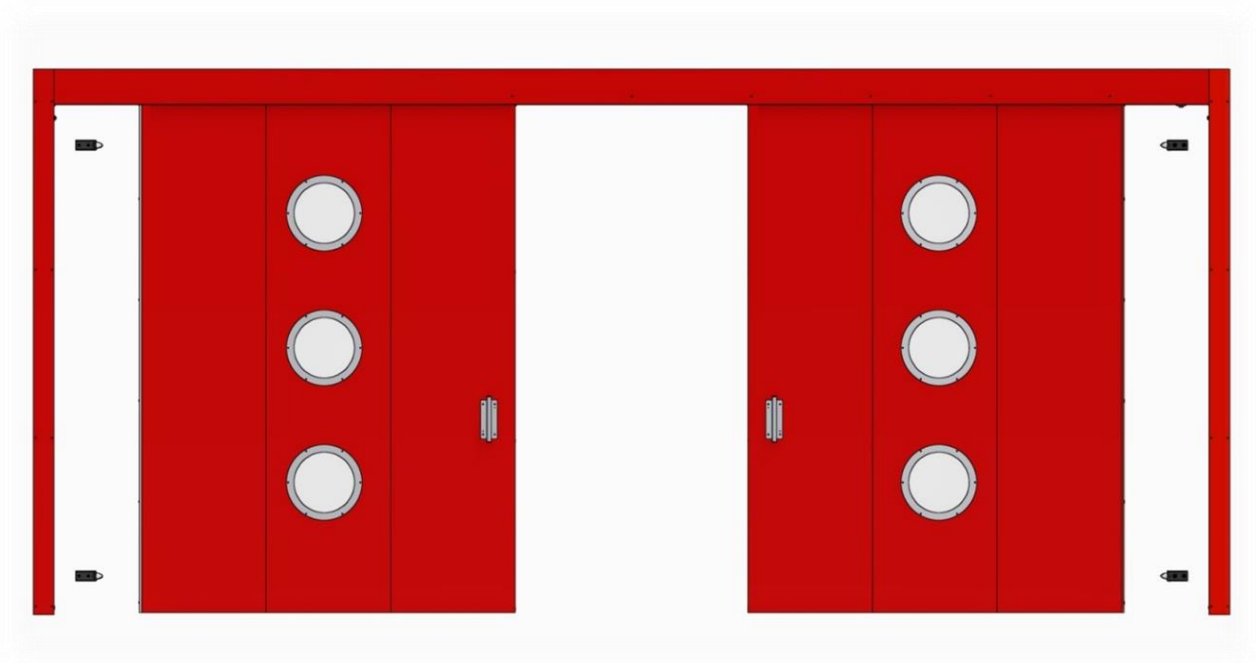


FIRE AND SMOKE BARRIER

## "ORPHEUS" Sliding Door

2-leaf - 1-part



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## 2 Safety instructions

### 2.1 Symbols



An immediate risk to life and health. Failure to follow these instructions may result in severe harm to the user's health, up to and including life-threatening injuries.



Important instructions regarding proper use of the closure. Failure to follow these instructions may result in malfunctions and/or failure.



Manufacturer's liability arising from errors or omissions on the part of the operator or user excluded.

### 2.2 Safety instructions



The safety instructions in this document must be obeyed without fail. The wiring diagrams supplied with every control system must be followed. The operating instructions must be taken note of before the control system is used for the first time.



The qualified personnel must be able to assess the work, identify possible safety hazards and take appropriate safety precautions. Personal protective equipment (PPE) must be used. Work areas must be cordoned off where necessary. Work of any sort may only be carried out with the control system disconnected from the power supply.

### 2.3 Technically correct installation

In order to ensure operational safety and risk-free installation, the user must comply with the points specified in these installation instructions.



All components connected to the system must conform to the approval and/or test report. The use of components that do not meet these requirements is prohibited. Only use original spare parts and approved accessories.

## 2.4 Safety precautions for installation



Cordon off the work area before installation work commences. Please remember your personal protective equipment, if required.

Danger of death during installation of fire and smoke doors. All components and elements must always be secured against toppling, tipping, falling and crushing before and during installation.

Only use qualified and trained personnel for installation and maintenance. Only have electrical work carried out by qualified professionals who have received training in accordance with current regulations.

Do not make modifications in the form of additions and alterations that could compromise safety.

Eliminate heat-, gas-, dust-, steam-, smoke-, fire- and explosion-related risks during welding, flame cutting and grinding.

Take care that building materials that foam as a result of heat being applied do not react during welding and so become ineffective.

The safety and accident prevention regulations for the specific application must be complied with during installation, commissioning, testing, maintenance and dismantling of the "ORPHEUS" Sliding Door.



## 2.5 Installer's qualifications

To ensure that the "ORPHEUS" Sliding Door is installed correctly, only **installers trained by the manufacturer** may be used. Depending on local official regulations, electrical components may only be connected by licensed specialist companies or specially trained personnel.

## 2.6 Safety instructions for operation



Keep the "ORPHEUS" Sliding Door's movement zone clear at all times. Make sure that no one, especially children or objects, is in the movement zone during operation of the "ORPHEUS" Sliding Door. In the event of incorrect use, damage or a dangerous operational state, switch the "ORPHEUS" Sliding Door off and, if necessary, make secure.

Arrange without delay for proper repair, which may only be carried out by qualified personnel.

## 2.7 Transport instructions



The door elements must always be transported upright. The surfaces and coatings, together with all components, must be adequately protected from damage. Any damage must be reported to the manufacturer immediately and may result in loss of the declared performances.

## 2.8 Guidance and information

We are delighted that you have chosen one of our quality products. The following instructions are divided into a text section and a drawing section. Please read and follow these instructions. They contain important information on the product. In particular, please obey the safety instructions and warnings. We recommend that you keep these instructions in a safe place.

This document employs the terms door, fire and/or smoke door and sliding door in place of the product name "ORPHEUS" Sliding Door.

The text and drawings in these instructions have been produced with the greatest possible care. For reasons of clarity, it is not possible to provide full details for all the variants or describe all conceivable installation, operation or maintenance cases. The text and drawings published in these instructions only serve as examples.

No responsibility is taken for completeness, which shall not constitute grounds for complaint. Subject to technical changes.

If, however, you require further information or if problems arise that are not covered in sufficient detail in the operating instructions, you may request the necessary information directly from the manufacturer. Contact details can be found on the first page.

## 3 Installation instructions

### 3.1 Scope

These installation instructions apply to the following door types:

- El<sub>2</sub> 30 C "ORPHEUS" Sliding Door
- El<sub>2</sub> 30 C2 "ORPHEUS" Sliding Door
- El<sub>2</sub> 30 C2 S<sub>a</sub> "ORPHEUS" Sliding Door
- El<sub>2</sub> 30 C2 S<sub>200</sub> "ORPHEUS" Sliding Door
- El<sub>2</sub> 90 C "ORPHEUS" Sliding Door
- El<sub>2</sub> 90 C2 "ORPHEUS" Sliding Door
- El<sub>2</sub> 90 C2 S<sub>a</sub> "ORPHEUS" Sliding Door
- El<sub>2</sub> 90 C2 S<sub>200</sub> "ORPHEUS" Sliding Door

#### 3.1.1 Intended use

An "ORPHEUS" Sliding Door inclusive of all parts (e.g. frame, guides, etc.) is intended, when installed and closed, to prevent the passage of fire and/or smoke through openings in walls.

Intended use also includes the following points:

- Obey operating and maintenance instructions.
- Obey inspection and maintenance requirements.
- Only operate the "ORPHEUS" Sliding Door in a completely safe condition.
- Have repairs and maintenance on the "ORPHEUS" Sliding Door carried out by the manufacturer or specialist firms only.
- Comply with the relevant national regulations and approvals.

#### 3.1.2 Non-intended use

The "ORPHEUS" Sliding Door is **not suitable for the following use:**

- As an external door (only under certain conditions and in consultation with the manufacturer)
- As a cold room door
- In wet areas (car washes, etc.)

Neither the manufacturer nor the supplier is liable for damage resulting from non-intended use. The user bears the sole risk. Such damage will result in loss of the declared performance.

#### 3.1.3 Changes to the product

Changes made to the "ORPHEUS" Sliding Door unilaterally will result in immediate loss of the performance designated and/or declared by the manufacturer. Changes may only be made following consultation with and approval by the manufacturer.

### 3.1.4 Spare parts and accessories

We expressly point out that only **original spare parts** made by Jansen Tore for the product may be used. The replacement of parts with third-party components will automatically result in loss of the product's designated performance characteristics.

