



Novoferm Docking Solutions

Efficient, safe, controlled – at any time





Highest quality and safety for your logistics needs

New ideas and proven technology to save you money

Novoform 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.

Novoform Docking Solutions – Superior quality in product and service



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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 CO₂ emissions during the course of production, delivery, installation and maintenance.

www.novoferm.de

Led by innovations

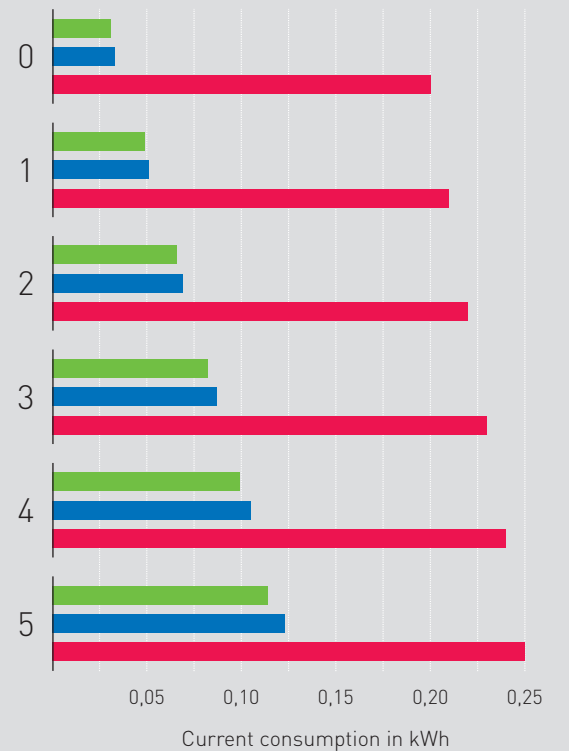
Setting standards



Evolution of energy consumption

■ NovoDock L 530i ■ NovoDock L 500i ■ NovoDock L 500

Number of consignments



Novoferm Docking Solutions – always one step ahead

- 2009** Introduction of **NovoDock L 500** with unique Ergo^{Plus} package as standard protecting loadings, employees and goods
- 2011** **NovoDock L 500i** with energy consumption up to 70% lower than compatible competitor products
- 2013** Now we introduce:
- NovoDock L 530i** page 12
Even less energy consumption than NovoDock L 500i and NCI on board
 -  **Novoferm Communication Interface** page 9
The future is on board, as standard
 -  **Novoferm i-Vision Visual** page 9
The loading bay under control
 - NovoDock L 730i** page 10
Perfect for temperature controlled storage
 - NovoSeal S 450** page 18
Isolated curtain shelter
 - NovoSeal VS 250** page 20
The optimal solution for Cross Docking
 - NovoEASY** page 24
The save truck guiding solution

Efficient Solutions



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 Novoform 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.

Maximum occupational safety factors and ergonomics

The flush joint between the main deck and the telescopic lip of the NovoDock L 530i, L 730i and P 1530i reduces jolts and back strain during repetitive tasks, thus actively contributing to improvements in health and safety at work as standard.

Protection of the vehicle fleet

Reduced wear and tear on the forklift and pallet trucks used in loading operations, means lower maintenance costs and helps residual values.

Smoother passage of goods during loading and un-loading operations.

Whether it is food produce or electrical goods, both need to be handled with care. With the flush joint between the main deck and the telescopic lip, the risk of damaging goods is reduced to a minimum. Goods are optimally protected.

Novoform Efficient Solutions – The decisive difference



Green Solutions



Novoform 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 Novoform top in this development.

Optimal corrosion protection

All surfaces are blasted after welding to create the best possible foundation for the coating process. The coatings used is in compliance with the Decopaint Directive (VOC).

Novoform 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^{Plus}

Sustainable materials, ecologically friendly components and a power saving function significantly reduce CO₂ emissions while saving costs at the same time.

- Use of organic oil (optional and without surcharge)
- Use of environmentally friendly varnish
- Energy saving mode – up to 70 % less power consumption
- RoHS-compliant control and components
- Standard on NovoDock L 330i, L 350i, L 530i, L 550i, L 730i, P 1330i and P 1530i



Ergo^{Plus}

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
- Standard on NovoDock L 530i, L 730i and P 1530i



Iso^{Plus}

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

- Special insulation of dock leveller
- Twin gap sealing
- Strong back gap sealing
- Energy and cost reduction



Door^{Plus}

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^{Plus}

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



Warranty^{Plus}

High-quality components and a superior painting process make it possible to extend the warranty period and save you unforeseen repair costs.

Novo i-Vision control

Novo i-Vision TAD (Option)



Novo i-Vision TA



Novo i-Vision HA/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 Novo i-Vision TAD (Option)
- NCI on board

Our contribution to CO₂ reduction

The active energy-saving mode still reduces consumption resulting in your saving up to 70 % energy as compared to competitor products.

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



NCI and Novo i-Vision Visual



The future is on board as standard

Novoform Communication Interface

Novoform industrial products with Novo i-Vision controls have the new Novoform Communication Interface (NCI) installed.

NCI provides over 50 important parameters for various evaluations. Whether status or error messages, average utilisation times or different analyses, the NCI provides you with the relevant data enabling you to achieve more efficient loading processes.

As standard – at no extra cost



The loading bay under control

Novo i-Vision Visual

Based on the data supplied by NCI, the Novo i-Vision Visual Software visualises a large number of data and evaluations in a clear and comprehensible format.

You can check your doors and dock levellers in a chart on the status monitor at any time. If necessary, you can zoom in on the product to display further details.

The Report Generator creates graphic evaluations over a selected period. For example, you can compare the average loading duration of your loading bays for each day, week, or month.

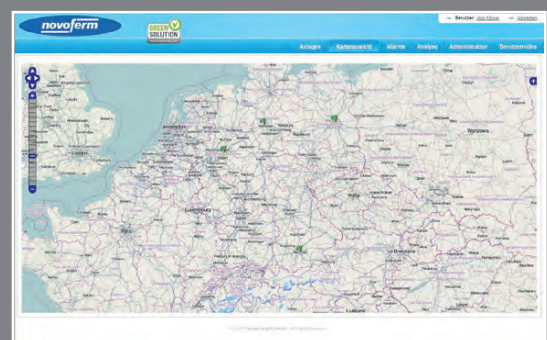
Design your own benchmarking over several locations. Novo i-Vision Visual supplies the analyses necessary to integrate improvement potentials into your processes.



