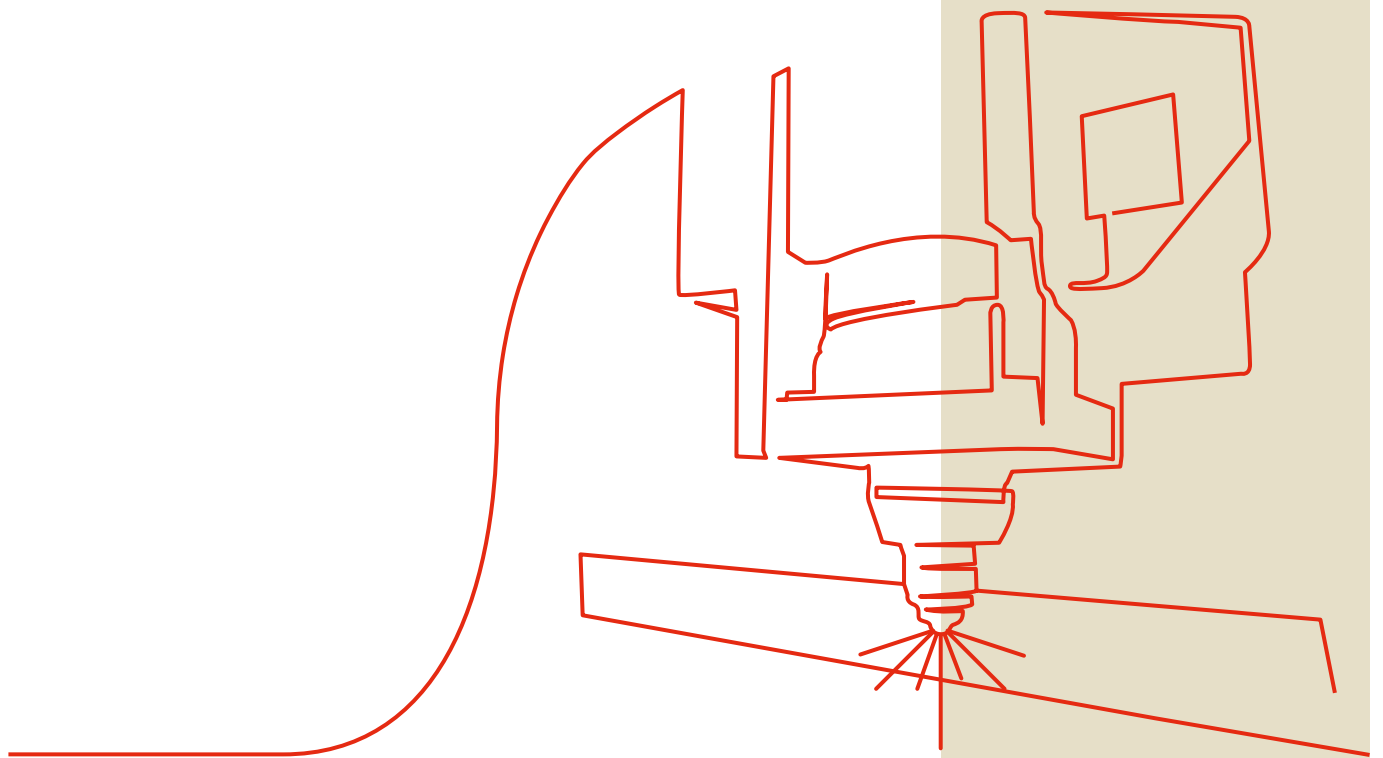


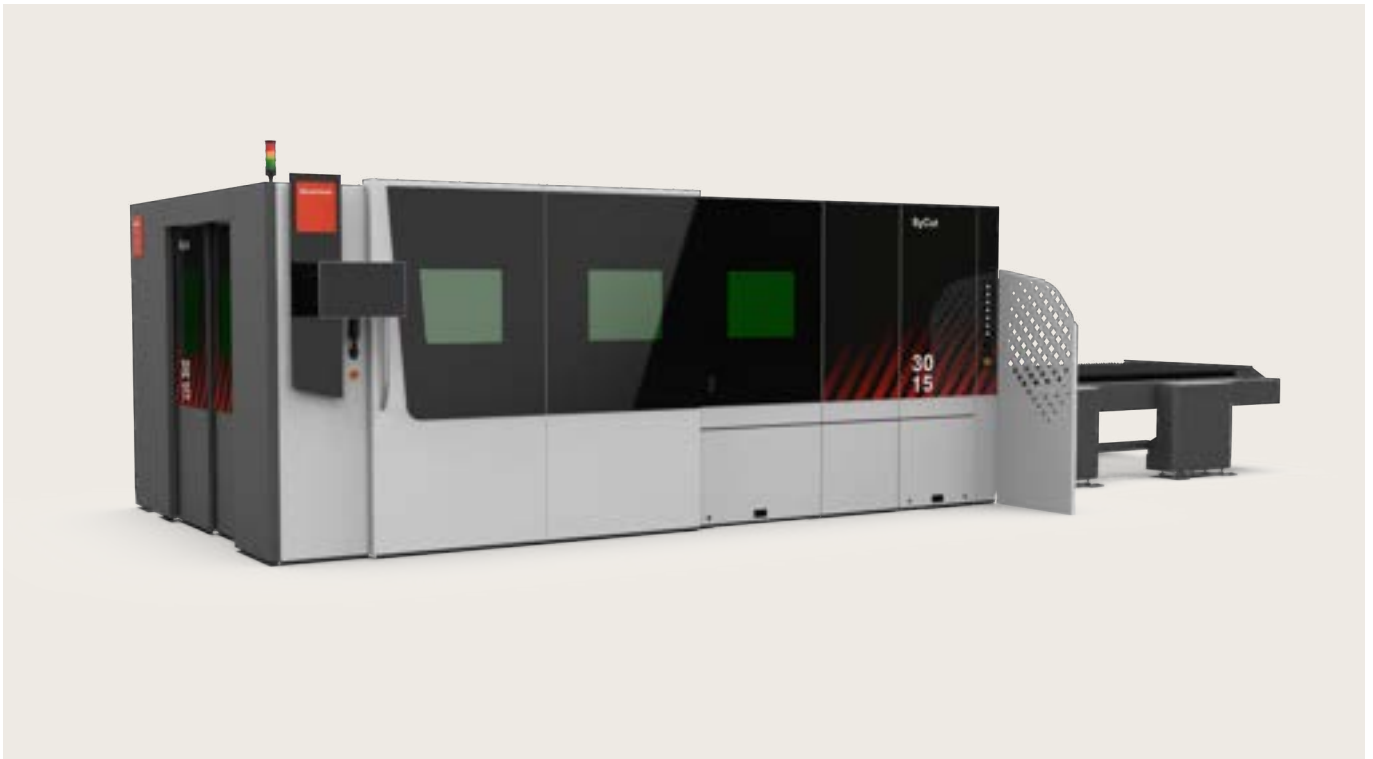
Bystronic



Laser Cutting

Your best choice.

bystronic.com



ByCut 3015/4020

Highly efficient laser cutting thanks to high power and laser packages configurable to your needs

Customer benefits

- High-power ready: From 3 to 30 kilowatts – the ByCut 3015/4020 accommodates the full laser-power range, perfectly tailored to your needs.

According to the requirements of your production as well as the corresponding laser package:

- High speed: Cuts mild steel twice as fast compared to 15 kW and MixGas with sheet thicknesses between 6 mm and 15 mm, and more than twice as fast with thicknesses starting at 20 mm. Piercing times are shorter for sheet thicknesses of 15 mm and above.
- Intelligent cutting process: Smart functions such as the Intelligent Cutting Process (ICP), Fast Piercing, and the Parameter Wizard optimize your entire cutting process.
- Fast configuration: In just a few minutes, the Parameter Wizard option determines the perfect parameters with N₂ and MixGas for steel from 4 to 15 mm in thickness.
- Broad spectrum: Be it mild steel, stainless steel, aluminum, or non-ferrous metals – with a broad production range, you can process sheet thicknesses of up to 50 mm (excluding non-ferrous metals).
- High process reliability: Bystronic's automation solutions guarantee optimum utilization and maximum reliability in unmanned operation.
- Simple operation: Via a 21.5-inch touchscreen, operate the BySoft Cell Control Cut software as easily as your smartphone.

Pick your ByCut machine basics

**System size:**

3000 × 1500 mm /
4000 × 2000 mm

**Laser power:**

3–30 kW

**Layout:**

Access door configuration
Position laser & cooling unit
Cutting grate type

Add your laser packages

**Autonomy Package**

Increase your system's autonomy and reduce setup time by up to 50%.

Includes:

- Automatic Nozzle Changer
- Detection Eye
- Nozzle Control Tool
- Intelligent Cutting Process

**Power Package**

Get the most out of your high laser power. Add advanced cutting technologies to economically process thick materials.

