

# barbaric



## Vacuum Handling Motorhome & Caravan Production



# Vacuum Handling Solutions for Motorhome & Caravan production.

Barbaric offers special solutions for the assembly and production of motorhomes and caravans. For many processes in pre-assembly and assembly, we have developed special vacuum lifters in order to guarantee a fast and effortless assembly with the greatest possible ergonomics and safety.

*Ideas that move.*



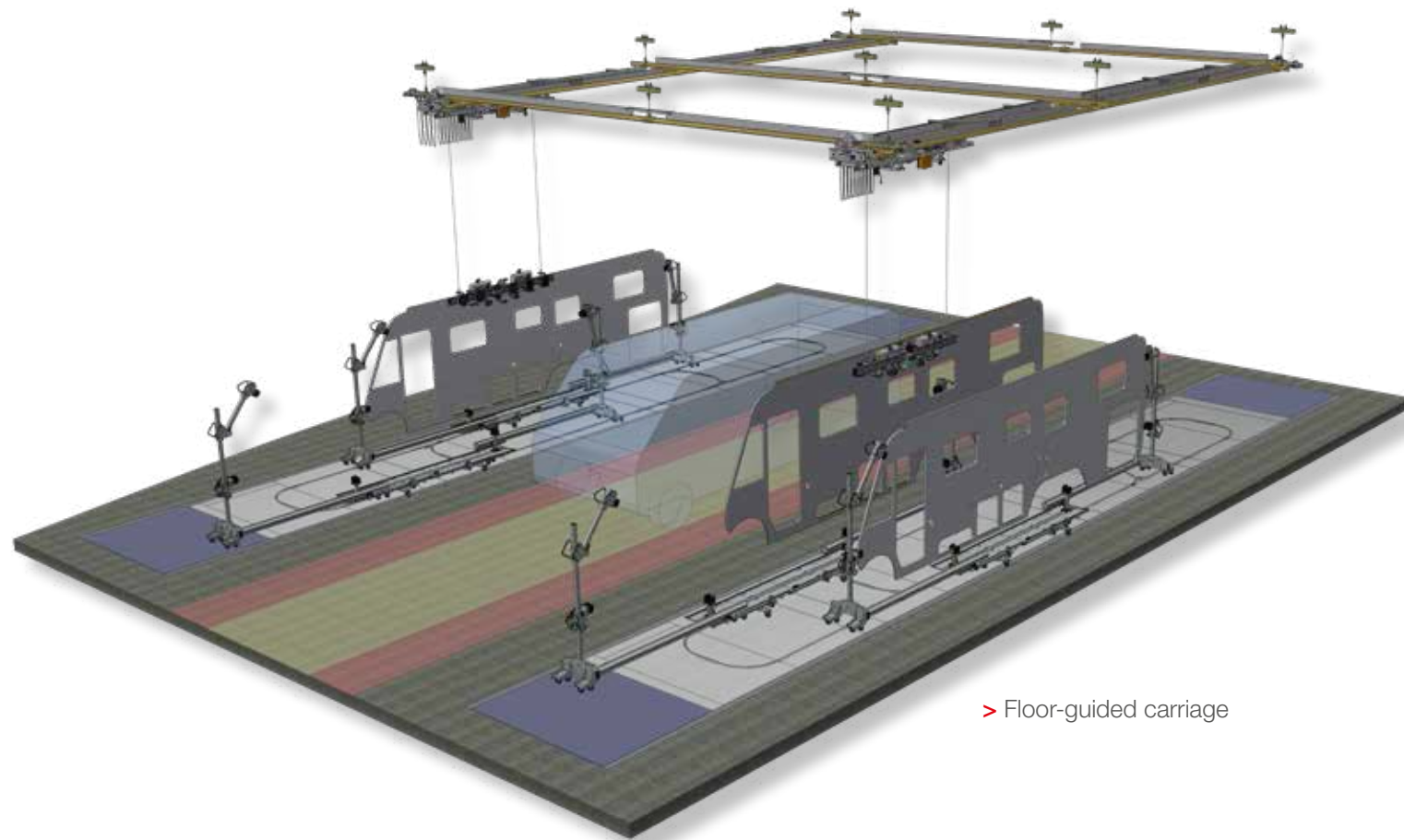


# Side wall Pre-Assembly and Storage System

## Function

**Storage and handling of finished side walls on the assembly line**

We developed this special handling with the assembly and intermediate storage of finished side walls on the assembly line in mind.



