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A high-end French glassmaker with a new name

Fresh from a name change makeover, Zignago Vetro France manufactures highend glass items using both automatic and semi-automatic production for the cosmetics and perfumery, and food and beverage sectors. Jean Hardy* met its General Manager, Celine Riviere, and Plant Manager, Jean-Christophe Loubet, for a tour of the site.

ithin Normandy's Glass Vallée in France about ten sites continue to produce glass, while other companies help transform it.

In total, more than 65 companies are active, generating employment for nearly 10,000 people. Today, nearly 70% of the world's luxury bottle production is concentrated in the Glass Vallée.

Some of these glass production sites are industrial, while others have remained more artisanal or have tried to reconcile tradition with modernity: this is the case of the Zignago Vetro France facility located in Vieux-Rouen-sur-Bresle.

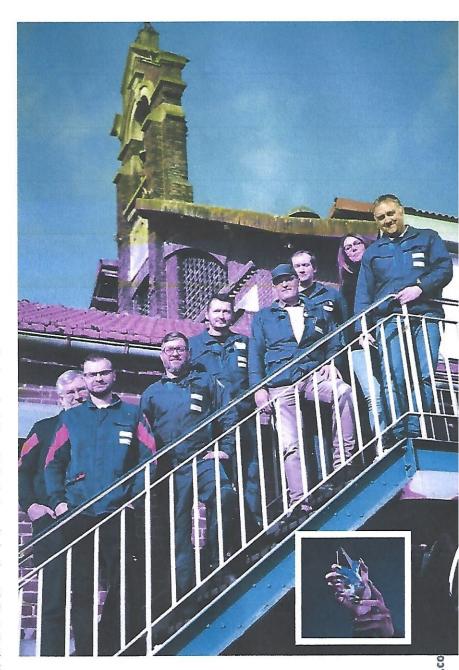
It is a producer of glass packaging containers, for the high-end markets in cosmetics & perfumery and in food & beverage. The facility can produce in both standard items and custom ones.

As well as manufacturing glass, the site can supply accessories and components for the cosmetic sector, such as glass stoppers, caps, pumps and brushers. Within the overall Zignago Vetro group, the French plant specialises in feeder colouration, while the group's Polish plant specialises in serigraphy and lacquering.

Thanks to a network of partners – some of which are close neighbours inside the Glass Vallée – the French facility can supply a large series of secondary processing.

The factory was founded in 1892 as an artisanal manufacturer but, from 1919, the glass factory transitioned to semi-automatic production.

Three other important dates in the history of the glass factory are:



▲ The facility's technical team, with Mrs Riviere top right, back, and Mr Loubet top right.

Inset: The Angel by Mugler star-shaped bottle.

- 1934, the glass factory became Verrerie Brosse:
- 2002, Italian glass group Zignago Vetro takes it over:
- 2023, in a process of brand unification Verrerie Brosse became Zignago Vetro. The legal entity of the factory has been changed to Zignago Vetro France.

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This change of name underlines the initimate connection with the rest of the group.

During a tour of the production facility, General Manager Celine Riviere and Plant Manager Jean-Christophe Loubet described the site's manufacturing process.

The facility houses two furnaces, both rebuilt in the past four years.

- One with a daily production of 7 TPD, equipped with two semi-automatic lines;
- A larger one, with a daily production of 60 TPD, equipped with four automatic lines.

Standard items can be manufactured in both workshops. The automatic lines specialise in perfume bottles and cosmetics production.

The semi-automatic lines are aimed more at spirits bottles, high-end items and miniatures products and also decanters - either heavy or with complicated design - generally in small series that do not require automatic development and intended for niche markets.

In the semi-automatic production, a robot extracts a small mass of molten glass and transports it to the pressing installation.

Next comes a manual human intervention to ensure glass distribution and transfer from a roughing mould to a finishing mould.

At the end, the piece formed undergoes an initial inspection:

- If the piece passes this check, it is introduced into the annealing lehr. At the exit it will be subject to a more detailed check.
- If the piece does not pass the first inspection it is directly remelted.

At the large furnace, where bottles for perfumery and cosmetics are produced, the process is completely automatic, but with extra requirements regarding quality.

Specifically, there are particular aesthetic standards which require thorough visual inspection, piece by piece.

The site also contains storage halls and various finishing workshops. Mrs Riviere discussed the sequence of a typical order.