Includes:

- MixGas Technology

**Dynamic Package**

Optimally tune your system for thin sheet processing. Achieve the highest acceleration for complex geometries.

Includes:

- Linear drive technology

**Quality Cut Package**

Increase the cutting quality of medium and thick mild steel. Achieve near burr-free cuts.

Includes:

- Automatic BeamShaper technology

**Convenience Package**

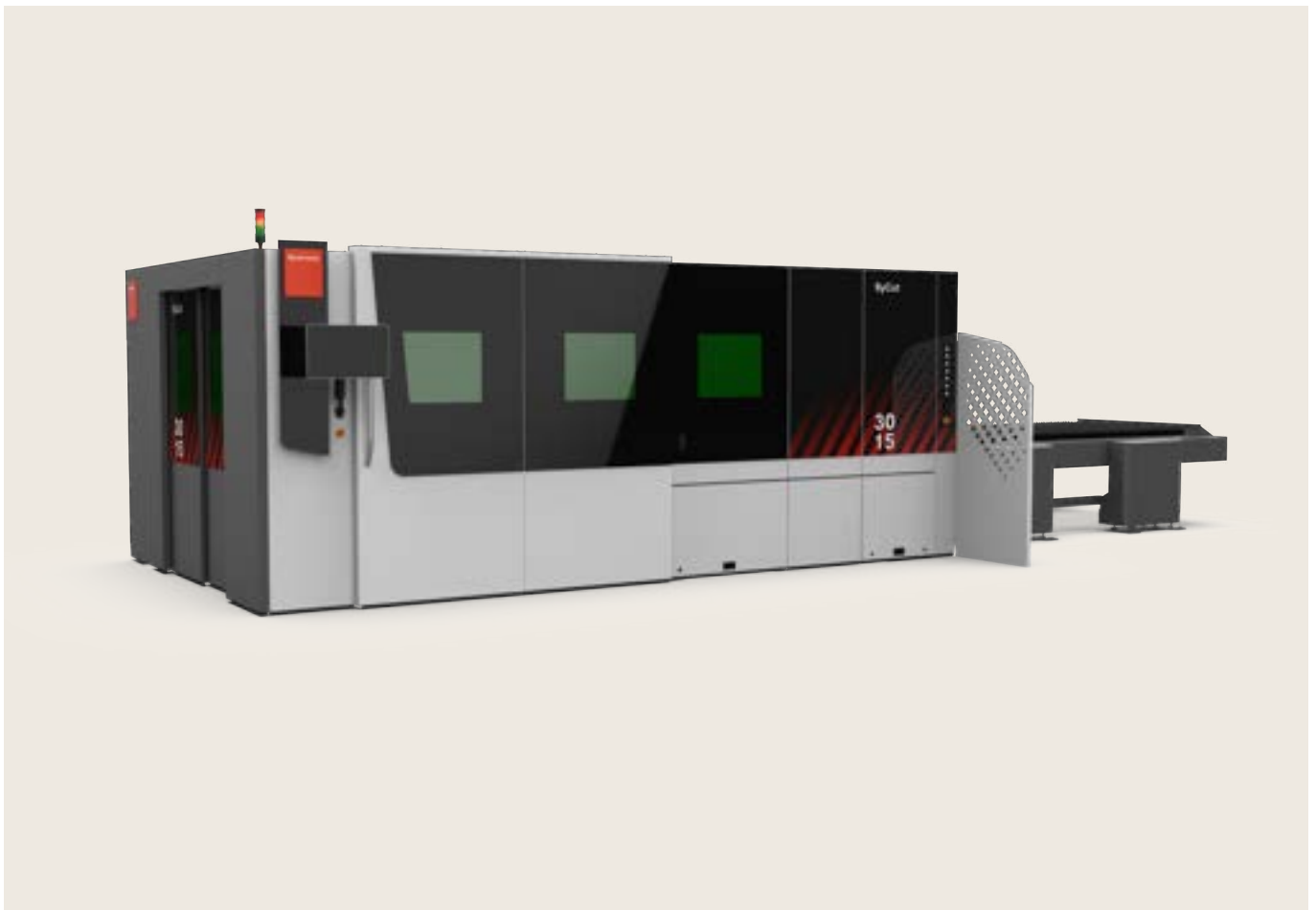
Simplify every step of your cutting process and elevate your experience with effortless ease.

