLIENT'S MIND. WHEN A WALL LEAKS HE DOES NOT DISTINGUISH A CORRECT ELEMENT FROM A BADLY SEALED JOINT; HE DISTINGUISHES THE WALL HE EXPECTED FROM THE WALL HE GOT, AND ATTRIBUTES THE DIFFERENCE TO WHOEVER MADE IT. THE MANUFACTURER CAN WIN THAT ARGUMENT AND STILL LOSE THE CLIENT, THE REFERENCE AND THE CONSULTANT'S NEXT SPECIFICATION — THE ASSET THIS ENTIRE BUSINESS IS BUILT ON → erection scope taken from 42% to 81% of turnover, accepting cranes, trailers and rigging at 13.4% of project cost, a permanent erection crew, BOCW registration and cess, and work-at-height liability MANAGED WITH CERTIFIED EQUIPMENT, TESTED RIGGING AND TRAINED RIGGERS RATHER THAN WITH AN INDEMNITY CLAUSE; jointing executed by the plant's own crew to a written procedure with joints inspected and recorded (water-ingress 4.6→0.5 per 100 units; erection tolerance 88%→99.4%)
A cancelled project leaves rubble, not inventory	A PRECAST ELEMENT MADE FOR ONE PROJECT FITS NO OTHER BUILDING ON EARTH. THE TILES SHOWROOM'S DISCONTINUED DÉCOR COULD STILL BE SOLD AT A DISCOUNT; THE BLOCK PLANT'S YARD STOCK WOULD EVENTUALLY CLEAR; EVEN THE PANEL DEALER'S DEAD LAMINATE HAS A BUYER AT THE RIGHT PRICE. A COLUMN CAST TO ONE PROJECT'S GRID, CONNECTION DETAIL AND REINFORCEMENT SCHEDULE HAS A RESALE VALUE OF ZERO AND A POSITIVE DISPOSAL COST — SOMEBODY MUST BREAK IT UP AND CART IT AWAY — SO THE ORDINARY RISK OF BUILDING AHEAD OF DEMAND DOES NOT MERELY BECOME EXPENSIVE HERE, IT BECOMES TOTAL → nothing cast except against drawings FORMALLY RELEASED FOR CONSTRUCTION, since A DESIGN STILL UNDER REVISION WILL CHANGE AND THE CHANGE WILL BE A DEMOLITION; the mould paid for in advance, which funds the tooling AND tests whether the project is real, because A DEVELOPER UNWILLING TO FUND A MOULD IS TELLING THE MANUFACTURER SOMETHING ABOUT HIS OWN FINANCING THAT HE HAS NOT SAID ALOUD; and milestone billing tied to casting and erection SO THAT A PROJECT STOPPING MID-WAY LEAVES AN INVOICE RATHER THAN AN INVENTORY (compliance 58%→100%; unreleased-project yard stock ₹86L→₹18L)
The most concentrated business in this vertical, and it cannot be fixed quickly	PRECAST ORDERS ARE LARGE, FEW AND LONG — THREE PROJECTS CAN BE SEVENTY PER CENT OF A YEAR, AND THIS PLAN OPENS AT 72% TOP-THREE CONCENTRATION. A CEMENT DEALERSHIP WITH A CONCENTRATED BOOK CAN WIN A DOZEN NEW ACCOUNTS IN A QUARTER; THIS PLANT CANNOT, BECAUSE THE PROJECTS IT WOULD NEED DO NOT EXIST YET AND THE ONES THAT DO WERE DESIGNED EIGHTEEN MONTHS AGO. THE EXPOSURE IS STRUCTURAL RATHER THAN A FAILURE OF BUSINESS DEVELOPMENT, AND IT COMPOUNDS WITH THE INVENTORY PROBLEM — A SINGLE LARGE CLIENT STOPPING DOES NOT MERELY REMOVE REVENUE, IT STRANDS ELEMENTS NO OTHER BUYER CAN USE → concentration reduced deliberately to 51% by Year 3, WHICH IS REAL PROGRESS AND STILL HIGH; infrastructure and institutional work pursued for its different payment behaviour and independence from the residential cycle; milestone billing so exposure at any moment is weeks of production rather than a project's worth; and THE MOULD ADVANCE USED AS A SOLVENCY TEST AS MUCH AS A FUNDING MECHANISM

