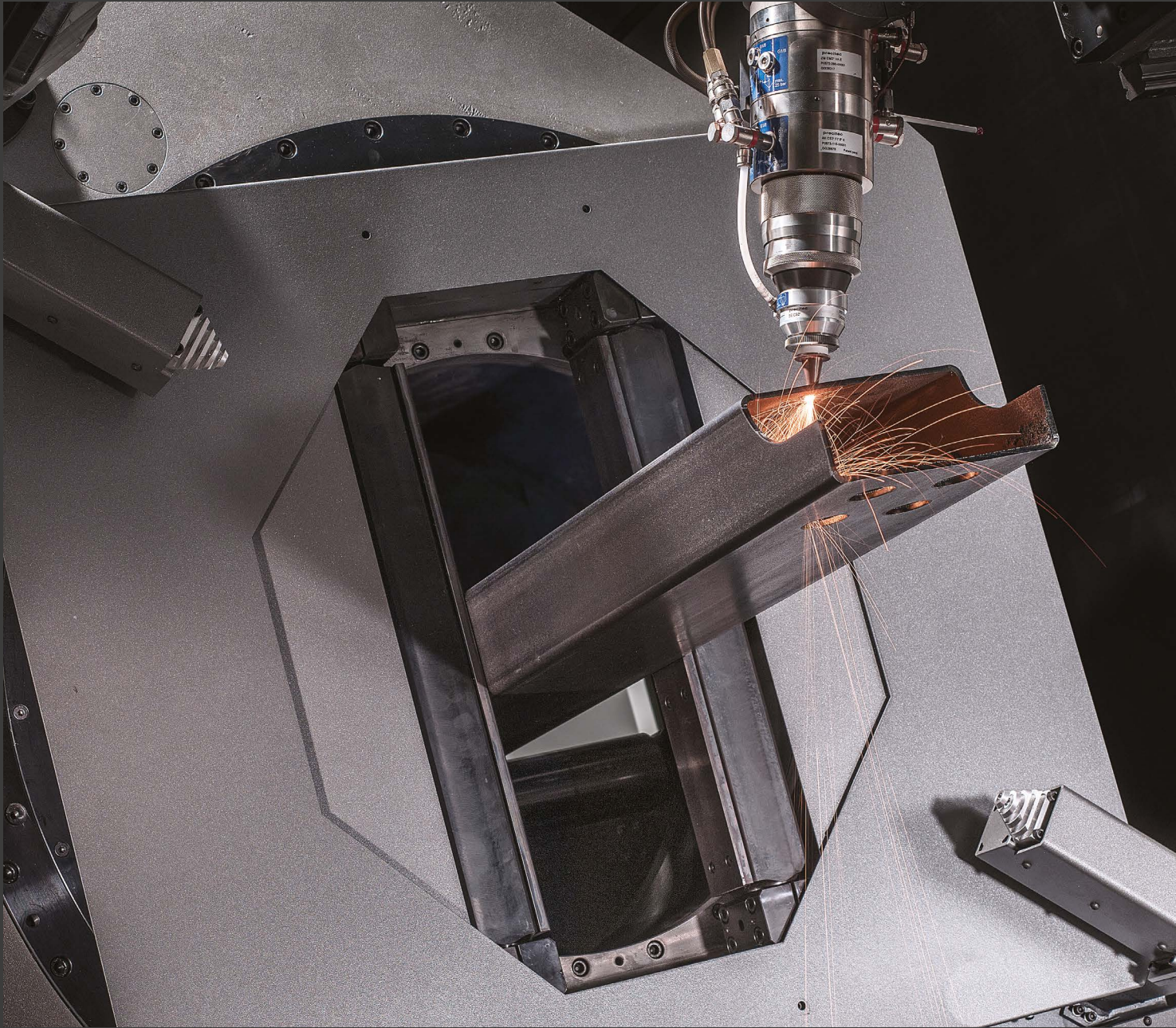


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LASERTUBE LT14 - LT24

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BLM GROUP

BLM GROUP

The Group's experience and strength

BLM GROUP has been dominant in the tube processing sector for over 60 years supplying bending, endforming, cutting to length and, more recently, laser cutting solutions for tubes. BLM GROUP laser cutting solutions are successfully

used in wide range of applications such as: furniture, automotive, industrial vehicles, agriculture machinery, construction, structural steel systems and major fabrications.

CREATING VALUE WITH ENTHUSIASM

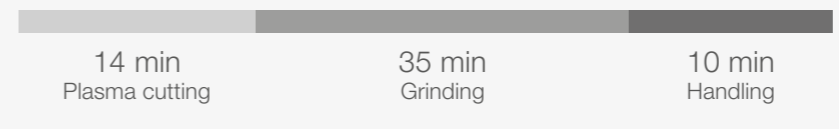
- over 1300 installed Lasertube systems
- over 25 years of tube laser cutting developments
- integrated design and production environment
- a complete range of laser machines and systems for processing the widest variety of sections, materials and thicknesses.



