PRODUCT CATALOGUE
CENTRE LOCK PS

SIEGENIA®
brings spaces to life

TITAN AF

TITAN AF hardware programme
- for parallel-slide-elements
- for PS 200 comfort

Window systems
Door systems
Comfort systems

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PVC - Fixed handle position	2
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Overview

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Directives of the Trade Organisation for Locks and Fittings (Gütegemeinschaft Schlösser und Beschläge e. V.)

The directives of the Trade Organisation for Locks and Fittings provide comprehensive information on the correct operation and maintenance of hardware for windows and portal doors.

Compliance with these guidelines is mandatory

You can find the latest versions of the directives, in a range of languages, at:

http://www.beschlagindustrie.de/ggsb/richtlinien.asp

TBDK – Attachment of supporting fitting components for turn-only and tilt & turn fittings

with definitions for turn-only and tilt & turn fittings and their possible installation positions

VHBH – Hardware for windows and balcony doors

Guidelines/advice on the product and on liability

VHBE – Hardware for windows and balcony doors

Guidelines/advice for end-users

FPKF – Restrictor and cleaning stays for tilt-only sashes and tilt-only fanlights

Use of restrictor and cleaning stays

FBDF – Casement stoppers for variable rotational position of window sashes

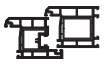
Casement stoppers that are controlled via the central locking system - definitions and tests

Further relevant documents

You can find further relevant documents, for example structural design charts, assembly instructions, profile spec sheets, individual component sheets, and maintenance, operating and care instructions, on our documentation pages:

http://downloads.siegenia.com/

Element materials



Element material PVC

Element material timber

Element material aluminium

Opening types

Rectangular turn-tilt element

2-sash rectangular turn-tilt/turn elementt

Rectangular turn element

2-sash rectangular turn/turn element

Rectangular tilt element

Arched-head turn-tilt element

2-sash arched-head turn-tilt/turn element

Rounded-head turn-tilt element

2-sash rounded-head turn-tilt/turn element

Angled turn-tilt element

Triangular turn-tilt element

Symbols

Height adjustment

Side adjustment

Compression adjustment

Dimensions

All dimensions are nominal values and include the general tolerances.

All nominal values are given in mm.

Weights

All weights refer to the maximum sash weight.

70	locking distance 700 mm
.../A	croppable component
.../G	counter
.../K	consistent component length
...+	component to slide underneath
16/2	fitting groove 16 x 2 mm
A0175	hinge clearance through sash
A0245	suitable for use with threshold
AB	start of bow begin arch
ADV	adjustable compression
AF	automated manufacturing
AWD	application diagram
bag	bag
BAN	hardware groove
BS	hinge side
BSO	hinge side, top
BSU	hinge side, bottom
BSW	threshold
CG	glass deduction dimension
crt.	carton
D	turn
DEF	triangular window
DF	turning sash
DFB	turn only hinge
DG	turning sash, reverse-action
DH	turn restriction
DK	turn-tilt element
DS	turning secondary sash
DS 8	turning secondary sash (eurogroove)
DS 16	turning secondary sash (with reverse-action hardware groove)
DSV	concealed turning lock
DZB	turn hinge
E	anti-intruder
EB	corner hinge
EL	inserting jig
ELB	bottom hinge pin
EL O	bottom hinge top
EL U	bottom hinge bottom
EL-S U	bottom hinge
ES	increased security
ESL	stainless-steel finish
FA	sash distance
FAV	FAVORIT
FB	sash hinge
FBS	anti-mishandling device
FEB	rebate corner hinge
FFA	sash rebate stop
FFB	sash rebate width
FFH	sash rebate height
FFK	sash rebate edge
FG	sash lift
FH	sash lift
FHD	sash timber thickness
FL	airgap
FPS	tilt-only security stay
FT	rebate depth
FZ	fixing bolt
G	handle position
GBA	straight pin
GG	glass weight
GK	Constant handle height
GL	glazing bead
GM	centre/variable handle height
GS	basic security
h	milling depth
H	timber
H4	timber, 4 mm airgap
H12	timber, 12 mm airgap
HD	heavy duty hinge side
K	tilt
KD	tilt before turn (=TBT)
KFB	tilt sash hinge
KL	clamping jig
KR	shoot bolt
KRB	tilt-lock element

KRL	tilt-lock bearing
KS	constant secondary sash
KSB	tilt striker plate
LH	left
LS	length of angled section
M	magnetic cam
MB	with bolts
MN	with groove
MSP	multiple gap ventilation
MV	centre lock
NA	groove axis
ON	without groove
OS	without lock
OZ	without cam
PDB	profile data sheet
PVC	plastic
PZ	profile cylinder
PZD	pozidriv
RAN	fitting groove
RB	arched head
RC	resistant Class
RH	right
RFA	frame rebate stop
RFB	frame rebate width
RFH	frame rebate height
RFK	frame rebate edge
RS	rolling security cam
RSA	bolt throw
S	heavy version
SB	striker plate
SB	rounded head
SB-RS	striker plate f. rolling security cam
SE	flush-closing
S-ES	mushroom cam
SF	angled-head window
SL	top hinge
SP	gap ventilation
S-RS	comfort mushroom
SW	wrench size/opening
t	drilling depth
TAF	TITAN AF
TBT	Tilt-before-turn
Telesk.	Telescope
TiP	TITAN iP
TL	door design
TS	titanium silver
U	bottom
ÜB	rebate width
UE	monitoring
UEB	rebate
US	bottom side
VKE	sales unit
VL	extension
VS	locking side
VSO	locking side, top
VSU	locking side, bottom
W	stay hinge
witho.	without
Z	additional stay
ZZ	toothing/toothing

The material number is a code for components and consists of eight segments. The material number allows products to be precisely assigned to their corresponding component drawing, surface, colour and other properties.

T	KEU	900	0	–	0	38	06	0

Product group
This code specifies to which product group of the SIEGENIA the product belongs

Assembly
The assembly is a reference to the component family (e.g. covers, gears, frame parts, etc.)

Article counter
Consecutive component number

DIN or opening direction
This code specifies the side of the hinge or opening direction)

Surface
Surface treatment of metal components (e.g. zinc-plated)

Colour
Colour of surface or material

Sales unit
Sales or packaging unit

Index
Production index

Material numbers key

T	KEU	900	0	–	0	38	06	0
1	2	3	4		5	6	7	8

1 Product group					
A	A300	G	DRIVE (Building technology)	T	TITAN
B	BASICline	K	Small parts	U	SASS
C	Casement	L	AERO (Ventilation technology)	V	Packaging
D	KFV (Door)	M	ALU	Z	Accessories (general)
F	FAVORIT	P	PORTAL		

2 Assembly					
A	Jig	H	Handle	S	Stays
B	Hinge side parts	K	Cover caps	U	Monitoring (Aerocontrol/ radio sensor)
D	Seal, distance piece	L	Bogie wheels	V	Extension
E	Corner drives, lock bolts, locking parts	M	Mixed packages	Z	Linkages / accessories
F	Sash components	P	Profiles / profile sets PORTAL		
G	Gear	R	Frame parts		
The abbreviations ONLY apply to the 1st digit. Further digits are assigned individually.					

3 Article counter
The articles are assigned consecutive numbers from 001 to 999.

4 DIN or opening directions					
0	Independent of opening	1	DIN right	2	DIN left

5 Surface					
0	Neutral (finished surface) e.g. plastic	2	E-Look (galvanised)	6	Clear - chromated (galvanised)
1	Titan silver (galvanised)	5	Aluminium (suitable for anodising, painting or coating)	L	Painted

6 Colour					
01	RAL 9001 Cream	16	RAL 8001 Ochre brown	H0	Old gold (EV4)
02	RAL 9003 Signal white	24	EV1 anodised	H4	F9 Titan bright
11	RAL 8022 Black brown	38	Gold shining	I2	F3 Gold matte
For further colours please inquire.					

7 Packaging unit					
01	Quantity of 1	04	Quantity of 25	07	Quantity of 250
02	Quantity of 10	05	Quantity of 50	08	Quantity of 500
03	Quantity of 20	06	Quantity of 100		
For further packaging units please inquire.					

8 Processing index
The processing index indicates the processing status and is assigned consecutively.

Important instructions for fabricators

Priorandapplicable documents

The following documents take precedence over and/or are applicable with this document:

- Guidelines regarding product liability (TBDK, VHBH, VHBE, FPKF, FBDF)
- Application range diagrams
- Operating, care and maintenance instructions

References to these documents can be found in the „General“ section H45.TITA000S002.

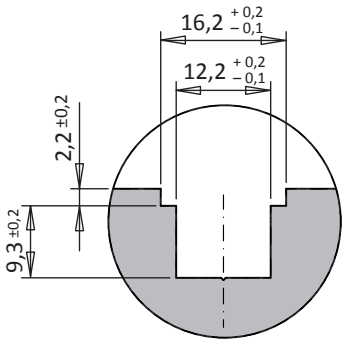
Systems

The size ranges that are specified are binding for the hardware solutions that are included in this document. The following specifications must also be adhered to:

- **PVC windows / aluminium window with 16 mm BAN**
  The specifications of the profile fabricators or system providers also apply, especially in regard to possible restrictions on sash dimensions, sash weight and lock spacing. Where special manufacturing instructions or fabrication guidelines exist, these must be explicitly adhered to. The specifications given for screw-in revolutions and torques must be adhered to.

- **Timber windows**
  The specifications of DIN 68 121 (timber windows and window doors).

  Required eurogroove



Area of application

All hardware solutions are intended for installation on **inward** opening windows and portal doors.

The specified steel hardware components are electro-galvanised and then finished using a special process. They are not suitable for use:

- In damp locations
- In environments where the air contains aggressive, corrosive components
- In environments where the air contains salt
- With timbers containing aggressive substances

Please contact your SIEGENIA sales consultant in such situations.

Hardwaresolutions

The illustrations below of hardware solutions for intruder resistance on single and double-sash windows and window doors are **recommendations** only.

Special measures must be taken in order for test certificates to be obtained, depending on the regulation/test standard and target resistance class, with regard to the type of timber, profiling, reinforcement, weather strip bar, how the weather strip bar is connected and the hardware.

The specifications relating to this in the section:

- Intruder-resistant properties of an PVC window
- Intruder-resistant properties of an aluminium window
- Intruder-resistant properties of an timber window
- Informations about DIN EN 1627 - 1630 in the „Security and Standards“ section

Contact SIEGENIA in individual cases with respect to appropriate testing versions.

Excessive strain

Bearing components can break as a result of excessive strain. If this happens, the window sash may fall out, leading to serious injuries. If the hinge parts are likely to be subject to excessive strain under certain conditions (use in schools, nursery schools, etc.), appropriate measures must be taken to prevent this from happening, such as using a friction stay to limit the opening angle of the window, or using a turning lock.

If there is any doubt, be sure to consult your SIEGENIA sales consultant.

Complete set of hardware

Your complete set of hardware should be composed of **solely** SIEGENIA hardware components. Otherwise damage could occur, for which we accept no liability.

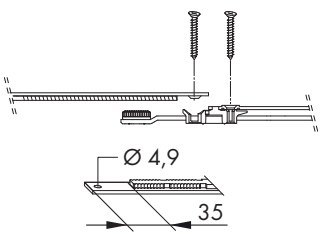
Mounting the hardware components

All hardware components must be mounted properly. When doing so, pay particular attention to the mounting position and ensure that all hardware components on the hinge side are firmly attached. The top hinge pin must be pushed in up to the stop **from below**, and snapped into the springs of the top hinge. Pull out the top hinge pin only with a suitable assembly key.

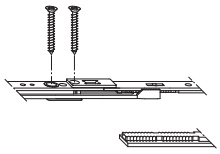
These procedures must be carried out by experienced professionals only.

Connecting the hardware components

- TITAN iP linkage cut



- TITAN AF/FAVORIT cut to length



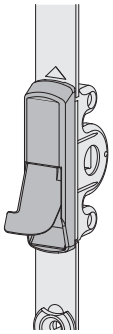
Calibration of adjustable components

The given values for side, height and pressure settings must not be exceeded. Otherwise bearing components may break due to excessive strain and the window sash may fall out.

Note also our maintenance instructions (order no. H4002.2873en).

Using a mishandling device

In order to protect the hardware and the window element, and to ensure a long service life, we recommend the use of a mishandling device such as the below, **particularly for heavy sash weights from 100kg**.



You can find our assembly video here:
Assembling the mishandling device

Mounting the hardware components

- Handle:
  - Countersunk screws M 5 x .., in accordance with DIN 965-4.8; the screws should be long enough that they engage a minimum of 6 mm into the screw thread of the gear casing. The maximum torque should not exceed 2 Nm.

- Remaining hardware components:
  - Screws 4 x 25 or 30 for PVC windows
  - Screws 4 x 30 for timber window (pre-drilling is required for softwoods)
  - Self-drilling screws 3.9 x … for aluminium windows
  - **Countersunk screws with partial thread 4 x 25 or 30 must be used to mount all hardware components in the vertical secondary sash area on secondary sash windows.**

- Screw material:
  - Do not overwind zinc-coated and passivated surfaces for „Titanium Silver“ screws
  - With a Zn-Ni or Deltatone with Delta Seal surface for „E-look“ to avoid contact corrosion.

- To obtain a test certificate, it is necessary for the S-RS striker plates and tilt lock bearing to be connected in a particular way.

Do not overtighten the screws.

Timber surface treatment

Timber windows and door elements should only be surface treated **before** the hardware components are assembled. Treating these surfaces at a later stage can reduce the functional capacity of the hardware components.

Inserting blocks

When inserting blocks, be sure to observe technical guideline no. 3 from the German Glazing Trade [Glaserhandwerk], “Blocking glazing units” [Klotzung von Verglasungseinheiten].

Sealants

Never use acid cure sealants as they may cause the hardware components to corrode.

Cleaning

Keep the rebates free from deposits and dirt, especially from remnants of cement and plaster. Avoid exposing the hardware directly to water and do not let cleaning agents come into contact with the hardware.

Information for end users

Provide the user with the following documents:

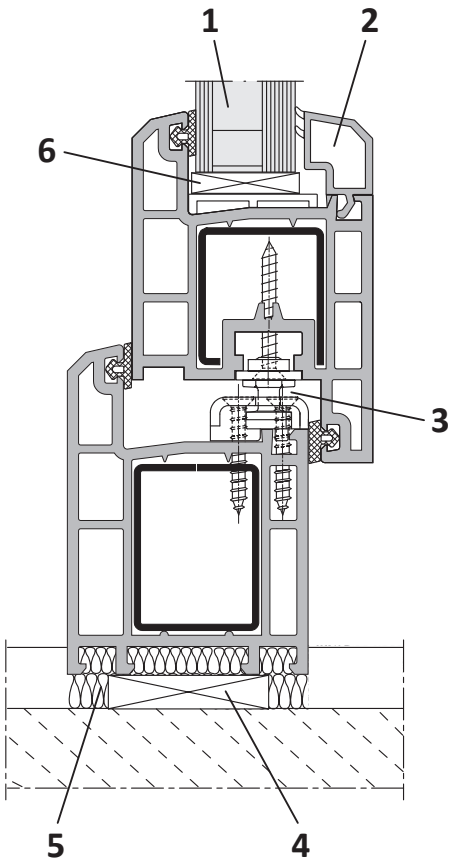
- Operating and Care Instructions (order no. H4002.2874en)

Technical changes

We reserve the right to make technical changes required as a result of the further development of products or a change in standards, laws or jurisdiction.

We assume no liability for printing errors.

Anti-intruder features of a PVC window



1 Penetrationresistant glazing

2 Secured glazing bead

3 Design and mounting of the hardware

4 Dowel fastening to the building structure around the locking positions

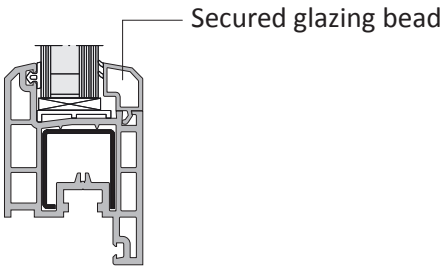
5 Compression-resistant backing

6 Compression-resistant distance block setting

DIN EN 1627 ff – RC1

Airgap

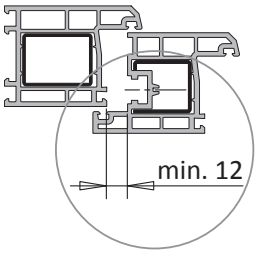
The glazing beads should be secured according to requirements (e.g. by screw connections, adhesive bonding, etc.) or the laminated safety glass pane must be bonded in the rebate.



Cavity

The cavity dimension which is specified in the SIEGENIA profile datasheet for the corresponding plastic profile system must be adhered to.

It must not be exceeded, nor must it fall below the limit.

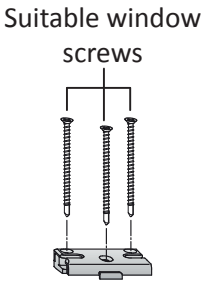


Striker plates and tilt lock bearings

The S-RS striker plates must be positioned in such a way that the locking cams catch in the striker plates as much as possible.

The screw length must be selected so that the S-RS striker plates and tilt lock bearings are screwed into two walls if possible.

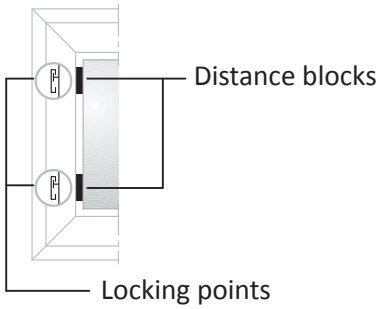
If it is possible to screw into steel bracings, selfdrilling screws with Ø 3.9 mm should be used. The length must be selected so that the screws can be screwed into the bracing by 8 to 10 mm.



If a frame groove is available, it should be sealed with a cover profile.

Inserting blocks

To prevent the sash profile from moving in the glazing rebate, the glass pane must also be set with blocks close to the security latching positions (distance blocks).

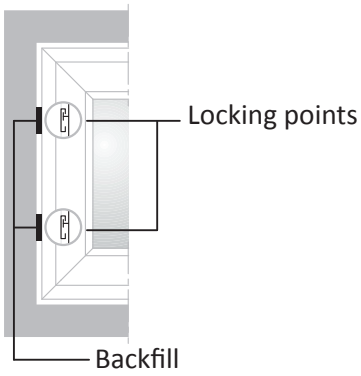


Wall mounting

The cavity between the frame and the brickwork near the locking points must be back-filled to be compression resistant.

When fixing the window elements, special steps must be taken with regard to the distance between fixing

points, the edge spacing and the wall construction, depending on requirements.



DIN EN 1627 ff – additional information for RC2

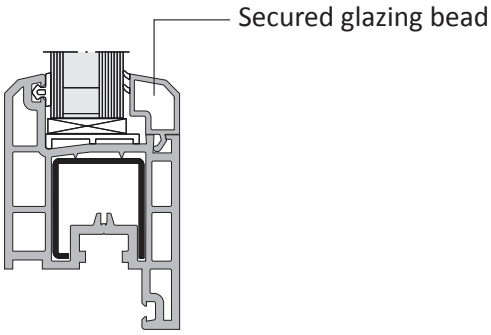
Window frame

To ensure that the sash can only move minimally within the window frame, distance blocks must be mounted in the corner areas of the window frame (see also hardware layout).

At the same time, however, this must not restrict the options available for adjusting the fittings.

Glazing rebate

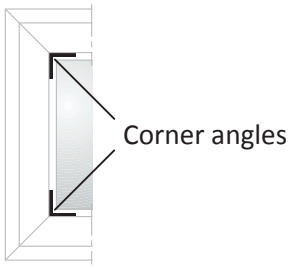
The glazing beads must be secured according to requirements (e.g. by screw connections, adhesive bonding, etc.), or the laminated safety glass pane must be bonded in the rebate.



DIN EN 1627 ff – additional information for RC3

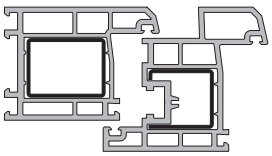
Glazing rebate

The four corners of the sash frame must also be screwed into the glazing rebate with steel brackets. These steel brackets prevent the mitre joints from breaking apart in the event of a break-in attempt.

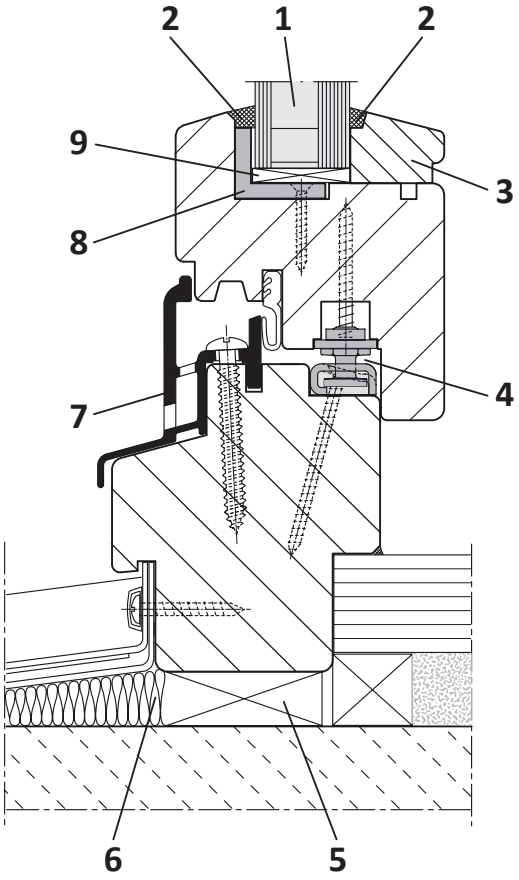


Profile system

Flush profile systems are generally better suited to the design of anti-intruder windows as they offer fewer opportunities for the intruder‘s tools to be used.



Anti-intruder features of a timber window



1 Penetrationresistant glazing

2 Sealing with strong adhesion

3 Secured glazing bead

4 Design and mounting of the fittings

5 Dowel fastening to the building structure around the locking positions

6 Pressure-resistant backing

7 Reinforced weather strip bar with special screw connection

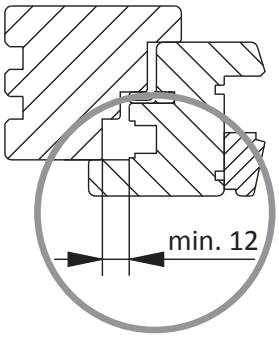
8 Screwed steel bracket in the glazing rebate

9 Pressure-resistant distance block setting

DIN EN 1627 ff – RC1

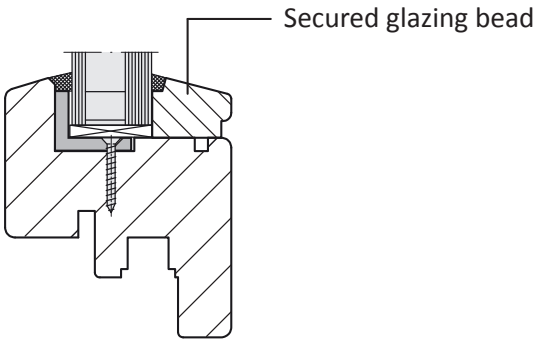
Airgap

The airgap which is specified in the SIEGENIA profile datasheet for the corresponding system must be adhered to.
It must not be exceeded, nor must it fall below the limit.



Glazing rebate

The glazing beads should be secured according to requirements (e.g. by screw connections, adhesive bonding, nailing, etc.).



Construction material

Only timber which meets the following requirements may be used for anti-intruder window elements:

- No knots with a diameter of more than 2 mm
- No cracks
- No other defects

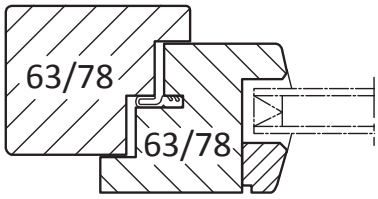
The type of timber used must have at least the following gross density:

- 0,55 g/cm³ for hardwoods
- 0,45 g/cm³ for softwoods

The annual ring widths must not exceed 4 mm on softwoods.

Profile cross-section

In order to create the worst possible conditions for the lever tool, the minimum profile crosssection used must be IV 63/78 in accordance with DIN 68 121.



Weather strip bar

RC1 does not place any particular requirements on the weather strip bar.

However, the following must be observed with regard to fixing:

- The distance between screws should be 300 mm maximum
- Corner spacing 50 to 100 mm

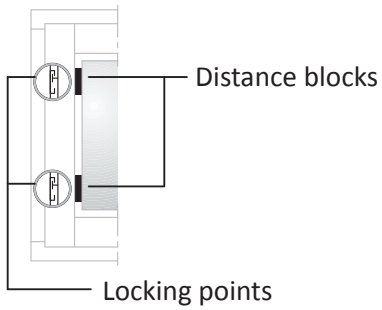
Striker plates

The S-RS striker plates must be positioned in such a way that the locking cams catch in the striker plates as much as possible.

Inserting blocks

To prevent the sash profile from moving in the glazing rebate, the glass pane must also be set with blocks close to the security latching positions (distance blocks).

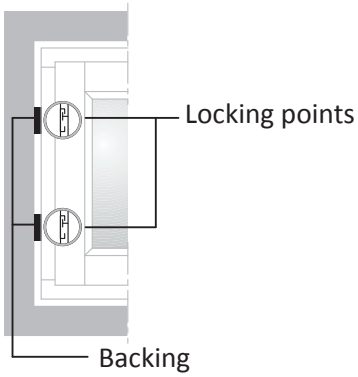
The distance blocks must be at least 100 mm long.



Wall mounting

The hollow space between the frame and the brickwork near the locking points must be back-filled to be pressure resistant.

When fixing the window elements, special steps must be taken with regard to the distance between fixing points, the edge spacing and the wall construction, depending on requirements.



DIN EN 1627 ff – additional information for RC2

Window frame

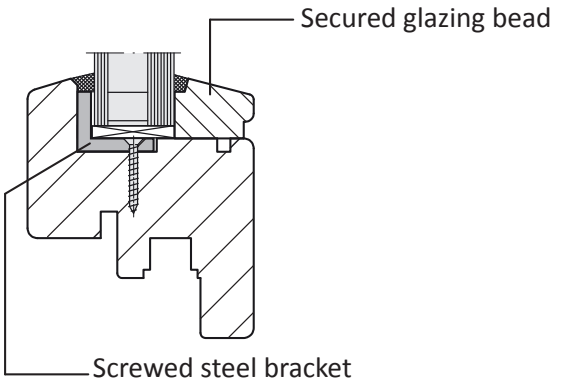
To ensure that the sash can only move minimally within the window frame, distance blocks must be mounted in the corner regions of the window frame (see also hardware layout).

At the same time, however, this must not restrict the options available for adjusting the fittings.

Glazing rebate

The glazing beads **must** be secured according to requirements (e.g. by screw connections, adhesive bonding, nailing, etc.).

To prevent the washer from being pulled out, steel brackets should be screwed into the glazing rebate in sections or continuously. These steel brackets must be screwed offset into the glazing edge area.



Construction material

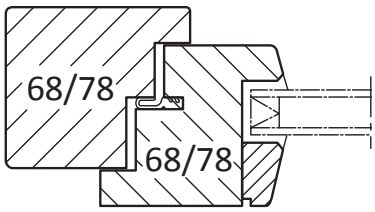
The type of timber used must have the following gross densities as a minimum:

- 0,60 g/cm³ for hardwoods
- 0,50 g/cm³ for softwoods

If possible, a type of timber harder than meranti should be used as the bulk density is usually lower due to the large fluctuation range.
The annual ring widths must not exceed 3 mm on softwoods.

Profile cross-section

In order to produce the worst possible conditions for the lever tool, the minimum profile crosssection used must be IV 68/78 according to DIN 68 121.

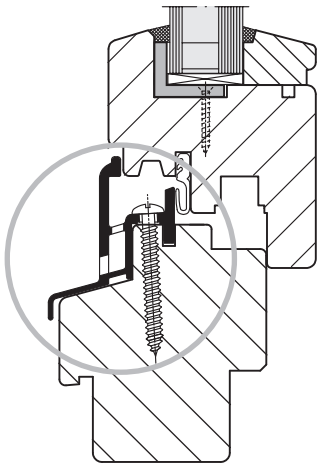


Weather strip bar

Special anti-intruder weather strip bars must be integrated in order to provide appropriate resistance to the intruder‘s tools. They are characterised by thicker walls and a special screw connection.

The external limit stop may warp a maximum of 3 to 6 mm at a force of 1 kN.

- Mounting with round head or cheese head screws 5 x 60 mm
- The distance between screws should be 300 mm maximum
- Corner spacing 50 to 100 mm



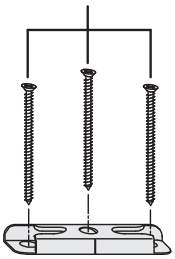
Striker plates and tilt lock bearings

The SL-RS striker plates must be positioned in such a way that the locking cams catch in the striker plates as much as possible.

SL-RS striker plates and tilt lock bearings must be screwed with stop screws which are at least 45 mm long.

Pre-drilling is required for hardwoods (0.7 x d).

Suitable window-screws
4 x 45



SL-RS striker plate

Sealing

To make it difficult to remove the sealed glass, it is important to select a glass sealant which has as much adhesion force as possible. Two-component sealants are particularly suitable for this.

DIN EN 1627 ff – additional information for RC3

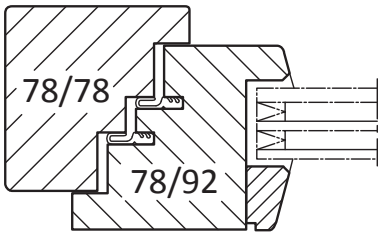
Construction material

The type of timber used must have the following gross densities as a minimum:

- 0,65 g/cm³ for hardwoods
- 0,50 g/cm³ for softwoods

Profile cross-section

In order to produce the worst possible conditions for the lever tool, the minimum profile crosssection used must be IV 78/92 according to DIN 68 121.



Requirements and national specifics for DIN EN 1627:2011-09

DIN EN 1627ff

After a draft standard period of 12 years, the EN 1627ff series of standards was published as DIN EN 1627ff in September 2011.

The key changes refer to the description of the resistance classes and the test procedure for resistance class 1.

Widerstandsklassen (resistance classes) WK1 - 6 are referred to as resistance classes (RC) in the final version of the standard.

The number of resistance classes has not changed (RC1 – RC6).

The standard governs the requirements and classifications with respect to the anti-intruder features of windows, doors, curtain walling, grilles and shutters.

It is valid for the following types of openings: turning, tilting, folding, tilt & turn, swinging, sliding (horizontally and vertically) and roller, as well as structures that do not open.

Resistance class RC2 has been split into two separate classes (RC2N and RC2).

The suffix „N“ in classes RC1N and RC2N represents the possibility that national requirements may have to be taken into account.

No requirements are made in these classes with respect to glazing in the German version of EN 1627. Nevertheless, the glass must be connected in the manner in which it has been tested.

SIEGENIA level	Standard/ Directive	Test class	Striker plate	Handle	Drilling protection	Glazing
Basic security	—	—	Standard	Standard	No	No requirements
RC1	DIN EN 1627	RC1N	S-RS	Lockable 100 Nm	Yes	No requirements
RC2	DIN EN 1627	RC2N	S-RS	Lockable 100 Nm	Yes	No requirements
		RC2				EN356, P4A
RC3	DIN EN 1627	RC3	S-RS	Lockable 100 Nm	Yes	EN356, P4A

Glazing

Minimum requirements for glazing

Test class	Glazing in accordance with EN 356
RC1N	No requirements
RC2N	No requirements
RC2	P4A
RC3	P5A
RC4	P6A
RC5	P7A
RC6	P8A

Requirements for glazing the test specimen

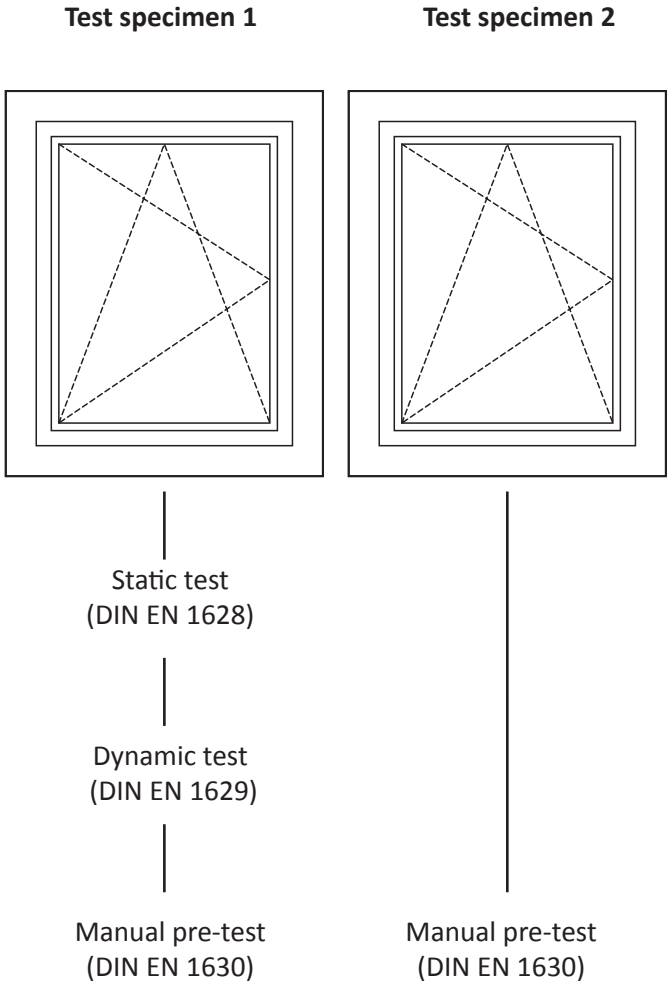
For the test, the test specimens are to be fitted with glazing in accordance with EN 356. In order to protect the tester, the safety glass should be placed on the attack side.

Test class	Glazing in accordance with EN 356
RC1N	P4A
RC2N	P4A
RC2	P4A
RC3	P5A
RC4	P6A
RC5	P7A
RC6	P8A

Test specimens

Two identical test specimens are required for the test in accordance with DIN EN 1627ff.

- Test specimen 1 is used for the weak point analysis.
- Test specimen 2 is used for the main test subject to the weak point analysis.



Test method

The established breakdown of the test method into static, dynamic and manual tests presented in the draft standard has essentially remained the same.

- DIN EN 1628 static test method
- DIN EN 1629 dynamic test method
- DIN EN 1630 manual test method

Changes have however been made to the individual test methods.

DIN EN 1628

DIN EN 1628 describes the test method for determining the resistance of a construction product under static loading.

Depending on the resistance class, this involves defined forces being applied to specific points in order to determine the deflection of the movable part of the construction product.

In contrast to the draft standard, the deflection is no longer measured but is determined using gap gauges instead.

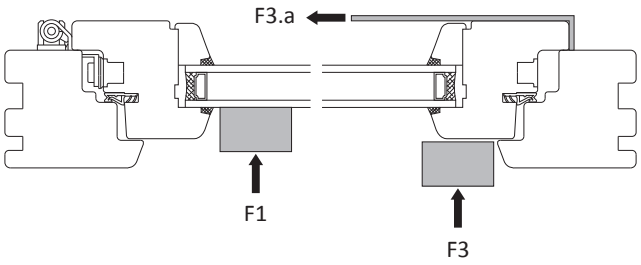
	Resistance class (RC)							
	RC1 and RC2		RC3		RC4		RC5 and RC6	
Loading points	Test load kN	Gap gauge type	Test load kN	Gap gauge type	Test load kN	Gap gauge type	Test load kN	Gap gauge type
F1 Infill corner	3	B	6	B	10	B	15	B
F2 Leaf/sash corner	1,5	B	3	B	6	B	10	B
F3 Locking points	3	A	6	A	10	A	15	A
F3.a Additional load	1,5	A	—	—	—	—	—	—

Loading points

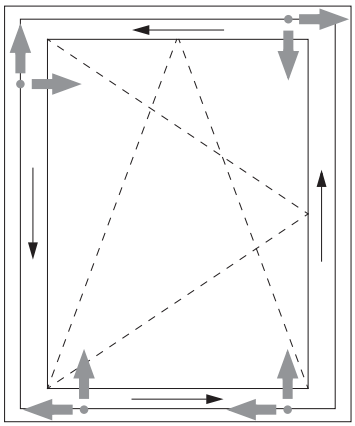
- **F1 Infill corners**
  Load is to be applied to each infill corner.

- **F2 Leaf/sash corners**
  Load is applied to the corners of the leaf/sash if the next locking point is more than 350 mm away from the corner.

- **F3 Locking points**
  Each locking point is loaded to F3. If two locking points are less than 200 mm apart, the load is applied midway between them.
  Locking points are all connection points between window and leaf/sash frames, including hinges.



- **F3.a Locking points**
  (only for resistance class RC1N)
  Load F3.a is applied in conjunction with load F3 on the flat of the test specimen (reproducibility of an attack using small lever tools).
  The load is applied against the locking direction in a way which increases the airgap.



- Locking point
- Locking direction
- Load direction F3.a

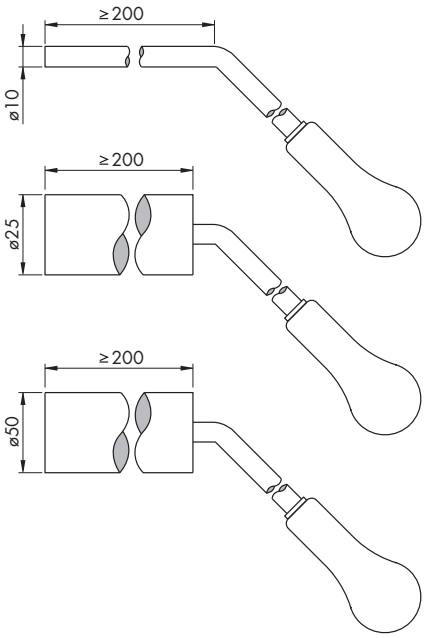
Gap gauges

Gap gauges for testing deflection

Type A (ø 10 mm)

Type B (ø 25 mm)

Type C (ø 50 mm)



The type C gap gauge is used for group 3 products (e.g. shutters).

DIN EN 1629

DIN EN 1629 describes the dynamic test method for the elements.

The test aims to simulate attacks made by people who attempt to use their shoulders or feet to create an accessible opening.

For products in resistance class 1, all parts are also dismantled on the attack side, in a non-destructive manner, using tool set A1 prior to carrying out the dynamic test. This preparatory procedure must not take longer than 3 minutes.

Whereas in DIN V ENV 1629 the test was carried out using a 30 kg sandbag, the new DIN EN 1629 standard uses a 50 kg impactor.

For this test, safety glazing (P4A in accordance with EN 356) should be placed on the load side.

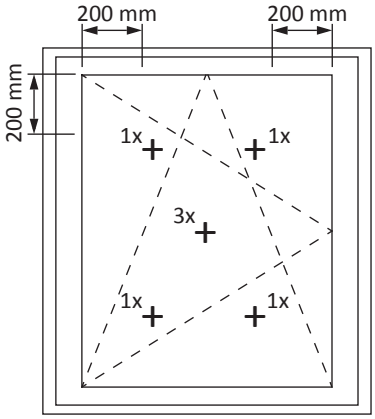
The dynamic test is only carried out in resistance classes RC1 to RC3.

Dynamic testing is not required in resistance classes RC4 to RC6.

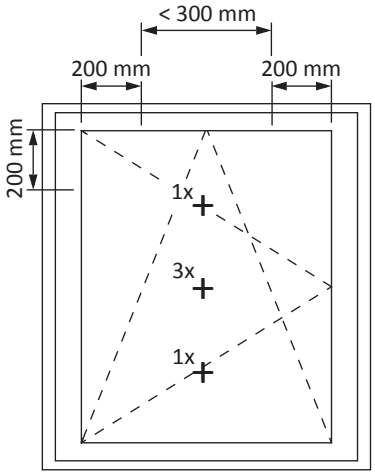
Due to the increased weight of the pendulum impact, the drop height has been reduced.

Test class	Drop height in mm	Weight of the impactor in kg
RC1N	450	50
RC2N		
RC2		
RC3	750	
RC4 to RC6	No dynamic test required	

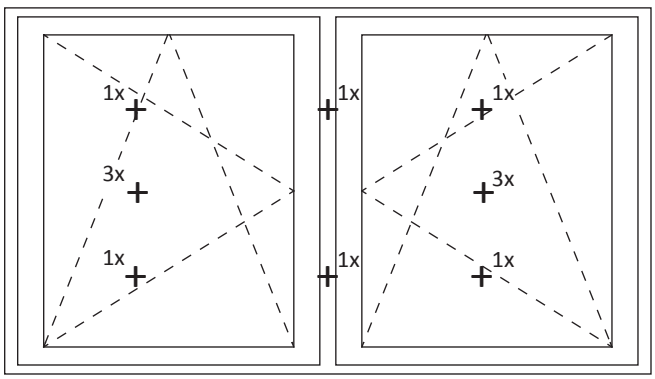
The impact load is applied once at each corner of the infill



and three times in the centre of the test specimen.

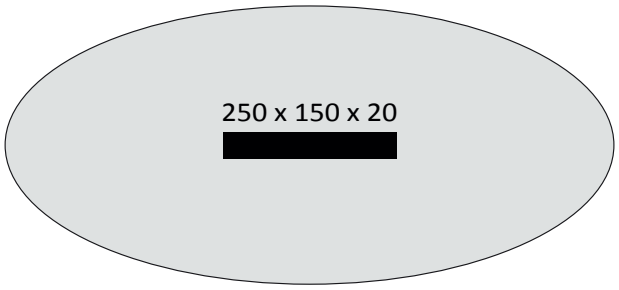


On secondary sashes, the individual infill panels are only impacted on the centreline. The secondary sash area is also tested.



Evaluating the results of the dynamic test

The test specimen has not passed the test if gap gauge D can be passed through the opening that has formed in the test specimen.



DIN EN 1630

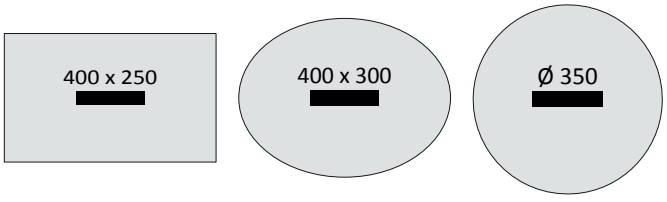
DIN EN 1630 describes how resistance to manual intrusion attempts is determined.

The test specimens are installed in a sub-frame.

Depending on the resistance class, the tester has various tool sets available in order to create an accessible opening.

The resistance time includes periods of fewer than 5 seconds for each time the tester changes tools.

The following analysis templates are used to determine an accessible opening.



Break-in testing according to DIN EN 1627:2011

A specific procedure, a resistance time and a specific tool set is stipulated for each resistance class for the break-in test.

Resistance class DIN EN 1627:2011	Type of intruder/procedure/tools	Resistance time
RC1N	A manipulation test is carried out using small tools, components of this resistance class only have low protection against the use of lever tools. This class is conducted with standard glass.	3 minutes
RC2N	The intruder also attempts to force thelocked and bolted component openusing simple tools such as screwdrivers, pliers and wedges. A direct attack on the glazing used is unlikely. This class is also conducted with standard glass.	3 minutes
RC2	The intruder also attempts to force the locked and bolted component open using simple tools such as screwdrivers, pliers and wedges. Glazing in accordance with EN 356 is compulsory from class RC2.	3 minutes
RC3	The intruder also attempts to force the locked and bolted component open using a second screwdriver and a crowbar.	5 minutes
RC4	The experienced intruder also uses sawing tools and striking tools such as an axe, a crowbar, a hammer and chisel and a cordless drill.	10 minutes
RC5	The experienced intruder also uses power tools such as a drill, a jig saw or sabre saw and angle grinder (max. disc diameter 125 mm).	15 minutes
RC6	The experienced intruder also uses heavy-duty power tools such as a drilling machine, a jig saw or sabre saw and angle grinder (max. disc diameter 230 mm).	20 minutes

Correlation

If the body issuing the invitation to tender announces the elements as antiintruder elements in accordance with DIN EN 1627 - Resistance Class RC2, then, by referring to the correlation table, an existing test certificate to DIN V ENV 1627 - Resistance Class RC2 can be used.

Apart from for resistance class RC1N, it is assumed that products that were classified as resistance class RC2 – RC6 correspond to the same classes in the standard DIN EN 1627.

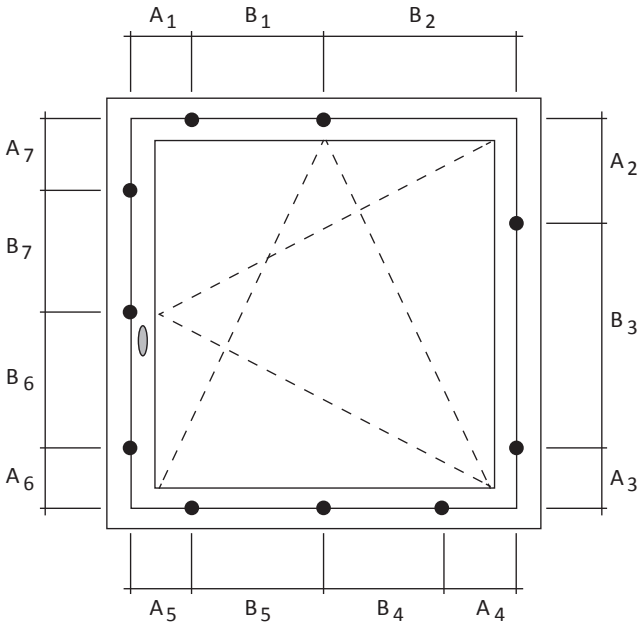
Resistance classes (RC) in accordance with DIN EN 1627:2011-08	Resistance classes (RC) in accordance with DIN V ENV 1627:1999-04
RC1N	No correlation possibleh
RC2N	WK2 (free choice of glazing - glass connection as tested)
RC2	WK2
RC3	WK3
RC4	WK4
RC5	WK5
RC6	WK6

Dimensions

The classification of a product is only valid for the dimensions that were actually tested.

A selection of test specimens is required if a product system is to be assessed.

Using the rule of extrapolation, the tested dimensions can be extended or reduced within their limits without the need to carry out a test.



Key

A1 ... A7	+5%, –20%
B1 ... B7	+5%, –30%
Surface area	±25%

Description	Part number	FFH	Description	Part number
gear 15 AF handle height constant			**gear AF OS/PZ handle height constant**	
gear 15 AF sz 80/G400 1RS	TGKK4050-	801 – 1000	gear OS-AF sz 80/G400 1RS	TGKK0550-
gear 15 AF sz 100/G500 1RS	TGKK4060-	1001 – 1200	gear OS-AF sz 100/G500 1RS	TGKK0560-
gear 15 AF sz 120/G600 1RS	TGKK4070-	1201 – 1400	gear OS/PZ-AF sz 120/G600 1RS	TGKK0570-
gear 15 AF sz 140/G700 1RS	TGKK4080-	1401 – 1600	gear OS/PZ-AF sz 140/G700 1RS	TGKK0580-
gear 15 AF sz 140/G700 2RS 70	TGKK4200-	1401 – 1600	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740-
gear 15 AF sz 160/G700 2RS 70	TGKK4280-	1601 – 1800	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750-
gear 15 AF sz 160/G700 2RS	TGKK4090-	1601 – 1800	gear OS/PZ-AF sz 160/G700 2RS	TGKK0590-
gear 15 AF sz 180/G1000 2RS 70	TGKK4220-	1801 – 2000	gear OS/PZ-AF sz 180/G1000 2RS 70	TGKK0620-
gear 15 AF sz 180/G1000 2RS	TGKK4100-	1801 – 2000	gear OS/PZ-AF sz 180/G1000 2RS	TGKK0600-
gear 15 AF sz 200/G1000 3RS 70	TGKK4230-	2001 – 3000	gear OS/PZ-AF sz 200/G1000 3RS 70	TGKK0630-
gear 15 AF handle height centre		**FFH**	**gear AF OS/PZ handle height centre**	
gear 15 AF sz 60	TGMK4020-	600 – 1000	gear AF OS GR 60	TGMK0500-
gear 15 AF sz 80 1RS	TGMK4040-	801 – 1200	gear AF OS sz 80 1RS	TGMK0510-
gear 15 AF sz 120 1RS	TGMK4050-	1201 – 1600	gear AF OS/PZ GR 120 1RS	TGMK0520-
gear 15 AF sz 120 2RS 70	TGMK4160-	1201 – 1600	gear OS/PZ-AF sz 120 2RS 70	TGMK0550-
gear 15 AF sz 160 2RS 70	TGMK4170-	1601 – 2000	gear OS/PZ-AF sz 160 2RS 70	TGMK0560-
gear 15 AF sz 160 2RS	TGMK4060-	1601 – 2000	gear AF OS/PZ GR 160 2RS	TGMK0530-
gear 15 AF sz 200 2RS	TGMK4080-	2001 – 3000	gear AF OS/PZ GR 200 2RS	TGMK0540-
gear 15 AF sz 200 3RS 70	TGMK4110-	2001 – 3000	gear OS/PZ-AF sz 200 3RS 70	TGMK0570-
gear 15 AF OZ handle height constant (sec. sash with 2. handle)		**FFH**	**gear sec. sash OS AF handle height constant**	
gear 15 AF sz 60/G300	TGKK4030-	601 – 800		
gear 15 AF OZ sz 80/G400	TGKK9100-	801 – 1000	gear OS-AF sz 80 1SB	TGKK0650-
gear 15 AF OZ sz 100/G500	TGKK9110-	1001 – 1200	gear OS-AF sz 100 1SB	TGKK0660-
gear 15 AF OZ sz 120/G600	TGKK9120-	1201 – 1400	gear OS/PZ-AF sz 120 1SB	TGKK0670-
gear 15 AF OZ sz 140/G700	TGKK9130-	1401 – 1600	gear OS/PZ-AF sz 140/G700 2SB 70	TGKK0760-
gear 15 AF OZ sz 160/G700/70	TGKK9170-	1601 – 1800	gear OS/PZ-AF sz 160/G700 2SB 70	TGKK0770-
gear 15 AF OZ sz 180/G1000/70	TGKK9180-	1801 – 2000	gear OS/PZ-AF sz 180 2SB 70	TGKK0720-
gear 15 AF OZ sz 200/G1000	TGKK9160-	2001 – 3000	gear OS/PZ-AF sz 200 3SB 70	TGKK0730-
gear 15 AF OZ handle height centre (sec. sash with 2. handle)		**FFH**	**gear sec. sash OS AF handle height centre**	
gear 15 AF sz 60	TGMK4020-	601 – 1000	gear OS-AF sz 60	TGMK0500-
gear 15 AF OZ sz 80	TGMK9080-	801 – 1200	gear OS-AF sz 80 1SB	TGMK0610-
gear 15 AF OZ sz 120	TGMK9090-	1201 – 1600	gear OS/PZ-AF sz 120 2SB 70	TGMK0650-
gear 15 AF OZ sz 160	TGMK9120-	1601 – 2000	gear OS/PZ-AF sz 120 2SB 70	TGMK0650-
gear 15 AF OZ sz 200	TGMK9110-	2001 – 3000	gear OS/PZ-AF sz 200 3SB 70	TGMK0670-
			When using the gear OS/PZ the gearbox TMSL ... must be ordered separately. For details see individual component pages.	

Further information on the components can be found in the TITAN AF component catalogue in chapter 3.1 and 3.5.
https://catalog.siegenia.com/titanaf_bgk_en

Basic security

Scheme A	H48.TAFPSKFK0S001EN	2 - 3
Scheme C	H48.TAFPSKFK0S002EN	2 - 7

RC1

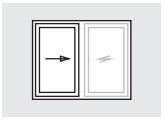
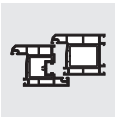
Scheme A	H48.TAFPSKFK1S001EN	2 - 15
Scheme C	H48.TAFPSKFK1S002EN	2 - 19

RC2

Scheme A	H48.TAFPSKFK2+S001EN	2 - 27
Scheme C	H48.TAFPSKFK2+S002EN	2 - 33

TITAN AF

Installation instructions

GS

PS

scheme A

PVC

basic security

fixed handle position

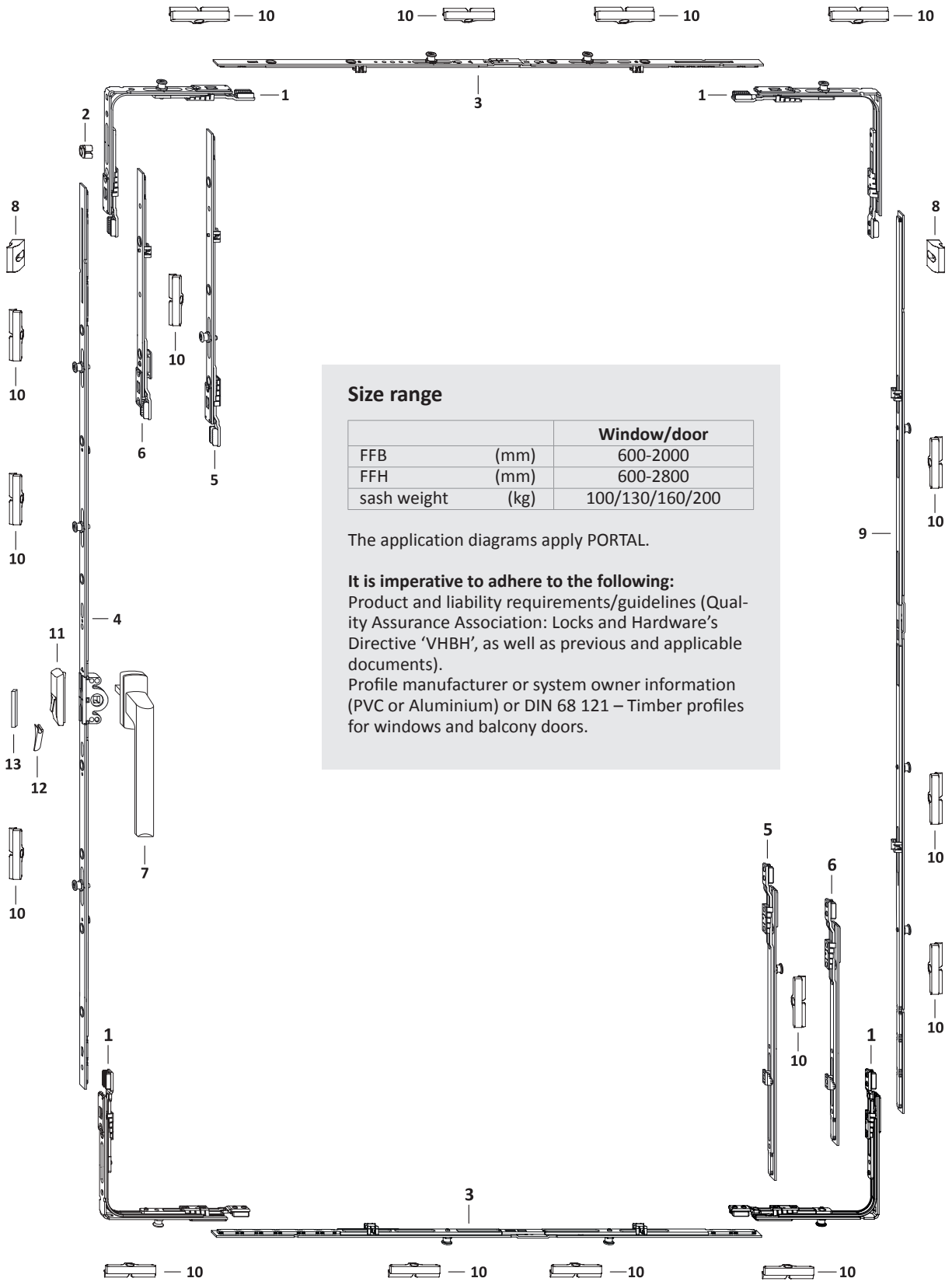
surface TS

backset 15 mm

Hardware set configuration	
General	Locking-points distance 800; with centre lock
Locking side	mishandl. device on gear

hardware layout

PS, scheme A
PVC GK



Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

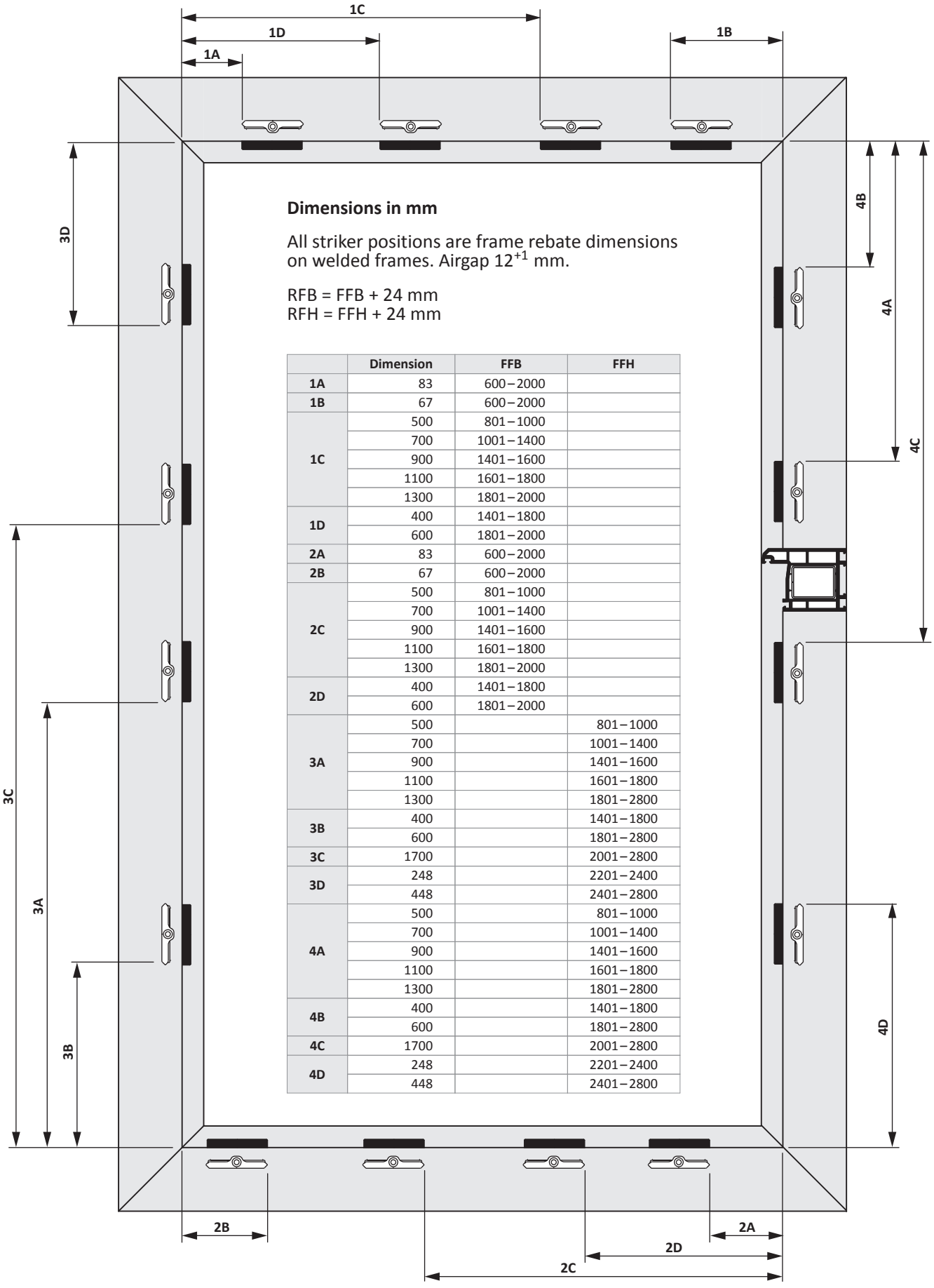
The application diagrams apply PORTAL.

