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Sheet Metal

Review

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In front of the new ByStar Fiber 3015 (from left to right): Alexandre Herren (CEO) and Noomane Borghol (Production Manager) from Herren Frères & Cie.



The direct comparison of power laser cutting without gas (left) and with gas (right). Depending upon the material and cutting speed, deburring and/or surface grinding operations are also unnecessary.

THE FINAL CUT

Herren Frères & Cie has expanded its range of industrial sheet-metal processing services with its new ByStar Fiber 3015 20kW automated, high-speed laser cutting machine.

ISMR SAYS:

"A philosophy of continuous investment and innovation, with a focus on quality and service, are integral parts of the Swiss manufacturer's approach."

Family business Herren Frères & Cie, in Switzerland's Yverdon-les-Bains, was founded in 1955 by brothers Robert and Marcel Herren as a craft business for sanitary technology and construction plumbing. Over the years, and with the arrival of the next generation, it has developed into a group of companies that today provides sanitary, plumbing and solar systems, as well as industrial sheet metalworking, laser/waterjet cutting and real estate.

The operational activities of Herren's current 85 employees are underpinned by its guiding principle of what it describes as "quality-oriented services to private, trade and industrial customers from a wide range of sectors."

The brothers recognised early on that it was not just their own sanitary and plumbing business that repeatedly needed individual sheet-metal parts, but other tradesmen also needed these parts. Consequently, they invested in the production of sheet-metal parts and, from that point onwards, also operated as a service provider. This developed further into industrial sheet-metal processing, laser and waterjet cutting, for which Alexandre Herren is responsible.

It became one of the first companies in western Switzerland to invest in laser cutting

To better serve its trade and industry customers, a decision was made as early as 1992 to continuously invest in the latest technology and it became one of the first companies in western Switzerland to invest in laser cutting.

Continuous investment culture

Herren likes to take on challenges, evolve, innovate and meet the multiple and varied needs of its customers. Quality, service and well-trained staff, as well as a culture of continuous investment in technical equipment, are integral parts of its approach.

The acquisition of a laser cutting machine from Swiss manufacturer Bystronic, with a laser power of 2500W, unveiled new possibilities for sheet-metal and tube



The Bystronic ByStar Fiber 3015 with 20kW of power.

processing, which increase Herren to expand its range of services and increase its appeal to other industrial companies. Alexandre Herren commented on his company's technology and investment philosophy.

"My father, Robert, had already distinguished himself as a technology pioneer when he entered CNC technology as early as 1984 and his company was the first Swiss SME to buy a CNC punching machine. We aim to stand out from the competition and provide our customers with the latest technologies.

Anyone who is familiar with Swiss sheet-metal processing companies knows about the need to differentiate oneself through exceptional performance, strong productivity, economic efficiency and high quality to survive in the market over the long run," he explained.

Today, Herren Frères & Cie has a machine-tool portfolio that encompasses all the necessary technologies. Bystronic Laser AG has been a very important partner to the company since 1992 and, over the years, has installed three laser cutting machines with 2.5-, 4- and 6kW laser power, two high-pressure waterjet cutting systems and ten press brakes. The most recent example of this successful cooperation over the years is a new, high-performance fibre laser cutting centre (ByStar Fiber 3015) with 20kW laser power, which replaces Herren Frères & Cie's older 2.5kW laser cutting machine.

Accent on productivity and quality

To move further ahead in terms of production, efficiency, quality and increasing competitive strength, Alexandre Herren's philosophy moved to embrace fibre lasers with even higher powers and high degrees of automation. Its visit to Blechexpo 2021 (in Stuttgart, Germany), where Bystronic introduced the ByStar Fiber 3015 fibre laser cutting machine with 20kW laser power to a broad trade audience, ultimately led to an order for this laser cutting system.

"This high-end laser cutting system processes sheets in the 3000 x 1500mm format and offers simultaneous positioning speeds of up to 170m/min with highly dynamic X/Y axis drives with a repeat accuracy of

Industrial sheet metal activities

Folding
Bending
Rolling
Stamping
Shearing
Punching
Sawing
Laser cutting
Laser cutting/
punching
Waterjet cutting
Tapping
Engraving
Deburring
Chamfer for
countersunk head
screws
Welding
Soldering

Metal processing

Steel of all types
Aluminum
Stainless steel
Copper
Titanium



Above and below: The ByTrans automatic loading and unloading system on the new laser cutting machine for self-sufficient, fully automatic order production in all batch sizes. On the right is the pallet loading/unloading station.



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The company now also saves between 50 and 70 per cent in energy costs and consumables (compared to using CO₂ laser systems)

0.025mm. Equipped with a shuttle table system, table-change time is a rapid 25 seconds so that unproductive downtime is reduced to a minimum. The laser cutting machine is equipped with a loading and unloading system, enabling the fully automatic processing of orders of all sizes," outlined Bystronic.

"The most important component of the system is, of course, the 20kW fibre laser which can cut steel sheets of up to 25/50mm thick; stainless steel of up to 40mm thick; aluminium of up to 40mm thick; brass of up to 20mm thick and copper of up to 20mm thick. Using the new cutting head, consistently high quality is also guaranteed with high laser powers for demanding cutting applications," it added.

Industry sectors

Machinery
Food
Marine
Construction
Medical
Advertising and design
Robotics
Rail
Automotive

FOCUS ON LASER CUTTING



Project examples from Herren.



An eye on precision

"We process all conceivable materials in all thicknesses and quantities for our very broad clientele. With the new 20kW fibre laser cutting machine, we were able to double our performance portfolio from the previous 25mm

sheet thicknesses. Because we can also operate the fibre laser with the additionally installed mixed gas system if required, we can offer our customers even more performance diversity in the thin and thick sheet range. They greatly appreciate this and now place orders with us that up to now could not be handled economically by any supplier," confirmed Alexandre Herren, commenting on the new purchase.

"On the other hand, using our 20kW fibre laser, sheet-metal parts are precision-cut (in terms of quality) with very high system performance which often makes time-consuming finishing work, such as deburring edges or grinding surfaces, unnecessary. Finally, with automated loading and unloading, we can now process orders fully automatically (in most cases), while significantly

reducing parts handling and the associated personnel costs," he continued.

Alexandre Herren also confirmed that, because of its latest acquisition, the company now also saves between 50 and 70 per cent in energy costs and consumables (compared to using CO₂ laser systems).

"After one year in production, we can confidently state that with the new laser cutting machine we once again have a unique selling point in western Switzerland. We are very proud of this; it provides our customers with real added value," concluded Alexandre Herren. ■

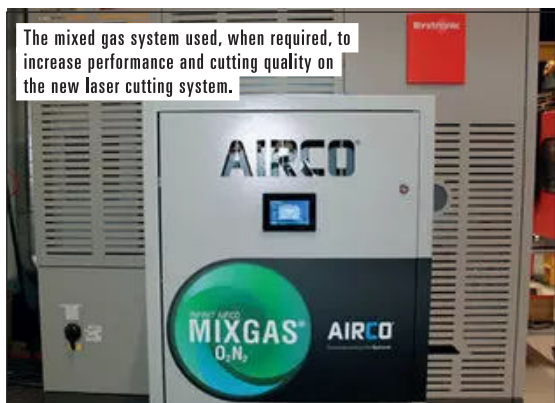


www.herren-freres.ch



www.bystronic.com

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The mixed gas system used, when required, to increase performance and cutting quality on the new laser cutting system.