Control your loading bay with the Novo i-Vision Visual Software

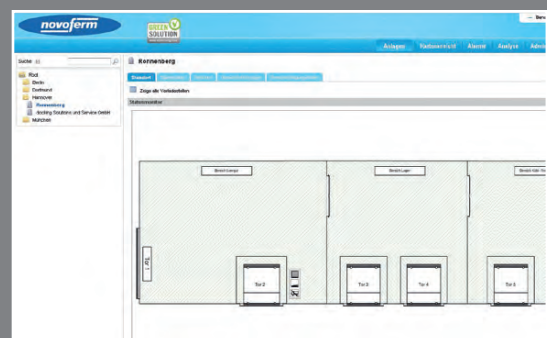
Map view –

all your locations in one overview



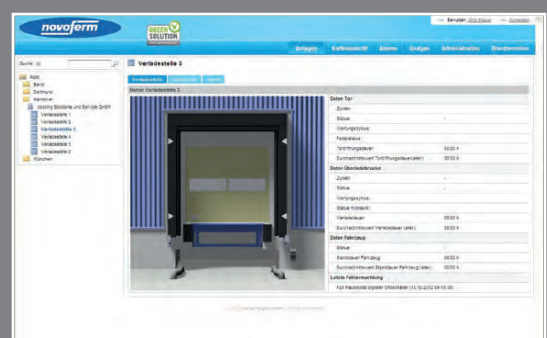
Building view –

all dock levellers of one location at once glance

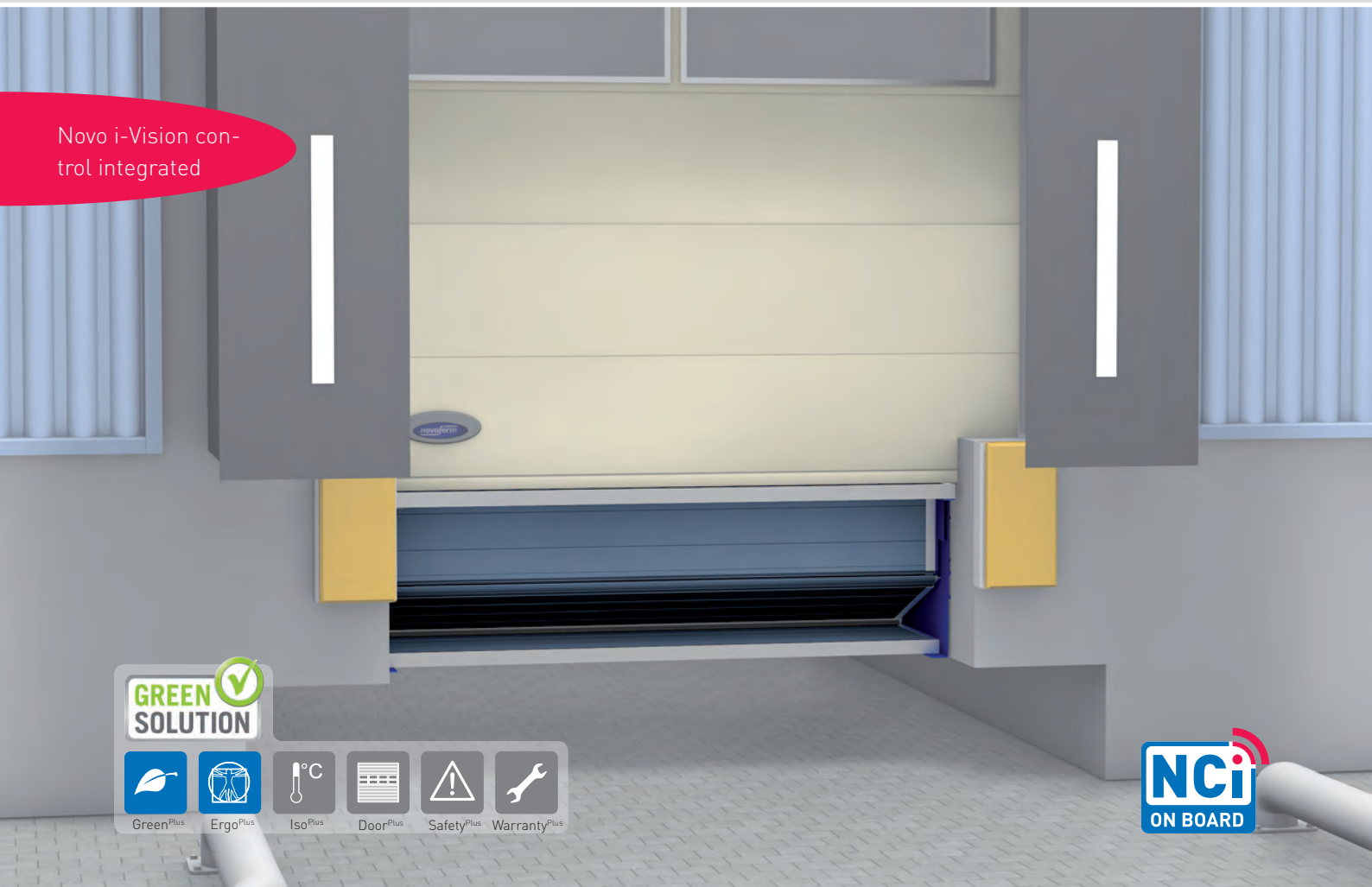


Detailed view –

all current information in detail



NovoDock L 730i – For temperature controlled storage



The ideal ISO loading bay

The unique design of the NovoDock L 730i 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.

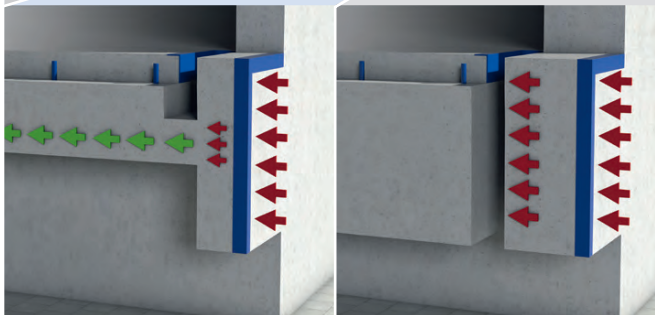
Because the acceleration forces can be directly fed into the base plate of the building, the construction form of the installation pit as compared to traditional ISO loading bays is much easier to design.

Product benefits

- Standard Green^{Plus} pack, up to 70 % energy savings; upon request without bio oil surcharge
- Standard Ergo^{Plus} pack
- RoHS-compliant components
- VOC-compliant paint
- Fully insulated, encapsulated design
- Acceleration forces are fed into the base plate
- Also fully insulated during the loading process
- Adjustability
- 700/1.000 mm telescopic lip
- 45 mm insulation
- Optional Door^{Plus} pack

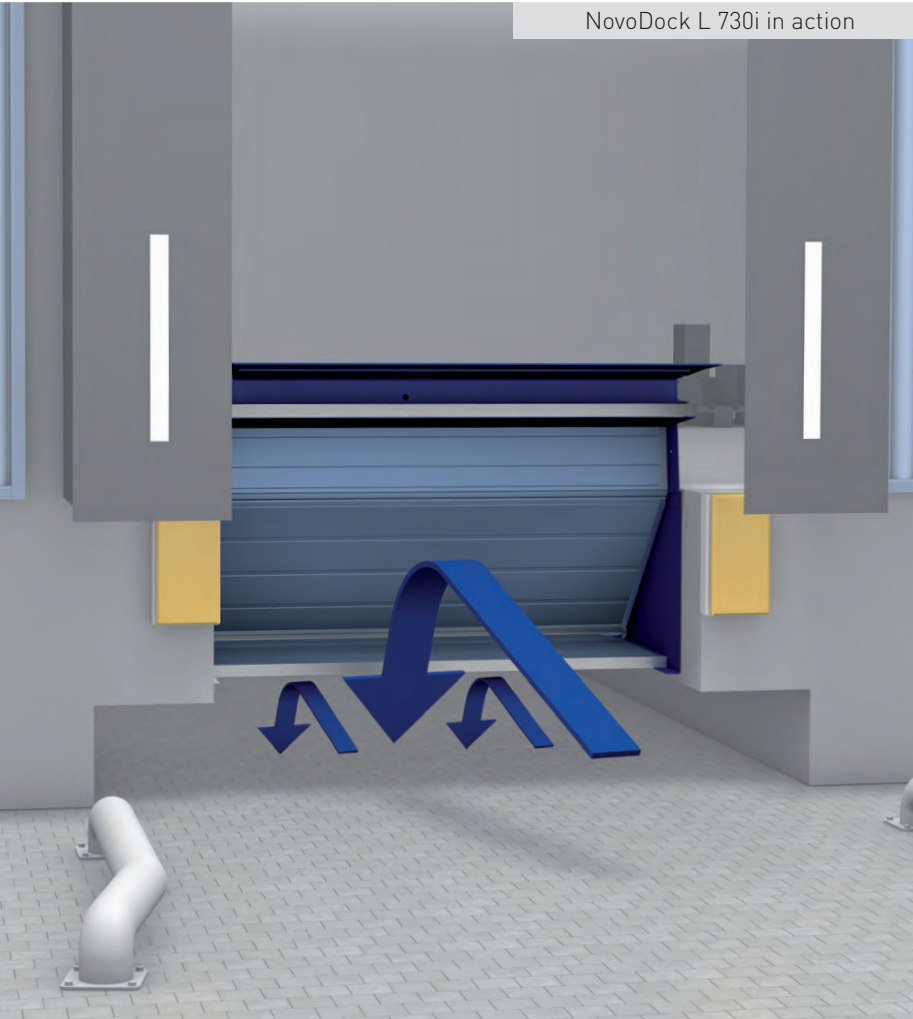
Advantages as compared to a traditional ISO loading bay

Features	NovoDock L 730i	traditional ISO loading bay
Pit preparation	easy	labour-intensive
Adjustability	possible at any time	only possible when the door is opened
Insulation during loading	ensured at any time	not ensured
Green ^{Plus} pack	up to 70% lower energy requirements	not available
Door ^{Plus} 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



For further information on Novo i-Vision control, the NCI and the Option Packs, please refer to pages 7-9.

NovoDock L 730i in action



Energy savings to perfection

The NovoDock L 730i is supplied as a preinstalled, ready-to-install compact solution, making for a fast and safe installation.

The optional Door^{Plus} pack does not only control the sectional door and the NovoDock, but also increases efficiency through its AutoDock function.

An inflatable door seal and accessories like traffic lights and loading light can also be actuated if needed.

Control and operation

The dock leveller NovoDock L 730i is steered via the supplied control Novo i-Vision TA.



