



NOVA
INDUSTRIAL
SERVICES LTD.



GREEN SOLUTION 

GreenPlus ErgoPlus DoorPlus



SafetyPlus



NOV010

ISO DOCK LEVELLERS WITH HIGH
ENERGY EFFICIENCY



THE LOADING SYSTEM FOR TEMPERATURE-CONTROLLED WAREHOUSES AND LOGISTICS HALLS

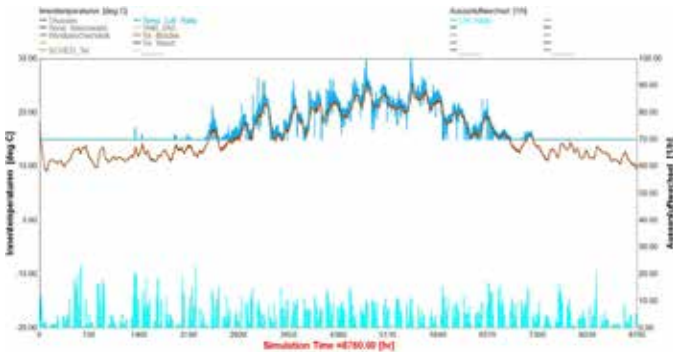
Product features

- 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 NOV010 compared to a conventional dock leveller.

The heating energy consumption was reduced by 40%.



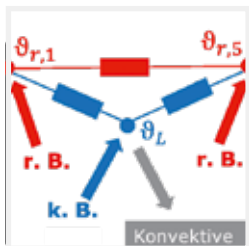
When the proven TRNSYS and TRNFLOW programs are also used, thermal building and airflow models are generated under realistic conditions. The study proved the heat-related behavior of logistics buildings and the energy efficiency of dock leveller encapsulation.

The following assumptions were made for the calculation:

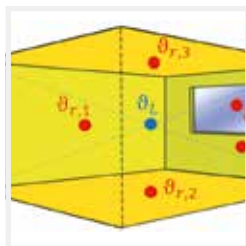
- Logistics hall, current standard, room temperature of 15° C
- 4 loading events per loading bay each day, 5 days a week
- In 75% of the cases, loading takes place on both sides at the same time
- Average duration of loading: 30 min

	Annual heating requirement in kWh/a	
Hall without docking stations	10.392	
Hall with NOV010	40.222	approx. 40 % savings
Hall with standard dock levellers	70.222	

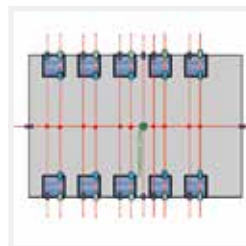
Study series:



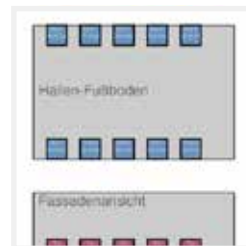
Calculation of heat transfer



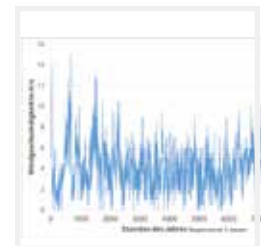
Calculation of surface and room temperature



