



# Novoferm Docking Solutions

Pioneering safety and efficiency when loading –  
at all times





## Highest quality and safety for your logistics needs

New ideas and proven technology to  
save you money

Novoferm Docking Solutions are tried and tested, technically perfected, from a single source ensuring that your material movement results in added value. All our docking solutions are tailored to your individual requirements in the design process.

**Novoferm Docking Solutions – Superior quality in product and service**



# Contents

## Your requirements – Our solutions

- Led by innovations ..... 4
- Efficient Solutions ..... 5
- Green Solutions ..... 6
- Option Packs ..... 7
- LION 4.0 Docking Portal ..... 8-9
- Novo i-Vision control ..... 10

## Products

- NovoDock L730i ..... 12-15
- NovoDock L530 ..... 16
- NovoDock L530i XL and L550i ..... 17
- NovoDock L320 und L320e ..... 18
- NovoDock L330i and L350i ..... 19
- NovoDock P1530i ..... 20
- NovoDock P1320 and P1330i ..... 21
- NovoDock H100 and H50 ..... 22
- NovoDock L150 and L100 ..... 23
- Technical data ..... 24-25
- Installation methods ..... 26-27
- Replacement solutions ..... 28

- Dock shelter NovoSeal S620 ..... 30
- Dock shelter NovoSeal S420 ..... 31
- Dock shelter NovoSeal S450 ..... 32
- Dock shelter NovoSeal S220 and S401 ..... 33
- Dock shelter NovoSeal VS250 ..... 34

- Caematic ..... 36-37
- Drive system NovoEASY ..... 38
- Novo Trailer Plates, Novo Safety Jack ..... 39
- Bumper systems ..... 40-41
- Accessories ..... 42
- More Novoferm industrial products ..... 43

## Safer docking systems

All docking systems are in compliance with the European directive DIN 1398. Novoferm develops and produces new products that are in strict compliance with this standard and fully safe in their operation, not only for everyday use but also with regard to installation and maintenance.

## Novoferm protects the environment



In 2009, Novoferm endorsed the "Green Solutions" Group Charter, thus committing itself to reduce CO<sub>2</sub> emissions during the course of production, delivery, installation and maintenance.

# Led by innovations

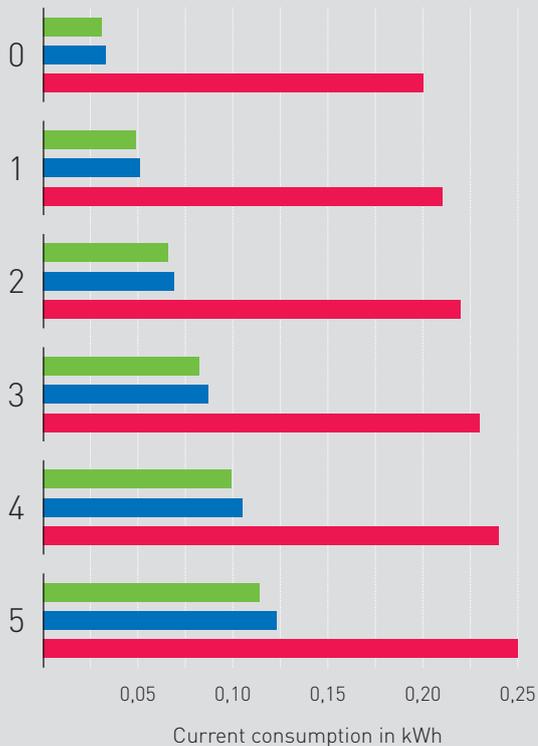
Setting standards



## Evolution of energy consumption

■ NovoDock L530 / NovoDock L530i
 ■ NovoDock L500i
 ■ NovoDock L500

Number of consignments



## Novoferm Docking Solutions – always one step ahead

Close contact with customers leads to ongoing improvements and new products.

**2009** NovoDock L500

**2011** NovoDock L500i

**2013** NovoDock L530i

**Novoferm Communication Interface**

**Novoferm i-Vision Visual**

**NovoDock L730i**

**2017** Now we introduce:

**NovoDock L320 and L530 with Z frame concept**

**SLOD-Funktion**

For more safety when loading. The rear doors of the truck can be opened without the risk of falling.

**Calematic DC**

Prevents the truck from moving on the one hand as well as it driving away too early on the other.



**LION 4.0**

The completely new Docking Portal provides you with options to improve logistics processes in an impressive intuitive manner unknown to you until now.

# Efficient Solutions



All NovoDocks are supplied with certificates of energy performance.

## Added value thanks to sole sourcing



Today, many loading equipment suppliers do not sell their products from "one single source", which unfortunately means nothing other than a supplier offering products from different manufacturers which are not always ideally suited to each other.

For you, Efficient Solutions means that Novoferm not only Develop products, but also manufactures them ensuring each different product works in harmony with another, thus making it possible for you to design your loading bay process as efficiently as possible.

### Truck retaining system Calematic DC

The new Calematic DC is a further development of the Calematic SC systems proven and tested for decades. In addition to the well-known benefits, an even higher safety when loading could be achieved at low total costs.

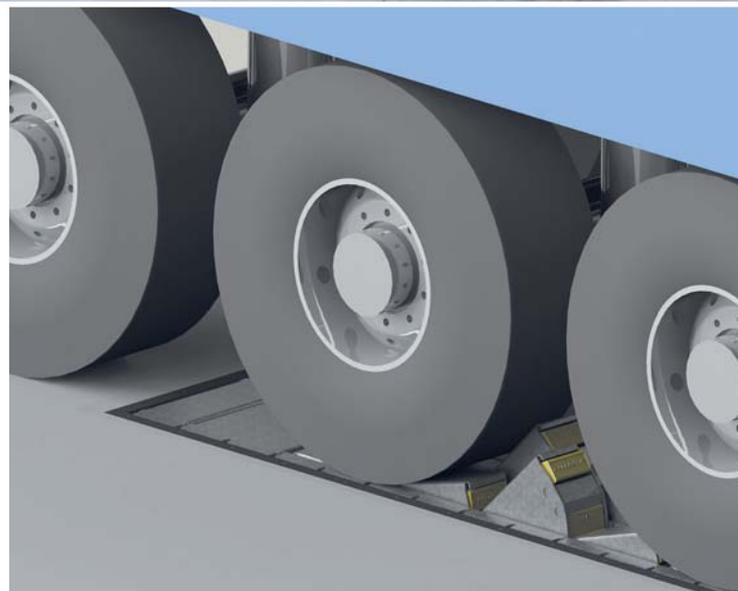
### Combined control i-Vision

- LED user guide
- Auto button function, move everything to the rest position by pressing only one button.
- One control unit for door and dock leveller, NCI on board.

### LION 4.0 Monitoring Software

The new software for monitoring, representation and optimization of the entire loading situation. Intelligent assistants allow access to the data of the warehouse connected at any time and from anywhere (via Internet). The modern layout navigates the operator to the destination intuitively.

Novoferm Efficient Solutions – The decisive difference



# Green Solutions



## Novoferm Green Solutions – Saving with a clear conscience



### Energy saving using the latest technology

Thanks to the active energy-saving mode in the Novo i-Vision controls, it is possible to save up to 70 % on energy compared to our competitor's equipment without this technology.

### 100% recyclable materials

This is our clear objective. For this reason, we select materials and components with great care, supplementing them with our own sustainable developments; for instance, our control equipment is totally lead free and fully RoHS-compliant, which puts Novoferm top in this development.

### Optimal corrosion protection

All steel constructions shall be painted with RAL 5010, RAL 7016 or RAL 9005.

In order to ensure for an optimum corrosion protection, first all steel components are sand-blasted to a degree of purity of SA 2.5 and then painted with dual-component paint. This high solid paint is free from lead, cadmium and chromium IV compounds. It can also be used as dual component special coating in accordance with the German ChemVOC-FarbV (Decopaint directive).

Novoferm Green Solution Products are characterised by a particularly low Life Cycle Cost.



# Option Packs



Alter your logistics efficiently to your specific requirements with our option packs. Six packs that are unparalleled in the realm of loading technology offer you many possibilities to design your loading

operations dynamically and flexibly. Our option packs characterised by optimised components, functions or configuration levels make Novoferm stand out from its competitors.



## Green<sup>Plus</sup>

Sustainable materials, ecologically friendly components and a power saving function significantly reduce CO<sub>2</sub> emissions while saving costs at the same time.

- Use of organic oil (optional)
- Use of environmentally friendly varnish
- Energy saving mode – up to 70% less power consumption
- RoHS-compliant control and components



## Green<sup>SLOD</sup>

Thanks to the unique SLOD function, the operator can open the rear doors of the lorry without running a risk and, in the process, of falling down from the dock leveller.

- Safe opening of the truck doors
- One-button control of the SLOD function
- Efficient and easy to handle
- Energy saving mode – up to 70% less power consumption
- RoHS-compliant control and components



## Ergo<sup>Plus</sup>

In addition to protecting the health of your employees and the goods to be transported, this pack also reduces costs for forklift trucks through lower tyre wear.

- The flush joint between the main deck and the telescopic lip reduces jolts and back strain during repetitive tasks, thus actively contributing to improvements in health and safety at work as standard.
- Indicator LED displays on control panel
- Noise and cost reduction



## Iso<sup>Plus</sup>

The gap seals ensure that joints are tight in almost every working position, thus saving heating energy and costs.

- Special insulation of dock leveller
- Gap seal on the side
- Strong back gap sealing
- Energy and cost reduction



## Door<sup>Plus</sup>

All control functions are located in one control panel, which ensures that door and dock leveller are operated easily and efficiently and also prevents incorrect sequence operation.

- One control system for door and dock leveller
- Prompt per LED displays on control
- One control panel with "AutoDock" function
- Integrated interlocking of door and dock leveller



## Safety<sup>Plus</sup>

Various configuration levels – from a simple set of traffic lights to more expensive solutions with an electronic safety check – reduce the risk of accidents.

- External traffic lights
- Internal traffic lights
- Electronic safety check
- Electronic safety system

# LION 4.0 – The docking portal



## Product characteristics

- Logistics 4.0 solution
- for the optimization of any loading bay
- provides the latest status updates
- reduces downtimes to the minimum
- active notifications help reduce costs
- intelligent personal assistants
- facilitates preventive maintenance

## Actively shape the future of your logistics processes

LION 4.0 is a software program for monitoring, illustrating and optimizing the entire loading scenario. Intelligent personal assistants facilitate access to the data of the connected warehouse at any time, from anywhere (via Internet). The modern interface of the software intuitively guides the user to the goal.

Start in the future now. Get the decisive competitive advantage into your company. LION 4.0 provides you with the complete transparency and gives you unprecedented options to optimize your loading operations and make them more reliable on the basis of facts.

### Intuitive to the destination

From the first day on, the clearly arranged user interface allows you to use your data efficiently. Forget the detailed manuals that describe the functions complicated. Start the portal and navigate yourself intuitive to your goal.

### Intelligent assistants

The **Cockpit** answers your important questions without you having asked them. Have the status of all products around the loading bay, allocations and times of loading procedures or door opening times displayed at a glance. Display and change different periods with only one click. You are made aware of weak points in your loading operations immediately.

From the **Cockpit** you can access the **Dashboard** of the individual loading bays directly at any time, and you will be surprised as to how much information is directly displayed to you graphically.

### Top Performance

Transparent representations of data unknown to you until now permit a significant increase in your performance and ensure that you have a decisive competitive advantage. The targeted and preventive maintenance possible for the first time reduces your downtimes to a minimum. In order to actively and purposely save energy costs gives you an important cost benefit.

In case of an error occurring, LION 4.0 informs you about the problem immediately. This includes you as well as the service technician. Thanks to the targeted information about the problem, the necessary spare part is sent on its way without delay.

### Everything in control when travelling

LION 4.0 is a web-based portal that gives you an overview of all data at a glance at all times and from any location. The map view gives you a clear overview of all locations, and at a click of your mouse button you are directly in the running operation of your warehouse.

### The analyzer

Prepare different evaluations and have these printed automatically or sent to a different addresses at regular intervals. LION 4.0 takes over this for you without anyone having to react regularly. Put your focus on the most important matters Export the data analysis into another program – LION 4.0 also gives you this option.

### The messenger

Doors are opened after the normal operating hours? Are they opened in the operation longer than planned? LION 4.0 immediately sends a message to a destination of your choice per e-mail or SMS. React immediately and targeted. More security and less cost thanks to LION 4.0.

### The innovative loading bay

If you basically had to rely on the benefits of the Novoferm products presented by your consultant until now, benefits of the integrated loading bay are now coming into effect with all products from one source in an impressive manner. The integrated operation with the lowest energy requirement, the most efficient processes and all or that is now with an unprecedented transparency: that is unique.

### Novoferm Efficient Solutions

Products that withstand the tough loading operations, simplest and most efficient operation in combination with a transparent representation of all procedures.

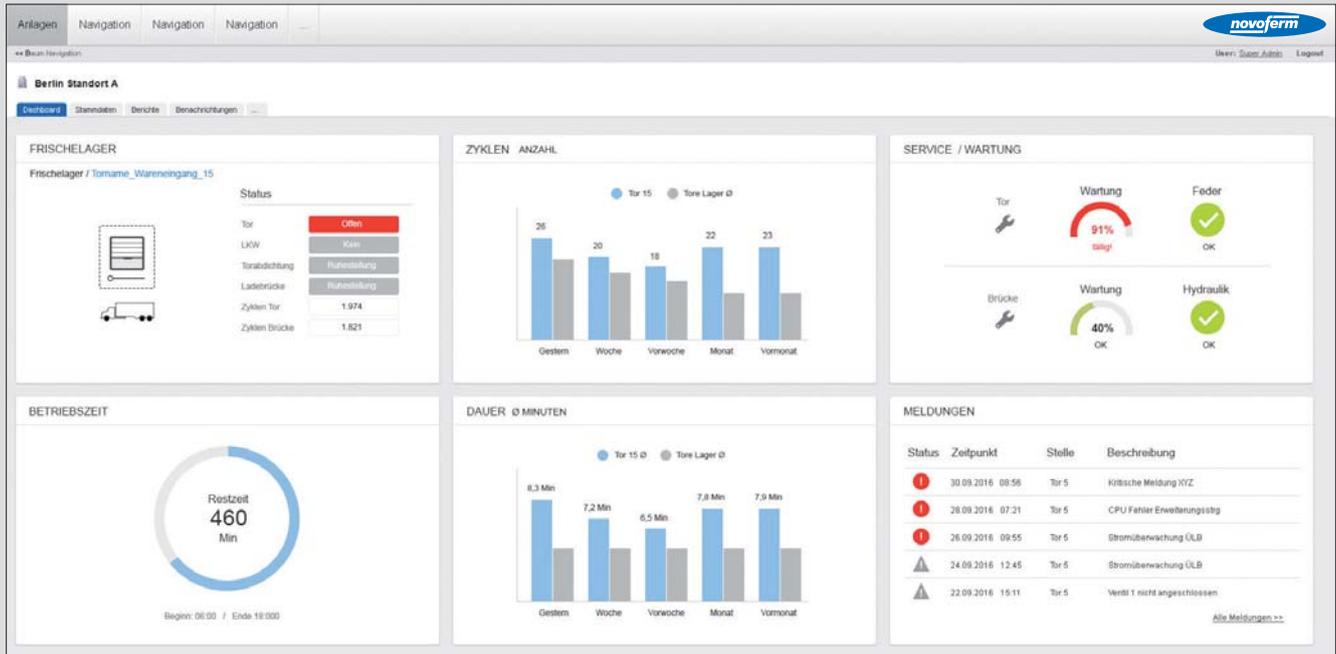
You should not be satisfied with anything less.

### Transparency, efficiency, control and security

With the LION 4.0 Docking Portal, you have an overview of your different locations and all corresponding loading bays. We are giving you a magnitude of information for evaluation and optimization.

### Service/maintenance

Recognize when the door or dock leveller of the loading bay has to be maintained at an early stage.



