# PRODUCT CATALOGUE
## H12 SQUARE CONSTRUCTIONS

SIEGENIA
brings spaces to life

# TITAN AF

## BS TITAN

TITAN AF hardware programme
- For timber 12 mm window elements
- With hinge side TITAN
- For square constructions

Window systems
Door systems
Comfort systems

## 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**

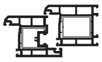
Casement stoppers that are controlled via the central locking system - definitions and tests

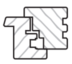
## Further relevant documents

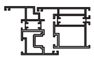
You can find further relevant documents, for example structural design charts, assembly instructions, profile spec sheets, individual component sheets, and maintenance, operating and care instructions, on our documentation pages:

http://downloads.siegenia.com/

## Element materials

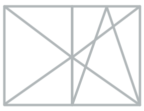

Element material PVC


Element material timber

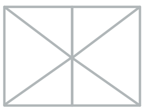

Element material aluminium

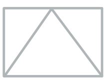
## Opening types

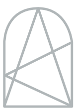

Rectangular turn-tilt element

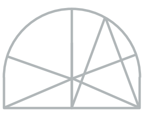

2-sash rectangular turn-tilt/turn elementt


Rectangular turn element

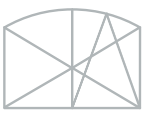

2-sash rectangular turn/turn element


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)

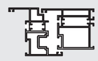
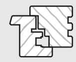
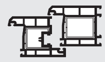
**Surface**
Surface treatment of metal components (e.g. zinc-plated)

**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. | | | | | |

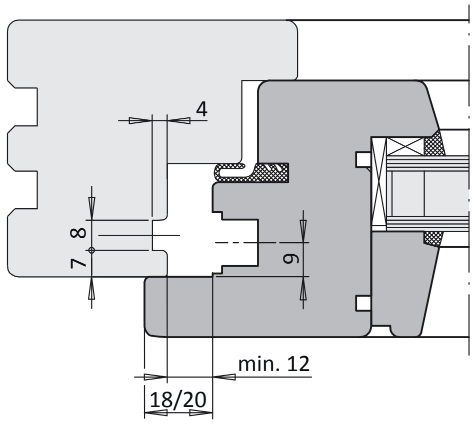
| 8 Processing index |
|---|
| The processing index indicates the processing status and is assigned consecutively. |

## Eurogroove 7/8x4

Airgap: min. 12 mm circumferential

Rebate width: 18/20 mm

Groove axis: 9 mm

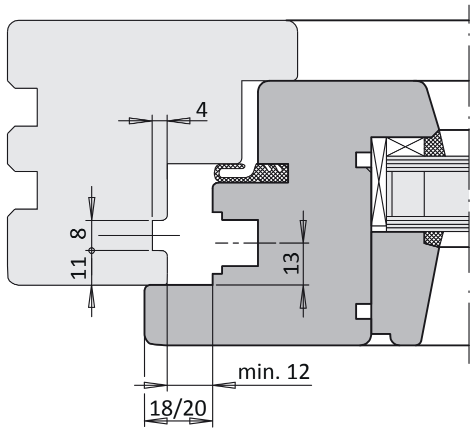



## Eurogroove 11/8x4

Airgap: min. 12mm circumferential

Rebate width: 18/20 mm

Groove axis: 13 mm

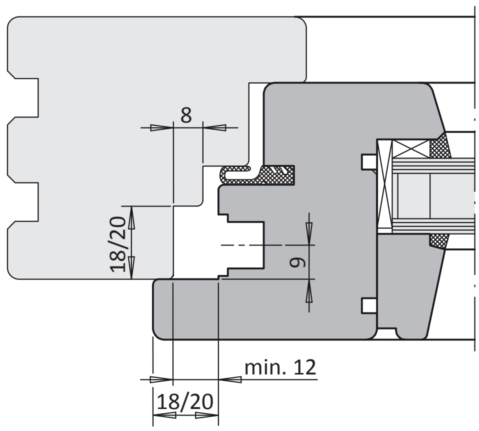



## Eurogroove 18/8 and 20/8

Airgap: min. 12 mm circumferential

Rebate width: 18/20 mm

Groove axis: 9 mm

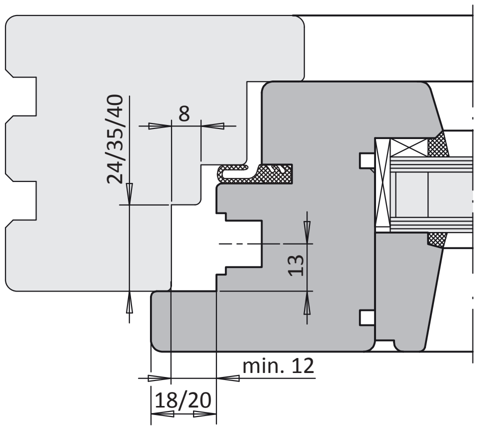


## Eurogroove ../8

Airgap: min. 12 mm circumferential

Rebate width: 18/20 mm

Groove axis: 13 mm

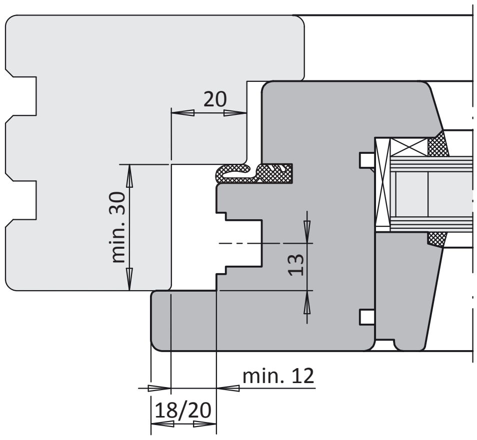



## Eurogroove 30/20

Airgap: min. 12 mm circumferential

Rebate width: 18/20 mm

Groove axis: 13 mm

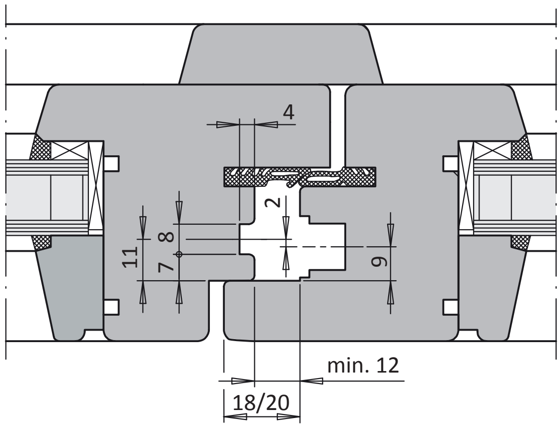


## Secondary sash with Eurogroove 7/8x4 (DS 8)

Airgap: min. 12 mm circumferential

Rebate width: 18/20 mm

Groove axis: 9 mm

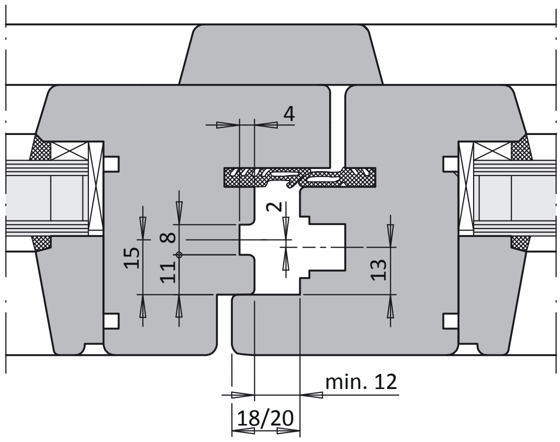



## Secondary sash with Eurogroove 11/8x4 (DS 8)

Airgap: min. 12mm circumferential

Rebate width: 18/20 mm

Groove axis: 13 mm

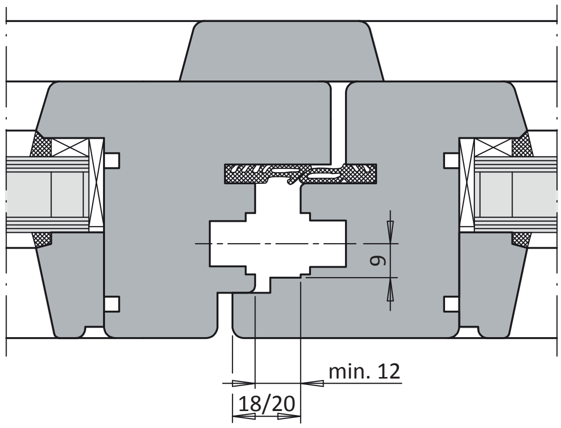


## Secondary sash with opposed fitting groove (DS 16)

Airgap: min. 12 mm circumferential

Rebate width: 18/20 mm

Groove axis: 9 mm

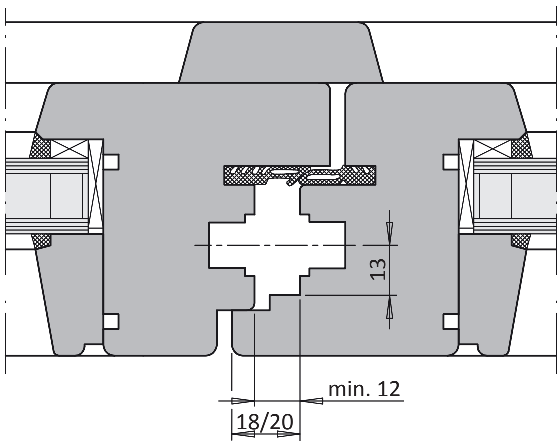



## Secondary sash with opposed fitting groove (DS 16)

Airgap: min. 12mm circumferential

Rebate width: 18/20 mm

Groove axis: 13 mm




### Note:

For profile-related specifications please refer to the SIEGENIA profile datasheets.

### Attention:

The specifications of DIN 68 121 (timber profiles for windows and portal windows) apply to SIEGENIA fittings.

# 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.

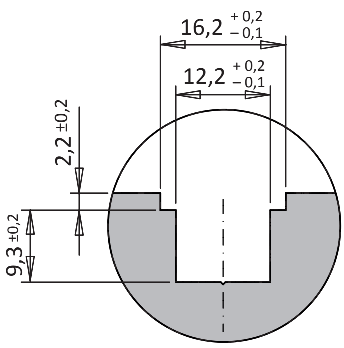
## Systems

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.

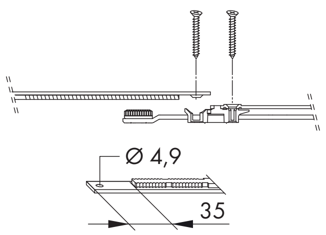
### Mounting the hardware components

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.

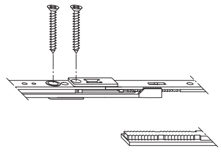
**These procedures must be carried out by experienced professionals only.**

### Connecting the hardware components

- TITAN iP linkage cut




- TITAN AF/FAVORIT cut to length



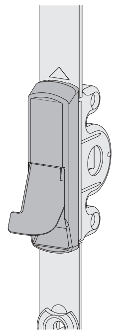
### Calibration of adjustable components

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:

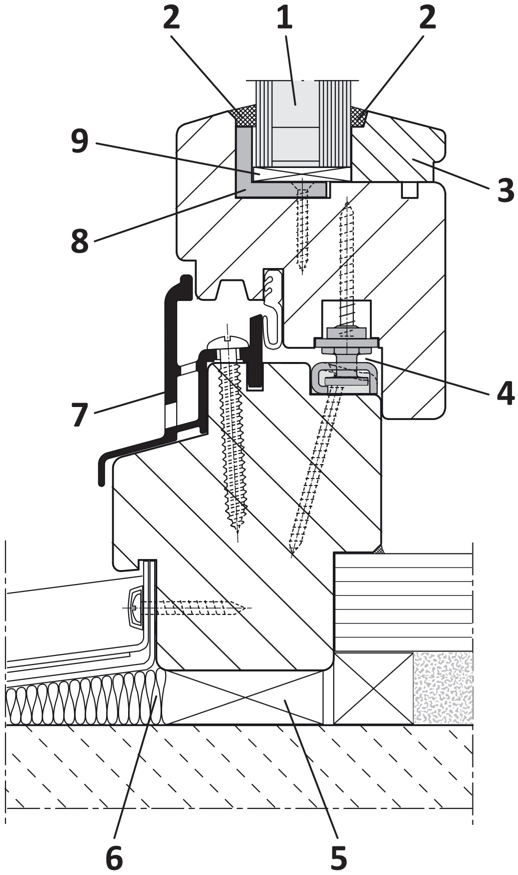
- Operating and Care Instructions (order no. H4002.2874en)

## 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 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

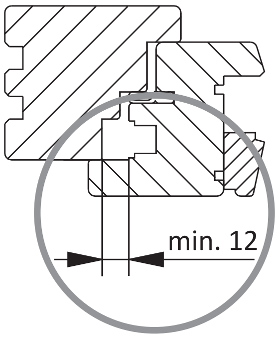
**8** Screwed steel bracket in the glazing rebate

**9** Pressure-resistant distance block setting

## DIN EN 1627 ff – RC1

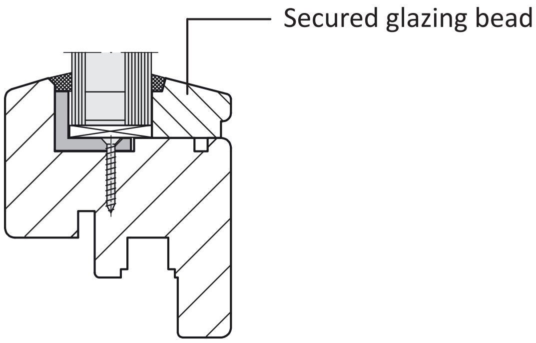
### Airgap

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

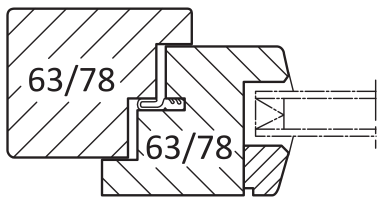
The type of timber used must have at least the following gross density:

- 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

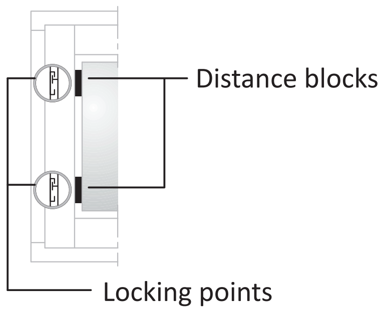
### Striker plates

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).

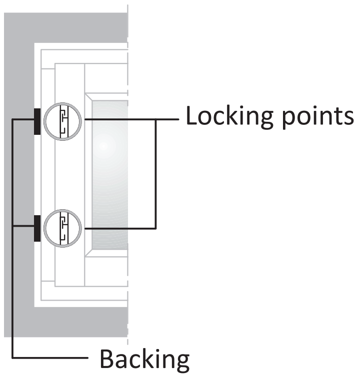
The distance blocks must be at least 100 mm long.




## 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

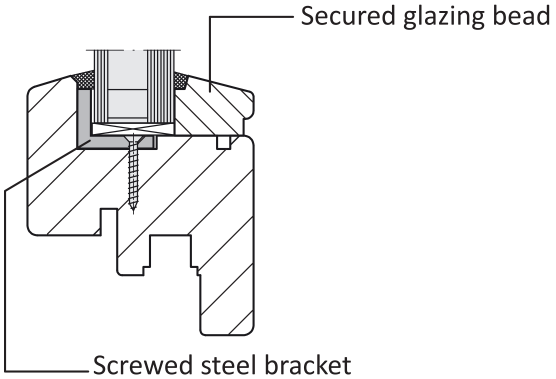
To ensure that the sash can only move minimally within the window frame, distance blocks must be mounted in the corner regions of the window frame (see also hardware layout).

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

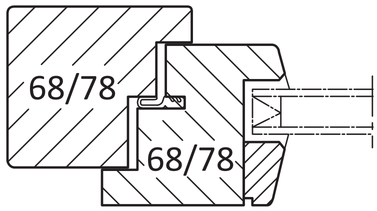
The type of timber used must have the following gross densities as a minimum:

- 0,60 g/cm$^3$ for hardwoods
- 0,50 g/cm$^3$ 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.

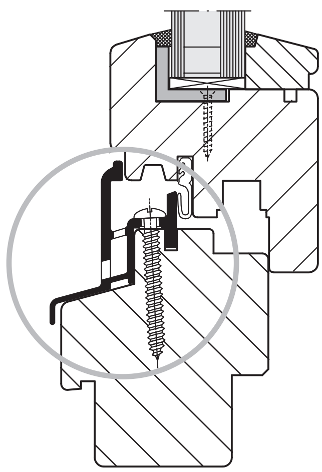



### Weather strip bar

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

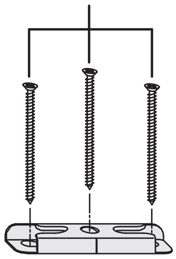


### Striker plates and tilt lock bearings

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).




## 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

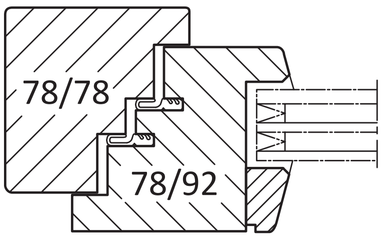
### Construction material

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, P5A |

## 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

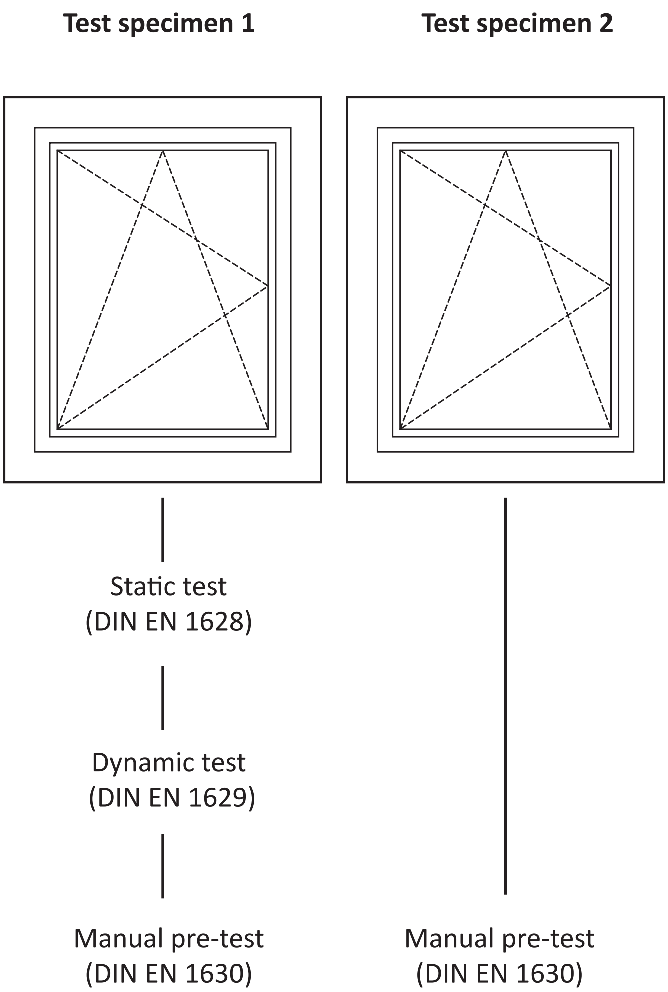
For the test, the test specimens are to be fitted with glazing in accordance with EN 356. In order to protect the tester, the safety glass should be placed on the attack side.

| 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.

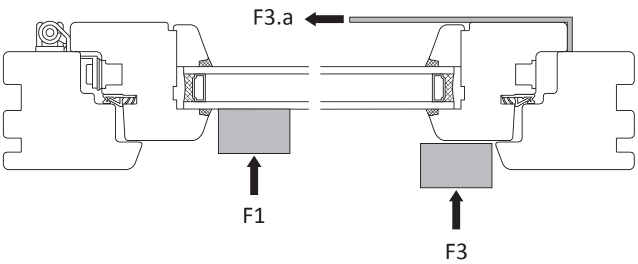
| | Resistance class (RC) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | RC1 and RC2 | | RC3 | | RC4 | | RC5 and RC6 | |
| **Loading points** | Test load kN | Gap gauge type | Test load kN | Gap gauge type | Test load kN | Gap gauge type | Test load kN | Gap gauge type |
| **F1 Infill corner** | 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

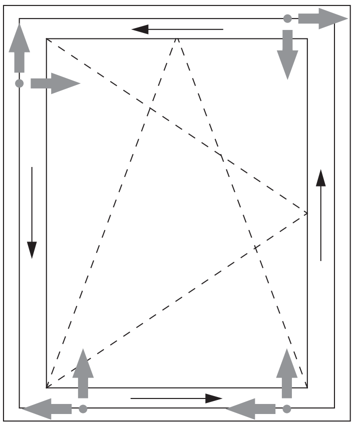
- **F1 Infill corners**
  Load is to be applied to each infill corner.

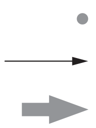
- **F2 Leaf/sash corners**
  Load is applied to the corners of the leaf/sash if the next locking point is more than 350 mm away from the corner.

- **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.





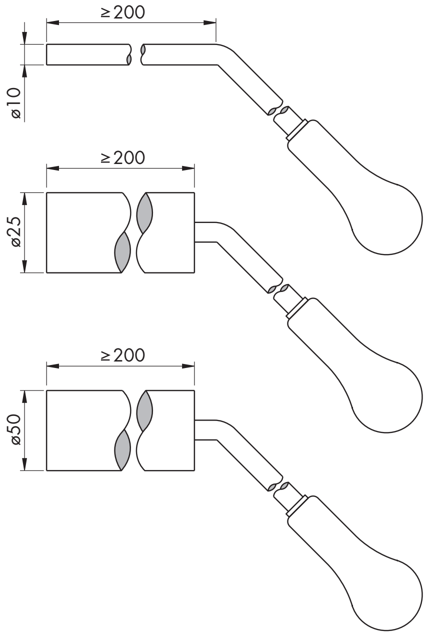

## Gap gauges

**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.

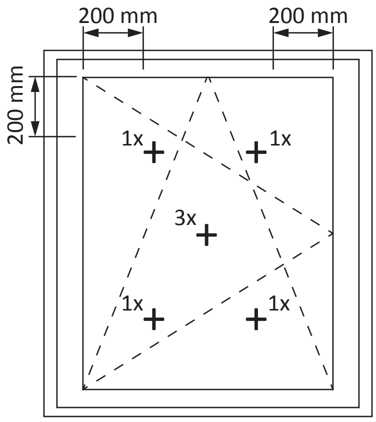
The dynamic test is only carried out in resistance classes RC1 to RC3.

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

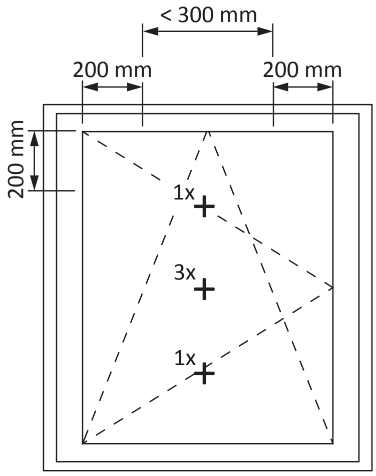
Due to the increased weight of the pendulum impact, the drop height has been reduced.

| 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 | |

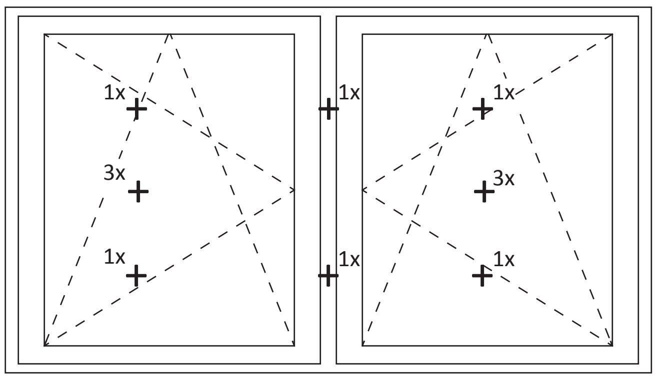
The impact load is applied once at each corner of the infill




and three times in the centre of the test specimen.

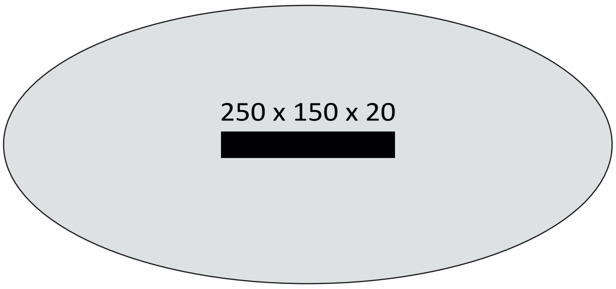



On secondary sashes, the individual infill panels are only impacted on the centreline. The secondary sash area is also tested.



## 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

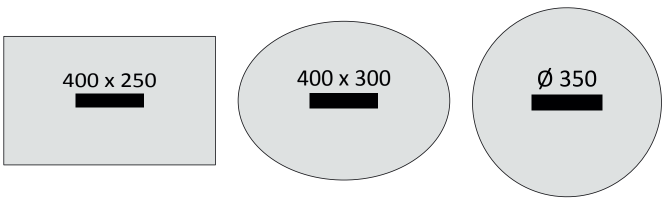
DIN EN 1630 describes how resistance to manual intrusion attempts is determined.

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.

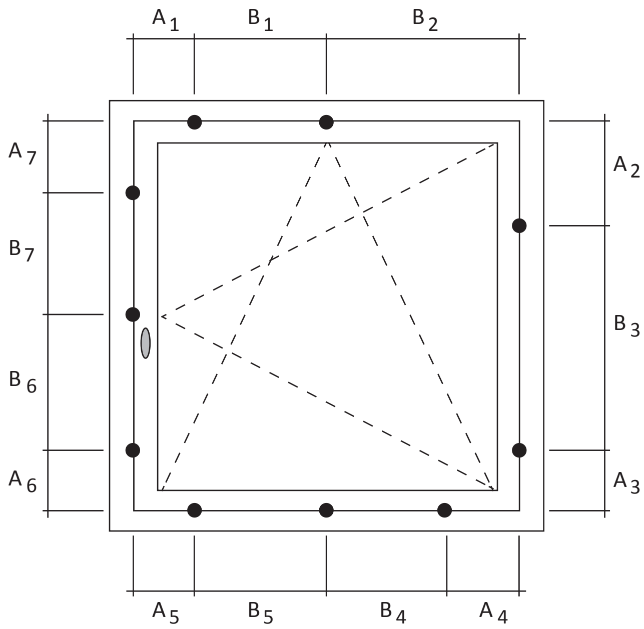
| Resistance classes (RC) in accordance with DIN EN 1627:2011-08 | Resistance classes (RC) in accordance with DIN V ENV 1627:1999-04 |
|---|---|
| RC1N | No correlation possibleh |
| RC2N | WK2 (free choice of glazing - glass connection as tested) |
| RC2 | WK2 |
| RC3 | WK3 |
| RC4 | WK4 |
| RC5 | WK5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



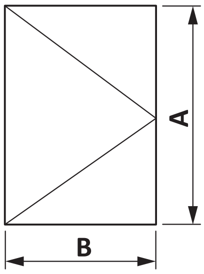

**Key**

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

## application diagram

hinge side: surface-mounted

kg
≤80




- for the middle sash (in triple sash elements)
- inward opening elements only

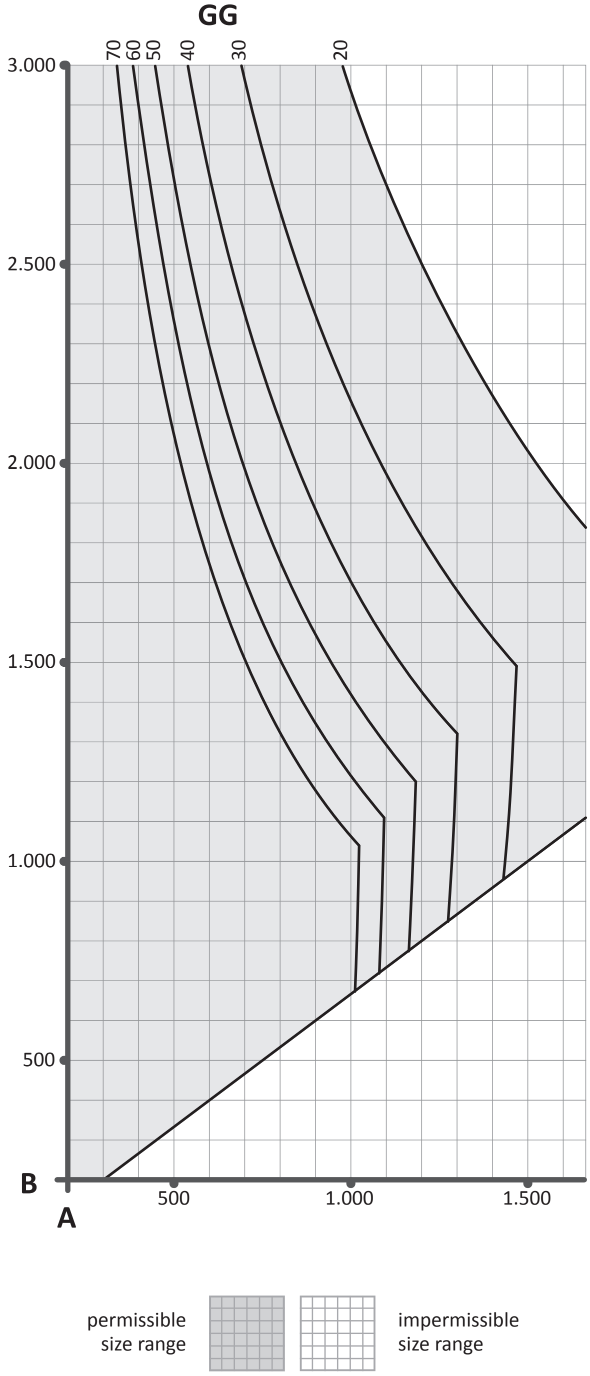
A = FFH (sash rebate height [mm])
B = FFB (sash rebate width [mm])
GG = glass weight [kg/m²]

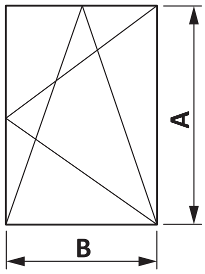
**basis for testing and calculation**

- Tilt-turn test according to EN 13126-8:
  - turn-only cycles: 20.000
- additional loads taken into account according to EN 14608 (figure A.1)/class 4 according to EN 13115 (800N).

**Conditions for the use of the application diagram**

- Evidence for fixing structural components onto the window system by a window manufacturer according to TBDK with the following forces:
  - on the top hinge (N): 2.200
  - on the bottom hinge (N): 2.310
- The following values are to be observed with all window systems:
  - max. width/height ratio $Q_{B/H}$: ≤ 1,5
  - glass deduction dimension CG (mm): ≥ 28
  - profile weight PG (kg/m): ≤ 3,25
- Notes on the intended use:
  Basics and use of the application diagrams
  "Download"





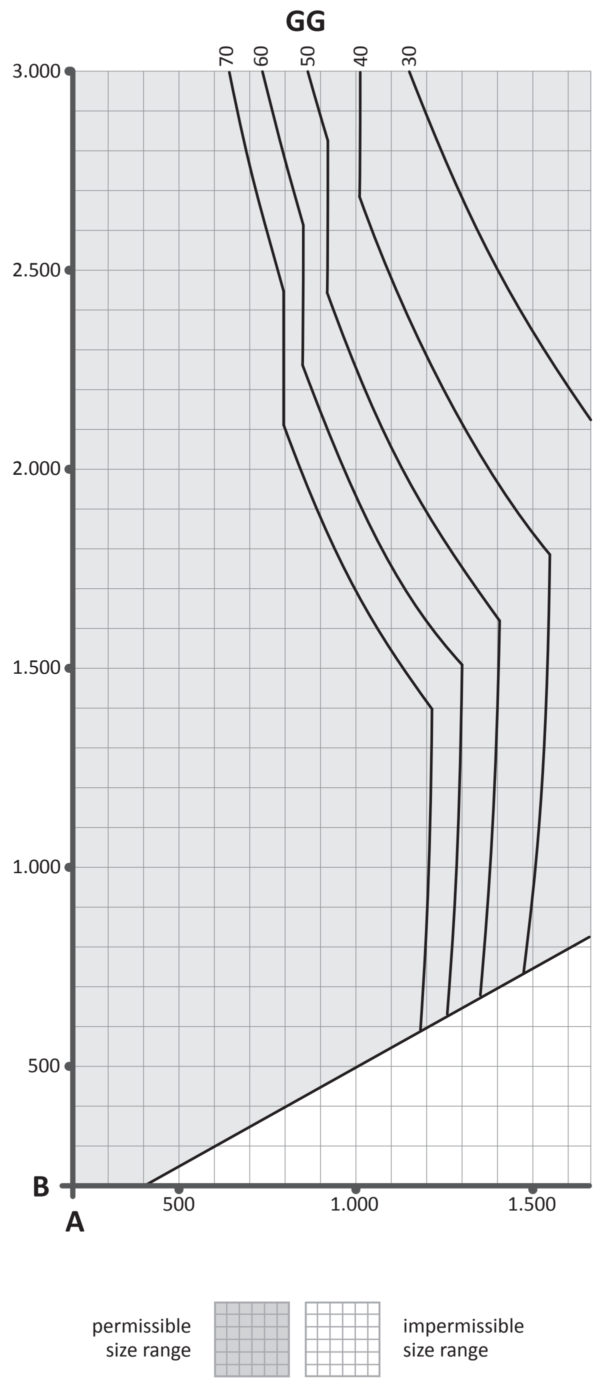

- inward opening elements only
  A = FFH (sash rebate height [mm])
  B = FFB (sash rebate width [mm])
  GG = glass weight [kg/m²]

**basis for testing and calculation**

- Tilt-turn test according to EN 13126-8:
  - tilt cycles: 10.000
  - turn-only cycles: 10.000
- additional loads taken into account according to EN 14608 (figure A.1)/class 4 according to EN 13115 (800N).

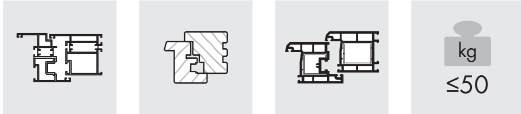
**Conditions for the use of the application diagram**

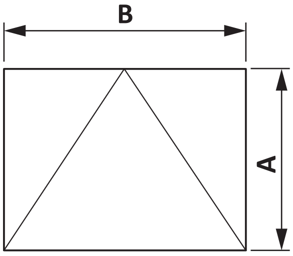
- Evidence for fixing structural components onto the window system by a window manufacturer according to TBDK with the following forces:
  - on the top hinge (N): 4.200
  - on the bottom hinge (N): 4.340
- The following values are to be observed with all window systems:
  - max. width/height ratio $Q_{B/H}$: ≤ 2,0
  - glass deduction dimension CG (mm): ≥ 28
  - profile weight PG (kg/m): ≤ 4,00
- Notes on the intended use:
  Basics and use of the application diagrams
  "Download"



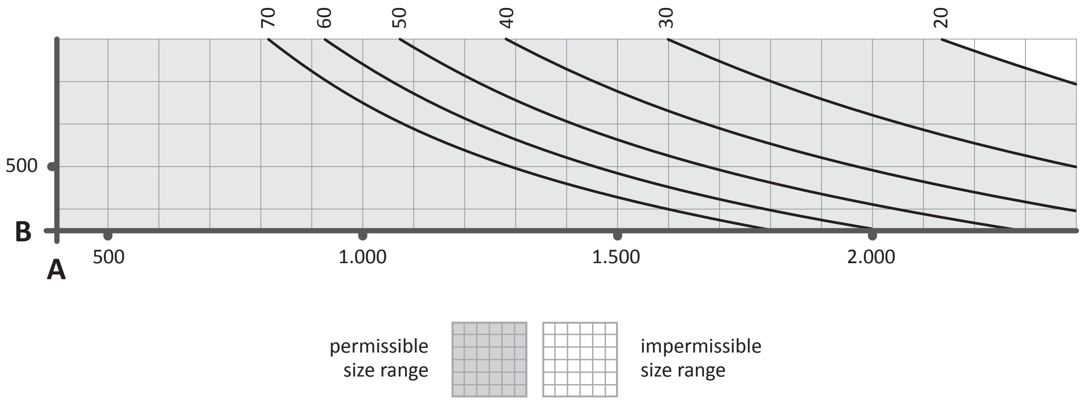
# application diagram

hinge side: surface-mounted






- inward opening elements only
  - A = FFH (sash rebate height [mm])
  - B = FFB (sash rebate width [mm])
  - GG = glass weight [kg/m²]

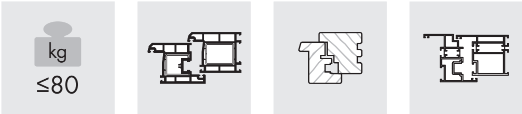



**basis for testing and calculation**

- tilt test according to RAL-GZ 607/12:
  - tilt cycles: 15.000
- additional loads according to RAL-GZ 607/12

**Conditions for the use of the application diagram**

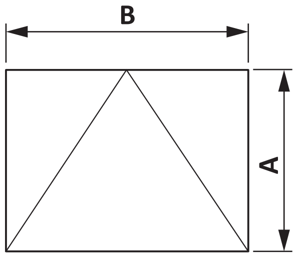
- Evidence for fixing structural components onto the window system by a window manufacturer.
- the following values are to be observed with all window systems:
  - glass deduction dimension CG (mm): ≥ 28
  - profile weight PG (kg/m): ≤ 3,25
- Notes on the intended use:
  Basics and use of the application diagrams
  "Download"



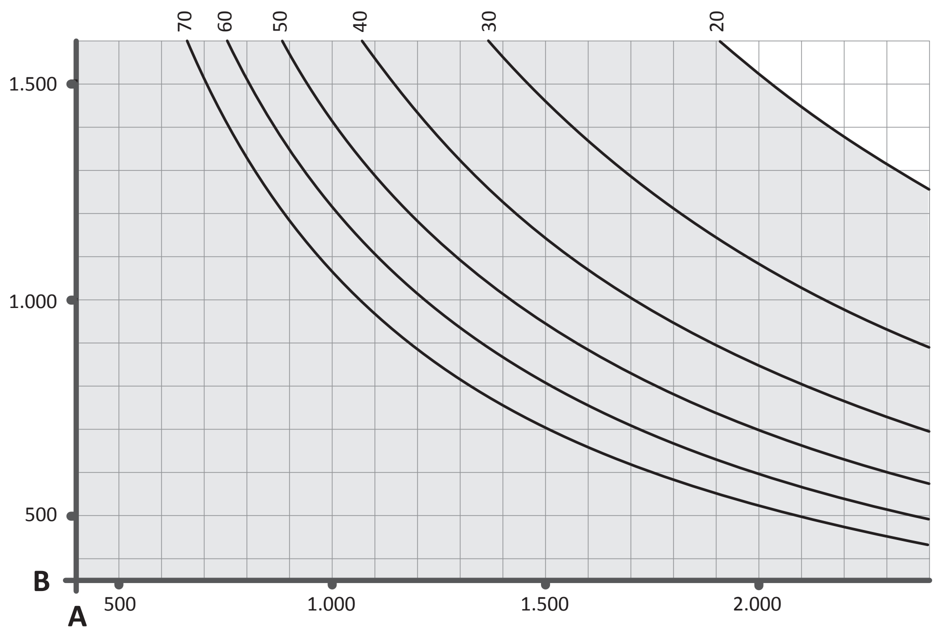

# application diagram

hinge side: surface-mounted

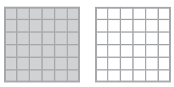





- inward opening elements only
  - A = FFH (sash rebate height [mm])
  - B = FFB (sash rebate width [mm])
  - GG = glass weight [kg/m²]




permissible size range



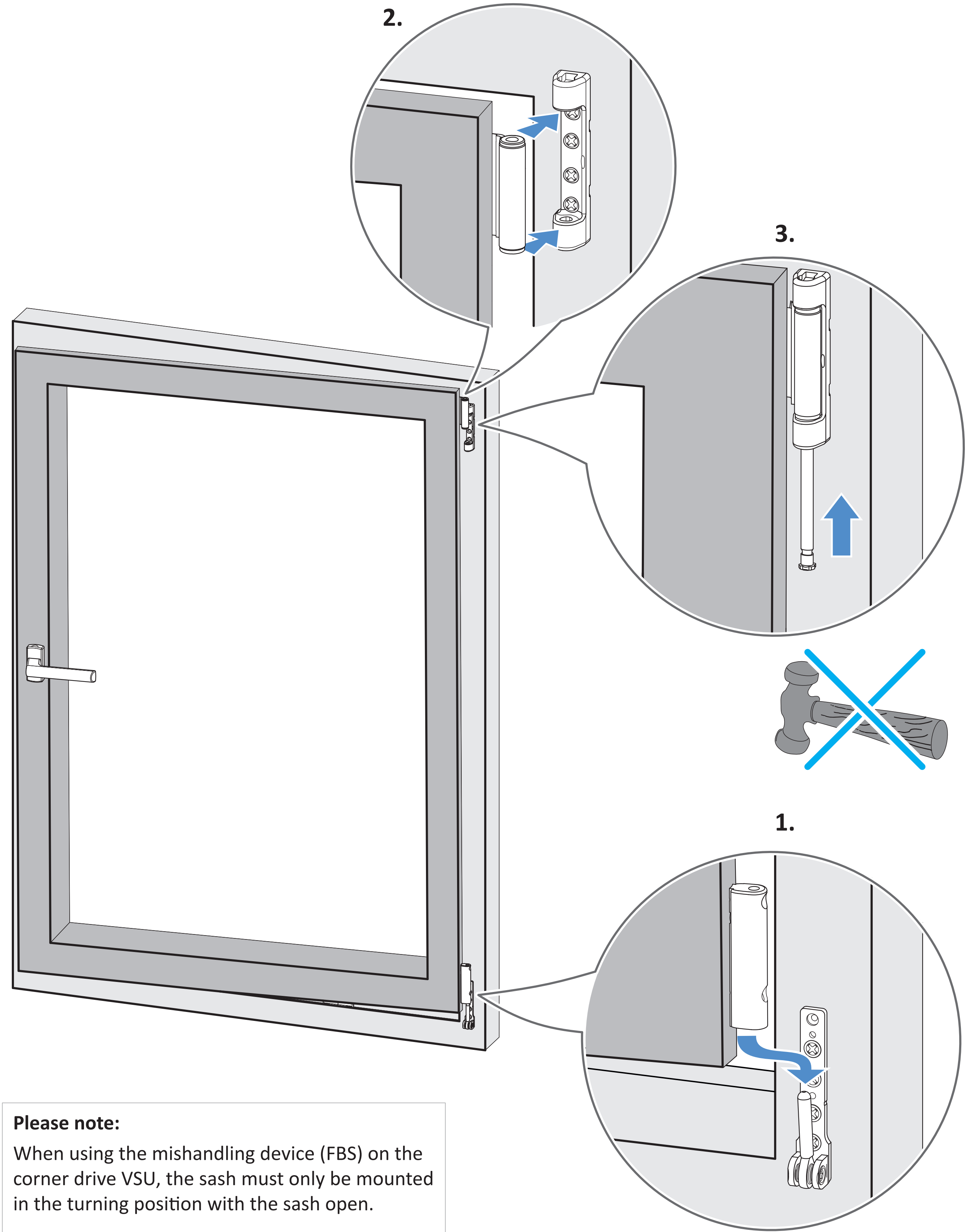
impermissible size range

**basis for testing and calculation**

- tilt test according to RAL-GZ 607/12:
  - tilt cycles: 15.000
- additional loads according to RAL-GZ 607/12

**Conditions for the use of the application diagram**

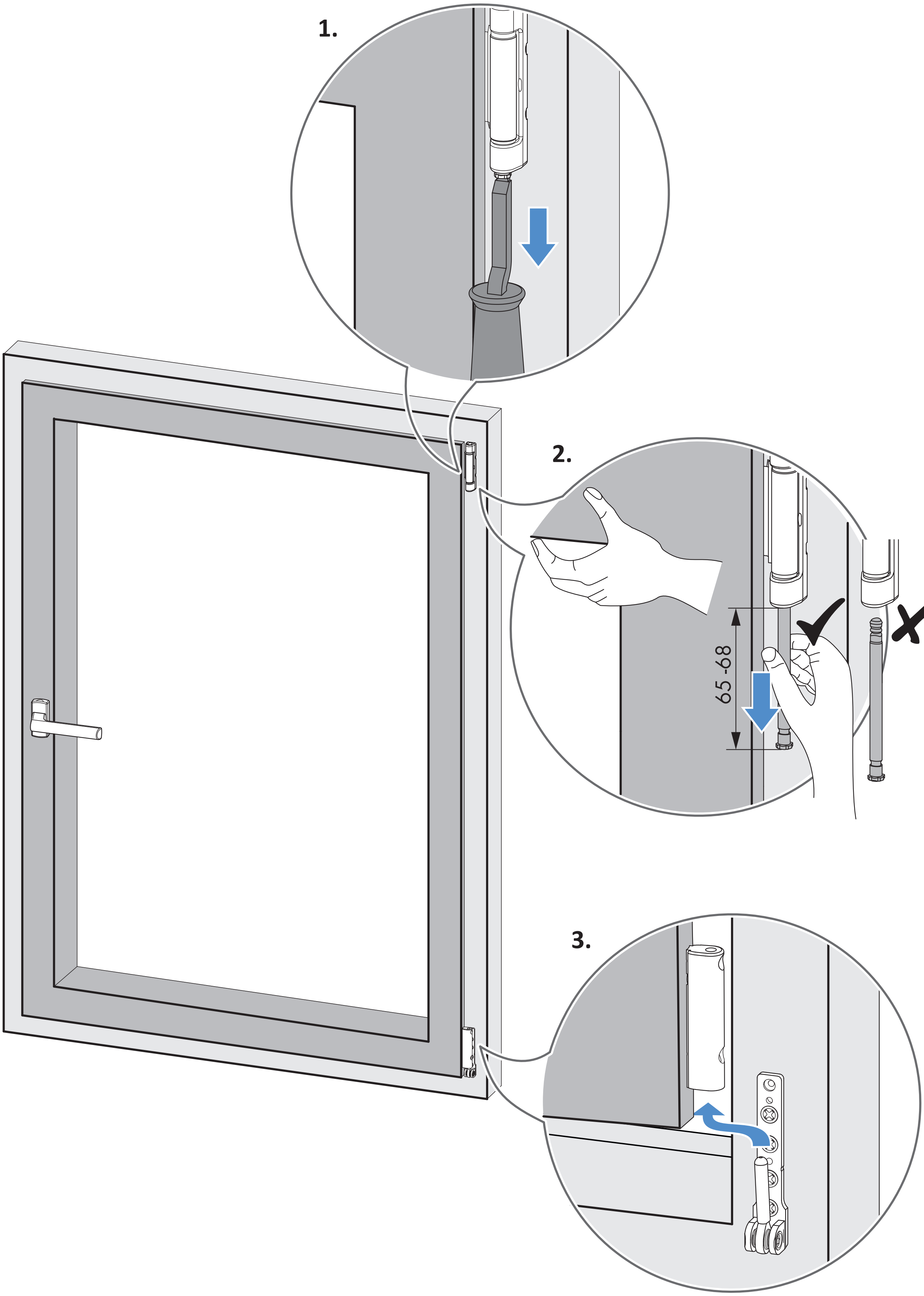
- Evidence for fixing structural components onto the window system by a window manufacturer.
- the following values are to be observed with all window systems:
  - glass deduction dimension CG (mm): ≥ 28
  - profile weight PG (kg/m): ≤ 3,25
- Notes on the intended use:
  Basics and use of the application diagrams
  "Download"




**Please note:**

When using the mishandling device (FBS) on the corner drive VSU, the sash must only be mounted in the turning position with the sash open.

Failure to do so may cause damage to the mishandling device or lead to a malfunction.

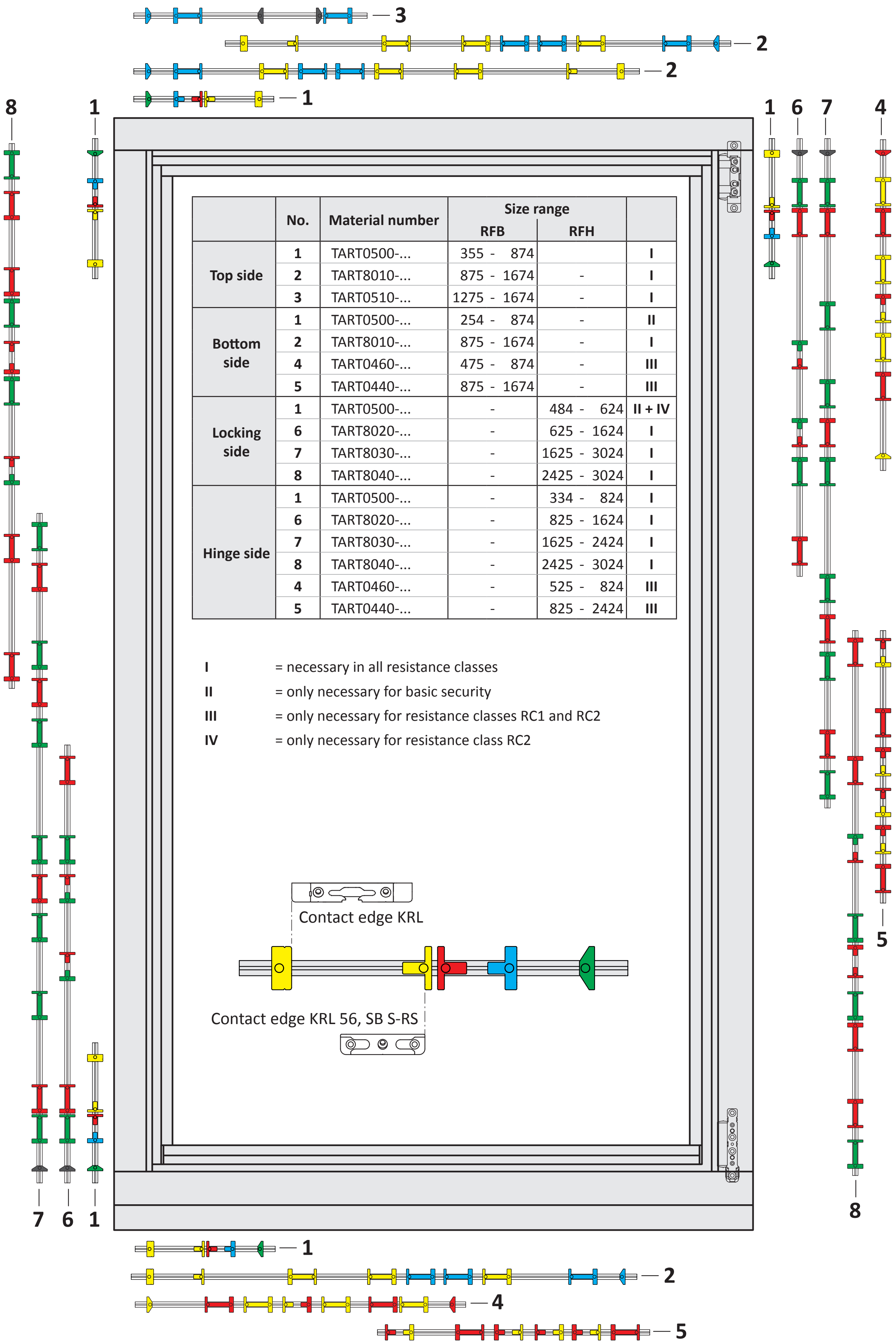


1.
2.
65 -68
3.

# Striker jigs

Locking distance 1000 mm

Fixed handle position



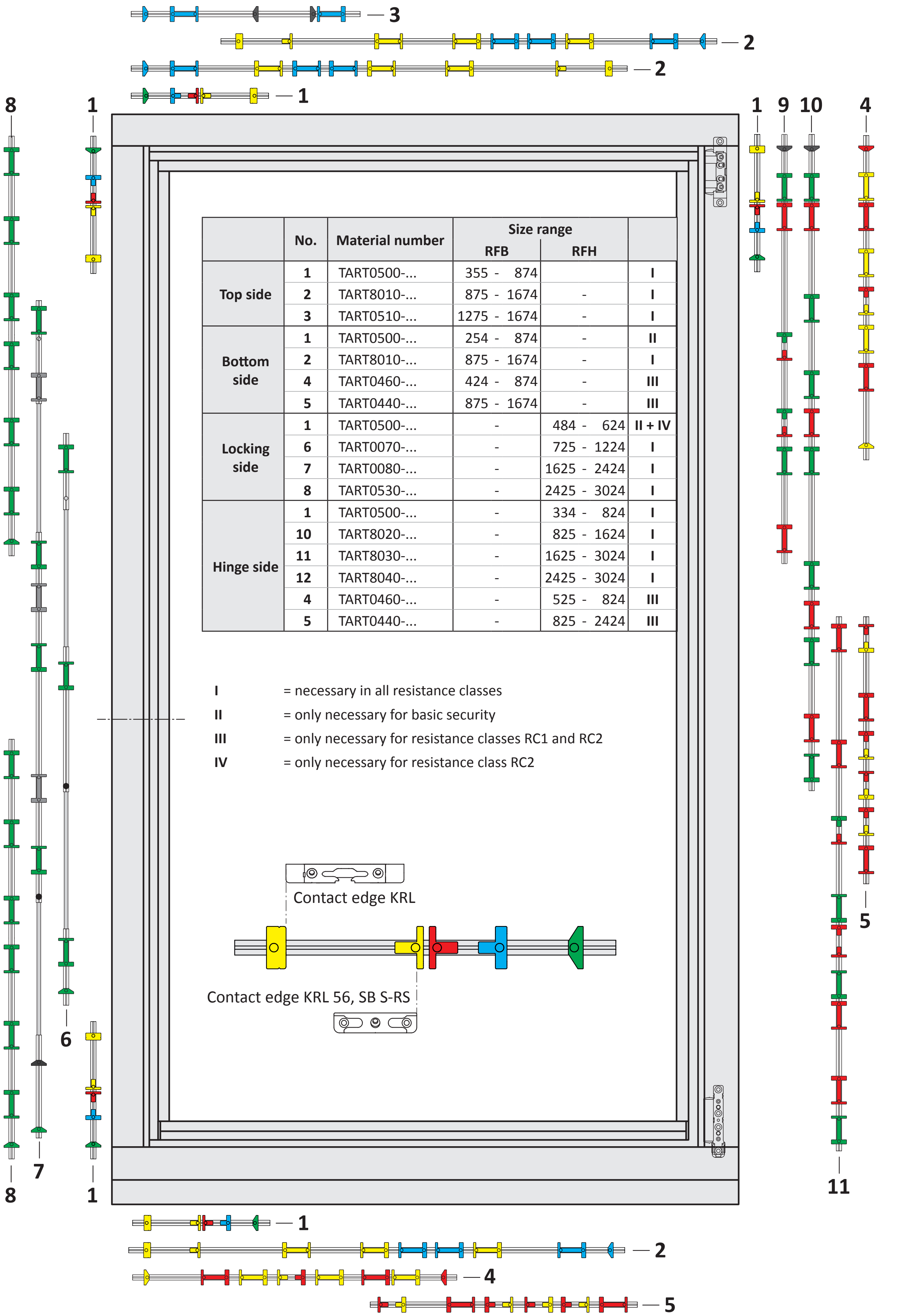

| | No. | Material number | Size range | | |
|---|---|---|---|---|---|
| | | | RFB | RFH | |
| Top side | 1 | TART0500-... | 355 - 874 | | I |
| | 2 | TART8010-... | 875 - 1674 | - | I |
| | 3 | TART0510-... | 1275 - 1674 | - | I |
| Bottom side | 1 | TART0500-... | 254 - 874 | - | II |
| | 2 | TART8010-... | 875 - 1674 | - | I |
| | 4 | TART0460-... | 475 - 874 | - | III |
| | 5 | TART0440-... | 875 - 1674 | - | III |
| Locking side | 1 | TART0500-... | - | 484 - 624 | II + IV |
| | 6 | TART8020-... | - | 625 - 1624 | I |
| | 7 | TART8030-... | - | 1625 - 3024 | I |
| | 8 | TART8040-... | - | 2425 - 3024 | I |
| Hinge side | 1 | TART0500-... | - | 334 - 824 | I |
| | 6 | TART8020-... | - | 825 - 1624 | I |
| | 7 | TART8030-... | - | 1625 - 2424 | I |
| | 8 | TART8040-... | - | 2425 - 3024 | I |
| | 4 | TART0460-... | - | 525 - 824 | III |
| | 5 | TART0440-... | - | 825 - 2424 | III |

I = necessary in all resistance classes

II = only necessary for basic security

III = only necessary for resistance classes RC1 and RC2

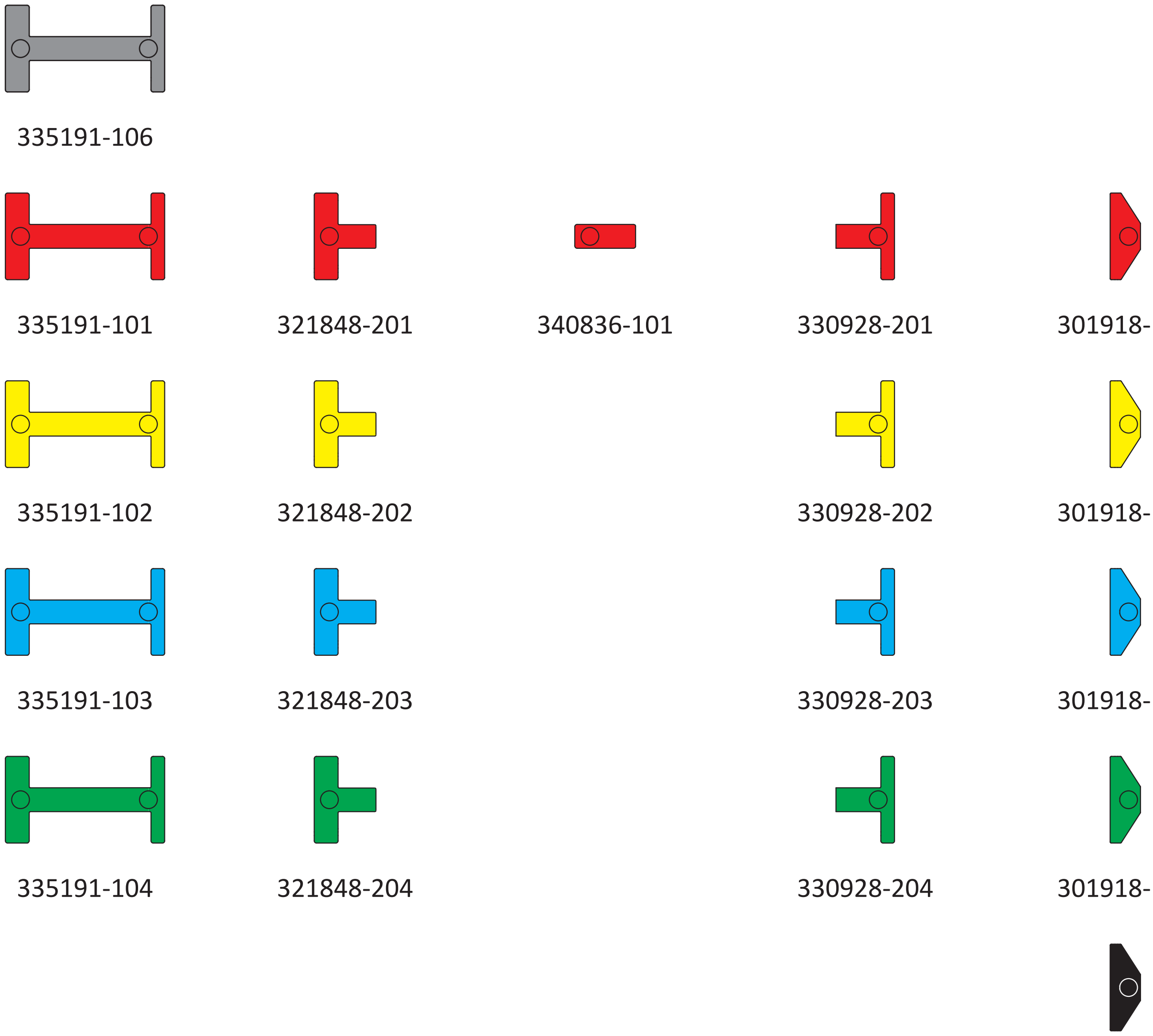
IV = only necessary for resistance class RC2




| | No. | Material number | Size range | | |
|---|---|---|---|---|---|
| | | | RFB | RFH | |
| Top side | 1 | TART0500-... | 355 - 874 | | I |
| | 2 | TART8010-... | 875 - 1674 | - | I |
| | 3 | TART0510-... | 1275 - 1674 | - | I |
| Bottom side | 1 | TART0500-... | 254 - 874 | - | II |
| | 2 | TART8010-... | 875 - 1674 | - | I |
| | 4 | TART0460-... | 424 - 874 | - | III |
| | 5 | TART0440-... | 875 - 1674 | - | III |
| Locking side | 1 | TART0500-... | - | 484 - 624 | II + IV |
| | 6 | TART0070-... | - | 725 - 1224 | I |
| | 7 | TART0080-... | - | 1625 - 2424 | I |
| | 8 | TART0530-... | - | 2425 - 3024 | I |
| Hinge side | 1 | TART0500-... | - | 334 - 824 | I |
| | 10 | TART8020-... | - | 825 - 1624 | I |
| | 11 | TART8030-... | - | 1625 - 3024 | I |
| | 12 | TART8040-... | - | 2425 - 3024 | I |
| | 4 | TART0460-... | - | 525 - 824 | III |
| | 5 | TART0440-... | - | 825 - 2424 | III |

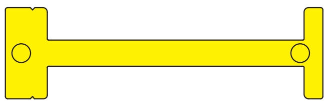
**I** = necessary in all resistance classes
**II** = only necessary for basic security
**III** = only necessary for resistance classes RC1 and RC2
**IV** = only necessary for resistance class RC2

# Striker packers and stops for striker jigs



| Striker packer 56 | Striker packer SB | Distance piece | Striker packer short | Stop |
|---|---|---|---|---|
| 335191-106 | | | | |
| 335191-101 | 321848-201 | 340836-101 | 330928-201 | 301918-101 |
| 335191-102 | 321848-202 | | 330928-202 | 301918-102 |
| 335191-103 | 321848-203 | | 330928-203 | 301918-103 |
| 335191-104 | 321848-204 | | 330928-204 | 301918-104 |
| | | | | 301918-105 |

**Striker packer KRL FH**



301604-102

The striker packers and stops are fixed using conventional screws:
fillister head self tapping screws ISO 7049-4.2 x 9.5

## Bottom: Inliner

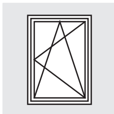
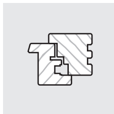


## Bottom: double cam SB R-RS

2

# TITAN AF

## Installation instructions

GS

1-sash square tilt-turn

timber 12 mm

basic security

fixed handle position

Hinge side TITAN

surface TS

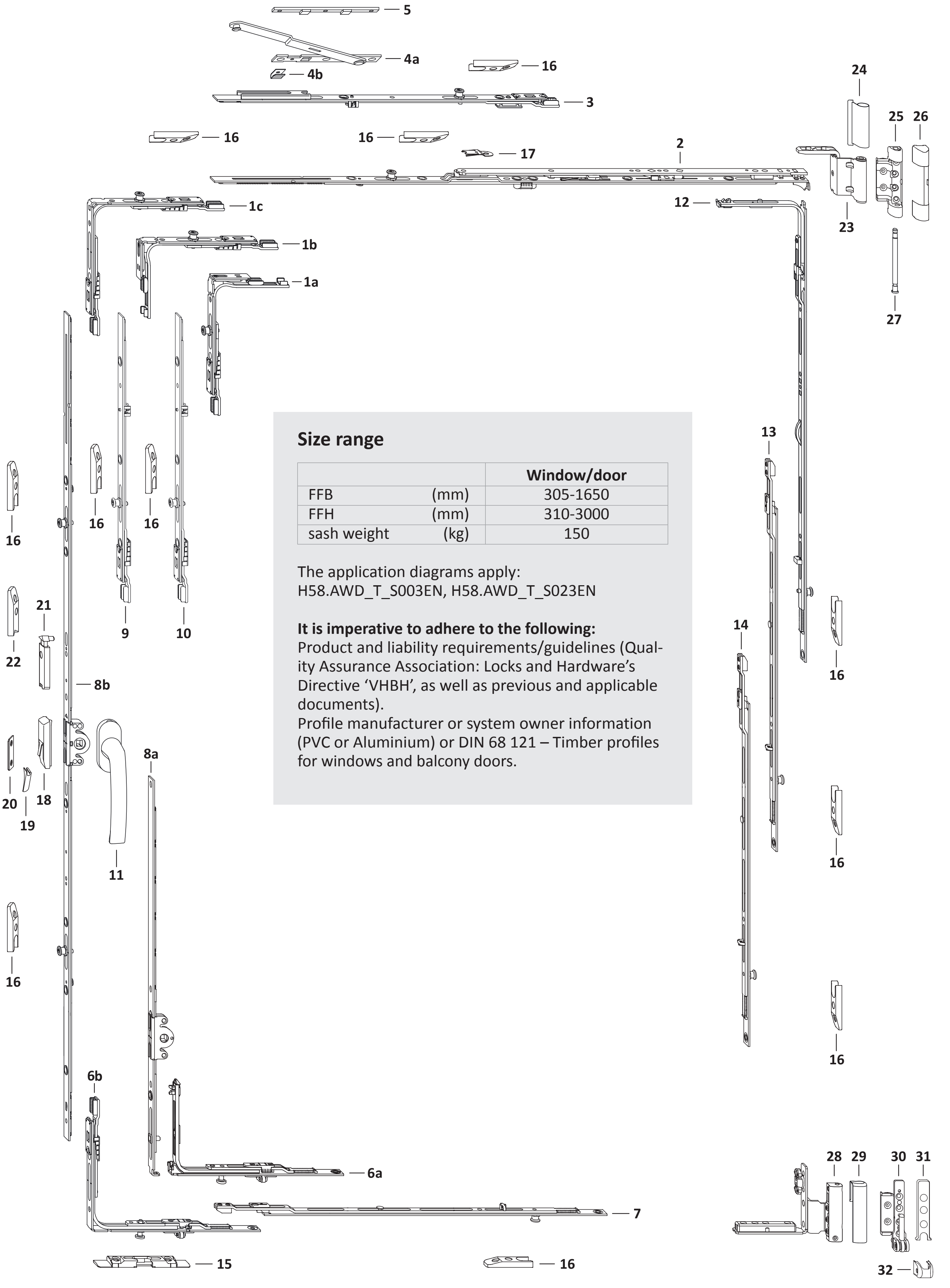
backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 1RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout

1-sash square tilt-turn
H12 GK Hinge side TITAN



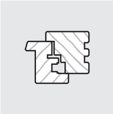



## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 305-1650 |
| FFH | (mm) | 310-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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.





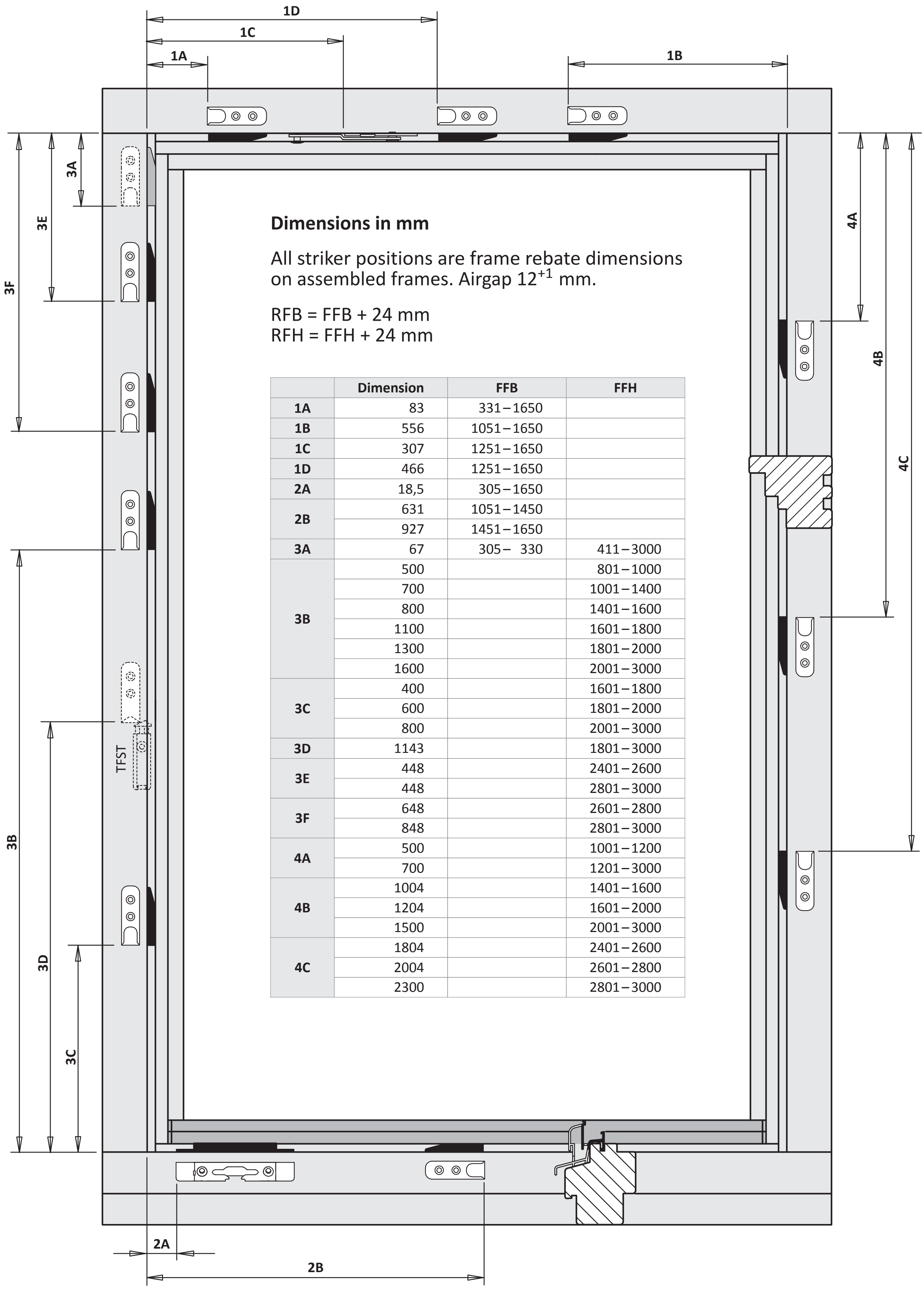
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 15 | 16 |
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 305 – 330 | 411 – 3000 | | | 1 |
| 1b | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 331 – 850 | 310 – 410 | | | 1 |
| 1c | corn.drive VSO 1RS | TEUL4010- ... | 1 | 331 – 1650 | 411 – 3000 | | | 1 |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 305 – 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | | 1 |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | | 1 |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | | 1 |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | | 1 |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | |
| 6a | locking part VSU/K FH+ 1S | TEVR1400- ... | 1 | 305 – 1250 | 411 – 600 | | 1 | |
| | locking part VSU/K FH+ 1S | TEVR1400- ... | | 331 – 850 | 310 – 410 | | 1 | |
| 6b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 305 – 1650 | 601 – 3000 | | 1 | |
| 7 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 1 |
| 8a | gear 15 sz 30/G180 | TGKK3010- ... | 1 | 331 – 850 | 310 – 410 | 180 | | |
| | gear 15 sz 30/G180 | TGKK3010- ... | | 305 – 1250 | 411 – 600 | 180 | | |
| 8b | gear 15 AF sz 60/G300 | TGKK4030- ... | 1 | | 601 – 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/G700 1RS | TGKK4080- ... | | | 1401 – 1600 | 700 | | 1 |
| | 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 2RS | TGKK4110- ... | | | 2001 – 3000 | 1000 | | 2 |
| 9 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2401 – 2600 | | | 1 |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | 1 |
| 10 | linkage KK/AF sz 2 1RS | TZKK1020- ... | 1 | | 2601 – 2800 | | | 1 |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | 1 |
| 11 | handle Globe | Ref.access. ZHGS | 1 | | 310 – 3000 | | | |
| 12 | corn.drive BS/K3 sz 1+ 1RS | TEUL2410- ... | 1 | | 1001 – 1200 | | | 1 |
| | corn.drive BS/K3 sz 2+ 1RS | TEUL2420- ... | | | 1201 – 3000 | | | 1 |
| 13 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | | 1 |
| 14 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | | 1 |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | | 1 |
| 15 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | |
| 16 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| **on request** | | | | | | | | |
| 17 | tilt restrictor .. | TFKB0010- ... | 1 | | 310 – 800 | | | |
| 18 | mishandling device | TFBS0010- ... | 1 | | | | | |
| 19 | pressure piece | Ref. PDB, TFFD | 1 | | | | | |
| 20 | stop | Ref. PDB, FRZF01 | 1 | | | | | |
| 21 | snapper switchable rh. | TFST0011- ... | 1 | | 1801 – 3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1801 – 3000 | | | |
| 22 | frame part snapper | Ref. PDB, TRST | 1 | | 1801 – 3000 | | | |

# List of fittings

1-sash square tilt-turn
H12 GK Hinge side TITAN



| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| **23** | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| **24** | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| **25** | top hinge | Ref. PDB, TBSL81 | | | 1 |
| **26** | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| **27** | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| **28** | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| **29** | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| **30** | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| **31** | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| **32** | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |




**Dimensions in mm**

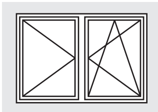
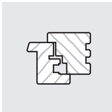
All striker positions are frame rebate dimensions on assembled frames. Airgap $12^{+1}$ mm.

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

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 331 – 1650 | |
| 1B | 556 | 1051 – 1650 | |
| 1C | 307 | 1251 – 1650 | |
| 1D | 466 | 1251 – 1650 | |
| 2A | 18,5 | 305 – 1650 | |
| 2B | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 3A | 67 | 305 – 330 | 411 – 3000 |
| 3B | 500 | | 801 – 1000 |
| | 700 | | 1001 – 1400 |
| | 800 | | 1401 – 1600 |
| | 1100 | | 1601 – 1800 |
| | 1300 | | 1801 – 2000 |
| | 1600 | | 2001 – 3000 |
| 3C | 400 | | 1601 – 1800 |
| | 600 | | 1801 – 2000 |
| | 800 | | 2001 – 3000 |
| 3D | 1143 | | 1801 – 3000 |
| 3E | 448 | | 2401 – 2600 |
| | 448 | | 2801 – 3000 |
| 3F | 648 | | 2601 – 2800 |
| | 848 | | 2801 – 3000 |
| 4A | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4B | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4C | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

# TITAN AF

## Installation instructions

GS

2-sash square tilt-turn/turn DS 16

timber 12 mm

basic security

fixed handle position

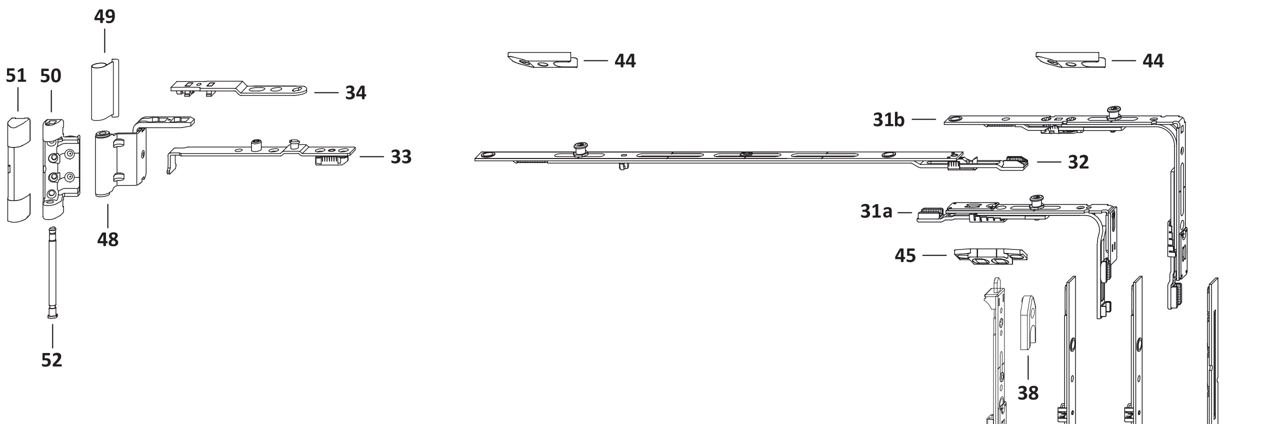
Hinge side TITAN

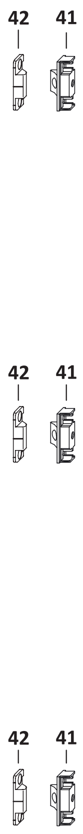
surface TS

backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 1RS |
| **Hinge side turning points** | Standard HZ12 |

2



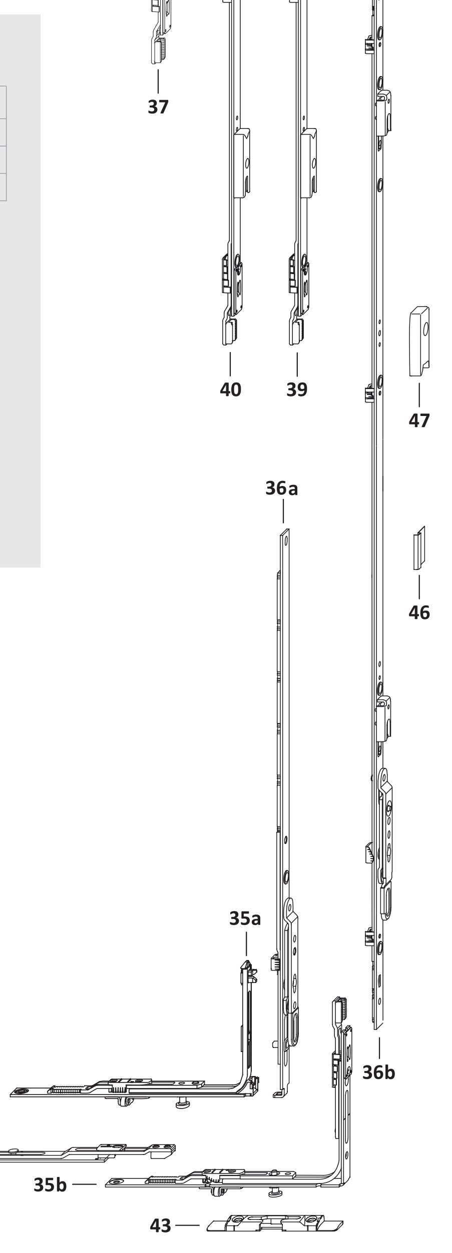



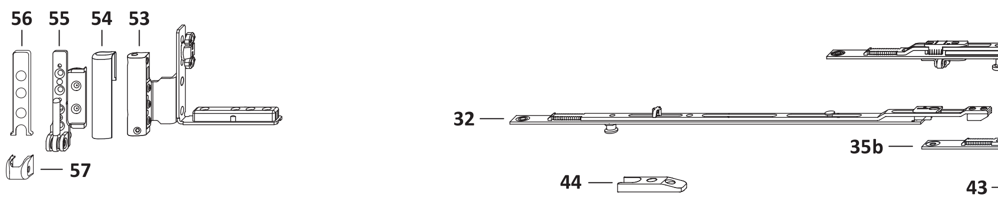

## Size range

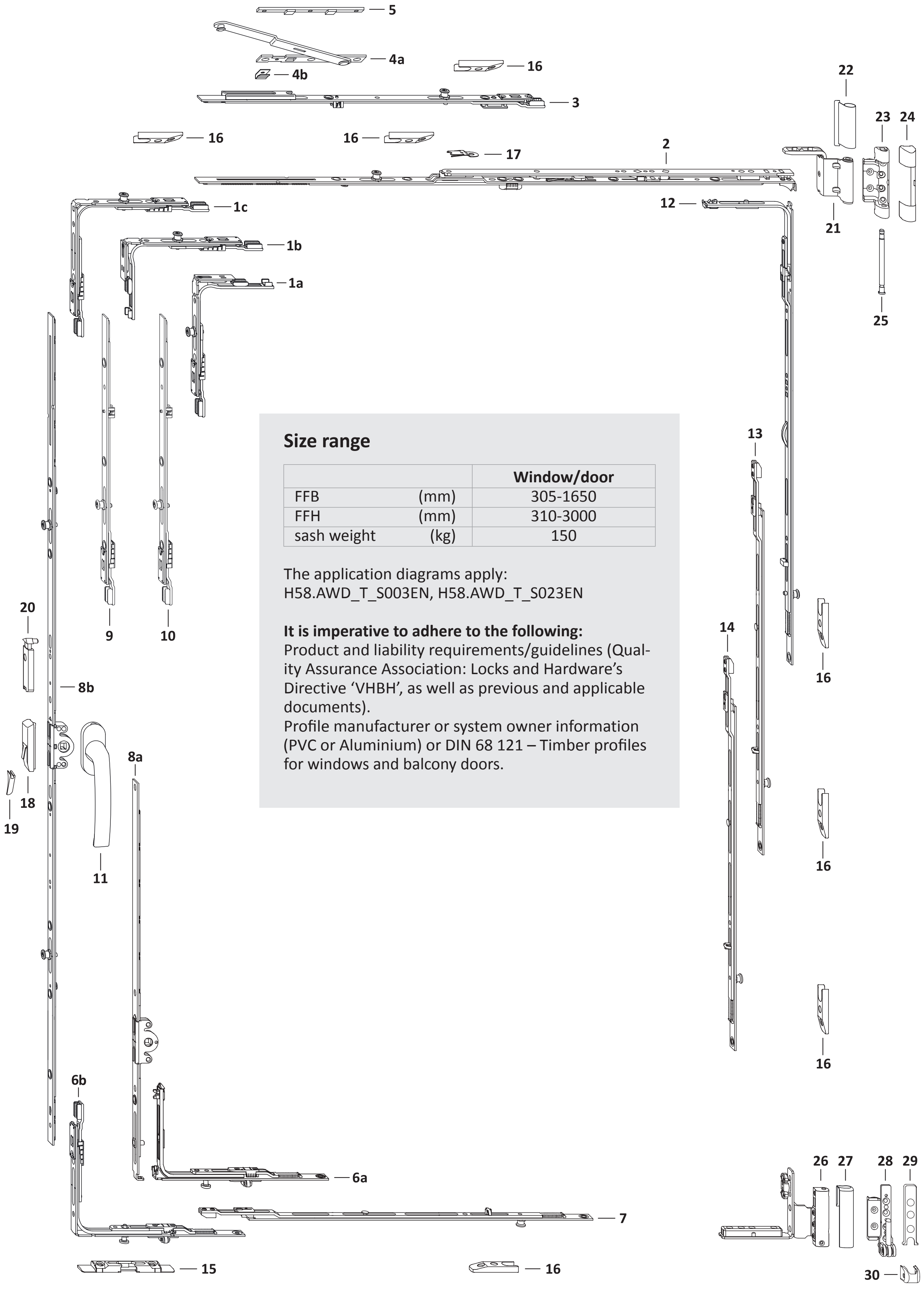
| | | Window/door |
|---|---|---|
| FFB | (mm) | 305-1650 |
| FFH | (mm) | 310-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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) | 305-1650 |
| FFH | (mm) | 310-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

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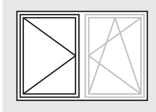
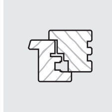
# List of fittings slave sash

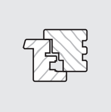
2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN

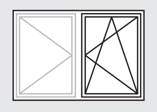





| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | In the main sash | 43 | 44 | 45 |
| 31a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 371 – 850 | 310 – 410 | | | 1 | |
| 31b | corn.drive VSO/K+ DF 1RS | TEUL4110- ... | 1 | 371 – 1650 | 411 – 3000 | | | 1 | |
| 32 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 2 | 1051 – 1450 | | | | 2 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 2 | |
| 33 | stay sash part DF/MN | TSSD0020- ... | 1 | 305 – 1650 | | | | | |
| 34 | stay arm DF | TSAD0010- ... | 1 | 305 – 1650 | | | | | |
| 35a | locking part VSU/K FH+ 1S | TEVR1400- ... | 1 | 305 – 1650 | 411 – 800 | | 1 | | |
| | locking part VSU/K FH+ 1S | TEVR1400- ... | | 371 – 850 | 310 – 410 | | 1 | | |
| 35b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 305 – 1650 | 801 – 3000 | | 1 | | |
| 36a | sec.sash gear 16 sz 30 | TGKS0010- ... | 1 | 371 – 850 | 310 – 410 | 180 | | | |
| | sec.sash gear 16 sz 30 | TGKS0010- ... | | 305 – 1250 | 411 – 600 | 180 | | | |
| | sec.sash gear 16 AF 60/G300 | TGKS4030- ... | | | 601 – 800 | 300 | | | |
| 36b | sec.sash gear 16 AF80/G400 1SB | TGKS4050- ... | 1 | | 801 – 1000 | 400 | | | |
| | sec.sash gear 16 AF sz 100 1SB | TGKS4060- ... | | | 1001 – 1200 | 500 | | | |
| | sec.sash gear 16 AF120/G6001SB | TGKS4070- ... | | | 1201 – 1400 | 600 | | | |
| | sec.sash gear 16 AF140/G7001SB | TGKS4080- ... | | | 1401 – 1600 | 700 | | | |
| | sec.sash gear 16 AF160/G7002SB 70 | TGKS4330- ... | | | 1601 – 1800 | 700 | | | |
| | sec.sash gear 16AF180/G10002SB 70 | TGKS4270- ... | | | 1801 – 2000 | 1000 | | | |
| | sec.sash gear 16AF200/G10002SB | TGKS4110- ... | | | 2001 – 3000 | 1000 | | | |
| 37 | locking bolt AF VSO RSA 11 | TESC2030- ... | 1 | 305 – 370 | 411 – 3000 | | | | 1 |
| 38 | striker plate A0767 | TRSA0010- ... | 1 | 305 – 330 | 411 – 3000 | | | | |
| 39 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2401 – 2600 | | | | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | | |
| 40 | linkage AF sz 2 1SB-RS | TZKS1030- ... | 1 | | 2601 – 2800 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | | |
| 41 | sash part MV | Ref. PDB, ZFMV01 | 1 | | 1001 – 1600 | | | | |
| | sash part MV | Ref. PDB, ZFMV01 | 2 | | 1601 – 2400 | | | | |
| | sash part MV | Ref. PDB, ZFMV01 | 3 | | 2401 – 3000 | | | | |
| 42 | frame part MV | Ref. PDB, ZRZM01 | 1 | | 1001 – 1600 | | | | |
| | frame part MV | Ref. PDB, ZRZM01 | 2 | | 1601 – 2400 | | | | |
| | frame part MV | Ref. PDB, ZRZM01 | 3 | | 2401 – 3000 | | | | |
| 43 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | | |
| 44 | striker plate 56 | Ref. PDB, FRSB | | | | | | | |
| 45 | striker V | Ref. PDB, FRZV02 | | | | | | | |
| on request | | | | | | | | | |
| 46 | stop | Ref. PDB, FRZF04 | 1 | | 601 – 3000 | | | | |
| 47 | striker snapper A0767 | TRST0010- ... | 1 | | 1801 – 3000 | | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 48 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 49 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 50 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 51 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 52 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 53 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 54 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 55 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 56 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 57 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |







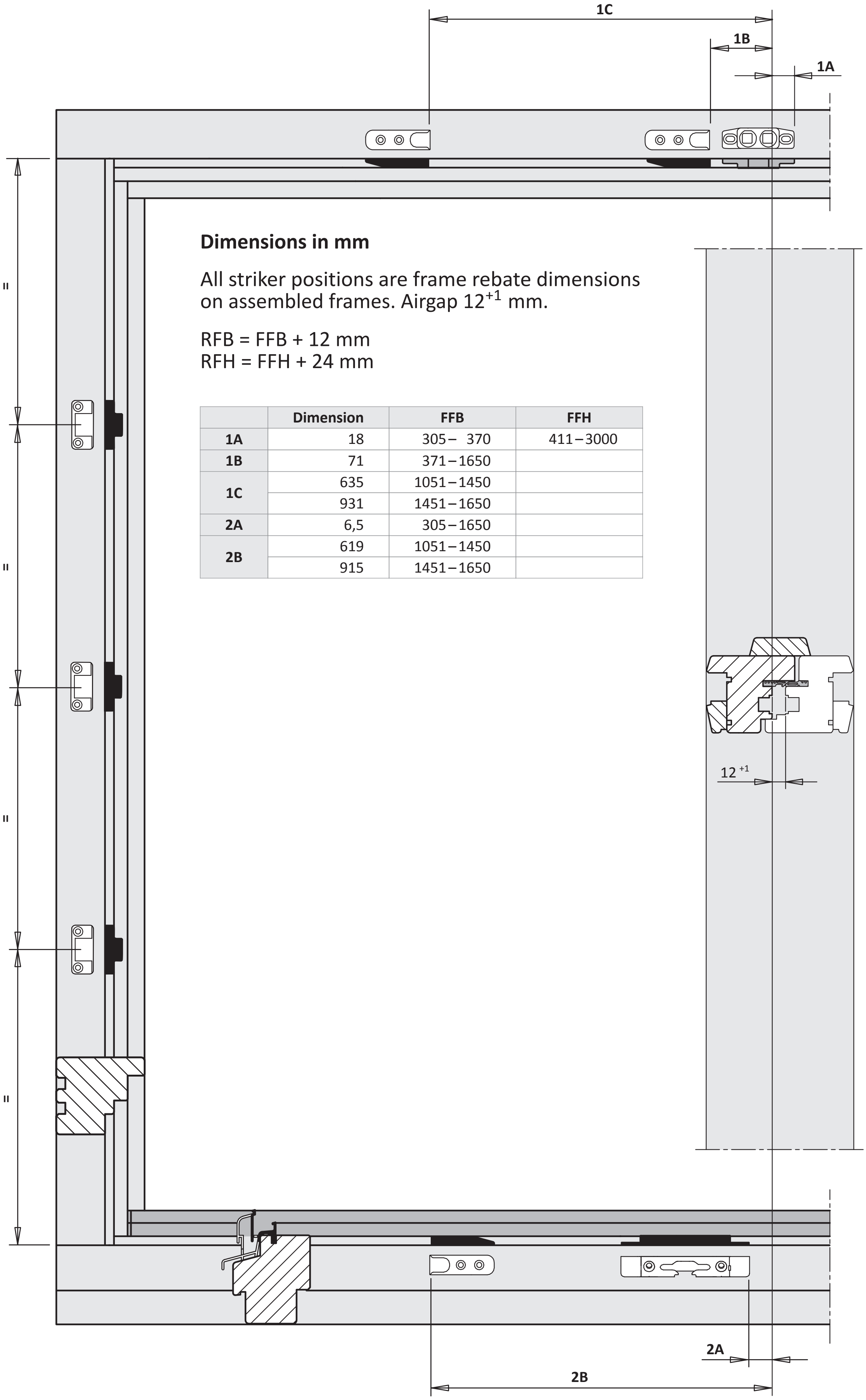
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 15 | 16 |
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 305 – 330 | 411 – 3000 | | | |
| 1b | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 371 – 850 | 310 – 410 | | | 1 |
| 1c | corn.drive VSO 1RS | TEUL4010- ... | 1 | 331 – 1650 | 411 – 3000 | | | 1 |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 305 – 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | | 1 |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | | 1 |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | | 1 |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | | 1 |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | |
| 6a | locking part VSU/K FH+ 1S | TEVR1400- ... | 1 | 305 – 1250 | 411 – 600 | | 1 | |
| | locking part VSU/K FH+ 1S | TEVR1400- ... | | 371 – 850 | 310 – 410 | | 1 | |
| 6b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 305 – 1650 | 601 – 3000 | | 1 | |
| 7 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 1 |
| 8a | gear 15 sz 30/G180 | TGKK3010- ... | 1 | 371 – 850 | 310 – 410 | 180 | | |
| | gear 15 sz 30/G180 | TGKK3010- ... | | 305 – 1250 | 411 – 600 | 180 | | |
| 8b | gear 15 AF sz 60/G300 | TGKK4030- ... | 1 | | 601 – 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/G700 1RS | TGKK4080- ... | | | 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 2RS | TGKK4110- ... | | | 2001 – 3000 | 1000 | | |
| 9 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2401 – 2600 | | | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | |
| 10 | linkage KK/AF sz 2 1RS | TZKK1020- ... | 1 | | 2601 – 2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | |
| 11 | handle Globe | Ref.access. ZHGS | 1 | | 310 – 3000 | | | |
| 12 | corn.drive BS/K3 sz 1+ 1RS | TEUL2410- ... | 1 | | 1001 – 1200 | | | 1 |
| | corn.drive BS/K3 sz 2+ 1RS | TEUL2420- ... | | | 1201 – 3000 | | | 1 |
| 13 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | | 1 |
| 14 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | | 1 |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | | 1 |
| 15 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | |
| 16 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| **on request** | | | | | | | | |
| 17 | tilt restrictor .. | TFKB0010- ... | 1 | | 310 – 800 | | | |
| 18 | mishandling device | TFBS0010- ... | 1 | | 601 – 3000 | | | |
| 19 | pressure piece | Ref. PDB, TFFD | 1 | | 601 – 3000 | | | |
| 20 | snapper switchable rh. | TFST0011- ... | 1 | | 1801 – 3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1801 – 3000 | | | |

# List of fittings main sash

2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN



| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| **Pos.** | **Description** | **Part number** | | | **required as per sash weight** |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| **21** | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| **22** | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| **23** | top hinge | Ref. PDB, TBSL81 | | | 1 |
| **24** | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| **25** | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| **26** | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| **27** | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| **28** | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| **29** | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| **30** | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |




**Dimensions in mm**

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

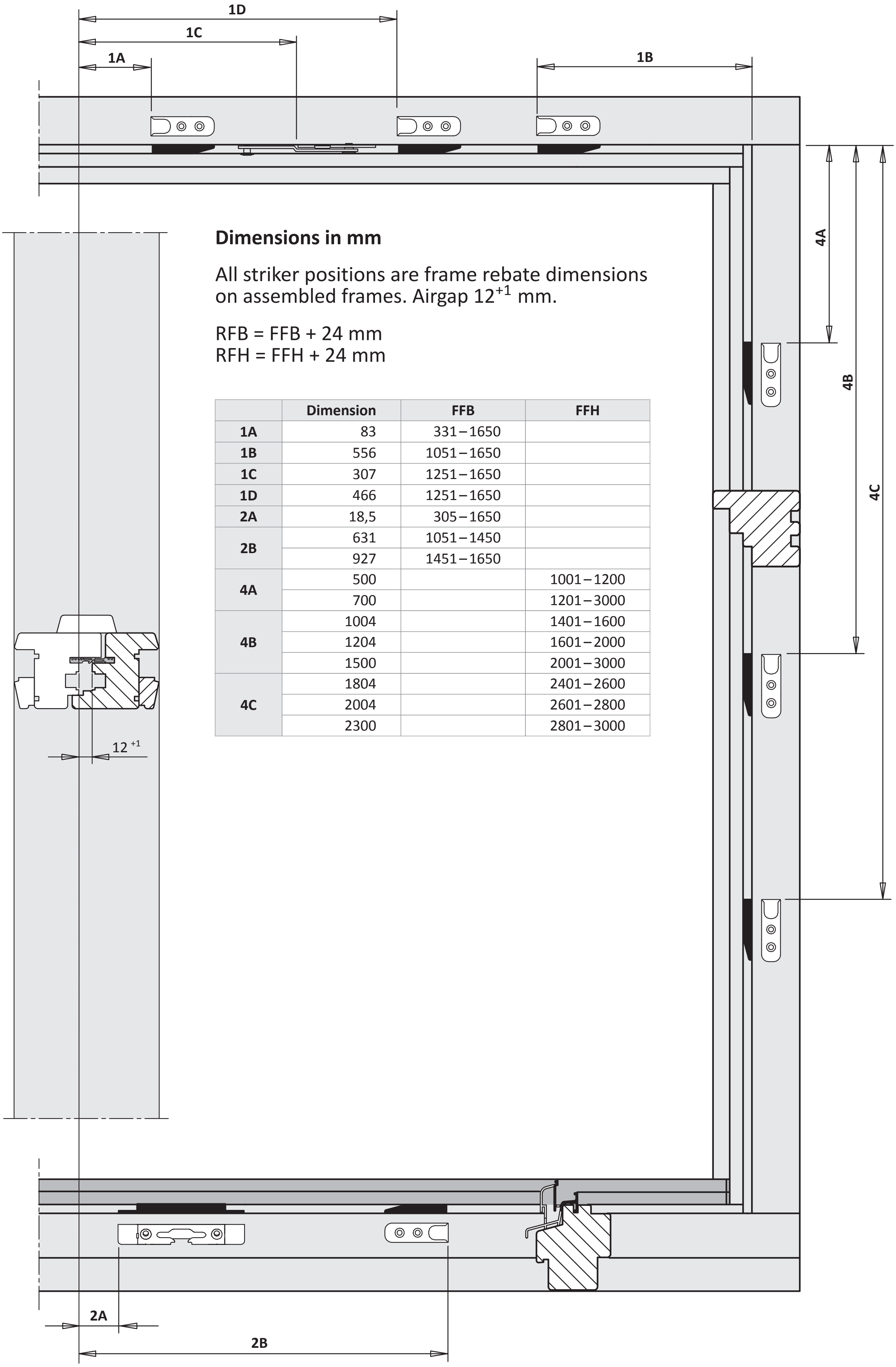
RFB = FFB + 12 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 18 | 305– 370 | 411–3000 |
| 1B | 71 | 371–1650 | |
| 1C | 635 | 1051–1450 | |
| | 931 | 1451–1650 | |
| 2A | 6,5 | 305–1650 | |
| 2B | 619 | 1051–1450 | |
| | 915 | 1451–1650 | |

# Frame dimensions main sash

2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN






**Dimensions in mm**

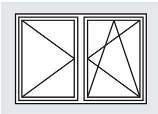
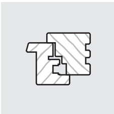
All striker positions are frame rebate dimensions on assembled frames. Airgap $12^{+1}$ mm.

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

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 331 – 1650 | |
| 1B | 556 | 1051 – 1650 | |
| 1C | 307 | 1251 – 1650 | |
| 1D | 466 | 1251 – 1650 | |
| 2A | 18,5 | 305 – 1650 | |
| 2B | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 4A | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4B | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4C | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

# TITAN AF

## Installation instructions

  GS

2-sash square tilt-turn/turn DS 16

timber 12 mm

basic security

fixed handle position

Hinge side TITAN

surface TS

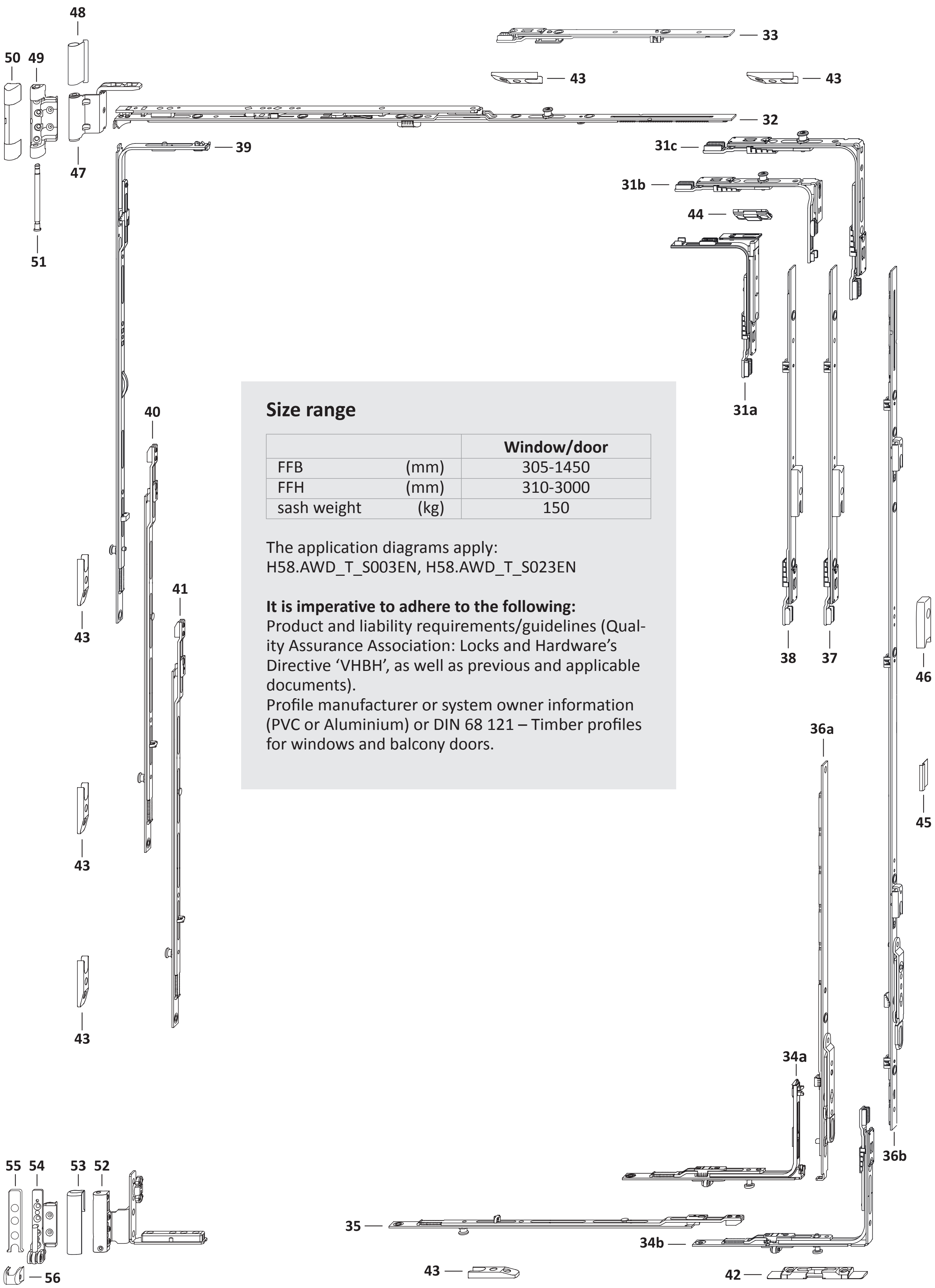
backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000; secondary sash with DK-stay |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 1RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout slave sash

2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN






## Size range

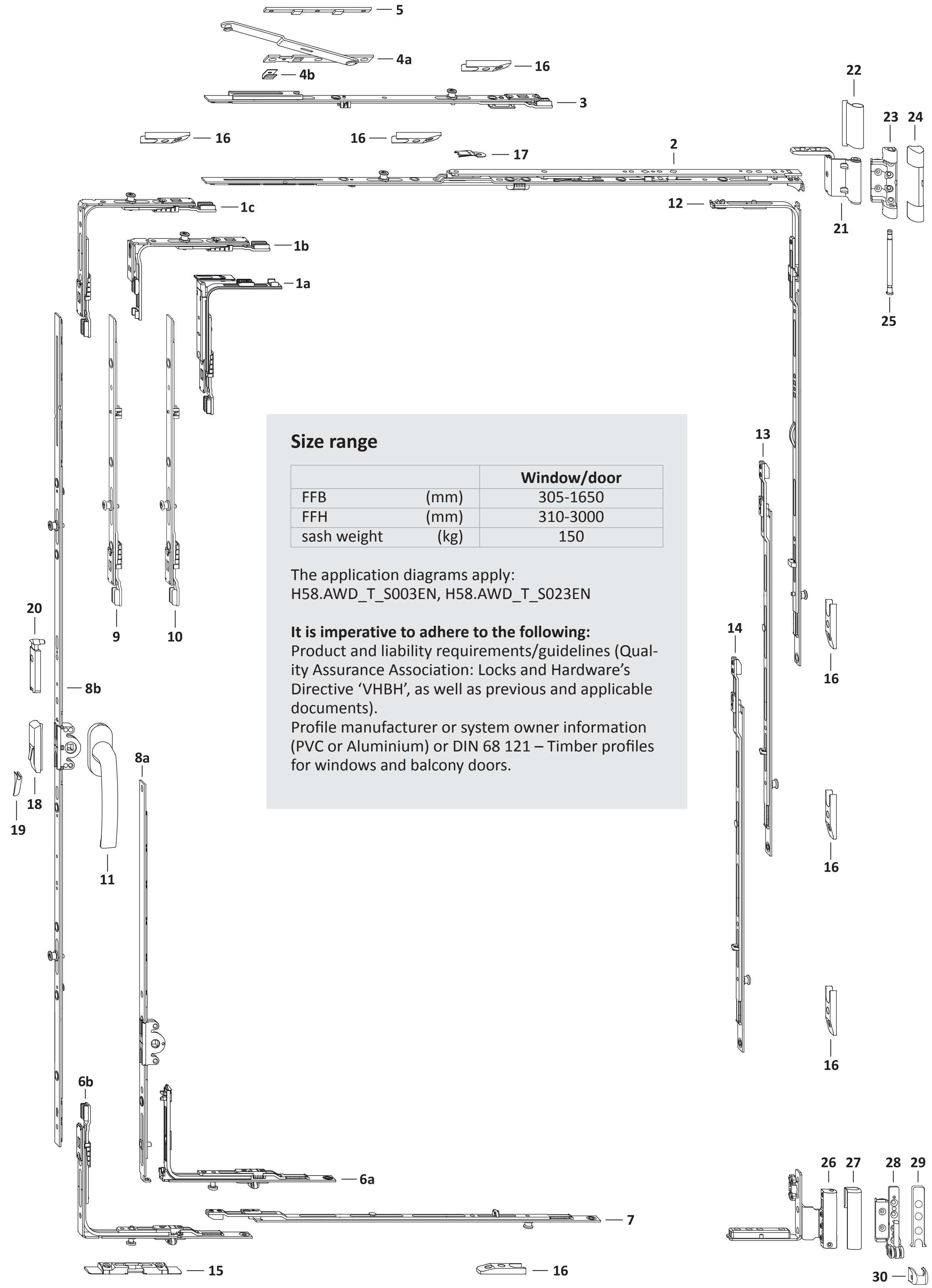
| | | Window/door |
|---|---|---|
| FFB | (mm) | 305-1450 |
| FFH | (mm) | 310-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**It is imperative to adhere to the following:**
Product and liability requirements/guidelines (Quality Assurance Association: Locks and Hardware's Directive 'VBHB', 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.

# hardware layout main sash

2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN




### Size range

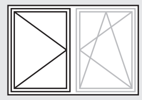
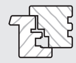
| | | Window/door |
|---|---|---|
| FFB | (mm) | 305-1650 |
| FFH | (mm) | 310-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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

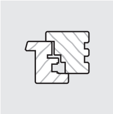
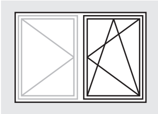
2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN



| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | In the main sash | 42 | 43 | 44 |
| 31a | corn.drive VSO narrow RSA/11mm | TEUL4150- ... | 1 | 305 – 330 | 411 – 3000 | | | | 1 |
| 31b | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 331 – 850 | 310 – 410 | | | 1 | |
| 31c | corn.drive VSO 1RS | TEUL4010- ... | 1 | 331 – 1450 | 411 – 3000 | | | 1 | |
| 32 | stay AF sz 0 | TSKK2000- ... | 1 | 305 – 450 | | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1450 | | | | 1 | |
| 33 | linkage AF sz 1 | TZZS0150- ... | 1 | 1251 – 1450 | | | | | |
| 34a | locking part VSU/K FH+ 1S | TEVR1400- ... | 1 | 305 – 1450 | 411 – 800 | | 1 | | |
| | locking part VSU/K FH+ 1S | TEVR1400- ... | | 371 – 850 | 310 – 410 | | 1 | | |
| 34b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 305 – 1450 | 801 – 3000 | | 1 | | |
| 35 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 | |
| 36a | sec.sash gear 16 sz 30 | TGKS0010- ... | 1 | 371 – 850 | 310 – 410 | 180 | | | |
| | sec.sash gear 16 sz 30 | TGKS0010- ... | | 305 – 1250 | 411 – 600 | 180 | | | |
| | sec.sash gear 16 AF 60/G300 | TGKS4030- ... | | | 601 – 800 | 300 | | | |
| 36b | sec.sash gear 16 AF80/G400 1SB | TGKS4050- ... | 1 | | 801 – 1000 | 400 | | | |
| | sec.sash gear 16 AF sz 100 1SB | TGKS4060- ... | | | 1001 – 1200 | 500 | | | |
| | sec.sash gear 16 AF120/G6001SB | TGKS4070- ... | | | 1201 – 1400 | 600 | | | |
| | sec.sash gear 16 AF140/G7001SB | TGKS4080- ... | | | 1401 – 1600 | 700 | | | |
| | sec.sash gear 16 AF160/G7002SB 70 | TGKS4330- ... | | | 1601 – 1800 | 700 | | | |
| | sec.sash gear 16AF180/G10002SB 70 | TGKS4270- ... | | | 1801 – 2000 | 1000 | | | |
| | sec.sash gear 16AF200/G10002SB | TGKS4110- ... | | | 2001 – 3000 | 1000 | | | |
| 37 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2401 – 2600 | | | | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | | |
| 38 | linkage AF sz 2 1SB-RS | TZKS1030- ... | 1 | | 2601 – 2800 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | | |
| 39 | corn.drive BS/K3 sz 1+ 1RS | TEUL2410- ... | 1 | | 1001 – 1200 | | | 1 | |
| | corn.drive BS/K3 sz 2+ 1RS | TEUL2420- ... | | | 1201 – 3000 | | | 1 | |
| 40 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | | 1 | |
| 41 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | | 1 | |
| 42 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | | |
| 43 | striker plate 56 | Ref. PDB, FRSB | | | | | | | |
| 44 | short striker V | Ref. PDB, FRZV12 | | | | | | | |
| **on request** | | | | | | | | | |
| 45 | stop | Ref. PDB, FRZF04 | 1 | | 601 – 3000 | | | | |
| 46 | striker snapper A0767 | TRST0010- ... | 1 | | 1801 – 3000 | | | | |

| Hinge side turning points | | | | |
|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 47 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 48 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 49 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 50 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 51 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 52 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 53 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 54 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 55 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 56 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |



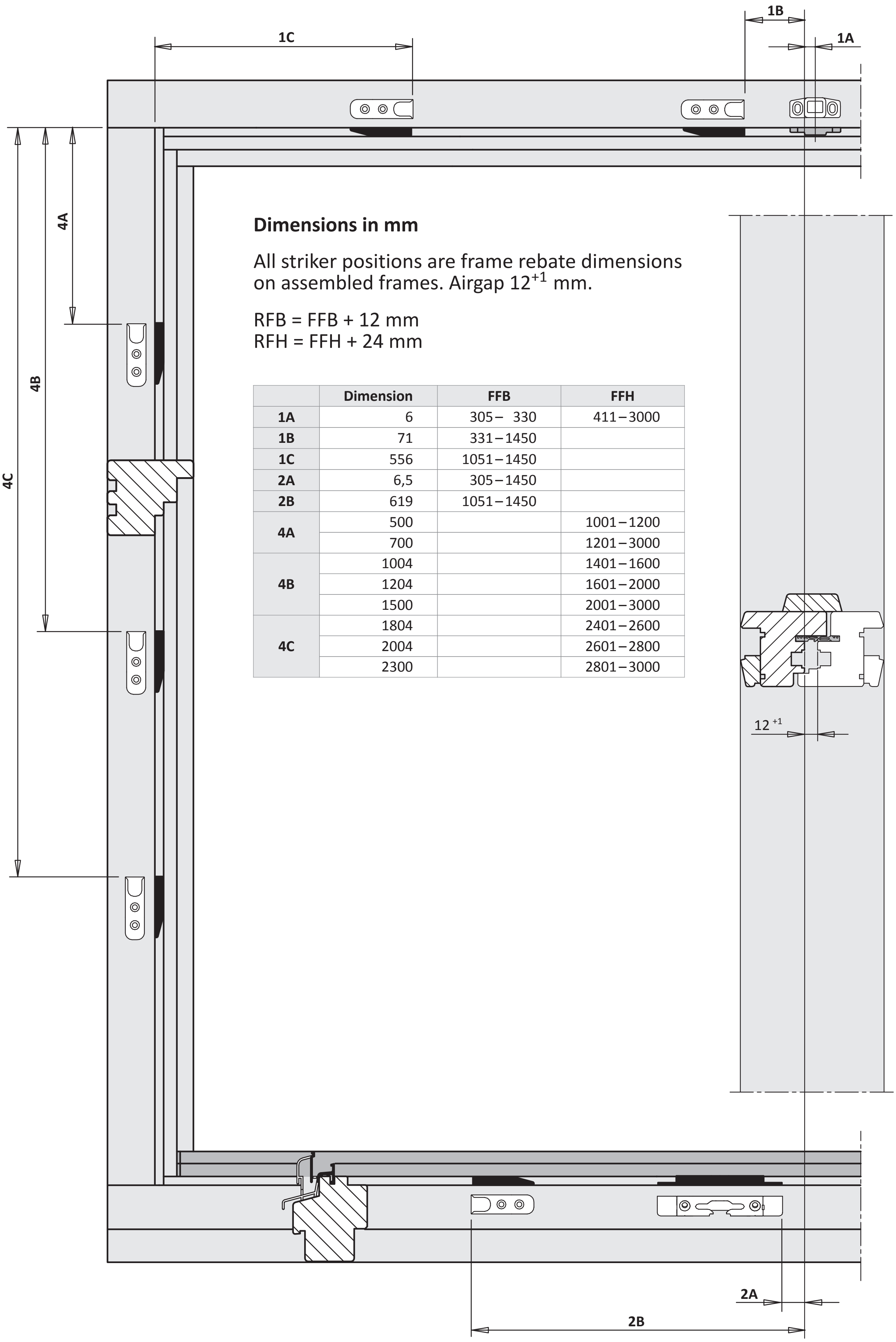
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. 15 | Number of frame parts / Pos. 16 |
|---|---|---|---|---|---|---|---|---|
| **1a** | corn.drive VSO narrow RSA/11mm | TEUL4150- ... | 1 | 305 – 330 | 411 – 3000 | | | |
| **1b** | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 331 – 850 | 310 – 410 | | | 1 |
| **1c** | corn.drive VSO 1RS | TEUL4010- ... | 1 | 331 – 1650 | 411 – 3000 | | | 1 |
| **2** | stay AF sz 0 | TSKK2000- ... | 1 | 305 – 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | | 1 |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | | 1 |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | | 1 |
| **3** | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | | 1 |
| **4** | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | |
| **5** | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | |
| **6a** | locking part VSU/K FH+ 1S | TEVR1400- ... | 1 | 305 – 1250 | 411 – 600 | | 1 | |
| | locking part VSU/K FH+ 1S | TEVR1400- ... | | 371 – 850 | 310 – 410 | | 1 | |
| **6b** | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 305 – 1650 | 601 – 3000 | | 1 | |
| **7** | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 1 |
| **8a** | gear 15 sz 30/G180 | TGKK3010- ... | 1 | 331 – 850 | 310 – 410 | 180 | | |
| | gear 15 sz 30/G180 | TGKK3010- ... | | 305 – 1250 | 411 – 600 | 180 | | |
| **8b** | gear 15 AF sz 60/G300 | TGKK4030- ... | 1 | | 601 – 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/G700 1RS | TGKK4080- ... | | | 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 2RS | TGKK4110- ... | | | 2001 – 3000 | 1000 | | |
| **9** | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2401 – 2600 | | | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | |
| **10** | linkage KK/AF sz 2 1RS | TZKK1020- ... | 1 | | 2601 – 2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | |
| **11** | handle Globe | Ref.access. ZHGS | 1 | | 310 – 3000 | | | |
| **12** | corn.drive BS/K3 sz 1+ 1RS | TEUL2410- ... | 1 | | 1001 – 1200 | | | 1 |
| | corn.drive BS/K3 sz 2+ 1RS | TEUL2420- ... | | | 1201 – 3000 | | | 1 |
| **13** | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | | 1 |
| **14** | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | | 1 |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | | 1 |
| **15** | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | |
| **16** | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| | | | **on request** | | | | | |
| **17** | tilt restrictor .. | TFKB0010- ... | 1 | | 310 – 800 | | | |
| **18** | mishandling device | TFBS0010- ... | 1 | | 601 – 3000 | | | |
| **19** | pressure piece | Ref. PDB, TFFD | 1 | | 601 – 3000 | | | |
| **20** | snapper switchable rh. | TFST0011- ... | 1 | | 1801 – 3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1801 – 3000 | | | |

# List of fittings main sash

2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN



| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| **Pos.** | **Description** | **Part number** | | | **required as per sash weight** |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| **21** | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| **22** | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| **23** | top hinge | Ref. PDB, TBSL81 | | | 1 |
| **24** | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| **25** | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| **26** | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| **27** | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| **28** | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| **29** | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| **30** | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |




**Dimensions in mm**

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

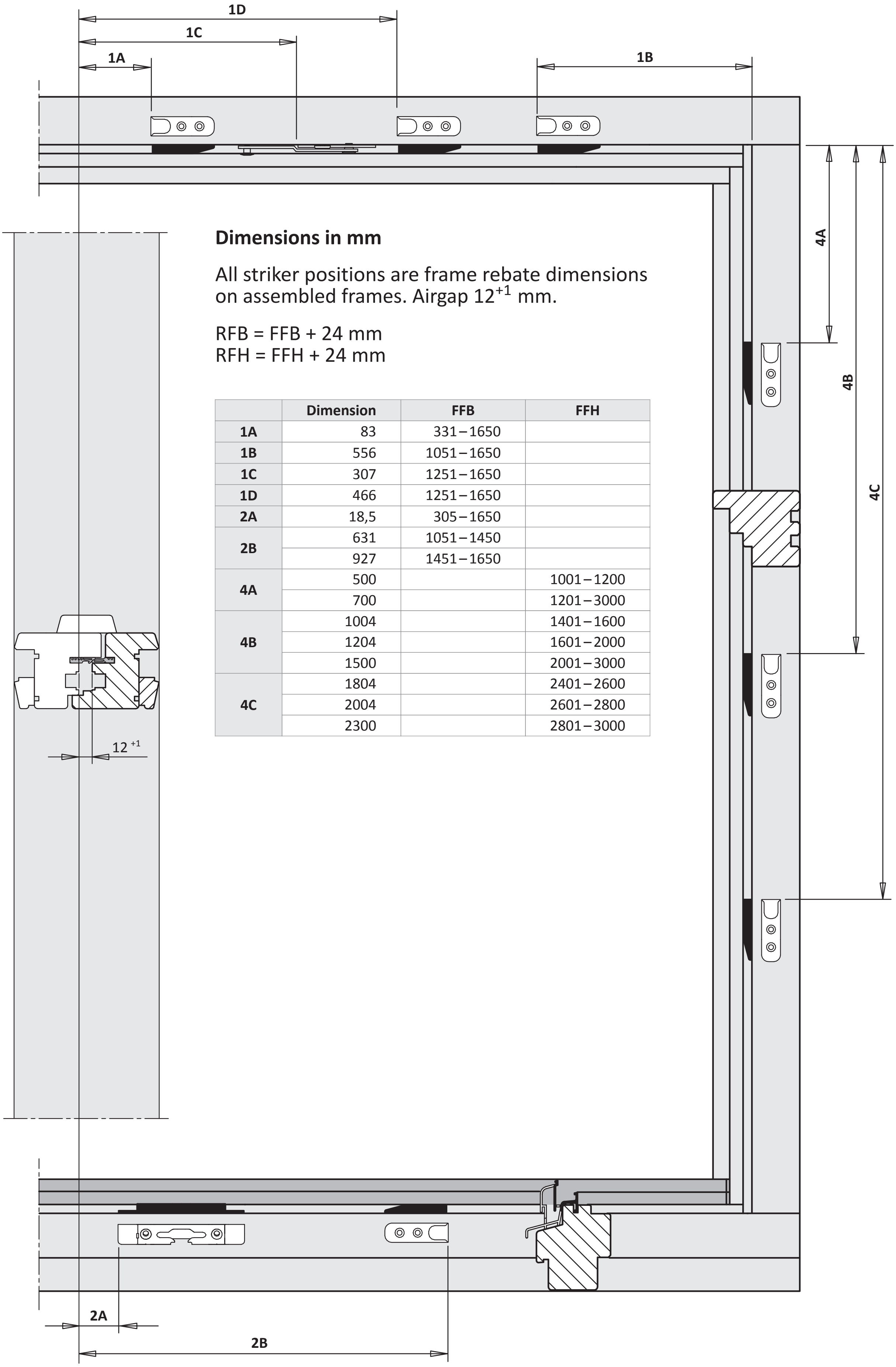
RFB = FFB + 12 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| **1A** | 6 | 305 – 330 | 411 – 3000 |
| **1B** | 71 | 331 – 1450 | |
| **1C** | 556 | 1051 – 1450 | |
| **2A** | 6,5 | 305 – 1450 | |
| **2B** | 619 | 1051 – 1450 | |
| **4A** | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| **4B** | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| **4C** | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

# Frame dimensions main sash

2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN






**Dimensions in mm**

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

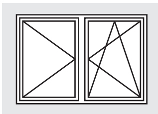
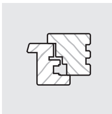
RFB = FFB + 24 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 331 – 1650 | |
| 1B | 556 | 1051 – 1650 | |
| 1C | 307 | 1251 – 1650 | |
| 1D | 466 | 1251 – 1650 | |
| 2A | 18,5 | 305 – 1650 | |
| 2B | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 4A | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4B | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4C | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

2

# TITAN AF

## Installation instructions

  GS

2-sash square tilt-turn/turn DS 8

timber 12 mm

basic security

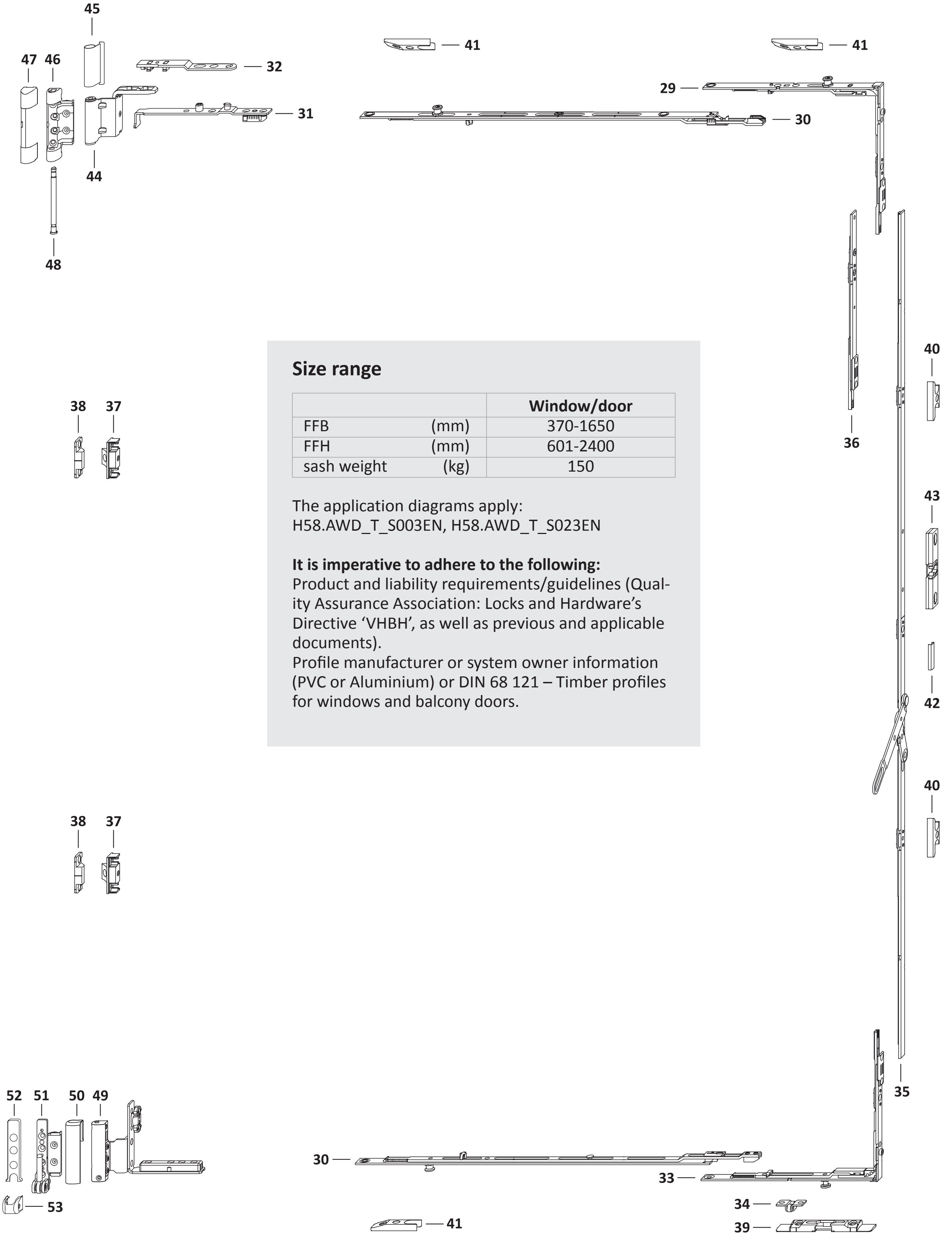
fixed handle position

Hinge side TITAN

surface TS

backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 1RS |
| **Hinge side turning points** | Standard HZ12 |

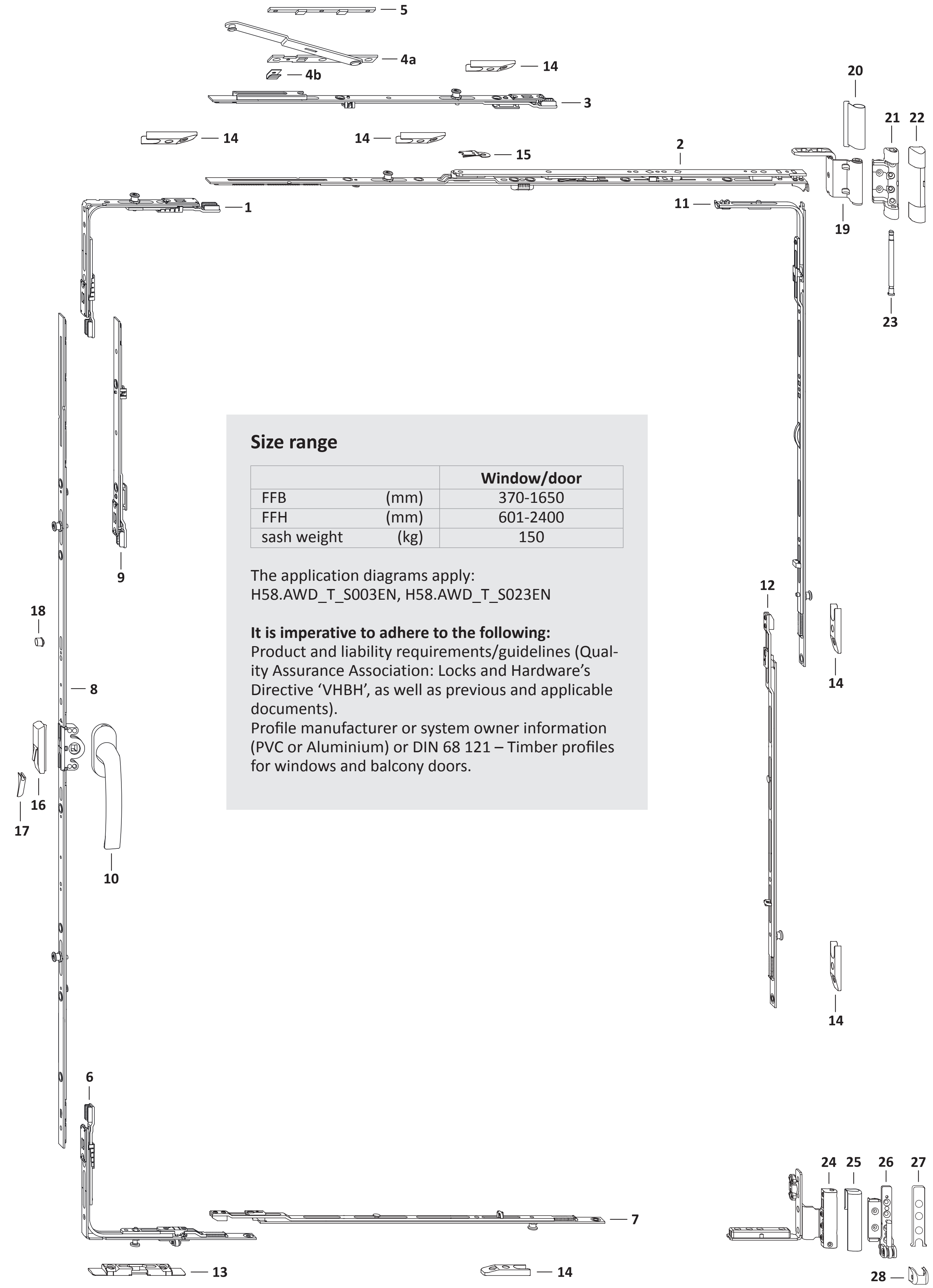



### Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 370-1650 |
| FFH | (mm) | 601-2400 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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) | 370-1650 |
| FFH | (mm) | 601-2400 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

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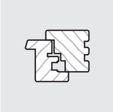
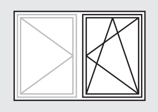
# List of fittings slave sash

2-sash square tilt-turn/turn DS 8
H12 GK Hinge side TITAN

| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | In the main sash | 39 | 40 | 41 |
| 29 | corn.drive VSO/K+ DS 1RS | TEUL4120- ... | 1 | 370 – 1650 | | | | | 1 |
| 30 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 2 | 1051 – 1450 | | | | | 2 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | | 2 |
| 31 | stay sash part DF/MN | TSSD0020- ... | 1 | 370 – 1650 | | | | | |
| 32 | stay arm DF | TSAD0010- ... | 1 | 370 – 1650 | | | | | |
| 33 | corn.drive AF VSU/K+ DS 1S | TEUL1230- ... | 1 | 370 – 1650 | | | 1 | | |
| 34 | sash lift .. | TFFH0020- ... | 1 | 370 – 1650 | | | | | |
| 35 | sec.sash gear 8 sz 60/G300 | TGKS1030- ... | 1 | | 601 – 800 | 300 | | | |
| | sec.sash gear 8 sz 80/G400 | TGKS1050- ... | | | 801 – 1000 | 400 | | 1 | |
| | sec.sash gear 8 sz 100/G500 | TGKS1060- ... | | | 1001 – 1200 | 500 | | 1 | |
| | sec.sash gear 8 sz 120/G600 | TGKS1070- ... | | | 1201 – 1400 | 600 | | 1 | |
| | sec.sash gear 8 sz 140/G700 70 | TGKS1160- ... | | | 1401 – 1600 | 700 | | 1 | |
| | sec.sash gear 8 160/G700 2SB70 70 | TGKS1150- ... | | | 1601 – 1800 | 700 | | 1 | |
| | sec.sash gear 8 sz 180/G1000 2 70 | TGKS1170- ... | | | 1801 – 2000 | 1000 | | 1 | |
| | sec.sash gear 8 sz 200/G1000 | TGKS1110- ... | | | 2001 – 2400 | 1000 | | 1 | |
| 36 | linkage KS sec.sash 8 sz 1 | TZKS1010- ... | 1 | | 2201 – 2400 | | | | |
| 37 | sash part MV | Ref. PDB, ZFMV01 | 1 | | 1001 – 1600 | | | | |
| | sash part MV | Ref. PDB, ZFMV01 | 2 | | 1601 – 2400 | | | | |
| 38 | frame part MV | Ref. PDB, ZRZM01 | 1 | | 1001 – 1600 | | | | |
| | frame part MV | Ref. PDB, ZRZM01 | 2 | | 1601 – 2400 | | | | |
| 39 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | | |
| 40 | striker plate f. gear TL | Ref. PDB, FRSA05 | | | | | | | |
| 41 | striker plate 56 | Ref. PDB, FRSB | | | | | | | |
| **on request** | | | | | | | | | |
| 42 | stop | Ref. PDB, FRZF05 | 1 | | | | | | |
| 43 | snapper | Ref. PDB, FRZB03 | 1 | | 1801 – 2400 | | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 44 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 45 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 46 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 47 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 48 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 49 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 50 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 51 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 52 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 53 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

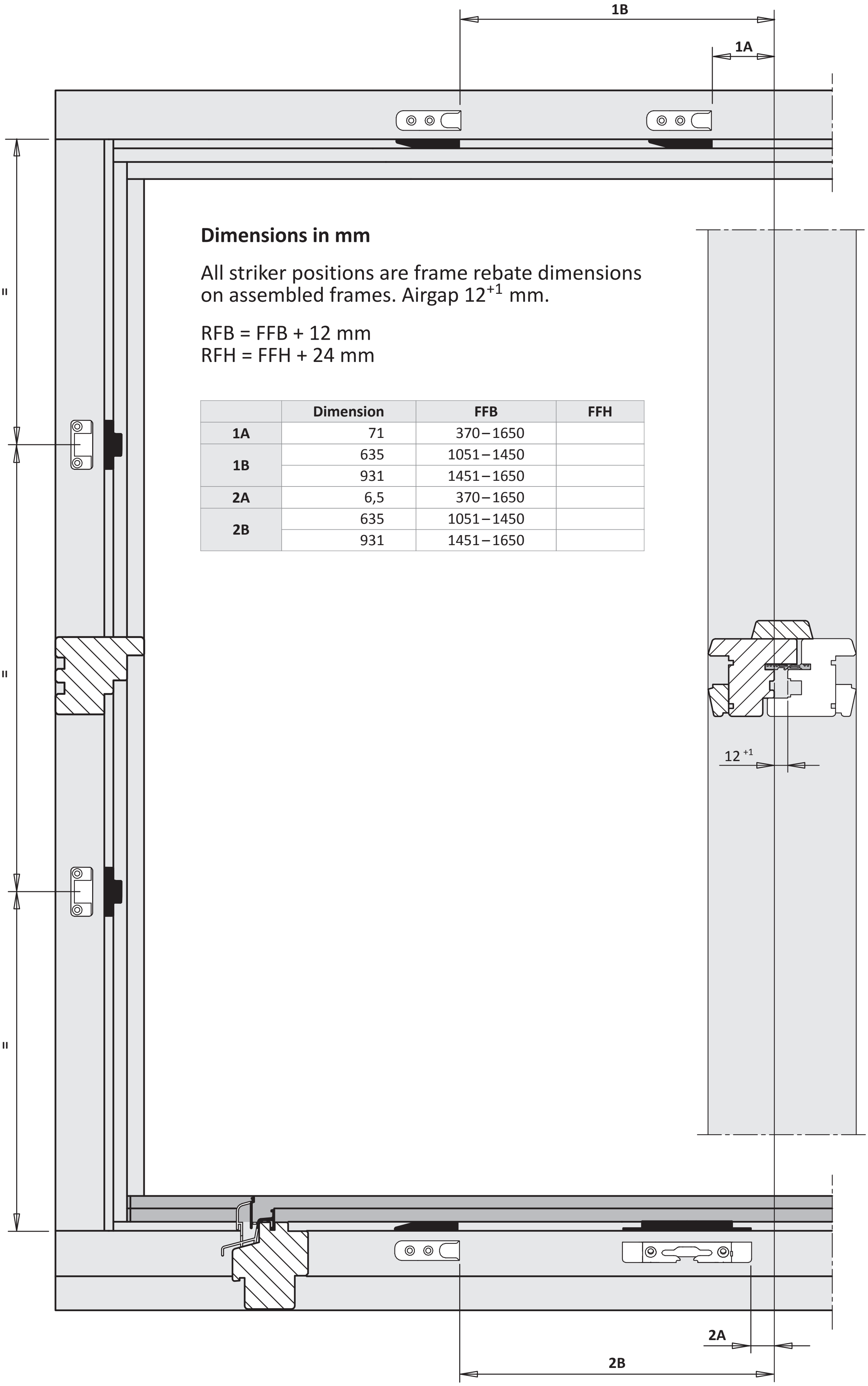
 



| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 13 | 14 |
| 1 | corn.drive VSO 1RS | TEUL4010- ... | 1 | 370 – 1650 | | | | 1 |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 370 – 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | | 1 |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | | 1 |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | | 1 |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | | 1 |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | |
| 6 | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 370 – 1650 | | | 1 | |
| 7 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 1 |
| 8 | gear 15 AF sz 60/G300 | TGKK4030- ... | 1 | | 601 – 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/G700 1RS | TGKK4080- ... | | | 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 2RS | TGKK4110- ... | | | 2001 – 2400 | 1000 | | |
| 9 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | |
| 10 | handle Globe | Ref.access. ZHGS | 1 | | 601 – 2400 | | | |
| 11 | corn.drive BS/K3 sz 1+ 1RS | TEUL2410- ... | 1 | | 1001 – 1200 | | | 1 |
| | corn.drive BS/K3 sz 2+ 1RS | TEUL2420- ... | | | 1201 – 2400 | | | 1 |
| 12 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 2400 | | | 1 |
| 13 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | |
| 14 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| **on request** | | | | | | | | |
| 15 | tilt restrictor .. | TFKB0010- ... | 1 | | 601 – 800 | | | |
| 16 | mishandling device | TFBS0010- ... | 1 | | | | | |
| 17 | pressure piece | Ref. PDB, TFFD | 1 | | | | | |
| 18 | sleeve DS | Ref. PDB, FFHU03 | 1 | | 1801 – 2400 | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 19 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 20 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 21 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 22 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 23 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 24 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 25 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 26 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 27 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 28 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

2

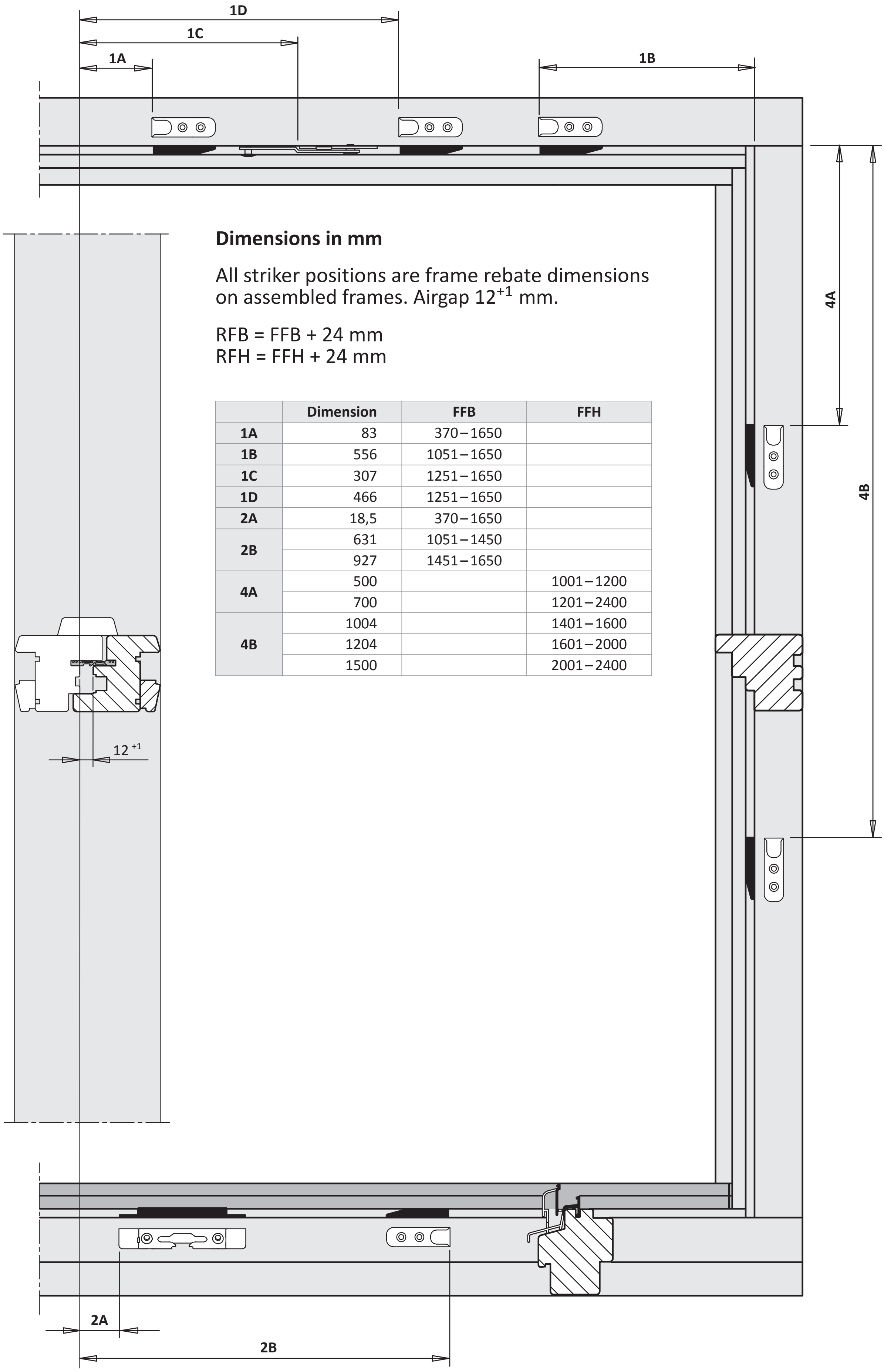



**Dimensions in mm**

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 | 370 – 1650 | |
| 1B | 635 | 1051 – 1450 | |
| | 931 | 1451 – 1650 | |
| 2A | 6,5 | 370 – 1650 | |
| 2B | 635 | 1051 – 1450 | |
| | 931 | 1451 – 1650 | |




**Dimensions in mm**

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

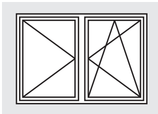
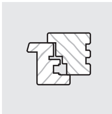
RFB = FFB + 24 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 370–1650 | |
| 1B | 556 | 1051–1650 | |
| 1C | 307 | 1251–1650 | |
| 1D | 466 | 1251–1650 | |
| 2A | 18,5 | 370–1650 | |
| 2B | 631 | 1051–1450 | |
| | 927 | 1451–1650 | |
| 4A | 500 | | 1001–1200 |
| | 700 | | 1201–2400 |
| 4B | 1004 | | 1401–1600 |
| | 1204 | | 1601–2000 |
| | 1500 | | 2001–2400 |

2

# TITAN AF

## Installation instructions

GS

2-sash square tilt-turn/turn DS 16 bolt

timber 12 mm

basic security

fixed handle position

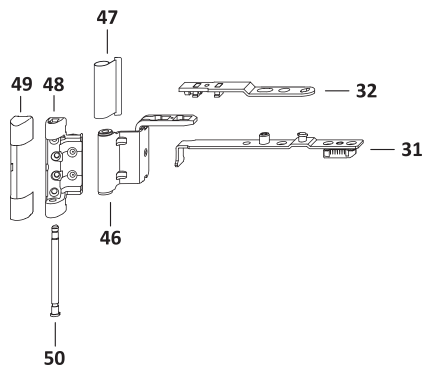
Hinge side TITAN

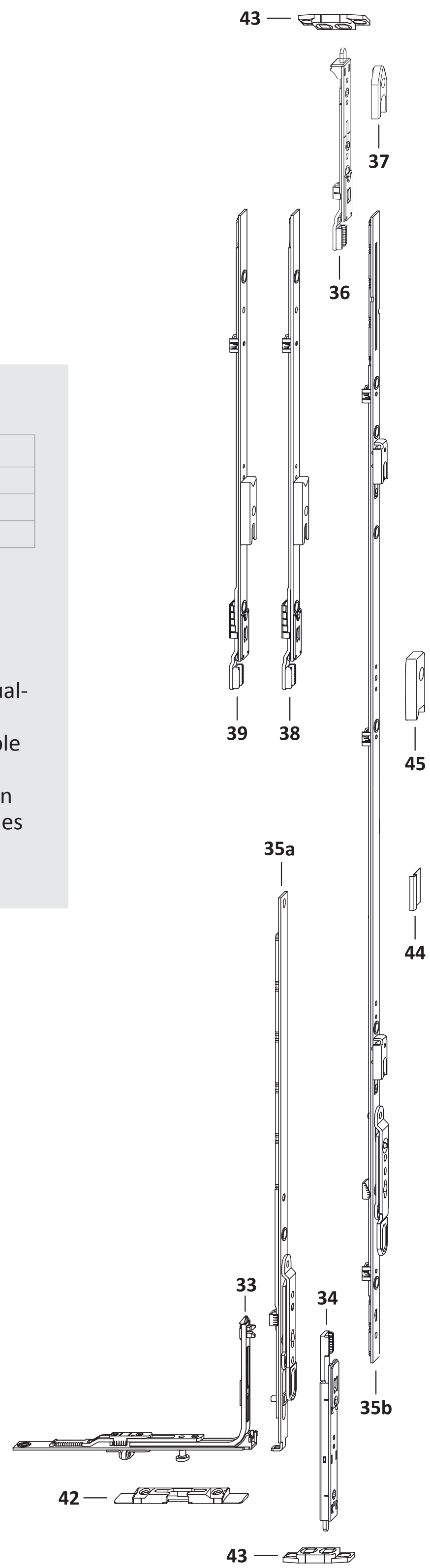
surface TS

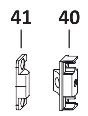
backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 1RS |
| **Hinge side turning points** | Standard HZ12 |

2




## Size range

| | Window/door |
|---|---|
| FFB (mm) | 305-1050 |
| FFH (mm) | 411-3000 |
| sash weight (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

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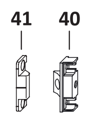


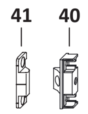


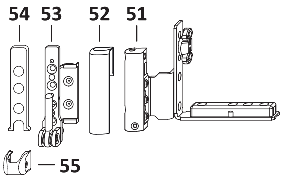

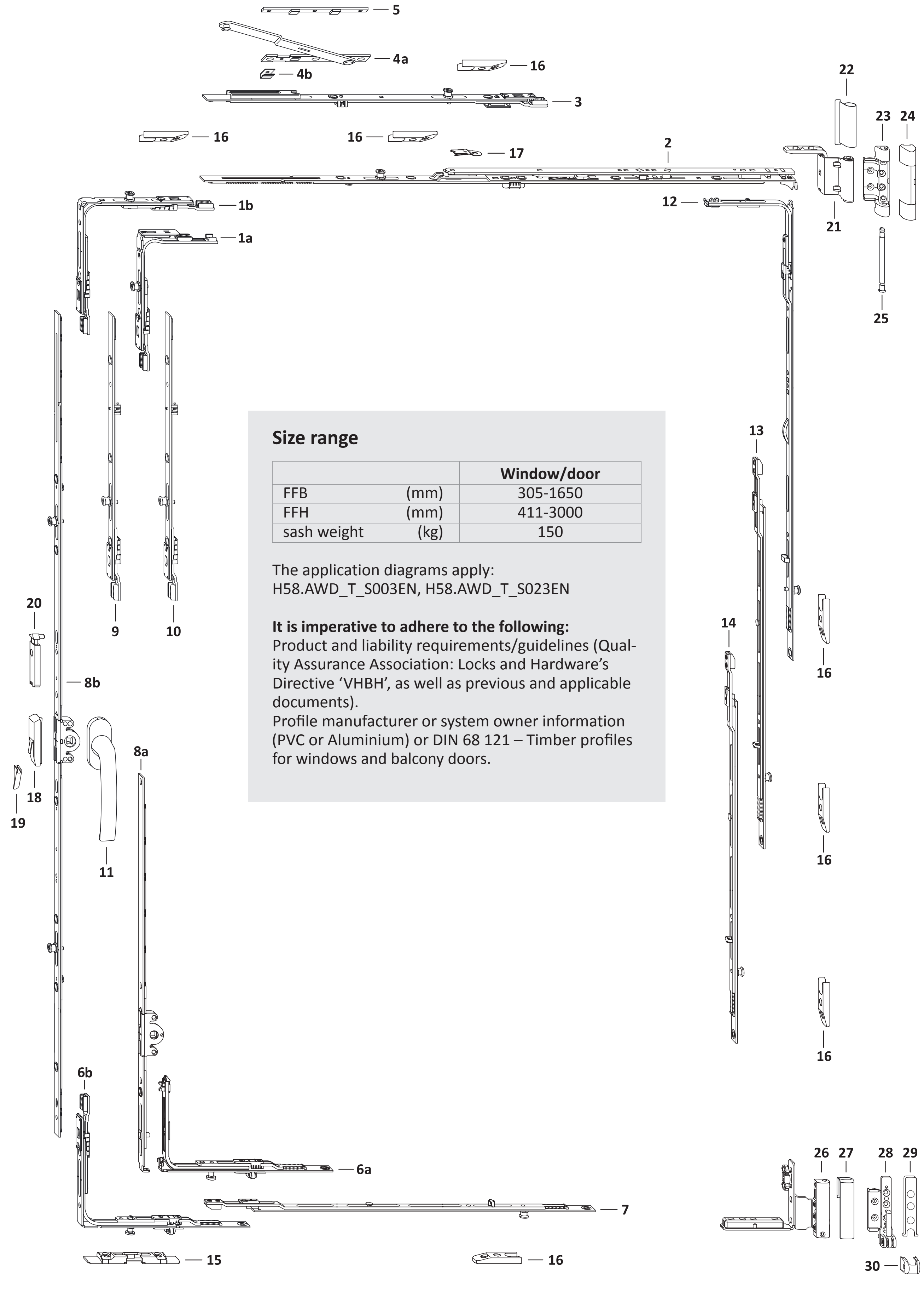


## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 305-1650 |
| FFH | (mm) | 411-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

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# List of fittings slave sash

## 2-sash square tilt-turn/turn DS 16 bolt
## H12 GK Hinge side TITAN



| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | In the main sash | 42 | 43 |
| 31 | stay sash part DF/MN | TSSD0020- ... | 1 | 305 – 1050 | | | | |
| 32 | stay arm DF | TSAD0010- ... | 1 | 305 – 1050 | | | | |
| 33 | locking part VSU/K FH+ 1S | TEVR1400- ... | 1 | 305 – 1050 | 411 – 800 | | 1 | |
| 34 | locking bolt AF VSU/G RSA 11 | TESC3050- ... | 1 | | 801 – 3000 | | | 1 |
| 35a | sec.sash gear 16 sz 30 | TGKS0010- ... | 1 | | 411 – 600 | 180 | | |
| | sec.sash gear 16 AF 60/G300 | TGKS4030- ... | | | 601 – 800 | 300 | | |
| 35b | sec.sash gear 16 AF80/G400 1SB | TGKS4050- ... | 1 | | 801 – 1000 | 400 | | |
| | sec.sash gear 16 AF sz 100 1SB | TGKS4060- ... | | | 1001 – 1200 | 500 | | |
| | sec.sash gear 16 AF120/G6001SB | TGKS4070- ... | | | 1201 – 1400 | 600 | | |
| | sec.sash gear 16 AF140/G7001SB | TGKS4080- ... | | | 1401 – 1600 | 700 | | |
| | sec.sash gear 16 AF160/G7002SB 70 | TGKS4330- ... | | | 1601 – 1800 | 700 | | |
| | sec.sash gear 16AF180/G10002SB 70 | TGKS4270- ... | | | 1801 – 2000 | 1000 | | |
| | sec.sash gear 16AF200/G10002SB | TGKS4110- ... | | | 2001 – 3000 | 1000 | | |
| 36 | locking bolt AF VSO RSA 11 | TESC2030- ... | 1 | | 411 – 3000 | | | 1 |
| 37 | striker plate A0767 | TRSA0010- ... | 1 | 305 – 330 | 411 – 3000 | | | |
| 38 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2401 – 2600 | | | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | |
| 39 | linkage AF sz 2 1SB-RS | TZKS1030- ... | 1 | | 2601 – 2800 | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | |
| 40 | sash part MV | Ref. PDB, ZFMV01 | 1 | | 1001 – 1600 | | | |
| | sash part MV | Ref. PDB, ZFMV01 | 2 | | 1601 – 2400 | | | |
| | sash part MV | Ref. PDB, ZFMV01 | 3 | | 2401 – 3000 | | | |
| 41 | frame part MV | Ref. PDB, ZRZM01 | 1 | | 1001 – 1600 | | | |
| | frame part MV | Ref. PDB, ZRZM01 | 2 | | 1601 – 2400 | | | |
| | frame part MV | Ref. PDB, ZRZM01 | 3 | | 2401 – 3000 | | | |
| 42 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | |
| 43 | striker V | Ref. PDB, FRZV02 | | | | | | |
| **on request** | | | | | | | | |
| 44 | stop | Ref. PDB, FRZF04 | 1 | | 601 – 3000 | | | |
| 45 | striker snapper A0767 | TRST0010- ... | 1 | | 1801 – 3000 | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 46 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 47 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 48 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 49 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 50 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 51 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 52 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 53 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 54 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 55 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

