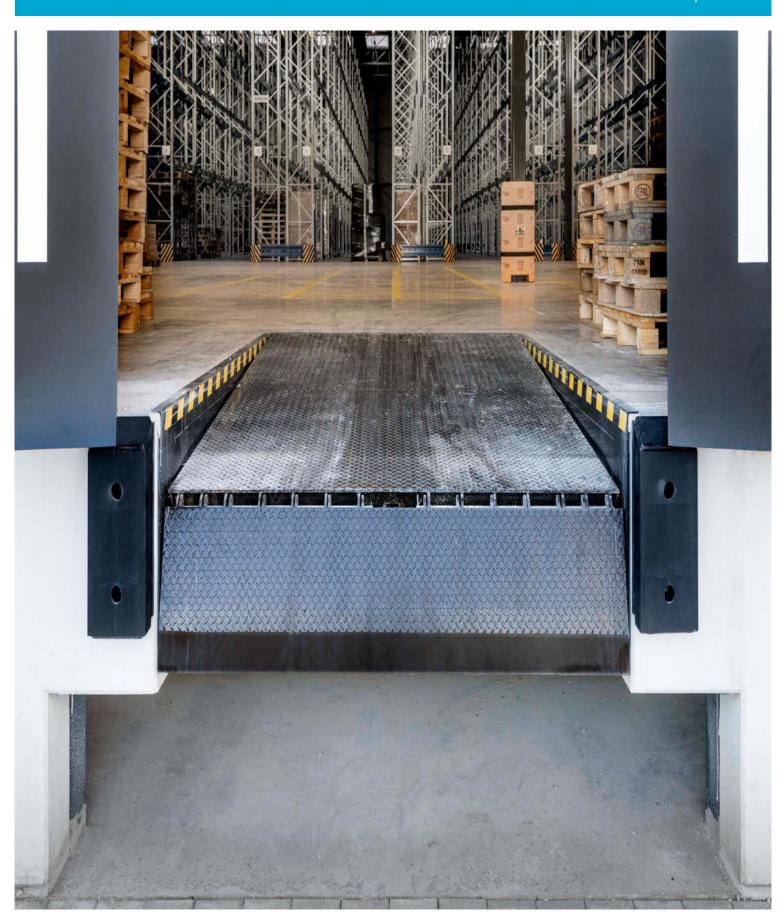


Experience a safer and more open world





Copyright and Disclaimer Notice

Although the contents of this publication have been compiled with the greatest possible care, ASSA ABLOY cannot accept liability for any damage that might arise from errors or omissions in this publication. We also reserve the right to make appropriate technical modifications/replacements without prior notice.

No rights can be derived from the contents of this document.

Color guides: Color differences may occur due to different printing and publication methods.

ASSA ABLOY as word and logo are trademarks belonging to the ASSA ABLOY Group.

No part of this publication may be copied or published by means of scanning, printing, photocopying, microfilm or any other process whatsoever without prior permission in writing by ASSA ABLOY.

© ASSA ABLOY 2006-2022.

All rights reserved.



Technical facts

Features

Sizes - nominal length*	2000, 2250, 250	00, 2770, 3000, 3500, 4000, 4500 mm		
Sizes - nominal width	1750, 2000, 220	1750, 2000, 2200 mm		
Vertical working range	Above dock: Below dock:	0-570 mm 0-350 mm		
Platform tear plate	Standard: Option:	Thickness: 6 mm (6/8) (1,3 N/mm²) Thickness: 8 mm 8/10 (6,5 N / mm²)		
Surface treatment:	Standard:	Hot dip galvanised		
Control Unit	Leveler control Door control Shelter control Fault & service i	ndicator		

 $^{^{}st}$ Other sizes are available on request

Performance

Load capacity:	60kN (6 tonnes)
Max. point load:	6 mm (6/8) (1,3 N/mm ²)
Motor hydraulic unit:	0,75kW
Mains supply:	400V 3-phase, 230V 3-phase
Control unit protection class:	950-series IP54
Allowable oil types:	ASSA ABLOY standard hydraulic oil (-20°C - +60°C) ASSA ABLOY low temperature hydraulic oil (-30°C - +60°C) ASSA ABLOY bio hydraulic oil (-20°C - +60°C)
Magnetic valves:	24V/DC 18W S1
Surface treatment paint class 1:	80 μm C2 M acc. DIN EN ISO 12944-2
Surface treatment paint class 3:	160 μm C3 M acc. DIN EN ISO 12944-2
Surface treatment galvanised:	Hot dip 80 μm C4 & C5-I M acc. DIN EN ISO 12944-2