### Everything at a glance

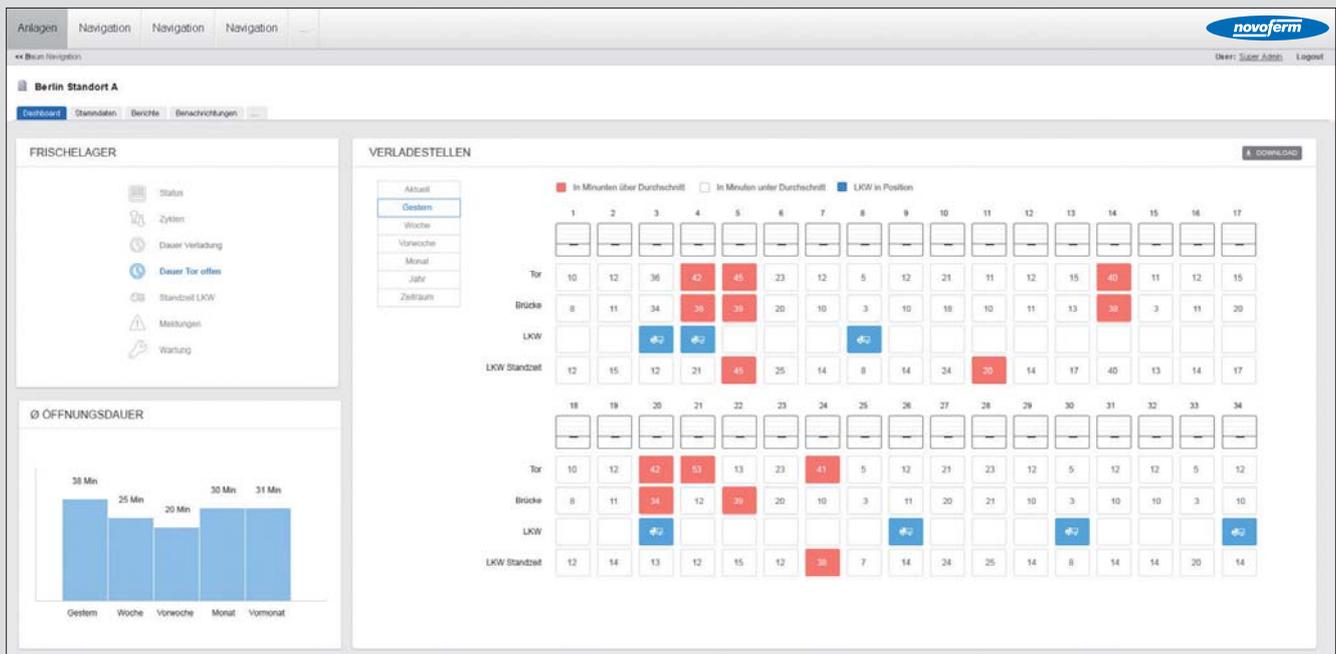
In Dashboard, you are given extensive information for your loading bay clearly arranged and at a glance. Then you can evaluate the desired data, also in the detailed view.

### Messages

You are informed about all messages and can reduce interruptions to a minimum.

### The docking portal for visualization of your loading bay process documentation

You are given different options to analyses your loading bay; for example the current status, number of loading cycles, duration of the loading operation and door opening, the standing time of the truck, possible messages and information about maintenance of the loading bay.



### Example: average opening time

Here, for example, you are provided with a quick overview as to how long your ISO loading bays were opened on average in a certain period.

### Overview of all of your loading bays

You are provided with a clear list of all your loading bays and information evaluated by yourself for any period.

# Novo i-Vision control

Novo i-Vision TAD (Option)



Novo SuperVision 5



Novo SuperVision 5 SLOD (Option)



Novo i-Vision TA



Novo i-Vision TAD (Option)



Novo i-Vision HA



Novo i-Vision HAD (Option)



## Basic conditions for efficient loading

The Novo i-Vision control includes the latest environmentally friendly technology. It has a unique power saving function and offers an exceptional range of functions with an ergonomic design.

### Novo i-Vision TAD/HAD

- Integrated door control
- Integrated dock leveller control
- "Auto Return" function
- "Auto Dock" function
- Prompt through LEDs
- Integrated interlocking of dock leveller and door
- NCI on board

### NEU Novo SuperVision 5 with SLOD function

Thanks to the unique SLOD function, the operator can open the rear doors of the lorry without running a risk and, in the process, of falling down from the dock leveller. A decisive plus for safety. All movements of the dock levellers are carried out with only one push button for this function. Simple and efficient.

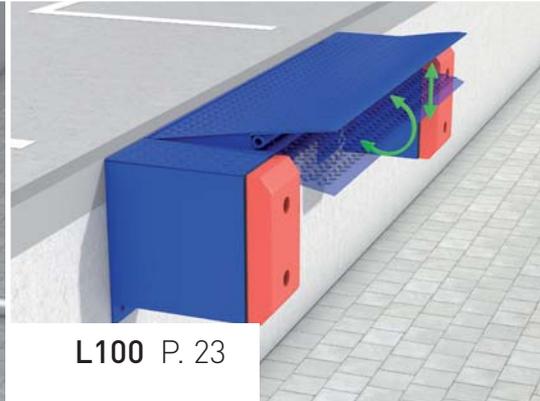
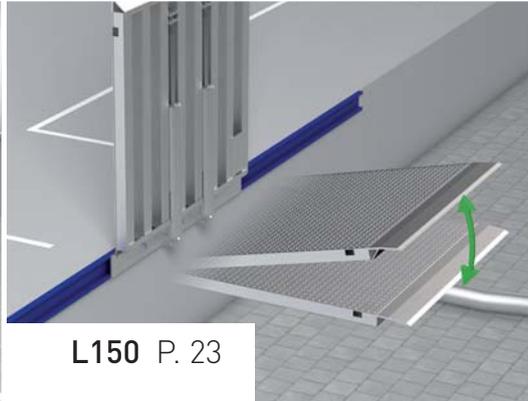
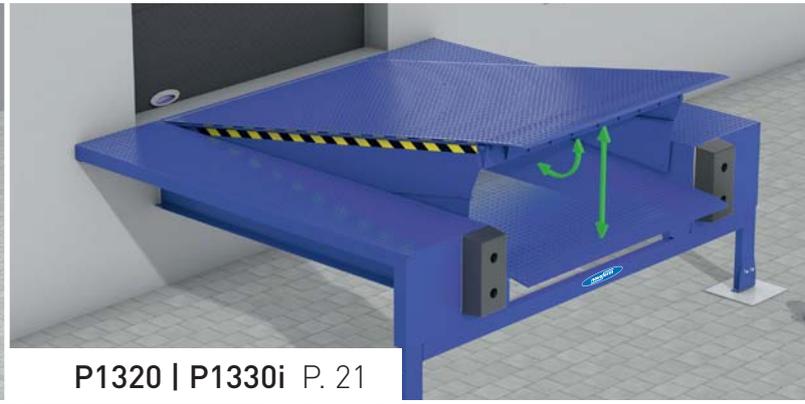
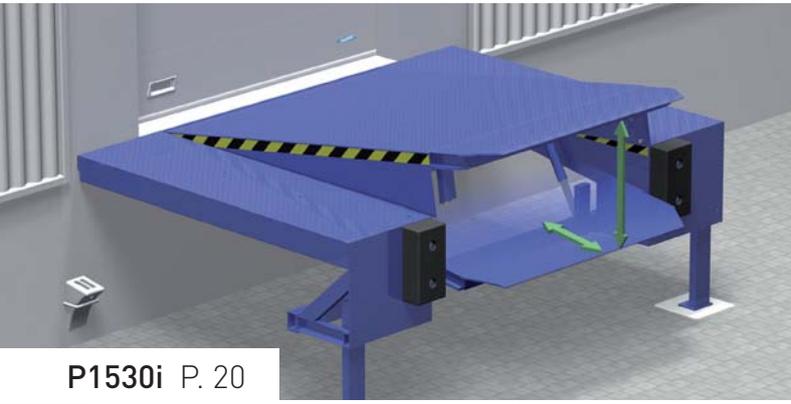
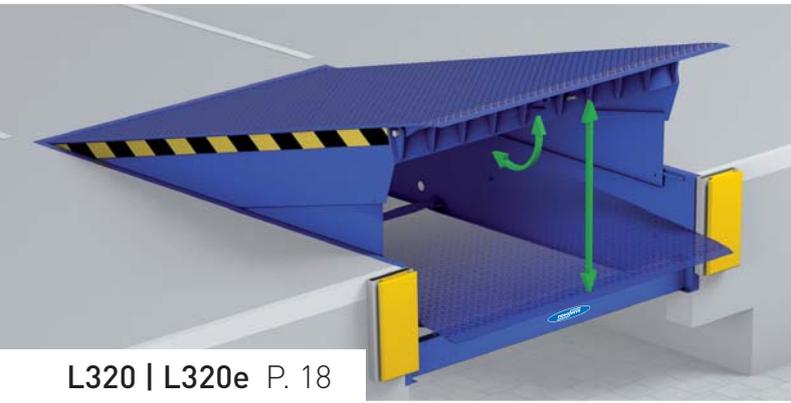
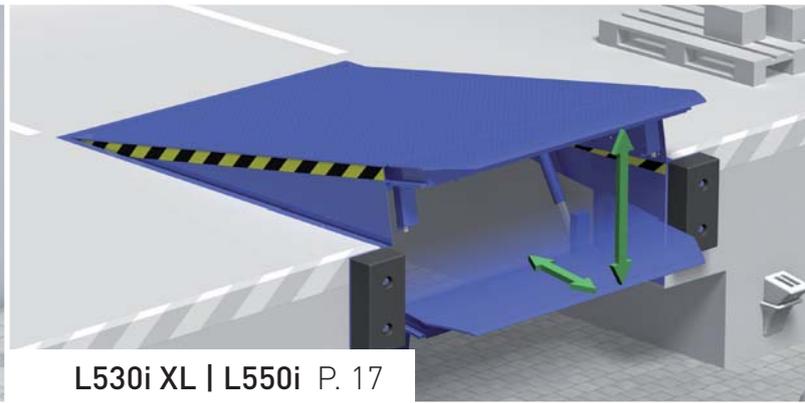
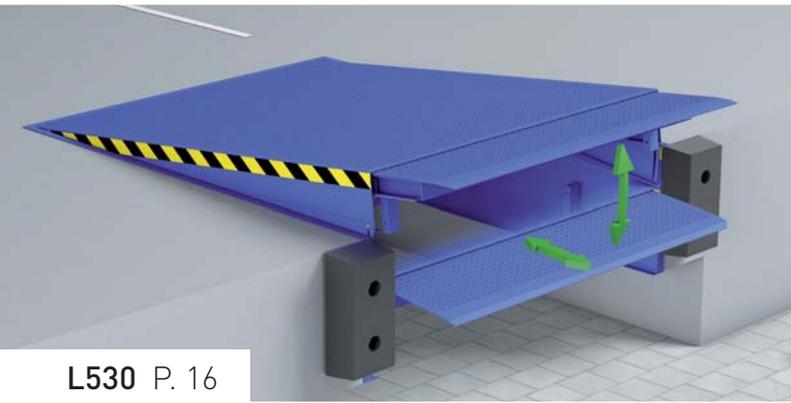
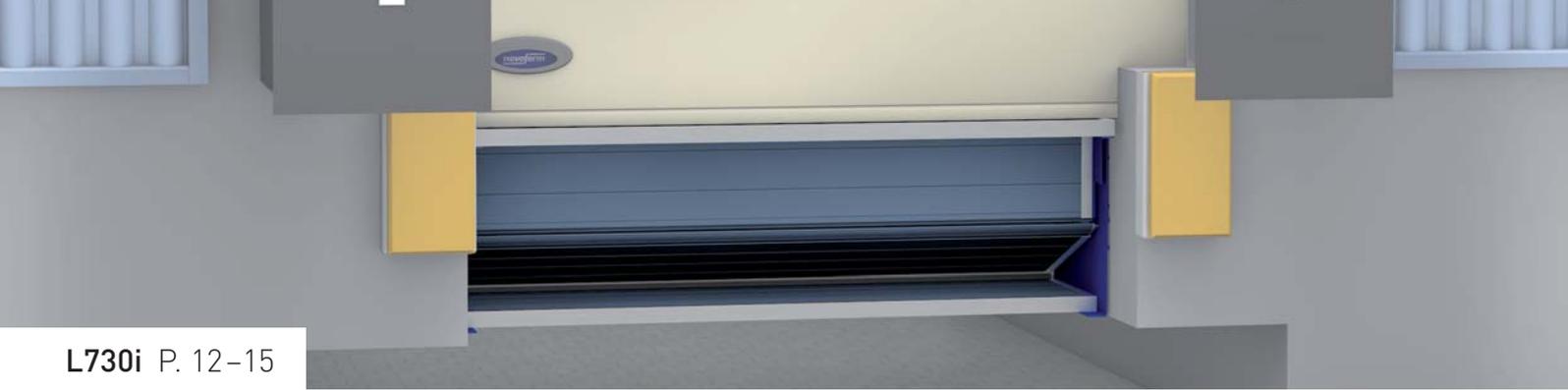
## Our contribution to CO<sub>2</sub> reduction

The active energy saving mode registered for patent reduces the consumption even more allowing up to 70 % more power to be saved compared with products of other providers.

### Basic equipment

- Maintenance interval display
- Internal electronic protection
- Infrared interface
- Protection rating IP 65
- Two-digit display
- Lockable main isolator switch
- Return switch for dock levellers
- RoHS-compliant
- CEE plug

# Overview docking solutions



# NovoDock L730i – For temperature controlled storage

Novo i-Vision control  
integrated



## The ideal ISO loading bay

The unique design of the NovoDock L730i ensures the best possible insulation of the loading 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 Green<sup>Plus</sup> pack, up to 70 % energy savings
- Standard Ergo<sup>Plus</sup> pack
- RoHS-compliant components
- Fully insulated, encapsulated design
- Acceleration forces are fed into the base plate
- Also fully insulated during the loading process
- Tail lift recess
- 700/1.000 mm telescopic lip
- 45 mm insulation
- Optional Door<sup>Plus</sup> pack
- NCI on board

NovoDock L730i closed



NovoDock L730i opened



For further information on the option packs, the LION 4.0 Docking Portal and the Novo i-Vision controller, please refer to pages 7–10.

# Study confirms enormous energy savings

In the spring of 2015, Klaus Sommer, professor of engineering at the Technical College of Cologne, investigated the energy efficiency of the NovoDock L730i compared to a conventional dock leveller.

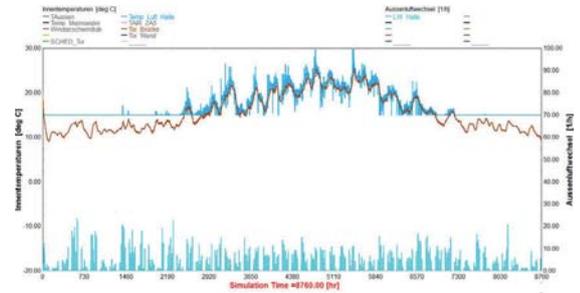
## The heating energy consumption was reduced by 40 %.

When the proven TRNSYS and TRNFLOW programs are also used, thermal building and airflow models are generated under **realistic conditions**.

The study proved the heat-related behavior of logistics buildings and the energy efficiency of dock leveller encapsulation.

## The following assumptions were made for the calculation:

- Logistics hall, current standard, room temperature of 15 °C
- 4 loading events per loading bay each day, 5 days a week
- In 75 % of the cases, loading takes place on both sides at the same time
- Average duration of loading: 30 min



Annual heating requirement in kWh/a

Hall without docking stations

10.392

Hall with **NovoDock L730i**

40.222

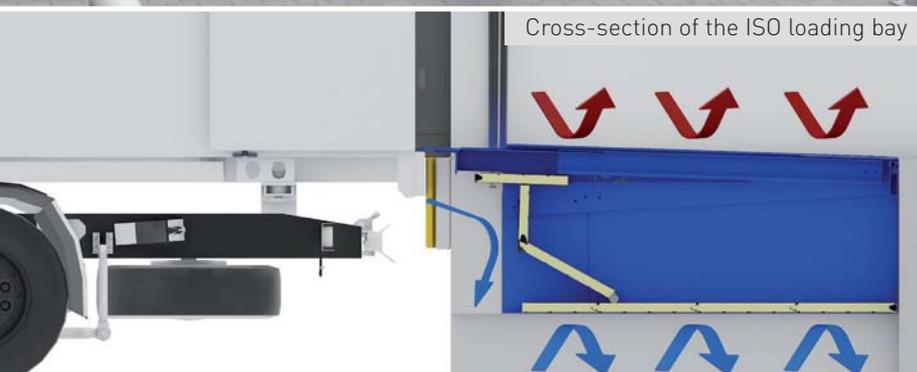
**approx. 40 % savings**

Hall with standard dock levellers

70.222



NovoDock L730i in action



Cross-section of the ISO loading bay

The picture left 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.