Includes:

- Parameter Wizard
- Observer
- Additional small access door
- And more

ByCut 3015/4020

Technical Data





	ByCut 3015	ByCut 4020
Length	10,800 mm	14,000 mm
Width	5,100 mm	5,700 mm
Height	2,300 mm	2,600 mm
Nominal sheet size (X)	3,000 mm	4,000 mm
Nominal sheet size (Y)	1,500 mm	2,000 mm
Cutting area (X)	3,126 mm	4,112 mm
Cutting area (Y)	1,600 mm	2,100 mm
Cutting area (Z)	150 mm	150 mm
Max. positioning speed parallel axis X/Y	120 m/min	120 m/min
Max. simultaneous positioning speed	170 m/min	170 m/min
Bilateral repeatability of positioning of one axis R (following ISO 230-2:2014(E))	0.025 mm	0.025 mm
Averaged, bilateral position deviation of one axis M (following ISO 230-2:2014(E))	0.05 mm	0.05 mm
Edge detection accuracy (\pm)	0.5 mm	0.5 mm
Max. workpiece weight	1,550 kg	1,900 kg
Maximum allowed workpiece weight on both shuttle tables	3,100 kg	3,200 kg
Machine weight (without exhaust, chiller and conveyor)	10,800 kg	12,800 kg
Table changeover time	28 s	28 s
Operation	BySoft Cell Control Cut	



Laser source	Fiber 3000	Fiber 4000	Fiber 6000	Fiber 10000
Power	3,000 W	4,000 W	6,000 W	10,000 W
Range of adjustment	300–3,000 W	400–4,000 W	600–6,000 W	1,000–10,000 W
Wavelength	Fiber	Fiber	Fiber	Fiber
Steel (max. cutting sheet thickness) *	20 mm	20 mm	25 mm	25 mm
Steel (with option BeamShaper) *	20 mm	25 mm	30 mm	30 mm
Steel (option «Advanced Applications») *				
Stainless steel (max. cutting sheet thickness) *	12 mm	15 mm	30 mm	30 mm
Stainless steel (option «Advanced Applications») *				
Aluminum (max. cutting sheet thickness) *	12 mm	15 mm	30 mm	30 mm
Aluminum (option «Advanced Applications») *				
Brass (max. sheet thickness) *	6 mm	8 mm	15 mm	15 mm
Copper (max. sheet thickness) *	6 mm	8 mm	12 mm	12 mm
Total electric consumption of system (with exhaust, chiller)	17 kW	18 kW	20 kW	21 kW

Laser source	Fiber 12000	Fiber 15000	Fiber 20000	Fiber 30000
Power	12,000 W	15,000 W	20,000 W	30,000 W
Range of adjustment	1,200–12,000 W	400–15,000 W	400–20,000 W	400–30,000 W
Wavelength	Fiber	Fiber	Fiber	Fiber
Steel (max. cutting sheet thickness) *	25 mm	25 mm	25 mm	25 mm
Steel (with option BeamShaper) *	30 mm	30 mm	30 mm	
Steel (option «Advanced Applications») *		50 mm	50 mm	50 mm
Stainless steel (max. cutting sheet thickness) *	30 mm	40 mm	40 mm	40 mm
Stainless steel (option «Advanced Applications») *		50 mm	50 mm	50 mm
Aluminum (max. cutting sheet thickness) *	30 mm	40 mm	40 mm	40 mm
Aluminum (option «Advanced Applications») *		50 mm	50 mm	50 mm
Brass (max. sheet thickness) *	15 mm	20 mm	20 mm	20 mm
Copper (max. sheet thickness) *	12 mm	20 mm	20 mm	20 mm
Total electric consumption of system (with exhaust, chiller)	21 kW	22 kW	22 kW	

* In order to cut the maximum thicknesses, the following conditions must be met:

- optimally maintained and adjusted laser cutting systems
- the materials must be of the quality specified by Bystronic (laser materials)

The right to make changes to dimensions, construction, and equipment is reserved. ISO-9001-certified.

The technical data can vary in the different countries, according to local security rules and configuration of the machine.

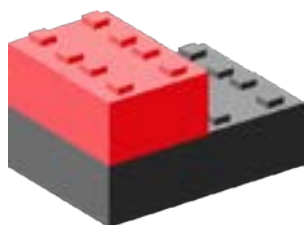
ByCut Packages Laser Cutting

Maximize your production with our tailor-made
laser cutting systems.

