Paper Logistics

Industry Solutions

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» Legal Info

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More Information: www.nani.de

Heavy Load Lift Tables

Heavy Cargo Docklevellers

INTRODUCTION

I. Loading

» Paper Logistics & Recycling

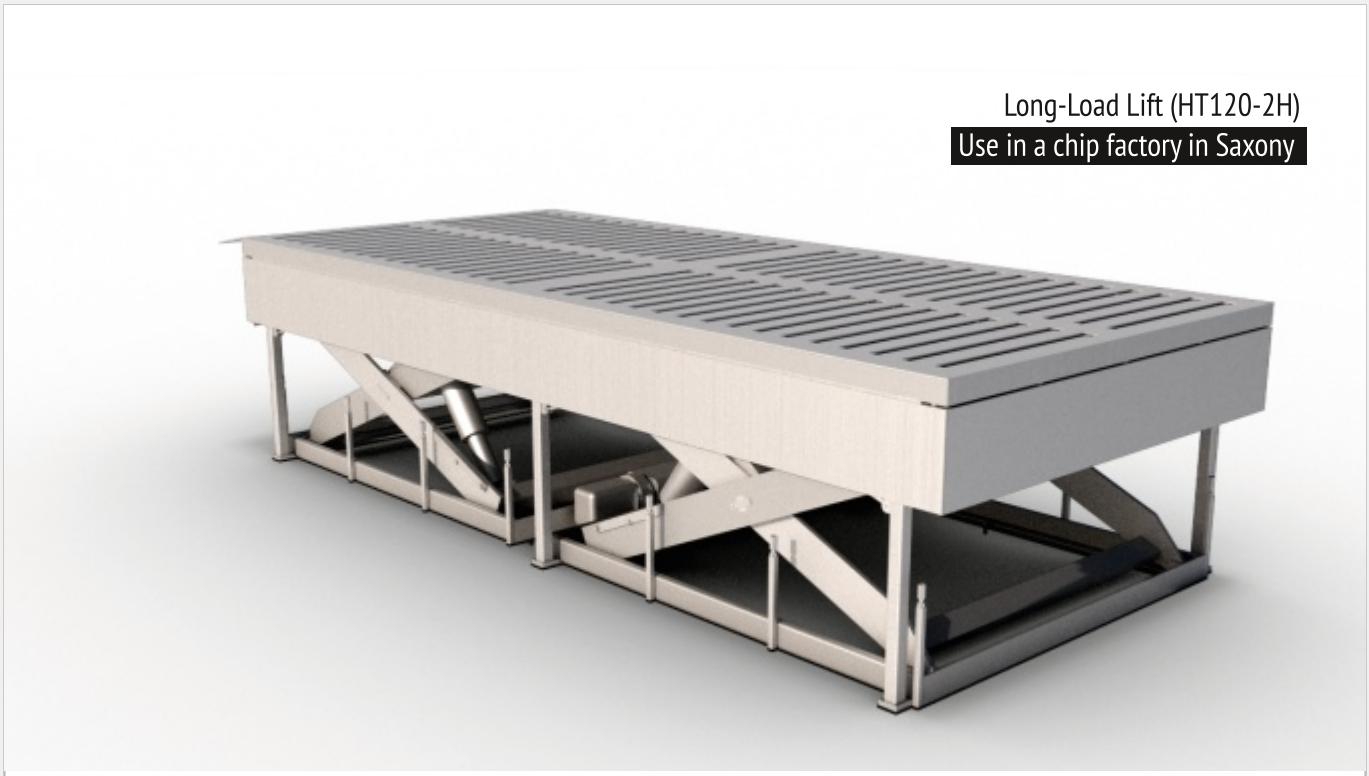
In paper logistics and the recycling industry, it is mainly a matter of handling heavy goods, namely paper rolls. The design of the docklevellers and lifting tables must be planned with special attention.

Through the decades of experience of our design engineers allows us to offer safe and functional loading systems and lifting table solutions in this area. We have already developed solutions for loads of 30 tonnes and more, and we can find a loading- and lifting technology solution for every heavy load.

max. Capacity 30000 kg

Language-neutral labeling of a product

Subject to Technical Changes



Long-Load Lift (HT120-2H)
Use in a chip factory in Saxony

II. Concepts of docking and lifting devices

» Convention & Innovation

While the process from fibre to paper roll is largely fully automated, forklift trucks and other industrial trucks are indispensable for processing the raw paper. They pick up the rolls, some of which have a diameter of one to two and a half metres and weigh several tonnes (500 kilograms to eight tonnes), using special attachments, and take them to the next machine, which, for example, cuts individual sheets from the roll.

As a rule, Counterbalanced-Forklift-Trucks with electric drive or powered by diesel or gas engines are used for this purpose. These are often equipped with fine dust filter systems that allow them to be operated in halls, at least for a period of time. In printing plants or cardboard factories, industrial trucks with electric motors are also used. These work in a similar way to oversized swivelling reach trucks, except that they have a carrying mandrel or a bale clamp instead of the usual fork tines, which can be used to pick up and move a roll.