Novo i-Vision TA



Novo i-Vision TAD (Option)

Standard colours of dock levellers

RAL 5010	RAL 7016	RAL 9005
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Cross-section of the ISO loading bay



Technical data

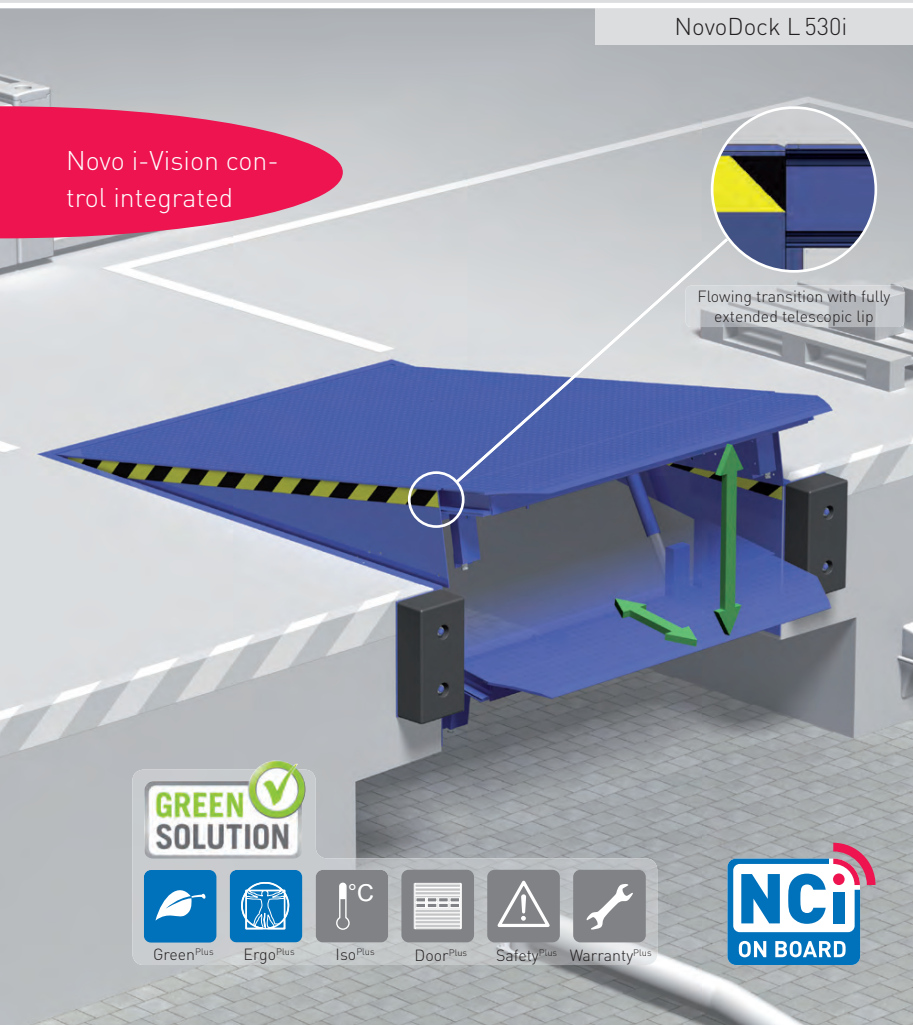
Characteristics	L 730i
Nominal load (EN 1398)	60 kN
Telescopic lip lengths (mm)	700/1000
Nominal lengths (mm)	2000, 2500, 3000
Nominal widths (mm)	2000, 2250
Pit Depths (mm)	
830	up to 2500 (NL)
900	at 3000 (NL)

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

For further technical data, please refer to pages 26-27 or to the Novoferm product data sheets.

The picture left shows a typical loading situation with the L 730i. The exchange of different temperature conditions is prevented. The weather stays outside and the temperature in the hall remains almost constant.

NovoDock L 530i and L 550i



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 L 530i 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 L 530i and L 550i contribute to cost savings thanks to CO₂ reduction technology. The NovoDock L 530i also has the new revolutionary NCI on board.

Product benefits

- Standard Green^{Plus} pack, up to 70 % on energy savings; upon request without bio oil surcharge
- RoHS-compliant components
- VOC-compliant paint

NovoDock L 530i

- Standard Ergo^{Plus} 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 L 550i

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

Control and operation

The dock levellers NovoDock L 530i and L 550i are steered via the supplied control Novo i-Vision TA.



Novo i-Vision TA



Novo i-Vision TAD (Option)

Technical data

Characteristics	L 530i	L 550i
Nominal load according to EN 1398	60 kN	100 kN
Telescopic lip lengths (mm)	500/1000	500
Nominal lengths (mm)	2000, 2500, 3000, 3500, 4000, 4500	
Nominal widths (mm)	2000, 2250, 2400	
Pit Depths (mm)		
600	up to 3000 (NL)	-
700	up to 2500 (NL)	up to 2500 (NL)
800	at 3000 (NL)	at 3000 (NL)
900	from 3500 (NL)	from 3500 (NL)

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

For further technical data, please refer to pages 26-27 or to the Novoferm product data sheets.

NovoDock L 330i and L 350i



Standard colours of dock levellers

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

NovoDock L 330i and L 350i 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 L 330i and L 350i also cater 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; upon request without bio oil surcharge
- RoHS-compliant components
- VOC-compliant paint

NovoDock L 330i

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

NovoDock L 350i

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

Control and operation

The dock levellers NovoDock L 330i and L 350i are operated via the control panel Novo i-Vision HA.



Novo i-Vision HA



Novo i-Vision HAD (Option L 330i)

Technical data

Characteristics	L 330i	L 350i
Nominal load (EN 1398)	60 kN	100 kN
Hinged lip lengths (mm)	400/500	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 %.

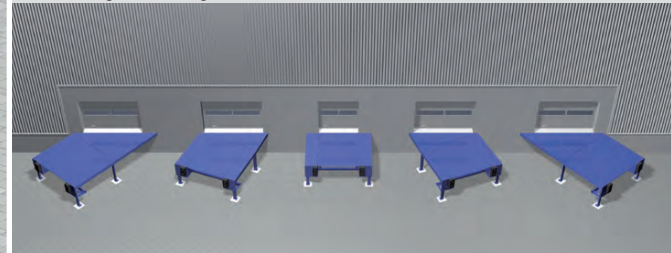
For further information on Novo i-Vision control, the NCI and the Option Packs, please refer to pages 7-9.

For further technical data, please refer to pages 26-27 or to the Novoferm product data sheets.

NovoDock P 1530i and P 1330i



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



Standard colours of dock levellers

RAL
5010

RAL
7016

RAL
9005

Hydraulic dock levellers in steel frame

Thanks to the steel frame, the NovoDock P 1530i and P 1330i can be installed in front of the building and also serve as a basis for a loading sluice. With the integrated Novo i-Vision control, dock levellers are convenient and safe to operate. Like all Green Solution products, NovoDock P 1530i and P 1330i save costs thanks to CO₂ reduction. Here as well, the new NCI is on board.

Product benefits

- Standard Green^{Plus} pack, up to 70 % energy savings; upon request without bio oil surcharge
- RoHS-compliant components
- VOC-compliant paint

NovoDock P 1530i

- Standard Ergo^{Plus} 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

NovoDock P 1330i

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

Control and operation

The dock leveller is operated via:

NovoDock P 1530i

NovoDock P 1330i



Novo i-Vision TA / TAD (Option)



Novo i-Vision HA / HAD (Option)

