



ALUMINIUM DIE CASTING · SATARA, INDIA · SINCE 2009

Company Profile

High pressure, gravity and low pressure die casting — machined, finished and assembled under one roof for automotive, EV, electrical, lighting and industrial customers worldwide.

7

HPDC machines

80–1250 T

Clamping force

1,800 t

Annual capacity

4

Manufacturing units

Who we are

Alcast Technologies is an aluminium die casting manufacturer in Satara, Maharashtra, founded in 2009 and run by a metallurgical engineer.

We were founded on a simple belief: that precision manufacturing should be built on technical expertise, integrity and long-term relationships — and that quality should be driven by process, not inspection.

Our founder is a Metallurgical Engineering graduate with over 30 years of hands-on experience across purchase and sourcing, procurement and manufacturing operations, built up in multinational engineering companies before starting the business with personal savings.

Today we run four operational manufacturing units producing high pressure and gravity die castings, with low pressure die casting in development. Beyond casting we provide machining, finishing, inspection and assembly, so you deal with one partner from raw casting to ready-to-fit component.



Housings, covers, heat sinks, brackets and rotating parts.

What we stand for

Quality

Customer First

Delivery

Improvement

Integrity

Long-standing partnerships, quietly kept

We don't publish customer names — most of our work sits inside someone else's product, and that is their announcement to make, not ours. Several of our partnerships have run continuously for over 15 years, across India and overseas. References are available on request once an enquiry reaches a serious stage, and the same confidentiality covers your drawings, under NDA as a matter of routine.

Alcast by the numbers

4 Operational units	51,000 sq.ft Manufacturing area	80–1250 T Machine range	1,800 t Annual capacity
2,700 t Expandable to	10M+ Castings made	11 Alloy grades	2009 Manufacturing since
15+ yrs Longest partnership	15+ Overseas clients	5+ Overseas countries	24 hrs Enquiry response

Industries we serve

Automotive	EV	Electrical	Lighting
Pumps & Compressors	Agriculture	Textile	Construction

Where we're heading

We are actively expanding into higher-growth, precision-critical segments: robot housings and parts, battery housings, and EV components. Low pressure die casting is in development, with a 20,000 sq.ft plant already secured.

Three processes, one component range

The process is chosen to match your part, not the machine we happen to own.

Process	Wall thickness	Component weight	Best suited for
High Pressure Die Casting	1.2 – 8 mm	50 g – 15 kg	Thin walls, complex geometry, high volume
Gravity Die Casting	3 – 15 mm	200 g – 25 kg	Thicker sections, pressure-tight and structural parts
Low Pressure Die Casting	In development	In development	Structural, pressure-tight parts (plant secured)

Components we manufacture

Cored and non-cored castings, supplied as raw castings, fully machined parts, or ready-to-assemble units.

Electrical & motor

- Alternator fans & fan hubs
- Coil wedges & booster covers
- Motor front & rear covers
- End shields & terminal boxes

Compressor & pump

- Pistons & connecting rods
- Compressor bearings
- Pump & lub oil pump bodies
- Cylinder head covers

Lighting, EV & general

- LED heat sinks & end caps
- Battery enclosure trays
- Manifolds, brackets & plates
- Brake items & oil filter parts

Machines and plant

Everything listed here is equipment we actually run in Satara.

High pressure die casting — 7 cold-chamber machines

Clamping force	Typical casting weight	Representative parts
80 T	From a few grams	Small precision components
135 T	Up to ~0.3 kg	Sensor housings, covers
160 T	Up to ~0.5 kg	Small housings, brackets
280 T	~0.5 – 2 kg	Motor covers, enclosures
500 T	~2 – 5 kg	Pump & gearbox housings
1000 T	~5 – 10 kg	Large housings
1250 T	Up to 15+ kg	Crankcases, structural housings

A further 700T machine is currently under negotiation.

Gravity die casting

20+ kg Casting weight, up to	300 × 300 Max die size (mm)	300 × 450 Max die size (mm)	450 × 600 Max die size (mm)
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Machining, finishing and handling — all in-house

6 CNC & VMC	3 Shot blasting	2 Fettling shops	10 T + 5 T cranes
Trimming & deflashing	Powder coating	Assembly	Quality lab
Suhner multi-head drilling & tapping	Automatic drilling & tapping line	Auto gauging & inspection	

Alloys and metal treatment

Melt quality is where casting soundness is actually decided.

