

FIRE AND SMOKE BARRIER

# "AQUISO blue" Roller Door

| 31 |  |
|----|--|
|    |  |
|    |  |
|    |  |
|    |  |
|    |  |
|    |  |
|    |  |
|    |  |
|    |  |
|    |  |
|    |  |

### JANSEN TORE GMBH & CO. KG

Am Wattberg 51| 26903 Surwold| Germany TEL: +49 4965 8988 0 | FAX: +49 4965 8988 88| EMAIL: <u>INFO@JANSENTORE.COM</u> | WEB: <u>WWW.JANSENTORE.COM</u>



# 1 Contents

| 2 | Safe  | ty instructions                        | 3  |
|---|-------|--|----|
|   | 2.1   | Symbols                                | 3  |
|   | 2.2   | Safety instructions                    | 3  |
|   | 2.3   | Technically correct installation       | 3  |
|   | 2.4   | Safety precautions for installation    | 4  |
|   | 2.5   | Installer's qualifications             | 4  |
|   | 2.6   | Safety instructions for operation      | 4  |
|   | 2.7   | Transport instructions                 |    |
|   | 2.8   | Guidance and information               |    |
| 3 |       | llation instructions                   |    |
|   | 3.1   | Scope                                  |    |
|   | 3.1.1 | ·                                      |    |
|   | 3.1.2 |  |    |
|   | 3.1.3 |  |    |
|   | 3.1.4 |  |    |
|   | 3.2   | Permissible walls and wall thicknesses |    |
|   | 3.2.1 |  |    |
|   | 3.3   | Permissible wall connections           |    |
|   | 3.4   | Permissible fixtures                   |    |
|   | -     | Attachment of side guiding rails       |    |
|   | 3.4.2 |  |    |
|   | 3.5   | Permissible clearances                 |    |
|   | 3.6   | Permissible clear ances                |    |
|   |       |  |    |
| 4 |       | ng instructions                        |    |
|   | 4.1   | Fitting symbols and abbreviations      |    |
|   | 4.2   | Instructions before fitting starts     |    |
|   | 4.3   | Variants                               |    |
|   | 4.4   | Fitting the side guide rails           |    |
|   | 4.5   | Fitting the brackets (wall)            |    |
|   | 4.6   | Fitting the brackets (Ceiling)         |    |
|   | 4.7   | Fitting the door curtain               |    |
|   | 4.8   | Fitting the drive                      |    |
|   | 4.9   | Sealing (S <sub>200</sub> only)        |    |
|   | 4.10  | Fitting the guide rail cover           |    |
|   | 4.11  | Fitting the electrical components      |    |
|   | 4.12  | Adjusting the end positions            | 16 |
|   | 4.13  | Fitting the hold-down device (option)  | 17 |
|   | 4.14  | Function test                          |    |
|   | 4.14. | 1 Opening and closing process          | 17 |
|   | 4.14. | 2 Test report                          | 18 |
|   | 4.14. | 3 Information sign                     | 18 |
| 5 | Infor | mation regarding maintenance           | 18 |
|   | 5.1.1 | Annual maintenance                     | 18 |
|   | 5.1.2 |  |    |
|   | 5.1.3 | Cleaning and care                      | 19 |
|   | 5.1.4 | -                                      |    |
|   | 5.1.5 | -                                      |    |
| 6 | Dism  | antling and disposal                   |    |
|   |       |  |    |



### 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 "AQUISO blue" Roller Door.



### 2.5 Installer's qualifications

To ensure that the "AQUISO blue" Roller 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 "AQUISO blue" Roller 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 "AQUISO blue" Roller Door. In the event of incorrect use, damage or a dangerous operational state, switch the "AQUISO blue" Roller 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 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 roller door in place of the product name "AQUISO blue" Roller 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:

- \_ EI<sub>2</sub> 30 C "AQUISO blue" Roller Door
- \_ El<sub>2</sub> 30 C2 "AQUISO blue" Roller Door
- \_ El<sub>2</sub> 30 C2 S<sub>a</sub> "AQUISO blue" Roller Door
- \_ El<sub>2</sub> 30 C2 S<sub>200</sub> "AQUISO blue" Roller Door



### 3.1.1 Intended use

An "AQUISO blue" Roller 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 "AQUISO blue" Roller Door in a completely safe condition.
- Have repairs and maintenance on the "AQUISO blue" Roller 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 "AQUISO blue" Roller 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 "AQUISO blue" Roller 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: <u>service@jansentore.com</u>