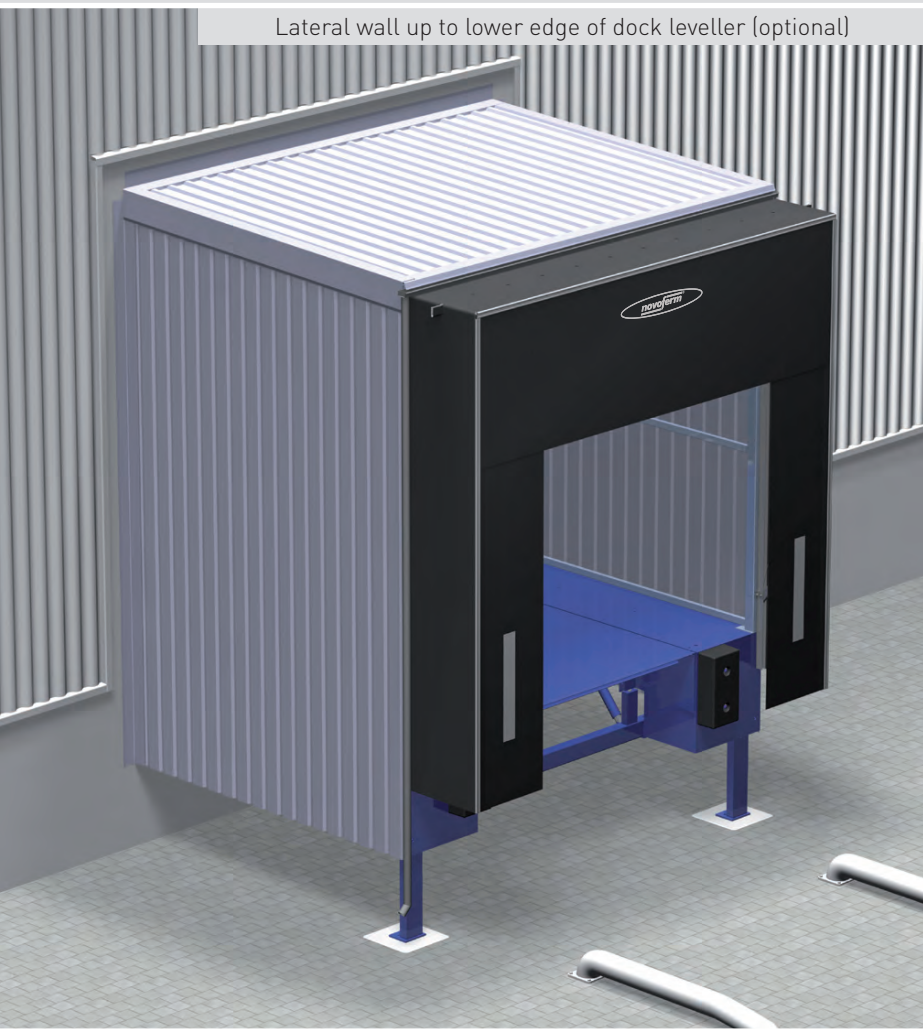
Technical data

Characteristics	P 1530i	P 1330i
Nominal load according to EN 1398	60 kN	60 kN
Telescopic lip lengths (mm)	500/1000	400
Nominal lengths (mm)	2000, 2500 (2440), 3000, 3500, 4000, 4500	
Nominal widths (mm)	2000, 2250	1750, 2000, 2250
Platform widths (mm)	3300, 3500	3300, 3500
Pit Depths (mm)		
700	up to 2500 (NL)	up to 3000 (NL)
800	at 3000 (NL)	at 3500 (NL)
900	from 3500 (NL)	from 4000 (NL)

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

For further technical data, please refer to pages 26-27 or to the Novoferm product data sheets.

NovoDock H 100



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

- **Type basic frame:**
Design with steel frame construction for sheeting by customer

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

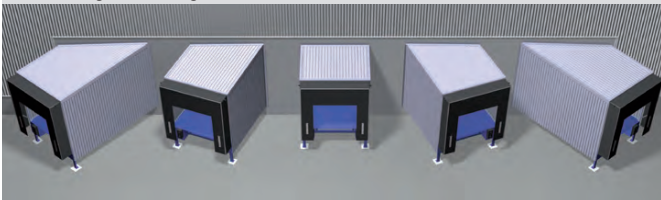
Internal construction for platform systems NovoDock P 1530i and P 1330i

NovoDock H 100 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

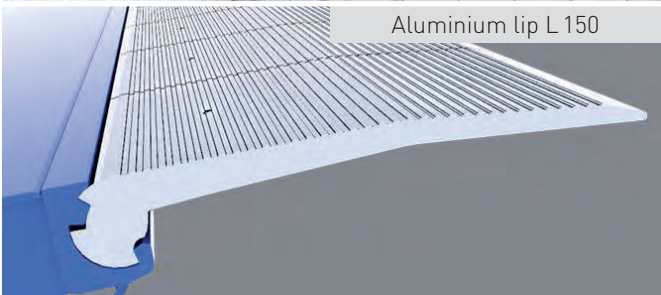
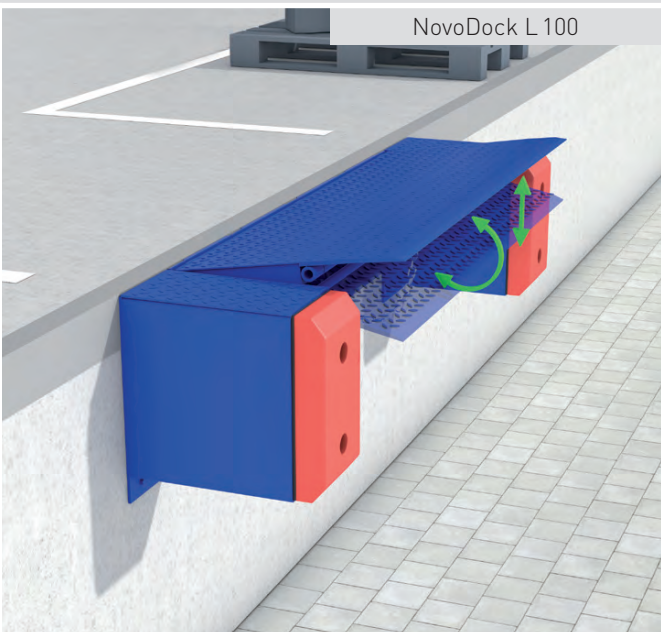
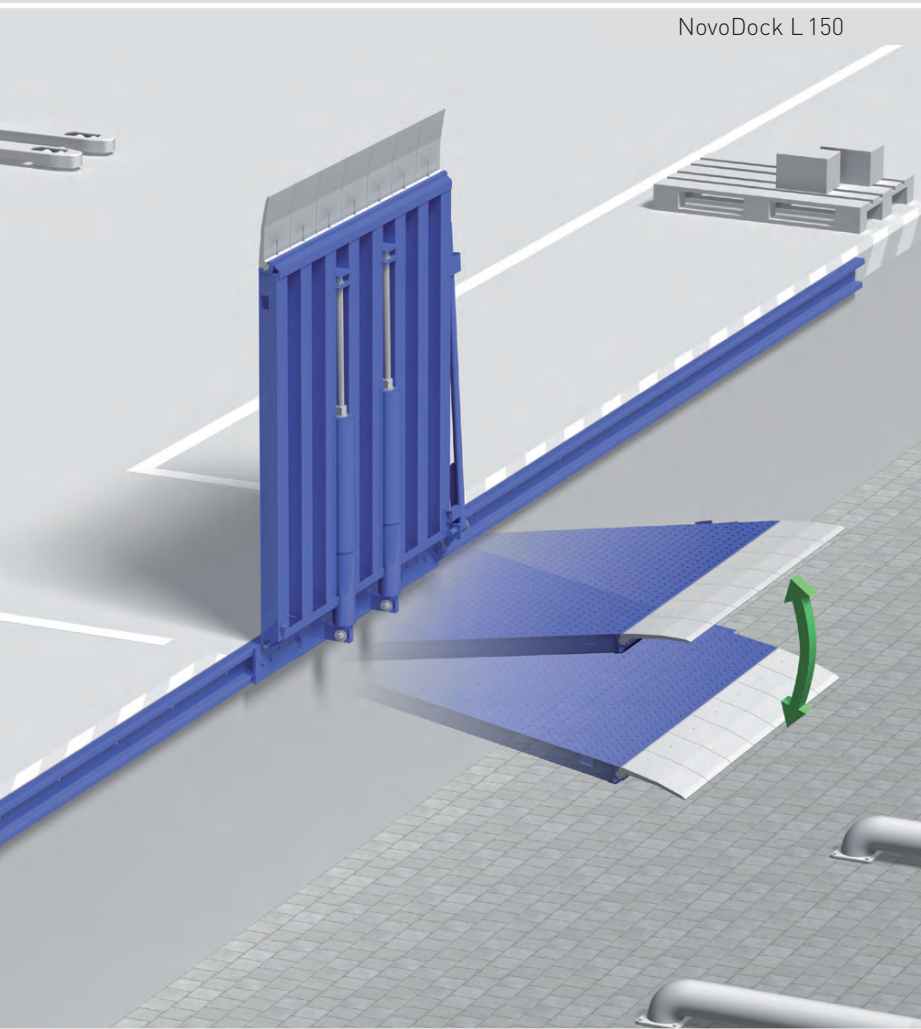
The NovoDock P 1530i or NovoDock P 1330i (page 14) serves as a basis for the NovoDock H 100.



Technical data

Characteristics	H 100
Nominal lengths (mm)	2000, 2500, 3000, 3500, 4000, 4500
Nominal widths (mm)	3300, 3500
Ramp heights (mm)	950 to 1500

NovoDock L 150 and L 100



Standard colours of dock levellers		
RAL 5010	RAL 7016	RAL 9005

Mechanical dock levellers

NovoDock L 150 and L 100 can be operated very easily via a lifting rod. Both dock levellers are mounted against the loading bay.

NovoDock L 150

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

NovoDock L 100

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

Technical data

Characteristics	L 150	L 100
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%.

NovoSeal S 620



Inflatable door shelter with modular structure

As part of the integrated loading solution, NovoSeal S 620 is automatically actuated.

