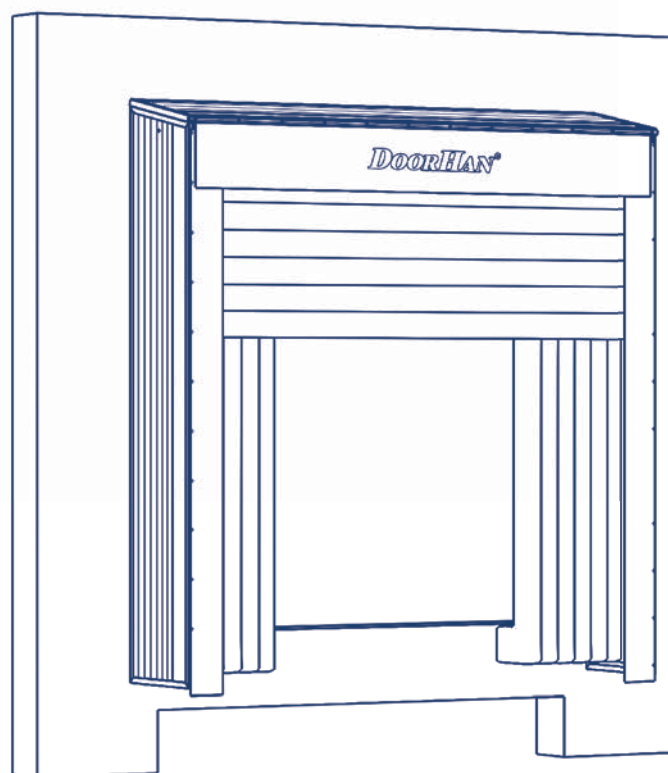


General Information	2
Design	2
Safety Rules	3
Installation	4
Operation	20
Appendix	21

Inflatable dock shelter of DSHINF series

Operation and Installation Instructions

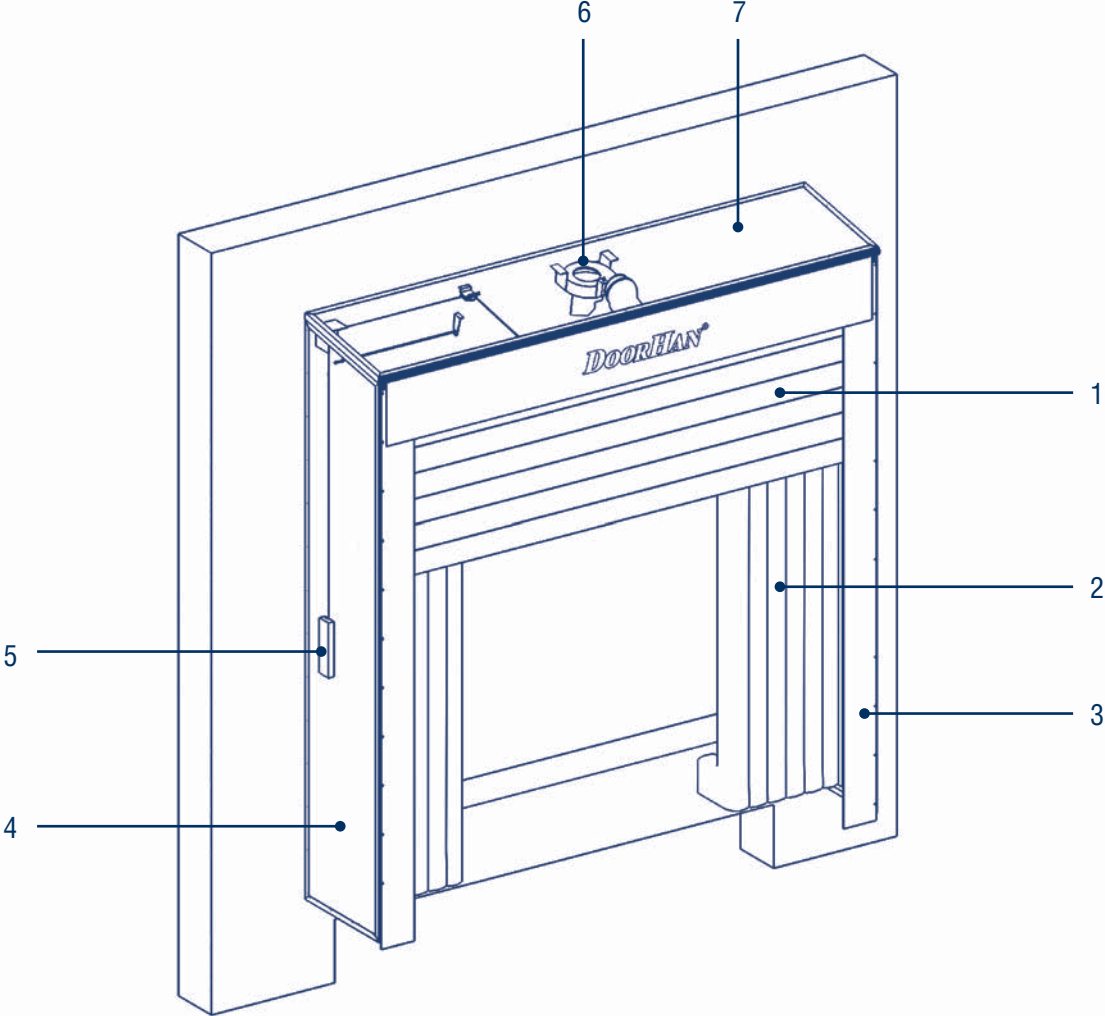


1. GENERAL INFORMATION

Dock shelters are designed to ensure tight sealing between loading dock and vehicle bed.

2. DESIGN

Fig. 1



1. Top air bag

2. Side air bag (left/right)

3. Front storage curtain

4. Left/right frame
5. Counterweight

6. Blower

7. Dock shelter roof

Table 1. Specifications

Parameter	Value
Air bags control system	
Three phase power supply	380–415 V / 50–60 Hz 205–250 V / 50–60 Hz
Power consumption	0,55 kW
Control unit	external
Control unit protection class	IP54
Inflation time	40 sec
Operating temperature	-35...+70 °C

3. SAFETY RULES

3.1. SAFETY RULES WHEN WORKING AT HEIGHT

Work at height is work in any place located at height of 1,3 m from the ground level and carried out from ladders, scaffolds, platforms and other devices. The state of health of the personnel working at height shall meet the medical requirements established for these works.

When working at height always use a safety belt. If it's impossible to secure the belt to a building structure than use a safety rope instead. In such a case two installers should carry out all the works. Never use safety belts with

metal chain slings while working around energized wiring and equipment!

Tools and fittings should be properly secured to prevent their falling while working above energized electrical installations. To pass tools and fittings upwards an installer standing on the ground should hold a rope with tied instruments to prevent its swinging and approaching to energized electrical installations.

3.2. SAFETY RULES WHEN WORKING FROM LADDERS AND STEPLADDERS

Straight ladders and stepladders should be properly secured to prevent their lateral movement and overturn. Stabilize the base of the ladder using sharp-tipped feet for

the ground surface and anti-slip safety shoes for smooth surfaces like metal, tile or concrete.

⚠ IT IS PROHIBITED TO:

- work from the rung located less than one meter from the ladder top;
- use power tools when working from a ladder;
- work from the two top rungs of a stepladder which has no safety hand rails or ladder stop;
- be on the steps of a ladders or stepladder for more than one person;
- stand under the ladder which is used for work;
- leave tools or materials on top of any ladder.

3.3. SAFETY RULES WHEN OPERATING POWER TOOLS

Only qualified and specially trained personnel acquainted with electrical safety instructions can operate power tools. It is recommended to use power tools operating at voltage not exceeding 380/220 V. Choose power tool taking into consideration electric shock hazard of the premise. Ground metal housing of electric tool operating at voltages above 42 V AC and above 110 V DC when working in hazardous areas and outdoor installations. Tool connection plug should have a ground contact. Plug power tools only in the grounded power supply network. When using extension cords make sure they have grounded plugs and sockets. Always wear protective rubber gloves or rubber bottom shoes or sneakers when using electric instruments. Protective devices must be tested in accordance with the procedure established by law.

Prior to operation:

- ensure all the components are in place and properly secured;

- check for worn out cable (wire), its protective tube and plug; damaged insulating parts of the housing, handle and brush holder covers; absent or damaged protective casings;
- make sure ground circuit between the housing and the ground contact of the plug is whole;
- ensure the main switch works properly;
- check operation of power tools at idle.

Use only properly functioning, checked and sealed tools. Never bend or twist electric cables or position any trailing wires where different structures and materials are stored or vehicles move. When working in rainy weather (snow-fall) protect with canopies the area where cables are laid or power tools are used.

⚠ IT IS PROHIBITED TO:

- hold the instrument by its cord;
- remove chips or sawdust from the cutting tool and replace the cutting tool until it stops completely. Use corresponding instruments to fasten the replaceable tool;
- plug the power tool in a circuit with characteristics which do not correspond to the specified in data sheet;
- move an electric tool with operating motor from one working place to another;
- leave unattended a plugged-in or operating electric instrument;
- leave electric instrument unattended to prevent its unauthorized use.

3.4. SAFETY RULES FOR ELECTRICAL INSTALLATION WORK

Carry out electrical installation works in accordance with «Safety rules for electrical installations» and «Safety regulations for the operation of consumer electrical installations».

4. INSTALLATION

4.1. GENERAL RULES

Installation of dock shelter is restricted to authorized personnel trained at DoorHan training center and having a corresponding certificate. Use of appropriate mounting tools is strictly required. The manufacturer does not directly control installation, operation and maintenance of the product and can not be held responsible for installation safety and quality. It is the mounting organization which is held responsible for quality of installation.

The contents of this manual can not be the basis for any kind of claim to DoorHan. The manufacturer reserves the right to make any changes to the product construction, structure, components and accessories without notice. Should any questions arise during product operation please refer to DoorHan dealer. Its address and phone number is provided in the sales contract.

4.2. TOOLS

Fig. 1. Water level

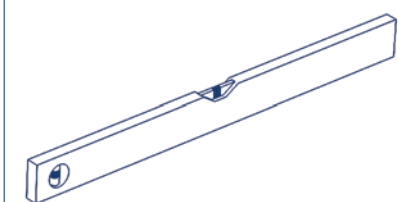


Fig. 2. Measuring tape

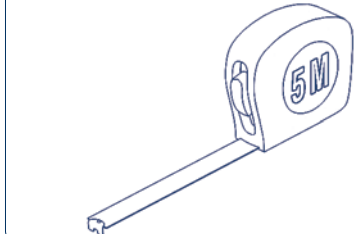


Fig. 3. Pencil

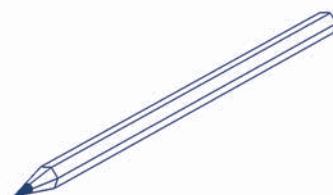


Fig. 4. Drill bit set

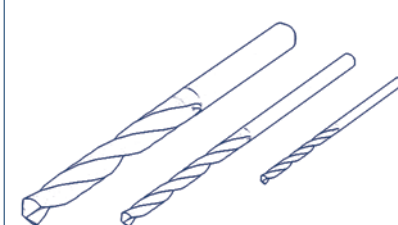


Fig. 5. Screwdriver set

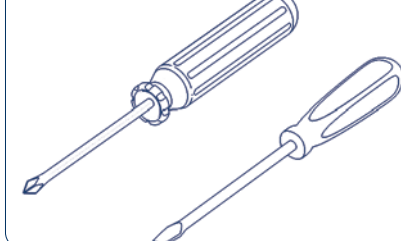


Fig. 6. Hex bits set

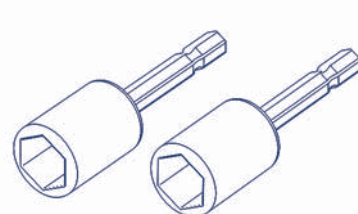


Fig. 7. Wrench set

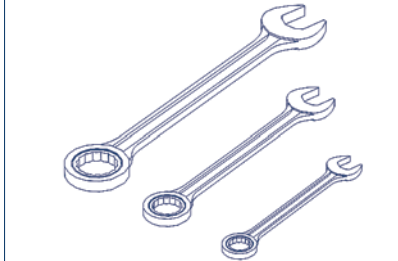


Fig. 8. Drill screwdriver

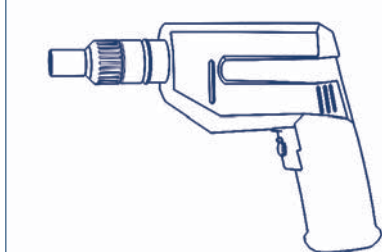


Fig. 9. Stepladder

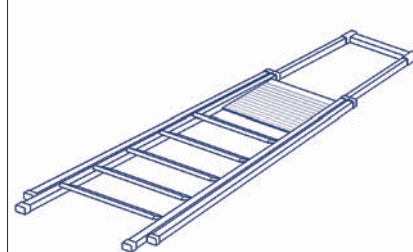


Fig. 10. Safety glasses

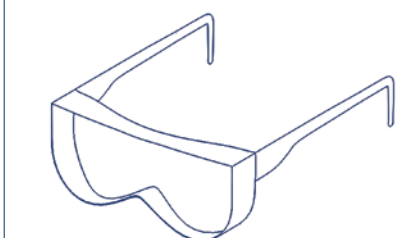


Fig. 11. Hard hat



Fig. 12. Gloves



4.3. PACKAGE INVENTORY

Fig. 1



2 pcs

Fig. 2

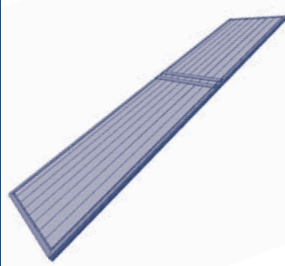


Fig. 3

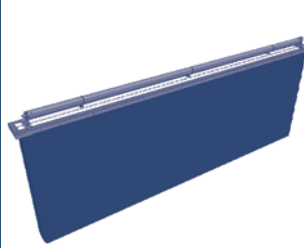


Fig. 4

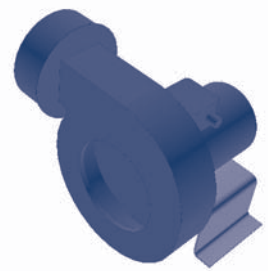


Fig. 5



Fig. 6

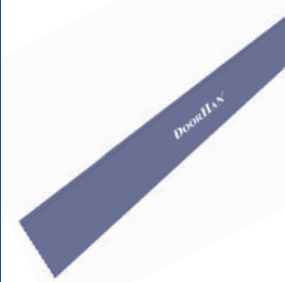


Fig. 7

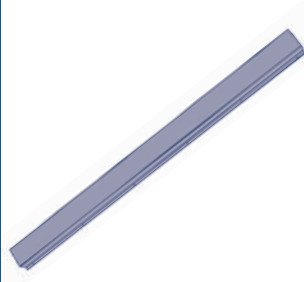
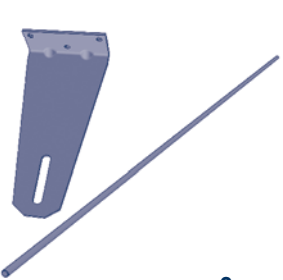


