# **barbaric**



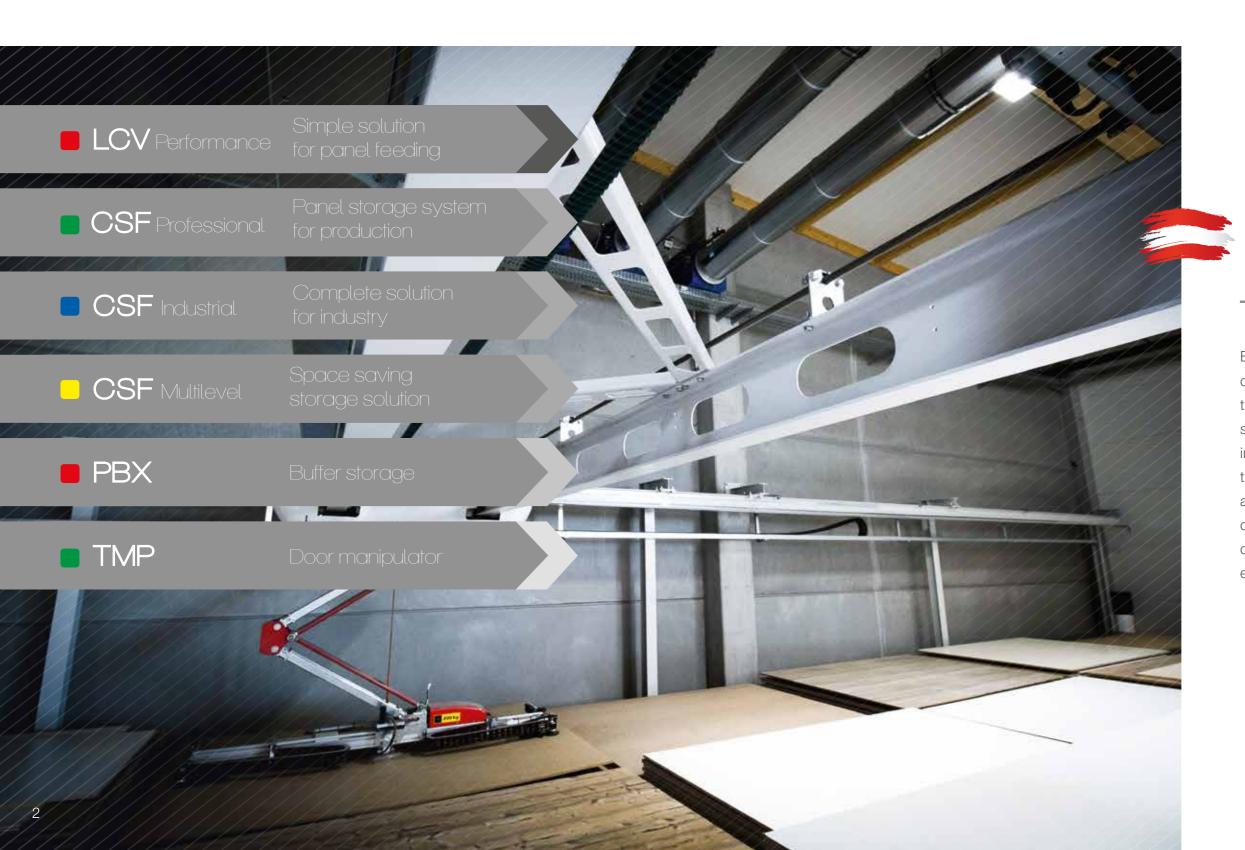
# Panel handling

compact - fast - custom-made



www.barbaric.at

# Taleas that move



# Barbaric Quality Made in Austria

Barbaric is a successful and dynamic company with headquarters and manufacturing facility in Austria specializing in sophisticated lifting technology. Our goal is the individual production of custom-made solutions for our customers in the field of glass and panel manipulation. Through integration of modern components developed in our company we can offer ergonomic and costeffective systems with short payback periods.

www.barbaric.at





# Performance

A Barbaric LCV feeding system allows for easy and fast feeding of your manufacturing machine. In this area we can offer custom-made systems built with simple yet high-quality components. Benefits are low space requirement and the elimination of physically challenging work for production workers.

It's an investment with tremendous value for craft and industry production.



