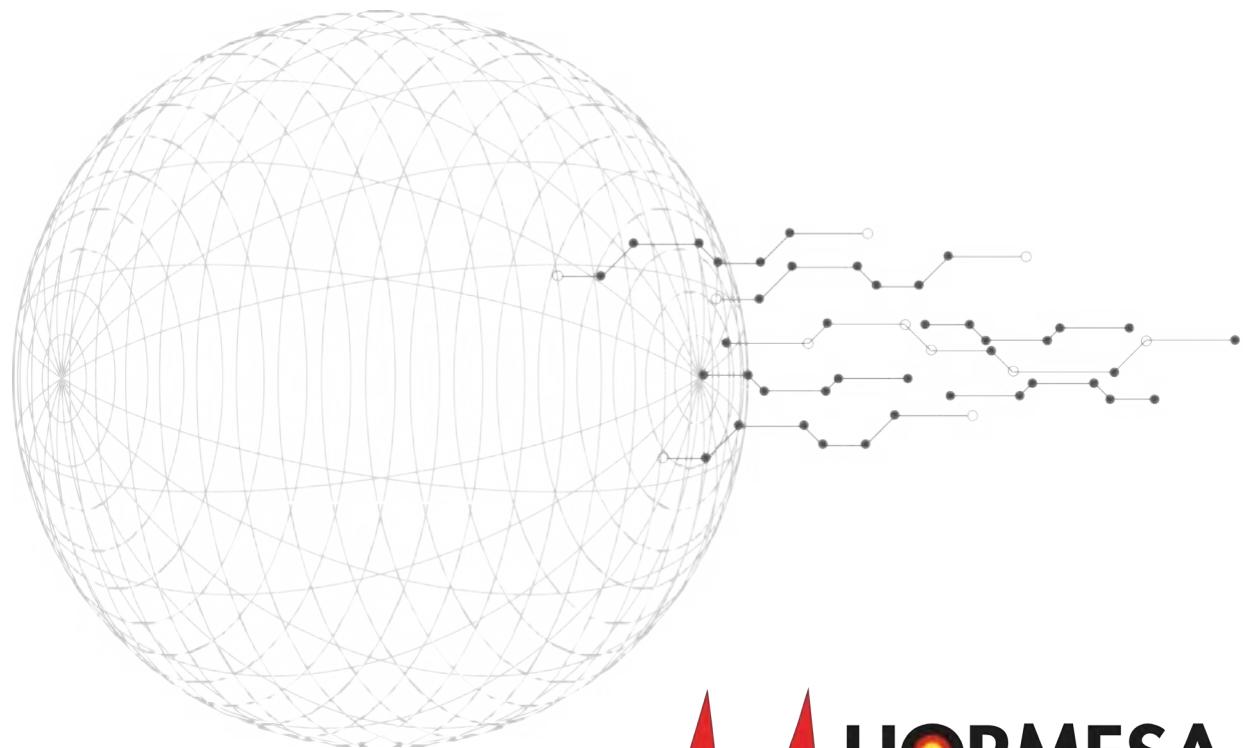
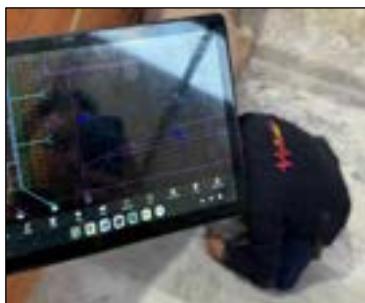