Fig. 8

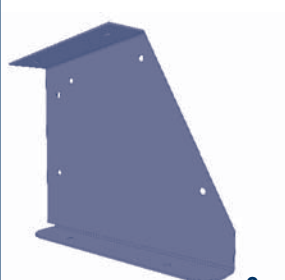


Fig. 9



2 pcs

Fig. 10



2 pcs

Fig. 11

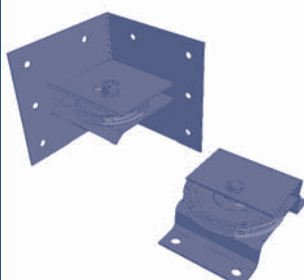


Fig. 12

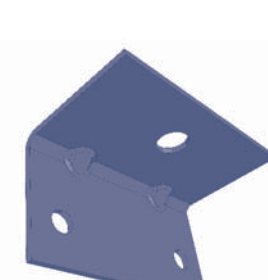


Fig. 13

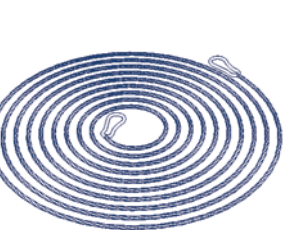


Fig. 14



A

6,3 × 38 mm

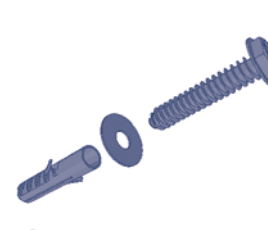
Fig. 15



B

6,3 × 25 mm

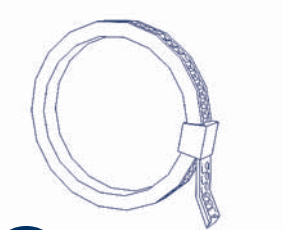
Fig. 16



C

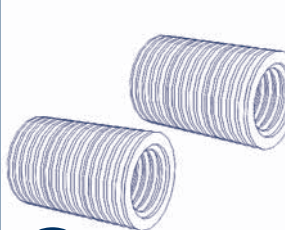
8 × 7 mm

Fig. 17



D

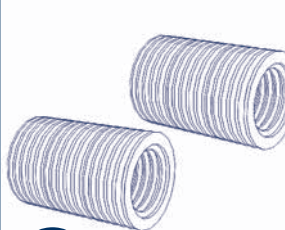
Fig. 18



E

L 250 mm
Ø 110 mm

Fig. 19



F

6,3 × 25 mm
Ø 6 mm

4.4. INSTALLATION

Fig. 1. Prepare side frames

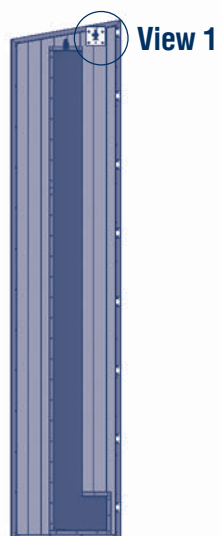


Fig. 1.1. View 1

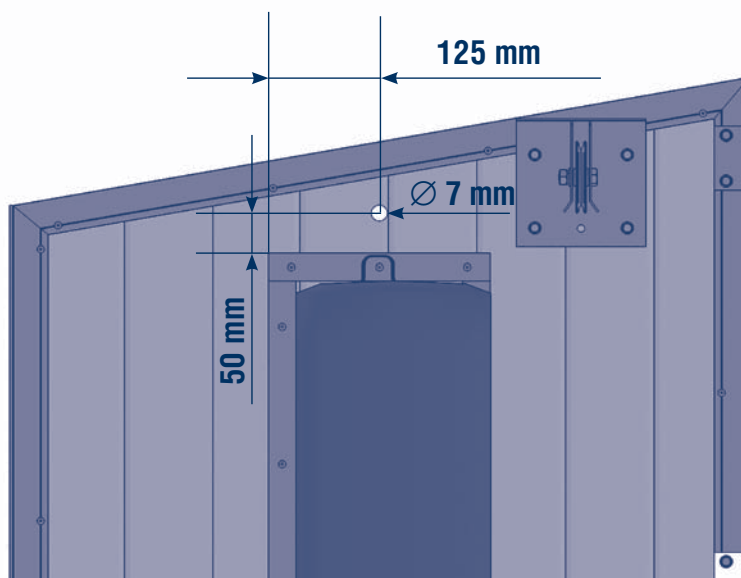


Fig. 1.2

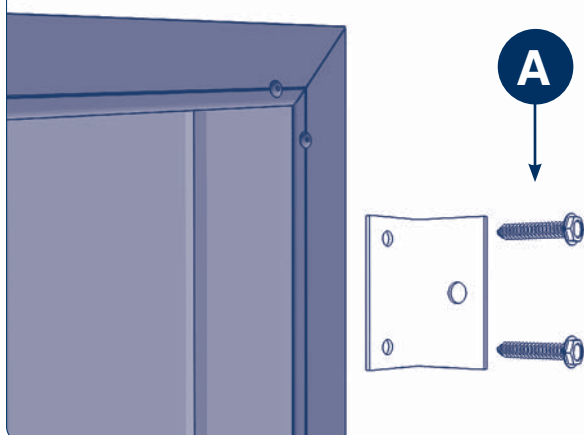


