

Experience delivers solutions for industrial glassmakers

Italy's Falorni Gianfranco srl has been operating in the field of glass manufacturing technologies and services since 1958. *Glass Worldwide* examines the third generation family company's established artistic glass activities, as well as the emerging role of its Falorni Tech division to provide solutions for the glass industry throughout the world and also provide a skilled consultancy to those wanting to invest in the glass business.

It was 60 years ago that Gianfranco Falorni established his business in Empoli to serve Tuscany's then thriving artistic glass manufacturing community. Initially representing a leading supplier of refractory materials, Falorni Gianfranco srl soon became widely acclaimed for the design and installation of complete glass melting plants. Today, turnkey systems and standalone solutions are available, through the Falorni Tech division, both for industrial glass made in fully automated plants and through the Falorni Glass Furnaces division, for artistic glassware (created via manual processing methods).

Thanks to its detailed knowledge and enthusiasm for glassmaking, the company has become a symbol for reliability, safety and durability among glass plant operators. It has also become a point of reference for those who want to invest in the glass business. In fact, Falorni Tech uses a team of experts not only for technical matters but also in aspects related to the management of a glass plant or related production.

Close regional ties

It is widely believed that glassmaking in Empoli began during the 13th Century and that local artisans were responsible for the creation of 'Verde' glassware. This typical green coloured glass was a consequence of the mineral content of the local sand, which was used in the creation of everyday objects, bottles, flasks, decanters and glass items used for dining.

In recent decades, sadly much of the traditional glassmaking activity in and around Empoli has either closed or moved elsewhere but the familyowned Falorni business has continued to prosper. To this day, Falorni Glass is the first choice for many of the world's most prestigious brands, including



A 300 tonnes/day Falorni regenerative furnace.



Typical examples of Verde glassware, which has been made in Empoli since the 13th Century.



Murano masters, Baccarat, Lalique and other leading French crystal producers.

Under the current leadership of Riccardo Scarselli and his son Simone, the Falorni business has decided to commit its long-term future to the local community in Tuscany. This June, a new headquarters building, warehouse and workshop will be inaugurated in Vinci, the hometown of Leonardo di ser Piero da Vinci, more commonly known as Leonardo da Vinci. Alongside General Manager Riccardo Scarselli, who started working for the Falorni organisation in the early 1980s, is an experienced management team, comprising Andrea Zucconi (Commercial Director), Simone Scarselli (Sales Manager), Andrea Greinschgl (EPCM Manager), Biagio Bifano (Technical Director) and Andrea Turri (Service Manager).

"At Falorni, everyone feels significant because we work as a team" says Roberta Stissi, who is responsible for marketing and public relations. "Teams are formed of individuals with different skills and attitudes and they complement each other to follow a common objective."

In addition to 20 permanent employees, the company outsources through specific agreements in strategic activities. This ensures the availability of professional skills and additional support for engineering, production and related services. Although an experienced company, Falorni has recruited a young and motivated workforce, with the majority of employees aged between 20 and 35. And in the next five years, the aim is to double existing staffing levels.

Industrial solutions

Officially branded by 2015, Falorni Tech develops turnkey and/or standalone solutions for the container, tableware, glass wool and other industrial sectors. "We have the capability to approach any project involving glassy materials and decided to fully focus a division within the company to serve this market" Roberta Stissi explains. "The history of Falorni Gianfranco srl is the story of a family that for three generations, has enhanced a business philosophy that has found its signature in a passion for glass. It was Gianfranco Falorni who founded the core of a family-run company that today has two divisions, one for artistic glass (Falorni Glass Furnaces) and another for the industrial sector (Falorni Tech)." Both are active throughout the world.

In recent decades, a series of global economic crises



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Falorni Gianfranco srl and its subsidiaries will exhibit at this October's glasstec exhibition in Düsseldorf, Germany.

have required many European glassmakers and suppliers like Falorni to modify their business model. According to Roberta Stissi, Falorni's approach reflects what John F Kennedy once said: "The Chinese use two brush strokes to write the word 'crisis'. One brush stroke stands for danger and the other for opportunity."

As a result of the economic downturn, many glass factories in Tuscany and throughout Italy closed or were acquired by multi-national groups. It was at this time that Falorni started to explore opportunities for its technology in Eastern Europe and the Middle East and to serve the interests of industrialscale glassmakers. This modified approach also embraced an expansion of activities beyond the supply of glass melting installations to include complete turnkey projects, three of which have been delivered so far.