# THE REAL ECO SOLUTION

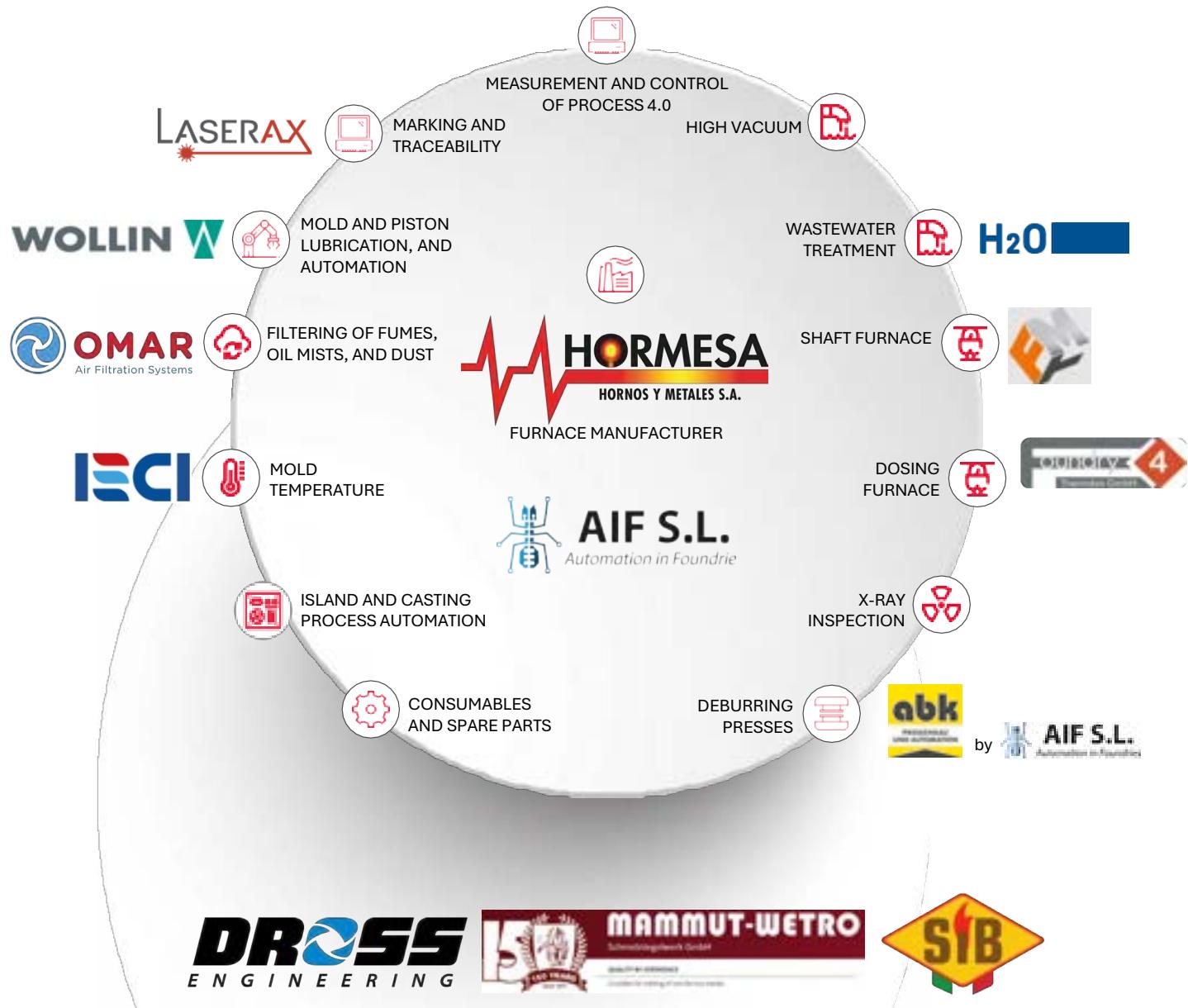


*Specialization (both of people and organizations) has become a key value across all industrial sectors.*

*That shared knowledge is what underpins work done properly and gives solidity to any collective project.*



We have partnerships with specialized companies to provide **GLOBAL** solutions for the **die-casting** sector





