

# Product datasheet

## Drawbridge leveler

ASSA ABLOY DB6050F / DB6050MZ / DB6050MC

**ASSA ABLOY**  
Entrance Systems

The global leader in  
door opening solutions



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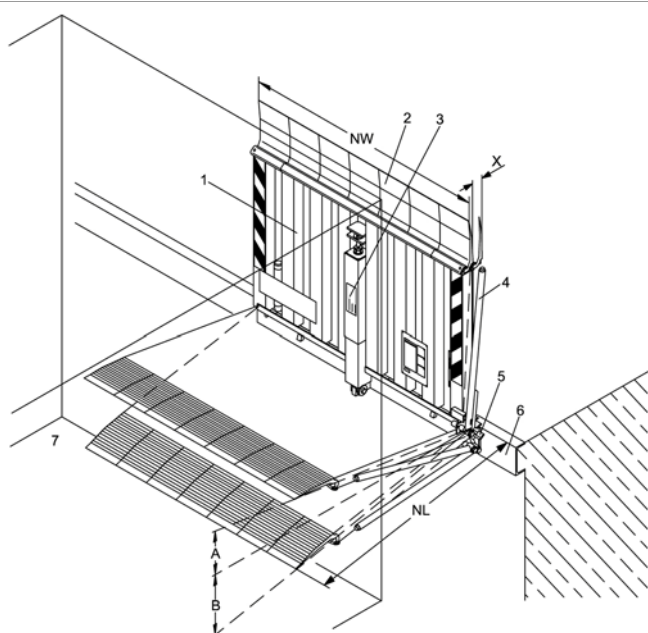
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# 1. DB6050F drawbridge leveler

## 1.1 Application

The ASSA ABLOY DB6050F drawbridge leveler fix version is a fixed drawbridge, designed for the higher working range up to 300 mm level equalisation. Thanks to the aluminium segment lip construction there is safe contact between lip and lorry bed, even when the lorry bed is not in a horizontal line. With all steel parts being hot galvanised the ASSA ABLOY DB6050F drawbridge leveler fix version is very durable and ideally suited for hygienic applications.

The new features of this dock leveler ensure that it complies with the new European EN 1398 standards.



- 1 Leveler platform
- 2 Segmented aluminium alloy lip
- 3 Counter balance spring
- 4 Operating handle
- 5 Padlock
- 6 Cast-in channel
- 7 Vehicle bed
- NL Nominal length (pivot point of hinge to edge of lip)
- NW Nominal width
- A Level equalisation above dock
- B Level equalisation below dock
- X Clearance 250 mm

## 1.2 Mode of operation

The ASSA ABLOY DB6050F drawbridge leveler fix version is fixed in position by welding it to a cast-in channel on the dock wall. The counter balance springs reduce the weight when manually positioning the leveler, and allow it to adjust to varying vehicle heights during the loading/unloading operation. The aluminium alloy lip is segmented, which ensures it can accommodate a lateral deflection across the width of the docked vehicle. When not in use the leveler is stored vertically and can be padlocked to prevent unauthorised use.

## 1.3 Dimensions

NL	A*	B*
1200	175	245
1500	225	295
1750	265	340
2000	310	390

Nominal width NW for all sizes: 1500, 1750, 2000

Load capacity for all sizes: 60 kN

\* Figures take into account the offset of the support segments.

\* In accordance with the EN 1398 standard, the leveler must not be used beyond the permissible gradient range of  $\pm 12.5\%$  (around  $\pm 7^\circ$ ). The limits may only be exceeded if the operator ensures that the danger of slipping has been eliminated (e.g. due to dry and clean surfaces)