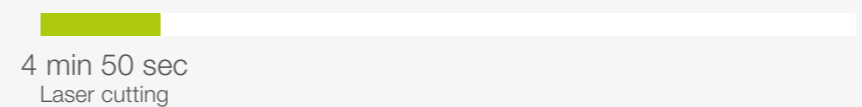
Quick turnaround time

Laser tube cutting dramatically reduces processing time, particularly for large parts, while guaranteeing excellent final accuracy.

Conventional technology **Final accuracy ± 5 mm**



Lasertube technology **Final accuracy ± 0.1 mm**



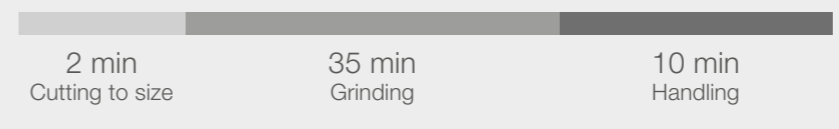
Part cost -40%



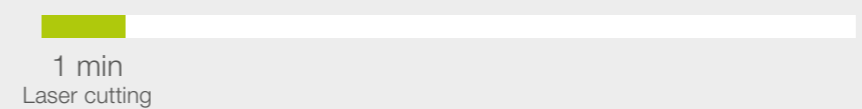
Frames and structures

Multiple tube rests allow intricate designs for frames and tubular structures - ideal laser cutting applications.

Conventional technology **Final accuracy ± 2 mm**



Lasertube technology **Final accuracy ± 0.1 mm**



Part cost -30%



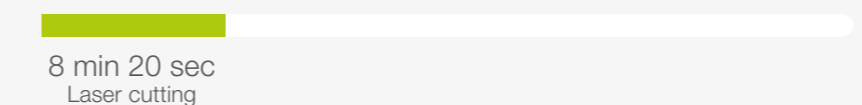
Simplified assembly

The use of open profiles and special sections simplifies assembly and reduces final construction costs.

Conventional technology **Final accuracy ± 3 mm**



Lasertube technology **Final accuracy ± 0.1 mm**



Part cost -25%

LT 14

Large size for large diameters

The loading system chains feed tubes and profiles continuously. Independent loading during laser cutting.



An operator station is positioned near the cutting enclosure for ease of supervision of the entire system.

The cutting process can be observed through large windows engineered to guarantee total process safety. A camera network is also available; the camera feed is shown directly on the operator interface.

LT 14

Ø max 355 mm (14")

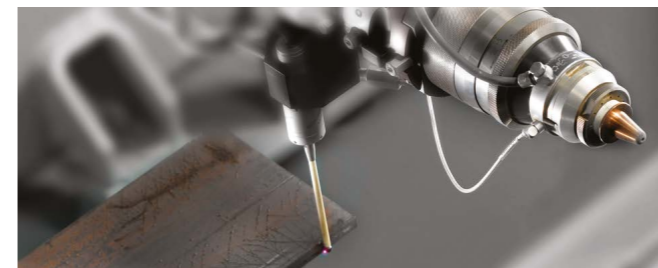
- processes tubes weighing up to 100 kg/m (67 lbs/ft)
- automatic handling system loads and unloads tubes up to 15.5 m (50') in length
- fully automatic settings
- 3D cutting
- processes open sections (angles, channels, columns, flats etc.) and special profiles

Parts are unloaded in a controlled manner without impact or free-fall and the machine continues processing the next component during unloading operations.



Cutting head

The tilting cutting head can perform inclined cuts, weld preparations and chamfered holes without needing to move the tube, ensuring higher productivity and better cut quality.