The contact details for our service centre are as follows:

Tel: +49 (0) 49 65 / 89 88 - 777

Email: [service@jansentore.com](mailto:service@jansentore.com)

You can find your direct contact at

<https://www.jansentore.com/home/ansprechpartner/finden-sie-ihren-ansprechpartner/>

## 3.2 Permissible walls and wall thicknesses

### 3.2.1 EI<sub>2</sub> 30 fire-retardant closures

For a fire-retardant "ORPHEUS" Sliding Door with classification EI<sub>2</sub> 30 the following minimum requirements must be met for the declared performance to be retained on site:

Type	Permissible wall type and components - minimum requirements	Minimum wall thickness in mm
A	Fire-resistant masonry walls in accordance with DIN 1053-1, strength class min. 12, mortar group ≥ II wall thickness	≥115 mm
B	Fire-resistant concrete wall in accordance with DIN 1045, min. strength class C12-15	≥115 mm
C	Fire-resistant walls made from aerated concrete, block or high-precision masonry units in accordance with DIN 4165, strength class 4, or walls made from reinforced - horizontal or vertical - aerated concrete slabs, in so far as general building inspectorate approval is available, strength class G4.4	≥175 mm
D	Clad steel supports and/or girders in accordance with DIN 4102-4:2016-05 Table 7.6 – with a minimum fire rating of F 30, designation (abbreviated) F 30-A, in so far as they are attached over their full length or width to space-enclosing components with at least the same fire rating.	

Non-conforming installation situations must be agreed with the manufacturer in order for the declared performance to be maintained, where applicable.

### 3.2.2 EI<sub>2</sub> 90 fire-resistant closures

For a fire-resistant "ORPHEUS" Sliding Door with classification EI<sub>2</sub> 90 the following minimum requirements must be met for the declared performance to be retained on site:

Type	Permissible wall type and components - minimum requirements	Minimum wall thickness in mm
A	Fire-resistant masonry walls in accordance with DIN 1053-1, strength class min. 12, mortar group ≥ II wall thickness	≥175 mm
B	Fire-resistant concrete wall in accordance with DIN 1045, min. strength class C12-15	≥175 mm
C	Fire-resistant walls made from aerated concrete, block or high-precision masonry units in accordance with DIN 4165, strength class 4, or walls made from reinforced - horizontal or vertical - aerated concrete slabs, in so far as general building inspectorate approval is available, strength class G4.4	≥175 mm
D	Clad steel supports and/or girders in accordance with DIN 4102-4:2016-05 Table 7.6 – with a minimum fire rating of F 90, designation (abbreviated) F 90-A, in so far as they are attached over their full length or width to space-enclosing components with at least the same fire rating.	

Non-conforming installation situations must be agreed with the manufacturer in order for the declared performance to be maintained, where applicable.

### 3.3 Permissible wall connections

The following instructions must be followed for wall connection of the "ORPHEUS" Sliding Door:

- Gap, between seal of door construction and wall, from 1 mm to 9 mm: in this case the seal on the reveal side must be sealed to the wall using a non-shrink method.
- Gap, between profiles of door construction and wall, from 10 mm to 24 mm: these must be filled with mineral wool and then sealed using a non-shrink method.
- Gap, between profiles of door construction and wall, from 25 mm to 50 mm: these must be covered with fire-resistant plasterboard / Promatect H before the respective profiles are fitted and then sealed using a non-shrink method.
- NB: If the seal is in contact with the wall over its full length, sealing using a non-shrink method is not required.



### 3.4 Permissible fixtures

When using fixtures, the manufacturer's installation instructions must always be followed and given priority. Disregarding these instructions will result in loss of the declared performance.

#### 3.4.1 Attachment of side guiding rails

Wall type	Fixture	Min. load-bearing capacity [ $F_{rk}$ ]
B	Bolt anchor / through bolt	$\geq 1.5$ kN
A, B, C	Plastic plug	$\geq 1.5$ kN
A, B, C	Threaded rod M8 / M10	Strength class $\geq 4.6$
A, B	Grout	$\geq 1.5$ kN, strength class $\geq 4.6$
D	Screw installation M8	Strength class $\geq 8.8$

#### 3.4.2 Attachment of guide rail (Wall)

Wall type	Fixture	Min. load-bearing capacity [ $F_{rk}$ ]
B	Bolt anchor / through bolt	$\geq 8.5$ kN
A, B, C*	Threaded rod M8 / M10	Strength class $\geq 4.6$
A, B*	Grout	$\geq 8.5$ kN, strength class $\geq 4.6$
D	Screw installation M8	Strength class $\geq 8.8$

\*Always concrete in opening zone

#### 3.4.3 Attachment of guide rail (Ceiling)

Wall type	Fixture	Min. load-bearing capacity [ $F_{rk}$ ]
B	Bolt anchor / through bolt	$\geq 4.3$ kN
B	Screw anchor	$\geq 4.3$ kN
D	Screw installation M8	Strength class $\geq 8.8$

### 3.5 Permissible clearances

Floor gaps can occur when the "ORPHEUS" Sliding Door is installed. According to point 7.3 of DIN EN 1634-1, the test standard for fire and smoke barriers, a general gap of max. 24 mm is permitted at the threshold. In the case of the "ORPHEUS" Sliding Door with an S200 requirement, the seal must be flush with the threshold.



### 3.6 Permissible floor

The floor must always be at least B1 not easily flammable in accordance with DIN 4102-1.

## 4 Fitting instructions

### 4.1 Fitting symbols and abbreviations

The following symbols and abbreviations are used in the fitting instructions:

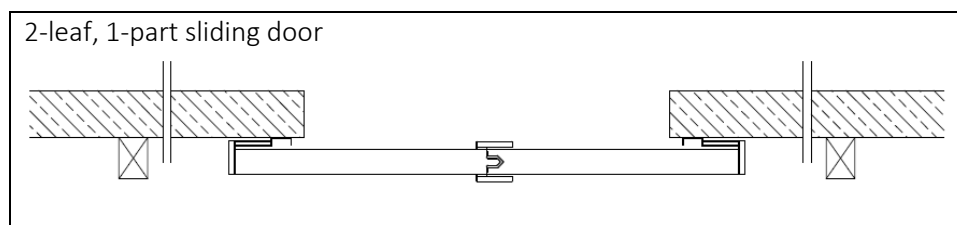
Symbol / Abbreviation	Meaning
	Components marked with the symbol must be aligned/fitted horizontally
	Align/fit vertically
<b>FF</b>	Finished floor level
<b>CH</b>	Clear height
<b>CW</b>	Clear width

### 4.2 Instructions before fitting starts

Before actual fitting of the door can start, we recommend that you carry out the following steps in order to ensure that everything goes smoothly:

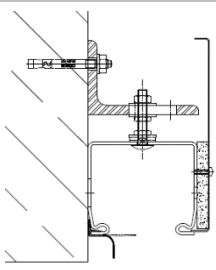
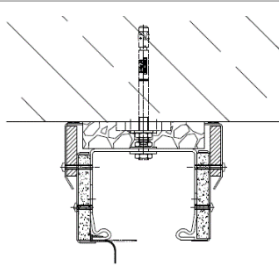
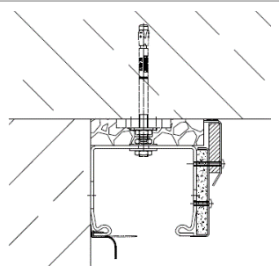
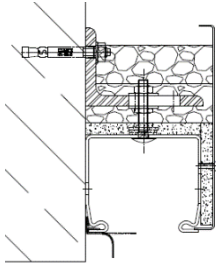
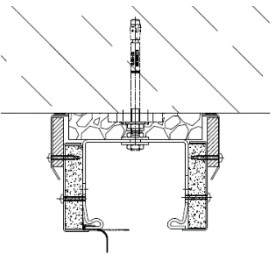
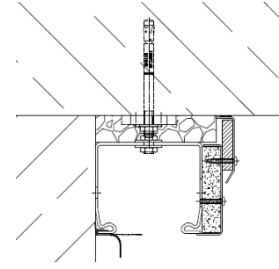
1. Read through the full installation instructions
2. Identify door's stop side
3. Check the ordered dimensions of the door against the structural reality.
4. It is recommended that you carry out fitting in the precise order set out below or discrepancies may occur. The manufacturer is not liable for any installation errors.

