



Cast Pvt. Ltd.

From wax to metal —
Shaping the Future
— With accuracy

IMPEL About

Our Journey,

IMPEL CAST PRIVATE LIMITED is committed to delivering high-quality investment castings with precision and reliability. Established in 2003, we are an ISO 9001:2015 (QMS) and IBR certified company that adheres to the highest quality standards to meet diverse industry needs.

Expertise & Legacy

With a strong foundation in engineering excellence and a customer-centric approach, we have successfully built long-standing relationships with clients across multiple industries. Our ability to deliver customized casting solutions tailored to industry requirements sets us apart. Our expertise spans across various sectors, including industrial valves, agriculture equipment, pump parts, general engineering, automotive parts, marine parts, orthopedic implants, and aerospace parts.

Precision

Over the years, we have consistently invested in cutting-edge technology and skilled manpower, ensuring that our manufacturing processes remain at the forefront of innovation. Precision is not just a goal—it's our guarantee.

Core Values



- Commitment to delivering precise, defect-free castings that meet industry and customer standards.
- Understanding customer needs, offering tailored solutions, and ensuring timely delivery with exceptional service.
- Ensuring stable production, strict quality control, and consistent performance to build lasting customer relationships.
- Fostering strong relationships with customers and suppliers for mutual growth and success.

Our Vision



IMPEL CAST PRIVATE LIMITED aims to be an industry leader in precision investment casting, providing cutting-edge solutions with a focus on quality, efficiency, and technological advancements. Our vision is to expand our global footprint, enhance our production capabilities, and continuously evolve to meet the changing demands of industries such as valve, textile, pump, automotive, power plants, marine, and defense. We strive to exceed customer expectations through innovation and excellence.

Why Us

- Professionally managed investment casting foundry
- Expertise in working with 95+ grades of metal
- Flexible production for small, medium, and large batch orders and consistent Quality
- Stringent quality control measures, including chemical analysis, physical testing, and non-destructive testing
- Quick response to inquiries / RFQs and shorter lead time for sample development

Our Strengths

- 3D printing for rapid prototyping and pattern making
- Well qualified and experienced skilled staff
- Die-making and final machining facilities
- Casting simulation software for defect-free casting
- State-of-the-art ERP system for process control
- Advanced heat treatment facilities
- Engineering support for cost-effective and efficient product development