Your best choice.

bystronic.com

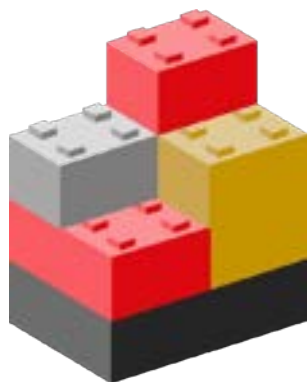
Get the best customized laser cutting system for your production needs.



1

Pick your basics

Choose the size (3015/4020) and laser power (3-30 kW) of your ByCut system. Select the layout that fits perfectly on your shop floor.



2

Add your preferred packages

Customize your system according to your production needs. Profit from our pre-configured packages.



3

Select your individual options

Anything missing? Feel free to add any available option.

Our ByCut packages **at a glance.**

Customize your system according to your production needs.

We make Your Best Choice possible by ensuring smooth and efficient production, with the highest quality, efficiency and reliability.

Pick your ByCut machine basics



System size:
3000 x 1500 mm /
4000 x 2000 mm



Laser power:
3-30 kW



Layout:
Access door configuration
Position laser & cooling unit
Cutting grate type

Add your laser packages



Autonomy Package

Increase your system's autonomy and reduce setup time by up to 50%.

Includes:

- Automatic Nozzle Changer
- Detection Eye
- Nozzle Control Tool
- Intelligent Cutting Process



Power Package

Get the most out of your high laser power. Add advanced cutting technologies to economically process thick materials.

Includes:

- MixGas Technology



Dynamic Package

Optimally tune your system for thin sheet processing. Achieve the highest acceleration for complex geometries.

Includes:

- Linear drive technology



Quality Cut Package

Increase the cutting quality of medium and thick mild steel. Achieve near burr-free cuts.

Includes:

- Automatic BeamShaper technology



Convenience Package

Simplify every step of your cutting process and elevate your experience with effortless ease.

Includes:

- Parameter Wizard
- Observer
- Additional small access door
- And more

Bystronic is a worldwide supplier of high-quality laser cutting systems, press brakes, automation and software for the economical processing of sheet metal and tubes. Bystronic stands for reliability, high-performance innovation, an outstanding price-performance ratio, and user-friendly operation. The focus is on the automation of the complete material and data flow of the sheet metal cutting and bending process chain.

For more information on Bystronic Laser AG, visit [bystronic.com](https://www.bystronic.com).

**Our specialists are happy
to support you and
answer all your questions.**

ByCut Packages Laser Cutting

Maximize your production with our tailor-made
laser cutting systems.

Your best choice.

bystronic.com

**To our ByCut, all that
matters is sheet metal –
making cutting easy
for you.**



Bystronic.
Your best choice.

Do you want to serve your customers as quickly as possible, with the highest quality, while benefiting from optimally running production?

The solution for you

Bystronic stands for 40 years of experience, quality, innovation, and Swiss engineering ingenuity.

With the new option for tailor-made configuration of a laser cutting system, we are helping you optimize your production so you stay ahead of the competition.

The new form of machine configuration

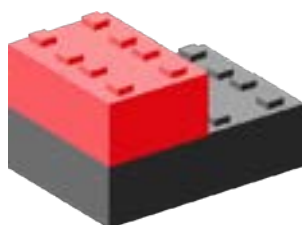
Instead of a laser cutter with all available features – which you possibly don't even need – select one or more Laser Packages appropriate for your production.

Our different laser cutting packages are aligned with our customers' business models and offer a clear financial benefit. A correctly configured machine means increased and lasting productivity, thus ensuring competitiveness.

What does the solution look like?

Configure your laser cutting system exactly according to the requirements of your production. To this end, select from five different packages that can be combined individually so you can cut the perfect parts. This guarantees that you have the right tool at hand for your laser cutting production.

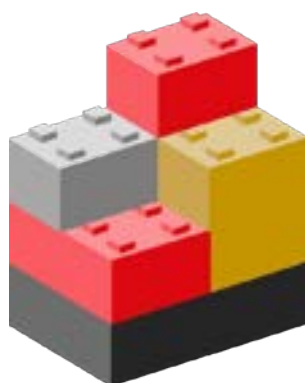
Get the best tailor-made laser cutting system for your production requirements.



1

Select your base

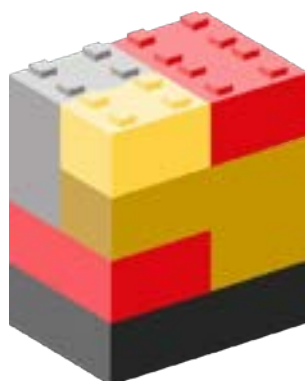
Select the dimensions (3015 / 4020) and the laser power (3–30 kW) for your ByCut system. Choose the layout that fits into your production hall perfectly.