Cast-in-situ is the real competitor, and overselling loses the category	ON RATE PER TONNE OF STRUCTURE PRECAST IS GENERALLY MORE EXPENSIVE THAN IN-SITU IN INDIA, AND A MANUFACTURER WHO CLAIMS OTHERWISE WILL BE CONTRADICTED BY THE CLIENT'S OWN QUANTITY SURVEYOR. THE HONEST CASE RESTS ON THREE THINGS A RATE COMPARISON DOES NOT SHOW: TIME — A FACTORY HAS A ROOF, SO CASTING CONTINUES THROUGH THE MONSOON WHILE AN IN-SITU SITE SUBSTANTIALLY STOPS, AND ON A PROJECT PAYING INTEREST EVERY MONTH SCHEDULE IS MONEY; LABOUR — SITE WORKFORCE AVAILABILITY HAS BECOME GENUINELY UNRELIABLE WHILE THE FACTORY WORKFORCE IS SUPERVISED AND REPEAT-TRAINED; AND CONSISTENCY — STEEL MOULDS UNDER A ROOF ARE NOT COMPARABLE TO SHUTTERING ON A MONSOON SITE. WHERE NONE OF THE THREE IS WORTH ANYTHING TO THE CLIENT — A SMALL, UNREPETITIVE, UNHURRIED PROJECT WITH AVAILABLE LABOUR — PRECAST IS THE WRONG ANSWER AND THIS PLAN SAYS SO, BECAUSE THE MANUFACTURER WHO TAKES THAT JOB WILL LOSE MONEY ON IT AND THE CLIENT WILL CONCLUDE THE CATEGORY DOES NOT WORK → segment selection on repetition and schedule value; total-installed-cost comparison offered rather than rate-per-tonne; and the wrong project declined
Lifting safety, utilisation & compliance	ERECTION IS THE HIGHEST FATALITY-RISK ACTIVITY IN THIS VERTICAL AFTER BLASTING — MULTI-TONNE ELEMENTS LIFTED OVER PEOPLE, AT HEIGHT, ON SOMEBODY ELSE'S SITE → statutory testing and certification of gantries, cranes, lifting beams, slings and shackles held on absolute calendars; method statements, exclusion zones, trained riggers; handling strength verified before a bed is released, because A PANEL LIFTED BELOW STRENGTH CRACKS AT THE INSERT AND THE CRACK IS INVISIBLE UNTIL IT IS IN THE WALL; near misses recorded as a metric that is SUPPOSED to rise. YEAR 1 RUNS 46.7% UTILISATION AGAINST A 66.2% BREAK-EVEN AND THAT GAP IS THE ₹1.44 CRORE LOSS — A PRECAST PROPOSAL SHOWING YEAR-1 PROFIT IS DESCRIBING A PLANT THAT ALREADY HAD A CAPTIVE ANCHOR PROJECT. Compliance: IS 15916 with IS 456 and IS 1343, connection design proof-checked; Factories Act and SPCB consents; OD-cargo permits and RTO route approvals; BOCW REGISTRATION AND CESS, WHICH ATTACHES THE MOMENT THE CREW STEPS ONTO A CLIENT SITE AND WHICH SUPPLY-ONLY MANUFACTURERS ROUTINELY NEVER ENCOUNTER; works-contract GST treatment on composite supply-and-erect

15. SWOT Analysis

Strengths Presence in the design office a year before tender, where the decision is actually taken; mould repetition priced openly so it changes client behaviour rather than being absorbed; erection scope taken, giving the joint one owner; design inside the transport and lifting envelope; schedule certainty through the monsoon that no site-based competitor can offer; factory-controlled tolerance verifiable before dispatch.	Weaknesses Inventory with a resale value of zero and a positive disposal cost; 72% top-three concentration that cannot be reduced quickly; margin decided by the client's design repetition, a variable the plant does not control; break-even at 60–66% of capacity; single-purpose casting beds and moulds with limited forced-sale value; work-at-height liability on somebody else's site.
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Opportunities Labour scarcity moving work from site into factory; infrastructure applications where repetition is inherent — boundary walls, culverts, metro and utility elements; industrial and warehousing construction where the grid is regular and speed outweighs variety; institutional projects with repeating modules; repeat developers who have learned the design discipline; low Indian precast penetration against comparable markets.	Threats Cast-in-situ, which holds the overwhelming majority of Indian structural work and is cheaper per tonne; captive precast yards set up by large developers and contractors, removing projects entirely; a single anchor client stopping and stranding elements nobody else can use; an over-dimensional element that cannot lawfully be moved; a lifting incident; construction-cycle downturn arriving with an eighteen-month lag in both directions.
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16. Recommended AiSevak Tools for This Business

This plant would use AiSevak's Build Materials vertical tools in operations:

- **The real constraint: utilisation against computed break-even tonnage, contribution per tonne, bed turns per day, yard throughput sequenced to the erection programme.**
- **The economics: casts-per-mould tracking by project and by mould, under-25-cast alerts at quotation stage, repetition-ratio calculator, separate visible mould-cost quoting.**
- **Where the order is won: consultant and architect engagement pipeline at concept stage, design-stage versus tender-stage win tracking, concept proposals issued, specification-influence log.**
- **Risk of rubble:** released-for-construction drawing gate before casting, mould-advance receipt check, unreleased-project yard stock register, milestone billing schedule.
- **The joint and the lift:** transport and crane envelope check before drawing approval, OD-permit and route-survey tracker, lifting-equipment certification calendar, erection tolerance and joint inspection records, water-ingress complaint log, near-miss register.

17. Key Assumptions & Notes

- Prefab panels & precast manufacturing: factory-produced precast concrete wall panels, columns, beams, staircases, hollow-core slabs and boundary units, delivered and erected on site for developers, infrastructure contractors, industrial clients and institutional projects. **Eighth plan in the build-materials vertical; third MANUFACTURING plan, using the utilisation × contribution metric form.**
- **⚠ CONVENTIONS SET HERE: (a) THE SALE IS MADE EIGHTEEN MONTHS EARLY BY SOMEBODY WHO WILL NOT PAY FOR IT — a building cannot be precast unless it was designed to be, so the decision is taken at concept stage by a consultant who never appears on the purchase order, and a plant calling contractors at tender is a year late; the addressable market is projects DESIGNED for precast, not construction in the region. (b) THE ROAD AND THE CRANE DECIDE THE ELEMENT, NOT THE ARCHITECT — THE VERTICAL'S THIRD RADIUS: RMC's is TIME and uncrossable at any price; the block plant's is FREIGHT COST and crossable at a price; this one is a LEGAL AND PHYSICAL ENVELOPE that constrains the PRODUCT rather than the market. (c) PRECAST IS ECONOMIC THROUGH REPETITION AND INDIAN PROJECTS ARE OFTEN DESIGNED WITHOUT ANY — a ₹4 lakh mould adds ₹2,700 per element over 148 casts and ₹16,000 over 25, so the mould is QUOTED SEPARATELY AND VISIBLY, because a client who can see what non-repetition costs him will often standardise and one who cannot never will. (d) THE JOINT IS THE PRODUCT — every element can be perfect and the building can still leak, and supply-only ends responsibility in contract but not in the client's mind, so the plan TAKES ERECTION SCOPE (42%→81%). (e) A CANCELLED PROJECT LEAVES RUBBLE, NOT INVENTORY — a precast element fits no other building on earth, resale value zero and disposal cost**

positive, so nothing is cast without released-for-construction drawings AND a paid mould advance, the advance doubling as a solvency test. (f) **THE MOST CONCENTRATED BUSINESS IN THE VERTICAL, AND STRUCTURALLY SO** — the projects that would diversify the book are being designed now and will order next year.

