

Experience... In the Realm of Absolute Quality

by Fabrizio Garnerò



Fabrizio Barberis, laser sales manager for Prima Power (left) in front of the Sincrono Fiber with Sergio Rizzato, owner.

Visiting the Rizzato company in Camposampiero in the province of Padua has been an elixir for lifting the spirits. Rizzato is a company that specializes in third-party stainless steel processing and is "running" at full speed. Over the years, the company has made technological innovation one of the competitiveness levers on the market...and is a positive sign for optimism.

Since its founding in 1987, Rizzato's goal was to become a market reference – a goal that the company has achieved thanks to wise investments. Over the years, the factory has expanded and the production area has increased with the purchase of new, cutting-edge machinery.

Since Rizzato mainly processes stainless steel sheet in all its grades and variations of surface finishes, it works closely with customers who require absolute quality of details in surface integrity. The company services various sectors, such as catering and vending, medical or household appliances, which by definition use very characteristic parts with a high-quality finish whose aesthetics are carefully monitored throughout every stage of production – from cutting to final welding or installation of the various parts in the assembly.



The Sincrono Fiber installed at Rizzato is connected to the automated and synchronized Night Train Material Management System (MMS), which allows a 24-hours-a-day operation for processing continuity.

Maintaining an efficient and updated machine inventory has always been of prime importance for Rizzato. This is exemplified by

the addition of the Prima Power Sincrono Fiber laser cutting system that was recently purchased to replace an outdated and widely-used Finn Power L6 laser cutting system.

From CO2 to Fiber

"For a long time, L6 was the fastest CO2 laser cutting system on the market," explains Fabrizio Barberis, laser sales manager for Prima Power. "The Sincrono Fiber is now the only alternative to such a system. Indeed, it improves its performance through the optimal exploitation of the fiber laser technology. Sincrono Fiber is a productive and fast machine that is the highest performing machine on the market for cutting stainless steel up to a thickness of 2 - 3 mm, which coincides with more than 80% of Rizzato's core business. In this field, it is a machine with matchless performance."

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Urgencies and Complex Cuts by Day...Maximum Production by Night

Fiber technology is renowned for having lower usage costs compared to CO2 lasers, mostly related to energy savings and reduced maintenance. These are issues that carried weight at the time of Rizzato's choice. The Sincrono Fiber presented the potential increase of productivity as well as the advantage of being able to lower the operating costs. It allowed the company to have a lower hourly rate than the competition, with the same quality of the cut, and in some cases even better. "Previously, maintenance was very intense with parts to be replaced and frequent maintenance to the optical path," explains Sergio Rizzato, owner.

The potential of the Sincrono Fiber installed by Rizzato is huge when you consider that it is connected to the automated and synchronized Night Train Material Management System (MMS), which allows a 24-hours-a-day operation for processing continuity, supplying all the connected cutting stations. Three systems are connected to the

Night Train MMS: the Sincrono Fiber laser, a Shear Genius punch/shear combination cell, and a Laser Brilliance punch/laser combination cell. As a result, the work is divided among the four systems in a rational way to exploit the characteristics of the machines according to the type of parts to be manufactured.



The central element of Rizzato's activity is the automated and synchronized Night Train Material Management System.

What is certain is that the characteristics of the Sincrono Fiber have predominantly modified the previous division of work with great benefits for Rizzato. "Today we are totally flexible to the point that during the day we send all the rush jobs and the most particular processing to the Sincrono, and at night, with unmanned operation, we fully exploit its reliable productivity, queuing the most significant batches from the quantities standpoint," says Rizzato. "The Sincrono and the Night Train MMS are connected with a new generation system for enhanced performance, especially for the machine feeding time."



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In the specific case of Rizzato, which works with 100,000 product codes, there are some that allow managing certain types of parts by utilizing the outstanding dynamism of the Sincrono at its best. "There are some gratings in which we make some very small holes that are placed very close to each other," says Rizzato. "Sincrono is ideal for this type of processing. It is crucial for us to be extremely fast and flexible with excellent cutting quality."

Ideal for the Most Complex Cuts

The Sincrono Fiber is a machine that has thin cuts in its DNA. Moreover, in the specific case of Rizzato, its 2 kW fiber source meets the need of having to cut complex parts, which require making very rapid movements and changes of direction in short strokes. A key feature of the Sincrono is the adoption of a parallel kinematics structure with the cutting head capable of reaching 6g accelerations and a numerical control which allows it to reach very high speeds even with very complicated trajectories.

Micrometric Precision and Complete Mastery of the Process

Like the Sincrono Fiber, the Prima Power Fast Bend servo-electric panel bender has been observed closely during our visit at Rizzato. The company had an array of hydraulic bending presses of different tonnage. Rizzato confirmed its policy of wise and targeted investments by opting for a servo-electric bender to complete its bending department whose role is strategic, considering the nature of the parts produced.

Continued on page 12

Experience... In the Realm of Absolute Quality

Continued from page 11

"We have a well-equipped and cutting-edge bending department," says Rizzato. "This puts us in a position to have complete mastery of the bending process, which perhaps even more than cutting, affects the final quality of our parts. Despite the large machine inventory, we decided to invest in a panel bender, since we consider it the natural completion of our department."

It is the machine that was missing. The other three automatic systems are connected to the Night Train, including a Shear Genius punch/shear combination cell.



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The Fast Bend is a servo-electric machine, and therefore very accurate and more economical than hydraulic bending machines. Both the tooling step and the entire bending cycle are automatic. With the Fast Bend it is not necessary to have an experienced bending operator.

"In the more than 100,000 product codes that we manage," Rizzato continues, "there are some small batches that are continuously repetitive. This leads us to days in which it is necessary to retool the bending machine "N" times to achieve those "N" codes of 30/40 pieces each, with obvious timing and cost problems. The Fast Bend is a machine designed to meet this kind of need. It has the capability to simply recall the program, and, in a very short time, is able to bend with micrometric precision and without any risk of damaging the part surface. With the Fast Bend, the same parts we produce today can be produced again in three days with no additional setup times."

Servo-Electric Bending

In addition, there is the advantage of a servo-electric machine, which is very accurate and more economical than hydraulic bending

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machines. Both the tooling step and the entire bending cycle are automatic. This means that it is not necessary to have an experienced bending operator for the Fast Bend. With the traditional press brake, the operator must guide the piece and be very skilled in following the machine with the correct timing to prevent spoiling the bend. "This is essential for manufacturers like us who process a great

amount of stainless steel, where the aesthetics of the parts are very important," says Rizzato. "With the Fast Bend, this problem does not exist, as the panel remains on the table and always moves on the same plane."

"What is certain," concludes Rizzato, "is that in order to have that extra edge in today's market, it is necessary to make the appropriate choices on specific systems that allow quick setups and unmanned operation, with the latest technology."

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