

*Sustainable logistics  
with intelligent docking systems*



# Loading Technology

Complete solutions for more efficiency



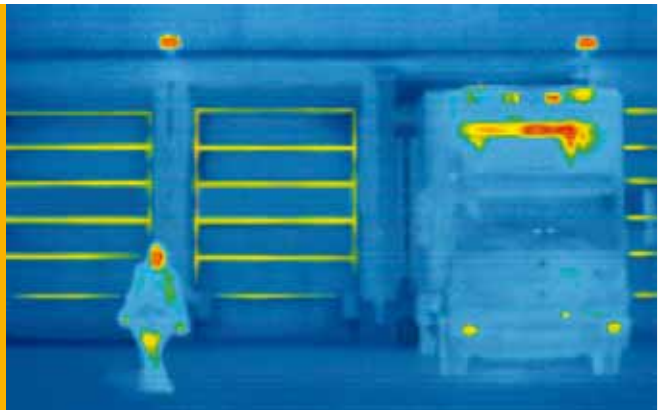


# The right concepts

## Efficient planning

### Energy efficiency

Thermographic studies confirm that a building's openings are a particularly critical factor when it comes to energy efficiency. With proper planning and the proper equipment that matches the building's intended function, thermal loss can be kept at a minimum.



### Safety

Workplace safety is quite rightfully a very important issue. Accident and health risks as well as damage to goods, vehicles and building equipment must be avoided. Especially at loading bays, where your own employees and external staff work together, suitable measures must be considered carefully.



### Longevity

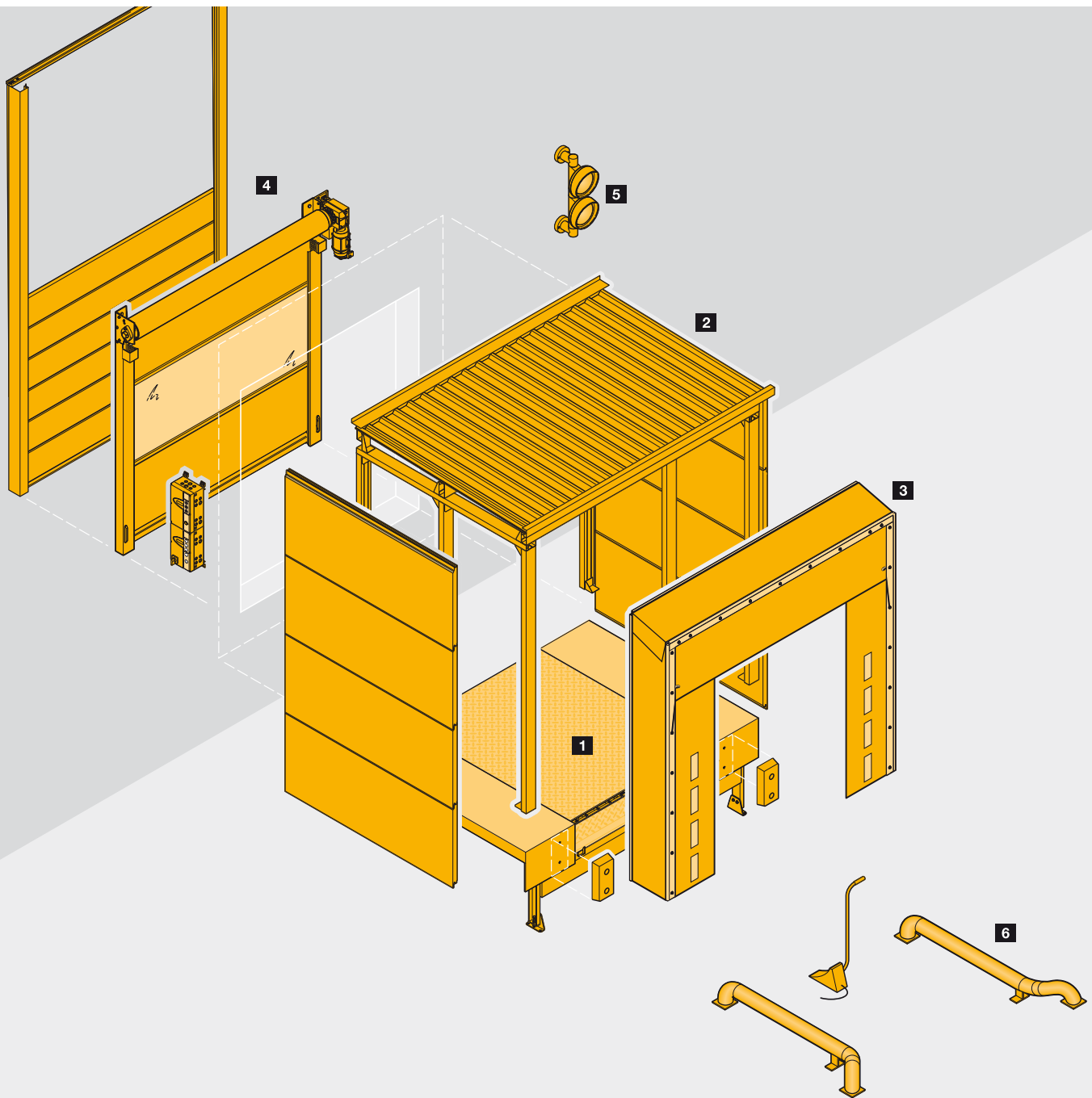
The rough nature of daily use quickly leaves its mark on loading bays – quick wear and tear, collision damage and planning errors can require costly repairs and replacements within a very short period of time. High-quality materials, coupled with foresighted planning and the selection of suitable protection measures protect your valuable investment.