- **□ ON THE MONSOON, WHICH INVERTS THE VERTICAL'S CONVENTION: EVERY OTHER BUSINESS HERE LOSES A QUARTER TO RAIN BECAUSE ITS CUSTOMERS' SITES STOP. A PRECAST FACTORY HAS A ROOF — CASTING CONTINUES AT FULL RATE AND ONLY ERECTION IS INTERRUPTED, WHICH IS PRECISELY THE SCHEDULE CERTAINTY THAT JUSTIFIES THE PRICE PREMIUM TO A DEVELOPER PAYING INTEREST EVERY MONTH. TWO CASH CONSEQUENCES: WORKING CAPITAL RISES THROUGH THE MONSOON RATHER THAN FALLING, SO A FACILITY SIZED ON THE VERTICAL'S USUAL PATTERN WILL BE WRONG; AND MILESTONE BILLING MUST RECOGNISE CASTING AS WELL AS ERECTION, OR THE PLANT FUNDS A QUARTER OF PRODUCTION AGAINST NO INVOICE AT ALL — A CONTRACTING DECISION MADE BEFORE THE PROJECT STARTS AND UNREPAIRABLE AFTERWARDS.**
- **ON THE HONEST CASE AGAINST CAST-IN-SITU: ON RATE PER TONNE PRECAST IS GENERALLY DEARER IN INDIA AND A MANUFACTURER WHO CLAIMS OTHERWISE WILL BE CONTRADICTED BY THE CLIENT'S OWN QUANTITY SURVEYOR. THE CASE RESTS ON TIME, LABOUR AND CONSISTENCY — NONE OF WHICH APPEARS IN A RATE COMPARISON — AND WHERE NONE OF THE THREE IS WORTH ANYTHING TO THE CLIENT, PRECAST IS THE WRONG ANSWER AND THE PLAN SAYS SO, BECAUSE THE MANUFACTURER WHO TAKES THAT JOB WILL LOSE MONEY ON IT AND THE CLIENT WILL CONCLUDE THE CATEGORY DOES NOT WORK.**
- **Economics & cash — YEAR 1 RUNS 46.7% UTILISATION AGAINST A 66.2% BREAK-EVEN AND THAT GAP IS THE ₹1.44 CRORE LOSS; A PRECAST PROPOSAL SHOWING YEAR-1 PROFIT IS DESCRIBING A PLANT THAT ALREADY HAD A CAPTIVE ANCHOR PROJECT (Y1 –₹1.44cr → Y3 ₹3.26cr; net margin –9.80%→10.23%; gross margin 46.0%→53.0%; ROCE (12.6%)→8.0%→23.0%, AND THE YEAR-3 FIGURE IS ENTIRELY CONTINGENT ON REPETITION — THE SAME PLANT AT THE SAME TONNAGE WITH 62 CASTS PER MOULD INSTEAD OF 148 DOES NOT EARN IT; tonnage 14,000→27,000 at ₹10,500→₹11,800; utilisation 46.7%→90.0% against break-even 66.2%→62.9%; contribution ₹2,457→₹4,015 with roughly half the gain from repetition and erection scope rather than price; receivables 84→68 days; break-even Year 2). Regulatory: IS 15916 WITH IS 456 AND IS 1343, CONNECTION DESIGN FREQUENTLY THIRD-PARTY PROOF-CHECKED AS A GENUINE ENGINEERING REVIEW; Factories Act and SPCB consents for batching, dust and curing-water discharge; STATUTORY TESTING AND CERTIFICATION OF GANTRIES, CRANES, LIFTING BEAMS, SLINGS AND SHACKLES — EQUIPMENT THAT LIFTS MULTI-TONNE ELEMENTS OVER PEOPLE, WHERE THE INSPECTION CALENDAR IS NOT ADMINISTRATIVE; OD-CARGO PERMITS AND RTO ROUTE APPROVALS, WHICH GOVERN WHAT MAY LAWFULLY BE BUILT AS MUCH AS ANY STRUCTURAL CODE DOES; BOCW REGISTRATION AND CESS ON ERECTION SCOPE, ATTACHING THE MOMENT THE CREW STEPS ONTO A CLIENT SITE; work-at-height and lifting-operation obligations; works-contract GST on composite supply-and-erect; EPF/ESI. Lender note: THE ASSET MIX SPLITS CLEANLY — CRANES, TRAILERS AND LIFTING GEAR ARE STANDARD AND RESALEABLE, WHILE CASTING BEDS, MOULDS AND YARD INFRASTRUCTURE ARE LARGELY SINGLE-PURPOSE; THE WORKING-CAPITAL ASSESSMENT MUST RECOGNISE THAT PRECAST WIP IS NOT STOCK — ELEMENTS CAST FOR A PROJECT HAVE NO ALTERNATIVE BUYER AND ZERO REALISABLE VALUE, SO A DRAWING-POWER CALCULATION TREATING IT AS INVENTORY IS CALCULATING AGAINST SOMETHING THAT WOULD BE BROKEN UP AND CARTED AWAY; THE DIAGNOSTIC QUESTION IS REPETITION AND DESIGN-STAGE PIPELINE, NOT TURNOVER — A PROMOTER WHO CAN STATE HIS CASTS PER MOULD, HIS MOULDS UNDER TWENTY-FIVE CASTS AND HIS DESIGN-STAGE SPECIFICATION RATE IS RUNNING THE BUSINESS; ONE WHO QUOTES PLANT CAPACITY AND AN ORDER BOOK IS QUOTING THE LAST EIGHTEEN MONTHS RATHER THAN THE NEXT; and TREAT CONCENTRATION AS A COVENANT WITH REALISTIC EXPECTATIONS ATTACHED, SINCE 72% TOP-THREE EXPOSURE CANNOT BE REDUCED QUICKLY — THE PROJECTS THAT WOULD REDUCE IT ARE BEING DESIGNED NOW AND WILL ORDER NEXT YEAR. ₹11.90cr,**

tonnage 14,000→27,000, turnover 14.70→31.86cr, 89→189 total employment, utilisation 46.7%→90.0%, ROCE (12.6%)→23.0%. Figures illustrative, exclude GST.

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