After actuating the door OPEN switch, the bellows of the S 620 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 S 620 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

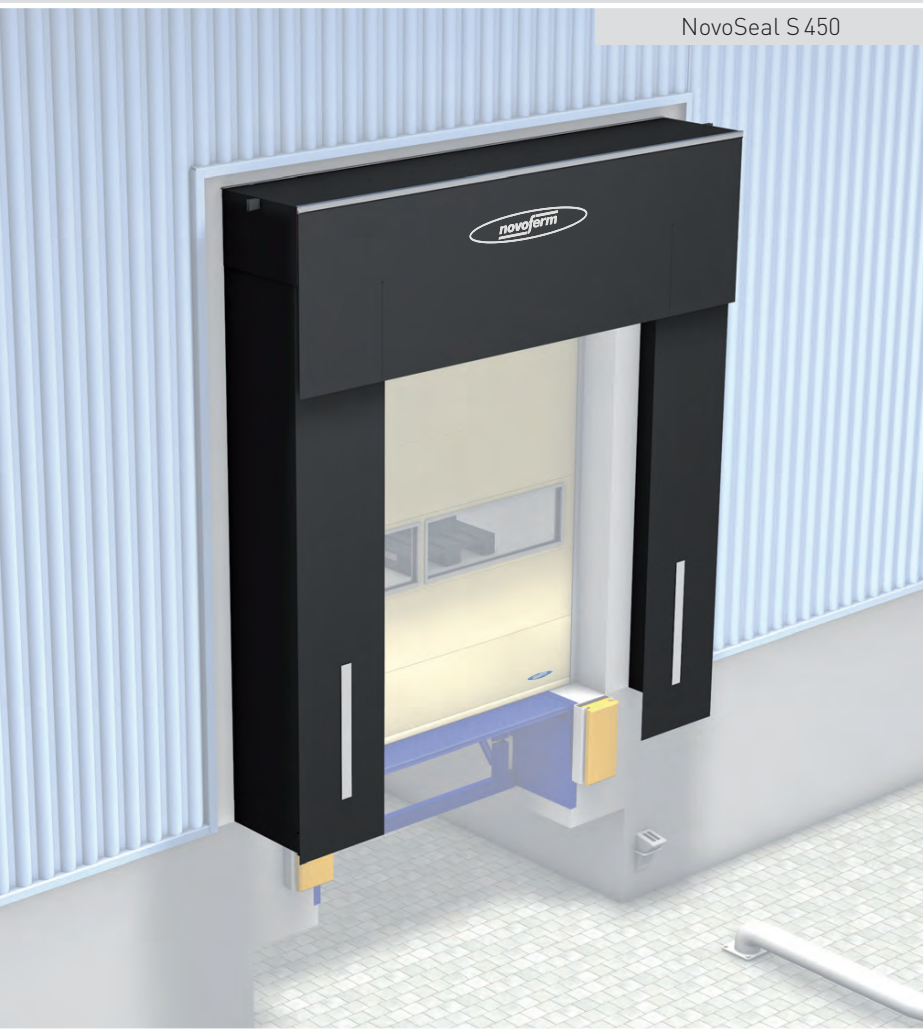
- Bellows made from PVC or especially supple Cordura®
- Perfect sealing
- Energy-saving
- Twin motors for fast and safe inflating
- Integrated elements of the loading solution

For further information on our dock shelter NovoSeal S 620, please refer to Novoferm product data sheets.

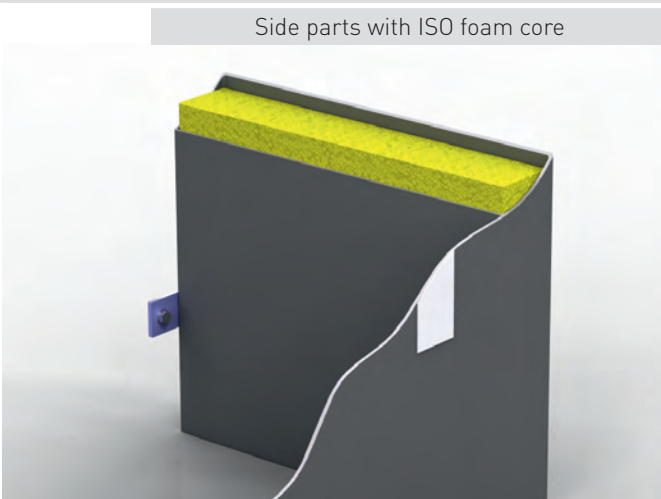
Technical data (mm)

NovoSeal	S 620
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 S 450



NovoSeal S 450



Side parts with ISO foam core



Damage-free lateral escape

Door seal with ISO foam core

Novoform 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 door seals 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.

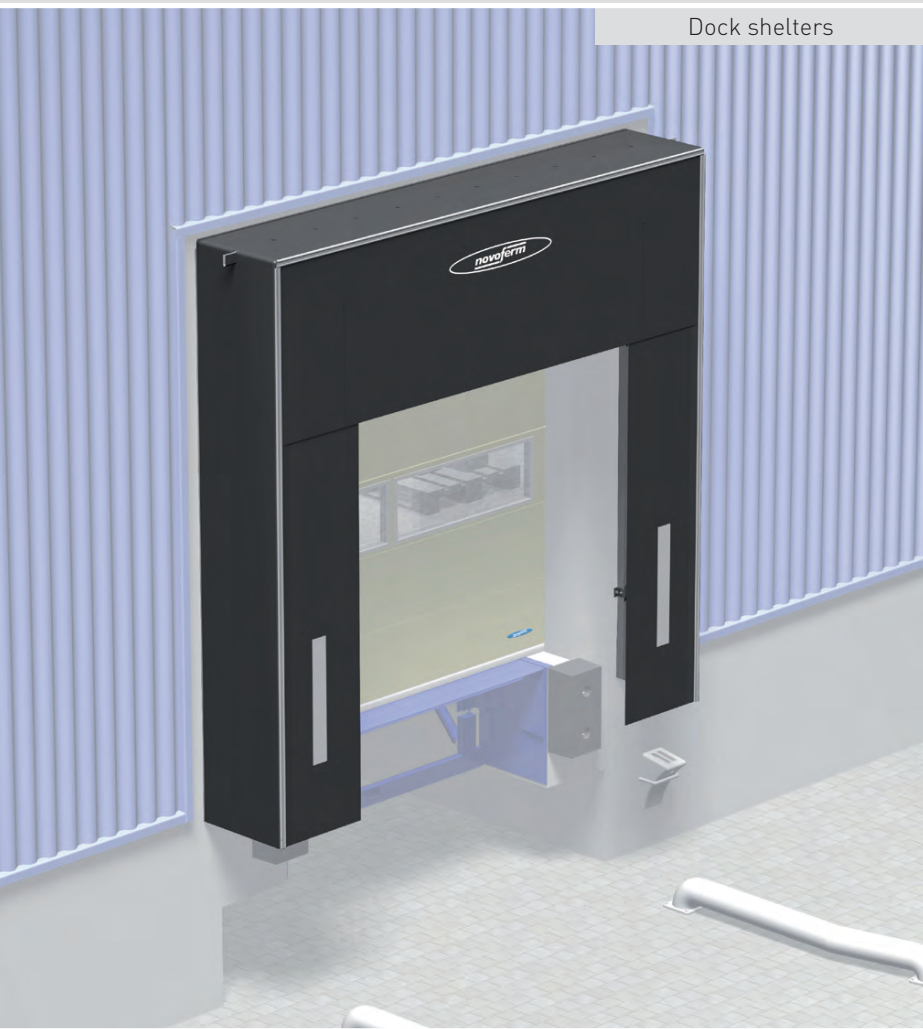
Product benefits

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

Technical data (mm)

NovoSeal	S 450
Width (NB)	3450
Height (NH)	3400
Depth (NT)	600
Width side curtain (SP)	600
Height top curtain (OP)	1000

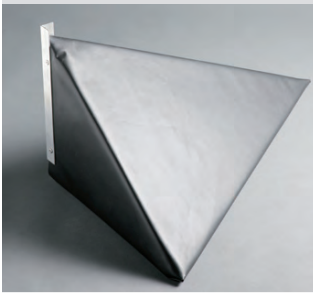
NovoSeal S 420



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.