It is imperative to adhere to the following:
Product and liability requirements/guidelines (Quality Assurance Association: Locks and Hardware's Directive 'VHBH', as well as previous and applicable documents).
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber profiles for windows and balcony doors.

Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.
							10
1	corn.drive VSO 1RS	TEUL4010- ...	4	600 – 2000			4
2	travel restrictor	TFHB0010- ...	1	600 – 2000			
3	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800			
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...		801 – 1000			2
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...		1001 – 1200			2
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...		1201 – 1400			2
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...		1401 – 1600			4
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...		1601 – 1800			4
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...		1801 – 2000			4
4	gear 15 AF sz 60/G300	TGKK4030- ...	1		600 – 800	300	
	gear 15 AF sz 80/G400 1RS	TGKK4050- ...			801 – 1000	400	1
	gear 15 AF sz 100/G500 1RS	TGKK4060- ...			1001 – 1200	500	1
	gear 15 AF sz 120/G600 1RS	TGKK4070- ...			1201 – 1400	600	1
	gear 15 AF sz 140/700 2RS 70	TGKK4200- ...			1401 – 1600	700	2
	gear 15 AF sz 160/G700 1RS 70	TGKK4280- ...			1601 – 1800	700	2
	gear 15 AF sz 180/G1000 2RS 70	TGKK4220- ...			1801 – 2000	1000	2
	gear 15 AF sz 200/G1000 3RS 70	TGKK4230- ...			2001 – 2800	1000	3
5	linkage KK/AF sz 1 1RS	TZKK1010- ...	2		2201 – 2400		2
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2401 – 2800		2
6	linkage AF sz 1	TZZS0150- ...	2		2601 – 2800		
7	handle Si-line PSK	Ref.access. PHIES	1		600 – 2800		
8	distance piece	Ref. PDB, PRTL	2		600 – 2800		
9	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800		
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...			801 – 1000		1
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...			1001 – 1200		1
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...			1201 – 1400		1
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...			1401 – 1600		2
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...			1601 – 1800		2
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...			1801 – 2000		2
	gear OS/PZ-AF sz.200/G1000 3RS 70	TGKK0630- ...			2001 – 2800		3
10	striker plate S 56	Ref. PDB, TRSM					
on request							
11	mishandling device	TFBS0010- ...	1				
12	pressure piece	Ref. PDB, TFFD	1				
13	stop	Ref. PDB, FRZF01	1				

Frame dimensions

PS, scheme A
PVC GK



Dimensions in mm

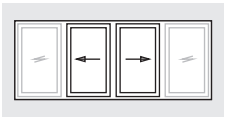
All striker positions are frame rebate dimensions on welded frames. Airgap 12^{+1} mm.

RFB = FFB + 24 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	83	600 – 2000	
1B	67	600 – 2000	
1C	500	801 – 1000	
	700	1001 – 1400	
	900	1401 – 1600	
	1100	1601 – 1800	
	1300	1801 – 2000	
1D	400	1401 – 1800	
	600	1801 – 2000	
2A	83	600 – 2000	
2B	67	600 – 2000	
2C	500	801 – 1000	
	700	1001 – 1400	
	900	1401 – 1600	
	1100	1601 – 1800	
	1300	1801 – 2000	
2D	400	1401 – 1800	
	600	1801 – 2000	
3A	500		801 – 1000
	700		1001 – 1400
	900		1401 – 1600
	1100		1601 – 1800
	1300		1801 – 2800
3B	400		1401 – 1800
	600		1801 – 2800
3C	1700		2001 – 2800
3D	248		2201 – 2400
	448		2401 – 2800
4A	500		801 – 1000
	700		1001 – 1400
	900		1401 – 1600
	1100		1601 – 1800
	1300		1801 – 2800
4B	400		1401 – 1800
	600		1801 – 2800
4C	1700		2001 – 2800
4D	248		2201 – 2400
	448		2401 – 2800

TITAN AF

Installation instructions



GS

PS/PS

scheme C

PVC

basic security

fixed handle position

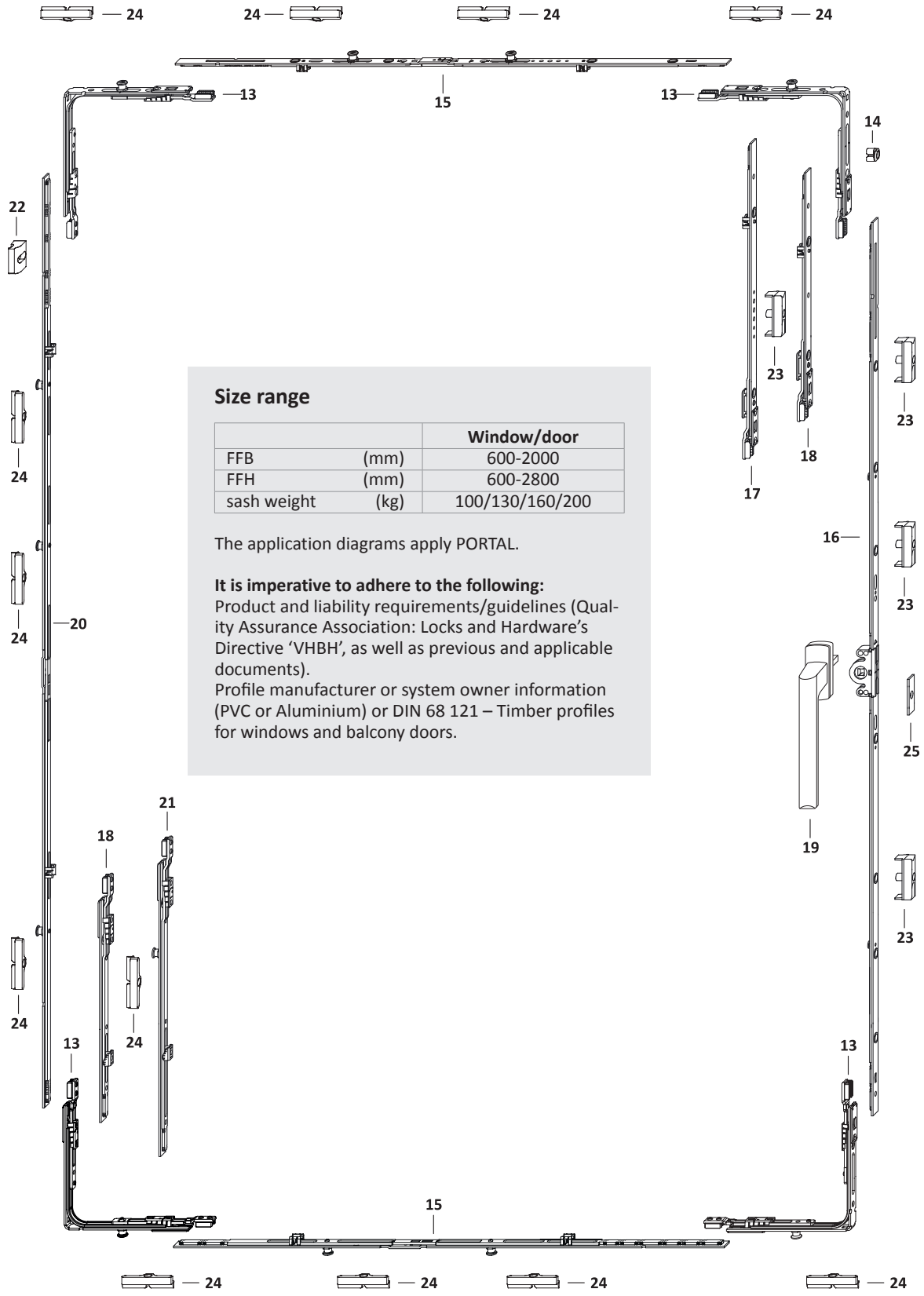
surface TS

backset 15 mm

Hardware set configuration	
General	Locking-points distance 800; with centre lock
Locking side	mishandl. device on gear

hardware layout slave sash

PS/PS, scheme C
PVC GK

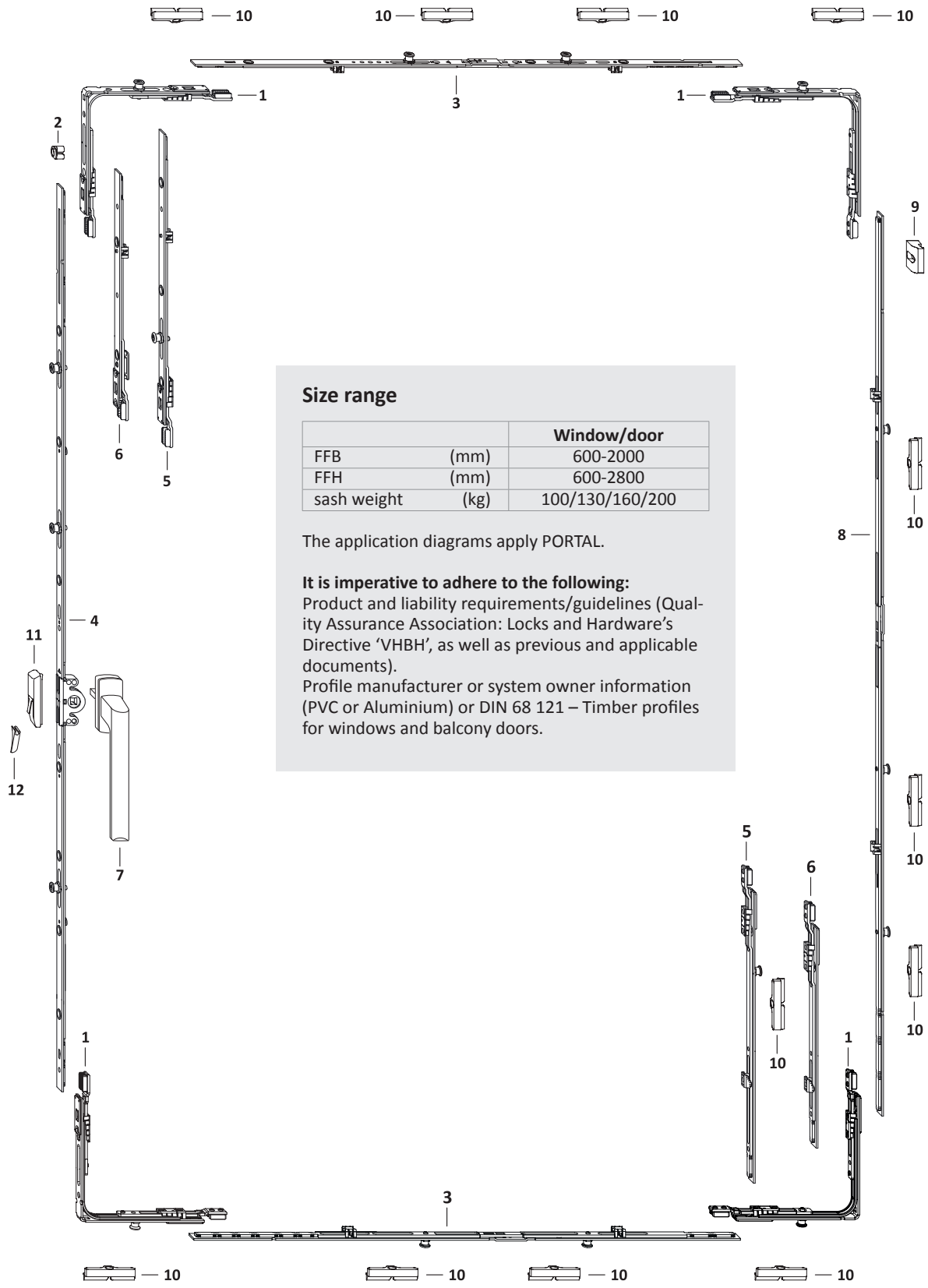


Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

The application diagrams apply PORTAL.

It is imperative to adhere to the following:
Product and liability requirements/guidelines (Quality Assurance Association: Locks and Hardware's Directive 'VHBH', as well as previous and applicable documents).
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber profiles for windows and balcony doors.



Size range

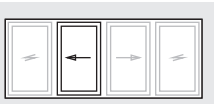
		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

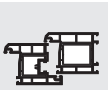
The application diagrams apply PORTAL.

It is imperative to adhere to the following:
Product and liability requirements/guidelines (Quality Assurance Association: Locks and Hardware's Directive 'VHBH', as well as previous and applicable documents).
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber profiles for windows and balcony doors.

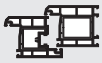
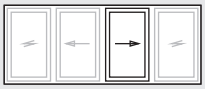
List of fittings slave sash

PS/PS, scheme C
PVC GK





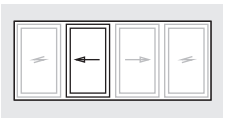
Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.	
						In the main sash	23	24
13	corn.drive VSO 1RS	TEUL4010- ...	4	600 – 2000				4
14	travel restrictor	TFHB0010- ...	1	600 – 2000				
15	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800				
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...		801 – 1000				2
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...		1001 – 1200				2
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...		1201 – 1400				2
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...		1401 – 1600				4
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...		1601 – 1800				4
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...		1801 – 2000				4
16	gear 15 AF sz 60/G300	TGKK4030- ...	1		600 – 800	300		
	gear 15 AF OZ sz 80/G400	TGKK9100- ...			801 – 1000	400	1	
	gear 15 AF OZ sz 100/G500	TGKK9110- ...			1001 – 1200	500	1	
	gear 15 AF OZ sz 120/G600	TGKK9120- ...			1201 – 1400	600	1	
	gear 15 AF OZ sz 140/G700	TGKK9130- ...			1401 – 1600	700	1	
	gear 15 AF OZ sz 160/G700	TGKK9170- ...			1601 – 1800	700	1	
	gear 15 AF OZ sz 180/G1000	TGKK9180- ...			1801 – 2000	1000	1	
	gear 15 AF OZ sz 200/G1000	TGKK9160- ...			2001 – 2800	1000	1	
17	linkage AF sz 1	TZZS0150- ...	1		2201 – 2400		1	
	linkage AF sz 2 A0767	TZKS1050- ...			2401 – 2800		1	
18	linkage AF sz 1	TZZS0150- ...	2		2601 – 2800			
19	handle Si-line PSK	Ref.access. PHIES	1		600 – 2800			
20	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800			
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...			801 – 1000			1
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...			1001 – 1200			1
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...			1201 – 1400			1
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...			1401 – 1600			2
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...			1601 – 1800			2
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...			1801 – 2000			2
	gear OS/PZ-AF sz.200/G1000 3RS 70	TGKK0630- ...			2001 – 2800			3
21	linkage KK/AF sz 1 1RS	TZKK1010- ...	1		2201 – 2400			1
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2401 – 2800			1
22	distance piece	Ref. PDB, PRTL	1		600 – 2800			
23	striker plate 56 A2000	TRSB0030- ...						
24	striker plate S 56	Ref. PDB, TRSM						
on request								
25	stop 2,2mm	710937	1					

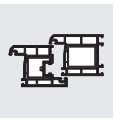



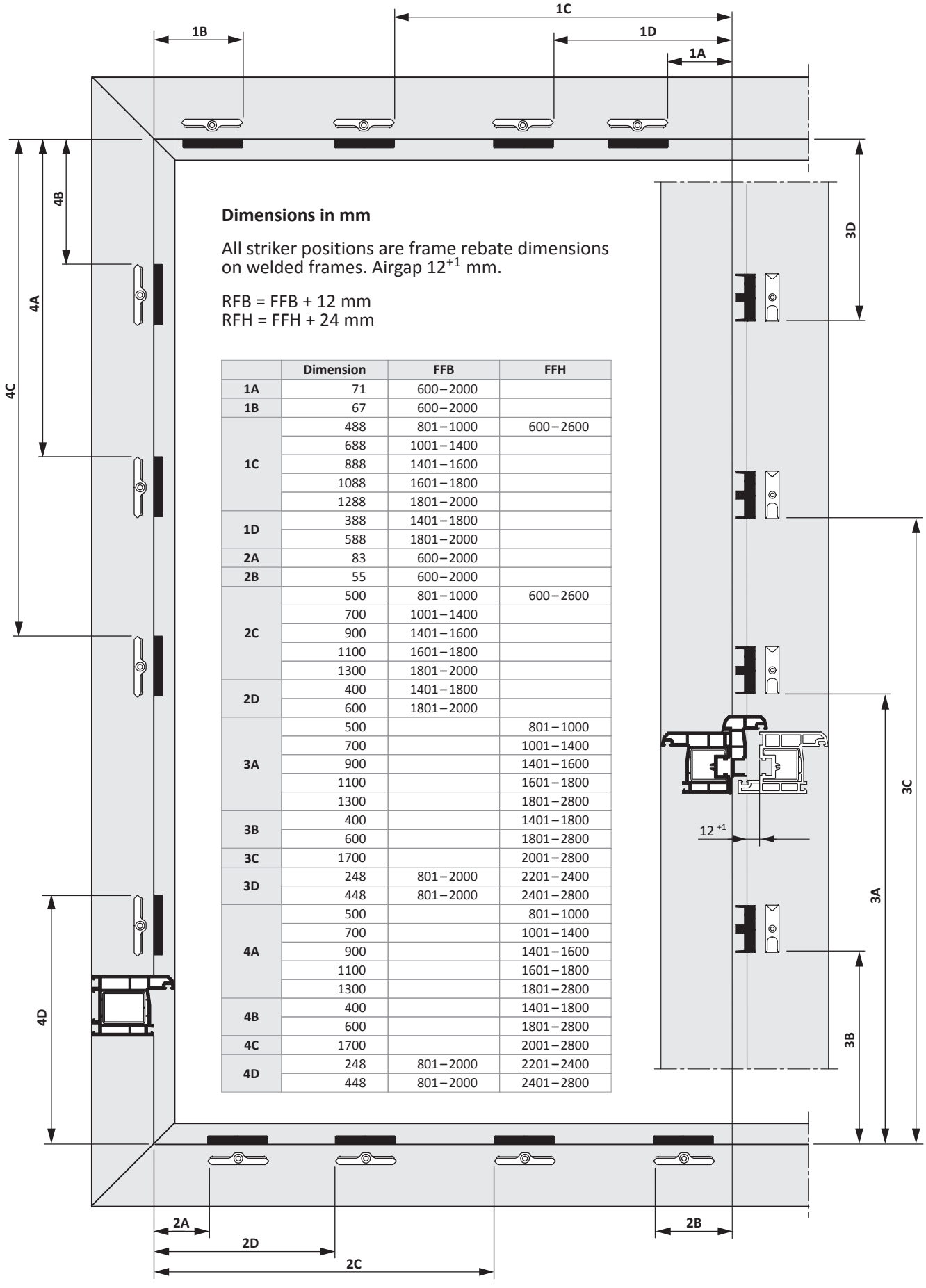
Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.
							10
1	corn.drive VSO 1RS	TEUL4010- ...	4	600 – 2000			4
2	travel restrictor	TFHB0010- ...	1	600 – 2000			
3	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800			
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...		801 – 1000			2
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...		1001 – 1200			2
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...		1201 – 1400			2
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...		1401 – 1600			4
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...		1601 – 1800			4
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...		1801 – 2000			4
4	gear 15 AF sz 60/G300	TGKK4030- ...	1		600 – 800	300	
	gear 15 AF sz 80/G400 1RS	TGKK4050- ...			801 – 1000	400	
	gear 15 AF sz 100/G500 1RS	TGKK4060- ...			1001 – 1200	500	
	gear 15 AF sz 120/G600 1RS	TGKK4070- ...			1201 – 1400	600	
	gear 15 AF sz 140/700 2RS 70	TGKK4200- ...			1401 – 1600	700	
	gear 15 AF sz 160/G700 1RS 70	TGKK4280- ...			1601 – 1800	700	
	gear 15 AF sz 180/G1000 2RS 70	TGKK4220- ...			1801 – 2000	1000	
	gear 15 AF sz 200/G1000 3RS 70	TGKK4230- ...			2001 – 2800	1000	
5	linkage KK/AF sz 1 1RS	TZKK1010- ...	2		2201 – 2400		1
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2401 – 2800		1
6	linkage AF sz 1	TZZS0150- ...	2		2601 – 2800		
7	handle Si-line PSK	Ref.access. PHIES	1		600 – 2800		
8	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800		
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...			801 – 1000		1
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...			1001 – 1200		1
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...			1201 – 1400		1
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...			1401 – 1600		2
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...			1601 – 1800		2
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...			1801 – 2000		2
	gear OS/PZ-AF sz.200/G1000 3RS 70	TGKK0630- ...			2001 – 2800		3
9	distance piece	Ref. PDB, PRTL	1		600 – 2800		
10	striker plate S 56	Ref. PDB, TRSM					
on request							
11	mishandling device	TFBS0010- ...	1				
12	pressure piece	Ref. PDB, TFFD	1				

Frame dimensions slave sash

PS/PS, scheme C
PVC GK





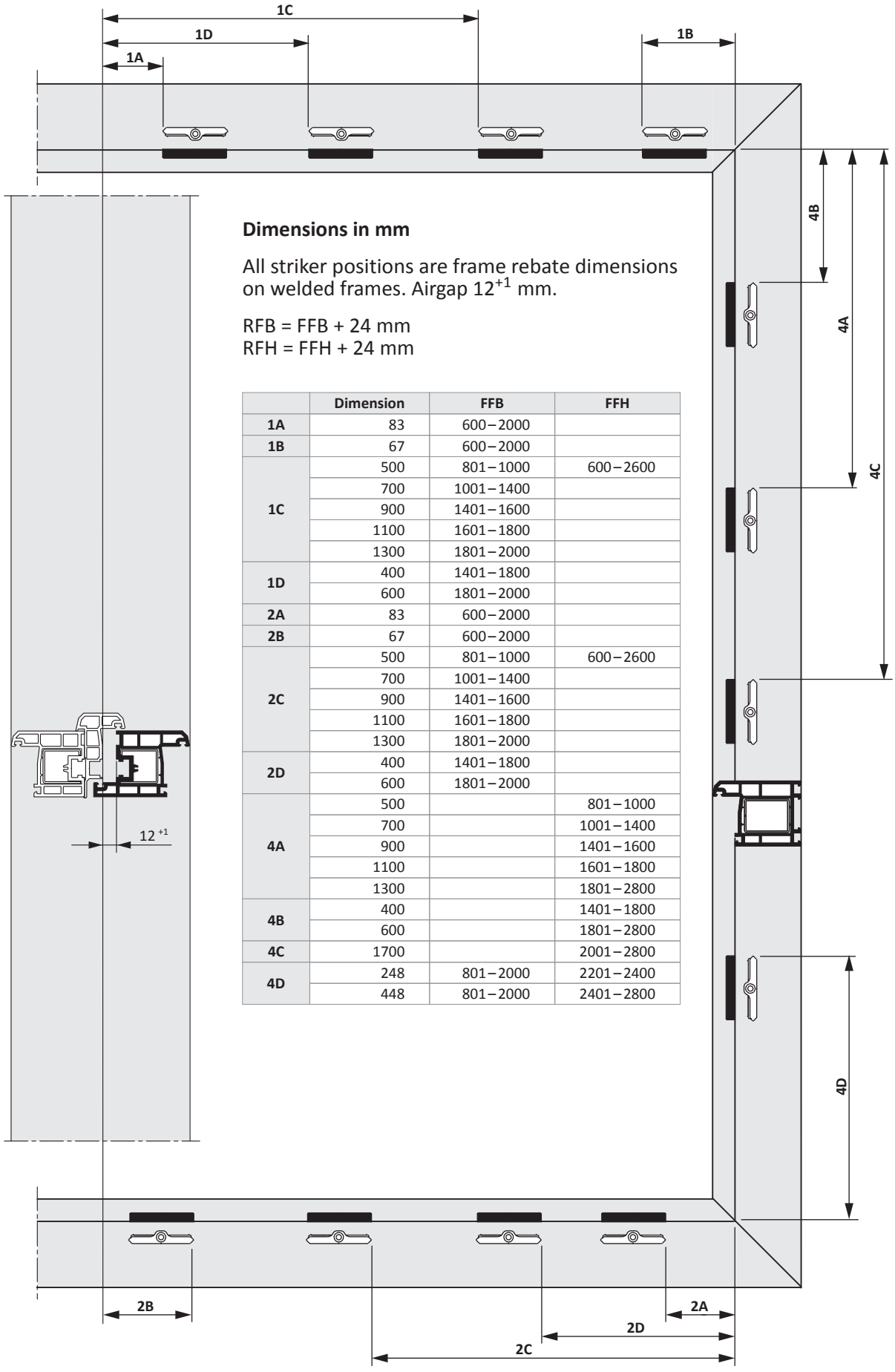


Dimensions in mm

All striker positions are frame rebate dimensions on welded frames. Airgap 12^{+1} mm.

RFB = FFB + 12 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	71	600–2000	
1B	67	600–2000	
1C	488	801–1000	600–2600
	688	1001–1400	
	888	1401–1600	
	1088	1601–1800	
	1288	1801–2000	
1D	388	1401–1800	
	588	1801–2000	
2A	83	600–2000	
2B	55	600–2000	
2C	500	801–1000	600–2600
	700	1001–1400	
	900	1401–1600	
	1100	1601–1800	
	1300	1801–2000	
2D	400	1401–1800	
	600	1801–2000	
3A	500		801–1000
	700		1001–1400
	900		1401–1600
	1100		1601–1800
	1300		1801–2800
3B	400		1401–1800
	600		1801–2800
3C	1700		2001–2800
3D	248	801–2000	2201–2400
	448	801–2000	2401–2800
4A	500		801–1000
	700		1001–1400
	900		1401–1600
	1100		1601–1800
	1300		1801–2800
4B	400		1401–1800
	600		1801–2800
4C	1700		2001–2800
4D	248	801–2000	2201–2400
	448	801–2000	2401–2800



Dimensions in mm

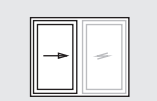
All striker positions are frame rebate dimensions on welded frames. Airgap 12^{+1} mm.

RFB = FFB + 24 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	83	600–2000	
1B	67	600–2000	
1C	500	801–1000	600–2600
	700	1001–1400	
	900	1401–1600	
	1100	1601–1800	
	1300	1801–2000	
1D	400	1401–1800	
	600	1801–2000	
2A	83	600–2000	
2B	67	600–2000	
2C	500	801–1000	600–2600
	700	1001–1400	
	900	1401–1600	
	1100	1601–1800	
	1300	1801–2000	
2D	400	1401–1800	
	600	1801–2000	
4A	500		801–1000
	700		1001–1400
	900		1401–1600
	1100		1601–1800
	1300		1801–2800
4B	400		1401–1800
	600		1801–2800
4C	1700		2001–2800
4D	248	801–2000	2201–2400
	448	801–2000	2401–2800

TITAN AF

Installation instructions



RC1

PS

scheme A

PVC

RC1

fixed handle position

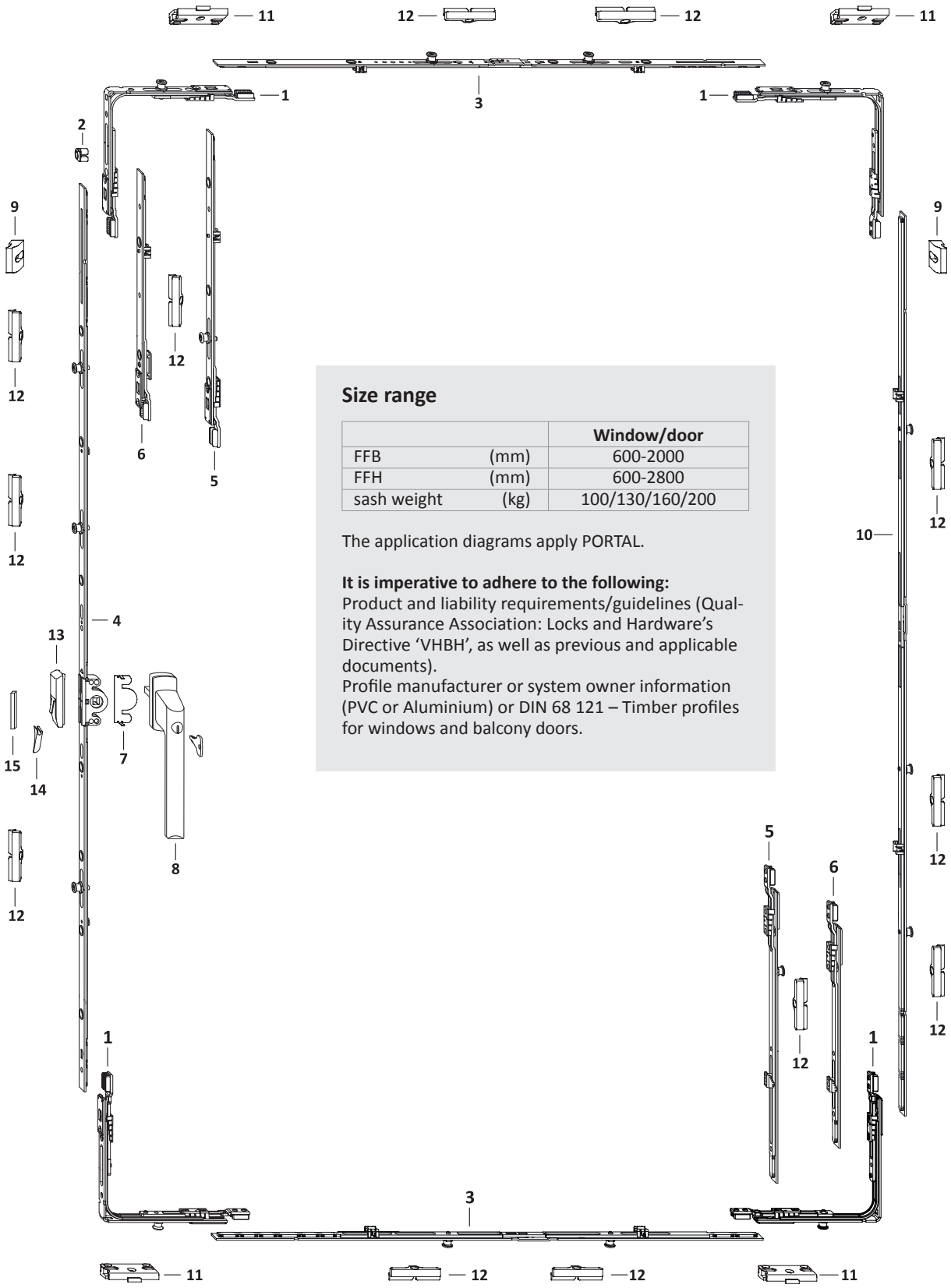
surface TS

backset 15 mm

Hardware set configuration	
General	Locking-points distance 800; with centre lock
Locking side	mishandl. device on gear

hardware layout

PS, scheme A
PVC GK



Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

The application diagrams apply PORTAL.

It is imperative to adhere to the following:
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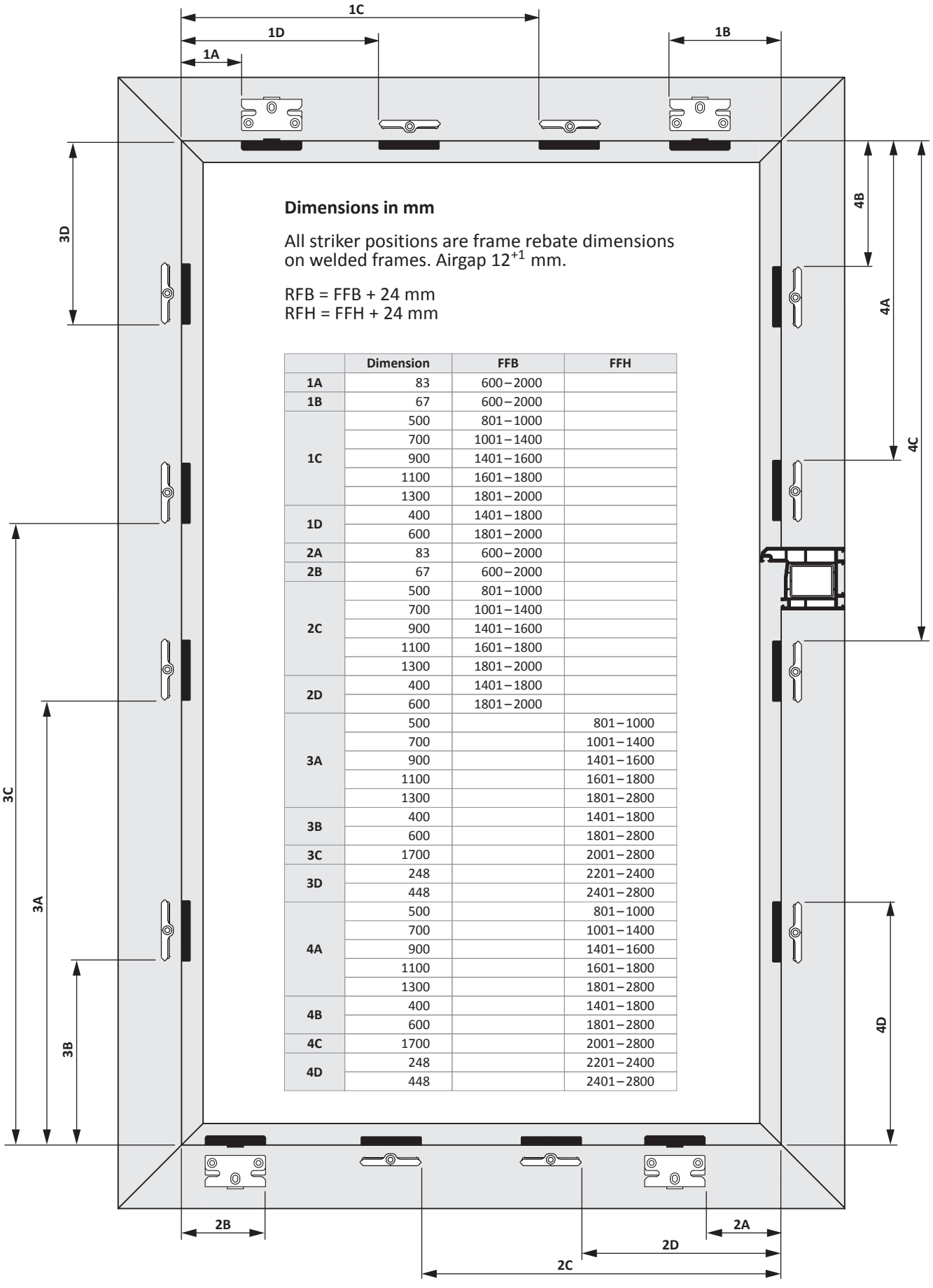
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber profiles for windows and balcony doors.

Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.	
							11	12
1	corn.drive VSO 1RS	TEUL4010- ...	4	600 – 2000			4	
2	travel restrictor	TFHB0010- ...	1	600 – 2000				
3	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800				
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...		801 – 1000				2
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...		1001 – 1200				2
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...		1201 – 1400				2
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...		1401 – 1600				4
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...		1601 – 1800				4
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...		1801 – 2000				4
4	gear 15 AF sz 60/G300	TGKK4030- ...	1		600 – 800	300		
	gear 15 AF sz 80/G400 1RS	TGKK4050- ...			801 – 1000	400		1
	gear 15 AF sz 100/G500 1RS	TGKK4060- ...			1001 – 1200	500		1
	gear 15 AF sz 120/G600 1RS	TGKK4070- ...			1201 – 1400	600		1
	gear 15 AF sz 140/700 2RS 70	TGKK4200- ...			1401 – 1600	700		2
	gear 15 AF sz 160/G700 1RS 70	TGKK4280- ...			1601 – 1800	700		2
	gear 15 AF sz 180/G1000 2RS 70	TGKK4220- ...			1801 – 2000	1000		2
	gear 15 AF sz 200/G1000 3RS 70	TGKK4230- ...			2001 – 2800	1000		3
5	linkage KK/AF sz 1 1RS	TZKK1010- ...	2		2201 – 2400			2
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2401 – 2800			2
6	linkage AF sz 1	TZZS0150- ...	2		2601 – 2800			
7	anti-drill guard E	TGBS0010- ...	1		600 – 2800			
8	handle Si-line PSK lockable	Ref.access. PHIEA	1		600 – 2800			
9	distance piece	Ref. PDB, PRTL	2		600 – 2800			
10	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800			
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...			801 – 1000			1
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...			1001 – 1200			1
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...			1201 – 1400			1
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...			1401 – 1600			2
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...			1601 – 1800			2
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...			1801 – 2000			2
	gear OS/PZ-AF sz.200/G1000 3RS 70	TGKK0630- ...			2001 – 2800			3
11	striker plate S-RS	Ref. PDB, TRSK						
12	striker plate S 56	Ref. PDB, TRSM						
on request								
13	mishandling device	TFBS0010- ...	1					
14	pressure piece	Ref. PDB, TFFD	1					
15	stop	Ref. PDB, FRZF01	1					

Frame dimensions

PS, scheme A
PVC GK



Dimensions in mm

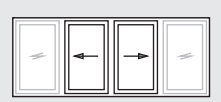
All striker positions are frame rebate dimensions on welded frames. Airgap 12^{+1} mm.

RFB = FFB + 24 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	83	600 – 2000	
1B	67	600 – 2000	
1C	500	801 – 1000	
	700	1001 – 1400	
	900	1401 – 1600	
	1100	1601 – 1800	
	1300	1801 – 2000	
1D	400	1401 – 1800	
	600	1801 – 2000	
2A	83	600 – 2000	
2B	67	600 – 2000	
2C	500	801 – 1000	
	700	1001 – 1400	
	900	1401 – 1600	
	1100	1601 – 1800	
	1300	1801 – 2000	
2D	400	1401 – 1800	
	600	1801 – 2000	
3A	500		801 – 1000
	700		1001 – 1400
	900		1401 – 1600
	1100		1601 – 1800
	1300		1801 – 2800
3B	400		1401 – 1800
	600		1801 – 2800
3C	1700		2001 – 2800
3D	248		2201 – 2400
	448		2401 – 2800
4A	500		801 – 1000
	700		1001 – 1400
	900		1401 – 1600
	1100		1601 – 1800
	1300		1801 – 2800
4B	400		1401 – 1800
	600		1801 – 2800
4C	1700		2001 – 2800
4D	248		2201 – 2400
	448		2401 – 2800

TITAN AF

Installation instructions



RC1

PS/PS

scheme C

PVC

RC1

fixed handle position

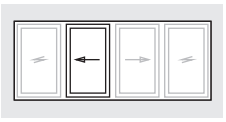
surface TS

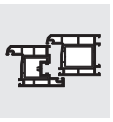
backset 15 mm

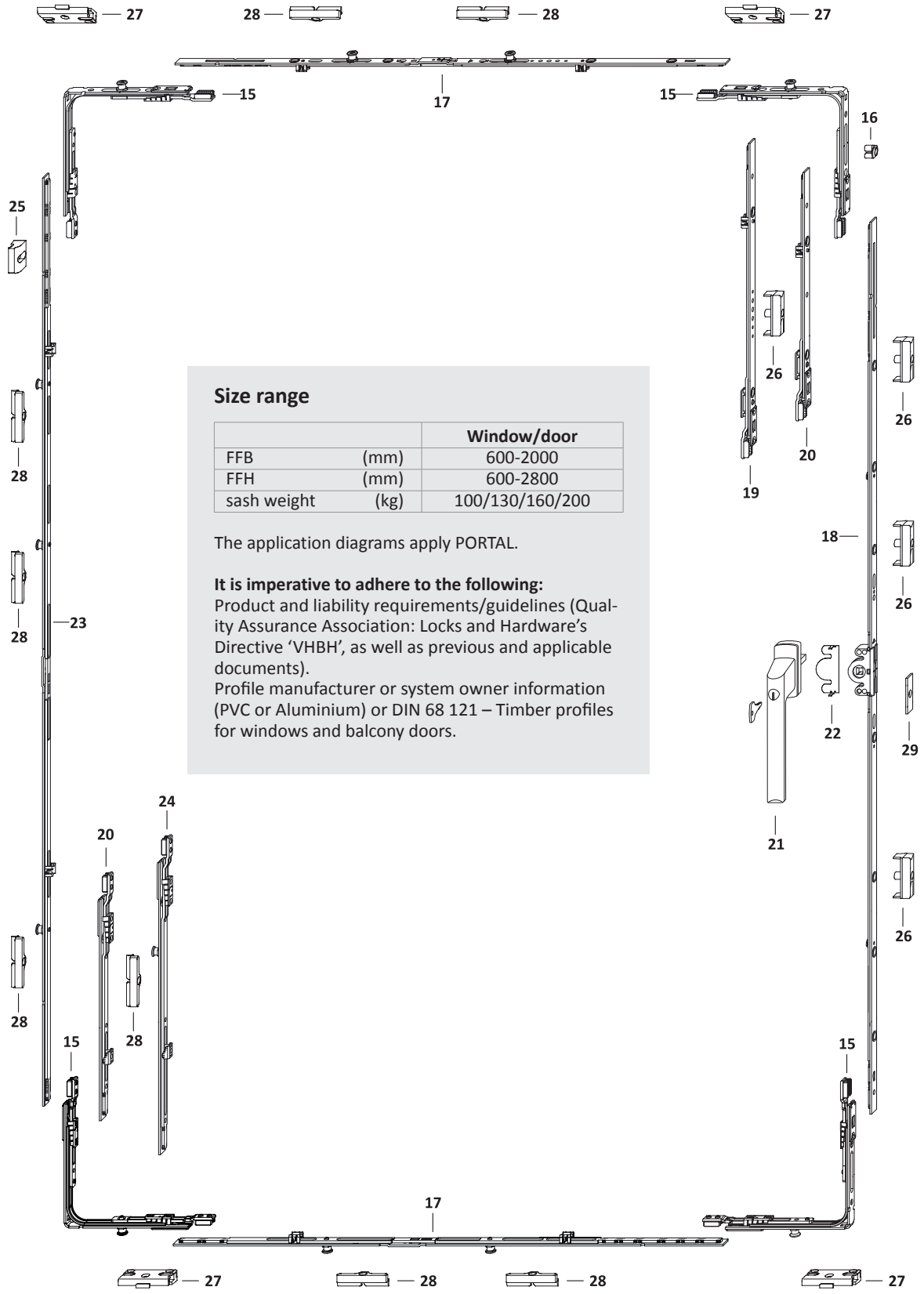
Hardware set configuration	
General	Locking-points distance 800; with centre lock
Locking side	mishandl. device on gear

hardware layout slave sash

PS/PS, scheme C
PVC GK





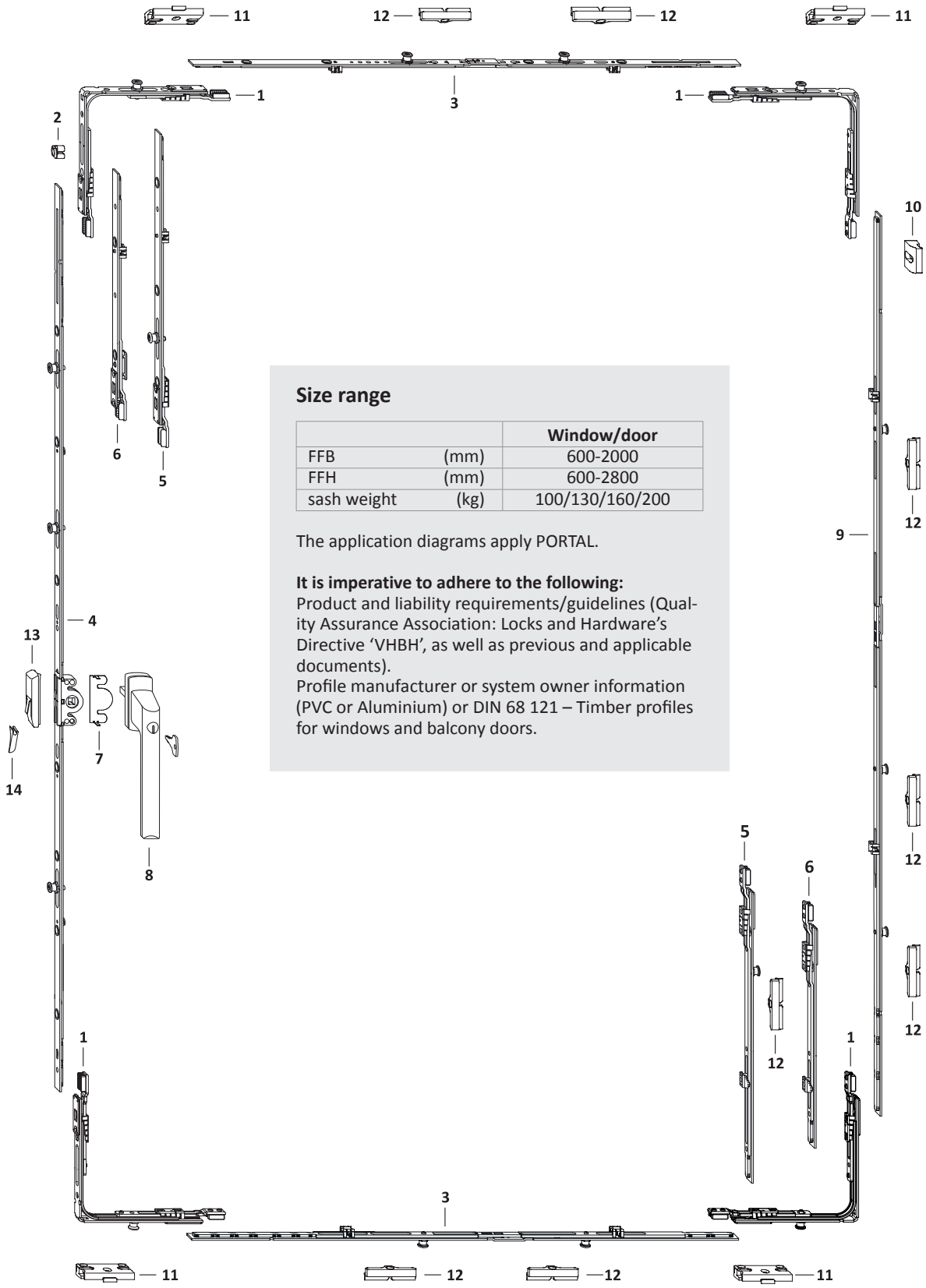


Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

The application diagrams apply PORTAL.

It is imperative to adhere to the following:
Product and liability requirements/guidelines (Quality Assurance Association: Locks and Hardware's Directive 'VHBH', as well as previous and applicable documents).
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber profiles for windows and balcony doors.



Size range

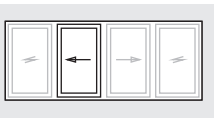
		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

The application diagrams apply PORTAL.

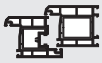
It is imperative to adhere to the following:
Product and liability requirements/guidelines (Quality Assurance Association: Locks and Hardware's Directive 'VHBH', as well as previous and applicable documents).
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber profiles for windows and balcony doors.

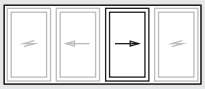
List of fittings slave sash

PS/PS, scheme C
PVC GK



Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.		
						In the main sash	26	27	28
15	corn.drive VSO 1RS	TEUL4010- ...	4	600 – 2000				4	
16	travel restrictor	TFHB0010- ...	1	600 – 2000					
17	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800					
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...		801 – 1000					2
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...		1001 – 1200					2
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...		1201 – 1400					2
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...		1401 – 1600					4
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...		1601 – 1800					4
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...		1801 – 2000					4
18	gear 15 AF sz 60/G300	TGKK4030- ...	1		600 – 800	300			
	gear 15 AF OZ sz 80/G400	TGKK9100- ...			801 – 1000	400	1		
	gear 15 AF OZ sz 100/G500	TGKK9110- ...			1001 – 1200	500	1		
	gear 15 AF OZ sz 120/G600	TGKK9120- ...			1201 – 1400	600	1		
	gear 15 AF OZ sz 140/G700	TGKK9130- ...			1401 – 1600	700	1		
	gear 15 AF OZ sz 160/G700	TGKK9170- ...			1601 – 1800	700	1		
	gear 15 AF OZ sz 180/G1000	TGKK9180- ...			1801 – 2000	1000	1		
	gear 15 AF OZ sz 200/G1000	TGKK9160- ...			2001 – 2800	1000	1		
19	linkage AF sz 1	TZZS0150- ...	1		2201 – 2400		1		
	linkage AF sz 2 A0767	TZKS1050- ...			2401 – 2800		1		
20	linkage AF sz 1	TZZS0150- ...	2		2601 – 2800				
21	handle Si-line PSK lockable	Ref.access. PHIEA	1		600 – 2800				
22	anti-drill guard E	TGBS0010- ...	1		600 – 2800				
23	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800				
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...			801 – 1000				1
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...			1001 – 1200				1
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...			1201 – 1400				1
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...			1401 – 1600				2
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...			1601 – 1800				2
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...			1801 – 2000				2
	gear OS/PZ-AF sz.200/G1000 3RS 70	TGKK0630- ...			2001 – 2800				3
24	linkage KK/AF sz 1 1RS	TZKK1010- ...	1		2201 – 2400				1
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2401 – 2800				1
25	distance piece	Ref. PDB, PRTL	1		600 – 2800				
26	striker plate 56 A2000	TRSB0030- ...							
27	striker plate S-RS	Ref. PDB, TRSK							
28	striker plate S 56	Ref. PDB, TRSM							
on request									
29	stop 2,2mm	710937	1						





List of fittings main sash

PS/PS, scheme C

PVC GK

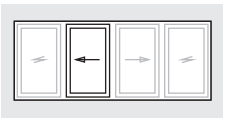
TITAN AF

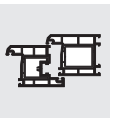
RC1

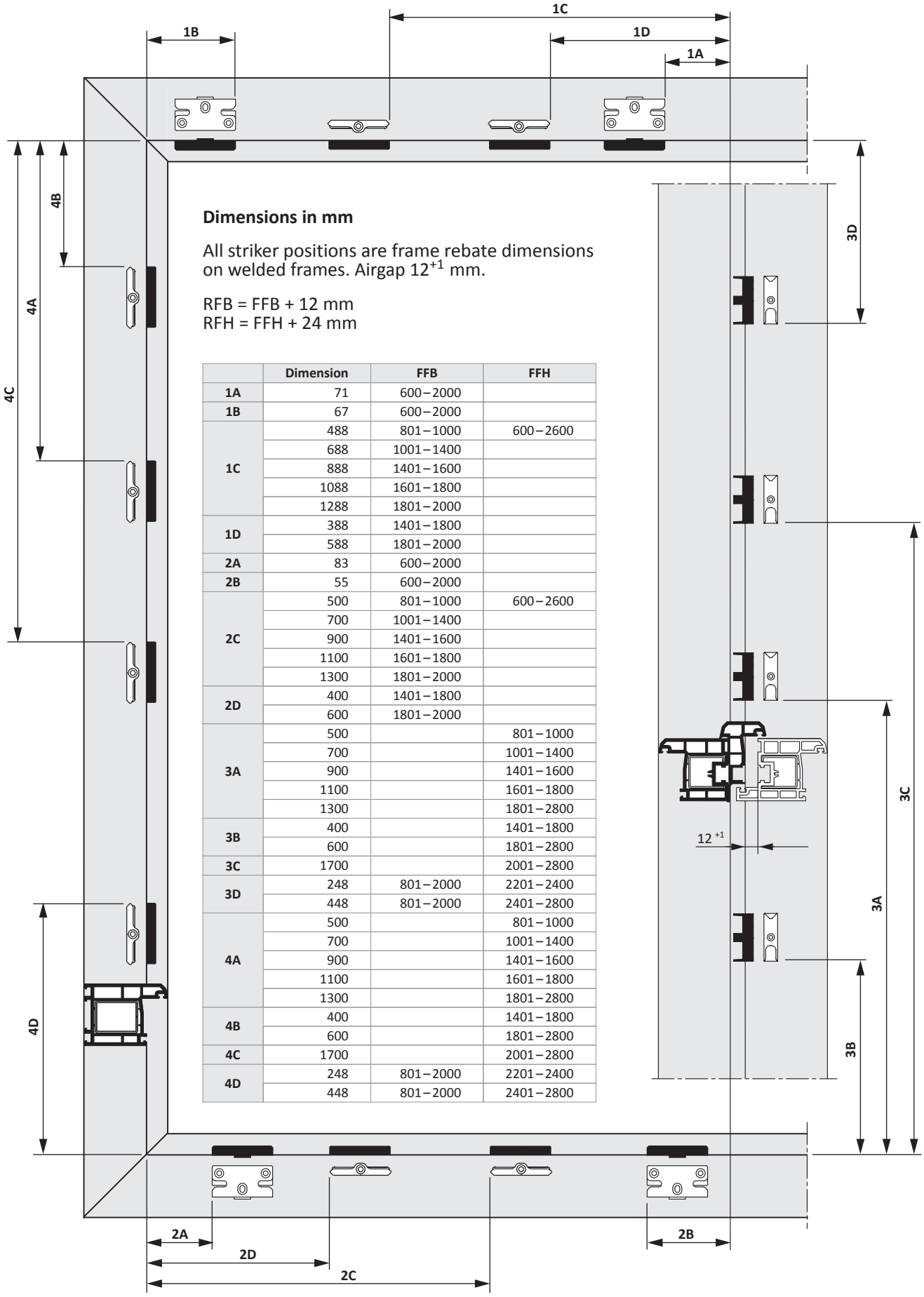
Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.	
							11	12
1	corn.drive VSO 1RS	TEUL4010- ...	4	600 – 2000			4	
2	travel restrictor	TFHB0010- ...	1	600 – 2000				
3	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800				
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...		801 – 1000				2
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...		1001 – 1200				2
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...		1201 – 1400				2
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...		1401 – 1600				4
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...		1601 – 1800				4
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...		1801 – 2000				4
4	gear 15 AF sz 60/G300	TGKK4030- ...	1		600 – 800	300		
	gear 15 AF sz 80/G400 1RS	TGKK4050- ...			801 – 1000	400		
	gear 15 AF sz 100/G500 1RS	TGKK4060- ...			1001 – 1200	500		
	gear 15 AF sz 120/G600 1RS	TGKK4070- ...			1201 – 1400	600		
	gear 15 AF sz 140/700 2RS 70	TGKK4200- ...			1401 – 1600	700		
	gear 15 AF sz 160/G700 1RS 70	TGKK4280- ...			1601 – 1800	700		
	gear 15 AF sz 180/G1000 2RS 70	TGKK4220- ...			1801 – 2000	1000		
	gear 15 AF sz 200/G1000 3RS 70	TGKK4230- ...			2001 – 2800	1000		
5	linkage KK/AF sz 1 1RS	TZKK1010- ...	2		2201 – 2400			1
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2401 – 2800			1
6	linkage AF sz 1	TZZS0150- ...	2		2601 – 2800			
7	anti-drill guard E	TGBS0010- ...	1		600 – 2800			
8	handle Si-line PSK lockable	Ref.access. PHIEA	1		600 – 2800			
9	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800			
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...			801 – 1000			1
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...			1001 – 1200			1
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...			1201 – 1400			1
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...			1401 – 1600			2
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...			1601 – 1800			2
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...			1801 – 2000			2
	gear OS/PZ-AF sz.200/G1000 3RS 70	TGKK0630- ...			2001 – 2800			3
10	distance piece	Ref. PDB, PRTL	1		600 – 2800			
11	striker plate S-RS	Ref. PDB, TRSK						
12	striker plate S 56	Ref. PDB, TRSM						
on request								
13	mishandling device	TFBS0010- ...	1					
14	pressure piece	Ref. PDB, TFFD	1					

Frame dimensions slave sash

PS/PS, scheme C
PVC GK





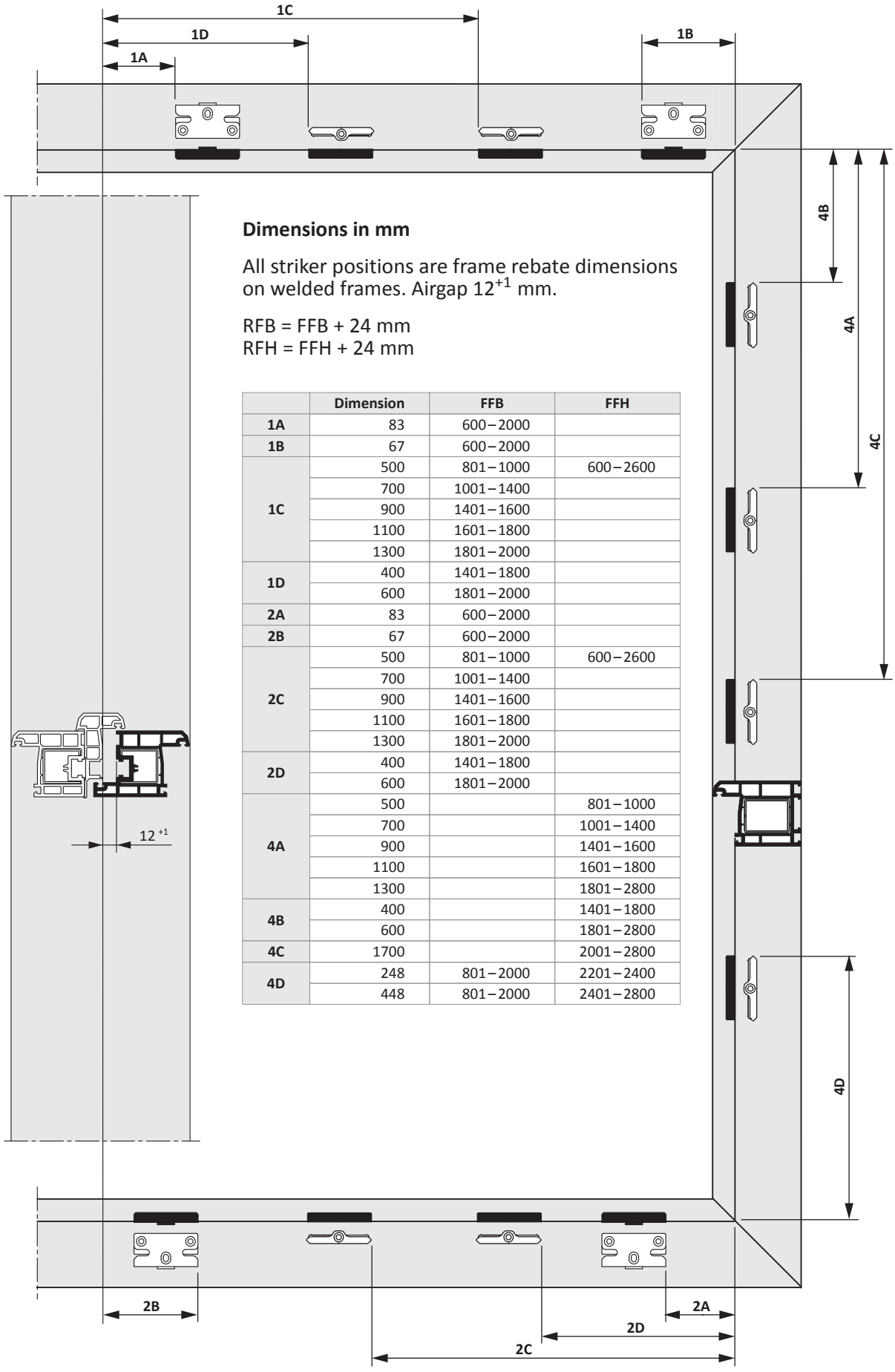


Dimensions in mm

All striker positions are frame rebate dimensions on welded frames. Airgap 12^{+1} mm.

