

NovoDock L730i

ISO dock levellers with high energy efficiency





NovoDock L730i open



NovoDock L730i closed



The loading system for temperature-controlled warehouses and logistics halls

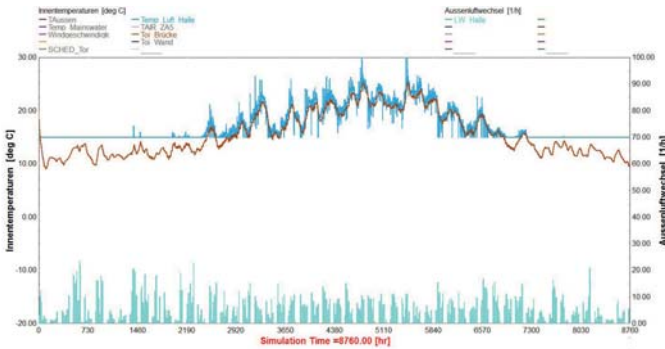
Product characteristics

- Green Solution Product
- Completely insulated, encapsulated design
- ISO dock leveller model: impact forces are guided into the foundation slab
- Completely insulated, even during loading
- Green^{Plus} package standard – up to 70 % energy savings
- Ergo^{Plus} package standard
- NCI on board
- Tail lift recess

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

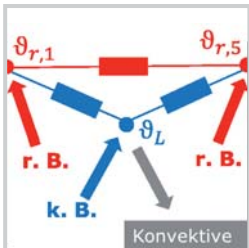
The heating energy consumption was reduced by 40%.



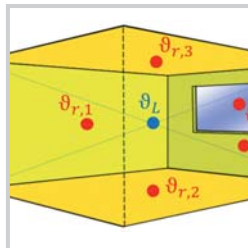
When the proven TRNSYS and TRNFLOW programs are also used, thermal building and airflow models are generated under **realistic conditions**.

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

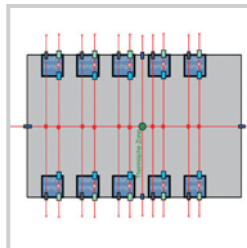
Study series:



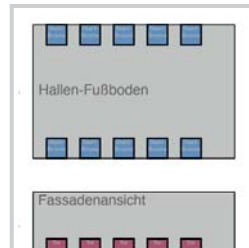
Calculation of heat transfer



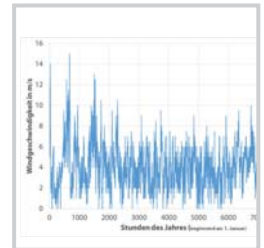
Calculation of surface and room temperature



Ventilation model for thermal coupling



Logistics hall, 30x20x10 m (reference building)



