

LT7
LASERTUBE



BLM GROUP

ENG

WWW.BLMGROUP.COM



LT7 THE NEXT GENERATION LASERTUBE

MEETING POINT
OF ALL TUBE LASER
CUTTING EXCELLENCES



Processable round tube:
min. 12 mm (0.5") - max. 152.4 mm (6")

Processable square tube:
min. 12 mm (0.5")
max. 152.4x152.4 mm (6"x6")

Open and special profiles

Max. linear weight 23 kg/m (15.5 lb/ft)

All automatic settings

Bundle and single bar loading

Three unloading positions

3D cutting

3 kW fiber laser source

LASERTUBE LT7: THE BENCHMARK FOR LASER-CUTTING TUBES AND SECTIONS

BROAD WORKING RANGE in terms of weight, diameter and type of tubes that can be worked. Standard sections, special sections and open profiles can be cut with freedom of operation and extreme simplicity in all cases.

EFFECTIVE PRODUCTIVITY resulting from a high degree of mechanical rigidity and unprecedented axis accelerations.

EASE OF USE and of maintenance using new proprietor technical solutions which support the operator in everyday use.

FLEXIBILITY OF USE. Production start-ups and changes are entirely automatic, interdependent from the operator's level of expertise.

INTEGRATION CAPABILITIES in the production process by exploiting extended programming and remote monitoring functions.

QUALITY AND ACCURACY OF PARTS consistent even when quality and shape of the bars is not.

BROAD WORKING RANGE: MORE OPPORTUNITIES TO BE EXPLOITED

THE ADVANTAGE OF WORKING, WITHOUT COMPROMISE

With the LT7, you can equally and easily cut round, square and rectangular tubes, special sections and open profiles weighing up to 23 kg/m (15.5 lbs/ft) and with a diameter from 12 mm to 152.4 mm (6") all within the standard capabilities of the machine.



EXTREME FLEXIBILITY WITH THE POSSIBILITY OF LOADING ONE OR A FEW BARS ON THE FLY

The loading chains can be extracted in a few seconds from the rear loader and are suited to connect the machine to external robotized loading systems and automatic stores.

LT7 IS IDEAL FOR QUICK CHANGES OF PRODUCTION

At the end of each batch, the machine configures itself for the next one: the loader, the rear spindle, the front steady rest and the intermediate supports adapt automatically to the new sections to be made - round, square, special and even open profiles.

PRODUCTIVITY: A NEW BENCHMARK



HIGH MACHINE DYNAMICS

The mechanical stiffness of the system as a whole means being able to keep acceleration high in all conditions, without compromising processing accuracy. Cutting technology has evolved with new active devices and sensors which adapt the process to the material conditions for fast cutting speed and high accuracy.

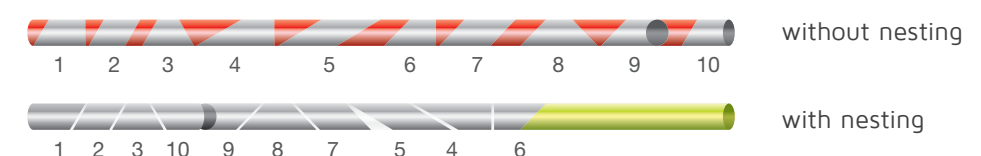
PROCESS CONTINUITY

No manual adjustments are needed to start a new production.

All these advantages result in more parts in the box at the end of the shift and a lower cost per part at the end.

OPTIMIZED MATERIAL USE WITH NESTING FUNCTION

Part arrangement on the bar is optimized by the machine to minimize end scraps. Each bar is measured before it is processed. The parts to be cut are arranged using the nesting function according to the required logic and any differences with respect to the expected length are also solved.



EASE OF USE: EXCELLENCE WITHIN EVERYONE'S GRASP

Exclusive patented technical solutions automatically adapt the working parameters to guarantee the best results faster and independently from the operator's experience.



ACTIVE FOCUS

Error-free changes of material and thickness.



ACTIVE SCAN

An effective solution for eliminating errors induced by distorted tubes.



ACTIVE MARKING

Dynamic part marking for complete production traceability.



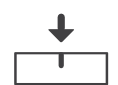
ACTIVE SPEED

For a higher cutting quality also on the most critical jobs.



