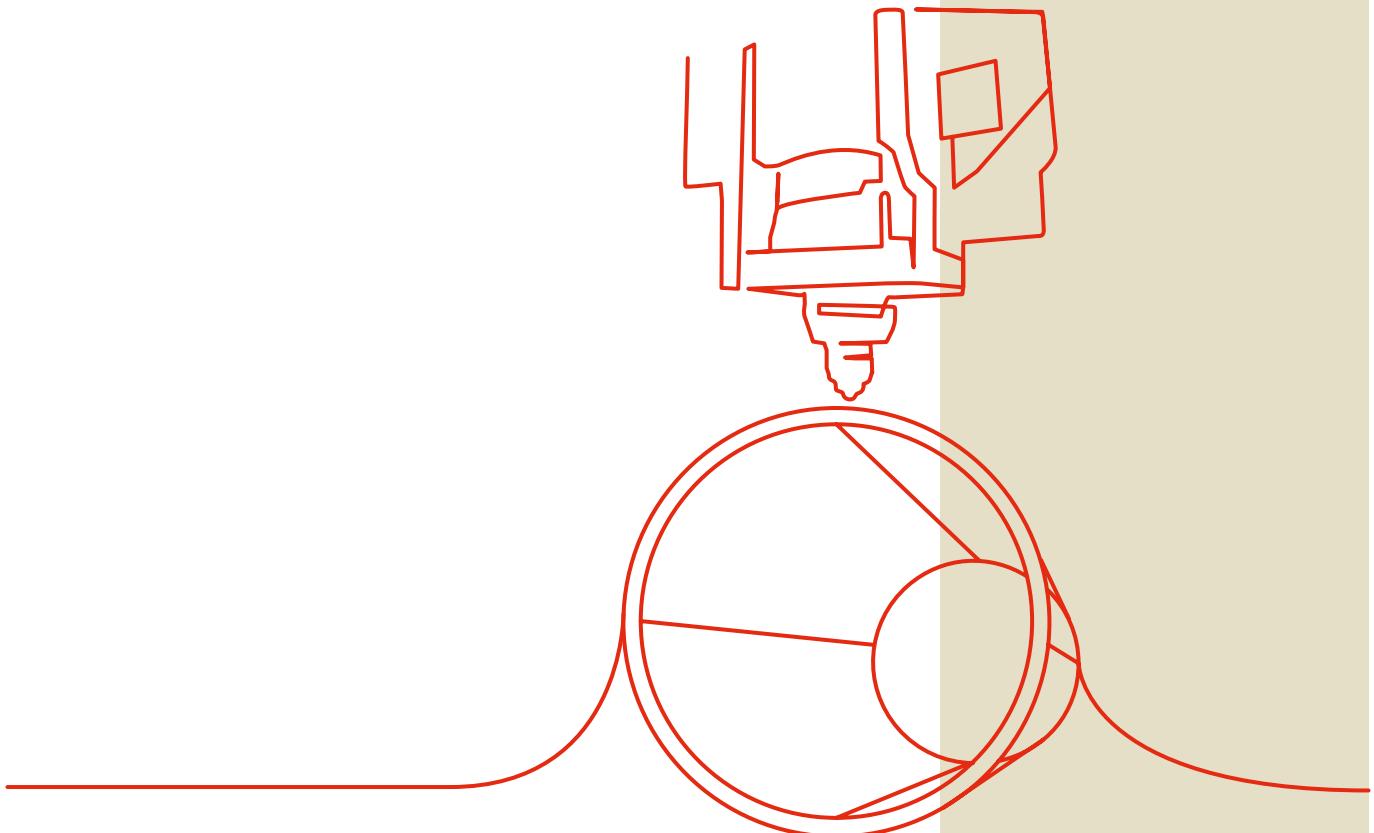


**Bystronic**



# Tube Processing

**Your best choice.**

[bystronic.com](http://bystronic.com)



## Limitless applications

The application of processed tubes and profiles is manifold. Whether in the automotive industry, furniture design, architecture, petrochemical industry or commercial vehicle construction.