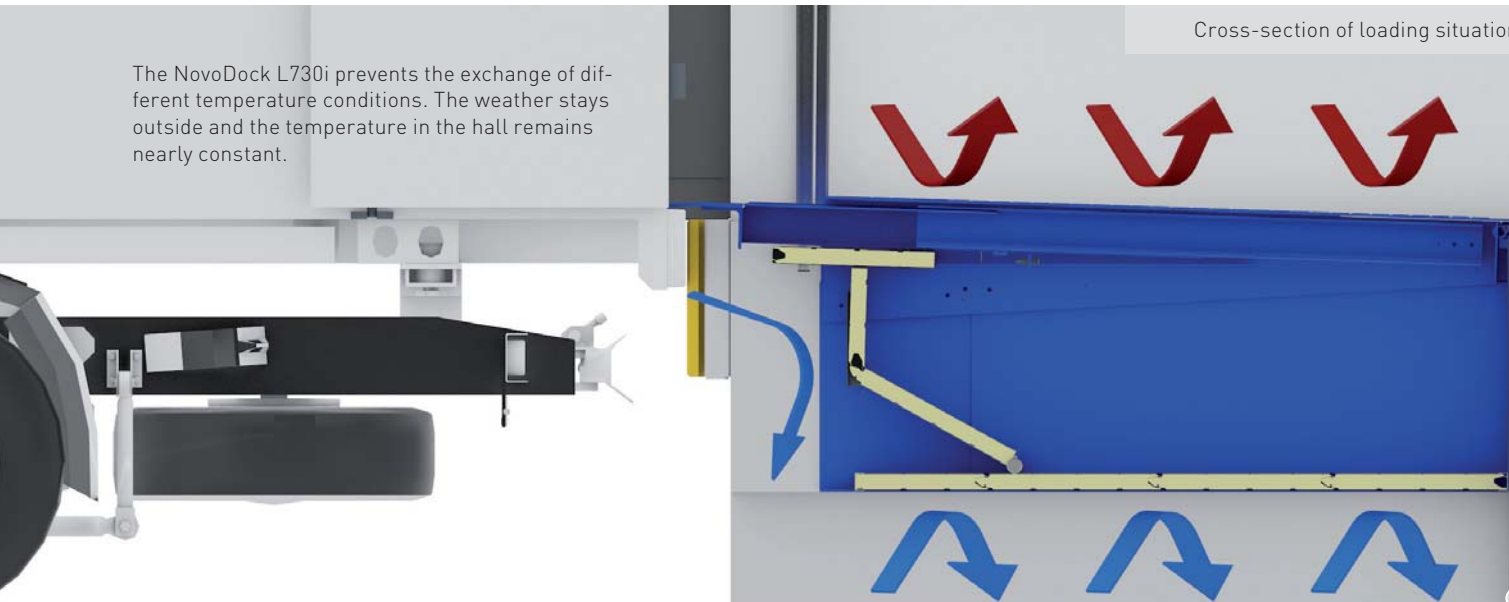
Weather data for Potsdam (reference site)

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

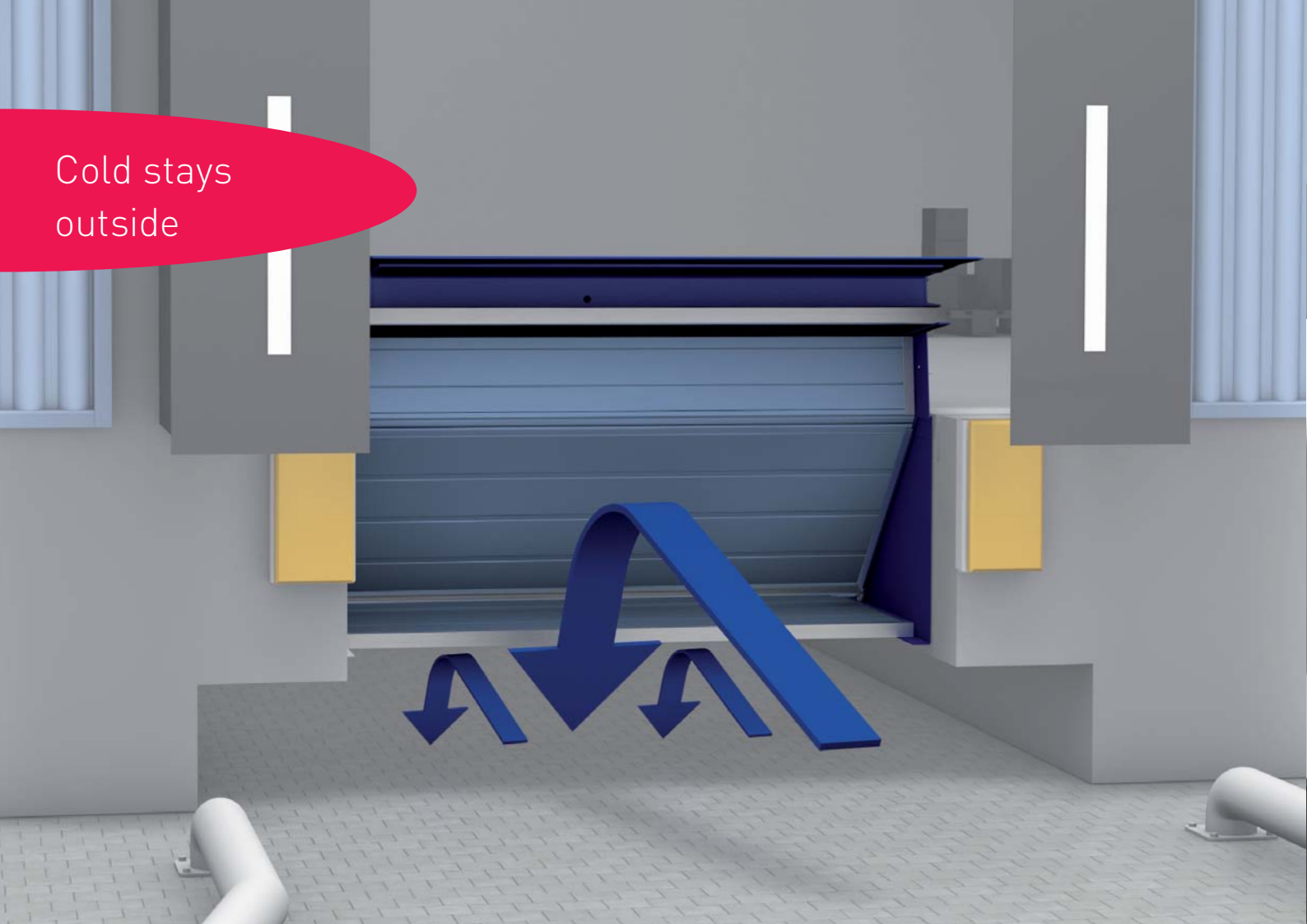
	Annual heating requirement in kWh/a	
Hall without docking stations	10.392	
Hall with NovoDock L730i	40.222	approx. 40% savings
Hall with standard dock levellers	70.222	