Fig. 1.3

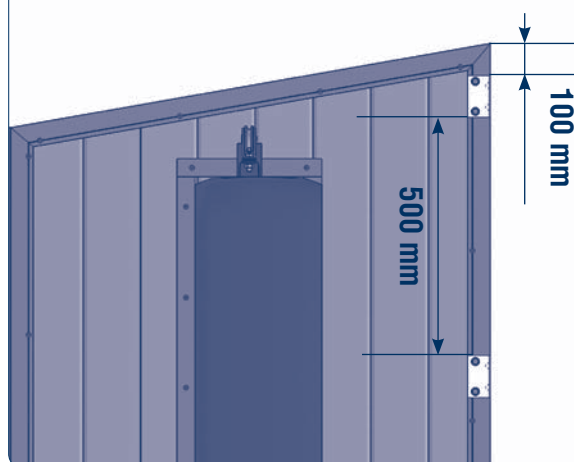


Fig. 2

View 2

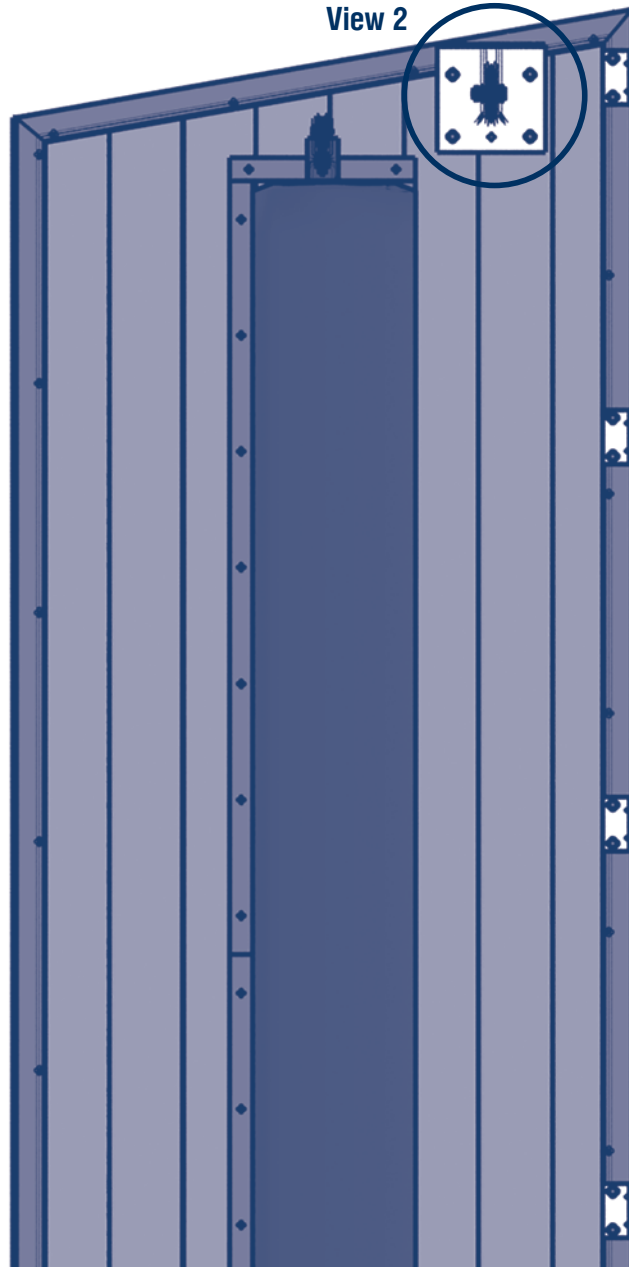


Fig. 2.1. View 2

105 mm

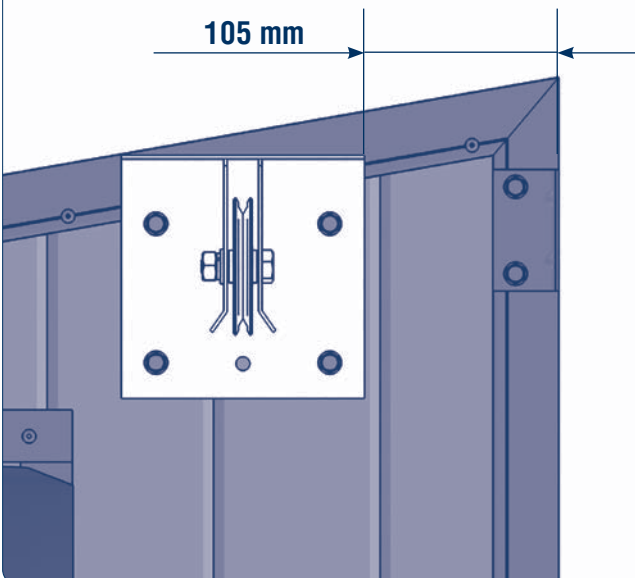


Fig. 2.2

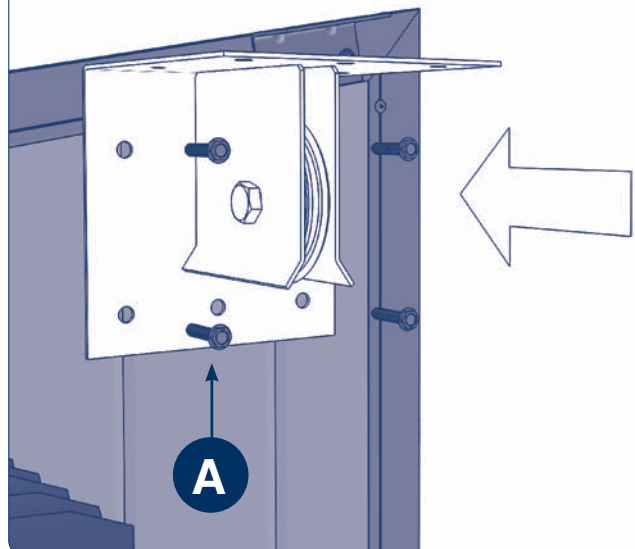


Fig. 3. Fasten side frames to building wall

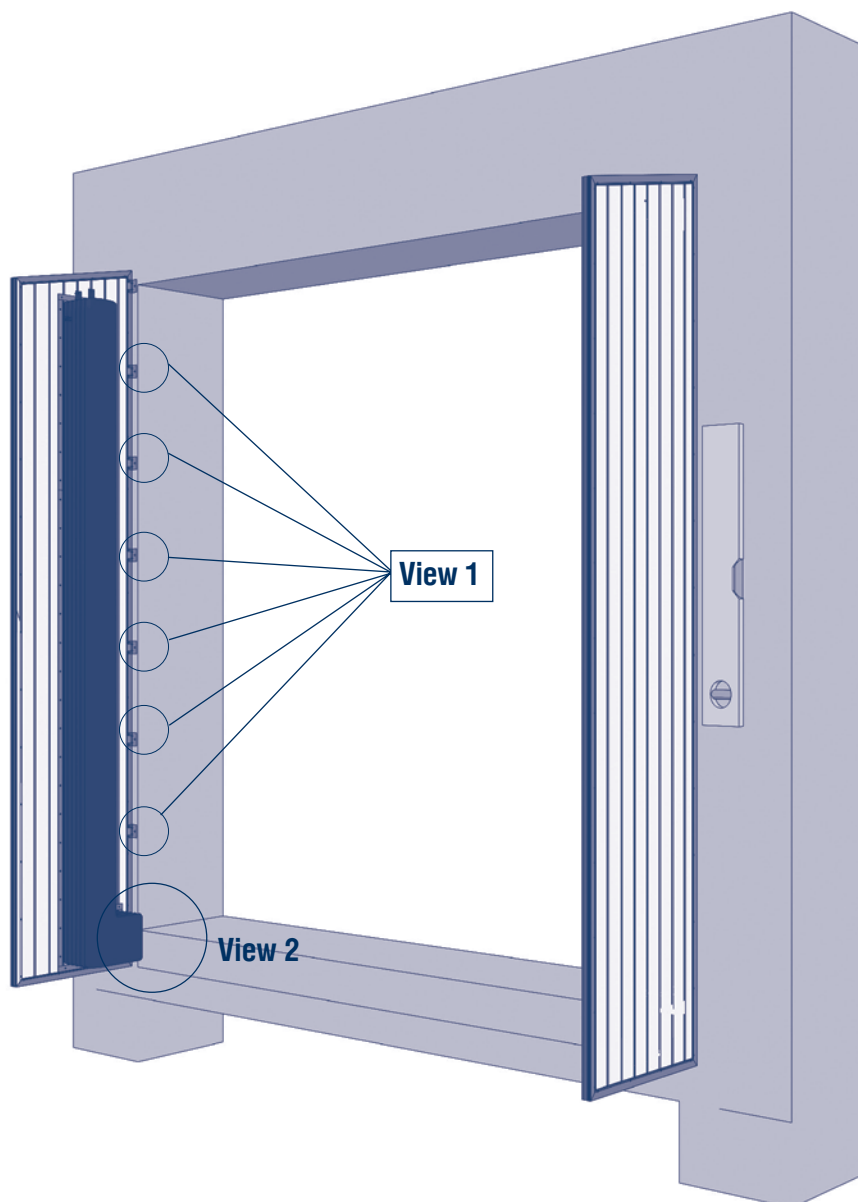


Fig. 3.1. View 1

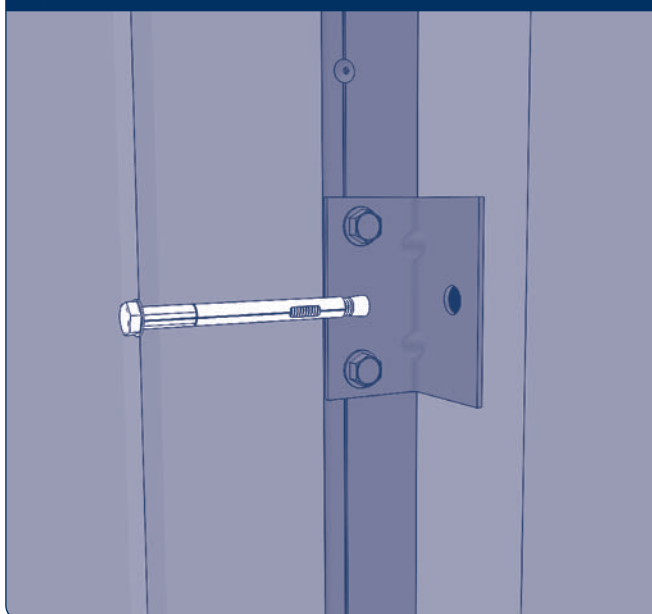


Fig. 3.2. View 2



Fig. 4

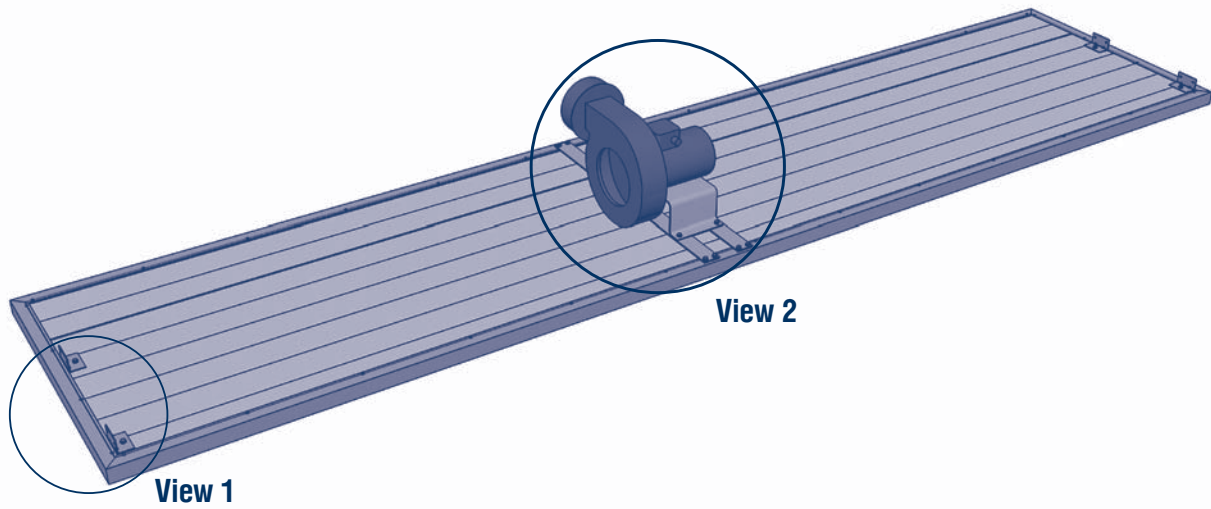


Fig. 4.1. View 1

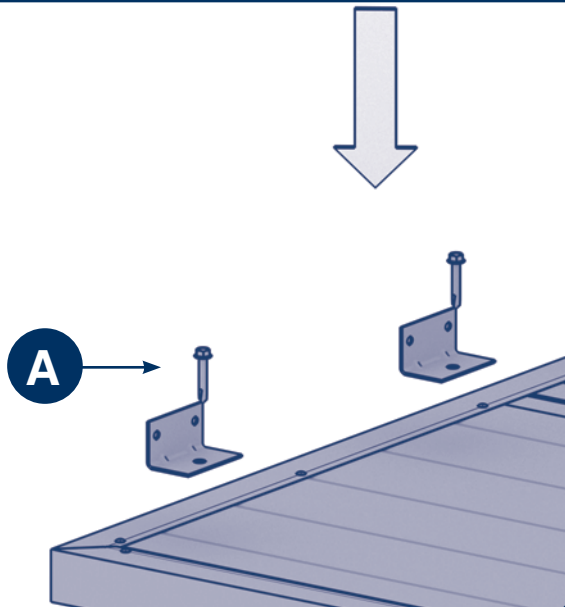


Fig. 4.2

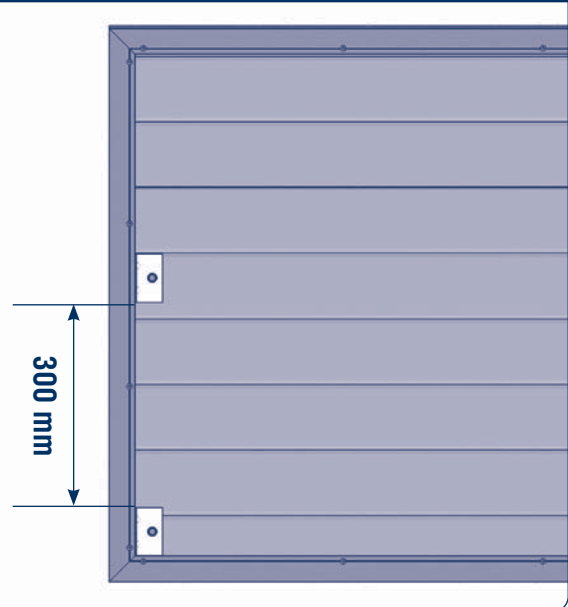


Fig. 4.3. View 2

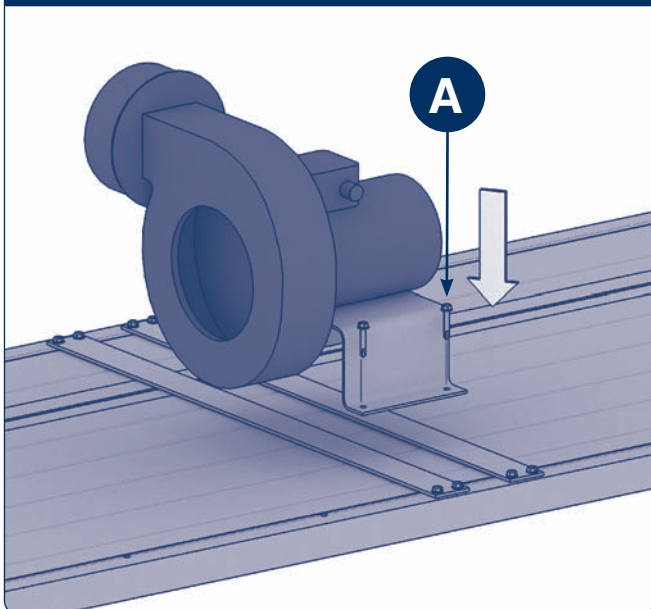


Fig. 4.4

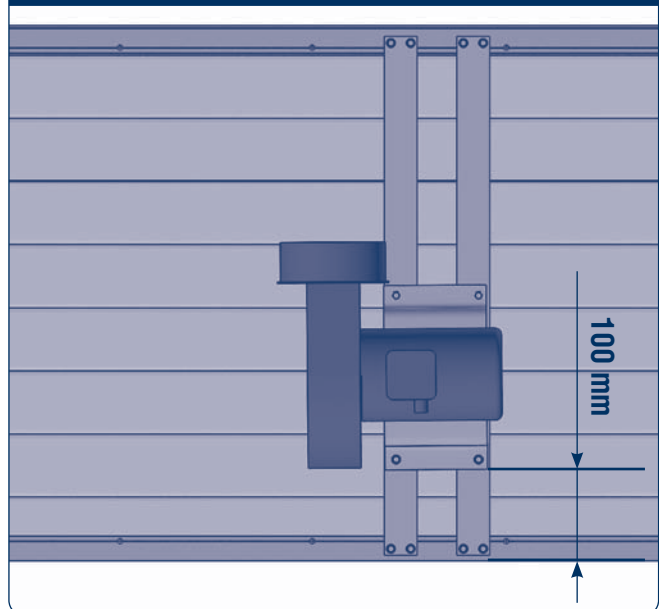


Fig. 5

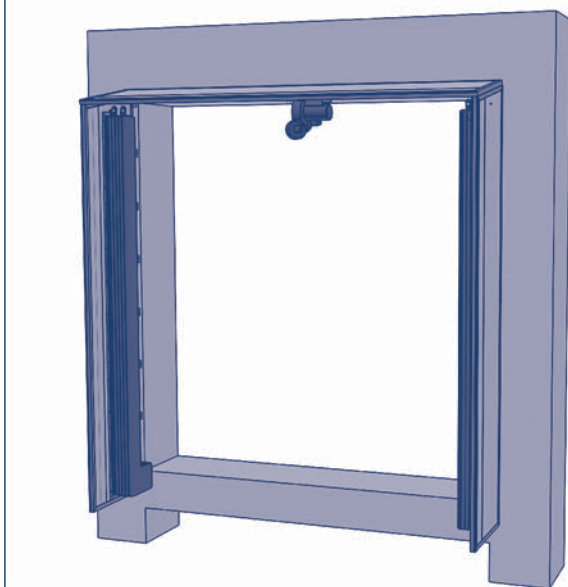


Fig. 5.1

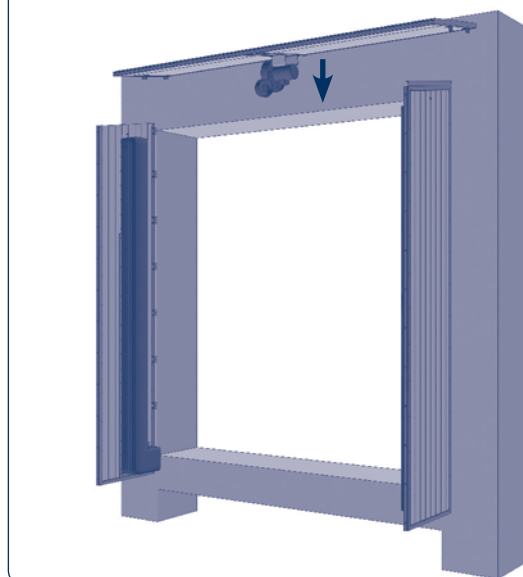


