










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 Cross	■	■	■	■		
 BySort*	■	■	■	■	■	
 ByTower Compact	■	■	■			■
 ByTower**	■	■	■	■		■

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

* Functionality in combination with ByTrans Cross only

** Functionality in combination with ByTrans/ByTrans Extended/ByTrans Cross only



Automation configuration

Laser cutting system	Automation systems						
	Byloader	ByTrans	ByTrans Extended	ByTrans Cross	BySort*	ByTower**	ByTower Compact
ByStar Fiber 3015	■	■	■	■	■	■	■
ByStar Fiber 4020	■		■	■	■		■
BySmart Fiber 3015	■	■	■	■	■	■	■
BySmart Fiber 4020	■	■	■	■	■		■
BySprint Pro 3015	■	■	■	■		■	
BySprint Pro 4020	■		■	■			

■ Available in combination with the corresponding laser cutting system

* Functionality in combination with ByTrans Cross only

** Functionality in combination with ByTrans/ByTrans Extended/ByTrans Cross only



ByTrans, ByTrans Extended

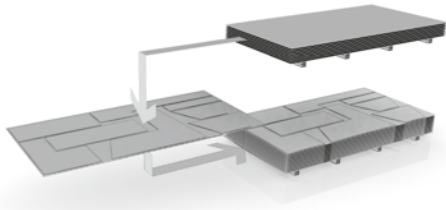
Intelligent solutions for loading and unloading laser cutting systems

Customer benefits

- Fast job processing because automatic loading and unloading decreases set-up times
- Much higher machine utilization for only a slightly higher investment
- The ByTrans Extended design has not just one but two cassettes, thereby making the machine system even more autonomous
- Flexible use. Not just for storage/return transfer but also for large parts removal as well as the preparation of plastic protective separators, which are placed between the metal sheets by the system (ByTrans Extended)
- Entry into lightly-manned parts production
- ByTrans Extended is optionally available in 3 × 1.5 meter and 4 × 2 meter formats



One cassette for raw material

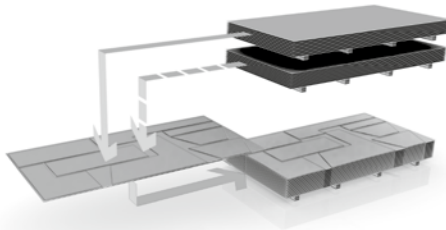


Cassette 1: raw material

Storage: cut sheets

ByTrans 3015

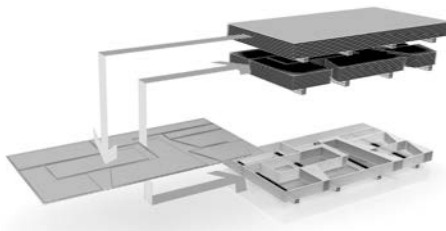
Two cassettes for raw material



Cassettes 1 and 2: raw material

Storage: cut sheets

Large parts and sheet skeletons separated

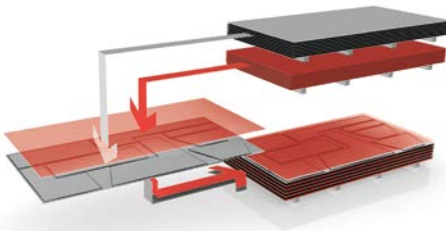


Cassette 1: raw material
Cassette 2: large parts storage

Storage: scrap

ByTrans 3015 / 4020 Extended

Cut sheets with plastic sheet separators



Cassette 1: raw material
Cassette 2: intermediate storage.

Storage: cut sheets with plastic sheet separators

	ByTrans 3015	ByTrans 3015 Extended	ByTrans 4020 Extended
Nominal sheet size	3,000 × 1,500 mm	3,000 × 1,500 mm	4,000 × 2,000 mm
Load sheet metal thickness	0.8–25 mm	0.8–25 mm	0.8–20 mm
Unload sheet metal thickness	0.8–25 mm	0.8–25 mm	0.8–20 mm
Maximum sheet weight	890 kg	890 kg	1,300 kg
Number of cassettes	1	2	2
Large parts removal		■	■
Insert protective separators		■	■
Cassette Changer			■



ByTrans, ByTrans Extended Technical Data





	ByTrans 3015	ByTrans 3015 Extended	ByTrans 4020 Extended
Nominal sheet size	3,000 × 1,500 mm	3,000 × 1,500 mm	4,000 × 2,000 mm
Maximum sheet metal size	3,048 × 1,524 mm	3,048 × 1,524 mm	4,064 × 2,080 mm
Sheet metal sizes	3,000 × 1,500 mm 2,500 × 1,250 mm 2,000 × 1,000 mm		
Variable sheet metal sizes		■	■
Number of cassettes	1	2	2
Sheet thickness (loading and unloading)	0.8–25 mm	0.8–25 mm	0.8–20 mm
Maximum sheet weight	890 kg	890 kg	1,300 kg
Raw material, stacking height max. (incl. pallet)	240 mm	240 mm	240 mm
Raw material, stacking weight max.	3,000 kg	3,000 kg	3,000 kg
Cut sheets, stacking height max. (incl. pallet)	350 mm	350 mm	350 mm
Material	Construction steel, Stainless steel, Aluminum		
Loading	with forklift truck or overhead crane		
Unloading	with forklift truck		
Standard cycle time	60 s	60 s	75 s
Cycle time for big part removal		140 s	190 s
Cycle time with insertion of protective material *		155 s	210 s
Operation	Via touch screen of the operating terminal of the laser cutting system		
Module weight (net)	4,500 kg	5,000 kg	7,200 kg
Maximum electrical consumption ByTrans Cross (supplied via cabinet of the laser cutting system)	6 kW	6 kW	6 kW
Compressed air consumption (max)	10 m ³ /h	10 m ³ /h	10 m ³ /h

* without table change machine; for a normal cutting plan with a cutting time > cycle time.

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.