Contents

1. Scope of Works / Description of Systems of Plant & Equipment

SCOPE OF WORKS

To supply and install:-

5x HTL2 dock levellers
5x DSS dock shelters
5x SPUF42 loading bay doors
2x SPUF42 level access doors
5x STU MZ multi purpose steel doors

Installed at:-

Winvic Construction Ltd
Panattoni
Horton Road
Poyle
SL3 0BB

Hörmann (UK) Ltd.
Industrial Doors Department
Gee Road, Coalville
Leicestershire LE67 4JW

Tel: 01530 516850
Fax: 01530 516851

FBS Hörmann Industrial Service Department Contacts:

Out of Hours Engineer Call Out	**+44 845 5211 247/+44 345 5211 247**	
Trade Supply Only Spare Parts	+44 1530 516858	spares.lei@hormann.co.uk
Supply & Install of Spare Parts	+44 1529 413 374	
Engineer Call Out	+44 1529 413 374	callouts@fen-bayservices.co.uk
Aftersales Technical Support	+44 1530 516860	indtech.lei@hormann.co.uk

Hörmann (UK) Ltd.
Industrial Doors Department
Gee Road, Coalville
Leicestershire LE67 4JW

Tel: 01530 516850
Fax: 01530 516851

2. Suppliers and Manufacturers Directory

winvic
DOING IT RIGHT.

Manufacturer Details

Hörmann Alkmaar BV
Factory
Dock levellers / Dock shelters / Loading houses / Pedestals

Robbenkoog,
201822 ALKMAAR,
Holland

Hörmann KG Brockhagen
Factory
Sectional industrial doors / Side doors

Horststrasse 1
733803 STEINHAGEN,
Germany

Tortec Brandschutztor GmbH
Factory
Fire sliding doors / Fire doors

Imling
104902 WOLFSEGGÖSTEREICH
Germany

3. Manufacturers Information

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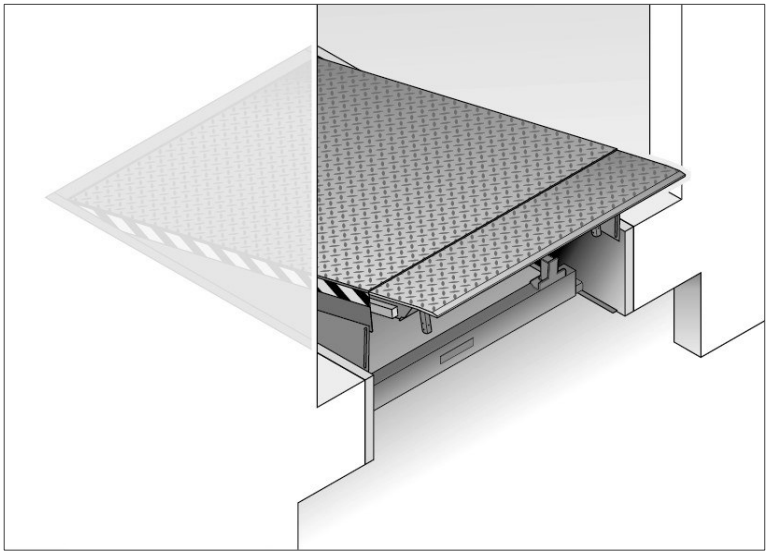
DATA SHEET

Dock leveller HTL2 frame model FR

Main properties

- **Telescopic lip**
- **Frame model for casting**
- **Rated loads up to 90 kN acc. to EN 1398**
- **Ordering lengths up to 5000 mm**

Hydraulic dock leveller with telescopic lip Self-supporting steel articulated construction acc. to EN 1398.



Dimensions (mm)									
	Ordering width	**2000, 2100, 2250**							
	Ordering length	**2000**	**2500**	**2750**	**3000**	**3500**	**4000**	**4500**	**5000**
	Installation height	595	595	645	645	745	745	745	745
	Special sizes on request								
Work area (mm)									
	Permissible values up to 12.5% gradient / slope acc. to EN 1398 and with telescopic lip extended. The maximum height adjustment may deviate.								
Telescopic lip 500	A above level	270	340	370	405	470	540	605	670
	B below level	350	345	400	395	425	415	405	400
Telescopic lip 1000	A above level	325	395	430	400	530	595	660	730
	B below level	410	395	430	420	470	450	440	430
Telescopic lip 1200	A above level	-	415	450	480	550	615	680	750
	B below level	-	415	450	440	490	470	470	440

Design		Standard / option ● / ○
Design	Dock leveller with torsional flexibility, platform with reinforcement profiles at the bottom side, telescopic lip with gradient, electrohydraulic system with 2 main cylinders and 1 lip cylinder, self-supporting steel frame, calculation according to the finite elements method	
Safety components acc. to EN 1398	Emergency stop valves, emergency stop switch, restart inhibition, maintenance support, foot guard plates, yellow / black safety markings	
Rated load acc. to EN 1398	60 kN	●
	Up to 90 kN	○
Note for forklifts with hard rollers	Restriction of total weight of industrial trucks with PU / Vulkollan rollers recommended to prevent lane grooves in the platform:	
	For reach lift truck max. 4 t, for industrial truck with rated load ≥ 60 kN max. 6 t	
Platform material	Moulded, anti-slip steel (running plate S235)	●
Platform material thickness	8/10 mm	●
Lip material	Moulded, anti-slip steel (running plate S355)	●
Lip material thickness	12/14 mm with rated load ≤ 60 kN and telescopic lip 500 mm or 1200 mm	
	15/17 mm with rated load > 60 kN or telescopic lip 1000 mm	
Lip length	500 mm	●
	1000 mm (rated load max. 60 kN)	○
	1200 mm (limited rated load, max. 50 kN)	○
	Longer lip with rated load > 60 kN on request	○

Lip shape	Ordering width (mm)	≤ 2000	> 2000
Type R	straight	●	○
Type S	100 mm chamfering on each side	○	●
Type SG	Segmented (rated load max. 60 kN), Segments approx. 170 mm wide, load bearing capacity up to 600 kg each	○	○

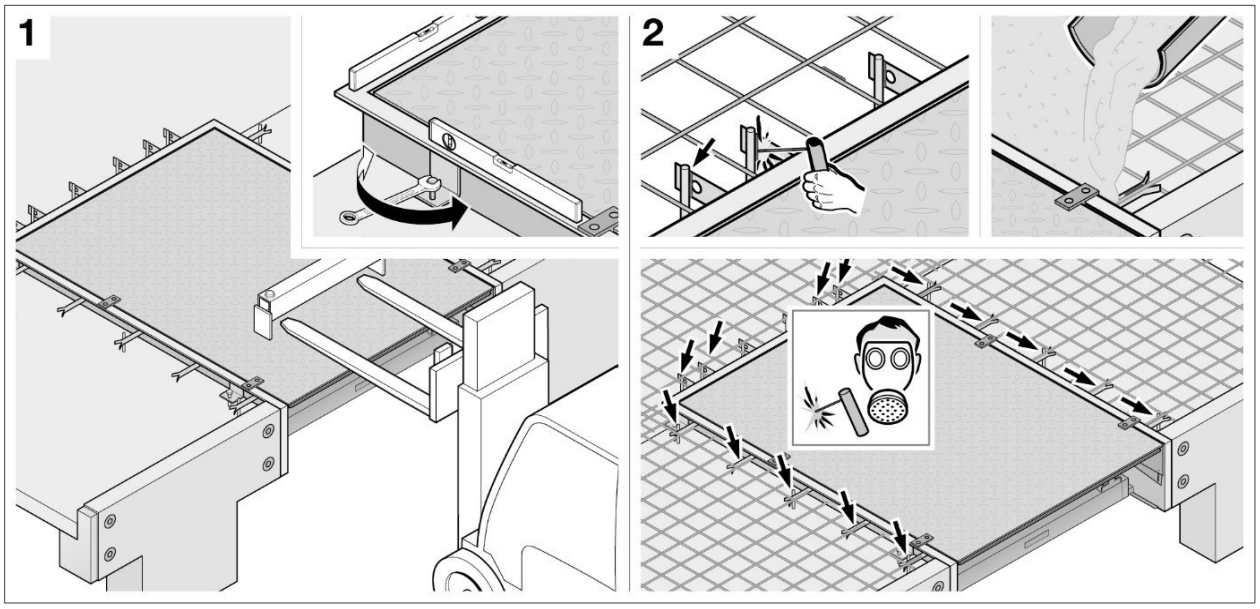
Gap sealing	Sealing lip, all-round on 3 sides	○
Insulation	30 mm thick insulation layer under the platform; no insulation layer possible in the front area (telescopic lip length + 650 mm)	○

Surface finishes		Standard / option ● / ○
Coating	Steel surfaces sand-blasted, coated with 2-component PUR paint, 60 to 80 µm	●
	Steel surfaces sand-blasted, galvanized	○
Paint colour	Traffic black, based on RAL 9017	●
	RAL to choose, except for metallic and signal colours	○
Anti-slip coating	Running plate coated with polyurethane with injected Twaron fibres, approx. 1 – 2 mm thick on the platform and lip, anti-slip class R11 acc. to DIN 51130	○
Acoustic insulation	Running plate coated with polyurethane with injected Twaron fibres, approx. 3 – 4 mm thick on the platform and approx. 1 – 2 mm thick on the lip, anti-slip class R11 acc. to DIN 51130	○

Operator and control		Standard / option ● / ○
Hydraulics temperature range	Suitable for temperatures from -10 to +50°C under the dock leveller	●
	Suitable for temperatures from -25 to +50°C under the dock leveller	○
Motor power	1.1 kW	●
Connecting voltage	400 V / 3-phase	●
	230 V / 3-phase	○
	230 V / 1-phase	○
	Additional connecting voltages on request	○
Supply frequency	Either 50 or 60 Hz	●
Operator protection category	IP 54	●
Control protection category	IP 65 (jet-water protected)	●
Control elements	Membrane push buttons integrated in housing for separate actuation of the dock leveller and telescopic lip with press-and-hold actuation and “Auto” button for automatic return to the home position	●
Control type	420 T Basic control	●
	420 Ti Combination control with integrated door operation	○
	460 T Multi-control with extended functions and connections	○

Control equipment		420 T	420 Ti	460 T
Standby / error message display	LED operation indicator	●	●	
	7-segment display			●
Operation	Automatic impulse return	●	●	●
	Convenient telescopic lip operation	●	●	●
	Integrated control button for dock shelter			●
	Integrated door operation		●	
Prepared connections and functions	Wheel chock with sensor	●	●	●
	Dock leveller release function	●	●	●
	Door release function	○	○	●
	Automatic door closing function			○
	Semi operation			○
	Expanded connection options			●
Energy efficiency	Energy saving mode	●	●	●

Fitting	
Fitting model	Frame model FR
Fitting	Fitting by casting in a pit prepared according to manufacturer’s specifications or with casting groove
Casting height	Optionally 100 to 250 mm
Protective film	Platform optionally provided with protective film, as standard when equipped with anti-slip coating or acoustic insulation



Fitting situation frame model FR with prefabricated concrete

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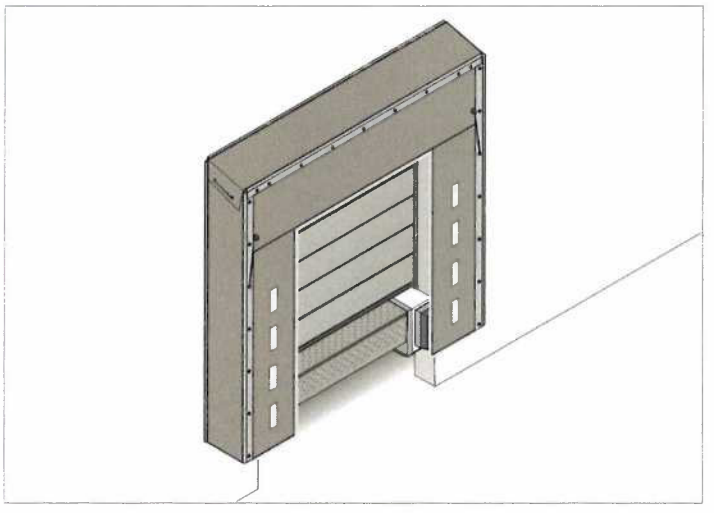
DATA SHEET

Flap dock shelter DSS

Main properties

- **Dock model**
- **With scissors arm**
- **Side flaps with monofilaments**
- **Depth up to 900 mm**

Dock shelter as a dock model with scissors arm construction



Dimensions (mm) — Standard / option ● / ○

Ordering size	Width		**3350**					**3500**			
	Height	**3500**		**3750**			**3500**			**3750**	
Width	Side flaps			**600**				**700**			
(Ordering width)	Front opening	(3500)		2300				2100			
		(3350)		2150				1950			
Height	Top flap		**500**	**550**	**600**	**700**	**800**	**900**	**1000**	**1100**	**1200**
			○	○	○	○	○	●	○	○	○
(Ordering height)	Front opening	(3750)	3150	3100	3050	2950	2850	2750	2650	2550	2450
		(3500)	2900	2850	2800	2700	2600	2500	2400	2300	2200
Depth	Dock seal		**500**					**600**			
			●					○			

Special sizes on request

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Design		Standard / option ● / ○
Frame	3-sided front and rear frame made of galvanized steel profiles, solid steel corner connections, fastening of side and top flaps as well as side and top cladding with weather strip rails made of anodised aluminium, flexible frame connection through scissors arms made of galvanized steel profiles, return via steel springs, delivered pre-assembled on front and rear frame	●
Top part	Angled top part with slope 100 mm to the front	●
	Drainage to the front	●
Water run-off	Drainage to the side through top cladding with water drainage channel for dock seal with depth 500 or 600 mm, recommended for loading sites with high facades and long standing times	○
	Drainage to the side through water drainpipe for dock seal with depth 900 mm, recommended for loading sites without canopy	○

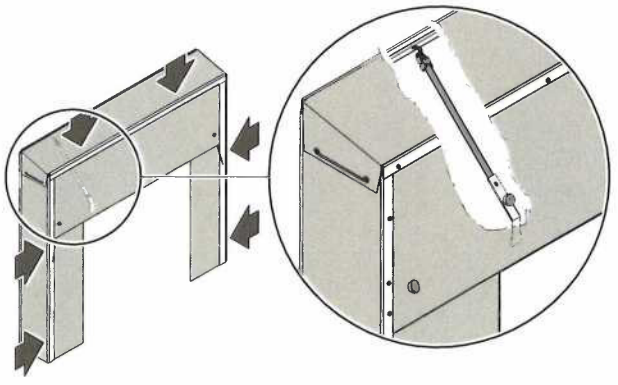
Flaps and cladding					Standard / option ● / ○	
Tarpaulin material		**Coating**	**Tensile strength** longitudinal / transverse	**Tensile strength** longitudinal / transverse	**Temperature** min. / max.	**Weight** DIN
		DIN ISO 2060	DIN ISO 1421	DIN 53363	DIN EN 1879-1	ISO 2286-2
			(N / 5 cm)	(N)	(°C)	(g/m²)
Top flap	With multifilament	On both sides	7800 / 5600	800 / 750	–30 / +70	3700
Side flaps	With monofilament	On both sides	7000 / 4300	1000 / 650	–30 / +70	3800
Cladding	Side and top	On both sides	2500 / 2200	300 / 300	–30 / +70	540
Cushions (optional)	Corner seal	On both sides	7000 / 600	1050 / 950	–30 / +70	2000

Top and side flaps	2-layer elastic backing fabric made of polyester threads approx. 3 mm thick, coated with plastic on both sides, transversal strength of the side flaps via monofilament	●
Flap delivery	Top and side flaps separate	●
	Top and side flaps pre-assembled	○
Flap colour	Graphite black, based on RAL 9011	●
	Basalt grey, based on RAL 7012	○
	Gentian blue, based on RAL 5010	○
Cuts on top flap	Without cut	●
	with one side cut on both the right and left side	○
	Corner lamination, 2 side cuts on both the right and left side	○
	Full lamination with 100% overlapping	○
Marker stripes	4 marker stripes per side	●
Marker stripe colour	White	○
	Yellow	○
	Orange	○
	Red	○
Corner seal	Inflatable corner cushions filled with foam	○
Top and side cladding	1-layer backing fabric made of polyester threads, coated with plastic on both sides	●
Cladding colour	black	●
	In the colour of the flap	○

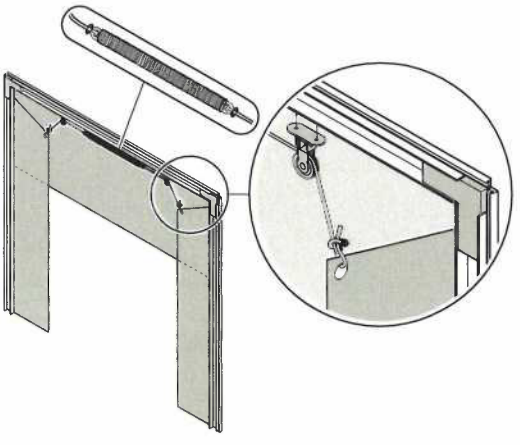
Optional extras		Standard / option • / ○
Roll-up flap	Additional flap, electrically operated (230 V / 1-phase press-and-hold operator), black, width 3350 to 3500 mm, length 2000 mm	○
	Electrically operated version with wind lock	○
Storm set	Wind lock of flaps to rear frame or building structure through 2 elastic tension cables (not possible for roll-up flap, with fully laminated top flap or if height of top flap > 1200 mm)	○
KTP set	Side flap suspension on the front frame with pulley blocks instead of elastic tension cables	○
Number on top flap	Top flap with number (0 to 99), approx. 300 mm high, in the colour of the marker stripes	○
Sealing set	for sealing to the facade, consisting of a preformed gasket and facade putty	○

Fitting	
Fitting	Fitting on a sufficiently stable, level, and vertical/flush subsurface, without brickwork, plastering, or concreting. The fitting prerequisites from the manufacturer must be fulfilled!

Storm set



KTP set



DATA SHEET

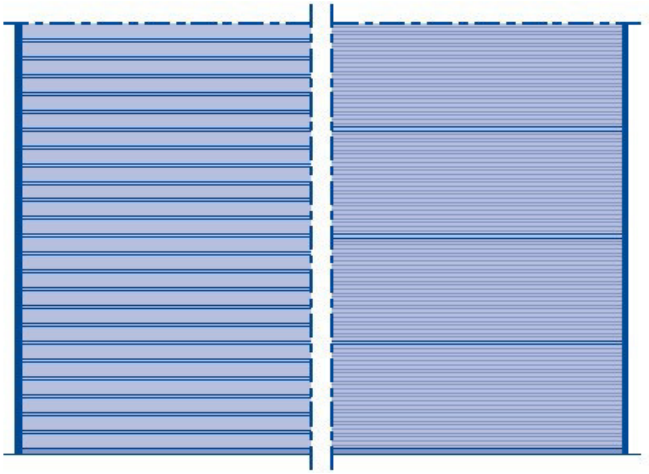
SPU F42
Double-skinned steel sectional door

Door sections made of double-skinned steel sections, made of hot-galvanized sheet steel, PU-foamed, with steel end caps

Surface finish (textured steel section):

Stucco: Exterior S-ribbed, Stucco-textured with horizontal ribbing with a spacing of 125 mm, interior Stucco-textured
Micrograin: Exterior L-ribbed Micrograin, interior Stucco-textured

Height of door sections 625 / 750 mm (door width max. 6000 mm) or 500 / 375 mm (combination of 2 door section heights within the door)



Main function

Acoustic value
Up to 25 dB

Thermal resistance
1-1.2 W/m²K

CE mark
EN 13241

Resistance to wind load
Class 2-4

Water tightness
Class 3 (70 Pa)

Air permeability
Class 1-2

The values depend on the configuration of the door.

Door size	Without wicket door	with wicket door
Max. width (mm)	8000	7000
Max. height (mm)	7500	7500

Construction and quality features		Function
Fastening options	Concrete, steel, brickwork, others on request	●
Depth in mm	42	●
Design	Self-supporting	●
Material, door leaf	Steel section, double-skinned	●
Profile type	Available in S or L-ribbed versions	○
Surface finish, door leaf	Galvanized steel, coated RAL 9002	●
	Galvanized steel, coated in RAL 9006 / RAL to choose	○
Wicket door	Optionally available / fitting in the centre fields of the door	○
Side doors	NT 60 / NT 80 Thermo matching the door	○
Glazing	Section window type A, type D, type E, aluminium glazing frame	○
Seals	All round on 4 sides and intermediate seal between the door sections	●
ThermoFrame	PVC hard / soft seal	○
Locking system, standard	Internal locking	●
Locking system, optional	External / internal locking	○
Anti-lift kit	For doors of up to 5 m with shaft operator	●
Safety equipment	Finger trap protection, side trap guards, safety catch	●
Operator	Motor-driven / manual	○

● Standard ○ Optional

Performance characteristics		Door without wicket door	Door with wicket door
Resistance to wind load acc. to EN 12424	Class	3 [5)] 4 [3) 5)]	2 [5)] 3 [3) 5)]
Water tightness acc. to EN 12425	Class	3 (70 Pa)	3 (70 Pa)
Air permeability acc. to EN 12426	Class	2	1
Acoustic value acc. to EN ISO 717-1	R [db]	25	24
Thermal resistance acc. to EN 13241, Appendix B EN 12428 5000 x 5000 mm	W/m²*K	1	1,2
CE mark	EN 13241		

Note: Higher classes and better thermal insulation values or acoustic values on request!
1) The information refers to U-values that are achieved with a synthetic triple pane (S3) (optional), 26 mm (Ug = 1.9 W/m²·K).
2) The information refers to U-values that are achieved with a climatic double pane made of single-pane safety glass (G2) (optional), 26 mm (Ug = 1.1 W/m²·K).
3) For door widths up to 4000 mm.
4) The information refers to the acoustic values that are achieved with a real glass pane (optional).
5) Lower class rating may apply for doors with compound glazing

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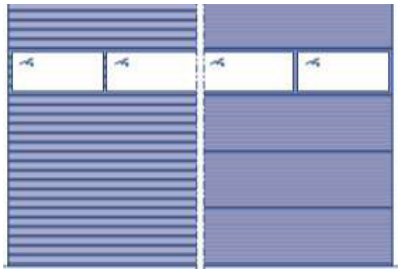
Depth
42 mm

Fastening options
Concrete
Steel
Brickwork
Others on request

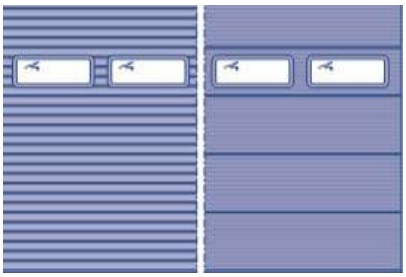
Seals
All-round on 4 sides
Intermediate seal between the door sections

Locking
Shootbolt
Rotary latch
Floor locking

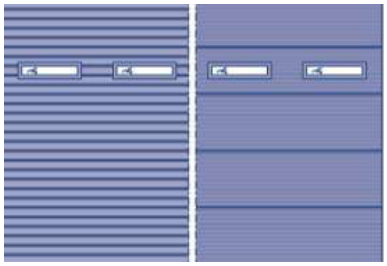
Glazing



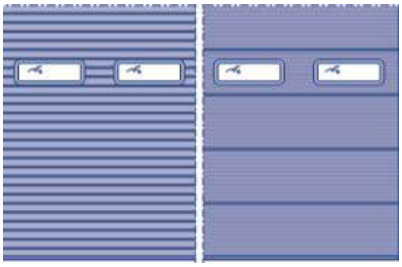
Version with glazing frame



Version with compound glazing
Type E
Glazing dimension (W x H): 800 x 445
Clear view (W x H): 725 x 370

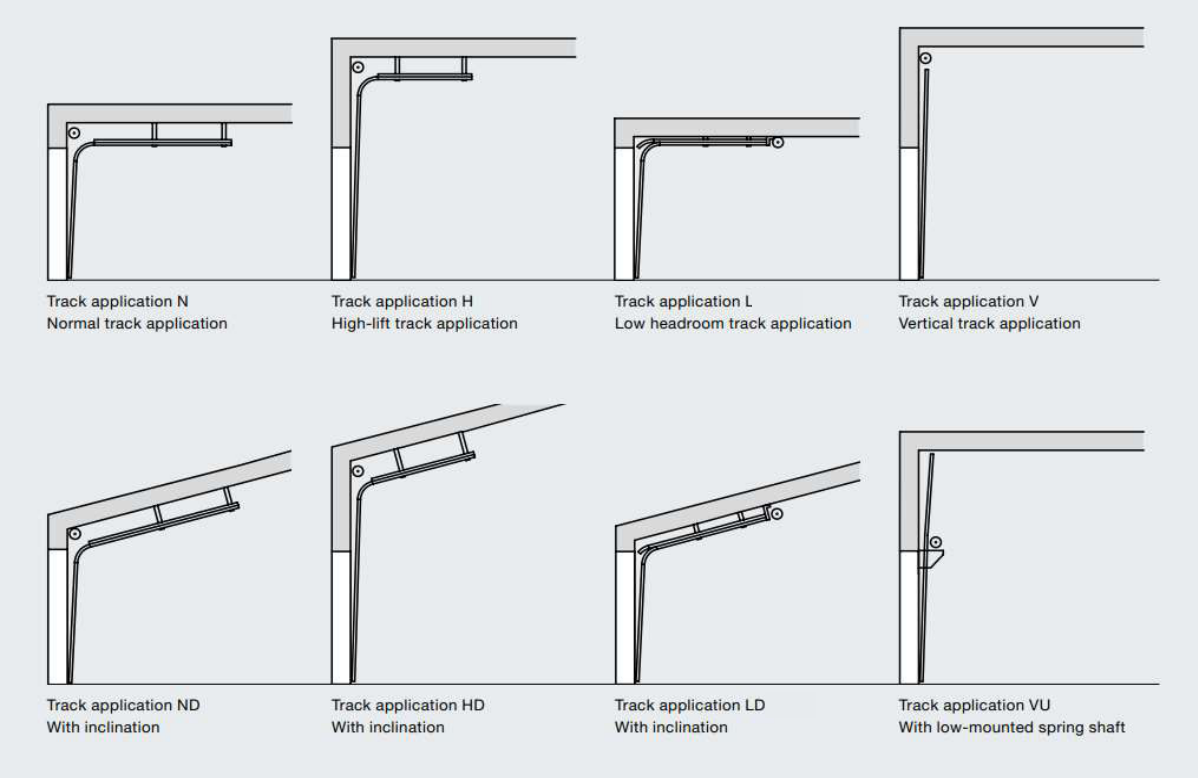


Version with compound glazing
Type D
Glazing dimension (W x H): 680 x 210
Clear view (W x H): 602 x 132



Version with compound glazing
Type A
Glazing dimension (W × H): 710 × 320
Clear view (W × H): 635 × 245

Track application



All available track versions

can be found in the valid technical manual or the product configurator.

HÖRMANN

DATA SHEET

Multi-purpose door
STU MZ-1, steel external door

Whether for your warehouse or offices, indoors and outdoors, with or without special equipment.
Multi-purpose doors STU match fire-rated doors and comply with a wide range of requirements. For use in exterior walls, the doors (STU) are labelled according to EN 14351-1.

Rebate type

STU thick rebate
Door leaf thickness 62 mm
Sheet thickness 1.0 mm

Main function

MZ **Multi-purpose**

S_a **Sealed**
All-round seal
on 3 sides

C5 **Operational durability**
200,000 opening cycles

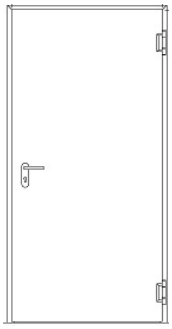
Additional functions with corresponding equipment

S_{200} **Smoke-tight**
S200

dB **Acoustic-rated**

RC **Break-in-resistant**
RC2 - RC3

External door
EN 14351-1



Dimensions (mm)		Standard
Clear passage dimension (LDB / LDH)	Width	500 - 1465
	Height	640 - 3120
Top part	Height	300 - 1000
Overall frame dimension block frame	Width	610 - 1695
	Height	695 - 3235
Overall frame dimension block frame with top part	Height	940 - 3500
Nominal size corner / profile frame	Width	540 - 1545
	Height	660 - 3160
Nominal size corner / profile frame with top part	Height	940 - 3500

Overall frame dimensions:
Smallest dimension in conjunction with block frame depth 55 mm (e.g. 62 / 55, 95 / 55),
corner frame depth 20 mm, largest dimension in conjunction with block frame depth 115 mm,
corner frame depth 40 mm, size ranges for versions with RC 2, RC 3, dB or RS may vary.
The information for the clear passage dimension refers to the frame opening.
This dimension may be reduced if the leaf is opened 90° or with door fittings.
All information in accordance with approval and technical feasibility. Actual dimensions may differ depending on the door frame type, depth, or width-height ratio.

Product description	
Handing	Opening to the left or right
Door bottom edge	Prepared for Hörmann bottom seal
Insulation	Mineral wool
Design	Fully bonded composite construction
Surface	Door leaf and frame galvanized and primed (powder-coated), Grey white, similar to RAL 9002
Glazing	Surface-mounted steel glazing bead with laminated safety glass / single-pane safety glass Surface-mounted stainless steel glazing bead with laminated safety glass / single-pane safety glass Flush steel glazing bead with laminated safety glass / single-pane safety glass Flush stainless steel glazing bead with laminated safety glass / single-pane safety glass

Fittings	
Lock	Mortice lock with lever / knob prepared for profile cylinder, DIN 18250 class 5, incl. stainless steel lock cover
Lever handle set	FS round lever handle set, black (polypropylene), lever securely fitted with round rose escutcheon or short escutcheon, for profile cylinder
Hinges and closing devices	2 construction hinges, quantity according to statics requirement, 3-way adjustable

Performance characteristics		Function
Thermal insulation	1.3 – 2.5 W/(m²·K)	●
Smoke protection	S_{200}	○
Break-in resistance	RC2, RC3	○
Acoustic insulation	32 dB	○
Wind load	Up to C3	○
Water tightness	Up to 6A	○
Air permeability	Up to class 3	○
Differential climate operating forces	1(e) – 2(d) class 5	○

The performance characteristics specified can only be achieved with the corresponding equipment.
The values depend on the door equipment and fitting situation.

● Main function – as standard
○ Additional function – optional with corresponding equipment

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Corner frame

Fitting method
Plug-and-screw fitting

Frame sheet thickness
1.5 mm

Surface
Galvanized, Grey white
(similar to RAL 9002)

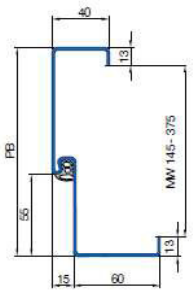
Frame seal
All-round EPDM seal on 3 sides, black

Fitting in
Brickwork
Concrete
Partition wall
Panel wall

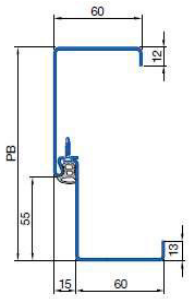
Corner frame

The frames for STS doors can be fitted properly and without mortar thanks to through plugs. Clean surfaces without soiling or damage are guaranteed and subsequent painting is not necessary. The gap between brickwork and frame is sealed with acrylic.

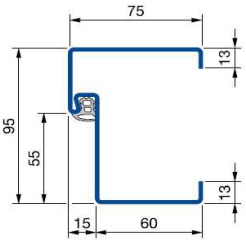
Frame variants



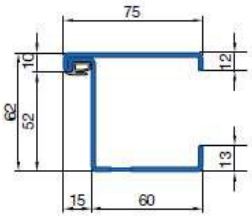
Profile frame 60
1-part as standard



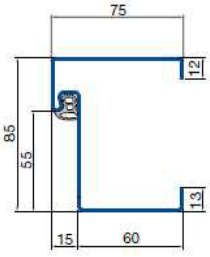
Profile frame 60
Double-shell as standard



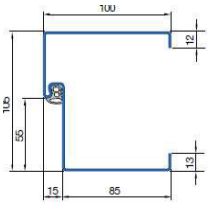
Block frame 95/75



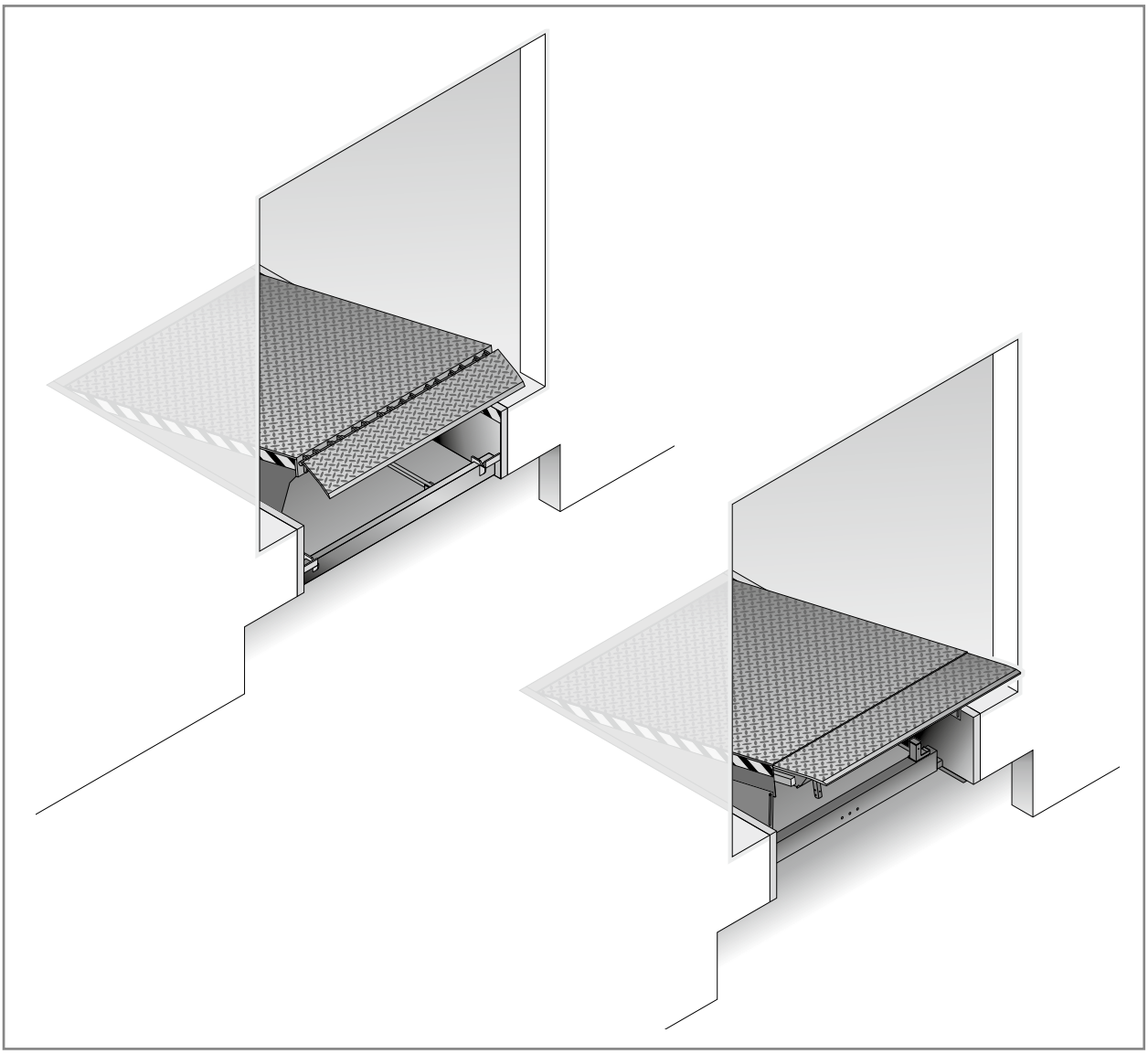
Block frame 62/75



Block frame 85/75
Standard



Block frame 105/100



11058555 / 09.2017

Instructions for Fitting, Operating and Maintenance

HLS2 / HTL2

ENGLISH

HÖRMANN

1 About these instructions

These instructions are **original operating instructions** as outlined in the EC Directive 2006/42/EC. Read and follow these instructions carefully. They contain important information on the product. Please pay particular attention to all safety instructions and warnings.