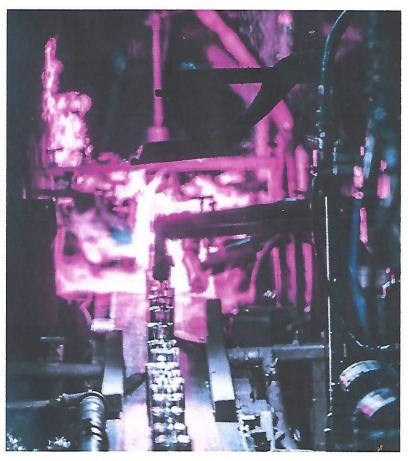
"There is typically a preliminary feasibility study, pre-project, first samples, up to three test campaigns separated by 15 days and the development of various tools.

"All of this takes between three and six months. Then, production must be planned, taking into account various constraints such as dyes in the feeders and weight of the item, for example."

Some of the site's achievements include the manufacture of well-known bottles such as Chanel N°5 and Jeanne Lanvin Arpège.

An achievement Mrs Riviere is proud of is its work on the Angel by Mugler perfume bottle (see previous page inset).

"The manufacture of this star-shaped bottle was a famous challenge for us: only the semi-automatic



ZIGNAGO VETRO OVERALL GROUP - KEY FIGURES

Turnover: Manpower: **Plants:**

€640 million/year 2778 people

In France:

Vieux-Rouen-sur-Bresle

In Poland:

Trabki

In Italy:

- Two plants: Fossalta di Portogruaro (VE) and Empoli (FI), and four plants dedicated to the production of special containers (Vetri Speciali).
- Three sites for glass recovery and cullet handling.
- Headquarters: Fossalta di Portogruaro (VE).

Automatic production at the site.

mode was possible at the start.

"But, after this first step Mugler launched the original concept of refillable bottle. This required adaptations to our production lines, among other things for the cap.

"At the same time, thanks to the evolution of our technologies and after certain investments, we were able to switch to automatic mode and transfer production to the large furnace, which made it possible to meet the demand for this product."

Mrs Riviere described the Zignago Vetro company values and what makes it unique.

"Our commitment is to provide customers with

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340 people, with 45% women.

Shipping:

Cosmetics & Perfumery:

60 million pieces/year

Food & Beverage: potential of 400,000 carafes / year

Typical size of one commercial order:

Automatic Semi-automatic 30,000 ... 60,000 pieces 400 ... 20,000 pieces

Semi-automatic

intervention.

production with manual

high quality products, while paying particular attention to sustainability. And this is not in contradiction with the world of luxury, to which our products are aimed. Of the values defended by management, I mainly put forward three:

- Quality is an absolute requirement, from the identification of customer needs, to the control of the finished product, including all steps of production;
- Innovation, both in the product and in the process such as production of increasingly complex shapes and lighter finished products;
- The service: high flexibility in programming and rapid response to customer requests. In addition to standard products, always available at the depot, Zignago Vetro offers various personalised services."

Mr Loubet takes up the conversation to discuss the facility's sustainability initiatives, which has specific requirements even for the sector. An example of this is the use of external cullet which at first glance does not seem compatible with the specifications relating to the batch of its glass, close to a crystal factory.

"At the Zignago Vetro group level, we have nevertheless defined a whole set of KPIs. I selected two." (See Table 1 below.)

The group is also involved in the H2 GLASS

Table 1.

CO, emissions (Scopes 1+2), in tonne CO, / tonne molten glass: Actual 2022: 0.533 Goal 2023: 0.529 Goal 2030: 0.351 % PCR (Post Consumer Recycling) cullet on glass produce : Actual 2022: 53.4% Goal 2023: 55.0% Goal 2030 :70.0% project and is one of six Industrial Demonstrators representing major EU glass manufacturers, to test and validate the H2 GLASS technology.

Focusing on the French plant, the company was one of 50 industrial groups which met in Paris at the end of 2022 to renew their target to reduce CO, emissions.

"Our involvement in this project allows us to benefit from the expertise of decarbonisation professionals, as well as rigorous support and reporting," said Mr Loubet.

A short-term project in its pre-study phase is to reduce gas consumption and increase electrical power in its large furnace, while elsewhere it has a three-year programme to reduce its water consumption by 3% a year.

He added: "In the long term and in the context of the next repair of the large furnace in 2030, we are considering switching to more efficient air-gas burners."

Mrs Riviere has been General Manager at the site since 2019, after being appointed as HR Manager in 2016.

She says: "What fascinated me in the glass process is the perpetual movement in the production. The glass moves continuously: it is impossible to stay still and watch it.

"The glass is living: the one that goes out of the furnace today is not the same as the one that came out yesterday.

"Moreover, our customers also arrive every day with new requirements which bring exciting challenges from a human point of view such as continuous questioning of the achievements, support for changes for our customers and working hand in hand with all employees.

"The final result - this glass of which we are so proud - is the result of a succession of human actions, each intended to beautify an infinitely recyclable material." ■

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