

Lasertube LT COMBO





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Combined system for laser cutting of pipe and flat sheet

LTCOMBO is a laser cutting system for tubes and profiles having large diameters (up to 225 mm diameter as standard and higher on request). It is a tube cutting centre which, in a single automatic cycle automatically performs the following operations: loading of different tube sections (round, square, rectangular and profiles), measure of each bar, feeding, cutting and unloading.

Other benefits include a standard CAD-CAM software control packages specifically designed by ADIGE-SYS for single and assembled tube programming allow extremely high exploitation of the system.

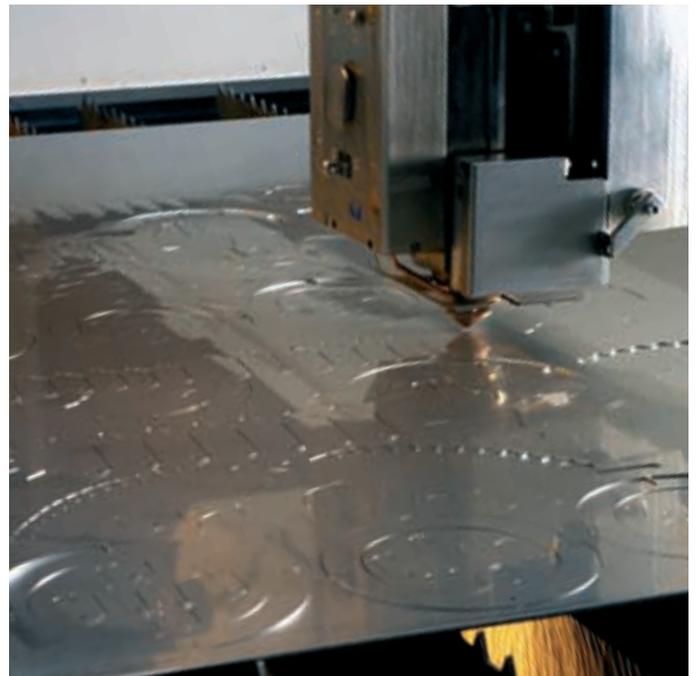
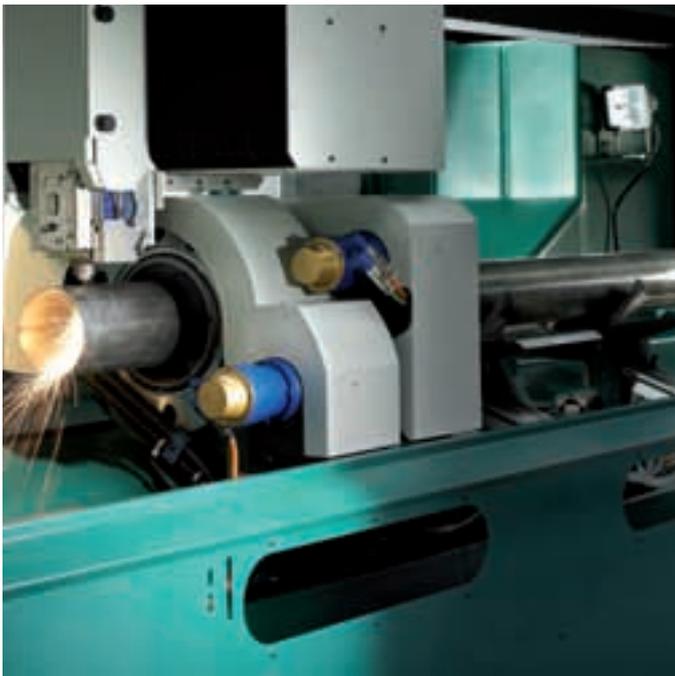


