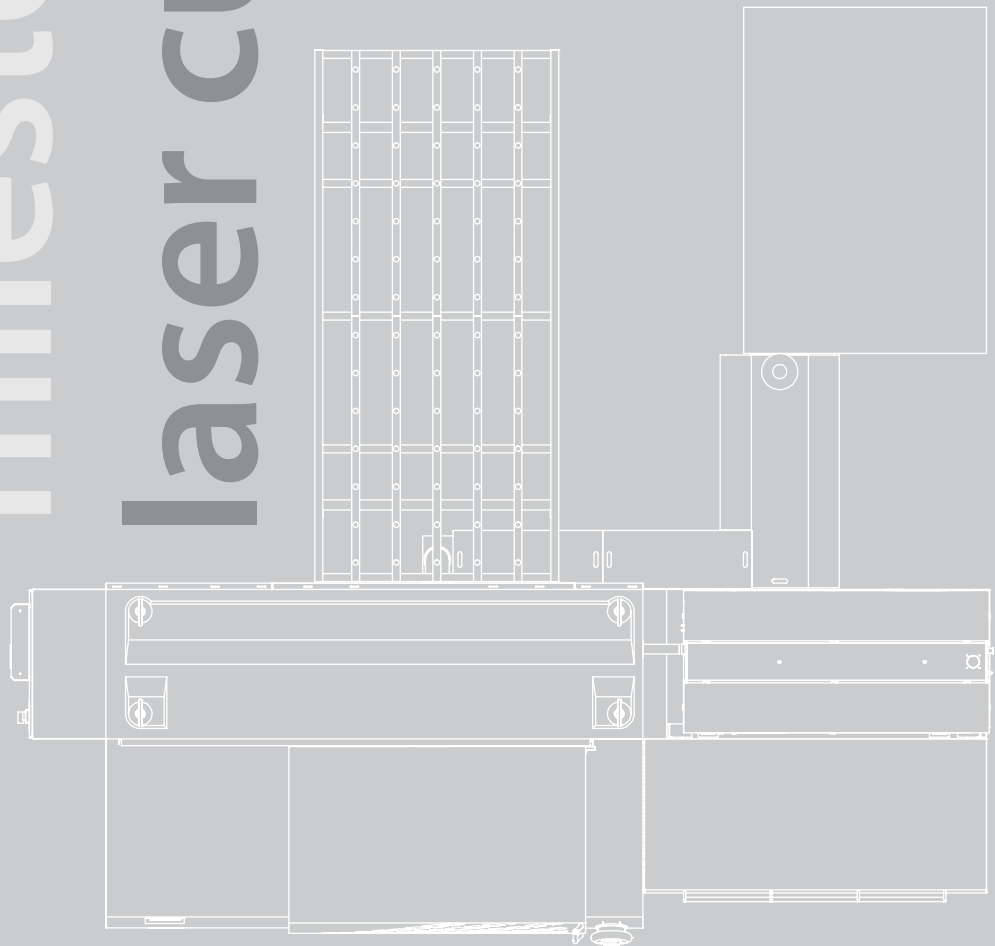


**Bystronic**

# milestone in laser cutting

## **ByVention**

The smallest laser cutting machine for  
standard-sized sheet metals



# ByVention – the greatest efficiency and all-inclusive

The extraordinary ByVention laser cutting machine guarantees a maximum return on investment. This system is the world's smallest laser cutting machine for standard-sized sheet metals and Bystronic's "all-inclusive solution" with guaranteed price transparency.

The ByVention is offered at a low standard net price, which includes all services such as delivery, commissioning, and basic training. Our service package also includes a two-year warranty and preventative maintenance. A new, innovative logistics concept offers you the easiest installation. Short relocation times, proven components, and simplicity of design ensure that the resale value of the machine will remain high.

The ByVention is a milestone in the development of laser cutting systems and guarantees unique efficiency in sheet metal processing: approximately eighty percent of the parts spectrum can be processed with this machine, at approximately half the usual investment costs.







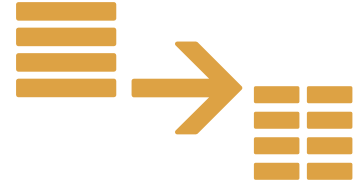
### Simple

ByVention is simple to operate for anyone. The training requirement is minimal.



