

// NEW: DOBO System and Hörmann Docking Assistant



Loading Technology

Dock levellers, dock seals, door systems from a single source







The know-how of the specialist	4-5
Logistics Systems from a Single Source	6-7
Dock Levellers with Hinged Lip or Telescopic Lip	8-9
Design and Quality Features	10-11
Frame models F, FR and box model B	12-13
Pit model P	14
Dimensions and Levelling	15
Controls and Accessories	16-17
Hörmann Docking Assistant HDA	16-17
Hörmann DOBO System	18-19
Special Solutions	20
Bascule Bridges	21
Pedestals and Loading houses	22-23
Scissors lifting platform, mobile loading platform and dock buffer	24
Optional extras	25
Dock Shelters and Seals	26-33
Overview of Door Systems	34-35

For the architect programme and further information on Hörmann products, please visit our website: **www.hoermann.com**

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Future-oriented and reliable – with the know-how of the specialist



In-house product development

At Hörmann new products, further development and detailed improvements represent an on-going process of our highly qualified development team.

This gives rise to patents and exclusive rankings in the marketplace.



Qualified personnel

Many production processes today are computer-assisted, but as far as Hörmann is concerned, a responsible and conscientious workforce is equally important - throughout the course of production and in carrying out quality-assurance checks.



State-of-the-art production

Large quantities of high-quality dock levellers, dock seals, and special solutions are the result of highly automated production processes and technical know-how. The high demands require optimally coordinated production processes and precise handling.



Dock levellers, door and operator systems – Hörmann quality from our own production



Guaranteed brand quality

The high demands of today's loading stations require precise matching of all system components. The Hörmann advantage: all components come from a single source and are manufactured according to the same high standard of quality. In addition, long-duration testing ensures technically mature series products that you can rely on.

Hörmann's good reputation guarantees this..

Protecting the environment

Hörmann shows respect for the environment not only by using 100 % CFC-free PU rigid foam, but also with regard to its colour coating. Thanks to an ultra-modern regenerative exhaust air decontamination system, energy consumption is greatly reduced compared with previously used processes and the more stringent limit values of the future are already complied with today.

Quality management

First-rate products demand optimum conditions at every stage of the industrial process. The certified Quality Management System guarantees the highest level of quality from development, through production to shipping.



An advantage when planning logistics properties: one partner for everything



Industrial door systems

For more than 40 years Hörmann industrial doors have enjoyed a reputation that has become synonymous with quality, reliability and high efficiency. At Hörmann doors, operators and control systems form one system from a single source.



Complete fire protection

Hörmann offers the complete range of high-quality fire and smoke-tight door assemblies from aluminium and steel – from the sturdy T90 fire door to fully-transparent tubular frame door sets and fire sliding doors.



Competent advice

Experienced specialists from our customer-oriented sales organization accompany you from project planning, through technical clarification to final inspection. Complete working documentation is not only available in print but is also continually updated on the Internet at www.hoermann.com



Quick and efficient service

Our extensive service network ensures that we are always close at hand. This is a major advantage when it comes to inspections, maintenance and repairs.

For more information on the Hörmann products, see pages 34-35, the brochures, or visit www.hoermann.com



Hörmann Loading Technology The Ideal System For Any Situation



Dock levellers

In transport logistics Hörmann dock levellers are indispensable for fast loading and unloading. They are specifically designed to bridge the gap between the vehicle deck and the loading platform and at the same time level the difference in height between the ramp and the loading platform.



Loading houses

Hörmann loading houses are complete units incorporating dock leveller, dock shelters and seals and can be retrofitted in front of existing buildings. They allow the storage area of the warehouse to be fully utilized while reducing construction costs.



Dock shelters and seals

Hörmann dock shelters and seals protect goods and personnel against the elements and prevent drafts. They also save on energy costs and have been developed as flap shelters, inflatable shelters or cushion seals to meet a variety of needs.



Dock Levellers Are Perfect at Compensating Differences in Height

Hinged lip or telescopic lip, depending on the application

Hörmann dock levellers are well thought-out solutions for accurately levelling the difference in height between vehicle decks and loading platforms. In this way, the load can be driven into or out of the lorry with one single horizontal movement. The robust steel construction allows a high degree of twist, so vehicle loading can be easily accommodated even in the case of uneven loads.

The reliable hydraulics with 2 lifting cylinders and one cylinder for the lip can cope with any situation, are easy and above all safe to operate. Because these dock levellers come with automatic emergency STOP valves integrated into the lifting cylinders. They lock the platform in an instant! This is particularly important in case a lorry departs prematurely while the platform is still loaded. An additional benefit: Hörmann dock levellers are precabled and come with a cable harness to connect the control system to the hydraulics.

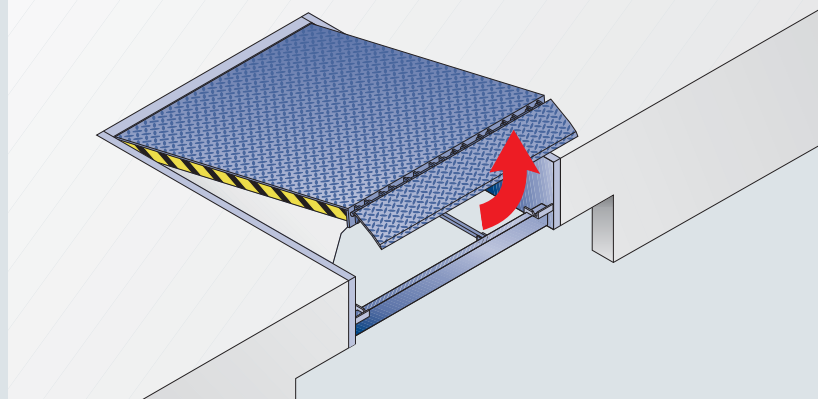
Talk to our team of expert engineers to discuss which system is the most effective solution for you.

Please bear in mind that the length of a dock leveller depends on 3 factors:

1. Height of the vehicle deck
2. Height of the loading platform
3. Permissible angle of tilt of the handling equipment used.

The longer the dock leveller is, the better the angle of tilt!

HLS-2 dock leveller with hinged lip



HLS-2 type with hinged lip

The HLS-2 with a 405 mm long hinged lip represents the standard solution and is more than suitable for coping with the majority of loading situations. Also for particularly heavy goods, such as is found in the paper processing industry, HLS-2 hinged lip dock levellers prove the ideal choice. If required, this practice-proven articulated steel construction can be supplied for a rated load of up to 180 kN.

This type is characterized by generously sized, particularly strong hinges. Thanks to their open design, the lip hinges cannot get clogged up with dirt, wood splinters or similar debris.

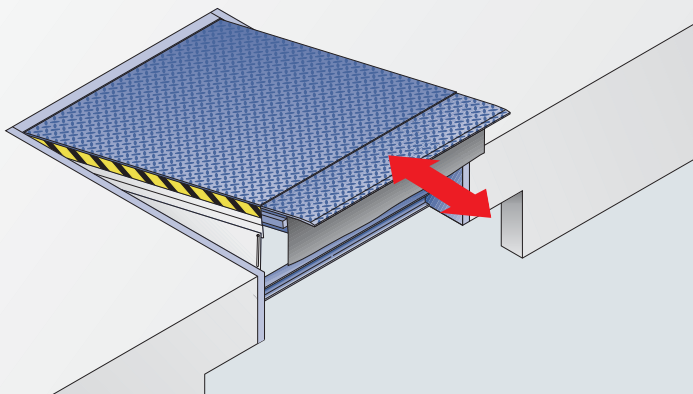
The functional principle

Once the lorry has docked, the warehouse door is opened. The electro-hydraulic system brings the platform into the highest position and automatically extends the hinged lip. The button is released and the platform then lowers itself until the hinged lip rests on the vehicle deck. Loading and unloading can now take place safely and within the shortest possible time.



For Quick and Efficient Loading and Unloading

HTL-2 dock leveller with telescopic lip



HTL-2 type with telescopic lip

The Hörmann HTL-2 dock leveller with telescopic lip is characterized by a choice of reach: 500 or 1000 mm. Continuous extension of the telescopic lip, which can be positioned with centimetre precision, allows maximum use of the loading platform. This is particularly important where vehicles are loaded right to the very back and therefore present a minimum loading deck. When loading deep-frozen products, an extension of 1000 mm is recommended. Particularly if the dock leveller is installed behind the warehouse door, e.g. in the DOBO System, the long telescopic lip offers ample bridging and bearing options. It is also the right choice for side loading.

Key benefits

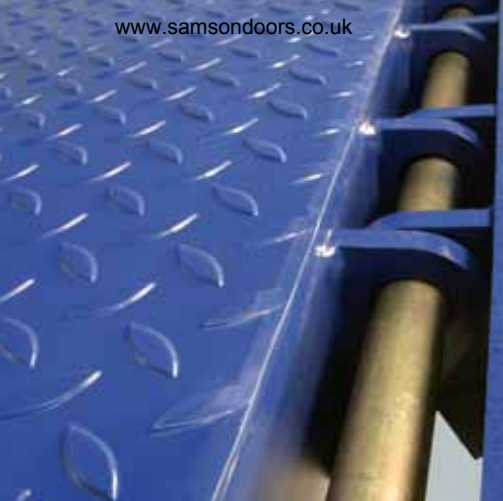
The telescopic lip can be extended as well as retracted with absolute accuracy via separate control buttons. On completing the loading procedure, a single impulse is all it takes and the dock leveller automatically travels back to the starting position.



To achieve better thermal insulation, Hörmann telescopic dock levellers are designed to also be installed behind the door. A telescopic lip with a 1000 mm reach offers ample bridging and bearing options.

HTL-2 telescopic lip dock levellers are supplied as standard with a front cover in black flap material.

HLS-2 dock leveller with hinged lip



The hinge

The open design prevents the hinge from getting clogged up with dirt and debris, such as wood splinters.



Hinge strips

The lip hinge is afforded special stability on account of its orthotropic design. Like the hinged lip itself, the 150 mm long, specially arranged, supporting hinge strips are made of high-grade steel.



