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UNIQUIN System

EN 1 About this manual

1.1 Information about the manual

This manual describes the characteristics of the UNIQUIN frame system and contains general information about installation and operation. The illustrated unit components and configurations are an example and do not show every possible product combination. This manual does not replace the installation manual, it complements the information with reference to the unit as a whole. See other applicable documents for further information.

1.2 Other applicable documents:

Refer to the following technical documents for the product:

1.2.1 Project-related unit drawing



TIPS AND RECOMMENDATIONS

A project-related unit drawing is only required for units in fixed length or fixed length with oversize.

No project-related unit drawing will be created if standard stock lengths are ordered.

Target group

Qualified personnel (fitters), planners (architects) and operators

Content and structure:

- Diagram of the arrangement of supplied system components
- Technical drawings with dimensions
- Diagram of installation scenario on site

Validity:

Describes the installation situation approved by the customer and therefore the product supplied. The basis of this is the installation measurements at the point of order.

Application:

- Basis for the comparison of installation measurements and conditions at the installation site with the system components supplied or planned.
- Basis for the comparison with the installation situation, e.g. with the building plan.
- If the installation situation on site differs from the project plans or project-related unit drawing, then the installation situation will have to be adapted on site, or the system components will have to be customized on site by specialist fitters, taking into

account tolerances and clearance values of individual components.



TIPS AND RECOMMENDATIONS

Refer to the tolerance and clearance specifications for each system component in the relevant installation manual.

Source:

The document is part of the planning and ordering of the system. The document can be requested from the supplier.

1.2.2 Installation manuals for system components

Target group

Qualified personnel (fitters)

Content and structure:

Hand-on visual representation of the installation steps

- Safety
- Product description
- Storage and transport
- Installation preparation
- Installation
- Maintenance and care
- Dismantling and disposal

Validity:

Contains relevant information about the system components supplied, current at time of production.

Application:

Describes using a hands-on approach all essential information for the safe and correct installation of the system components, e.g.:

- Comparison of installation measurements and conditions at the installation site with the system components supplied or planned.
- Comparison with the installation situation, e.g. with the building plan.
- Description of the adjustment of system components by qualified personnel on site taking tolerances and clearances into consideration.
- Description of requirements and implementation of installation steps.

Source:

The document constitutes part of the delivery of the relevant system components.

1.3 Target group

The target group of this system manual for installation, maintenance and repair is qualified personnel specially trained in glass fitting. This system manual is informative for planners and operators.

1.4 Symbols used

1.4.1 Safety instructions

Safety instructions are marked with symbols. The safety instructions are introduced by signal words that express the extent of the hazard, e.g.:



WARNING

This signal word indicates a possible hazardous situation which may result in death or serious injury if ignored.



CAUTION

This signal word indicates a situation of potential risk, which could lead to minor or slight injury if not averted.



ATTENTION

This signal word indicates a situation of potential risk, which could lead to damage to property or the environment if not averted.



TIPS AND RECOMMENDATIONS

This signal word indicates useful information for efficient and trouble-free operation.

1.4.2 Further labeling



Step-by-step graphics



Position numbers for parts in diagrams

2 Safety

2.1 Intended use

The product is designed to create a partition between spaces or areas inside a building by connecting to the wall and ceiling.

The product may only be used with system components made by dormakaba specifically for the UNIQUIN system.

Installation must be carried out according to the enclosed installation manuals.

- Only tempered safety glass (TSG) or laminated safety glass (LSG) made of TSG may be installed with the product.
- dormakaba can provide a general certificate of structural stability for the UNIQUIN units.

- The use of other composites must be checked by the designer or contractor and the structural stability assured if applicable.
- The product may only be attached to a surface capable of bearing loads using suitable fixing materials.
- The product is only suitable for indoor use.
- The product is suitable for use in tropical countries.
- It is possible to have an emergency exit in accordance with EN 179, EN 1125 with certain product combinations.

2.2 Foreseeable misuse



WARNING

Danger to life due to falling glass.

Falling glass can lead to life-threatening injuries.

- Glass should not be suspended.
- Mount glass with at least 2 persons.
- Secure glass using the correct methods.
- Follow correct installation sequence.
- Clamping profiles on the base profile are not load-bearing.



CAUTION

Risk of injury from falling to a lower floor.

The failure of the unit e.g. through broken glass, can lead to personal injury, as people could fall to a lower floor.

- The unit must not be installed as fall protection in places where there is a risk of falling to a lower floor.



