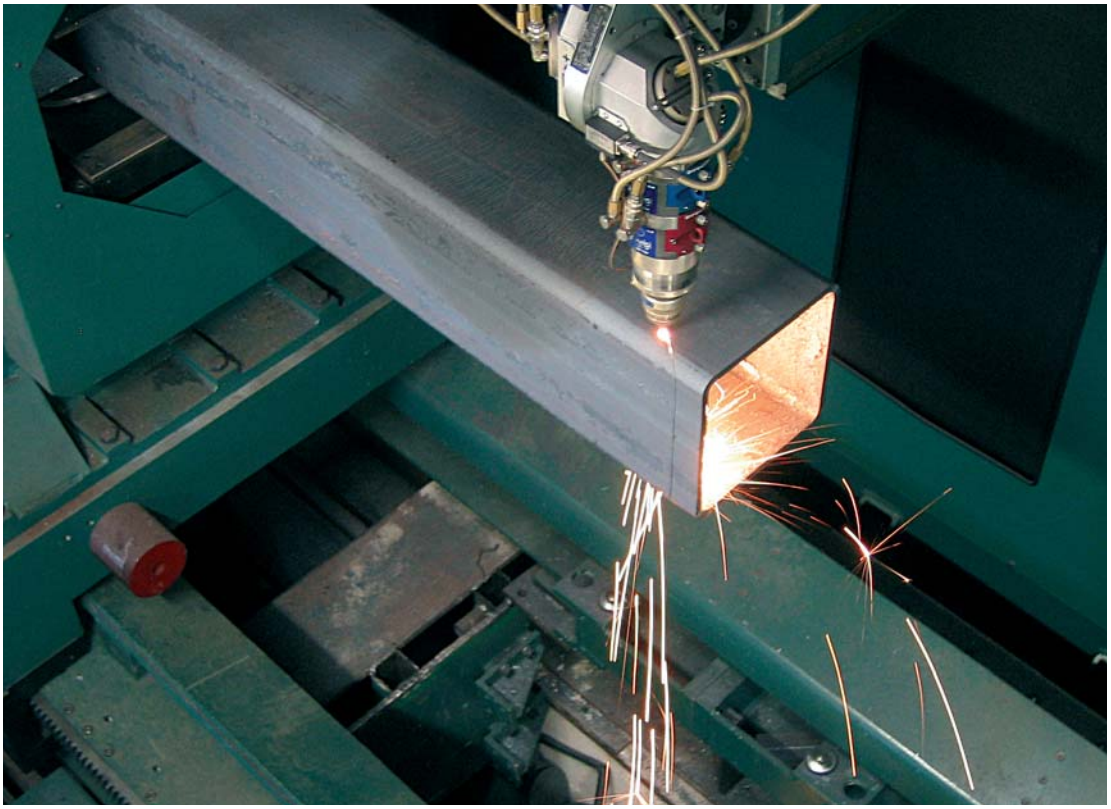


CMM, Italy, has developed its own laser activity from steel sheet to tube processing

From steel sheet to **tube**

When back in 1994, Luigi Ghirardi, owner of CMM Tecnologie Metallurgiche Avanzate from Medole in the Province of Mantova decided to make a leap in quality by entering in the laser world, he already had clear ideas of what he was doing.

"I had been processing steel sheet for over twenty years when I started to perceive the limits and "dangers" that we would have come across as a sub-supplier if we hadn't pursued quality and productivity. So we directed the company's activity towards the laser world, but here too, I understood the need to open out to new sectors other than those I was already serving. Therefore we needed a machine that could perform the primary scope of laser cutting flat sheets but, which at the same time, would allow opening out to new possibilities, such as those predicted in cutting tubular structures. And this is why one of the first laser cutting machines installed in CMM had a tube cutting option.