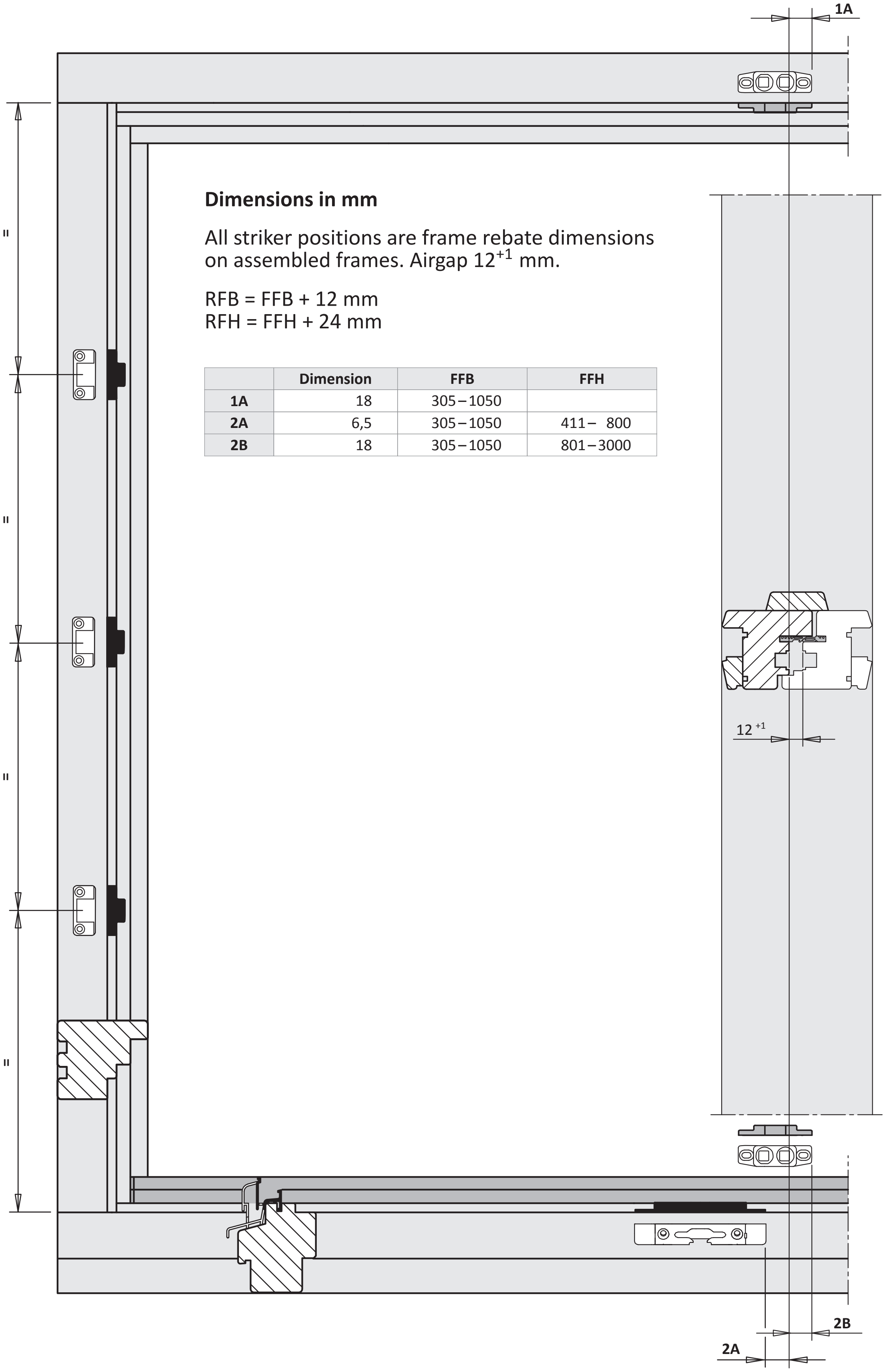
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 15 | 16 |
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 305 – 330 | | | | |
| 1b | corn.drive VSO 1RS | TEUL4010- ... | 1 | 331 – 1650 | | | | 1 |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 305 – 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | | 1 |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | | 1 |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | | 1 |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | | 1 |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | |
| 6a | locking part VSU/K FH+ 1S | TEVR1400- ... | 1 | 305 – 1250 | 411 – 600 | | 1 | |
| 6b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 305 – 1650 | 601 – 3000 | | 1 | |
| 7 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 1 |
| 8a | gear 15 sz 30/G180 | TGKK3010- ... | 1 | 305 – 1250 | 411 – 600 | 180 | | |
| 8b | gear 15 AF sz 60/G300 | TGKK4030- ... | 1 | | 601 – 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/G700 1RS | TGKK4080- ... | | | 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 2RS | TGKK4110- ... | | | 2001 – 3000 | 1000 | | |
| 9 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2401 – 2600 | | | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | |
| 10 | linkage KK/AF sz 2 1RS | TZKK1020- ... | 1 | | 2601 – 2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | |
| 11 | handle Globe | Ref.access. ZHGS | 1 | | 411 – 3000 | | | |
| 12 | corn.drive BS/K3 sz 1+ 1RS | TEUL2410- ... | 1 | | 1001 – 1200 | | | 1 |
| | corn.drive BS/K3 sz 2+ 1RS | TEUL2420- ... | | | 1201 – 3000 | | | 1 |
| 13 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | | 1 |
| 14 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | | 1 |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | | 1 |
| 15 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | |
| 16 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| **on request** | | | | | | | | |
| 17 | tilt restrictor .. | TFKB0010- ... | 1 | | 411 – 800 | | | |
| 18 | mishandling device | TFBS0010- ... | 1 | | 601 – 3000 | | | |
| 19 | pressure piece | Ref. PDB, TFFD | 1 | | 601 – 3000 | | | |
| 20 | snapper switchable rh. | TFST0011- ... | 1 | | 1801 – 3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1801 – 3000 | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 21 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 22 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 23 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 24 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 25 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 26 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 27 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 28 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 29 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 30 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

# Frame dimensions slave sash

2-sash square tilt-turn/turn DS 16 bolt
H12 GK Hinge side TITAN






**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

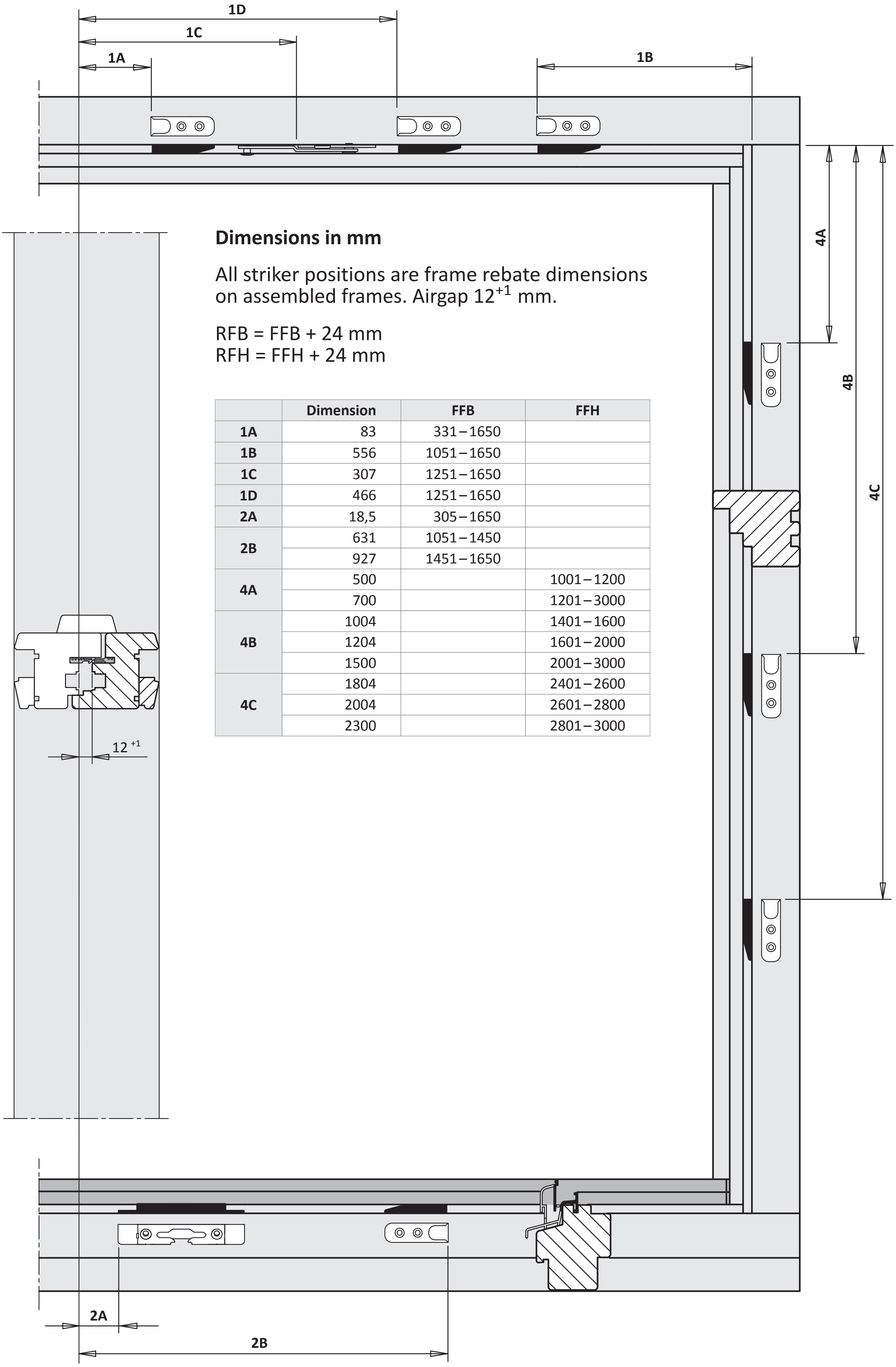
| | Dimension | FFB | FFH |
|---|---|---|---|
| **1A** | 18 | 305 – 1050 | |
| **2A** | 6,5 | 305 – 1050 | 411 – 800 |
| **2B** | 18 | 305 – 1050 | 801 – 3000 |

**Dimensions in mm**

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

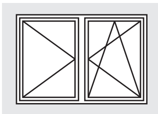
RFB = FFB + 24 mm
RFH = FFH + 24 mm

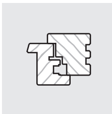
| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 331 – 1650 | |
| 1B | 556 | 1051 – 1650 | |
| 1C | 307 | 1251 – 1650 | |
| 1D | 466 | 1251 – 1650 | |
| 2A | 18,5 | 305 – 1650 | |
| 2B | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 4A | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4B | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4C | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |



# TITAN AF

## Installation instructions





GS

2-sash square tilt-turn/turn DS 16 shoot bolt

timber 12 mm

basic security

fixed handle position

Hinge side TITAN

surface TS

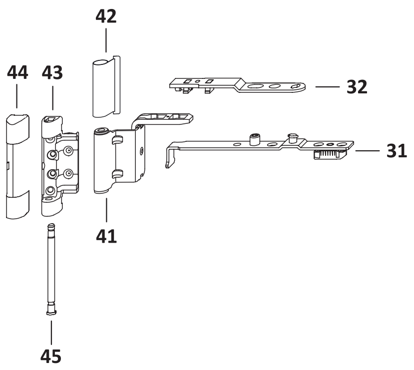
backset 15 mm

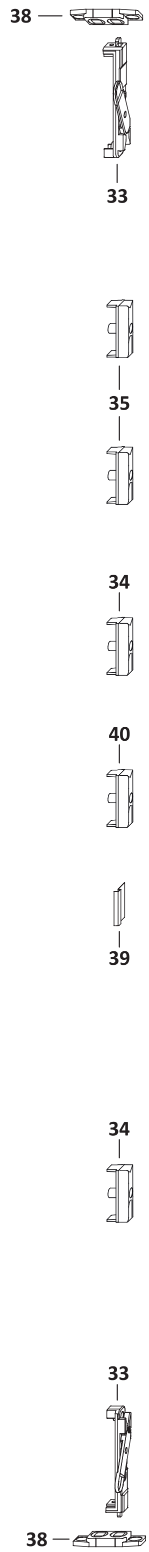
| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 1RS |
| **Hinge side turning points** | Standard HZ12 |

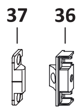
# hardware layout slave sash

2-sash square tilt-turn/turn DS 16 shoot bolt
H12 GK Hinge side TITAN





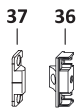



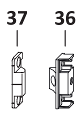

## Size range

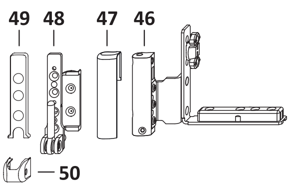
| | | Window/door |
|---|---|---|
| FFB | (mm) | 331-1050 |
| FFH | (mm) | 310-3000 |
| sash weight | (kg) | 150 |

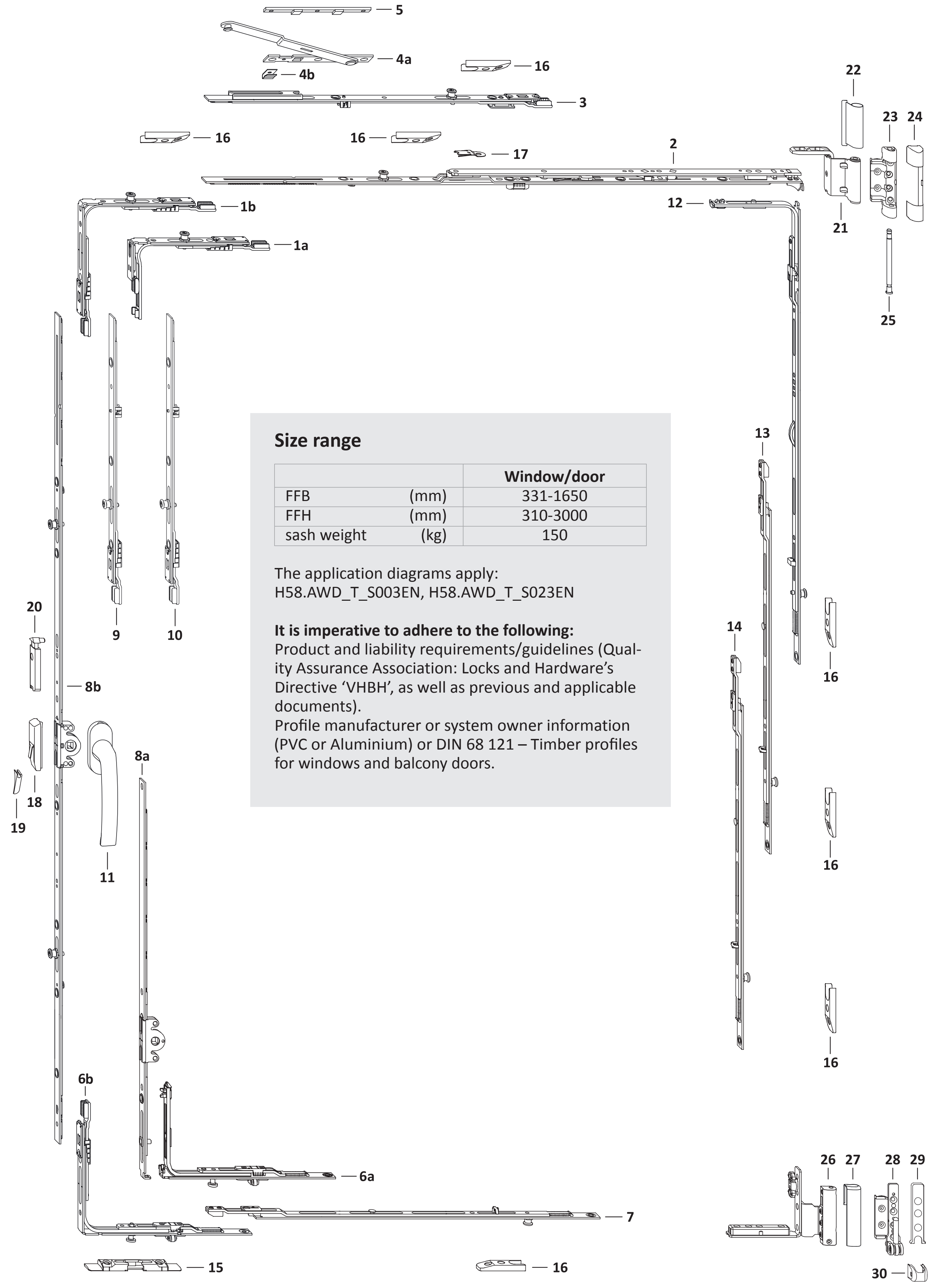
The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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

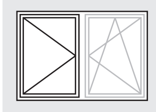
| | | Window/door |
|---|---|---|
| FFB | (mm) | 331-1650 |
| FFH | (mm) | 310-3000 |
| sash weight | (kg) | 150 |

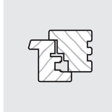
The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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

2-sash square tilt-turn/turn DS 16 shoot bolt
H12 GK Hinge side TITAN

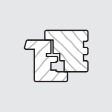
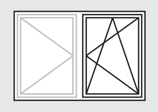






| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. |
|---|---|---|---|---|---|---|---|
| | | | | | | In the main sash | 38 |
| 31 | stay sash part DF/MN | TSSD0020- ... | 1 | 331 – 1050 | | | |
| 32 | stay arm DF | TSAD0010- ... | 1 | 331 – 1050 | | | |
| 33 | short shoot bolt A2000 | 716236 | 2 | | 310 – 3000 | | 2 |
| 34 | striker plate 56 A2000 | TRSB0030- ... | 1 | | 801 – 1000 | 400 | |
| | striker plate 56 A2000 | TRSB0030- ... | | | 1001 – 1200 | 500 | |
| | striker plate 56 A2000 | TRSB0030- ... | | | 1201 – 1400 | 600 | |
| | striker plate 56 A2000 | TRSB0030- ... | | | 1401 – 1600 | 700 | |
| | striker plate 56 A2000 | TRSB0030- ... | 2 | | 1601 – 1800 | 700 | |
| | striker plate 56 A2000 | TRSB0030- ... | | | 1801 – 2000 | 1000 | |
| | striker plate 56 A2000 | TRSB0030- ... | | | 2001 – 3000 | 1000 | |
| 35 | striker plate 56 A2000 | TRSB0030- ... | 1 | | 2401 – 2800 | | |
| | striker plate 56 A2000 | TRSB0030- ... | 2 | | 2801 – 3000 | | |
| 36 | sash part MV | Ref. PDB, ZFMV01 | 1 | | 1001 – 1600 | | |
| | sash part MV | Ref. PDB, ZFMV01 | 2 | | 1601 – 2400 | | |
| | sash part MV | Ref. PDB, ZFMV01 | 3 | | 2401 – 3000 | | |
| 37 | frame part MV | Ref. PDB, ZRZM01 | 1 | | 1001 – 1600 | | |
| | frame part MV | Ref. PDB, ZRZM01 | 2 | | 1601 – 2400 | | |
| | frame part MV | Ref. PDB, ZRZM01 | 3 | | 2401 – 3000 | | |
| 38 | striker V | Ref. PDB, FRZV01 | | | | | |
| **on request** | | | | | | | |
| 39 | run-up | Ref. PDB, FRZF06 | 1 | | 601 – 3000 | | |
| 40 | striker plate 56 A2000 | TRSB0030- ... | 1 | | 1801 – 3000 | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 41 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 42 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 43 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 44 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 45 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 46 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 47 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 48 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 49 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 50 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |



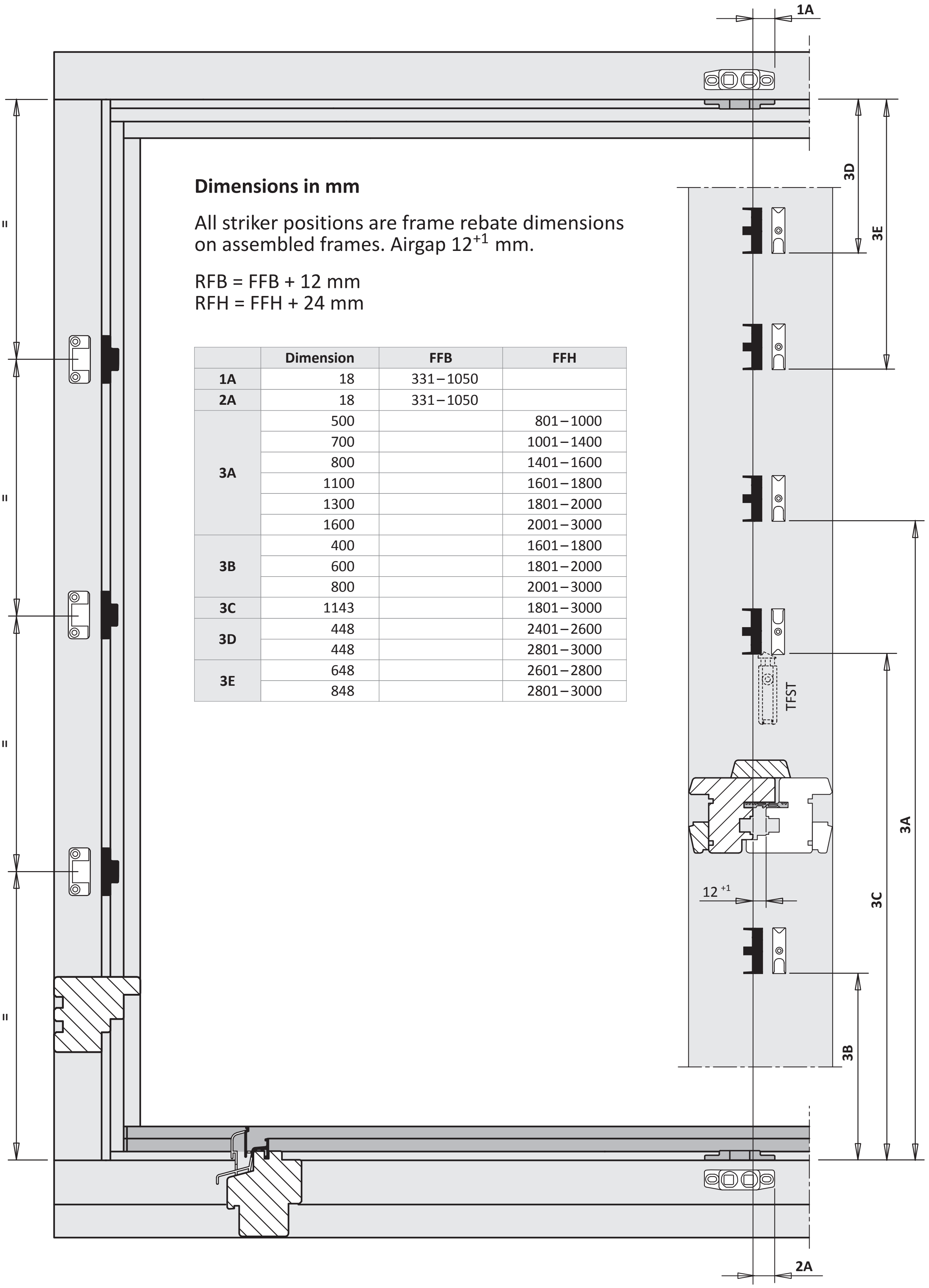
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 15 | 16 |
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 331 – 850 | 310 – 410 | | | 1 |
| 1b | corn.drive VSO 1RS | TEUL4010- ... | 1 | 331 – 1650 | 411 – 3000 | | | 1 |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 331 – 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | | 1 |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | | 1 |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | | 1 |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | | 1 |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | |
| 6a | locking part VSU/K FH+ 1S | TEVR1400- ... | 1 | 331 – 1250 | 310 – 600 | | 1 | |
| 6b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 331 – 1650 | 601 – 3000 | | 1 | |
| 7 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 1 |
| 8a | gear 15 sz 30/G180 | TGKK3010- ... | 1 | 331 – 850 | 310 – 410 | 180 | | |
| | gear 15 sz 30/G180 | TGKK3010- ... | | 331 – 1250 | 411 – 600 | 180 | | |
| 8b | gear 15 AF sz 60/G300 | TGKK4030- ... | 1 | | 601 – 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/G700 1RS | TGKK4080- ... | | | 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 2RS | TGKK4110- ... | | | 2001 – 3000 | 1000 | | |
| 9 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2401 – 2600 | | | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | |
| 10 | linkage KK/AF sz 2 1RS | TZKK1020- ... | 1 | | 2601 – 2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | |
| 11 | handle Globe | Ref.access. ZHGS | 1 | | 310 – 3000 | | | |
| 12 | corn.drive BS/K3 sz 1+ 1RS | TEUL2410- ... | 1 | | 1001 – 1200 | | | 1 |
| | corn.drive BS/K3 sz 2+ 1RS | TEUL2420- ... | | | 1201 – 3000 | | | 1 |
| 13 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | | 1 |
| 14 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | | 1 |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | | 1 |
| 15 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | |
| 16 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| **on request** | | | | | | | | |
| 17 | tilt restrictor .. | TFKB0010- ... | 1 | | 310 – 800 | | | |
| 18 | mishandling device | TFBS0010- ... | 1 | | 601 – 3000 | | | |
| 19 | pressure piece | Ref. PDB, TFFD | 1 | | 601 – 3000 | | | |
| 20 | snapper switchable rh. | TFST0011- ... | 1 | | 1801 – 3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1801 – 3000 | | | |

# List of fittings main sash

2-sash square tilt-turn/turn DS 16 shoot bolt
H12 GK Hinge side TITAN



| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| **21** | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| **22** | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| **23** | top hinge | Ref. PDB, TBSL81 | | | 1 |
| **24** | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| **25** | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| **26** | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| **27** | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| **28** | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| **29** | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| **30** | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |




**Dimensions in mm**

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

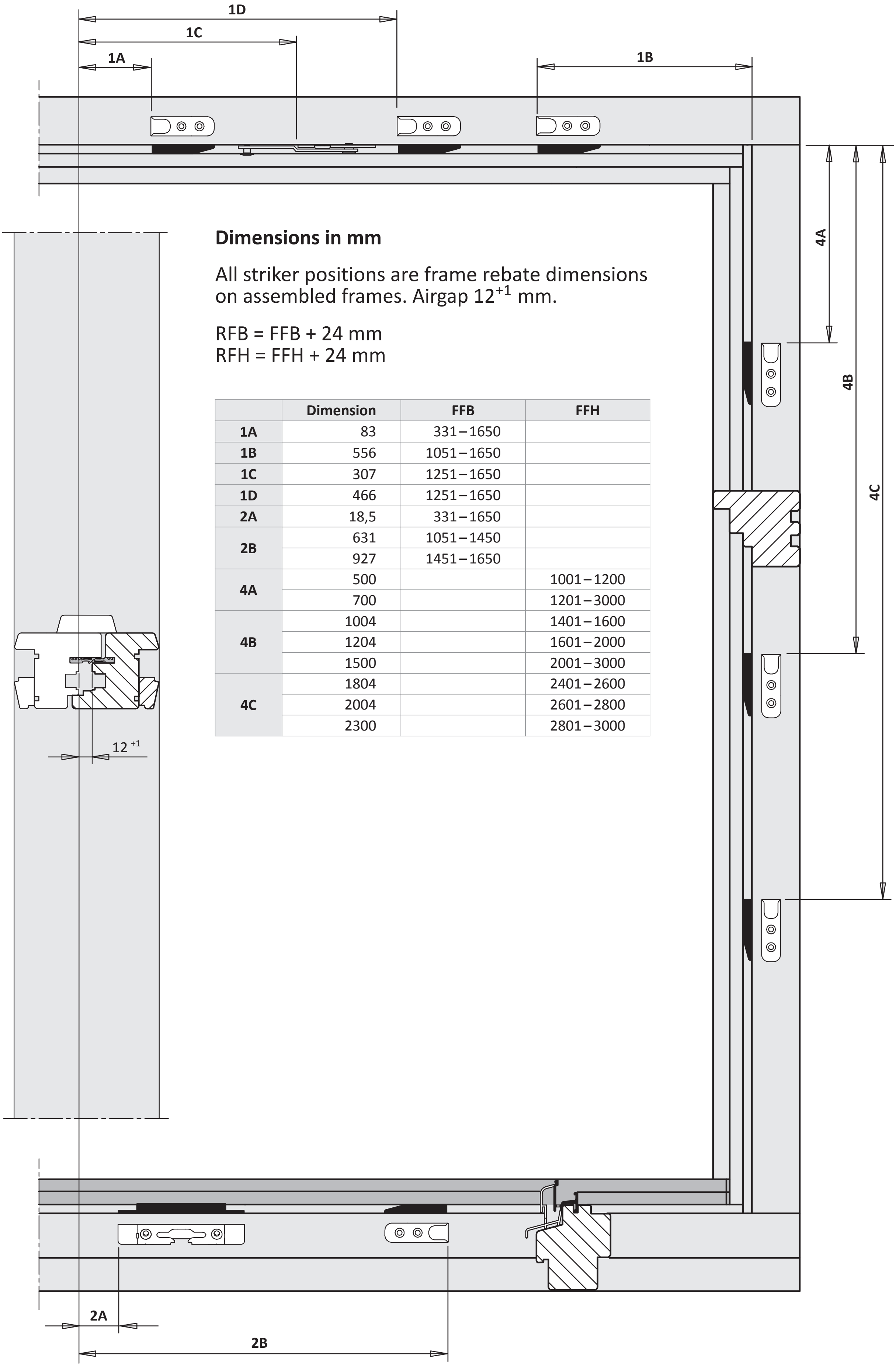
RFB = FFB + 12 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| **1A** | 18 | 331 – 1050 | |
| **2A** | 18 | 331 – 1050 | |
| **3A** | 500 | | 801 – 1000 |
| | 700 | | 1001 – 1400 |
| | 800 | | 1401 – 1600 |
| | 1100 | | 1601 – 1800 |
| | 1300 | | 1801 – 2000 |
| | 1600 | | 2001 – 3000 |
| **3B** | 400 | | 1601 – 1800 |
| | 600 | | 1801 – 2000 |
| | 800 | | 2001 – 3000 |
| **3C** | 1143 | | 1801 – 3000 |
| **3D** | 448 | | 2401 – 2600 |
| | 448 | | 2801 – 3000 |
| **3E** | 648 | | 2601 – 2800 |
| | 848 | | 2801 – 3000 |

# Frame dimensions main sash

2-sash square tilt-turn/turn DS 16 shoot bolt
H12 GK Hinge side TITAN






**Dimensions in mm**

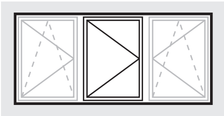
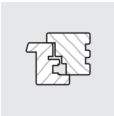
All striker positions are frame rebate dimensions on assembled frames. Airgap $12^{+1}$ mm.

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

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 331 – 1650 | |
| 1B | 556 | 1051 – 1650 | |
| 1C | 307 | 1251 – 1650 | |
| 1D | 466 | 1251 – 1650 | |
| 2A | 18,5 | 331 – 1650 | |
| 2B | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 4A | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4B | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4C | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

# TITAN AF

## Installation instructions

GS

3-sash Centre sash second opening turn

timber 12 mm

basic security

fixed handle position

Hinge side TITAN

surface TS

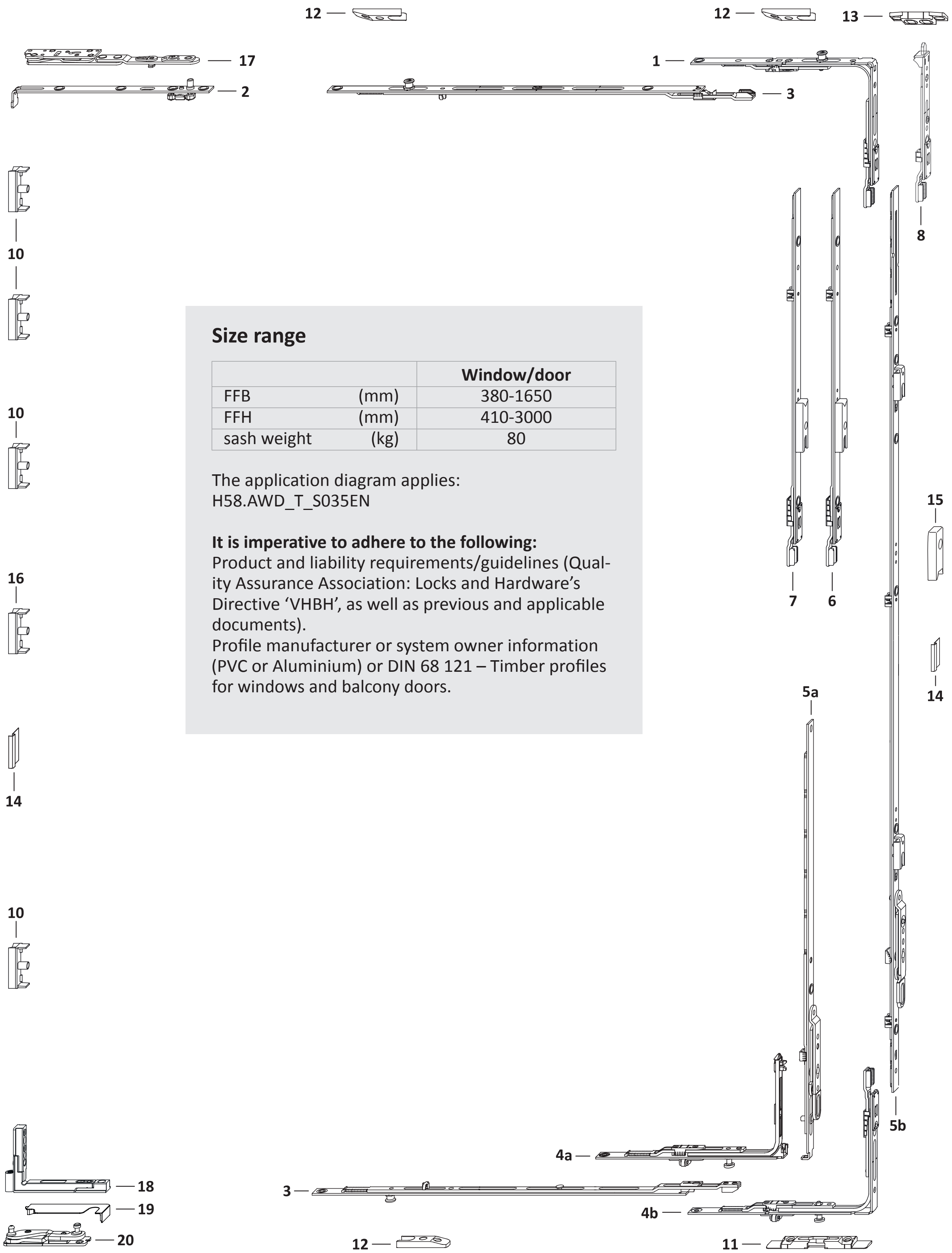
backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | two-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |

# hardware layout

3-sash Centre sash second opening turn
H12 GK Hinge side TITAN






## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 380-1650 |
| FFH | (mm) | 410-3000 |
| sash weight | (kg) | 80 |

The application diagram applies:
H58.AWD_T_S035EN

**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.

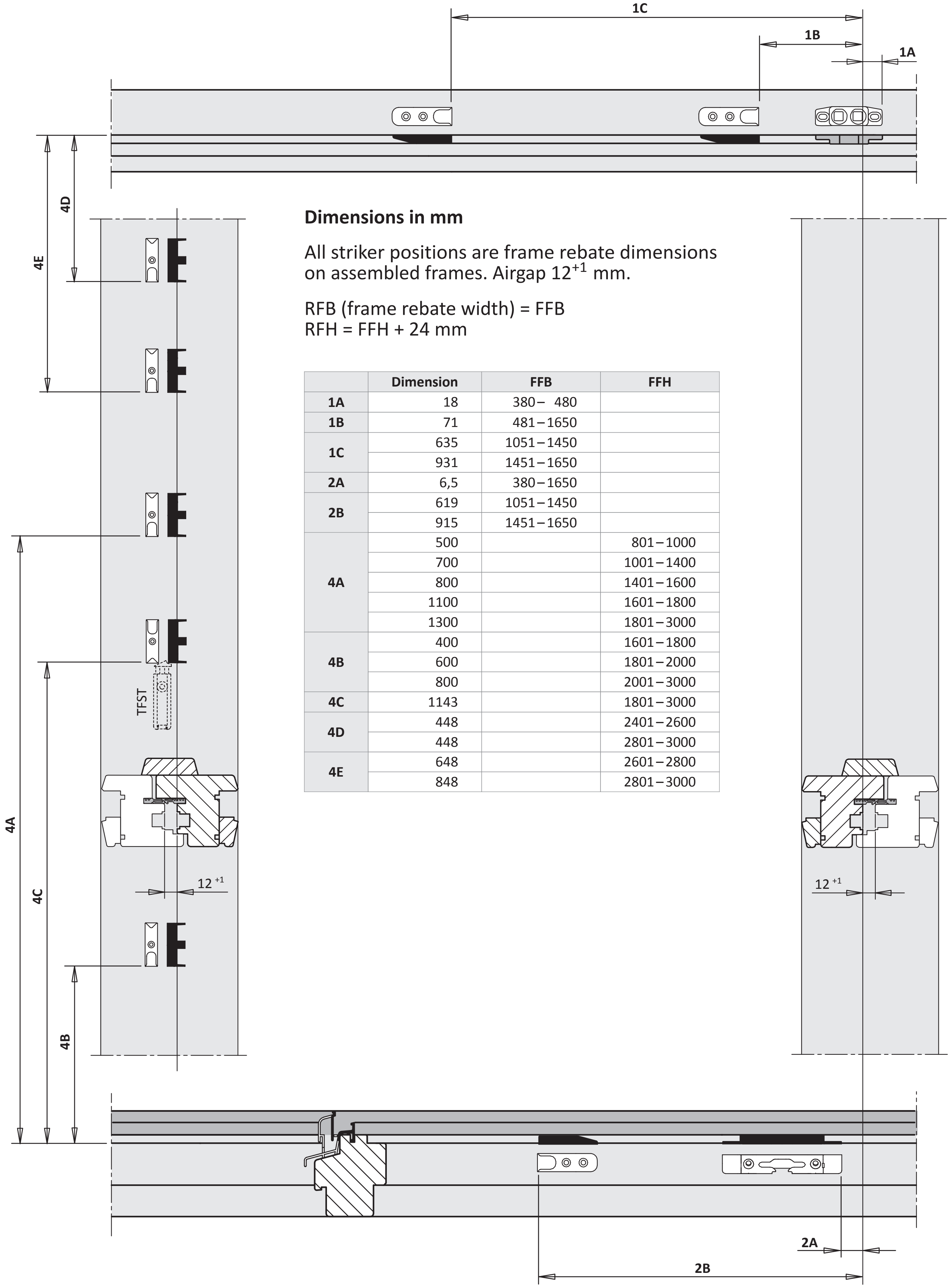
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 11 | 12 | 13 |
| 1 | corn.drive VSO/K+ DF 1RS | TEUL4110- ... | 1 | 481 – 1650 | | | | 1 | |
| 2 | stay sash part DF AX | TSSV3020- ... | 1 | 380 – 1650 | | | | | |
| 3 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 2 | 1051 – 1450 | | | | 2 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 2 | |
| 4a | locking part VSU/K FH+ 1S | TEVR1400- ... | 1 | 380 – 1650 | 410 – 800 | | 1 | | |
| 4b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 380 – 1650 | 801 – 3000 | | 1 | | |
| 5a | sec.sash gear 16 sz 30 | TGKS0010- ... | 1 | 380 – 850 | 410 – 600 | 180 | | | |
| | sec.sash gear 16 AF 60/G300 | TGKS4030- ... | | | 601 – 800 | 300 | | | |
| 5b | sec.sash gear 16 AF80/G400 1SB | TGKS4050- ... | 1 | | 801 – 1000 | 400 | | | |
| | sec.sash gear 16 AF sz 100 1SB | TGKS4060- ... | | | 1001 – 1200 | 500 | | | |
| | sec.sash gear 16 AF120/G6001SB | TGKS4070- ... | | | 1201 – 1400 | 600 | | | |
| | sec.sash gear 16 AF140/G7001SB | TGKS4080- ... | | | 1401 – 1600 | 700 | | | |
| | sec.sash gear 16 AF160/G7002SB 70 | TGKS4330- ... | | | 1601 – 1800 | 700 | | | |
| | sec.sash gear 16AF180/G10002SB 70 | TGKS4270- ... | | | 1801 – 2000 | 1000 | | | |
| | sec.sash gear 16AF200/G10002SB | TGKS4110- ... | | | 2001 – 3000 | 1000 | | | |
| 6 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2401 – 2600 | | | | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | | |
| 7 | linkage AF sz 2 1SB-RS | TZKS1030- ... | 1 | | 2601 – 2800 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | | |
| 8 | locking bolt AF VSO RSA 11 | TESC2030- ... | 1 | 380 – 480 | 410 – 3000 | | | | 1 |
| 9 | striker plate A0767 | TRSA0010- ... | 1 | 380 – 480 | 410 – 3000 | | | | |
| 10 | striker plate 56 A2000 | TRSB0030- ... | 1 | | 801 – 1000 | | | | |
| | striker plate 56 A2000 | TRSB0030- ... | | | 1001 – 1200 | | | | |
| | striker plate 56 A2000 | TRSB0030- ... | | | 1201 – 1400 | | | | |
| | striker plate 56 A2000 | TRSB0030- ... | | | 1401 – 1600 | | | | |
| | striker plate 56 A2000 | TRSB0030- ... | 2 | | 1601 – 2400 | | | | |
| | striker plate 56 A2000 | TRSB0030- ... | 3 | | 2401 – 2800 | | | | |
| | striker plate 56 A2000 | TRSB0030- ... | 4 | | 2801 – 3000 | | | | |
| 11 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | | |
| 12 | striker plate 56 | Ref. PDB, FRSB | | | | | | | |
| 13 | striker V | Ref. PDB, FRZV01 | | | | | | | |
| **on request** | | | | | | | | | |
| 14 | stop | Ref. PDB, FRZF04 | 2 | | | | | | |
| 15 | striker snapper A0767 | TRST0010- ... | 1 | | 1801 – 3000 | | | | |
| 16 | striker plate 56 A2000 | TRSB0030- ... | 1 | | 1801 – 3000 | | | | |

| Hinge side turning points | | | | |
|---|---|---|---|---|
| Pos. | Description | Part number | | required as per sash weight |
| | | surface TS | -- | 80 kg |
| 17 | stay arm AX DF/3 | Ref. PDB, TSAV47 | | 1 |
| 18 | corner hinge AX | Ref. PDB, TBEB41 | | 1 |
| 19 | cover cap AX EL | Ref. PDB, TKEL41 | | 1 |
| 20 | bottom hinge AX DF/3 | Ref. PDB, TBEV43 | | 1 |

# Frame dimensions

3-sash Centre sash second opening turn
H12 GK Hinge side TITAN






**Dimensions in mm**

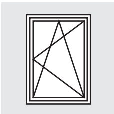
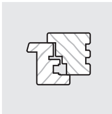
All striker positions are frame rebate dimensions on assembled frames. Airgap 12$^{+1}$ mm.

RFB (frame rebate width) = FFB
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 18 | 380– 480 | |
| 1B | 71 | 481–1650 | |
| 1C | 635 | 1051–1450 | |
| | 931 | 1451–1650 | |
| 2A | 6,5 | 380–1650 | |
| 2B | 619 | 1051–1450 | |
| | 915 | 1451–1650 | |
| 4A | 500 | | 801–1000 |
| | 700 | | 1001–1400 |
| | 800 | | 1401–1600 |
| | 1100 | | 1601–1800 |
| | 1300 | | 1801–3000 |
| 4B | 400 | | 1601–1800 |
| | 600 | | 1801–2000 |
| | 800 | | 2001–3000 |
| 4C | 1143 | | 1801–3000 |
| 4D | 448 | | 2401–2600 |
| | 448 | | 2801–3000 |
| 4E | 648 | | 2601–2800 |
| | 848 | | 2801–3000 |

# TITAN AF

## Installation instructions

  GS

1-sash square tilt before turn (TBT)

timber 12 mm

basic security

fixed handle position

Hinge side TITAN

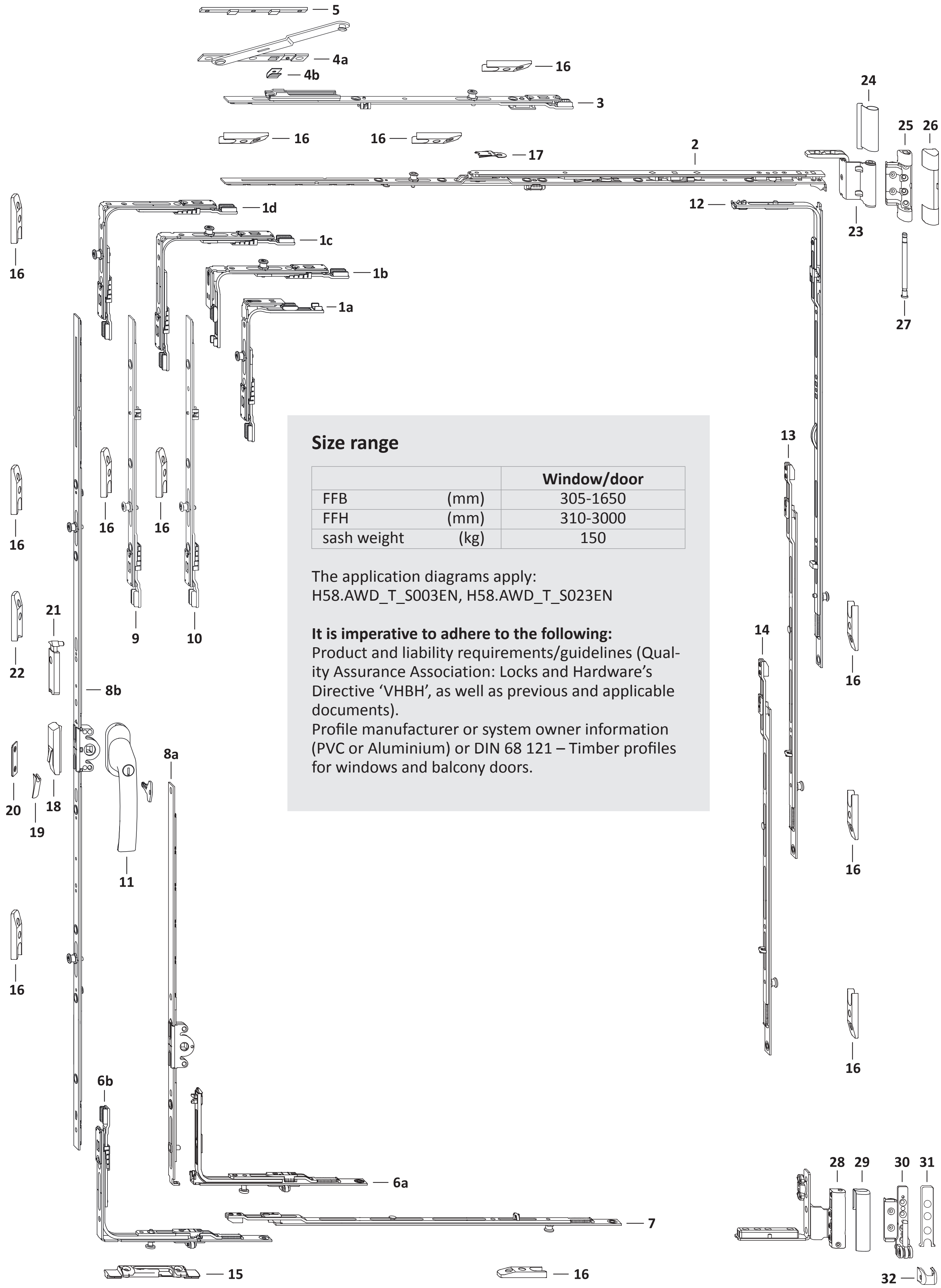
surface TS

backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 1RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout

1-sash square tilt before turn (TBT)
H12 GK Hinge side TITAN

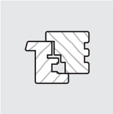



## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 305-1650 |
| FFH | (mm) | 310-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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

1-sash square tilt before turn (TBT)
H12 GK Hinge side TITAN

**TITAN AF**

**GS**



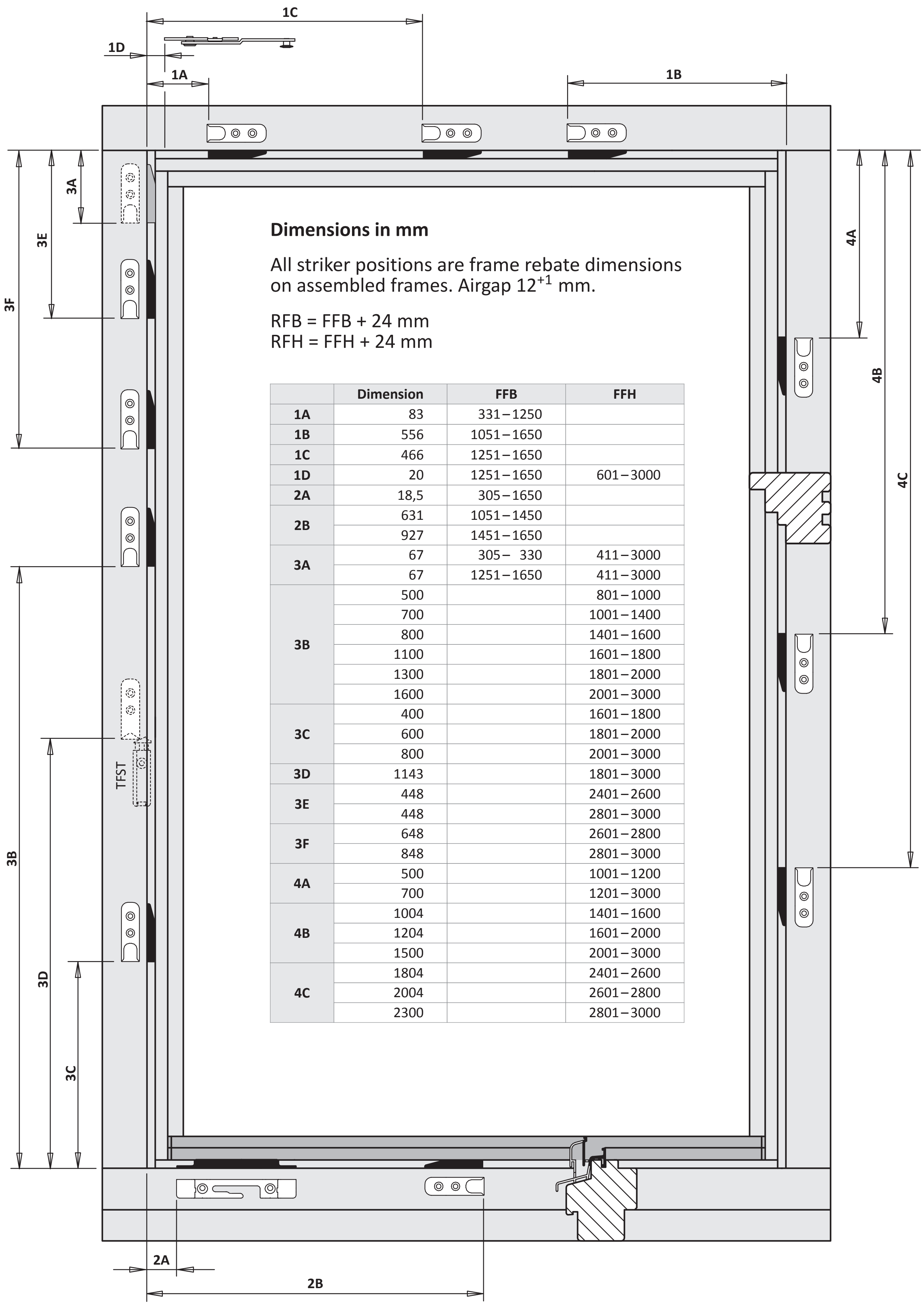
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 15 | 16 |
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 305– 330 | 411–3000 | | | 1 |
| 1b | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 331– 850 | 310– 410 | | | 1 |
| 1c | corn.drive VSO 1RS | TEUL4010- ... | 1 | 331–1250 | 411–3000 | | | 1 |
| 1d | corn.drive VSO 1RS | TEUL4010- ... | 1 | 1251–1650 | 411–3000 | | | 1 |
| 2 | stay AF TBT sz 0 | TSKT2000- ... | 1 | 305– 450 | | | | |
| | stay AF TBT sz 1 | TSKT2010- ... | | 451– 680 | | | | |
| | stay AF TBT sz 2 1RS | TSKT2120- ... | | 681– 850 | | | | |
| | stay AF TBT sz 3 1RS | TSKT2030- ... | | 851–1050 | | | | |
| | stay AF TBT sz 4 1RS | TSKT2040- ... | | 1051–1250 | | | | 1 |
| | stay AF TBT sz 3 1RS | TSKT2030- ... | | 1251–1450 | | | | 1 |
| | stay AF TBT sz 4 1RS | TSKT2040- ... | | 1451–1650 | | | | 1 |
| 3 | linkage add. stay AF TBT RS | TZOT1010- ... | 1 | 1251–1650 | | | | 1 |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251–1650 | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251–1650 | | | | |
| 6a | locking part VSU/K FH+ 1S | TEVR1400- ... | 1 | 305–1250 | 411– 600 | | 1 | |
| | locking part VSU/K FH+ 1S | TEVR1400- ... | | 331– 850 | 310– 410 | | 1 | |
| 6b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 305–1650 | 601–3000 | | 1 | |
| 7 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051–1450 | | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451–1650 | | | | 1 |
| 8a | gear 15 sz 30/G180 | TGKK3010- ... | 1 | 331– 850 | 310– 410 | 180 | | |
| | gear 15 sz 30/G180 | TGKK3010- ... | | 305–1250 | 411– 600 | 180 | | |
| 8b | gear 15 AF sz 60/G300 | TGKK4030- ... | 1 | | 601– 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/G700 1RS | TGKK4080- ... | | | 1401–1600 | 700 | | 1 |
| | 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 2RS | TGKK4110- ... | | | 2001–3000 | 1000 | | 2 |
| 9 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201–2400 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2401–2600 | | | 1 |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601–2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801–3000 | | | 1 |
| 10 | linkage KK/AF sz 2 1RS | TZKK1020- ... | 1 | | 2601–2800 | | | 1 |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801–3000 | | | 1 |
| 11 | handle Globe TBT lockable | Ref.access. ZHGT | 1 | | 310–3000 | | | |
| 12 | corn.drive BS/K3 sz 1+ 1RS | TEUL2410- ... | 1 | | 1001–1200 | | | 1 |
| | corn.drive BS/K3 sz 2+ 1RS | TEUL2420- ... | | | 1201–3000 | | | 1 |
| 13 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401–1600 | | | 1 |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601–2000 | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001–3000 | | | 1 |
| 14 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401–2600 | | | 1 |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601–2800 | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801–3000 | | | 1 |
| 15 | tilt lock bear. S-ES FH TBT | Ref. PDB, FRKB | | | | | | |
| 16 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| | | | **on request** | | | | | |
| 17 | tilt restrictor .. | TFKB0010- ... | 1 | | 310– 800 | | | |
| 18 | mishandling device | TFBS0010- ... | 1 | | | | | |
| 19 | pressure piece | Ref. PDB, TFFD | 1 | | | | | |
| 20 | stop | Ref. PDB, FRZF01 | 1 | | | | | |
| 21 | snapper switchable rh. | TFST0011- ... | 1 | | 1801–3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1801–3000 | | | |
| 22 | frame part snapper | Ref. PDB, TRST | 1 | | 1801–3000 | | | |

# List of fittings

1-sash square tilt before turn (TBT)
H12 GK Hinge side TITAN



| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 23 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 24 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 25 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 26 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 27 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 28 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 29 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 30 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 31 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 32 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |




**Dimensions in mm**

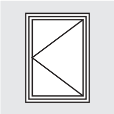
All striker positions are frame rebate dimensions on assembled frames. Airgap $12^{+1}$ mm.

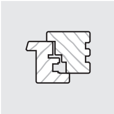
RFB = FFB + 24 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| **1A** | 83 | 331 – 1250 | |
| **1B** | 556 | 1051 – 1650 | |
| **1C** | 466 | 1251 – 1650 | |
| **1D** | 20 | 1251 – 1650 | 601 – 3000 |
| **2A** | 18,5 | 305 – 1650 | |
| **2B** | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| **3A** | 67 | 305 – 330 | 411 – 3000 |
| | 67 | 1251 – 1650 | 411 – 3000 |
| **3B** | 500 | | 801 – 1000 |
| | 700 | | 1001 – 1400 |
| | 800 | | 1401 – 1600 |
| | 1100 | | 1601 – 1800 |
| | 1300 | | 1801 – 2000 |
| | 1600 | | 2001 – 3000 |
| **3C** | 400 | | 1601 – 1800 |
| | 600 | | 1801 – 2000 |
| | 800 | | 2001 – 3000 |
| **3D** | 1143 | | 1801 – 3000 |
| **3E** | 448 | | 2401 – 2600 |
| | 448 | | 2801 – 3000 |
| **3F** | 648 | | 2601 – 2800 |
| | 848 | | 2801 – 3000 |
| **4A** | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| **4B** | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| **4C** | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

# TITAN AF

## Installation instructions





GS

1-sash square turn

timber 12 mm

basic security

fixed handle position

Hinge side TITAN

surface TS

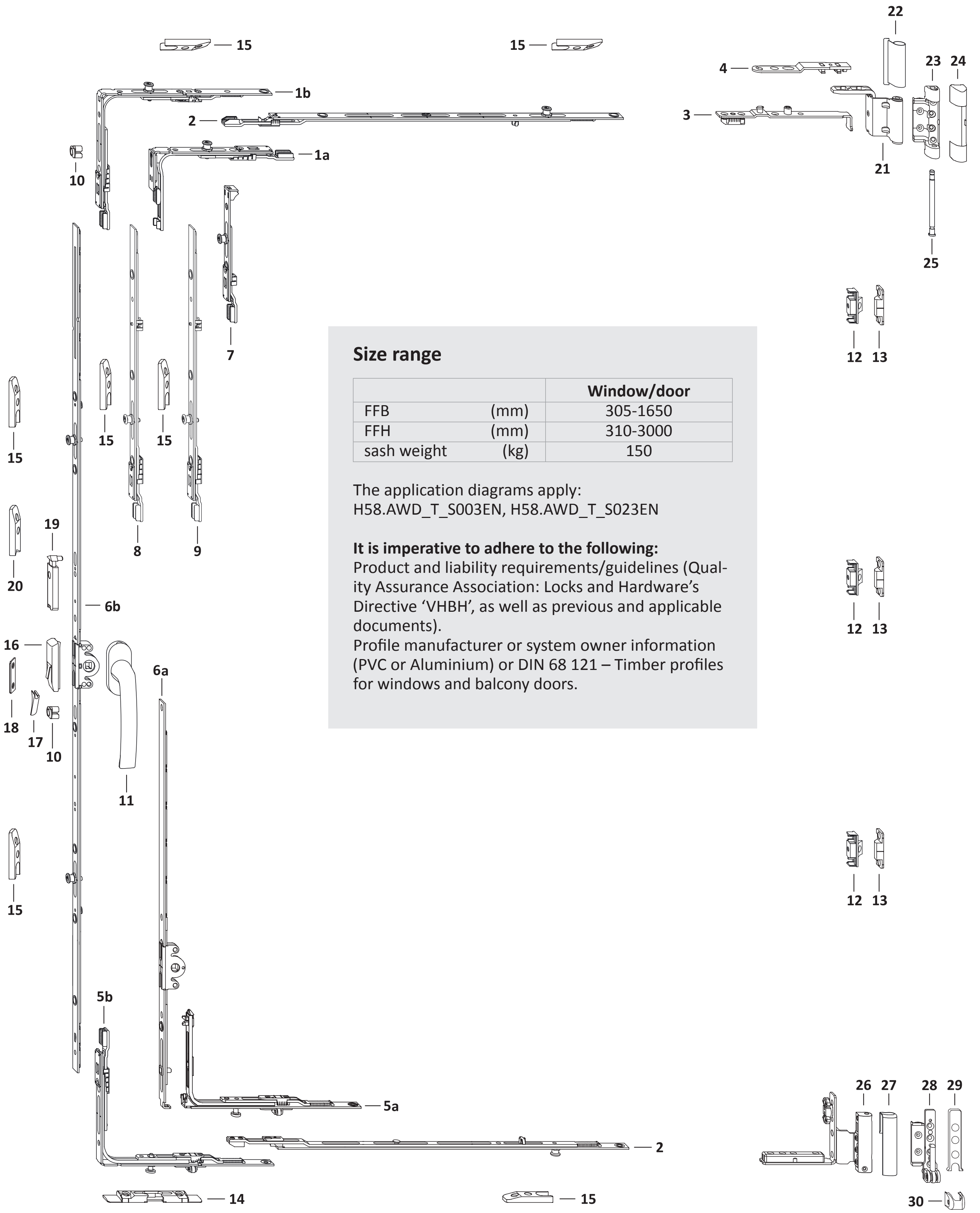
backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | two-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout

1-sash square turn
H12 GK Hinge side TITAN






## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 305-1650 |
| FFH | (mm) | 310-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

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

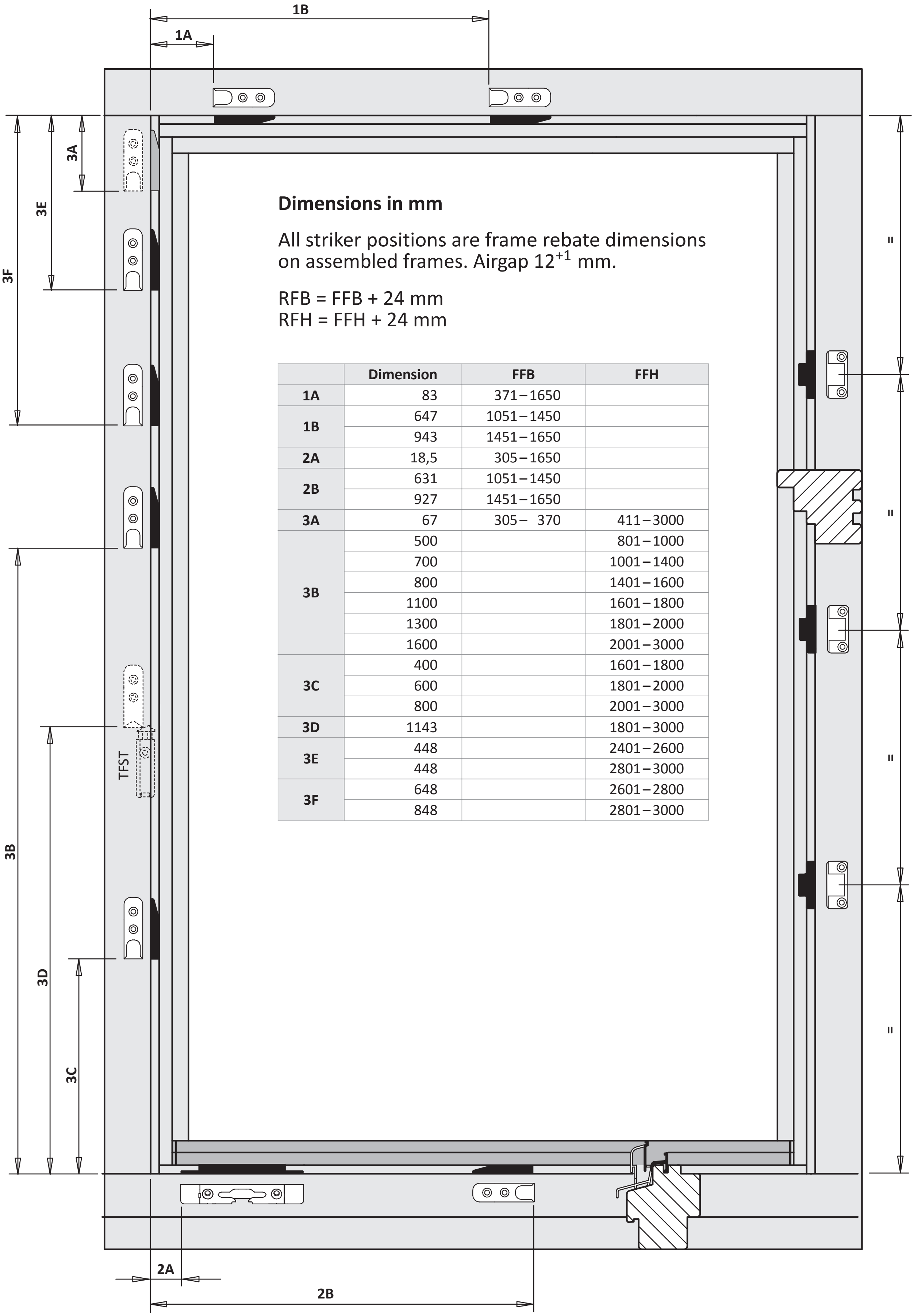
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 14 | 15 |
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 371 – 850 | 310 – 410 | | | 1 |
| 1b | corn.drive VSO/K+ DF 1RS | TEUL4110- ... | 1 | 371 – 1650 | 411 – 3000 | | | 1 |
| 2 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 2 | 1051 – 1450 | | | | 2 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 2 |
| 3 | stay sash part DF/MN | TSSD0020- ... | 1 | 305 – 1650 | | | | |
| 4 | stay arm DF | TSAD0010- ... | 1 | 305 – 1650 | | | | |
| 5a | locking part VSU/K FH+ 1S | TEVR1400- ... | 1 | 305 – 1250 | 411 – 600 | | 1 | |
| | locking part VSU/K FH+ 1S | TEVR1400- ... | | 371 – 850 | 310 – 410 | | 1 | |
| 5b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 305 – 1650 | 601 – 3000 | | 1 | |
| 6a | gear 15 sz 30/G180 | TGKK3010- ... | 1 | 371 – 850 | 310 – 410 | 180 | | |
| | gear 15 sz 30/G180 | TGKK3010- ... | | 305 – 1250 | 411 – 600 | 180 | | |
| 6b | gear 15 AF sz 60/G300 | TGKK4030- ... | 1 | | 601 – 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/G700 1RS | TGKK4080- ... | | | 1401 – 1600 | 700 | | 1 |
| | 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 2RS | TGKK4110- ... | | | 2001 – 3000 | 1000 | | 2 |
| 7 | locking bolt AF VS 180° 1RS | TESC2020- ... | 1 | 305 – 370 | 411 – 3000 | | | 1 |
| 8 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2401 – 2600 | | | 1 |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | 1 |
| 9 | linkage KK/AF sz 2 1RS | TZKK1020- ... | 1 | | 2601 – 2800 | | | 1 |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | 1 |
| 10 | travel restrictor | TFHB0010- ... | 1 | | 310 – 3000 | | | |
| 11 | handle Globe | Ref.access. ZHGS | 1 | | 310 – 3000 | | | |
| 12 | sash part MV | Ref. PDB, ZFMV01 | 1 | | 1001 – 1600 | | | |
| | sash part MV | Ref. PDB, ZFMV01 | 2 | | 1601 – 2400 | | | |
| | sash part MV | Ref. PDB, ZFMV01 | 3 | | 2401 – 3000 | | | |
| 13 | frame part MV | Ref. PDB, ZRZM01 | 1 | | 1001 – 1600 | | | |
| | frame part MV | Ref. PDB, ZRZM01 | 2 | | 1601 – 2400 | | | |
| | frame part MV | Ref. PDB, ZRZM01 | 3 | | 2401 – 3000 | | | |
| 14 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | |
| 15 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| | | | **on request** | | | | | |
| 16 | mishandling device | TFBS0010- ... | 1 | | | | | |
| 17 | pressure piece | Ref. PDB, TFFD | 1 | | | | | |
| 18 | stop | Ref. PDB, FRZF01 | 1 | | | | | |
| 19 | snapper switchable rh. | TFST0011- ... | 1 | | 1801 – 3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1801 – 3000 | | | |
| 20 | frame part snapper | Ref. PDB, TRST | 1 | | 1801 – 3000 | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 21 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 22 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 23 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 24 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 25 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 26 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 27 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 28 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 29 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 30 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

# Frame dimensions

1-sash square turn
H12 GK Hinge side TITAN






**Dimensions in mm**

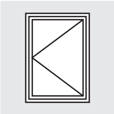
All striker positions are frame rebate dimensions on assembled frames. Airgap $12^{+1}$ mm.

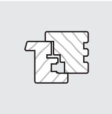
RFB = FFB + 24 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 371–1650 | |
| 1B | 647 | 1051–1450 | |
| | 943 | 1451–1650 | |
| 2A | 18,5 | 305–1650 | |
| 2B | 631 | 1051–1450 | |
| | 927 | 1451–1650 | |
| 3A | 67 | 305– 370 | 411–3000 |
| 3B | 500 | | 801–1000 |
| | 700 | | 1001–1400 |
| | 800 | | 1401–1600 |
| | 1100 | | 1601–1800 |
| | 1300 | | 1801–2000 |
| | 1600 | | 2001–3000 |
| 3C | 400 | | 1601–1800 |
| | 600 | | 1801–2000 |
| | 800 | | 2001–3000 |
| 3D | 1143 | | 1801–3000 |
| 3E | 448 | | 2401–2600 |
| | 448 | | 2801–3000 |
| 3F | 648 | | 2601–2800 |
| | 848 | | 2801–3000 |

# TITAN AF

## Installation instructions





GS

1-sash square turn

timber 12 mm

basic security

fixed handle position

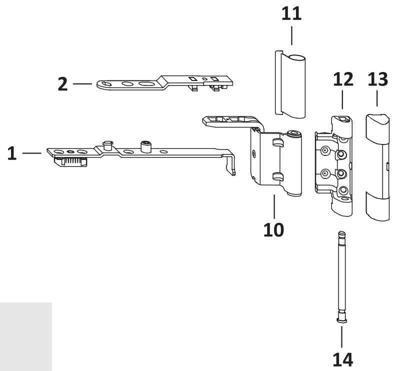
Hinge side TITAN

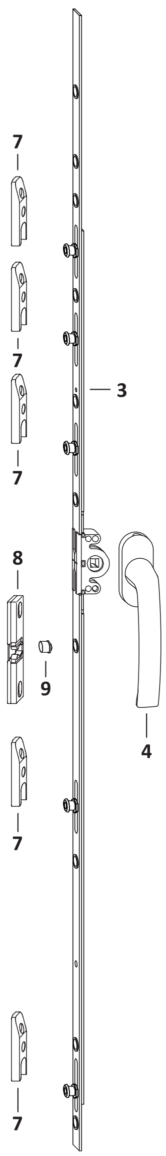
surface TS

backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000; gear DF |
| **Stay side** | two-piece stay |
| **Hinge side turning points** | Standard HZ12 |

2



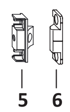



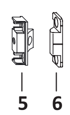

## Size range

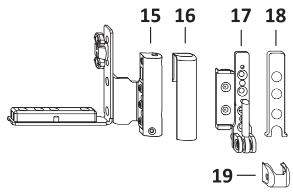
| | Window/door |
|---|---|
| FFB (mm) | 200-1000 |
| FFH (mm) | 300-2400 |
| sash weight (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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.



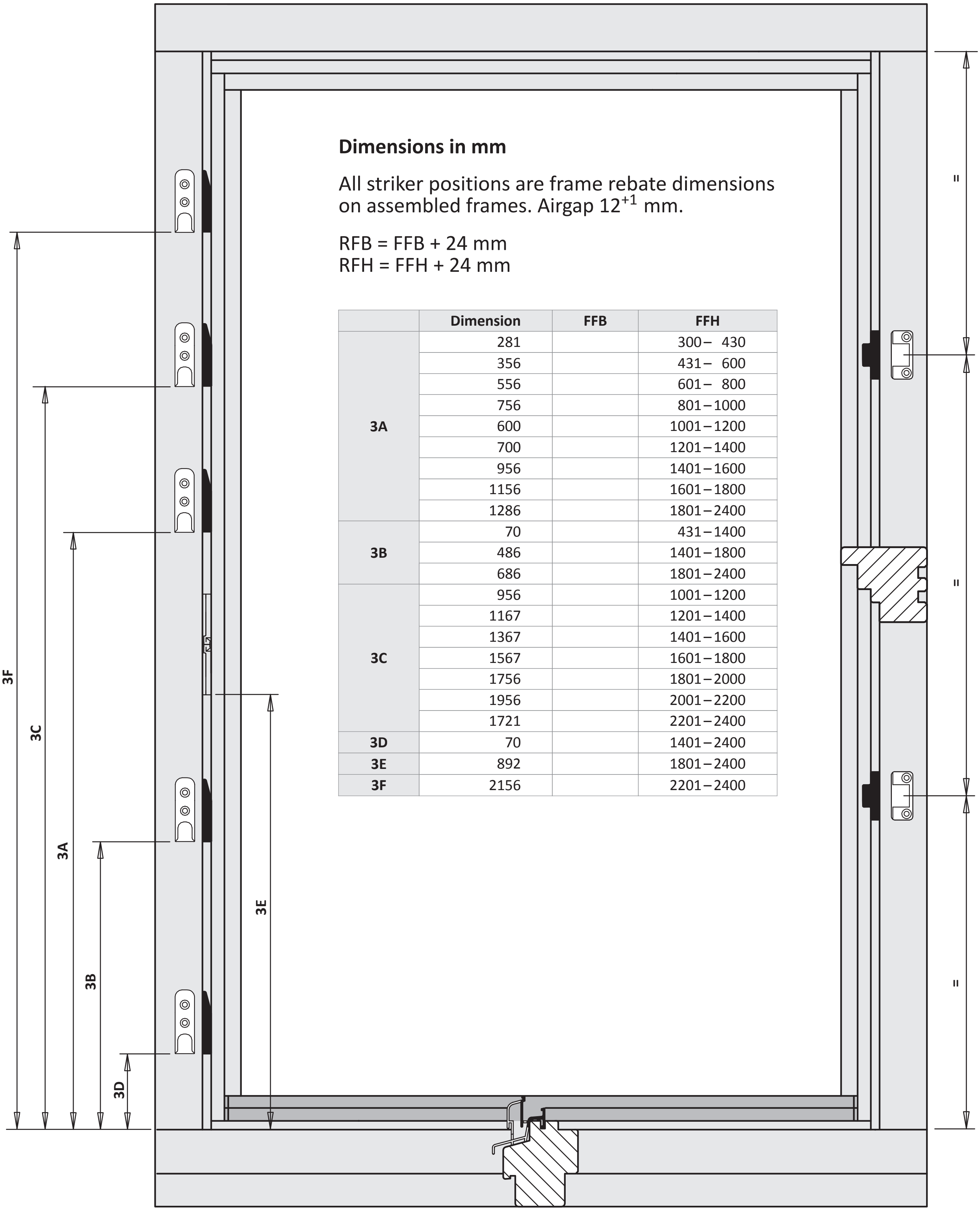



| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. 7 |
|---|---|---|---|---|---|---|---|
| 1 | stay sash part DF/MN | TSSD0020- ... | 1 | 200 – 1000 | | | |
| 2 | stay arm DF | TSAD0010- ... | 1 | 200 – 1000 | | | |
| 3 | gear 15 AF/DF sz 30/G180 1RS | TGKD3510- ... | 1 | | 300 – 430 | 180 | 1 |
| | gear 15 AF/DF sz 40/G180 2RS | TGKD3520- ... | | | 431 – 600 | 180 | 2 |
| | gear 15 AF/DF sz 60/G300 2RS | TGKD3530- ... | | | 601 – 800 | 300 | 2 |
| | gear 15 AF/DF sz 80/G400 2RS | TGKD3540- ... | | | 801 – 1000 | 400 | 2 |
| | gear 15 AF/DF sz 100/G500 3RS | TGKD3550- ... | | | 1001 – 1200 | 500 | 3 |
| | gear 15 AF/DF sz 120/G600 3RS | TGKD3560- ... | | | 1201 – 1400 | 600 | 3 |
| | gear 15 AF/DF sz 140/G700 4RS | TGKD3570- ... | | | 1401 – 1600 | 700 | 4 |
| | gear 15 AF/DF sz 160/G700 4RS | TGKD3580- ... | | | 1601 – 1800 | 700 | 4 |
| | gear 15 AF/DF sz 180/G1000 4RS | TGKD3590- ... | | | 1801 – 2000 | 1000 | 4 |
| | gear 15 AF/DF sz 200/G1000 4RS | TGKD3600- ... | | | 2001 – 2200 | 1000 | 4 |
| | gear 15 AF/DF sz 220/G1000 5RS | TGKD3610- ... | | | 2201 – 2400 | 1000 | 5 |
| 4 | handle Globe | Ref.access. ZHGS | 1 | | 300 – 2400 | | |
| 5 | sash part MV | Ref. PDB, ZFMV01 | 1 | | 1001 – 1600 | | |
| | sash part MV | Ref. PDB, ZFMV01 | 2 | | 1601 – 2400 | | |
| 6 | frame part MV | Ref. PDB, ZRZM01 | 1 | | 1001 – 1600 | | |
| | frame part MV | Ref. PDB, ZRZM01 | 2 | | 1601 – 2400 | | |
| 7 | striker plate 56 | Ref. PDB, FRSB | | | | | |
| **on request** | | | | | | | |
| 8 | snapper | Ref. PDB, FRZB | 1 | | 1801 – 2400 | | |
| 9 | sleeve | Ref. PDB, FFHU | 1 | | 1801 – 2400 | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 10 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 11 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 12 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 13 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 14 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 15 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 16 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 17 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 18 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 19 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

2




**Dimensions in mm**

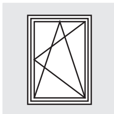
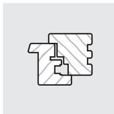
All striker positions are frame rebate dimensions on assembled frames. Airgap $12^{+1}$ mm.

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

| | Dimension | FFB | FFH |
|---|---|---|---|
| 3A | 281 | | 300 – 430 |
| | 356 | | 431 – 600 |
| | 556 | | 601 – 800 |
| | 756 | | 801 – 1000 |
| | 600 | | 1001 – 1200 |
| | 700 | | 1201 – 1400 |
| | 956 | | 1401 – 1600 |
| | 1156 | | 1601 – 1800 |
| | 1286 | | 1801 – 2400 |
| 3B | 70 | | 431 – 1400 |
| | 486 | | 1401 – 1800 |
| | 686 | | 1801 – 2400 |
| 3C | 956 | | 1001 – 1200 |
| | 1167 | | 1201 – 1400 |
| | 1367 | | 1401 – 1600 |
| | 1567 | | 1601 – 1800 |
| | 1756 | | 1801 – 2000 |
| | 1956 | | 2001 – 2200 |
| | 1721 | | 2201 – 2400 |
| 3D | 70 | | 1401 – 2400 |
| 3E | 892 | | 1801 – 2400 |
| 3F | 2156 | | 2201 – 2400 |

# TITAN AF

## Installation instructions

GS

1-sash square tilt-turn

timber 12 mm

basic security

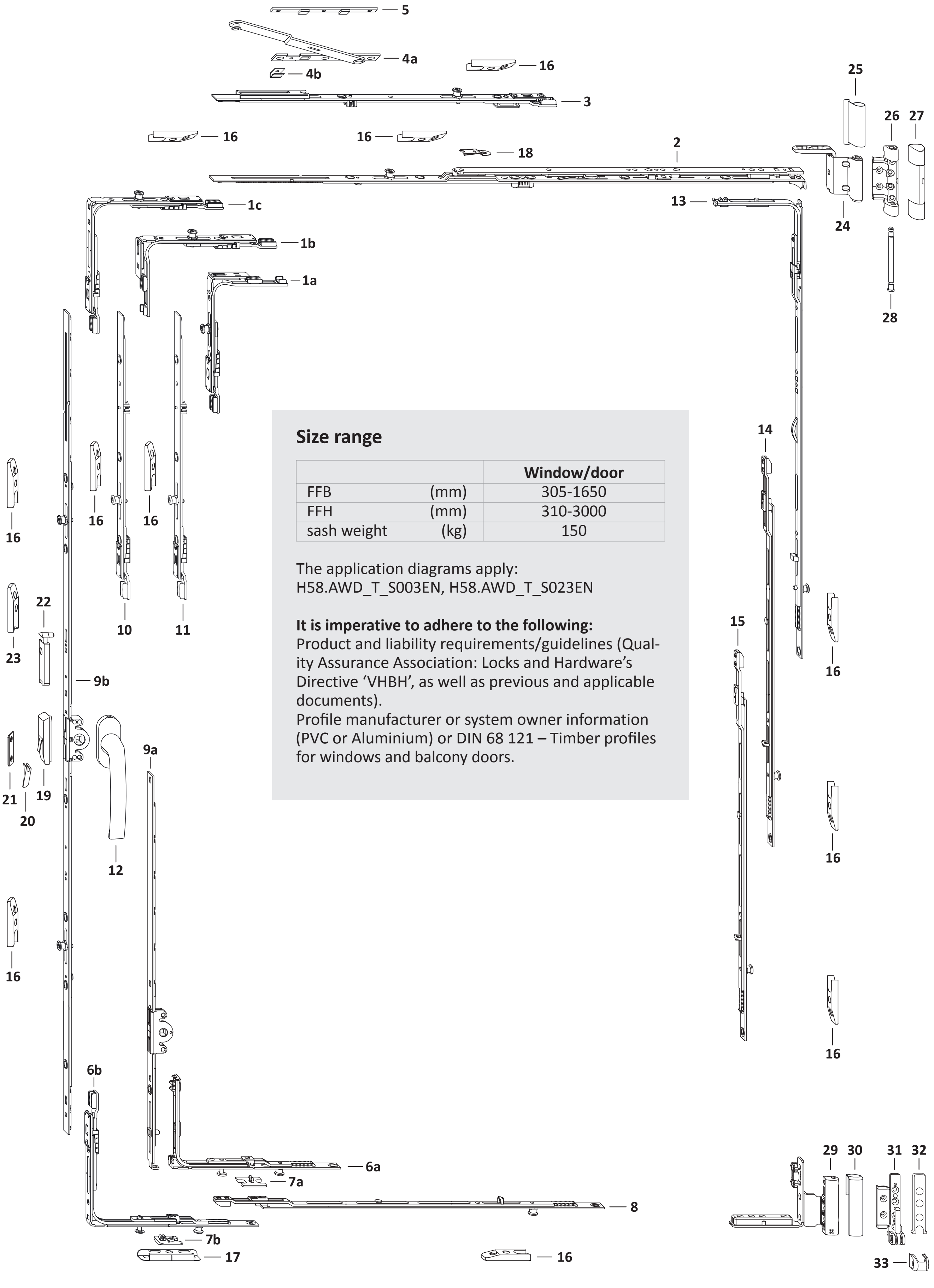
fixed handle position

Hinge side TITAN

surface TS

backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | double cam SB R-RS |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 1RS |
| **Hinge side turning points** | Standard HZ12 |




## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 305-1650 |
| FFH | (mm) | 310-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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.

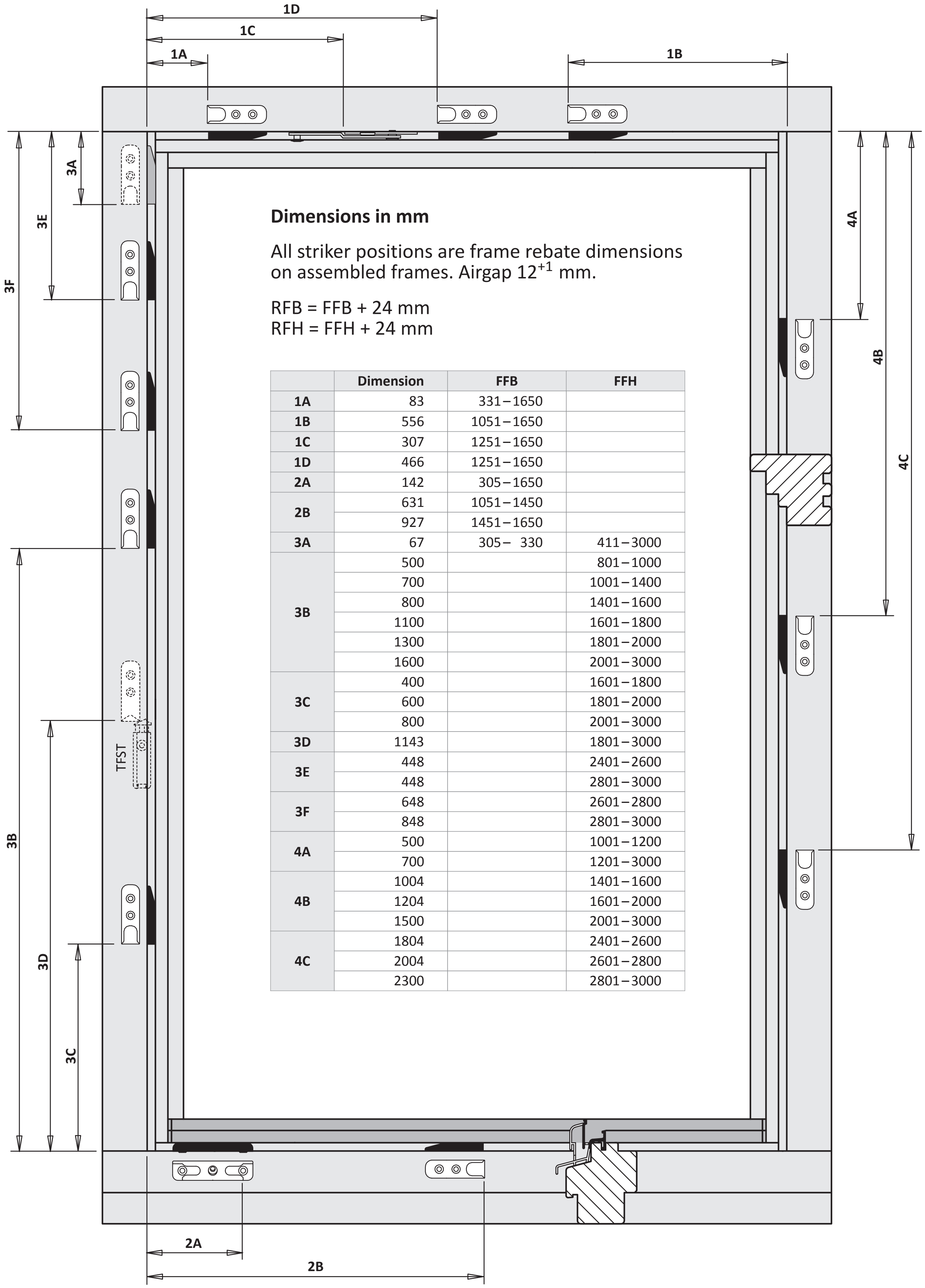
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 16 | 17 |
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 305 – 330 | 411 – 3000 | | 1 | |
| 1b | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 331 – 850 | 310 – 410 | | 1 | |
| 1c | corn.drive VSO 1RS | TEUL4010- ... | 1 | 331 – 1650 | 411 – 3000 | | 1 | |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 305 – 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | 1 | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | 1 | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | 1 | |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | |
| 6a | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | 1 | 305 – 1250 | 411 – 600 | | | 1 |
| | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | | 331 – 850 | 310 – 410 | | | 1 |
| 6b | corn.drive AF VSU/K 56+ 1S 1RS | TEUL5030- ... | 1 | 305 – 1650 | 601 – 3000 | | | 1 |
| 7a | run-up plate FH KRL56 | Ref. PDB, TRAL01 | 1 | 305 – 1250 | 411 – 600 | | | |
| | run-up plate FH KRL56 | Ref. PDB, TRAL01 | | 331 – 850 | 310 – 410 | | | |
| 7b | run up block AF 13 mm 13 | TFFH0080- ... | 1 | 305 – 1650 | 601 – 3000 | | | |
| 8 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | 1 | |
| 9a | gear 15 sz 30/G180 | TGKK3010- ... | 1 | 331 – 850 | 310 – 410 | 180 | | |
| | gear 15 sz 30/G180 | TGKK3010- ... | | 305 – 1250 | 411 – 600 | 180 | | |
| 9b | gear 15 AF sz 60/G300 | TGKK4030- ... | 1 | | 601 – 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/G700 1RS | TGKK4080- ... | | | 1401 – 1600 | 700 | 1 | |
| | 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 2RS | TGKK4110- ... | | | 2001 – 3000 | 1000 | 2 | |
| 10 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2401 – 2600 | | 1 | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | 1 | |
| 11 | linkage KK/AF sz 2 1RS | TZKK1020- ... | 1 | | 2601 – 2800 | | 1 | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | 1 | |
| 12 | handle Globe | Ref.access. ZHGS | 1 | | 310 – 3000 | | | |
| 13 | corn.drive BS/K3 sz 1+ 1RS | TEUL2410- ... | 1 | | 1001 – 1200 | | 1 | |
| | corn.drive BS/K3 sz 2+ 1RS | TEUL2420- ... | | | 1201 – 3000 | | 1 | |
| 14 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | 1 | |
| 15 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | 1 | |
| 16 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| 17 | striker plate S-RS | Ref. PDB, TRSK | | | | | | |
| **on request** | | | | | | | | |
| 18 | tilt restrictor .. | TFKB0010- ... | 1 | | 310 – 800 | | | |
| 19 | mishandling device | TFBS0010- ... | 1 | | | | | |
| 20 | pressure piece | Ref. PDB, TFFD | 1 | | | | | |
| 21 | stop | Ref. PDB, FRZF01 | 1 | | | | | |
| 22 | snapper switchable rh. | TFST0011- ... | 1 | | 1801 – 3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1801 – 3000 | | | |
| 23 | frame part snapper | Ref. PDB, TRST | 1 | | 1801 – 3000 | | | |

# List of fittings

1-sash square tilt-turn
H12 GK Hinge side TITAN



| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| **24** | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| **25** | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| **26** | top hinge | Ref. PDB, TBSL81 | | | 1 |
| **27** | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| **28** | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| **29** | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| **30** | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| **31** | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| **32** | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| **33** | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |




### Dimensions in mm

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

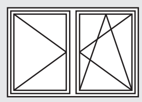
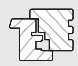
RFB = FFB + 24 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| **1A** | 83 | 331 – 1650 | |
| **1B** | 556 | 1051 – 1650 | |
| **1C** | 307 | 1251 – 1650 | |
| **1D** | 466 | 1251 – 1650 | |
| **2A** | 142 | 305 – 1650 | |
| **2B** | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| **3A** | 67 | 305 – 330 | 411 – 3000 |
| **3B** | 500 | | 801 – 1000 |
| | 700 | | 1001 – 1400 |
| | 800 | | 1401 – 1600 |
| | 1100 | | 1601 – 1800 |
| | 1300 | | 1801 – 2000 |
| | 1600 | | 2001 – 3000 |
| **3C** | 400 | | 1601 – 1800 |
| | 600 | | 1801 – 2000 |
| | 800 | | 2001 – 3000 |
| **3D** | 1143 | | 1801 – 3000 |
| **3E** | 448 | | 2401 – 2600 |
| | 448 | | 2801 – 3000 |
| **3F** | 648 | | 2601 – 2800 |
| | 848 | | 2801 – 3000 |
| **4A** | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| **4B** | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| **4C** | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

2

# TITAN AF

## Installation instructions

  GS

2-sash square tilt-turn/turn DS 16

timber 12 mm

basic security

fixed handle position

Hinge side TITAN

surface TS

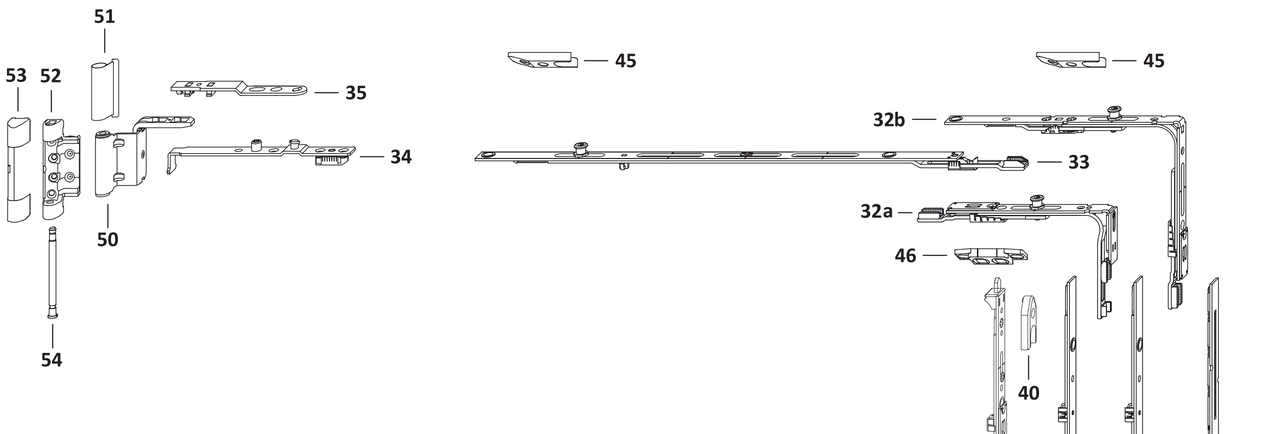
backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | double cam SB R-RS |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 1RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout slave sash

2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN






## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 305-1650 |
| FFH | (mm) | 310-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**It is imperative to adhere to the following:**
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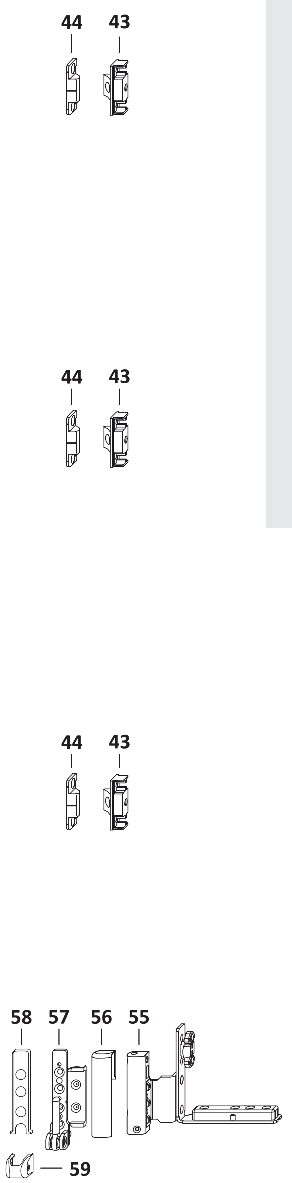


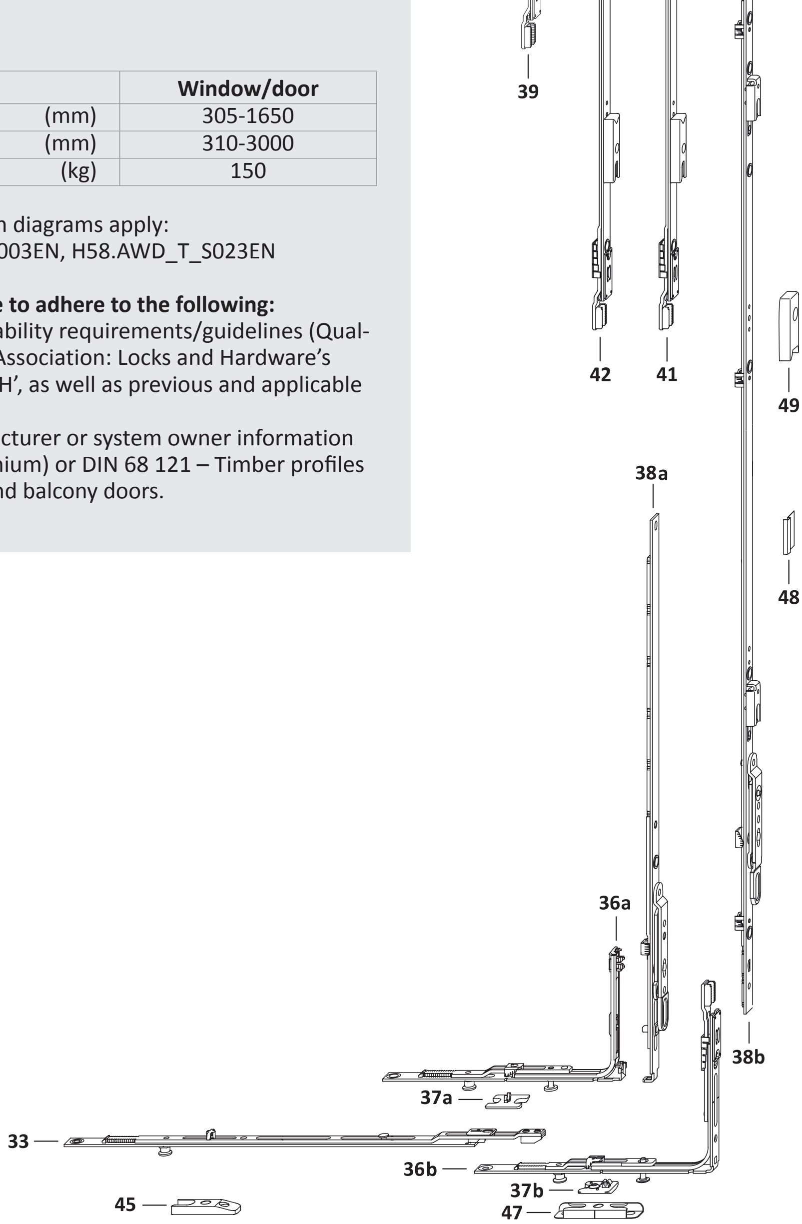

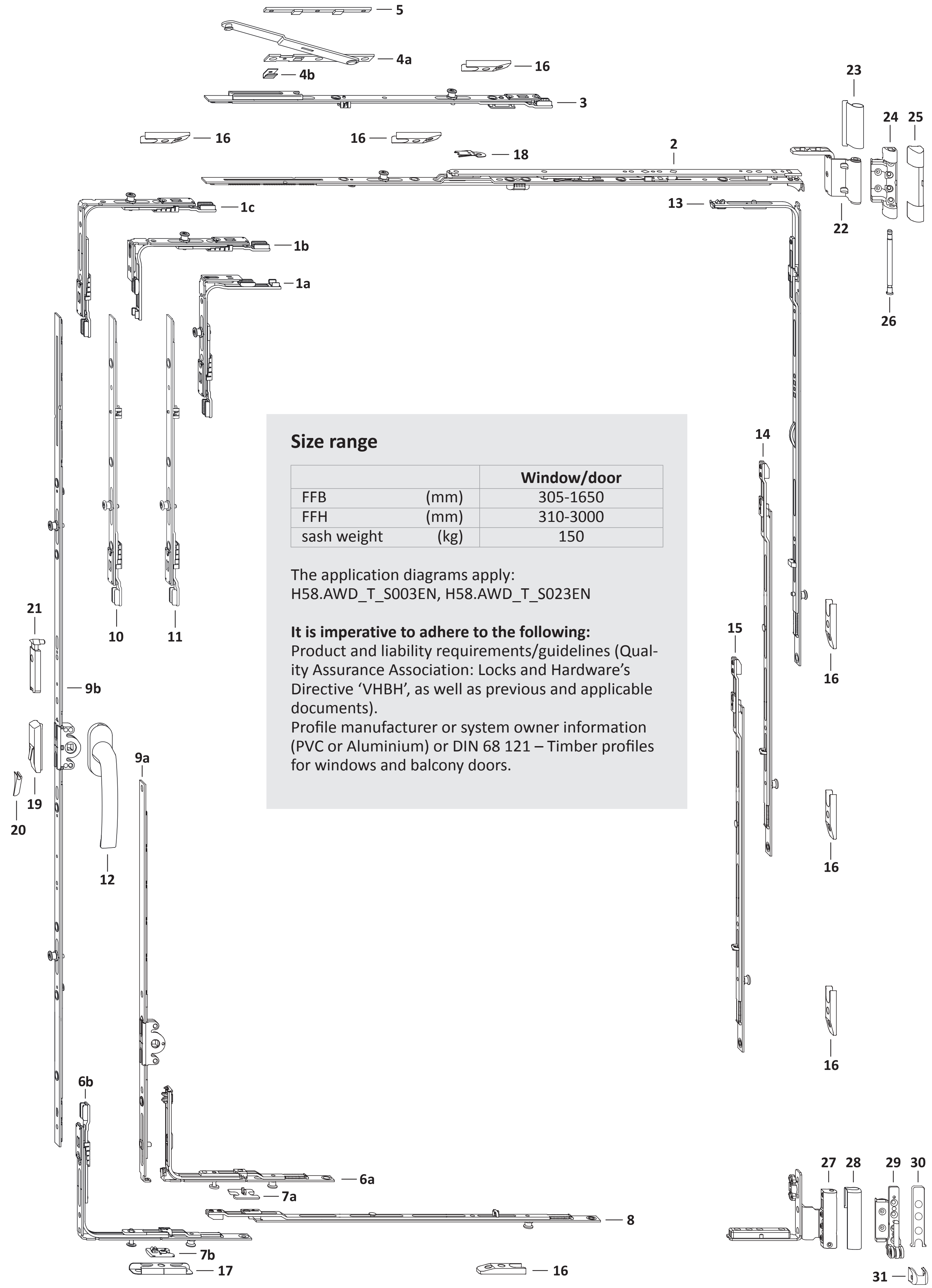


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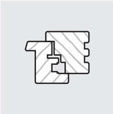
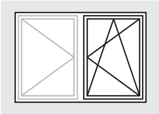
# List of fittings slave sash

## 2-sash square tilt-turn/turn DS 16
## H12 GK Hinge side TITAN

| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G<br>In the main sash | Number of frame parts / Pos.<br>45 | 46 | 47 |
|---|---|---|---|---|---|---|---|---|---|
| 32a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 371 – 850 | 310 – 410 | | 1 | | |
| 32b | corn.drive VSO/K+ DF 1RS | TEUL4110- ... | 1 | 371 – 1650 | 411 – 3000 | | 1 | | |
| 33 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 2 | 1051 – 1450 | | | 2 | | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | 2 | | |
| 34 | stay sash part DF/MN | TSSD0020- ... | 1 | 305 – 1650 | | | | | |
| 35 | stay arm DF | TSAD0010- ... | 1 | 305 – 1650 | | | | | |
| 36a | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | 1 | 305 – 1650 | 411 – 800 | | | | 1 |
| | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | | 371 – 850 | 310 – 410 | | | | 1 |
| 36b | corn.drive AF VSU/K 56+ 1S 1RS | TEUL5030- ... | 1 | 305 – 1650 | 801 – 3000 | | | | 1 |
| 37a | run-up plate FH KRL56 | Ref. PDB, TRAL01 | 1 | 305 – 1650 | 411 – 800 | | | | |
| | run-up plate FH KRL56 | Ref. PDB, TRAL01 | | 371 – 850 | 310 – 410 | | | | |
| 37b | run up block AF 13 mm 13 | TFFH0080- ... | 1 | 305 – 1650 | 801 – 3000 | | | | |
| 38a | sec.sash gear 16 sz 30 | TGKS0010- ... | 1 | 371 – 850 | 310 – 410 | 180 | | | |
| | sec.sash gear 16 sz 30 | TGKS0010- ... | | 305 – 1250 | 411 – 600 | 180 | | | |
| | sec.sash gear 16 AF 60/G300 | TGKS4030- ... | | | 601 – 800 | 300 | | | |
| 38b | sec.sash gear 16 AF80/G400 1SB | TGKS4050- ... | 1 | | 801 – 1000 | 400 | | | |
| | sec.sash gear 16 AF sz 100 1SB | TGKS4060- ... | | | 1001 – 1200 | 500 | | | |
| | sec.sash gear 16 AF120/G6001SB | TGKS4070- ... | | | 1201 – 1400 | 600 | | | |
| | sec.sash gear 16 AF140/G7001SB | TGKS4080- ... | | | 1401 – 1600 | 700 | | | |
| | sec.sash gear 16 AF160/G7002SB 70 | TGKS4330- ... | | | 1601 – 1800 | 700 | | | |
| | sec.sash gear 16AF180/G10002SB 70 | TGKS4270- ... | | | 1801 – 2000 | 1000 | | | |
| | sec.sash gear 16AF200/G10002SB | TGKS4110- ... | | | 2001 – 3000 | 1000 | | | |
| 39 | locking bolt AF VSO RSA 11 | TESC2030- ... | 1 | 305 – 370 | 411 – 3000 | | | 1 | |
| 40 | striker plate A0767 | TRSA0010- ... | 1 | 305 – 330 | 411 – 3000 | | | | |
| 41 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2401 – 2600 | | | | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | | |
| 42 | linkage AF sz 2 1SB-RS | TZKS1030- ... | 1 | | 2601 – 2800 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | | |
| 43 | sash part MV | Ref. PDB, ZFMV01 | 1 | | 1001 – 1600 | | | | |
| | sash part MV | Ref. PDB, ZFMV01 | 2 | | 1601 – 2400 | | | | |
| | sash part MV | Ref. PDB, ZFMV01 | 3 | | 2401 – 3000 | | | | |
| 44 | frame part MV | Ref. PDB, ZRZM01 | 1 | | 1001 – 1600 | | | | |
| | frame part MV | Ref. PDB, ZRZM01 | 2 | | 1601 – 2400 | | | | |
| | frame part MV | Ref. PDB, ZRZM01 | 3 | | 2401 – 3000 | | | | |
| 45 | striker plate 56 | Ref. PDB, FRSB | | | | | | | |
| 46 | striker V | Ref. PDB, FRZV02 | | | | | | | |
| 47 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | |
| | | | on request | | | | | | |
| 48 | stop | Ref. PDB, FRZF04 | 1 | | 601 – 3000 | | | | |
| 49 | striker snapper A0767 | TRST0010- ... | 1 | | 1801 – 3000 | | | | |

| Pos. | Description | Hinge side turning points<br>Part number<br>surface TS | RAL9016 | RAL8022 | required as per sash weight<br>150 kg |
|---|---|---|---|---|---|
| 50 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 51 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 52 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 53 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 54 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 55 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 56 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 57 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 58 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 59 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |



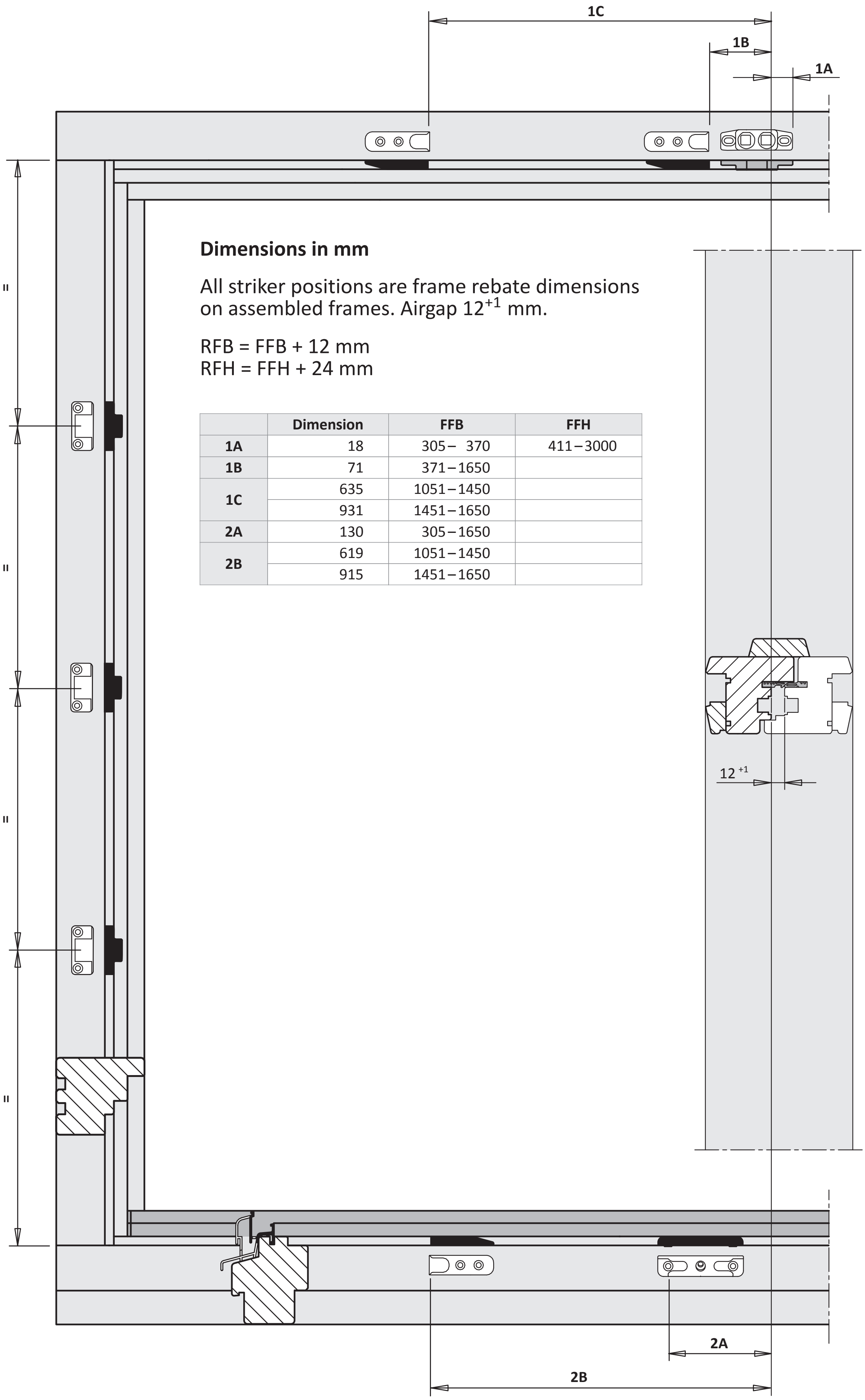
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 16 | 17 |
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 305 – 330 | 411 – 3000 | | | |
| 1b | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 371 – 850 | 310 – 410 | | 1 | |
| 1c | corn.drive VSO 1RS | TEUL4010- ... | 1 | 331 – 1650 | 411 – 3000 | | 1 | |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 305 – 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | 1 | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | 1 | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | 1 | |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | |
| 6a | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | 1 | 305 – 1250 | 411 – 600 | | | 1 |
| | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | | 371 – 850 | 310 – 410 | | | 1 |
| 6b | corn.drive AF VSU/K 56+ 1S 1RS | TEUL5030- ... | 1 | 305 – 1650 | 601 – 3000 | | | 1 |
| 7a | run-up plate FH KRL56 | Ref. PDB, TRAL01 | 1 | 305 – 1250 | 411 – 600 | | | |
| | run-up plate FH KRL56 | Ref. PDB, TRAL01 | | 371 – 850 | 310 – 410 | | | |
| 7b | run up block AF 13 mm 13 | TFFH0080- ... | 1 | 305 – 1650 | 601 – 3000 | | | |
| 8 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | 1 | |
| 9a | gear 15 sz 30/G180 | TGKK3010- ... | 1 | 371 – 850 | 310 – 410 | 180 | | |
| | gear 15 sz 30/G180 | TGKK3010- ... | | 305 – 1250 | 411 – 600 | 180 | | |
| 9b | gear 15 AF sz 60/G300 | TGKK4030- ... | 1 | | 601 – 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/G700 1RS | TGKK4080- ... | | | 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 2RS | TGKK4110- ... | | | 2001 – 3000 | 1000 | | |
| 10 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2401 – 2600 | | | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | |
| 11 | linkage KK/AF sz 2 1RS | TZKK1020- ... | 1 | | 2601 – 2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | |
| 12 | handle Globe | Ref.access. ZHGS | 1 | | 310 – 3000 | | | |
| 13 | corn.drive BS/K3 sz 1+ 1RS | TEUL2410- ... | 1 | | 1001 – 1200 | | 1 | |
| | corn.drive BS/K3 sz 2+ 1RS | TEUL2420- ... | | | 1201 – 3000 | | 1 | |
| 14 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | 1 | |
| 15 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | 1 | |
| 16 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| 17 | striker plate S-RS | Ref. PDB, TRSK | | | | | | |
| **on request** | | | | | | | | |
| 18 | tilt restrictor .. | TFKB0010- ... | 1 | | 310 – 800 | | | |
| 19 | mishandling device | TFBS0010- ... | 1 | | 601 – 3000 | | | |
| 20 | pressure piece | Ref. PDB, TFFD | 1 | | 601 – 3000 | | | |
| 21 | snapper switchable rh. | TFST0011- ... | 1 | | 1801 – 3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1801 – 3000 | | | |

# List of fittings main sash

2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN



| Pos. | Description | Part number | | | required as per sash weight |
|---|---|---|---|---|---|
| | | **Hinge side turning points** | | | |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| **22** | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| **23** | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| **24** | top hinge | Ref. PDB, TBSL81 | | | 1 |
| **25** | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| **26** | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| **27** | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| **28** | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| **29** | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| **30** | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| **31** | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |




**Dimensions in mm**

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

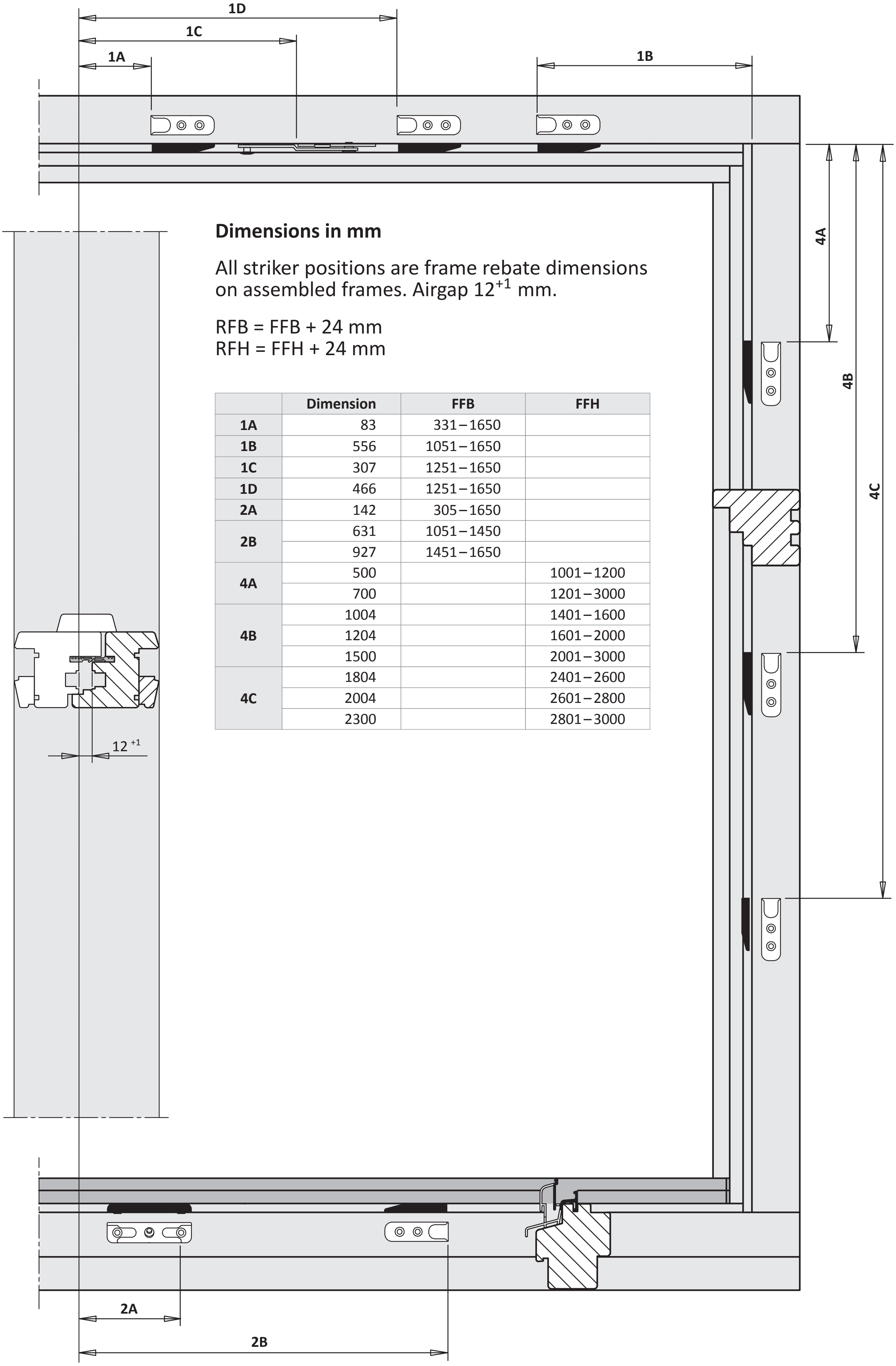
RFB = FFB + 12 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 18 | 305 – 370 | 411 – 3000 |
| 1B | 71 | 371 – 1650 | |
| 1C | 635 | 1051 – 1450 | |
| | 931 | 1451 – 1650 | |
| 2A | 130 | 305 – 1650 | |
| 2B | 619 | 1051 – 1450 | |
| | 915 | 1451 – 1650 | |

# Frame dimensions main sash

2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN



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

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 331 – 1650 | |
| 1B | 556 | 1051 – 1650 | |
| 1C | 307 | 1251 – 1650 | |
| 1D | 466 | 1251 – 1650 | |
| 2A | 142 | 305 – 1650 | |
| 2B | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 4A | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4B | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4C | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

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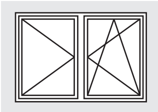 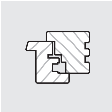 GS

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timber 12 mm

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| Hardware set configuration | |
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| **Stay side** | one-piece stay |
| **Bottom** | double cam SB R-RS |
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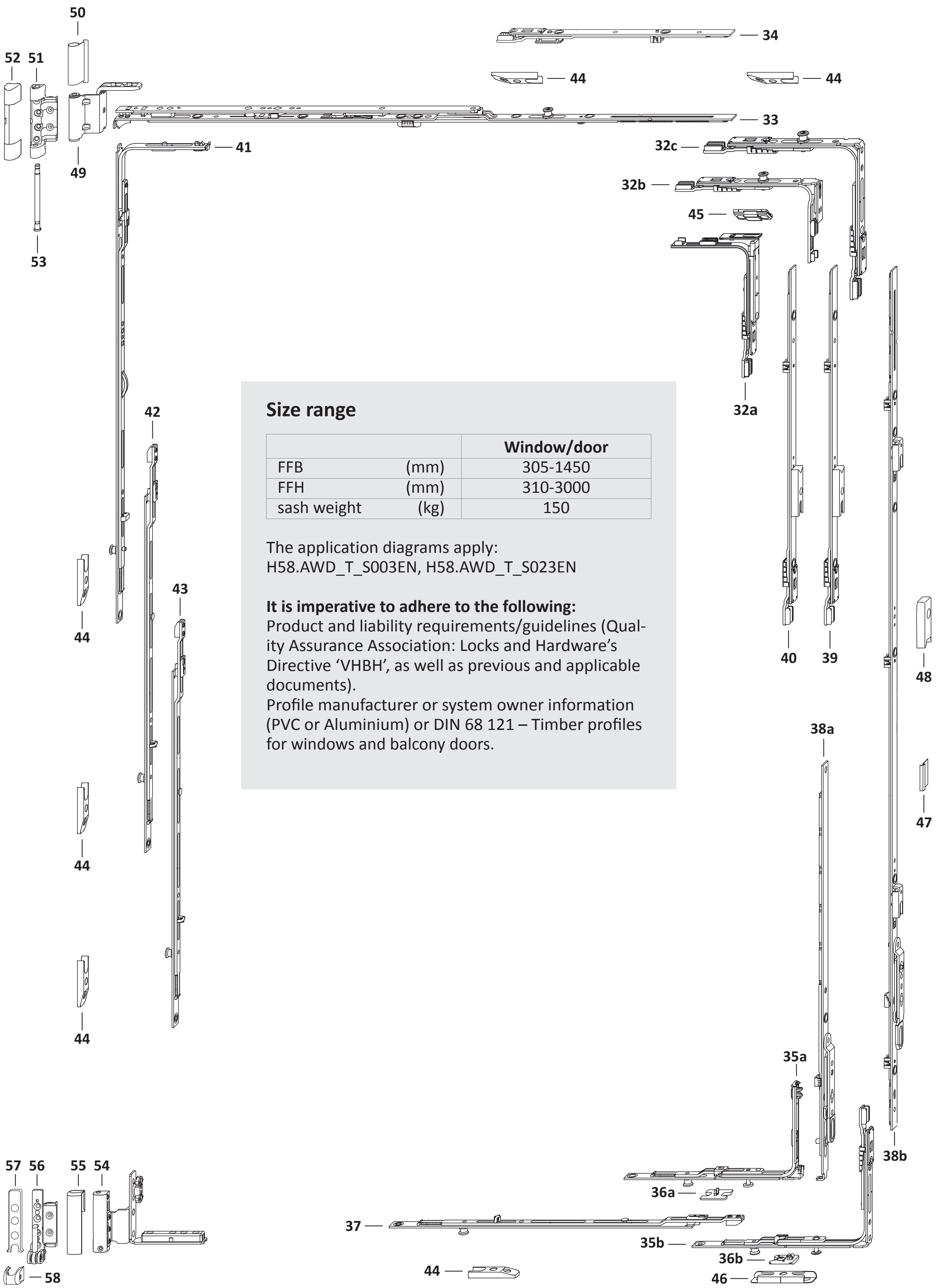


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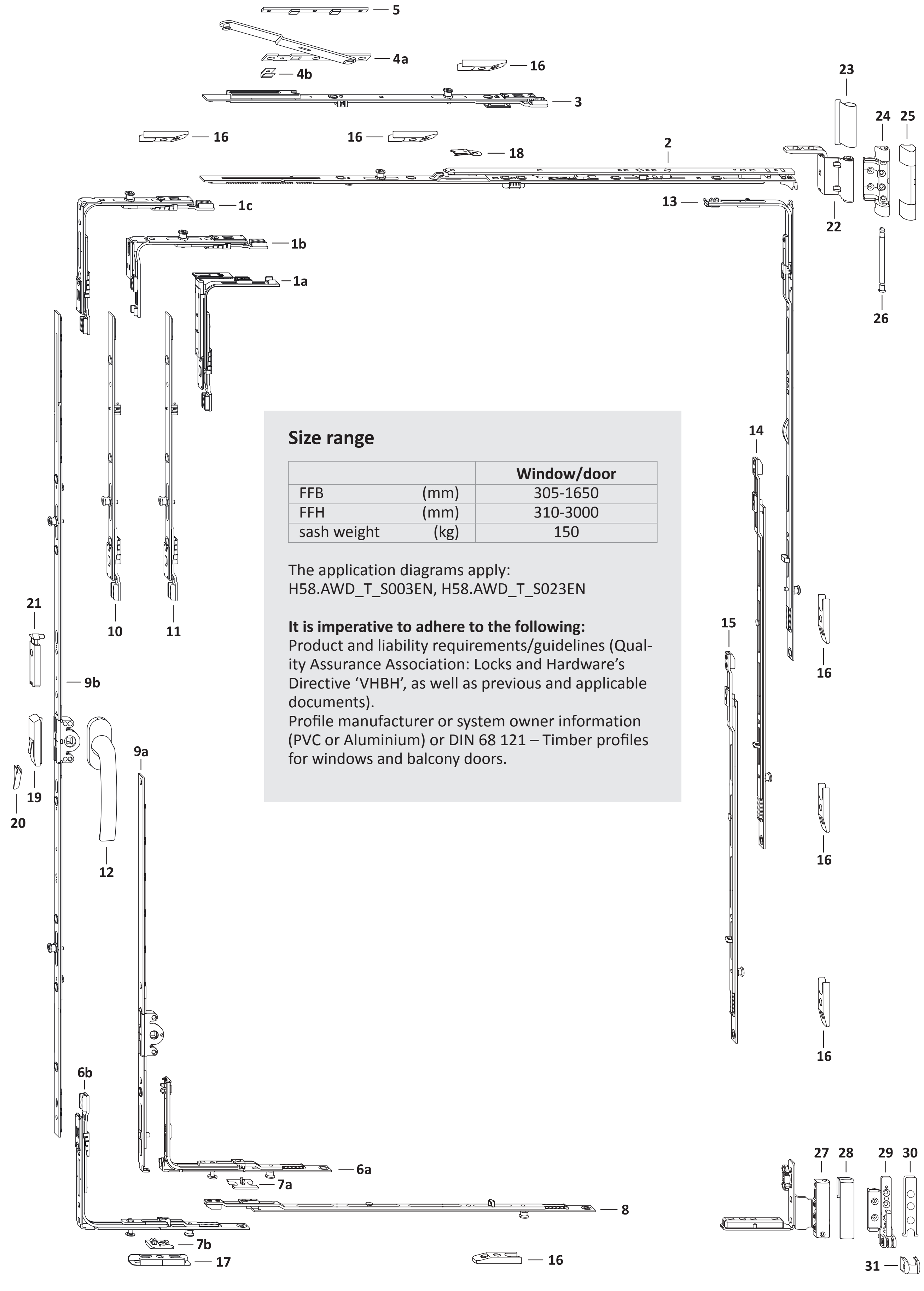


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| sash weight | (kg) | 150 |

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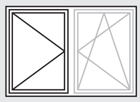
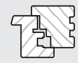
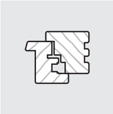
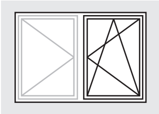





| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | In the main sash | 44 | 45 | 46 |
| 32a | corn.drive VSO narrow RSA/11mm | TEUL4150- ... | 1 | 305 – 330 | 411 – 3000 | | | 1 | |
| 32b | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 331 – 850 | 310 – 410 | | 1 | | |
| 32c | corn.drive VSO 1RS | TEUL4010- ... | 1 | 331 – 1450 | 411 – 3000 | | 1 | | |
| 33 | stay AF sz 0 | TSKK2000- ... | 1 | 305 – 450 | | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1450 | | | 1 | | |
| 34 | linkage AF sz 1 | TZZS0150- ... | 1 | 1251 – 1450 | | | | | |
| 35a | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | 1 | 305 – 1450 | 411 – 800 | | | | 1 |
| | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | | 371 – 850 | 310 – 410 | | | | 1 |
| 35b | corn.drive AF VSU/K 56+ 1S 1RS | TEUL5030- ... | 1 | 305 – 1450 | 801 – 3000 | | | | 1 |
| 36a | run-up plate FH KRL56 | Ref. PDB, TRAL01 | 1 | 305 – 1450 | 411 – 800 | | | | |
| | run-up plate FH KRL56 | Ref. PDB, TRAL01 | | 371 – 850 | 310 – 410 | | | | |
| 36b | run up block AF 13 mm 13 | TFFH0080- ... | 1 | 305 – 1450 | 801 – 3000 | | | | |
| 37 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | 1 | | |
| 38a | sec.sash gear 16 sz 30 | TGKS0010- ... | 1 | 371 – 850 | 310 – 410 | 180 | | | |
| | sec.sash gear 16 sz 30 | TGKS0010- ... | | 305 – 1250 | 411 – 600 | 180 | | | |
| | sec.sash gear 16 AF 60/G300 | TGKS4030- ... | | | 601 – 800 | 300 | | | |
| 38b | sec.sash gear 16 AF80/G400 1SB | TGKS4050- ... | 1 | | 801 – 1000 | 400 | | | |
| | sec.sash gear 16 AF sz 100 1SB | TGKS4060- ... | | | 1001 – 1200 | 500 | | | |
| | sec.sash gear 16 AF120/G6001SB | TGKS4070- ... | | | 1201 – 1400 | 600 | | | |
| | sec.sash gear 16 AF140/G7001SB | TGKS4080- ... | | | 1401 – 1600 | 700 | | | |
| | sec.sash gear 16 AF160/G7002SB 70 | TGKS4330- ... | | | 1601 – 1800 | 700 | | | |
| | sec.sash gear 16AF180/G10002SB 70 | TGKS4270- ... | | | 1801 – 2000 | 1000 | | | |
| | sec.sash gear 16AF200/G10002SB | TGKS4110- ... | | | 2001 – 3000 | 1000 | | | |
| 39 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2401 – 2600 | | | | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | | |
| 40 | linkage AF sz 2 1SB-RS | TZKS1030- ... | 1 | | 2601 – 2800 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | | |
| 41 | corn.drive BS/K3 sz 1+ 1RS | TEUL2410- ... | 1 | | 1001 – 1200 | | 1 | | |
| | corn.drive BS/K3 sz 2+ 1RS | TEUL2420- ... | | | 1201 – 3000 | | 1 | | |
| 42 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | 1 | | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | 1 | | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | 1 | | |
| 43 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | 1 | | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | 1 | | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | 1 | | |
| 44 | striker plate 56 | Ref. PDB, FRSB | | | | | | | |
| 45 | short striker V | Ref. PDB, FRZV12 | | | | | | | |
| 46 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | |
| on request | | | | | | | | | |
| 47 | stop | Ref. PDB, FRZF04 | 1 | | 601 – 3000 | | | | |
| 48 | striker snapper A0767 | TRST0010- ... | 1 | | 1801 – 3000 | | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 49 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 50 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 51 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 52 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 53 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 54 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 55 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 56 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 57 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 58 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |



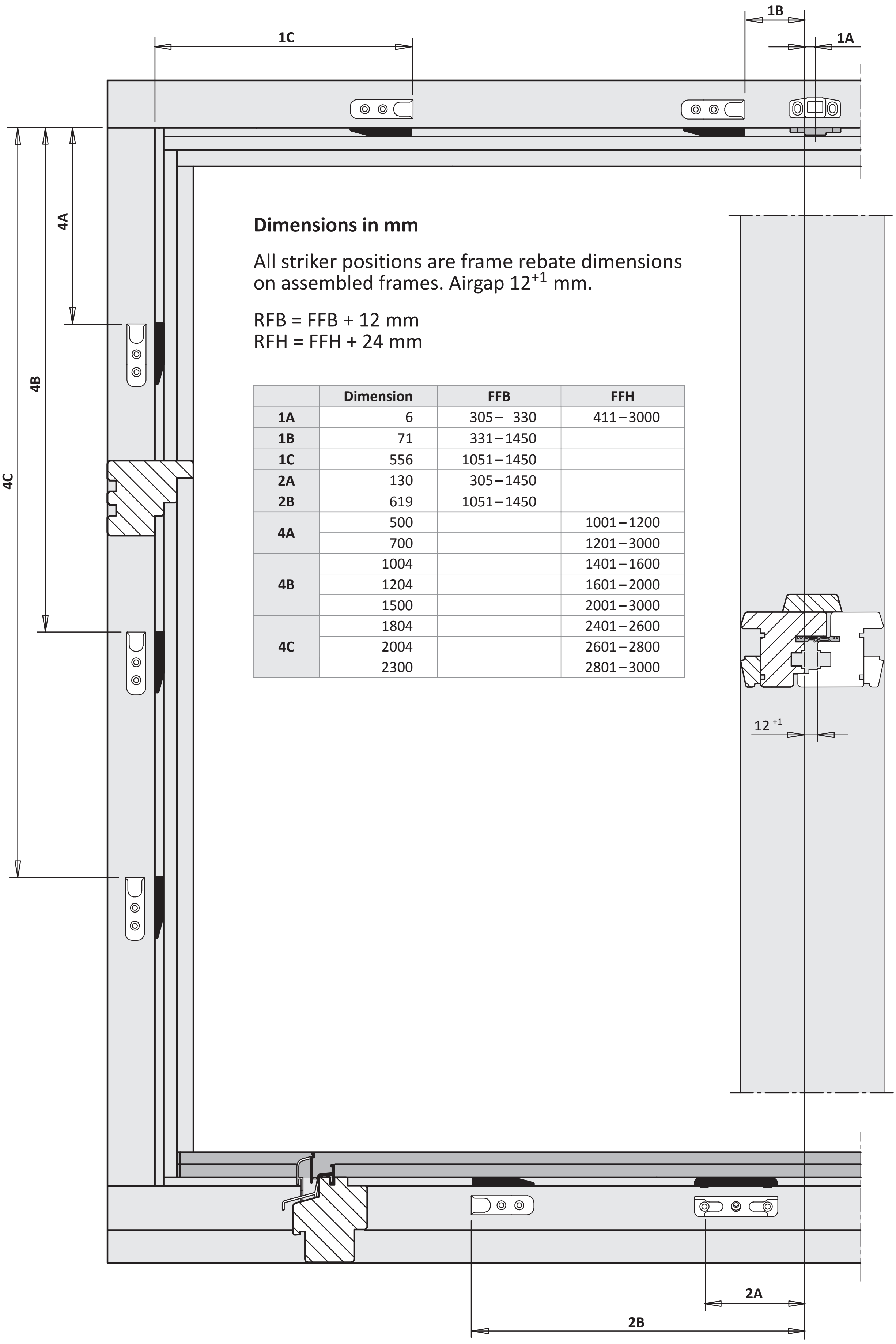
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 16 | 17 |
| 1a | corn.drive VSO narrow RSA/11mm | TEUL4150- ... | 1 | 305 – 330 | 411 – 3000 | | | |
| 1b | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 331 – 850 | 310 – 410 | | 1 | |
| 1c | corn.drive VSO 1RS | TEUL4010- ... | 1 | 331 – 1650 | 411 – 3000 | | 1 | |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 305 – 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | 1 | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | 1 | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | 1 | |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | |
| 6a | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | 1 | 305 – 1250 | 411 – 600 | | | 1 |
| | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | | 371 – 850 | 310 – 410 | | | 1 |
| 6b | corn.drive AF VSU/K 56+ 1S 1RS | TEUL5030- ... | 1 | 305 – 1650 | 601 – 3000 | | | 1 |
| 7a | run-up plate FH KRL56 | Ref. PDB, TRAL01 | 1 | 305 – 1250 | 411 – 600 | | | |
| | run-up plate FH KRL56 | Ref. PDB, TRAL01 | | 371 – 850 | 310 – 410 | | | |
| 7b | run up block AF 13 mm 13 | TFFH0080- ... | 1 | 305 – 1650 | 601 – 3000 | | | |
| 8 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | 1 | |
| 9a | gear 15 sz 30/G180 | TGKK3010- ... | 1 | 331 – 850 | 310 – 410 | 180 | | |
| | gear 15 sz 30/G180 | TGKK3010- ... | | 305 – 1250 | 411 – 600 | 180 | | |
| 9b | gear 15 AF sz 60/G300 | TGKK4030- ... | 1 | | 601 – 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/G700 1RS | TGKK4080- ... | | | 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 2RS | TGKK4110- ... | | | 2001 – 3000 | 1000 | | |
| 10 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2401 – 2600 | | | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | |
| 11 | linkage KK/AF sz 2 1RS | TZKK1020- ... | 1 | | 2601 – 2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | |
| 12 | handle Globe | Ref.access. ZHGS | 1 | | 310 – 3000 | | | |
| 13 | corn.drive BS/K3 sz 1+ 1RS | TEUL2410- ... | 1 | | 1001 – 1200 | | 1 | |
| | corn.drive BS/K3 sz 2+ 1RS | TEUL2420- ... | | | 1201 – 3000 | | 1 | |
| 14 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | 1 | |
| 15 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | 1 | |
| 16 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| 17 | striker plate S-RS | Ref. PDB, TRSK | | | | | | |
| **on request** | | | | | | | | |
| 18 | tilt restrictor .. | TFKB0010- ... | 1 | | 310 – 800 | | | |
| 19 | mishandling device | TFBS0010- ... | 1 | | 601 – 3000 | | | |
| 20 | pressure piece | Ref. PDB, TFFD | 1 | | 601 – 3000 | | | |
| 21 | snapper switchable rh. | TFST0011- ... | 1 | | 1801 – 3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1801 – 3000 | | | |

# List of fittings main sash

2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN



| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| **Pos.** | **Description** | **Part number** | | | **required as per sash weight** |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| **22** | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| **23** | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| **24** | top hinge | Ref. PDB, TBSL81 | | | 1 |
| **25** | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| **26** | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| **27** | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| **28** | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| **29** | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| **30** | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| **31** | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |




**Dimensions in mm**

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

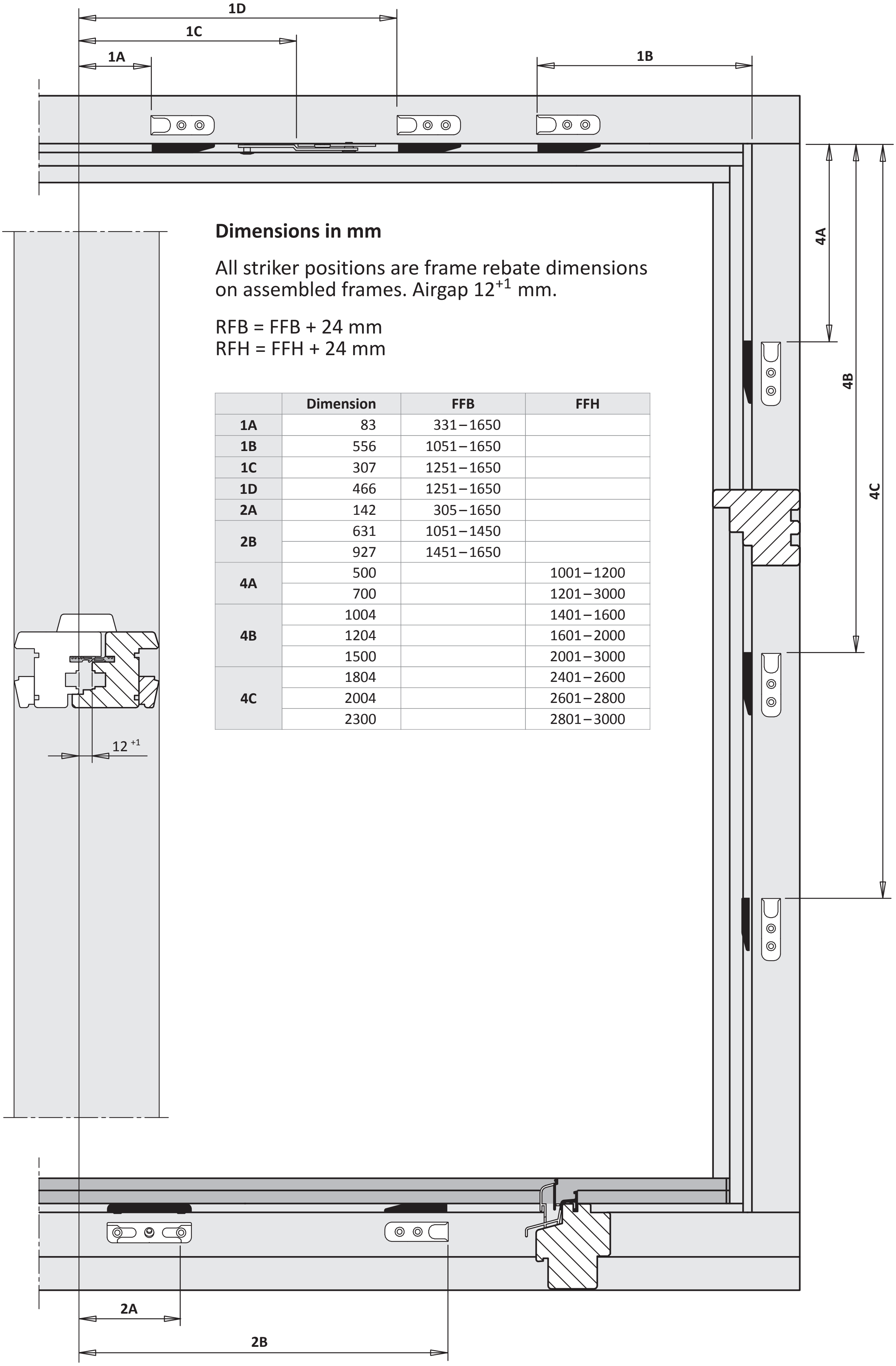
RFB = FFB + 12 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| **1A** | 6 | 305 – 330 | 411 – 3000 |
| **1B** | 71 | 331 – 1450 | |
| **1C** | 556 | 1051 – 1450 | |
| **2A** | 130 | 305 – 1450 | |
| **2B** | 619 | 1051 – 1450 | |
| **4A** | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| **4B** | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| **4C** | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

# Frame dimensions main sash

2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN






**Dimensions in mm**

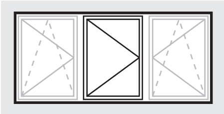
All striker positions are frame rebate dimensions on assembled frames. Airgap $12^{+1}$ mm.

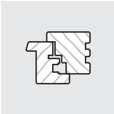
RFB = FFB + 24 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| **1A** | 83 | 331 – 1650 | |
| **1B** | 556 | 1051 – 1650 | |
| **1C** | 307 | 1251 – 1650 | |
| **1D** | 466 | 1251 – 1650 | |
| **2A** | 142 | 305 – 1650 | |
| **2B** | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| **4A** | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| **4B** | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| **4C** | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

# TITAN AF

## Installation instructions





GS

3-sash Centre sash second opening turn

timber 12 mm

basic security

fixed handle position

Hinge side TITAN

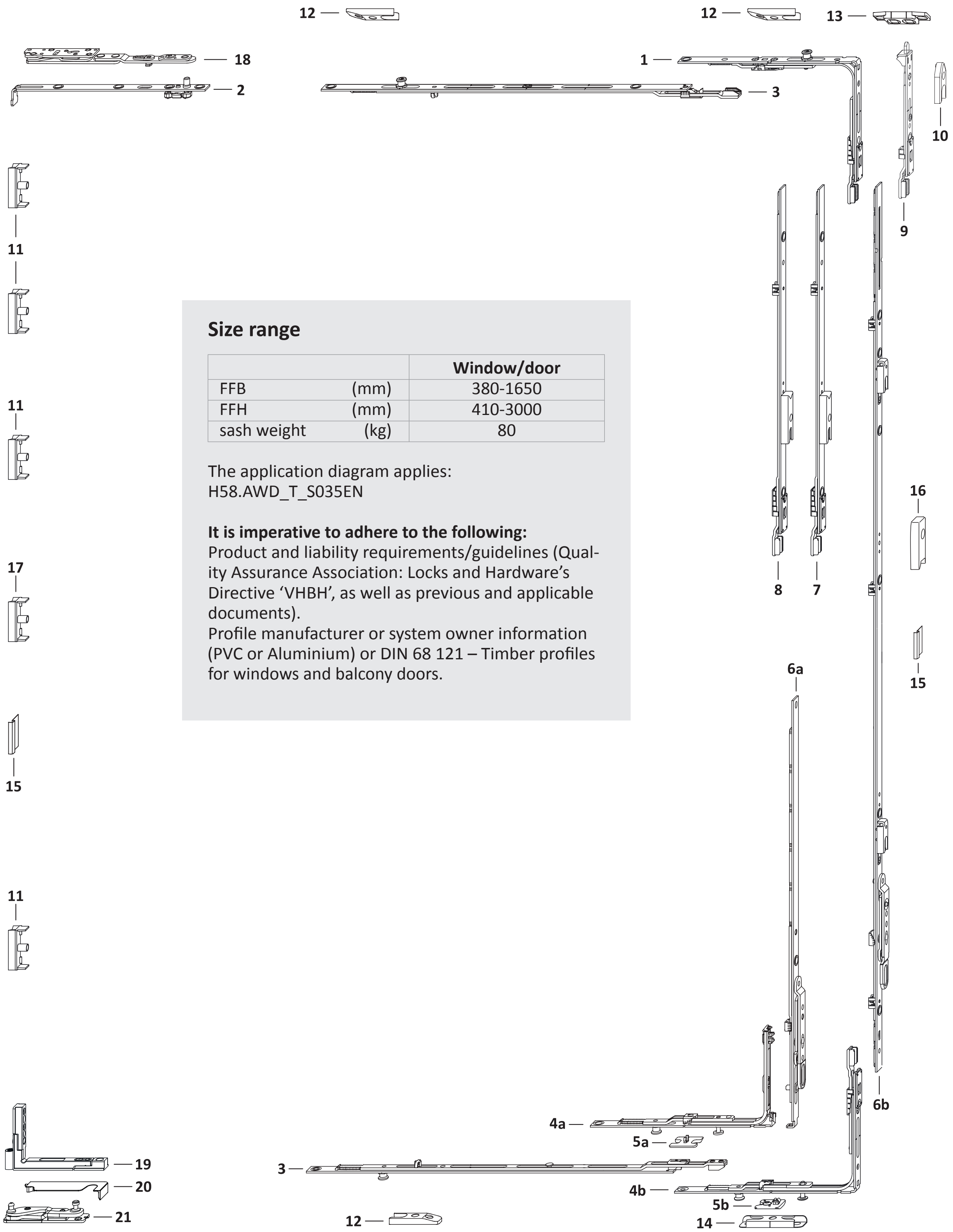
surface TS

backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | two-piece stay |
| **Bottom** | double cam SB R-RS |
| **Locking side** | mishandl. device on gear |

# hardware layout

3-sash Centre sash second opening turn
H12 GK Hinge side TITAN

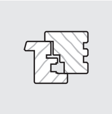
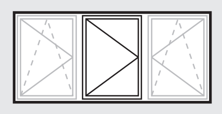



## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 380-1650 |
| FFH | (mm) | 410-3000 |
| sash weight | (kg) | 80 |

The application diagram applies:
H58.AWD_T_S035EN

**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.

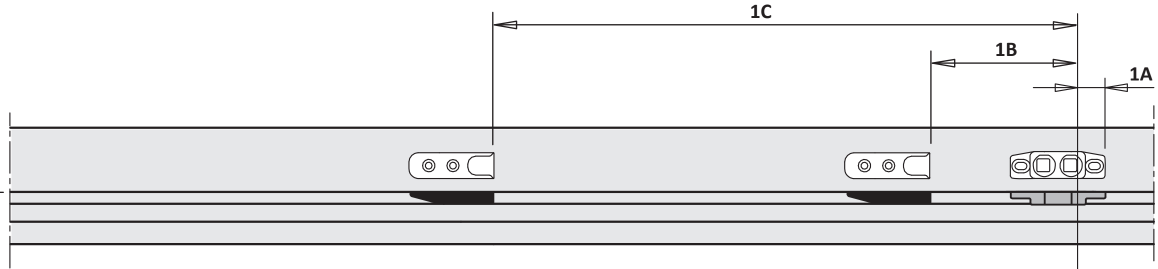



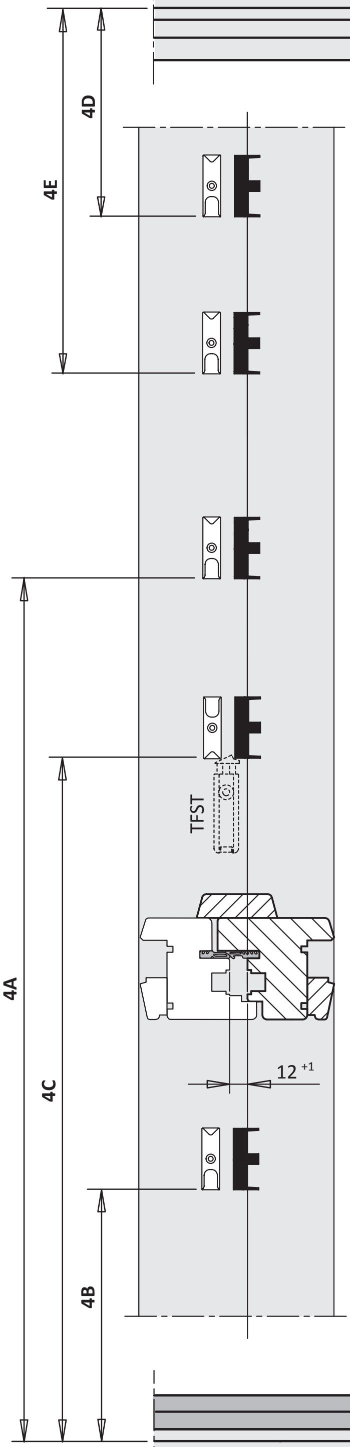




| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 12 | 13 | 14 |
| 1 | corn.drive VSO/K+ DF 1RS | TEUL4110- ... | 1 | 481 – 1650 | | | 1 | | |
| 2 | stay sash part DF AX | TSSV3020- ... | 1 | 380 – 1650 | | | | | |
| 3 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 2 | 1051 – 1450 | | | 2 | | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | 2 | | |
| 4a | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | 1 | 380 – 1650 | 410 – 800 | | | | 1 |
| 4b | corn.drive AF VSU/K 56+ 1S 1RS | TEUL5030- ... | 1 | 380 – 1650 | 801 – 3000 | | | | 1 |
| 5a | run-up plate FH KRL56 | Ref. PDB, TRAL01 | 1 | 380 – 1650 | 410 – 800 | | | | |
| 5b | run up block AF 13 mm 13 | TFFH0080- ... | 1 | 380 – 1650 | 801 – 3000 | | | | |
| 6a | sec.sash gear 16 sz 30 | TGKS0010- ... | 1 | 380 – 850 | 410 – 600 | 180 | | | |
| | sec.sash gear 16 AF 60/G300 | TGKS4030- ... | | | 601 – 800 | 300 | | | |
| 6b | sec.sash gear 16 AF80/G400 1SB | TGKS4050- ... | 1 | | 801 – 1000 | 400 | | | |
| | sec.sash gear 16 AF sz 100 1SB | TGKS4060- ... | | | 1001 – 1200 | 500 | | | |
| | sec.sash gear 16 AF120/G6001SB | TGKS4070- ... | | | 1201 – 1400 | 600 | | | |
| | sec.sash gear 16 AF140/G7001SB | TGKS4080- ... | | | 1401 – 1600 | 700 | | | |
| | sec.sash gear 16 AF160/G7002SB 70 | TGKS4330- ... | | | 1601 – 1800 | 700 | | | |
| | sec.sash gear 16AF180/G10002SB 70 | TGKS4270- ... | | | 1801 – 2000 | 1000 | | | |
| | sec.sash gear 16AF200/G10002SB | TGKS4110- ... | | | 2001 – 3000 | 1000 | | | |
| 7 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2401 – 2600 | | | | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | | |
| 8 | linkage AF sz 2 1SB-RS | TZKS1030- ... | 1 | | 2601 – 2800 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | | |
| 9 | locking bolt AF VSO RSA 11 | TESC2030- ... | 1 | 380 – 480 | 410 – 3000 | | | 1 | |
| 10 | striker plate A0767 | TRSA0010- ... | 1 | 380 – 480 | 410 – 3000 | | | | |
| 11 | striker plate 56 A2000 | TRSB0030- ... | 1 | | 801 – 1000 | | | | |
| | striker plate 56 A2000 | TRSB0030- ... | | | 1001 – 1200 | | | | |
| | striker plate 56 A2000 | TRSB0030- ... | | | 1201 – 1400 | | | | |
| | striker plate 56 A2000 | TRSB0030- ... | | | 1401 – 1600 | | | | |
| | striker plate 56 A2000 | TRSB0030- ... | 2 | | 1601 – 2400 | | | | |
| | striker plate 56 A2000 | TRSB0030- ... | 3 | | 2401 – 2800 | | | | |
| | striker plate 56 A2000 | TRSB0030- ... | 4 | | 2801 – 3000 | | | | |
| 12 | striker plate 56 | Ref. PDB, FRSB | | | | | | | |
| 13 | striker V | Ref. PDB, FRZV01 | | | | | | | |
| 14 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | |
| **on request** | | | | | | | | | |
| 15 | stop | Ref. PDB, FRZF04 | 2 | | | | | | |
| 16 | striker snapper A0767 | TRST0010- ... | 1 | | 1801 – 3000 | | | | |
| 17 | striker plate 56 A2000 | TRSB0030- ... | 1 | | 1801 – 3000 | | | | |

| Hinge side turning points | | | | |
|---|---|---|---|---|
| Pos. | Description | Part number | | required as per sash weight |
| | | surface TS | -- | 80 kg |
| 18 | stay arm AX DF/3 | Ref. PDB, TSAV47 | | 1 |
| 19 | corner hinge AX | Ref. PDB, TBEB41 | | 1 |
| 20 | cover cap AX EL | Ref. PDB, TKEL41 | | 1 |
| 21 | bottom hinge AX DF/3 | Ref. PDB, TBEV43 | | 1 |



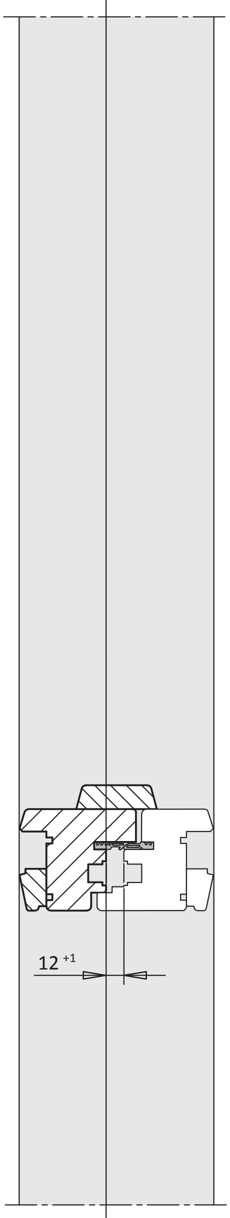



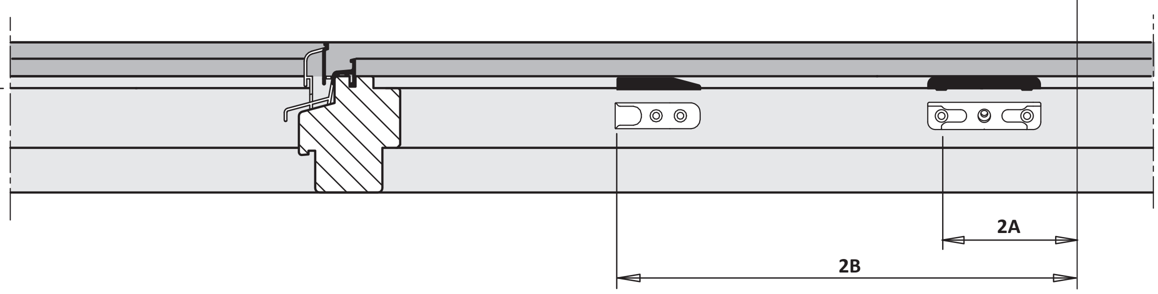

## Dimensions in mm

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

RFB (frame rebate width) = FFB
RFH = FFH + 24 mm

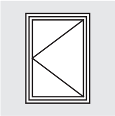
| | Dimension | FFB | FFH |
|---|---|---|---|
| **1A** | 18 | 380– 480 | |
| **1B** | 71 | 481–1650 | |
| **1C** | 635 | 1051–1450 | |
| | 931 | 1451–1650 | |
| **2A** | 130 | 380–1650 | |
| **2B** | 619 | 1051–1450 | |
| | 915 | 1451–1650 | |
| **4A** | 500 | | 801–1000 |
| | 700 | | 1001–1400 |
| | 800 | | 1401–1600 |
| | 1100 | | 1601–1800 |
| | 1300 | | 1801–3000 |
| **4B** | 400 | | 1601–1800 |
| | 600 | | 1801–2000 |
| | 800 | | 2001–3000 |
| **4C** | 1143 | | 1801–3000 |
| **4D** | 448 | | 2401–2600 |
| | 448 | | 2801–3000 |
| **4E** | 648 | | 2601–2800 |
| | 848 | | 2801–3000 |

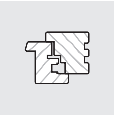


# TITAN AF

## Installation instructions





GS

1-sash square turn

timber 12 mm

basic security

fixed handle position

Hinge side TITAN

surface TS

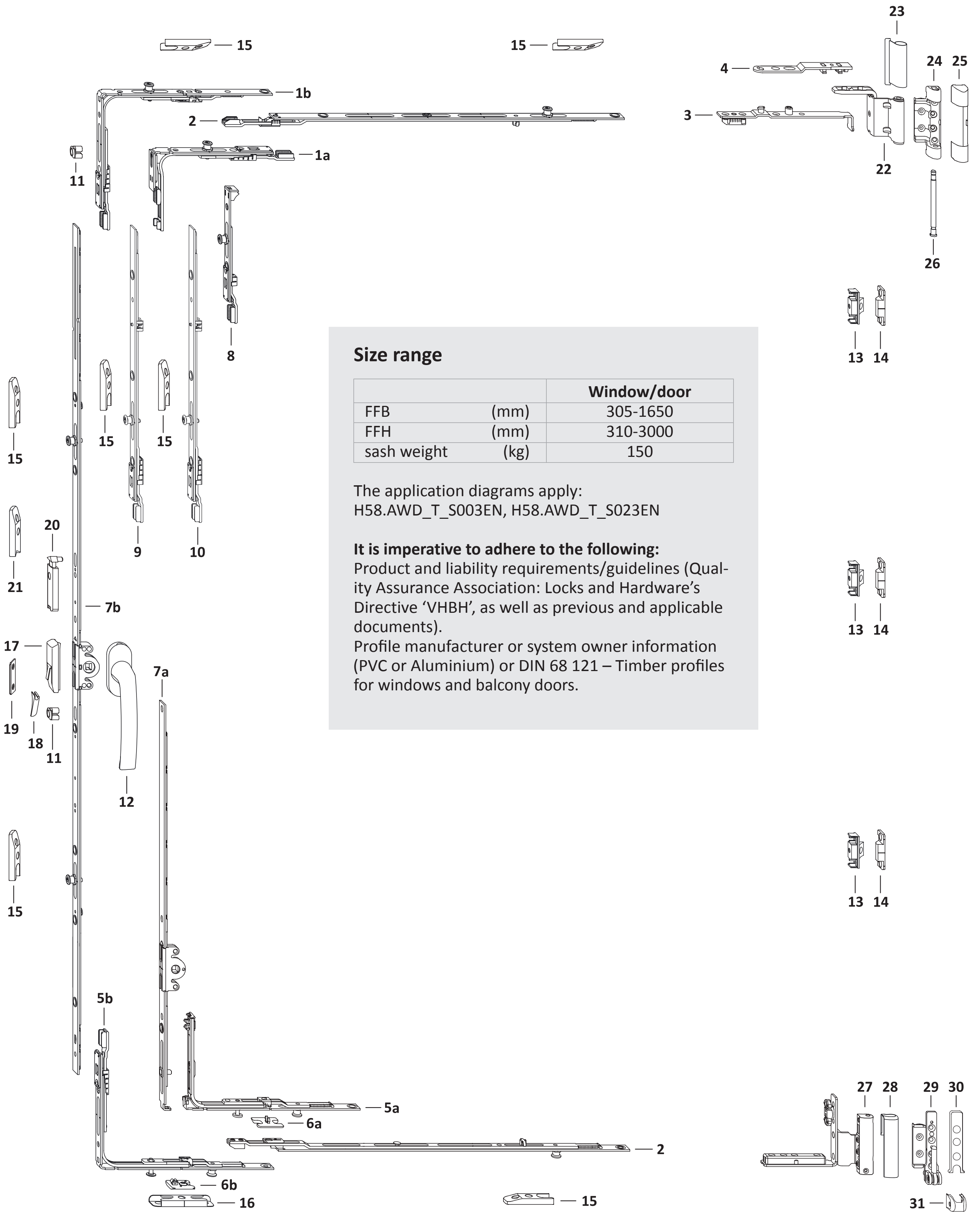
backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | two-piece stay |
| **Bottom** | double cam SB R-RS |
| **Locking side** | mishandl. device on gear |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout

1-sash square turn
H12 GK Hinge side TITAN






## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 305-1650 |
| FFH | (mm) | 310-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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.