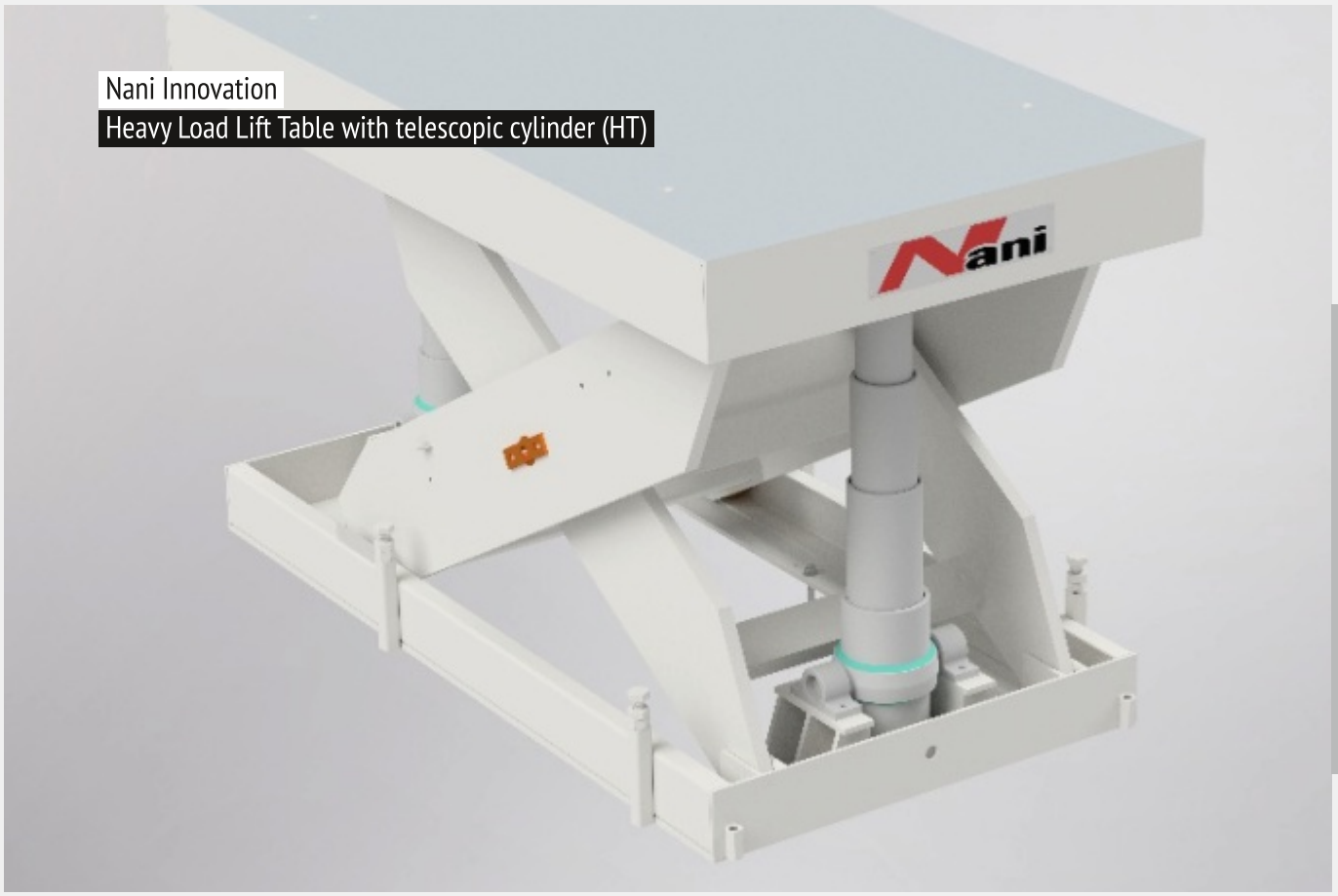
Since its foundation, Nani has been manufacturing **Heavy Cargo Docklevellers** with **load capacities between 80-400KN+** for various customers. When loading heavy goods, such as paper products, for example, not only the industrial trucks but also the Loading Dock Equipment products must be designed for these loads. There, Docklevellers of all sizes with load capacities from 100KN upwards are regularly designed and manufactured. All our Docklevellers can be designed for heavy-cargo loads.

With the **Heavy Load Lift Table** with **telescopic cylinder**, Nani produces a Lift Table that can carry up to 20 tonnes and can be used in Coil-Handling and Paper Logistics. It is significantly smaller than conventional Lift Tables. Due to the high loads, telescopic cylinders are better suited as lifting cylinders. The cylinder tube is divided into several segments and achieves a large lifting height.

Heavy Load Lift Table for Coil-Handling

Nani Innovation

Heavy Load Lift Table with telescopic cylinder (HT)



Subject to Technical Changes

Subject to Technical Changes

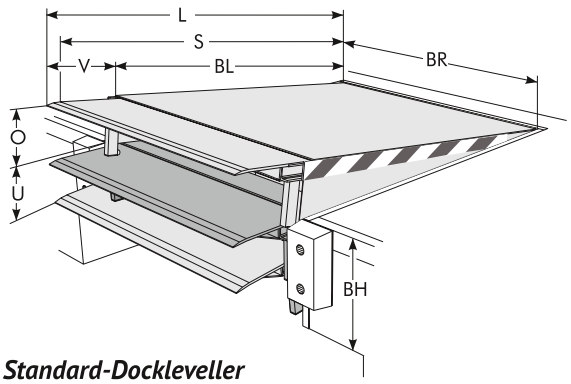
III. Nani Heavy Cargo Dockleveller

» Function and Usage

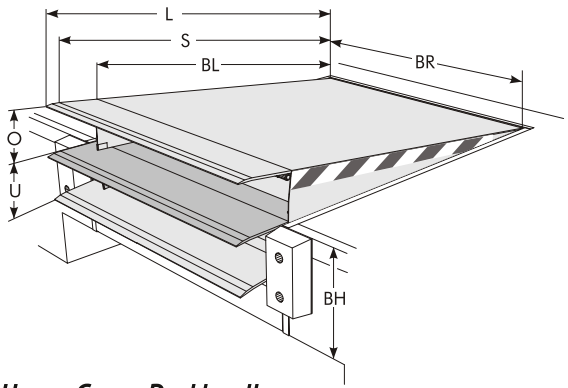
We also manufacture our Docklevellers as manual or hydraulic versions for high load capacities. The hydraulic version can be equipped with a folding wedge or a feed. In our Heavy-Cargo Docklevellers for Paper Logistics, all moving parts, hydraulics and electrics are matched to each other. Heavy-Cargo rollers are used in the much more robust steel assemblies and high-quality heavy-cargo hydraulic cylinders including powerful hydraulic units move the leveller. When designing and manufacturing our heavy-cargo Docklevellers, we pay particular attention to ensuring that they are flexurally rigid and have soft connections.

Legend:

kN - Kilonewton	O - Above dock
BR - Width	U - Below dock
BL - Length	BH - Depth of leveller
L - Total length	V - Lip length
S - Total usable length	VB5 - Dockleveller hydraulically with telescopic lip