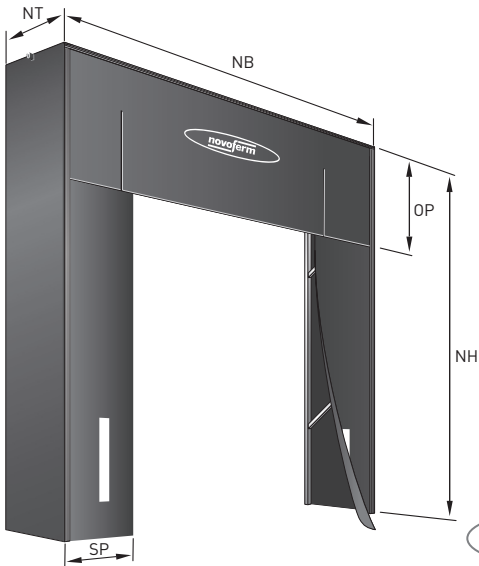
Product benefits

- Flexible roof construction
- Aluminium profile frame construction
- No visible screws on front side
- Built in rain water channel
- Universally usable

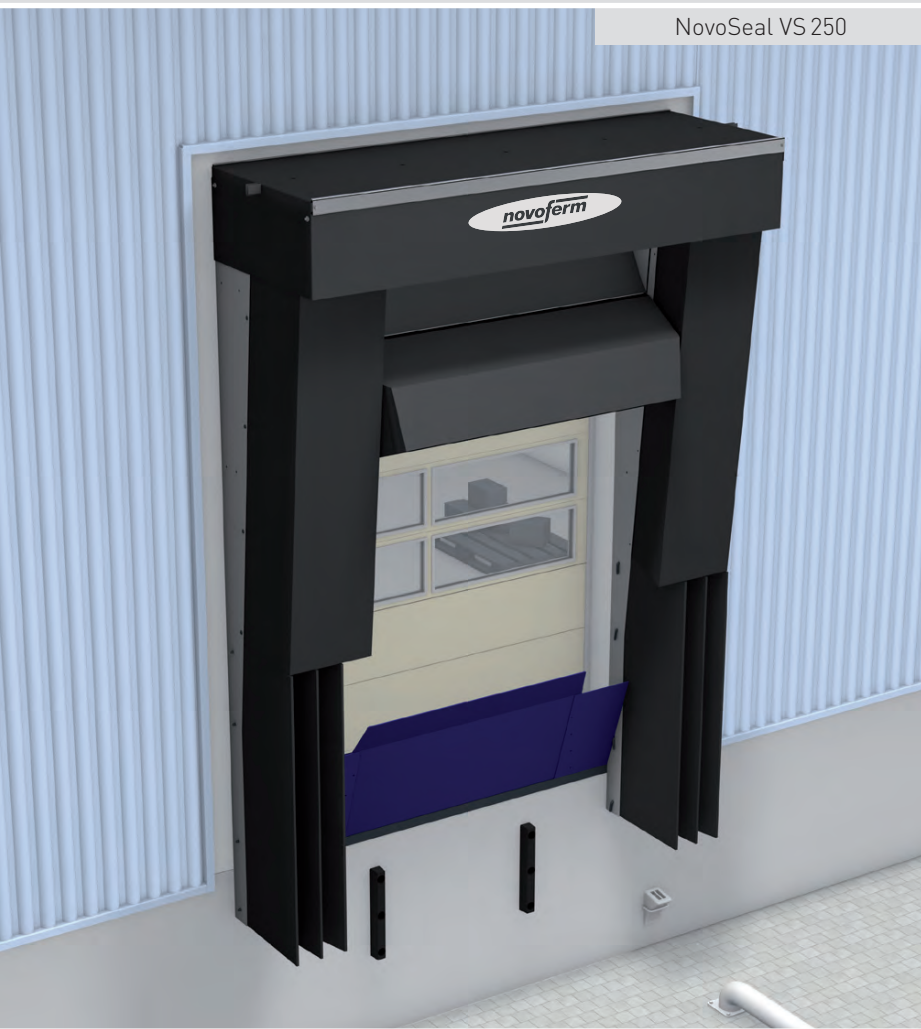
For further information on our dock shelter NovoSeal S 420, please refer to Novoform product data sheets.

Technical data (mm)

NovoSeal	S 420		S 420e
Width (NB)	3250, 3450		3450
Height (NH)	3200, 3400, 3600		3400
Depth (NT)	600		600
Width side curtain (SP)	600	700	600
with nominal width (NB)	3250	3450	-
Height top curtain (OP)	1000		900



NovoSeal VS 250 – For Cross Docking



NovoSeal VS 250



Custom door seal 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 VS 250 can optimally fulfil such requirements.

Product benefits

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

Technical data (mm)

NovoSeal	VS 250
Width (NB)	2050
Height (NH)	2850
Depth (NT)	700

NovoSeal S 220 and S 401



NovoSeal S 220

NovoSeal S 220 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 S 401

NovoSeal S 401 Niche seal

The NovoSeal S 401 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

Bumper systems



Rubber bumpers

Rubber impact bumper

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



Plastic bumpers

- Durable plastic mixture
- Ultra-flat design
- Spring deflection up to 10 mm



Spring steel bumpers

15 mm-spring steel bumpers, movably mounted

- Spring deflection up to 40 mm
- wear-free
- One or two bumper elements



Steel bumpers

with inside rubber core

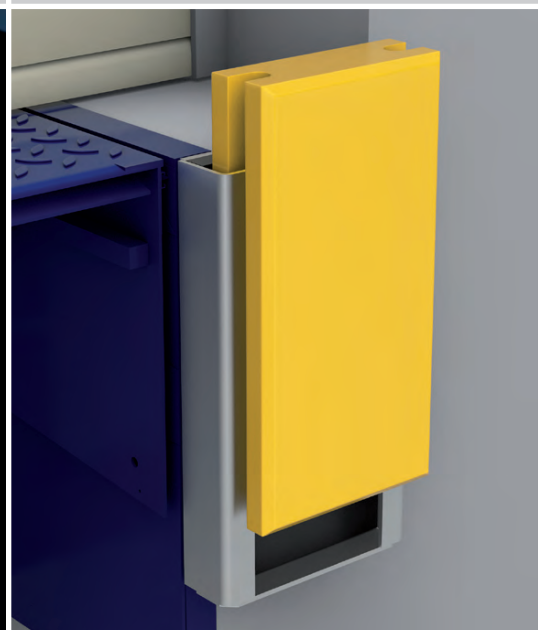
- Spring deflection up to 80 mm
- wear-free



Nytrex® bumpers

Bumpers made of high-strength yellow Nytrex®

- Lasts 7x longer than rubber



NovoSlider

- High-performance plastic in signal yellow
- Height-adjustable front part
- Spring deflection up to 25 mm
- Lasts 7x longer than rubber

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.

Building protection: Indicates to what extent the respective solution protects the building from impact damage.

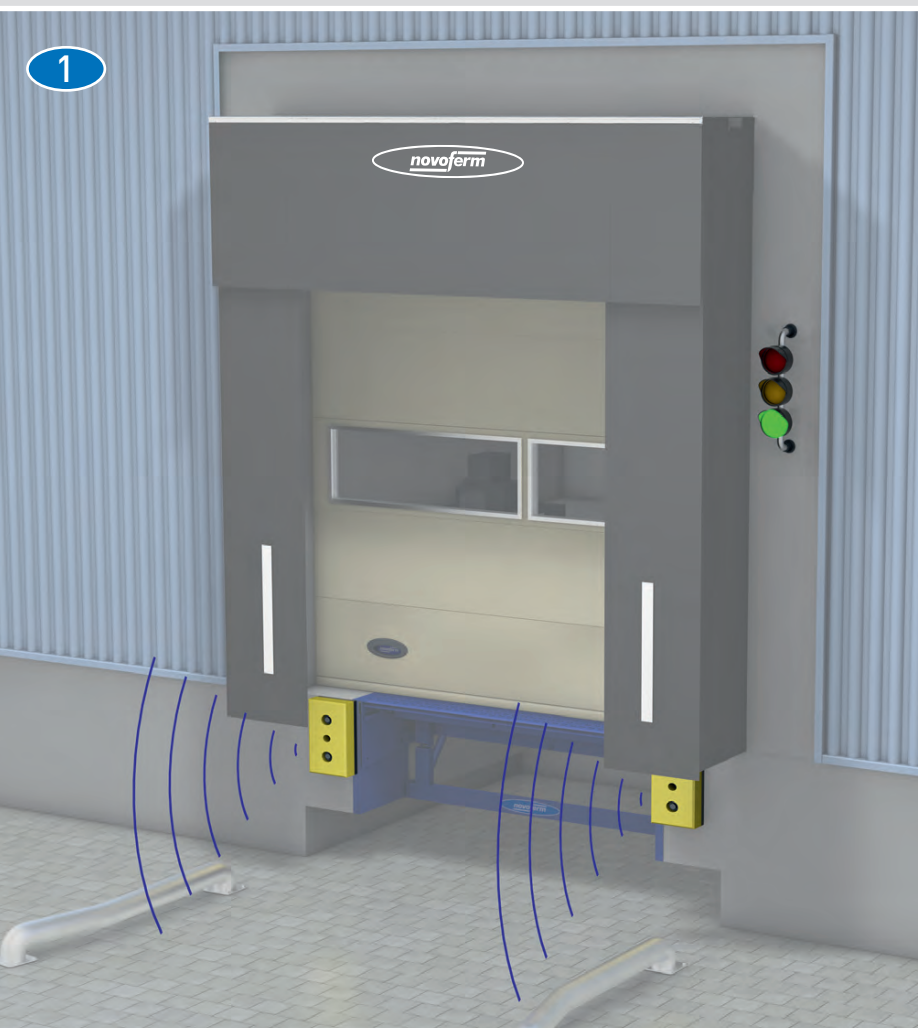
Durability: Information on relative durability in the case of correct use.