## 1.4 Operating handle

### Standard

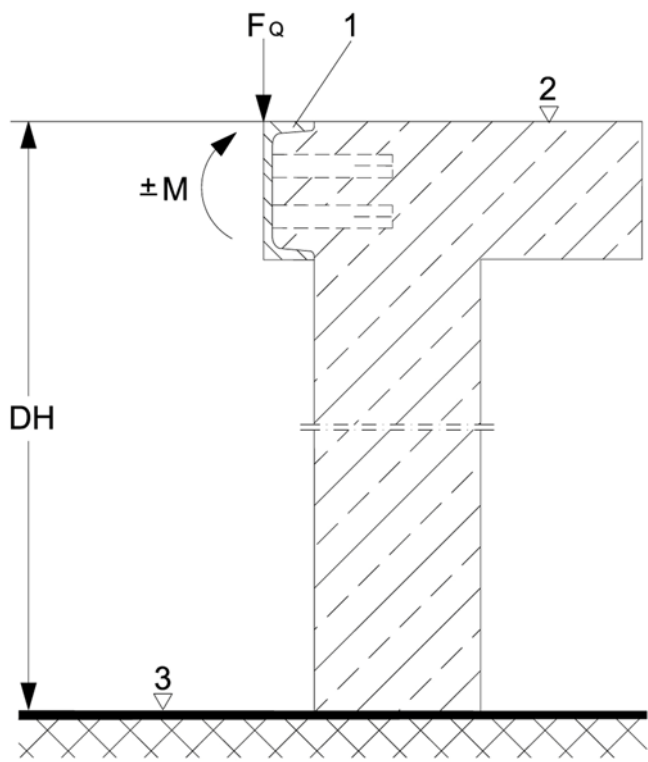
One operating handle for drawbridges of all sizes, except for 2000 mm \* 2000 mm. Drawbridges of 2000 mm \* 2000 mm must be operated by two persons, so two operating handles are installed.

### Option

Additional operating handle (for all sizes, except 2000 mm \* 2000 mm where it is standard).

1.5 Building specifications

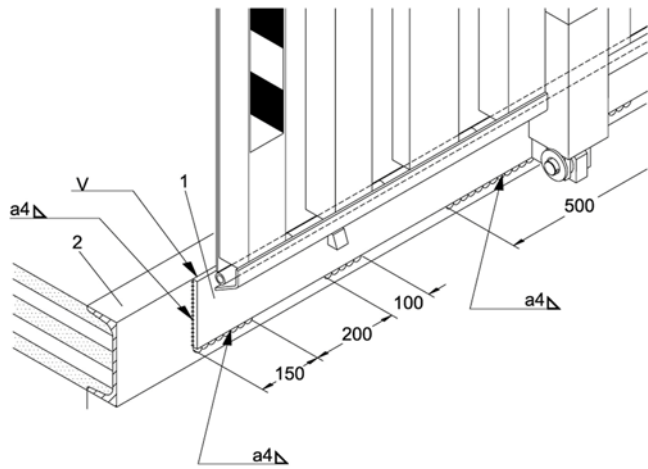
1.5.1 Dock edge preparation



- FQ Transverse force = 84kN  
M Maximum bending moment (kNm)  
DH Dock height  
1 U 200 DIN 1026 or 203 x 76 RSC (recommended)  
2 Finished floor level  
3 Yard level

NL	Maximum bending moment M exerted on the dock edge (kNm)		
	NW = 1500	NW = 1750	NW = 2000
1200	5,4	6,3	7,5
1500	8,3	9,0	10,1
1750	11,4	12,3	13,6
2000	14,0	16,0	17,0

1.5.2 Installation to the dock edge



- 1) Guide rail  
2) Cast-in channel



## 2. DB6050MZ/C drawbridge leveler

### 2.1 Application

The ASSA ABLOY DB6050MZ drawbridge leveler movable version is a drawbridge that moves sideways on guide rails, designed for the higher working range up to 300 mm level equalisation. Thanks to the aluminium segment lip construction there is safe contact between lip and lorry bed, even when the lorry bed is not in a horizontal line. With all steel parts being hot galvanised the ASSA ABLOY DB6050MZ drawbridge leveler movable version is very durable and ideally suited for hygienic applications. The drawbridge leveler is also available in a version without a guide rail.

Also available is the ASSA ABLOY DB6050MC. This model is identical, except for the guide rail. The ASSA ABLOY DB6050MZ drawbridge leveler movable version is designed for new installations with a simplified guide rail. The ASSA ABLOY DB6050MC is designed for replacement of existing drawbridge levelers, because the existing C-profile can then be re-used.

The new features of this drawbridge leveler ensure that it complies with the new European EN 1398 standards.

### 2.2 Mode of operation

The ASSA ABLOY DB6050MZ drawbridge leveler movable version is installed on bearings in a guide rail (supplied separately) which must in turn be fixed in position by welding to a cast-in steel channel on the dock wall. The drawbridge leveler can then be finitely positioned by sliding it along the rail.

The ASSA ABLOY DB6050MZ drawbridge leveler movable version is operated manually by releasing the lock on the handle(s) and lowering the platform onto the vehicle bed. The counter balance springs reduce the weight when manually positioning the leveler, and allow it to adjust to varying vehicle heights during the loading/unloading operation.

The aluminium alloy lip is segmented, which ensures it can accommodate a lateral deflection across the width of the docked vehicle. When not in use the leveler is stored vertically and can be padlocked to prevent unauthorised use.