ATTENTION

Risk of damage due to eccentric vertical load.

Attaching eccentric vertical loads to the product can cause damage.

- Do not attach any eccentric vertical loads to the product, e.g. by building shelves.

The product is not suitable for installation in the vicinity of showers, saunas, baths or salt-water bath or rooms in which chemicals (e.g. chlorine) are used.

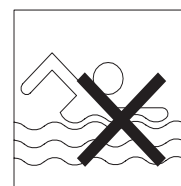
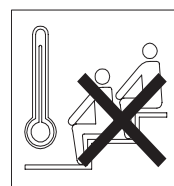
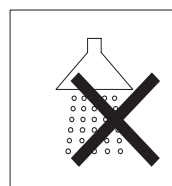


Fig. 1 Not suitable for showers, saunas, baths or salt-water baths

3 Product description

The UNIQUIN unit in Fig. 2 is an example of a UNIQUIN partition wall system. Further combinations with the unit components or other installation situations are possible.

- All profiles are made of aluminum.
- All visible profiles are powder-coated.
- The clamps, glass clamping pieces and door frame positioners are anodized black.



TIPS AND RECOMMENDATIONS

- The following information is general information about the UNIQUIN partition wall system. Information may vary individually depending on the product configuration of a specific unit.
- Refer to the relevant installation manuals for individual components for further information.

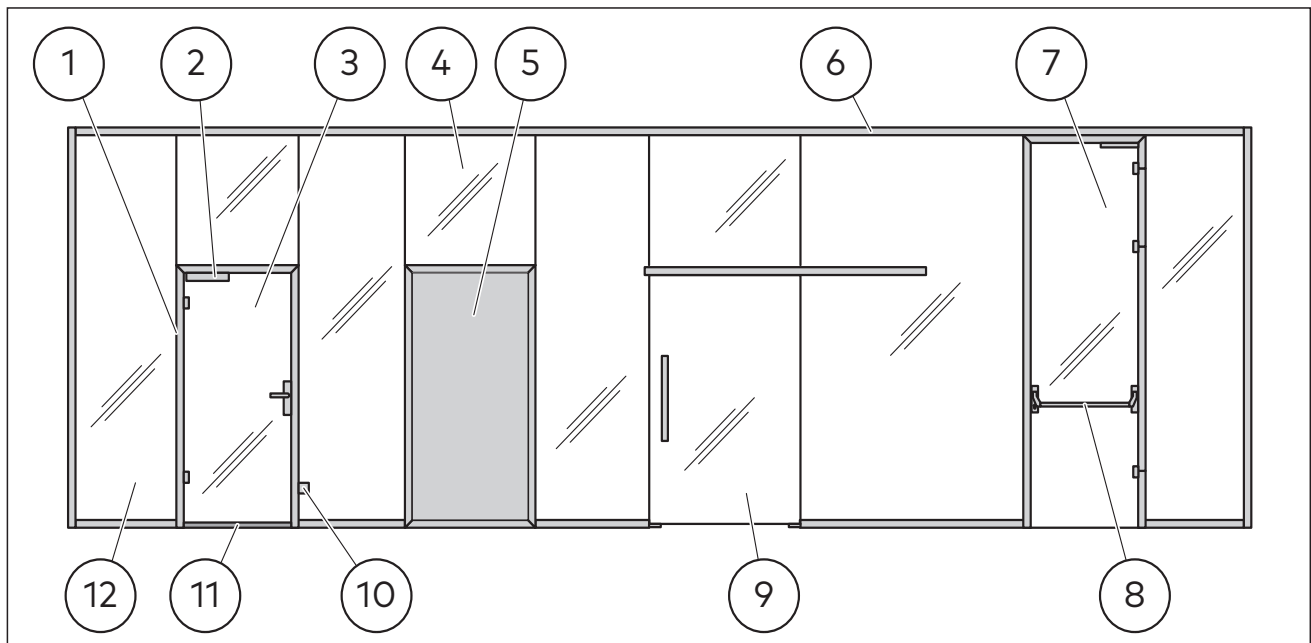


Fig. 2 Example of a UNIQUIN unit

- | | |
|---------------------|----------------------------|
| 1 Door frame system | 7 Glass door (room height) |
| 2 Door Closer TS 97 | 8 Panic door fitting |
| 3 Glass door | 9 MUTO sliding door |
| 4 Overpanel | 10 Electromodule |
| 5 Acoustic element | 11 Drop-down seal |
| 6 Mounting profile | 12 Side panel |