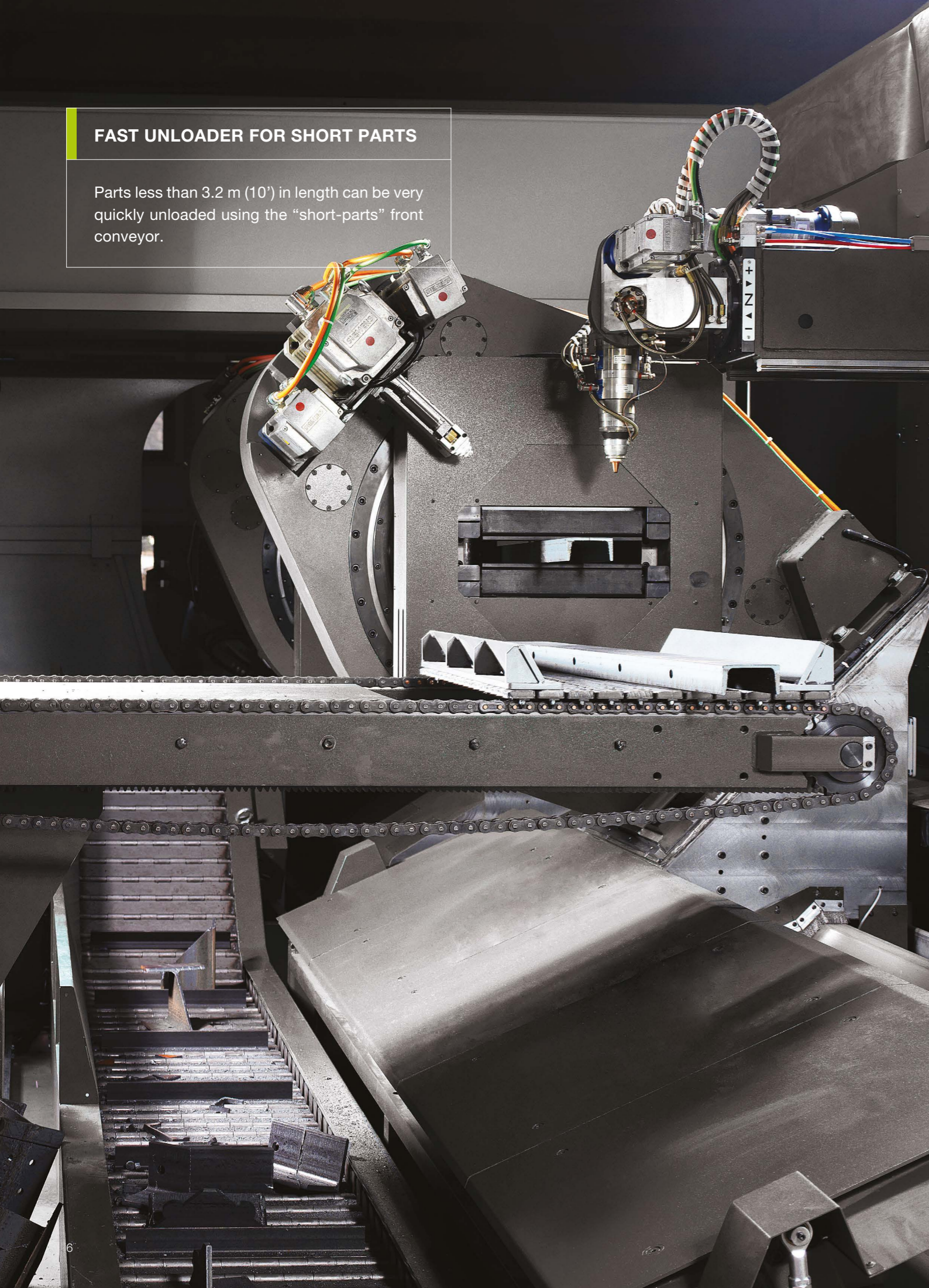


Integrated probe advantages

An integrated inspection-probe on the cutting head measures and compensates for tube distortions to ensure cut features are positioned within the required tolerances.

FAST UNLOADER FOR SHORT PARTS

Parts less than 3.2 m (10') in length can be very quickly unloaded using the "short-parts" front conveyor.



LT 14

Performance and flexibility

Scrap evacuation

A steel belted scrap-conveyor automatically removes the scrap into a collection bin outside the system.

Tube support loading handlers

The tube loading arms double up as intermediate supports when the tube is placed in the cutting line minimizing any distortion caused by the tube weight during its movements in the cutting cycle.



The opportunities of laser

THE ADVANTAGES OF LASER

- automatic handling
- manufacturing process simplification
- machining accuracy and part repeatability



Universal laser use

The laser is a universal tool and can machine the widest variety of sections, materials and thicknesses without the need to re-tool the machine.

3D cutting

In 3D cutting mode the machining of the chamfer for weld preparations can be completed.

Round tube Ø	min. 25 mm (1") - max. 355 mm (14")
Square tubes	min. 25x25 mm (1"x1") - max. 260x260 mm (10"x10")
Rectangular tube	min. 25x25 mm (1"x1") - max. 300x200 mm (12"x8")
Open profiles	min. 80x80 mm (3.2"x3.2") - max. 260x260 mm (10"x10")
Maximum cutting thickness	max 16 mm (0.6")



The end cuts and cut features along the length of the tube are machined on a single machine, in a single cycle, with a single tool, eliminating the traditional multiple machine process and handling between them.