Standard colours of dock levellers

RAL 5010

RAL 7016

RAL 9005

## Control and operation

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



Novo i-Vision TA



Novo i-Vision TAD (Option)

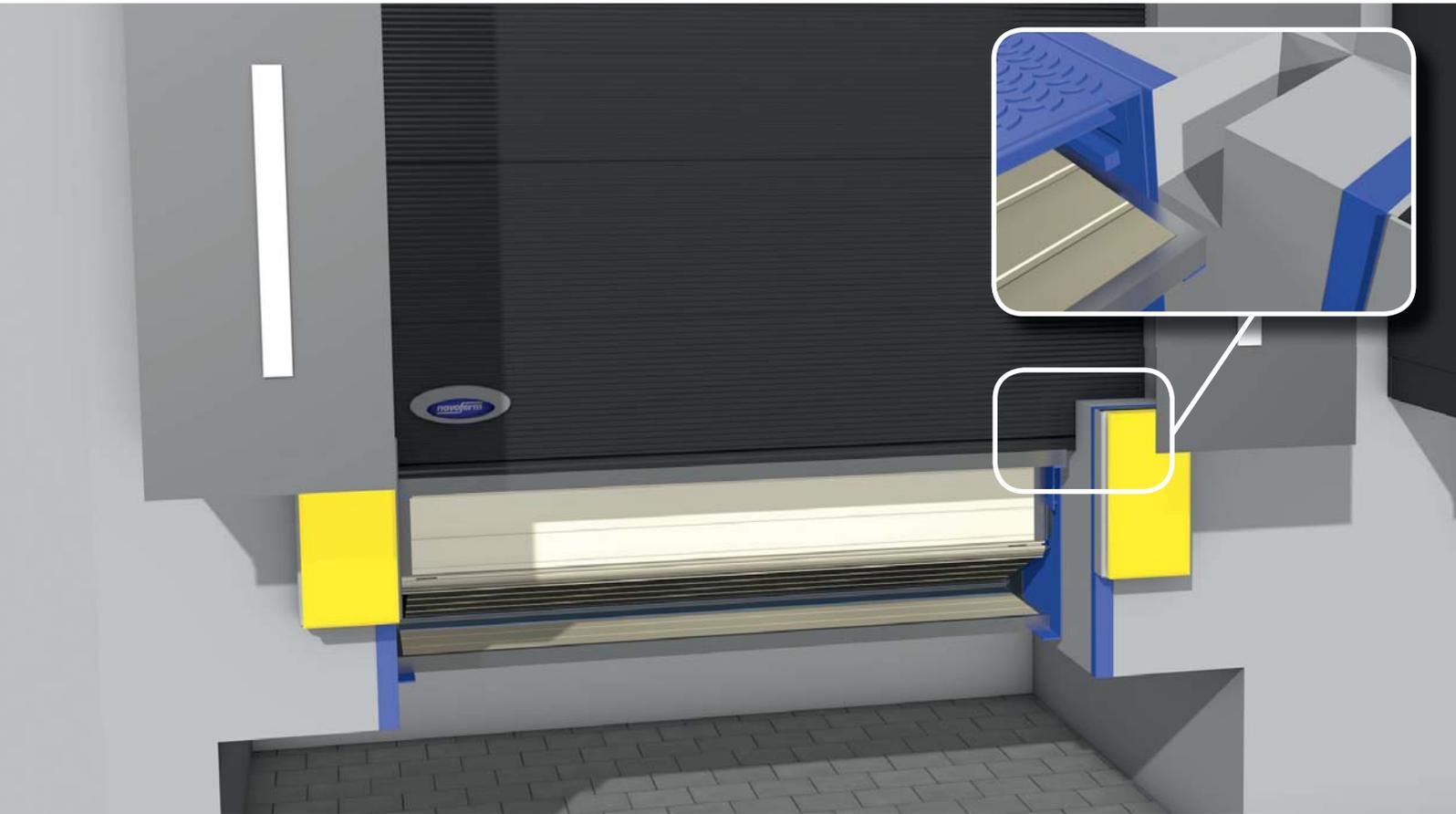
## Technical data

Characteristics	L730i
Nominal load (EN 1398)	60 kN
Nominal lengths (mm)	2000, 2500, 3000
Nominal widths (mm)	2000, 2250
Telescopic lip lengths (mm)	
ISO pit	700/1000
standard pit	500/700/1000
Pit Depths (mm)	
830	up to 3000 (NL)
900	at 3000 (NL)

The maximum admissible inclination according to EN 1398 is 12.5%.

For further technical data, please refer to pages 24–25 or to the Novoferm product data sheets.

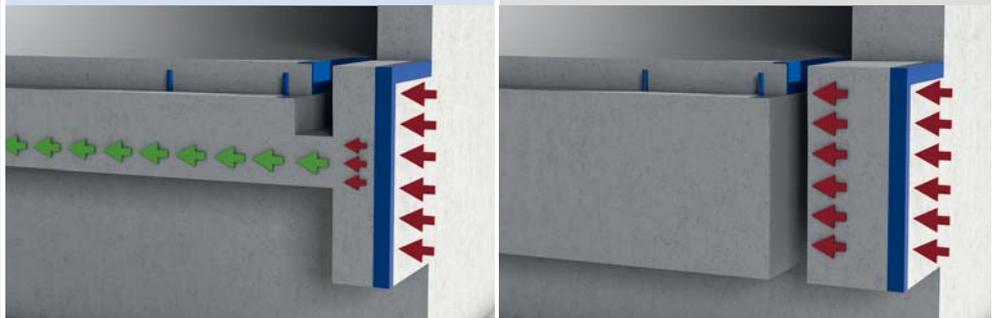
# NovoDock L730i for ISO pits



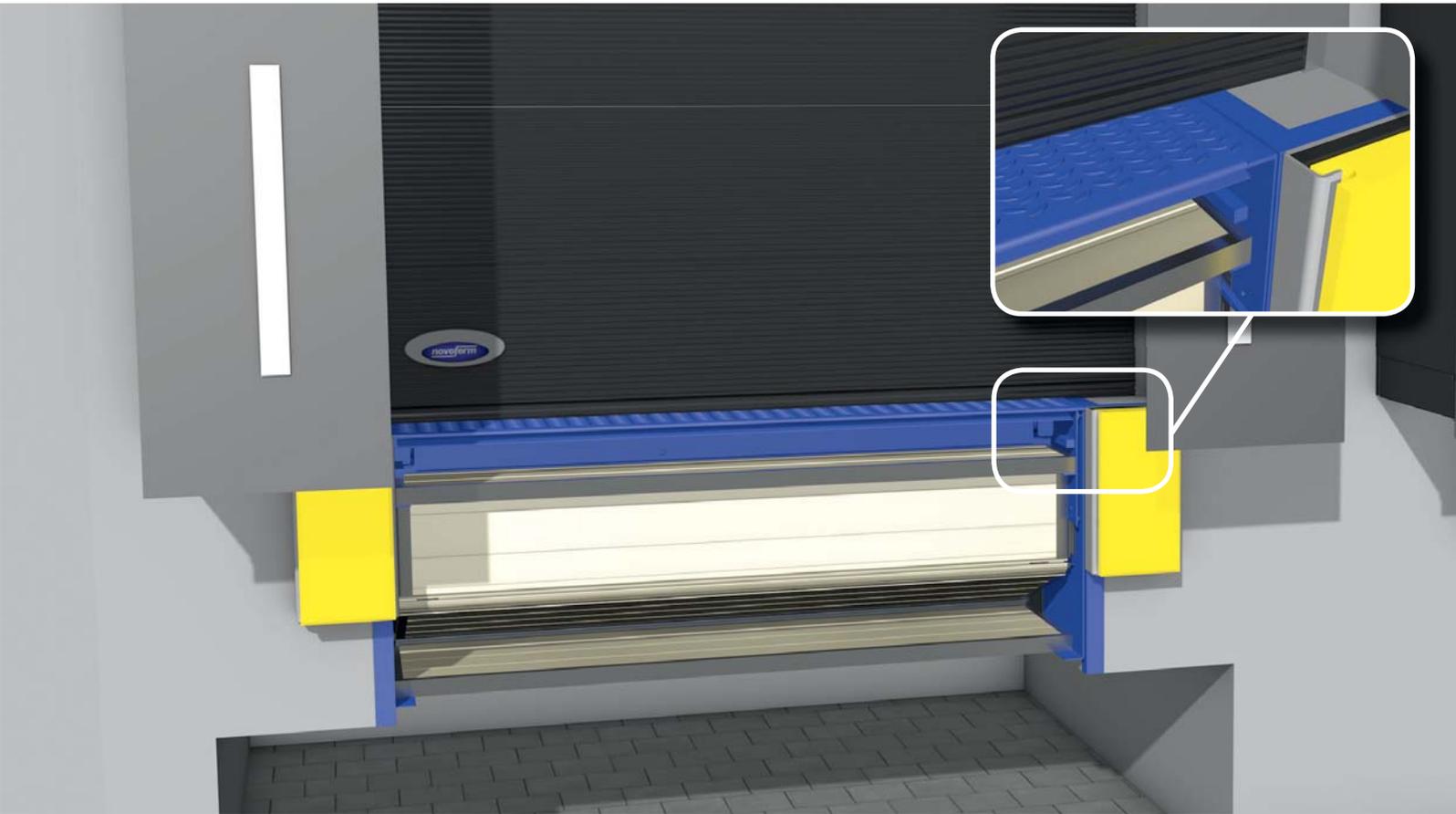
Because the acceleration forces can be directly fed into the base plate of the building, the construction form of the installation pit as compared to traditional ISO loading bays is much easier to design.

## Advantages as compared to a traditional ISO loading bay

Features	NovoDock L730i	traditional ISO loading bay
Pit preparation	easy	labour-intensive
Tail lift recess	possible at any time	only possible when the door is opened
Insulation during loading	ensured at any time	not ensured
Green <sup>Plus</sup> pack	up to 70 % lower energy requirements	not available
Door <sup>Plus</sup> pack	Door, dock leveller, TAD and equipment are actuated via only one control	not available, diverse controls necessary
Acceleration forces	Are fed directly into the base plate	expensive massive frost protection necessary



# NovoDock L730i for standard pits



The variant for standard installation pits does not require any particular construction measures with similar good results.

## **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 GreenPlus 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 CO<sub>2</sub> emissions.

## **Ergonomics saves costs**

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

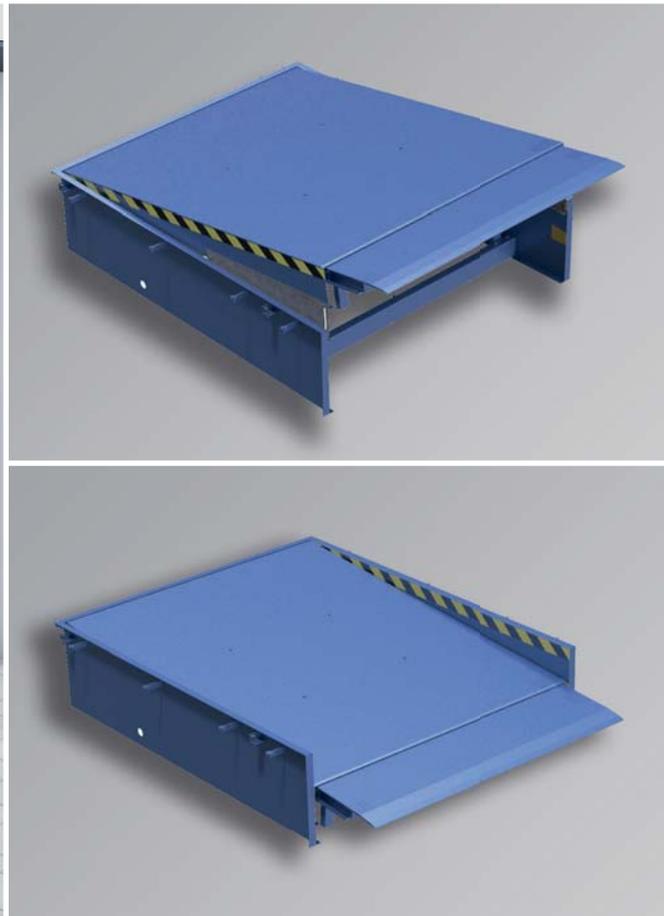
## **Increased efficiency through automation**

The Door<sup>Plus</sup> 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 Interface (NCI) provides over 50 key parameters. The Novoferm Software (option) lets you evaluate the data for efficient loading.

# NovoDock L530



Standard colours of dock levellers

RAL 5010	RAL 7016	RAL 9005
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## Hydraulic dock leveller with telescopic lip for the most demanding requirements

The NovoDock L530 is optimised 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 (optional) 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 (optional)

### Control and operation

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



Novo Super Vision 5    Novo Super Vision 5 SLOD (Option)    Novo i-Vision TA (Option)    Novo i-Vision TAD (Option)

### Technical data

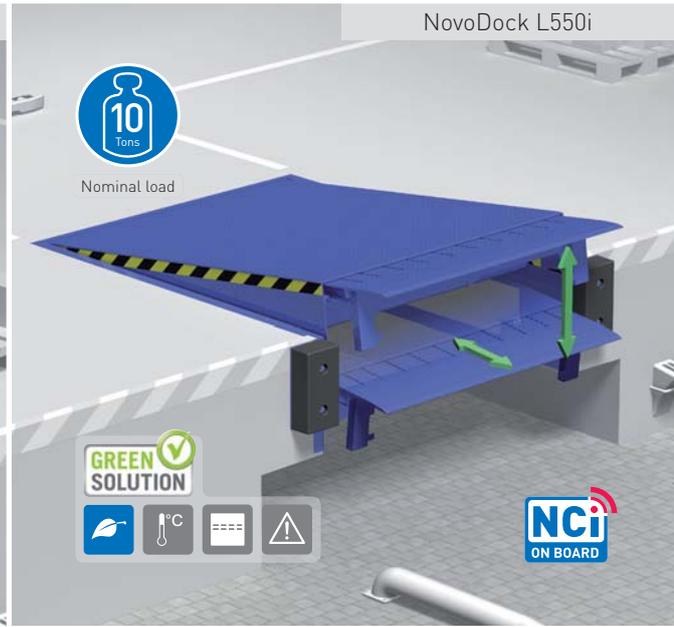
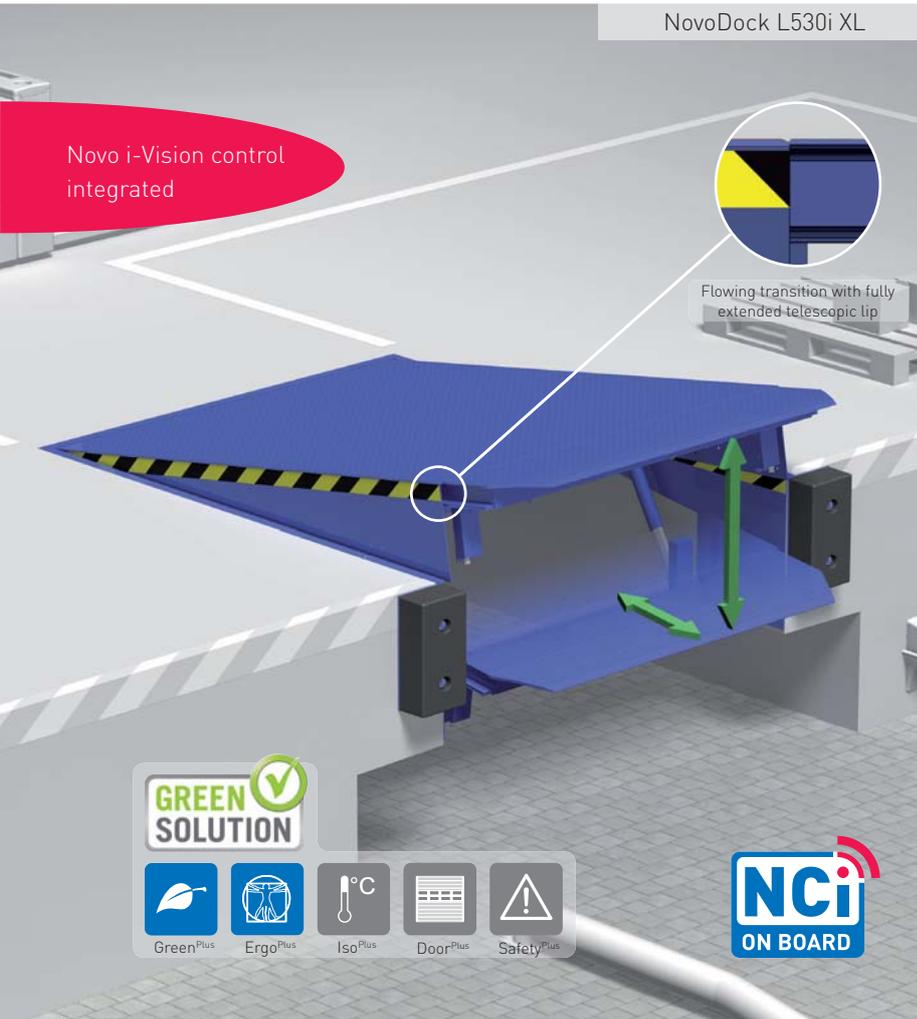
Characteristics	L530
Nominal load according to EN 1398	60 kN
Telescopic lip lengths (mm)	500 / 1000
Nominal lengths (mm)	2000, 2500, 3000
Nominal widths (mm)	1750, 2000, 2250, 2400
Pit depths (mm)	
600	up to 3000 (NL)
700	up to 3000 (NL)

The maximum incline permissible according to EN 1398 is 12.5 %.