### 4.3 Overview

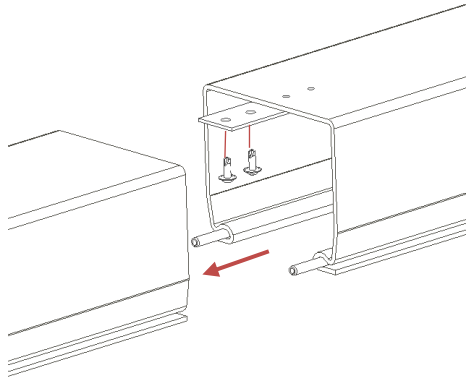
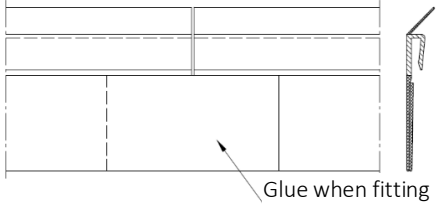


## 4.4 Fitting the guide rail

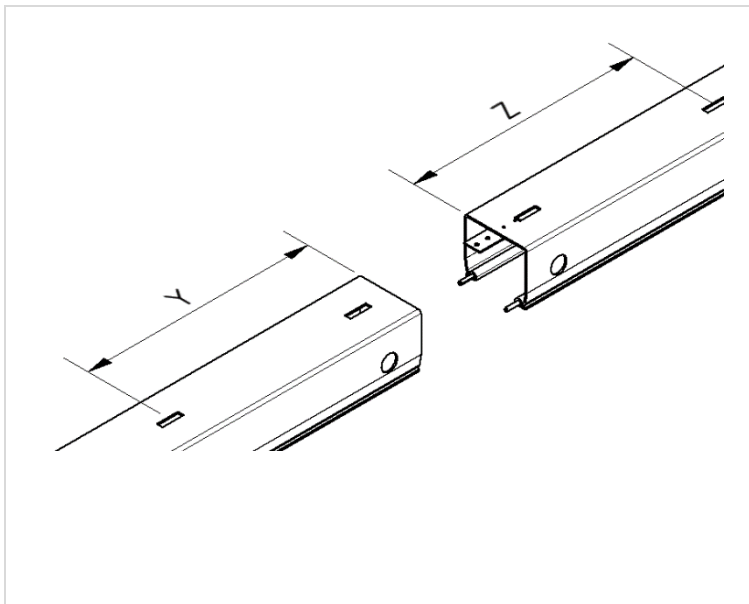
### 4.4.1 Guide rail fitting variants

Fire rating	Wall mounting	Flush ceiling mounting	Ceiling mounting
El <sub>2</sub> 30			
El <sub>2</sub> 90			

### 4.4.2 With split guide rail

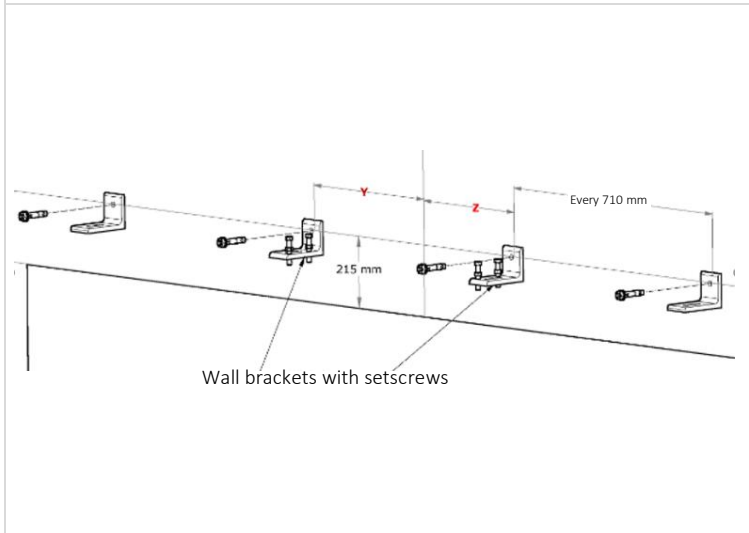
	<ol style="list-style-type: none"> <li>1. Detach premounted connecting plate from guide rail, turn and fit as shown in illustration</li> <li>2. Connect guide rails using clamping sleeves</li> <li>3. Screw connecting plate to guide rail (2x flathead self-tapping screw <math>\varnothing 4.2 \times 13</math>)</li> <li>4. Guide rail pieces must be arranged alphabetically, starting in the centre with A and moving outwards</li> </ol>
<p><b>Additionally for door with smoke protection (S<sub>a</sub>/S<sub>200</sub>):</b></p>  <p>Glue when fitting</p> <p>Door leaf side      Opening direction left</p> <p>Door leaf side      Opening direction right</p>	<ol style="list-style-type: none"> <li>5. With a split guide rail, the smoke seal (S<sub>a</sub> and S<sub>200</sub> only) must be glued</li> <li>6. Care must be taken that the door leaf does not hit the blunt edge when closing</li> </ol>

4.4.3 For wall mounting of guide rail

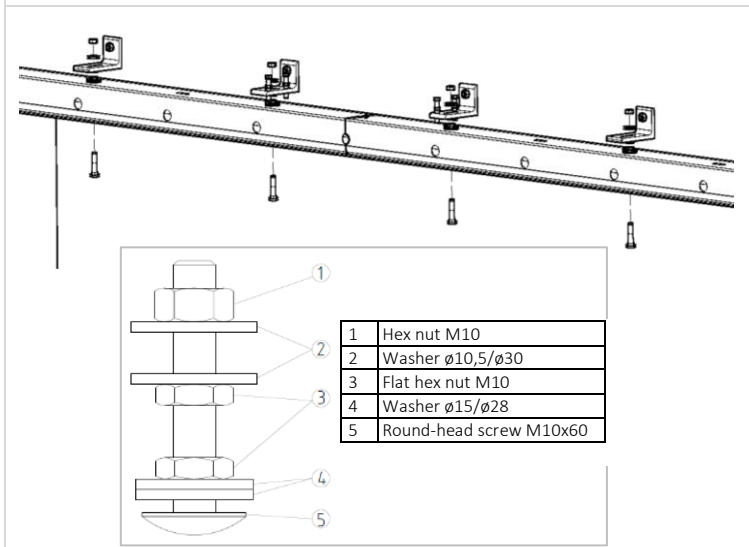


7. The horizontal measurement for the position of the first two middle wall brackets depends on dimensions **Y** and **Z**
8. Measure **Y** and **Z** on the supplied guide rail beforehand
9. Connect guide rails using clamping sleeves
10. Screw connecting plate to guide rail (2x flathead self-tapping screw  $\phi 4.2 \times 13$ )

**Z, Y** = edge to middle of second cutout

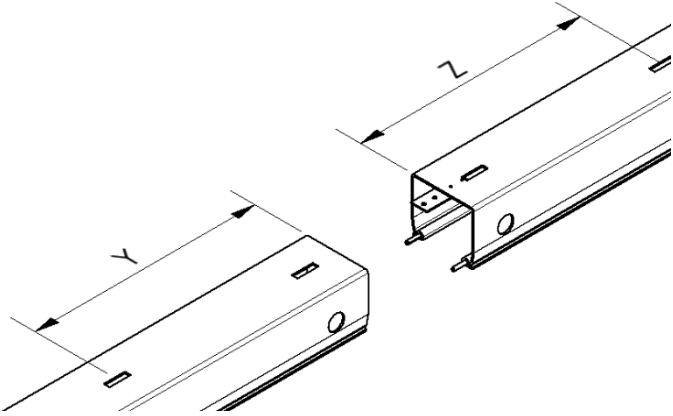
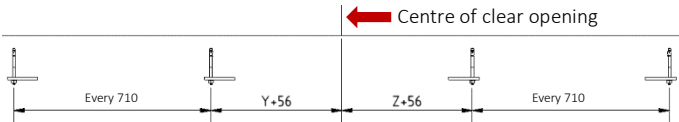
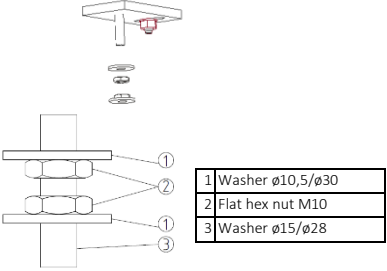
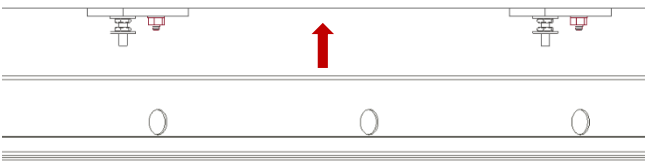