RFB = FFB + 12 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	71	600–2000	
1B	67	600–2000	
1C	488	801–1000	600–2600
	688	1001–1400	
	888	1401–1600	
	1088	1601–1800	
	1288	1801–2000	
1D	388	1401–1800	
	588	1801–2000	
2A	83	600–2000	
2B	55	600–2000	
2C	500	801–1000	600–2600
	700	1001–1400	
	900	1401–1600	
	1100	1601–1800	
	1300	1801–2000	
2D	400	1401–1800	
	600	1801–2000	
3A	500		801–1000
	700		1001–1400
	900		1401–1600
	1100		1601–1800
	1300		1801–2800
3B	400		1401–1800
	600		1801–2800
3C	1700		2001–2800
3D	248	801–2000	2201–2400
	448	801–2000	2401–2800
4A	500		801–1000
	700		1001–1400
	900		1401–1600
	1100		1601–1800
	1300		1801–2800
4B	400		1401–1800
	600		1801–2800
4C	1700		2001–2800
4D	248	801–2000	2201–2400
	448	801–2000	2401–2800



Dimensions in mm

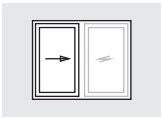
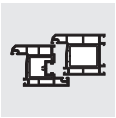
All striker positions are frame rebate dimensions on welded frames. Airgap 12^{+1} mm.

RFB = FFB + 24 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	83	600 – 2000	
1B	67	600 – 2000	
1C	500	801 – 1000	600 – 2600
	700	1001 – 1400	
	900	1401 – 1600	
	1100	1601 – 1800	
	1300	1801 – 2000	
1D	400	1401 – 1800	
	600	1801 – 2000	
2A	83	600 – 2000	
2B	67	600 – 2000	
2C	500	801 – 1000	600 – 2600
	700	1001 – 1400	
	900	1401 – 1600	
	1100	1601 – 1800	
	1300	1801 – 2000	
2D	400	1401 – 1800	
	600	1801 – 2000	
4A	500		801 – 1000
	700		1001 – 1400
	900		1401 – 1600
	1100		1601 – 1800
	1300		1801 – 2800
4B	400		1401 – 1800
	600		1801 – 2800
4C	1700		2001 – 2800
4D	248	801 – 2000	2201 – 2400
	448	801 – 2000	2401 – 2800

TITAN AF

Installation instructions

RC2

PS

scheme A

PVC

RC2

fixed handle position

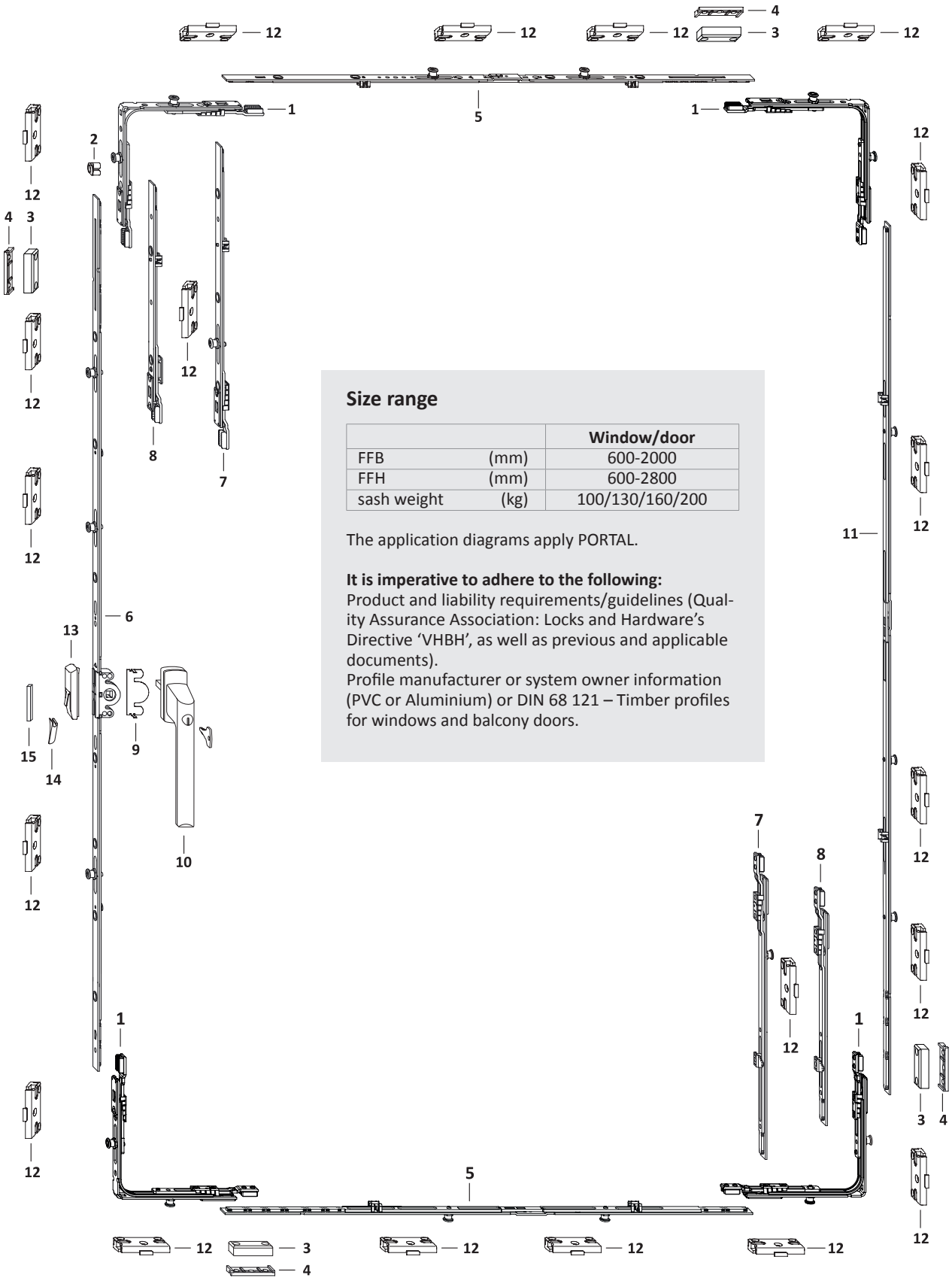
surface TS

backset 15 mm

Hardware set configuration	
General	Locking-points distance 800; with centre lock
Locking side	mishandl. device on gear

hardware layout

PS, scheme A
PVC GK



Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

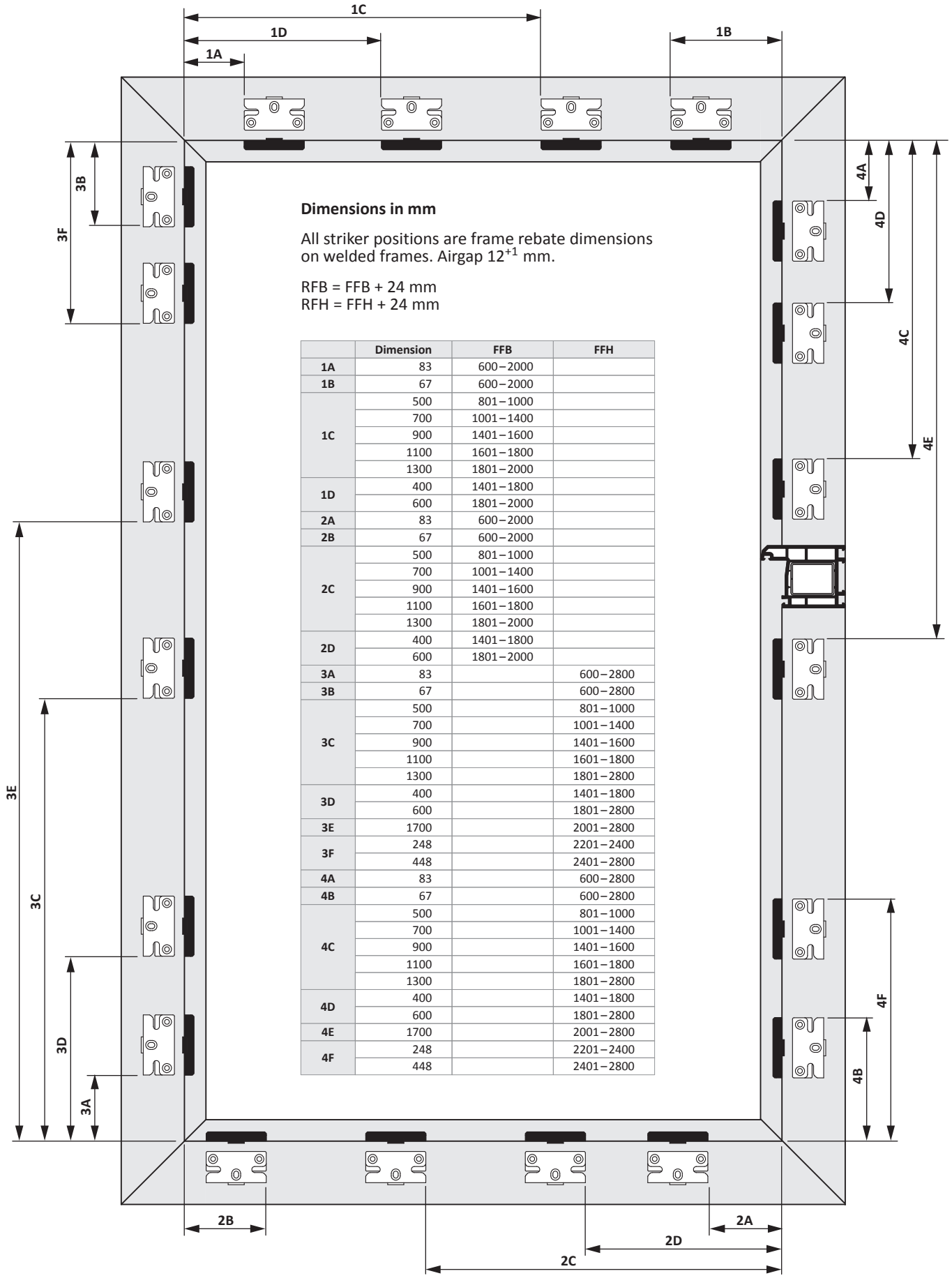
The application diagrams apply PORTAL.

It is imperative to adhere to the following:
Product and liability requirements/guidelines (Quality Assurance Association: Locks and Hardware's Directive 'VHBH', as well as previous and applicable documents).
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber profiles for windows and balcony doors.

Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.
							12
1	corn.drive VSO 2RS A0055	TEUL4070- ...	4	600 – 2000			8
2	travel restrictor	TFHB0010- ...	1	600 – 2000			
3	Air gap limiter	Ref. PDB, FRFL	4	600 – 2000			
4	packer RB/FPS	Ref. PDB, FRUP02	4	600 – 2000			
5	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800			
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...		801 – 1000			2
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...		1001 – 1200			2
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...		1201 – 1400			2
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...		1401 – 1600			4
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...		1601 – 1800			4
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...		1801 – 2000			4
6	gear 15 AF sz 60/G300	TGKK4030- ...	1		600 – 800	300	
	gear 15 AF sz 80/G400 1RS	TGKK4050- ...			801 – 1000	400	1
	gear 15 AF sz 100/G500 1RS	TGKK4060- ...			1001 – 1200	500	1
	gear 15 AF sz 120/G600 1RS	TGKK4070- ...			1201 – 1400	600	1
	gear 15 AF sz 140/700 2RS 70	TGKK4200- ...			1401 – 1600	700	2
	gear 15 AF sz 160/G700 1RS 70	TGKK4280- ...			1601 – 1800	700	2
	gear 15 AF sz 180/G1000 2RS 70	TGKK4220- ...			1801 – 2000	1000	2
	gear 15 AF sz 200/G1000 3RS 70	TGKK4230- ...			2001 – 2800	1000	3
7	linkage KK/AF sz 1 1RS	TZKK1010- ...	2		2201 – 2400		2
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2401 – 2800		2
8	linkage AF sz 1	TZZS0150- ...	2		2601 – 2800		
9	anti-drill guard E	TGBS0010- ...	1		600 – 2800		
10	handle Si-line PSK lockable	Ref.access. PHIEA	1		600 – 2800		
11	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800		
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...			801 – 1000		1
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...			1001 – 1200		1
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...			1201 – 1400		1
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...			1401 – 1600		2
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...			1601 – 1800		2
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...			1801 – 2000		2
	gear OS/PZ-AF sz.200/G1000 3RS 70	TGKK0630- ...			2001 – 2800		3
12	striker plate S-RS	Ref. PDB, TRSK					
on request							
13	mishandling device	TFBS0010- ...	1				
14	pressure piece	Ref. PDB, TFFD	1				
15	stop	Ref. PDB, FRZF01	1				

Frame dimensions

PS, scheme A
PVC GK



Dimensions in mm

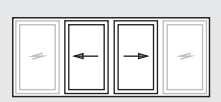
All striker positions are frame rebate dimensions on welded frames. Airgap 12^{+1} mm.

RFB = FFB + 24 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	83	600–2000	
1B	67	600–2000	
1C	500	801–1000	
	700	1001–1400	
	900	1401–1600	
	1100	1601–1800	
	1300	1801–2000	
1D	400	1401–1800	
	600	1801–2000	
2A	83	600–2000	
2B	67	600–2000	
2C	500	801–1000	
	700	1001–1400	
	900	1401–1600	
	1100	1601–1800	
	1300	1801–2000	
2D	400	1401–1800	
	600	1801–2000	
3A	83		600–2800
3B	67		600–2800
3C	500		801–1000
	700		1001–1400
	900		1401–1600
	1100		1601–1800
	1300		1801–2800
3D	400		1401–1800
	600		1801–2800
3E	1700		2001–2800
3F	248		2201–2400
	448		2401–2800
4A	83		600–2800
4B	67		600–2800
4C	500		801–1000
	700		1001–1400
	900		1401–1600
	1100		1601–1800
	1300		1801–2800
4D	400		1401–1800
	600		1801–2800
4E	1700		2001–2800
4F	248		2201–2400
	448		2401–2800

TITAN AF

Installation instructions



RC2

PS/PS

scheme C

PVC

RC2

fixed handle position

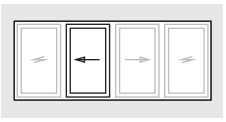
surface TS

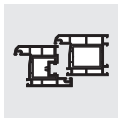
backset 15 mm

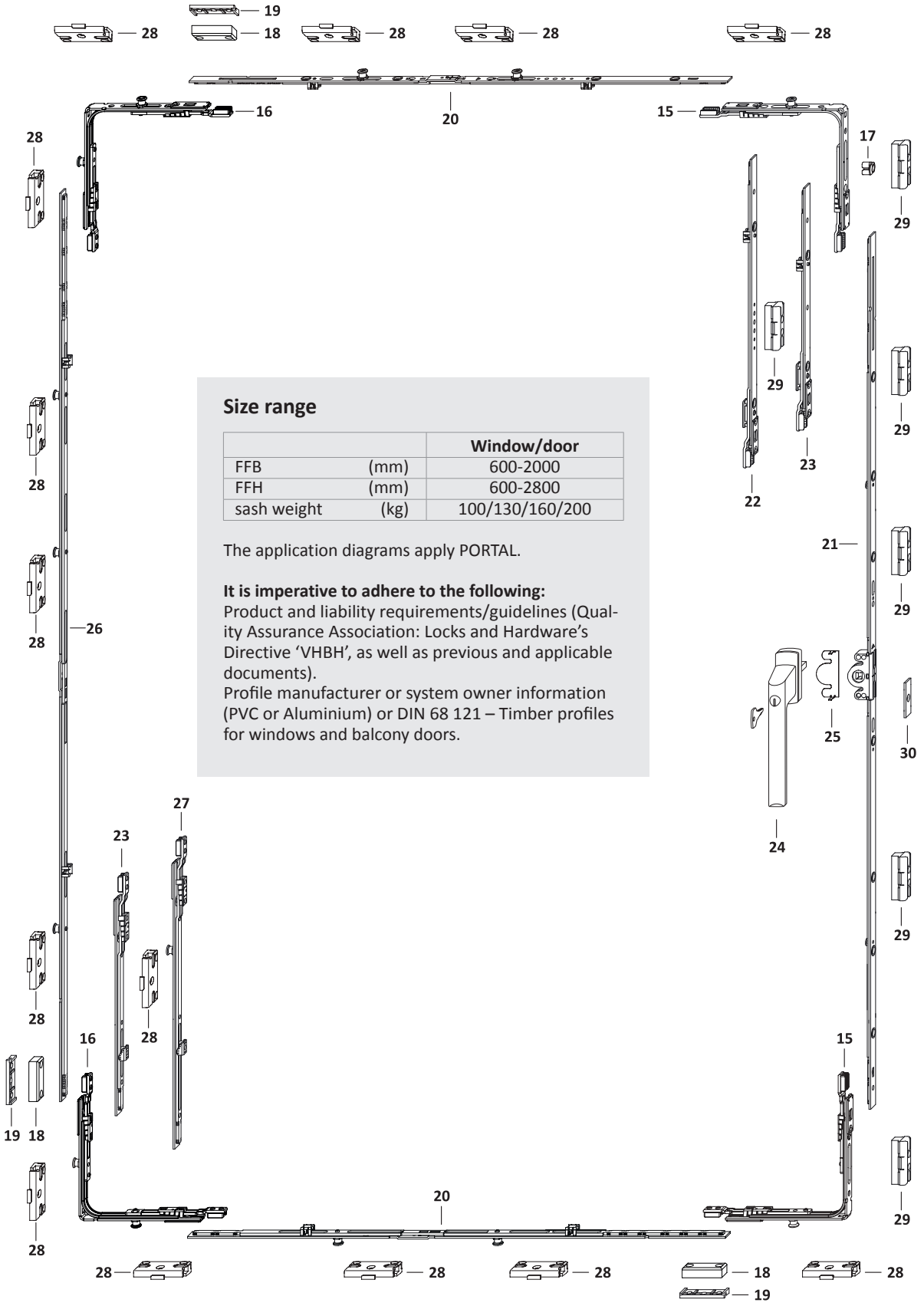
Hardware set configuration	
General	Locking-points distance 800; with centre lock
Locking side	mishandl. device on gear

hardware layout slave sash

PS/PS, scheme C
PVC GK





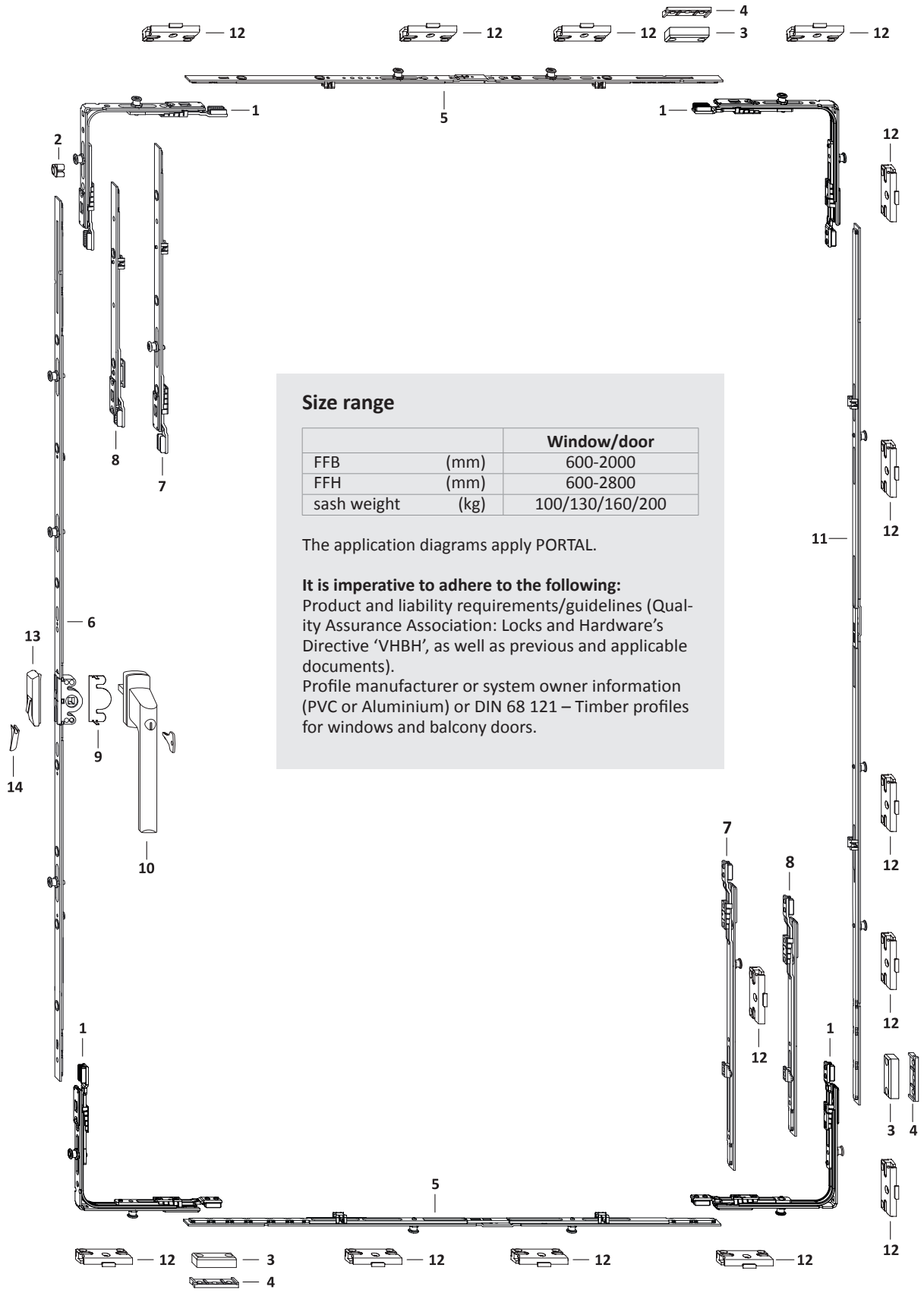


Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

The application diagrams apply PORTAL.

It is imperative to adhere to the following:
Product and liability requirements/guidelines (Quality Assurance Association: Locks and Hardware's Directive 'VHBH', as well as previous and applicable documents).
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber profiles for windows and balcony doors.



Size range

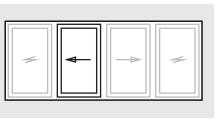
		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

The application diagrams apply PORTAL.

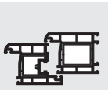
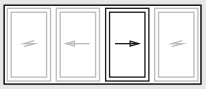
It is imperative to adhere to the following:
Product and liability requirements/guidelines (Quality Assurance Association: Locks and Hardware's Directive 'VHBH', as well as previous and applicable documents).
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber profiles for windows and balcony doors.

List of fittings slave sash

PS/PS, scheme C
PVC GK



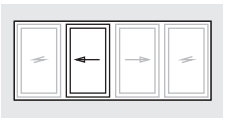
Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.	
						In the main sash	28	29
15	corn.drive VSO 1RS	TEUL4010- ...	2	600 – 2000			2	2
16	corn.drive VSO 2RS A0055	TEUL4070- ...	2	600 – 2000			4	
17	travel restrictor	TFHB0010- ...	1	600 – 2000				
18	Air gap limiter	Ref. PDB, FRFL	3	600 – 2000				
19	packer RB/FPS	Ref. PDB, FRUP02	3	600 – 2000				
20	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800				
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...		801 – 1000			2	
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...		1001 – 1200			2	
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...		1201 – 1400			2	
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...		1401 – 1600			4	
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...		1601 – 1800			4	
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...		1801 – 2000			4	
21	gear 15 AF sz 60/G300	TGKK4030- ...	1		600 – 800	300		
	gear 15 AF OZ sz 80/G400	TGKK9100- ...			801 – 1000	400		1
	gear 15 AF OZ sz 100/G500	TGKK9110- ...			1001 – 1200	500		1
	gear 15 AF OZ sz 120/G600	TGKK9120- ...			1201 – 1400	600		1
	gear 15 AF OZ sz 140/G700	TGKK9130- ...			1401 – 1600	700		1
	gear 15 AF OZ sz 160/G700	TGKK9170- ...			1601 – 1800	700		1
	gear 15 AF OZ sz 180/G1000	TGKK9180- ...			1801 – 2000	1000		1
	gear 15 AF OZ sz 200/G1000	TGKK9160- ...			2001 – 2800	1000		1
22	linkage AF sz 1	TZZS0150- ...	1		2201 – 2400			1
	linkage AF sz 2 A0767	TZKS1050- ...			2401 – 2800			1
23	linkage AF sz 1	TZZS0150- ...	2		2601 – 2800			
24	handle Si-line PSK lockable	Ref.access. PHIEA	1		600 – 2800			
25	anti-drill guard E	TGBS0010- ...	1		600 – 2800			
26	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800			
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...			801 – 1000		1	
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...			1001 – 1200		1	
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...			1201 – 1400		1	
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...			1401 – 1600		2	
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...			1601 – 1800		2	
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...			1801 – 2000		2	
	gear OS/PZ-AF sz.200/G1000 3RS 70	TGKK0630- ...			2001 – 2800		3	
27	linkage KK/AF sz 1 1RS	TZKK1010- ...	1		2201 – 2400		1	
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2401 – 2800		1	
28	striker plate S-RS	Ref. PDB, TRSK						
29	striker plate S-RS A2000	TRSK0700- ...						
on request								
30	stop 2,2mm	710937	1					

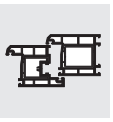



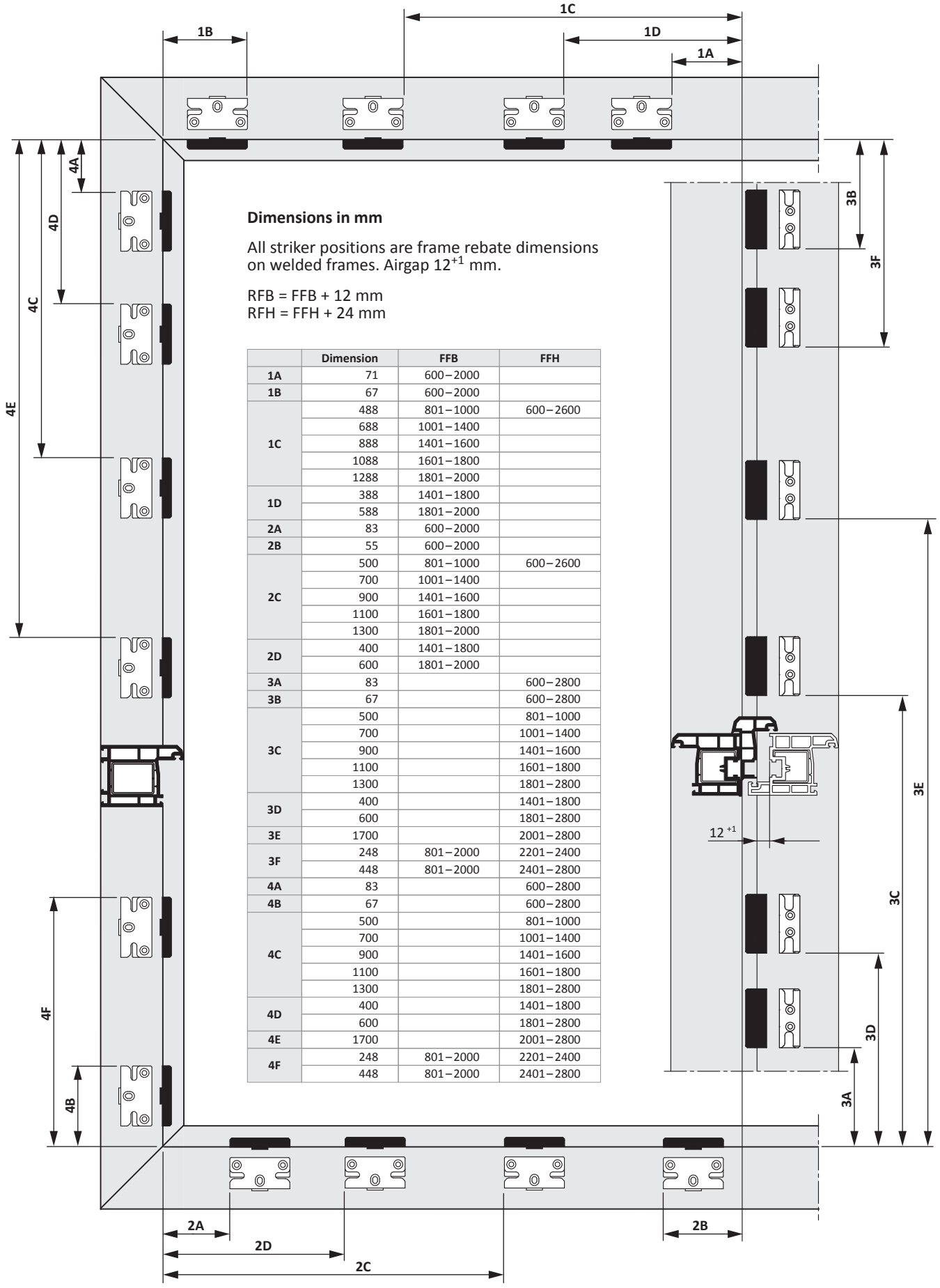
Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.
							12
1	corn.drive VSO 2RS A0055	TEUL4070- ...	4	600 – 2000			6
2	travel restrictor	TFHB0010- ...	1	600 – 2000			
3	Air gap limiter	Ref. PDB, FRFL	3	600 – 2000			
4	packer RB/FPS	Ref. PDB, FRUP02	3	600 – 2000			
5	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800			
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...		801 – 1000			2
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...		1001 – 1200			2
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...		1201 – 1400			2
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...		1401 – 1600			4
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...		1601 – 1800			4
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...		1801 – 2000			4
6	gear 15 AF sz 60/G300	TGKK4030- ...	1		600 – 800	300	
	gear 15 AF sz 80/G400 1RS	TGKK4050- ...			801 – 1000	400	
	gear 15 AF sz 100/G500 1RS	TGKK4060- ...			1001 – 1200	500	
	gear 15 AF sz 120/G600 1RS	TGKK4070- ...			1201 – 1400	600	
	gear 15 AF sz 140/700 2RS 70	TGKK4200- ...			1401 – 1600	700	
	gear 15 AF sz 160/G700 1RS 70	TGKK4280- ...			1601 – 1800	700	
	gear 15 AF sz 180/G1000 2RS 70	TGKK4220- ...			1801 – 2000	1000	
	gear 15 AF sz 200/G1000 3RS 70	TGKK4230- ...			2001 – 2800	1000	
7	linkage KK/AF sz 1 1RS	TZKK1010- ...	2		2201 – 2400		1
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2401 – 2800		1
8	linkage AF sz 1	TZZS0150- ...	2		2601 – 2800		
9	anti-drill guard E	TGBS0010- ...	1		600 – 2800		
10	handle Si-line PSK lockable	Ref.access. PHIEA	1		600 – 2800		
11	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800		
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...			801 – 1000		1
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...			1001 – 1200		1
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...			1201 – 1400		1
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...			1401 – 1600		2
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...			1601 – 1800		2
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...			1801 – 2000		2
	gear OS/PZ-AF sz.200/G1000 3RS 70	TGKK0630- ...			2001 – 2800		3
12	striker plate S-RS	Ref. PDB, TRSK					
on request							
13	mishandling device	TFBS0010- ...	1				
14	pressure piece	Ref. PDB, TFFD	1				

Frame dimensions slave sash

PS/PS, scheme C
PVC GK





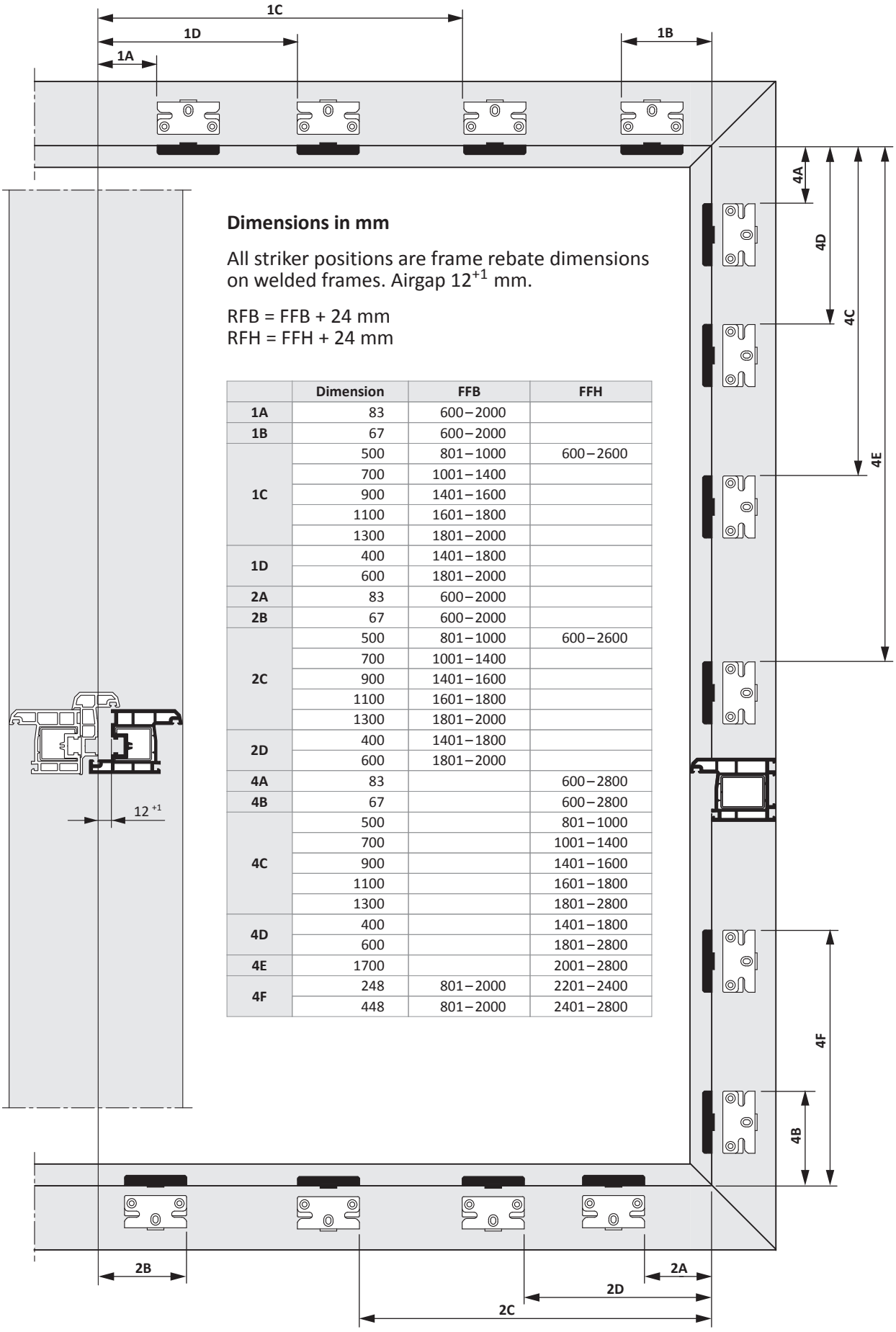


Dimensions in mm

All striker positions are frame rebate dimensions on welded frames. Airgap 12^{+1} mm.

RFB = FFB + 12 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	71	600–2000	
1B	67	600–2000	
1C	488	801–1000	600–2600
	688	1001–1400	
	888	1401–1600	
	1088	1601–1800	
	1288	1801–2000	
1D	388	1401–1800	
	588	1801–2000	
2A	83	600–2000	
2B	55	600–2000	
2C	500	801–1000	600–2600
	700	1001–1400	
	900	1401–1600	
	1100	1601–1800	
	1300	1801–2000	
2D	400	1401–1800	
	600	1801–2000	
3A	83		600–2800
3B	67		600–2800
3C	500		801–1000
	700		1001–1400
	900		1401–1600
	1100		1601–1800
	1300		1801–2800
3D	400		1401–1800
	600		1801–2800
3E	1700		2001–2800
3F	248	801–2000	2201–2400
	448	801–2000	2401–2800
4A	83		600–2800
4B	67		600–2800
4C	500		801–1000
	700		1001–1400
	900		1401–1600
	1100		1601–1800
	1300		1801–2800
4D	400		1401–1800
	600		1801–2800
4E	1700		2001–2800
4F	248	801–2000	2201–2400
	448	801–2000	2401–2800



Dimensions in mm

All striker positions are frame rebate dimensions on welded frames. Airgap 12^{+1} mm.

RFB = FFB + 24 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	83	600–2000	
1B	67	600–2000	
1C	500	801–1000	600–2600
	700	1001–1400	
	900	1401–1600	
	1100	1601–1800	
	1300	1801–2000	
1D	400	1401–1800	
	600	1801–2000	
2A	83	600–2000	
2B	67	600–2000	
2C	500	801–1000	600–2600
	700	1001–1400	
	900	1401–1600	
	1100	1601–1800	
	1300	1801–2000	
2D	400	1401–1800	
	600	1801–2000	
4A	83		600–2800
4B	67		600–2800
4C	500		801–1000
	700		1001–1400
	900		1401–1600
	1100		1601–1800
	1300		1801–2800
4D	400		1401–1800
	600		1801–2800
4E	1700		2001–2800
4F	248	801–2000	2201–2400
	448	801–2000	2401–2800

Basic security

Scheme A H48.TAFPSKFM0S001EN 3 - 3

Scheme C H48.TAFPSKFM0S002EN 3 - 7

RC1

Scheme A H48.TAFPSKFM1S001EN 3 - 15

Scheme C H48.TAFPSKFM1S002EN 3 - 19

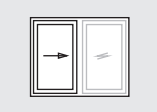
RC2

Scheme A H48.TAFPSKFM2+S001EN 3 - 27

Scheme C H48.TAFPSKFM2+S002EN 3 - 31

TITAN AF

Installation instructions



GS

PS

scheme A

PVC

basic security

centre handle pos. (variable)

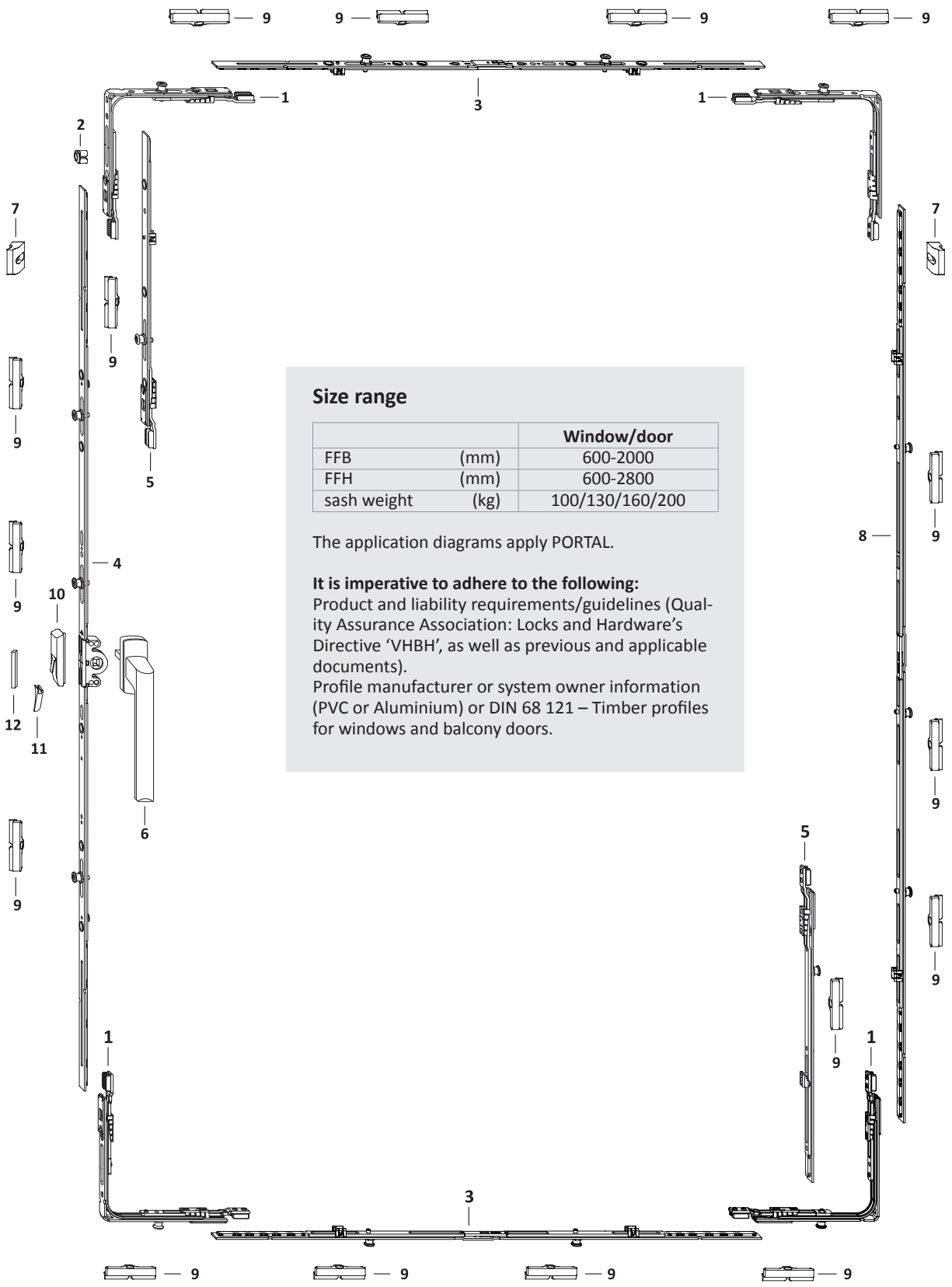
surface TS

backset 15 mm

Hardware set configuration	
General	Locking-points distance 800; with centre lock
Locking side	mishandl. device on gear

hardware layout

PS, scheme A
PVC GM



Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

The application diagrams apply PORTAL.

It is imperative to adhere to the following:
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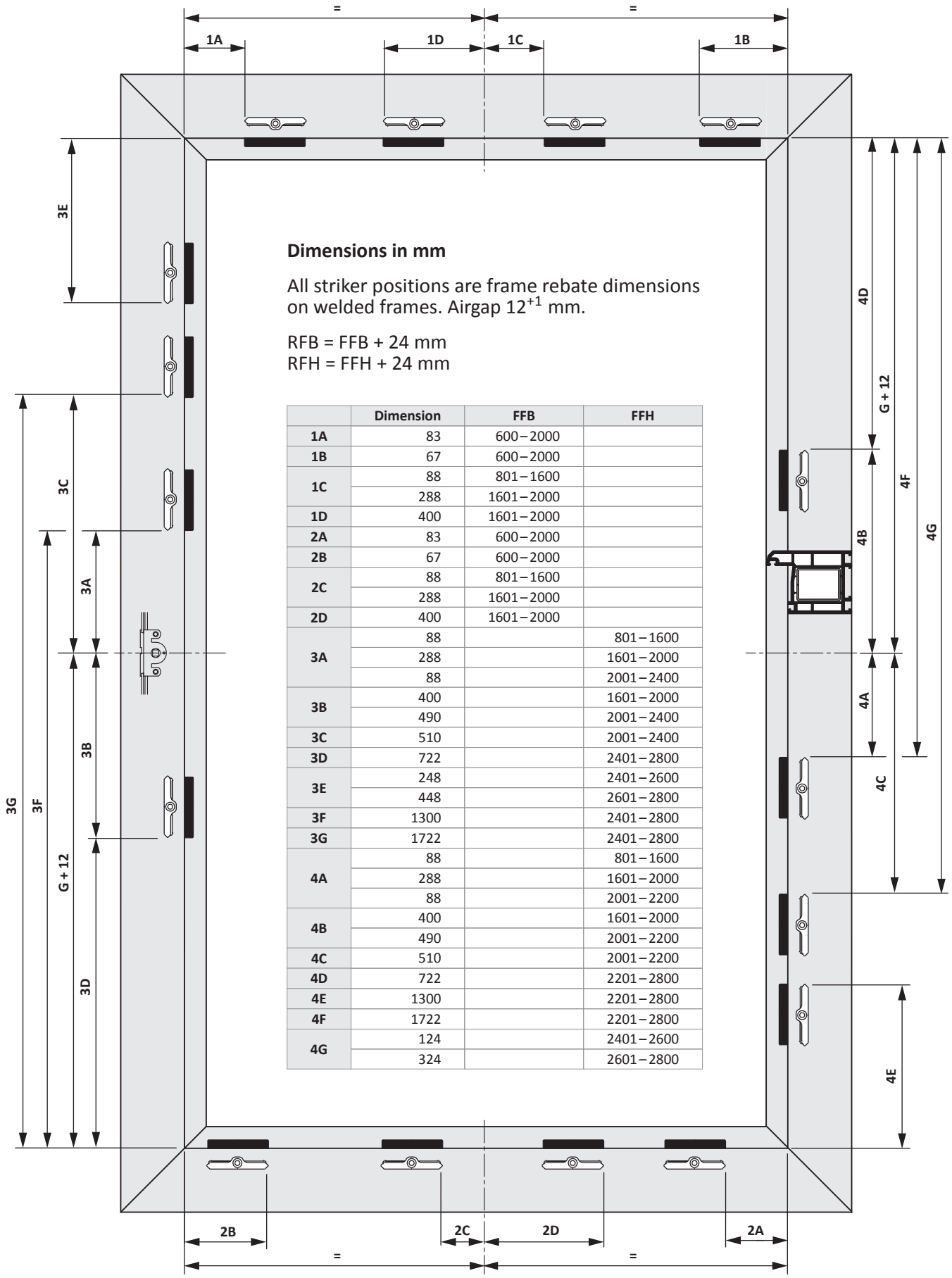
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber profiles for windows and balcony doors.

Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.
							9
1	corn.drive VSO 1RS	TEUL4010- ...	4	600 – 2000			4
2	travel restrictor	TFHB0010- ...	1	600 – 2000			
3	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800			
	gear OS-AF sz 80 1RS	TGMK0510- ...		801 – 1200			2
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...		1201 – 1600			2
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...		1601 – 2000			4
4	gear 15 AF sz 60	TGMK4020- ...	1		600 – 800	230 – 400	
	gear 15 AF sz 80 1RS	TGMK4040- ...			801 – 1200	400 – 600	1
	gear 15 AF sz 120 1RS	TGMK4050- ...			1201 – 1600	600 – 800	1
	gear 15 AF sz 160 2RS 70	TGMK4170- ...			1601 – 2000	800 – 1000	2
	gear 15 AF sz 200 3RS 70	TGMK4110- ...			2001 – 2400	1000 – 1200	3
	gear 15 AF sz 200 3RS 70	TGMK4110- ...			2401 – 2800	1200	3
5	linkage KK/AF sz 1 1RS	TZKK1010- ...	2		2401 – 2600		2
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2601 – 2800		2
6	handle Si-line PSK	Ref.access. PHIES	1		600 – 2800		
7	distance piece	Ref. PDB, PRTL	2		600 – 2800		
8	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800		
	gear OS-AF sz 80 1RS	TGMK0510- ...			801 – 1200		1
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...			1201 – 1600		1
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...			1601 – 2000		2
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2001 – 2200		3
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2201 – 2800		3
9	striker plate S 56	Ref. PDB, TRSM					
on request							
10	mishandling device	TFBS0010- ...	1				
11	pressure piece	Ref. PDB, TFFD	1				
12	stop	Ref. PDB, FRZF01	1				

Frame dimensions

PS, scheme A
PVC GM



Dimensions in mm

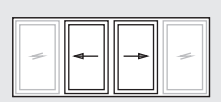
All striker positions are frame rebate dimensions on welded frames. Airgap 12^{+1} mm.

RFB = FFB + 24 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	83	600–2000	
1B	67	600–2000	
1C	88	801–1600	
	288	1601–2000	
1D	400	1601–2000	
2A	83	600–2000	
2B	67	600–2000	
2C	88	801–1600	
	288	1601–2000	
2D	400	1601–2000	
3A	88		801–1600
	288		1601–2000
	88		2001–2400
3B	400		1601–2000
	490		2001–2400
3C	510		2001–2400
3D	722		2401–2800
3E	248		2401–2600
	448		2601–2800
3F	1300		2401–2800
3G	1722		2401–2800
4A	88		801–1600
	288		1601–2000
	88		2001–2200
4B	400		1601–2000
	490		2001–2200
4C	510		2001–2200
4D	722		2201–2800
4E	1300		2201–2800
4F	1722		2201–2800
4G	124		2401–2600
	324		2601–2800

TITAN AF

Installation instructions



GS

PS/PS

scheme C

PVC

basic security

centre handle pos. (variable)

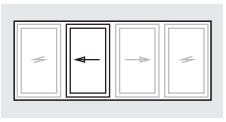
surface TS

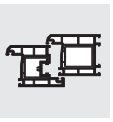
backset 15 mm

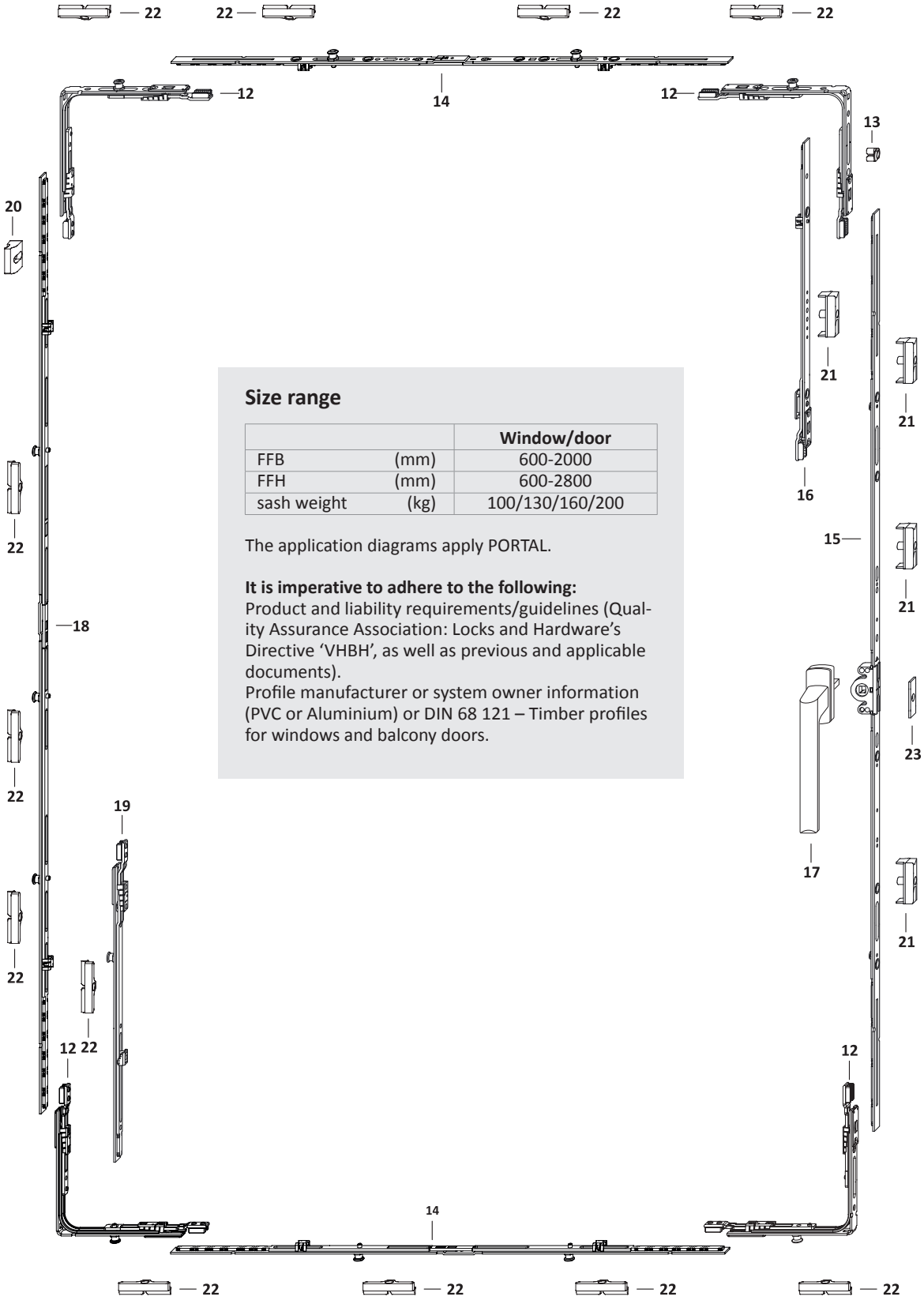
Hardware set configuration	
General	Locking-points distance 800; with centre lock
Locking side	mishandl. device on gear

hardware layout slave sash

PS/PS, scheme C
PVC GM





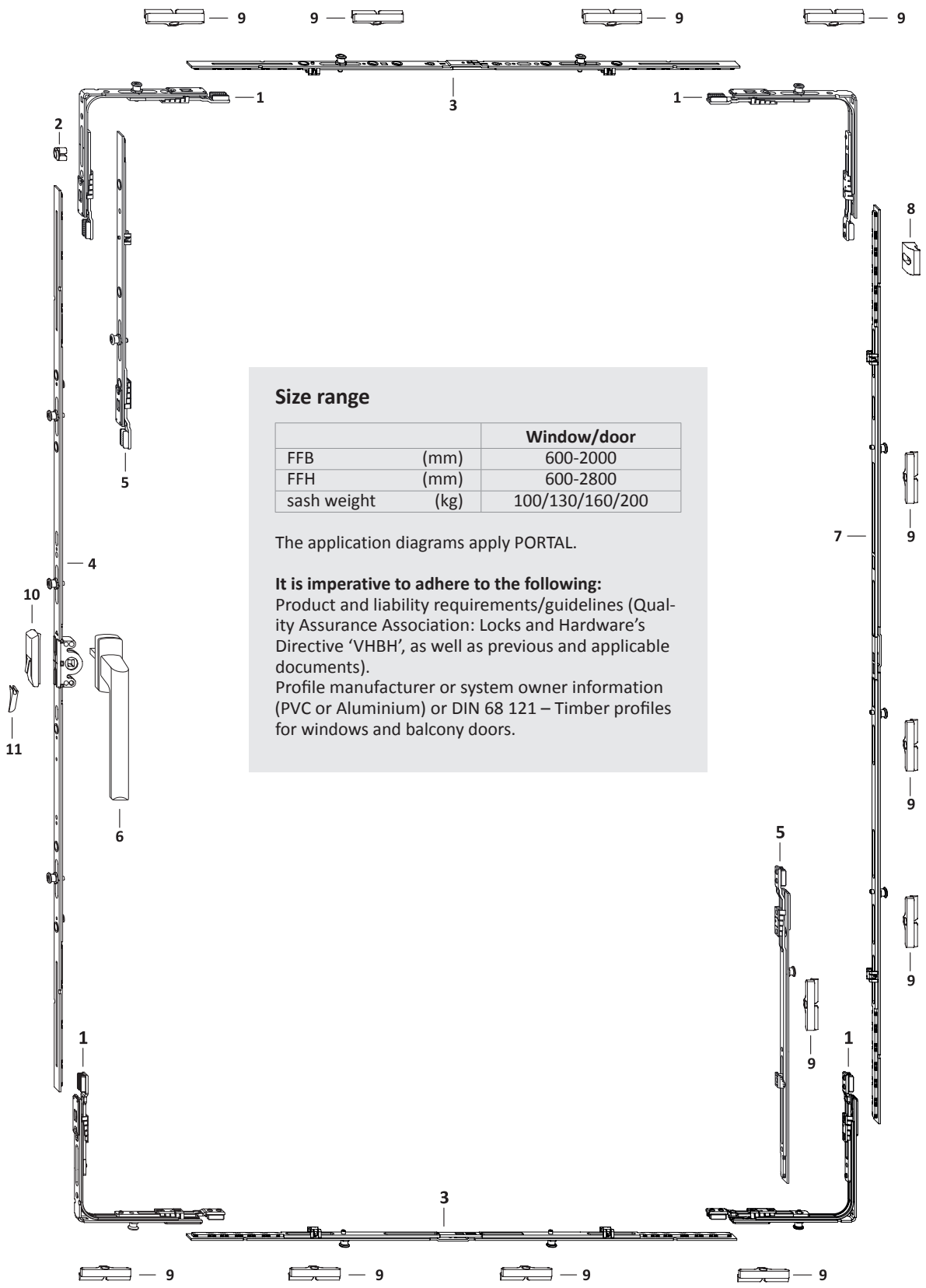


Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

The application diagrams apply PORTAL.

