



*More speed: Alexandre Herren
intends to boost productivity by
a factor of five.*



A crazy trio: craftsmanship, high-tech, and 20,000 watts

From 6,000 to 20,000 watts: Thanks to this quantum leap in laser cutting, the Herren Frères company intends to become even more attractive to customers in the high-tech segment. Innovation has a long tradition in this family-owned enterprise in the French-speaking part of Switzerland. Now, the company is once again playing a pioneering role.

Text: Denise Lachat Photos: Cyril Zingaro

➤ The technician slides the doors of the ByStar Fiber 20000 shut, taps on the start button on the touchpad, and warns the photographer: "Get ready! It will all be over very quickly." Immediately the bundled LED light of the laser beam flares across the sheet metal. Sparks fly, tinted green by the filter that protects the eyes of bystanders. With a rhythmic "chug, chug", the laser beam advances rapidly, cutting squares out of the two-millimeter-thick stainless steel sheet.

"How many meters per minute are we running at?" the entrepreneur Alexandre Herren asks. The technician checks the display and replies: "54". That's two miles per hour, or 300 parts manufactured in just seven minutes. The Managing Director is enthusiastic: "This machine will transform our lives."

A little crazy

We are touring the shop floor of Herren Frères in the town of Yverdon-les-Bains, where Switzerland's very first 20 kilowatt fiber laser cutting system has been undergoing operational testing since this January. The facade of the factory in the Les Uttins industrial district is inconspicuous. There is nothing to indicate that it conceals one of the fastest laser cutting machines in the world.

Alexandre Herren, co-owner of the long-established Swiss SME and head of the "Industrial Sheet Metal Processing" business unit, welcomes us in casual clothes. Exuding down-to-earthness, he personally prepares the coffee for his visitors and talks so passionately about the components being produced during the tour that you wouldn't be at all surprised if he were to start operating the machines himself. The mischievous smile on his round face betrays him as a bon vivant. But no matter how relaxed the Managing Director comes across, talking to him makes it clear that when it gets down to business, Alexandre Herren sets a very high bar.

Alexandre Herren describes himself as a "crackpot" – and he may well be right. Maybe you have to be a little crazy to pursue your fortune as a sheet metal processing entrepreneur in, of all places, a high-wage country like Switzerland. But during a tour of the shop floor, it quickly becomes clear what drives Alexandre Herren – enthusiasm for technology and a wide range of materials. We cannot help but be amazed: Here, eight-millimeter-thick steel is being bent like butter under the 150-ton force of a Bystronic Xpert 150. There a waterjet cutting system is cutting crisp circles out of rubber. In addition to the massive parts for industry, there are filigree figures made of wood, ▶

leather, copper, and acrylic glass that would not be out of place in the display cabinet of a jewelry store. This is actually where some of them are now located.

Alexandre's 27-year-old son Guillaume picks up a finely engraved medallion that a jewelry manufacturer from the region commissioned for one of his creations. Father Alexandre bustles over with the Herren Frères sample sheet, points to the variety of colors and materials, and with eyes twinkling with pride, he says: "We know no limits."

Pioneering forefathers

The courage to push boundaries runs like a central thread through the history of the company, which is which is already in the third family generation. In 1984, Alexandre's father Robert, who had laid the foundation for the company as a tinsmith and plumbing contractor in the basement of his private home in 1955, purchased Switzerland's very first CNC punching machine. He thus ushered in the digital age at Herren Frères. "We absolutely cannot afford to miss this bandwagon," he warned at a time when the first personal computers were only just making their way into offices.

And his father was to be proven correct: The CNC system enabled a huge leap in productivity, as Alexandre

Herren recalls. He joined the company in 1985 and also introduced an innovation. "When we opened up our production facilities to a customer from the robotics industry, our shop floor suddenly became home to men in white coats," he says. This caused some turmoil within the family, but the critics were mistaken: The company did not fall into ruin, quite the contrary: Business developed extremely well.

Today, the diverse clientele and the wide range of products offered by Herren Frères are two of the company's strengths. The parts manufactured in the sheet metal processing plant are shipped throughout Switzerland and in some cases to neighboring countries to customers in the pharmaceutical, mechanical engineering, construction, food, and medical technology industries, as well as the advertising and design sectors. In addition to sheet metal processing, the SME's fields of business cover plumbing, heating and sanitation, solar technology, and real estate.