Fig. 3 Example of a UNIQVIN unit with direct wall connection

- | | |
|---|---|
| 1 Overpanel | 7 Glass door |
| 2 Door closer ITS 96 | 8 Mounting profile with adapter profile |
| 3 Lock for a wooden door | 9 Lock for a glass door |
| 4 Mounting profile with adapter profile | 10 Door frame system for a glass door |
| 5 Wooden door | 11 Door Closer TS 97 |
| 6 Door frame system for a wooden door | |

3.1 Mounting profile

UNIQUIN is a modular partition system, which enables diverse combinations of system components. The basis is the mounting profile or otherwise an adapter profile (e.g. refer to the installation manual for the door frame system).

Installation conditions:

A mounting profile consists of at least 4 elements:

- Base profile
- Side panel or fixed glazing adapter
- Clamps
- Cover profile

The side panels are inserted into the base profile and fixed onto the base profile with clamps.

A cover profile is added to complete the mounting profile.



TIPS AND RECOMMENDATIONS

dormakaba can provide a general certificate of structural stability for the UNIQVIN units. For UNIQVIN units with elements made from alternative composites, an external certificate of structural stability may be required if applicable.

The mounting profile can be used with the following materials:

- Side panels made from toughened safety glass (TSG) or laminated safety glass (LSG) made from TSG.

- Side panels made from wood or similar composites can be used instead of glass.
- Instead of side panels, adapter profiles can be used e.g. to connect an acoustic element rather than glass.

The profile cross-section accommodates cables with a diameter up to 10 mm.

Technical information

Product variants

	FV46	FV46	FV55
	10 - 13.5 mm	14 - 18 mm	16 - 19 mm
Profile height in mm	46	46	55

Installation heights and glass type

Glass thickness in mm	Glass type	Max. Installation height in mm
10	TSG	3300
11.52	LSG 55.2 (0.76)	3300
12	TSG	3300
13.5	LSG 66.2 (0.76)	3300
15	TSG	4000
17.5	LSG 88.2 (0.76)	4000
19	TSG	4000

Installation heights and glass type - pendulum impact test according to DIN 4103 and ETAG 003

Key		Installation area according to DIN 4103		
X	Test carried out successfully			
---	Test failed	1	2	
O	Test not carried out	Usage category according to ETAG 003		
		1	2	3
Width 500 mm	Height in mm	100 Nm	200 Nm	300 Nm
10 TSG	3300	X	---	O
	3000	X	---	O
	2500	X	X	---
11.52 LSG	3300	X	---	O
	3000	X	X	---
	2500	X	X	X
12 TSG	3300	X	---	O
	3000	X	X	---
	2500	X	X	X
13.5 LSG	2500	X	X	---
	3000	X	X	---
	3000	X	X	X

- Maximum unit width: no limits (taking glass statics into consideration)
- Maximum unit height 4000 mm

Definition of usage categories - structural damage - dynamic loads according to ETAG 003:

- 1 Areas primarily accessible to people who are very careful.
Low risk of accidents or misuse.
- 2 Areas primarily accessible to people who are quite careful.
Certain risk of accidents or misuse.
- 3 Areas that are easily accessible to people who are not very careful. Risk of accidents or misuse.
- 4 Area and risk as for 2 and 3. In the event of product failure there is a risk of falling to a lower floor.

Notes on the usage categories of ETAG 003 in DIN 4103:

- 1 Areas primarily accessible to people who are very careful.
e.g. rooms in residential properties, offices; hospital wards.
Low risk of accident and misuse.
- 2 Areas primarily accessible to people who are quite careful.
e.g. rooms in residential properties, offices; hospital wards.
Medium risk of accident and misuse.

3.2 Acoustic element

The acoustic element is an aluminum frame that holds a special foam to absorb sound. The acoustic element must be fitted with a textile covering on site to cover the foam and improve looks, and/or optional LED lighting.

Installation conditions:

- A specially structured acoustic image (see below) is attached to the dimpled acoustic foam for sound absorption purposes.
- If absorption is only required on one side, an advertising image can be used on the other side (see below).

