



Closer to our customers through continuous communication

Engineered Customer Solutions





Service and consultation

The customer is the reason we are here. Through reactive service and proactive service, we listen to and understand our customer needs. This knowledge allows us to continuously develop our product range and service offering resulting in increased safety, operational efficiency, and added value for our end users. We provide expert advice and design assistance to the construction sector based on our thorough understanding of the market needs.



SAFETY FIRST

Safety is our top priority.

Too many accidents occur during the intense loading operation in a factory, warehouse, or distribution centre. The combination of people, materials handling machinery and trailers combine to create a hazardous environment. Every safety precaution should be considered to reduce or eliminate risk. At Dock & Door Engineering we only provide tested and certified Dock Equipment and Industrial Doors. Safety features are built in.

Safety Features of our equipment

All Dock Levellers are provided with a dual hydraulic lifting cylinder design. EN n1398 Each cylinder incorporates an emergency arrest valve to immediately halt the uncontrolled descent of a platform during the loading process.

We offer a safety refuge area at the loading dock where employees are present in the external yard area. Vehicle Restraint devices are available to help prevent unexpected trailer departure from the loading dock. Sequential interfacing of our system ensures that all equipment is operated correctly and efficiently. Ensuring Dock Door opens only when trailers are present is recommended.

We provide LED traffic lights to signal when it is safe for trailer arrival and departure at the Loading Dock.

Dock Lights are available to safely illuminate dark trailers during the loading process

Replacement and Upgrade Solutions

Short Lead Times

When Dock Levellers reach their end of life stage and it is no longer safe or viable to repair an old or damaged dock leveler, we provide replacement solutions. We carry a range of stock to minimize customer disruption. We clan also evaluate the possibility of different dock leveller designs to suit current needs. Most times we can complete this upgrade work without the need for building works.

Benefits of replacement Dock Equipment

- improved safety features as with new building
- Improved equipment efficiency with up to 70% energy saving
- Improved operational efficiency and dependability for our clients
- Additional safety features possible during upgrade works Sequential interface with additional equipment
- Warranty and certification
- May eliminate concrete or separate builders works

We have a variety of solutions that can be tailored to specific needs, all from one supplier; Dock and Door Engineering.



LION 4.0 – THE FUTURE OF YOUR LOGISTIC PROCESSES

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Transparent overview

With LION 4.0, a software for monitoring, presenting and optimizing the entire loading procedure was developed. Intelligent systems make it possible for you to access the data of connected warehouses at any time and from anywhere (via the Internet).

The modern user interface leads the operator intuitively to the goal. Start up into the future today! Get a decisive competitive advantage for your company now. By making all data accessible, LION 4.0 provides you with complete transparency, on the basis of which you can optimize and secure your loading operations.

Product characteristics

- Logistics 4.0 solution
- For optimizing every loading station
- Up-to-date status reports
- Reduction of downtimes to a minimum
- Pro-active reports help to reduce costs
- Intelligent assistants
- Enabling preventive maintenance

Transparency, efficiency, control and safety

With the LION 4.0 Docking Portal, you will have a complete overview of all your different company sites and the corresponding loading stations. We will provide you with comprehensive information, for analyzing and optimizing your operations.

Service /maintenance

Early detection at your loading station of when a portal or loading bridge requires maintenance.

Everything at a glance

Extensive information is clearly presented by the dashboard, which informs you about your loading station at a glance. The required data can also be analyzed subsequently in a detailed presentation.

Reports

You will receive notifications on all reports, making it possible to reduce interruptions to a minimum.

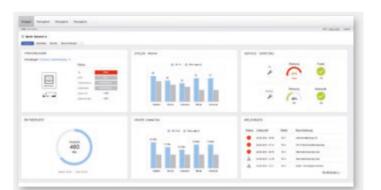
Top performance

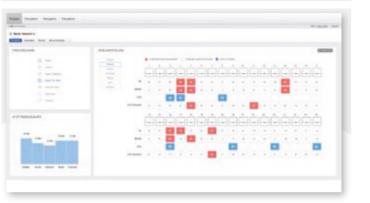
A transparent presentation of data, which had not been known up to then, makes a substantial increase of your performance possible and helps to secure a decisive competitive advantage for your company.

Preventive maintenance will reduces downtimes to a minimum. Whenever an error occurs, LION 4.0 will inform you immediately about the problem.

Always fully informed - even when traveling

LION 4.0 is a web-based portal, which will provide you with all required data at a glance, anywhere and at any time. A map-overview function presents all of your company's sites in a clear manner, making direct insight into the operations of your warehouse possible at a mouse click.





The analyzer

LION 4.0lets you prepare a variety of analyses, which can either be printed out automatically or regularly transmitted to various addresses. Transmission is carried out by the software automatically without requiring action on your part. That way you can concentrate on the important things.

The messenger

Doors are opened after normal operatinghours? They are open for operations longer than planned? LION 4.0will automatically dispatch an e-mail message or SMS, to an address of your choice. That way you can react in a targeted manner and immediately. This gives you greater security at lower costs, thanks to LION 4.0.



EVO X -THE NEXT GENERATION OF THE DOCK LEVELLER

Alu-Slide

Q-Slide and Silence Plus

part of the delivery.

Control and operation

SLOD

function

Novo i-VisionX

permit draughts under the dock leveller,

with which a thermal bridge is

avoided.

ISOPlus -A package

with a completely isolated and enclosed construction form

Optional ISOPlus package

EVOR

The EVO X dock leveller is controlled with Novo i-VisionX, which is

The completely isolated, enclosed construction form does not

QuickDock

function

iO-Slide

function with

warning LED

X-TRA safety

iO-Slide-intelligent telescopic lip follows the freight lorry

iQ-Slideisapatentedsolutionthatautomatically activates a forward movement of the dock leveller. thereby following the freight lorry. The telescopic lip is prevented from slipping off the freight lorry. If the telescopic lip has extended to a maximum, and if further following of the freight lorry is no longer possible, then an alarm is sounded and a LED on the control unit indicates that this functionality is no longer active.

SLOD function -opening freight lorry doors safely

Thanks to the SLOD function, the operator can open the back lorry doors, without running the risk of falling from the dock leveller. This is a decisive safety plus. With this function, all movements of the dock leveller are carried out with a single operating button. Simple and

X-TRA efficiency

QuickDock function -keep it simple

The simplest and quickest way of operating a dock leveller: The positioning of the telescopic lip is carried out with a single button. It can't get faster or simpler than that. You only need the QuickDock button, to operate the EVO X precisely and safely. Lifting and extending the telescopic lip is done in dead-man mode.

Control and operations -Novo i-VisionX

The dock leveller is operated by means of the Novo i-VisionX control unit, which is part of the delivery.

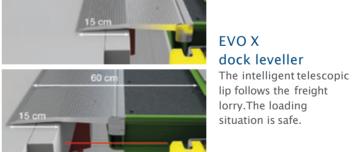
Besides the newest environment-friendly technology, this control unit disposes over such unique features as:

- A power saving function, which leads to 70% lower energy requirements
- User guidance per LED
- QuickDock functionality
- SLOD function
- iQ-Slide function with an acoustic signal
- Service interval display
- IP65 and RoHS conformity

THE STANDARD IN TERMS OF SAFETY, EFFICIENCY AND CONNECTIVITY.