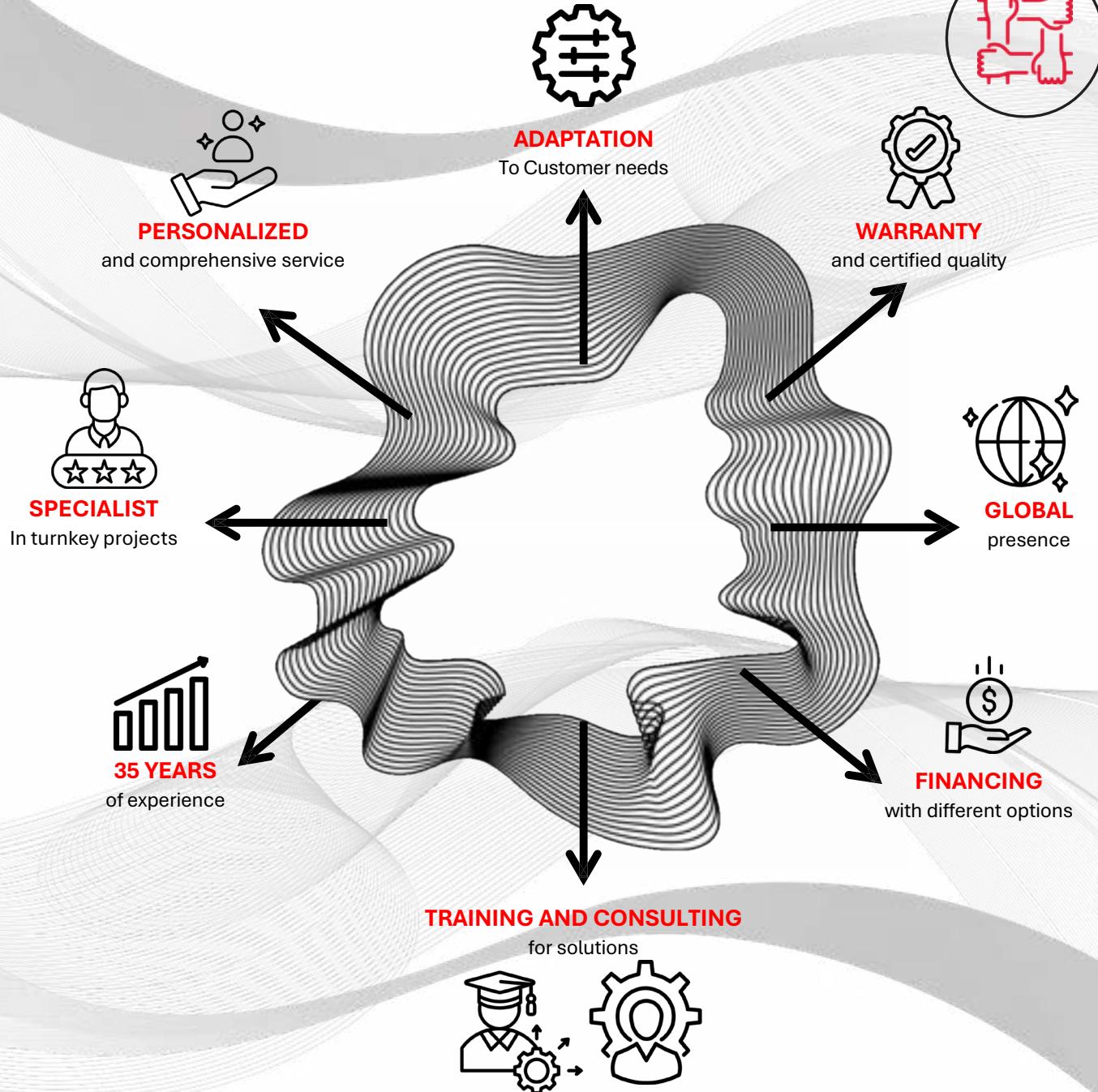
## HORMESA AS A FURNACE MANUFACTURER

We offer the sector a top range of furnaces, each designed to meet specific customer needs:

- Crucible furnaces, tilting and fixed furnaces, gas or electric, melting or holding furnaces.
- Reverberatory furnaces for melting and/or holding. Central melting furnaces or those designed for machine-side operation.
- Holding furnaces without a crucible, such as STO type.
- Channel furnaces for Zinc, Zamak, Copper, and Brass.
- Rotary furnaces, both fixed and tilting.
- Metal transfer ladles.
- Degassers and metal treatment equipment.
- Loaders.
- Continuous aluminum filters.

For every project, we start from a simple premise: there is no single valid solution. Each installation, furnace, and component works alongside other equipment according to the client's specific needs. That is why our recommendations are never standard—they are the result of carefully analyzing each case to provide a realistic and efficient technical integration.







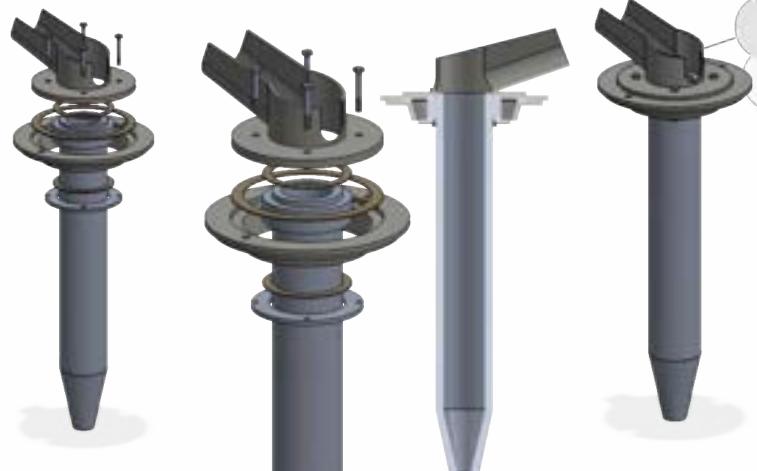
## FOUNDRY4 – DOSING FURNACE

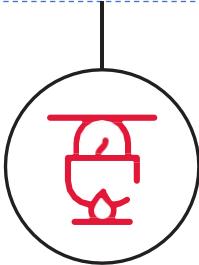
The integration of Thermdos dosing furnaces into HORMESA's portfolio provides a high-precision solution for liquid metal management in die casting and gravity casting processes. These units stand out for their high-efficiency SiC heating element system, capable of reducing energy consumption by up to 60%, and for their dosing system controlled by a Siemens S7-1500 PLC, which ensures repeatability, short cycle times, and full synchronization with the injection machine.