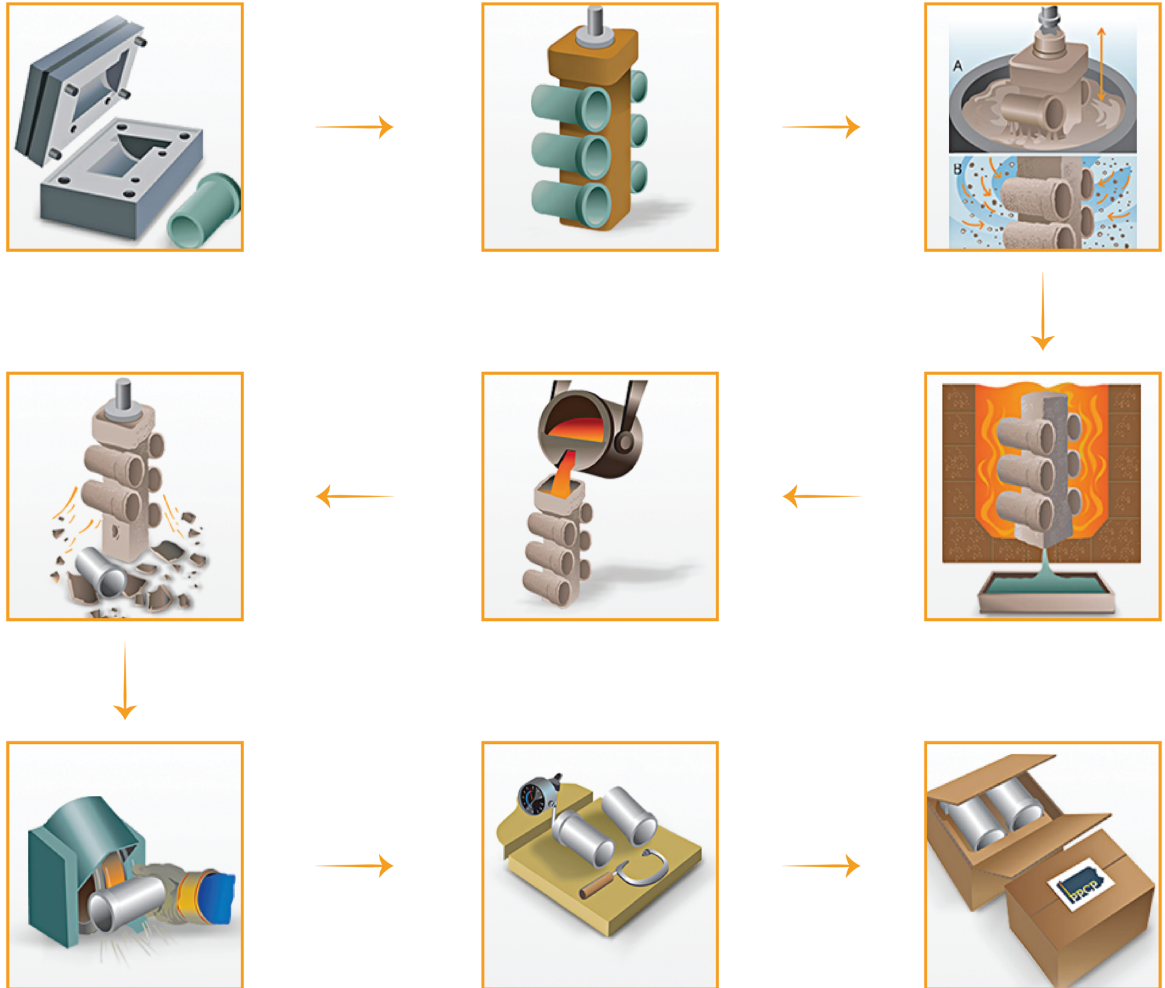
Infrastructure

The company boasts a well-equipped manufacturing facility with a total area of 2,600 SQ MT, designed to optimize efficiency and ensure superior production output. Our annual production capacity stands at 600MT, with current operations reaching 450MT per year. The facility is outfitted with state-of-the-art machinery and advanced testing laboratories, enabling precise quality control at every stage of the casting process. We continuously upgrade our infrastructure with the latest technological advancements to enhance productivity and maintain our commitment to delivering premium-quality investment castings.

Future Goals

IMPEL CAST PRIVATE LIMITED is committed to advancing its manufacturing processes and strengthening its position in the global market. Our goal is to provide innovative, high-precision investment casting solutions while fostering long-term relationships with our clients. We aspire to be a trusted partner for industries worldwide, contributing to their growth and success through excellence in casting technology.

Manufacturing Process



Tooling: We manufacture dies and patterns using advanced CAD/CAM technology, including Ideas and Delcam licensed software.

Wax Pattern Production: Wax patterns are injected, produced, and 100% dimensionally inspected for accuracy.

Ceramic Coating: Wax patterns are assembled into clusters and coated in a temperature- and humidity-controlled environment to ensure precise dimensions and a smooth finish.

De-Waxing: The wax is removed using an autoclave de-waxing machine.

Mould Baking & Metal Pouring: Ceramic moulds are heated between 900°C and 1150°C, depending on casting size and geometry. Molten metal is then poured into the moulds.

Fettling & Finishing: The castings undergo processes like gate cutting, machining, grinding, sandblasting, shot blasting, leaching, and deburring.

Heat Treatment: Performed as per material specifications, with graphs and cycles documented.

Quality Inspection: All castings undergo 100% visual inspection, and critical dimensions are fully checked before packaging.

Machining & Surface Finishing: We provide machined castings upon request and offer various surface finishes, including passivation, acid pickling, electro-polishing, blackening, powder coating, shot blasting, and glass bead blasting.

Materials Poured at Impel Cast

Ferrous Alloys: Austenitic Stainless Steel, Carbon Steel, Low Alloy Steel, Nickel-Based Super Alloy, Heat-Resistant Steel, Martensitic Stainless Steel, Duplex Steel, Precipitation-Hardened Steel.

Chemical Analysis:

- In-house Spectrometer (G.N.R. S.r.l.) for real-time heat testing.
- All poured heats and scrap materials are tested before use.
- Test specimens are stored for a specific period.

Physical Analysis:

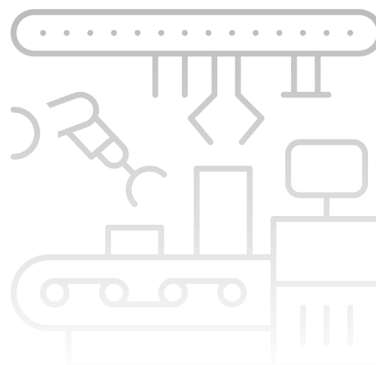
- Universal Testing Machine
- Hardness Testing Machine
- Impact Testing Machine
- Metallurgical Microscope
- Magnetic Particle Testing (MPT)
- Dye Penetration Testing (DP)
- Radiation Survey Meter
- High-Intensity Radiation Film Viewer
- Corrosion Testing