Technical information

Acoustic image

- Material: Textile Trevira CS 300g/m² white
- printed on one or both sides
- all-round welt edge 15 x 2.8 for frame

Advertising image

- Material: Deco light or Dynajet white
- printed on one or both sides
- all-round welt edge 15 x 2.8 for frame

Base profile with glass element

- Base profile 46, 10 - 13.5 mm glass thickness
- Base profile 46, 14 - 18 mm glass thickness
- 3 clamps per 1000 mm base profile

3.3 Sliding door system MUTO L 80

A system for attaching a sliding door element made of glass or wood in a UNIQUIN unit.

Installation conditions:

- If a door frame system is combined with a sliding door in an escape route, then the track rail profile for the sliding door is always on the opposite side to the hinge of the glass or wooden door.
- The sliding door system includes door elements made of glass or wood.
- A DORMOTION cushioning feature is optionally available/retrofitable.
- The sliding door system features an integrated locking device (optional/retrofitable).

Technical information

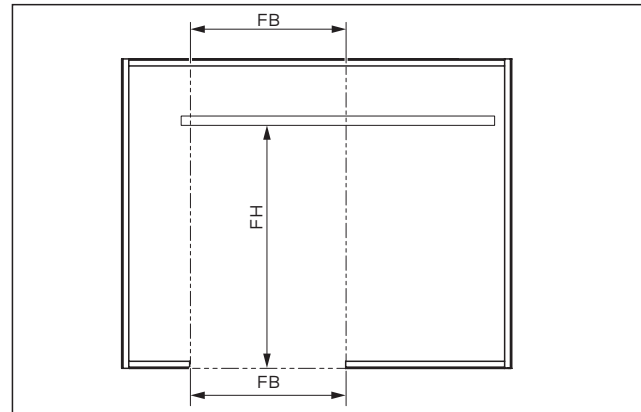


Fig. 4 Dimensions of sliding door for passage

FH leaf height

FB leaf width

- FH max. = 3000 mm
- FB max. = 2000 mm
- FB min. = 660 mm

3.4 Door frame system for a glass door

The door frame system consists of a door frame base profile and a door frame cover profile with hinges for fitting a glass door in a UNIQUIN unit.

Installation conditions:

- A glass door has the same thickness as the side sections in the same escape route.
- Calculation of glass dimensions:
Glass width = door frame width – 86 mm
Glass height = door frame height – 50 mm
- If several doors (in frames) are installed in an escape route, then these doors always open directly to the inside or outside.
- Doors cannot be fitted with a wo-way function.
- A drop-down seal is retrofitable. (No special glass preparation is required. The door frame profile needs to be adjusted, see installation manual.)
- The door frame system can be combined with a sliding track closer TS 97 (prepared glass and a door frame profile need to be ordered).
- The door frame system can be combined with electromodules (mounting element for a flush-mounted socket or switch). The profile cross-section accommodates cables with a diameter up to 10 mm.
- The door frame system can be fitted to side panels, with overpanel or directly to the wall.

Technical information

Door frame with 2 hinges

- Door frame height: 2000 mm to 2200 mm
- Door frame width: 746 mm to 1186 mm

Door frame with 3 hinges

- Door frame height: 2201 mm to 3000 mm
- Door frame width: 746 mm to 1186 mm

Glass door

- Max. weight of a glass door incl. hinges: 130 kg
- Max. door frame / leaf height: 3000 mm
- Max. leaf width: 1100 mm
- Min. leaf width: 660 mm (710 mm with drop-down seal)
- Glass thickness: 10 mm to 19 mm

3.5 Door frame system for a wooden door

A system consisting of a door frame profile and a door frame cover profile with preparation for use of TECTUS hinges (fitted on site) to fit a wooden door in a UNIQUIN unit.

Installation conditions:

- A wooden door has a thickness of 40 mm to 50 mm (depending on glass thickness).
- If several doors (in frames) are installed in an escape route, then these doors always open directly to the inside or outside.
- Doors cannot be fitted with a wo-way function.
- A drop-down seal can be ordered by the customer and retrofitted (a cut-out will have to be created on site, see installation manual).
- An integrated door closer ITS 96 can be ordered by the customer and retrofitted (a cut-out in the door frame will have to be created on site, see installation manual).
- The door frame system can be combined with electromodules (mounting element for a flush-mounted socket or switch). The profile cross-section accommodates cables with a diameter up to 10 mm.
- There are different product variants for the door frame system, which means that a wooden door with overpanel or room height can be integrated into the UNIQUIN unit.
- The door frame system can be fitted to side panels, with overpanel or directly to the wall.
- It is possible to have an emergency exit in accordance with EN 179, EN 1125 with certain product combinations.
- Tube-frame locking devices according to DIN 18251-2, backset 45 mm, distance 92 mm.