Contents

		d Disclaimer Notice	
Tech	nical fac	ts	3
	Feature	5	3
	Perfori	nance	3
1.	Descr	ption	6
	1.1.	General	
		1.1.1. Application	
		1.1.2. Mode of operation.	
		1.1.3. Overview.	
		1.1.4. Standard.	
		1.1.5. Options.	
	1.2.	Swing Lip	
		1.2.1. Lip shapes.	
		1.2.2. Lip angles	
	1.3.	Platform	
	1.5.	1.3.1. Platform tear-plate thickness.	8
		1.3.2. Toe guards.	
		1.3.3. EPDM seal.	
		1.3.4. Slip protection / noise reduction.	
		1.3.5. Platform insulation.	8
	1.4.	Surface	
	1.4.	1.4.1. Painting	
		1.4.2. Hot galvanising.	
	1.5.	Frames - connection to building	
	1.5.	1.5.1. T - 200 leveler frame for embedding in concrete	
		1.5.2. T - leveler frame for embedding in concrete	0
		1.5.3. W - leveler frame for welding	
		1.5.4. F - flat frame for welding	0
		1.5.5. P - pit frame for welding	
		1.5.6. B - box-frame	
	1.6.	Docking control systems	
		1.6.1. 950 Docking L SD	
		1.6.2. 950 Docking LA SD	
		1.6.3. 950 Docking DLA SD	
		1.6.4. 950 Docking LSA SD	
		1.6.5. 950 Docking DLSA SD	
		1.6.6. 950 Docking power cable	2
	1.7.	Equipment	3
		1.7.1. Buffers	
		1.7.2. ASSA ABLOY DE6190WC Wheel chock	
		1.7.3. ASSA ABLOY DE6090TLS Traffic light system	
		1.7.4. ASSA ABLOY DE6090DL Dock light Heavy Duty LED.	4
		1.7.5. ASSA ABLOY DE6090FL Fan light	
		1.7.6. Parking guides	
		1.7.7. ASSA ABLOY DE6190DI Dock-IN	
2.	2مام د	ion guide	
۷٠			
	2.1.	Load capacity according to EN 1398	
		2.1.1. Rated load	
		2.1.2. Axle load	
	2.2	2.1.3. Dynamic load	
	2.2.	Select the load capacity	
	2.2	2.2.1. Example	
	2.3.	Select the appropriate platform tear plate thickness	
		2.3.1. Handling equipment traffic situation	
	2.4	2.3.2. Example	
	2.4.	Select the leveler length	
		2.4.1. The calculation	
	2.5	2.4.2. Example	
	2.5.	Nominal width	b



	2.6.	Free space under lip	
		2.6.1. Steel lip 400 mm	18
		2.6.2. Steel lip 500 mm	
3.	Speci	fications 1	19
	3.1.	Dimensions	19
	3.2.	Platform thickness	
	3.3.	Control units	20
		3.3.1. Dimensions	20
		3.3.2. Functions	20
4.	CEN P	erformance	21
	4.1.	Safety according to the European Standard EN 1398	21
5.	Buildi	ng and space requirements	
	5.1.	Electrical preparations	
	5.2.	Pit preparations	
		5.2.1. T - frame + T-frame 200	23
		5.2.2. W - frame	23
		5.2.3. F - frame	24
		5.2.4. P-frame	24
		5.2.5. B - frame	25
6.	Servic	e you can rely on	26
Inde	ex	- 	27

Contents 5



1. Description

1.1 General

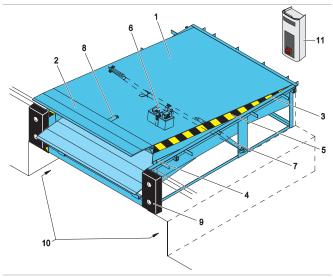
1.1.1 Application

The ASSA ABLOY DL6010S swingdock is the standard solution in general industry applications and easy to operate. The ASSA ABLOY DL6010S swingdock system meets the standard demands of most loading operations and fully complies with rules and regulations of the European Standard EN 1398.

1.1.2 Mode of operation

The swing lip safely bridges the gap between the ramp and the lorry bed. When the dock leveler is raised, the lip swings out and the leveler lowers gently onto the lorry bed. After loading or unloading, the leveler is raised again, the lip swings down and the platform returns to its parking position, i.e. to ramp level.

1.1.3 Overview



- 1 Leveler platform
- 2 Swing lip
- 3 Leveler frame
- 4 Toe guards
- 5 Warning stripes
- 6 Hydraulic unit
- 7 Lift cylinders
- 8 Swing lip cylinder
- 9 Buffers (option)
- 10 Tail lift recess
- 11 Control unit

1.1.4 Standard

Frames - connection to building:	P-frame [pit-frame]
Surface	Painting RAL 5010 or RAL 9005
Hydraulic Equip- ment	Low noise hydraulic unit Two hydraulic lift cylinders One hydraulic lip cylinder
Lip	Lip length 400 mm Bevelled 100 mm Bent lip

1.1.5 Options

Frames - connec-	T-200 frame
tion to building	W-frame [frame for welding]
	F-frame [flat frame for welding]
	P-frame [pit-frame, max NL=3000]
	B-frame [box-frame]
Surface	Painting RAL 3002 or RAL 6005
	Hot dip galvanised
Hydraulic equip-	Low temperature oil
ment	Bio oil
Lip options	Lip length 500 mm (LH>600)
	Straight lip
	2 fold down segments
	Tapered lip
Energy & Ergo-	EPDM seal*
nomics	40 mm platform insulation
	Slip protection / noise reduction

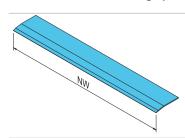
^{*} Not available for frame P



1.2 Swing Lip

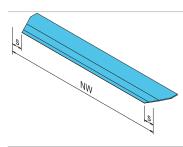
1.2.1 Lip shapes

1.2.1.1 Standard swing lip



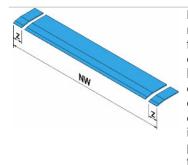
The standard swing lip is a single rectangular lip for use with a fleet of vehicles that is a standard size.

