

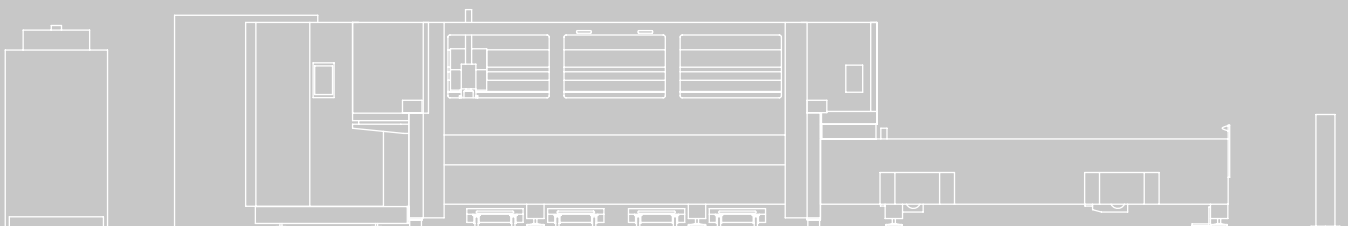
Bystronic



efficiency in laser cutting

Bystar

The modular laser cutting system
for sheet metal, tubes, and profiles



Bystar – versatile, flexible, powerful

Bystar is the flexible universal solution, which in addition to flat processing also processes volume parts, tubes, and profiles quickly and easily. Thanks to the available spectrum of laser outputs, it can be attuned optimally to individual customers' needs and it achieves first-class cutting results with minimal cutting times precisely with thick sheets.





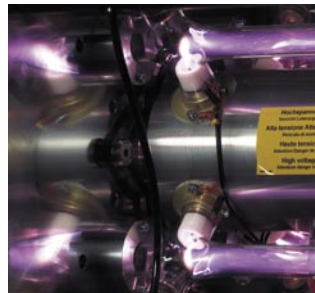
⚠ DANGER

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

 **BYSTRONIC CO, laser 10, 6 μm**
Max. Output Power 4200 W
Max. T-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.



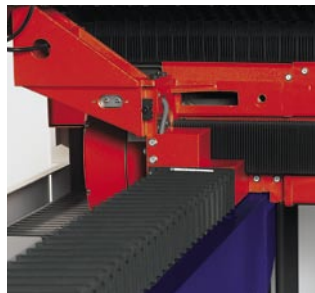
Laser beam source

The entire spectrum of Bystronic laser beam sources is available for the Bystar. Regardless of its performance output, each Bystronic resonator is kinematically suspended, temperature-stable and ensures a constant beam quality.



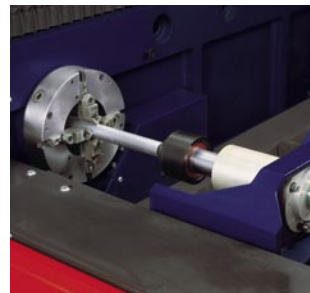
Cutting head

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.



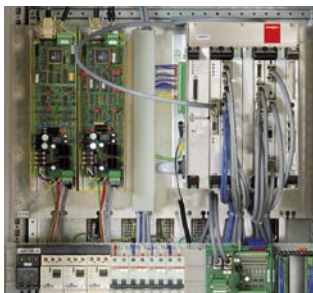
Drive

Direct drive motors deliver high torque and acceleration even at low speeds. Even small radii are cut precisely and quickly thanks to the direct, position-synchronized performance regulation.



Rotary axis

Profiles and tubes up to a maximum diameter of 12.4 in. can be cut with Bystar. Tubes and profiles up to a diameter of 6.1 in. can be fed into the work area from the outside automatically with the lathe chuck. Changeover times between flat and tube processing are just a few minutes.



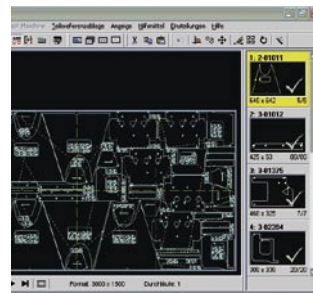
ByVision high-performance control

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 when cutting non-conductive materials
- Rotary axis with tailstock

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

Thanks to its flexibility, Bystar is the all-rounder among the Bystronic laser cutting systems. It convinces with first-class work products and production speeds across the entire sheet thickness range and, due to its machine concept, best demonstrates its strengths with medium to large sheet thicknesses up to 1.0 inch. With the help of the optional rotary axis, tubes, profiles, and volume parts can also be processed easily.



Automation technology

Special chain disk
0.375 in. stainless steel



Appliance industry

Control curve segment
0.312 in. stainless steel



Machine construction

Machine stands
1.0 in. mild steel

Appliance industry
Cross member
0.250 in. mild steel



Vehicle construction
Body reinforcement
0.625 in. aluminum



Customer benefits

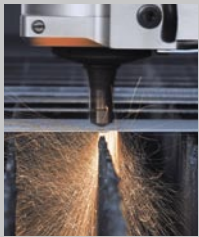
- High laser output for economical processing of even thicker sheet metals
- Flexible process control using universal process for flat, profile, and tube cutting
- High machine precision due to rigid construction
- Optimal accessibility across the entire work area
- Highest process reliability thanks 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 measurement, construction, and equipment changes is reserved. For technical data, see separate data sheet.

Certified in accordance with ISO 9001

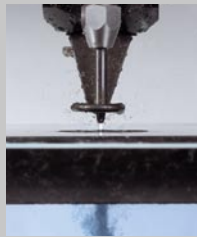
Bystronic is a worldwide active supplier of application-oriented systems and services for the laser and waterjet cutting processes, as well as bending: economical, high-performance, reliable.



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



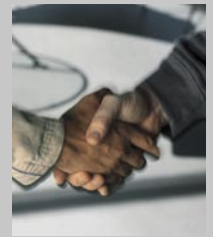
Waterjet cutting
Waterjet cutting systems for cutting metals, glass, synthetics, ceramic, and many other materials



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