Sturdy and Strong Technology - Convincing in Every Detail

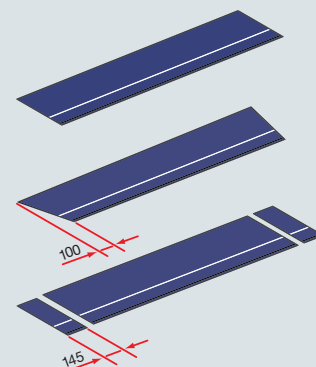
Equipment

The platform and lip are made of non-slip steel. The lip material is 12/14 mm thick. The HLS-2 platform is 6/8 mm thick as standard. The HTL-2 platform is 8/10 mm thick. The HLS-2 hinged lip dock leveller can also be supplied with a platform 8/10 mm thick on request, e.g. if hard (PU) tyres are used on the dock leveller. On the underside, the platform is supported by reinforcement profiles.

Three types of hinged lip/telescopic lip

Depending on requirements, the dock leveller lip can be supplied as

Type R	straight (standard up to 2000 mm ordering width)
Type S	angled (standard over 2000 mm ordering width)
Type SG	with separate lip segments in order to cater for various lorry widths (on HTL-2 dock levellers are retractable).

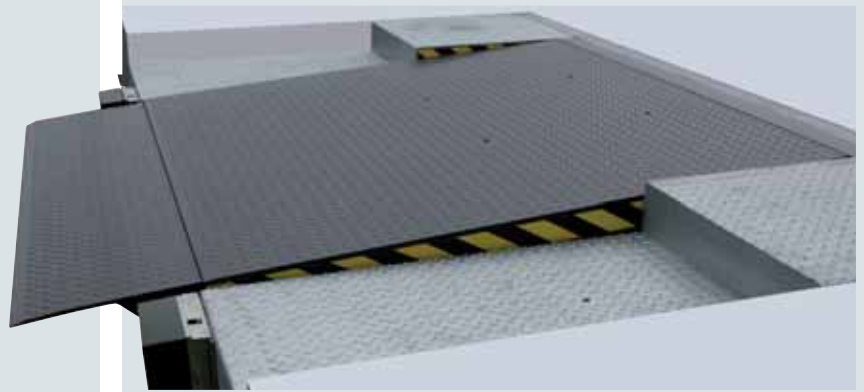


HTL-2 dock leveller with telescopic lip

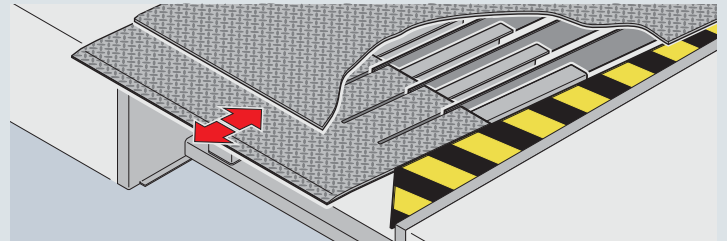


Pit model

Hörmann dock levellers comply with all the major legal directives and standards and are type-tested.



The robust platform is made of a single piece of 8/10 mm thick running plate as standard (up to 2 x 3 m).



This intelligent design, with interlocking platform beams and telescopic lip beams and lateral runners, ensures even and reliable guidance long-term.



The telescopic lip in the 12/14 mm version is also made of a single piece of running plate. The especially stable front edge is completely reinforced and contains slits into which the beams are welded. Thus, the risk of damage to the telescopic lip due to improper use or incorrect bearing can be reduced to a minimum.

Rated load/carrying capability

The standard carrying capability of Hörmann dock levellers is 60 kN (Rated load to DIN EN 1398). Higher rated loads, with the HLS-2 even rated loads up to 180 kN can be supplied on request.

Gradient/tilt

See "Establishing the degree of levelling" on page 15 (permissible max. value 12.5%, acc. to EN 1398).

Surface finishes

Sand blasted or stained and coated with a 2-component PU paint
A completely galvanised version is also available.

Colours

Ultra marine blue (RAL 5002) or traffic black (RAL 9017), other colour shades to RAL on request

Optional extras



Non-slip coating, noise-reducing



Weather seals, to reduce drafts when dock leveller is idle

Which Construction Method Do You Prefer?

We offer you a variety of installation models covering every conceivable method and system. All the installation versions are possible for both hinged lip and telescopic lip dock levellers.

Frame model type F

Frame models

Installation in a prepared opening.

Frame model type F

Self-supporting frame, closed at the sides. Edge brackets at the sides and rear.



Rear view

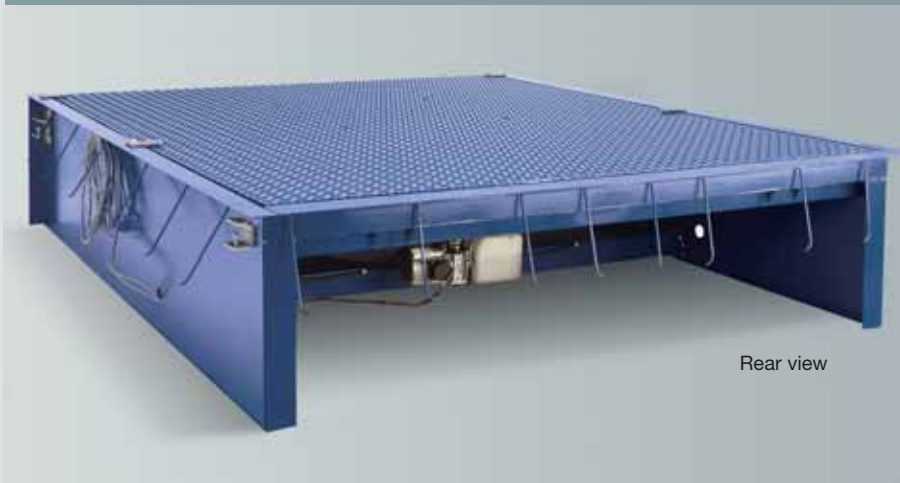
Frame model type FR

Frame model type FR

Self-supporting frame, closed at the sides. Edge brackets and anchors at the sides and rear. With adjustment angles at the sides.

Perfectly suited for row installation in precast concrete blocks.

Casting height max. 250 mm. The screw-on adjustment angles can be positioned at the rear.



Rear view

Box model type B

The box method

Quick and dimensionally reliable. Set in concrete during the loading platform's construction phase

Box model type B

Self-supporting frame, closed at 3 sides. Edge brackets and anchors at the side and rear. With adjustment angles at the sides.

When the concrete is being poured in the dock leveller is protected by plastic sheeting.

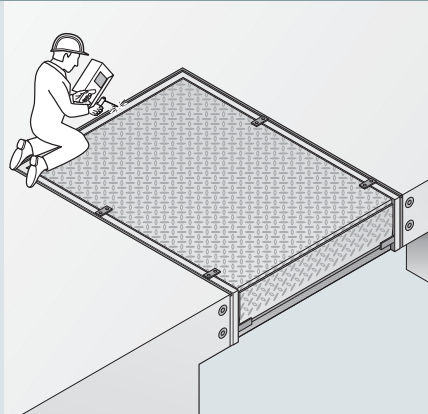
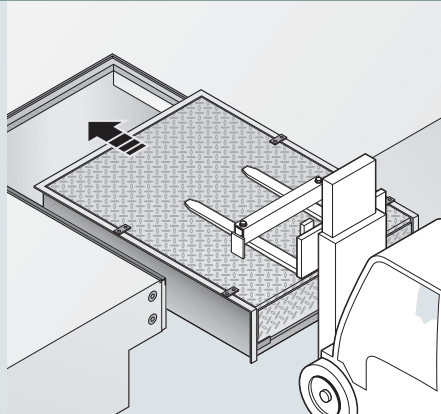


Rear view

The method you choose will depend on the planning and status of the building (new building or renovation).

It is important in all instances to strictly adhere to the installation specifications stated in our detailed drawings.

Frame model type F

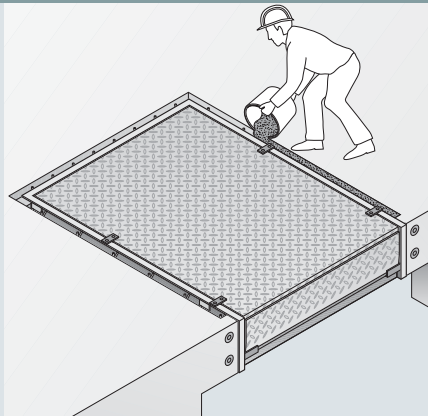
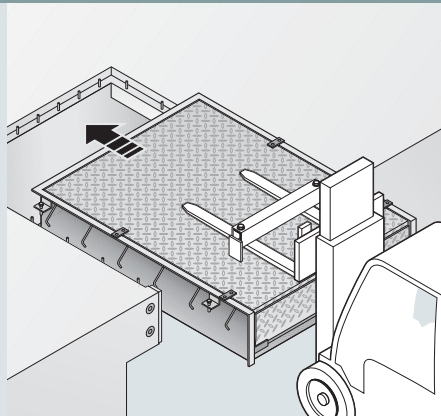


The pit is site-constructed to precise specifications and provided with edge brackets.

The dock leveller is then suspended in the pit and welded in place.

No need to set in concrete!

Frame model type FR

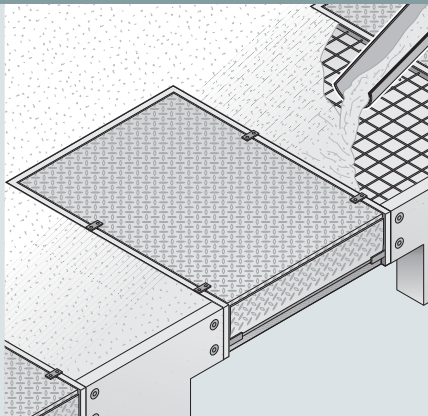
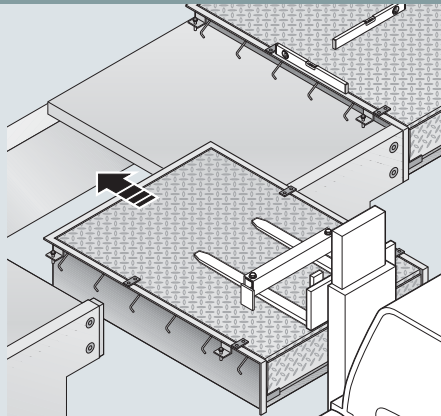


The pit is site-constructed to precise specifications and provided with reinforcing iron ends.