Fig. 5.2

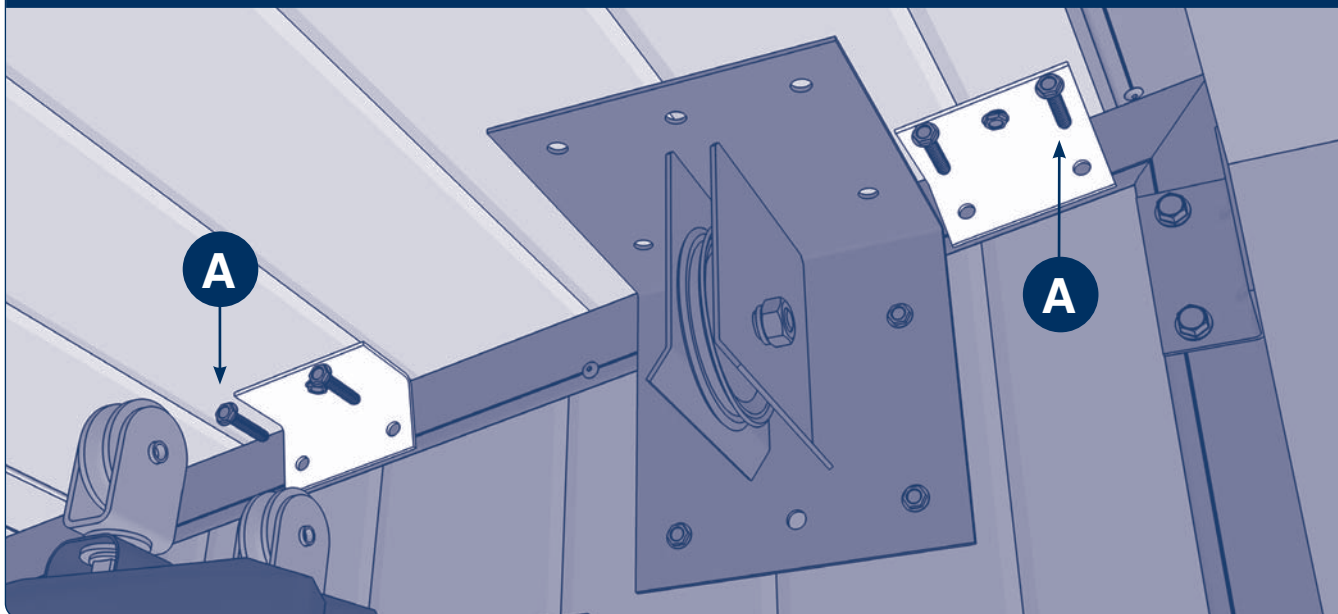


Fig. 5.3

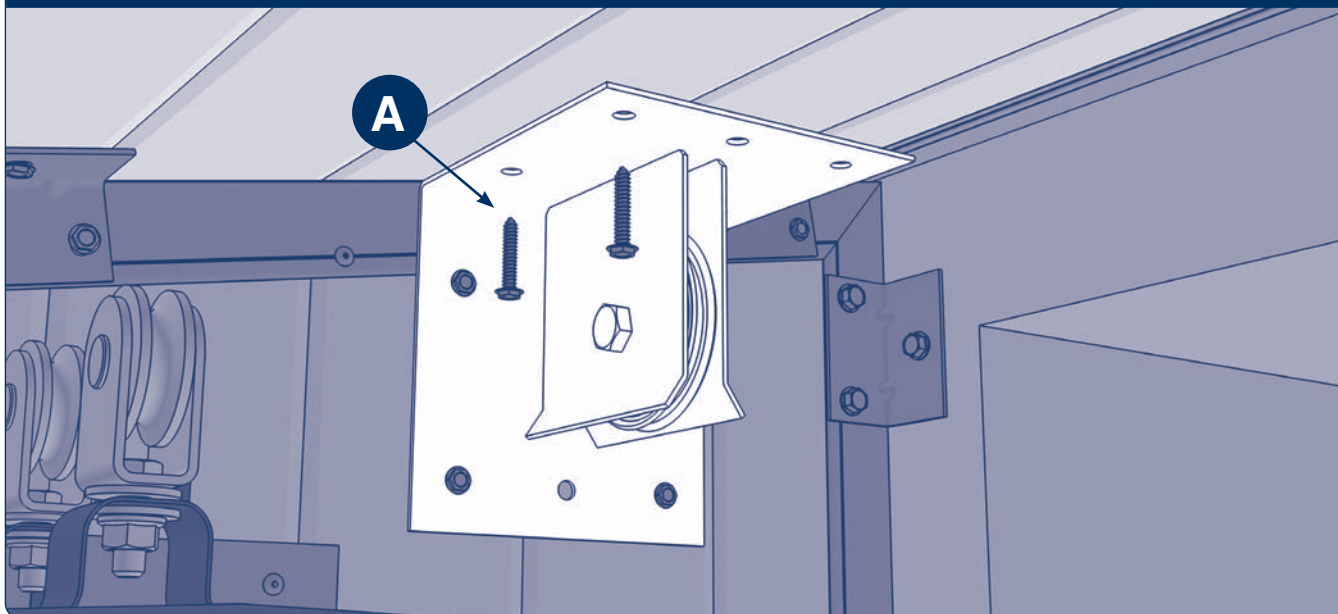


Fig. 6. Install top air bag

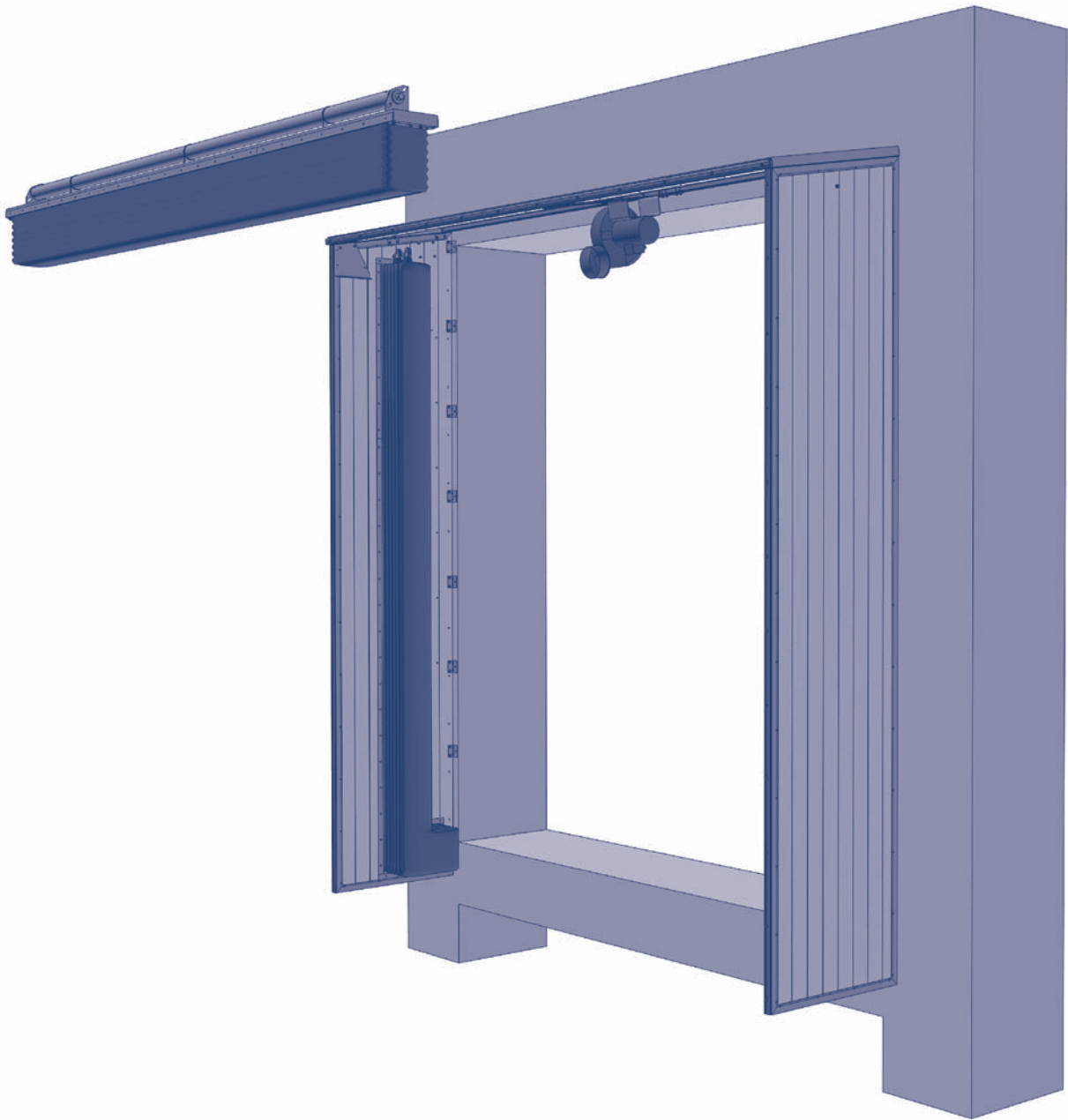


Fig. 6.1

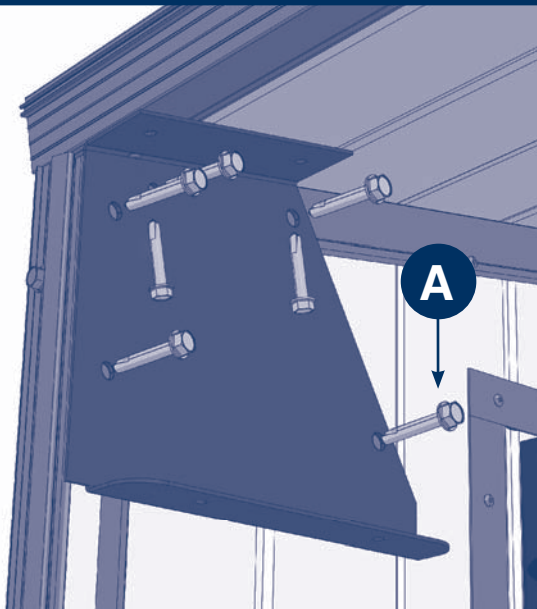


Fig. 6.2



Fig. 7. Install guide rod



Fig. 7.1

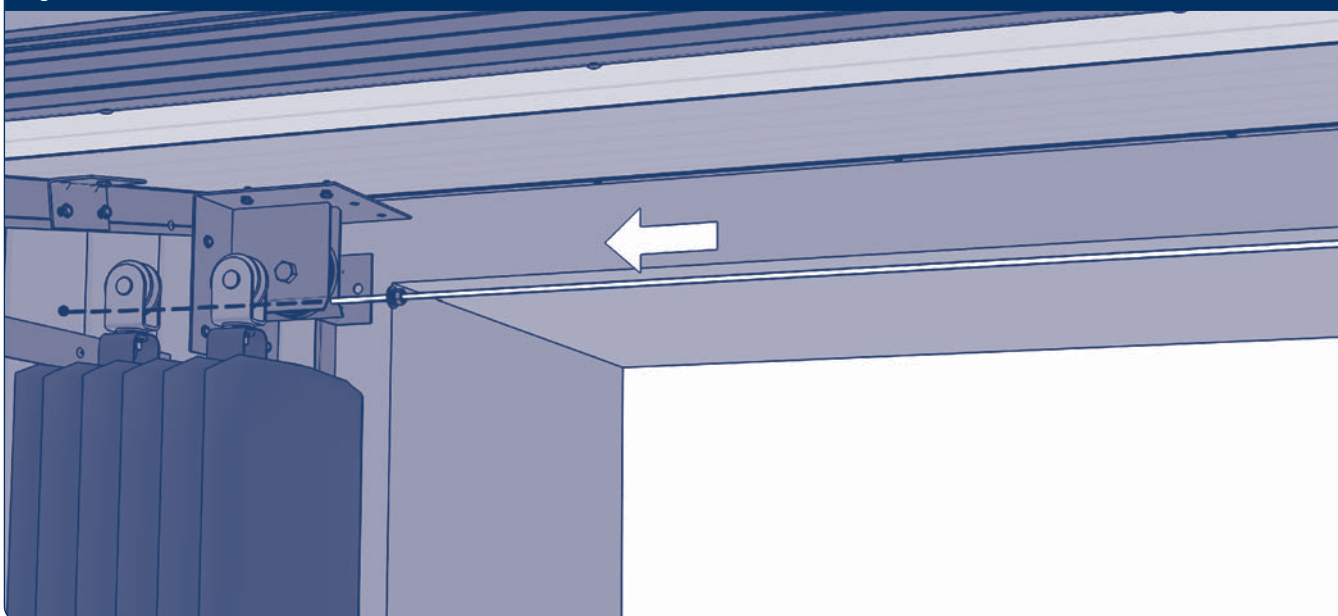


Fig. 7.2



Fig. 7.3

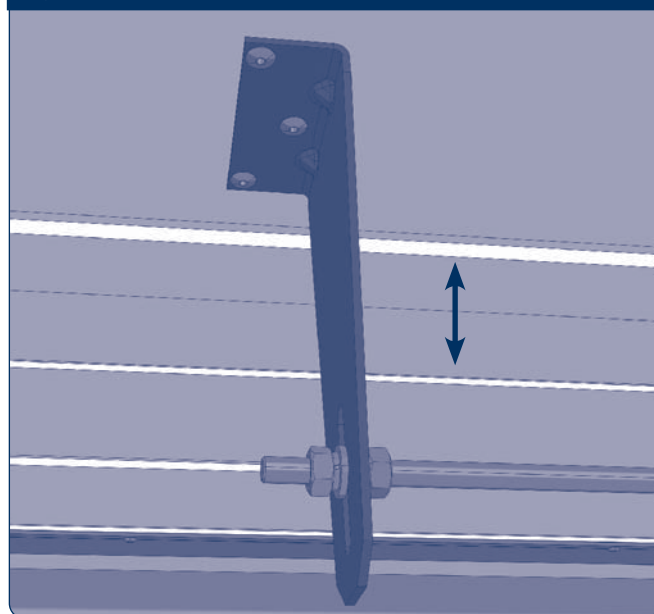


Fig. 8

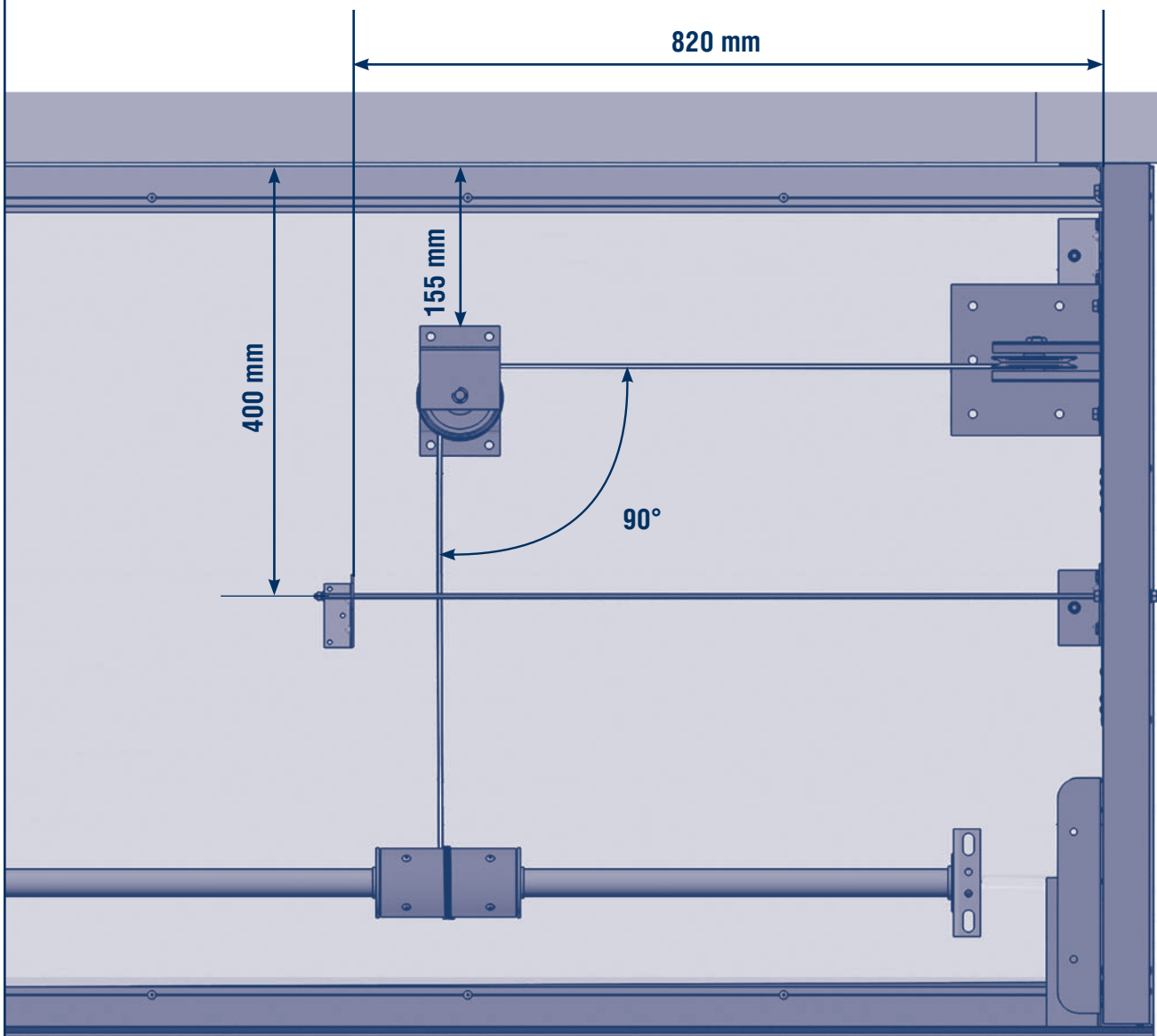


Fig. 9

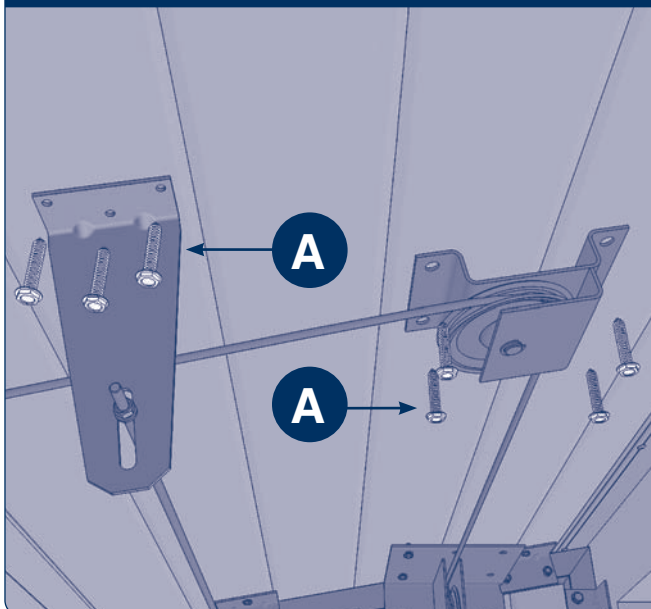


Fig. 10

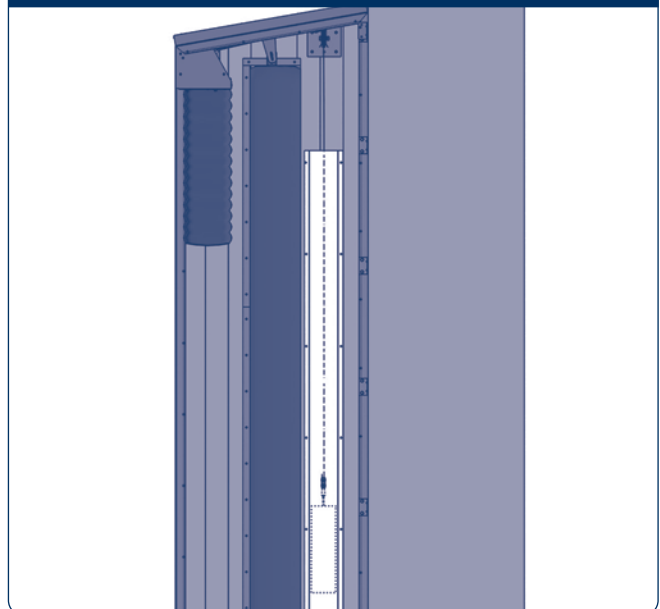


Fig. 11

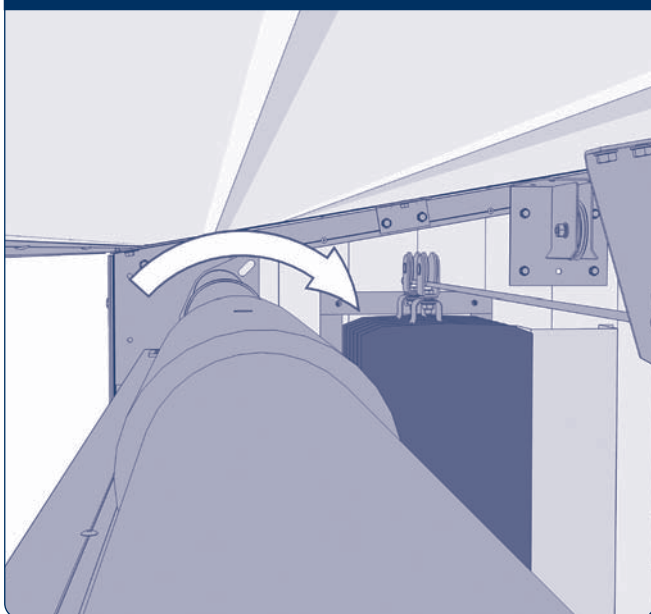
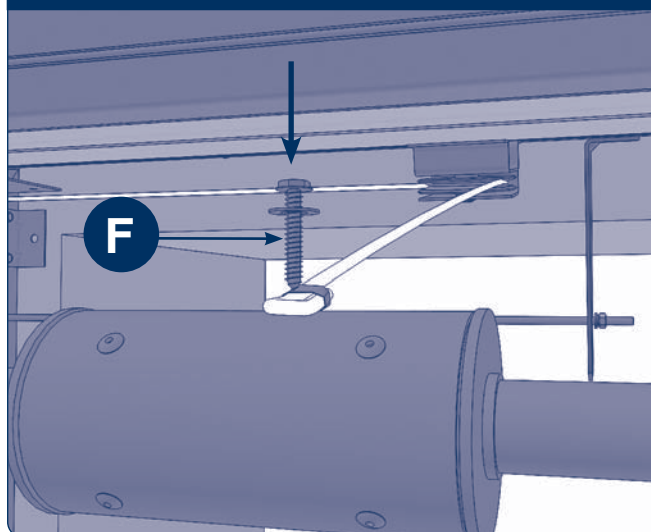


Fig. 12



Before attaching the counterweight cable to the shaft, turn the shaft until the top air bag rises all the way up.