Technical Specifications



TUBE LASER CUTTING

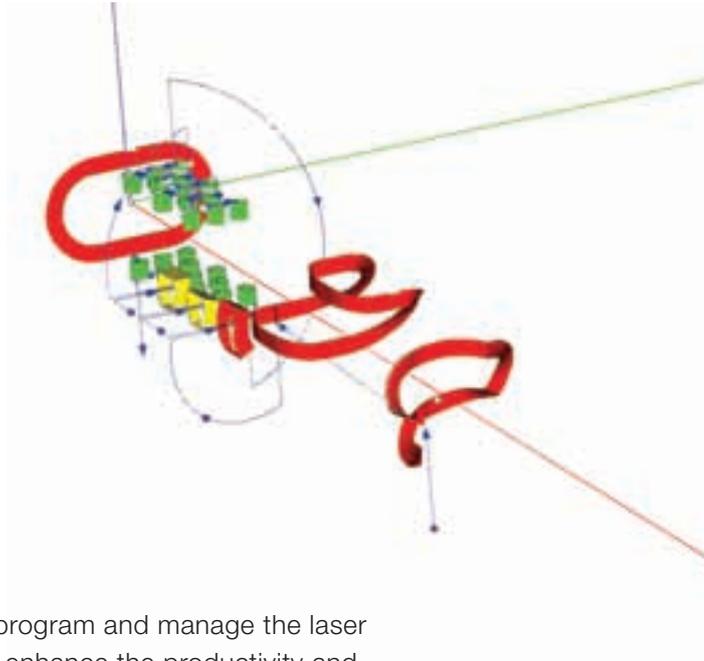
- tube support by means with two chucks for the best possible performance in terms of precision and flexibility;
- both chucks are longitudinally mobile to reduce bar end cut-off to zero;
- tube tightening system by means of 8 jaws, of which some are equipped with rollers for maximum machining precision and quality;
- cutting cycle entirely continuous (charge - cutting - discharge);
- guided discharge/evacuation of finished pieces with separation of different pieces;
- bar support by means of universal templates that automatically adapt to the shape and size of the pipe to be machined.



SHEET METAL CUTTING

- custom-designed solutions to machine flat sheets of different shapes and sizes, ranging from 1500 x 3000 to 3000 x 12000;
- various automation levels ranging from manual pallet handling systems to the integration with multi-column pallet warehouses automatically run by the system for unmanned machining;
- flexible layout to suit material flow requirements envisaged by the production process;
- drilling booster and automatic management of different drilling modes depending on the material and thickness;
- process sensor to monitor any decline in quality with actuation of appropriate corrective measures;
- real time power modulation in relation to the actual section speed;
- bundle compensation for constant cut quality along the entire working length;
- laser range-finder to detect the steel sheet position;
- powered focusing head with quick-coupling lens-holding drawer.

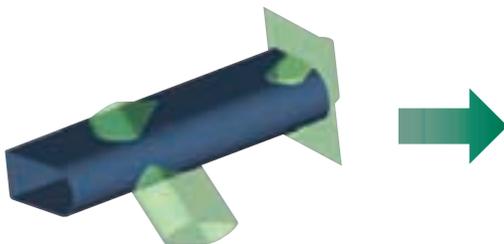
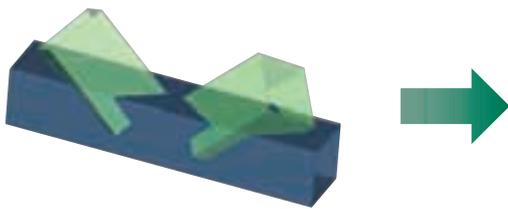
Artube, the difference



SOFTWARE TO DESIGN, PROGRAM AND MANAGE

Artube is a dedicated CAD-CAM software suite used to design, program and manage the laser tube cutting process. The software has been written by Adige to enhance the productivity and efficiency of the Lasertube family of machines.

It allows for the seamless importation of .step, .iges, .x_t formatted 3D CAD files. Artube lets you go from a drawing to a finished part in less than 10 minutes.