ACTIVE PIERCING

For considerable increase of productivity on thicker parts.



ACTIVE WELD

Automatic position of the weld seam.

QUALITY AND ACCURACY: GUIDE AND SUPPORT WHEN IT IS NEEDED



SHORT OR LONG PARTS: THE UNLOADING SYSTEM CHANGES, THE QUALITY REMAINS THE SAME.

Parts always rest on the unloading bed which moves vertically and in synch with the bar movement.

An additional support is automatically activated for long parts to provide additional support and side containment, to the benefit dynamic performance of the machine. The cut parts are accompanied without

colliding or falling towards the front or rear part of the machine by exploiting a pivoting movement of the unloading bed.

LIGHT OR HEAVY TUBES: IMPECCABLE RESULTS EVERY TIME.

The intermediate supporters along the working line integrate special patented templates which are automatically adjusted according to the tube to be cut. Light and flexible tubes are provided additional guiding and side containment during fast rotations. Heavy and stiff tubes are totally free to move using the integrated steel cylindrical roller.



ERGONOMICS: VALUE YOU WILL APPRECIATE DAY AFTER DAY



3 | OPERATOR POSITION

Access to production data is easy and conveniently displayed from the adjustable console. A large door is provided to inspect the cutting area.



1 | SCRAP MANAGEMENT

The scrap from the processed geometries is automatically removed through the suction in the spindle. The spindle is then automatically emptied without interrupting production.

2 | ACCESS TO THE WORKING LINE

Double sliding doors provide access to the entire working line. Immediate manual loading of single bars.

4 | BUNDLE LOADING

Bundle loading is automatic and no manual adjustments are needed to change the section. For small run, for instance, the loading chains can be opened and the bars can be loaded in sequence.

5 | PART PICKING

The cuts parts are controlled during the unloading process to ensure they are not dropped or damaged and are brought to the correct location every time.

6 | TRIMMING AND SCRAP

Trim-cut and scrap material is kept separate from production material. A motorized belt extracts them from the cutting area and transports them into an independent box. The belt may be programmed as third unloading position.

7 | UNLOADING TO MULTIPLE POSITIONS

Unloading can be programmed on the front side and on the rear side of the machine to speed up production and reduce the frequency of box changes.

PROTUBE

PLANNING AND PRODUCTION ALWAYS UNDER CONTROL

PROTUBE
EXPRESS/ENTERPRISE

BLM GROUP system monitoring.
Creating and sending orders,
estimating production times and
monitoring progress in real time.



MAKE ACCURATE TIME AND COST ESTIMATES

Protube in a few seconds provides accurate estimates of the processing time and cost for an entire production batch to obtain reliable estimates and to compare different manufacturing strategies.



PREPARE WORK ORDERS AND SEND THEM TO THE MACHINES

Gain in efficiency with Protube by exploiting the possibility of organizing machine programs in work orders and sending them to each connected system.



REMOTE MANAGEMENT

The Enterprise version adds:

- real-time production progress monitoring
- system operating statistics
- estimated time remaining before batch change
- centralized management of processed batches, work orders and jobs accessible from any workstation for new launches or updating.