Technical information

Door frame

- Door frame height max. = 3000 mm
- Door frame height min. = 2000 mm
- Door frame width max. = 1186 mm
- Door frame width min. = 1010 mm

Wooden door

- Max. Weight of a glass door incl. hinges: 80 kg
- Max. door frame / leaf height: 3000 mm
- Max. leaf width: 1100 mm
- Min. leaf width: 660 mm (710 mm with drop-down seal)

Thickness of wooden door

Door frame profile	Glass thickness in mm	Wood thickness in mm
14 - 19	19	50
	17.5	48
	17	48
10 - 13.5	15	45
	13.5	42
	13	42
	12	42
	10	40

3.6 Locks

UNIQUIN offers a wide selection of door handles and lock variants in matching design: ranging from standard locks and the c-lever compact electronic door fitting with access control, to locks with standard-compliant panic function to ensure emergency escape routes. It is possible to have an emergency exit in accordance with EN 179, EN 1125 with certain product combinations (tubular frame locks according to DIN 18251-2, backset 45 mm, distance 92 mm).

3.7 Electromodule

An electromodule is a mounting element for a flush-mounted socket or switch, e.g. a GIRA System 55 grounded socket.

Installation conditions:

- Can only be combined with a door frame system
- Cannot be installed on the mounting profile.

3.8 Door Closer TS 97

A surface-mounted sliding track closer in UNIQUIN-Design with adapter plate for use on a glass door with UNIQUIN.

Installation conditions:

- The glass door must be prepared for use with appropriate pre-drilled holes.
- A suitable horizontal door frame profile must be ordered for use with a door closer.

Technical information

- Suitable for disabled access according to DIN 18040 for door widths up to 1100 mm
- Standardized length of door closers and sliding track
- Easy door opening according to DIN SPEC 1104
- Adjustable closing force EN 2-4
- Including opening limiter as standard

3.9 Door closer ITS 96

An integrated sliding track door closer for use in a wooden door with UNIQUIN.

Installation conditions:

- The glass door must be prepared for use with appropriate cut-outs.
- A suitable horizontal door frame profile must be ordered for use with a door closer.

Technical information

- Easy door opening according to DIN SPEC 1104
- EASY OPEN technology
- Adjustable closing force and speed
- For door leaf widths up to 1400 mm
- Adjustable end stop can be disabled

3.10 Drop-down seal

The drop-down seal optimizes the acoustic properties of the UNIQUIN unit by sealing the opening underneath the glass door when it is closed.

The drop-down seal minimizes draft underneath the glass door when it is closed.

Installation conditions:

- The door frame must be prepared for use with a drop-down seal, see installation manual.
- It can be retrofitted.

4 General installation information



TIPS AND RECOMMENDATIONS

See the enclosed installation manuals for the individual system components for details of the individual installation steps.

4.1 Observe the alignment of the unit



TIPS AND RECOMMENDATIONS

Since the alignment of the unit is specified by, for example, the project-related unit drawing and building-specific requirements such as escape routes, it is essential to identify the correct alignment for installation.

The product has no fixed outside or inside and can be mounted aligned on both sides.

1. Check assembly location on site, e.g. in the building floor plan.
2. Check the escape direction on site and compare it with the plans or project-related unit drawing.
3. Check the opening direction of swing doors on site and compare them with the plans or project-related unit drawing.
4. Consider the direction of other components (optional) e.g. sliding door or acoustic element, and the plans or project-related unit drawing.
5. Determine the direction of the unit based on the on-site check, and adjust the installation according to the plans and project-related unit drawing.
6. Mark the unit alignment on the ground, e.g. with a chalk line.