Increasing demands as to energy efficiency, safety and longevity require individually adjusted solutions. We advise you on site and recommend an economically efficient system which in terms of quality, function and reliability meets your requirements.

# The right products

Developed and manufactured in-house



## Optimally co-ordinated system

All components for your loading bay are available from a single source: Hörmann. Developed and manufactured in-house, Hörmann products are optimally co-ordinated, which ensures smooth loading and unloading at your loading bay.

- 1 Dock levellers**
- 2 Loading houses**
- 3 Dock seals / shelters**
- 4 Industrial doors**
- 5 Control systems**
- 6 Dock and safety accessories**

# Good reasons to try Hörmann

Individual solutions from the market leader for doors and loading technology



# 1

## Robust dock levellers

Sustainability and quality go hand in hand. Dock levellers have to withstand the rough day-to-day loading environment. For this reason, all components are manufactured using high-quality materials. The design of all dock levellers corresponds to EN 1398 and, with regard to loading capacity, is dimensioned generously. Particularly sturdy flat anchors, ventilation slots in the edge bracket and adjustment angles to screw ensure reliable fixing in the building structure, one of the most important prerequisites for a long service life.

For further information, see pages 18 – 19.



# 2

## Energy-efficient loading houses

The dock leveller is fit directly in front of the building with a loading house, allowing the building opening to be sealed efficiently with an industrial door. As early as the quotation phase, we are able to provide model statistics defining the maximum wind and snow loads for Hörmann loading houses.

Any unevenness in the door can easily be compensated for using adjustable feet.

For further information, see pages 34 – 37.



# 3

## Flexible dock seals and shelters

Dock seals and shelters are particularly efficient when they are optimally adapted to the docking vehicles and the loading situation. This requires a wide range of flexible solutions.

Robust push-in flap dock shelters with different frame constructions prevent them from being damaged during docking.

Inflatable dock seals adjust to different vehicle dimensions. Roll-up flaps compensate for even larger differences in vehicle heights.

Dock seals and shelters with telescopic link arms or rising roof constructions are recommended to compensate for vehicle movements or when placing interchangeable containers.

For further information, see pages 38 – 43.



# 4

## Compatible control systems

From development to production, all Hörmann door and dock leveller controls come from the same source, making them optimally matched to each other. As a result, you benefit from a uniform operating concept with standardised housing sizes and the same cable sets for dock levellers and door controls.

Another advantage: If the dock leveller control is placed beneath the door control, both controls can be combined into a single compact unit.