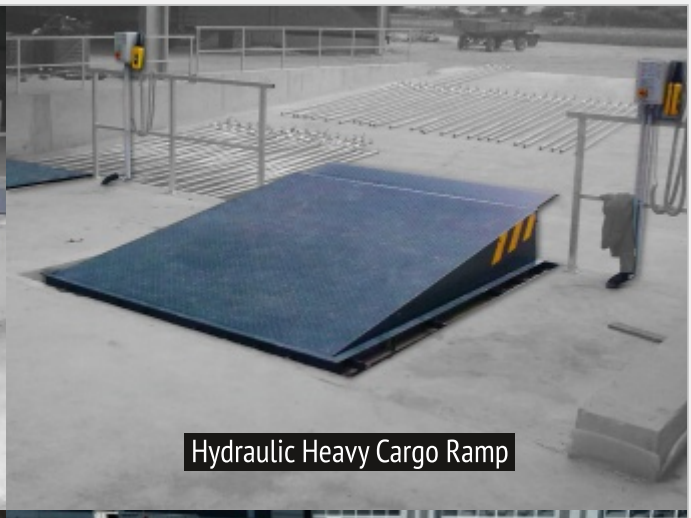


Standard-Dockleveller

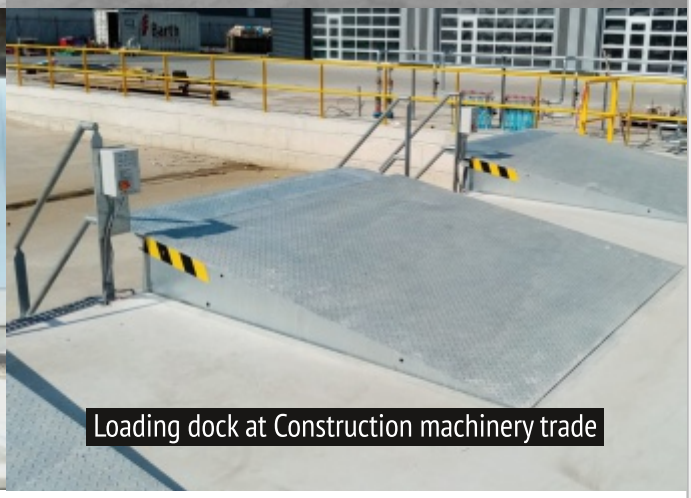


Heavy-Cargo-Dockleveller

Heavy Cargo Dockleveller (VB5)


Hydraulic Heavy Cargo Ramp

Ramp with three-parted lip (VBS 5-3V)


Loading dock at Construction machinery trade

» Comparison of Docklevellers

	Features	Conventional Docklevellers < 80kN	Heavy Cargo Dockleveller > 80kN to 400kN
1	**Heavy duty rollers** for feeds	✗	✓
2	**Large feed and plateau capacities**	✗	✓
3	**thick side panels**	✗	✓
4	**Large piston diameter** (high power consumption of cylinders)	✗	✓
5	**strong hydraulic units**	✗	✓
6	**solid folding wedges**	✗	✓
7	**Floating technology**	✓	✓

» Technical Data of Nani Heavy Cargo Docklevellers

Load Capacity	Length (BL)	Width (BR)	Total usable length (S)	Above dock and Below dock (O und U)	Depth of Leveller (BH)
80kN - 400kN	2000mm - 6000mm	1500 - 2400	2400	100 und 500	≥ 600

Docklevellers with a dynamic load capacity of 12 tons at a forklift truck manufacturer

After: Adjustment of the pit for Heavy Cargo Dockleveller

before

Paper roll in paper roll clamp

Heavy Cargo Dockleveller in Mexiko

before vs. after

15 tons load capacity

Subject to Technical Changes

Nani Innovation
Scissor Lift Table as Heavy Load Lift Table

IV. Nani Heavy Load Lift Table

» Function and Usage

Heavy-cargo lifting tables must be specially designed for lifting heavy goods such as paper rolls, cable rolls, rope rolls, coils, trucks, etc. The designs are created with particular attention to stability and functionality, even with heavy loads. Only the decades of experience of our design engineers enable us to offer safe and functional lift table solutions in this area. We have already developed solutions for loads of 30 tons and more and can find a lifting technology solution for any heavy load.

We can also design heavy-cargo lifting tables as a mobile version. The lift table runs on rails.

Work platform as a movable lifting table

HT250 with special cylinder (in the foundations)

Subject to Technical Changes

» Comparison of Lift Tables

	Features	conventional Lift Tables (from HT10 to HT80)	Heavy Load Lift Tables (from HT80 to HT350)
1	**Heavy Cargo Rollers**	✖	✔
4	**Large piston diameter** (high power consumption of cylinders)	✖	✔
5	**high performance hydraulic units**	✖	✔

» Exemplary Data of Nani Heavy Load Lift Tables

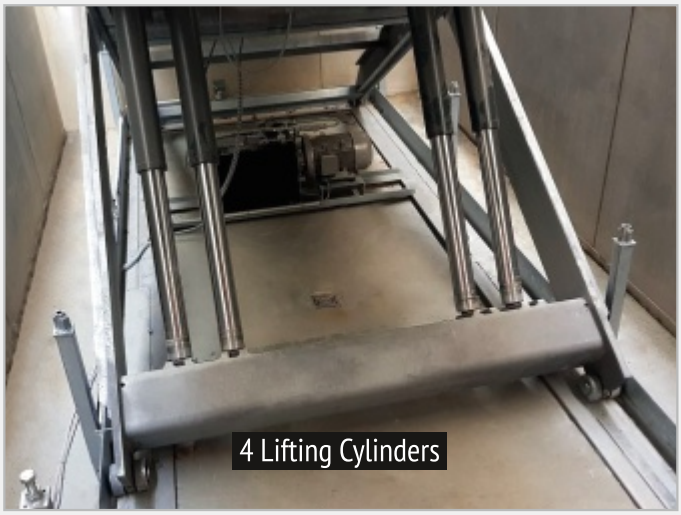
Lift Table	Load Capacity (kN)	Platform Width (PB)	Platform Length (PL)	Stroke (NH)	Height (BH)
HT80	8000 kg	1500-2980	2300-7500	900-2850	520-850
HT90	9000 kg	2500	3000	1300	970
HT100	10000 kg	2400-3400	3500-5600	800-3500	550-960
HT120	12000 kg	2000	2000	700	900
HT150	15000 kg	3600	4800	900	800
HT160	16000 kg	4470	6470	4100	1000
HT250	25000 kg	2490	2390	1400	1200 (Tandem)
HT300	30000 kg	2490	2390	1300	1200 (Tandem)
HT350	35000 kg	2500	4000	1300	1200

