



# VACUUM LIFTERS

ES-series



**1-30 tons**



## Modular vacuum lifters Aerolift ES-series

- handling of precast concrete, metal plates or pipes
- lifting capacity: 1–30 tons
- single or double hook attachment
- power: 400V AC or battery
- safe handling
- easy to operate
- easy to maintain
- fast & efficient operation

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# AEROLIFT ES-SERIES

We design, manufacture, and supply heavy lifting solutions that can handle loads ranging from 1 to 200 tons. As businesses often have specific needs, most of our machines are custom-made. By offering modular vacuum lifters we fulfill the need for an affordable lifting solution for common applications.

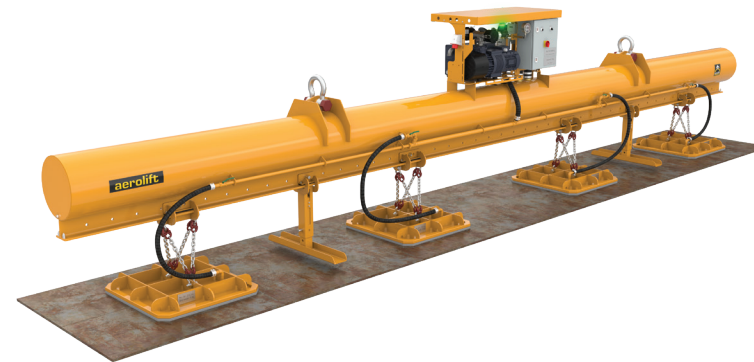
Within the standard ES-series vacuum lifters, we offer configurable modules. This allows us to deliver high quality in a shorter time and at a lower price. However, a hybrid solution — a combination of configurable and customized — is also possible.



ES-series vacuum lifters enable product handling for manufacturing and construction companies, traders, contractors, and (port) logistics companies.

Compatible with various types of cranes, these lifters seamlessly integrate into existing equipment, providing both time and cost efficiency.

They are safe, easy to operate and maintenance requires minimal effort and time.



## Key benefits

Aerolift ES-series vacuum lifters offer several benefits:

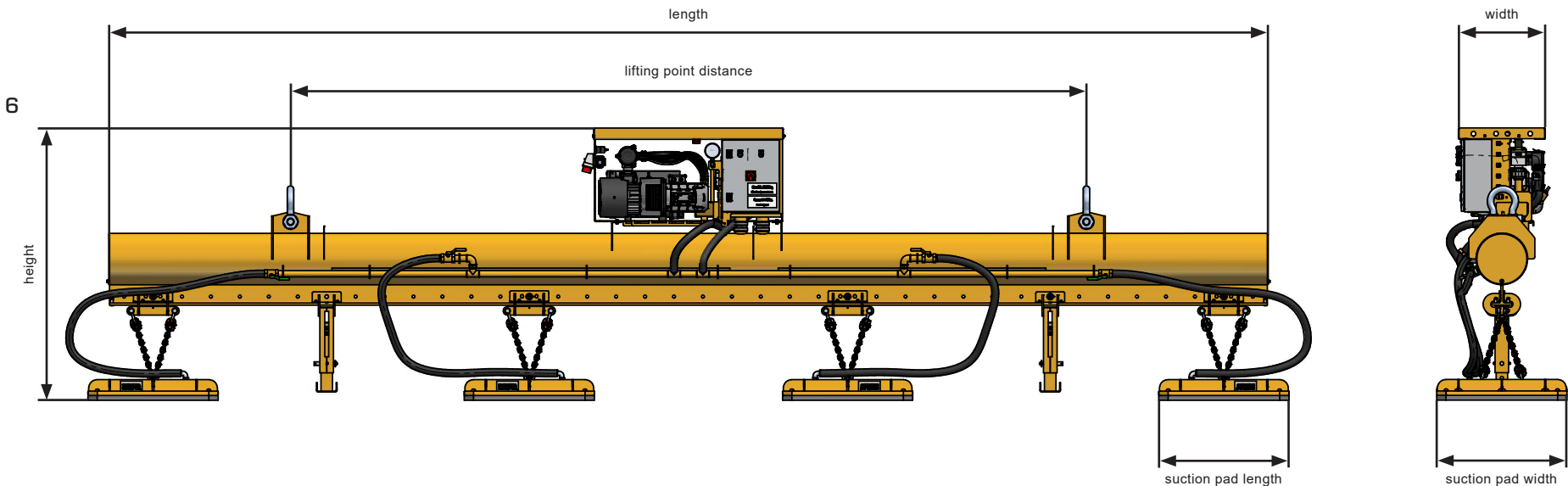
- **Preventing product damage** as the product surface stays intact due to soft rubber
- **Simplified handling & expense reduction** as no extra lifting gear is necessary
- **Streamlined operations** due to quick suction and release within seconds
- **Enhanced safety** compared to conventional lifting gear as it can be controlled remotely
- **Energy-efficient operation** due to optimized power usage
- **Good return on investment** through increased productivity and reduced operational expenses