Fig. 13. Install counterweight

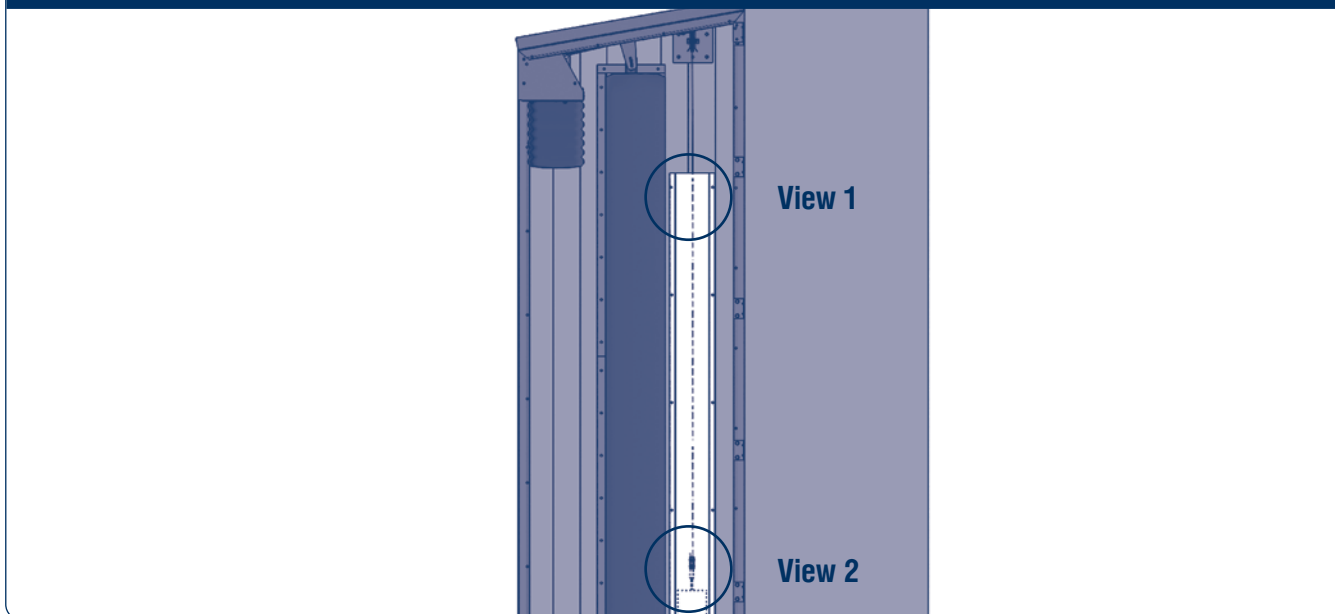


Fig. 13.1. View 1

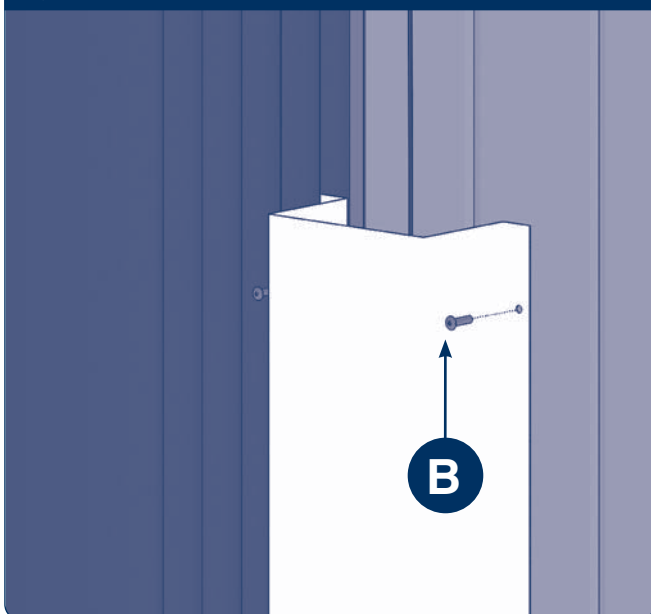


Fig. 13.2. View 2

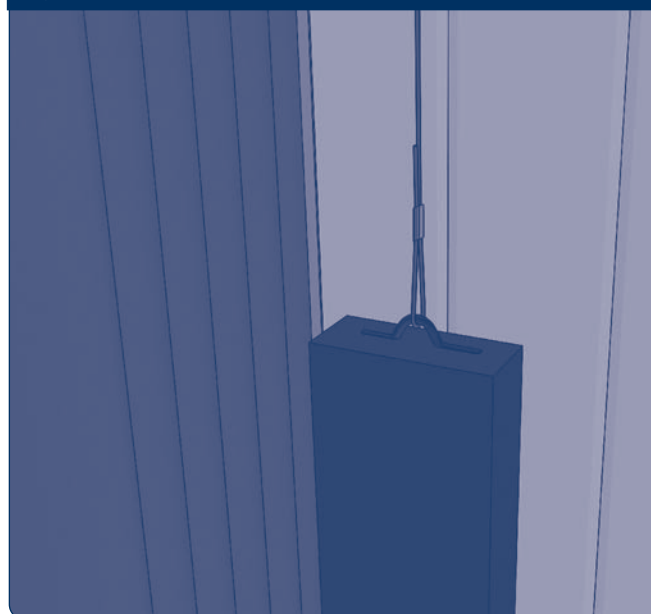


Fig. 14. Connect air transfer tubes

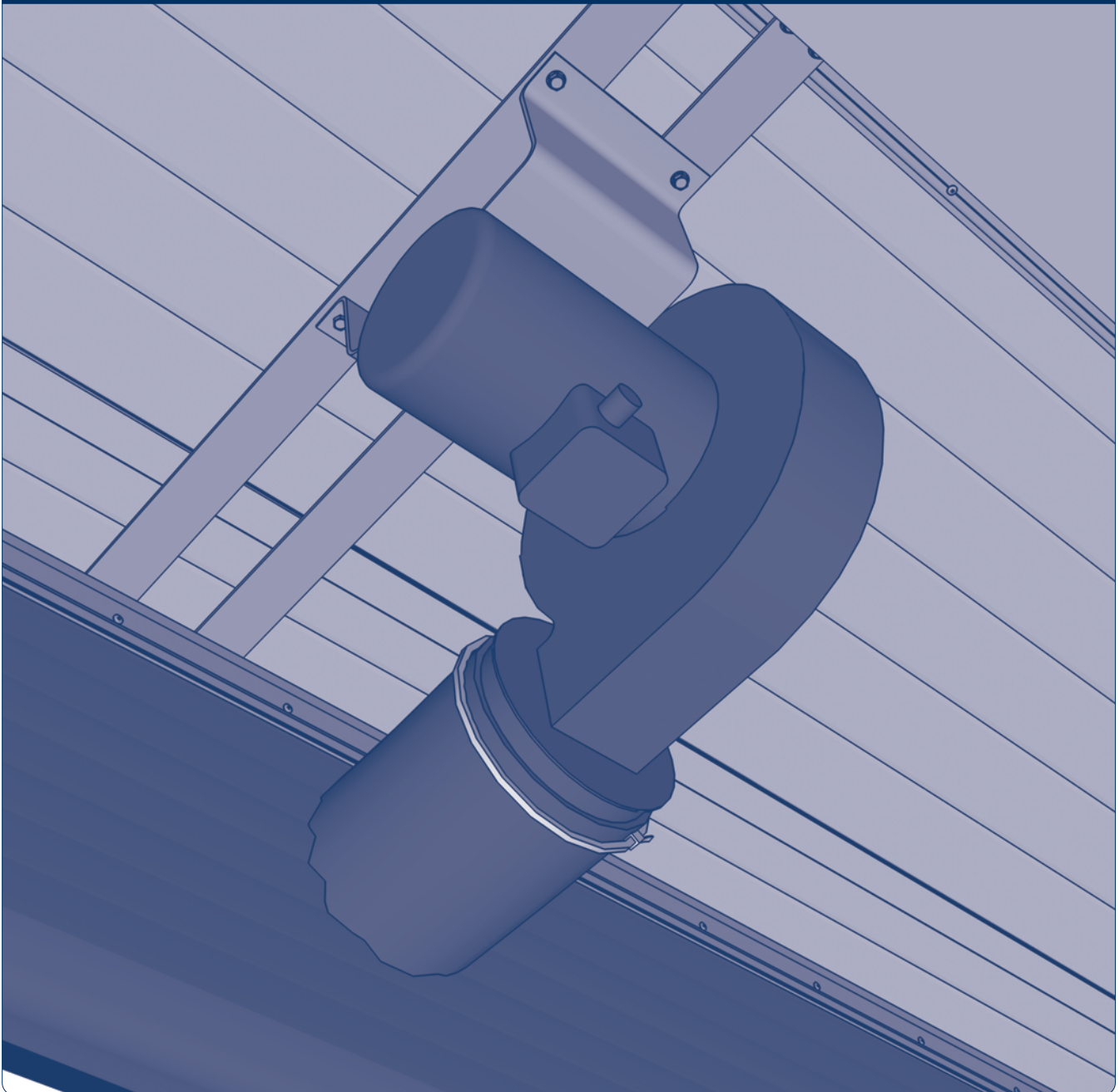


Fig. 14.1

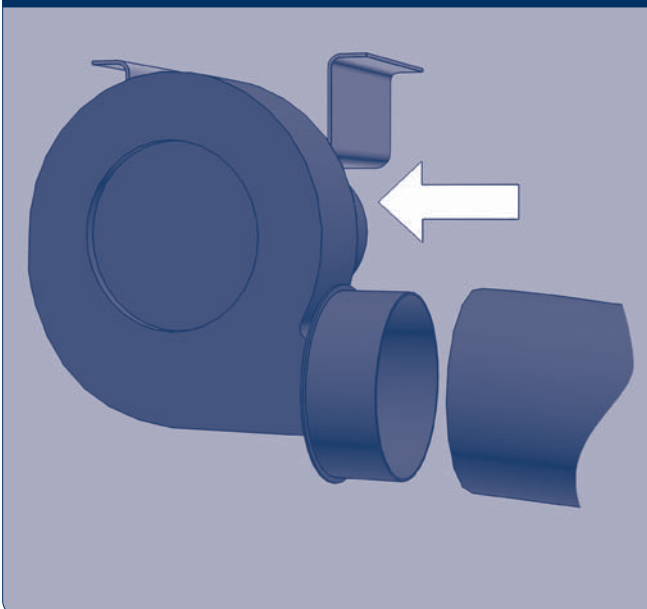


Fig. 14.2

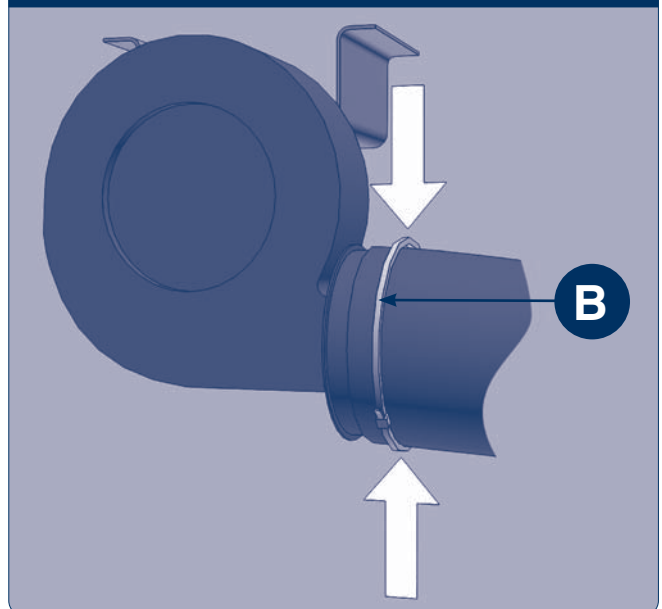


Fig. 15

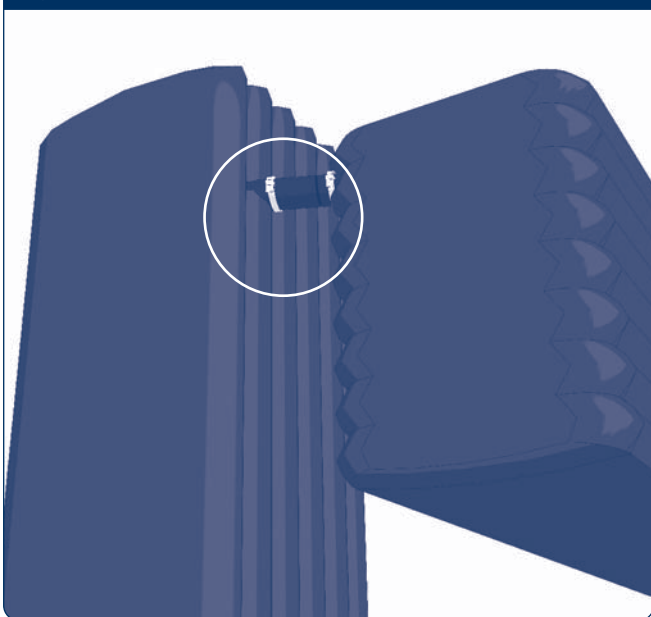


Fig. 15.1

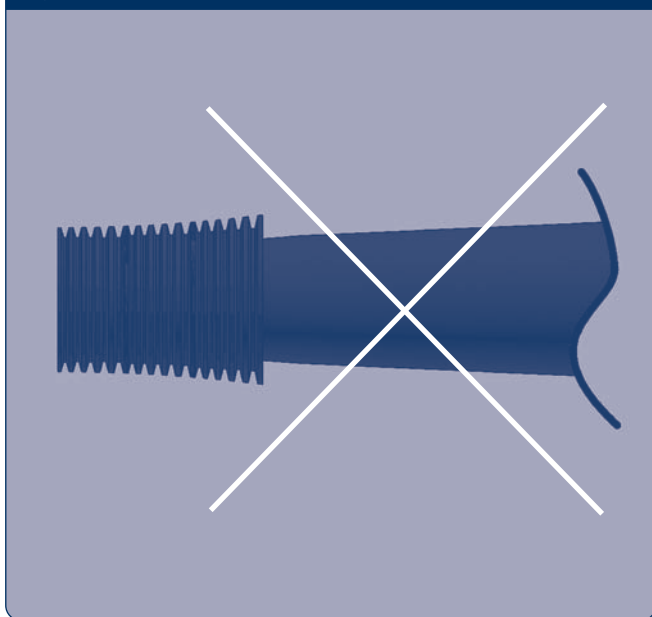


Fig. 15.2

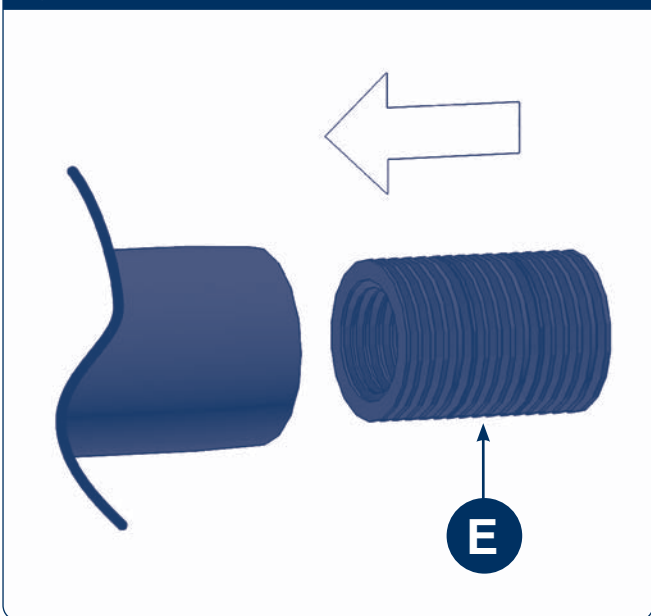


Fig. 15.3

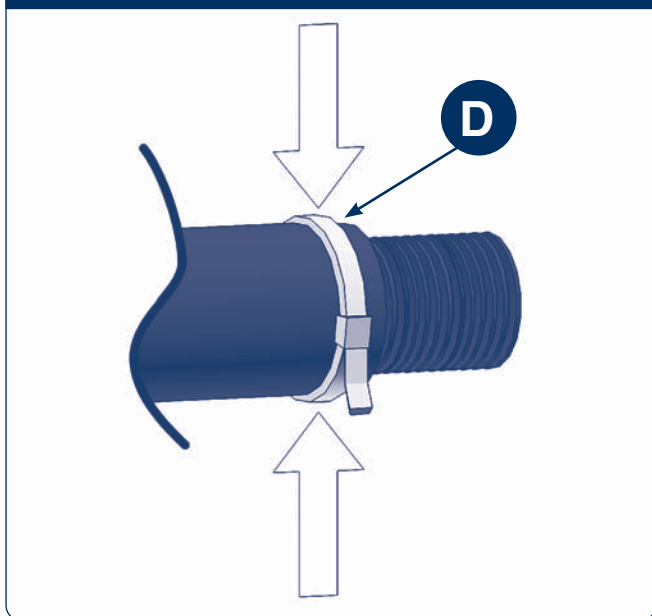


Fig. 15.4

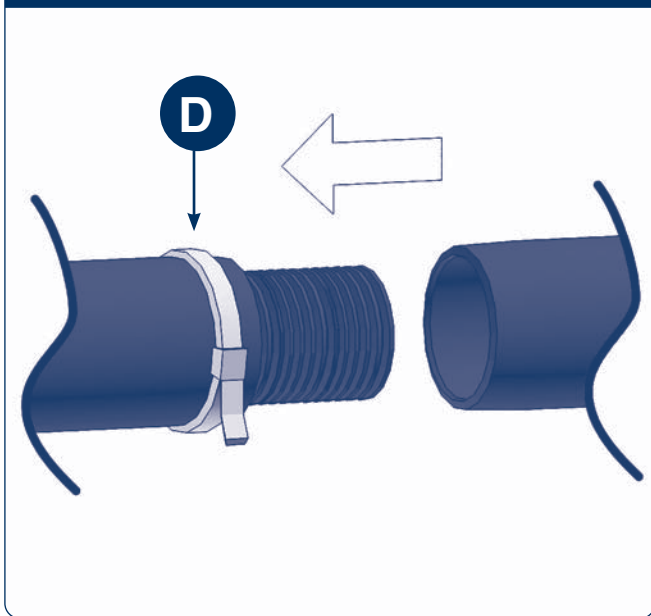


Fig. 15.5

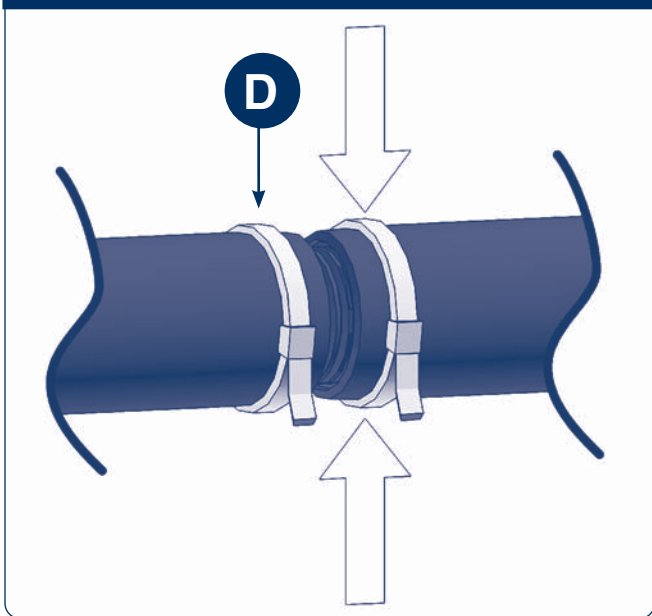


Fig. 16

B

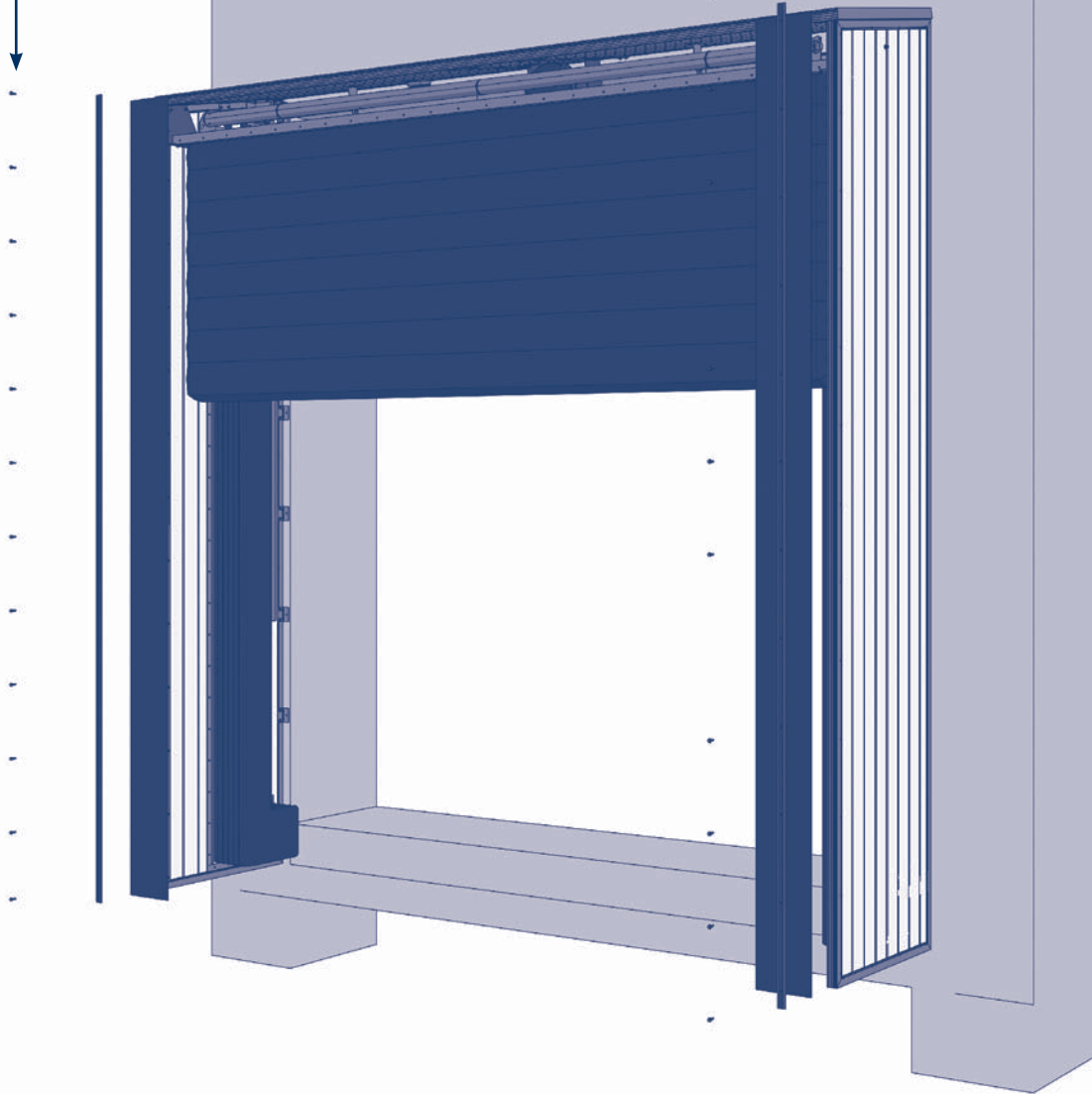


Fig. 16.1

B

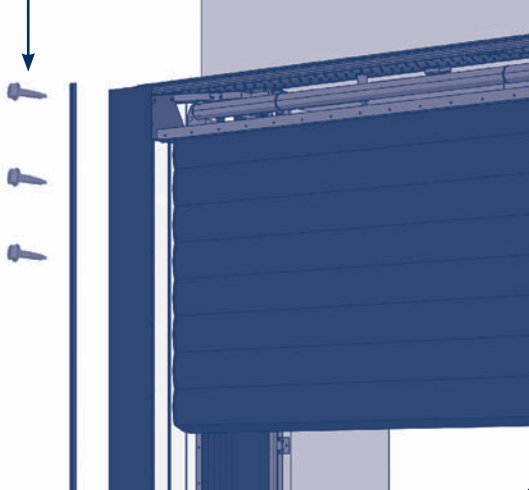


Fig. 16.2

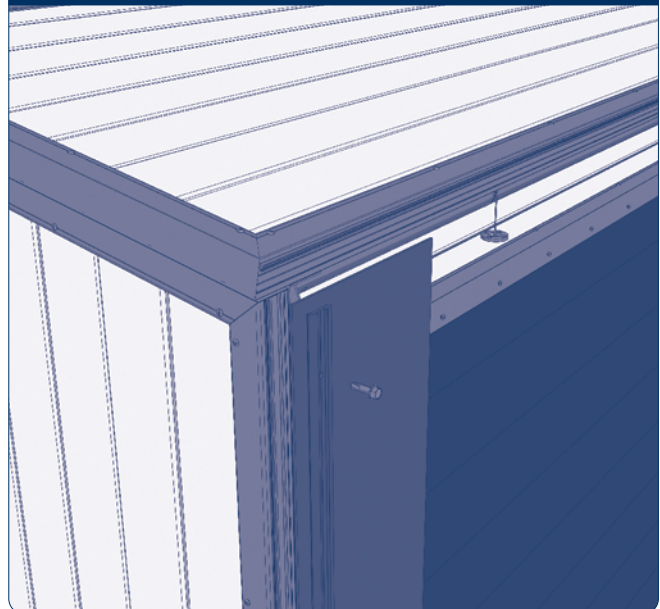


Fig. 17

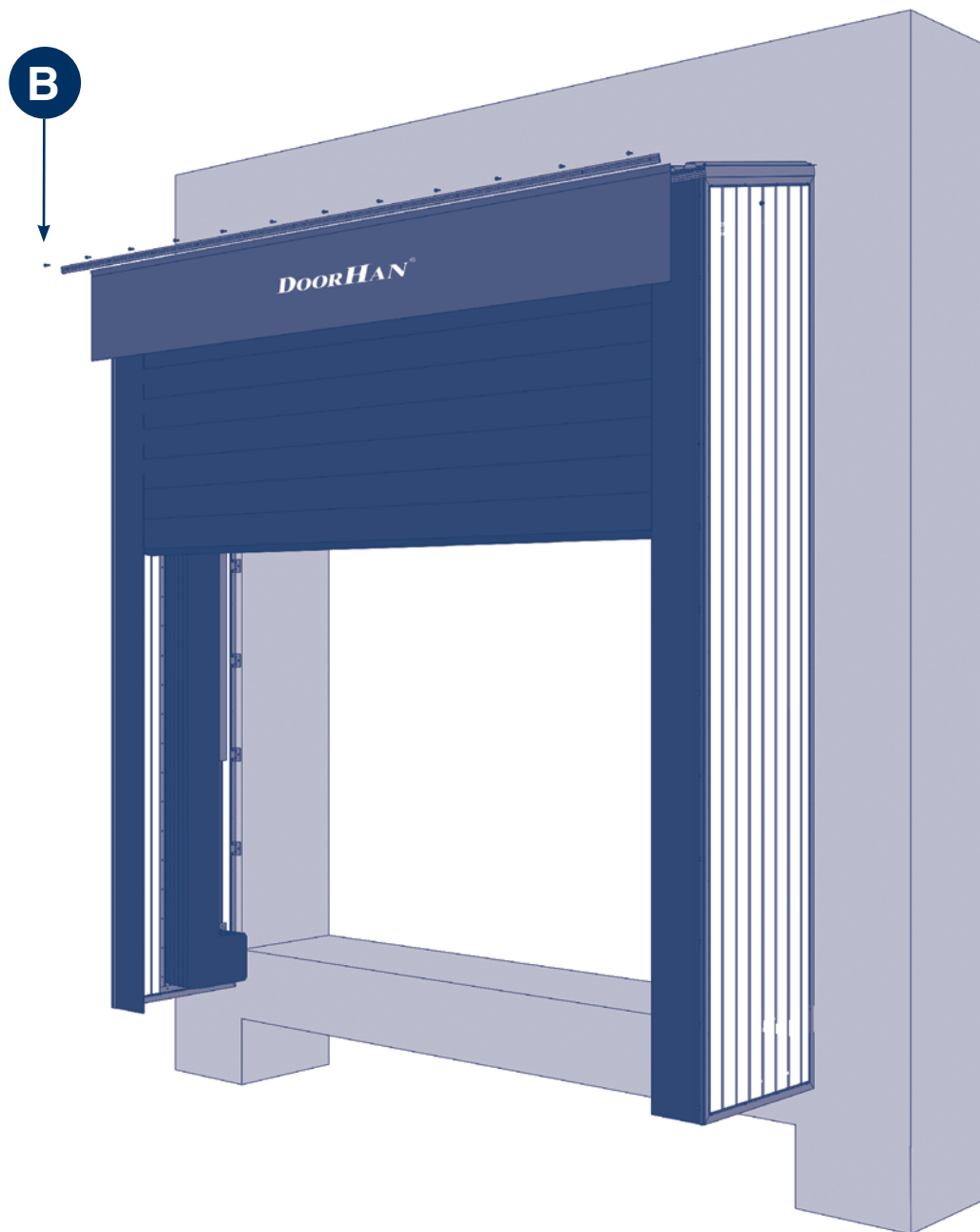


Fig. 17.1

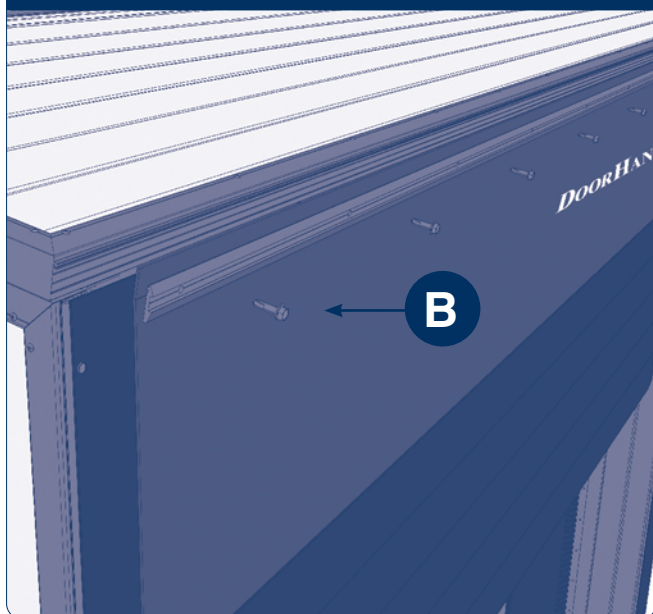


Fig. 17.2

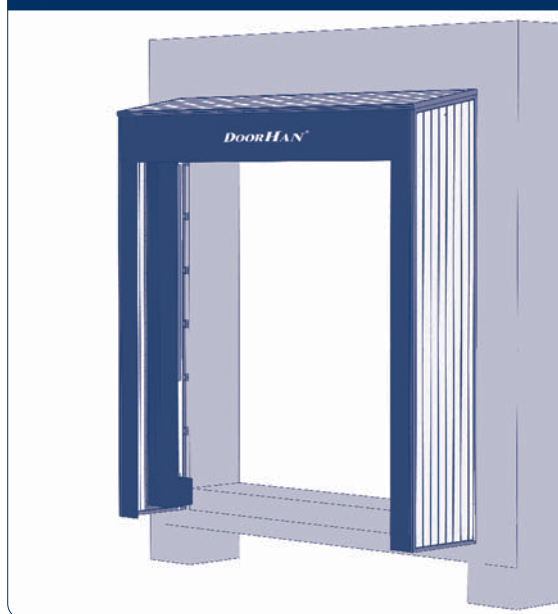


Fig. 18

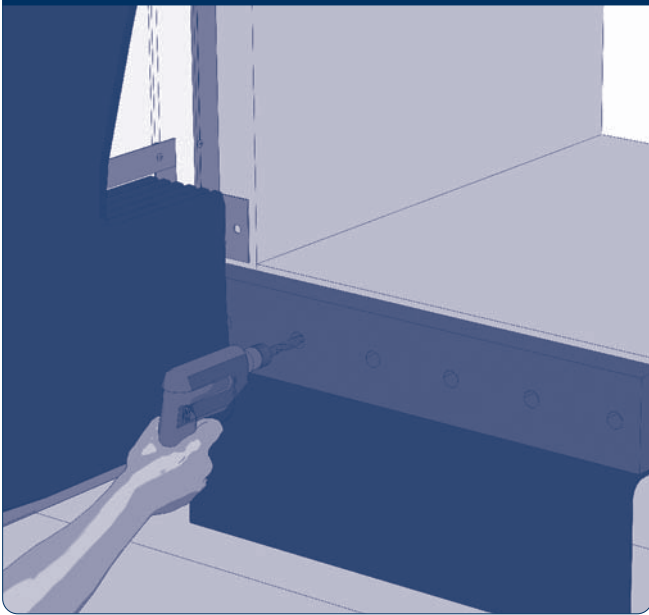


Fig. 19

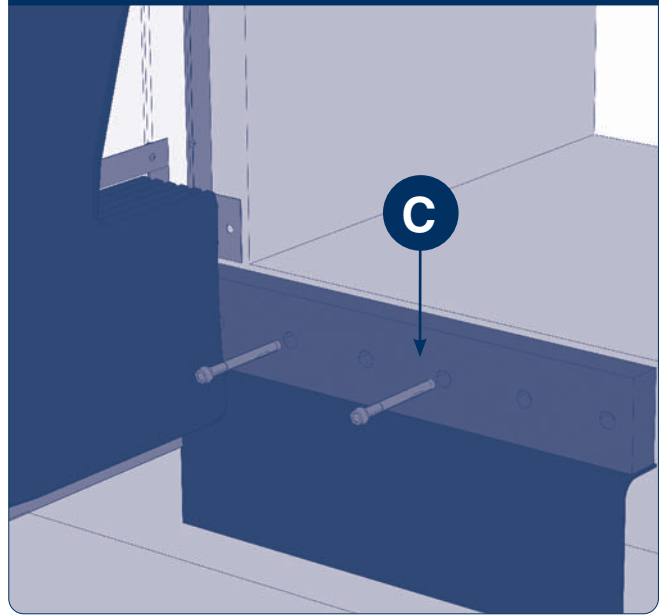


Fig. 20

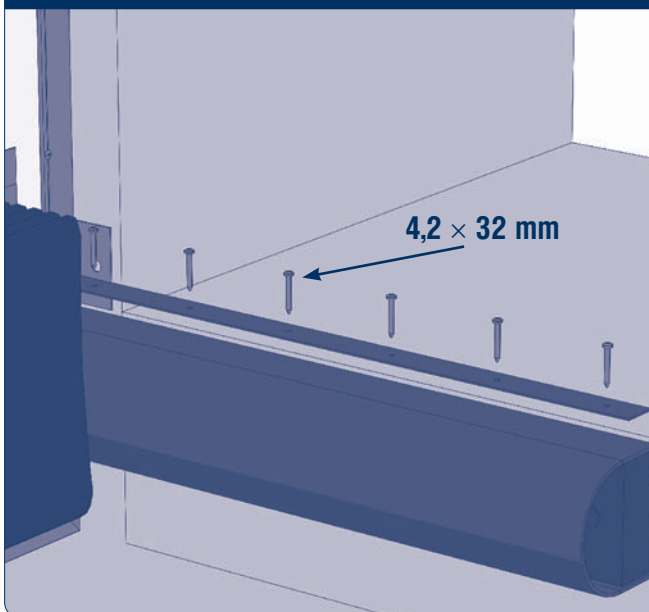


Fig. 21



5. OPERATION

Precautions:

- Only qualified personnel acquainted with the design and construction of the shelter should handle it.
- Prior to operation carefully inspect the dock shelter. Never use it in case any damage is found.

Principle of operation:

- Trailers back into the shelter during loading/unloading operations while top and side air bags create a tight seal against the truck top and rear body.

⚠ WARNING!

To prevent dock shelter damage truck size should correspond to shelter type and dimensions.

1. Position the trailer in the middle of the dock shelter.
2. Back the trailer slowly till it contacts with dock bumpers.