The NovoDock L730i prevents the exchange of different temperature conditions. The weather stays outside and the temperature in the hall remains nearly constant.



Cross-section of loading situation

Cold stays
outside



NovoDock L730i – the ideal ISO dock leveller

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.

Insulation against heat and cold loss

The unique design of the NovoDock L730i ensures the best possible insulation of the loading area at all times. Even during loading, drafts cannot come under the dock leveller, thus preventing a thermal bridge.

Sustainability and energy savings

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

Ergonomics saves costs

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

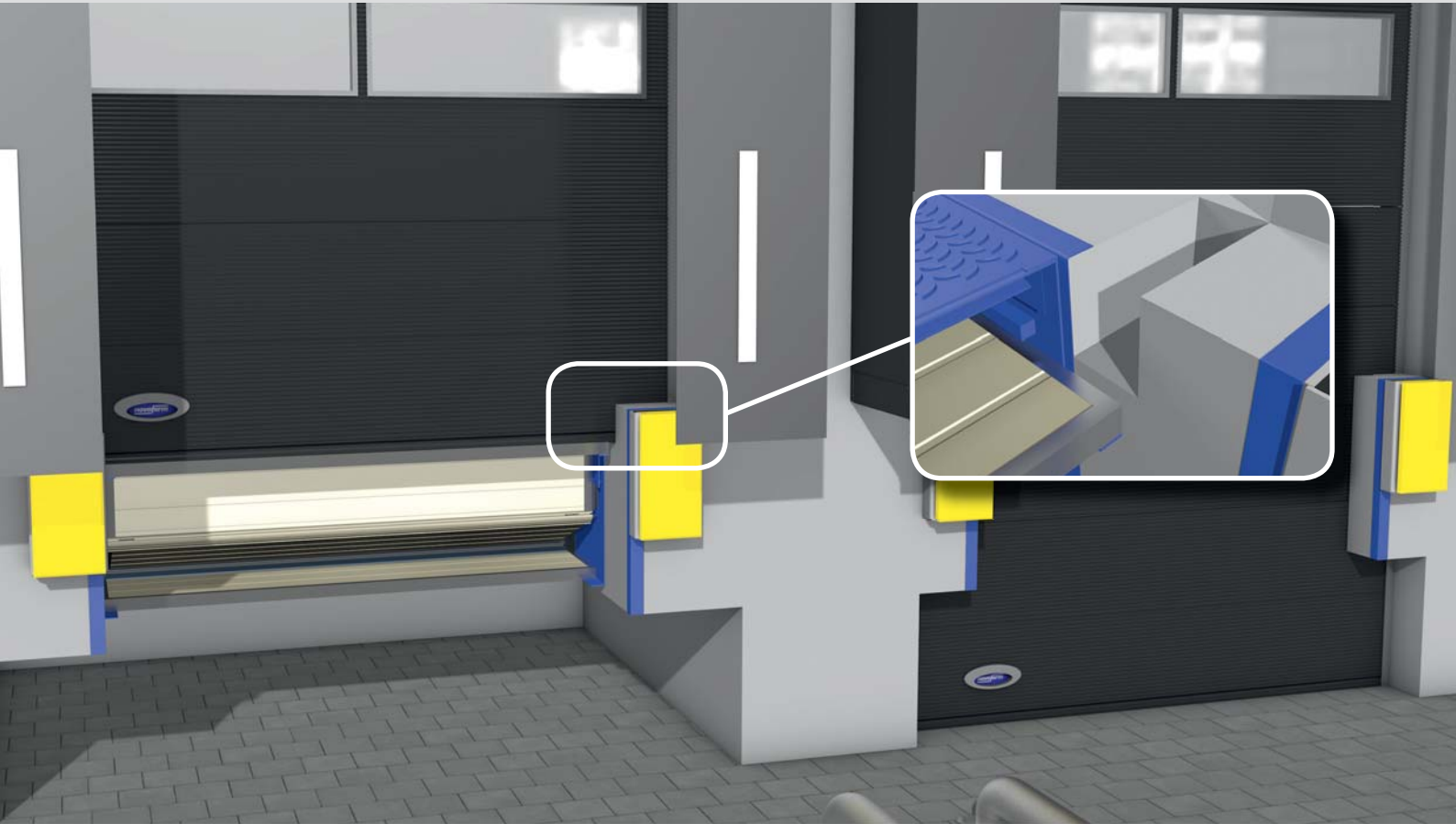
Increased efficiency through automation

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

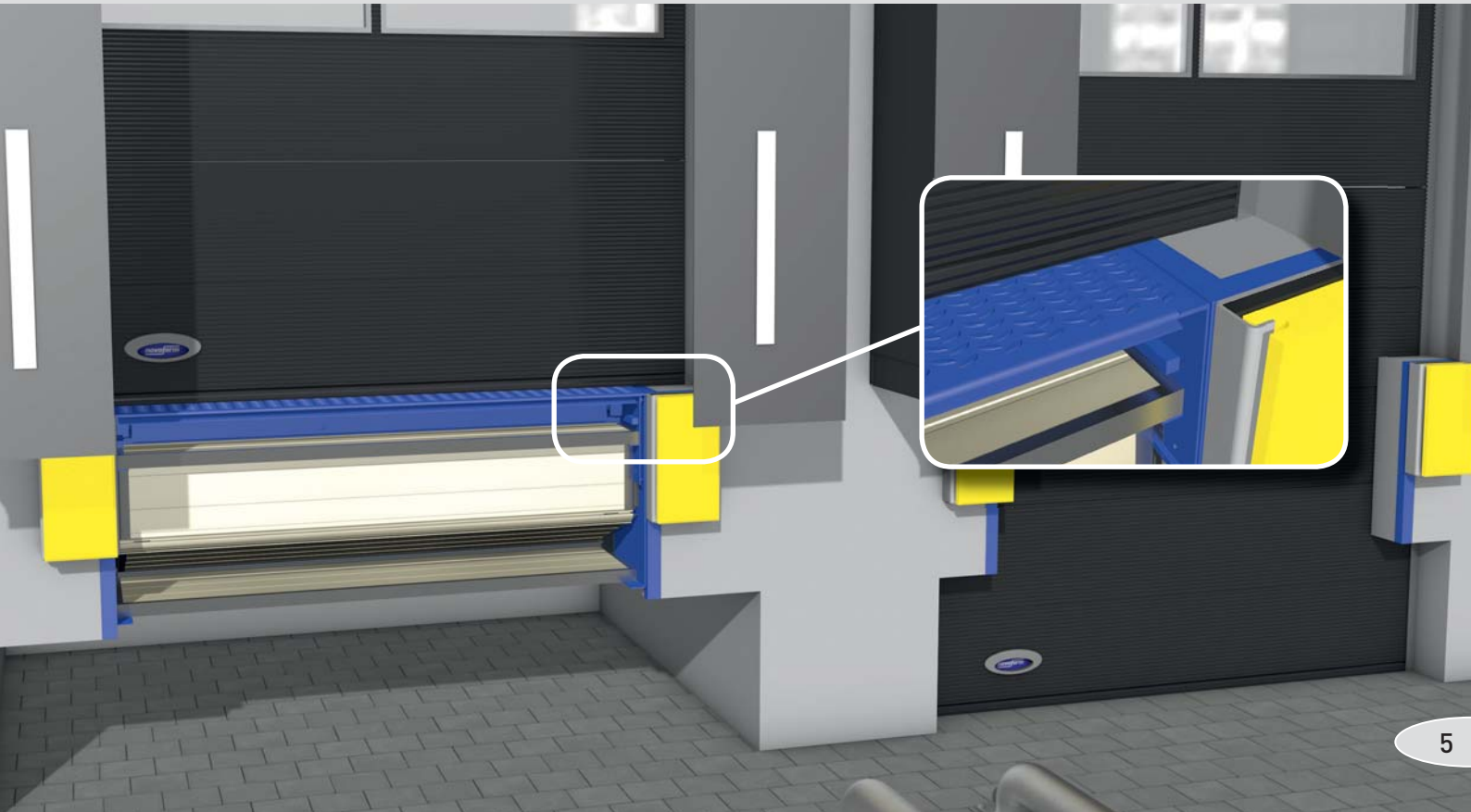
The future is already on board

The integrated Novoferm Communication Interface (NCI) provides over 50 key parameters. The