Electric resistance melting — fewer defects at source

We are among the few aluminium casters using electric resistance melting and holding furnaces rather than fuel-fired ones. With no hydrocarbon combustion there is no combustion by-product above the melt, which directly reduces hydrogen pick-up and therefore gas porosity in the casting — alongside a cleaner working atmosphere on the shop floor.

Treatment carried out on every melt

Fluxing	Degassing	Grain refining	Modification
Mobile rotary degasser	Density index meter	Spectrometer verification	

Alloys — high pressure die casting

LM2	LM6	LM9	LM13	LM20
LM24	ADC10	ADC12	AISi-132	

Alloys — gravity die casting

LM4	LM6	LM9	LM13	LM25
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Customer-specific and custom alloys can be arranged on request. Every batch is verified by spectrometer before production.

Certified, and checked at every stage

100% inspection, not sampling.

Certification

ISO 9001:2015

IATF 16949

Target: March 2027

Inspection & testing

- 100% visual inspection at every stage of production
- 100% critical dimensions checked by air gauging
- Spectrometer chemical analysis of every alloy batch
- X-ray testing, in-house
- Leak testing arranged on demand via specialist partner
- First Article Inspection (FAI) on every new tool

Traceability shaped by medical device discipline

Our traceability and process controls are influenced by medical device manufacturing standards, where every batch must be accounted for and every process change documented. All dimensional and geometrical measurement is carried out at the industry-standard reference temperature of 20 °C (68 °F), so results are comparable and repeatable against your drawing.

Documentation we routinely provide

APQP

PPAP

PFMEA

Control plans

Process flow diagrams

Inspection reports

Material test certificates

T0 trials and new parts

A new die is an assumption until metal has been through it.

We run T0 and development trials on production-grade HPDC machines — 500 T, 1000 T and 1250 T — from as few as 25 components. Because the trial machine is the production machine, a successful T0 can move straight into series production with no re-validation on different equipment.

25 Minimum trial quantity	500 T Trial machine	1000 T Trial machine	1250 T Trial machine
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Who it's for

- Tool makers validating a new die
- OEM and Tier-1 R&D teams
- Design houses proving a concept

What you get back

- Trial shots on production machines
- Samples for measurement & fitment
- Recorded process parameters
- Feedback on die performance

What to send us

- Your die, or drawing and 3D data
- Preferred alloy, or we advise one
- Sample quantity required
- Critical dimensions to check

From enquiry to production

1. Enquiry & DFM	2. APQP planning	3. Tooling
4. Sampling & FAI	5. PPAP	6. Series production

Typical new tool lead time is 2–4 weeks. Your tooling remains your property throughout, and NDAs are respected on all development work.

Common questions, answered

Can you make my part?

If it is aluminium and fits the envelope — from a few grams up to 25 kg, walls from 1.2 mm — there is a good chance we already make something like it. Send a drawing and we will tell you which process suits it and what it takes.

Can you handle my volume?

Yes, from 25-piece trials through to full production. Seven HPDC machines from 80 T to 1250 T across four units, with 1,800 tonnes of annual capacity today and headroom to 2,700 tonnes.

Do I get a finished part or a raw casting?

Either. Casting, machining, finishing, powder coating, inspection and assembly are all in-house, so a component can leave here ready to fit — one supplier, one point of accountability.

How tight can you hold tolerances?

Machined features to ± 0.05 mm, verified by air gauging on 100% of critical dimensions and measured at 20 °C (68 °F).

Do you export?

Yes. We hold a valid export licence and supply customers across multiple countries. Export-standard packaging is the default for overseas orders, with documentation prepared to your destination's requirements.

How quickly do you respond?

Within 24 hours of any enquiry, seven days a week, 8:00 am – 6:00 pm IST (UTC +5:30).

Packaging with a lighter footprint

Packaging is engineered to the component rather than wrapped around it. Perforated box packaging reduces material use and lowers shipping weight — cutting transport emissions while protecting the part. Every shipment gets a pre-dispatch packing audit.

GET IN TOUCH

Send us your drawing.

We'll tell you which process fits, what it takes to make, and what it's likely to cost.

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