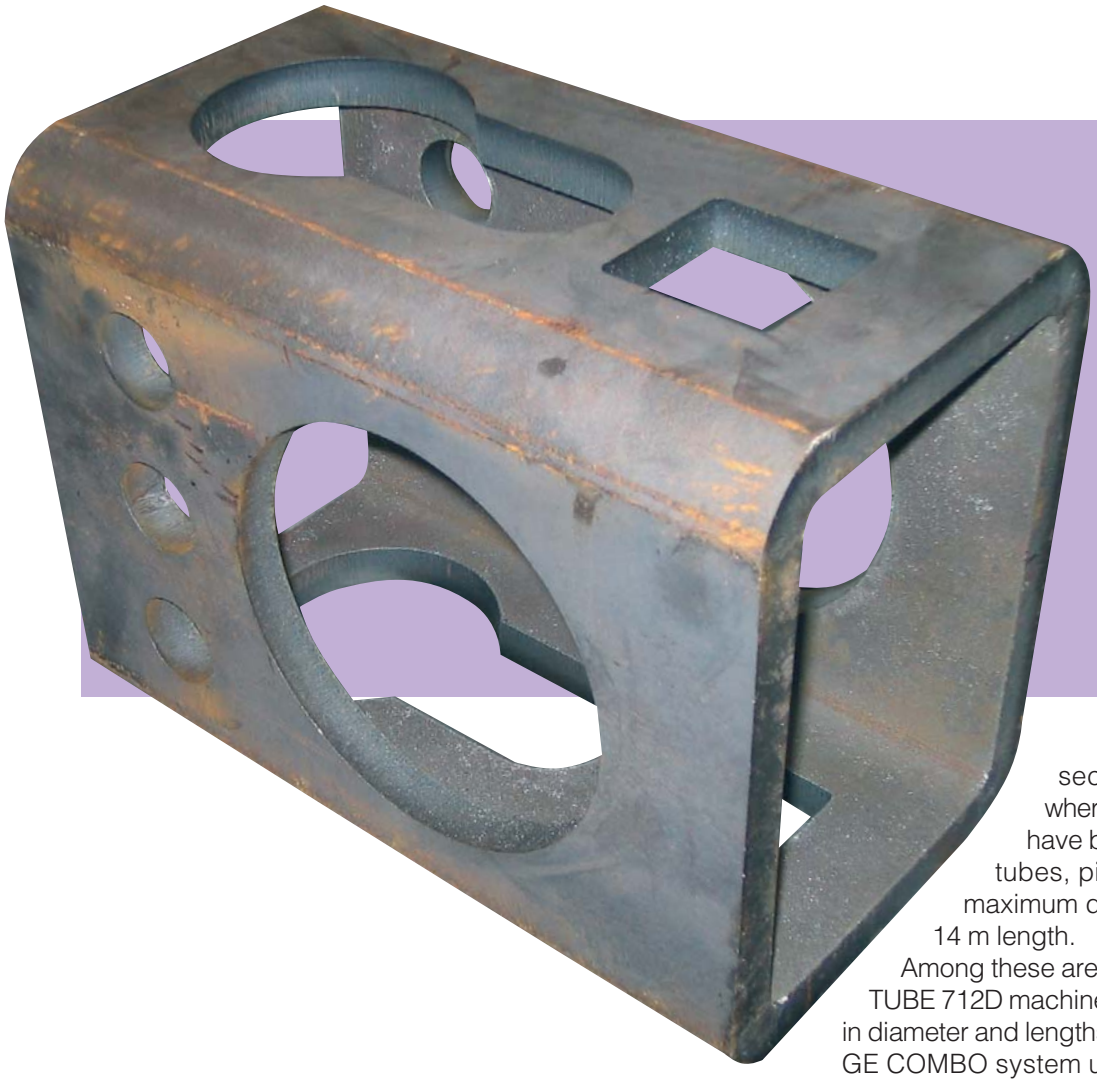
Two different approaches

This initial experience was determinant and enlightening for CMM as it allowed the company to understand the great potential of the tube and bar cutting market; a completely different sector to that of steel sheet, which was more restrictive, but more varied. This is why CMM is still divided into two divisions: "Steel sheet processing", with three laser systems and "Tube processing", with seven fully automatic laser machines, three of which are for "3D working".
This division is also a physical one as the two divisions operate in two distinct buildings considering that the two activities require different approaches: as to processing steel sheet it is useful to have alternative machines to expand the processing range and the space required to stack the material is relatively small; whereas to process tube, the laser can perform most of the processes, whereas it is indispensable to have large areas for both raw tubes as well as cut tubes.