More than metal

A company that wants to fulfill the needs of a broad range of demanding customers requires the appropriate tools and systems. Here the systems from Bystronic play a key role: In 1992, Herren Frères – as one of the first customers in the French-speaking part





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“This machine will transform our lives.”

Alexandre Herren, Managing Director Herren Frères



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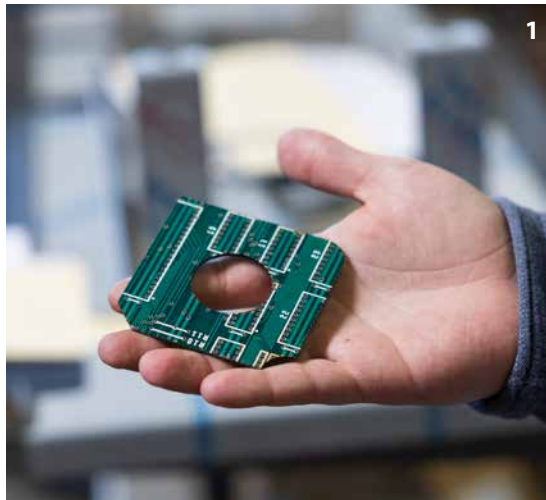
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1 Herren Frères cuts virtually any material – even leather and wood.

2 The family enterprise also puts its trust in Bystronic for bending.

3 Managing Director Alexandre Herren with his son Guillaume.

4 The ByStar Fiber 20000 is ushering in a new era at Herren Frères.



of Switzerland – purchased a Bystronic laser cutting system, with an output of 2500 watts and the capability of cutting both sheet metal and tubes. At that time, Herren Frères was still suffering from the shock of the economic paralysis triggered by the Gulf War. Nevertheless, the SME dared to invest.

“Others in our industry called us foolhardy. But it was clear to me that we needed a new, innovative technology to be able to fill our order books,” Alexandre Herren explains. He never regretted the decision. For the company that had previously mainly produced parts made of steel, stainless steel, aluminum, and copper, laser technology opened up “the entire world of materials and shapes”, as Alexandre Herren puts it. Acrylic glass, polyethylene, polypropylene, cardboard, Corian – the list fills an entire column in the company’s brochure.

Since 1995, a waterjet cutting machine from Bystronic has been making it possible to process

even more materials, both soft and hard. In 2011, the company invested in a Bystronic laser cutting system with an output of 6000 watts. Herren Frères is “part of the family” and has purchased virtually every type of machine Bystronic offers, says Fred Weber, Bystronic’s Area Sales Manager. He thus touches on another strength of the family enterprise. They can handle all production steps in-house: from development and programming to cutting, punching, bending, and welding.

Craftsmanship plus high-tech

Alexandre Herren attaches great importance to the craftsmanship and expertise of his staff, but also to meticulous maintenance and the sensible utilization of the machines. Thus he was a little sad when the CO₂ laser cutting system he had purchased in 1992 was finally retired. It was still working flawlessly after 30 years. Nevertheless, he decided to replace the system. After all, it was becoming increasingly difficult to obtain spare parts, and a visit to the Blechexpo trade fair in Stuttgart convinced him: The time had come for a fiber laser.

Herren Frères intends to remain at least one step ahead of the competition, and Bystronic has the technology it takes. Alexandre Herren expects the



PROFILE Herren Frères & Cie

Bystronic Customer since: 1992

Fields of business: Sheet metal processing, laser and waterjet cutting, and services in the plumbing, tinsmithing, solar technology, and real estate sectors

Production locations: Grandson and Yverdon-les-Bains (Switzerland)

Number of employees: 85

Production area: 1250 m² in Les Uttins (Yverdon) and 1500m² in Les Tuileries (Grandson)