#### Simple and functional

All essential functions of the panel storage system CSF were retained at the feeding system LCV. By concentrating on essential functions the system can convince with simplicity and reliability.

#### Manipulator

All functions are integrated to save space.

- > lifting motor
- horizontal motor
- rotational motor (optional)
- > electrical cabinet



# Suction traverse - with optional size adjustment

- > manually adjustable aluminium traverse
- > automatic size adjustment (optional)
- > panel sizes of 2000 mm to 4200 mm
- > panel weight of 200 kg
- > vacuum generation via energy-saving ejector



Ideas that move.

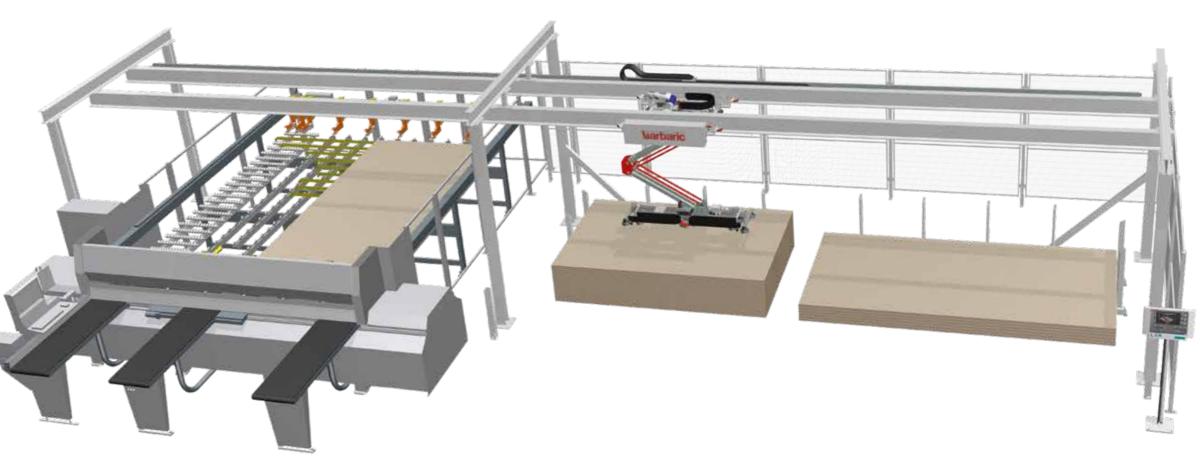
www.barbaric.at



## Feeding system







## Technical data

STANDARD

OPTIONAL

### Function and operation

- > visualization in 2D and 3D system
- > simple and intuitive user interface
- > fully automated standardized hardware interfaces for different saw manufacturers
- > automated panel feeding

#### Your benefits at a glance

- > optimized material flow
- > gentle manipulation: no damage of the panels during transport
- > optimization of space
- > reduced personnel expenses
- > simplification and alleviation of production processes
- higher capacity utilization of your manufacturing machine
- > flexibility in production processes
- > payback periods below one year possible
- > fully automated panel handling

	STANDARD	OPTIONAL
Plant size		
» System design » Length	two-axis system (XZ) up to 50 m	three-axis system (XYZ)
Movement speeds		
» X-axis	80 m/min	
» Z-axis	25 m/min	
Panel sizes		
» Length	2000 – 4200 mm	max. 5600 mm
» Width	600 – 2100 mm	longer on request
» Thickness	from 8 mm	
» Panel weight	200 kg	up to 320 kg *
Stacking		
» Stack height	1800 mm	up to 2500 mm
» Stack distance	150 mm	

<sup>\*</sup> min. width of panel for > 250 kg: 1000 mm





## Know-how and design

- IT CSF barbaric

CAD-optimized product design and low net weights meet the high demands of fast speed and short cycle times. Optimum use of space - only 100 mm lateral distance in all directions is required.

#### Panel storage system

# Professional

,Innovation in perfection'.

The panel storage system CSF Professional combines functionality, performance and design in one machine. With hundreds of systems installed worldwide barbaric has become a specialist in warehouse logistics and vacuum technology.

For each company in the crafts, supplying or industry, we offer suitable storage solutions.

#### Manipulator

Unique design and narrow body. All essential functions and components are integrated. Touch screen and user control panel can be placed anywhere around the storage system.