LT 24

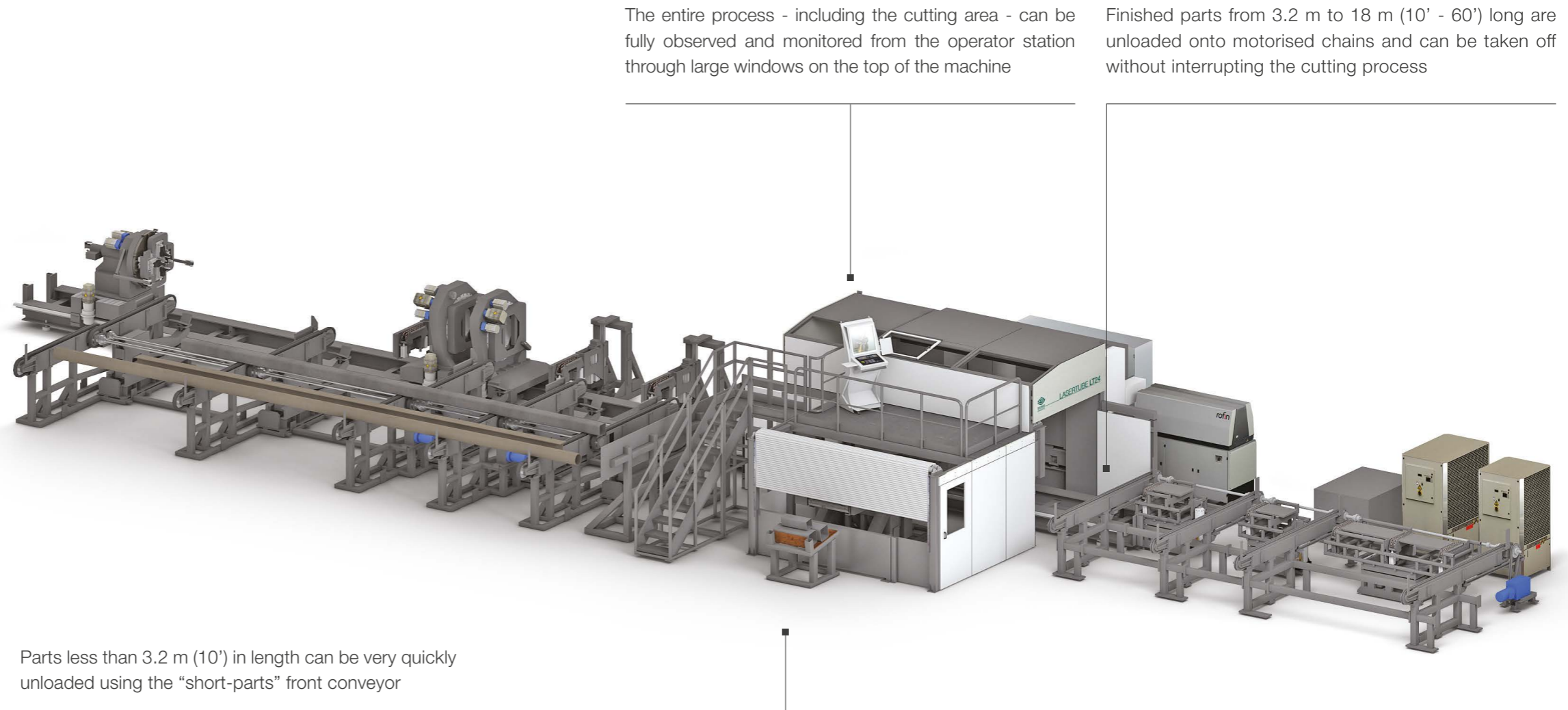
The right solution for heavy fabrication

LT 24

Ø max 610 mm (24")

- processes tube weighing up to 300 kg/m (200 lbs/ft)
- automatic handling system loads and unloads tubes up to 18 m (60') in length
- 3D cutting
- fully automatic settings
- processes open sections (angles, channels, columns, flats etc.) and special profiles

The cross-loading chain system for the tube loader can be configured with single or double chains, the double chains allow a pause in the loading cycle to separate the stock lengths



The entire process - including the cutting area - can be fully observed and monitored from the operator station through large windows on the top of the machine

Finished parts from 3.2 m to 18 m (10' - 60') long are unloaded onto motorised chains and can be taken off without interrupting the cutting process

Parts less than 3.2 m (10') in length can be very quickly unloaded using the "short-parts" front conveyor



Unloading conveyor

The short-part unloading conveyor also tracks the vertical movement of the tube profile during the cutting operations for better support and prevents parts free-falling and causing damage.



Cutting head

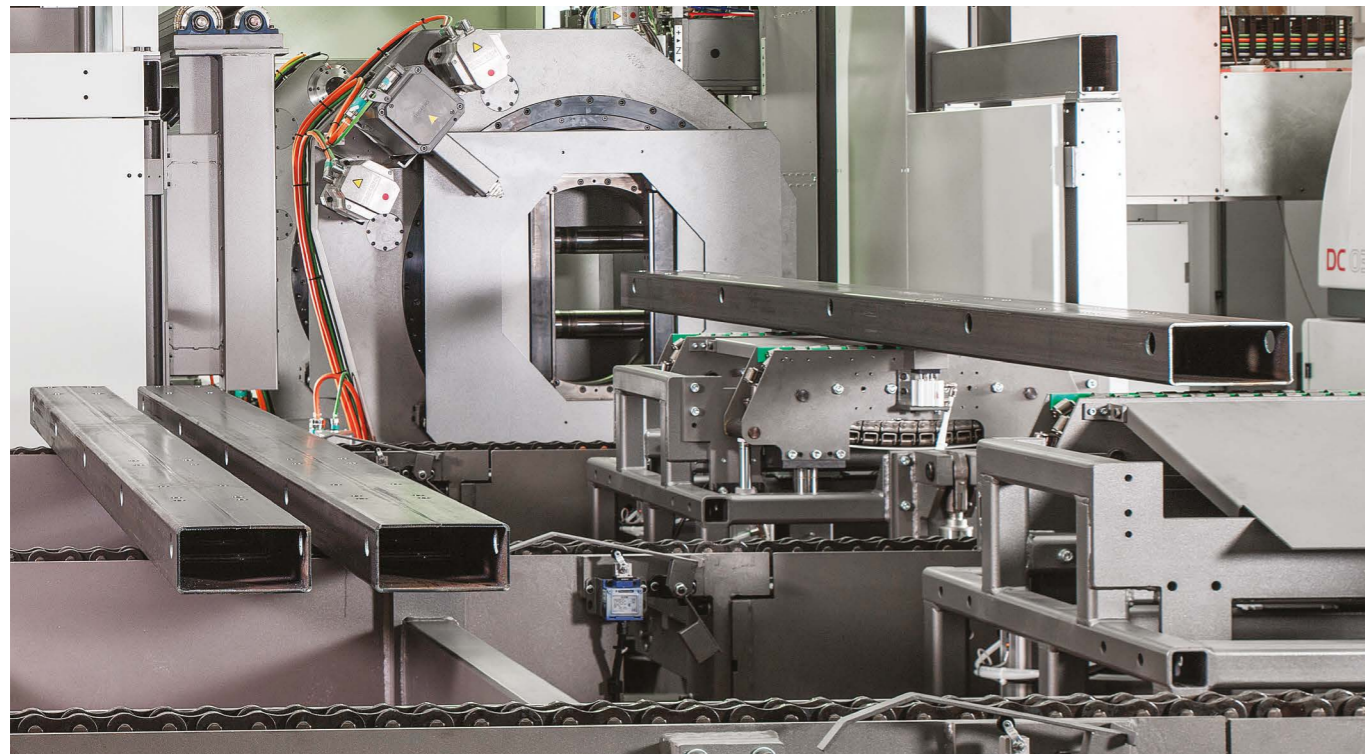
The cutting head can process both ends of the tube and machine between the tube support spindles, allowing the whole tube length to be machined with minimum or no scrap.