Afterwards, the dock leveller is suspended in the pit, aligned and concrete is then poured around it.

No welding work required!

Box model type B with precast concrete blocks when several dock levellers are installed together



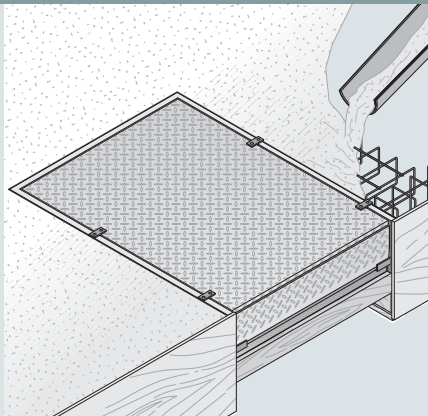
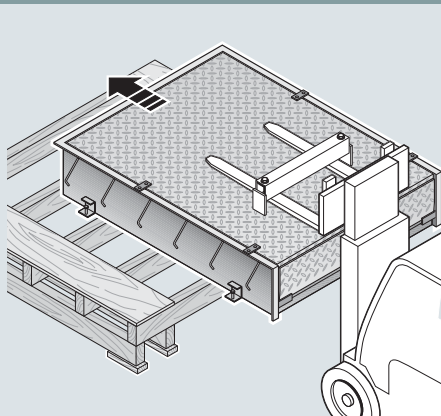
Install the precast concrete blocks, insert the dock leveller, align and pour in concrete.

The loading platform is ready!

Also available:

Frame model type FA with anchors for setting in concrete at the rear only - if suspended at the sides and welded in place.

Box model type B with timber subframe when a smaller number of dock levellers are involved.



The dock leveller is placed on a site-erected timber subframe, fixed in place and concrete is poured around - **a quick and simple installation method without welding work and above all always giving a precise fit!**



1 Dismantle and remove the old dock leveller



2 Dismantle the old base frame



3 Insert the new dock leveller



4 Weld to the edge brackets - and you're done!

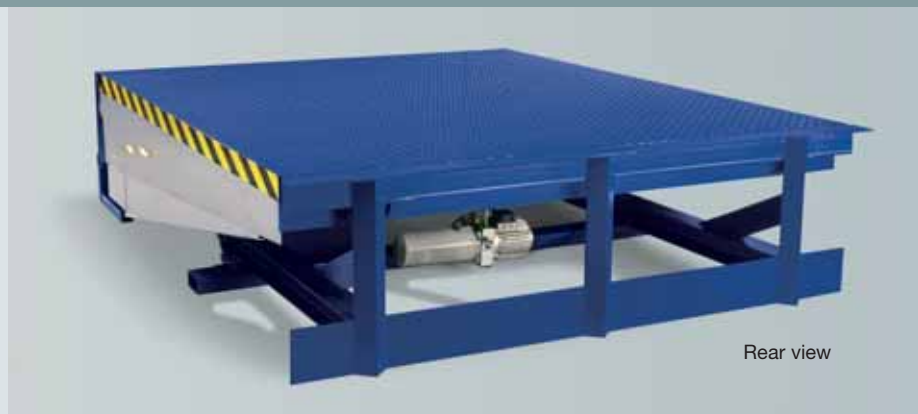


The Quick and Efficient Method for Trouble-Free Renovations

Pit model type P

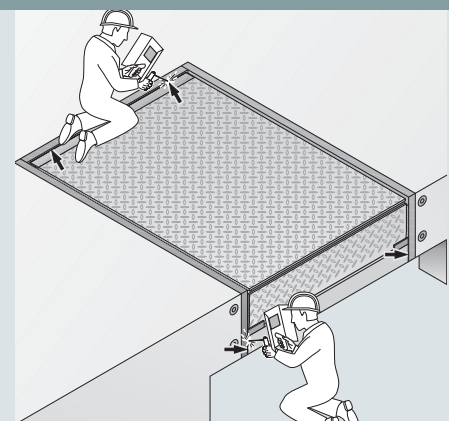
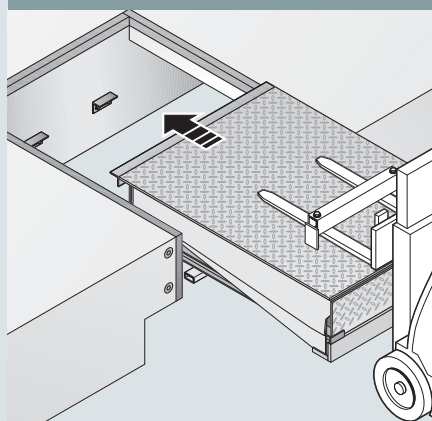
Renovating with the pit model

Pit type P
open on 3 sides



Rear view

Installation



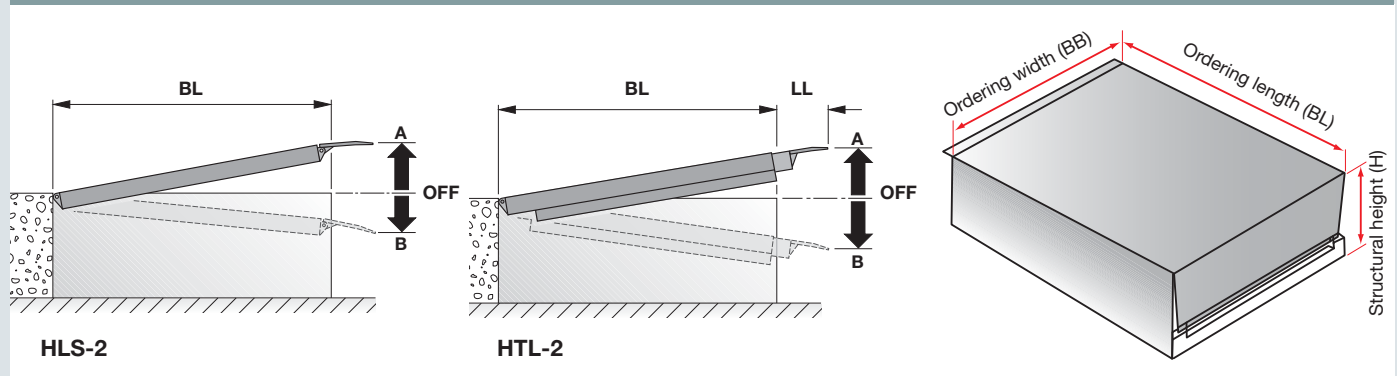
If the existing pit is not the correct size, we supply suitable adapters.

The pit must be constructed with absolute accuracy and provided with edge brackets. The adjustment angles supplied at the same time must be mounted at the back of the pit. The dock leveller can now be set up, aligned and welded in place.



Dimensions and Levelling System for Dock Levellers

Establishing the degree of levelling



		Levelling		Levelling			
		HLS-2		HTL-2			
Ordering length	Structural height			Telescopic lip max. 500		Telescopic lip max. 1000	
		A	B	A	B	A	B
2000	595	245	295	270	350	325	410
2500		305	285	340	345	395	395
2750		335	340	370	400	430	430
3000	645	365	335	405	395	460	420
3500		430	385	470	425	530	470
4000	745	490	380	540	415	595	450
4500		555	375	605	405	660	440

Ordering widths	2000	2100	2250	2400
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The ordering widths can be combined with all the ordering lengths.

Permissible values up to 12.5 %.

The maximum height adjustment can differ.

Special sizes on request. Matching pedestals and loading houses are available for all the ordering sizes.

Controls and Accessories

System solutions pay dividends

With Hörmann, everything from development to production comes from a single source. This means that when the controls are used together with hinged lip and telescopic lip dock levellers and doors a high level of compatibility can be achieved thanks to the uniform operating concept, same housing sizes and same cable sets.

Saving of time and money for installation, maintenance and service are further crucial benefits of the Hörmann system.

Basic controls



420 S for hinged lip dock levellers HLS-2

- Controls with protection classification IP 65 (hose-water protected)
- LED in-operation indicator
- Prepared for dock leveller release function
- Connection facility for accessories:
Connection kit and proximity switch for door release function
- Wheel chock with sensor



420 T for telescopic lip dock levellers HTL-2

- Controls with protection classification IP 65 (hose-water protected)
- LED in-operation indicator
- Prepared for dock leveller release function
- Separate button for direction-bound extension and retraction of the telescopic lip.
- Automatic return of the dock leveller to the starting position following impulse.
- Connection facility for accessories:
Connection kit and proximity switch for door release function
- Wheel chock with sensor

Hörmann Docking Assistant // NEW

Secure docking

The Hörmann Docking Assistant (HDA) makes it easy to approach the loading station. The permanent distance measurement between door and lorry reduces the risk of damage to persons and property.

Several sensors on the door leaf detect the rear of the closed lorry and control a "green-yellow-red" signal system. While manoeuvring, the lorry driver recognizes his distance to the docking location via the colour of the signal light. Red signals that he has optimally docked at the loading station.

The precise measurements are done via ultrasound. The distance and position of the individual signal phases (yellow and red) can be easily programmed via the HDA control.



Multiple controls



445 S for HLS-2 hinged lip dock levellers

- Controls with protection classification IP 65 (hose-water protected)
- Prepared for dock leveller release function and door release function.
- Automatic return of the dock leveller to the starting position following impulse.



445 T for HTL-2 telescopic lip dock levellers

- Controls with protection classification IP 65 (hose-water protected)
- Prepared for dock leveller release function and door release function.
- Separate button for direction-bound extension and retraction of the telescopic lip.
- Automatic return of the dock leveller to the starting position following impulse.



460 S for HLS-2 hinged lip dock levellers

- Controls with protection classification IP 65 (hose-water protected)
- Prepared for dock leveller release function and door release function.
- Automatic return of the dock leveller to the starting position following impulse.
- with integral control of an (inflatable) dock shelter with or without additional roll-up flap.