Novo i-Vision Visual Software (option) lets you evaluate the data for efficient loading.

NovoDock L730i for ISO pits



NovoDock L730i for standard pits

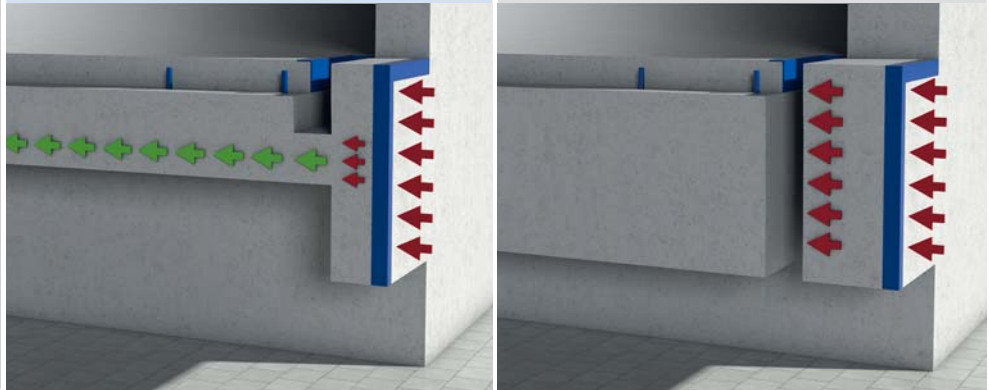


NovoDock L730i for ISO pits

Since the impact forces can be guided directly into the foundation slab of the building, the design of the pit can be designed much more simply compared to conventional ISO dock levellers.

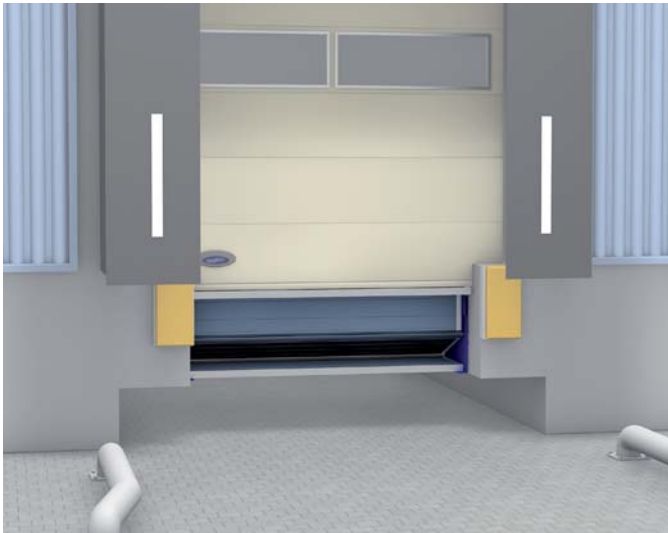
Advantages compared to a conventional ISO dock leveller