In many industries, the laser-assisted processing of tubes and profiles offers an almost unlimited manufacturing spectrum for components and unique design possibilities.



Make the right choice for a manufacturing solution that meets your requirements today and in the future. Our specialists will be pleased to provide you with advice about Bystronic's versatile portfolio in the field of tube and profile processing.

No matter whether you have decided to introduce a new production technology or whether you are expanding your existing production range in the field of tube and profile processing with an additional machine, we will develop the optimum solution together with you. Backed by our expertise in metalworking and laser cutting, we are your reliable technology and service partner.





## Bystronic

Bystronic is a leading global provider of high-quality solutions for the sheet metal processing business. The focus lies on the automation of the complete material and data flow of the cutting and bending process chain. Bystronic's portfolio includes laser cutting systems, press brakes, and associated automation and software solutions. Comprehensive services round off the portfolio.

## 2D and 3D processing

The ability to choose between 2D and 3D laser cutting technology opens up the possibility of individually customized and precise cutting of parts in a very wide variety: tubes with round, square, and rectangular shapes as well as profiles with diverse open cross-sections (for example H, L, T, and U cross-sections). In addition to straight cutting edges, the 3D technology also enables bevel cuts up to 45 degrees. This versatility eliminates the need for costly milling, drilling, punching, or sawing processes.



# CO<sub>2</sub> laser and fiber laser technology

## The right cutting technology for every requirement

Depending on the materials that are to be processed and the desired cutting quality and level of productivity, users have the choice between CO<sub>2</sub> laser cutting systems and fiber laser cutting systems. Fiber lasers achieve high cutting speeds in thin material thicknesses. Additionally they boast low power consumption while requiring little maintenance. The special properties of this laser cutting technology enable applications in steel, stainless steel, aluminum, and non-ferrous metals, such as copper and brass.

CO<sub>2</sub> lasers are characterized by their high cutting quality. Their primary area of application lies in the medium to high range of material thicknesses. The cutting edges achieved with the laser beam excel through burr-free cutting and low scoring. This means that the cut parts can be processed further without reworking.

Type of machine	Laser sources				
	Fiber Laser			CO <sub>2</sub> Laser	
	Fiber 2000	Fiber 3000	Fiber 4000	Laser 3000	Laser 4000
ByTube Star 130	✓	✓	✓		
FL 170	✓	✓			
FL 300				✓	✓



## ByTube Star 330

**ByTube Star 330 is the large 3D fiber tube laser that ensures an efficient and flexible cutting process as well as an automatic sorting of the whole range of tubes. The modular large 3D Fiber tube laser – it doesn't matter which profiles or pipes, this machine cut all sizes.**