Keep these instructions in a safe place for later reference!

1.1 Warnings used

ATTENTION Indicates a danger that can lead to **damage or destruction of the product**.
 The general warning symbol indicates a danger that can lead to **injury or death.** In the text section, the general warning symbol will be used in connection with the caution levels described below.
⚠ **CAUTION** Indicates a danger that can lead to minor or moderate injuries.
⚠ **WARNING** Indicates a danger that can lead to death or serious injuries.
⚠ **DANGER** Indicates a danger that immediately leads to death or serious injuries.

2 ⚠ Safety instructions

2.1 Intended use

The dock leveller is intended exclusively for efficient loading and unloading. It bridges differences in height (maximum admissible inclination angle acc. to EN 1398: 12.5 %, i.e. approx. 7°) and distances between the loading surface of the vehicle and the loading ramp. For details on levelling with standard dimensions, see *Effective working range* on page 5. Please observe the maximum inclination angle suitable for the respective means of transport used.

2.2 Non-intended use

A dock leveller is not a lifting platform!

Do not use the dock leveller to lift or lower goods or persons. Do not place transport devices or goods on the dock leveller. The manufacturer will not accept any responsibility if the product is not properly operated or the instructions are not sufficiently followed.

Do not use the dock leveller in conjunction with the vehicle liftgate. For further information, see section *Warnings used on page 3* .

2.3 Qualification of personnel

Fitting requires sufficient qualification in order to perform mechanical and electrotechnical work, as well as welding and / or concrete work, depending on the model.

All work performed on the dock leveller requires comprehensive knowledge and may only be carried out by authorised persons. Authorised persons are personnel from the operator or manufacturer who have been instructed and trained in this work.

The operator is responsible for the instruction and training of his personnel, the application of all safety instructions and the content of these operating instructions.

The dock leveller operator must have good sight and hearing, as well as good judgement and a sense of responsibility.

Observe the applicable national regulations governing occupational safety.

2.4 General safety instructions

- ▶ In addition to the following instructions, safety instructions contained in the individual sections must be followed!

ATTENTION
Danger of short circuits due to liquids A short circuit may occur if energized parts of the dock leveller come into contact with liquids. ▶ Avoid contact of energized parts with liquids.

ATTENTION

Damage due to liquids

Contact with liquids can lead to corrosion.
Components may be damaged as a result.

- ▶ Inspect the dock leveller regularly, remove all corrosion and touch up any paint damage.

If liquids penetrate the hydraulic assembly, this may result in corrosion and contamination of the oil. Valves and other components may be damaged as a result.

- ▶ Avoid contact of the hydraulic assembly with liquids (particularly rain).
- ▶ Prevent liquids from penetrating through the ventilation cap.

Damage due to mechanical forces

The dock leveller can be damaged by mechanical forces, e.g. overloading.

- ▶ Perform a visual inspection for mechanical damage every day.
- ▶ If any damage affecting operational safety is detected, the dock leveller and its operation must be examined by an expert and must not be used until the repair work has been completed.

- Only use the dock leveller for the intended purpose (see *Intended use* on page 3).
- Do not exceed the maximum admissible inclination angle acc. to EN 1398 (12.5 %, i.e. approx. 7°). Please observe the maximum inclination angle suitable for the respective means of transport used.
- Do not exceed the maximum loading capacity as specified on the data label (rated load)!
- Do not change any parts or the maximum load without consent of the supplier!
- All the components are precisely matched. Additional components could affect the construction, disable important safety components and lead to serious injuries.

⚠ WARNING

Danger of injury due to the operation of a faulty dock leveller.

Persons, body parts or objects may be crushed or jammed by the dock leveller if it is faulty.

- ▶ Only operate the dock leveller if it is in good condition.

- ▶ Always be alert for any potentially hazardous situations during operation.
- ▶ Cross traffic is only possible in home position. Please observe the notes regarding cross traffic, see section *Non-operation on page 24*.

2.5 Noise protection

Operation of the dock leveller produces different types of noise:

- Short-term noise when the platform is raised and lowered, when the lip is folded out or extended and when the dock leveller is returned to the home position.
- Long-term noise during rolling over the dock leveller, depending on the means of transport and cargo. The continuous sound pressure level resulting directly from the dock leveller does not exceed 70 dB(A). The noise can be influenced by the driving speed, type of tyres and type of transport packaging.

⚠ WARNING

Health risk due to noise exposure

- ▶ Measure the level of noise exposure on site and introduce appropriate protective measures, such as headphones or ear plugs. Observe legal regulations pertaining to noise protection.

3 Scope of delivery

The scope of delivery for the dock leveller comprises:

- Dock leveller
- Control

4 Product description

The HLS2 and HTL2 are stationary, hydraulically operated dock levellers. Type HLS2 is equipped with a folding lip. Type HTL2 comes with a telescopic lip.

4.1 Standards and directives

The dock leveller HLS2 and HTL2 meet all relevant directives and standards and therefore have the CE mark, see *EC Declaration of Conformity on page 43*.

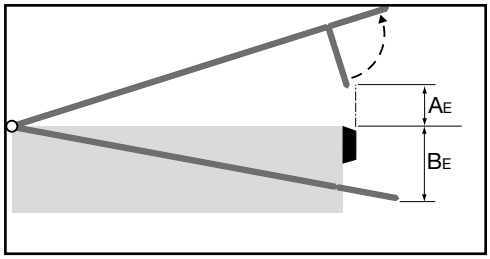
This declaration of conformity is not applicable under the following conditions:

- Operation in severe conditions, e.g. temperatures outside the range indicated in section *4.4*, in strong magnetic fields, as well as in special situations, e.g. with a danger of explosion
- Handling of loads which could lead to dangerous situations (e.g. molten metal, acids, radioactive materials, particularly fragile loads).
- Hazards occurring during transportation, fitting and dismantling.
- Integration into other systems or machines, operation with more than one control panel or wireless control.
- Risks caused when driving loading equipment (forklifts, etc.).

In any of these cases an individual risk assessment and CE-marking in accordance with the European Directives should be made.

4.2 Effective working range

The dock leveller can be raised above and lowered below the ramp level.



The working range will deviate from the information in the tables if the installation height, length or rated load is different. If necessary, please ask the supplier or manufacturer for this information.

HLS2, rated load up to 90 kN		**Levelling / effective working range** With 100 mm buffers	
Ordering length	**Installation height**	**A_E**	**B_E**
5000	745	615	370
4500	745	555	375
4000	745	490	380
3500	745	430	385
3000	645	365	335
2750	645	335	340
2500	595	305	285
2000	595	245	295

HTL2, telescopic lip 500 mm, rated load up to 90 kN		**Levelling / effective working range** With 100 mm buffers and fully extended lip	
Ordering length	**Installation height**	**A_E**	**B_E**
5000	745	670	400
4500	745	605	405
4000	745	540	415
3500	745	470	425
3000	645	405	395
2750	645	370	400
2500	595	340	345
2000	595	270	350

HTL2, telescopic lip, 1000 mm, rated load up to 90 kN		**Levelling / effective working range** With 100 mm buffers and fully extended lip	
Ordering length	**Installation height**	**A_E**	**B_E**
5000	745	730	430
4500	745	660	440
4000	745	595	450
3500	745	530	470
3000	645	460	420
2750	645	430	430
2500	595	395	395
2000	595	325	410

4.3 Loading capacity

ATTENTION

Do not exceed the maximum loading capacity as specified on the data label (rated load)!

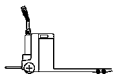
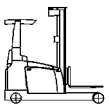
Thanks to the design of the dock leveller, the platform and the lip have sufficient cross-torsion flexibility. As a result, the dock leveller can adapt to the tilt of the loading surface during the loading process and tripping hazards are avoided.

The calculation, dimensioning and design were based on EN 1398. The load-bearing capacity stated on the data label corresponds with

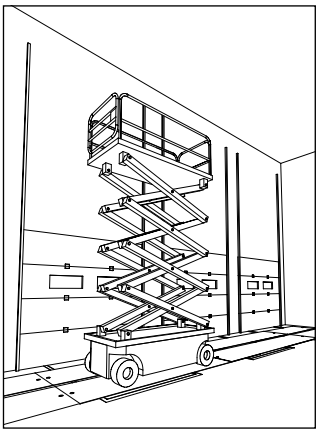
- the total weight of the conveyor vehicle,
- including its batteries,
- the load to be transported,
- and the driver.

The platform is not designed for small contact areas, i.e. if the tyres are very small or hard, it may be permanently deformed.

The resulting distortion (grooves) is permissible within the limits established in EN 1398. However, to prevent deformation, we recommend that the following total loads are not exceeded, based on dock levellers with a rated load up to 90 kN:

Transport vehicles	Forklift 	Electric lift truck 	Reach lift truck 
Tyres	Air-filled / super-elastic	PU / Vulkollan tandem rollers	PU / Vulkollan rollers
Rated load 60 kN			
HLS2	**6t**	**5t**	**3t**
HLS2 Special equipment platform 8 / 10 mm	**6t**	**6t**	**5t**
HTL2	**6t**	**6t**	**4t**
Rated load 90 kN			
HLS2	**9t**	**6t**	**5t**
HTL2	**9t**	**6t**	**4t**

- If the dock leveller is driven over with mobile working platforms during construction or conversion of the hall, make sure you use sufficiently dimensioned driving panels to distribute the point load and prevent deformation. In any case, do not exceed the maximum loading capacity as specified on the data label.



- If the operating conditions are changed, other – especially heavy – means of transport are used, other vehicles are docked etc., please take any potential influences on the loading capacity of the dock leveller into consideration, and have it adjusted, if necessary. In case of doubt, contact the manufacturer or supplier.

4.4 Temperature

As standard, the dock leveller uses a hydraulic oil designed for a temperature range of –10°C to +50°C. For lower temperatures, adjustments must be made. For temperatures below –10°C, a suitable type of hydraulic oil should be used. The dock leveller can be ordered so that it already contains the proper type of oil for a temperature range of –25°C to +50°C on delivery.

The temperature information relates to the hydraulic unit. Depending on the situation, lower or higher ambient temperatures will not have an adverse impact.

4.5 Thermal insulation

If equipped accordingly, the platform has 2-component PU insulating foam on the bottom. The material is normally flammable, class E acc. to EN 13501-1.

4.6 Hydraulic system

The dock leveller is operated by means of an electro-hydraulic system with 2 lifting cylinders.

Depending on the model, it is equipped with a hinged lip or telescopic lip that is also moved hydraulically.

4.7 Safety components

The dock leveller is equipped with a number of safety devices to prevent situations in which operators might be harmed during operation.

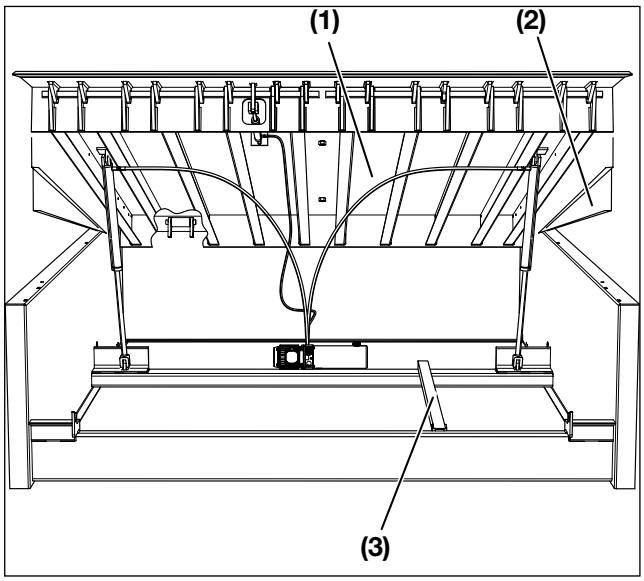


Fig. 1: HLS2 frame and box models

(1) Driving surface (see section *4.7.7* on page 8)
(2) Foot guard plates (see section *4.7.2* on page 7)
(3) Maintenance supports (see section *4.7.5* on page 7)

4.7.1 Emergency stop and restart inhibition

The main switch on the dock leveller is equipped with an emergency stop function and restart inhibition. All motion is blocked once the power is cut or the emergency stop switch is actuated in order to prevent the platform from falling.

⚠ WARNING

Danger of injury and damage if the dock leveller is loaded after emergency stop.

If a vehicle rolls over the dock leveller while the restart inhibition is activated, the platform will drop, resulting in damage to the dock leveller and potential injury.

- ▶ Eliminate the cause that triggered the emergency stop.
- ▶ Depending on the dock leveller type, press the *Run bridge* or *Lift platform* button to make the dock leveller ready for operation again.

- ▶ Never use the main switch to control the dock leveller. Only actuate it for inspection and maintenance work or in the case of an emergency.

NOTE:

The main switch can be secured with a padlock (not included in delivery) to prevent unauthorised use, for example during maintenance of the dock leveller.

4.7.2 Foot guard

See *Safety components* page 7

Each dock leveller is equipped with fixed and, if required, movable side panels. They prevent feet from being trapped between the loading platform and dock leveller.

4.7.3 Automatic safety equipment

Each lifting cylinder is provided with a hose break valve. The valves prevent an accidental lowering of the platform, e.g. if a lorry unexpectedly leaves while there is a load on the platform.

4.7.4 Voltages

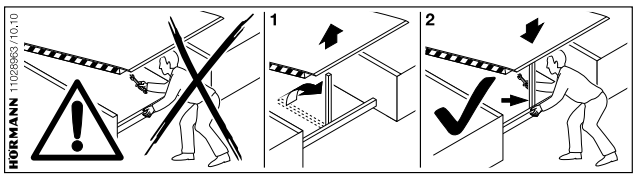
The mains voltage and the voltage supply for the motor of the hydraulic unit are stated on the data label. Depending on the control type, the control voltage is 24 V DC; see the control panel or separate documentation for control.

4.7.5 Maintenance supports

See *Safety components* page 7

The purpose of maintenance supports is to make maintenance work safer. Maintenance supports prevent the platform from lowering. They are movable in versions with a hinged lip (HLS2).

The sticker below, located on the front beam, contains a clear reference to this safety device.

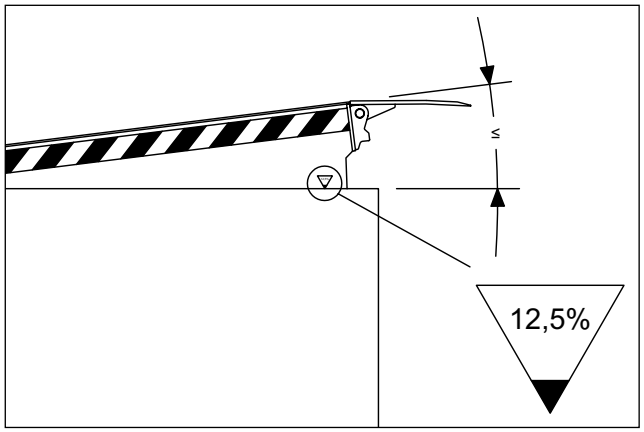


- ▶ Before carrying out maintenance measures, bring the maintenance support into the right position so that the platform is safely supported.
- ▶ When performing inspection and maintenance work that does not rely on electrical power, set the main switch to **0** and secure it from actuation with a padlock.

4.7.6 Safety marking

The side edges below the platform are labelled with yellow and black markings. They are visible when the dock leveller is raised. Side plates of the frame construction are also equipped with safety markings. They are visible when the dock leveller is lowered. The pit is equipped with safety marks on the side if the platform does not have side plates.

HLS2 dock levellers come with a sticker on the side that indicates when the maximum gradient of 12.5 % has been reached.



4.7.7 Pedestrian and driving surface

See *Safety components* page 7

ATTENTION

Danger of corrosion due to road salt

Use of road salt on the pedestrian and driving surface may lead to corrosion and damage.

- ▶ Do not use road salt!

The surfaces of the platform and lip are designed as chequer plates, which helps prevent slipping. Under more severe conditions, e.g. wet surfaces due to frequent cleaning, additional measures, such as anti-slip coating, may be required. Also use caution if there is increased danger of slipping, such as through rain or black ice.

- ▶ Keep all pedestrian and driving surfaces dry and clean.

4.7.8 Buffers (not included in the scope of delivery)

- ▶ Protect ramps and vehicles with suitable buffers. Special measures may be required for impact loads greater than 100 kN. Please contact the supplier or manufacturer.

NOTE

Loading points with DOBO system require a movable buffer with a correct resting position height to allow for lorries to dock, but which can be lowered so that the lorry doors can be opened.

5 Requirements for the pit

Hörmann dock levellers are available for different fitting variants. Pit and frame models are fitted in a prepared pit. In contrast, the box model is cast using an on-site subframe and mould.

5.1 Pit (P) and frame models (F, FR)

To ensure long-term proper functioning, the pit must

- be dimensionally accurate in accordance with the manufacturer's planning drawings, be at a right angle on all sides and
- sufficiently stable in order to withstand both regularly and infrequently occurring forces.

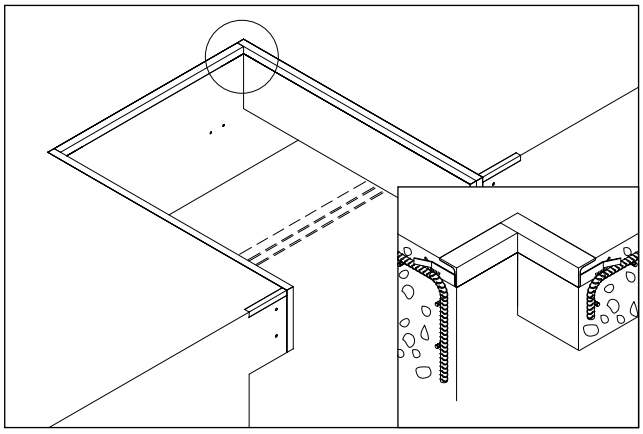
ATTENTION

Danger of breaking out caused by insufficient anchoring

With inadequate anchoring, the pit cannot withstand the strain and the dock leveller will break away. This risk increases when the automatic safety device is activated, e.g. when a lorry drives away while the dock leveller is still operating.

▶ Provide for proper connection to the building structure, especially in areas where load forces occur.

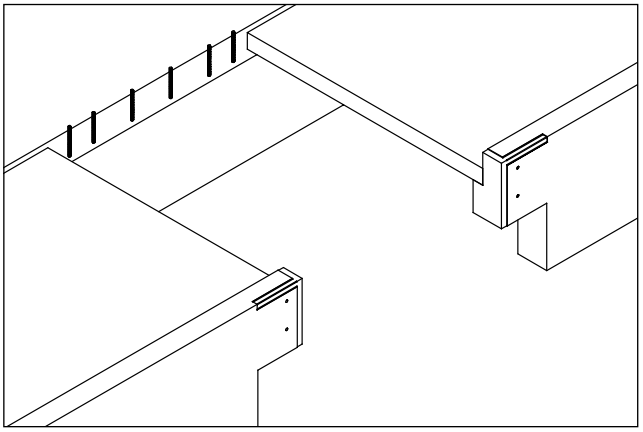
Pit model P



▶ If the pit model is longer than 3000 mm, make sure a support beam is provided in accordance with the planning drawing.

Frame model FR

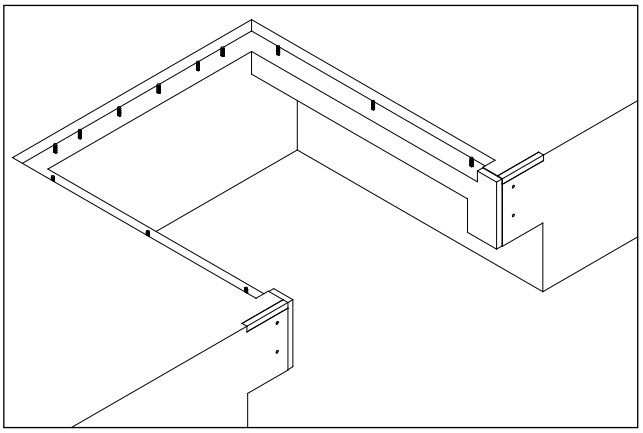
Fitting with prefabricated concrete elements



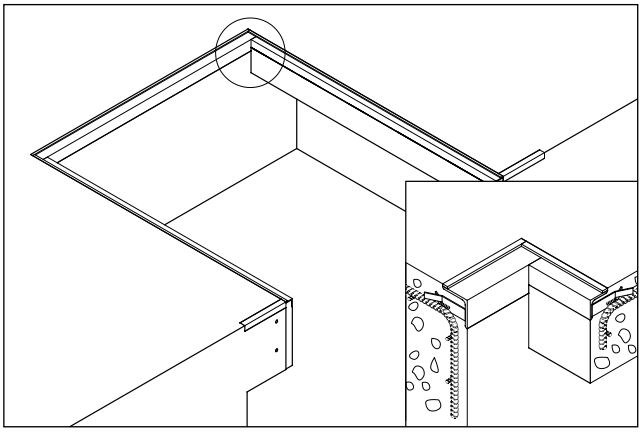
NOTE:

If the reinforcement on the side does not go up to the edge of the pit, rowlocks must be installed in accordance with the manufacturer's pit drawings.

Fitting with casting groove

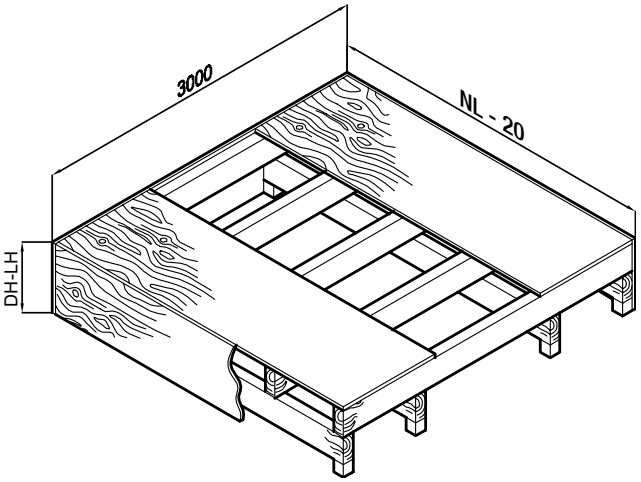


Frame model F



5.2 Box model (B)

Provide for an on-site subframe in accordance with the drawing.



NL Nominal length
DH Ramp height
LH Dock leveller installation height

6 Fitting

NOTE:

Please observe all applicable local construction and safety regulations during fitting and installation!

Fitting may only be done by authorised personnel.

6.1 Inspecting the pit properties

- Before fitting, check for the following conditions:
  - Does the existing mains connection meet the requirements of the dock leveller?
  - Are the feed cables and fuses suitable for the power requirement of the dock leveller?
  - For versions to be fitted in a prepared pit: does the pit comply with the requirements in section *5* and is there a UPVC tube to lay the cable?

  Only begin fitting if these prerequisites are fulfilled.
- To check dimensional accuracy, measure the length and width of the pit, the height of the front and rear, as well as the diagonals.

  Check the measurement result based on the following table.

  Dock leveller ordering sizes:

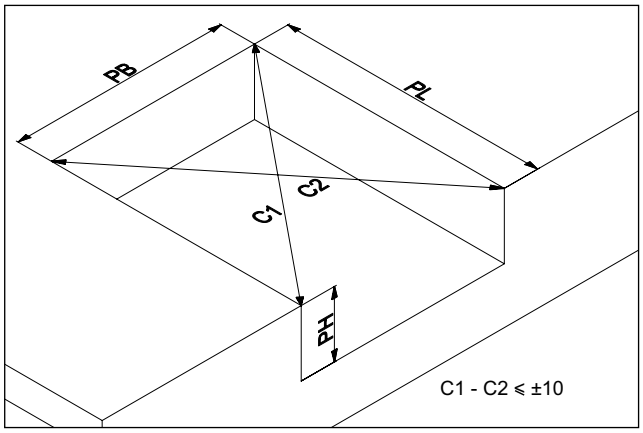
  NL Nominal length
  NW Nominal width
  LH Installation height

  Fitting model types:

  FR Frame model, for casting
  F Frame model, for preassembled frame
  P_1 Pit model, with angle profile on reverse face
  P_2 Pit model, with flat steel on reverse face

Type	Pit sizes (mm)		
	Width PB (Tolerance)	Length PL (Tolerance)	Height PH
FR	NW +70 (±10)	NL –5 (+5 / –0)	≥ LH +5
F	NW +70 (–5 / +10)		
P_1	NW +25 (+10 / –0)	NL +70 (+10 / –0)	
P_2		NL (+10 / –0)	

The diagonals (C) should not deviate in length by more than 10 mm.



ATTENTION

Danger of damage due to improper fitting in case of deviating pit sizes

Fitting in a pit with deviating dimensions may result in
- deformation of the dock leveller
- insufficient anchoring, see section 5.

The load on individual connections can considerably exceed the rated load.

- Only fit the dock leveller in a pit that complies with the requirements.
- Contact the manufacturer in case of size deviations beyond tolerance levels. The manufacturer will advise you on suitable measures for adjusting the pit.

NOTE:

The dock leveller can be set up with a lengthwise slope of up to 2% towards the door opening. Widthwise, the dock leveller must be installed absolutely horizontally. Otherwise, problems may arise during operation, especially when loading below ramp level.

6.2 Unloading

- Check that there is no transport damage to the dock leveller.
  Please contact your supplier if there is any deformation or damage.
  Touch up minor paint or galvanising damage only after fitting has been completed.
- The weight of the dock leveller is specified on the data label.

ATTENTION

Damage due to crashes

The frame structure must not twist; otherwise problems may arise during operation.

- Always keep the dock leveller horizontal and pay attention that it is not involved in crashes and cannot fall.
- Always unload only one dock leveller at a time.

⚠ DANGER

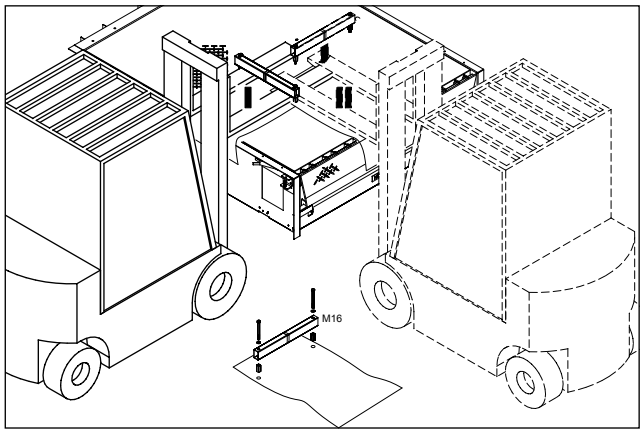
Danger of injury from falling dock leveller

- Make sure the transport aids are securely fastened to prevent the dock leveller from falling.
- Do not stand underneath the dock leveller!

The dock leveller is prepared for various unloading possibilities.

With forklift:

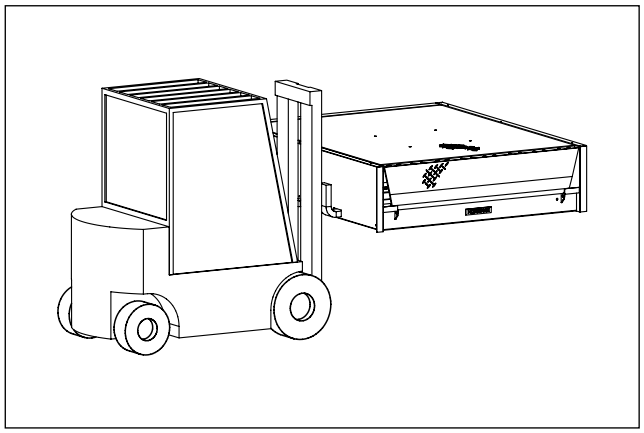
- Bolt the provided transport profile with the protective flap on the platform.



Alternatively for HLS2 dock levellers in fitting models F, FR and B up to a maximum length of 3 m:

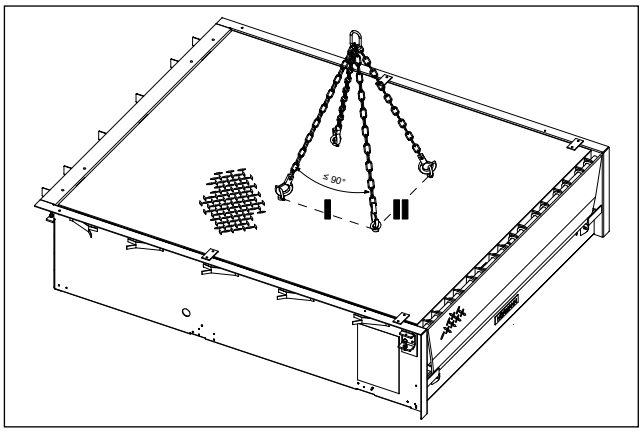
These dock levellers come with recesses for forklift forks on the side. They can be unloaded and transported by forklifts with a carrying capacity of at least 3000 kg.

- Never lift more than one dock leveller at a time.

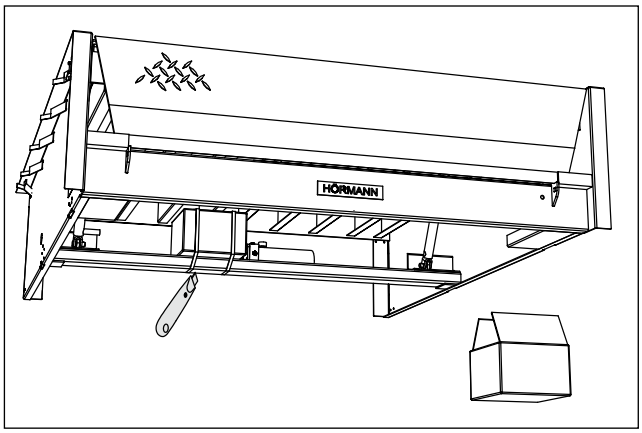


With crane:

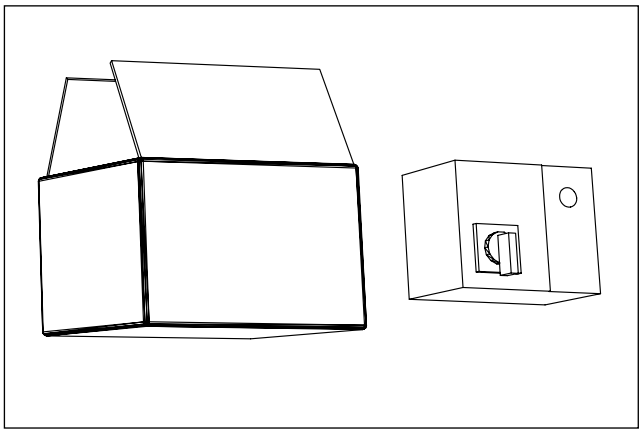
- Firmly bolt 4 lifting eyes M16 (not included) to the nuts on the platform. Check that the nuts are tight before lifting. The crane can pull up the dock leveller by chains (not included) connected to the lifting eyes and transport it. Lifting strap loops are included in the scope of delivery for very heavy dock levellers (over 2000 kg).



- First remove the box with the control panel.



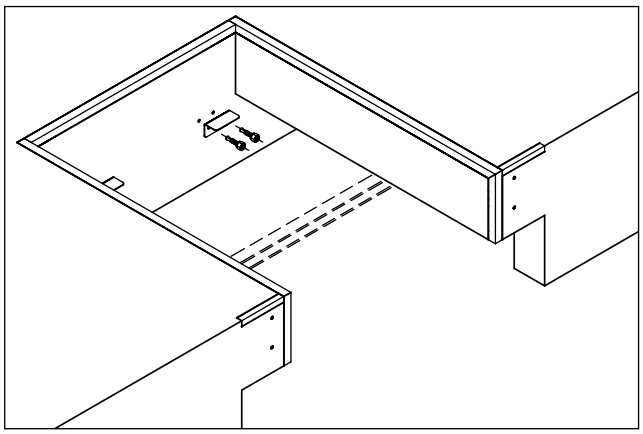
- The box also contains additional components, some of which are optional.



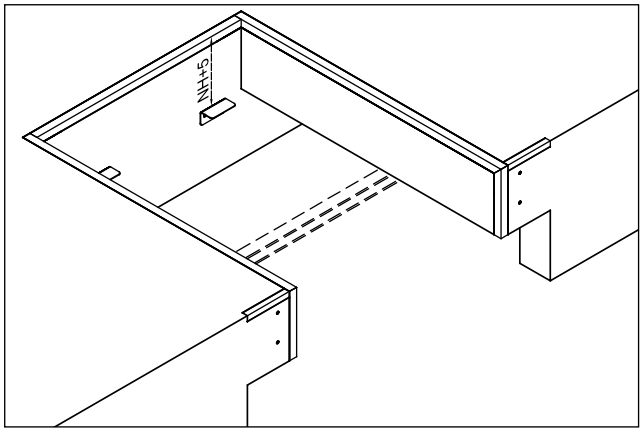
6.3 Fitting Pit Model P

6.3.1 Fitting the support brackets

▶ Drill 2 × 2 holes into the rear wall for the M20 drill-in anchors and fit the 2 supplied support brackets.

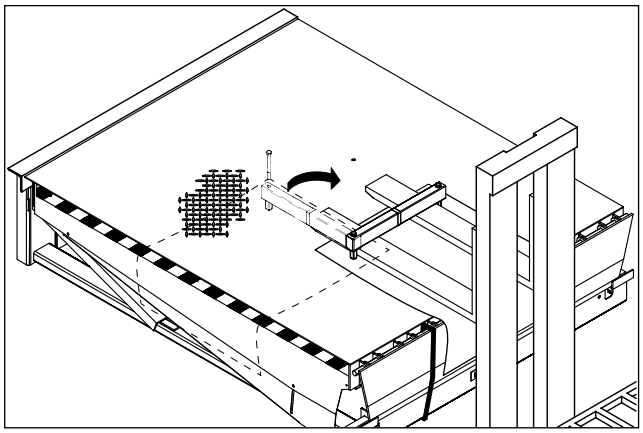


▶ The dimension between the top edge of the edge bracket and top edge of the pit equals the installation height of the dock leveller plus 5 mm tolerance.

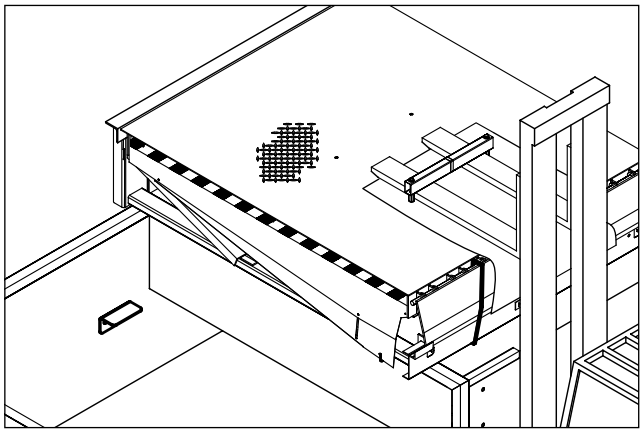


6.3.2 Set-up

1. Adjust the placement of the transport profile to the required position if necessary.



2. Move the dock leveller into the pit. The platform must be on the same level as the ramp. The longitudinal grooves between platform and recess must be the same width on both sides, approx. 10 – 18 mm.



