



Requirements and solutions

Automation solutions optimize material flow, improve machine use and increase work and process reliability. The building blocks are modular so that the degree of automation can be adapted at a later date. The solutions range from simple handling to fully automatic operation.

Automation requirement profile

Automation system		Functionality					
		Shuttle table	Loading	Unloading	Large parts removal	Sort	Storage
Laser cutting system without automation system		✓					
	Byloader	✓	✓				
	ByTrans	✓	✓	✓			
	ByTrans Extended	✓	✓	✓	✓		
	ByTrans Modular	✓	✓	✓	✓		
	BySort*	✓	✓	✓	✓	✓	
	ByTower Compact	✓	✓	✓			✓
	ByTower**	✓	✓	✓	✓		✓

✓ The utilization of the laser cutting system increases with the degree of automation

* Functionality in combination with ByTrans Modular only. BySoft CAM is recommended.

** Functionality in combination with ByTrans/ByTrans Extended only



Automation configuration

Laser cutting system	Automation systems						
	Byloader	ByTrans	ByTrans Extended	ByTrans Modular	BySort*	ByTower**	ByTower Compact
ByStar Fiber 3015	✓	✓	✓	✓	✓	✓	✓
ByStar Fiber 4020	✓		✓	✓	✓		✓
BySmart Fiber 3015	✓	✓	✓	✓	✓	✓	✓
BySmart Fiber 4020	✓		✓	✓	✓		✓
ByCut Star 3015	✓	✓	✓	✓		✓	
ByCut Star 4020	✓		✓	✓			
ByCut Smart 3015	✓	✓	✓	✓	✓	✓	✓

✓ Available in combination with the corresponding laser cutting system

* Functionality in combination with ByTrans Modular only. BySoft CAM is recommended.

** Functionality in combination with ByTrans/ByTrans Extended only



ByTower Compact

Loading and unloading automation system with integrated storage tower for laser cutting systems

Customer benefits

- Compact Bystronic laser cutting solution featuring a combined loading/unloading system complete with storage tower. The system has been designed to take up as little floor space as possible
- Automated loading/unloading of cassettes, enabling unsupervised production
- Storage tower height tailored to every requirement to make optimum use of the available space
- Two different configurations to handle sheet metal stacks either with or without wooden pallets

	ByTower Compact 3015	ByTower Compact 4020	ByTower Compact 3015-P	ByTower Compact 4020-P
Nominal sheet size	3,000 × 1,500 mm	4,000 × 2,000 mm	3,000 × 1,500 mm	4,000 × 2,000 mm
Maximum sheet weight	900 kg	1,600 kg	900 kg	1,600 kg



ByTower Compact Technical Data





	ByTower Compact 3015	ByTower Compact 4020	ByTower Compact 3015-P	ByTower Compact 4020-P
Nominal sheet size	3,000 × 1,500 mm	4,000 × 2,000 mm	3,000 × 1,500 mm	4,000 × 2,000 mm
Maximum sheet metal size	3,025 × 1,520 mm	4,025 × 2,020 mm	3,025 × 1,520 mm	4,025 × 2,020 mm
Max. sheet thickness *	25 mm	25 mm	25 mm	25 mm
Load / unload approx cycle time without Fast Cycle (+N) option	180 s	220 s	180 s	220 s
Load / unload approx cycle time with Fast Cycle (+N) option	70 s	80 s	70 s	80 s
Sheet metal sizes	1,500 × 1,000 mm	1,500 × 1,000 mm		1,500 × 1,000 mm
	2,000 × 1,000 mm	2,000 × 1,000 mm	1,500 × 1,000 mm	2,000 × 1,000 mm
	2,500 × 1,250 mm	2,500 × 1,250 mm	2,000 × 1,000 mm	2,500 × 1,250 mm
	3,000 × 1,500 mm	3,000 × 1,500 mm	2,500 × 1,250 mm	3,000 × 1,500 mm
	4,000 × 1,500 mm	4,000 × 1,500 mm	3,000 × 1,500 mm	4,000 × 1,500 mm
		4,000 × 2,000 mm		4,000 × 2,000 mm
Maximum sheet weight *	900 kg	1,600 kg	900 kg	1,600 kg
Steps between cassettes	205 mm	235 mm	355 mm	385 mm
Raw material, stacking height max. (incl. pallet) **	90 mm	90 mm	240 mm	240 mm
Raw material, stacking weight max.	3,000 kg	5,000 kg	3,000 kg	5,000 kg
Cut sheets, stacking height max. (incl. pallet) **	240 mm	240 mm	240 mm	240 mm
Cut sheets, stacking weight max.	3,000 kg	5,000 kg	3,000 kg	5,000 kg
Maximum permitted sheet sag	50 mm	50 mm	50 mm	50 mm
Supply tension	400 V	400 V	400 V	400 V
Maximum electrical consumption	24 kW	39 kW	24 kW	39 kW
Maximum nominal current	34.6 A	56.3 A	34.6 A	56.3 A
Mains frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Pressure	6 bar	6 bar	6 bar	6 bar
Compressed air consumption (max)	900 nl/H	900 nl/H	900 nl/H	900 nl/H

* 3015: In case of anti scratch belts adoption, the max sheet thickness is 15mm and its weight is 540 kg.

4020: In case of anti scratch belts adoption, the max sheet thickness is 15mm and its weight is 960 kg.

** 3015/4020: Maximum height for a stack of sheets is 90mm, the rest can be used for pallet.

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.