### 2.3 Dimensions

NL	A*	B*
1200	175	245
1500	225	295
1750	265	340
2000	310	390

Nominal width NW for all sizes: 1500, 1750, 2000

Load capacity for all sizes: 60 kN

\* Figures take into account the offset of the support segments.

\* In accordance with the EN 1398 standard, the leveler must not be used beyond the permissible gradient range of  $\pm 12.5\%$  (around  $\pm 7^\circ$ ). The limits may only be exceeded if the operator ensures that the danger of slipping has been eliminated (e.g. due to dry and clean surfaces)

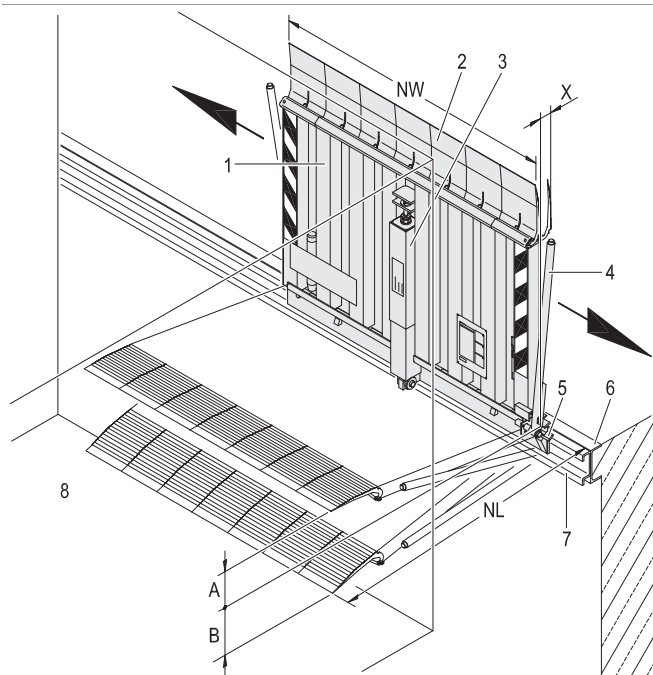
### 2.4 Operating handle

#### Standard

One operating handle for drawbridges of all sizes, except for 2000 mm \* 2000 mm. Drawbridges of 2000 mm \* 2000 mm must be operated by two persons, so two operating handles are installed.

#### Option

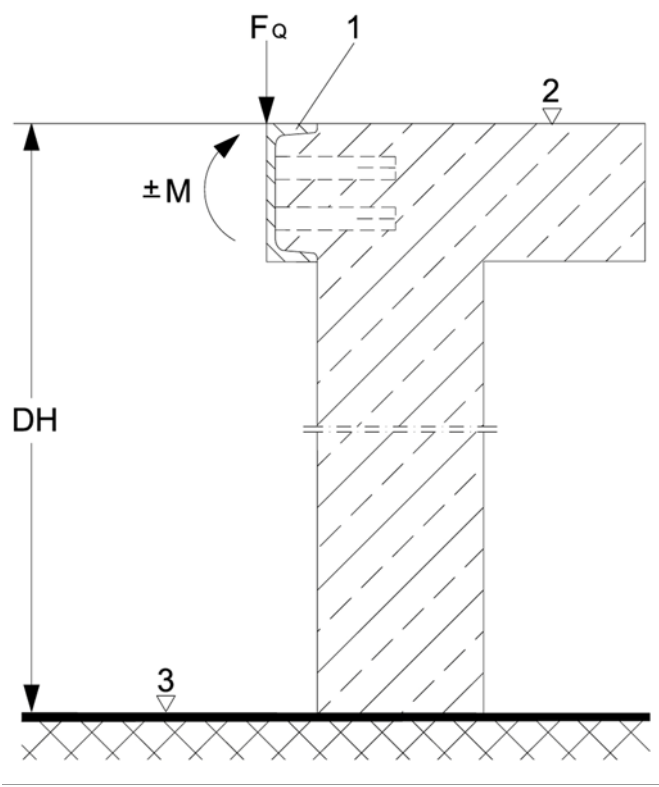
Additional operating handle (for all sizes, except 2000 mm \* 2000 mm where it is standard).



- 1 Leveler platform
- 2 Segmented aluminium alloy lip
- 3 Counter balance spring
- 4 Operating handle
- 5 Padlock
- 6 Cast-in channel
- 7 Guide rail
- 8 Vehicle bed
- NL Nominal length (pivot point of hinge to edge of lip)
- NW Nominal width
- A Level equalisation above dock
- B Level equalisation below dock
- X Clearance 250 mm

## 2.5 Building specifications

### 2.5.1 Dock edge preparation

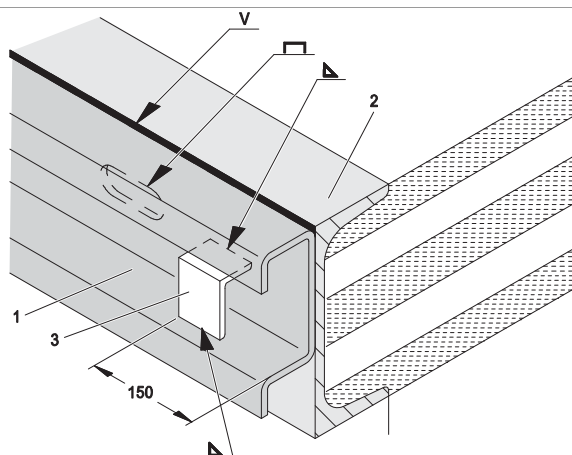


FQ	Transverse force = 84kN
M	Maximum bending moment (kNm)
DH	Dock height
1	U 200 DIN 1026 or 203 x 76 RSC (recommended)
2	Finished floor level
3	Yard level

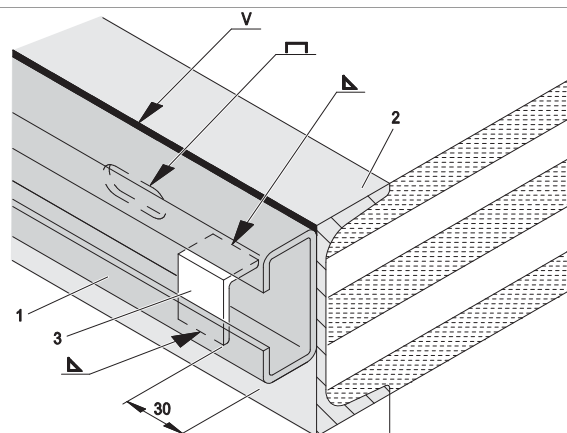
NL	Maximum bending moment M exerted on the dock edge (kNm)		
	NW = 1500	NW = 1750	NW = 2000
1200	5,4	6,3	7,5
1500	8,3	9,0	10,1
1750	11,4	12,3	13,6
2000	14,0	16,0	17,0

## 2.5.2 Installation to the dock edge

**DB6050MZ guide rail (new installation)**



**DB6050MC guide rail (already existing)**



- 1) Guide rail
- 2) Cast-in channel
- 3) End stop



## 3. Selection guide

### 3.1 Load capacity according to EN 1398

The EN 1398 describes 3 key definitions about loads.

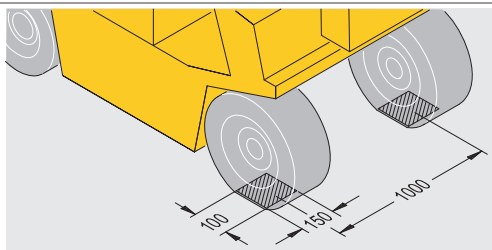
#### 3.1.1 Rated load

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



#### 3.1.2 Axle load

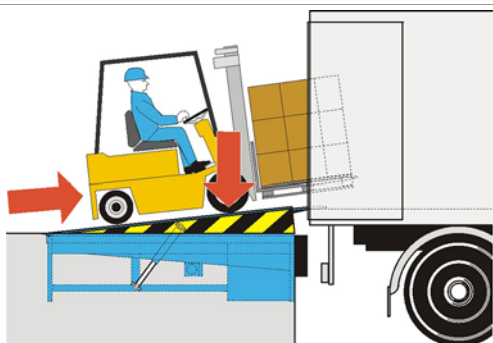
Axle loads shall be taken acting over two rectangular contact areas at 1 m lateral distance. These areas shall only apply if the actual conditions do not call for more severe loading. The size of the footprint [mm<sup>2</sup>] is derived from the wheel load [N] divided by 2 [N/mm<sup>2</sup>]. The ratio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

#### 3.1.3 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.



### 3.2 Select the load capacity

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

#### 3.2.1 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 leveler	6000 kg/60kN

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

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ASSA ABLOY Entrance Systems is a leading supplier of entrance automation solutions for the efficient flow of goods and people. Building on the long-term success of the Besam, Crawford, Albany and Megadoor brands, we offer our solutions under the ASSA ABLOY brand. Our products and services are dedicated to satisfying end-user needs for safe, secure, convenient and sustainable operations.

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