For further technical data, please refer to pages 24–25 or to the Novoferm product data sheets.

For further information on the option packs, the LION 4.0 Docking Portal and the Novo i-Vision controller, please refer to pages 7–10.

# NovoDock L530i XL and L550i



Standard colours of dock levellers

RAL 5010	RAL 7016	RAL 9005
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## Hydraulic dock levellers with telescopic lip

The infinitely variable telescopic lip of the NovoDock L530i XL enables precise and accurate positioning of the lip during loading. With the integrated Novo i-Vision TA control, dock levellers are user friendly and safe to operate. Like all Green Solution products, NovoDock L530i XL and L550i contribute to cost savings thanks to CO<sub>2</sub> reduction technology. The NovoDock L530i XL and L550i also have the new revolutionary NCI on board.

### Product benefits

- Standard Green<sup>Plus</sup> pack, up to 70 % on energy savings
- RoHS-compliant components

### NovoDock L530i XL

- Standard Ergo<sup>Plus</sup> pack
- Optimal health protection for employees and smoother passage of goods during loading and un-loading operations thanks to the infinitely variable telescopic lip with height adjustment
- Lower costs for transport equipment

### NovoDock L550i

- Due to its higher dynamic load-carrying capacity of 100 kN, especially suitable for transported goods

### Control and operation

The dock levellers NovoDock L530i XL and L550i are steered via the supplied control Novo i-Vision TA.



Novo i-Vision TA



Novo i-Vision TAD (Option)

### Technical data

Characteristics	L530i XL	L550i
Nominal load according to EN 1398	60 kN	100 kN
Telescopic lip lengths (mm)	500/1000	500
Nominal lengths (mm)	3000, 4000, 4500	2000, 2500, 3000, 3500, 4000, 4500
Nominal widths (mm)	2000, 2250, 2400	
Pit depths (mm)		
700	-	up to 2500 (NL)
800	-	at 3000 (NL)
900	from 3500 (NL)	from 3500 (NL)

The maximum incline permissible according to EN 1398 is 12.5 %.

# NovoDock L320 and L320e



NovoDock L320e ECO | NovoDock L320e ECO<sup>Plus</sup>



Standard colours of dock levellers

RAL 5010	RAL 7016	RAL 9005
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## Hydraulic dock levellers with hinged lip

Hydraulic dock levellers with hinged lip have been established as basic version in the loading technology. The NovoDock L320 re-defines 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 comply with current environmental standards. The NovoDock L320e is transport optimized and is available in two versions.

### 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

### NovoDock L320e ECO/ECO Plus

- Transport-optimized hydraulic dock leveller with hinged lip

### Control and operation

The dock levellers NovoDock L320 and L320e are steered via the supplied control Novo Classic Plus.



Novo i-Vision HA (Option)



Novo i-Vision HAD (Option)

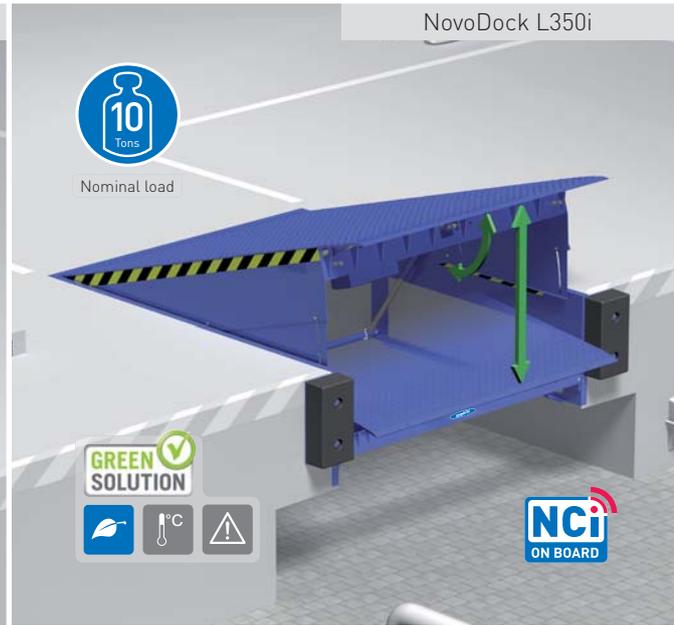
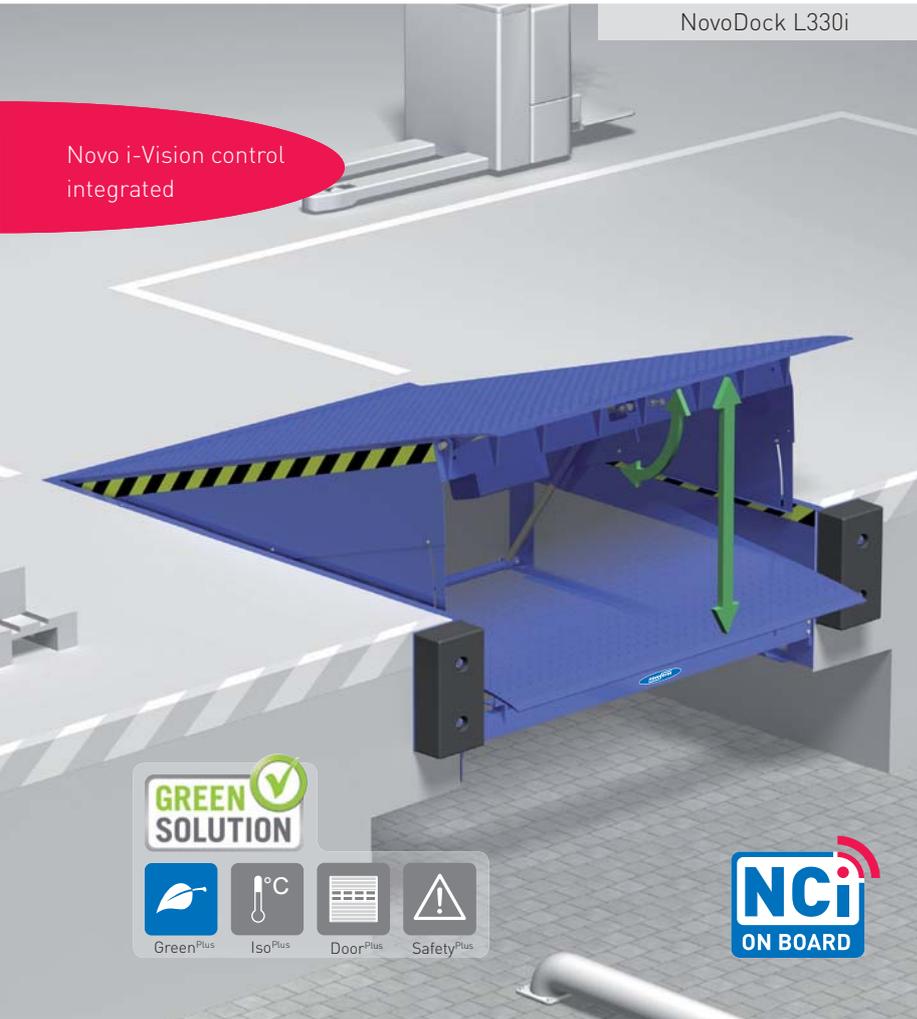
### Technical data

Characteristics	L320	L320e
Nominal load according to EN 1398	60 kN	
Hinged lip lengths (mm)	400	
Nominal lengths (mm)	2000, 2500, 2750, 3000	2000, 2250, 2500, 3000
Nominal widths (mm)	2000, 2100, 2250	2000
Transportation height (mm)	-	450
Pit depths (mm)	600	up to 3000 (NL)

The maximum incline permissible according to EN 1398 is 12.5 %.

For further technical data, please refer to pages 24–25 or to the Novoferm product data sheets.

# NovoDock L330i and L350i



Standard colours of dock levellers

RAL 5010	RAL 7016	RAL 9005
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## Hydraulic dock levellers with hinged lip

NovoDock L330i and L350i with hinged lip have established themselves as the basic version in loading technology. With the integrated Novo i-Vision HA control, dock levellers are user friendly and safe to operate. Like all Green Solution products, NovoDock L330i and L350i also cater for CO<sub>2</sub> 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<sup>Plus</sup> pack, up to 70 % energy savings
- RoHS-compliant components

### NovoDock L330i

- Classic loading equipment product in connection with state-of-the-art control technology

### NovoDock L350i

- Due to its superior dynamic load-carrying capacity of 100 kN, especially suitable for transported goods

### Control and operation

The dock levellers NovoDock L330i and L350i are steered via the supplied control Novo i-Vision HA.



Novo i-Vision HA (L330i) | HAR1 (L350i)



Novo i-Vision HAD (L330i)

### Technical data

Characteristics	L330i	L350i
Nominal load (EN 1398)	60 kN	100 kN
Hinged lip lengths (mm)	400	
Nominal lengths (mm)	2000, 2500, 2750, 3000, 3500, 4000, 4500	2000, 2500, 3000, 3500, 4000, 4500
Nominal widths (mm)	1750, 2000, 2100, 2250	1750, 2000, 2250
Pit depths (mm)		
600	up to 3000 (NL)	up to 3000 (NL)
700	up to 3000 (NL)	up to 3000 (NL)
800	at 3500 (NL)	at 3500 (NL)
900	from 4000 (NL)	from 4000 (NL)

The maximum incline permissible according to EN 1398 is 12.5 %.

For further information on the option packs, the LION 4.0 Docking Portal and the Novo i-Vision controller, please refer to pages 7–10.

For further technical data, please refer to pages 24–25 or to the Novoferm product data sheets.

# NovoDock P1530i

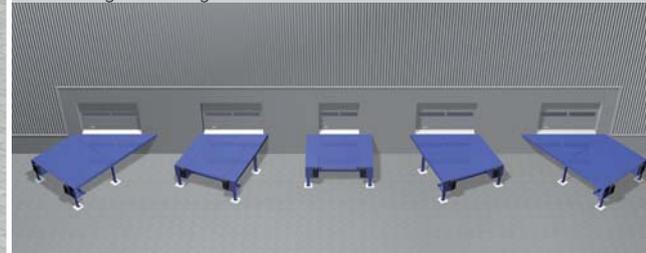


NovoDock P1530i

Flowing transition with fully extended telescopic lip



Angled design (90°, 75°, 60°, 45°, 105°, 120°, 135°)



Standard colours of dock levellers

RAL  
5010

RAL  
7016

RAL  
9005

## Hydraulic dock leveller with telescopic lip in the steel frame

The steel frame allows the NovoDock P1530i to be installed in front of the building and also serve as a basis for a loading bay. With the integrated Novo i-Vision control, the dock leveller is convenient and safe to operate. As with all Green Solution products, the NovoDock P1530i also saves costs thanks to the reduction in CO<sub>2</sub>. The new NCI is also on board here.

### Product benefits

- see NovoDock L530i
- Standards Green<sup>Plus</sup> package, up to 70 % energy savings
- RoHS conform components

### NovoDock P1530i

- Standard Ergo<sup>Plus</sup> pack
- Optimal health protection for employees and smoother passage of goods during loading and un-loading thanks to the infinitely variable telescopic lip with height adjustment
- Lower costs for transport equipment

### Control and operation

The dock leveller is steered via:

NovoDock P1530i



Novo i-Vision TA / TAD (Option)

### Technical data

Characteristics	P1530i
Nominal load according to EN 1398	60 kN
Telescopic lip lengths (mm)	500/1000
Nominal length (mm)	2000, 2500 (2440), 3000, 3500, 4000, 4500
Nominal widths (mm)	2000, 2250
Platform widths (mm)	3300, 3500
Pit depths (mm)	
700	up to 2500 (NL)
800	at 3000 (NL)
900	from 3500 (NL)

The maximum incline permissible according to EN 1398 is 12.5 %.

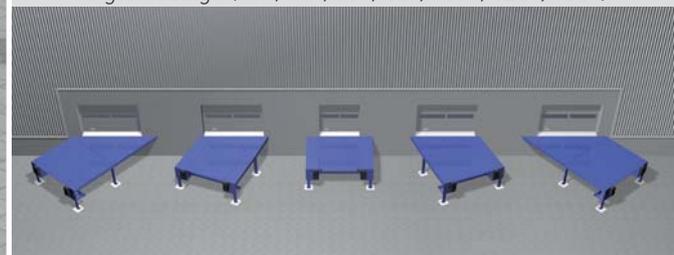
For further technical data, please refer to pages 24–25 or to the Novoferm product data sheets.

For further information on the option packs, the LION 4.0 Docking Portal and the Novo i-Vision controller, please refer to pages 7–10.

# NovoDock P1320 and P1330i



Angled design (90°, 75°, 60°, 45°, 105°, 120°, 135°)



Standard colours of dock levellers

RAL 5010	RAL 7016	RAL 9005
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## Hydraulic dock levellers with hinged lip in the steel frame

The steel frame allows the NovoDock P1320 and P1330i to be installed in front of the building and also serve as a basis for a loading bay. With the integrated Novo Classic Plus controller in the NovoDock P1320 and the Novo i-Vision controller with the NovoDock P1330i, the dock levellers can be operated conveniently and safely. As with all Green Solution products, the NovoDock P1320 and P1330i also save costs thanks to the reduction in CO<sub>2</sub>. With the NovoDock P1330i, the new NCI is on board and is optionally available for the NovoDock P1320.

### Product benefits

- Optional GreenPlus package, up to 70 % energy savings
- RoHS conform components

### NovoDock P1320

- Height adjustable support feet
- see NovoDock L320

### NovoDock P1330i

- Low-cost solution, combined with state-of-the-art control technology
- see NovoDock L330i

For further information on the option packs, the LION 4.0 Docking Portal and the Novo i-Vision controller, please refer to pages 7–10.

### Control and operation

The dock leveller NovoDock P1320 is steered via the supplied control Novo Classic Plus. The NovoDock P1330i via the Novo i-Vision HA.



Novo i-Vision HA (Option for P1320)



Novo i-Vision HAD (Option)

### Technical data

Characteristics	P1320	P1330i
Nominal load according to EN 1398	60 kN	60 kN
Hinged lip lengths (mm)	400	
Nominal length (mm)	2000, 2440 (2500), 3000	2000, 2500 (2440), 3000, 3500, 4000, 4500
Nominal widths (mm)	2000, 2200, 2250	1750, 2000, 2250
Platform widths (mm)	3300, 3500, 3600	3300, 3500
Pit depths (mm)		
(725)   700	up to 3000 (NL)	up to 3000 (NL)
800	–	at 3500 (NL)
900	–	from 4000 (NL)

The maximum incline permissible according to EN 1398 is 12.5 %.

For further technical data, please refer to pages 24–25 or to the Novoferm product data sheets.

# NovoDock H100 and H50

Lateral wall up to lower edge of dock leveller (optional)



Construction types of loading sluice



• **Type Standard:**  
Cladding with trapezoidal sheet up to upper edge of steel platform, prime-coated in RAL colours:

inside	outside	
RAL 9002	RAL 9002	RAL 9006



• **Type ISO:**  
Cladding with 40 mm ISO panel up to upper edge of steel platform, prime-coated in RAL colours:

inside	outside	
RAL 9002	RAL 9002	RAL 9006

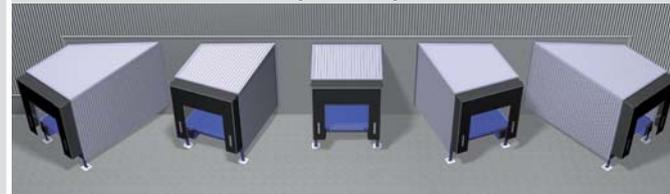


Basic frame H100



Basic frame H50

Angled design



## Internal construction for platform systems NovoDock P1530i, P1330i and P1320

NovoDock H100 and 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.

### 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

The NovoDocks P1530i, P1330i and P1320 (pages 20–21) serve as a basis for the NovoDock H100 and H50.

