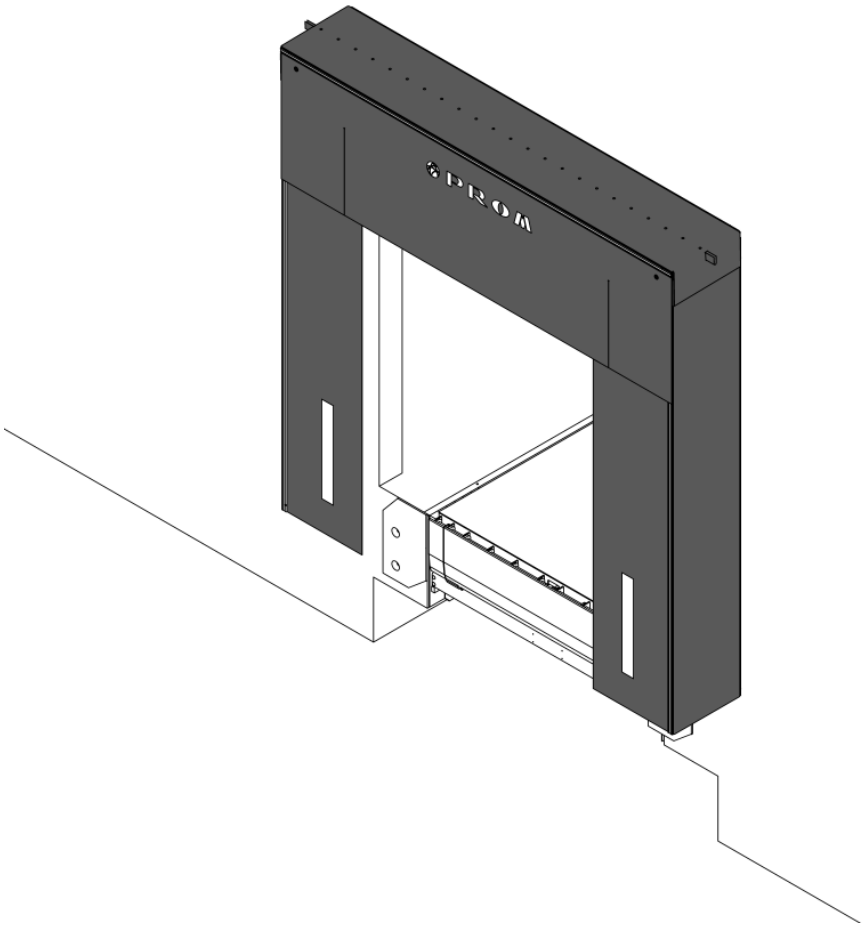
Data sheet



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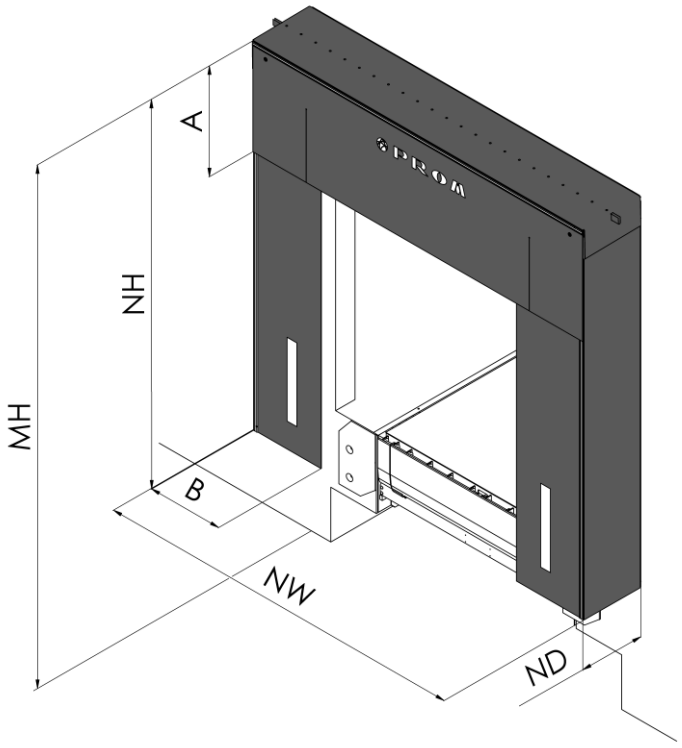
1. General information