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 El<sub>2</sub> 30 fire-retardant closures

For a fire-retardant "AQUISO blue" Roller Door with classification  $EI_2$  30 the following minimum requirements must be met for the declared performance to be retained on site:

| Туре | Permissible wall type and components - minimum requirements  | Minimum wall<br>thickness in |
|------|--|------------------------------|
| Type | remissible wan type and components - minimum requirements  | mm                           |
| A    | Walls of masonry in accordance with DIN EN 1996-1-1 alternatively in conjunction with DIN EN 1996-1-1/NA and DIN EN 1996-2 in conjunction with DIN EN 1996-2/NA of brick in accordance with DIN EN 771-1 in conjunction with DIN 20000-401 or DIN 105-100 alternatively DIN EN 771-2 in conjunction with DIN 20000-402 with compressive strengths in at least compressive strength class 12 and with standard masonry mortar in accordance with DIN EN 998-2 in conjunction with DIN V 20000-412 in at least mortar class 5 or in accordance with DIN V 1858016 in at least mortar group II. | ≥115 mm                      |
| В    | Walls or ceilings of concrete or reinforced concrete in accordance with DIN EN 1992-1-1, in conjunction with DIN EN 1992-1-1/NA (The indicative minimum strength classes in accordance with DIN EN 1992-1-1, in conjunction with DIN EN 1992-1-1/NA and NDP for E.1 (2) must be complied with).  | ≥115 mm                      |
| С    | Walls of masonry in accordance with DIN EN 1996-1-1 in conjunction with DIN EN 1996-1-1/NA and DIN EN 1996-2 in conjunction with DIN EN 1996-2/NA with aerated concrete blocks in accordance with DIN EN 771-4 in conjunction with DIN 20000-404 with compressive strengths in at least strength class 4 or with aerated concrete wall panels in accordance with DIN 4166 in at least gross density class 0.55 alternatively in accordance with general building inspectorate approval.  | ≥115 mm                      |
| D    | Walls of reinforced aerated concrete slabs in accordance with general building in-<br>spectorate approval in at least strength class P4.4 and with mortar in at least mor-<br>tar group II alternatively thin-bed mortar in mortar group III.  | ≥115 mm                      |
| E    | Prefabricated stud walls (height ≤ 5 m) with fire-resistant plasterboard cladding on<br>both sides - minimum fire rating F30, designation (abbreviated) F 30-A with follow-<br>ing rating:<br>Walls in accordance with DIN 4102-4 Table 10.2, in conjunction with hollow steel<br>profiles (alternatively in accordance with static requirements)<br>Walls in accordance with DIN 4102-4 Table 10.3, in conjunction with wood studs<br>and/or noggings (alternatively in accordance with static requirements)  |                              |
| F    | Clad steel supports and/or girders in accordance with DIN 4102-4 Table 7.6 – with a minimum fire rating of F 30, designation (abbreviated) F 30-A.   |                              |

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 "AQUISO blue" Roller Door:

- Gap, between profiles of door construction and wall, from 1 mm to 9 mm: in this case the door construction 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 in the case of an Sa door, sealing using a non-shrink method is not required. With an S200, follow the instructions under point Sealing.

### 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 <sub>rk</sub> ] |
|------------|----------------------------|---|
| В          | Bolt anchor / through bolt | ≥ 2 kN  |
| A, B, C, D | Plastic plug               | ≥ 2 kN  |
| A, B, C, D | Threaded rod M8 / M10      | Strength class ≥ 4.6                          |
| А, В       | Grout                      | ≥ 0.6 kN, strength class ≥ 4.6                |
| E, F       | Screw installation M8      | Strength class ≥ 8.8                          |

### 3.4.2 Attachment of lintel labyrinth

| Wall type   | Fixture                    | Min. load-bearing capacity [F <sub>rk</sub> ] |
|-------------|----------------------------|---|
| В           | Bolt anchor / through bolt | ≥ 12 kN                                       |
| A, B, C, D* | Threaded rod M8 / M10      | Strength class ≥ 4.8                          |
| E, F        | Screw installation M8      | Strength class ≥ 8.8                          |

