
You have a project.
**We have
the know-how.**



**FONDERIA
PERSICETANA**

ALUMINIUM SAND CASTINGS

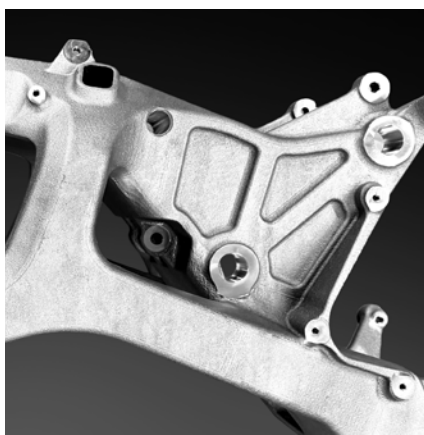
ABOUT US

A journey of growth and trust

Our story began in 1965 with a small-scale artisanal venture, and the company we are today is, above all, the result of continuous growth: expanding our expertise, adopting the latest technologies, and building trust with our customers over time.

Over sixty years of investment and hands-on experience have transformed us from a specialist workshop into a well-established industrial enterprise, capable of meeting the most demanding challenges of the international market.

Today, **Fonderia Persicetana** operates 5 melting furnaces with a total capacity of 3,000 kg and 3 production facilities covering 2,500 square metres – figures that reflect our steady growth, achieved year after year in partnership with our customers.



400

tonnes/year

15

alloys

150

customers worldwide

<1%

non-conformity rate



Where complexity becomes opportunity

We specialise in high-tech castings (complex geometries, large components, castings with embedded coils and bushings, and castings with advanced mechanical properties) – projects that require a **high level of expertise, proven experience and a partner who can engage with the technical details** right from the initial stages.

Our goal is to become the go-to foundry for technologically complex aluminium castings in the Italian and European markets. That is why we work tirelessly each day to expand our expertise, update our technology and develop solutions that push the boundaries of green sand moulding and chemically bonded sand castings. **The more ambitious the challenge, the more it suits us.**

A commitment with a long-term vision

We believe that doing a good job also means acting responsibly. **Over the past few years, we have invested in making our production process more sustainable:** today, we recycle 95% of the sand we use, generate clean energy thanks to a 90 kW photovoltaic system, and save around 70 tonnes of CO₂ each year.

Sustainability also means taking care of people. Our operators are the lifeblood of our foundry – ensuring they have a safe, healthy and continuously improving working environment is a priority for us. **We continuously invest in training, monitoring and prevention**, with the aim of achieving zero accidents and building a safety culture that forms part of our day-to-day working practices.

95%

recycled sand

90 kW

photovoltaic system

70

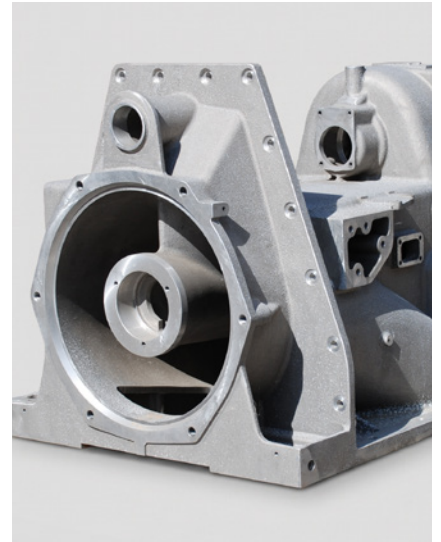
tonnes of CO₂
saved per year



OUR APPROACH

Your project is our starting point

Every casting project begins long before the actual casting process. **We become involved in our customer's project from the earliest stages of development, sharing our technical expertise and working together to find the most effective solution.** From the initial analysis of the design to the final casting, each stage represents an opportunity to improve the result.



Flexibility that makes all the difference

We were founded to meet out-of-the-ordinary requests. Small and medium-sized production runs, complex geometries, large components, tight deadlines – it is precisely in these situations that our capabilities shine through. **Over the years, we have honed our expertise to the point where we can now handle thicknesses of less than 3 mm, castings weighing up to 1,000 kg, and geometries that require complex core assemblies** – technically demanding requests that, over time, have become an integral part of our day-to-day work.