# ES – SERIES SPECIFICATIONS

Modular vacuum lifters of the Aerolift ES-series facilitate the handling of prefab concrete, metal plates, and pipes weighing from 1 to 30 tons.

They are designed for use with any type of crane.

ES-series vacuum lifters operate using the electric system of the crane. When no electrical power supply is accessible, the vacuum unit is powered by a battery.



## Machine specifications

Working Load Limit (WLL)	1–30 tons
Length	3–15 m
Width	0.6–1.0 m
Height (without additional chain slings)	1.2–2.5 m
Total weight (incl. suction pads)	500–3000 kg

## Suction pad specifications

Length	500–2500 mm
Width	500–2500 mm

## Default specifications

Working range vacuum	80–100%
Power range (400V AC 50Hz (3P + PE))*	1.5–5.0 kW
Acceleration during lifting or lowering	max. 1 m/s <sup>2</sup>
Ambient temperature*	-20 °C to +40 °C
Altitude, at sea level*	up to 200 m
Applied standard	EN13155
Certification	CE-certified
Safety factor	2

\* Other specifications possible. Contact Aerolift Industrials B.V. for more information.



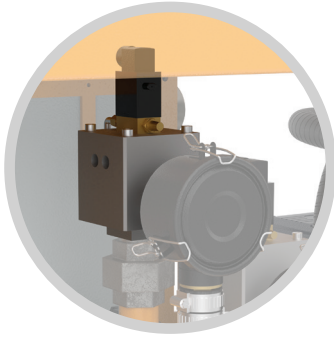
# FOCUS ON SAFETY

## Standard features

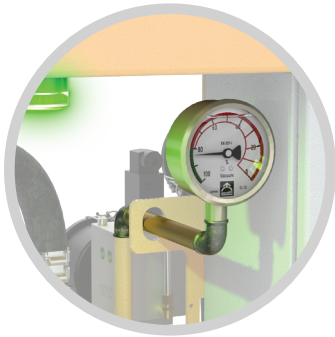
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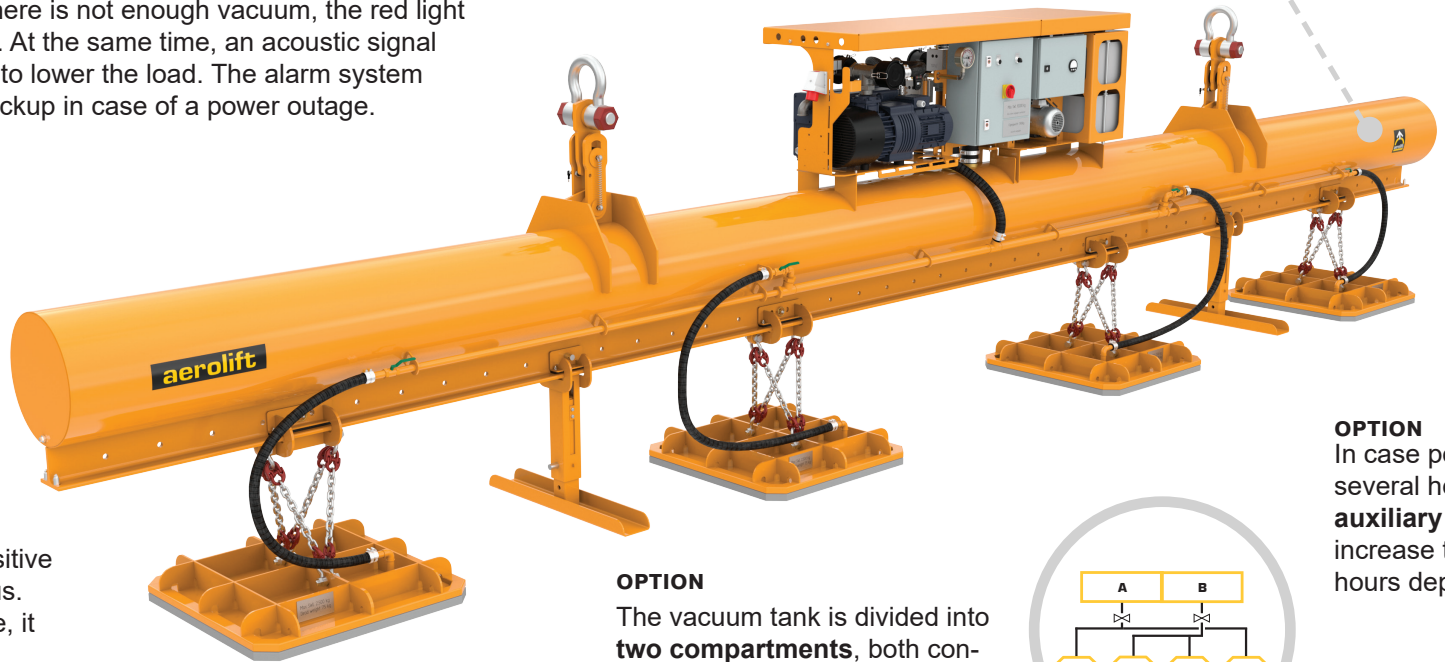
To prevent accidental release, the operator has to push **two buttons** at the same time to release the load.



The **valve** requires a positive signal to change its status. In case of a power failure, it maintains its position.

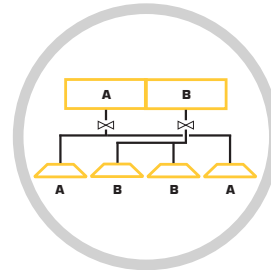