HT80 Heavy Load Lift Table

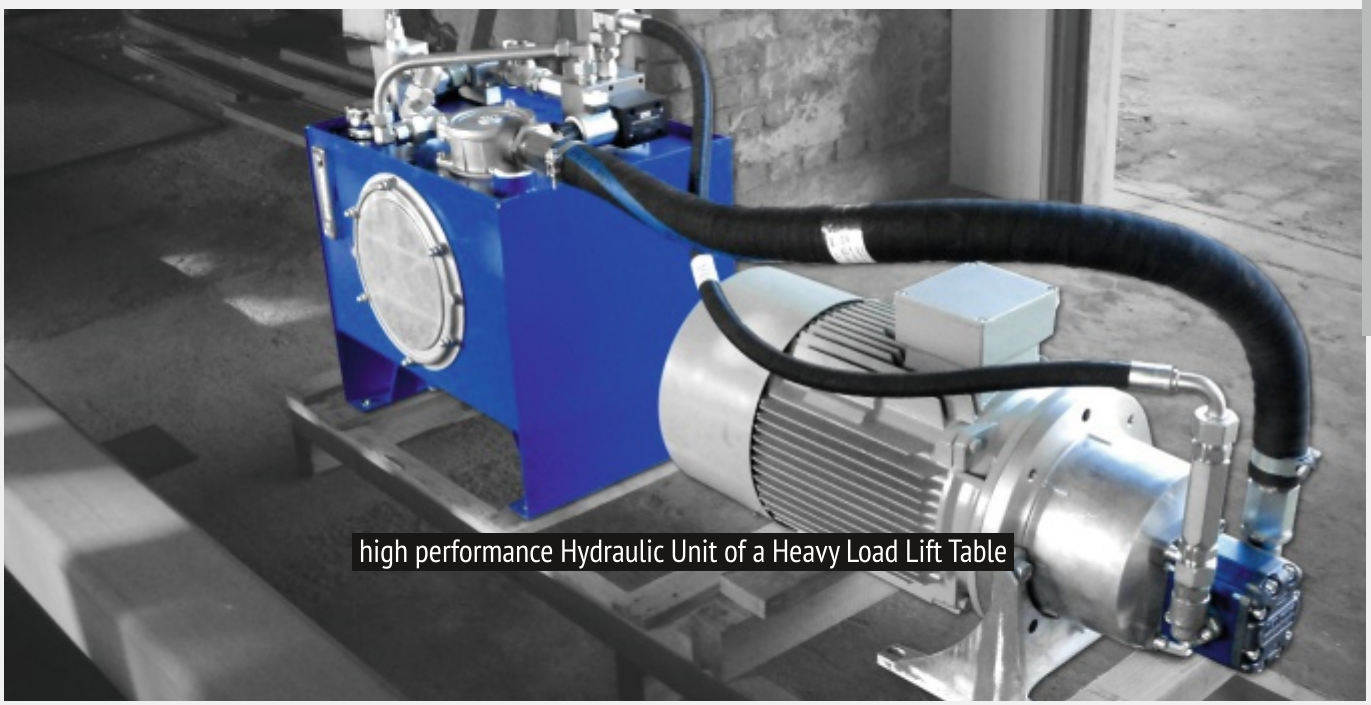
Cylinder of a HT250

Heavy Load Lift Table with reinforced shears & 4 lifting cylinders in final assembly

Lift Tabel with Loading Flaps

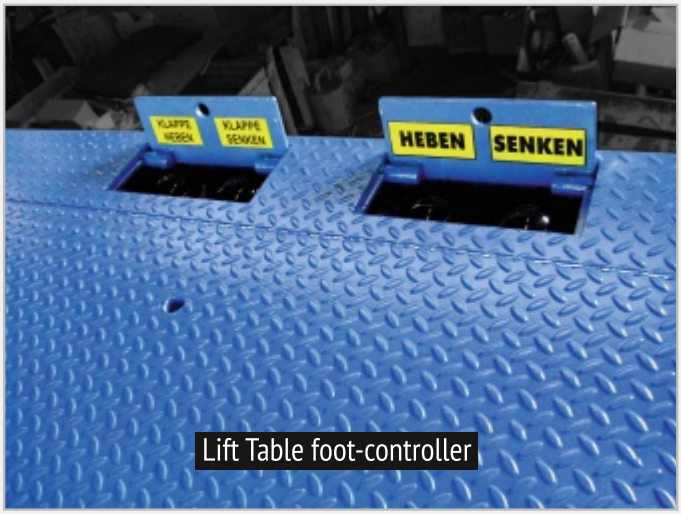

4 Lifting Cylinders

Heavy Load Lift Table with Loading Flaps



high performance Hydraulic Unit of a Heavy Load Lift Table

Truck Long-Load Lifts at a Theater



Lift Table foot-controller

Subject to Technical Changes

Dockshelter for Press-Container
compact paper waste

V. Nani Industrial Doors & Dockshelters for Paper Logistics

» Industrial Doors

We offer Sectional Doors, Rolling Doors, High-Speed Doors and other Special Doors. The Sectional Doors are manufactured individually for each door opening from profiled aluminium or galvanized steel sheet. Highly insulating CFC-free polyurethane foam, which creates the chemical bond between the front and rear panels, makes the section doubly self-supporting. The number of window sections can be varied as required. Fittings, as shown on page 15, for vertically running Vertical-Lifting-Fitting-Sectional Door (VL) are used when there is sufficient lintel clearance to allow the door to be opened vertically. As no horizontal deflection is required, this fitting is particularly easy to maintain and suitable for easy manual operation.

» Dockshelters

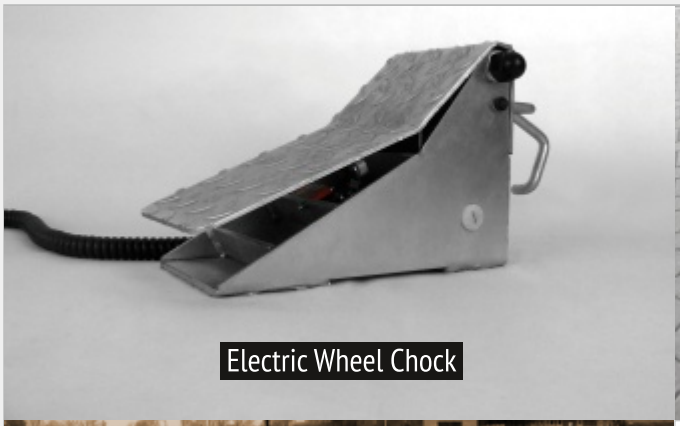
The Inflatable Dockshelter protects personnel and goods from the weather during loading and unloading. Its frame consists of sturdy hot-dip galvanized profiles. This frame is mounted on the wall. Inflatable Cordura®-cushions are mounted on the sides and top of the frame. The cushions are inflated when the vehicle approaches the ramp. As a result, this Dockshelter adapts perfectly to the truck and provides an excellent seal. After loading, the cushions are quickly deflated and the vehicle can drive away. The scope of delivery includes the complete Dockshelter as well as all fastening parts and sealing materials. The inflatable Dockshelter developed by Nani is made of the high-quality material Cordura®, which is abrasion-resistant and supple.