For further information, see pages 26 – 27.

# Proper planning

## Sustainability begins with planning

### Loading technology inside the building

With many interior solutions, energy is lost through the dock leveller even when the door is closed. This leads to unnecessary energy loss in temperature controlled buildings, which can be prevented with the proper planning.

For such cases, Hörmann offers concepts with advance travel doors and insulated panels under the dock leveller. This minimises heat loss outside loading times.

For buildings that are not temperature controlled, the conventional fitting with a door mounted to the dock leveller is suitable.



### Loading technology in front of the building

In the external solution, the dock leveller is placed in front of the building in a loading house. The loading house acts as the door to the building, minimising energy loss, especially when no loading is in process.

A further advantage: The interior building space can be used entirely up to the door. This solution is also suited for modernisation, as a complete loading bay can be added to the building without costly reconstruction measures.



# Flap dock shelters

Universally applicable



Hörmann flap dock shelters adjust to the lorry's size and can thus be used universally. As dock or roadway models, they are available in many variations and can therefore be optimally customised to most situations. High-quality top and side flaps, mounted on a galvanized, compressible steel frame, result in a stable, flexible and robust construction.

Flaps and frame parts are manufactured as easy-to-assemble individual elements that can be screwed together. This also makes replacements simple and inexpensive.



# Flap dock shelters

## The lorry determines the dimensions

### Hörmann practical application tip

Cuts in the top flap reduce the load during docking.

### Ask yourself:

- How high is the loading bay?
- How wide and how high are the docking vehicles?
- Do different lorry sizes have to load at the same loading bay?
- What type of goods are loaded?

Use the table below to carefully determine the required size of the front opening. This is the only way to achieve optimal sealing.

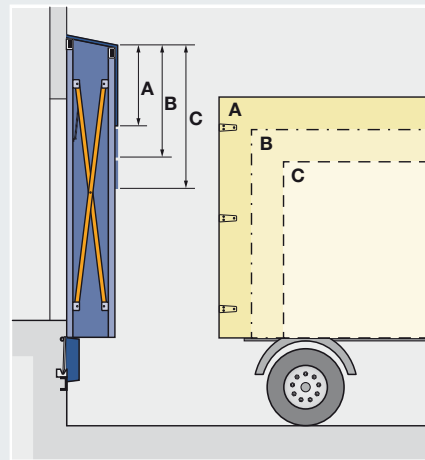
Ideally, the dock seal is 850 mm higher and 1000 mm wider than the lorry.

While a long top flap ensures good sealing even with smaller lorries, it hangs over the loading opening of larger vehicles. An overlap of approximately 150 mm is ideal.

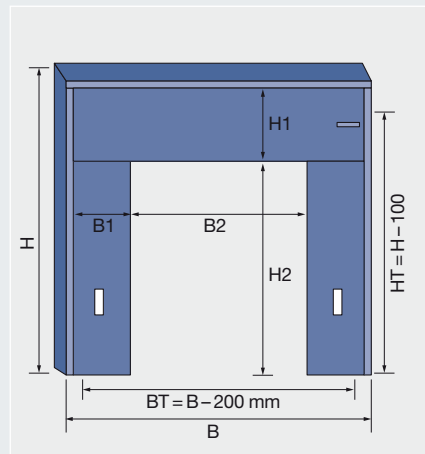
The correct combination of flap width and depth results in optimal sealing. In Hörmann dock seals, a depth of 500 mm has been tried and tested in practical application. If required by the customers, dock seals are also available with 600 mm depth, type DS even with a depth of 900 mm, which is ideal, for MRS mechanical dock levellers that are fitted in front of the ramp.

Standard widths: 3350/3500 mm  
Standard heights: 3500/3750 mm  
(Roadway model 4500 mm high)

For fitting the dock seal, the door opening may have the following maximum dimensions:  
Door width = Width of the dock seal – 200 mm  
Door height = Height of the dock seal – 100 mm



Adjust the height of the top flap to the vehicle height. Optimal: 150 mm overlap.