# Rotation function

#### Rotation function, panel measurement and angle correction

With the 90° rotation unit, panels can be stored in all directions. In each stacking process the panels are measured and weighed. High process reliability through continuous measuring and recording of the weight of the panels. Orientation of the angular position while driving. 180° rotation unit optional.





www.barbaric.at

8



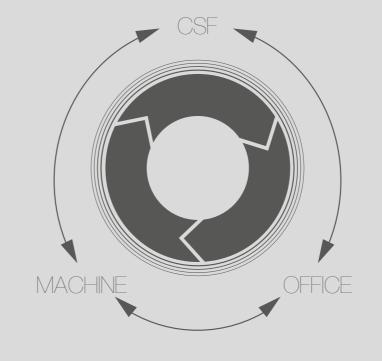
# The suction traverse - functional yet compact

Functionality even in little details.

Modern, decentralized control modules and valve terminals create an easy and compact structure.

Energy-saving ejectors ensure economical and quiet operation.

- > automatic length adjustment
- > panel measurement
- > weight measurement
- > MDF- and thin panel package
- > maintenance-free
- > power saving function



# Interfaces for established manufacturers

The basis for an efficient production is the connection of the storage system with the manufacturing machine.

- > open data interfaces
- existing hard- and software interfaces for almost all machine manufacturers
- > automatic monitoring of stock quantities
- either storage system controls saw or saw controls storage system
- by default a re-integration of cutting rests into the storage is possible
- > any number of Office stations
- > status message by E-Mail
- > customized versions available

## Sorted, grouped and chaotic stacking

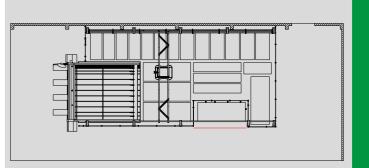
Flexible design options for stacking in the warehouse. Sorted or chaotic stacks can also be mixed within a warehouse.

A change in the stack due to new materials or groups is possible at any time.



## Individual design for each customer

Each Barbaric panel storage system is adapted to the specific customer requirements. We develop the ideal concept in close cooperation with our customers. This results in ergonomic solutions for internal logistics.





#### Control and operation

Various storage configurations can be realized with our standard software.

- integrated service tool for remote maintenance
- > simple, touch-enabled surface
- > Windows-based application
- > extensive error analysis, with optional camera tool
- integrated warehouse management and inventory management
- > XY-alignment functions for the alignment of parts on machine stoppers