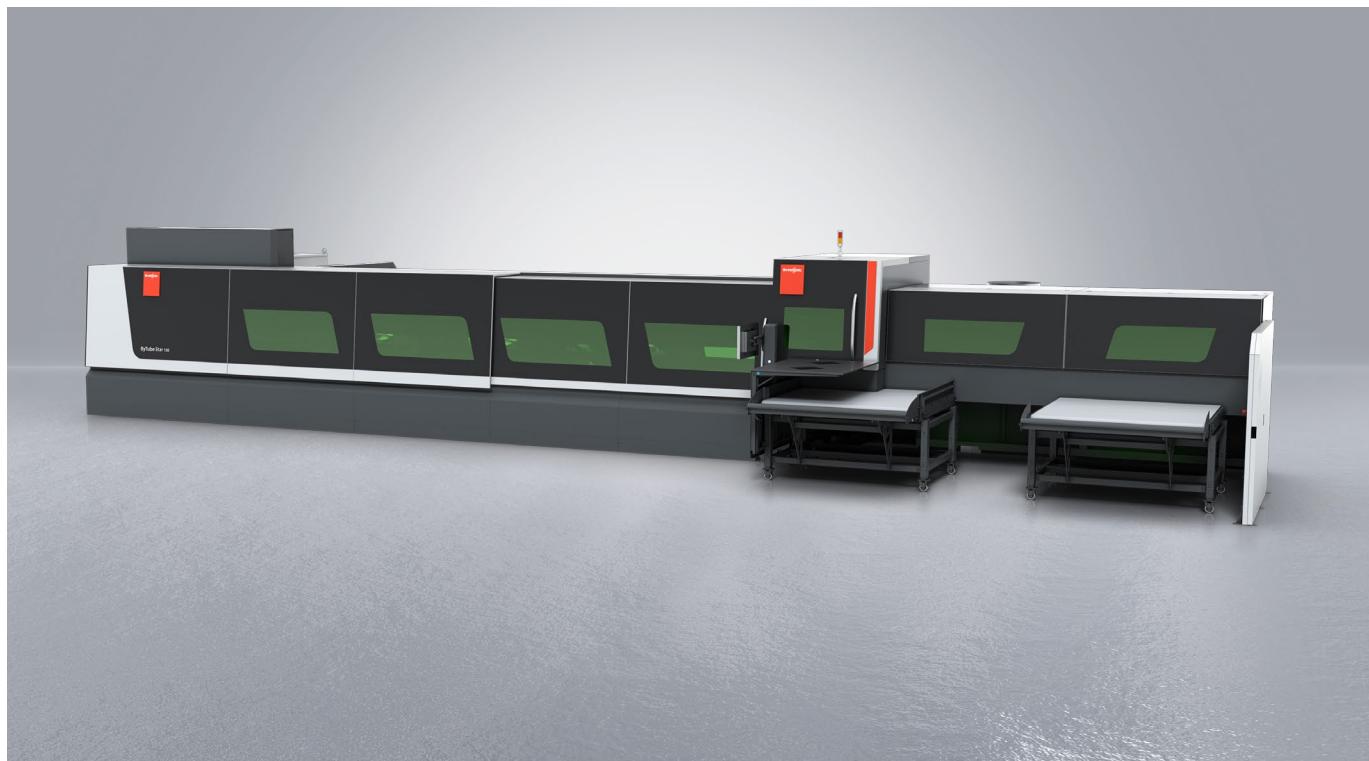
- Automatic set-up: The only medium to big machine in the market able to process automatically tubes/open sections in the entire range from 19 to 305 mm without set-up time (possible with minor manual set-up up to 324 mm)
- Low-manned production: The 24/7 low-manned production is granted by automatic loading/unloading solution and the possibility to change the set-up fully automated the cutting head and nozzle changer
- Highest power: To cut thick material at maximum speed. Highest process speed in the market for parts above 150mm and 30 kg/m
- Integrated automation: From storage to sorting without human intervention (whenever storage is available)
- Longest parts: Efficient unloading of parts up to 12.2 meters / 40 feet
- Sorting solution: The machine offers different flexible unloading positions for kit preparation of the entire range



- 1 Up to 12.8-meter tubes fit into the loading area.
- 2 The 3D cutting head cuts tubes and open sections with diameters ranging from 19 to 305 mm.

#### ByTube Star 330

Length	32,640 mm
Weight	40 t
Width	10,238 mm
Height	3,734 mm
Max. load	65 kg/m
Available loading length 01	12,800 mm
Available loading length 02	6,500 mm
Available loading length 03	9,200 mm



## ByTube Star 130

**Everything you need for your tube laser business. Quality and performance in one machine - now new with 4 kilowatts of laser power.**

### Customer benefits

- More power: The increased laser power of new 4 kilowatts ensures higher speed for increased productivity and higher quality overall
- Easy to get started: The proven technology and user-friendly interface make it easy for you to get started with tube laser cutting
- Fully automatic setup: From 10 to 130 mm, you have the full range even for open profiles and ellipses
- More time: No downtime for setup, so you have more time for cutting
- Feature Quick Cut: An additional linear axis of the cutting head offers you highest speed and quality under all cutting conditions
- Feature Laserscan: Real-time compensation of tube bending helps improve cutting precision



- 1 The "QuickCut" and "Laserscan" functions ensure an optimal process for tube processing
- 2 With the tried and tested BySoft Cell Control Tube user interface, Bystronic brings all functions relating to laser cutting of tubes to one touchscreen.
- 3 Flexibility and high productivity thanks to fast loading and unloading.