3. Pull the cables through the provided UPVC tube.

6.3.3 Welding

⚠ WARNING

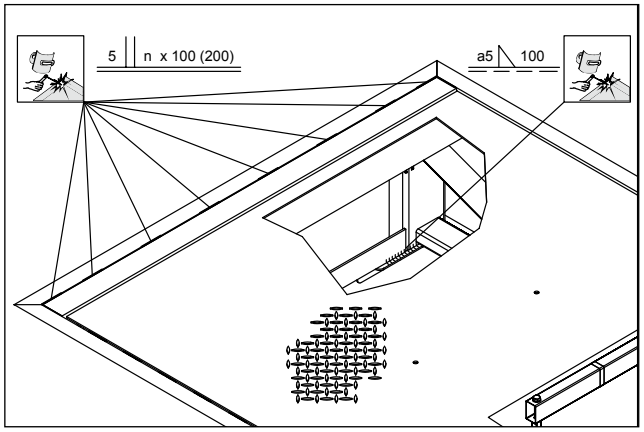
Health risk from welding galvanized components

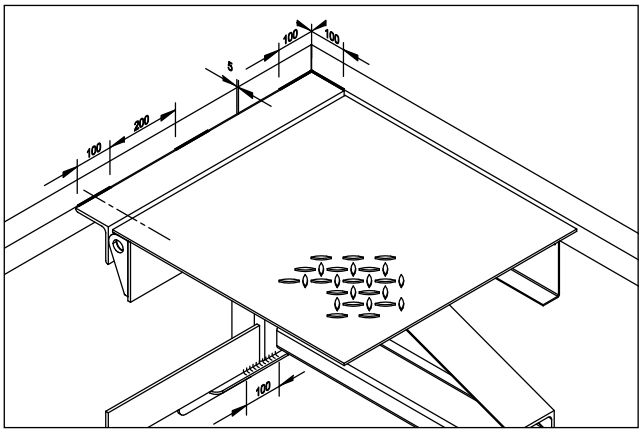
Zinc fumes are emitted during the welding of galvanized components, which results in health problems when absorbed through breathing.

▶ Grind away the zinc layer at the welding points as the preferred solution.

The welding symbols correspond with ISO 2553 (E).

1. Weld the dock leveller on the rear at the indicated points. Make sure the joint is correct and flat. A forklift can be used to push the dock leveller into the rear of the pit.

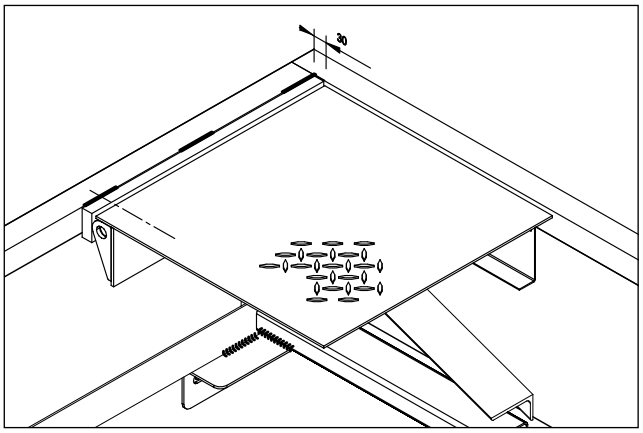




Number of welds:

Ordering width	n
2000 (type P20-xx)	8
2100 (type P21-xx)	10
2250 (type P22.5-xx)	10
2400 (type P24-xx)	10

Dock levellers that are equipped with an anchor bracket on the rear and not an angle profile are provided with cut-outs in this area that specify the exact position and length of the weld seam.



NOTE

Always weld at the hinges and corners! The distance between the weld seams on the rear must not exceed 200 mm.

2. Weld the front beam and hinged lip support at the indicated points. If the pit is too wide for the front beam, fill the space with steel plates or strips.

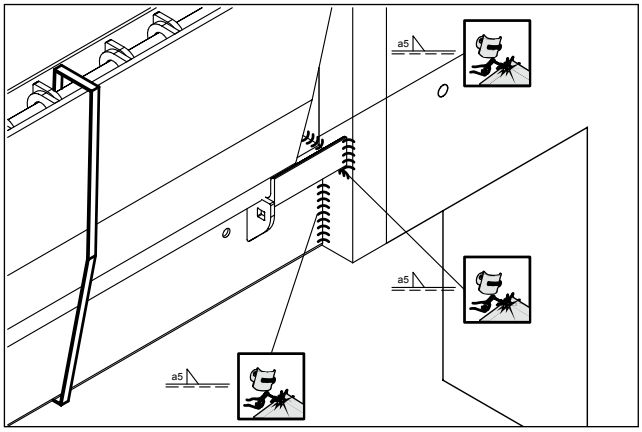


Fig. 2: HLS2 welds

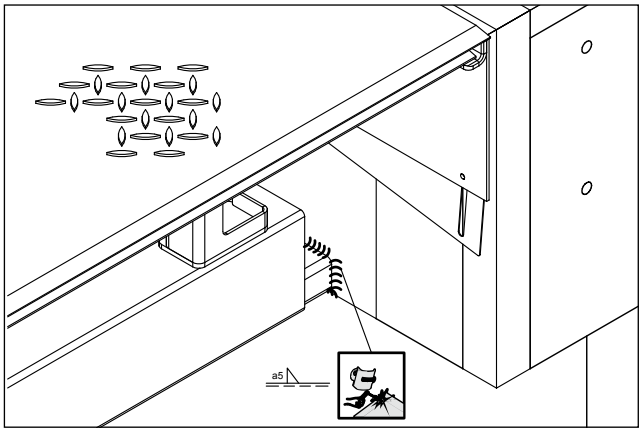
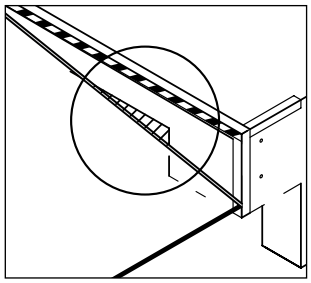


Fig. 3: HTL2 welds

⚠ WARNING

Possible crushing and shearing hazard

There is a crushing and shearing hazard if the concrete cover on the side is too thin to completely cover the working range of the dock leveller.



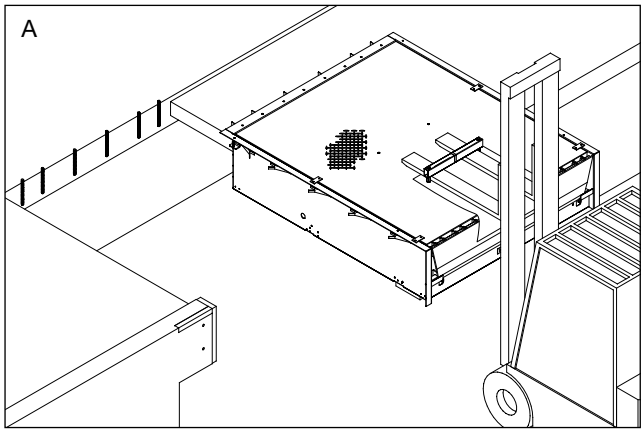
▶ Make sure this area is sealed off.

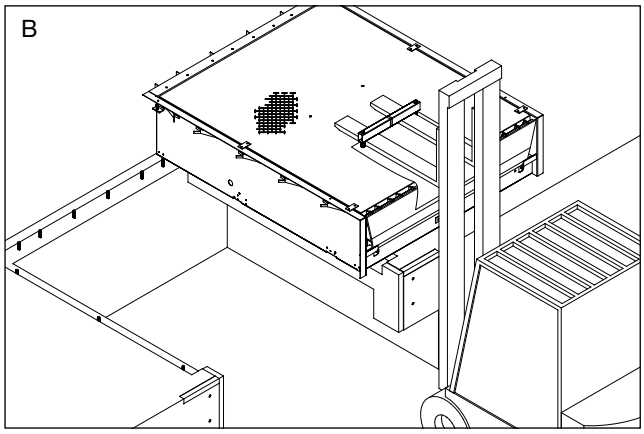
6.4 Fitting Frame Model FR

Frame model FR can either be cast with prefabricated concrete elements (A) or be cast in a pit with a sufficiently wide casting groove (B).

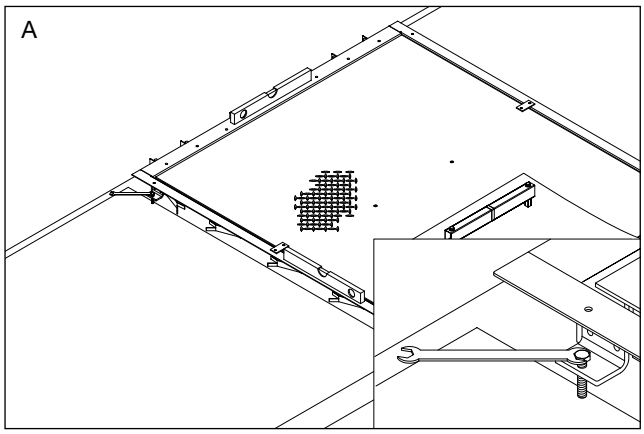
6.4.1 Set-up

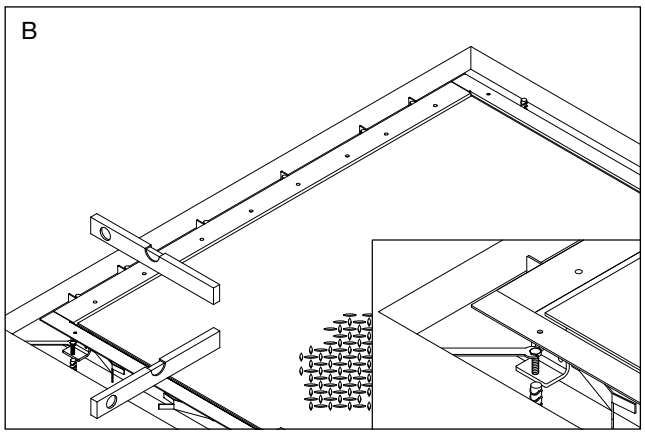
1. Position the dock leveller.





2. The platform must be on the same level as the ramp. Spacers ensure that the longitudinal grooves are equally wide on both sides. Align the dock leveller horizontally and secure it against shifting using the adjustment angles.





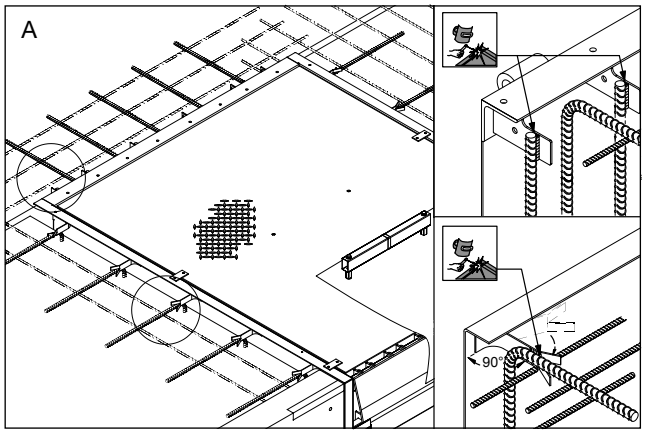
3. The dock leveller comes with anchors on the sides and rear that are bent for transport. Bend the anchors in a way that allows you to connect them with the rowlocks or reinforcement.

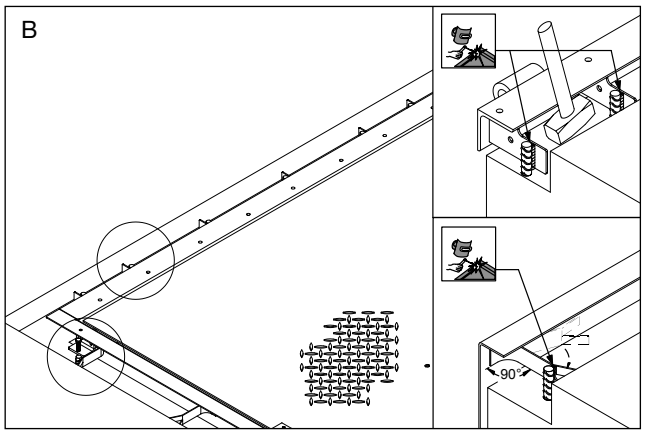
4. Weld the anchors to the reinforcement or rowlocks.

NOTE:

If the pit is equipped with rowlocks on the side and complies with the current pit drawings, you just need to weld the anchors to the rowlocks. In any case, weld the two outer anchors and more than half of the anchors in total.

You can weld every second anchor of the middle anchors. These must also be bent to ensure sufficient stability after casting.





⚠ WARNING

Health risk from welding galvanized components

Zinc fumes are emitted during the welding of galvanized components, which results in health problems when absorbed through breathing.

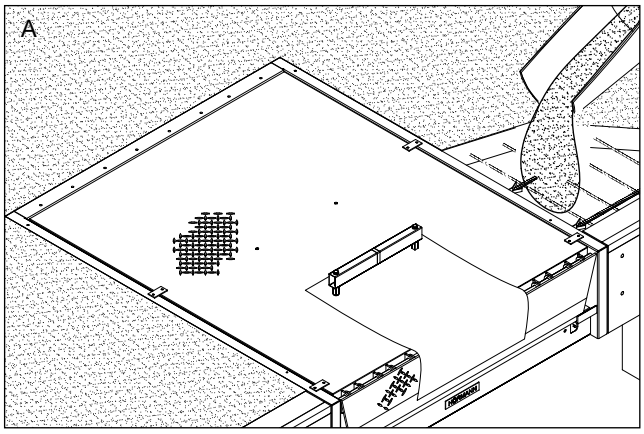
- ▶ Grind away the zinc layer at the welding points as the preferred solution.

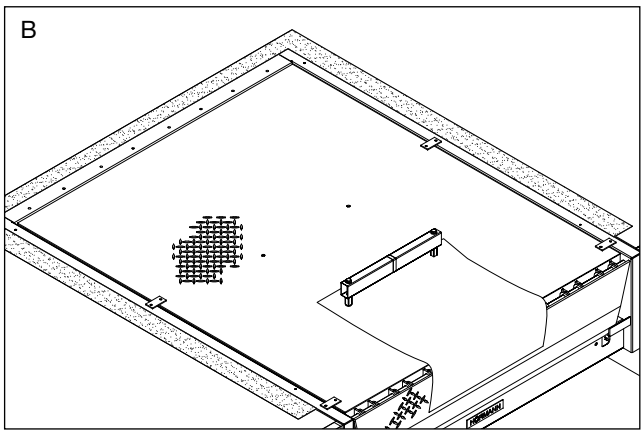
5. Make sure the spacers between the frame and the platform have remained in position.
6. Pull the cables through the provided UPVC tube.

6.4.2 Casting

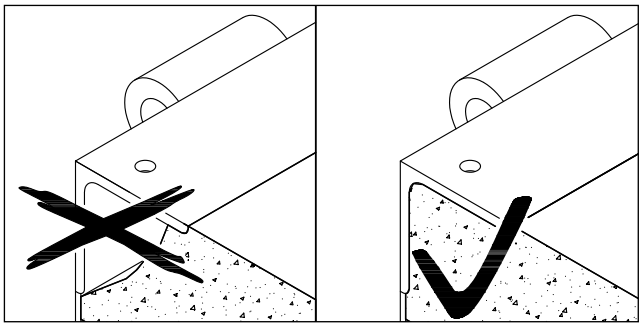
We recommend covering the platform with a protective foil before casting.

- ▶ Cast the concrete casting compound. Pay attention to the use of adequate concrete quality with minimum C20/25. With larger casting heights, pay attention that the side pressure is not too high during pouring and compacting. Otherwise the side walls may deform.





- ▶ Make sure the edge bracket is completely backfilled. You can check this through the opening in the edge bracket.



ATTENTION

Danger of breaking out caused by insufficient anchoring

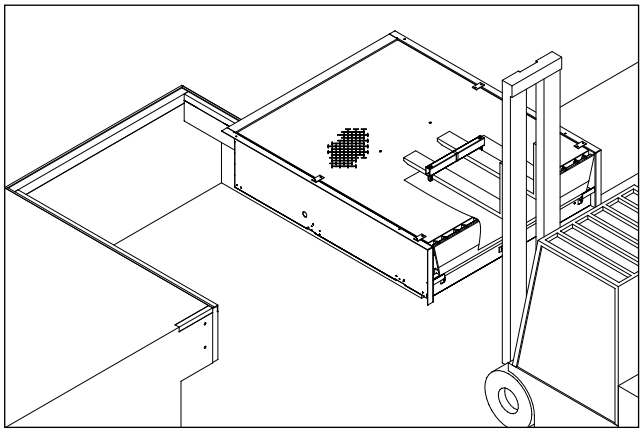
With inadequate anchoring, the pit cannot withstand the strain and the dock leveller will break away. This risk increases when the automatic safety device is activated, e.g. when a lorry drives away while the dock leveller is still operating.

- ▶ Provide for proper connection to the building structure, especially in areas where load forces occur.

6.5 Fitting Frame Model F

6.5.1 Set-up

1. Position the dock leveller.



2. The platform must be on the same level as the ramp. Spacers ensure that the longitudinal grooves are equally wide on both sides.

6.5.2 Welding

⚠ WARNING

Health risk from welding galvanized components

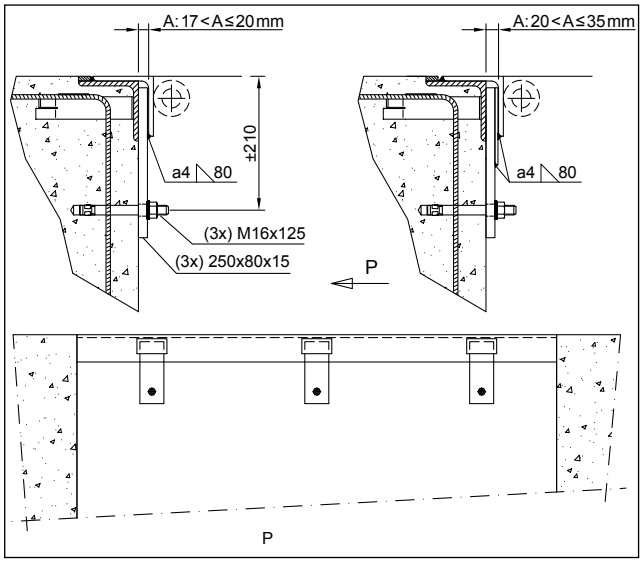
Zinc fumes are emitted during the welding of galvanized components, which results in health problems when absorbed through breathing.

- ▶ Grind away the zinc layer at the welding points as the preferred solution.

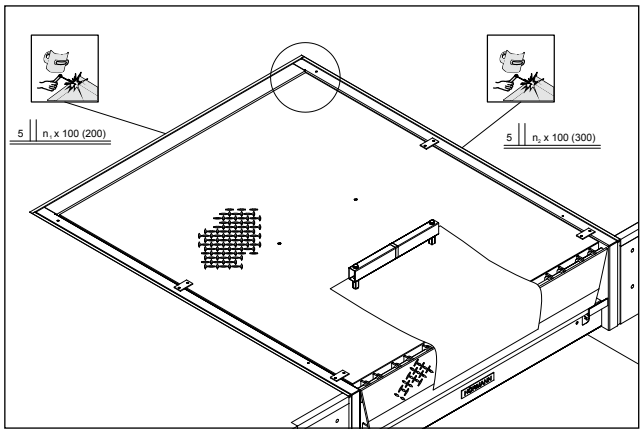
The welding symbols correspond with ISO 2553 (E).

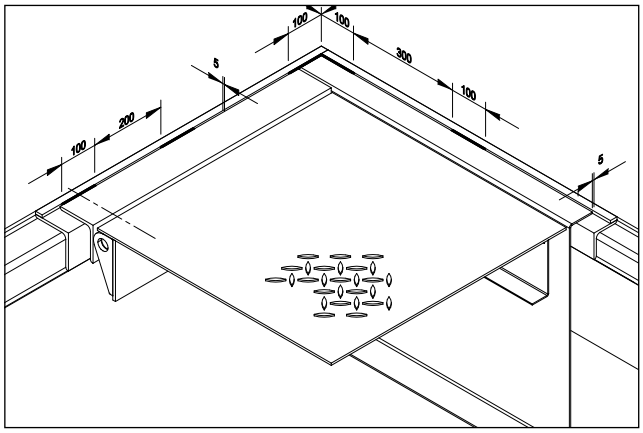
1. Make sure the spacers between the frame and the platform have remained in position.

2. Check the gap dimension on the rear. If the gap is greater than 17 mm, the rear must be backfilled near the hinges.



3. Weld the edge brackets of the dock leveller to the edge bracket of the recess.





NOTE

Always weld at the hinges and corners! The distance between the weld seams may not exceed 300 mm on the side and 200 mm on the rear.

Number of welds:

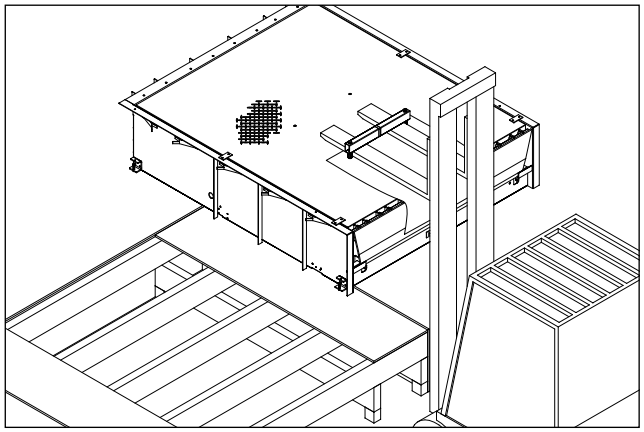
Ordering width	n_1	Ordering length	n_2
2000 (type F20-xx)	8	2000 (type Fxx-20)	6
2100 (type F21-xx)	10	2500 (type Fxx-25)	7
2250 (type F22.5-xx)	10	2750 (type Fxx-27.5)	8
2400 (type F24-xx)	10	3000 (type Fxx-30)	9
		3500 (type Fxx-35)	10
		4000 (type Fxx-40)	11
		4500 (type Fxx-45)	12
		5000 (type Fxx-50)	13

4. Pull the cables through the provided UPVC tube.

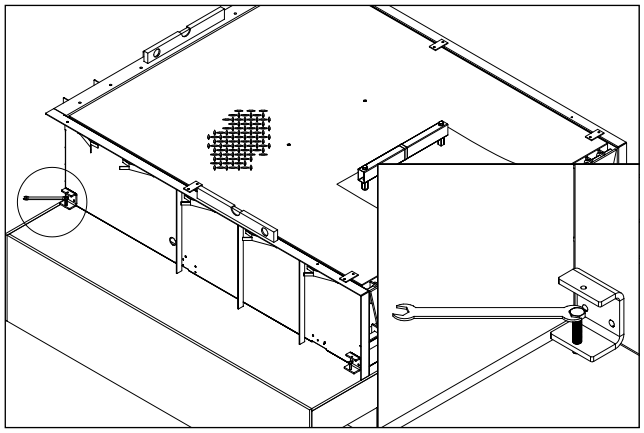
6.6 Fitting Box Model B

6.6.1 Set-up

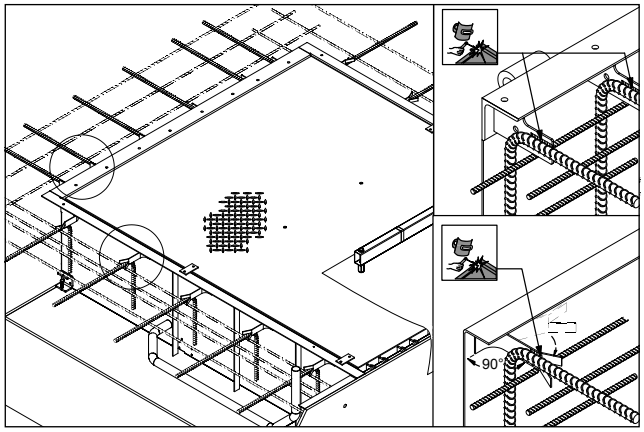
1. Position the dock leveller.



2. Align the dock leveller horizontally and secure it against shifting using the adjustment angles. Spacers ensure that the longitudinal grooves are equally wide on both sides.



3. Weld the anchors to the reinforcement.



⚠ WARNING

Health risk from welding galvanized components

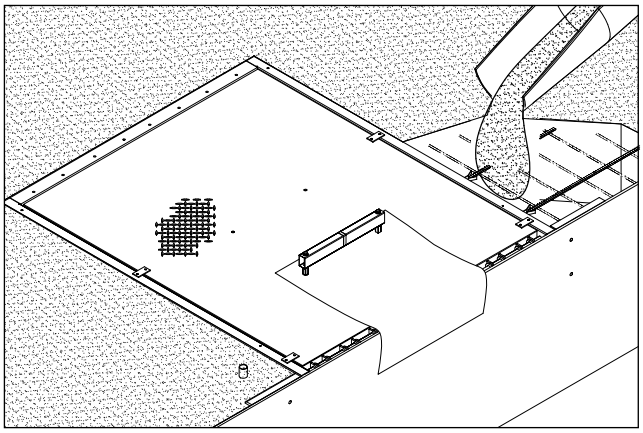
Zinc fumes are emitted during the welding of galvanized components, which results in health problems when absorbed through breathing.

- ▶ Grind away the zinc layer at the welding points as the preferred solution.

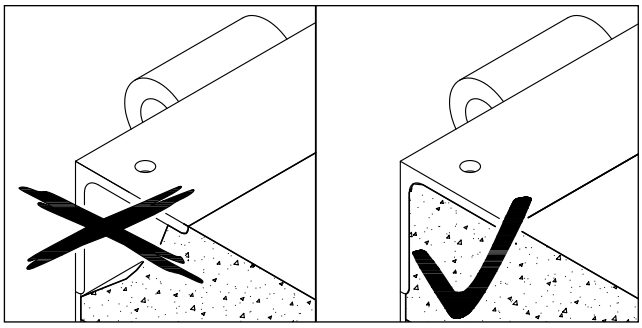
4. Make sure the spacers between the frame and the platform have remained in position.
5. Attach a UPVC tube (Ø 50 mm). Maximum angle 45°, positioned at least 150 mm from the door opening.
6. Pull the cables through the UPVC tube.

6.6.2 Casting

1. Make sure the protective foil is still intact over the entire platform and the adhesive tape is not damaged. If this is not the case, mend the protective foil before casting the concrete.
2. Cast the concrete casting compound slowly and in layers. Pay attention to the use of adequate concrete quality with minimum C20 / 25. With larger casting heights, pay attention that the side pressure is not too high during pouring and compacting. Otherwise the side walls may deform.



- ▶ Make sure the edge bracket is completely backfilled. You can check this through the opening in the edge bracket.



ATTENTION

Danger of breaking out caused by insufficient anchoring

With inadequate anchoring, the pit cannot withstand the strain and the dock leveller will break away. This risk increases when the automatic safety device is activated, e.g. when a lorry drives away while the dock leveller is still operating.

- ▶ Provide for proper connection to the building structure, especially in areas where load forces occur.

3. Remove the mould once the concrete has hardened.

6.7 Fitting combined fitting models

To fit combined fitting models, e.g. side fitting by welding and rear fitting by casting, go through the steps for the respective fitting models to make the building connections on the front or side and rear.

6.8 Electrical connection

Observe the applicable national regulations!

The electrical motor is already pre-wired and connected to the dock leveller.

Make sure that the required mains voltage for the control is present. See the data label for the correct connecting voltage.

Please read the separate documentation for connecting the control.

6.8.1 DR sensor (only with appropriate equipment)

The DR sensor (door release) is required

- for the door release function. This safety function ensures that the door only closes when the dock leveller is in the home position.
- In combination with control 460 S / T for functional extensions such as semi-operation, warning light control, inflatable dock shelter cut-out etc.

The DR sensor is pre-assembled.

▶ Guide the cable alongside the connection cable through the UPVC tube.

▶ Connect the cable:
  – In combination with control 420 S / T directly to the door control. Observe the door control documentation.
  – In combination with control 420 Si / Ti to the dock leveller control with integrated combined control unit. Observe the documentation for the combi control for dock leveller and door.
  – In combination with control 460 S / T to the dock leveller control. Observe the documentation for the door and dock leveller controls.

7 Initial start-up

7.1 Aids

- ▶ Before initial start-up, remove the transport profile.
- ▶ With pit model P, remove the transport protection.

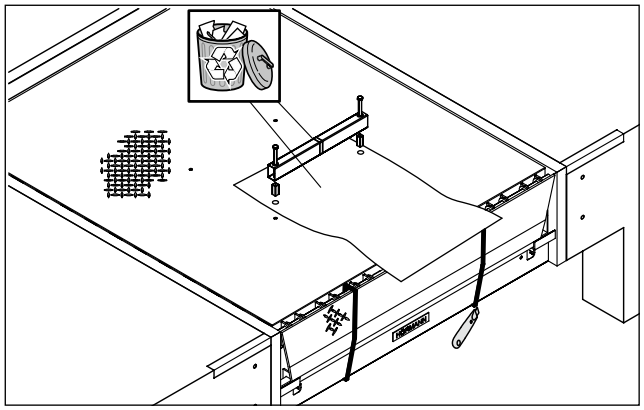


Fig. 4: HLS2 pit models

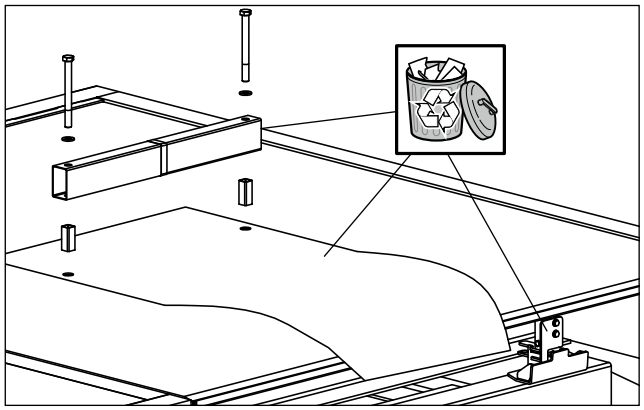


Fig. 5: HTL2 pit models

- ▶ With frame and box models, remove the spacers.

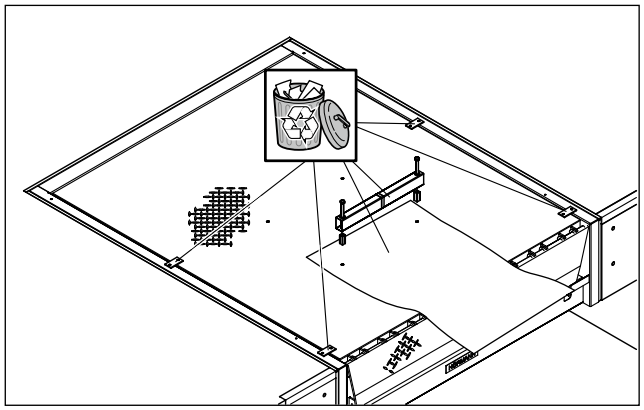


Fig. 6: HLS2 / HTL2 frame and box models

7.2 Buffers

- ▶ Install sufficiently dimensioned buffers. Pay attention to the transmission of the impact forces. Hörmann buffers and fixing materials as well as the planning specifications for the pit version are designed to resist impact forces up to 100 kN. In case of higher impact forces, please contact the supplier or manufacturer.
- ▶ If the dock leveller frame protrudes, fill in the connection surface of the buffer to prevent impact forces from being transferred to the dock leveller.

7.3 Check

All dock levellers are tested and filled with hydraulic oil on delivery.

- ▶ Make sure that the platform is level with the ramp.
- ▶ Make sure operating personnel are properly instructed.
- ▶ Do a test run. Observe the separate instructions for the control.
- ▶ Make sure the dock leveller runs evenly and smoothly.
- ▶ Have the safety equipment tested.
- ▶ Set the return time of the auto return function. Observe the separate instructions for the control.

8 Operation

- ▶ Observe the safety instructions from page 3.

The dock leveller may only be operated by authorised and instructed personnel. The user must have good sight and hearing, as well as good judgement and a sense of responsibility.

⚠ WARNING

Danger of injury from tripping or falling

Careless behaviour can lead to persons tripping or falling from the dock leveller.

- ▶ Move carefully on the dock leveller. Pay particular attention to:
  - – Backward movements
  - – Angled position of the platform
  - – In situations where the door is guided in front of the dock leveller: side clearance in the front area

The dock leveller can be equipped with various controls.

- ▶ Please also read the separate documentation for the respective control for information on operating / controlling the dock leveller.

⚠ WARNING

Danger of injury during dock leveller operation

Persons, body parts or objects may be crushed or trapped when the dock leveller is operated.

- ▶ Only operate the dock leveller if it is in good condition.
- ▶ Always ensure the following before and during operation:
  - – No persons are in the dock leveller's area of travel.
  - – Body parts or other objects cannot be hit by the dock leveller.
- ▶ In the case of an emergency, set the main switch to **0**.

⚠ WARNING

Danger of injury and damage if the dock leveller is loaded after emergency stop.

If the vehicle rolls over the dock leveller while the restart inhibition is activated, the platform will drop. This will result in damage to the dock leveller and potential injury.

- ▶ Eliminate the cause that triggered the emergency stop.
- ▶ Depending on the dock leveller type, press the *Run bridge* or *Lift platform* button to make the dock leveller ready for operation again.

- ▶ Never use the main switch to operate the dock leveller. Only operate the main switch in case of an emergency and for inspection and maintenance work.

NOTE:

The main switch can be secured with a padlock (not included in delivery) to prevent unauthorised use, for example during maintenance of the dock leveller.

- ▶ The environment of the dock leveller must be properly lighted and the operator must have a clear view of the hazardous parts of the platform and its load.

8.1 Docking the lorry as specified

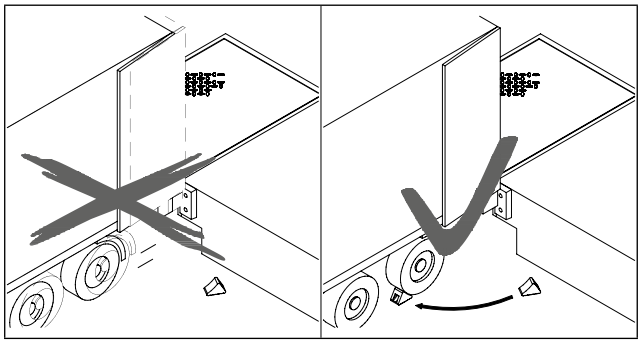
A lorry is properly docked if there is only a small gap left before contacting the rubber buffers. A greater distance may be required. Observe the working range, see section 4.2 on page 5 and the correct bearing surface, see section 8.2 on page 21.

If the dock leveller has a reduced width, i.e. less than 1.25 m, the vehicle must not be parked more than 0.20 m away from the dock leveller.

NOTE

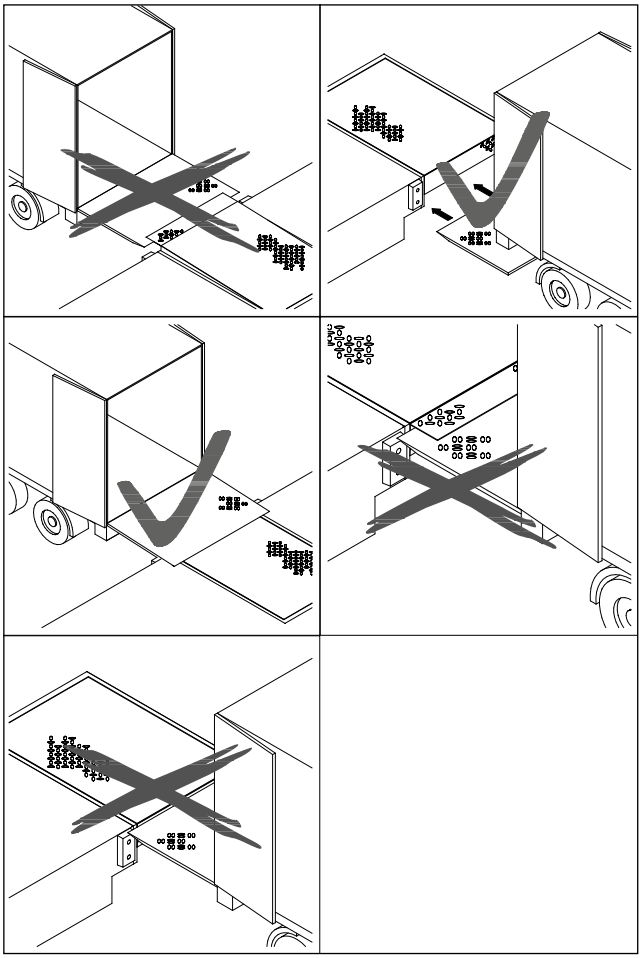
Loading ramps with DOBO system allow for the lorry to dock with the vehicle doors closed. To accommodate the lorry doors, recesses are provided in the ramp.