It is imperative to adhere to the following:
Product and liability requirements/guidelines (Quality Assurance Association: Locks and Hardware's Directive 'VHBH', as well as previous and applicable documents).
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber profiles for windows and balcony doors.



Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

The application diagrams apply PORTAL.

It is imperative to adhere to the following:
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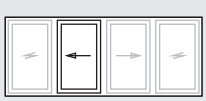
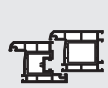
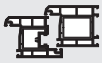
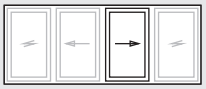
List of fittings slave sash

PS/PS, scheme C
PVC GM





Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.	
						In the main sash	21	22
12	corn.drive VSO 1RS	TEUL4010- ...	4	600 – 2000				4
13	travel restrictor	TFHB0010- ...	1	600 – 2000				
14	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800				
	gear OS-AF sz 80 1RS	TGMK0510- ...		801 – 1200				2
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...		1201 – 1600				2
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...		1601 – 2000				4
15	gear 15 AF sz 60	TGMK4020- ...	1		600 – 800	230 – 400		
	gear 15 AF OZ sz 80	TGMK9080- ...			801 – 1200	400 – 600	1	
	gear 15 AF OZ sz 120	TGMK9090- ...			1201 – 1600	600 – 800	1	
	gear 15 AF OZ sz 160	TGMK9120- ...			1601 – 2000	800 – 1000	1	
	gear 15 AF OZ sz 200	TGMK9110- ...			2001 – 2400	1000 – 1200	1	
	gear 15 AF OZ sz 200	TGMK9110- ...			2401 – 2800	1200	1	
16	linkage AF sz 1 A0767	TZKS1040- ...	1		2401 – 2600		1	
	linkage AF sz 2 A0767	TZKS1050- ...			2601 – 2800		1	
17	handle Si-line PSK	Ref.access. PHIES	1		600 – 2800			
18	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800			
	gear OS-AF sz 80 1RS	TGMK0510- ...			801 – 1200			1
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...			1201 – 1600			1
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...			1601 – 2000			2
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2001 – 2200			3
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2201 – 2800			3
19	linkage KK/AF sz 1 1RS	TZKK1010- ...	1		2401 – 2600			1
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2601 – 2800			1
20	distance piece	Ref. PDB, PRTL	1		600 – 2800			
21	striker plate 56 A2000	TRSB0030- ...						
22	striker plate S 56	Ref. PDB, TRSM						
on request								
23	stop 2,2mm	710937	1					

List of fittings main sash

PS/PS, scheme C

PVC GM

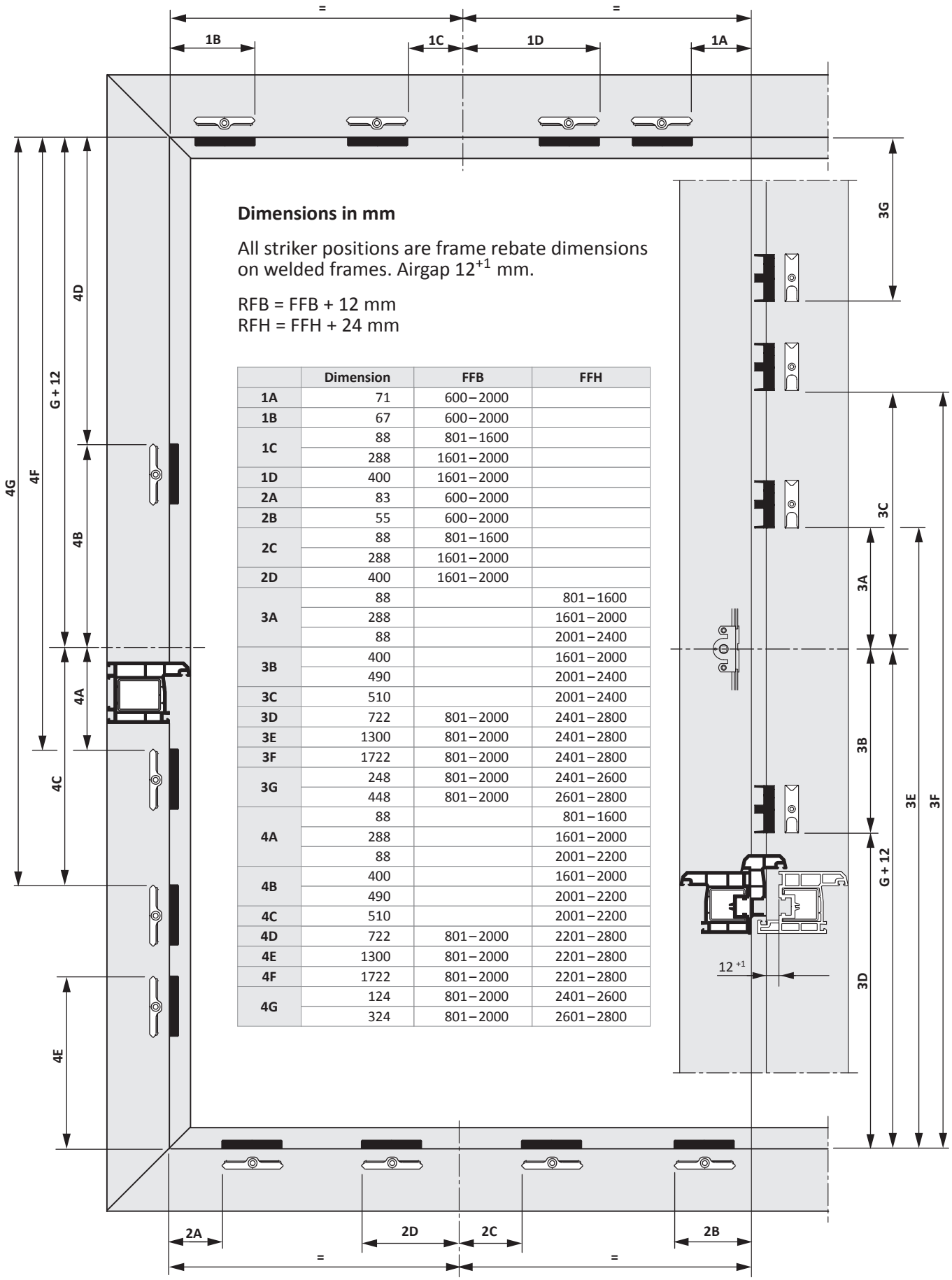
TITAN AF

GS

Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.
							9
1	corn.drive VSO 1RS	TEUL4010- ...	4	600 – 2000			4
2	travel restrictor	TFHB0010- ...	1	600 – 2000			
3	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800			
	gear OS-AF sz 80 1RS	TGMK0510- ...		801 – 1200			2
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...		1201 – 1600			2
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...		1601 – 2000			4
4	gear 15 AF sz 60	TGMK4020- ...	1		600 – 800	230 – 400	
	gear 15 AF sz 80 1RS	TGMK4040- ...			801 – 1200	400 – 600	
	gear 15 AF sz 120 1RS	TGMK4050- ...			1201 – 1600	600 – 800	
	gear 15 AF sz 160 2RS 70	TGMK4170- ...			1601 – 2000	800 – 1000	
	gear 15 AF sz 200 3RS 70	TGMK4110- ...			2001 – 2400	1000 – 1200	
	gear 15 AF sz 200 3RS 70	TGMK4110- ...			2401 – 2800	1200	
5	linkage KK/AF sz 1 1RS	TZKK1010- ...	2		2401 – 2600		1
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2601 – 2800		1
6	handle Si-line PSK	Ref.access. PHIES	1		600 – 2800		
7	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800		
	gear OS-AF sz 80 1RS	TGMK0510- ...			801 – 1200		1
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...			1201 – 1600		1
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...			1601 – 2000		2
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2001 – 2200		3
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2201 – 2800		3
8	distance piece	Ref. PDB, PRTL	1		600 – 2800		
9	striker plate S 56	Ref. PDB, TRSM					
on request							
10	mishandling device	TFBS0010- ...	1				
11	pressure piece	Ref. PDB, TFFD	1				

Frame dimensions slave sash

PS/PS, scheme C
PVC GM

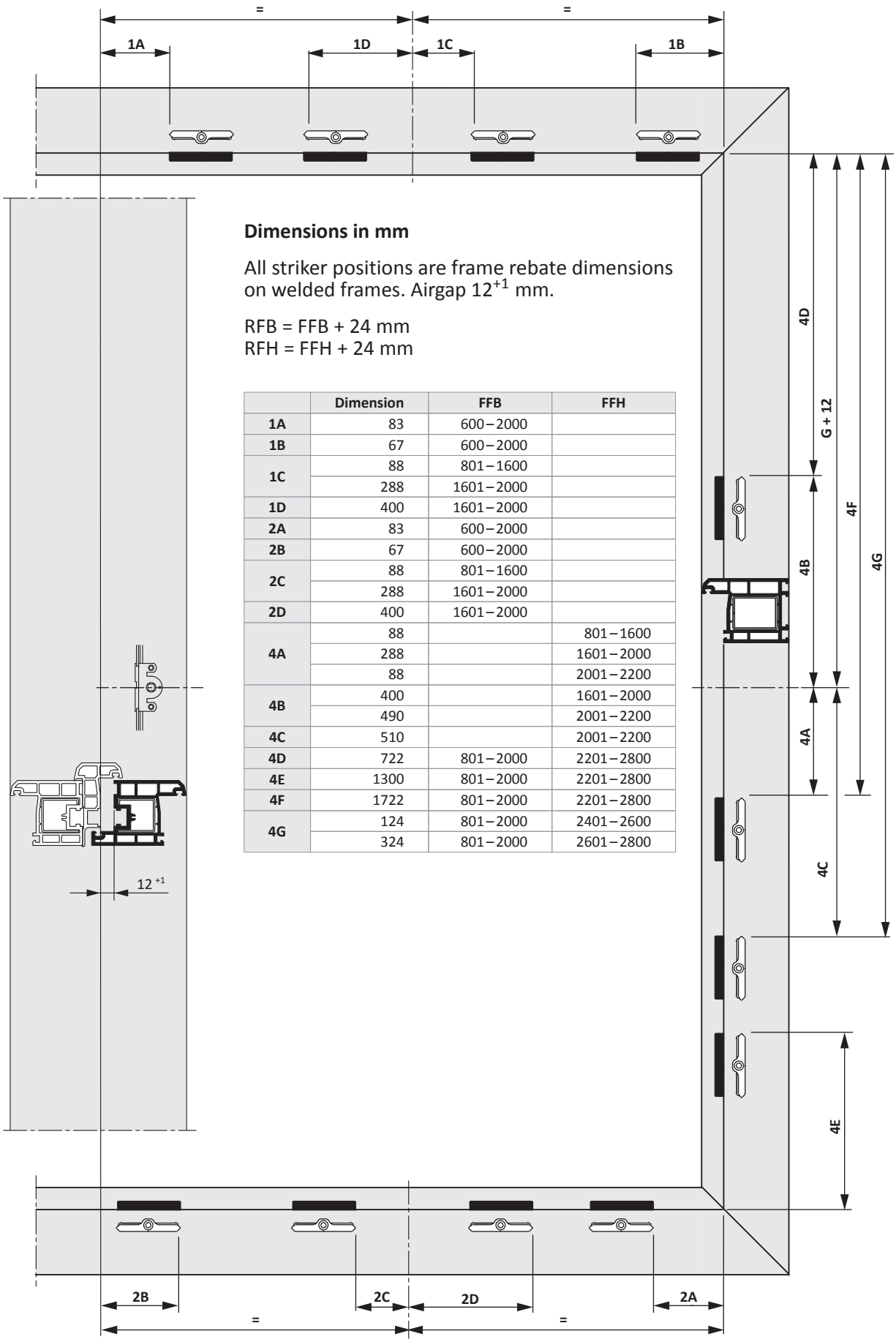


Dimensions in mm

All striker positions are frame rebate dimensions on welded frames. Airgap 12^{+1} mm.

RFB = FFB + 12 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	71	600–2000	
1B	67	600–2000	
1C	88	801–1600	
	288	1601–2000	
1D	400	1601–2000	
2A	83	600–2000	
2B	55	600–2000	
2C	88	801–1600	
	288	1601–2000	
2D	400	1601–2000	
3A	88		801–1600
	288		1601–2000
	88		2001–2400
3B	400		1601–2000
	490		2001–2400
3C	510		2001–2400
3D	722	801–2000	2401–2800
3E	1300	801–2000	2401–2800
3F	1722	801–2000	2401–2800
3G	248	801–2000	2401–2600
	448	801–2000	2601–2800
4A	88		801–1600
	288		1601–2000
	88		2001–2200
4B	400		1601–2000
	490		2001–2200
4C	510		2001–2200
4D	722	801–2000	2201–2800
4E	1300	801–2000	2201–2800
4F	1722	801–2000	2201–2800
4G	124	801–2000	2401–2600
	324	801–2000	2601–2800



Dimensions in mm

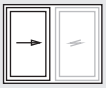
All striker positions are frame rebate dimensions on welded frames. Airgap 12^{+1} mm.

RFB = FFB + 24 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	83	600–2000	
1B	67	600–2000	
1C	88	801–1600	
	288	1601–2000	
1D	400	1601–2000	
2A	83	600–2000	
2B	67	600–2000	
2C	88	801–1600	
	288	1601–2000	
2D	400	1601–2000	
4A	88		801–1600
	288		1601–2000
	88		2001–2200
4B	400		1601–2000
	490		2001–2200
4C	510		2001–2200
4D	722	801–2000	2201–2800
4E	1300	801–2000	2201–2800
4F	1722	801–2000	2201–2800
4G	124	801–2000	2401–2600
	324	801–2000	2601–2800

TITAN AF

Installation instructions



RC1

PS

scheme A

PVC

RC1

centre handle pos. (variable)

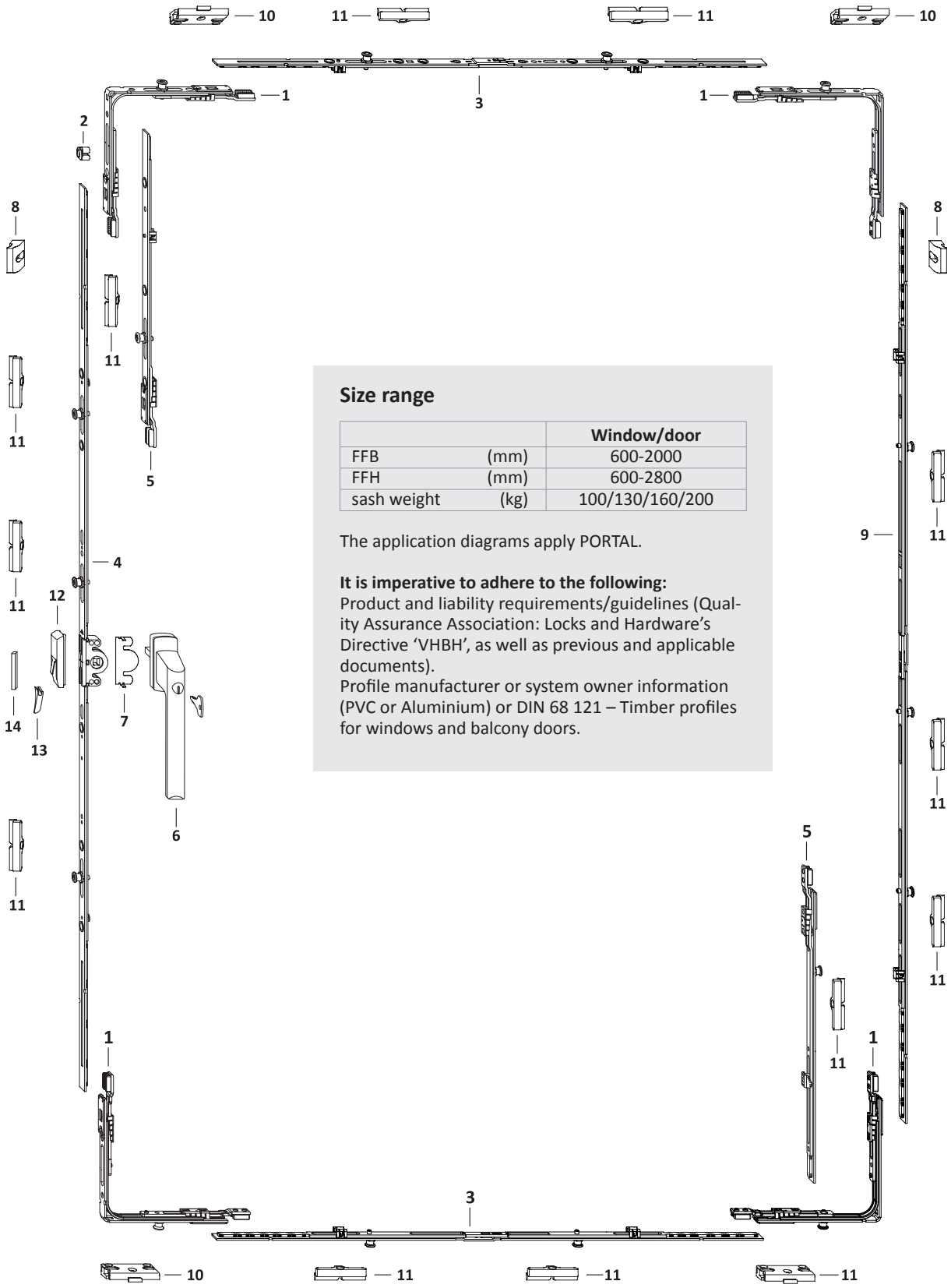
surface TS

backset 15 mm

Hardware set configuration	
General	Locking-points distance 800; with centre lock
Locking side	mishandl. device on gear

hardware layout

PS, scheme A
PVC GM



Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

The application diagrams apply PORTAL.

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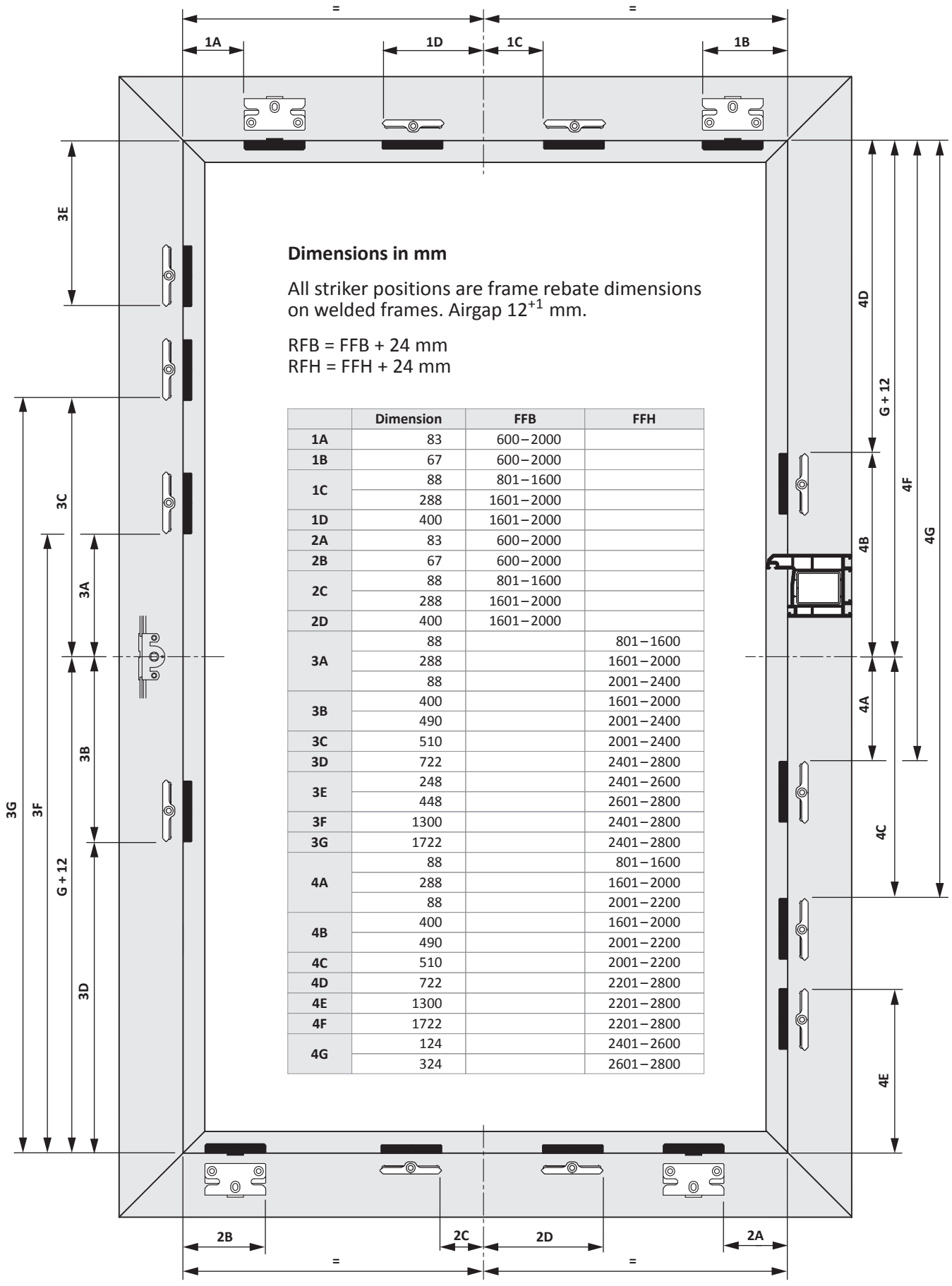
Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.	
							10	11
1	corn.drive VSO 1RS	TEUL4010- ...	4	600 – 2000			4	
2	travel restrictor	TFHB0010- ...	1	600 – 2000				
3	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800				
	gear OS-AF sz 80 1RS	TGMK0510- ...		801 – 1200				2
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...		1201 – 1600				2
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...		1601 – 2000				4
4	gear 15 AF sz 60	TGMK4020- ...	1		600 – 800	230 – 400		
	gear 15 AF sz 80 1RS	TGMK4040- ...			801 – 1200	400 – 600		1
	gear 15 AF sz 120 1RS	TGMK4050- ...			1201 – 1600	600 – 800		1
	gear 15 AF sz 160 2RS 70	TGMK4170- ...			1601 – 2000	800 – 1000		2
	gear 15 AF sz 200 3RS 70	TGMK4110- ...			2001 – 2400	1000 – 1200		3
	gear 15 AF sz 200 3RS 70	TGMK4110- ...			2401 – 2800	1200		3
5	linkage KK/AF sz 1 1RS	TZKK1010- ...	2		2401 – 2600			2
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2601 – 2800			2
6	handle Si-line PSK lockable	Ref.access. PHIEA	1		600 – 2800			
7	anti-drill guard E	TGBS0010- ...	1		600 – 2800			
8	distance piece	Ref. PDB, PRTL	2		600 – 2800			
9	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800			
	gear OS-AF sz 80 1RS	TGMK0510- ...			801 – 1200			1
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...			1201 – 1600			1
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...			1601 – 2000			2
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2001 – 2200			3
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2201 – 2800			3
10	striker plate S-RS	Ref. PDB, TRSK						
11	striker plate S 56	Ref. PDB, TRSM						
on request								
12	mishandling device	TFBS0010- ...	1					
13	pressure piece	Ref. PDB, TFFD	1					
14	stop	Ref. PDB, FRZF01	1					

Frame dimensions

PS, scheme A
PVC GM



Dimensions in mm

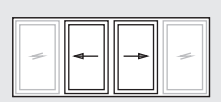
All striker positions are frame rebate dimensions on welded frames. Airgap 12^{+1} mm.

RFB = FFB + 24 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	83	600–2000	
1B	67	600–2000	
1C	88	801–1600	
	288	1601–2000	
1D	400	1601–2000	
2A	83	600–2000	
2B	67	600–2000	
2C	88	801–1600	
	288	1601–2000	
2D	400	1601–2000	
3A	88		801–1600
	288		1601–2000
	88		2001–2400
3B	400		1601–2000
	490		2001–2400
3C	510		2001–2400
3D	722		2401–2800
3E	248		2401–2600
	448		2601–2800
3F	1300		2401–2800
3G	1722		2401–2800
4A	88		801–1600
	288		1601–2000
	88		2001–2200
4B	400		1601–2000
	490		2001–2200
4C	510		2001–2200
4D	722		2201–2800
4E	1300		2201–2800
4F	1722		2201–2800
4G	124		2401–2600
	324		2601–2800

TITAN AF

Installation instructions



RC1

PS/PS

scheme C

PVC

RC1

centre handle pos. (variable)

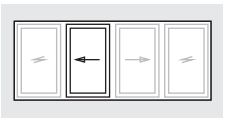
surface TS

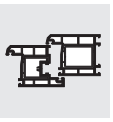
backset 15 mm

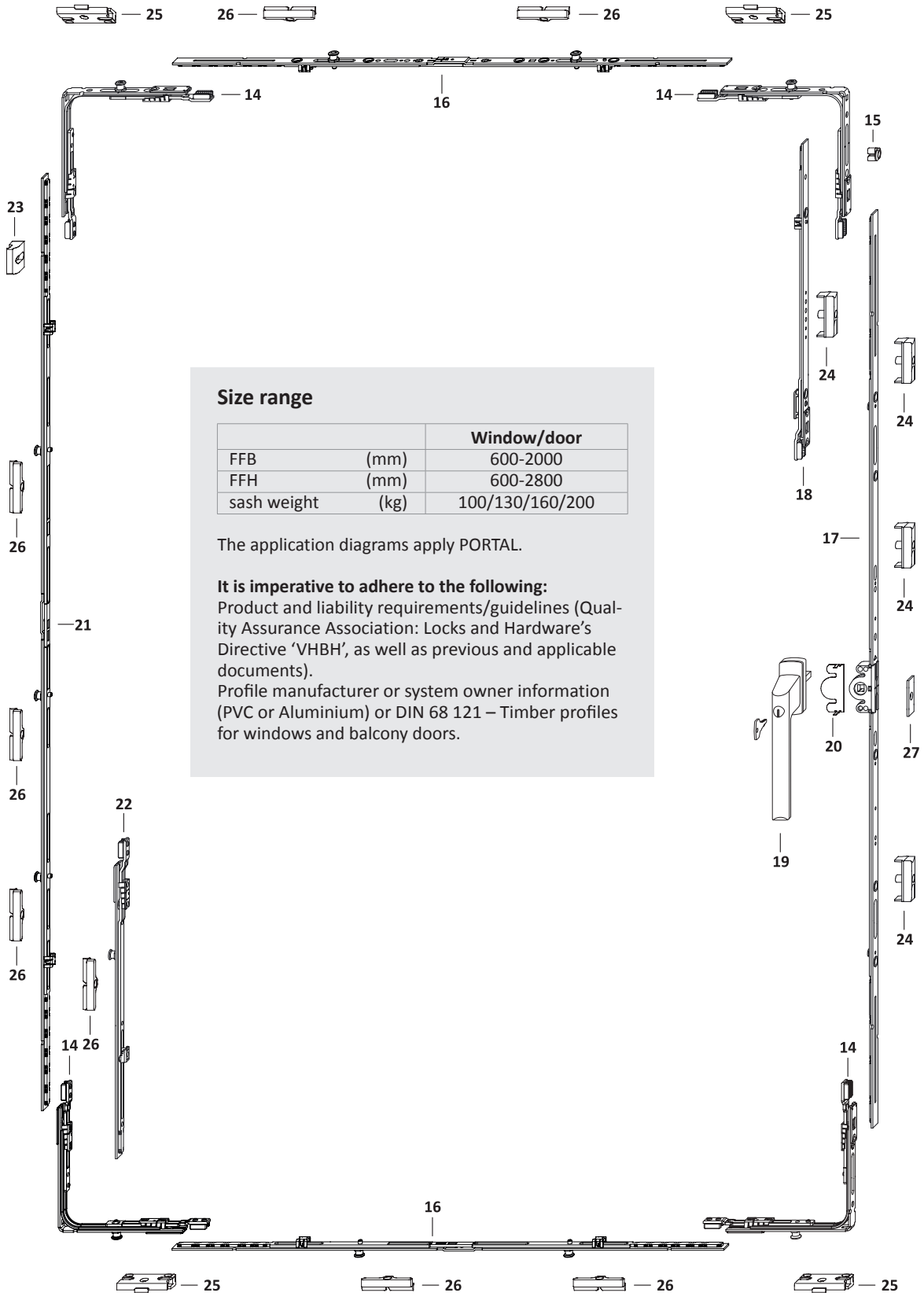
Hardware set configuration	
General	Locking-points distance 800; with centre lock
Locking side	mishandl. device on gear

hardware layout slave sash

PS/PS, scheme C
PVC GM







Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

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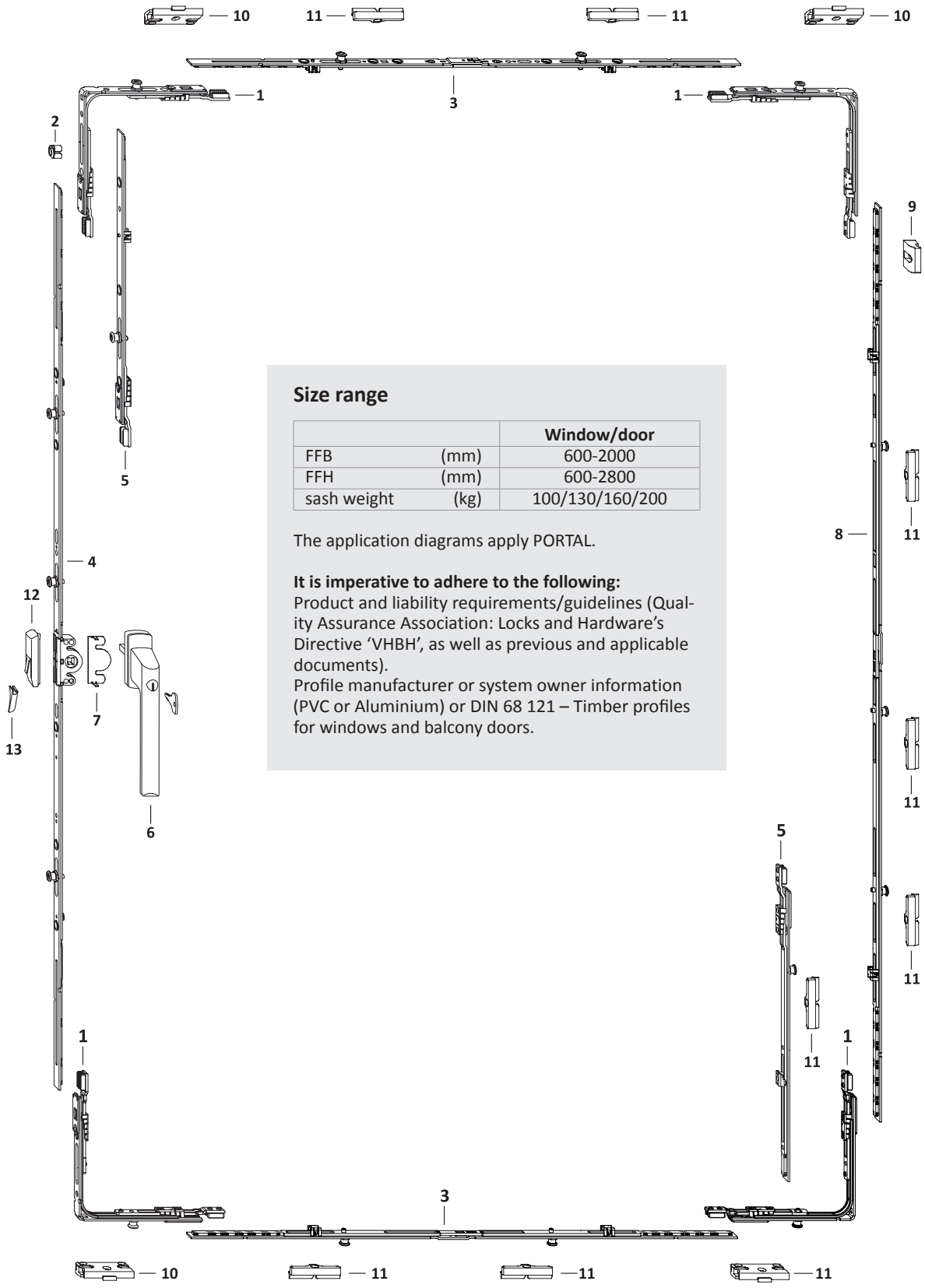

Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

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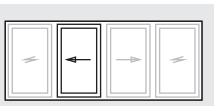
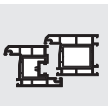
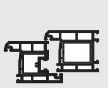
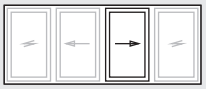
List of fittings slave sash

PS/PS, scheme C
PVC GM





Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.		
						In the main sash	24	25	26
14	corn.drive VSO 1RS	TEUL4010- ...	4	600 – 2000				4	
15	travel restrictor	TFHB0010- ...	1	600 – 2000					
16	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800					
	gear OS-AF sz 80 1RS	TGMK0510- ...		801 – 1200					2
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...		1201 – 1600					2
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...		1601 – 2000					4
17	gear 15 AF sz 60	TGMK4020- ...	1		600 – 800	230 – 400			
	gear 15 AF OZ sz 80	TGMK9080- ...			801 – 1200	400 – 600	1		
	gear 15 AF OZ sz 120	TGMK9090- ...			1201 – 1600	600 – 800	1		
	gear 15 AF OZ sz 160	TGMK9120- ...			1601 – 2000	800 – 1000	1		
	gear 15 AF OZ sz 200	TGMK9110- ...			2001 – 2400	1000 – 1200	1		
	gear 15 AF OZ sz 200	TGMK9110- ...			2401 – 2800	1200	1		
18	linkage AF sz 1 A0767	TZKS1040- ...	1		2401 – 2600		1		
	linkage AF sz 2 A0767	TZKS1050- ...			2601 – 2800		1		
19	handle Si-line PSK lockable	Ref.access. PHIEA	1		600 – 2800				
20	anti-drill guard E	TGBS0010- ...	1		600 – 2800				
21	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800				
	gear OS-AF sz 80 1RS	TGMK0510- ...			801 – 1200				1
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...			1201 – 1600				1
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...			1601 – 2000				2
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2001 – 2200				3
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2201 – 2800				3
22	linkage KK/AF sz 1 1RS	TZKK1010- ...	1		2401 – 2600				1
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2601 – 2800				1
23	distance piece	Ref. PDB, PRTL	1		600 – 2800				
24	striker plate 56 A2000	TRSB0030- ...							
25	striker plate S-RS	Ref. PDB, TRSK							
26	striker plate S 56	Ref. PDB, TRSM							
on request									
27	stop 2,2mm	710937	1						

List of fittings main sash

PS/PS, scheme C

PVC GM

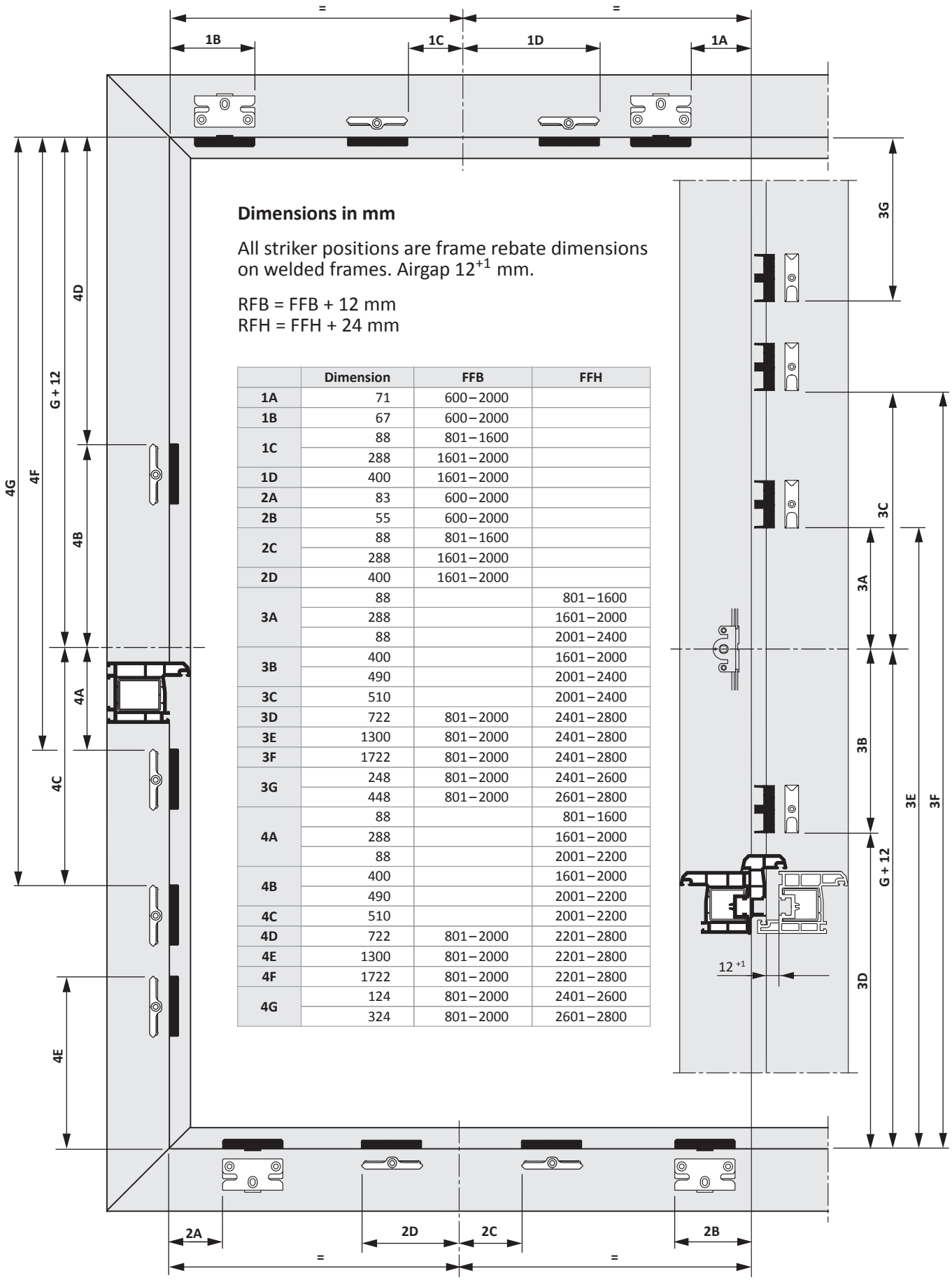
TITAN AF

RC1

Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.	
							10	11
1	corn.drive VSO 1RS	TEUL4010- ...	4	600 – 2000			4	
2	travel restrictor	TFHB0010- ...	1	600 – 2000				
3	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800				
	gear OS-AF sz 80 1RS	TGMK0510- ...		801 – 1200				2
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...		1201 – 1600				2
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...		1601 – 2000				4
4	gear 15 AF sz 60	TGMK4020- ...	1		600 – 800	230 – 400		
	gear 15 AF sz 80 1RS	TGMK4040- ...			801 – 1200	400 – 600		
	gear 15 AF sz 120 1RS	TGMK4050- ...			1201 – 1600	600 – 800		
	gear 15 AF sz 160 2RS 70	TGMK4170- ...			1601 – 2000	800 – 1000		
	gear 15 AF sz 200 3RS 70	TGMK4110- ...			2001 – 2400	1000 – 1200		
	gear 15 AF sz 200 3RS 70	TGMK4110- ...			2401 – 2800	1200		
5	linkage KK/AF sz 1 1RS	TZKK1010- ...	2		2401 – 2600			1
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2601 – 2800			1
6	handle Si-line PSK lockable	Ref.access. PHIEA	1		600 – 2800			
7	anti-drill guard E	TGBS0010- ...	1		600 – 2800			
8	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800			
	gear OS-AF sz 80 1RS	TGMK0510- ...			801 – 1200			1
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...			1201 – 1600			1
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...			1601 – 2000			2
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2001 – 2200			3
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2201 – 2800			3
9	distance piece	Ref. PDB, PRTL	1		600 – 2800			
10	striker plate S-RS	Ref. PDB, TRSK						
11	striker plate S 56	Ref. PDB, TRSM						
on request								
12	mishandling device	TFBS0010- ...	1					
13	pressure piece	Ref. PDB, TFFD	1					

Frame dimensions slave sash

PS/PS, scheme C
PVC GM

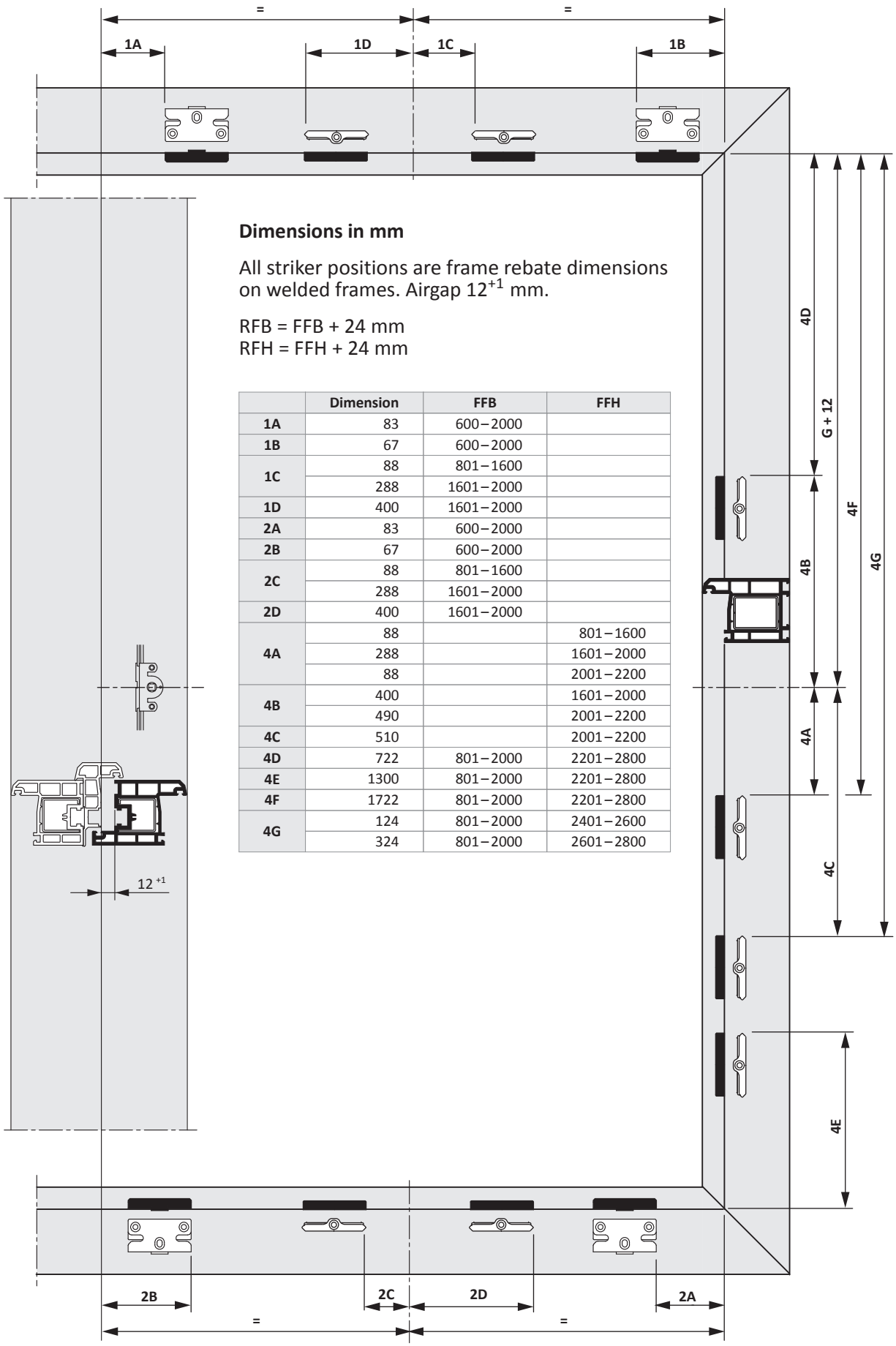


Dimensions in mm

All striker positions are frame rebate dimensions on welded frames. Airgap 12^{+1} mm.

RFB = FFB + 12 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	71	600–2000	
1B	67	600–2000	
1C	88	801–1600	
	288	1601–2000	
1D	400	1601–2000	
2A	83	600–2000	
2B	55	600–2000	
2C	88	801–1600	
	288	1601–2000	
2D	400	1601–2000	
3A	88		801–1600
	288		1601–2000
	88		2001–2400
3B	400		1601–2000
	490		2001–2400
3C	510		2001–2400
3D	722	801–2000	2401–2800
3E	1300	801–2000	2401–2800
3F	1722	801–2000	2401–2800
3G	248	801–2000	2401–2600
	448	801–2000	2601–2800
4A	88		801–1600
	288		1601–2000
	88		2001–2200
4B	400		1601–2000
	490		2001–2200
4C	510		2001–2200
4D	722	801–2000	2201–2800
4E	1300	801–2000	2201–2800
4F	1722	801–2000	2201–2800
4G	124	801–2000	2401–2600
	324	801–2000	2601–2800



Dimensions in mm

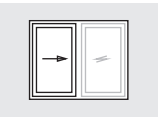
All striker positions are frame rebate dimensions on welded frames. Airgap 12^{+1} mm.

RFB = FFB + 24 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	83	600 – 2000	
1B	67	600 – 2000	
1C	88	801 – 1600	
	288	1601 – 2000	
1D	400	1601 – 2000	
2A	83	600 – 2000	
2B	67	600 – 2000	
2C	88	801 – 1600	
	288	1601 – 2000	
2D	400	1601 – 2000	
4A	88		801 – 1600
	288		1601 – 2000
	88		2001 – 2200
4B	400		1601 – 2000
	490		2001 – 2200
4C	510		2001 – 2200
4D	722	801 – 2000	2201 – 2800
4E	1300	801 – 2000	2201 – 2800
4F	1722	801 – 2000	2201 – 2800
4G	124	801 – 2000	2401 – 2600
	324	801 – 2000	2601 – 2800

TITAN AF

Installation instructions



RC2

PS

scheme A

PVC

RC2

centre handle pos. (variable)

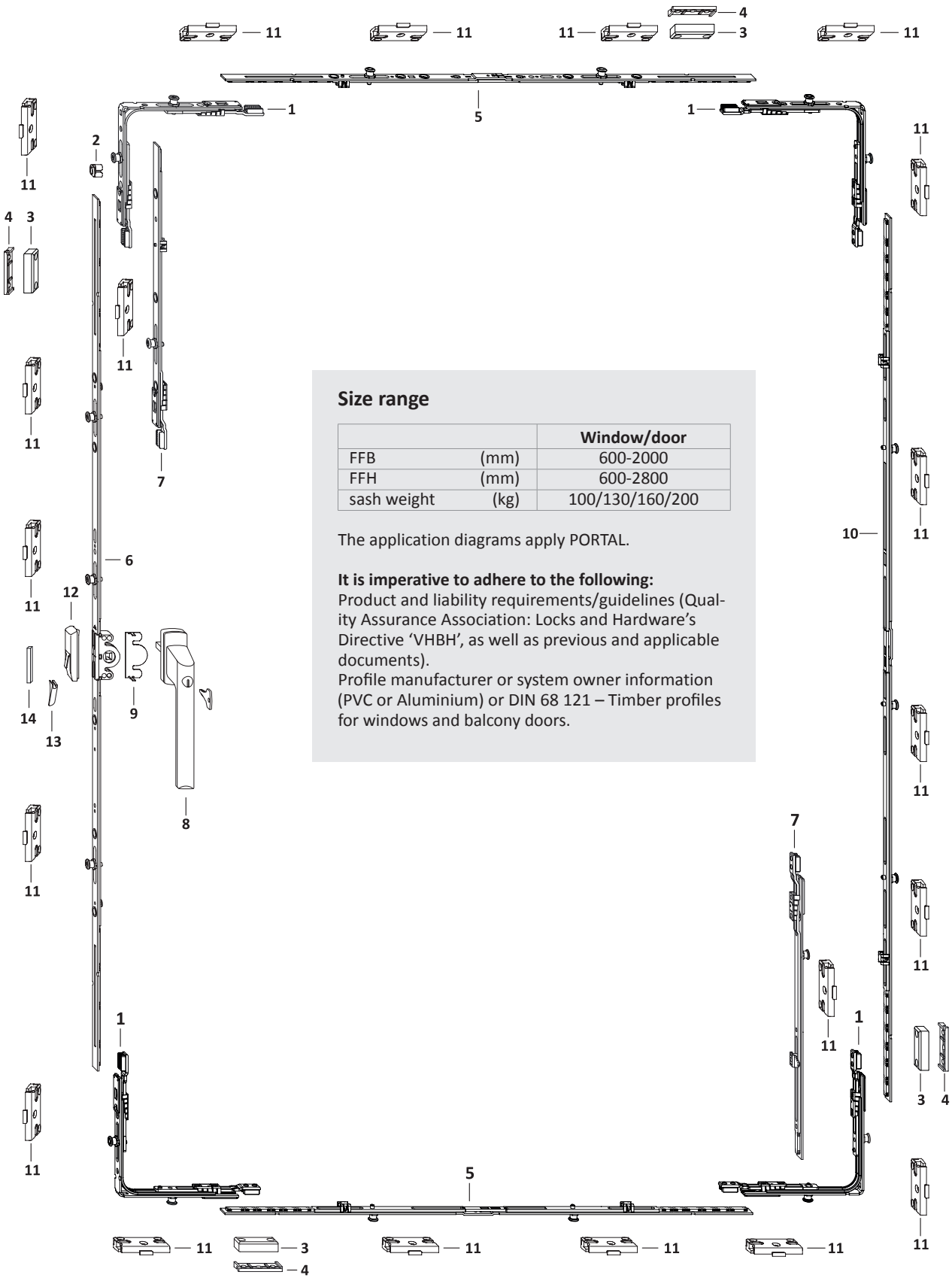
surface TS

backset 15 mm

Hardware set configuration	
General	Locking-points distance 800; with centre lock
Locking side	mishandl. device on gear

hardware layout

PS, scheme A
PVC GM



Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

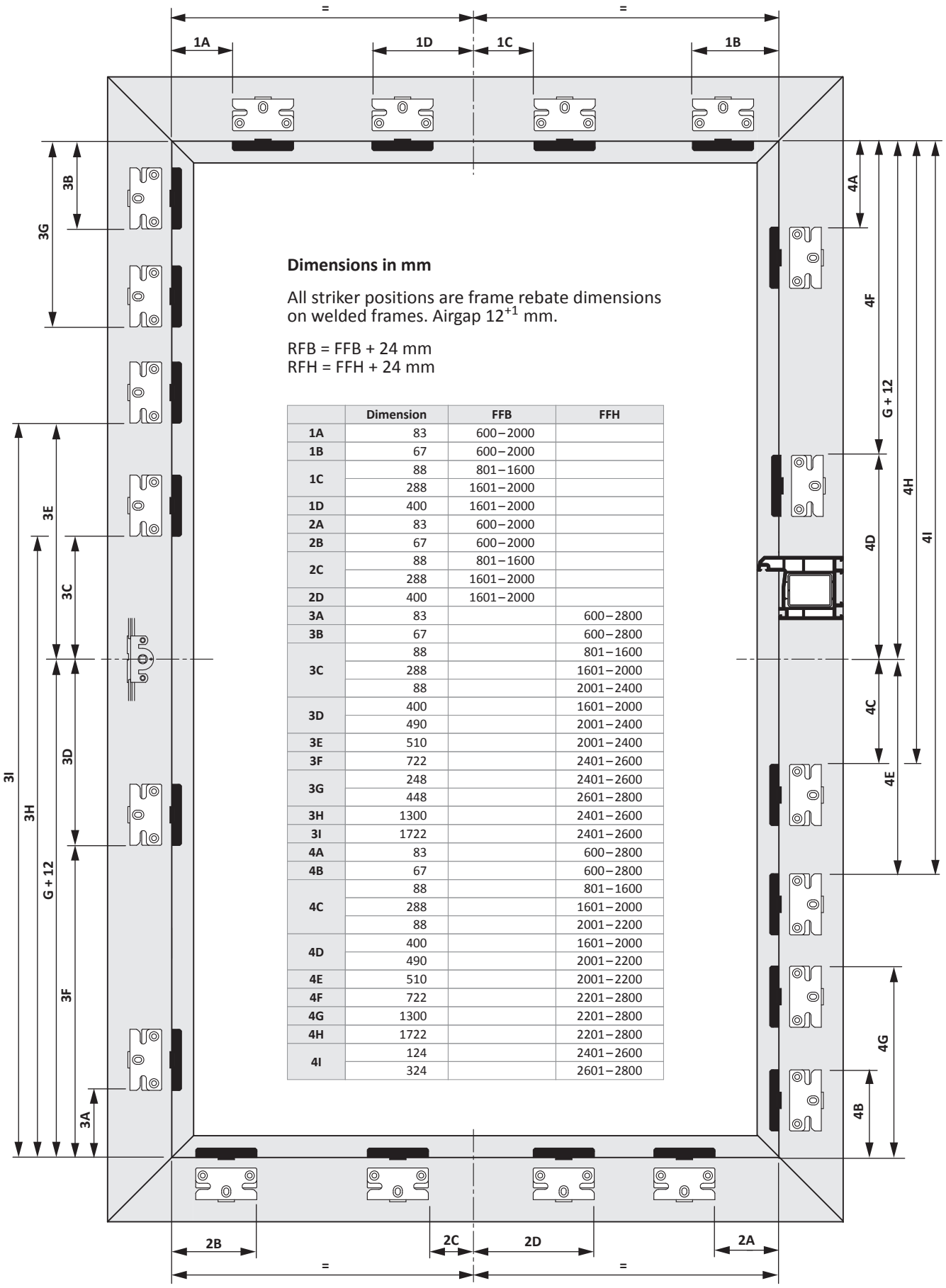
The application diagrams apply PORTAL.