The **vacuum gauge** and **safety lights** indicate when it is safe to lift. When there is not enough vacuum, the red light warns the operator. At the same time, an acoustic signal urges the operator to lower the load. The alarm system includes battery backup in case of a power outage.

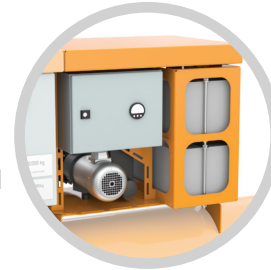


If the power fails, the load remains attached for at least 20 minutes thanks to the buffer tank. This exceeds the minimum safety standards required to take appropriate measures.

**OPTION**  
The vacuum tank is divided into **two compartments**, both connected with half of the suction pads. If one tank fails, the other one holds the load.



**OPTION**  
In case power failure can last several hours, a battery-driven **auxiliary vacuum pump** can increase the holding time with several hours depending on a battery size.



## Optional features

**OPTION**  
The **safe release system** disables the release buttons during lifting. Releasing is only possible when the load is lowered.



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# FOCUS ON EASE OF USE

Operating our vacuum lifters relies on user-friendly features and doesn't require extensive technical knowledge. The remote control of the vacuum lifter has intuitive button layout.

A quick set-up process of the vacuum system allows to start working with minimal waiting time.

In addition, our vacuum tank ensures minimal interruptions between the release and pick-up of the next load by maintaining the safe vacuum level between the cycles.

If necessary, some suction pads can be switched off or exchanged to fit the load shape, type or size.