3. Make sure the truck is stationary, the handbrake is put on, the wheels are choked.
4. Inflate dock shelter:
 - switch the blower on by pressing a push-button on the control unit;
 - if the blower motor is operated with the dock leveler control unit then press a corresponding dock shelter button on the unit;
 - after the blower is operated, top and side air bags are inflated.
5. Deflate dock shelter.
 - switch the blower off by pressing a push-button on the control unit;
 - if the blower motor is operated with the dock leveler control unit then press a corresponding dock shelter button on the unit;
 - wait the air bags to deflate, retract, and store behind storage curtains;
 - the trailer may depart now.

⚠ WARNING!

The blower should be on during whole loading/unloading cycle!

The trailer should exit the loading dock only after air bags are completely deflated and stored!

APPENDIX. DRAWINGS

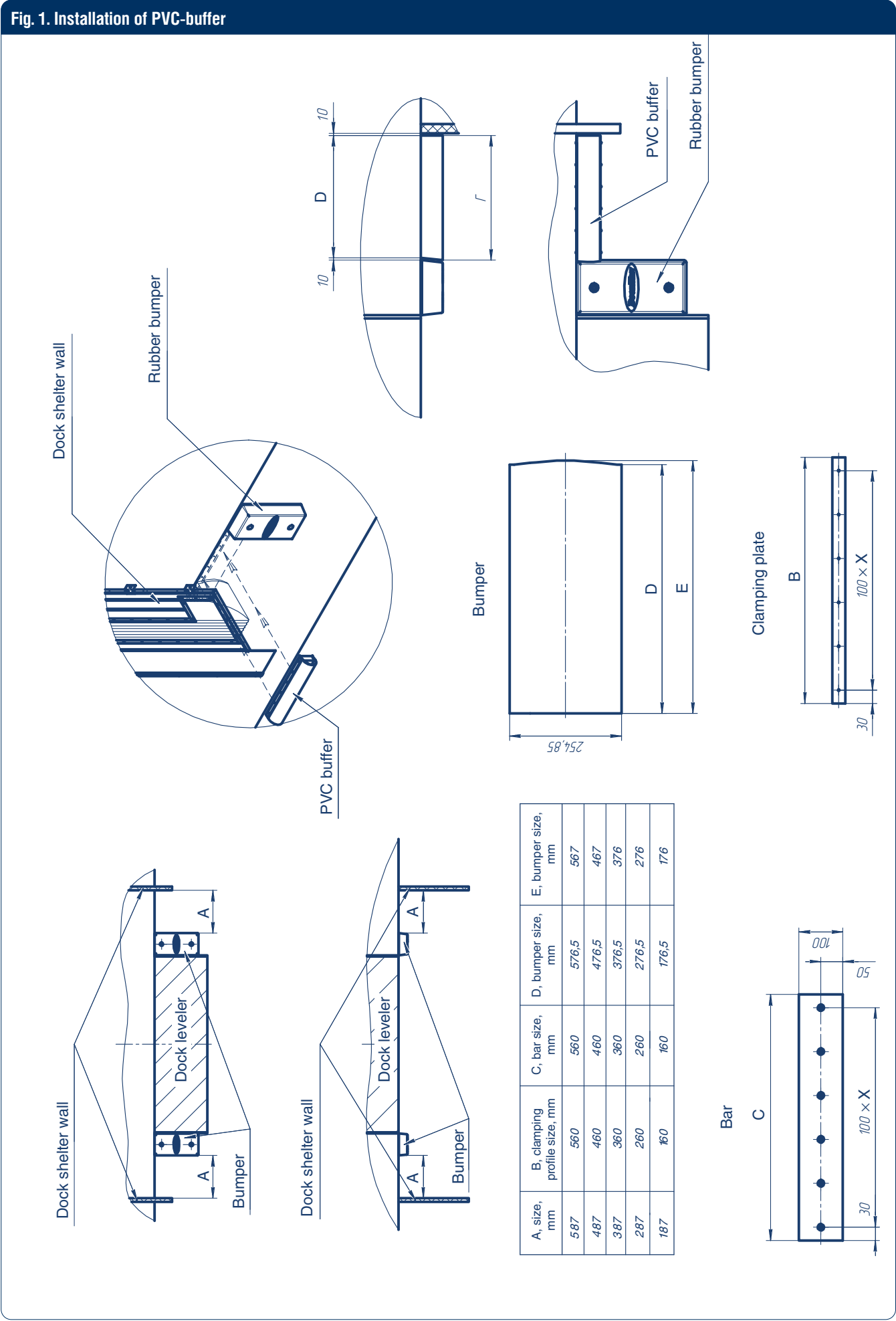


Fig. 2. Inflatable dock shelter exploded view

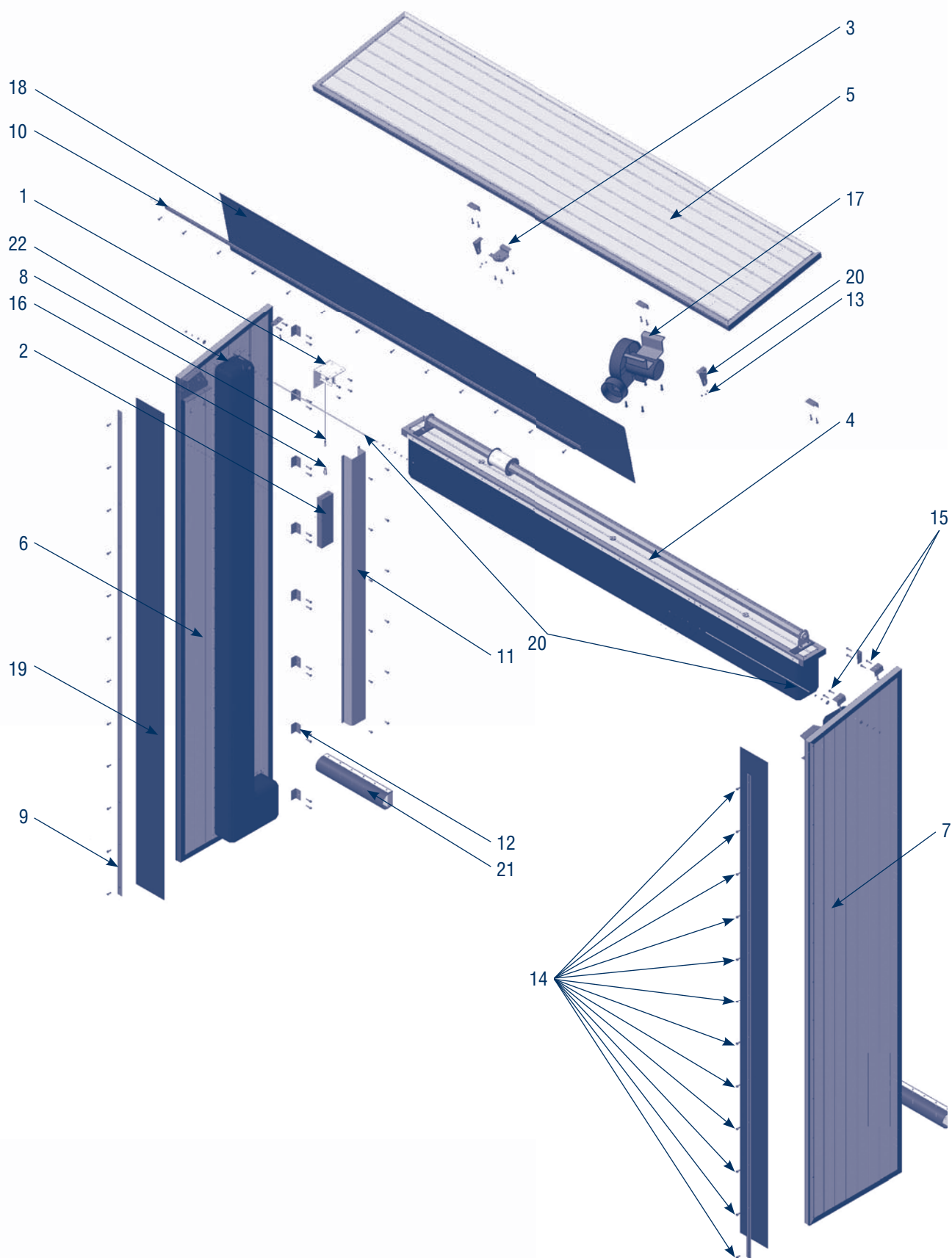


Table 1 to Fig. 2. Spare parts to inflatable dock shelter DSHINF 3,3×3,4

Part number		Description
DSHINF 3,3×3,4		Inflatable dock shelter H = 3 300 mm, B = 3 400 mm
1	DSI02.52	Angle unit
2	DSI04.6	Shelter counterbalance 850 × 100 × 20 mm
3	DSI02.53	Axial unit
4	DSI04.4	Upper dock shelter beam 3300x1200mm (extension 900mm)
5	DSI04.3	Shelter roof assembly 3 410 × 800 mm
6	DSI04.1	Left frame assembly 3 260 × 800 mm
7	DSI04.2	Right frame assembly 3 260 × 800 mm
8	DSI06.5	Top air bag counterbalance cable 2 mm, L = 2 920 mm
9	DKHA20040-3120	Clamping profile L = 3 120 mm (2 pcs)
10	DKHA20040-3410	Clamping profile L = 3 410 mm
11	DSI02.101	Counterbalance cover 2 000 mm
12	DSI02.1101	Mounting angle
13	168	Rivet 4,0 × 12
14	14019	Self-tapping screw ISO 15480 — ST 6,3 × 25
15	9502	Self-tapping screw ISO 15480 — ST 6,3 × 38
16	25101	Bushing
17	DHL-C-fun01	Centrifugal fan 0,55 kW 380 V
