

TDOKU 9006857 / 04.2015

**EN**

## **Instructions for Operating and Maintenance**

Rolling shutter DD and rolling grille DD

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## 1 About These Instructions

Dear Customer,

We are delighted that you have decided to choose a Hörmann product.

These instructions are original operating instructions as outlined in EC Directive 2006/42/EC. Read and follow these instructions carefully, especially the section *Basic Safety Instructions* on page 4. They provide you with important information on the safe fitting and operation, as well as proper care and maintenance, of your door system.

Competent operation and proper maintenance influence the performance and availability of your door system to a considerable degree. Operating errors and inadequate maintenance will lead to avoidable failures. Only competent operation and proper maintenance will guarantee satisfactory, long-term operational safety.

The section *Operation* on page 25 contains all the information necessary to ensure correct operation. The door system may only be operated by persons who have been instructed in its proper use. Instruction is provided by the fitting personnel following the initial start-up procedures.

Section *Inspection and maintenance* on page 27 sets out and describes all the inspections and maintenance work to such an extent that a specialist (competent person as defined in EN 12635) is capable of carrying out maintenance. These maintenance instructions do not constitute work instructions permitting more extensive repairs to be carried out. Our Customer Service will be happy to carry out this work for you.

Should you have any questions on having read through these instructions, please feel free to consult our Customer Service.

### 1.1 Intended use

The rolling shutter DD and rolling grille DD are only suitable for the following applications:

- Operation in industrial and commercial applications
- Closing passage openings
- Closing openings with a vertically guided door leaf

Using the door for purposes other than or exceeding those stated above is prohibited.

### 1.2 Further applicable documents

In addition to these instructions, observe the following documents:

- Instructions for fitting, operating and service of the door control
- Instructions for fitting additional electrical control elements
- Additional sheets for special components or special equipment

### 1.3 Standards and directives to be observed

#### 1.3.1 Fitting and maintenance

At the least, observe the following European standards and directives, as well as country-specific safety requirements, standards and regulations.

305/2011	Construction Products Regulation
2006/42/EC	Machinery Directive

2006/95/EEC	Low Voltage Directive
2004/108/EC	Electromagnetic Compatibility
EN 12453	Doors – Safety in use of power operated doors – Requirements
EN 12604	Doors – Mechanical Aspects – Requirements
EN 12635	Doors – Fitting and Use
EN 12978	Doors – Protective Devices for Power-Operated Doors – Requirements and Test Methods
EN 13241-1	Doors – Product Standards – Part 1: Products Without Fire-Proof and Smoke-Tight Properties
EN 60204-1	Electrical Machine Equipment
EN 60335-1	Safety of Household and Similar Electrical Appliances

For safety and health at work, observe at least the following rules and regulations or comparable national regulations, e.g.:

ASR A1.7	Power-Operated Windows and Doors
BGV A3	General Regulations – Electrical Installations and Equipment

### 1.3.2 Operation




At the least, observe the following European standards, as well as country-specific safety requirements, standards and regulations.


EN 12453	Doors – Safety in use of power operated doors – Requirements
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For safety and health at work, observe at least the following rules and regulations or comparable national regulations, e.g.:








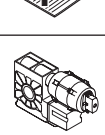
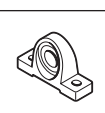

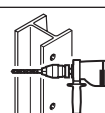

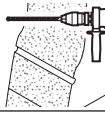

ASR A1.7	Power-Operated Windows and Doors
BGV A3	General Regulations – Electrical Installations and Equipment

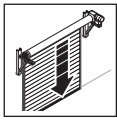
### 1.4 Warnings used

<b>ATTENTION</b>	Indicates a danger that can lead to <b>damage or destruction of the product.</b>
	The general warning symbol indicates a danger that can lead to <b>injury or death</b> . In the text section, the general warning symbol will be used in connection with the caution levels described below. In the illustrated section, an additional instruction refers back to the explanation in the text.
 <b>CAUTION</b>	Indicates a danger that can lead to minor or moderate injuries.
 <b>WARNING</b>	Indicates a danger that can lead to death or serious injuries.

