



## **Versatility, precision and reliability: the latest generation of Lasertube, LT12 already boasts great success among customers**

BLM GROUP's Lasertube LT12 is not just a new laser cutting system, but a true convergence of technology and innovation. It is a solution capable of meeting the most challenging needs of companies in the tube and profile processing industry, providing them with an invaluable competitive advantage. BLM GROUP's new Lasertube, presented in the second half of 2023 at the Innova Open House, immediately won over customers with its versatility and high performance. LT12 was also illustrated at the Tube trade show in Düsseldorf through the support of an innovative application of artificial intelligence, which intrigued booth visitors. Product Manager Gianbattista Mazzoleni describes LT12 and its features in detail.

### **Why a new system?**

The goal of this new system is to fill a gap in our Lasertube system offering, which is manifested between two products: the LT8.20, which focuses on flexibility and performance, and the LT14, which is dedicated to processing long and heavy profiles. LT12 is the solution for processing tubes, profiles and beams, keeping the focus on versatility and productivity. Many times, customers have asked us for a product larger than LT8.20, but the jump to LT14 was too great both in terms of footprint size and performance across the lower range. LT12 was created precisely to give many customers the opportunity to process 'light' tubes with great performance, but also to be able to process larger tubes when needed.

### **What sectors is LT12 aimed at?**

Certainly a very interesting sector is agricultural machinery. This is a vibrant and dynamic world, but one in which laser tube cutting technology has not yet shown its full potential, as it has in other sectors. We see great opportunities since square tubes, rectangles, and even open profiles including "C," "L," and "H" profiles whose size easily comes to around 300 mm diameter-exactly the size range of the LT12. There are also many structural assemblies in this sector that would benefit significantly in terms of reduced manufacturing cost from the use of a Lasertube system. Of course, this new product is also very interesting in light construction architecture, for making canopies or small sheds, with tubes or beams up to 6-8 mm thick and lengths typically longer than the traditional 6 m.



### What are the main features of the LT12?

The machine concept is similar to the LT8.20 with a mandrel in the tail and a chuck to support the tube in the cutting zone. LT12 has the **interpenetrating mandrel** in the chuck, so that minimal scrap is guaranteed without the need for chuck or mandrel movement. Especially on large tubes, this results in time savings in the scrap reduction stage and is consistent with the desire to have a larger machine, but with excellent processing time performance. LT12 is equipped with a chain loading system for tubes from 8.5 m up to 12.5 m, fully automatic unloading can reach a length of 12.5 m. The quality of the tube support and handling systems both downstream and upstream of the cutting zone has always been a distinguishing and distinctive aspect of BLM GROUP's systems, which has always pioneered innovative solutions in this aspect.

In addition to a clever mix of the smart template systems and chain-controlled tracking supports that characterize the LT8.20 and LT14, a special **inverted smart template** has been added that operates from above to hold the tube in place, reducing wear and tear on the support itself.

Of course there are the Active functions characteristic of Lasertube systems and in particular the Active Scan, which quickly allows the correct position and size of the tube being cut to be verified, ensuring accuracy.

The **focusing head** is another special feature consisting of a Tube Cutter with a longer focal length that allows it to process higher thicknesses than the LT8.20 (the machine can process tubes up to 62 kg/m in weight) and is able to tilt up to 50° from vertical, a full 5° more than the LT8.20 and LT14. Active Piercing and Active Focus, which we now take for granted on our machines, complete the picture of a cutting system that provides precision, speed and flexibility.

Finally, the machine has excellent **accessibility** and a relatively small footprint compared to the LT14 and is equipped with 4 cameras, which are necessary to see the cutting area that is inaccessible due to the fiber source, allowing complete visibility of the entire workpiece being processed.

### Not only lasers, but also machining

On tubes and beams, but increasingly in other areas as well, the possibility of adding some mechanical machining is highly appreciated because it avoids an additional step following laser machining. LT12 is equipped with a mechanical machining unit capable of making threaded holes from M4 to M12. A 16-tool magazine with tool integrity control allows these machining operations to be fully automatic, programmed directly in the CAD/CAM design phase with ArTube.

We fully expect that the LT12 will further expand the application range of Lasertube systems by enticing customers and industries that until now have remained reluctant to tackle this type of technology, but certainly, all those who already have a Lasertube system and want to replace it or increase production volume will now have one more choice opportunity.