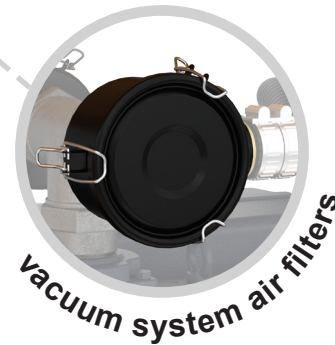
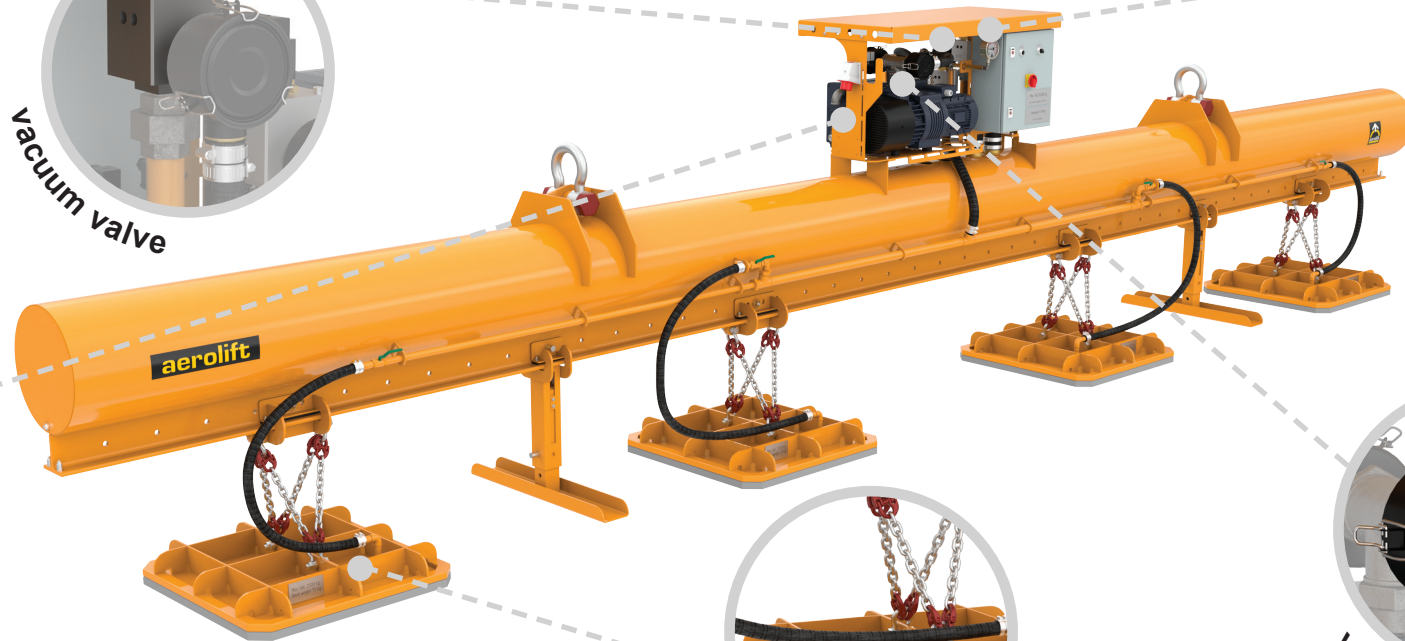
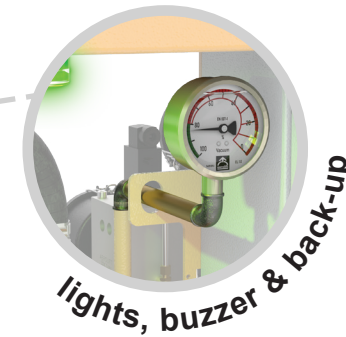
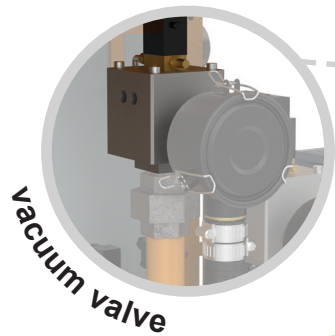
Aerolift can optionally provide a short training, ensuring that operators can confidently and efficiently perform a range of tasks, such as lifting, moving, and positioning of the load.



