Zanardi
Fonderie

High-performance cast iron components for hydraulic applications

Reliability and flexibility for the hydraulic sector

Almost a century of history focused on quality

At **Zanardi Fonderie S.p.A.** - an Italian family-owned company **founded in 1931** and now in its fourth generation - we produce castings in **gray cast iron (GJL) spheroidal graphite iron (GJS), austempered spheroidal graphite iron (ADI) and isothermed ductile iron (IDI)** formed in green sand. The line is mainly suitable for medium production series for castings ranging **from 1 kg to 120 kg**.

Certifications

IATF 16949 | ISO 50001 | EMAS | ISO 14001 | ISO 45001

High-performance hydraulic components: performance, reliability, and optimized design

We are specialized in the production of components made of **gray cast iron (GJL), ductile cast iron (GJS)**, and **austempered ductile cast iron (ADI)** for the hydraulic sector, designed to ensure high **mechanical strength, operational reliability, and durability**, even under severe operating conditions.

We manufacture castings for **hydraulic motors and pumps, valves and distributors, cylinder bodies, components for fluid power transmission systems, and material handling and lifting systems**.

Thanks to the use of technologically advanced materials such as GJL, GJS, and ADI, we offer **cost-effective** solutions that combine **high mechanical performance, operational safety, and continuous operation**, meeting the most complex requirements of industrial and mobile hydraulic applications.

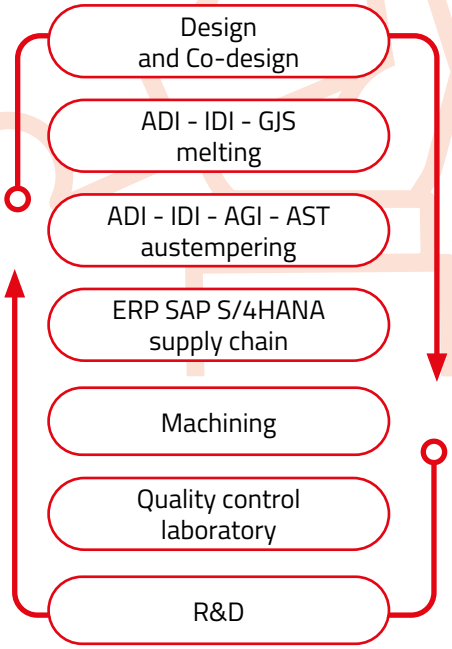
One partner from melting to machining

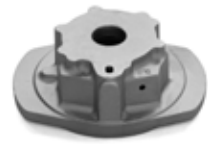
Zanardi Fonderie's production process takes place in our sole facility in Minerbe (Verona).

We work alongside our customers from the development stage to provide **machined, controlled** and certified solutions that meet the requested product requirements.

Our machining workshop features **two OKUMA5-axis horizontal lathes (MU4000 andB550)**, providing the best-in-class solution for complex machining on the materials we produce.

Specialists in **austempering heat treatment**, including **for third parties**.





Update from GJL lamellar cast iron to GJS spheroidal cast iron

Hydraulic valves for agricultural, forestry, and earth-moving machinery operate under harsh conditions. In these applications, **spheroidal graphite cast iron (GJS)** -typically in the pearlitic grades-**outperforms lamellar graphite cast iron (GJL)** in terms of structural properties.

Scan the QR code to find out more!

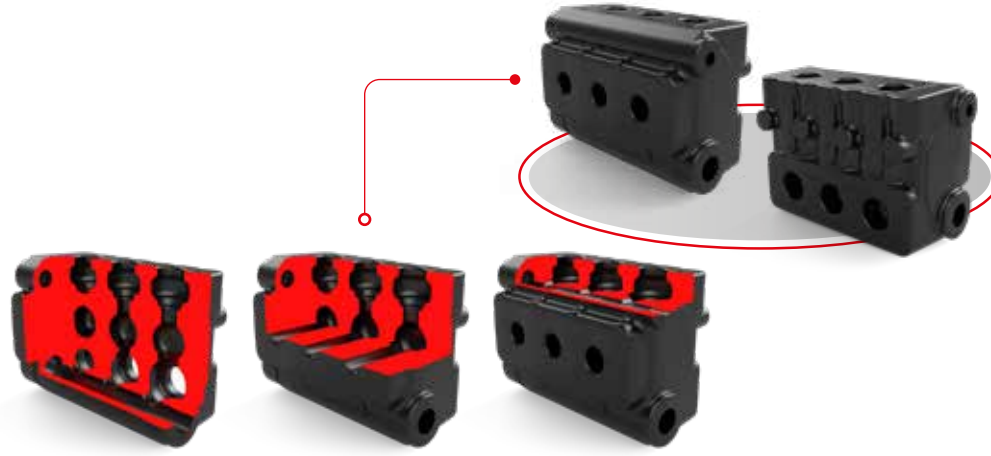
Benefits of upgrading to GJS

The upgrade has yielded specific benefits in terms of performance, functionality, and costs:

- **Structural resilience**: improved absorption of impacts and cyclic loads, with ductile behavior and a significantly reduced risk of failure compared to GJL;
- **Design flexibility**: the castability of GJS allows for intricate internal passages and complex geometries, reducing final machining operations;
- **Pressure resistance**: withstands high and variable pressures with high resistance to mechanical fatigue;
- **Weight optimization**: the dimensional stability of the spheroidal microstructure optimizes the weight of the casting while maintaining strength in sophisticated geometries.

Complex internal geometries.

The cross-section reveals the complexity of the internal ducts: geometries that can only be achieved thanks to the castability of GJS guaranteed by Zanardi Foundries, comparable to GJL.



Reliability and flexibility

hydraulic sector

01. Durability and reliability even in the most complex applications

02. Reduced production and operating costs

03. Optimized design to reduce waste and speed up production times

04. Custom industrial design

05. Design flexibility

Customer centricity

Zanardi Fonderie offers **advanced solutions for the production of spheroidal graphite, austempered and isothermed ductile iron castings, combining design, melting, heat treatment, machining and certification in one facility**. This approach allows us to ensure high quality, rapid delivery times and ready-to-assemble products.

Zanardi Fonderie's know-how and ability to **manage the entire supply chain ensure customer-compliant products**.

Zanardi
Fonderie

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Zanardi Austempering is a brand of Zanardi Fonderie S.p.A.