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

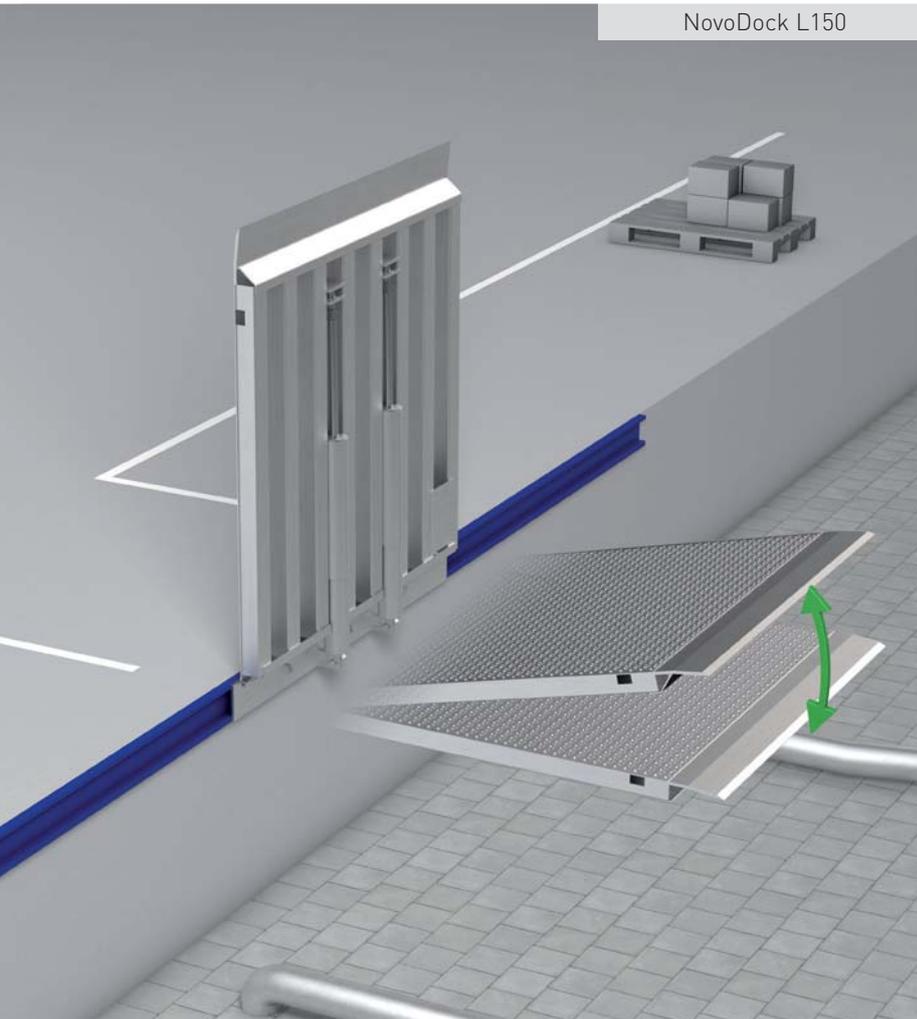
### Technical data

Characteristics	H100	H50
Angles (degree)	90, 75, 60, 45, 105, 120, 135	90
Nominal lengths (mm)	2000, 2500, 3000, 3500, 4000, 4500	2000, 2500, 3000
Nominal widths (mm)	3000, 3500	
Ramp heights (mm)	950 to 1500	

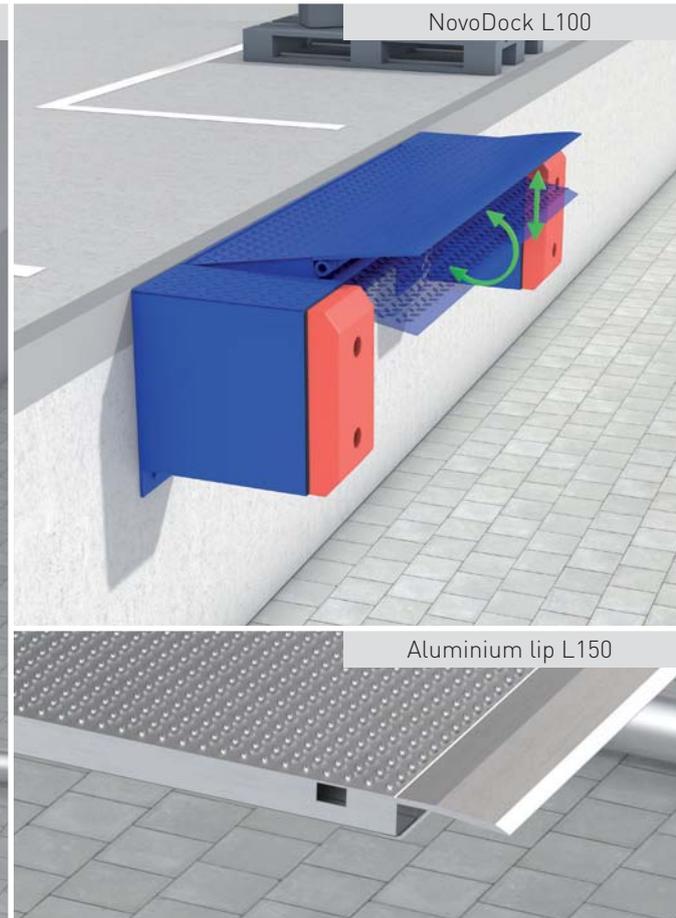
For further technical data on dock levellers in a steel frame, please refer to pages 24–25.

For further information on NovoDock P1530i, P1330i and P1320, please refer to page 20–21.

# NovoDock L150 and L100



NovoDock L150



NovoDock L100



Aluminium lip L150

Standard colours of dock leveller L100

RAL 5010	RAL 7016	RAL 9005

## Mechanical dock levellers

NovoDock L150 and L100 can be operated very easily via a lifting rod. Both dock levellers are mounted against the loading bay.

### NovoDock L150

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

### NovoDock L100

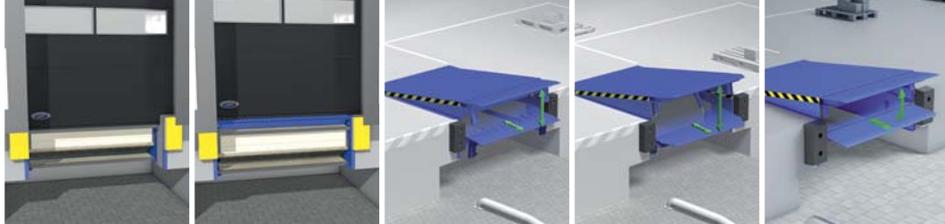
- Enables loading operations even in the most confined spaces
- Low-noise

### Technical data

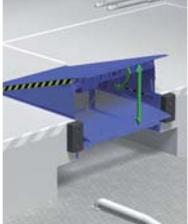
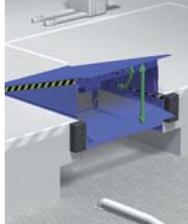
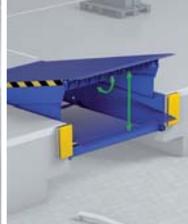
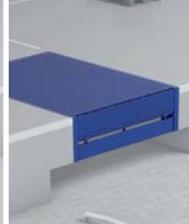
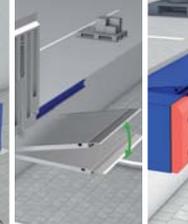
Characteristics	L150	L100
Nominal load according to EN 1398	60 kN	60 kN
Hinged lip lengths (mm)	-	300
Nominal lengths (mm)	1500, 1750, 2000	400
Nominal widths (mm)	1500, 1750, 2000	1750, 2000, 2200

The maximum incline permissible according to EN 1398 is 12.5%.

# Technical data

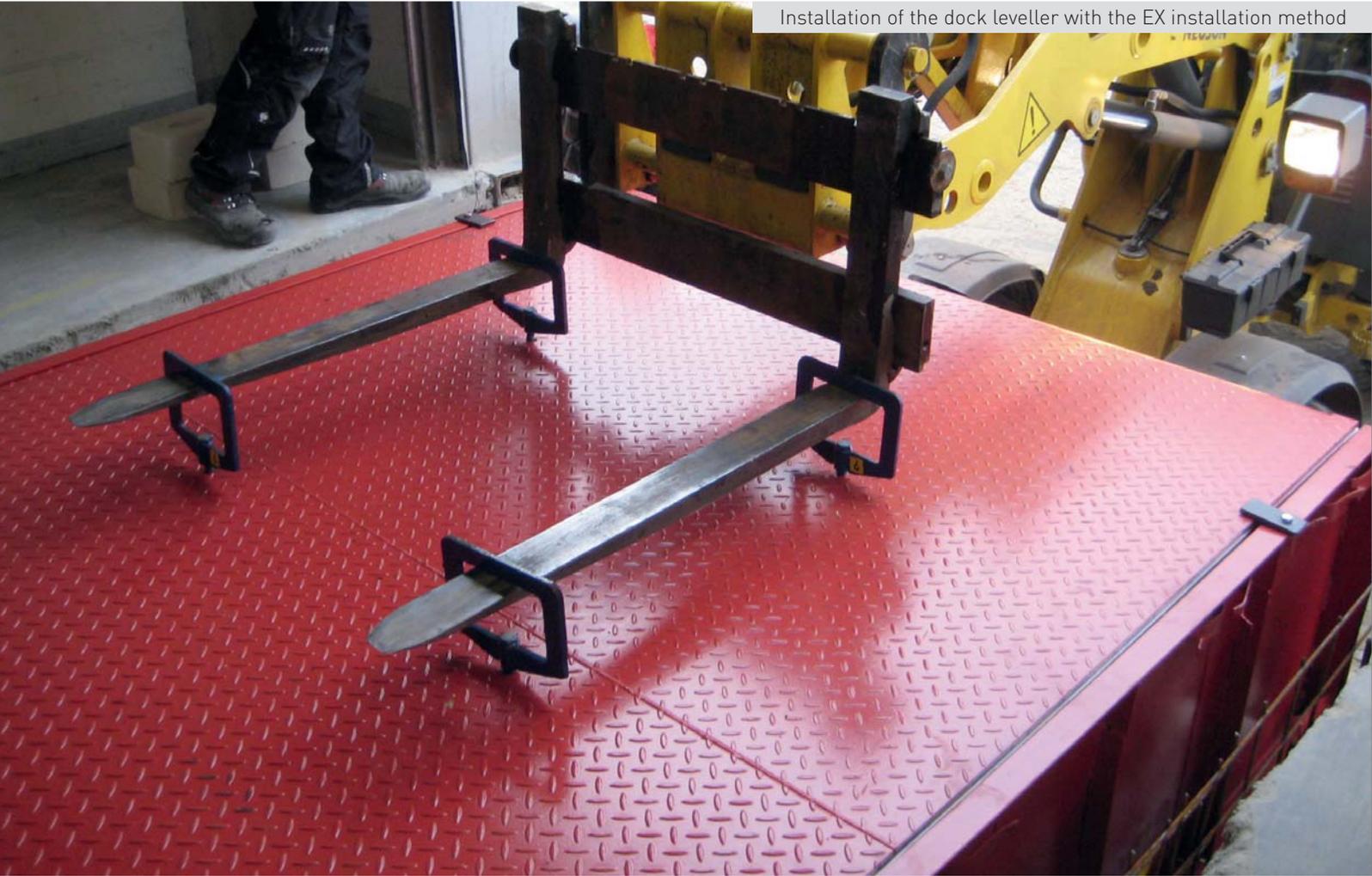


Product characteristics		L730i ISO	L730i Standard	L550i	L530i XL	L530
	with telescopic lip	●	●	●	●	●
	with hinged lip					
	ISO-Dock	●	●			
Option Packs	Green <sup>Plus</sup>	●	●	●	●	○
	Green <sup>SLOD</sup>					○
	Ergo <sup>Plus</sup>	●	●		●	
	Iso <sup>Plus</sup>			○	○	
	Door <sup>Plus</sup>	○	○	○	○	○
	Safety <sup>Plus</sup>	○	○	○	○	○
	Nominal load according to EN 1398 in kN	60	60	100	60	60
	Nominal lengths (NL) in mm	2000, 2500, 3000	2000, 2500, 3000	2000, 2500, 3000, 3500, 4000, 4500	2000, 2500, 3000, 3500, 4000, 4500	2000, 2500, 3000
	Nominal widths in mm	2000, 2250	2000, 2250	2000, 2250, 2400	2000, 2250, 2400	1750, 2000, 2250, 2400
Pit depths	600 mm				up to 3000 mm (NL)	up to 3000 mm (NL)
	700 mm/725 mm*			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 3000 mm (NL)	
	900 mm	at 3000 mm (NL)	at 3000 mm (NL)	from 3500 mm (NL)	from 3500 mm (NL)	
	Telescopic lip / hinged lip length in mm	● 700/○ 1000	● 500/○ 700/ ○ 1000	500	● 500/○ 1000	● 500/○ 1000
	Power supply	3 N~ 400 V/50 Hz/16 A	3 N~ 400 V/50 Hz/16 A	3 N~ 400 V/50 Hz/16 A	3 N~ 400 V/50 Hz/16 A	3 N~ 400 V/50 Hz/16 A
	Protection class	IP 65	IP 65	IP 65	IP 65	IP 65
	Motor rating in kW	max. 1,5	max. 1,5	max. 1,5	max. 1,5	max. 1,1
Construction characteristic	Platform tear plate in mm	8/10	8/10	10/12	8/10	8/10
	Telescopic lip / hinged lip tear plate in mm	12/14	12/14	15/17	12/14	12/14
Bridging values upwards/downwards (telescopic lip 1000 mm)	Nominal length 2000, Pit depth 600				310 (380)/290 (330)	330/300
	Nominal length 2000, Pit depth 700/725*/830**	350 (400)/370 (400)	320/340***	300/400	340 (430)/380 (440)	360/400
	Nominal length 2250, Pit depth 600					
	Nominal length 2500, Pit depth 600				420 (490)/250 (270)	430/290
	Nominal length 2500, Pit depth 700/725*/830**	400 (430)/370 (370)	370/310***	300/400	430 (500)/350 (390)	470/370
	Nominal length 2750, Pit depth 600					
	Nominal length 2750, Pit depth 700					
	Nominal length 3000, Pit depth 600				360 (420)/220 (240)	420/270
	Nominal length 3000, Pit depth 700/725*/830**	340 (370)/330 (350)	310/310***		370 (430)/300 (330)	480/400
	Nominal length 3000, Pit depth 800/900**	400 (430)/370 (400)	370/350***	370/400	460 (550)/400 (440)	
	Nominal length 3500, Pit depth 800					
	Nominal length 3500, Pit depth 900			450/400	480 (540)/400 (420)	
	Nominal length 4000, Pit depth 900			450/400	520 (570)/420 (460)	
	Nominal length 4500, Pit depth 900			450/400	550 (600)/370 (380)	
	maximum admissible inclination according to EN 1398	12,5 %	12,5 %	12,5 %	12,5 %	12,5 %
	Control	Novo i-Vision	Novo i-Vision	Novo i-Vision	Novo i-Vision	Novo SuperVision 5
	Novo i-Vision model	● TA   ○ TAD	● TA   ○ TAD	● TA   ○ TAD	● TA   ○ TAD	○ TA   ○ TAD
	Novoferm Communication Interface (NCI)	●	●	●	●	○
Colours	RAL 5010 (gentian blue)	●	●	●	●	●
	RAL 7016 (charcoal grey)	●	●	●	●	●
	RAL 9005 (black)	●	●	●	●	●
	more RAL colour shades	○	○	○	○	○
	galvanized	○	○	○	○	○

								
L350i	L330i	L320	L320e	P1530i	P1330i	P1320	L150	L100
●	●	●	●	●	●	●	●	●
●	●	○	○	●	●	○		
○	○			●				
○	○	○	○	○	○	○		
○	○	○	○	○	○	○		
100	60	60	60	60	60	60	60	60
2000, 2500, 3000, 3500, 4000, 4500	2000, 2500, 2750, 3000, 3500, 4000, 4500	2000, 2500, 2750, 3000	2000, 2250, 2500, 3000	2000, 2500 (2440), 3000, 3500, 4000, 4500	2000, 2500 (2440), 3000, 3500, 4000, 4500	2000, 2440 (2500), 3000	1500, 1750, 2000	400
1750, 2000, 2250	1750, 2000, 2100, 2250	2000, 2100, 2250	2000	2000, 2250	1750, 2000, 2250	2000, 2200, 2250	1500, 1750, 2000	1750, 2000, 2200
up to 3000 mm (NL)	up to 3000 mm (NL)	up to 3000 mm (NL)	up to 3000 mm (NL)					
up to 3000 mm (NL)	up to 3000 mm (NL)			up to 2500 mm (NL)	up to 3000 mm (NL)	up to 3000 mm (NL)		
at 3500 mm (NL)	at 3500 mm (NL)			at 3000 mm (NL)	at 3500 mm (NL)			
from 4000 mm (NL)	from 4000 mm (NL)			from 3500 mm (NL)	from 4000 mm (NL)			
400	● 400/○ 500	400	400	● 500/○ 1000	400	400		300
3 N~400 V/50 Hz/16 A	3 N~400 V/50 Hz/16 A	3 N~400 V/50 Hz/16 A	3 N~400 V/50 Hz/16 A	3 N~400 V/50 Hz/16 A	3 N~400 V/50 Hz/16 A	3 N~400 V/50 Hz/16 A		
IP 65	IP 65	IP 65	IP 65	IP 65	IP 65	IP 65		
max. 1,5	max. 0,75	max. 0,75	max. 0,75	max. 1,5	max. 0,75	max. 0,75		
8/10	6/8	6/8	6/8	8/10	6/8	6/8	4/6	4/6
15/17	12/14	12/14	12/14	12/14	12/14	12/14		12/14
250/290	250/290	360/300	360/270					
290/340	290/340			340 (430)/380 (440)	290/340	360/320		
			360/270					
310/270	310/270	380/270	330/270					
360/330	360/330			430 (500)/350 (390)	360/330	380/290		
	340/270	390/270						
	390/320							
360/270	360/270	400/260	270/270					
430/330	430/330				430/330	400/290		
				460 (550)/400 (440)				
520/350	520/350				520/350			
				480 (540)/400 (420)				
570/350	570/350			520 (570)/420 (460)	570/350			
620/350	620/350			550 (600)/370 (380)	620/350			
12,5%	12,5 %	12,5 %	12,5 %	12,5 %	12,5 %	12,5 %	12,5 %	12,5 %
Novo i-Vision	Novo i-Vision	Novo Classic Plus	Novo Classic Plus	Novo i-Vision	Novo i-Vision	Novo Classic Plus	Operating rod	Operating rod
● HAR1	● HA   ○ HAD	○ HA   ○ HAD	○ HA   ○ HAD	● TA   ○ TAD	● HA   ○ HAD	○ HA   ○ HAD		
●	●	○	○	●	●	○		
●	●	●	●	●	●	●		●
●	●	●	●	●	●	●		●
●	●	●	●	●	●	●		●
○	○	○	○	○	○	○		○
○	○			○	○		●	○