Machining Shop:

- CNC Turning Lathe
- Milling
- VTL (Vertical Turret Lathe)
- VMC (Vertical Machining Center)
- Radial Drill
- Conventional Lathe
- Hydraulic Tapping Machine
- Pressure Testing

Certifications

- ISO 9001:2015 (QMS) Certified
- IBR (Indian Boiler Regulation)



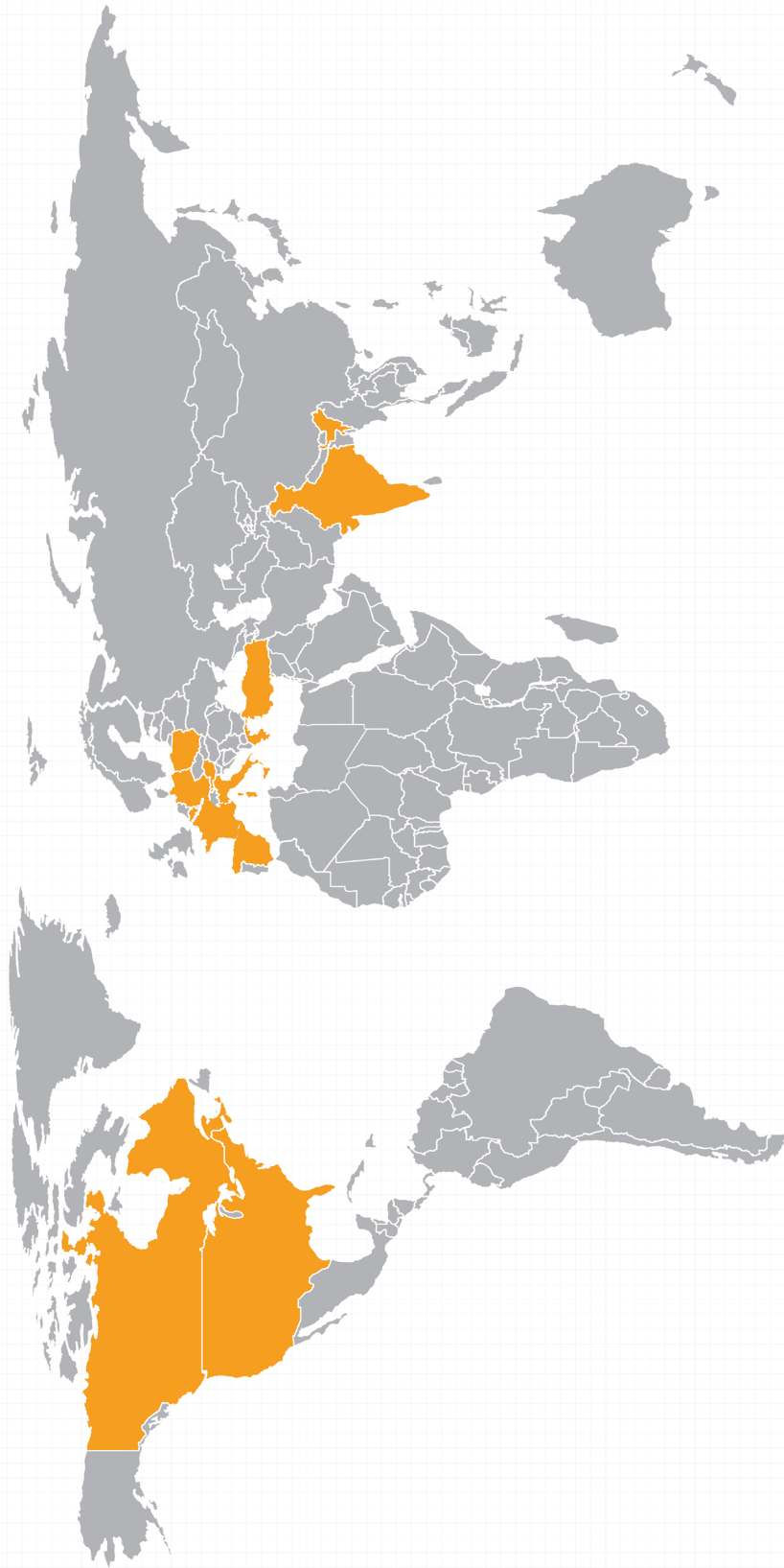
More than 3500 different types of components developed for various industries ▴

We have developed over 3500 components for various industries. Our expertise allows us to produce intricate lost wax investment castings weighing from 30 grams to 100 kilograms per piece.





Growing Foot Prints



INNINGS | 9924530507

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