	DHL-C-fun02	Centrifugal fan 0,55 kW 220 V
	DHL-C-fun03	Centrifugal fan 0,55 kW 415 V
18	SHVX001-1	PVC fabric 2LDE (3 410 × 488) without logo
	P22-39/OY-R3510	PVC fabric 2LDE (3 410 × 488) with logo
19	SHVX001-2	PVC fabric 2LDE (3 120 × 238)
20	DSI06-01	Set of guide rods for left/right side air bags
21	DSI06.6	PVC buffer
22	DSHINF4144	Dock shelter supporting unit
23	PM-DHL-C-fun02	Magnetic starter 220-240V 50/60 Hz 3,6 A
	PM 12-010220	Magnetic starter 380V - 415V 50/60Hz 1,5 A

Table 2 to Fig. 2. Spare parts to inflatable dock shelter DSHINF 3,8×3,6

Part number		Description
DSHINF 3,8 × 3,6		Inflatable dock shelter H = 3 800 mm, B = 3 600 mm
1	DSI02.52	Angle unit
2	DSI02.6	Shelter counterbalance 362 × 100 × 40 mm
3	DSI02.53	Axial unit
4	DSI02.4	Upper dock shelter beam 3500x1200mm (extension 900mm)
5	DSI02.3	Shelter roof assembly 3610 × 800 mm
6	DSI02.1	Left frame assembly 3 780 × 800 mm
7	DSI02.2	Right frame assembly 3 780 × 800 mm
8	DSI06.5	Top air bag counterbalance cable 2 mm, L = 2 920 mm
9	DKHA20040-3648	Clamping profile L = 3 648 mm (2 pcs)
10	DKHA20040-3610	Top clamping profile L = 3 610 mm
11	DSI02.101	Counterbalance cover 2 000 mm
12	DSI02.1101	Mounting angle
13	168	Rivet 4,0 × 12
14	14019	Self-tapping screw ISO 15480 — ST 6,3 × 25
15	9502	Self-tapping screw ISO 15480 — ST 6,3 × 38
16	25101	Bushing
17	DHL-C-fun01	Centrifugal fan 0,55 kW 380 V
	DHL-C-fun02	Centrifugal fan 0,55 kW 220 V
	DHL-C-fun03	Centrifugal fan 0,55 kW 415 V
18	SHVX001-1	PVC fabric 2LDE (3510 × 488) without the logo
	P22-39/OY-R3510	PVC fabric 2LDE (3510 × 488) with the logo
19	SHVX001-2	PVC fabric 2LDE (3650 × 238)
20	DSI06-01	Set of guide rods for left/right side air bags
21	DSI06.6	PVC buffer
22	DSHINF4144	Dock shelter supporting unit
23	PM-DHL-C-fun02	Magnetic starter 220-240V 50/60 Hz 3,6 A
	PM 12-010220	Magnetic starter 380V - 415V 50/60Hz 1,5 A