1.2.1.1 Tapered swing lip



A tapered swing lip ensures that the lip reaches the lorry bed, even when the lorry is not parked in the exact centre position. Avoids damage to the truck and interruptions of the dockin procedure. s = 125 mm

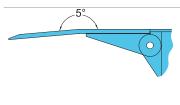
1.2.1.1 Fold down segments



Ensures that the swing lip reaches the lorry bed by folding down one or both outer segments when the lorry is smaller than usual, or not parked in the exact centre position. Avoids damage to the truck and interruption of the dock-in procedure. Only available for 60 kN. Z = 125 mm

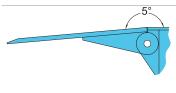
1.2.2 Lip angles

1.2.2.1 Bent lip



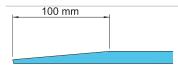
The standard bent steel swing lip ensures smooth transition to a lorry bed both above and below dock level. Avoids tripping hazards according EN 1398.

1.2.2.1 Straight lip



A straight steel swing lip ensures smooth transition when the lorry bed is below or equal to dock level. Avoids tripping hazards according EN 1398.

1.2.2.1 Bevelled lip



The standard steel lip is 100 mm bevelled, designed to provide maximum comfort and smooth transition from the lip.



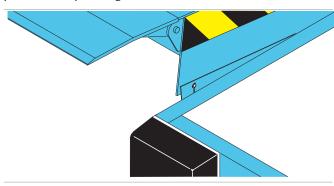
1.3 Platform

1.3.1 Platform tear-plate thickness

The 6 mm (6/8) tear-plate is designed for loading and unloading with typical 4 wheel pneumatic-tired fork-lift trucks. Alternatively an 8 mm 8/10 tear-plate is available for handling equipment with high point loads, such as electric pallet trucks. However, potential platform deformations do not reduce the functionality of the leveler.

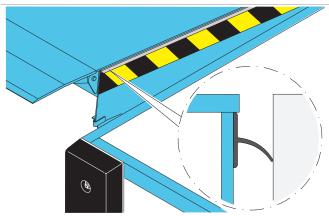
1.3.2 Toe guards

The leveler is as standard equipped with toe guards; steel plates between the platform and the frame. The toe guard prevents the pinching of feet when the leveler is lowered.



1.3.3 EPDM seal

To seal the gap between leveler and pit, an EPDM seal can be factory-installed between the flexible platform and frame. By reducing draughts into the building, working conditions improve and energy savings increase.

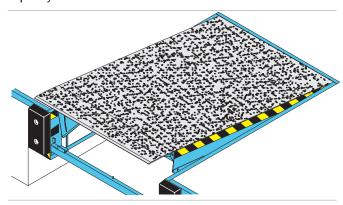


*not in combination with P-frame.

1.3.4 Slip protection / noise reduction

Applying a polyurethane slip protection coating on the lip and platform ensures a durable non-slip and noise reduction surface. The effect is a smooth and comfortable surface for handling equipment that is less receptive to wear and tear.

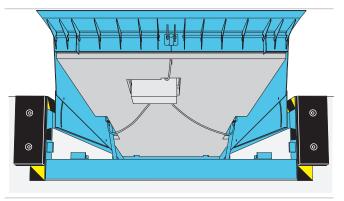
The PU coating material is resistant to impact, to thermal impact and most types of chemicals and it has a high loading capacity.



1.3.5 Platform insulation

When the dock leveler is positioned in a bay directly outside the door opening, it can be beneficial to insulate the dock leveler The insulation counteracts the penetration of incoming heat/cold from outside. To achieve the best results, the dock leveler should also be fitted with an EPDM seal.

The insulation consists of factory-installed insulated panels with a thickness of 40 mm.



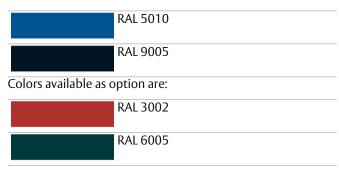


1.4 Surface

1.4.1 Painting

1.4.1.1 Colors

The dock leveler standard finish is painted. The standard colors are:



1.4.1.1 Standard paint class

If the dock leveler is to be used in a rural area, the standard finish is:

 Paint class 1; 80 μm factory painted for corrosive category C2 M

1.4.1.1 Paint classes

If the dock leveler is to be used in an urban or industrial atmosphere, or in a coastal area, it may be appropriate to select an alternative paint class with increased resistance to corrosion C3 M.

• Paint class 3; 160 μm factory painted for corrosive category C3 M

1.4.2 Hot galvanising

To increase corrosion protection to C4 for saline coastal areas or C5-I for aggressive or humid atmospheres, the dock leveler can be delivered with hot dip galvanised (80 μm) steel parts.

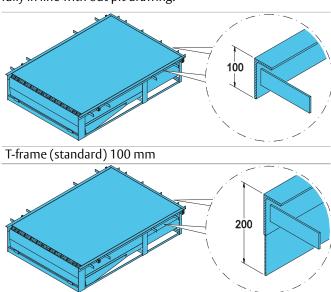
1.5 Frames - connection to building

The frame is the leveler's connection point to the building and a rigid support for the leveler.

The ASSA ABLOY DL6010S swingdock is available with different frame types. The frame can be embedded in concrete or installed via screws or welding. All frames are illustrated with the tail lift recess. The levelers are also available without tail lift recess.

1.5.1 T - 200 leveler frame for embedding in concrete

The rear vertical part of the T- frame is prolonged from 100 mm to 200 mm to improve the situation during the process of purring the concrete to finish floor level in the building, when the dock edge gap of the concrete pit is not fully in line with out pit drawing.

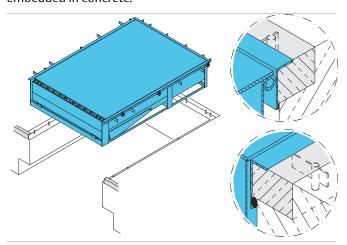


T-frame (option) 200 mm



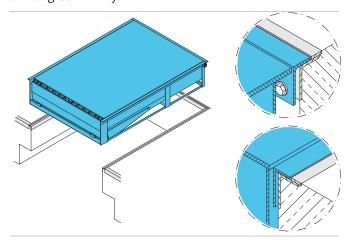
1.5.2 T - leveler frame for embedding in concrete

The T-frame is installed in one step. The leveler is directly embedded in concrete.