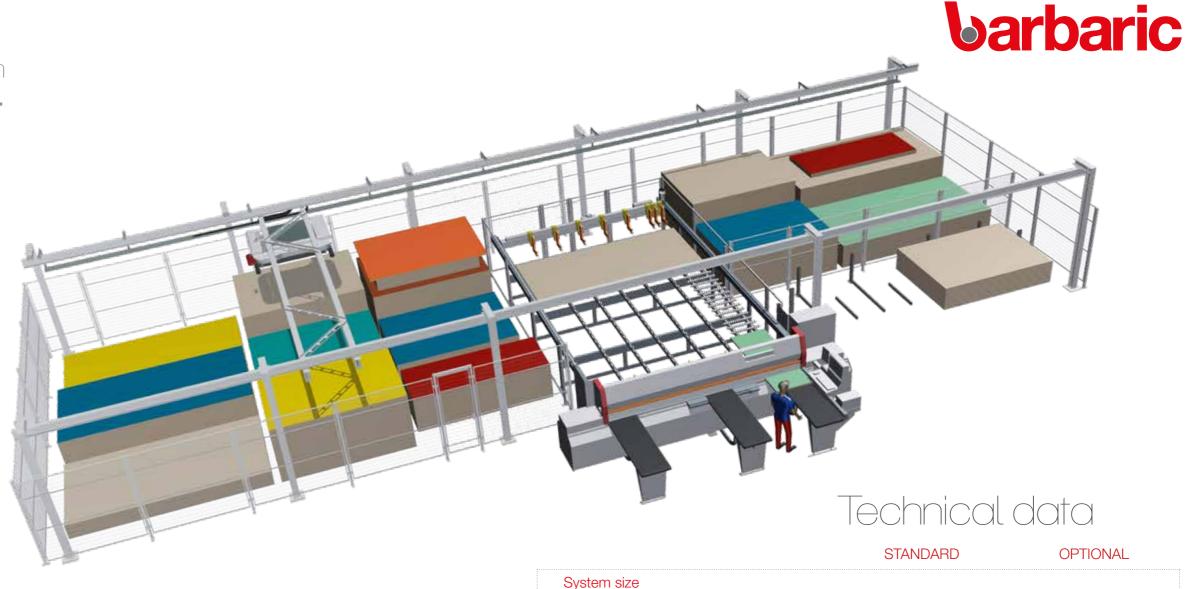


### Optional Label Printing System LPS

For production processes with a continuous level of automation, we can use our LPS Labeling Printer to apply production labels to the panel even before cutting. This facilitates the identification of items and the communication with the individual production machines.

Panel storage system

# Professional



#### Function and operation

Highly efficient production facilities require modern control systems.

- > intuitive user interface and modern layout
- > 21" touch display
- > material administration and production control
- > office terminals possible
- > material parameters individually configurable
- > SQL database
- > online interface for optimiziation software
- > external storage management
- > simple remote control

#### Your benefits at a glance

- > optimized material flow
- > gentle manipulation; no damage of the panels during transport
- > optimization of space
- > reduced personnel expenses
- > simplification and alleviation of production
- > higher capacity utilization of your manufacturing machine
- > highest flexibility in production processes
- > best possible material utilization due to re-integration of rest pieces
- > integrated warehouse management
- > short payback periods of one to two years
- > Order-picking operation without saw is possible

" Orano ranivay	up to 00 111	loriger off request
» Crane bridge		up to 16.5 m
Movement speeds		

» X-axis	130 m/min	
» Y-axis	110 m/min	
» 7-axis	4∩ m/min	

#### Panel sizes

-	» Lenath	2000 - 4200 11111	max. 5600 mm
***************************************	» Width	600 – 2100 mm	others on request
	» Thickness	from 6 mm	from 3 mm
	» Panel weight	200 kg	up to 320 kg **

#### Rest sizes (for re-integration)

» Length	2000 – 4200 mm*	1400 - 4200 mm
» Width	600 – 2100 mm	

#### Stacking

» Stack height	1800 mm	up to 2500 mm
» Stack distance	150 mm	100 mm

 $<sup>^{\</sup>star}$  Panels up to 5600 mm long can be lifted and transported eccentrically.  $^{\star\star}$  min. width of panel for 320 kg: 1000 mm





# Industrial

With the panel storage system CSF Industrial we can offer an individual solution for your special demands. There

Renowned industrial enterprises count on the stability and reliability of Barbaric



#### Performance for industrial producers

Our panel storage system CSF Industrial meets the high industrial demands for functionality and performance.

- > cycle times below 1 minute
- > movement speeds up to 150 m/min
- > crane bridge lengths up to 25 m
- > integration of chain conveyors or conveyor belts



are no constraints on your wishes.

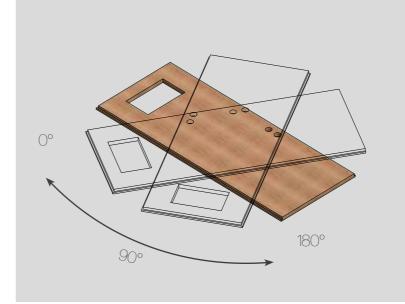
systems.



## Manipulator

The equipment integrated within the manipulator provides a highly reliable system.

Maintenancefree components throughout the system ensure high system availability.



#### Panel rotation up to 180°

With the 180° rotation device, parts can be aligned on both sides. A special angle correction of +/- 5° guarantees straight and correct stacks. The XY-alignment functions ensure the alignment of parts on machine stops. This allows doors to match the orientation and the veneer or they can be outsourced to another machine for processing.

Ideas that move

www.barbaric.at





#### Suction traverse equipped with all the functions you need

Depending on the application, the suction traverse is adapted to specific customer requirements and materials. Optional load increase and increase of stroke are realized.

- > standard suction traverse
- > vacuum grippers
- > special suction traverse
- > separation unit
- > ionization nozzle for the plastic panels
- > handling for wooden boards

### Safety system

Our safety facilities comply with all local standards. In conjunction with other machinery, special safety concepts are also realized in agreement with the customer.