11. Mark centre of reveal
12. Take basic measurements **Y** and **Z** into account for first two wall brackets
13. Mark and pre-drill every **710 mm**
14. Screw mounting bracket to wall (first of the two guide rails and wall bracket above wall labyrinths with setscrews)
15. Align horizontally



16. Screw guide rail to individual wall brackets
17. Secure first and last hole in each guide rail first
18. Screw wall brackets in between in place
19. Align horizontally
20. Height can be adjusted by  $\pm 15$  mm
21. **Clean guide rail from inside**

4.4.4 For flush ceiling mounting or ceiling mounting of guide rail

	<p>22. The horizontal measurement for the position of the first two middle wall brackets depends on dimensions <b>Y</b> and <b>Z</b></p> <p>23. Measure <b>Y</b> and <b>Z</b> on the supplied guide rail beforehand</p> <p>24. Connect guide rails using clamping sleeves</p> <p>25. Screw connecting plate to guide rail (2x flathead self-tapping screw <math>\varnothing 4.2 \times 13</math>)</p> <p><b>Z, Y</b> = edge to middle of second cutout</p>
	<p>12. Mark and pre-drill position of first ceiling brackets at basic measurement <b>Y</b> or <b>Z</b> + 56 mm</p> <p>13. Pre-drill every <b>710 mm</b></p> <p>14. Screw ceiling bracket to ceiling</p>
	<p>15. Twist threaded rod into ceiling bracket</p> <p>16. Fit nuts and washers as shown in illustration</p>
	<p>17. Move guide rail into position</p>

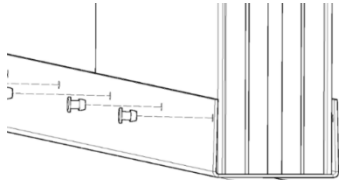
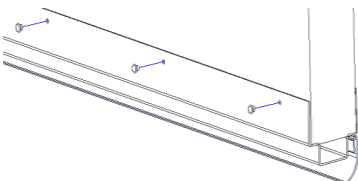
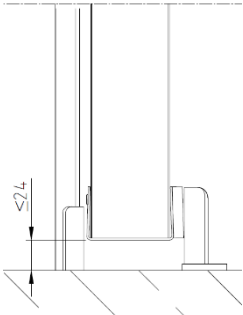
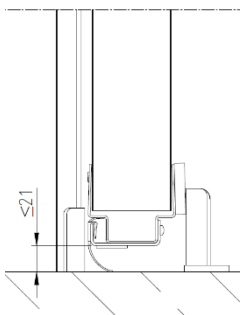
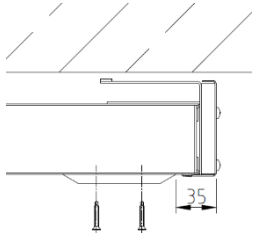
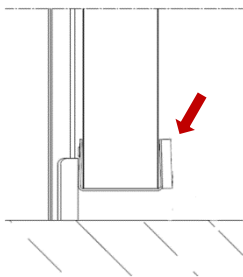
	<p>18. Mount as shown in illustration</p> <p>19. Align guide rail horizontally</p>
	<p>20. Cut off excess length of threaded rod in guide rail just below nut using cutting disc</p> <p>21. Remove debris and clean guide rail</p>

#### 4.5 Fitting the door leaf without wicket

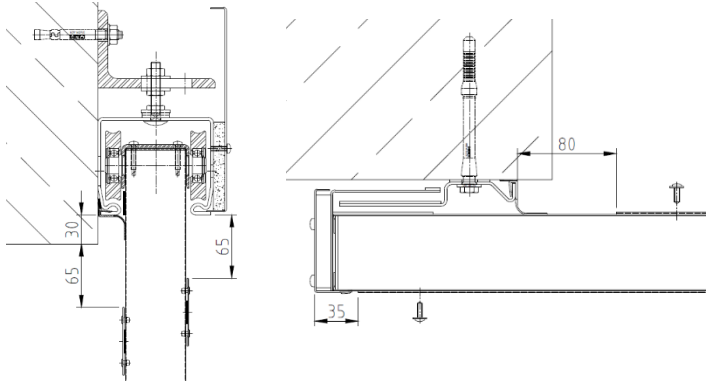

For door with wicket see: *Installation Instructions ORPHEUS Sliding Door Optional Wicket*

##### 4.5.1 Door leaf

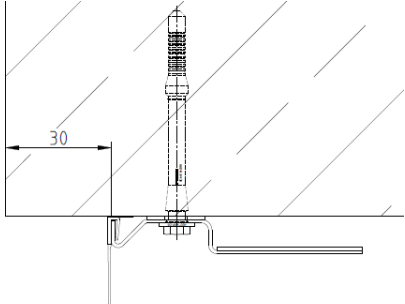

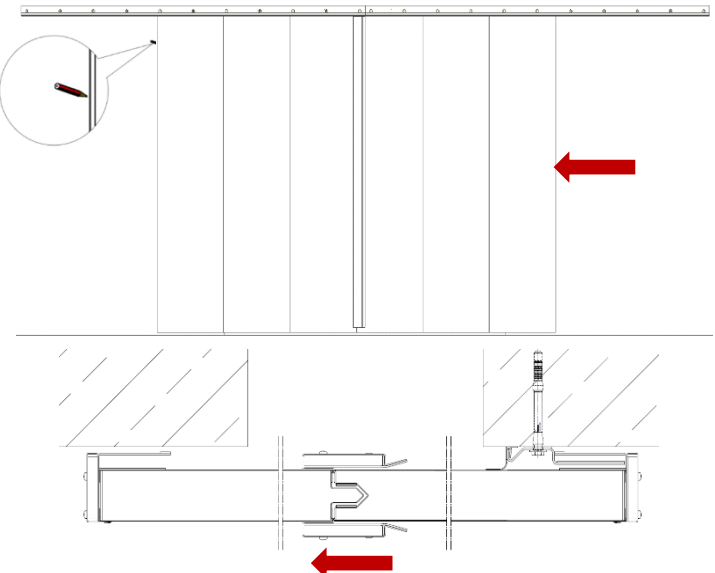
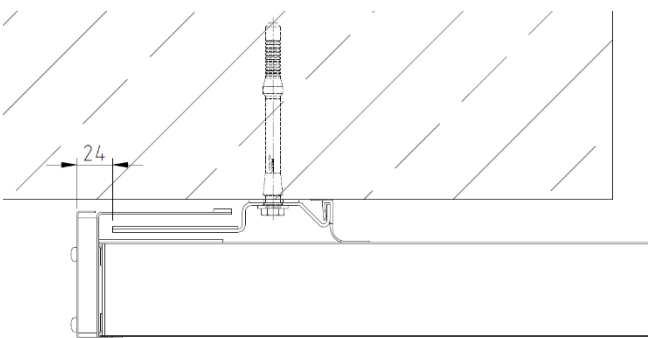

	<p>22. Insert door elements for both leaves in guide rails at top left and right one after the other and hook in. Start with the highest number (door handle)</p> <p>23. Align elements vertically once all elements have been hung</p>
	<p>24. The elements are connected to each other using a push-fit system</p> <p>25. The elements are hooked into the next element one after the other from the top</p>

<p>S<sub>a</sub> version:</p> 		<p>26. Align end covers 27. Comply with floor gap (see next illustration) 28. Rivet to door element from both sides (<b>blind rivet Ø4x10</b>)</p>
<p>S<sub>200</sub> version:</p> 		
<p>For version without smoke protection/S<sub>a</sub> version:</p> 	<p>For S<sub>200</sub> version:</p> 	<p>29. The end cover is different for the version without smoke protection properties/S<sub>a</sub> version and the S<sub>200</sub> version 30. It is imperative that the floor gap dimensions are complied with!</p>
		