Before and After (A-TAD-2)
Width (NB)=3400/Height (NH)=3800

Subject to Technical Changes

Door installation in Recycling Logistics

Loading with Sectional Door (VL)


Electric Wheel Chock

Vehicle Wheel Guides

Loading Light

VI. Nani Safety Engineering

» Safety at Docklevellers

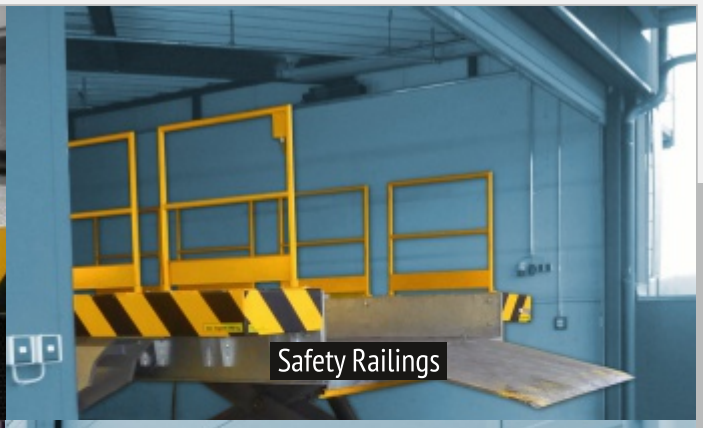
Loading Light
Every Loading Day needs a Loading Light. As there is not always sufficient light when loading and unloading a docked truck, safe and fast goods handling is often impeded. This lighting eliminates this weak point on the Loading Dock. The truck is optimally illuminated from inside the hall.

Vehicle Wheel Guides
They guide the truck to the center of the Dockleveller. Expensive damage to the building facade, Dockleveller or Dockshelter by the docking truck is almost eliminated. The Vehicle Wheel Guides are also particularly recommended for narrow Loading Docks with little space for maneuvering and when the truck driver has no reference points when docking.

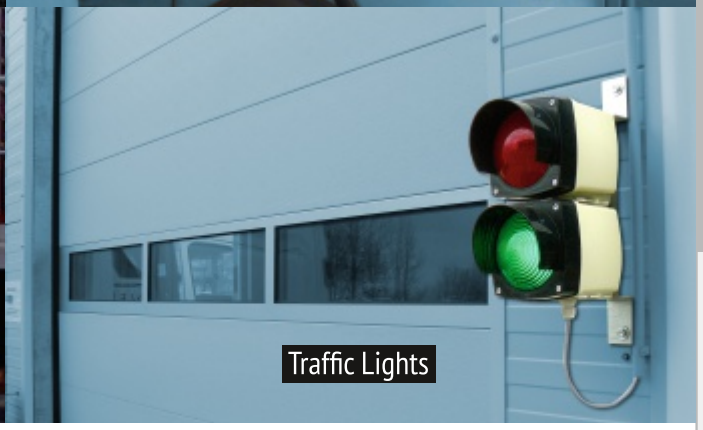
Surfaces and Coatings
Surfaces and Coatings are a crucial criterion for safety when loading. The main material used is checker plate (teardrop plate, corrugated plate or lens plate) made of steel, stainless steel or aluminum with rolled almond, barley grain, diamond, quintet and duet structures. Consult with us to find out which covering is best for your Loading Dock.

Electric Wheel Chock
The Electric Wheel Chock (with signaling device) is used for safety at the Dockleveller. The professional associations prescribe that a truck must be secured against rolling away before loading or unloading. The Dockleveller can only be used when the truck is secured against rolling away by placing the wheel chock under the wheel.

Roll-Off- & Lowering Protection


Safety Railings

Weather Protection-Roof on Lift Table


Traffic Lights

Subject to Technical Changes

» Safety at Lift Tables

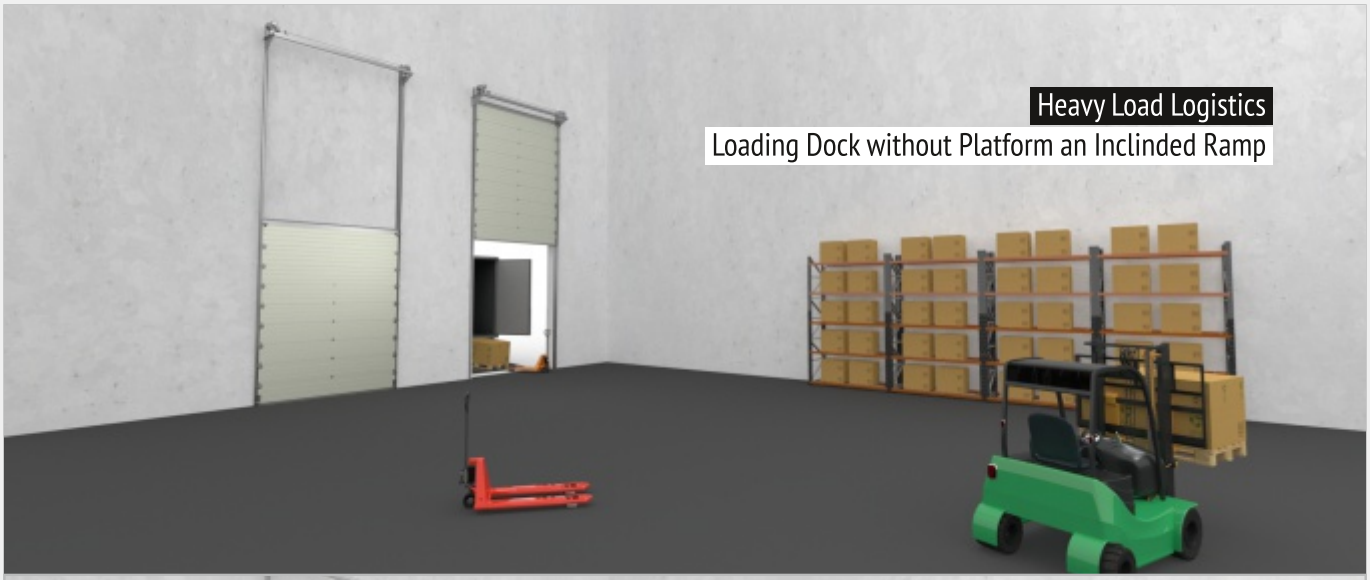
Roll-Off Protection (mechanical and hydraulic)
A missing Roll-Off Protection causes the load to repeatedly roll over the edge and crash. It is a good way of securing the load when using lifting platforms. This works fully automatically and does not restrict the functionality of the Lift Table in any direction. It is a further contribution by Nani to increasing safety at the Loading Dock.