- > centralized safety PLC with online access
- possibility of integration of various machines



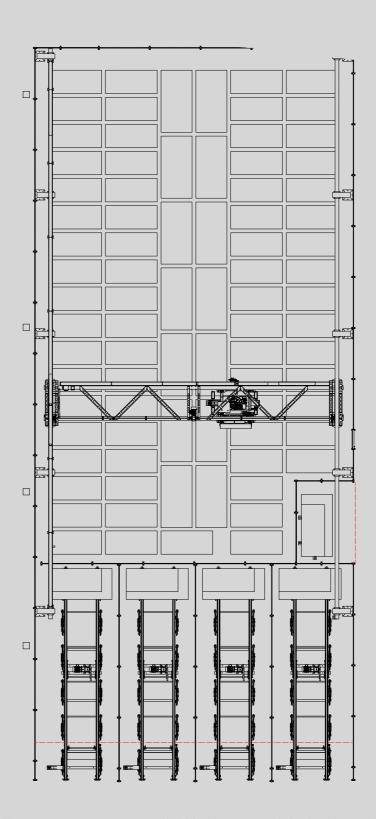


#### Software

Connection to customer databases and ERP systems are implemented in the house. Integration options of

- > various databases
- > ERP systems
- > RFID systems
- > CAM systems
- > optimization systems



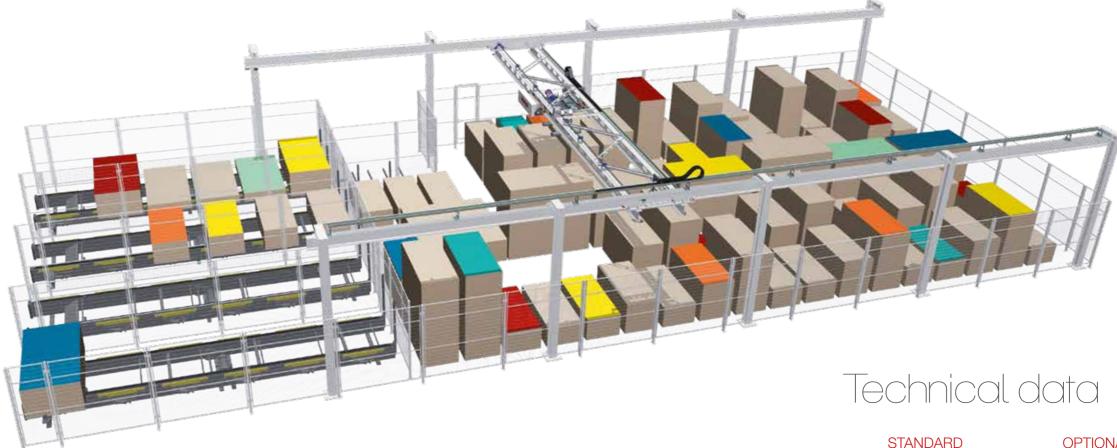


Individual customer solution implemented at Bayer Built Woodworks Inc., USA

#### Panel storage system

## **barbaric**





**OPTIONAL** 

### Function and operation

- > all basic functionalities of the panel storage system CSF integrated
- > adjustment to existing software solutions
- > optimized utilization of storage space
- > transparency with regards to stock quantities
- > simple inventory proceedure, current stock levels at all times
- > fully automated panel handling
- > highly flexible system
- > cycle times below 1 minute possible
- > special designs according to your requirements

#### Your benefits at a glance

- > extremely large storage areas possible (up to 25 m x 70 m)
- > optimized material flow
- > gentle manipulation, no damaging of the panels during transport
- > optimization of space
- > reduced personnel expenses
- > simplification and alleviation of production processes
- > high transportation services
- > highest machine availability
- > highest flexibility in production processes
- > significant increase in productivity

	STANDARD	OFTIONAL
System size		
» Crane runway	up to 100 m	
» Crane bridge	up to 25 m	
Movement speeds		
» X-axis	150 m/min	
» Y-axis	150 m/min	
» Z-axis	60 m/min	
Panel sizes		
» Length	2000 – 4200 mm*	max. 5600 mm
» Width	600 – 2100 mm	others on request
» Thickness	from 6 mm	others on request
» Panel weight	200 kg	320 kg **
Panel rest sizes (for re-integration)		
» Length	2000 – 4200 mm*	1400 - 4200 mm
» Width	600 – 2100 mm	
Stacking		
» Stack height	1800 mm	up to 2500 mm
» Stack distances	150 mm	up to 100 mm