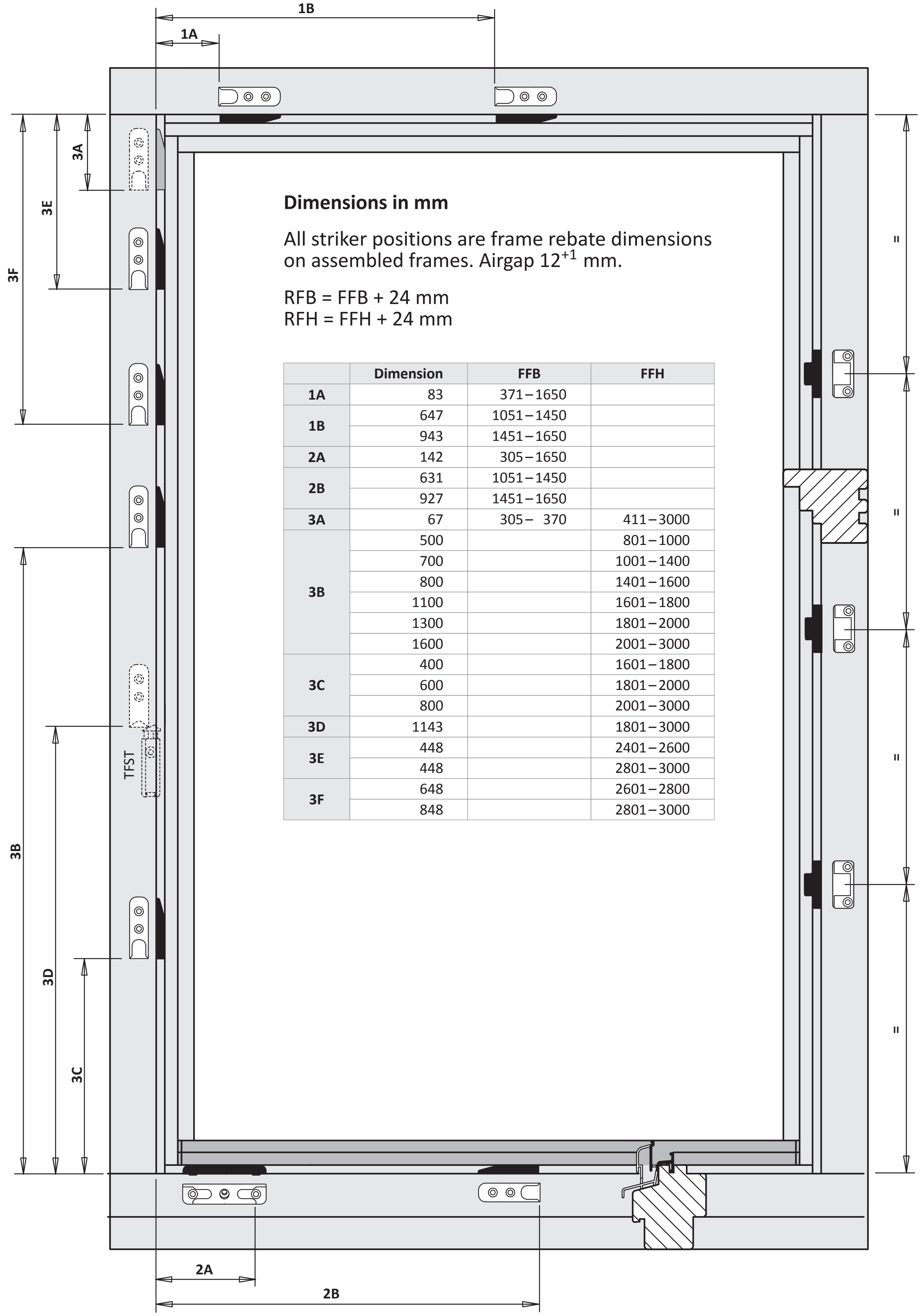
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 15 | 16 |
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 371 – 850 | 310 – 410 | | 1 | |
| 1b | corn.drive VSO/K+ DF 1RS | TEUL4110- ... | 1 | 371 – 1650 | 411 – 3000 | | 1 | |
| 2 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 2 | 1051 – 1450 | | | 2 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | 2 | |
| 3 | stay sash part DF/MN | TSSD0020- ... | 1 | 305 – 1650 | | | | |
| 4 | stay arm DF | TSAD0010- ... | 1 | 305 – 1650 | | | | |
| 5a | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | 1 | 305 – 1250 | 411 – 600 | | | 1 |
| | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | | 371 – 850 | 310 – 410 | | | 1 |
| 5b | corn.drive AF VSU/K 56+ 1S 1RS | TEUL5030- ... | 1 | 305 – 1650 | 601 – 3000 | | | 1 |
| 6a | run-up plate FH KRL56 | Ref. PDB, TRAL01 | 1 | 305 – 1250 | 411 – 600 | | | |
| | run-up plate FH KRL56 | Ref. PDB, TRAL01 | | 371 – 850 | 310 – 410 | | | |
| 6b | run up block AF 13 mm 13 | TFFH0080- ... | 1 | 305 – 1650 | 601 – 3000 | | | |
| 7a | gear 15 sz 30/G180 | TGKK3010- ... | 1 | 371 – 850 | 310 – 410 | 180 | | |
| | gear 15 sz 30/G180 | TGKK3010- ... | | 305 – 1250 | 411 – 600 | 180 | | |
| 7b | gear 15 AF sz 60/G300 | TGKK4030- ... | 1 | | 601 – 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/G700 1RS | TGKK4080- ... | | | 1401 – 1600 | 700 | 1 | |
| | 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 2RS | TGKK4110- ... | | | 2001 – 3000 | 1000 | 2 | |
| 8 | locking bolt AF VS 180° 1RS | TESC2020- ... | 1 | 305 – 370 | 411 – 3000 | | 1 | |
| 9 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2401 – 2600 | | 1 | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | 1 | |
| 10 | linkage KK/AF sz 2 1RS | TZKK1020- ... | 1 | | 2601 – 2800 | | 1 | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | 1 | |
| 11 | travel restrictor | TFHB0010- ... | 1 | | 310 – 3000 | | | |
| 12 | handle Globe | Ref.access. ZHGS | 1 | | 310 – 3000 | | | |
| 13 | sash part MV | Ref. PDB, ZFMV01 | 1 | | 1001 – 1600 | | | |
| | sash part MV | Ref. PDB, ZFMV01 | 2 | | 1601 – 2400 | | | |
| | sash part MV | Ref. PDB, ZFMV01 | 3 | | 2401 – 3000 | | | |
| 14 | frame part MV | Ref. PDB, ZRZM01 | 1 | | 1001 – 1600 | | | |
| | frame part MV | Ref. PDB, ZRZM01 | 2 | | 1601 – 2400 | | | |
| | frame part MV | Ref. PDB, ZRZM01 | 3 | | 2401 – 3000 | | | |
| 15 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| 16 | striker plate S-RS | Ref. PDB, TRSK | | | | | | |
| **on request** | | | | | | | | |
| 17 | mishandling device | TFBS0010- ... | 1 | | | | | |
| 18 | pressure piece | Ref. PDB, TFFD | 1 | | | | | |
| 19 | stop | Ref. PDB, FRZF01 | 1 | | | | | |
| 20 | snapper switchable rh. | TFST0011- ... | 1 | | 1801 – 3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1801 – 3000 | | | |
| 21 | frame part snapper | Ref. PDB, TRST | 1 | | 1801 – 3000 | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 22 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 23 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 24 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 25 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 26 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 27 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 28 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 29 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 30 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 31 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

# Frame dimensions

1-sash square turn
H12 GK Hinge side TITAN






**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 | 371 – 1650 | |
| 1B | 647 | 1051 – 1450 | |
| | 943 | 1451 – 1650 | |
| 2A | 142 | 305 – 1650 | |
| 2B | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 3A | 67 | 305 – 370 | 411 – 3000 |
| 3B | 500 | | 801 – 1000 |
| | 700 | | 1001 – 1400 |
| | 800 | | 1401 – 1600 |
| | 1100 | | 1601 – 1800 |
| | 1300 | | 1801 – 2000 |
| | 1600 | | 2001 – 3000 |
| 3C | 400 | | 1601 – 1800 |
| | 600 | | 1801 – 2000 |
| | 800 | | 2001 – 3000 |
| 3D | 1143 | | 1801 – 3000 |
| 3E | 448 | | 2401 – 2600 |
| | 448 | | 2801 – 3000 |
| 3F | 648 | | 2601 – 2800 |
| | 848 | | 2801 – 3000 |

## Bottom: Inliner

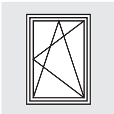
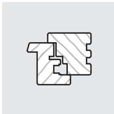


## Bottom: double cam SB R-RS

3

# TITAN AF

## Installation instructions

  **GS**

1-sash square tilt-turn

timber 12 mm

basic security

centre handle pos. (variable)

Hinge side TITAN

surface TS

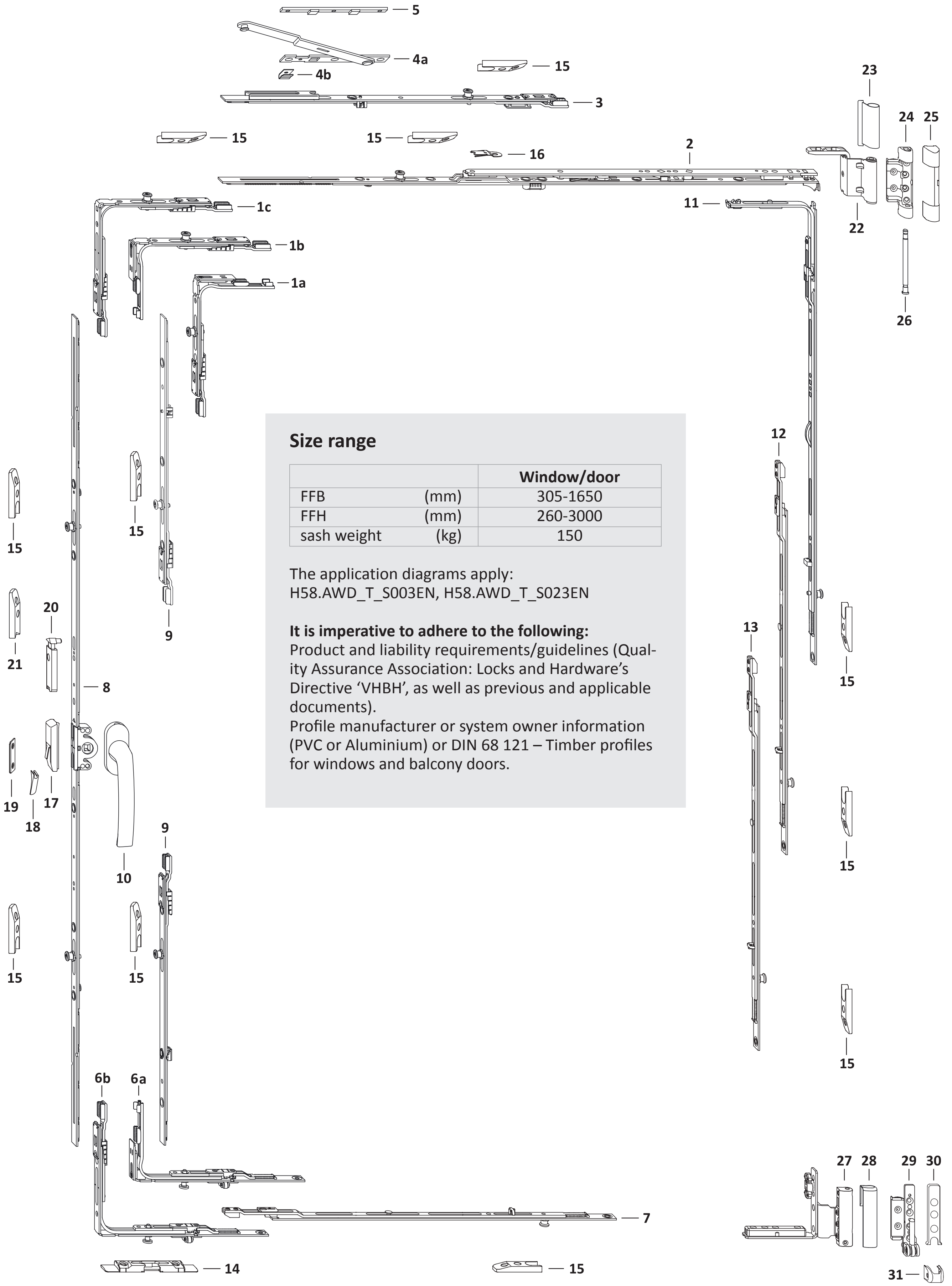
backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 1RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout

1-sash square tilt-turn
H12 GM Hinge side TITAN






## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 305-1650 |
| FFH | (mm) | 260-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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.

3

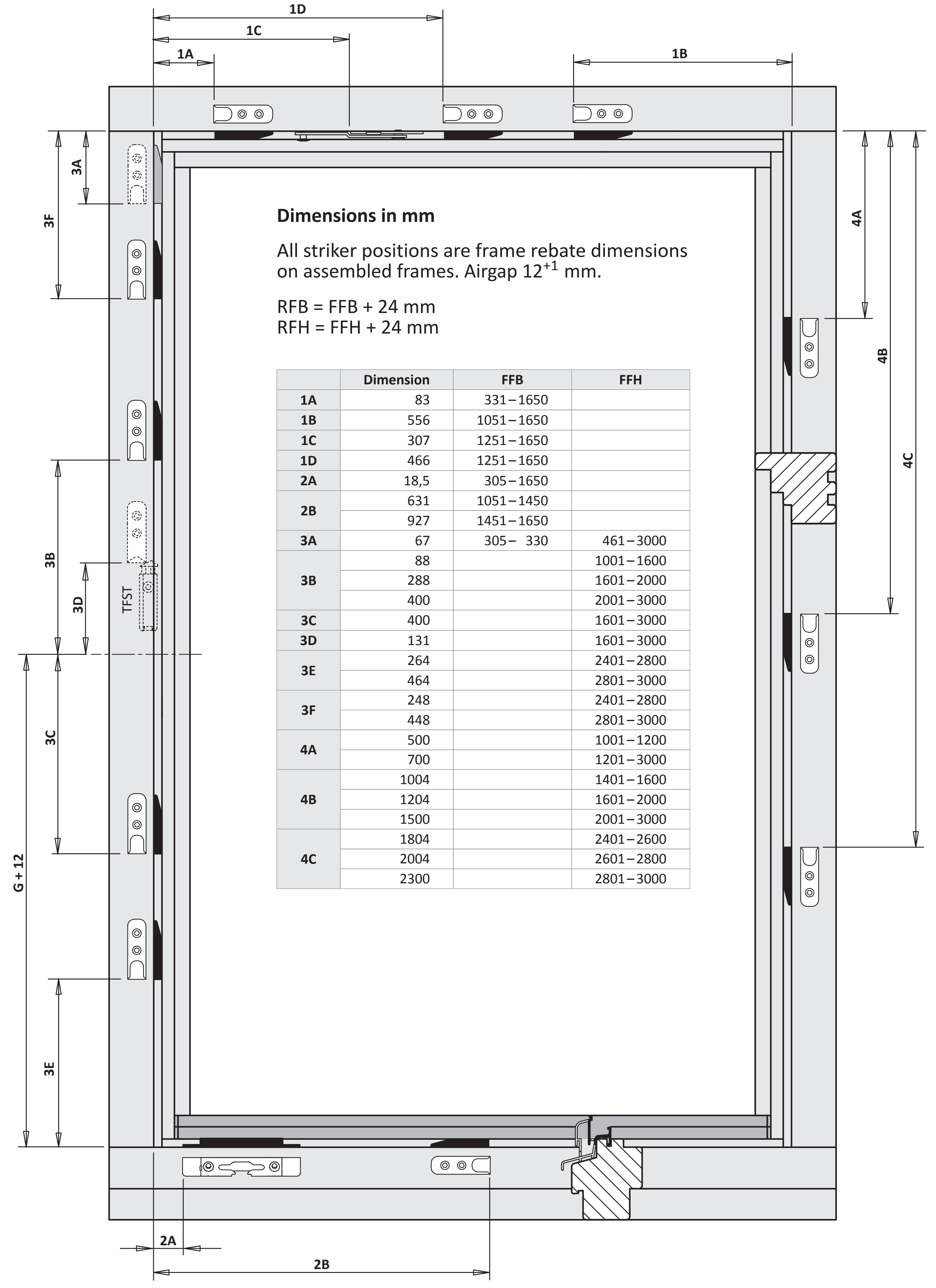
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 14 | 15 |
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 305 – 330 | 461 – 3000 | | | 1 |
| 1b | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 331 – 850 | 260 – 460 | | | 1 |
| 1c | corn.drive VSO 1RS | TEUL4010- ... | 1 | 331 – 1650 | 461 – 3000 | | | 1 |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 305 – 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | | 1 |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | | 1 |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | | 1 |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | | 1 |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | |
| 6a | corn.drive AF VSU/K+ nar.FH 1S | TEUL5090- ... | 1 | 331 – 850 | 260 – 460 | | 1 | |
| 6b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 305 – 1650 | 461 – 3000 | | 1 | |
| 7 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 1 |
| 8 | gear 15 AF sz 20 | TGMK4010- ... | 1 | 331 – 850 | 260 – 460 | 130 – 230 | | |
| | gear 15 AF sz 20 | TGMK4010- ... | | | 461 – 600 | 230 – 300 | | |
| | gear 15 AF sz 60 | TGMK4020- ... | | | 601 – 1000 | 300 – 500 | | |
| | gear 15 AF sz 80 1RS | TGMK4040- ... | | | 1001 – 1200 | 500 – 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 2RS | TGMK4080- ... | | | 2001 – 3000 | 1000 – 1500 | | 2 |
| 9 | linkage KK/AF sz 1 1RS | TZKK1010- ... | 2 | | 2401 – 2800 | | | 2 |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | 2 |
| 10 | handle Globe | Ref.access. ZHGS | 1 | | 260 – 3000 | | | |
| 11 | corn.drive BS/K3 sz 1+ 1RS | TEUL2410- ... | 1 | | 1001 – 1200 | | | 1 |
| | corn.drive BS/K3 sz 2+ 1RS | TEUL2420- ... | | | 1201 – 3000 | | | 1 |
| 12 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | | 1 |
| 13 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | | 1 |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | | 1 |
| 14 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | |
| 15 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| **on request** | | | | | | | | |
| 16 | tilt restrictor .. | TFKB0010- ... | 1 | | 260 – 800 | | | |
| 17 | mishandling device | TFBS0010- ... | 1 | | | | | |
| 18 | pressure piece | Ref. PDB, TFFD | 1 | | | | | |
| 19 | stop | Ref. PDB, FRZF01 | 1 | | | | | |
| 20 | snapper switchable rh. | TFST0011- ... | 1 | | 1601 – 3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1601 – 3000 | | | |
| 21 | frame part snapper | Ref. PDB, TRST | 1 | | 1601 – 3000 | | | |

| Hinge side turning points | | | | |
|---|---|---|---|---|
| Pos. | Description | Part number | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 22 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 23 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 24 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 25 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 26 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 27 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 28 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 29 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 30 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 31 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

# Frame dimensions

1-sash square tilt-turn
H12 GM Hinge side TITAN






**Dimensions in mm**

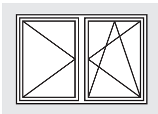
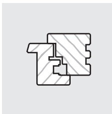
All striker positions are frame rebate dimensions on assembled frames. Airgap $12^{+1}$ mm.

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

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 331 – 1650 | |
| 1B | 556 | 1051 – 1650 | |
| 1C | 307 | 1251 – 1650 | |
| 1D | 466 | 1251 – 1650 | |
| 2A | 18,5 | 305 – 1650 | |
| 2B | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 3A | 67 | 305 – 330 | 461 – 3000 |
| 3B | 88 | | 1001 – 1600 |
| | 288 | | 1601 – 2000 |
| | 400 | | 2001 – 3000 |
| 3C | 400 | | 1601 – 3000 |
| 3D | 131 | | 1601 – 3000 |
| 3E | 264 | | 2401 – 2800 |
| | 464 | | 2801 – 3000 |
| 3F | 248 | | 2401 – 2800 |
| | 448 | | 2801 – 3000 |
| 4A | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4B | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4C | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

# TITAN AF

## Installation instructions

GS

2-sash square tilt-turn/turn DS 16

timber 12 mm

basic security

centre handle pos. (variable)

Hinge side TITAN

surface TS

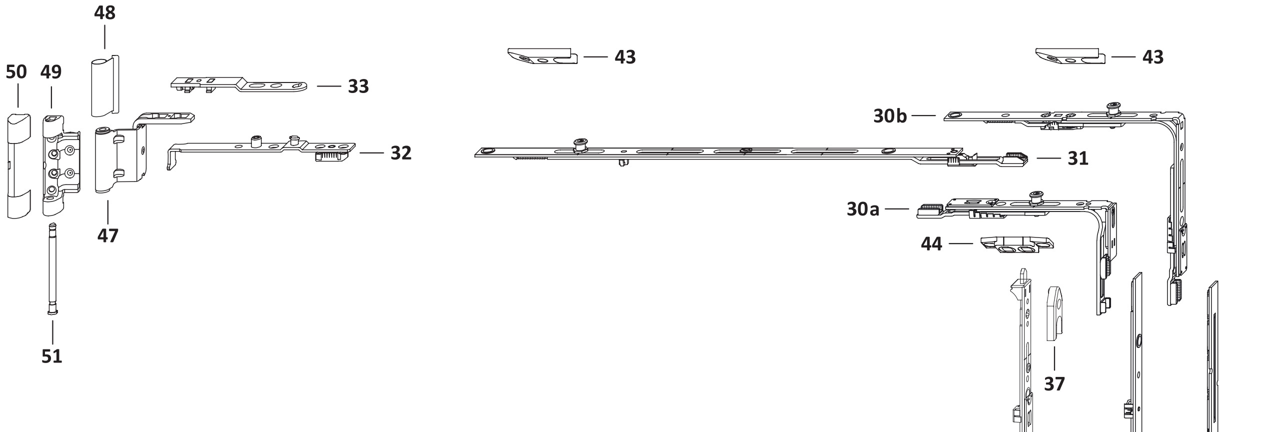
backset 15 mm

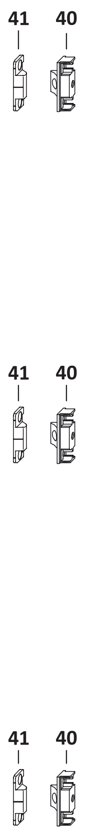
| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 1RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout slave sash

2-sash square tilt-turn/turn DS 16
H12 GM Hinge side TITAN






## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 305-1650 |
| FFH | (mm) | 310-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

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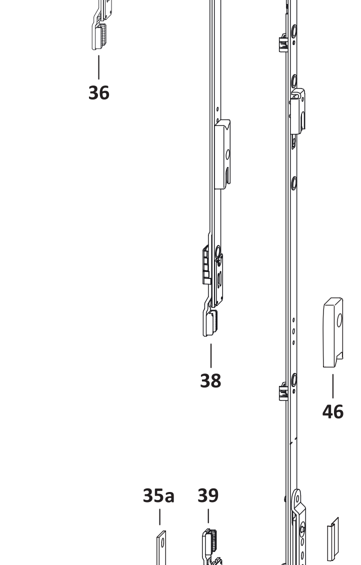
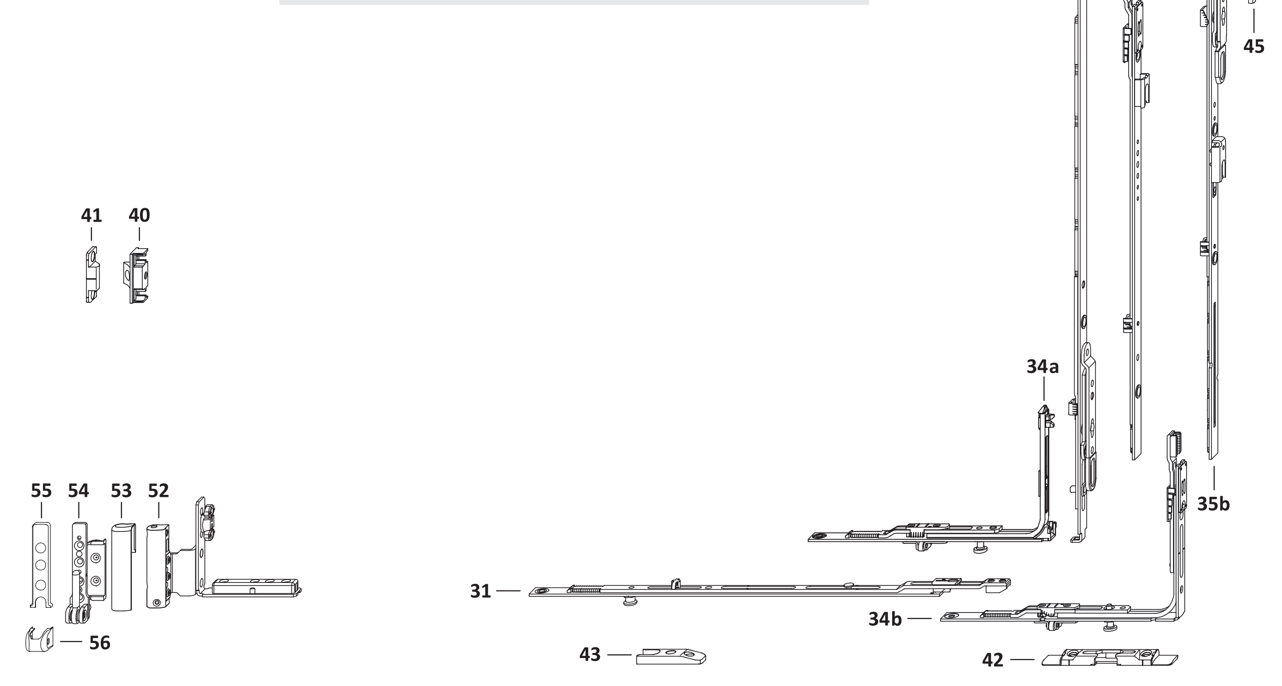
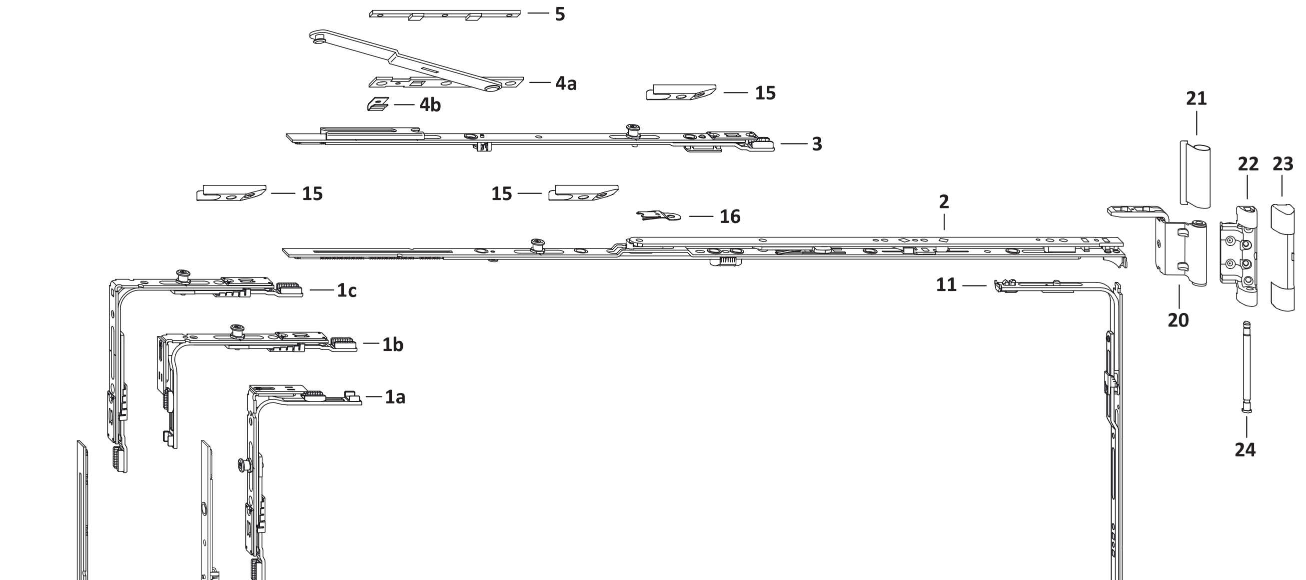
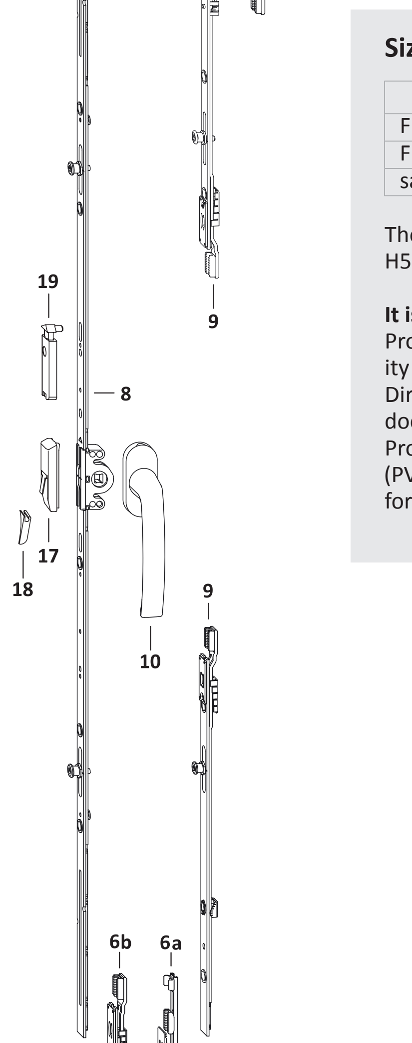
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber profiles for windows and balcony doors.





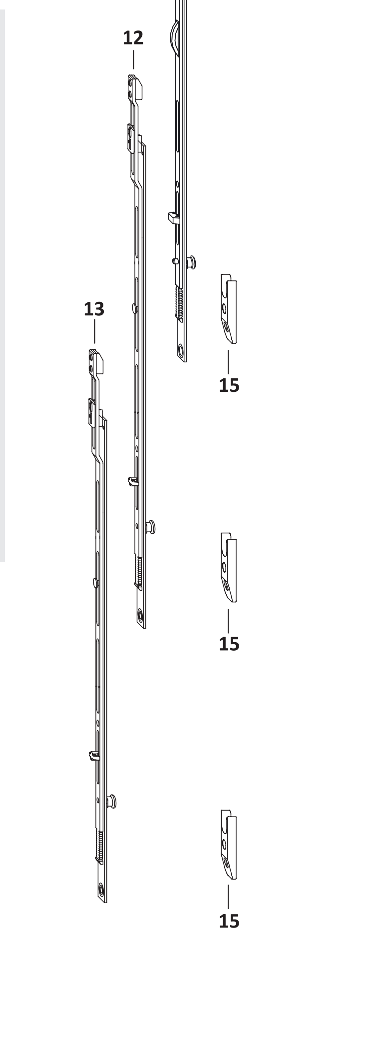



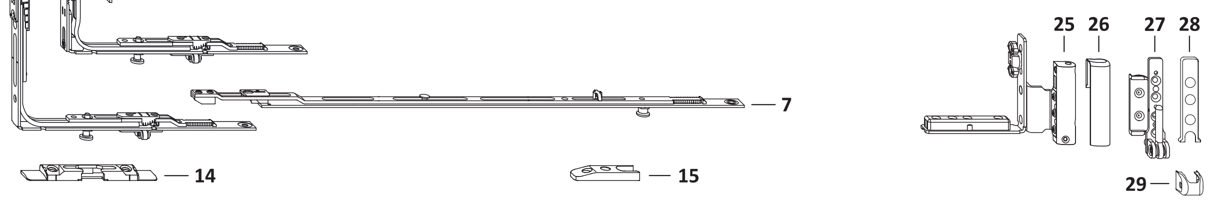

## Size range

| | Window/door |
|---|---|
| FFB (mm) | 305-1650 |
| FFH (mm) | 310-3000 |
| sash weight (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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.

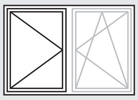


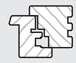



# List of fittings slave sash

2-sash square tilt-turn/turn DS 16

H12 GM Hinge side TITAN







| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G<br>In the main sash | Number of frame parts / Pos.<br>42 | 43 | 44 |
|---|---|---|---|---|---|---|---|---|---|
| 30a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 371 – 850 | 310 – 460 | | | 1 | |
| 30b | corn.drive VSO/K+ DF 1RS | TEUL4110- ... | 1 | 371 – 1650 | 461 – 3000 | | | 1 | |
| 31 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 2 | 1051 – 1450 | | | | 2 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 2 | |
| 32 | stay sash part DF/MN | TSSD0020- ... | 1 | 305 – 1650 | | | | | |
| 33 | stay arm DF | TSAD0010- ... | 1 | 305 – 1650 | | | | | |
| 34a | locking part VSU/K FH+ 1S | TEVR1400- ... | 1 | 305 – 1650 | 461 – 800 | | 1 | | |
| | locking part VSU/K FH+ 1S | TEVR1400- ... | | 371 – 850 | 310 – 460 | | 1 | | |
| 34b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 305 – 1650 | 801 – 3000 | | 1 | | |
| 35a | sec.sash gear 16 sz 30 | TGKS0010- ... | 1 | 371 – 850 | 310 – 460 | 155 – 300 | | | |
| | sec.sash gear 16 sz 30 | TGKS0010- ... | | | 461 – 600 | 230 – 300 | | | |
| | sec.sash gear 16 AF 60/G300 | TGKS4030- ... | | | 601 – 800 | 300 – 400 | | | |
| 35b | sec.sash gear 16 AF sz 80 1SB | TGMS4040- ... | 1 | | 801 – 1200 | 400 – 600 | | | |
| | sec.sash gear 16 AF sz 120 1SB | TGMS4050- ... | | | 1201 – 1600 | 600 – 800 | | | |
| | sec.sash gear 16 AF 160 2SB 70 | TGMS4130- ... | | | 1601 – 2000 | 800 – 1000 | | | |
| | sec.sash gear 16 AF sz 200 2SB | TGMS4080- ... | | | 2001 – 3000 | 1000 – 1500 | | | |
| 36 | locking bolt AF VSO RSA 11 | TESC2030- ... | 1 | 305 – 370 | 461 – 3000 | | | | 1 |
| 37 | striker plate A0767 | TRSA0010- ... | 1 | 305 – 330 | 461 – 3000 | | | | |
| 38 | linkage AF sz 1 1SB-RS | TZKS1020- ... | 1 | | 2401 – 2800 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | | |
| 39 | linkage AF sz 1 1SB-VSU | TZKS1060- ... | 1 | | 2401 – 2800 | | | | |
| | linkage AF sz 2 1SB-VSU | TZKS1070- ... | | | 2801 – 3000 | | | | |
| 40 | sash part MV | Ref. PDB, ZFMV01 | 1 | | 1001 – 1600 | | | | |
| | sash part MV | Ref. PDB, ZFMV01 | 2 | | 1601 – 2400 | | | | |
| | sash part MV | Ref. PDB, ZFMV01 | 3 | | 2401 – 3000 | | | | |
| 41 | frame part MV | Ref. PDB, ZRZM01 | 1 | | 1001 – 1600 | | | | |
| | frame part MV | Ref. PDB, ZRZM01 | 2 | | 1601 – 2400 | | | | |
| | frame part MV | Ref. PDB, ZRZM01 | 3 | | 2401 – 3000 | | | | |
| 42 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | | |
| 43 | striker plate 56 | Ref. PDB, FRSB | | | | | | | |
| 44 | striker V | Ref. PDB, FRZV02 | | | | | | | |
| | | | on request | | | | | | |
| 45 | stop | Ref. PDB, FRZF04 | 1 | | 601 – 3000 | | | | |
| 46 | striker snapper A0767 | TRST0010- ... | 1 | | 1601 – 3000 | | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number<br>surface TS | RAL9016 | RAL8022 | required as per sash weight<br>150 kg |
| 47 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 48 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 49 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 50 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 51 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 52 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 53 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 54 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 55 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 56 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 14 | 15 |
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 305 – 330 | 461 – 3000 | | | |
| 1b | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 371 – 850 | 310 – 460 | | | 1 |
| 1c | corn.drive VSO 1RS | TEUL4010- ... | 1 | 331 – 1650 | 461 – 3000 | | | 1 |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 305 – 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | | 1 |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | | 1 |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | | 1 |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | | 1 |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | |
| 6a | corn.drive AF VSU/K+ nar.FH 1S | TEUL5090- ... | 1 | 371 – 850 | 310 – 460 | | 1 | |
| 6b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 305 – 1650 | 461 – 3000 | | 1 | |
| 7 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 1 |
| 8 | gear 15 AF sz 20 | TGMK4010- ... | 1 | 371 – 850 | 310 – 460 | 155 – 300 | | |
| | gear 15 AF sz 20 | TGMK4010- ... | | | 461 – 600 | 230 – 300 | | |
| | gear 15 AF sz 60 | TGMK4020- ... | | | 601 – 1000 | 300 – 500 | | |
| | gear 15 AF sz 80 1RS | TGMK4040- ... | | | 1001 – 1200 | 500 – 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 2RS | TGMK4080- ... | | | 2001 – 3000 | 1000 – 1500 | | |
| 9 | linkage KK/AF sz 1 1RS | TZKK1010- ... | 2 | | 2401 – 2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | |
| 10 | handle Globe | Ref.access. ZHGS | 1 | | 310 – 3000 | | | |
| 11 | corn.drive BS/K3 sz 1+ 1RS | TEUL2410- ... | 1 | | 1001 – 1200 | | | 1 |
| | corn.drive BS/K3 sz 2+ 1RS | TEUL2420- ... | | | 1201 – 3000 | | | 1 |
| 12 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | | 1 |
| 13 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | | 1 |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | | 1 |
| 14 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | |
| 15 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| | | | **on request** | | | | | |
| 16 | tilt restrictor .. | TFKB0010- ... | 1 | | 310 – 800 | | | |
| 17 | mishandling device | TFBS0010- ... | 1 | | 601 – 3000 | | | |
| 18 | pressure piece | Ref. PDB, TFFD | 1 | | 601 – 3000 | | | |
| 19 | snapper switchable rh. | TFST0011- ... | 1 | | 1601 – 3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1601 – 3000 | | | |

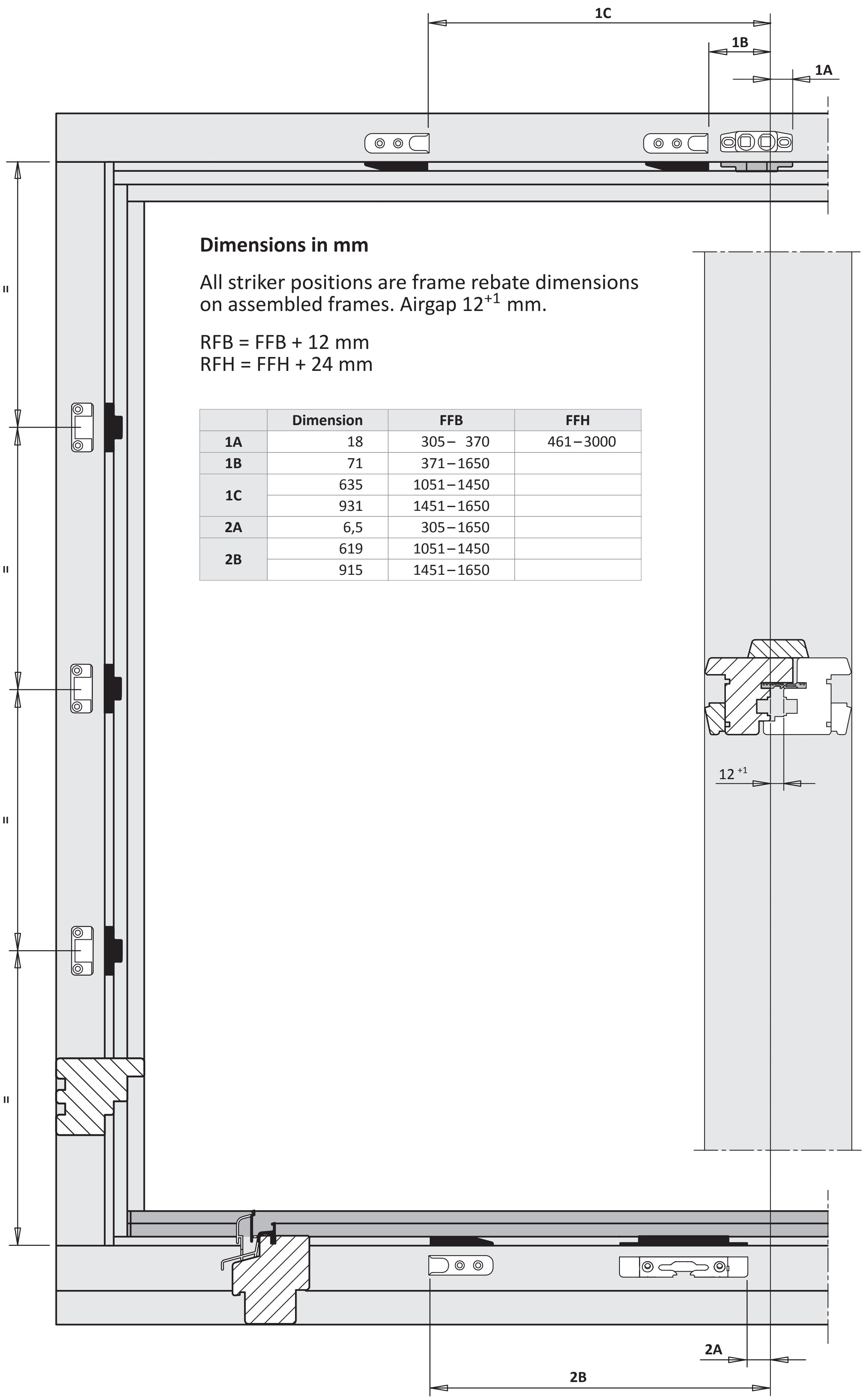
**Hinge side turning points**

| Pos. | Description | Part number | | | required as per sash weight |
|---|---|---|---|---|---|
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 20 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 21 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 22 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 23 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 24 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 25 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 26 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 27 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 28 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 29 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

# Frame dimensions slave sash

2-sash square tilt-turn/turn DS 16
H12 GM Hinge side TITAN



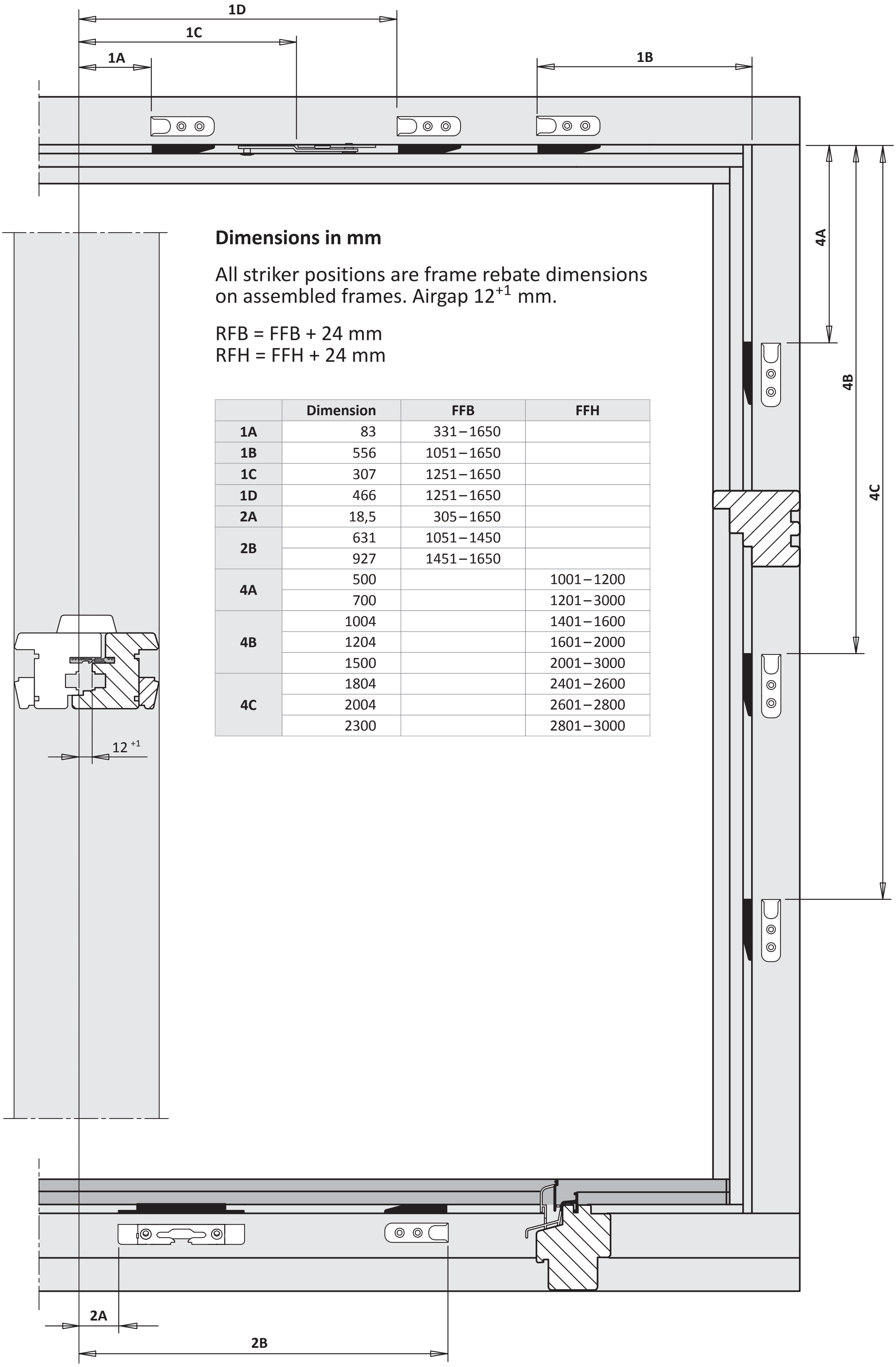



**Dimensions in mm**

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** | 18 | 305 – 370 | 461 – 3000 |
| **1B** | 71 | 371 – 1650 | |
| **1C** | 635 | 1051 – 1450 | |
| | 931 | 1451 – 1650 | |
| **2A** | 6,5 | 305 – 1650 | |
| **2B** | 619 | 1051 – 1450 | |
| | 915 | 1451 – 1650 | |




**Dimensions in mm**

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

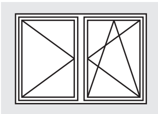
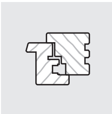
RFB = FFB + 24 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 331 – 1650 | |
| 1B | 556 | 1051 – 1650 | |
| 1C | 307 | 1251 – 1650 | |
| 1D | 466 | 1251 – 1650 | |
| 2A | 18,5 | 305 – 1650 | |
| 2B | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 4A | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4B | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4C | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

3

# TITAN AF

## Installation instructions

  GS

2-sash square tilt-turn/turn DS 16

timber 12 mm

basic security

centre handle pos. (variable)

Hinge side TITAN

surface TS

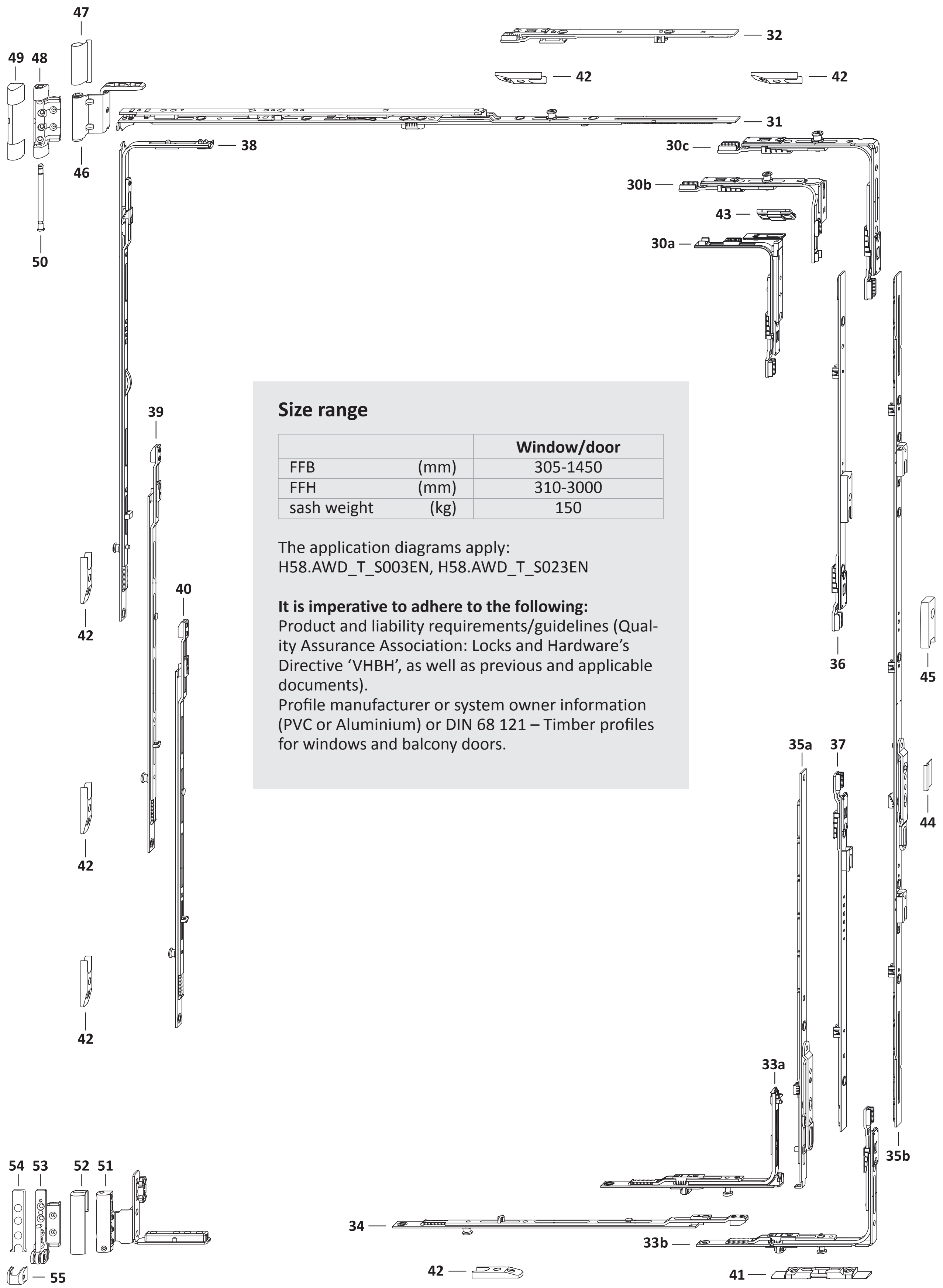
backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000; secondary sash with DK-stay |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 1RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout slave sash

2-sash square tilt-turn/turn DS 16
H12 GM Hinge side TITAN



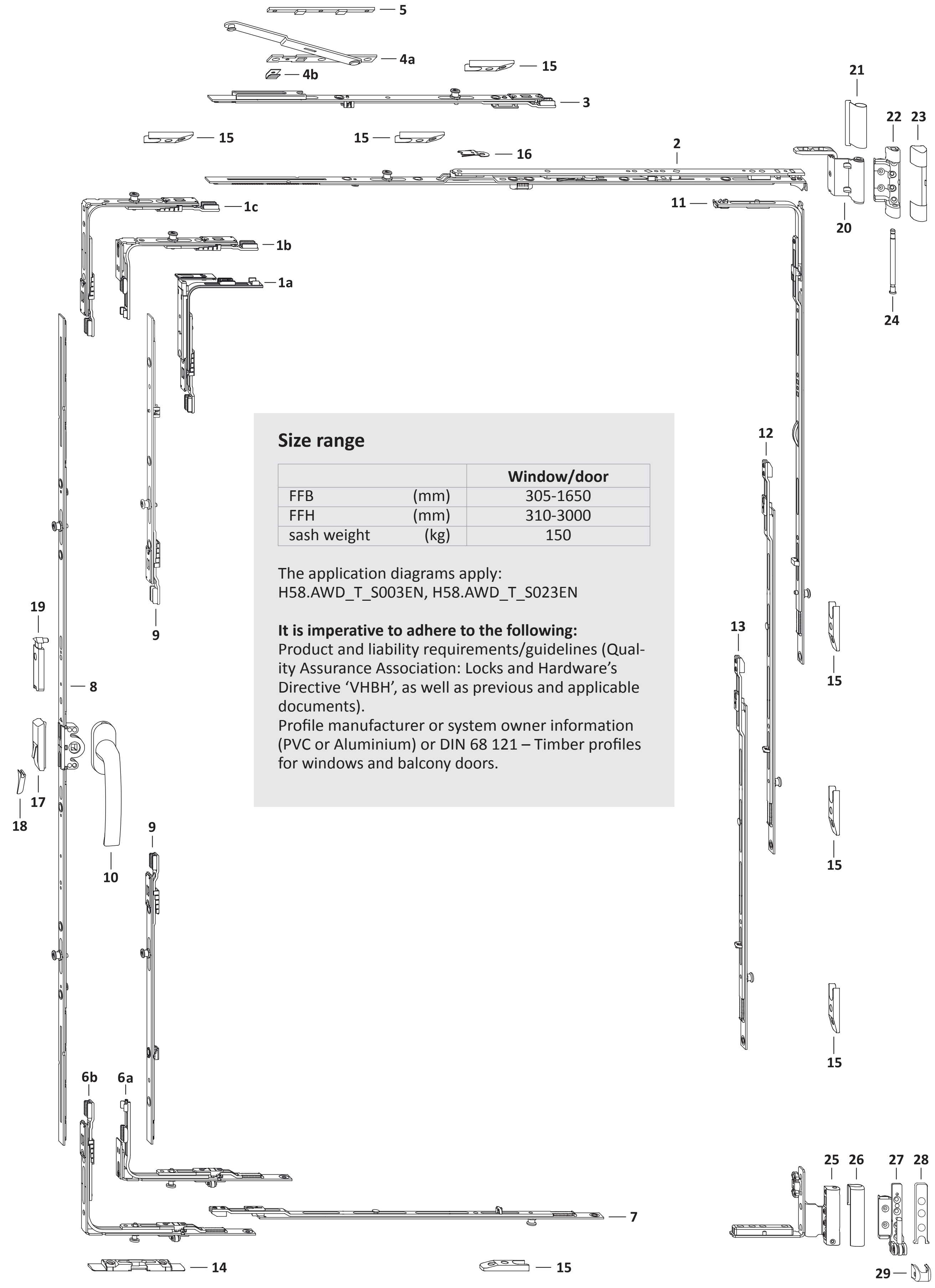



## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 305-1450 |
| FFH | (mm) | 310-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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

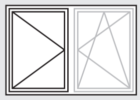
| | | Window/door |
|---|---|---|
| FFB | (mm) | 305-1650 |
| FFH | (mm) | 310-3000 |
| sash weight | (kg) | 150 |

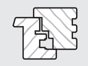
The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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

2-sash square tilt-turn/turn DS 16
H12 GM Hinge side TITAN

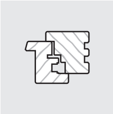
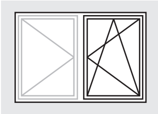






| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | In the main sash | 41 | 42 | 43 |
| 30a | corn.drive VSO narrow RSA/11mm | TEUL4150- ... | 1 | 305 – 330 | 461 – 3000 | | | | 1 |
| 30b | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 331 – 850 | 310 – 460 | | | 1 | |
| 30c | corn.drive VSO 1RS | TEUL4010- ... | 1 | 331 – 1450 | 461 – 3000 | | | 1 | |
| 31 | stay AF sz 0 | TSKK2000- ... | 1 | 305 – 450 | | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1450 | | | | 1 | |
| 32 | linkage AF sz 1 | TZZS0150- ... | 1 | 1251 – 1450 | | | | | |
| 33a | locking part VSU/K FH+ 1S | TEVR1400- ... | 1 | 305 – 1450 | 461 – 800 | | 1 | | |
| | locking part VSU/K FH+ 1S | TEVR1400- ... | | 331 – 850 | 310 – 460 | | 1 | | |
| 33b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 305 – 1450 | 801 – 3000 | | 1 | | |
| 34 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 | |
| 35a | sec.sash gear 16 sz 30 | TGKS0010- ... | 1 | 331 – 850 | 310 – 460 | 155 – 300 | | | |
| | sec.sash gear 16 sz 30 | TGKS0010- ... | | | 461 – 600 | 230 – 300 | | | |
| | sec.sash gear 16 AF 60/G300 | TGKS4030- ... | | | 601 – 800 | 300 – 400 | | | |
| 35b | sec.sash gear 16 AF sz 80 1SB | TGMS4040- ... | 1 | | 801 – 1200 | 400 – 600 | | | |
| | sec.sash gear 16 AF sz 120 1SB | TGMS4050- ... | | | 1201 – 1600 | 600 – 800 | | | |
| | sec.sash gear 16 AF 160 2SB 70 | TGMS4130- ... | | | 1601 – 2000 | 800 – 1000 | | | |
| | sec.sash gear 16 AF sz 200 2SB | TGMS4080- ... | | | 2001 – 3000 | 1000 – 1500 | | | |
| 36 | linkage AF sz 1 1SB-RS | TZKS1020- ... | 1 | | 2401 – 2800 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | | |
| 37 | linkage AF sz 1 1SB-VSU | TZKS1060- ... | 1 | | 2401 – 2800 | | | | |
| | linkage AF sz 2 1SB-VSU | TZKS1070- ... | | | 2801 – 3000 | | | | |
| 38 | corn.drive BS/K3 sz 1+ 1RS | TEUL2410- ... | 1 | | 1001 – 1200 | | | 1 | |
| | corn.drive BS/K3 sz 2+ 1RS | TEUL2420- ... | | | 1201 – 3000 | | | 1 | |
| 39 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | | 1 | |
| 40 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | | 1 | |
| 41 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | | |
| 42 | striker plate 56 | Ref. PDB, FRSB | | | | | | | |
| 43 | short striker V | Ref. PDB, FRZV12 | | | | | | | |
| | | | **on request** | | | | | | |
| 44 | stop | Ref. PDB, FRZF04 | 1 | | 601 – 3000 | | | | |
| 45 | striker snapper A0767 | TRST0010- ... | 1 | | 1601 – 3000 | | | | |

| Pos. | Description | Hinge side turning points – Part number | | | required as per sash weight |
|---|---|---|---|---|---|
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 46 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 47 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 48 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 49 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 50 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 51 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 52 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 53 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 54 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 55 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |



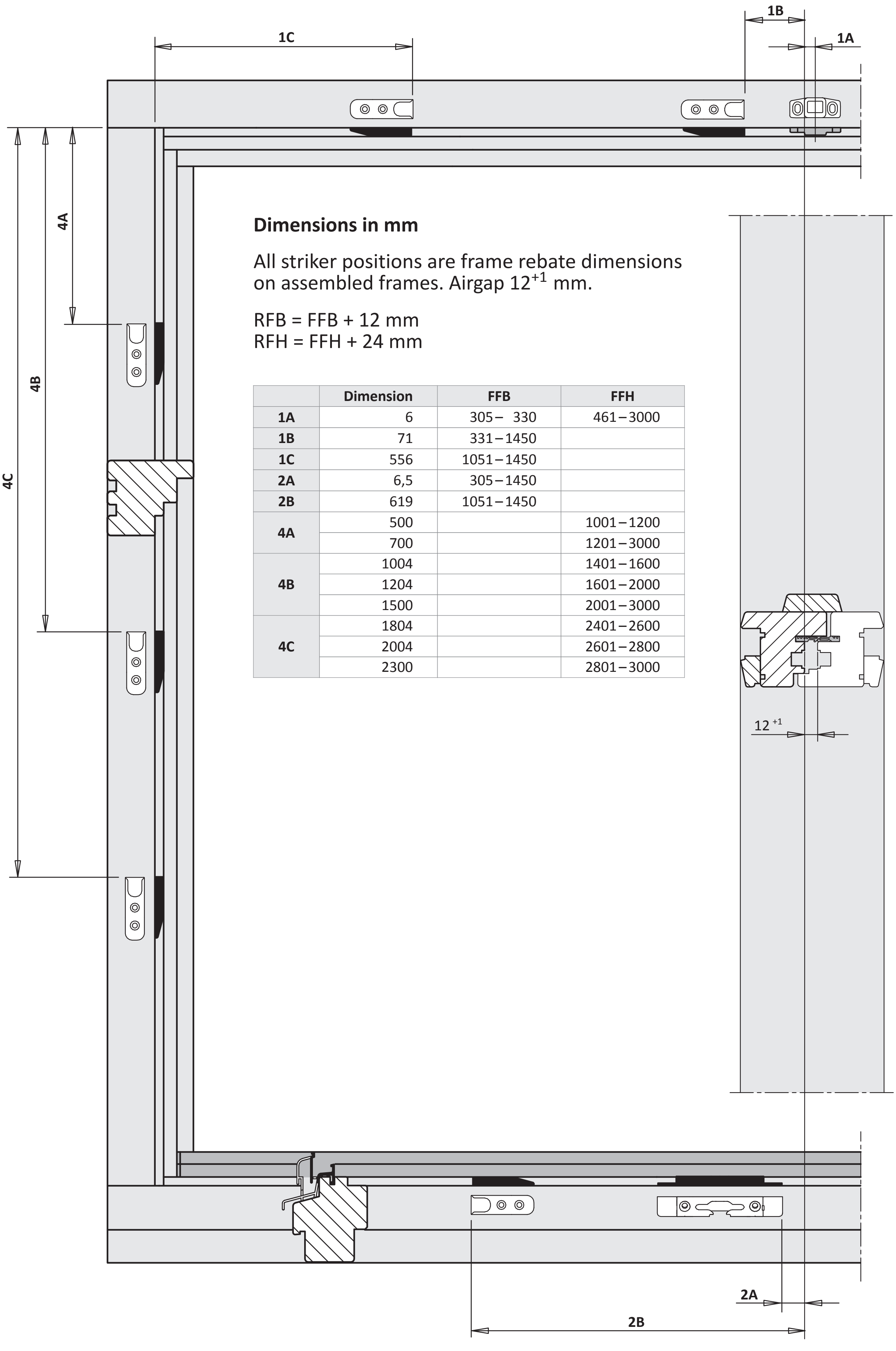
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 14 | 15 |
| 1a | corn.drive VSO narrow RSA/11mm | TEUL4150- ... | 1 | 305 – 330 | 461 – 3000 | | | |
| 1b | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 331 – 850 | 310 – 460 | | | 1 |
| 1c | corn.drive VSO 1RS | TEUL4010- ... | 1 | 331 – 1650 | 461 – 3000 | | | 1 |
| | stay AF sz 0 | TSKK2000- ... | | 305 – 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | |
| 2 | stay AF sz 3 1RS | TSKK2030- ... | 1 | 851 – 1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | | 1 |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | | 1 |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | | 1 |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | | 1 |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | |
| 6a | corn.drive AF VSU/K+ nar.FH 1S | TEUL5090- ... | 1 | 331 – 850 | 310 – 460 | | 1 | |
| 6b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 305 – 1650 | 461 – 3000 | | 1 | |
| 7 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 1 |
| | gear 15 AF sz 20 | TGMK4010- ... | | 331 – 850 | 310 – 460 | 155 – 300 | | |
| | gear 15 AF sz 20 | TGMK4010- ... | | | 461 – 600 | 230 – 300 | | |
| | gear 15 AF sz 60 | TGMK4020- ... | | | 601 – 1000 | 300 – 500 | | |
| 8 | gear 15 AF sz 80 1RS | TGMK4040- ... | 1 | | 1001 – 1200 | 500 – 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 2RS | TGMK4080- ... | | | 2001 – 3000 | 1000 – 1500 | | |
| 9 | linkage KK/AF sz 1 1RS | TZKK1010- ... | 2 | | 2401 – 2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | |
| 10 | handle Globe | Ref.access. ZHGS | 1 | | 310 – 3000 | | | |
| 11 | corn.drive BS/K3 sz 1+ 1RS | TEUL2410- ... | 1 | | 1001 – 1200 | | | 1 |
| | corn.drive BS/K3 sz 2+ 1RS | TEUL2420- ... | | | 1201 – 3000 | | | 1 |
| | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | | | 1401 – 1600 | | | 1 |
| 12 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | | 1601 – 2000 | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | | 1 |
| | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | | | 2401 – 2600 | | | 1 |
| 13 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | | 2601 – 2800 | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | | 1 |
| 14 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | |
| 15 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| **on request** | | | | | | | | |
| 16 | tilt restrictor .. | TFKB0010- ... | 1 | | 310 – 800 | | | |
| 17 | mishandling device | TFBS0010- ... | 1 | | 601 – 3000 | | | |
| 18 | pressure piece | Ref. PDB, TFFD | 1 | | 601 – 3000 | | | |
| 19 | snapper switchable rh. | TFST0011- ... | 1 | | 1601 – 3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1601 – 3000 | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 20 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 21 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 22 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 23 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 24 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 25 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 26 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 27 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 28 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 29 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

# Frame dimensions slave sash

2-sash square tilt-turn/turn DS 16
H12 GM Hinge side TITAN



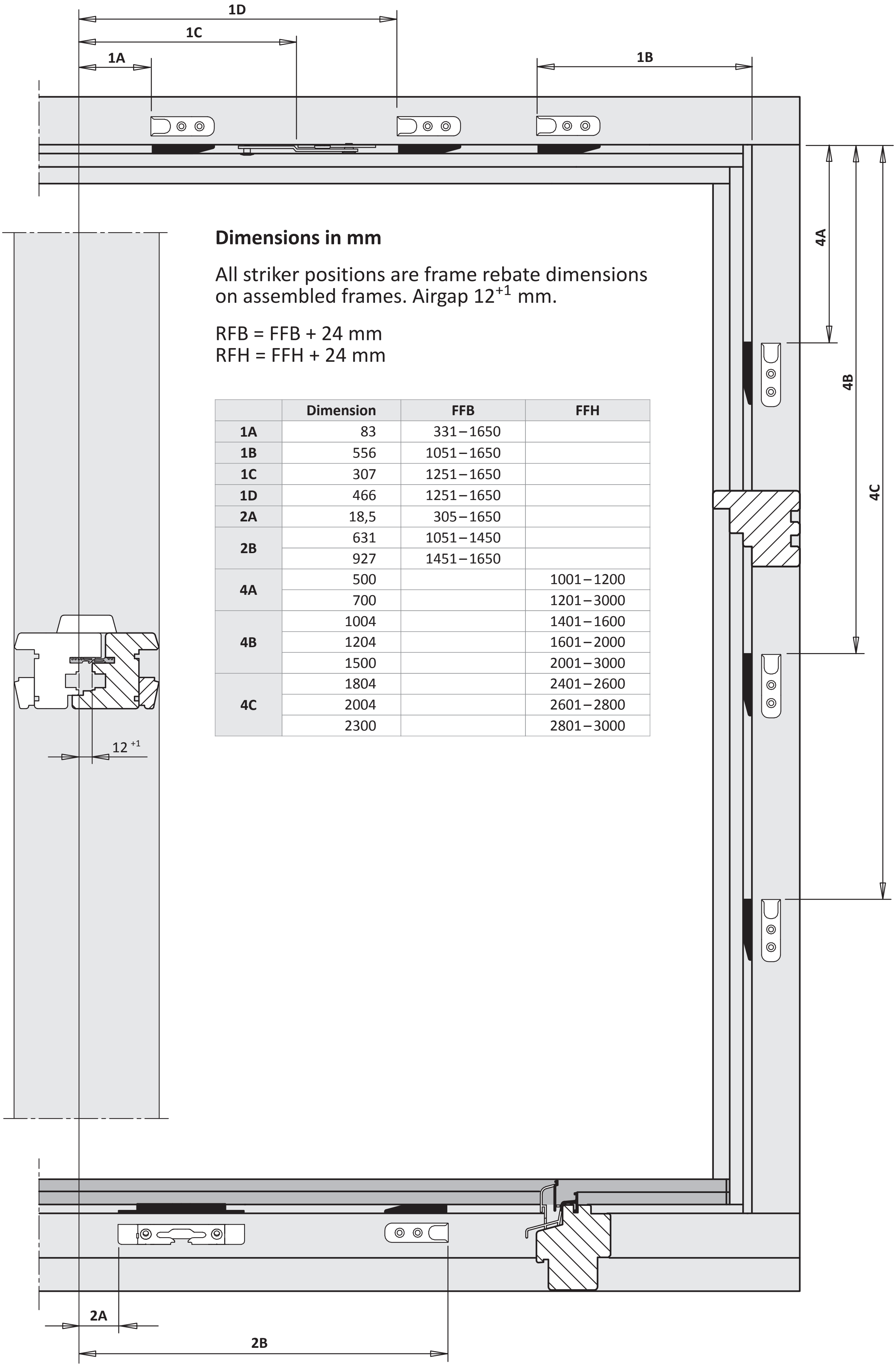



**Dimensions in mm**

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** | 6 | 305 – 330 | 461 – 3000 |
| **1B** | 71 | 331 – 1450 | |
| **1C** | 556 | 1051 – 1450 | |
| **2A** | 6,5 | 305 – 1450 | |
| **2B** | 619 | 1051 – 1450 | |
| **4A** | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| **4B** | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| **4C** | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |




**Dimensions in mm**

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

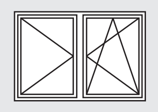
RFB = FFB + 24 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 331 – 1650 | |
| 1B | 556 | 1051 – 1650 | |
| 1C | 307 | 1251 – 1650 | |
| 1D | 466 | 1251 – 1650 | |
| 2A | 18,5 | 305 – 1650 | |
| 2B | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 4A | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4B | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4C | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

3

# TITAN AF

## Installation instructions



**GS**

2-sash square tilt-turn/turn DS 8

timber 12 mm

basic security

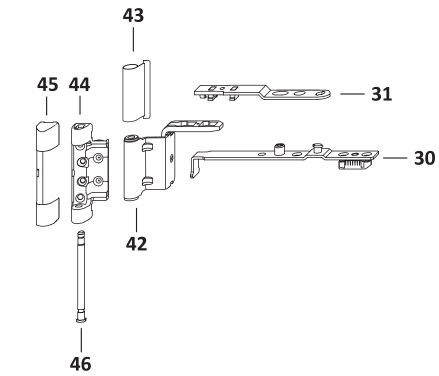
centre handle pos. (variable)

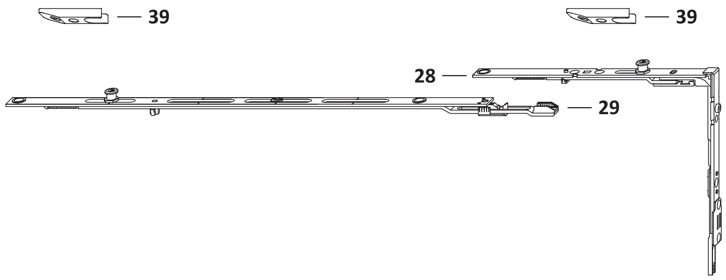
Hinge side TITAN

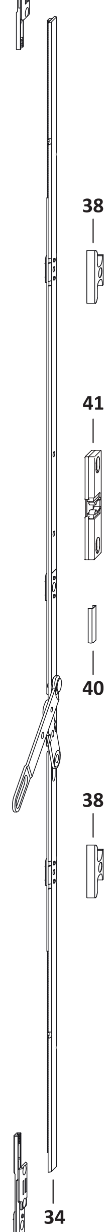
surface TS

backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 1RS |
| **Hinge side turning points** | Standard HZ12 |



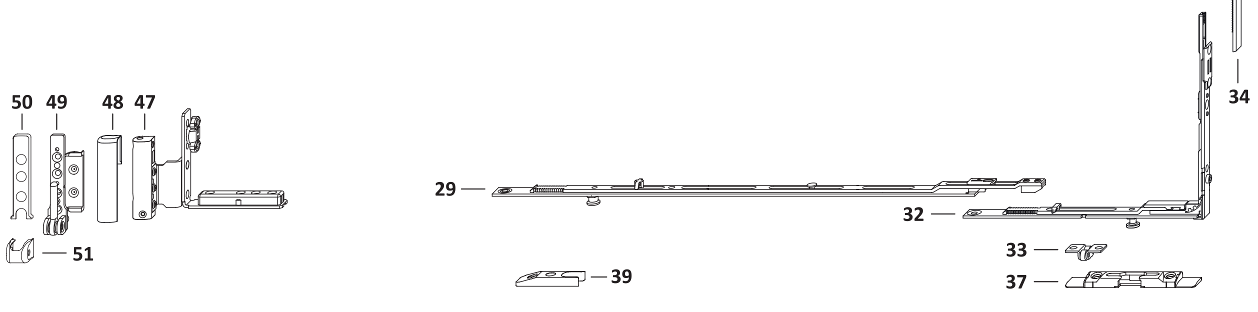


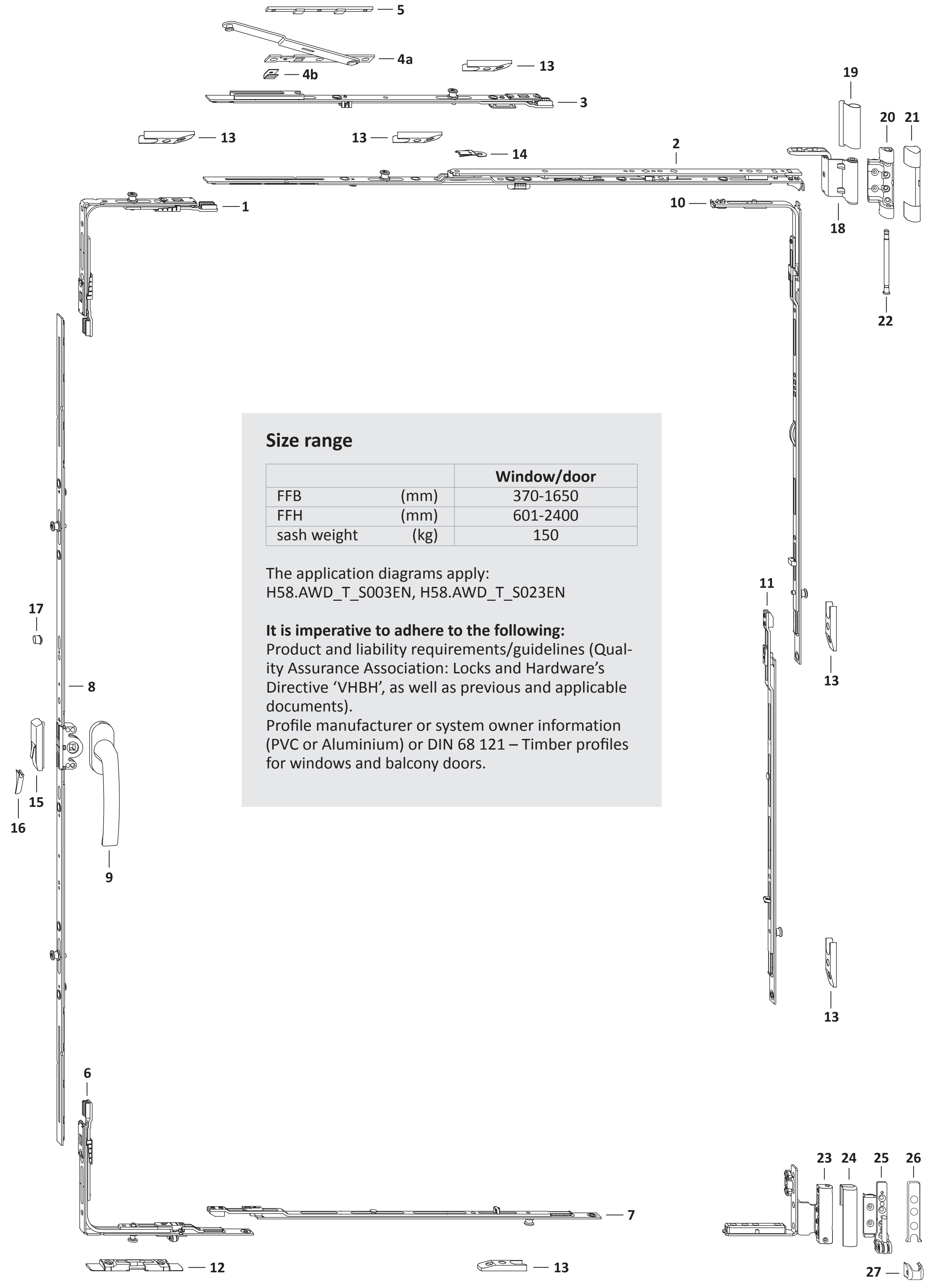
## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 370-1650 |
| FFH | (mm) | 601-2400 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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) | 370-1650 |
| FFH | (mm) | 601-2400 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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

2-sash square tilt-turn/turn DS 8
H12 GM Hinge side TITAN



| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | In the main sash | 37 | 38 | 39 |
| 28 | corn.drive VSO/K+ DS 1RS | TEUL4120- ... | 1 | 370 – 1650 | | | | | 1 |
| 29 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 2 | 1051 – 1450 | | | | | 2 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | | 2 |
| 30 | stay sash part DF/MN | TSSD0020- ... | 1 | 370 – 1650 | | | | | |
| 31 | stay arm DF | TSAD0010- ... | 1 | 370 – 1650 | | | | | |
| 32 | corn.drive AF VSU/K+ DS 1S | TEUL1230- ... | 1 | 370 – 1650 | | | 1 | | |
| 33 | sash lift .. | TFFH0020- ... | 1 | 370 – 1650 | | | | | |
| 34 | sec.sash gear 8 sz 60/G300 | TGKS1030- ... | 1 | | 601 – 800 | 300 – 400 | | | |
| | sec.sash gear 8 sz 80 | TGMS1010- ... | | | 801 – 1000 | 400 – 500 | | | |
| | sec.sash gear 8 sz 80 | TGMS1010- ... | | | 1001 – 1200 | 500 – 600 | | 1 | |
| | sec.sash gear 8 sz 120 2SB 70 | TGMS1050- ... | | | 1201 – 1600 | 600 – 800 | | 1 | |
| | sec.sash gear 8 sz 160 2SB 70 | TGMS1060- ... | | | 1601 – 2000 | 800 – 1000 | | 1 | |
| | sec.sash gear 8 sz 200 | TGMS1040- ... | | | 2001 – 2400 | 1000 – 1200 | | 1 | |
| 35 | sash part MV | Ref. PDB, ZFMV01 | 1 | | 1001 – 1600 | | | | |
| | sash part MV | Ref. PDB, ZFMV01 | 2 | | 1601 – 2400 | | | | |
| 36 | frame part MV | Ref. PDB, ZRZM01 | 1 | | 1001 – 1600 | | | | |
| | frame part MV | Ref. PDB, ZRZM01 | 2 | | 1601 – 2400 | | | | |
| 37 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | | |
| 38 | striker plate f. gear TL | Ref. PDB, FRSA05 | | | | | | | |
| 39 | striker plate 56 | Ref. PDB, FRSB | | | | | | | |
| **on request** | | | | | | | | | |
| 40 | stop | Ref. PDB, FRZF05 | 1 | | | | | | |
| 41 | snapper | Ref. PDB, FRZB03 | 1 | | 1601 – 2400 | | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 42 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 43 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 44 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 45 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 46 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 47 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 48 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 49 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 50 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 51 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

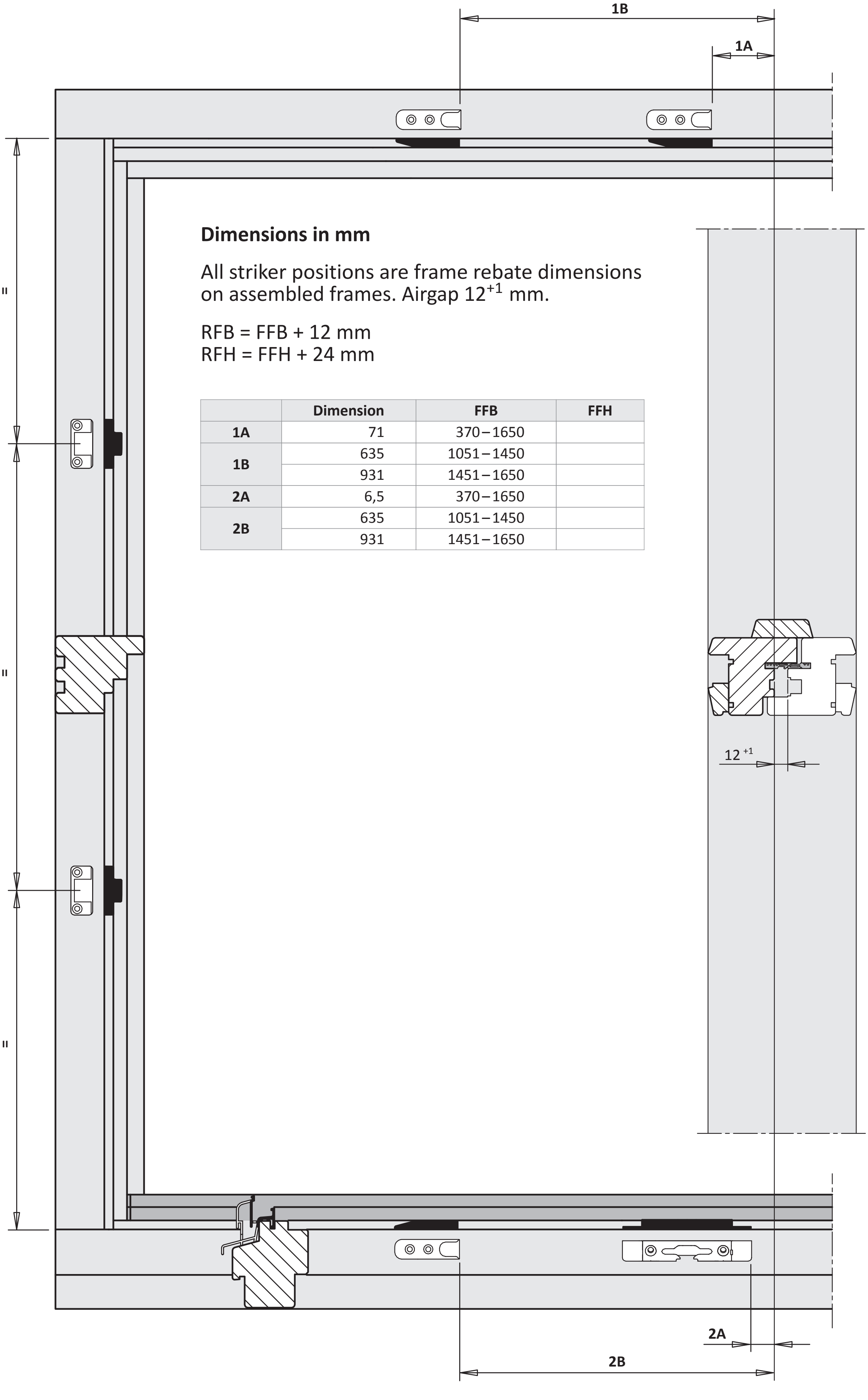
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 12 | 13 |
| 1 | corn.drive VSO 1RS | TEUL4010- ... | 1 | 370 – 1650 | | | | 1 |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 370 – 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | | 1 |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | | 1 |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | | 1 |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | | 1 |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | |
| 6 | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 370 – 1650 | | | 1 | |
| 7 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1560 | | | | 1 |
| 8 | gear 15 AF sz 60 | TGMK4020- ... | 1 | | 601 – 1000 | 300 – 500 | | |
| | gear 15 AF sz 80 1RS | TGMK4040- ... | | | 1001 – 1200 | 500 – 600 | | |
| | gear 15 AF sz 120 2RS 70 | TGMK4160- ... | | | 1201 – 1600 | 600 – 800 | | |
| | gear 15 AF sz 160 2RS 70 | TGMK4170- ... | | | 1601 – 2000 | 800 – 1000 | | |
| | gear 15 AF sz 200 2RS | TGMK4080- ... | | | 2001 – 2400 | 1000 – 1200 | | |
| 9 | handle Globe | Ref.access. ZHGS | 1 | | 601 – 2400 | | | |
| 10 | corn.drive BS/K3 sz 1+ 1RS | TEUL2410- ... | 1 | | 1001 – 1200 | | | 1 |
| | corn.drive BS/K3 sz 2+ 1RS | TEUL2420- ... | | | 1201 – 2400 | | | 1 |
| 11 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 2400 | | | 1 |
| 12 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | |
| 13 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| **on request** | | | | | | | | |
| 14 | tilt restrictor .. | TFKB0010- ... | 1 | | 601 – 800 | | | |
| 15 | mishandling device | TFBS0010- ... | 1 | | | | | |
| 16 | pressure piece | Ref. PDB, TFFD | 1 | | | | | |
| 17 | sleeve DS | Ref. PDB, FFHU03 | 1 | | 1601 – 2400 | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 18 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 19 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 20 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 21 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 22 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 23 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 24 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 25 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 26 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 27 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

# Frame dimensions slave sash

2-sash square tilt-turn/turn DS 8
H12 GM Hinge side TITAN



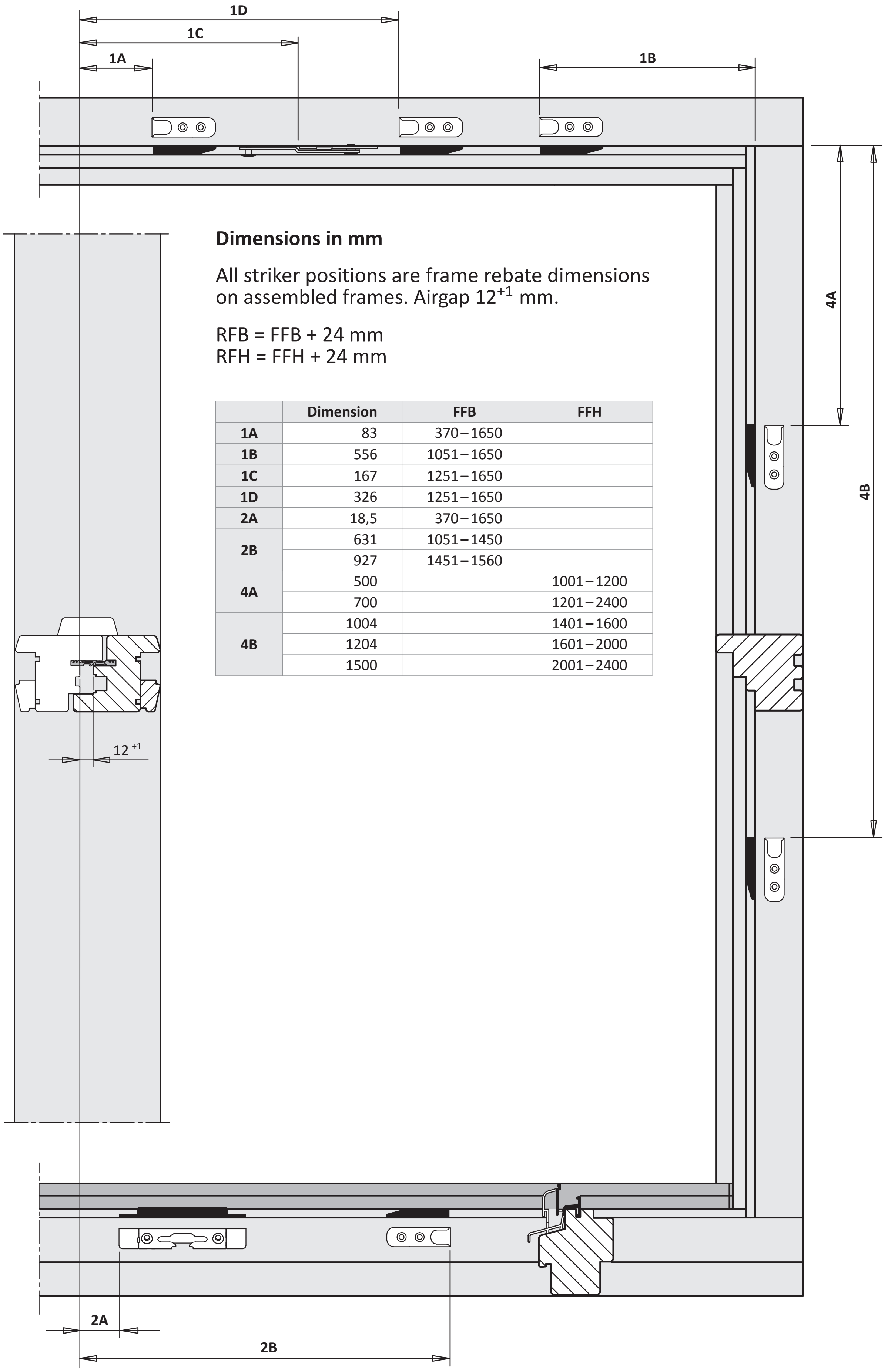



**Dimensions in mm**

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 | 370–1650 | |
| 1B | 635 | 1051–1450 | |
| | 931 | 1451–1650 | |
| 2A | 6,5 | 370–1650 | |
| 2B | 635 | 1051–1450 | |
| | 931 | 1451–1650 | |




**Dimensions in mm**

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

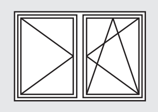
RFB = FFB + 24 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 370 – 1650 | |
| 1B | 556 | 1051 – 1650 | |
| 1C | 167 | 1251 – 1650 | |
| 1D | 326 | 1251 – 1650 | |
| 2A | 18,5 | 370 – 1650 | |
| 2B | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1560 | |
| 4A | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 2400 |
| 4B | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 2400 |

3

# TITAN AF

## Installation instructions

  GS

2-sash square tilt-turn/turn DS 16 bolt

timber 12 mm

basic security

centre handle pos. (variable)

Hinge side TITAN

surface TS

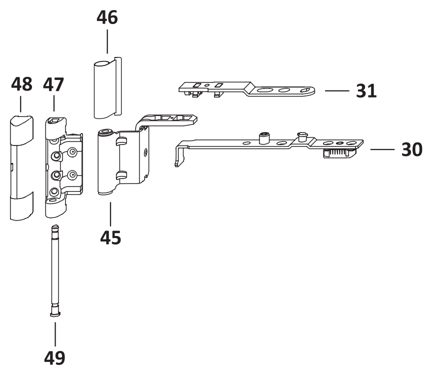
backset 15 mm

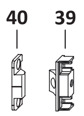
| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 1RS |
| **Hinge side turning points** | Standard HZ12 |

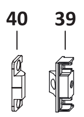
# hardware layout slave sash

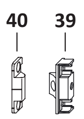
2-sash square tilt-turn/turn DS 16 bolt
H12 GM Hinge side TITAN

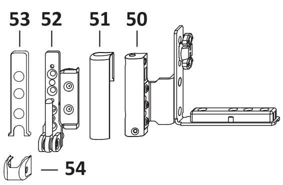


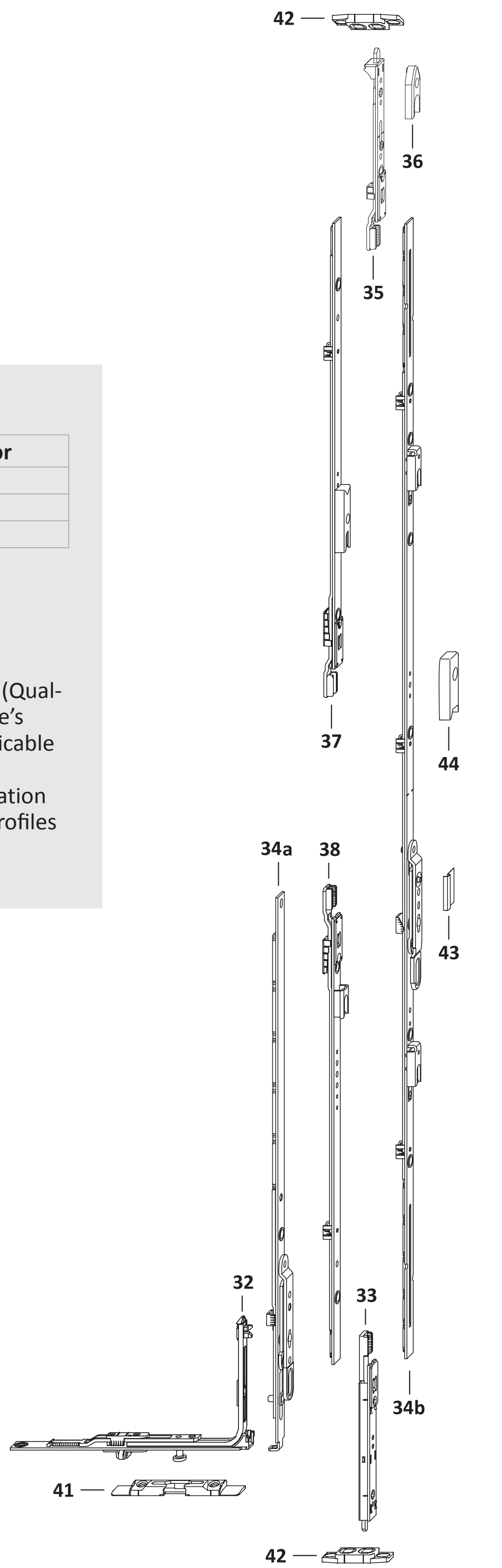



## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 305-1050 |
| FFH | (mm) | 411-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

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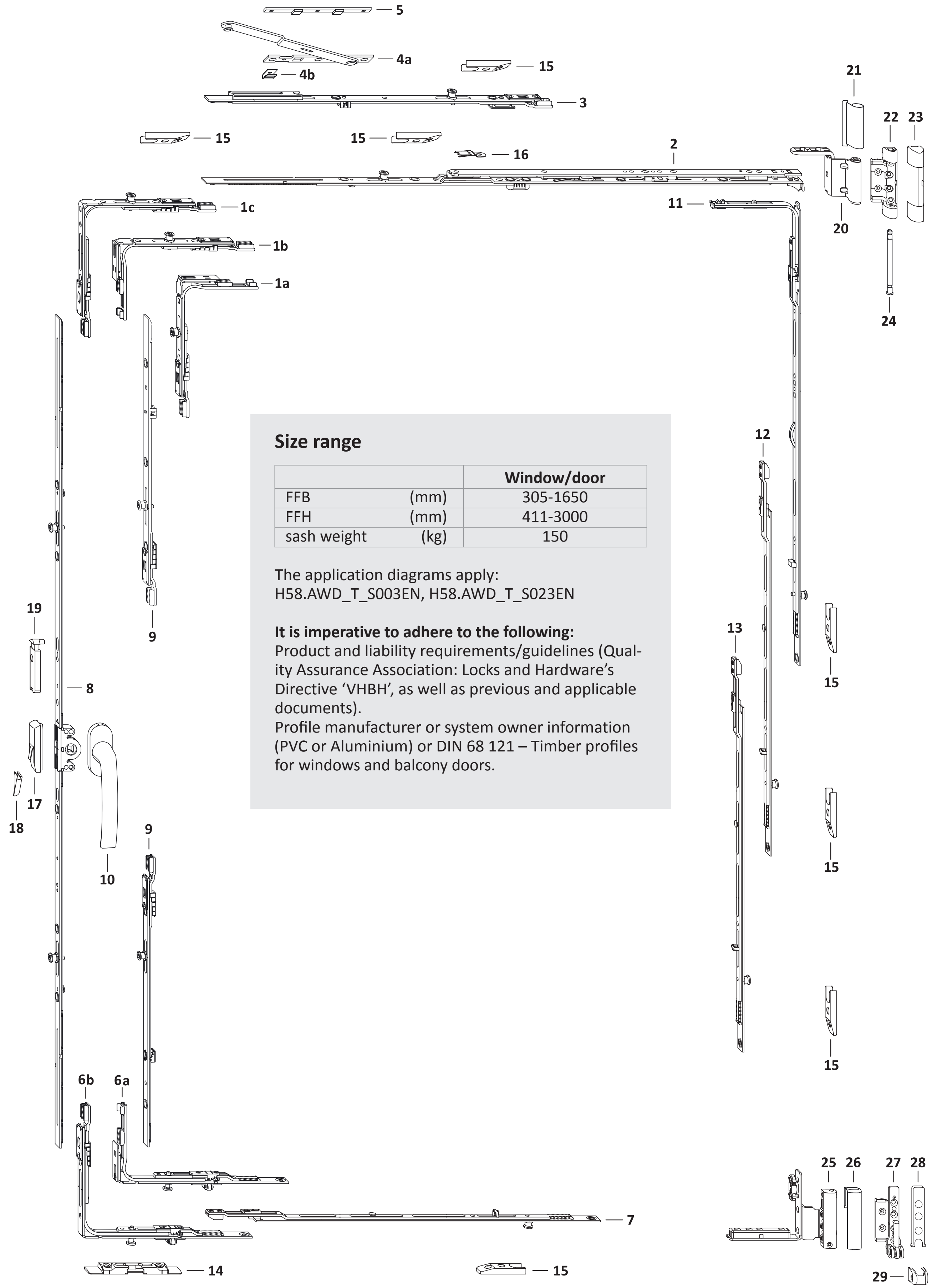


## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 305-1650 |
| FFH | (mm) | 411-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

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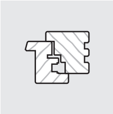
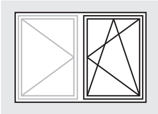
# List of fittings slave sash

2-sash square tilt-turn/turn DS 16 bolt
H12 GM Hinge side TITAN

3

| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G In the main sash | Number of frame parts / Pos. 41 | 42 |
|---|---|---|---|---|---|---|---|---|
| 30 | stay sash part DF/MN | TSSD0020- ... | 1 | 305 – 1050 | | | | |
| 31 | stay arm DF | TSAD0010- ... | 1 | 305 – 1050 | | | | |
| 32 | locking part VSU/K FH+ 1S | TEVR1400- ... | 1 | 305 – 1050 | 411 – 800 | | 1 | |
| 33 | locking bolt AF VSU/G RSA 11 | TESC3050- ... | 1 | | 801 – 3000 | | | 1 |
| 34a | sec.sash gear 16 sz 30 | TGKS0010- ... | 1 | 305 – 850 | 411 – 460 | 205 – 300 | | |
| | sec.sash gear 16 sz 30 | TGKS0010- ... | | | 461 – 600 | 230 – 300 | | |
| | sec.sash gear 16 AF 60/G300 | TGKS4030- ... | | | 601 – 800 | 300 – 400 | | |
| 34b | sec.sash gear 16 AF sz 80 1SB | TGMS4040- ... | 1 | | 801 – 1200 | 400 – 600 | | |
| | sec.sash gear 16 AF sz 120 1SB | TGMS4050- ... | | | 1201 – 1600 | 600 – 800 | | |
| | sec.sash gear 16 AF 160 2SB 70 | TGMS4130- ... | | | 1601 – 2000 | 800 – 1000 | | |
| | sec.sash gear 16 AF sz 200 2SB | TGMS4080- ... | | | 2001 – 3000 | 1000 – 1500 | | |
| 35 | locking bolt AF VSO RSA 11 | TESC2030- ... | 1 | | 411 – 3000 | | | 1 |
| 36 | striker plate A0767 | TRSA0010- ... | 1 | 305 – 330 | 461 – 3000 | | | |
| 37 | linkage AF sz 1 1SB-RS | TZKS1020- ... | 1 | | 2401 – 2800 | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | |
| 38 | linkage AF sz 1 1SB-VSU | TZKS1060- ... | 1 | | 2401 – 2800 | | | |
| | linkage AF sz 2 1SB-VSU | TZKS1070- ... | | | 2801 – 3000 | | | |
| 39 | sash part MV | Ref. PDB, ZFMV01 | 1 | | 1001 – 1600 | | | |
| | sash part MV | Ref. PDB, ZFMV01 | 2 | | 1601 – 2400 | | | |
| | sash part MV | Ref. PDB, ZFMV01 | 3 | | 2401 – 3000 | | | |
| 40 | frame part MV | Ref. PDB, ZRZM01 | 1 | | 1001 – 1600 | | | |
| | frame part MV | Ref. PDB, ZRZM01 | 2 | | 1601 – 2400 | | | |
| | frame part MV | Ref. PDB, ZRZM01 | 3 | | 2401 – 3000 | | | |
| 41 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | |
| 42 | striker V | Ref. PDB, FRZV02 | | | | | | |
| **on request** | | | | | | | | |
| 43 | stop | Ref. PDB, FRZF04 | 1 | | 601 – 3000 | | | |
| 44 | striker snapper A0767 | TRST0010- ... | 1 | | 1601 – 3000 | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number surface TS | RAL9016 | RAL8022 | required as per sash weight 150 kg |
| 45 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 46 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 47 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 48 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 49 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 50 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 51 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 52 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 53 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 54 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |



| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. 14 | 15 |
|---|---|---|---|---|---|---|---|---|
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 305 – 330 | 461 – 3000 | | | |
| 1b | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 331 – 850 | 411 – 460 | | | 1 |
| 1c | corn.drive VSO 1RS | TEUL4010- ... | 1 | 331 – 1650 | 461 – 3000 | | | 1 |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 305 – 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | | 1 |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | | 1 |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | | 1 |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | | 1 |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | |
| 6a | corn.drive AF VSU/K+ nar.FH 1S | TEUL5090- ... | 1 | 331 – 850 | 411 – 460 | | 1 | |
| 6b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 305 – 1650 | 461 – 3000 | | 1 | |
| 7 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 1 |
| 8 | gear 15 AF sz 20 | TGMK4010- ... | 1 | 331 – 850 | 411 – 460 | 205 – 300 | | |
| | gear 15 AF sz 20 | TGMK4010- ... | | | 461 – 600 | 230 – 300 | | |
| | gear 15 AF sz 60 | TGMK4020- ... | | | 601 – 1000 | 300 – 500 | | |
| | gear 15 AF sz 80 1RS | TGMK4040- ... | | | 1001 – 1200 | 500 – 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 2RS | TGMK4080- ... | | | 2001 – 3000 | 1000 – 1500 | | |
| 9 | linkage KK/AF sz 1 1RS | TZKK1010- ... | 2 | | 2401 – 2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | |
| 10 | handle Globe | Ref.access. ZHGS | 1 | | 411 – 3000 | | | |
| 11 | corn.drive BS/K3 sz 1+ 1RS | TEUL2410- ... | 1 | | 1001 – 1200 | | | 1 |
| | corn.drive BS/K3 sz 2+ 1RS | TEUL2420- ... | | | 1201 – 3000 | | | 1 |
| 12 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | | 1 |
| 13 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | | 1 |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | | 1 |
| 14 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | |
| 15 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| | | | **on request** | | | | | |
| 16 | tilt restrictor .. | TFKB0010- ... | 1 | | 411 – 800 | | | |
| 17 | mishandling device | TFBS0010- ... | 1 | | 601 – 3000 | | | |
| 18 | pressure piece | Ref. PDB, TFFD | 1 | | 601 – 3000 | | | |
| 19 | snapper switchable rh. | TFST0011- ... | 1 | | 1601 – 3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1601 – 3000 | | | |

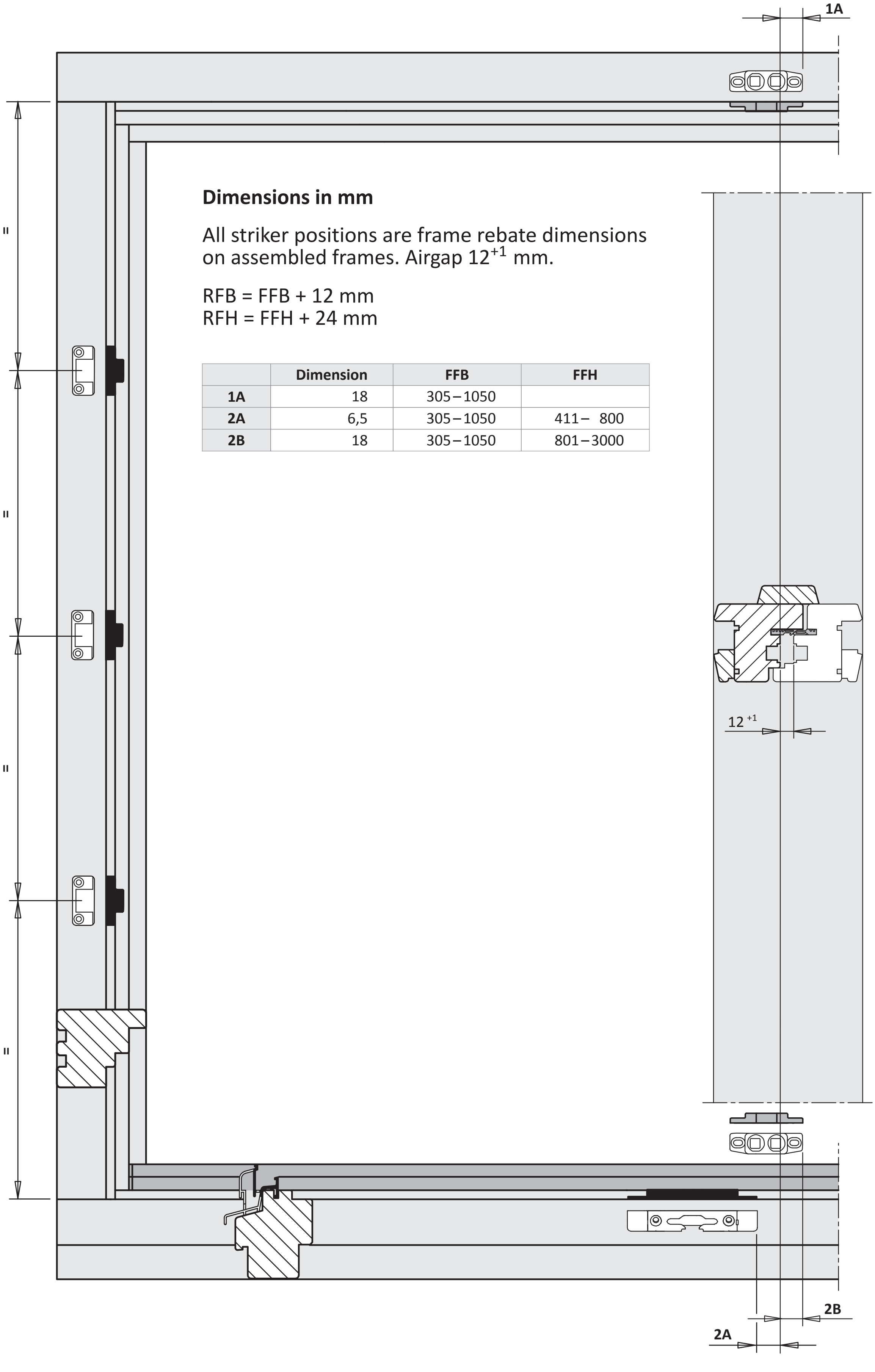
**Hinge side turning points**

| Pos. | Description | Part number surface TS | RAL9016 | RAL8022 | required as per sash weight 150 kg |
|---|---|---|---|---|---|
| 20 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 21 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 22 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 23 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 24 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 25 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 26 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 27 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 28 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 29 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

# Frame dimensions slave sash

2-sash square tilt-turn/turn DS 16 bolt
H12 GM Hinge side TITAN



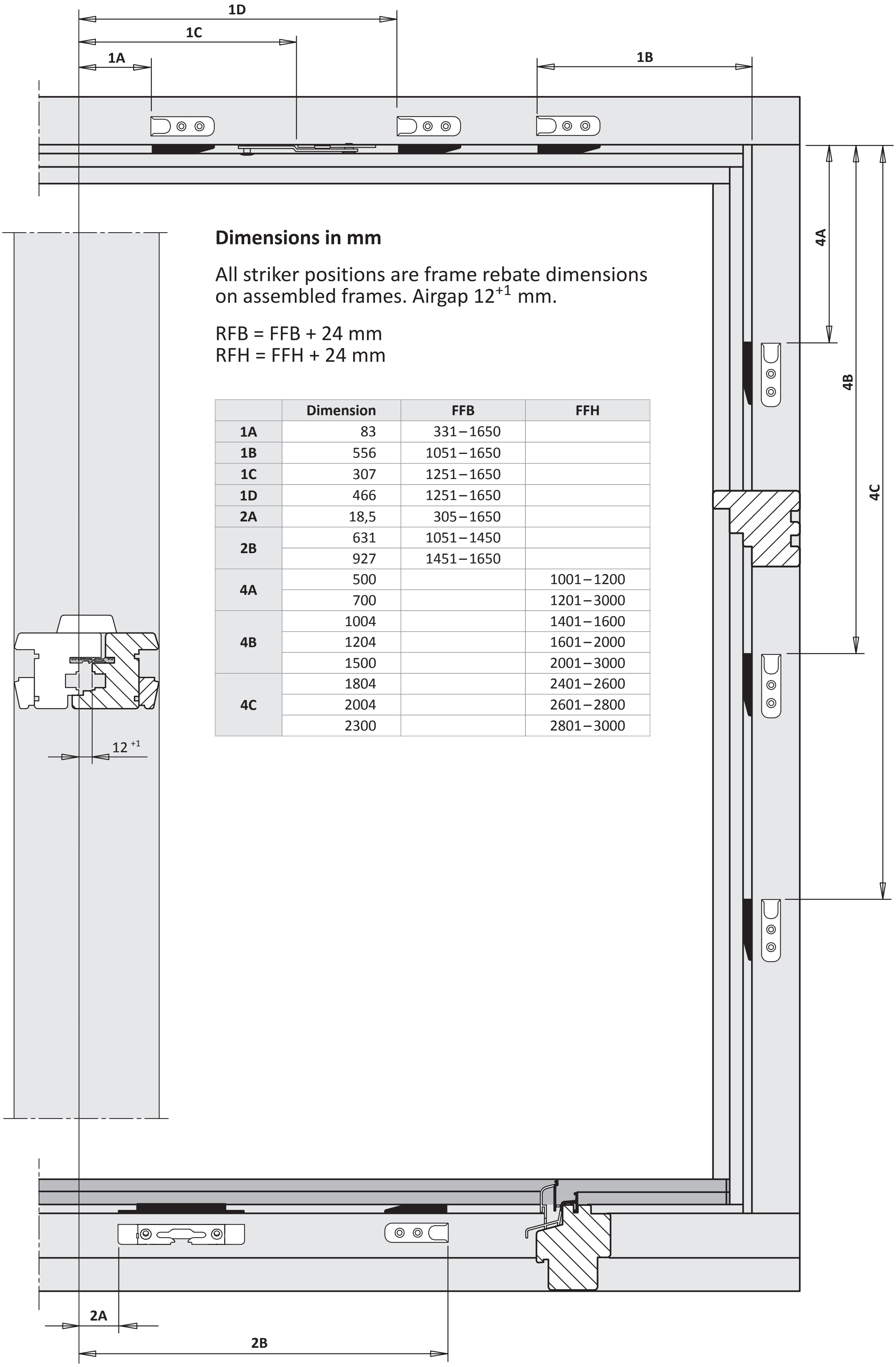



**Dimensions in mm**

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** | 18 | 305 – 1050 | |
| **2A** | 6,5 | 305 – 1050 | 411 – 800 |
| **2B** | 18 | 305 – 1050 | 801 – 3000 |




**Dimensions in mm**

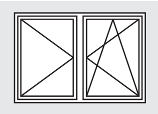
All striker positions are frame rebate dimensions on assembled frames. Airgap $12^{+1}$ mm.

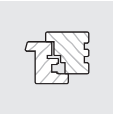
RFB = FFB + 24 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| **1A** | 83 | 331 – 1650 | |
| **1B** | 556 | 1051 – 1650 | |
| **1C** | 307 | 1251 – 1650 | |
| **1D** | 466 | 1251 – 1650 | |
| **2A** | 18,5 | 305 – 1650 | |
| **2B** | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| **4A** | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| **4B** | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| **4C** | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

# TITAN AF

## Installation instructions





**GS**

2-sash square tilt-turn/turn DS 16 shoot bolt

timber 12 mm

basic security

centre handle pos. (variable)

Hinge side TITAN

surface TS

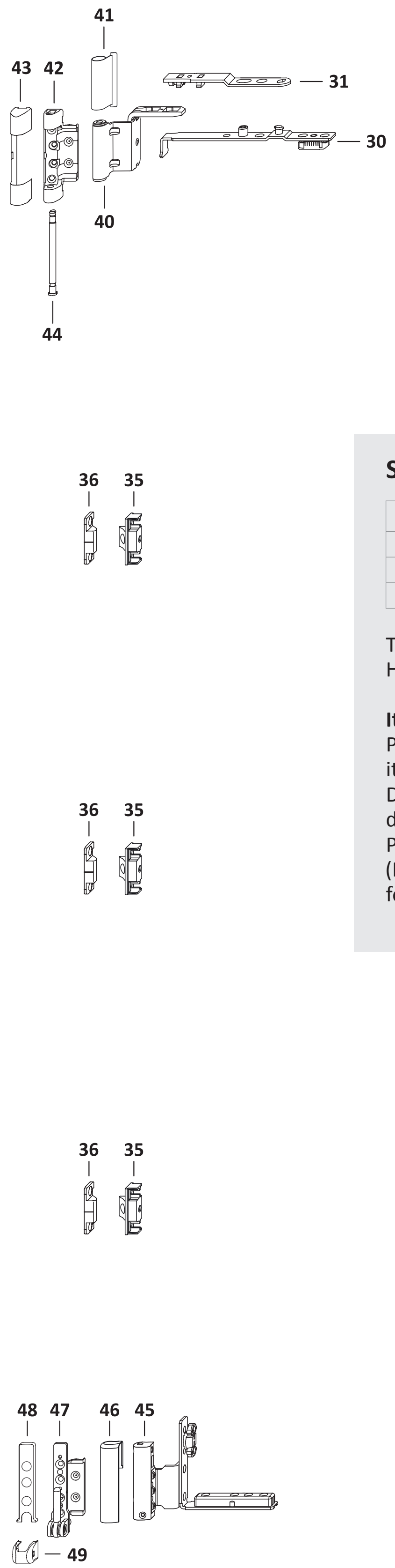
backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 1RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout slave sash

2-sash square tilt-turn/turn DS 16 shoot bolt
H12 GM Hinge side TITAN



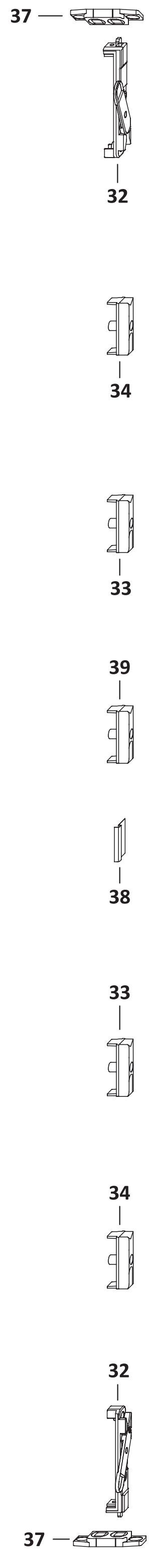


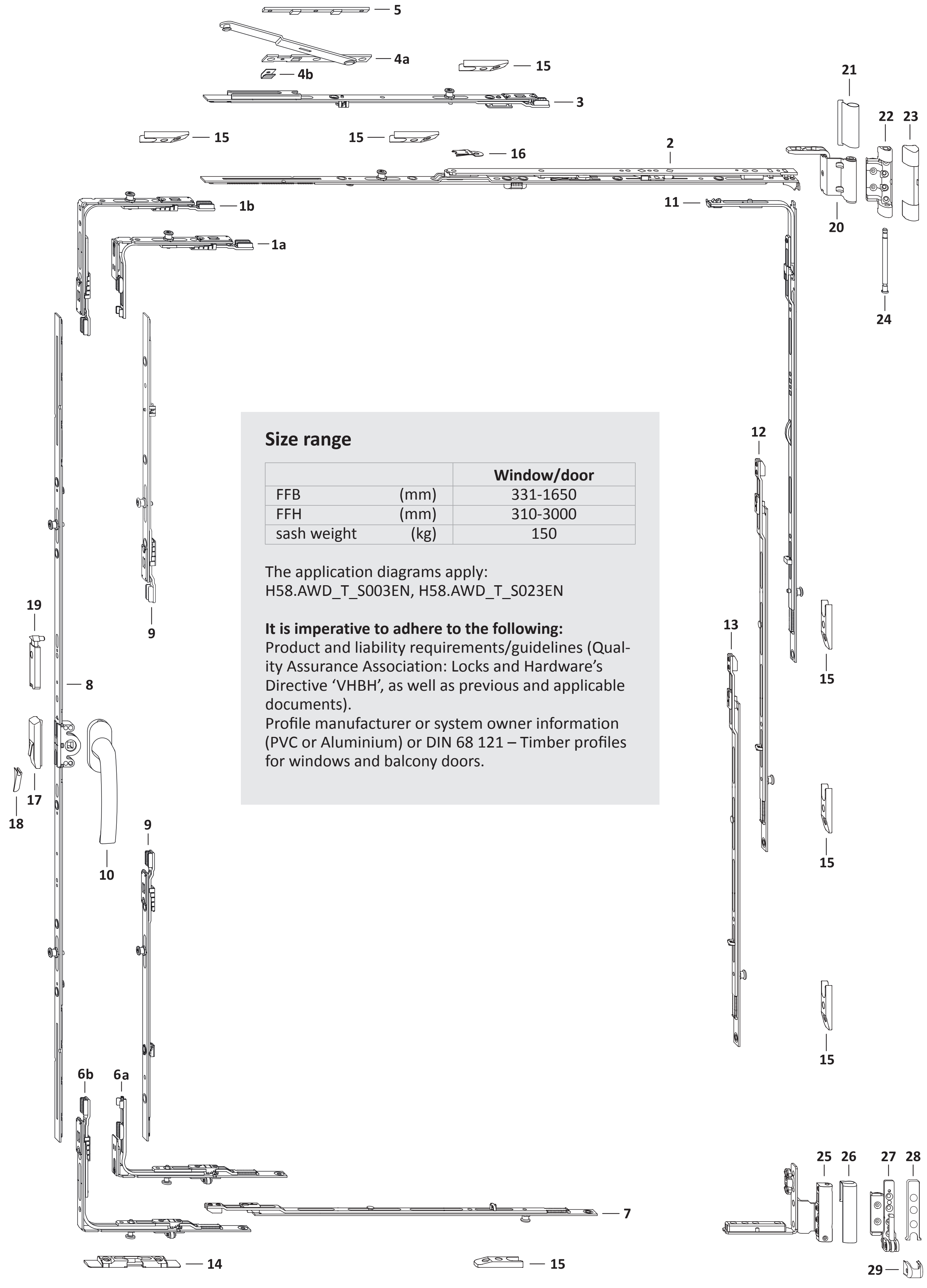

## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 331-1050 |
| FFH | (mm) | 310-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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

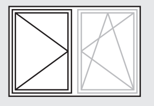
| | | Window/door |
|---|---|---|
| FFB | (mm) | 331-1650 |
| FFH | (mm) | 310-3000 |
| sash weight | (kg) | 150 |

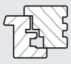
The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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

2-sash square tilt-turn/turn DS 16 shoot bolt
H12 GM Hinge side TITAN







| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. |
|---|---|---|---|---|---|---|---|
| | | | | | | In the main sash | 37 |
| 30 | stay sash part DF/MN | TSSD0020- ... | 1 | 331 – 1050 | | | |
| 31 | stay arm DF | TSAD0010- ... | 1 | 331 – 1050 | | | |
| 32 | short shoot bolt A2000 | 716236 | 2 | | 310 – 3000 | | 2 |
| 33 | striker plate 56 A2000 | TRSB0030- ... | 1 | | 1001 – 1200 | 500 – 600 | |
| | striker plate 56 A2000 | TRSB0030- ... | | | 1201 – 1600 | 600 – 800 | |
| | striker plate 56 A2000 | TRSB0030- ... | 2 | | 1601 – 2000 | 800 – 1000 | |
| | striker plate 56 A2000 | TRSB0030- ... | | | 2001 – 3000 | 1000 – 1500 | |
| 34 | striker plate 56 A2000 | TRSB0030- ... | 2 | | 2401 – 3000 | | |
| 35 | sash part MV | Ref. PDB, ZFMV01 | 1 | | 1001 – 1600 | | |
| | sash part MV | Ref. PDB, ZFMV01 | 2 | | 1601 – 2400 | | |
| | sash part MV | Ref. PDB, ZFMV01 | 3 | | 2401 – 3000 | | |
| 36 | frame part MV | Ref. PDB, ZRZM01 | 1 | | 1001 – 1600 | | |
| | frame part MV | Ref. PDB, ZRZM01 | 2 | | 1601 – 2400 | | |
| | frame part MV | Ref. PDB, ZRZM01 | 3 | | 2401 – 3000 | | |
| 37 | striker V | Ref. PDB, FRZV01 | | | | | |
| **on request** | | | | | | | |
| 38 | run-up | Ref. PDB, FRZF06 | 1 | | 601 – 3000 | | |
| 39 | striker plate 56 A2000 | TRSB0030- ... | 1 | | 1601 – 3000 | | |

| **Hinge side turning points** | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 40 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 41 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 42 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 43 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 44 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 45 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 46 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 47 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 48 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 49 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

# List of fittings main sash

2-sash square tilt-turn/turn DS 16 shoot bolt
H12 GM Hinge side TITAN

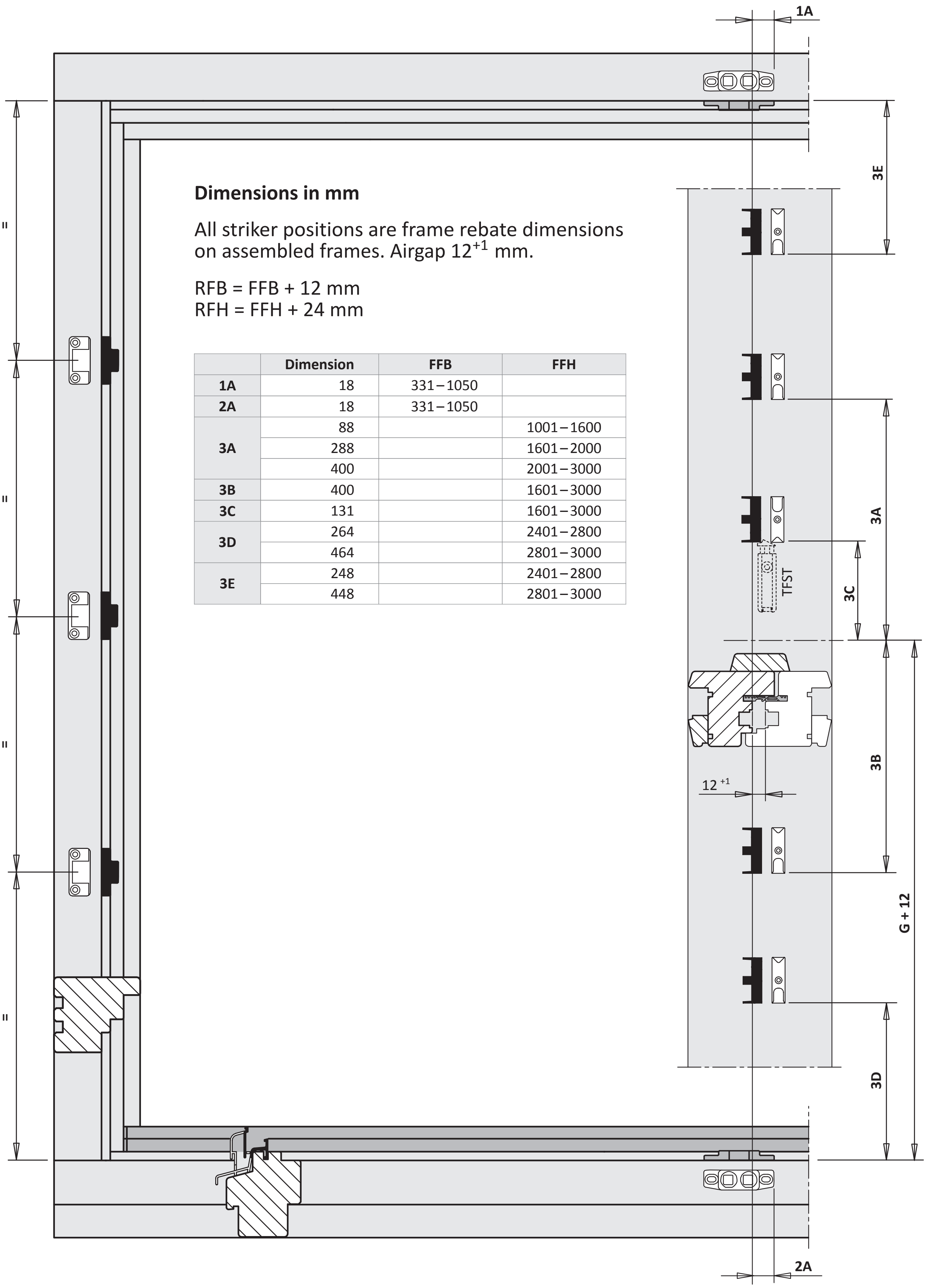
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 14 | 15 |
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 331– 850 | 310– 460 | | | 1 |
| 1b | corn.drive VSO 1RS | TEUL4010- ... | 1 | 331–1650 | 461–3000 | | | 1 |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 331– 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451– 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681– 850 | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851–1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051–1250 | | | | 1 |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251–1450 | | | | 1 |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451–1650 | | | | 1 |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251–1650 | | | | 1 |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251–1650 | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251–1650 | | | | |
| 6a | corn.drive AF VSU/K+ nar.FH 1S | TEUL5090- ... | 1 | 331– 850 | 310– 460 | | 1 | |
| 6b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 331–1650 | 461–3000 | | 1 | |
| 7 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051–1450 | | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451–1650 | | | | 1 |
| 8 | gear 15 AF sz 20 | TGMK4010- ... | 1 | 331– 850 | 310– 460 | 155– 300 | | |
| | gear 15 AF sz 20 | TGMK4010- ... | | | 461– 600 | 230– 300 | | |
| | gear 15 AF sz 60 | TGMK4020- ... | | | 601–1000 | 300– 500 | | |
| | gear 15 AF sz 80 1RS | TGMK4040- ... | | | 1001–1200 | 500– 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 2RS | TGMK4080- ... | | | 2001–3000 | 1000–1500 | | |
| 9 | linkage KK/AF sz 1 1RS | TZKK1010- ... | 2 | | 2401–2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801–3000 | | | |
| 10 | handle Globe | Ref.access. ZHGS | 1 | | 310–3000 | | | |
| 11 | corn.drive BS/K3 sz 1+ 1RS | TEUL2410- ... | 1 | | 1001–1200 | | | 1 |
| | corn.drive BS/K3 sz 2+ 1RS | TEUL2420- ... | | | 1201–3000 | | | 1 |
| 12 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401–1600 | | | 1 |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601–2000 | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001–3000 | | | 1 |
| 13 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401–2600 | | | 1 |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601–2800 | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801–3000 | | | 1 |
| 14 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | |
| 15 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| | | | on request | | | | | |
| 16 | tilt restrictor .. | TFKB0010- ... | 1 | | 310– 800 | | | |
| 17 | mishandling device | TFBS0010- ... | 1 | | 601–3000 | | | |
| 18 | pressure piece | Ref. PDB, TFFD | 1 | | 601–3000 | | | |
| 19 | snapper switchable rh. | TFST0011- ... | 1 | | 1601–3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1601–3000 | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 20 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 21 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 22 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 23 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 24 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 25 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 26 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 27 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 28 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 29 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

# Frame dimensions slave sash

2-sash square tilt-turn/turn DS 16 shoot bolt
H12 GM Hinge side TITAN



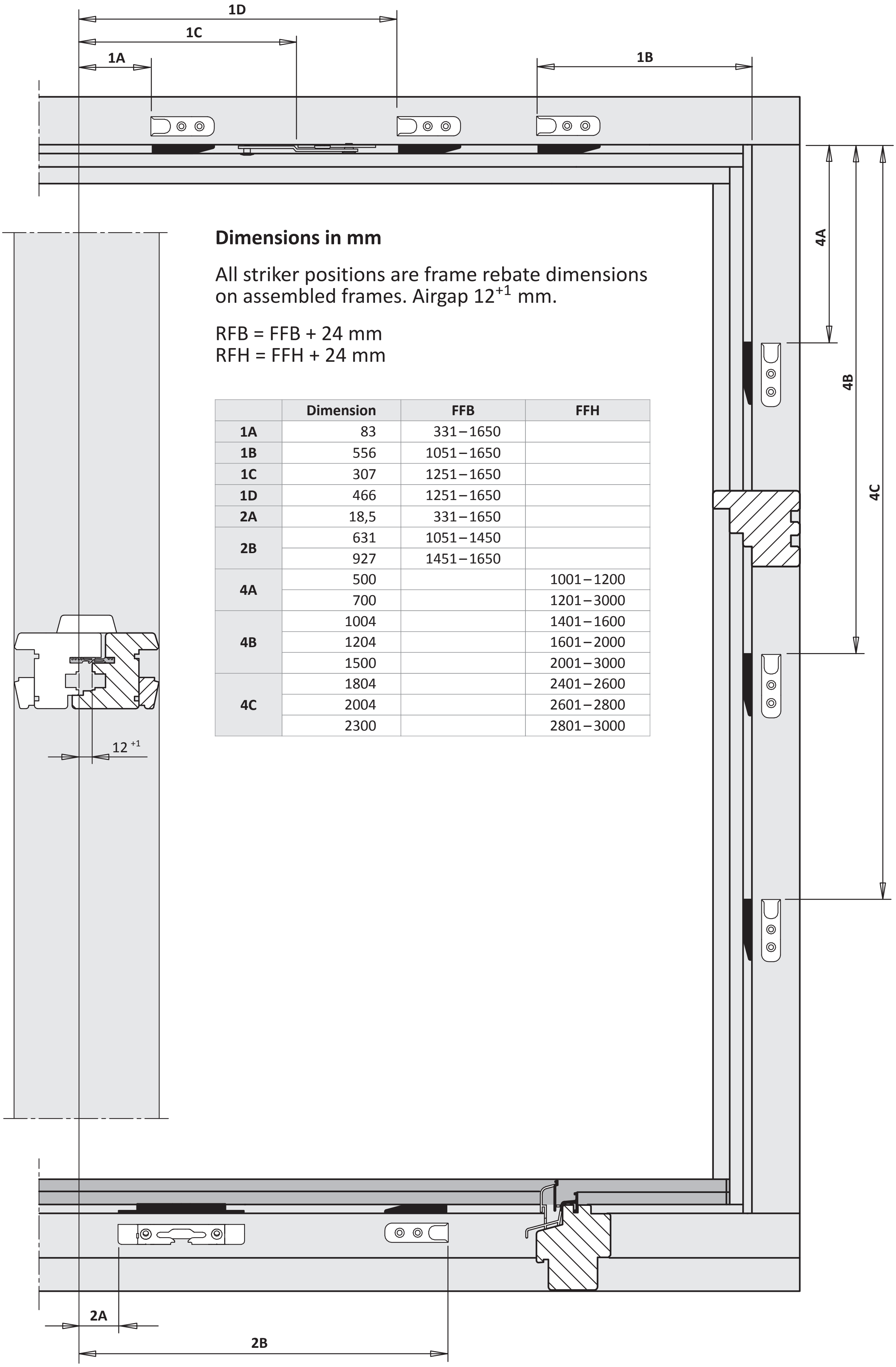



**Dimensions in mm**

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 | 18 | 331 – 1050 | |
| 2A | 18 | 331 – 1050 | |
| 3A | 88 | | 1001 – 1600 |
| | 288 | | 1601 – 2000 |
| | 400 | | 2001 – 3000 |
| 3B | 400 | | 1601 – 3000 |
| 3C | 131 | | 1601 – 3000 |
| 3D | 264 | | 2401 – 2800 |
| | 464 | | 2801 – 3000 |
| 3E | 248 | | 2401 – 2800 |
| | 448 | | 2801 – 3000 |




**Dimensions in mm**

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

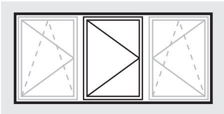
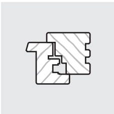
RFB = FFB + 24 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 331 – 1650 | |
| 1B | 556 | 1051 – 1650 | |
| 1C | 307 | 1251 – 1650 | |
| 1D | 466 | 1251 – 1650 | |
| 2A | 18,5 | 331 – 1650 | |
| 2B | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 4A | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4B | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4C | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

3

# TITAN AF

## Installation instructions

  **GS**

3-sash Centre sash second opening turn

timber 12 mm

basic security

centre handle pos. (variable)

Hinge side TITAN

surface TS

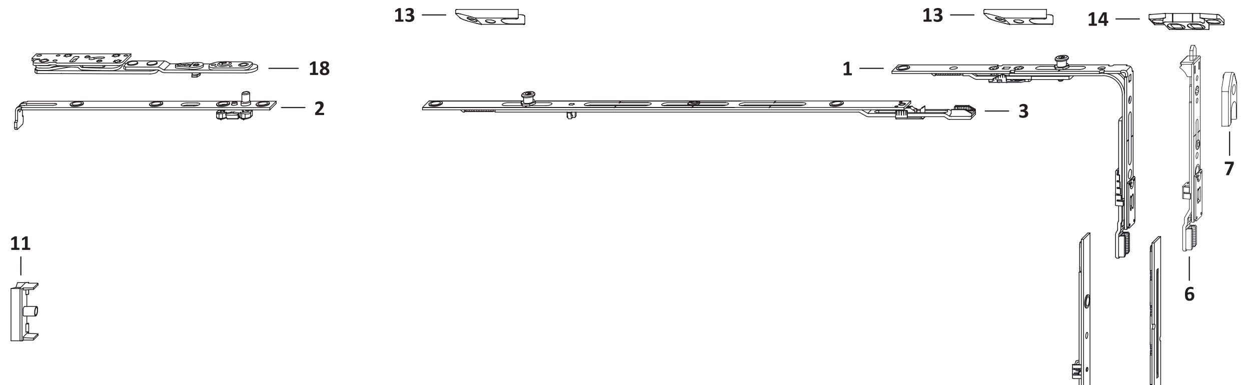
backset 15 mm

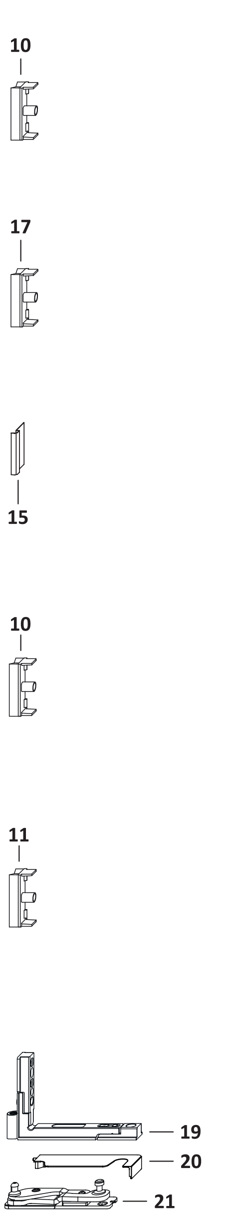
| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | two-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |

# hardware layout

3-sash Centre sash second opening turn
H12 GM Hinge side TITAN





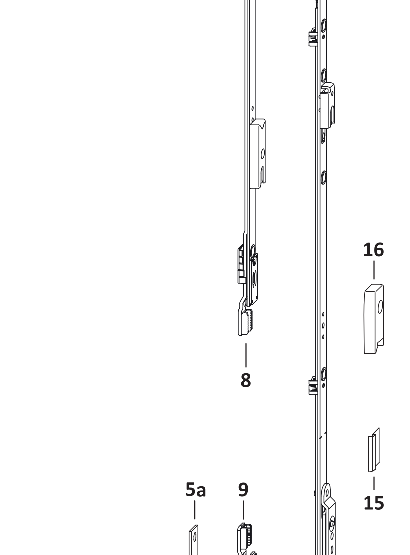



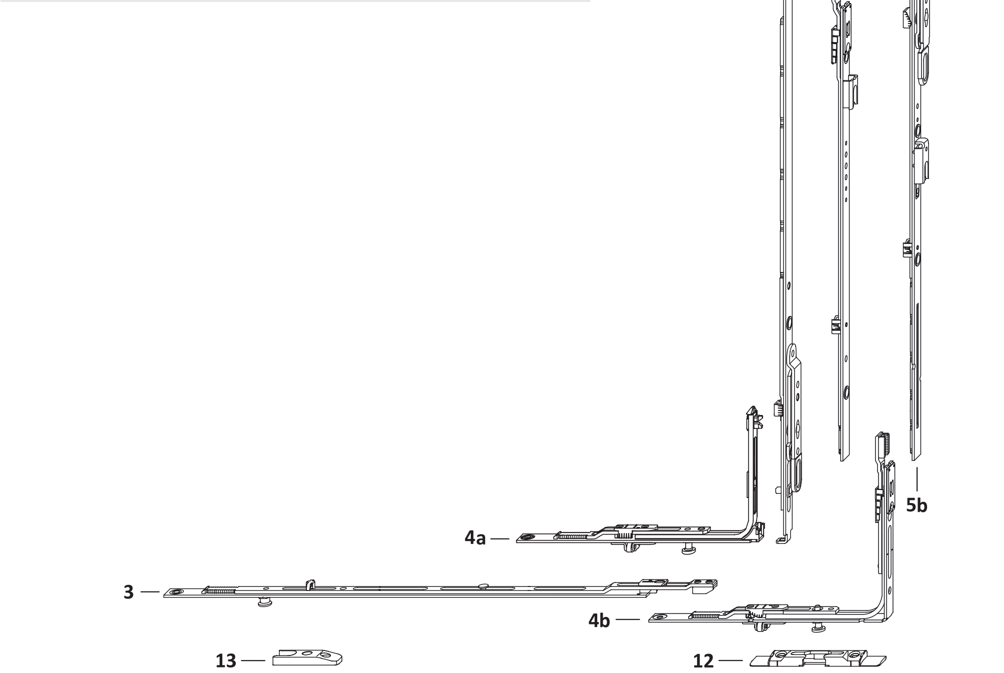

## Size range

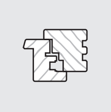
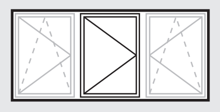
| | | Window/door |
|---|---|---|
| FFB | (mm) | 380-1650 |
| FFH | (mm) | 410-3000 |
| sash weight | (kg) | 80 |

The application diagram applies:
H58.AWD_T_S035EN

**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.





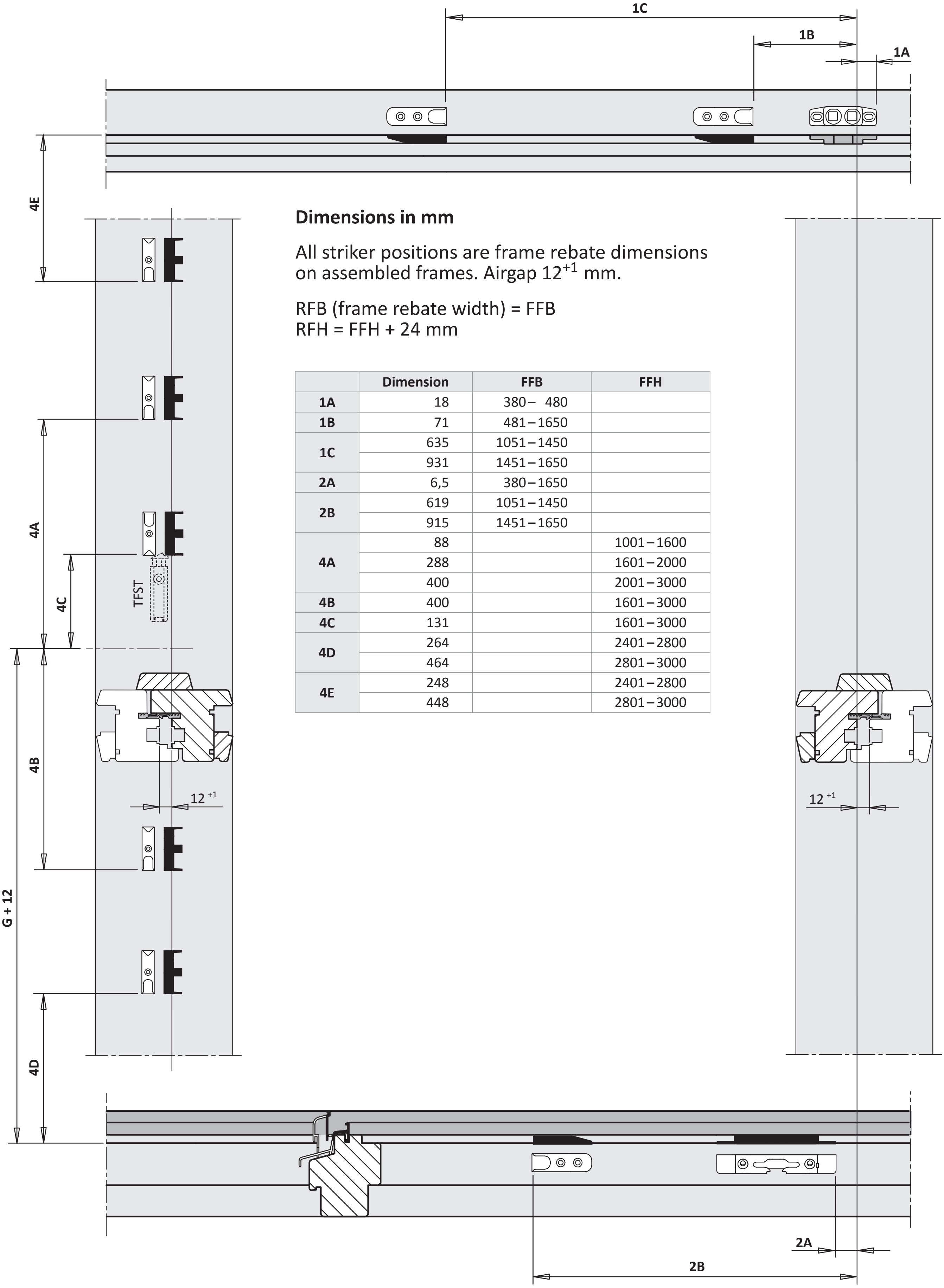
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. 12 | 13 | 14 |
|---|---|---|---|---|---|---|---|---|---|
| 1 | corn.drive VSO/K+ DF 1RS | TEUL4110- ... | 1 | 481 – 1650 | | | | 1 | |
| 2 | stay sash part DF AX | TSSV3020- ... | 1 | 380 – 1650 | | | | | |
| 3 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 2 | 1051 – 1450 | | | | 2 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 2 | |
| 4a | locking part VSU/K FH+ 1S | TEVR1400- ... | 1 | 380 – 1650 | 410 – 800 | | 1 | | |
| 4b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 380 – 1650 | 801 – 3000 | | 1 | | |
| 5a | sec.sash gear 16 sz 30 | TGKS0010- ... | 1 | 380 – 850 | 410 – 460 | 205 – 300 | | | |
| | sec.sash gear 16 sz 30 | TGKS0010- ... | | | 461 – 600 | 230 – 300 | | | |
| | sec.sash gear 16 AF 60/G300 | TGKS4030- ... | | | 601 – 800 | 300 – 400 | | | |
| 5b | sec.sash gear 16 AF sz 80 1SB | TGMS4040- ... | 1 | | 801 – 1200 | 400 – 600 | | | |
| | sec.sash gear 16 AF sz 120 1SB | TGMS4050- ... | | | 1201 – 1600 | 600 – 800 | | | |
| | sec.sash gear 16 AF 160 2SB 70 | TGMS4130- ... | | | 1601 – 2000 | 800 – 1000 | | | |
| | sec.sash gear 16 AF sz 200 2SB | TGMS4080- ... | | | 2001 – 3000 | 1000 – 1500 | | | |
| 6 | locking bolt AF VSO RSA 11 | TESC2030- ... | 1 | 380 – 480 | 461 – 3000 | | | | 1 |
| 7 | striker plate A0767 | TRSA0010- ... | 1 | 380 – 480 | 461 – 3000 | | | | |
| 8 | linkage AF sz 1 1SB-RS | TZKS1020- ... | 1 | | 2401 – 2800 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | | |
| 9 | linkage AF sz 1 1SB-VSU | TZKS1060- ... | 1 | | 2401 – 2800 | | | | |
| | linkage AF sz 2 1SB-VSU | TZKS1070- ... | | | 2801 – 3000 | | | | |
| 10 | striker plate 56 A2000 | TRSB0030- ... | 1 | | 1001 – 1200 | | | | |
| | striker plate 56 A2000 | TRSB0030- ... | | | 1201 – 1600 | | | | |
| | striker plate 56 A2000 | TRSB0030- ... | 2 | | 1601 – 2000 | | | | |
| | striker plate 56 A2000 | TRSB0030- ... | | | 2001 – 3000 | | | | |
| 11 | striker plate 56 A2000 | TRSB0030- ... | 2 | | 2401 – 3000 | | | | |
| 12 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | | |
| 13 | striker plate 56 | Ref. PDB, FRSB | | | | | | | |
| 14 | striker V | Ref. PDB, FRZV01 | | | | | | | |
| | | | **on request** | | | | | | |
| 15 | stop | Ref. PDB, FRZF04 | 2 | | 601 – 3000 | | | | |
| 16 | striker snapper A0767 | TRST0010- ... | 1 | | 1601 – 3000 | | | | |
| 17 | striker plate 56 A2000 | TRSB0030- ... | 1 | | 1601 – 3000 | | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 80 kg |
| 18 | stay arm AX DF/3 | Ref. PDB, TSAV47 | | | 1 |
| 19 | corner hinge AX | Ref. PDB, TBEB41 | | | 1 |
| 20 | cover cap AX EL | Ref. PDB, TKEL41 | | | 1 |
| 21 | bottom hinge AX DF/3 | Ref. PDB, TBEV43 | | | 1 |

# Frame dimensions

3-sash Centre sash second opening turn
H12 GM Hinge side TITAN






**Dimensions in mm**

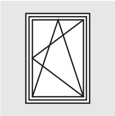
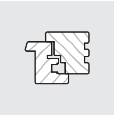
All striker positions are frame rebate dimensions on assembled frames. Airgap $12^{+1}$ mm.