A network of sales agents is maintained throughout the world, including representatives in the

Middle East (including Iran), China, Thailand, Taiwan, the Baltic Republics, Russia, Mexico and South America. This network is expected to grow as opportunities emerge.

The expertise available from the Falorni Tech division embraces complete batch plants, glass melting furnaces (regenerative, recuperative and oxy-fuel), together with complete distributors and forehearths, including colouring sections. The full range of ancillary furnace equipment offered includes combustion systems, burners, reversal valves, exhaust systems, batch charging solutions, glass level controllers, recuperators and boosting systems etc. High efficiency plants and low NO, solutions can be provided to meet environmental restrictions, while entire glass container or tableware facilities can be engineered, with complete production lines and auxiliary equipment.

As a supplier of turnkey solutions, good relationships have



Example of a Falorni recuperative furnace



been established with preferred suppliers, with first class options in place for every part of the technological supply chain (refractories, forming machines, cold end equipment, control and inspection etc). In some instances, specific agreements have been reached to strengthen the level of co-operation and secure intellectual property, as is the case with forehearth colouring and refractories. According to the company, good relationships are in place with key players in the financial sector and the academic community: Last February, for example, the first young mechanical engineer from Politecnico di Milano interested to learn about glass technology started an internship within Falorni Tech's Technical Department.

International experience

Since its creation, Falorni Tech has already undertaken a series of important projects on behalf of industrial-scale glassmakers, with several others currently in process. Turnover is expected to double in the next five years, as work is undertaken for leading glassmakers in the Middle East (especially Iran, Lebanon and the UAE), Mexico, Turkey and Europe. Key customers include Saverglass and Baccarat in France, Marmara Cam and ODE group in Turkey and Grupo Pavisa in Mexico.

Falorni started working with Marmara Cam 15 years ago, for example, when the Turkish hollow glassmaker was still a relatively small entity. Having supplied its first 50 tons/day furnace, the Italian contractor has subsequently built a 100 tons/day installation, before delivering a 300 tons/day furnace and five production lines in 2017.

In 2015, Falorni Tech successfully installed its latest distributor and forehearth design at Saverglass in France. Featuring direct and indirect cooling, this design has provided high performance in terms of thermal homogeneity and operating flexibility. In 2017, the company also supplied and commissioned a turnkey solution at Saverglass for two colouring forehearths based on innovative technology.

Falorni Tech has also developed technologies for low ${\rm NO_x}$ furnaces and low emission solutions to reduce the environmental footprint of its furnaces. The oxy-fuel design is recommended as an alternative to conventional air-fuel furnaces (regenerative and recuperative) to comply with future environmental restrictions for ${\rm NO_x}$ and ${\rm CO_2}$ emissions. Separately, its colouring forehearths and solutions are considered an important development for glass container production.

A novel concept has been engineered for art glass production via Falorni's Minimelter day tank. According to the company, this solution, introduced in late 1990s, has

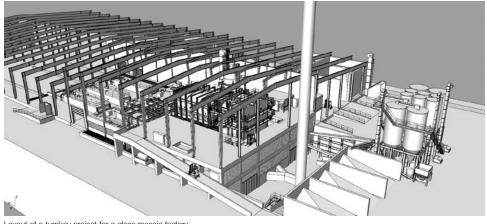


Colouring forehearth installation.

revolutionised the concept of small furnaces, making a simpler but reliable solution accessible, easy to operate and maintain. Several hundreds of these furnaces have been sold globally.

Building relationships

At this October's glasstec exhibition in Düsseldorf, Germany, Falorni Gianfranco srl and its subsidiaries aim to show the advances that have been made within the company, to its technical capabilities and services over the past decade. The solutions delivered by Falorni Tech to the international hollow glass sector in particular will be emphasised. "We have the financial security, manpower and technical knowledge to make a substantial statement" says Roberta Stissi. "Whether building relationships with new companies or maintaining them with existing customers, consistency, empathy and providing value in exchange for their time, attention and business are essential. To do so, it is also necessary to build a strong network of suppliers and trained people... we build relationships throughout the world." •



Layout of a turnkey project for a glass mosaic factory.

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