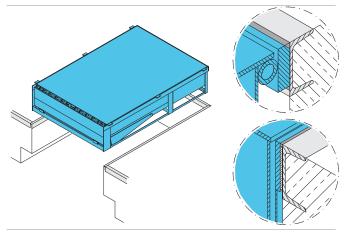
1.5.3 W - leveler frame for welding

The W-frame is designed to weld the leveler directly to the floor slab. In case of future replacement, the welding points can be ground away.



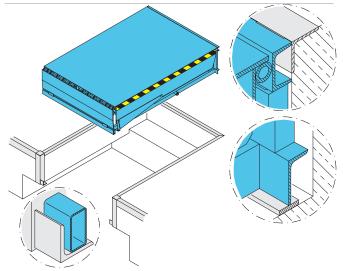
1.5.4 F - flat frame for welding

The F-frame is designed to weld the leveler directly to the floor slab. In case of future replacement, the welding points can be ground away.



1.5.5 P - pit frame for welding

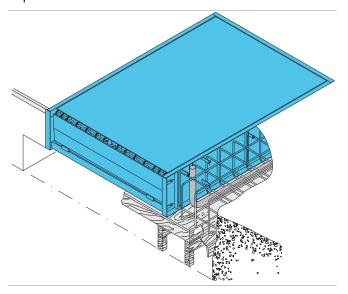
The P-frame leveler is designed to rest on a sturdy concrete slab at the rear of the pit. The rest of the leveler is welded to the pit edges. This leads to fast installation and replacement.





1.5.6 B - box-frame

The B-frame is designed to function as the concrete shutter. Therefore complicated and expensive shutter work is not required.





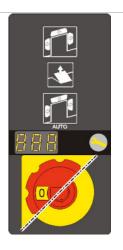
1.6 Docking control systems

1.6.1 950 Docking L SD



- Hold-to-run button to position the lip on the truck bed.
- Hold-to-run button to put the leveler back in parking position.
- Mains isolator or emergency stop button.
- Interface to incorporate ASSA ABLOY wheel chock.

1.6.4 950 Docking LSA SD



Designed to operate an overhead sectional door and an inflatable shelter in the docking station.

- Hold-to-run button to position the lip on the truck bed.
- Impulse auto button to put the leveler back in parking position.
- Mains isolator or emergency stop button.
- Interface to incorporate ASSA ABLOY wheel chock.
- Designed to operate an inflatable shelter in the docking station.

1.6.2 950 Docking LA SD



- Hold-to-run button to position the lip on the truck bed.
- Impulse auto button to put the leveler back in parking position.
- Mains isolator or emergency stop button.
- Interface to incorporate ASSA ABLOY wheel chock.

1.6.5 950 Docking DLSA SD



Designed to operate an overhead sectional door and an inflatable shelter in the docking station.

- Hold-to-run button to position the lip on the truck bed.
- Impulse auto button to put the leveler back in parking position.
- Mains isolator or emergency stop button.
- Interface to incorporate ASSA ABLOY wheel chock.
- Designed to operate an overhead sectional door and an inflatable shelter in the docking station.

1.6.3 950 Docking DLA SD



Designed to operate an overhead sectional door and an inflatable shelter in the docking station.

- Hold-to-run button to position the lip on the truck bed.
- Impulse auto button to put the leveler back in parking position.
- Mains isolator or emergency stop button.
- Interface to incorporate ASSA ABLOY wheel chock.

1.6.6 950 Docking power cable



- Standard: 1,1 m power cable to connect to mains switch on the wall.
- Option: 1,5 m power cable with CEE-plug, premounted.



1.7 Equipment

1.7.1 Buffers

Buffers placed in front of the dock leveler absorb the energy of a vehicle that accidentally or intentionally hits the building. Buffers are available in various sizes, in fixed or moving models, and with rubber finishing or steel plate and spring function.

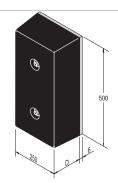
1.7.1.1 RS



Application

The RS buffer is the economical solution for docking stations where vehicles of equal sizes load and unload.

1.7.1.1 RB



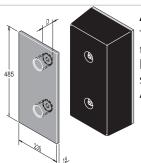
Application

The RB buffer is a large fixed rubber. It is the universal building and vehicle protection solution.

Available depths:

- 90 mm
- 140 mm

1.7.1.1 RB with steel front plate



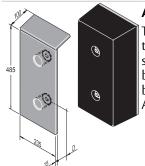
Application

The RB buffer with steel protection front plate increases the building protection and the buffer service life.

Available depths:

- 90 mm
- 140 mm

1.7.1.1 RB with steel front and top plate



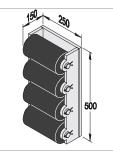
Application

The RB buffer with steel protection front and top plate is designed for vehicles with high lorry beds like interchangeable open bodies and containers.

Available depths:

- 90 mm
- 140 mm

1.7.1.1 Roller buffer

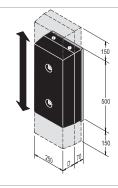


Application

The Roller buffer is a robust solution for docking stations where vehicles make notable vertical movements when loading or unloading.

The Roller buffer is designed for vehicles without protruding elements below the rear door.