Ventilation model for thermal coupling

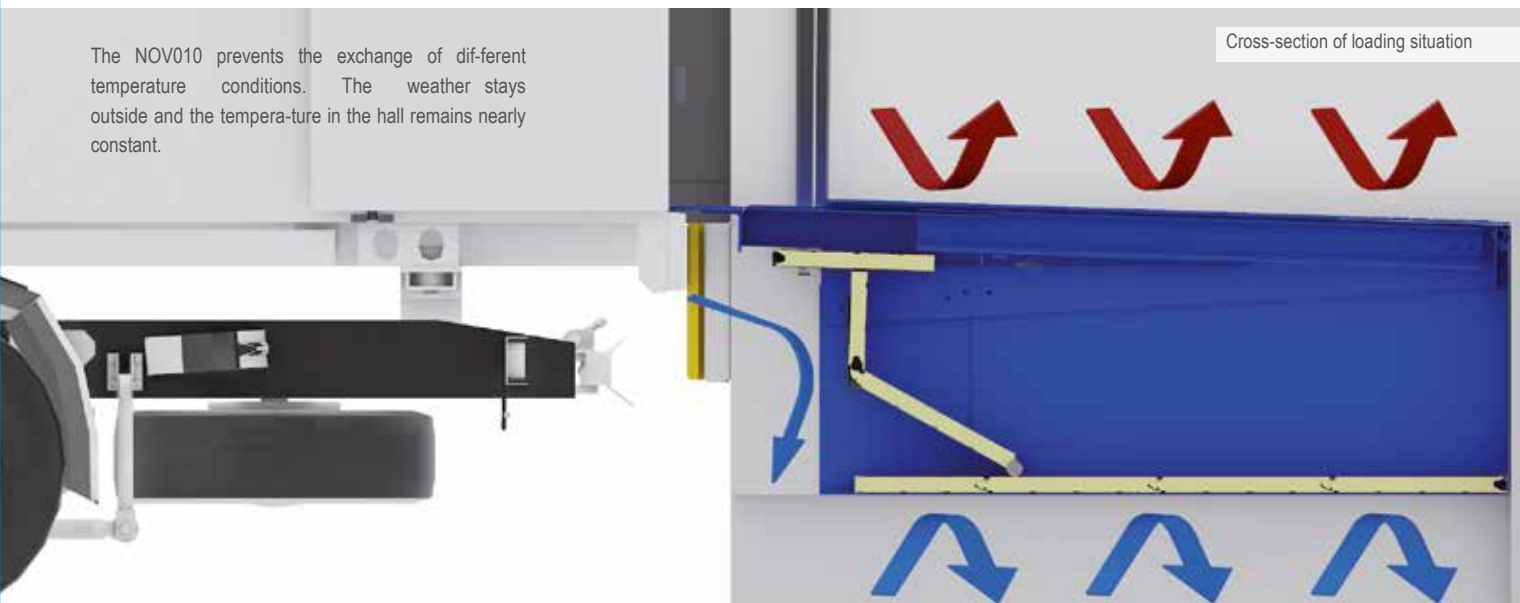


Logistics hall, 30x20x10 m (reference building)



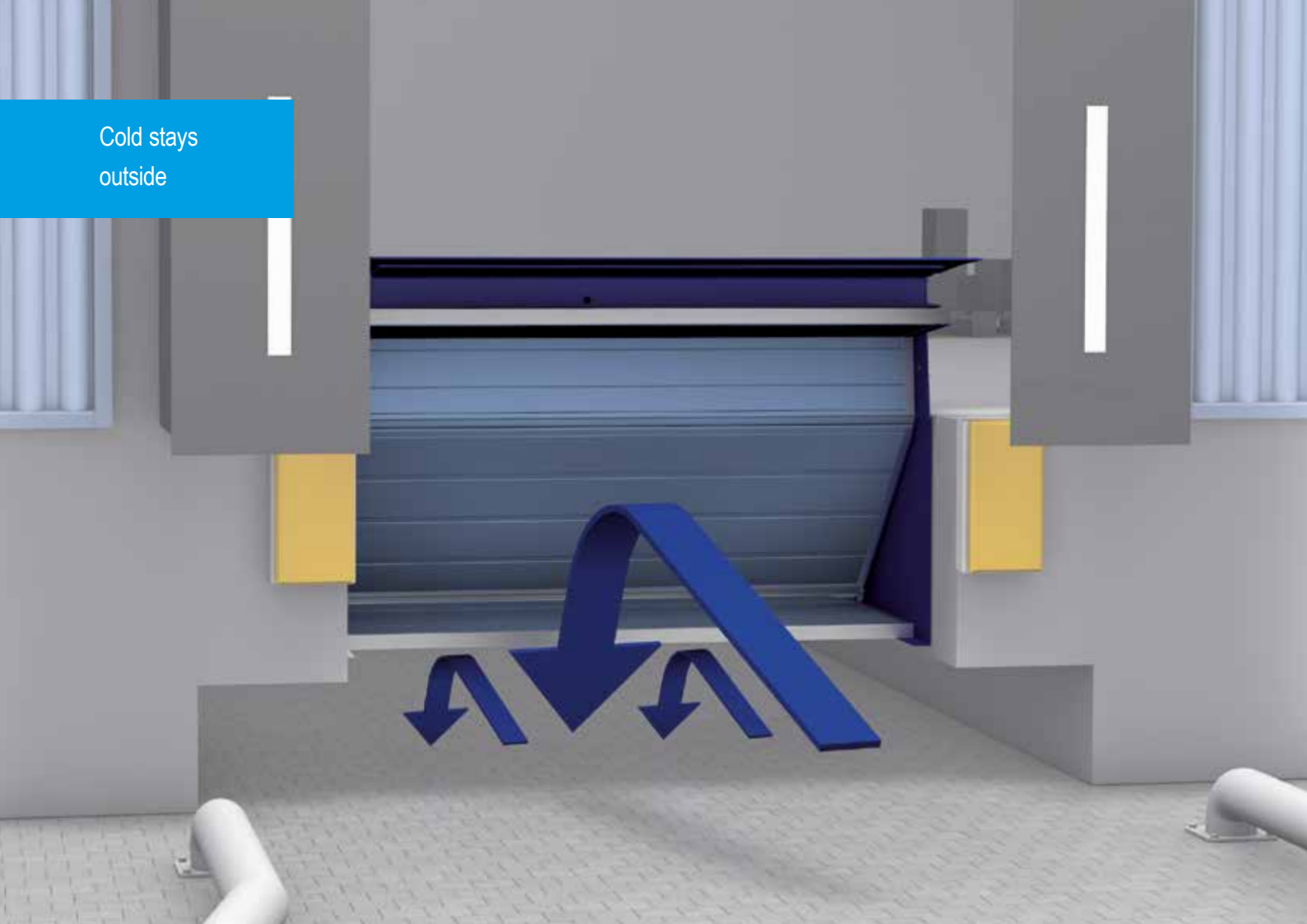
Weather data for Potsdam (reference site)