# Installation methods

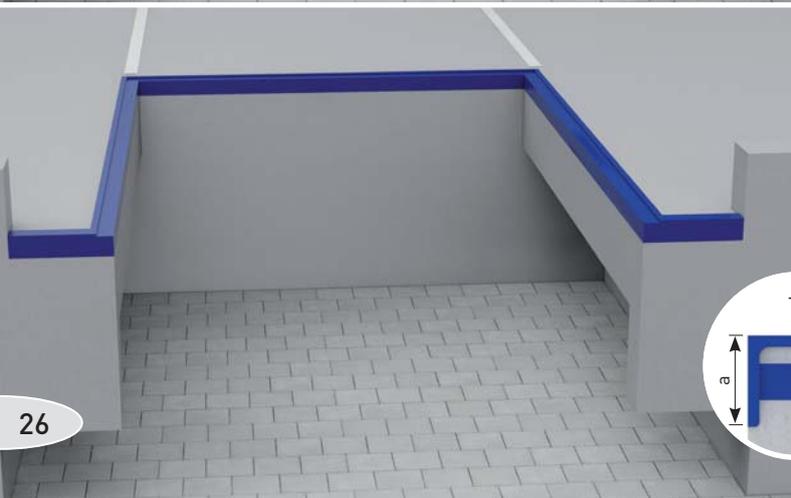
Installation of the dock leveller with the EX installation method



## AX – 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.

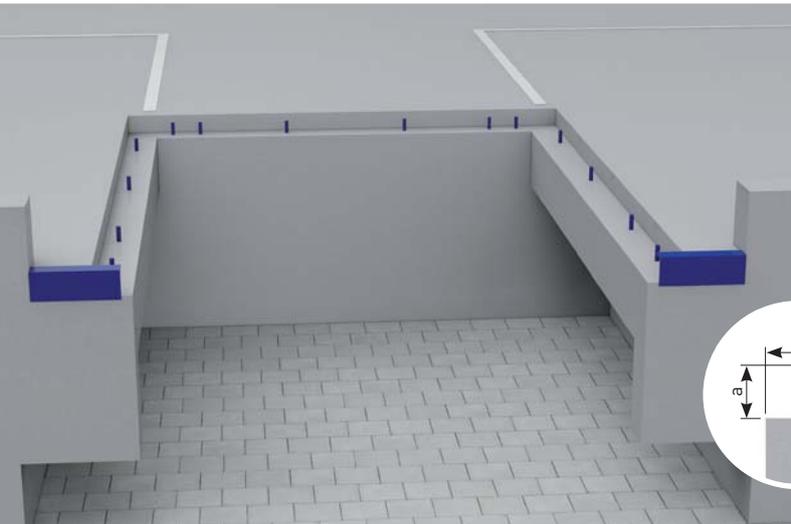
Angular steel  $a = \text{min. } 100 \text{ mm}$



## 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 superimposed flat-bar steel which is inserted in the base plate before casting. The preframe can optionally be supplied by Novoform 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.

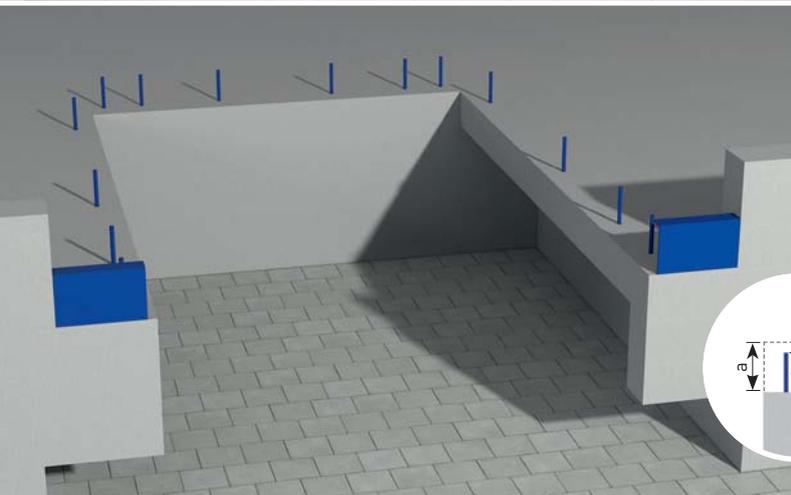
Angular steel  $a = 80 \text{ mm}$ ,  $s = 8 \text{ mm}$  flat steel  $b = 25 \text{ mm}$ ,  $h = 10 \text{ mm}$



### 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. 110 mm. The advantage of this option is the easily realised pit. In addition, the hall floor can be fully completed with the exception of the circular groove.

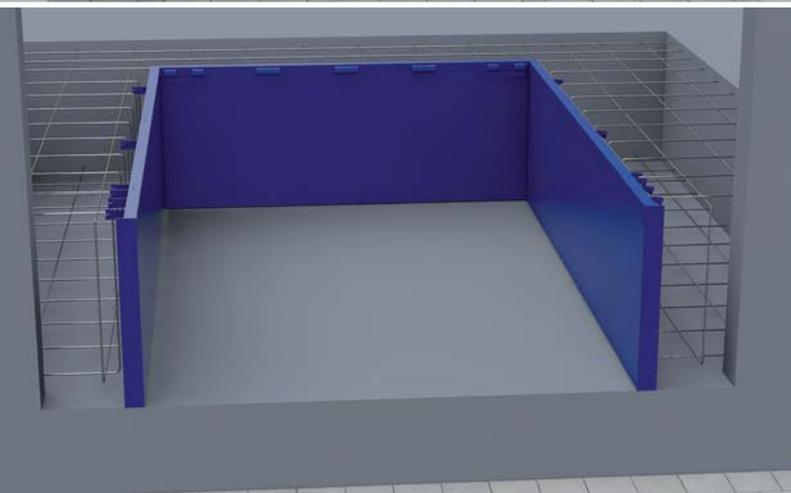
a = 100 mm, b = 150 mm



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

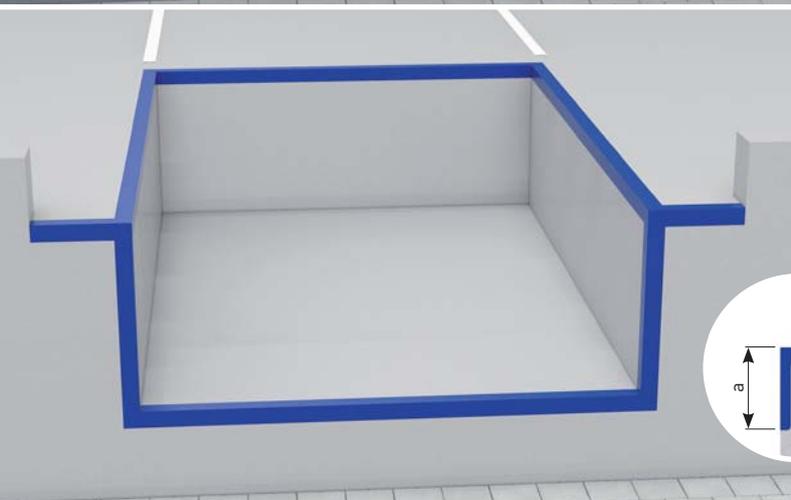
This model is very similar to the previously described method CX/CZ; the only difference is the pour height. The increased frame is supplied with lateral and back jack screws. In this variant, floor constructions of 100 - 250 mm can be covered. This method is frequently used for large quantities and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

a = 100 up to 250 mm (pour height)



### EX/EZ - Box Model for concrete-casting

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/or in the case of a tail 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 = 50 mm, s = 5 mm

# Replacement solutions

- 1** The old defective dock leveller is dismantled and the remaining steel parts prepared for the installation of the NovoDock.



- 2** The new dock leveller is inserted into the prepared frame, aligned, and then welded to the frame.



- 3** Once NovoDock has been electronically connected and subjected to a trial run, the loading bay is already ready for further use.



## Modernisation of your loading bay – fast and cost-effective

Thanks to the comprehensive product range and the necessary know-how, Novoferm is in a position to deliver solutions to customers which meet their specific requirements.

Besides many customer-specific adjustment possibilities, Novoferm developed the solution for a fast and reliable exchange of existing dock levellers.

At the end of the life cycle of a dock leveller, things generally have to go very fast. The existing product suddenly breaks down and can no longer be used from one day to the other.

Due to our special concept, the complete exchange can be realised within one day, which means that the shortest possible down times can be ensured. (Fig. 1 - 3).

### Your benefits:

- No concrete work necessary
- Exchange within one day possible
- Standard sizes can generally be supplied ex stock
- No additional pit adapter necessary

# Overview dock shelters



S620 P. 30



S420 P. 31



S450 P. 32



S220 P. 33



S401 P. 33



VS250 P. 34

# NovoSeal S620



NovoSeal S620



NovoSeal S620 in non-inflated condition



## Inflatable dock shelter with modular structure

As part of the integrated loading solution, NovoSeal 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

- Bellows made from PVC or especially supple Cordura®
- Perfect sealing
- Energy-saving
- Twin motors for fast and safe inflating
- Integrated elements of the loading solution

### Technical data (mm)

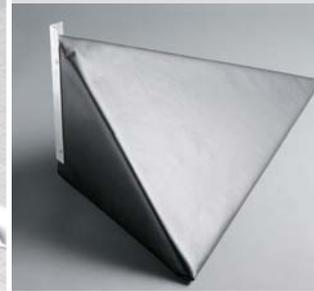
NovoSeal	S620
Width (NB)	3400
Height (NH)	3500
Height (NH) yard level model	4700
Depth (NT)	800
Side bags (SP) width	600
Top bag (OP) height	1200

# NovoSeal S420

Dock shelters



Pads (optional)



Bumpers (optional)



## Collapsible aluminium dock shelters

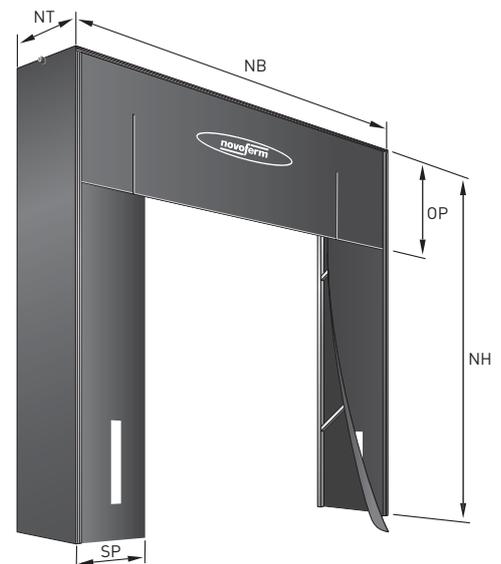
Dock shelters with collapsible design protect against draughts, rain, and wind. They ensure perfect sealing between lorry and building and protect against energy loss and possible damage to the goods. The built in rain water channel deflects water from the roof to the outside of the shelter.

### Product benefits

- Rain water channel on the side inside
- flexible roof construction
- aluminium frame construction
- no visible screws on front side
- designed for universal use

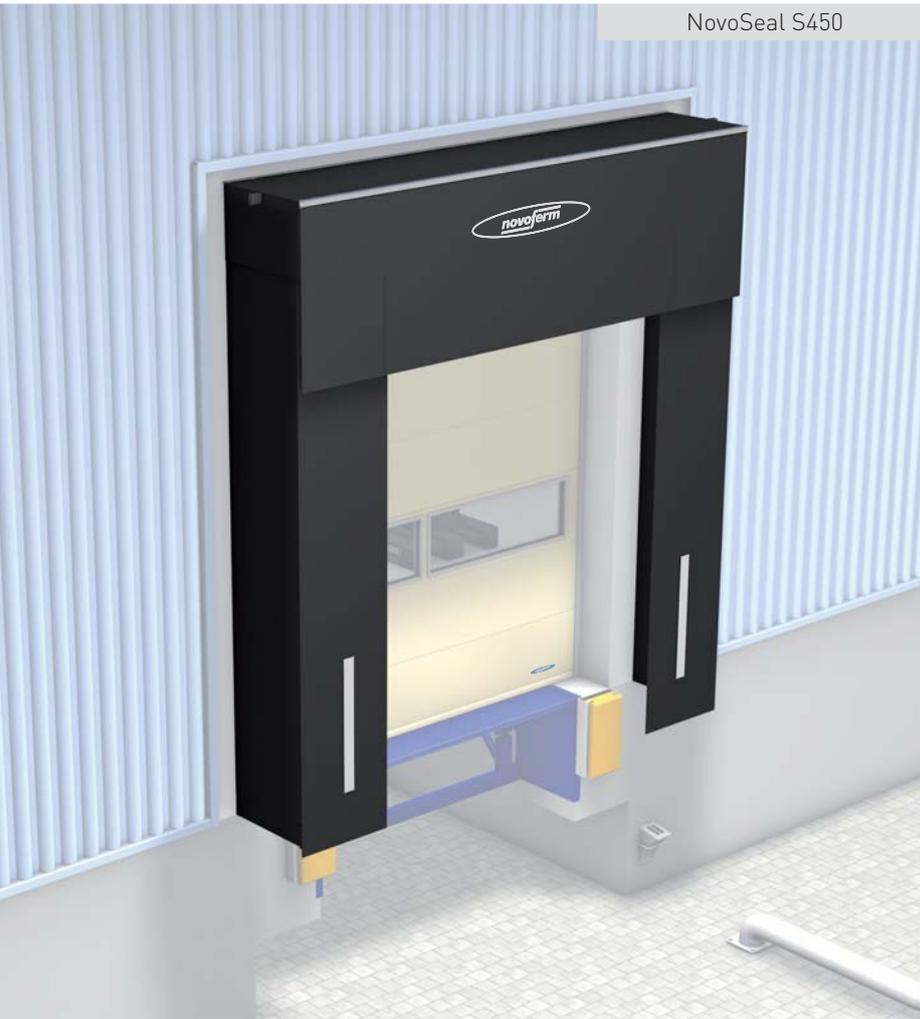
### Technical data (mm)

NovoSeal	S420	S420e
Width (NB)	3250, 3450	3450
Height (NH)	3200, 3400, 3600	3400
Depth (NT)	600	600
Width side curtain (SP)	600	700
with nominal width (NB)	3250	3450
		-
Height top curtain (OP)	1000	900

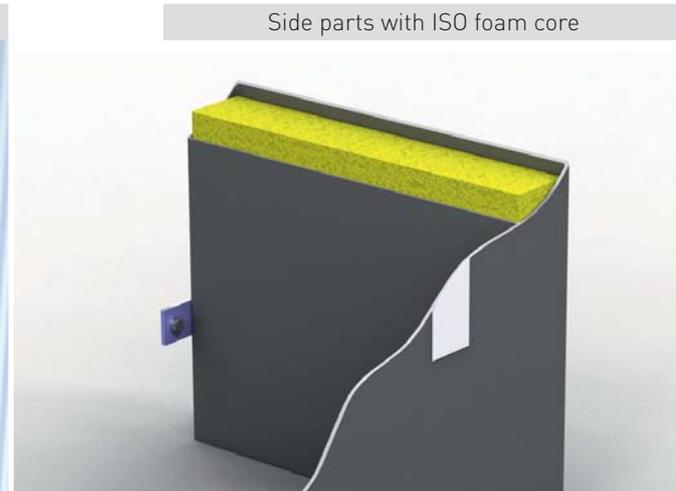


For further information on our dock shelter NovoSeal S420, please refer to Novoferm product data sheets.