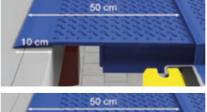


With iQ-Slide function









Standard dock leveller Standard telescopic lip without warning. The loading situation is critical.

X-TRA silence

Alu-Slide-a smooth transition from the freight lorry to the dock leveller

The telescopic lip segments, which are made of high-strength aluminum, make a smoother and less steep transfer to the freight lorry possible. This protects the transported goods and the forklift truck. In addition, this system is more ergonomic for the forklift truck operator and spares the back. The development of noise is also substantially lower. The longer positioning surface of thealuminum segments increases safety, while at the same time reducing the risk of slipping from the freight lorry.

Silence Plus -as silent as a cat

The new, optional coating on the EVO X dock leveller reduces the developers of noise by 85 %. Independent tests (amongst others by TÜV Nord) confirm the enormous reduction of transit noise. Compared to similar products, the values of both slip-prevention and stability are also exceeded.

X-TRA connectivity

Logistik 4.0 on board

At all times, at any site, and system independent. Regardless of whether it concerns the current status, the time required for the last loading operation, the average frequency, the maintenance status and much more - the EVO X keeps your customers and users informed at all times

TopPerformance

EVO X is becoming more efficient everyday, thanks to LION 4.0, the integrated docking portal with comprehensive new possibilities.





L730i

The ideal ISO loading bay for temperature controlled storage

The unique design of the L730i ensures the best possible insulation of the load- ing bay at any time Also, during the loading process, no draughts can get under the dock leveller, thus preventing a cold bridge.

Product benefits

- Standard Ergo Plus Pack
- Fully insulated, encapsulated design
- Acceleration forces are fed into the base plate
- Also fully insulated during the loading process
- Tail lift recess
- 700/1.000mm telescopic lip
- 45mm insulation
- NCI on board



Control and operation

The dock leveller L730i is steered via the supplied control i-Vision TA.





i-Vision TA

i-Vision TAD

Option packs









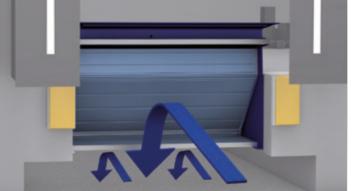
Standard colours

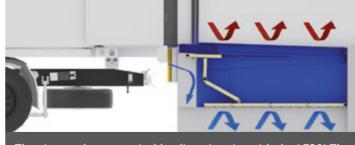
RAL 5010

RAL 7016

RAL 9005







The picture shows a typical loading situation with the L730i. The exchange of different temperature conditions is prevented. The weather stays outside and the temperature in the hall remains almost constant.

Not Just For Cold Storage

No other loading solution offers all these advantages in a single package. The rising cost of energy in combination with the attractive price make this intelligent solution interesting for all hot or cold warehouses.

Sustainability and energy savings

The standard Green Plus package ensures the use of recyclable materials. Using a unique, patent pending, power-saving function, the L730i saves up to 70% of energy costs compared to conventional solutions and provides an important contribution to reducing CO2 emissions

Ergonomics saves costs

The standard Ergo Plus package provides health protection for employees, lower costs for transport equipment and careful handling of the cargo

Increased efficiency through automation

The Door Plus package controls the dock leveller, the electrically driven sectional door, an inflatable shelter, and any other equipment-such as traffic lights and loading area lighting - in a single housing. In conjunction with the LED user guide, improper operation is impossible and damage is prevented. The AutoDock function moves all connected products safely back into the rest position and thus increases efficiency.

The future is already on board

The integrated Novoferm Communication Interfacec (NCI) provides over 50 key parameters. The LION 4.0Software lets you evaluate the data for efficient loading.



L530

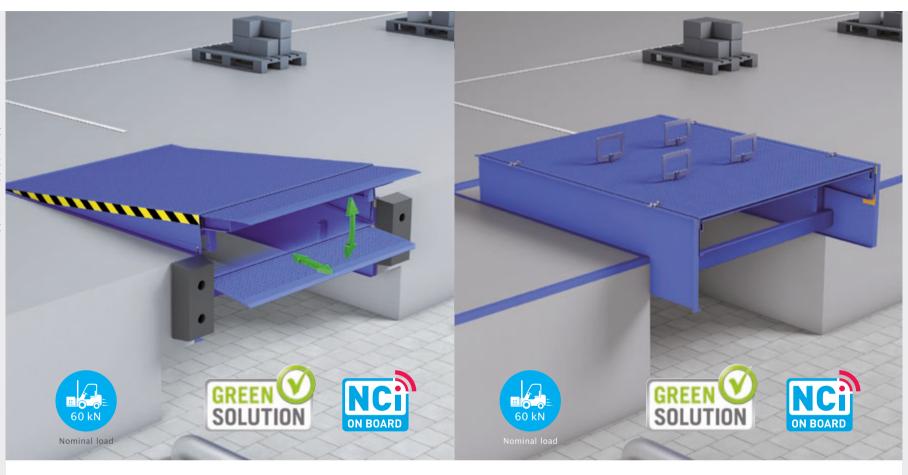
Hydraulic Dock Leveller with telescopic lip for most demanding requirements

The L530 is optimized for the enhanced market requirements and combines the benefits of various systems. The hydraulic dock leveller with telescopic lip is particularly robust and enables efficient loading thanks to modern controller technology.

The new NovoSmart Drive system provides the easiest and most efficient operation with the least energy requirement.

Product benefits

- NovoSmart Drive system
- SLOD function prevents accidents
- Green solution product
- Up to 70% less energy consumption
- Robust steel construction
- Quick installation thanks to the Z-frame
- Options packages for customised configuration
- NCI on-board



Control and operation

The dock leveller L530 is steered via the supplied control SuperVision 5.











Vision 5 i–Vision TA

i-Vision TAD

RAL 9005

Option packs









Standard colours

RAL 5010

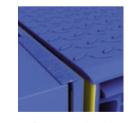
RAL 7016

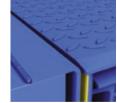
SuperVision 5

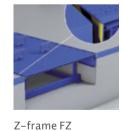
The dock levellerL530R is steered via the supplied control SuperVision 5.

Frame designs

Control and operation







Z-frameAZ detail Z-frameGZ detail

Option packs



Standard colours

RAL 5010 RAL 7016 RAL 9005

L530R

Hydraulic dock leveller with telescopic lip as replacement solution

The L530R is is designed as a specifier placement solution and combines the benefits of various systems. The hydraulic dock leveller with telescopic lip is particularly robust and enables efficient loading thanks to modern controller technology.

The new NovoSmart Drive system provides the easiest and most efficient operation with the least energy requirement.

- NovoSmart Drive system
- SLOD function prevents accidents
- Green solution product
- Up to 70% less energy consumption
- Robust steel construction
- Quick replacement thanks to the ZFrame
- Options packages for customised configuration
- NCI on-board



P1530

Hydraulic dock leveller with telescopic lip in the steel frame

The steel frame allows the P1530 to be installed in front of the building and also serve as a basis for a loading bay. The hydraulic dock leveller with telescopic lip is particularly robust and enables efficient loading thanks to modern controller technology. The new NovoSmart Drive system provides the easiest and most efficient operation with the least energy requirement.