The PMV-type mechanical dock shelter is a new design in the wide range of PROMStahl products. It is designed for customers who attach a great importance to power saving and intending to protect their goods against atmospheric conditions. Differences between the dimensions of the warehouse door opening and the docked truck create empty spaces which must be sealed in the best possible way. The front and rear frame of the PMV shelter is made of durable extruded aluminium profiles resistant to tough operating conditions, connected to each other with a system of parallel articulated arms. With such a parallel guiding system, the front structure tilts back in case of inaccurate vehicle docking. Even a vehicle that is not docked centrally does not cause any damage to the shelter. A 3 mm thick cushion of high tear resistance is made of PVS and mounted on a resilient frame. Special spring balancers generate additional pressure of the sealing applied to the vehicle which ensures greater tightness. In the front side of the gate there are approach lines for easier vehicle docking. Rainwater is disposed of through side gutters integrated with the gate. The top cushion is made with side cuts as a standard. Optionally, we also supply a version with a cushion cut partially or in whole. The devices comes in three, preassembled parts, with sets of fasteners appropriate for a building to ensure quick and inexpensive installation in each building scenario.

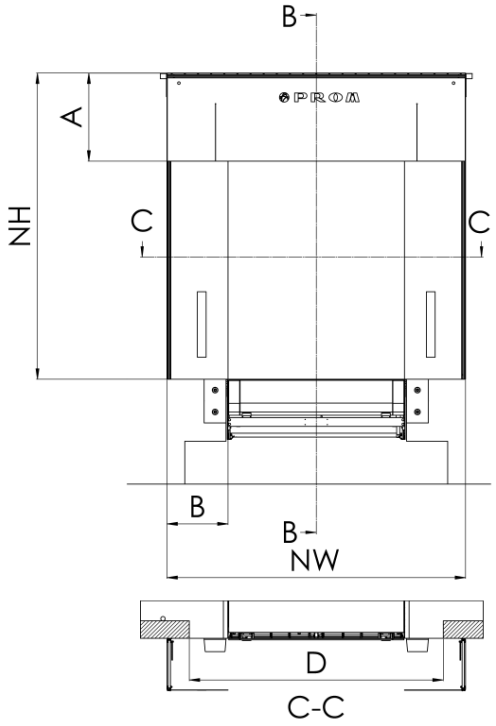
1.1 Design features

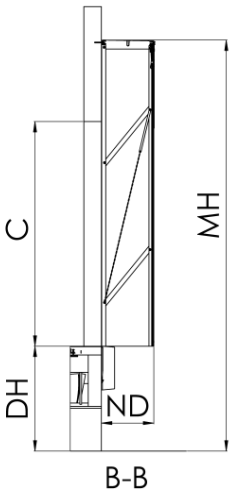


- Nominal widths (NW): 3250, 3300, 3400, 3450 mm (optionally to 3600 mm)
- Nominal heights (NH): 3200, 3400, 3500, 3600 mm (optionally to 4500 mm)
- Nominal depth (ND): 600, 900 mm
- Top cushion nominal height (A): 1000, 1200, 1500 mm
- Side cushion nominal height (B): 600 mm (to NW 3400) , 700 mm (from NW 3450)
- Mounting height (MH): 4500 mm (recommended)
- Material of main cushions: black PVC, 3 mm, double textile interweaving, approx. 3400g/m^2
- Material of wall and roof cushions: black PVC, 0.5 mm, textile reinforcement, approx. 680 g/m^2
- Approach lines: white, yellow
- Assembly sets: concrete wall, insulated wall, sandwich plate, steel plate

1.2 Table of dimensions

NW	NH	ND	A	B
3200	3200-4700	600/900	1000/1200	600
3250	3200-4700	600/900	1000/1200	600
3300	3200-4700	600/900	1000/1200	600
3350	3200-4700	600/900	1000/1200	600
3400	3200-4700	600/900	1000/1200	600
3450	3200-4700	600/900	1000/1200	700
3500	3200-4700	600/900	1000/1200	700
3550	3200-4700	600/900	1000/1200	700
3600	3200-4700	600/900	1000/1200	700