 <b>DANGER</b>	Indicates a danger that immediately leads to death or serious injuries.
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### 1.5 Symbols Used

-  Important note for avoiding damage to property
-  Correct arrangement or activity
-  Incorrect arrangement or activity
-  See text section
-  See illustrated section
-  See separate fitting instructions for the control or for the additional electrical control elements
-  See additional sheets
-  Operator side
-  Bearing side
-  Optional components
-  Drilling in steel
-  Drilling in concrete
-  Drilling in brickwork
-  Drilling in timber



Door closed



Measure



Remove and dispose of component or packaging



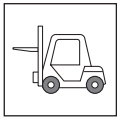
Remove residue



Tighten the screws by hand



Plug-and-screw fitting: see information in the text



Use a suitable lifting device (e.g. forklift, crane)

## 1.6 Indices used

### General test dimensions on the building structure

p1	Clear width of the building opening
p2	Clear height of the building opening
p3	Min. sideroom for support bracket on left
p4	Min. sideroom for side guide on left
p5	Min. sideroom for support bracket on right
p6	Min. sideroom for side guide on right
p7	Min. headroom
p8	Min. overall fitting depth

## 1.7 Abbreviations used

EN	European standard
FFL	Finished floor level

## 2 Basic Safety Instructions

Keep these instructions safe at the place of use together with all the door documentation.

### WARNING

#### Incorrect fitting or incorrect handling

Incorrect fitting or handling of the door could result in serious injury.

- ▶ Follow all the instructions provided in this manual!

## 2.1 Transport

### ATTENTION

#### Transport of the door curtain without a special pallet

The door may be damaged if transported without a pallet.

- ▶ The door curtain must only ever be transported on the special pallet.

## 2.2 Fitting, testing and maintenance

Fitting, testing and maintenance may only be carried out by a qualified person. According to EN 12635, a qualified person is a person with suitable training, specialist knowledge and practical experience sufficient to correctly and safely fit, test, and carry out maintenance on a door system.

- For your own safety, have the product installed by an approved specialist company.
- Do not alter or remove any functional parts! You otherwise risk putting important safety components out of action.
- Always obtain the permission of the structural engineer before fastening the door to supporting structural elements.
- Throughout fitting, protect the door system components, especially the door curtain, against dirt and damage.
- Make sure that whenever checks, maintenance work and cleaning are being carried out, the door system cannot be actuated by other persons.

### WARNING

#### Changes to the door construction

Additional components could overload the door construction and lead to serious injuries.

- ▶ Do not attach any additional components.

## 2.3 Operation

- The door system may only be operated by persons who have been instructed in its proper use. Instruction is provided by the fitting personnel following the initial start-up procedures.
- The door system opens and closes vertically upwards and downwards. When operating the door, always make sure that there are no persons, especially children, or objects within the door's area of travel!

### WARNING

#### Defective door systems

A fault in the door system can lead to serious injuries.

- ▶ Only ever use the door when it is technically sound and in perfect working order.

### 3 Warranty

For the warranty, the generally recognised terms and conditions or those agreed in the delivery contract apply. The warranty will no longer apply under the following conditions:

- You damage the door due to a lack of knowledge of the information provided in these Instructions for Fitting, Operating and Maintenance.
- You carry out structural modifications without our prior approval.
- You undertake improper installation or arrange for same to be carried out by others, contrary to the installation guidelines we have set out.
- You damage the door due to improper operation (see section *Operation* on page 25).
- You are using the door for purposes for which it was not intended (see section *Intended use* on page 2).
- You fail to have the door inspected and maintained at regular intervals as stipulated (see section *Obligation to inspect and maintain* on page 27).

### 4 Fitting

#### NOTES:

Take note of the following documents:

- Enclosed additional sheets for special components or special equipment
- The fitting notes in section *Basic Safety Instructions* on page 4
- The fitting and operating safety requirements as described in section *Standards and directives to be observed* on page 2

All specified dimensions in the illustrated section are in [mm].

#### 4.1 Testing prior to fitting the door

##### 4.1.1 Prerequisites for the building structure

Only fit the door under the following conditions:

- There is a second exit in the room where the door is to be fitted.
- A water run-off has been installed outside in front of the bottom seal.
- A metre line is present.
- The hall floor is finished.
- The building structure is level (tolerance  $\pm 5$  mm).

##### 4.1.2 Door components

Check the following points before fitting:

- The delivery is complete.
- All the components are damage-free.

#### 4.1.3 Fixing material

#### WARNING

##### Danger of damage and falling when unsuitable fixing material is used

- ▶ If used as an external rolling shutter or in car wash halls, only use stainless steel fixing material to fix the support brackets.
- ▶ When fastening the door system to a building structure made of gas concrete, always provide a subframe of steel posts.