Product benefits

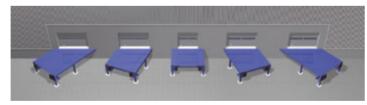
- see L530
- Green Plus package, up to 70% energy savings
- Height adjustable support feet



Control and operation

The dock leveller P1530is steered via the supplied control SuperVision 5.

Angled design



90°, 75°, 60°, 45°, 105°, 120°,135°

Option packs



Standard colours

RAL 5010 RAL 7016 RAL 9005

Control and operation

The dock leveller L550i is steered via the supplied control i-VisionTA.



ion TA

Option packs



Standard colours

RAL 5010 RAL 7016 RAL 9005

L550i

Hydraulic dock leveller with telescopic lip

With the integrated i-Vision TA control, the Dock Leveller is user friendly and safe to operate. Like all Green Solution products, the L550i contributes to cost savings thanks to CO2 reduction technology. The L550i also has the new revolutionary NCI on board

- Standard Green Plus pack, up to 70% on energy savings
- Due to its higher dynamic load-carrying capacity of 100kN, especially suitable for transported goods



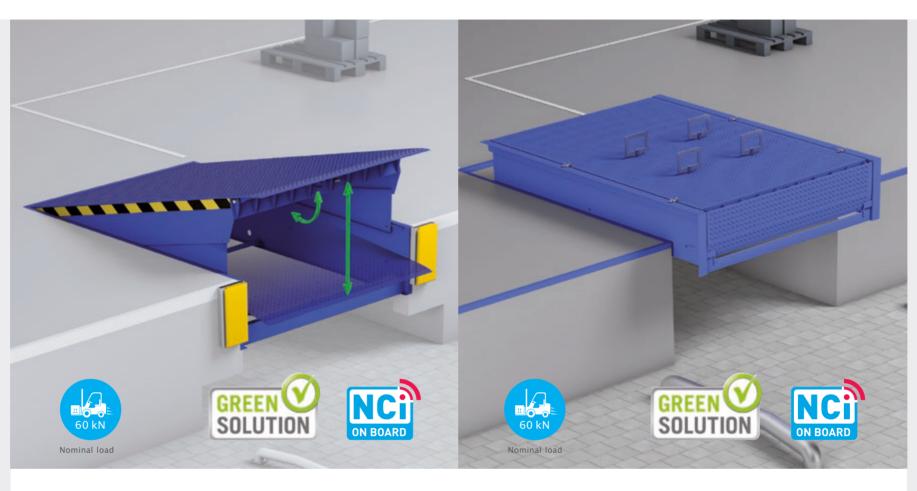
L320

Hydraulic dock leveller with hinged lip

Hydraulic dock levellers with hinged lip have been established as basic version in the loading technology. The L320 redefines this standard. It combines many years of experience and a robust steel construction with new design and the most modern control technology. Naturally, only, materials control technology. Naturally only materials are used that comply with current environmental standards.

Product benefits

- Hydraulic dock leveller with hinged lip
- Complete new design
- New Z-frame construction
- Option packages for individual configuration
- Robust steel construction
- Quick assembly



Control and operation

The dock levellerL320 is steered via the supplied control ClassicPlus.







Option packs









Standard colours

RAL 5010

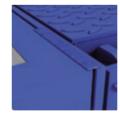
RAL 7016

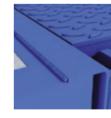
RAL 9005

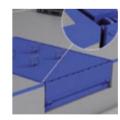
Control and operation

The dock leveller L320R is steered via the supplied control Classic

Frame designs







Z-frameAZ detail

Z-frameGZ detail

Z-frame FZ

RAL 9005

Option packs









Standard colours

RAL 5010 RAL 7016

L320R

Hydraulic dock leveller with hinged lip as replacement solution

Hydraulic dock levellers with hinged lip have been established as basic version in the loading technology. The L320R is designed as a specific replacement solution. It combines many years of experience and a robust steel construction with new design and the most modern control technology. Naturally, only materials are used that comply with current environmental standards.

- Complete new design
- Option packages for individual configuration
- Robust steel construction
- Quick replacement thanks to the specific Z-

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L320e

Hydraulic dock leveller with hinged lip

Hydraulic dock levellers with hinged lip have been established as basic version in the loading technology. The L320e redefines this standard. It combines many years of experience and a robust steel construction with new design and the most modern control technology. Naturally, only materials are used that complywithcurrentenvironmentalstandards. The 320e is transport optimized and is available in two versions (ECO and ECO PLUS)

Product benefits

- Hydraulic dock leveller with hinged lip
- Complete new design
- Option packages for individual configuration
- Robust steel construction
- Quick assembly
- Transport-optimized hydraulic dock leveller with hinged lip



Control and operation

The dock leveller L320e is steered via the supplied control Classic Plus.





i-Vision HA

VISIOITIA

Option packs







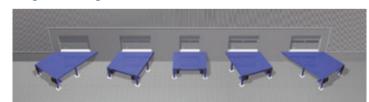
Standard colours

RAL 5010 RAL 7016 RAL 9005

Control and operation

The dock leveller P1320 is steered via the supplied control Classic Plus.

Angled design



90°, 75°, 60°, 45°, 105°, 120°,135°

Option packs



Standard colours

RAL 5010 RAL 7016 RAL 9005

P1320

Hydraulic dock leveller with hinged lip in the steel frame

The steel frame allows the P1320 to be installed in front of the building and also serve as a basis for a loading bay. With the integrated Classic Plus controller, the dock leveller can be operated conveniently and safely. As with all Green Solution products, the P1320 also save costs thanks to the reduction in CO2.

- See L320
- Green Plus Package, up to 70% energy savings
- Height adjustable support feet



L350i L150AND L100

Hydraulic dock leveller with hinged lip

The L350i with hinged lip has established itself as the basic version in loading technology. With the integrated i-VisionHAR1 control, the dock leveller is user friendly and safe to operate. Like all Green Solution products, the L350i also caters for CO2 reduction and operating cost savings through optimised energy requirements.

The stable steel construction remains unchanged. NCI provides a decisive competitive edge over all other dock levellers with hinged lip that are available on the market.

Product benefits

- Standard Green Plus pack, up to 70 % energy savings
- Due to its superior dynamic load carrying capacity of 100kN, especially suitable for transported goods



L150-Mechanical dock leveller

The L150 can be operated very easily via a lifting rod. The dock leveller is mounted against the loading bay.

Product benefits

- Fixed or laterally sliding
- Provides a bridge between height differences of the vehicle and loading bay
- Use for internal and external loading bays
- Hot-dip galvanized

Control and operation

The dock leveller L350i is steered via the supplied control i-Vision



i-VisionHAR1

Option packs





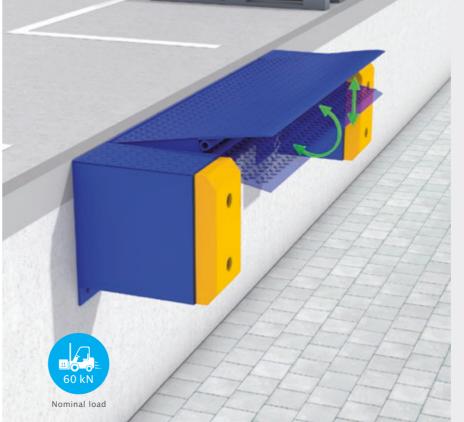


Standard colours

RAL 5010

RAL 7016

RAL 9005



L100-Mechanical dock leveller

The L100can be operated very easily via a lifting rod. The dock leveller is mounted against the loading bay.