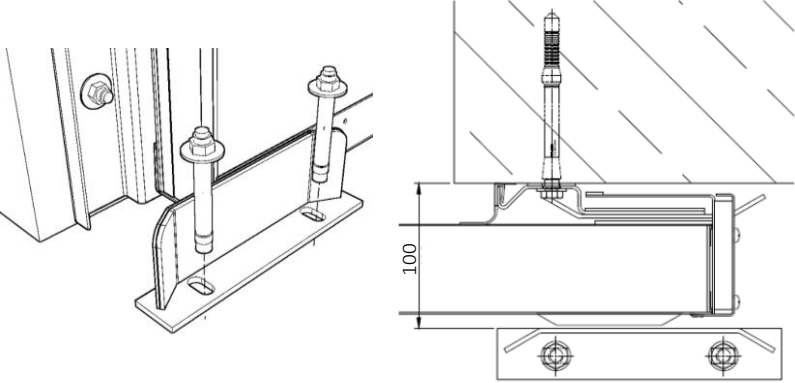
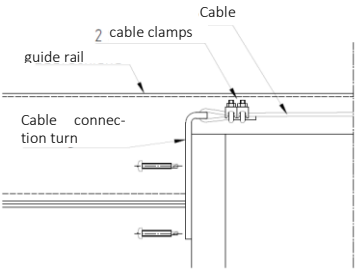
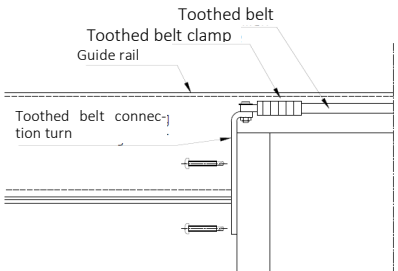
#### 4.5.2 Cleats (EI<sub>2</sub>90 closures only)

	<p>34. Align cleat horizontally on both leaves  35. Comply with dimensions (see illustrations) 36. Rivet in all holes (<b>blind rivet Ø4x10</b>)</p>
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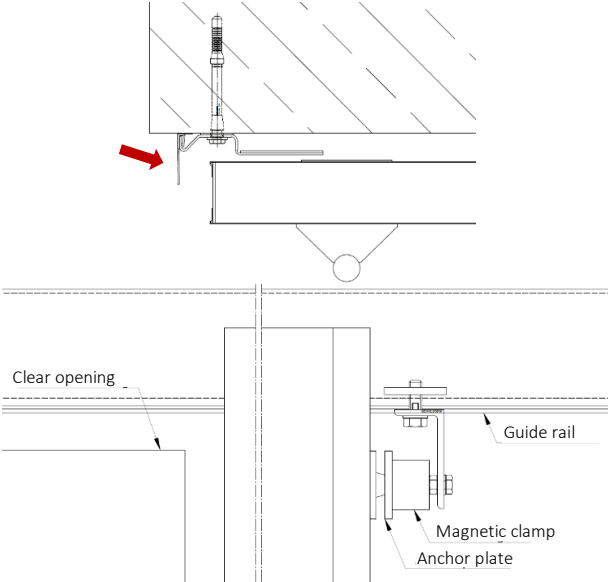
4.6 Fitting the wall labyrinth, floor guide and cable connection

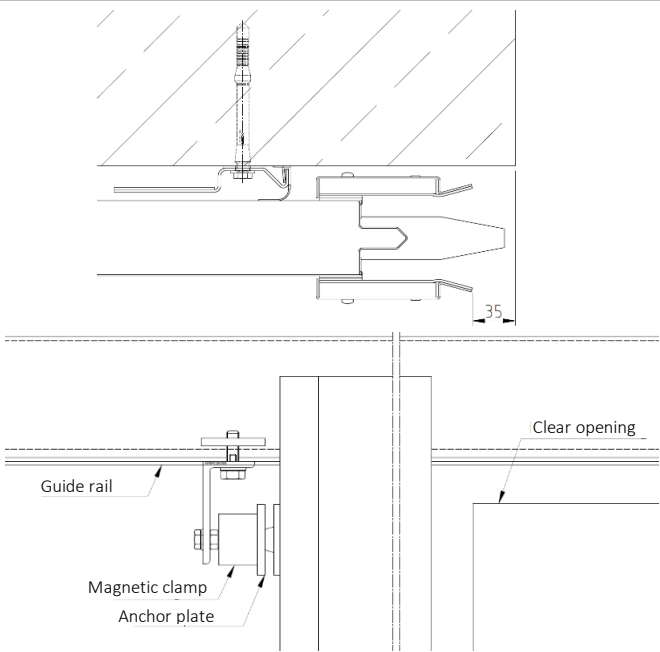
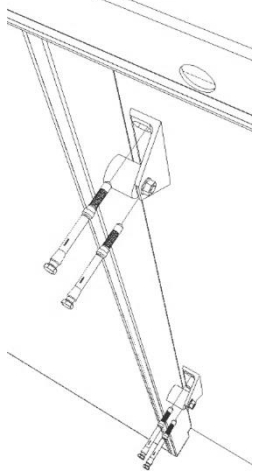
	<p>37. Guide plate on wall labyrinth is always at bottom</p> <p>38. Position right-hand wall labyrinth vertically as shown in illustration </p> <p>39. Use all available holes and fix wall labyrinth in place with dowels</p>
	<p>40. Carefully close door! Slide door until wall labyrinth and door leaf labyrinth and both leaves meet</p> <p>41. Mark edge of element for left-hand leaf</p> <p>42. Open door leaf until mark is visible</p>
	<p>43. Guide plate on wall labyrinth is always at bottom</p> <p>44. Position wall labyrinth vertically 24 mm offset from mark in direction of clear opening </p> <p>45. Use all available holes and fix wall labyrinth in place with dowels</p>



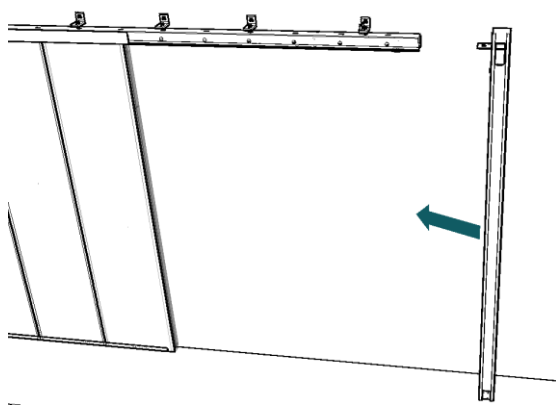
	<p>46. Floor guides must not protrude into opening</p> <p>47. Floor guides are flush with front edge of wall labyrinth and approx. 100 mm from wall</p> <p>48. Bolt floor guides in place (2x stud bolt W-HAZ-S)</p> <p>49. Promaseal PL strips are enclosed loose for levelling</p>	
<p>Cable:</p> 	<p>Toothed belt:</p> 	<p>50. Secure cable/toothed belt connection to door leaf labyrinth at pre-drilled position using self-tapping screws provided</p>

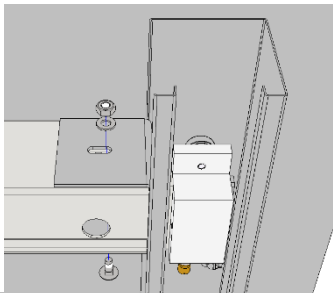
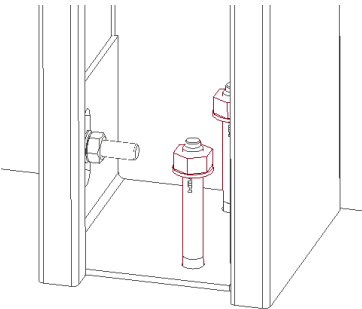
#### 4.7 Fitting the magnetic clamp and cushioned end stops

	<p>51. Fully open right-hand door leaf so that seal on right-hand wall labyrinth folds back</p> <p>52. Mount bracket with magnetic clamps below right-hand guide rail in such a way that anchor plate is in contact with magnetic clamp when door is open</p> <p>53. Tighten threaded pins on bracket's magnetic clamp</p>
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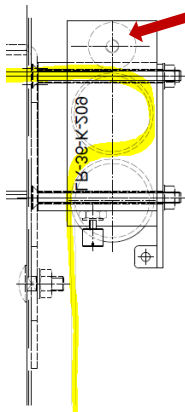
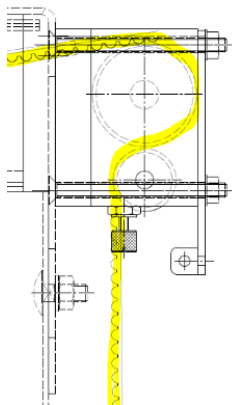
	<ul style="list-style-type: none"> <li>54. Fully open left-hand door leaf so that centre junction's cleat is 35 mm from reveal</li> <li>55. Mount bracket with magnetic clamps below left-hand guide rail in such a way that anchor plate is in contact with magnetic clamp when door is open</li> <li>56. Tighten threaded pins on bracket's magnetic clamp</li> </ul>
	<ul style="list-style-type: none"> <li>57. Fully open door until magnetic clamp hits magnetic clamp completely</li> <li>58. Fit two cushioned end stops with a gap of max. <b>5 mm</b> between cushion and door element as an end stop (<b>segment anchor</b>) 1x centrally in top third and 1x centrally in bottom third of door leaf</li> <li>59. Repeat on other side</li> </ul>