Safety Railing
Safety Railings for Lift Tables prevent falls, provides anti-squeeze protection and increase the stability of the loads. They are available in different versions to meet various requirements. Installing Safety Railings significantly reduces the risk of accidents and improves safety in the workplace.

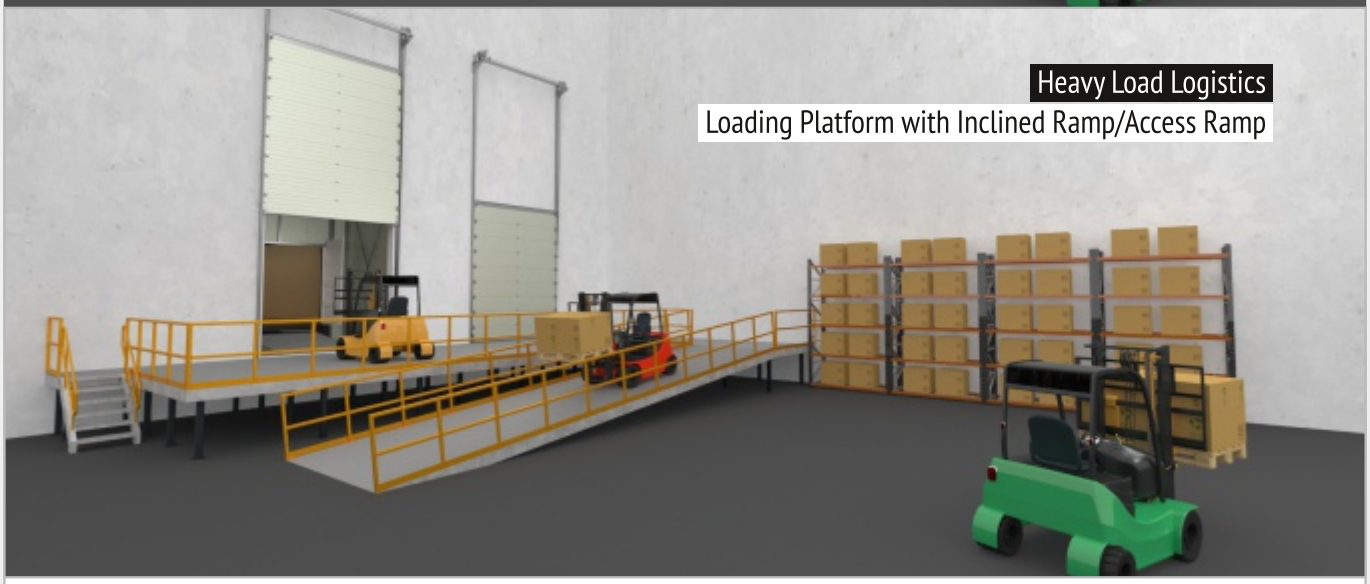
Lowering Protection
Fall Pprotection is available in the form of wire mesh, chain curtains, PVC-Roller Blinds (available to buy in the shop), Folding Bellows, Box Bellows and Sheet Metal Aprons as enclosures for lifting working platforms.

Weather Protection
Lift Table with Weather Protection roof.

Traffic Lights
The Traffic Lights contribute to safety at the Loading Dock. The traffic light system enables the loading personnel to indicate when the docked truck can be loaded and unloaded and also to indicate to the truck driver when he can leave the Loading Dock. These functions can be coupled with signal horns, which then additionally to the visual signals in the event of a faulty function, for example, if the wheel chock is removed although the Dockleveller is still in place, loudly audible signals are activated.



Heavy Load Logistics
Loading Dock without Platform an Inclinded Ramp



Heavy Load Logistics
Loading Platform with Inclined Ramp/Access Ramp

VII. Nani Loading Platforms & Inclined Ramps

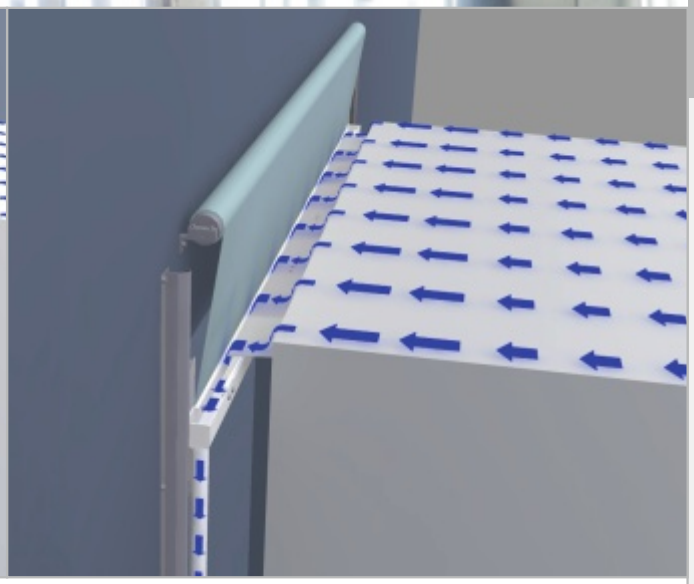
Special Constructions Heavy-Load Inclines Ramps

Inclined Ramps enable forklifts and any other industrial trucks to easily load and unload trucks and vans of all kinds. A version for Heavy Cargo Logistics is also possible. The Inclined Ramp made of steel (painted, hot-dip galvanized or stainless steel) is available in different versions (with and without hydraulic Dockleveller, mechanical drive-over flaps to one or more sides; with or without enclosure, with or without Dockshelter. The surfaces can be tear plates, expanded metal, rhombic sheets, perforated plates, honeycomb gratings, etc. The Housing can be a robust rising steel construction with panels or made of a light frame with tarpaulins. The Inclined Ramp can lead to a simple steel loading ramp or to a large multifunctional loading platform.

Heavy-Loading Platforms

Such Loading Platforms can also be designed for the operation with heavy loads of up to 25 tons and more. These platforms are often used as transshipment points and intermediate buffers for the delivered goods from the truck or train.

Nani Innovation
Nani Dockdrain



Heavy Load Logistics
Door protection at Loading Platform

Subject to Technical Changes

VIII. Nani Dockdrain

Despite door protection systems, such as curtain, cushion or inflatable Dockshelters, problems caused by rainwater entering the building still occur at many loading ramps. The water flows along the truck roof and enters the building.

The Dockdrain is almost flush with the truck roof. A dry and functional loading dock increases safety, improves working conditions and increases productivity! The Nani Dockdrain works like a rain gutter that is placed against the truck roof from the inside. To accommodate all different truck sizes, the Dockdrain is adjustable in height and width. When the truck is docked at the loading dock, the Dockdrain is manually placed in its working position under the truck roof. If it starts raining, the rainwater is diverted to the sides of the loading dock due to the rain gutter effect, and the inside of the building remains dry.