Table 3 to Fig. 2. Spare parts to inflatable dock shelter DSHINF 4,9×3,6

Part number		Description
DSHINF 4,9 × 3,6		Inflatable dock shelter H = 4 900 mm, B = 3 600 mm
1	DSI02.52	Angle unit
2	DSI02.6	Shelter counterbalance 362 × 100 × 40 mm
3	DSI02.53	Axial unit
4	DSI02.4	Upper dock shelter beam 3500x1200mm (extension 900mm)
5	DSI02.3	Shelter roof assembly 3 610 × 800 mm
6	DSI03.1	Left frame assembly 4 870 × 800 mm
7	DSI03.2	Right frame assembly 4 870 × 800 mm
8	DSI06.5	Top air bag counterbalance cable 2 mm, L = 2 920 mm
9	DKHA20040-4730	Clamping profile L = 4 730 mm (2 pcs)
10	DKHA20040-3610	Top clamping profile L = 3 610 mm
11	DSI02.101	Counterbalance cover 2 000 mm
12	DSI02.1101	Mounting angle
13	168	Rivet 4,0 × 12
14	14019	Self-tapping screw ISO 15480 — ST 6,3 × 25
15	9502	Self-tapping screw ISO 15480 —ST 6,3 × 38
16	25101	Bushing
17	DHL-C-fun01	Centrifugal fan 0,55 kW 380 V
	DHL-C-fun02	Centrifugal fan 0,55 kW 220 V
	DHL-C-fun03	Centrifugal fan 0,55 kW 415 V
18	SHVX001-1	PVC fabric 2LDE (3 610 × 488) without the logo
	P22-39/OY-R3510	PVC fabric 2LDE (3 610 × 488) with the logo
19	SHVX001-2	PVC fabric 2LDE (4 730 × 238)
20	DSI06-01	Set of guide rods for left/right side air bags
21	DSI06.6	PVC buffer
22	DSHINF4144	Dock shelter supporting unit
23	PM-DHL-C-fun02	Magnetic starter 220-240V 50/60 Hz 3,6 A
	PM 12-010220	Magnetic starter 380V - 415V 50/60Hz 1,5 A

Fig. 3. Dock shelter side frame

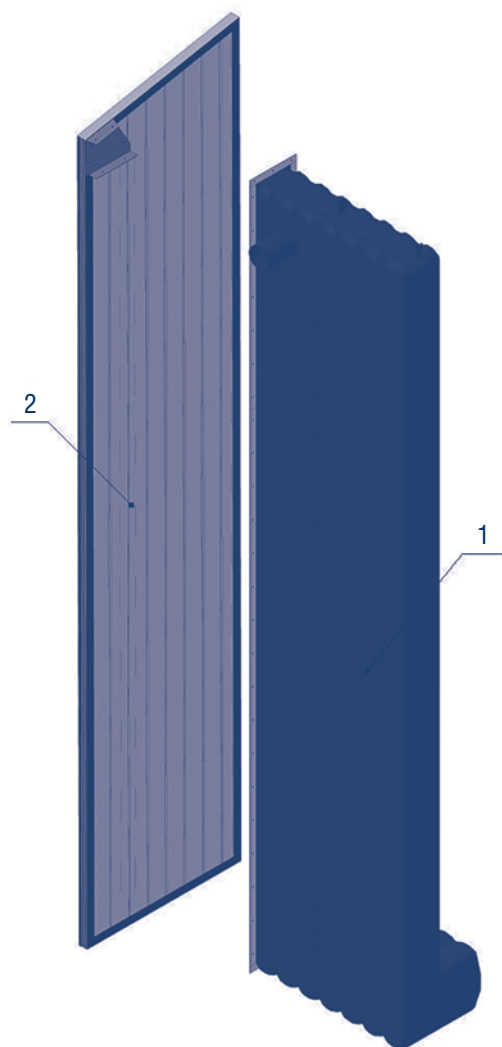


Table 1 to Fig. 3. Left side frame

Part number		Description	Qty
DSI04.1		Left frame assembly 3 260 × 800 mm	
1	DSI05.32	Left side air bag 2 980 × 800 mm	1
2	DSI04.11	Left shelter wall assembly 3 260 × 800 mm	1
DSI02.1		Left frame assembly 3 780 × 800 mm	
1	DSI06.32	Left side air bag 3 500 × 800 mm left	1
2	DSI02.11	Left shelter wall assembly 3 780 × 800 mm	1
DSI03.1		Left frame assembly 4 870 × 800 mm	
1	DSI07.32	Left side air bag 4 600 × 800 mm left	1
2	DSI03.11	Left shelter wall assembly 4 870 × 800 mm	1

Table 2 to Fig. 3. Right side frame

Part number		Description	Qty
DSI04.2		Right frame assembly 3 260 × 800 mm	
1	DSI05.42	Right side air bag 2 980 × 800 mm	1
2	DSI04.21	Right shelter wall assembly 3 260 × 800 mm	1
DSI02.2		Right frame assembly 3 780 × 800 mm	
1	DSI06.42	Right side air bag 3 500 × 800 mm	1
2	DSI02.21	Right shelter wall assembly 3 780 × 800 mm	1
DSI03.2		Right frame assembly 4 870 × 800 mm	
1	DSI07.42	Right side air bag 4 600 × 800 mm	1
2	DSI03.21	Right shelter wall assembly 4 870 × 800 mm	1

Fig. 4. Top frame exploded view

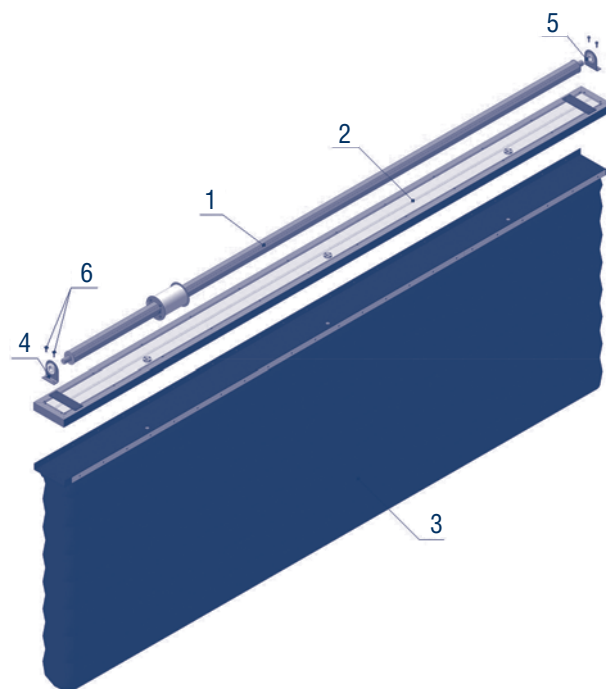


Table 1 to Fig. 4. Top frame with 1 200 mm top air bag

Part number		Description	Qty
DSI04.4		Upper dock shelter beam 3 300 × 1 200 mm (extension 900 mm)	
1	DSI04.411	Dock shelter shaft 3110	1
2	DSI04.412	Dock shelter plate 3 300 × 193 mm	1
3	DSI05.13	Top air bag 3 200 × 1 200 mm	1
4	DSI06.15	Left end support bracket 70 × 50 without plate	1
5	DSI06.15	Right end support bracket 70 × 50 without plate	1
6	14019	Self-tapping screw ISO 15480 — ST6,3 × 25	4
DSI02.4		Upper dock shelter beam 3 500 × 1 200 mm (extension 900 mm)	
1	DSI02.411	Dock shelter shaft 3110	1
2	DSI02.412	Dock shelter plate 3 500 × 193 mm	1
3	DSI06.13	Top air bag 3 400 × 1 200 mm	1
4	DSI06.15	Left end support bracket 70 × 50 without plate	1
5	DSI06.15	Right end support bracket 70 × 50 without plate	1
6	14019	Self-tapping screw ISO 15480 — ST6,3 × 25	4

Table 2 to Fig. 4. Top frame with 1 600 mm top air bag (option)

Part number		Description	Qty
DSI01.4		Upper dock shelter beam 3 300 × 1 600 mm (extension 1200 mm)	
1	DSI04.411	Dock shelter shaft 3110	1
2	DSI04.412	Dock shelter plate 3 300 × 193 mm	1
3	DSI05.14	Top air bag 3 200 × 1 200 mm	1
4	DSI06.15	Left end support bracket 70 × 50 without plate	1
5	DSI06.15	Right end support bracket 70 × 50 without plate	1
6	14019	Self-tapping screw ISO 15480 — ST6,3 × 25	4
DSI03.4		Upper dock shelter beam 3 500 × 1 600 mm (extension 1200 mm)	
1	DSI02.411	Dock shelter shaft 3110	1
2	DSI02.412	Dock shelter plate 3 500 × 193 mm	1
3	DSI06.14	Top air bag 3 400 × 1 600 mm	1
4	DSI06.15	Left end support bracket 70 × 50 without plate	1
5	DSI06.15	Right end support bracket 70 × 50 without plate	1
6	14019	Self-tapping screw ISO 15480 — ST6,3 × 25	4

This is an architectural drawing of an inflatable dock shelter of 3400 mm width and 3300 mm height (article number — DSHINF 3,3x3,4)

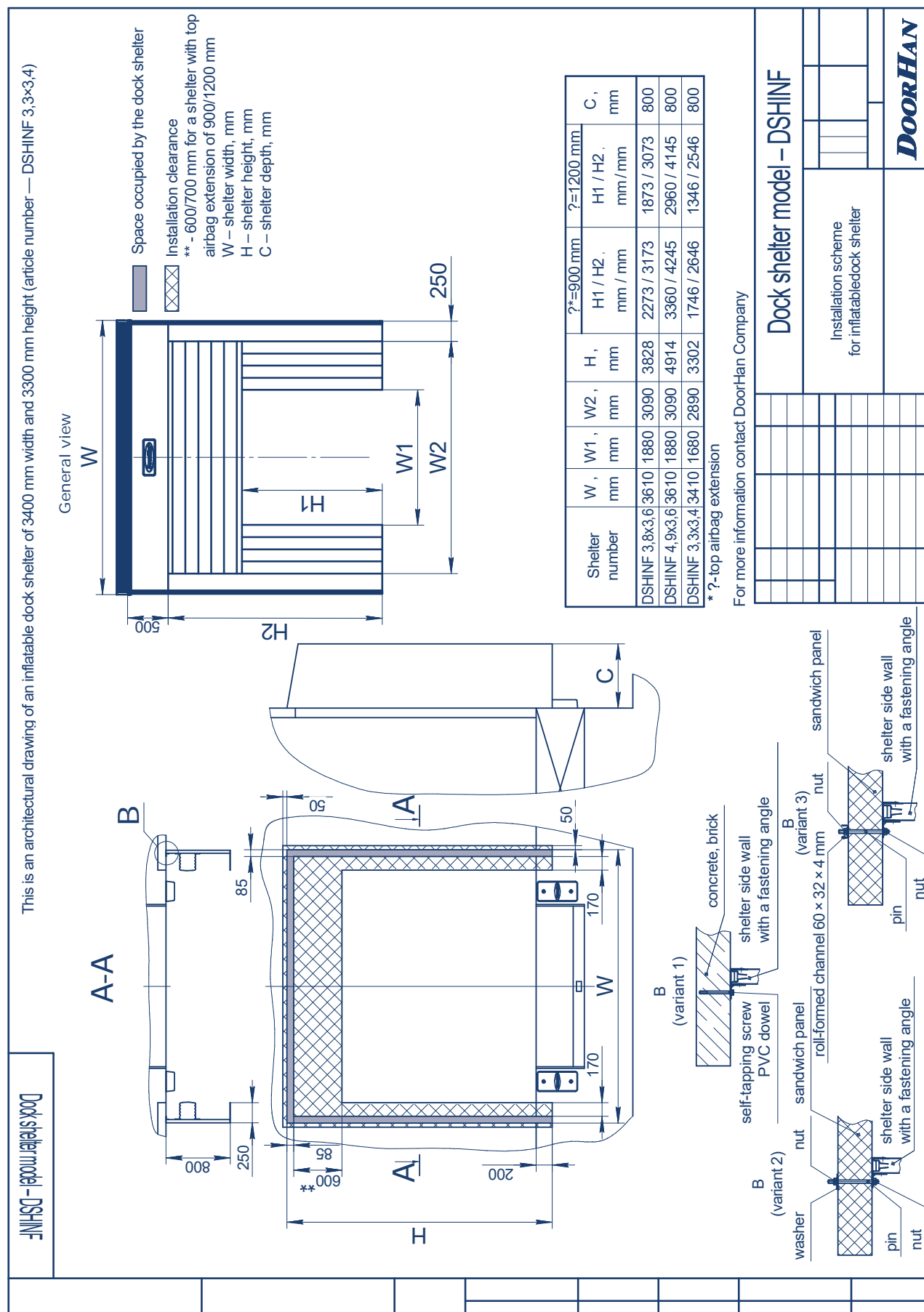
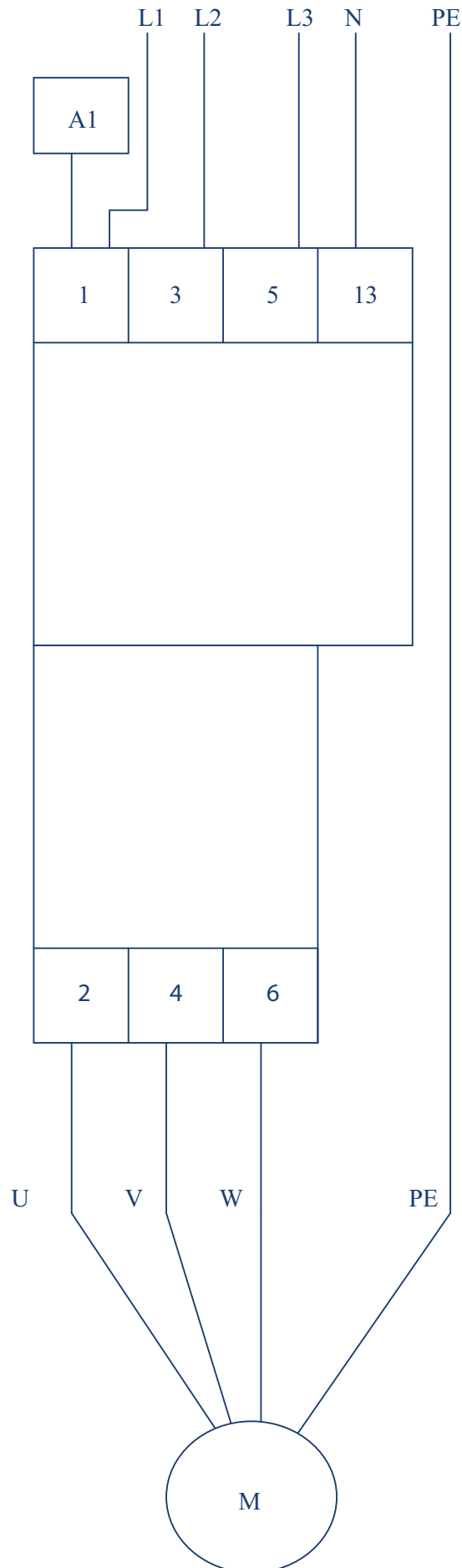


Fig. 6. Blower motor wiring diagram*



* If the blower motor is connected to the dock leveler control unit than see a corresponding wiring diagram in the control unit Owner's Manual.

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