A single point of contact throughout the entire process

We support our clients at every stage: from co-design to casting, right through the subsequent finishing processes. We personally manage the procurement of specific components – pipes, coils, inserts, custom-designed flanges – and work with carefully selected partners to provide a comprehensive service, so that the customer does not have to coordinate multiple suppliers. **A single point of contact, from the initial idea to the finished product.**

QUALITY AND CERTIFICATIONS

Tools and internal controls



Our in-house laboratory is at the heart of our quality system. **We use advanced inspection technologies that enable us to monitor every aspect of the production process** and to verify that each part conforms to the customer's specifications.

Our main analysis and testing tools include digital radiography, dimensional inspection using 3D scanning, a spectrometer for chemical analysis, 400X digital microscopy and liquid penetrant testing.

Our facility also enables us to **issue comprehensive certification documentation** to meet the most stringent quality requirements:

- Certificate of Conformity 3.1
- Visual Inspection Certificate
- Level 2 Radiographic Testing Certificates
- PPAP
- Level 2 Liquid Penetrant Testing Certificates
- PFMEA
- FAI

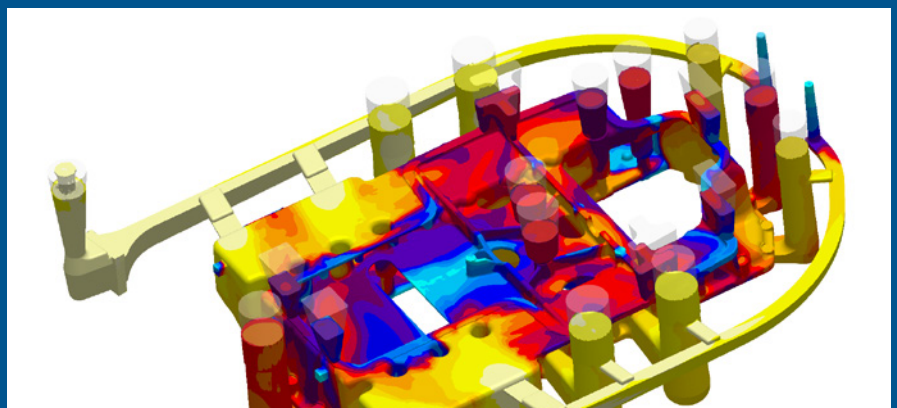
ISO 9001 Certification by TÜV



In 2010, we were awarded **ISO 9001 certification** – an international standard that certifies the **implementation of a structured quality management system audited** by an independent third-party body. Today, certification by TÜV serves as an **external guarantee of a commitment that we put into practice every day**.

An ever-evolving commitment

Quality is not something that is achieved once and for all. **We continually invest in updating our technology and improving our processes**, with the aim of responding ever more precisely to the needs of a constantly evolving market and increasingly demanding sectors.



OUR PROCESSES

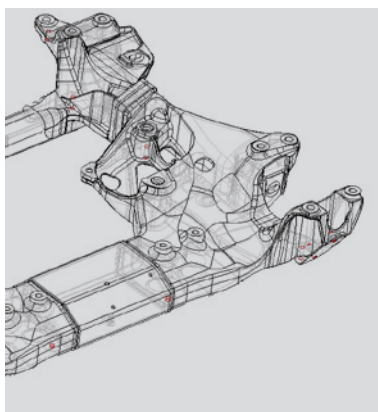
A comprehensive service, from design to delivery

Every casting we produce is the result of an integrated production process, designed to ensure quality, precision and flexibility at every stage. From the initial analysis of the design right through to the dispatch of the finished part, every step is monitored in-house, with a single aim: **to deliver to the customer exactly what they had envisioned, within the agreed timeframe.**



Co-design and technical development

Before casting begins, we design the project together. **We work closely with our customers from the very earliest stages of development**, assessing the feasibility of the design and optimising every technical detail – allowances, draft angles, shrinkage, cores – to ensure a flawless casting.