> Floor-guided carriage

The vacuum manipulator lifts the pre-fabricated side wall from a transport frame into the floor-guided carriage.

After fixing, the raw side wall can be loaded, assembled and labeled. Then the side panel is pushed manually to a storage location next to the assembly line.

Depending on the version and size of the storage system, several side walls can be pre-fabricated and stored. Storage systems can be arranged on both sides of the assembly line.

With this sidewall pre-assembly system and the additional storage option for finished side walls, the greatest possible flexibility on the line and during pre-assembly is achieved.

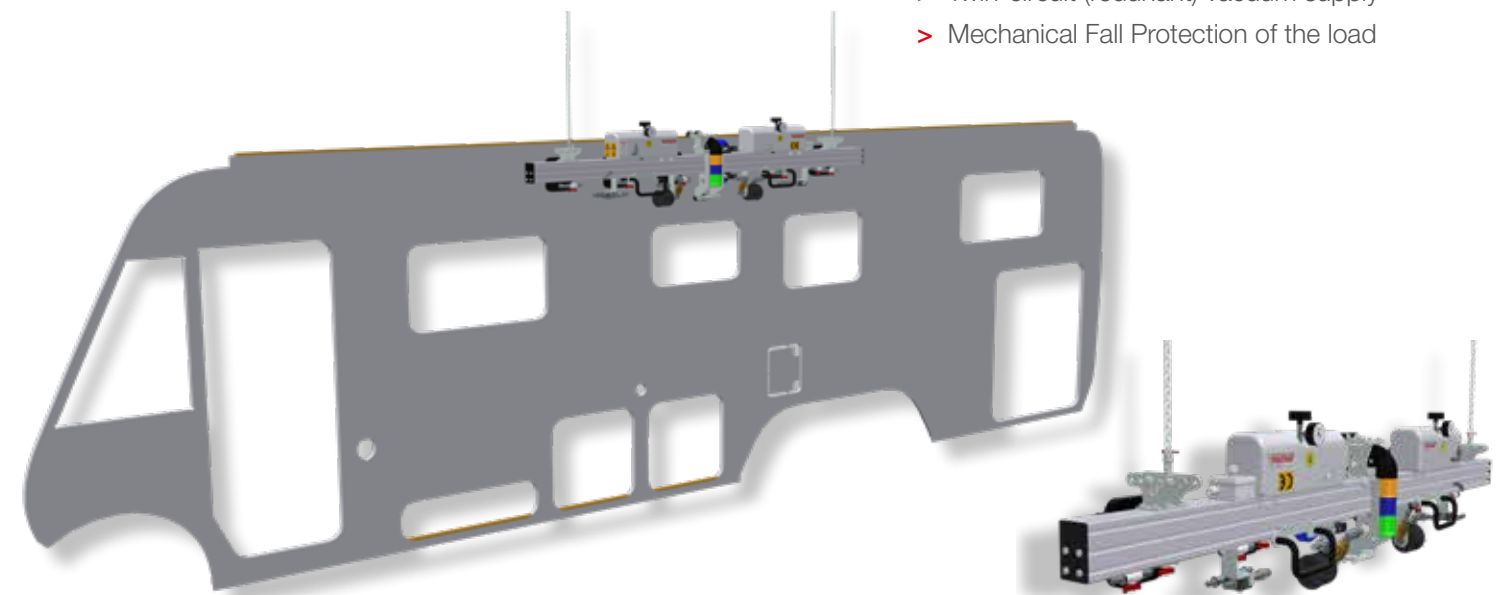
In combination with our side wall lifting systems, we can offer a very efficient and economical overall solution with very short payback times and the highest possible safety.