Product benefits

- Enables loading operation seven in the most confined spaces
- Low-noise

Standard colours

RAL 5010 RAL 7016 RAL 9005



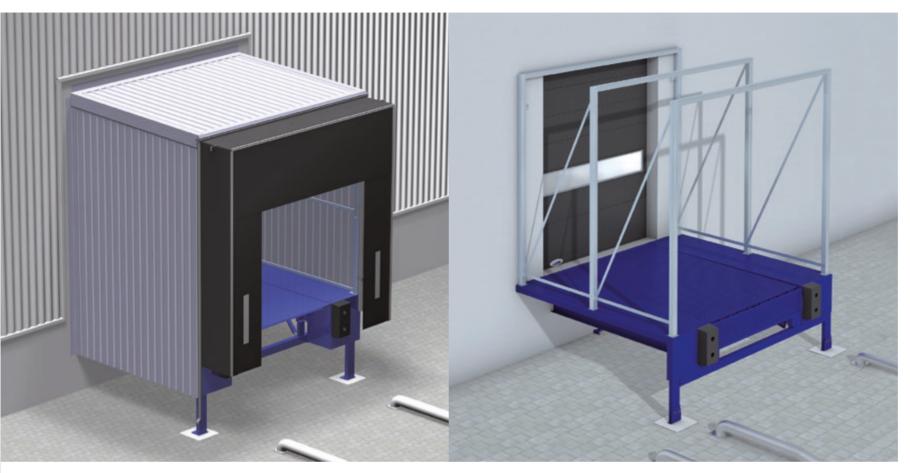
H100

Load house construction for platform systems P1530and P1320

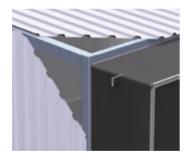
The H100 presents you with a variable concept for the use of telescopic lip and hinged lip dock levellers. The loading module can be given an inline or angled structure where space is limited and offers additional storage space within the building. The P1530 and P1320 serve as a basis for the H100

Product benefits

- Retrospective installation to existing loading bay
- Reduction of energy consumption for heated warehouses
- Simple site assembly and minimal disruption during installation
- Flexible forms of enclosure

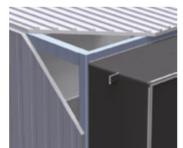


Construction types of load house



TypeStandard: Cladding with trapezoidal metal sheet up to upper edge of steel platform.

inside



TypeISO:
Cladding with 40 mm ISO
panel up to upper edge of steel
platform.

outside

RAL 9002	RAL 9002	RAL 9006		
Basic frame H100 /	Angled design (90, 75,	60, 45,105,120,135)		
The second				

Construction types of load house

TypeStandard: Cladding with corrugated metal sheet as sinusoidal wave up to upper edge of steel platform.

TypeISO: Cladding with 40 mm micro profiledISO panel up to upper edge of steel platform.

inside	outside		
RAL 9002	RAL 9002	RAL 9006	



H50

Load house construction for platform systems P1530and P1320

The H50 presents you with a variable concept for the use of telescopic lip and hinged lip dock levellers. The loading module can be given an in-line or angled structure where space is limited and offers additional storage space within the building. The P1530 and P1320serve as a basis for the H50.

The H50 is only available as 90 degree version. The cladding made from ISO panel are attached horizontally. The H50 offers transport cost benefits.

- Retrospective installation to existing loading bay
- Reduction of energy consumption for heated warehouses
- Simple site assembly and minimal disruption during installation
- Flexible forms of enclosure

TECHNICAL DATA with telescopic lip with hinged lip ISO-Dock GreenPlus GreenSLOD ErgoPlus Iso^{Plus} DoorPlus SafetyPlus Nominal load according to EN 1398in kN 2000,2500,2750, 2000,2440 (2500), 2000,2500,3000, 2000,2500,2750, 2000,2500,2750, 2000,2250,2500 2000,2440 (2500), 2000,2500,3000, 1500, 1750, Nominal lengths (NL) in mm 2000,2500,3000 2000,2500,3000 2000,2500,3000 3000 3000 3500,4000,4500 3000 3000 3000 3000 3500,4000,4500 2000 1710,1750, 1960, 1750,2000, 2250, 1500, 1750, 1750,2000, 2000, 2060, 2100, 2160,2200, 2250 2000, 2060, 2100, 2160,2200, 2250 Nominal widths in mm 2000,2250 2000,2250 2000, 2200, 2250 2000, 2250, 2400 2000, 2100,2250 2000 2000, 2200, 2250 1750,2000, 2250 2400 2000 2200 600 mm up to 3000 mm (NL) up to 3000 mm (NL 700 mm/725mm* up to 3000 mm (NL) up to 3000 mm (NL) bis3000 mm (NL) up to 2500 mm (NL) up to 3000 mm (NL) up to 3000 mm (NL) 800 mm/830 mm** up to 3000 mm (NL) up to 3000 mm (NL) at 3000 mm (NL) at 3500 mm (NL) at 3000 mm (NL) at 3000 mm (NL) 900 mm from 4000 mm (NL) from 3500 mm (NL) 500 | 700 Telescopic lip /hinged lip length in mm 700 | 1000 500 | 1000 500 | 1000 500 | 1000 500 400 400 1000 3 N~ 3 N~ 3 N~ 3 N~ 3 N~ Power supply 400 V/50 Hz/16A IP 65 Protection class Motor rating in kW max. 1,5 max. 1.5 max. 1,5 max. 0.75 max. 0.75 max. 0.75 max. 1,5 max. 1.5 max. 1.5 max. 1.5 max. 0.75 Platform tear plate in mm 8/10 8/10 8/10 8/10 10/12 6/8 8/10 8/10 6/8 6/8 6/8 4/6 12/14 12/14 12/14 Telescopic lip /hinged lip tear plate in mm 12/14 12/14 12/14 15/17 12/14 12/14 12/14 12/14 15/17 Bridging value vards/downward Nominal length 2000, Pit depth 600 330 (405)/300 (315) 330 (405)/300 (315) 360/300 360/300 360/270 250/290 Nominal length 2000,Pit depth 700/725*/830** 350 (400)/370(400) 320/340*** 360 (440)/400 (435) 360 (440)/400 (435) 360 (460)/380 (430) 300/400 360/320 290/340 Nominal length 2250,Pit depth 600 360/270 Nominal length 2500, Pit depth 600 430 (500)/290 (280) 430 (500)/290 (280) 380/270 380/270 330/270 310/270 Nominal length 2500,Pit depth 700/725*/830** 400 (430)/370(370) 370/310*** 470 (540)/370 (390) 470 (540)/370 (390) 470 (590)/350 (390) 300/400 380/290 360/330 Nominal length 2750,Pit depth 600 400 (500)/270 (270) 390/270 390/270 Nominal length 2750,Pit depth 700 430 (530)/350 (370) Nominal length 3000, Pit depth 600 420 (475)/270(260) 420 (475)/270(260) 400/260 400/260 270/270 360/270 Nominal length 3000,Pit depth 700/725*/830** 340 (370)/330(350) 310/310*** 480 (565)/400(390) 480 (565)/400(390) 480 (590)/400(380) 400/290 430/330 Nominal length 3000,Pit depth 800/900** 400 (430)/370(400) 370/350*** 370/400 Nominal length 3500, Pit depth 800 520/350 Nominal length 3500, Pit depth 900 450/400 Nominal length 4000,Pit depth 900 450/400 570/350 Nominal length 4500, Pit depth 900 450/400 620/350 maximum admissible inclinationaccording to EN 1398 12.5% 12.5% 12.5% 12.5% 12.5% 12.5% 12.5% 12.5% 12.5% 12,5% 12,5% 12.5% 12.5% Operating Operating Control i-Vision i-Vision SuperVision 5 SuperVision 5 SuperVision 5 i-Vision Classic Plus Classic Plus Classic Plus Classic Plus i-Vision rod i-Visionmodel TA I TAD HA I HAD ■ HA I ■ HAD HAR1 Novoferm Communication Interface (NCI) RAL 5010(gentian blue) RAL 7016(charcoal grey)