### Compact

ByVention is the smallest laser cutting machine for standard-sized sheet metals. Full advantage is taken of the space available at the customer's premises.



### Clever

With its innovative and clever material flow concept, ByVention guarantees immediate availability of the cut parts as well as exemplary flexibility when using various sizes of material and residual sheets.

## Customer benefits

- Maximum return per dollar invested
- Transparent investment costs can be planned and commissioning costs avoided due to the "all-inclusive concept"
- Convenient purchase with the Bystronic financing program
- High resale value – like all Bystronic systems, built for a long service life
- Minimum space requirements (no light guards needed)
- Cutting of production parts just a few days after delivery of the ByVention
- Use of the entire system potential with little training effort (no step-by-step learning)
- No laser experience required of operators
- Minimum downtimes and design for around-the-clock operation thanks to easy and quick maintenance
- Perfect production planning and optimum sheet usage thanks to Bysoft
- Availability of the cut parts even during the cutting process
- Processing of various material and residual sheet sizes
- Parts tolerances and cut quality according to Bystronic standard (fulfills the requirements of modern high-end machines)
- Optimal accessibility in the entire work area

## Customer segments

- Companies that already use laser cutting machines and need additional capacities for parts in standard sizes
- Original equipment manufacturers (OEMs) that produce large quantities of parts in standard sizes
- Companies with limited space
- Companies that have limited capital or are planning to invest in a used machine
- First-time users of laser cutting technology or users of punching machines
- Companies that need a laser cutting machine for a particular order
- Companies that would like to produce laser parts themselves instead of outsourcing them (higher added value). Acquisition is worthwhile even with one-shift operation



**Reassuring**

Thanks to the two-year warranty and preventive maintenance, Bystronic enables the ByVention user to operate continuously, right around the clock.

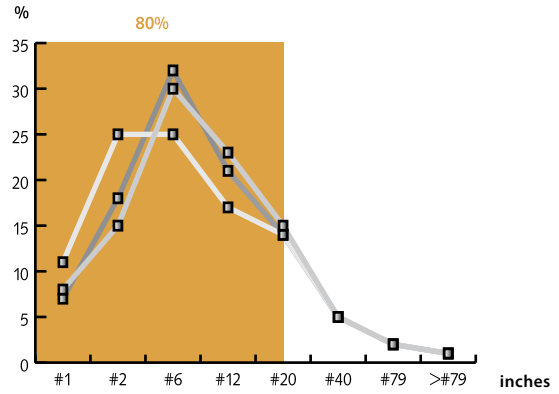
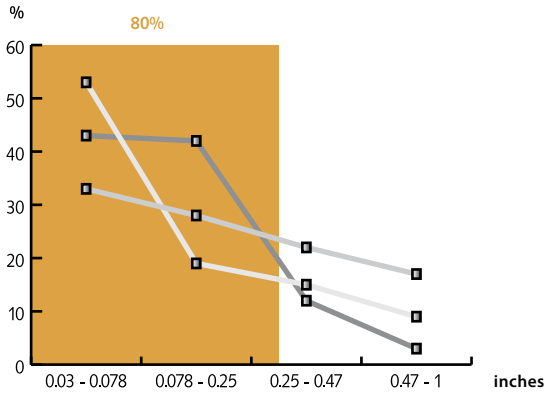


**Complete**

For modest investment costs, the customer receives not only the machine with the associated peripheral units delivered directly to the customer's premises, but in addition a CAD/CAM software package as well as commissioning and basic training.

# Sheet thicknesses and parts spectrum

More than eighty per cent of laser-cut parts produced today have a sheet thickness of 0.312 inches or less and a format of up to 20 x 20 inches. ByVention is the result of consistent orientation towards this parts spectrum. ByVention makes no compromises when it comes to dimensions and material thicknesses that are cut infrequently. The result: exceptional efficiency at the lowest possible price.