# Side Wall Manipulator

## Function

**Effortless Handling of Side walls and Assembly onto to the vehicle**

Lifting manipulator specially designed for side walls with smooth or structured surfaces in left or right hand version. Suitable for manipulation and for mounting the side walls on the vehicle or caravan.



We design all crane bridges to exactly fit the customer's space requirements. They allow safe, fast and ergonomic handling of the side walls.

The cross beam is suspended from two electric chain hoists with radio remote control and infinitely variable control. The hoists can also be controlled individually, which means that the side wall can be precisely fitted during mounting onto the vehicle.

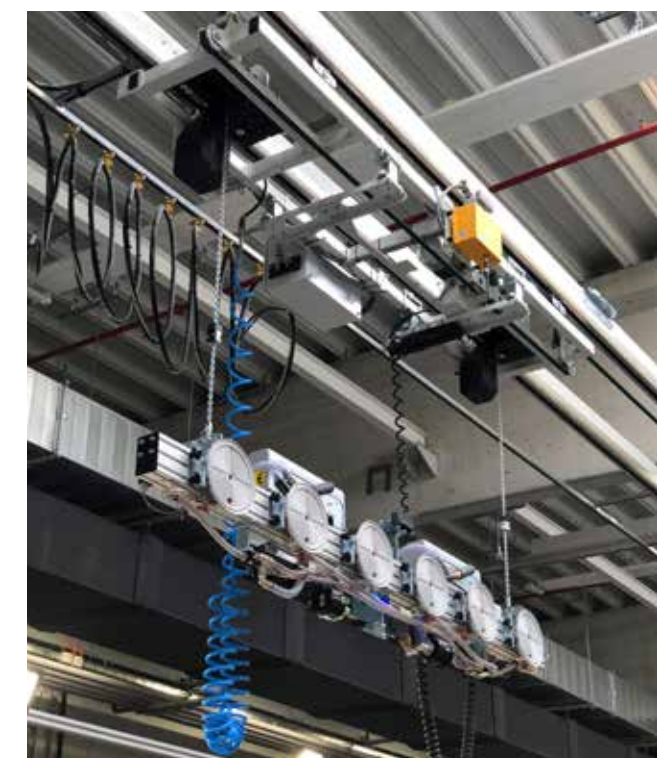
The side walls are gripped at the top with special vacuum cups. The suction cups with exchangeable sealing rubber are suitable for all common surfaces.

In addition to the vacuum supply with a twin-circuit system, a mechanical fall protection device is included to maximize the safety of the system. This special safety system protects the operators when mounting the walls around the vehicle.



## Other features:

- > Crane bridge manually or electrically driven
- > Twin-circuit (redundant) vacuum supply
- > Mechanical Fall Protection of the load





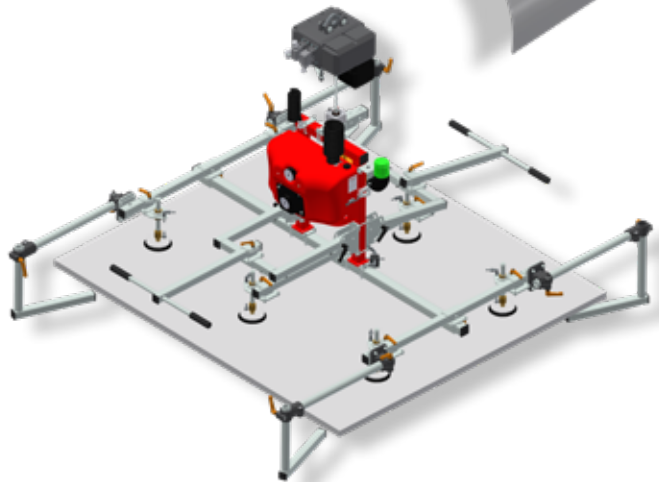
# Roof Manipulator

Function  
Handling of all roof shapes  
with various additional structures

The Barbaric roof manipulator meets the requirements for a universal lifting device that can lift all roof shapes with different structures and roof lengths with its flexible design. Large roofs can be manipulated easily and effortlessly with only one device and can thus be used for mounting on the vehicle.

The lifter can be supplied in a twin-circuit version with additional mechanical fall protection, which ensures the installation above the vehicle and the safety of any remaining persons in the danger zone.