The dosing design based on compressed air in an internal chamber ensures a stable metal flow, without turbulence or oxide ingress, resulting in lower variability and improved part quality. Filling exclusively with liquid metal, together with automatic dose correction control, eliminates manual adjustments and reduces the risk of deviations.

A graphic on the right side of the page featuring a network of interconnected grey circles of varying sizes, resembling a molecular or network structure. It is positioned to the right of the text block.

Thanks to this partnership, HORMESA expands its ability to supply complete melting and dosing systems with high standards of reliability, availability, and low maintenance, providing customers with an integrated solution that optimizes energy consumption, precision, and overall metallurgical process stability.





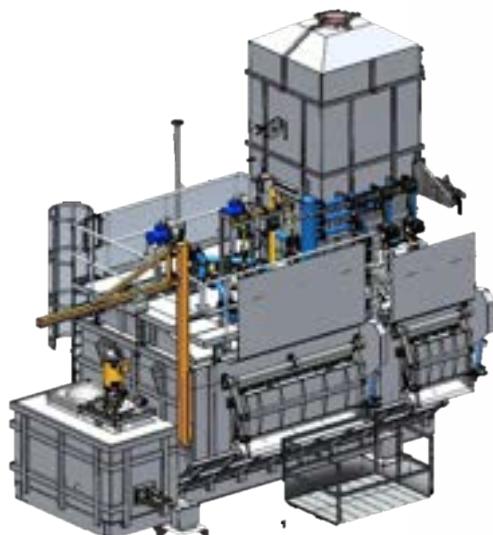
## FUTURE METALS – SHAFT FURNACE

Future Metals furnaces provide a high-efficiency solution for the continuous melting of aluminum. Their design combines preheating and melting in a single unit, achieving low energy consumption and minimal metal losses.

With capacities of up to 5,000 kg/h (scrap) and up to 20,000 kg of metal holding, these units are designed for high-performance production lines. They incorporate laser monitoring systems for metal level and shaft filling, a hydraulic cleaning door, and internal baffles to optimize thermal flow.

Automation based on Siemens S7-1200/S7-1500 PLCs and remote diagnostics via VPN ensure operational stability and fast technical support.

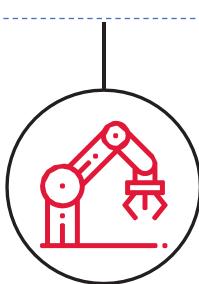
The partnership with HORMESA makes it possible to integrate these furnaces into complete melting projects, delivering a robust, efficient, and reliable solution for plants seeking to maximize melting capacity and reduce operating costs.





[www.wollin.de](http://www.wollin.de)