1.7.1.1 EBF



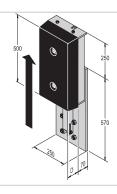
Application

The EBF buffer is the ideal solution for docking stations where vehicles are expected to make notable vertical suspension changes when loading or unloading.

This buffer follows vertical movements of the vehicle. Available depths:

- 90 mm
- 140 mm

1.7.1.1 EBH



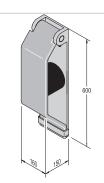
Application

The EBH buffer is the ideal solution for docking stations where vehicles of notable height differences load and unload.
This buffer can be vertically adjusted by a 'release device'.
Available depths:

- 90 mm
- 140 mm



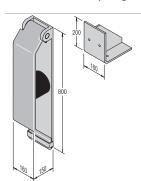
1.7.1.1 Steel spring buffer 600



Application

The steel spring buffer is the ideal protector of the ramp as well as the vehicle itself.

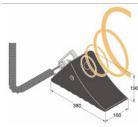
1.7.1.1 Steel spring buffer 800



Application

The 800 mm steel spring buffer is designed for applications where vehicles generally are higher than ramp level.

1.7.2 ASSA ABLOY DE6190WC Wheel chock



The wheel chock has a sensor to detect the presence and position of the vehicle and is connected to the dock leveler control panel. If no vehicle is detected, the docking station is blocked for safety reasons. Furthermore, the wheel chock prevents the vehicle from moving during loading/unloading.

1.7.3 ASSA ABLOY DE6090TLS Traffic light system

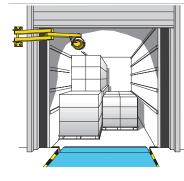


The traffic light system either has a sensor above the dock leveler that measures the presence of the vehicle or it is a wheel chock that detects the vehicle.

If there is no vehicle (dock leveler is free), the traffic light inside is red, outside is green.

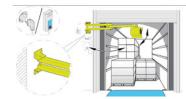
The traffic light can also be combined with a wheel chock or door/leveler interlocking.

1.7.4 ASSA ABLOY DE6090DL Dock light Heavy Duty LED



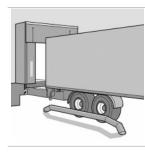
Where dock lights are often a vulnerable object in the docking area, the virtually indestructible Dock Light Heavy Duty LED is the perfect solution to bring light in the truck and docking area. It is designed for the most demanding environments and can withstand possible hard hits from a moving forklift without being damaged.

1.7.5 ASSA ABLOY DE6090FL Fan light



The compact fan light is a combined solution of a fan and a dock light in one system. The fan creates a continuous stream of fresh air that refreshes and cleans the air inside the trailer or container and the integrated dock light provides extensive light. It has a flexible solid arm that fits general industry and logistics applications, for an easy and fast docking process.

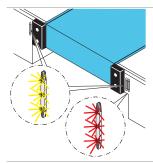
1.7.6 Parking guides



This visual aid makes it easier to park the vehicle and reduces the risk of collision. Especially advantageous for docking stations with wide leveler lips and cushion shelters. Parking guides can be bolted or cast in concrete on the floor before the leveler.

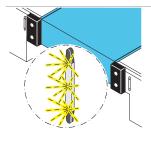


1.7.7 ASSA ABLOY DE6190DI Dock-IN



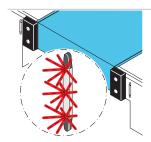
ASSA ABLOY Dock-IN offers a complete line of guide- and traffic lights that align the truck with the docking bay to make the Dock-IN procedure easy and safe. ASSA ABLOY Dock-IN is based on modern LED technology and stands for high reliability and low energy consumption.

1.7.7.1 Dock-IN White



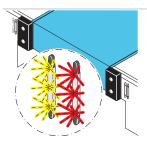
ASSA ABLOY Dock-IN White consists of two white LED light bars. It is designed to help guide a truck to the dock. ASSA ABLOY Dock-IN White offers much more visual aid than white stripes on the shelter or asphalt. Mounted on the wall they are always clearly visible, less exposed to wear and tear and not hidden by dirt and snow!

1.7.7.1 Dock-IN Red



ASSA ABLOY Dock-IN Red is a traffic light system consisting of one red LED light bar, a sensor for truck detection and a traffic light control box. The sensor detects the truck when it is in the right position, very close to the dock. The red LED turns ON to give the signal to the truck driver to break and let the truck roll against the buffer at the lowest speed, without the risk of damage. The system includes interlocking of the loading bay control box functions which are only released when the truck is in place and the red LED is ON.

1.7.7.1 Dock-IN White & Red



ASSA ABLOY Dock-IN White & Red is the optimum combination of both systems for easy and safe docking. The white LEDs provide the visual target and the red LED positions the truck at the right distance to the dock. The white guiding LEDs turn off when the truck is detected and at the same time the red LED turns ON. Before the truck is leaving, the operator push the RESET button on the control box inside the building. Then the white LEDs turn ON and the red LED turns off as a signal to the truck driver that the loading is finished.



1.7.7.1 Standard



1. Indication light inside and RESET button

Indication Light Inside.
A Green LED light on the 950 control box to indicate that the control box functions are released.
The operator of the loading bay equipment knows exactly when he can start loading or unloading. The green LED light will help to save energy and to control the complete loading process.

RESET button

The RESET function is activated from a push button on the control box inside the building before the truck is leaving. The white LEDs turn ON and the red LED turns OFF as a signal to the truck driver that loading is finished. For this function, the leveler must be in parking position, the sectional door closed and the inflatable shelter retracted.