<sup>\*</sup> Panels up to 5600 mm long can be lifted and transported eccentrically. \*\* min. width of panel for 320 kg: 1000 mm





## A solution out of one hand

We are proud to offer a complete handling solution:

- > Steel construction
- > Mezzanine Floor oden
- > Maintenance Stairs
- > Automatic Sliding Doors
- > Camera system (multiple angles)

### Panel storage system

# SF Multilevel

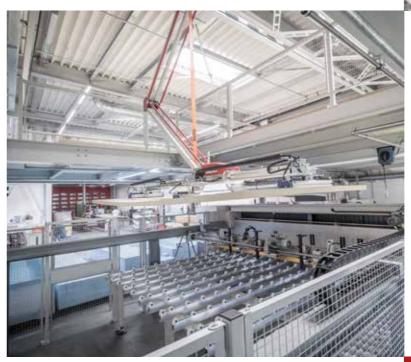
Multilevel storage systems offer the maximum efficiency for customers with high production halls. With the CSF Multilevel Barbaric offers the possibility to store boards on the upper floor and to feed the processing machines at ground level.

For particularly high performance and storage capacity even multiple storage manipulators can be implemented one above the other. An optimal solution for high-performance industrial plants.

## A highlight — our double-saissor load arm

The construction in a double-scissor configuration offers many advantages:

- > Lifting height of 4200 mm
- Optimal storage efficiency through storage in upper level
- > Flexibility in space configuration
- > Adequate height of lower level with 3200 mm





#### Machine feeding

No matter which kind of processing machine – any machining center can be placed on the ground floor. With a comfortable ground level height of 3200 mm the lower floor has a sufficient height for machine operation and even fork lift operation. The steel construction can also be used to mount dust extraction pipes or stationary installations.



www.barbaric.at



#### Panel storage system

## **barbaric**

# Multilevel



#### Functions and operation

- > Sliding doors at the store-in place for maximum
- > Maximum efficiency in terms of storage space
- > Individual constructions on customer request
- > all basic functionalities of the panel storage system CSF Professional integrated
- > adjustment to existing software solutions
- > optimized utilization of storage space
- > transparency with regards to stock quantities
- > simple inventory proceedure, current stock levels at all times
- > fully automated panel handling
- > highly flexible system
- > cycle times below 1 minute possible

#### Your benefits at a glance

- > Efficient height use of your production hall
- > Often no need for production hall expansion (enormous cost savings)
- > Sufficient and comfortable ground level height
- > Access to upper level through maintenance stairs
- > Installation of dust extraction or supply lines on steel construction possible
- > Optimal material flow
- > Gentle and damage-free material handling
- > Optimal storage capacity
- > Camera system for optimal surveillance from user terminal

	STANDARD	OPTION
System size		
» Crane runway	up to 70 m	
» Crane bridge	up to 15 m	
Movement speeds		
» X-axis	150 m/min	
» Y-axis	150 m/min	
» Z-axis	60 m/min	
Panel sizes		
» Length	2000 – 4200 mm*	max. 5600 mm
» Width	600 – 2100 mm	others on request
» Thickness	from 6 mm	from 3 mm
» Panel weight	200 kg	320 kg **
Panel rest sizes (for re-integration)	)	
» Length	2000 – 4200 mm*	1400 - 4200 mm
» Width	600 – 2100 mm	
Stacking		
» Stack height	1200 mm	others on request
» Stack distances	150 mm	up to 100 mm

<sup>\*</sup> Panels up to 5600 mm long can be lifted and transported eccentrically.

<sup>\*\*</sup> min. width of panel for 320 kg: 1000 mm



Industrial handling solutions – individually crafted for our customers - are just as much a specialty of Barbaric as the standard machines. We are proud to offer highly-customized machines that fit the customer's needs perfectly. From the idea of the customer to constructive implementation, from production to assembly and finally the customer handover - you will be accompanied by an experienced team of technicians. The machines that we offer can be as complex as the customer wishes – we set no limit to your imagination.