The lifting beam can be adjusted manually or, optionally, electrically for the different roof lengths. Articulated and imprint optimized suction pads are used.



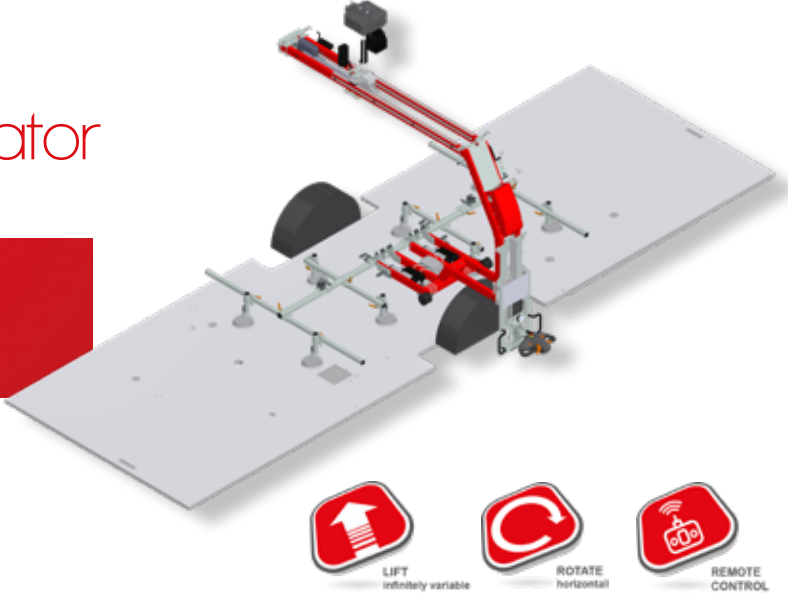
- Other features:
- > Handling switch on the lifting frame
  - > Crane bridge manually or electrically driven
  - > Twin-circuit (redundant) vacuum supply
  - > Mechanical Fall Protection of the load



# Floor Panel Manipulator

Function  
Handling of Vehicle Floor Panels

For manipulation of vehicle floors during assembly and for mounting onto the vehicle. After the components have been assembled on the underside, the floor can be rotated 180° for mounting on the vehicle. In addition, a center of gravity adjustment and a height adjustment for the control unit is attached. The suction cups are also suitable for slightly structured surfaces. In addition to the twin-circuit suction system, an additional manual fall protection is also available.



- Other features:
- > Handling switch on the lifting frame
  - > Crane bridge manually or electrically driven
  - > Twin-circuit (redundant) vacuum supply
  - > Mechanical Fall Protection of the load



# Over-Cab Manipulator

Function  
Handling of Over-Cabs and Rear Walls

The over-cab or any rear wall structure can be picked up from the rack with the manipulator and safely mounted on the vehicle. Optionally with a twin-circuit vacuum supply and mechanical fall protection on the lifting frame.

- Other features:
- > Handling switch on the lifting frame
  - > Crane bridge manually or electrically driven
  - > Twin-circuit (redundant) vacuum supply
  - > Mechanical Fall Protection of the load





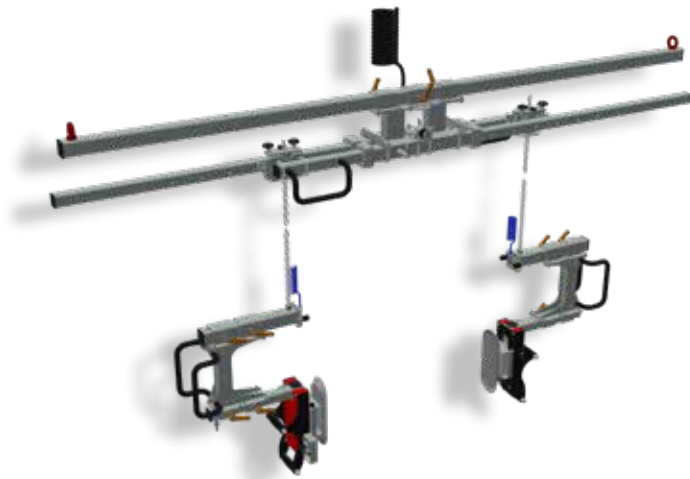
# Kitchen Manipulator

## Function

### Handling of furniture parts and electrical appliances

By hanging with a telescopic adjustment crossbar, the lifter can be quickly adapted for handling the various furniture parts and electrical appliances.