LT 24

Automation makes everything easier

SHORT PART UNLOADING

The short-part unloading conveyor also tracks the vertical movement of the tube profile during the cutting operations for better support and prevents parts free-falling and causing damage.

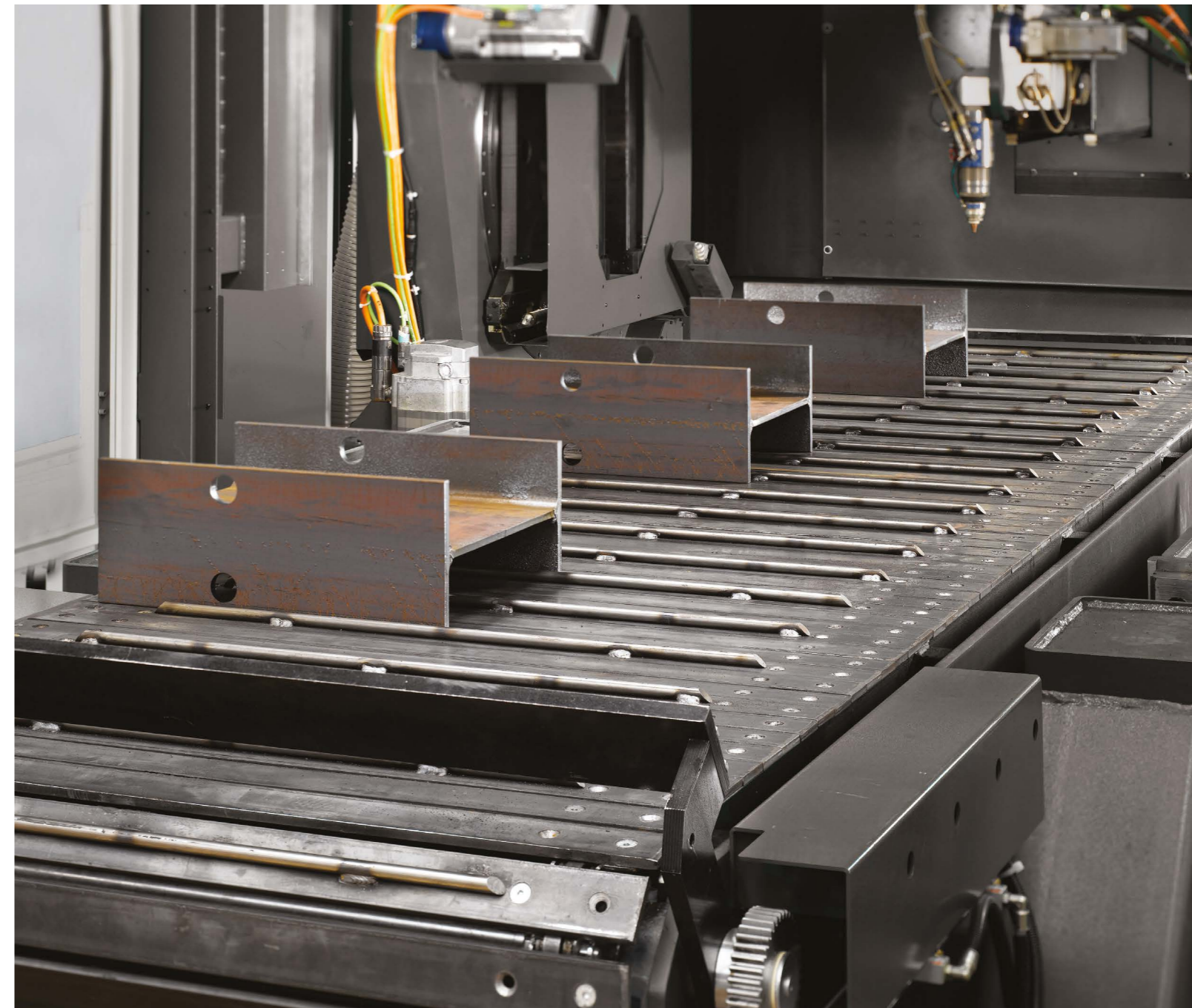


The advantages of part unloading beds

On the unloading side, the motorized supporting surfaces receive the finished parts and carefully place them on the take-off chains. The unloading surfaces follow and support the tube profile during rotation to limit deformations and support movements.