\*Always concrete in opening area



### 3.5 Permissible clearances

Floor gaps can occur when the "AQUISO blue" Roller 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 "AQUISO blue" Roller 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 / Ab-<br>breviation | Meaning   |
|----------------------------|---|
| ©@                         | Components marked with the symbol must be aligned/fitted horizontally |
| 8<br>1<br>0                | Align/fit vertically  |
| FF                         | Finished floor level  |
| СН                         | Clear height  |
| CW                         | Clear width   |

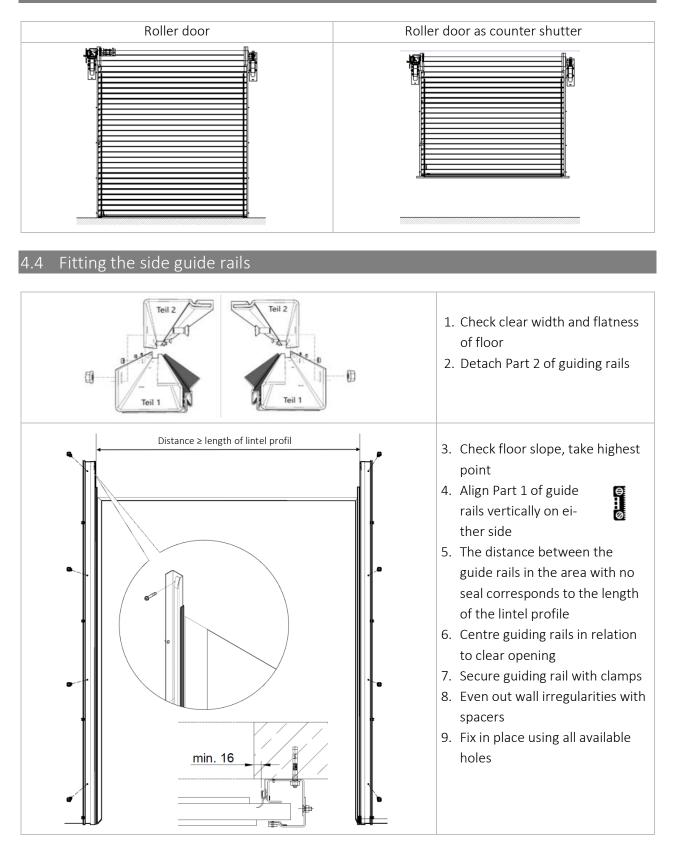
### 4.2 Instructions before fitting starts

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:

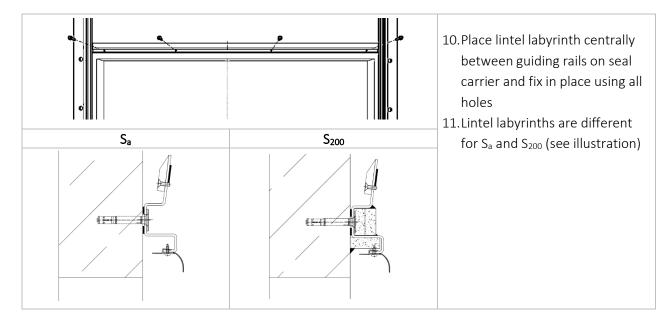
- 1. Read through the full installation instructions
- 2. Identify door's stop side
- 3. Check the ordered dimensions of the door against the structural reality.
- 4. It is recommended that you carry out fitting in the precise order set out below or discrepancies may occur. The manufacturer is not liable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