For the activation of the RESET function, you push the button for 1 second. If you push the button for 3 seconds before the truck drives off, then the red LED turns ON again the white LEDs turn OFF. When the truck is leaving, the white LEDs turn ON and the Dock-IN system is ready for the next truck.

1.7.7.1 Available Options

• Dock-IN Green and Red.

Green LEDs instead of White. This version has the same function as Dock-IN White and Red.

• Indication Light Inside, built into the 950 control box A Green LED light on the control box to indicate that the control box functions are released. The operator of the loading bay equipment knows exactly when he can start loading or unloading. The green LED light will help to save energy and to control the complete loading process.

Second Red LED

A second Red LED bar can be added to have the red LED traffic light on both sides of the docking bay. This is an option for terminals with left and right hand drive international trucks.

Wheel chock connection

To increase the safety it is possible to connect the ASSA ABLOY wheel chock to the traffic light function ASSA ABLOY Dock-IN Red or ASSA ABLOY Dock-IN White and Red. The control box will be interlocked until the truck is detected and the wheel chock is in place.

Note:

Make sure the LED bars will not be covered by the Dock shelter.

Lowest possible truck is max. 2000 mm below the sensor position.



2. Selection guide

2.1 Load capacity according to EN 1398

The EN 1398 describes 3 key definitions about loads.

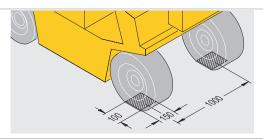
2.1.1 Rated load

The rated load is the total weight of the goods, the forklift truck and the driver.



2.1.2 Axle load

Axle loads shall be taken acting over two rectangular contact areas at 1 m lateral distance. These areas shall only apply if the actual conditions do not call for more severe loading. The size of the footprint [mm 2] is derived from the wheel load [N] divided by 2 [N/mm 2]. The ratio of the rectangular print is W:L = 3:2.



In the drawing measures for a leveler with a load capacity of 100kN or 150kN are shown.

2.1.3 Dynamic load

The dynamic load is the movement of the rated load and is the pressure on the leveler platform caused by the moving forklift truck.



2.2 Select the load capacity

The load capacity of a dock leveler must always be higher than the rated load.

2.2.1 Example

Weight of forklift truck	3600 kg
Weight of goods	1500 kg
Weight of driver	100 kg
Total weight/rated load	5200 kg
Suitable load capacity of the level-	6000 kg/60kN
er	

2.3 Select the appropriate platform tear plate thickness

The 60kN (6 tonnes) DL6010S is as a standard equipped with a tear plate of 6 mm (6/8). Optionally an 8 mm 8/10 tearplate is available.

2.3.1 Handling equipment traffic situation

Each handling-equipment traffic situation creates a certain point load impact on the dock leveler platform depending on the contact area of the wheels. The typical 4 wheel pneumatic-tired forklift trucks have a lower point load impact than electric pallet trucks with small hard wheels.

2.3.2 Example

Vehicle	Rated load	Point load	Tear plate	Load ca- pacity
Roll cage	750 kg	Medium	6 mm	60 kN
Hand pallet truck	3200 kg	High	8 mm	60 kN
Electric pallet truck	3200 kg	High	8 mm	60 kN
Forklift truck	5200 kg	Medium	6 mm	60 kN

Selection guide 17



2.4 Select the leveler length

When determining the leveler length, measure the maximum height difference between the truck bed and the dock level. Next, determine which vehicles will be used and lookup the maximum gradient the vehicles are allowed to be used on.

Vehicle	Max gradient
Roll cage	3%
Hand pallet truck	3%
Electric pallet truck	7%
Forklift truck (battery)	10%
Forklift truck (gas / petrol)	15%

2.4.1 The calculation

Minimal leveler length = height difference / gradient (%)

2.4.2 Example

Vehicle:	Electric pallet truck (max 7% gradient)
Truck height:	1350 – 1000 mm
Dock height:	1150 mm

The difference between Truck height and Dock height = 175 mm

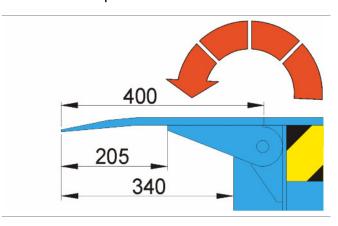
175 mm / 7% = 2500 mm leveler length

2.5 Nominal width

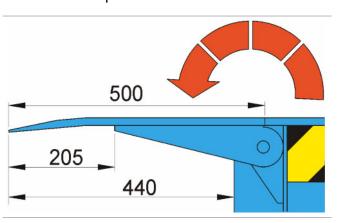
The ASSA ABLOY DL6010S swingdock is available with a nominal width of 1750, 2000, 2200 mm. The correct nominal width must exceed the widest loading vehicle by at least 700 mm.

2.6 Free space under lip

2.6.1 Steel lip 400 mm



2.6.2 Steel lip 500 mm

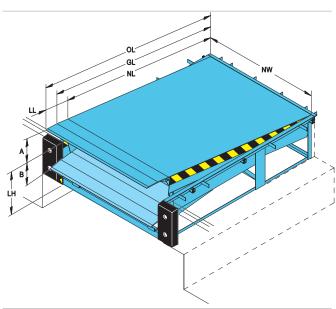


Selection guide 18



3. Specifications

3.1 Dimensions



NL	Nominal length
OL	Overall length
GL	Gradient length
NW	Nominal width
LL	Lip length
LH	Leveler height
A	Working range above dock level
В	Working range below dock level