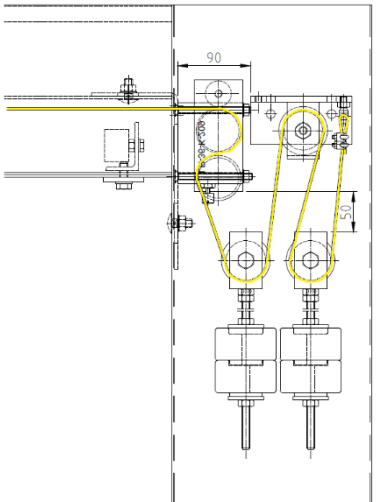
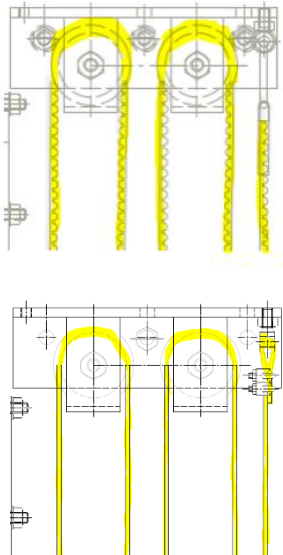
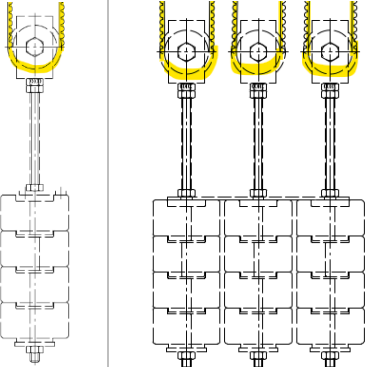
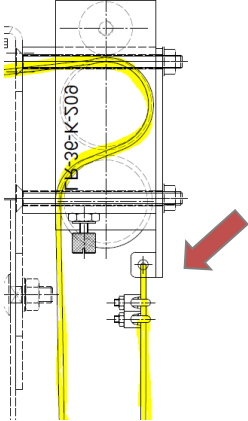
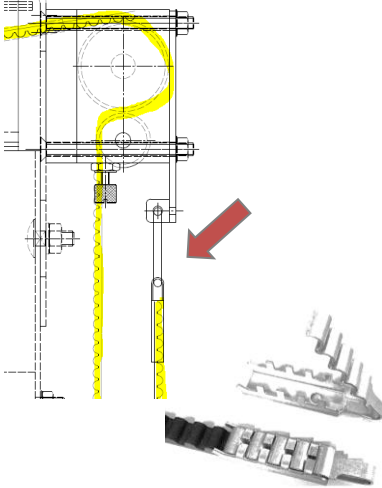
#### 4.8 Fitting the counterweight boxes

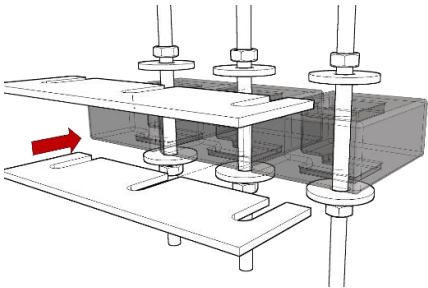
	<ul style="list-style-type: none"> <li>60. Detach casing on counterweight box</li> <li>61. Place counterweight box against guide rail</li> <li>62. Align vertically</li> <li>63. Repeat for other side</li> </ul>
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	<p>64. Screw counterweight box's connection bracket to guide rail (<b>round-head screw M10x25, washer ø10.5, nut M10</b>)</p> <p>65. Repeat for other side</p>
	<p>66. Bolt counterweight box to floor with two <b>segment anchors</b> in the holes</p> <p>67. Repeat for other side</p>

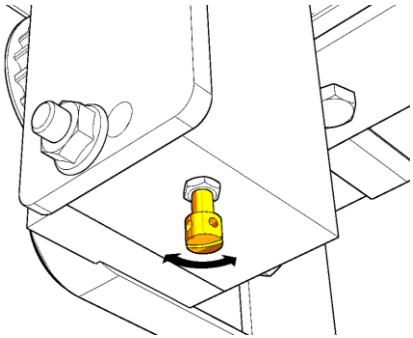
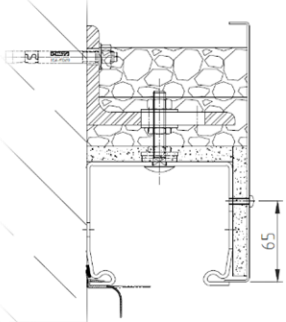
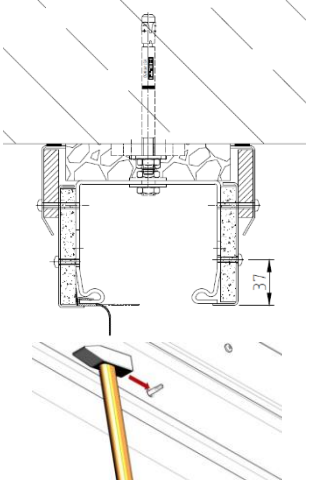
#### 4.9 Fitting the weights and weigh guides

<p>Cable:</p>  <p>Eccentric screw</p>	<p>Toothed belt:</p> 	<p>68. Feed toothed belt/cable through radial damper as shown in illustration</p> <p><u>Cable:</u></p> <p>69. To prevent the cable from slipping through, the ball bearing must be positioned in such a way with the eccentric screw that the cable is pressed against the pulley firmly enough</p> <p>70. Lock in position with hexagon bolt</p>
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		<ol style="list-style-type: none"> <li>71. Position guide roller, if there is one: top edge of guide roller flush with top edge of guide rail, 90 mm from connection bracket</li> <li>72. Mark mounting points, pre-drill and fit guide roller (<b>segment anchor</b>)</li> <li>73. Feed toothed belt/cable through guide roller(s) at weight(s) as shown in illustration</li> <li>74. If there are several weight brackets, the toothed belt/cable must also be fed through the guide rollers on the counterweight box</li> <li>75. The maximum gap between the radial damper and the weights' pulley with the door open is max. <b>50 mm</b></li> </ol>
	<p><b>Cable:</b></p>  <p><b>Toothed belt:</b></p> 	<ol style="list-style-type: none"> <li>76. Cut toothed belt/cable to length</li> </ol> <p><u>Cable:</u></p> <ol style="list-style-type: none"> <li>77. Feed cable through mechanism on radial damper or guide roller and secure with <b>two cable clamps</b></li> </ol> <p><u>Toothed belt:</u></p> <ol style="list-style-type: none"> <li>78. Secure belt with clamp inc. snap hook</li> <li>79. Hook toothed belt into mechanism on radial damper and/or guide roller via snap hook</li> </ol>

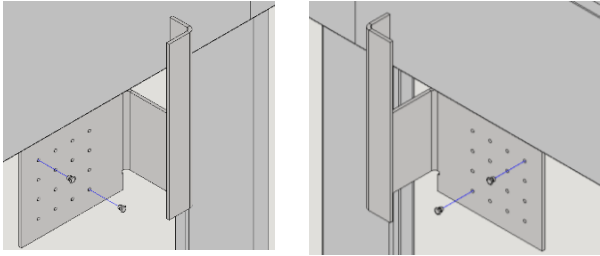
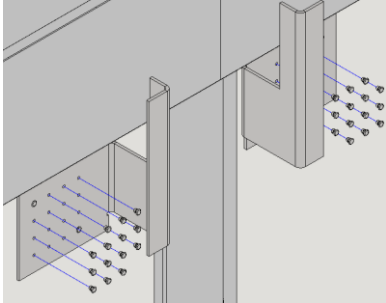
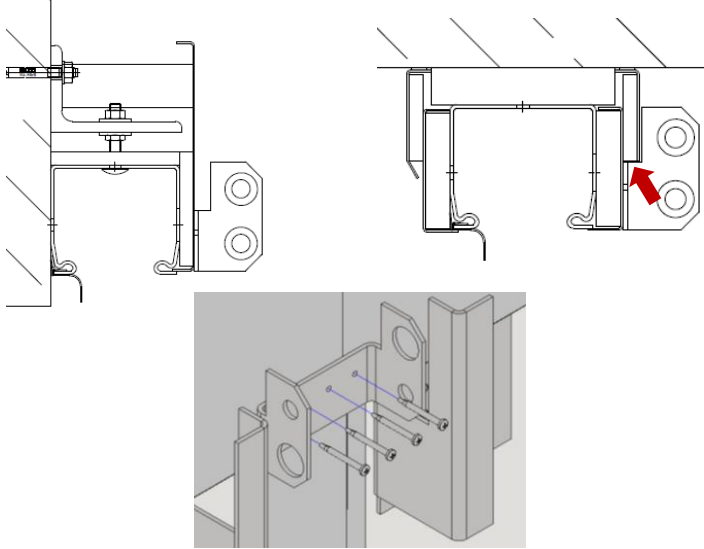
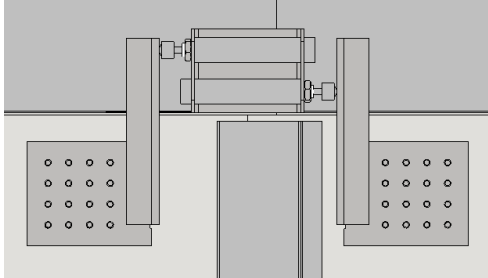
	<p>80. If there are several weight brackets, they must be joined by means of a weight connector plate and clipped over the nuts</p>
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4.10 Fitting the casing, adjusting the radial damper and end positions