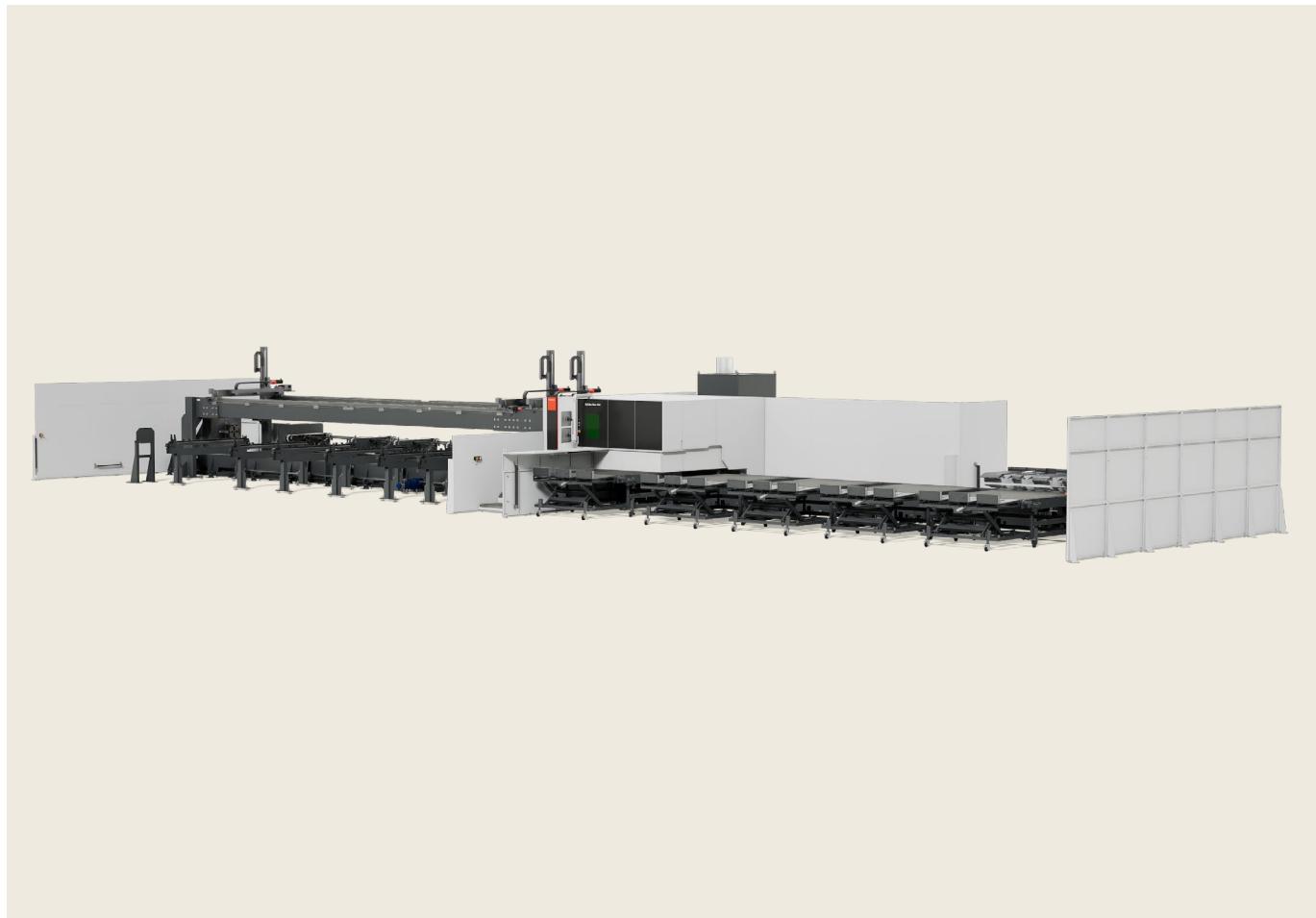
### ByTube Star 130

Dimensions round sections (min.–max.)	10 – 130 mm
Dimensions square sections (min.–max.)	10 × 10 – 130 × 130 mm
Dimensions other sections (min.–max. length of the sides)	10–130 mm
Dimensions rectangular sections (min.–max.)	10 × 10–130 × 130 mm
Max. tube weight	17 kg/m
Available loading lengths	6,500–8,500 mm
Available unloading lengths	2,000–4,000–6,100 mm
Cross-sections	round, square, rectangular, oval, standard open sections, standard closed sections
No. of controlled axes	8
Max. linear speed of axis X / Y / Z	200 / 60 / 60 m/min
Cutting head	2D
Numerical control	BySoft Cell Control Tube



# ByTube Star 330

## Technical Data





## ByTube Star 330

<b>Bundle Loading max capacity</b>	7.5 t
<b>Loading capacity of the chain loader</b>	4,160 kg
<b>Available unloading length 01</b>	12.2 m
<b>Available unloading length 02</b>	8.5 m
<b>Available unloading length 03</b>	6.1 m
<b>Dimensions round sections (min)</b>	19.05 mm
<b>Dimensions round sections (max)</b>	305
<b>Closed section not round inside box of (min)</b>	19.05 mm × 19.05 mm
<b>Closed section not round inside box of (max)</b>	260 mm × 260 mm
<b>Open profile as retrofit</b>	Open profiles inside box 19.05 mm × 19.05 mm up to 260 mm × 260 mm Open profile C + L + H (I)
<b>Option to reach for round closed section retrofit</b>	324 mm
<b>Laser Power</b>	6 kW
<b>Nitrogen Cutting + Oxygen Cutting</b>	Optional retrofit combination of Nitrogen and Oxygen
<b>Concrete quality</b>	C 25/30

Laser source	Fiber 6000	Fiber 10000
<b>Power</b>	6,000 W	10,000 W
<b>Range of adjustment</b>	600–6,000 W	1,000–10,000 W
<b>Wavelength</b>	Fiber	Fiber