RFB (frame rebate width) = FFB
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 18 | 380– 480 | |
| 1B | 71 | 481–1650 | |
| 1C | 635 | 1051–1450 | |
| | 931 | 1451–1650 | |
| 2A | 6,5 | 380–1650 | |
| 2B | 619 | 1051–1450 | |
| | 915 | 1451–1650 | |
| 4A | 88 | | 1001–1600 |
| | 288 | | 1601–2000 |
| | 400 | | 2001–3000 |
| 4B | 400 | | 1601–3000 |
| 4C | 131 | | 1601–3000 |
| 4D | 264 | | 2401–2800 |
| | 464 | | 2801–3000 |
| 4E | 248 | | 2401–2800 |
| | 448 | | 2801–3000 |

# TITAN AF

## Installation instructions

  GS

1-sash square tilt before turn (TBT)

timber 12 mm

basic security

centre handle pos. (variable)

Hinge side TITAN

surface TS

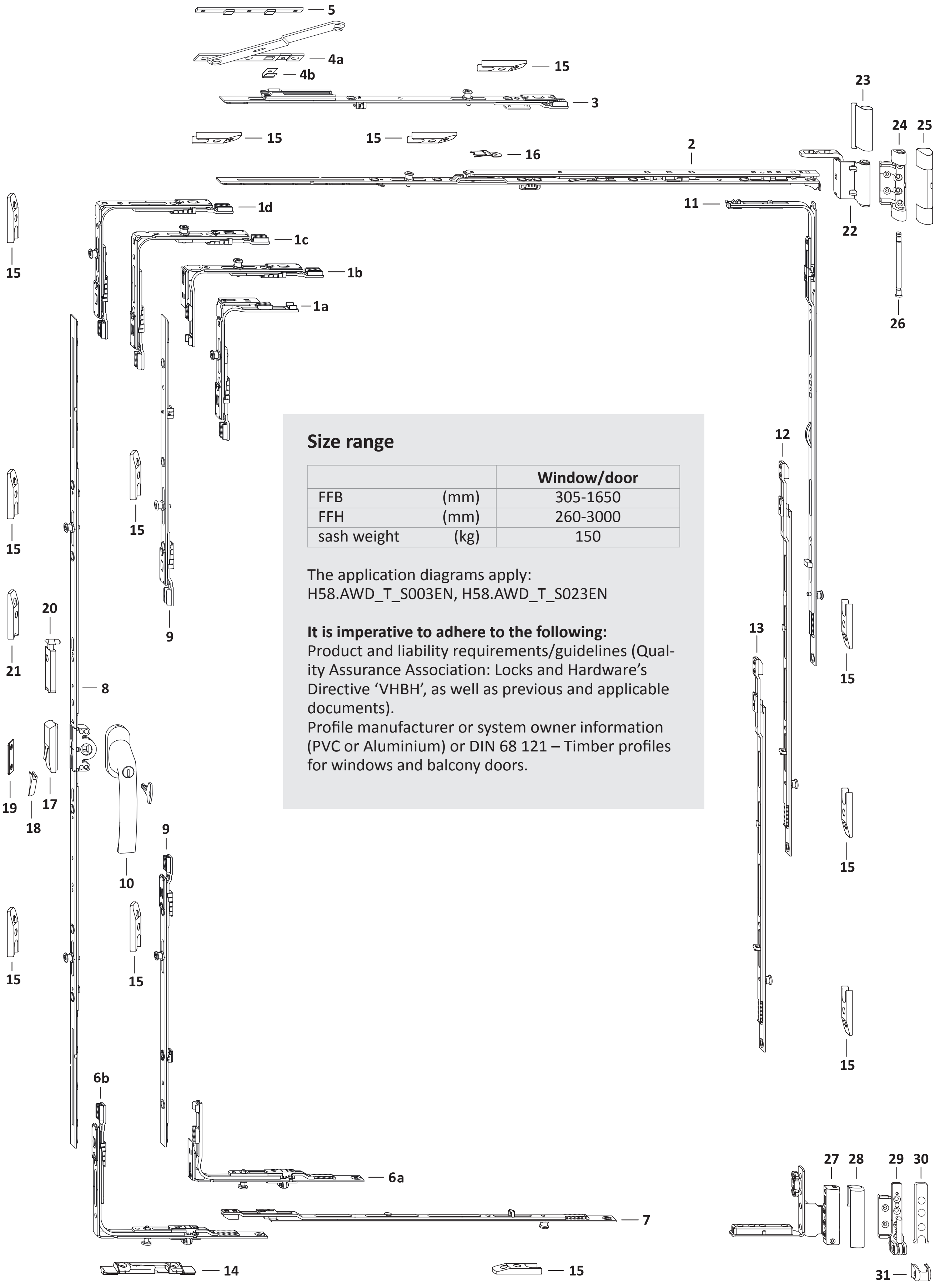
backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 1RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout

1-sash square tilt before turn (TBT)
H12 GM Hinge side TITAN






## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 305-1650 |
| FFH | (mm) | 260-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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. 14 | 15 |
|---|---|---|---|---|---|---|---|---|
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 305 – 330 | 461 – 3000 | | | 1 |
| 1b | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 331 – 850 | 260 – 460 | | | 1 |
| 1c | corn.drive VSO 1RS | TEUL4010- ... | 1 | 331 – 1250 | 461 – 3000 | | | 1 |
| 1d | corn.drive VSO 1RS | TEUL4010- ... | 1 | 1251 – 1650 | 461 – 3000 | | | 1 |
| 2 | stay AF TBT sz 0 | TSKT2000- ... | 1 | 305 – 450 | | | | |
| | stay AF TBT sz 1 | TSKT2010- ... | | 451 – 680 | | | | |
| | stay AF TBT sz 2 1RS | TSKT2120- ... | | 681 – 850 | | | | |
| | stay AF TBT sz 3 1RS | TSKT2030- ... | | 851 – 1050 | | | | |
| | stay AF TBT sz 4 1RS | TSKT2040- ... | | 1051 – 1250 | | | | 1 |
| | stay AF TBT sz 3 1RS | TSKT2030- ... | | 1251 – 1450 | | | | 1 |
| | stay AF TBT sz 4 1RS | TSKT2040- ... | | 1451 – 1650 | | | | 1 |
| 3 | linkage add. stay AF TBT RS | TZOT1010- ... | 1 | 1251 – 1650 | | | | 1 |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | |
| 6a | corn.drive AF VSU/K+ nar.FH 1S | TEUL5090- ... | 1 | 331 – 850 | 260 – 460 | | 1 | |
| 6b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 305 – 1650 | 461 – 3000 | | 1 | |
| 7 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 1 |
| 8 | gear 15 AF sz 20 | TGMK4010- ... | 1 | 331 – 850 | 260 – 460 | 130 – 230 | | |
| | gear 15 AF sz 20 | TGMK4010- ... | | | 461 – 600 | 230 – 300 | | |
| | gear 15 AF sz 60 | TGMK4020- ... | | | 601 – 1000 | 300 – 500 | | |
| | gear 15 AF sz 80 1RS | TGMK4040- ... | | | 1001 – 1200 | 500 – 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 2RS | TGMK4080- ... | | | 2001 – 3000 | 1000 – 1500 | | 2 |
| 9 | linkage KK/AF sz 1 1RS | TZKK1010- ... | 2 | | 2401 – 2800 | | | 2 |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | 2 |
| 10 | handle Globe TBT lockable | Ref.access. ZHGT | 1 | | 260 – 3000 | | | |
| 11 | corn.drive BS/K3 sz 1+ 1RS | TEUL2410- ... | 1 | | 1001 – 1200 | | | 1 |
| | corn.drive BS/K3 sz 2+ 1RS | TEUL2420- ... | | | 1201 – 3000 | | | 1 |
| 12 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | | 1 |
| 13 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | | 1 |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | | 1 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | | 1 |
| 14 | tilt lock bear. S-ES FH TBT | Ref. PDB, FRKB | | | | | | |
| 15 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| | | | | on request | | | | |
| 16 | tilt restrictor .. | TFKB0010- ... | 1 | | 260 – 800 | | | |
| 17 | mishandling device | TFBS0010- ... | 1 | | | | | |
| 18 | pressure piece | Ref. PDB, TFFD | 1 | | | | | |
| 19 | stop | Ref. PDB, FRZF01 | 1 | | | | | |
| 20 | snapper switchable rh. | TFST0011- ... | 1 | | 1601 – 3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1601 – 3000 | | | |
| 21 | frame part snapper | Ref. PDB, TRST | 1 | | 1601 – 3000 | | | |

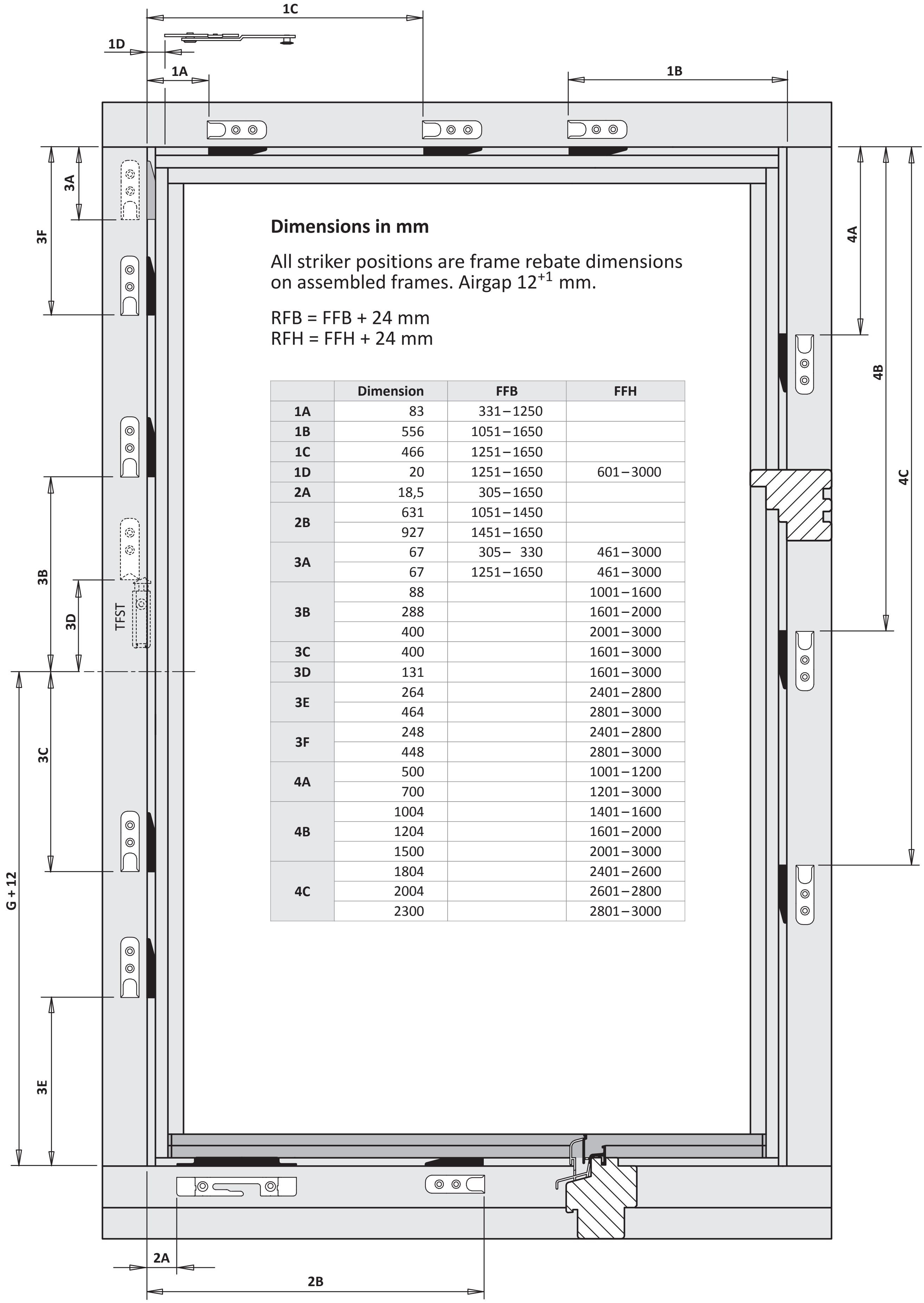
**Hinge side turning points**

| Pos. | Description | Part number: surface TS | RAL9016 | RAL8022 | required as per sash weight: 150 kg |
|---|---|---|---|---|---|
| 22 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 23 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 24 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 25 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 26 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 27 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 28 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 29 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 30 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 31 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

# Frame dimensions

1-sash square tilt before turn (TBT)
H12 GM Hinge side TITAN






**Dimensions in mm**

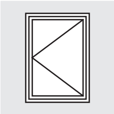
All striker positions are frame rebate dimensions on assembled frames. Airgap $12^{+1}$ mm.

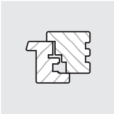
RFB = FFB + 24 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 331 – 1250 | |
| 1B | 556 | 1051 – 1650 | |
| 1C | 466 | 1251 – 1650 | |
| 1D | 20 | 1251 – 1650 | 601 – 3000 |
| 2A | 18,5 | 305 – 1650 | |
| 2B | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 3A | 67 | 305 – 330 | 461 – 3000 |
| | 67 | 1251 – 1650 | 461 – 3000 |
| 3B | 88 | | 1001 – 1600 |
| | 288 | | 1601 – 2000 |
| | 400 | | 2001 – 3000 |
| 3C | 400 | | 1601 – 3000 |
| 3D | 131 | | 1601 – 3000 |
| 3E | 264 | | 2401 – 2800 |
| | 464 | | 2801 – 3000 |
| 3F | 248 | | 2401 – 2800 |
| | 448 | | 2801 – 3000 |
| 4A | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4B | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4C | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

# TITAN AF

## Installation instructions





GS

1-sash square turn

timber 12 mm

basic security

centre handle pos. (variable)

Hinge side TITAN

surface TS

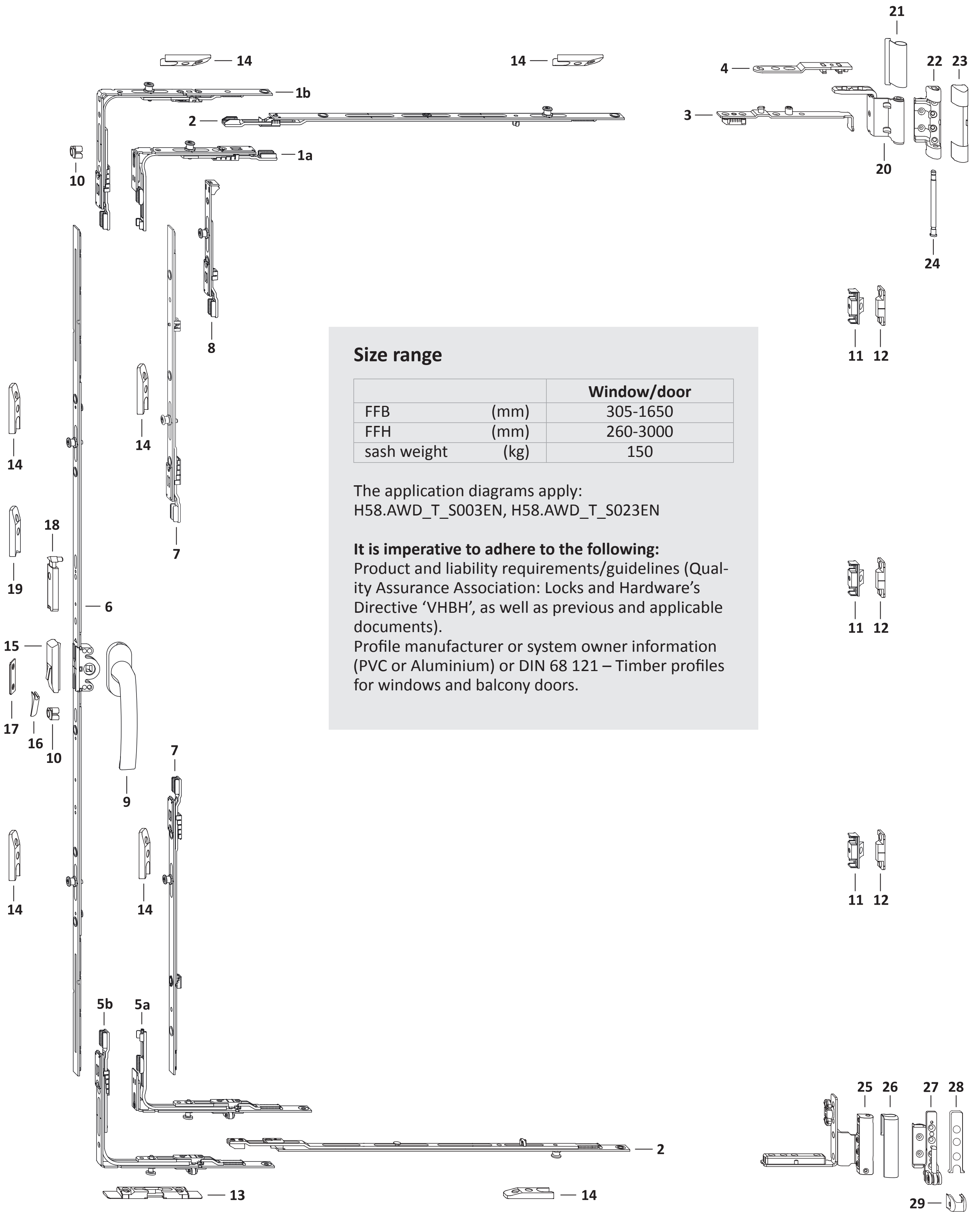
backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | two-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side turning points** | Standard HZ12 |

## hardware layout

1-sash square turn
H12 GM Hinge side TITAN






### Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 305-1650 |
| FFH | (mm) | 260-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 13 | 14 |
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 371 – 850 | 260 – 460 | | | 1 |
| 1b | corn.drive VSO/K+ DF 1RS | TEUL4110- ... | 1 | 371 – 1650 | 461 – 3000 | | | 1 |
| 2 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 2 | 1051 – 1450 | | | | 2 |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 2 |
| 3 | stay sash part DF/MN | TSSD0020- ... | 1 | 305 – 1650 | | | | |
| 4 | stay arm DF | TSAD0010- ... | 1 | 305 – 1650 | | | | |
| 5a | corn.drive AF VSU/K+ nar.FH 1S | TEUL5090- ... | 1 | 371 – 850 | 260 – 460 | | 1 | |
| 5b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 305 – 1650 | 461 – 3000 | | 1 | |
| 6 | gear 15 AF sz 20 | TGMK4010- ... | 1 | 371 – 850 | 260 – 460 | 130 – 230 | | |
| | gear 15 AF sz 20 | TGMK4010- ... | | | 461 – 600 | 230 – 300 | | |
| | gear 15 AF sz 60 | TGMK4020- ... | | | 601 – 1000 | 300 – 500 | | |
| | gear 15 AF sz 80 1RS | TGMK4040- ... | | | 1001 – 1200 | 500 – 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 2RS | TGMK4080- ... | | | 2001 – 3000 | 1000 – 1500 | | 2 |
| 7 | linkage KK/AF sz 1 1RS | TZKK1010- ... | 2 | | 2401 – 2800 | | | 2 |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | 2 |
| 8 | locking bolt AF VS 180° 1RS | TESC2020- ... | 1 | 305 – 370 | 461 – 3000 | | | 1 |
| 9 | handle Globe | Ref.access. ZHGS | 1 | | 260 – 3000 | | | |
| 10 | travel restrictor | TFHB0010- ... | 1 | | 260 – 3000 | | | |
| 11 | sash part MV | Ref. PDB, ZFMV01 | 1 | | 1001 – 1600 | | | |
| | sash part MV | Ref. PDB, ZFMV01 | 2 | | 1601 – 2400 | | | |
| | sash part MV | Ref. PDB, ZFMV01 | 3 | | 2401 – 3000 | | | |
| 12 | frame part MV | Ref. PDB, ZRZM01 | 1 | | 1001 – 1600 | | | |
| | frame part MV | Ref. PDB, ZRZM01 | 2 | | 1601 – 2400 | | | |
| | frame part MV | Ref. PDB, ZRZM01 | 3 | | 2401 – 3000 | | | |
| 13 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | |
| 14 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| **on request** | | | | | | | | |
| 15 | mishandling device | TFBS0010- ... | 1 | | | | | |
| 16 | pressure piece | Ref. PDB, TFFD | 1 | | | | | |
| 17 | stop | Ref. PDB, FRZF01 | 1 | | | | | |
| 18 | snapper switchable rh. | TFST0011- ... | 1 | | 1601 – 3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1601 – 3000 | | | |
| 19 | frame part snapper | Ref. PDB, TRST | 1 | | 1601 – 3000 | | | |

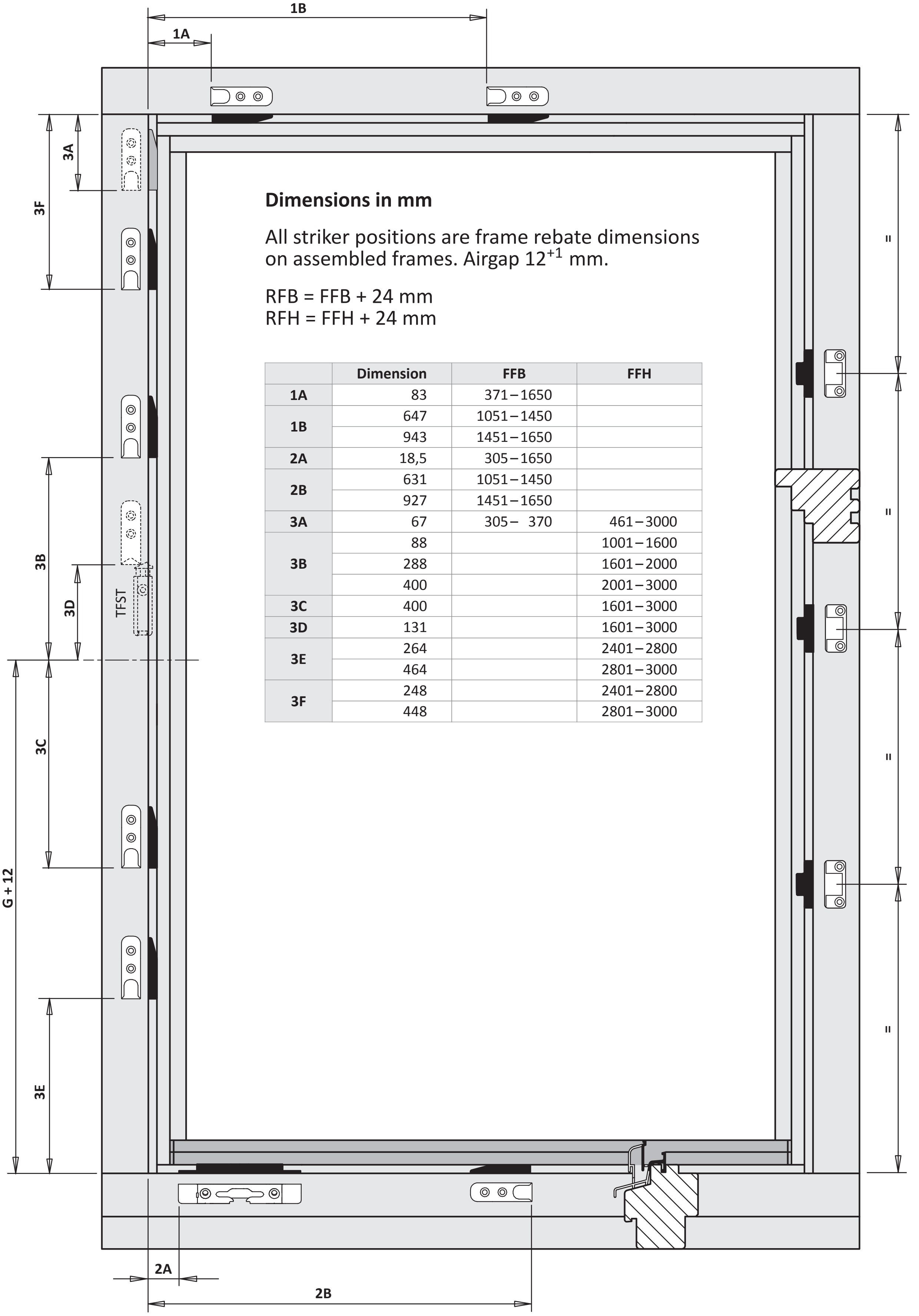
**Hinge side turning points**

| Pos. | Description | Part number | | | required as per sash weight |
|---|---|---|---|---|---|
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 20 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 21 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 22 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 23 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 24 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 25 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 26 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 27 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 28 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 29 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

# Frame dimensions

1-sash square turn
H12 GM Hinge side TITAN






**Dimensions in mm**

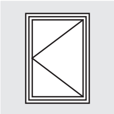
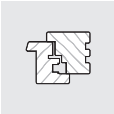
All striker positions are frame rebate dimensions on assembled frames. Airgap $12^{+1}$ mm.

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

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 371 – 1650 | |
| 1B | 647 | 1051 – 1450 | |
| | 943 | 1451 – 1650 | |
| 2A | 18,5 | 305 – 1650 | |
| 2B | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 3A | 67 | 305 – 370 | 461 – 3000 |
| 3B | 88 | | 1001 – 1600 |
| | 288 | | 1601 – 2000 |
| | 400 | | 2001 – 3000 |
| 3C | 400 | | 1601 – 3000 |
| 3D | 131 | | 1601 – 3000 |
| 3E | 264 | | 2401 – 2800 |
| | 464 | | 2801 – 3000 |
| 3F | 248 | | 2401 – 2800 |
| | 448 | | 2801 – 3000 |

# TITAN AF

## Installation instructions

GS

1-sash square turn

timber 12 mm

basic security

centre handle pos. (variable)

Hinge side TITAN

surface TS

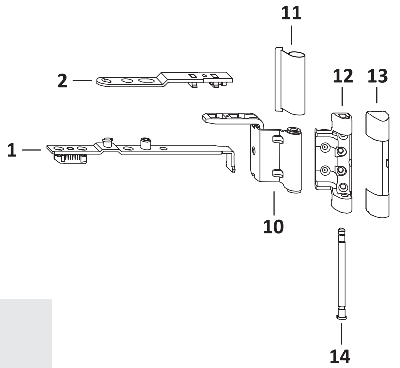
backset 15 mm

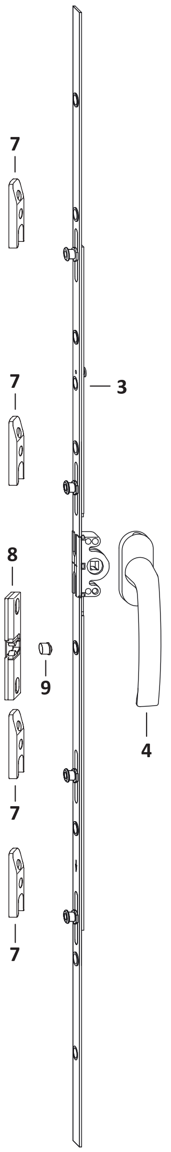
| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000; gear DF |
| **Stay side** | two-piece stay |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout

1-sash square turn
H12 GM Hinge side TITAN





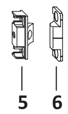


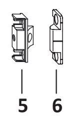
## Size range

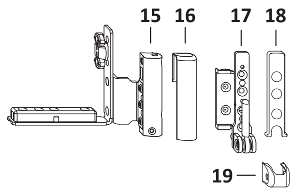
| | | Window/door |
|---|---|---|
| FFB | (mm) | 200-1000 |
| FFH | (mm) | 290-2400 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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.



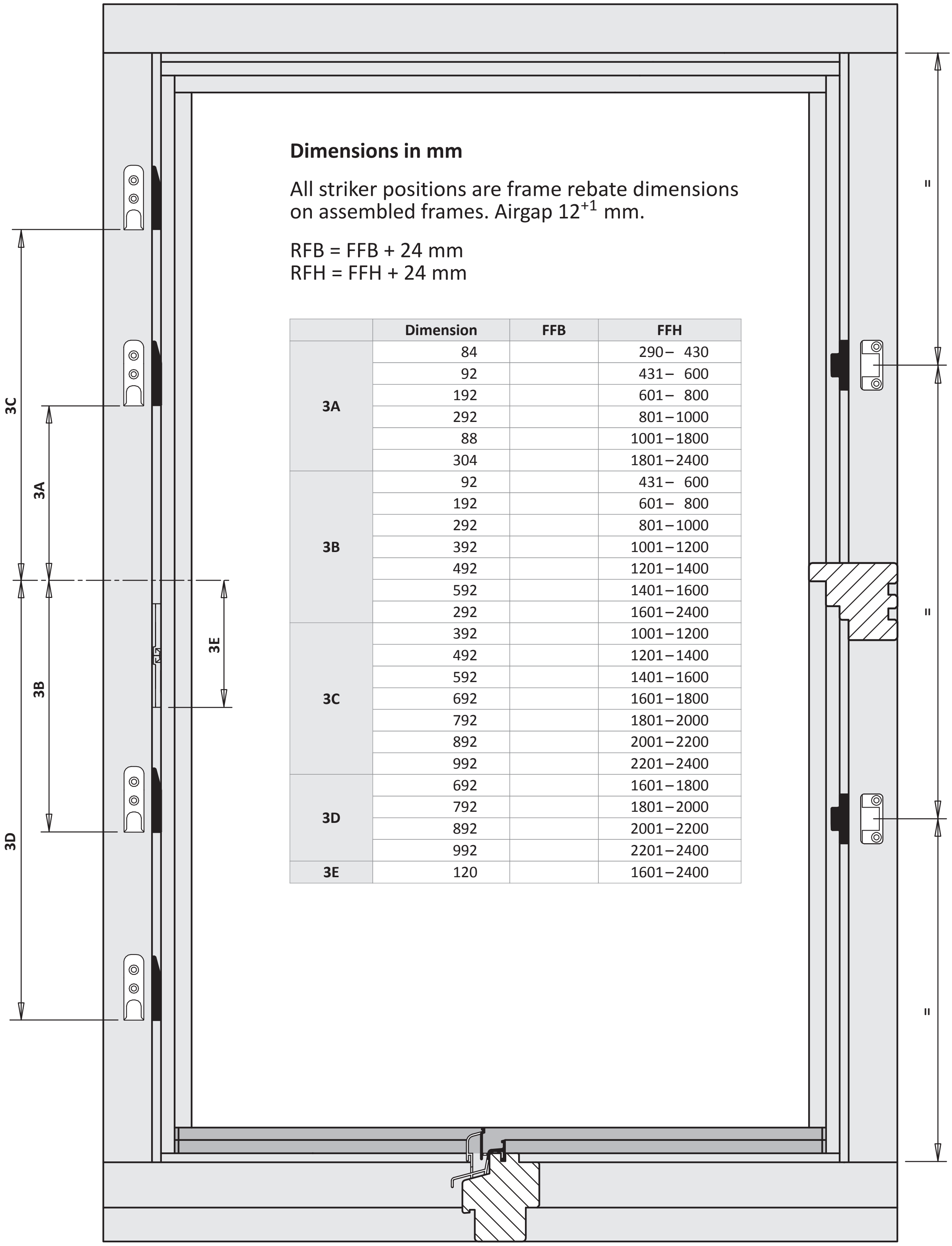




| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. 7 |
|---|---|---|---|---|---|---|---|
| 1 | stay sash part DF/MN | TSSD0020- ... | 1 | 200 – 1000 | | | |
| 2 | stay arm DF | TSAD0010- ... | 1 | 200 – 1000 | | | |
| 3 | gear 15 AF/DF sz 20 1RS | TGMD3010- ... | 1 | | 290 – 430 | 145 – 215 | 1 |
| | gear 15 AF/DF sz 40 2RS | TGMD3020- ... | | | 431 – 600 | 215 – 300 | 2 |
| | gear 15 AF/DF sz 60 2RS | TGMD3030- ... | | | 601 – 800 | 300 – 400 | 2 |
| | gear 15 AF/DF sz 80 2RS | TGMD3040- ... | | | 801 – 1000 | 400 – 500 | 2 |
| | gear 15 AF/DF sz 100 3RS | TGMD3050- ... | | | 1001 – 1200 | 500 – 600 | 3 |
| | gear 15 AF/DF sz 120 3RS | TGMD3060- ... | | | 1201 – 1400 | 600 – 700 | 3 |
| | gear 15 AF/DF sz 140 3RS | TGMD3070- ... | | | 1401 – 1600 | 700 – 800 | 3 |
| | gear 15 AF/DF sz 160 4RS | TGMD3080- ... | | | 1601 – 1800 | 800 – 900 | 4 |
| | gear 15 AF/DF sz 180 4RS | TGMD3090- ... | | | 1801 – 2000 | 900 – 1000 | 4 |
| | gear 15 AF/DF sz 200 4RS | TGMD3100- ... | | | 2001 – 2200 | 1000 – 1100 | 4 |
| | gear 15 AF/DF sz 220 4RS | TGMD3110- ... | | | 2201 – 2400 | 1100 – 1200 | 4 |
| 4 | handle Globe | Ref.access. ZHGS | 1 | | 290 – 2400 | | |
| 5 | sash part MV | Ref. PDB, ZFMV01 | 1 | | 1001 – 1600 | | |
| | sash part MV | Ref. PDB, ZFMV01 | 2 | | 1601 – 2400 | | |
| 6 | frame part MV | Ref. PDB, ZRZM01 | 1 | | 1001 – 1600 | | |
| | frame part MV | Ref. PDB, ZRZM01 | 2 | | 1601 – 2400 | | |
| 7 | striker plate 56 | Ref. PDB, FRSB | | | | | |
| **on request** | | | | | | | |
| 8 | snapper | Ref. PDB, FRZB | 1 | | 1801 – 2400 | | |
| 9 | sleeve | Ref. PDB, FFHU | 1 | | 1801 – 2400 | | |

| **Hinge side turning points** | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 10 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 11 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 12 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 13 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 14 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 15 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 16 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 17 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 18 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 19 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

3




**Dimensions in mm**

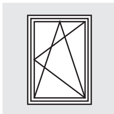
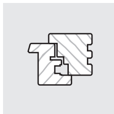
All striker positions are frame rebate dimensions on assembled frames. Airgap $12^{+1}$ mm.

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

| | Dimension | FFB | FFH |
|---|---|---|---|
| 3A | 84 | | 290 – 430 |
| | 92 | | 431 – 600 |
| | 192 | | 601 – 800 |
| | 292 | | 801 – 1000 |
| | 88 | | 1001 – 1800 |
| | 304 | | 1801 – 2400 |
| 3B | 92 | | 431 – 600 |
| | 192 | | 601 – 800 |
| | 292 | | 801 – 1000 |
| | 392 | | 1001 – 1200 |
| | 492 | | 1201 – 1400 |
| | 592 | | 1401 – 1600 |
| | 292 | | 1601 – 2400 |
| 3C | 392 | | 1001 – 1200 |
| | 492 | | 1201 – 1400 |
| | 592 | | 1401 – 1600 |
| | 692 | | 1601 – 1800 |
| | 792 | | 1801 – 2000 |
| | 892 | | 2001 – 2200 |
| | 992 | | 2201 – 2400 |
| 3D | 692 | | 1601 – 1800 |
| | 792 | | 1801 – 2000 |
| | 892 | | 2001 – 2200 |
| | 992 | | 2201 – 2400 |
| 3E | 120 | | 1601 – 2400 |

# TITAN AF

## Installation instructions

**GS**

1-sash square tilt-turn

timber 12 mm

basic security

centre handle pos. (variable)

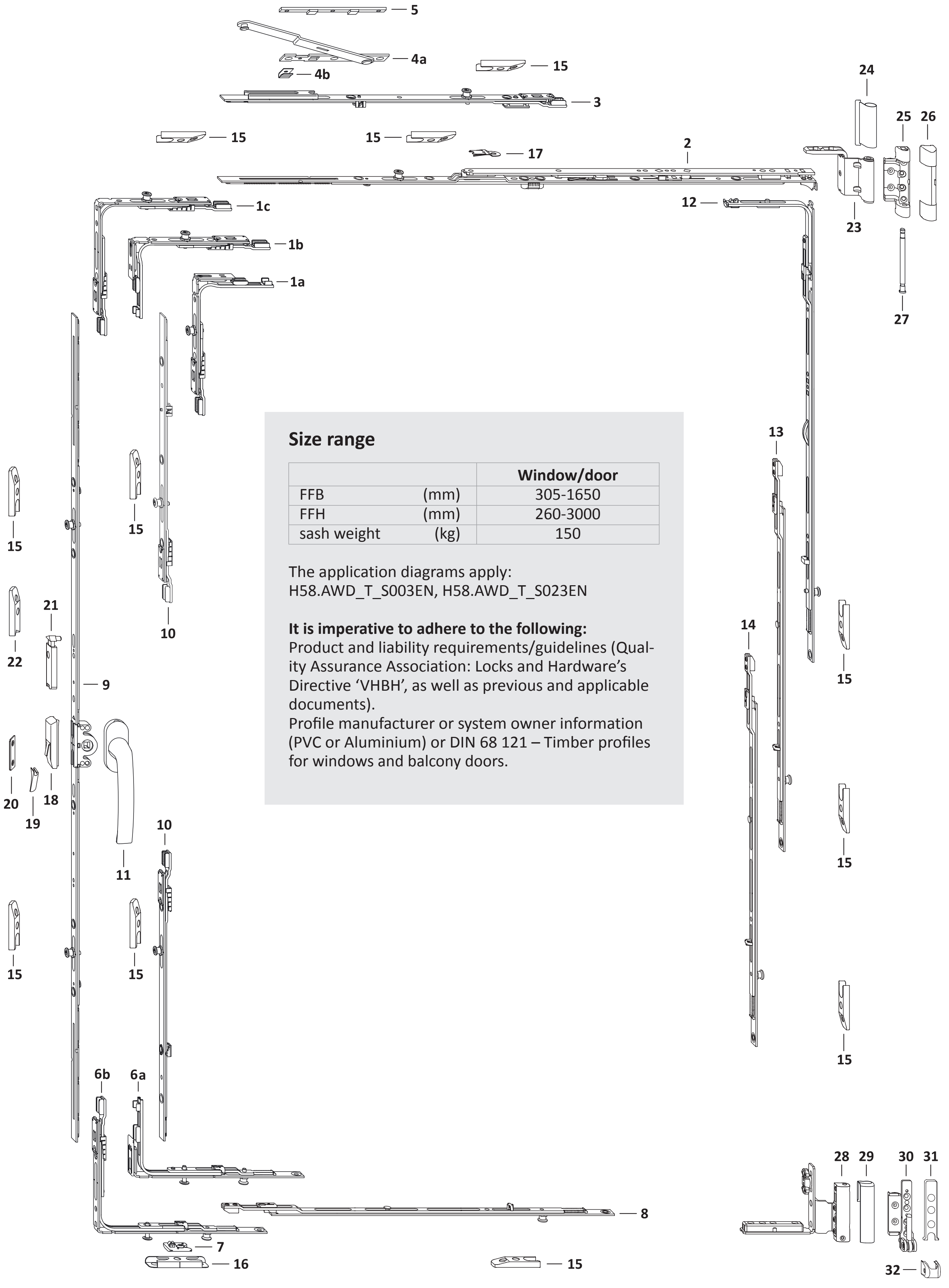
Hinge side TITAN

surface TS

backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | double cam SB R-RS |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 1RS |
| **Hinge side turning points** | Standard HZ12 |

3




## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 305-1650 |
| FFH | (mm) | 260-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 15 | 16 |
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 305 – 330 | 461 – 3000 | | 1 | |
| 1b | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 331 – 850 | 260 – 460 | | 1 | |
| 1c | corn.drive VSO 1RS | TEUL4010- ... | 1 | 331 – 1650 | 461 – 3000 | | 1 | |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 305 – 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | 1 | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | 1 | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | 1 | |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | |
| 6a | corn.drive AFVSU/K56+nar.1S1RS | TEUL5100- ... | 1 | 331 – 850 | 260 – 460 | | | 1 |
| 6b | corn.drive AF VSU/K 56+ 1S 1RS | TEUL5030- ... | 1 | 305 – 1650 | 461 – 3000 | | | 1 |
| 7 | run up block AF 13 mm 13 | TFFH0080- ... | 1 | 305 – 1650 | | | | |
| 8 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | 1 | |
| 9 | gear 15 AF sz 20 | TGMK4010- ... | 1 | 331 – 850 | 260 – 460 | 130 – 230 | | |
| | gear 15 AF sz 20 | TGMK4010- ... | | | 461 – 600 | 230 – 300 | | |
| | gear 15 AF sz 60 | TGMK4020- ... | | | 601 – 1000 | 300 – 500 | | |
| | gear 15 AF sz 80 1RS | TGMK4040- ... | | | 1001 – 1200 | 500 – 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 2RS | TGMK4080- ... | | | 2001 – 3000 | 1000 – 1500 | 2 | |
| 10 | linkage KK/AF sz 1 1RS | TZKK1010- ... | 2 | | 2401 – 2800 | | 2 | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | 2 | |
| 11 | handle Globe | Ref.access. ZHGS | 1 | | 260 – 3000 | | | |
| 12 | corn.drive BS/K3 sz 1+ 1RS | TEUL2410- ... | 1 | | 1001 – 1200 | | 1 | |
| | corn.drive BS/K3 sz 2+ 1RS | TEUL2420- ... | | | 1201 – 3000 | | 1 | |
| 13 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | 1 | |
| 14 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | 1 | |
| 15 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| 16 | striker plate S-RS | Ref. PDB, TRSK | | | | | | |
| | | | on request | | | | | |
| 17 | tilt restrictor .. | TFKB0010- ... | 1 | | 260 – 800 | | | |
| 18 | mishandling device | TFBS0010- ... | 1 | | | | | |
| 19 | pressure piece | Ref. PDB, TFFD | 1 | | | | | |
| 20 | stop | Ref. PDB, FRZF01 | 1 | | | | | |
| 21 | snapper switchable rh. | TFST0011- ... | 1 | | 1601 – 3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1601 – 3000 | | | |
| 22 | frame part snapper | Ref. PDB, TRST | 1 | | 1601 – 3000 | | | |

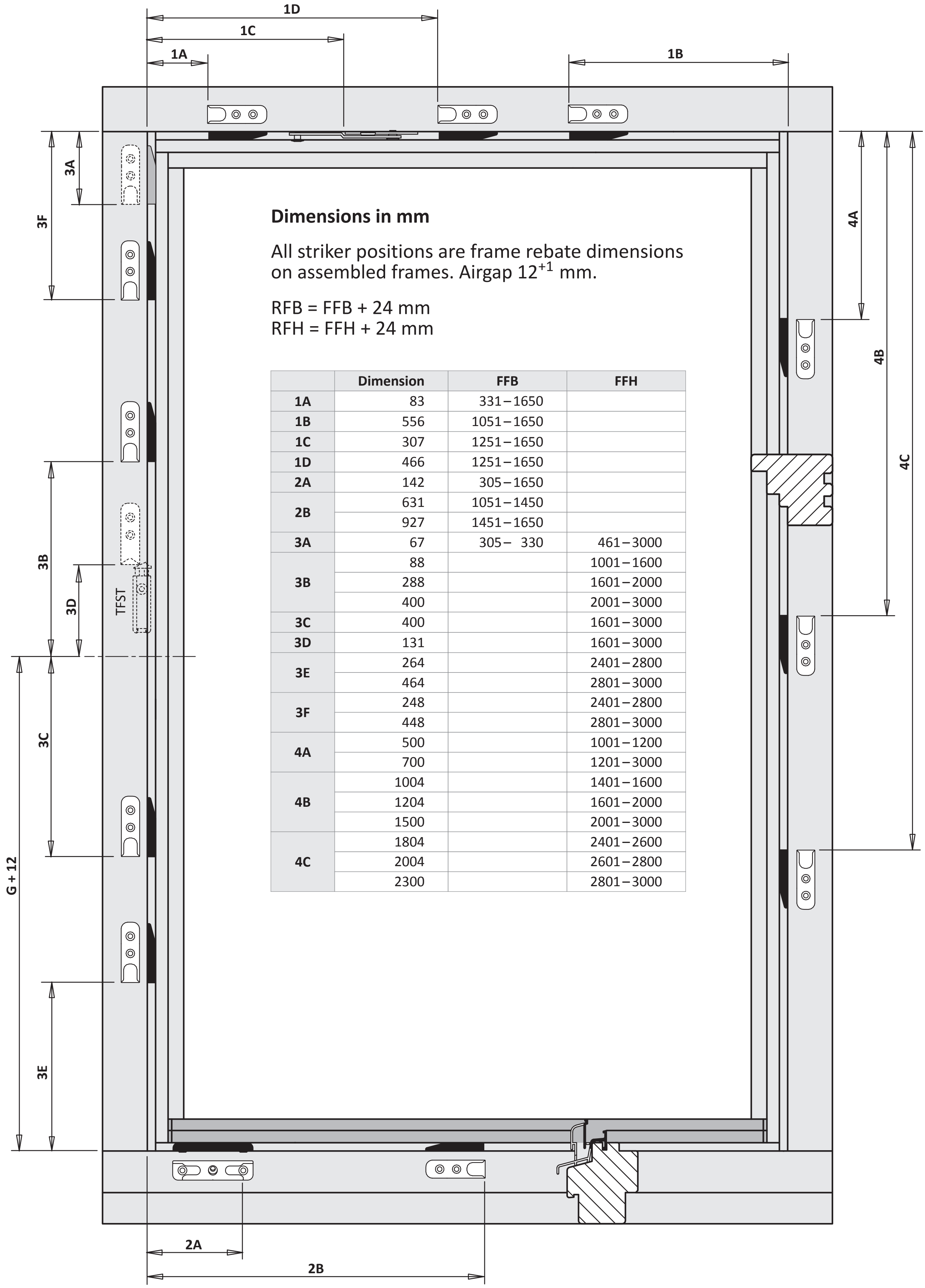
| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 23 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 24 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 25 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 26 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 27 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 28 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 29 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 30 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 31 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 32 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

# Frame dimensions

1-sash square tilt-turn

H12 GM Hinge side TITAN






**Dimensions in mm**

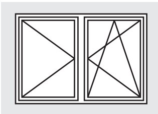
All striker positions are frame rebate dimensions on assembled frames. Airgap $12^{+1}$ mm.

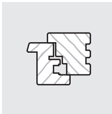
RFB = FFB + 24 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 331 – 1650 | |
| 1B | 556 | 1051 – 1650 | |
| 1C | 307 | 1251 – 1650 | |
| 1D | 466 | 1251 – 1650 | |
| 2A | 142 | 305 – 1650 | |
| 2B | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 3A | 67 | 305 – 330 | 461 – 3000 |
| 3B | 88 | | 1001 – 1600 |
| | 288 | | 1601 – 2000 |
| | 400 | | 2001 – 3000 |
| 3C | 400 | | 1601 – 3000 |
| 3D | 131 | | 1601 – 3000 |
| 3E | 264 | | 2401 – 2800 |
| | 464 | | 2801 – 3000 |
| 3F | 248 | | 2401 – 2800 |
| | 448 | | 2801 – 3000 |
| 4A | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4B | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4C | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

# TITAN AF

## Installation instructions





GS

2-sash square tilt-turn/turn DS 16

timber 12 mm

basic security

centre handle pos. (variable)

Hinge side TITAN

surface TS

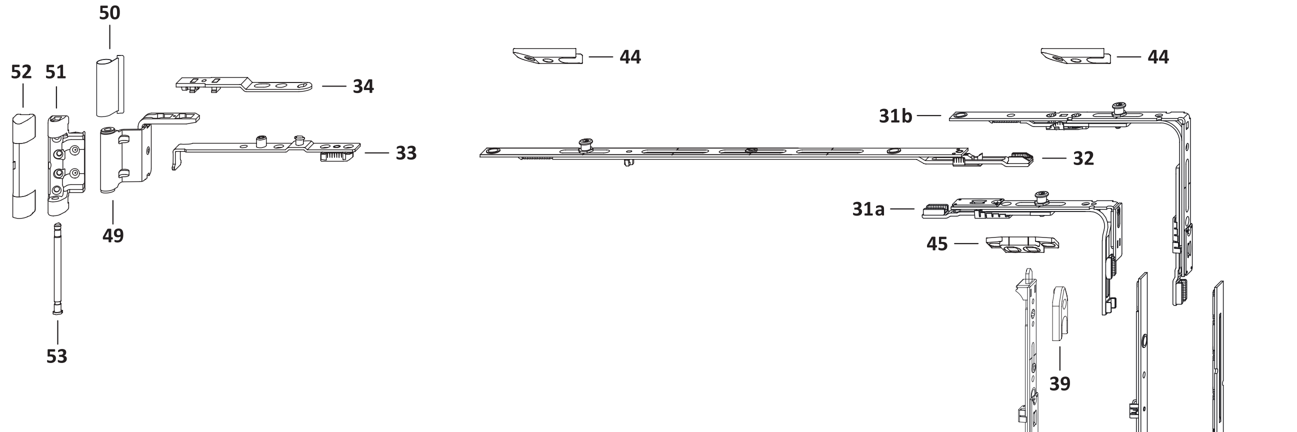
backset 15 mm

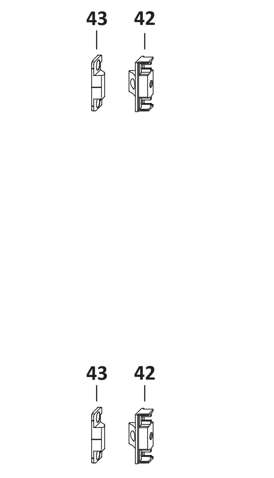
| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | double cam SB R-RS |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 1RS |
| **Hinge side turning points** | Standard HZ12 |

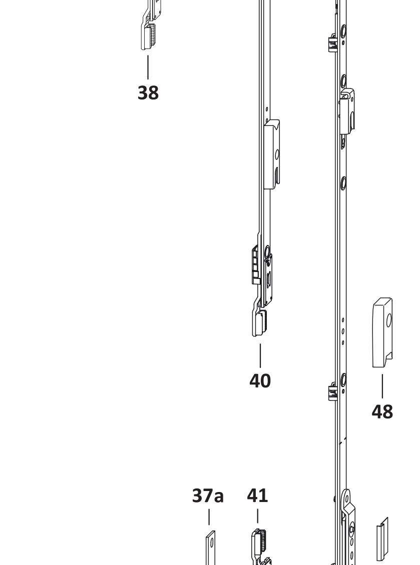
# hardware layout slave sash

2-sash square tilt-turn/turn DS 16
H12 GM Hinge side TITAN







## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 305-1650 |
| FFH | (mm) | 310-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

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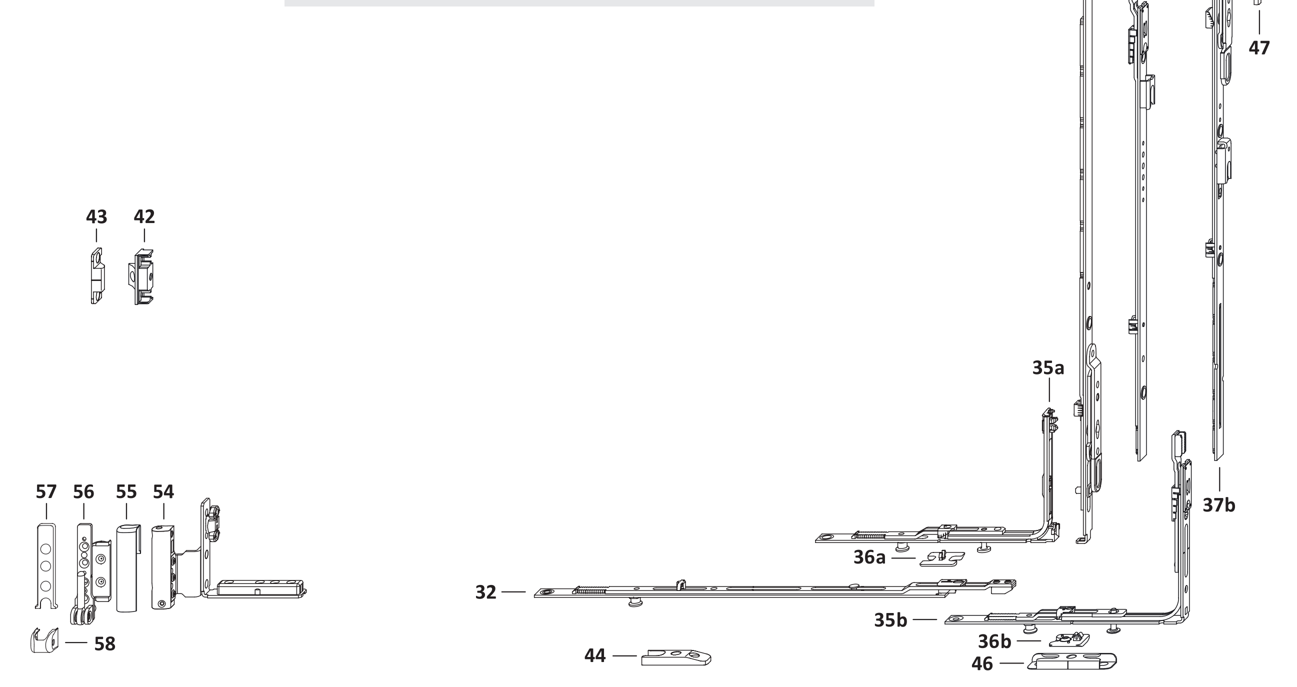
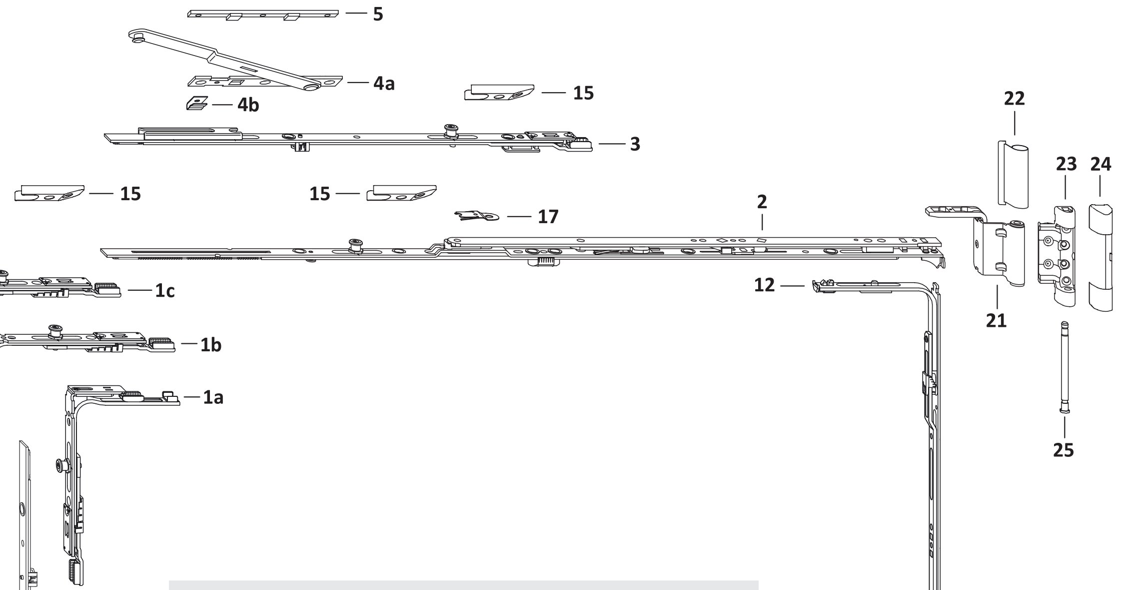
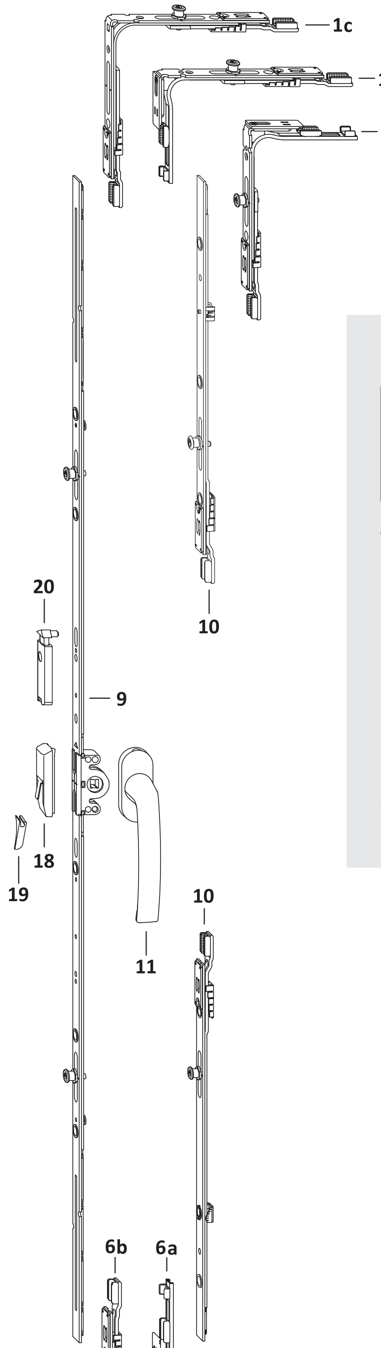
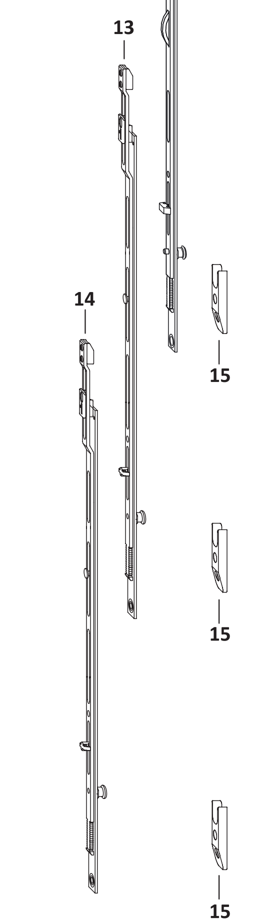
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber profiles for windows and balcony doors.









## Size range

| | Window/door |
|---|---|
| FFB (mm) | 305-1650 |
| FFH (mm) | 310-3000 |
| sash weight (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

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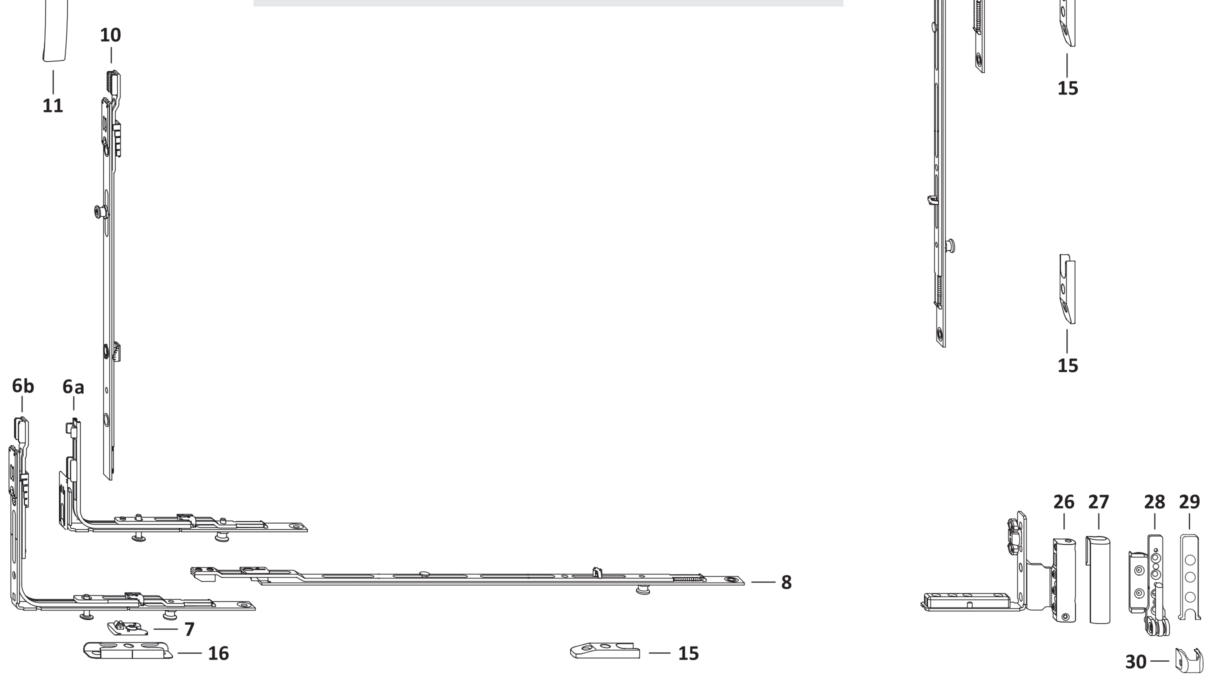
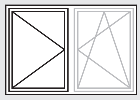
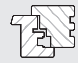
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber profiles for windows and balcony doors.



# List of fittings slave sash

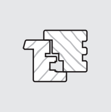
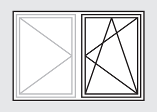
2-sash square tilt-turn/turn DS 16
H12 GM Hinge side TITAN



| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | In the main sash | 44 | 45 | 46 |
| 31a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 371 – 850 | 310 – 460 | | 1 | | |
| 31b | corn.drive VSO/K+ DF 1RS | TEUL4110- ... | 1 | 371 – 1650 | 461 – 3000 | | 1 | | |
| 32 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 2 | 1051 – 1450 | | | 2 | | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | 2 | | |
| 33 | stay sash part DF/MN | TSSD0020- ... | 1 | 305 – 1650 | | | | | |
| 34 | stay arm DF | TSAD0010- ... | 1 | 305 – 1650 | | | | | |
| 35a | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | 1 | 305 – 1650 | 461 – 800 | | | | 1 |
| | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | | 371 – 850 | 310 – 460 | | | | 1 |
| 35b | corn.drive AF VSU/K 56+ 1S 1RS | TEUL5030- ... | 1 | 305 – 1650 | 801 – 3000 | | | | 1 |
| 36a | run-up plate FH KRL56 | Ref. PDB, TRAL01 | 1 | 305 – 1650 | 461 – 800 | | | | |
| | run-up plate FH KRL56 | Ref. PDB, TRAL01 | | 371 – 850 | 310 – 460 | | | | |
| 36b | run up block AF 13 mm 13 | TFFH0080- ... | 1 | 305 – 1650 | 801 – 3000 | | | | |
| 37a | sec.sash gear 16 sz 30 | TGKS0010- ... | 1 | 371 – 850 | 310 – 460 | 155 – 300 | | | |
| | sec.sash gear 16 sz 30 | TGKS0010- ... | | | 461 – 600 | 230 – 300 | | | |
| | sec.sash gear 16 AF 60/G300 | TGKS4030- ... | | | 601 – 800 | 300 – 400 | | | |
| 37b | sec.sash gear 16 AF sz 80 1SB | TGMS4040- ... | 1 | | 801 – 1200 | 400 – 600 | | | |
| | sec.sash gear 16 AF sz 120 1SB | TGMS4050- ... | | | 1201 – 1600 | 600 – 800 | | | |
| | sec.sash gear 16 AF 160 2SB 70 | TGMS4130- ... | | | 1601 – 2000 | 800 – 1000 | | | |
| | sec.sash gear 16 AF sz 200 2SB | TGMS4080- ... | | | 2001 – 3000 | 1000 – 1500 | | | |
| 38 | locking bolt AF VSO RSA 11 | TESC2030- ... | 1 | 305 – 370 | 461 – 3000 | | | 1 | |
| 39 | striker plate A0767 | TRSA0010- ... | 1 | 305 – 330 | 461 – 3000 | | | | |
| 40 | linkage AF sz 1 1SB-RS | TZKS1020- ... | 1 | | 2401 – 2800 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | | |
| 41 | linkage AF sz 1 1SB-VSU | TZKS1060- ... | 1 | | 2401 – 2800 | | | | |
| | linkage AF sz 2 1SB-VSU | TZKS1070- ... | | | 2801 – 3000 | | | | |
| 42 | sash part MV | Ref. PDB, ZFMV01 | 1 | | 1001 – 1600 | | | | |
| | sash part MV | Ref. PDB, ZFMV01 | 2 | | 1601 – 2400 | | | | |
| | sash part MV | Ref. PDB, ZFMV01 | 3 | | 2401 – 3000 | | | | |
| 43 | frame part MV | Ref. PDB, ZRZM01 | 1 | | 1001 – 1600 | | | | |
| | frame part MV | Ref. PDB, ZRZM01 | 2 | | 1601 – 2400 | | | | |
| | frame part MV | Ref. PDB, ZRZM01 | 3 | | 2401 – 3000 | | | | |
| 44 | striker plate 56 | Ref. PDB, FRSB | | | | | | | |
| 45 | striker V | Ref. PDB, FRZV02 | | | | | | | |
| 46 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | |
| **on request** | | | | | | | | | |
| 47 | stop | Ref. PDB, FRZF04 | 1 | | 601 – 3000 | | | | |
| 48 | striker snapper A0767 | TRST0010- ... | 1 | | 1601 – 3000 | | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 49 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 50 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 51 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 52 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 53 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 54 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 55 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 56 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 57 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 58 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |



| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. 15 | 16 |
|---|---|---|---|---|---|---|---|---|
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 305 – 330 | 461 – 3000 | | | |
| 1b | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 371 – 850 | 310 – 460 | | 1 | |
| 1c | corn.drive VSO 1RS | TEUL4010- ... | 1 | 331 – 1650 | 461 – 3000 | | 1 | |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 305 – 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | 1 | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | 1 | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | 1 | |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | |
| 6a | corn.drive AFVSU/K56+nar.1S1RS | TEUL5100- ... | 1 | 371 – 850 | 310 – 460 | | | 1 |
| 6b | corn.drive AF VSU/K 56+ 1S 1RS | TEUL5030- ... | 1 | 305 – 1650 | 461 – 3000 | | | 1 |
| 7 | run up block AF 13 mm 13 | TFFH0080- ... | 1 | 305 – 1650 | | | | |
| 8 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | 1 | |
| 9 | gear 15 AF sz 20 | TGMK4010- ... | 1 | 371 – 850 | 310 – 460 | 155 – 300 | | |
| | gear 15 AF sz 20 | TGMK4010- ... | | | 461 – 600 | 230 – 300 | | |
| | gear 15 AF sz 60 | TGMK4020- ... | | | 601 – 1000 | 300 – 500 | | |
| | gear 15 AF sz 80 1RS | TGMK4040- ... | | | 1001 – 1200 | 500 – 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 2RS | TGMK4080- ... | | | 2001 – 3000 | 1000 – 1500 | | |
| 10 | linkage KK/AF sz 1 1RS | TZKK1010- ... | 2 | | 2401 – 2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | |
| 11 | handle Globe | Ref.access. ZHGS | 1 | | 310 – 3000 | | | |
| 12 | corn.drive BS/K3 sz 1+ 1RS | TEUL2410- ... | 1 | | 1001 – 1200 | | 1 | |
| | corn.drive BS/K3 sz 2+ 1RS | TEUL2420- ... | | | 1201 – 3000 | | 1 | |
| 13 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | 1 | |
| 14 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | 1 | |
| 15 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| 16 | striker plate S-RS | Ref. PDB, TRSK | | | | | | |
| **on request** | | | | | | | | |
| 17 | tilt restrictor .. | TFKB0010- ... | 1 | | 310 – 800 | | | |
| 18 | mishandling device | TFBS0010- ... | 1 | | 601 – 3000 | | | |
| 19 | pressure piece | Ref. PDB, TFFD | 1 | | 601 – 3000 | | | |
| 20 | snapper switchable rh. | TFST0011- ... | 1 | | 1601 – 3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1601 – 3000 | | | |

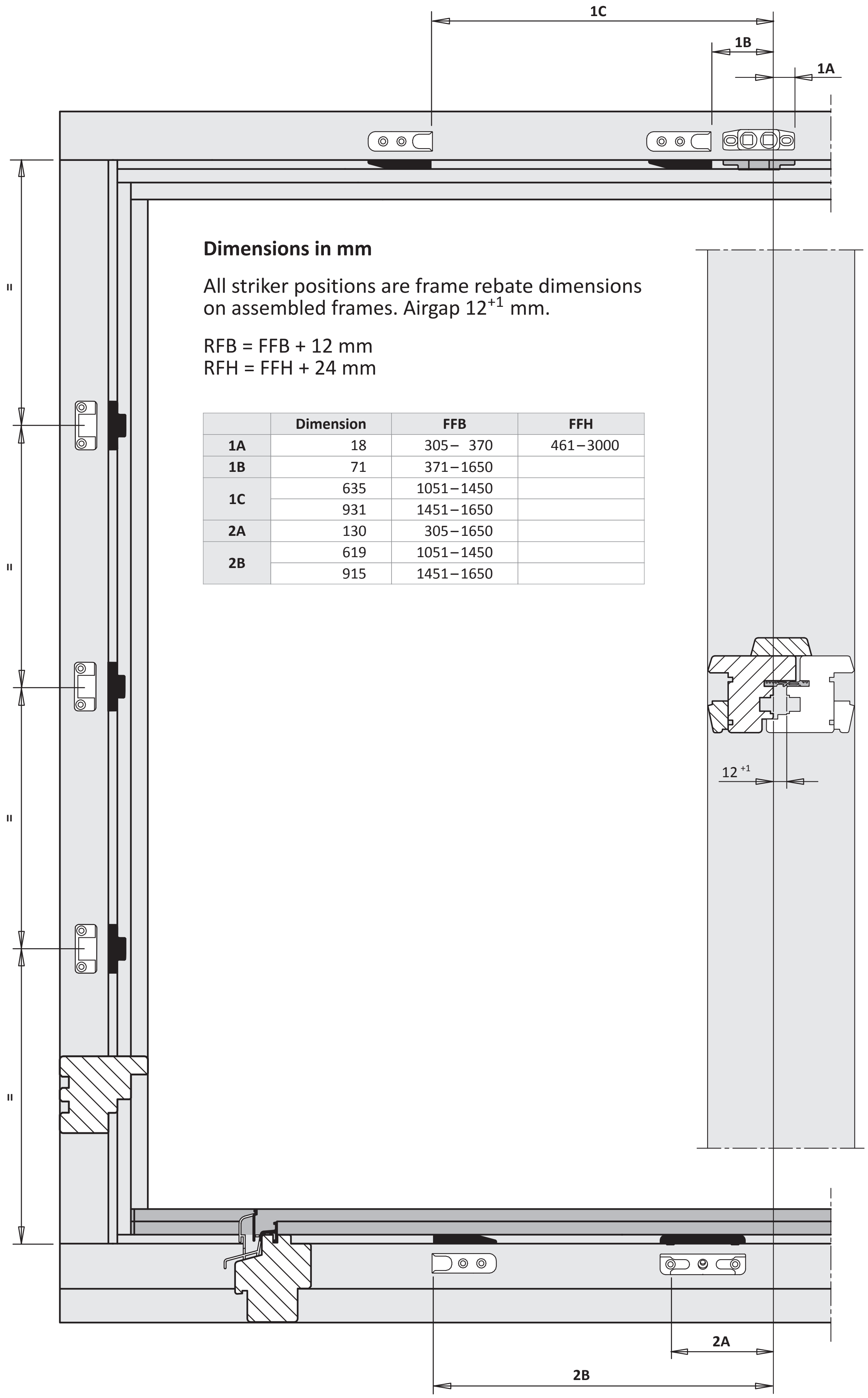
**Hinge side turning points**

| Pos. | Description | Part number surface TS | RAL9016 | RAL8022 | required as per sash weight 150 kg |
|---|---|---|---|---|---|
| 21 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 22 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 23 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 24 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 25 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 26 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 27 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 28 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 29 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 30 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

# Frame dimensions slave sash

2-sash square tilt-turn/turn DS 16
H12 GM Hinge side TITAN



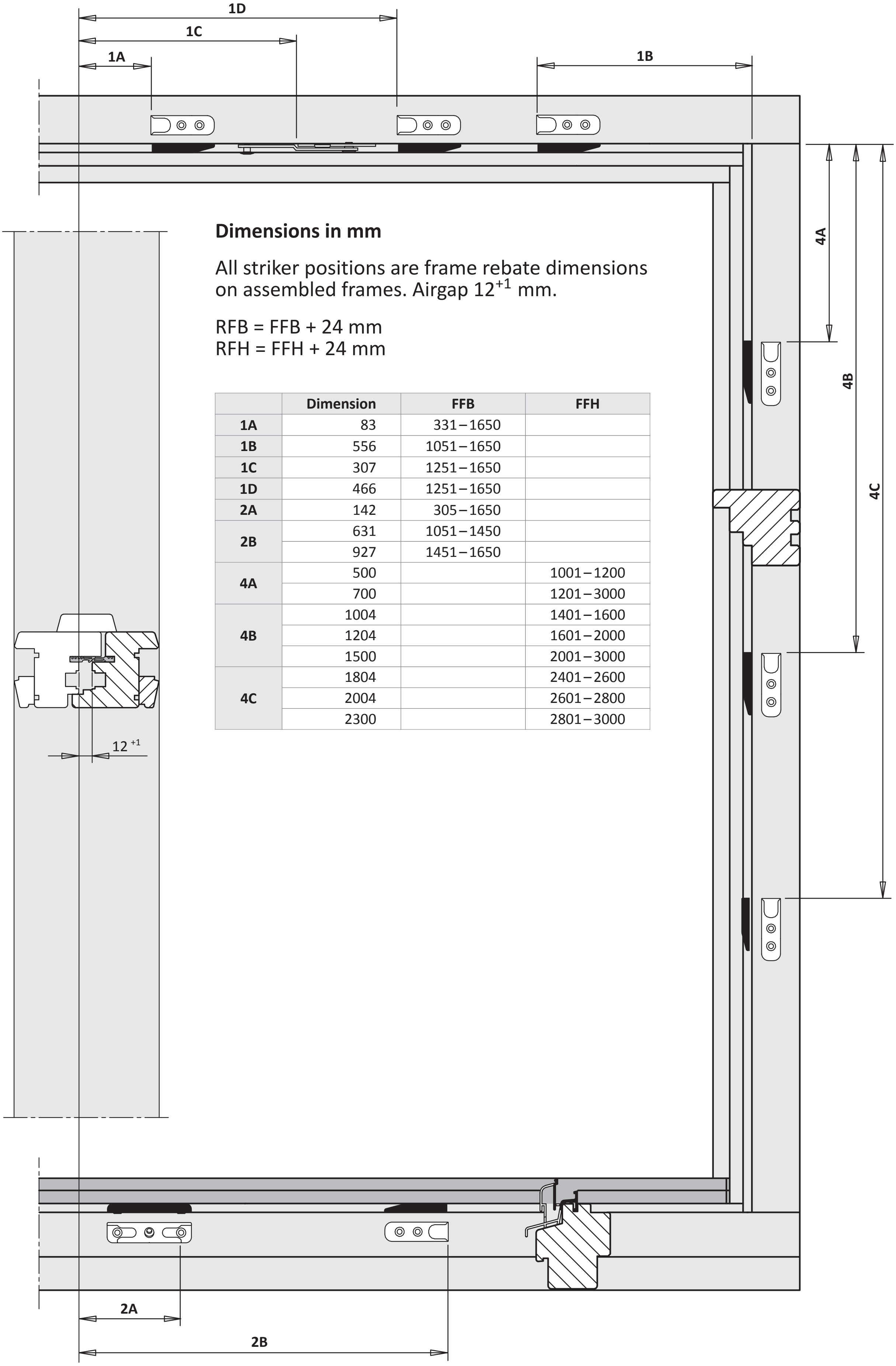



**Dimensions in mm**

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 | 18 | 305 – 370 | 461 – 3000 |
| 1B | 71 | 371 – 1650 | |
| 1C | 635 | 1051 – 1450 | |
| | 931 | 1451 – 1650 | |
| 2A | 130 | 305 – 1650 | |
| 2B | 619 | 1051 – 1450 | |
| | 915 | 1451 – 1650 | |




**Dimensions in mm**

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

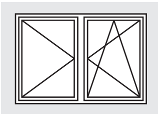
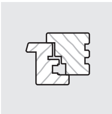
RFB = FFB + 24 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 331 – 1650 | |
| 1B | 556 | 1051 – 1650 | |
| 1C | 307 | 1251 – 1650 | |
| 1D | 466 | 1251 – 1650 | |
| 2A | 142 | 305 – 1650 | |
| 2B | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 4A | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4B | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4C | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

3

# TITAN AF

## Installation instructions

  GS

2-sash square tilt-turn/turn DS 16

timber 12 mm

basic security

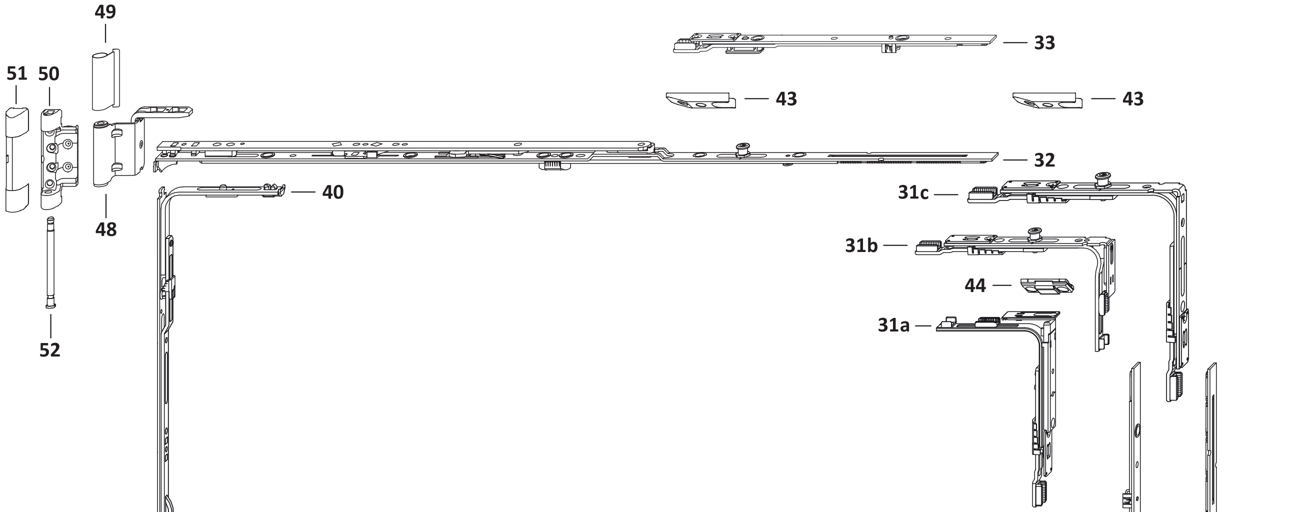
centre handle pos. (variable)

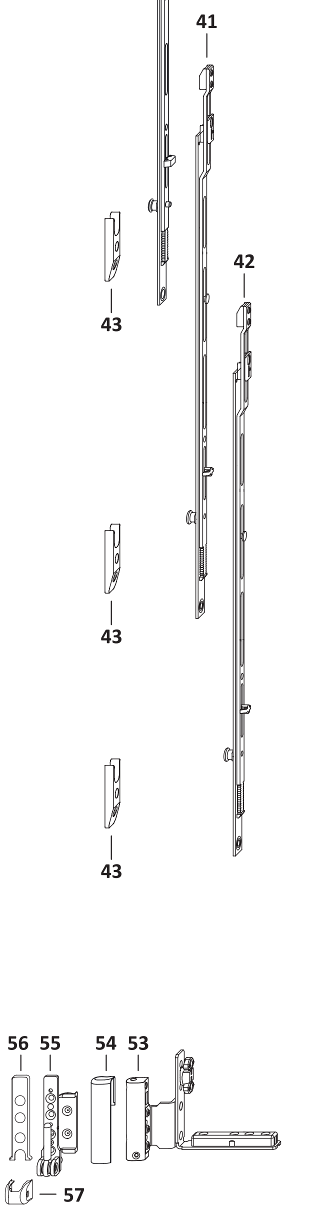
Hinge side TITAN

surface TS

backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000; secondary sash with DK-stay |
| **Stay side** | one-piece stay |
| **Bottom** | double cam SB R-RS |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 1RS |
| **Hinge side turning points** | Standard HZ12 |



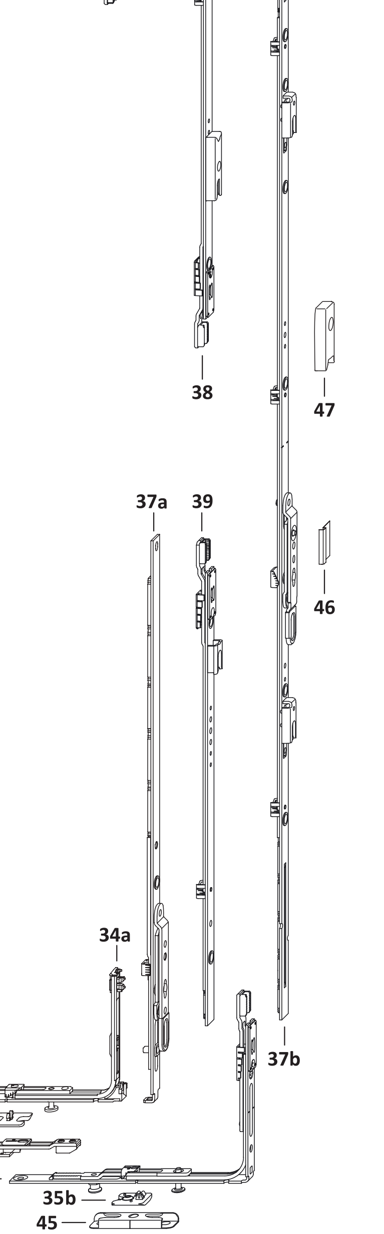



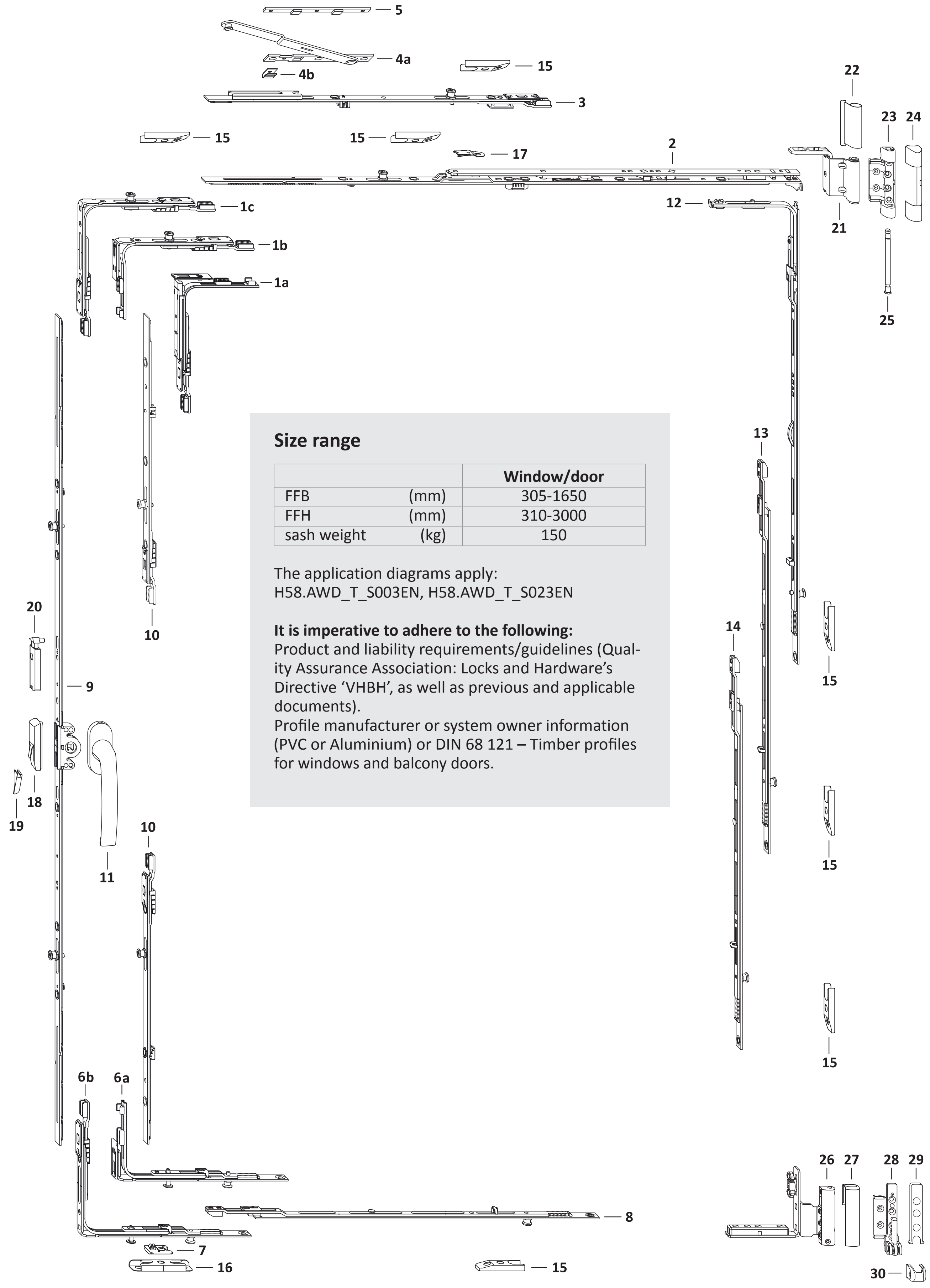

## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 305-1450 |
| FFH | (mm) | 310-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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) | 305-1650 |
| FFH | (mm) | 310-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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.

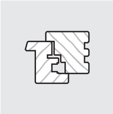
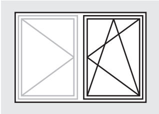
# List of fittings slave sash

2-sash square tilt-turn/turn DS 16
H12 GM Hinge side TITAN



| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | In the main sash | 43 | 44 | 45 |
| 31a | corn.drive VSO narrow RSA/11mm | TEUL4150- ... | 1 | 305 – 330 | 461 – 3000 | | | 1 | |
| 31b | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 331 – 850 | 310 – 460 | | 1 | | |
| 31c | corn.drive VSO 1RS | TEUL4010- ... | 1 | 331 – 1450 | 461 – 3000 | | 1 | | |
| 32 | stay AF sz 0 | TSKK2000- ... | 1 | 305 – 450 | | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1450 | | | 1 | | |
| 33 | linkage AF sz 1 | TZZS0150- ... | 1 | 1251 – 1450 | | | | | |
| 34a | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | 1 | 305 – 1450 | 461 – 800 | | | | 1 |
| | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | | 331 – 850 | 310 – 460 | | | | 1 |
| 34b | corn.drive AF VSU/K 56+ 1S 1RS | TEUL5030- ... | 1 | 305 – 1450 | 801 – 3000 | | | | 1 |
| 35a | run-up plate FH KRL56 | Ref. PDB, TRAL01 | 1 | 305 – 1450 | 461 – 800 | | | | |
| | run-up plate FH KRL56 | Ref. PDB, TRAL01 | | 331 – 850 | 310 – 460 | | | | |
| 35b | run up block AF 13 mm 13 | TFFH0080- ... | 1 | 305 – 1450 | 801 – 3000 | | | | |
| 36 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | 1 | | |
| 37a | sec.sash gear 16 sz 30 | TGKS0010- ... | 1 | 331 – 850 | 310 – 460 | 155 – 300 | | | |
| | sec.sash gear 16 sz 30 | TGKS0010- ... | | | 461 – 600 | 230 – 300 | | | |
| | sec.sash gear 16 AF 60/G300 | TGKS4030- ... | | | 601 – 800 | 300 – 400 | | | |
| 37b | sec.sash gear 16 AF sz 80 1SB | TGMS4040- ... | 1 | | 801 – 1200 | 400 – 600 | | | |
| | sec.sash gear 16 AF sz 120 1SB | TGMS4050- ... | | | 1201 – 1600 | 600 – 800 | | | |
| | sec.sash gear 16 AF 160 2SB 70 | TGMS4130- ... | | | 1601 – 2000 | 800 – 1000 | | | |
| | sec.sash gear 16 AF sz 200 2SB | TGMS4080- ... | | | 2001 – 3000 | 1000 – 1500 | | | |
| 38 | linkage AF sz 1 1SB-RS | TZKS1020- ... | 1 | | 2401 – 2800 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | | |
| 39 | linkage AF sz 1 1SB-VSU | TZKS1060- ... | 1 | | 2401 – 2800 | | | | |
| | linkage AF sz 2 1SB-VSU | TZKS1070- ... | | | 2801 – 3000 | | | | |
| 40 | corn.drive BS/K3 sz 1+ 1RS | TEUL2410- ... | 1 | | 1001 – 1200 | | 1 | | |
| | corn.drive BS/K3 sz 2+ 1RS | TEUL2420- ... | | | 1201 – 3000 | | 1 | | |
| 41 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | 1 | | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | 1 | | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | 1 | | |
| 42 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | 1 | | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | 1 | | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | 1 | | |
| 43 | striker plate 56 | Ref. PDB, FRSB | | | | | | | |
| 44 | short striker V | Ref. PDB, FRZV12 | | | | | | | |
| 45 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | |
| **on request** | | | | | | | | | |
| 46 | stop | Ref. PDB, FRZF04 | 1 | | 601 – 3000 | | | | |
| 47 | striker snapper A0767 | TRST0010- ... | 1 | | 1601 – 3000 | | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 48 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 49 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 50 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 51 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 52 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 53 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 54 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 55 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 56 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 57 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |



| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. 15 | 16 |
|---|---|---|---|---|---|---|---|---|
| 1a | corn.drive VSO narrow RSA/11mm | TEUL4150- ... | 1 | 305 – 330 | 461 – 3000 | | | |
| 1b | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 331 – 850 | 310 – 460 | | 1 | |
| 1c | corn.drive VSO 1RS | TEUL4010- ... | 1 | 331 – 1650 | 461 – 3000 | | 1 | |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 305 – 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | 1 | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | 1 | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | 1 | |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | |
| 6a | corn.drive AFVSU/K56+nar.1S1RS | TEUL5100- ... | 1 | 331 – 850 | 310 – 460 | | | 1 |
| 6b | corn.drive AF VSU/K 56+ 1S 1RS | TEUL5030- ... | 1 | 305 – 1650 | 461 – 3000 | | | 1 |
| 7 | run up block AF 13 mm 13 | TFFH0080- ... | 1 | 305 – 1650 | | | | |
| 8 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | 1 | |
| 9 | gear 15 AF sz 20 | TGMK4010- ... | 1 | 331 – 850 | 310 – 460 | 155 – 300 | | |
| | gear 15 AF sz 20 | TGMK4010- ... | | | 461 – 600 | 230 – 300 | | |
| | gear 15 AF sz 60 | TGMK4020- ... | | | 601 – 1000 | 300 – 500 | | |
| | gear 15 AF sz 80 1RS | TGMK4040- ... | | | 1001 – 1200 | 500 – 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 2RS | TGMK4080- ... | | | 2001 – 3000 | 1000 – 1500 | | |
| 10 | linkage KK/AF sz 1 1RS | TZKK1010- ... | 2 | | 2401 – 2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | |
| 11 | handle Globe | Ref.access. ZHGS | 1 | | 310 – 3000 | | | |
| 12 | corn.drive BS/K3 sz 1+ 1RS | TEUL2410- ... | 1 | | 1001 – 1200 | | 1 | |
| | corn.drive BS/K3 sz 2+ 1RS | TEUL2420- ... | | | 1201 – 3000 | | 1 | |
| 13 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | 1 | |
| 14 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | 1 | |
| 15 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| 16 | striker plate S-RS | Ref. PDB, TRSK | | | | | | |
| | **on request** | | | | | | | |
| 17 | tilt restrictor .. | TFKB0010- ... | 1 | | 310 – 800 | | | |
| 18 | mishandling device | TFBS0010- ... | 1 | | 601 – 3000 | | | |
| 19 | pressure piece | Ref. PDB, TFFD | 1 | | 601 – 3000 | | | |
| 20 | snapper switchable rh. | TFST0011- ... | 1 | | 1601 – 3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1601 – 3000 | | | |

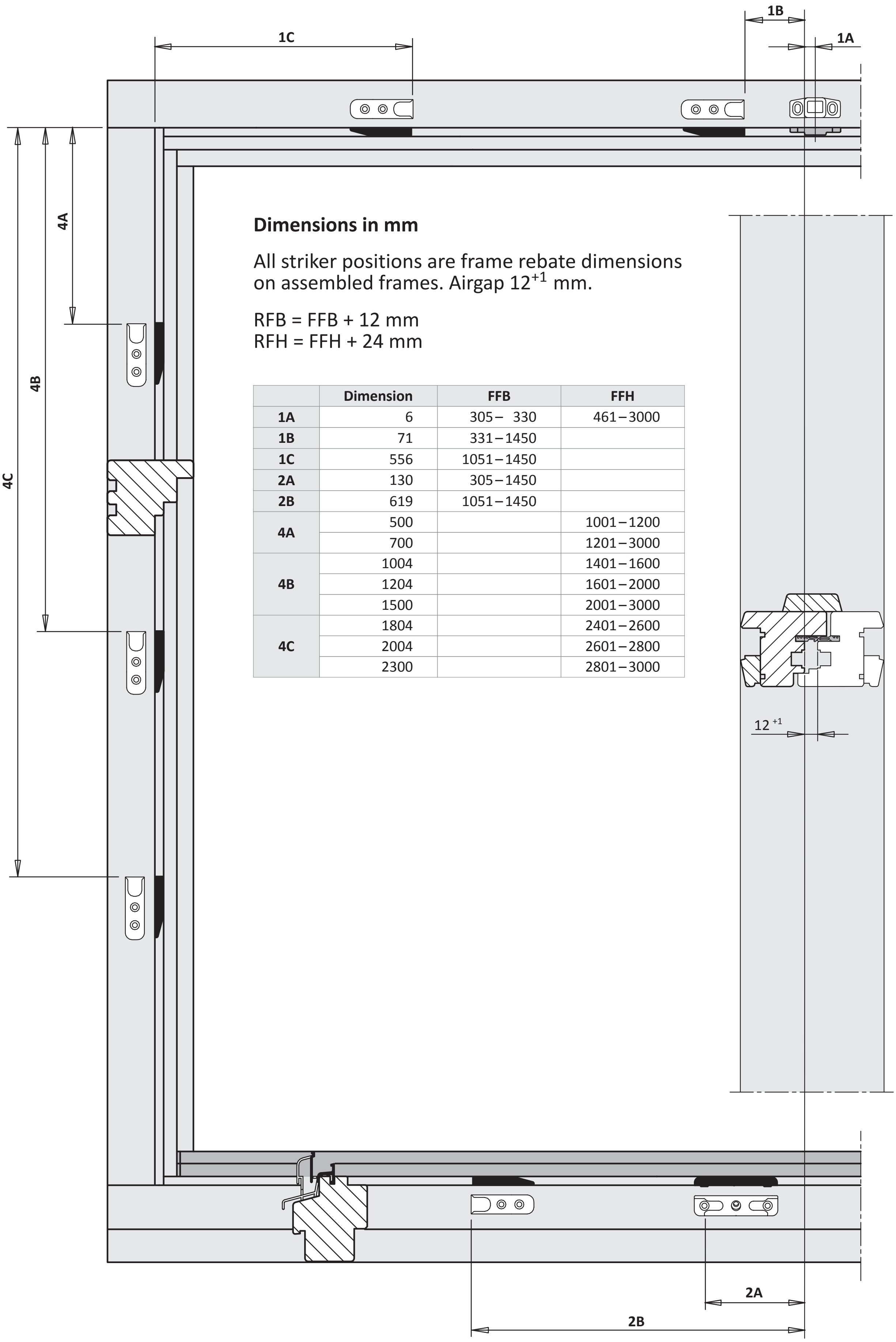
**Hinge side turning points**

| Pos. | Description | Part number surface TS | RAL9016 | RAL8022 | required as per sash weight 150 kg |
|---|---|---|---|---|---|
| 21 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 22 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 23 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 24 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 25 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 26 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 27 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 28 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 29 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 30 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

# Frame dimensions slave sash

2-sash square tilt-turn/turn DS 16
H12 GM Hinge side TITAN



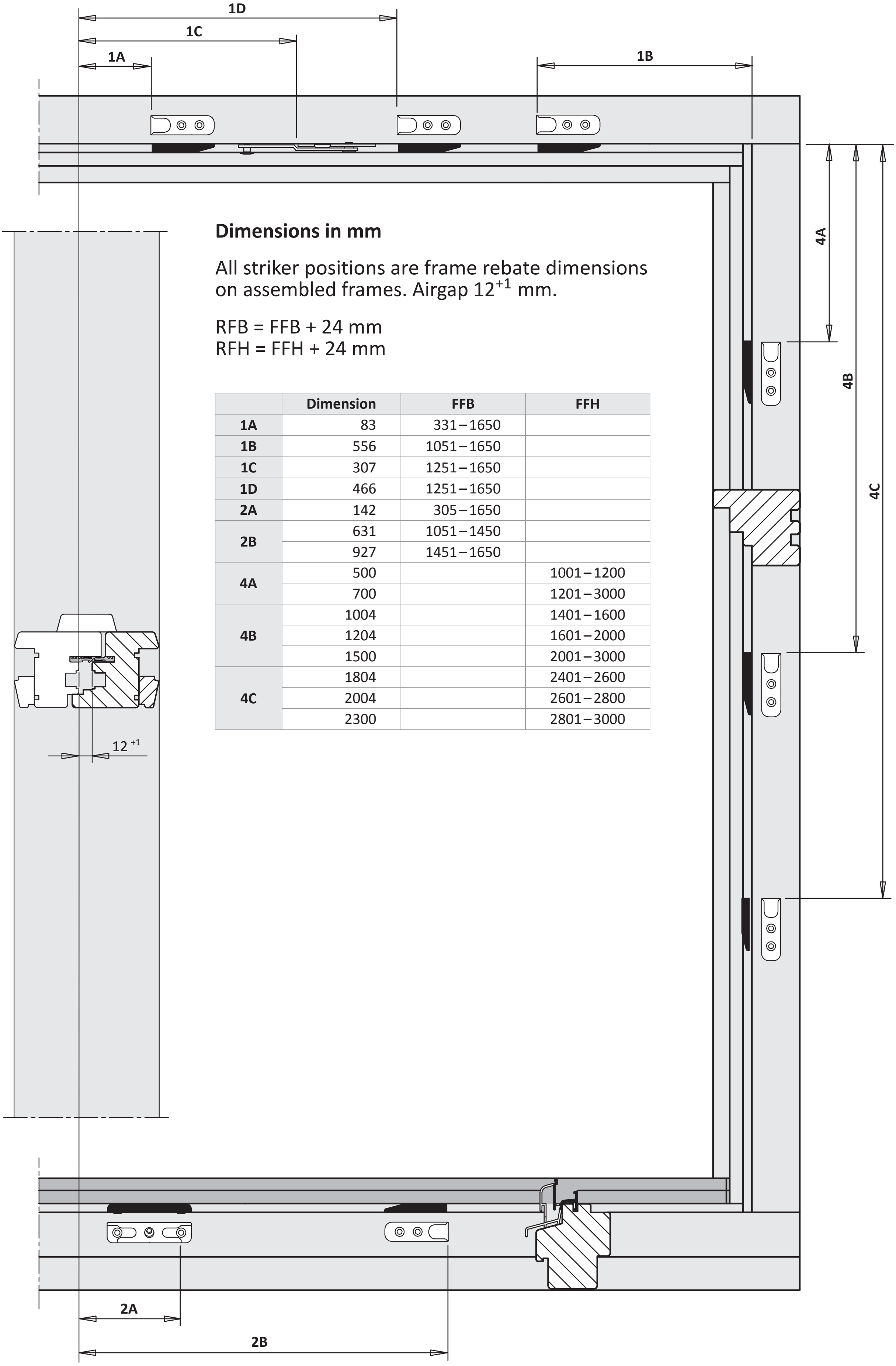



**Dimensions in mm**

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** | 6 | 305 – 330 | 461 – 3000 |
| **1B** | 71 | 331 – 1450 | |
| **1C** | 556 | 1051 – 1450 | |
| **2A** | 130 | 305 – 1450 | |
| **2B** | 619 | 1051 – 1450 | |
| **4A** | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| **4B** | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| **4C** | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |




**Dimensions in mm**

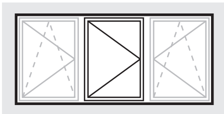
All striker positions are frame rebate dimensions on assembled frames. Airgap $12^{+1}$ mm.

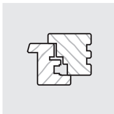
RFB = FFB + 24 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 331 – 1650 | |
| 1B | 556 | 1051 – 1650 | |
| 1C | 307 | 1251 – 1650 | |
| 1D | 466 | 1251 – 1650 | |
| 2A | 142 | 305 – 1650 | |
| 2B | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 4A | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4B | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4C | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

# TITAN AF

## Installation instructions





**GS**

3-sash Centre sash second opening turn

timber 12 mm

basic security

centre handle pos. (variable)

Hinge side TITAN

surface TS

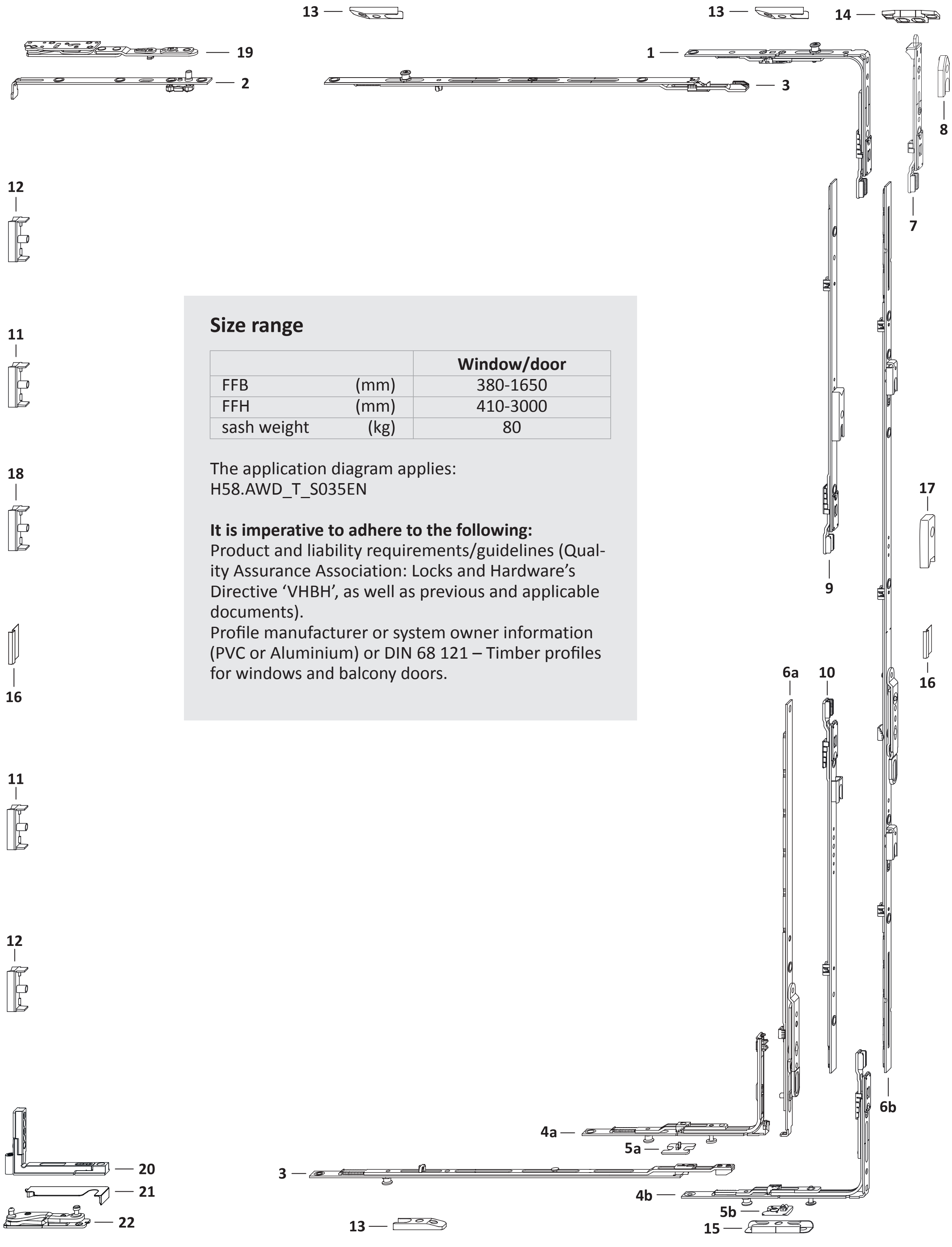
backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | two-piece stay |
| **Bottom** | double cam SB R-RS |
| **Locking side** | mishandl. device on gear |

# hardware layout

3-sash Centre sash second opening turn
H12 GM Hinge side TITAN



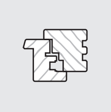
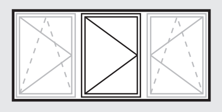



## Size range

| | Window/door |
|---|---|
| FFB (mm) | 380-1650 |
| FFH (mm) | 410-3000 |
| sash weight (kg) | 80 |

The application diagram applies:
H58.AWD_T_S035EN

**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.



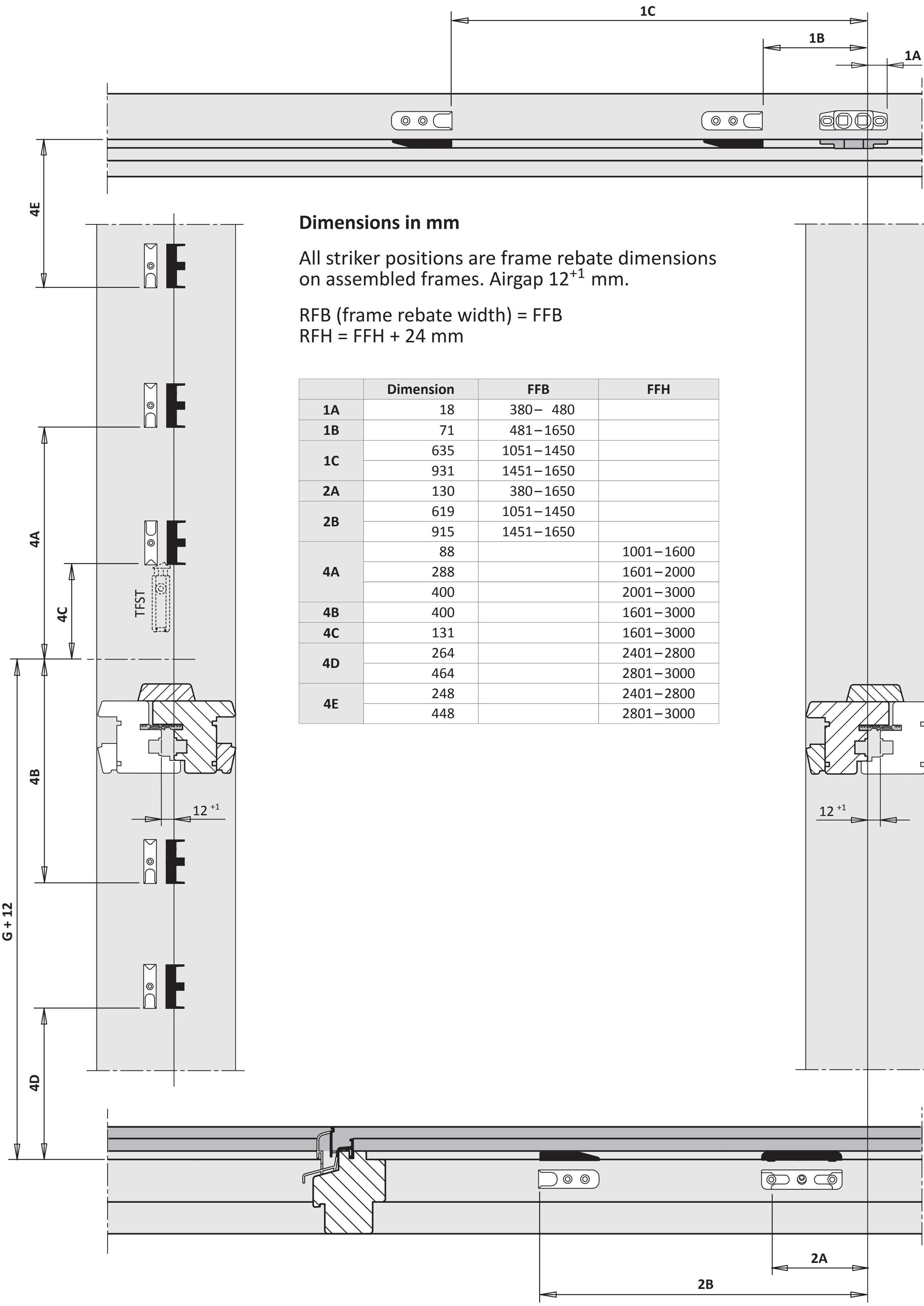
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 13 | 14 | 15 |
| 1 | corn.drive VSO/K+ DF 1RS | TEUL4110- ... | 1 | 481 – 1650 | | | 1 | | |
| 2 | stay sash part DF AX | TSSV3020- ... | 1 | 380 – 1650 | | | | | |
| 3 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 2 | 1051 – 1450 | | | 2 | | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | 2 | | |
| 4a | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | 1 | 380 – 1650 | 410 – 800 | | | | 1 |
| 4b | corn.drive AF VSU/K 56+ 1S 1RS | TEUL5030- ... | 1 | 380 – 1650 | 801 – 3000 | | | | 1 |
| 5a | run-up plate FH KRL56 | Ref. PDB, TRAL01 | 1 | 380 – 1650 | 410 – 800 | | | | |
| 5b | run up block AF 13 mm 13 | TFFH0080- ... | 1 | 380 – 1650 | 801 – 3000 | | | | |
| 6a | sec.sash gear 16 sz 30 | TGKS0010- ... | 1 | 380 – 850 | 410 – 460 | 205 – 300 | | | |
| | sec.sash gear 16 sz 30 | TGKS0010- ... | | | 461 – 600 | 230 – 300 | | | |
| | sec.sash gear 16 AF 60/G300 | TGKS4030- ... | | | 601 – 800 | 300 – 400 | | | |
| 6b | sec.sash gear 16 AF sz 80 1SB | TGMS4040- ... | 1 | | 801 – 1200 | 400 – 600 | | | |
| | sec.sash gear 16 AF sz 120 1SB | TGMS4050- ... | | | 1201 – 1600 | 600 – 800 | | | |
| | sec.sash gear 16 AF 160 2SB 70 | TGMS4130- ... | | | 1601 – 2000 | 800 – 1000 | | | |
| | sec.sash gear 16 AF sz 200 2SB | TGMS4080- ... | | | 2001 – 3000 | 1000 – 1500 | | | |
| 7 | locking bolt AF VSO RSA 11 | TESC2030- ... | 1 | 380 – 480 | 461 – 3000 | | | 1 | |
| 8 | striker plate A0767 | TRSA0010- ... | 1 | 380 – 480 | 461 – 3000 | | | | |
| 9 | linkage AF sz 1 1SB-RS | TZKS1020- ... | 1 | | 2401 – 2800 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | | |
| 10 | linkage AF sz 1 1SB-VSU | TZKS1060- ... | 1 | | 2401 – 2800 | | | | |
| | linkage AF sz 2 1SB-VSU | TZKS1070- ... | | | 2801 – 3000 | | | | |
| 11 | striker plate 56 A2000 | TRSB0030- ... | 1 | | 1001 – 1200 | | | | |
| | striker plate 56 A2000 | TRSB0030- ... | | | 1201 – 1600 | | | | |
| | striker plate 56 A2000 | TRSB0030- ... | 2 | | 1601 – 2000 | | | | |
| | striker plate 56 A2000 | TRSB0030- ... | | | 2001 – 3000 | | | | |
| 12 | striker plate 56 A2000 | TRSB0030- ... | 2 | | 2401 – 3000 | | | | |
| 13 | striker plate 56 | Ref. PDB, FRSB | | | | | | | |
| 14 | striker V | Ref. PDB, FRZV01 | | | | | | | |
| 15 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | |
| **on request** | | | | | | | | | |
| 16 | stop | Ref. PDB, FRZF04 | 2 | | 601 – 3000 | | | | |
| 17 | striker snapper A0767 | TRST0010- ... | 1 | | 1601 – 3000 | | | | |
| 18 | striker plate 56 A2000 | TRSB0030- ... | 1 | | 1601 – 3000 | | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 80 kg |
| 19 | stay arm AX DF/3 | Ref. PDB, TSAV47 | | | 1 |
| 20 | corner hinge AX | Ref. PDB, TBEB41 | | | 1 |
| 21 | cover cap AX EL | Ref. PDB, TKEL41 | | | 1 |
| 22 | bottom hinge AX DF/3 | Ref. PDB, TBEV43 | | | 1 |

# Frame dimensions

3-sash Centre sash second opening turn
H12 GM Hinge side TITAN

3




**Dimensions in mm**

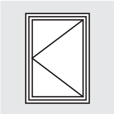
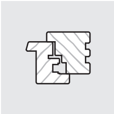
All striker positions are frame rebate dimensions on assembled frames. Airgap $12^{+1}$ mm.

RFB (frame rebate width) = FFB
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 18 | 380– 480 | |
| 1B | 71 | 481–1650 | |
| 1C | 635 | 1051–1450 | |
| | 931 | 1451–1650 | |
| 2A | 130 | 380–1650 | |
| 2B | 619 | 1051–1450 | |
| | 915 | 1451–1650 | |
| 4A | 88 | | 1001–1600 |
| | 288 | | 1601–2000 |
| | 400 | | 2001–3000 |
| 4B | 400 | | 1601–3000 |
| 4C | 131 | | 1601–3000 |
| 4D | 264 | | 2401–2800 |
| | 464 | | 2801–3000 |
| 4E | 248 | | 2401–2800 |
| | 448 | | 2801–3000 |

# TITAN AF

## Installation instructions

GS

1-sash square turn

timber 12 mm

basic security

centre handle pos. (variable)

Hinge side TITAN

surface TS

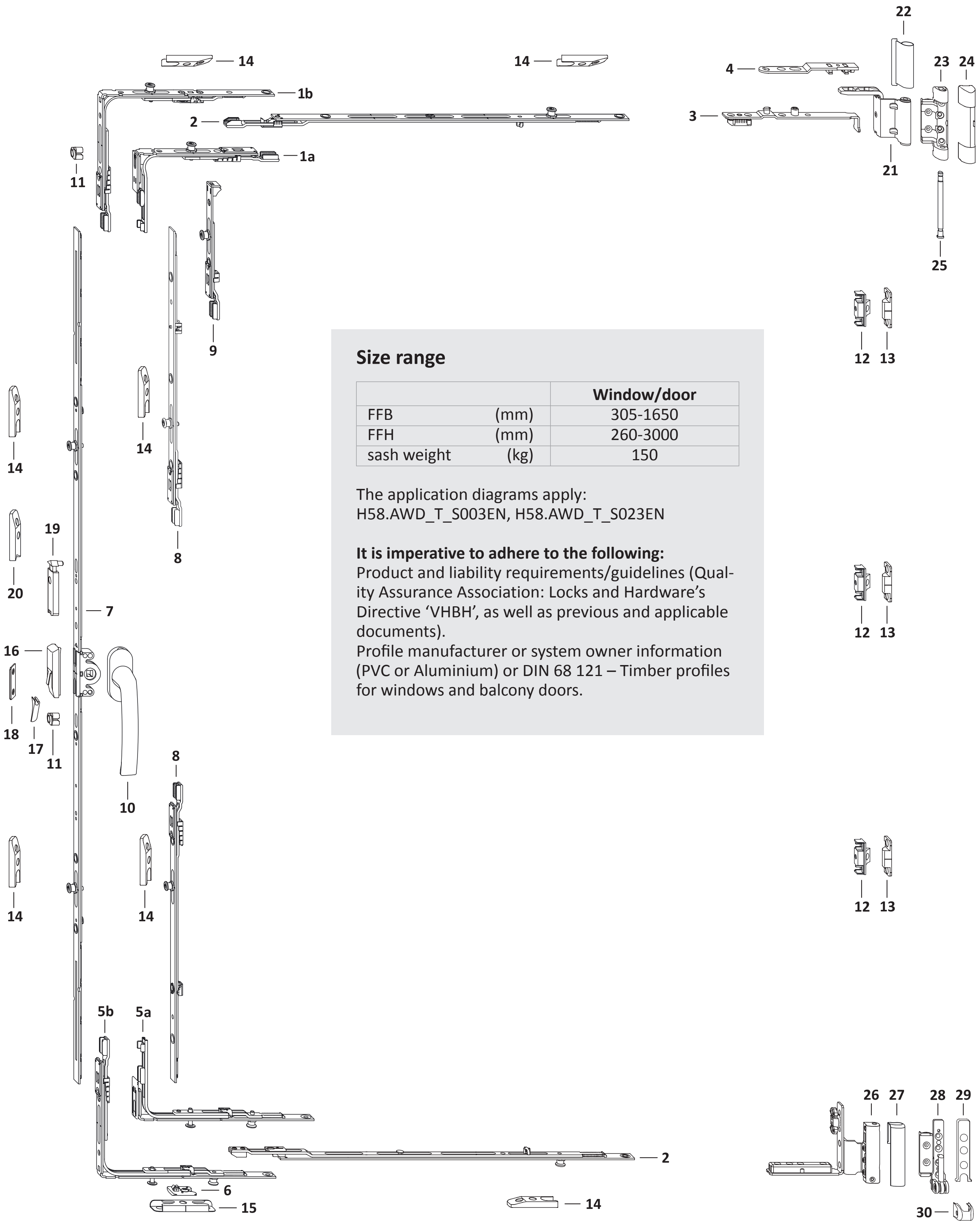
backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | two-piece stay |
| **Bottom** | double cam SB R-RS |
| **Locking side** | mishandl. device on gear |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout

1-sash square turn
H12 GM Hinge side TITAN






## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 305-1650 |
| FFH | (mm) | 260-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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.

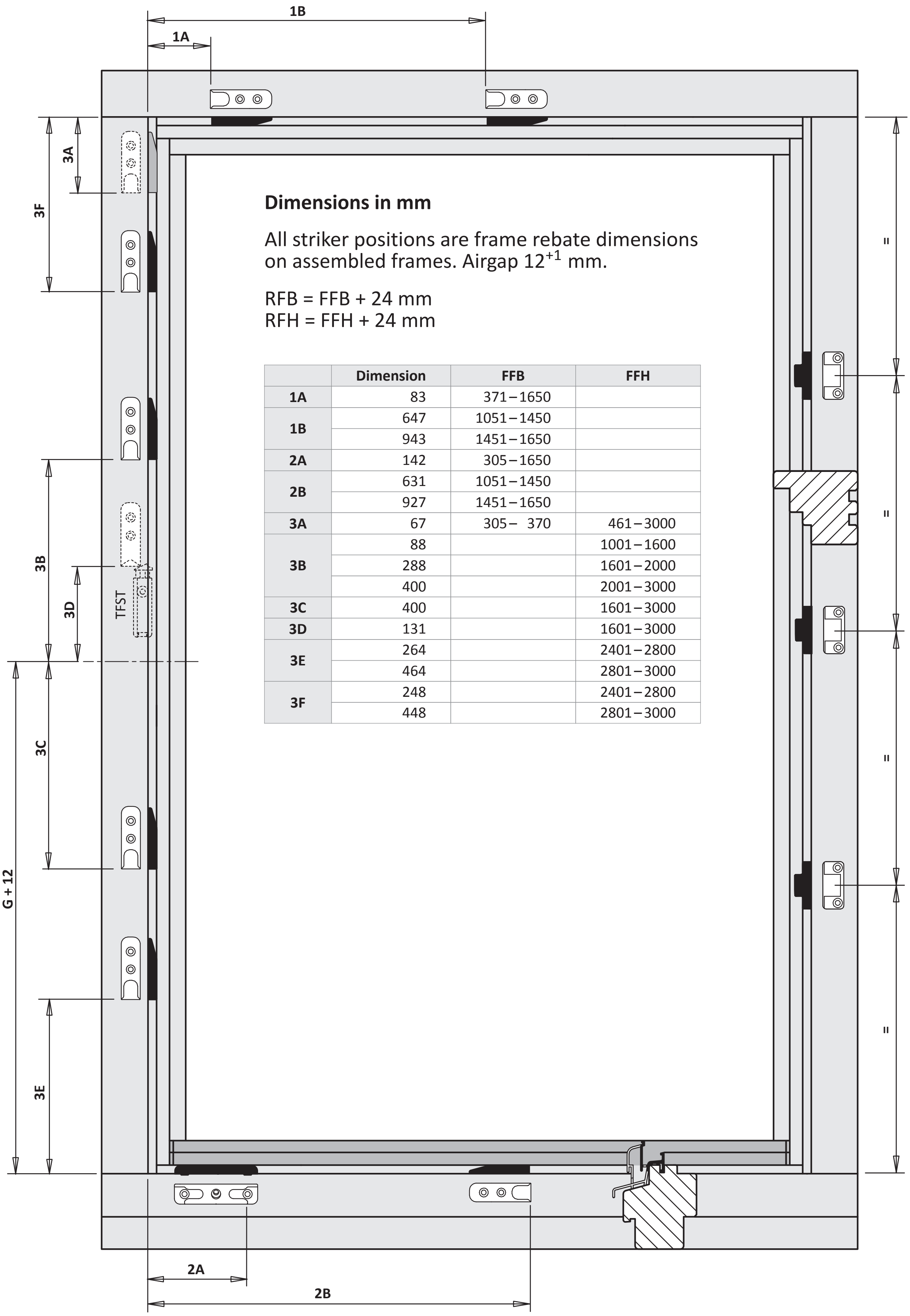
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 14 | 15 |
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 371 – 850 | 260 – 460 | | 1 | |
| 1b | corn.drive VSO/K+ DF 1RS | TEUL4110- ... | 1 | 371 – 1650 | 461 – 3000 | | 1 | |
| 2 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 2 | 1051 – 1450 | | | 2 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | 2 | |
| 3 | stay sash part DF/MN | TSSD0020- ... | 1 | 305 – 1650 | | | | |
| 4 | stay arm DF | TSAD0010- ... | 1 | 305 – 1650 | | | | |
| 5a | corn.drive AFVSU/K56+nar.1S1RS | TEUL5100- ... | 1 | 331 – 850 | 260 – 460 | | | 1 |
| 5b | corn.drive AF VSU/K 56+ 1S 1RS | TEUL5030- ... | 1 | 305 – 1650 | 461 – 3000 | | | 1 |
| 6 | run up block AF 13 mm 13 | TFFH0080- ... | 1 | 305 – 1650 | | | | |
| 7 | gear 15 AF sz 20 | TGMK4010- ... | 1 | 371 – 850 | 260 – 460 | 130 – 230 | | |
| | gear 15 AF sz 20 | TGMK4010- ... | | | 461 – 600 | 230 – 300 | | |
| | gear 15 AF sz 60 | TGMK4020- ... | | | 601 – 1000 | 300 – 500 | | |
| | gear 15 AF sz 80 1RS | TGMK4040- ... | | | 1001 – 1200 | 500 – 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 2RS | TGMK4080- ... | | | 2001 – 3000 | 1000 – 1500 | 2 | |
| 8 | linkage KK/AF sz 1 1RS | TZKK1010- ... | 2 | | 2401 – 2800 | | 2 | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | 2 | |
| 9 | locking bolt AF VS 180° 1RS | TESC2020- ... | 1 | 305 – 370 | 461 – 3000 | | 1 | |
| 10 | handle Globe | Ref.access. ZHGS | 1 | | 260 – 3000 | | | |
| 11 | travel restrictor | TFHB0010- ... | 1 | | 260 – 3000 | | | |
| 12 | sash part MV | Ref. PDB, ZFMV01 | 1 | | 1001 – 1600 | | | |
| | sash part MV | Ref. PDB, ZFMV01 | 2 | | 1601 – 2400 | | | |
| | sash part MV | Ref. PDB, ZFMV01 | 3 | | 2401 – 3000 | | | |
| 13 | frame part MV | Ref. PDB, ZRZM01 | 1 | | 1001 – 1600 | | | |
| | frame part MV | Ref. PDB, ZRZM01 | 2 | | 1601 – 2400 | | | |
| | frame part MV | Ref. PDB, ZRZM01 | 3 | | 2401 – 3000 | | | |
| 14 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| 15 | striker plate S-RS | Ref. PDB, TRSK | | | | | | |
| | | | **on request** | | | | | |
| 16 | mishandling device | TFBS0010- ... | 1 | | | | | |
| 17 | pressure piece | Ref. PDB, TFFD | 1 | | | | | |
| 18 | stop | Ref. PDB, FRZF01 | 1 | | | | | |
| 19 | snapper switchable rh. | TFST0011- ... | 1 | | 1601 – 3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1601 – 3000 | | | |
| 20 | frame part snapper | Ref. PDB, TRST | 1 | | 1601 – 3000 | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 21 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 22 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 23 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 24 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 25 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 26 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 27 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 28 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 29 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 30 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

# Frame dimensions

1-sash square turn
H12 GM Hinge side TITAN






**Dimensions in mm**

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

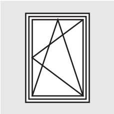
RFB = FFB + 24 mm
RFH = FFH + 24 mm

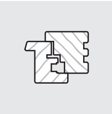
| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 371 – 1650 | |
| 1B | 647 | 1051 – 1450 | |
| | 943 | 1451 – 1650 | |
| 2A | 142 | 305 – 1650 | |
| 2B | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 3A | 67 | 305 – 370 | 461 – 3000 |
| 3B | 88 | | 1001 – 1600 |
| | 288 | | 1601 – 2000 |
| | 400 | | 2001 – 3000 |
| 3C | 400 | | 1601 – 3000 |
| 3D | 131 | | 1601 – 3000 |
| 3E | 264 | | 2401 – 2800 |
| | 464 | | 2801 – 3000 |
| 3F | 248 | | 2401 – 2800 |
| | 448 | | 2801 – 3000 |

4

# TITAN AF

## Installation instructions





**RC1**

1-sash square tilt-turn

timber 12 mm

RC1

fixed handle position

Hinge side TITAN

surface TS

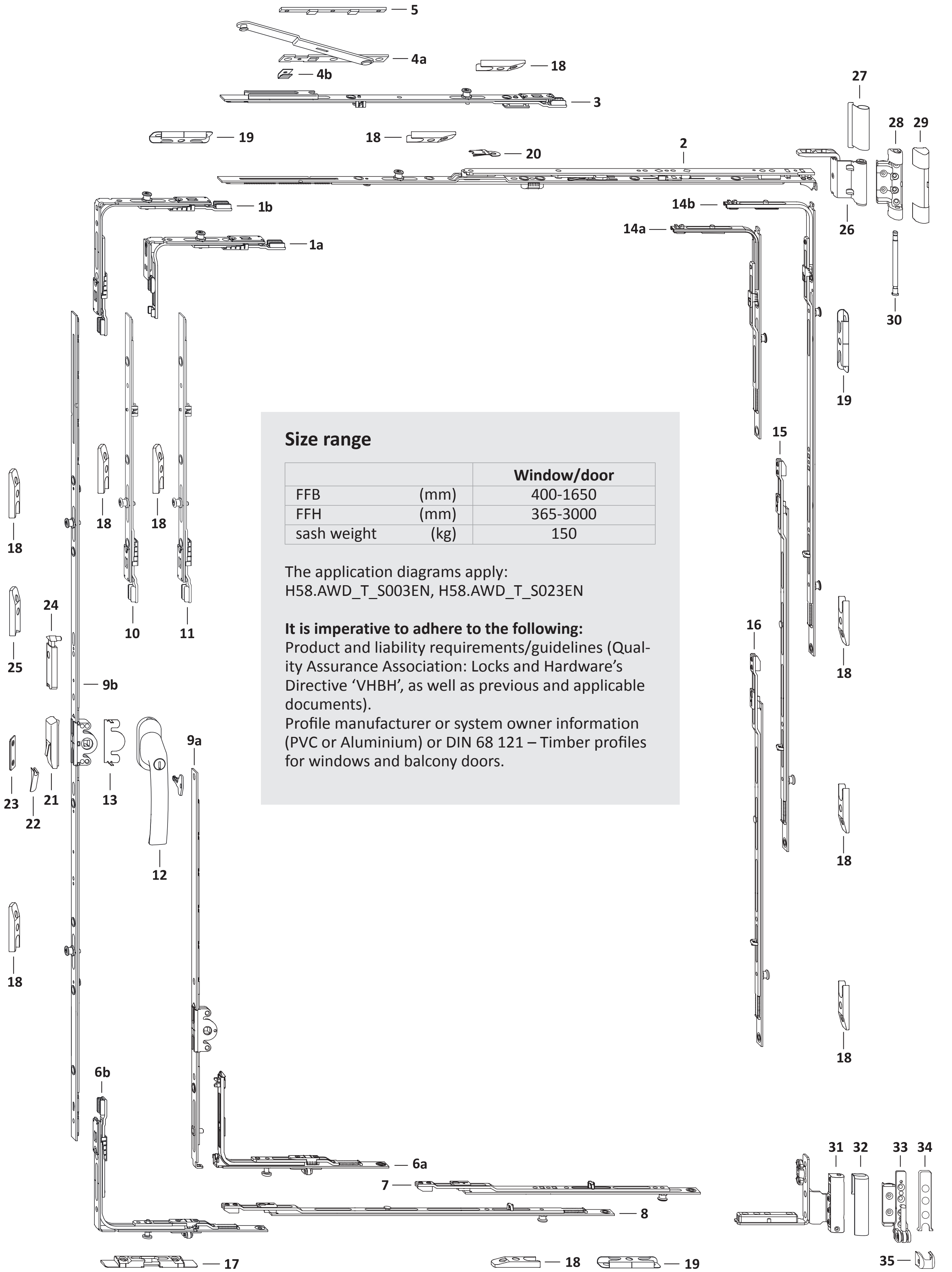
backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 2RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout

1-sash square tilt-turn
H12 GK Hinge side TITAN






## Size range

| | Window/door |
|---|---|
| FFB (mm) | 400-1650 |
| FFH (mm) | 365-3000 |
| sash weight (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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.

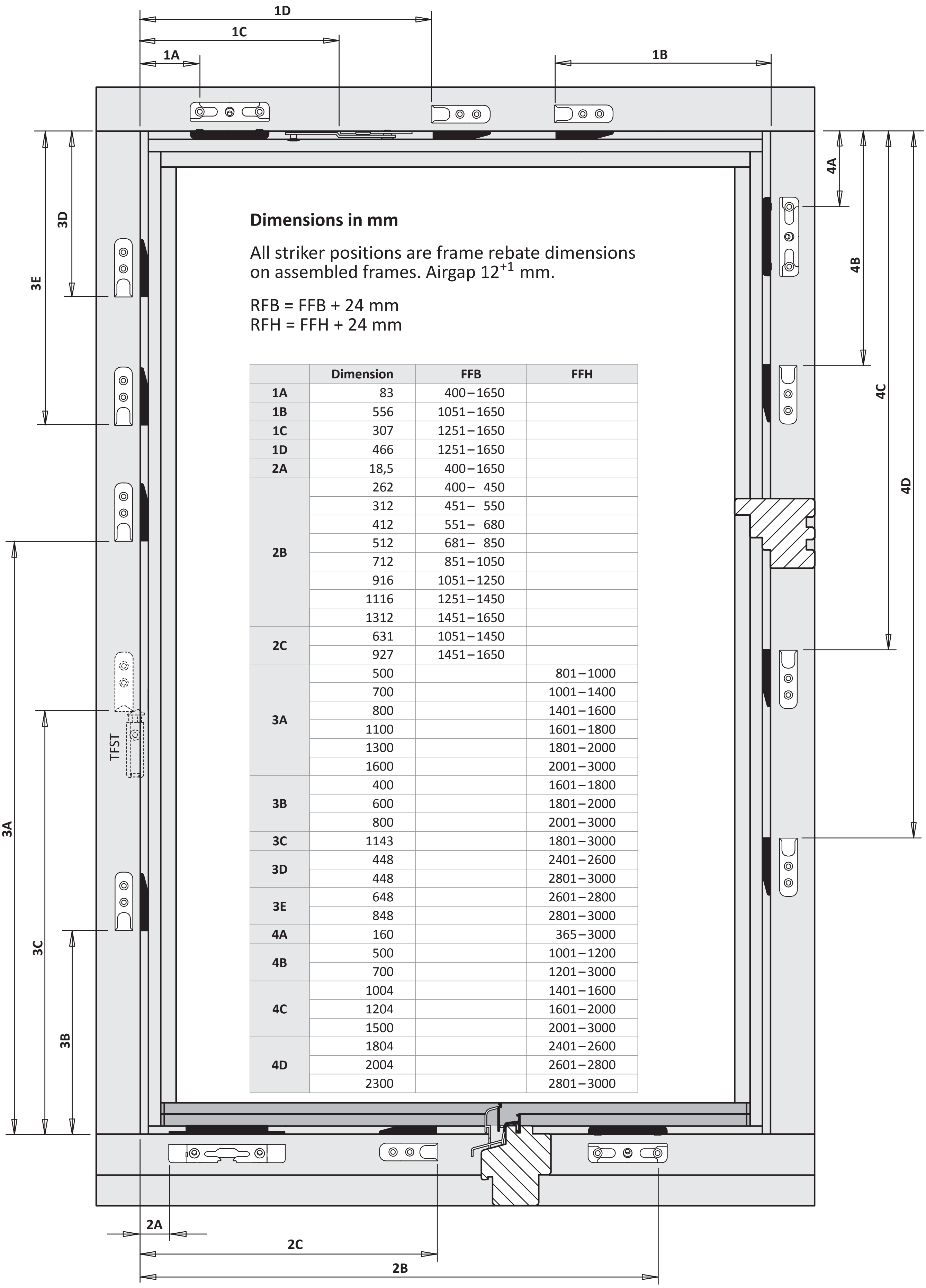
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. 17 | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 400 – 850 | 365 – 410 | | | | 1 |
| 1b | corn.drive VSO 1RS | TEUL4010- ... | 1 | 400 – 1650 | 411 – 3000 | | | | 1 |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 400 – 450 | | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | | 1 | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | | 1 | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | | 1 | |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | | |
| 6a | locking part VSU/K FH+ 1S | TEVR1400- ... | 1 | 400 – 1250 | 411 – 600 | | 1 | | |
| | locking part VSU/K FH+ 1S | TEVR1400- ... | | 400 – 850 | 365 – 410 | | 1 | | |
| 6b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 400 – 1650 | 601 – 3000 | | 1 | | |
| 7 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400 – 450 | | | | | 1 |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451 – 550 | | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551 – 680 | | | | | 1 |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681 – 850 | | | | | 1 |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851 – 1050 | | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051 – 1250 | | | | | 1 |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251 – 1450 | | | | | 1 |
| | extension sz 4+ 1RS | TVSL0340- ... | | 1451 – 1650 | | | | | 1 |
| 8 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 1 | |
| 9a | gear 15 sz 30/G180 | TGKK3010- ... | 1 | 400 – 850 | 365 – 410 | 180 | | | |
| | gear 15 sz 30/G180 | TGKK3010- ... | | 400 – 1250 | 411 – 600 | 180 | | | |
| 9b | gear 15 AF sz 60/G300 | TGKK4030- ... | 1 | | 601 – 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/G700 1RS | TGKK4080- ... | | | 1401 – 1600 | 700 | | 1 | |
| | 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 2RS | TGKK4110- ... | | | 2001 – 3000 | 1000 | | 2 | |
| 10 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2401 – 2600 | | | 1 | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | 1 | |
| 11 | linkage KK/AF sz 2 1RS | TZKK1020- ... | 1 | | 2601 – 2800 | | | 1 | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | 1 | |
| 12 | handle Globe lockable 100Nm | Ref.access. ZHGA100 | 1 | | 365 – 3000 | | | | |
| 13 | anti-drill guard E | TGBS0010- ... | 1 | | 365 – 3000 | | | | |
| 14a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 365 – 1000 | | | | 1 |
| 14b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001 – 1200 | | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201 – 3000 | | | 1 | 1 |
| 15 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | | 1 | |
| 16 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | | 1 | |
| 17 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | | |
| 18 | striker plate 56 | Ref. PDB, FRSB | | | | | | | |
| 19 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | |
| | | | **on request** | | | | | | |
| 20 | tilt restrictor .. | TFKB0010- ... | 1 | | 365 – 800 | | | | |
| 21 | mishandling device | TFBS0010- ... | 1 | | | | | | |
| 22 | pressure piece | Ref. PDB, TFFD | 1 | | | | | | |
| 23 | stop | Ref. PDB, FRZF01 | 1 | | | | | | |
| 24 | snapper switchable rh. | TFST0011- ... | 1 | | 1801 – 3000 | | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1801 – 3000 | | | | |
| 25 | frame part snapper | Ref. PDB, TRST | 1 | | 1801 – 3000 | | | | |

# List of fittings

1-sash square tilt-turn
H12 GK Hinge side TITAN



| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| **26** | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| **27** | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| **28** | top hinge | Ref. PDB, TBSL81 | | | 1 |
| **29** | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| **30** | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| **31** | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| **32** | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| **33** | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| **34** | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| **35** | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |




**Dimensions in mm**

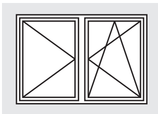
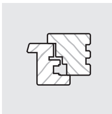
All striker positions are frame rebate dimensions on assembled frames. Airgap $12^{+1}$ mm.

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

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 400 – 1650 | |
| 1B | 556 | 1051 – 1650 | |
| 1C | 307 | 1251 – 1650 | |
| 1D | 466 | 1251 – 1650 | |
| 2A | 18,5 | 400 – 1650 | |
| 2B | 262 | 400 – 450 | |
| | 312 | 451 – 550 | |
| | 412 | 551 – 680 | |
| | 512 | 681 – 850 | |
| | 712 | 851 – 1050 | |
| | 916 | 1051 – 1250 | |
| | 1116 | 1251 – 1450 | |
| | 1312 | 1451 – 1650 | |
| 2C | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 3A | 500 | | 801 – 1000 |
| | 700 | | 1001 – 1400 |
| | 800 | | 1401 – 1600 |
| | 1100 | | 1601 – 1800 |
| | 1300 | | 1801 – 2000 |
| | 1600 | | 2001 – 3000 |
| 3B | 400 | | 1601 – 1800 |
| | 600 | | 1801 – 2000 |
| | 800 | | 2001 – 3000 |
| 3C | 1143 | | 1801 – 3000 |
| 3D | 448 | | 2401 – 2600 |
| | 448 | | 2801 – 3000 |
| 3E | 648 | | 2601 – 2800 |
| | 848 | | 2801 – 3000 |
| 4A | 160 | | 365 – 3000 |
| 4B | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4C | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4D | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

# TITAN AF

## Installation instructions

  **RC1**

2-sash square tilt-turn/turn DS 16

timber 12 mm

RC1

fixed handle position

Hinge side TITAN

surface TS

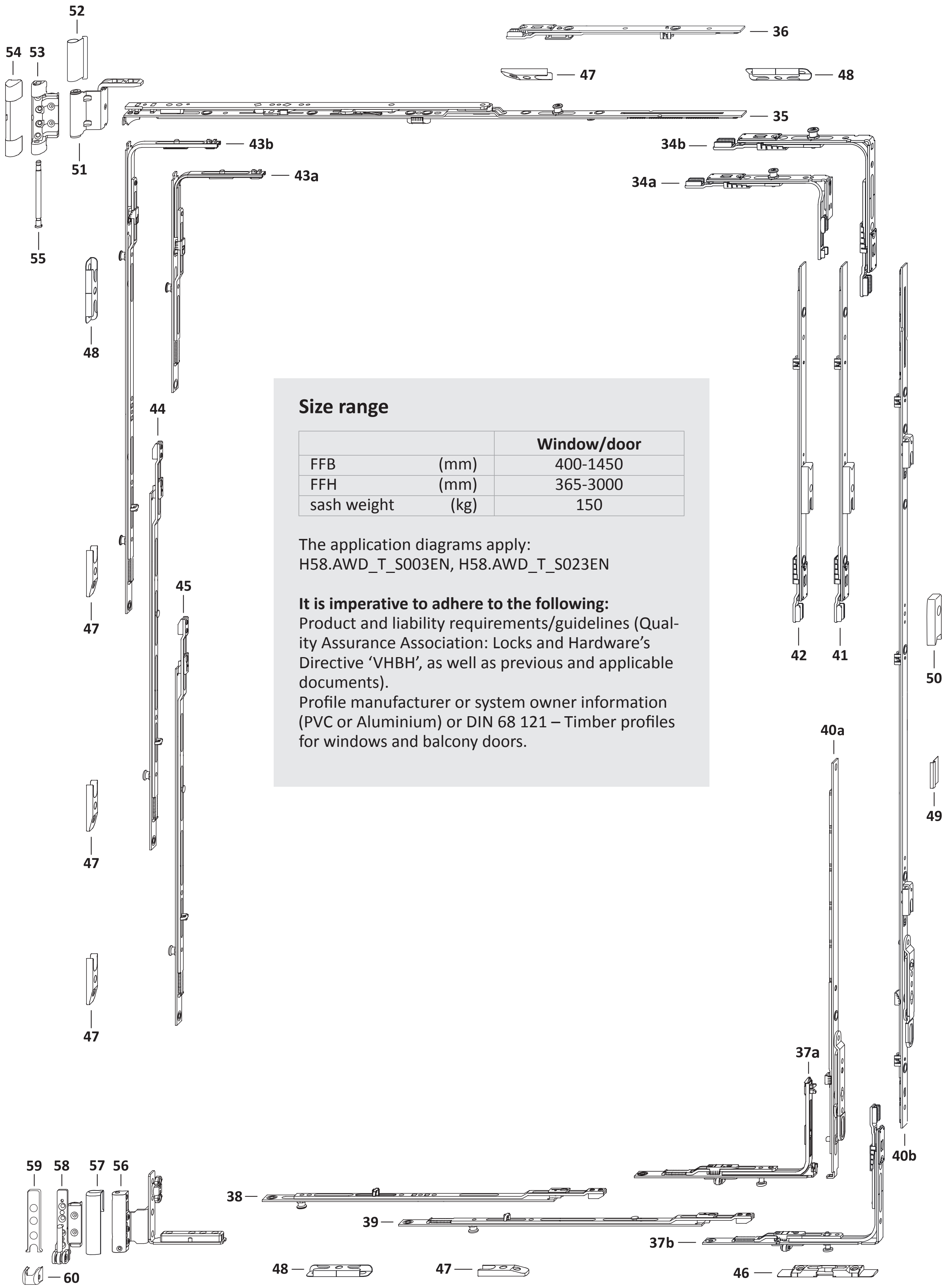
backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 2RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout slave sash

2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN






## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 400-1450 |
| FFH | (mm) | 365-3000 |
| sash weight | (kg) | 150 |

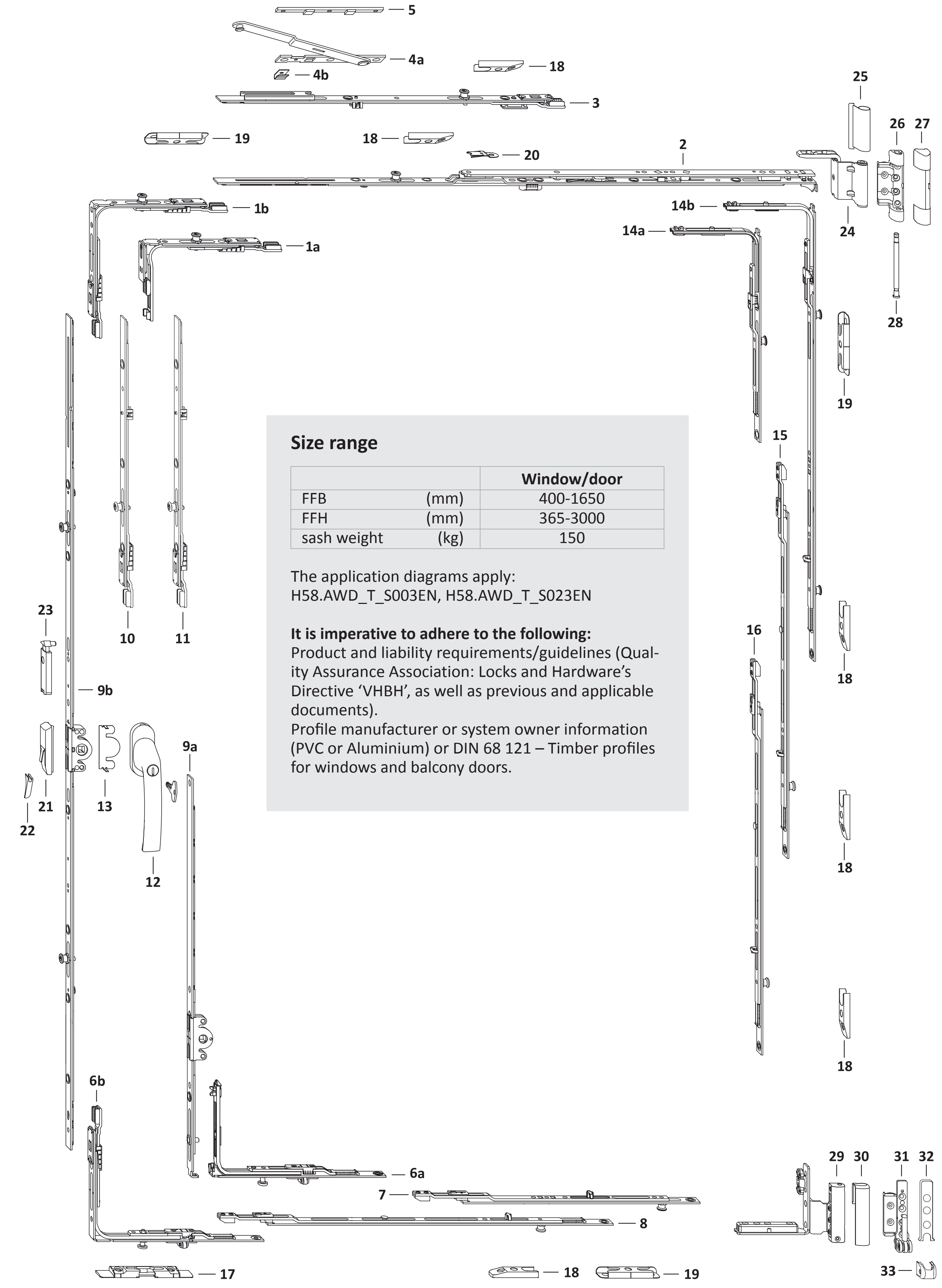
The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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.