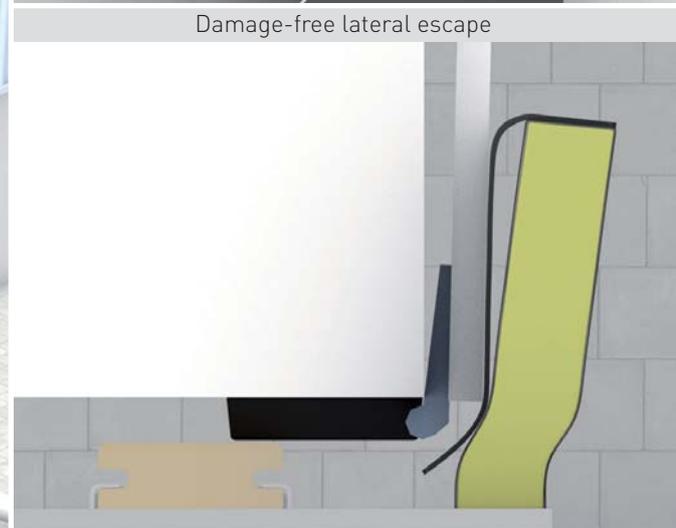
# NovoSeal S450



NovoSeal S450



Side parts with ISO foam core



Damage-free lateral escape

## Dock shelter with ISO foam core

Novoferm dock shelters with push-in projection protect against draughts, rain, and wind. They provide perfect sealing between lorry and building and protect against energy loss and possible damage to the cargo. The side parts have neither arms, handlebars, hinges or leverage in the side parts – the dock shelters are practically “indestructible”. The ISO foam core side parts also move to the side without causing any damage in the case of staggered or oblique starting-up vehicles absolutely regardless of the roof part.

### Product benefits

- Long service life thanks to ISO foam core
- Push-in frame
- Universally usable
- Superior sealing/insulation through ISO core side parts
- Standard rain water channel on the side inside
- Independent adjustable roof section
- No visible screws on front side
- Flexible side parts reduce damage

### Technical data (mm)

NovoSeal	S450
Width (NB)	3450
Height (NH)	3400
Depth (NT)	600
Width side curtain (SP)	600
Height top curtain (OP)	900

# NovoSeal S220 and S401

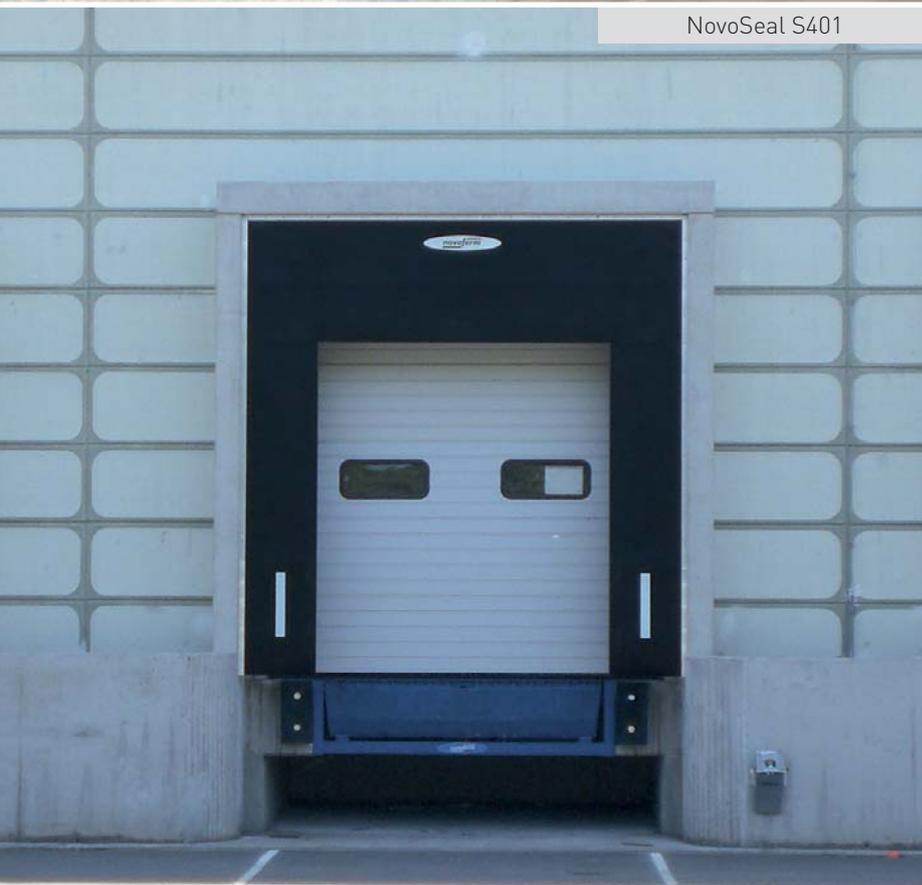


NovoSeal S220

## NovoSeal 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.

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



NovoSeal S401

## NovoSeal S401 Niche seal

The NovoSeal 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.

- 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

# NovoSeal VS250 – For Cross Docking



NovoSeal VS250



## Custom dock shelter with adjustable horizontal pad

Due to the strong increase in Internet trading, the need for vans in city centres is rising fast. In most cases, these parcels must be handled with great care. At the same time, the multitude of different vans with varied contours and different door hinges pose a special sealing problem. The NovoSeal VS250 can optimally fulfil such requirements.

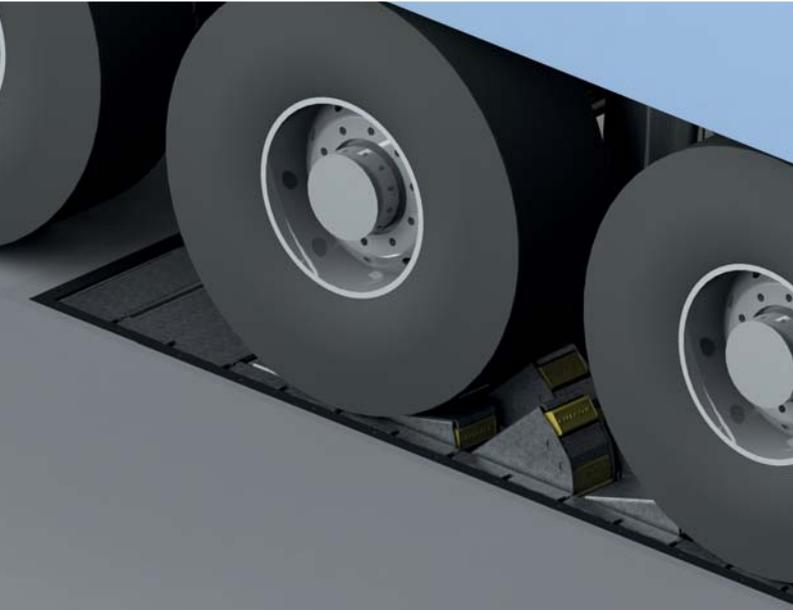
### Product benefits

- Especially developed for vans
- Manually adjustable horizontal pads
- Lamella pads for perfect side sealing
- ideal for CrossDocking

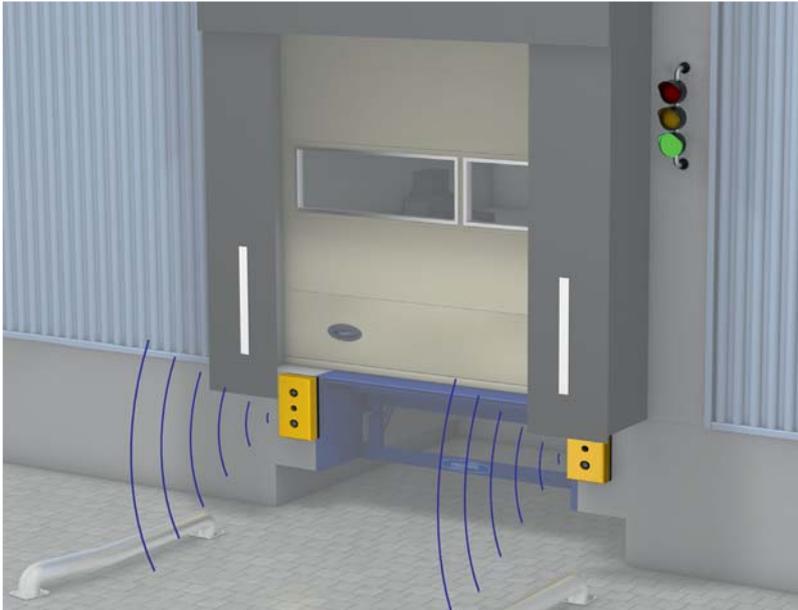
### Technical data (mm)

NovoSeal	VS250
Width (NB)	2170
Height (NH)	3000
Depth (NT)	810

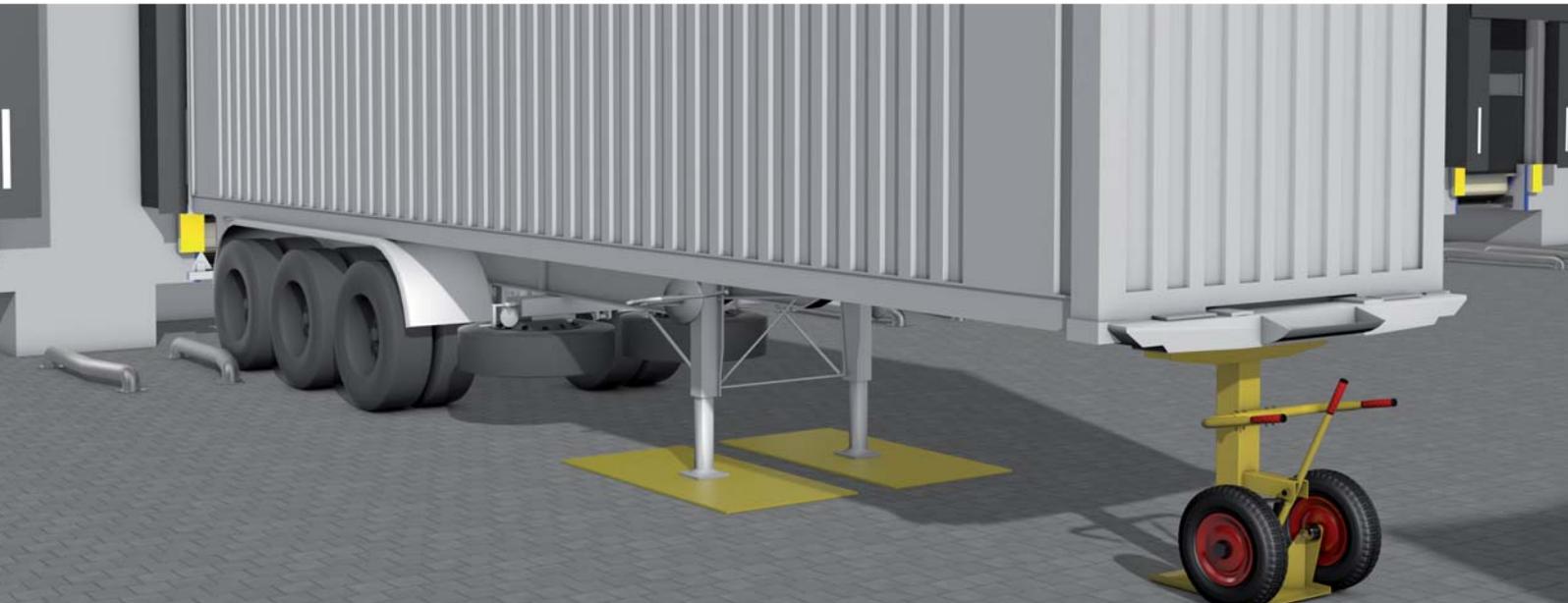
# Overview accessories



Calematic P. 36-37



NovoEASY P. 38



Nytrex Trailer Plates | Novo Safety Jack P. 39



Bumper systems P. 40-41

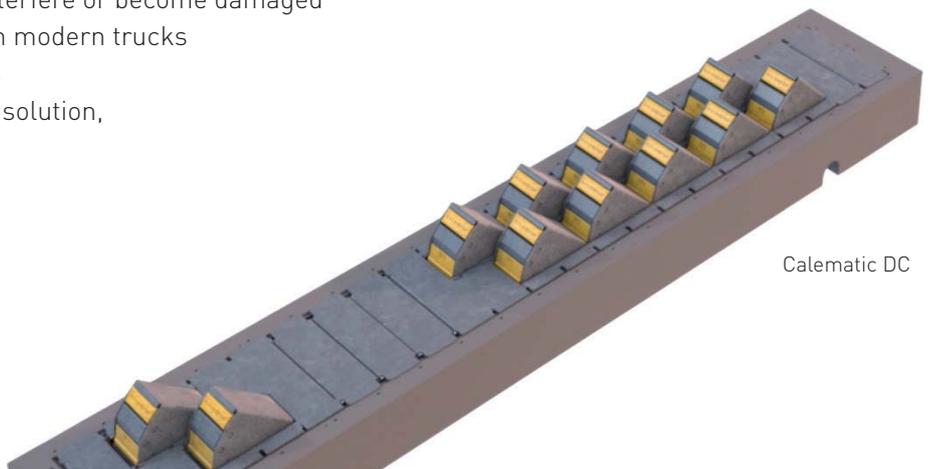
# Calematic SC and DC

System extension  
Calematic DC



## Product characteristics

- easy operation and handling
- facilitates safe and easy docking of the truck
- no obstructive fittings that can interfere or become damaged
- no functional problems, even with modern trucks
- extremely low maintenance costs
- component of the overall loading solution, including door and dock leveller



Calematic DC

HGV restraint systems sustainably reduce the risk of accidents at the loading bay. The new Calematic DC is an advancement of the Calematic system that has been proven over the course of decades. On top of the already established advantages, the new system offers increased security in the loading process, at a lower overall cost.

**The following risks of accidents are prevented by the use of the Calematic System:**

Risk of an **early departure** as there is no communication between the loader and HGV driver.

Risk from the **HGV moving**, caused by the forklift constantly driving into the vehicle. The HGV is constantly moved forwards until the support surface of the dock leveller is no longer sufficient, and it slips from the vehicle.

**Structure**

The Calematic System is designed in such a manner that it can be used everywhere: in new constructions as well as at existing loading bays. Thanks to the flat installation recessed in the courtyard ground, damage to the vehicle is avoided when manoeuvring. The system is easy to clean and contamination will not lead to failure. Calematic can be used under all weather conditions.

**Calematic SC** (single chock)

Standard equipment

- 1 Row with 8 wheel chocks
- 6 cover plates in 1/2 sizes
- Active operation
- Concrete frame
- Compressed air operated wheel chocks

Options

- 2 rows with 5 wheel chocks
- 2 rows with 6 wheel chocks
- Automatic operation
- Additional traffic light display

**Calematic DC** (double chock)

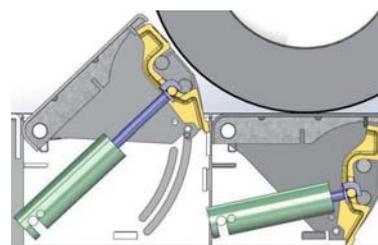
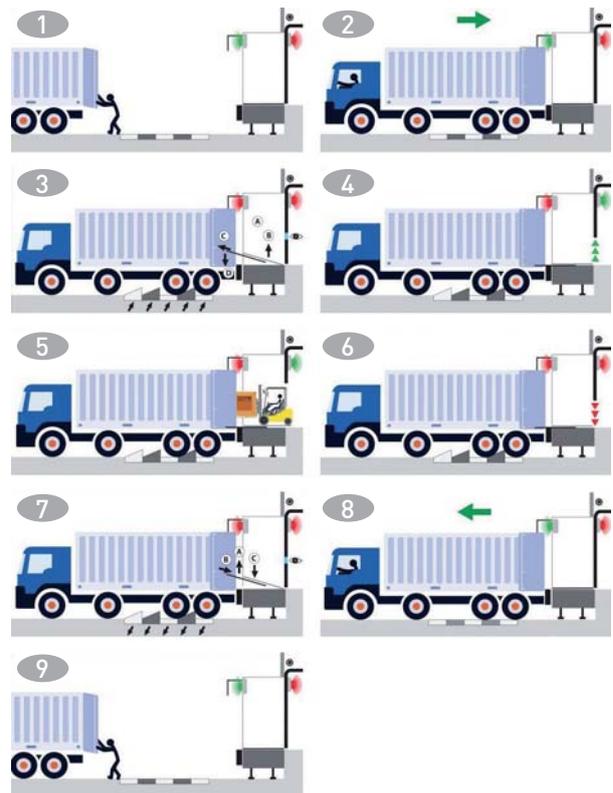
Standard equipment

- 1 Row with 5 double wheel chocks
- 9 cover plates in 1/2 sizes
- 2 cover plates in 3/4 sizes
- Active operation
- Concrete frame
- Compressed air operated wheel chocks

Options

- Version with 6 wheel chocks
- Automatic operation
- Additional traffic light display
- the use of wheel guides is recommended

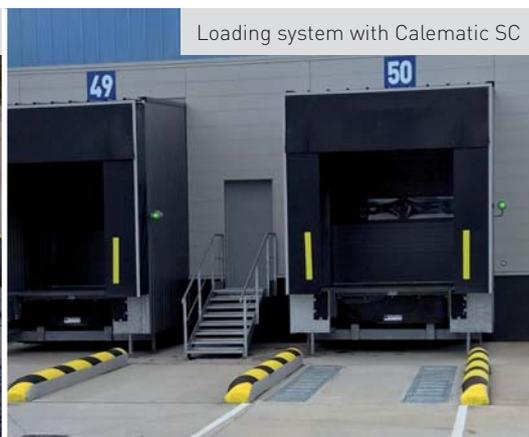
Function sequence



The Calematic System is environmentally friendly and maintenance-free thanks to the wheel chocks operated using compressed air.