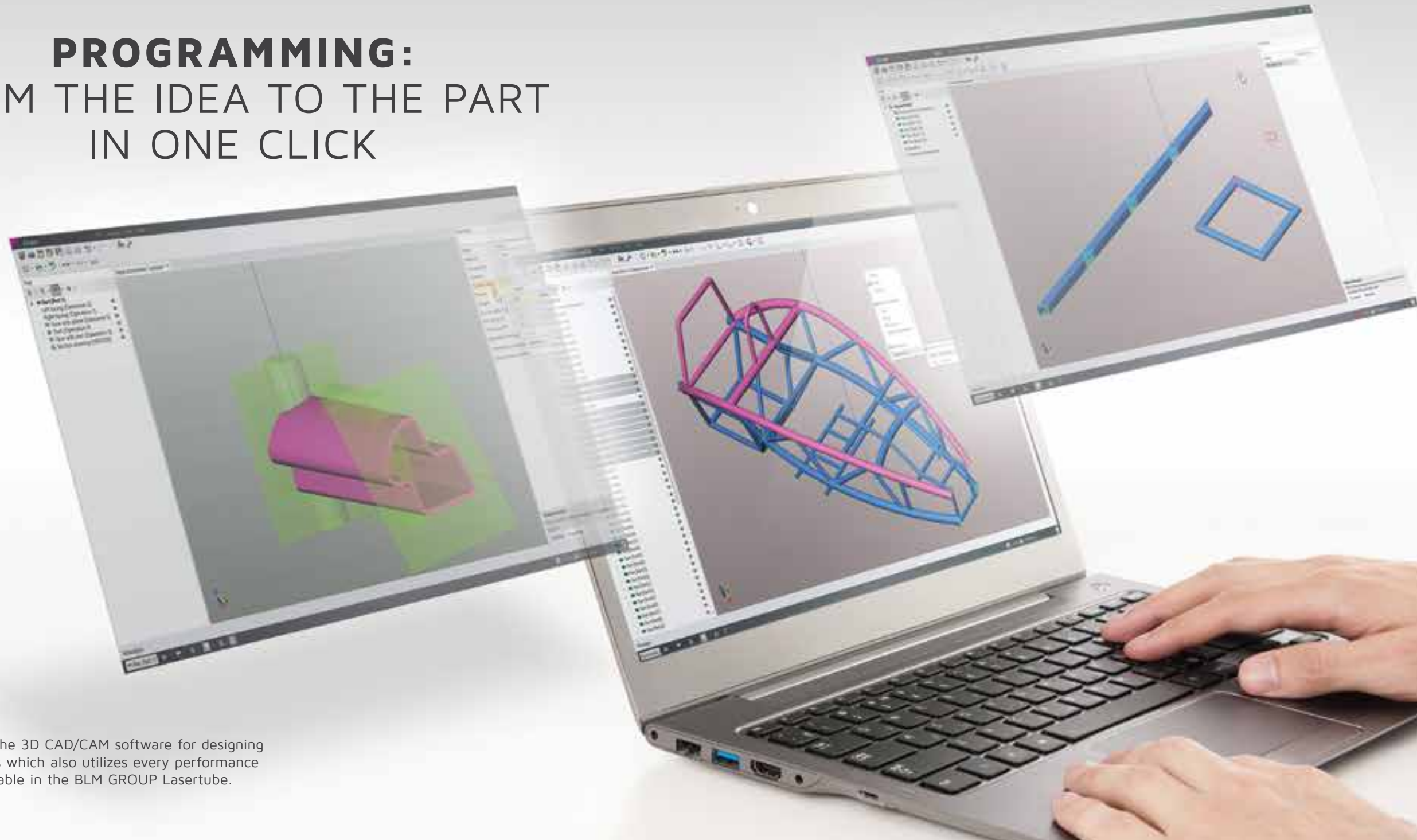


INTEGRATION WITH ERP SYSTEM

Production lists can be sent from the ERP system to Protube that will automatically distribute the work orders to all the BLM GROUP machines connected to each concerned technology.

With the Enterprise version, all the data returning from production will again be made available to the management system.

PROGRAMMING: FROM THE IDEA TO THE PART IN ONE CLICK

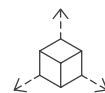


ARTUBE is the 3D CAD/CAM software for designing tubular parts which also utilizes every performance margin available in the BLM GROUP Lasertube.



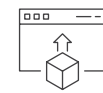
ALL THE CONTROLS YOU NEED TO DRAW A NEW PART ARE AT YOUR FINGERTIPS

Enter the tube dimensions, add the various cuts and go straight to production. In Artube, you can process special sections as if they were standard.



FROM SINGLE PART TO COMPLEX STRUCTURES

The design of a frame is performed without errors thanks to the possibility to see every detail with a clear three-dimensional graphics.



IMPORT 3D MODELS AND TRANSFORM THEM INTO PART PROGRAMS RIGHT AWAY

The import of the 3D models (STP, IGES, XT and IFC) is obtained with a single mouse click. After importing, the previously entered jobs can be entered and new ones can be added as if the imported model was entirely designed in Artube.



THE CUT-BENDING OPTION TAKES TUBE THICKNESS AND DIMENSIONS INTO ACCOUNT

Use the cut-bend function to reduce the number of parts and simplify the later assembly and welding phases. Artube manages straight and bent tubes. Just click to replace a bend with a bend-cut and vice versa.