460 T for HTL-2 telescopic lip dock levellers

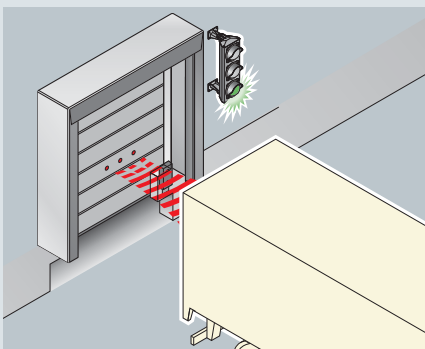
- Controls with protection classification IP 65 (hose-water protected)
- Prepared for dock leveller release function and door release function.
- Separate button for direction-bound extension and retraction of the telescopic lip.
- Automatic return of the dock leveller to the starting position following impulse.
- with integral control of an (inflatable) dock shelter with or without additional roll-up flap.
- Semi-operation: Automatic closing of door following automatic return of the dock leveller.

All multiple controls feature:

- Menu readout and programming via double 7-segment display
- Service menu with maintenance, cycles and operating hours counter as well as error/fault analysis
- Operating and error/fault indicator
- Readout of the last 5 error messages
- Connection facility for accessories: Proximity switch for door release function, Wheel chock with sensor, Signal lights, Photocell, Warehouse light, Driver registration

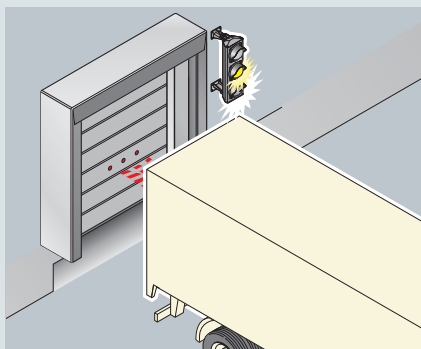
Signal is green

Loading station is ready for docking



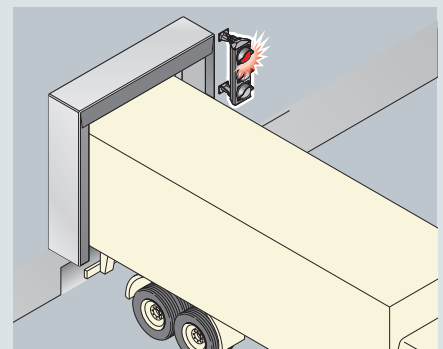
Signal is yellow

lorry is approaching the docking location



Signal is red

lorry is now in the optimum position for unloading



Dock first, open the doors later: The Hörmann DOBO System

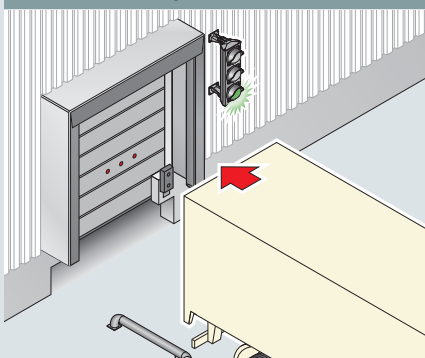
At conventional docks, the driver must first get out, open the vehicle doors, and then dock. If the vehicle already docks on the previous evening, cumbersome manoeuvring is required to open the doors. Not so with the DOBO System: The lorry can dock with closed doors. They can be opened at any desired time. Meanwhile, the goods remain safely inside the vehicle. The DOBO System is the ideal solution for absolutely hygienic transport, to guarantee closed cold chains, reduce energy costs, prevent pilfering, and for customs purposes.

Please note! Every loading situation is unique. Please ask your Hörmann loading technology specialist to advise you in detail!



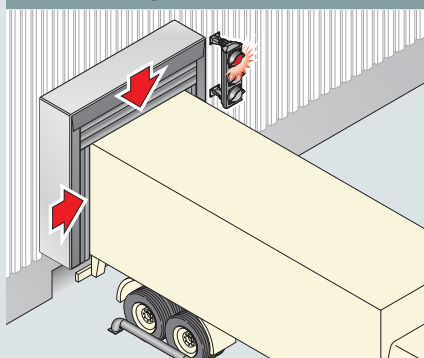
DOBO System: specifically for freshness logistics, pilfering prevention, and for customs purposes **// NEW**

Dock securely



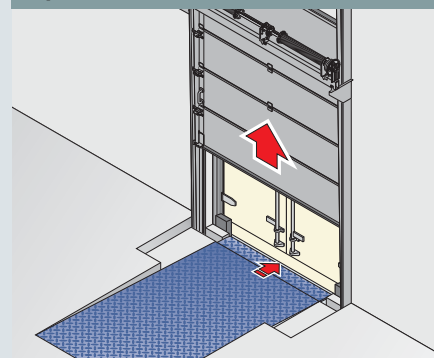
The HDA Hörmann Docking Assistant (see pages 16-17) helps the driver dock securely. The vehicle doors remain closed. Sensors in the door leaf detect the position of the vehicle. Signal lights in red/yellow/green show the driver his position, enabling him to dock easily and without causing damage. The ramp and vehicle are protected.

Seal reliably



As soon as the lorry is docked, the DAS-3 dock seal can be inflated. It surrounds the vehicle on three sides. This way, everything remains sealed when the door opens.

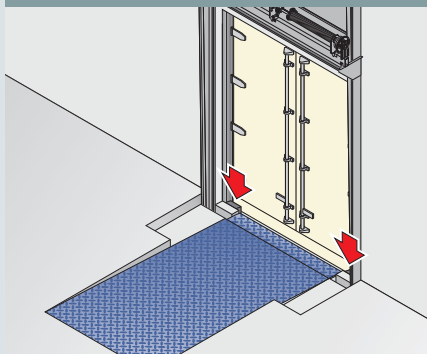
Open dock door



To minimize heat exchange, the door is guided into a recess in front of the dock. After the door is completely opened, the lip of the dock leveller is extended to reduce the gap to the vehicle.

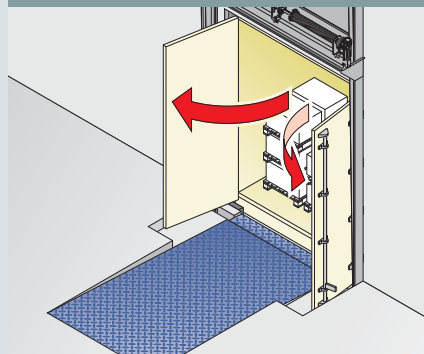


Lower dock buffer



The VBV 4 dock buffers are moveable. In their idle state, they are 250 mm above the level of the dock. After the dock door is opened, the buffers can be lowered for opening the lorry doors. They can be locked in this position.

Open vehicle doors

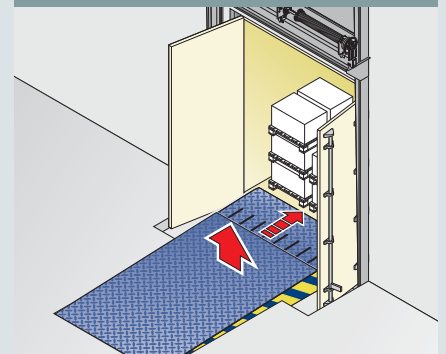


The dock is equipped with a recess that gives the doors the space they require for opening in this situation. The recess depth depends on the lowest point of the vehicle doors (including the bolts) when the vehicle is fully loaded. The length of the recess must be adjusted to the width of the vehicle doors.

The DOBO System is also available in combination with a loading house. For this case, correspondingly adjusted pedestals are available.

The warehouse door is then located behind the dock leveller.

Extend the dock leveller



The HTL-2 dock leveller with 1000 mm long telescopic lip easily bridges the gap between dock and bed and can be adjusted with centimetre precision.

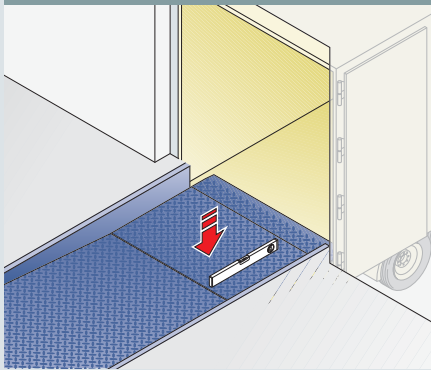
Special Loading Situations Demand Special Solutions

Contact us. We advise you on the spot and recommend a system that in terms of quality, function, reliability and efficiency is best suited to meet your requirements. Place your trust in the know-how of the specialist.



Efficient Loading and Unloading with Special Solutions from Hörmann

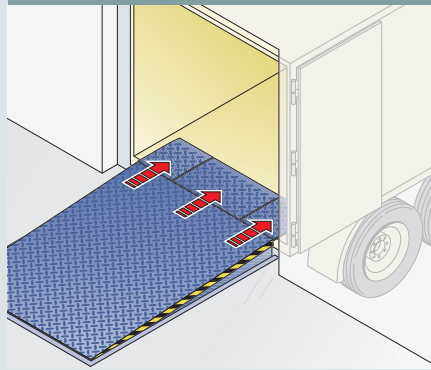
HTLP-2



Hörmann HTLP-2 Dock Levellers with parallel connection to lorries

Thanks to this parallel connection in the front section of the dock leveller, the transport vehicle can always be driven horizontally into the lorry. As a result you can load high goods into the lorry using a forklift truck and easily access the first pallet with a simple stacker lift truck.

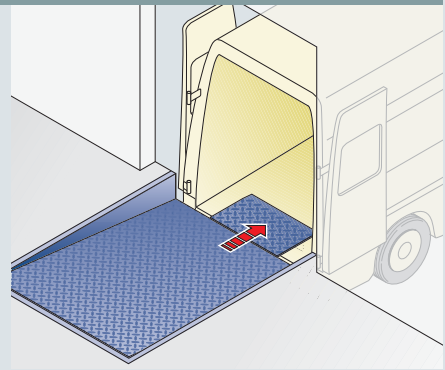
HTLV-2



Hörmann HTLV-2 Dock Levellers with 3-piece telescopic lip for lorries and delivery vans

The great advantage of Hörmann's HTLV-2 dock leveller is that it allows you to load and unload lorries and delivery vans at one single loading station.

For lorries the 500 mm telescopic lip can be continuously extended to the full width (2000 mm) whereas for delivery vans it can be easily switched to the 1000 mm wide central section only. The working range below level is then significantly extended. Caution: Some forklifts are not suitable for the resulting gradient.



A key feature is the weight compensation when using varying types of vehicle.

In the "delivery van" setting with a rated load of 20 kN, the weight is compensated by an intelligent patented hydraulic system over the 1000 mm width to make sure that the van is not overloaded.