It is imperative to adhere to the following:
Product and liability requirements/guidelines (Quality Assurance Association: Locks and Hardware's Directive 'VHBH', as well as previous and applicable documents).
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber profiles for windows and balcony doors.

Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.
							11
1	corn.drive VSO 2RS A0055	TEUL4070- ...	4	600 – 2000			8
2	travel restrictor	TFHB0010- ...	1	600 – 2000			
3	Air gap limiter	Ref. PDB, FRFL	4	600 – 2000			
4	packer RB/FPS	Ref. PDB, FRUP02	4	600 – 2000			
5	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800			
	gear OS-AF sz 80 1RS	TGMK0510- ...		801 – 1200			2
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...		1201 – 1600			2
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...		1601 – 2000			4
6	gear 15 AF sz 60	TGMK4020- ...	1		600 – 800	230 – 400	
	gear 15 AF sz 80 1RS	TGMK4040- ...			801 – 1200	400 – 600	1
	gear 15 AF sz 120 1RS	TGMK4050- ...			1201 – 1600	600 – 800	1
	gear 15 AF sz 160 2RS 70	TGMK4170- ...			1601 – 2000	800 – 1000	2
	gear 15 AF sz 200 3RS 70	TGMK4110- ...			2001 – 2400	1000 – 1200	3
	gear 15 AF sz 200 3RS 70	TGMK4110- ...			2401 – 2600		3
7	linkage KK/AF sz 1 1RS	TZKK1010- ...	2		2401 – 2600		2
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2601 – 2800		2
8	handle Si-line PSK lockable	Ref.access. PHIEA	1		600 – 2800		
9	anti-drill guard E	TGBS0010- ...	1		600 – 2800		
10	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800		
	gear OS-AF sz 80 1RS	TGMK0510- ...			801 – 1200		1
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...			1201 – 1600		1
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...			1601 – 2000		2
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2001 – 2200		3
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2201 – 2800		3
11	striker plate S-RS	Ref. PDB, TRSK					
on request							
12	mishandling device	TFBS0010- ...	1				
13	pressure piece	Ref. PDB, TFFD	1				
14	stop	Ref. PDB, FRZF01	1				

Frame dimensions

PS, scheme A
PVC GM



Dimensions in mm

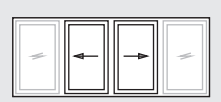
All striker positions are frame rebate dimensions on welded frames. Airgap 12^{+1} mm.

RFB = FFB + 24 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	83	600–2000	
1B	67	600–2000	
1C	88	801–1600	
	288	1601–2000	
1D	400	1601–2000	
2A	83	600–2000	
2B	67	600–2000	
2C	88	801–1600	
	288	1601–2000	
2D	400	1601–2000	
3A	83		600–2800
3B	67		600–2800
3C	88		801–1600
	288		1601–2000
	88		2001–2400
3D	400		1601–2000
	490		2001–2400
3E	510		2001–2400
3F	722		2401–2600
3G	248		2401–2600
	448		2601–2800
3H	1300		2401–2600
3I	1722		2401–2600
4A	83		600–2800
4B	67		600–2800
4C	88		801–1600
	288		1601–2000
	88		2001–2200
4D	400		1601–2000
	490		2001–2200
4E	510		2001–2200
4F	722		2201–2800
4G	1300		2201–2800
4H	1722		2201–2800
4I	124		2401–2600
	324		2601–2800

TITAN AF

Installation instructions



RC2

PS/PS

scheme C

PVC

RC2

centre handle pos. (variable)

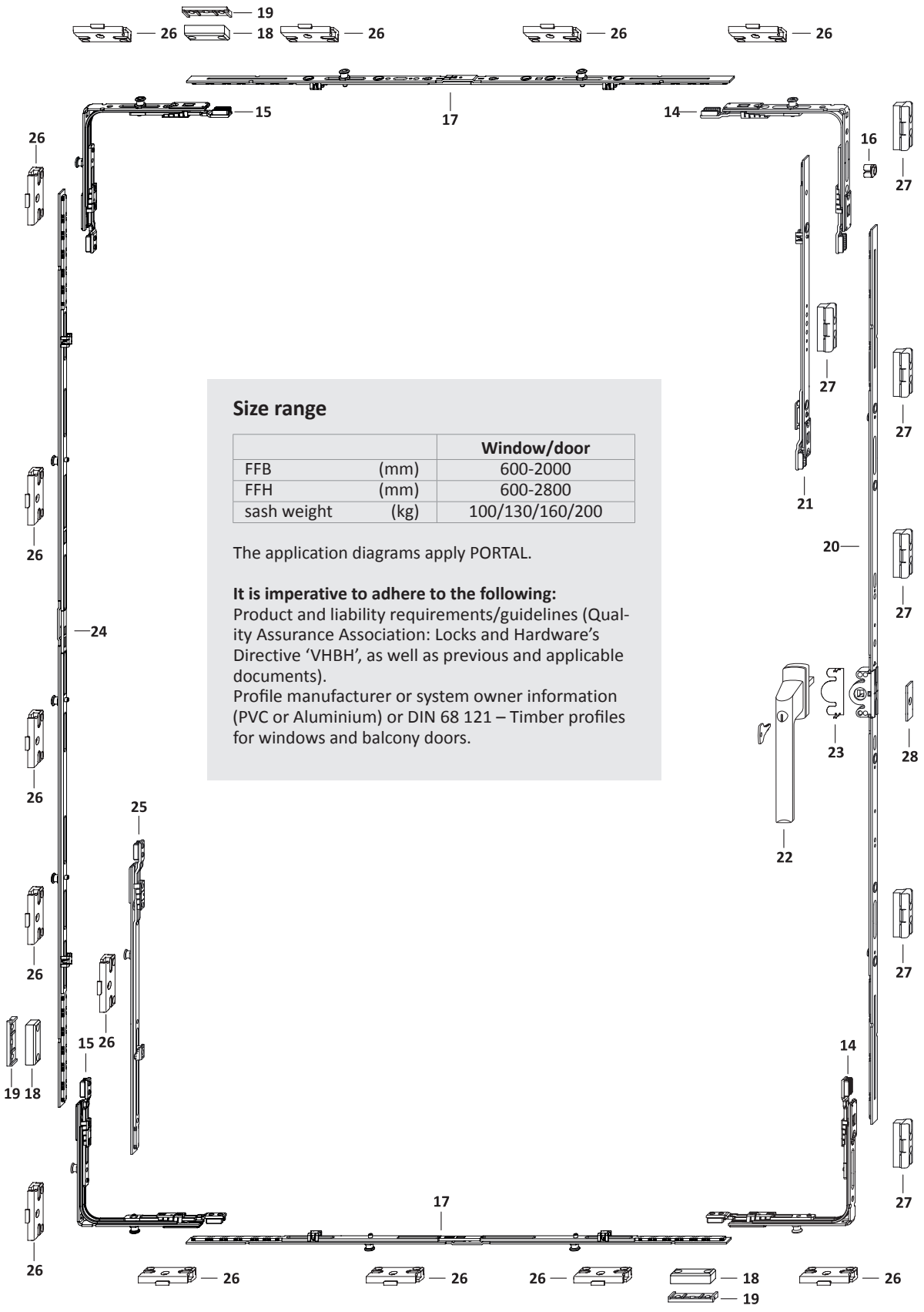
surface TS

backset 15 mm

Hardware set configuration	
General	Locking-points distance 800; with centre lock
Locking side	mishandl. device on gear

hardware layout slave sash

PS/PS, scheme C
PVC GM



Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

The application diagrams apply PORTAL.

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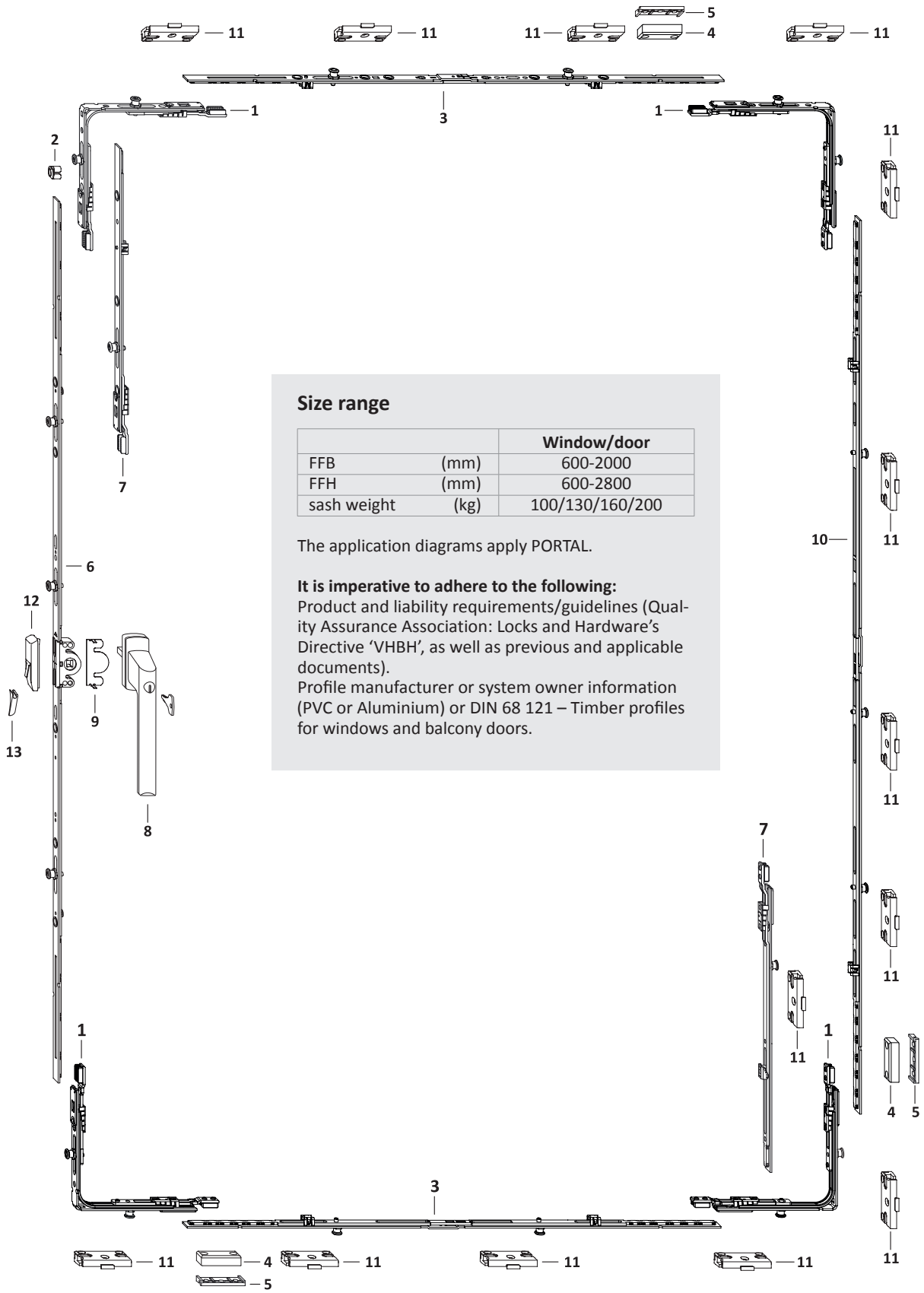
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber profiles for windows and balcony doors.



Size range

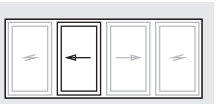
		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

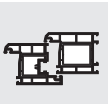
The application diagrams apply PORTAL.

It is imperative to adhere to the following:
Product and liability requirements/guidelines (Quality Assurance Association: Locks and Hardware's Directive 'VHBH', as well as previous and applicable documents).
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber profiles for windows and balcony doors.

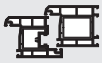
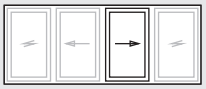
List of fittings slave sash

PS/PS, scheme C
PVC GM





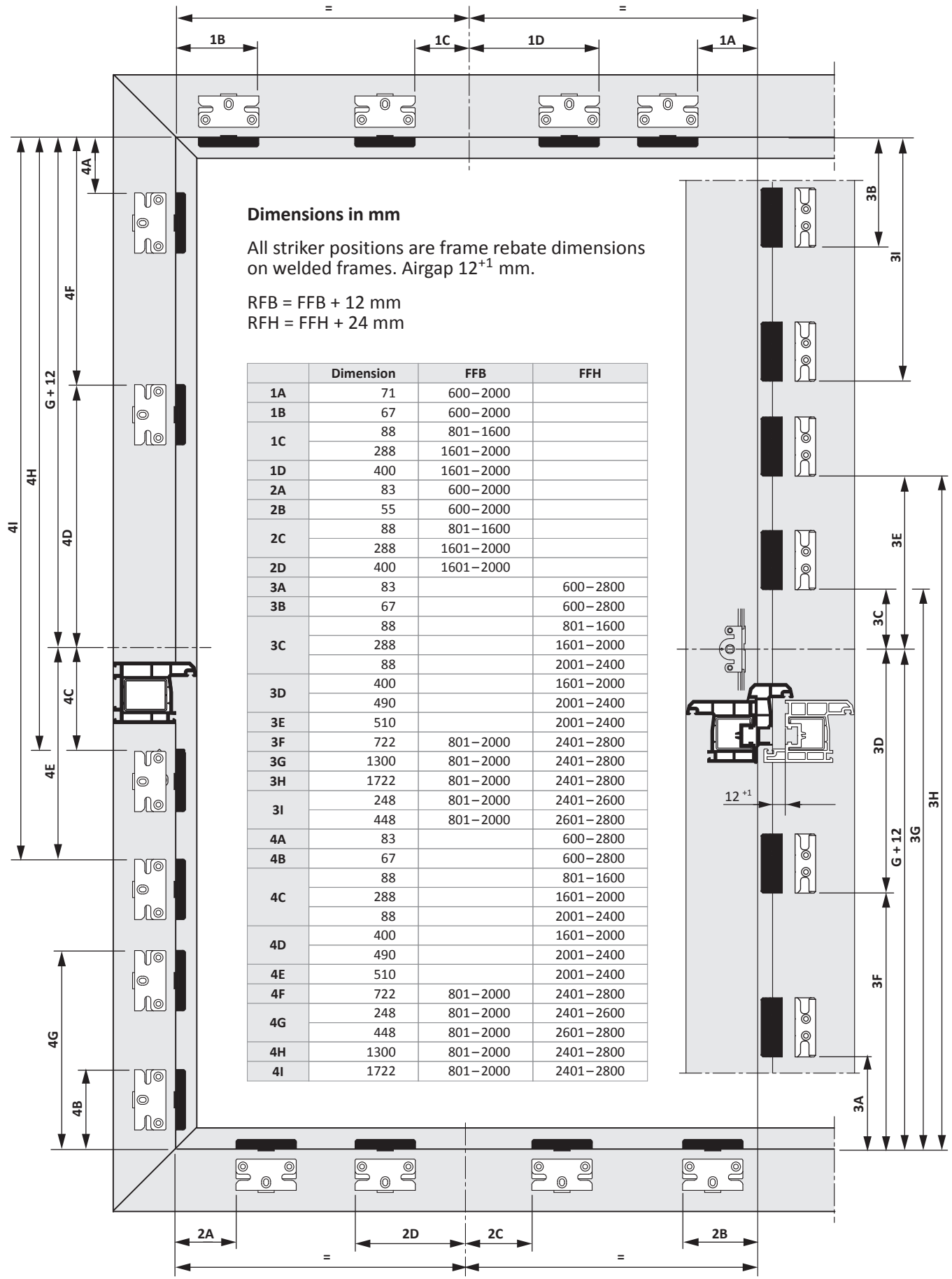
Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.	
						In the main sash	26	27
14	corn.drive VSO 1RS	TEUL4010- ...	2	600 – 2000			2	2
15	corn.drive VSO 2RS A0055	TEUL4070- ...	2	600 – 2000			4	
16	travel restrictor	TFHB0010- ...	1	600 – 2000				
17	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800				
	gear OS-AF sz 80 1RS	TGMK0510- ...		801 – 1200			2	
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...		1201 – 1600			2	
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...		1601 – 2000			4	
18	Air gap limiter	Ref. PDB, FRFL	3	600 – 2000				
19	packer RB/FPS	Ref. PDB, FRUP02	3	600 – 2000				
20	gear 15 AF sz 60	TGMK4020- ...	1		600 – 800	230 – 400		
	gear 15 AF OZ sz 80	TGMK9080- ...			801 – 1200	400 – 600		1
	gear 15 AF OZ sz 120	TGMK9090- ...			1201 – 1600	600 – 800		1
	gear 15 AF OZ sz 160	TGMK9120- ...			1601 – 2000	800 – 1000		1
	gear 15 AF OZ sz 200	TGMK9110- ...			2001 – 2400	1000 – 1200		1
	gear 15 AF OZ sz 200	TGMK9110- ...			2401 – 2800	1200		1
21	linkage AF sz 1 A0767	TZKS1040- ...	1		2401 – 2600			1
	linkage AF sz 2 A0767	TZKS1050- ...			2601 – 2800			1
22	handle Si-line PSK lockable	Ref.access. PHIEA	1		600 – 2800			
23	anti-drill guard E	TGBS0010- ...	1		600 – 2800			
24	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800			
	gear OS-AF sz 80 1RS	TGMK0510- ...			801 – 1200		1	
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...			1201 – 1600		1	
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...			1601 – 2000		2	
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2001 – 2400		3	
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2401 – 2800		3	
25	linkage KK/AF sz 1 1RS	TZKK1010- ...	1		2401 – 2600		1	
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2601 – 2800		1	
26	striker plate S-RS	Ref. PDB, TRSK						
27	striker plate S-RS A2000	TRSK0700- ...						
on request								
28	stop 2,2mm	710937	1					

Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.
							11
1	corn.drive VSO 2RS A0055	TEUL4070- ...	4	600 – 2000			6
2	travel restrictor	TFHB0010- ...	1	600 – 2000			
3	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800			
	gear OS-AF sz 80 1RS	TGMK0510- ...		801 – 1200			2
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...		1201 – 1600			2
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...		1601 – 2000			4
4	Air gap limiter	Ref. PDB, FRFL	3	600 – 2000			
5	packer RB/FPS	Ref. PDB, FRUP02	3	600 – 2000			
6	gear 15 AF sz 60	TGMK4020- ...	1		600 – 800	230 – 400	
	gear 15 AF sz 80 1RS	TGMK4040- ...			801 – 1200	400 – 600	
	gear 15 AF sz 120 1RS	TGMK4050- ...			1201 – 1600	600 – 800	
	gear 15 AF sz 160 2RS 70	TGMK4170- ...			1601 – 2000	800 – 1000	
	gear 15 AF sz 200 3RS 70	TGMK4110- ...			2001 – 2400	1000 – 1200	
	gear 15 AF sz 200 3RS 70	TGMK4110- ...			2401 – 2800	1200	
7	linkage KK/AF sz 1 1RS	TZKK1010- ...	2		2401 – 2600		1
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2601 – 2800		1
8	handle Si-line PSK lockable	Ref.access. PHIEA	1		600 – 2800		
9	anti-drill guard E	TGBS0010- ...	1		600 – 2800		
10	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800		
	gear OS-AF sz 80 1RS	TGMK0510- ...			801 – 1200		1
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...			1201 – 1600		1
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...			1601 – 2000		2
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2001 – 2400		3
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2401 – 2800		3
11	striker plate S-RS	Ref. PDB, TRSK					
on request							
12	mishandling device	TFBS0010- ...	1				
13	pressure piece	Ref. PDB, TFFD	1				

Frame dimensions slave sash

PS/PS, scheme C
PVC GM

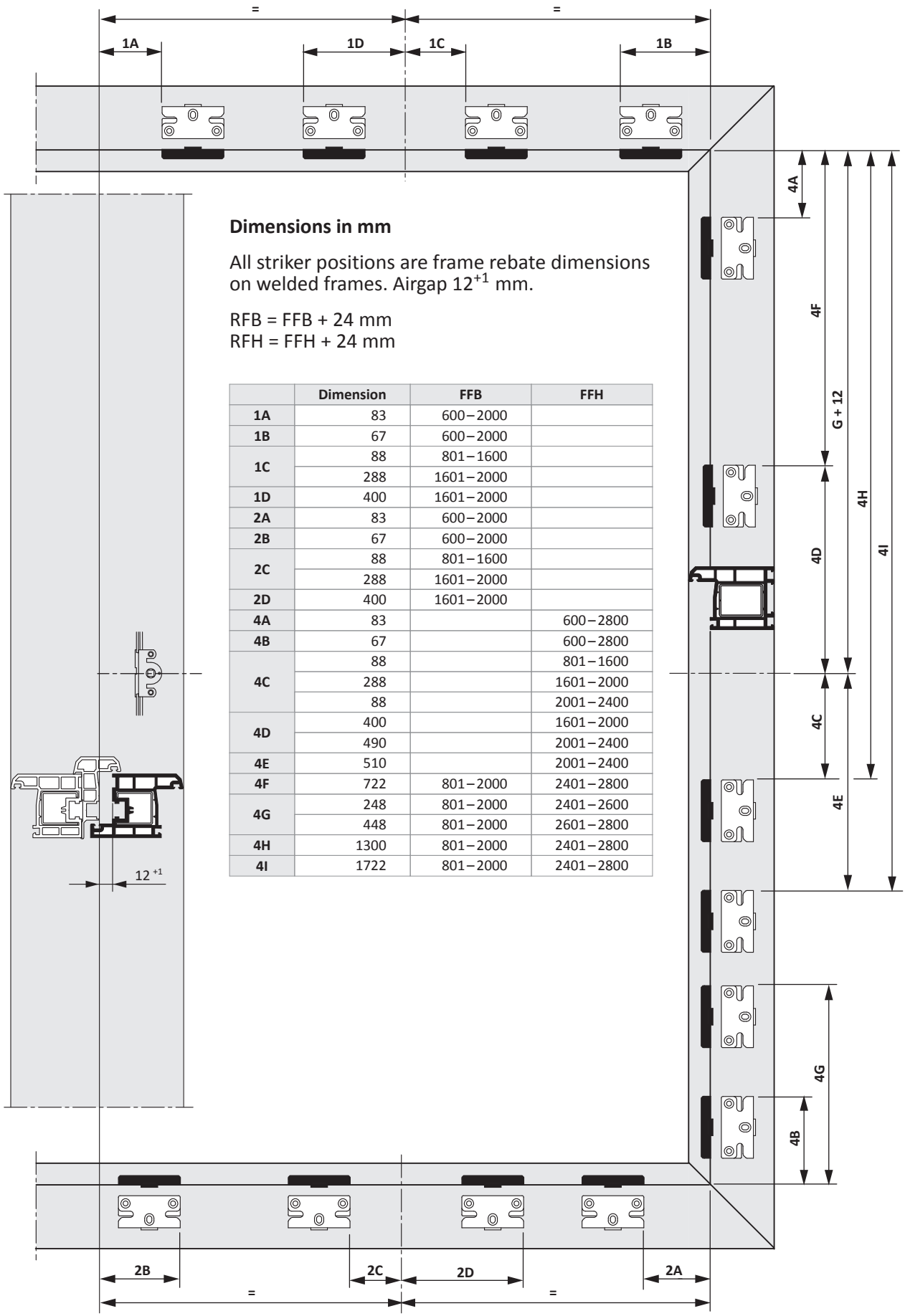


Dimensions in mm

All striker positions are frame rebate dimensions on welded frames. Airgap 12^{+1} mm.

RFB = FFB + 12 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	71	600–2000	
1B	67	600–2000	
1C	88	801–1600	
	288	1601–2000	
1D	400	1601–2000	
2A	83	600–2000	
2B	55	600–2000	
2C	88	801–1600	
	288	1601–2000	
2D	400	1601–2000	
3A	83		600–2800
3B	67		600–2800
3C	88		801–1600
	288		1601–2000
	88		2001–2400
3D	400		1601–2000
	490		2001–2400
3E	510		2001–2400
3F	722	801–2000	2401–2800
3G	1300	801–2000	2401–2800
3H	1722	801–2000	2401–2800
3I	248	801–2000	2401–2600
	448	801–2000	2601–2800
4A	83		600–2800
4B	67		600–2800
4C	88		801–1600
	288		1601–2000
	88		2001–2400
4D	400		1601–2000
	490		2001–2400
4E	510		2001–2400
4F	722	801–2000	2401–2800
4G	248	801–2000	2401–2600
	448	801–2000	2601–2800
4H	1300	801–2000	2401–2800
4I	1722	801–2000	2401–2800



Dimensions in mm

All striker positions are frame rebate dimensions on welded frames. Airgap 12^{+1} mm.

RFB = FFB + 24 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	83	600–2000	
1B	67	600–2000	
1C	88	801–1600	
	288	1601–2000	
1D	400	1601–2000	
2A	83	600–2000	
2B	67	600–2000	
2C	88	801–1600	
	288	1601–2000	
2D	400	1601–2000	
4A	83		600–2800
4B	67		600–2800
4C	88		801–1600
	288		1601–2000
	88		2001–2400
4D	400		1601–2000
	490		2001–2400
4E	510		2001–2400
4F	722	801–2000	2401–2800
4G	248	801–2000	2401–2600
	448	801–2000	2601–2800
4H	1300	801–2000	2401–2800
4I	1722	801–2000	2401–2800

Basic security

Scheme A H48.TAFPSH2K0S001EN 4 - 3

Scheme C H48.TAFPSH2K0S002EN 4 - 7

RC1

Scheme A H48.TAFPSH2K1S001EN 4 - 15

Scheme C H48.TAFPSH2K1S002EN 4 - 19

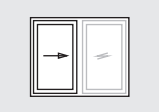
RC2

Scheme A H48.TAFPSH2K2+S001EN 4 - 27

Scheme C H48.TAFPSH2K2+S002EN 4 - 33

TITAN AF

Installation instructions



GS

PS

scheme A

timber 12 mm

basic security

fixed handle position

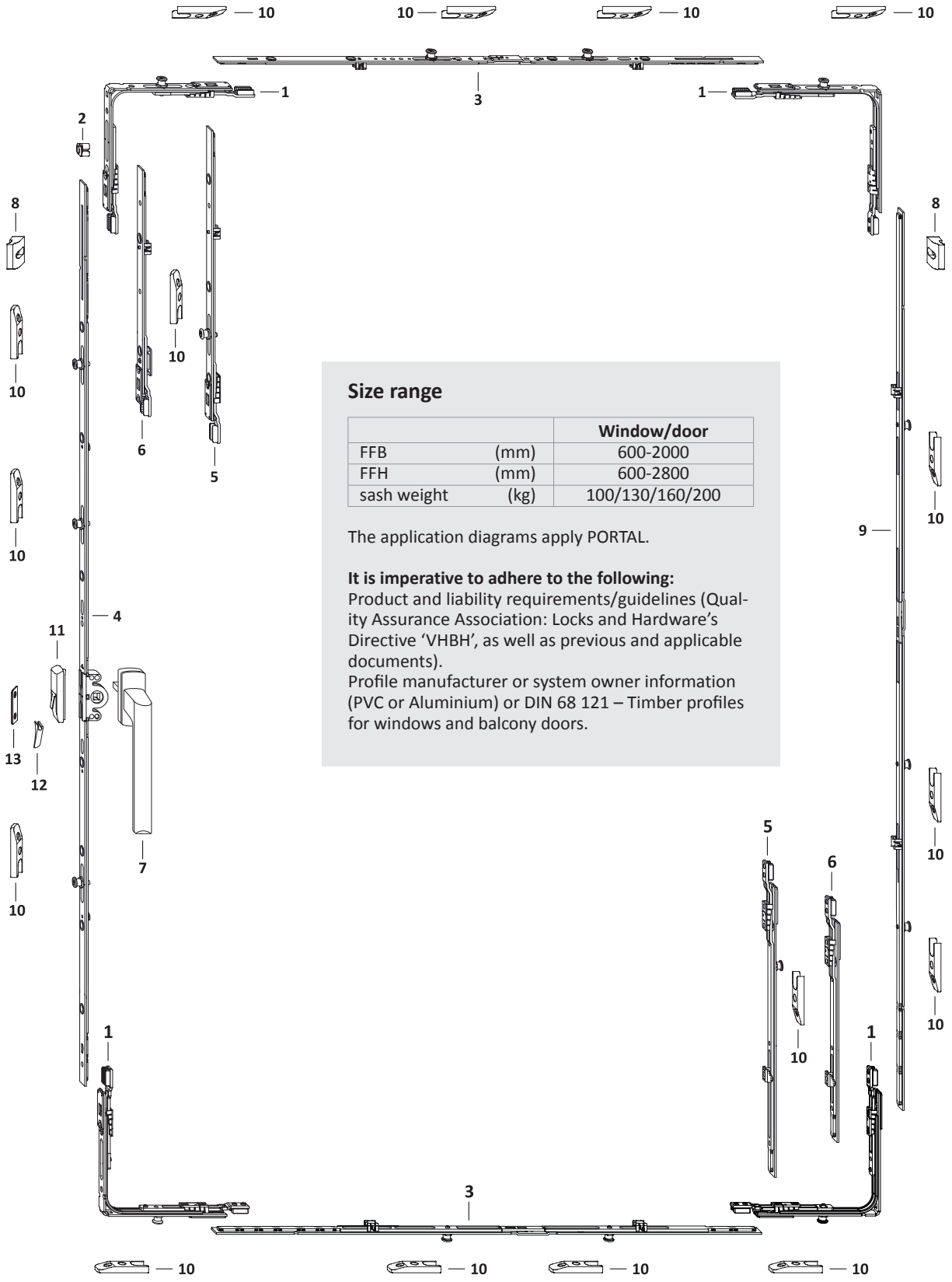
surface TS

backset 15 mm

Hardware set configuration	
General	Locking-points distance 800; with centre lock
Locking side	mishandl. device on gear

hardware layout

PS, scheme A
H12 GK



Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

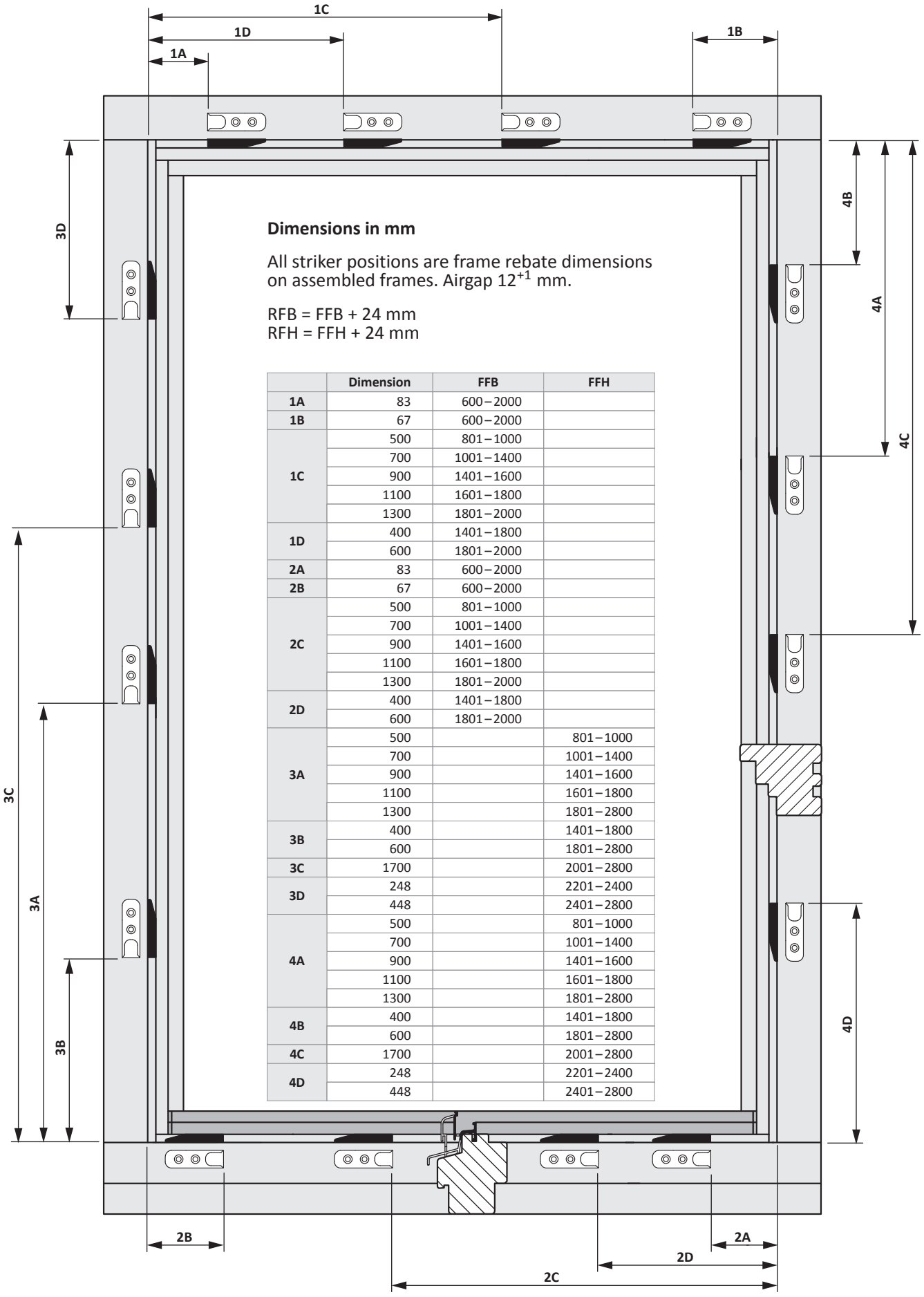
The application diagrams apply PORTAL.

It is imperative to adhere to the following:
Product and liability requirements/guidelines (Quality Assurance Association: Locks and Hardware's Directive 'VHBH', as well as previous and applicable documents).
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber profiles for windows and balcony doors.

Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.
							10
1	corn.drive VSO 1RS	TEUL4010- ...	4	600 – 2000			4
2	travel restrictor	TFHB0010- ...	1	600 – 2000			
3	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800			
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...		801 – 1000			2
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...		1001 – 1200			2
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...		1201 – 1400			2
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...		1401 – 1600			4
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...		1601 – 1800			4
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...		1801 – 2000			4
4	gear 15 AF sz 60/G300	TGKK4030- ...	1		600 – 800	300	
	gear 15 AF sz 80/G400 1RS	TGKK4050- ...			801 – 1000	400	1
	gear 15 AF sz 100/G500 1RS	TGKK4060- ...			1001 – 1200	500	1
	gear 15 AF sz 120/G600 1RS	TGKK4070- ...			1201 – 1400	600	1
	gear 15 AF sz 140/700 2RS 70	TGKK4200- ...			1401 – 1600	700	2
	gear 15 AF sz 160/G700 1RS 70	TGKK4280- ...			1601 – 1800	700	2
	gear 15 AF sz 180/G1000 2RS 70	TGKK4220- ...			1801 – 2000	1000	2
	gear 15 AF sz 200/G1000 3RS 70	TGKK4230- ...			2001 – 2800	1000	3
5	linkage KK/AF sz 1 1RS	TZKK1010- ...	2		2201 – 2400		2
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2401 – 2800		2
6	linkage AF sz 1	TZZS0150- ...	2		2601 – 2800		
7	handle Si-line PSK	Ref.access. PHIES	1		600 – 2800		
8	distance piece	Ref. PDB, PRTL	2		600 – 2800		
9	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800		
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...			801 – 1000		1
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...			1001 – 1200		1
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...			1201 – 1400		1
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...			1401 – 1600		2
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...			1601 – 1800		2
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...			1801 – 2000		2
	gear OS/PZ-AF sz.200/G1000 3RS 70	TGKK0630- ...			2001 – 2800		3
10	striker plate 56	Ref. PDB, FRSB					
on request							
11	mishandling device	TFBS0010- ...	1				
12	pressure piece	Ref. PDB, TFFD	1				
13	stop	Ref. PDB, FRZF01	1				

Frame dimensions

PS, scheme A
H12 GK



Dimensions in mm

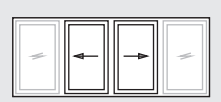
All striker positions are frame rebate dimensions on assembled frames. Airgap 12^{+1} mm.

RFB = FFB + 24 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	83	600 – 2000	
1B	67	600 – 2000	
1C	500	801 – 1000	
	700	1001 – 1400	
	900	1401 – 1600	
	1100	1601 – 1800	
	1300	1801 – 2000	
1D	400	1401 – 1800	
	600	1801 – 2000	
2A	83	600 – 2000	
2B	67	600 – 2000	
2C	500	801 – 1000	
	700	1001 – 1400	
	900	1401 – 1600	
	1100	1601 – 1800	
	1300	1801 – 2000	
2D	400	1401 – 1800	
	600	1801 – 2000	
3A	500		801 – 1000
	700		1001 – 1400
	900		1401 – 1600
	1100		1601 – 1800
	1300		1801 – 2800
3B	400		1401 – 1800
	600		1801 – 2800
3C	1700		2001 – 2800
3D	248		2201 – 2400
	448		2401 – 2800
4A	500		801 – 1000
	700		1001 – 1400
	900		1401 – 1600
	1100		1601 – 1800
	1300		1801 – 2800
4B	400		1401 – 1800
	600		1801 – 2800
4C	1700		2001 – 2800
4D	248		2201 – 2400
	448		2401 – 2800

TITAN AF

Installation instructions



GS

PS/PS

scheme C

timber 12 mm

basic security

fixed handle position

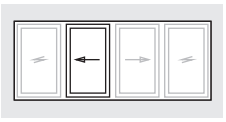
surface TS

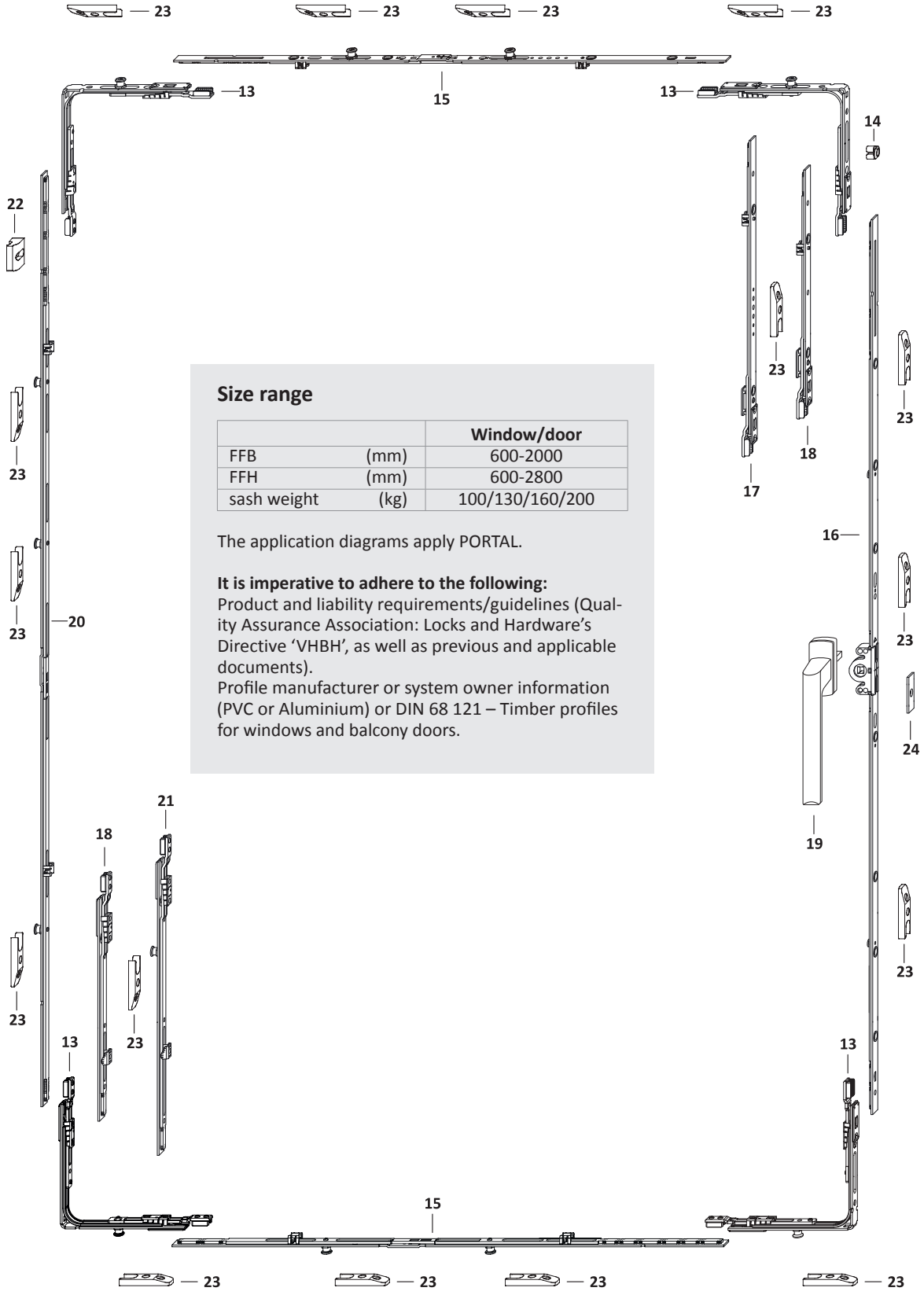
backset 15 mm

Hardware set configuration	
General	Locking-points distance 800; with centre lock
Locking side	mishandl. device on gear

hardware layout slave sash

PS/PS, scheme C
H12 GK





Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

The application diagrams apply PORTAL.

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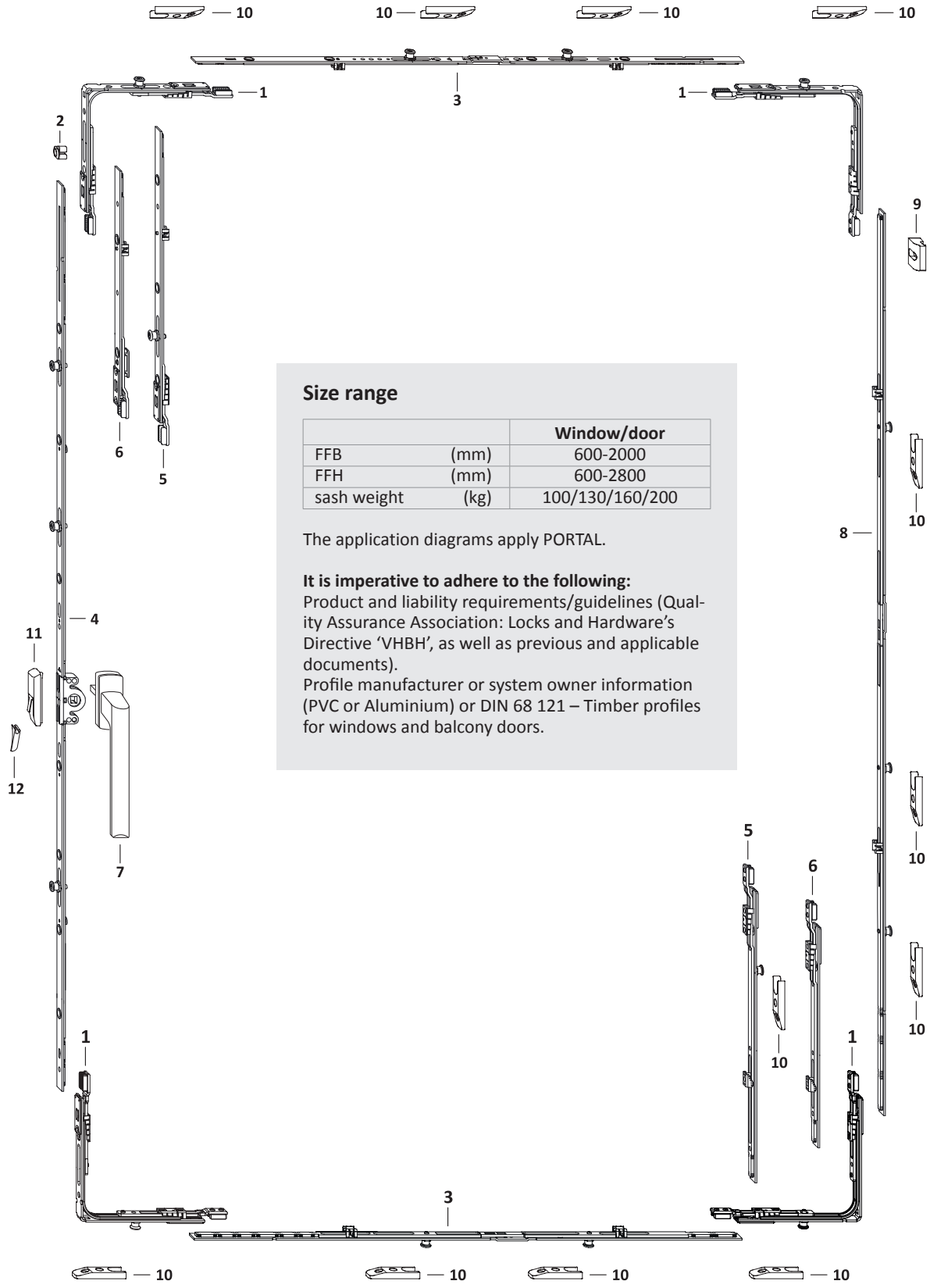

Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

The application diagrams apply PORTAL.

It is imperative to adhere to the following:
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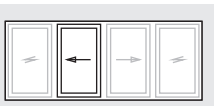
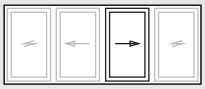
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber profiles for windows and balcony doors.

List of fittings slave sash

PS/PS, scheme C
H12 GK



Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.
						In the main sash	23
13	corn.drive VSO 1RS	TEUL4010- ...	4	600 – 2000			4
14	travel restrictor	TFHB0010- ...	1	600 – 2000			
15	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800			
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...		801 – 1000			2
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...		1001 – 1200			2
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...		1201 – 1400			2
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...		1401 – 1600			4
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...		1601 – 1800			4
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...		1801 – 2000			4
16	gear 15 AF sz 60/G300	TGKK4030- ...	1		600 – 800	300	
	gear 15 AF OZ sz 80/G400	TGKK9100- ...			801 – 1000	400	1
	gear 15 AF OZ sz 100/G500	TGKK9110- ...			1001 – 1200	500	1
	gear 15 AF OZ sz 120/G600	TGKK9120- ...			1201 – 1400	600	1
	gear 15 AF OZ sz 140/G700	TGKK9130- ...			1401 – 1600	700	1
	gear 15 AF OZ sz 160/G700	TGKK9170- ...			1601 – 1800	700	1
	gear 15 AF OZ sz 180/G1000	TGKK9180- ...			1801 – 2000	1000	1
	gear 15 AF OZ sz 200/G1000	TGKK9160- ...			2001 – 2800	1000	1
17	linkage AF sz 1	TZZS0150- ...	1		2201 – 2400		1
	linkage AF sz 2 A0767	TZKS1050- ...			2401 – 2800		1
18	linkage AF sz 1	TZZS0150- ...	2		2601 – 2800		
19	handle Si-line PSK	Ref.access. PHIES	1		600 – 2800		
20	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800		
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...			801 – 1000		1
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...			1001 – 1200		1
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...			1201 – 1400		1
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...			1401 – 1600		2
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...			1601 – 1800		2
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...			1801 – 2000		2
	gear OS/PZ-AF sz.200/G1000 3RS 70	TGKK0630- ...			2001 – 2800		3
21	linkage KK/AF sz 1 1RS	TZKK1010- ...	1		2201 – 2400		1
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2401 – 2800		1
22	distance piece	Ref. PDB, PRTL	1		600 – 2800		
23	striker plate 56	Ref. PDB, FRSB					
on request							
24	stop 2,2mm	710937	1				



List of fittings main sash

PS/PS, scheme C

H12 GK

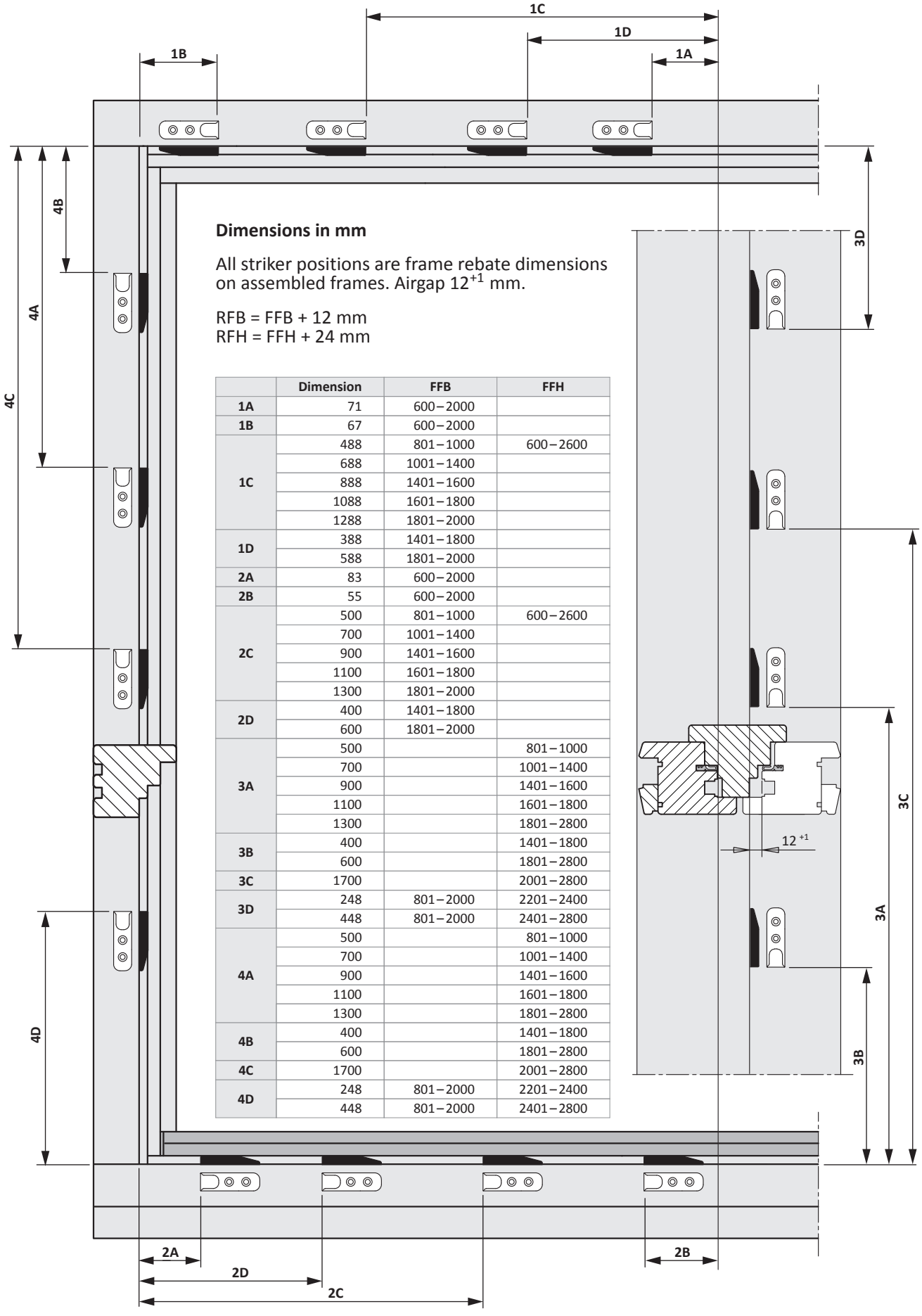
TITAN AF

GS

Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.
							10
1	corn.drive VSO 1RS	TEUL4010- ...	4	600 – 2000			4
2	travel restrictor	TFHB0010- ...	1	600 – 2000			
3	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800			
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...		801 – 1000			2
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...		1001 – 1200			2
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...		1201 – 1400			2
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...		1401 – 1600			4
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...		1601 – 1800			4
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...		1801 – 2000			4
4	gear 15 AF sz 60/G300	TGKK4030- ...	1		600 – 800	300	
	gear 15 AF sz 80/G400 1RS	TGKK4050- ...			801 – 1000	400	
	gear 15 AF sz 100/G500 1RS	TGKK4060- ...			1001 – 1200	500	
	gear 15 AF sz 120/G600 1RS	TGKK4070- ...			1201 – 1400	600	
	gear 15 AF sz 140/700 2RS 70	TGKK4200- ...			1401 – 1600	700	
	gear 15 AF sz 160/G700 1RS 70	TGKK4280- ...			1601 – 1800	700	
	gear 15 AF sz 180/G1000 2RS 70	TGKK4220- ...			1801 – 2000	1000	
	gear 15 AF sz 200/G1000 3RS 70	TGKK4230- ...			2001 – 2800	1000	
5	linkage KK/AF sz 1 1RS	TZKK1010- ...	2		2201 – 2400		1
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2401 – 2800		1
6	linkage AF sz 1	TZZS0150- ...	2		2601 – 2800		
7	handle Si-line PSK	Ref.access. PHIES	1		600 – 2800		
8	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800		
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...			801 – 1000		1
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...			1001 – 1200		1
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...			1201 – 1400		1
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...			1401 – 1600		2
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...			1601 – 1800		2
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...			1801 – 2000		2
	gear OS/PZ-AF sz.200/G1000 3RS 70	TGKK0630- ...			2001 – 2800		3
9	distance piece	Ref. PDB, PRTL	1		600 – 2800		
10	striker plate 56	Ref. PDB, FRSB					
on request							
11	mishandling device	TFBS0010- ...	1				
12	pressure piece	Ref. PDB, TFFD	1				

Frame dimensions slave sash

PS/PS, scheme C
H12 GK

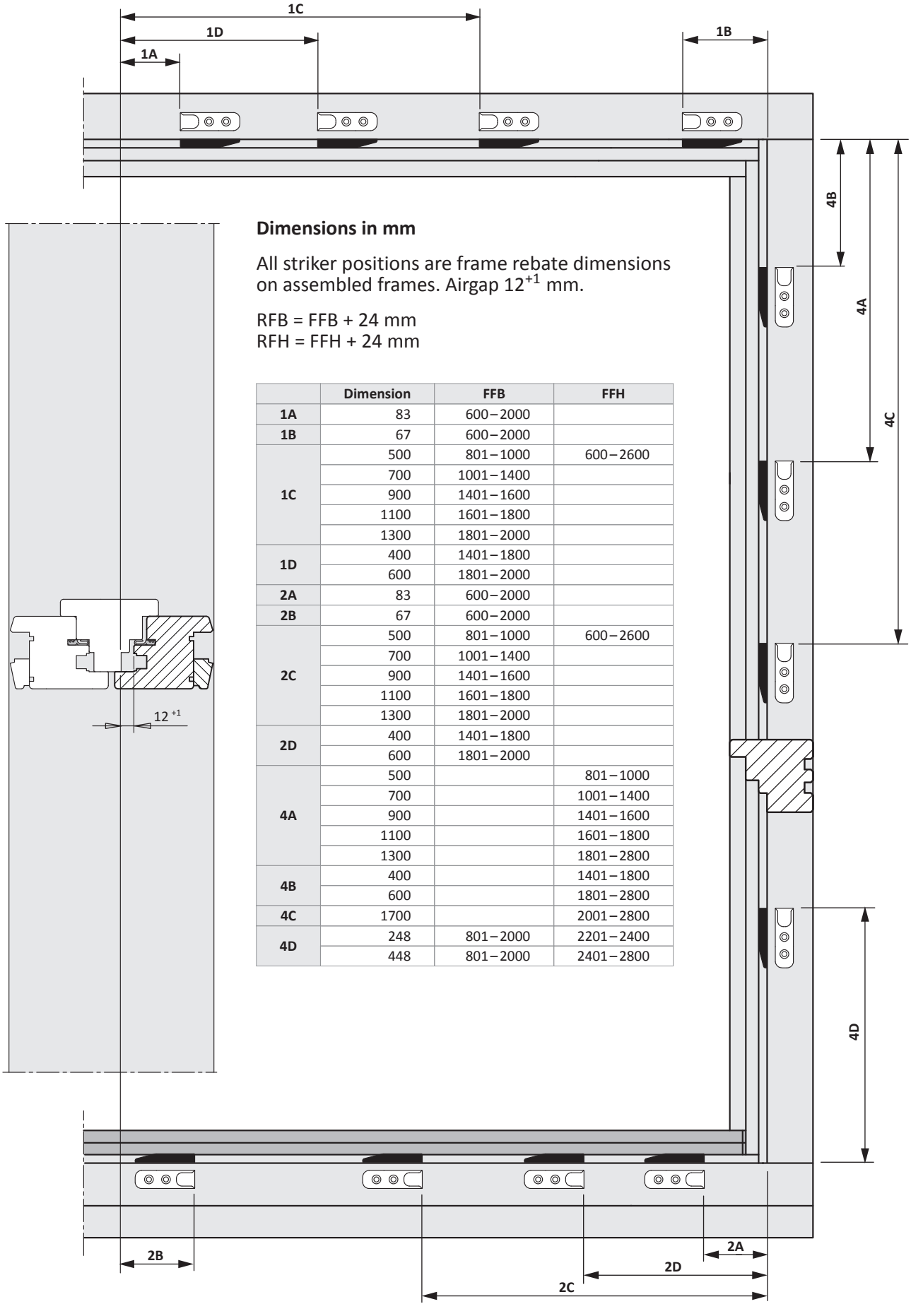


Dimensions in mm

All striker positions are frame rebate dimensions on assembled frames. Airgap 12^{+1} mm.