Calematic SC



Loading system with Calematic SC

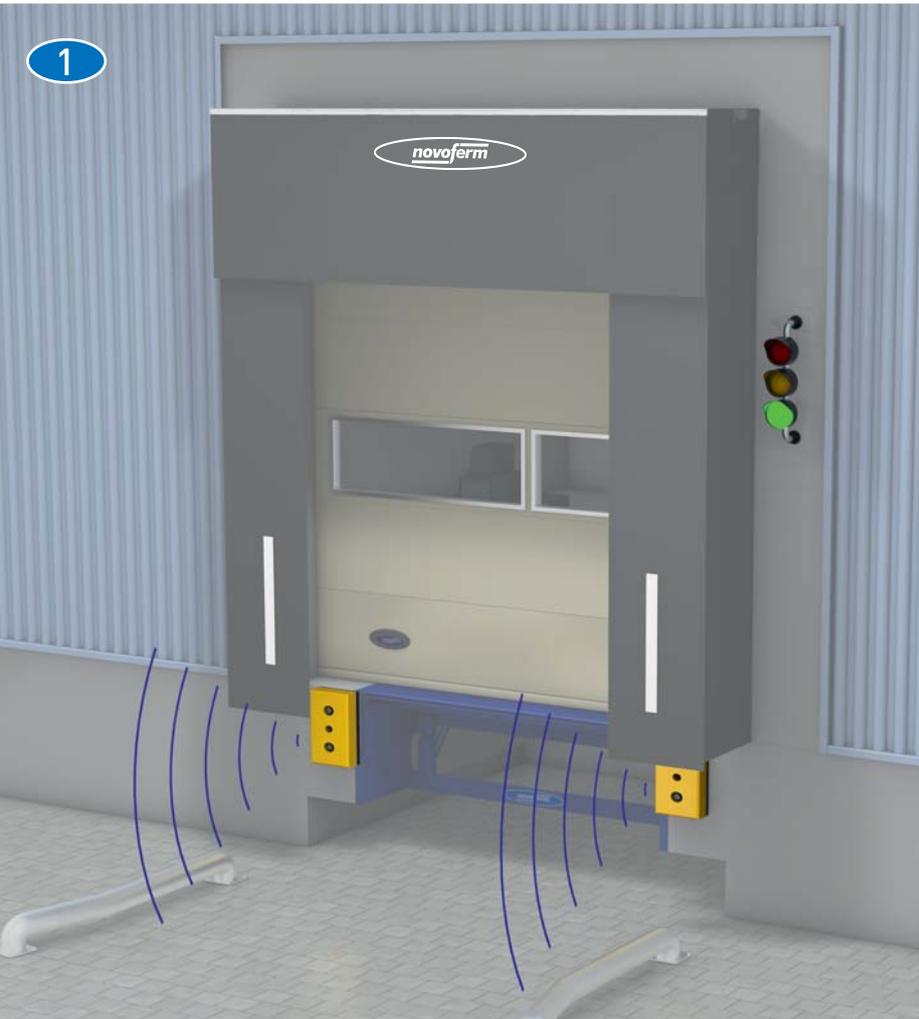


Calematic DC



Calematic DC in use

# NovoEASY – Electronic Drive System



## Electronic Drive System 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 yellow drive 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 yellow
- Distance measurement (Lorry – Building) with display via exterior traffic lights
- Trouble-free function for almost all truck versions. Adoptions may be necessary for swap bodies.

### Designs (mm)

500 x 250 x 130
1 sensor, traffic lights red/green
1 sensor, LED traffic lights red/green
1 sensor, LED traffic lights red/yellow/green
2 sensors, traffic lights red/green
2 sensors, LED traffic lights red/green
2 sensors, LED traffic lights red/yellow/green

## 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 before the loading bay: The traffic light switches to yellow. The driver shows increased levels of attentiveness.

### Step 3

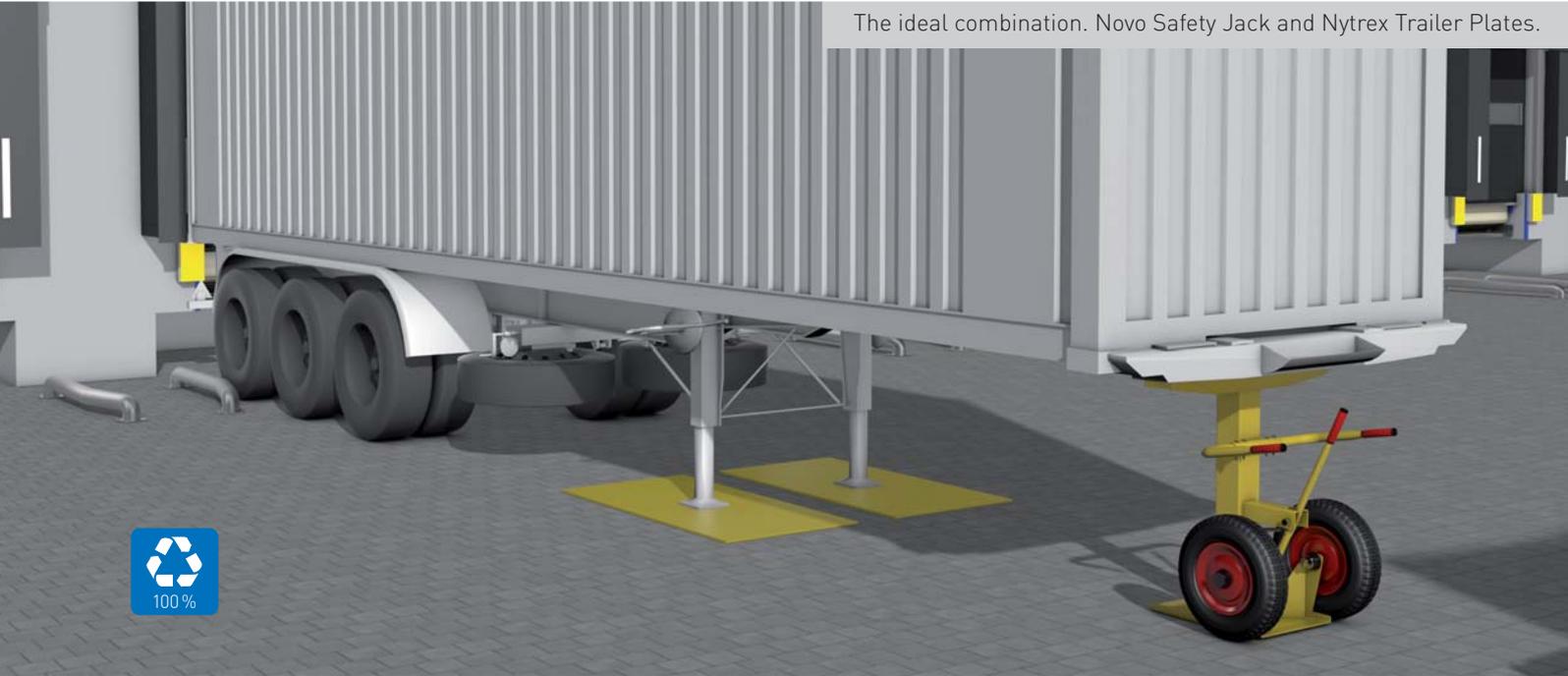
The lorry is 20 cm away from the loading bay, just before the bumper: The traffic light switches to red. The driver stops the vehicle.

### Evaluation

Building protection	★★★★★	Overall rating: <b>25</b>
Durability	★★★★★	
Spring deflection	★★★★★	
Life Cycle Cost	★★★★★	
Visibility	★★★★★	

# Nytrex Trailer Plates and Novo Safety Jack

The ideal combination. Novo Safety Jack and Nytrex Trailer Plates.



## Nytrex Trailer Plates – 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 with fastenings to or into the floor, suitable for concrete, bitumen or pavement surfaces.

### Product benefits

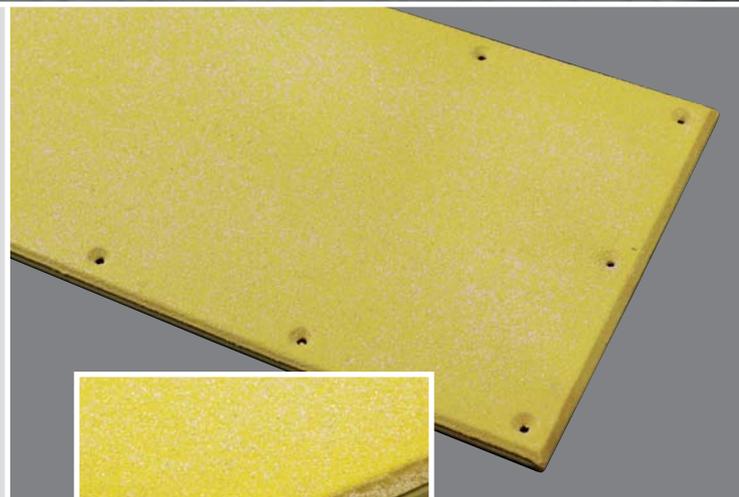
- Nytrex high-performance plastic in signal yellow
- Suitable for high loading frequency
- NEW** Optional with anti-slip coating

## Novo Safety Jack – Telescopic loading support

The Novo Safety Jack helps increasing safety during the loading and unloading of trailers/semi-trailers with up to 40 t 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.

### Product benefits

- more safety during loading and unloading processes
- extra wide massive steel construction with large base plate
- extra large cross beam
- height-adjustable
- adjusting by gas pressure spring
- ergonomically-shaped grips for easy handling
- TÜV-certified



Anti-slip coating

### Designs (mm)

Standard sizes:

2000 x 1000 x 16

1000 x 1000 x 16

1000 x 500 x 16

Non standard sizes readily available.

### Technical data

Length	550 mm
Width	760 mm
Height	1020 – 1340 mm
Weight	70 kg
Cross member	760 x 120 mm
Base plate	470 x 425 mm
Air-filled wheels	Ø 380 mm

# Bumper systems

Different loading situations necessitate different bumpers. A determining factor is the right solution for the customer. For this purpose, Novoferm provides a broad range of different systems. Four different criteria are used as a decision aid. As a matter of principle, the more stars a model achieves in one of the criteria, 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 stroke 250 mm
- Lasts 7-10x longer than rubber
- Suitable for high loading frequency



## Nytrex F

high-performance Nytrex bumper in signal yellow

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



## NovoSlider

the unique design

- Nytrex high-performance plastic in signal yellow
- Height-adjustable front part
- Spring deflection up to 25 mm
- 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 yellow
- Height-adjustable front part
- Spring deflection up to 25 mm
- 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 the lorry driver. Because the current products were almost always black, both rubbers and steel buffers, there was no differentiation criteria. This has changed with the development of the Nytrex buffer. The yellow signal colour presents considerable 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.

Item	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 x 250 x 90 or 250 x 250 x 140	low	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	8	
	500 x 250 x 90 or 500 x 250 x 140	low to medium	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	10	
Steel buffers	AZPK	500 x 250 x 140 or 800 x 250 x 140	high	★★★★★	★★★★★	★★★★★	★★★★★	20	
		TwinSet 800/500 500 x 250 x 140 and 800 x 250 x 140	high	★★★★★	★★★★★	★★★★★	★★★★★	20	
	AZJ	500 x 250 x 210 or 800 x 250 x 210	high	★★★★★	★★★★★	★★★★★	★★★★★	21	
		TwinSet 800/500 500 x 250 x 210 and 800 x 250 x 210	high	★★★★★	★★★★★	★★★★★	★★★★★	21	
Item	Design (mm)			Building protection	Durability	Spring deflection	Life Cycle Cost	Visibility	OR
NovoLift	600 x 250 x 140	✓		★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	20
Nytrex F	500 x 250 x 80 or 750 x 250 x 80	✓		★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	20
	500 x 250 x 130 or 750 x 250 x 130		✓	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	20
	TwinSet F7508 750 x 250 x 80 and 500 x 250 x 80	✓		★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	20
	TwinSet F7513 750 x 250 x 130 and 500 x 250 x 130		✓	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	20
	NovoSlider	500 x 280 x 100 or 750 x 280 x 100	✓		★★★★★	★★★★★	★★★★★	★★★★★	24
NovoSlider	500 x 280 x 140 or 750 x 280 x 140		✓	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	24
	TwinSet 7510 750 x 280 x 100 and 500 x 280 x 100	✓		★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	24
	TwinSet 7514 750 x 280 x 140 and 500 x 280 x 140		✓	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	24
	NovoSlider L	750 x 280 x 100			★★★★★	★★★★★	★★★★★	★★★★★	24
	750 x 280 x 140	✓		★★★★★	★★★★★	★★★★★	★★★★★	24	

For further information on our bumper systems, please refer to Novoferm product data sheets.

OR = Overall rating

# Accessories



## Set of 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 much 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 electrically to the door and dock leveller 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. The Novoferm 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 swivelling 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. Unloading is made easier thanks to a correctly positioned lorry.

# Additional Novoferm industrial products



## Sektionaltore

Wirtschaftlich, robust, zuverlässig



## Sectional doors

Our large selection of different models, surface types, operating types, installation options make it possible for us to offer our customers tailored solutions. It goes without saying that we keep a close eye on all aspects, in particular relevant standards and regulations.



## Rolltore aus Alu oder Stahl

Synthese aus Funktionalität und Flexibilität



## Rolling doors

Our rolling doors are individual and universal door systems. They comply with all valid guidelines and standards and installation is also performed according to existing DIN regulations. Thanks to the profile design and superior transparent coating of aluminium doors, your rolling door is good promotion for your company.



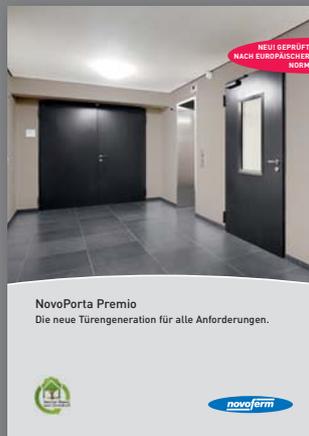
## NovoSpeed Solutions

Schnellautotore für effizienten und wirtschaftlichen Materialfluss



## NovoSpeed Solutions

High-speed doors open and close extremely fast and, in addition to optimised processes, ensure constant temperatures in production halls and workshops. These door systems enable you to use existing potentials and reduce your overheads! High-speed doors are available in many different designs and custom sizes.



## NovoPorta Premio

Die neue Türegeneration für alle Anforderungen.



## Steel doors

We offer a wide range of modern fire protection and multi-purpose doors. Our strength lies in the provision of complete bespoke solutions, which are tried and tested while being innovative at the same time. We make our products in accordance with the latest technical developments, and in this respect, we do not only meet high quality requirements, but we also combine an extensive functionality with an attractive design.



## Feuer- und Rauchschutz-Schiebetore Feuerschutz-Hub- und Schiebeklappen



## Fire protection sliding doors

Novoferm fire protection sliding doors close automatically and prevent fire penetration through openings in the walls. They persuade through their operating characteristics and attractive look. Thanks to the shipping and installation friendly modular construction, large-size doors can also be realised.



## Feuer- und Rauchschutzabschlüsse in Profiframekonstruktionen Tür- und Wandelemente für transparente Strukturen



## Fire and smoke protection door systems

The glass frame constructions persuade through their elegant look and numerous design and combination possibilities. Door and wall elements are available in steel and aluminium. Fire protection elements are also available in stainless steel. Thermally insulated elements can be supplied in steel.



## **Novoferm. Your local supplier. Across Europe.**

The Novoferm Group is one of the leading European system providers of doors, gates, frames, drives and loading equipment. We provide a broad range of product and services for private, commercial and industrial use. All our products are made according to the highest quality standards and comply with the latest technological developments. In so doing, we combine maximum functionality with an innovative design. We have production facilities in various locations, and no matter where you are, we are always there for you thanks to our Europe-wide distribution network.

Your Novoferm distributor

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