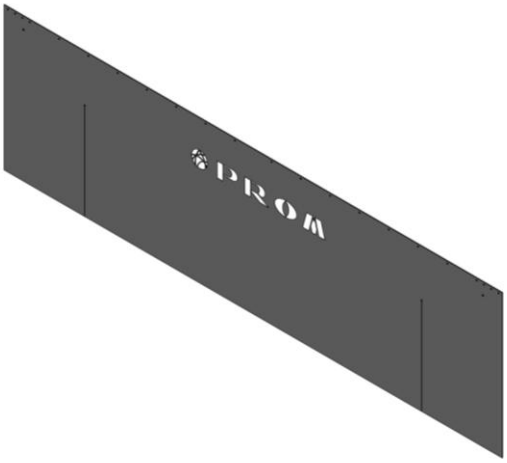




NW Nominal widths
NH Nominal heights
ND Nominal depth
A Top cushion nominal nominal height
B Side cushion nominal width
MH Mounting height

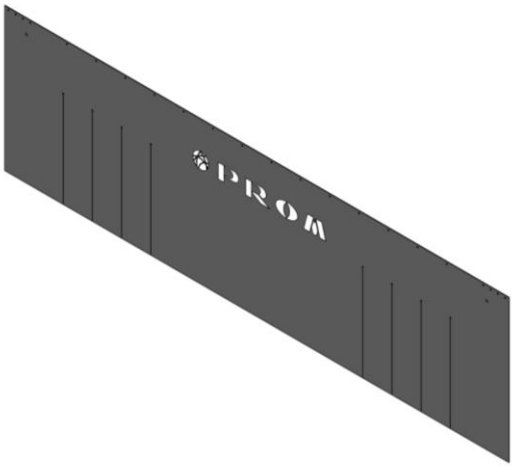
2. Top cushion

2.1 Standard



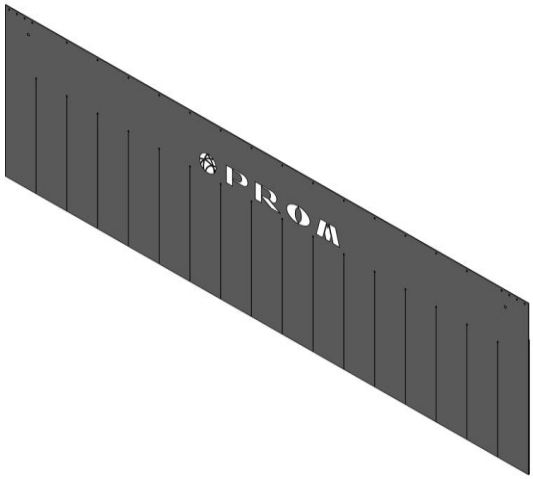
A standard solution with side cuts. Suitable for most loading operations of typical size vehicles.

2.2 Cushion with additional side cuts (T-type)



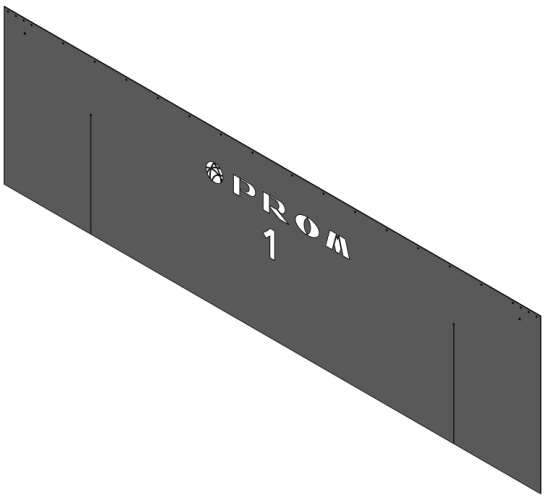
A cushion supplied with additional cuts forming six flaps, three on the right and three on the left side.

2.3 Cut cushion (V-type)



A cushion supplied with additional cuts along its entire length. It ensures optimal sealing of vehicle corners, in particular at a large variability of docked vehicle width.