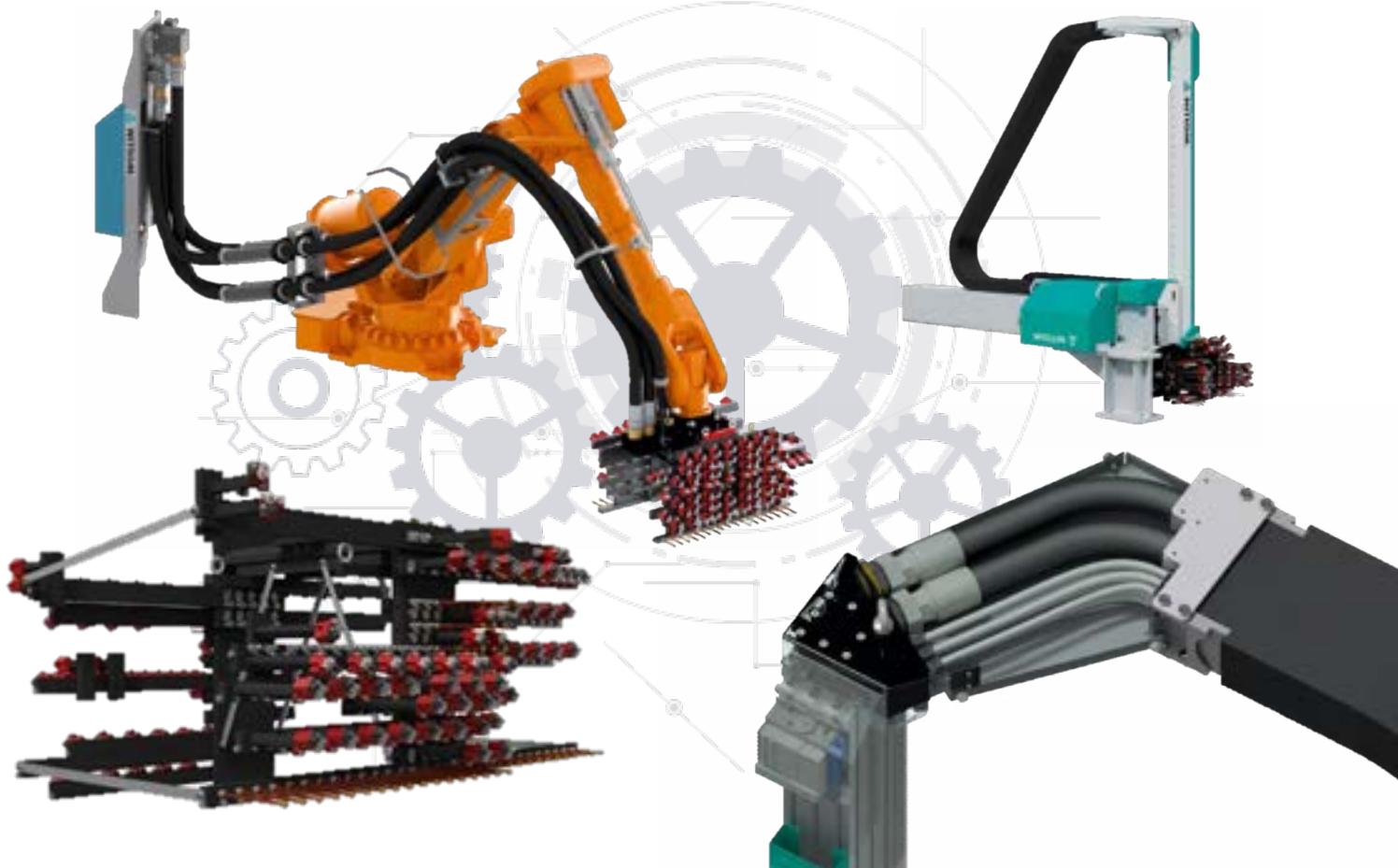
## MOLD, PISTON AND AUTOMATION LUBRICATION



The selection we made 20 years ago of WOLLIN as our partner for mold spray equipment is reaffirmed.

Wollin offers both standard and tailor-made solutions:

- Robots, masks, and nozzles
- ECCO Spray and customized solutions adapted to specific parts and customer requirements
- Release agent solutions: centralized and individual delivery tanks
- Adapters for any machine or for the customer's existing machine or robot
- Metal chargers unique on the market, equipped with 3 × AC servo motors





# AIF S.L.

Automation in Foundries [www.aifsl.es](http://www.aifsl.es)



## AUTOMATION, CELLS AND FOUNDRY PROCESSES

Carrying out a professional integration requires experience. Adaptation, analysis, proposals, interconnection of peripherals, safety regulations... at AIFSL, this has been done for years for large industrial groups, which operate under high, well-established requirements that demand constant updating of both equipment and personnel.

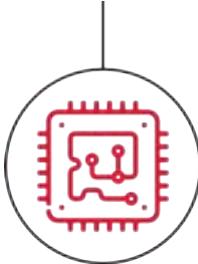
Tasks they carry out with ease, such as:

- Complete management of the cell
- Cooling tank
- Water and cooling flow controls for the die casting machine
- Mold cooling control
- Release agent control

These integrations and automation solutions are carried out independently with different manufacturers, with whom commercial agreements are already in place, in order to remain competitive:

- ABB
- KUKA
- FANUC

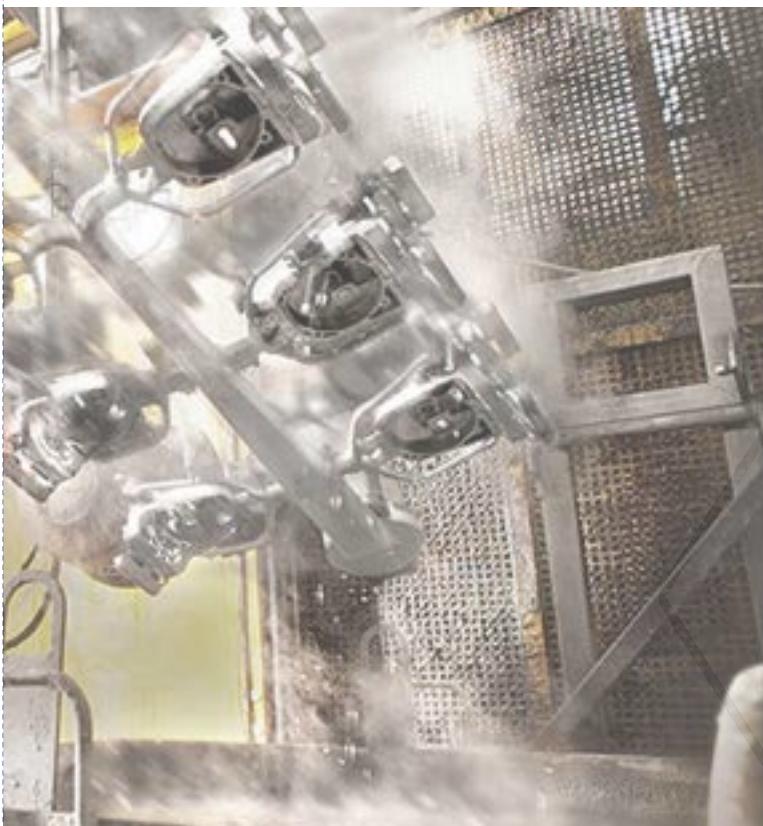
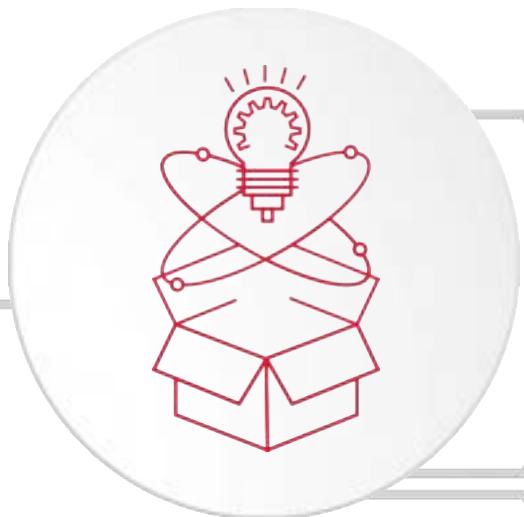




## AUTOMATION, CELLS AND FOUNDRY PROCESSES

- PLC programming
- Design and construction of electrical control panels
- Automation of robotic die casting cells
- Design of autonomous and semi-automatic cells
- T-LIFT: a unique system of cooling tanks in cells with a part lifting unit
- MOULD-TEMP: mold cooling control and supervision panels
- FLOW CONTROL: precise release agent control with data acquisition

**AIF Dispone de un  
departamento propio  
de I+D+i**





[www.h2o-de.com/es](http://www.h2o-de.com/es)



## WASTERWATER TREATMENT

It is once again necessary to move toward complete solutions in this area. The goal is to offer technology that is flexible to incoming flow variations, capable of adapting to changing parameters, and providing full assurance that the output values are met. The system should operate in an automated mode, with an independent, compact unit, low operating costs (9–10 €/ton), and minimal need for specialized labor.



### HIGH VACUUM

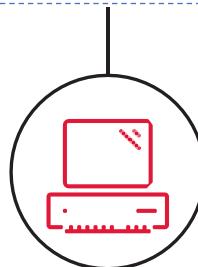
The market dictates our actions: reducing weight, wall thickness, producing complex parts, and ensuring high-quality components... all of which compel us to demand maximum performance from our machines and to stay updated with the latest technologies.

We offer Vacuum Systems to ensure the hydrogen content in injected parts is reduced to the absolute minimum.



**AIF S.L.**  
Automation in Foundries

[www.laserax.com](http://www.laserax.com)



## MARKING AND TRACEABILITY

Nowadays, having the means to ensure the highest quality of parts and process control is a sine qua non. However, it is increasingly important to understand that controlling the produced parts is equally essential:

- Production control
- Sales control
- Control of assembled parts
- Warranties



## PROCESS MEASUREMENT AND CONTROL 4.0

[www.aifsl.es](http://www.aifsl.es)

Knowledge is POWER, and data control has become an indispensable tool to ensure quality, repeatability, cause-and-effect understanding, and continuous improvement planning.