# hardware layout main sash

2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN






## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 400-1650 |
| FFH | (mm) | 365-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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

2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN



| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | In the main sash | 46 | 47 | 48 |
| 34a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 400 – 850 | 365 – 410 | | | | 1 |
| 34b | corn.drive VSO 1RS | TEUL4010- ... | 1 | 400 – 1450 | 411 – 3000 | | | | 1 |
| 35 | stay AF sz 0 | TSKK2000- ... | 1 | 400 – 450 | | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1450 | | | | 1 | |
| 36 | linkage AF sz 1 | TZZS0150- ... | 1 | 1251 – 1450 | | | | | |
| 37a | locking part VSU/K FH+ 1S | TEVR1400- ... | 1 | 400 – 1450 | 411 – 800 | | 1 | | |
| | locking part VSU/K FH+ 1S | TEVR1400- ... | | 400 – 850 | 365 – 410 | | 1 | | |
| 37b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 400 – 1450 | 801 – 3000 | | 1 | | |
| 38 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400 – 450 | | | | | 1 |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451 – 550 | | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551 – 680 | | | | | 1 |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681 – 850 | | | | | 1 |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851 – 1050 | | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051 – 1250 | | | | | 1 |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251 – 1450 | | | | | 1 |
| 39 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 | |
| 40a | sec.sash gear 16 sz 30 | TGKS0010- ... | 1 | 400 – 850 | 365 – 410 | 180 | | | |
| | sec.sash gear 16 sz 30 | TGKS0010- ... | | 400 – 1250 | 411 – 600 | 180 | | | |
| | sec.sash gear 16 AF 60/G300 | TGKS4030- ... | | | 601 – 800 | 300 | | | |
| 40b | sec.sash gear 16 AF80/G400 1SB | TGKS4050- ... | 1 | | 801 – 1000 | 400 | | | |
| | sec.sash gear 16 AF sz 100 1SB | TGKS4060- ... | | | 1001 – 1200 | 500 | | | |
| | sec.sash gear 16 AF120/G6001SB | TGKS4070- ... | | | 1201 – 1400 | 600 | | | |
| | sec.sash gear 16 AF140/G7001SB | TGKS4080- ... | | | 1401 – 1600 | 700 | | | |
| | sec.sash gear 16 AF160/G7002SB 70 | TGKS4330- ... | | | 1601 – 1800 | 700 | | | |
| | sec.sash gear 16AF180/G10002SB 70 | TGKS4270- ... | | | 1801 – 2000 | 1000 | | | |
| | sec.sash gear 16AF200/G10002SB | TGKS4110- ... | | | 2001 – 3000 | 1000 | | | |
| 41 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2401 – 2600 | | | | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | | |
| 42 | linkage AF sz 2 1SB-RS | TZKS1030- ... | 1 | | 2601 – 2800 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | | |
| 43a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 365 – 1000 | | | | 1 |
| 43b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001 – 1200 | | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201 – 3000 | | | 1 | 1 |
| 44 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | | 1 | |
| 45 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | | 1 | |
| 46 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | | |
| 47 | striker plate 56 | Ref. PDB, FRSB | | | | | | | |
| 48 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | |
| on request | | | | | | | | | |
| 49 | stop | Ref. PDB, FRZF04 | 1 | | 601 – 3000 | | | | |
| 50 | striker snapper A0767 | TRST0010- ... | 1 | | 1801 – 3000 | | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| **Pos.** | **Description** | **Part number** | | | **required as per sash weight** |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| **51** | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| **52** | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| **53** | top hinge | Ref. PDB, TBSL81 | | | 1 |
| **54** | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| **55** | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| **56** | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| **57** | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| **58** | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| **59** | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| **60** | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

# List of fittings main sash

2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN



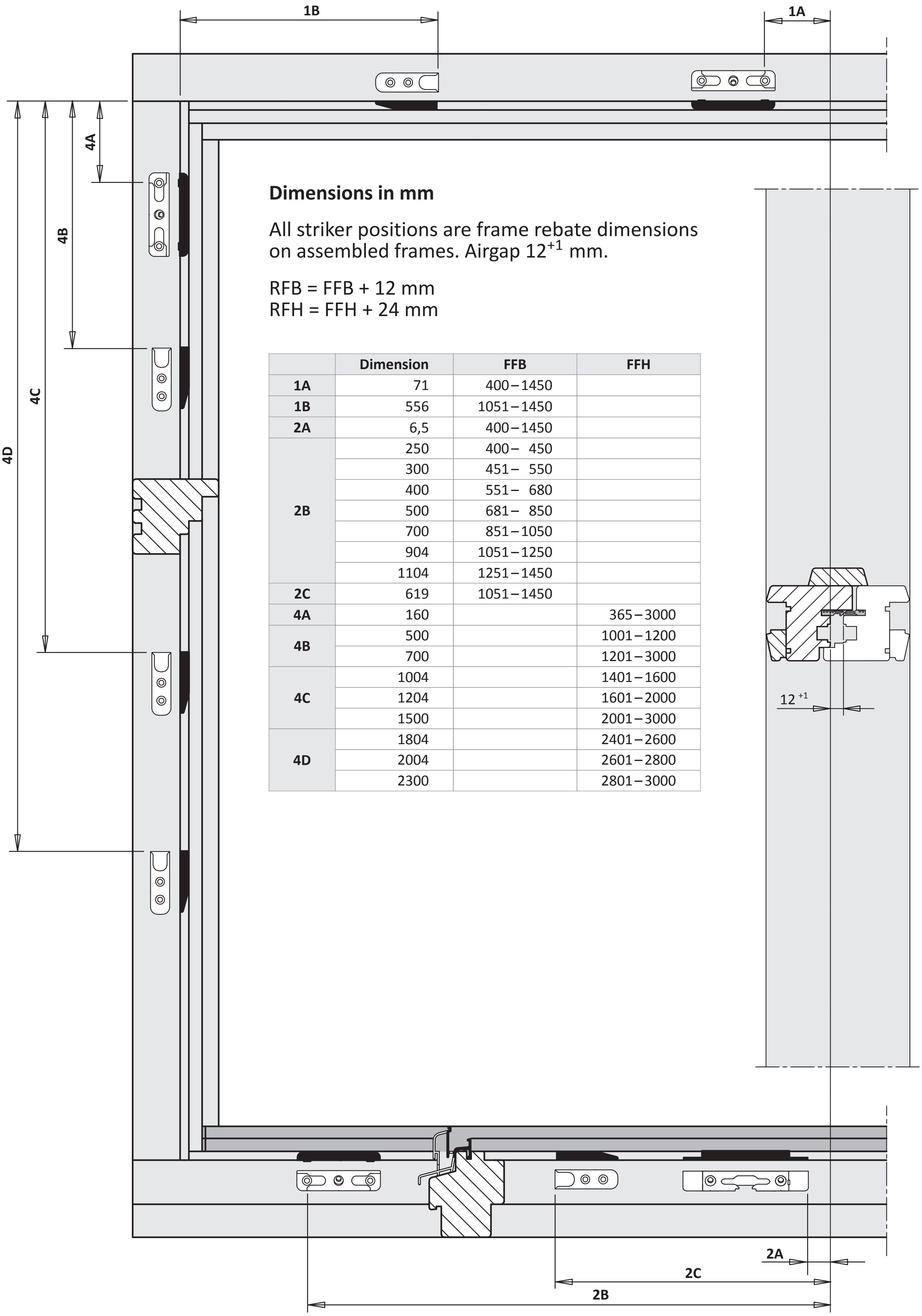
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 17 | 18 | 19 |
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 400 – 850 | 365 – 410 | | | | 1 |
| 1b | corn.drive VSO 1RS | TEUL4010- ... | 1 | 400 – 1650 | 411 – 3000 | | | | 1 |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 400 – 450 | | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | | 1 | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | | 1 | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | | 1 | |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | | |
| 6a | locking part VSU/K FH+ 1S | TEVR1400- ... | 1 | 400 – 1250 | 411 – 600 | | 1 | | |
| | locking part VSU/K FH+ 1S | TEVR1400- ... | | 400 – 850 | 365 – 410 | | 1 | | |
| 6b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 400 – 1650 | 601 – 3000 | | 1 | | |
| 7 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400 – 450 | | | | | 1 |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451 – 550 | | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551 – 680 | | | | | 1 |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681 – 850 | | | | | 1 |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851 – 1050 | | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051 – 1250 | | | | | 1 |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251 – 1450 | | | | | 1 |
| | extension sz 4+ 1RS | TVSL0340- ... | | 1451 – 1650 | | | | | 1 |
| 8 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 1 | |
| 9a | gear 15 sz 30/G180 | TGKK3010- ... | 1 | 400 – 850 | 365 – 410 | 180 | | | |
| | gear 15 sz 30/G180 | TGKK3010- ... | | 400 – 1250 | 411 – 600 | 180 | | | |
| 9b | gear 15 AF sz 60/G300 | TGKK4030- ... | 1 | | 601 – 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/G700 1RS | TGKK4080- ... | | | 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 2RS | TGKK4110- ... | | | 2001 – 3000 | 1000 | | | |
| 10 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2401 – 2600 | | | | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | | |
| 11 | linkage KK/AF sz 2 1RS | TZKK1020- ... | 1 | | 2601 – 2800 | | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | | |
| 12 | handle Globe lockable 100Nm | Ref.access. ZHGA100 | 1 | | 365 – 3000 | | | | |
| 13 | anti-drill guard E | TGBS0010- ... | 1 | | 365 – 3000 | | | | |
| 14a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 365 – 1000 | | | | 1 |
| 14b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001 – 1200 | | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201 – 3000 | | | 1 | 1 |
| 15 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | | 1 | |
| 16 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | | 1 | |
| 17 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | | |
| 18 | striker plate 56 | Ref. PDB, FRSB | | | | | | | |
| 19 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | |
| | | | on request | | | | | | |
| 20 | tilt restrictor .. | TFKB0010- ... | 1 | | 365 – 800 | | | | |
| 21 | mishandling device | TFBS0010- ... | 1 | | 601 – 3000 | | | | |
| 22 | pressure piece | Ref. PDB, TFFD | 1 | | 601 – 3000 | | | | |
| 23 | snapper switchable rh. | TFST0011- ... | 1 | | 1801 – 3000 | | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1801 – 3000 | | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| **Pos.** | **Description** | **Part number** | | | **required as per sash weight** |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| **24** | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| **25** | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| **26** | top hinge | Ref. PDB, TBSL81 | | | 1 |
| **27** | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| **28** | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| **29** | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| **30** | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| **31** | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| **32** | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| **33** | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

# Frame dimensions slave sash

2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN



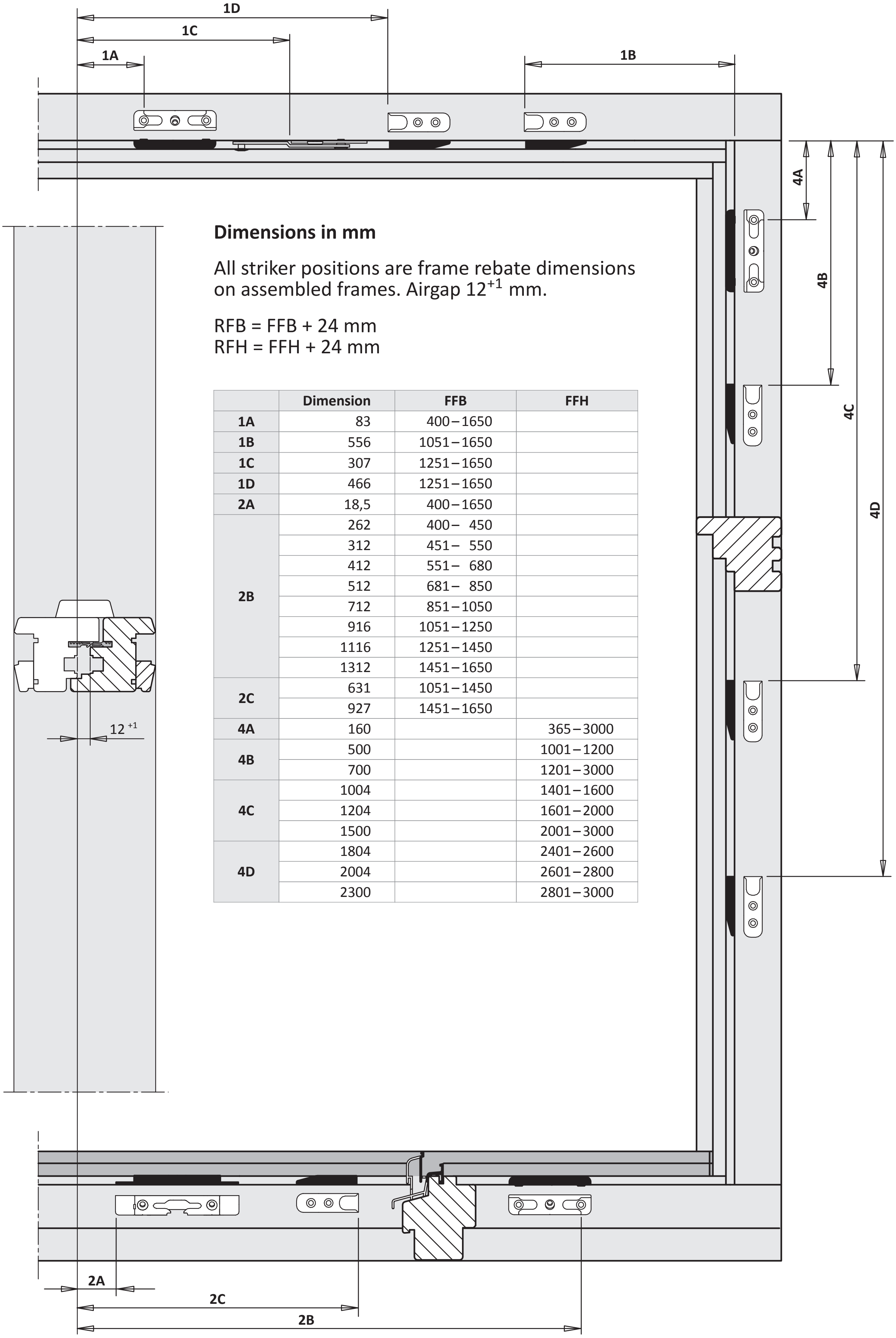



**Dimensions in mm**

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 | 400 – 1450 | |
| 1B | 556 | 1051 – 1450 | |
| 2A | 6,5 | 400 – 1450 | |
| 2B | 250 | 400 – 450 | |
| | 300 | 451 – 550 | |
| | 400 | 551 – 680 | |
| | 500 | 681 – 850 | |
| | 700 | 851 – 1050 | |
| | 904 | 1051 – 1250 | |
| | 1104 | 1251 – 1450 | |
| 2C | 619 | 1051 – 1450 | |
| 4A | 160 | | 365 – 3000 |
| 4B | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4C | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4D | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |




**Dimensions in mm**

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

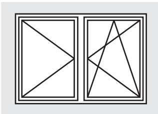
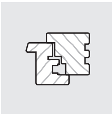
RFB = FFB + 24 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 400–1650 | |
| 1B | 556 | 1051–1650 | |
| 1C | 307 | 1251–1650 | |
| 1D | 466 | 1251–1650 | |
| 2A | 18,5 | 400–1650 | |
| 2B | 262 | 400– 450 | |
| | 312 | 451– 550 | |
| | 412 | 551– 680 | |
| | 512 | 681– 850 | |
| | 712 | 851–1050 | |
| | 916 | 1051–1250 | |
| | 1116 | 1251–1450 | |
| | 1312 | 1451–1650 | |
| 2C | 631 | 1051–1450 | |
| | 927 | 1451–1650 | |
| 4A | 160 | | 365–3000 |
| 4B | 500 | | 1001–1200 |
| | 700 | | 1201–3000 |
| 4C | 1004 | | 1401–1600 |
| | 1204 | | 1601–2000 |
| | 1500 | | 2001–3000 |
| 4D | 1804 | | 2401–2600 |
| | 2004 | | 2601–2800 |
| | 2300 | | 2801–3000 |

4

# TITAN AF

## Installation instructions

  **RC1**

2-sash square tilt-turn/turn DS 8

timber 12 mm

RC1

fixed handle position

Hinge side TITAN

surface TS

backset 15 mm

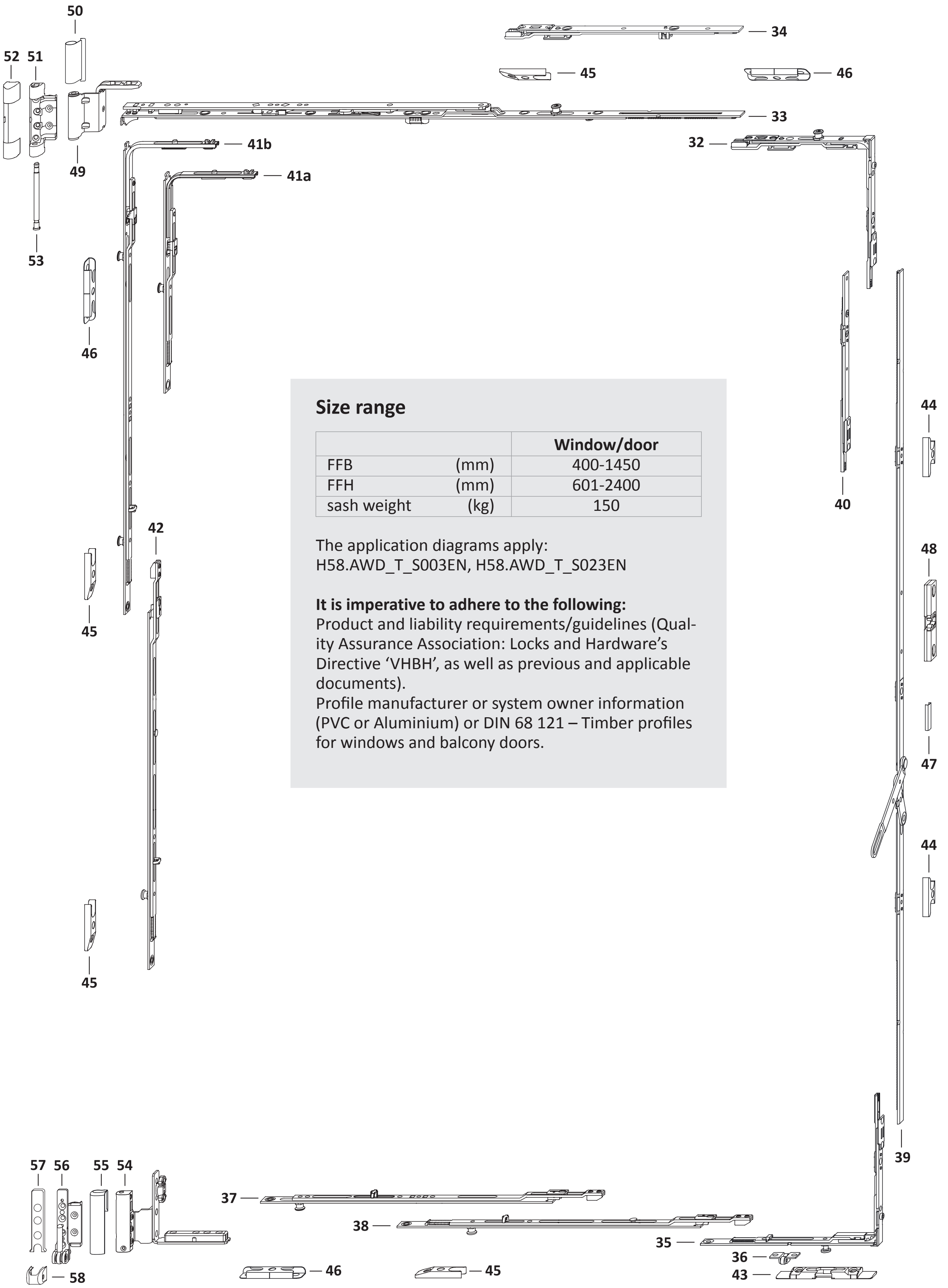
4

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 2RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout slave sash

2-sash square tilt-turn/turn DS 8
H12 GK Hinge side TITAN



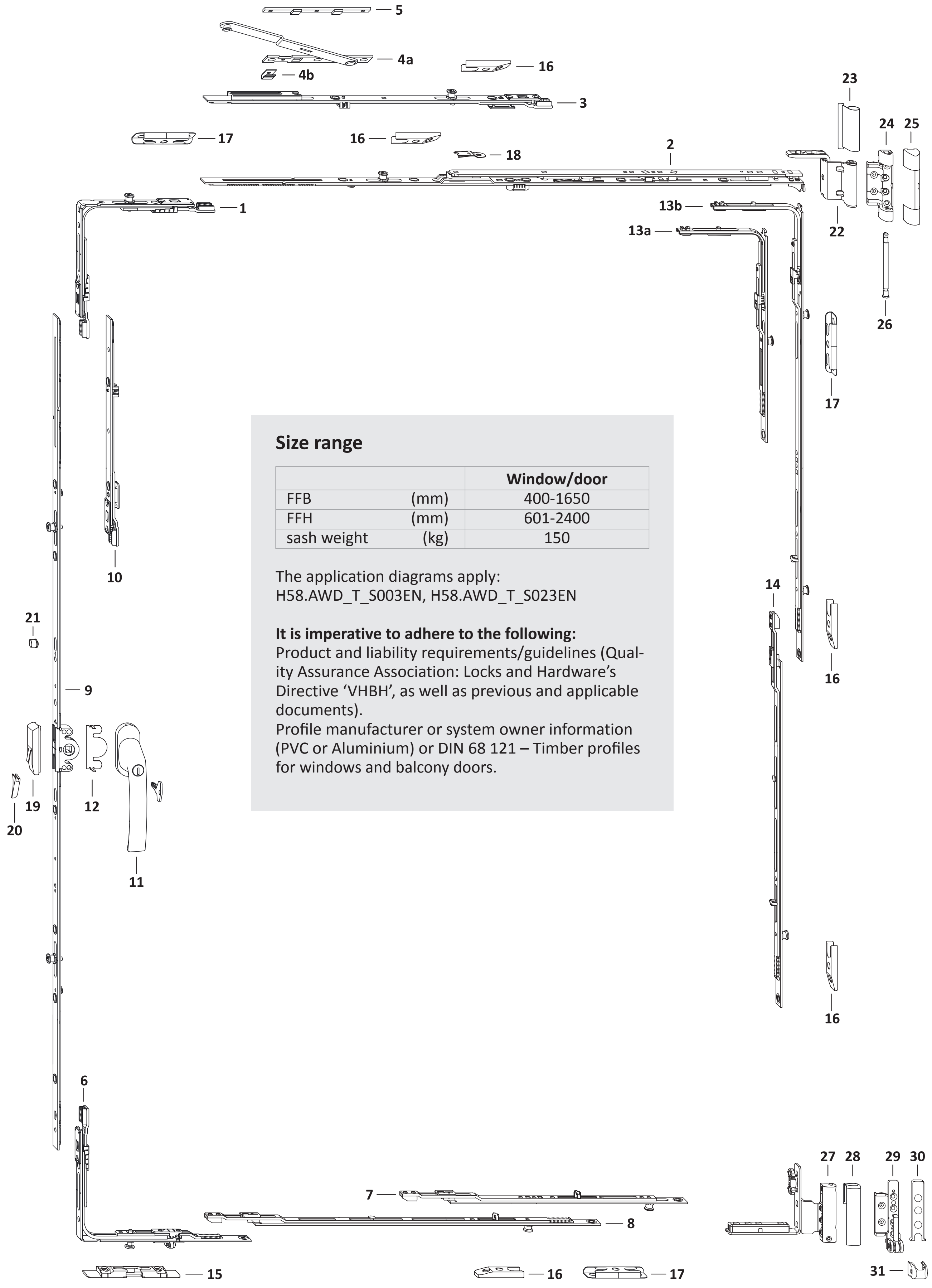



## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 400-1450 |
| FFH | (mm) | 601-2400 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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) | 400-1650 |
| FFH | (mm) | 601-2400 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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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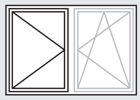
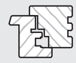
# List of fittings slave sash

2-sash square tilt-turn/turn DS 8

H12 GK Hinge side TITAN





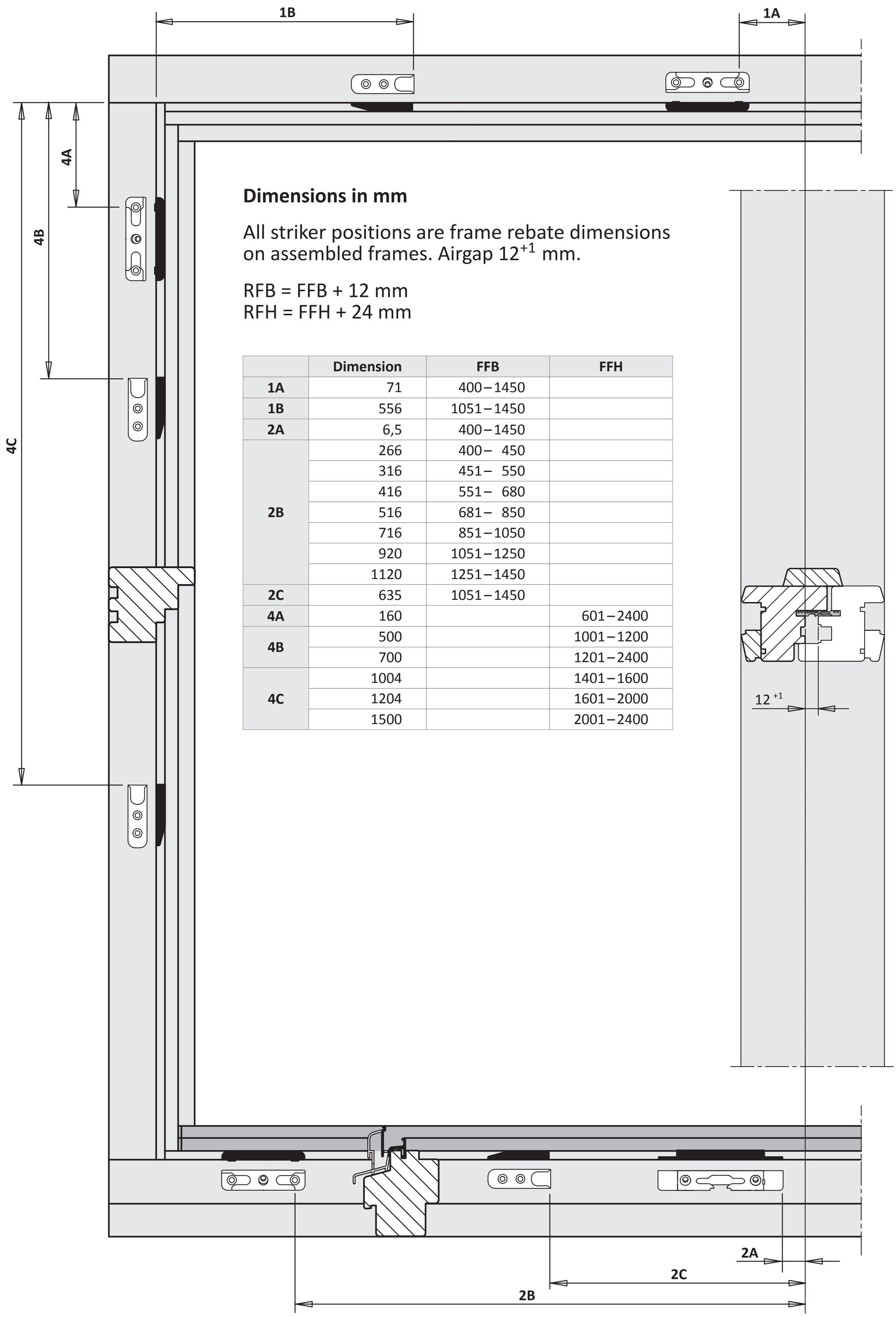


| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | In the main sash | 43 | 44 | 45 | 46 |
| 32 | corn.drive VSO DS 1RS | TEUL4060- ... | 1 | 400 – 1450 | | | | | | 1 |
| 33 | stay AF sz 0 | TSKK2000- ... | 1 | 400 – 450 | | | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1450 | | | | | 1 | |
| 34 | linkage AF sz 1 | TZZS0150- ... | 1 | 1251 – 1450 | | | | | | |
| 35 | corn.drive AF VSU/K+ DS 1S | TEUL1230- ... | 1 | 400 – 1450 | | | 1 | | | |
| 36 | sash lift .. | TFFH0020- ... | 1 | 400 – 1450 | | | | | | |
| 37 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400 – 450 | | | | | | 1 |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451 – 550 | | | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551 – 680 | | | | | | 1 |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681 – 850 | | | | | | 1 |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851 – 1050 | | | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051 – 1250 | | | | | | 1 |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251 – 1450 | | | | | | 1 |
| 38 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | | 1 | |
| 39 | sec.sash gear 8 sz 60/G300 | TGKS1030- ... | 1 | | 601 – 800 | 300 | | | | |
| | sec.sash gear 8 sz 80/G400 | TGKS1050- ... | | | 801 – 1000 | 400 | | 1 | | |
| | sec.sash gear 8 sz 100/G500 | TGKS1060- ... | | | 1001 – 1200 | 500 | | 1 | | |
| | sec.sash gear 8 sz 120/G600 | TGKS1070- ... | | | 1201 – 1400 | 600 | | 1 | | |
| | sec.sash gear 8 sz 140/G700 70 | TGKS1160- ... | | | 1401 – 1600 | 700 | | 1 | | |
| | sec.sash gear 8 160/G700 2SB70 70 | TGKS1150- ... | | | 1601 – 1800 | 700 | | 1 | | |
| | sec.sash gear 8 sz 180/G1000 2 70 | TGKS1170- ... | | | 1801 – 2000 | 1000 | | 1 | | |
| | sec.sash gear 8 sz 200/G1000 | TGKS1110- ... | | | 2001 – 2400 | 1000 | | 1 | | |
| 40 | linkage KS sec.sash 8 sz 1 | TZKS1010- ... | 1 | | 2201 – 2400 | | | | | |
| 41a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 601 – 1000 | | | | | 1 |
| 41b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001 – 1200 | | | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201 – 2400 | | | | 1 | 1 |
| 42 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 2400 | | | | 1 | |
| 43 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | | | |
| 44 | striker plate f. gear TL | Ref. PDB, FRSA05 | | | | | | | | |
| 45 | striker plate 56 | Ref. PDB, FRSB | | | | | | | | |
| 46 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | | |
| on request | | | | | | | | | | |
| 47 | stop | Ref. PDB, FRZF05 | 1 | | | | | | | |
| 48 | snapper | Ref. PDB, FRZB03 | 1 | | 1801 – 2400 | | | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 49 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 50 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 51 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 52 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 53 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 54 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 55 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 56 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 57 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 58 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 15 | 16 | 17 |
| 1 | corn.drive VSO 1RS | TEUL4010- ... | 1 | 400 – 1650 | | | | | 1 |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 400 – 450 | | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | | 1 | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | | 1 | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | | 1 | |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | | |
| 6 | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 400 – 1650 | | | 1 | | |
| 7 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400 – 450 | | | | | 1 |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451 – 550 | | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551 – 680 | | | | | 1 |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681 – 850 | | | | | 1 |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851 – 1050 | | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051 – 1250 | | | | | 1 |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251 – 1450 | | | | | 1 |
| | extension sz 4+ 1RS | TVSL0340- ... | | 1451 – 1650 | | | | | 1 |
| 8 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 1 | |
| 9 | gear 15 AF sz 60/G300 | TGKK4030- ... | 1 | | 601 – 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/G700 1RS | TGKK4080- ... | | | 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 2RS | TGKK4110- ... | | | 2001 – 2400 | 1000 | | | |
| 10 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | | |
| 11 | handle Globe lockable 100Nm | Ref.access. ZHGA100 | 1 | | 601 – 2400 | | | | |
| 12 | anti-drill guard E | TGBS0010- ... | 1 | | 601 – 2400 | | | | |
| 13a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 601 – 1000 | | | | 1 |
| 13b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001 – 1200 | | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201 – 2400 | | | 1 | 1 |
| 14 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 2400 | | | 1 | |
| 15 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | | |
| 16 | striker plate 56 | Ref. PDB, FRSB | | | | | | | |
| 17 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | |
| **on request** | | | | | | | | | |
| 18 | tilt restrictor .. | TFKB0010- ... | 1 | | 601 – 800 | | | | |
| 19 | mishandling device | TFBS0010- ... | 1 | | | | | | |
| 20 | pressure piece | Ref. PDB, TFFD | 1 | | | | | | |
| 21 | sleeve DS | Ref. PDB, FFHU03 | 1 | | 1801 – 2400 | | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 22 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 23 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 24 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 25 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 26 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 27 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 28 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 29 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 30 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 31 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |



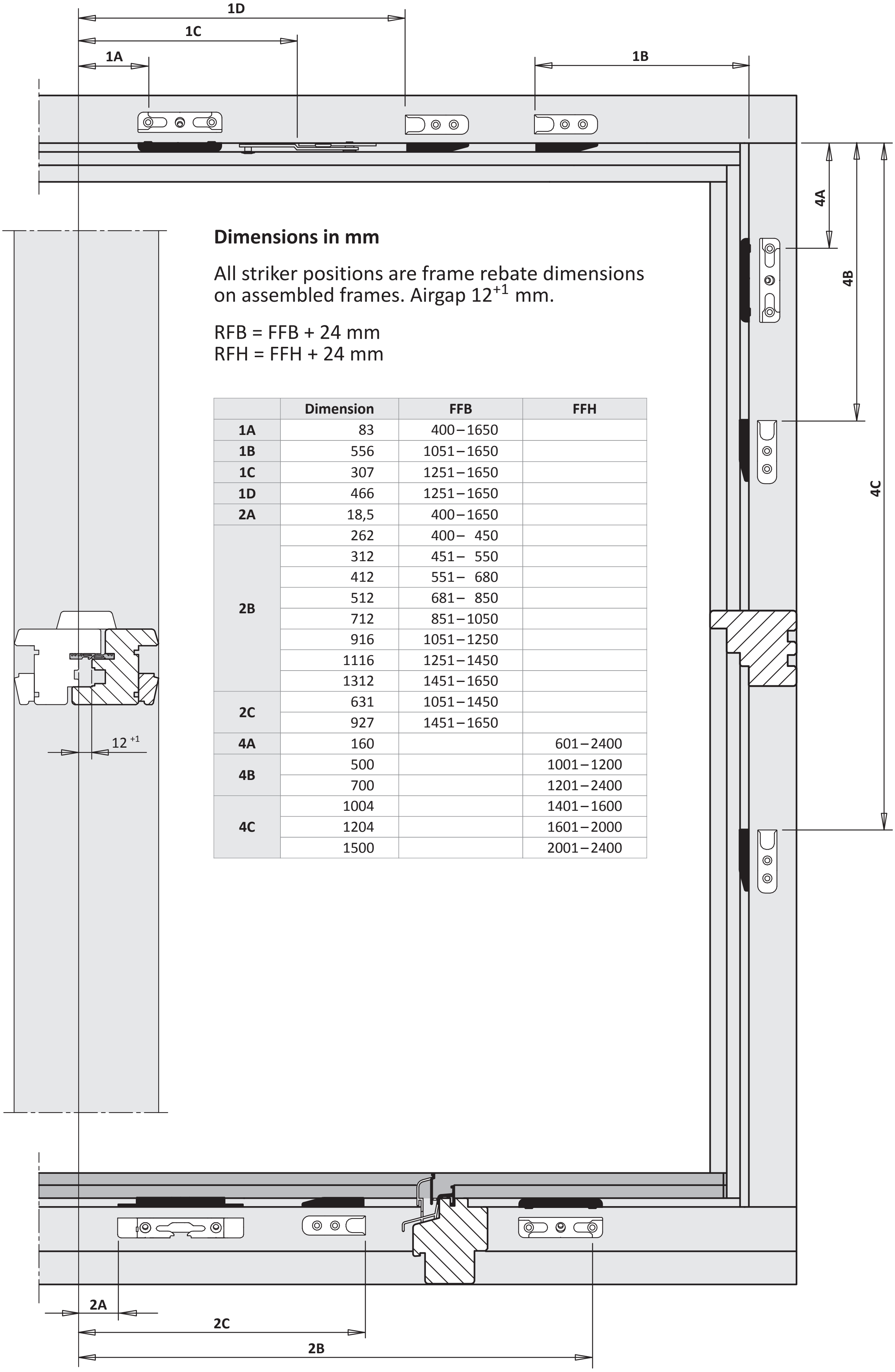

**Dimensions in mm**

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 | 400 – 1450 | |
| 1B | 556 | 1051 – 1450 | |
| 2A | 6,5 | 400 – 1450 | |
| 2B | 266 | 400 – 450 | |
| | 316 | 451 – 550 | |
| | 416 | 551 – 680 | |
| | 516 | 681 – 850 | |
| | 716 | 851 – 1050 | |
| | 920 | 1051 – 1250 | |
| | 1120 | 1251 – 1450 | |
| 2C | 635 | 1051 – 1450 | |
| 4A | 160 | | 601 – 2400 |
| 4B | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 2400 |
| 4C | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 2400 |

4




**Dimensions in mm**

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

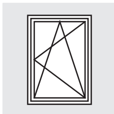
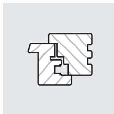
RFB = FFB + 24 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 400 – 1650 | |
| 1B | 556 | 1051 – 1650 | |
| 1C | 307 | 1251 – 1650 | |
| 1D | 466 | 1251 – 1650 | |
| 2A | 18,5 | 400 – 1650 | |
| 2B | 262 | 400 – 450 | |
| | 312 | 451 – 550 | |
| | 412 | 551 – 680 | |
| | 512 | 681 – 850 | |
| | 712 | 851 – 1050 | |
| | 916 | 1051 – 1250 | |
| | 1116 | 1251 – 1450 | |
| | 1312 | 1451 – 1650 | |
| 2C | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 4A | 160 | | 601 – 2400 |
| 4B | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 2400 |
| 4C | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 2400 |

4

# TITAN AF

## Installation instructions

  **RC1**

1-sash square tilt before turn (TBT)

timber 12 mm

RC1

fixed handle position

Hinge side TITAN

surface TS

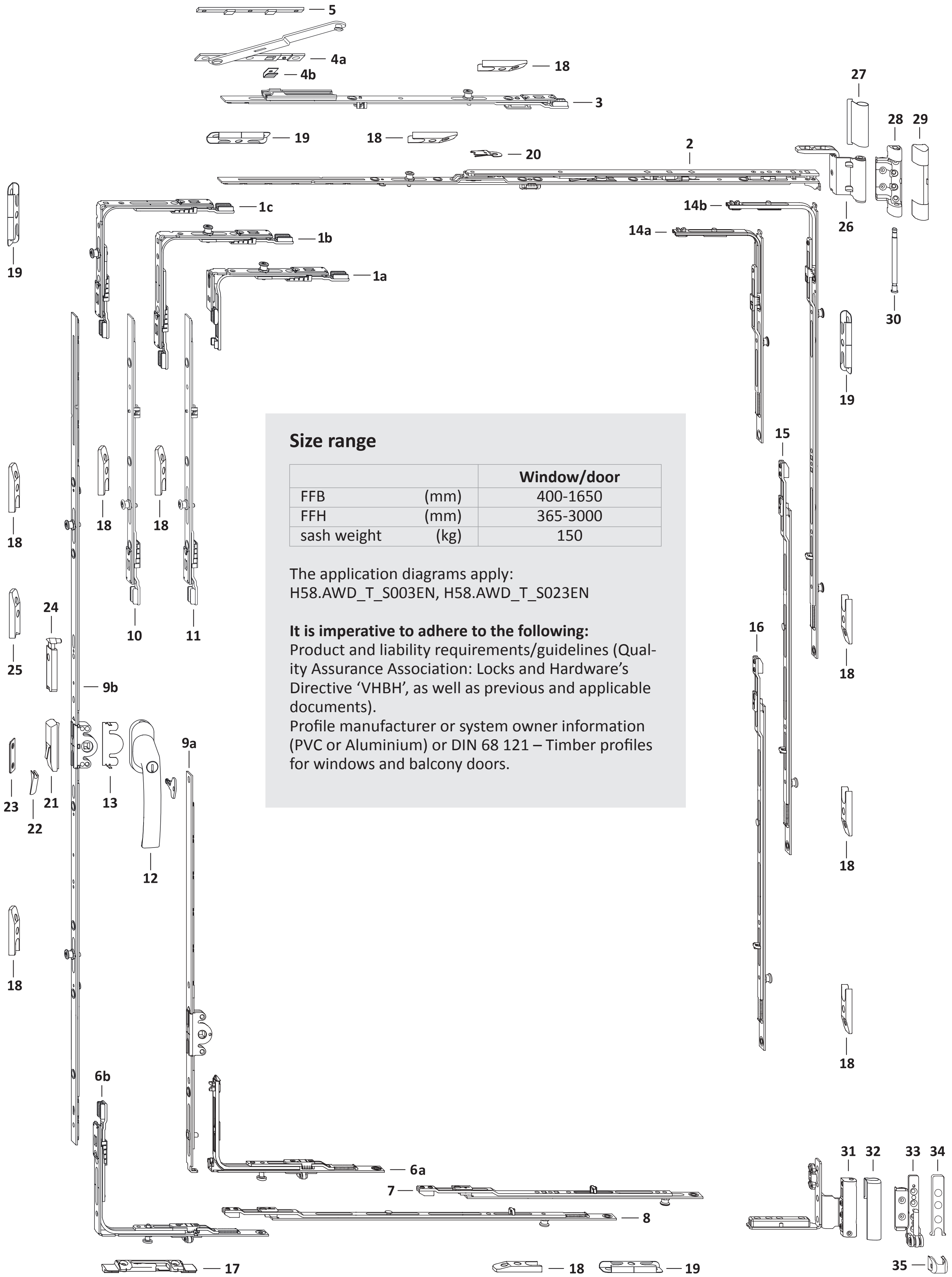
backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 2RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout

1-sash square tilt before turn (TBT)
H12 GK Hinge side TITAN






## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 400-1650 |
| FFH | (mm) | 365-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

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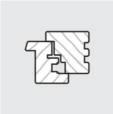


# List of fittings

1-sash square tilt before turn (TBT)
H12 GK Hinge side TITAN

**TITAN AF**

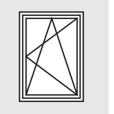
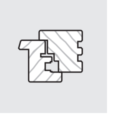
**RC1**



| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 17 | 18 | 19 |
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 400 – 850 | 365 – 410 | | | | 1 |
| 1b | corn.drive VSO 1RS | TEUL4010- ... | 1 | 400 – 1250 | 411 – 3000 | | | | 1 |
| 1c | corn.drive VSO 1RS | TEUL4010- ... | 1 | 1251 – 1650 | 411 – 3000 | | | | 1 |
| 2 | stay AF TBT sz 0 | TSKT2000- ... | 1 | 400 – 450 | | | | | |
| | stay AF TBT sz 1 | TSKT2010- ... | | 451 – 680 | | | | | |
| | stay AF TBT sz 2 1RS | TSKT2120- ... | | 681 – 850 | | | | | |
| | stay AF TBT sz 3 1RS | TSKT2030- ... | | 851 – 1050 | | | | | |
| | stay AF TBT sz 4 1RS | TSKT2040- ... | | 1051 – 1250 | | | | 1 | |
| | stay AF TBT sz 3 1RS | TSKT2030- ... | | 1251 – 1450 | | | | 1 | |
| | stay AF TBT sz 4 1RS | TSKT2040- ... | | 1451 – 1650 | | | | 1 | |
| 3 | linkage add. stay AF TBT RS | TZOT1010- ... | 1 | 1251 – 1650 | | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | | |
| 6a | locking part VSU/K FH+ 1S | TEVR1400- ... | 1 | 400 – 1250 | 411 – 600 | | 1 | | |
| | locking part VSU/K FH+ 1S | TEVR1400- ... | | 400 – 850 | 365 – 410 | | 1 | | |
| 6b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 400 – 1650 | 601 – 3000 | | 1 | | |
| 7 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400 – 450 | | | | | 1 |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451 – 550 | | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551 – 680 | | | | | 1 |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681 – 850 | | | | | 1 |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851 – 1050 | | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051 – 1250 | | | | | 1 |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251 – 1450 | | | | | 1 |
| | extension sz 4+ 1RS | TVSL0340- ... | | 1451 – 1650 | | | | | 1 |
| 8 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 1 | |
| 9a | gear 15 sz 30/G180 | TGKK3010- ... | 1 | 400 – 850 | 365 – 410 | 180 | | | |
| | gear 15 sz 30/G180 | TGKK3010- ... | | 400 – 1250 | 411 – 600 | 180 | | | |
| 9b | gear 15 AF sz 60/G300 | TGKK4030- ... | 1 | | 601 – 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/G700 1RS | TGKK4080- ... | | | 1401 – 1600 | 700 | | 1 | |
| | 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 2RS | TGKK4110- ... | | | 2001 – 3000 | 1000 | | 2 | |
| 10 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2401 – 2600 | | | 1 | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | 1 | |
| 11 | linkage KK/AF sz 2 1RS | TZKK1020- ... | 1 | | 2601 – 2800 | | | 1 | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | 1 | |
| 12 | handle Globe TBT lockable | Ref.access. ZHGT | 1 | | 365 – 3000 | | | | |
| 13 | anti-drill guard E | TGBS0010- ... | 1 | | 365 – 3000 | | | | |
| 14a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 365 – 1000 | | | | 1 |
| 14b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001 – 1200 | | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201 – 3000 | | | 1 | 1 |
| 15 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | | 1 | |
| 16 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | | 1 | |
| 17 | tilt lock bear. S-ES FH TBT | Ref. PDB, FRKB | | | | | | | |
| 18 | striker plate 56 | Ref. PDB, FRSB | | | | | | | |
| 19 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | |
| **on request** | | | | | | | | | |
| 20 | tilt restrictor .. | TFKB0010- ... | 1 | | 365 – 800 | | | | |
| 21 | mishandling device | TFBS0010- ... | 1 | | | | | | |
| 22 | pressure piece | Ref. PDB, TFFD | 1 | | | | | | |
| 23 | stop | Ref. PDB, FRZF01 | 1 | | | | | | |
| 24 | snapper switchable rh. | TFST0011- ... | 1 | | 1801 – 3000 | | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1801 – 3000 | | | | |

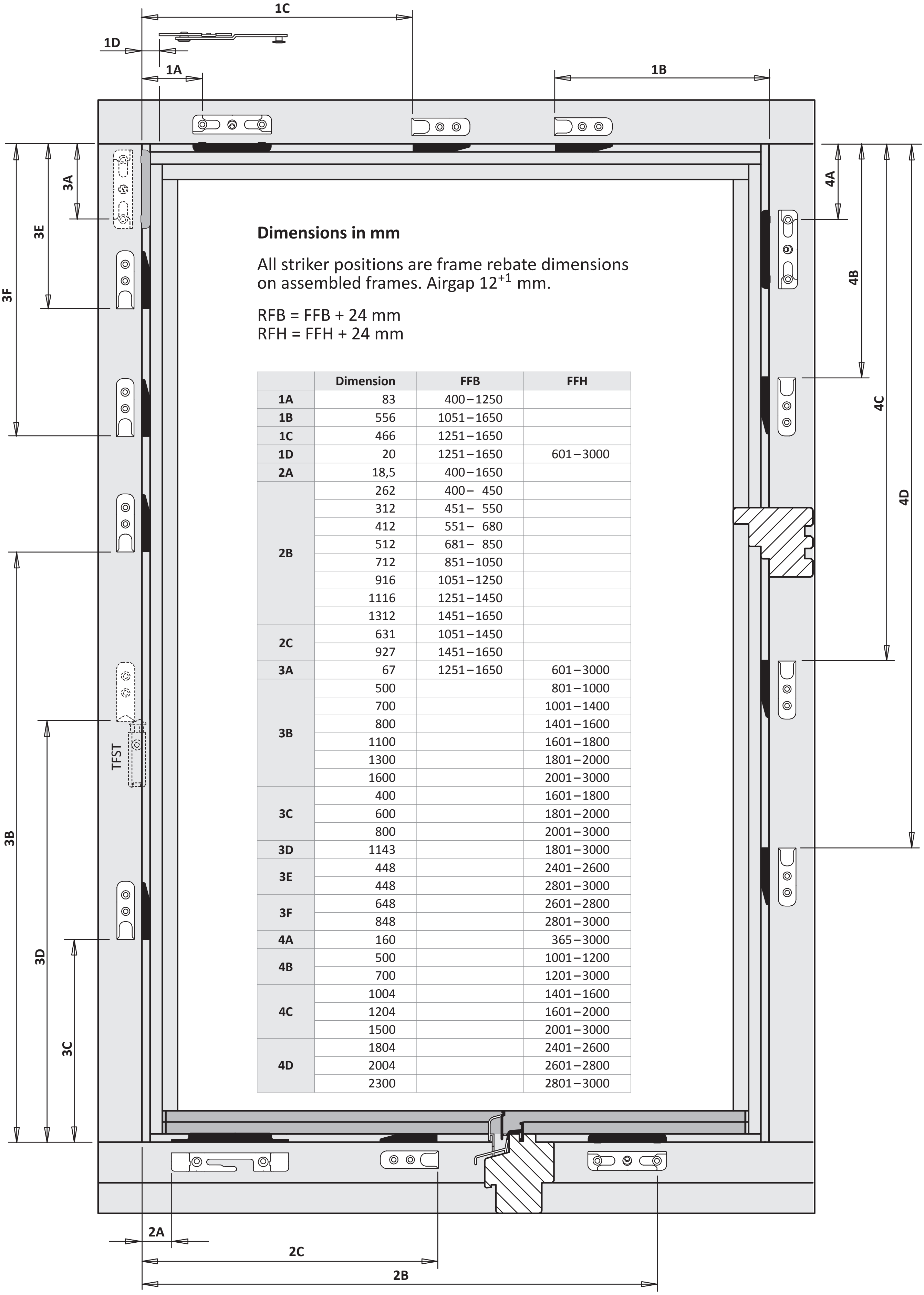
# List of fittings

1-sash square tilt before turn (TBT)
H12 GK Hinge side TITAN

| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 17 | 18 | 19 |
| 25 | frame part snapper | Ref. PDB, TRST | 1 | | 1801 – 3000 | | | | |

| Hinge side turning points | | | | |
|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 26 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 27 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 28 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 29 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 30 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 31 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 32 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 33 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 34 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 35 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |




**Dimensions in mm**

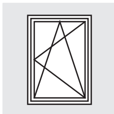
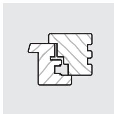
All striker positions are frame rebate dimensions on assembled frames. Airgap $12^{+1}$ mm.

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

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 400 – 1250 | |
| 1B | 556 | 1051 – 1650 | |
| 1C | 466 | 1251 – 1650 | |
| 1D | 20 | 1251 – 1650 | 601 – 3000 |
| 2A | 18,5 | 400 – 1650 | |
| 2B | 262 | 400 – 450 | |
| | 312 | 451 – 550 | |
| | 412 | 551 – 680 | |
| | 512 | 681 – 850 | |
| | 712 | 851 – 1050 | |
| | 916 | 1051 – 1250 | |
| | 1116 | 1251 – 1450 | |
| | 1312 | 1451 – 1650 | |
| 2C | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 3A | 67 | 1251 – 1650 | 601 – 3000 |
| 3B | 500 | | 801 – 1000 |
| | 700 | | 1001 – 1400 |
| | 800 | | 1401 – 1600 |
| | 1100 | | 1601 – 1800 |
| | 1300 | | 1801 – 2000 |
| | 1600 | | 2001 – 3000 |
| 3C | 400 | | 1601 – 1800 |
| | 600 | | 1801 – 2000 |
| | 800 | | 2001 – 3000 |
| 3D | 1143 | | 1801 – 3000 |
| 3E | 448 | | 2401 – 2600 |
| | 448 | | 2801 – 3000 |
| 3F | 648 | | 2601 – 2800 |
| | 848 | | 2801 – 3000 |
| 4A | 160 | | 365 – 3000 |
| 4B | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4C | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4D | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

# TITAN AF

## Installation instructions

**RC1**

1-sash square tilt-turn

timber 12 mm

RC1

fixed handle position

Hinge side TITAN

surface TS

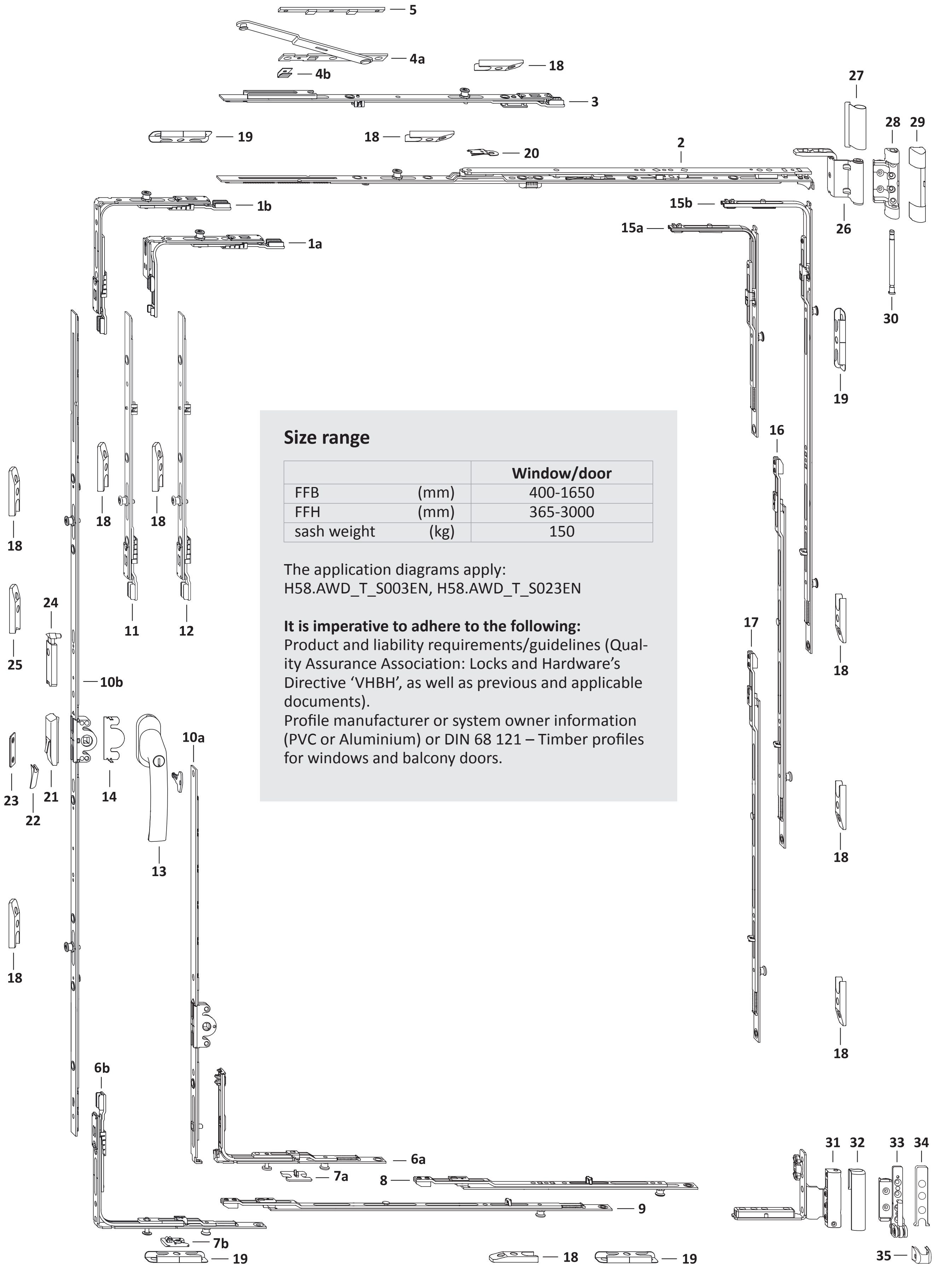
backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | double cam SB R-RS |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 2RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout

1-sash square tilt-turn
H12 GK Hinge side TITAN



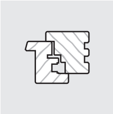
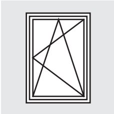



## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 400-1650 |
| FFH | (mm) | 365-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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.



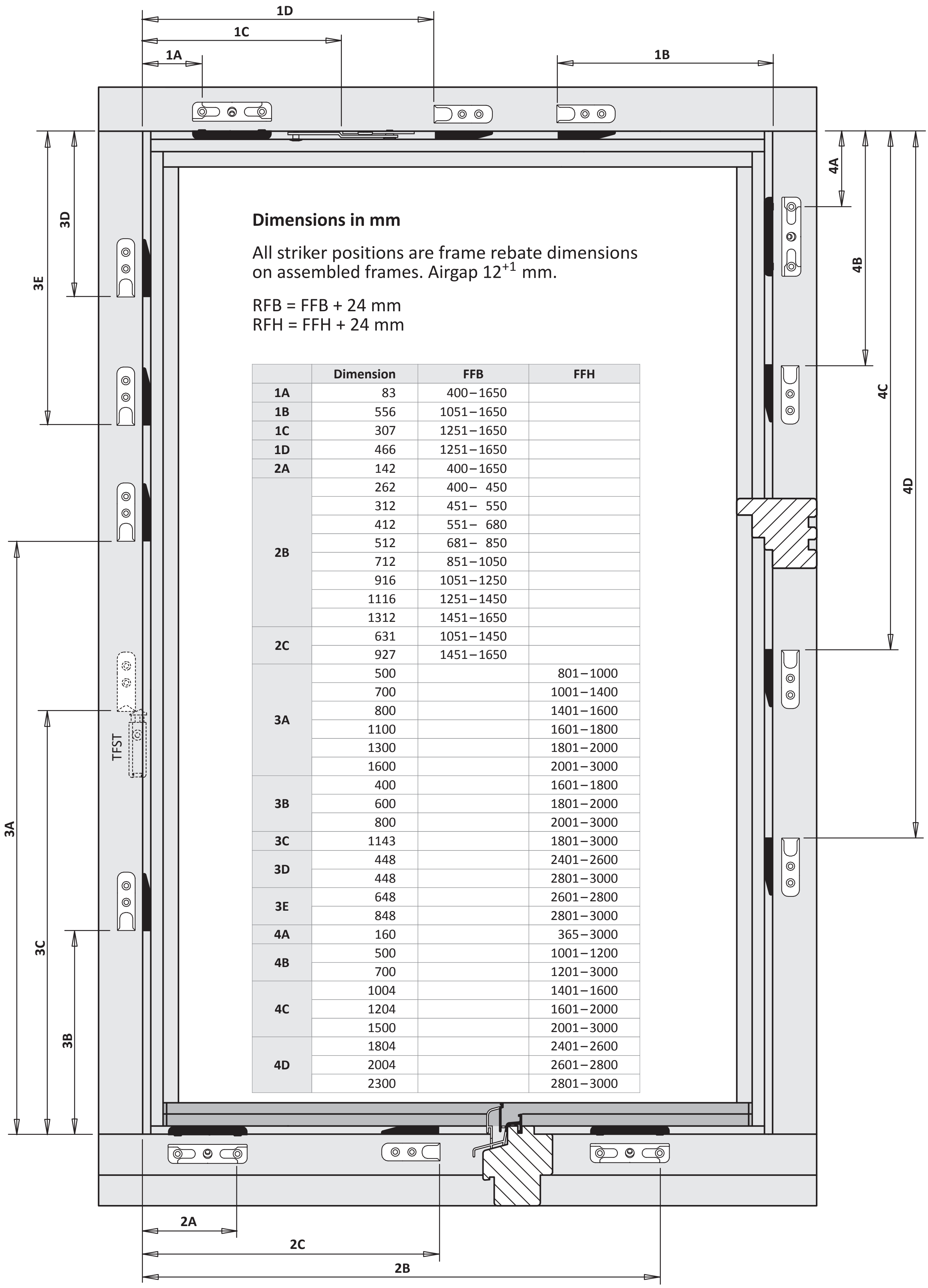
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. 18 | 19 |
|---|---|---|---|---|---|---|---|---|
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 400 – 850 | 365 – 410 | | | 1 |
| 1b | corn.drive VSO 1RS | TEUL4010- ... | 1 | 400 – 1650 | 411 – 3000 | | | 1 |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 400 – 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | 1 | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | 1 | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | 1 | |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | |
| 6a | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | 1 | 400 – 1250 | 411 – 600 | | | 1 |
| | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | | 400 – 850 | 365 – 410 | | | 1 |
| 6b | corn.drive AF VSU/K 56+ 1S 1RS | TEUL5030- ... | 1 | 400 – 1650 | 601 – 3000 | | | 1 |
| 7a | run-up plate FH KRL56 | Ref. PDB, TRAL01 | 1 | 400 – 1250 | 411 – 600 | | | |
| | run-up plate FH KRL56 | Ref. PDB, TRAL01 | | 400 – 850 | 365 – 410 | | | |
| 7b | run up block AF 13 mm 13 | TFFH0080- ... | 1 | 400 – 1650 | 601 – 3000 | | | |
| 8 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400 – 450 | | | | 1 |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451 – 550 | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551 – 680 | | | | 1 |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681 – 850 | | | | 1 |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851 – 1050 | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051 – 1250 | | | | 1 |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251 – 1450 | | | | 1 |
| | extension sz 4+ 1RS | TVSL0340- ... | | 1451 – 1650 | | | | 1 |
| 9 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | 1 | |
| 10a | gear 15 sz 30/G180 | TGKK3010- ... | 1 | 400 – 850 | 365 – 410 | 180 | | |
| | gear 15 sz 30/G180 | TGKK3010- ... | | 400 – 1250 | 411 – 600 | 180 | | |
| 10b | gear 15 AF sz 60/G300 | TGKK4030- ... | 1 | | 601 – 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/G700 1RS | TGKK4080- ... | | | 1401 – 1600 | 700 | 1 | |
| | 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 2RS | TGKK4110- ... | | | 2001 – 3000 | 1000 | 2 | |
| 11 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2401 – 2600 | | 1 | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | 1 | |
| 12 | linkage KK/AF sz 2 1RS | TZKK1020- ... | 1 | | 2601 – 2800 | | 1 | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | 1 | |
| 13 | handle Globe lockable 100Nm | Ref.access. ZHGA100 | 1 | | 365 – 3000 | | | |
| 14 | anti-drill guard E | TGBS0010- ... | 1 | | 365 – 3000 | | | |
| 15a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 365 – 1000 | | | 1 |
| 15b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001 – 1200 | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201 – 3000 | | 1 | 1 |
| 16 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | 1 | |
| 17 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | 1 | |
| 18 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| 19 | striker plate S-RS | Ref. PDB, TRSK | | | | | | |
| | | | **on request** | | | | | |
| 20 | tilt restrictor .. | TFKB0010- ... | 1 | | 365 – 800 | | | |
| 21 | mishandling device | TFBS0010- ... | 1 | | | | | |
| 22 | pressure piece | Ref. PDB, TFFD | 1 | | | | | |
| 23 | stop | Ref. PDB, FRZF01 | 1 | | | | | |

# List of fittings

1-sash square tilt-turn
H12 GK Hinge side TITAN

| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 18 | 19 |
| 24 | snapper switchable rh. | TFST0011- ... | 1 | | 1801 – 3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1801 – 3000 | | | |
| 25 | frame part snapper | Ref. PDB, TRST | 1 | | 1801 – 3000 | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 26 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 27 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 28 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 29 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 30 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 31 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 32 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 33 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 34 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 35 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |




**Dimensions in mm**

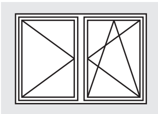
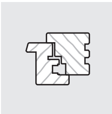
All striker positions are frame rebate dimensions on assembled frames. Airgap $12^{+1}$ mm.

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

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 400 – 1650 | |
| 1B | 556 | 1051 – 1650 | |
| 1C | 307 | 1251 – 1650 | |
| 1D | 466 | 1251 – 1650 | |
| 2A | 142 | 400 – 1650 | |
| 2B | 262 | 400 – 450 | |
| | 312 | 451 – 550 | |
| | 412 | 551 – 680 | |
| | 512 | 681 – 850 | |
| | 712 | 851 – 1050 | |
| | 916 | 1051 – 1250 | |
| | 1116 | 1251 – 1450 | |
| | 1312 | 1451 – 1650 | |
| 2C | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 3A | 500 | | 801 – 1000 |
| | 700 | | 1001 – 1400 |
| | 800 | | 1401 – 1600 |
| | 1100 | | 1601 – 1800 |
| | 1300 | | 1801 – 2000 |
| | 1600 | | 2001 – 3000 |
| 3B | 400 | | 1601 – 1800 |
| | 600 | | 1801 – 2000 |
| | 800 | | 2001 – 3000 |
| 3C | 1143 | | 1801 – 3000 |
| 3D | 448 | | 2401 – 2600 |
| | 448 | | 2801 – 3000 |
| 3E | 648 | | 2601 – 2800 |
| | 848 | | 2801 – 3000 |
| 4A | 160 | | 365 – 3000 |
| 4B | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4C | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4D | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

# TITAN AF

## Installation instructions

**RC1**

2-sash square tilt-turn/turn DS 16

timber 12 mm

RC1

fixed handle position

Hinge side TITAN

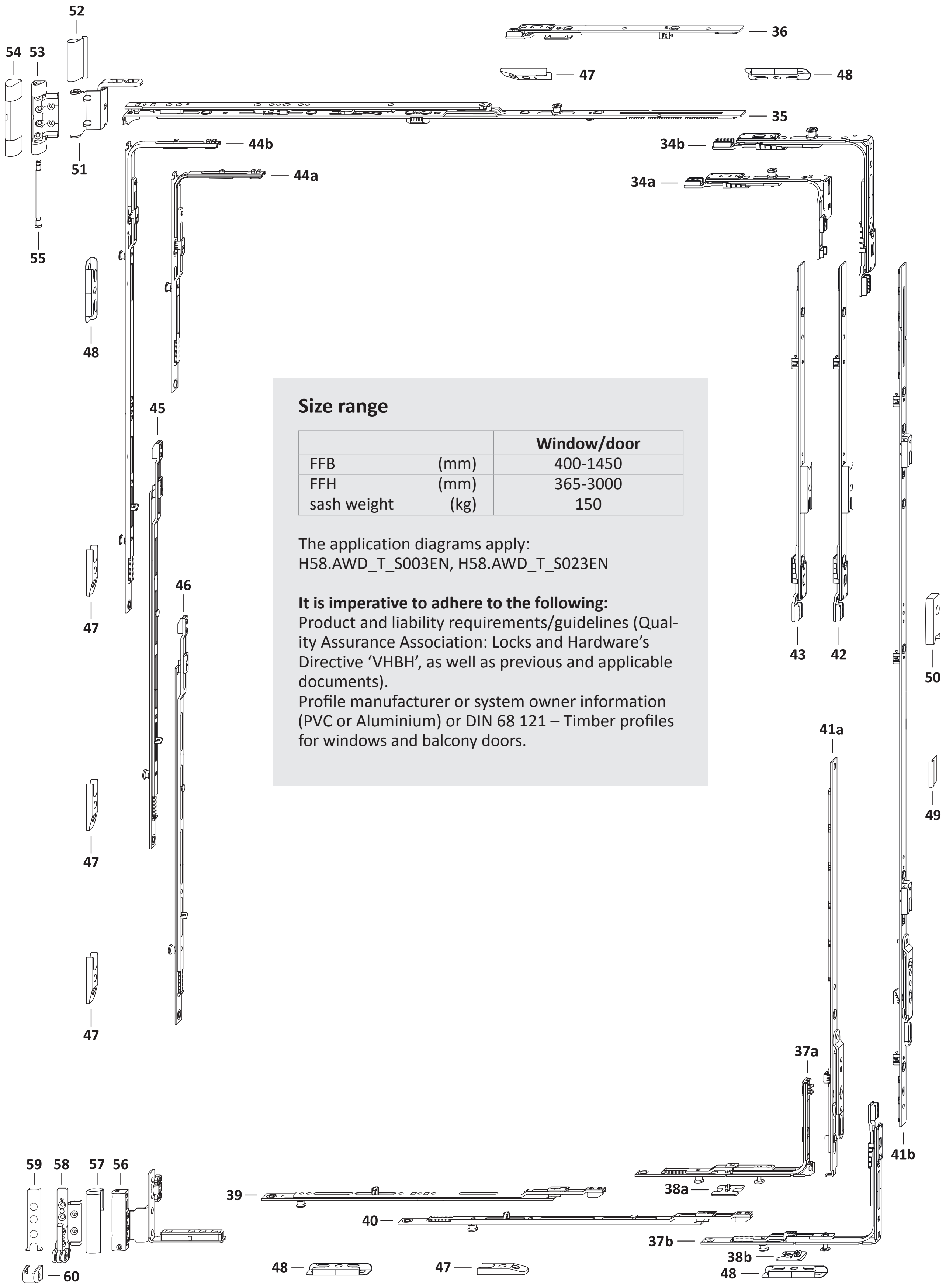
surface TS

backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | double cam SB R-RS |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 2RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout slave sash

2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN

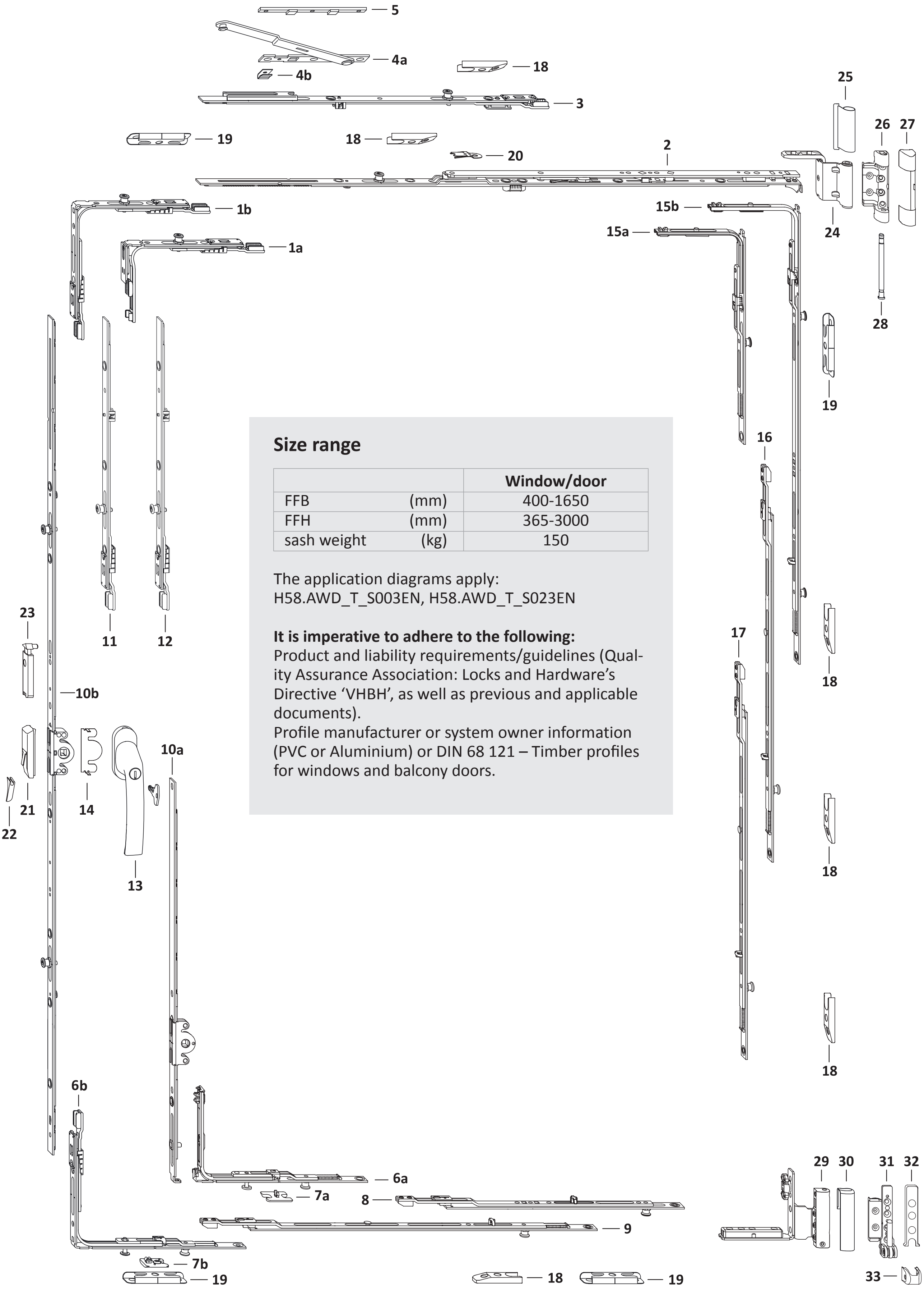



## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 400-1450 |
| FFH | (mm) | 365-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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) | 400-1650 |
| FFH | (mm) | 365-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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

2-sash square tilt-turn/turn DS 16

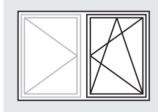
H12 GK Hinge side TITAN

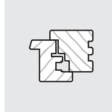
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | In the main sash | 47 | 48 |
| 34a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 400 – 850 | 365 – 410 | | | 1 |
| 34b | corn.drive VSO 1RS | TEUL4010- ... | 1 | 400 – 1450 | 411 – 3000 | | | 1 |
| 35 | stay AF sz 0 | TSKK2000- ... | 1 | 400 – 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1450 | | | 1 | |
| 36 | linkage AF sz 1 | TZZS0150- ... | 1 | 1251 – 1450 | | | | |
| 37a | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | 1 | 400 – 1450 | 411 – 800 | | | 1 |
| | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | | 400 – 850 | 365 – 410 | | | 1 |
| 37b | corn.drive AF VSU/K 56+ 1S 1RS | TEUL5030- ... | 1 | 400 – 1450 | 801 – 3000 | | | 1 |
| 38a | run-up plate FH KRL56 | Ref. PDB, TRAL01 | 1 | 400 – 1450 | 411 – 800 | | | |
| | run-up plate FH KRL56 | Ref. PDB, TRAL01 | | 400 – 850 | 365 – 410 | | | |
| 38b | run up block AF 13 mm 13 | TFFH0080- ... | 1 | 400 – 1450 | 801 – 3000 | | | |
| 39 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400 – 450 | | | | 1 |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451 – 550 | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551 – 680 | | | | 1 |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681 – 850 | | | | 1 |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851 – 1050 | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051 – 1250 | | | | 1 |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251 – 1450 | | | | 1 |
| 40 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | 1 | |
| 41a | sec.sash gear 16 sz 30 | TGKS0010- ... | 1 | 400 – 850 | 365 – 410 | 180 | | |
| | sec.sash gear 16 sz 30 | TGKS0010- ... | | 400 – 1250 | 411 – 600 | 180 | | |
| | sec.sash gear 16 AF 60/G300 | TGKS4030- ... | | | 601 – 800 | 300 | | |
| 41b | sec.sash gear 16 AF80/G400 1SB | TGKS4050- ... | 1 | | 801 – 1000 | 400 | | |
| | sec.sash gear 16 AF sz 100 1SB | TGKS4060- ... | | | 1001 – 1200 | 500 | | |
| | sec.sash gear 16 AF120/G6001SB | TGKS4070- ... | | | 1201 – 1400 | 600 | | |
| | sec.sash gear 16 AF140/G7001SB | TGKS4080- ... | | | 1401 – 1600 | 700 | | |
| | sec.sash gear 16 AF160/G7002SB 70 | TGKS4330- ... | | | 1601 – 1800 | 700 | | |
| | sec.sash gear 16AF180/G10002SB 70 | TGKS4270- ... | | | 1801 – 2000 | 1000 | | |
| | sec.sash gear 16AF200/G10002SB | TGKS4110- ... | | | 2001 – 3000 | 1000 | | |
| 42 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2401 – 2600 | | | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | |
| 43 | linkage AF sz 2 1SB-RS | TZKS1030- ... | 1 | | 2601 – 2800 | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | |
| 44a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 365 – 1000 | | | 1 |
| 44b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001 – 1200 | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201 – 3000 | | 1 | 1 |
| 45 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | 1 | |
| 46 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | 1 | |
| 47 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| 48 | striker plate S-RS | Ref. PDB, TRSK | | | | | | |
| **on request** | | | | | | | | |
| 49 | stop | Ref. PDB, FRZF04 | 1 | | 601 – 3000 | | | |
| 50 | striker snapper A0767 | TRST0010- ... | 1 | | 1801 – 3000 | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| **Pos.** | **Description** | **Part number** | | | **required as per sash weight** |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| **51** | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| **52** | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| **53** | top hinge | Ref. PDB, TBSL81 | | | 1 |
| **54** | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| **55** | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| **56** | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| **57** | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| **58** | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| **59** | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| **60** | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

# List of fittings main sash

2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN







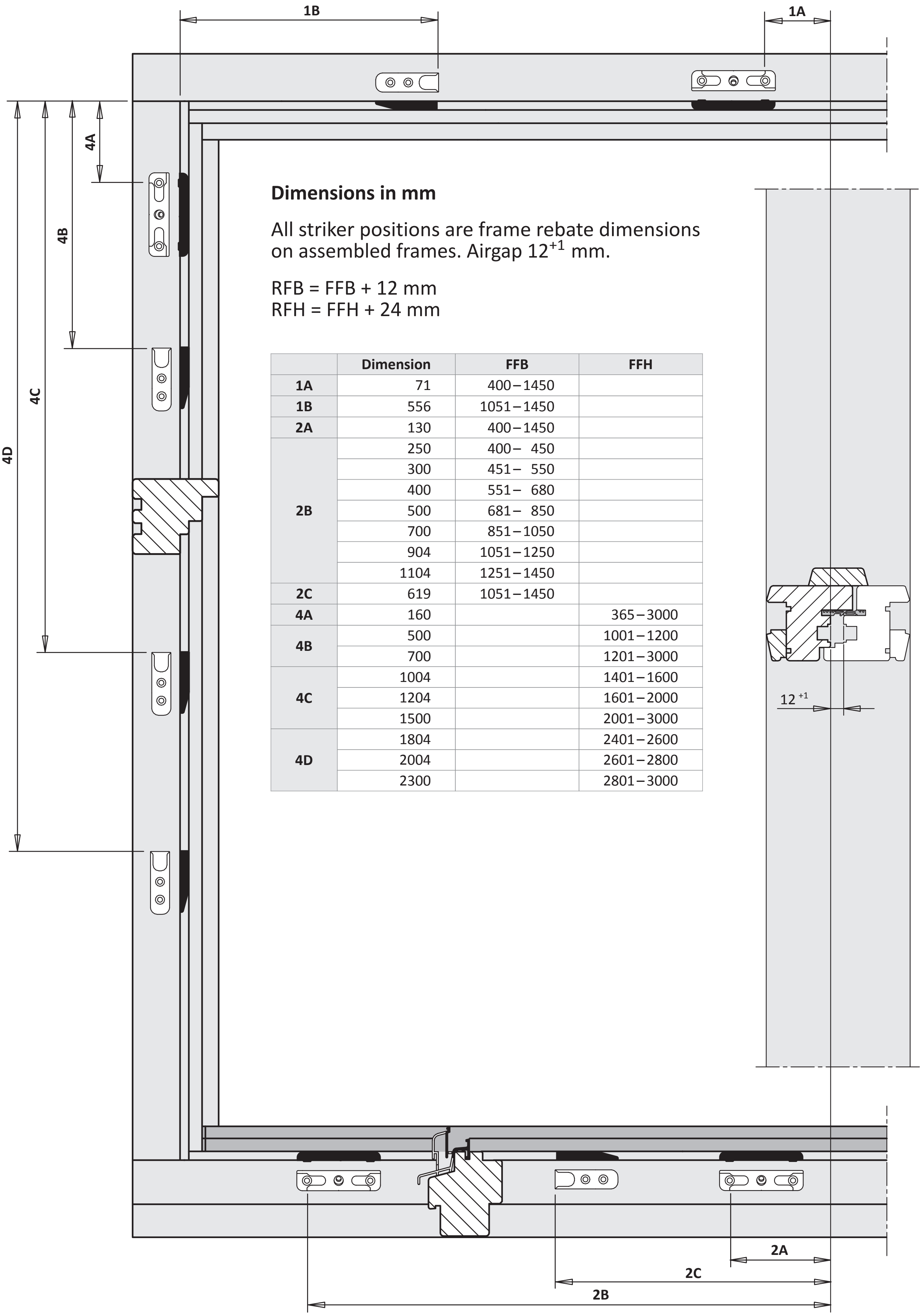
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. 18 | 19 |
|---|---|---|---|---|---|---|---|---|
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 400 – 850 | 365 – 410 | | | 1 |
| 1b | corn.drive VSO 1RS | TEUL4010- ... | 1 | 400 – 1650 | 411 – 3000 | | | 1 |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 400 – 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | 1 | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | 1 | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | 1 | |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | |
| 6a | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | 1 | 400 – 1250 | 411 – 600 | | | 1 |
| | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | | 400 – 850 | 365 – 410 | | | 1 |
| 6b | corn.drive AF VSU/K 56+ 1S 1RS | TEUL5030- ... | 1 | 400 – 1650 | 601 – 3000 | | | 1 |
| 7a | run-up plate FH KRL56 | Ref. PDB, TRAL01 | 1 | 400 – 1250 | 411 – 600 | | | |
| | run-up plate FH KRL56 | Ref. PDB, TRAL01 | | 400 – 850 | 365 – 410 | | | |
| 7b | run up block AF 13 mm 13 | TFFH0080- ... | 1 | 400 – 1650 | 601 – 3000 | | | |
| 8 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400 – 450 | | | | 1 |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451 – 550 | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551 – 680 | | | | 1 |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681 – 850 | | | | 1 |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851 – 1050 | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051 – 1250 | | | | 1 |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251 – 1450 | | | | 1 |
| | extension sz 4+ 1RS | TVSL0340- ... | | 1451 – 1650 | | | | 1 |
| 9 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | 1 | |
| 10a | gear 15 sz 30/G180 | TGKK3010- ... | 1 | 400 – 850 | 365 – 410 | 180 | | |
| | gear 15 sz 30/G180 | TGKK3010- ... | | 400 – 1250 | 411 – 600 | 180 | | |
| 10b | gear 15 AF sz 60/G300 | TGKK4030- ... | 1 | | 601 – 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/G700 1RS | TGKK4080- ... | | | 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 2RS | TGKK4110- ... | | | 2001 – 3000 | 1000 | | |
| 11 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2401 – 2600 | | | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | |
| 12 | linkage KK/AF sz 2 1RS | TZKK1020- ... | 1 | | 2601 – 2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | |
| 13 | handle Globe lockable 100Nm | Ref.access. ZHGA100 | 1 | | 365 – 3000 | | | |
| 14 | anti-drill guard E | TGBS0010- ... | 1 | | 365 – 3000 | | | |
| 15a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 365 – 1000 | | | 1 |
| 15b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001 – 1200 | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201 – 3000 | | 1 | 1 |
| 16 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | 1 | |
| 17 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | 1 | |
| 18 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| 19 | striker plate S-RS | Ref. PDB, TRSK | | | | | | |
| on request | | | | | | | | |
| 20 | tilt restrictor .. | TFKB0010- ... | 1 | | 365 – 800 | | | |
| 21 | mishandling device | TFBS0010- ... | 1 | | 601 – 3000 | | | |
| 22 | pressure piece | Ref. PDB, TFFD | 1 | | 601 – 3000 | | | |
| 23 | snapper switchable rh. | TFST0011- ... | 1 | | 1801 – 3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1801 – 3000 | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| **Pos.** | **Description** | **Part number** | | | **required as per sash weight** |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| **24** | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| **25** | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| **26** | top hinge | Ref. PDB, TBSL81 | | | 1 |
| **27** | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| **28** | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| **29** | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| **30** | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| **31** | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| **32** | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| **33** | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

# Frame dimensions slave sash

2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN



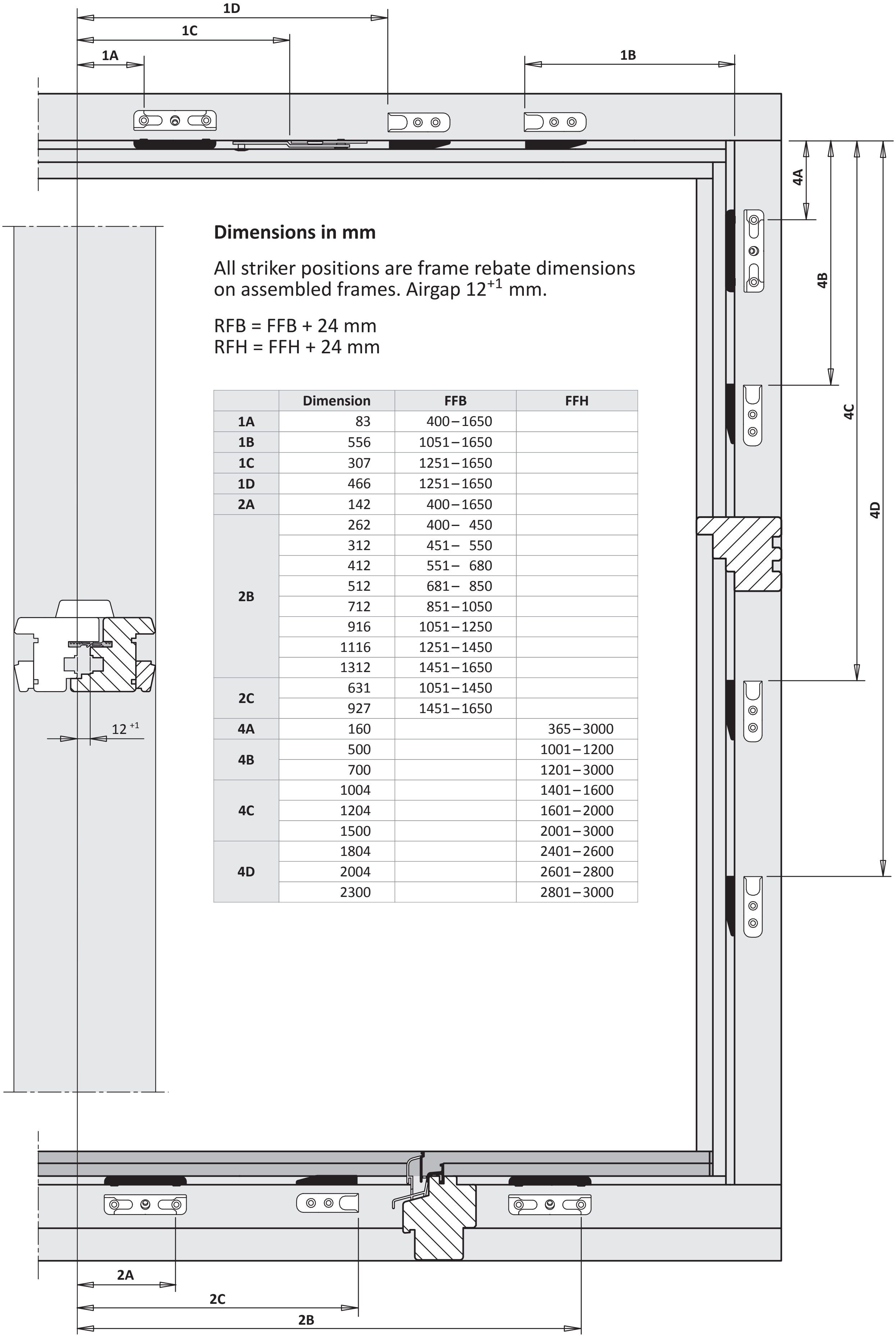



**Dimensions in mm**

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 | 400–1450 | |
| 1B | 556 | 1051–1450 | |
| 2A | 130 | 400–1450 | |
| 2B | 250 | 400– 450 | |
| | 300 | 451– 550 | |
| | 400 | 551– 680 | |
| | 500 | 681– 850 | |
| | 700 | 851–1050 | |
| | 904 | 1051–1250 | |
| | 1104 | 1251–1450 | |
| 2C | 619 | 1051–1450 | |
| 4A | 160 | | 365–3000 |
| 4B | 500 | | 1001–1200 |
| | 700 | | 1201–3000 |
| 4C | 1004 | | 1401–1600 |
| | 1204 | | 1601–2000 |
| | 1500 | | 2001–3000 |
| 4D | 1804 | | 2401–2600 |
| | 2004 | | 2601–2800 |
| | 2300 | | 2801–3000 |




**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 | 400–1650 | |
| **1B** | 556 | 1051–1650 | |
| **1C** | 307 | 1251–1650 | |
| **1D** | 466 | 1251–1650 | |
| **2A** | 142 | 400–1650 | |
| **2B** | 262 | 400– 450 | |
| | 312 | 451– 550 | |
| | 412 | 551– 680 | |
| | 512 | 681– 850 | |
| | 712 | 851–1050 | |
| | 916 | 1051–1250 | |
| | 1116 | 1251–1450 | |
| | 1312 | 1451–1650 | |
| **2C** | 631 | 1051–1450 | |
| | 927 | 1451–1650 | |
| **4A** | 160 | | 365–3000 |
| **4B** | 500 | | 1001–1200 |
| | 700 | | 1201–3000 |
| **4C** | 1004 | | 1401–1600 |
| | 1204 | | 1601–2000 |
| | 1500 | | 2001–3000 |
| **4D** | 1804 | | 2401–2600 |
| | 2004 | | 2601–2800 |
| | 2300 | | 2801–3000 |

4

**Bottom: Inliner**

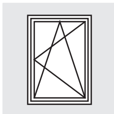
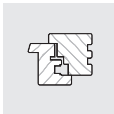


**Bottom: double cam SB R-RS**

5

# TITAN AF

## Installation instructions

  **RC1**

5

1-sash square tilt-turn

timber 12 mm

RC1

centre handle pos. (variable)

Hinge side TITAN

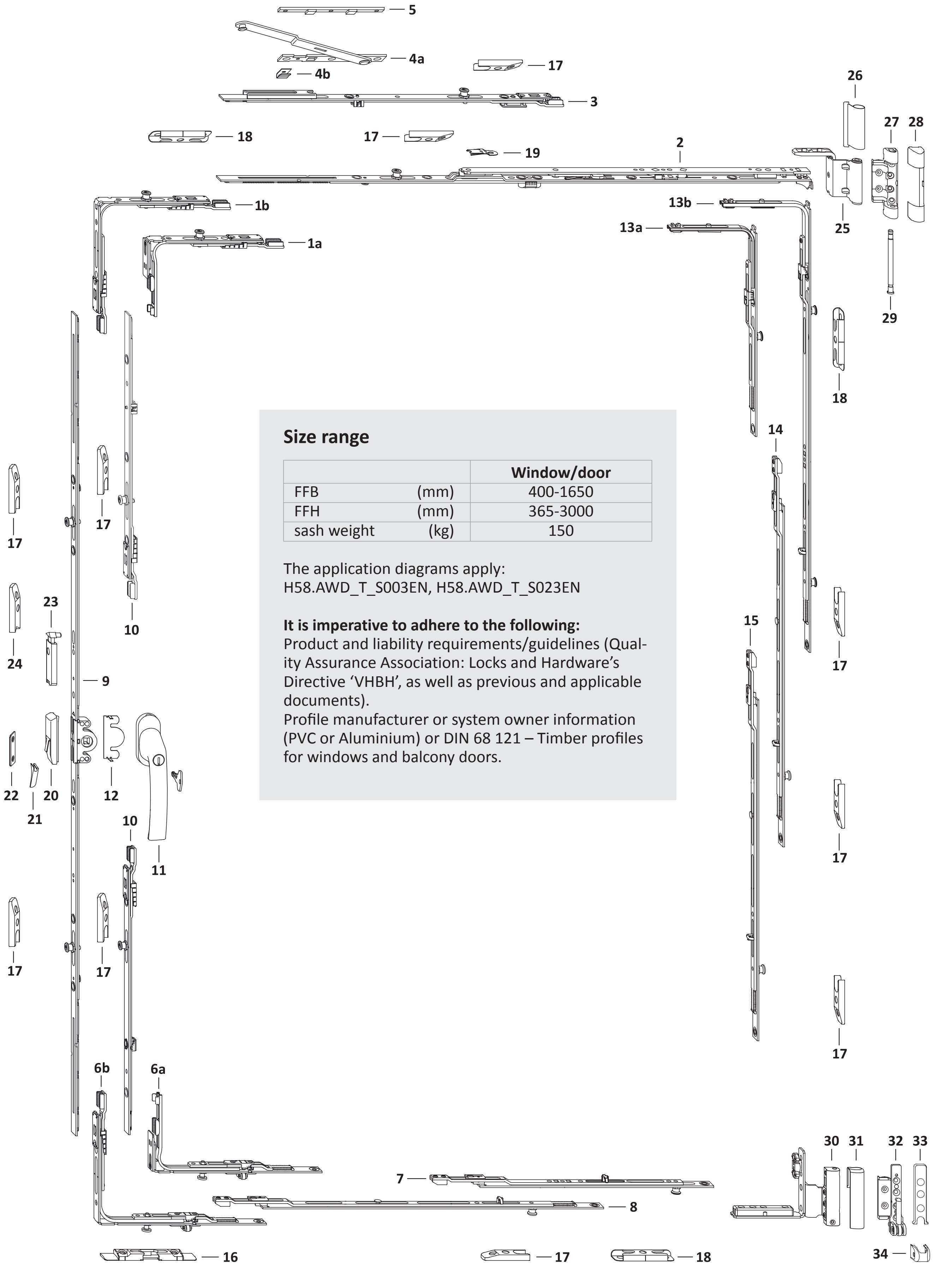
surface TS

backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 2RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout
1-sash square tilt-turn
H12 GM Hinge side TITAN






## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 400-1650 |
| FFH | (mm) | 365-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

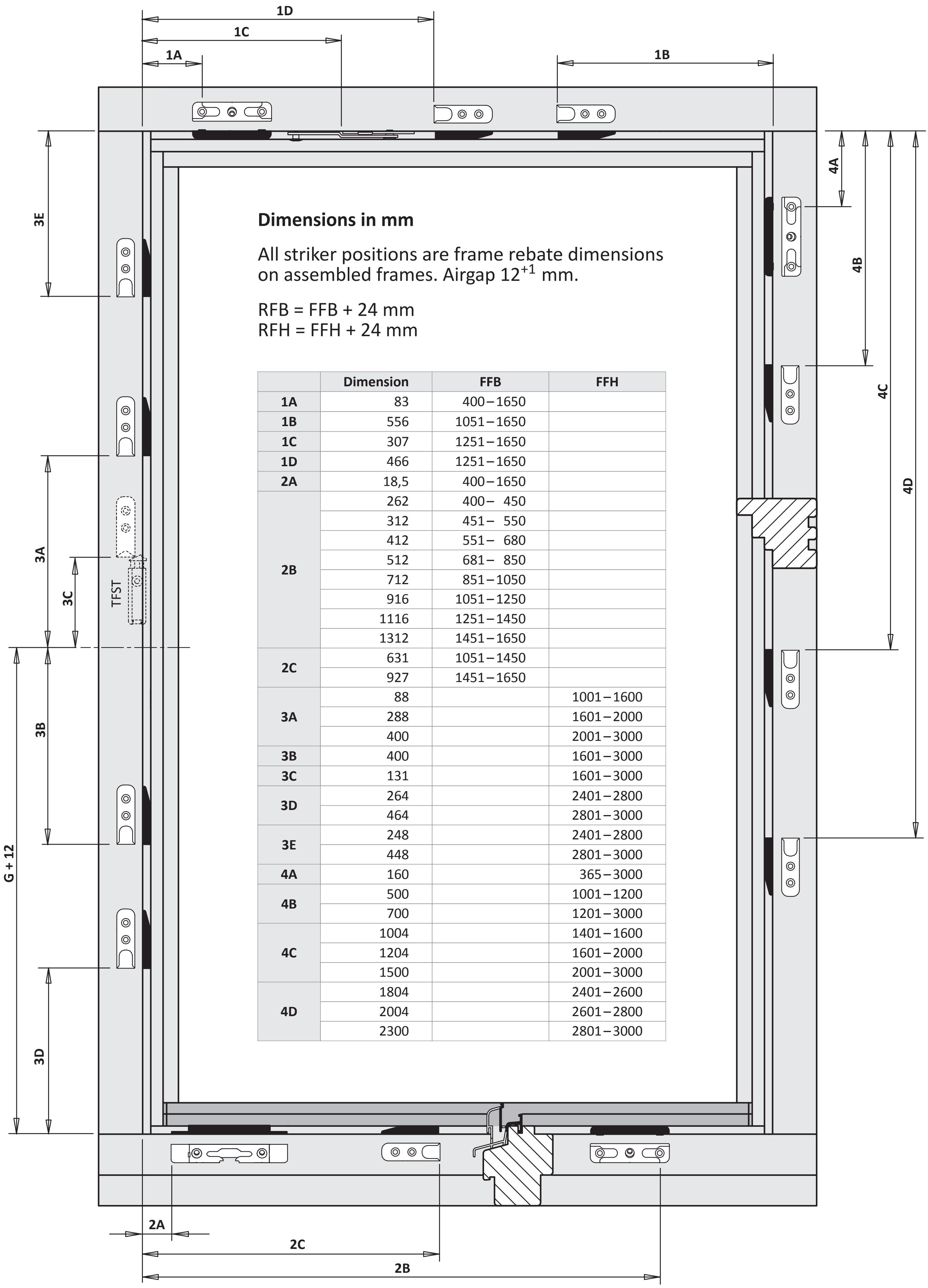
**It is imperative to adhere to the following:**
Product and liability requirements/guidelines (Quality Assurance Association: Locks and Hardware's Directive 'VHBH', as well as previous and applicable documents).
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber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

| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. 16 | 17 | 18 |
|---|---|---|---|---|---|---|---|---|---|
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 400 – 850 | 365 – 460 | | | | 1 |
| 1b | corn.drive VSO 1RS | TEUL4010- ... | 1 | 400 – 1650 | 461 – 3000 | | | | 1 |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 400 – 450 | | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | | 1 | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | | 1 | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | | 1 | |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | | |
| 6a | corn.drive AF VSU/K+ nar.FH 1S | TEUL5090- ... | 1 | 400 – 850 | 365 – 460 | | 1 | | |
| 6b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 400 – 1650 | 461 – 3000 | | 1 | | |
| 7 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400 – 450 | | | | | 1 |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451 – 550 | | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551 – 680 | | | | | 1 |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681 – 850 | | | | | 1 |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851 – 1050 | | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051 – 1250 | | | | | 1 |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251 – 1450 | | | | | 1 |
| | extension sz 4+ 1RS | TVSL0340- ... | | 1451 – 1650 | | | | | 1 |
| 8 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 1 | |
| 9 | gear 15 AF sz 20 | TGMK4010- ... | 1 | 400 – 850 | 365 – 460 | 183 – 230 | | | |
| | gear 15 AF sz 20 | TGMK4010- ... | | | 461 – 600 | 230 – 300 | | | |
| | gear 15 AF sz 60 | TGMK4020- ... | | | 601 – 1000 | 300 – 500 | | | |
| | gear 15 AF sz 80 1RS | TGMK4040- ... | | | 1001 – 1200 | 500 – 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 2RS | TGMK4080- ... | | | 2001 – 3000 | 1000 – 1500 | | 2 | |
| 10 | linkage KK/AF sz 1 1RS | TZKK1010- ... | 2 | | 2401 – 2800 | | | 2 | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | 2 | |
| 11 | handle Globe lockable 100Nm | Ref.access. ZHGA100 | 1 | | 365 – 3000 | | | | |
| 12 | anti-drill guard E | TGBS0010- ... | 1 | | 365 – 3000 | | | | |
| 13a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 365 – 1000 | | | | 1 |
| 13b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001 – 1200 | | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201 – 3000 | | | 1 | 1 |
| 14 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | | 1 | |
| 15 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | | 1 | |
| 16 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | | |
| 17 | striker plate 56 | Ref. PDB, FRSB | | | | | | | |
| 18 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | |
| **on request** | | | | | | | | | |
| 19 | tilt restrictor .. | TFKB0010- ... | 1 | | 365 – 800 | | | | |
| 20 | mishandling device | TFBS0010- ... | 1 | | | | | | |
| 21 | pressure piece | Ref. PDB, TFFD | 1 | | | | | | |
| 22 | stop | Ref. PDB, FRZF01 | 1 | | | | | | |
| 23 | snapper switchable rh. | TFST0011- ... | 1 | | 1601 – 3000 | | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1601 – 3000 | | | | |
| 24 | frame part snapper | Ref. PDB, TRST | 1 | | 1601 – 3000 | | | | |

# List of fittings

1-sash square tilt-turn
H12 GM Hinge side TITAN

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 25 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 26 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 27 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 28 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 29 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 30 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 31 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 32 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 33 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 34 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |




**Dimensions in mm**

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

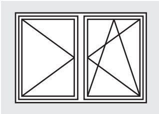
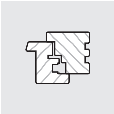
RFB = FFB + 24 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| **1A** | 83 | 400 – 1650 | |
| **1B** | 556 | 1051 – 1650 | |
| **1C** | 307 | 1251 – 1650 | |
| **1D** | 466 | 1251 – 1650 | |
| **2A** | 18,5 | 400 – 1650 | |
| **2B** | 262 | 400 – 450 | |
| | 312 | 451 – 550 | |
| | 412 | 551 – 680 | |
| | 512 | 681 – 850 | |
| | 712 | 851 – 1050 | |
| | 916 | 1051 – 1250 | |
| | 1116 | 1251 – 1450 | |
| | 1312 | 1451 – 1650 | |
| **2C** | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| **3A** | 88 | | 1001 – 1600 |
| | 288 | | 1601 – 2000 |
| | 400 | | 2001 – 3000 |
| **3B** | 400 | | 1601 – 3000 |
| **3C** | 131 | | 1601 – 3000 |
| **3D** | 264 | | 2401 – 2800 |
| | 464 | | 2801 – 3000 |
| **3E** | 248 | | 2401 – 2800 |
| | 448 | | 2801 – 3000 |
| **4A** | 160 | | 365 – 3000 |
| **4B** | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| **4C** | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| **4D** | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

5

# TITAN AF

## Installation instructions

  **RC1**



2-sash square tilt-turn/turn DS 16

timber 12 mm

RC1

centre handle pos. (variable)

Hinge side TITAN

surface TS

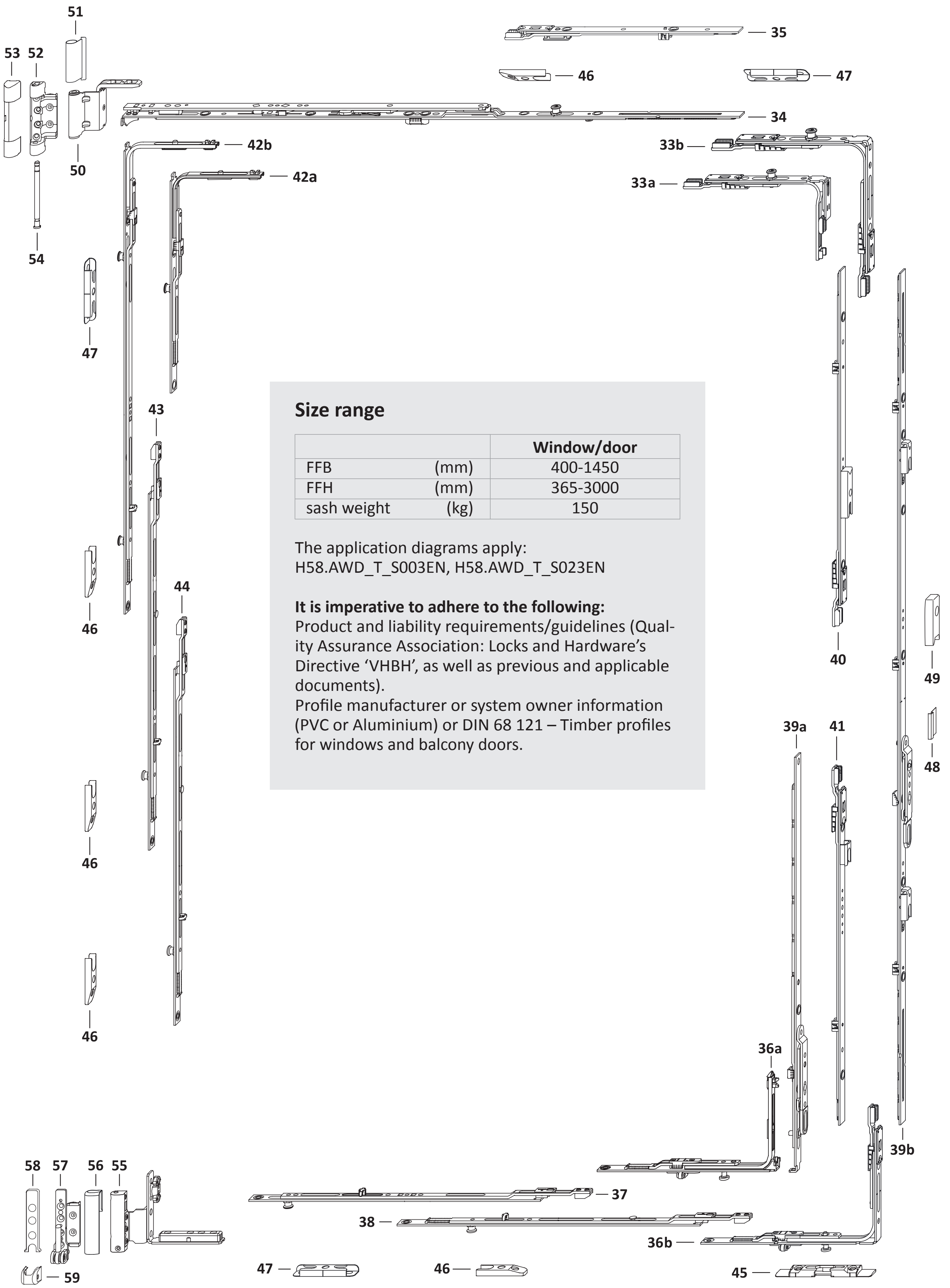
backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 2RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout slave sash

2-sash square tilt-turn/turn DS 16
H12 GM Hinge side TITAN



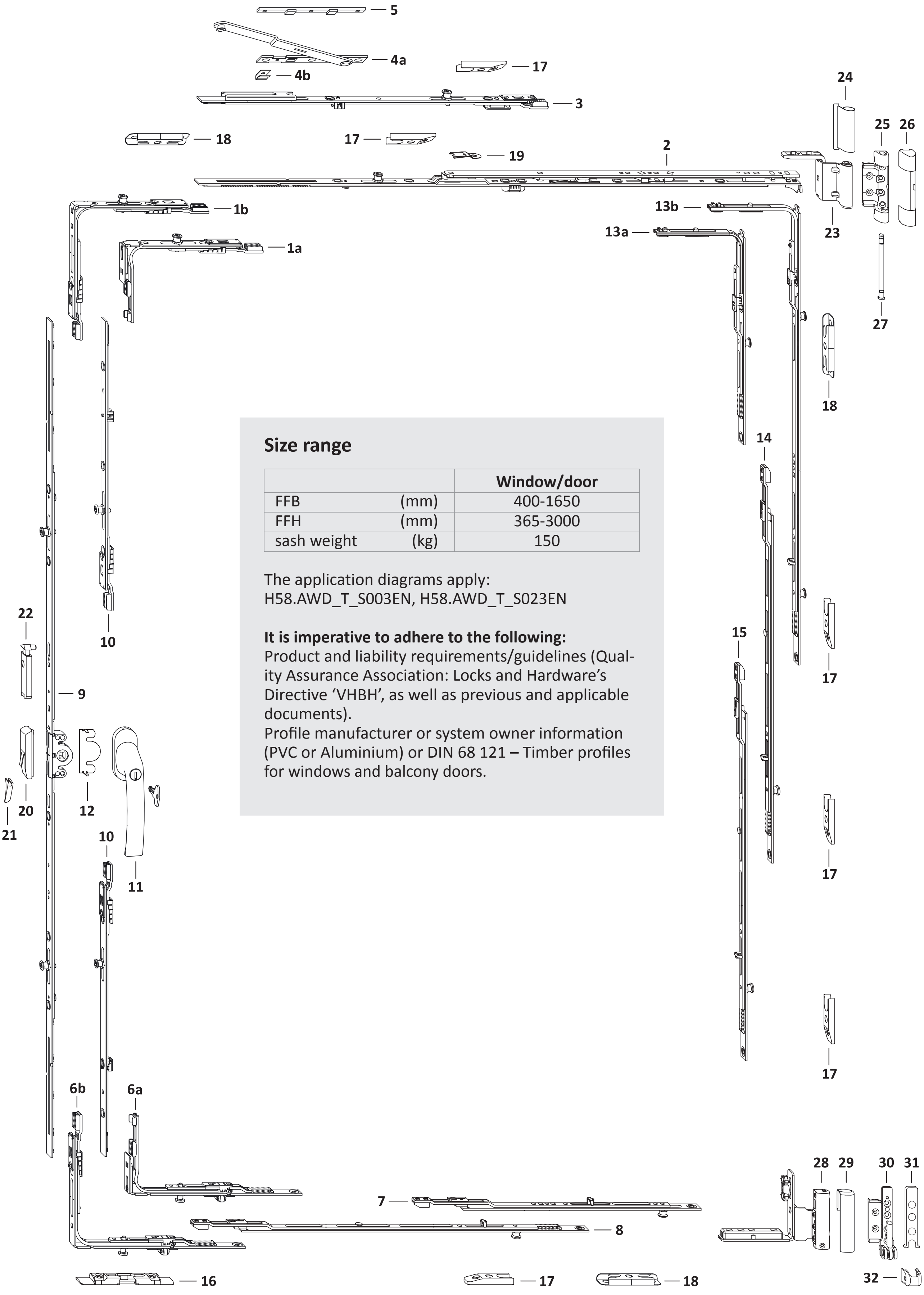



## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 400-1450 |
| FFH | (mm) | 365-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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) | 400-1650 |
| FFH | (mm) | 365-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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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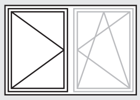
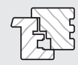
# List of fittings slave sash

2-sash square tilt-turn/turn DS 16
H12 GM Hinge side TITAN



| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | In the main sash | 45 | 46 | 47 |
| 33a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 400 – 850 | 365 – 460 | | | | 1 |
| 33b | corn.drive VSO 1RS | TEUL4010- ... | 1 | 400 – 1450 | 461 – 3000 | | | | 1 |
| 34 | stay AF sz 0 | TSKK2000- ... | 1 | 400 – 450 | | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1450 | | | | 1 | |
| 35 | linkage AF sz 1 | TZZS0150- ... | 1 | 1251 – 1450 | | | | | |
| 36a | locking part VSU/K FH+ 1S | TEVR1400- ... | 1 | 400 – 1450 | 461 – 800 | | 1 | | |
| | locking part VSU/K FH+ 1S | TEVR1400- ... | | 400 – 850 | 365 – 460 | | 1 | | |
| 36b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 400 – 1450 | 801 – 3000 | | 1 | | |
| 37 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400 – 450 | | | | | 1 |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451 – 550 | | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551 – 680 | | | | | 1 |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681 – 850 | | | | | 1 |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851 – 1050 | | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051 – 1250 | | | | | 1 |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251 – 1450 | | | | | 1 |
| 38 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 | |
| 39a | sec.sash gear 16 sz 30 | TGKS0010- ... | 1 | 400 – 850 | 365 – 460 | 183 – 300 | | | |
| | sec.sash gear 16 sz 30 | TGKS0010- ... | | | 461 – 600 | 230 – 300 | | | |
| | sec.sash gear 16 AF 60/G300 | TGKS4030- ... | | | 601 – 800 | 300 – 400 | | | |
| 39b | sec.sash gear 16 AF sz 80 1SB | TGMS4040- ... | 1 | | 801 – 1200 | 400 – 600 | | | |
| | sec.sash gear 16 AF sz 120 1SB | TGMS4050- ... | | | 1201 – 1600 | 600 – 800 | | | |
| | sec.sash gear 16 AF 160 2SB 70 | TGMS4130- ... | | | 1601 – 2000 | 800 – 1000 | | | |
| | sec.sash gear 16 AF sz 200 2SB | TGMS4080- ... | | | 2001 – 3000 | 1000 – 1500 | | | |
| 40 | linkage AF sz 1 1SB-RS | TZKS1020- ... | 1 | | 2401 – 2800 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | | |
| 41 | linkage AF sz 1 1SB-VSU | TZKS1060- ... | 1 | | 2401 – 2800 | | | | |
| | linkage AF sz 2 1SB-VSU | TZKS1070- ... | | | 2801 – 3000 | | | | |
| 42a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 365 – 1000 | | | | 1 |
| 42b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001 – 1200 | | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201 – 3000 | | | 1 | 1 |
| 43 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | | 1 | |
| 44 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | | 1 | |
| 45 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | | |
| 46 | striker plate 56 | Ref. PDB, FRSB | | | | | | | |
| 47 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | |
| | | | on request | | | | | | |
| 48 | stop | Ref. PDB, FRZF04 | 1 | | 601 – 3000 | | | | |
| 49 | striker snapper A0767 | TRST0010- ... | 1 | | 1601 – 3000 | | | | |

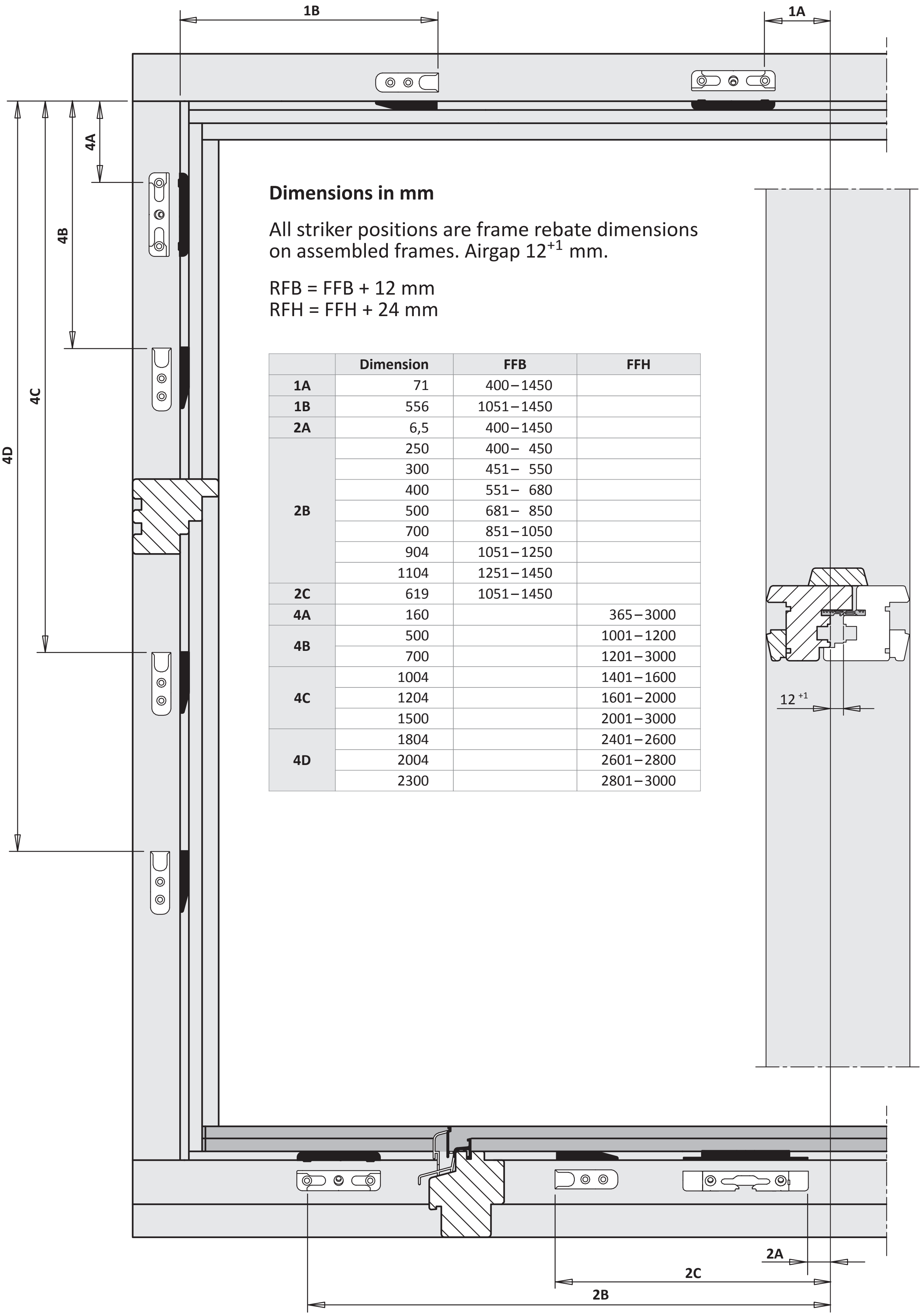
| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 50 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 51 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 52 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 53 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 54 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 55 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 56 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 57 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 58 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 59 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 16 | 17 | 18 |
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 400 – 850 | 365 – 460 | | | | 1 |
| 1b | corn.drive VSO 1RS | TEUL4010- ... | 1 | 400 – 1650 | 461 – 3000 | | | | 1 |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 400 – 450 | | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | | 1 | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | | 1 | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | | 1 | |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | | |
| 6a | corn.drive AF VSU/K+ nar.FH 1S | TEUL5090- ... | 1 | 400 – 850 | 365 – 460 | | 1 | | |
| 6b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 400 – 1650 | 461 – 3000 | | 1 | | |
| 7 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400 – 450 | | | | | 1 |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451 – 550 | | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551 – 680 | | | | | 1 |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681 – 850 | | | | | 1 |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851 – 1050 | | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051 – 1250 | | | | | 1 |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251 – 1450 | | | | | 1 |
| | extension sz 4+ 1RS | TVSL0340- ... | | 1451 – 1650 | | | | | 1 |
| 8 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 1 | |
| 9 | gear 15 AF sz 20 | TGMK4010- ... | 1 | 400 – 850 | 365 – 460 | 183 – 300 | | | |
| | gear 15 AF sz 20 | TGMK4010- ... | | | 461 – 600 | 230 – 300 | | | |
| | gear 15 AF sz 60 | TGMK4020- ... | | | 601 – 1000 | 300 – 500 | | | |
| | gear 15 AF sz 80 1RS | TGMK4040- ... | | | 1001 – 1200 | 500 – 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 2RS | TGMK4080- ... | | | 2001 – 3000 | 1000 – 1500 | | | |
| 10 | linkage KK/AF sz 1 1RS | TZKK1010- ... | 2 | | 2401 – 2800 | | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | | |
| 11 | handle Globe lockable 100Nm | Ref.access. ZHGA100 | 1 | | 365 – 3000 | | | | |
| 12 | anti-drill guard E | TGBS0010- ... | 1 | | 365 – 3000 | | | | |
| 13a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 365 – 1000 | | | | 1 |
| 13b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001 – 1200 | | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201 – 3000 | | | 1 | 1 |
| 14 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | | 1 | |
| 15 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | | 1 | |
| 16 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | | |
| 17 | striker plate 56 | Ref. PDB, FRSB | | | | | | | |
| 18 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | |
| **on request** | | | | | | | | | |
| 19 | tilt restrictor .. | TFKB0010- ... | 1 | | 365 – 800 | | | | |
| 20 | mishandling device | TFBS0010- ... | 1 | | 601 – 3000 | | | | |
| 21 | pressure piece | Ref. PDB, TFFD | 1 | | 601 – 3000 | | | | |
| 22 | snapper switchable rh. | TFST0011- ... | 1 | | 1601 – 3000 | | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1601 – 3000 | | | | |

# List of fittings main sash

2-sash square tilt-turn/turn DS 16
H12 GM Hinge side TITAN

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| **23** | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| **24** | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| **25** | top hinge | Ref. PDB, TBSL81 | | | 1 |
| **26** | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| **27** | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| **28** | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| **29** | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| **30** | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| **31** | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| **32** | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |




**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 | 400 – 1450 | |
| **1B** | 556 | 1051 – 1450 | |
| **2A** | 6,5 | 400 – 1450 | |
| **2B** | 250 | 400 – 450 | |
| | 300 | 451 – 550 | |
| | 400 | 551 – 680 | |
| | 500 | 681 – 850 | |
| | 700 | 851 – 1050 | |
| | 904 | 1051 – 1250 | |
| | 1104 | 1251 – 1450 | |
| **2C** | 619 | 1051 – 1450 | |
| **4A** | 160 | | 365 – 3000 |
| **4B** | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| **4C** | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| **4D** | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

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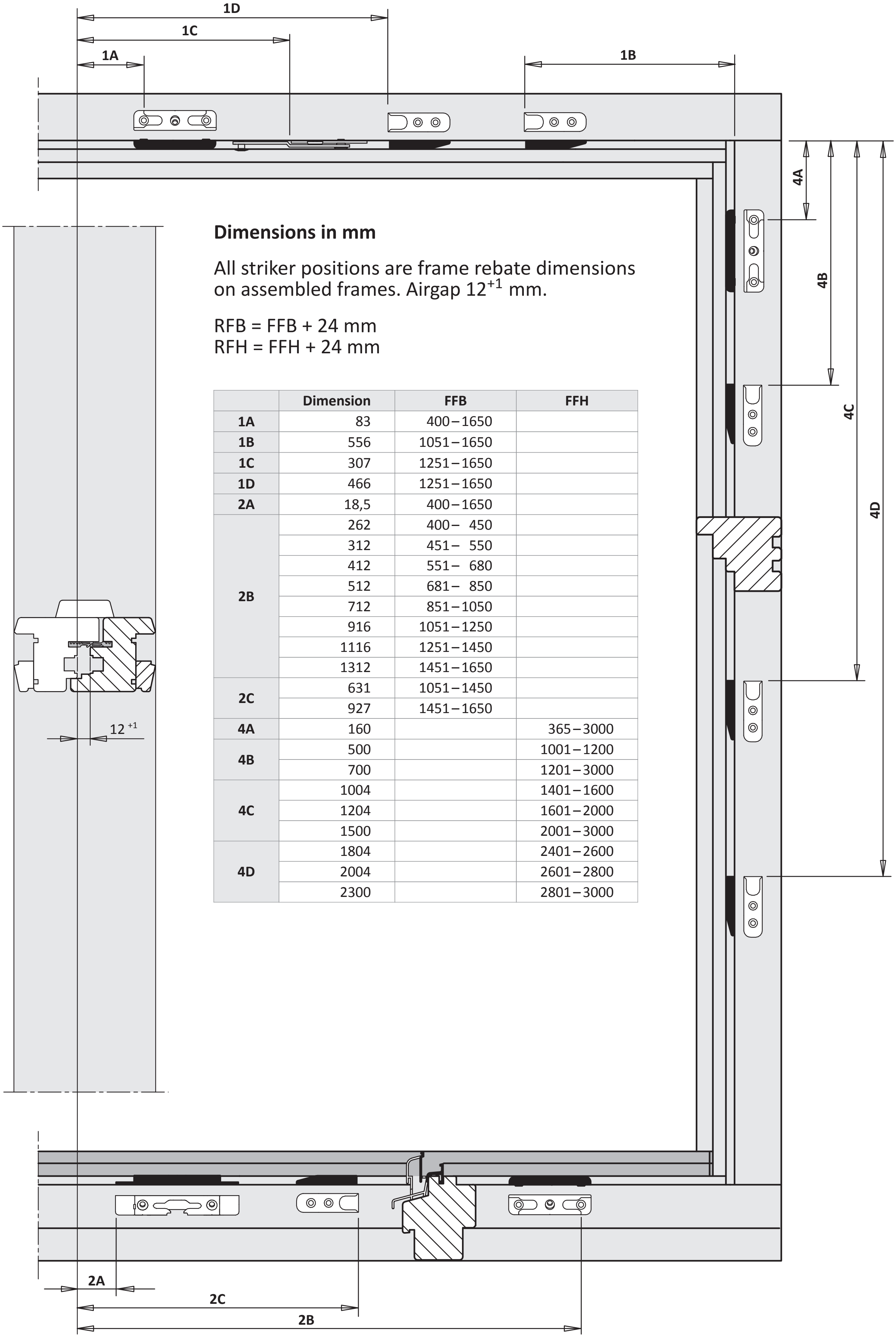
# Frame dimensions main sash

2-sash square tilt-turn/turn DS 16
H12 GM Hinge side TITAN




**Dimensions in mm**

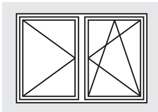
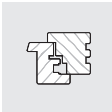
All striker positions are frame rebate dimensions on assembled frames. Airgap $12^{+1}$ mm.

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

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 400 – 1650 | |
| 1B | 556 | 1051 – 1650 | |
| 1C | 307 | 1251 – 1650 | |
| 1D | 466 | 1251 – 1650 | |
| 2A | 18,5 | 400 – 1650 | |
| 2B | 262 | 400 – 450 | |
| | 312 | 451 – 550 | |
| | 412 | 551 – 680 | |
| | 512 | 681 – 850 | |
| | 712 | 851 – 1050 | |
| | 916 | 1051 – 1250 | |
| | 1116 | 1251 – 1450 | |
| | 1312 | 1451 – 1650 | |
| 2C | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 4A | 160 | | 365 – 3000 |
| 4B | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4C | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4D | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

# TITAN AF

## Installation instructions

**RC1**



2-sash square tilt-turn/turn DS 8

timber 12 mm

RC1

centre handle pos. (variable)

Hinge side TITAN

surface TS

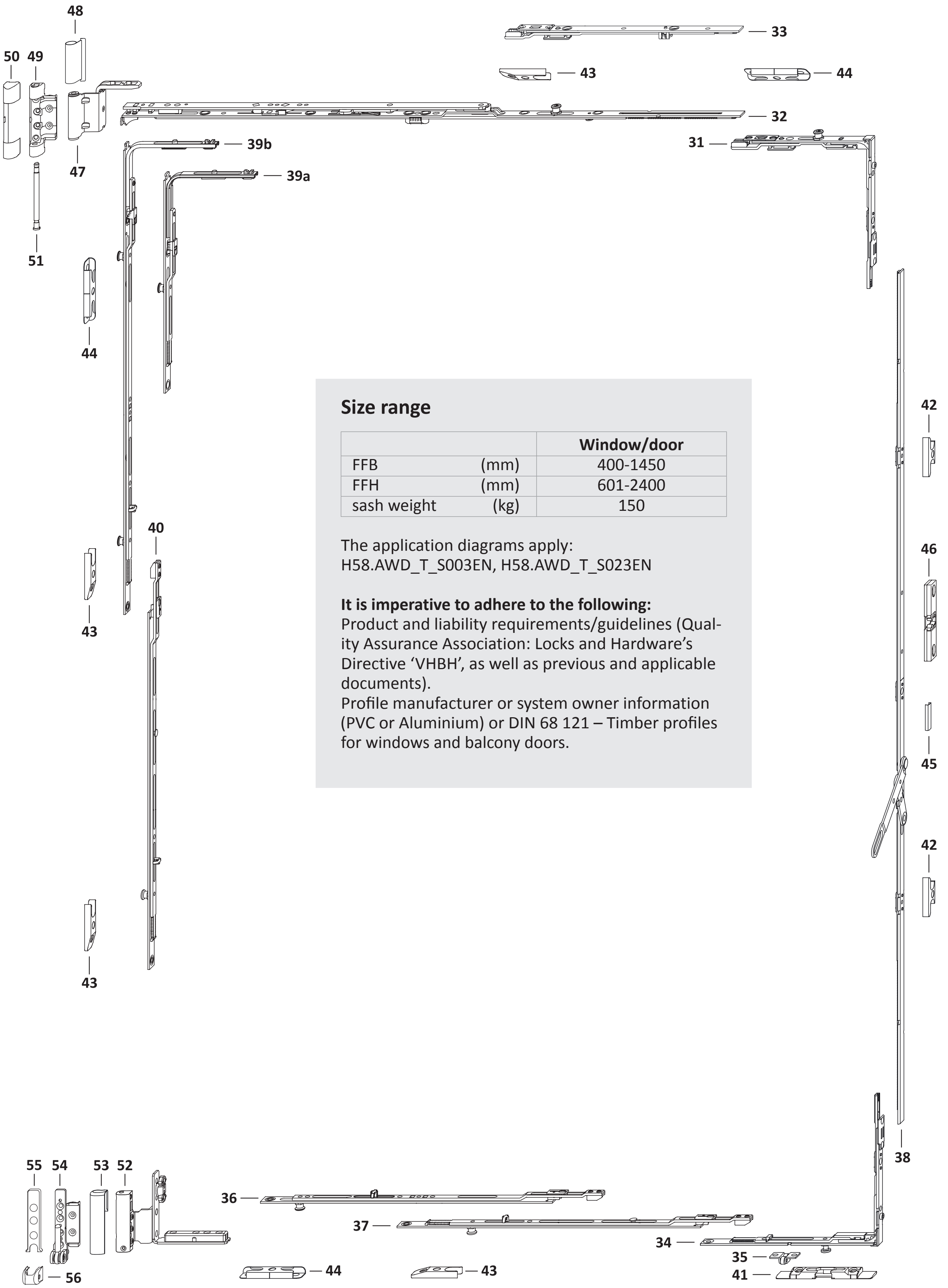
backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 2RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout slave sash

2-sash square tilt-turn/turn DS 8

H12 GM Hinge side TITAN




## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 400-1450 |
| FFH | (mm) | 601-2400 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

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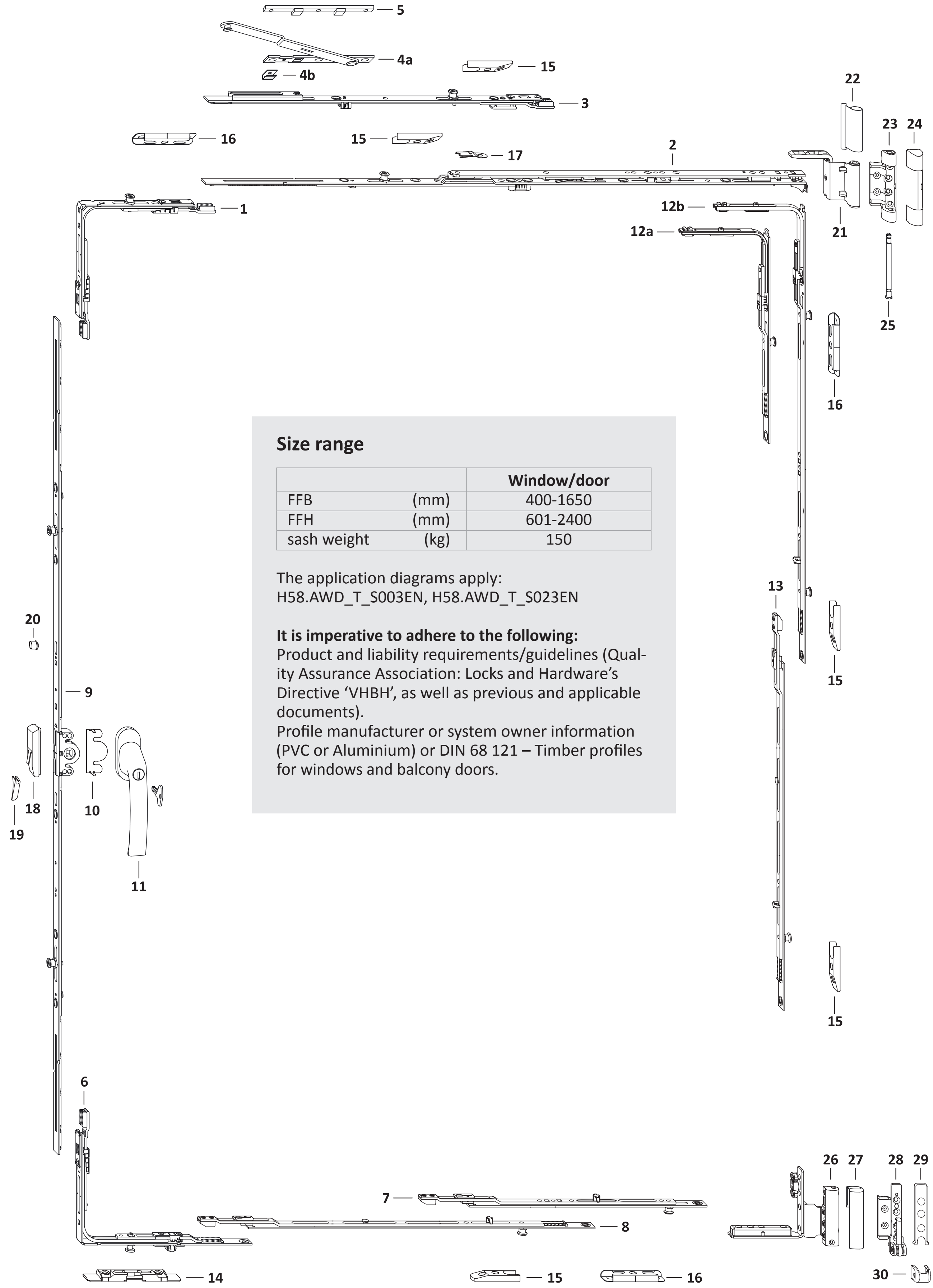


## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 400-1650 |
| FFH | (mm) | 601-2400 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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.

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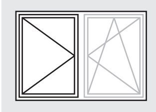
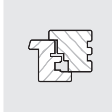
# List of fittings slave sash

2-sash square tilt-turn/turn DS 8
H12 GM Hinge side TITAN

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| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | | | | | | In the main sash | 41 | 42 | 43 | 44 |
| 31 | corn.drive VSO DS 1RS | TEUL4060- ... | 1 | 400 – 1450 | | | | | | 1 |
| 32 | stay AF sz 0 | TSKK2000- ... | 1 | 400 – 450 | | | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1450 | | | | | 1 | |
| 33 | linkage AF sz 1 | TZZS0150- ... | 1 | 1251 – 1450 | | | | | | |
| 34 | corn.drive AF VSU/K+ DS 1S | TEUL1230- ... | 1 | 400 – 1450 | | | 1 | | | |
| 35 | sash lift .. | TFFH0020- ... | 1 | 400 – 1450 | | | | | | |
| 36 | extension sz 2+ 1RS | TVSL0320- ... | 1 | 451 – 550 | | | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551 – 680 | | | | | | 1 |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681 – 850 | | | | | | 1 |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851 – 1050 | | | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051 – 1250 | | | | | | 1 |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251 – 1450 | | | | | | 1 |
| 37 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | | 1 | |
| 38 | sec.sash gear 8 sz 60/G300 | TGKS1030- ... | 1 | | 601 – 800 | 300 – 400 | | | | |
| | sec.sash gear 8 sz 80 | TGMS1010- ... | | | 801 – 1000 | 400 – 500 | | | | |
| | sec.sash gear 8 sz 80 | TGMS1010- ... | | | 1001 – 1200 | 500 – 600 | | 1 | | |
| | sec.sash gear 8 sz 120 2SB 70 | TGMS1050- ... | | | 1201 – 1600 | 600 – 800 | | 1 | | |
| | sec.sash gear 8 sz 160 2SB 70 | TGMS1060- ... | | | 1601 – 2000 | 800 – 1000 | | 1 | | |
| | sec.sash gear 8 sz 200 | TGMS1040- ... | | | 2001 – 2400 | 1000 – 1200 | | 1 | | |
| 39a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 601 – 1000 | | | | | 1 |
| 39b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001 – 1200 | | | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201 – 2400 | | | | 1 | 1 |
| 40 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 2400 | | | | 1 | |
| 41 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | | | |
| 42 | striker plate f. gear TL | Ref. PDB, FRSA05 | | | | | | | | |
| 43 | striker plate 56 | Ref. PDB, FRSB | | | | | | | | |
| 44 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | | |
| **on request** | | | | | | | | | | |
| 45 | stop | Ref. PDB, FRZF05 | 1 | | | | | | | |
| 46 | snapper | Ref. PDB, FRZB03 | 1 | | 1601 – 2400 | | | | | |

| Pos. | Description | Hinge side turning points | | | |
| --- | --- | --- | --- | --- | --- |
| | | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 47 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 48 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 49 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 50 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 51 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 52 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 53 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 54 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 55 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 56 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

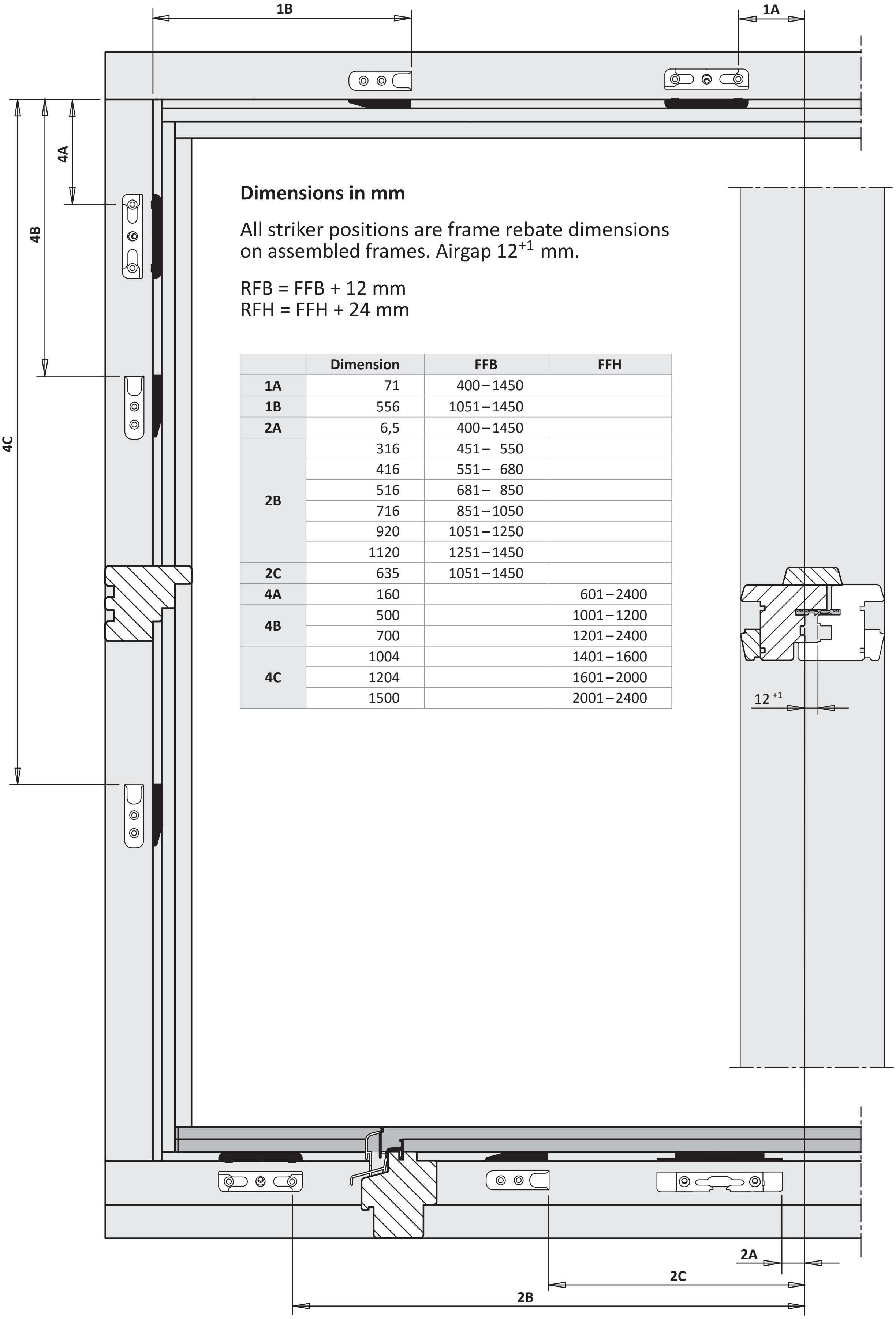
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|
| 1 | corn.drive VSO 1RS | TEUL4010- ... | 1 | 400 – 1650 | | | | | 1 |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 400 – 450 | | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | | 1 | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | | 1 | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | | 1 | |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | | |
| 6 | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 400 – 1650 | | | 1 | | |
| 7 | extension sz 2+ 1RS | TVSL0320- ... | 1 | 451 – 550 | | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551 – 680 | | | | | 1 |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681 – 850 | | | | | 1 |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851 – 1050 | | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051 – 1250 | | | | | 1 |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251 – 1450 | | | | | 1 |
| | extension sz 4+ 1RS | TVSL0340- ... | | 1451 – 1650 | | | | | 1 |
| 8 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 1 | |
| 9 | gear 15 AF sz 60 | TGMK4020- ... | 1 | | 601 – 1000 | 300 – 500 | | | |
| | gear 15 AF sz 80 1RS | TGMK4040- ... | | | 1001 – 1200 | 500 – 600 | | | |
| | gear 15 AF sz 120 2RS 70 | TGMK4160- ... | | | 1201 – 1600 | 600 – 800 | | | |
| | gear 15 AF sz 160 2RS 70 | TGMK4170- ... | | | 1601 – 2000 | 800 – 1000 | | | |
| | gear 15 AF sz 200 2RS | TGMK4080- ... | | | 2001 – 2400 | 1000 – 1200 | | | |
| 10 | anti-drill guard E | TGBS0010- ... | 1 | | 601 – 2400 | | | | |
| 11 | handle Globe lockable 100Nm | Ref.access. ZHGA100 | 1 | | 601 – 2400 | | | | |
| 12a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 601 – 1000 | | | | 1 |
| 12b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001 – 1200 | | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201 – 2400 | | | 1 | 1 |
| 13 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 2400 | | | 1 | |
| 14 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | | |
| 15 | striker plate 56 | Ref. PDB, FRSB | | | | | | | |
| 16 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | |
| **on request** | | | | | | | | | |
| 17 | tilt restrictor .. | TFKB0010- ... | 1 | | 601 – 800 | | | | |
| 18 | mishandling device | TFBS0010- ... | 1 | | | | | | |
| 19 | pressure piece | Ref. PDB, TFFD | 1 | | | | | | |
| 20 | sleeve DS | Ref. PDB, FFHU03 | 1 | | 1601 – 2400 | | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number surface TS | RAL9016 | RAL8022 | required as per sash weight 150 kg |
| 21 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 22 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 23 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 24 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 25 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 26 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 27 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 28 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 29 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 30 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

5

# Frame dimensions slave sash

2-sash square tilt-turn/turn DS 8
H12 GM Hinge side TITAN

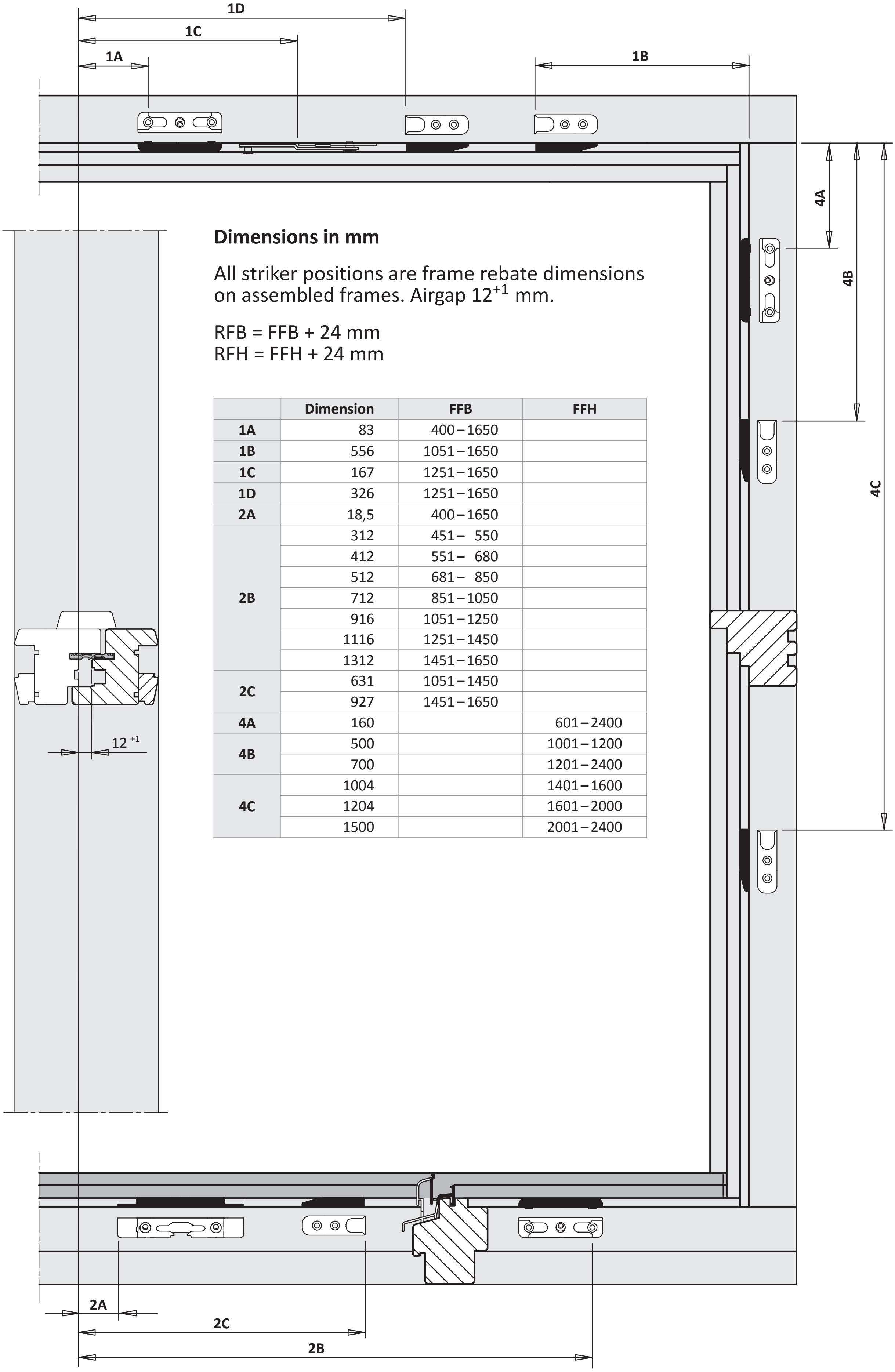



**Dimensions in mm**

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 | 400 – 1450 | |
| 1B | 556 | 1051 – 1450 | |
| 2A | 6,5 | 400 – 1450 | |
| 2B | 316 | 451 – 550 | |
| | 416 | 551 – 680 | |
| | 516 | 681 – 850 | |
| | 716 | 851 – 1050 | |
| | 920 | 1051 – 1250 | |
| | 1120 | 1251 – 1450 | |
| 2C | 635 | 1051 – 1450 | |
| 4A | 160 | | 601 – 2400 |
| 4B | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 2400 |
| 4C | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 2400 |




**Dimensions in mm**

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

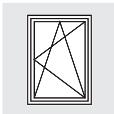
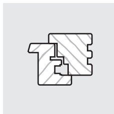
RFB = FFB + 24 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 400 – 1650 | |
| 1B | 556 | 1051 – 1650 | |
| 1C | 167 | 1251 – 1650 | |
| 1D | 326 | 1251 – 1650 | |
| 2A | 18,5 | 400 – 1650 | |
| 2B | 312 | 451 – 550 | |
| | 412 | 551 – 680 | |
| | 512 | 681 – 850 | |
| | 712 | 851 – 1050 | |
| | 916 | 1051 – 1250 | |
| | 1116 | 1251 – 1450 | |
| | 1312 | 1451 – 1650 | |
| 2C | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 4A | 160 | | 601 – 2400 |
| 4B | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 2400 |
| 4C | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 2400 |

5

# TITAN AF

## Installation instructions

  **RC1**

1-sash square tilt before turn (TBT)

timber 12 mm

RC1

centre handle pos. (variable)

Hinge side TITAN

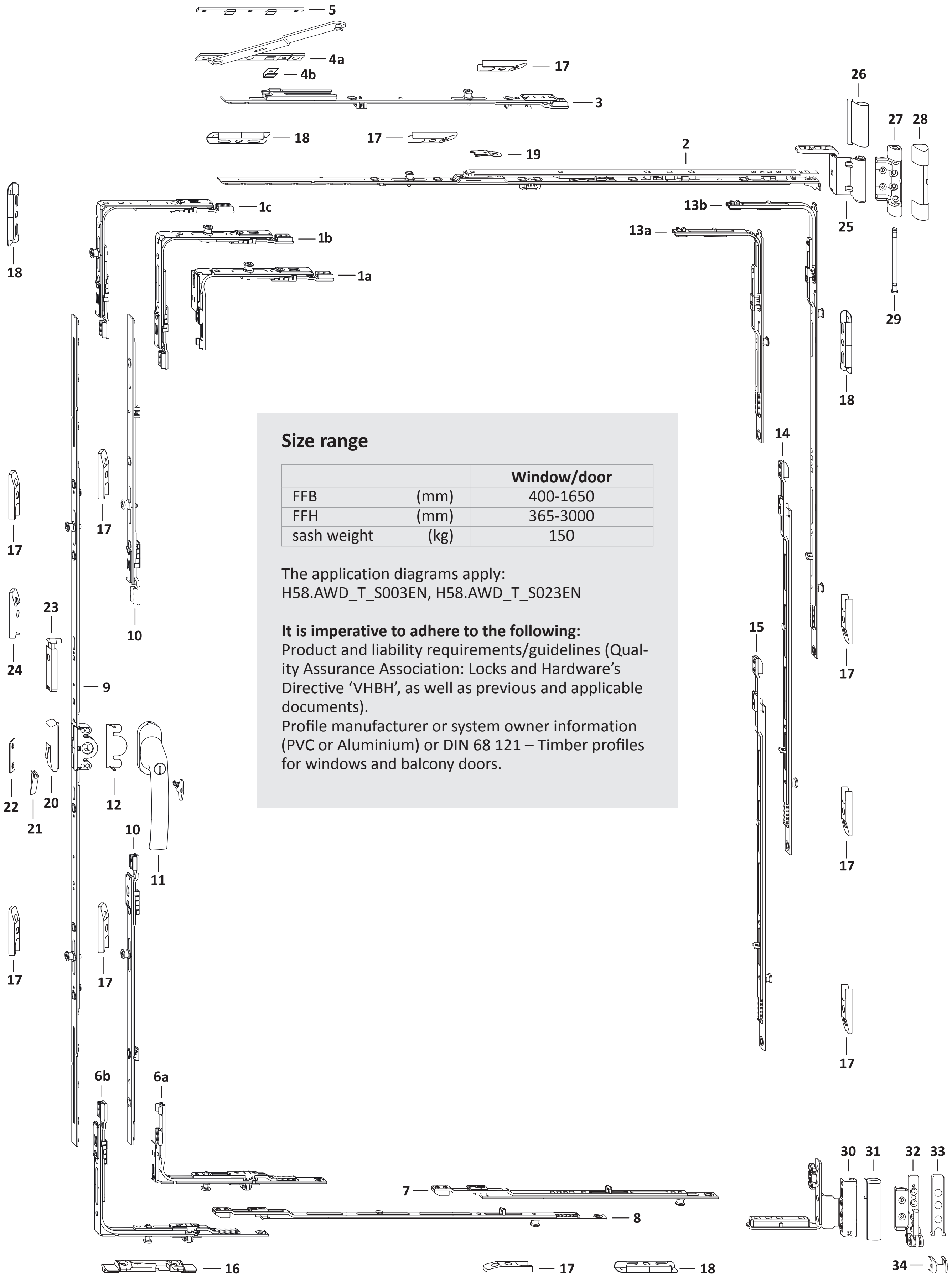
surface TS

backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 2RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout

1-sash square tilt before turn (TBT)
H12 GM Hinge side TITAN




## Size range

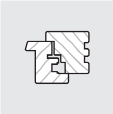
| | | Window/door |
|---|---|---|
| FFB | (mm) | 400-1650 |
| FFH | (mm) | 365-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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.