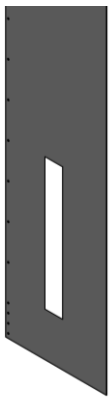
2.4 Cushion with a number



Optional marking, e.g. dock number.

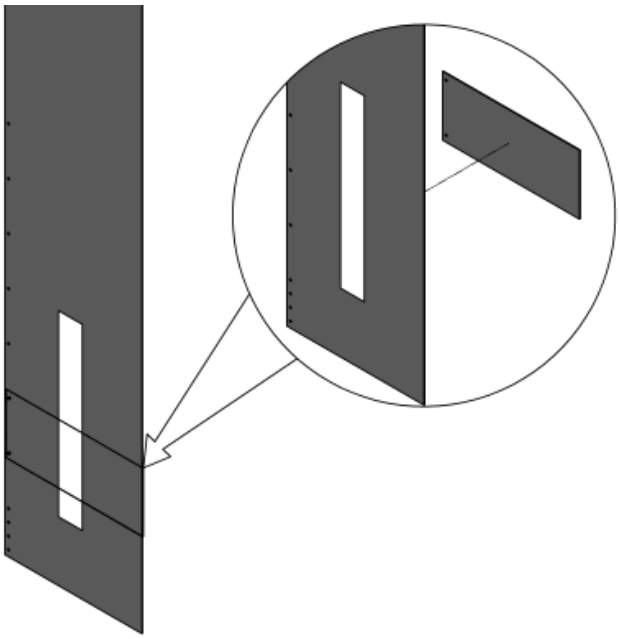
3. Side cushion

3.1 Approach lines



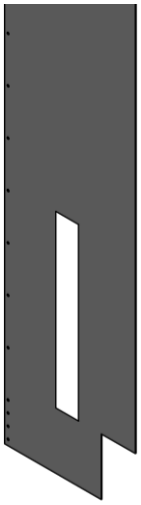
Standard white approach lines for easier vehicle docking.

3.2 Stiffening slats



Additional optional elements stiffening the side cushion. They ensure greater pressure of the cushion to the vehicle, thus better sealing.

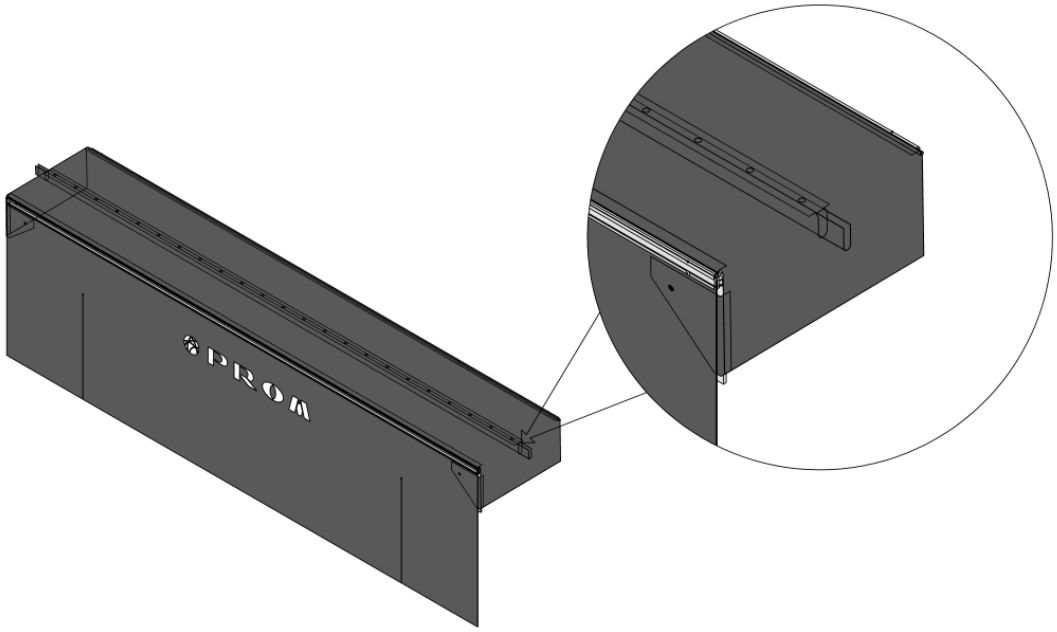
3.3 Cuts for buffers



Optional cuts in the side cushions to prevent material damage if buffers of large thickness are applied.