This system allows us to maintain process control by combining process readings with comprehensive management.





**OMAR**  
Air Filtration Systems

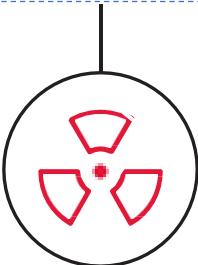
[www.omar.it](http://www.omar.it)



## FILTERING OF SMOKE, OILY MIST AND DUST

It is once again necessary to adopt complete solutions in this area. The goal is to provide technology that is flexible to variations in incoming flows and process parameters, while offering full assurance that output values are consistently met. The system should operate in an automated mode, with an independent, compact unit, low operating costs (9–10 €/ton), and minimal need for specialized labor.





## X RAY CONTROL

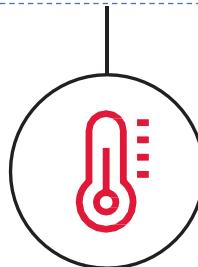
To ensure a fully controlled process, we offer our clients X-ray inspection booths equipped with specialized software tailored to their needs. These systems are prepared for automatic loading and unloading, enabling continuous monitoring. The option for Computed Tomography (CT) scans can also be provided





[www.iecionline.com](http://www.iecionline.com)

## THERMAL REGULATION IN DIE CASTING



At HORMESA, we focus on solutions that cover the entire thermal process in die casting. Collaboration with companies such as IECI allows us to integrate thermal control technologies in molds, injection units, and cooling systems, complementing our range of furnaces and metallurgical solutions.

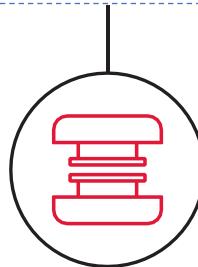
**IECI** is a leading manufacturer of temperature control systems for die casting and is present on four continents, with a technical and commercial support network in over 30 countries.

Continuous technological research has enabled IECI to develop specialized temperature controllers dedicated to injection units (plunger and injection sleeve), cooling machines for cores, multi-channel cooling systems, and quenching tanks.





**AIF S.L.**  
Automation in Foundries [www.abk-pressenbau.de](http://www.abk-pressenbau.de)



## DEBURRING PRESSES

Deburring presses enable this operation to be carried out in a precise, repeatable, and safe manner. Their integration within the thermal cell (together with holding furnaces, dosing units, or thermal control systems) improves process traceability and reduces operator-dependent variability, particularly in medium- and long-run production.

At HORMESA, we collaborate in defining these solutions when the customer requires a broader view of the thermal and production workflow. We understand that the furnace is a key part of the process, but not the only element influencing the final result.





[www.sibtorino.it](http://www.sibtorino.it)

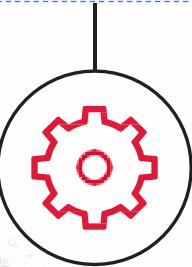


## CHIP DRYER

HORMESA and SIB work closely together to provide comprehensive solutions for the treatment of metal chips, combining HORMESA's expertise in foundry and metal handling with SIB's advanced chip drying system.

This ensures efficient and uniform drying of the materials, reducing moisture content below 0.5% in accordance with industrial recycling specifications. This optimized process prepares the chips for reuse or recycling with maximum quality, safety, and performance, contributing to more sustainable and cost-effective processes in the metal industry.





## STRATEGIC PARTNERS

HORMESA collaborates strategically and globally with leading companies such as:



## CONSUMABLES AND SPARE PARTS

At HORMESA, we can complement our services with spare parts and consumables for components such as:

- Thermocouples and pyrometry.
- Electronics.
- Manual controls.
- Combustion systems, burners, and heating elements.
- Insulation: blankets, refractory materials, microporous, and others.
- Crucibles: steel, graphite, silicon carbide... from MAMMUT (Germany).
- Ceramic transfer channels, special refractories, and refractory steels.

Original Foundry4 and FMT® consumables for dosing furnaces:

- Tubes, cones, hoppers, heating elements...
- Spray guns.

WOLLIN spare parts for spraying systems, pressurized tanks, special adapters, and many others, tailored to the die-casting sector and related industries.