Casting simulation

Using **MAGMA software**, we can **simulate the casting process virtually** and **model the casting process even before production begins**, enabling the customer to see the part's characteristics and behaviour in advance and to make fully informed changes to the design.



Core shop

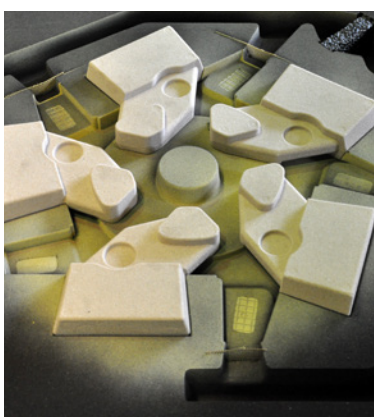
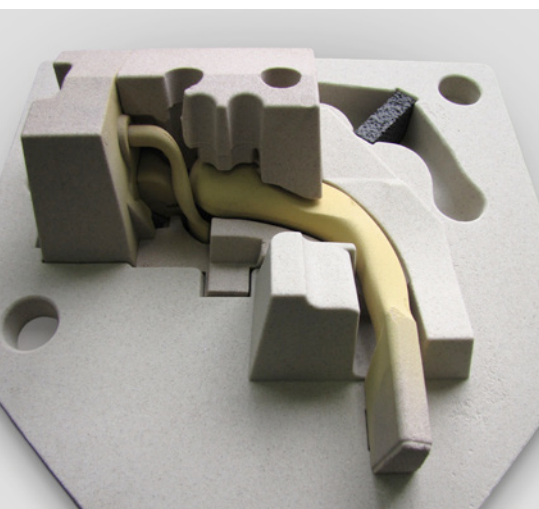
Our in-house core department gives us **complete production autonomy when it comes to creating cavities, composite geometries and complex shapes**. Our two 100 kg/hr resin-bonded sand mixers enable us to respond quickly and precisely to the needs of each project.





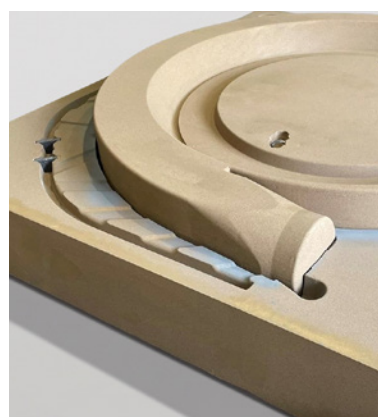
Green sand moulding

This is the ideal process for **small castings and simpler geometries**, offering fast production times and competitive costs. Our 1,000 × 800 mm semi-automatic machine can produce up to 25 brackets per hour, a capacity designed for small and medium-sized production runs that require efficiency and continuity.



Chemically bonded sand castings

Our three machines, with moulding boxes measuring up to 3,000 × 3,000 mm, enable us to produce castings weighing over 1,000 kg, with **highly complex geometries and very tight dimensional tolerances**. This is the ideal process for customers who require maximum production flexibility without compromising on quality.





Metal casting and preparation

Our five melting furnaces, each **with a capacity of 600 kg, are operated remotely and continuously monitored for temperature and metal quality.** Before each casting, we carry out systematic checks on the material. Our ability to **handle multiple alloys simultaneously** enables us to respond swiftly to even the most complex orders.