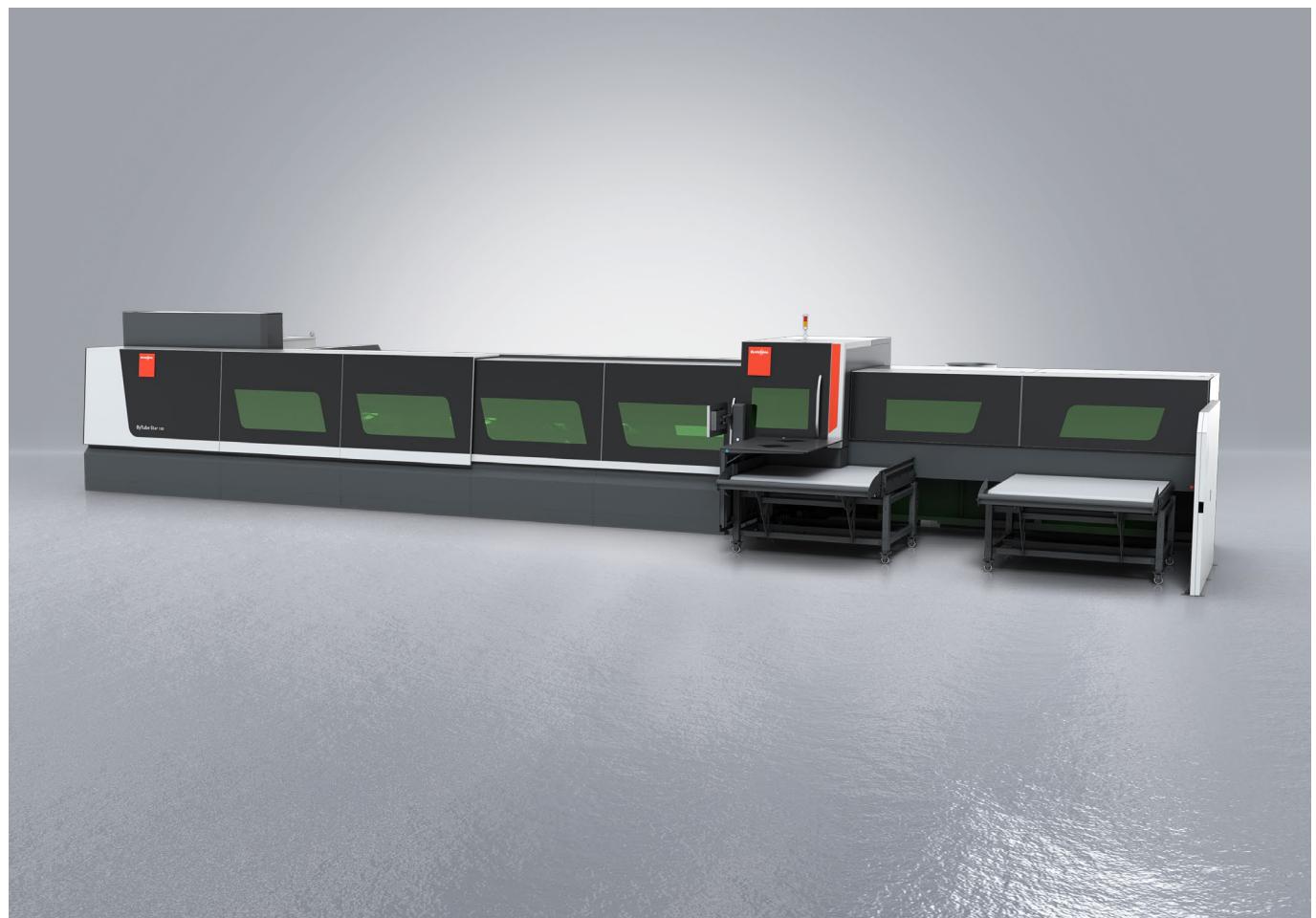
The right to make changes to dimensions, construction, and equipment is reserved. ISO-9001-certified.  
The technical data can vary in the different countries, according to local security rules and configuration of the machine.





# ByTube Star 130

## Technical Data





## ByTube Star 130

Length	13,960 mm
Width	5,625 mm
Height	2,411 mm
Min. Tube length (with automatic loading)	2,500 mm
Max. tube weight	17 kg/m
Available loading lengths	6,500–8,500 mm
Cross-sections	round, square, rectangular, oval, standard open sections, standard closed sections
Dimensions round sections (min.–max.) *	10 – 130 mm
Dimensions rectangular sections (min.–max.)	10 × 10–130 × 130 mm
Dimensions square sections (min.–max.)	10 × 10 – 130 × 130 mm
Dimensions other sections (min.–max. length of the sides) **	10–130 mm
Max. linear speed of axis X / Y / Z	200 / 60 / 60 m/min
Max. rotation speed of mandrels	250 U/min
Available unloading lengths	2,000–4,000–6,100 mm
No. of controlled axes	8
Machine weight (without exhaust, chiller and conveyor)	12,000 kg
Numerical control	BySoft Cell Control Tube

Laser source	Fiber 2000	Fiber 3000	Fiber 4000
Power	2,000 W	3,000 W	4,000 W
Range of adjustment	200–2,000 W	300–3,000 W	400–4,000 W
Wavelength	Fiber	Fiber	Fiber
Steel (max. cutting material thickness)	10 mm	12 mm	15 mm
Stainless steel (max. cutting material thickness)	5 mm	6 mm	8 mm
Aluminum (max. cutting material thickness)	5 mm	6 mm	8 mm
Copper (max. cutting material thickness)	3 mm	4 mm	6 mm
Total electric consumption of system (with exhaust, chiller)	14 kW	16 kW	17 kW

\* in automatic mode the minimum is 12mm

\*\* in the automatic mode the minimum is 12×12mm

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