#### NOTES:

- Check whether the fixing material intended for use with the existing building structure have been included/are available.
- Only use the fixing material listed in the following table.

#### Support brackets

	40 mm shaft bearing (door weight < 450 kg)
<b>Steel</b>	Screw DIN933 M8 x 40 A4
<b>Concrete</b>	Würth W-FAZ M8 x 75 A4
<b>Brickwork</b>	Threaded rod M8 x 500 A4
<b>Timber</b>	Threaded rod M8 x 500 A4

	40 mm shaft bearing (door weight $\geq$ 450 kg)
<b>Steel</b>	Screw DIN933 M8 x 40 A4
<b>Concrete</b>	Würth W-FAZ M10 x 90 A4
<b>Brickwork</b>	Threaded rod M8 x 500 A4
<b>Timber</b>	Threaded rod M8 x 500 A4

	60 mm shaft bearing
<b>Steel</b>	Screw DIN933 M12 x 50 A4
<b>Concrete</b>	Würth W-FAZ M12 x 110 A4
<b>Brickwork</b>	Threaded rod M12 x 500 A4
<b>Timber</b>	Threaded rod M12 x 500 A4

#### Side guides

	without subframe profiles
<b>Steel</b>	Screw DIN7981C-T30 6.3 x 19
<b>Concrete</b>	Wood screw LK 6 x 60 T30 Würth Zebra-Shark KST 8 x 46
<b>Brickwork</b>	Wood screw LK 6 x 60 T30 Würth Zebra-Shark KST 8 x 46
<b>Timber</b>	Wood screw LK 6 x 60 T30

	1 subframe profile
<b>Steel</b>	Screw DIN7981C-T30 6.3 x 50
<b>Concrete</b>	Wood screw LK 6 x 90 T30 Würth Zebra-Shark KST 8 x 46
<b>Brickwork</b>	Wood screw LK 6 x 90 T30 Würth Zebra-Shark KST 8 x 46
<b>Timber</b>	Wood screw LK 6 x 90 T30

	2 subframe profiles
<b>Steel</b>	Screw DIN7981C-T30 6.3 x 80
<b>Concrete</b>	Wood screw LK 6 x 120 T30 Würth Zebra-Shark KST 8 x 46
<b>Brickwork</b>	Wood screw LK 6 x 120 T30 Würth Zebra-Shark KST 8 x 46
<b>Timber</b>	Wood screw LK 6 x 120 T30

#### Lintel seal

<b>Steel</b>	Screw DIN7981C-T30 6.3 x 19
<b>Concrete</b>	Wood screw LK 6 x 60 T30 Würth Zebra-Shark KST 8 x 46
<b>Brickwork</b>	Wood screw LK 6 x 60 T30 Würth Zebra-Shark KST 8 x 46
<b>Timber</b>	Wood screw LK 6 x 60 T30

#### Centre support bracket PVDD

<b>Steel</b>	Screw DIN933 M12 x 50 A4
<b>Concrete</b>	Würth W-FAZ M12 x 110 A4
<b>Brickwork</b>	Threaded rod M12 x 500 A4
<b>Timber</b>	Threaded rod M12 x 500 A4

#### Plug-and-screw fitting

##### NOTES:

Only fit the plugs under the following prerequisites:

- The building structure is at least 30 mm thicker than the depth of the drill hole.
- The edge distance from the drill hole to the building structure edge is at least 50 mm.

Only use new plug sleeves.

##### Procedure:

1. Drill the hole at a right angle to the surface.
2. Remove the drilling dust from the drill hole.
3. Insert the plug sleeve into the drill hole by lightly hammering in with a mason's mallet until the collar is flush with the building structure or structural component.
4. Tighten the screw until the component fits snugly against the building structure.  
The following conditions must be met:
  - It must be difficult to turn the screw further.
  - The plug sleeve must not turn with the screw.

#### 4.1.4 Fitting aids

##### NOTE:

Use suitable tools and appropriate equipment for fitting the door system.

Have the following aids ready:

- A suitable lifting device (forklift, crane) to lift the door curtain onto the support brackets. Observe the overall weight of the door curtain stated in the data label.
- A suitable lifting platform or scaffold

#### 4.1.5 Welding

##### WARNING

##### Danger of fire and explosions through welding work

Welding work can lead to fire and explosions caused by gas, dust, vapour and smoke.