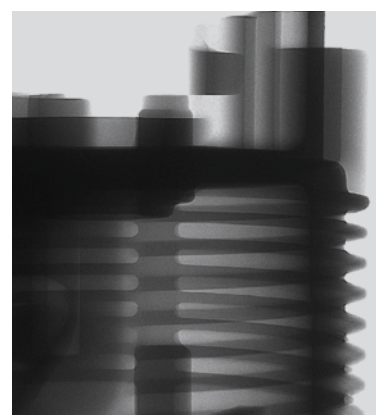
Finishing

Cutting, deburring, sandblasting: each component is processed using the tools best suited to its specific requirements. When a part leaves our department, it is ready for any further processing that may be required. Upon request, **we can also offer special finishes in collaboration with selected suppliers.**

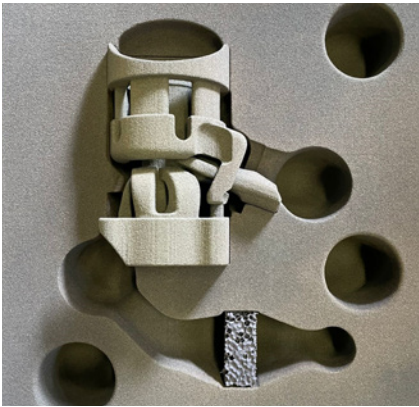


Laboratory and quality control

We monitor every stage of the manufacturing process using advanced analysis technologies: digital radioscopy, dimensional inspection using 3D scanning, chemical spectrometry, 400X digital microscopy, video endoscopy and liquid penetrant testing. For more in-depth analyses, we work with specialist institutes and develop bespoke studies with our customers on heat treatments and mechanical properties.



Innovative processes



3D printing – rapid prototyping

The use of 3D printing in the foundry has transformed the way we work with customers who need to respond quickly to the market. Thanks to our **ExOne S-MaxPro** printer, we can **produce sand cores and moulds of any shape or size from a CAD file alone**, without the need for dedicated tooling.

The benefits for the customer are tangible and measurable: **production times are reduced from weeks to just a few days, design changes do not require work on expensive tooling, and there is virtually unlimited geometric freedom** – no more draft angle or undercut constraints. 3D printing is not just for prototyping: for small, complex core production runs, it can also be more efficient than traditional production in terms of cost.



Low-pressure casting

Low-pressure casting is an **innovative process that combines the advantages of sand casting** – geometric flexibility and no need for expensive tooling – **with the metallurgical quality typically associated with more controlled processes such as die casting**.

Unlike in conventional gravity casting, **the molten metal is injected from the bottom upwards at a controlled pressure, ensuring a gradual, laminar filling process that drastically reduces turbulence, oxidation and gas entrapment**. The result is a casting with a more compact structure, lower internal porosity, improved mechanical properties and more uniform surfaces, with wall thicknesses of up to 2 mm.

Fonderia Persicetana is one of the few companies in Italy to have invested in this system, a decision that enables us to offer customers in the most demanding sectors a level of quality that is difficult to achieve using traditional processes.

SECTORS AND APPLICATIONS

Our experience at the service of every project

We work with companies that require components of the highest quality, in sectors where precision is non-negotiable. **Our experience in casting components ranging from a few grams to almost 1,000 kg enables us to meet a wide variety of needs**, with the same technical expertise and the same flexibility.

Automotive

This is the sector in which we have experienced the most significant growth in recent years. We support our customers through the lengthy research and development phases that precede production, assisting them with rapid prototyping, co-design and a high degree of flexibility in the management of production runs. **We work closely with technical teams, adapting to the project's ongoing development without ever compromising on quality or deadlines.**



Packaging

This sector is the cornerstone of our company's history and stability. We have **an established presence in this sector, built up over time through our reliable service** and components that meet the most stringent quality standards in industrial production.

Defence

This is a rapidly growing sector, in which we are now one of the leading suppliers. **The European investment landscape in security is opening up new opportunities**, and our ability to handle highly complex components with very stringent technical requirements positions us as a reliable partner for those operating in this sector.



Sectors in which we operate

Agriculture

Food

Automotive

Defence

Rail

Automation

Engines

Motorsport

Marine Industry

Packaging

Prototyping

Spare Parts

Textiles Industry

Have a project in mind?

Tell us about it: we're here to support you from the very first step.

Fonderia Persicetana srl

Via Nicolò Copernico, 5
San Giovanni in Persiceto (BO) - Italy

Tel. +39 051 821119
info@fonderiapersicetana.com

www.fonderiapersicetana.com