RFB = FFB + 12 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	71	600–2000	
1B	67	600–2000	
1C	488	801–1000	600–2600
	688	1001–1400	
	888	1401–1600	
	1088	1601–1800	
	1288	1801–2000	
1D	388	1401–1800	
	588	1801–2000	
2A	83	600–2000	
2B	55	600–2000	
2C	500	801–1000	600–2600
	700	1001–1400	
	900	1401–1600	
	1100	1601–1800	
	1300	1801–2000	
2D	400	1401–1800	
	600	1801–2000	
3A	500		801–1000
	700		1001–1400
	900		1401–1600
	1100		1601–1800
	1300		1801–2800
3B	400		1401–1800
	600		1801–2800
3C	1700		2001–2800
3D	248	801–2000	2201–2400
	448	801–2000	2401–2800
4A	500		801–1000
	700		1001–1400
	900		1401–1600
	1100		1601–1800
	1300		1801–2800
4B	400		1401–1800
	600		1801–2800
4C	1700		2001–2800
4D	248	801–2000	2201–2400
	448	801–2000	2401–2800



Dimensions in mm

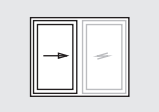
All striker positions are frame rebate dimensions on assembled frames. Airgap 12^{+1} mm.

RFB = FFB + 24 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	83	600–2000	
1B	67	600–2000	
1C	500	801–1000	600–2600
	700	1001–1400	
	900	1401–1600	
	1100	1601–1800	
	1300	1801–2000	
1D	400	1401–1800	
	600	1801–2000	
2A	83	600–2000	
2B	67	600–2000	
2C	500	801–1000	600–2600
	700	1001–1400	
	900	1401–1600	
	1100	1601–1800	
	1300	1801–2000	
2D	400	1401–1800	
	600	1801–2000	
4A	500		801–1000
	700		1001–1400
	900		1401–1600
	1100		1601–1800
	1300		1801–2800
4B	400		1401–1800
	600		1801–2800
4C	1700		2001–2800
4D	248	801–2000	2201–2400
	448	801–2000	2401–2800

TITAN AF

Installation instructions



RC1

PS

scheme A

timber 12 mm

RC1

fixed handle position

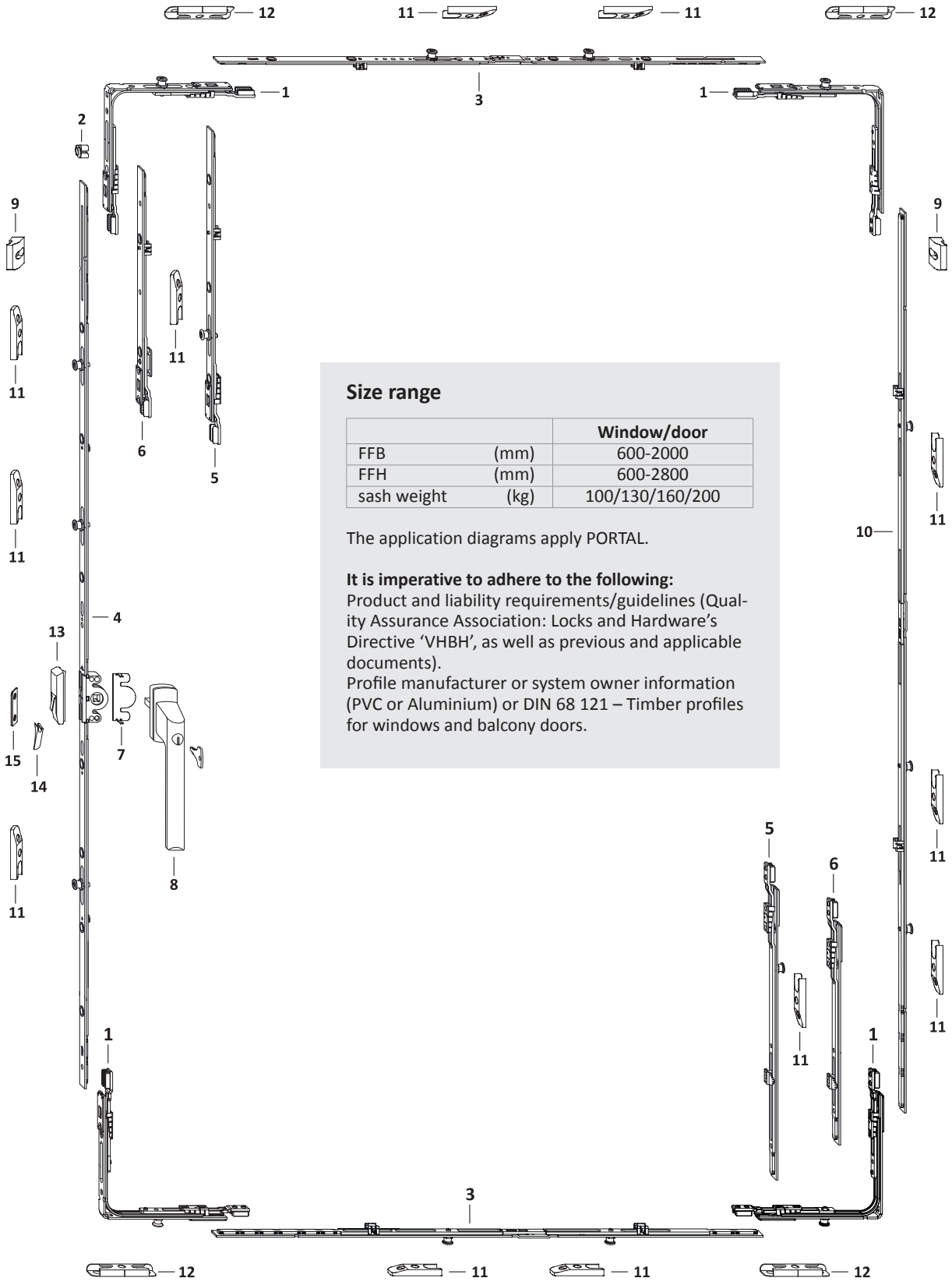
surface TS

backset 15 mm

Hardware set configuration	
General	Locking-points distance 800; with centre lock
Locking side	mishandl. device on gear

hardware layout

PS, scheme A
H12 GK



Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

The application diagrams apply PORTAL.

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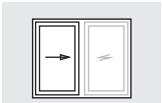
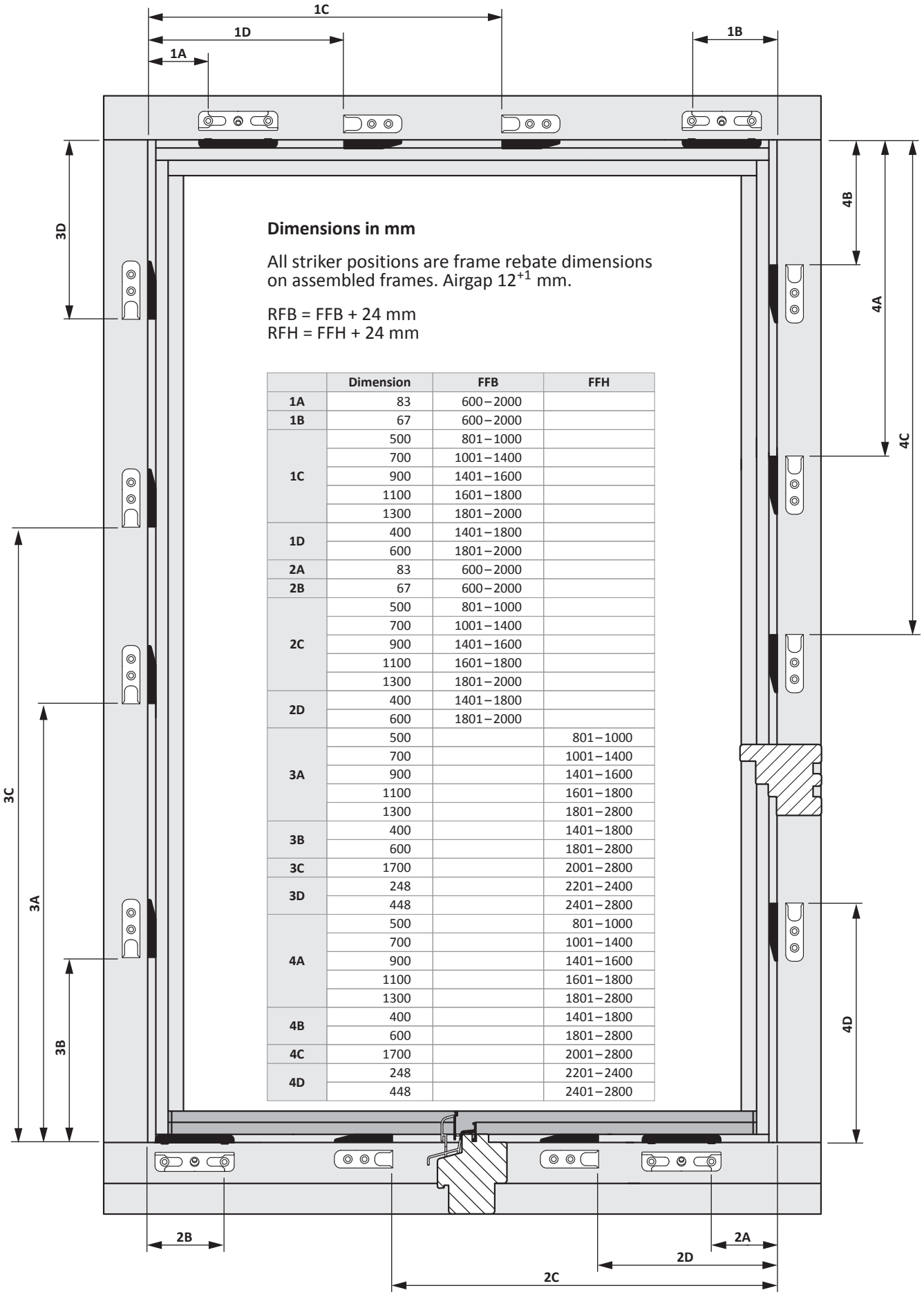


Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.	
							11	12
1	corn.drive VSO 1RS	TEUL4010- ...	4	600 – 2000				4
2	travel restrictor	TFHB0010- ...	1	600 – 2000				
3	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800				
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...		801 – 1000			2	
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...		1001 – 1200			2	
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...		1201 – 1400			2	
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...		1401 – 1600			4	
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...		1601 – 1800			4	
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...		1801 – 2000			4	
4	gear 15 AF sz 60/G300	TGKK4030- ...	1		600 – 800	300		
	gear 15 AF sz 80/G400 1RS	TGKK4050- ...			801 – 1000	400	1	
	gear 15 AF sz 100/G500 1RS	TGKK4060- ...			1001 – 1200	500	1	
	gear 15 AF sz 120/G600 1RS	TGKK4070- ...			1201 – 1400	600	1	
	gear 15 AF sz 140/700 2RS 70	TGKK4200- ...			1401 – 1600	700	2	
	gear 15 AF sz 160/G700 1RS 70	TGKK4280- ...			1601 – 1800	700	2	
	gear 15 AF sz 180/G1000 2RS 70	TGKK4220- ...			1801 – 2000	1000	2	
	gear 15 AF sz 200/G1000 3RS 70	TGKK4230- ...			2001 – 2800	1000	3	
5	linkage KK/AF sz 1 1RS	TZKK1010- ...	2		2201 – 2400		2	
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2401 – 2800		2	
6	linkage AF sz 1	TZZS0150- ...	2		2601 – 2800			
7	anti-drill guard E	TGBS0010- ...	1		600 – 2800			
8	handle Si-line PSK lockable	Ref.access. PHIEA	1		600 – 2800			
9	distance piece	Ref. PDB, PRTL	2		600 – 2800			
10	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800			
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...			801 – 1000		1	
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...			1001 – 1200		1	
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...			1201 – 1400		1	
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...			1401 – 1600		2	
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...			1601 – 1800		2	
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...			1801 – 2000		2	
	gear OS/PZ-AF sz.200/G1000 3RS 70	TGKK0630- ...			2001 – 2800		3	
11	striker plate 56	Ref. PDB, FRSB						
12	striker plate S-RS	Ref. PDB, TRSK						
on request								
13	mishandling device	TFBS0010- ...	1					
14	pressure piece	Ref. PDB, TFFD	1					
15	stop	Ref. PDB, FRZF01	1					

Frame dimensions

PS, scheme A
H12 GK



Dimensions in mm

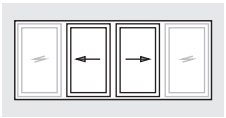
All striker positions are frame rebate dimensions on assembled frames. Airgap 12^{+1} mm.

RFB = FFB + 24 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	83	600 – 2000	
1B	67	600 – 2000	
1C	500	801 – 1000	
	700	1001 – 1400	
	900	1401 – 1600	
	1100	1601 – 1800	
	1300	1801 – 2000	
1D	400	1401 – 1800	
	600	1801 – 2000	
2A	83	600 – 2000	
2B	67	600 – 2000	
2C	500	801 – 1000	
	700	1001 – 1400	
	900	1401 – 1600	
	1100	1601 – 1800	
	1300	1801 – 2000	
2D	400	1401 – 1800	
	600	1801 – 2000	
3A	500		801 – 1000
	700		1001 – 1400
	900		1401 – 1600
	1100		1601 – 1800
	1300		1801 – 2800
3B	400		1401 – 1800
	600		1801 – 2800
3C	1700		2001 – 2800
3D	248		2201 – 2400
	448		2401 – 2800
4A	500		801 – 1000
	700		1001 – 1400
	900		1401 – 1600
	1100		1601 – 1800
	1300		1801 – 2800
4B	400		1401 – 1800
	600		1801 – 2800
4C	1700		2001 – 2800
4D	248		2201 – 2400
	448		2401 – 2800

TITAN AF

Installation instructions



RC1

PS/PS

scheme C

timber 12 mm

RC1

fixed handle position

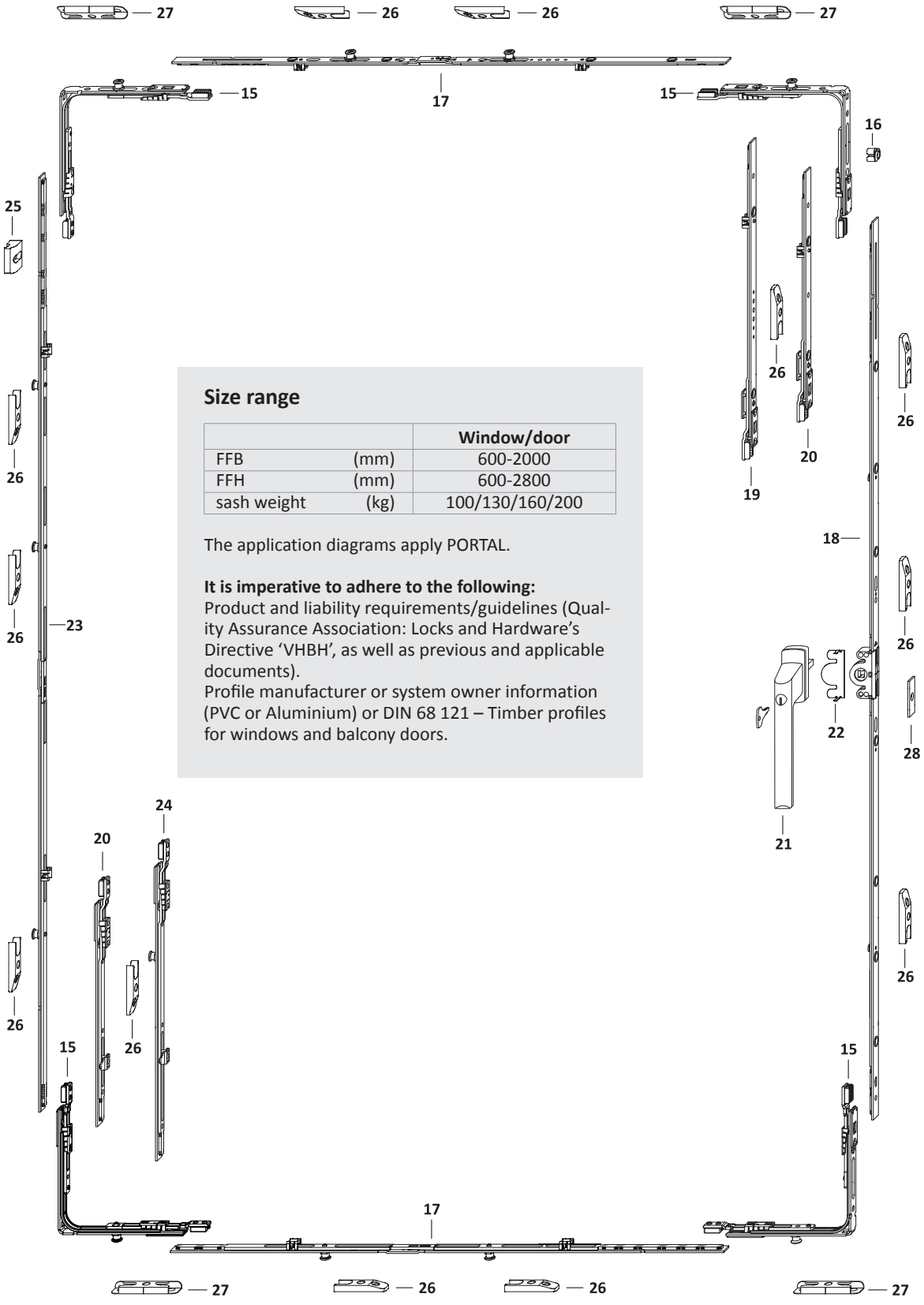
surface TS

backset 15 mm

Hardware set configuration	
General	Locking-points distance 800; with centre lock
Locking side	mishandl. device on gear

hardware layout slave sash

PS/PS, scheme C
H12 GK

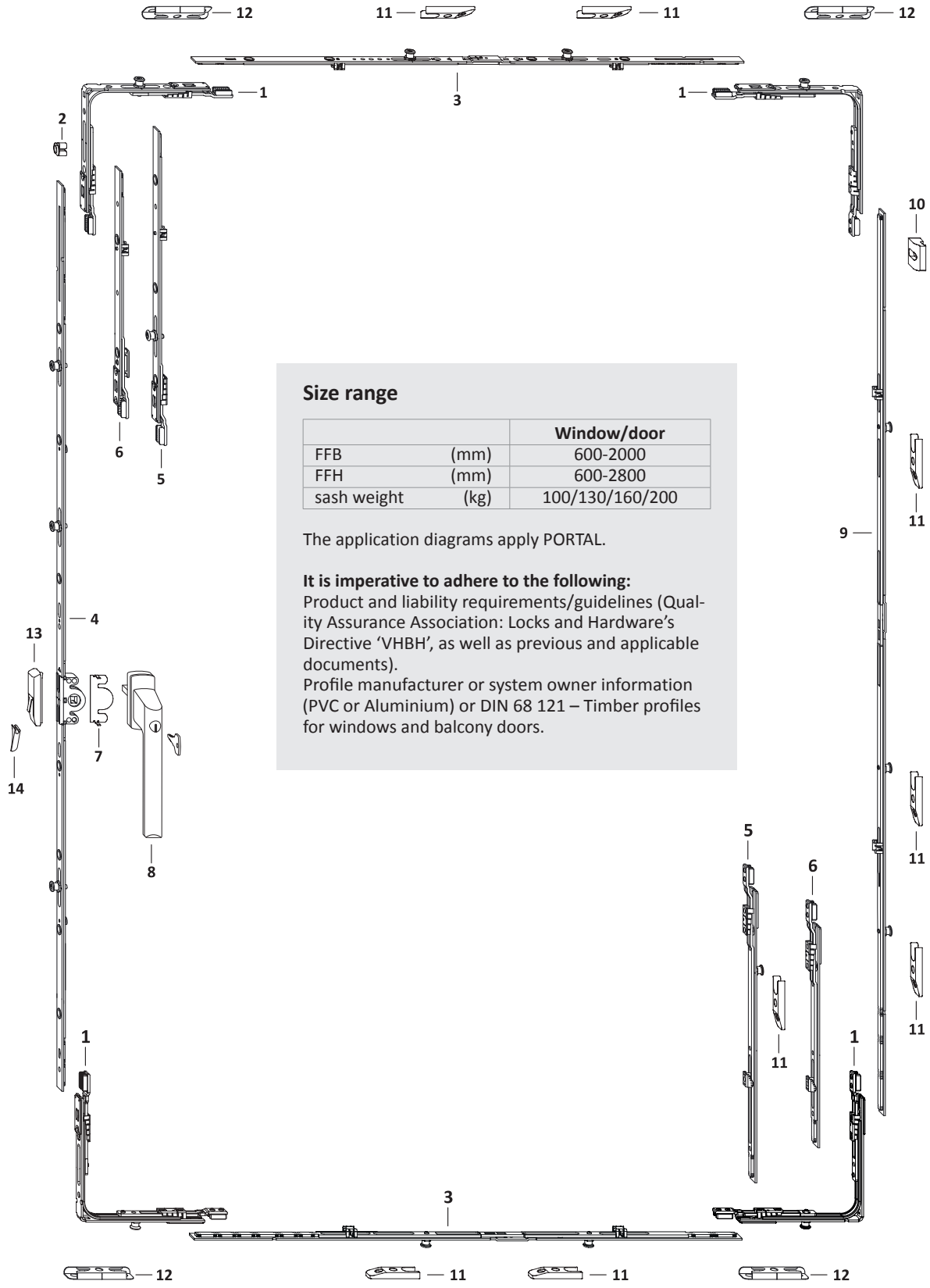


Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

The application diagrams apply PORTAL.

It is imperative to adhere to the following:
Product and liability requirements/guidelines (Quality Assurance Association: Locks and Hardware's Directive 'VHBH', as well as previous and applicable documents).
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber profiles for windows and balcony doors.



Size range

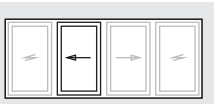
		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

The application diagrams apply PORTAL.

It is imperative to adhere to the following:
Product and liability requirements/guidelines (Quality Assurance Association: Locks and Hardware's Directive 'VHBH', as well as previous and applicable documents).
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber profiles for windows and balcony doors.

List of fittings slave sash

PS/PS, scheme C
H12 GK

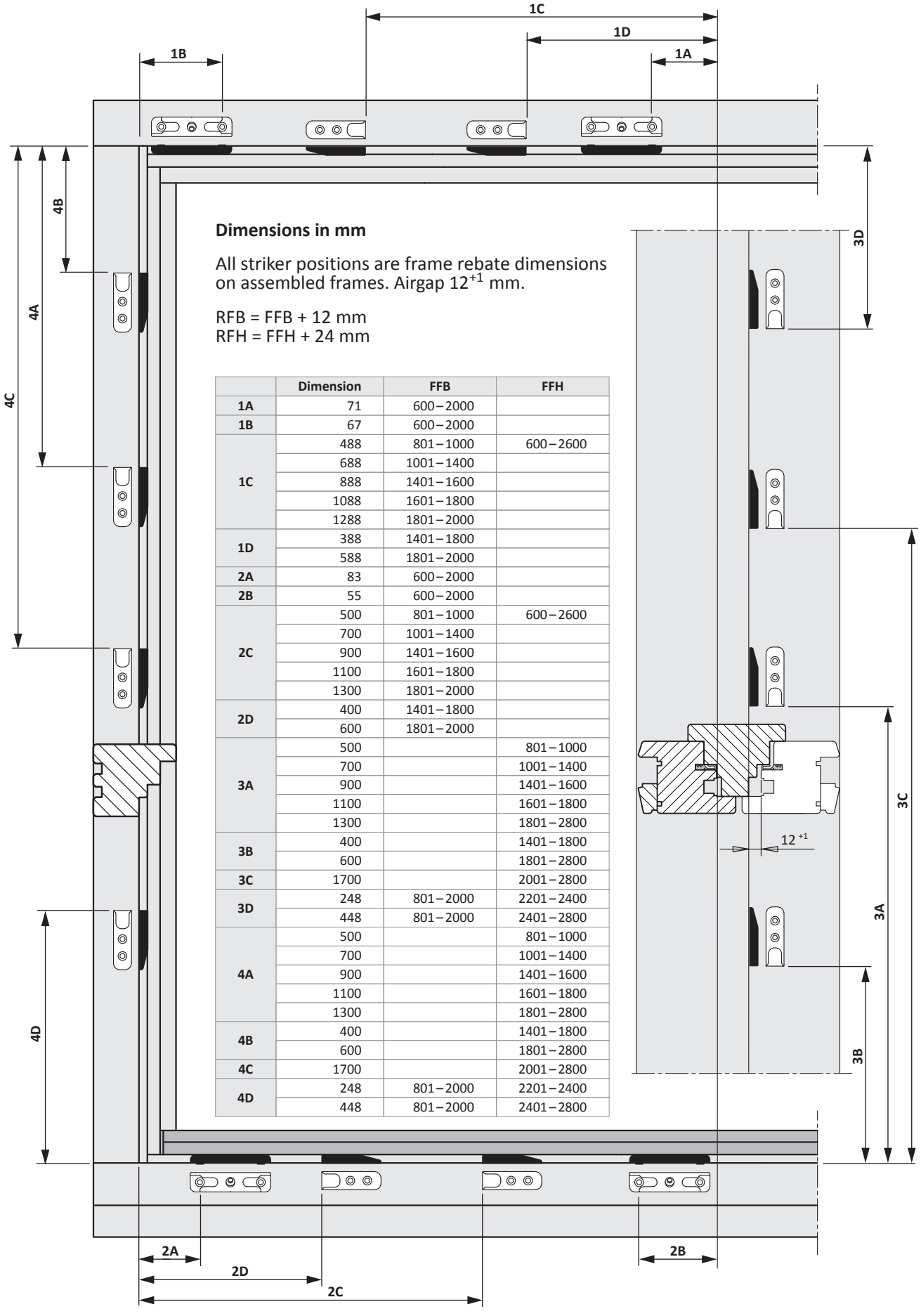


Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.	
						In the main sash	26	27
15	corn.drive VSO 1RS	TEUL4010- ...	4	600 – 2000				4
16	travel restrictor	TFHB0010- ...	1	600 – 2000				
17	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800				
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...		801 – 1000			2	
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...		1001 – 1200			2	
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...		1201 – 1400			2	
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...		1401 – 1600			4	
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...		1601 – 1800			4	
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...		1801 – 2000			4	
18	gear 15 AF sz 60/G300	TGKK4030- ...	1		600 – 800	300		
	gear 15 AF OZ sz 80/G400	TGKK9100- ...			801 – 1000	400	1	
	gear 15 AF OZ sz 100/G500	TGKK9110- ...			1001 – 1200	500	1	
	gear 15 AF OZ sz 120/G600	TGKK9120- ...			1201 – 1400	600	1	
	gear 15 AF OZ sz 140/G700	TGKK9130- ...			1401 – 1600	700	1	
	gear 15 AF OZ sz 160/G700	TGKK9170- ...			1601 – 1800	700	1	
	gear 15 AF OZ sz 180/G1000	TGKK9180- ...			1801 – 2000	1000	1	
	gear 15 AF OZ sz 200/G1000	TGKK9160- ...			2001 – 2800	1000	1	
19	linkage AF sz 1	TZZS0150- ...	1		2201 – 2400		1	
	linkage AF sz 2 A0767	TZKS1050- ...			2401 – 2800		1	
20	linkage AF sz 1	TZZS0150- ...	2		2601 – 2800			
21	handle Si-line PSK lockable	Ref.access. PHIEA	1		600 – 2800			
22	anti-drill guard E	TGBS0010- ...	1		600 – 2800			
23	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800			
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...			801 – 1000		1	
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...			1001 – 1200		1	
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...			1201 – 1400		1	
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...			1401 – 1600		2	
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...			1601 – 1800		2	
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...			1801 – 2000		2	
	gear OS/PZ-AF sz.200/G1000 3RS 70	TGKK0630- ...			2001 – 2800		3	
24	linkage KK/AF sz 1 1RS	TZKK1010- ...	1		2201 – 2400		1	
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2401 – 2800		1	
25	distance piece	Ref. PDB, PRTL	1		600 – 2800			
26	striker plate 56	Ref. PDB, FRSB						
27	striker plate S-RS	Ref. PDB, TRSK						
on request								
28	stop 2,2mm	710937	1					

Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.	
							11	12
1	corn.drive VSO 1RS	TEUL4010- ...	4	600 – 2000				4
2	travel restrictor	TFHB0010- ...	1	600 – 2000				
3	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800				
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...		801 – 1000			2	
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...		1001 – 1200			2	
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...		1201 – 1400			2	
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...		1401 – 1600			4	
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...		1601 – 1800			4	
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...		1801 – 2000			4	
4	gear 15 AF sz 60/G300	TGKK4030- ...	1		600 – 800	300		
	gear 15 AF sz 80/G400 1RS	TGKK4050- ...			801 – 1000	400		
	gear 15 AF sz 100/G500 1RS	TGKK4060- ...			1001 – 1200	500		
	gear 15 AF sz 120/G600 1RS	TGKK4070- ...			1201 – 1400	600		
	gear 15 AF sz 140/700 2RS 70	TGKK4200- ...			1401 – 1600	700		
	gear 15 AF sz 160/G700 1RS 70	TGKK4280- ...			1601 – 1800	700		
	gear 15 AF sz 180/G1000 2RS 70	TGKK4220- ...			1801 – 2000	1000		
	gear 15 AF sz 200/G1000 3RS 70	TGKK4230- ...			2001 – 2800	1000		
5	linkage KK/AF sz 1 1RS	TZKK1010- ...	2		2201 – 2400		1	
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2401 – 2800		1	
6	linkage AF sz 1	TZZS0150- ...	2		2601 – 2800			
7	anti-drill guard E	TGBS0010- ...	1		600 – 2800			
8	handle Si-line PSK lockable	Ref.access. PHIEA	1		600 – 2800			
9	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800			
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...			801 – 1000		1	
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...			1001 – 1200		1	
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...			1201 – 1400		1	
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...			1401 – 1600		2	
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...			1601 – 1800		2	
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...			1801 – 2000		2	
	gear OS/PZ-AF sz.200/G1000 3RS 70	TGKK0630- ...			2001 – 2800		3	
10	distance piece	Ref. PDB, PRTL	1		600 – 2800			
11	striker plate 56	Ref. PDB, FRSB						
12	striker plate S-RS	Ref. PDB, TRSK						
on request								
13	mishandling device	TFBS0010- ...	1					
14	pressure piece	Ref. PDB, TFFD	1					

Frame dimensions slave sash

PS/PS, scheme C
H12 GK

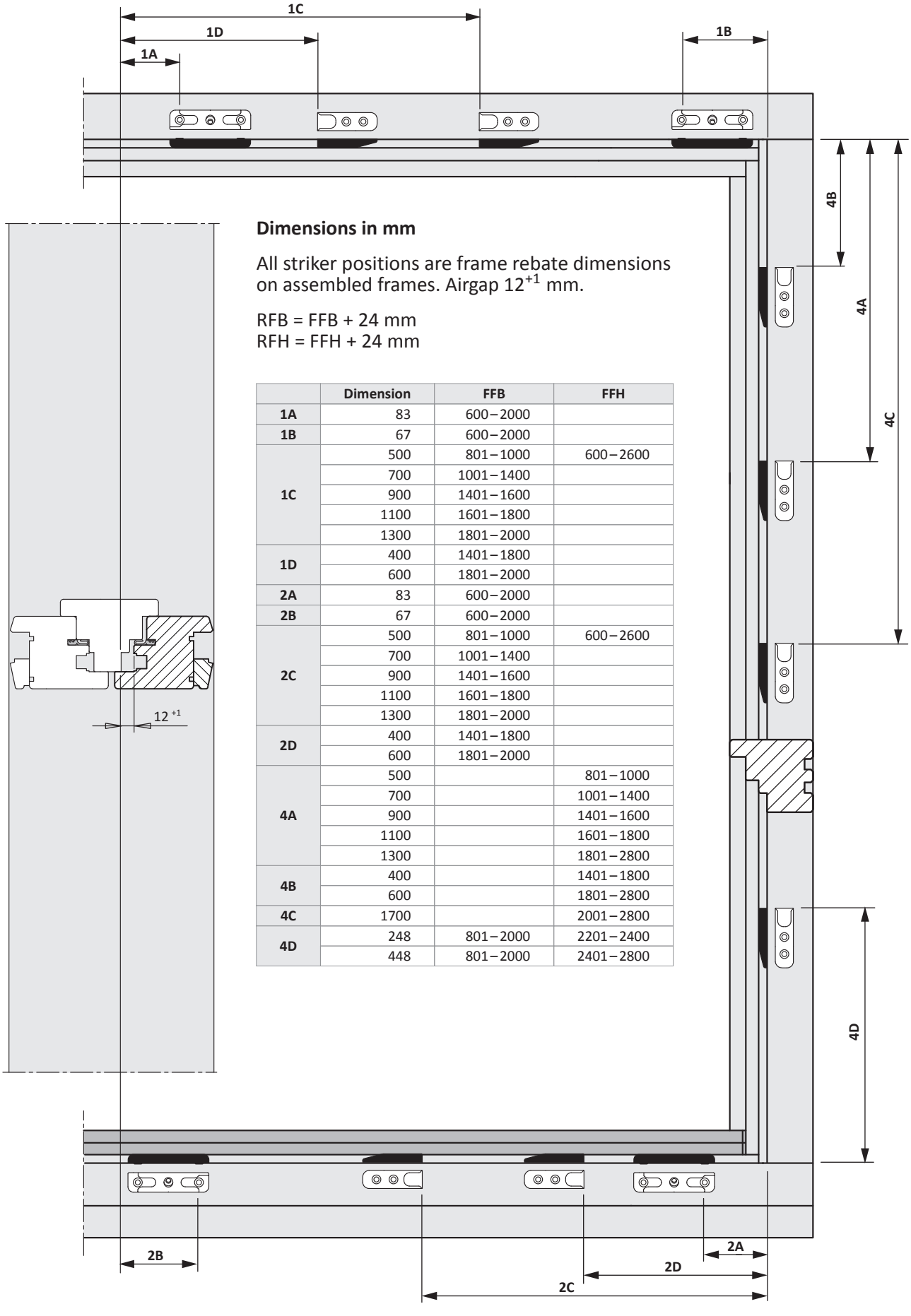


Dimensions in mm

All striker positions are frame rebate dimensions on assembled frames. Airgap 12^{+1} mm.

RFB = FFB + 12 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	71	600–2000	
1B	67	600–2000	
1C	488	801–1000	600–2600
	688	1001–1400	
	888	1401–1600	
	1088	1601–1800	
	1288	1801–2000	
1D	388	1401–1800	
	588	1801–2000	
2A	83	600–2000	
2B	55	600–2000	
2C	500	801–1000	600–2600
	700	1001–1400	
	900	1401–1600	
	1100	1601–1800	
	1300	1801–2000	
2D	400	1401–1800	
	600	1801–2000	
3A	500		801–1000
	700		1001–1400
	900		1401–1600
	1100		1601–1800
	1300		1801–2800
3B	400		1401–1800
	600		1801–2800
3C	1700		2001–2800
3D	248	801–2000	2201–2400
	448	801–2000	2401–2800
4A	500		801–1000
	700		1001–1400
	900		1401–1600
	1100		1601–1800
	1300		1801–2800
4B	400		1401–1800
	600		1801–2800
4C	1700		2001–2800
4D	248	801–2000	2201–2400
	448	801–2000	2401–2800



Dimensions in mm

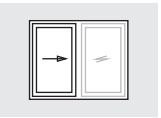
All striker positions are frame rebate dimensions on assembled frames. Airgap 12^{+1} mm.

RFB = FFB + 24 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	83	600–2000	
1B	67	600–2000	
1C	500	801–1000	600–2600
	700	1001–1400	
	900	1401–1600	
	1100	1601–1800	
	1300	1801–2000	
1D	400	1401–1800	
	600	1801–2000	
2A	83	600–2000	
2B	67	600–2000	
2C	500	801–1000	600–2600
	700	1001–1400	
	900	1401–1600	
	1100	1601–1800	
	1300	1801–2000	
2D	400	1401–1800	
	600	1801–2000	
4A	500		801–1000
	700		1001–1400
	900		1401–1600
	1100		1601–1800
	1300		1801–2800
4B	400		1401–1800
	600		1801–2800
4C	1700		2001–2800
4D	248	801–2000	2201–2400
	448	801–2000	2401–2800

TITAN AF

Installation instructions



RC2

PS

scheme A

timber 12 mm

RC2

fixed handle position

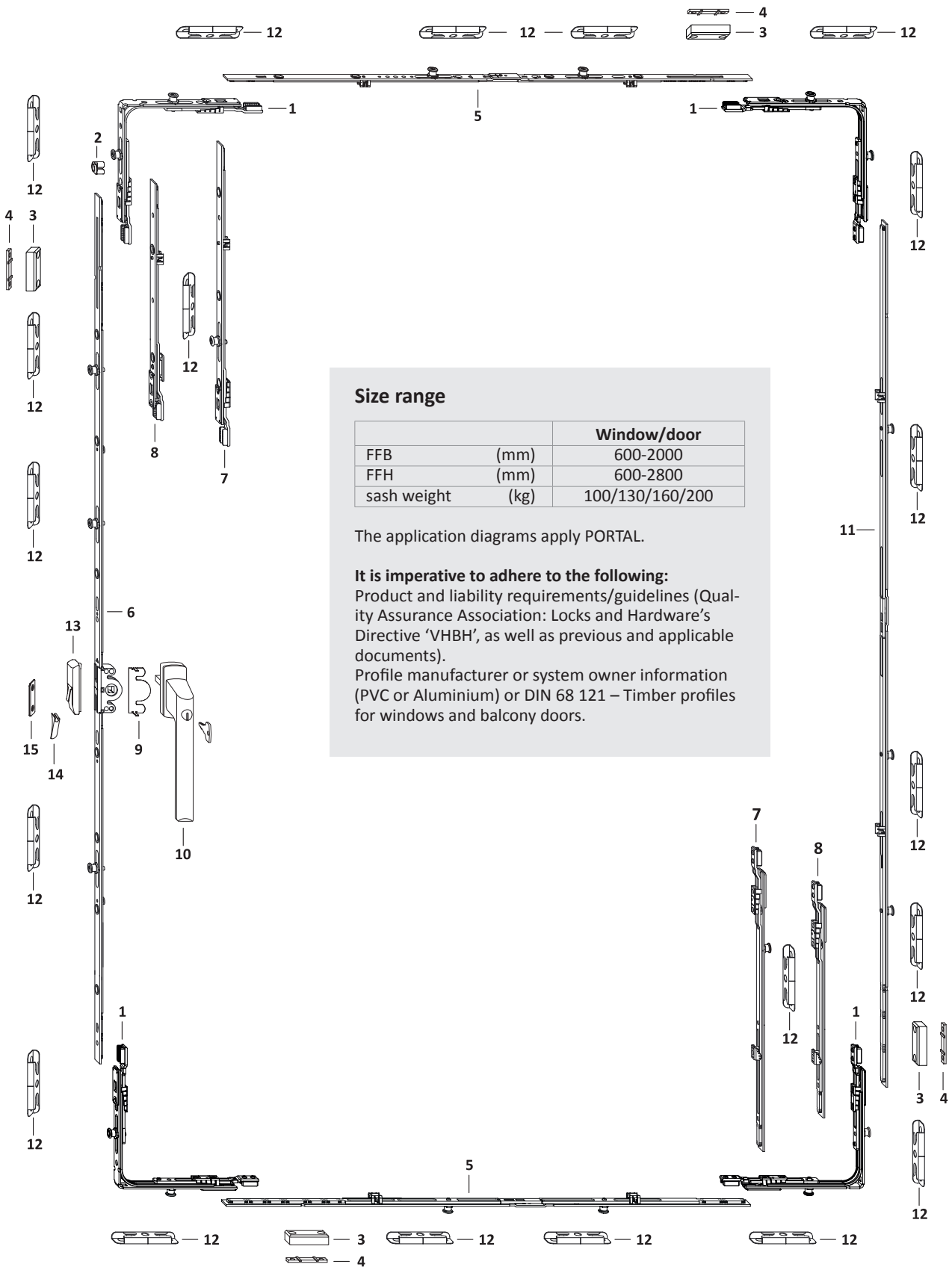
surface TS

backset 15 mm

Hardware set configuration	
General	Locking-points distance 800; with centre lock
Locking side	mishandl. device on gear

hardware layout

PS, scheme A
H12 GK



Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

The application diagrams apply PORTAL.

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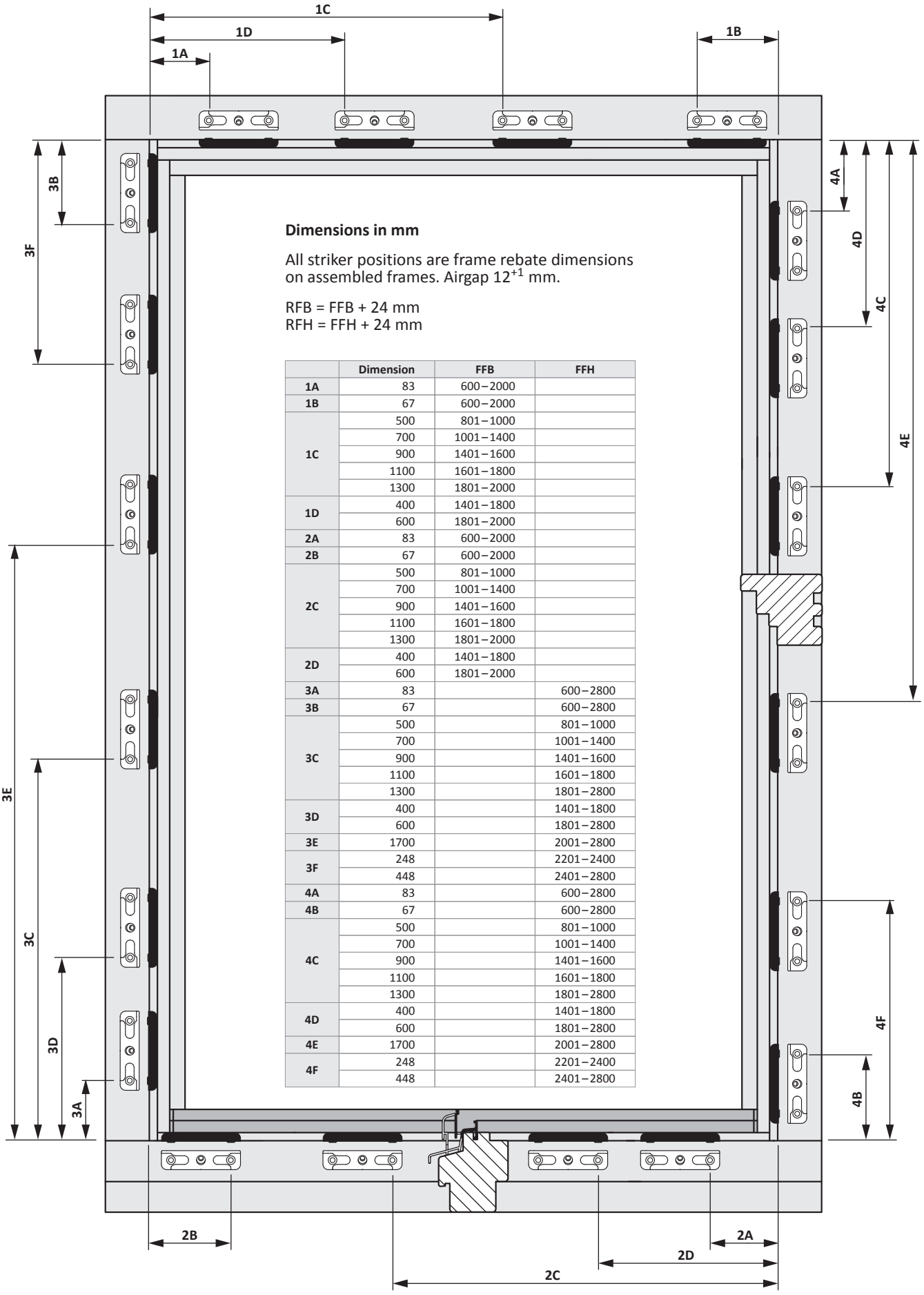
Product and liability requirements/guidelines (Quality Assurance Association: Locks and Hardware's Directive 'VHBH', as well as previous and applicable documents).
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber profiles for windows and balcony doors.

Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.
							12
1	corn.drive VSO 2RS A0055	TEUL4070- ...	4	600 – 2000			8
2	travel restrictor	TFHB0010- ...	1	600 – 2000			
3	Air gap limiter	Ref. PDB, FRFL	4	600 – 2000			
4	packer RB/FPS	Ref. PDB, FRUP02	4	600 – 2000			
5	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800			
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...		801 – 1000			2
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...		1001 – 1200			2
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...		1201 – 1400			2
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...		1401 – 1600			4
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...		1601 – 1800			4
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...		1801 – 2000			4
6	gear 15 AF sz 60/G300	TGKK4030- ...	1		600 – 800	300	
	gear 15 AF sz 80/G400 1RS	TGKK4050- ...			801 – 1000	400	1
	gear 15 AF sz 100/G500 1RS	TGKK4060- ...			1001 – 1200	500	1
	gear 15 AF sz 120/G600 1RS	TGKK4070- ...			1201 – 1400	600	1
	gear 15 AF sz 140/700 2RS 70	TGKK4200- ...			1401 – 1600	700	2
	gear 15 AF sz 160/G700 1RS 70	TGKK4280- ...			1601 – 1800	700	2
	gear 15 AF sz 180/G1000 2RS 70	TGKK4220- ...			1801 – 2000	1000	2
	gear 15 AF sz 200/G1000 3RS 70	TGKK4230- ...			2001 – 2800	1000	3
7	linkage KK/AF sz 1 1RS	TZKK1010- ...	2		2201 – 2400		2
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2401 – 2800		2
8	linkage AF sz 1	TZZS0150- ...	2		2601 – 2800		
9	anti-drill guard E	TGBS0010- ...	1		600 – 2800		
10	handle Si-line PSK lockable	Ref.access. PHIEA	1		600 – 2800		
11	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800		
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...			801 – 1000		1
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...			1001 – 1200		1
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...			1201 – 1400		1
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...			1401 – 1600		2
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...			1601 – 1800		2
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...			1801 – 2000		2
	gear OS/PZ-AF sz.200/G1000 3RS 70	TGKK0630- ...			2001 – 2800		3
12	striker plate S-RS	Ref. PDB, TRSK					
on request							
13	mishandling device	TFBS0010- ...	1				
14	pressure piece	Ref. PDB, TFFD	1				
15	stop	Ref. PDB, FRZF01	1				

Frame dimensions

PS, scheme A
H12 GK



Dimensions in mm

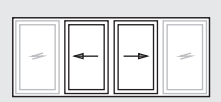
All striker positions are frame rebate dimensions on assembled frames. Airgap 12^{+1} mm.

RFB = FFB + 24 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	83	600–2000	
1B	67	600–2000	
1C	500	801–1000	
	700	1001–1400	
	900	1401–1600	
	1100	1601–1800	
	1300	1801–2000	
1D	400	1401–1800	
	600	1801–2000	
2A	83	600–2000	
2B	67	600–2000	
2C	500	801–1000	
	700	1001–1400	
	900	1401–1600	
	1100	1601–1800	
	1300	1801–2000	
2D	400	1401–1800	
	600	1801–2000	
3A	83		600–2800
3B	67		600–2800
3C	500		801–1000
	700		1001–1400
	900		1401–1600
	1100		1601–1800
	1300		1801–2800
3D	400		1401–1800
	600		1801–2800
3E	1700		2001–2800
3F	248		2201–2400
	448		2401–2800
4A	83		600–2800
4B	67		600–2800
4C	500		801–1000
	700		1001–1400
	900		1401–1600
	1100		1601–1800
	1300		1801–2800
4D	400		1401–1800
	600		1801–2800
4E	1700		2001–2800
4F	248		2201–2400
	448		2401–2800

TITAN AF

Installation instructions



RC2

PS/PS

scheme C

timber 12 mm

RC2

fixed handle position

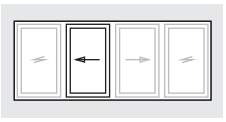
surface TS

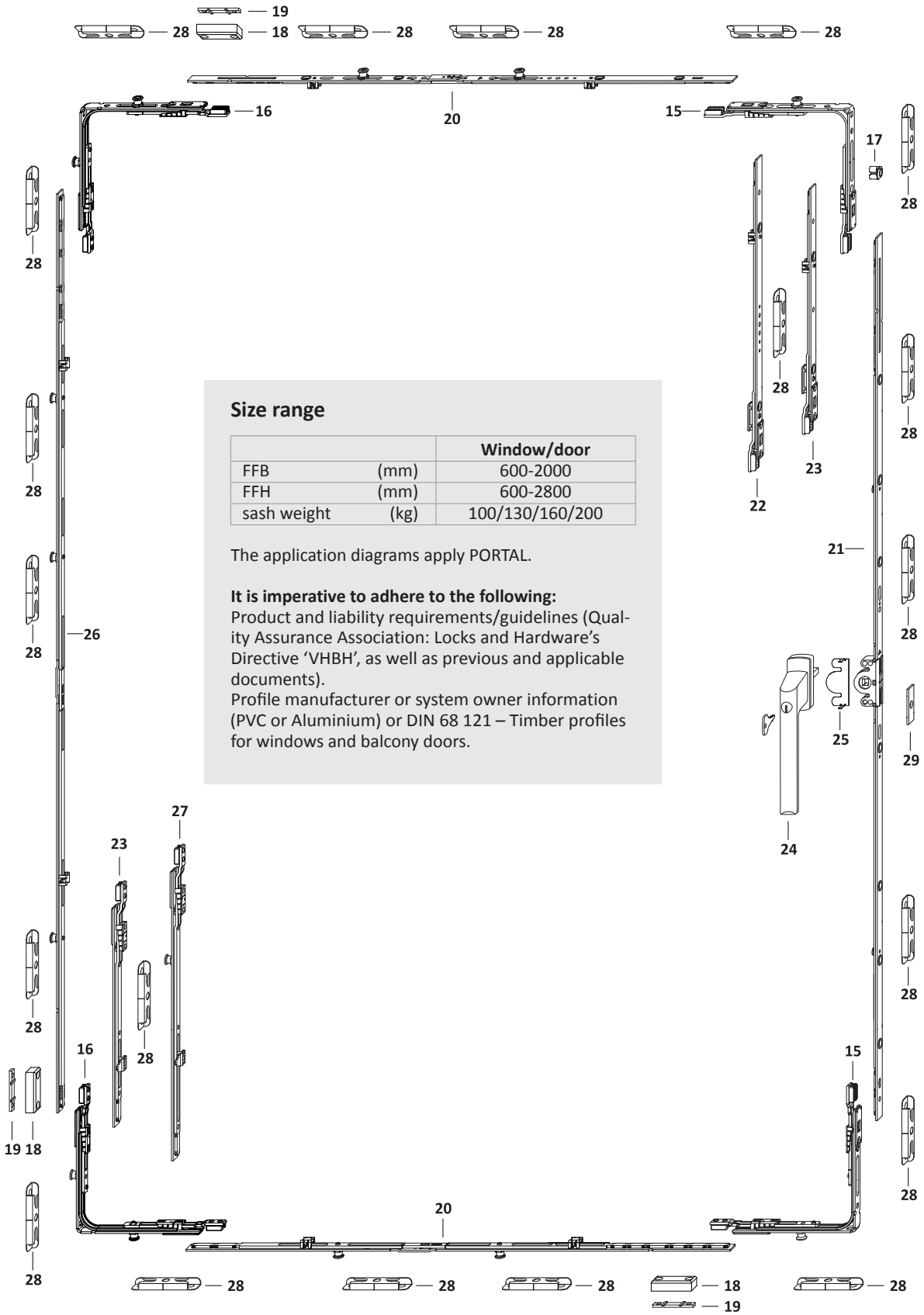
backset 15 mm

Hardware set configuration	
General	Locking-points distance 800; with centre lock
Locking side	mishandl. device on gear

hardware layout slave sash

PS/PS, scheme C
H12 GK



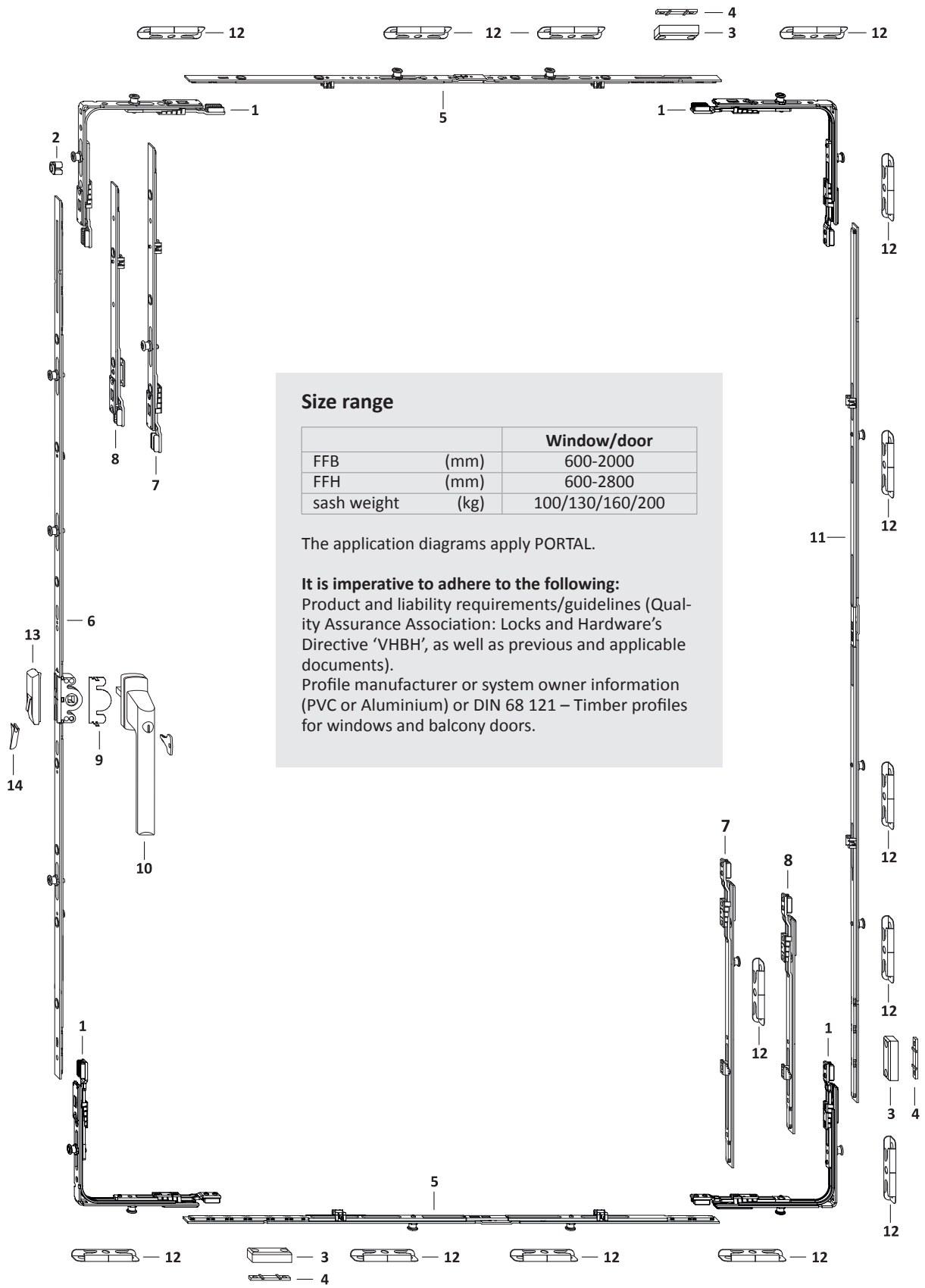


Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

The application diagrams apply PORTAL.