The NOV010 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



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 NOV010 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 NOV010 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.

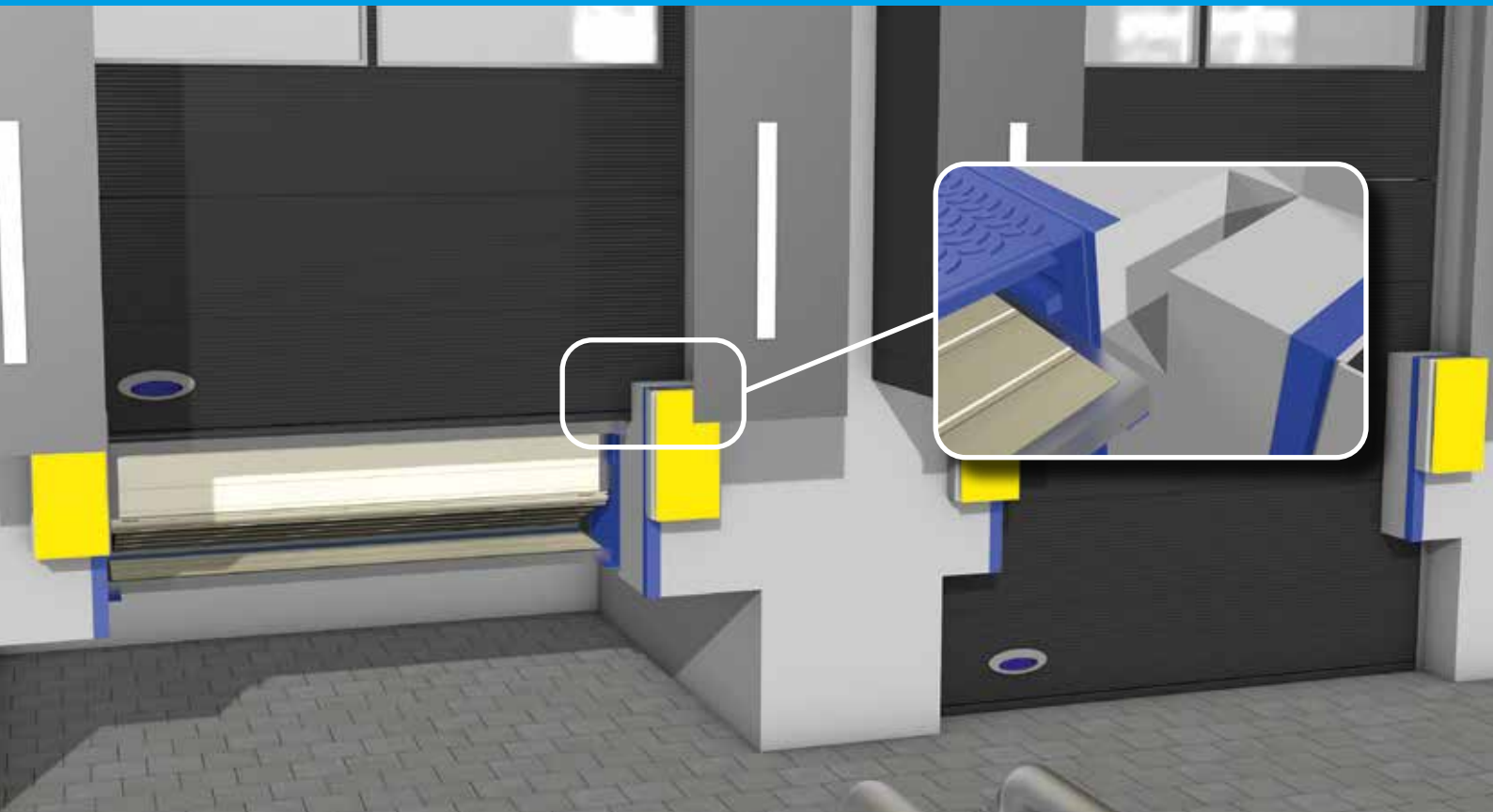
Increased efficiency through automation

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.