Over half a million tons

Since 2006 CMM has become an integral and qualifying part of the Manni HP group whose industrial activities are in the steel field and in the pre-worked component business.
With an aggregate turnover of more than 500 million Euros (2006) and over 800 employees, the Manni HP takes a leading position on the Italian market for pre-worked components in steel for the construction and mechanical sectors and the insulating metal panel sector. All in all, the Group produces over half a million tons of semi-finished and finished steel products. The numbers that explain how the Manni Group alone has been protagonist with supplies to various steelworks of one third of the semi-finished steel products used for the Nuovo Polo Fieristico (The New Tradefair Centre) in Milan, the largest in Europe.

The core of the business project of the Manni HP Group is the constant research for excellence in serving the customer; its mission is to "create value in a satisfactory measure for the customer". For this reason, each unit of the Group from Verona makes up a real "service centre", that is an operator who is able to interact with the customer in a complex activity of co-makership, offering a contribution in the project, production information and improving the loyalty level of the customers that are typi-



cal of those who only commercialise steel products.
To this end, CMM backed by its original know-how and long experience, plays the important role of service centre for laser cutting of tubes, bars and profiles, therefore processing more than 50% of the tubular material of the Group.

Medium/large-sized tube

CMM was the first Italian company in its sector to constantly invest over the years in a consistent and significant manner thus becoming the first in Europe to have the greatest number of laser tube plants installed.
"We have dedicated a 5,000 m2 building for this sector – says Ghirardi – where seven laser tube plants have been installed to process tubes, pipes and profiles with a maximum diameter of 508 mm and 14 m length.
Among these are the four ADIGE LASERTUBE 712D machines for tubes up to 80 mm in diameter and lengths of 6.5 or 8.5 m, an ADIGE COMBO system used to process square and rectangular profiles with sections exceeding 80 mm and lengths of 12 m and, most of all, the last machine is an ADIGE JUMBO system used to cut tubes with a diameter of up to 508 mm, squares measuring 400 x 400 mm and rectangular profiles measuring 500 x 300 mm with lengths up to 14 m".
It is evident how the corporate belief has turned to processing medium/large tubes and it could not be otherwise, considering the close relationship with the Manni HP Group.

35% of good reasons

Besides laser cutting, CMM offers assistance during the design phase, to implement 2D structures by exploiting the enormous potentials offered by

the laser. “We realised that this type of service is becoming increasingly necessary – continues Ghirardi – to meet the demands of customers who are not fully aware of the many possibilities offered by this technology. The result of this strategy is the contribution from the “Tube processing” division to the company’s turnover, which is in continuous growth and now exceeds 35%.

A winning combination

Last, but not least, it is to be said that the experience gained by CMM in processing tubes is continuously influencing the steel sheet sector, where the company’s role is evolving from that of simply carrying out work according to drawings, to technological problem-solving.
“Laser processing of steel sheet and tube, although they are structurally different, is nevertheless a winning combination, where the know-how of one help to develop the other and vice versa” concludes Mr. Ghirardi. “Undoubtedly, the “tube” world is still young, as there are still barriers that block the use of the laser and irregularities in the tolerance of materials that come from tube-making facilities.

As already mentioned, as far as the first point is concerned, we are trying to deal with this with our experience. On the other hand, as regards the second, there is still a long way to go and a lot to be done to promote the enormous opportunities and competitive advantages of tubular structures. We feel that these barriers will decrease as the use of the laser increases in processing tubes and bars, like it did with steel sheet”.

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The technological heart of SGM in Fermignano, Italy, is the laser tube cutting system for the production of complex quality frames.

Increasingly more **tube** in **complex frames**

SGM located in Fermignano, Perugia is a company specialised in the production of frames with a strong vocation particularly for motorbike frames, metal furnishings and fitness or free time equipment.
"I started making frames back in 1969 at Moto Benelli - says Giacinti NOME, owner of SGM - and I haven't stopped since. I acquired skills and an enviable experience in the manufacture of motorbike frames to the point that in 1980 I decided to make a quality leap and set up my own business. So we started to manufacture frames and components for big names such as Bimota, Moto Guzzi and Cagiva, because that's the only market we were best acquainted with. As soon as we got the opportunity we successfully expanded the activity towards related sectors from the demand point of view, such as the metal furnishing industry, bicycles and fitness equipment. For example Tecnogym, a company that is specialised in fitness equipment is our key account".

Comparing three generations

To work closely with the problems of manufacturing motorbikes, with exacting technological and quality requirements has allowed SGM to gain skills in the laser tube cutting field, which still remain the company's "trademark".

"The applications requested and the need to make increasingly complex and articulated frames with sophisticated intersections and as-