In the "lorry" setting the dock leveller is used in the same way as a "normal" telescopic lip dock leveller, with a rated load of 60 kN.



Simply Bridge the Gap

Basculer bridge type KBS



These bascule bridges made of robust, corrosion-resistant aluminium are used to compensate small to medium height differences and can be operated by just one person.

When the platform folds down an anti-fall safeguard is released by foot which then automatically re-engages as soon as the platform folds back up.

The platforms can also be shifted sideways in the guide profile.

Platform dock leveller type SKB



These platform dock levellers are equipped with a carriage on ball bearings and can be easily moved. The guide rail is made of steel. It can bridge medium height differences up to approx. 200 mm.

The dock leveller is equipped with a foot-operated anti-fall safeguard to prevent it being overturned. Assisted by a spring support, platforms from 1065 mm can also be folded up and down by one person alone.

Platform dock leveller type FB



In terms of height differences and loads this platform dock leveller covers a broad spectrum. The stationary platform or sideways shifting platform is available in painted steel, galvanised steel, or aluminium. Thanks to the broad steel guide profile, open towards the bottom and with self-cleaning effect, the dock levellers continue to operate smoothly and reliably many years down the line. And the maintenance-free spring system means that one-man operation is not a problem even where larger platforms are involved. A self-engaging anti-fall safeguard always parks the dock levellers securely, so there's no danger of them being knocked over.

We will be happy to advise you!



Pedestals and Loading houses

Complete loading unit

Loading houses are installed in front of the building. This means that warehouse space can be fully utilized right up to the outer walls.

Whenever there is a space problem in the warehouse or the building does not allow internal ramps or tailboard access is not available, the Hörmann loading house provides a good solution.

A complete loading house comprises:

- pedestal with dock leveller
- wall and ceiling cladding
- opening for loading with dock shelter

The base

The pedestal forms the base of the loading house. The HLS-2 or HTL-2 dock leveller as a pit model is quick and easy to deploy. The space underneath the dock leveller allows access to a lowered tailboard.

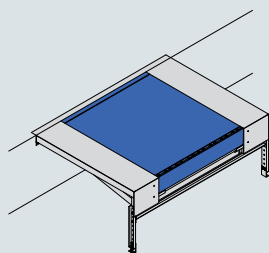
All Hörmann pedestals are galvanized in an immersion bath process as standard. Height-adjustable supports enable subsequent adjustment of the pedestal level (e.g. after the building has settled).

When carrying out alterations to the building or moving premises, the pedestals can be quickly dismantled and then re-assembled.

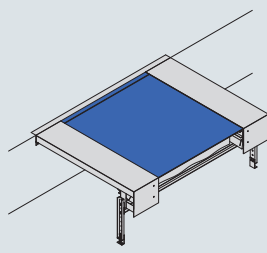
Goods protected throughout loading

Loading houses in combination with dock shelters are particularly recommended for the transfer of temperature-sensitive goods. Lorries can dock at a right angle to the building or from the side at an acute angle.

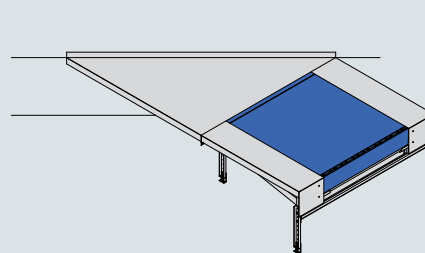
Loading houses can be supplied as an individual unit or as several units arranged in a row. Pedestal add-ons are also available, for arrangements positioned at an angle of 30°, 45° or 60° to the building in order to provide a wider range for manoeuvring.



for HLS-2 hinged lip dock levellers



for HTL-2 telescopic lip dock levellers



Arranged at an angle



The Quick Solution: Simply Install in Front of the Building

Before

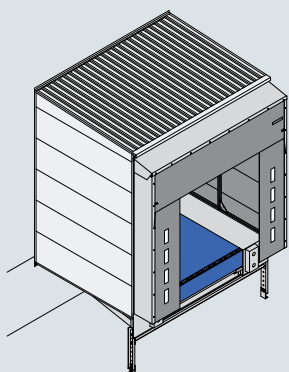


The goods are left standing outdoors unprotected and the warehouse staff are directly exposed to the elements.

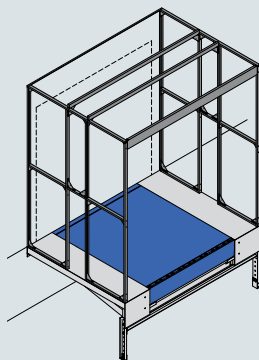
After



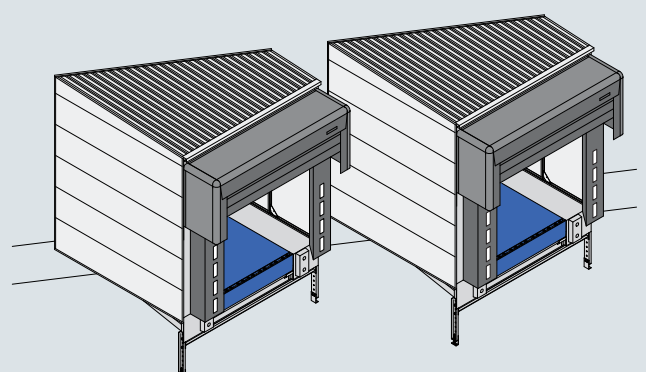
Loading houses afford personnel and goods optimum protection.



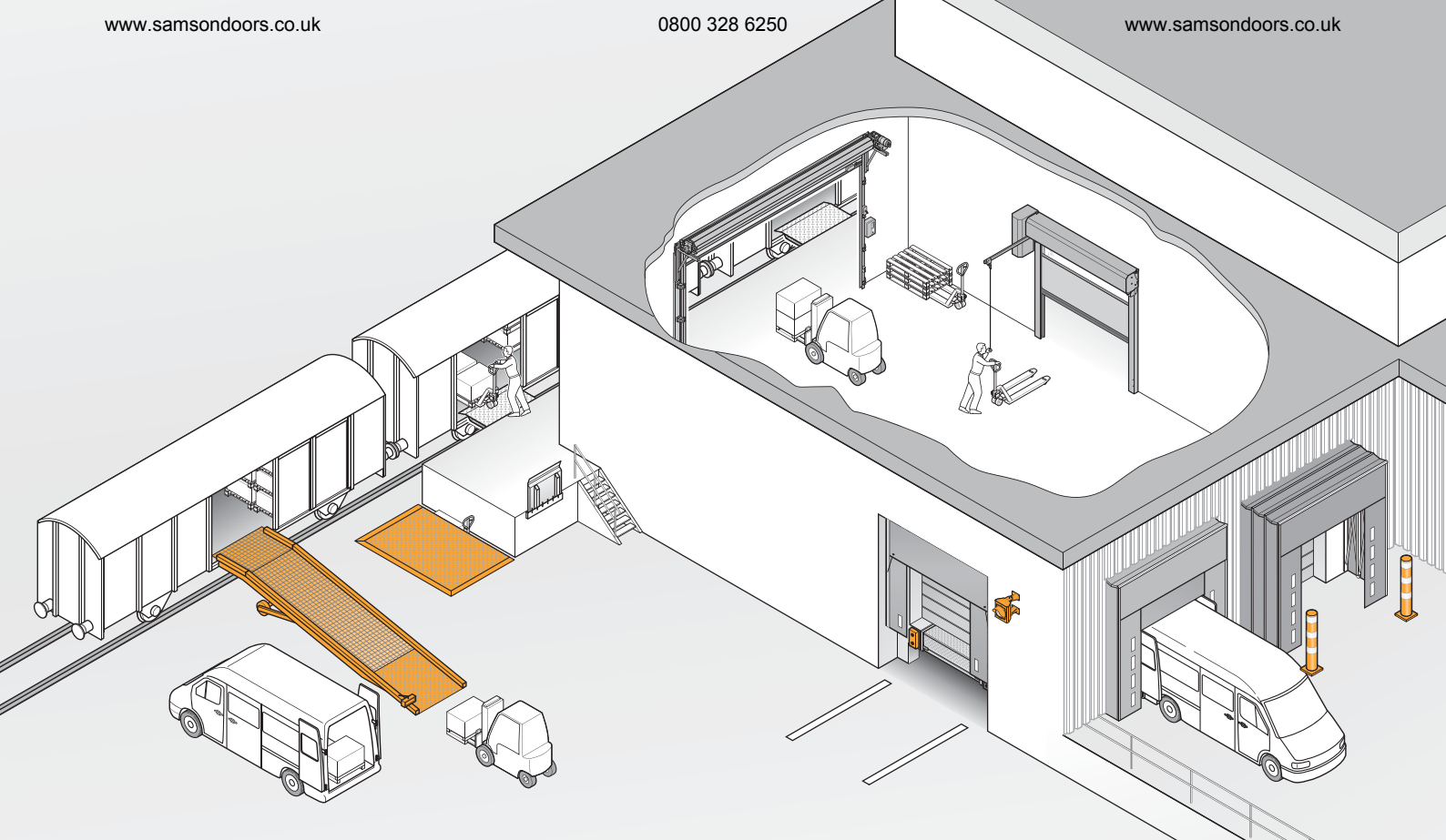
Sound damping and thermally insulating: with sandwich panels



For customer-specific requirements: frame construction for on-site cladding



Minimum space, maximum use: arranged at an angle to the building



Practical equipment options for your specific loading situation

Scissor lifting platforms



Hörmann scissor lifting platforms **Always at the right level**

Electrohydraulic scissor lifting platforms ensure the safe lifting and lowering of goods. Depending on the length of the platform and the working range, the construction comprises one or several scissors above or behind one another. Every scissor lifting platform comes made to measure, with the specified capacity and equipment.

Mobile loading platforms



Hörmann mobile loading platforms **Fast loading and unloading**

Hörmann mobile dock levellers allow quick and efficient loading with no need for a permanent loading platform. The inclined access ramp bridges the difference in height between the ground and the vehicle deck. The parallel section of the drive-on ensures that the forklift truck is horizontally level throughout loading. A further advantage of mobile loading platforms is the fact that they can be transported from one location to another, as and when needed, by just one driver with a forklift truck.