##### Take the following precautions:

- ▶ Do not carry out any welding, grinding or work involving burning without permission.
- ▶ Before carrying out any welding, grinding or work involving burning, clean the door system to remove any dust or combustible substances.
- ▶ Make sure that there is sufficient ventilation.
- ▶ Make sure you have a fire extinguisher ready.
- ▶ Observe the statutory fire alarm and fire-fighting regulations.

##### ATTENTION

##### Damage to plastic parts when welding

- ▶ Keep plastic parts away from the welding flame and protect them against heat effects in the proximity of the welding area.

##### NOTES:

Only carry out welding work if you are a qualified welder or have had equivalent training.

If fitting by welding, use the following electrodes or ones of an equivalent type:

- Phoenix SH Blau acc. to EN 499: E 42 0 RR 11
- UTP 612 acc. to EN 499: E38 0 RC 11

#### 4.1.6 Additional door components

Before fitting the door, install the following components (if provided):

- Additional posts
- Weld-on plates
- Fascia panel
- Side panel
- Fixed pass door assembly
- Swing-aside pass door assembly

During fitting, observe the data stated in the following documents:

- Fitting dimension sheet
- Additional sheets

#### 4.2 Fitting steps

Fit the door system using the following illustrations.

- Proceed carefully step by step.
- Observe all additional notes given.

## 4.3 Control system and control elements

### NOTES:

- Only attempt to carry out the electrical installation provided you are an electrical engineer or have received adequate instruction from an electrical engineer. More specifically, you must possess the following qualifications:
  - You must recognise the hazards that electricity can cause.
  - You must be familiar with the applicable electrotechnical regulations.
  - You must be able to use and take care of the safety equipment.
  - You know how to give first aid.
- In addition, observe the following instructions:
  - Instructions for fitting, operating and service of the door control
  - Instructions for installation of electrical connections
  - Instructions for fitting additional electrical control elements
- Make sure that the electrical installation complies with the applicable safety requirements.
- Only fit the control under the following conditions:
  - The control is within sight of the door.
  - The control is out of the reach of children at a height of at least 1500 mm.

### ATTENTION

#### External voltage or lead damage

Electronics can be destroyed by external voltage or damage to the connecting leads.

- ▶ Do not apply any external voltage to the connecting terminals of the control.
- ▶ Never pull on the connecting leads of the electrical components.

## 5 Initial Start-Up

### CAUTION

#### Defective door systems

Putting a defective door system into service can lead to injuries and door system damage.

- ▶ Before putting the door into service, check that it is in good working order and free of defects.
- ▶ Do not put the door system into service if it is defective.

### 5.1 End-of-travel positions

The door's end-of-travel positions are set at the control.

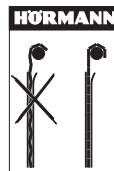
#### NOTES:

Observe the instructions for the operator and control.

Set the end-of-travel positions as follows:

#### CLOSE end-of-travel position

- The bottom profile contacts the floor along the full length
- Max. 5 profiles have travelled into one another
- The rolling grille curtain does not bulge out and hangs straight down.



Make sure that no more than 5 profiles travel into one another, otherwise the following problems may occur:

- The door will produce increased noise on opening.
- The closed door is unstable and tends to rattle under heavy wind loads.

### WARNING

#### Exceeding the CLOSE end-of-travel position

If the door travels beyond the CLOSE end-of-travel position, there is a risk that the connection between the door curtain and barrel will be damaged, causing the curtain to fall off the barrel. There is a danger of injury and damage to the door system.

- ▶ Set the CLOSE end-of-travel position according to the specifications.

#### OPEN end-of-travel position

The distance from the FFL to the bottom edge of the bottom profile corresponds to the door height in the data label. The OPEN end-of-travel position is marked with an engraved line on both side guides.

### WARNING

#### Exceeding the OPEN end-of-travel position

If the door travels beyond the OPEN end-of-travel position, there is a risk of the door curtain slipping out of the guide rails and sustaining damage. There is also a danger of injury and of damage to the door system.

- ▶ Set the OPEN end-of-travel position according to the specifications.

## 5.2 Lintel seal

### ATTENTION

#### Dirty lintel seal

A dirty lintel seal can damage the surface of the door curtain.

- ▶ Clean the lintel seal immediately after fitting (see *Lintel seal* on page 29).

## 5.3 Test run

After fitting is complete, test the functional safety in accordance with the inspection plan (see *Inspection and maintenance plan* on page 28).