Optionally, the parts can be gripped and manipulated with the vacuum grippers or the load hangers.



#### Other features:

- > Crane bridge manually or electrically driven
- > Twin-circuit (redundant) vacuum supply
- > Mechanical Fall Protection of the load



# Bed Manipulator

## Function

### Handling of bunk beds



>> Especially for the installation of bunk beds on the vehicle. Lifting device with adjustable traverse and multiple hangers.



#### Other features:

- > Crane bridge manually or electrically driven



# Seat Manipulator

## Function

### Handling during seat installation

The installation of the front seats in the vehicle is a special challenge. The seats have be brought into the vehicle from the front of the vehicle through the the windscreen opening and mounted on the floor plate.

From the transport racks, the seats are removed with a gripper and manipulated in the rotated state into the vehicle. For this heavy and exhausting work a special manipulator was developed, which ensures an effortless and ergonomic manipulation of the seats with by one operator.

The manipulator is suitable for seats in a wide range of equipment variants.

The possibility of operation from the outside as well as from the inside of the vehicle is a special facilitation.



# Bottom Pre-assembly

## Function

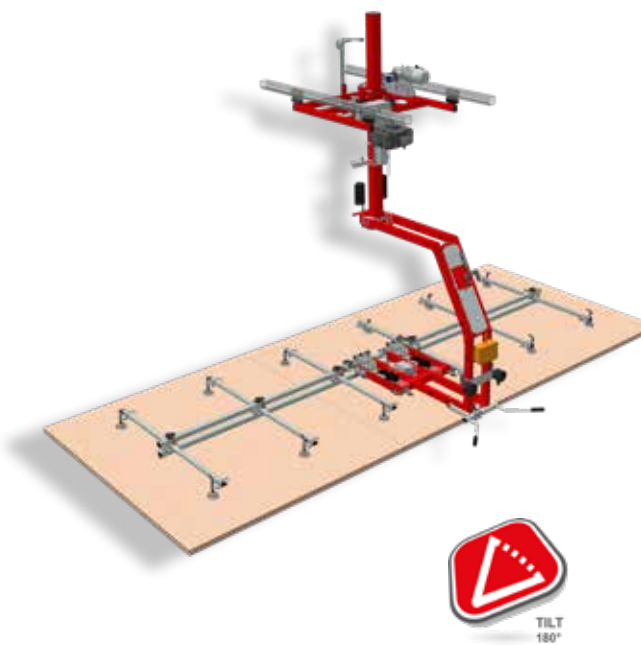
### Pre-assembly of bottom plates on vehicle floors

During the production of sandwich profiles for floor, side walls and roof, the walls often have to be manipulated.

The material-friendly transport with tilting or rotating possibility is made possible with long vacuum suction cups on load-guided systems with disconnectable sections.

Special suction cups for structured surfaces are available.

For fast processing, pre-assembly or lamination work can be carried out directly on the suction cup without having to put the part down.