Compared to conventional lifting, vacuum technology requires no additional manpower or lifting gear, such as hooks, slings, or straps. Neither there is a need for spacers or cribbing materials as the load is picked up from the top.



## FOCUS ON MAINTENANCE



### Maintenance-oriented design

Our lifting devices are designed with maintenance simplicity in mind. Components like pump, filters, and valve have sufficient surrounding space for easy access.

### Quality components that outperform

We've developed our own key components, such as rubber seals, hoses, vacuum meters and valves to guarantee optimal quality and safety.

### Clear maintenance documentation

We provide detailed checklists for all maintenance procedures with comprehensive instructions in the manual. Daily maintenance items are conveniently listed on a sticker applied to the machine.

### Simple daily checks

Daily inspections are primarily visual and can be completed in just few minutes.

### Global component availability

We select components from suppliers with world-wide coverage, ensuring quick responses to any issues that may arise.

### Worldwide service

We offer prompt, worldwide service through various communication channels, including WhatsApp, Telegram and WeChat.



# FOCUS ON PRECAST CONCRETE

Who typically uses ES-series vacuum lifters?

- precast concrete manufacturers
- construction companies
- infrastructure contractors

What types of products can be handled?

- any products with flat top side
- broom-finished concrete

What tasks do ES-series vacuum lifters perform?

- demoulding
- horizontal lifting
- internal transport
- installation



## MAIN ADVANTAGES

1. Earlier demoulding is possible due to the divided surface pressure of the suction pads.
2. Less chance of cracks due to equal load distribution.
3. No lifting anchors are required, eliminating the need for anchor removal.
4. No demoulding damage to the element or the expensive mould.

Demoulding is much faster and the expensive mould lasts longer. We are positively surprised!

FRANK VAN DER DRIFT  
Director at Mombarg Beton

ES-series vacuum lifters are ideal lifting attachments when no tilting or turning is involved. If your process involves more than just horizontal lifting, we advise you to use our vacuum tilters.



# FOCUS ON SHEET METAL

## Who typically uses ES-series vacuum lifters?

- sheet metal manufacturers
- sheet metal traders
- machine factories
- shipyards

## What types of products can be handled?

- sheet metal (> 1 mm)
- tear plates
- ferrous & non-ferrous metals

## What tasks do ES-series vacuum lifters perform?

- horizontal lifting
- internal transport
- loading & unloading

ES-series vacuum lifters can be operated either manually by one person or in a fully automated mode. No one needs to be close to the load to put or remove lifting gear.



## MAIN ADVANTAGES

1. No slings or spacers are required.
2. There is no residual magnetism.
3. Only the top plate is lifted.
4. Suction pads can be switched off according to a plate size.
5. The surface stays smooth with no scratches or marks left.



**We keep exact records of all our sheets and profiles. Therefore, we need to handle sheet by sheet, and that is fastest and easiest with vacuum lifters.**

**TOBI BAMBACHT**  
Warehouse Manager at Stigterstaal B.V.





# FOCUS ON PIPES

Who typically uses  
ES-series vacuum lifters?

- pipe manufacturers
- pipe coating companies
- onshore & offshore contractors
- (port) logistics companies

What types of products  
can be handled?

- pipes (> 8")
- bare pipes
- coated pipes

What tasks do ES-series  
vacuum lifters perform?

- horizontal lifting
- internal transport
- loading & unloading

ES-series vacuum lifters can be  
operated by one person.  
No one needs to be close to the  
load to put or remove lifting gear.



## MAIN ADVANTAGES

1. No hooks or clamps are required.
2. It is possible to lift several pipes at the same time.
3. There is no need to use spacers or stoppers.
4. The surface stays smooth with no damage to the pipe or its coating.





# ABOUT AEROLIFT

We support companies by providing safe solutions for the efficient handling of heavy loads. Our vacuum lifters, vacuum turners, and mechanical grippers can handle loads ranging from 1 to 200 tons.

Today Aerolift machines can be found all over the world facilitating the handling of concrete, metal, pipes, paper, wind turbine blades, etc. in production, construction, and logistics. And we do not stand still.

More and more industries discover how vacuum technology can optimize their operations.