Dock buffers

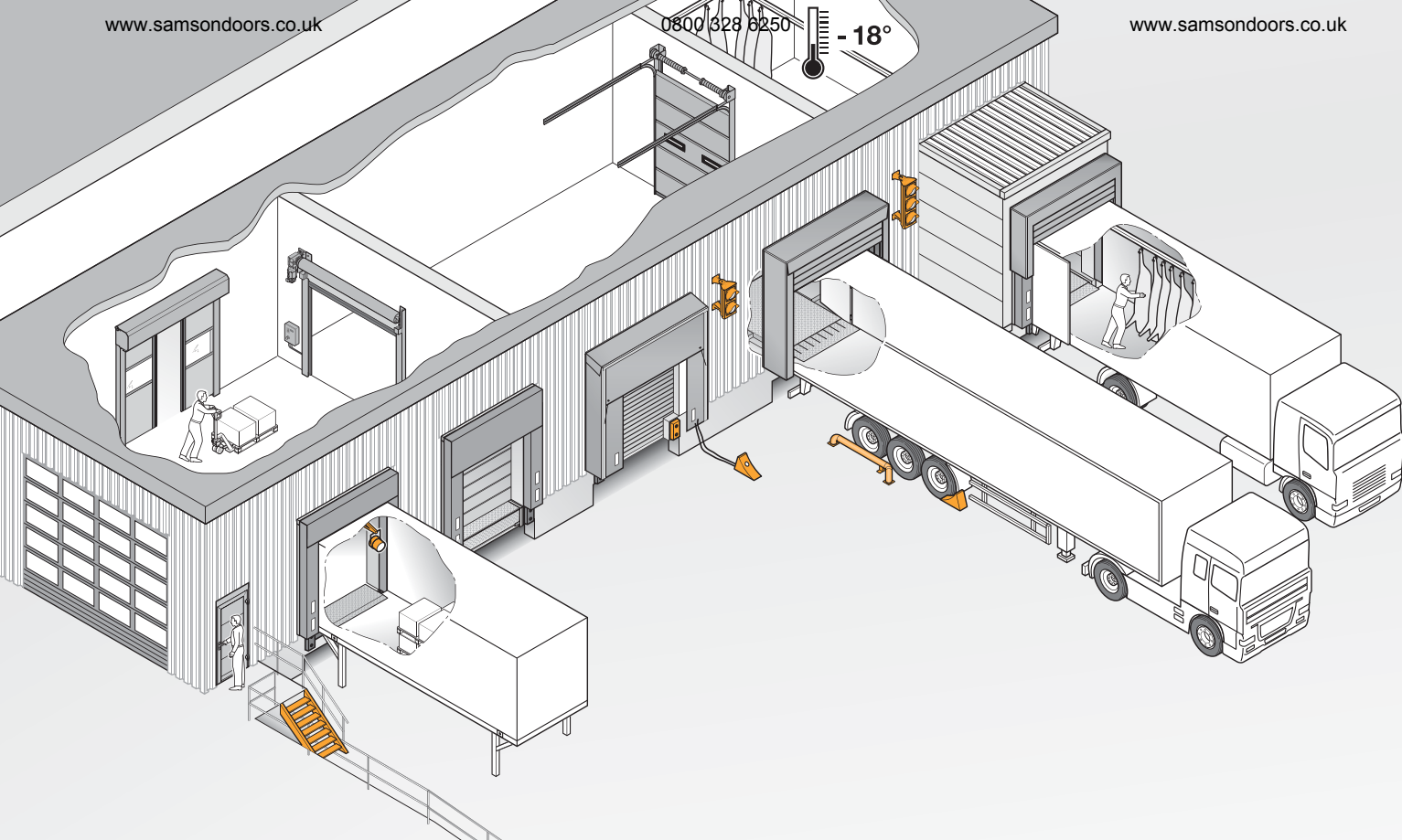


Dock buffers of the highest material quality reliably protect the loading station against the tractive force of a docking lorry.



Mounting plates for dock buffers can also be used as brackets on platforms with loading flaps.

Protective front plate Reinforcement and excellent protection for dock buffers.



Practical optional extras



Tailboard slot cover

Keeps the tailboard access area free of dirt for longer.



Protection bollards

With warning stripes to facilitate manoeuvring. A good investment for situations without a loading platform.



Vehicle alignment guides

In pairs, galvanized. Helps the driver to dock accurately.



Tailboard slot cover

Keeps the tailboard access area free of dirt for longer.



Warehouse flashlight

Swivel type. To adequately illuminate the lorry's loading area.



Wheel chock

Safeguards the lorry against rolling away. On request, also with sensor.



Signal lights

With warning or release function, e.g. via sensor wheel chock, photocell or together with door or dock shelter controls.



These Are the Characteristic Features of Hörmann Dock Shelters: Aesthetics and Efficiency

Sound all-round protection

Hörmann dock shelters protect goods against the elements, prevent drafts and as a result reduce the number of working days lost due to personnel reporting sick. When combined with dock levellers, costly canopies and built-on ports are no longer necessary.

Hörmann flap dock shelters adapt to all sizes of vehicles and are therefore suitable for general use. High-grade head and side flaps, mounted on a galvanized, press-in frame, produce a stable, flexible and tear-resistant construction.

The flaps and frame components are produced as individual elements for ease of installation. That's why when it comes to replacing them in years to come, it will be a low-cost, straightforward procedure.

Link arm or scissor arm construction

Link arm or scissor arms connect the front and rear frames. They offer great flexibility, thereby preventing collision damage. An effective seal is always produced, even in the case of poorly reversed vehicles. The particularly stable scissor arm construction is pressed in parallel and makes the flaps taut again after each loading sequence.

The frame construction with scissor arm also allows roadway or below-dock (sunken) versions.

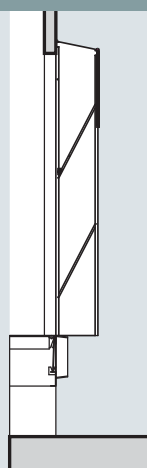
Head and side flaps

The side flaps must not only be flexible but also offer adequate transversal strength. Depending on the model, Hörmann achieves this by either using corresponding special flap material (monofilament fibres) or integrating leaf springs into the flaps. Easily visible marker stripes assist the driver to dock accurately.

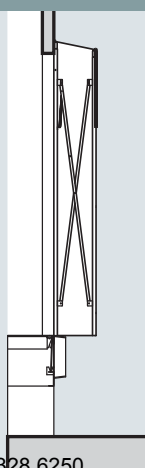
Top and side cladding

With high-frequency welded-in round rod that simply slot into the locating profiles. The top cladding (roof) includes drainage.

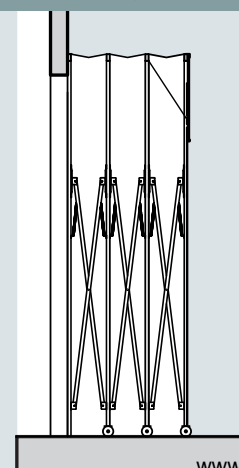
Link arm



Scissor arm



Scissor arms, below-dock (sunken) version





The Vehicle Determines the Size!

It's the vehicle and not the door that determines the size of your dock shelter!

Ask yourself the following questions:

- Which size of lorry mainly docks?
- Do varying sizes of lorry dock at the same loading station?
- What goods are being loaded?

Carefully establish the required size of the front opening. Only in this way will you achieve optimum sealing.

Standard widths: 3350 - 3500 mm

Standard heights: 3500 - 3750 mm

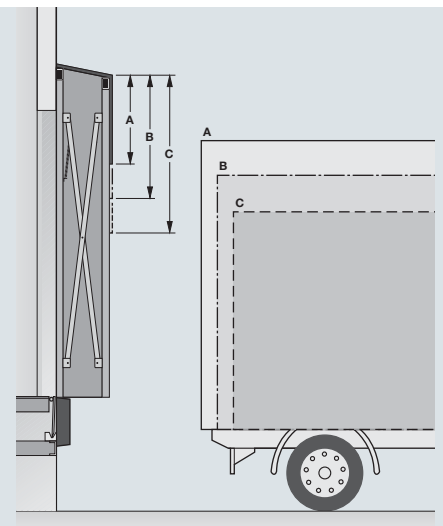
(roadway version 4500 mm high).

In an ideal situation the dock shelter is 850 mm higher and 1000 mm wider than the lorry.

A long head flap ensures good sealing even when smaller lorries are involved, but hangs down in the structural opening when higher vehicles are used. An overlapping of approx. 150 mm is ideal.

The correct combination of flap width and overall thickness produces optimum sealing. With Hörmann dock shelters an overall thickness of 500 mm has proven itself in practice. At the customer's request, type DS dock shelters can also be supplied with an overall thickness of 600/ 900 mm.

For installing the dock shelter the door opening must not be wider than the width of the dock shelter less 200 mm.

