

VM INOX SPA, Italy, combines meticulous attention to detail with the outstanding quality of the most modern laser technology

Attention to **detail**

Fencing



What is impressive about the new facility of VM INOX, located in Gerenzano, in the province of Varese, is, first of all, the perfect order and cleanliness of the production area. Even the machines installed some time ago, which have since been running at full capacity, look new and in excellent conditions. Moreover, by observing the quality of the products in process, it is quite clear that this focus on order and cleanliness is not only consistent with the company's image but also, and in particular, the result of its meticulous and continuous attention to detail.

From the iron age to stainless steel age

VM Inox is a well-known brand name in the stainless steel fencing market. Ever since its foundation by the current owner Mr. Renato Vanzulli in 1976, the company has been committed to providing the customers with elegant solutions and outstanding quality; and this commitment explains in large part its success on the market.

"VM Inox was born as an ironworker specialising in steel fencing products - tell us Vanzulli - but in 1982, when I started running the company, we began a process of automation and we began working with stainless steel instead of steel. The change was gradually implemented. In the be-

ginning, we had two production facilities, one for steel fencing and one for stainless steel fencing. Then, in 2003, we took a step into the future and decided to fully invest in a new production unit entirely dedicated to stainless steel fencing manufacturing and to laser cutting services; this last activity, today, represents about 50% of the company's turnover.

Five years ago, VM Inox met the BLM Group for the first time and bought one ADIGE TS 72 sawing machine, a machine extremely fast and effective that has resisted the power of laser, and it is still used for the production of standard high-volume applications.

"Significant scrap reduction and high cutting speed are two of the main advantages of laser technology" affirms Vanzulli.

From the combined system to Lasertube

The introduction of laser technology, in 2006, resulted in important manufacturing process innovations. Before this investment, punching machines were employed to process high-volume orders, but to obtain satisfactory results, these machines required precise and "defined" tubes. Thanks to laser technology, it was possible to overcome the accuracy problems and, at the same time, to ob-





tain other significant and decisive benefits. The first laser machine was an ADILAS 2, an integrated system for sheet metal and tube. The plan was to process tubes with flexibility and accuracy, and then to complete the production process with sheet metal cutting. The experiment succeeded in increasing production flexibility, and specifically, in extending the processing range and in developing new products through rapid and effective prototyping.

After two years, the ADILAS 2 system has been replaced with its advanced successor, the LT COMBO. In addition to its higher productivity, and longer cut length and unloading capability, the new combined system is particularly valuable for its capability to work along the entire tube length, thus eliminating end scrap (this is especially important when processing expensive materials like stainless steel).

The proverb "the appetite comes with eating" is most certainly true for VM INOX. In fact, the company's next investment was an LT 722, a high productivity laser system totally dedicated to tube cutting. With this last investment, the workshop is fully equipped to provide the customers with the necessary flexibility and production capacity. "Speed and flexibility are key features and benefits of laser technology" affirms Mr. Vanzulli "and our investment decisions were certainly driven by these characteristics".

Perfectly aligned and matching holes

An additional remark has to be made about ArTube, the new programming software developed specifically for processing tubes. In an evolving world, where increasingly specialized software is capable of providing custom solutions for diverse requirements, the programming software needs the ability to flexibly interface with other programming softwares. ArTube has the capability to directly import very easily from different graphic formats.

Mr. Vanzulli shows us, as an example, of an up-market fencing model where the holes in the two rectangular cross rail tubes are laser cut prior to bending on a ring roller. Very cleverly the deformation caused to the holes by the ring rolling process is compensated for in the shape and positioning of the holes cut by the laser i.e it is not a true round hole prior to bending but it is after the deformation of the bending process. The round vertical tubes are then inserted with a perfect fit to create an extremely elegant fencing structure. The positioning and geometry of the holes are calculated with dedicated software to make sure that the holes are perfectly aligned after the bending operation. Then, ArTube imports the drawing and develops the working program for the tube laser. "

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