- = mild steel
- = stainless steel
- = aluminum

# Total integration

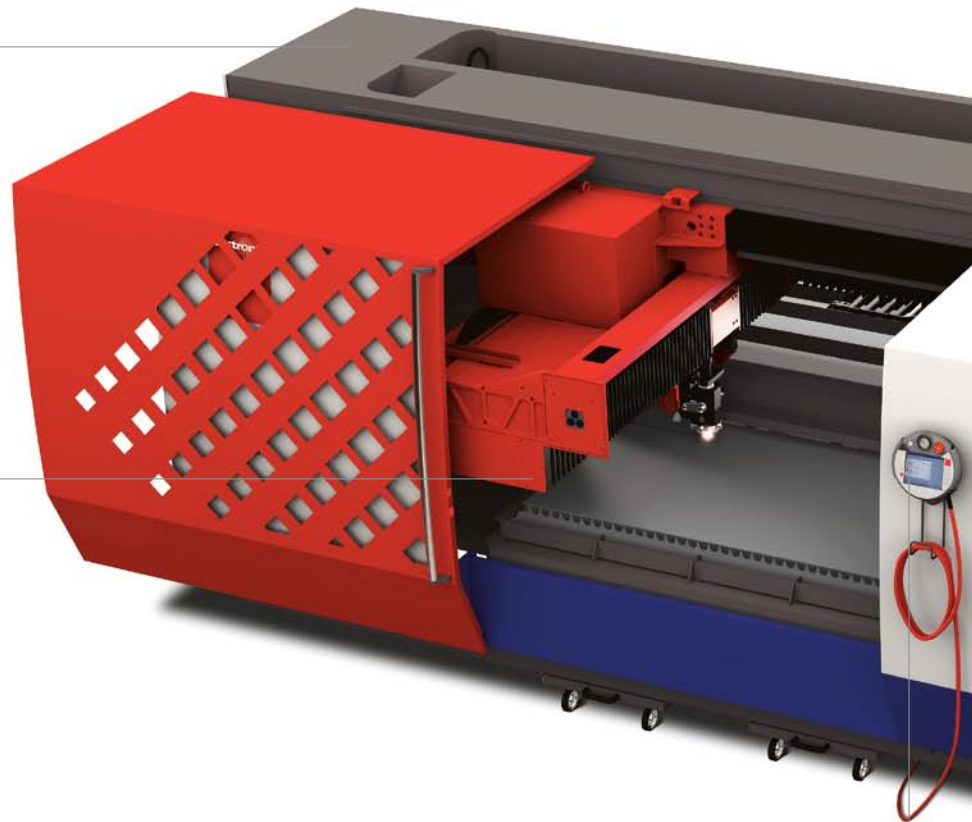
The main characteristic of the ByVention is the complete integration of the individual assemblies and components of the system into a powerful total package. Here the coordination is both with respect to the work processes and the available space. The entire system forms a compact unit that is transported to the customer and installed on site. Commissioning takes place within two days according to the "plug-and-cut" concept.

## Machine structure

The mineral casting frame is the heart of the machine structure. This material has proven itself for many years in highly precise machine tool industry and, with its vibration damping and low temperature sensitiveness, it ensures the highest precision in parts production.

## Motion unit

The motion unit is lightweight and it features short traverse paths, which increases the stability of the axes and the accuracy of the cutting process. Motion is controlled by proven drives that are optimized for the application.



## Bysoft CAD/CAM software

The CAD/CAM program package Bysoft is the only software designed optimally for Bystronic systems; it ensures the best implementation of the cutting and bending technologies. Bysoft is user-friendly and practically-oriented, easy to learn, and the ideal solution for production preparation.