5

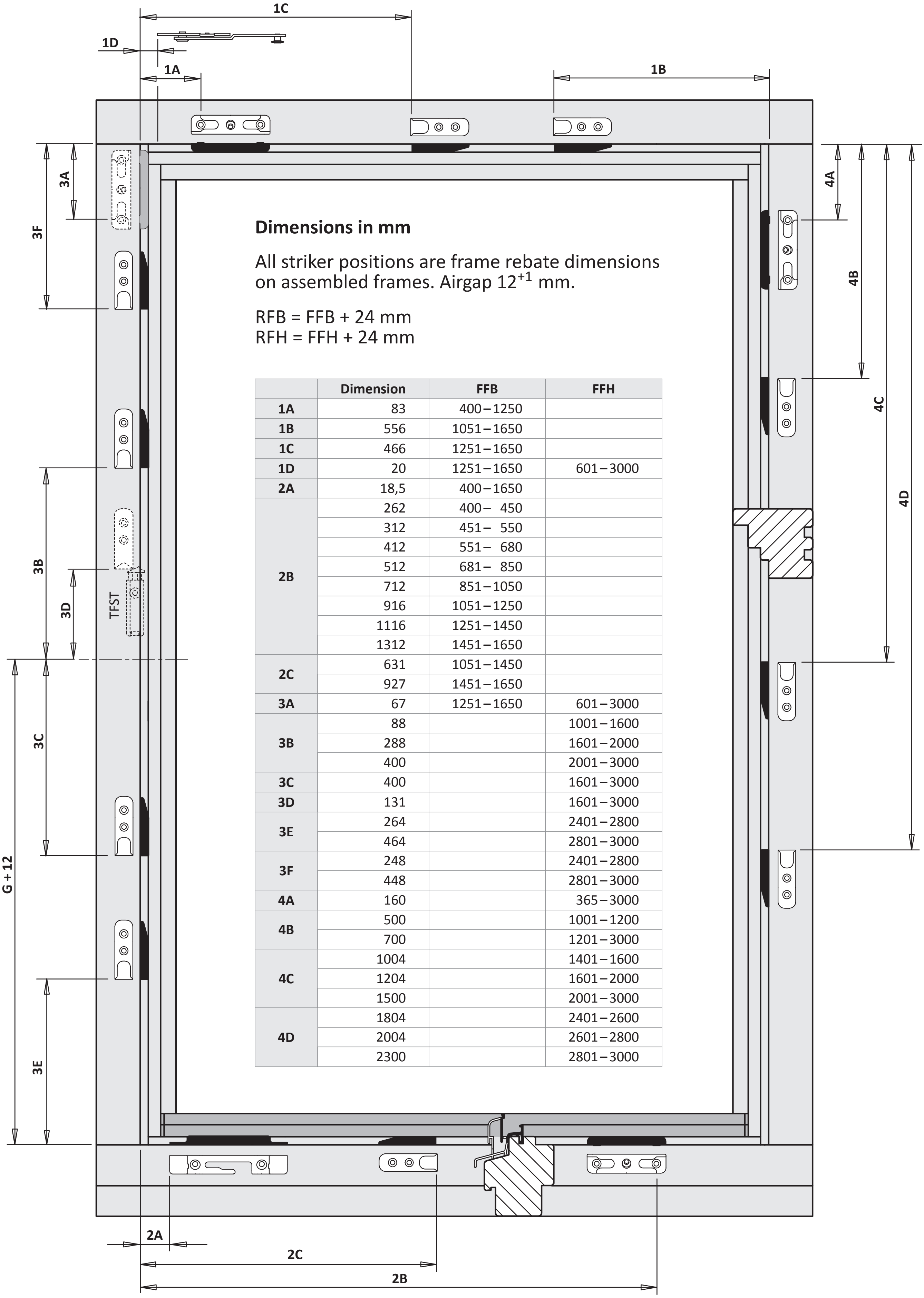
 



| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 16 | 17 | 18 |
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 400– 850 | 365– 460 | | | | 1 |
| 1b | corn.drive VSO 1RS | TEUL4010- ... | 1 | 400–1250 | 461–3000 | | | | 1 |
| 1c | corn.drive VSO 1RS | TEUL4010- ... | 1 | 1251–1650 | 461–3000 | | | | 1 |
| 2 | stay AF TBT sz 0 | TSKT2000- ... | 1 | 400– 450 | | | | | |
| | stay AF TBT sz 1 | TSKT2010- ... | | 451– 680 | | | | | |
| | stay AF TBT sz 2 1RS | TSKT2120- ... | | 681– 850 | | | | | |
| | stay AF TBT sz 3 1RS | TSKT2030- ... | | 851–1050 | | | | | |
| | stay AF TBT sz 4 1RS | TSKT2040- ... | | 1051–1250 | | | | 1 | |
| | stay AF TBT sz 3 1RS | TSKT2030- ... | | 1251–1450 | | | | 1 | |
| | stay AF TBT sz 4 1RS | TSKT2040- ... | | 1451–1650 | | | | 1 | |
| 3 | linkage add. stay AF TBT RS | TZOT1010- ... | 1 | 1251–1650 | | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251–1650 | | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251–1650 | | | | | |
| 6a | corn.drive AF VSU/K+ nar.FH 1S | TEUL5090- ... | 1 | 400– 850 | 365– 460 | | 1 | | |
| 6b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 400–1650 | 461–3000 | | 1 | | |
| 7 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400– 450 | | | | | 1 |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451– 550 | | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551– 680 | | | | | 1 |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681– 850 | | | | | 1 |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851–1050 | | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051–1250 | | | | | 1 |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251–1450 | | | | | 1 |
| | extension sz 4+ 1RS | TVSL0340- ... | | 1451–1650 | | | | | 1 |
| 8 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051–1450 | | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451–1650 | | | | 1 | |
| 9 | gear 15 AF sz 20 | TGMK4010- ... | 1 | 400– 850 | 365– 460 | 183– 230 | | | |
| | gear 15 AF sz 20 | TGMK4010- ... | | | 461– 600 | 230– 300 | | | |
| | gear 15 AF sz 60 | TGMK4020- ... | | | 601–1000 | 300– 500 | | | |
| | gear 15 AF sz 80 1RS | TGMK4040- ... | | | 1001–1200 | 500– 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 2RS | TGMK4080- ... | | | 2001–3000 | 1000–1500 | | 2 | |
| 10 | linkage KK/AF sz 1 1RS | TZKK1010- ... | 2 | | 2401–2800 | | | 2 | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801–3000 | | | 2 | |
| 11 | handle Globe TBT lockable | Ref.access. ZHGT | 1 | | 365–3000 | | | | |
| 12 | anti-drill guard E | TGBS0010- ... | 1 | | 365–3000 | | | | |
| 13a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 365–1000 | | | | 1 |
| 13b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001–1200 | | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201–3000 | | | 1 | 1 |
| 14 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401–1600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601–2000 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001–3000 | | | 1 | |
| 15 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401–2600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601–2800 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801–3000 | | | 1 | |
| 16 | tilt lock bear. S-ES FH TBT | Ref. PDB, FRKB | | | | | | | |
| 17 | striker plate 56 | Ref. PDB, FRSB | | | | | | | |
| 18 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | |
| **on request** | | | | | | | | | |
| 19 | tilt restrictor .. | TFKB0010- ... | 1 | | 365– 800 | | | | |
| 20 | mishandling device | TFBS0010- ... | 1 | | | | | | |
| 21 | pressure piece | Ref. PDB, TFFD | 1 | | | | | | |
| 22 | stop | Ref. PDB, FRZF01 | 1 | | | | | | |
| 23 | snapper switchable rh. | TFST0011- ... | 1 | | 1601–3000 | | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1601–3000 | | | | |
| 24 | frame part snapper | Ref. PDB, TRST | 1 | | 1601–3000 | | | | |

5

| Pos. | Description | Part number | | | required as per sash weight |
|---|---|---|---|---|---|
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| **Hinge side turning points** | | | | | |
| **25** | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| **26** | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| **27** | top hinge | Ref. PDB, TBSL81 | | | 1 |
| **28** | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| **29** | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| **30** | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| **31** | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| **32** | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| **33** | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| **34** | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |




**Dimensions in mm**

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

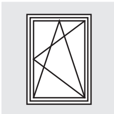
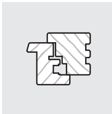
RFB = FFB + 24 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 400 – 1250 | |
| 1B | 556 | 1051 – 1650 | |
| 1C | 466 | 1251 – 1650 | |
| 1D | 20 | 1251 – 1650 | 601 – 3000 |
| 2A | 18,5 | 400 – 1650 | |
| 2B | 262 | 400 – 450 | |
| | 312 | 451 – 550 | |
| | 412 | 551 – 680 | |
| | 512 | 681 – 850 | |
| | 712 | 851 – 1050 | |
| | 916 | 1051 – 1250 | |
| | 1116 | 1251 – 1450 | |
| | 1312 | 1451 – 1650 | |
| 2C | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 3A | 67 | 1251 – 1650 | 601 – 3000 |
| 3B | 88 | | 1001 – 1600 |
| | 288 | | 1601 – 2000 |
| | 400 | | 2001 – 3000 |
| 3C | 400 | | 1601 – 3000 |
| 3D | 131 | | 1601 – 3000 |
| 3E | 264 | | 2401 – 2800 |
| | 464 | | 2801 – 3000 |
| 3F | 248 | | 2401 – 2800 |
| | 448 | | 2801 – 3000 |
| 4A | 160 | | 365 – 3000 |
| 4B | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4C | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4D | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

5

# TITAN AF

## Installation instructions

**RC1**



1-sash square tilt-turn

timber 12 mm

RC1

centre handle pos. (variable)

Hinge side TITAN

surface TS

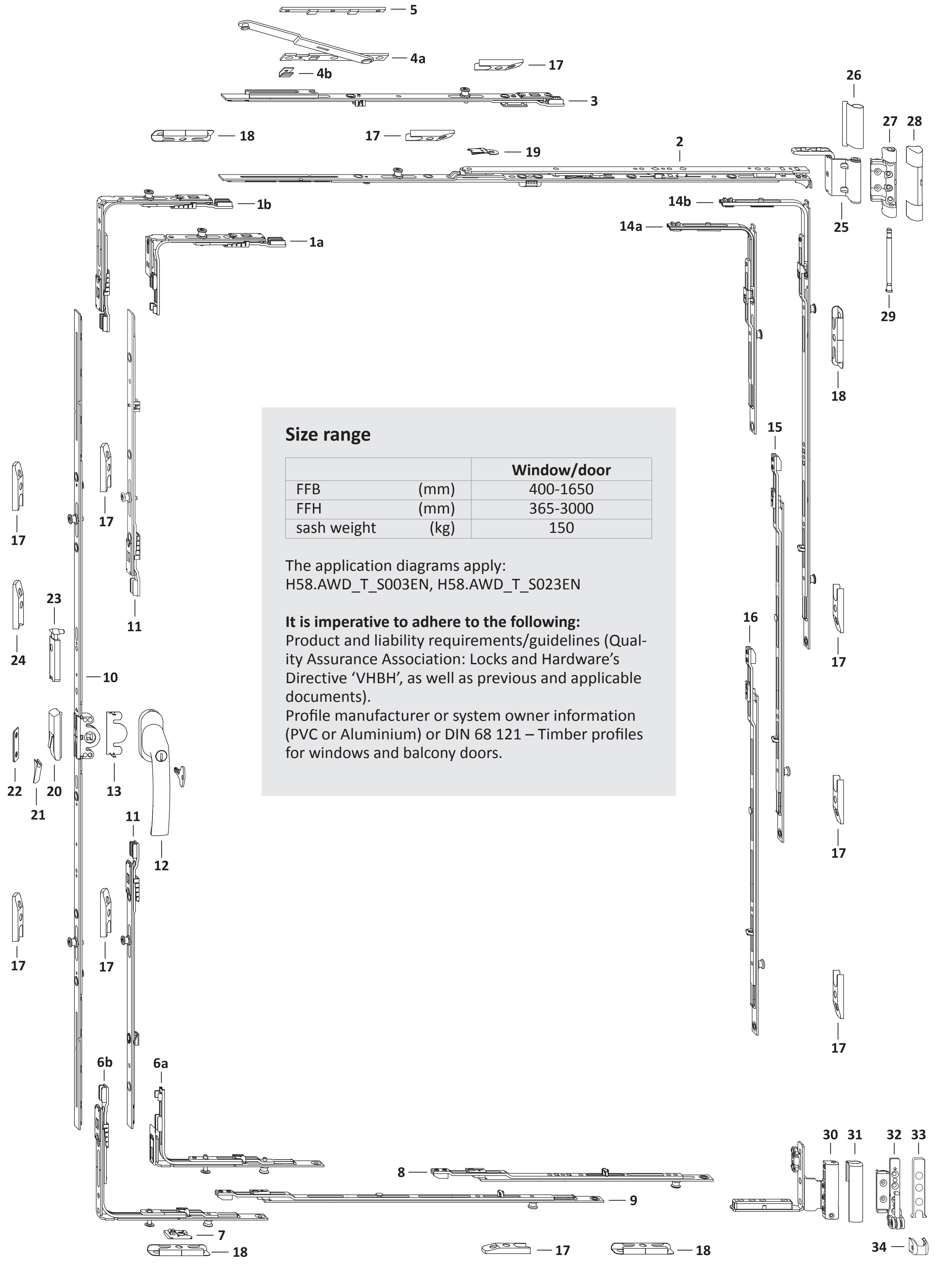
backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | double cam SB R-RS |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 2RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout

1-sash square tilt-turn
H12 GM Hinge side TITAN






## Size range

| | Window/door |
|---|---|
| FFB (mm) | 400-1650 |
| FFH (mm) | 365-3000 |
| sash weight (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

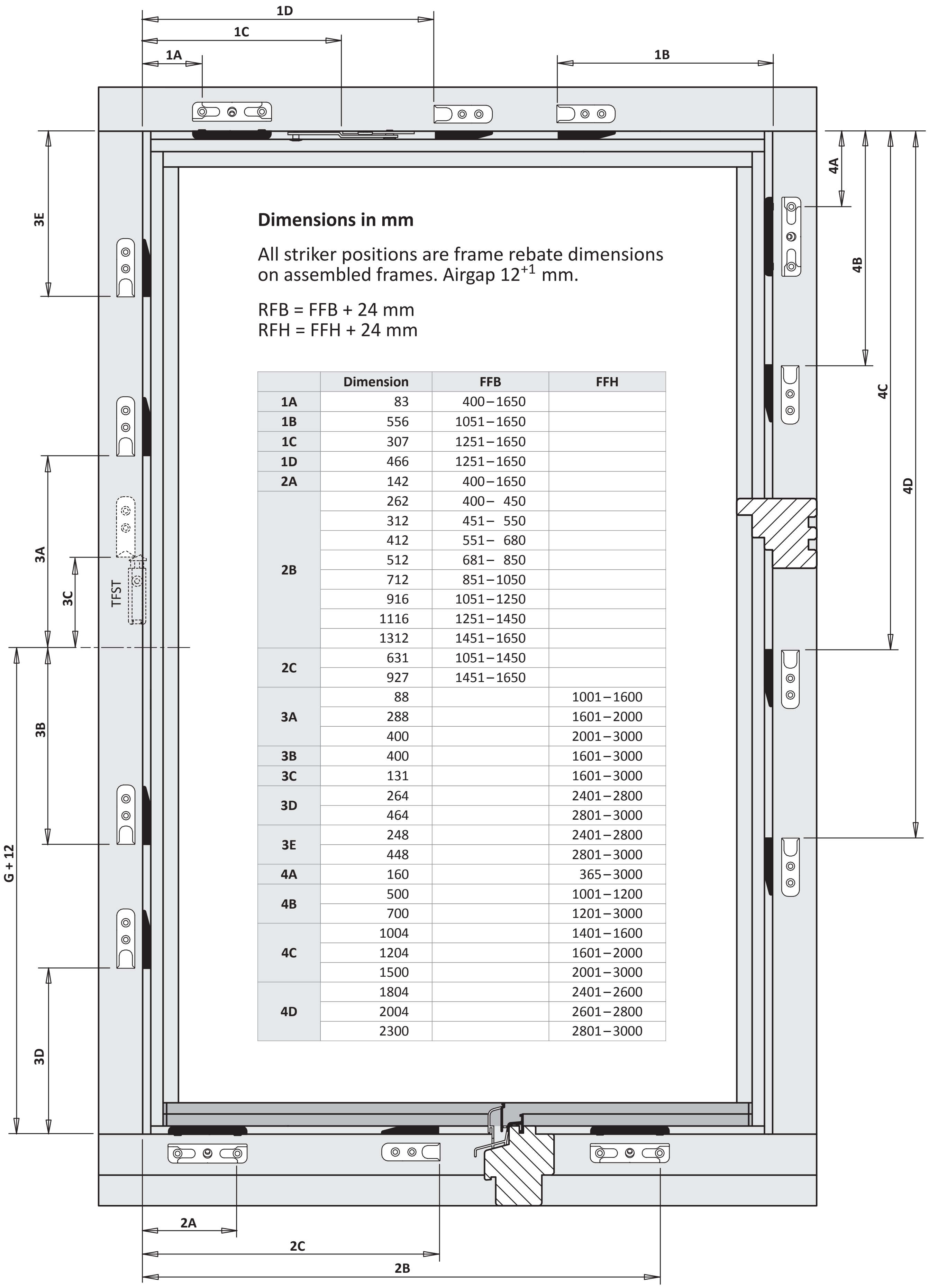
**It is imperative to adhere to the following:**
Product and liability requirements/guidelines (Quality Assurance Association: Locks and Hardware's Directive 'VHBH', as well as previous and applicable documents).
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber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

| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 17 | 18 |
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 400– 850 | 365– 460 | | | 1 |
| 1b | corn.drive VSO 1RS | TEUL4010- ... | 1 | 400–1650 | 461–3000 | | | 1 |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 400– 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451– 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681– 850 | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851–1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051–1250 | | | 1 | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251–1450 | | | 1 | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451–1650 | | | 1 | |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251–1650 | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251–1650 | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251–1650 | | | | |
| 6a | corn.drive AFVSU/K56+nar.1S1RS | TEUL5100- ... | 1 | 400– 850 | 365– 460 | | | 1 |
| 6b | corn.drive AF VSU/K 56+ 1S 1RS | TEUL5030- ... | 1 | 400–1650 | 461–3000 | | | 1 |
| 7 | run up block AF 13 mm 13 | TFFH0080- ... | 1 | 400–1650 | | | | |
| 8 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400– 450 | | | | 1 |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451– 550 | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551– 680 | | | | 1 |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681– 850 | | | | 1 |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851–1050 | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051–1250 | | | | 1 |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251–1450 | | | | 1 |
| | extension sz 4+ 1RS | TVSL0340- ... | | 1451–1650 | | | | 1 |
| 9 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051–1450 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451–1650 | | | 1 | |
| 10 | gear 15 AF sz 20 | TGMK4010- ... | 1 | 400– 850 | 365– 460 | 183– 230 | | |
| | gear 15 AF sz 20 | TGMK4010- ... | | | 461– 600 | 230– 300 | | |
| | gear 15 AF sz 60 | TGMK4020- ... | | | 601–1000 | 300– 500 | | |
| | gear 15 AF sz 80 1RS | TGMK4040- ... | | | 1001–1200 | 500– 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 2RS | TGMK4080- ... | | | 2001–3000 | 1000–1500 | 2 | |
| 11 | linkage KK/AF sz 1 1RS | TZKK1010- ... | 2 | | 2401–2800 | | 2 | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801–3000 | | 2 | |
| 12 | handle Globe lockable 100Nm | Ref.access. ZHGA100 | 1 | | 365–3000 | | | |
| 13 | anti-drill guard E | TGBS0010- ... | 1 | | 365–3000 | | | |
| 14a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 365–1000 | | | 1 |
| 14b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001–1200 | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201–3000 | | 1 | 1 |
| 15 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401–1600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601–2000 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001–3000 | | 1 | |
| 16 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401–2600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601–2800 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801–3000 | | 1 | |
| 17 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| 18 | striker plate S-RS | Ref. PDB, TRSK | | | | | | |
| **on request** | | | | | | | | |
| 19 | tilt restrictor .. | TFKB0010- ... | 1 | | 365– 800 | | | |
| 20 | mishandling device | TFBS0010- ... | 1 | | | | | |
| 21 | pressure piece | Ref. PDB, TFFD | 1 | | | | | |
| 22 | stop | Ref. PDB, FRZF01 | 1 | | | | | |
| 23 | snapper switchable rh. | TFST0011- ... | 1 | | 1601–3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1601–3000 | | | |
| 24 | frame part snapper | Ref. PDB, TRST | 1 | | 1601–3000 | | | |

# List of fittings

1-sash square tilt-turn
H12 GM Hinge side TITAN

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 25 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 26 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 27 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 28 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 29 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 30 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 31 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 32 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 33 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 34 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |




**Dimensions in mm**

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

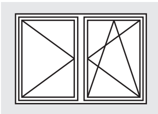
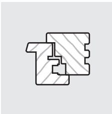
RFB = FFB + 24 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 400–1650 | |
| 1B | 556 | 1051–1650 | |
| 1C | 307 | 1251–1650 | |
| 1D | 466 | 1251–1650 | |
| 2A | 142 | 400–1650 | |
| 2B | 262 | 400– 450 | |
| | 312 | 451– 550 | |
| | 412 | 551– 680 | |
| | 512 | 681– 850 | |
| | 712 | 851–1050 | |
| | 916 | 1051–1250 | |
| | 1116 | 1251–1450 | |
| | 1312 | 1451–1650 | |
| 2C | 631 | 1051–1450 | |
| | 927 | 1451–1650 | |
| 3A | 88 | | 1001–1600 |
| | 288 | | 1601–2000 |
| | 400 | | 2001–3000 |
| 3B | 400 | | 1601–3000 |
| 3C | 131 | | 1601–3000 |
| 3D | 264 | | 2401–2800 |
| | 464 | | 2801–3000 |
| 3E | 248 | | 2401–2800 |
| | 448 | | 2801–3000 |
| 4A | 160 | | 365–3000 |
| 4B | 500 | | 1001–1200 |
| | 700 | | 1201–3000 |
| 4C | 1004 | | 1401–1600 |
| | 1204 | | 1601–2000 |
| | 1500 | | 2001–3000 |
| 4D | 1804 | | 2401–2600 |
| | 2004 | | 2601–2800 |
| | 2300 | | 2801–3000 |

5

# TITAN AF

## Installation instructions

  **RC1**



2-sash square tilt-turn/turn DS 16

timber 12 mm

RC1

centre handle pos. (variable)

Hinge side TITAN

surface TS

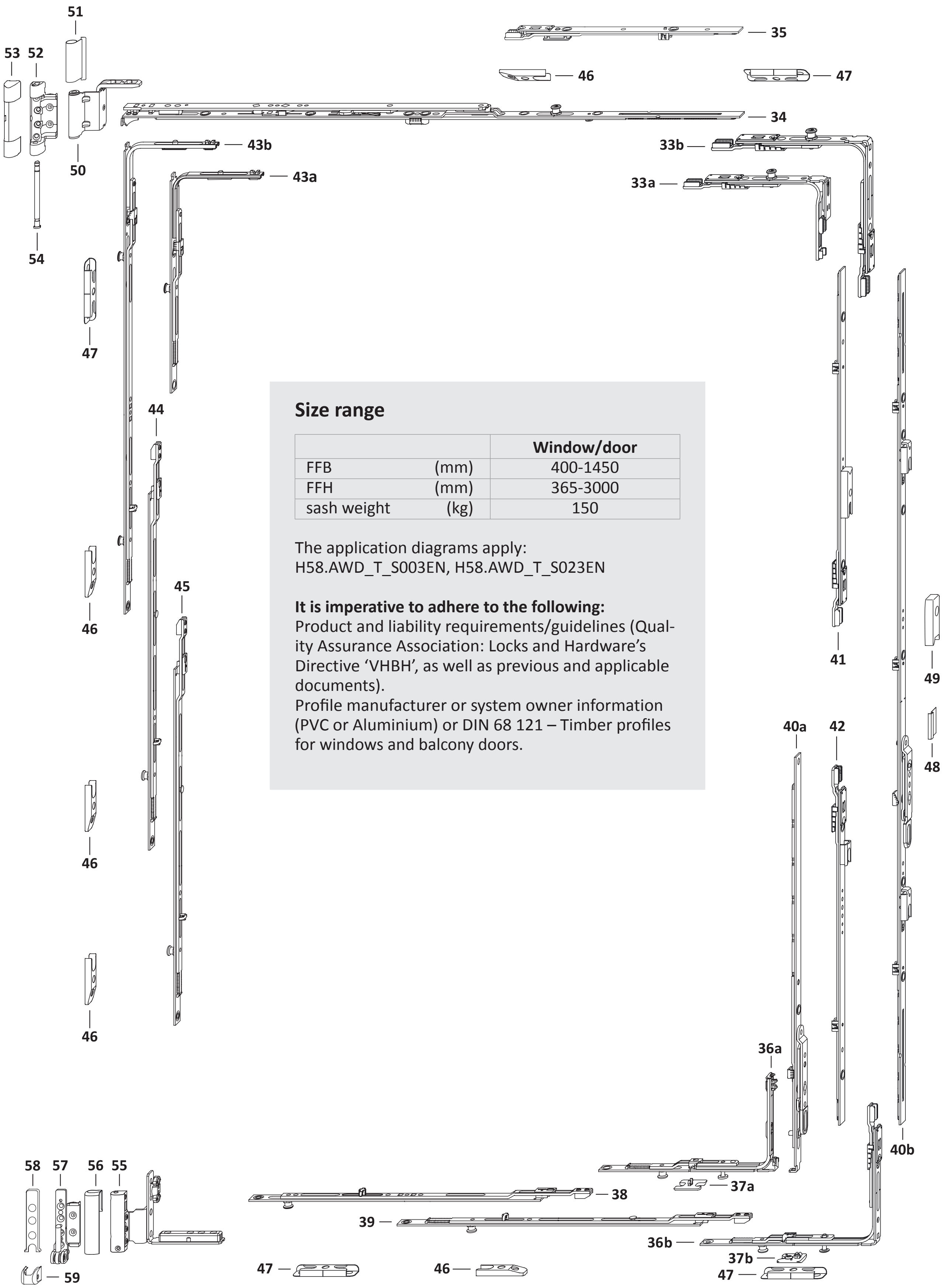
backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | double cam SB R-RS |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 2RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout slave sash

2-sash square tilt-turn/turn DS 16
H12 GM Hinge side TITAN



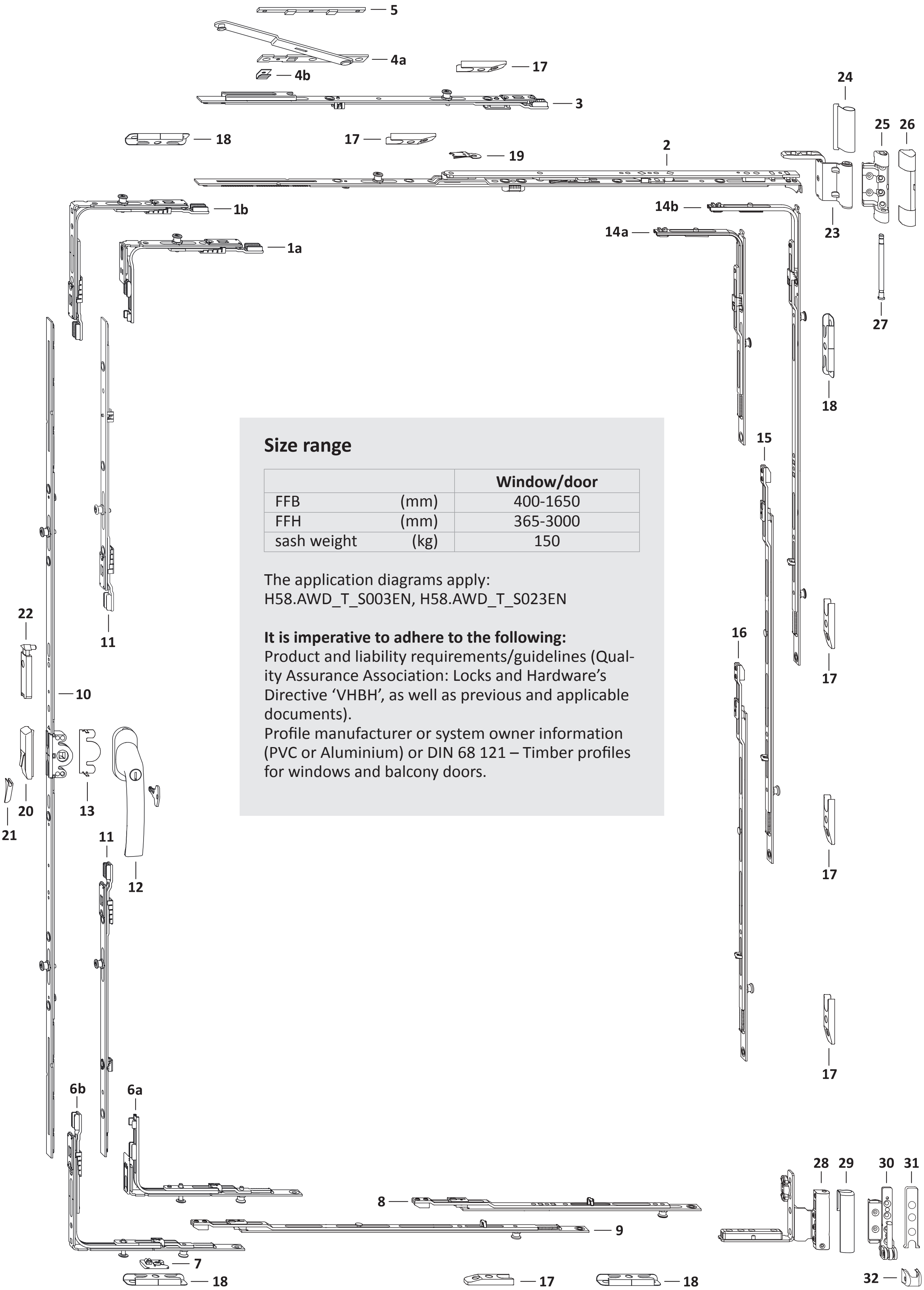



## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 400-1450 |
| FFH | (mm) | 365-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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) | 400-1650 |
| FFH | (mm) | 365-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

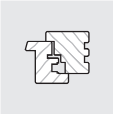
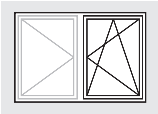
**It is imperative to adhere to the following:**
Product and liability requirements/guidelines (Quality Assurance Association: Locks and Hardware's Directive 'VHBH', as well as previous and applicable documents).
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber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

# List of fittings slave sash

2-sash square tilt-turn/turn DS 16
H12 GM Hinge side TITAN

| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | In the main sash | 46 | 47 |
| 33a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 400 – 850 | 365 – 460 | | | 1 |
| 33b | corn.drive VSO 1RS | TEUL4010- ... | 1 | 400 – 1450 | 461 – 3000 | | | 1 |
| 34 | stay AF sz 0 | TSKK2000- ... | 1 | 400 – 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1450 | | | 1 | |
| 35 | linkage AF sz 1 | TZZS0150- ... | 1 | 1251 – 1450 | | | | |
| 36a | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | 1 | 400 – 1450 | 461 – 800 | | | 1 |
| | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | | 400 – 850 | 365 – 460 | | | 1 |
| 36b | corn.drive AF VSU/K 56+ 1S 1RS | TEUL5030- ... | 1 | 400 – 1450 | 801 – 3000 | | | 1 |
| 37a | run-up plate FH KRL56 | Ref. PDB, TRAL01 | 1 | 400 – 1450 | 461 – 800 | | | |
| | run-up plate FH KRL56 | Ref. PDB, TRAL01 | | 400 – 850 | 365 – 460 | | | |
| 37b | run up block AF 13 mm 13 | TFFH0080- ... | 1 | 400 – 1450 | 801 – 3000 | | | |
| 38 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400 – 450 | | | | 1 |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451 – 550 | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551 – 680 | | | | 1 |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681 – 850 | | | | 1 |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851 – 1050 | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051 – 1250 | | | | 1 |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251 – 1450 | | | | 1 |
| 39 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | 1 | |
| 40a | sec.sash gear 16 sz 30 | TGKS0010- ... | 1 | 400 – 850 | 365 – 460 | 183 – 300 | | |
| | sec.sash gear 16 sz 30 | TGKS0010- ... | | | 461 – 600 | 230 – 300 | | |
| | sec.sash gear 16 AF 60/G300 | TGKS4030- ... | | | 601 – 800 | 300 – 400 | | |
| 40b | sec.sash gear 16 AF sz 80 1SB | TGMS4040- ... | 1 | | 801 – 1200 | 400 – 600 | | |
| | sec.sash gear 16 AF sz 120 1SB | TGMS4050- ... | | | 1201 – 1600 | 600 – 800 | | |
| | sec.sash gear 16 AF 160 2SB 70 | TGMS4130- ... | | | 1601 – 2000 | 800 – 1000 | | |
| | sec.sash gear 16 AF sz 200 2SB | TGMS4080- ... | | | 2001 – 3000 | 1000 – 1500 | | |
| 41 | linkage AF sz 1 1SB-RS | TZKS1020- ... | 1 | | 2401 – 2800 | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | |
| 42 | linkage AF sz 1 1SB-VSU | TZKS1060- ... | 1 | | 2401 – 2800 | | | |
| | linkage AF sz 2 1SB-VSU | TZKS1070- ... | | | 2801 – 3000 | | | |
| 43a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 365 – 1000 | | | 1 |
| 43b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001 – 1200 | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201 – 3000 | | 1 | 1 |
| 44 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | 1 | |
| 45 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | 1 | |
| 46 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| 47 | striker plate S-RS | Ref. PDB, TRSK | | | | | | |
| | | | on request | | | | | |
| 48 | stop | Ref. PDB, FRZF04 | 1 | | 601 – 3000 | | | |
| 49 | striker snapper A0767 | TRST0010- ... | 1 | | 1601 – 3000 | | | |

| Hinge side turning points | | | | |
|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 50 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 51 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 52 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 53 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 54 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 55 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 56 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 57 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 58 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 59 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

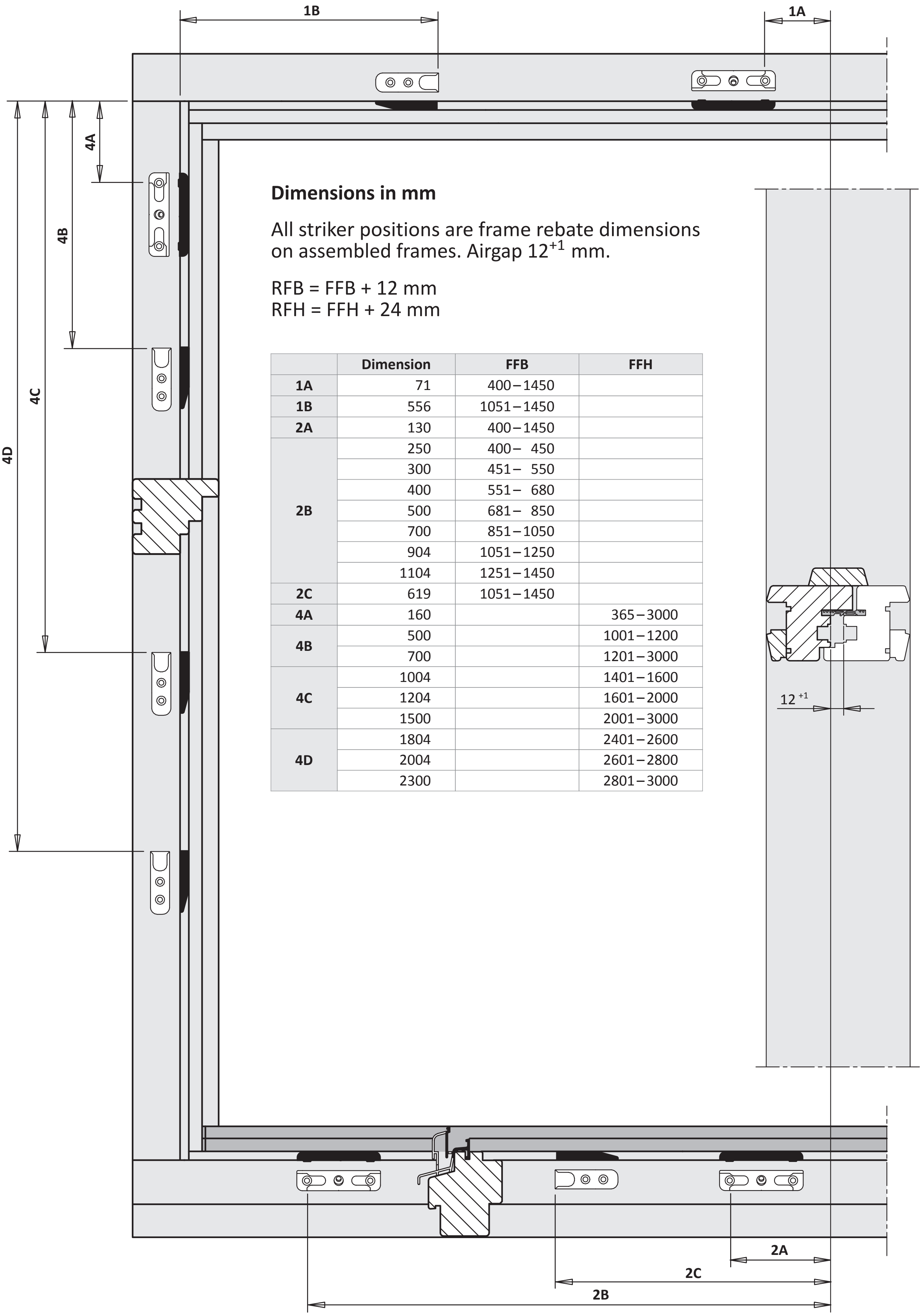


| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. 17 | 18 |
|---|---|---|---|---|---|---|---|---|
| **1a** | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 400 – 850 | 365 – 460 | | | 1 |
| **1b** | corn.drive VSO 1RS | TEUL4010- ... | 1 | 400 – 1650 | 461 – 3000 | | | 1 |
| **2** | stay AF sz 0 | TSKK2000- ... | 1 | 400 – 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | 1 | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | 1 | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | 1 | |
| **3** | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | 1 | |
| **4** | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | |
| **5** | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | |
| **6a** | corn.drive AFVSU/K56+nar.1S1RS | TEUL5100- ... | 1 | 400 – 850 | 365 – 460 | | | 1 |
| **6b** | corn.drive AF VSU/K 56+ 1S 1RS | TEUL5030- ... | 1 | 400 – 1650 | 461 – 3000 | | | 1 |
| **7** | run up block AF 13 mm 13 | TFFH0080- ... | 1 | 400 – 1650 | | | | |
| **8** | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400 – 450 | | | | 1 |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451 – 550 | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551 – 680 | | | | 1 |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681 – 850 | | | | 1 |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851 – 1050 | | | | 1 |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051 – 1250 | | | | 1 |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251 – 1450 | | | | 1 |
| | extension sz 4+ 1RS | TVSL0340- ... | | 1451 – 1650 | | | | 1 |
| **9** | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | 1 | |
| **10** | gear 15 AF sz 20 | TGMK4010- ... | 1 | 400 – 850 | 365 – 460 | 183 – 300 | | |
| | gear 15 AF sz 20 | TGMK4010- ... | | | 461 – 600 | 230 – 300 | | |
| | gear 15 AF sz 60 | TGMK4020- ... | | | 601 – 1000 | 300 – 500 | | |
| | gear 15 AF sz 80 1RS | TGMK4040- ... | | | 1001 – 1200 | 500 – 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 2RS | TGMK4080- ... | | | 2001 – 3000 | 1000 – 1500 | | |
| **11** | linkage KK/AF sz 1 1RS | TZKK1010- ... | 2 | | 2401 – 2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | |
| **12** | handle Globe lockable 100Nm | Ref.access. ZHGA100 | 1 | | 365 – 3000 | | | |
| **13** | anti-drill guard E | TGBS0010- ... | 1 | | 365 – 3000 | | | |
| **14a** | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 365 – 1000 | | | 1 |
| **14b** | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001 – 1200 | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201 – 3000 | | 1 | 1 |
| **15** | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | 1 | |
| **16** | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | 1 | |
| **17** | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| **18** | striker plate S-RS | Ref. PDB, TRSK | | | | | | |
| | | | | **on request** | | | | |
| **19** | tilt restrictor .. | TFKB0010- ... | 1 | | 365 – 800 | | | |
| **20** | mishandling device | TFBS0010- ... | 1 | | 601 – 3000 | | | |
| **21** | pressure piece | Ref. PDB, TFFD | 1 | | 601 – 3000 | | | |
| **22** | snapper switchable rh. | TFST0011- ... | 1 | | 1601 – 3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1601 – 3000 | | | |

# List of fittings main sash

2-sash square tilt-turn/turn DS 16
H12 GM Hinge side TITAN

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| **23** | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| **24** | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| **25** | top hinge | Ref. PDB, TBSL81 | | | 1 |
| **26** | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| **27** | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| **28** | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| **29** | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| **30** | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| **31** | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| **32** | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |




**Dimensions in mm**

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

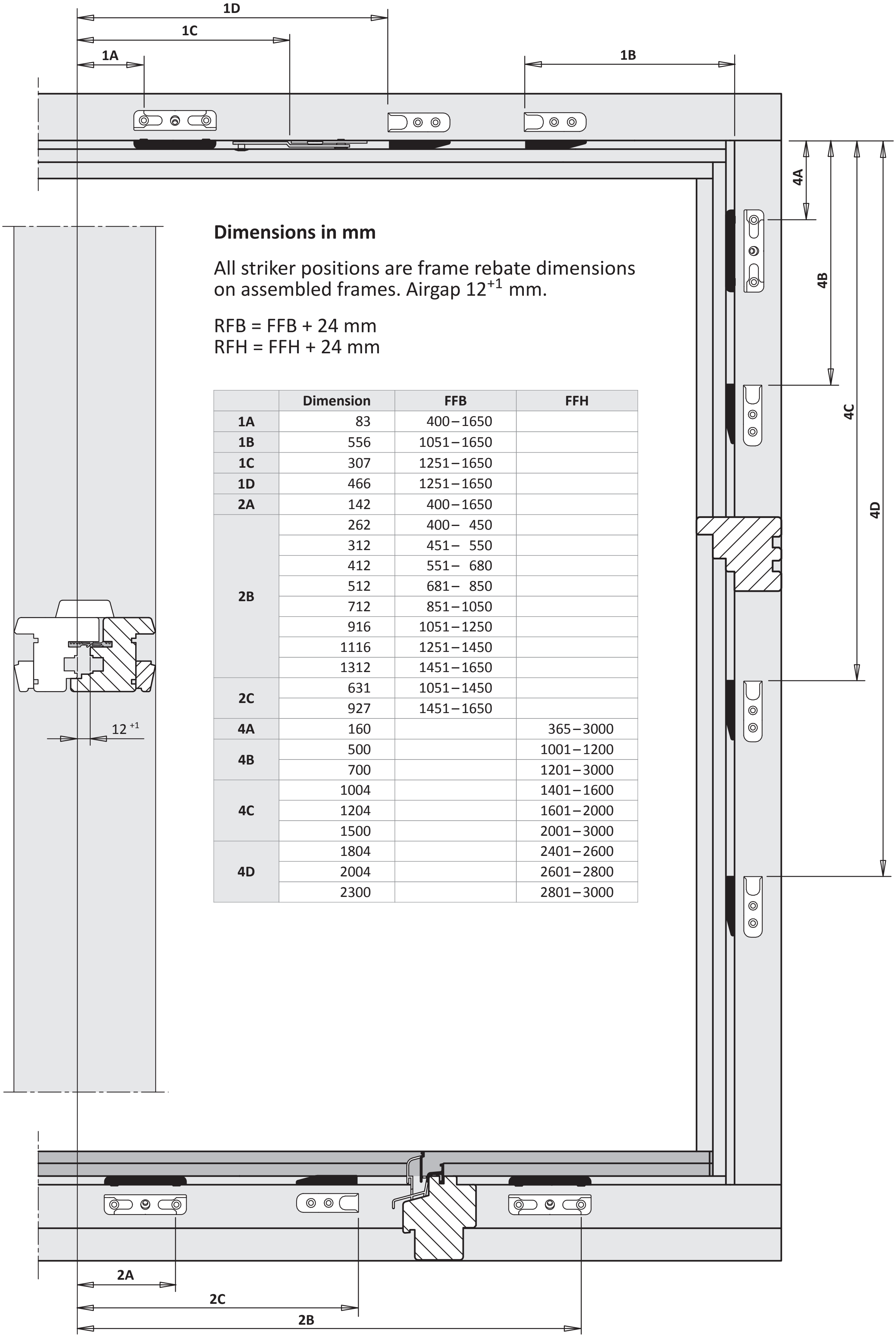
RFB = FFB + 12 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| **1A** | 71 | 400–1450 | |
| **1B** | 556 | 1051–1450 | |
| **2A** | 130 | 400–1450 | |
| **2B** | 250 | 400– 450 | |
| | 300 | 451– 550 | |
| | 400 | 551– 680 | |
| | 500 | 681– 850 | |
| | 700 | 851–1050 | |
| | 904 | 1051–1250 | |
| | 1104 | 1251–1450 | |
| **2C** | 619 | 1051–1450 | |
| **4A** | 160 | | 365–3000 |
| **4B** | 500 | | 1001–1200 |
| | 700 | | 1201–3000 |
| **4C** | 1004 | | 1401–1600 |
| | 1204 | | 1601–2000 |
| | 1500 | | 2001–3000 |
| **4D** | 1804 | | 2401–2600 |
| | 2004 | | 2601–2800 |
| | 2300 | | 2801–3000 |

# Frame dimensions main sash

2-sash square tilt-turn/turn DS 16
H12 GM Hinge side TITAN






**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

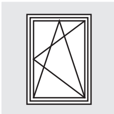
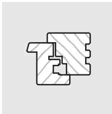
| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 400 – 1650 | |
| 1B | 556 | 1051 – 1650 | |
| 1C | 307 | 1251 – 1650 | |
| 1D | 466 | 1251 – 1650 | |
| 2A | 142 | 400 – 1650 | |
| 2B | 262 | 400 – 450 | |
| | 312 | 451 – 550 | |
| | 412 | 551 – 680 | |
| | 512 | 681 – 850 | |
| | 712 | 851 – 1050 | |
| | 916 | 1051 – 1250 | |
| | 1116 | 1251 – 1450 | |
| | 1312 | 1451 – 1650 | |
| 2C | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 4A | 160 | | 365 – 3000 |
| 4B | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4C | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4D | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

**Bottom: Inliner**

6

# TITAN AF

## Installation instructions

  **RC2**

1-sash square tilt-turn

timber 12 mm

RC2

fixed handle position

Hinge side TITAN

surface TS

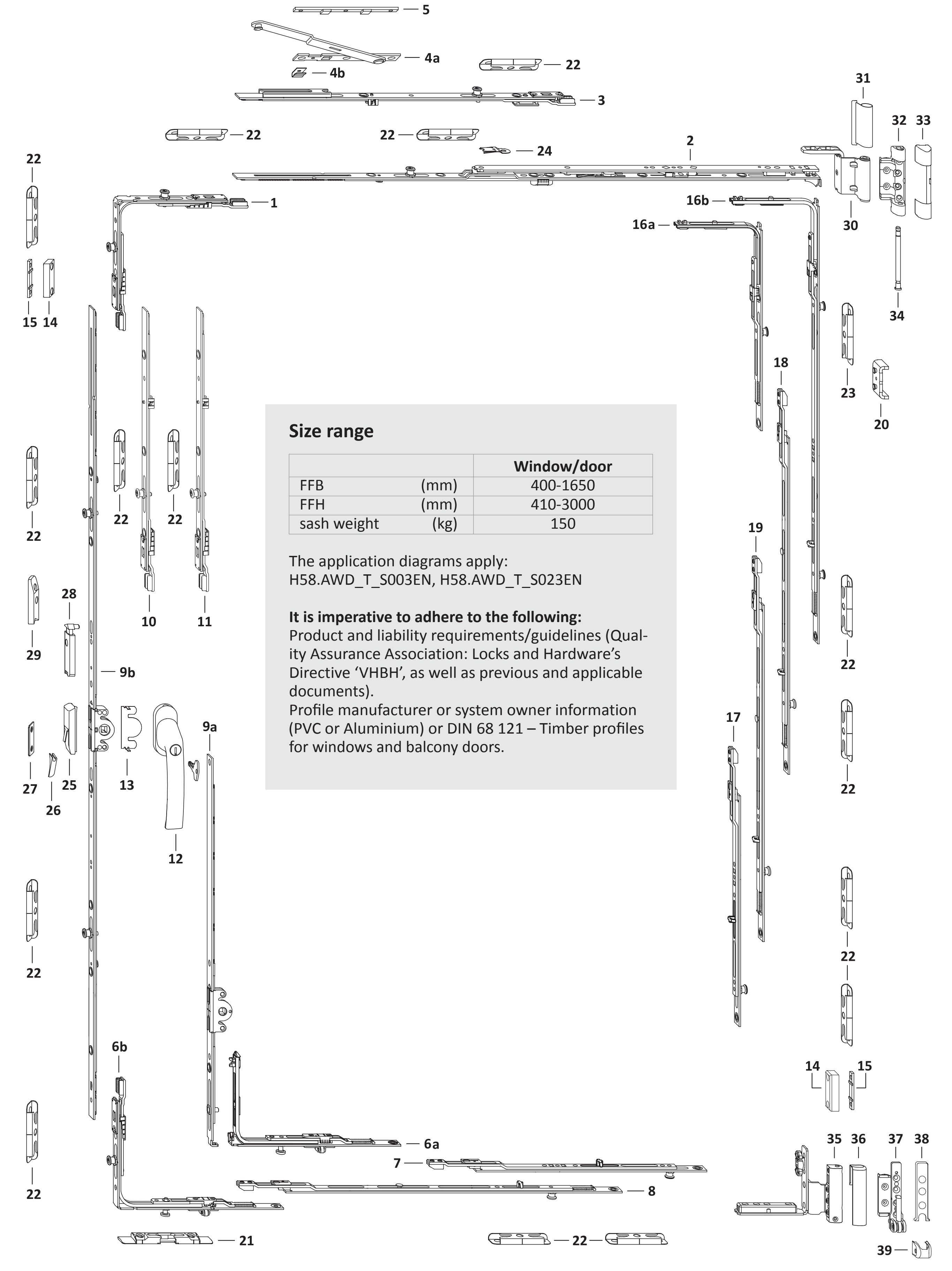
backset 15 mm



| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 2RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout

1-sash square tilt-turn
H12 GK Hinge side TITAN




## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 400-1650 |
| FFH | (mm) | 410-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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.

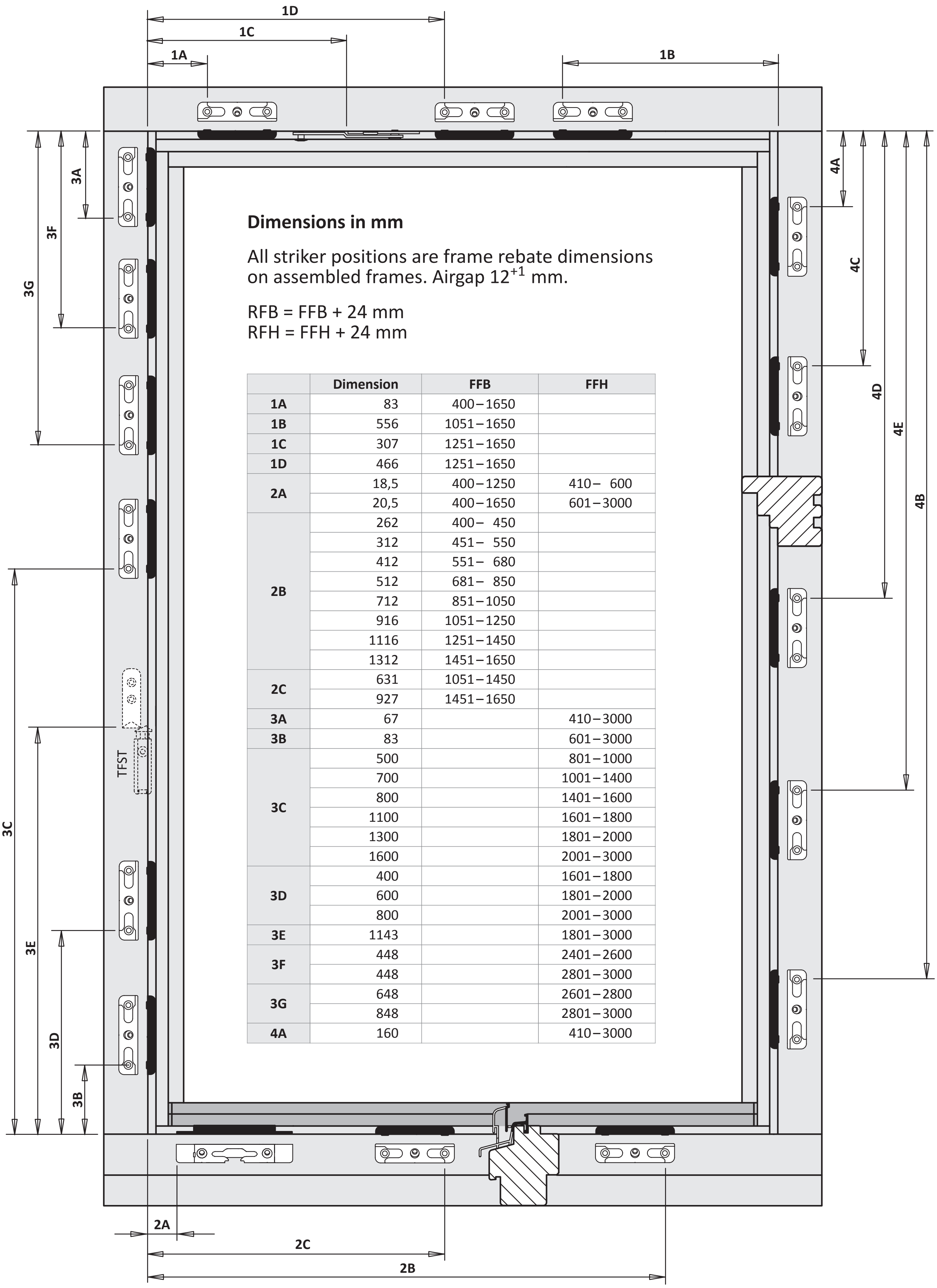
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 21 | 22 | 23 |
| 1 | corn.drive VSO 2RS A0055 | TEUL4070- ... | 1 | 400 – 1650 | | | | 2 | |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 400 – 450 | | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | | 1 | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | | 1 | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | | 1 | |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | | |
| 6a | locking part VSU/K FH+ 1S | TEVR1400- ... | 1 | 400 – 1250 | 410 – 600 | | 1 | | |
| 6b | corn.drive AF VSU/K+ FH 1S 1RS A0055 | TEUL5020- ... | 1 | 400 – 1650 | 601 – 3000 | | 1 | 1 | |
| 7 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400 – 450 | | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451 – 550 | | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551 – 680 | | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681 – 850 | | | | 1 | |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851 – 1050 | | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051 – 1250 | | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251 – 1450 | | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 1451 – 1650 | | | | 1 | |
| 8 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 1 | |
| 9a | gear 15 sz 30/G180 | TGKK3010- ... | 1 | 400 – 1250 | 410 – 600 | 180 | | | |
| 9b | gear 15 AF sz 60/G300 | TGKK4030- ... | 1 | | 601 – 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/G700 1RS | TGKK4080- ... | | | 1401 – 1600 | 700 | | 1 | |
| | 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 2RS | TGKK4110- ... | | | 2001 – 3000 | 1000 | | 2 | |
| 10 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2401 – 2600 | | | 1 | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | 1 | |
| 11 | linkage KK/AF sz 2 1RS | TZKK1020- ... | 1 | | 2601 – 2800 | | | 1 | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | 1 | |
| 12 | handle Globe lockable 100Nm | Ref.access. ZHGA100 | 1 | | 410 – 3000 | | | | |
| 13 | anti-drill guard E | TGBS0010- ... | 1 | | 410 – 3000 | | | | |
| 14 | Air gap limiter | Ref. PDB, FRFL | 2 | | 410 – 3000 | | | | |
| 15 | packer RB/FPS | Ref. PDB, FRUP02 | 2 | | 410 – 3000 | | | | |
| 16a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 410 – 1000 | | | | 1 |
| 16b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001 – 1200 | | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201 – 3000 | | | 1 | 1 |
| 17 | extension sz 1+ 1RS | TVSO0200- ... | 1 | | 501 – 600 | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | | 601 – 800 | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | | 801 – 1000 | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | | 1001 – 1400 | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | | 1401 – 1800 | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | | 1801 – 2000 | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | | 2001 – 2200 | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | | 2201 – 2400 | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | | 2401 – 2600 | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | | 2601 – 2800 | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | | 2801 – 3000 | | | 1 | |
| 18 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | | 1 | |
| 19 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | | 1 | |
| 20 | anti-lift device | Ref. PDB, TFAH | 1 | | 410 – 3000 | | | | |

# List of fittings

1-sash square tilt-turn
H12 GK Hinge side TITAN

| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 21 | 22 | 23 |
| 21 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | | |
| 22 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | |
| 23 | striker plate S-RS WK2BSO | Ref. PDB, TRSK03 | | | | | | | |
| **on request** | | | | | | | | | |
| 24 | tilt restrictor .. | TFKB0010- ... | 1 | | 410– 800 | | | | |
| 25 | mishandling device | TFBS0010- ... | 1 | | | | | | |
| 26 | pressure piece | Ref. PDB, TFFD | 1 | | | | | | |
| 27 | stop | Ref. PDB, FRZF01 | 1 | | | | | | |
| 28 | snapper switchable rh. | TFST0011- ... | 1 | | 1801 – 3000 | | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1801 – 3000 | | | | |
| 29 | frame part snapper | Ref. PDB, TRST | 1 | | 1801 – 3000 | | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 30 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 31 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 32 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 33 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 34 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 35 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 36 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 37 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 38 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 39 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |




**Dimensions in mm**

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

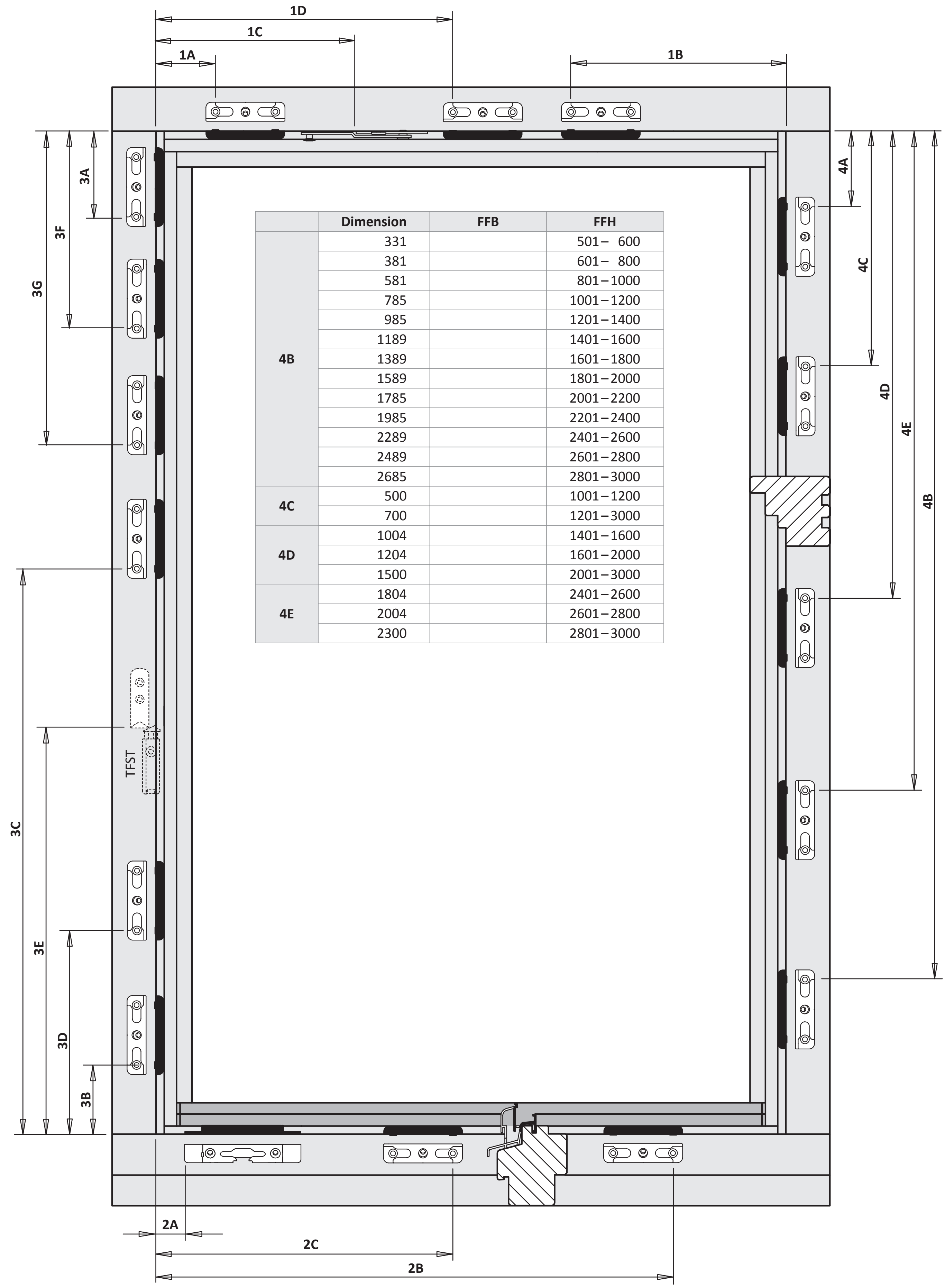
RFB = FFB + 24 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 400–1650 | |
| 1B | 556 | 1051–1650 | |
| 1C | 307 | 1251–1650 | |
| 1D | 466 | 1251–1650 | |
| 2A | 18,5 | 400–1250 | 410– 600 |
| | 20,5 | 400–1650 | 601–3000 |
| 2B | 262 | 400– 450 | |
| | 312 | 451– 550 | |
| | 412 | 551– 680 | |
| | 512 | 681– 850 | |
| | 712 | 851–1050 | |
| | 916 | 1051–1250 | |
| | 1116 | 1251–1450 | |
| | 1312 | 1451–1650 | |
| 2C | 631 | 1051–1450 | |
| | 927 | 1451–1650 | |
| 3A | 67 | | 410–3000 |
| 3B | 83 | | 601–3000 |
| 3C | 500 | | 801–1000 |
| | 700 | | 1001–1400 |
| | 800 | | 1401–1600 |
| | 1100 | | 1601–1800 |
| | 1300 | | 1801–2000 |
| | 1600 | | 2001–3000 |
| 3D | 400 | | 1601–1800 |
| | 600 | | 1801–2000 |
| | 800 | | 2001–3000 |
| 3E | 1143 | | 1801–3000 |
| 3F | 448 | | 2401–2600 |
| | 448 | | 2801–3000 |
| 3G | 648 | | 2601–2800 |
| | 848 | | 2801–3000 |
| 4A | 160 | | 410–3000 |

6

# Frame dimensions

1-sash square tilt-turn
H12 GK Hinge side TITAN

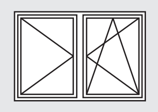


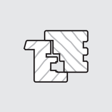

| | Dimension | FFB | FFH |
|---|---|---|---|
| 4B | 331 | | 501 – 600 |
| | 381 | | 601 – 800 |
| | 581 | | 801 – 1000 |
| | 785 | | 1001 – 1200 |
| | 985 | | 1201 – 1400 |
| | 1189 | | 1401 – 1600 |
| | 1389 | | 1601 – 1800 |
| | 1589 | | 1801 – 2000 |
| | 1785 | | 2001 – 2200 |
| | 1985 | | 2201 – 2400 |
| | 2289 | | 2401 – 2600 |
| | 2489 | | 2601 – 2800 |
| | 2685 | | 2801 – 3000 |
| 4C | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4D | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4E | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

6

# TITAN AF

## Installation instructions





**RC2**

2-sash square tilt-turn/turn DS 16

timber 12 mm

RC2

fixed handle position

Hinge side TITAN

surface TS

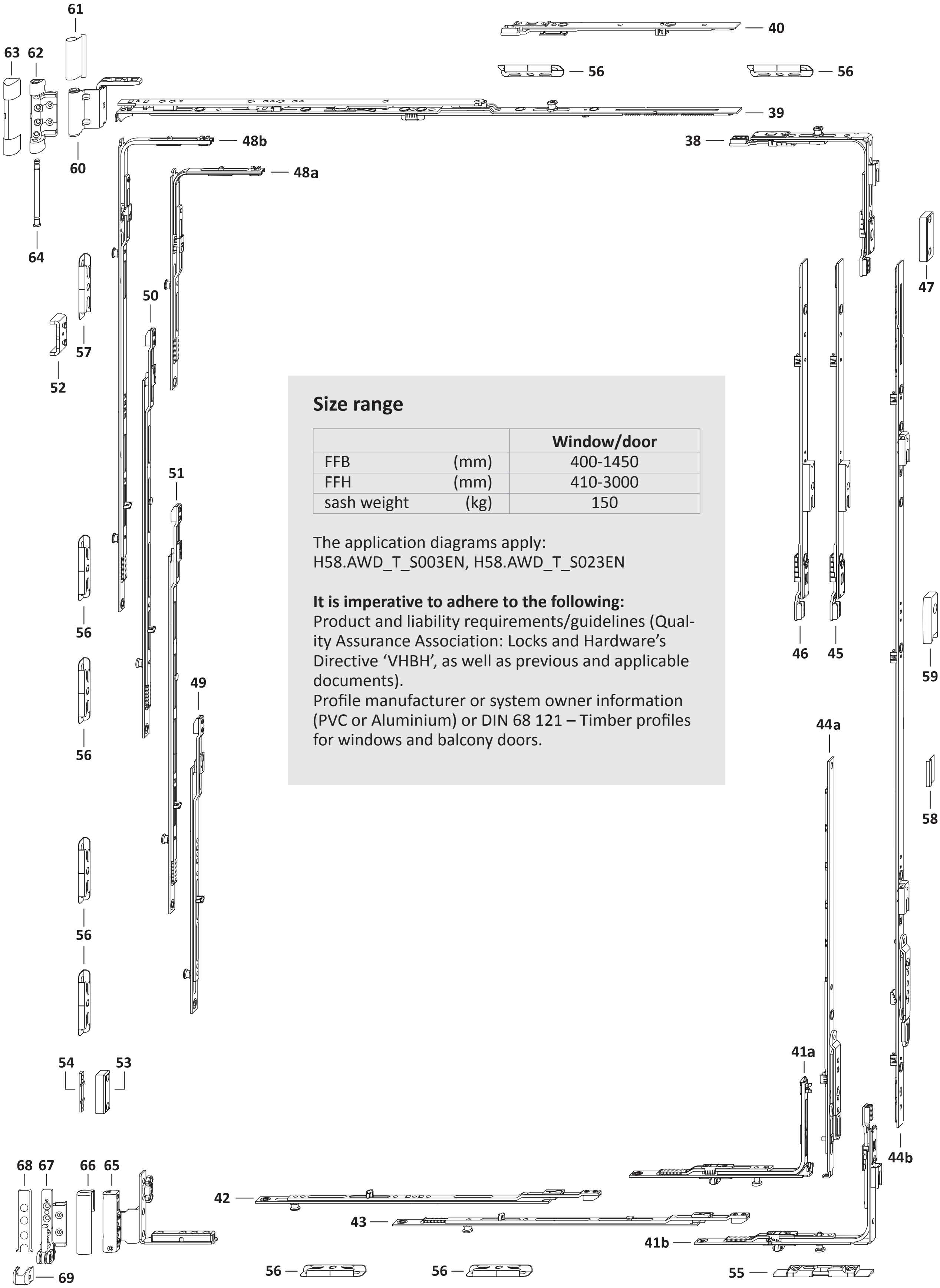
backset 15 mm



| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 2RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout slave sash

2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN

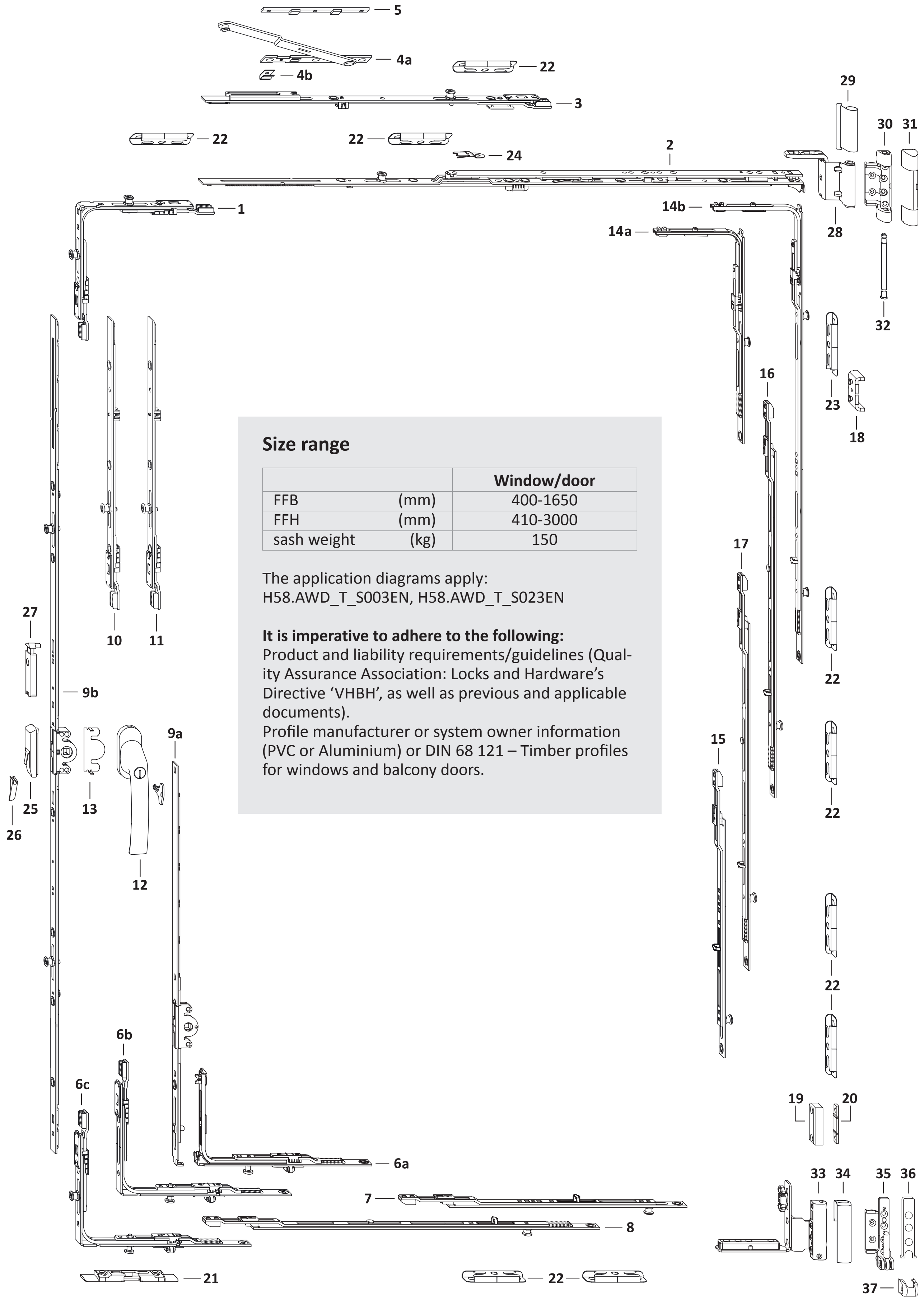



## Size range

| | Window/door |
|---|---|
| FFB (mm) | 400-1450 |
| FFH (mm) | 410-3000 |
| sash weight (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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

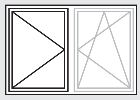
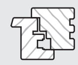
| | | Window/door |
|---|---|---|
| FFB | (mm) | 400-1650 |
| FFH | (mm) | 410-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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

2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN

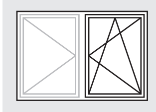
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | In the main sash | 55 | 56 | 57 |
| 38 | corn.drive AF VSO WK2 SB 1RS | TEUL4080- ... | 1 | 400 – 1450 | | | | 1 | |
| 39 | stay AF sz 0 | TSKK2000- ... | 1 | 400 – 450 | | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1450 | | | | 1 | |
| 40 | linkage AF sz 1 | TZZS0150- ... | 1 | 1251 – 1450 | | | | | |
| 41a | locking part VSU/K FH+ 1S | TEVR1400- ... | 1 | 400 – 1450 | 410 – 800 | | 1 | | |
| 41b | corn.drive AF VSU/K+WK2 FHSB1S | TEUL5110- ... | 1 | 400 – 1450 | 801 – 3000 | | 1 | | |
| 42 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400 – 450 | | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451 – 550 | | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551 – 680 | | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681 – 850 | | | | 1 | |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851 – 1050 | | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051 – 1250 | | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251 – 1450 | | | | 1 | |
| 43 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 | |
| 44a | sec.sash gear 16 sz 30 | TGKS0010- ... | 1 | 400 – 1250 | 410 – 600 | 180 | | | |
| | sec.sash gear 16 AF 60/G300 | TGKS4030- ... | | | 601 – 800 | 300 | | | |
| 44b | sec.sash gear 16 AF80/G400 1SB | TGKS4050- ... | 1 | | 801 – 1000 | 400 | | | |
| | sec.sash gear 16 AF sz 100 1SB | TGKS4060- ... | | | 1001 – 1200 | 500 | | | |
| | sec.sash gear 16 AF120/G6001SB | TGKS4070- ... | | | 1201 – 1400 | 600 | | | |
| | sec.sash gear 16 AF140/G7001SB | TGKS4080- ... | | | 1401 – 1600 | 700 | | | |
| | sec.sash gear 16 AF160/G7002SB 70 | TGKS4330- ... | | | 1601 – 1800 | 700 | | | |
| | sec.sash gear 16AF180/G10002SB 70 | TGKS4270- ... | | | 1801 – 2000 | 1000 | | | |
| | sec.sash gear 16AF200/G10002SB | TGKS4110- ... | | | 2001 – 3000 | 1000 | | | |
| 45 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2401 – 2600 | | | | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | | |
| 46 | linkage AF sz 2 1SB-RS | TZKS1030- ... | 1 | | 2601 – 2800 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | | |
| 47 | air gap limiter F .. | TFFB0010- ... | 1 | | 410 – 3000 | | | | |
| 48a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 410 – 1000 | | | | 1 |
| 48b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001 – 1200 | | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201 – 3000 | | | 1 | 1 |
| 49 | extension sz 1+ 1RS | TVSO0200- ... | 1 | | 501 – 600 | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | | 601 – 800 | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | | 801 – 1000 | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | | 1001 – 1400 | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | | 1401 – 1800 | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | | 1801 – 2000 | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | | 2001 – 2200 | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | | 2201 – 2400 | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | | 2401 – 2600 | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | | 2601 – 2800 | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | | 2801 – 3000 | | | 1 | |
| 50 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | | 1 | |
| 51 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | | 1 | |
| 52 | anti-lift device | Ref. PDB, TFAH | 1 | | 410 – 3000 | | | | |
| 53 | Air gap limiter | Ref. PDB, FRFL | 1 | | 410 – 3000 | | | | |
| 54 | packer RB/FPS | Ref. PDB, FRUP02 | 1 | | 410 – 3000 | | | | |
| 55 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | | |
| 56 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | |
| 57 | striker plate S-RS WK2BSO | Ref. PDB, TRSK03 | | | | | | | |
| on request | | | | | | | | | |
| 58 | stop | Ref. PDB, FRZF04 | 1 | | 601 – 3000 | | | | |
| 59 | striker snapper A0767 | TRST0010- ... | 1 | | 1801 – 3000 | | | | |

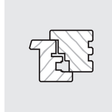
| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| **Pos.** | **Description** | **Part number** | | | **required as per sash weight** |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| **60** | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| **61** | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| **62** | top hinge | Ref. PDB, TBSL81 | | | 1 |
| **63** | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| **64** | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| **65** | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| **66** | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| **67** | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| **68** | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| **69** | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

# List of fittings main sash

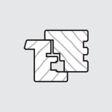
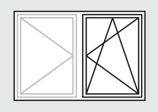
2-sash square tilt-turn/turn DS 16

H12 GK Hinge side TITAN





| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 21 | 22 | 23 |
| 1 | corn.drive VSO 2RS A0055 | TEUL4070- ... | 1 | 400–1650 | | | | 1 | |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 400– 450 | | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451– 680 | | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681– 850 | | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851–1050 | | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051–1250 | | | | 1 | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251–1450 | | | | 1 | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451–1650 | | | | 1 | |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251–1650 | | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251–1650 | | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251–1650 | | | | | |
| 6a | locking part VSU/K FH+ 1S | TEVR1400- ... | 1 | 400–1250 | 410– 600 | | 1 | | |
| 6b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 400–1650 | 601– 800 | | 1 | | |
| 6c | corn.drive AF VSU/K+ FH 1S 1RS A0055 | TEUL5020- ... | 1 | 400–1650 | 801–3000 | | 1 | | |
| 7 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400– 450 | | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451– 550 | | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551– 680 | | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681– 850 | | | | 1 | |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851–1050 | | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051–1250 | | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251–1450 | | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 1451–1650 | | | | 1 | |
| 8 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051–1450 | | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451–1650 | | | | 1 | |
| 9a | gear 15 sz 30/G180 | TGKK3010- ... | 1 | 400–1250 | 410– 600 | 180 | | | |
| 9b | gear 15 AF sz 60/G300 | TGKK4030- ... | 1 | | 601– 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/G700 1RS | TGKK4080- ... | | | 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 2RS | TGKK4110- ... | | | 2001–3000 | 1000 | | | |
| 10 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201–2400 | | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2401–2600 | | | | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601–2800 | | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801–3000 | | | | |
| 11 | linkage KK/AF sz 2 1RS | TZKK1020- ... | 1 | | 2601–2800 | | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801–3000 | | | | |
| 12 | handle Globe lockable 100Nm | Ref.access. ZHGA100 | 1 | | 410–3000 | | | | |
| 13 | anti-drill guard E | TGBS0010- ... | 1 | | 410–3000 | | | | |
| 14a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 410–1000 | | | | 1 |
| 14b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001–1200 | | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201–3000 | | | 1 | 1 |
| 15 | extension sz 1+ 1RS | TVSO0200- ... | 1 | | 501– 600 | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | | 601– 800 | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | | 801–1000 | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | | 1001–1400 | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | | 1401–1800 | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | | 1801–2000 | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | | 2001–2200 | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | | 2201–2400 | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | | 2401–2600 | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | | 2601–2800 | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | | 2801–3000 | | | 1 | |
| 16 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401–1600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601–2000 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001–3000 | | | 1 | |
| 17 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401–2600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601–2800 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801–3000 | | | 1 | |
| 18 | anti-lift device | Ref. PDB, TFAH | 1 | | 410–3000 | | | | |
| 19 | Air gap limiter | Ref. PDB, FRFL | 1 | | 410–3000 | | | | |



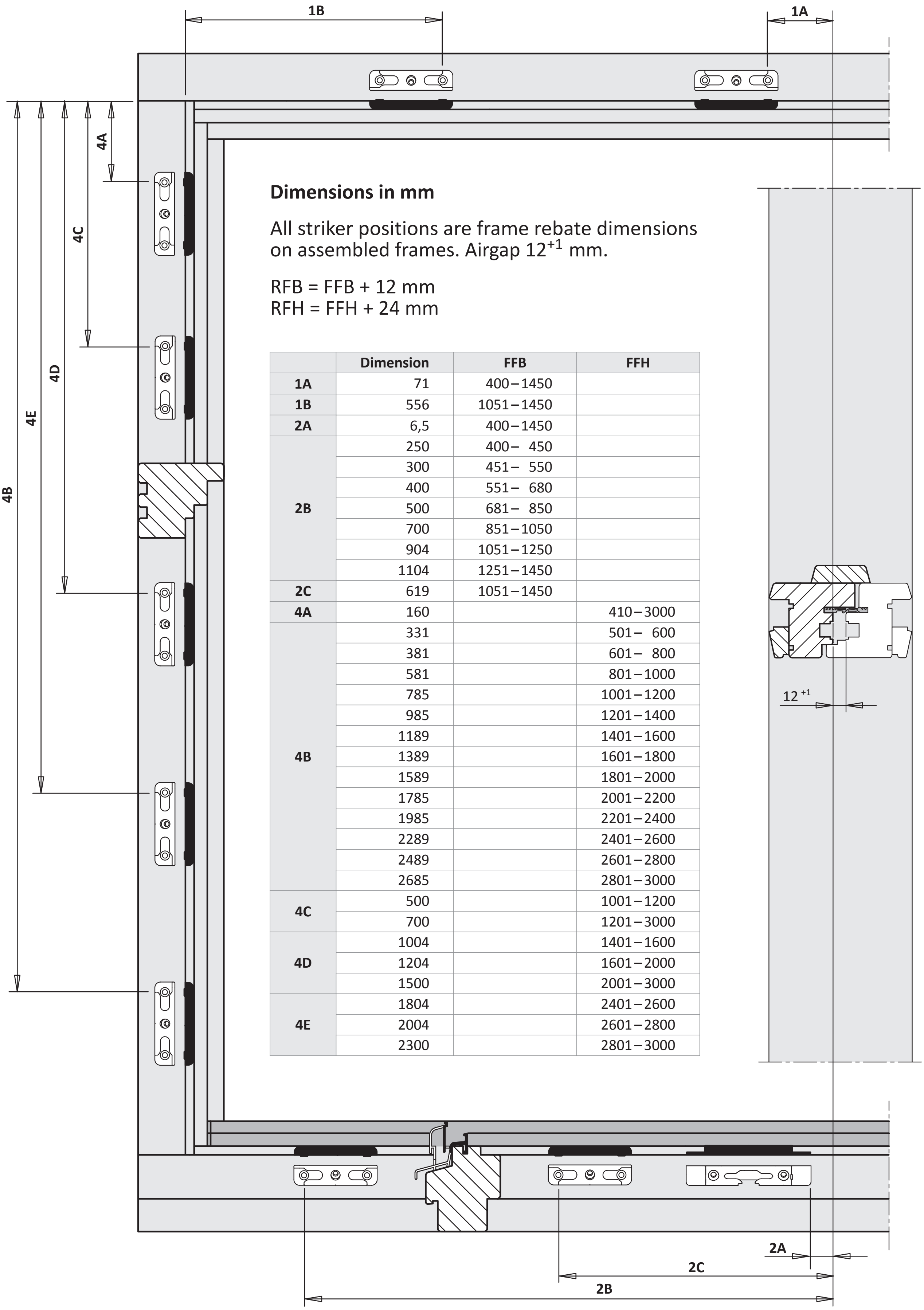
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 21 | 22 | 23 |
| 20 | packer RB/FPS | Ref. PDB, FRUP02 | 1 | | 410 – 3000 | | | | |
| 21 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | | |
| 22 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | |
| 23 | striker plate S-RS WK2BSO | Ref. PDB, TRSK03 | | | | | | | |
| **on request** | | | | | | | | | |
| 24 | tilt restrictor .. | TFKB0010- ... | 1 | | 410 – 800 | | | | |
| 25 | mishandling device | TFBS0010- ... | 1 | | 601 – 3000 | | | | |
| 26 | pressure piece | Ref. PDB, TFFD | 1 | | 601 – 3000 | | | | |
| 27 | snapper switchable rh. | TFST0011- ... | 1 | | 1801 – 3000 | | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1801 – 3000 | | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 28 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 29 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 30 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 31 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 32 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 33 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 34 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 35 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 36 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 37 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

# Frame dimensions slave sash

2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN



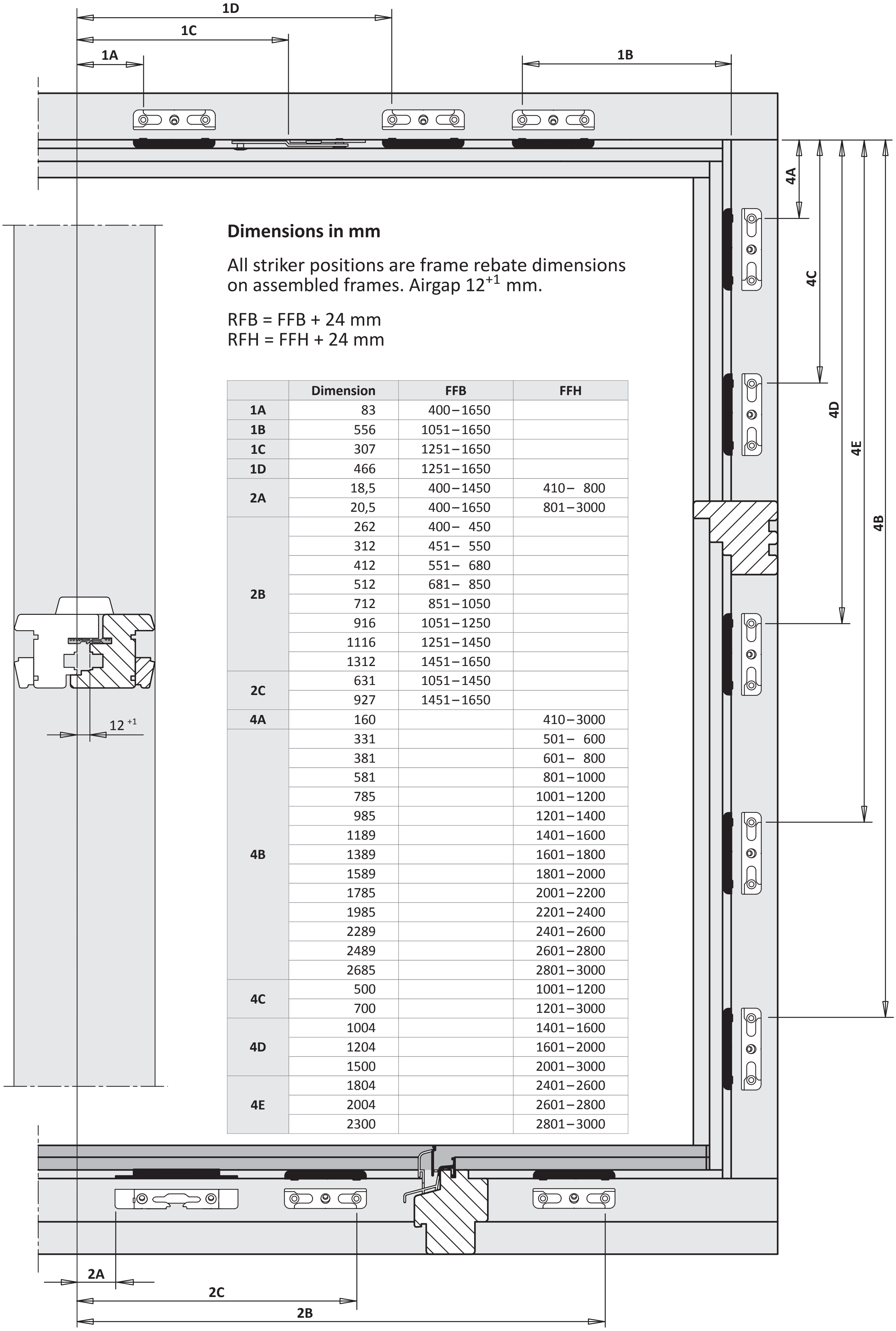



**Dimensions in mm**

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 | 400–1450 | |
| 1B | 556 | 1051–1450 | |
| 2A | 6,5 | 400–1450 | |
| 2B | 250 | 400– 450 | |
| | 300 | 451– 550 | |
| | 400 | 551– 680 | |
| | 500 | 681– 850 | |
| | 700 | 851–1050 | |
| | 904 | 1051–1250 | |
| | 1104 | 1251–1450 | |
| 2C | 619 | 1051–1450 | |
| 4A | 160 | | 410–3000 |
| 4B | 331 | | 501– 600 |
| | 381 | | 601– 800 |
| | 581 | | 801–1000 |
| | 785 | | 1001–1200 |
| | 985 | | 1201–1400 |
| | 1189 | | 1401–1600 |
| | 1389 | | 1601–1800 |
| | 1589 | | 1801–2000 |
| | 1785 | | 2001–2200 |
| | 1985 | | 2201–2400 |
| | 2289 | | 2401–2600 |
| | 2489 | | 2601–2800 |
| | 2685 | | 2801–3000 |
| 4C | 500 | | 1001–1200 |
| | 700 | | 1201–3000 |
| 4D | 1004 | | 1401–1600 |
| | 1204 | | 1601–2000 |
| | 1500 | | 2001–3000 |
| 4E | 1804 | | 2401–2600 |
| | 2004 | | 2601–2800 |
| | 2300 | | 2801–3000 |




**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

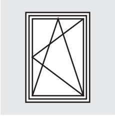
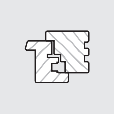
| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 400 – 1650 | |
| 1B | 556 | 1051 – 1650 | |
| 1C | 307 | 1251 – 1650 | |
| 1D | 466 | 1251 – 1650 | |
| 2A | 18,5 | 400 – 1450 | 410 – 800 |
| | 20,5 | 400 – 1650 | 801 – 3000 |
| 2B | 262 | 400 – 450 | |
| | 312 | 451 – 550 | |
| | 412 | 551 – 680 | |
| | 512 | 681 – 850 | |
| | 712 | 851 – 1050 | |
| | 916 | 1051 – 1250 | |
| | 1116 | 1251 – 1450 | |
| | 1312 | 1451 – 1650 | |
| 2C | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 4A | 160 | | 410 – 3000 |
| 4B | 331 | | 501 – 600 |
| | 381 | | 601 – 800 |
| | 581 | | 801 – 1000 |
| | 785 | | 1001 – 1200 |
| | 985 | | 1201 – 1400 |
| | 1189 | | 1401 – 1600 |
| | 1389 | | 1601 – 1800 |
| | 1589 | | 1801 – 2000 |
| | 1785 | | 2001 – 2200 |
| | 1985 | | 2201 – 2400 |
| | 2289 | | 2401 – 2600 |
| | 2489 | | 2601 – 2800 |
| | 2685 | | 2801 – 3000 |
| 4C | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4D | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4E | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

6

**Bottom: Inliner**

# TITAN AF

## Installation instructions

  **RC2**

1-sash square tilt-turn

timber 12 mm

RC2

centre handle pos. (variable)

Hinge side TITAN

surface TS

backset 15 mm

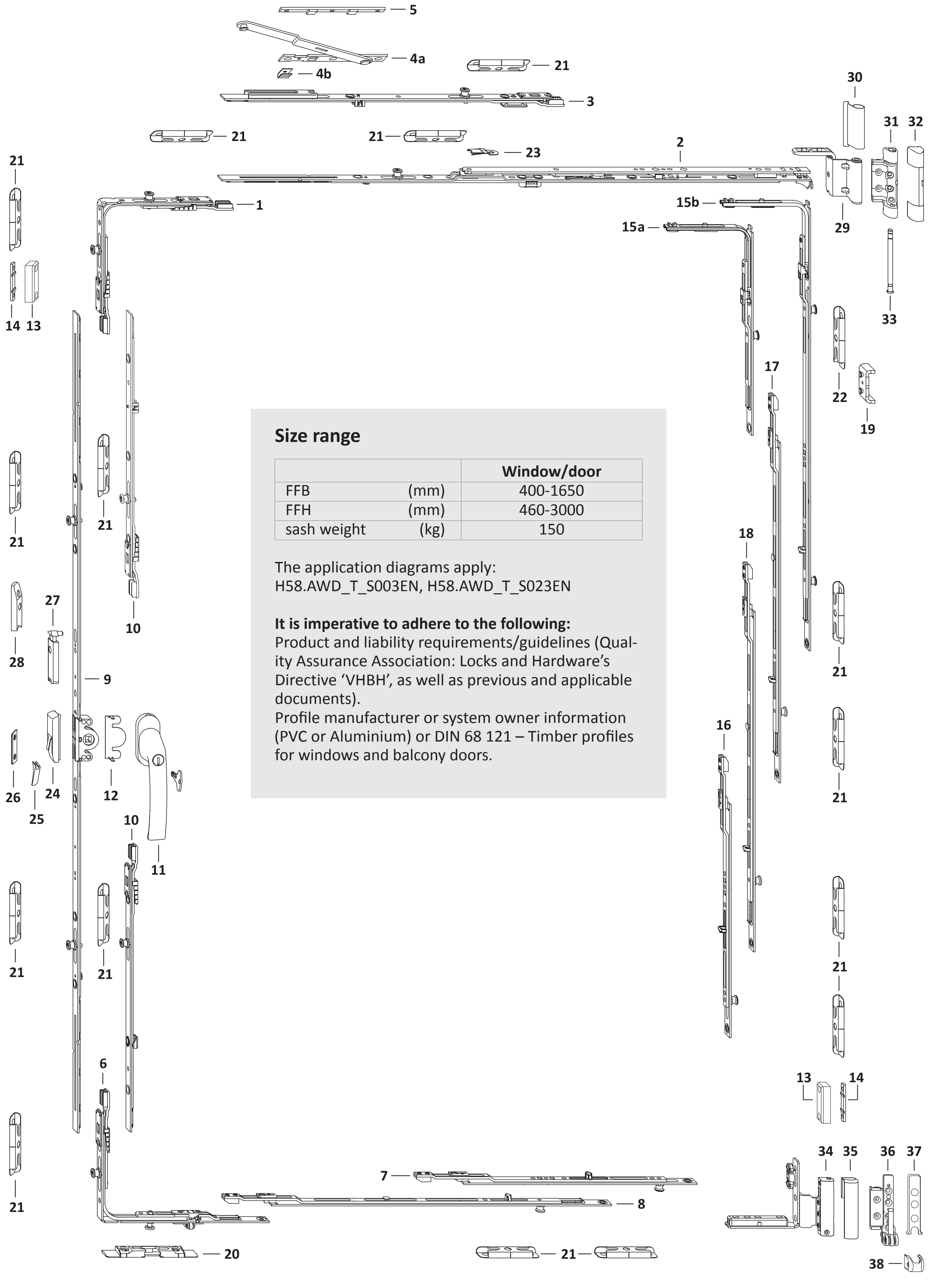


| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 2RS |
| **Hinge side turning points** | Standard HZ12 |

## hardware layout

1-sash square tilt-turn
H12 GM Hinge side TITAN






### Size range

| | Window/door |
|---|---|
| FFB (mm) | 400-1650 |
| FFH (mm) | 460-3000 |
| sash weight (kg) | 150 |

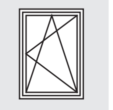
The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 20 | 21 | 22 |
| 1 | corn.drive VSO 2RS A0055 | TEUL4070- ... | 1 | 400–1650 | | | | 2 | |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 400– 450 | | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451– 680 | | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681– 850 | | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851–1050 | | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051–1250 | | | | 1 | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251–1450 | | | | 1 | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451–1650 | | | | 1 | |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251–1650 | | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251–1650 | | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251–1650 | | | | | |
| 6 | corn.drive AF VSU/K+ FH 1S 1RS A0055 | TEUL5020- ... | 1 | 400–1650 | | | 1 | 1 | |
| 7 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400– 450 | | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451– 550 | | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551– 680 | | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681– 850 | | | | 1 | |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851–1050 | | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051–1250 | | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251–1450 | | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 1451–1650 | | | | 1 | |
| 8 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051–1450 | | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451–1650 | | | | 1 | |
| 9 | gear 15 AF sz 20 | TGMK4010- ... | 1 | | 460– 600 | 230– 300 | | | |
| | gear 15 AF sz 60 | TGMK4020- ... | | | 601–1000 | 300– 500 | | | |
| | gear 15 AF sz 80 1RS | TGMK4040- ... | | | 1001–1200 | 500– 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 2RS | TGMK4080- ... | | | 2001–3000 | 1000–1500 | | 2 | |
| 10 | linkage KK/AF sz 1 1RS | TZKK1010- ... | 2 | | 2401–2800 | | | 2 | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801–3000 | | | 2 | |
| 11 | handle Globe lockable 100Nm | Ref.access. ZHGA100 | 1 | | 460–3000 | | | | |
| 12 | anti-drill guard E | TGBS0010- ... | 1 | | 460–3000 | | | | |
| 13 | Air gap limiter | Ref. PDB, FRFL | 2 | | 460–3000 | | | | |
| 14 | packer RB/FPS | Ref. PDB, FRUP02 | 2 | | 460–3000 | | | | |
| 15a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 460–1000 | | | | 1 |
| 15b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001–1200 | | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201–3000 | | | 1 | 1 |
| 16 | extension sz 1+ 1RS | TVSO0200- ... | 1 | | 501– 600 | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | | 601– 800 | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | | 801–1000 | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | | 1001–1400 | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | | 1401–1800 | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | | 1801–2000 | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | | 2001–2200 | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | | 2201–2400 | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | | 2401–2600 | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | | 2601–2800 | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | | 2801–3000 | | | 1 | |
| 17 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401–1600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601–2000 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001–3000 | | | 1 | |
| 18 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401–2600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601–2800 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801–3000 | | | 1 | |
| 19 | anti-lift device | Ref. PDB, TFAH | 1 | | 460–3000 | | | | |
| 20 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | | |
| 21 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | |
| 22 | striker plate S-RS WK2BSO | Ref. PDB, TRSK03 | | | | | | | |
| | | | **on request** | | | | | | |
| 23 | tilt restrictor .. | TFKB0010- ... | 1 | | 460– 800 | | | | |
| 24 | mishandling device | TFBS0010- ... | 1 | | | | | | |
| 25 | pressure piece | Ref. PDB, TFFD | 1 | | | | | | |
| 26 | stop | Ref. PDB, FRZF01 | 1 | | | | | | |

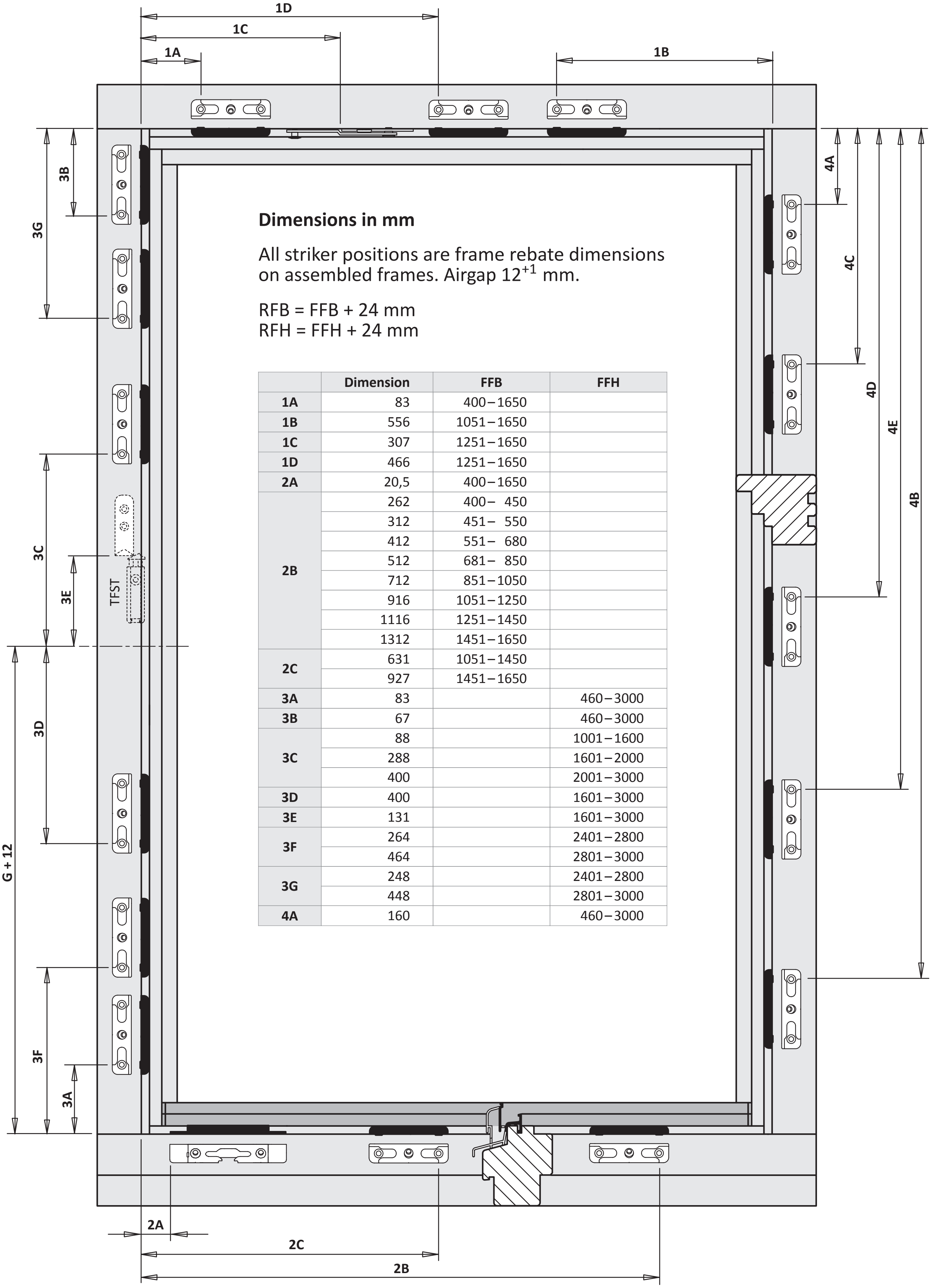
# List of fittings

1-sash square tilt-turn
H12 GM Hinge side TITAN




| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 20 | 21 | 22 |
| 27 | snapper switchable rh. | TFST0011- ... | 1 | | 1601 – 3000 | | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1601 – 3000 | | | | |
| 28 | frame part snapper | Ref. PDB, TRST | 1 | | 1601 – 3000 | | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 29 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 30 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 31 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 32 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 33 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 34 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 35 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 36 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 37 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 38 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |




**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

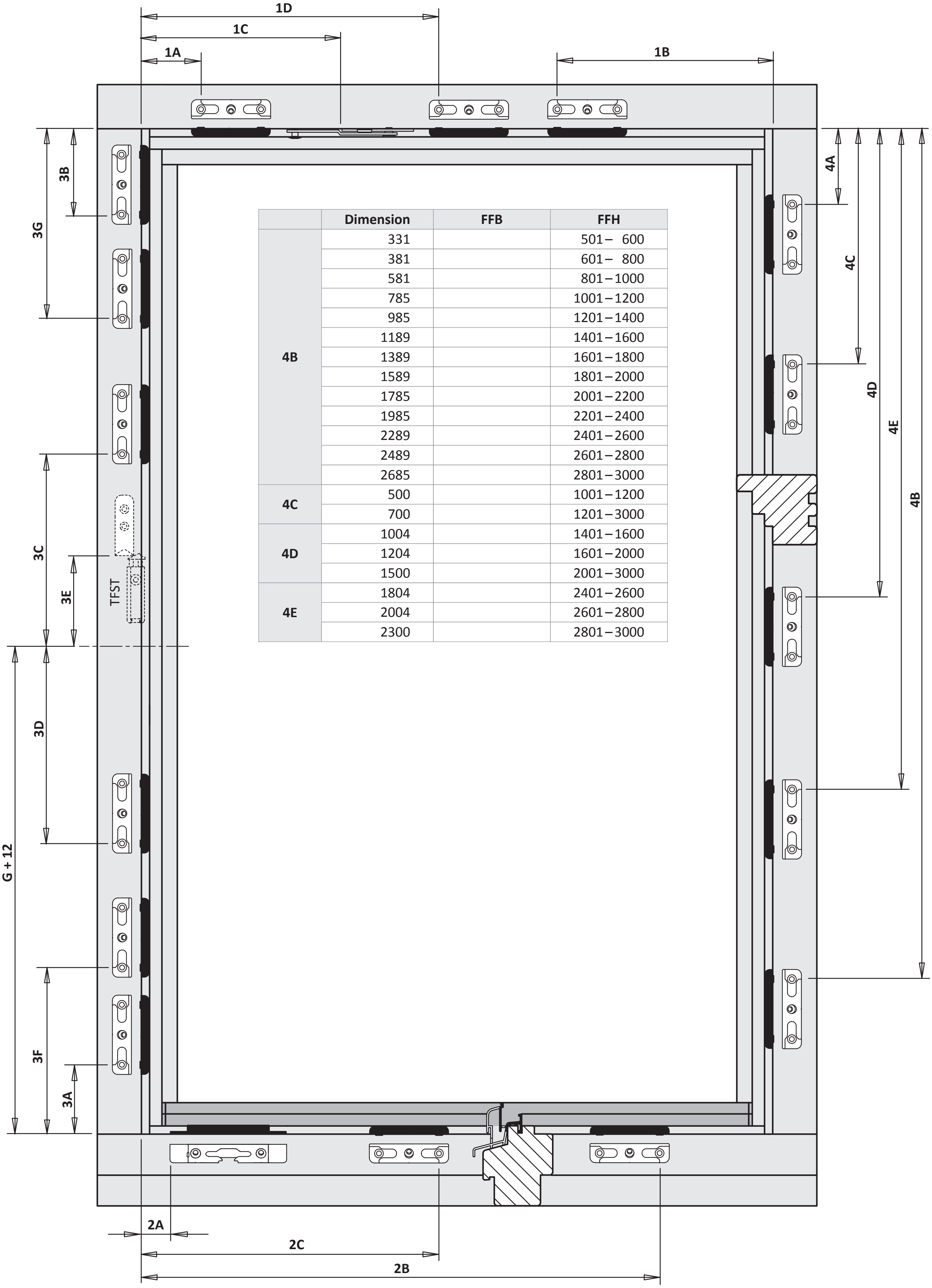
| | Dimension | FFB | FFH |
|---|---|---|---|
| **1A** | 83 | 400 – 1650 | |
| **1B** | 556 | 1051 – 1650 | |
| **1C** | 307 | 1251 – 1650 | |
| **1D** | 466 | 1251 – 1650 | |
| **2A** | 20,5 | 400 – 1650 | |
| **2B** | 262 | 400 – 450 | |
| | 312 | 451 – 550 | |
| | 412 | 551 – 680 | |
| | 512 | 681 – 850 | |
| | 712 | 851 – 1050 | |
| | 916 | 1051 – 1250 | |
| | 1116 | 1251 – 1450 | |
| | 1312 | 1451 – 1650 | |
| **2C** | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| **3A** | 83 | | 460 – 3000 |
| **3B** | 67 | | 460 – 3000 |
| **3C** | 88 | | 1001 – 1600 |
| | 288 | | 1601 – 2000 |
| | 400 | | 2001 – 3000 |
| **3D** | 400 | | 1601 – 3000 |
| **3E** | 131 | | 1601 – 3000 |
| **3F** | 264 | | 2401 – 2800 |
| | 464 | | 2801 – 3000 |
| **3G** | 248 | | 2401 – 2800 |
| | 448 | | 2801 – 3000 |
| **4A** | 160 | | 460 – 3000 |

7

# Frame dimensions

1-sash square tilt-turn
H12 GM Hinge side TITAN

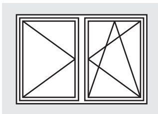


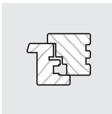



| | Dimension | FFB | FFH |
|---|---|---|---|
| 4B | 331 | | 501 – 600 |
| | 381 | | 601 – 800 |
| | 581 | | 801 – 1000 |
| | 785 | | 1001 – 1200 |
| | 985 | | 1201 – 1400 |
| | 1189 | | 1401 – 1600 |
| | 1389 | | 1601 – 1800 |
| | 1589 | | 1801 – 2000 |
| | 1785 | | 2001 – 2200 |
| | 1985 | | 2201 – 2400 |
| | 2289 | | 2401 – 2600 |
| | 2489 | | 2601 – 2800 |
| | 2685 | | 2801 – 3000 |
| 4C | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4D | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4E | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

# TITAN AF

## Installation instructions





**RC2**

2-sash square tilt-turn/turn DS 16

timber 12 mm

RC2

centre handle pos. (variable)

Hinge side TITAN

surface TS

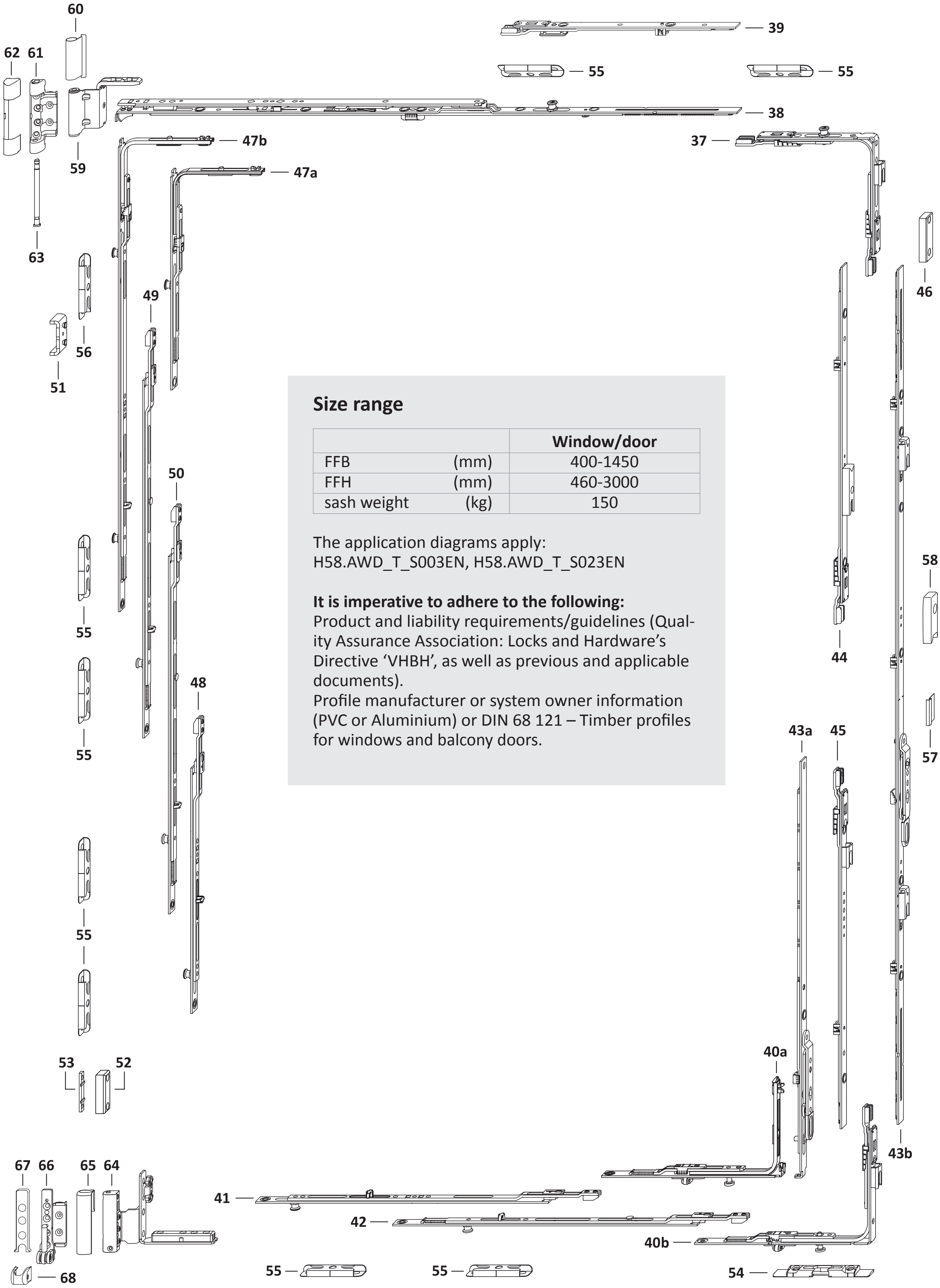
backset 15 mm



| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 2RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout slave sash

2-sash square tilt-turn/turn DS 16
H12 GM Hinge side TITAN

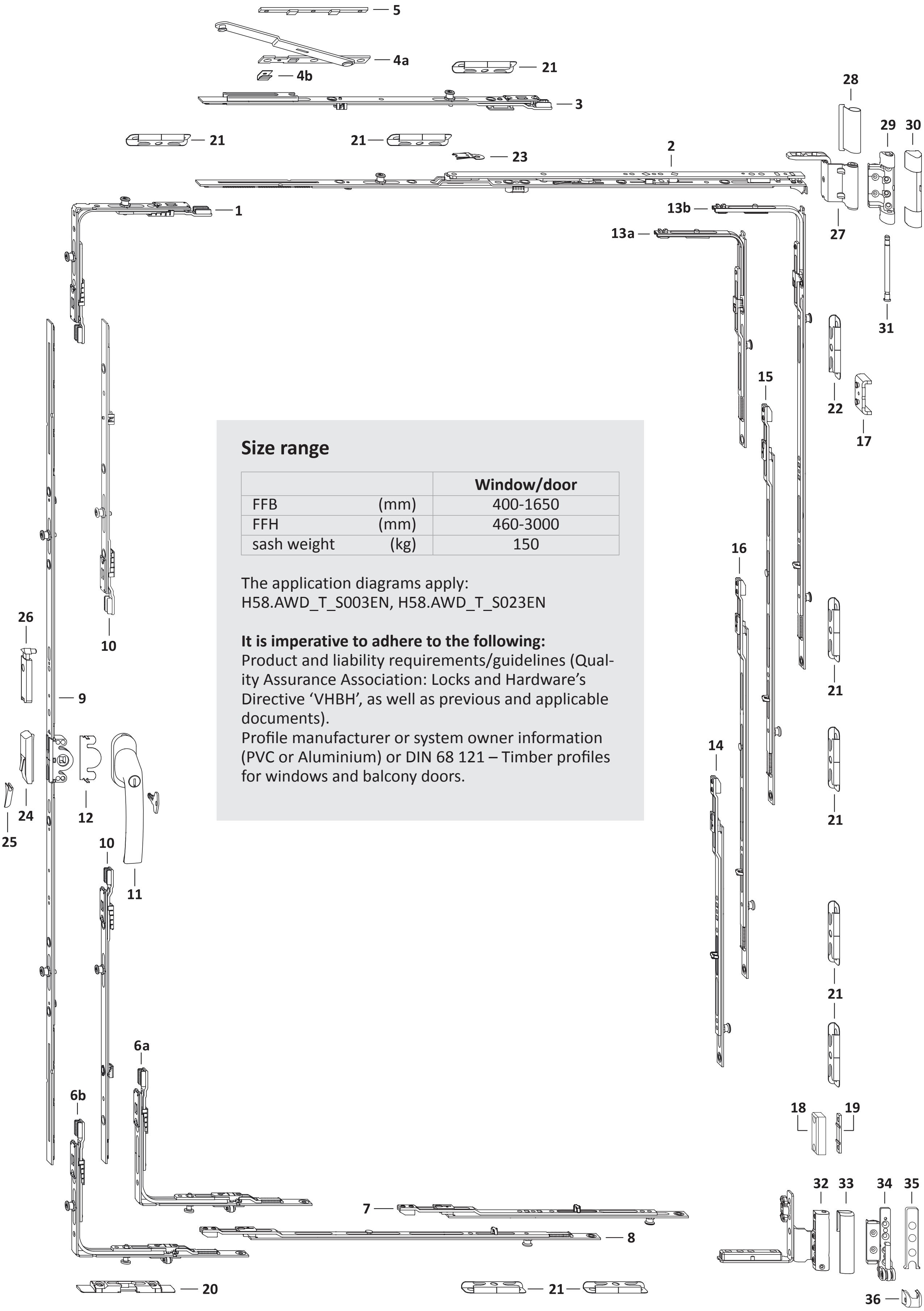



## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 400-1450 |
| FFH | (mm) | 460-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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

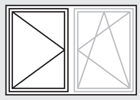
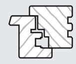
| | | Window/door |
|---|---|---|
| FFB | (mm) | 400-1650 |
| FFH | (mm) | 460-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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

2-sash square tilt-turn/turn DS 16
H12 GM Hinge side TITAN

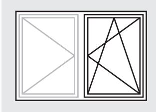
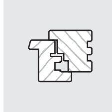



| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | In the main sash | 54 | 55 | 56 |
| 37 | corn.drive AF VSO WK2 SB 1RS | TEUL4080- ... | 1 | 400–1450 | | | | 1 | |
| 38 | stay AF sz 0 | TSKK2000- ... | 1 | 400– 450 | | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451– 680 | | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681– 850 | | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851–1050 | | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051–1450 | | | | 1 | |
| 39 | linkage AF sz 1 | TZZS0150- ... | 1 | 1251–1450 | | | | | |
| 40a | locking part VSU/K FH+ 1S | TEVR1400- ... | 1 | 400–1450 | 460– 800 | | 1 | | |
| 40b | corn.drive AF VSU/K+WK2 FHSB1S | TEUL5110- ... | 1 | 400–1450 | 801–3000 | | 1 | | |
| 41 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400– 450 | | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451– 550 | | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551– 680 | | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681– 850 | | | | 1 | |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851–1050 | | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051–1250 | | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251–1450 | | | | 1 | |
| 42 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051–1450 | | | | 1 | |
| 43a | sec.sash gear 16 sz 30 | TGKS0010- ... | 1 | | 460– 600 | 230– 300 | | | |
| | sec.sash gear 16 AF 60/G300 | TGKS4030- ... | | | 601– 800 | 300– 400 | | | |
| 43b | sec.sash gear 16 AF sz 80 1SB | TGMS4040- ... | 1 | | 801–1200 | 400– 600 | | | |
| | sec.sash gear 16 AF sz 120 1SB | TGMS4050- ... | | | 1201–1600 | 600– 800 | | | |
| | sec.sash gear 16 AF 160 2SB 70 | TGMS4130- ... | | | 1601–2000 | 800–1000 | | | |
| | sec.sash gear 16 AF sz 200 2SB | TGMS4080- ... | | | 2001–3000 | 1000–1500 | | | |
| 44 | linkage AF sz 1 1SB-RS | TZKS1020- ... | 1 | | 2401–2800 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801–3000 | | | | |
| 45 | linkage AF sz 1 1SB-VSU | TZKS1060- ... | 1 | | 2401–2800 | | | | |
| | linkage AF sz 2 1SB-VSU | TZKS1070- ... | | | 2801–3000 | | | | |
| 46 | air gap limiter F .. | TFFB0010- ... | 1 | | 460–3000 | | | | |
| 47a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 460–1000 | | | | 1 |
| 47b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001–1200 | | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201–3000 | | | 1 | 1 |
| 48 | extension sz 1+ 1RS | TVSO0200- ... | 1 | | 501– 600 | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | | 601– 800 | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | | 801–1000 | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | | 1001–1400 | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | | 1401–1800 | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | | 1801–2000 | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | | 2001–2200 | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | | 2201–2400 | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | | 2401–2600 | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | | 2601–2800 | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | | 2801–3000 | | | 1 | |
| 49 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401–1600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601–2000 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001–3000 | | | 1 | |
| 50 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401–2600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601–2800 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801–3000 | | | 1 | |
| 51 | anti-lift device | Ref. PDB, TFAH | 1 | | 460–3000 | | | | |
| 52 | Air gap limiter | Ref. PDB, FRFL | 1 | | 460–3000 | | | | |
| 53 | packer RB/FPS | Ref. PDB, FRUP02 | 1 | | 460–3000 | | | | |
| 54 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | | |
| 55 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | |
| 56 | striker plate S-RS WK2BSO | Ref. PDB, TRSK03 | | | | | | | |
| | | | on request | | | | | | |
| 57 | stop | Ref. PDB, FRZF04 | 1 | | 601–3000 | | | | |
| 58 | striker snapper A0767 | TRST0010- ... | 1 | | 1601–3000 | | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 59 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 60 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 61 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 62 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 63 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 64 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 65 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 66 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 67 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 68 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

# List of fittings main sash

2-sash square tilt-turn/turn DS 16
H12 GM Hinge side TITAN

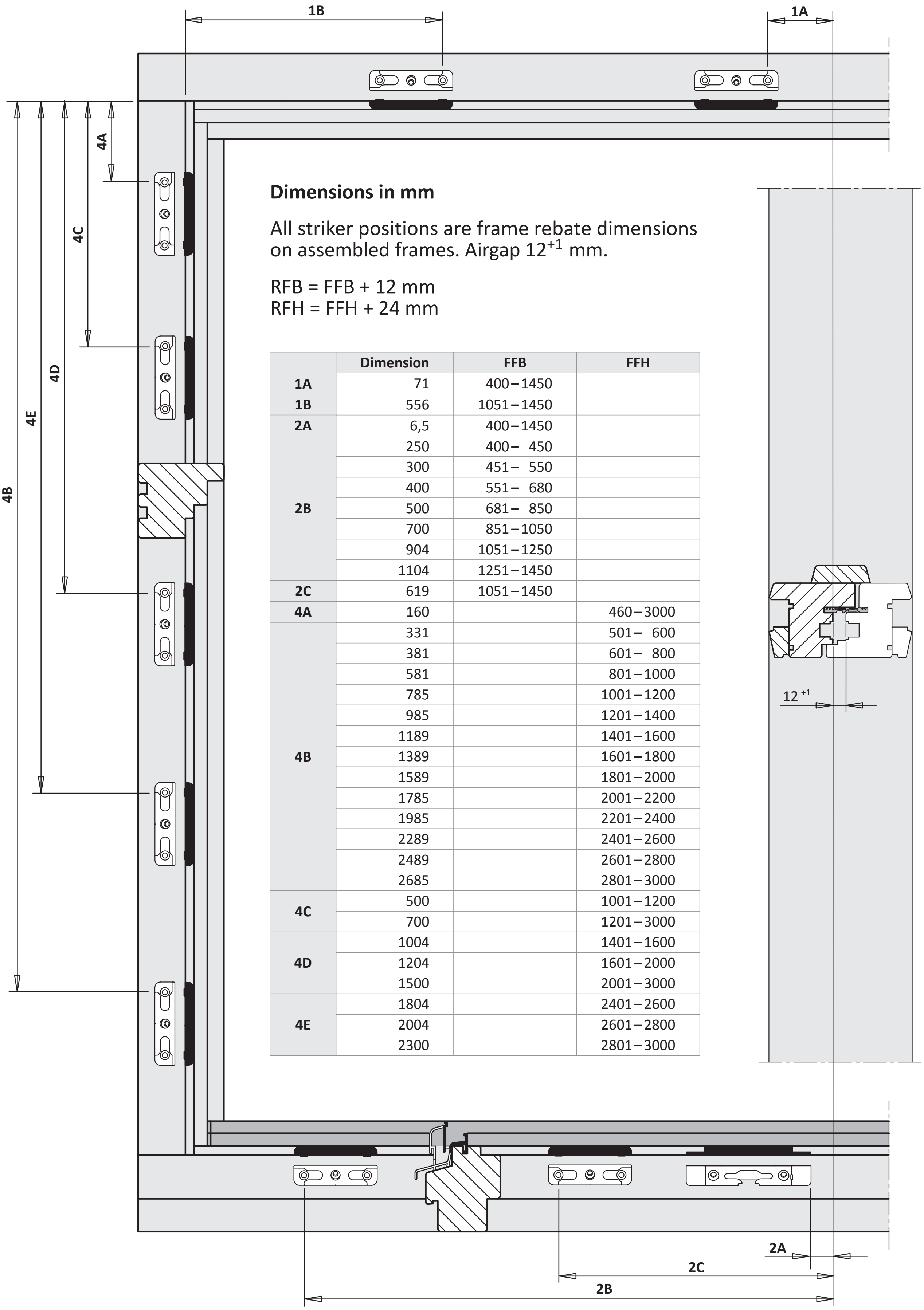
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 20 | 21 | 22 |
| 1 | corn.drive VSO 2RS A0055 | TEUL4070- ... | 1 | 400 – 1650 | | | | 1 | |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 400 – 450 | | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | | 1 | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | | 1 | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | | 1 | |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | | |
| 6a | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 400 – 1650 | 460 – 800 | | 1 | | |
| 6b | corn.drive AF VSU/K+ FH 1S 1RS A0055 | TEUL5020- ... | 1 | 400 – 1650 | 801 – 3000 | | 1 | | |
| 7 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400 – 450 | | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451 – 550 | | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551 – 680 | | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681 – 850 | | | | 1 | |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851 – 1050 | | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051 – 1250 | | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251 – 1450 | | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 1451 – 1650 | | | | 1 | |
| 8 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 1 | |
| 9 | gear 15 AF sz 20 | TGMK4010- ... | 1 | | 460 – 600 | 230 – 300 | | | |
| | gear 15 AF sz 60 | TGMK4020- ... | | | 601 – 1000 | 300 – 500 | | | |
| | gear 15 AF sz 80 1RS | TGMK4040- ... | | | 1001 – 1200 | 500 – 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 2RS | TGMK4080- ... | | | 2001 – 3000 | 1000 – 1500 | | | |
| 10 | linkage KK/AF sz 1 1RS | TZKK1010- ... | 2 | | 2401 – 2800 | | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | | |
| 11 | handle Globe lockable 100Nm | Ref.access. ZHGA100 | 1 | | 460 – 3000 | | | | |
| 12 | anti-drill guard E | TGBS0010- ... | 1 | | 460 – 3000 | | | | |
| 13a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 460 – 1000 | | | | 1 |
| 13b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001 – 1200 | | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201 – 3000 | | | 1 | 1 |
| 14 | extension sz 1+ 1RS | TVSO0200- ... | 1 | | 501 – 600 | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | | 601 – 800 | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | | 801 – 1000 | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | | 1001 – 1400 | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | | 1401 – 1800 | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | | 1801 – 2000 | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | | 2001 – 2200 | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | | 2201 – 2400 | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | | 2401 – 2600 | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | | 2601 – 2800 | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | | 2801 – 3000 | | | 1 | |
| 15 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | | 1 | |
| 16 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | | 1 | |
| 17 | anti-lift device | Ref. PDB, TFAH | 1 | | 460 – 3000 | | | | |
| 18 | Air gap limiter | Ref. PDB, FRFL | 1 | | 460 – 3000 | | | | |
| 19 | packer RB/FPS | Ref. PDB, FRUP02 | 1 | | 460 – 3000 | | | | |
| 20 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | | |
| 21 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | |
| 22 | striker plate S-RS WK2BSO | Ref. PDB, TRSK03 | | | | | | | |
| **on request** | | | | | | | | | |
| 23 | tilt restrictor .. | TFKB0010- ... | 1 | | 460 – 800 | | | | |
| 24 | mishandling device | TFBS0010- ... | 1 | | 601 – 3000 | | | | |
| 25 | pressure piece | Ref. PDB, TFFD | 1 | | 601 – 3000 | | | | |

| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 20 | 21 | 22 |
| 26 | snapper switchable rh. | TFST0011- ... | 1 | | 1601 – 3000 | | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1601 – 3000 | | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| **Pos.** | **Description** | **Part number** | | | **required as per sash weight** |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| **27** | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| **28** | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| **29** | top hinge | Ref. PDB, TBSL81 | | | 1 |
| **30** | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| **31** | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| **32** | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| **33** | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| **34** | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| **35** | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| **36** | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

# Frame dimensions slave sash

2-sash square tilt-turn/turn DS 16
H12 GM Hinge side TITAN

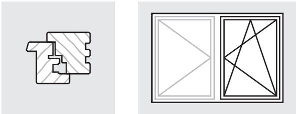


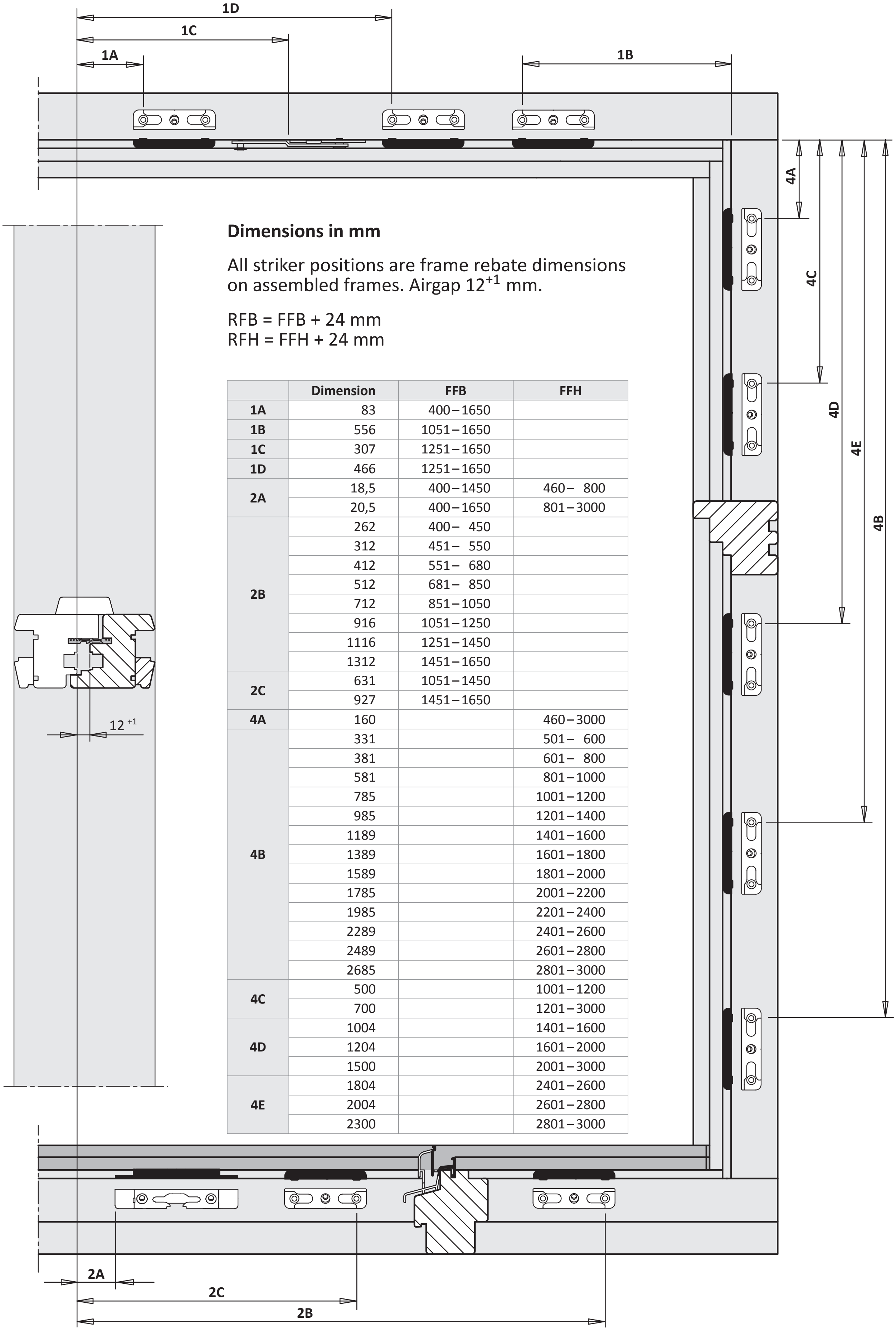

**Dimensions in mm**

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 | 400–1450 | |
| 1B | 556 | 1051–1450 | |
| 2A | 6,5 | 400–1450 | |
| 2B | 250 | 400– 450 | |
| | 300 | 451– 550 | |
| | 400 | 551– 680 | |
| | 500 | 681– 850 | |
| | 700 | 851–1050 | |
| | 904 | 1051–1250 | |
| | 1104 | 1251–1450 | |
| 2C | 619 | 1051–1450 | |
| 4A | 160 | | 460–3000 |
| 4B | 331 | | 501– 600 |
| | 381 | | 601– 800 |
| | 581 | | 801–1000 |
| | 785 | | 1001–1200 |
| | 985 | | 1201–1400 |
| | 1189 | | 1401–1600 |
| | 1389 | | 1601–1800 |
| | 1589 | | 1801–2000 |
| | 1785 | | 2001–2200 |
| | 1985 | | 2201–2400 |
| | 2289 | | 2401–2600 |
| | 2489 | | 2601–2800 |
| | 2685 | | 2801–3000 |
| 4C | 500 | | 1001–1200 |
| | 700 | | 1201–3000 |
| 4D | 1004 | | 1401–1600 |
| | 1204 | | 1601–2000 |
| | 1500 | | 2001–3000 |
| 4E | 1804 | | 2401–2600 |
| | 2004 | | 2601–2800 |
| | 2300 | | 2801–3000 |






**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 | 400 – 1650 | |
| 1B | 556 | 1051 – 1650 | |
| 1C | 307 | 1251 – 1650 | |
| 1D | 466 | 1251 – 1650 | |
| 2A | 18,5 | 400 – 1450 | 460 – 800 |
| | 20,5 | 400 – 1650 | 801 – 3000 |
| 2B | 262 | 400 – 450 | |
| | 312 | 451 – 550 | |
| | 412 | 551 – 680 | |
| | 512 | 681 – 850 | |
| | 712 | 851 – 1050 | |
| | 916 | 1051 – 1250 | |
| | 1116 | 1251 – 1450 | |
| | 1312 | 1451 – 1650 | |
| 2C | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 4A | 160 | | 460 – 3000 |
| 4B | 331 | | 501 – 600 |
| | 381 | | 601 – 800 |
| | 581 | | 801 – 1000 |
| | 785 | | 1001 – 1200 |
| | 985 | | 1201 – 1400 |
| | 1189 | | 1401 – 1600 |
| | 1389 | | 1601 – 1800 |
| | 1589 | | 1801 – 2000 |
| | 1785 | | 2001 – 2200 |
| | 1985 | | 2201 – 2400 |
| | 2289 | | 2401 – 2600 |
| | 2489 | | 2601 – 2800 |
| | 2685 | | 2801 – 3000 |
| 4C | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4D | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4E | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

7

**Bottom: Inliner**

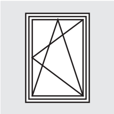
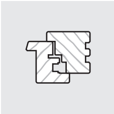


**Bottom: double cam SB R-RS**

8

# TITAN AF

## Installation instructions

**RC2**
ECO

1-sash square tilt-turn

timber 12 mm

RC2 ECO

fixed handle position

Hinge side TITAN

surface TS

backset 15 mm

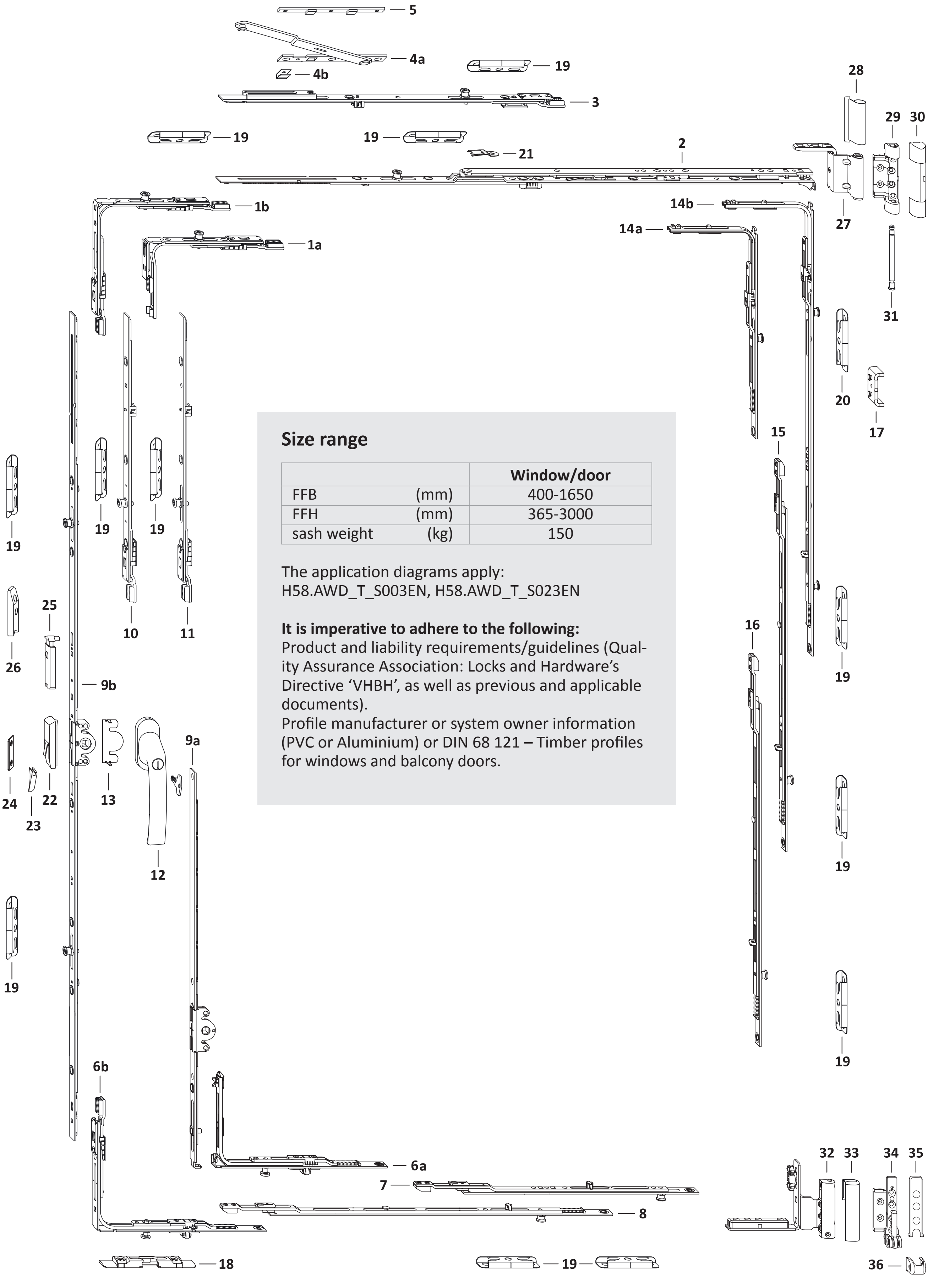
8

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 2RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout

1-sash square tilt-turn
H12 GK Hinge side TITAN



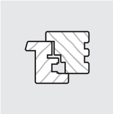
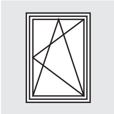



## Size range

| | Window/door |
|---|---|
| FFB (mm) | 400-1650 |
| FFH (mm) | 365-3000 |
| sash weight (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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.

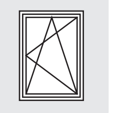


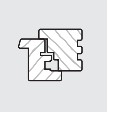
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 400– 850 | 365– 410 | | | 1 | |
| 1b | corn.drive VSO 1RS | TEUL4010- ... | 1 | 400–1650 | 411–3000 | | | 1 | |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 400– 450 | | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451– 680 | | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681– 850 | | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851–1050 | | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051–1250 | | | | 1 | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251–1450 | | | | 1 | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451–1650 | | | | 1 | |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251–1650 | | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251–1650 | | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251–1650 | | | | | |
| 6a | locking part VSU/K FH+ 1S | TEVR1400- ... | 1 | 400–1250 | 411– 600 | | 1 | | |
| | locking part VSU/K FH+ 1S | TEVR1400- ... | | 400– 850 | 365– 410 | | 1 | | |
| 6b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 400–1650 | 601–3000 | | 1 | | |
| 7 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400– 450 | | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451– 550 | | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551– 680 | | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681– 850 | | | | 1 | |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851–1050 | | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051–1250 | | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251–1450 | | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 1451–1650 | | | | 1 | |
| 8 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051–1450 | | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451–1650 | | | | 1 | |
| 9a | gear 15 sz 30/G180 | TGKK3010- ... | 1 | 400– 850 | 365– 410 | 180 | | | |
| | gear 15 sz 30/G180 | TGKK3010- ... | | 400–1250 | 411– 600 | 180 | | | |
| 9b | gear 15 AF sz 60/G300 | TGKK4030- ... | 1 | | 601– 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/G700 1RS | TGKK4080- ... | | | 1401–1600 | 700 | | 1 | |
| | 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 2RS | TGKK4110- ... | | | 2001–3000 | 1000 | | 2 | |
| 10 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201–2400 | | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2401–2600 | | | 1 | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601–2800 | | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801–3000 | | | 1 | |
| 11 | linkage KK/AF sz 2 1RS | TZKK1020- ... | 1 | | 2601–2800 | | | 1 | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801–3000 | | | 1 | |
| 12 | handle Globe lockable 100Nm | Ref.access. ZHGA100 | 1 | | 365–3000 | | | | |
| 13 | anti-drill guard E | TGBS0010- ... | 1 | | 365–3000 | | | | |
| 14a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 365–1000 | | | | 1 |
| 14b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001–1200 | | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201–3000 | | | 1 | 1 |
| 15 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401–1600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601–2000 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001–3000 | | | 1 | |
| 16 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401–2600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601–2800 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801–3000 | | | 1 | |
| 17 | anti-lift device | Ref. PDB, TFAH | 1 | | 365–3000 | | | | |
| 18 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | | |
| 19 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | |
| 20 | striker plate S-RS WK2BSO | Ref. PDB, TRSK03 | | | | | | | |
| | | | **on request** | | | | | | |
| 21 | tilt restrictor .. | TFKB0010- ... | 1 | | 365– 800 | | | | |
| 22 | mishandling device | TFBS0010- ... | 1 | | | | | | |
| 23 | pressure piece | Ref. PDB, TFFD | 1 | | | | | | |
| 24 | stop | Ref. PDB, FRZF01 | 1 | | | | | | |
| 25 | snapper switchable rh. | TFST0011- ... | 1 | | 1801–3000 | | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1801–3000 | | | | |

# List of fittings

1-sash square tilt-turn

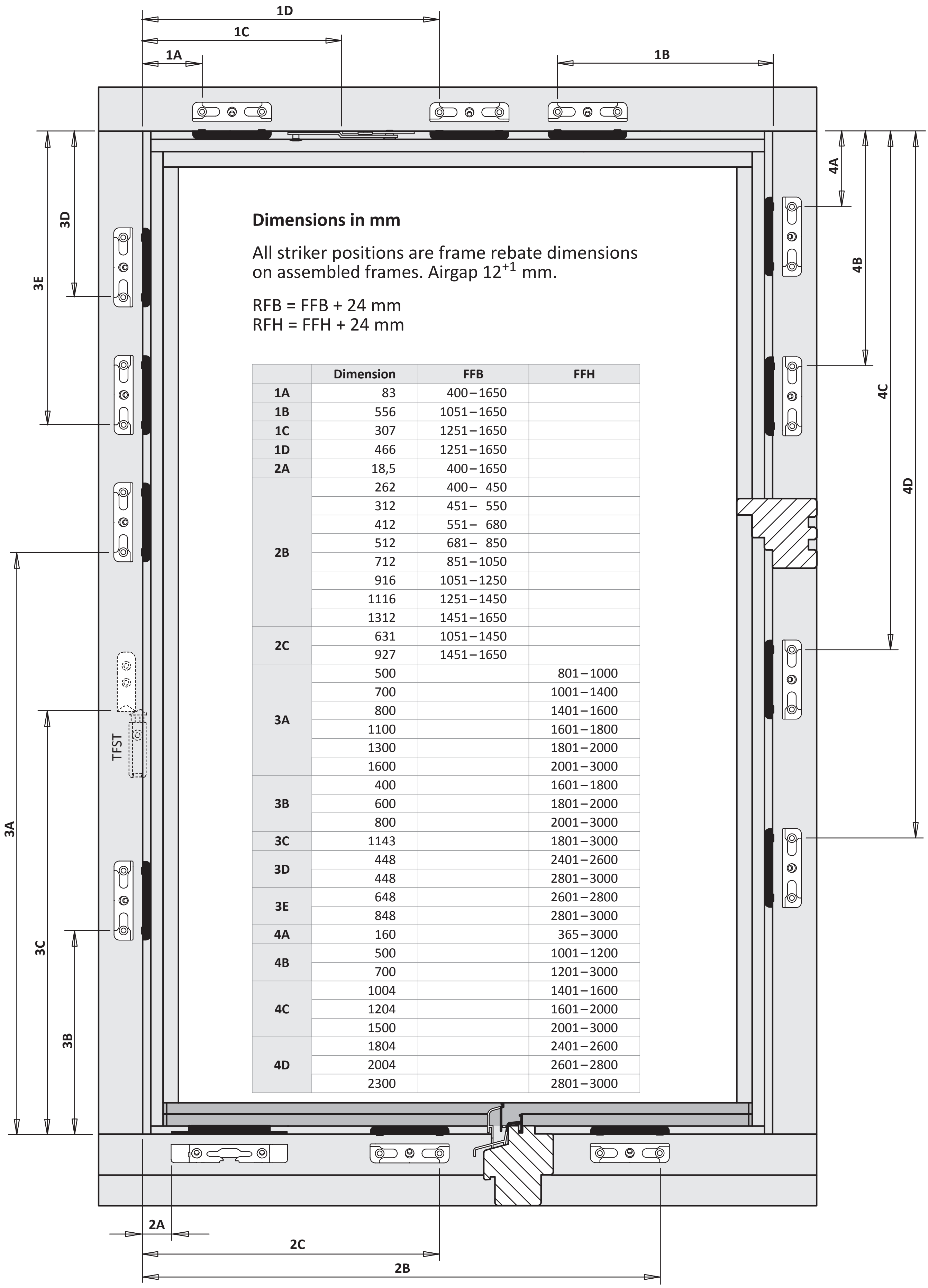
H12 GK Hinge side TITAN





| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 18 | 19 | 20 |
| **26** | frame part snapper | Ref. PDB, TRST | 1 | | 1801 – 3000 | | | | |

| Hinge side turning points | | | | |
|---|---|---|---|---|
| **Pos.** | **Description** | **Part number** | | **required as per sash weight** |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| **27** | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| **28** | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| **29** | top hinge | Ref. PDB, TBSL81 | | | 1 |
| **30** | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| **31** | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| **32** | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| **33** | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| **34** | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| **35** | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| **36** | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |




**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

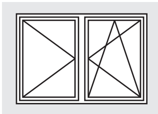
| | Dimension | FFB | FFH |
|---|---|---|---|
| **1A** | 83 | 400 – 1650 | |
| **1B** | 556 | 1051 – 1650 | |
| **1C** | 307 | 1251 – 1650 | |
| **1D** | 466 | 1251 – 1650 | |
| **2A** | 18,5 | 400 – 1650 | |
| **2B** | 262 | 400 – 450 | |
| | 312 | 451 – 550 | |
| | 412 | 551 – 680 | |
| | 512 | 681 – 850 | |
| | 712 | 851 – 1050 | |
| | 916 | 1051 – 1250 | |
| | 1116 | 1251 – 1450 | |
| | 1312 | 1451 – 1650 | |
| **2C** | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| **3A** | 500 | | 801 – 1000 |
| | 700 | | 1001 – 1400 |
| | 800 | | 1401 – 1600 |
| | 1100 | | 1601 – 1800 |
| | 1300 | | 1801 – 2000 |
| | 1600 | | 2001 – 3000 |
| **3B** | 400 | | 1601 – 1800 |
| | 600 | | 1801 – 2000 |
| | 800 | | 2001 – 3000 |
| **3C** | 1143 | | 1801 – 3000 |
| **3D** | 448 | | 2401 – 2600 |
| | 448 | | 2801 – 3000 |
| **3E** | 648 | | 2601 – 2800 |
| | 848 | | 2801 – 3000 |
| **4A** | 160 | | 365 – 3000 |
| **4B** | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| **4C** | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| **4D** | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

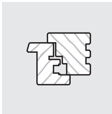
8

8

# TITAN AF

## Installation instructions





**RC2**
ECO

2-sash square tilt-turn/turn DS 16

timber 12 mm

RC2 ECO

fixed handle position

Hinge side TITAN

surface TS

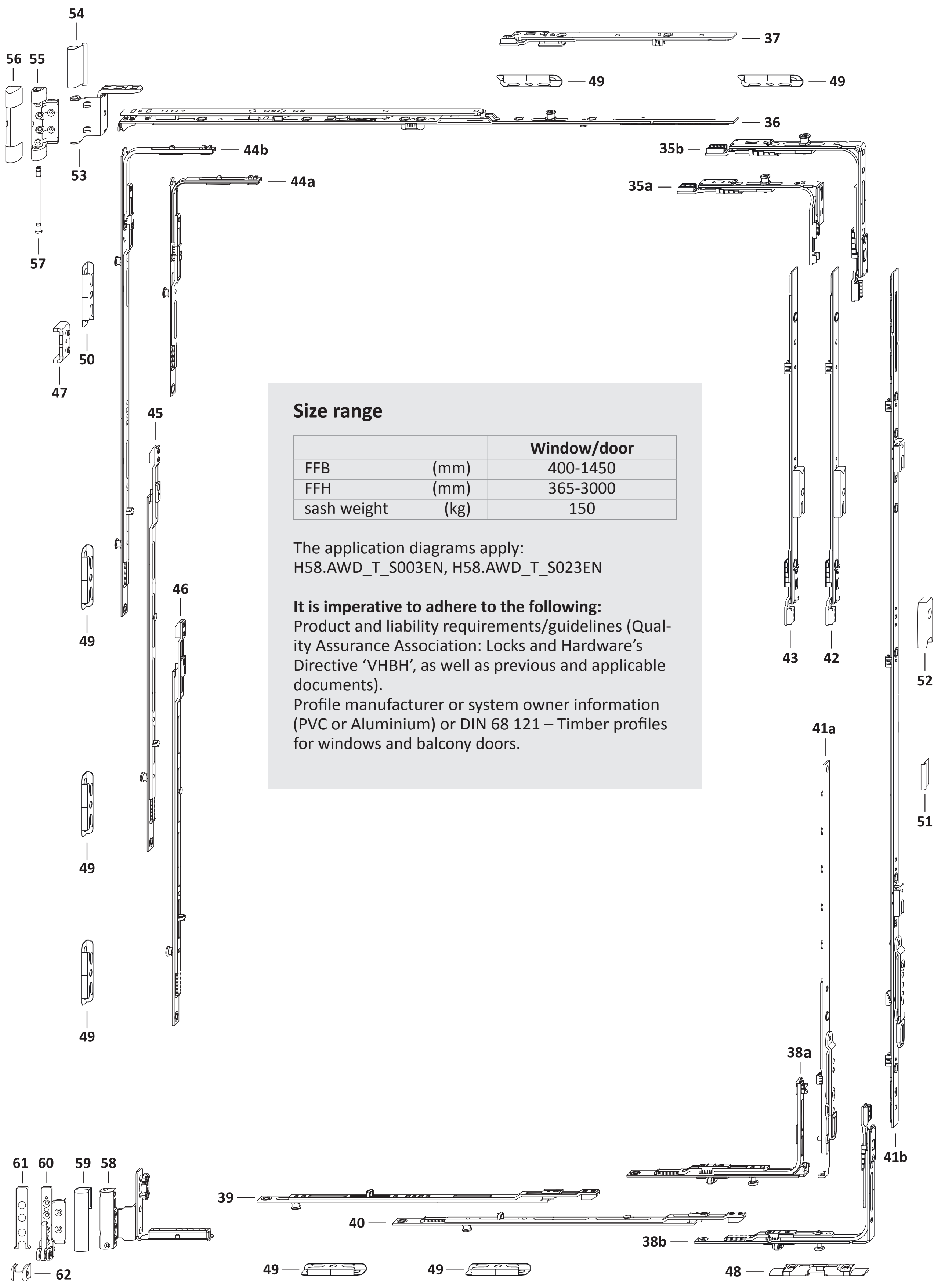
backset 15 mm

8

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 2RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout slave sash

2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN

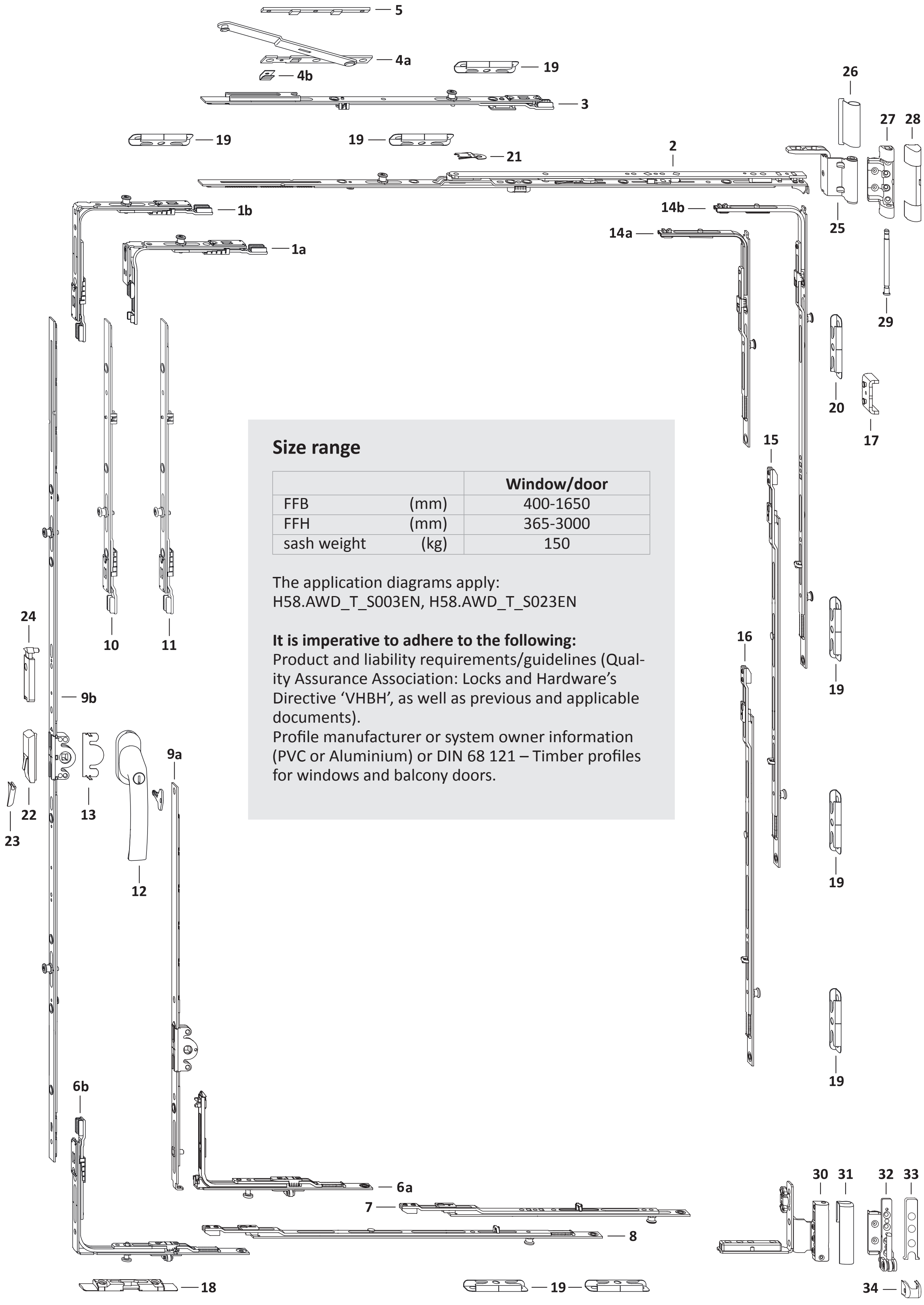



## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 400-1450 |
| FFH | (mm) | 365-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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) | 400-1650 |
| FFH | (mm) | 365-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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

2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN

| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | In the main sash | 48 | 49 | 50 |
| 35a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 400– 850 | 365– 410 | | | 1 | |
| 35b | corn.drive VSO 1RS | TEUL4010- ... | 1 | 400–1450 | 411–3000 | | | 1 | |
| 36 | stay AF sz 0 | TSKK2000- ... | 1 | 400– 450 | | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451– 680 | | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681– 850 | | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851–1050 | | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051–1450 | | | | 1 | |
| 37 | linkage AF sz 1 | TZZS0150- ... | 1 | 1251–1450 | | | | | |
| 38a | locking part VSU/K FH+ 1S | TEVR1400- ... | 1 | 400–1450 | 411– 800 | | 1 | | |
| | locking part VSU/K FH+ 1S | TEVR1400- ... | | 400– 850 | 365– 410 | | 1 | | |
| 38b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 400–1450 | 801–3000 | | 1 | | |
| 39 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400– 450 | | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451– 550 | | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551– 680 | | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681– 850 | | | | 1 | |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851–1050 | | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051–1250 | | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251–1450 | | | | 1 | |
| 40 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051–1450 | | | | 1 | |
| 41a | sec.sash gear 16 sz 30 | TGKS0010- ... | 1 | 400– 850 | 365– 410 | 180 | | | |
| | sec.sash gear 16 sz 30 | TGKS0010- ... | | 400–1250 | 411– 600 | 180 | | | |
| | sec.sash gear 16 AF 60/G300 | TGKS4030- ... | | | 601– 800 | 300 | | | |
| 41b | sec.sash gear 16 AF80/G400 1SB | TGKS4050- ... | 1 | | 801–1000 | 400 | | | |
| | sec.sash gear 16 AF sz 100 1SB | TGKS4060- ... | | | 1001–1200 | 500 | | | |
| | sec.sash gear 16 AF120/G6001SB | TGKS4070- ... | | | 1201–1400 | 600 | | | |
| | sec.sash gear 16 AF140/G7001SB | TGKS4080- ... | | | 1401–1600 | 700 | | | |
| | sec.sash gear 16 AF160/G7002SB 70 | TGKS4330- ... | | | 1601–1800 | 700 | | | |
| | sec.sash gear 16AF180/G10002SB 70 | TGKS4270- ... | | | 1801–2000 | 1000 | | | |
| | sec.sash gear 16AF200/G10002SB | TGKS4110- ... | | | 2001–3000 | 1000 | | | |
| 42 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201–2400 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2401–2600 | | | | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601–2800 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801–3000 | | | | |
| 43 | linkage AF sz 2 1SB-RS | TZKS1030- ... | 1 | | 2601–2800 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801–3000 | | | | |
| 44a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 365–1000 | | | | 1 |
| 44b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001–1200 | | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201–3000 | | | 1 | 1 |
| 45 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401–1600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601–2000 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001–3000 | | | 1 | |
| 46 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401–2600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601–2800 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801–3000 | | | 1 | |
| 47 | anti-lift device | Ref. PDB, TFAH | 1 | | 365–3000 | | | | |
| 48 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | | |
| 49 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | |
| 50 | striker plate S-RS WK2BSO | Ref. PDB, TRSK03 | | | | | | | |
| on request | | | | | | | | | |
| 51 | stop | Ref. PDB, FRZF04 | 1 | | 601–3000 | | | | |
| 52 | striker snapper A0767 | TRST0010- ... | 1 | | 1801–3000 | | | | |

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| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| **Pos.** | **Description** | **Part number** | | | **required as per sash weight** |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| **53** | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| **54** | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| **55** | top hinge | Ref. PDB, TBSL81 | | | 1 |
| **56** | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| **57** | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| **58** | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| **59** | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| **60** | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| **61** | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| **62** | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

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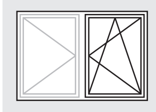
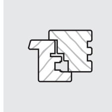
# List of fittings main sash
2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN

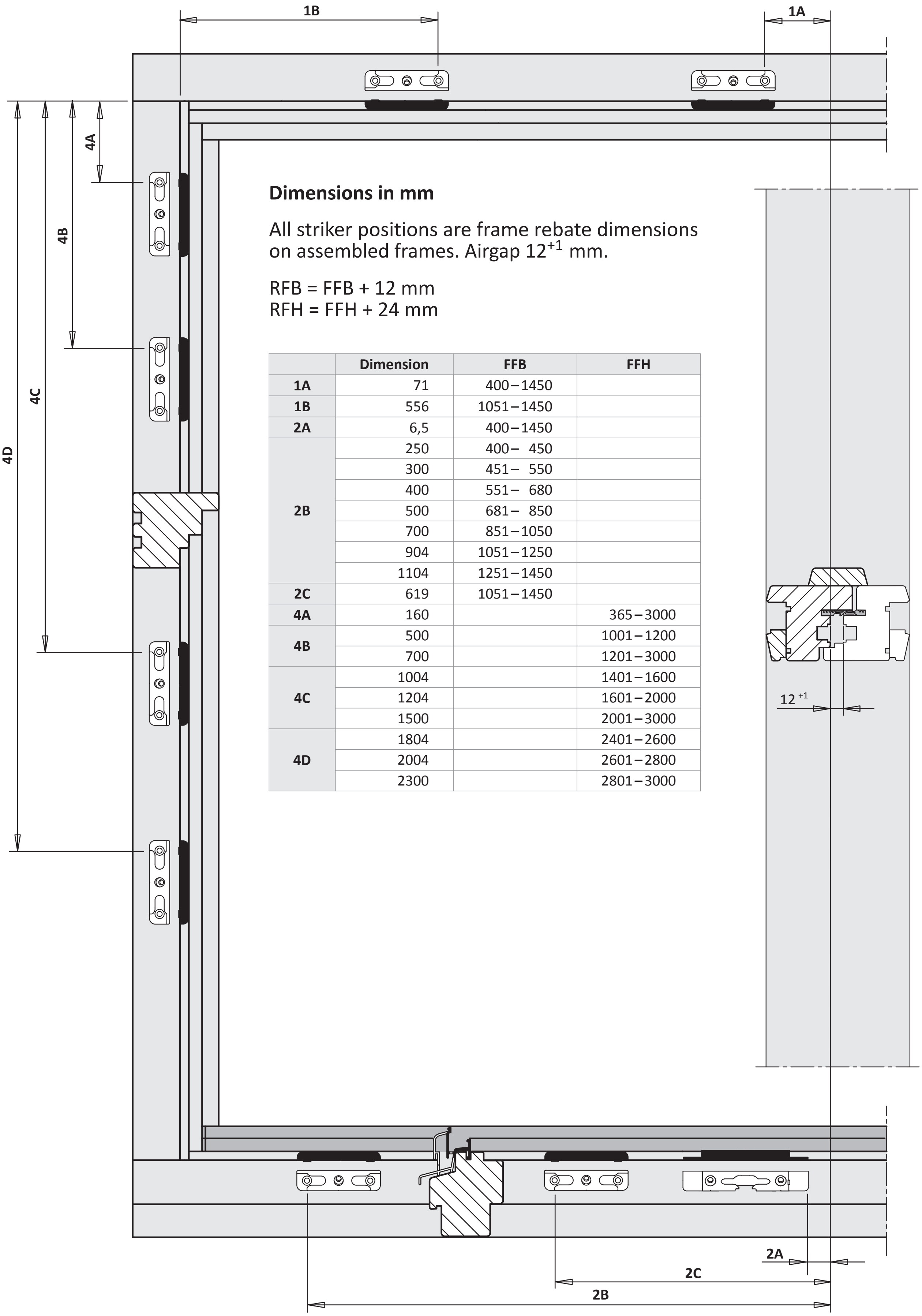



| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 18 | 19 | 20 |
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 400 – 850 | 365 – 410 | | | 1 | |
| 1b | corn.drive VSO 1RS | TEUL4010- ... | 1 | 400 – 1650 | 411 – 3000 | | | 1 | |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 400 – 450 | | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | | 1 | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | | 1 | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | | 1 | |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | | |
| 6a | locking part VSU/K FH+ 1S | TEVR1400- ... | 1 | 400 – 1250 | 411 – 600 | | 1 | | |
| | locking part VSU/K FH+ 1S | TEVR1400- ... | | 400 – 850 | 365 – 410 | | 1 | | |
| 6b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 400 – 1650 | 601 – 3000 | | 1 | | |
| 7 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400 – 450 | | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451 – 550 | | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551 – 680 | | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681 – 850 | | | | 1 | |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851 – 1050 | | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051 – 1250 | | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251 – 1450 | | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 1451 – 1650 | | | | 1 | |
| 8 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 1 | |
| 9a | gear 15 sz 30/G180 | TGKK3010- ... | 1 | 400 – 850 | 365 – 410 | 180 | | | |
| | gear 15 sz 30/G180 | TGKK3010- ... | | 400 – 1250 | 411 – 600 | 180 | | | |
| 9b | gear 15 AF sz 60/G300 | TGKK4030- ... | 1 | | 601 – 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/G700 1RS | TGKK4080- ... | | | 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 2RS | TGKK4110- ... | | | 2001 – 3000 | 1000 | | | |
| 10 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2401 – 2600 | | | | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | | |
| 11 | linkage KK/AF sz 2 1RS | TZKK1020- ... | 1 | | 2601 – 2800 | | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | | |
| 12 | handle Globe lockable 100Nm | Ref.access. ZHGA100 | 1 | | 365 – 3000 | | | | |
| 13 | anti-drill guard E | TGBS0010- ... | 1 | | 365 – 3000 | | | | |
| 14a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 365 – 1000 | | | | 1 |
| 14b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001 – 1200 | | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201 – 3000 | | | 1 | 1 |
| 15 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | | 1 | |
| 16 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | | 1 | |
| 17 | anti-lift device | Ref. PDB, TFAH | 1 | | 365 – 3000 | | | | |
| 18 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | | |
| 19 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | |
| 20 | striker plate S-RS WK2BSO | Ref. PDB, TRSK03 | | | | | | | |
| | | | **on request** | | | | | | |
| 21 | tilt restrictor .. | TFKB0010- ... | 1 | | 365 – 800 | | | | |
| 22 | mishandling device | TFBS0010- ... | 1 | | 601 – 3000 | | | | |
| 23 | pressure piece | Ref. PDB, TFFD | 1 | | 601 – 3000 | | | | |
| 24 | snapper switchable rh. | TFST0011- ... | 1 | | 1801 – 3000 | | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1801 – 3000 | | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| **Pos.** | **Description** | **Part number** | | | **required as per sash weight** |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| **25** | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| **26** | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| **27** | top hinge | Ref. PDB, TBSL81 | | | 1 |
| **28** | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| **29** | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| **30** | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| **31** | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| **32** | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| **33** | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| **34** | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

# Frame dimensions slave sash

2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN

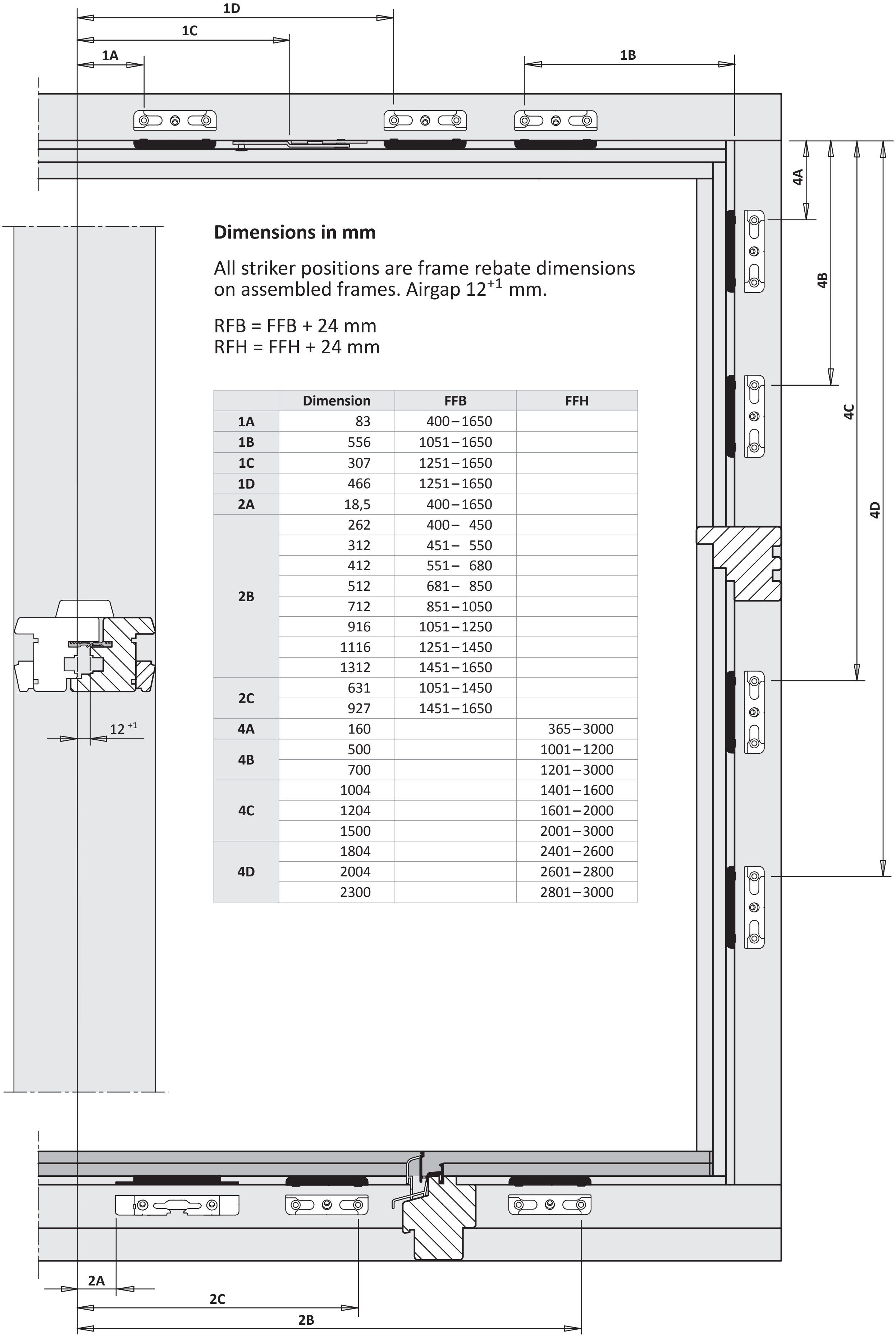



**Dimensions in mm**

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 | 400 – 1450 | |
| 1B | 556 | 1051 – 1450 | |
| 2A | 6,5 | 400 – 1450 | |
| 2B | 250 | 400 – 450 | |
| | 300 | 451 – 550 | |
| | 400 | 551 – 680 | |
| | 500 | 681 – 850 | |
| | 700 | 851 – 1050 | |
| | 904 | 1051 – 1250 | |
| | 1104 | 1251 – 1450 | |
| 2C | 619 | 1051 – 1450 | |
| 4A | 160 | | 365 – 3000 |
| 4B | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4C | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4D | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |




**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

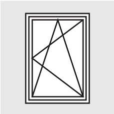
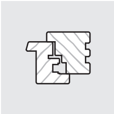
| | Dimension | FFB | FFH |
|---|---|---|---|
| **1A** | 83 | 400 – 1650 | |
| **1B** | 556 | 1051 – 1650 | |
| **1C** | 307 | 1251 – 1650 | |
| **1D** | 466 | 1251 – 1650 | |
| **2A** | 18,5 | 400 – 1650 | |
| **2B** | 262 | 400 – 450 | |
| | 312 | 451 – 550 | |
| | 412 | 551 – 680 | |
| | 512 | 681 – 850 | |
| | 712 | 851 – 1050 | |
| | 916 | 1051 – 1250 | |
| | 1116 | 1251 – 1450 | |
| | 1312 | 1451 – 1650 | |
| **2C** | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| **4A** | 160 | | 365 – 3000 |
| **4B** | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| **4C** | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| **4D** | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

8

8

# TITAN AF

## Installation instructions

**RC2**
ECO

1-sash square tilt before turn (TBT)

timber 12 mm

RC2 ECO

fixed handle position

Hinge side TITAN

surface TS

backset 15 mm

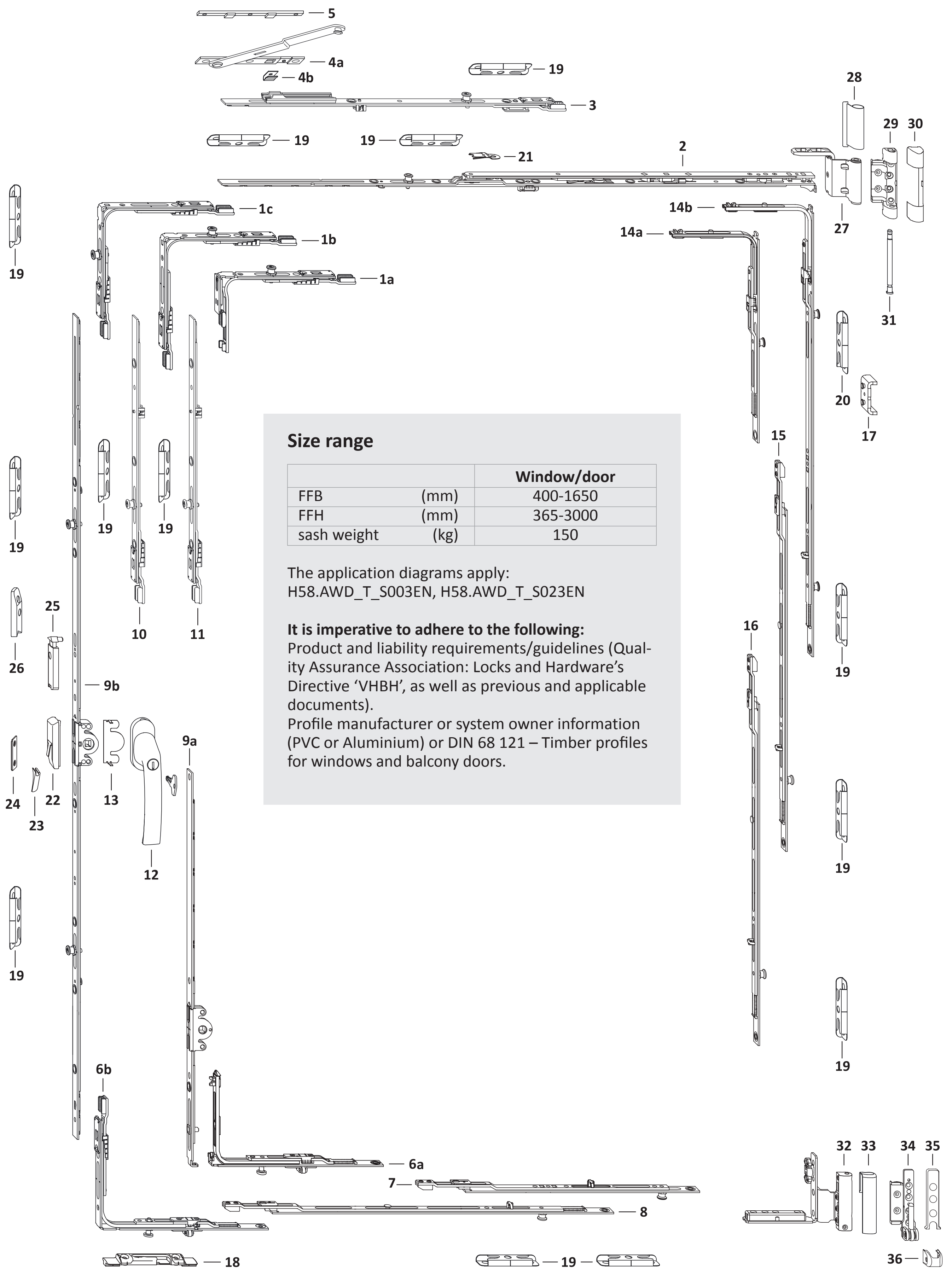
8

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 2RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout

1-sash square tilt before turn (TBT)
H12 GK Hinge side TITAN






## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 400-1650 |
| FFH | (mm) | 365-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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.