RAL 9005 (black)
more RAL colourshades

galvanized

Standard

Option

*P1320only

L730i only *Telescopic lip 700/1000 same as L730i ISO

OVERVIEW **DOCKING SOLUTIONS**

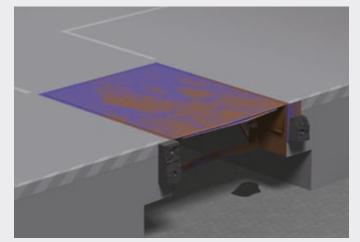


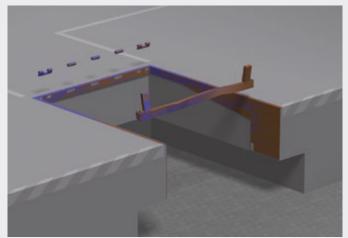






EXCHANGE IN 4 STEPS



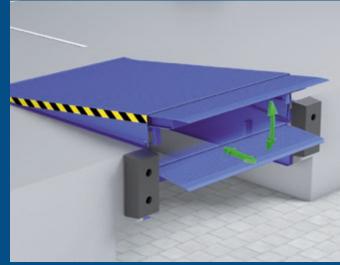


L730i

Removal of a defective Dock Leveller, ensuring that corresponding safety measures are observed.

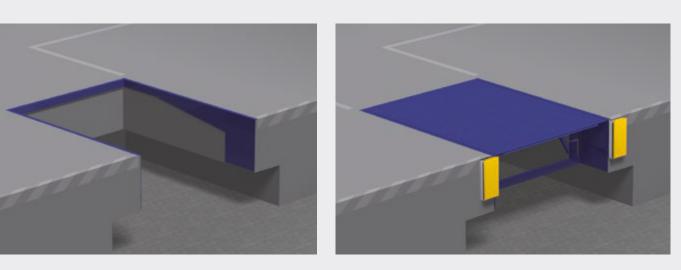
Step 1

Step 2 The back hinge and possibly installed steel components must be removed.



EVO X

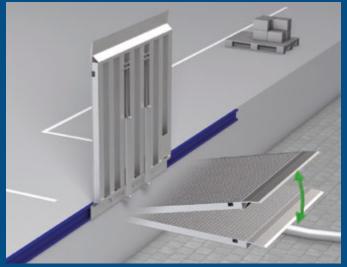




L530 series |P1530 |L550i L320 series |P1320|L350i

Step 3 If required, the existing frame has to be reworked, including possible rust removal and paint works.

Step 4 Positioning of the replacement Dock Leveller, proper alignment and subsequent attachment to the existing frame by welding.







Solutions for every application
Wide range of sizes and specifications to suit your existing building



REPLACEMENT SOLUTIONS

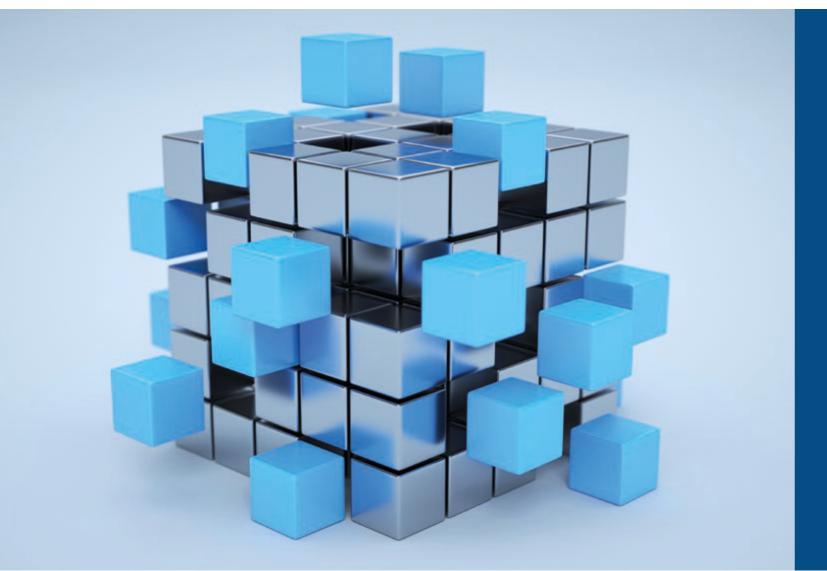
Replacement parts and more - again that one idea ahead.

Besides OEM replacement parts, we offers a large number of sensible replacement solutions. Instead of exchanging a defective circuit board or using an outdated original control unit, We offer suitable exchange solutions in the form of a one-time replacement with a universal control unit, which is suitable for many different brand manufacturers.

It speaks for itself that currently applicable standards are applied, as well as an optimized and efficient operating concept, which includes a patented energy-saving function. These control units are always available from stock, which means they can be delivered within a single working day -one more argument for this solution.







COMPLETE REPLACEMENT KITS

Exchange solutions

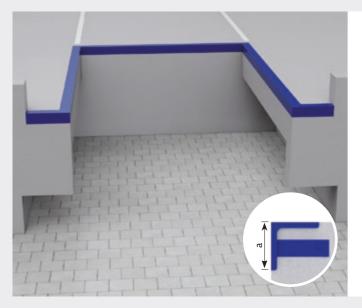
Many Dock Levellers have to be exchanged, because replacement parts forthe control unit are no longer deliverable, even though the steel construction that is still in a perfect state. We offer complete replacement kits. These kits consist of all important control components, including accessories and an installation guide. As of a certain age of the equipment, a defect in the hydraulics or in the control unit can make the exchange of the en- tire drive technology necessary. This helps to avoid subsequent repairs and/or further downtimes. The latest technology, at a reasonable cost, will quickly amortize itself.

Service kits

Hydraulic hoses must be exchanged at the latest every 6 years, and hydraulic oil even every 2 years. We provide service kits with or without oil. And, to simplify the work, we even deliver contain empty containers for the used oil. Quick and clean! Our exchange solutions make it possible for us, to react flexibly and quickly to all problems at the loading station.