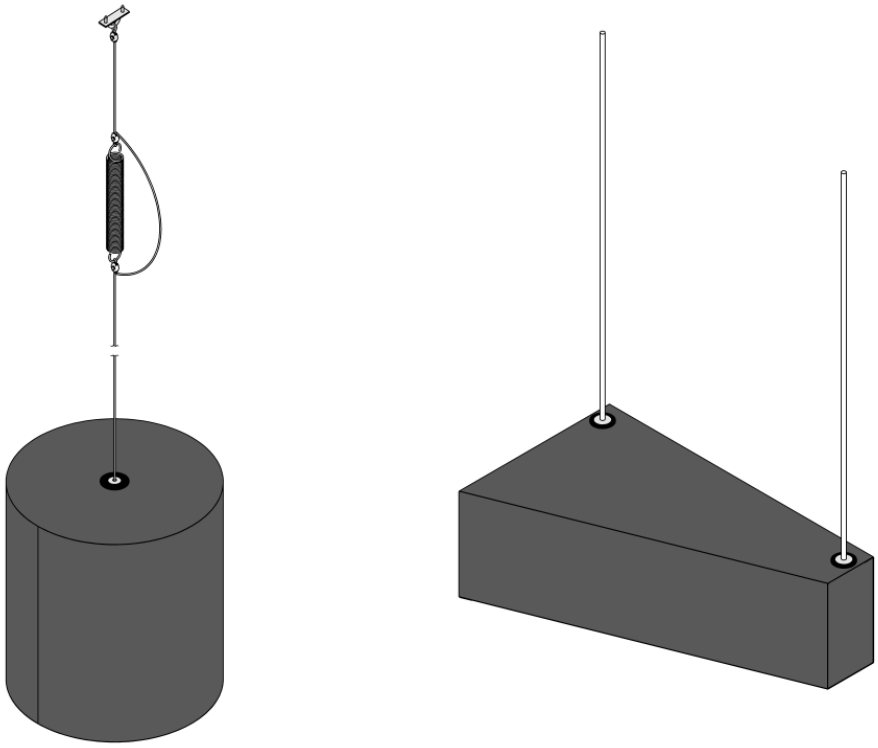
4. Other auxiliary equipment

4.1 Rainwater gutter



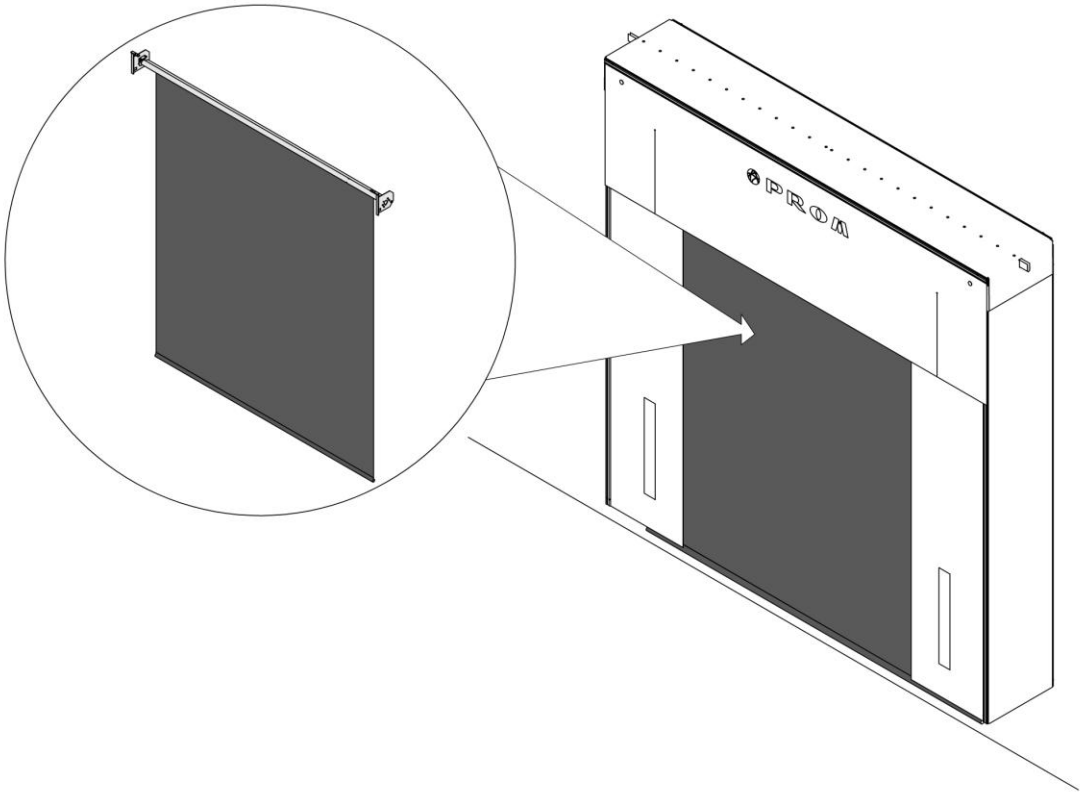
A special gutter integrated with the roof of the device for removal of rainwater to the sides. It prevents accumulation of water in the loading zone.