### Ideas that move.

#### The project starts with an idea

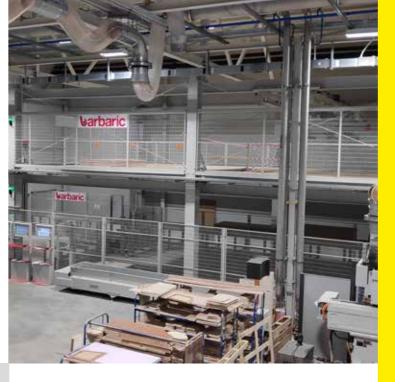
As one of the key points of a successful collaboration, we see the close partnership with the customer. During the concept and quotation phase, competent support is guaranteed by our sales and project team. Especially in this phase, the course is set for the future investment.

Later in the project, recurrent meetings and project arrangements are the key to success. Together, the project goals are defined and discussed again and again. We see communication as one of the most important skills of our team.

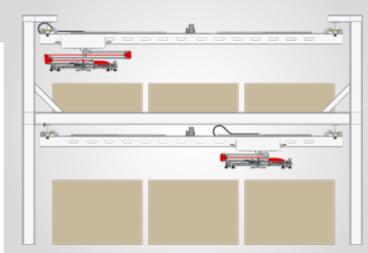
After the customer acceptance at our factory, the assembly team takes over the installation directly at the customer. Our installation technicians as well as trained staff of industry partners convince with a professional and hassle-free assembly. During the commissioning phase, control engineers from Barbaric impress with a quick start-up phase and subsequent plant optimization. The final step is the training of the operating and maintenance personnel and of course the successful handover to the customer.

#### Our services at a glance

- > Initial planning and concept creation
- > Analysis of customer data
- > Simulation with mathematical calculation models
- > Modern 3D Construction
- > Design Reviews with the customer
- > Multiple project meetings
- > Assembly and startup
- > Acceptance and performance testing
- > Service and Maintenance concept



#### Second storage manipulator at lower level possible.



CSF Multilevel storage system with 2 manipulators.

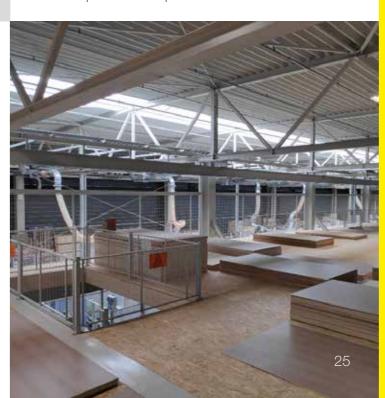
## Example of a customer project at a reputable RV producer

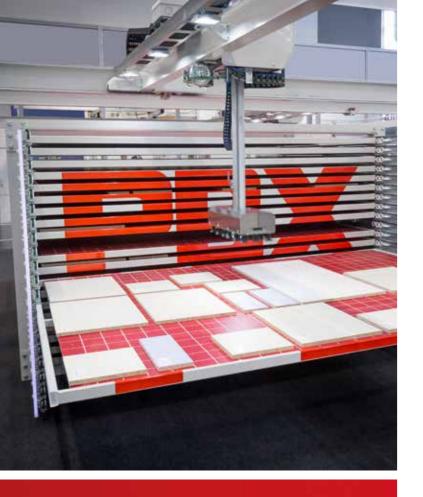
- > Planning and concept creation
- Industrial CSF Multilevel Storage system with 2 manipulators
- > Storage foot print of 70 m x 10 m
- > 1800 mm stacking height on ground level
- > 800 mm stacking height on upper level
- > Over 120 stacking positions (2500 x 1250 mm)
- > Three-shift-operation
- > Integration of conveyor technology
- > Label printing stations with dual-printer-heads for simultaneously labelling multiple label sizes
- > Integration of garbage conveyor system
- > Communication to the ERP system of the customer
- > Backup- and failure plans

#### Software solutions

Especially in the field of industrial handling solutions we emphasize a high level of communication between production machines:

- > Highly customized handling software
- > Communication between multiple production machines
- > Multiple User control terminals
- > Control terminals in production as well as office
- Special software for controlling production jobs, communicating with customer ERP solution, etc.
- > Backup solutions











Ideas that move.

## Buffer storage

## Buffering of parts in furniture manufacturing

The buffer storage PBX assures a constant flow of parts in the production. In order to cushion different processing times of individual machines, the interim storage of parts is indispensable for a modern production line.