INSTALLATION METHODS

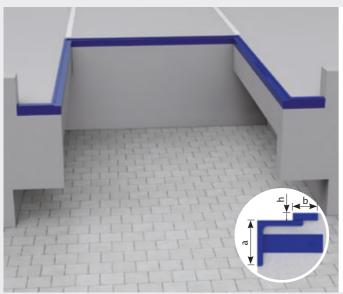




AX/AZ - Replacement solution for welding

In this method, the dock leveller is supplied with a flat bar steel frame which is then welded to the steel profile available in the hall floor. This option is optimally suited for replacement dock levellers whereby the frame of the old dock leveller can remain in the floor. In most cases, replacement can be effected within one day.

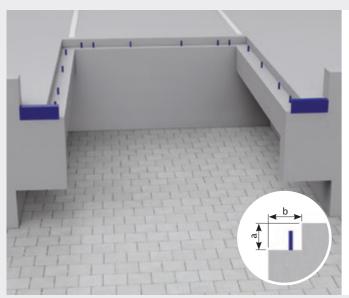
Angular steel a=min.100mm



BX/BZ -Precast frame for welding

The dock leveller is supplied with an angle frame whose leg is then inserted into the so-called preframe where it is then welded. This preframe consists of an angle with super- imposed flatbar steel which is inserted in the base plate before casting. The preframe can optionally be supplied for on-site installation. This option is preferred to be able to complete the hall floor independently from the dock leveller. The dock leveller can then be supplied and installed at another point in time.

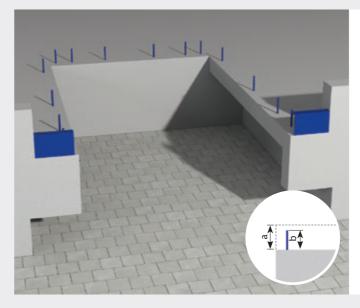
Angular steel a=80mm,s =8 mm Flat steel b=25 mm, h=10mm



CX/CZ-Dock leveller frame for concrete-casting

In this variant, there are wall anchors attached to the dock leveller frame which are welded to the on-site concrete steel dowels before being concrete-cast. In this option, the pour height is max. 110mm. The advantage of this option is the easily realized pit. In addition, the hall floor can be fully completed with the exception of the circular groove.





DX/DZ-Dock leveller frame for higher concrete-casting

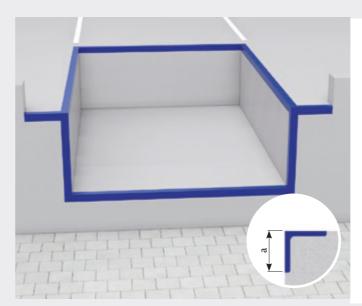
This model is very similar to the previously described method CX/CZ; the only difference is the pour height. The increased frame is supplied with lateral and back jack screws. In this variant, floor constructions of 100 – 250 mm can be covered. This method is frequently used for large quantities and for the use of concrete finished parts.

a=100to 250 mm (pour height)



EX/EZ -Box Model for concretecasting

In this option, the dock leveller is designed as a box closed on three sides. This box is fixed to the floor, connected with reinforcement and then serves as formwork. In this very simple method, the dock leveller is already supplied and installed in the early construction phase, making the labour-intensive preparation of a pit superfluous. Due to its simplicity, this method is now frequently used in the case of upgrades of dock levellers in existing buildings and finished floors.



FX/FZ-Pit model as standing model

In this model, the dock leveller is welded to the steel profiles available in the pit floor in the front area. The dock leveller leans on the pit floor and/orin the case of at a lift recess of the dock leveller on a wall pedestal in the back area. Three sided circular edge protection angles in the floor are recommended as pit lining. This variant is frequently used for replacement without tail lift recess.

Angular steel a=50mm,s =5 mm

GZ-REPLACEMENT SOLUTION FOR WELDING

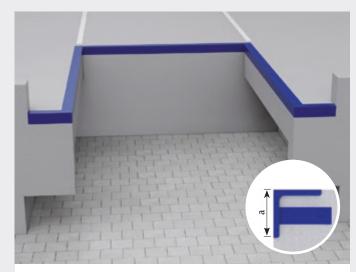
Simple and quick replacement

Thanks to the new GZ framework variant, the exchange of an existing dock leveller can be carried out in the shortest time.

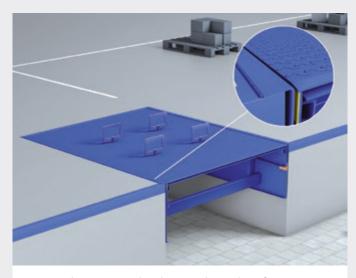
The angular frame at the sides is first positioned on the existing steel framework, where they are fixed in place by welding after adjustment. The flat steel frame at the back provides a smooth transition, from the floor of the warehouse to the new dock leveller.

Product advantages

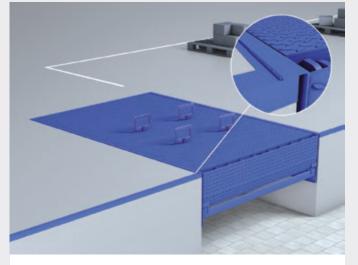
- Simple adjustment
- Bridges dimensional tolerances
- No "underpinning"with sheet metal plates required
- No air gaps in the framework at the sides



GZ -a welded replacement solution as abasis.



The L530R with telescopic lip and GZ frame.



The L320R with hinged lip and GZ frame.

OVERVIEW DOCK SHELTERS







S620 P. 42 S420 P. 43





S401 P. 44 S220 P. 44

18



S620

Inflatable dock shelter with modular structure

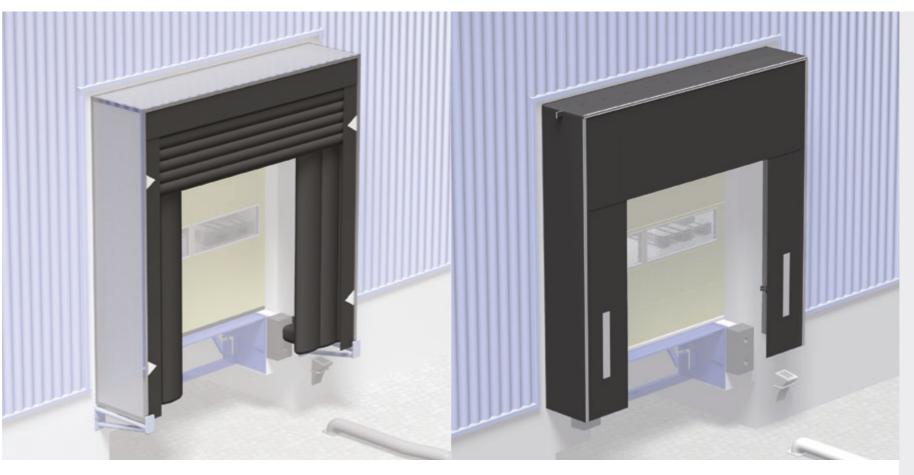
As part of the integrated loading solution, the S620 is automatically actuated.