Features	NovoDock L730i	Conventional ISO dock leveller
Pit preparation	simple	difficult
Tail lift recess	accessible at any time	accessible only when the gate is open
Insulation during loading	at all times	no
Green ^{Plus} package	up to 70% lower energy requirement	no
Door ^{Plus} package	door, dock leveller, TAD and equipment are controlled using just one controller	no – different controllers necessary
Impact forces	guided directly into the foundation slab	elaborate, massive ice wall required



NovoDock L730i

The NovoDock L730i is delivered as a pre-assembled compact solution that is ready to install. Quick and safe installation is thus guaranteed.



Setup

The NovoDock L730i consists of the following:

- a self-supporting frame
- a platform with an integrated feed on roller bearings
- a hydraulic system for moving the platform and the feed
- an encapsulated insulation package
- a Novo i-Vision TA control unit

Surface

All steel construction parts are painted in RAL 5010 (gentian blue), RAL 7016 (charcoal grey) or RAL 9005 (black). The panels are RAL 9002 (gray white). To ensure an optimal corrosion protection, all steel parts are first sandblasted and then coated with two-component paint that meets the VOC Decopaint standards.

Hydraulic drive

With a middle-pressure hydraulic system, the dual lift cylinders for the platform and the telescopic lip cylinder are controlled independently.

Control and operation

The dock leveller is operated via the control system type Novo i-Vision TA included as standard. The components of the control system are RoHScompliant (unleaded).



Novo i-Vision TA



Novo i-Vision TAD (option)

Safety devices

- Hydraulic emergency stop
- Stopping all movements in case of a power failure
- After a power failure, the control must first be reset.
- Due to the twisting of the platform, it is also ensured that the telescopic lip is lying flat even in the case of an uneven loading. This prevents steps or tripping hazards from forming.
- Lateral, yellow-black hazard warning markers
- Maintenance strut

Technical data

Nominal load according to EN 1398 60 kN
 Nominal widths 2000, 2250 mm
 Telescopic lip lengths for ISO pit 700/1000 mm
 Telescopic lip lengths for standard pit 500/700/1000 mm

Nominal lengths (mm)	Nominal heights (mm)	Telescopic lip lengths and operational Range (mm)					
		Telescopic lip 500		Telescopic lip 700		Telescopic lip 1000	
		↑	↓	↑	↓	↑	↓
2000	830	320	340	350	370	400	400
2500	830	370	310	400	370	430	370
3000	830	310	310	340	330	370	350
	900	370	350	400	370	430	400

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

Power supply 3 N~ 400 V/50 Hz/16 A
 Protection rating IP 65
 Motor rating max. 1,5 kW

Construction characteristics platform material thickness 8/10 mm
 telescopic lip material thickness 12/14 mm

Work needed in preparation for the installation

This depends on the preferred installation method. Please request our technical data sheets.

Option packs

The following option packs are available for an easy configuration of the dock leveller according to your needs and requirements:

Standard

Green^{Plus} reduction of power consumption and CO² consumption
 Ergo^{Plus} protects your health and goods in transit; reduces costs

Optional

Door^{Plus} Door and dock leveller controls in one integrated control panel
 Safety^{Plus} Additional safety through traffic light systems

For further information, please check the Option Packs data sheet.

Options/Accessories

- Painting of the steel structure parts and/or panels in the RAL color of your choice
- hot-dip galvanized
- Interlocking of door and dock leveller
- Tapered telescopic lip for narrow HGV trailers
- Retracting segments (Ergo^{Plus} package not necessary)
- large selection of steel, rubber and plastic impact buffers
- connection of wheel chock and traffic light systems
- different installation methods (frame types)
- Antislip protection with noise reduction
- Bio oil
- low temperature oil

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