Handling of profiles to be manufactured

The possibility to machine all standard tubular sections and open profiles on the same machine set-up allows the user to switch rapidly from one job to the next.



The opportunities of laser



Minimal thermal alterations to the laser-machined surfaces because the laser transfers much less heat to the material than other technologies (plasma, oxygen cutting)

THE ADVANTAGES OF LASER

- parts and frames of any complexity
- preparation for welding
- small or large batches
- no special tools needed

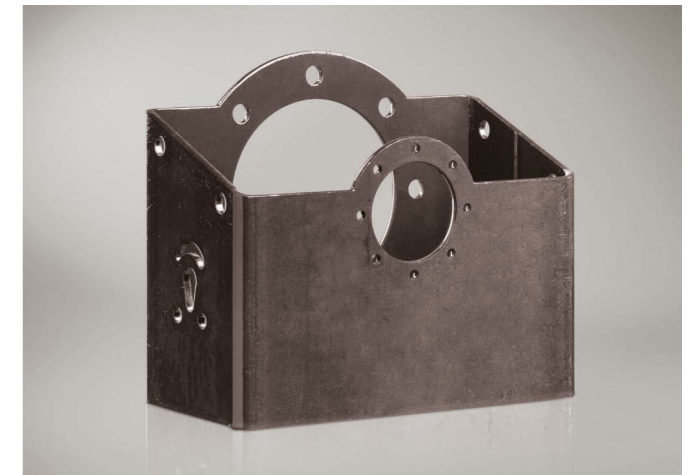
Flat bar cutting

Laser cutting parts out of flat bar instead of flat sheet reduces cycle times, saves material, and eliminates the need to separate finished parts from the flat sheet.