- Optimal **sealing** of the door
- **Protection** of personnel and goods
- **Prevention of damage** to loading dock equipment and goods
- Increased **safety** at the loading dock
- Improved **working conditions** and productivity of loading staff
- **Retrofitting** possible on all loading docks!

IX. Loading Dock Equipment in Paper Logistics

» Summary

As a leading manufacturer of Docklevellers and Dockshelters that have been specially developed for the requirements of Paper Logistics. Our products are characterised by outstanding quality, high functionality and a long service life, which meet the specific needs of the paper industry.

Specialising in Paper Logistics

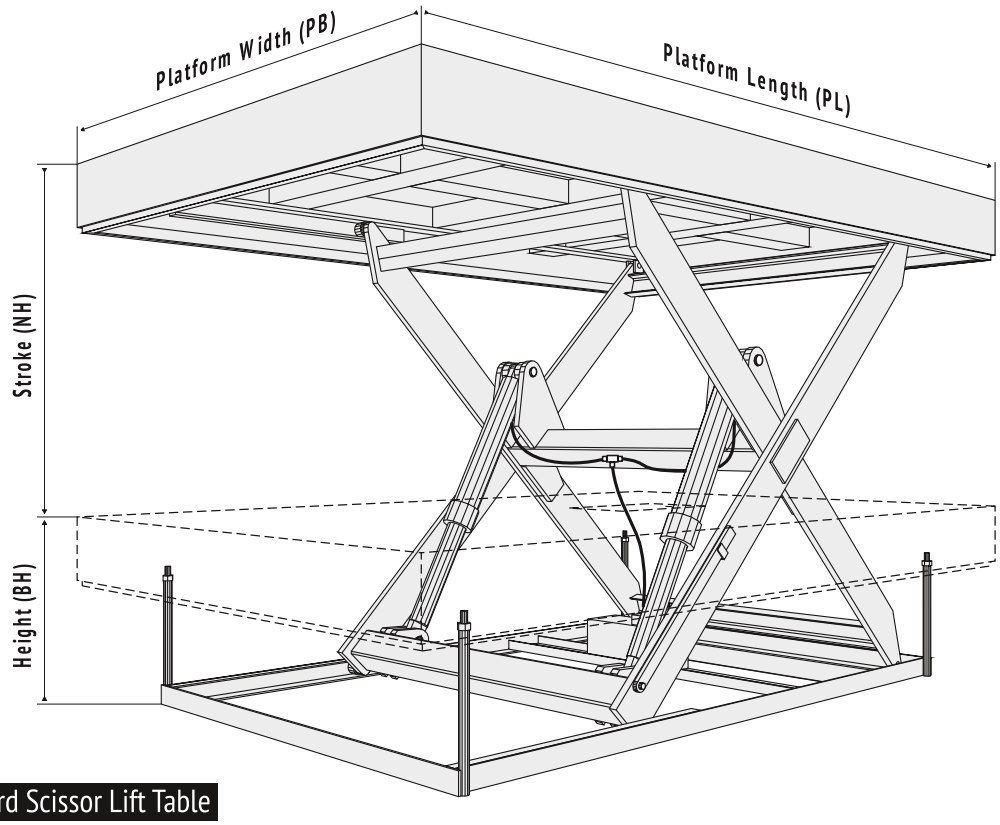
Nani has designed its products with the needs of Paper Logistics in mind. This means that our docklevellers and docksheltesr are not only robust, but also have features that make paper transport easier. For example, our ramps are equipped with special surfaces that minimise the risk of damage to the paper and allow for safe and easy handling. Our doors provide a perfect seal to ensure the storage quality of the paper and minimise temperature fluctuations.

Robustness and Durability

Paper Logistics experts know that the processing and transport of paper presents particular challenges. Our dockleveller and dockshelter are made of high-quality materials that ensure a high level of resilience and resistance. They are designed to withstand daily demands and offer a long service life, even with intensive use. For our customers, this means less downtime and lower maintenance costs.

Energy Efficiency and Sustainability

Sustainability is a crucial factor in today's world. Our products are designed to minimise energy consumption. Our dockshelters are excellently insulated and help to reduce energy costs by reducing heat loss in warehouses. In addition, we use environmentally friendly processes and materials in our manufacturing processes to minimise our ecological footprint.



Standard Scissor Lift Table

User-friendliness and Security

The user-friendliness and safety of our products are at the heart of our design. Our docklevellers are equipped with easy-to-use controls that allow precise adjustment to different loading heights. Our dockshelters have modern safety systems that prevent accidents and ensure smooth operation. These features are particularly important in paper logistics, where the safety of employees and the integrity of the products have the highest priority.

Individual customisation options

At Nani, we understand that every business has unique requirements. That is why we offer a wide range of customisation options for our docklevellers and dockshelters. Whether you need special dimensions, additional safety features or a custom design, we work closely with our customers to develop tailored solutions that perfectly fit their operations.

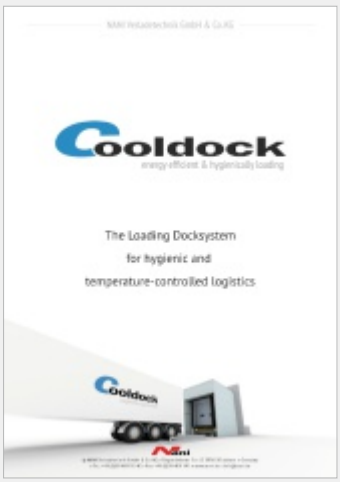
Conclusion

With Nani docklevellers and dockshelters, you are choosing quality, reliability and innovation. Our products are not only optimally tailored to the specific requirements of Paper Logistics, but also offer high added value in terms of durability, energy efficiency and safety. Trust in Nani's expertise and benefit from solutions that make your logistics processes more efficient and safer.