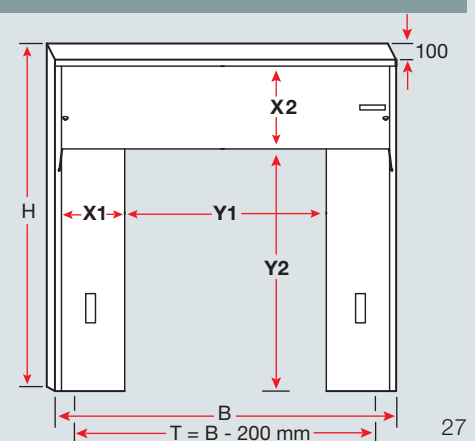


Dimensions

		DS Type		DT Type	
Side flap width X1		600	700	650	
B = 3350	Width of front opening Y1	2150	1950	2050	
B = 3500		2300	2100	2200	
Width of front opening = dock shelter width - (2 x side flap width)					
		Typ DS/DT			Typ DT
Head flap height X2		900	1000	1200	1350
H = 3500	Height of front opening Y2	2500	2400	2200	2050
H = 3750		2750	2650	2450	2300
H = 4500*		3500	3400	3200	3050
Height of front opening = dock shelter height - head flap height - 100 (drainage)					

* Roadway version

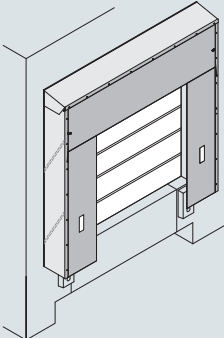
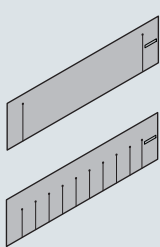
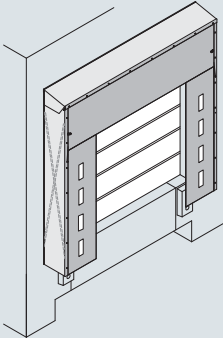
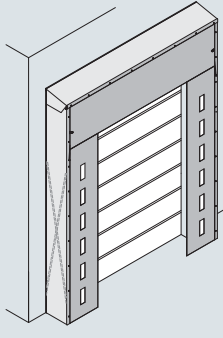
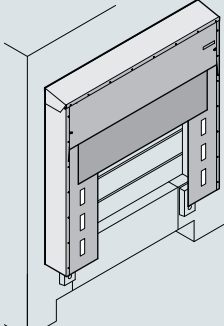
Dimensions in mm



27



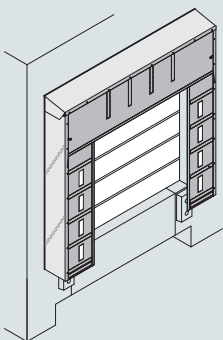
The Robust Standard Version: Dock Shelter Type DSL

DSL	DSS	DSS-G	Colours
 Standard version Dock-height model with link arm Head flaps The head flap in particular is subjected to a great deal of wear and tear and is therefore reinforced. On request the top flap can also be cut sideways, or laminated over the whole width, for models with a scissor arm, with 100% overlapping. Available in a height of 900, 1000 or 1200 mm.  Head flap, cut in at side Laminated head flap	 Dock-height model with scissor arm	 Roadway model with scissor arm Monofilament side flaps The so called monofilament rods in the fabric give the approx. 3 mm thick side flaps of the DS dock shelter their transversal strength. Available in widths of 600 or 700 mm.  Additional roll-up head flap, in a choice of manual or electric operation	Head and side flaps ● Graphite black, similar to RAL 9011 (standard) ● Basalt grey, similar to RAL 7012 ● Gentian blue, similar to RAL 5010 Marker stripes ○ White ● Yellow Side cladding ● Graphite black similar to RAL 9011 (standard) Side flaps 2-layer substrate of polyester monofilament threads, PVC-coated on both sides, approx. 3 mm thick, surface weight approx. 3900 g/m². Head flap 2-layer, reinforced substrate of polyester multifilament threads, PVC-coated on both sides, approx. 3 mm thick Surface weight approx. 3700 g/m² Cladding at top and sides Substrate of polyester threads, PVC-coated on both sides.



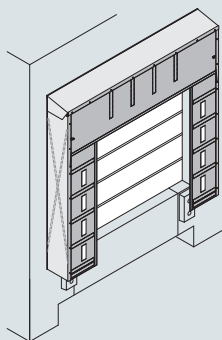
A Good Investment for Higher Traffic Frequencies Dock Shelter Type DT

DTL



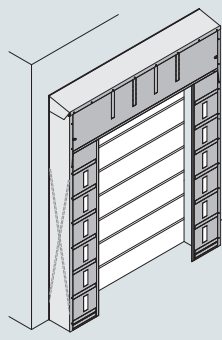
Dock-height model
with link arm

DTS



Dock-height model
with scissor arm

DTS-G



Roadway model
with scissor arm

Colours

Head and side flaps

- Graphite black, similar to RAL 9011 (standard)
- Basalt grey, similar to RAL 7012
- Gentian blue, similar to RAL 5010
- Moss green, similar to RAL 6005

Marker stripes

- White
- Orange
- Yellow
- Red

Side cladding

- Graphite black similar to RAL 9011 (standard)
- Basalt grey, similar to RAL 7012
- Gentian blue, similar to RAL 5010
- Moss green, similar to RAL 6005

Side flaps, head flap

High-frequency welded flap material in polyester with special fabric insert, PVC-coated on both sides and galvanized steel leaf springs under great tension, approx. 2 mm thick.

Surface weight approx. 2000 g/m²

Side flaps 650 mm wide

Head flap available in 900, 1000, 1200 or 1350 mm high

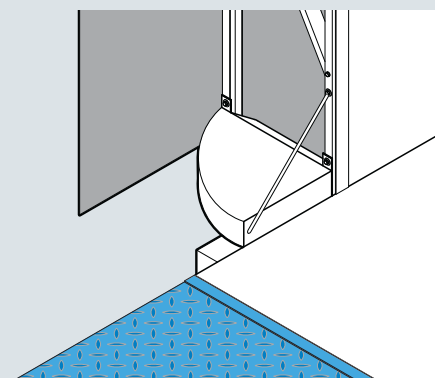
Cladding at top and sides

Substrate of polyester threads, coated both sides with PVC.

Any product designed for high duty must also offer long-term durability.

Where loading takes place around the clock, Hörmann DT dock shelters prove the ideal choice not least because of their particularly high-grade flap material.

The DT dock shelters feature durable product quality and minimal maintenance costs. If collision damage should be sustained, a leaf spring can be quickly and simply replaced without having to replace the entire side flap.



Optional: corner seal cushions



Inflatable Dock Seals

The Airbag Around the Lorry

High quality

A long service life

The Hörmann inflatable dock shelter adapts accurately to various sizes of lorry. It, therefore, offers excellent sealing properties and for the most part prevents outdoor temperatures reaching the warehouse. In combination with the DOBO System, this dock shelter is particularly recommended for coolers or for long loading times.

Benefits of the system

Not until the vehicle has safely docked, is the dock shelter fan switched on, allowing the dock shelter to inflate around the vehicle and providing an airtight seal within seconds. Once loading has been completed and the fan is switched off, the cushions retract into the enclosure just as quickly via internally located tension cables and counterweights. When the cushions are deflated, the roadway versions allow vehicles to be driven straight into the warehouse unobstructed.

Two-fold benefit

Small air openings on the undersides of the cushions ensure constant pressure. Any water on top of the lorry is blown away at the same time.

Roof and side cladding

of thermally insulated steel panels, 20 mm thick, in a choice of white aluminium (similar to RAL 9006) or off-white (similar to RAL 9002), with anodized aluminium corner profiles in the rounded softline look.

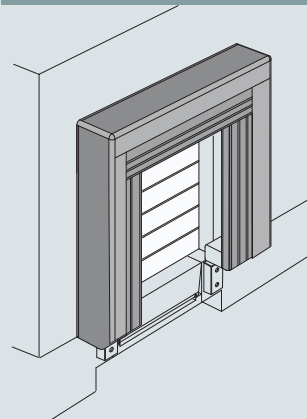
Flexible front strips

2-layer, elastic substrate of polyester monofilaments, PVC-coated on both sides, approx. 3 mm thick, graphite black (similar to RAL 9011).

Inflatable cushions

In weather-resistant, permanently elastic and high-frequency welded flap material, graphite black (similar to RAL 9011).

DAS-3



Dock-height version DAS -3

Standard size

3600 x 3550 x 850 mm (W x H x D).

Front opening with cushions deflated

3100 x 3150 mm (WxH)

with cushions inflated

2400 x 2550 mm (WxH)

Special sizes on request.

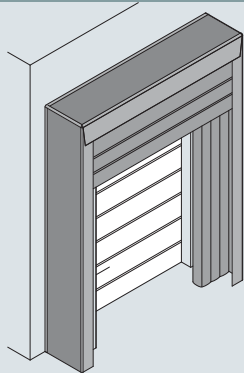
On request, with electrically-powered-roll-up flap instead of inflatable top cushion.

Once docked....



...sealed all round



**DAS-G-3****Roadway version DAS-G -3**

Standard size

3600 x 4700 x 850 mm (W x H x D).

Front opening with cushions deflated

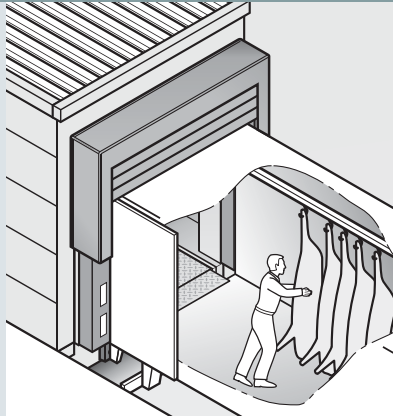
3100 x 4300 mm (WxH)

with cushions inflated

2400 x 3700 mm (WxH)

Special sizes on request.

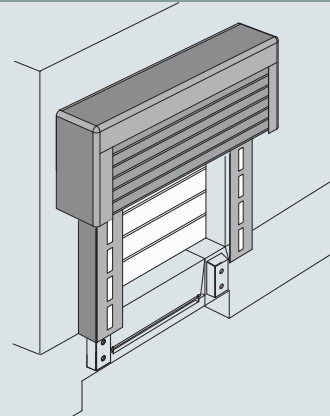
On request, with electrically-powered-roll-flap instead of inflatable top cushion.

DAK-3**For hanging goods: DAK-3**

The DAK-3 type is a beneficial combination of fixed side cushions and inflatable top cushions with sandwich cladding. This dock shelter is particularly recommended for hanging goods such as textiles or, for example, for transporting meat in refrigerated vehicles. Foam-filled side cushions provide the perfect seal at the sides.

In the height, the opening remains completely free thanks to the inflatable top cushion in order to directly forward the goods on conveyor systems.

In contrast to dock shelters with a fixed cushion, on the DAK-3 type a lorry's top flap does not pose a problem.

**DAK 3 dock-height version**

Standard size

3600 x 3500 x 350/850 mm (W x H x D).

Front opening with cushion deflated

2400 x 3100 mm (WxH)

with inflated top cushion

2400 x 2500 mm (WxH)

Special sizes on request.