Non-stop production

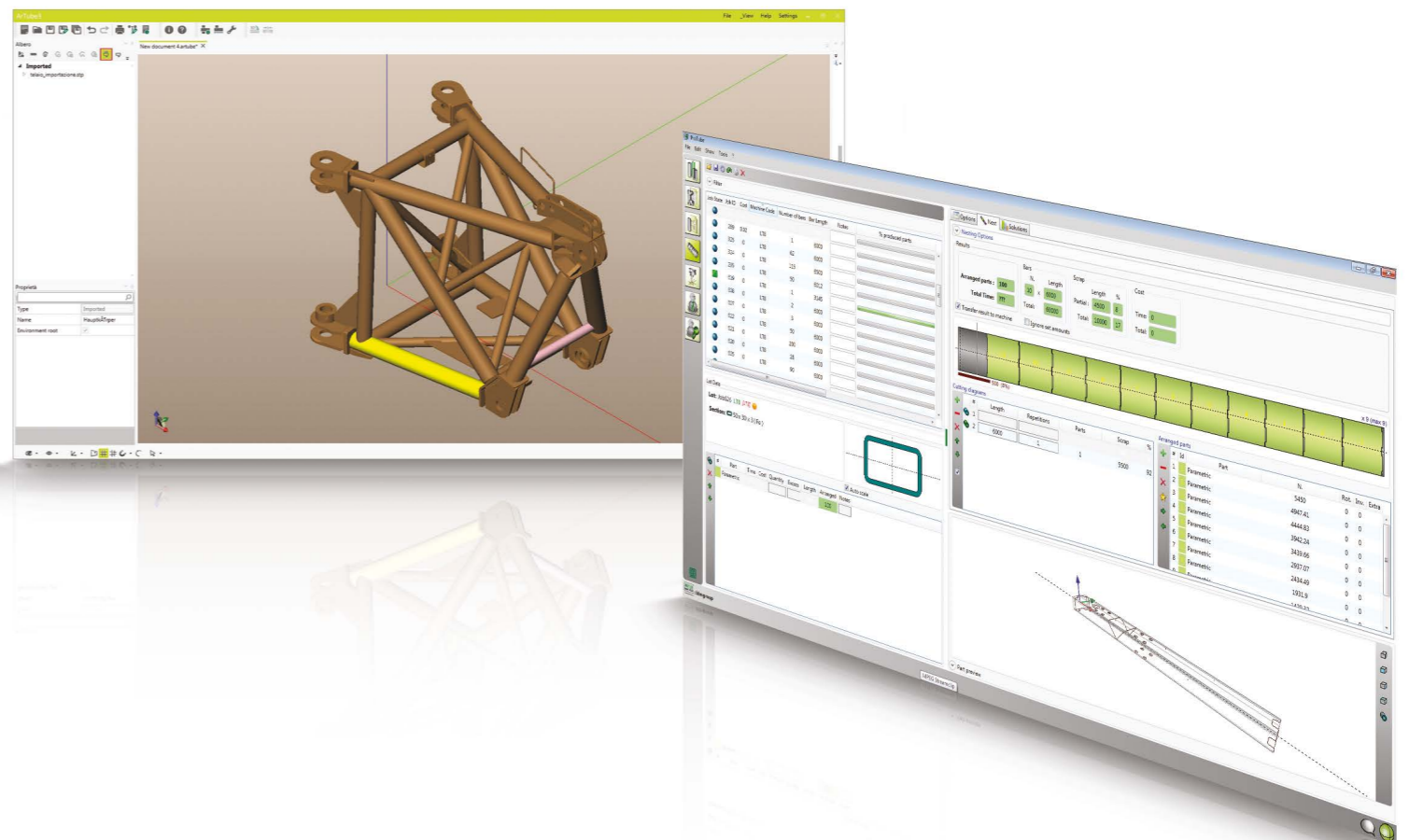
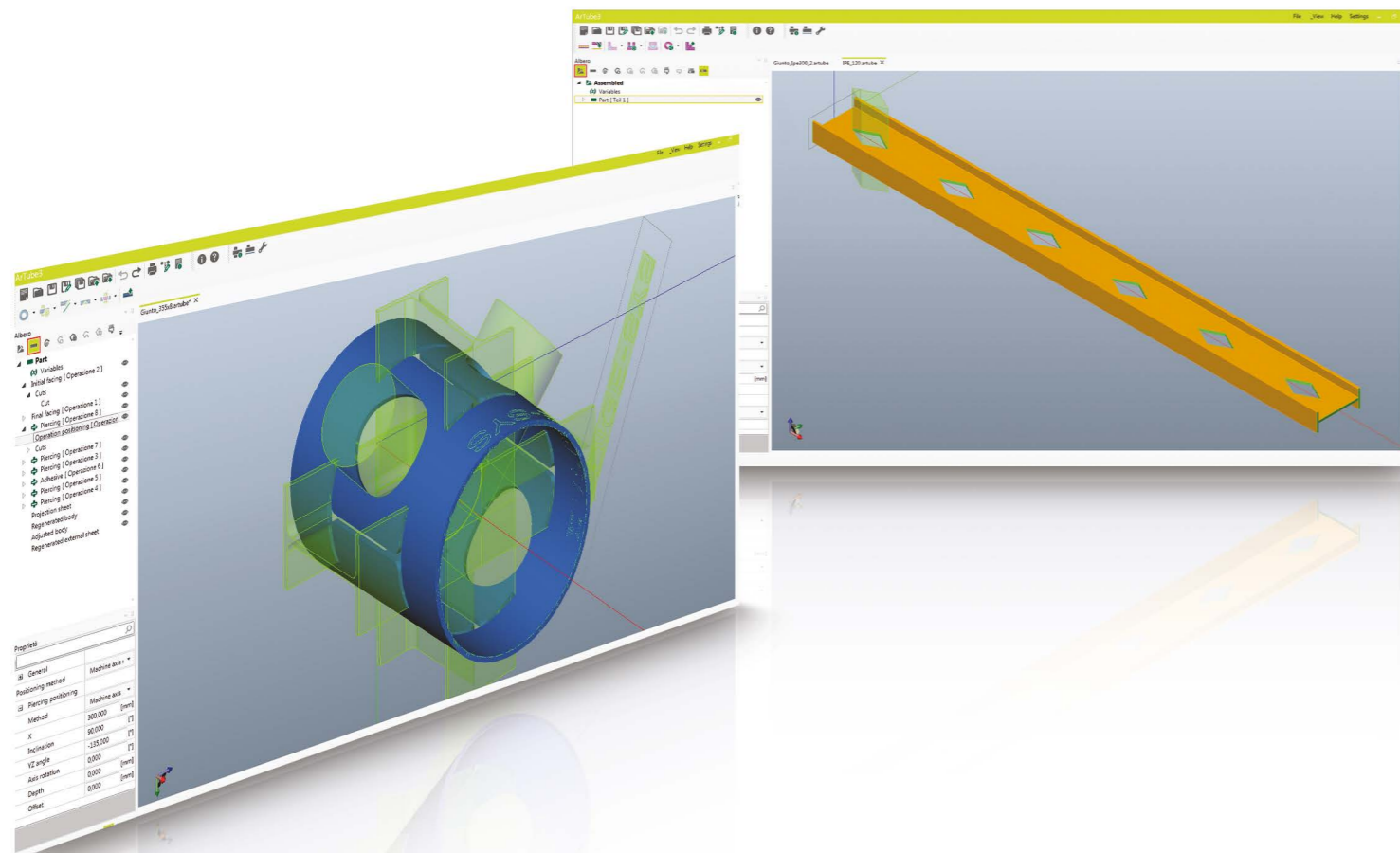
Unlike other technologies, the high degree of automation within the entire process and absence of any tool wear allows a continuous and stable production with minimal supervision.