Verify in the test log book (dated and signed) that a test run has been successfully completed.

On completing installation, a test run and the inspection, hand the entire door documentation over to the owner of the door system.


## 6 Operation

### 6.1 Safety instructions for door operation

#### NOTES:

As the operator or owner of the door system, you are responsible for ensuring that all applicable regulations are observed and complied with. You can find the applicable

regulations in *Standards and directives to be observed on page 2.*

 <b>CAUTION</b>
<b>Danger of injury due to incorrect handling of door system</b>
Handling the door system incorrectly can lead to injury. Observe the following safety instructions.
<ul style="list-style-type: none"> <li>▶ You are responsible for ensuring that only suitably instructed persons operate the door. An instructed person (according to EN 12453) is anyone who fulfils the following requirements:                             <ul style="list-style-type: none"> <li>– He/she has been shown how to operate the door safely.</li> <li>– He/she has received permission from you to use the door system.</li> </ul> </li> <li>▶ You are responsible for ensuring that children cannot operate the door system, neither via the control nor the control elements.</li> <li>▶ Wait until the door has come to a complete halt before walking/driving into the door's area of travel.</li> <li>▶ Never use the door to lift objects and/or persons.</li> <li>▶ Whenever driving in or out of the opening, always check that the door curtain has travelled up far enough to provide the necessary passage height.</li> <li>▶ Only ever operate the door system when all the protective devices and safety equipment are fitted and are in perfect working order.</li> <li>▶ Do not dismantle or alter any of the protective devices. Do not put any of the protective devices out of operation.</li> </ul>

<b>ATTENTION</b>
<b>Damage due to incorrect handling of the door system</b>
Handling the door system incorrectly can lead to damage to the door system. Observe the following safety instructions.
<ul style="list-style-type: none"> <li>▶ Only use the emergency operation device from a safe position (floor, approved ladder or scaffolding).</li> <li>▶ Do not hang on the emergency hand chain with your body weight.</li> <li>▶ Protect the door from aggressive and caustic substances, such as:                             <ul style="list-style-type: none"> <li>– nitrous acid action from stone or concrete</li> <li>– Cement, plaster</li> <li>– Acids, alkali</li> <li>– Road salt</li> <li>– Coatings/paint with an aggressive action</li> <li>– Sealants with an aggressive action</li> </ul> </li> </ul>

**NOTE:**

Make sure you are familiar with the way the door control, the control elements and the operator work, so you know how to operate these devices properly (see instructions).

**6.2 Emergency-OFF**

To effect an emergency stop take the following actions:

- ▶ Pull out the red CEE mains plug to disconnect from the power supply.  
or
- ▶ Actuate the red main switch or the emergency-OFF button.

**6.3 Emergency operation in the case of safety equipment malfunctioning**

In the event of malfunctions or failure of safety equipment, you can operate the door in emergency mode using press-and-hold operation.

Safety equipment includes e.g.:

- Closing edge safety device
- Roll-up safety device
- Safety photocells

**NOTES:**

In this regard, follow the instructions in the manual supplied with the control.

**6.4 Operating conditions**

The door system is intended for the following operating conditions:

- Temperature range: –20°C to +40°C
- Relative humidity: 0% to 60%

**6.5 Wind load**

<b>ATTENTION</b>
<b>Damage to the door system due to wind load</b>
The door curtain deflects under wind loads. Door function is not guaranteed and door parts may be damaged during heavy wind loads.
<ul style="list-style-type: none"> <li>▶ Never open or close the door during a wind force exceeding 8 Beaufort.</li> </ul>

The following conditions may arise due to high wind loads:

- The door curtain can deform permanently.
- The door construction can suffer damage.

Follow these steps after a heavy wind load:

- Inspect the operational safety of the door system (see *Obligation to inspect and maintain* on page 27).
- Repair storm damage before putting the door system back into service (see *Storm damage* on page 27).

**6.6 Information on the product characteristics**

**6.6.1 Abrasion and pressure marks**

The design of the DD rolling shutter represents state-of-the-art technology. Pressure marks and abrasive wear, particularly on the top profiles, are design-related and cannot be avoided.

- ▶ In order to avoid excessive abrasion, remove any soiling (e.g. sand, dust, plastic particles etc.) at regular intervals.



**NOTES:**

Follow the directions for door cleaning and care (see *Cleaning and Care* on page 29).