Dimensions			Vertical working range				
			LL 400 mm		LL 500 mm (LH>600)		
NL	OL	GL	LH	Α	В	Α	В
2000	NL+330	NL+190	600	260	280	-	-
	NL+330	NL+190	700	290	330	180	360
2250	NL+330	NL+190	600	290	275	-	-
	NL+330	NL+190	700	300	345	180	380
2500	NL+330	NL+190	600	310	270	-	-
	NL+330	NL+190	700	390	340	270	360
2770	NL+330	NL+190	600	335	270	-	-
	NL+330	NL+190	700	400	340	290	360
3000	NL+330	NL+190	600	340	265	-	-
	NL+330	NL+190	700	400	335	280	290
3500	NL+330	NL+190	800	495	335	390	345
4000	NL+330	NL+190	900	540	335	430	345
4500	NL+330	NL+190	900	590	335	480	345
Nominal width (NW) 1750, 2000, 2200 mm							

3.2 Platform thickness

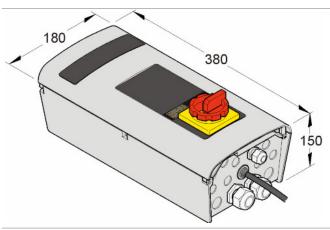
Max. point load
1,3 N/mm ²
6,5 N / mm ²

Specifications 19



3.3 Control units

3.3.1 Dimensions



950 Series

3.3.2 Functions

	L SD	LA SD	DLA SD	LSA SD	DLSA SD
Hold-to-run button					
Impulse auto button					
Mains isolator					
Emergency stop button					
400 V					
230 V					
Maintenance indicator					
3 Digit display					
Memory function					
BUS network interface					
Wheel chock					
Door control					
Shelter control					
Fault indicator					
Integrated clock					

Standard

Specifications 20

[□] Option / Available



4. CEN Performance

4.1 Safety according to the European Standard EN 1398

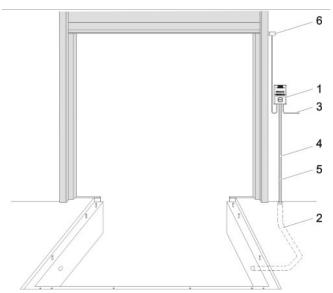
- Emergency Stop Function.
 - Safety valves block lowering movement after max. 6% of the nominal length of the leveler.
 - Two lift cylinders make sure the leveler stops in a horizontal position.
- Free floating position.
- Platform torsion. Lateral deflection of at least 3% of nominal width.
- Toe guards cover gap between platform and pit in leveler's highest position.
- Working range gradient max. 12,5% (\sim 7°).
- Warning stripes on side plates and on frame (black/yellow).

CEN Performance 21



5. Building and space requirements

5.1 Electrical preparations



_		/	1 1 1 1
7	(ontrol unit)	included in	the delivery)
	Control unit	i iiiciaaca iii	the delivery)

Conduit for wiring internal diameter 70, angles <45°

_	(by others)	Treemar diameter 70, angles (45)
3	Mains supply: Mains fuse: Motor power:	3/N/PE AC 50 Hz 400V 3-phase, 230V 3- phase D0 10 A gL 0,75kW
4	Cable:	7 x 0,75 mm ²
5	Motor cable:	4 x 1,5 mm ²
6	Optional safety swi leveler when door i	tch on sectional door to disable s closed*

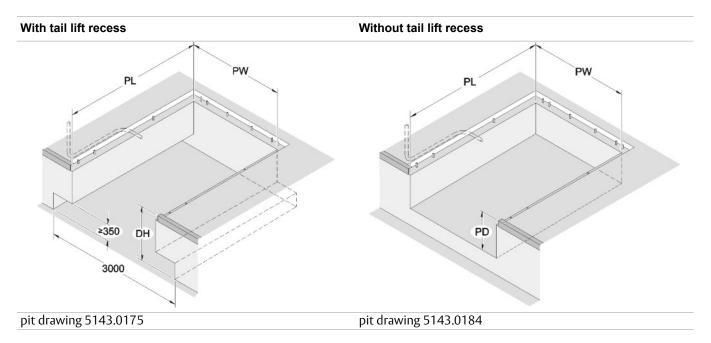
^{*}Non standard



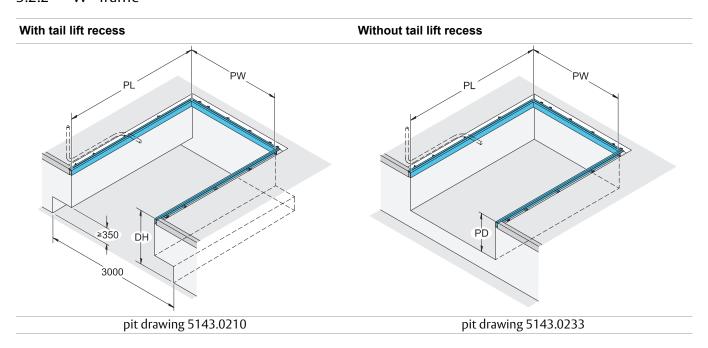
5.2 Pit preparations

This section illustrates the required pit preparations for each frame type for the ASSA ABLOY DL6010S swing dock.