4.2 Sealing rolls



Optional resilient rolls ensure additional sealing of the bottom PMV shelter corners.

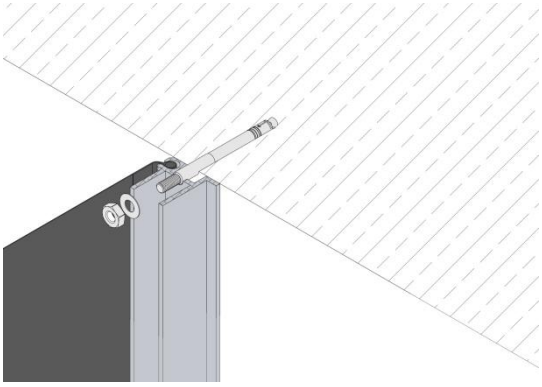
4.3 Electric sealing blind



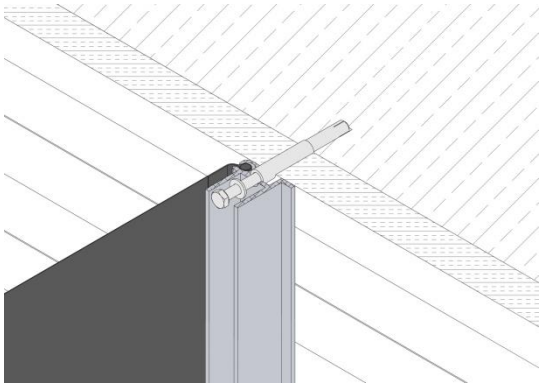
An additional electric sealing blind. It is designed to support vehicle if huge height differences. Direct control or integrated with the controller of the PROM dock leveller.

5. Fixing to the building

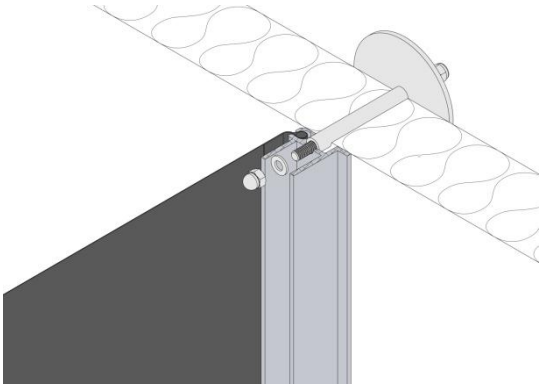
Along with the PMV shelter, a range of mounting sets adjusted for an individual building scenario can be supplied.