2

Add your preferred package

Customize your system according to your production requirements. Benefit from our preconfigured packages.



3

Select your individual options

Missing something? Simply add each available option.

How do you benefit?

Flexibility

The foundation of the ByCut Packages is the tried and tested laser cutting system ByCut. With its assembly variations, it fits on any shop floor. Individually configurable access options also offer you the highest operating convenience.

The right laser power for your production

Tailor made for outstanding efficiency and parts quality. Select the right laser power for you. You can be confident that you have neither too much nor too little power behind your laser cutting.

Tailor-made Laser Packages optimize your production

A laser package tailor made for your needs clearly adds value to your production. The right package ensures faster throughput, fewer work steps, or the highest quality – exactly what you need.

No unnecessary features

Do you specialize in cutting thin sheet metal? Or the opposite, thick sheet metal? Or is the highest quality essential for your customers? By choosing the appropriate package from our selection, you further specialize and optimize your production in order to serve your customers even better.

Flexible integration into your production environment

A ByCut Package fits with any production layout and can be customized for existing automation and new applications.

Increased productivity with lower costs

High operating time, reliable cutting, and minimal setup time ensure greater output. This also means lower cost per part due to reduced scrap and minimal finishing.

Simple, user friendly, and safe

All ByCut Packages feature a simple setup, ergonomic maintenance, and fast operator training. In turn, this guarantees increased safety for man and machine, not to mention for your production.

The foundation: A ByCut laser cutting system – the configurable platform solution

- Maximum layout flexibility through various access doors and assembly configurations
- Highest machine reliability
- Operating the machine is as simple as using a smartphone

The packages

Autonomy Package

Increase the autonomy of your system and reduce setup time by up to 50%.

Contains: Automatic Nozzle Changer, Detection Eye, Nozzle Control Tool & KerfScan

- Faster and fully automatic nozzle changes in a matter of seconds
- Up to 90% shorter setup time for detecting the sheet metal position and direction
- Fully autonomous nozzle centering, nozzle type detection, and nozzle condition monitoring in a matter of seconds



Automatic Nozzle Changer

Power Package

Get the best out of your high laser power.

Add advanced cutting technologies to economically process thick materials.

Contains: MixGas technology

- Get the best out of your high laser power and reduce production time for thicker steel by 50% to 70%
- MixGas means high process robustness with variable material quality



MixGas technology

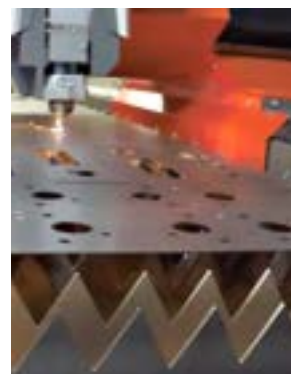
Bystronic.
Your best choice.

Dynamic Package

Optimally fine-tune your system for thin sheet metal processing. Achieve the highest acceleration for complex geometries.

Contains: Linear drive technology and intelligent CNC control, highly dynamic and precise floor anchoring

- Highest dynamics and acceleration for thin sheet metal applications
- Highest parts precision



Linear drive technology

Quality Cut Package

Increase cutting quality for medium and thick mild steel.

Achieve nearly burr-free cuts.

Contains: BeamShaper technology

- Best possible cutting quality in thicker mild steel
- Nearly burr-free cutting
- Easier parts removal due to wider cut width
- Reliable cutting enabled for up to 30 mm thick mild steel



BeamShaper technology

Convenience Package

Simplify every step of your cutting process and effortlessly augment your experience.

Contains: Parameter Wizard, LiveStream (cameras in the cutting area), secondary control panel, front and side access for maximum flexibility

- The perfect parameters in a matter of minutes
- Remote observation of the machine
- Fast access to the machine controls from any position
- Improved access to the cutting area



Parameter Wizard

Bystronic is a worldwide supplier of high-quality laser cutting systems, press brakes, automation, services, and software for economically processing sheet metal and tubes. Bystronic stands for reliability, powerful innovation, an outstanding price-performance ratio, and user-friendly operation.

Our focus is on the automation of the entire material and data flow of the sheet metal cutting and bending process chain.

To find out more about Bystronic, visit bystronic.com

Contact your regional Bystronic representative to discover how to optimize your business with our support.