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.

Product	Design (mm)	Recommended for	Building protection	Durability	Spring deflection	Life Cycle Cost
Rubber bumpers	400 x 80 x 70	low loading frequency	★★★★★	★★★★★	★★★★★	★★★★★
	250 x 250 x 90 or 250 x 250 x 140	low loading frequency	★★★☆☆	★★★★★	★★★★★	★★★★★
	500 x 250 x 90 or 500 x 250 x 140	low to average loading frequency	★★★★★	★★★★★	★★★★★	★★★★★
Plastic bumpers	500 x 250 x 60 or 500 x 250 x 90	low to average loading frequency	★★★★★	★★★★★	★★★★★	★★★★★
Spring steel bumpers	Simplex, 1D	600 x 160 x 160 or 800 x 160 x 160	★★★★★	★★★★★	★★★★★	★★★★★
		TwinSet 800/600 600 x 160 x 160 and 800 x 160 x 160	★★★★★	★★★★★	★★★★★	★★★★★
	Premium, 2D	600 x 160 x 100	★★★★★	★★★★★	★★★★★	★★★★★
		600 x 160 x 160 or 800 x 160 x 160	★★★★★	★★★★★	★★★★★	★★★★★
		TwinSet 800/600 600 x 160 x 160 and 800 x 160 x 160	★★★★★	★★★★★	★★★★★	★★★★★
Steel bumpers	AZPK	500 x 250 x 140 or 800 x 250 x 140	★★★★★	★★★★★	★★★★★	★★★★★
		TwinSet 800/500 500 x 250 x 140 and 800 x 250 x 140	★★★★★	★★★★★	★★★★★	★★★★★
	AZJ	500 x 250 x 210 or 800 x 250 x 210	★★★★★	★★★★★	★★★★★	★★★★★
		TwinSet 800/500 500 x 250 x 210 and 800 x 250 x 210	★★★★★	★★★★★	★★★★★	★★★★★
Nytrex® bumpers	500 x 250 x 80 or 500 x 250 x 110 or 500 x 250 x 140	high loading frequency	★★★★★	★★★★★	★★★★★	★★★★★
NovoSlider	500 x 250 x 140	high loading frequency	★★★★★	★★★★★	★★★★★	★★★★★

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

- Electronic drive system
- High-performance plastic in signal yellow
- Distance measurement (Lorry – Building) with display via exterior traffic lights

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.

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 standard light bulbs or LED lamps that 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.



Loading 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 70-watt halogen bulbs
- Design with 20-watt LED floodlights

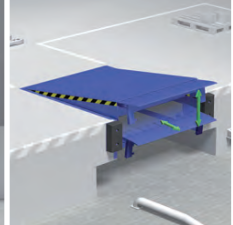


Trailer Wheel guides

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.

Technical data – Dock levellers



Product characteristics		L 730i	L 550i
Option Packs	with telescopic lip	●	●
	with hinged lip		
	ISO-Dock	●	
	Green ^{Plus}	●	●
	Ergo ^{Plus}	●	
	Iso ^{Plus}		○
	Door ^{Plus}	○	○
	Safety ^{Plus}	○	○
	Warranty ^{Plus}	○	○
Nominal load according to EN 1398 in kN		60	100
Nominal lengths (NL) in mm		2000, 2500, 3000	2000, 2500, 3000, 3500, 4000, 4500
Nominal widths in mm		2000, 2250	2000, 2250, 2400
Pit depths	600 mm		
	700 mm		up to 2500 mm (NL)
	800 mm/830 mm*	up to 2500 mm (NL)	at 3000 mm (NL)
	900 mm	at 3000 mm (NL)	from 3500 mm (NL)
Telescopic lip / hinged lip length in mm		● 700/○ 1000	500
Power supply		3 N~ 400 V/50 Hz/16 A	3 N~ 400 V/50 Hz/16 A
Protection class		IP 65	IP 65
Motor rating in kW		max. 1,5	max. 1,5
Construction characteristic	Platform tear plate in mm	8/10	10/12
	Telescopic lip tear plate in mm	12/14	15/17
Bridging values upwards/downwards (telescopic lip 1000 mm)	Nominal length 2000, Pit depths 600		
	Nominal length 2000, Pit depths 700/830*	430/440	300/400
	Nominal length 2500, Pit depths 600		
	Nominal length 2500, Pit depths 700/830*	500/390	300/400
	Nominal length 3000, Pit depths 600		
	Nominal length 3000, Pit depths 700		
	Nominal length 3000, Pit depths 800/900*	550/440	370/400
	Nominal length 3500, Pit depths 800		
	Nominal length 3500, Pit depths 900		450/400
	Nominal length 4000, Pit depths 900		450/400
	Nominal length 4500, Pit depths 900		450/400
maximum admissible inclination according to EN 1398		12,5 %	12,5 %
Control		Novo i-Vision	Novo i-Vision
Novo i-Vision model		● TA ○ TAD	● TA ○ TAD
Novoferm Communication Interface (NCI)		●	●
Colours	RAL 5010 (gentian blue)	●	●
	RAL 7016 (charcoal grey)	●	●
	RAL 9005 (black)	●	●
	more RAL colour shades	○	○

● Standard

○ Option

* L 730i only

L 530i	L 350i	L 330i	P 1530i	P 1330i	L 150	L 100
●			●			
	●	●		●	●	●
●	●	●	●	●		
●			●			
○	○	○	○	○		
○	○	○	○	○		
○	○	○	○	○		
○	○	○	○	○		
60	100	60	60	60	60	60
2000, 2500, 3000, 3500, 4000, 4500	2000, 2500, 3000, 3500, 4000, 4500	2000, 2500, 2750, 3000, 3500, 4000, 4500	2000, 2500 (2440), 3000, 3500, 4000, 4500	2000, 2500 (2440), 3000, 3500, 4000, 4500	1500, 1750, 2000	400
2000, 2250, 2400	1750, 2000, 2250	1750, 2000, 2100, 2250	2000, 2250	1750, 2000, 2250	1500, 1750, 2000	1750, 2000, 2200
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)	up to 2500 mm (NL)	up to 3000 mm (NL)		
at 3000 mm (NL)	at 3500 mm (NL)	at 3500 mm (NL)	at 3000 mm (NL)	at 3500 mm (NL)		
from 3500 mm (NL)	from 4000 mm (NL)	from 4000 mm (NL)	from 3500 mm (NL)	from 4000 mm (NL)		
● 500/○ 1000	400	● 400/○ 500	● 500/○ 1000	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		
IP 65	IP 65	IP 65	IP 65	IP 65		
max. 1,5	max. 1,5	max. 0,75	max. 1,5	max. 0,75		
8/10	8/10	6/8	8/10	6/8	6/8	4/6
12/14	15/17	12/14	12/14	12/14	12/14	12/14
310 (380)/290 (330)	250/270	250/290				
340 (430)/380 (440)	290/340	290/340	340 (430)/380 (440)	290/340		
420 (490)/250 (270)	310/240	310/270				
430 (500)/350 (390)	360/330	360/330	430 (500)/350 (390)	360/330		
360 (420)/220 (240)	360/230	360/270				
370 (430)/300 (330)	430/320	430/330		430/330		
460 (550)/400 (440)			460 (550)/400 (440)			
	500/320	520/350		520/350		
480 (540)/400 (420)			480 (540)/400 (420)			
520 (570)/420 (460)	550/330	570/350	520 (570)/420 (460)	570/350		
550 (600)/370 (380)	600/340	620/350	550 (600)/370 (380)	620/350		
12,5 %	12,5%	12,5 %	12,5 %	12,5 %	12,5 %	12,5 %
Novo i-Vision	Novo i-Vision	Novo i-Vision	Novo i-Vision	Novo i-Vision	Operating rod	Operating rod
● TA ○ TAD	● HA	● HA ○ HAD	● TA ○ TAD	● HA ○ HAD		
●	●	●	●	●		
●	●	●	●	●	●	●
●	●	●	●	●	●	●
●	●	●	●	●	●	●
○	○	○	○	○	○	○