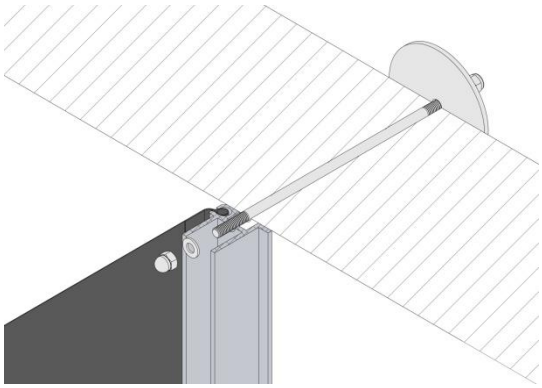
Concrete wall



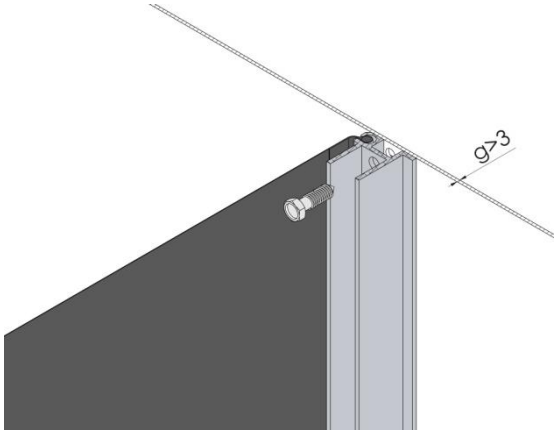
Insulated wall



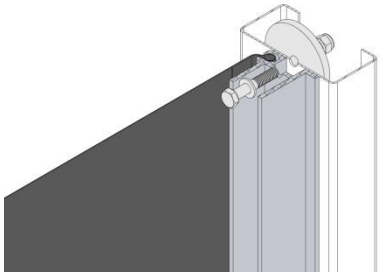
Sandwich plate



Cellular concrete

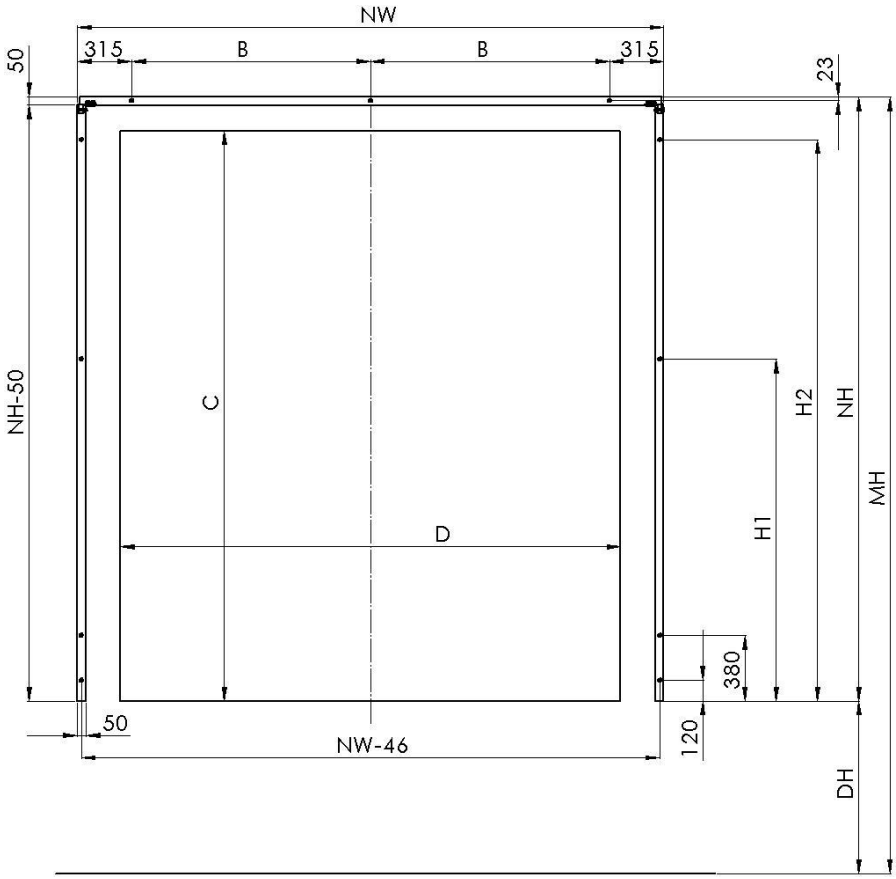


Steel plate g>3



Steel plate g<3

6. Assembly drawings



NW	B
3200	1285
3250	1310
3300	1335
3350	1360
3400	1385
3450	1410
3500	1435
3550	1460
3600	1485

NH	H1	H2
3200	1680	2950
3300	1780	3050
3400	1880	3150
3500	1980	3250
3600	2080	3350
3700	2180	3450
3800	2280	3550
3900	2380	3650
4000	2480	3750
4100	2580	3850
4200	2680	3950
4300	2780	4050
4400	2880	4150
4500	2980	4250
4600	3080	4350
4700	3180	4450

NW	Nominal width	MH	Mounting height (recommended = 4500 mm)
NH	Nominal height		
DH	Ramp height	C	Gate height
		D	Gate width

7. Selection of sealing

Mounting height

To ensure proper sealing and functioning of the PMV dock shelter, the mounting height should be at least 250 mm greater than the maximum height of the docked vehicle (H_{max}).