- ▶ Make sure the lorry is properly docked and is secured against rolling away!



Vehicles with liftgates can only dock with appropriate clearance below the dock leveller (tailboard slot).

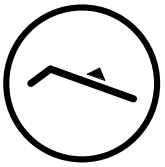
- ▶ Move the liftgate into the tailboard slot.



8.2 Positioning the dock leveller

- ▶ Completely open the dock door, if installed.

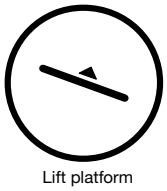
HLS2



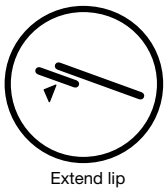
Run bridge

- ▶ Press and hold the *Run bridge* button. The platform will move upwards. The lip unfolds at the highest position.
- ▶ Release the button. The lip will be lowered down to the loading surface of the lorry.

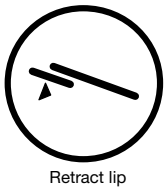
HTL2


Lift platform

- If the lorry loading surface is lower than the platform, the lip can be directly extended. However, if the lorry loading surface is higher than the platform, press the *Lift platform* button. Keep it pressed until the platform is above the level of the lorry loading surface.


Extend lip

- Within the next second, press and hold the *Extend lip* button until the lip is extended as far as needed and no further, see *8.2.1Properly aligning the dock leveller on page 22* . You can correct the position with the *Retract lip* button.


Retract lip

- Release the button. The lip will be lowered down to the loading surface of the lorry after approximately one second. You can still correct the position with the *Retract lip* button at this point. The platform will rise slightly before the lip is retracted.

HTL2 DOBO

- First extend the lip to bridge the gap to the lorry.
- Then lower the movable buffers.
- Open the vehicle doors.
- Position the dock leveller as described under HTL2.

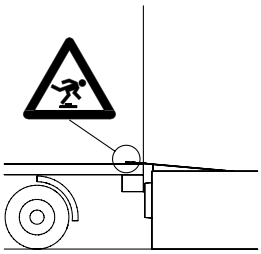
8.2.1 Properly aligning the dock leveller

ATTENTION

Danger of injury and damage with too small or too large bearing surfaces.

Too small bearing surfaces may lead to falls.

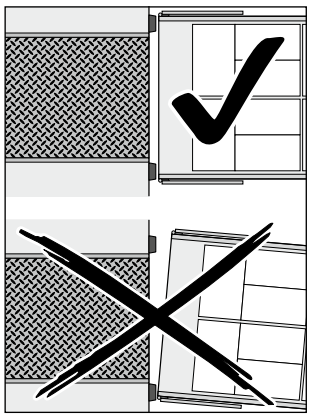
If loading above level, too large a bearing surface or loading in the limit range of the permissible working range may lead to tripping hazards.



Damage to the lip, platform and guides may also occur with telescopic lip dock levellers.

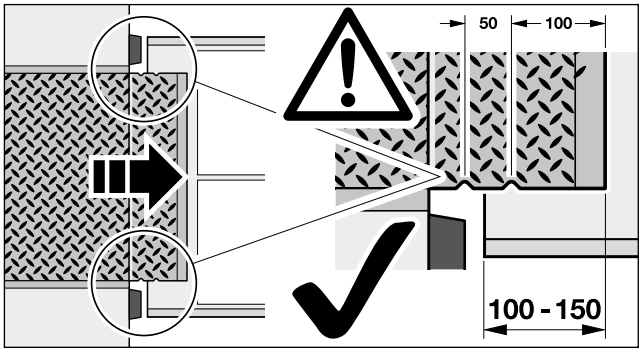
- Make sure the full width of the lip, and at least 100 mm, but no more than 150 mm, is resting on the vehicle loading surface.
- Adjust the vehicle height or the distance between loading surface and dock leveller to provide a good surface.

- Dock the vehicle in a straight way to ensure that the dock leveller is evenly positioned along its entire width.



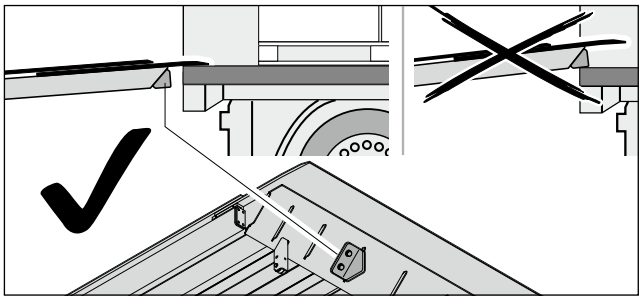
The telescopic lip of an HTL2 is equipped with 2 recesses for indicating the correct positioning.

Align the lip so the front-most recess is covered by the loading surface of the vehicle, but the second one is not covered.



The telescopic lip of an HTL2 is equipped with overlap limiters on the bottom side.

Never place the telescopic lip with the overlap limiters on the loading surface or on other vehicle parts.



8.3 Loading and unloading

ATTENTION

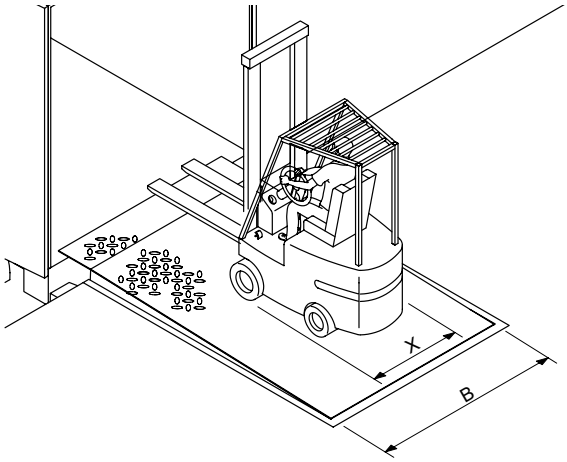
Danger of damage caused by exceeding the working range

Cushioning of the vehicle during loading will also cause the dock leveller to move upwards or downwards. If the dock leveller is already positioned at the highest or lowest level, the maximum working range may be exceeded and damage may occur to the dock leveller.

- Do not start operating the dock leveller at the highest or lowest level.

Do not drive over the dock leveller at a speed of more than 10 km/h.

- Do not exceed the maximum loading capacity as specified on the data label (rated load)!
- Only use suitable, safe and permissible transport equipment. The track width of the transport equipment must not exceed the platform width minus 700 mm.

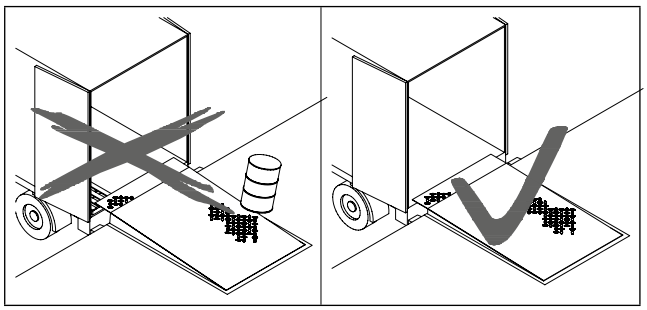


$X \leq = B - 700$ mm

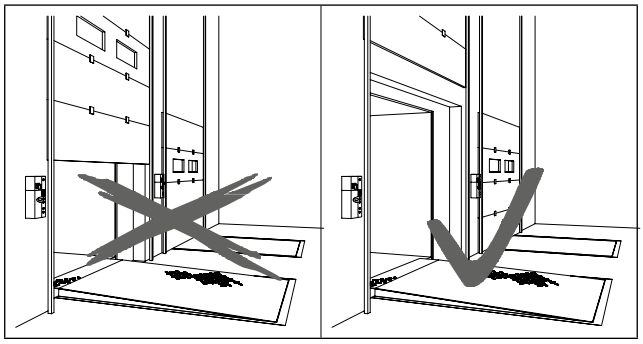
- Drive the transport equipment centred onto the platform.

The platform must be empty when the dock leveller is in motion.

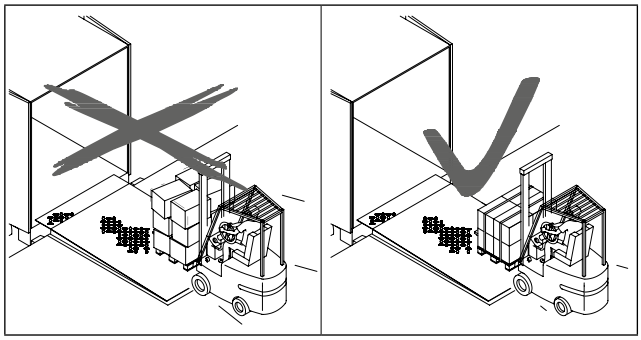
- Make sure that no persons or objects are in the dock leveller's travel range.



- Make sure that the dock door is completely open before using the dock leveller.



- When you are loading or unloading big, unstable or dangerous goods, pay attention to safety and see to it that the dock leveller will not have any contact with adjacent obstacles. Make sure that the load cannot slide or fall.



- Ensure that the underside of the vehicle as well as the cargo do not contact the dock leveller.
- After use, return the dock leveller to its home position immediately!
- If the dock leveller does not have an automatic return function, make sure the vehicle does not drive away before the dock leveller is back in its home position.

8.4 Returning to the home position

Auto-return HLS2

Auto-return HTL2

- Briefly press the auto return button. The dock leveller will automatically move into the home position.

ATTENTION

Danger of damage due to incorrect operation of HTL2

The platform must always be at a high enough level before the lip can be retracted.

- Do not use the *Retract lip* button to move the dock leveller into the home position.

HTL2 DOBO:

- First retract the lip with the *Retract lip* button so that the gap to the lorry still is bridged.
- Close the vehicle doors.
- Then release the movable buffers.
- Briefly press the auto return button. The dock leveller will automatically move into the home position.

9 Non-operation

- When not in use, make sure that the dock leveller is in the home position (zero position). In the home position, the platform and the loading ramp are on the same height. Exception: HTL2 DOBO-s, see 9.1.
  HLS2: the hinged lip is completely folded in and engaged. Cross traffic is possible.
  HTL2: the telescopic lip is fully retracted. Cross traffic is possible.
- If there is an interruption to the electrical power supply, the maximum loading capacity is 60 kN, even for dock levellers with a higher rated load.

Cross traffic

CAUTION

Overloading or personal injury from improper use.

Improper use may put too much load on the dock leveller and damage it. If there is a tripping hazard there is a danger of injury.

- Avoid cross traffic to minimise the risk.
- Please observe the following instructions.

- Make sure that the dock leveller is in its home position.
- Please note the maximum loading capacity. In the energy saving mode, the maximum loading capacity is 60 kN, even for dock levellers with a higher rated load.
- For dock levellers longer than 3 m: for cross traffic, the dock leveller can be bent so much that it can cause a risk of tripping. Watch out for this and reduce the weight if necessary.
- HTL2 DOBO: please observe the restrictions, see 9.1.

9.1 HTL2 DOBO

The home position depends on the version:

1. The dock leveller is at its lowest point in the home position (DOBO-s). Cross traffic is not possible.
2. The platform and the loading ramp are at the same height (DOBO-h). Cross traffic is only possible in this position, if the recess area is sufficiently protected.

10 Inspection and Maintenance

⚠ WARNING

Danger of injury during inspection and maintenance

Persons, body parts or objects may be crushed or jammed by the dock leveller during inspection and maintenance work.

- Inspection and maintenance may only be performed by authorised and qualified personnel.
- Commission the repair of all defects immediately. If any damage affecting operational safety is detected, the dock leveller must be examined by an expert and must not be used until the repair work has been completed.
- Before carrying out maintenance measures, bring the maintenance support into the right position so that the platform is safely supported.
- When performing inspection and maintenance work that does not rely on electrical power, set the main switch to **0** and secure it from actuation with a padlock. No strain can be placed on the dock leveller in this state!
- Use barrier tape, traffic cones or similar aids to secure the maintenance area.

ATTENTION

Danger of short circuits due to liquids

A short circuit may occur if energized parts of the dock leveller come into contact with liquids.

- Avoid contact of energized parts with liquids.

Damage due to liquids

If liquids penetrate the hydraulic assembly, this may result in corrosion and contamination of the oil. Valves and other components may be damaged as a result.

- Avoid contact of the hydraulic assembly with liquids (particularly rain).
- Prevent liquids from penetrating through the ventilation cap.

- Inspect the dock leveller at least once a year for damage and test it for proper operation. The maintenance intervals shorten if the following applies:
  - The dock leveller is not protected by a dock seal or canopy.
  - The dock leveller is located in an area with severe weather.
  - The dock leveller is used in multi-shift operations.

10.1 Inspection and maintenance schedule

Actions	Intervals
T = Test	D = Daily
V = Visual inspection	W = Weekly
C = Change	M = Monthly
	A = Annually; for multi-shift operation: twice annually

Area	Actions	Intervals
User information, see *10.2* – Availability – Completeness – Legibility	V	A
General condition of the dock leveller, see *10.3*. – Visual assessment – Damage / deformation	V	D
Emergency stop switch, see *10.4* – Condition – Function – Ease of movement – Option to secure system against unintentional actuation	T	W
General operating functions, see *10.5* – Function – Operational safety	T	M
Construction, see *10.6* – Condition of weld seams, connections, guides and safety components – Ease of movement – Deformation – Corrosion – All securing pins present, see *Fig. 7 Position of the HLS2 securing split pins* – If equipped accordingly: State of the anti-slip or noise-reducing coating, see *10.6* • Hinges – Condition – Ease of movement	V, T V, T	A A
Electrical system, see *10.7* – Condition and function of the control panel and control elements – Condition and fixing of the cables	V, T	A
Hydraulic unit, see *10.8* – Condition – Sealing – Corrosion – Function – Safety equipment • Hose lines – State – Fixing – Service life – Connections • Cylinders – Condition – Connections • Oil – Quantity – Condition – Bleeding	V, T V C V, T V C	A A 5A A A 5A

10.2 User information

- Make sure that the data labels, stickers and markings are present and in good, legible condition.
  If necessary, they must be attached / exchanged:

What?	Where?
Data label with information on manufacturer, type, rated load, serial number, year of manufacture and power supply	On the front beam
Motor label	On the hydraulic unit
Hydraulic unit data label	On the tank
Maintenance support label	On the front beam
Safety marking	On the side edges below the platform, for frame and box models on the side plates of the frame construction. For pit models on the side in the pit.
Brief instructions comprising • Operating symbols / pictograms on the control housing • Operating label specifying rated load	On or in direct vicinity of the control housing
Instructions for Fitting, Operating and Maintenance	Readily accessible
Separate documentation for control and, if needed, functional extensions	Readily accessible
Log book	Readily accessible
Specification of next inspection / maintenance date	On or in direct vicinity of the control housing

10.3 General condition

- Perform a visual inspection for mechanical damage every day. Inspect the product for corrosion and check the condition of the weld seams.
- Check that the buffers are present on the ramp and in good condition.

If any damage affecting operational safety is detected, the dock leveller and its operation must be examined by an expert and must not be used until the repair work has been completed.

10.4 Main switch / emergency stop

- Inspect the condition and functioning of the main switch and the restart inhibition. Follow the separate documentation for the control.

Once the power is cut by actuating the main switch, all motion is blocked in order to prevent the platform from falling. After eliminating the cause, depending on the type the *Run bridge* or *Lift platform* button must be pressed to make the dock leveller ready for operation again.

The switch must be lockable.

10.5 General operating functions

- Conduct a test run during which all operating functions are inspected:
  – Lifting
  – Folding out / extending the lip
  – Lowering
  – Return to home position
  – If present: automatic return to home position
  – If present: door release
  – Floating position

  Follow the separate documentation for the control.
- If necessary, have an expert readjust the dock leveller, see *10.8.1* on page 28.

10.6 Construction

- Perform a visual inspection for mechanical damage to the weld seams and screw connections, as well as any deformation or corrosion. Pay particular attention to the connection to the pit, and the condition and functioning of the following safety devices:
  – Anti-slip platform
  – Foot guards
  – Maintenance supports
  – Securing split pins

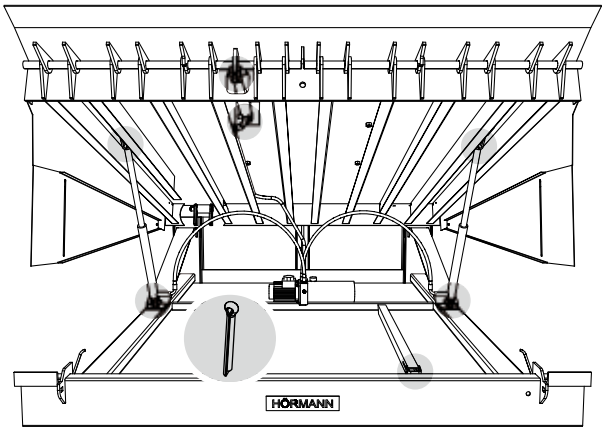


Fig. 7: Position of the HLS2 securing split pins

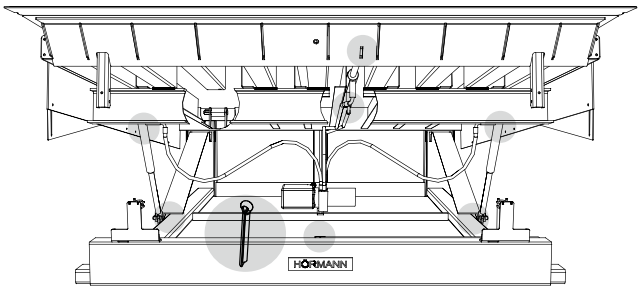


Fig. 8: Position of the HTL2 securing split pins

- Remove all corrosion and touch up any paint damage.
- Make sure any damage is removed immediately by an expert.
- Check to see that movable parts move freely.
- Only with HTL2: replace the sliding strips for the telescopic lip guide once a year.
- If equipped accordingly: check that the anti-slip or noise-reducing platform coating is still intact. Repair any damage.

10.7 Electrical system

- Perform a visual inspection for mechanical damage to the electric cables and control devices. Follow the separate documentation for the control and, if appropriate, for the functional extensions of the dock leveller.

10.8 Hydraulic system

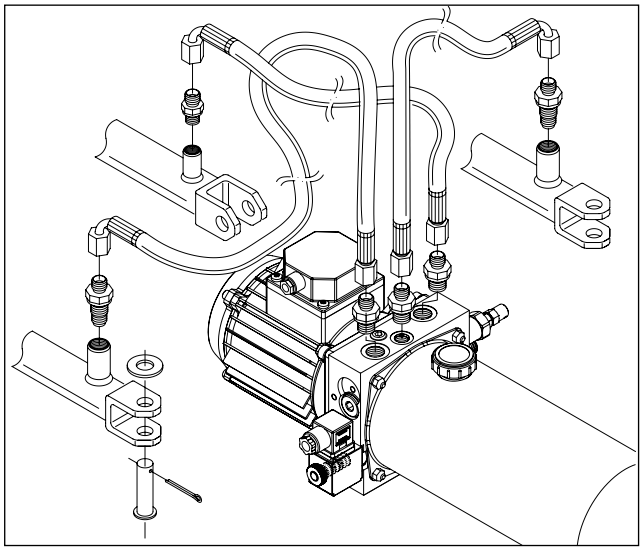


Fig. 9: HLS2 hydraulic system (deviations from the version shown may occur)

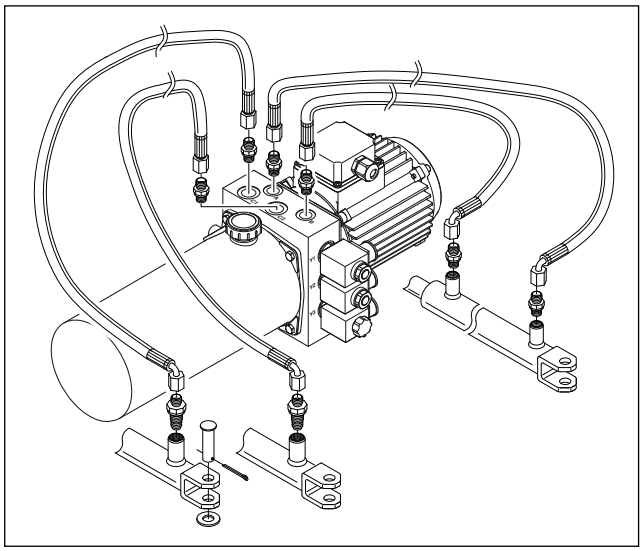


Fig. 10: HTL2 hydraulic system (deviations from the version shown may occur)

For hydraulic diagrams, see section *Hydraulic system diagram* on page 36.

- Perform a visual inspection at least once a year for mechanical damage to the following components:
  - Hose lines including connections. Check for porosity. Check the position of the hose clamps. Movements caused by differences in pressure during operation may not lead to friction damage.
  - Cylinders, including fastenings and connections. Check for leaks, cracks, grooves, contamination and corrosion.
  - Hydraulic unit, including connections. Check for leaks, cracks, grooves, contamination and corrosion.
- Remove any contamination and rust.
- Replace defective components immediately.
- Check that the automatic safety device (hose safety device) is in place and functioning at least once a year. Remove the valve and make sure it is easy to move and free of contamination. Re-install the valve. Exchange the valve if necessary.
- In general, we recommend simultaneously changing oil and hose lines every 5 years. The reference date is the year of manufacture as per the data label. In addition, the hose lines must be inspected yearly. They must be replaced earlier than this if there is any indication of wear and damage, e.g. small cracks or leaks.
- Test the oil level and oil quality at least once a year. The dock leveller must be in the home position for this. The tank should be half to 3/4 full. Add oil if the level is too low; change the oil if it is dark in colour, cloudy, contaminated, or has a burned odour, see *10.8.2*. As a standard, with normal use, oil should be changed after 5 years and after 2.5 years with heavy use. Purifying the oil is not recommended, as this does not sufficiently prevent the oil quality from deteriorating.
- Test the lowering speed at least once a year. It should not exceed an average of 200 mm/s, measured on the front side of the dock leveller. If necessary, have an expert readjust the dock leveller, see *10.8.1* on page 28.

10.8.1 Adjusting the dock leveller

If necessary, have an expert reset the dock leveller to the factory setting.

Dock leveller HLS2

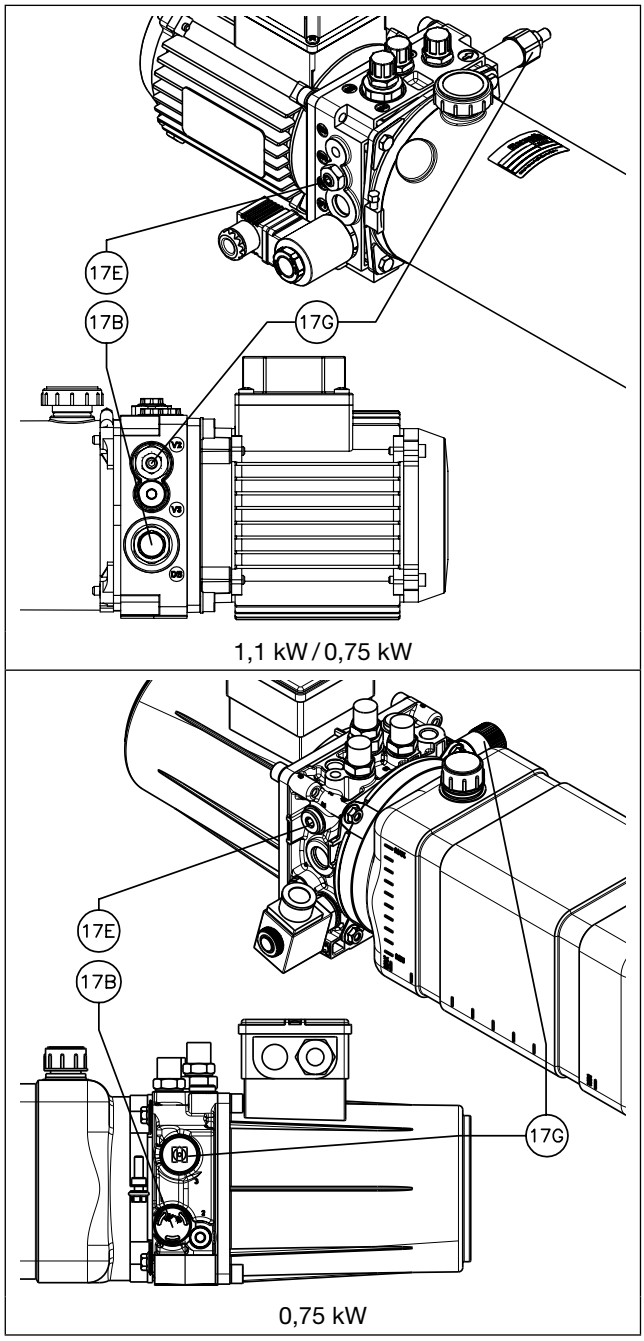


Fig. 11: Positions of the valves HLS2:
17B = pressure relief valve, 17E = throttle valve

1. Do not disconnect the power, as the solenoid valve will cease to function.
2. If there is no tailboard slot, make sure that the hydraulic components can be reached safely.

Adjusting the main pressure

3. Move the dock leveller to its lowest position.
4. Turn the main pressure relief valve to the left so that the main pressure is reduced. The platform should not rise anymore!
5. Turn the pressure relief valve to the right to increase the main pressure.
6. Once the platform begins to rise, turn the pressure relief valve another half turn to the right.

Lowering

7. Set the lowering speed with the throttle valve so that the platform lowers as fast as it rises.

Lip pressure

8. Adjust the lip pressure with the shuttle valve so that the lip is fully extended at the highest platform position.

Completing adjustment

9. Increase the main pressure by a ¼ turn to the right
10. Perform a function check.
11. The dock leveller is now adjusted.

HTL2 dock leveller

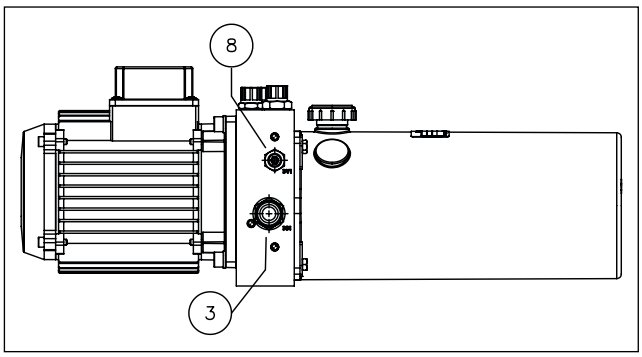


Fig. 12: Positions of the valves HTL2:
3 = pressure relief valve, 8 = throttle valve

1. Do not disconnect the power, as the solenoid valve will cease to function.
2. If there is no tailboard slot, make sure that the hydraulic components can be reached safely.

Adjusting the main pressure

3. With the lip extended, move the dock leveller to its lowest position.
4. Turn the main pressure relief valve to the left so that the main pressure is reduced. The platform should not rise anymore!
5. Turn the pressure relief valve to the right to increase the main pressure.
6. Once the platform begins to rise, turn the pressure relief valve another half turn to the right.

Lowering

7. Set the lowering speed with the throttle valve so that the platform lowers as fast as it rises.

Completing adjustment

8. Perform a function check.
9. The dock leveller is now adjusted.

10.8.2 Exchanging hydraulic system oil or components

Changing the oil

⚠ WARNING

Danger of burns from hot oil.

The oil may heat up excessively during operation of the dock leveller.

- ▶ Carefully feel the tank to see if the oil is sufficiently cool.
- ▶ Wear gloves.

1. Do not disconnect the power, as the solenoid valve will cease to function.
2. If there is no tailboard slot, make sure that the hydraulic components can be reached safely.
3. Move the dock leveller upwards and secure it e.g. with a beam. Only with HLS2: for better access during work on the hinged lip cylinder, support the hinged lip as well.
4. Remove the lifting cylinder from the platform and the base frame.
5. Unlock throttle valve 17e (HLS2) or 8 (HTL2) and open the valve completely. Note the number of rotations.
6. Press the lifting cylinder in by hand, thus causing the oil to flow back into the tank.
7. Remove the hose line from the lifting cylinder and put it in a receptacle.
8. Press the start button so that the oil can run out of the tank and into the receptacle.
   Stop as soon as the oil begins to squirt.
9. Fill the tank with new oil. If you are using a different type of oil to refill the tank, the tank must first be flushed with the new oil.
10. Attach the hose line to the cylinder again.
11. Bleed the hydraulic system and check the lowering speed, see *Adjusting the dock leveller* on page 28.
12. Document the type and viscosity of the oil used.
13. Properly dispose of the waste oil.

Changing the hose line

1. Move the dock leveller upwards and secure it using the maintenance support.
2. Remove the damaged hose line from the cylinder and put it in a receptacle.
3. Install the new hose line.
4. Bleed the hydraulic system and check the lowering speed, see *Adjusting the dock leveller* on page 28.

Changing a cylinder

1. Do not disconnect the power, as the solenoid valve will cease to function.
2. If there is no tailboard slot, make sure that the hydraulic components can be reached safely.
3. Move the dock leveller upwards and secure it e.g. with a beam. Only with HLS2: for better access during work on the hinged lip cylinder, support the hinged lip as well.
4. Loosen the cylinder on both cylinder axes.
5. Press the damaged cylinder in by hand, thus causing the oil to flow back into the tank.
6. Remove the hose lines from the cylinder and put them in a receptacle.
7. Attach the hose lines to the new cylinder.
8. Fix the new cylinder.
9. Bleed the hydraulic system and check the lowering speed, see *Adjusting the dock leveller* on page 28.

Changing a valve

1. Move the dock leveller upwards and secure it using the maintenance support.
2. Release the hydraulic unit from the holder.
3. Hold it vertically so that most of the oil remains in the tank.
4. Replace the damaged valve.
5. Bleed the hydraulic system and check the lowering speed, see *Adjusting the dock leveller* on page 28.
6. Refasten the hydraulic unit to the holder.

Bleeding

Bleeding of the hydraulic system largely occurs during normal operations. The air in the lifting cylinders escapes during raising and lowering. Some air does remain in the lip cylinder, however. Proceed as follows to bleed the system completely:

1. Align the lip cylinder vertically (hose outlet facing upwards) and press the start button. This will refill the cylinder with oil.
2. Press the cylinder in again by hand using force, so the air – mixed with oil – flows into the tank.
3. Repeat steps *1* and *2* around another 10 times to get all the air out of the oil.
4. Check the lowering speed, see *Adjusting the dock leveller* on page 28.

11 Malfunctions and Troubleshooting

⚠ WARNING

Danger of injury when remedying malfunctions

In the case of a malfunction, the dock leveller may no longer function reliably. Persons, body parts or objects may be crushed or jammed if a faulty dock leveller is operated.

- ▶ Malfunctions and faults may only be remedied by authorised and qualified personnel.
- ▶ Before performing any work on the dock leveller, always unfold the maintenance support and secure it in a vertical position.
- ▶ Set the main switch to **0** and secure it with a padlock to prevent unauthorized operation.

For hydraulic diagrams, see section *Hydraulic system diagram* on page 36.

- ▶ In the case of a malfunction, always first check if there is any mechanical damage or if any components are jammed. Only after that has been ruled out, start looking for other causes as described in the following overview.

Problem	Possible cause	Solution
The dock leveller does not respond. The motor does not run.	The emergency stop switch / main switch is set to “O” or the restart inhibition is activated.	▶ Check whether (and why) the emergency stop switch has been actuated (e.g. for maintenance work). See *Emergency stop and restart inhibition* on page 7. ▶ After eliminating the cause, press the start button to deactivate the restart inhibition. Then the dock leveller is ready for operation again.
	Fault in the power supply.	▶ Inspect / measure the connecting voltage and wiring. ▶ Check the control box to see if a fuse or the wiring has loosened. Follow the separate documentation for the control.
	Dock leveller release function blocks the dock leveller.	If equipped accordingly, the dock leveller cannot be operated if the door is not completely open. ▶ Open the door completely. ▶ Check the appropriate safety devices and the wiring. The door position will either be queried via the limit switch reporting of the door control or via a separate switch on the door.
	Wheel chock with sensor blocks the dock leveller.	If equipped accordingly, the dock leveller cannot be operated if the wheel chock with sensor does not block the wheel. ▶ Fit the wheel chock properly. ▶ Check for damage to the sensor or wiring. If necessary, test the function of the dock leveller when the wheel chock with sensor is not connected. Follow the separate documentation for the control.
	Fault in the hydraulics.	▶ If none of the above possibilities solve the problem, contact the supplier’s or manufacturer’s customer service department.

Problem	Possible cause	Solution
Platform does not rise, even with a functioning motor.	The motor is running in the wrong direction.	It is possible that the motor was connected with inverted phases during initial operation of the dock leveller or after the replacement of the hydraulic unit. In this case, the motor rotates, but the platform does not respond. ▶ Correct the polarity of the motor connections in the control panel.
	Platform has jammed.	▶ Check to see if the movement of the platform is blocked.
	Pressure in the hydraulic system is too low.	The hydraulics pressure was set during production; it can, however, be affected by local conditions (temperature). ▶ Reset the pressure (see *Adjusting the dock leveller* on page 28).
	Oil level is too low.	▶ In the home position, the tank should be between one half and three quarters full. Inspect the system for leaks on the cylinders, hose lines and connections. Replace defective parts. See *Exchanging hydraulic system oil or components* on page 29. ▶ Finally, fill the tank with a suitable oil.
	Fault in the hydraulics.	▶ Inspect the system for leaks on the cylinders, hose lines and connections. Replace defective parts. See *Exchanging hydraulic system oil or components* on page 29. ▶ If none of the above possibilities solve the problem, contact the supplier's or manufacturer's customer service department.
Platform rises very slowly or incompletely.	Soiled hinge.	▶ Check for contamination on the hinges on the rear side. Clean if necessary.
	Oil level is too low.	▶ In the home position, the tank should be between one half and three quarters full. Inspect the system for leaks on the cylinders, hose lines and connections. Replace defective parts. See *Exchanging hydraulic system oil or components* on page 29. ▶ Finally, fill the tank with a suitable oil.
	Contaminated oil.	▶ Remove and dispose of the contaminated oil. Clean the valves. Finally, fill the tank with a suitable oil. See *Exchanging hydraulic system oil or components* on page 29.
	Pressure in the hydraulic system is too low.	The hydraulics pressure was set during production; it can, however, be affected by local conditions (temperature). ▶ Reset the pressure (see *Adjusting the dock leveller* on page 28).
	Defective hydraulic unit.	▶ If none of the above possibilities solve the problem, contact the supplier's or manufacturer's customer service department.