### 4.3 Variants





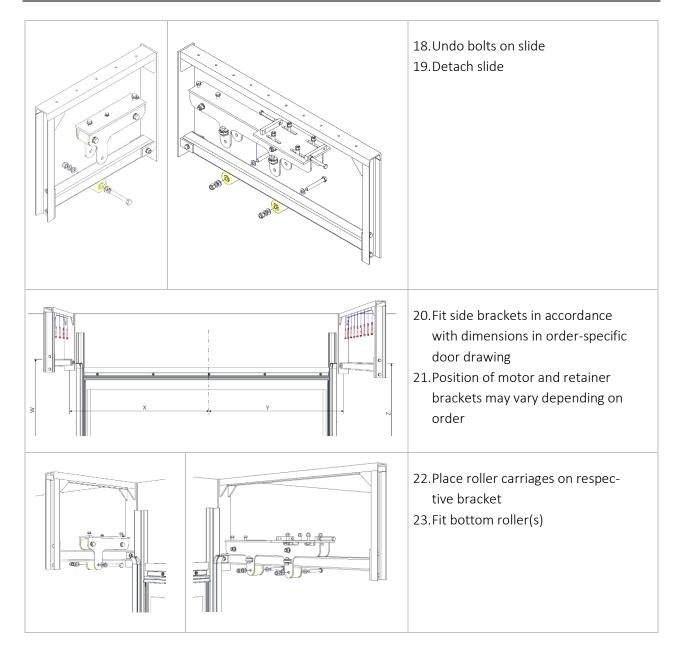


# 4.5 Fitting the brackets (wall)

|                  |  | 12.Undo bolts on slide<br>13.Detach slide   |
|------------------|--|---|
| X<br>Y<br>Y<br>Y | 2<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | <ul> <li>14. Fit side brackets in accordance with dimensions in order-specific door drawing</li> <li>15. Position of motor and retainer brackets may vary depending on order</li> </ul> |
|                  |  | <ul><li>16.Place roller carriages on respective bracket</li><li>17.Fit bottom roller(s)</li></ul>   |



# 4.6 Fitting the brackets (Ceiling)



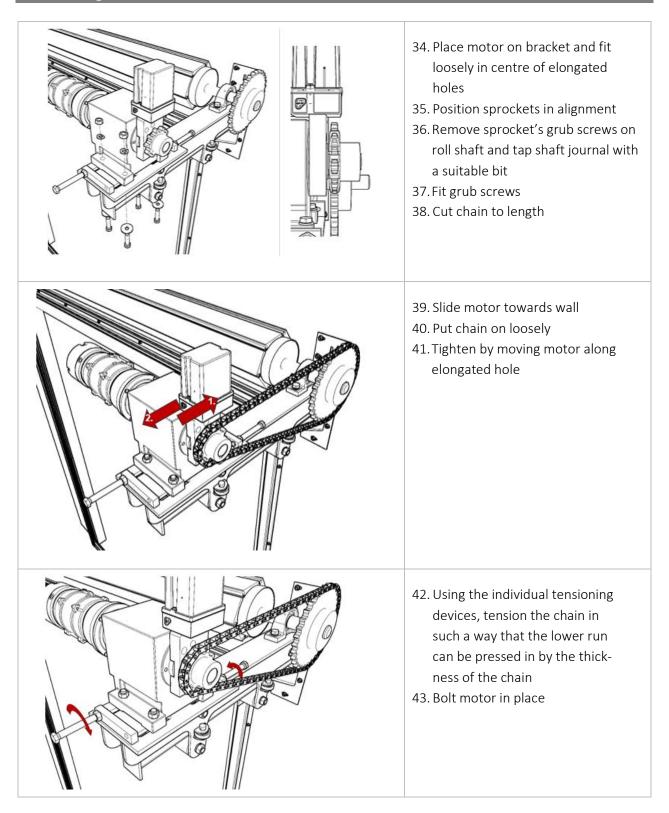


# 4.7 Fitting the door curtain

| <ul> <li>24. Slide retainer loosely onto short<br/>shaft end</li> <li>25. The AB/DOWN arrow on the retainer<br/>must point to the opening side when<br/>unrolling</li> <li>26. Arrangement may vary depending<br/>on order</li> </ul>   |
|---|
| 27. Loosen grub screw on pedestal bear-<br>ing slightly so that bearing can be<br>slid along shaft  |
| <ul> <li>28. Raise curtain with a suitable lifting<br/>aid and lift onto brackets while se-<br/>curing the curtain on the pallet<br/>against shifting</li> <li>29. Align rolled-up roller door curtain so<br/>that slats are in centre of guiding<br/>rails</li> <li>30. Bolt retainer and bearing loosely to<br/>respective bracket</li> </ul> |
| <ul> <li>31. Align rolled-up curtain so that unrolling slats run vertically in guide rails</li> <li>32. Remove bearing's grub screw and tap shaft journal with a suitable bit</li> <li>33. Put grub screws back and tighten</li> </ul>  |