It is imperative to adhere to the following:
Product and liability requirements/guidelines (Quality Assurance Association: Locks and Hardware's Directive 'VHBH', as well as previous and applicable documents).
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber profiles for windows and balcony doors.



Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

The application diagrams apply PORTAL.

It is imperative to adhere to the following:
Product and liability requirements/guidelines (Quality Assurance Association: Locks and Hardware's Directive 'VHBH', as well as previous and applicable documents).
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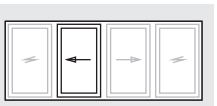
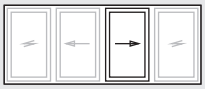
List of fittings slave sash

PS/PS, scheme C
H12 GK



Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.
						In the main sash	28
15	corn.drive VSO 1RS	TEUL4010- ...	2	600 – 2000			4
16	corn.drive VSO 2RS A0055	TEUL4070- ...	2	600 – 2000			4
17	travel restrictor	TFHB0010- ...	1	600 – 2000			
18	Air gap limiter	Ref. PDB, FRFL	3	600 – 2000			
19	packer RB/FPS	Ref. PDB, FRUP02	3	600 – 2000			
20	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800			
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...		801 – 1000			2
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...		1001 – 1200			2
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...		1201 – 1400			2
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...		1401 – 1600			4
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...		1601 – 1800			4
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...		1801 – 2000			4
21	gear 15 AF sz 60/G300	TGKK4030- ...	1		600 – 800	300	
	gear 15 AF OZ sz 80/G400	TGKK9100- ...			801 – 1000	400	1
	gear 15 AF OZ sz 100/G500	TGKK9110- ...			1001 – 1200	500	1
	gear 15 AF OZ sz 120/G600	TGKK9120- ...			1201 – 1400	600	1
	gear 15 AF OZ sz 140/G700	TGKK9130- ...			1401 – 1600	700	1
	gear 15 AF OZ sz 160/G700	TGKK9170- ...			1601 – 1800	700	1
	gear 15 AF OZ sz 180/G1000	TGKK9180- ...			1801 – 2000	1000	1
	gear 15 AF OZ sz 200/G1000	TGKK9160- ...			2001 – 2800	1000	1
22	linkage AF sz 1	TZZS0150- ...	1		2201 – 2400		1
	linkage AF sz 2 A0767	TZKS1050- ...			2401 – 2800		1
23	linkage AF sz 1	TZZS0150- ...	2		2601 – 2800		
24	handle Si-line PSK lockable	Ref.access. PHIEA	1		600 – 2800		
25	anti-drill guard E	TGBS0010- ...	1		600 – 2800		
26	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800		
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...			801 – 1000		1
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...			1001 – 1200		1
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...			1201 – 1400		1
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...			1401 – 1600		2
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...			1601 – 1800		2
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...			1801 – 2000		2
	gear OS/PZ-AF sz.200/G1000 3RS 70	TGKK0630- ...			2001 – 2800		3
27	linkage KK/AF sz 1 1RS	TZKK1010- ...	1		2201 – 2400		1
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2401 – 2800		1
28	striker plate S-RS	Ref. PDB, TRSK					
on request							
29	stop 2,2mm	710937	1				



List of fittings main sash

PS/PS, scheme C

H12 GK

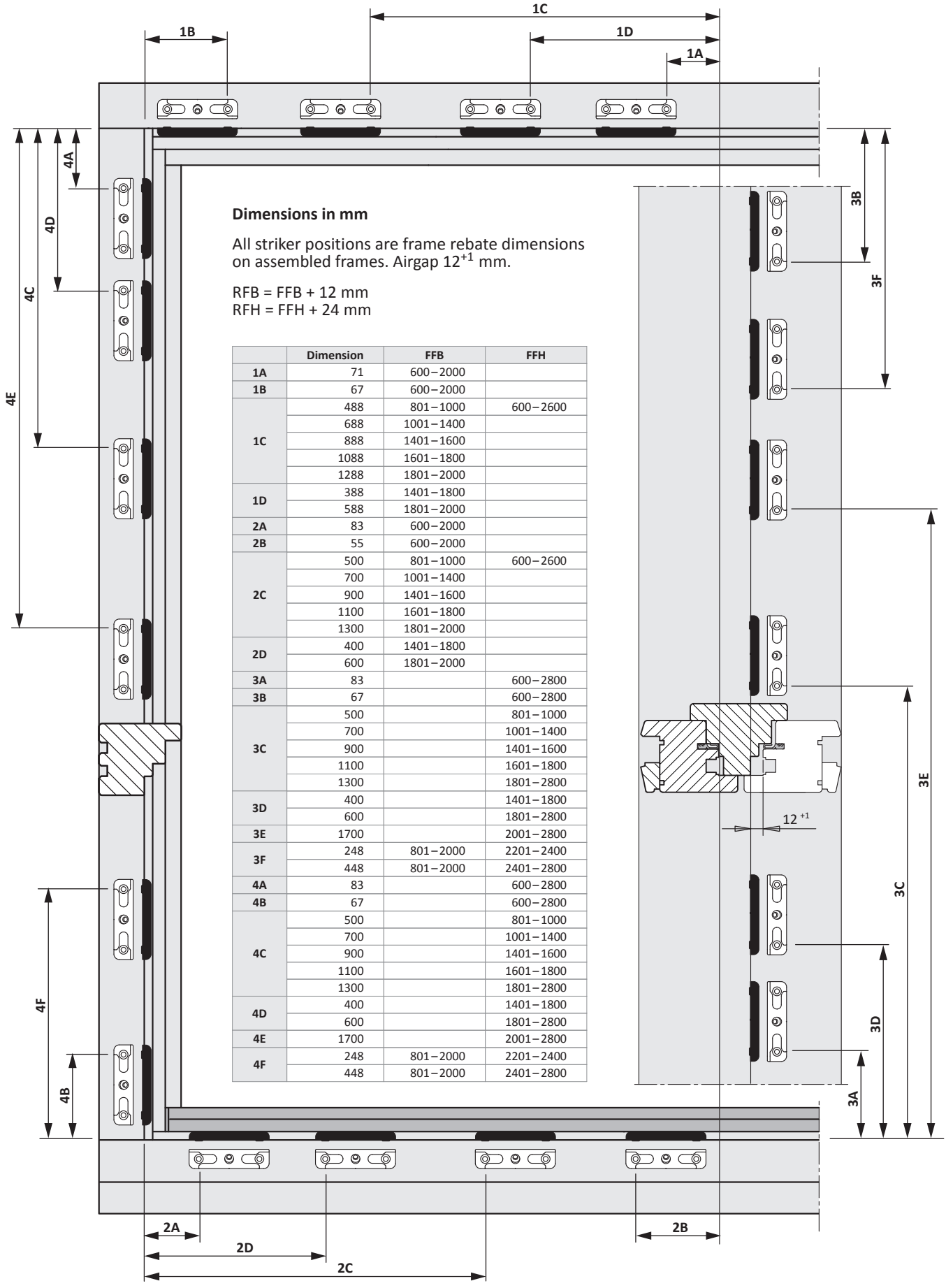
TITAN AF

RC2

Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.
							12
1	corn.drive VSO 2RS A0055	TEUL4070- ...	4	600 – 2000			6
2	travel restrictor	TFHB0010- ...	1	600 – 2000			
3	Air gap limiter	Ref. PDB, FRFL	3	600 – 2000			
4	packer RB/FPS	Ref. PDB, FRUP02	3	600 – 2000			
5	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800			
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...		801 – 1000			2
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...		1001 – 1200			2
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...		1201 – 1400			2
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...		1401 – 1600			4
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...		1601 – 1800			4
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...		1801 – 2000			4
6	gear 15 AF sz 60/G300	TGKK4030- ...	1		600 – 800	300	
	gear 15 AF sz 80/G400 1RS	TGKK4050- ...			801 – 1000	400	
	gear 15 AF sz 100/G500 1RS	TGKK4060- ...			1001 – 1200	500	
	gear 15 AF sz 120/G600 1RS	TGKK4070- ...			1201 – 1400	600	
	gear 15 AF sz 140/700 2RS 70	TGKK4200- ...			1401 – 1600	700	
	gear 15 AF sz 160/G700 1RS 70	TGKK4280- ...			1601 – 1800	700	
	gear 15 AF sz 180/G1000 2RS 70	TGKK4220- ...			1801 – 2000	1000	
	gear 15 AF sz 200/G1000 3RS 70	TGKK4230- ...			2001 – 2800	1000	
7	linkage KK/AF sz 1 1RS	TZKK1010- ...	2		2201 – 2400		1
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2401 – 2800		1
8	linkage AF sz 1	TZZS0150- ...	2		2601 – 2800		
9	anti-drill guard E	TGBS0010- ...	1		600 – 2800		
10	handle Si-line PSK lockable	Ref.access. PHIEA	1		600 – 2800		
11	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800		
	gear OS-AF sz 80/G400 1RS	TGKK0550- ...			801 – 1000		1
	gear OS-AF sz 100/G500 1RS	TGKK0560- ...			1001 – 1200		1
	gear OS/PZ-AF size120/G600 1RS	TGKK0570- ...			1201 – 1400		1
	gear OS/PZ-AF sz 140/G700 2RS 70	TGKK0740- ...			1401 – 1600		2
	gear OS/PZ-AF sz 160/G700 2RS 70	TGKK0750- ...			1601 – 1800		2
	gear OS/PZ-AF sz.180/G1000 2RS 70	TGKK0620- ...			1801 – 2000		2
	gear OS/PZ-AF sz.200/G1000 3RS 70	TGKK0630- ...			2001 – 2800		3
12	striker plate S-RS	Ref. PDB, TRSK					
on request							
13	mishandling device	TFBS0010- ...	1				
14	pressure piece	Ref. PDB, TFFD	1				

Frame dimensions slave sash

PS/PS, scheme C
H12 GK

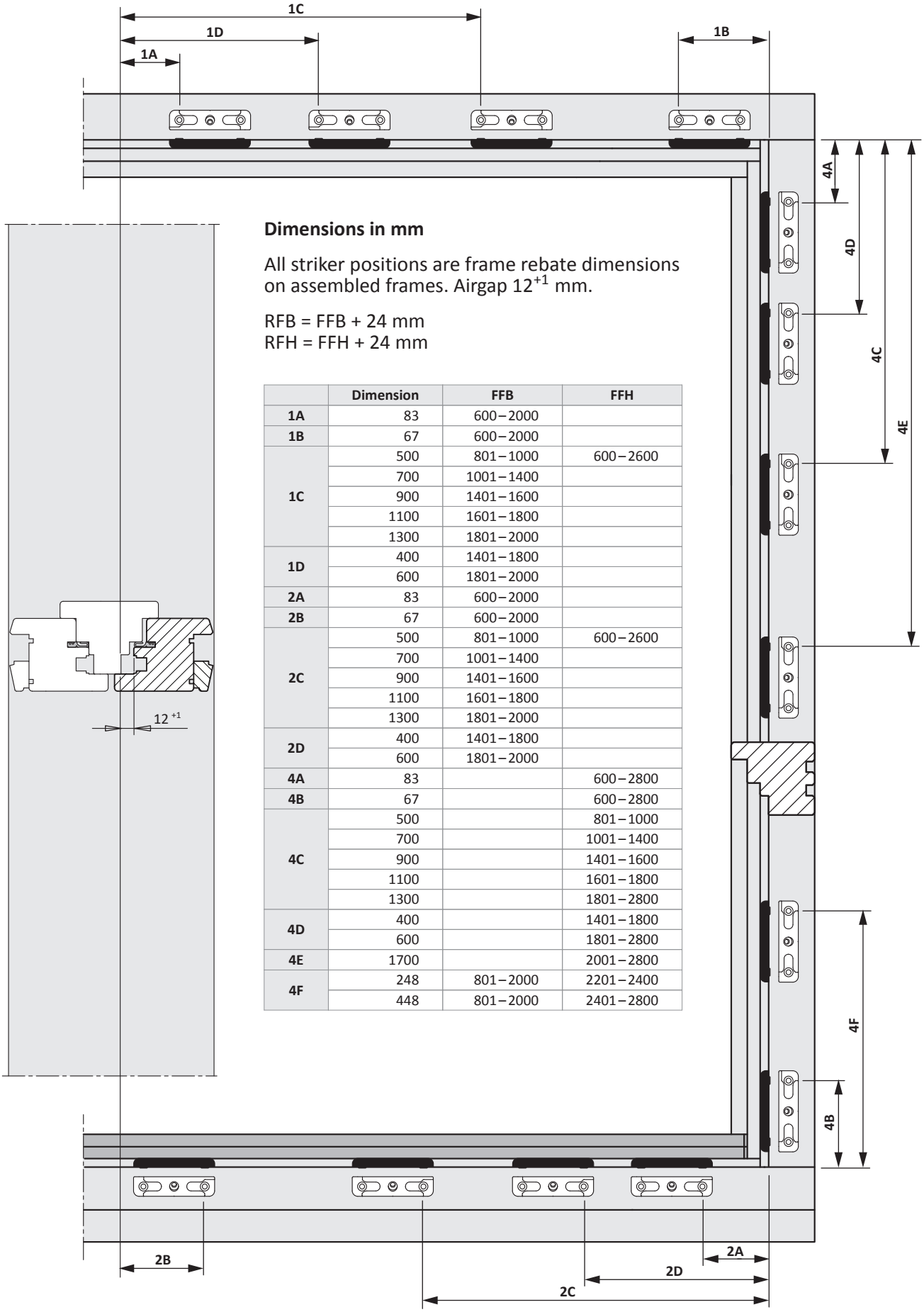


Dimensions in mm

All striker positions are frame rebate dimensions on assembled frames. Airgap 12^{+1} mm.

RFB = FFB + 12 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	71	600–2000	
1B	67	600–2000	
1C	488	801–1000	600–2600
	688	1001–1400	
	888	1401–1600	
	1088	1601–1800	
	1288	1801–2000	
1D	388	1401–1800	
	588	1801–2000	
2A	83	600–2000	
2B	55	600–2000	
2C	500	801–1000	600–2600
	700	1001–1400	
	900	1401–1600	
	1100	1601–1800	
	1300	1801–2000	
2D	400	1401–1800	
	600	1801–2000	
3A	83		600–2800
3B	67		600–2800
3C	500		801–1000
	700		1001–1400
	900		1401–1600
	1100		1601–1800
	1300		1801–2800
3D	400		1401–1800
	600		1801–2800
3E	1700		2001–2800
3F	248	801–2000	2201–2400
	448	801–2000	2401–2800
4A	83		600–2800
4B	67		600–2800
4C	500		801–1000
	700		1001–1400
	900		1401–1600
	1100		1601–1800
	1300		1801–2800
4D	400		1401–1800
	600		1801–2800
4E	1700		2001–2800
4F	248	801–2000	2201–2400
	448	801–2000	2401–2800



Dimensions in mm

All striker positions are frame rebate dimensions on assembled frames. Airgap 12^{+1} mm.

RFB = FFB + 24 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	83	600–2000	
1B	67	600–2000	
1C	500	801–1000	600–2600
	700	1001–1400	
	900	1401–1600	
	1100	1601–1800	
	1300	1801–2000	
1D	400	1401–1800	
	600	1801–2000	
2A	83	600–2000	
2B	67	600–2000	
2C	500	801–1000	600–2600
	700	1001–1400	
	900	1401–1600	
	1100	1601–1800	
	1300	1801–2000	
2D	400	1401–1800	
	600	1801–2000	
4A	83		600–2800
4B	67		600–2800
4C	500		801–1000
	700		1001–1400
	900		1401–1600
	1100		1601–1800
	1300		1801–2800
4D	400		1401–1800
	600		1801–2800
4E	1700		2001–2800
4F	248	801–2000	2201–2400
	448	801–2000	2401–2800

Basic security

Scheme A	H48.TAFPSH2M0S001EN	5 - 3
Scheme C	H48.TAFPSH2M0S002EN	5 - 7

RC1

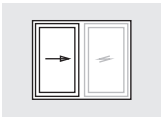
Scheme A	H48.TAFPSH2M1S001EN	5 - 15
Scheme C	H48.TAFPSH2M1S002EN	5 - 19

RC2

Scheme A	H48.TAFPSH2M2+S001EN	5 - 27
Scheme C	H48.TAFPSH2M2+S002EN	5 - 31

TITAN AF

Installation instructions



GS

PS

scheme A

timber 12 mm

basic security

centre handle pos. (variable)

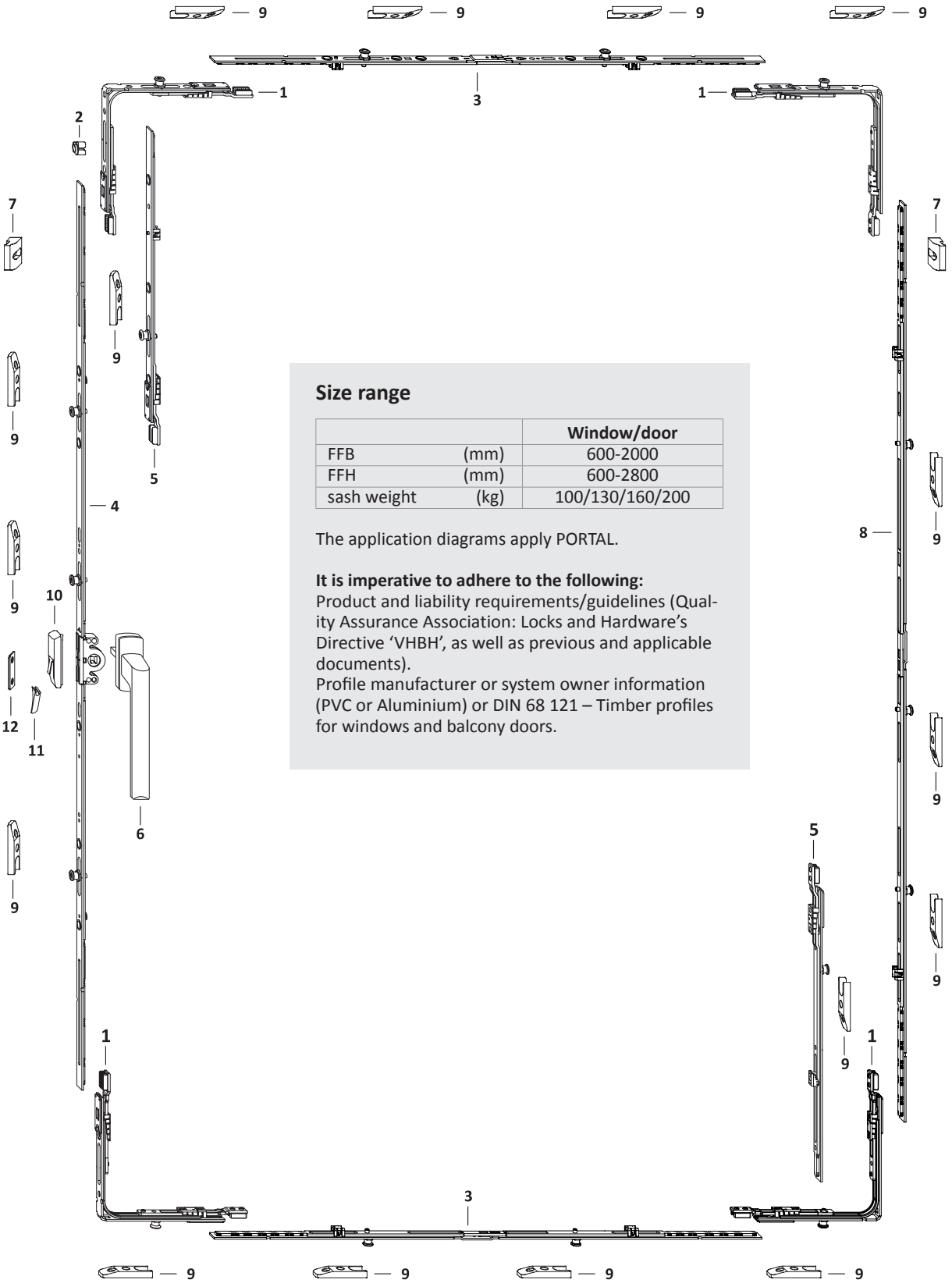
surface TS

backset 15 mm

Hardware set configuration	
General	Locking-points distance 800; with centre lock
Locking side	mishandl. device on gear

hardware layout

PS, scheme A
H12 GM



Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

The application diagrams apply PORTAL.

It is imperative to adhere to the following:
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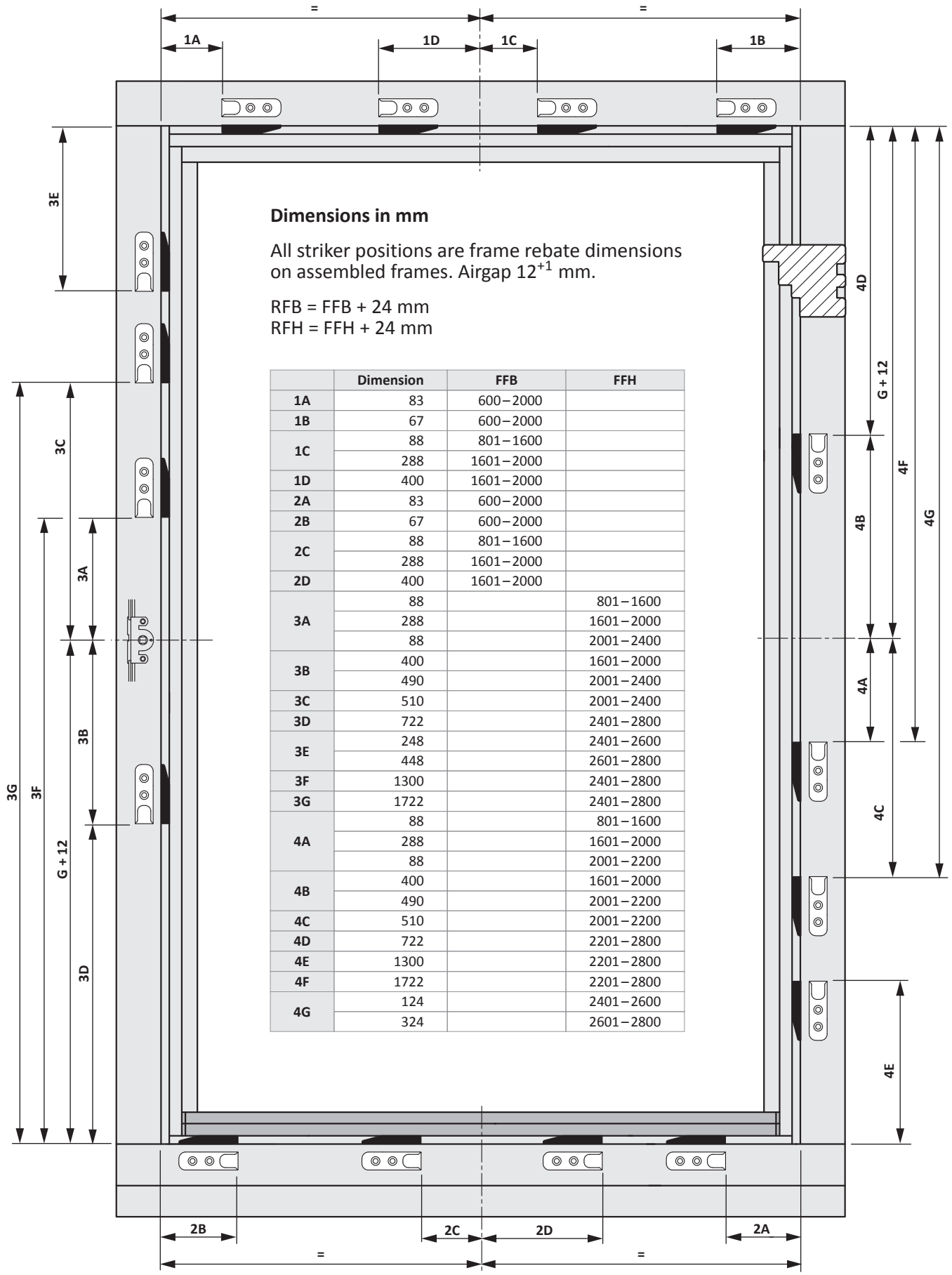
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber profiles for windows and balcony doors.

Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.
							9
1	corn.drive VSO 1RS	TEUL4010- ...	4	600 – 2000			4
2	travel restrictor	TFHB0010- ...	1	600 – 2000			
3	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800			
	gear OS-AF sz 80 1RS	TGMK0510- ...		801 – 1200			2
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...		1201 – 1600			2
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...		1601 – 2000			4
4	gear 15 AF sz 60	TGMK4020- ...	1		600 – 800	230 – 400	
	gear 15 AF sz 80 1RS	TGMK4040- ...			801 – 1200	400 – 600	1
	gear 15 AF sz 120 1RS	TGMK4050- ...			1201 – 1600	600 – 800	1
	gear 15 AF sz 160 2RS 70	TGMK4170- ...			1601 – 2000	800 – 1000	2
	gear 15 AF sz 200 3RS 70	TGMK4110- ...			2001 – 2400	1000 – 1200	3
	gear 15 AF sz 200 3RS 70	TGMK4110- ...			2401 – 2800	1200	3
5	linkage KK/AF sz 1 1RS	TZKK1010- ...	2		2401 – 2600		2
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2601 – 2800		2
6	handle Si-line PSK	Ref.access. PHIES	1		600 – 2800		
7	distance piece	Ref. PDB, PRTL	2		600 – 2800		
8	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800		
	gear OS-AF sz 80 1RS	TGMK0510- ...			801 – 1200		1
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...			1201 – 1600		1
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...			1601 – 2000		2
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2001 – 2200		3
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2201 – 2800		3
9	striker plate 56	Ref. PDB, FRSB					
on request							
10	mishandling device	TFBS0010- ...	1				
11	pressure piece	Ref. PDB, TFFD	1				
12	stop	Ref. PDB, FRZF01	1				

Frame dimensions

PS, scheme A
H12 GM



Dimensions in mm

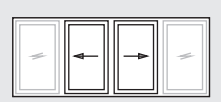
All striker positions are frame rebate dimensions on assembled frames. Airgap 12^{+1} mm.

RFB = FFB + 24 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	83	600–2000	
1B	67	600–2000	
1C	88	801–1600	
	288	1601–2000	
1D	400	1601–2000	
2A	83	600–2000	
2B	67	600–2000	
2C	88	801–1600	
	288	1601–2000	
2D	400	1601–2000	
3A	88		801–1600
	288		1601–2000
	88		2001–2400
3B	400		1601–2000
	490		2001–2400
3C	510		2001–2400
3D	722		2401–2800
3E	248		2401–2600
	448		2601–2800
3F	1300		2401–2800
3G	1722		2401–2800
4A	88		801–1600
	288		1601–2000
	88		2001–2200
4B	400		1601–2000
	490		2001–2200
4C	510		2001–2200
4D	722		2201–2800
4E	1300		2201–2800
4F	1722		2201–2800
4G	124		2401–2600
	324		2601–2800

TITAN AF

Installation instructions



GS

PS/PS

scheme C

timber 12 mm

basic security

centre handle pos. (variable)

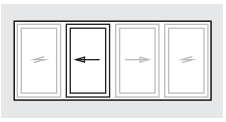
surface TS

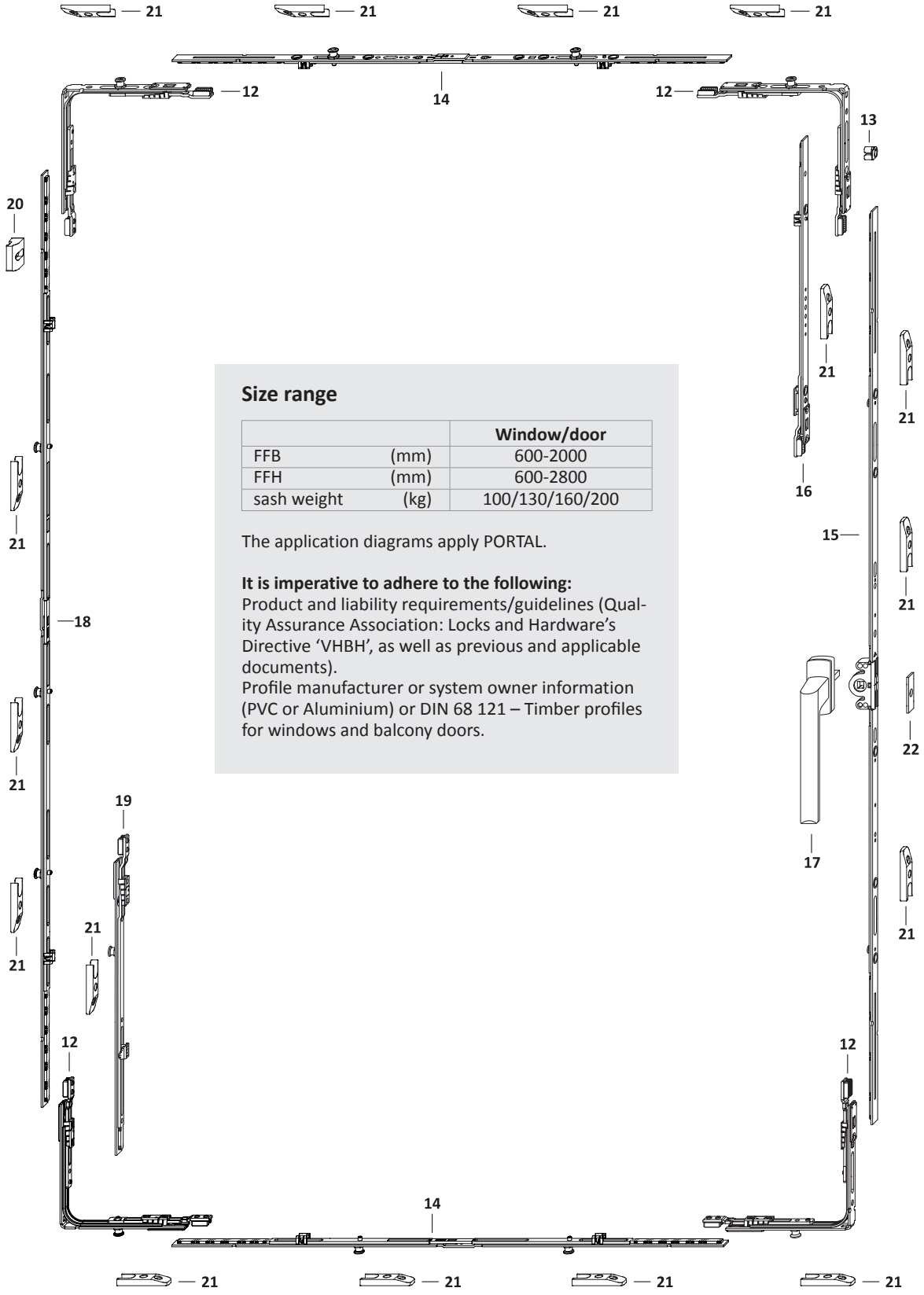
backset 15 mm

Hardware set configuration	
General	Locking-points distance 800; with centre lock
Locking side	mishandl. device on gear

hardware layout slave sash

PS/PS, scheme C
H12 GM





Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

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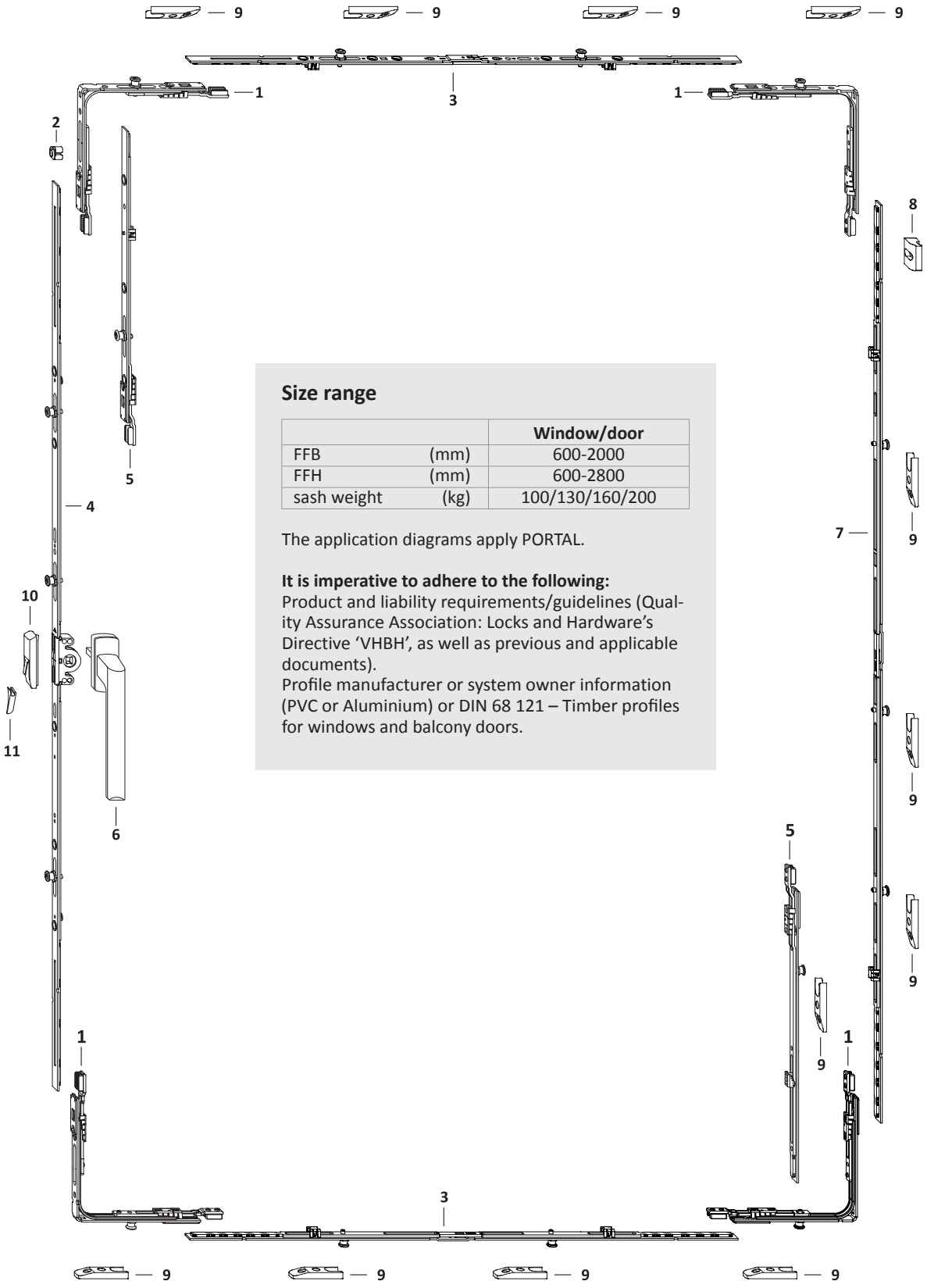

Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

The application diagrams apply PORTAL.

It is imperative to adhere to the following:
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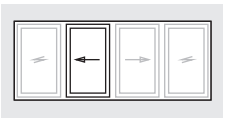
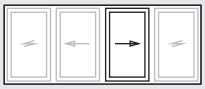
List of fittings slave sash

PS/PS, scheme C
H12 GM



Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.
						In the main sash	21
12	corn.drive VSO 1RS	TEUL4010- ...	4	600 – 2000			4
13	travel restrictor	TFHB0010- ...	1	600 – 2000			
14	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800			
	gear OS-AF sz 80 1RS	TGMK0510- ...		801 – 1200			2
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...		1201 – 1600			2
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...		1601 – 2000			4
15	gear 15 AF sz 60	TGMK4020- ...	1		600 – 800	230 – 400	
	gear 15 AF OZ sz 80	TGMK9080- ...			801 – 1200	400 – 600	1
	gear 15 AF OZ sz 120	TGMK9090- ...			1201 – 1600	600 – 800	1
	gear 15 AF OZ sz 160	TGMK9120- ...			1601 – 2000	800 – 1000	1
	gear 15 AF OZ sz 200	TGMK9110- ...			2001 – 2400	1000 – 1200	1
	gear 15 AF OZ sz 200	TGMK9110- ...			2401 – 2800	1200	1
16	linkage AF sz 1 A0767	TZKS1040- ...	1		2401 – 2600		1
	linkage AF sz 2 A0767	TZKS1050- ...			2601 – 2800		1
17	handle Si-line PSK	Ref.access. PHIES	1		600 – 2800		
18	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800		
	gear OS-AF sz 80 1RS	TGMK0510- ...			801 – 1200		1
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...			1201 – 1600		1
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...			1601 – 2000		2
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2001 – 2200		3
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2201 – 2800		3
19	linkage KK/AF sz 1 1RS	TZKK1010- ...	1		2401 – 2600		1
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2601 – 2800		1
20	distance piece	Ref. PDB, PRTL	1		600 – 2800		
21	striker plate 56	Ref. PDB, FRSB					
on request							
22	stop 2,2mm	710937	1				



List of fittings main sash

PS/PS, scheme C

H12 GM

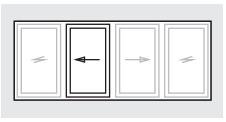
TITAN AF

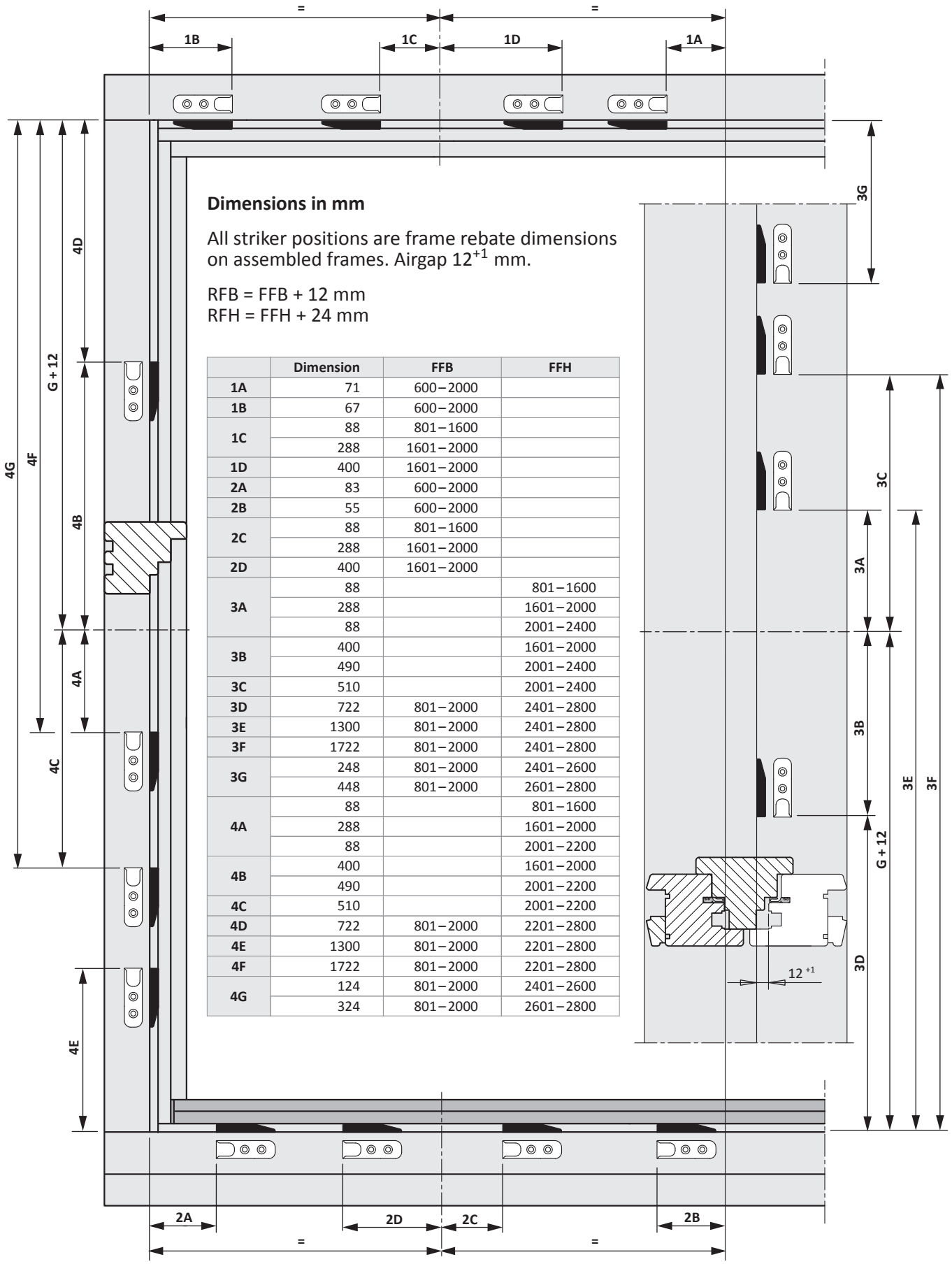
GS

Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.
							9
1	corn.drive VSO 1RS	TEUL4010- ...	4	600–2000			4
2	travel restrictor	TFHB0010- ...	1	600–2000			
3	gear OS-AF sz 60	TGMK0500- ...	2	600– 800			
	gear OS-AF sz 80 1RS	TGMK0510- ...		801–1200			2
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...		1201–1600			2
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...		1601–2000			4
4	gear 15 AF sz 60	TGMK4020- ...	1		600– 800	230– 400	
	gear 15 AF sz 80 1RS	TGMK4040- ...			801–1200	400– 600	
	gear 15 AF sz 120 1RS	TGMK4050- ...			1201–1600	600– 800	
	gear 15 AF sz 160 2RS 70	TGMK4170- ...			1601–2000	800–1000	
	gear 15 AF sz 200 3RS 70	TGMK4110- ...			2001–2400	1000–1200	
	gear 15 AF sz 200 3RS 70	TGMK4110- ...			2401–2800	1200	
5	linkage KK/AF sz 1 1RS	TZKK1010- ...	2		2401–2600		1
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2601–2800		1
6	handle Si-line PSK	Ref.access. PHIES	1		600–2800		
7	gear OS-AF sz 60	TGMK0500- ...	1		600– 800		
	gear OS-AF sz 80 1RS	TGMK0510- ...			801–1200		1
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...			1201–1600		1
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...			1601–2000		2
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2001–2200		3
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2201–2800		3
8	distance piece	Ref. PDB, PRTL	1		600–2800		
9	striker plate 56	Ref. PDB, FRSB					
on request							
10	mishandling device	TFBS0010- ...	1				
11	pressure piece	Ref. PDB, TFFD	1				

Frame dimensions slave sash

PS/PS, scheme C
H12 GM



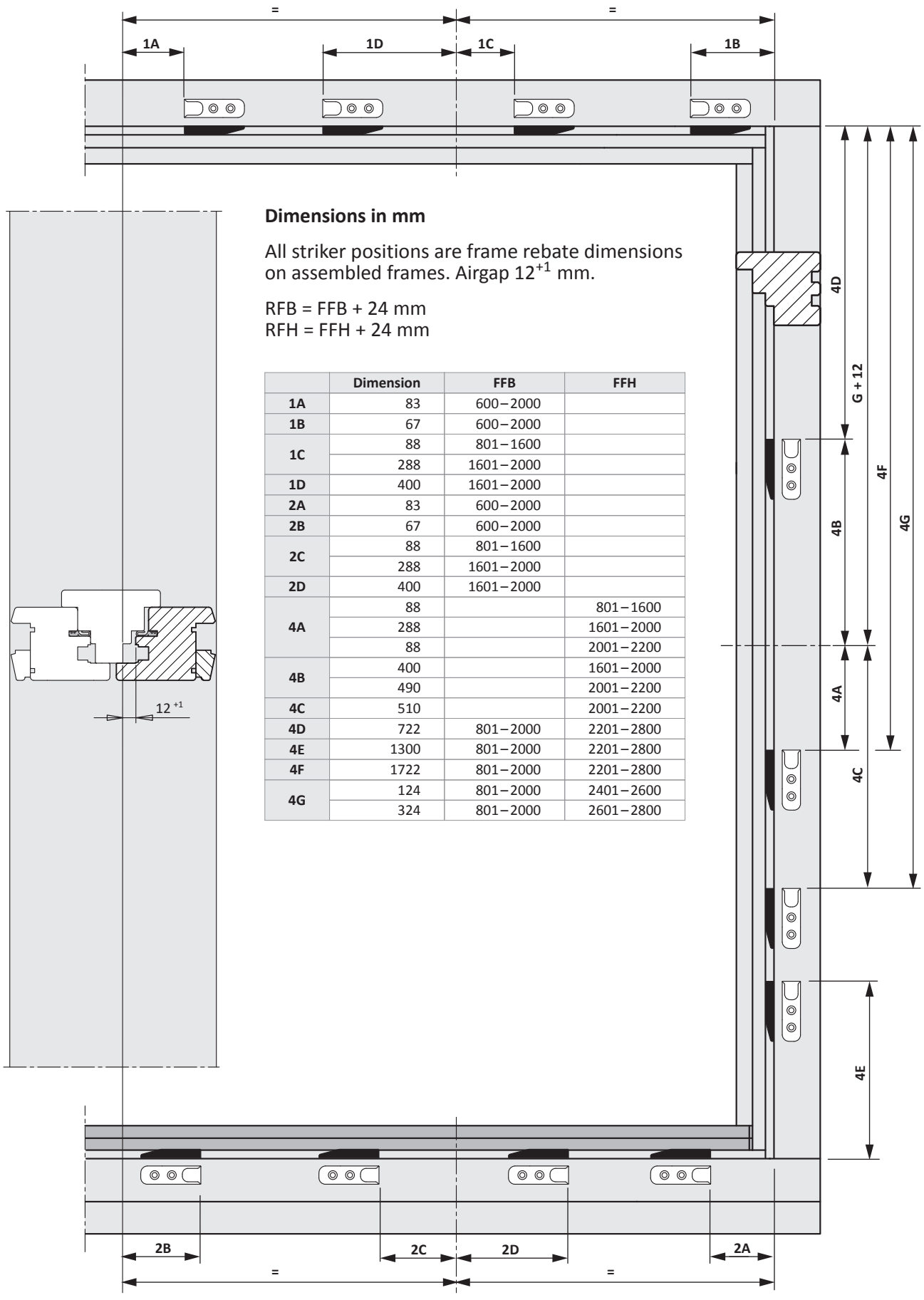


Dimensions in mm

All striker positions are frame rebate dimensions on assembled frames. Airgap 12^{+1} mm.

RFB = FFB + 12 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	71	600–2000	
1B	67	600–2000	
1C	88	801–1600	
	288	1601–2000	
1D	400	1601–2000	
2A	83	600–2000	
2B	55	600–2000	
2C	88	801–1600	
	288	1601–2000	
2D	400	1601–2000	
3A	88		801–1600
	288		1601–2000
	88		2001–2400
3B	400		1601–2000
	490		2001–2400
3C	510		2001–2400
3D	722	801–2000	2401–2800
3E	1300	801–2000	2401–2800
3F	1722	801–2000	2401–2800
3G	248	801–2000	2401–2600
	448	801–2000	2601–2800
4A	88		801–1600
	288		1601–2000
	88		2001–2200
4B	400		1601–2000
	490		2001–2200
4C	510		2001–2200
4D	722	801–2000	2201–2800
4E	1300	801–2000	2201–2800
4F	1722	801–2000	2201–2800
4G	124	801–2000	2401–2600
	324	801–2000	2601–2800



Dimensions in mm

All striker positions are frame rebate dimensions on assembled frames. Airgap 12^{+1} mm.

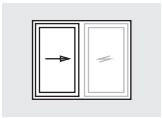
RFB = FFB + 24 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	83	600–2000	
1B	67	600–2000	
1C	88	801–1600	
	288	1601–2000	
1D	400	1601–2000	
2A	83	600–2000	
2B	67	600–2000	
2C	88	801–1600	
	288	1601–2000	
2D	400	1601–2000	
4A	88		801–1600
	288		1601–2000
	88		2001–2200
4B	400		1601–2000
	490		2001–2200
4C	510		2001–2200
4D	722	801–2000	2201–2800
4E	1300	801–2000	2201–2800
4F	1722	801–2000	2201–2800
4G	124	801–2000	2401–2600
	324	801–2000	2601–2800

5

TITAN AF

Installation instructions



PS

scheme A

timber 12 mm

RC1

centre handle pos. (variable)

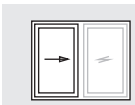
surface TS

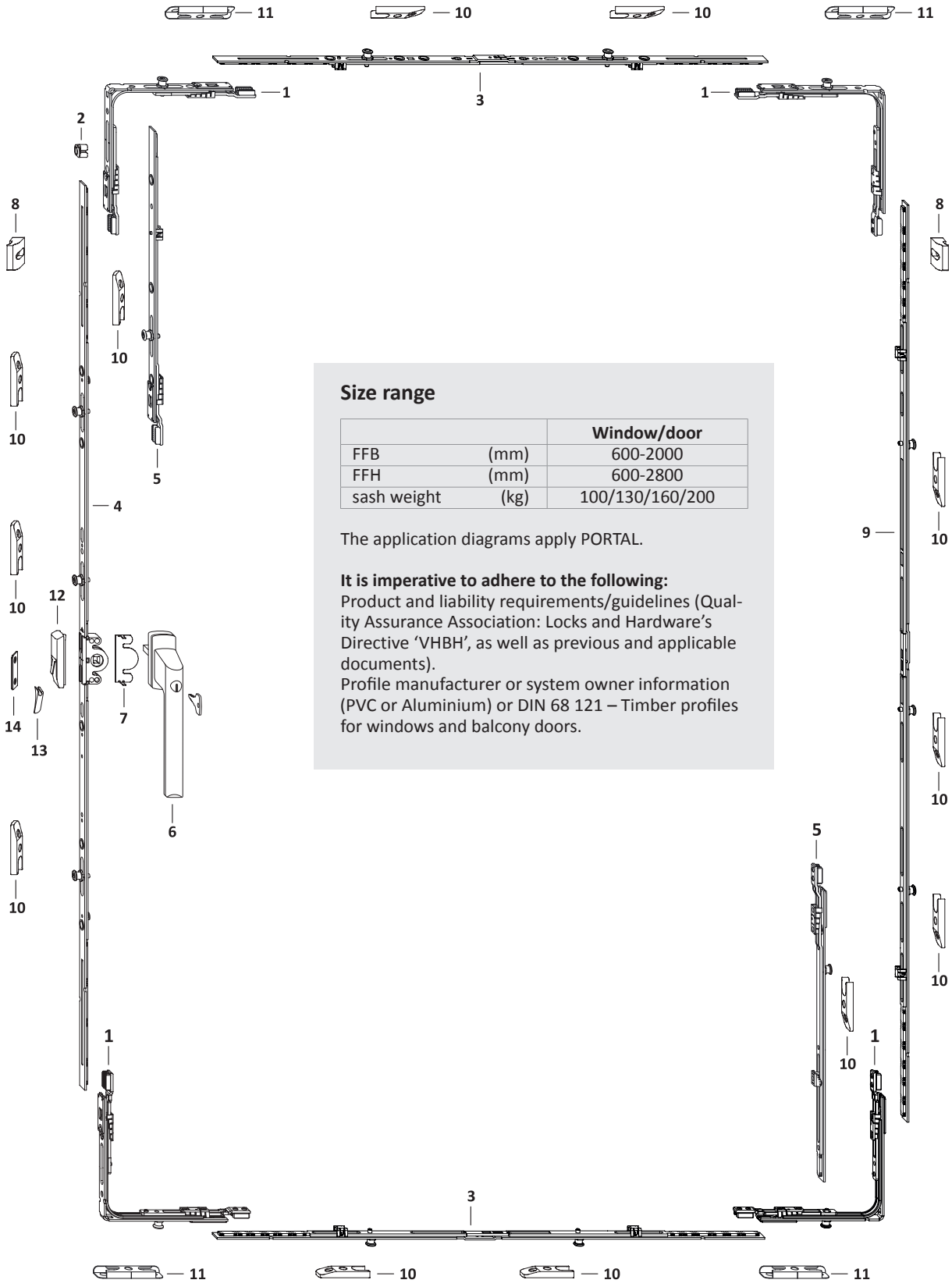
backset 15 mm

Hardware set configuration	
General	Locking-points distance 800; with centre lock
Locking side	mishandl. device on gear

hardware layout

PS, scheme A
H12 GM



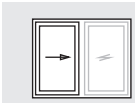


Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

The application diagrams apply PORTAL.

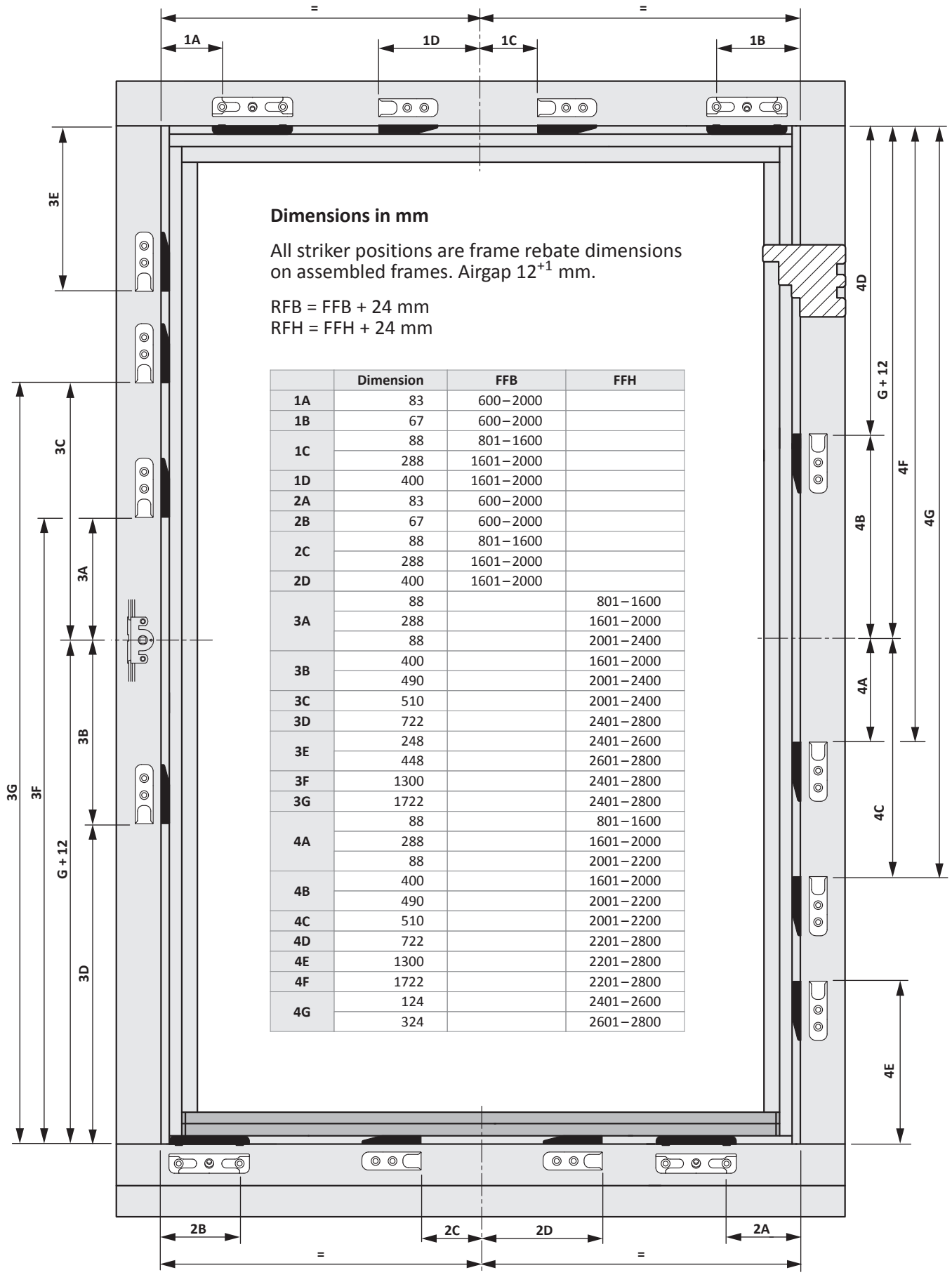
It is imperative to adhere to the following:
Product and liability requirements/guidelines (Quality Assurance Association: Locks and Hardware's Directive 'VHBH', as well as previous and applicable documents).
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber profiles for windows and balcony doors.



Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.	
							10	11
1	corn.drive VSO 1RS	TEUL4010- ...	4	600–2000				4
2	travel restrictor	TFHB0010- ...	1	600–2000				
3	gear OS-AF sz 60	TGMK0500- ...	2	600– 800				
	gear OS-AF sz 80 1RS	TGMK0510- ...		801–1200			2	
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...		1201–1600			2	
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...		1601–2000			4	
4	gear 15 AF sz 60	TGMK4020- ...	1		600– 800	230– 400		
	gear 15 AF sz 80 1RS	TGMK4040- ...			801–1200	400– 600	1	
	gear 15 AF sz 120 1RS	TGMK4050- ...			1201–1600	600– 800	1	
	gear 15 AF sz 160 2RS 70	TGMK4170- ...			1601–2000	800–1000	2	
	gear 15 AF sz 200 3RS 70	TGMK4110- ...			2001–2400	1000–1200	3	
	gear 15 AF sz 200 3RS 70	TGMK4110- ...			2401–2800	1200	3	
5	linkage KK/AF sz 1 1RS	TZKK1010- ...	2		2401–2600		2	
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2601–2800		2	
6	handle Si-line PSK lockable	Ref.access. PHIEA	1		600–2800			
7	anti-drill guard E	TGBS0010- ...	1		600–2800			
8	distance piece	Ref. PDB, PRTL	2		600–2800			
9	gear OS-AF sz 60	TGMK0500- ...	1		600– 800			
	gear OS-AF sz 80 1RS	TGMK0510- ...			801–1200		1	
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...			1201–1600		1	
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...			1601–2000		2	
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2001–2200		3	
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2201–2800		3	
10	striker plate 56	Ref. PDB, FRSB						
11	striker plate S-RS	Ref. PDB, TRSK						
on request								
12	mishandling device	TFBS0010- ...	1					
13	pressure piece	Ref. PDB, TFFD	1					
14	stop	Ref. PDB, FRZF01	1					

Frame dimensions

PS, scheme A
H12 GM



Dimensions in mm

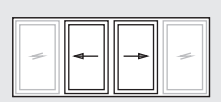
All striker positions are frame rebate dimensions on assembled frames. Airgap 12^{+1} mm.

RFB = FFB + 24 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	83	600–2000	
1B	67	600–2000	
1C	88	801–1600	
	288	1601–2000	
1D	400	1601–2000	
2A	83	600–2000	
2B	67	600–2000	
2C	88	801–1600	
	288	1601–2000	
2D	400	1601–2000	
3A	88		801–1600
	288		1601–2000
	88		2001–2400
3B	400		1601–2000
	490		2001–2400
3C	510		2001–2400
3D	722		2401–2800
3E	248		2401–2600
	448		2601–2800
3F	1300		2401–2800
3G	1722		2401–2800
4A	88		801–1600
	288		1601–2000
	88		2001–2200
4B	400		1601–2000
	490		2001–2200
4C	510		2001–2200
4D	722		2201–2800
4E	1300		2201–2800
4F	1722		2201–2800
4G	124		2401–2600
	324		2601–2800

TITAN AF

Installation instructions



RC1

PS/PS

scheme C

timber 12 mm

RC1

centre handle pos. (variable)

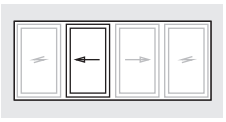
surface TS

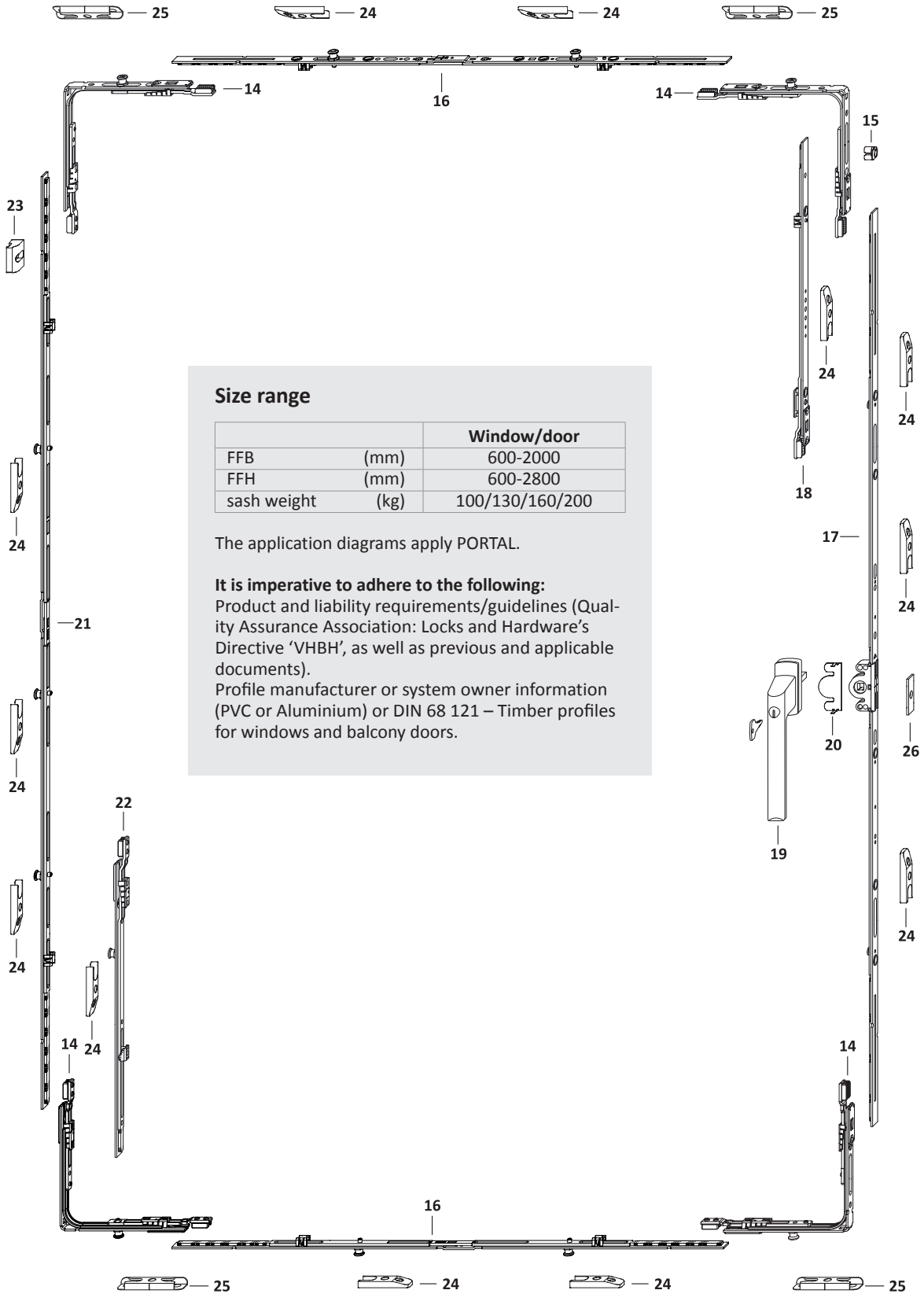
backset 15 mm

Hardware set configuration	
General	Locking-points distance 800; with centre lock
Locking side	mishandl. device on gear

hardware layout slave sash

PS/PS, scheme C
H12 GM





Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

The application diagrams apply PORTAL.

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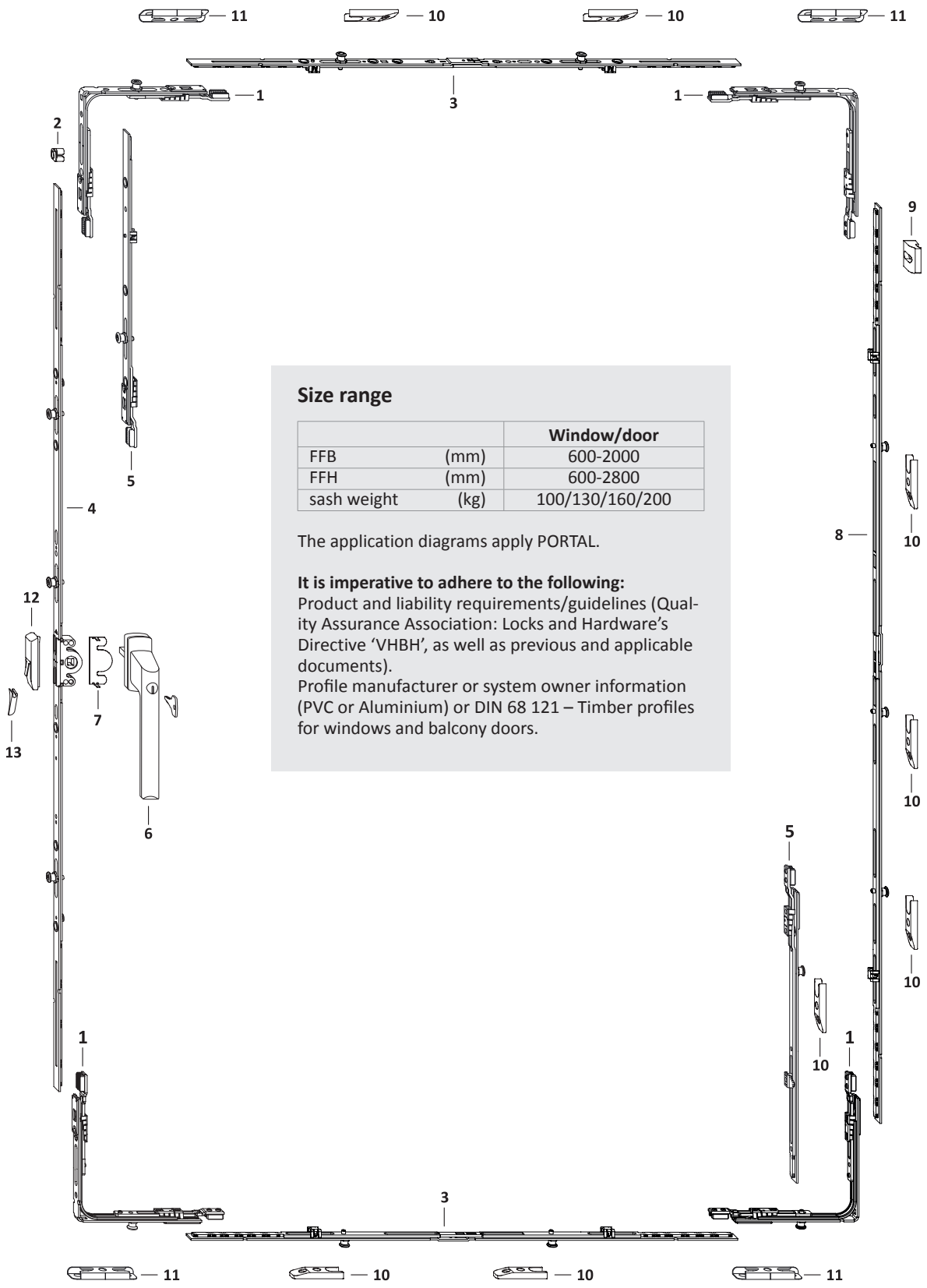

Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

The application diagrams apply PORTAL.

It is imperative to adhere to the following:
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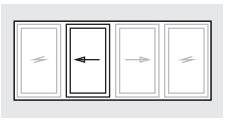
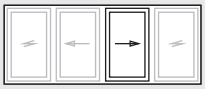
List of fittings slave sash

PS/PS, scheme C
H12 GM



Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.	
						In the main sash	24	25
14	corn.drive VSO 1RS	TEUL4010- ...	4	600 – 2000				4
15	travel restrictor	TFHB0010- ...	1	600 – 2000				
16	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800				
	gear OS-AF sz 80 1RS	TGMK0510- ...		801 – 1200			2	
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...		1201 – 1600			2	
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...		1601 – 2000			4	
17	gear 15 AF sz 60	TGMK4020- ...	1		600 – 800	230 – 400		
	gear 15 AF OZ sz 80	TGMK9080- ...			801 – 1200	400 – 600	1	
	gear 15 AF OZ sz 120	TGMK9090- ...			1201 – 1600	600 – 800	1	
	gear 15 AF OZ sz 160	TGMK9120- ...			1601 – 2000	800 – 1000	1	
	gear 15 AF OZ sz 200	TGMK9110- ...			2001 – 2400	1000 – 1200	1	
	gear 15 AF OZ sz 200	TGMK9110- ...			2401 – 2800	1200	1	
18	linkage AF sz 1 A0767	TZKS1040- ...	1		2401 – 2600		1	
	linkage AF sz 2 A0767	TZKS1050- ...			2601 – 2800		1	
19	handle Si-line PSK lockable	Ref.access. PHIEA	1		600 – 2800			
20	anti-drill guard E	TGBS0010- ...	1		600 – 2800			
21	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800			
	gear OS-AF sz 80 1RS	TGMK0510- ...			801 – 1200		1	
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...			1201 – 1600		1	
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...			1601 – 2000		2	
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2001 – 2200		3	
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2201 – 2800		3	
22	linkage KK/AF sz 1 1RS	TZKK1010- ...	1		2401 – 2600		1	
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2601 – 2800		1	
23	distance piece	Ref. PDB, PRTL	1		600 – 2800			
24	striker plate 56	Ref. PDB, FRSB						
25	striker plate S-RS	Ref. PDB, TRSK						
on request								
26	stop 2,2mm	710937	1					



List of fittings main sash

PS/PS, scheme C

H12 GM

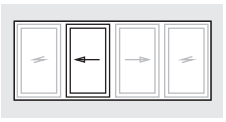
TITAN AF

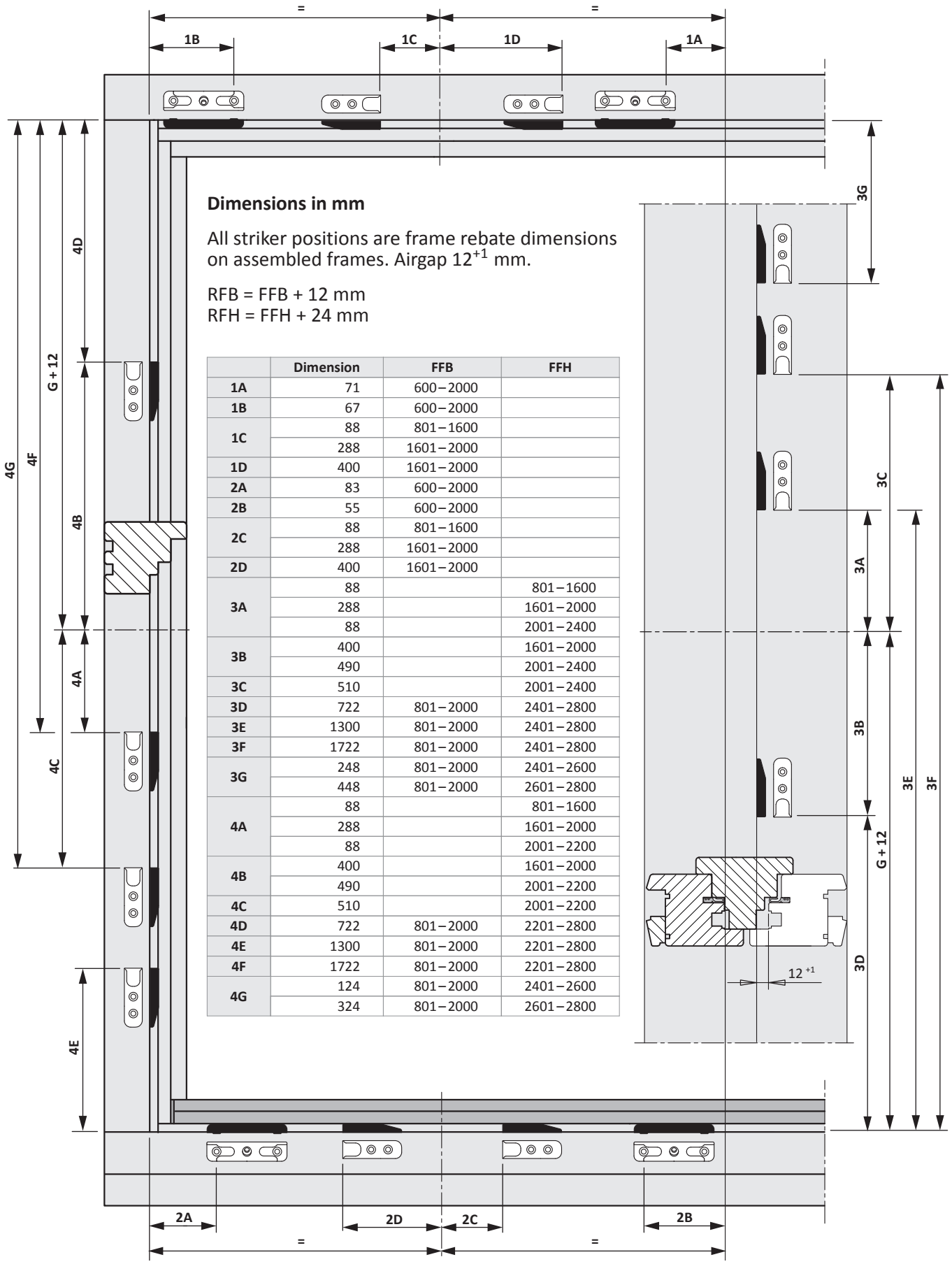
RC1

Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.	
							10	11
1	corn.drive VSO 1RS	TEUL4010- ...	4	600–2000				4
2	travel restrictor	TFHB0010- ...	1	600–2000				
3	gear OS-AF sz 60	TGMK0500- ...	2	600– 800				
	gear OS-AF sz 80 1RS	TGMK0510- ...		801–1200			2	
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...		1201–1600			2	
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...		1601–2000			4	
4	gear 15 AF sz 60	TGMK4020- ...	1		600– 800	230– 400		
	gear 15 AF sz 80 1RS	TGMK4040- ...			801–1200	400– 600		
	gear 15 AF sz 120 1RS	TGMK4050- ...			1201–1600	600– 800		
	gear 15 AF sz 160 2RS 70	TGMK4170- ...			1601–2000	800–1000		
	gear 15 AF sz 200 3RS 70	TGMK4110- ...			2001–2400	1000–1200		
	gear 15 AF sz 200 3RS 70	TGMK4110- ...			2401–2800	1200		
5	linkage KK/AF sz 1 1RS	TZKK1010- ...	2		2401–2600		1	
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2601–2800		1	
6	handle Si-line PSK lockable	Ref.access. PHIEA	1		600–2800			
7	anti-drill guard E	TGBS0010- ...	1		600–2800			
8	gear OS-AF sz 60	TGMK0500- ...	1		600– 800			
	gear OS-AF sz 80 1RS	TGMK0510- ...			801–1200		1	
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...			1201–1600		1	
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...			1601–2000		2	
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2001–2200		3	
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2201–2800		3	
9	distance piece	Ref. PDB, PRTL	1		600–2800			
10	striker plate 56	Ref. PDB, FRSB						
11	striker plate S-RS	Ref. PDB, TRSK						
on request								
12	mishandling device	TFBS0010- ...	1					
13	pressure piece	Ref. PDB, TFFD	1					

Frame dimensions slave sash

PS/PS, scheme C
H12 GM



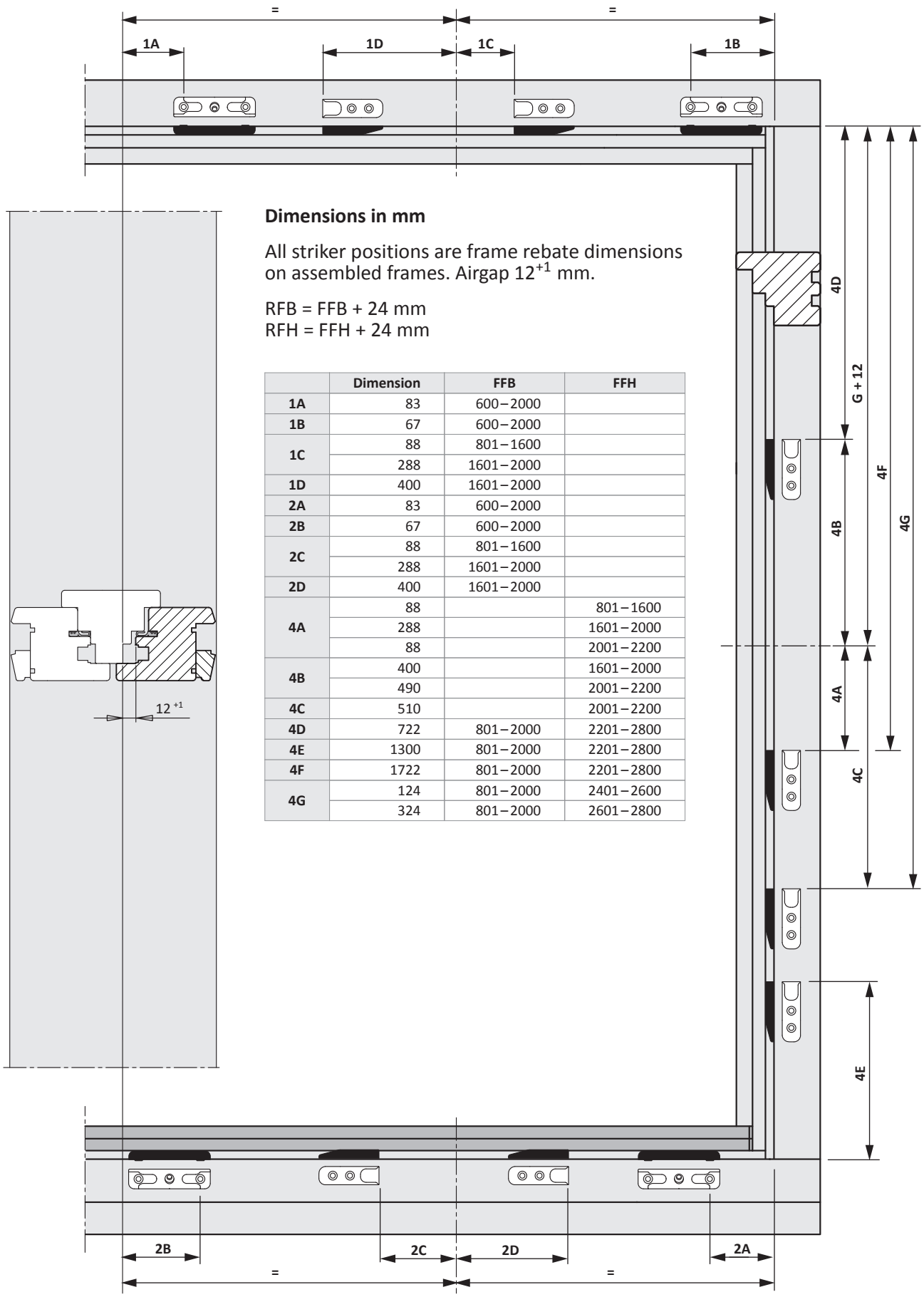


Dimensions in mm

All striker positions are frame rebate dimensions on assembled frames. Airgap 12^{+1} mm.

RFB = FFB + 12 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	71	600–2000	
1B	67	600–2000	
1C	88	801–1600	
	288	1601–2000	
1D	400	1601–2000	
2A	83	600–2000	
2B	55	600–2000	
2C	88	801–1600	
	288	1601–2000	
2D	400	1601–2000	
3A	88		801–1600
	288		1601–2000
	88		2001–2400
3B	400		1601–2000
	490		2001–2400
3C	510		2001–2400
3D	722	801–2000	2401–2800
3E	1300	801–2000	2401–2800
3F	1722	801–2000	2401–2800
3G	248	801–2000	2401–2600
	448	801–2000	2601–2800
4A	88		801–1600
	288		1601–2000
	88		2001–2200
4B	400		1601–2000
	490		2001–2200
4C	510		2001–2200
4D	722	801–2000	2201–2800
4E	1300	801–2000	2201–2800
4F	1722	801–2000	2201–2800
4G	124	801–2000	2401–2600
	324	801–2000	2601–2800



Dimensions in mm

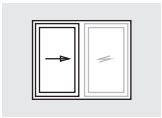
All striker positions are frame rebate dimensions on assembled frames. Airgap 12^{+1} mm.

RFB = FFB + 24 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	83	600–2000	
1B	67	600–2000	
1C	88	801–1600	
	288	1601–2000	
1D	400	1601–2000	
2A	83	600–2000	
2B	67	600–2000	
2C	88	801–1600	
	288	1601–2000	
2D	400	1601–2000	
4A	88		801–1600
	288		1601–2000
	88		2001–2200
4B	400		1601–2000
	490		2001–2200
4C	510		2001–2200
4D	722	801–2000	2201–2800
4E	1300	801–2000	2201–2800
4F	1722	801–2000	2201–2800
4G	124	801–2000	2401–2600
	324	801–2000	2601–2800

TITAN AF

Installation instructions



RC2

PS

scheme A

timber 12 mm

RC2

centre handle pos. (variable)

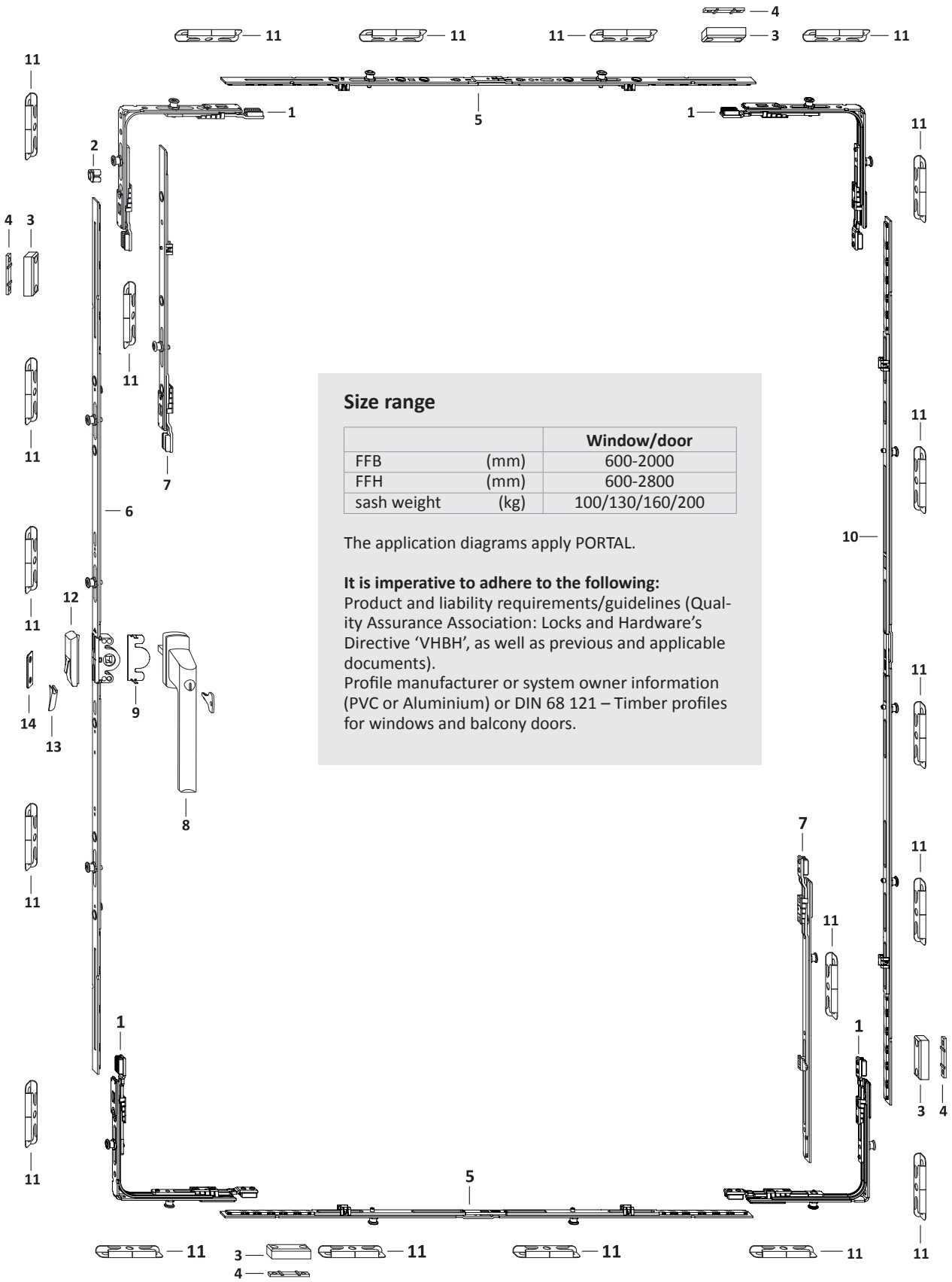
surface TS

backset 15 mm

Hardware set configuration	
General	Locking-points distance 800; with centre lock
Locking side	mishandl. device on gear

hardware layout

PS, scheme A
H12 GM



Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

The application diagrams apply PORTAL.

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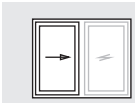
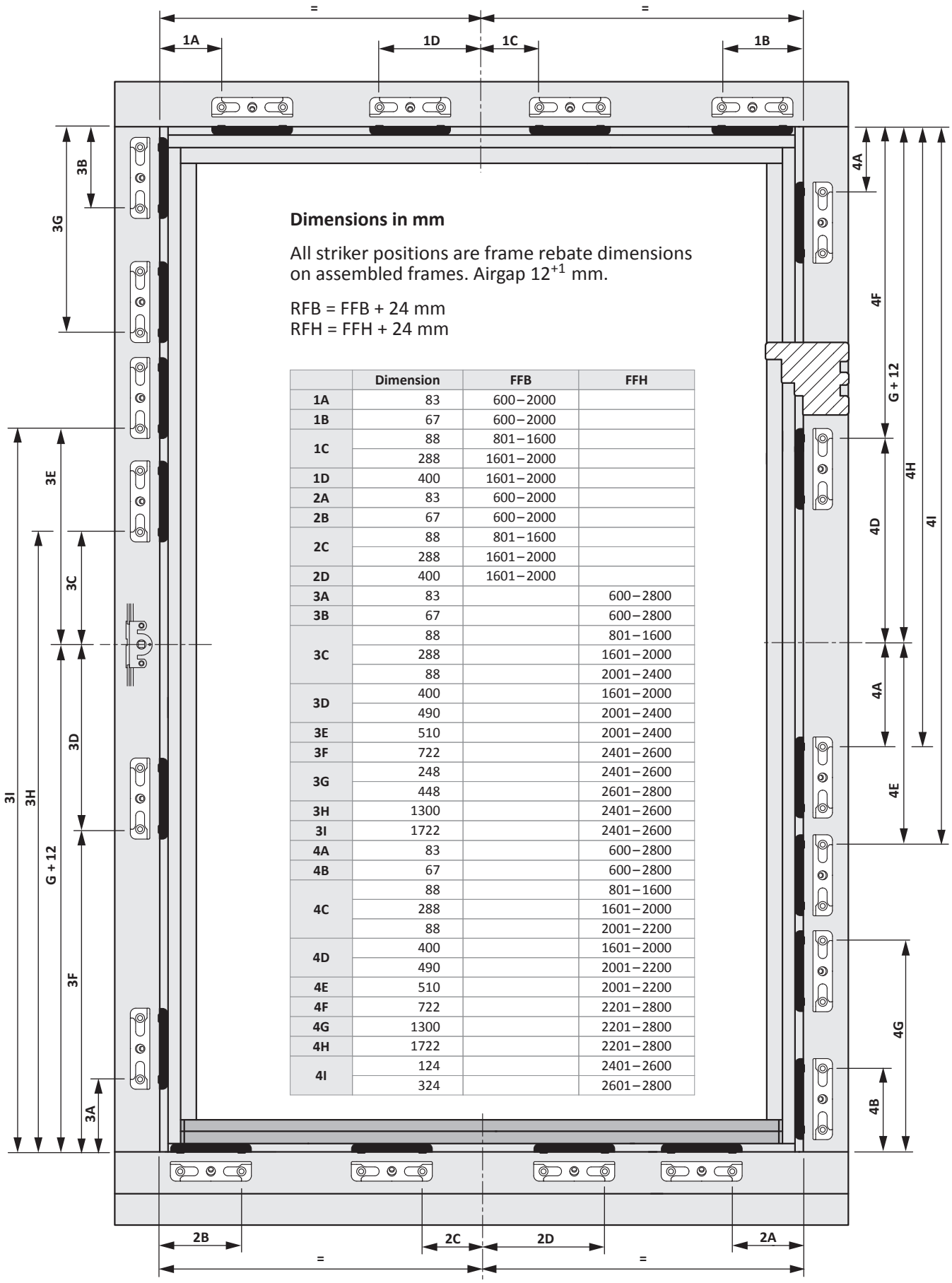
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber profiles for windows and balcony doors.



Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.
							11
1	corn.drive VSO 2RS A0055	TEUL4070- ...	4	600 – 2000			8
2	travel restrictor	TFHB0010- ...	1	600 – 2000			
3	Air gap limiter	Ref. PDB, FRFL	4	600 – 2000			
4	packer RB/FPS	Ref. PDB, FRUP02	4	600 – 2000			
5	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800			
	gear OS-AF sz 80 1RS	TGMK0510- ...		801 – 1200			2
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...		1201 – 1600			2
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...		1601 – 2000			4
6	gear 15 AF sz 60	TGMK4020- ...	1		600 – 800	230 – 400	
	gear 15 AF sz 80 1RS	TGMK4040- ...			801 – 1200	400 – 600	1
	gear 15 AF sz 120 1RS	TGMK4050- ...			1201 – 1600	600 – 800	1
	gear 15 AF sz 160 2RS 70	TGMK4170- ...			1601 – 2000	800 – 1000	2
	gear 15 AF sz 200 3RS 70	TGMK4110- ...			2001 – 2400	1000 – 1200	3
	gear 15 AF sz 200 3RS 70	TGMK4110- ...			2401 – 2600		3
7	linkage KK/AF sz 1 1RS	TZKK1010- ...	2		2401 – 2600		2
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2601 – 2800		2
8	handle Si-line PSK lockable	Ref.access. PHIEA	1		600 – 2800		
9	anti-drill guard E	TGBS0010- ...	1		600 – 2800		
10	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800		
	gear OS-AF sz 80 1RS	TGMK0510- ...			801 – 1200		1
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...			1201 – 1600		1
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...			1601 – 2000		2
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2001 – 2200		3
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2201 – 2800		3
11	striker plate S-RS	Ref. PDB, TRSK					
on request							
12	mishandling device	TFBS0010- ...	1				
13	pressure piece	Ref. PDB, TFFD	1				
14	stop	Ref. PDB, FRZF01	1				

Frame dimensions

PS, scheme A
H12 GM



Dimensions in mm

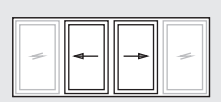
All striker positions are frame rebate dimensions on assembled frames. Airgap 12^{+1} mm.

RFB = FFB + 24 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	83	600–2000	
1B	67	600–2000	
1C	88	801–1600	
	288	1601–2000	
1D	400	1601–2000	
2A	83	600–2000	
2B	67	600–2000	
2C	88	801–1600	
	288	1601–2000	
2D	400	1601–2000	
3A	83		600–2800
3B	67		600–2800
3C	88		801–1600
	288		1601–2000
	88		2001–2400
3D	400		1601–2000
	490		2001–2400
3E	510		2001–2400
3F	722		2401–2600
3G	248		2401–2600
	448		2601–2800
3H	1300		2401–2600
3I	1722		2401–2600
4A	83		600–2800
4B	67		600–2800
4C	88		801–1600
	288		1601–2000
	88		2001–2200
4D	400		1601–2000
	490		2001–2200
4E	510		2001–2200
4F	722		2201–2800
4G	1300		2201–2800
4H	1722		2201–2800
4I	124		2401–2600
	324		2601–2800

TITAN AF

Installation instructions



RC2

PS/PS

scheme C

timber 12 mm

RC2

centre handle pos. (variable)

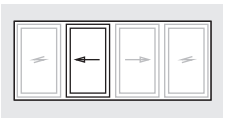
surface TS

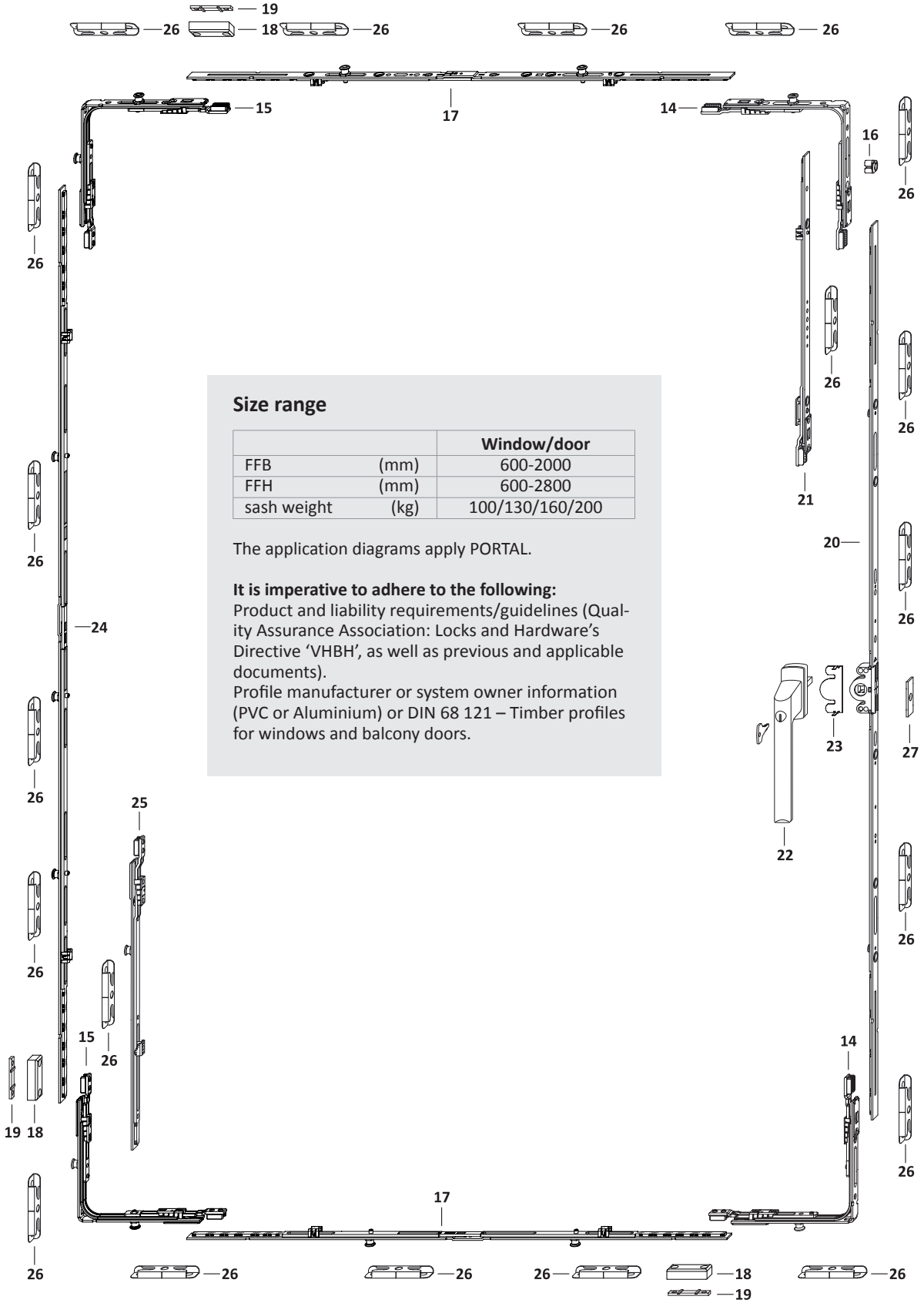
backset 15 mm

Hardware set configuration	
General	Locking-points distance 800; with centre lock
Locking side	mishandl. device on gear

hardware layout slave sash

PS/PS, scheme C
H12 GM





Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

The application diagrams apply PORTAL.

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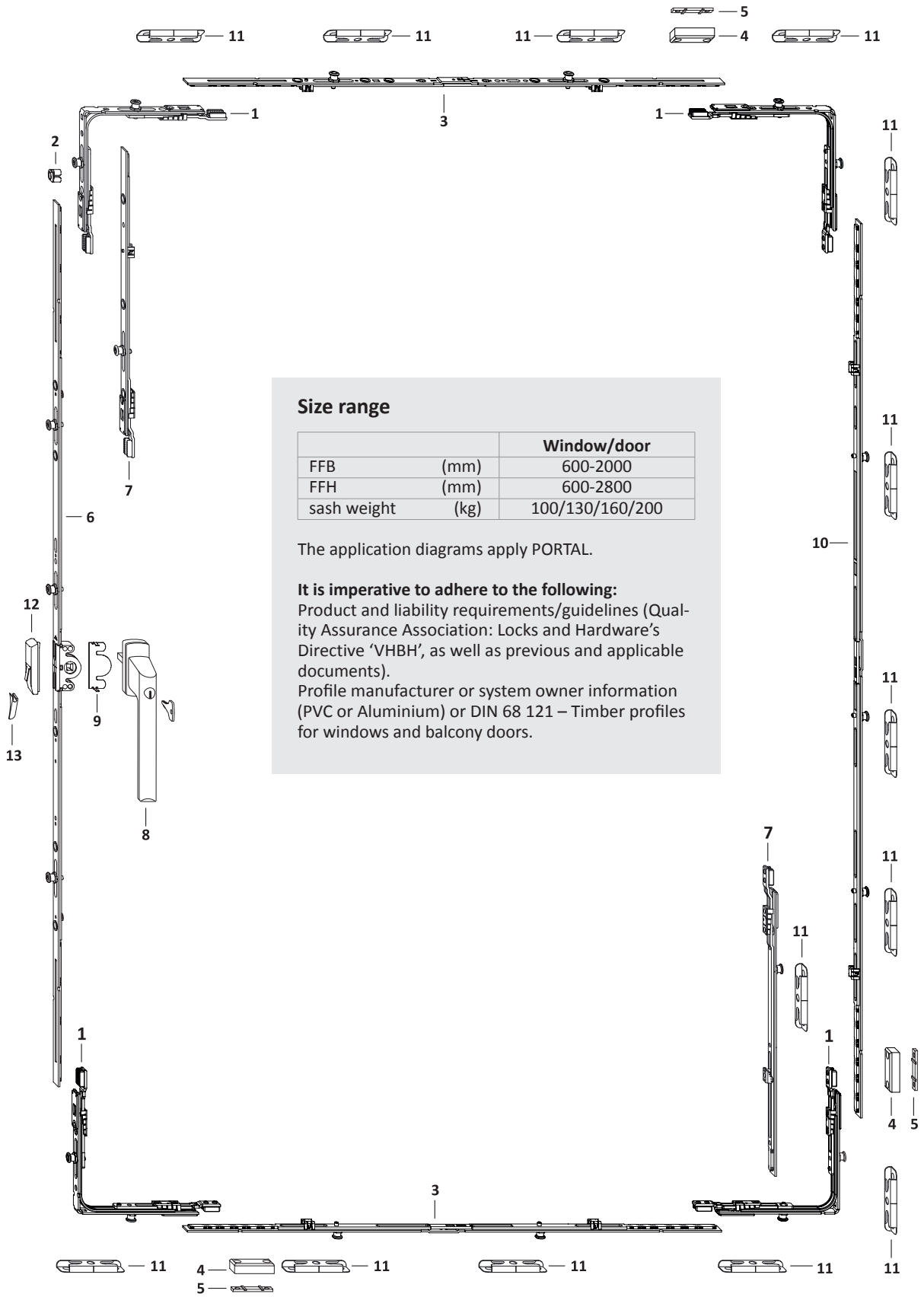

Size range

		Window/door
FFB	(mm)	600-2000
FFH	(mm)	600-2800
sash weight	(kg)	100/130/160/200

The application diagrams apply PORTAL.

It is imperative to adhere to the following:
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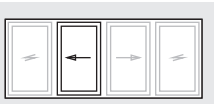
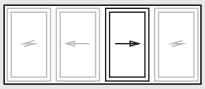
List of fittings slave sash

PS/PS, scheme C
H12 GM



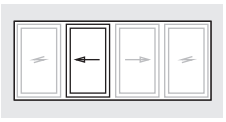
Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.
						In the main sash	26
14	corn.drive VSO 1RS	TEUL4010- ...	2	600 – 2000			4
15	corn.drive VSO 2RS A0055	TEUL4070- ...	2	600 – 2000			4
16	travel restrictor	TFHB0010- ...	1	600 – 2000			
17	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800			
	gear OS-AF sz 80 1RS	TGMK0510- ...		801 – 1200			2
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...		1201 – 1600			2
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...		1601 – 2000			4
18	Air gap limiter	Ref. PDB, FRFL	3	600 – 2000			
19	packer RB/FPS	Ref. PDB, FRUP02	3	600 – 2000			
20	gear 15 AF sz 60	TGMK4020- ...	1		600 – 800	230 – 400	
	gear 15 AF OZ sz 80	TGMK9080- ...			801 – 1200	400 – 600	1
	gear 15 AF OZ sz 120	TGMK9090- ...			1201 – 1600	600 – 800	1
	gear 15 AF OZ sz 160	TGMK9120- ...			1601 – 2000	800 – 1000	1
	gear 15 AF OZ sz 200	TGMK9110- ...			2001 – 2400	1000 – 1200	1
	gear 15 AF OZ sz 200	TGMK9110- ...			2401 – 2800	1200	1
21	linkage AF sz 1 A0767	TZKS1040- ...	1		2401 – 2600		1
	linkage AF sz 2 A0767	TZKS1050- ...			2601 – 2800		1
22	handle Si-line PSK lockable	Ref.access. PHIEA	1		600 – 2800		
23	anti-drill guard E	TGBS0010- ...	1		600 – 2800		
24	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800		
	gear OS-AF sz 80 1RS	TGMK0510- ...			801 – 1200		1
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...			1201 – 1600		1
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...			1601 – 2000		2
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2001 – 2400		3
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2401 – 2800		3
25	linkage KK/AF sz 1 1RS	TZKK1010- ...	1		2401 – 2600		1
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2601 – 2800		1
26	striker plate S-RS	Ref. PDB, TRSK					
			on request				
27	stop 2,2mm	710937	1				

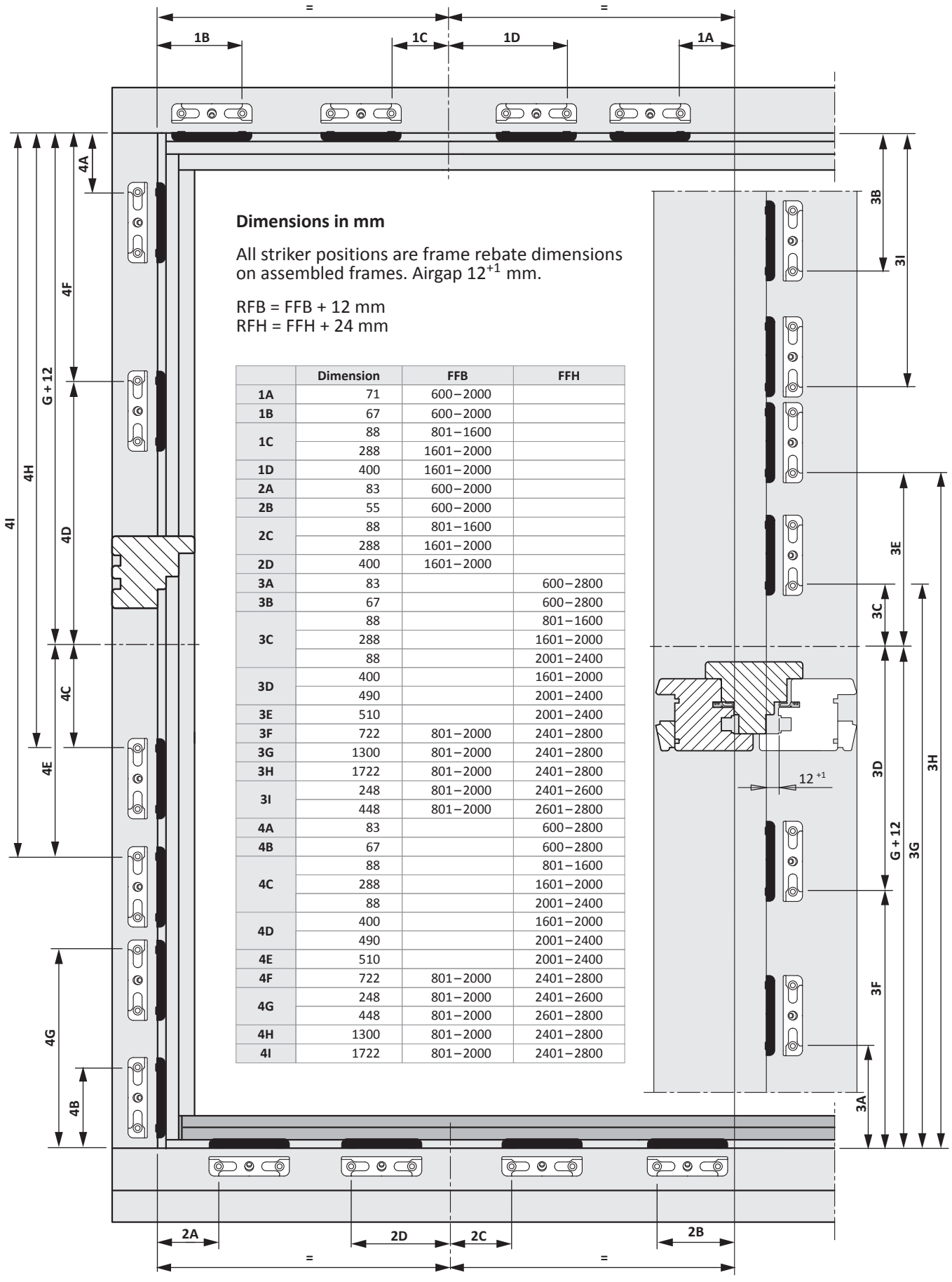


Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.
							11
1	corn.drive VSO 2RS A0055	TEUL4070- ...	4	600 – 2000			6
2	travel restrictor	TFHB0010- ...	1	600 – 2000			
3	gear OS-AF sz 60	TGMK0500- ...	2	600 – 800			
	gear OS-AF sz 80 1RS	TGMK0510- ...		801 – 1200			2
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...		1201 – 1600			2
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...		1601 – 2000			4
4	Air gap limiter	Ref. PDB, FRFL	3	600 – 2000			
5	packer RB/FPS	Ref. PDB, FRUP02	3	600 – 2000			
6	gear 15 AF sz 60	TGMK4020- ...	1		600 – 800	230 – 400	
	gear 15 AF sz 80 1RS	TGMK4040- ...			801 – 1200	400 – 600	
	gear 15 AF sz 120 1RS	TGMK4050- ...			1201 – 1600	600 – 800	
	gear 15 AF sz 160 2RS 70	TGMK4170- ...			1601 – 2000	800 – 1000	
	gear 15 AF sz 200 3RS 70	TGMK4110- ...			2001 – 2400	1000 – 1200	
	gear 15 AF sz 200 3RS 70	TGMK4110- ...			2401 – 2800	1200	
7	linkage KK/AF sz 1 1RS	TZKK1010- ...	2		2401 – 2600		1
	linkage KK/AF sz 2 1RS	TZKK1020- ...			2601 – 2800		1
8	handle Si-line PSK lockable	Ref.access. PHIEA	1		600 – 2800		
9	anti-drill guard E	TGBS0010- ...	1		600 – 2800		
10	gear OS-AF sz 60	TGMK0500- ...	1		600 – 800		
	gear OS-AF sz 80 1RS	TGMK0510- ...			801 – 1200		1
	gear OS/PZ-AF sz 120 1RS	TGMK0520- ...			1201 – 1600		1
	gear OS/PZ-AF sz 160 2RS 70	TGMK0560- ...			1601 – 2000		2
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2001 – 2400		3
	gear OS/PZ-AF sz 200 3RS 70	TGMK0570- ...			2401 – 2800		3
11	striker plate S-RS	Ref. PDB, TRSK					
on request							
12	mishandling device	TFBS0010- ...	1				
13	pressure piece	Ref. PDB, TFFD	1				

Frame dimensions slave sash

PS/PS, scheme C
H12 GM



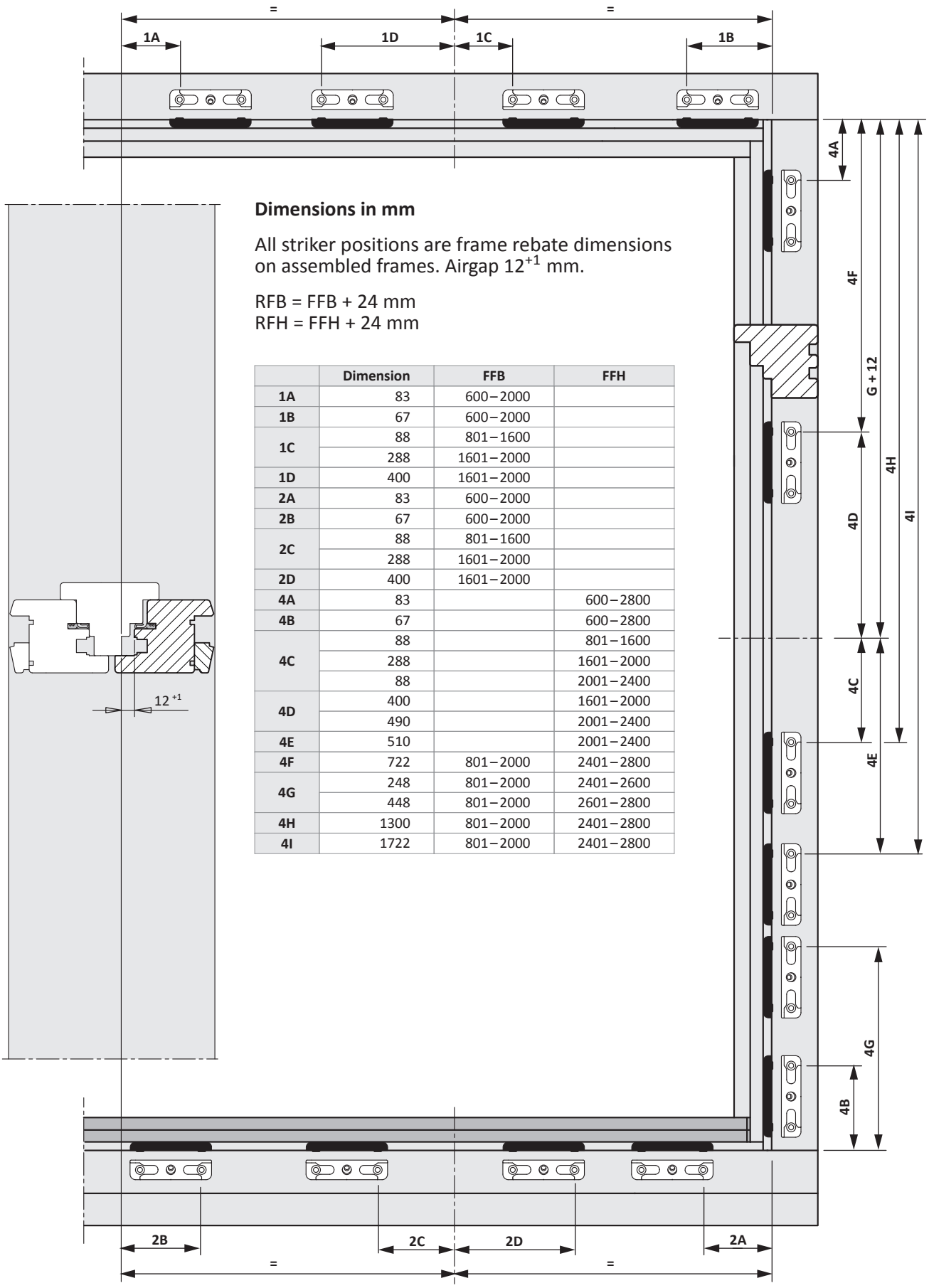


Dimensions in mm

All striker positions are frame rebate dimensions on assembled frames. Airgap 12^{+1} mm.

RFB = FFB + 12 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	71	600–2000	
1B	67	600–2000	
1C	88	801–1600	
	288	1601–2000	
1D	400	1601–2000	
2A	83	600–2000	
2B	55	600–2000	
2C	88	801–1600	
	288	1601–2000	
2D	400	1601–2000	
3A	83		600–2800
3B	67		600–2800
3C	88		801–1600
	288		1601–2000
	88		2001–2400
3D	400		1601–2000
	490		2001–2400
3E	510		2001–2400
3F	722	801–2000	2401–2800
3G	1300	801–2000	2401–2800
3H	1722	801–2000	2401–2800
3I	248	801–2000	2401–2600
	448	801–2000	2601–2800
4A	83		600–2800
4B	67		600–2800
4C	88		801–1600
	288		1601–2000
	88		2001–2400
4D	400		1601–2000
	490		2001–2400
4E	510		2001–2400
4F	722	801–2000	2401–2800
4G	248	801–2000	2401–2600
	448	801–2000	2601–2800
4H	1300	801–2000	2401–2800
4I	1722	801–2000	2401–2800



Dimensions in mm

All striker positions are frame rebate dimensions on assembled frames. Airgap 12^{+1} mm.

RFB = FFB + 24 mm
RFH = FFH + 24 mm

	Dimension	FFB	FFH
1A	83	600–2000	
1B	67	600–2000	
1C	88	801–1600	
	288	1601–2000	
1D	400	1601–2000	
2A	83	600–2000	
2B	67	600–2000	
2C	88	801–1600	
	288	1601–2000	
2D	400	1601–2000	
4A	83		600–2800
4B	67		600–2800
4C	88		801–1600
	288		1601–2000
	88		2001–2400
4D	400		1601–2000
	490		2001–2400
4E	510		2001–2400
4F	722	801–2000	2401–2800
4G	248	801–2000	2401–2600
	448	801–2000	2601–2800
4H	1300	801–2000	2401–2800
4I	1722	801–2000	2401–2800

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