**6.6.2 Noise**

Opening and closing the door produces a certain degree of noise related to the design. The noise emission does not exceed 70 dB(A).

Increased noise emission could occur under the following conditions:

- Extensive soiling of the curtain (see *Cleaning and Care* on page 29)
- Incorrectly set door end-of-travel positions (see *End-of-travel positions* on page 25)
- Incorrectly fitted door systems

**6.6.3 Windows**

If conditions are damp and temperatures unfavourable, this can cause the window panes to mist up. This moisture will eventually dissipate and does not cause any long-term damage.

**6.6.4 Deflection (bowing)**

The curtain is flexible. A slight deflection of the door profiles in the unloaded state does not constitute grounds for concern nor does it impair the function.

Door width [mm]	Deflection [mm]
2000	2
3000	5
4000	8
5000	13
6000	18
7000	25
8000	32
9000	41
10000	50
11000	61
12000	72

Deflection can be significantly increased under heavy wind loads.

**7 Inspection and maintenance**

**7.1 Obligation to inspect and maintain**

**NOTES:**

As the owner or operator of the door, you must have the system inspected and maintained by a specialist (competent person as defined in EN 12635) once a year –

in the case of more than 50 door cycles a day, every 6 months.

<b>CAUTION</b>
<p><b>Ignoring the obligation to inspect and maintain</b></p> <p>The following problems may occur if you do not have the door inspected and maintained as specified:</p> <ul style="list-style-type: none"> <li>• Risk of injury</li> <li>• Risk of damage</li> <li>• Nullification of the warranty</li> </ul> <p>▶ Arrange for all the inspections and maintenance work to be carried out by a specialist company.</p>

**7.2 Malfunctions and damage remedy**

In the case of malfunctions call in a qualified specialist (competent person in accordance with EN 12635) immediately to inspect and repair the door system.

**7.3 Original spare parts**

Only use original spare parts. They always meet the technical requirements laid out by us.

**7.4 Operator power**

The voltage of the electricity supply must be 95% of the working voltage of the operator. Any voltage lower than this can lead to malfunctions in operating the door.

**7.5 Storm damage**

Examine the following parts of the door system after wind loads of 8 Beaufort or greater:

Component	Test criterion	ok
<b>Door curtain</b>	1. No permanent deformations which could impair operation of the door (e.g. curtain rolling up unevenly or obliquely)	
<b>End pieces with wind locks</b>	1. No torn-out wind locks 2. No visible strain on the connection between wind lock end pieces and profile	
<b>Side guides</b>	1. No deformation 2. Firmly seated on the building structure	

- ▶ If the wind locks have torn out, replace the end locks and the profiles concerned.

**7.6 Locking cylinders**


<b>ATTENTION</b>
<p><b>Damage to the locking cylinders due to unsuitable cleaning products</b></p> <p>Locking cylinders may not be cleaned with agents containing oil or be greased.</p> <ul style="list-style-type: none"> <li>▶ Only use specialised care products.</li> <li>▶ Do not use oil or graphite.</li> </ul>

**7.7 Inspection and maintenance plan**

**NOTES:**

Please observe the following:

- The applicable regulations governing work safety when carrying out inspections and maintenance
- the notes in section *Basic Safety Instructions* on page 4
- all inspection and maintenance advice relating to accessories

 <b>CAUTION</b>
<b>Actuation by other persons</b>
Actuating the door system while inspecting or performing maintenance work can lead to injuries and damage.
▶ Make sure that whenever checks, maintenance work and cleaning are being carried out, the door system cannot be actuated by other persons.
▶ Follow all the inspection and maintenance advice relating to accessories.

Only inspect and maintain this door if you are qualified to do so, i.e. are a competent person as defined in EN 12635. In other words, you have the suitable training, specialist knowledge and practical experience to allow you to carry out inspection and maintenance correctly and safely.

**NOTES:**

In normal operating conditions all the bearings, including the gearbox, are lubricated for life and are maintenance-free.