After actuating the door OPEN switch, the bellows of the S620 are first inflated, and then the door opens automatically. At the end of the loading process, the dock leveller is first driven into resting position with the AutoDock function, then the door is closed, a possibly connected loading lamp is switched off, the S620 is vented, and an exterior traffic light switches to green.

This automatic sequence increases efficiency, saves energy costs, and prevents possible damage caused by removing the lorry too early while the bellows are still inflated.

Product benefits

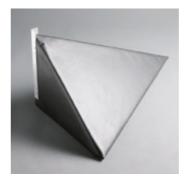
- Cushions made from PVC or especially supple Cordura
- Excellent sealing
- Energy-saving design
- Twin motors for fast and safe inflating
- Integrated component of the system
- Sequentially Interfaced



S620 in non-inflated condition



Pads



Bumpers



S420

Collapsible dock shelter with aluminum profiles

Dock shelters with collapsible design protect against draughts, rain, and wind. They ensure perfect sealing between lorry and building and protect against energy loss and possible damage to the goods. The built in rain water channel deflects water from the roof to the outside of the shelter.

- Rain water channel on the side inside
- Flexible roof construction
- Aluminum frame construction
- No visible screws on front side
- Designed for universal use

S401 AND S220

S401- Niche seal

The S401 enables a continuous building front due to being directly inserted into the recess of the building. As a result, the appearance of your system is definitely improved.

Product benefits

- 3 mm thick PVC curtains with high restoring force for perfect sealing
- Installation in on-site front building on Halfen cast-in channels or with angle sections

 \mathbb{R}

S220 - Sealing pad

Sealing pads offer protection from draughts, rain and wind. They provide perfect sealing between lorry and building and protect against energy loss and possible damage to the cargo.

Product benefits

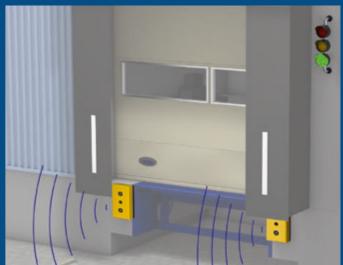
- Excellent sealing system for narrow doors and standardized vehicle fleet
- Watertight welded covers
- Vertical pad guide stripes
- Different pad shapes possible



OVERVIEW ACCESSORIES







Calematic

P. 46-47 NovoEASY

P. 48



Nytrex TrailerPlates | Safety Jack

P. 49



Bumper systems

P. 50-51







Electronic DriveSystem with Sensor and Traffic Lights

The ideal drive protection ensures that the lorry already stops before the bumper. Thus damage to the building, the lorry, and even the drive bumper are prevented. The NovoEASY supports the lorry driver in the easiest possible way. The sensors, which are protected in a amberdrive bumper made of high-performance plastic, measure the interval between the lorry and the loading ramp and inform the driver via a display element (e.g. traffic lights).

Product benefits

- High-performance plastic in signal amber
- Distance measurement(Lorry- Building) with display via exterior traffic lights
- Trouble-free function for almost all truck versions. Adaptions may be necessary for swap bodies.

NovoEASY facilitates loading in three steps

Step 1

The lorry is still at a distance from the loading bay: The traffic light is green.

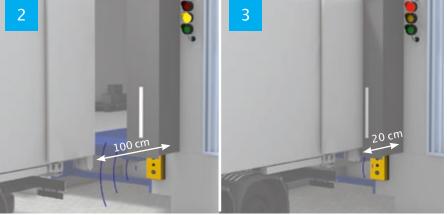
Step 2

The lorry is approx.100 cm in front of the loading bay: The traffic light switches to amber. The driver shows increased levels of attentiveness.

Step 3

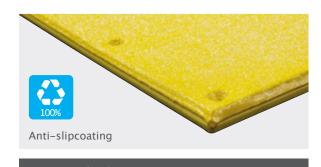
The lorry is 20 cm away from the loading bay, just before the bumper: The traffic light switches to red. The driver stops the vehicle.





Designs(mm) 500 x 250 x 130 1sensor, LED traffic lights red/amber/green 2 sensors, LED traffic lights red/amber/green

Evaluation		
Building protection	****	
Durability	****	Overall
Spring deflection	****	rating:
Life Cycle Cost	****	2 5
Visibility	****	



Nytrex TrailerPlates Designs (mi	m)
Standard sizes:	
2000 x 1000 x 16	
1000 x 1000 x 16	
1000 x 500 x 16	
Non standard sizes readily availa	ble.

Technical data	Safety Jack
Length	550 mm
Width	760 mm
Height	1020-1340mm
Weight	70 kg
Crossmember	760 x 120mm
Base plate	470 x 425 mm
Air-filled wheels	Ø380 mm

Nytrex TrailerPlates -Permanent surface protection in the loading zone

The Nytrex Trailer Plates guard against damage to concrete, bitumen or pavement surfaces, thus preventing expensive repairs in the loading bays.

Available withfastenings to or into the floor, suitable for concrete, bitumen or pavement surfaces.

Product benefits

- Nytrex high-performance plastic in signal amber
- Suitable for high loading frequency
- Optional with anti-slip coating

Safety Jack -Telescopic loading support

The Safety Jack helps increasing safety during the loading and unloading of trailers/semi-trailers with up to 40 total weight. This can effectively prevent tilting of the semi- trailer. According to BGI 582 and BGI 603, additional securing during loading and unloading is strongly recommended by trade associations.

- More safety during loading and unloading processes
- Extra wide massive steel construction with large base plate
- Extra large crossbeam
- Height-adjustable
- Adjusting by gas pressure spring
- Ergonomically-shaped grips for easy handling
- TÜV-certified

BUMPER SYSTEMS

Different loading situations necessitate different bumpers. A determining factor is the right solution for the customer. For this purpose, we provide a broad range of different systems. Four different criteria are used. The more stars a model achieves, the higher the quality of the product is going to be.



Rubber bumpers

Rubber impact bumper

- high-quality new rubber compound
- especially abrasive-resistant and hard wearing
- Spring deflection up to 20 mm



Steel bumpers

with inside rubber core

- Spring deflection up to 80 mm
- wear-free
- galvanized



NovoLift

height-adjustable buffers

- No limitations when loading swap bodies
- Multiple use 2D
- length of stroke250 mm
- Lasts 7–10x longer than rubber
- Suitable for high loading frequency



Nvtrex F

high-performance Nytrex bumper in signal amber

- Lasts 7–10x longer than rubber
- Suitable for high loading frequency



NovoSlider

the unique design

- Nytrex high-performance plastic in signal amber
- Height-adjustable front part
- Spring deflection up to 25mm
- Lasts 7-10x longer than rubber
- Suitable for high loading frequency



NovoSlider L

No limitations when loading swap bodies

- Nytrex high-performance plastic in signal amber
- Height-adjustable front part
- Spring deflection up to 25mm
- Lasts 7–10x longer than rubber
- Suitable for high loading frequency



PRODUCT EVALUATION

Building protection: Indicates to what extent the respective solution protects the building from impact damage. Durability: Information on relative durability in the case of correct use. Spring deflection: The longer the spring deflection of the bumper is, the more likely damage to the vehicle and building is going to be prevented. Life Cycle Cost: In addition to material expenses, the cost for the replacement of worn bumpers and their durability is also included in the cost evaluation.