Installation methods



Installation of the dock leveller with the EX installation method



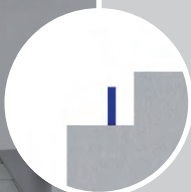
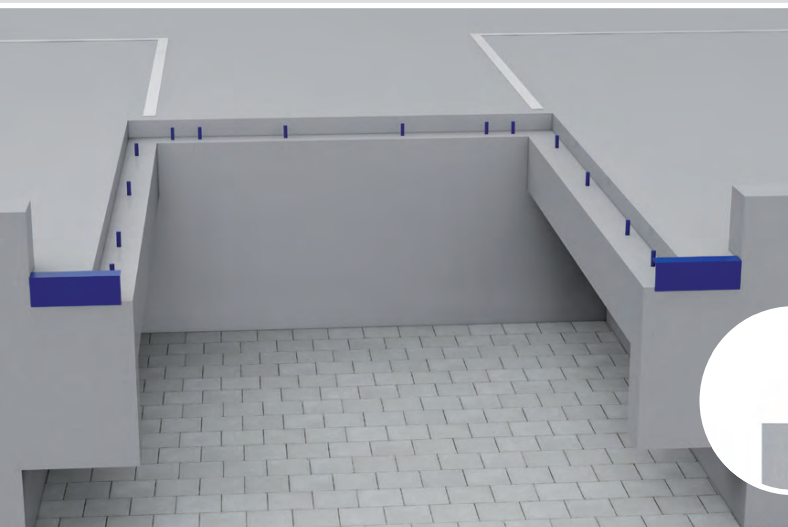
AX – Replacement solution for welding

In this method, the bridge 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 bridges whereby the frame of the old bridge can remain in the floor. In most cases, replacement can be effected within one day.



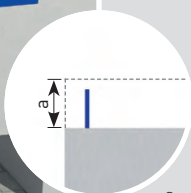
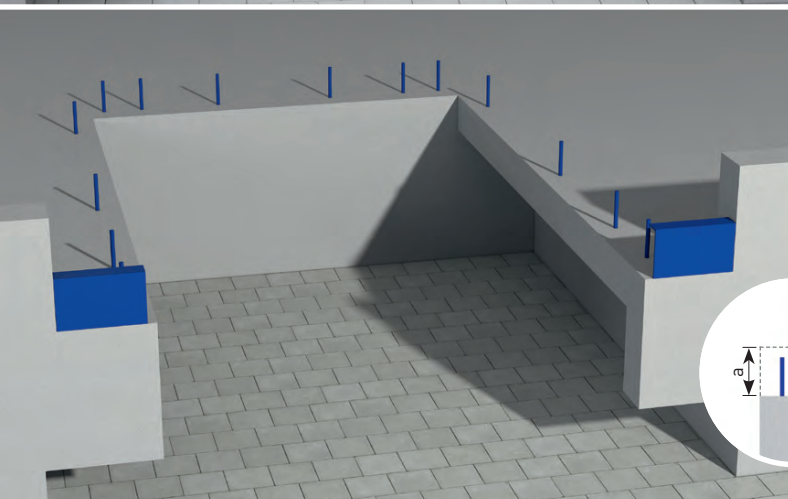
BX – Precast frame for welding

The bridge 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 bridge. The bridge can then be supplied and installed at another point in time.



CX - Bridge frame for concrete-casting

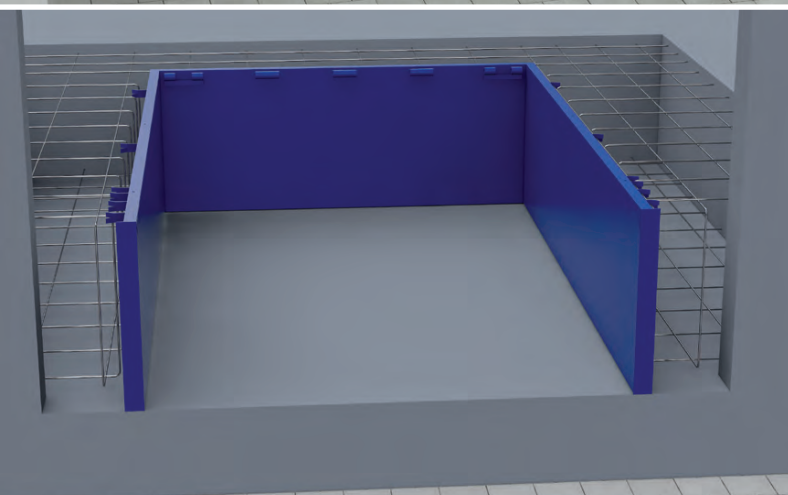
In this variant, there are wall anchors attached to the bridge frame which are welded to the on-site concrete steel dowels before being concrete-cast. In this option, the pour height is max. 110 mm. The advantage of this option is the easily realised pit. In addition, the hall floor can be fully completed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



DX - Bridge frame for higher concrete-casting

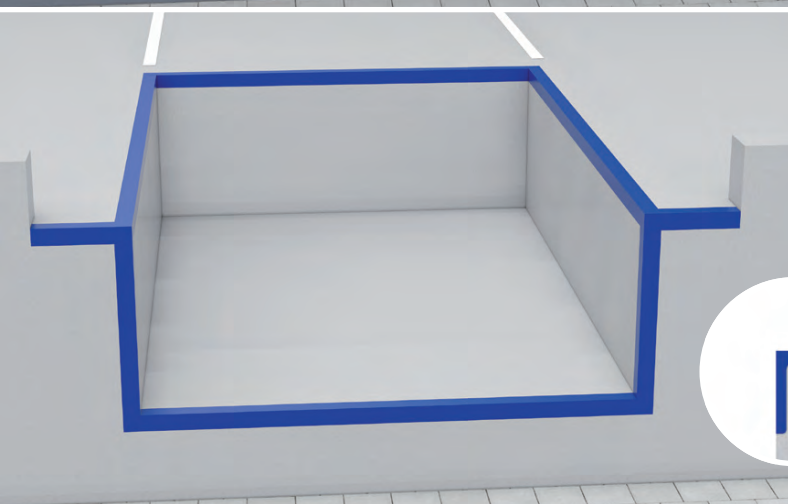
This model is very similar to the previously described method CX; the only difference is the pour height. The increased frame is supplied with lateral and back jack screws. In this variant, floor constructions of 100 - 250 mm can be covered. This method is frequently used for large quantities and for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

$a = 100 \text{ up to } 250 \text{ mm (pour height)}$



EX - 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 bridge 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 bridges in existing buildings and finished floors.



FX - Pit model as standing model

In this model, the bridge is welded to the steel profiles available in the pit floor in the front area. The bridge leans on the pit floor and/or in the case of adjustable bridges 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 bridges that are not adjustable.

Replacement solutions

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

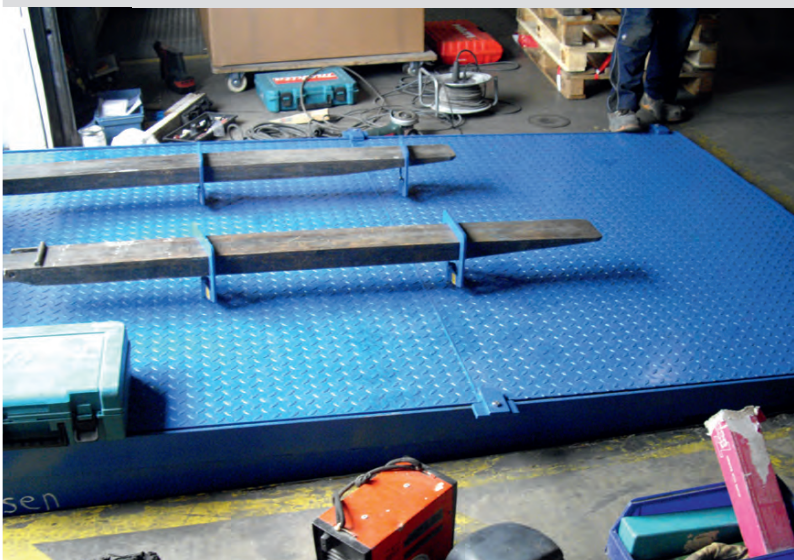
1

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.



Additional Novoferm industrial products



NovoDoor Solutions

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.



Rolling doors and roller grilles

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

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.



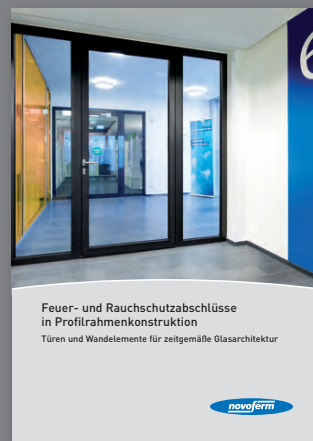
Steel doors

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.



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.



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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