Problem	Possible cause	Solution
Platform does not go down, is blocked at the highest position or during lowering.	The emergency stop switch / main switch is set to “O” or the restart inhibition is activated.	▶ Check whether (and why) the emergency stop switch has been actuated (e.g. for maintenance work). See *Emergency stop and restart inhibition* on page 7. ▶ After eliminating the cause, press the start button to deactivate the restart inhibition. Then the dock leveller is ready for operation again.
	Fault in the power supply.	▶ Inspect the connecting voltage and wiring. ▶ Check the control box to see if a fuse or the wiring has loosened. Follow the separate documentation for the control.
	Platform has jammed.	▶ Check to see if the movement of the platform is blocked.
	The hose safety device is closed.	If the platform is blocked during lowering and there is no load on it, either the hose safety device’s setting is too narrow or the throttle valve is open wide due to vibration. ▶ Call the manufacturer’s customer service department.
	Automatic safety device / hose safety device has been activated.	**ATTENTION!** Do not use the dock leveller any longer if the hose safety device has been activated! ▶ Determine why the hose safety device was activated: – The pressure in the hydraulic system is too high. – The hydraulic system is contaminated or damaged – Air is in the cylinder. – There is a load on the platform while the lip is not resting on the loading surface of the lorry. ▶ Remedy the cause and briefly press the start button to remove the block.
	Pressure in the hydraulic system is too low or too high / lowering speed is too high.	The hydraulics pressure was set during production; it can, however, be affected by local conditions (temperature). ▶ Reset the pressure (see *Adjusting the dock leveller* on page 28).
	Contamination or damage in the hydraulics.	▶ Inspect the system for contamination and leaks on the cylinders, hose lines, and connections. Clean the system and replace defective parts. See *Exchanging hydraulic system oil or components* on page 29.
	Incorrect oil.	The specified viscosity was not used when changing or filling the oil. ▶ Exchange the oil. See *Exchanging hydraulic system oil or components* on page 29.
	2 / 2 valve blocks the oil flow.	▶ Press the start button and check the functioning of the solenoid using a magnetic field testing device or by loosening the nut and pulling on the solenoid. Perceptible resistance indicates that the solenoid is functioning properly. ▶ Remove the valve and clean the inlet.
Platform lowers too slowly / too quickly.	Extremely high or low temperatures.	▶ Consult the manufacturer or the supplier if the dock leveller is operated in a cooled or heated room. It may be necessary to use a different type of oil or adjust the settings. Do not change the settings if the malfunction is the result of a temporary temperature fluctuation.
	Pressure in the hydraulic system is too low or too high.	The hydraulics pressure was set during production; it can, however, be affected by local conditions (temperature). ▶ Reset the pressure (see *Adjusting the dock leveller* on page 28).
	Incorrect oil.	The specified viscosity was not used when changing or filling the oil. ▶ Exchange the oil. See *Exchanging hydraulic system oil or components* on page 29.

Problem	Possible cause	Solution
Hinged lip (HLS2) does not fold out completely / at all.	Operating error.	▶ Move the platform to the highest position while keeping the start button pressed. The hinged lip will fold out automatically.
	Hinged lip folding mechanism is defective.	▶ Check the hose line and connections on the hinged-lip cylinder for defects and leaks. Replace defective parts.
	Pressure in the hydraulic system is too low.	The hydraulics pressure was set during production; it can, however, be affected by local conditions (temperature). ▶ Reset the pressure (see *Adjusting the dock leveller* on page 28).
	Oil level is too low.	▶ Inspect the system for leaks on the cylinders, hose lines and connections. Replace defective parts. See *Exchanging hydraulic system oil or components* on page 29. ▶ Finally, fill the tank with a suitable oil.
	Incorrect oil.	The specified viscosity was not used when changing or filling the oil. ▶ Exchange the oil. See *Exchanging hydraulic system oil or components* on page 29.
The telescopic lip (HTL2) does not extend.	Defective hose line	▶ Check the hose line for breaks or leaks. ▶ Replace defective parts.
	Dirt has accumulated on the telescopic lip.	▶ Increase the pressure on the valves until the telescopic lip extends. ▶ Thoroughly clean the telescopic lip and the underside of the platform. ▶ Bring the valve pressure back to the original level.
	Lip valve does not close properly.	▶ Contact the supplier's or manufacturer's customer service department.
The telescopic lip (HTL2) does not retract.	Dirt has accumulated on the telescopic lip.	▶ Completely extend the telescopic lip. ▶ Thoroughly clean the telescopic lip and the underside of the platform.
	Defective hose line	▶ Check the hose line for breaks or leaks. ▶ Replace defective parts.
	Lip valve does not open.	▶ Contact the supplier's or manufacturer's customer service department.
Retractable lip segments (HTL2 if equipped accordingly) cannot be smoothly moved.	Dirt has accumulated between the segments and the telescopic lip.	▶ Disassemble the telescopic lip cylinder. ▶ Remove the end stops. ▶ Remove the telescopic lip using a forklift. ▶ Disassemble the segments, clean and check them for damage and deformation. ▶ If necessary, replace the segments. ▶ Reinsert the telescopic lip and the end stops. ▶ Reinsert the segments and adjust the end stops so that they can be easily slid back and forth by hand, but without too much play on the sides.
Auto button does not function (with appropriate equipment).	One of the sensors on the front side of the platform or on the support bracket of the front beam does not function correctly.	▶ Determine if the sensors are clean and the wiring is in order. Replace defective sensors, if necessary.
	The emergency stop switch / main switch is set to "O" or the restart inhibition is activated.	▶ Check whether (and why) the main switch has been actuated (e.g. for maintenance work). See *Emergency stop and restart inhibition* on page 7. ▶ After eliminating the cause, press the start button to deactivate the restart inhibition. Then the dock leveller is ready for operation again.

12 Cleaning and care

- Always keep the space under the platform clean. The performance of the dock leveller is impeded by accumulated dirt.
- Make sure that no debris, stones, etc. can impede the function of the platform hinges.
- Provide for adequate slip-proofing by keeping the driving surfaces clean and dry.
- Do not use any aggressive cleaning agents or road salt! Danger of corrosion!

13 Spare parts

Only use original spare parts from the manufacturer. Our warranty commitment will otherwise be invalidated.

13.1 Recommended spare parts

Your supplier keeps a stock of various spare parts for the standard dock levellers. However, it is sometimes a good idea for a customer to keep some vital parts in stock. Ask your loading technology consultant for more information!

13.2 Returning defective parts

If defective parts are still under warranty, ask your supplier if they should be returned.

Do not return any parts that have been damaged due to wear, your own fault or by an accident.

Always provide the following data with your returns:

What?	Where?
Type	Data label
Dock leveller serial number	Dock leveller data label
Hydraulic unit serial number	Hydraulic unit data label
Delivery date	Invoice documents
Personal data	
Reference number(s)	Correspondence

13.3 Ordering spare parts

When ordering spare parts, always provide the following data:

What?	Where?
Type	Data label
Serial number	Data label
Year of manufacture	Data label
Article number, designation	Spare parts list, see also component overview from page 38
Voltage	Data label
Number of units	
Desired shipping	
Personal data	

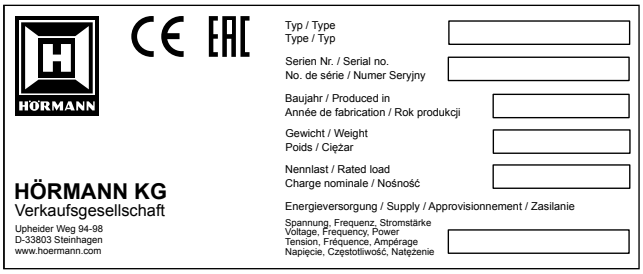


Fig.: Data label

14 Dismantling and disposal

In case the dock leveller is discarded, it must be carefully dismantled and removed.

- ▶ Make sure that the dock leveller is in its home position when it is dismantled.
- ▶ Disconnect the mains voltage.
- ▶ Drain the hydraulic oil, remove all of the hydraulic components and properly dispose of them in accordance with the currently applicable regulations.
- ▶ Completely disassemble and remove the dock leveller.
- ▶ Specialized companies will take care of worn out dock levellers, disassemble them and re-utilise the materials.
- ▶ If you intend to install the dock leveller in other premises, check for operational safety in accordance with the new operating conditions.
- ▶ To do this, pass these instructions, as well as documentation for the control, on to the responsible party.

15 Liability / warranty

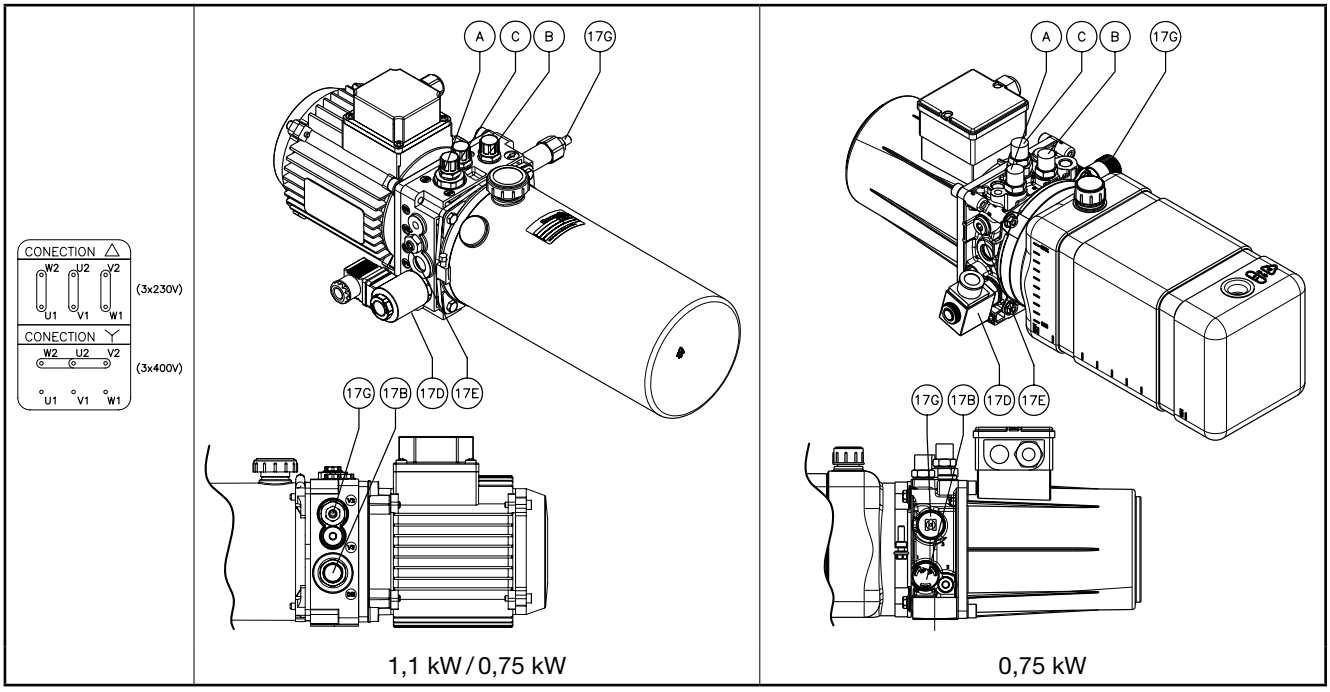
For the warranty, the generally recognised terms and conditions or those agreed in the delivery contract apply.

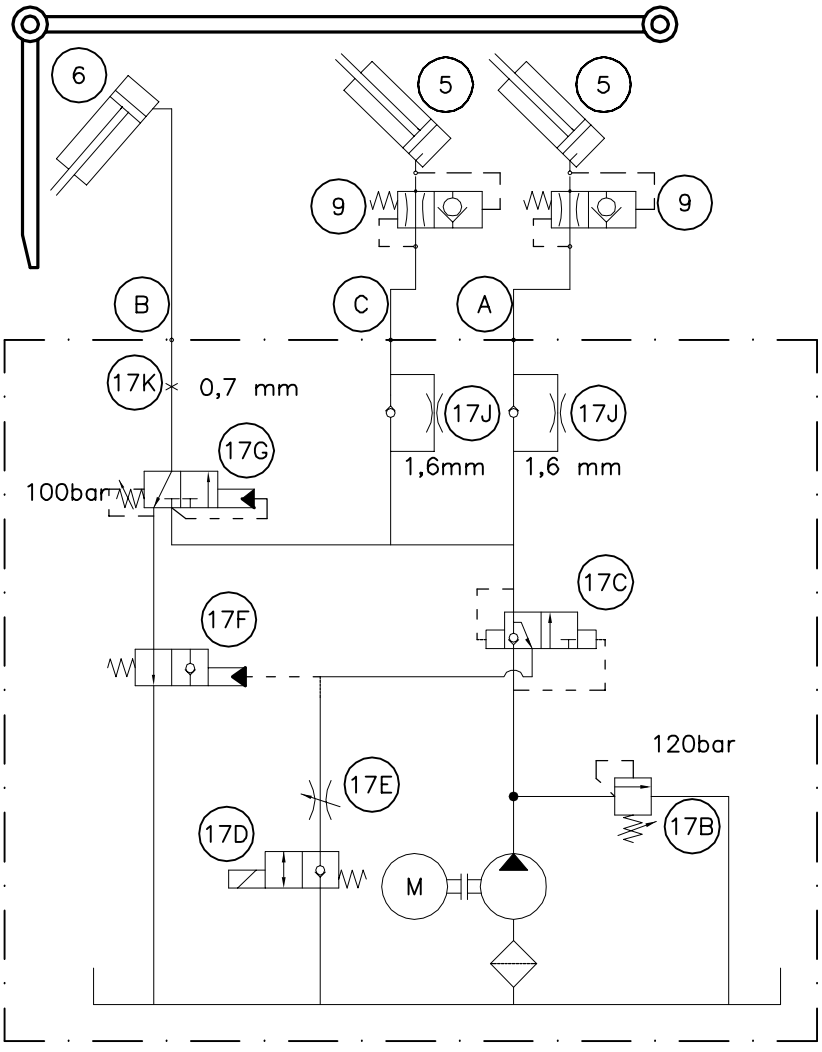
The warranty will no longer apply under the following conditions:

- If you damage the dock leveller due to a lack of knowledge of the information provided in these instructions or as a result of improper operation.
- If you alter or remove any functional parts.
- If you install additional parts in the dock leveller.
- If modifications are made without the manufacturer's permission.
- If you do not install the dock leveller professionally and according to the installation instructions specified by the manufacturer.
- If you do not have the dock leveller inspected and maintained regularly in accordance with specifications.

16 Hydraulic system diagram

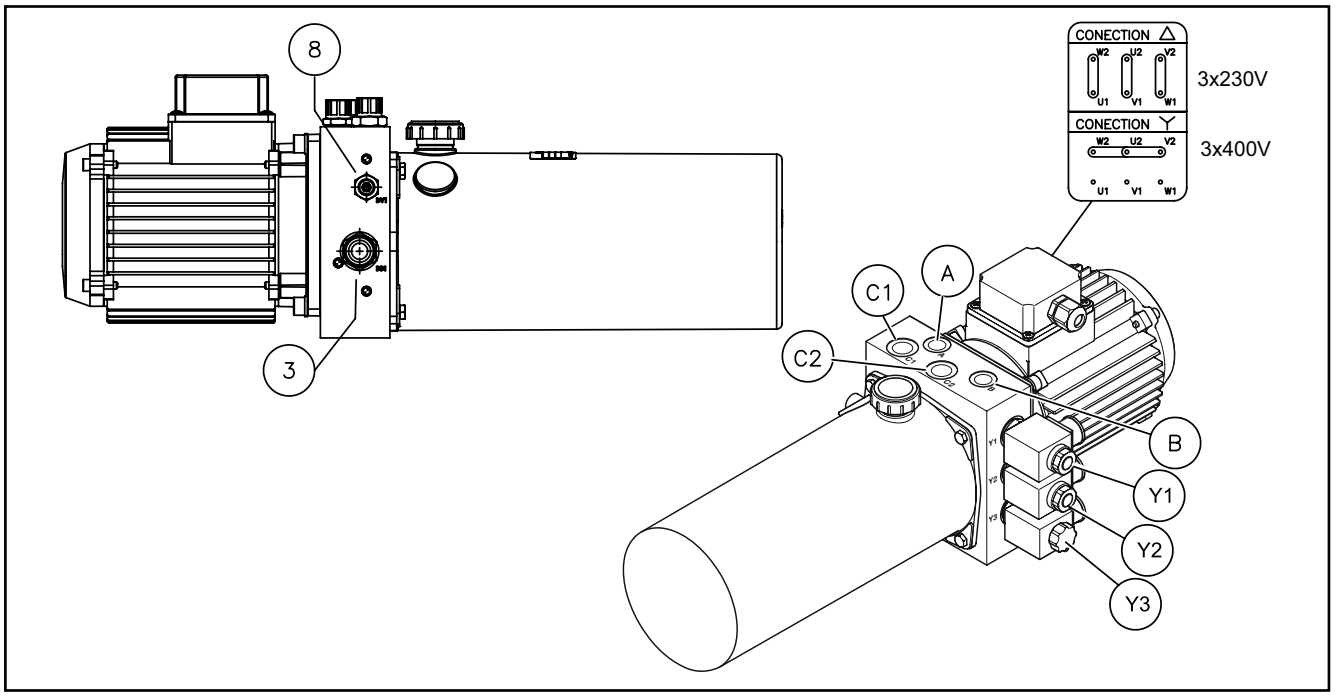
16.1 Hydraulic system HLS2

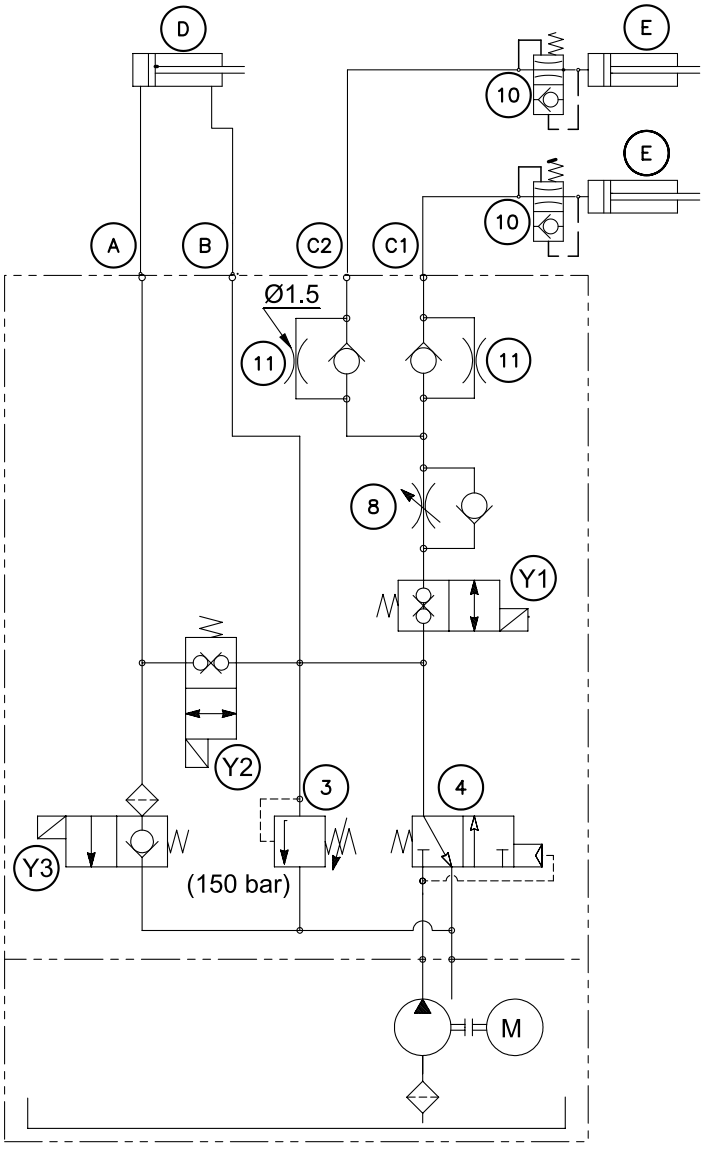




A Hose line for main cylinder
B Hose line for hinged lip cylinder
C Hose line for main cylinder
5 Main cylinder
6 Hinged lip cylinder
9 Hose safety device
17B Pressure relief valve
17C Free-flow valve
17D 2 / 2 valve, lowering (electric)
17E Throttle valve
17F 2 / 2 valve (hydraulic)
17G Shuttle valve
17J Throttling, integrated in main cylinder outlet
17K Throttling, integrated in hinged lip cylinder outlet

16.2 Hydraulic system HTL2



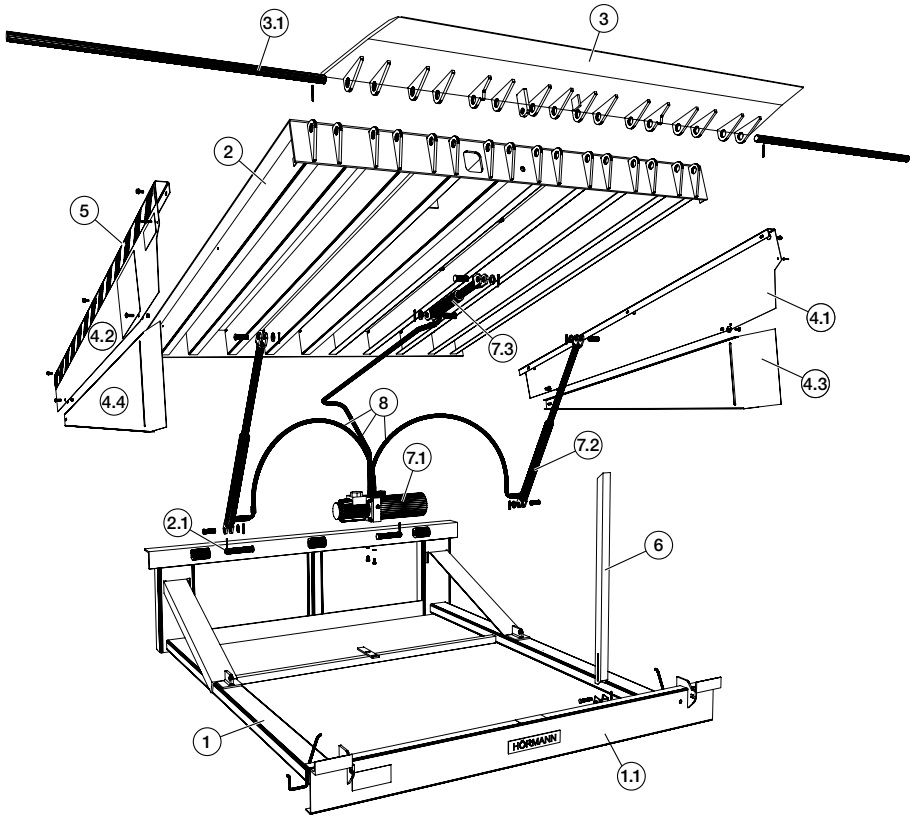


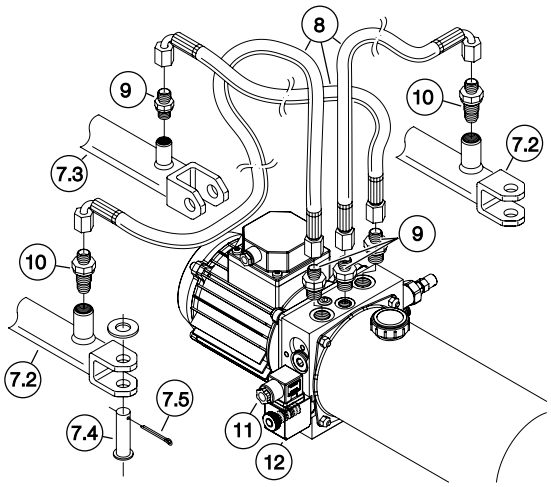
A Hose line, extend telescopic lip cylinder
B Hose line, retract telescopic lip cylinder
C1 Hose line for main cylinder
C2 Hose line for main cylinder
D Telescopic lip cylinder
E Main cylinder
3 Main pressure relief valve
4 Free-flow valve
8 Throttle valve (lowering)
10 Hose safety device
11 Throttling, integrated in main cylinder outlet
Y1 2/2-way valve, lowering (emergency-off)
Y2 2/2-way valve, extend lip
Y3 2/2-way valve, retract lip

17 Overview of components

17.1 HLS2 pit model components

May deviate from the illustration.



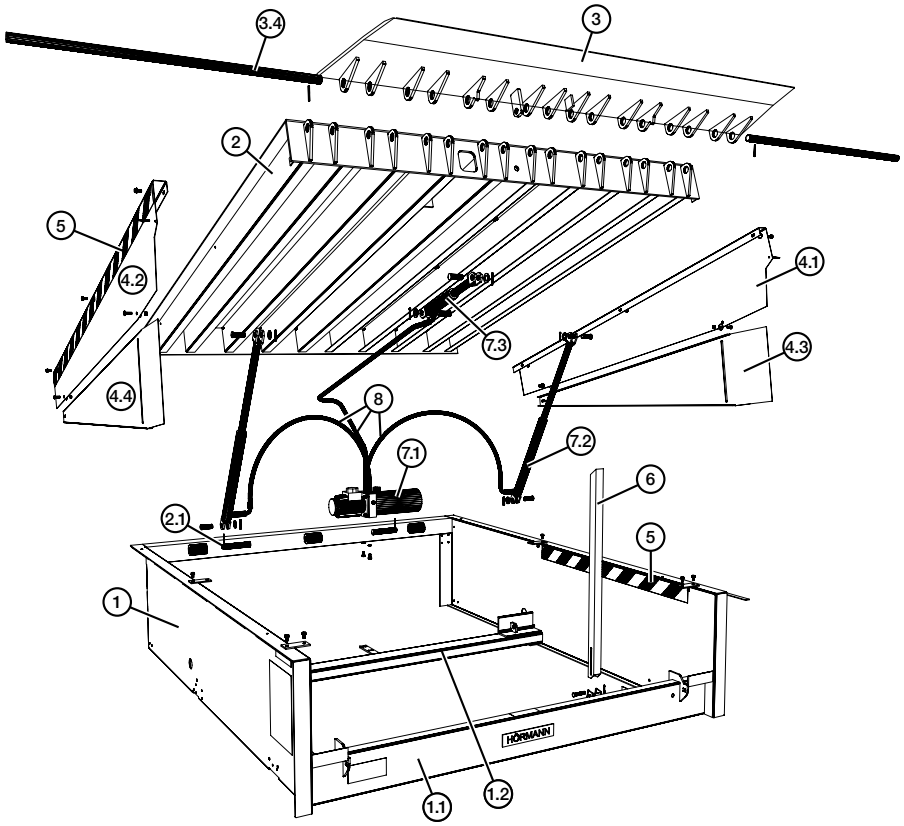


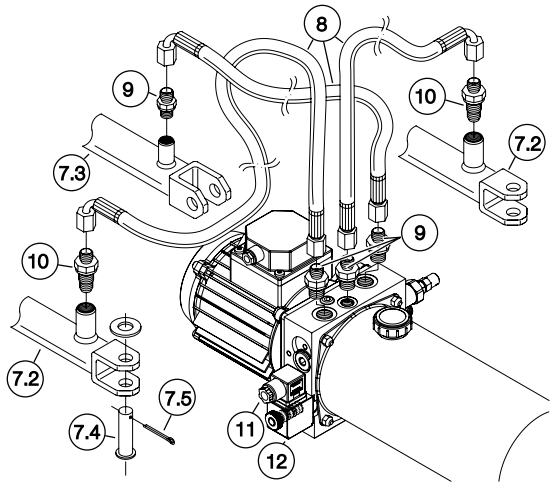
1	Base frame	4.3	Foot guard plate, bottom right	7.5	Securing split pin
1.1	Front beam	4.4	Foot guard plate, bottom left	8	Hose line
2	Platform	5	Marker stripes	9	Coupling
2.1	Rear hinge axle	6	Maintenance supports	10	Coupling with hose safety device*
3	Hinged lip	7.1	Hydraulic unit	11	2/2-way valve
3.1	Hinged lip hinge axle	7.2	Main cylinder	12	Solenoid valve
4.1	Foot guard plate, top right	7.3	Hinged lip cylinder		
4.2	Foot guard plate, top left	7.4	Cylinder axis		

* If the product deviates from the illustration (coupling as in item 9), the hose safety device is integrated in the main cylinder.

17.2 HLS2 frame and box model components

May deviate from the illustration.



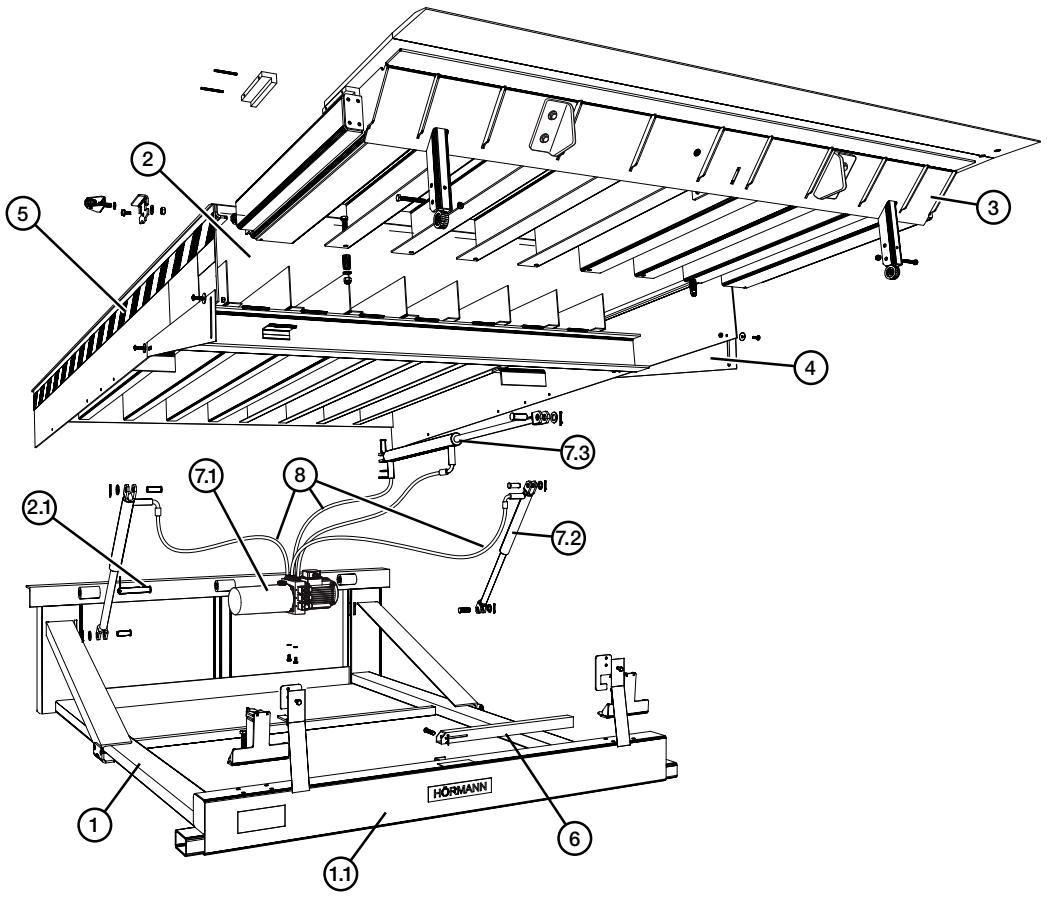


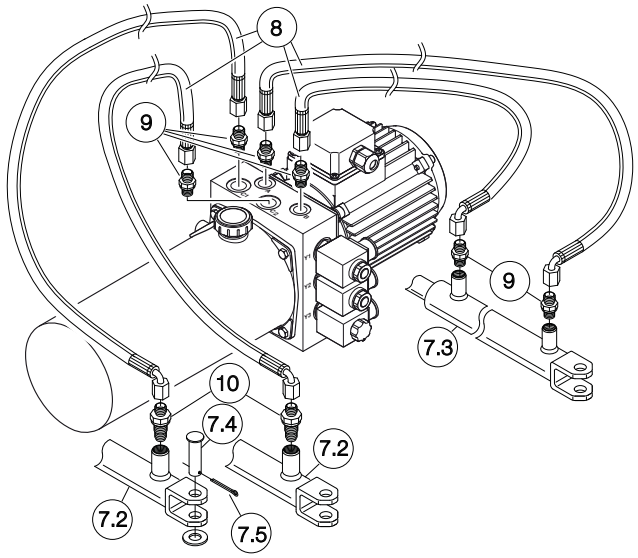
1	Base frame	4.2	Foot guard plate, top left	7.4	Cylinder axis
1.1	Front beam	4.3	Foot guard plate, bottom right	7.5	Securing split pin
1.2	Cylinder support beam	4.4	Foot guard plate, bottom left	8	Hose line
2	Platform	5	Marker stripes	9	Coupling
2.1	Rear hinge axle	6	Maintenance supports	10	Coupling with hose safety device*
3	Hinged lip	7.1	Hydraulic unit	11	2/2-way valve
3.1	Hinged lip hinge axle	7.2	Main cylinder	12	Solenoid valve
4.1	Foot guard plate, top right	7.3	Hinged lip cylinder		

* If the product deviates from the illustration (coupling as in item 9), the hose safety device is integrated in the main cylinder.

17.3 HTL2 pit model components

May deviate from the illustration.



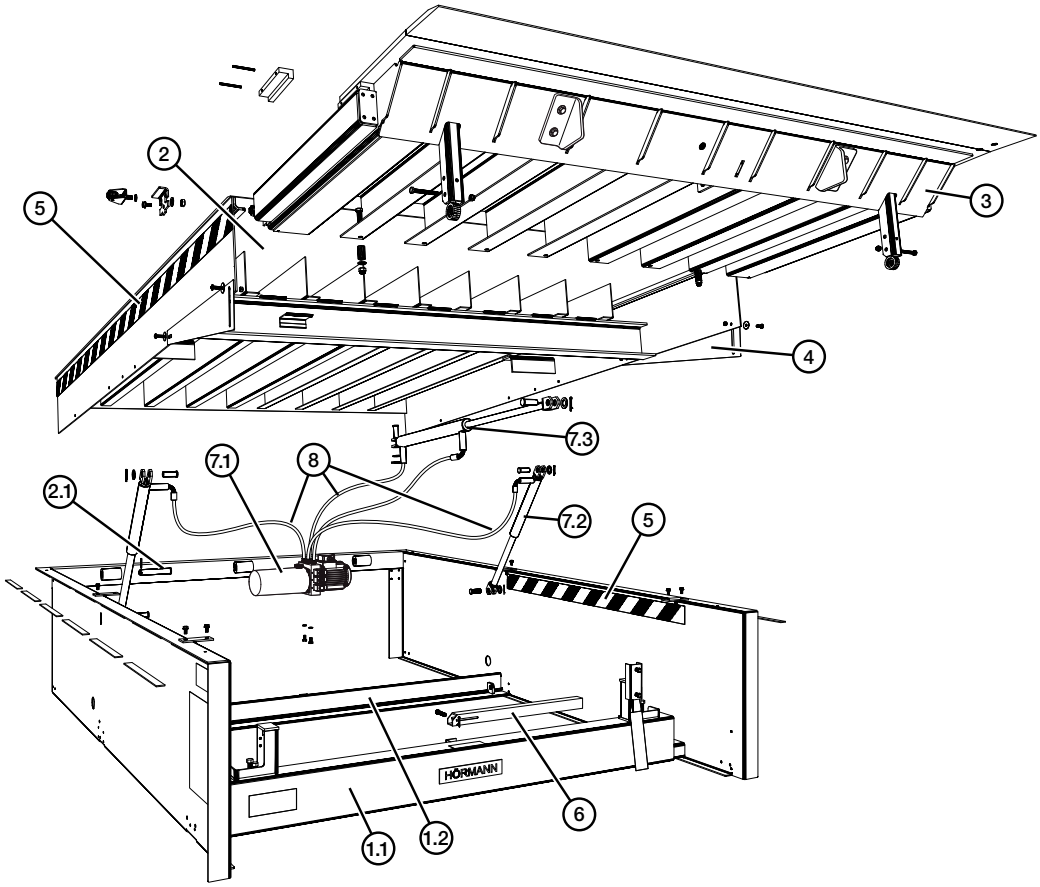


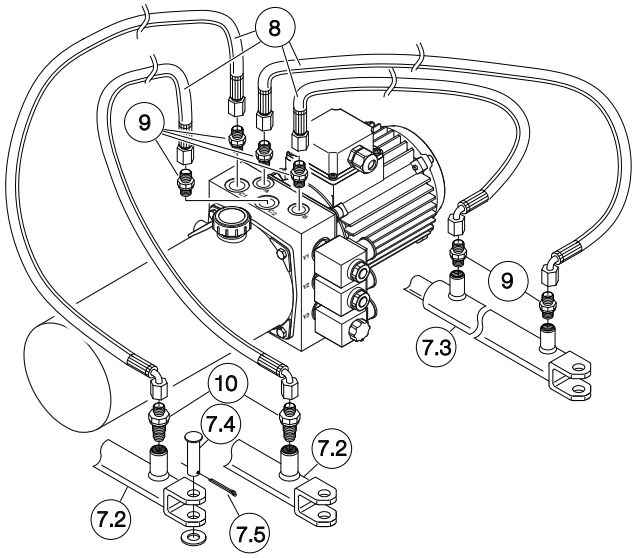
1	Base frame	5	Marker stripes	7.5	Securing split pin
1.1	Front beam	6	Maintenance supports	8	Hose line
2	Platform	7.1	Hydraulic unit	9	Coupling
2.1	Rear hinge axle	7.2	Main cylinder	10	Coupling with hose safety device*
3	Telescopic lip	7.3	Telescopic lip cylinder	11	2 / 2-way valve (not shown)
4	Foot guard plate	7.4	Cylinder axis	12	Solenoid valve (not shown)

* If the product deviates from the illustration (coupling as in item 9), the hose safety device is integrated in the main cylinder.