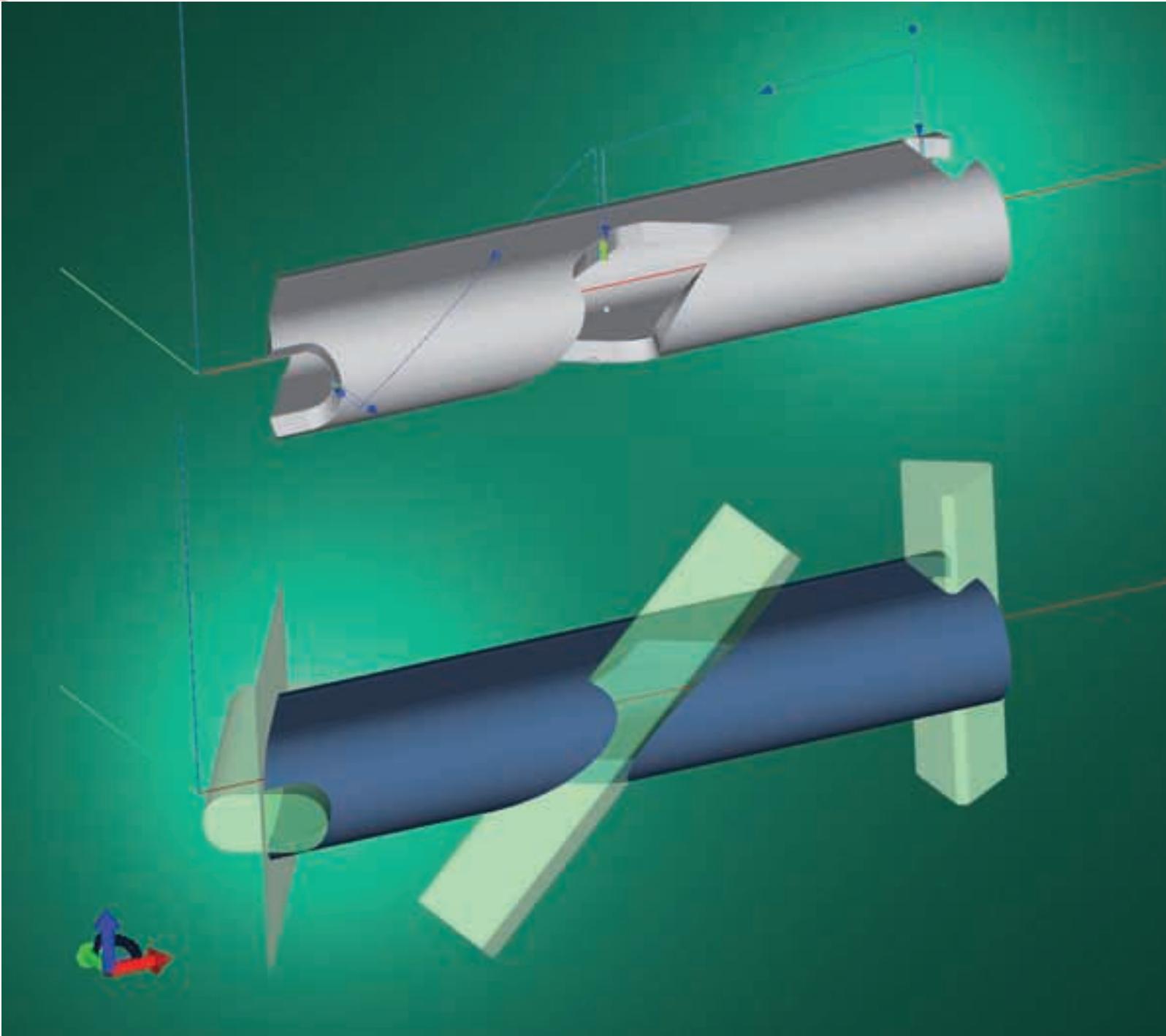


**ASSEMBLER:
DESIGN COMPLETE TUBULAR FRAMES**

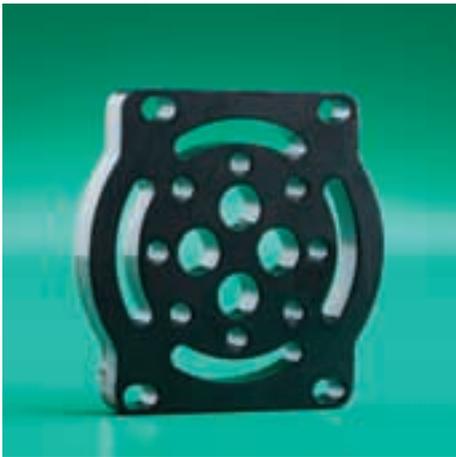
Parametric software module used to create complete 3D tubular frames or assemblies.

**CAD-CAM:
DESIGN SINGLE COMPONENTS**

Software module used to directly draw and design single tubular components.







ADVANTAGES

- two systems in one: for tube and sheet metal cutting;
- considerable savings thanks to the reduction of processing operations, logistics and transfer times (an order complete with steel sheet pieces and pipe can therefore be machined in a single process and on one machine only);
- completely automatic change-over from pipe to steel sheet and viceversa in less than 3 minutes;
- production reengineering: from welding of semi-finished steel sheet products to tubular structure supporting fitting joints; better quality and higher precision of pieces;
- modular easy-to-use tube CAD-CAM software, including preset and custom-designed machining libraries, allowing to switch from the design to the finished piece in just a few minutes without requiring any specific skill;
- computer aided programming thanks to a CNC that continuously generates the best working parameters (cutting power and speed) in relation to the work to be carried out;
- data base with a complete and expandable range of cutting parameters to guarantee the repeatability of cutting quality of different materials and thicknesses;
- maximum machine accessibility both during steel sheet machining and pipe machining;
- high modularity that facilitates the implementation of multiple configurations to meet with the requirements of each customer in terms of occupied space, automation and machining of large steel sheet shapes and sizes.

Technical Data

TUBE