**B** Width  
**B1** Side flap  
**B2** Front opening  
**BT** Door opening width  
**H** Height  
**H1** Top flap  
**H2** Front opening  
**HT** Door opening height

B Dock shelter width		DS		DT	DDF
	<b>B1 side flap</b>	600	700	650	600
3300	<b>B2 front opening</b>	-	-	-	2100
3350		2150	1950	2050	-
3400		-	-	-	2200
3500		2300	2100	2200	-

Front opening width = Dock seal width – (2 × width of side flaps)

H dock seal height		DS/DT		DT	DDF	
	<b>H1 top flap</b>	900	1000	1200	1350	1000
3500	<b>H2 front opening</b>	2500	2400	2200	2050	2450
3750		2750	2650	2450	2300	-
4500*		3500	3400	3200	3050	-

Front opening height = Dock seal height – top flap height – 100 (drainage)

\* Roadway model

# Flap dock shelters

## Flexible frame construction

### Link arm construction

Due to their special frame profiles, link arms are flexible both horizontally and vertically.

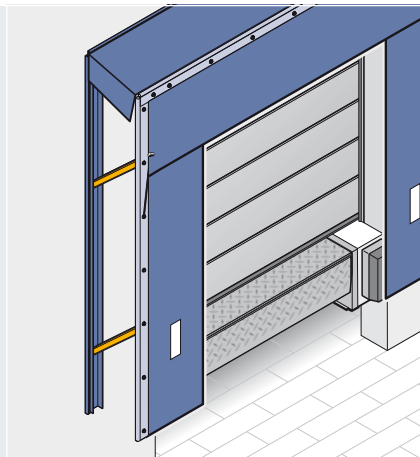


### Telescopic link arm construction

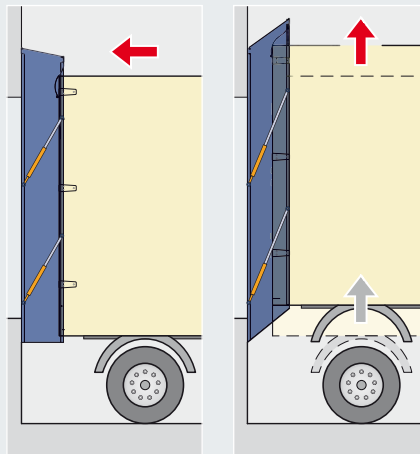
The patented construction with telescopic link arms and flexible front frame minimises the risk of damage to the top edge of the dock shelter. This may result when lifting interchangeable containers during placement or due to large docking lorries whose loading surface or design rises during loading.

### Scissors arm construction

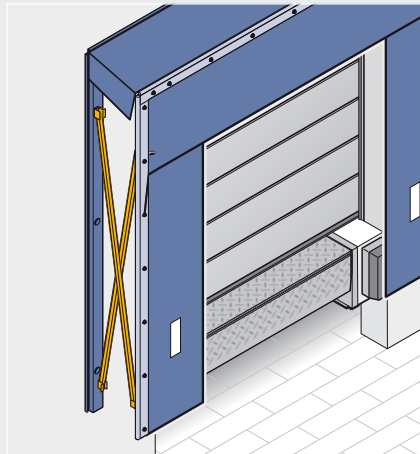
The particularly stable scissors arm design with tension springs is pressed in parallel and once more tightens the tension of the cladding after the loading process. It also supports roadway or recessed versions.



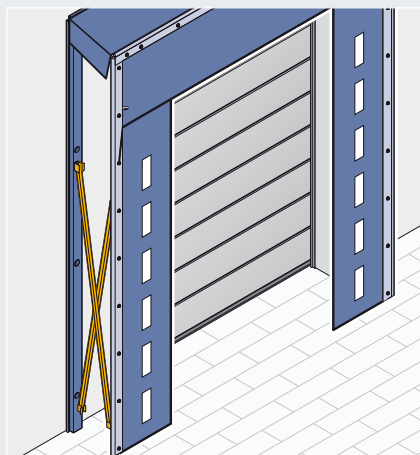
Link arm construction



Telescopic link arm construction



Scissors arm construction



Scissors arm construction  
as an optional roadway model