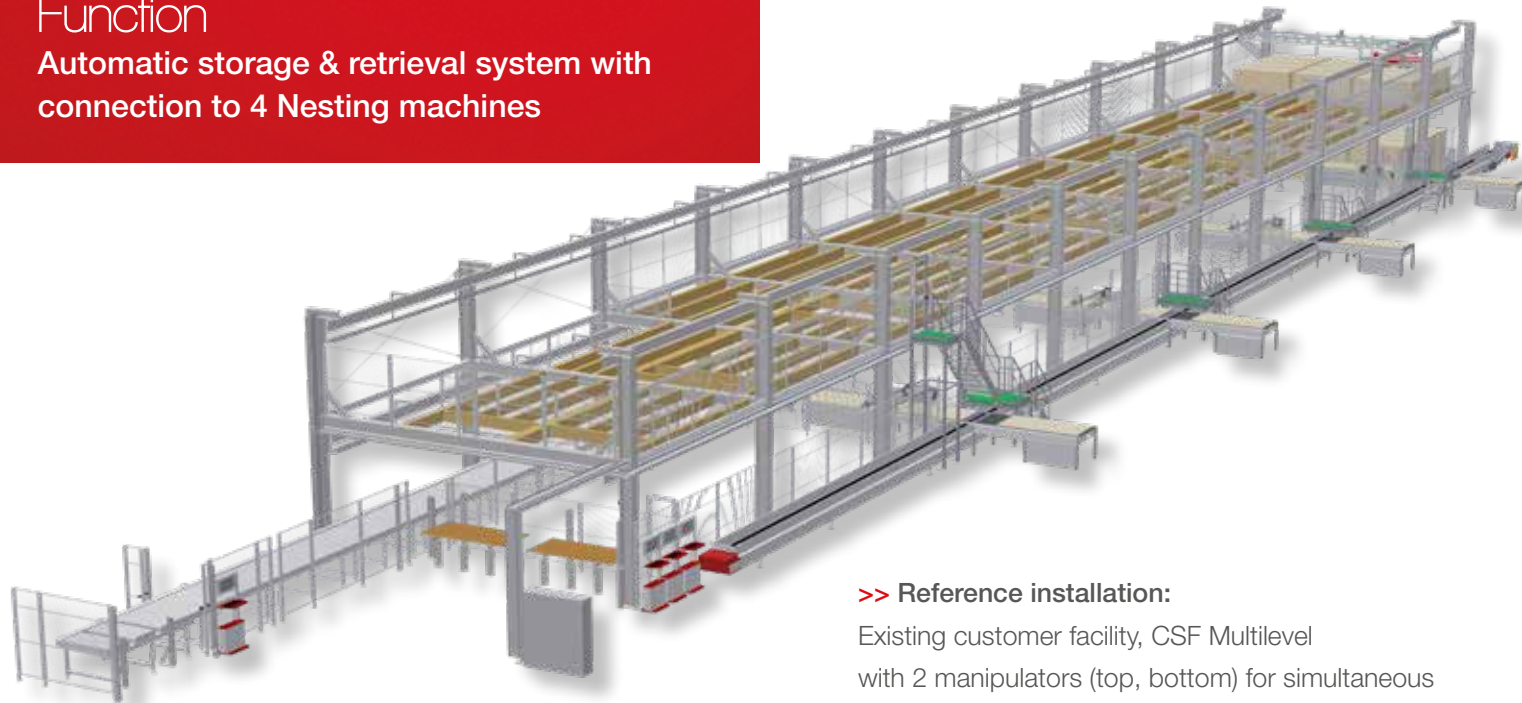




# Panel Storage & Retrieval

## Function

Automatic storage & retrieval system with connection to 4 Nesting machines



### >> Reference installation:

Existing customer facility, CSF Multilevel with 2 manipulators (top, bottom) for simultaneous loading of 4 CNC machines

### Features of this reference installation

- > CSF Multilevel storage system with 2 manipulators
- > Floor space of 70 m x 10 m
- > Optimal utilization of the production area due to two-story design
- > 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 for storage and retrieval
- > Label printing stations with dual-printer-heads for simultaneously labelling multiple label sizes
- > Integration of garbage conveyor system
- > Communication to the ERP system
- > Verbindung zum kundenseitigen ERP-System
- > Automatic backup and failure plans



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



At Barbaric, our goal is to provide optimal solutions for every handling application - not only in the field of manual vacuum lifting technology. In addition to our vacuum lifters, we also develop automatic systems in the field of panel and part handling for commercial or industrial production plants.

### 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

We also offer suitable lifting equipment for customers from the glass industry or for use on construction sites.

Barbaric supplies optimal handling solutions for safe and ergonomic lifting applications. Manual vacuum lifters from Barbaric enable efficient handling of heavy panels 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.



## Service & After-Sales



### SERVICE -HOTLINE

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Mo – Fr. 07:00 – 16:00

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Fr. 07:00 – 12:00



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## Headquarter

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