Round tube Ø	min. 55 mm (2.2") - max. 610 mm (24")
Square tubes	min. 55x55 mm (2.2"x2.2") - max. 400x400 mm (15.75"x15.75")
Rectangular tube	min. 55x55 mm (2.2" x 2.2") - max. 500x300 mm (19.7" x 11.8")
Open profiles	min. 80x80 mm (3.2" x 3.2") - max. 500x300 mm (19.7" x 11.8")
Maximum cutting thickness	max. 16 mm (0.6")

SOFTWARE

Designing and manufacturing



Parts can be drawn or files imported directly from other CAD programs and are then automatically translated into the most efficient part programs.

Going from the idea to the part is quick and easy by using a fully three-dimensional, parametric system.

Standard sections, special sections and open profiles can be programmed in a simple, user-friendly manner.

Frames and complex structures can be created using one or more sections of any type at the same time.

Automatic jointing between tubes of different

diameter, thickness and shape simplifies the assembly of frames and structures.

Effective compacting techniques - called nesting - can be pre-prepared off-line to minimize scrap.

Drawn parts may be viewed rapidly with all of the required geometries before transferring the part program to the machine.

Product batches consisting of one or more parts, each with respective quantities, can be defined using the part program archive.



Service anytime, anywhere

When required, a two-way video connection can be established with the machine operator to simplify troubleshooting, to perfect the machine's performance and improve application solutions.



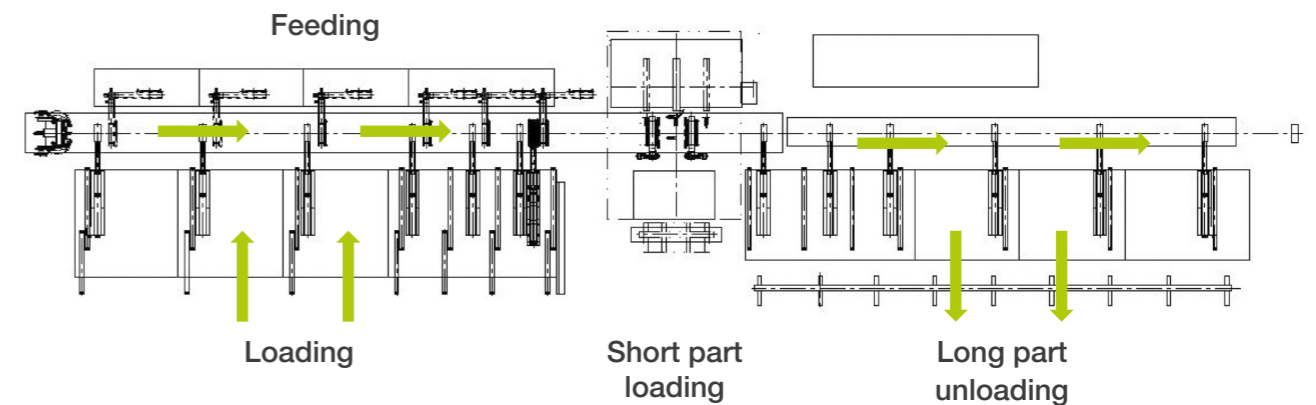
All BLM GROUP systems can be linked up to our service technician's network for immediate help and a rapid fault diagnosis and repair.

BLM GROUP is present worldwide with a local support and service network to ensure the very best performance and quality of all our installed systems.

THE ADVANTAGES OF LASER

A tube laser cutting system concentrates all the jobs in to one step which would otherwise be distributed on several traditional machines. Single set-up; no tool wear, unlike traditional plasma cutting and/or stock removal. Time saved as a result of process simplification (also in terms of design and programming) means significantly lower cost per part.

	24"	14"
Round tubes diameter	min. 55 mm (2.2") max. 610 mm (24")	min. 25 mm (1") max. 355 mm (14")
Square tubes	min. 55 x 55 mm (2.2" x 2.2") max. 400 x 400 mm (15.75" x 15.75")	min. 25 x 25 mm (1" x 1") max. 260 x 260 mm (10" x 10")
Rectangular tubes min	min. 55 x 55 mm (2.2" x 2.2") max. 500 x 300 mm (19.7" x 11.8")	min. 25 x 25 mm (1" x 1") max. 300 x 200 mm (12" x 8")
Open profiles	min. 80 x 80 mm (3.2" x 3.2") max. 500 x 300 mm (19.7" x 11.8")	min. 80 x 80 mm (3.2" x 3.2") max. 260 x 260 mm (10" x 10")
Maximum cutting thickness	max 16 mm (0.6")	
Standard materials	mild steel, stainless steel (other materials available on demand)	
Min. loadable bar length	min 4 m (13') - max 18 m (60')	min 4 m (13') - max 15.5 m (50')
Min. long part unloading length	min. 3.2 m (10') - max. 18 m (59')	min. 3.2 m (10') - max. 15.5 m (50')
Short part unloading length to	up to 3.2 m (10')	
Laser source power	4 kW (higher on request)	
Settings	Fully automatic	



© Features, weights, measures, capacities and machine performance descriptions are not binding and may be changed without prior notice. The photographs are only examples.

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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