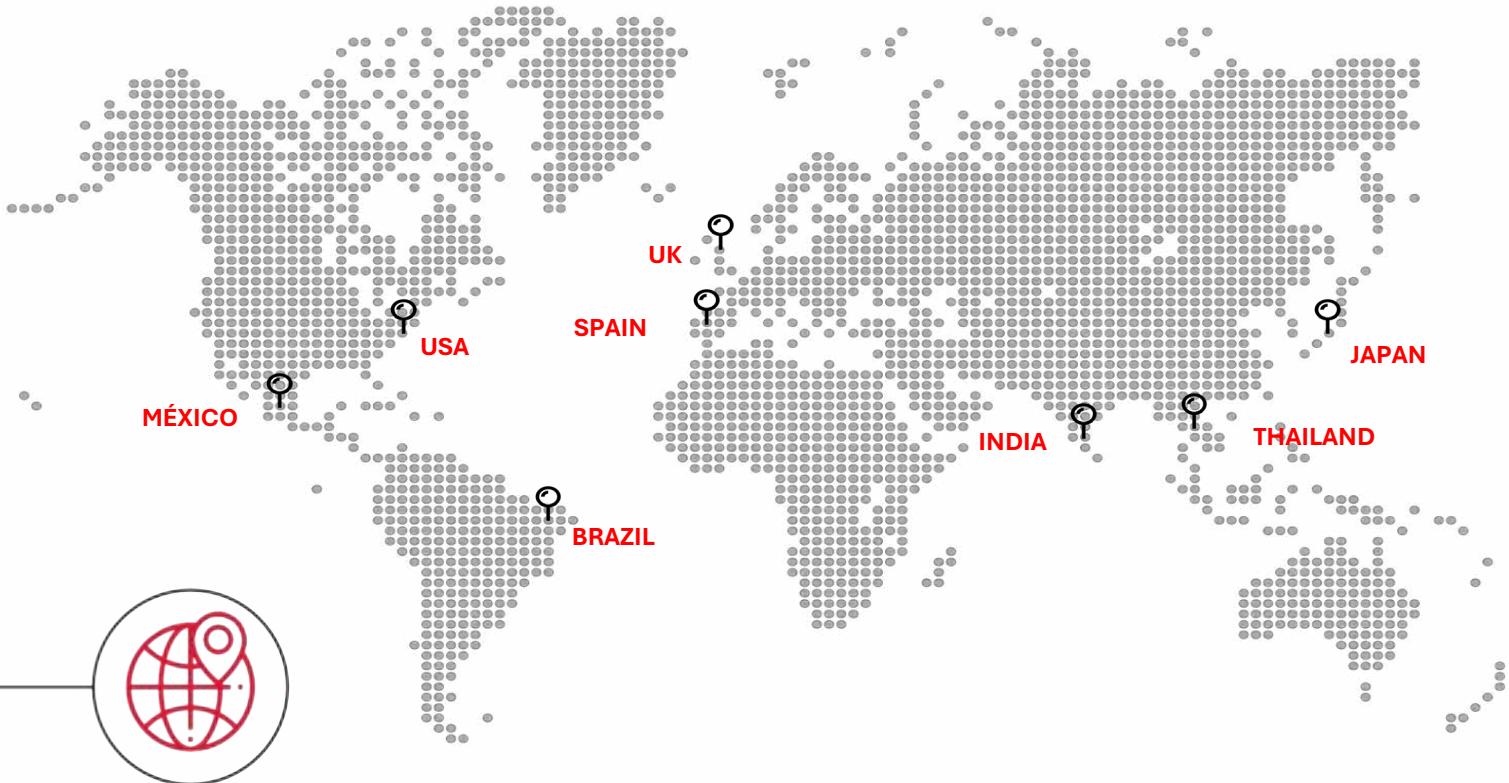
## ENGINEERING AND SERVICES

At HORMESA, we have a solid in-house foundation in engineering and services, which represents the core of our technical capabilities. However, we know that in order to deliver global, comprehensive, and flexible solutions, it is essential to rely on the support of specialized partners who provide complementary expertise.

- Automation to ensure continuity, quality, and cost control.
- Productivity increases driven by market demands.
- Integration of processes not implemented at the initial stage but now required.
- Management of R&D&I projects at customer facilities.
- Measurement services and energy and production audits.
- Improvements that create differentiation and enhance competitiveness.
- Integration of Industry 4.0 technologies.
- Process time optimization.
- Energy measurements and controls, as well as melting loss monitoring.
- Maintenance services.
- Management of production shutdowns.

In this way, we guarantee a complete technical service, from equipment design and manufacturing through commissioning and maintenance, with a single point of contact responsible for ensuring quality and compliance across all processes. Our partner network provides the agility and specialized know-how needed to address complex challenges and deliver tailored solutions that generate real added value for our customers' businesses.





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