Component	Test criterion	ok
<b>Side guides</b>	<ol style="list-style-type: none"> <li>1. No deformation</li> <li>2. Undamaged</li> <li>3. Firmly seated on the building structure</li> <li>4. Fixing material complete</li> <li>5. Tightening torque of the fastenings meets the requirements</li> </ol>	
<b>Slide profiles</b>	<ol style="list-style-type: none"> <li>1. No deformation</li> <li>2. Undamaged</li> <li>3. Bristle seal fitted<sup>1)</sup></li> <li>4. Bristle seal has not been pulled out</li> </ol>	
<b>Rolling shutter curtain</b>	<ol style="list-style-type: none"> <li>1. No collision damage</li> <li>2. No increased abrasive wear or pressure marks</li> <li>3. Undamaged</li> <li>4. No unusual soiling (sand, chemicals)</li> <li>5. Curtain runs smoothly into the side guides</li> </ol>	
<b>Rolling grille curtain</b>	<ol style="list-style-type: none"> <li>1. No collision damage</li> <li>2. No bulging</li> <li>3. Honeycomb connections undamaged</li> <li>4. No unusual soiling (sand, chemicals)</li> </ol>	

Component	Test criterion	ok
<b>End pieces<sup>1)</sup></b>	<ol style="list-style-type: none"> <li>1. Complete</li> <li>2. Undamaged</li> <li>3. Firmly seated on the profiles</li> <li>4. Fixing material undamaged</li> </ol>	
<b>Wind locks/ pull-out protection</b>	<ol style="list-style-type: none"> <li>1. Complete</li> <li>2. Do not touch each other when door curtain rolls up</li> <li>3. With HR116 profiles: rubber bearings undamaged</li> </ol>	
<b>Screw-on fixing brackets</b>	<ol style="list-style-type: none"> <li>1. Complete</li> <li>2. Not bent up</li> <li>3. No slotted holes present</li> <li>4. Firmly seated on the shaft</li> <li>5. Fixing material complete</li> </ol>	
<b>Bottom profile</b>	<ol style="list-style-type: none"> <li>1. Undamaged</li> </ol>	
<b>Data label</b>	<ol style="list-style-type: none"> <li>1. Fitted</li> <li>2. Undamaged</li> </ol>	
<b>Bottom seal</b>	<ol style="list-style-type: none"> <li>1. Undamaged</li> </ol>	
<b>Support brackets</b>	<ol style="list-style-type: none"> <li>1. No deformation</li> <li>2. Fixing material complete</li> <li>3. Tightening torque meets the requirements</li> <li>4. Weld seams are undamaged</li> <li>5. Distance from the centre of the barrel to the lintel is according to the specifications</li> </ol>	
<b>Operator</b>	<ol style="list-style-type: none"> <li>1. No unusual sounds when running</li> <li>2. No oil leaks</li> <li>3. Working temperature normal</li> <li>4. Fixing material complete</li> <li>5. Tightening torque of the fastenings meets the requirements</li> </ol>	
<b>Bearing</b>	<ol style="list-style-type: none"> <li>1. Fixing material complete</li> <li>2. Tightening torque of the fastenings meets the requirements</li> </ol>	
<b>Barrel</b>	<ol style="list-style-type: none"> <li>1. Horizontally balanced and aligned</li> <li>2. Undamaged</li> <li>3. Smooth running</li> <li>4. No subsequent changes</li> </ol>	
<b>Barrel journal</b>	<ol style="list-style-type: none"> <li>1. Fully seated in the bearing</li> <li>2. Fully seated in the operator</li> </ol>	
<b>Distance sleeves</b>	<ol style="list-style-type: none"> <li>1. Complete</li> <li>2. Undamaged</li> <li>3. No axial displacement possible</li> </ol>	
<b>Lintel seal<sup>1)</sup></b>	<ol style="list-style-type: none"> <li>1. Undamaged</li> <li>2. No heavy soiling present</li> <li>3. Fixing material complete</li> <li>4. Tightening torque of the fastenings meets the requirements</li> </ol>	