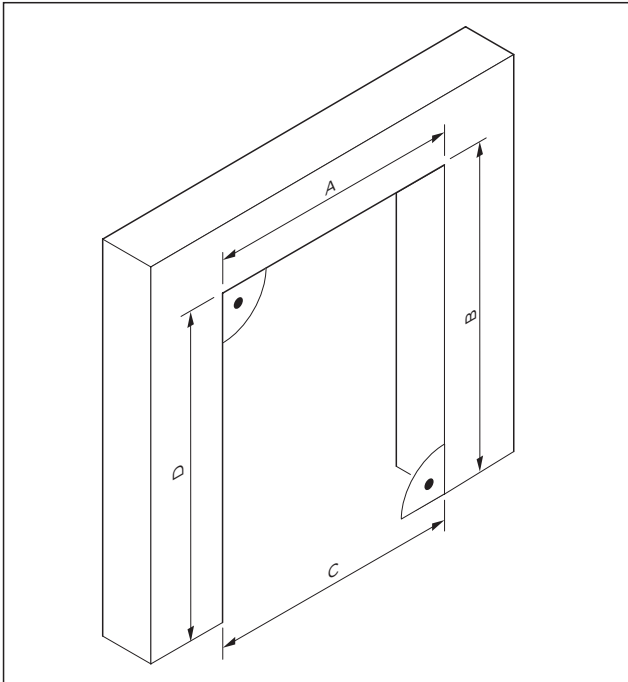


Fig. 5 Dimensions of the passage opening at the installation location

Determine the dimensions of the base profiles:



TIPS AND RECOMMENDATIONS

It is recommended that the dimensions of the last section of the base profiles on the floor are only measured and cut just before installation of the final side panel.

4.2 Create diagram of installation scenario on site



TIPS AND RECOMMENDATIONS

The FV55-1619 mounting profile is recommended for ceilings with a flatness deviation greater than 15 mm per 10 m.

- The installation situation on site may vary from the planned unit.
 - Installation measurements and tolerances of components must be checked and observed before installation.
 - If installation measurements and tolerances deviate, there is a risk of glass breaking.
1. Establish installation measurements on site.
 2. Special requirements specific to installation must be taken into consideration, e.g. joint mounting of the mounting profile.
 3. Compare the installation measurements on site against the plans or project-related unit drawing.

4. The installation measurements on site must enable installation to be carried out within the specified tolerances.

Acoustic units:

5. When determining the dimensions, take into account the mounted base profiles.

4.3 Installation sequence.

The following installation sequence applies to a UNIQUIN unit with all the components listed.



TIPS AND RECOMMENDATIONS

The exact installation steps can be found in the installation manuals for the individual components.

1. Base profile for the mounting profile (one side up to the opening for the door frame or acoustic element)
2. Door frame positioner
3. Acoustic element(s)
4. Continue base profiles of mounting profile
5. Side panel(s)
6. Sliding door(s) e.g. with overpanel
7. Base profiles for the door frame
8. Electromodule
9. Hinges, cover profiles for the door frame
10. Door wit lock system and access control if applicable
11. Door closer for glass or wooden door
12. Drop-down seal for glass door
13. Cover profile for the mounting profile
 - **The dimensions of the required end profiles are checked or determined.**

5 Commissioning

The unit is commissioned once installation of all unit components has been completed by qualified personnel.

Check the following before initial operation:

- The unit conforms with the plans or project-related unit drawing, if available (especially for emergency and escape routes).
- All installed unit components are to be used as intended.
- The components are installed according to the installation manual and all listed tolerances.
- The unit functions according to requirements, e.g. for doors with panic function.

Once the unit has been commissioned, structural changes may only be carried out by qualified personnel and according to the enclosed installation manual for UNIQUIN unit components.

6 Operation



CAUTION

Risk of injury from broken glass during operation.

Incorrect operation can lead to broken glass and injuries.

- Replace broken glass using the correct methods according to the installation manual.



ATTENTION

Risk of damage due to eccentric vertical load.

Attaching eccentric vertical loads to the product can cause damage.

- Do not attach any eccentric vertical loads to the product, e.g. by building shelves.

7 Maintenance



CAUTION

Risk of injury due to cut edges

Touching the cut edges can lead to cuts, e.g. at the corner joint of an acoustic element.

- Wear protective gloves.
- Blunt cut edges, e.g. with silicone.

The product is largely maintenance-free.

1. Refer to the maintenance instructions for all unit components.
2. Check fittings at regular intervals for proper positioning, smooth operation and check the door for correct adjustment. High-usage door systems require inspection by specialized companies or installation firms. Damaged glass elements (spalling and/or conchoidal fractures) must be replaced immediately!

8 Troubleshooting

If damage or impaired function occurs to the UNIQUIN unit, e.g. door catching on the floor, conchoidal fractures of glass, the unit should be checked by qualified personnel and any defective components replaced.

9 Dismantling and disposal

Dismantling is carried out in reverse order (see Chapter 4.3) and according to the relevant installation manual.

Dismantling must be carried out by trained and qualified personnel.

Refer to the disposal information in the relevant installation manual.