17.4 HTL2 frame and box model components

May deviate from the illustration.

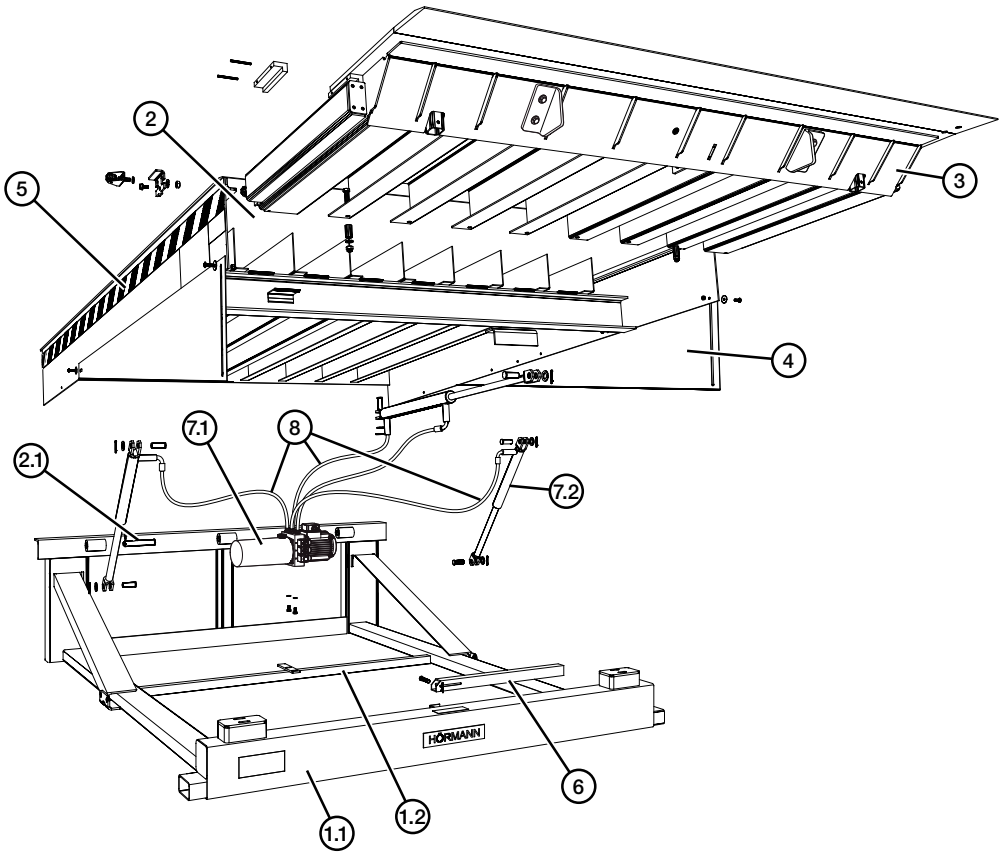


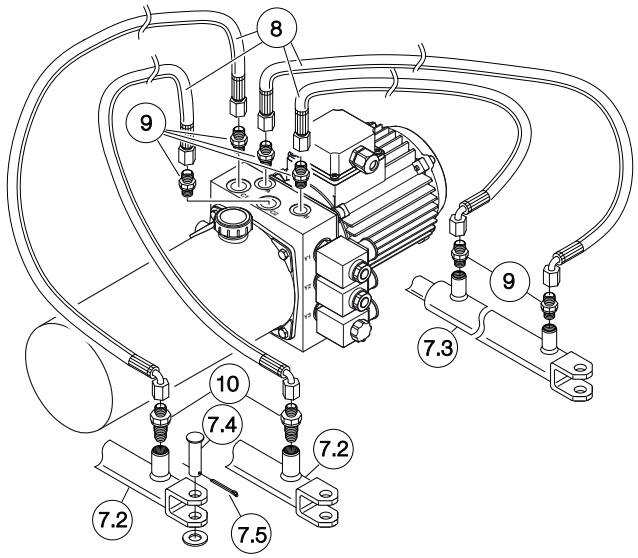


1	Base frame	5	Marker stripes	8	Hose
1.1	Front beam	6	Maintenance supports	9	Coupling
1.2	Cylinder support beam	7.1	Hydraulic unit	10	Coupling with hose safety device*
2	Platform	7.2	Main cylinder	11	2 / 2-way valve (not shown)
2.1	Rear hinge axle	7.3	Telescopic lip cylinder	12	Solenoid valve (not shown)
3	Telescopic lip	7.4	Cylinder axis		
4	Foot guard plate	7.5	Securing split pin		
* If the product deviates from the illustration (coupling as in item 9), the hose safety device is integrated in the main cylinder.					

17.5 HTL2 DOBO pit model components

May deviate from the illustration.





1	Base frame	5	Marker stripes	8	Hose
1.1	Front beam	6	Maintenance supports	9	Coupling
1.2	Cylinder support beam	7.1	Hydraulic unit	10	Coupling with hose safety device*
2	Platform	7.2	Main cylinder	11	2 / 2-way valve (not shown)
2.1	Rear hinge axle	7.3	Telescopic lip cylinder	12	Solenoid valve (not shown)
3	Telescopic lip	7.4	Cylinder axis		
4	Foot guard plate	7.5	Securing split pin		

* If the product deviates from the illustration (coupling as in item 9), the hose safety device is integrated in the main cylinder.

18 EC Declaration of Conformity

As defined in EC Machinery Directive 2006/42/EC, annex II, part 1 A.

Manufacturer:

Hörmann KG Verkaufsgesellschaft
Upheider Weg 94-98
D-33803 Steinhagen
Management: Axel Becker

We hereby declare that the product:

Hörmann dock leveller HLS2 / HTL2 with control 420S / T, 420Si / Ti or 460 S / T

on the basis of its design and type and in the version marketed by us, meets the relevant safety and health requirements of the EC directives listed below:

- EC Machinery Directive 2006/42 EC
- EC Low-Voltage Directive 2014/35/EU
- EC Electromagnetic Compatibility Directive 2014/30/EU
- EC Directive 2011/65/EU (RoHs, only regarding the control)

Applied and consulted standards and specifications (if undated, the latest edition of the publication applies, including any amendments):

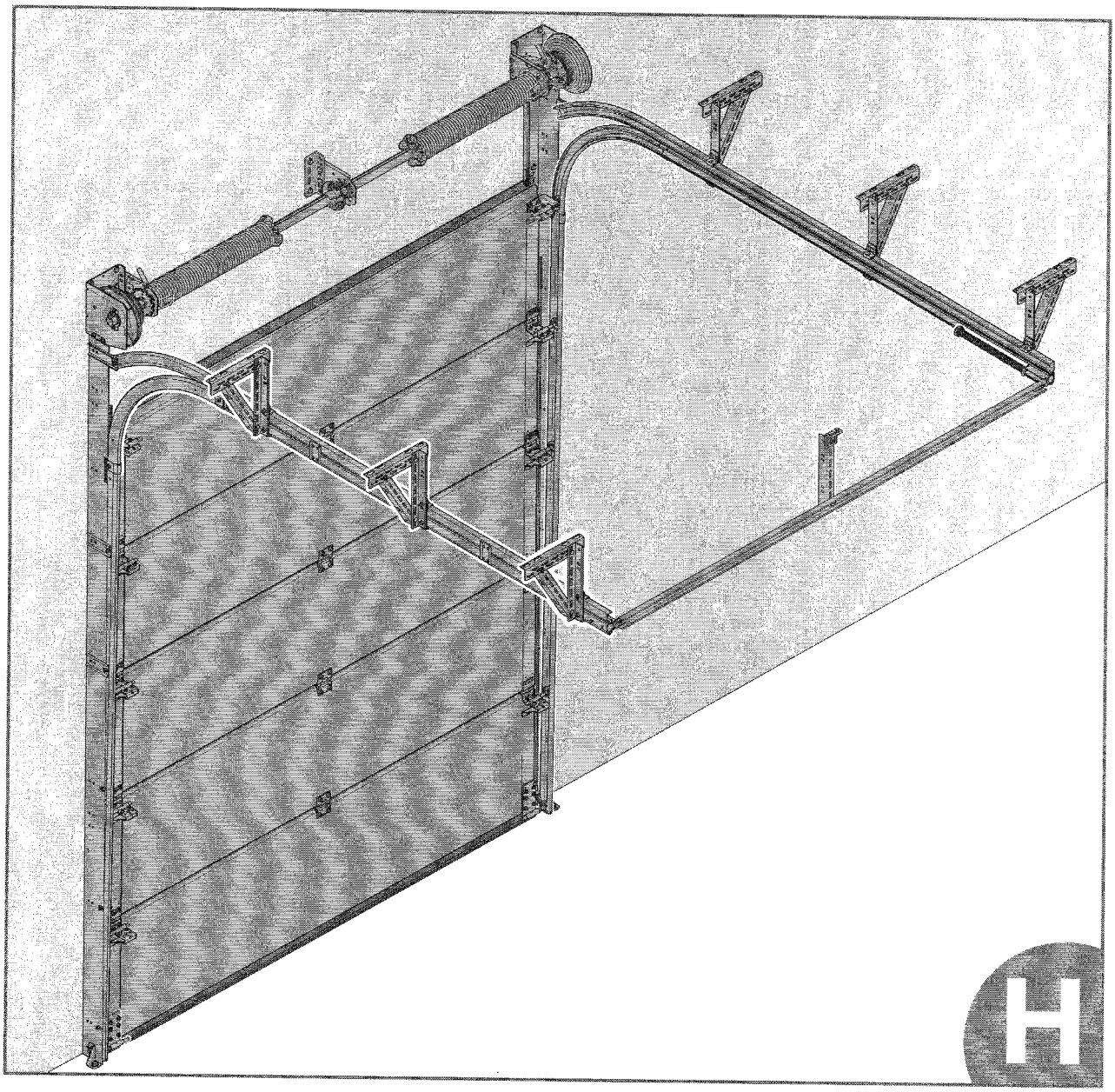
• EN 1398	Dock levellers
• EN ISO 13849-1, PL “c”	Safety of machinery – Safety-related parts of control systems
• EN 60204-1	Safety of Machinery – Electrical equipment of machines
• EN 61000-6-2	Electromagnetic compatibility – Interference immunity
• EN 61000-6-3	Electromagnetic compatibility – Interference emission

If any of the combinations described above is fitted and commissioned according to our requirements, the construction complies with these standards. Any modification made to this product without our express permission and approval shall render this declaration null and void.

The management of the above-mentioned manufacturer is the person authorised to compile the required technical documentation.

Steinhagen, 01.02.2017

Axel Becker
Management



DE **Anleitung für Montage, Betrieb, Wartung und Demontage**
Sectionaltore für Industrie Baureihe 60, Bautiefe 42 / 67 mm

EN **Instructions for Fitting, Operating, Maintenance and Dismantling**
Series 60 Sectional Garage Doors, depth 42 / 67 mm

FR **Notice de montage, d'utilisation, d'entretien et de démontage**
Porte sectionnelle industrielle série 60, épaisseur 42 / 67 mm

ES **Instrucciones para el montaje, funcionamiento, mantenimiento y desmontaje**
Puertas seccionales industriales Serie 60, profundidad 42 / 67 mm

RU **Руководство по монтажу, эксплуатации, техобслуживанию и демонтажу**
Секционные ворота для гаража строительной серии, строительная глубина 42 / 67 мм

\+ NL PL SL FI TR LV EL IT HU NO DA LT HR RO PT CS SV SK ET SR BG

3097160 RE / Stand: 07.2021 / Druck: 07.2021

EN = ENGLISH

These instructions are **original operating instructions** as outlined in EC Directive 2006/42/EC and are divided into a text and illustrated section. The illustrated section is separate and can be found in the accessory box. These instructions contain important information on the fitting, operation and maintenance of BR60 sectional doors, and especially safety instructions and warnings.

Read through the instructions carefully. Keep these instructions in a safe place.

1 Warnings used

⚠ WARNING

Indicates a danger that can lead to **death** or **serious injuries.**

ATTENTION

Indicates a danger that can lead to **damage** or **destruction of the product.**


Important note for avoiding damage to property


Permissible arrangement or activity


Non-permissible arrangement or activity


Remove and recycle the component / packaging


Electrical operation


Optional components


Remove residue


Tighten the screws firmly


Check


Manual operation

2 Safety instructions

2.1 Intended use

EN 13241 specifies the installation, fitting and use of industrial sectional doors in building openings in commercial and private applications.

2.2 General safety instructions

- The door is an object moved by spring force and / or electrical propulsion. Touching, hitting, trapping or crushing during door travel is strictly forbidden to avoid injuries.
- Only specialists, i.e. competent persons according to EN 12635 (persons with suitable training, qualified due to their knowledge and practical experience with the instructions necessary to perform correct and safe fitting) may fit, maintain, repair or dismantle the product.
- **On-site changes to the product may void the CE compliance.**

2.3 Environment conditions

ATTENTION

Damage caused by temperature differences

Differences in the outside and inside temperature may result in deflection of the door elements and foam break (bi-metal effect).

▶ Observe the operating conditions.

Temperature ranges	Exterior side	–40 °C to +60 °C
	Interior side	–20 °C to +60 °C
	Relative air humidity	20% to 90%

3 Fitting

⚠ WARNING

Danger of injury due to structural modifications

▶ Do not alter or remove any components. Do not attach any additional components.

▶ Door with operator: Observe the instructions of the operator manufacturer.

Note the following:

- During fitting, note the order in the illustrated section.
- On-site, make sure that there is sufficient water run-off to the outside in the area of the bottom seal and the frame parts.
- Make sure that the connection to the building structure is sound.
  - Check that the supplied fixing materials are suitable for the situation on-site.
  - On-site fastening elements must be able to absorb forces up to 1.5 kN per fixing point!
  - Always obtain the permission of the structural engineer before fastening the door system to supporting structural elements.
- Provide on-site sealing to the building structure (e.g. joint sealing tape).
- To prevent corrosion, dry and ventilate the building sufficiently.
- Protect the door during painting and plastering work. Splashes of mortar, cement, plaster, paint, etc. may damage the surface.

Door width LZ [mm]	Max. distance of suspensions ADM [mm] [1]
≤ 3000	2300
3010 – 4000	2200
4010 – 5000	2100
5010 – 8000	1850

1) For doors with wicket door, real glass infill, Vitraplan, facade doors, ALR / APU 67 Thermo: max. ADM = 1850 mm.
2) Distance ADV 1200 - 1500 mm.
3) With C-rail, max. distance ADM = 3100 mm.

3.1 Spring tensioning

⚠ WARNING

Risk of injury due to high torque.

Springs are under high torque. Unsecured spring tensioning can release strong forces.

▶ Before tensioning the springs, secure the door leaf against uncontrolled movement.

The specified tensioning rotation (min. / max.) on the data label is an approximate value.

When the springs are properly tensioned, the door leaf has a slight tendency upwards during door travel.

▶ Check the spring tension as part of every maintenance. Adjust the tension if necessary.

▶ **Before initial operation, inspect the sectional door according to chapter 6** *"Inspection and maintenance (only specialists)"*.

4 Operation

4.1 Door operation

⚠ WARNING

Danger of injury due to door run

The sectional door closes straight down, which can result in the door trapping persons or objects.

▶ Objects and persons, especially children, must not be in the door system's range of motion or opening.

Only **suitably instructed** persons may operate the door. When properly fitted and inspected, the sectional door is easy to move and operate.

4.1.1 Manually operated doors

⚠ WARNING

Danger of injury due to incorrect operation

▶ Only open and close the door with the supplied control elements (controlled, even movement).

4.1.2 Power-driven doors

The automation of a sectional door requires observing special safety regulations in accordance with the operating instructions of the operator manufacturer.

5 Cleaning and care

ATTENTION

Scratches on panes due to incorrect cleaning

▶ **Clean water is sufficient for cleaning and care.** Use warm water together with a neutral, non-abrasive cleaning agent (household detergent, pH value°7) if more heavily soiled.

Clean the outside of the door **at least every 3 months.** Always keep the sliding area behind the side seals clean and lubricated. Different environmental influences may require additional protective coatings (see chapter 5.1 *"Surface treatment"*). This applies to marine climates, air pollution, paint damage as well as saltpetre reactions of stone or concrete, for example.

Always avoid contact with aggressive media. If, however, the door surface or the add-on parts are contaminated, use clear water to thoroughly remove all residues.

5.1 Surface treatment

- The door leaf comes with a polyester primer-coating. For a coating in another colour or a renovation coat / additional protective coat, please contact a professional painting company.

NOTE

Dark colours should be avoided for double-skinned doors or doors with thermal break.

6 Inspection and maintenance (only specialists)

6.1 Inspections and maintenance work

⚠ WARNING

Danger of injury by defective safety components

▶ Only commission specialists with inspection and maintenance.

Commission inspection and maintenance work at least once a year, or every 6 months if there are more than 50 door operations per day.

6.1.1 Load carriers

⚠ WARNING

Risk of injury due to cable tension and high torque

Cables and springs are under high tension and high torque.

- ▶ Secure the door leaf before replacing damaged cables or springs.
- ▶ Be especially careful when replacing damaged cables or springs.

Cable / chain

- ▶ Check the load carriers for damage.

Catch safety device

- ▶ Check the functionality of the arresting catch.

Spring safety device

- ▶ Check the safety device for function and the ratchet wheel for a tight fit.

6.1.2 Counterbalance

⚠ WARNING

If the counterbalance is set incorrectly, the door can sag uncontrollably, resulting in the door trapping persons or objects.

- ▶ Adjust the torsion spring tension.

Springs are under high torque. Unsecured spring tensioning can release strong forces.

- ▶ Secure the door leaf to prevent uncontrolled movements while adjusting the torsion spring shaft.

Checking the counterbalance of the door leaf:

- ▶ Manually open the door halfway. The door must remain in this position.

6.1.3 Fixing points

- ▶ Check all fixing points on the door and the building structure.

6.1.4 Track rollers and tracks

Rollers must be easy to turn when the door is closed.

- ▶ If necessary, adjust the track rollers. Clean the tracks. Never use grease.

6.1.5 Hinges and roller holders

- ▶ Oil the hinges and roller holders.

6.1.6 Bottom cable brackets

- ▶ Check and grease the cable holder bolt.

6.1.7 Locking cylinders

ATTENTION

Never use agents containing oil to clean and grease the locking cylinders.

- ▶ Only use specialised care products.

6.1.8 Seals

- ▶ Check seals for damage, deformation and completeness.

7 Malfunctions

⚠ WARNING

Danger of injury due to uncontrolled door travel

- ▶ In the event of a door failure, sluggish operation or other malfunctions, immediately commission a specialist for the inspection or repair work. The door must not be moved in this state.

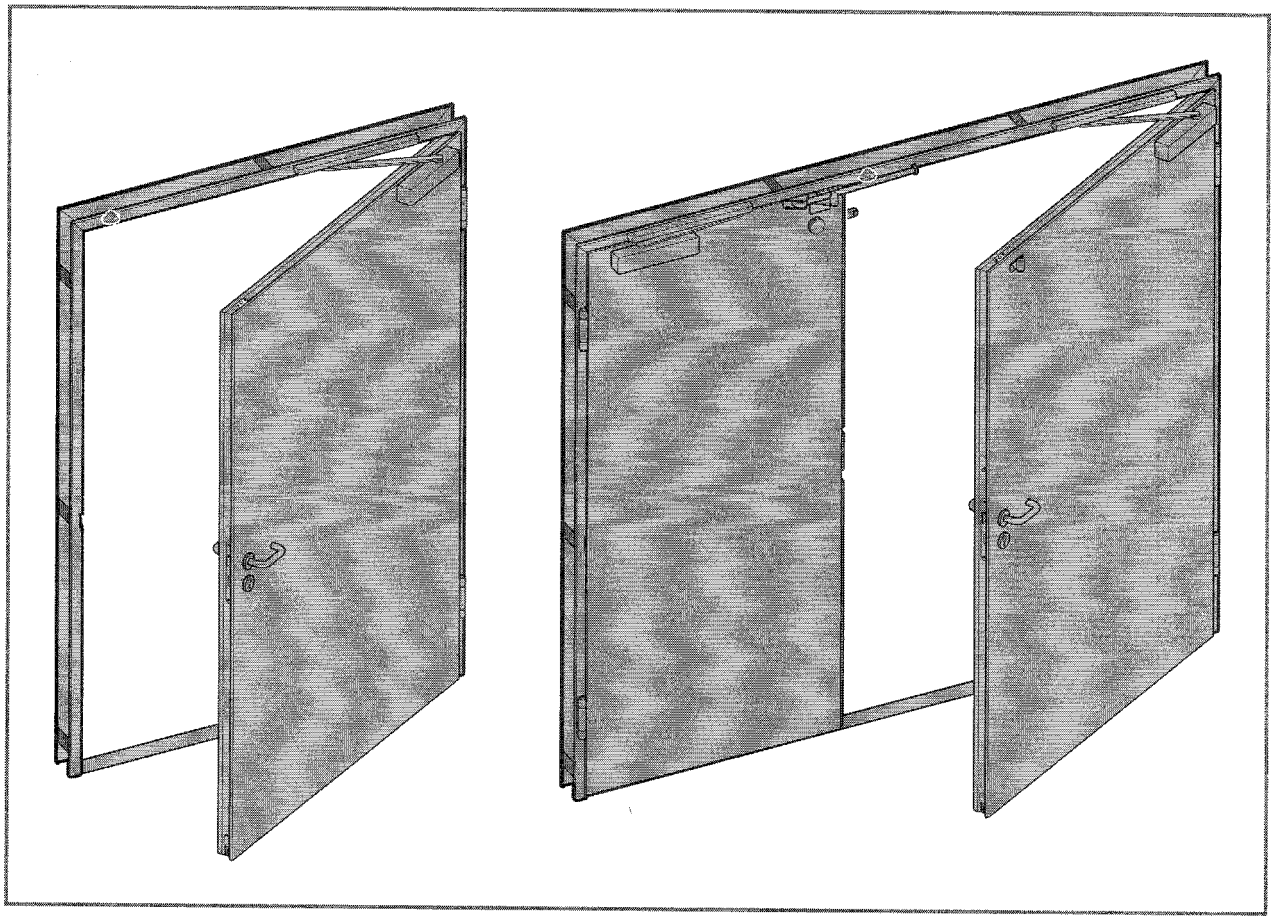
After the safety equipment described in chapter 6 is activated, the door leaf weight is no longer balanced.

7.1 Damage repair only by specialists

1. After the safety device has been actuated, hold the door leaf with suitable aids. Move the spring shaft with a tensioning spindle. Release the arresting catch. Secure the arresting catch with a securing split pin.
2. Lower the door leaf. Relax the springs. Replace the broken spring.

8 Dismantling

Dismantle the door in accordance with these fitting instructions in the logically correct reverse order.



DE ~~Anleitung für Montage, Betrieb und Wartung~~
Stahl- und Edelstahltüren STS / STU

EN **Instructions for Fitting, Operating and Maintenance**
Steel and Stainless Steel Doors STS / STU

FR ~~Instructions de montage, d'utilisation et d'entretien~~
Portes en acier et acier inoxydable STS / STU

IT ~~Istruzioni per il montaggio, il funzionamento e la manutenzione~~
Porte in acciaio e inox STS / STU

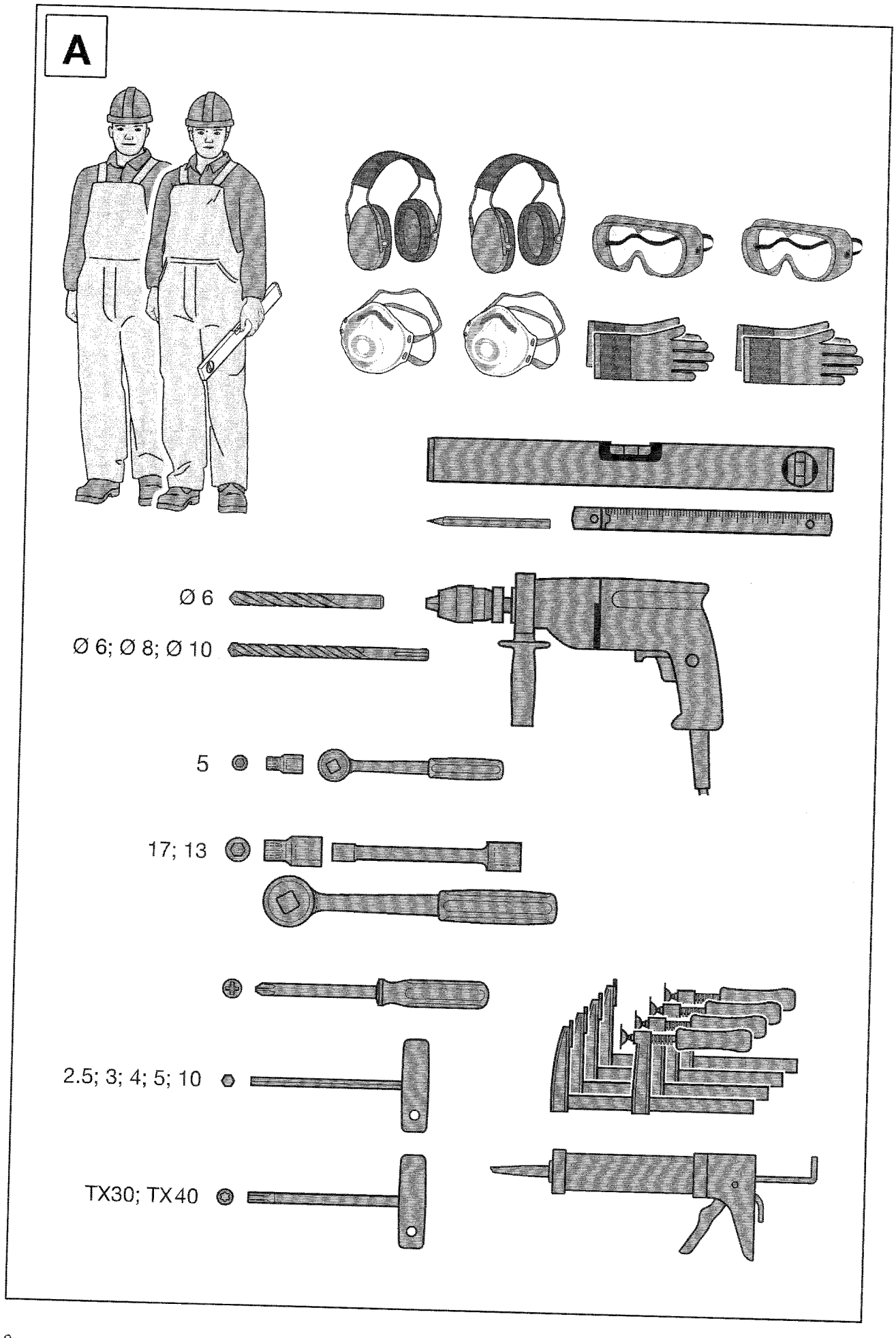
SL ~~Navodila za montažo, delovanje in vzdrževanje~~
Vrata iz jekla in nerjavnega jekla STS / STU

SK ~~Návod na montáž, prevádzku a údržbu~~
Dvere z ocele a z ušľachtilej ocele STS / STU

DA ~~Vejledning til montering, drift og service~~
Ståldøre og døre af rustfrit stål STS / STU

2 043 013 RE / Stand: 11.2019 / Duck: 11.2019

HÖRMANN


A
Ø 6
Ø 6; Ø 8; Ø 10
5
17; 13
2.5; 3; 4; 5; 10
TX30; TX40

Contents

Dear Customer,
We are delighted that you have chosen a quality product from our company.

1 About these instructions

These instructions are divided into a text section and an illustrated section. The illustrated section can be found after the text section.

Read and follow these instructions carefully. They contain important information on the product. Please pay particular attention to all safety instructions and warnings.

Keep these instructions in a safe place for later reference!

1.1 Warnings used

⚠ The general warning symbol indicates a danger that can lead to **injury** or **death**. In the text, the general warning symbol will be used in connection with the caution levels described below. In the illustrated section, an additional instruction refers back to the explanation in the text.

⚠ CAUTION

Indicates a danger that can lead to minor or moderate injuries.

ATTENTION

Indicates a danger that can lead to **damage** or **destruction of the product.**

1.2 Symbols used

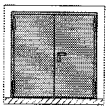

Important advice to prevent injury to persons or damage to property


Warning of dangerous electrical voltage


Non-permissible arrangement or activity

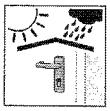

Correct arrangement or activity


Single-leaf fire-rated and smoke-tight door

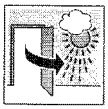

Double-leaf fire-rated and smoke-tight door

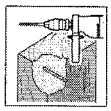

Fire protection

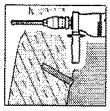

Smoke protection

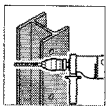

Weather protection

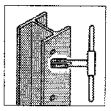

Door opening inwards


Door opening outwards

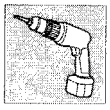

Drilling in timber


Drilling in concrete, masonry

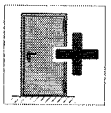

Drilling in steel


Cut thread


Seal

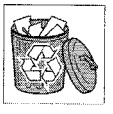

Tighten screw

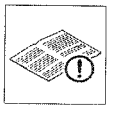

Riveting


Optional components


Inspect

Multi-purpose door


Recycle component


See text section


See illustrated section


See separate fitting instructions

1.3 Abbreviations used

DH	Lever height
DIBt	German Institute for Structural Engineering
DOM	Backset
EI 30-2	Designation of fire resistance class E ... Brick partition I ... Thermal insulation 30 ... In case of fire fulfils its functions for at least 30 minutes 2 ... Double-leaf
OFF (FFL)	Finished floor level
FSK	Fire protection category
ISC	Institute for Safety and Conformity in Fire Protection
LDB	Clear passage width
LDH	Clear passage height
MKL	Leaf communicator
MLB	Clear passage width for brickwork
MLH	Clear passage height for brickwork
RAL GZ 632	"Cleaning Metal Facades" GRM directive (Association for the Cleaning of Metal Facades)
SFR	Door leaf selector
STS	Steel door – flush
STU	Steel door – rebated
SZFF 61.01	Directive 61.01 from the Central Swiss Association for Window and Facade Construction
T 30-2-RS	Designation of fire resistance class T ... Door 30 ... In case of fire fulfils its function for at least 30 minutes 2 ... Double-leaf RS ... Smoke protection
Ü/ÜA	Designation of the door with inspection tags Ü or ÜA
VT	Locking plate
ZAV	Frame anchoring
ZT2	Door closer

1.4 General notes

The texts and diagrams in this manual have been created with the greatest care possible. In order to provide a concise overview, not all detailed information on all variants and possible assemblies, operation modes and maintenance can be described. The texts and diagrams published in this manual are merely intended as examples.

Any guarantee for its completeness is excluded and does not justify a complaint. Subject to technical changes.

Should you desire more information, or if problems occur which are not described in enough detail in the operating instructions, you may request the required information directly from the manufacturing plant.

These instructions apply to internal doors with or without T30 / T90 approval as well as for external doors with or without $EI_2$30 classification and CE mark according to EN 14351-1 and 16034.

2 ⚠ Safety instructions

2.1 Intended use

A steel fire-rated and smoke-tight door including all its parts (e.g. frames, guides, etc.) has the purpose of preventing, when fitted and closed, the passage of fire or smoke through wall openings. Fire-rated doors meet their fire-rated and smoke-tight requirements only with a fitted profile cylinder, which is not included in the scope of delivery. Only an approved fitted cylinder with a melting point over 900 degrees may be used.

Intended use also includes the following:

- Observing the operating and maintenance instructions.
- Complying with the inspection and maintenance conditions.
- Only operating the fire-rated and smoke-tight door if it is technically sound and in perfect working order.
- Only allowing the manufacturer or specialist companies to perform door repairs and maintenance.
- Complying with the respective national regulations and approvals.

2.2 Fitter qualification

In order to ensure proper installation of the fire-rated and smoke-tight door, only fitters with commensurate training may be charged with the task. Depending on local official regulations, electric parts may only be connected by licensed specialist companies or specially trained personnel.

2.3 Changes to the fire-rated and smoke-tight door

If included in the corresponding documents for the respective approval, changes and supplements may be carried out only when fire-rated doors are manufactured as hinged doors and only with approval of the applicant / authorisation holder.

2.4 Spare parts and accessories

We advise explicitly that only genuine spare parts are tested and approved.

2.5 Dimensions and weights

The dimensions for the door leaf and frame depend on the size of the structural opening in the brickwork (clear passage width / height) or the thickness of the wall and are custom manufactured.

Generally, the door weight does not exceed 180 kg. The surface weight of the door depends on the fire protection category ($EI_2$30 / $EI_2$90, T30 approx. 40 kg/m²; T90 approx. 50 kg/m²).

2.6 Fitting instructions

Check the following points before fitting:

- What level of construction progress is required to ensure proper fitting of the door?
- Do the wall opening dimensions match the door?
- What characteristics does the door have?
- Is the wall type suited for the fitting of the door?
- Is the finished level of the floor known (metre line)?
- What is the opening sense of the door?
- Do building regulations need to be observed?
- Does the wall have to be chiselled out in the area of the wall protective caps?
- Are there large temperature differences in the area of the door?

If so, ensure proper adjustment of the overhead door closer.

2.7 Permissible walls and wall thicknesses

Please find the types and minimum thicknesses of the walls and components for fitting the fire-rated and smoke-tight doors in the respective country-specific approval.

2.7.1 Labelling and CE mark

The label for multi-purpose external door STU features the CE mark in compliance with Regulation (EU) No. 305 / 2011. The harmonised European product standard applied is EN 14351-1:2006 + A1:2010 *Windows and doors - Product standard, performance characteristics - Part 1: Windows and external pedestrian doorsets.* The number of the associated CE mark/declaration of performance can be found in the rebate area of the door on the label named above, between the manufacturer logo and the CE mark.

Doors without CE mark on the label do not fall under the harmonised European product standard named above. These doors must not have a CE mark or declaration of performance.

Initial start-up is only allowed once it has been verified that the door was fitted according to manufacturer specifications and that it works properly. A product's declaration of performance becomes invalid if an alteration to the product is carried out.