Cushion Model Dock Seals for Special Applications

Cushion-model dock seals require experienced input - call Hörmann the experts

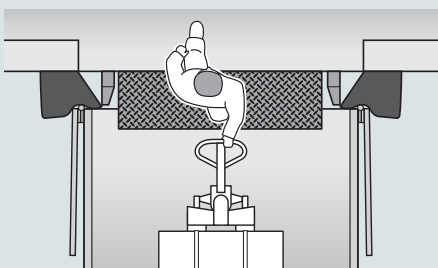
If thinking of using cushion-model dock seals, the following must be generally clarified:

- **What does your own fleet of vehicles look like?**
- **Which of your suppliers' lorries do the most docking?**

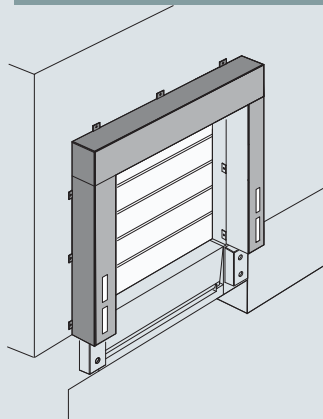
Because everything must precisely match. The typical area of use for cushion-model dock seals involves lorries with a rigid superstructure but without top flap, as well as for loading change-cans.

Safely Docked, Safely Sealed

To load and unload and with its doors already opened, the truck drives towards the air-filled foam cushions which are pushed in by a maximum of 50 mm on docking. Having the right system of suitable buffers is of the utmost importance.



DFH

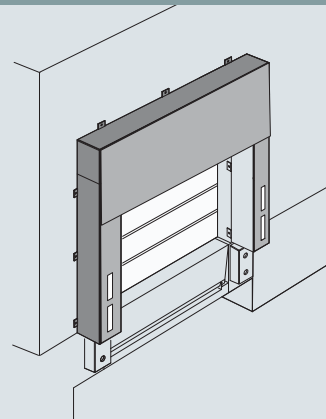


DFH type

With fixed top cushion, where vehicles are all of a similar size in accordance.

Standard size 2800 x 2500 mm (WxH)

DFC



DFC type

With fixed top flap, for smaller vehicles of varying heights and for warehouses with high loading doors

Standard size 2800 x 3000 mm (WxH)

Typical for cushion door seals: even the space between the outside of the container and the open door is sealed. This makes the loading opening smaller as a result however, which makes it unsuitable for trucks with a top flap.



DAH	Cushion shapes	Colours
DAH type with adjustable top cushion designed to seal a wider range of vehicle heights. Standard size 2800 x 2700 mm (WxH)	straight shape (with side cushions) angled shape (W) (with side cushions) Cushions The cushions are filled with 100% CFC-free PU foam and offer good flexibility thanks to integral air chambers. Together with the robust base frame and the high quality woven fabric reinforced plastic flaps, the cushions form a hard-wearing unit. The front faces of the cushions are additionally reinforced by high-frequency welded polyester strips across the full width and are therefore low in wear and offer greater durability.	Colours ● Graphite black, similar to RAL 9011 (standard) ● Basalt grey, similar to RAL 7012 ● Gentian blue, similar to RAL 5010 ● Moss green, similar to RAL 6005 Marker stripes ○ White ● Yellow ● Orange ● Red



1 Sectional door



2 Rolling shutters and rolling grilles



3 Folding gates made of steel and aluminium



4 High-speed doors

All from one source: for your facility construction.

1 Sectional door

These room-saving door-systems can be adapted to various hardware types for each industrial facility. This gives you planning safety when building a new development or making renovations. Hörmann offers you tailored solutions for every application: for instance full-glazed AS sectional doors for a clear view of inner rooms or high, thermally-insulated, double-skinned 80 mm thick DPU doors that guarantee even temperatures.

2 Rolling shutters and rolling grilles

With their simple design and reduced components, rolling shutters are extremely economical and robust. Hörmann supplies rolling shutters in widths and heights of up to 11.75 m and 9 m respectively, or special doors which are even higher. Numerous window and colour designs give you room for variety when designing your facility.

3 Folding gates made of steel and aluminium

Hörmann folding gates in steel and aluminium are recommended for halls with low traffic frequency and little headroom where no roof load is permitted. Fewer wearing parts make folding gates easy to repair and service.

4 High-speed doors

Hörmann high-speed doors are used both indoors and outdoors to optimise traffic flow, improve room climate and save on energy. The Hörmann range comprises clear-view doors with a flexible curtain that open vertically and horizontally. They can also be combined with sectional doors and rolling shutters. The benefit to you: the SoftEdge technology with built-in crash-protection makes high-speed doors extremely safe and economical.

5 Loading technology

Hörmann delivers complete loading systems for all your logistics needs. The benefit to you: sure planning, reliable construction management and high functionality due to perfectly designed components is guaranteed, irrespective of whether you need individual dock levellers or loading houses. All of these can be retrofitted to existing buildings as a complete unit with a loading bridge and dock seal.

6 Fire sliding doors

Hörmann delivers one and two-leaf sliding door solutions for all areas in a facility depending on the fire-protection level required, and with wicket-door and smoke-protection functionality for escape routes by choice.

7 Multifunctional doors

Hörmann multifunction doors and inner facility doors are suitable for indoor and outdoor use. Our one and two-leaf doors can be used anywhere where heavy-duty door elements are required. With numerous additional functions, Hörmann offers you solutions that cover almost all types of application in industry.

8 Fire and smoke-protection box-frame parts

Hörmann can supply you with doors and fixed glazing made of steel and aluminium for heavy-duty areas such as industrial building administration sections. The 100 % matching system-appearance guarantees the same looks irrespective of the fire class.



5 Loading technology



6 Fire sliding doors

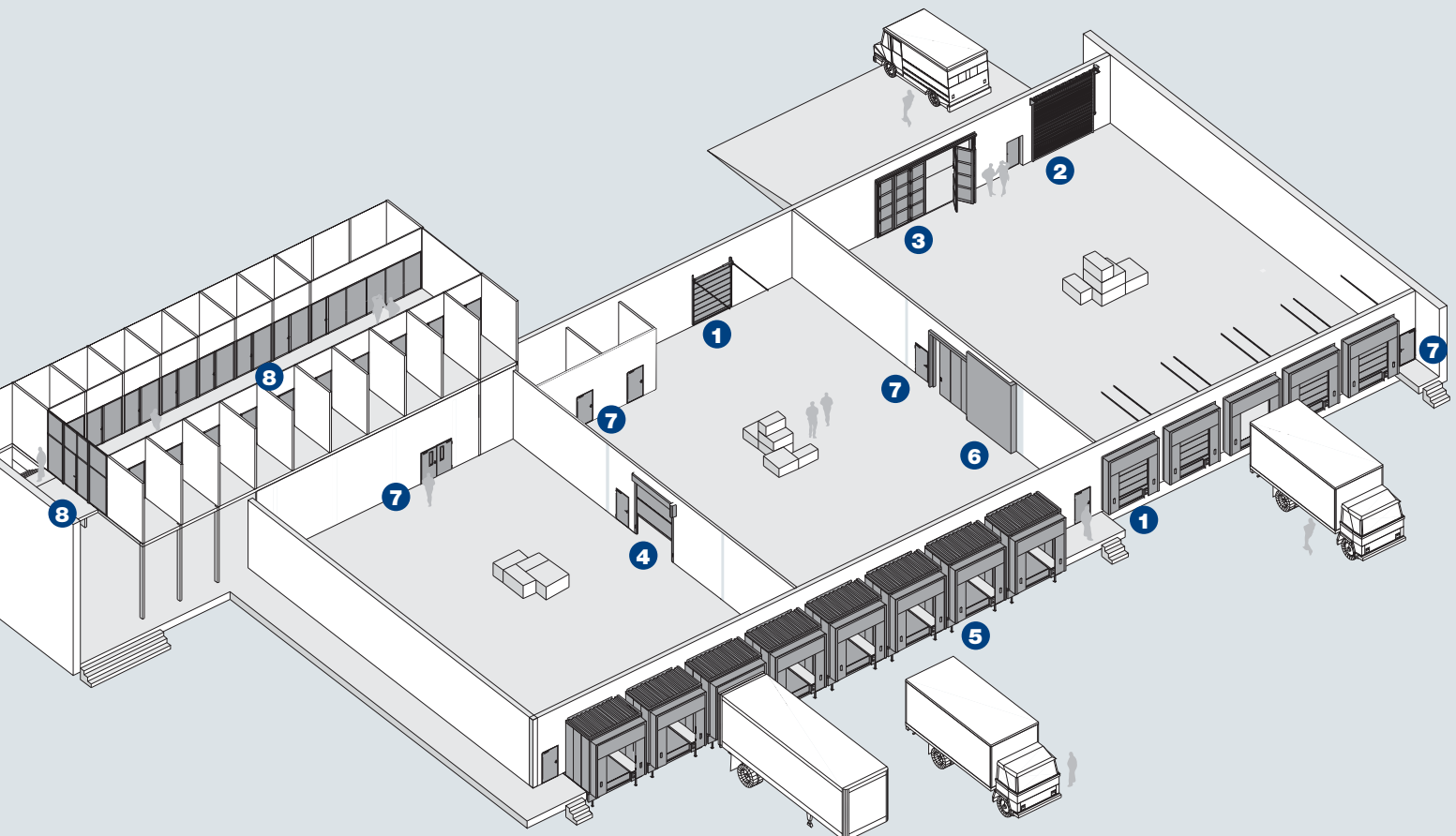


7 Multifunctional doors
Facility inner doors



8 Fire and smoke-protection
box-frame parts

As a construction element specialist Hörmann gives you the power to plan perfectly whatever your needs. Carefully matched, facility-construction solutions offer you the very best in perfectly designed products in every area.



Hörmann: Quality without Compromise



Hörmann KG Amshausen



Hörmann KG Antriebstechnik



Hörmann KG Brandis



Hörmann KG Brockhagen



Hörmann KG Dissen



Hörmann KG Eckelhausen



Hörmann KG Freisen



Hörmann KG Ichttershausen



Hörmann KG Werne



Hörmann Genk NV, Belgium



Hörmann Beijing, China



Hörmann Gadco LLC, Vonore TN, USA

Hörmann is the only manufacturer worldwide that offers you a complete range of all major building products from one source.

We manufacture in highly-specialized factories using the latest production technologies.

The close-meshed network of sales and service companies throughout Europe, and activities in the USA and China, make Hörmann your strong partner for first-class building products, offering "Quality without Compromise".

GARAGE DOORS

OPERATORS

INDUSTRIAL DOORS

LOADING EQUIPMENT

HINGED DOORS

DOOR FRAMES