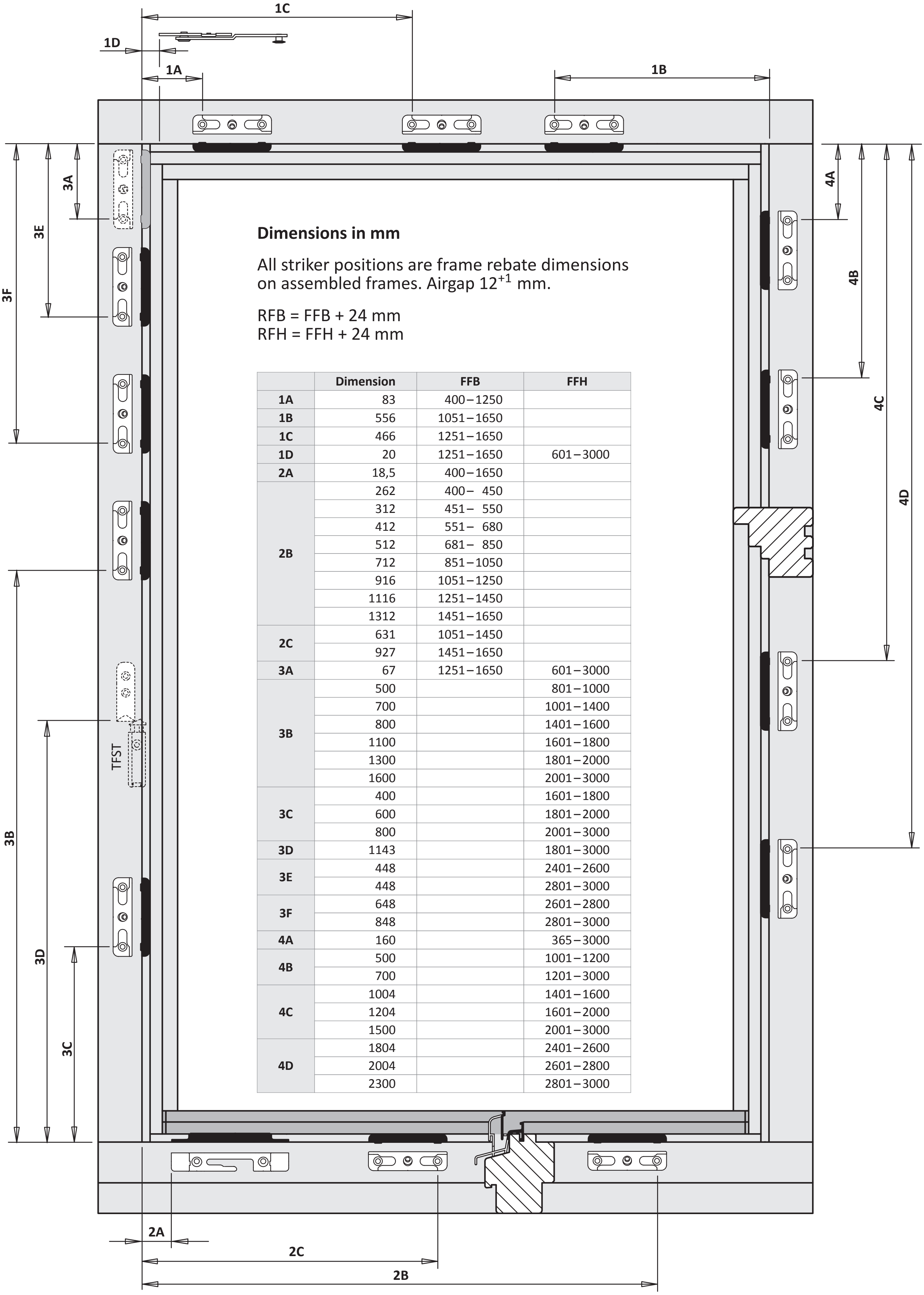
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 400 – 850 | 365 – 410 | | | 1 | |
| 1b | corn.drive VSO 1RS | TEUL4010- ... | 1 | 400 – 1250 | 411 – 3000 | | | 1 | |
| 1c | corn.drive VSO 1RS | TEUL4010- ... | 1 | 1251 – 1650 | 411 – 3000 | | | 1 | |
| 2 | stay AF TBT sz 0 | TSKT2000- ... | 1 | 400 – 450 | | | | | |
| | stay AF TBT sz 1 | TSKT2010- ... | | 451 – 680 | | | | | |
| | stay AF TBT sz 2 1RS | TSKT2120- ... | | 681 – 850 | | | | | |
| | stay AF TBT sz 3 1RS | TSKT2030- ... | | 851 – 1050 | | | | | |
| | stay AF TBT sz 4 1RS | TSKT2040- ... | | 1051 – 1250 | | | | 1 | |
| | stay AF TBT sz 3 1RS | TSKT2030- ... | | 1251 – 1450 | | | | 1 | |
| | stay AF TBT sz 4 1RS | TSKT2040- ... | | 1451 – 1650 | | | | 1 | |
| 3 | linkage add. stay AF TBT RS | TZOT1010- ... | 1 | 1251 – 1650 | | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | | |
| 6a | locking part VSU/K FH+ 1S | TEVR1400- ... | 1 | 400 – 1250 | 411 – 600 | | 1 | | |
| | locking part VSU/K FH+ 1S | TEVR1400- ... | | 400 – 850 | 365 – 410 | | 1 | | |
| 6b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 400 – 1650 | 601 – 3000 | | 1 | | |
| 7 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400 – 450 | | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451 – 550 | | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551 – 680 | | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681 – 850 | | | | 1 | |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851 – 1050 | | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051 – 1250 | | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251 – 1450 | | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 1451 – 1650 | | | | 1 | |
| 8 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 1 | |
| 9a | gear 15 sz 30/G180 | TGKK3010- ... | 1 | 400 – 850 | 365 – 410 | 180 | | | |
| | gear 15 sz 30/G180 | TGKK3010- ... | | 400 – 1250 | 411 – 600 | 180 | | | |
| 9b | gear 15 AF sz 60/G300 | TGKK4030- ... | 1 | | 601 – 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/G700 1RS | TGKK4080- ... | | | 1401 – 1600 | 700 | | 1 | |
| | 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 2RS | TGKK4110- ... | | | 2001 – 3000 | 1000 | | 2 | |
| 10 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2401 – 2600 | | | 1 | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | 1 | |
| 11 | linkage KK/AF sz 2 1RS | TZKK1020- ... | 1 | | 2601 – 2800 | | | 1 | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | 1 | |
| 12 | handle Globe TBT lockable | Ref.access. ZHGT | 1 | | 365 – 3000 | | | | |
| 13 | anti-drill guard E | TGBS0010- ... | 1 | | 365 – 3000 | | | | |
| 14a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 365 – 1000 | | | | 1 |
| 14b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001 – 1200 | | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201 – 3000 | | | 1 | 1 |
| 15 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | | 1 | |
| 16 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | | 1 | |
| 17 | anti-lift device | Ref. PDB, TFAH | 1 | | 365 – 3000 | | | | |
| 18 | tilt lock bear. S-ES FH TBT | Ref. PDB, FRKB | | | | | | | |
| 19 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | |
| 20 | striker plate S-RS WK2BSO | Ref. PDB, TRSK03 | | | | | | | |
| | | | **on request** | | | | | | |
| 21 | tilt restrictor .. | TFKB0010- ... | 1 | | 365 – 800 | | | | |
| 22 | mishandling device | TFBS0010- ... | 1 | | | | | | |
| 23 | pressure piece | Ref. PDB, TFFD | 1 | | | | | | |
| 24 | stop | Ref. PDB, FRZF01 | 1 | | | | | | |

# List of fittings

1-sash square tilt before turn (TBT)
H12 GK Hinge side TITAN

| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 18 | 19 | 20 |
| 25 | snapper switchable rh. | TFST0011- ... | 1 | | 1801 – 3000 | | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1801 – 3000 | | | | |
| 26 | frame part snapper | Ref. PDB, TRST | 1 | | 1801 – 3000 | | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 27 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 28 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 29 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 30 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 31 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 32 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 33 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 34 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 35 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 36 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |




**Dimensions in mm**

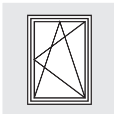
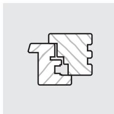
All striker positions are frame rebate dimensions on assembled frames. Airgap $12^{+1}$ mm.

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

| | Dimension | FFB | FFH |
|---|---|---|---|
| **1A** | 83 | 400 – 1250 | |
| **1B** | 556 | 1051 – 1650 | |
| **1C** | 466 | 1251 – 1650 | |
| **1D** | 20 | 1251 – 1650 | 601 – 3000 |
| **2A** | 18,5 | 400 – 1650 | |
| **2B** | 262 | 400 – 450 | |
| | 312 | 451 – 550 | |
| | 412 | 551 – 680 | |
| | 512 | 681 – 850 | |
| | 712 | 851 – 1050 | |
| | 916 | 1051 – 1250 | |
| | 1116 | 1251 – 1450 | |
| | 1312 | 1451 – 1650 | |
| **2C** | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| **3A** | 67 | 1251 – 1650 | 601 – 3000 |
| **3B** | 500 | | 801 – 1000 |
| | 700 | | 1001 – 1400 |
| | 800 | | 1401 – 1600 |
| | 1100 | | 1601 – 1800 |
| | 1300 | | 1801 – 2000 |
| | 1600 | | 2001 – 3000 |
| **3C** | 400 | | 1601 – 1800 |
| | 600 | | 1801 – 2000 |
| | 800 | | 2001 – 3000 |
| **3D** | 1143 | | 1801 – 3000 |
| **3E** | 448 | | 2401 – 2600 |
| | 448 | | 2801 – 3000 |
| **3F** | 648 | | 2601 – 2800 |
| | 848 | | 2801 – 3000 |
| **4A** | 160 | | 365 – 3000 |
| **4B** | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| **4C** | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| **4D** | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

# TITAN AF

## Installation instructions

**RC2**
ECO

1-sash square tilt-turn

timber 12 mm

RC2 ECO

fixed handle position

Hinge side TITAN

surface TS

backset 15 mm

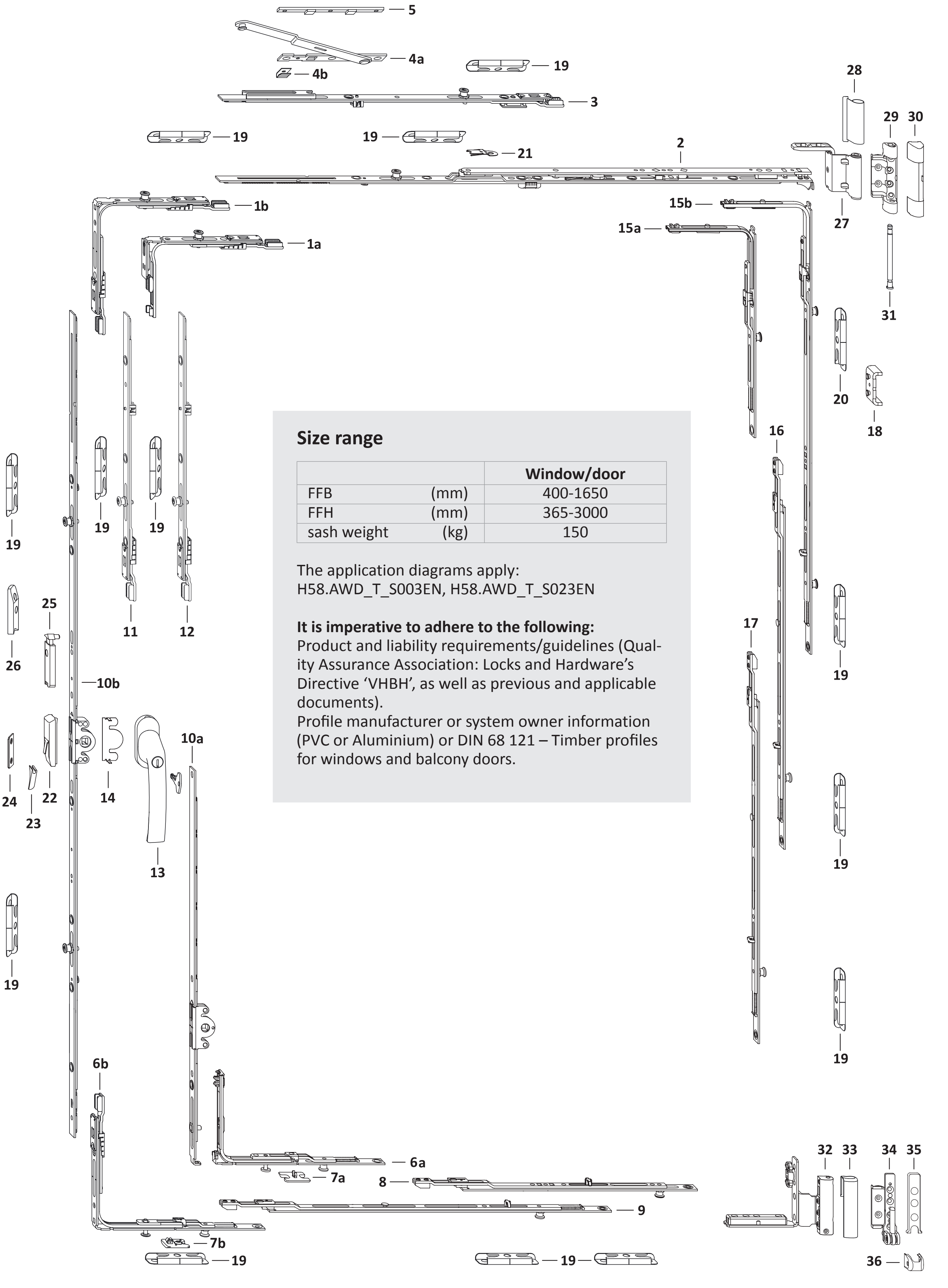
8

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | double cam SB R-RS |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 2RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout

1-sash square tilt-turn
H12 GK Hinge side TITAN






## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 400-1650 |
| FFH | (mm) | 365-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 19 | 20 |
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 400 – 850 | 365 – 410 | | 1 | |
| 1b | corn.drive VSO 1RS | TEUL4010- ... | 1 | 400 – 1650 | 411 – 3000 | | 1 | |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 400 – 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | 1 | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | 1 | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | 1 | |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | |
| 6a | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | 1 | 400 – 1250 | 411 – 600 | | 1 | |
| | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | | 400 – 850 | 365 – 410 | | 1 | |
| 6b | corn.drive AF VSU/K 56+ 1S 1RS | TEUL5030- ... | 1 | 400 – 1650 | 601 – 3000 | | 1 | |
| 7a | run-up plate FH KRL56 | Ref. PDB, TRAL01 | 1 | 400 – 1250 | 411 – 600 | | | |
| | run-up plate FH KRL56 | Ref. PDB, TRAL01 | | 400 – 850 | 365 – 410 | | | |
| 7b | run up block AF 13 mm 13 | TFFH0080- ... | 1 | 400 – 1650 | 601 – 3000 | | | |
| 8 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400 – 450 | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451 – 550 | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551 – 680 | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681 – 850 | | | 1 | |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851 – 1050 | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051 – 1250 | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251 – 1450 | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 1451 – 1650 | | | 1 | |
| 9 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | 1 | |
| 10a | gear 15 sz 30/G180 | TGKK3010- ... | 1 | 400 – 850 | 365 – 410 | 180 | | |
| | gear 15 sz 30/G180 | TGKK3010- ... | | 400 – 1250 | 411 – 600 | 180 | | |
| 10b | gear 15 AF sz 60/G300 | TGKK4030- ... | 1 | | 601 – 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/G700 1RS | TGKK4080- ... | | | 1401 – 1600 | 700 | 1 | |
| | 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 2RS | TGKK4110- ... | | | 2001 – 3000 | 1000 | 2 | |
| 11 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2401 – 2600 | | 1 | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | 1 | |
| 12 | linkage KK/AF sz 2 1RS | TZKK1020- ... | 1 | | 2601 – 2800 | | 1 | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | 1 | |
| 13 | handle Globe lockable 100Nm | Ref.access. ZHGA100 | 1 | | 365 – 3000 | | | |
| 14 | anti-drill guard E | TGBS0010- ... | 1 | | 365 – 3000 | | | |
| 15a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 365 – 1000 | | | 1 |
| 15b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001 – 1200 | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201 – 3000 | | 1 | 1 |
| 16 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | 1 | |
| 17 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | 1 | |
| 18 | anti-lift device | Ref. PDB, TFAH | 1 | | 365 – 3000 | | | |
| 19 | striker plate S-RS | Ref. PDB, TRSK | | | | | | |
| 20 | striker plate S-RS WK2BSO | Ref. PDB, TRSK03 | | | | | | |
| **on request** | | | | | | | | |
| 21 | tilt restrictor .. | TFKB0010- ... | 1 | | 365 – 800 | | | |
| 22 | mishandling device | TFBS0010- ... | 1 | | | | | |
| 23 | pressure piece | Ref. PDB, TFFD | 1 | | | | | |
| 24 | stop | Ref. PDB, FRZF01 | 1 | | | | | |

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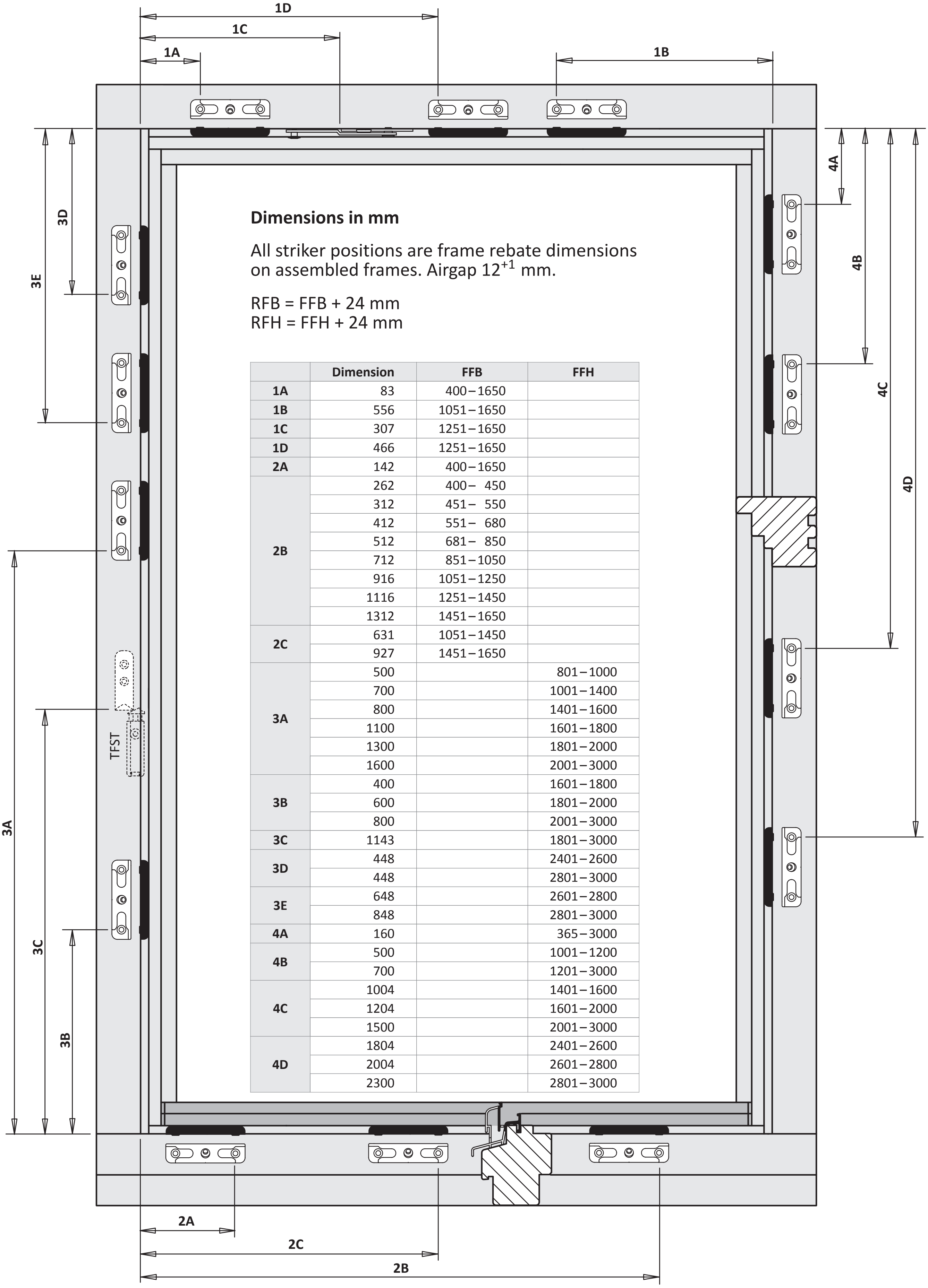
# List of fittings

1-sash square tilt-turn
H12 GK Hinge side TITAN

| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 19 | 20 |
| 25 | snapper switchable rh. | TFST0011- ... | 1 | | 1801 – 3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1801 – 3000 | | | |
| 26 | frame part snapper | Ref. PDB, TRST | 1 | | 1801 – 3000 | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 27 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 28 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 29 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 30 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 31 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 32 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 33 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 34 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 35 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 36 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |




**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

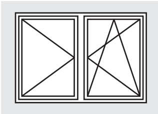
| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 400 – 1650 | |
| 1B | 556 | 1051 – 1650 | |
| 1C | 307 | 1251 – 1650 | |
| 1D | 466 | 1251 – 1650 | |
| 2A | 142 | 400 – 1650 | |
| 2B | 262 | 400 – 450 | |
| | 312 | 451 – 550 | |
| | 412 | 551 – 680 | |
| | 512 | 681 – 850 | |
| | 712 | 851 – 1050 | |
| | 916 | 1051 – 1250 | |
| | 1116 | 1251 – 1450 | |
| | 1312 | 1451 – 1650 | |
| 2C | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 3A | 500 | | 801 – 1000 |
| | 700 | | 1001 – 1400 |
| | 800 | | 1401 – 1600 |
| | 1100 | | 1601 – 1800 |
| | 1300 | | 1801 – 2000 |
| | 1600 | | 2001 – 3000 |
| 3B | 400 | | 1601 – 1800 |
| | 600 | | 1801 – 2000 |
| | 800 | | 2001 – 3000 |
| 3C | 1143 | | 1801 – 3000 |
| 3D | 448 | | 2401 – 2600 |
| | 448 | | 2801 – 3000 |
| 3E | 648 | | 2601 – 2800 |
| | 848 | | 2801 – 3000 |
| 4A | 160 | | 365 – 3000 |
| 4B | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4C | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4D | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

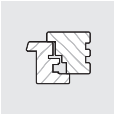
8

8

# TITAN AF

## Installation instructions





**RC2**
ECO

2-sash square tilt-turn/turn DS 16

timber 12 mm

RC2 ECO

fixed handle position

Hinge side TITAN

surface TS

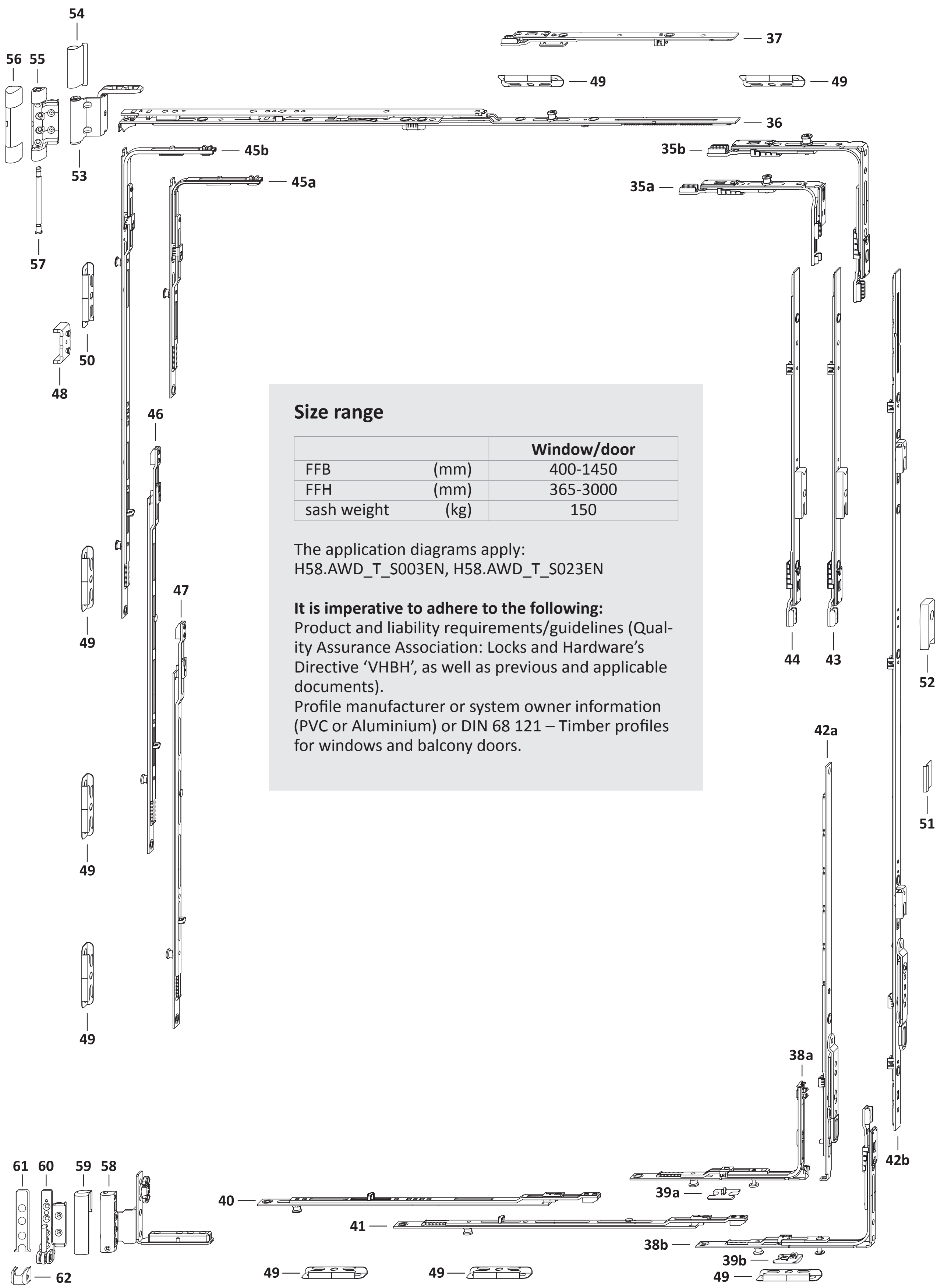
backset 15 mm



| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | double cam SB R-RS |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 2RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout slave sash

2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN

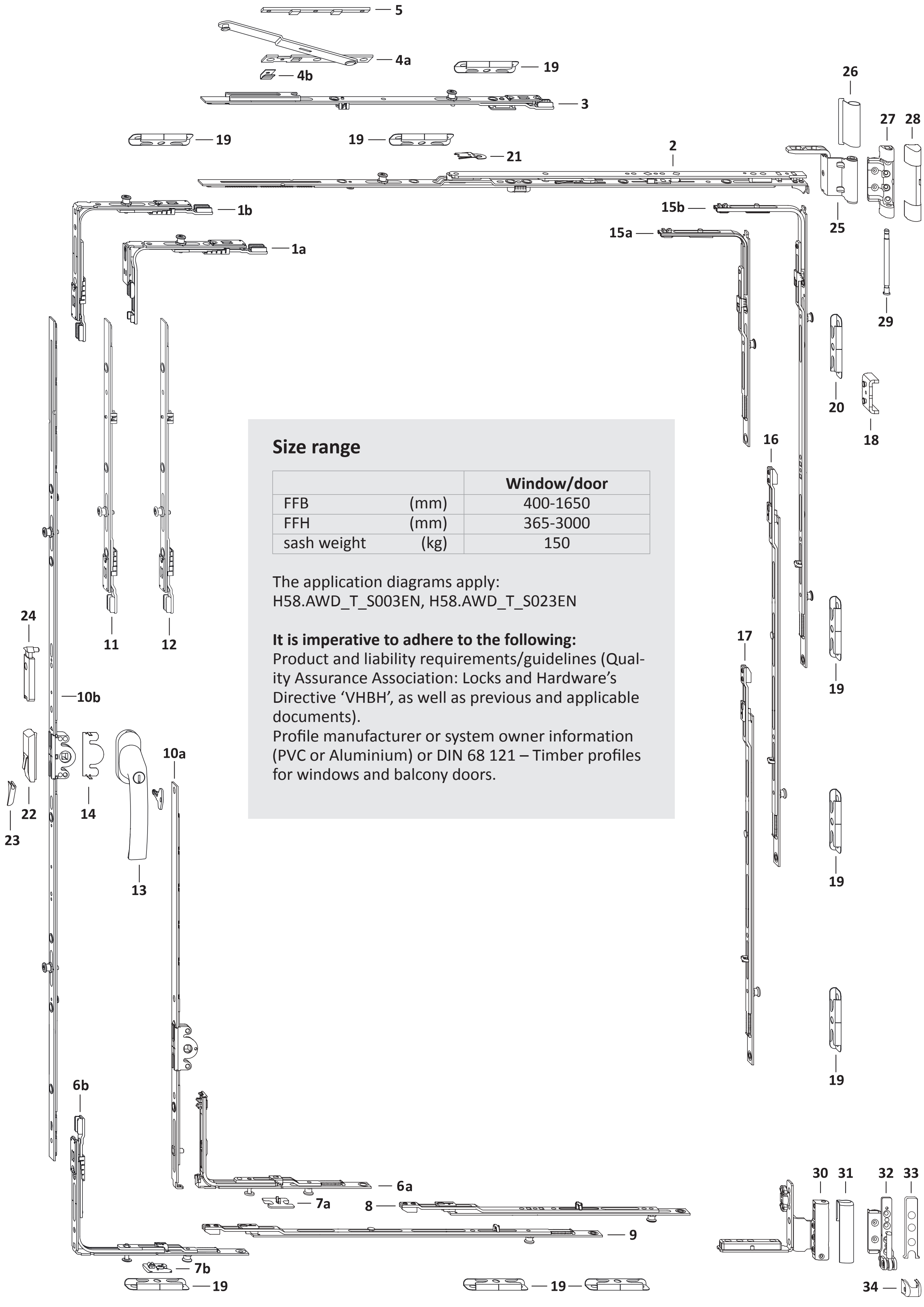



## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 400-1450 |
| FFH | (mm) | 365-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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) | 400-1650 |
| FFH | (mm) | 365-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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

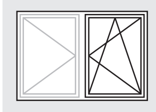
2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN

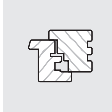
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G<br>In the main sash | Number of frame parts / Pos.<br>49 | <br>50 |
|---|---|---|---|---|---|---|---|---|
| 35a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 400 – 850 | 365 – 410 | | 1 | |
| 35b | corn.drive VSO 1RS | TEUL4010- ... | 1 | 400 – 1450 | 411 – 3000 | | 1 | |
| 36 | stay AF sz 0 | TSKK2000- ... | 1 | 400 – 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1450 | | | 1 | |
| 37 | linkage AF sz 1 | TZZS0150- ... | 1 | 1251 – 1450 | | | | |
| 38a | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | 1 | 400 – 1450 | 411 – 800 | | 1 | |
| | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | | 400 – 850 | 365 – 410 | | 1 | |
| 38b | corn.drive AF VSU/K 56+ 1S 1RS | TEUL5030- ... | 1 | 400 – 1450 | 801 – 3000 | | 1 | |
| 39a | run-up plate FH KRL56 | Ref. PDB, TRAL01 | 1 | 400 – 1450 | 411 – 800 | | | |
| | run-up plate FH KRL56 | Ref. PDB, TRAL01 | | 400 – 850 | 365 – 410 | | | |
| 39b | run up block AF 13 mm 13 | TFFH0080- ... | 1 | 400 – 1450 | 801 – 3000 | | | |
| 40 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400 – 450 | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451 – 550 | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551 – 680 | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681 – 850 | | | 1 | |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851 – 1050 | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051 – 1250 | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251 – 1450 | | | 1 | |
| 41 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | 1 | |
| 42a | sec.sash gear 16 sz 30 | TGKS0010- ... | 1 | 400 – 850 | 365 – 410 | 180 | | |
| | sec.sash gear 16 sz 30 | TGKS0010- ... | | 400 – 1250 | 411 – 600 | 180 | | |
| | sec.sash gear 16 AF 60/G300 | TGKS4030- ... | | | 601 – 800 | 300 | | |
| 42b | sec.sash gear 16 AF80/G400 1SB | TGKS4050- ... | 1 | | 801 – 1000 | 400 | | |
| | sec.sash gear 16 AF sz 100 1SB | TGKS4060- ... | | | 1001 – 1200 | 500 | | |
| | sec.sash gear 16 AF120/G6001SB | TGKS4070- ... | | | 1201 – 1400 | 600 | | |
| | sec.sash gear 16 AF140/G7001SB | TGKS4080- ... | | | 1401 – 1600 | 700 | | |
| | sec.sash gear 16 AF160/G7002SB 70 | TGKS4330- ... | | | 1601 – 1800 | 700 | | |
| | sec.sash gear 16AF180/G10002SB 70 | TGKS4270- ... | | | 1801 – 2000 | 1000 | | |
| | sec.sash gear 16AF200/G10002SB | TGKS4110- ... | | | 2001 – 3000 | 1000 | | |
| 43 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2401 – 2600 | | | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | |
| 44 | linkage AF sz 2 1SB-RS | TZKS1030- ... | 1 | | 2601 – 2800 | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | |
| 45a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 365 – 1000 | | | 1 |
| 45b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001 – 1200 | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201 – 3000 | | 1 | 1 |
| 46 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | 1 | |
| 47 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | 1 | |
| 48 | anti-lift device | Ref. PDB, TFAH | 1 | | 365 – 3000 | | | |
| 49 | striker plate S-RS | Ref. PDB, TRSK | | | | | | |
| 50 | striker plate S-RS WK2BSO | Ref. PDB, TRSK03 | | | | | | |
| | | | on request | | | | | |
| 51 | stop | Ref. PDB, FRZF04 | 1 | | 601 – 3000 | | | |
| 52 | striker snapper A0767 | TRST0010- ... | 1 | | 1801 – 3000 | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| **Pos.** | **Description** | **Part number** | | | **required as per sash weight** |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| **53** | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| **54** | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| **55** | top hinge | Ref. PDB, TBSL81 | | | 1 |
| **56** | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| **57** | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| **58** | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| **59** | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| **60** | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| **61** | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| **62** | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

# List of fittings main sash

2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN





| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 19 | 20 |
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 400– 850 | 365– 410 | | 1 | |
| 1b | corn.drive VSO 1RS | TEUL4010- ... | 1 | 400–1650 | 411–3000 | | 1 | |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 400– 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451– 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681– 850 | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851–1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051–1250 | | | 1 | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251–1450 | | | 1 | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451–1650 | | | 1 | |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251–1650 | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251–1650 | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251–1650 | | | | |
| 6a | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | 1 | 400–1250 | 411– 600 | | 1 | |
| | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | | 400– 850 | 365– 410 | | 1 | |
| 6b | corn.drive AF VSU/K 56+ 1S 1RS | TEUL5030- ... | 1 | 400–1650 | 601–3000 | | 1 | |
| 7a | run-up plate FH KRL56 | Ref. PDB, TRAL01 | 1 | 400–1250 | 411– 600 | | | |
| | run-up plate FH KRL56 | Ref. PDB, TRAL01 | | 400– 850 | 365– 410 | | | |
| 7b | run up block AF 13 mm 13 | TFFH0080- ... | 1 | 400–1650 | 601–3000 | | | |
| 8 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400– 450 | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451– 550 | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551– 680 | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681– 850 | | | 1 | |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851–1050 | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051–1250 | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251–1450 | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 1451–1650 | | | 1 | |
| 9 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051–1450 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451–1650 | | | 1 | |
| 10a | gear 15 sz 30/G180 | TGKK3010- ... | 1 | 400– 850 | 365– 410 | 180 | | |
| | gear 15 sz 30/G180 | TGKK3010- ... | | 400–1250 | 411– 600 | 180 | | |
| 10b | gear 15 AF sz 60/G300 | TGKK4030- ... | 1 | | 601– 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/G700 1RS | TGKK4080- ... | | | 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 2RS | TGKK4110- ... | | | 2001–3000 | 1000 | | |
| 11 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201–2400 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2401–2600 | | | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601–2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801–3000 | | | |
| 12 | linkage KK/AF sz 2 1RS | TZKK1020- ... | 1 | | 2601–2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801–3000 | | | |
| 13 | handle Globe lockable 100Nm | Ref.access. ZHGA100 | 1 | | 365–3000 | | | |
| 14 | anti-drill guard E | TGBS0010- ... | 1 | | 365–3000 | | | |
| 15a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 365–1000 | | | 1 |
| 15b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001–1200 | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201–3000 | | 1 | 1 |
| 16 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401–1600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601–2000 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001–3000 | | 1 | |
| 17 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401–2600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601–2800 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801–3000 | | 1 | |
| 18 | anti-lift device | Ref. PDB, TFAH | 1 | | 365–3000 | | | |
| 19 | striker plate S-RS | Ref. PDB, TRSK | | | | | | |
| 20 | striker plate S-RS WK2BSO | Ref. PDB, TRSK03 | | | | | | |
| | | | on request | | | | | |
| 21 | tilt restrictor .. | TFKB0010- ... | 1 | | 365– 800 | | | |
| 22 | mishandling device | TFBS0010- ... | 1 | | 601–3000 | | | |
| 23 | pressure piece | Ref. PDB, TFFD | 1 | | 601–3000 | | | |

| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 19 | 20 |
| 24 | snapper switchable rh. | TFST0011- ... | 1 | | 1801 – 3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1801 – 3000 | | | |

| Hinge side turning points | | | | |
|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 25 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 26 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 27 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 28 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 29 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 30 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 31 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 32 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 33 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 34 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

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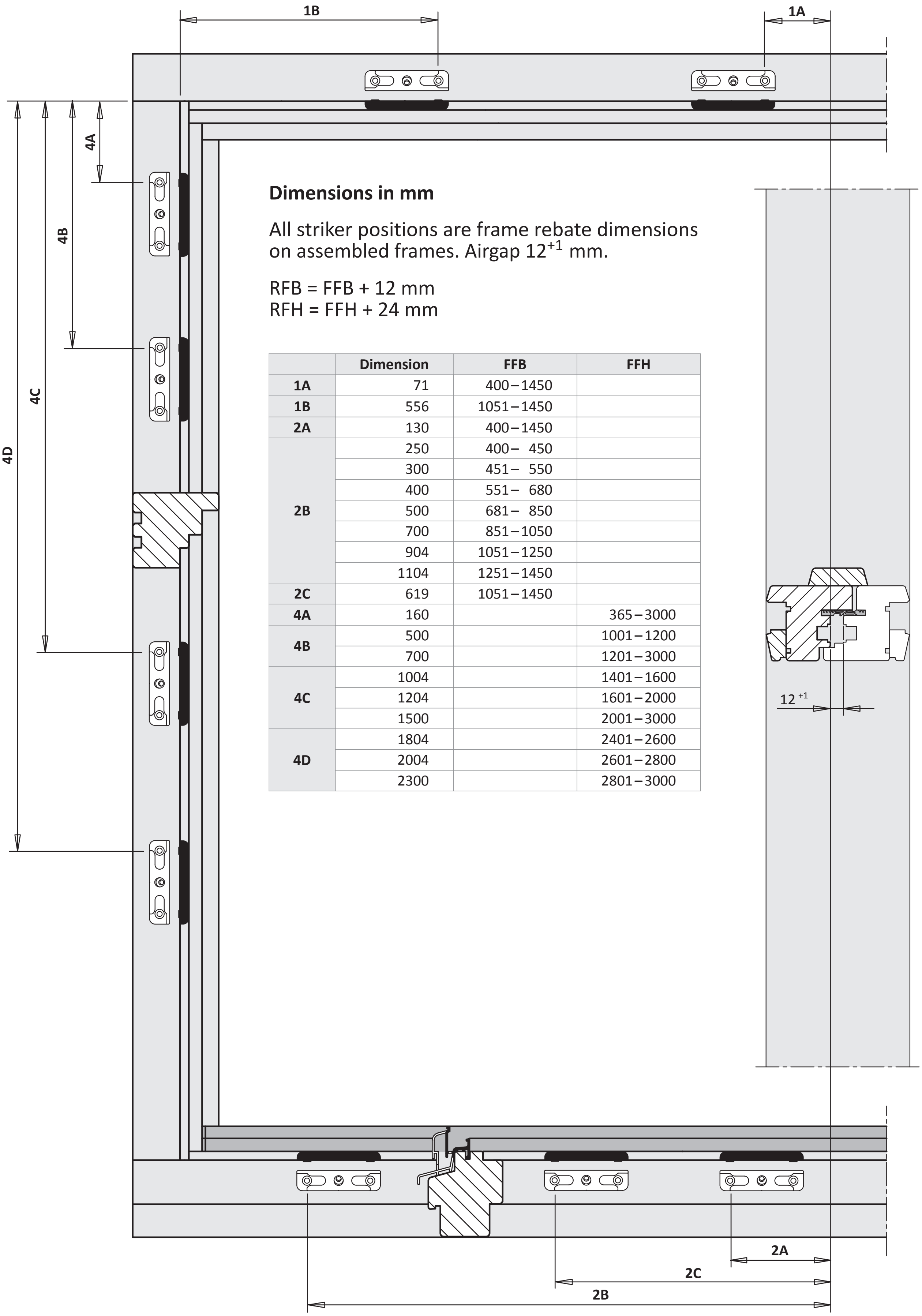
# Frame dimensions slave sash

2-sash square tilt-turn/turn DS 16
H12 GK Hinge side TITAN

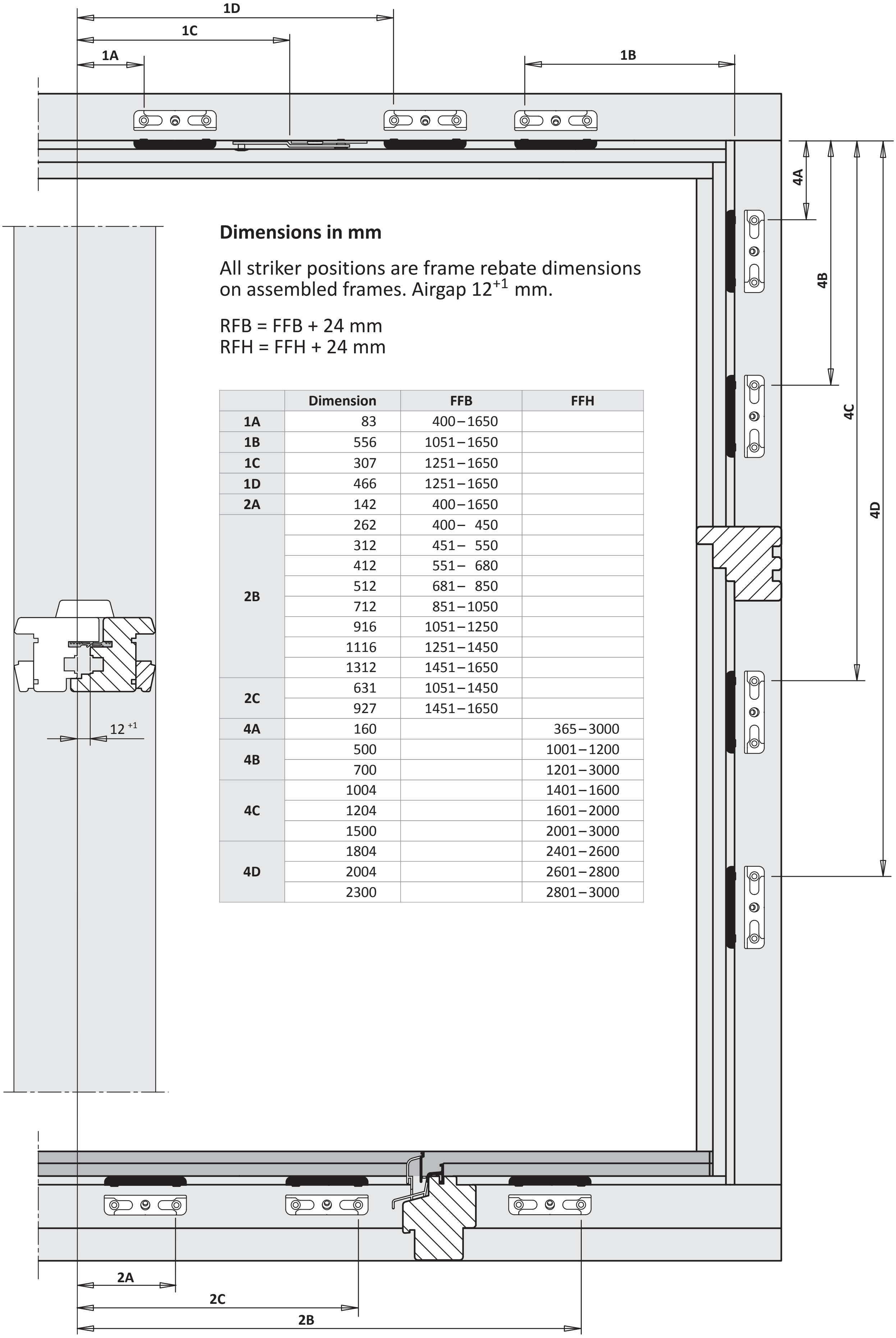



**Dimensions in mm**

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 | 400–1450 | |
| **1B** | 556 | 1051–1450 | |
| **2A** | 130 | 400–1450 | |
| **2B** | 250 | 400– 450 | |
| | 300 | 451– 550 | |
| | 400 | 551– 680 | |
| | 500 | 681– 850 | |
| | 700 | 851–1050 | |
| | 904 | 1051–1250 | |
| | 1104 | 1251–1450 | |
| **2C** | 619 | 1051–1450 | |
| **4A** | 160 | | 365–3000 |
| **4B** | 500 | | 1001–1200 |
| | 700 | | 1201–3000 |
| **4C** | 1004 | | 1401–1600 |
| | 1204 | | 1601–2000 |
| | 1500 | | 2001–3000 |
| **4D** | 1804 | | 2401–2600 |
| | 2004 | | 2601–2800 |
| | 2300 | | 2801–3000 |




**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 | 400 – 1650 | |
| 1B | 556 | 1051 – 1650 | |
| 1C | 307 | 1251 – 1650 | |
| 1D | 466 | 1251 – 1650 | |
| 2A | 142 | 400 – 1650 | |
| 2B | 262 | 400 – 450 | |
| | 312 | 451 – 550 | |
| | 412 | 551 – 680 | |
| | 512 | 681 – 850 | |
| | 712 | 851 – 1050 | |
| | 916 | 1051 – 1250 | |
| | 1116 | 1251 – 1450 | |
| | 1312 | 1451 – 1650 | |
| 2C | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 4A | 160 | | 365 – 3000 |
| 4B | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4C | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4D | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

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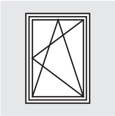
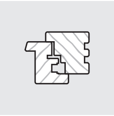
# TITAN AF

## Installation instructions





**RC2**
ECO

1-sash square tilt-turn

timber 12 mm

RC2 ECO

centre handle pos. (variable)

Hinge side TITAN

surface TS

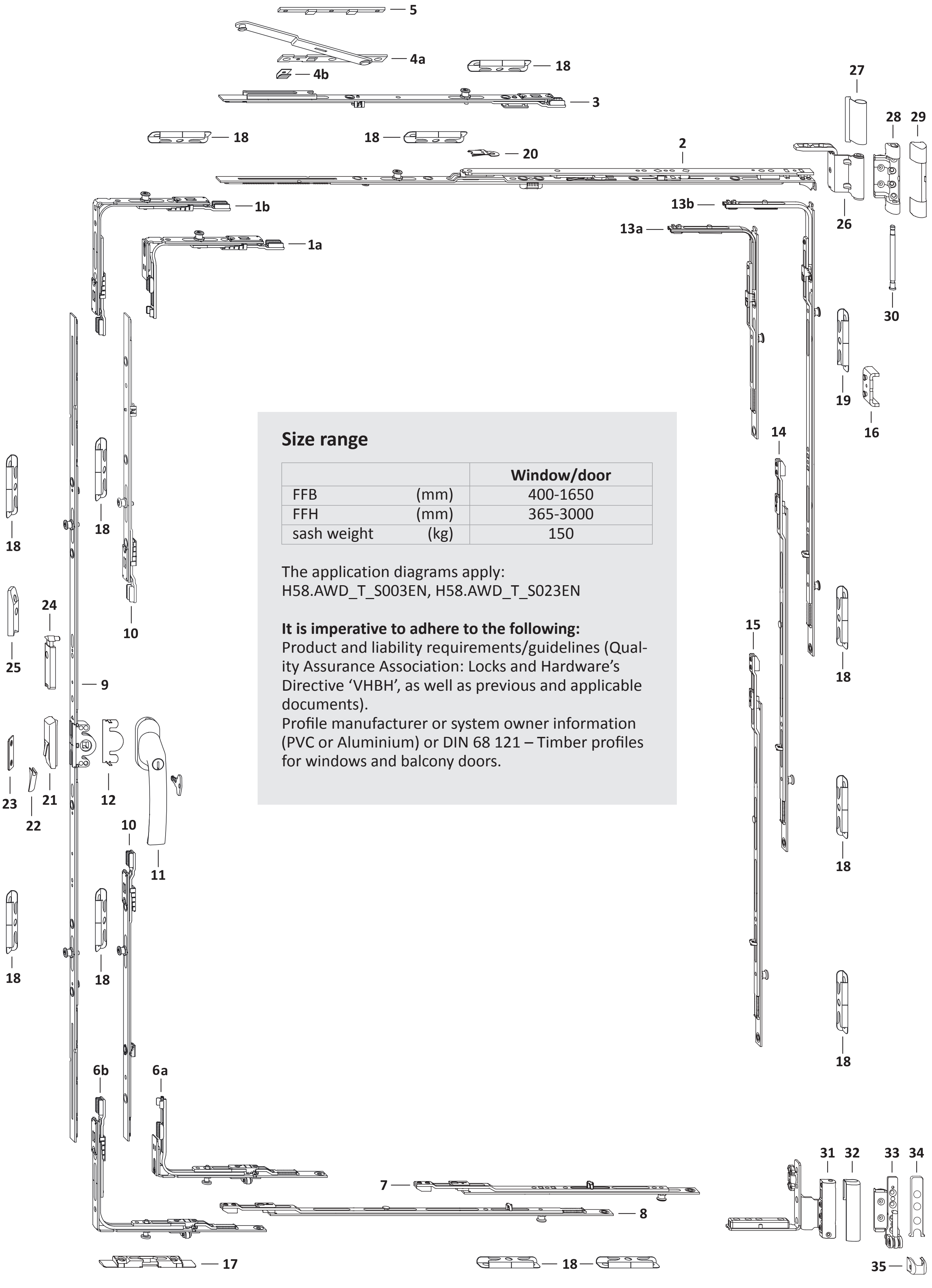
backset 15 mm



| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 2RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout

1-sash square tilt-turn
H12 GM Hinge side TITAN




## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 400-1650 |
| FFH | (mm) | 365-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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.

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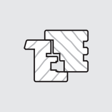
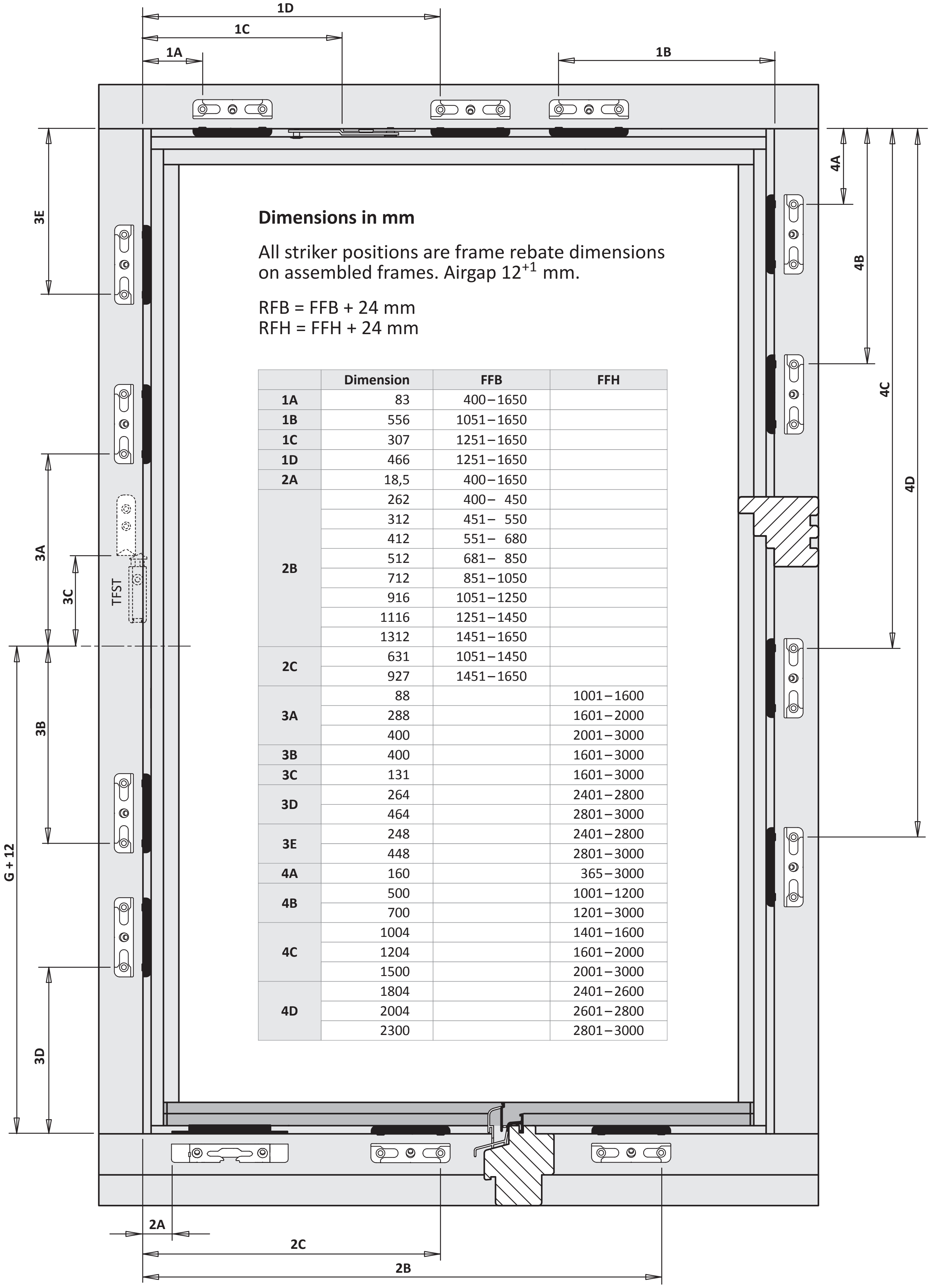




| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. 17 | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|
| **1a** | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 400 – 850 | 365 – 460 | | | 1 | |
| **1b** | corn.drive VSO 1RS | TEUL4010- ... | 1 | 400 – 1650 | 461 – 3000 | | | 1 | |
| **2** | stay AF sz 0 | TSKK2000- ... | 1 | 400 – 450 | | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | | 1 | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | | 1 | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | | 1 | |
| **3** | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | | 1 | |
| **4** | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | | |
| **5** | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | | |
| **6a** | corn.drive AF VSU/K+ nar.FH 1S | TEUL5090- ... | 1 | 400 – 850 | 365 – 460 | | 1 | | |
| **6b** | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 400 – 1650 | 461 – 3000 | | 1 | | |
| **7** | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400 – 450 | | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451 – 550 | | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551 – 680 | | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681 – 850 | | | | 1 | |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851 – 1050 | | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051 – 1250 | | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251 – 1450 | | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 1451 – 1650 | | | | 1 | |
| **8** | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 1 | |
| **9** | gear 15 AF sz 20 | TGMK4010- ... | 1 | 400 – 850 | 365 – 460 | 183 – 230 | | | |
| | gear 15 AF sz 20 | TGMK4010- ... | | | 461 – 600 | 230 – 300 | | | |
| | gear 15 AF sz 60 | TGMK4020- ... | | | 601 – 1000 | 300 – 500 | | | |
| | gear 15 AF sz 80 1RS | TGMK4040- ... | | | 1001 – 1200 | 500 – 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 2RS | TGMK4080- ... | | | 2001 – 3000 | 1000 – 1500 | | 2 | |
| **10** | linkage KK/AF sz 1 1RS | TZKK1010- ... | 2 | | 2401 – 2800 | | | 2 | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | 2 | |
| **11** | handle Globe lockable 100Nm | Ref.access. ZHGA100 | 1 | | 365 – 3000 | | | | |
| **12** | anti-drill guard E | TGBS0010- ... | 1 | | 365 – 3000 | | | | |
| **13a** | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 365 – 1000 | | | | 1 |
| **13b** | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001 – 1200 | | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201 – 3000 | | | 1 | 1 |
| **14** | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | | 1 | |
| **15** | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | | 1 | |
| **16** | anti-lift device | Ref. PDB, TFAH | 1 | | 365 – 3000 | | | | |
| **17** | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | | |
| **18** | striker plate S-RS | Ref. PDB, TRSK | | | | | | | |
| **19** | striker plate S-RS WK2BSO | Ref. PDB, TRSK03 | | | | | | | |
| **on request** | | | | | | | | | |
| **20** | tilt restrictor .. | TFKB0010- ... | 1 | | 365 – 800 | | | | |
| **21** | mishandling device | TFBS0010- ... | 1 | | | | | | |
| **22** | pressure piece | Ref. PDB, TFFD | 1 | | | | | | |
| **23** | stop | Ref. PDB, FRZF01 | 1 | | | | | | |
| **24** | snapper switchable rh. | TFST0011- ... | 1 | | 1601 – 3000 | | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1601 – 3000 | | | | |
| **25** | frame part snapper | Ref. PDB, TRST | 1 | | 1601 – 3000 | | | | |

# List of fittings
1-sash square tilt-turn
H12 GM Hinge side TITAN

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| **26** | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| **27** | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| **28** | top hinge | Ref. PDB, TBSL81 | | | 1 |
| **29** | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| **30** | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| **31** | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| **32** | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| **33** | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| **34** | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| **35** | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |




**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 | 400 – 1650 | |
| 1B | 556 | 1051 – 1650 | |
| 1C | 307 | 1251 – 1650 | |
| 1D | 466 | 1251 – 1650 | |
| 2A | 18,5 | 400 – 1650 | |
| 2B | 262 | 400 – 450 | |
| | 312 | 451 – 550 | |
| | 412 | 551 – 680 | |
| | 512 | 681 – 850 | |
| | 712 | 851 – 1050 | |
| | 916 | 1051 – 1250 | |
| | 1116 | 1251 – 1450 | |
| | 1312 | 1451 – 1650 | |
| 2C | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 3A | 88 | | 1001 – 1600 |
| | 288 | | 1601 – 2000 |
| | 400 | | 2001 – 3000 |
| 3B | 400 | | 1601 – 3000 |
| 3C | 131 | | 1601 – 3000 |
| 3D | 264 | | 2401 – 2800 |
| | 464 | | 2801 – 3000 |
| 3E | 248 | | 2401 – 2800 |
| | 448 | | 2801 – 3000 |
| 4A | 160 | | 365 – 3000 |
| 4B | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4C | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4D | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

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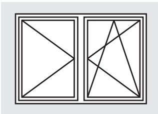
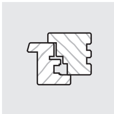
# TITAN AF

## Installation instructions





**RC2**
ECO

2-sash square tilt-turn/turn DS 16

timber 12 mm

RC2 ECO

centre handle pos. (variable)

Hinge side TITAN

surface TS

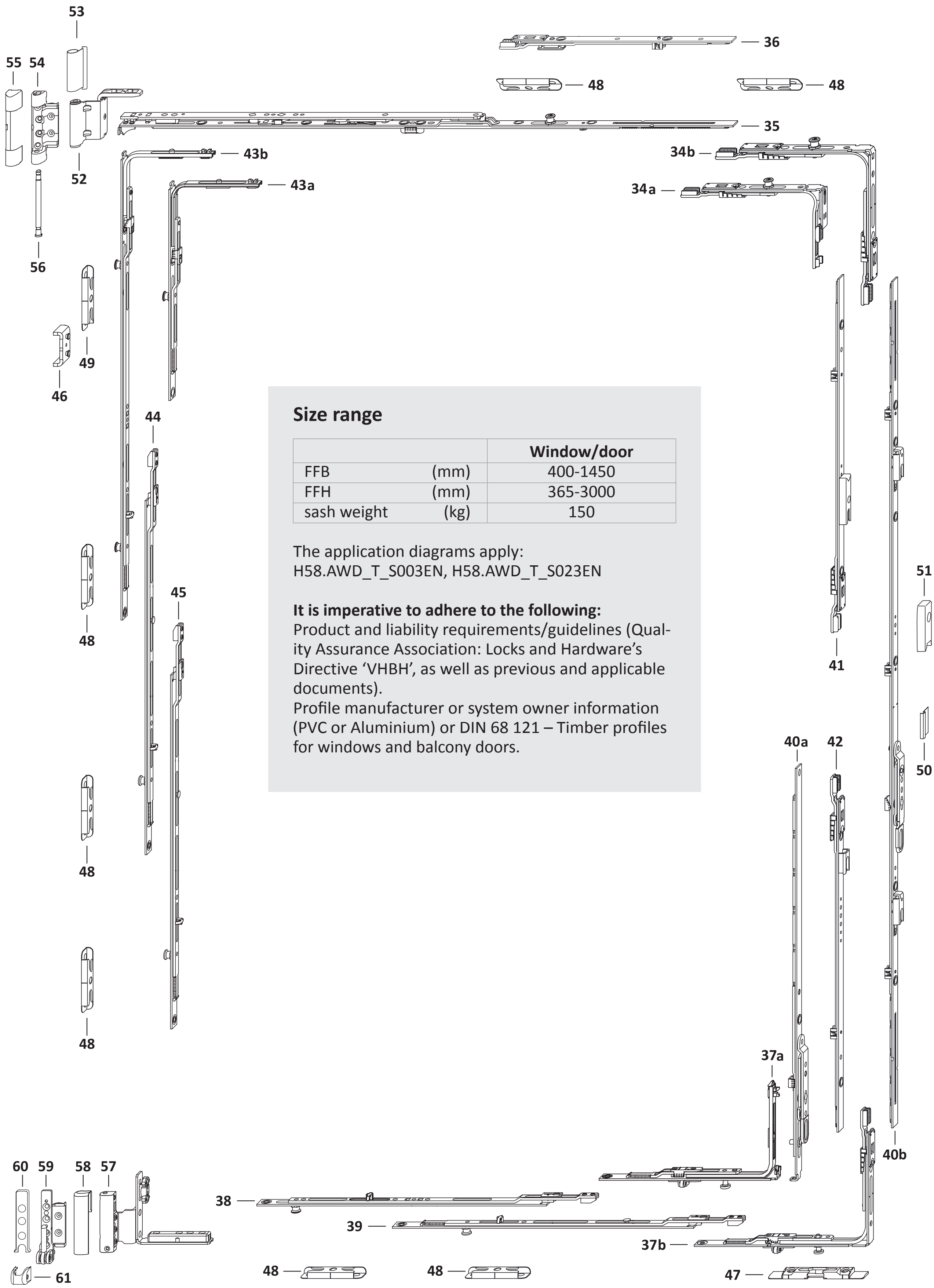
backset 15 mm



| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 2RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout slave sash

2-sash square tilt-turn/turn DS 16
H12 GM Hinge side TITAN

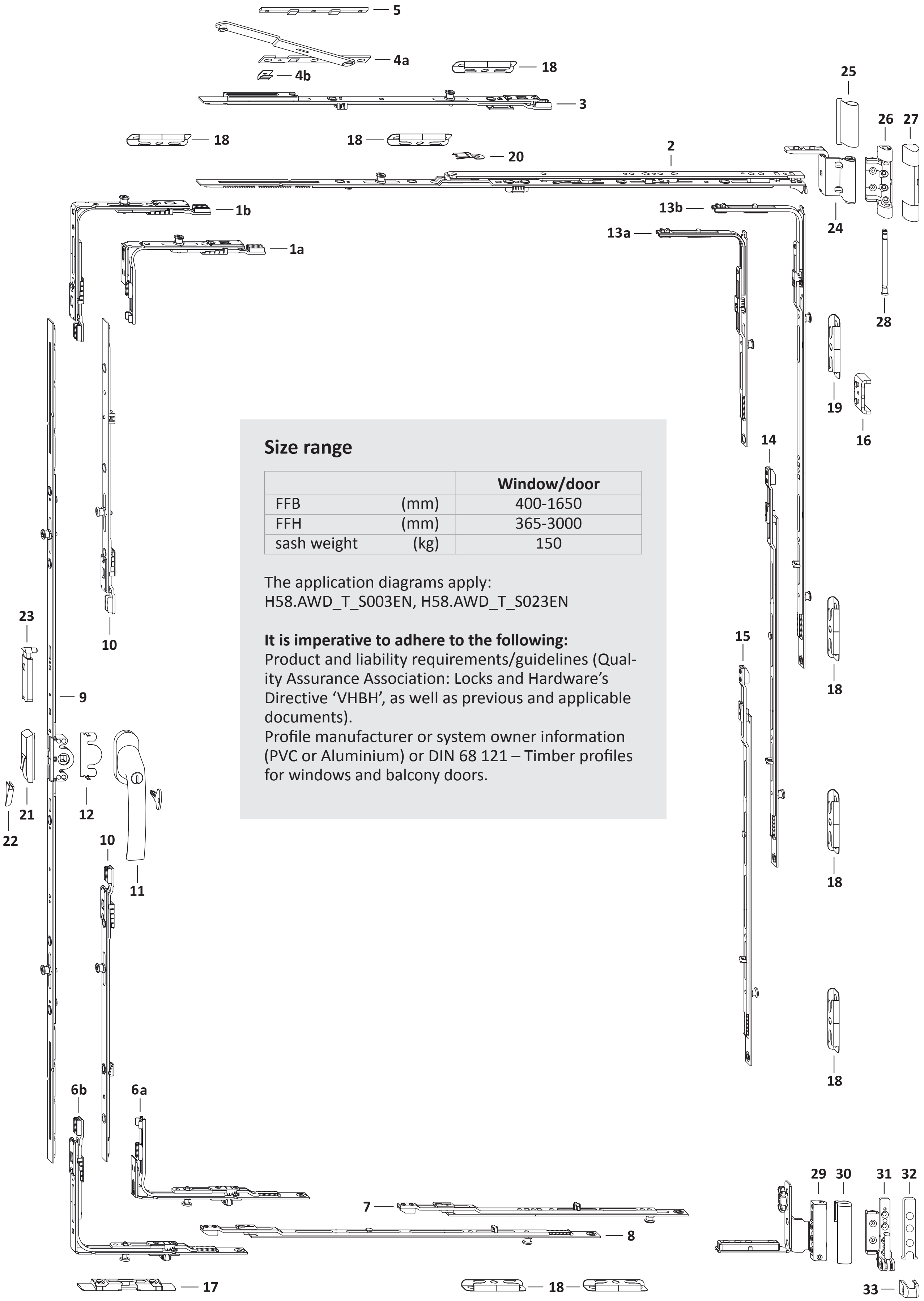



## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 400-1450 |
| FFH | (mm) | 365-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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

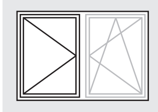
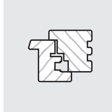
| | | Window/door |
|---|---|---|
| FFB | (mm) | 400-1650 |
| FFH | (mm) | 365-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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.

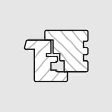
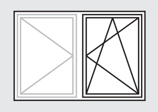
# List of fittings slave sash

## 2-sash square tilt-turn/turn DS 16
## H12 GM Hinge side TITAN

| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | In the main sash | 47 | 48 | 49 |
| 34a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 400 – 850 | 365 – 460 | | | 1 | |
| 34b | corn.drive VSO 1RS | TEUL4010- ... | 1 | 400 – 1450 | 461 – 3000 | | | 1 | |
| 35 | stay AF sz 0 | TSKK2000- ... | 1 | 400 – 450 | | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1450 | | | | 1 | |
| 36 | linkage AF sz 1 | TZZS0150- ... | 1 | 1251 – 1450 | | | | | |
| 37a | locking part VSU/K FH+ 1S | TEVR1400- ... | 1 | 400 – 1450 | 461 – 800 | | 1 | | |
| | locking part VSU/K FH+ 1S | TEVR1400- ... | | 400 – 850 | 365 – 460 | | 1 | | |
| 37b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 400 – 1450 | 801 – 3000 | | 1 | | |
| 38 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400 – 450 | | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451 – 550 | | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551 – 680 | | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681 – 850 | | | | 1 | |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851 – 1050 | | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051 – 1250 | | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251 – 1450 | | | | 1 | |
| 39 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 | |
| 40a | sec.sash gear 16 sz 30 | TGKS0010- ... | 1 | 400 – 850 | 365 – 460 | 183 – 300 | | | |
| | sec.sash gear 16 sz 30 | TGKS0010- ... | | | 461 – 600 | 230 – 300 | | | |
| | sec.sash gear 16 AF 60/G300 | TGKS4030- ... | | | 601 – 800 | 300 – 400 | | | |
| 40b | sec.sash gear 16 AF sz 80 1SB | TGMS4040- ... | 1 | | 801 – 1200 | 400 – 600 | | | |
| | sec.sash gear 16 AF sz 120 1SB | TGMS4050- ... | | | 1201 – 1600 | 600 – 800 | | | |
| | sec.sash gear 16 AF 160 2SB 70 | TGMS4130- ... | | | 1601 – 2000 | 800 – 1000 | | | |
| | sec.sash gear 16 AF sz 200 2SB | TGMS4080- ... | | | 2001 – 3000 | 1000 – 1500 | | | |
| 41 | linkage AF sz 1 1SB-RS | TZKS1020- ... | 1 | | 2401 – 2800 | | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801 – 3000 | | | | |
| 42 | linkage AF sz 1 1SB-VSU | TZKS1060- ... | 1 | | 2401 – 2800 | | | | |
| | linkage AF sz 2 1SB-VSU | TZKS1070- ... | | | 2801 – 3000 | | | | |
| 43a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 365 – 1000 | | | | 1 |
| 43b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001 – 1200 | | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201 – 3000 | | | 1 | 1 |
| 44 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | | 1 | |
| 45 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | | 1 | |
| 46 | anti-lift device | Ref. PDB, TFAH | 1 | | 365 – 3000 | | | | |
| 47 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | | |
| 48 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | |
| 49 | striker plate S-RS WK2BSO | Ref. PDB, TRSK03 | | | | | | | |
| | | | on request | | | | | | |
| 50 | stop | Ref. PDB, FRZF04 | 1 | | 601 – 3000 | | | | |
| 51 | striker snapper A0767 | TRST0010- ... | 1 | | 1601 – 3000 | | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 52 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 53 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 54 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 55 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 56 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 57 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 58 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 59 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 60 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 61 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

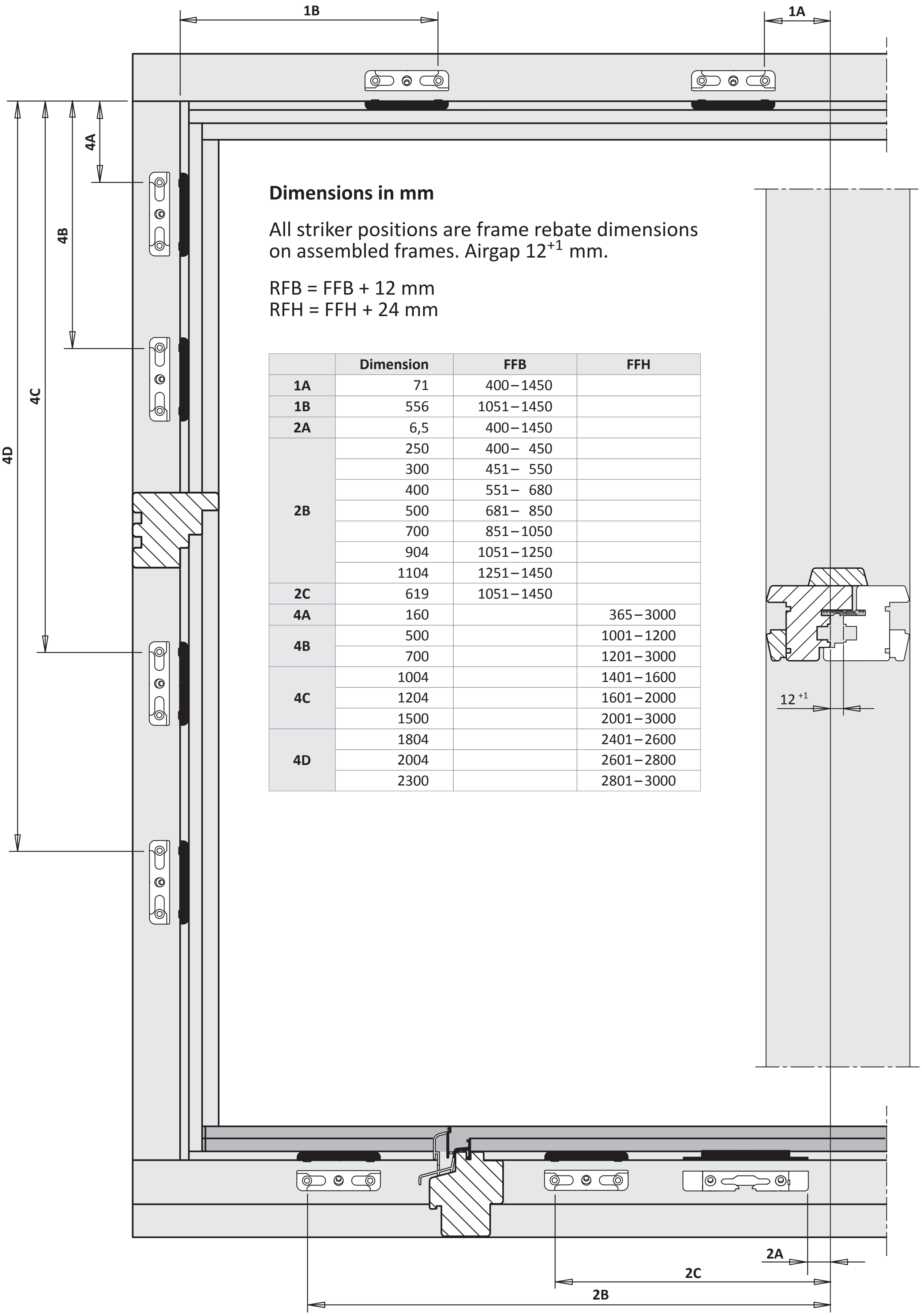


| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 17 | 18 | 19 |
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 400 – 850 | 365 – 460 | | | 1 | |
| 1b | corn.drive VSO 1RS | TEUL4010- ... | 1 | 400 – 1650 | 461 – 3000 | | | 1 | |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 400 – 450 | | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | | 1 | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | | 1 | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | | 1 | |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | | |
| 6a | corn.drive AF VSU/K+ nar.FH 1S | TEUL5090- ... | 1 | 400 – 850 | 365 – 460 | | 1 | | |
| 6b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 400 – 1650 | 461 – 3000 | | 1 | | |
| 7 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400 – 450 | | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451 – 550 | | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551 – 680 | | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681 – 850 | | | | 1 | |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851 – 1050 | | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051 – 1250 | | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251 – 1450 | | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 1451 – 1650 | | | | 1 | |
| 8 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 1 | |
| 9 | gear 15 AF sz 20 | TGMK4010- ... | 1 | 400 – 850 | 365 – 460 | 183 – 300 | | | |
| | gear 15 AF sz 20 | TGMK4010- ... | | | 461 – 600 | 230 – 300 | | | |
| | gear 15 AF sz 60 | TGMK4020- ... | | | 601 – 1000 | 300 – 500 | | | |
| | gear 15 AF sz 80 1RS | TGMK4040- ... | | | 1001 – 1200 | 500 – 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 2RS | TGMK4080- ... | | | 2001 – 3000 | 1000 – 1500 | | | |
| 10 | linkage KK/AF sz 1 1RS | TZKK1010- ... | 2 | | 2401 – 2800 | | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | | |
| 11 | handle Globe lockable 100Nm | Ref.access. ZHGA100 | 1 | | 365 – 3000 | | | | |
| 12 | anti-drill guard E | TGBS0010- ... | 1 | | 365 – 3000 | | | | |
| 13a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 365 – 1000 | | | | 1 |
| 13b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001 – 1200 | | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201 – 3000 | | | 1 | 1 |
| 14 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | | 1 | |
| 15 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | | 1 | |
| 16 | anti-lift device | Ref. PDB, TFAH | 1 | | 365 – 3000 | | | | |
| 17 | tilt lock bear. S-ES FH | Ref. PDB, FRKA | | | | | | | |
| 18 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | |
| 19 | striker plate S-RS WK2BSO | Ref. PDB, TRSK03 | | | | | | | |
| **on request** | | | | | | | | | |
| 20 | tilt restrictor .. | TFKB0010- ... | 1 | | 365 – 800 | | | | |
| 21 | mishandling device | TFBS0010- ... | 1 | | 601 – 3000 | | | | |
| 22 | pressure piece | Ref. PDB, TFFD | 1 | | 601 – 3000 | | | | |
| 23 | snapper switchable rh. | TFST0011- ... | 1 | | 1601 – 3000 | | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1601 – 3000 | | | | |

# List of fittings main sash

2-sash square tilt-turn/turn DS 16
H12 GM Hinge side TITAN

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| **24** | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| **25** | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| **26** | top hinge | Ref. PDB, TBSL81 | | | 1 |
| **27** | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| **28** | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| **29** | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| **30** | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| **31** | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| **32** | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| **33** | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |




### Dimensions in mm

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

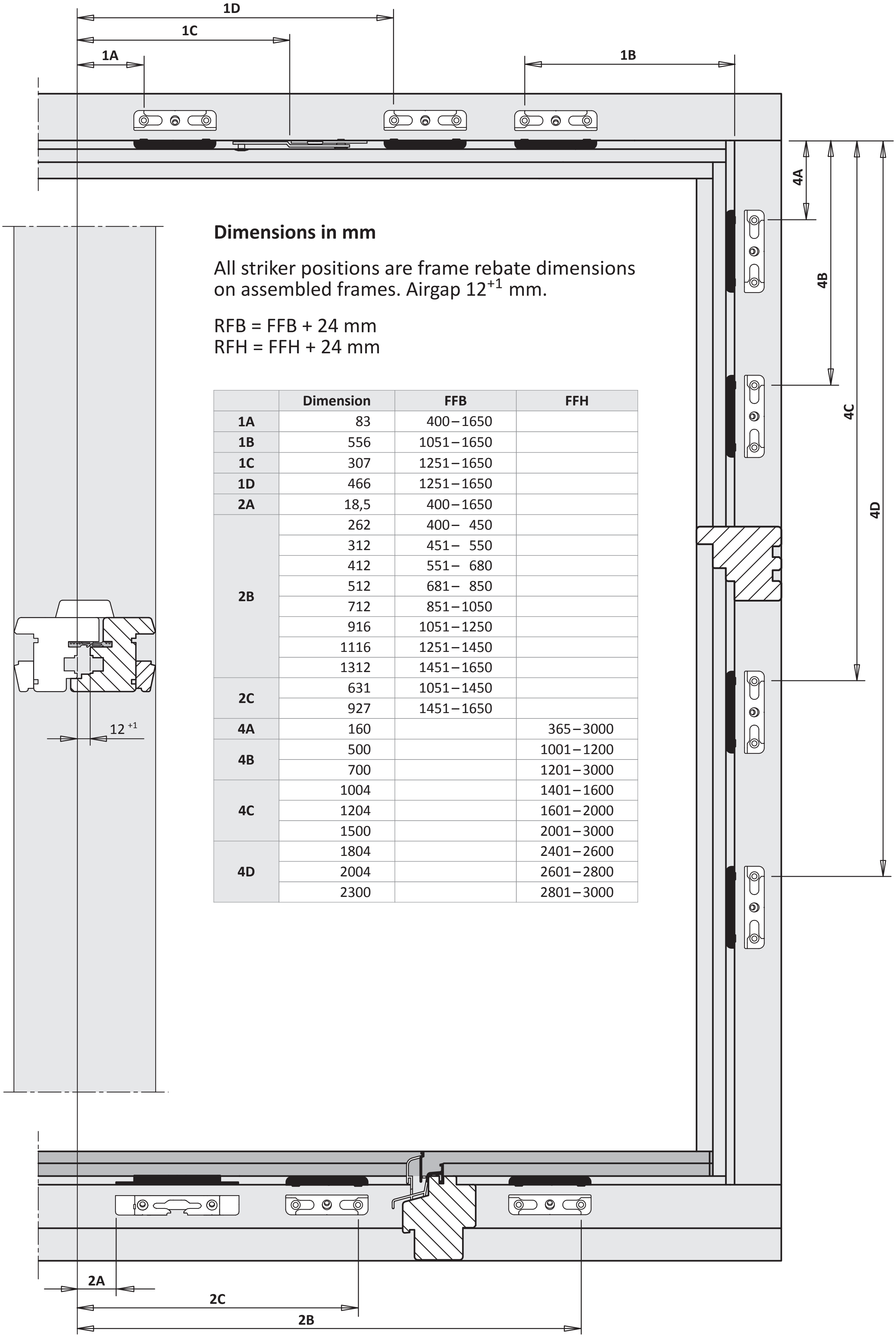
RFB = FFB + 12 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| **1A** | 71 | 400 – 1450 | |
| **1B** | 556 | 1051 – 1450 | |
| **2A** | 6,5 | 400 – 1450 | |
| **2B** | 250 | 400 – 450 | |
| | 300 | 451 – 550 | |
| | 400 | 551 – 680 | |
| | 500 | 681 – 850 | |
| | 700 | 851 – 1050 | |
| | 904 | 1051 – 1250 | |
| | 1104 | 1251 – 1450 | |
| **2C** | 619 | 1051 – 1450 | |
| **4A** | 160 | | 365 – 3000 |
| **4B** | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| **4C** | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| **4D** | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

# Frame dimensions main sash

2-sash square tilt-turn/turn DS 16

H12 GM Hinge side TITAN




**Dimensions in mm**

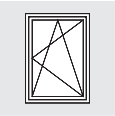
All striker positions are frame rebate dimensions on assembled frames. Airgap $12^{+1}$ mm.

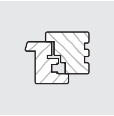
RFB = FFB + 24 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| **1A** | 83 | 400 – 1650 | |
| **1B** | 556 | 1051 – 1650 | |
| **1C** | 307 | 1251 – 1650 | |
| **1D** | 466 | 1251 – 1650 | |
| **2A** | 18,5 | 400 – 1650 | |
| **2B** | 262 | 400 – 450 | |
| | 312 | 451 – 550 | |
| | 412 | 551 – 680 | |
| | 512 | 681 – 850 | |
| | 712 | 851 – 1050 | |
| | 916 | 1051 – 1250 | |
| | 1116 | 1251 – 1450 | |
| | 1312 | 1451 – 1650 | |
| **2C** | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| **4A** | 160 | | 365 – 3000 |
| **4B** | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| **4C** | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| **4D** | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

# TITAN AF

## Installation instructions





**RC2**
ECO

1-sash square tilt before turn (TBT)

timber 12 mm

RC2 ECO

centre handle pos. (variable)

Hinge side TITAN

surface TS

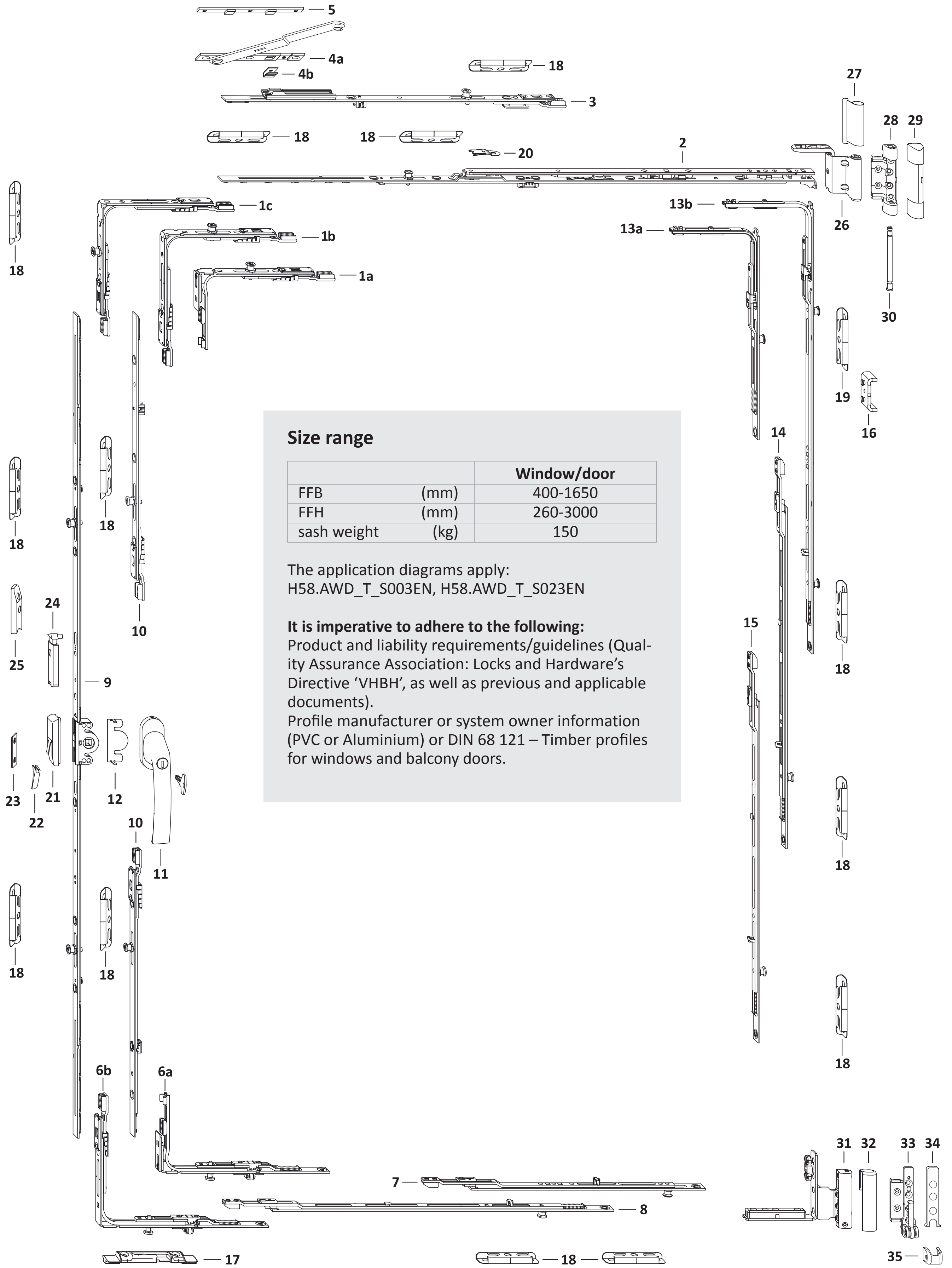
backset 15 mm



| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | Inliner |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 2RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout

1-sash square tilt before turn (TBT)
H12 GM Hinge side TITAN




## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 400-1650 |
| FFH | (mm) | 260-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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. 17 | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 400 – 850 | 260 – 460 | | | 1 | |
| 1b | corn.drive VSO 1RS | TEUL4010- ... | 1 | 400 – 1250 | 461 – 3000 | | | 1 | |
| 1c | corn.drive VSO 1RS | TEUL4010- ... | 1 | 1251 – 1650 | 461 – 3000 | | | 1 | |
| 2 | stay AF TBT sz 0 | TSKT2000- ... | 1 | 400 – 450 | | | | | |
| | stay AF TBT sz 1 | TSKT2010- ... | | 451 – 680 | | | | | |
| | stay AF TBT sz 2 1RS | TSKT2120- ... | | 681 – 850 | | | | | |
| | stay AF TBT sz 3 1RS | TSKT2030- ... | | 851 – 1050 | | | | | |
| | stay AF TBT sz 4 1RS | TSKT2040- ... | | 1051 – 1250 | | | | 1 | |
| | stay AF TBT sz 3 1RS | TSKT2030- ... | | 1251 – 1450 | | | | 1 | |
| | stay AF TBT sz 4 1RS | TSKT2040- ... | | 1451 – 1650 | | | | 1 | |
| 3 | linkage add. stay AF TBT RS | TZOT1010- ... | 1 | 1251 – 1650 | | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | | |
| 6a | corn.drive AF VSU/K+ nar.FH 1S | TEUL5090- ... | 1 | 400 – 850 | 260 – 460 | | 1 | | |
| 6b | corn.drive AF VSU/K+ FH 1S | TEUL5010- ... | 1 | 400 – 1650 | 461 – 3000 | | 1 | | |
| 7 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400 – 450 | | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451 – 550 | | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551 – 680 | | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681 – 850 | | | | 1 | |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851 – 1050 | | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051 – 1250 | | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251 – 1450 | | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 1451 – 1650 | | | | 1 | |
| 8 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051 – 1450 | | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451 – 1650 | | | | 1 | |
| 9 | gear 15 AF sz 20 | TGMK4010- ... | 1 | 400 – 850 | 260 – 460 | 130 – 230 | | | |
| | gear 15 AF sz 20 | TGMK4010- ... | | | 461 – 600 | 230 – 300 | | | |
| | gear 15 AF sz 60 | TGMK4020- ... | | | 601 – 1000 | 300 – 500 | | | |
| | gear 15 AF sz 80 1RS | TGMK4040- ... | | | 1001 – 1200 | 500 – 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 2RS | TGMK4080- ... | | | 2001 – 3000 | 1000 – 1500 | | 2 | |
| 10 | linkage KK/AF sz 1 1RS | TZKK1010- ... | 2 | | 2401 – 2800 | | | 2 | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | | 2 | |
| 11 | handle Globe TBT lockable | Ref.access. ZHGT | 1 | | 260 – 3000 | | | | |
| 12 | anti-drill guard E | TGBS0010- ... | 1 | | 260 – 3000 | | | | |
| 13a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 260 – 1000 | | | | 1 |
| 13b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001 – 1200 | | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201 – 3000 | | | 1 | 1 |
| 14 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | | 1 | |
| 15 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | | 1 | |
| 16 | anti-lift device | Ref. PDB, TFAH | 1 | | 260 – 3000 | | | | |
| 17 | tilt lock bear. S-ES FH TBT | Ref. PDB, FRKB | | | | | | | |
| 18 | striker plate S-RS | Ref. PDB, TRSK | | | | | | | |
| 19 | striker plate S-RS WK2BSO | Ref. PDB, TRSK03 | | | | | | | |
| **on request** | | | | | | | | | |
| 20 | tilt restrictor .. | TFKB0010- ... | 1 | | 260 – 800 | | | | |
| 21 | mishandling device | TFBS0010- ... | 1 | | | | | | |
| 22 | pressure piece | Ref. PDB, TFFD | 1 | | | | | | |
| 23 | stop | Ref. PDB, FRZF01 | 1 | | | | | | |
| 24 | snapper switchable rh. | TFST0011- ... | 1 | | 1601 – 3000 | | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1601 – 3000 | | | | |
| 25 | frame part snapper | Ref. PDB, TRST | 1 | | 1601 – 3000 | | | | |

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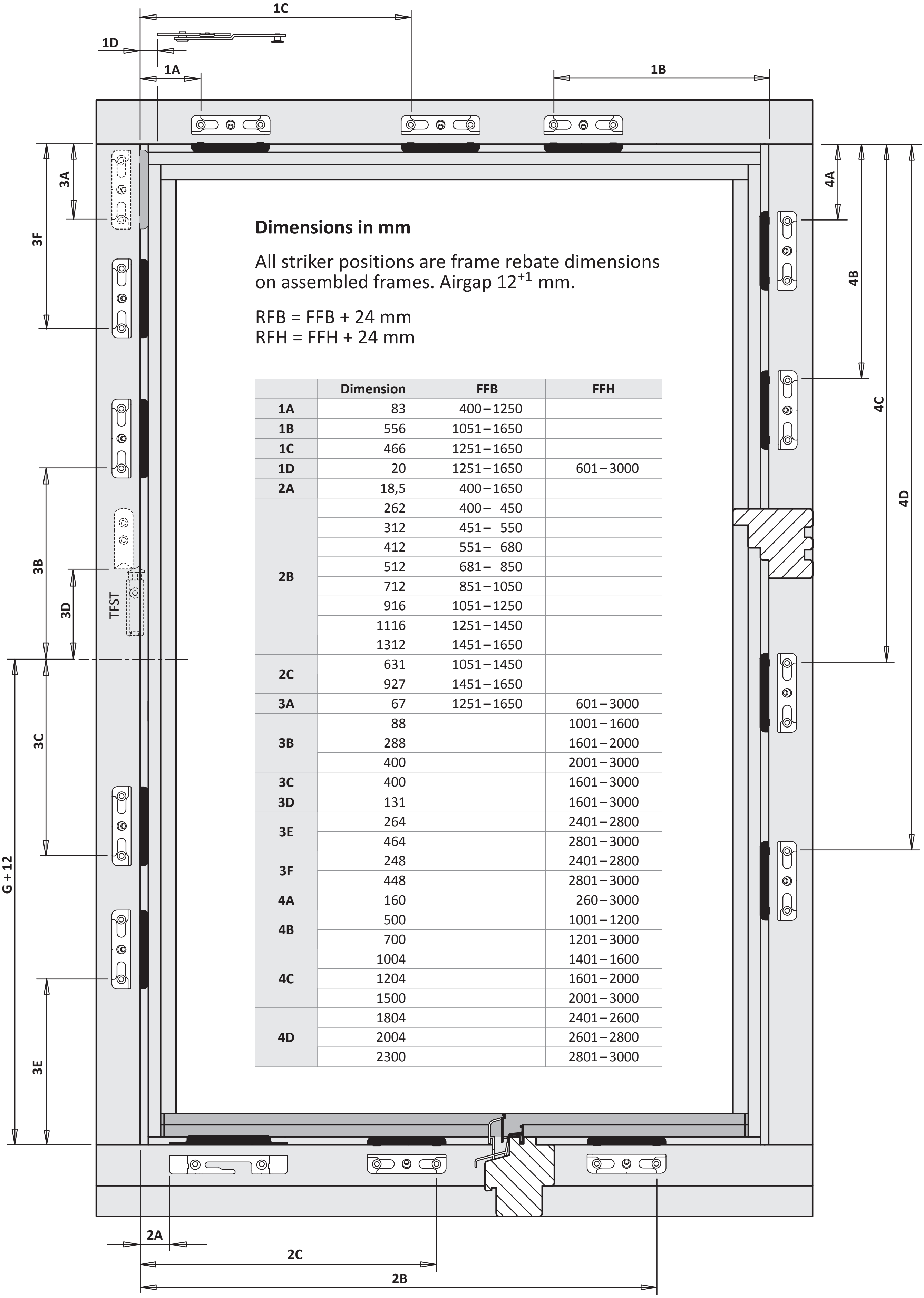
# List of fittings

1-sash square tilt before turn (TBT)
H12 GM Hinge side TITAN

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| **26** | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| **27** | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| **28** | top hinge | Ref. PDB, TBSL81 | | | 1 |
| **29** | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| **30** | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| **31** | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| **32** | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| **33** | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| **34** | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| **35** | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

9




**Dimensions in mm**

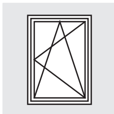
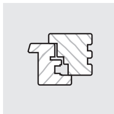
All striker positions are frame rebate dimensions on assembled frames. Airgap 12$^{+1}$ mm.

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

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 400 – 1250 | |
| 1B | 556 | 1051 – 1650 | |
| 1C | 466 | 1251 – 1650 | |
| 1D | 20 | 1251 – 1650 | 601 – 3000 |
| 2A | 18,5 | 400 – 1650 | |
| 2B | 262 | 400 – 450 | |
| | 312 | 451 – 550 | |
| | 412 | 551 – 680 | |
| | 512 | 681 – 850 | |
| | 712 | 851 – 1050 | |
| | 916 | 1051 – 1250 | |
| | 1116 | 1251 – 1450 | |
| | 1312 | 1451 – 1650 | |
| 2C | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| 3A | 67 | 1251 – 1650 | 601 – 3000 |
| 3B | 88 | | 1001 – 1600 |
| | 288 | | 1601 – 2000 |
| | 400 | | 2001 – 3000 |
| 3C | 400 | | 1601 – 3000 |
| 3D | 131 | | 1601 – 3000 |
| 3E | 264 | | 2401 – 2800 |
| | 464 | | 2801 – 3000 |
| 3F | 248 | | 2401 – 2800 |
| | 448 | | 2801 – 3000 |
| 4A | 160 | | 260 – 3000 |
| 4B | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4C | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4D | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

# TITAN AF

## Installation instructions

**RC2**
ECO

1-sash square tilt-turn

timber 12 mm

RC2 ECO

centre handle pos. (variable)

Hinge side TITAN

surface TS

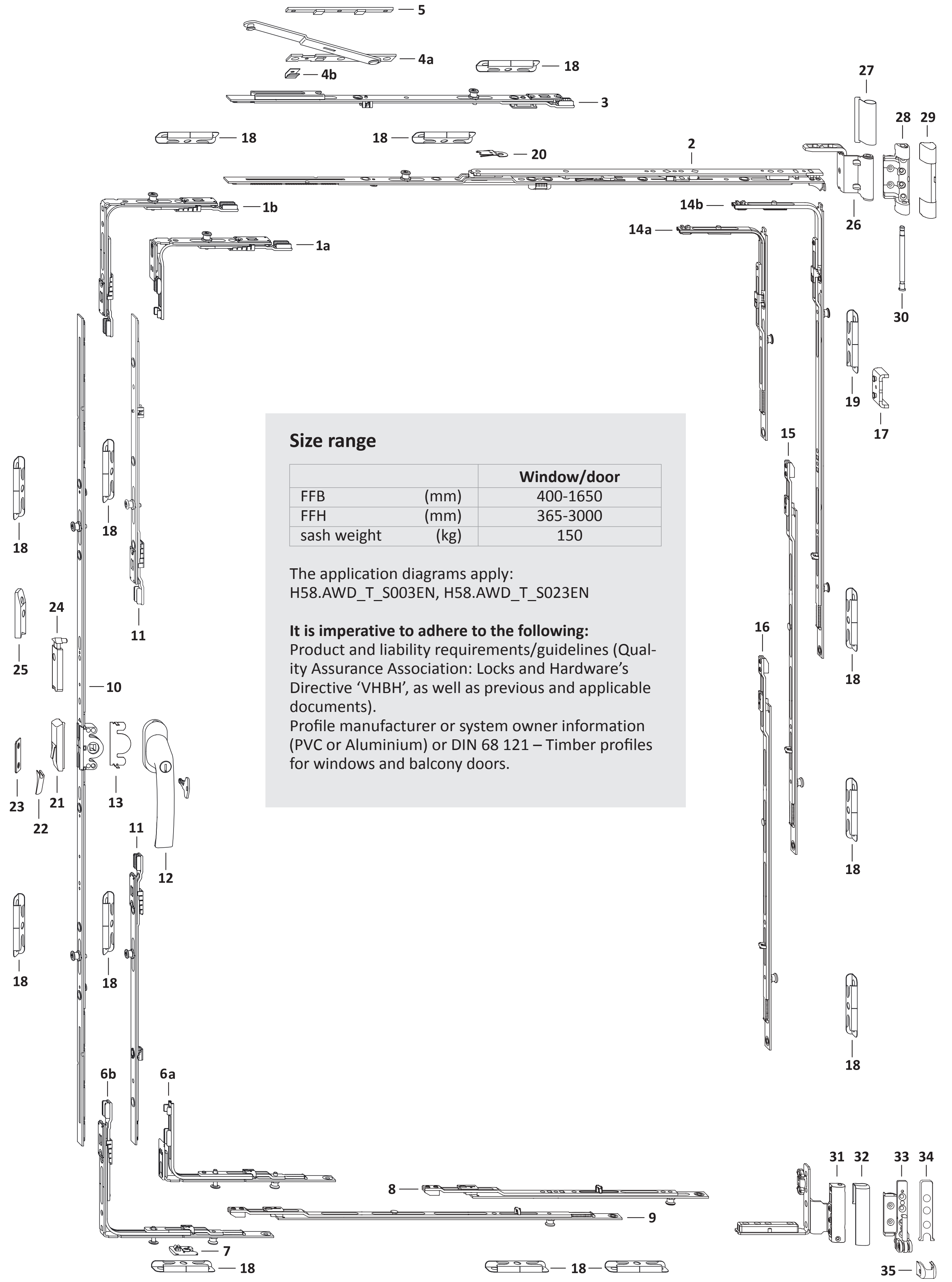
backset 15 mm



| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | double cam SB R-RS |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 2RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout

1-sash square tilt-turn
H12 GM Hinge side TITAN




## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 400-1650 |
| FFH | (mm) | 365-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

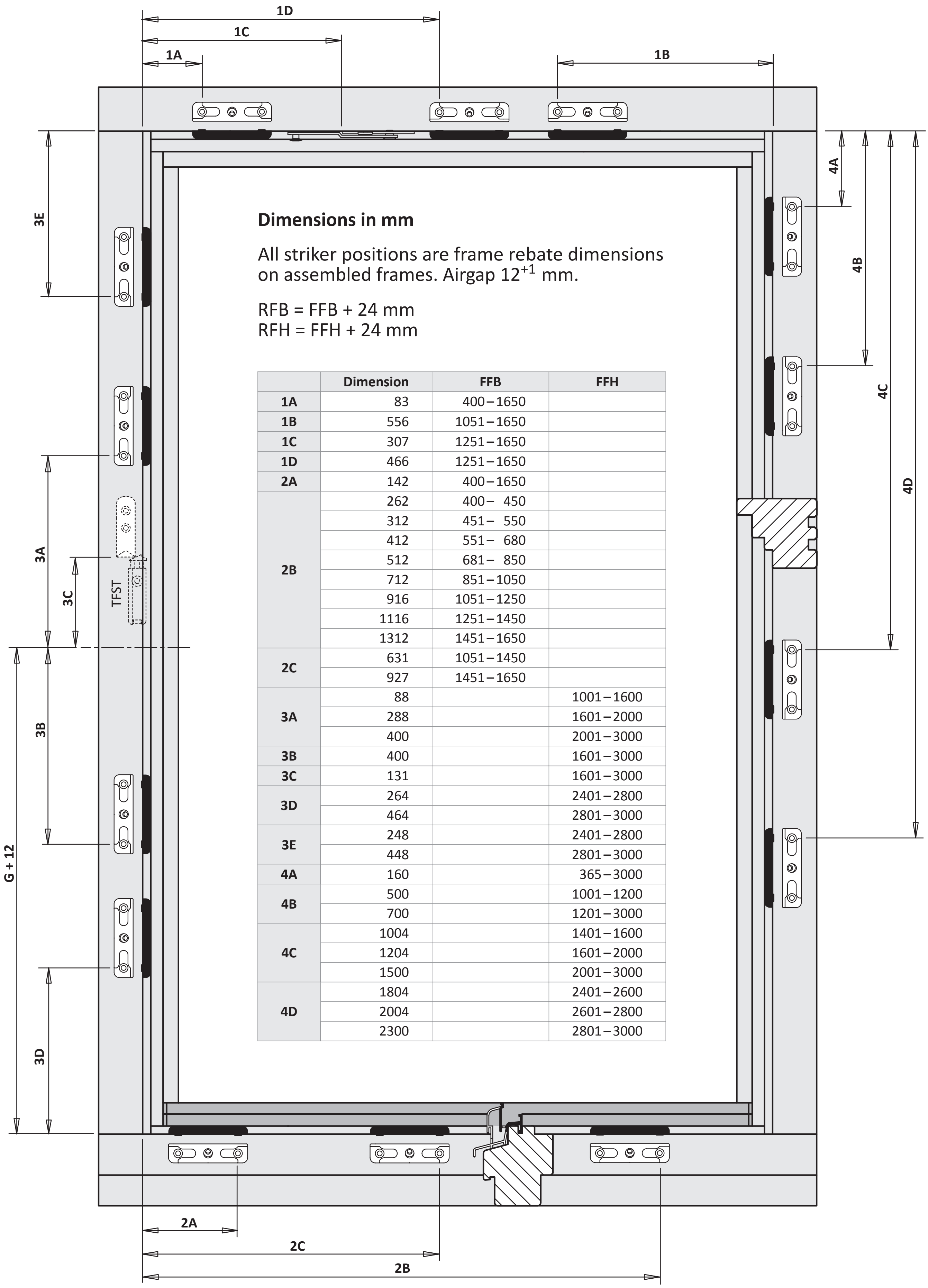
**It is imperative to adhere to the following:**
Product and liability requirements/guidelines (Quality Assurance Association: Locks and Hardware's Directive 'VHBH', as well as previous and applicable documents).
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber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

| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. 18 | 19 |
|---|---|---|---|---|---|---|---|---|
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 400– 850 | 365– 460 | | 1 | |
| 1b | corn.drive VSO 1RS | TEUL4010- ... | 1 | 400–1650 | 461–3000 | | 1 | |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 400– 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451– 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681– 850 | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851–1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051–1250 | | | 1 | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251–1450 | | | 1 | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451–1650 | | | 1 | |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251–1650 | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251–1650 | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251–1650 | | | | |
| 6a | corn.drive AFVSU/K56+nar.1S1RS | TEUL5100- ... | 1 | 400– 850 | 365– 460 | | 1 | |
| 6b | corn.drive AF VSU/K 56+ 1S 1RS | TEUL5030- ... | 1 | 400–1650 | 461–3000 | | 1 | |
| 7 | run up block AF 13 mm 13 | TFFH0080- ... | 1 | 400–1650 | | | | |
| 8 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400– 450 | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451– 550 | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551– 680 | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681– 850 | | | 1 | |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851–1050 | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051–1250 | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251–1450 | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 1451–1650 | | | 1 | |
| 9 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051–1450 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451–1650 | | | 1 | |
| 10 | gear 15 AF sz 20 | TGMK4010- ... | 1 | 400– 850 | 365– 460 | 183– 230 | | |
| | gear 15 AF sz 20 | TGMK4010- ... | | | 461– 600 | 230– 300 | | |
| | gear 15 AF sz 60 | TGMK4020- ... | | | 601–1000 | 300– 500 | | |
| | gear 15 AF sz 80 1RS | TGMK4040- ... | | | 1001–1200 | 500– 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 2RS | TGMK4080- ... | | | 2001–3000 | 1000–1500 | 2 | |
| 11 | linkage KK/AF sz 1 1RS | TZKK1010- ... | 2 | | 2401–2800 | | 2 | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801–3000 | | 2 | |
| 12 | handle Globe lockable 100Nm | Ref.access. ZHGA100 | 1 | | 365–3000 | | | |
| 13 | anti-drill guard E | TGBS0010- ... | 1 | | 365–3000 | | | |
| 14a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 365–1000 | | | 1 |
| 14b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001–1200 | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201–3000 | | 1 | 1 |
| 15 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401–1600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601–2000 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001–3000 | | 1 | |
| 16 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401–2600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601–2800 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801–3000 | | 1 | |
| 17 | anti-lift device | Ref. PDB, TFAH | 1 | | 365–3000 | | | |
| 18 | striker plate S-RS | Ref. PDB, TRSK | | | | | | |
| 19 | striker plate S-RS WK2BSO | Ref. PDB, TRSK03 | | | | | | |
| **on request** | | | | | | | | |
| 20 | tilt restrictor .. | TFKB0010- ... | 1 | | 365– 800 | | | |
| 21 | mishandling device | TFBS0010- ... | 1 | | | | | |
| 22 | pressure piece | Ref. PDB, TFFD | 1 | | | | | |
| 23 | stop | Ref. PDB, FRZF01 | 1 | | | | | |
| 24 | snapper switchable rh. | TFST0011- ... | 1 | | 1601–3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1601–3000 | | | |
| 25 | frame part snapper | Ref. PDB, TRST | 1 | | 1601–3000 | | | |

# List of fittings

1-sash square tilt-turn
H12 GM Hinge side TITAN

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 26 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 27 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 28 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 29 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 30 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 31 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 32 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 33 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 34 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 35 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |




**Dimensions in mm**

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

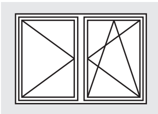
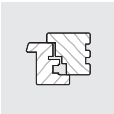
RFB = FFB + 24 mm
RFH = FFH + 24 mm

| | Dimension | FFB | FFH |
|---|---|---|---|
| **1A** | 83 | 400 – 1650 | |
| **1B** | 556 | 1051 – 1650 | |
| **1C** | 307 | 1251 – 1650 | |
| **1D** | 466 | 1251 – 1650 | |
| **2A** | 142 | 400 – 1650 | |
| **2B** | 262 | 400 – 450 | |
| | 312 | 451 – 550 | |
| | 412 | 551 – 680 | |
| | 512 | 681 – 850 | |
| | 712 | 851 – 1050 | |
| | 916 | 1051 – 1250 | |
| | 1116 | 1251 – 1450 | |
| | 1312 | 1451 – 1650 | |
| **2C** | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| **3A** | 88 | | 1001 – 1600 |
| | 288 | | 1601 – 2000 |
| | 400 | | 2001 – 3000 |
| **3B** | 400 | | 1601 – 3000 |
| **3C** | 131 | | 1601 – 3000 |
| **3D** | 264 | | 2401 – 2800 |
| | 464 | | 2801 – 3000 |
| **3E** | 248 | | 2401 – 2800 |
| | 448 | | 2801 – 3000 |
| **4A** | 160 | | 365 – 3000 |
| **4B** | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| **4C** | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| **4D** | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

9

# TITAN AF

## Installation instructions

**RC2**
ECO

2-sash square tilt-turn/turn DS 16

timber 12 mm

RC2 ECO

centre handle pos. (variable)

Hinge side TITAN

surface TS

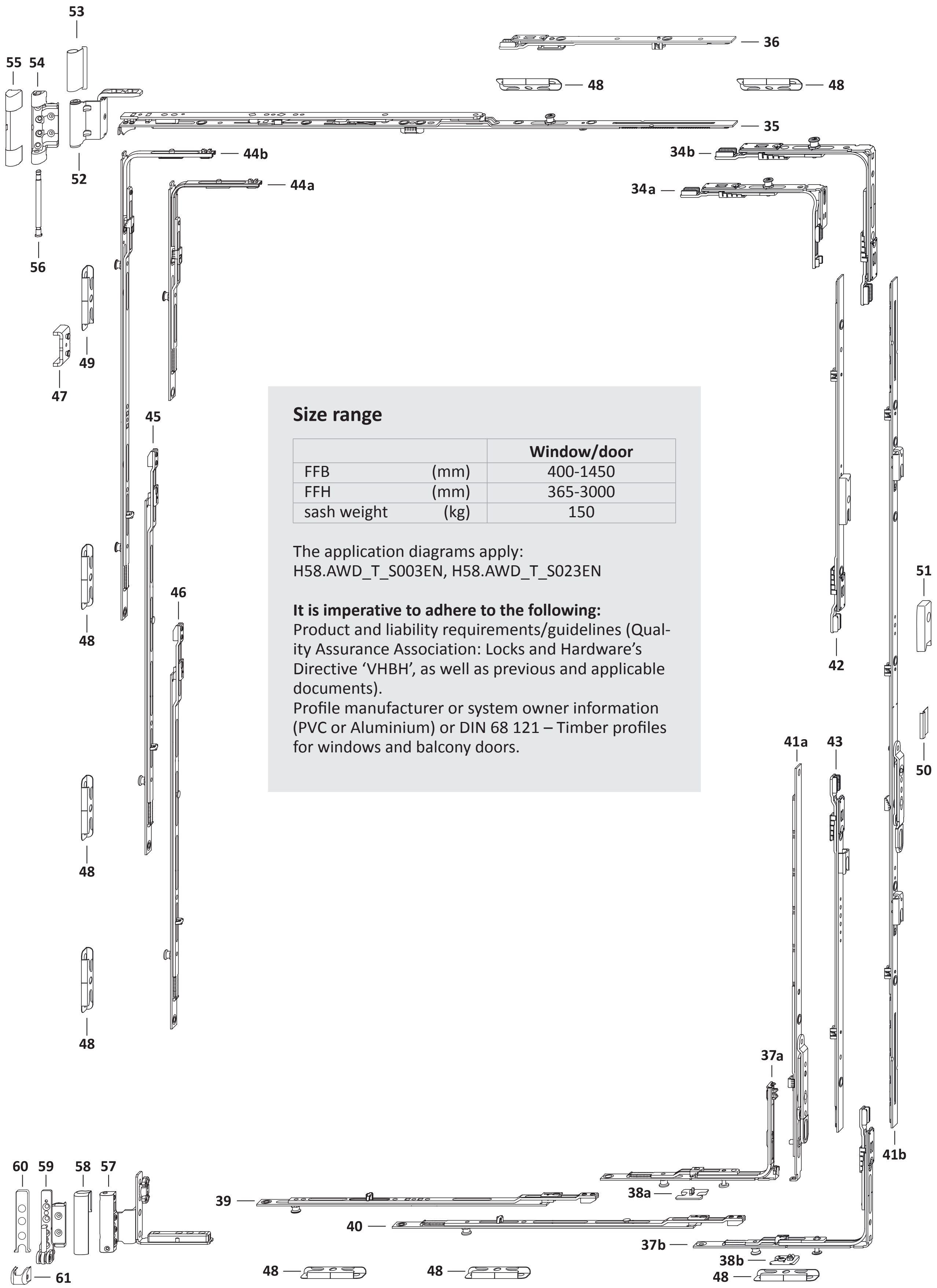
backset 15 mm

9

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000 |
| **Stay side** | one-piece stay |
| **Bottom** | double cam SB R-RS |
| **Locking side** | mishandl. device on gear |
| **Hinge side** | corner drive BS sz 1+2 2RS |
| **Hinge side turning points** | Standard HZ12 |

## hardware layout slave sash

2-sash square tilt-turn/turn DS 16
H12 GM Hinge side TITAN




### Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 400-1450 |
| FFH | (mm) | 365-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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.