For the declaration of performance, go to: www.hoermann.com/dop

Doors for outside use with fire protection $EI_2$30 and CE mark

Walls and components	**Minimum thickness $EI_2$30**
Reinforced **concrete acc. to** DIN EN 1996-1-1	**140**
Brickwork **acc. to** DIN EN 771-1 Min. compression strength class M12 Min. apparent density class 0.9 Mortar acc. to 998-2 Min. compression strength class M5	**175**
Gas concrete acc. to DIN EN 771-4 Min. compression strength class M4 Min. apparent density class 0.5 Mortar acc. to DIN EN 998-2 Min. compression strength class M3	**175**

Walls and components	Minimum thickness EI_230
Partition wall[1] acc. to DIN EN 1363-1 Table 1, min. EI-30 Metal stands for frame fastening min. Ø 2 mm Timber stands for frame fastening min. 50 × 80 mm	100
Steel components Possible with sufficient statics and min. of REI 30 cladding	

1) Recommended sub-construction for fastening frame parts min. 50 × 50 × 4 mm

Country variant, Austria and Switzerland

Walls and components	Minimum thickness EI_230	EI_290
Fitting in brickwork and stone walls, minimum compression strength class ≥ 10 N / mm², MG II.	115	175
Fitting in concrete walls, minimum strength class B10.	100	140
Fitting in fire-proof prefabricated gypsum board walls.	F60 / 90	F90
	100	150
Fitting in fire-proof walls *from Knauf* or similar (a test certificate is required for the walls).	100	150
Fitting in gas concrete walls: • Made of gas concrete blocks or slabs, compression strength class G 4 or GP 4; or: • Made of reinforced – horizontal and vertical – gas concrete slabs according to general construction site approvals, compression strength class G 4.	200	200
Joined to steel supports encased in mineral construction materials.	min. F60	min. F120
Cladded timber supports and/or girders, minimum fire-resistance class F 60 – designation (short designation) F 60 B – verified by public test certificate of the building authority no. P-3497/3879-MPA BS (not in Switzerland)	110	–

Country variant, Germany

Walls and components	Minimum thickness EI_230	EI_290
Brickwork walls acc. to DIN 1053-1, strength class ≥ 12, normal mortar of mortar group ≥ II	115	175
Concrete walls acc. to DIN 1045-1, strength class ≥ C 12/15	100	140

Walls and components	Minimum thickness EI_230	EI_290
Walls made of gas concrete stone slabs or concrete precision blocks acc. to DIN 4165 part 3, strength class 4	200	200
Walls made of reinforced gas concrete slabs, laid flat or standing, having general building authority approval, strength class 4.4.	200	200
Walls (height ≤ 5 m) made of gypsum board fire protection boards with minimum fire-resistance class F 60, short designation F-60-A acc. to DIN 4102-4, table 48.	100	–
Walls (height ≤ 5 m) made of gypsum board fire protection boards with minimum fire-resistance class F 90, short designation F 90-A acc. to DIN 4102-4, table 48.	100	150
Walls (height ≤ 5 m) made of gypsum board fire protection boards with minimum fire-resistance class F 60, short designation F 60-B – acc. to DIN 4102-4 table 49 (cross-section of the partition at least 75 mm × 40 mm).	100	–
Cladded steel supports and / or girders, minimum fire-resistance class F 60, short designation F 60-A acc. to DIN 4102-4.	2)	–
Cladded steel supports and / or girders, minimum fire-resistance class F 90, short designation F 90-A acc. to DIN 4102-4.	2)	
Cladded steel supports and / or girders, minimum fire-resistance class F 120, DIN 4102-4.	2)	
Cladded timber supports and/or girders, minimum fire-resistance class F 60 – designation (short designation) F 60 B – verified by public test certificate of the building authority no. P-3497/3879-MPA BS	110	–

2) according to static requirements

3 Product description

3.1 Overview

▶ See **figure 1**

No.	Description
1	Door leaf
2	Frame
3	Threshold / stop profile
4	Transport safety device
5	Floor recess
6	Metre line
7	Seals

No.	Description
8	Lever / lever handle set
9	Lock
10	Hinges
11	Door closer
12	Recessed floor seal
13	Hold-open device
14	Electric supply / electro duct
15	Electric strike
16	Monitoring contact
17	Latch switching contact
18	Spyhole
19	Locking pin
20	Locking plate
21	Door leaf selector
22	Leaf communicator
23	Bottom bush
24	Frame anchoring
25	Data label
26	Weather protection

Door leaf

- **STS** (see **figure 1.a**):
  Steel door, flush-fitting, single-leaf / double-leaf
- **STU** (see **figure 1.a / 1.b**):
  Steel door, rebated, single-leaf / double-leaf

3.2 Frame variants

(See **figure 1.c**)

- **Block frames A flush-fitting on both sides:**
  Block frames B / C / J / N / O:
  Block frames are positioned flush to the adjacent wall, i.e. in the clear wall opening. They can be regarded as "asymmetrically mirrored profile frames".
- **Corner frame D / G / K / L:**
  Corner frames are only fitted on one side of the wall. The door reveal is almost completely visible as a wall surface.
- **Profile frame E / F / H / M:**
  Profile frames generally span the entire adjoining wall and, depending on the version, can be installed during wall construction **(F2 / F3 / H1)** or subsequently fitted **(E1 - E7 / F1 / F4 / M1 - M4)**.

Anchoring the frame in the wall

Only use fastening elements as listed below or with the same properties.

The anchoring of the frame in the wall depends on the construction subsurface and must only be performed with the fitting material listed below:

- **Brickwork, concrete**
  Plastic dowels with steel screws Fischer FUR 10 or comparable alternative, anchoring depth min. 70 mm
- **Fire-proof encased steel components**
  Steel screws M8
- **Partition wall, gypsum board wall**
  Steel sheet brackets min. 2 mm and drilling screws Ø 6.3 mm
- **Gas concrete wall**
  Plastic dowels with steel screws Fischer FUR 10 or comparable alternative, anchoring depth min. 70 mm
- **Cladded timber supports (only $EI_2$30 / T30)**
  Hexagon screws 6 x 80 mm
  Note on frame anchoring
  Frame profile width up to 249 mm:
  1 fixing point for each fixing level
  Frame profile width from 250 mm:
  2 fixing points for each fixing level

NOTE:

Block frames must be filled with mineral wool with a density ≥ 150 kg/m³.

The gaps between wall-side profiles and an uneven wall surface must be closed to prevent fires and increased temperatures from impairing the room partition.

- **Gap ≤ 5 mm:**
  - Seal gaps with a flexible silicone / acrylic.
- **Gap > 5 – 20 mm:**
  (not uniform over the entire profile length)
  - Backfill with mineral wool and additional sealing with normal silicone / acrylic.
- **Gap > 5 – 20 mm:**
  (uniform over the entire profile length)
  - Before screwing the profile, position a continuous strip of mineral wool. The mineral wool must belong to building materials class A1 and have a melting point of ≥ 1000°C. Additional sealing with regular silicone / acrylic.

4 Fitting

4.1 Dimension check at fitting site

The customer must check the delivery for dimensional accuracy and completeness prior to fitting.

4.2 Fitting the frame

4.2.1 General

(see **figure 2 / 3**)

- For anchoring the frame in the wall, only the fixing material listed in Section **3.2** is to be used.
- Depending on the door or frame variant, all wiring running through the frame (e.g. for the magnetic contact, electric strike, locking, bolt or lever monitoring, etc.) must be laid.
- Remove the transport protection from the lower side of the frame if present.
- Paying attention to the opening direction, place the frame in the wall opening and align it with the meter line marking. On both sides of the frame, the meter line marking is stamped on the frame face and indicated by a red arrow. It may be necessary to provide slots beforehand for hinge base constructions and protective cases.
- Align and fix the frame vertically and horizontally. Inspect the rebate size of the frame.

4.2.2 Plug-and-screw fitting

(See **figure 4a / 4b / 4c / 4e / 4g / 4h / 4i / 4j**)

- Prepare the frame fitting according to 4.2.1.
- Drill the required holes for the screw fixing in the wall using the press cuts in the frame as a guide.
- Insert the screws in the drill holes and tighten the screws slightly. Adjust the gap between the frame and the wall at the fixing points using spacers and tighten the screws completely.
- Inspect the positioning of the frame and the rebate size along the entire height of the frame and adjust if needed. Close the holes in the frame using the plastic cover caps included in delivery.

NOTE:

Depending on the subsurface of the wall, bonded anchors can be used for fitting the frame instead of plugs.

4.2.3 Screw fixing

(See **figure 4a / 4c / 4e / 4h / 4i / 4j**)

- Prepare the frame fitting according to 4.2.1.
- Drill the required holes for the screw fixing in the wall using the press cuts in the frame as a guide. Cut the corresponding threads.
- Insert the screws in the drill holes, adjust the gap between the frame and the wall at the fixing points using spacers and tighten the screws completely.
- Inspect the positioning of the frame and the rebate size along the entire height of the frame and adjust if needed. Close the holes in the frame using the plastic cover caps included in delivery.

4.2.4 Grouting

(See **figure 4d**)

- The grouting lugs attached to the frame must be bent outward to fit the frame in the brickwork.
- The frame should be spread apart to prevent probable distortion caused by back-filling.
- After inserting and aligning the frame, it should be grouted immediately and not placed under any load until the grout has hardened. Fill the cavity between the brickwork and the frame completely. The material used for filling may not contain any aggressive elements; impurities must be removed immediately from the frame.
- Inspect the positioning of the frame and the rebate size along the entire height of the frame.
- Remove spacers and wedges only after the filling has dried completely.

4.2.5 Fitting in partition walls

(see **figure 4f**)

- Prepare the frame fitting according to 4.2.1.
- Depending on the partition wall system, observe the respective fitting notes from the manufacturer.
- Screw the CW or U reinforcement profiles on the partition wall to the frame brackets.
- Inspect the positioning of the frame and the rebate size along the entire height of the frame and adjust if needed.
- Cladding should be cut out precisely around the fitting elements of the frame (hinge pockets, lock case, brackets, etc.). Before screwing on the cladding, clamp reinforcement spacers in the frame rebate at equal distances along the entire height (do not distort frame). Only remove the spacers after the cladding has been attached.

NOTE:

The frame cavity should be filled with mineral wool with a density of at least 150 kg/m^3 and a melting point of T ≥ 1000°C.

4.2.6 Rivet fitting to panel wall

(see **figure 4k**)

Place both frame parts in the opening and screw them into the sealing groove. Adjust the frame vertically and horizontally, and rivet the frame to the panel wall.

4.3 Applying frame seal

(see **figure 5**)

Before applying the frame seal, clean the seal groove if necessary. If the frame is painted on-site, the seal can only be applied after the paint has dried completely. The pull-off strip on the frame seal must be removed (see **figure 5.2**).

4.4 Hanging and adjusting the door leaf

(see **figure 6**)

Door leaves cannot be shortened. If door leaves are to be hung during the construction phase, make sure that they are not wedged using wooden wedges or similar aids inserted between frame and door leaf or between door leaf and floor. This can cause damage to the door leaf, frame and hinge subframes and invalidates the warranty.

4.4.1 Heavy-duty hinge plug-in system

(see **figure 6.1a / 6.2a**)

- Loosen the fixing screws at the hinge base on the frame and detach spacers.
- Hang the door leaf on the frame:
  - Insert the hinge brackets on the door leaf in the hinge base construction on the frame.
  - Tighten the fixing screws on the hinge base construction.
- Adjust door leaf (Y-Z alignment):
  - Loosen the fixing screws on the hinge base construction slightly.
  - Adjust door leaf.
  - Retighten the screws.
- Adjust door leaf (X alignment):
  - Loosen the cylinder head screws slightly using a hexagon socket above and below the door hinges on the frame.
  - Adjust door leaf.
  - Retighten the screws.
- Check the floor and rebate clearance:
  - Permissible floor clearance: **5 – 15 mm**
  - Permissible rebate clearance: **2 – 6 mm**

4.4.2 Concealed heavy-duty hinge

(see **figure 6.1b / 6.2b**)

4.5 Fitting the upper section

Optionally, only **T30** and **EI30** (see Figure **8**)

- Insert upper section into the frame and slide it completely upwards (locking bolts on the lintel part of the frame must engage fully).
- Tap both upper section locking elements outwards, left and right on the lower side of the lintel, to mark their position on the frame.
- Drill holes Ø 13 mm at the points marked.
- Place the upper section in the frame and fix it with the locking elements for the upper section.
- Tighten the lock screws for the upper section locking elements completely.

4.6 Installing the fittings

(see **figure 10**)

The installation of the fittings should be carried out according to the instructions supplied by the respective manufacturer.

No.	Description
10a	Cover plates
10b	Lever handle set
10c	Door closer
10d	Leaf communicator (MKL)
	Locking plate (VT)
	Door leaf selector (SFR)
10e	Electro duct
10f	Lock plate with electric strike
10g	einstellbares Lock plate without electric strike
10h	Magnetic contact
10i	Latch switching contact
10j-k	Retractable bottom seal
10l	Earthing strap
10m	Electric magnet
10n	Fixed leaf locking

Installing the smoke detection system

(optional)

The precise position of the individual smoke detectors as well as information concerning smoke detector systems can be obtained from the operating instructions of the respective smoke detection system manufacturer.

5 Initial start-up

Before fitting is complete, check the steel fire-rated and smoke-tight door for flawless function.

Check the following points in particular:

- The door leaf must not scrape on the floor – maintain a gap of 5 – 15 mm between FFL and the lower edge of the door leaf.
- The door leaf must not scrape on the frame – maintain a gap of 2 – 6 mm between the frame and the door leaf.
- The door must be able to close independently from any position. The catch must engage completely when the door is closed
- The catch and bolt press cuts in the frame must be free of obstructions.
- Make sure that the lever handle on the door leaf is properly attached. The lever handle should be maintained in a horizontal position by the spring force of the lock.
- Check the hinge attachment on the door leaf and the frame. The hinges should function smoothly.
- Ensure the seals are positioned correctly.

6 Identification

(see **figure 1.a / 1.b / Pos. [24]**)

For technical identification purposes, each door is equipped with a permanent data label containing the following information:

- Door model and fire resistance category
- Mark of conformity
  - Austria: ÜA mark
  - Germany: Ü mark
    with:
  - Name of the manufacturer
  - Approval number
  - Logo or designation of the certification authority
- Factory location
- Year of manufacture

Identification is located on the hinge side, in the centre of the cladding at a height of approx. 1600 mm.

NOTE:

The stickers or metal plates must not be removed or defaced.

7 Malfunctions and troubleshooting

1 Door does not close Door does not close completely
Electric magnet does not release: ▶ Check push buttons and wiring.
Incorrect adjustment of closer: ▶ Adjust closing speed, closing force and end stop.
Door scrapes against floor: ▶ Adjust floor clearance.
Door scrapes against frame: ▶ Adjust rebate clearance.
2 Unusual noises are heard during opening or closing
Impurities in hinges: ▶ Clean hinges, dismantling them for cleaning if needed.
Closer is defective / door closer linkage is deformed: ▶ Repair closer. ▶ Exchange closer if necessary.
Recessed floor seal defective / incorrectly adjusted: ▶ Repair recessed floor seal. ▶ Carry out adjustments. ▶ Exchange the recessed floor seal if necessary.

3 Door cannot be retained in a fully opened position
Electric magnet does not hold: ▶ Check push buttons and wiring. ▶ Check power supply.

7.1 Floors for doors with fire protection function and smoke-tight function

Floor covering that does not correspond with at least Cfl-S1 or Bfl S1 acc. to EN 13501 1 or B1 acc. to DIN 4102 must be separated.

- Stainless steel flat material is permitted for use as a floor separator.

For doors with smoke-tight function, the floor underneath the retractable bottom seal has to be smooth and continuous, without any joints or gaps. Stainless steel flat material or similar is permitted.

7.2 Retractable bottom seal

Replacement of the retractable bottom seal for smoke-tight doors in the version T30 / EI_2 30 The retractable bottom seal is not glued in doors without smoke protection properties!

For STS / STU steel and stainless steel door versions T 90 / EI_2 90 RS, the retractable bottom seal is inserted in a sealed U-profile rail. In this case, the retractable bottom seal is not sealed and can be easily replaced after loosening the rivets.

8 Cleaning and care

Regular and thorough cleaning is required to reduce the risk of corrosion.

ATTENTION
Unsuitable cleaning agents and incorrect cleaning High-pressure cleaners, as well as strong acid or lye, may damage the surface of the door elements. ▶ Do not use any high-pressure cleaners for cleaning. ▶ Only use suitable cleaning agents. ▶ Do not rub hard.

8.1 Galvanized surfaces

ATTENTION
Metal cleaning tools Metal cleaning tools may damage the surface, resulting in corrosion. ▶ Never use any sponges containing metal, steel wool or steel brushes.

- ▶ Clean galvanized surfaces with clear water.
- ▶ Clean off tough-to-remove dirt by adding a small amount of a neutral cleaning agent to the water.

If slightly acidic, neutral or alkaline degreasing agents are used on surfaces, make sure that they are completely and immediately removed with water to prevent the chemicals from corroding the zinc surface.

8.2 Powder-coated surfaces

In order to properly care for coated surfaces, the fire-rated and smoke-tight door must be cleaned at least once a year or more often in the case of heavy environmental pollution in accordance with the instructions in RAL-GZ 632 or SZFF 61.01.

- ▶ For cleaning, only use clear, cold / lukewarm water and soft, lint-free towels, cloths or cotton wool for industrial purposes. If necessary, tough-to-remove dirt can be cleaned off by adding a small amount of a neutral cleaning agent to the water.

8.3 Removing white rust on galvanized surfaces

White rust can, for example, be removed without leaving a residue by using a hard nylon brush. Wire brushes are not suitable! The dark spots / tinting usually left after brushing adapt to the environment with time.

You may need to apply temporary corrosion protection against further white rust. Acid-free oils, greases or waxes are suitable for this purpose. Light white rust can also be wiped off with Bona wax or acid-free oil (bone oil or sewing machine oil) using a soft cloth.

8.4 On-site painting

The surface of door leaf and frame consists of a primer powder-coating with an epoxy resin polyester basis.

1. Remove the seal(s).
2. Sand all the surfaces to be painted, except for the intumescent coating.
3. Thoroughly clean the surfaces.
4. To finish the door leaf, frame and the intumescent coating, use the following coating system:
   - Primer-coating 2-component epoxy etch primer and final coating with suitable commercially available construction paint or
   - Primer and final coating with 2-component PUR paint.

   Do not use dark paints in direct sunlight. Please note BFS information sheet no. 24, follow the directions of the paint manufacturer and test a sample surface for proper adhesion. Finish the products within three months of fitting to avoid corrosion damage.
5. After the paint has dried, replace the seal(s).

8.5 Non-rusting surfaces and recommendations for material selection

Fire-rated doors can be optimised for their application by selecting the appropriate materials. Under certain conditions, stainless steel products may be affected by surface, pitting or crevice corrosion or stress corrosion cracking.

Be sure to conduct an initial passivation of the stainless steel door construction after completion of the construction work.

More information can be requested directly from the manufacturing factory.

ATTENTION
Metal cleaning tools Metal cleaning tools deposit rusting tramp iron particulates on the stainless steel surface, which could lead to corrosion damage. ▶ Never use any sponges containing metal, steel wool or steel brushes.
Unsuitable cleaning agents Unsuitable cleaning agents may corrode and damage the stainless steel surface. ▶ Never use any products that contain chloride, particularly hydrochloric acid products, bleach or silver polish.

- ▶ Clean non-rusting surfaces with a damp towel or shammy.
- ▶ For heavier dirt, only use a common (non-ferrous) sponge.
- ▶ Remove fingerprints, as well as oily and greasy contamination, with a special cleaning agent, e.g. NIRO-Brillant.

9 Maintenance

Expert maintenance must be performed and documented periodically – in an interval of max. 1 year – to ensure proper function of the steel fire-rated and smoke-tight door.

- General condition
  - Visual check on the door leaf and the frame for damage.
  - Check that no equipment has been added or removed that may affect door operation.
- Lever handle set
  - Check attachment on door leaf and positioning of lever handle.
  - The lever handle should be maintained in a horizontal position by the spring force of the lock.
- Lock
  - Check the attachment and the function of the lock.
  - Check latch play.
  - Oil the latch and the bolt if needed.
  - Ensure that the press cuts for the latch and bolt in the frame are free of obstruction for the locks / latches.
- Hinges
  - Check the hinge attachment on the frame and the door leaf.
  - Oil hinge bolts (dismantle, clean and oil as needed).
  - Check ball-bearings for proper functioning and replace if necessary.
- Door closer
  - Visual check of the door closer compensator for deformation.
  - Function check of the closer (door must close from every position).
  - Check the alignment of the closer following the door closer fitting instructions.
- Seal
  - Inspect seals for wear, damage and correct positioning.
- Foam materials
  - Check for damaged laminate strips.
- Hold-open device (electric magnet)
  - Check for proper functioning.
- Smoke detector
  - Check for proper functioning.

NOTE:

In cases of heavy stress caused by dust, dirt, humidity, chemicals, etc. these maintenance measures must be conducted more frequently.

If impediments or damage appear on the door during operation, a professional company must be contracted immediately to inspect or repair the door.

Proper maintenance and service of the door is the responsibility of the owner or person authorised by the owner.

10 Dismantling and disposal

10.1 Dismantling

In general, the door is dismantled in the opposite order of assembly.

Basic disassembly process:

1. Disconnect and remove all wiring.
2. Disassemble the electric magnet and anchor.
3. Remove the electric strike.
4. Loosen the screws for the electro duct on the frame.
5. Disassemble the closer.
6. Remove the lever handle set.
7. Detach the door leaf.
8. Remove the frame seal.
9. Dismantle the frame.

10.2 Disposal

To dispose of it properly after dismantling, the steel door must be disassembled into its individual components and disposed of according to local official regulations.

4. As Built Drawings

3.1.5 AB PDF Dock Levellers, Level Access and Personnel Doors

winvic
DOING IT RIGHT.

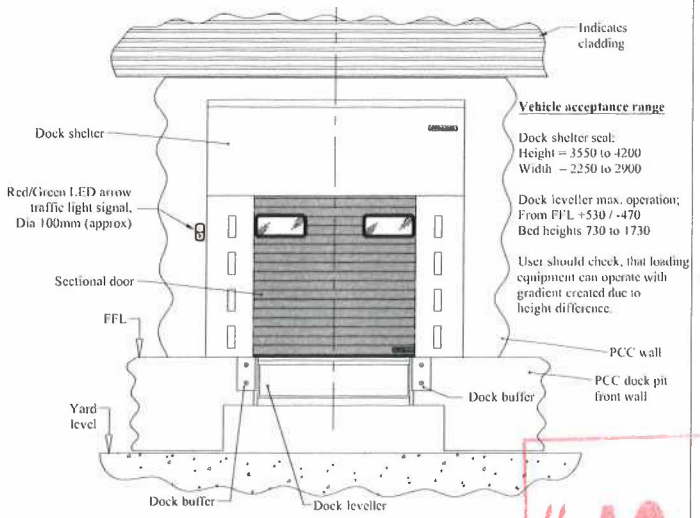
3.1 AS-BUILT DRAWINGS

Please note that all drawings below are hyperlinked to the drawings listed in the below register. Please click on the drawing title to go directly to the drawing you wish to view.

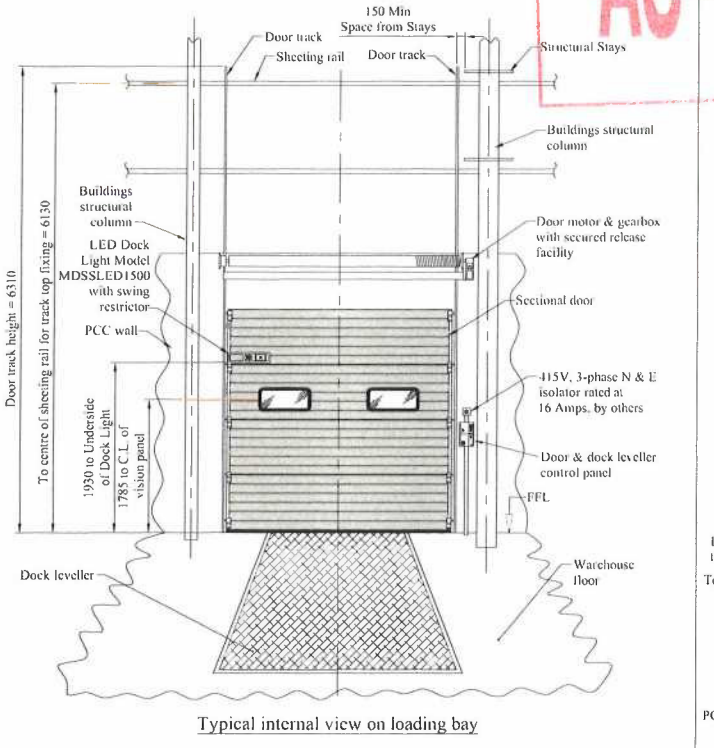
Drawing Register: Hormann UK Ltd

DOCK LEVELLERS, LEVEL ACCESS & PERSONNEL DOORS

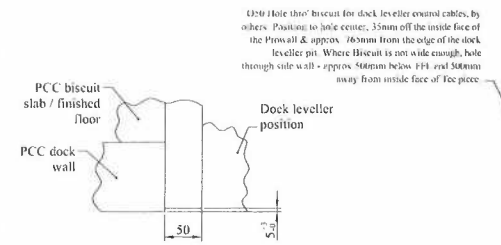
DRAWING NUMBER	DRAWING TITLE	REV
P23025-HOR-ZZ-00-DR-X-0001	Standard Loading Bay Details Doors installed to Prowall	AB
P23025-HOR-ZZ-00-DR-X-0002	Level Access Door Vertical Lift Track, Low Springs	AB
P23025-HOR-ZZ-00-DR-X-0003	Single Leaf Doorset - Type STU	AB

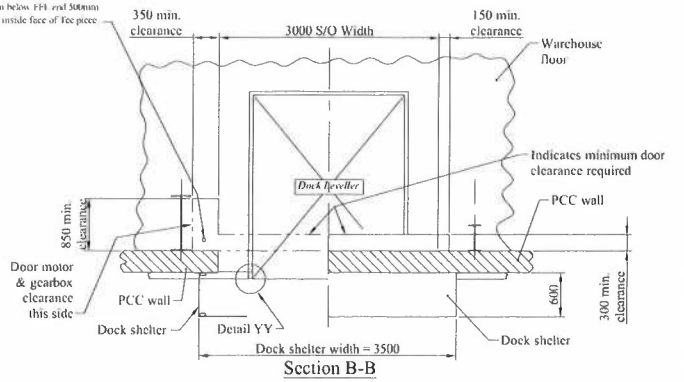


Typical external view on loading bay

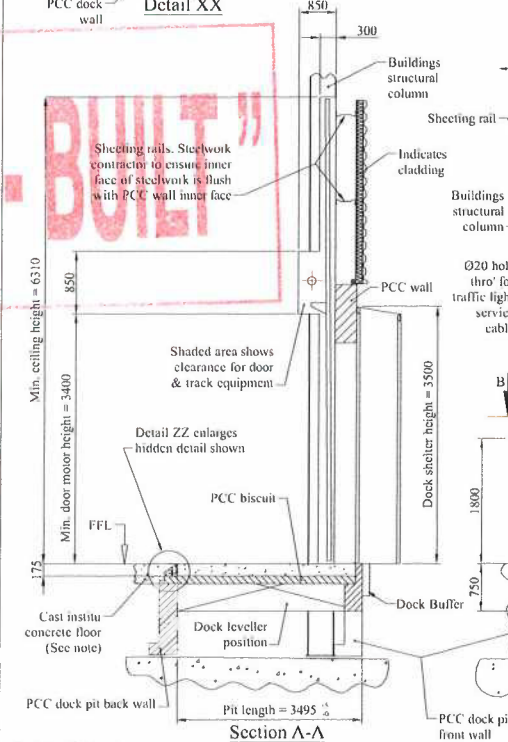


Typical internal view on loading bay

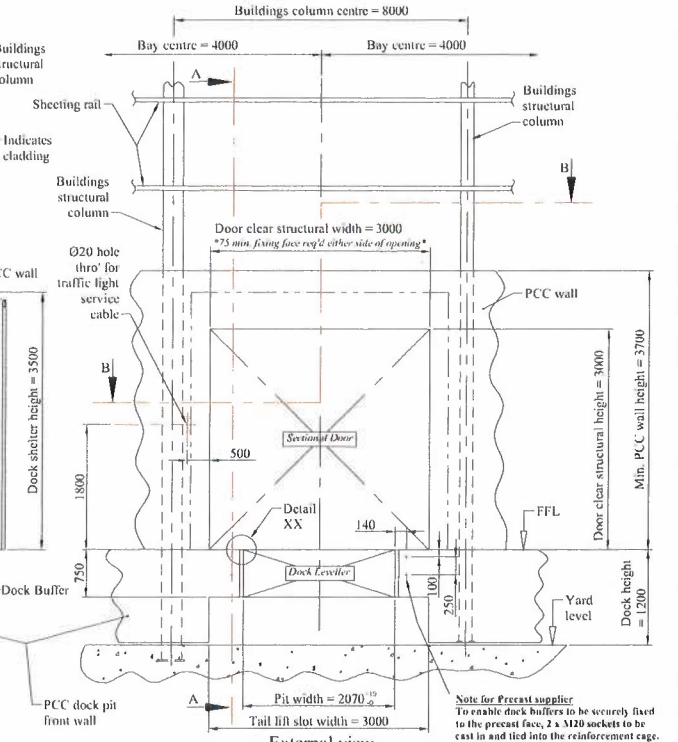




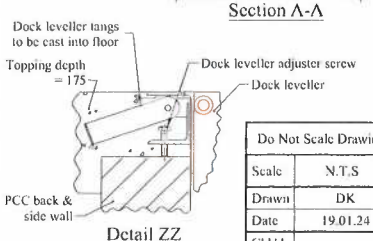
Section B-B



Section A-A



External view



Detail ZZ

General Notes:

Power Supply Requirements (Electric Doors):
Contractor/client to provide 400/415 Volt, 50Hz, 3 phase and neutral isolator fused at 16 amps to R/H side of each door opening, when viewed from inside. Position 1700mm Approx. from F.F.L. Wiring from isolator to motor/controls by Hormann (UK) Ltd.

Loading Bay Door Door Specification:
Track Type: VU (Vertical Track, Low Level Spring)
Visions: Single row, 2 visions in 3rd panel up
Colour: External, RAL 9006 (White Aluminium)
Internal, off white (RAL 9002)
External Panel Texture: Stucco
Internal Panel Texture: Stucco
Weight per Door = 275 Kg (approx.)
Structural opening; 3000mm wide x 3000mm high

General Specification:
Sectional door constructed from a combination of 625mm and 750mm deep PU insulated panels 42mm thick.
Thermal Insulation 'u' value = 1.3 W/m²K. Actual value through a panel section is 0.5 W/m²K.

Controls & door leaf components protected to IP65
High grade seals to all four sides of the door, flexible and weather-resistant, constructed from a triple chamber hollow profile with flexible lip for protection against dirt, vermin and rain. Standard heavy duty internal shootbolt locking.

Electric Door Control:
WA300 Controller, impulse control, up/down/stop. Mounted on the right hand side. Quick release system in the event of power failure to operate door manually. Controller to be positioned below isolator and integrated with dock leveller control to also control traffic light and dock lights from door position.

Structural / Fixing Notes:
The opening structure/door frame/roof/ceiling must be suitable to accept M8 fixing bolts and adequate to take the weight of the door.
These surfaces should be flush and free from heads, fixings etc. to enable the door track structure, supports and spring shaft to be mounted securely, square and flat.
Clearance for door movement should be free of obstructions, eg; supply lines, heater fans etc.

Dock Shelter Details:
Model: DSS - Size: 3500 x 3500 x 600mm projection
Colour: Black with white stripes.
Top Flap: 1200mm drop. Side flaps: 700mm wide

Dock Leveller Details:
Type: HTL (Telescopic lip 1000mm long) dock leveller
Model: HTL-2-FR-20-35 Platform Size: 2000 wide x 3500 long with 8/10mm thick platform and gap sealing.
Load Capacity: Rated at 6000Kg - EN1398
Colour: Black RAL 9017
Dock Buffers: Black Rubber Buffers with 15mm steel faceplate PPC Black. 250 x 450 x 115mm overall projection. Set at dock height.

Capcity Notes:
The dock leveller construction conforms to the European Standard EN1398 being designed for handling equipment with a load on one axle over two contact surfaces, 150 x 150mm, at a distance of 1m apart. Smaller contact surfaces, for example, as presented by reach trucks with hard PU tyres exert increased pressure on the platform which can cause permanent damage (deformation) to the platform surface.

Note for floor/groundwork contractor
If the gap between the dock leveller frame - approx. 15mm is required to be filled before the concrete floor is poured, the filling material should not project above the precast biscuit, therefore allowing the thickness of concrete dimensioned under the dock leveller frame. If expandable foam is used, this should be cut back after it has set, to allow full concrete depth under the dock leveller frame.