	<p>81. Open door and allow to close via closing weight              82. Adjust closing speed by means of brass screw on radial damper              83. Closing speed: <b>0.3 m/s</b>              84. <b>Open door and allow to close again at least three times.</b> Readjust radial damper if necessary</p>
<p>Wall mounting              every 600 mm, distance from edge = 100 mm</p>  <p>Ceiling mounting              every 350 mm, distance from edge = 80 mm</p> 	<p>85. For EI<sub>2</sub> 90 (wall mounting), also fit fire-resistant plasterboard over the guide rail's opening zone              86. Fit casing as shown in illustration              87. Comply with dimensions (see illustration) and fix in place with <b>oval-head self-tapping screw Ø4.8x45</b>              88. With ceiling mounting, covers have to be fitted as well: position cover on ceiling and fix in place with <b>oval-head self-tapping screws Ø4.8x45</b> in all holes              89. Strike screws off from inside              90. <b>Clean guide rail</b>              91. For EI<sub>2</sub> 90 and EI<sub>2</sub>30 (ceiling mounting only), also put mineral wool over guide rail</p>

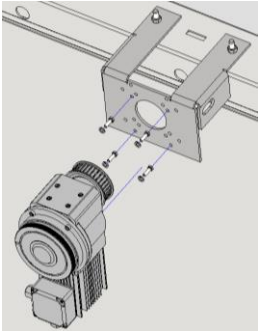
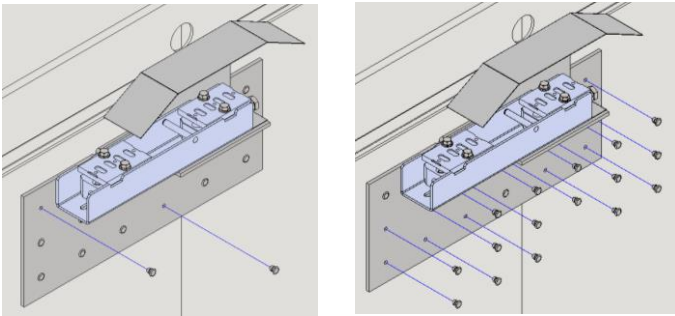
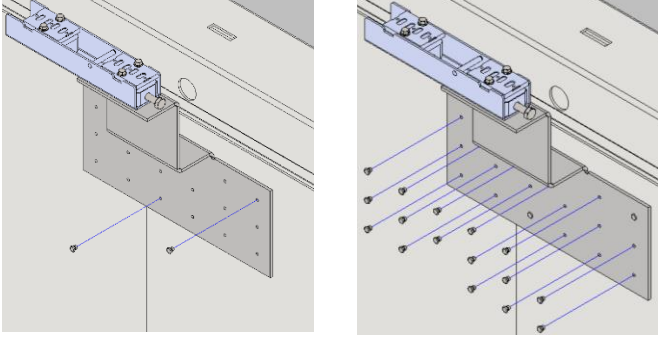
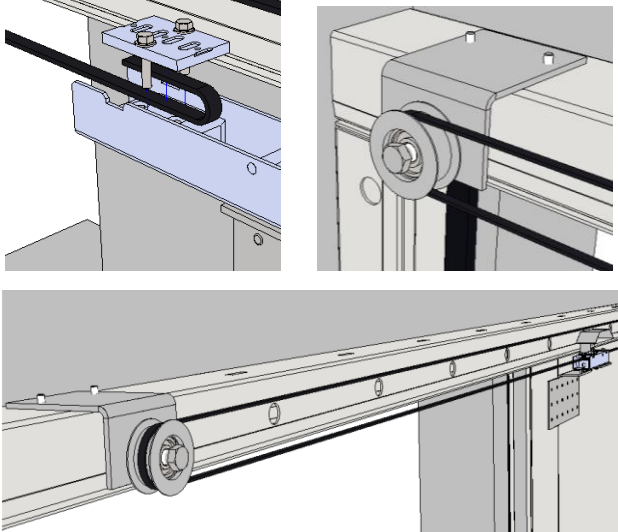
	92. Screw weight box's cover back on
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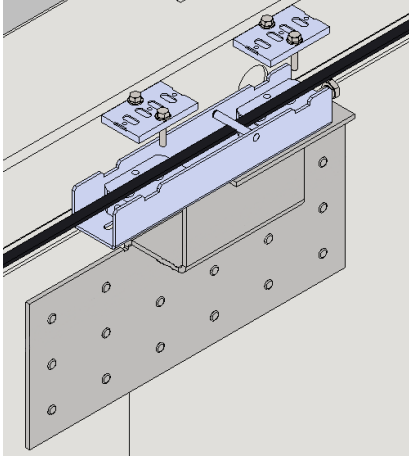
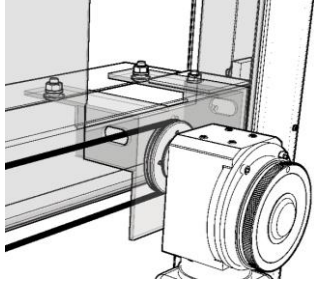
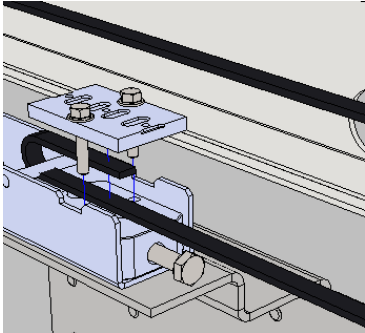

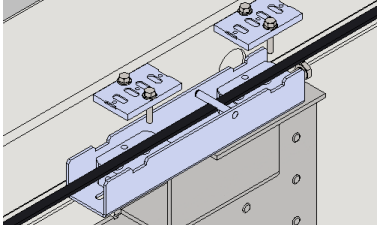
4.11 Fitting the damper unit

	93. First attach the brackets on the left- and right-hand leaves to the door leaf with <b>blind rivets ø4</b> in the two pre-drilled holes
	94. Pre-drill all available bracket holes 95. Fully rivet brackets <b>blind rivets ø4</b>
	96. Remove damper from bracket 97. <u>Ceiling mounting:</u> Remove leg of guide rail casing in area of damper seat 98. Close door 99. Fix bracket in place <b>centrally</b> over <b>leaf junction</b> and flush with guide rail casing
	100. Fit damper back in place  Rubber buffers also possible as an option

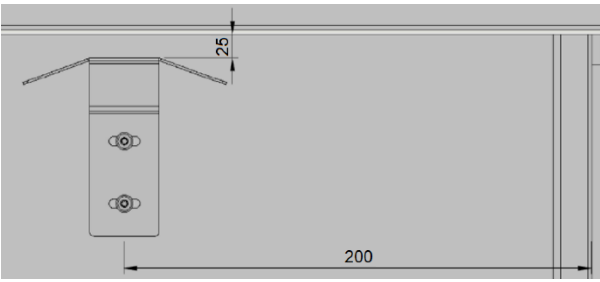
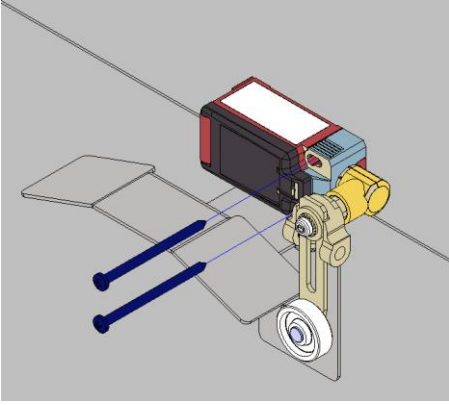
### 4.12 Fitting the opening assistance

