

BYSTRONIC | BySprint Fiber 3015

Fiber-Laser-Cutting-Machine
2 kW Laser Power incl. ByTrans



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Machine info:

Brand:	BYSTRONIC	
Model:	BySprint Fiber 3015	
Control:	ByVision Touchscreen inkl. Handbediengerät	
Year:	12/2011	
Operation hours ca.		
	Laser on	23.000 h
	Beam on	16.500 h
Sheet size:	3.000 x 1.500 mm	
Serialno.:	43	
Space requirement, ca.:	16.500 x 7.570 mm; Höhe: 3.105 mm	

Equipment:

ByTrans 3015 Extended – automation system

large part removal
 Insert intermediate plates
 Additional raw sheet cassette
 Additional finished part cassette
 large part removal
 Serrated special gratings
 Sheet separation with double sheet detection

Fiber 2000 laser source (2kW)

Automatic shuttle table system with two tables

tank heater

Discs on the right side instead of cladding sheets

Programmable automatic switch-off

Automatic technology selection ATS

handheld terminal

Cutting head with integrated collision monitoring

autofocus

Sheet metal position detection, automatic and contactless

Interface to handling and automation

Safety devices for CE-compliant operation

Nozzle cleaning, freely programmable

Collecting trays for small parts

Remote diagnostics module (license must be purchased from the manufacturer)

dust extraction unit

cooling appliance

photoelectric beams

network connectivity

CAM Programming Software BySoft Version 6.6

Technical Data:

Machine

Cutting range	3.048 x 1.524 mm/Z: 70 mm
Max. positioning speed*	
axially parallel x,y	100 m/min
simultaneously	140 m/min
Positioning deviation Pa*	12 m/s ²
Position scattering width Ps*	+/- 0,1 mm
Table change time*	+/- 0,05 mm
Max. workpiece's weight	ca. 35 s
Positioning deviation Pa*	750 kg

* Manufacturer Information on delivery of the machine; no guarantee is given for this.

Laser

Power	2.000 Watt
Control Range	0 bis 2.000 Watt
Wavelength	Fiber, 1.060 ... 1.080 nm
Maximale sheet thickness*	
steel	12 mm
stainless steel	6 mm
aluminium	8 mm
brass	4 mm
copper	3 mm

* Manufacturer Information on delivery of the machine; no guarantee is given for this. To achieve these values, all parameters must be set correctly.

ByTrans Line Extended

sheet size	3.000 x 1.500 mm
Sheet thickness loading and unloading	0,8 – 25 mm
Max. Weight sheet cassette seats	890 kg 2
large parts removal	ja
Insert intermediate plates	Ja

Description of the manufacturer Bystronic

Unique advantages BySprint Fiber

- Unprecedented part output in thin sheet metal thanks to innovative fiber laser technology
- Sophisticated high-tech fiber laser combined with mature laser technology

Machine technology

- Economical and ecological thanks to unrivalled energy efficiency, unparalleled parts output and worry-free operation
- Unparalleled efficiency of over 30%.

The machine concept

- Simple, compact and clear design
- Optimum accessibility
- Simple, fast installation of residual panels, access without risk of collision
- Ideal for express orders in between
- Less effort for the operator and therefore higher productivity
- High dynamics due to small mass movement of the cutting bridge
- Machine cladding with safety panes in the front door to meet the high laser safety class of fiber lasers. Side windows optionally available.

The drive system

- Direct motors drive the axes precisely and with high acceleration values
- Long service life due to low bearing load
- Closed and protected drives

The cutting head

- Specially developed fiber laser cutting head
- Integrated capacitive scanning

The operation

- Manual operating unit for time-saving set-up and adjustment work
- Functionally simple and multiple re-start system, e.g. contour trapping by moving to the starting point with the handheld terminal
- The ByVision control system

- Parameter adjustments directly on the MMC operator panel during cutting operation without interruption are possible
- Remote diagnosis module for fast analysis of actual states
- Automatic setting, activation and deactivation of micro-bars without Bysoft programming software.
- Nesting of individual parts from existing nesting plans with Tool box without Bysoft programming system
- Less effort for the process, therefore less non-productive time
- Automatic adaptation of the parameters to the contour profile by ATS

The Laser Fiber 2000

- 2kW fiber laser
- Maximum energy efficiency thanks to very low electrical energy consumption
- Very low operating costs due to high-tech fiber laser technology
- (e.g. no laser gas necessary, minimum wear costs)
- Extended material spectrum (non-ferrous metals)

ByTrans Extended - Automation

- Intelligent solutions for loading and unloading laser cutting systems
- Fast order processing, because automatic loading and unloading reduces setup times
- Considerably higher machine utilization with only a slightly larger investment sum
- The ByTrans Extended version has not only one, but two cassettes, making the machine system even more autonomous.
- Flexible application. Used not only for storage/return storage, but also for the removal of large parts and for the provision of plastic protective plates, which are placed between the sheets by the system.
- Entry into low-manning component production

Advantages Fiber Laser

Fiber lasers are the latest development in laser cutting. The laser beam is generated in an active fiber and guided via a transport fiber to the cutting head of the machine. Fiber lasers are significantly smaller than CO₂ lasers and produce twice as much power from the same power supply. A fiber laser cutting system is particularly suitable for processing thin to medium-thick sheets. It also cuts non-ferrous metals.

lower power consumption with higher performance

- no laser gas
- Consequently: lower operating costs
- Processing of non-ferrous metals (copper, brass)
- Less space required