Bar length	6.500 mm (255,90") - 8.000 mm (314,96") - 12.500 mm (492,126")
Finished piece max length	6.500 mm (236,22")
Maximum sections	Round pipe (diam.): 225 mm (8,85") - Square pipe: 160 x 160 mm (6,29 x 6,29") Rectangular pipe: 200 x 100 mm (7,87 x 3,93")
Minimum sections	Round pipe (diam.): 16 mm (0,62") - Square pipe: 16 x 16 mm (0,62 x 0,62") Rectangular pipe: 16 x 16 mm (0,62 x 0,62")
Bar maximum weight	200kg/bar - 35 Kg/m
Finished piece maximum weight	100 Kg

SHEET METAL

Dimensions	3000 x 1500 mm - 3000 x 4500 mm - 3000 x 6000 mm - 3000 x 8000 mm
Max. barrel length charging capacity	20mm (0,78") of steel sheet on all formats
Travel X	3050 mm (120,07")
Travel Y	1550 mm (61,02")
Travel Z	170 mm (6,69")
Max. speed	120 m/min
Positioning accuracy	0,05 mm (0,001")
Positioning repeatability	0,03 mm (0,00")

The system flexibility consists in the multiple configurations that can be supplied thanks to the variety of automations and formats.

AUTOMATION

"Ragno speed" automatic sheet metal loader and unloader;
"Arnia" sheet metal storage with single or double tower both to be integrated with LT-COMBO systems.
Retrofit is also feasible.

BIG DIMENSIONS

LT-COMBO are regularly produced with pallet in following sizes: 3.000 x 4.500 mm - 3.000 x 6.000 mm - 3.000 x 8.000 mm allowing to manufacture components in larger size but also to cut components out of more small and medium size sheets in order to run the machine for several hours (also during a night shift) without any operator.



BLM GROUP



LASER CUTTING FOR SHEET AND TUBE

tube bending

endforming

lasertube cutting system

sawing, deburring and washing

cutting & end machining

handling

3d measuring

manufacturing cell

non touch measuring systems

process control software

ADIGE-SYS

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