Visibility: The latest evaluation criterion is the visibility of the buffer for thelorry driver. Because the current products were almost always black, both rubbers and steel buffers. This has changed with the development of the Nytrex buffer. The amber signal colour presents consider- able advantages over the other systems; hence this criterion has now been included in the evaluation.



Nytrex part is rotatable and thus doubly usable.

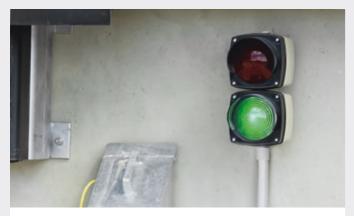


Nytrex part is rotatable and reversible and thus quadruple usable.

	ltem	Design (mm)	Recommended loading frequency	Building protection	Durability	Spring deflection	Life Cycle Cost	Visibility	OR
	Rubber buffers	400 x 80 x 70	low	****	****	****	****	****	7
		250 x250 x90 or 250 x 250 x 140	low	****	****	****	****	****	8
		500 x 250 x 90 or 500 x 250 x 140	low to medium	****	****	****	****	****	10
	AZPK Steel buffers AZJ	500 x 250 x 140or 800 x 250 x 140	high	****	****	****	****	****	20
		TwinSet 800/500 500 x 250 x 140and 800 x 250 x 140	high	****	****	****	****	****	20
		500 x 250 x 210or 800 x 250 x 210	high	****	****	****	****	****	21
		TwinSet 800/500 500 x 250 x 210and 800 x 250 x 210	high	****	****	****	****	****	21
	Item	Design (mm)	20 40	Building protection	Durability	Spring deflection	Life Cycle Cost	Visibility	OR
	NovoLift	600 × 250 × 140	•	****	****	****	****	****	20
	75 Nytrex F Tv 75 50 Tv 75	500 x 250 x 80 or 750 x 250 x 80	•	****	****	****	****	****	20
		500 x 250 x 130or 750 x 250 x 130	•	****	****	****	****	****	20
		TwinSet F7508 750 x 250 x80 and 500 x 250 x80	•	****	****	****	****	****	20
		TwinSet F7513 750 x 250 x 130and 500 x 250 x 130	•	****	****	****	****	****	20
NovoSlid	7	500 x 280 x100 or 750 x 280 x 100	•	****	****	****	****	****	24
		500 x 280 x 140or 750 x 280 x 140	•	****	****	****	****	****	24
	NovoSlider	TwinSet 7510 750 x280 x 100 and 500 x 280 x 100	•	****	****	****	****	****	24
		TwinSet 7514 750 x 280 x 140and 500 x 280 x 140	•	****	****	****	****	****	24
	NovoSlider L	750 x 280 x 100		****	****	****	****	****	24
	HOVOSHUCE E	750 x 280 x 140	•	****	****	****	****	****	24

OR =Overall rating

ACCESSORIES

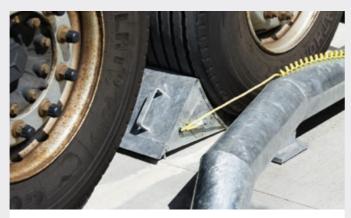


Traffic lights

Traffic lights provide a visual warning to the driver and the loading bay operatives to indicate whether the bay is ready for docking or not.

The most common system used is traffic lights with individual (Red and Green) signal lights.

The two types of lights that are available are illuminated by LED light bulbs. LED lamps are cheaper to maintain and far superior in quality and long life expectancy. In addition, LED lights provide significantly greater illumination even during periods of bright sunshine. The functions of the traffic light systems are agreed individually with the building users.



Safety wheel chocks

Safety wheel chocks ensure that Lorries remain static on the loading bay. However, a standard mechanical lorry safety chock only offers very limited safety assistance. For this reason, electronic safety wheel chocks that are connected and interlocked to the door and dockleveller is used. The dock leveller can only be operated once the safety wheel chock rests against the wheel.

A position sensor in the safety wheel chock ensures the

dock
leveller is safe to use. It is essential where applicable to also
interlock the safety wheel chock to the traffic light system
that visually indicate to both the lorry driver and loading bay operatives of the actual loading status.



Dock lights

When a lorry is docked against the loading bay ready to be loaded or unloaded, the rear of the trailer is always poorly lit making it difficult for the operative to see inside the trailer which can make the loading very difficult. Our articulated angle poised Dock Light is the ideal solution. It is very easy to install adjacent to the inside of the docking doorway and illuminates the inside of the trailer fully by simply positioning of the articulated swiveling mounting arm.

Design with 30-watt LED floodlights



Trailer wheel guides

Another aid to prevent damage when docking are trailer wheel guides. In most cases, they consist of zinc-coated steel tubes that are mounted on the floor in pairs on each the loading dock approach. The lorry is thus steered and guided into the right position. If the lorry collides with the wheel guides, this is a clear sign to alert the driver that he is not positioned correctly. Thus trailer wheel guides help prevent frequent damage to the dock shelters liploading is made easier thanks to a correctly. shelters. Unloading is made easier thanks to a correctly



INTELLIGENT LOADING **ENVIRONMENTALLY FRIENDLY & EFFICIENT**

Environmentally friendly use of resources

Mankind and nature are the focus of our efforts, by combining ecological and economic advantages. We have recognized that the design of logistic processes is developing in the direction of ecological and energy efficiency. Environmentally compatible use of resources, as well as the selection of the right products, are increasingly becoming competitive factors. And for shippers and service providers, it is equally important that their processes are aligned with environmental aspects. That is why we make every effort to use 100% recyclable materials. And it is also why we work so closely with suppliers, from whom we demand the fulfillment of the newest regulations.

NYTREX IMPACT BUFFERS

Really tough

Nytrex represents the next step in the evolution of impact buffers. Nytrex, which was especially developed for this application, is known to be as good as indestructible, and it offers a superior level of ergonomics. Especially for impact buffers, this material has unique advantages. Besides its excellent visibility for drivers, its high rigidity and simultaneous resistance against blocking (slipperiness) leads to along service life.

Our extensive product range includes a large variety of models for every application.



EVERYTHING YELLOW

Innovation

Impact buffers made of Nytrex are the new stan- The excellent visibility for freight lorry drivers, as well of rubber and steel buffers.

Saving costs

Nytrex impact buffers amortize themselves quickly, For individual solutions at your loading station, and they last between 7 and up to 10 times longer these products are available in a variety of models, than rubber, because of the possibility of rotating forms, sizes and installation depths. the plastic element.

Protection of buildings

colour, not only ensures safety, but also provides mentally friendly. perfect protection at buildings and for freight

Increasing safety

dard, and their characteristics clearly exceed those as the low installation depth, set unparalleled safety standards.

Broad product range

100% recyclable

Green solutions for your logistics: Impact buffers High tensile-strength plastic, in a signal-yellow made of Nytrex are both economic and environ-





DOCK AND DOOR ENGINEERING dade.ie

Dock And Door Engineering Ltd Unit D13, M4 Interchange Business Park Maynooth Road, Celbridge Co.Kildare W23K85Y

Phone 01 2243581 Email info@dade.ie Web www.dade.ie