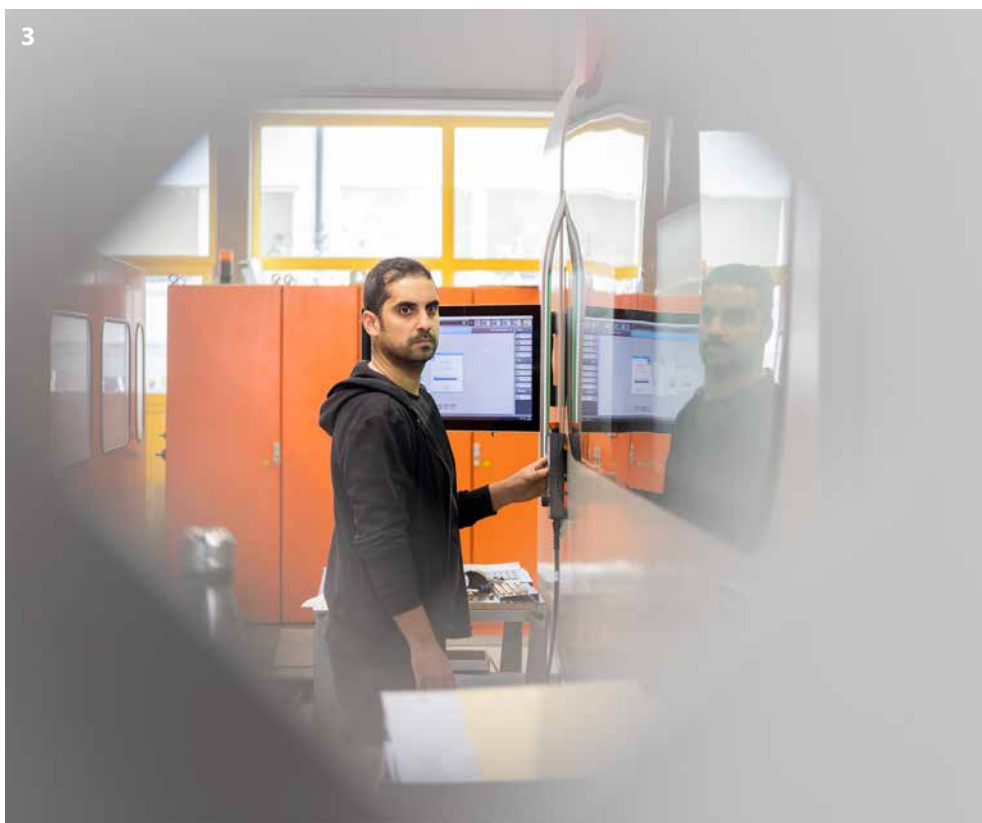
cutting head of the ByStar Fiber 20000, which focuses LED light to generate the highest power, to increase productivity by a factor of five. The system can handle sheets measuring up to 1.5 by 3 meters, and its two cutting tables move in parallel. Thanks to Bystronic's ByTrans Extended, the production process can also be automated. The parts are automatically removed and stacked, since the 20 kilowatt system runs at such a speed that a human operator could simply not keep up. Cutting can be made even faster and also more cost-effective using the new MIXGAS application, which is available as an option for the new fiber laser.

Automation as an opportunity for Switzerland

The test production phase has convinced the Managing Director: "The new technology is ready." For Herren Frères, the ByStar Fiber heralds a new chapter in the company's development. Previously unattainable cutting speeds and high material thicknesses: For Herren Frères, this means, for example, being able to cut tiny holes with a diameter of five millimeters in a 40-millimeter-thick aluminum sheet in a single pass. This has the promise of reducing production costs while simultaneously opening up the ability to produce even more complex parts.

Thanks to the higher degree of automation, the production hours in the factory are to be increased from today's nine to at least eleven hours, and a part of the manufacturing process will be shifted to the evening or night. Alexandre Herren vigorously disagrees with the notion that this will result in job cuts. In his view, automation is not a job killer; on the contrary, it maintains the competitiveness of Swiss high-quality industry and frees up manpower for other tasks. In Yverdon, for example, for programming, bending, and welding. Alexandre Herren is convinced that payroll costs are not the decisive criterion on the market. "Technology makes all the difference when it comes to the price."

With the Bystronic ByStar Fiber 20000, Herren Frères wants to establish itself as the "VIP of laser cutting specialists" and attract those customers in the high-tech segment who expect the highest quality at the best possible price – while continuing to provide excellent service to existing customers. This definitely sounds like a promising outlook after weathering two years of the Covid-19 pandemic. This is maybe one of the reasons why the Managing Director himself puts the alleged eccentricity of sheet metal processing specialists into perspective: "If you have a clear vision, you immediately appear less crazy." ■



1 With the new machine, the company is setting its sights on high-tech customers.

2 Delicate ornaments bear witness to the utmost precision.

3 For its current job, the ByStar processes 300 parts in just seven minutes.