



Bystronic

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BySprint Fiber 3015

TESTED, APPROVED, AND BOUGHT

IF THE ITALIAN JOB SHOP FRACM IS TO BE BELIEVED, THEN THE FIBER LASER CUTTING SYSTEM BYSPRINT FIBER IS THE IDEAL THIN SHEET METAL PROCESSING MACHINE. AND THOSE RESPONSIBLE AT FRACM SHOULD KNOW: THEY THOROUGHLY TESTED THE SYSTEM FOR SIX MONTHS. A REPORT.

Text: Martin Engel, Photos: Daniele Fiore/Outside Agency



“The system cuts extraordinarily quickly and precisely.”

Odino Reggiani,
President, FRACM

THIN SHEET METAL CUTTERS, pay heed: This article is about fiber laser cutting, and more specifically about the use of the BySprint Fiber. And it is about FRACM, a company that has been operating such a system for longer than it has officially been for sale. There is a good reason for this: FRACM was a test customer, and those responsible there know the machine with all its strengths and weaknesses. Weaknesses? No, Chief Executive Odino Reggiani has no weaknesses to report. Out of politeness? Hardly, Odino Reggiani is a business man. Out of shrewdness? Of course not, Odino Reggiani is too polite for that. But maybe the Italian journalist and author Giovannino Guareschi was right when he said: “Things happen here that could not happen anywhere else.” The scene is set in Brescello, which is home to two literary figures that have achieved immortality, at least in Europe: the Catholic priest Don Camillo Tarocci and the Communist mayor Giuseppe “Peppone” Bottazzi. The early film adaptations of his novels were shot on location in the small town of Brescello, which lies in the north Italian Po Valley. And this is exactly where the job shop FRACM has its headquarters.

“Fiber laser cutting excited us early on,” explains Odino Reggiani. His company followed the discussions closely as the first technical articles were published about fiber laser cutting. And internal discussions took place as to whether this could present an opportunity for the company. “The claim that, especially with thin sheet metal, fiber lasers are faster and cheaper than CO₂ lasers, and that in addition they cut very cleanly awoke our interest,” says Andrea Reggiani. He is Plant Manager as well as the son of the company’s Chief Executive. There were certainly good grounds for this curiosity, since the contract manufacturer FRACM primarily processes thin material. Approximately nine out of ten cutting orders are for sheet metal

thicknesses of up to 1.5 millimeters. And only in one in twenty orders is the sheet metal thicker than three millimeters. The customer base is primarily comprised of OEMs that are active in diverse industries. As a rule, these are companies that manufacture either for the global market or at least for international sales territories, including one of the leading manufacturers of compressor technology as well as internationally successful household appliance manufacturers. Accordingly, the demands placed on price, quality, and adherence to delivery schedules are very high.

TESTED, APPROVED...

Conditions were therefore ideal for exploring the possibilities of the new technology with a machine manufacturer. This happened during the Blechexpo trade show 2009 in Stuttgart, Germany, at the Bystronic exhibition stand. After all, the two companies have long-standing relations: FRACM has been relying on Swiss technology since 1998 and operates two BySprint CO₂ laser cutting systems as well as the Bycell storage system. “The request came at an excellent time,” recalls Luigi Frapolli, Managing Director of Bystronic Italia, “since we were on the lookout for suitable test customers for the BySprint Fiber.”

The test started in June 2010. “Naturally, we were a bit apprehensive,” Andrea Reggiani admits, for after all, his company was about to scrutinize a very young technology, with which Bystronic was also breaking new ground. But, as the Operations Manager sums up the results in brief: “The project proceeded superbly.” Various types of metal sheet with a thickness of between 0.5 and three millimeters were cut. At first, the system could be used at around half of its capacity, with which the parties involved were quite satisfied. From September onwards, those responsible started increasing the number of cutting hours towards its current level. “I was completely taken with the speed with which we brought the system to a top performance level together with Bystronic,” says Andrea Reggiani and calculates that after deduction of the August holiday month, less than three months were needed.

...AND BOUGHT

After these experiences, the Reggianis had no hesitations in reaching a decision about the future of their BySprint Fiber. “What I can certainly tell you is that it surpassed our expectations. Hence, it made perfect sense to keep the system,” says Odino Reggiani, coming straight to the point. And the enthusiasm for this latest technology continues unabated. But what are the specific benefits that the system holds for a company like FRACM? “Basically, they are identical with the reasons why we ventured to do the test,” explains the Chief Executive: “In the area of thin sheet metal processing, the system cuts extraordinarily quickly and precisely. What is more, it is extremely economical in operation.” In plain language, this means: Thanks to the BySprint Fiber, FRACM has increased its pro-

Many years of partnership (left to right): Odino Reggiani (President, FRACM), Luigi Frapolli (Managing Director, Bystronic Italia), Andrea Reggiani (Plant Manager, FRACM).





Since June 2010, the new BySprint Fiber has been tested in his company:
Odino Reggiani, President of FRACM.

Facts: FRACM

Founding year: 1967

Company name: The company name is an acronym of the initials of the original founders' surnames. At a later date, Odino Reggiani took over all the shares of the company.