At our core is solution-oriented thinking and innovation. Complete engineering is done at our headquarters in Barneveld, the Netherlands. Our engineers are dedicated to creating the best possible solution to meet your unique needs. Manufacturing, whether at our facilities in the Netherlands

or China, ensures we deliver high-quality machines that last for many years. For optimal operation, we provide service and maintenance.

To build stronger relationships with our customers, we collaborate with various companies who act as our agents. In China, we have a sister company — BAS Co. Ltd, which does sales and marketing for Asia.



ROBERT LEMM  
CEO

It is our experience, high-quality engineering and manufacturing that customers value the most.

## Why choose us?



We are comitted to **quality**.



We stand for **safety**.



Our **expertise and experience** ensure smart lifting solutions.



Our **engineering** makes the difference.



We have **own production** facilities to ensure quality and empower development.



# OTHER SOLUTIONS

## EU-series

Aerolift standard vacuum lifters designed to handle precast concrete, sheet metal and pipes ranging from 1 to 6 tons. Ideal for lifting and transporting of small loads.



## Mechanical grippers

Aerolift mechanical solutions designed to handle products weighing from 1 to 200 tons when vacuum is not feasible or advisable. Ideal for lifting and transporting.



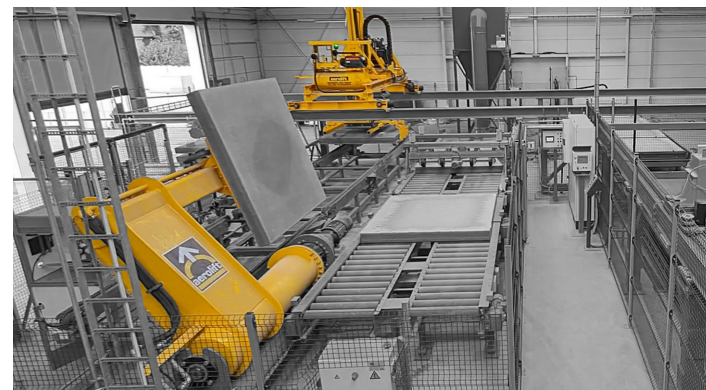
## T-series

Aerolift vacuum tilters designed to handle precast concrete and tunnel segments from 1 to 30 tons. Demoulding, transporting and tilting in a single, efficient movement.



## Custom solutions

Aerolift customized lifting solutions are tailor-made equipment engineered to meet specific lifting requirements that cannot be addressed by standard lifting attachments.



# AGENTS

We value your experience as a customer, so we collaborate with various companies to meet local needs effectively. Our agents possess an in-depth knowledge of their respective markets and play a crucial role in executing targeted local marketing strategies. Their native language communication skills ensure seamless communication. To view a list of our agents, visit [aerolift.nl](https://aerolift.nl) or scan the QR code.



# INQUIRY CHECKLIST

**Interested how our lifting solutions can help you optimise your material handling?**

Send your non-binding inquiry to [sales@aerolift.nl](mailto:sales@aerolift.nl). Please include all essential information for prompt processing of your request. Below are several questions that can guide you in providing the necessary details. If you are looking for a fully customised solution, your needs will be different. Just drop us a line and we'll take it from there.

General questions		
1. What kind of hoisting machine is used: crane, reach stacker, or excavator? Please specify type and lifting capacity.	2. Is there any power supply available for the vacuum lifter (400V AC 3ph+E)?	3. What is the intended usage of the machine?
CONCRETE	SHEET METAL	PIPES
4. Is the material precast concrete? Please specify if it is not porous (aerated concrete).	4. What is the material?	4. What pipes need to be handled? Please name diameter (range), length (range), and maximum weight (per diameter).
5. What kind of elements do you need to handle: staircases, wall panels, balconies, tunnel segments, etc?	5. What are the dimensions? Please specify minimum and maximum thickness, length and width.	5. Is there any coating applied on pipe?
6. What are the dimensions? Please specify minimum and maximum thickness, length and width.	6. What is the total maximum weight per lift?	6. What is the number of pipes per lift?
7. What is the total maximum weight per element?		
8. Is there any (90– or 180–degree) tilting required?		



# CONTACT US

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