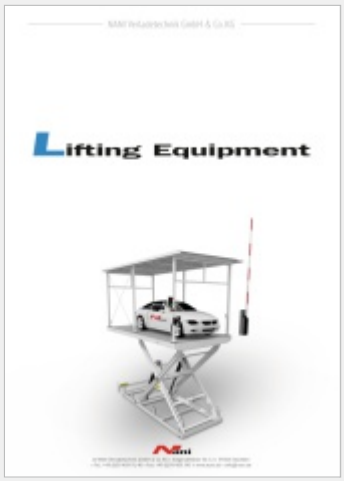
Subject to Technical Changes

Crash Guard
... for any ramp height
&
for all vehicles

Industry Solutions


Cooldock
The Loading Docksystem
for hygienic and
temperature-controlled logistics

Distributors
Docking & Lifting Equipment


Lifting Equipment

Industrial Doors
modular · simple · flexible

Logdock
Ideal for docking
with the rear doors closed

Parkdock
Without ramp from
level to level

Dock Bumpers
Crash protection for
trucks and buildings

Column Lift Table

Safety
The Nani safety package for
an EU-compliant docking station

Dockshelters

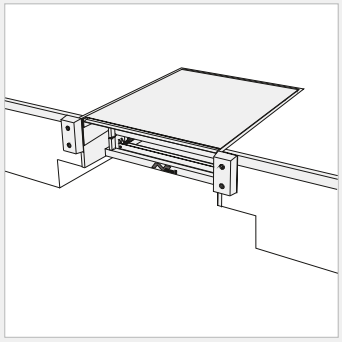
Dockleveller

Loading Dock
Equipment
Nani

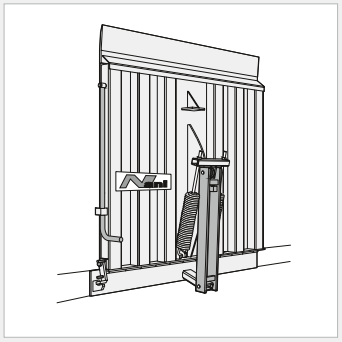
Accessories

Catalogues
request under
+49 39 409 - 914 0

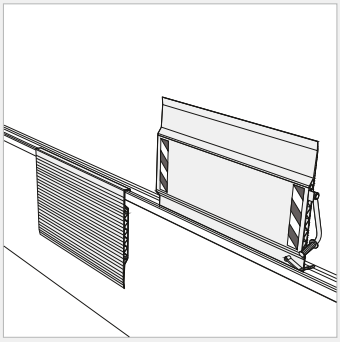
LOADING TECHNOLOGY



Stationary Docklevellers



Swivel Docklevellers

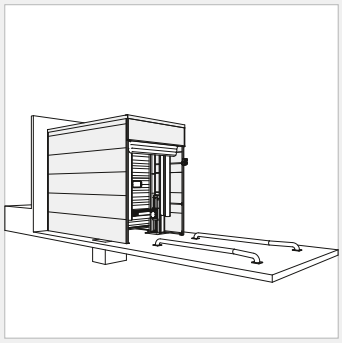


Aluminium Docklevellers

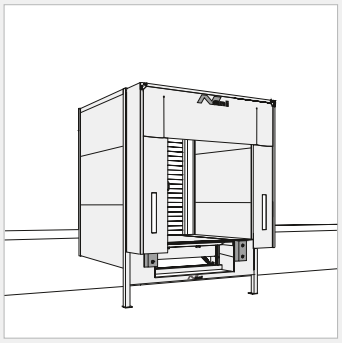
» Buffer
» Vehicle Wheel Guides
» Electronic Wheel Chock
» Traffic Lights
» Loading Light
» Crash Guard

Accessories & spare parts

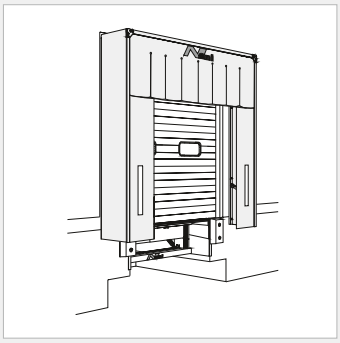
(also for other makes)



Cooldock



Insulated Loading House



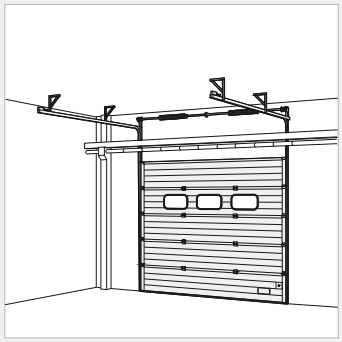
Dockshelters

» Hydraulic kits
» Controls
» Dockdrain
» Reinforcement lamellas
» Corner seals
» Airbags
» Foam pads

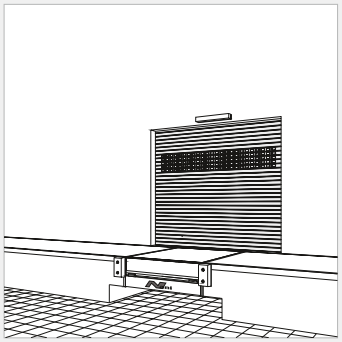
Accessories & spare parts

(also for other makes)

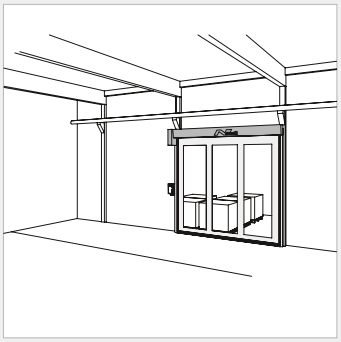
Industrial Doors



Sectional Doors



Roller Shutters



High Speed Doors

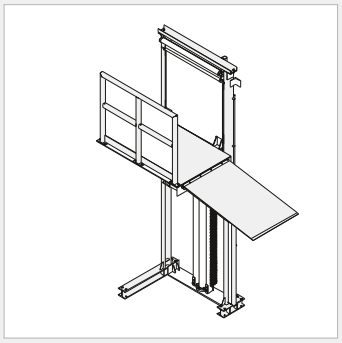
» Suspension Ropes
» Torsion spring
» Window sections
» Rollers
» Drives
» Door panels
» Montage frame

Accessories & spare parts

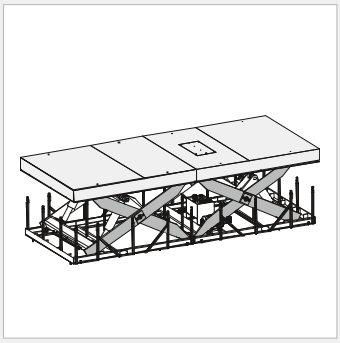
(also for other makes)

LIFTING TECHNOLOGY

Scissor Lift Tables



Column Lift Tables



Long-Load Lifts

» Drive-over flaps
» Mech. Roll-off safety
» Safety railing
» Controls
» Platform strengthening
» Hydraulic cylinder
» Hydraulic power pack

Accessories & spare parts

(also for other makes)

Paper Logistics

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