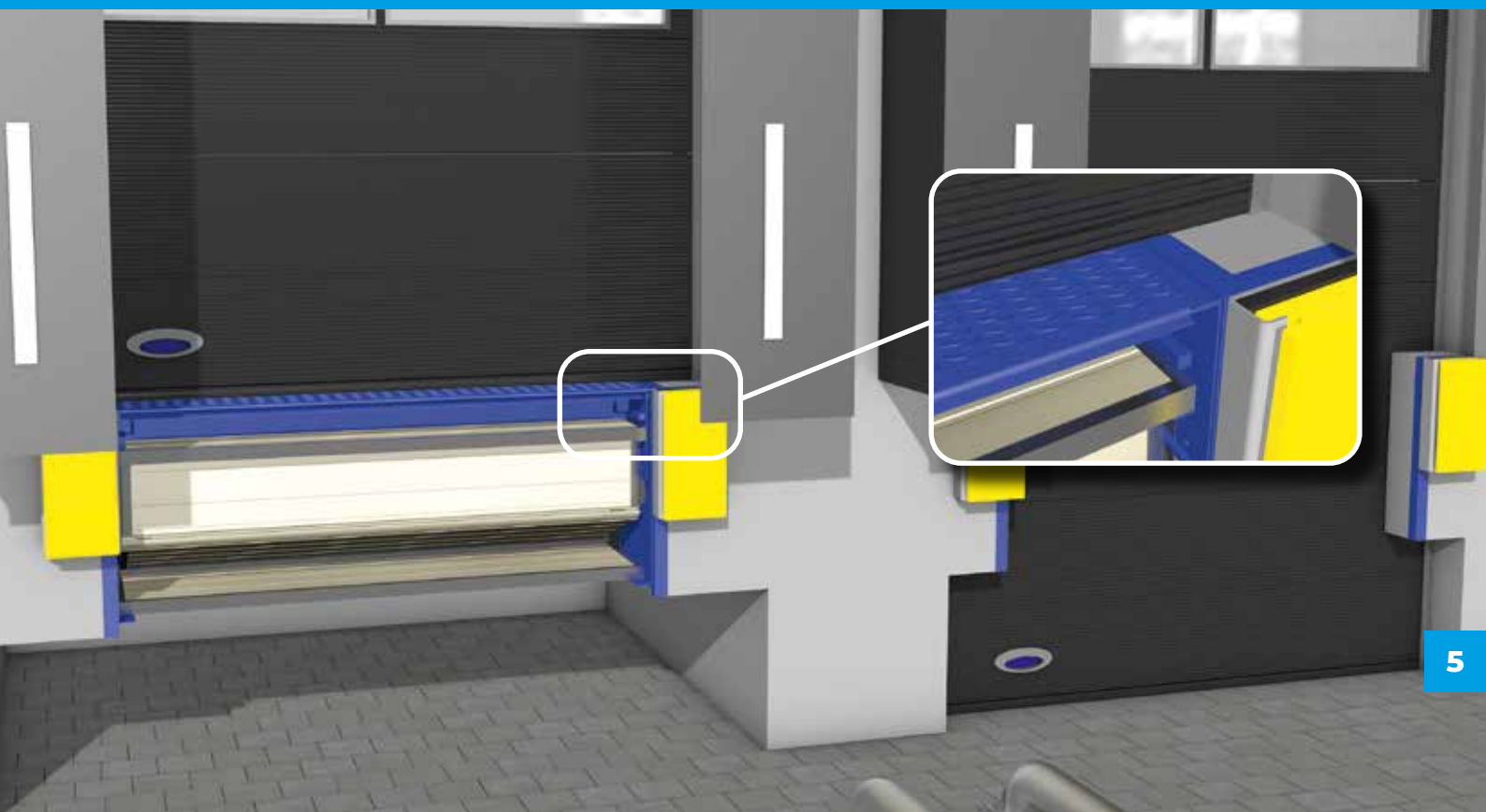
The future is already on board

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

NOV010 FOR ISO PITS



NOV010 FOR STANDARD PITS

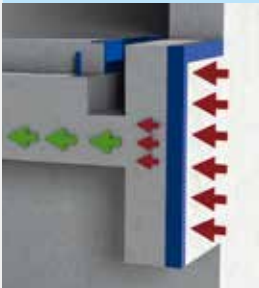


NOV010 IN COMPARISON

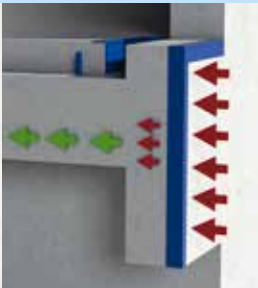
Since the impact forces can be guided directly into the foundation slab of the building, the design of the pit can be designed much more simply compared to conventional ISO dock levellers.

Advantages compared to a conventional ISO dock leveller

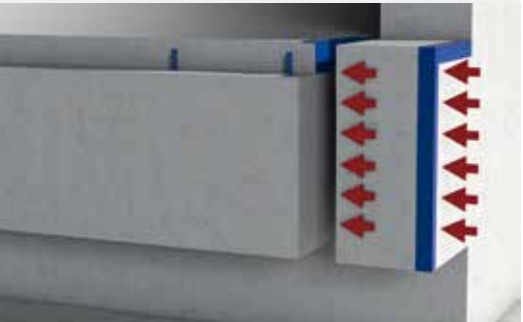
Features	NOV010	Conventional ISO dock leveller
Pit preparation	simple	difficult
Tail lift recess	accessible at any time	accessible only when the gate is open
Insulation during loading	at all times	no
Green ^{Plus} package	up to 70 % lower energy requirement	no
Door ^{Plus} package	door, dock leveller, 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



ISO pit



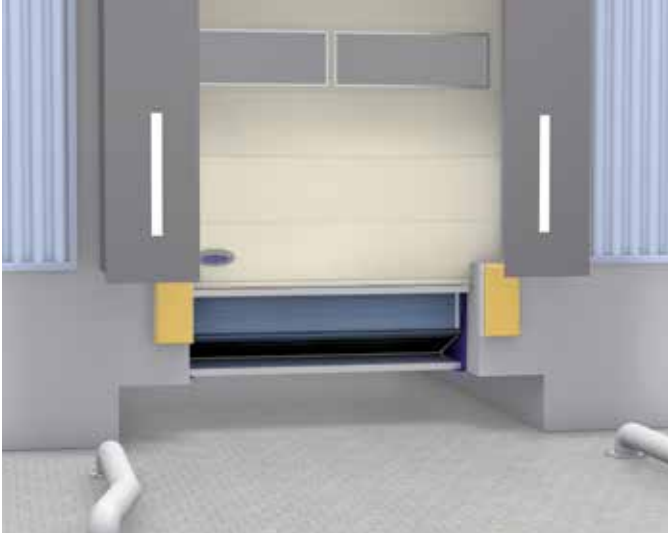
Standard pit





NOV010

The NOV010 is delivered as a pre-assembled compact solution that is ready to install. Quick and safe installation is thus guaranteed.



Setup

The NOV010 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 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 (grey 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 two 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 i-Vision TA included as standard. The components of the control system are RoHScompliant (unleaded).



i-Vision TA



i-Vision TAD

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 a uneven loading. This prevents steps or tripping hazards from forming.
- Lateral, yellow-black hazard warning markers
- Maintenance strut

NCI on board

The integrated Novoferm Communication Interface (NCI) provides over 50 important parameters. The LION 4.0 software supports you in analyzing these relevant data for a more efficient loading process.

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)	Operational range (mm)					
		Telescopic lip					
		500 mm		700 mm		1000 mm	
		↑	↓	↑	↓	↑	↓
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

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

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 protects your health and goods in transit; reduces costs
 Ergo^{Plus}

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 (ErgoPlus 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)
- NC Silence Plus
- Antislip protection with noise reduction
- low temperature oil



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