5.2.1 T - frame + T-frame 200

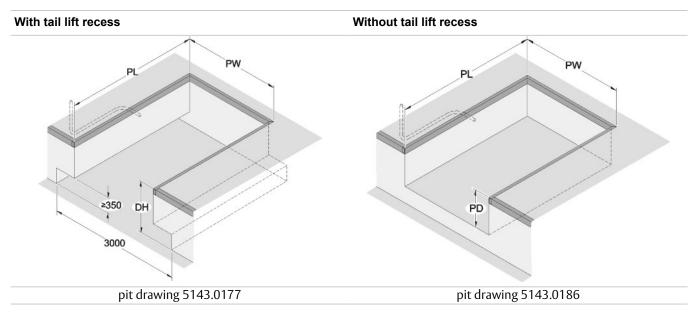


5.2.2 W - frame

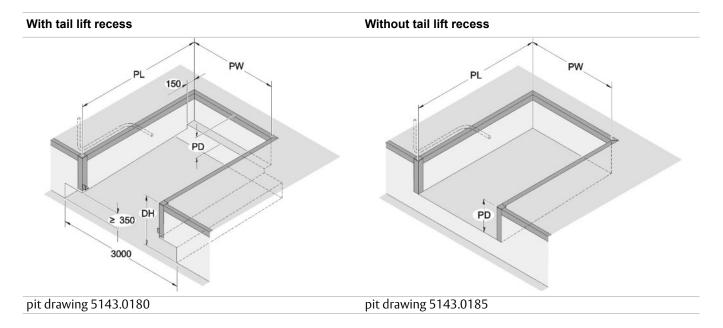




5.2.3 F - frame

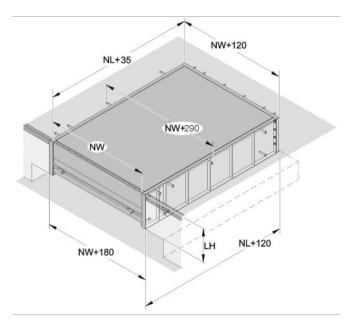


5.2.4 P - frame





5.2.5 B - frame





6. Service you can rely on



Gold

The ultimate protection

With full coverage, Gold Service enables you to plan and budget your expenses annually.

- Spare parts for emergency calls
- Labor and travel costs for emergency calls
- Replacement of components according to preventive maintenance schedule and to fulfill legislative and safety requirements



Silver

Added advantages

With cover for all service calls during business hours, Silver Service offers you peace of mind.

- Labor and travel costs for emergency calls
- Preventive maintenance



Bronze

Scheduled Service

With scheduled on site visits, Bronze Service means you know that your doors and docking systems will be regularly serviced and inspected.

Preventive maintenance

Included in all packages

1-4 scheduled maintenance	24/7 priority service hotline	Safety, compliance and	Documentation reports
visits per year	and fast response	quality control checks	provided on site

Expert service you can rely on

A healthy business enjoys a steady flow of goods, services and people through its entrances every day. But heavy traffic puts entrances under pressure as every component works to keep them running.

ASSA ABLOY Entrance Systems offer the industry's most complete, flexible service solutions. Because even something as robust and well-engineered as an ASSA ABLOY door or docking system needs to be serviced to stay in great working order.

Pro-active care packages

An ASSA ABLOY service agreement gives you service you can rely on. We have specialized local service technicians on call to take care of your service needs. Equipped with a wide range of spare parts and expertise, to keep your industrial doors and docking systems running.

With an ASSA ABLOY service agreement you can ensure reliable, safe and sustainable operations at every entrance under your agreement, including doors and docking systems, independent of brand.

ASSA ABLOY e-maintenance™ (optional add-on)

For an online overview of your entrance systems and history, add ASSA ABLOY e-maintenance™ to your service package for:

- Easy access to real-time data on all your doors
- Planning, order and service information
- Overview that helps you control lifecycle costs

Service you can rely on 26



Index

9	С	٢
950 Docking DLA SD. 12 950 Docking DLSA SD. 12 950 Docking L SD. 12 950 Docking LA SD. 12 950 Docking LSA SD. 12 950 Docking power cable. 12	EBF. 13 EBH. 13 Electrical preparations. 22 EPDM seal. 8 Equipment. 13 Example. 17, 17, 18	P - frame.24P - pit frame for welding.10Paint classes.9Painting.9Parking guides.14Performance.3Pit preparations.23
A	F	Platform
Application	F - flat frame for welding.10F - frame.24Features.3Fold down segments.7Frames - connection to building.9	Platform insulation
system	Free space under lip	Rated load. 17 RB. 13 RB with steel front and top plate. 13 RB with steel front plate. 13 Roller buffer. 13
В	Н	RS 13
B - box-frame. 11 B - frame. 25 Bent lip. 7 Bevelled lip. 7 Buffers. 13	Handling equipment traffic situation	S Safety according to the European Standard EN 1398
Building and space requirements 22	Lip shapes 7	Select the load capacity
C CEN Performance	Load capacity according to EN 1398	Selection guide
D		Standard swing lip 7
Description. 6 Dimensions. 19, 20 Dock-IN Red. 15 Dock-IN White. 15 Dock-IN White & Red. 15 Docking control systems. 12 Dynamic load. 17	Nominal width	Steel lip 400 mm. 18 Steel lip 500 mm. 18 Steel spring buffer 600. 14 Steel spring buffer 800. 14 Straight lip. 7 Surface. 9 Swing Lip. 7
Dynamic load 17		



Τ

T - 200 leveler frame for embedding in concrete
T - frame + T-frame 200 23
T - leveler frame for embedding in concrete
Tapered swing lip 7
Technical facts
The calculation
Toe guards 8
W
W - frame
W - leveler frame for welding 10







The ASSA ABLOY Group is the global leader in access solutions. Every day, we help billions of people to experience a more open world.



ASSA ABLOY Entrance Systems provides solutions for efficient and safe flow of goods and people. Our offering includes a wide range of automated pedestrian, industrial and residential doors, loading dock equipment, perimeter fencing and service.

Follow us:





