

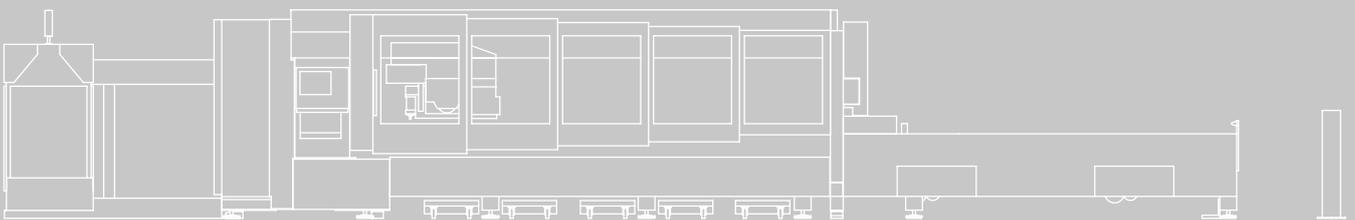
Bystronic



efficiency in laser cutting

Byspeed

The universal and highly dynamic
laser cutting system



Byspeed – quick, dynamic, extremely precise

Thanks to its unique conceptual design, the Byspeed enables the highest positioning speeds and acceleration values. Thanks to its DHM drives, it produces unique drive power and exemplary dynamics. With the most modern cutting technologies, the Byspeed demonstrates excellent cutting precision. High process reliability and a long lifespan are guaranteed thanks to the optimal coordination of laser beam source and machine concept.





DANGER

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

 **BYSTRONIC CO.** Laser 10.6 μm
Max. Output Power: 4500 W
Max. 1 Joule in 100 Laser Pulses
Class IV Laser Product

Important components

Sophisticated components that are perfectly attuned to one another distinguish Bystronic laser cutting systems. The successful Bystronic principle “Everything from one source” is brought to bear here too: we develop all components that affect process reliability and performance of the systems ourselves. These offer the individual customers the optimal solution for their challenges in production and the perfect basis for a noticeably improved competitive position.



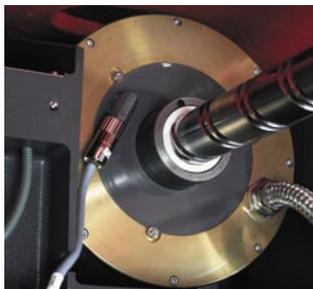
Laser beam source

So that the customers can fully exploit the outstanding properties of their Byspeed, this system is sold exclusively with Bystronic laser beam sources of the upper performance segment. Regardless of its performance output, each Bystronic resonator is kinematically suspended, temperature-stable and ensures a constant beam quality.



Cutting head

The cutting head optimally supports the cutting technologies used such as the extremely effective controlled pulsed plunging (CPP). Thanks to the quick-change system, the cutting head can be changed out easily within a few seconds. Cleaning of the nozzle occurs automatically.



DHM drive

With the development of the unique direct helical motor (DHM) concept on the x/y axes, we have succeeded in attuning all relevant parameters optimally. With just a portion of the magnetic surface of conventional linear motors, equivalent drive power is generated.



Machine frame

The cast iron frame minimizes system vibrations and maintains stability and accuracy. Additional anchoring on the floor is not required. The center of gravity of all axes is centered. This supports improved process control and security.



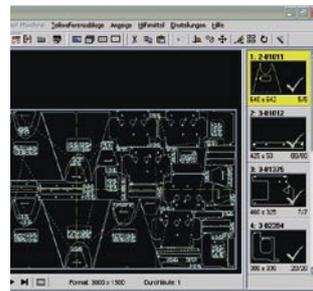
ByVision high-performance control

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 changed out completely for another one during maintenance work in the shortest possible time.



Operator terminal

On the touchscreen of the operator terminal, precisely the functions are made available that are required at a given moment. Thus the menu operation is easy and user-friendly. The terminal and the user interface are designed consistently according to ergonomic guidelines.



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 need-oriented functions and a system structure that extends across all software modules.

Expansion possibilities

- Handling and automation for the most varied user profiles
- Tactile sensing for cutting non-conducting 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 get the most from their machine investment.

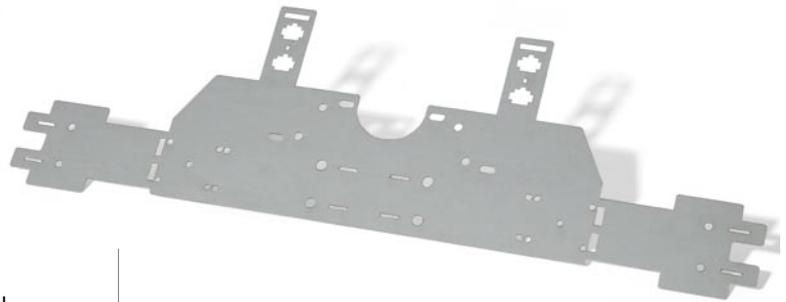
Areas of application

Byspeed captivates with its unique dynamics and impressive positioning speeds, which it can implement across the entire thickness spectrum in the shortest times. With the most modern cutting technologies, the Byspeed puts the user in a better competitive position, especially with thin and medium-thick sheets and complex contours and the smallest holes. With the scanning mode, for example, you can make up to 350 square holes per minute.



Machine construction

Base plate with positioning holes
0.160 in. mild steel



Switch cabinet industry

Rack plug-in
0.080 in. mild steel galvanized

Control industry

Operating panel cover
0.040 in. aluminum





Appliance industry
Control curve element
0.250 in. mild steel

Food industry
Large sieve
0.040 in. stainless steel



Customer benefits

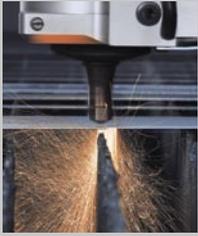
- Significant cost savings thanks to reduction of cutting time by up to 50 percent with thin sheets
- High productivity as a result of geometrically optimized process control
- Perfect cast construction for cushioning vibrations that arise and thus achieving tight part tolerances
- Optimal accessibility across the entire work area
- Closed cutting space with multi-chamber suction
- Highest process reliability thanks to plasma sensors
- Expansion possibilities with various automation modules/storage systems
- Need-oriented, individually customized technology parameters thanks to the ByVision high-performance control
- Manual operation, for example for manual separation cuts
- Adaptive optics for a constant focus point across the entire cutting area and automatic focus point shifting using individual cutting parameters
- Automatic sheet edge position detection
- Various possibilities for restarting the system if cutting is interrupted
- Seamless integration with Bysoft user software



This brochure may show parts that are not included in the standard equipment, but rather are available as options. To get a better view of machine details, some safety equipment has been opened or removed for the pictures. The right to make changes to measurements, construction, and equipment is reserved. For technical data, see separate data sheet.

Certified in accordance with ISO 9001

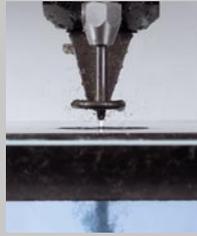
Bystronic is a worldwide active supplier of application-oriented systems and services for the laser and waterjet cutting processes, as well as bending: economical, high-performance, reliable.



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



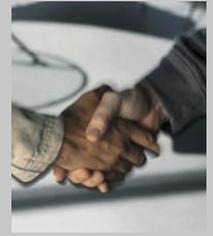
Waterjet cutting
Waterjet cutting systems for cutting metals, glass, synthetics, ceramic, and many other materials



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 applications 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

www.bystronic.com