## Machine control

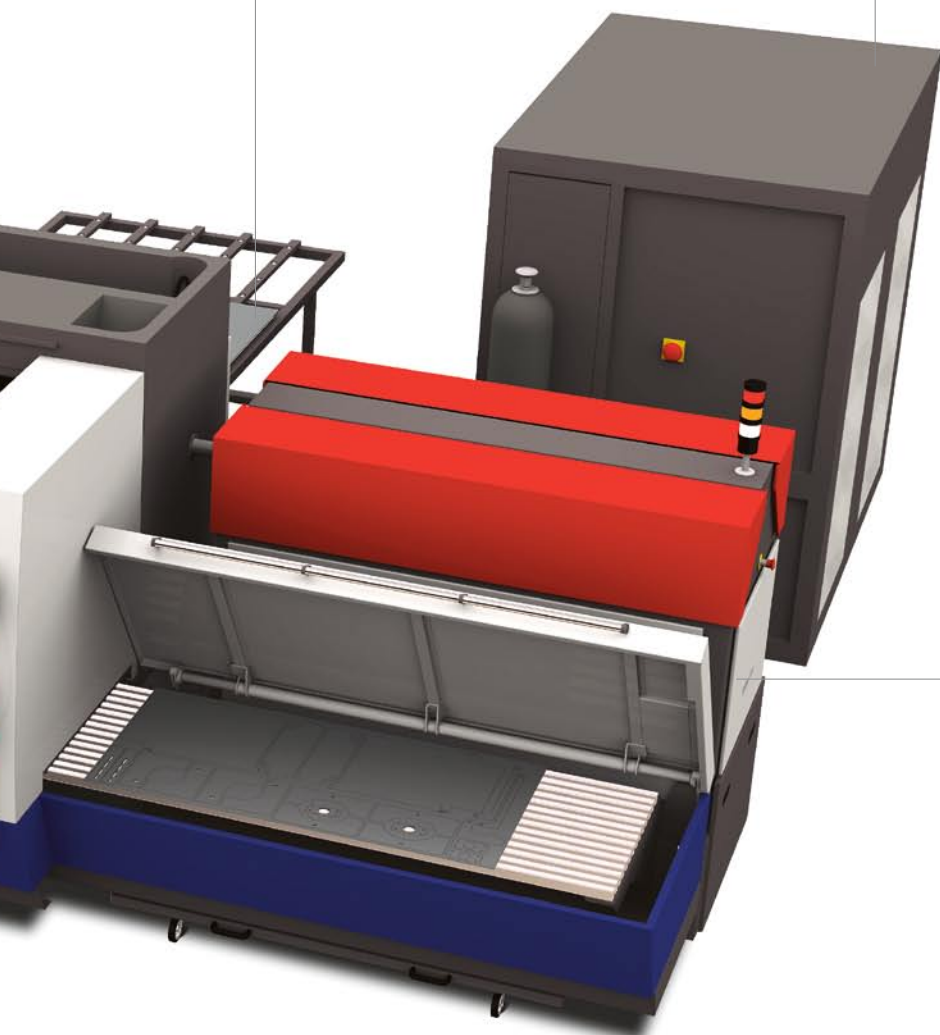
Control of the ByVention is carried out via a control unit with touch screen as well as defined programs and cutting parameters. The compact and very stable Windows CE is used as the operating system. Users enjoy easy and intuitive operation. This easy operation also appeals to experienced users.

**Material flow and processing concept**

ByVention's integrated sheet feeder ensures continuous processing. This means that after manual loading, the sheet is fed into the machine's cutting area automatically and processed step by step. Thanks to this continuous processing, the first parts can be removed even during the cutting process (**patent pending**).

**Combined cooling and filter unit**

The cooling unit and exhaust filter are combined into a compact, high-performance unit. Even with a small footprint, the combined cooling and filter unit guarantees stable cooling water temperature and clean exhaust air. Thanks to the dimensioning of the cooling components, reliable operation is ensured, even with high ambient temperatures.

**Laser source**

The laser source is integrated into the machine frame to save space and its performance is attuned to the ByVention's specific areas of application. Thus it is possible to exploit fully the outstanding qualities of the machine.

This brochure may show parts that are not included in the standard equipment, but rather are available as options. To better show machine details, some safety equipment has been opened or removed for the pictures. Changes to dimensions, construction, and equipment are reserved. For technical data, see separate data sheet.

Certified in accordance with ISO 9001

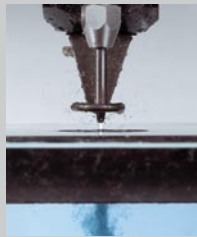
Bystronic is a worldwide active supplier of application-oriented systems and services for the laser and waterjet cutting processes, as well as bending: economical, high-performance, reliable.



**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



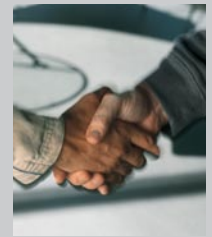
**Waterjet cutting**  
Waterjet cutting systems for cutting metals, glass, synthetics, ceramic, and many other materials



**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 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

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