#### Designs

- > One-sided version with a single XYZ manipulator
- > Two-sided design with two XYZ manipulators
- > Versions with various conveyor systems in the surrounding area of the buffer

#### Technical Data

- > approx. 120 m² storage area in a small space
- > cycle times of up to 6 parts/min.
- > max. panel size 2.8 x 1.95 cm
- > max. panel thickness 25 mm, optional: 40 mm
- > individual designs possible
- > Each drawer is individually driven, enabling overlapping opening and closing processes

#### Advantages at a glance

- > Flexibility of production
- Individual and instantaneous access to all parts at all times
- > Increase of productivity
- > Optimization of personnel costs
- > Continuous material flow at the edge bander
- > Grouping of parts for individual orders
- > Cushioning of different processing times on individual machines
- > Unbundling of production
- > Safety buffer in case of machine failures
- > Parts tracking and visualization



**barbaric** 









Ideas
that more.



Optimized production processes in the door manufacturing

With the door manipulator TMP company Barbaric sets new standards in terms of optimized production processes in the door manufacturing.

The system has a very slim and compact design that allows for a very quick manipulation of boards and extremely low cycle times.

Also, roller conveyors or barcode scanning stations can be integrated into the automatic system.

The application area is for example the automatic feeding of a CNC, subsequent stacking of machined doors or other stacking prpcesses.

The perfect solution for relieving your employees and increase of productivity.



## Techncal data

- > up to 6 cycles per minute
- > use of grippers structured door surfaces
- > vacuum generation by ejectors
- > up to 100 kg load capacity
- > stack height up to 1800 mm
- > low constructional height



www.barbaric.at





### Service / After-Sales

WE RELY ON A GOOD CUSTOMER RELATIONSHIP -EVEN AFTER THE SALE. Quality, efficiency and innovation - three keywords that apply specifically to Barbaric's service competence. The employees of our service hotline have been with us for many years and have

excellent knowledge of our products.

They will be happy to help you - no matter whether it is a spare part, maintenance or service request.

#### SPARE PARTS - HOTLINE

Phone: +43 732 779800-400 Email: spareparts@barbaric.at Mo - Th. 07:00 - 16:00 Fr. 07:00 - 12:00

#### SERVICE - HOTLINE

Phone: +43 732 779800-300 Email: service@barbaric.at

Emaii: service@barbanc.a | Mo – Fr. 07:00 – 16:00

#### The green idea

This machine is not only a warehouse but also helps the environment with the chosen technology. The drive and vacuum technology was chosen so intelligently that the required electricity was reduced to a minimum. The vacuum is generated directly where it is needed. Any losses are avoided. The compact yet stable design allows the use of comparatively low drive power. By accommodating several bars, the number of travel movements is drastically reduced.



# Your competent partner also in panel and parts handling for trade and industry



#### Automatic panel and part handling

Our intelligent solutions are used by many customers around the globe.

- > Panel storage systems
- > Feeding systems
- > Buffer storage
- > Return systems

are just a few examples of modern systems in the field of material handling. Each system in this area is built individually according to our customers' requirements, while existing components and proven concepts are used.

#### Manual handling solutions

For customers in the wood, glass industry or for construction site use, we offer the suitable lifting equipment.

Barbaric provides optimal handling solutions for safe and ergonomic lifting applications.

Manual vacuum lifters from Barbaric enable efficient handling of heavy panels or glass and save valuable time in production. Heavy lifting tasks can be performed effortlessly by just one operator. By purchasing suitable handling solutions, sickness-related absences can be minimized and attractive jobs created for the employees.



All rights are reserved by Barbaric GmbH, also in the case of property right applications Subject to technical changes. Technical changes and errors excepted.

Subject to technical changes. Technical changes and errors excepted.



Ideas that move.

#### Headquarters

#### **Barbaric GmbH**

Pummererstr. 12 4020 Linz, Austria Phone: +43 732 779800 e-mail: office@barbaric.at

### Production site

#### **Barbaric GmbH**

Lichtenberger Str. 37 4201 Eidenberg, Austria

#### Sales locations & subsidiaries



#### **Barbaric GmbH Germany**

Lammgasse 7
75382 Althengstett, Germany
Phone: +43 732 779800
email: office@barbaric.at



#### **Barbaric North America Inc.**

741 Merritt Capital Drive, Suite 117
Wake Forest, NC 27587, USA
Phone: +1 919 425 2803
email: info@barbaric.us
www.barbaric.us



