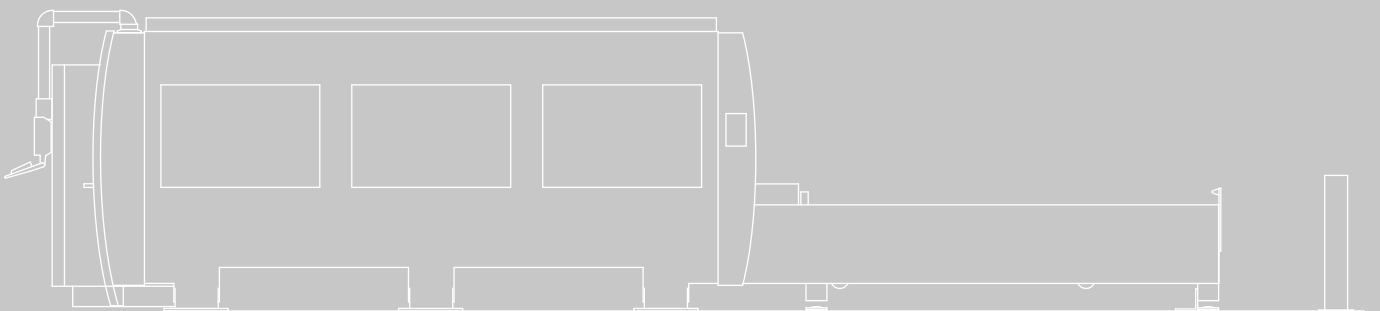


**Bystronic**

# efficiency in laser cutting

## **BySprint Pro**

The unique high-speed laser cutting system for the highest operational and economic efficiency



# BySprint Pro – swift and economical

Record speeds when cutting thin metal sheets and maximum economic efficiency are the central features of the BySprint Pro laser cutting system. It combines high-speed plasma cutting and machine dynamics to achieve the greatest efficiency and to enthuse the user with the shortest cutting time per part. The minimal operating costs and extraordinary efficiency of the whole system result in extremely economical order processing. This way, the customer achieves clear competitive advantages.





**DANGER**

**INVISIBLE LASER RADIATION**  
Avoid eye or skin exposure to direct or scattered radiation



	CO <sub>2</sub>	Fiber	LD
Wave length	10.6 μm	1.07 μm	10.64 μm
Max. output	3.3kW	2.3W	1.5W
Class	4	2	2M

**Laserclass 1 at intended use**  
This product complies with 21CFR1040.10

# Important components

The perfect coordination of individual components that are proven and attuned to one another forms the base for a first-class machine system. "Everything from a single source" is the successful Bystronic principle, which is also brought to bear in the BySprint Pro laser cutting system: all system elements essential for process reliability come from Bystronic's own development and ensure a convincing solution with the highest customer benefits.



## Laser Source ByLaser 4400

The 4.4 kilowatt ByLaser 4400 is impressive with extremely low operating costs due to its high efficiency, wear-free excitation and a blower with magnetic bearings, which is also wear-free. The laser source also guarantees a constantly high beam quality.

Thanks to the use of LASERMIX® 312, costs are lower than with the utilization of separate gases. Furthermore, a constant high quality of the laser gas is guaranteed and only one gas bottle is required.



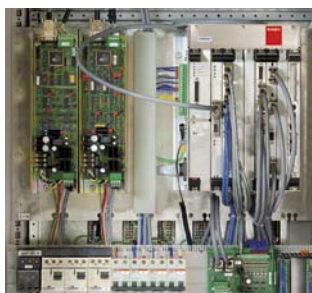
## Cutting head

Short set-up times enable high utilization of the BySprint Pro with extremely low non-productive times. The system comes equipped with 5-inch and 7.5-inch and optionally with a 3.75-inch cutting head. The latter is optimized for thin-sheet applications and assures the user 15 to 40 percent lower cutting times for the same orders. The BySprint Pro is equipped with a quick-change system with which each cutting head can be changed within a few seconds.



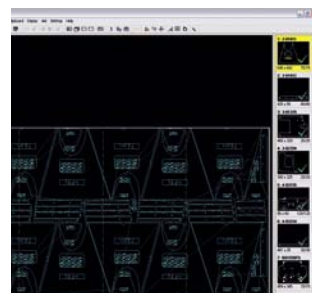
## Operator terminal

On the touch screen of the operator terminal, only the functions that are required at a given moment are made available. Thus the menu guidance is easy and user-friendly. The terminal and the user interface are designed strictly according to ergonomic standards.



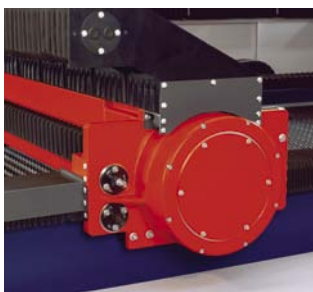
#### ByVision high-performance control

Bystronic's ByVision high-performance control sets standards with respect to simplicity and speed. Even large cutting plans can be transferred to the machine within a few seconds. The hardware components are located in a single, compact box, which can be exchanged during maintenance work in the shortest possible time.



#### Bysoft CAD/CAM software

Bysoft is the CAD/CAM software package developed by Bystronic for cutting and bending. Optimally attuned to Bystronic systems, this software ensures the fullest possible implementation of the cutting and bending technologies used. Bysoft is user-friendly and practically oriented and it supports work preparation ideally with quick programming. The user's work becomes easy thanks to customized functions and a system structure that extends across all software modules.



#### Drive

The dynamic drive via direct drive motors also guarantees high RPM and acceleration values even at low speeds. The result is fast and precise positioning. This factor, together with the very high cutting speeds achieved with high-speed plasma cutting, ensures that the BySprint Pro can cut more parts than could ever be cut before.

## Expansion possibilities

- ▀ Handling and automation solutions, especially automatic sheet loading and unloading, automatic parts sorting, automatic sheet storage
- ▀ Various grates
- ▀ Tactile sensing when cutting non-conductive materials

## Service & Support

Bystronic's proven technology and extensive expertise produce systems that are extremely reliable. With its global network of specialized service and training experts and comprehensive spare parts inventories in the local markets, Bystronic guarantees that it will support what it sells. In addition to maintenance, spare parts delivery, and repair services, customers are also offered training programs as well as hardware, software, and operational support so that they are in a position to use all the possibilities of the systems for their competitive advantage.

# Areas of application

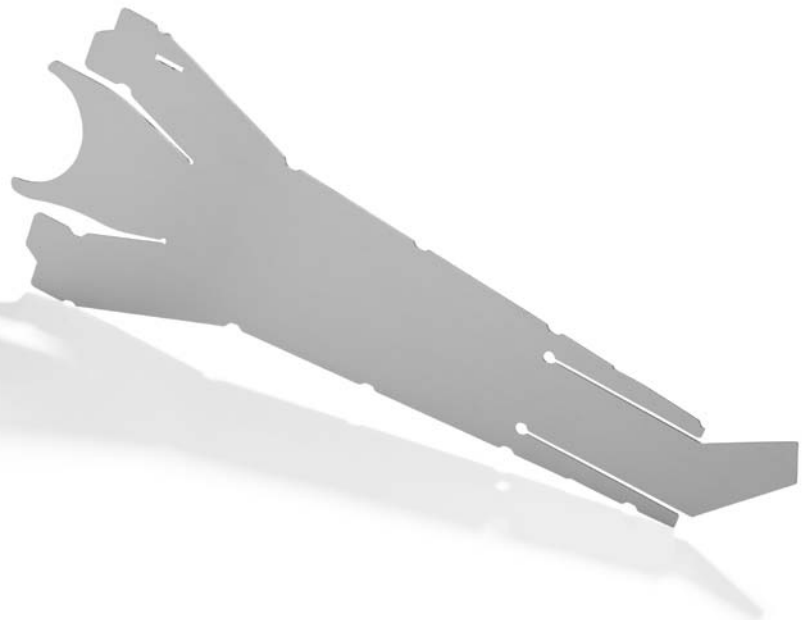
The BySprint Pro is swift and, especially for the processing of thin metal sheets, it is in a class by itself. With 4.4 kilowatts, the system also has ample laser power and can be used across the entire range of sheet thicknesses up to 0.750 inch as a flexible workhorse for many varied applications. With the BySprint Pro, the user is always a nose ahead of the competition.



**Electronics industry**  
Adapter plate  
0.060 in, stainless steel



**Machine and system construction**  
Cover for selector buttons, elevator  
0.040 in, stainless steel



**Airplane construction**  
Cover  
0.040 in, aluminum



**Machine manufacturing**  
Base plate with control curve  
0.250 in, mild steel



**Drive technology**  
Coupling star  
0.750 in, mild steel

**Machine manufacturing**  
Hub flange  
0.120 in, mild steel



## Customer benefits

- High-speed plasma cutting with very high speeds in comparison to the current market standard
- The latest cutting and piercing technologies such as RPP ensure the greatest productivity
- The new power saving mode function reduces the electrical power consumption of the entire laser cutting system by up to 50 percent in stand-by operation
- Very low operating costs due to wear-free excitation and blower with wear-free magnetic bearings
- Extremely short start-up time of just five minutes
- High cutting speeds thanks to compressed air cutting up to a material thickness of 0.120 inch
- Lower costs and constantly high quality of the laser gas thanks to the utilization of LASERMIX® 312

This brochure may show parts that are not standard equipment, but are available as options. For the better visibility of machine details, some safety covers may have been opened or removed for these pictures. The right to make changes to dimensions, construction, and equipment is reserved. For technical data, see separate data sheet.

ISO-9001-certified

Bystronic is a worldwide active supplier of application-oriented systems and services for the laser and waterjet cutting processes, as well as bending: economical, high-performance, reliable.

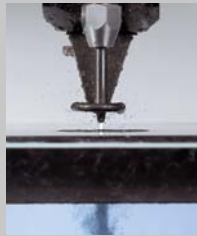
## Best choice.



**Laser cutting**  
Laser cutting systems for the innovative processing of a wide variety of materials and geometries



**Bending**  
3-point and air bending machines for high-precision working of sheet metals



**Waterjet cutting**  
Waterjet cutting systems for cutting metals, glass, synthetics, ceramic, and many other materials



**Automation**  
High-performance handling and automation solutions from simple loading systems to fully automated laser production cell with integrated storage system



**Software & Control**  
User-friendly programming and operation with requirement-oriented application programs and interfaces to CAD and ERP systems



**Service & Support**  
Competence and customer proximity with after-sales support available worldwide: local contact persons, prompt delivery of spare parts, and professional training courses

## Your contact

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