Quantity
5nr

Rev	Modification	Drn	Date
AB	AS BUILT	DK	22.08.24
C01	CONSTRUCTION ISSUE	DK	28.02.24
P02	External door colour changed to RAL 9006	DK	23.02.24
P01	FIRST ISSUE FOR COMMENT	DK	19.01.24

Do Not Scale Drawing	ISO A2 (594mm x 420mm) Drawing Sheet	All Dimensions In Millimetres UOS	Third Angle Projection

Scale	N.T.S
Drawn	DK
Date	19.01.24
Chk'd	
Date	

Client/Contractor: winvic

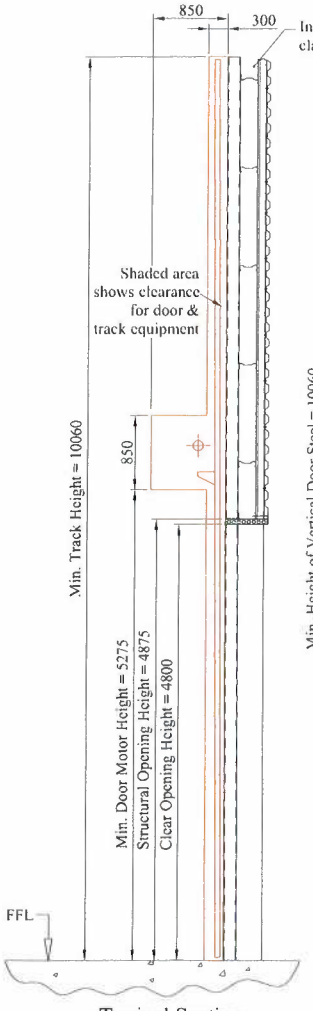
HÖRMANN (UK) Ltd
GEE ROAD, COALVILLE, LEICESTERSHIRE, LE67 4JW
tel.: 01530 516800 fax: 01530 516801
www.hormann.co.uk

Title: Standard Loading Bay Details (Doors installed to Prowall)

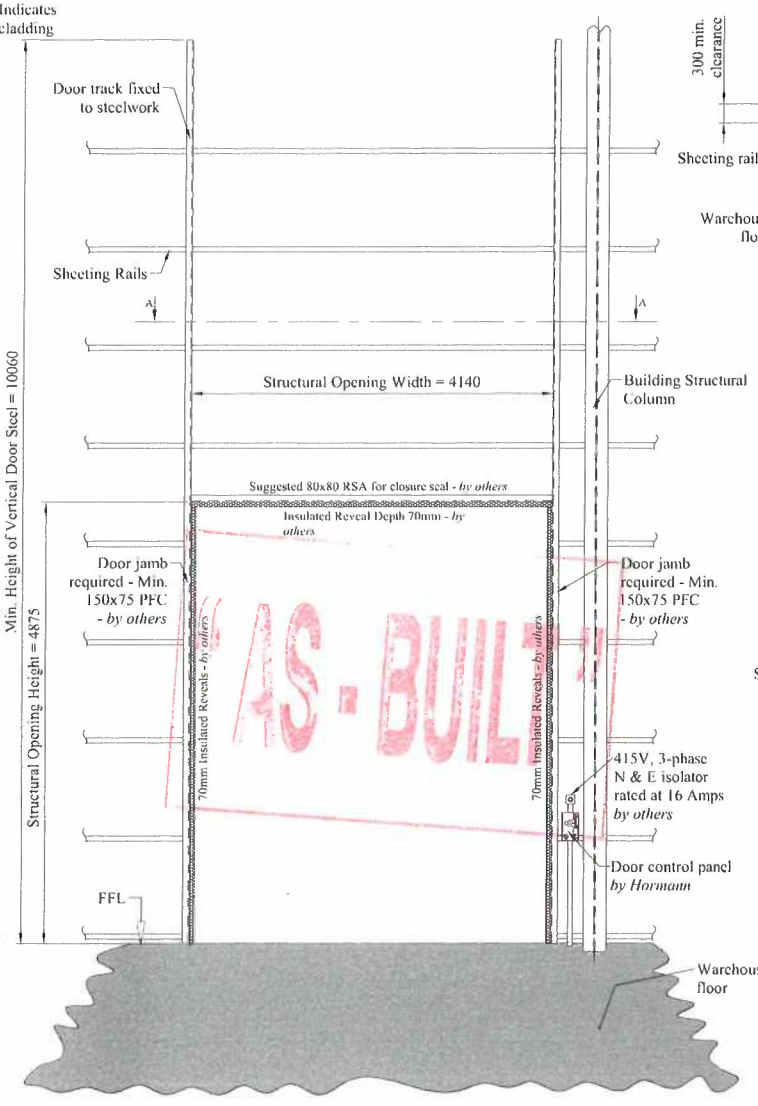
Site: Panattoni, Horton Road, Poyle

Drawing no: P23025-HOR-ZZ-00-DR-X-0001

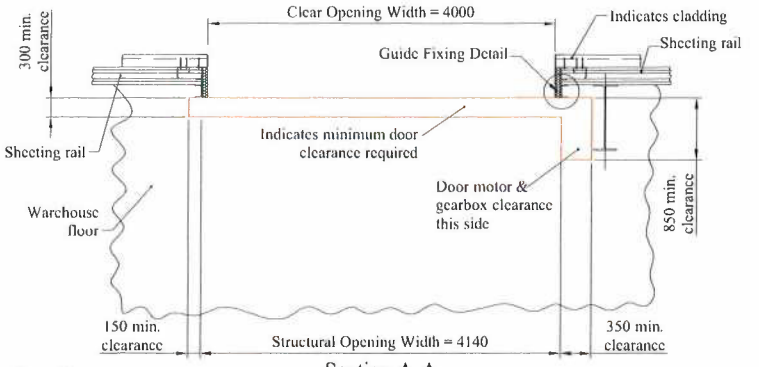
Revision no: AB



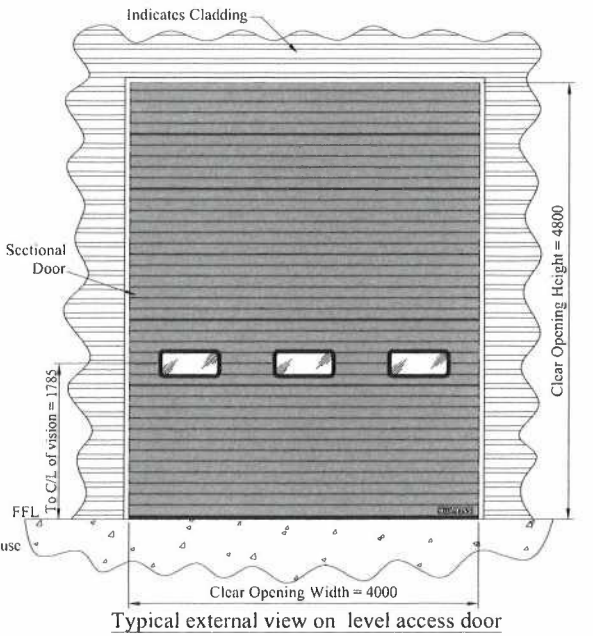
Typical Section



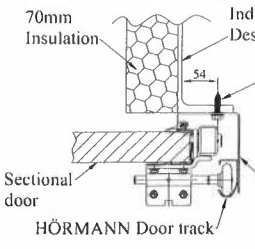
Internal View of Structural Frame
(Door gear/cladding ommitted for clarity)



Section A-A
Plan View (Internal)



Typical external view on level access door



GUIDE FIXING DETAIL

BOTTOM SEAL / WATER INGRESS
In order to help prevent water ingress, **client** is to ensure the floor is level across opening width for bottom seal to close, and sloped away from the door for drainage. For further protection an additional step can be introduced between the outer and inner floor levels.

STRUCTURAL NOTES
1. Fixing face of framework to be flush and free from bolt heads, fixings etc, with minimum sideroom clearances allowed for.
2. Opening structure / door frame must be suitable to accept M8 fixing bolts & adequate to support door weight.
3. Clearance for door movement should be free of obstructions, eg: supply lines, heater fans etc.
4. Door weight = 32 kg / m2 (approx).

POWER SUPPLY REQUIREMENTS (ELECTRIC DOORS);-

1. Client to provide isolator to the following specification:- 400/415 volt, 50Hz, 3 phase & neutral fused at 16 amps and c/w 16A, 5 pin socket to CEE standard.
2. Isolator to be positioned at low level on motor side.
3. Wiring from isolator to motor / controls by *Hörmann*.

DOOR SPECIFICATION:

GENERAL

Sectional door constructed from a combination of 750 and 625mm deep, 42mm thick PU insulated panels.

Insulation 'u' value = 1.1 W/m2K

PANEL FINISH (POLYESTER COATING)

Outside - RAL 9006 White Aluminium
Inside - RAL 9002 (Off White)

PANEL TEXTURE

External - Stucco
Internal - Stucco

OPERATION

Electric via WA500 3 Phase motor
Handing: Right (when viewed from inside looking out)

CONTROL PANEL

545 low level control panel c/w "OPEN - STOP - CLOSE" push buttons. Operation by "Impulse" (press and release).

ADDITIONAL CONTROL FEATURES

Safety edge to bottom rail.

VISIONS

Single row, 3 visions in 3rd panel up.
FFL to centre of visions: 1785mm.

QUANTITY
2nr

Rev	Modification	Drn	Date
AB	AS BUILT	DK	22.08.24
C01	CONSTRUCTION ISSUE	DK	28.02.24
P02	External door colour updated to RAL 9006 dimensions updated as per UMC Comments	DK	23.02.24
P01	FIRST ISSUE FOR COMMENT	DK	19.01.24

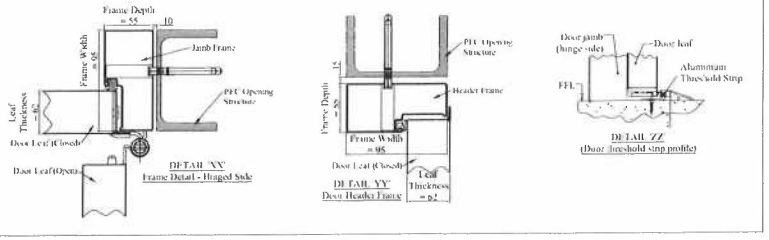
Do Not Scale Drawing	ISO A2 (594mm x 420mm) Drawing Sheet	All Dimensions In Millimetres UOS	Third Angle Projection
Scale: N.T.S	Client/Contractor: winvic	HÖRMANN (UK) Ltd GEE ROAD, COALVILLE, LEICESTERSHIRE, LE67 4JW tel.: 01530 516800 fax: 01530 516801 www.hormann.co.uk	
Drawn: DK			
Date: 19.01.24			
Chk'd:			
Date:			

Title: Level Access Door
Vertical Lift Track, Low Springs

Site: Panattoni, Horton Road, Poyle

Drawing no: P23025-HOR-ZZ-00-DR-X-0002

Revision no: AB

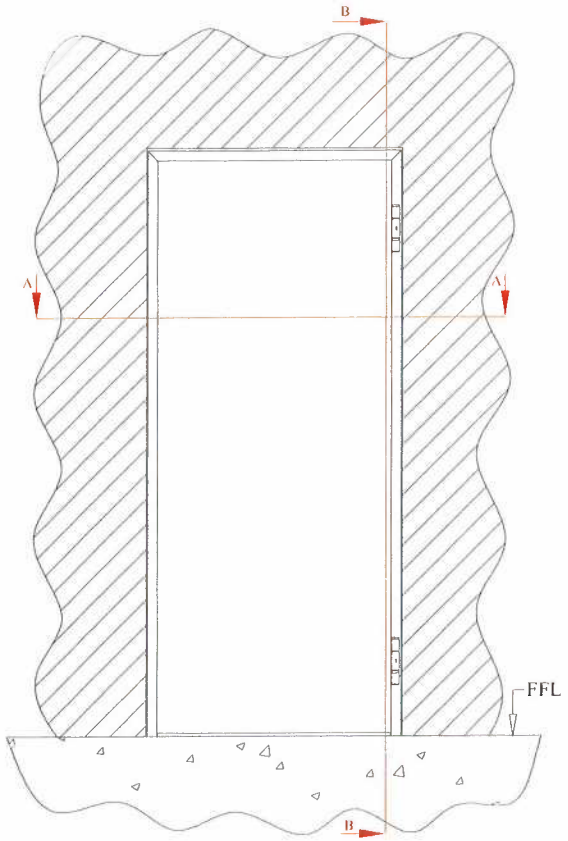


DOOR REFS, SIZING & HANDINGS

(Handings are viewed when stood outside looking in - see Section A-A plan views)

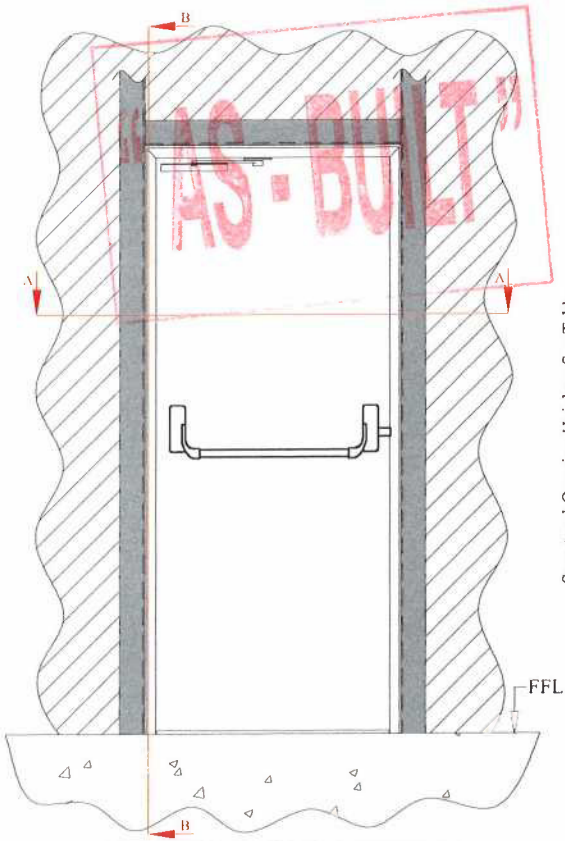
Structural sizes as per Hormann site survey

DOOR REF	HANDING	STRUCTURAL OPENING	PREPARED OPENING	OVERALL FRAME DIMENSION	RAL COLOUR
ED01	Left Hand	1220 x 2185	1220 x 2185	1200 x 2170	RAL 9002
ED02	Right Hand	1220 x 2185	1220 x 2185	1200 x 2170	RAL 7016
ED03	Left Hand	1220 x 2185	1220 x 2185	1200 x 2170	RAL 9002
ED04	Left Hand	1220 x 2185	1220 x 2185	1200 x 2170	RAL 7016
ED05	Left Hand	1220 x 2185	1220 x 2185	1200 x 2170	RAL 9002

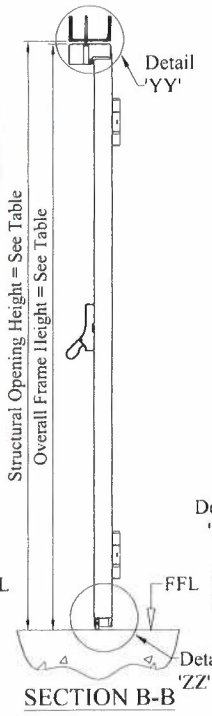


HINGED SIDE ELEVATION

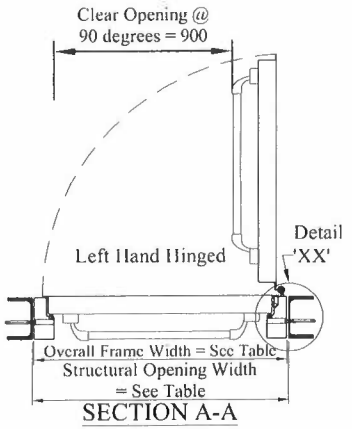
(Door shown RH hinged for example)



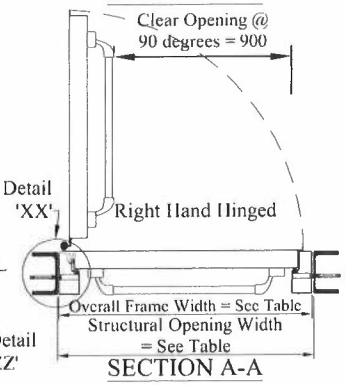
NON-HINGED SIDE ELEVATION



SECTION B-B



SECTION A-A



SECTION A-A

STRUCTURAL NOTES:

The finished aperture should be able to carry the weight of the door leaf as follows:

Door weight approx. 75kg per door leaf

Fixing to Steel: The structural steelwork should be a minimum of 5mm thick, hot rolled preferred due to door weight with a direct fix Door not to be fixed through a compressible material such as insulation board/built up reveal. Hörmann will not be responsible for any problems that arise from such a detail. Any flashing's need to be secured using rivets or countersunk fixings that do not impede the installation of the door frame.

The door frames have pre-determined fixing points that cannot be altered on site. Client to ensure that prepared opening is full height of the door frame to suit the fixing positions and the opening is plumb and square.

SPECIFICATION:

Type:
Single Leaf Hormann Model STU with mineral wool infill, - Non-Fire Rated
Security Rating:
None
Thermal Insulation:
U = 1.6 W/m²K
Rebate:
Thin Rebate
Sheet Steel Thickness:
1.0mm
Frame:
System Block frame 2.0mm thick, 55mm deep x 95mm wide frame. Seals all 3 sides. Anti-crow bar frame design & security anti-lever dog bolts.
Vision:
None
Bottom Door edge:
Aluminium bottom profile with seal and stepped threshold.
Hinge Type:
Standard hinges - 2no per leaf
Hardware:
Hinged side - None (No External Access)
Non-hinged side - Push Bar (Black/Green Plastic - Single Point Panic)
Lock:
Panic Lock, Function E opening inwards.
Surface (Door and Frame):
See table
Other:

FINISHED POINTING

Mastic pointing between door frame and finished building by others after installation

Quantity: 5no

Rev	Modification	Drn	Date
AB	AS BUILT	DK	22.08.24
C02	Overall Frame height corrected to 2170mm	DK	13.03.24
C01	CONSTRUCTION ISSUE	DK	28.02.24
P02	Dimensions and door references updated	DK	23.02.24
P01	Issued for comment	DK	19.01.24

Do Not Scale Drawing	ISO A2 (594mm x 420mm) Drawing Sheet
Scale: N.T.S	Client/Contractor: winvic
Drawn: DK	
Date: 19.01.24	
Chk'd	
Date	

All Dimensions In Millimetres UOS | Third Angle Projection

HÖRMANN (UK) Ltd
GEE ROAD, COALVILLE, LEICESTERSHIRE, LE67 4JW
tel: 01530 516800 fax: 01530 516801
www.hormann.co.uk

Title: Single Leaf Doorset - Type STU

Panattoni, Horton Road, Poyle

Hormann Drawing Ref: 10480-03 | Revision: AB

Drawing No: P23025-HOR-ZZ-00-DR-X-0003

5. Testing & Commissioning Results and Certificates

HÖRMANN
Garage and Industrial Doors

Commissioning Certificate

3851

Hörmann (UK) Ltd, Gee Road, Coalville, Leicestershire LE67 4JW
Telephone: 01530 516800 Fax: 01530 516801 www.hormann.co.uk

Date	4/9/24	Site Team	DeD	Job No.	10480	Complete?	Yes

Customer: Winvic Construction Ltd

Site Address: Horton Road, Poyle
SL3 0BB

The following have been successfully tested and commissioned:-

	Qty	M/E	(Mechanical/Electrical Commission)	Qty	M/E
Level Access Door	2	E	High Speed Door		
Loading Bay Door	5	E	Rolling Shutters		
Dock Leveller	5	E	Fire Shutters		
Dock Shelter			Steel Door Sets		
Traffic Light System	5	E	Other:-		
Composite Control Panels	5	E	_____		
			_____		
Engineers Signature:			_____		

☐ CE labels attached ☐ Multi Bay Sheet attached ☐ Service Label is Fitted

If a quotation has not been submitted for the above additional work, the hours shown will be charged for at the standard hourly rates.

I have examined the work detailed above, which has been carried out to my satisfaction. The equipment has been demonstrated to me and I confirm I have understood the safe operation of the equipment. I also confirm I am in receipt of:-

☐ Test Book ☐ Operation Manuals ☐ Certificate of conformity

I would also request:-

☐ Additional Training for Staff Required (small charge may apply). ☐ Service Contract Quotation.

Customers Signature: _____ **Print Name:** _____

Customer copy = White Office copy = Pink

PTO for warranty details

6. Operation

⚠ WARNING

Danger of injury and damage if the dock leveller is loaded after emergency stop.

If the vehicle rolls over the dock leveller while the restart inhibition is activated, the platform will drop. This will result in damage to the dock leveller and potential injury.

- ▶ Eliminate the cause that triggered the emergency stop.
- ▶ Depending on the dock leveller type, press the *Run bridge* or *Lift platform* button to make the dock leveller ready for operation again.

- ▶ Never use the main switch to operate the dock leveller. Only operate the main switch in case of an emergency and for inspection and maintenance work.

NOTE:

The main switch can be secured with a padlock (not included in delivery) to prevent unauthorised use, for example during maintenance of the dock leveller.

- ▶ The environment of the dock leveller must be properly lighted and the operator must have a clear view of the hazardous parts of the platform and its load.

8.1 Docking the lorry as specified

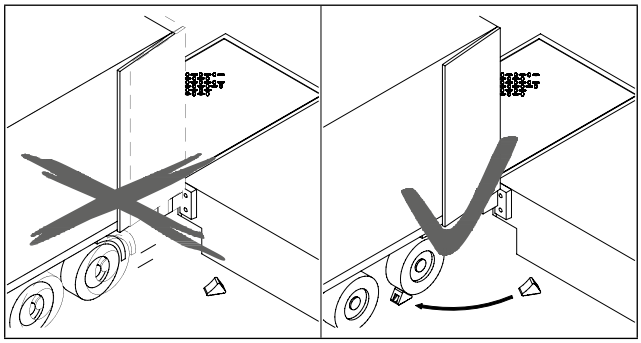
A lorry is properly docked if there is only a small gap left before contacting the rubber buffers. A greater distance may be required. Observe the working range, see section 4.2 on page 5 and the correct bearing surface, see section 8.2 on page 21.

If the dock leveller has a reduced width, i.e. less than 1.25 m, the vehicle must not be parked more than 0.20 m away from the dock leveller.

NOTE

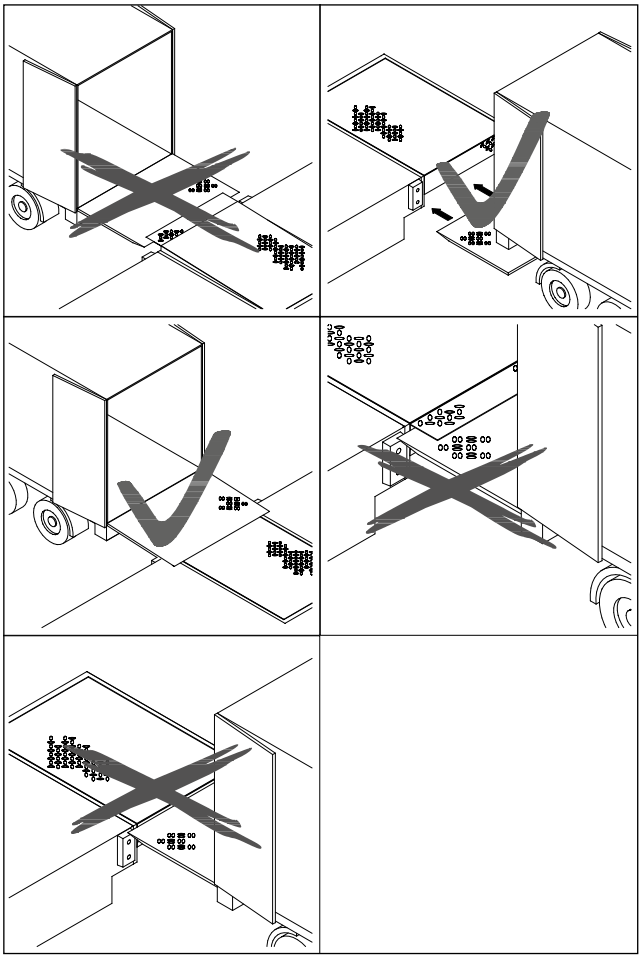
Loading ramps with DOBO system allow for the lorry to dock with the vehicle doors closed. To accommodate the lorry doors, recesses are provided in the ramp.

- ▶ Make sure the lorry is properly docked and is secured against rolling away!



Vehicles with liftgates can only dock with appropriate clearance below the dock leveller (tailboard slot).

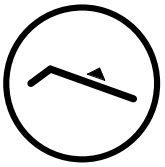
- ▶ Move the liftgate into the tailboard slot.



8.2 Positioning the dock leveller

- ▶ Completely open the dock door, if installed.

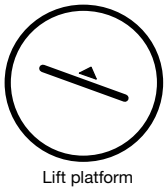
HLS2



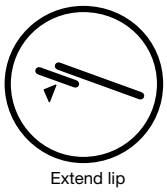
Run bridge

- ▶ Press and hold the *Run bridge* button. The platform will move upwards. The lip unfolds at the highest position.
- ▶ Release the button. The lip will be lowered down to the loading surface of the lorry.

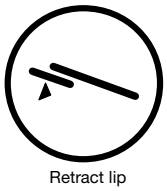
HTL2


Lift platform

- If the lorry loading surface is lower than the platform, the lip can be directly extended. However, if the lorry loading surface is higher than the platform, press the *Lift platform* button. Keep it pressed until the platform is above the level of the lorry loading surface.


Extend lip

- Within the next second, press and hold the *Extend lip* button until the lip is extended as far as needed and no further, see *8.2.1Properly aligning the dock leveller on page 22* . You can correct the position with the *Retract lip* button.


Retract lip

- Release the button. The lip will be lowered down to the loading surface of the lorry after approximately one second. You can still correct the position with the *Retract lip* button at this point. The platform will rise slightly before the lip is retracted.

HTL2 DOBO

- First extend the lip to bridge the gap to the lorry.
- Then lower the movable buffers.
- Open the vehicle doors.
- Position the dock leveller as described under HTL2.

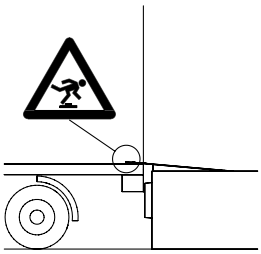
8.2.1 Properly aligning the dock leveller

ATTENTION

Danger of injury and damage with too small or too large bearing surfaces.

Too small bearing surfaces may lead to falls.

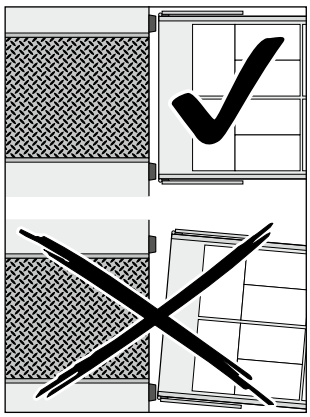
If loading above level, too large a bearing surface or loading in the limit range of the permissible working range may lead to tripping hazards.



Damage to the lip, platform and guides may also occur with telescopic lip dock levellers.

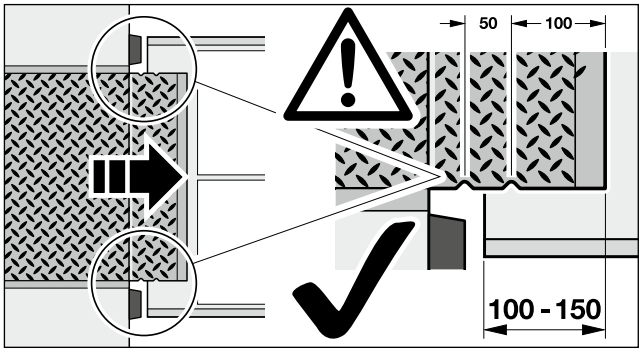
- Make sure the full width of the lip, and at least 100 mm, but no more than 150 mm, is resting on the vehicle loading surface.
- Adjust the vehicle height or the distance between loading surface and dock leveller to provide a good surface.

- Dock the vehicle in a straight way to ensure that the dock leveller is evenly positioned along its entire width.



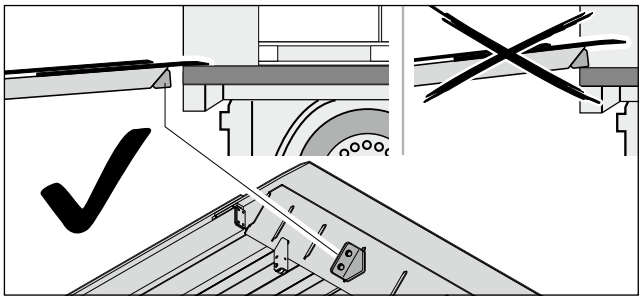
The telescopic lip of an HTL2 is equipped with 2 recesses for indicating the correct positioning.

Align the lip so the front-most recess is covered by the loading surface of the vehicle, but the second one is not covered.



The telescopic lip of an HTL2 is equipped with overlap limiters on the bottom side.

Never place the telescopic lip with the overlap limiters on the loading surface or on other vehicle parts.



8.3 Loading and unloading

ATTENTION

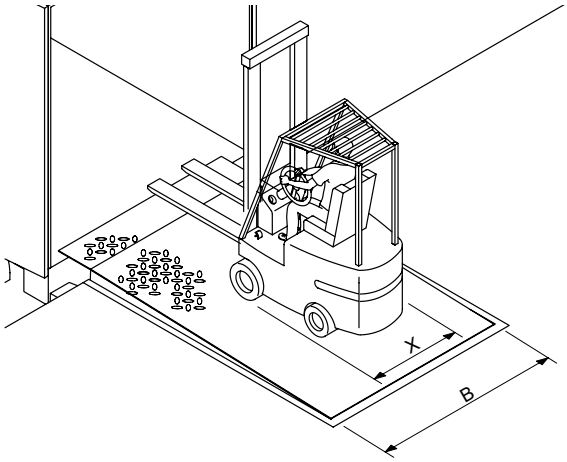
Danger of damage caused by exceeding the working range

Cushioning of the vehicle during loading will also cause the dock leveller to move upwards or downwards. If the dock leveller is already positioned at the highest or lowest level, the maximum working range may be exceeded and damage may occur to the dock leveller.

- Do not start operating the dock leveller at the highest or lowest level.

Do not drive over the dock leveller at a speed of more than 10 km/h.

- Do not exceed the maximum loading capacity as specified on the data label (rated load)!
- Only use suitable, safe and permissible transport equipment. The track width of the transport equipment must not exceed the platform width minus 700 mm.

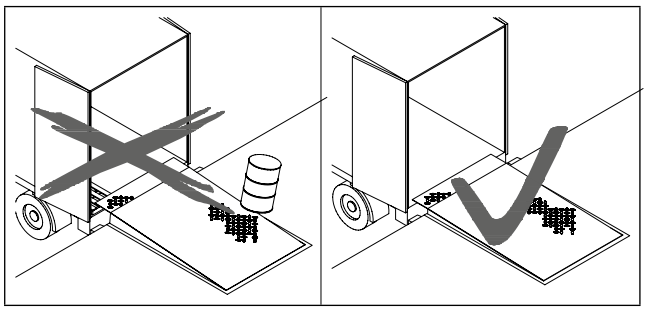


$X \leq = B - 700$ mm

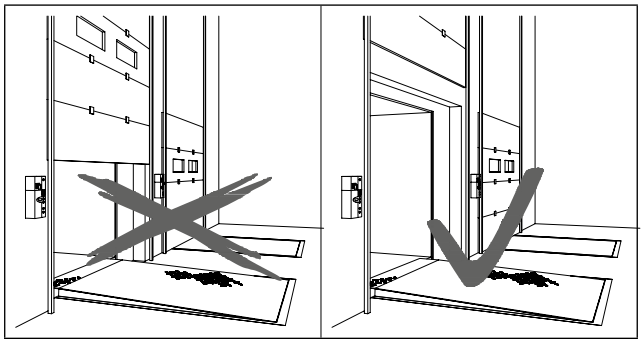
- Drive the transport equipment centred onto the platform.

The platform must be empty when the dock leveller is in motion.

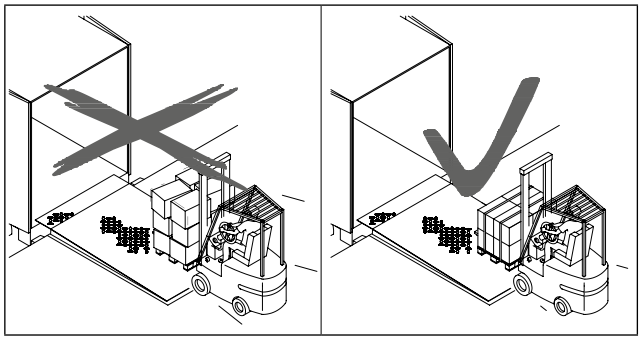
- Make sure that no persons or objects are in the dock leveller's travel range.



- Make sure that the dock door is completely open before using the dock leveller.



- When you are loading or unloading big, unstable or dangerous goods, pay attention to safety and see to it that the dock leveller will not have any contact with adjacent obstacles. Make sure that the load cannot slide or fall.



- Ensure that the underside of the vehicle as well as the cargo do not contact the dock leveller.
- After use, return the dock leveller to its home position immediately!
- If the dock leveller does not have an automatic return function, make sure the vehicle does not drive away before the dock leveller is back in its home position.

8.4 Returning to the home position

Auto-return HLS2

Auto-return HTL2

- Briefly press the auto return button. The dock leveller will automatically move into the home position.

ATTENTION

Danger of damage due to incorrect operation of HTL2

The platform must always be at a high enough level before the lip can be retracted.

- Do not use the *Retract lip* button to move the dock leveller into the home position.

HTL2 DOBO:

- First retract the lip with the *Retract lip* button so that the gap to the lorry still is bridged.
- Close the vehicle doors.
- Then release the movable buffers.
- Briefly press the auto return button. The dock leveller will automatically move into the home position.

7. Maintenance Procedures and Planned Maintenance

Cleaning and Maintenance Regimes

This maintenance schedule for Panattoni Poyle is to be followed from PC date 16.09.2024 year on year to ensure all plant and equipment is kept within warranty. Please keep a log of these inspections so that records can be checked should an issue arise.

Code; ✓ **Blue – Recommended** ✓ **Red – To Maintain Warranty**

Item	Daily	Weekly	Monthly	3 Months	6 Months	9 Months	Annually	5 Yearly	Certificates	Regime
Dock levellers					y					
Sectional door				y	y					
Steel doorset					y					

Door Maintenance

Expert maintenance must be performed and documented periodically in an interval of max. year - to ensure proper function of the steel fire-rated and smoke-tight door.

- General condition
  - Visual check on the door leaf and the frame for damage.
  - Check that no equipment has been added or removed that may affect door operation.
- Lever handle set
  - Check attachment on door leaf and positioning of lever handle.
  - The lever handle should be maintained in a horizontal position by the spring force of the lock.
- Lock
  Check the attachment and the function of the lock.
  - Check latch play.
  - Oil the latch and the bolt if needed.
  - Ensure that the press cuts for the latch and bolt in the frame are free of obstruction for the locks/ latches.
- Hinges
  Check the hinge attachment on the frame and the door leaf.
  - Oil hinge bolts (dismantle, clean and oil as needed).
  - Check ball-bearings for proper functioning and replace if necessary.
- Door closer
  - Visual check of the door closer compensator for deformation.
  - Function check of the closer (door must close from every position).
  - Check the alignment of the closer following the door closer fitting instructions.
- Seal
  Inspect seals for wear, damage and correct positioning.

NOTE:

In cases of heavy stress caused by dust, dirt, humidity, chemicals, etc. these maintenance measures must be conducted more frequently.

If impediments or damage appear on the door during operation, a professional company must be contracted immediately to inspect *or* repair the door.

Proper maintenance and service of the door is the responsibility of the owner or person authorised by the owner.

8. Spares Information

Only use original spare parts from the manufacturer. Our warranty commitment will otherwise be invalidated.

9. Guarantees and Warranties

WARRANTY TERMS

Thank you for purchasing a Hörmann product, we confirm the following:

Warranty Period

The purchaser is granted a warranty covering the safe and reliable function of the new Hörmann product for a period of 12 months from the date of occupation. The warranty period for repaired parts is 3 months.

Requirements

Warranty claims are only applicable in the country where the product was purchased. For a valid warranty claim the product must be serviced by a competent person during the warranty period. In some cases the warranty period can be increased with a Hörmann Service Contract, please contact Hörmann service department for more details.

Performance

A warranty claim, for the purposes of this document, is defined as a part or parts that has/have failed, or are suspected to have failed which can be proved to be attributed to material or manufacturing defect. It does not include failure of parts or equipment due to:

- Normal wear and tear.
- Missing items from an order.
- Improper installation if not installed by Hörmann.
- Negligent care and maintenance.
- Negligent or wanton destruction.
- Incorrect specification – i.e. project rectification.
- Lack of, or incorrect service/maintenance.
- Repair by non-qualified persons.
- Using non-Hörmann parts without the approval of the manufacturer.
- Act of God.
-

Your statutory rights are not affected.

Hörmann (UK) Ltd.
Industrial Doors Department
Gee Road, Coalville
Leicestershire LE67 4JW
Tel: 01530 516850
Fax: 01530 516851

Dock Leveller Liability / warranty

For the warranty, the generally recognised terms and conditions or those agreed in the delivery contract apply.

The warranty will no longer apply under the following conditions:

- If you damage the dock leveller due to a lack of knowledge of the information provided in these instructions or as a result of improper operation.
- If you alter or remove any functional parts.
- If you install additional parts in the dock leveller.
- If modifications are made without the manufacturer's permission.
- If you do not install the dock leveller professionally and according to the installation instructions specified by the manufacturer.

If you do not have the dock leveller inspected and maintained regularly in accordance with specifications.

10. Replacement Strategy

N/A

11. Demolition Decommissioning or Disposal

Dock Leveller Dismantling and Disposal

In case the dock leveller is discarded, it must be carefully dismantled and removed.

- Make sure that the dock leveller is in its home position when it is dismantled.
- Disconnect the mains voltage.
- Drain the hydraulic oil, remove all of the hydraulic components and properly dispose of them in accordance with the currently applicable regulations.
- Completely disassemble and remove the dock leveller.
- Specialized companies will take care of worn out dock levellers, disassemble them and re-utilise the materials.
- If you intend to install the dock leveller in other premises, check for operational safety in accordance with the new operating conditions.
- To do this, pass these instructions, as well as documentation for the control, on to the responsible party.

Door Dismantling and Disposal

Dismantling

In general, the door is dismantled in the opposite order of assembly.

Basic disassembly process:

1. Disconnect and remove all wiring.
2. Disassemble the electric magnet and anchor.
3. Remove the electric strike.
4. Loosen the screws for the electro duct on the frame.
5. Disassemble the closer.
6. Remove the lever handle set.
7. Detach the door leaf.
8. Remove the frame seal.
9. Dismantle the frame.

Disposal

To dispose of it properly after dismantling, the steel door must be disassembled into its individual components and disposed of according to local official regulations.