INTEGRATION IS ALL ABOUT TEAM WORK

BLM GROUP systems implement all the features needed to meet Industry 4.0 requirements.

- they are open to integration with handling systems (robotized stores and loading and unloading solutions) and processing systems (multi-technology processes).
- they can be integrated in the production process.

They generate data and provide information for estimating, ordering materials, planning, monitoring progress and productivity.

Each machine receives and runs manufacturing orders sent by the company (ERP) and sends back statistics for use and efficiency.

ALL-IN-ONE TUBE TECHNOLOGY

BLM GROUP knows the tube processing technologies very well and knows how to integrate them by compensating and optimizing the effects (elongation, elasticity, etc.) that the tube will undergo in the different automatic machining phases, thus ensuring compliance with the geometric characteristics of the finished part.

There is only one single point for managing the entire production process for all steps: **laser cutting on straight tube > bending > laser cutting on bent tube.**

LASER CUTTING
ON STRAIGHT TUBE

BEND A LASER
OR SAW CUT TUBE

LASER CUTTING
ON BENT TUBE

SERVICES

THERE IS ALWAYS SOMEONE AT HAND



SALES NETWORK

The sales network is constantly available to provide support and consultancy on how to make production more efficient. An expert who speaks your own language will answer all your questions.





CUSTOMER CARE

The customer care and support service provided by BLM GROUP expert technicians will take on and solve all situations of need very easily.



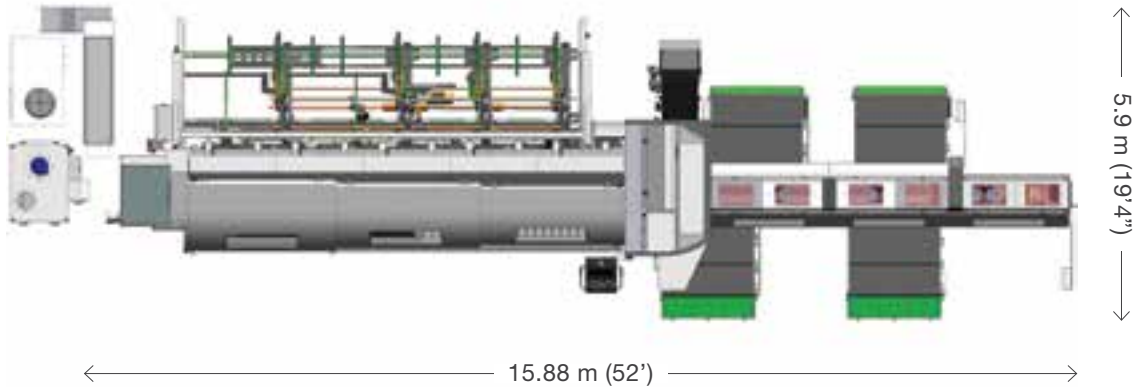
WORLDWIDE ASSISTANCE NETWORK

Choose the support point closest to you
A subsidiary, an agent or an exclusive service centre will provide customized services employing local personnel who is continuously trained by the headquarters.

LT7

TECHNICAL SPECIFICATIONS

Technical characteristics	
Round tubes (mm)	min. 12 - max 152,4 (0.5" - 6")
Square tubes (mm)	min. 12 x 12 - max. 152,4 x 152,4 (0.5" - 6")
Rectangular tube (mm)	max. diagonal 215 (8.5") - side min. 12 (0.5")
Machinable materials	mild steel, stainless steel, aluminium, copper, brass
Bar weight (kg/m)	max. 23 (15.5 lb/ft)
Bundle loading length (m)	min. 1,9 - max 6,5 o 8,5 (min. 6'3" - max. 21' or 27")
Unloading length (m)	4,5 - 6,5 - 8,5 (15' or 21' or 27')
Bundle loading capacity (kg)	5000
Laser source power (kW)	3 (Fiber)
Average drawn power (kW) (O ₂ /N ₂)	16/21



LASERTUBE CUTTING SYSTEMS

tube bending
endforming
sawing, deburring and washing
cutting and end machining
combination sheet and tube lasers
handling
manufacturing cells
process control software



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