Shown without guide rail casing:

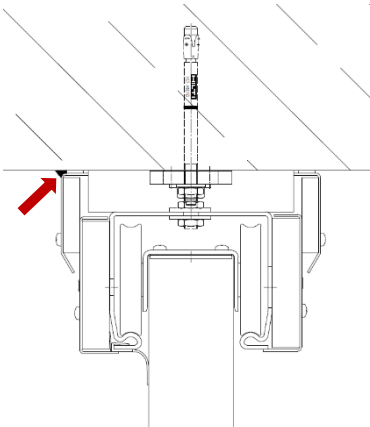
	<ol style="list-style-type: none"> <li>101. Remove toothed belt pulley from motor</li> <li>102. Attach motor to premounted bracket (4x hexagon bolt M6x20 + spring washer)</li> <li>103. Attach toothed belt pulley to motor</li> </ol>
	<ol style="list-style-type: none"> <li>104. First attach the toothed belt tensioner bracket on the left-hand leaf to the door leaf with <b>blind rivets <math>\varnothing 4</math></b> in the two pre-drilled holes</li> <li>105. Pre-drill all available bracket holes</li> <li>106. Fully rivet bracket <b>blind rivets <math>\varnothing 4</math></b></li> </ol>
	<ol style="list-style-type: none"> <li>107. First attach the toothed belt tensioner bracket on the right-hand leaf to the door leaf with <b>blind rivets <math>\varnothing 4</math></b> in the two pre-drilled holes</li> <li>108. Pre-drill all available bracket holes</li> <li>109. Fully rivet bracket <b>blind rivets <math>\varnothing 4</math></b></li> </ol>
	<ol style="list-style-type: none"> <li>110. Detach toothed belt tensioner plate on left-hand leaf</li> <li>111. Make loop with toothed belt</li> <li>112. Fasten plate with belt in between</li> <li>113. Feed toothed belt around guide roller to right-hand leaf's toothed belt tensioner</li> </ol>

	<p>114. Detach right-hand leaf's toothed belt tensioner plates</p> <p>115. Lay toothed belt in direction of opening assistance, but do not fix in place yet</p>
	<p>116. Feed through opening in motor bracket and place around opening assistance's toothed belt pulley</p>
 	<p>117. Detach left-hand leaf's toothed belt tensioner plate on other side</p> <p>118. Loop toothed belt around steel rod</p> <p>119. Fasten plate with belt in between</p> <p>120. Can be retensioned by turning hexagonal bolt</p> <p>121. Tension toothed belt so that there is no visible sagging</p> <p>122. Tighten the four nuts on both toothed belt tensioners</p>
	<p>123. Fix toothed belt tensioner plates in place on right-hand side</p>



	<p>124. Screw limit switch actuation bracket onto door leaf approx. 25 mm from guide rail and approx. 200 mm from edge of door leaf (labyrinth side) <b>(2x 5.5x25 flathead screw)</b></p>
	<p>125. Limit switch turns opening assistance off when door is open</p> <p>126. Position limit switch on guide rail casing in such a way that limit switch actuation bracket actuates limit switch when door is opened <b>(2x sheet-metal screw 3.9x60)</b></p> <p>127. Strike off sheet-metal screws from inside</p> <p>128. Test door for correct functioning</p> <p>129. Door closes by means of counterweights and opens with opening assistance</p>

#### 4.13 Sealing (doors with S<sub>a</sub> or S<sub>200</sub> requirement)

	<p>130. In the opening zone the guide rail (attachment to ceiling) must be sealed to the ceiling using a non-shrink method</p>
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#### 4.14 Sealing the door

To comply with S<sub>200</sub> requirements, the door must now be sealed, see:

*Installation Instructions ORPHEUS Sliding Door Optional Wicket - Sealing*

## 4.15 Fitting the electrical components

Directions for fitting the electrical components can be found in the respective manufacturer's installation instructions.

## 4.16 Function test

### 4.16.1 Opening and closing process



People, body parts or objects can be trapped by the door elements when the "ORPHEUS" Sliding Door is opening and closing.

1. Make sure that there are no people or objects in the "ORPHEUS" Sliding Door's movement zone.
2. Check whether the "ORPHEUS" Sliding Door can be fully opened and closed without difficulty and check the end positions
3. Check the smoke detector and safety contact strip for correct functioning

### 4.16.2 Test report

The test report must be completed in full by the expert during commissioning.

### 4.16.3 Information sign

1. Mount the "Fire Barrier" information signs on both sides of the door in such a way that they are clearly visible when the door is open.
2. Affix the rating plate in the immediate vicinity of the opening.
3. Affix the inspection sticker in the space provided on the rating plate in such a way that the test month is below the arrow. Delete the year dates below that do not apply.

## 5 Information regarding maintenance

The safety requirements for power-operated windows, doors and gates are laid down in the current EU standards, national standards and the "Guidelines for Power-Operated Windows, Doors and Gates". These guidelines supplement section 9, 10 and 11 of the current Workplaces Ordinance, and section 28 and 29 of the "General Regulations" relating to accident prevention (VBG1). ASR A 1.7 applies to industrial and commercial use as a matter of principle.

### 5.1.1 Annual maintenance

Statutory maintenance for power-operated doors (in accordance with ASR 1.7) must be performed annually by a competent specialist door company. To prevent damage to the drive technology and door mechanism, the drives and wearing parts (belts, element dogs, bolts, etc.) should be checked and maintained regularly by qualified technicians.

The checks carried out must be documented. This can take the form of entries in a test log or an attached test report, for example. A test seal specifying the next check must also be affixed to the installation where it can be read with ease. Maintenance must not be regarded as equivalent to accident prevention regulation testing.

It is advisable to take out a service contract with the manufacturer, the installer or an establishment with comparable expertise and experience to ensure the upkeep of the installation.

### 5.1.2 Monthly function testing by operator

According to the guidelines for hold-open systems and requirements in the state-specific Technical Building Regulations, testing of all devices for proper and problem-free interaction and maintenance of the hold-open system must be carried out at least once a year by a competent person. The hold-open system must be kept in working order by the operator at all times and tested at least once a month for correct functioning. This must be documented.

If the "ORPHEUS" Sliding Door suffers malfunctions or damage during operation, you must immediately engage a specialist company to inspect and/or repair it.

The owner or their representative is responsible for service and maintenance of the "ORPHEUS" Sliding Door. Any failure in this respect will result in loss of the declared performance.

To ensure the proper functioning of the "ORPHEUS" Sliding Door, you must carry out and document technically correct maintenance at regular intervals. The guidelines for the inspection and replacement of components can be found in the inspection plan and the operating, maintenance and care instructions.

### 5.1.3 Cleaning and care

Please note that pressure washers and highly acidic or caustic solutions will damage the surface of the door elements and cause damage to the door system. Such cleaning methods must not be used. Any failure in this respect will result in loss of the product's declared performance.

Only use cleaning materials that have been identified as suitable by the manufacturer. Refrain from vigorous rubbing on the surface.

In order to reduce exposure to corrosion, affected components must be thoroughly cleaned on a regular basis.

#### 5.1.4 Galvanised surfaces

To ensure that galvanised surfaces are looked after properly, the "ORPHEUS" Sliding Door must be cleaned in accordance with the RAL-GZ 632 or SZFF 61.01 regulations at least once a year, and more frequently where there is more severe environmental pollution.

Only use clean cold or lukewarm water and soft, non-abrasive cloths, rags or industrial cotton wool for cleaning. If necessary, stubborn dirt can be removed by adding small quantities of a neutral cleaning agent.

#### 5.1.5 Painted surfaces

Cleaning implements that contain metal will leave rusting particles of tramp iron on the stainless steel rust-proof surface, which may lead to corrosion damage. Never use scouring sponges that contain metal, wire wool or wire brushes. Unsuitable cleaning agents can attack and damage the stainless steel rustproof surface. Never use products that contain chloride, especially those containing hydrochloric acid, bleach or silver polish. Clean rustproof surfaces with a damp cloth or leather.

## 6 Dismantling and disposal

Generally speaking, the "ORPHEUS" Sliding Door is dismantled in reverse order.



All components and elements must always be secured against toppling, tipping, falling and crushing before and during installation.

The door must be fully disconnected from the power supply before dismantling.

The safety and accident prevention regulations that apply to the specific application must be complied with during dismantling.



To ensure proper disposal, the "ORPHEUS" Sliding Door must be separated into its individual components following dismantling and disposed of in accordance with local official regulations.