Top cushion length

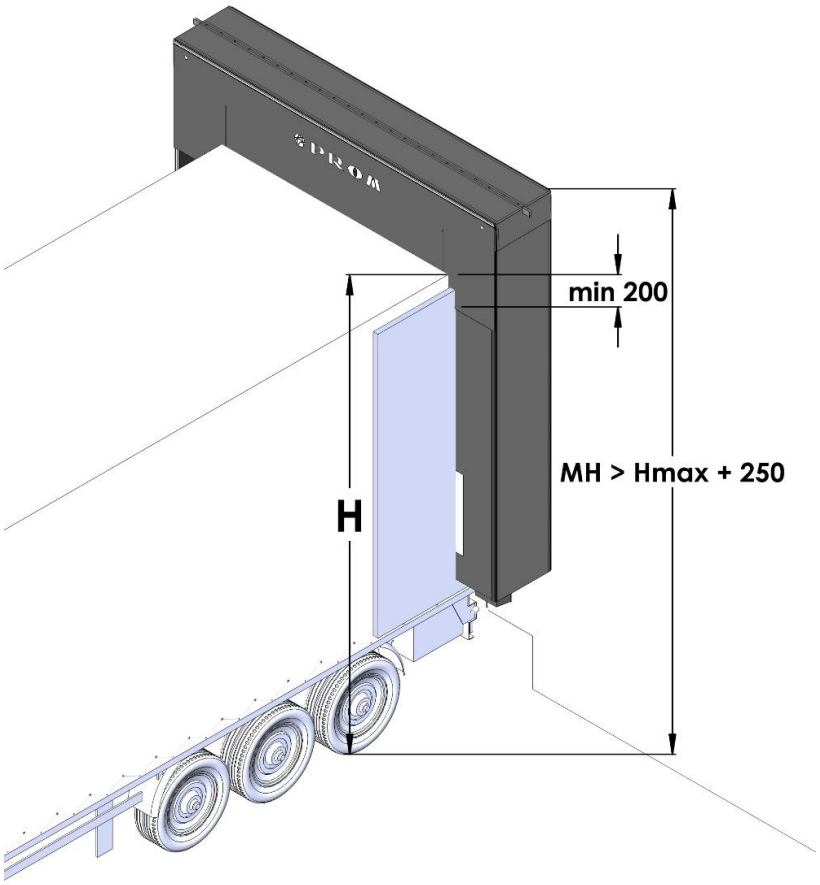
A condition of good sealing of a vehicle is a properly selected dimension of the top cushion – A.

The length of the lap on the vehicle (difference between the height of the lowest docked vehicle (H_{min}) and the height of the bottom edge of the cushion overlapping the vehicle) should be at least 200 mm.

$$NH - A < H_{min} - 200$$

Free space above the sealing

In order to ensure proper functioning of the tilted roof system, free space above the sealing of $\frac{ND}{2} - 100$ should be protected.



Sealing depth

The sealing depth must be selected so the side and top cushions are able to cover the vehicle along its entire height, considering the inclination angle of the manoeuvring yard and the vehicle, and buffer thickness.

$$\alpha[\%] \cdot H < ND - Grubość\ odboju$$