Component	Test criterion	ok
<b>Door end-of-travel position and safety limit switches</b>	<ol style="list-style-type: none"> <li>Setting meets the requirements</li> <li>In perfect working order</li> <li>At the CLOSE end-of-travel position no more than 3 - 4 profiles have travelled into one another</li> </ol>	
<b>Manual operation (service and fitting adapter or emergency hand chain)</b>	<ol style="list-style-type: none"> <li>Fitted</li> <li>In perfect working order</li> </ol>	
<b>Control</b>	<ol style="list-style-type: none"> <li>Housing undamaged</li> <li>No moisture in the control</li> <li>Membrane push buttons working</li> <li>Switch-off devices in the control cover (miniature lock, main switch, etc.) are in perfect working order</li> <li>CEE plug is easy to disconnect</li> </ol>	
<b>Wiring</b>	<ol style="list-style-type: none"> <li>Conforms to standard</li> <li>Leads undamaged</li> <li>Cable fixings OK</li> </ol>	
<b>Closing edge safety device<sup>2)</sup></b>	<ol style="list-style-type: none"> <li>In perfect working order</li> <li>Cable and housing undamaged</li> <li>Setting of closing edge safety device STOP position meets the requirements</li> </ol>	
<b>Roll-up safety device<sup>2)</sup></b>	<ol style="list-style-type: none"> <li>In perfect working order, no impermissible reflection</li> <li>Cable and housing undamaged</li> <li>Position of photocells meets the requirements</li> <li>Lenses are clean</li> </ol>	
<b>Radio control<sup>2)</sup></b>	<ol style="list-style-type: none"> <li>In perfect working order</li> </ol>	
<b>Lockable bottom profile<sup>2)</sup></b>	<ol style="list-style-type: none"> <li>Undamaged</li> <li>In perfect working order</li> <li>Safety switch at correct setting and properly connected</li> </ol>	
<b>Shootbolt<sup>2)</sup></b>	<ol style="list-style-type: none"> <li>Undamaged</li> <li>In perfect working order</li> <li>Safety switch at correct setting and properly connected</li> </ol>	
<b>PVDD<sup>2)</sup></b>	<ol style="list-style-type: none"> <li>Undamaged</li> <li>Fixing material complete</li> <li>Tightening torque of the fastenings meets the requirements</li> </ol>	
<b>Fascia panel<sup>2)</sup></b>	<ol style="list-style-type: none"> <li>Undamaged</li> <li>Fixing material complete</li> <li>Tightening torque of the fastenings meets the requirements</li> <li>Weld seams undamaged and meet the requirements</li> </ol>	

- This structural component is not used on the rolling grille or the test criterion is not applicable
- Optional components

## 8 Cleaning and Care

To preserve the surface characteristics, regular cleaning must be carried out at least every 3 months (door curtain, seals).

Contact with aggressive media (acids, alkali, salts, etc.) must always be avoided. If, however, the door surface or the attached parts are contaminated, they must immediately be rinsed completely of any residue using clear water.

<b>ATTENTION</b>
<p><b>High-pressure cleaner</b></p> <p>Cleaning the door system with a high-pressure cleaner can lead to door system malfunctions and damage.</p> <ul style="list-style-type: none"> <li>Do not use any high-pressure cleaners for cleaning the door system.</li> </ul>

### 8.1 Door curtain

- Use warm water together with a neutral, non-abrasive cleaning agent (household detergent, pH value 7)
- To clean the surface, use only a soft cloth or a window leather.
- Rinse off any dirt and dust particles with clear water.

<b>ATTENTION</b>
<p><b>Rubbing panes dry</b></p> <p>Scratches may occur.</p> <ul style="list-style-type: none"> <li>Do not rub panes dry.</li> </ul>


### 8.2 Lintel seal

Remove dust and dirt at regular intervals.

### 8.3 Safety equipment and photocells

Clean the lenses and reflectors regularly with a soft, dry, lint-free towel. Soiled optics can impair function.

## 9 Extension and Conversion

 <b>WARNING</b>
<p><b>Use of non-authorized components</b></p> <p>Non-authorized components could overload the door construction. This could lead to serious injuries and damage.</p> <ul style="list-style-type: none"> <li>Any conversion of the door system requires the express permission of the manufacturer.</li> <li>Only use components that have been approved by the manufacturer.</li> </ul>

### NOTES:

Carrying out any structural alterations to the product without the manufacturer's permission renders the warranty and product liability null and void.

## 10 Dismantling

### NOTES:

When dismantling the door, observe the applicable regulations governing work safety.

1. Open the door fully.
2. Carefully roll up the door (manual operation).
3. Tape round the door curtain several times with strong adhesive tape (e.g. packing tape) to prevent it from unrolling.
4. Drive a forklift with suitable pallet underneath the door curtain so that the door curtain lies on the pallet.
5. Loosen the fastenings of the support brackets from the building structure.

### CAUTION!

**The operator or the bearing can slip off the barrel journal.**

- ▶ When letting the door curtain down, take care to keep it horizontal.
6. Let the door curtain with support brackets and operator down on the floor.
  7. Disassemble the side guides.
  8. Dismantle the door into component parts and dispose of them properly.