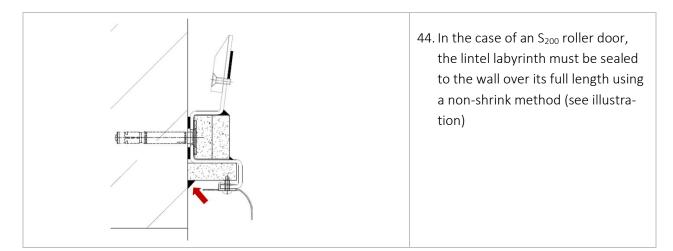


### 4.8 Fitting the drive





# 4.9 Sealing (S<sub>200</sub> only)



## 4.10 Fitting the guide rail cover

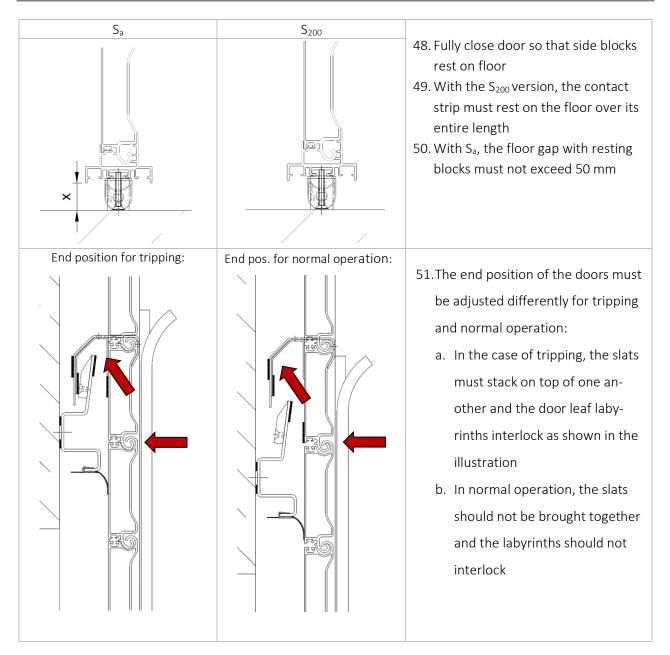
| Sa | S <sub>200</sub> |  |
|----|------------------|--|
|    |                  | <ul><li>45. Loosen tension belts on door curtain</li><li>46. Lower door until bottom slat with end profile is below lintel labyrinth profile</li></ul> |
|    |                  | 47.Connect guide rail cover to part of<br>guide rail that has already been fit-<br>ted   |



### 4.11 Fitting the electrical components

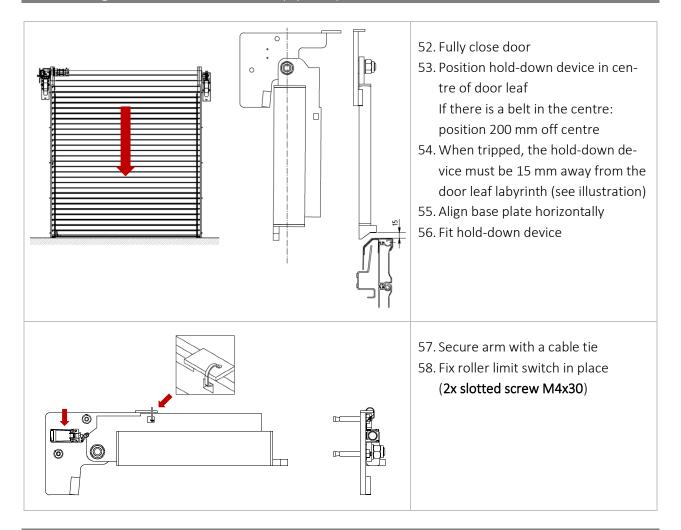
Directions for fitting the electrical components can be found in the respective manufacturer's installation instructions.

### 4.12 Adjusting the end positions





### 4.13 Fitting the hold-down device (option)



### 4.14 Function test

### 4.14.1 Opening and closing process



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

- 1. Make sure that there are no people or objects in the "AQUISO blue" Roller Door's movement zone.
- 2. Check whether the "AQUISO blue" Roller 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



### 4.14.2 Test report

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

#### 4.14.3 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 "AQUISO blue" Roller 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 "AQUISO blue" Roller Door. Any failure in this respect will result in loss of the declared performance.

To ensure the proper functioning of the "AQUISO blue" Roller 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 "AQUISO blue" Roller 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 rustproof 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 "AQUISO blue" Roller 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 "AQUISO blue" Roller Door must be separated into its individual components following dismantling and disposed of in accordance with local official regulations.