Company management: Odino Reggiani (Chairman), Andrea Reggiani (Operations Manager)

Location: The municipality of Brescello with 5,500 inhabitants in the north Italian province of Reggio Emilia. Brescello is located favorably both economically and logistically, near to the economic centers of Veneto, Lombardy, and Piedmont.

Job shop: The focus is on a 360-degree service. This means that customers receive comprehensive advice on how their ideas can be implemented. Solutions are worked out and put into practice, prototypes manufactured, and serial production carried out. FRACM is able to offer comprehensive production facilities right through to surface treatment.

Kanban: FRACM offers its customer Kanban services. The corresponding parts and components are held on stock in a separate hall.

Own product: For about one year, FRACM has been manufacturing its own proprietary cooker hood extraction ventilators. This product is sold via a third-party company.

Trademarks: High-quality order fulfillment at prices that are in line with market requirements. Short delivery times. Cautious but continual growth.

Shareholdings: FRACM owns 51 percent of the company E Metall in Nová Dubnica, Slovakia. E Metall manufactures mechanical parts, sheet metal components, and insulators.

2010 turnover: 9.4 million euros (excluding E Metall)

Employees: 51 (excluding E Metall)



Especially when it comes to thin sheets, the BySprint Fiber is almost unbeatable. It is equipped with the high-performance ByVision control package for intuitive and simple operation.



ductivity. By way of illustration, with a metal sheet thickness of one millimeter, the system processes approximately three times as many cut parts as the CO₂ laser cutting machines that are used in the company. Even taking into account that these machines were acquired as far back as ten and twelve years, this is still a considerable increase.

Many orders have already been transferred from the punching machines to the BySprint Fiber. This has been possible because the machine works with great precision, "and thanks to this we can satisfy the high quality expectations of our customers," says Andrea Reggiani. He shows us a part that illustrates the maxim of "safety first": The cutting edges of the inner contours are processed so cleanly that the service technicians, who will at some stage be carrying out maintenance on the end product, cannot be injured. Another demonstration project has been labeled the "quality" showpiece. It is exceedingly complex and must be cut with high precision so that it can subsequently be processed further without problems. Andrea Reggiani calculates that of the approximately 360 to 400 hours per month during which cutting takes place on the BySprint Fiber, about 100 to 120 hours are spent on orders that used to be done by punching, thus accounting for a share of about one quarter. Another significant portion used to be processed with the two CO₂ laser cutting systems, freeing up capacity there as well, although in the meantime this capacity has been filled to a large extent.

MARKET SHARES GAINED

And last but not least, the BySprint Fiber has also been instrumental in securing new orders, especially with existing customers. The leading manufacturer of compressor technology already mentioned above, for example, transferred a considerable amount of work from a French supplier to Brescello after the new production possibilities at FRACM were scrutinized and found to be excellent. A further customer in the energy sector expanded its product range and, in consequence, increased its purchasing volume at FRACM. And how important were the low operating costs of the BySprint Fiber in this growth? Odino Reggiani raises his eyebrows: "The market," he explains, "does not pay a premium price for premium quality." Rather, premium quality is demanded at a lower price. "And in this regard, the BySprint helps us enormously" – for example, with its low energy consumption. To look at the electricity bill, one would not have noticed that an additional machine had been installed, explains Andrea Reggiani. "Even if we take into account that orders from other machines were transferred to the BySprint Fiber, we currently have a higher output with the same electricity costs," he adds.

The fact that orders can be calculated at lower cost is also due to the flexibility of the system compared to punching machines: "In this way, we manufacture quicker because we need no tools.



"We only make promises we can keep." Andrea and Odino Reggiani at the FRACM headquarters in Brescello, northern Italy.

We import the blueprint, and that's it," summarizes Odino Reggiani. And enhanced flexibility translates into faster delivery times – a key factor in Odino Reggiani's company philosophy: "If one makes a promise to a customer," he states unequivocally, "one has to keep it and deliver the product on time. We only make promises we can keep."

The market rewards this approach. Already in the previous year, the orders increased by 20 percent compared to 2009. And in the first months of the current year, this figure was another ten percent above that of the reference period in 2010. The capacity utilization in the company is high, says Andrea Reggiani, even without aggressive marketing. Therefore, another one of the BySprint Fiber's strengths, namely nonferrous metals, are only seldom seen on the machine's cutting table – despite the very good results achieved with copper and brass during the test phase. "We have a few orders from existing customers, and there is a distinct possibility that more will follow," says Andrea Reggiani. And what about operating the BySprint Fiber – does it require additional skills? "No, on the contrary," replies the Operations Manager: "Anyone who has operated a CO₂ laser cutting machine is likely to be able to cope even more easily with the new technology. He emphasizes how undemanding the system is and that one has to clean the protection window now and then. That is all – otherwise the machine just cuts. "Also, we hardly ever adjust the parameters, and nevertheless we achieve optimal cutting quality," he adds. Does this not sound a little bit like magic? Andrea Reggiani laughs and refers to Giovannino Guareschi: "You know, things happen here that cannot happen anywhere else." But it is possible that in this point, he may be wrong.

"We were a bit apprehensive, but the project proceeded superbly."

Andrea Reggiani,
Plant Manager, FRACM