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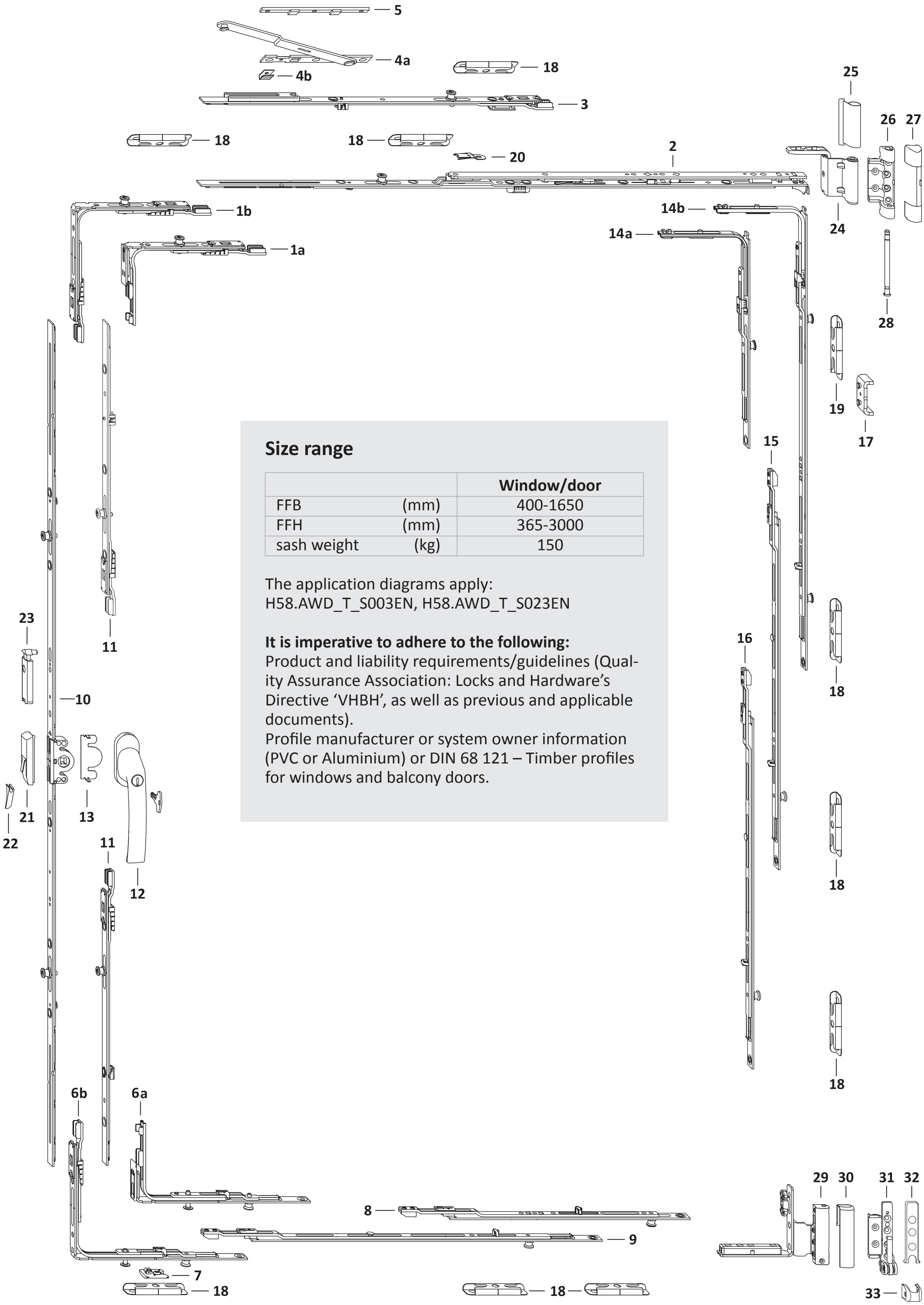



## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 400-1650 |
| FFH | (mm) | 365-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**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

2-sash square tilt-turn/turn DS 16
H12 GM Hinge side TITAN

| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G In the main sash | Number of frame parts / Pos. 48 | 49 |
|---|---|---|---|---|---|---|---|---|
| 34a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 400– 850 | 365– 460 | | 1 | |
| 34b | corn.drive VSO 1RS | TEUL4010- ... | 1 | 400–1450 | 461–3000 | | 1 | |
| 35 | stay AF sz 0 | TSKK2000- ... | 1 | 400– 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451– 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681– 850 | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851–1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051–1450 | | | 1 | |
| 36 | linkage AF sz 1 | TZZS0150- ... | 1 | 1251–1450 | | | | |
| 37a | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | 1 | 400–1450 | 461– 800 | | 1 | |
| | locking part VSU/K 56+ 1S 1RS | TEVR1340- ... | | 400– 850 | 365– 460 | | 1 | |
| 37b | corn.drive AF VSU/K 56+ 1S 1RS | TEUL5030- ... | 1 | 400–1450 | 801–3000 | | 1 | |
| 38a | run-up plate FH KRL56 | Ref. PDB, TRAL01 | 1 | 400–1450 | 461– 800 | | | |
| | run-up plate FH KRL56 | Ref. PDB, TRAL01 | | 400– 850 | 365– 460 | | | |
| 38b | run up block AF 13 mm 13 | TFFH0080- ... | 1 | 400–1450 | 801–3000 | | | |
| 39 | extension sz 1+ 1RS | TVSO0200- ... | 1 | 400– 450 | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451– 550 | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551– 680 | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681– 850 | | | 1 | |
| | extension sz 6+ 1RS | TVSL0360- ... | | 851–1050 | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051–1250 | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251–1450 | | | 1 | |
| 40 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051–1450 | | | 1 | |
| 41a | sec.sash gear 16 sz 30 | TGKS0010- ... | 1 | 400– 850 | 365– 460 | 183– 300 | | |
| | sec.sash gear 16 sz 30 | TGKS0010- ... | | | 461– 600 | 230– 300 | | |
| | sec.sash gear 16 AF 60/G300 | TGKS4030- ... | | | 601– 800 | 300– 400 | | |
| 41b | sec.sash gear 16 AF sz 80 1SB | TGMS4040- ... | 1 | | 801–1200 | 400– 600 | | |
| | sec.sash gear 16 AF sz 120 1SB | TGMS4050- ... | | | 1201–1600 | 600– 800 | | |
| | sec.sash gear 16 AF 160 2SB 70 | TGMS4130- ... | | | 1601–2000 | 800–1000 | | |
| | sec.sash gear 16 AF sz 200 2SB | TGMS4080- ... | | | 2001–3000 | 1000–1500 | | |
| 42 | linkage AF sz 1 1SB-RS | TZKS1020- ... | 1 | | 2401–2800 | | | |
| | linkage AF sz 2 1SB-RS | TZKS1030- ... | | | 2801–3000 | | | |
| 43 | linkage AF sz 1 1SB-VSU | TZKS1060- ... | 1 | | 2401–2800 | | | |
| | linkage AF sz 2 1SB-VSU | TZKS1070- ... | | | 2801–3000 | | | |
| 44a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 365–1000 | | | 1 |
| 44b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001–1200 | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201–3000 | | 1 | 1 |
| 45 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401–1600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601–2000 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001–3000 | | 1 | |
| 46 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401–2600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601–2800 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801–3000 | | 1 | |
| 47 | anti-lift device | Ref. PDB, TFAH | 1 | | 365–3000 | | | |
| 48 | striker plate S-RS | Ref. PDB, TRSK | | | | | | |
| 49 | striker plate S-RS WK2BSO | Ref. PDB, TRSK03 | | | | | | |
| | | | | on request | | | | |
| 50 | stop | Ref. PDB, FRZF04 | 1 | | 601–3000 | | | |
| 51 | striker snapper A0767 | TRST0010- ... | 1 | | 1601–3000 | | | |

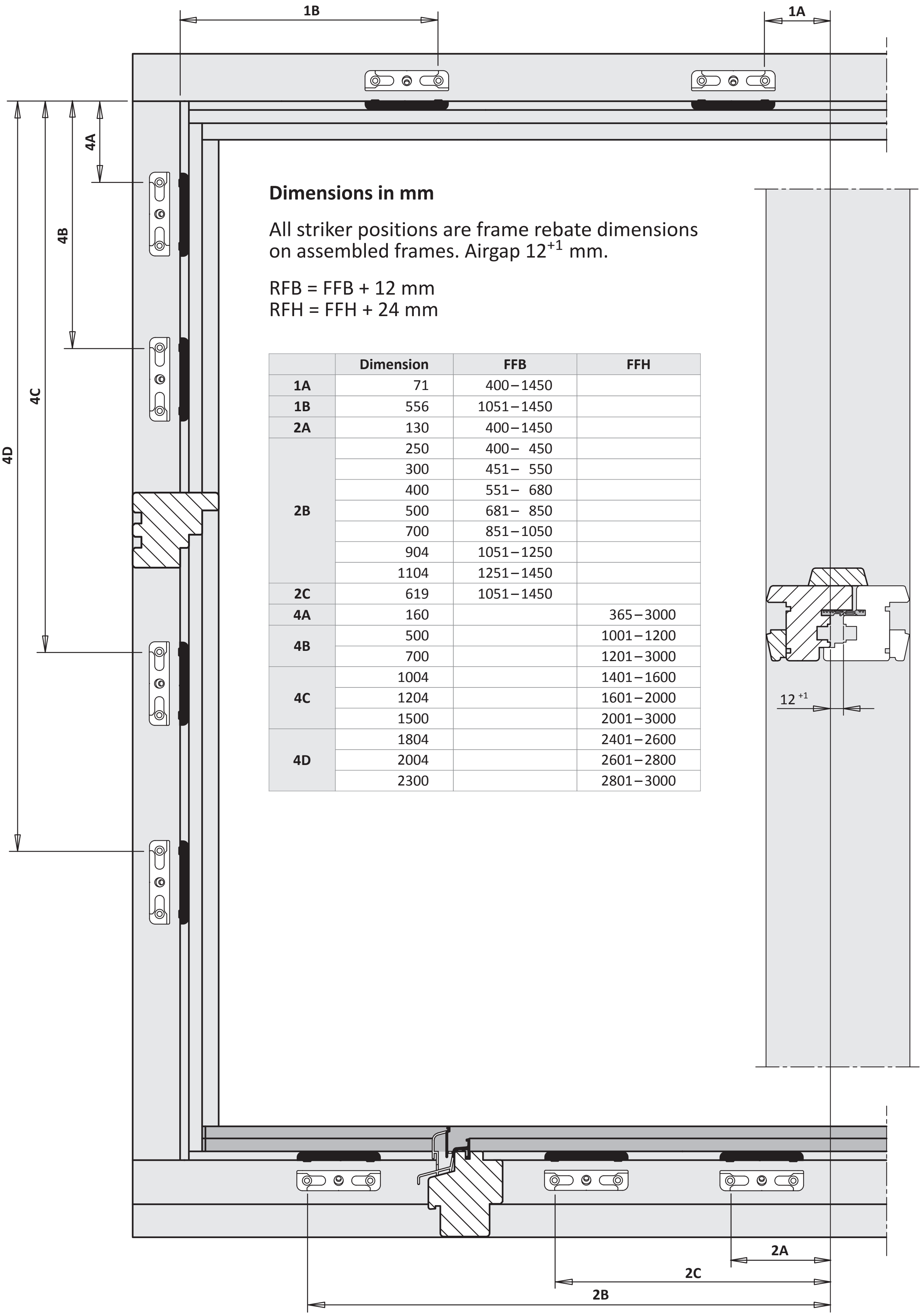
| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| **Pos.** | **Description** | **Part number** | | | **required as per sash weight** |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| **52** | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| **53** | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| **54** | top hinge | Ref. PDB, TBSL81 | | | 1 |
| **55** | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| **56** | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| **57** | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| **58** | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| **59** | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| **60** | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| **61** | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

# List of fittings main sash

2-sash square tilt-turn/turn DS 16
H12 GM Hinge side TITAN

| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 18 | 19 |
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 400– 850 | 365– 460 | | 1 | |
| 1b | corn.drive VSO 1RS | TEUL4010- ... | 1 | 400–1650 | 461–3000 | | 1 | |
| | stay AF sz 0 | TSKK2000- ... | | 400– 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451– 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681– 850 | | | | |
| 2 | stay AF sz 3 1RS | TSKK2030- ... | 1 | 851–1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051–1250 | | | 1 | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251–1450 | | | 1 | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451–1650 | | | 1 | |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251–1650 | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251–1650 | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251–1650 | | | | |
| 6a | corn.drive AFVSU/K56+nar.1S1RS | TEUL5100- ... | 1 | 400– 850 | 365– 460 | | 1 | |
| 6b | corn.drive AF VSU/K 56+ 1S 1RS | TEUL5030- ... | 1 | 400–1650 | 461–3000 | | 1 | |
| 7 | run up block AF 13 mm 13 | TFFH0080- ... | 1 | 400–1650 | | | | |
| | extension sz 1+ 1RS | TVSO0200- ... | | 400– 450 | | | 1 | |
| | extension sz 2+ 1RS | TVSL0320- ... | | 451– 550 | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 551– 680 | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 681– 850 | | | 1 | |
| 8 | extension sz 6+ 1RS | TVSL0360- ... | 1 | 851–1050 | | | 1 | |
| | extension sz 3+ 1RS | TVSL0330- ... | | 1051–1250 | | | 1 | |
| | extension sz 5+ 1RS | TVSL0350- ... | | 1251–1450 | | | 1 | |
| | extension sz 4+ 1RS | TVSL0340- ... | | 1451–1650 | | | 1 | |
| 9 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | 1051–1450 | | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | 1451–1650 | | | 1 | |
| | gear 15 AF sz 20 | TGMK4010- ... | | 400– 850 | 365– 460 | 183– 300 | | |
| | gear 15 AF sz 20 | TGMK4010- ... | | | 461– 600 | 230– 300 | | |
| | gear 15 AF sz 60 | TGMK4020- ... | | | 601–1000 | 300– 500 | | |
| 10 | gear 15 AF sz 80 1RS | TGMK4040- ... | 1 | | 1001–1200 | 500– 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 2RS | TGMK4080- ... | | | 2001–3000 | 1000–1500 | | |
| 11 | linkage KK/AF sz 1 1RS | TZKK1010- ... | 2 | | 2401–2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801–3000 | | | |
| 12 | handle Globe lockable 100Nm | Ref.access. ZHGA100 | 1 | | 365–3000 | | | |
| 13 | anti-drill guard E | TGBS0010- ... | 1 | | 365–3000 | | | |
| 14a | corn.drive BSO/K3+ 1RS | TEUL2400- ... | 1 | | 365–1000 | | | 1 |
| 14b | corn.drive BS/K3 sz 1+ 2RS | TEUL2380- ... | 1 | | 1001–1200 | | 1 | 1 |
| | corn.drive BS/K3 sz 2+ 2RS | TEUL2390- ... | | | 1201–3000 | | 1 | 1 |
| | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | | | 1401–1600 | | 1 | |
| 15 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | | 1601–2000 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001–3000 | | 1 | |
| | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | | | 2401–2600 | | 1 | |
| 16 | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | 1 | | 2601–2800 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801–3000 | | 1 | |
| 17 | anti-lift device | Ref. PDB, TFAH | 1 | | 365–3000 | | | |
| 18 | striker plate S-RS | Ref. PDB, TRSK | | | | | | |
| 19 | striker plate S-RS WK2BSO | Ref. PDB, TRSK03 | | | | | | |
| | | | **on request** | | | | | |
| 20 | tilt restrictor .. | TFKB0010- ... | 1 | | 365– 800 | | | |
| 21 | mishandling device | TFBS0010- ... | 1 | | 601–3000 | | | |
| 22 | pressure piece | Ref. PDB, TFFD | 1 | | 601–3000 | | | |
| 23 | snapper switchable rh. | TFST0011- ... | 1 | | 1601–3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1601–3000 | | | |

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| **Pos.** | **Description** | **Part number** | | | **required as per sash weight** |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| **24** | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| **25** | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| **26** | top hinge | Ref. PDB, TBSL81 | | | 1 |
| **27** | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| **28** | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| **29** | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| **30** | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| **31** | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| **32** | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| **33** | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |

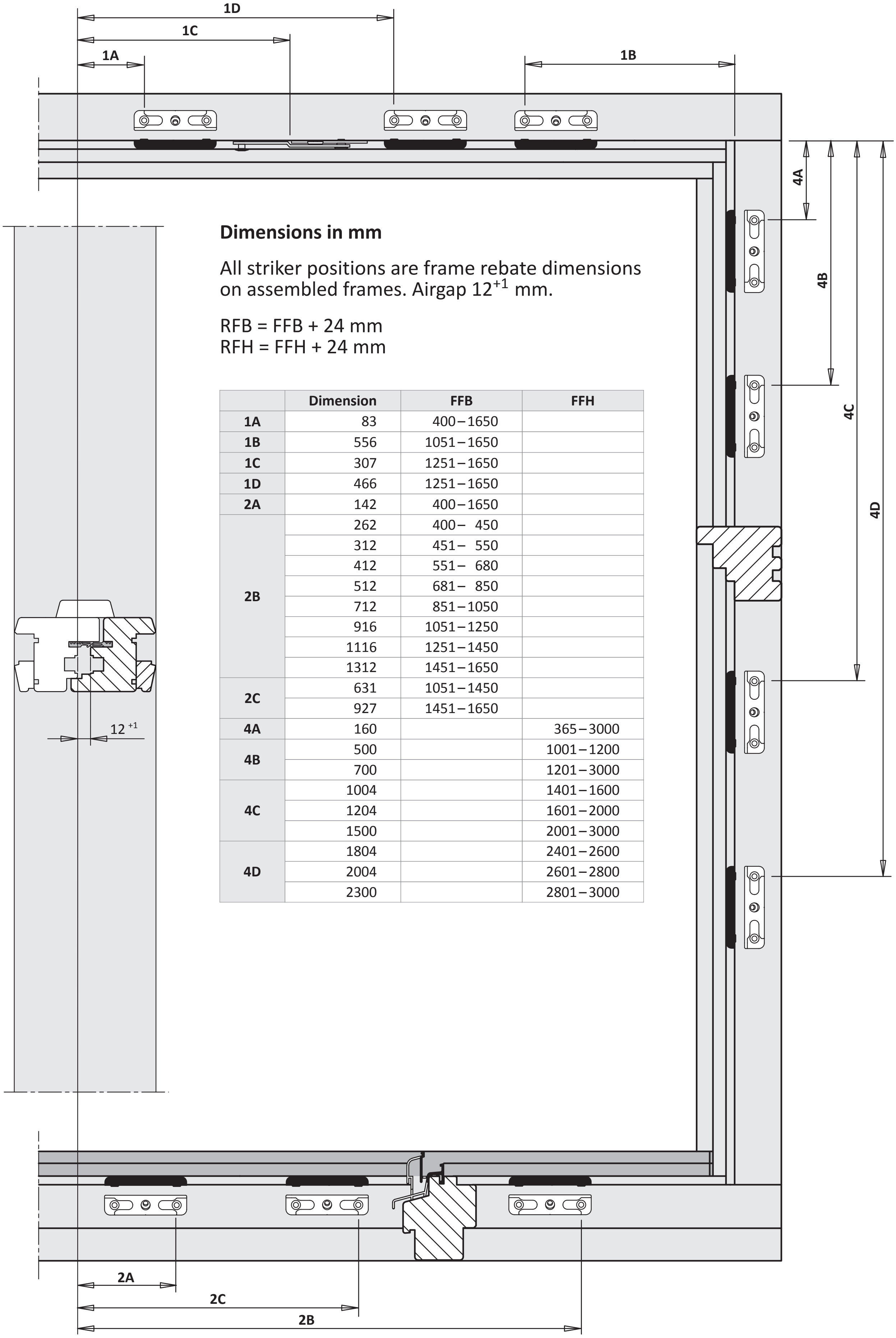



**Dimensions in mm**

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 | 400 – 1450 | |
| 1B | 556 | 1051 – 1450 | |
| 2A | 130 | 400 – 1450 | |
| 2B | 250 | 400 – 450 | |
| | 300 | 451 – 550 | |
| | 400 | 551 – 680 | |
| | 500 | 681 – 850 | |
| | 700 | 851 – 1050 | |
| | 904 | 1051 – 1250 | |
| | 1104 | 1251 – 1450 | |
| 2C | 619 | 1051 – 1450 | |
| 4A | 160 | | 365 – 3000 |
| 4B | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| 4C | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| 4D | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |




**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 | 400 – 1650 | |
| **1B** | 556 | 1051 – 1650 | |
| **1C** | 307 | 1251 – 1650 | |
| **1D** | 466 | 1251 – 1650 | |
| **2A** | 142 | 400 – 1650 | |
| **2B** | 262 | 400 – 450 | |
| | 312 | 451 – 550 | |
| | 412 | 551 – 680 | |
| | 512 | 681 – 850 | |
| | 712 | 851 – 1050 | |
| | 916 | 1051 – 1250 | |
| | 1116 | 1251 – 1450 | |
| | 1312 | 1451 – 1650 | |
| **2C** | 631 | 1051 – 1450 | |
| | 927 | 1451 – 1650 | |
| **4A** | 160 | | 365 – 3000 |
| **4B** | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| **4C** | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| **4D** | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

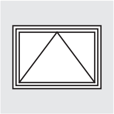
9

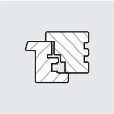
9

10

# TITAN AF

## Installation instructions





**GS**

1-sash square tilt

timber 12 mm

basic security

centre handle pos. (variable)

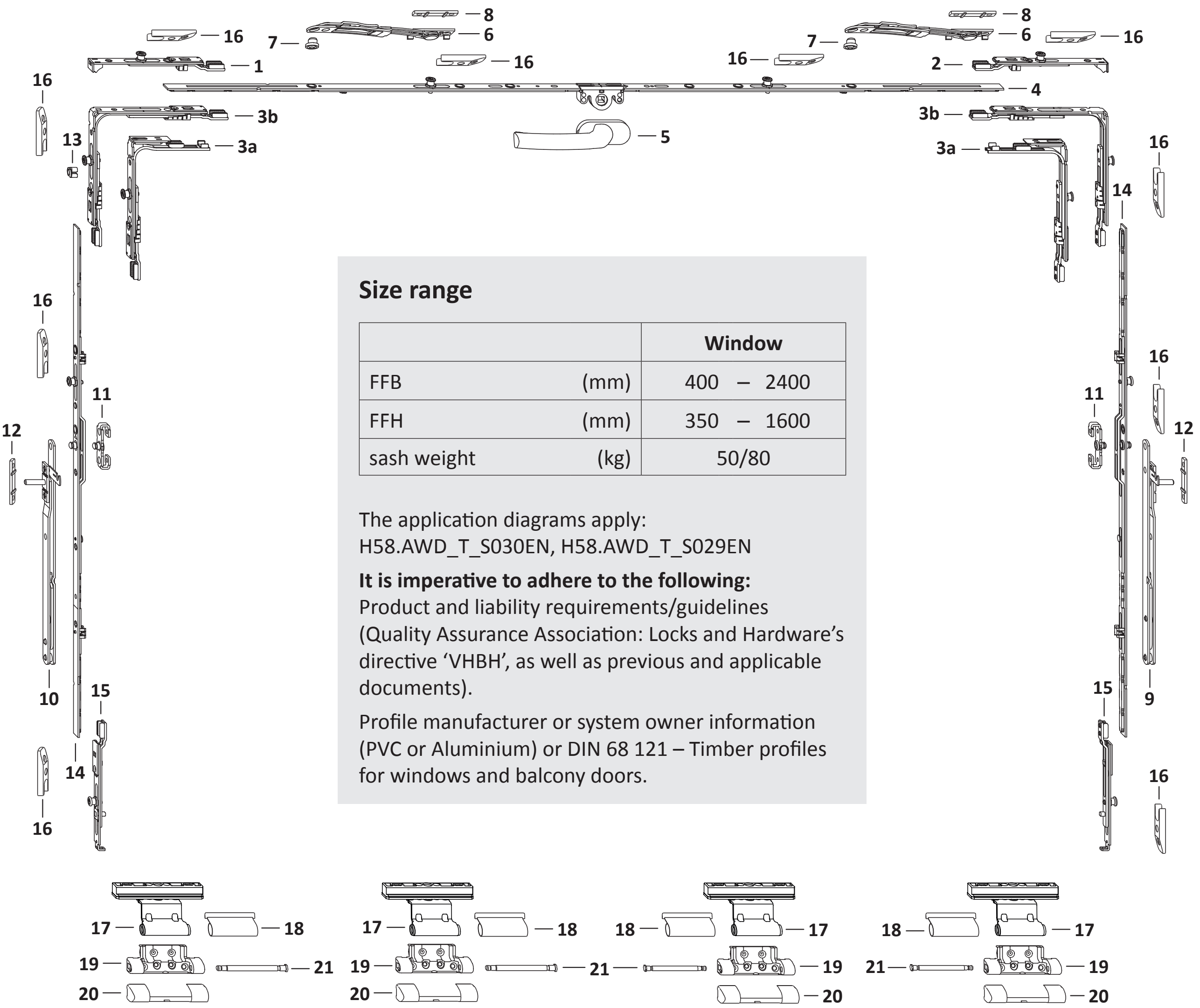
hinge side TITAN

surface TS

backset 15 mm

# Hardware layout

1-sash square tilt
H12 GM hinge side TITAN




## Size range

| | Window |
|---|---|
| FFB (mm) | 400 – 2400 |
| FFH (mm) | 350 – 1600 |
| sash weight (kg) | 50/80 |

The application diagrams apply:
H58.AWD_T_S030EN, H58.AWD_T_S029EN

**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).

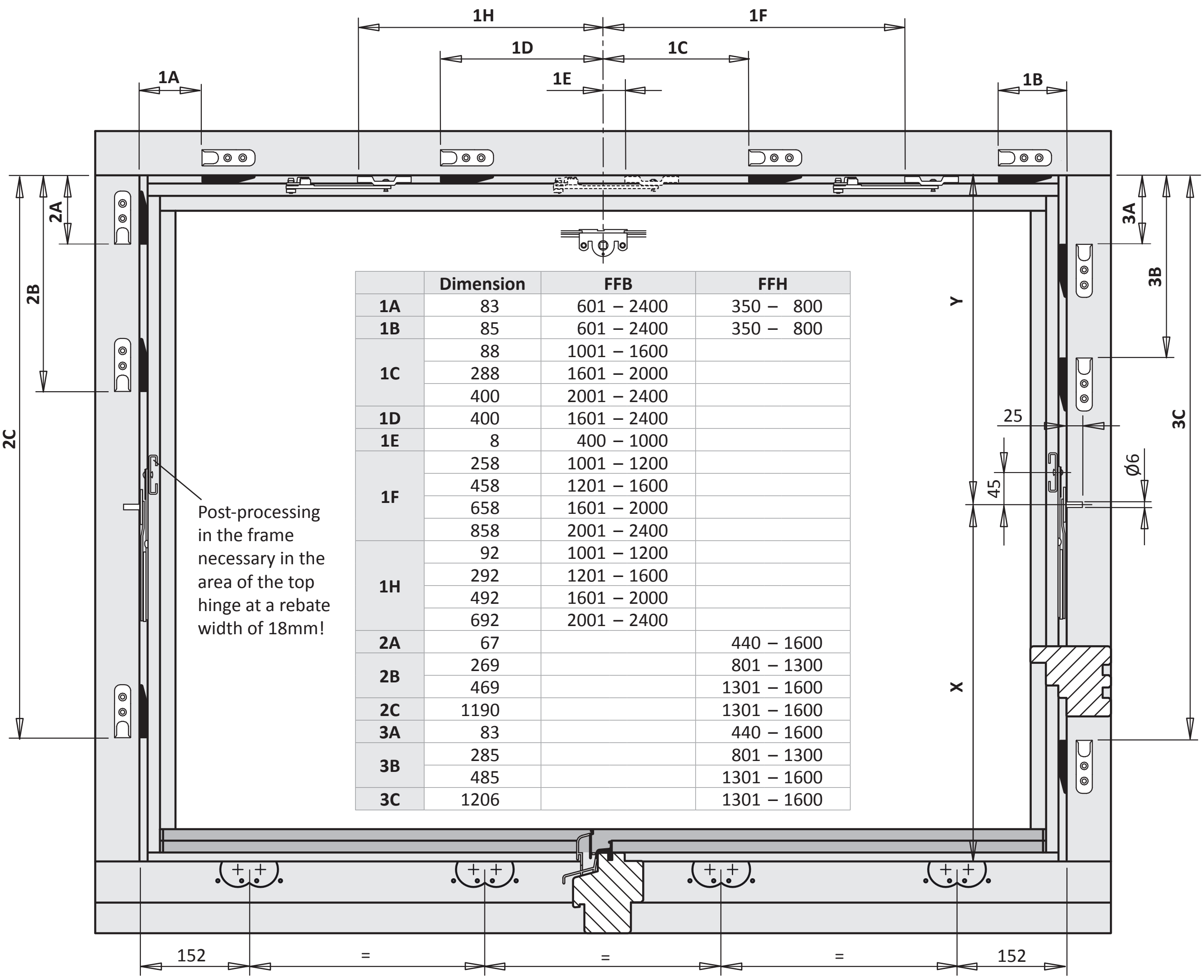
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber profiles for windows and balcony doors.

| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts Pos. 16 |
|---|---|---|---|---|---|---|---|
| 1 | locking bolt AF VS 180° 1RS | TESC2020–... | 1 | 601 – 2400 | 350 – 800 | | 1 |
| 2 | locking bolt AF tilt 90° 1RS | TESC2010–... | 1 | 601 – 2400 | 350 – 800 | | 1 |
| 3a | corner drive AF VSO narrow 1RS | TEUL4020–... | 2 | 400 – 600 | 440 – 1600 | | 2 |
| 3b | corner drive AF VSO 1RS | TEUL4010–... | | 601 – 2400 | 801 – 1600 | | 2 |
| 4 | gear 15 AF sz 60 | TGMK4020–... | 1 | 400 – 1000 | | 200 – 500 | |
| | gear 15 AF sz 80 1RS | TGMK4040–... | | 1001 – 1200 | | 500 – 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 2RS | TGMK4080–... | | 2001 – 2400 | | 1000 – 1200 | 2 |
| 5 | handle Globe | Ref.access. ZHGS | 1 | 400 – 2400 | | | |
| 6 | telescopic tilt only stay | TSKF0020–... | 1 | 400 – 1000 | | | |
| | | | 2 | 1001 – 2400 | | | |
| 7 | lock.bolt f.rais.ring facepl. | TFZB0050–... | 1 | 400 – 1000 | | | |
| | | | 2 | 1001 – 2400 | | | |
| 8 | packer RB/FPS | Ref. PDB, FRUP02 | 1 | 400 – 1000 | | | |
| | | | 2 | 1001 – 2400 | | | |
| 9 | tilt only safety stay 25 sz 1 rh | ASFP0031–... | 1 | 400 – 600 | 440 – 590 | | |
| | tilt only safety stay 25 sz 2 rh. | ASFP0041–... | | | 591 – 800 | | |
| | tilt only safety stay 25 sz 1 rh | ASFP0031–... | | | 801 – 1000 | | |
| | tilt only safety stay 25 sz 2 rh. | ASFP0041–... | | | 1001 – 1600 | | |
| | tilt only safety stay 25 sz 1 rh | ASFP0031–... | | 601 – 2400 | 350 – 500 | | |
| | tilt only safety stay 25 sz 2 rh. | ASFP0041–... | | | 501 – 800 | | |
| | tilt only safety stay 25 sz 1 rh | ASFP0031–... | | | 801 – 1000 | | |
| | tilt only safety stay 25 sz 2 rh. | ASFP0041–... | | | 1001 – 1600 | | |
| 10 | tilt only safety stay 25 sz 1 lh | ASFP0032–... | 1 | 400 – 600 | 440 – 590 | | |
| | tilt only safety stay 25 sz 2 lh | ASFP0042–... | | | 591 – 800 | | |
| | tilt only safety stay 25 sz 1 lh | ASFP0032–... | | | 801 – 1000 | | |
| | tilt only safety stay 25 sz 2 lh | ASFP0042–... | | | 1001 – 1600 | | |
| | tilt only safety stay 25 sz 1 lh | ASFP0032–... | | 601 – 2400 | 350 – 500 | | |
| | tilt only safety stay 25 sz 2 lh | ASFP0042–... | | | 501 – 800 | | |
| | tilt only safety stay 25 sz 1 lh | ASFP0032–... | | | 801 – 1000 | | |
| | tilt only safety stay 25 sz 2 lh | ASFP0042–... | | | 1001 – 1600 | | |
| 11 | fixing claw UGRP | ZFFP0010–... | 2 | | 350 – 800 | | |
| 12 | packer RB/FPS | Ref. PDB, FRUP02 | 2 | | 350 – 1600 | | |
| 13 | travel restrictor | TFHB0010–... | 1 | | 440 – 1600 | | |
| 14 | linkage FPS/ZZ 1RS (200 mm cutting above) | TZZZ0040–... | 2 | | 801 – 1300 | | 2 |
| | linkage FPS/ZZ 1RS | | | | 1301 – 1600 | | |
| 15 | locking bolt AF VSU/K 1RS | TESC3020–... | 2 | | 1301 – 1600 | | 2 |
| 16 | striker plate 56 | Ref. PDB, FRSB | | | | | |

| Hinge side turning points | | | | | | | |
|---|---|---|---|---|---|---|---|
| Pos. | Description | Part number | | | QTY - FFB | | |
| | | surface TS | RAL9016 | RAL8022 | 400 – 1000 | 1001 – 1800 | 1801 – 2400 |
| 17 | tilt sash hinge H | Ref. PDB, TBKF81 | | | 2 | 3 | 4 |
| 18 | cover cap W H | | TKWB7010– 004... | TKWB7010– 012... | 2 | 3 | 4 |
| 19 | top hinge H | Ref. PDB, TBSL81 | | | 2 | 3 | 4 |
| 20 | cover cap S | | TKSL0010– 004... | TKSL0010– 012... | 2 | 3 | 4 |
| 21 | top hinge pin Poly | TBSB6020– 1... | | | 2 | 3 | 4 |

# Frame dimensions

1-sash square tilt
H12 GM hinge side TITAN




| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 601 – 2400 | 350 – 800 |
| 1B | 85 | 601 – 2400 | 350 – 800 |
| 1C | 88 | 1001 – 1600 | |
| | 288 | 1601 – 2000 | |
| | 400 | 2001 – 2400 | |
| 1D | 400 | 1601 – 2400 | |
| 1E | 8 | 400 – 1000 | |
| 1F | 258 | 1001 – 1200 | |
| | 458 | 1201 – 1600 | |
| | 658 | 1601 – 2000 | |
| | 858 | 2001 – 2400 | |
| 1H | 92 | 1001 – 1200 | |
| | 292 | 1201 – 1600 | |
| | 492 | 1601 – 2000 | |
| | 692 | 2001 – 2400 | |
| 2A | 67 | | 440 – 1600 |
| 2B | 269 | | 801 – 1300 |
| | 469 | | 1301 – 1600 |
| 2C | 1190 | | 1301 – 1600 |
| 3A | 83 | | 440 – 1600 |
| 3B | 285 | | 801 – 1300 |
| | 485 | | 1301 – 1600 |
| 3C | 1206 | | 1301 – 1600 |

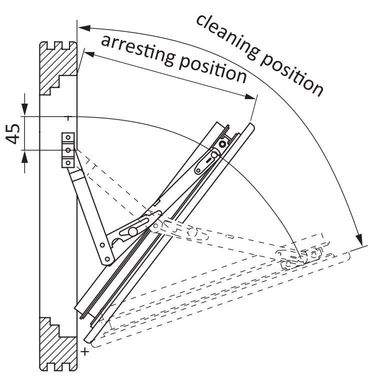
**Dimensions in mm**

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

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

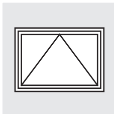
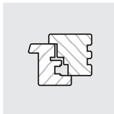


| 50 kg | Dim. | FFB | FFH | ASFP | Opening width – arresting position | Opening angle – cleaning position |
|---|---|---|---|---|---|---|
| X | 230 | 601 – 2400 | 350 – 500 | Gr.1 | 278 – 385 | ca. 78° |
| | 370 | | 501 – 800 | Gr.2 | 238 – 370 | ca. 80° |
| 80 kg | | | | | | |
| Y | 272 | 400 – 600 | 440 – 590 | Gr.1 | 400 – 319 | 95° – 53° |
| | 272 | | 591 – 800 | Gr.2 | 298 – 258 | 87° – 53° |
| | 402 | | 801 – 1000 | Gr.1 | 351 – 305 | 43° – 30° |
| | 402 | | 1001 – 1300 | Gr.2 | 285 – 253 | 47° – 32° |
| | 602 | | 1301 – 1600 | Gr.2 | 319 – 281 | 40° – 29° |
| | 120 | 601 – 2400 | 350 – 500 | Gr.1 | 256 – 235 | 71° – 45° |
| | 120 | | 501 – 800 | Gr.2 | 220 – 205 | 72° – 41° |
| | 402 | | 801 – 1000 | Gr.1 | 351 – 305 | 43° – 30° |
| | 402 | | 1001 – 1300 | Gr.2 | 285 – 253 | 47° – 32° |
| | 602 | | 1301 – 1600 | Gr.2 | 319 – 281 | 40° – 29° |



# TITAN AF

## Installation instructions

  **RC1**

1-sash square tilt

timber 12 mm

RC1

centre handle pos. (variable)

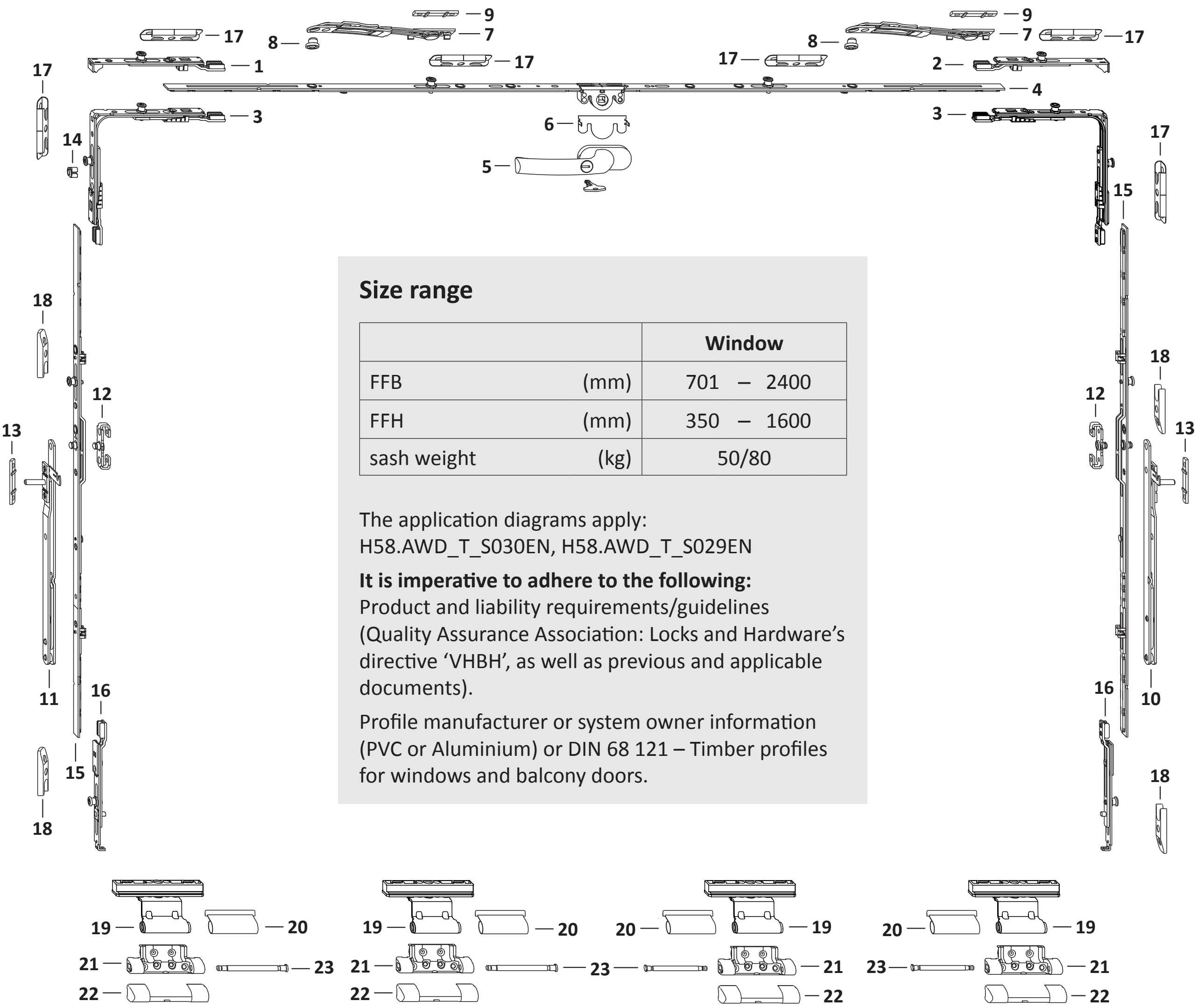
hinge side TITAN

surface TS

backset 15 mm

# Hardware layout

1-sash square tilt
H12 GM hinge side TITAN



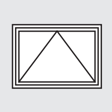

## Size range

| | Window |
|---|---|
| FFB (mm) | 701 – 2400 |
| FFH (mm) | 350 – 1600 |
| sash weight (kg) | 50/80 |

The application diagrams apply:
H58.AWD_T_S030EN, H58.AWD_T_S029EN

**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.



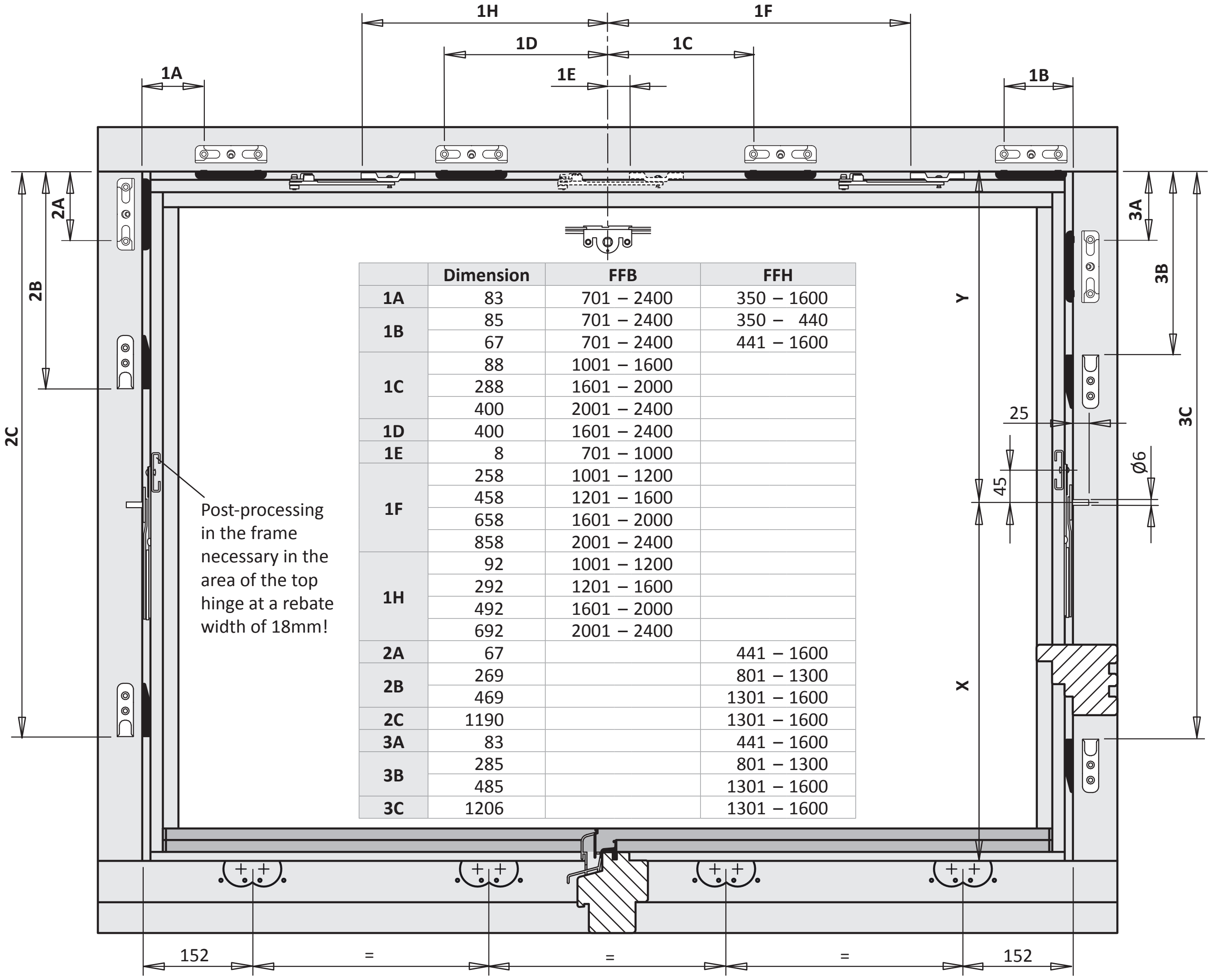
| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts Pos. 17 | Number of frame parts Pos. 18 |
|---|---|---|---|---|---|---|---|---|
| 1 | locking bolt AF VS 180° 1RS | TESC2020–... | 1 | 701 – 2400 | 350 – 440 | | 1 | |
| 2 | locking bolt AF tilt 90° 1RS | TESC2010–... | 1 | 701 – 2400 | 350 – 440 | | 1 | |
| 3 | corner drive AF VSO 2RS A0055 | TEUL4070–... | 2 | 701 – 2400 | 441 – 1600 | | 4 | |
| 4 | gear 15 AF sz 70 1RS | TGMK4030–... | 1 | 701 – 1000 | | 350 – 500 | 1 | |
| | gear 15 AF sz 80 1RS | TGMK4040–... | | 1001 – 1200 | | 500 – 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 2RS | TGMK4080–... | | 2001 – 2400 | | 1000 – 1200 | 2 | |
| 5 | handle Globe lockable 100Nm | Ref.access. ZHGA100 | 1 | 701 – 2400 | | | | |
| 6 | anti-drill guard E | TGBS0010–... | 1 | 701 – 2400 | | | | |
| 7 | telescopic tilt only stay | TSKF0020–... | 1 | 701 – 1000 | | | | |
| | | | 2 | 1001 – 2400 | | | | |
| 8 | lock.bolt f.rais.ring facepl. | TFZB0050–... | 1 | 701 – 1000 | | | | |
| | | | 2 | 1001 – 2400 | | | | |
| 9 | packer RB/FPS | Ref. PDB, FRUP02 | 1 | 701 – 1000 | | | | |
| | | | 2 | 1001 – 2400 | | | | |
| 10 | tilt only safety stay 25 sz 1 rh | ASFP0031–... | 1 | 701 – 2400 | 350 – 590 | | | |
| | tilt only safety stay 25 sz 2 rh | ASFP0041–... | | | 591 – 800 | | | |
| | tilt only safety stay 25 sz 1 rh | ASFP0031–... | | | 801 – 1000 | | | |
| | tilt only safety stay 25 sz 2 rh | ASFP0041–... | | | 1001 – 1600 | | | |
| 11 | tilt only safety stay 25 sz 1 lh | ASFP0032–... | 1 | 701 – 2400 | 350 – 590 | | | |
| | tilt only safety stay 25 sz 2 lh | ASFP0042–... | | | 591 – 800 | | | |
| | tilt only safety stay 25 sz 1 lh | ASFP0032–... | | | 801 – 1000 | | | |
| | tilt only safety stay 25 sz 2 lh | ASFP0042–... | | | 1001 – 1600 | | | |
| 12 | fixing claw UGRP | ZFFP0010–... | 2 | | 350 – 800 | | | |
| 13 | packer RB/FPS | Ref. PDB, FRUP02 | 2 | | 350 – 1600 | | | |
| 14 | travel restrictor | TFHB0010–... | 1 | | 441 – 1600 | | | |
| 15 | linkage FPS/ZZ 1RS (200 mm cutting above) | TZZZ0040–... | 2 | | 801 – 1300 | | | 2 |
| | linkage FPS/ZZ 1RS | | | | 1301 – 1600 | | | |
| 16 | locking bolt AF VSU/K 1RS | TESC3020–... | 2 | | 1301 – 1600 | | | 2 |
| 17 | striker plate SL-RS | Ref. PDB, TRSK | | | | | | |
| 18 | striker plate 56 | Ref. PDB, FRSB | | | | | | |

**Hinge side turning points**

| Pos. | Description | Part number surface TS | Part number RAL9016 | Part number RAL8022 | QTY - FFB 701 – 1800 | QTY - FFB 1801 – 2400 |
|---|---|---|---|---|---|---|
| 19 | tilt sash hinge H | Ref. PDB, TBKF81 | | | 3 | 4 |
| 20 | cover cap W H | | TKWB7010– 004... | TKWB7010– 012... | 3 | 4 |
| 21 | top hinge H | Ref. PDB, TBSL81 | | | 3 | 4 |
| 22 | cover cap S | | TKSL0010– 004... | TKSL0010– 012... | 3 | 4 |
| 23 | top hinge pin Poly | TBSB6020– 1... | | | 3 | 4 |

# Frame dimensions

1-sash square tilt
H12 GM hinge side TITAN



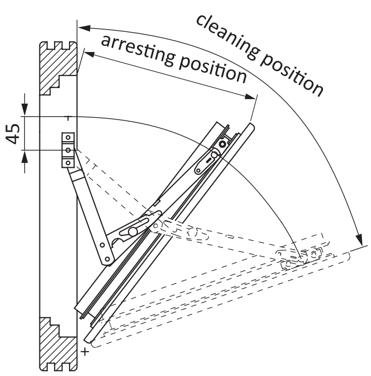

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 701 – 2400 | 350 – 1600 |
| 1B | 85 | 701 – 2400 | 350 – 440 |
| | 67 | 701 – 2400 | 441 – 1600 |
| 1C | 88 | 1001 – 1600 | |
| | 288 | 1601 – 2000 | |
| | 400 | 2001 – 2400 | |
| 1D | 400 | 1601 – 2400 | |
| 1E | 8 | 701 – 1000 | |
| 1F | 258 | 1001 – 1200 | |
| | 458 | 1201 – 1600 | |
| | 658 | 1601 – 2000 | |
| | 858 | 2001 – 2400 | |
| 1H | 92 | 1001 – 1200 | |
| | 292 | 1201 – 1600 | |
| | 492 | 1601 – 2000 | |
| | 692 | 2001 – 2400 | |
| 2A | 67 | | 441 – 1600 |
| 2B | 269 | | 801 – 1300 |
| | 469 | | 1301 – 1600 |
| 2C | 1190 | | 1301 – 1600 |
| 3A | 83 | | 441 – 1600 |
| 3B | 285 | | 801 – 1300 |
| | 485 | | 1301 – 1600 |
| 3C | 1206 | | 1301 – 1600 |

**Dimensions in mm**

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

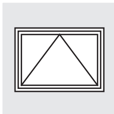
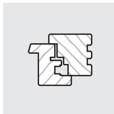
RFB = FFB + 24 mm
RFH = FFH + 24 mm

| 50 kg | Dim. | FFB | FFH | ASFP | Opening width – arresting position | Opening angle – cleaning position |
|---|---|---|---|---|---|---|
| X | 230 | 701 – 2400 | 350 – 440 | Gr.1 | 278 – 343 | ca. 78° |
| 80 kg | | | | | | |
| Y | 272 | 701 – 2400 | 441 – 590 | Gr.1 | 400 – 319 | 95° – 53° |
| | 272 | | 591 – 800 | Gr.2 | 298 – 258 | 87° – 53° |
| | 402 | | 801 – 1000 | Gr.1 | 351 – 305 | 43° – 30° |
| | 402 | | 1001 – 1300 | Gr.2 | 285 – 253 | 47° – 32° |
| | 602 | | 1301 – 1600 | Gr.2 | 319 – 281 | 40° – 29° |



# TITAN AF

## Installation instructions

  **RC2**

1-sash square tilt

timber 12 mm

RC2

centre handle pos. (variable)

hinge side TITAN

surface TS

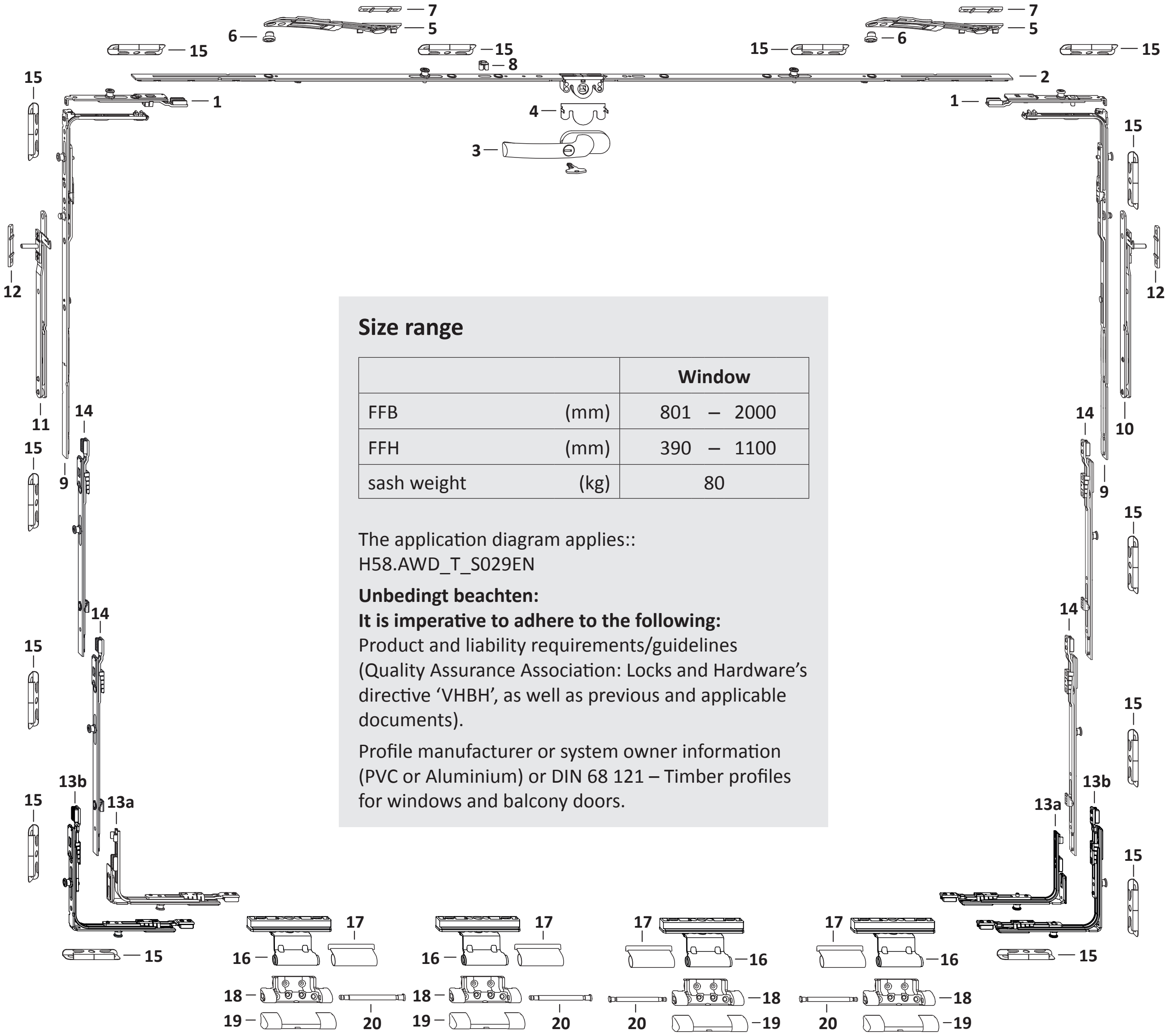
backset 15 mm

10

# Hardware layout

1-sash square tilt

H12 GM hinge side TITAN



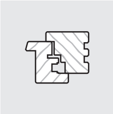
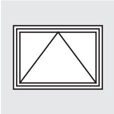

## Size range

| | Window |
|---|---|
| FFB (mm) | 801 – 2000 |
| FFH (mm) | 390 – 1100 |
| sash weight (kg) | 80 |

The application diagram applies::
H58.AWD_T_S029EN

**Unbedingt beachten:**
**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.

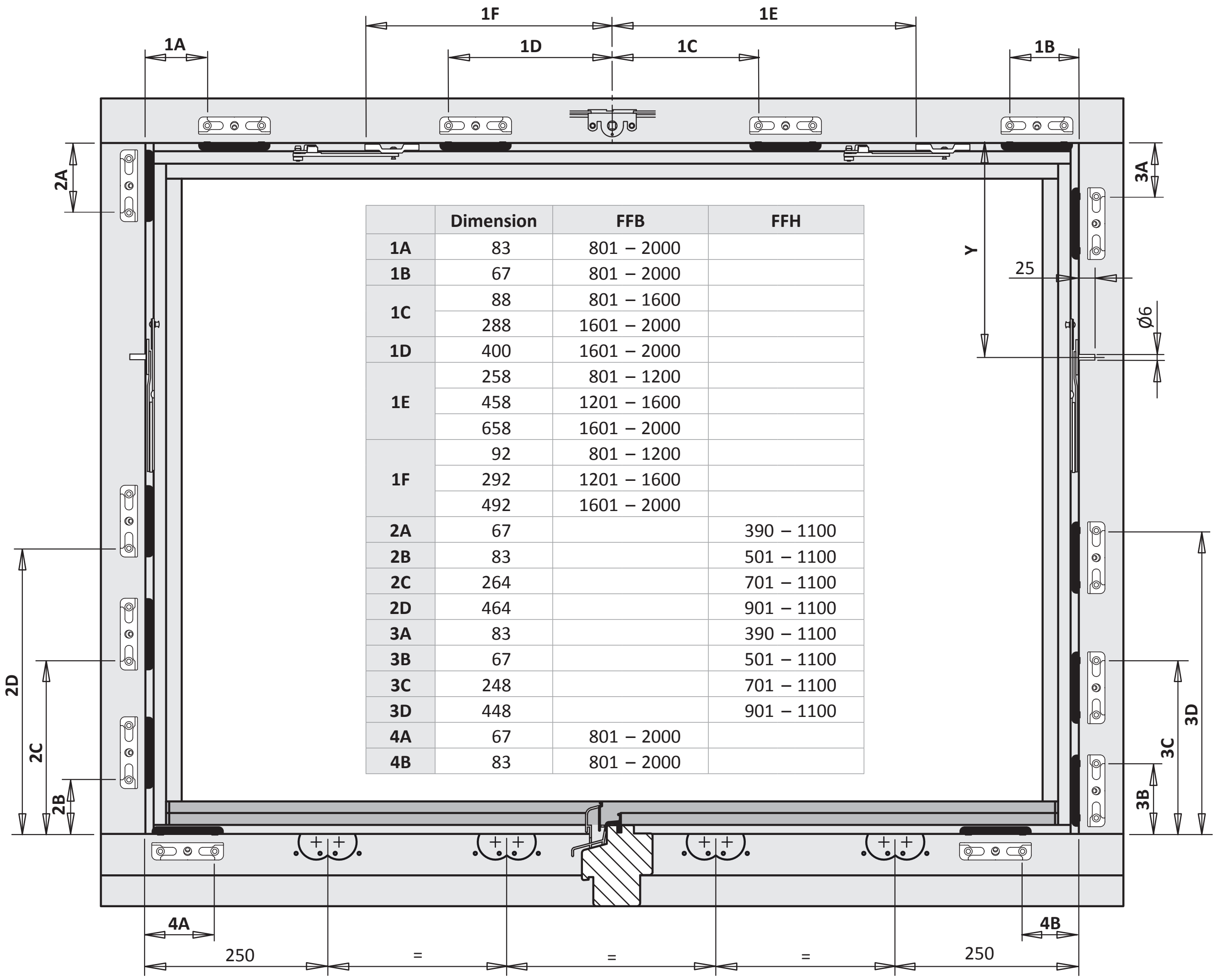


| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts Pos. 15 |
|---|---|---|---|---|---|---|---|
| **1** | locking bolt AF VSU/K 1RS | TESC3020–... | 2 | 801 – 2000 | | | 2 |
| **2** | gear 15 AF sz 80 1RS | TGMK4040–... | 1 | 801 – 1200 | | 400 – 600 | 1 |
| | gear 15 AF sz 120 1RS | TGMK4050–... | | 1201 – 1600 | | 600 – 800 | 1 |
| | gear 15 AF sz 160 2RS 70 | TGMK4170–... | | 1601 – 2000 | | 800 – 1000 | 2 |
| **3** | handle Globe lockable 100Nm | Ref.access. ZHGA100 | 1 | 801 – 2000 | | | |
| **4** | anti-drill guard E | TGBS0010–... | 1 | 801 – 2000 | | | |
| **5** | telescopic tilt only stay | TSKF0020–... | 2 | 801 – 2000 | | | |
| **6** | lock.bolt f.rais.ring facepl. | TFZB0050–... | 2 | 801 – 2000 | | | |
| **7** | packer RB/FPS | Ref. PDB, FRUP02 | 2 | 801 – 2000 | | | |
| **8** | travel restrictor | TFHB0010–... | 1 | 801 – 2000 | | | |
| **9** | locking part FPS/A 1RS | TEVR0380–... | 2 | | 390 – 1100 | | 2 |
| **10** | tilt only safety stay 25 sz 1 rh | ASFP0031–... | 1 | | 390 – 1100 | | |
| **11** | tilt only safety stay 25 sz 1 lh | ASFP0032–... | 1 | | 390 – 1100 | | |
| **12** | packer RB/FPS | Ref. PDB, FRUP02 | 2 | | 390 – 1100 | | |
| **13a** | corner drive AF VSO narrow 1RS | TEUL4020–... | 2 | | 390 – 500 | | 2 |
| **13b** | corner drive AF VSO 2RS | TEUL4070–... | | | 501 – 1100 | | 4 |
| **14** | linkage KK/AF sz 1 1RS | TZKK1010–... | 2 | | 701 – 900 | | 2 |
| | | | 4 | | 901 – 1100 | | 4 |
| **15** | striker plate SL-RS | Ref. PDB, TRSK | | | | | |

| Hinge side turning points | | | | | | | |
|---|---|---|---|---|---|---|---|
| Pos. | Description | Part number | | | QTY - FFB | | |
| | | surface TS | RAL9016 | RAL8022 | 801 – 1200 | 1201 – 1600 | 1601 – 2000 |
| **16** | tilt sash hinge H | Ref. PDB, TBKF81 | | | 2 | 3 | 4 |
| **17** | cover cap W H | | TKWB7010– 004... | TKWB7010– 012... | 2 | 3 | 4 |
| **18** | top hinge H | Ref. PDB, TBSL81 | | | 2 | 3 | 4 |
| **19** | cover cap S | | TKSL0010– 004... | TKSL0010– 012... | 2 | 3 | 4 |
| **20** | top hinge pin Poly | TBSB6020– 1... | | | 2 | 3 | 4 |

# Frame dimensions

1-sash square tilt
H12 GM hinge side TITAN



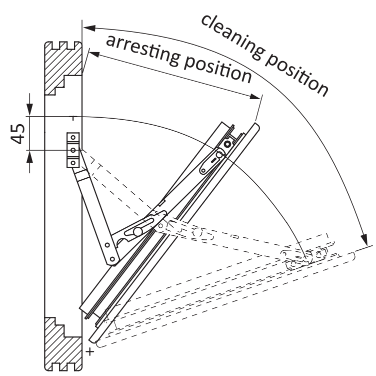

| | Dimension | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 801 – 2000 | |
| 1B | 67 | 801 – 2000 | |
| 1C | 88 | 801 – 1600 | |
| | 288 | 1601 – 2000 | |
| 1D | 400 | 1601 – 2000 | |
| 1E | 258 | 801 – 1200 | |
| | 458 | 1201 – 1600 | |
| | 658 | 1601 – 2000 | |
| 1F | 92 | 801 – 1200 | |
| | 292 | 1201 – 1600 | |
| | 492 | 1601 – 2000 | |
| 2A | 67 | | 390 – 1100 |
| 2B | 83 | | 501 – 1100 |
| 2C | 264 | | 701 – 1100 |
| 2D | 464 | | 901 – 1100 |
| 3A | 83 | | 390 – 1100 |
| 3B | 67 | | 501 – 1100 |
| 3C | 248 | | 701 – 1100 |
| 3D | 448 | | 901 – 1100 |
| 4A | 67 | 801 – 2000 | |
| 4B | 83 | 801 – 2000 | |

**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

| 80 kg | Dim. | FFB | FFH | ASFP | Opening width – arresting position | Opening angle – cleaning position |
|---|---|---|---|---|---|---|
| Y | 201 | 801 – 2000 | 390 – 1100 | Gr.1 | 328 – 230 | 84° – 20° |

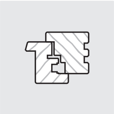


**Basic security**

11

# TITAN AF

## Installation instructions

  GS

**AEROCONTROL**

1-sash square tilt-turn

timber 12 mm

basic security

fixed handle position and centre handle pos. (variable)

surface TS

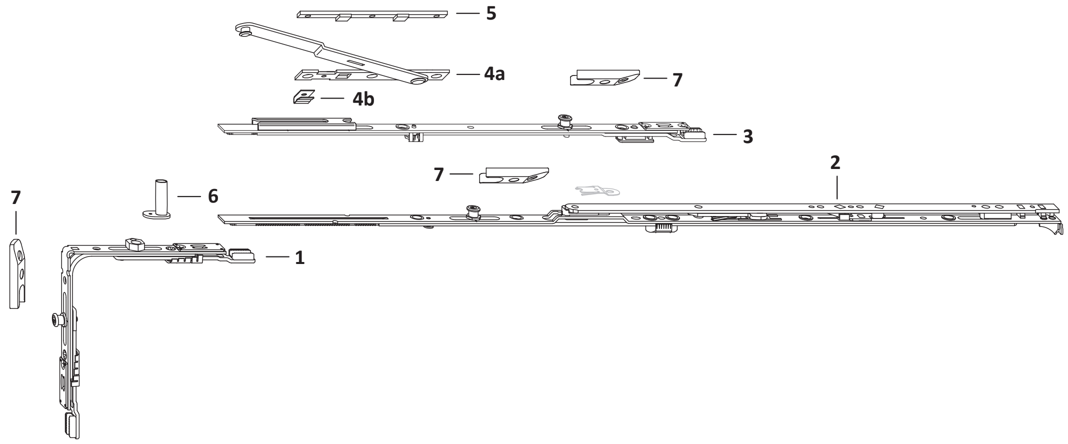


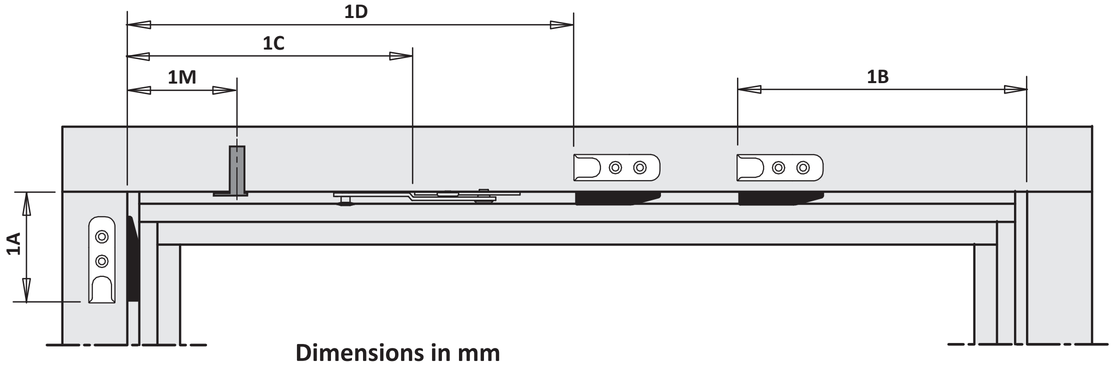
All further necessary information on the AEROCONTROL programme (opening and closure monitoring) like magnetic switches, assembly and connection instructions and the extensive accessory programme can be taken from our separate product catalogue DRIVE - AEROCONTROL.

# AEROCONTROL

1-sash square tilt-turn
Timber 12 mm

## FFB 330 – 1650




### 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

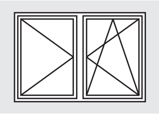
| | Dimension | FFB |
|---|---|---|
| **1M** | 103 | 330 – 1650 |
| **1A** | 67 | 330 – 1650 |
| **1B** | 556 | 1051 – 1650 |
| **1C** | 307 | 1251 – 1650 |
| **1D** | 466 | 1251 – 1650 |

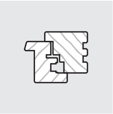
11

| Pos. | Description | Part number | QTY | FFB | FFH G - fixed | FFH G - centre | Frame Parts Pos. 7 |
|---|---|---|---|---|---|---|---|
| 1 | corner drive AF VSO UE 1M 1RS | TEUL4100–... | 1 | 330 – 1650 | 410 – 3000 | 460 – 3000 | 1 |
| | stay AF sz 0 | TSKK2000–... | | 330 – 450 | | | |
| | stay AF sz 1 | TSKK2010–... | | 451 – 680 | | | |
| | stay AF sz 2 | TSKK2020–... | | 681 – 850 | | | |
| 2 | stay AF sz 3 1RS | TSKK2030–... | 1 | 851 – 1050 | | | |
| | stay AF sz 4 1RS | TSKK2040–... | | 1051 – 1250 | | | 1 |
| | stay AF sz 3 1RS | TSKK2030–... | | 1251 – 1450 | | | 1 |
| | stay AF sz 4 1RS | TSKK2040–... | | 1451 – 1650 | | | 1 |
| 3 | linkage additional stay 1RS | TZOK1010–... | 1 | 1251 – 1650 | | | 1 |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | |
| 5 | packer Z A.... | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | |
| 6 | UMS001 VdS-contr. 4p. 6M (25 pieces) | 315101 | 1 | 330 – 1650 | | | |
| 7 | striker plate 56 A.... | Ref. PDB, FRSB | | | | | |

# TITAN AF

## Installation instructions





GS

**AEROCONTROL**

2-sash square tilt-turn/turn DS 16

timber 12 mm

basic security

fixed handle position and centre handle pos. (variable)

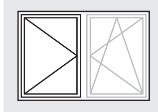
surface TS

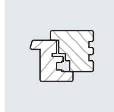
11

All further necessary information on the AEROCONTROL programme (opening and closure monitoring) like magnetic switches, assembly and connection instructions and the extensive accessory programme can be taken from our separate product catalogue DRIVE - AEROCONTROL.

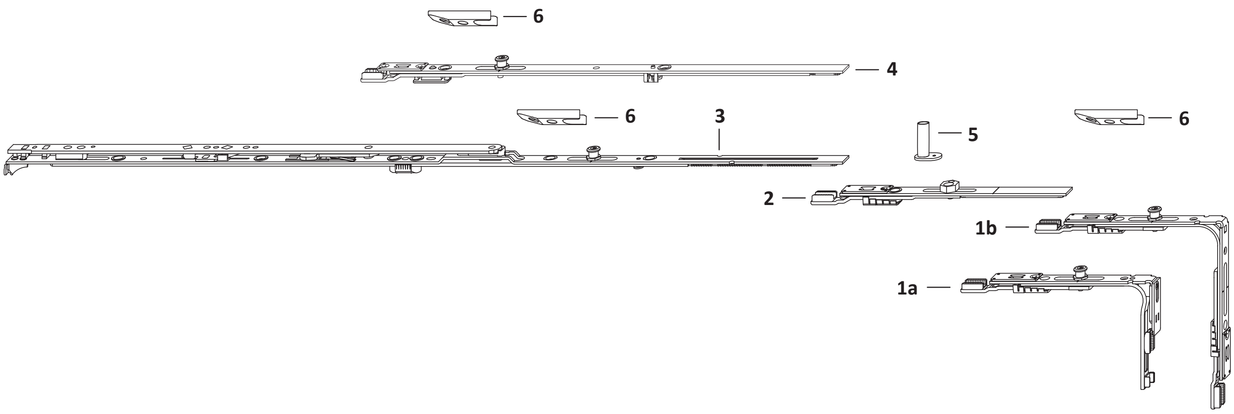
# AEROCONTROL slave sash

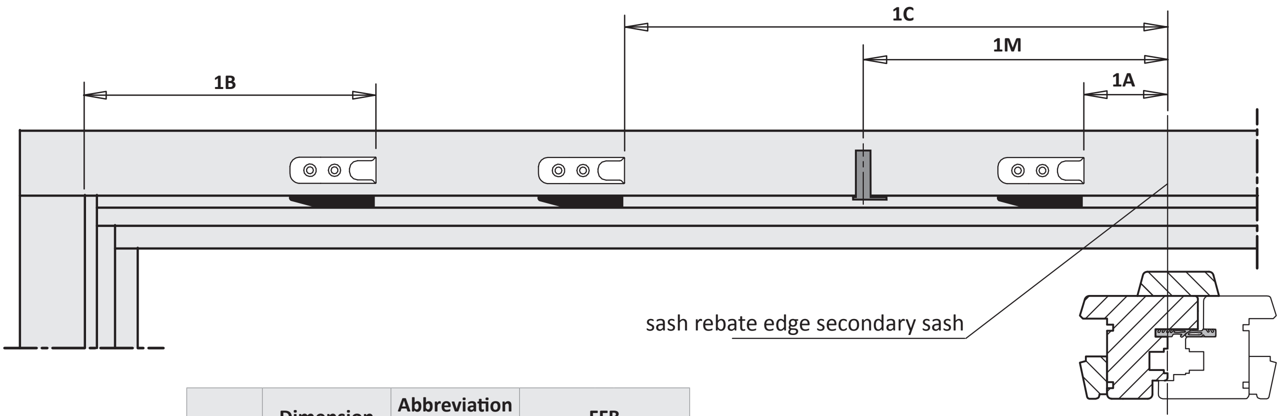
2-sash square tilt-turn/turn DS 16
Timber 12 mm





**FFB 465 – 1480**



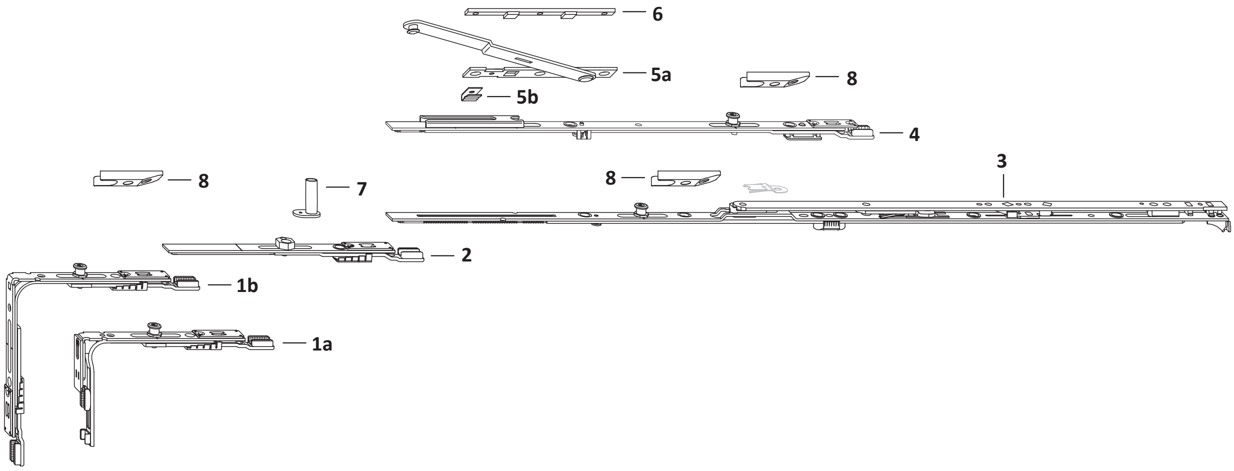

| | Dimension | Abbreviation Pos. 2 | FFB |
|---|---|---|---|
| 1M | 209 | 65 | 465 – 530 |
| | 274 | | 531 – 1480 |
| 1A | 71 | | 465 – 1480 |
| 1B | 556 | | 1081 – 1250 |
| 1C | 654 | | 1251 – 1480 |

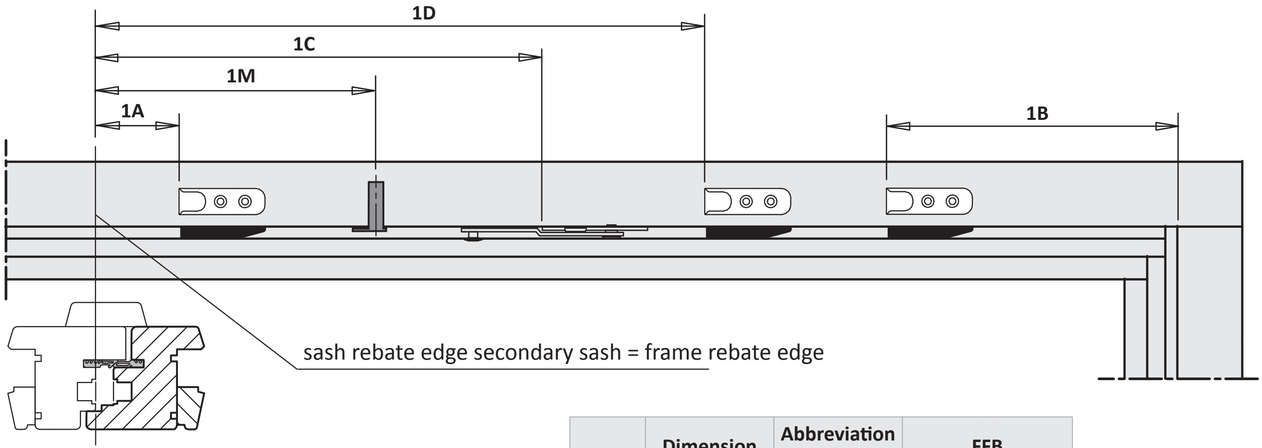
**Dimensions in mm**
All striker positions are frame rebate dimensions on assembled frames. Airgap $12^{+1}$ mm.
RFB = FFB + 12 mm
RFH = FFH + 24 mm

11

| Pos. | Description | Part number | QTY | FFB | FFH G - fixed | FFH G - centre | Frame Parts Pos. 6 |
|---|---|---|---|---|---|---|---|
| 1a | corner drive AF VSO narrow 1RS | TEUL4020–... | 1 | 465 – 1480 | 310 – 410 | 310 – 460 | 1 |
| 1b | corner drive AF VSO 1RS | TEUL4010–... | | 465 – 1480 | 411 – 3000 | 461 – 3000 | 1 |
| 2 | linkage AF UE sz 1 1M | TZZS0160–... | 1 | 465 – 1480 | | | |
| 3 | stay AF sz 0 | TSKK2000–... | 1 | 465 – 680 | | | |
| | stay AF sz 1 | TSKK2010–... | | 681 – 880 | | | |
| | stay AF sz 2 | TSKK2020–... | | 881 – 1080 | | | |
| | stay AF sz 3 1RS | TSKK2030–... | | 1081 – 1250 | | | 1 |
| | stay AF sz 1 | TSKK2010–... | | 1251 – 1280 | | | |
| | stay AF sz 2 | TSKK2020–... | | 1281 – 1480 | | | |
| 4 | linkage KK/AF sz 2 1RS | TZKK1020–... | 1 | 1251 – 1480 | | | 1 |
| 5 | UMS001 VdS-contr. 4p. 6M (25 pieces) | 315101 | 1 | 465 – 1480 | | | |
| 6 | striker plate 56 A.... | Ref. PDB, FRSB | | | | | |

**FFB 465 – 1650**




| | Dimension | Abbreviation Pos. 2 | FFB |
|---|---|---|---|
| 1M | 221 | 65 | 465 – 530 |
| | 286 | | 531 – 1650 |
| 1A | 83 | | 465 – 1650 |
| 1B | 556 | | 1081 – 1250 |
| | 556 | | 1481 – 1650 |
| 1C | 507 | | 1251 – 1650 |
| 1D | 666 | | 1251 – 1650 |

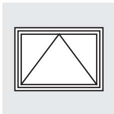
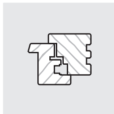
**Dimensions in mm**
All striker positions are frame rebate dimensions on assembled frames. Airgap $12^{+1}$ mm.

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

| Pos. | Description | Part number | QTY | FFB | FFH G - fixed | FFH G - centre | Frame Parts Pos. 8 |
|---|---|---|---|---|---|---|---|
| 1a | corner drive AF VSO narrow 1RS | TEUL4020–... | 1 | 465 – 1650 | 310 – 410 | 310 – 460 | 1 |
| 1b | corner drive AF VSO 1RS | TEUL4010–... | | 465 – 1650 | 411 – 3000 | 461 – 3000 | 1 |
| 2 | linkage AF UE sz 1 1M | TZZS0160–... | 1 | 465 – 1650 | | | |
| | stay AF sz 0 | TSKK2000–... | | 465 – 680 | | | |
| | stay AF sz 1 | TSKK2010–... | | 681 – 880 | | | |
| | stay AF sz 2 | TSKK2020–... | | 881 – 1080 | | | |
| 3 | stay AF sz 3 1RS | TSKK2030–... | 1 | 1081 – 1250 | | | 1 |
| | stay AF sz 1 | TSKK2010–... | | 1251 – 1280 | | | |
| | stay AF sz 2 | TSKK2020–... | | 1281 – 1480 | | | |
| | stay AF sz 3 1RS | TSKK2030–... | | 1481 – 1650 | | | 1 |
| 4 | linkage additional stay 1RS | TZOK1010–... | 1 | 1251 – 1650 | | | 1 |
| 5 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | |
| 6 | packer Z A.... | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | |
| 7 | UMS001 VdS-contr. 4p. 6M (25 pieces) | 315101 | 1 | 465 – 1650 | | | |
| 8 | striker plate 56 A.... | Ref. PDB, FRSB | | | | | |

# TITAN AF

## Installation instructions

  GS

**AEROCONTROL**

1-sash square tilt

timber 12 mm

basic security

centre handle pos. (variable)

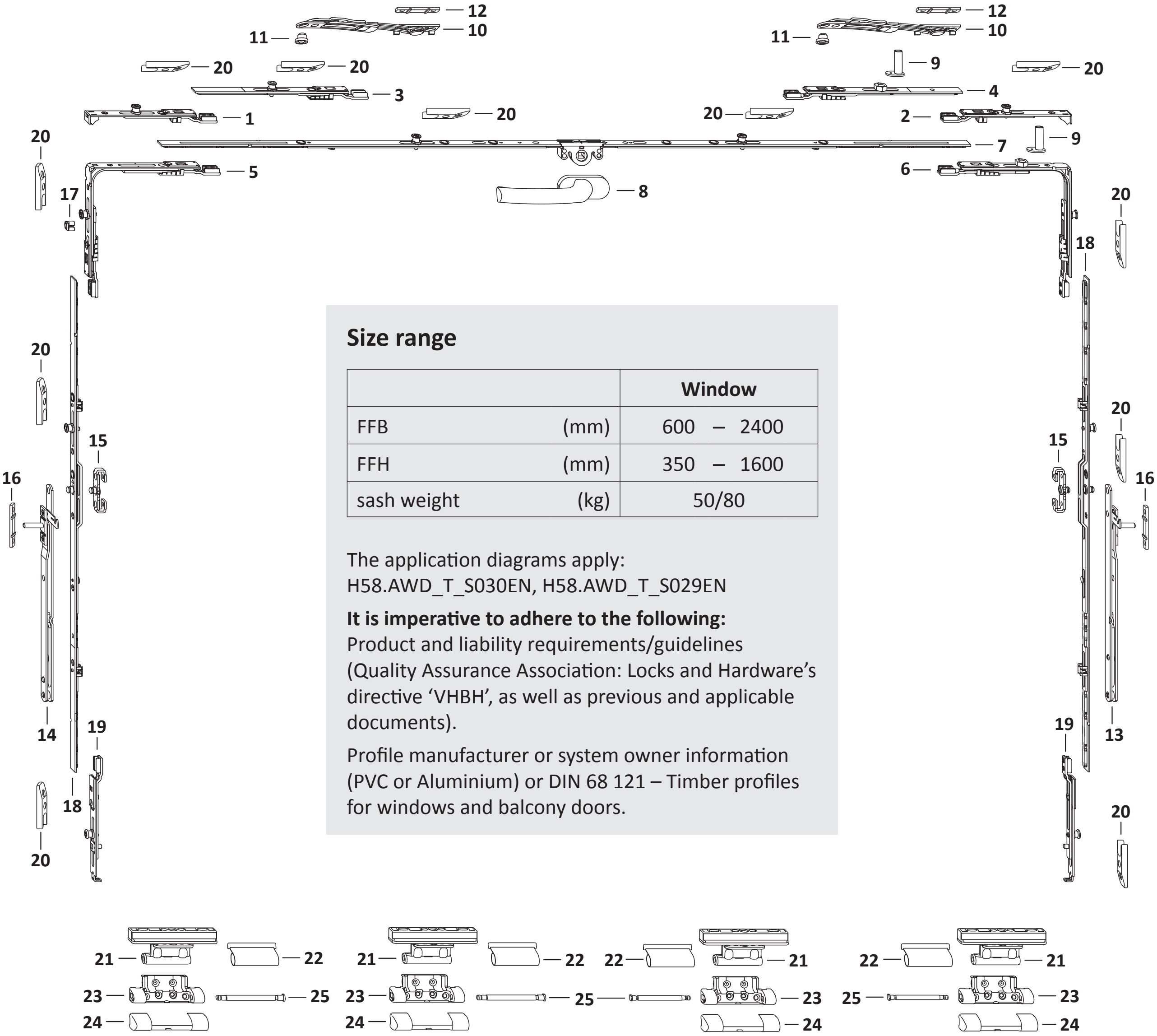
hinge side TITAN

surface TS

backset 15 mm

# Hardware layout AEROCONTROL

1-sash square tilt
H12 GM hinge side TITAN




## Size range

| | Window |
|---|---|
| FFB (mm) | 600 – 2400 |
| FFH (mm) | 350 – 1600 |
| sash weight (kg) | 50/80 |

The application diagrams apply:
H58.AWD_T_S030EN, H58.AWD_T_S029EN

**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).

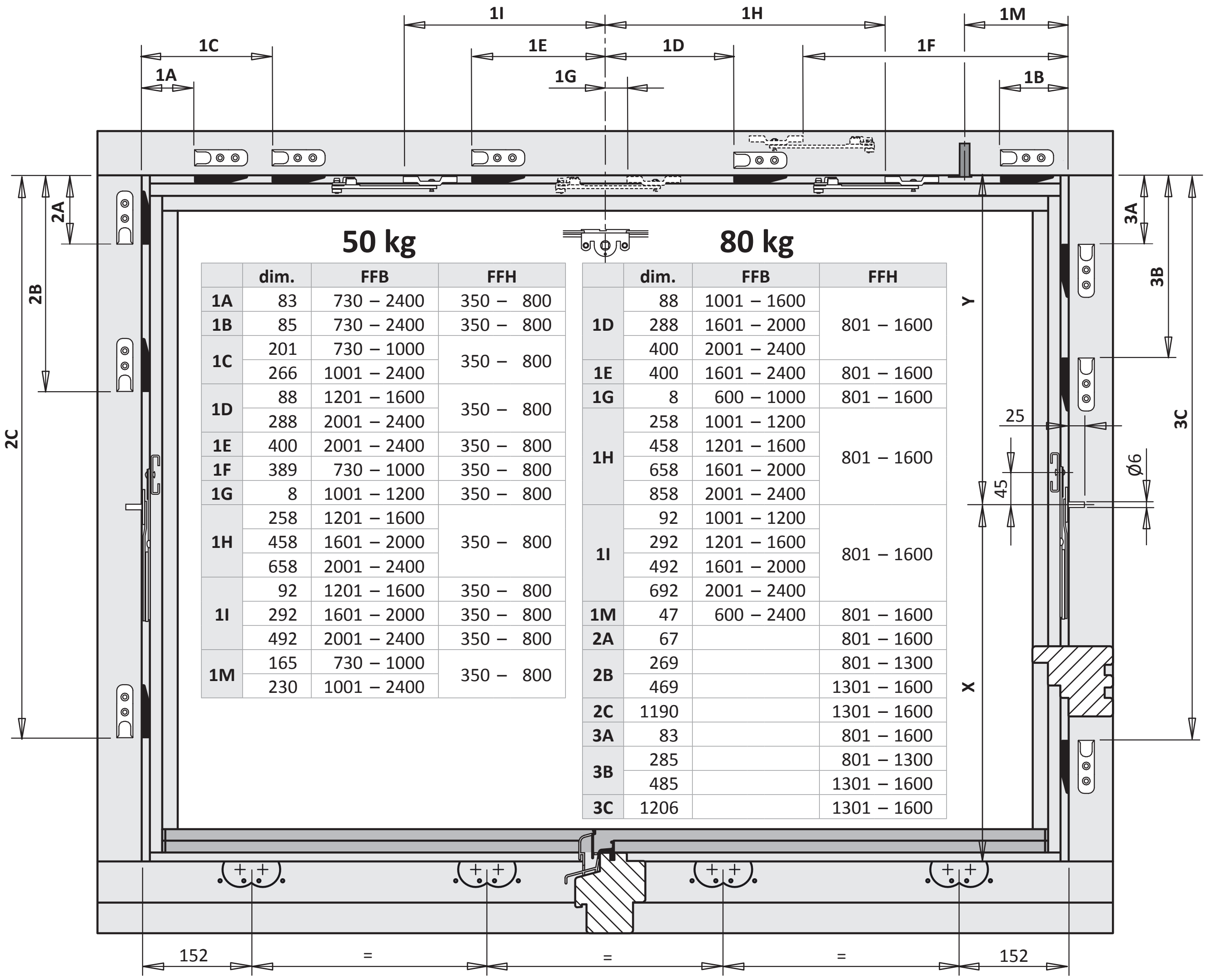
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber profiles for windows and balcony doors.

| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts Pos. 20 |
|---|---|---|---|---|---|---|---|
| 1 | locking bolt AF VS 180° 1RS | TESC2020–... | 1 | 730 – 2400 | 350 – 800 | | 1 |
| 2 | locking bolt AF tilt 90° 1RS | TESC2010–... | 1 | 730 – 2400 | 350 – 800 | | 1 |
| 3 | linkage AF sz 1 1RS/A (65 mm cutting) | TZZS0200–... | 1 | 730 – 1000 | 350 – 800 | | 1 |
| | linkage AF sz 1 1RS/A | | | 1001 – 2400 | | | |
| 4 | linkage AF UE sz 1 1M (65 mm cutting) | TZZS0160–... | 1 | 730 – 1000 | 350 – 800 | | |
| | linkage AF UE sz 1 1M | | | 1001 – 2400 | | | |
| 5 | corner drive AF VSO 1RS | TEUL4010–... | 1 | 600 – 2400 | 801 – 1600 | | 1 |
| 6 | corner drive AF VSO UE 1M 1RS | TEUL4100–... | 1 | 600 – 2400 | 801 – 1600 | | |
| 7 | gear 15 AF sz 20 | TGMK4010–... | 1 | 730 – 1000 | 350 – 800 | 365 – 500 | |
| | gear 15 AF sz 60 | TGMK4020–... | | 1001 – 1200 | | 500 – 600 | |
| | gear 15 AF sz 80 1RS | TGMK4040–... | | 1201 – 1600 | | 600 – 800 | 1 |
| | gear 15 AF sz 120 1RS | TGMK4050–... | | 1601 – 2000 | | 800 – 1000 | 1 |
| | gear 15 AF sz 160 2RS 70 | TGMK4170–... | | 2001 – 2400 | | 1000 – 1200 | 2 |
| | gear 15 AF sz 60 | TGMK4020–... | | 600 – 1000 | 801 – 1600 | 300 – 500 | |
| | gear 15 AF sz 80 1RS | TGMK4040–... | | 1001 – 1200 | | 500 – 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 2RS | TGMK4080–... | | 2001 – 2400 | | 1000 – 1200 | 2 |
| 8 | handle Globe | Ref. access. ZHGS | 1 | 600 – 2400 | | | |
| 9 | UMS001 VdS-contr. 4p. 6M (25 pieces) | 315101 | 1 | 600 – 2400 | | | |
| 10 | telescopic tilt only stay | TSKF0020–... | 1 | 730 – 1200 | 350 – 800 | | |
| | | | 2 | 1201 – 2400 | | | |
| | | | 1 | 600 – 1000 | 801 – 1600 | | |
| | | | 2 | 1001 – 2400 | | | |
| 11 | lock.bolt f.rais.ring facepl. | TFZB0050–... | 1 | 730 – 1200 | 350 – 800 | | |
| | | | 2 | 1201 – 2400 | | | |
| | | | 1 | 600 – 1000 | 801 – 1600 | | |
| | | | 2 | 1001 – 2400 | | | |
| 12 | packer RB/FPS | Ref. PDB, FRUP02 | 1 | 730 – 1200 | 350 – 800 | | |
| | | | 2 | 1201 – 2400 | | | |
| | | | 1 | 600 – 1000 | 801 – 1600 | | |
| | | | 2 | 1001 – 2400 | | | |
| 13 | tilt only safety stay 25 sz 1 rh | ASFP0031–... | 1 | 600 – 2400 | 350 – 500 | | |
| | tilt only safety stay 25 sz 2 rh. | ASFP0041–... | | | 501 – 800 | | |
| | tilt only safety stay 25 sz 1 rh | ASFP0031–... | | | 801 – 1000 | | |
| | tilt only safety stay 25 sz 2 rh. | ASFP0041–... | | | 1001 – 1600 | | |
| 14 | tilt only safety stay 25 sz 1 lh | ASFP0032–... | 1 | 600 – 2400 | 350 – 500 | | |
| | tilt only safety stay 25 sz 2 lh | ASFP0042–... | | | 501 – 800 | | |
| | tilt only safety stay 25 sz 1 lh | ASFP0032–... | | | 801 – 1000 | | |
| | tilt only safety stay 25 sz 2 lh | ASFP0042–... | | | 1001 – 1600 | | |
| 15 | fixing claw UGRP | ZFFP0010–... | 2 | | 350 – 800 | | |
| 16 | packer RB/FPS | Ref. PDB, FRUP02 | 2 | | 350 – 1600 | | |
| 17 | travel restrictor | TFHB0010–... | 1 | | 801 – 1600 | | |
| 18 | linkage FPS/ZZ 1RS (200 mm cutting above) | TZZZ0040–... | 2 | | 801 – 1300 | | 2 |
| | linkage FPS/ZZ 1RS | | | | 1301 – 1600 | | |
| 19 | locking bolt AF VSU/K 1RS | TESC3020–... | 2 | | 1301 – 1600 | | 2 |
| 20 | striker plate 56 | Ref. PDB, FRSB | | | | | |

| Hinge side turning points | | | | | | | |
|---|---|---|---|---|---|---|---|
| Pos. | Description | Part number | | | QTY - FFB | | |
| | | surface TS | RAL9016 | RAL8022 | 400 – 1000 | 1001 – 1800 | 1801 – 2400 |
| 21 | tilt sash hinge H | Ref. PDB, TBKF81 | | | 2 | 3 | 4 |
| 22 | cover cap W H | | TKWB7010– 004... | TKWB7010– 012... | 2 | 3 | 4 |
| 23 | top hinge H | Ref. PDB, TBSL81 | | | 2 | 3 | 4 |
| 24 | cover cap S | | TKSL0010– 004... | TKSL0010– 012... | 2 | 3 | 4 |
| 25 | top hinge pin Poly | TBSB6020– 1... | | | 2 | 3 | 4 |

# Frame dimensions AEROCONTROL

1-sash square tilt
H12 GM hinge side TITAN




### 50 kg

| | dim. | FFB | FFH |
|---|---|---|---|
| 1A | 83 | 730 – 2400 | 350 – 800 |
| 1B | 85 | 730 – 2400 | 350 – 800 |
| 1C | 201 | 730 – 1000 | 350 – 800 |
| | 266 | 1001 – 2400 | |
| 1D | 88 | 1201 – 1600 | 350 – 800 |
| | 288 | 2001 – 2400 | |
| 1E | 400 | 2001 – 2400 | 350 – 800 |
| 1F | 389 | 730 – 1000 | 350 – 800 |
| 1G | 8 | 1001 – 1200 | 350 – 800 |
| 1H | 258 | 1201 – 1600 | 350 – 800 |
| | 458 | 1601 – 2000 | |
| | 658 | 2001 – 2400 | |
| 1I | 92 | 1201 – 1600 | 350 – 800 |
| | 292 | 1601 – 2000 | 350 – 800 |
| | 492 | 2001 – 2400 | 350 – 800 |
| 1M | 165 | 730 – 1000 | 350 – 800 |
| | 230 | 1001 – 2400 | |

### 80 kg

| | dim. | FFB | FFH |
|---|---|---|---|
| 1D | 88 | 1001 – 1600 | 801 – 1600 |
| | 288 | 1601 – 2000 | |
| | 400 | 2001 – 2400 | |
| 1E | 400 | 1601 – 2400 | 801 – 1600 |
| 1G | 8 | 600 – 1000 | 801 – 1600 |
| 1H | 258 | 1001 – 1200 | 801 – 1600 |
| | 458 | 1201 – 1600 | |
| | 658 | 1601 – 2000 | |
| | 858 | 2001 – 2400 | |
| 1I | 92 | 1001 – 1200 | 801 – 1600 |
| | 292 | 1201 – 1600 | |
| | 492 | 1601 – 2000 | |
| | 692 | 2001 – 2400 | |
| 1M | 47 | 600 – 2400 | 801 – 1600 |
| 2A | 67 | | 801 – 1600 |
| 2B | 269 | | 801 – 1300 |
| | 469 | | 1301 – 1600 |
| 2C | 1190 | | 1301 – 1600 |
| 3A | 83 | | 801 – 1600 |
| 3B | 285 | | 801 – 1300 |
| | 485 | | 1301 – 1600 |
| 3C | 1206 | | 1301 – 1600 |

**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

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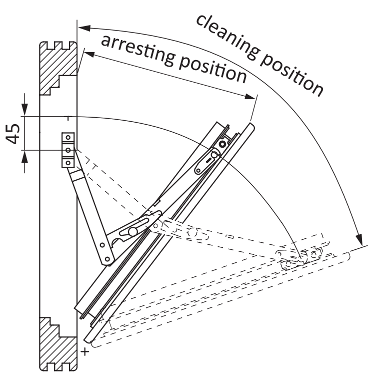
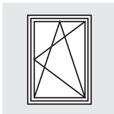
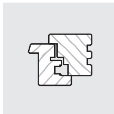
| 50 kg | dim. | FFB | FFH | ASFP | Opening width – arresting position | Opening angle – cleaning position |
|---|---|---|---|---|---|---|
| X | 230 | 730 – 2400 | 350 – 500 | Gr.1 | 278 – 385 | ca. 78° |
| | 370 | | 501 – 800 | Gr.2 | 238 – 370 | ca. 80° |
| 80 kg | | | | | | |
| Y | 120 | 600 – 2400 | 350 – 500 | Gr.1 | 256 – 235 | 71° – 45° |
| | 120 | | 501 – 800 | Gr.2 | 220 – 205 | 72° – 41° |
| | 402 | | 801 – 1000 | Gr.1 | 351 – 305 | 43° – 30° |
| | 402 | | 1001 – 1300 | Gr.2 | 285 – 253 | 47° – 32° |
| | 602 | | 1301 – 1600 | Gr.2 | 319 – 281 | 40° – 29° |



# TITAN AF

## Installation instructions

  **RC1**

**AEROCONTROL**

1-sash square tilt-turn

timber 12 mm

RC1

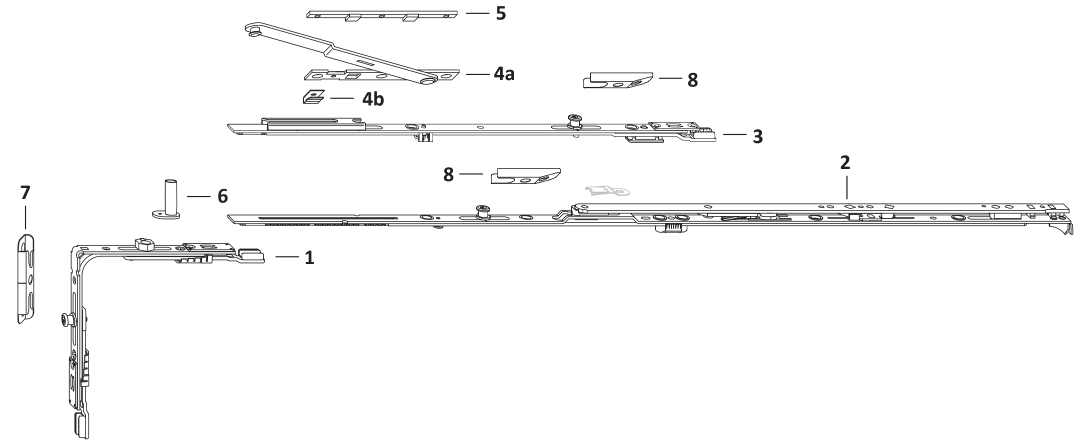
fixed handle position and centre handle pos. (variable)

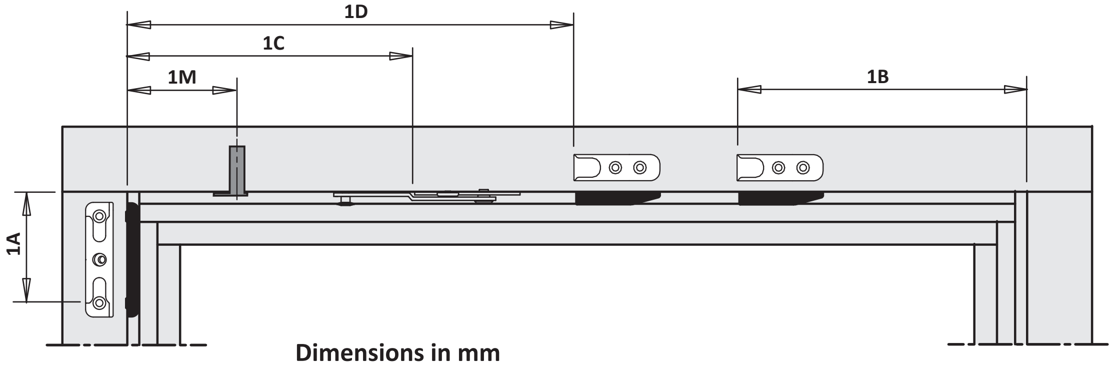
surface TS



All further necessary information on the AEROCONTROL programme (opening and closure monitoring) like magnetic switches, assembly and connection instructions and the extensive accessory programme can be taken from our separate product catalogue DRIVE - AEROCONTROL.

### FFB 330 – 1650




**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

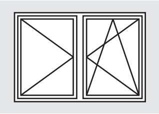
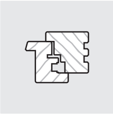
| | Dimension | FFB |
|---|---|---|
| **1M** | 103 | 330 – 1650 |
| **1A** | 67 | 330 – 1650 |
| **1B** | 556 | 1051 – 1650 |
| **1C** | 307 | 1251 – 1650 |
| **1D** | 466 | 1251 – 1650 |



| Pos. | Description | Part number | QTY | FFB | FFH G - fixed | FFH G - centre | Frame Parts Pos. 7 | Frame Parts Pos. 8 |
|---|---|---|---|---|---|---|---|---|
| 1 | Umlenkung AF VSO UE 1M 1RS | TEUL4100–... | 1 | 330 – 1650 | 410 – 3000 | 460 – 3000 | 1 | |
| 2 | Schere AF Gr.0 | TSKK2000–... | 1 | 330 – 450 | | | | |
| | Schere AF Gr.1 | TSKK2010–... | | 451 – 680 | | | | |
| | Schere AF Gr.2 | TSKK2020–... | | 681 – 850 | | | | |
| | Schere AF Gr.3 1RS | TSKK2030–... | | 851 – 1050 | | | | |
| | Schere AF Gr.4 1RS | TSKK2040–... | | 1051 – 1250 | | | | 1 |
| | Schere AF Gr.3 1RS | TSKK2030–... | | 1251 – 1450 | | | | 1 |
| | Schere AF Gr.4 1RS | TSKK2040–... | | 1451 – 1650 | | | | 1 |
| 3 | linkage additional stay 1RS | TZOK1010–... | 1 | 1251 – 1650 | | | | 1 |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | |
| 5 | packer Z A.... | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | |
| 6 | UMS001 VdS-contr. 4p. 6M (25 pieces) | 315101 | 1 | 330 – 1650 | | | | |
| 7 | striker plate SL-RS A.... | Ref. PDB, TRSK | | | | | | |
| 8 | striker plate 56 A.... | Ref. PDB, FRSB | | | | | | |

# TITAN AF

## Installation instructions

RC1

**AEROCONTROL**

2-sash square tilt-turn/turn DS 16

timber 12 mm

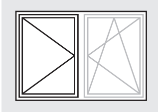
RC1

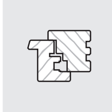
fixed handle position and centre handle pos. (variable)

surface TS

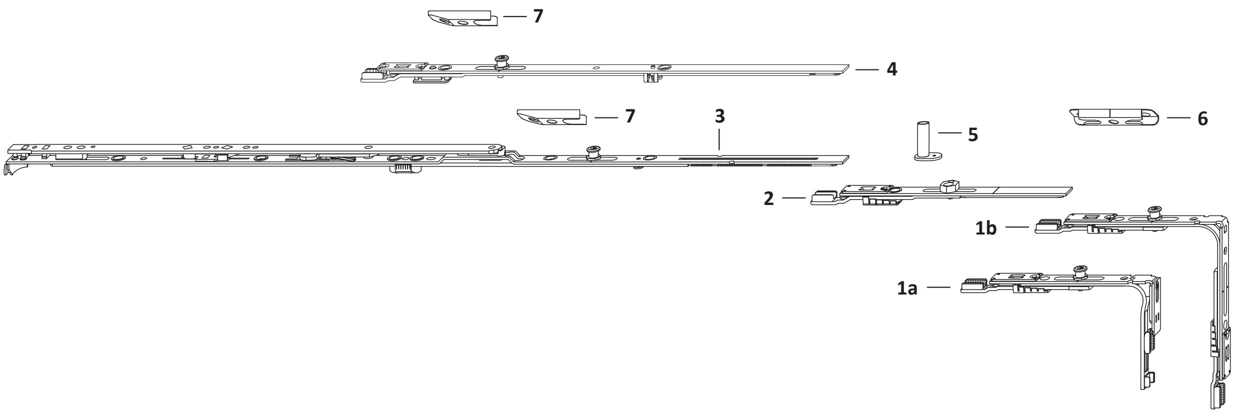


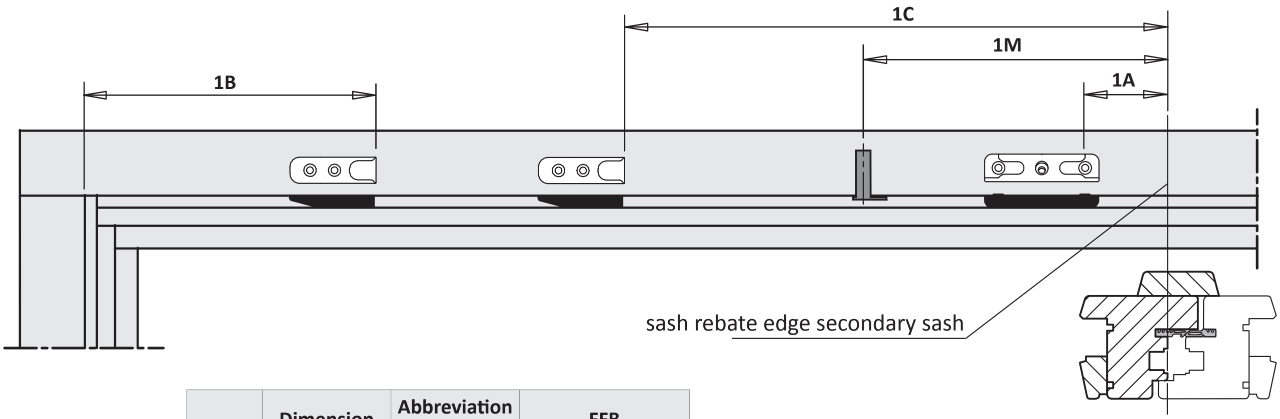
All further necessary information on the AEROCONTROL programme (opening and closure monitoring) like magnetic switches, assembly and connection instructions and the extensive accessory programme can be taken from our separate product catalogue DRIVE - AEROCONTROL.





**FFB 465 – 1480**




| | Dimension | Abbreviation Pos. 2 | FFB |
|---|---|---|---|
| **1M** | 209 | 65 | 465 – 530 |
| | 274 | | 531 – 1480 |
| **1A** | 71 | | 465 – 1480 |
| **1B** | 556 | | 1081 – 1250 |
| **1C** | 654 | | 1251 – 1480 |

**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

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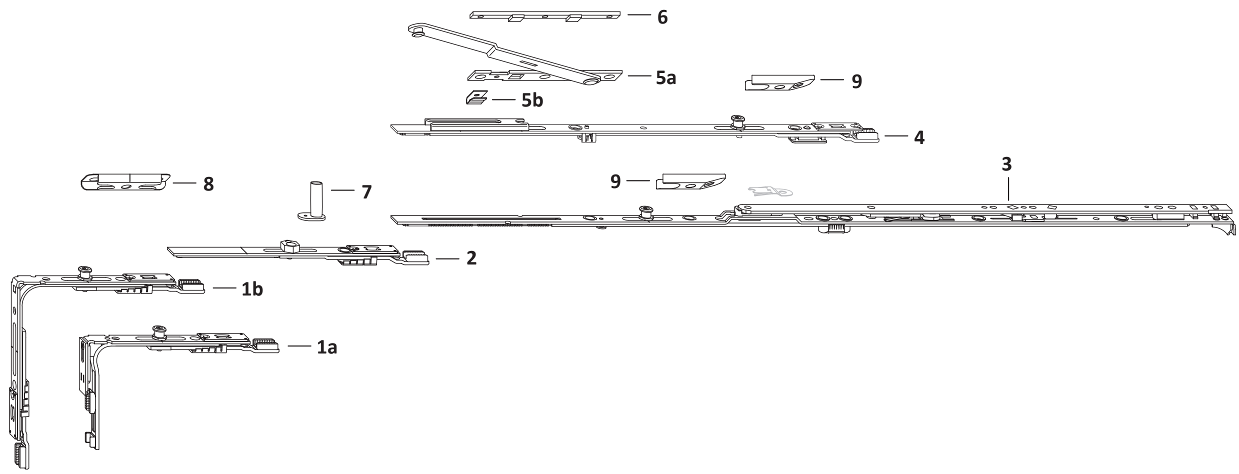
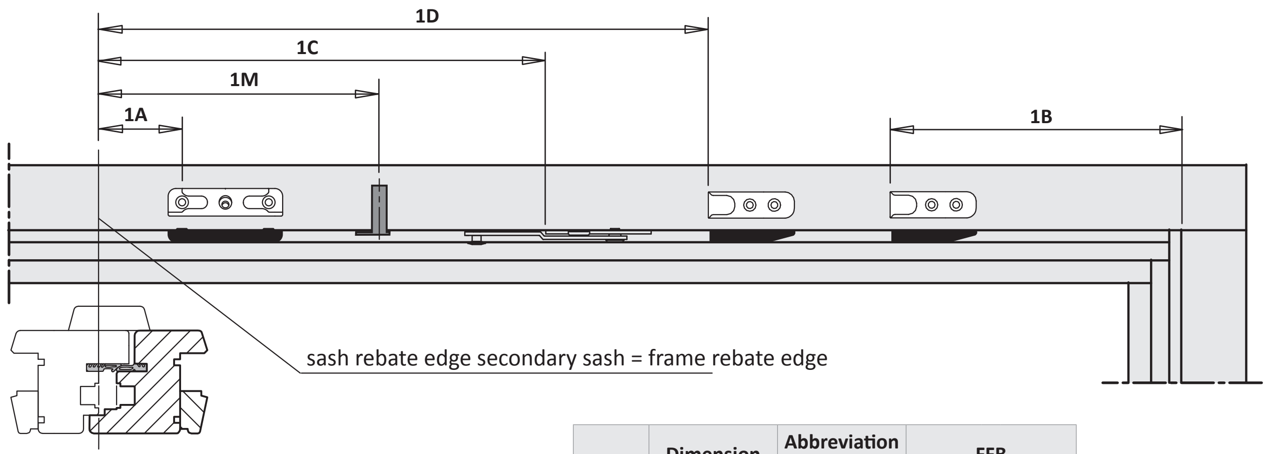
| Pos. | Description | Part number | QTY | FFB | FFH G - fixed | FFH G - centre | Frame Parts Pos. 6 | Frame Parts Pos. 7 |
|---|---|---|---|---|---|---|---|---|
| **1a** | corner drive AF VSO narrow 1RS | TEUL4020–... | 1 | 465 – 1480 | 310 – 410 | 310 – 460 | 1 | |
| **1b** | corner drive AF VSO 1RS | TEUL4010–... | | 465 – 1480 | 411 – 3000 | 461 – 3000 | 1 | |
| **2** | linkage AF UE sz 1 1M | TZZS0160–... | 1 | 465 – 1480 | | | | |
| **3** | stay AF sz 0 | TSKK2000–... | 1 | 465 – 680 | | | | |
| | stay AF sz 1 | TSKK2010–... | | 681 – 880 | | | | |
| | stay AF sz 2 | TSKK2020–... | | 881 – 1080 | | | | |
| | stay AF sz 3 1RS | TSKK2030–... | | 1081 – 1250 | | | | 1 |
| | stay AF sz 1 | TSKK2010–... | | 1251 – 1280 | | | | |
| | stay AF sz 2 | TSKK2020–... | | 1281 – 1480 | | | | |
| **4** | linkage KK/AF sz 2 1RS | TZKK1020–... | 1 | 1251 – 1480 | | | | 1 |
| **5** | UMS001 VdS-contr. 4p. 6M (25 pieces) | 315101 | 1 | 465 – 1480 | | | | |
| **6** | striker plate SL-RS A.... | Ref. PDB, TRSK | | | | | | |
| **7** | striker plate 56 A.... | Ref. PDB, FRSB | | | | | | |

FFB 465 – 1650




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

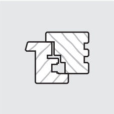
RFB = FFB + 24 mm
RFH = FFH + 24 mm

| | Dimension | Abbreviation Pos. 2 | FFB |
|---|---|---|---|
| 1M | 221 | 65 | 465 – 530 |
| | 286 | | 531 – 1650 |
| 1A | 83 | | 465 – 1650 |
| 1B | 556 | | 1081 – 1250 |
| | 556 | | 1481 – 1650 |
| 1C | 507 | | 1251 – 1650 |
| 1D | 666 | | 1251 – 1650 |

| Pos. | Description | Part number | QTY | FFB | FFH G - fixed | FFH G - centre | Frame Parts Pos. 8 | Frame Parts Pos. 9 |
|---|---|---|---|---|---|---|---|---|
| 1a | corner drive AF VSO narrow 1RS | TEUL4020–... | 1 | 465 – 1650 | 310 – 410 | 310 – 460 | 1 | |
| 1b | corner drive AF VSO 1RS | TEUL4010–... | | 465 – 1650 | 411 – 3000 | 461 – 3000 | 1 | |
| 2 | linkage AF UE sz 1 1M | TZZS0160–... | 1 | 465 – 1650 | | | | |
| 3 | stay AF sz 0 | TSKK2000–... | 1 | 465 – 680 | | | | |
| | stay AF sz 1 | TSKK2010–... | | 681 – 880 | | | | |
| | stay AF sz 2 | TSKK2020–... | | 881 – 1080 | | | | |
| | stay AF sz 3 1RS | TSKK2030–... | | 1081 – 1250 | | | | 1 |
| | stay AF sz 1 | TSKK2010–... | | 1251 – 1280 | | | | |
| | stay AF sz 2 | TSKK2020–... | | 1281 – 1480 | | | | |
| | stay AF sz 3 1RS | TSKK2030–... | | 1481 – 1650 | | | | 1 |
| 4 | linkage additional stay 1RS | TZOK1010–... | 1 | 1251 – 1650 | | | | 1 |
| 5 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | |
| 6 | packer Z A.... | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | |
| 7 | UMS001 VdS-contr. 4p. 6M (25 pieces) | 315101 | 1 | 465 – 1650 | | | | |
| 8 | striker plate SL-RS A.... | Ref. PDB, TRSK | | | | | | |
| 9 | striker plate 56 A.... | Ref. PDB, FRSB | | | | | | |

# TITAN AF

## Installation instructions

  RC2

**AEROCONTROL**

1-sash square tilt-turn

timber 12 mm

RC2

fixed handle position and centre handle pos. (variable)

surface TS

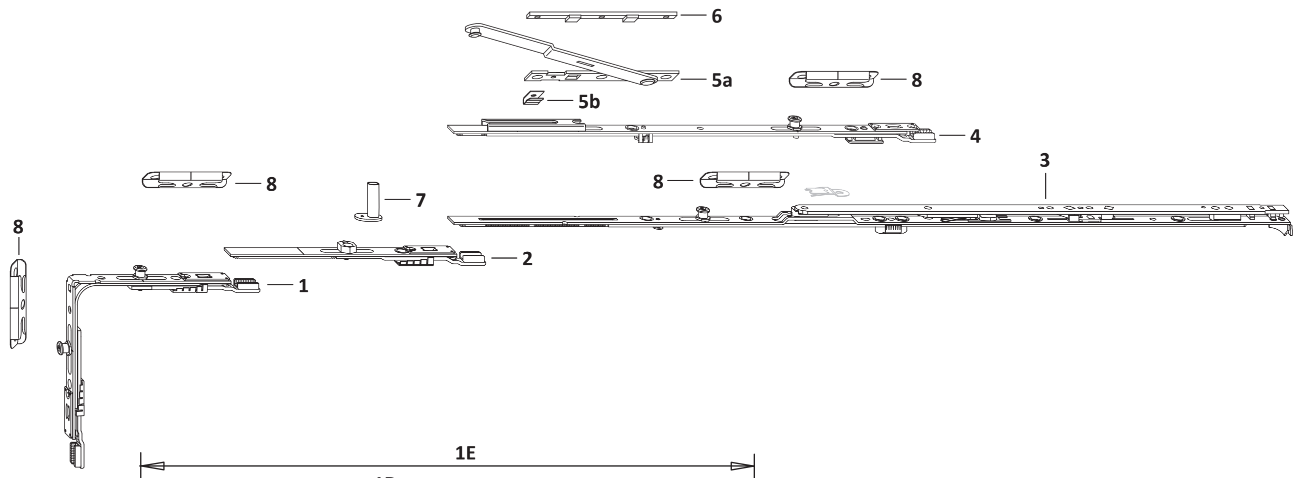


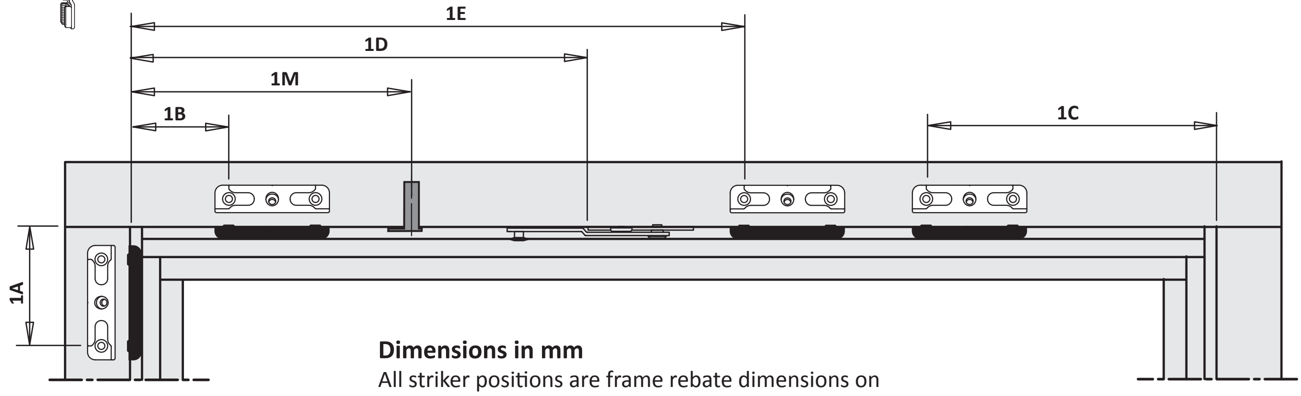
All further necessary information on the AEROCONTROL programme (opening and closure monitoring) like magnetic switches, assembly and connection instructions and the extensive accessory programme can be taken from our separate product catalogue DRIVE - AEROCONTROL.

# AEROCONTROL

1-sash square tilt-turn
Timber 12 mm

## FFB 465 – 1650




**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

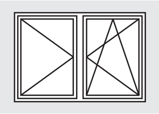
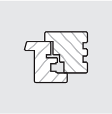
| | Dimension | Abbreviation Pos. 2 | FFB |
|---|---|---|---|
| 1M | 221 | 65 | 465 – 530 |
| | 286 | | 531 – 1650 |
| 1A | 67 | | 465 – 1650 |
| 1B | 83 | | 465 – 1650 |
| 1C | 556 | | 1081 – 1250 |
| | 556 | | 1481 – 1650 |
| 1D | 507 | | 1251 – 1650 |
| 1E | 666 | | 1251 – 1650 |



| Pos. | Description | Part number | QTY | FFB | FFH G - fixed | FFH G - centre | Frame Parts Pos. 8 |
|---|---|---|---|---|---|---|---|
| 1 | corner drive AF VSO 2RS A0055 | TEUL4070–... | 1 | 465 – 1650 | 410 – 3000 | 460 – 3000 | 2 |
| 2 | linkage AF UE sz 1 1M | TZZS0160–... | 1 | 465 – 1650 | | | |
| 3 | stay AF sz 0 | TSKK2000–... | 1 | 465 – 680 | | | |
| | stay AF sz 1 | TSKK2010–... | | 681 – 880 | | | |
| | stay AF sz 2 | TSKK2020–... | | 881 – 1080 | | | |
| | stay AF sz 3 1RS | TSKK2030–... | | 1081 – 1250 | | | 1 |
| | stay AF sz 1 | TSKK2010–... | | 1251 – 1280 | | | |
| | stay AF sz 2 | TSKK2020–... | | 1281 – 1480 | | | |
| | stay AF sz 3 1RS | TSKK2030–... | | 1481 – 1650 | | | 1 |
| 4 | linkage additional stay 1RS | TZOK1010–... | 1 | 1251 – 1650 | | | 1 |
| 5 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | |
| 6 | packer Z A.... | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | |
| 7 | UMS001 VdS-contr. 4p. 6M (25 pieces) | 315101 | 1 | 465 – 1650 | | | |
| 8 | striker plate SL-RS A.... | Ref. PDB, TRSK | | | | | |

# TITAN AF

## Installation instructions

**RC2**

**AEROCONTROL**

2-sash square tilt-turn/turn DS 16

timber 12 mm

RC2

fixed handle position and centre handle pos. (variable)

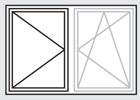
surface TS

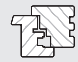
11

All further necessary information on the AEROCONTROL programme (opening and closure monitoring) like magnetic switches, assembly and connection instructions and the extensive accessory programme can be taken from our separate product catalogue DRIVE - AEROCONTROL.

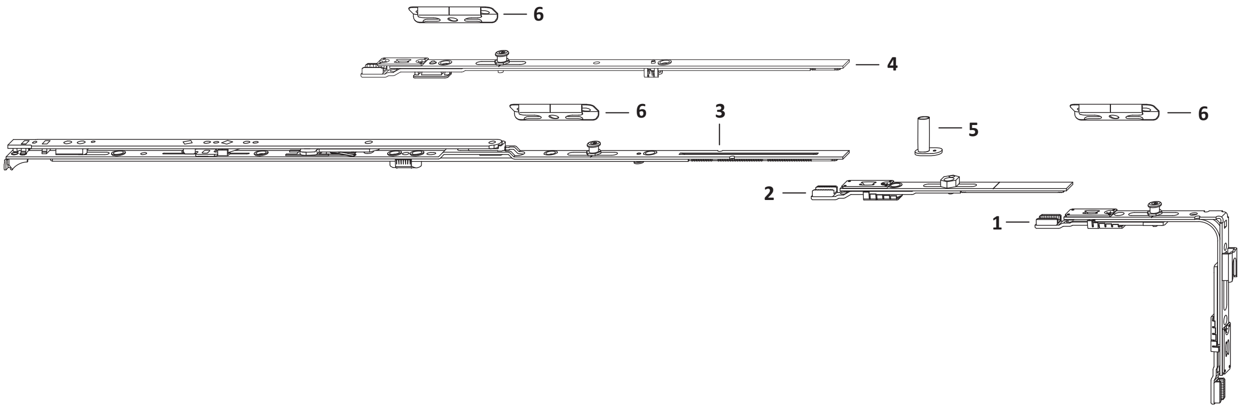
# AEROCONTROL slave sash

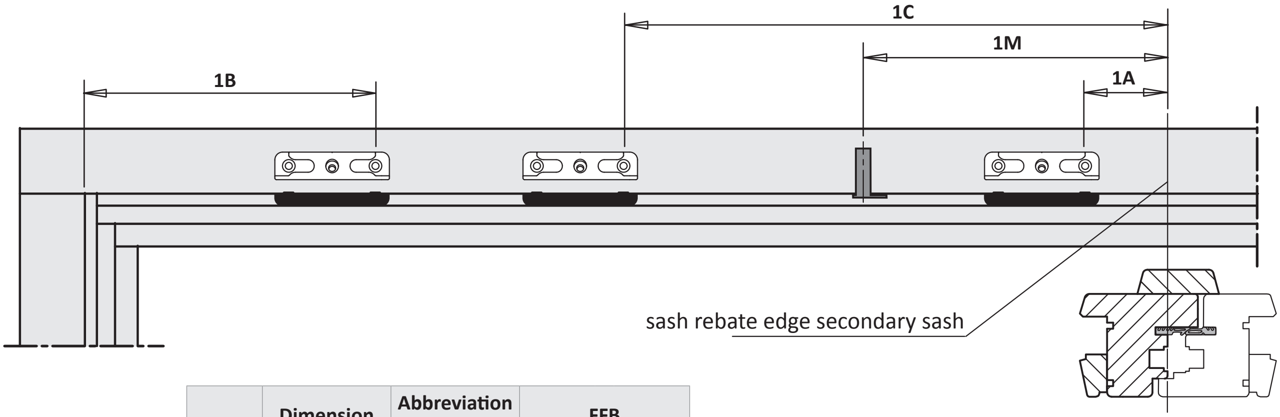
2-sash square tilt-turn/turn DS 16
Timber 12 mm





## FFB 465 – 1480




| | Dimension | Abbreviation Pos. 2 | FFB |
|---|---|---|---|
| 1M | 209 | 65 | 465 – 530 |
| | 274 | | 531 – 1480 |
| 1A | 71 | | 465 – 1480 |
| 1B | 556 | | 1081 – 1250 |
| 1C | 654 | | 1251 – 1480 |

**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

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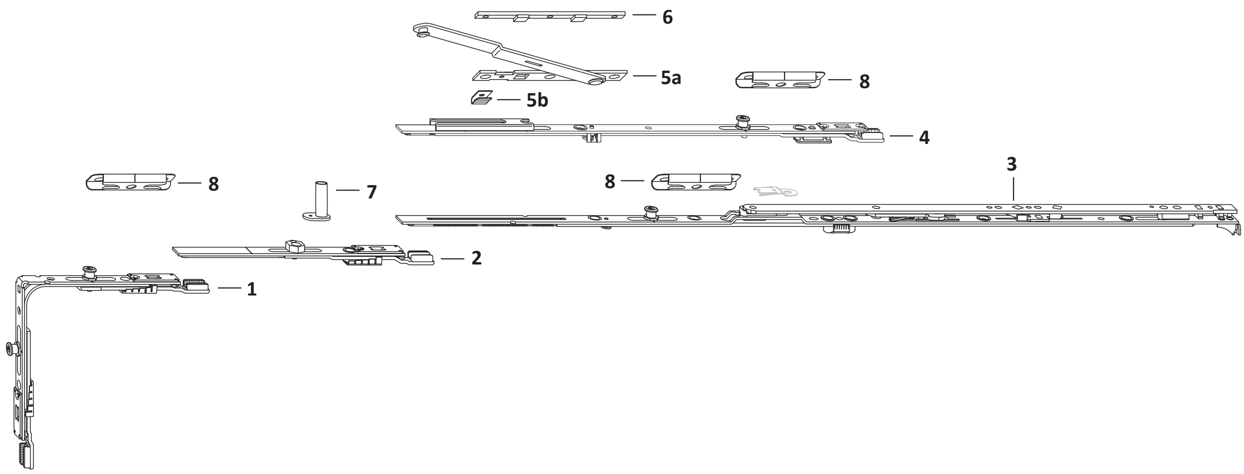
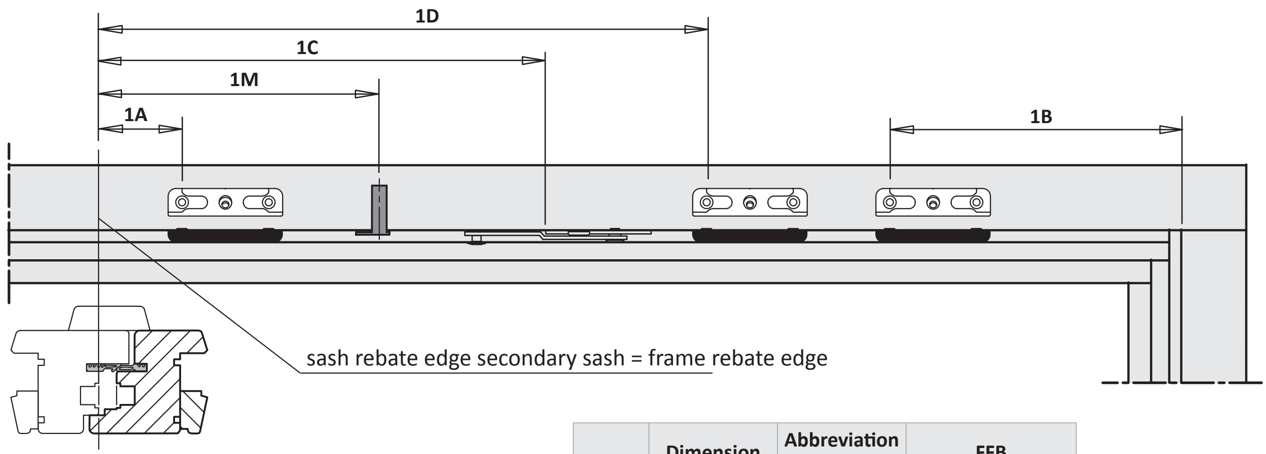
| Pos. | Description | Part number | QTY | FFB | FFH G - fixed | FFH G - centre | Frame Parts Pos. 6 |
|---|---|---|---|---|---|---|---|
| 1 | corner drive AF VSO WK2 SB 1RS | TEUL4080–... | 1 | 465 – 1480 | 410 – 3000 | 460 – 3000 | 1 |
| 2 | linkage AF UE sz 1 1M | TZZS0160–... | 1 | 465 – 1480 | | | |
| 3 | stay AF sz 0 | TSKK2000–... | 1 | 465 – 680 | | | |
| | stay AF sz 1 | TSKK2010–... | | 681 – 880 | | | |
| | stay AF sz 2 | TSKK2020–... | | 881 – 1080 | | | |
| | stay AF sz 3 1RS | TSKK2030–... | | 1081 – 1250 | | | 1 |
| | stay AF sz 1 | TSKK2010–... | | 1251 – 1280 | | | |
| | stay AF sz 2 | TSKK2020–... | | 1281 – 1480 | | | |
| 4 | linkage KK/AF sz 2 1RS | TZKK1020–... | 1 | 1251 – 1480 | | | 1 |
| 5 | UMS001 VdS-contr. 4p. 6M (25 pieces) | 315101 | 1 | 465 – 1480 | | | |
| 6 | striker plate SL-RS A.... | Ref. PDB, TRSK | | | | | |

## FFB 465 – 1650




| | Dimension | Abbreviation Pos. 2 | FFB |
|---|---|---|---|
| 1M | 221 | 65 | 465 – 530 |
| | 286 | | 531 – 1650 |
| 1A | 83 | | 465 – 1650 |
| 1B | 556 | | 1081 – 1250 |
| | 556 | | 1481 – 1650 |
| 1C | 507 | | 1251 – 1650 |
| 1D | 666 | | 1251 – 1650 |

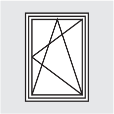
**Dimensions in mm**
All striker positions are frame rebate dimensions on assembled frames. Airgap $12^{+1}$ mm.

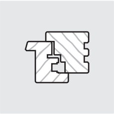
RFB = FFB + 24 mm
RFH = FFH + 24 mm

| Pos. | Description | Part number | QTY | FFB | FFH G - fixed | FFH G - centre | Frame Parts Pos. 8 |
|---|---|---|---|---|---|---|---|
| 1 | corner drive AF VSO 2RS A0055 | TEUL4070–... | 1 | 465 – 1650 | 410 – 3000 | 460 – 3000 | 1 |
| 2 | linkage AF UE sz 1 1M | TZZS0160–... | 1 | 465 – 1650 | | | |
| 3 | stay AF sz 0 | TSKK2000–... | 1 | 465 – 680 | | | |
| | stay AF sz 1 | TSKK2010–... | | 681 – 880 | | | |
| | stay AF sz 2 | TSKK2020–... | | 881 – 1080 | | | |
| | stay AF sz 3 1RS | TSKK2030–... | | 1081 – 1250 | | | 1 |
| | stay AF sz 1 | TSKK2010–... | | 1251 – 1280 | | | |
| | stay AF sz 2 | TSKK2020–... | | 1281 – 1480 | | | |
| | stay AF sz 3 1RS | TSKK2030–... | | 1481 – 1650 | | | 1 |
| 4 | linkage additional stay 1RS | TZOK1010–... | 1 | 1251 – 1650 | | | 1 |
| 5 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | |
| 6 | packer Z A.... | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | |
| 7 | UMS001 VdS-contr. 4p. 6M (25 pieces) | 315101 | 1 | 465 – 1650 | | | |
| 8 | striker plate SL-RS A.... | Ref. PDB, TRSK | | | | | |

# TITAN AF

## Installation instructions





**RC2**
ECO

**AEROCONTROL**

1-sash square tilt-turn

timber 12 mm

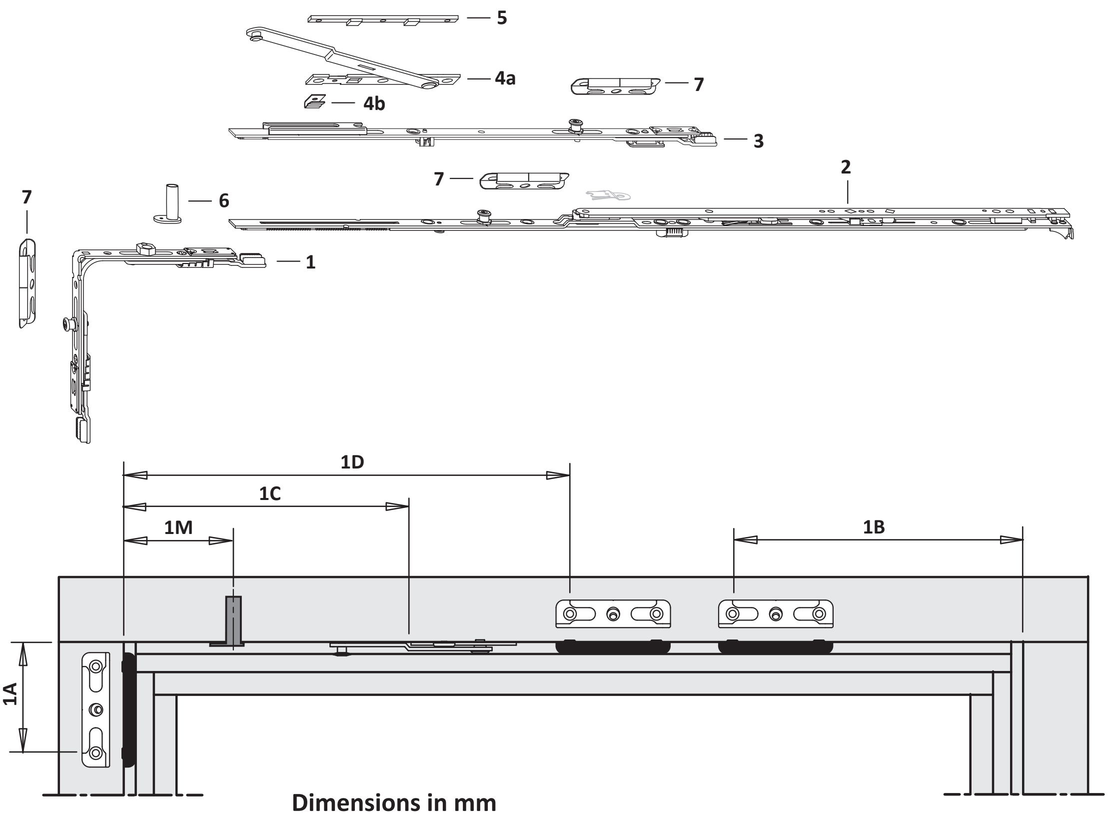
RC2 ECO

fixed handle position and centre handle pos. (variable)

surface TS



All further necessary information on the AEROCONTROL programme (opening and closure monitoring) like magnetic switches, assembly and connection instructions and the extensive accessory programme can be taken from our separate product catalogue DRIVE - AEROCONTROL.




**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 |
|---|---|---|
| **1M** | 103 | 330 – 1650 |
| **1A** | 67 | 330 – 1650 |
| **1B** | 556 | 1051 – 1650 |
| **1C** | 307 | 1251 – 1650 |
| **1D** | 466 | 1251 – 1650 |

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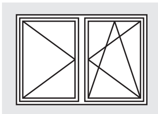
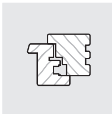
| Pos. | Description | Part number | QTY | FFB | FFH G - fixed | FFH G - centre | Frame Parts Pos. 7 |
|---|---|---|---|---|---|---|---|
| 1 | corner drive AF VSO UE 1M 1RS | TEUL4100–... | 1 | 330 – 1650 | 410 – 3000 | 460 – 3000 | 1 |
| 2 | stay AF sz 0 | TSKK2000–... | 1 | 330 – 450 | | | |
| | stay AF sz 1 | TSKK2010–... | | 451 – 680 | | | |
| | stay AF sz 2 | TSKK2020–... | | 681 – 850 | | | |
| | stay AF sz 3 1RS | TSKK2030–... | | 851 – 1050 | | | |
| | stay AF sz 4 1RS | TSKK2040–... | | 1051 – 1250 | | | 1 |
| | stay AF sz 3 1RS | TSKK2030–... | | 1251 – 1450 | | | 1 |
| | stay AF sz 4 1RS | TSKK2040–... | | 1451 – 1650 | | | 1 |
| 3 | linkage additional stay 1RS | TZOK1010–... | 1 | 1251 – 1650 | | | 1 |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | |
| 5 | packer Z A.... | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | |
| 6 | UMS001 VdS-contr. 4p. 6M (25 pieces) | 315101 | 1 | 330 – 1650 | | | |
| 7 | striker plate SL-RS A.... | Ref. PDB, TRSK | | | | | |

# TITAN AF

## Installation instructions

**RC2**
ECO

**AEROCONTROL**

2-sash square tilt-turn/turn DS 16

timber 12 mm

RC2 ECO

fixed handle position and centre handle pos. (variable)

surface TS

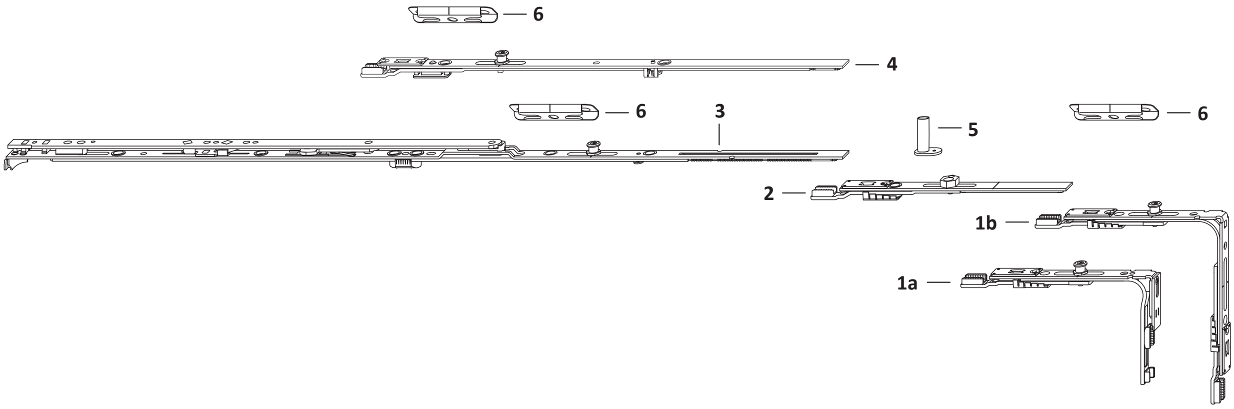


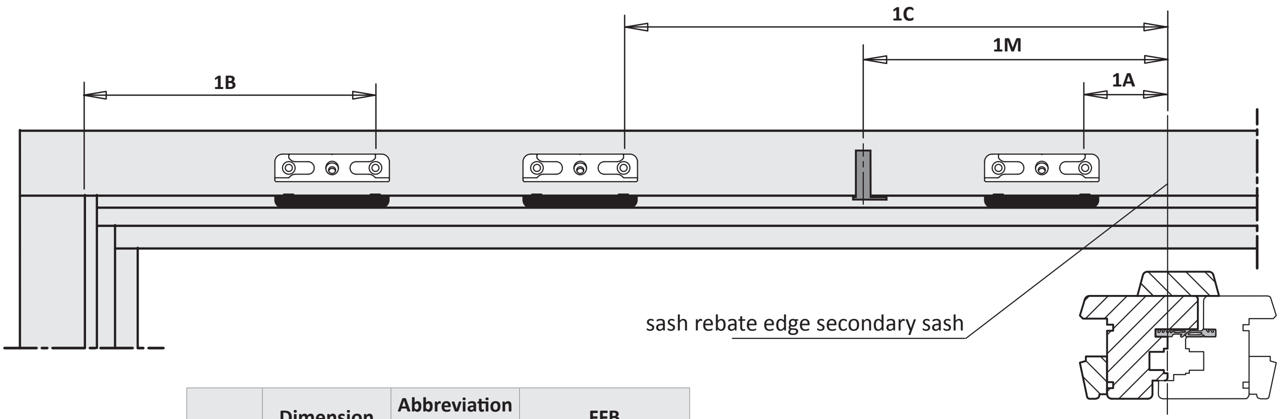
All further necessary information on the AEROCONTROL programme (opening and closure monitoring) like magnetic switches, assembly and connection instructions and the extensive accessory programme can be taken from our separate product catalogue DRIVE - AEROCONTROL.

# AEROCONTROL slave sash

2-sash square tilt-turn/turn DS 16
Timber 12 mm

**FFB 465 – 1480**




| | Dimension | Abbreviation Pos. 2 | FFB |
|---|---|---|---|
| 1M | 209 | 65 | 465 – 530 |
| | 274 | | 531 – 1480 |
| 1A | 71 | | 465 – 1480 |
| 1B | 556 | | 1081 – 1250 |
| 1C | 654 | | 1251 – 1480 |

**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

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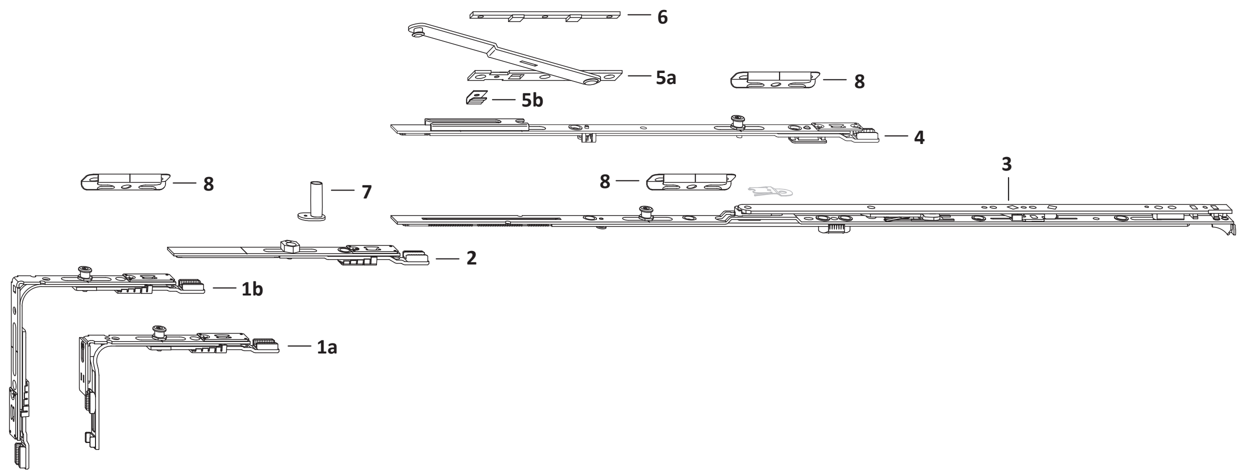
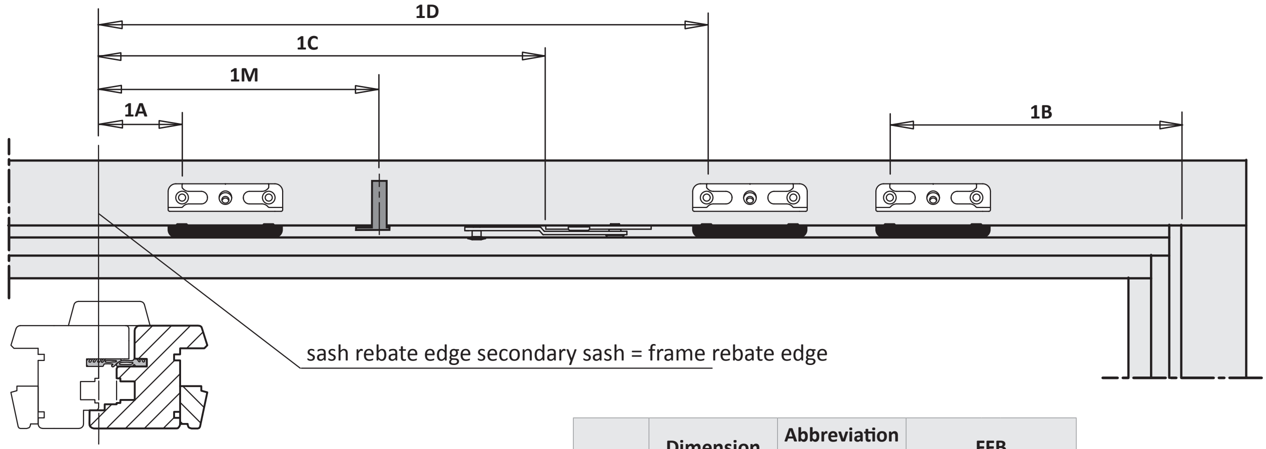
| Pos. | Description | Part number | QTY | FFB | FFH G - fixed | FFH G - centre | Frame Parts Pos. 6 |
|---|---|---|---|---|---|---|---|
| 1a | corner drive AF VSO narrow 1RS | TEUL4020–... | 1 | 465 – 1480 | 310 – 410 | 310 – 460 | 1 |
| 1b | corner drive AF VSO 1RS | TEUL4010–... | | 465 – 1480 | 411 – 3000 | 461 – 3000 | 1 |
| 2 | linkage AF UE sz 1 1M | TZZS0160–... | 1 | 465 – 1480 | | | |
| 3 | stay AF sz 0 | TSKK2000–... | 1 | 465 – 680 | | | |
| | stay AF sz 1 | TSKK2010–... | | 681 – 880 | | | |
| | stay AF sz 2 | TSKK2020–... | | 881 – 1080 | | | |
| | stay AF sz 3 1RS | TSKK2030–... | | 1081 – 1250 | | | 1 |
| | stay AF sz 1 | TSKK2010–... | | 1251 – 1280 | | | |
| | stay AF sz 2 | TSKK2020–... | | 1281 – 1480 | | | |
| 4 | linkage KK/AF sz 2 1RS | TZKK1020–... | 1 | 1251 – 1480 | | | 1 |
| 5 | UMS001 VdS-contr. 4p. 6M (25 pieces) | 315101 | 1 | 465 – 1480 | | | |
| 6 | striker plate SL-RS A.... | Ref. PDB, TRSK | | | | | |

**FFB 465 – 1650**




| | Dimension | Abbreviation Pos. 2 | FFB |
|---|---|---|---|
| 1M | 221 | 65 | 465 – 530 |
| | 286 | | 531 – 1650 |
| 1A | 83 | | 465 – 1650 |
| 1B | 556 | | 1081 – 1250 |
| | 556 | | 1481 – 1650 |
| 1C | 507 | | 1251 – 1650 |
| 1D | 666 | | 1251 – 1650 |

**Dimensions in mm**

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

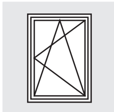
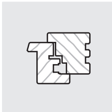
RFB = FFB + 24 mm

RFH = FFH + 24 mm

| Pos. | Description | Part number | QTY | FFB | FFH G - fixed | FFH G - centre | Frame Parts Pos. 8 |
|---|---|---|---|---|---|---|---|
| 1a | corner drive AF VSO narrow 1RS | TEUL4020–... | 1 | 465 – 1650 | 310 – 410 | 310 – 460 | 1 |
| 1b | corner drive AF VSO 1RS | TEUL4010–... | | 465 – 1650 | 411 – 3000 | 461 – 3000 | 1 |
| 2 | linkage AF UE sz 1 1M | TZZS0160–... | 1 | 465 – 1650 | | | |
| 3 | stay AF sz 0 | TSKK2000–... | 1 | 465 – 680 | | | |
| | stay AF sz 1 | TSKK2010–... | | 681 – 880 | | | |
| | stay AF sz 2 | TSKK2020–... | | 881 – 1080 | | | |
| | stay AF sz 3 1RS | TSKK2030–... | | 1081 – 1250 | | | 1 |
| | stay AF sz 1 | TSKK2010–... | | 1251 – 1280 | | | |
| | stay AF sz 2 | TSKK2020–... | | 1281 – 1480 | | | |
| | stay AF sz 3 1RS | TSKK2030–... | | 1481 – 1650 | | | 1 |
| 4 | linkage additional stay 1RS | TZOK1010–... | 1 | 1251 – 1650 | | | 1 |
| 5 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | |
| 6 | packer Z A.... | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | |
| 7 | UMS001 VdS-contr. 4p. 6M (25 pieces) | 315101 | 1 | 465 – 1650 | | | |
| 8 | striker plate SL-RS A.... | Ref. PDB, TRSK | | | | | |

# TITAN AF

## Installation instructions

  GS

1-sash square tilt-turn

stay handle driven

timber 12 mm

basic security

fixed handle position

hinge side TITAN

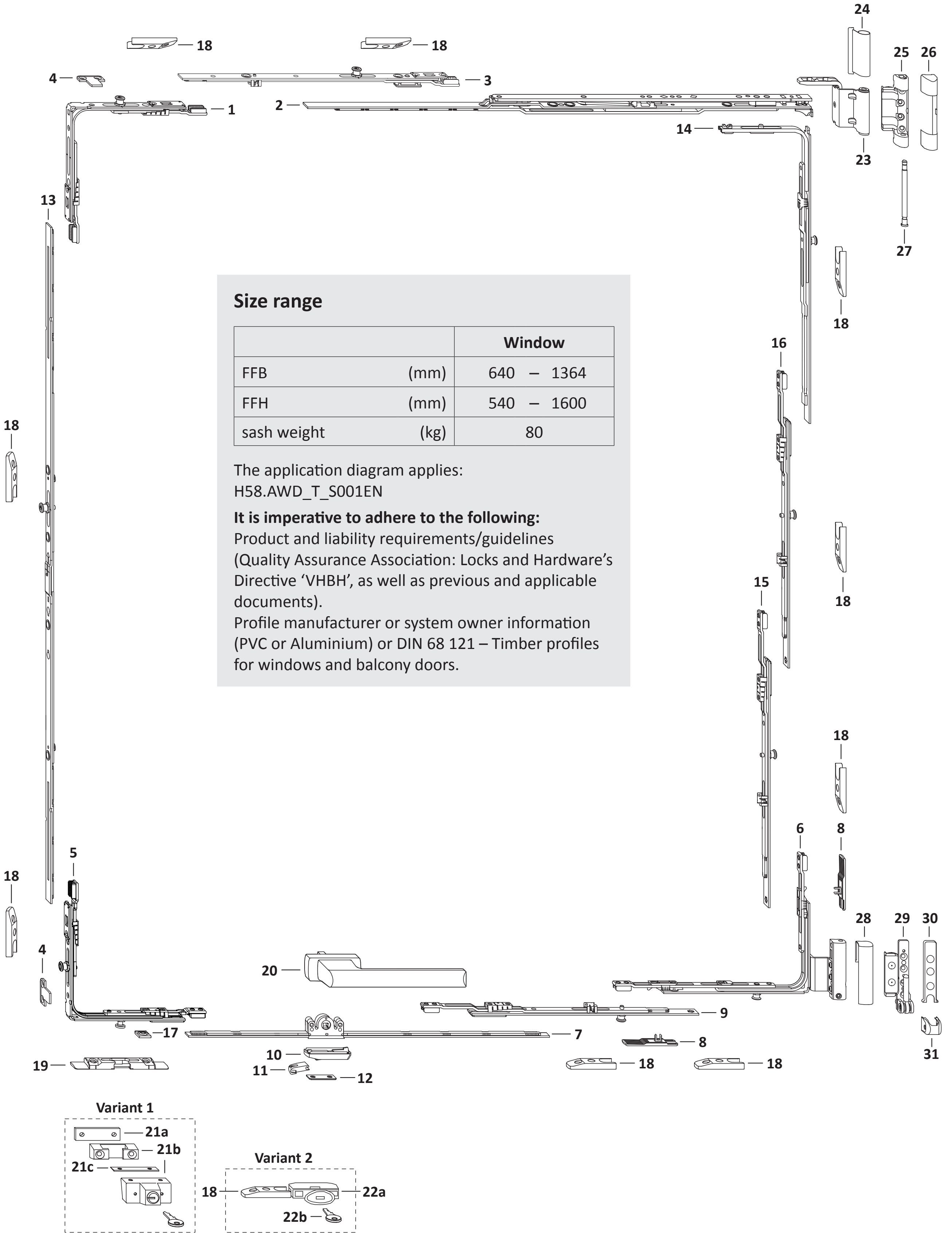
surface TS

backset 15 mm

Bottom: Inliner

# Hardware layout

1-sash square tilt-turn
H12 GK Hinge side TITAN




## Size range

| | Window |
|---|---|
| FFB (mm) | 640 – 1364 |
| FFH (mm) | 540 – 1600 |
| sash weight (kg) | 80 |

The application diagram applies:
H58.AWD_T_S001EN

**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. 18 | Pos. 19 |
|---|---|---|---|---|---|---|---|---|
| 1 | corner drive AF VSO 1RS | TEUL4010–... | 1 | 640 – 1364 | | | 1 | |
| 2 | stay AF/iP Z rh | TSZK0011–... | 1 | 640 – 1364 | | | | |
| | stay AF/iP Z lh | TSZK0012–... | | | | | | |
| 3 | linkage KK/AF sz 1 1RS | TZKK1010–... | 1 | 765 – 964 | | | 1 | |
| | linkage KK/AF sz 2 1RS | TZKK1020–... | | 965 – 1164 | | | 1 | |
| | linkage KK/AF sz 3 1RS | TZKK1050–... | | 1165 – 1364 | | | 1 | |
| 4 | fastening plate sec. sash A0204 | ZFAP0020–... | 2 | 640 – 1364 | 540 – 1600 | | | |
| 5 | corner drive AF/PSK 1S 1RS | PEUJ0010–... | 1 | 640 – 1364 | | | 1 | 1 |
| 6 | corner drive BSU H 1RS rh/lh | Ref. PDB, TEUL06 | 1 | 640 – 1364 | | | 1 | |
| 7 | gear 15 AF Gr.60/G300 | TGKK4030–... | 1 | 640 – 1364 | | 300 | | |
| 8 | cover piece | TFAP0010–... | 2 | 640 – 840 | 540 – 600 | | | |
| 9 | linkage AF/RB sz 1 1RS | TZZS0110–... | 1 | 841 – 1040 | | | 1 | |
| | linkage AF/RB sz 2 1RS | TZZS0120–... | | 1041 – 1240 | | | 1 | |
| | linkage AF/RB sz 3 1RS | TZZS0130–... | | 1241 – 1364 | | | 1 | |
| 10 | mishandling device | TFBS0010–... | 1 | 640 – 1364 | | | | |
| 11 | pressure piece rh/lh | Ref. PDB, TFFD | 1 | 640 – 1364 | | | | |
| 12 | stop FBS | Ref. PDB, FRZF01 | 1 | 640 – 1364 | | | | |
| 13 | gear OS-AF sz 60 | TGMK0500–... | 1 | | 540 – 800 | | | |
| | gear OS-AF sz 80 1RS | TGMK0510–... | | | 801 – 1200 | | 1 | |
| | gear OS-AF sz 120 1RS | TGMK0520–... | | | 1201 – 1600 | | 1 | |
| 14 | corner drive BSO/A3 1RS | TEUL2300–... | 1 | | 540 – 1600 | | 1 | |
| 15 | linkage AF/RB sz 1 OZ | TZZS0100–... | 1 | | 601 – 800 | | | |
| | linkage AF/RB sz 2 1RS | TZZS0120–... | | | 801 – 1000 | | 1 | |
| | linkage AF/RB sz 3 1RS | TZZS0130–... | | | 1001 – 1600 | | 1 | |
| 16 | linkage AF/RB sz 1 OZ | TZZS0100–... | 1 | | 1201 – 1400 | | | |
| | linkage AF/RB sz 2 1RS | TZZS0120–... | | | 1401 – 1600 | | 1 | |
| 17 | run-up | 884959 | 1 | | | | | |
| 18 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| 19 | tilt lock bear. S-ES FH rh/lh | Ref. PDB, FRKA | | | | | | |

**Accessories**

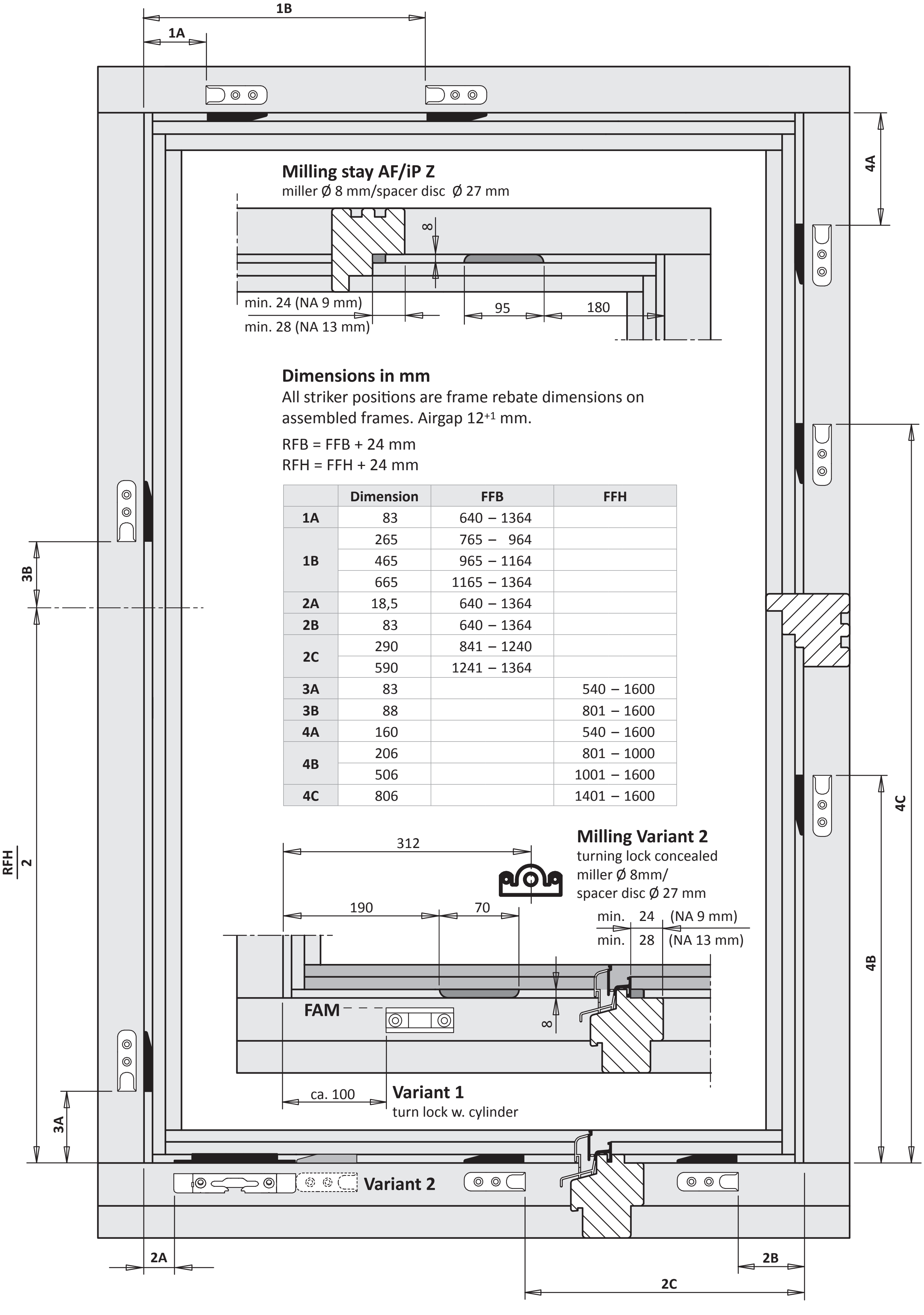
| Pos. | Description | Part number surface TS | QTY | RAL9016 | RAL9003 | RAL8022 | RAL8019 |
|---|---|---|---|---|---|---|---|
| 20 | handle Si-line PSK 31 | | 1 | NHIE0040–502.. | 858264 | 895634 | NHIE0040–511.. |
| | **Variant 1** | | | | | | |
| 21a | packer turn lock (clearance > 3 mm) | 801277 | 1 | | 801284 | | 801291 |
| 21b | turn lock w. cylinder (incl. 1 key) | ZMDS0040-100... | 1 | | ZMDS0040-002... | | ZMDS0040-011... |
| 21c | compens. pc 5° for turn lock | 801215 | 1 | | 801215 | | 801215 |
| | **Variant 2** | | | | | | |
| 22a | turning lock concealed | | 1 | ZMDS0010–004.. | | | ZMDS0010–011.. |
| 22b | key DSV | | 1 | ZSDS0010–1.. | | | ZSDS0010–1.. |

**Hinge side turning points**

| Pos. | Description | Part number surface TS | RAL9016 | RAL8022 | required as per sash weight 80 kg |
|---|---|---|---|---|---|
| 23 | stay hinge DH H | Ref. PDB, TBWB81 | | | 1 |
| 24 | cover cap W H | | TKWB7010– 004... | TKWB7010– 012... | 1 |
| 25 | top hinge H | Ref. PDB, TBSL81 | | | 1 |
| 26 | cover cap S | | TKSL0020– 004... | TKSL0020– 012... | 1 |
| 27 | top hinge pin Poly | TBSB6020– 1... | | | 1 |
| 28 | cover cap FEB rh | | TKFE7011– 004... | TKFE7011– 012... | 1 |
| | cover cap FEB lh | | TKFE7012– 004... | TKFE7012– 012... | |
| 29 | bottom hinge H | Ref. PDB, TBEL81 | | | 1 |
| 30 | cover cap EL O MB | | TKEO0010– 004... | TKEO0010– 012... | 1 |
| 31 | cover cap EL U | | TKEU0010– 004... | TKEU0010– 012... | 1 |

# Frame dimensions

1-sash square tilt-turn
H12 GK Hinge side TITAN




**Milling stay AF/iP Z**
miller Ø 8 mm/spacer disc Ø 27 mm

**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 | 640 – 1364 | |
| 1B | 265 | 765 – 964 | |
| | 465 | 965 – 1164 | |
| | 665 | 1165 – 1364 | |
| 2A | 18,5 | 640 – 1364 | |
| 2B | 83 | 640 – 1364 | |
| 2C | 290 | 841 – 1240 | |
| | 590 | 1241 – 1364 | |
| 3A | 83 | | 540 – 1600 |
| 3B | 88 | | 801 – 1600 |
| 4A | 160 | | 540 – 1600 |
| 4B | 206 | | 801 – 1000 |
| | 506 | | 1001 – 1600 |
| 4C | 806 | | 1401 – 1600 |

**Milling Variant 2**
turning lock concealed
miller Ø 8mm/
spacer disc Ø 27 mm

**Variant 1**
turn lock w. cylinder

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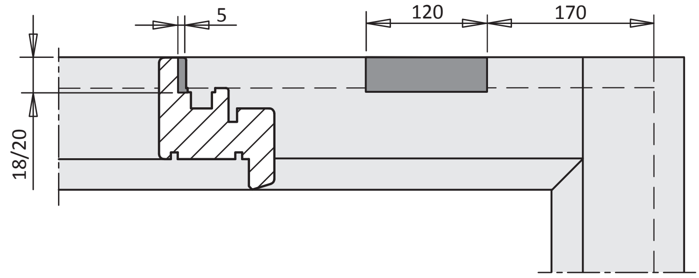
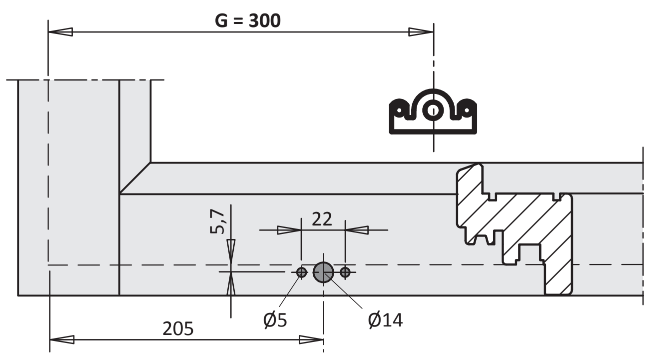
**Please note:**

- The gear driven scissor stay AF/iP Z makes it possible to have a horizontal handle position on the bottom sash rail allowing tilt open or close operation of the sash by turning the operating handle through 180°.
- Opening in the turn position for cleaning is possible by turning the handle through 90° but the use of a turn lock is recommended for safety and to prevent mishandling should be fitted on the sash bottom rail.
- For ease of operation a larger PSK handleis used because of the increased torque required and in addition the fastening plates are fitted to prevent deflection of the corner drives.
- If the sash does not tilt the 90 -100 mm you can adjust the gear driven scissor stay AF/iP Z buy one tooth at a time in the direction of the handle jamb to achieve these dimensions.
- It is possible for the operation to be automated using a motorised handle from the SIEGENIA-AUBI SIMotion product range (eg., Motor Lever MH10) and can be combined with automated building ventilation systems. They will also provide ease of use.
- If a motorised operation is specified the width (FFB) of 1200mm should not be exceeded.
- For correct operation the windows must be fitted plumb and square within the masonry openings.

**Milling stay AF/iP Z only groove axis 9 mm (sash)**
miller Ø 8 mm/spacer disc Ø 27 mm
(alternatively with jig EB 643-3/-7)

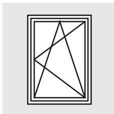
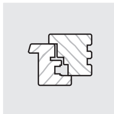



**Drilling variant 2 (sash)**
turning lock concealed
(alternatively with jig DSV ZABL0030-....)



# TITAN AF

## Installation instructions

  **RC1**

1-sash square tilt-turn

stay handle driven

timber 12 mm

RC1

fixed handle position

hinge side TITAN

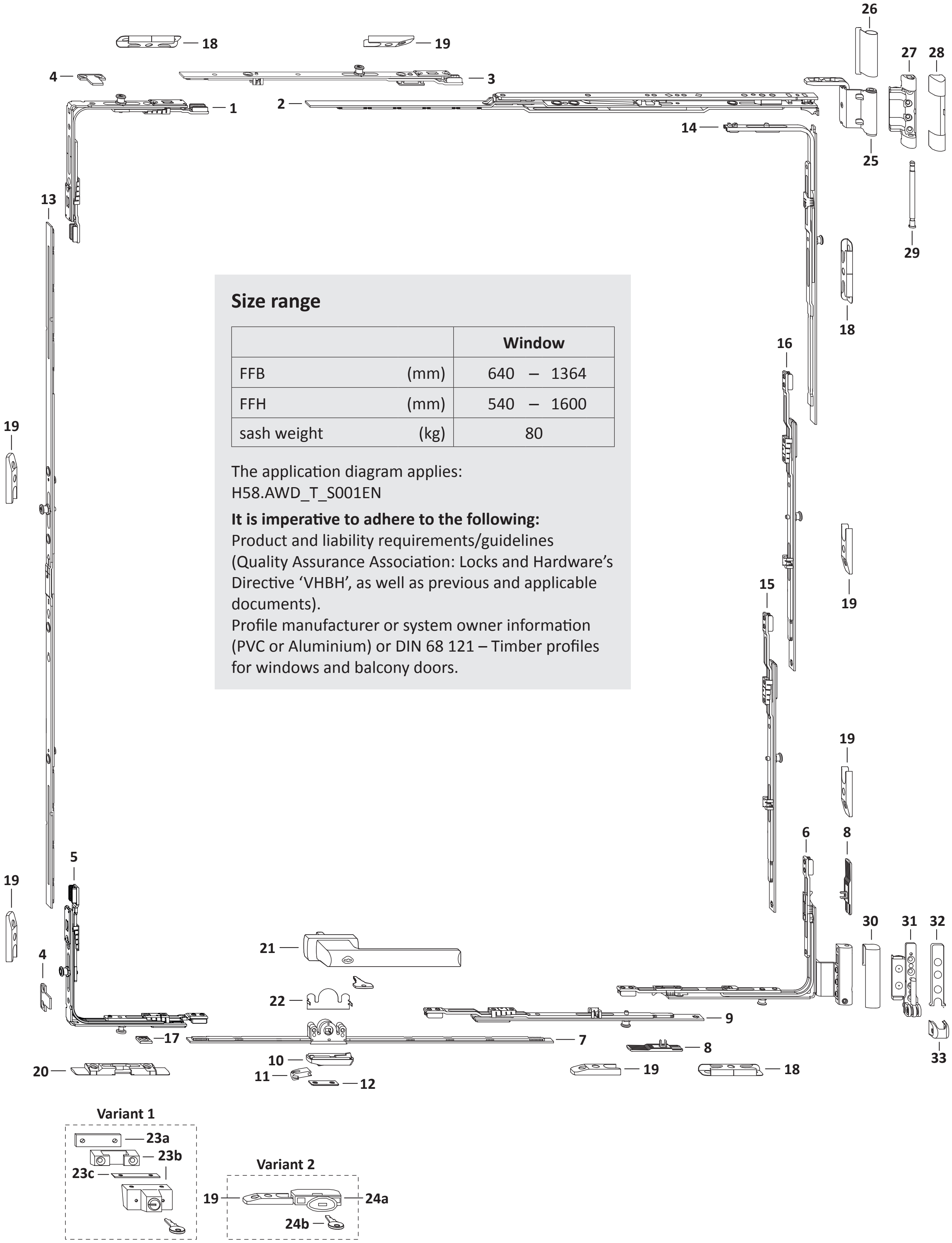
surface TS

backset 15 mm

Bottom: Inliner

# Hardware layout

1-sash square tilt-turn
H12 GK Hinge side TITAN




## Size range

| | Window |
|---|---|
| FFB (mm) | 640 – 1364 |
| FFH (mm) | 540 – 1600 |
| sash weight (kg) | 80 |

The application diagram applies:
H58.AWD_T_S001EN

**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. 18 | Pos. 19 | Pos. 20 |
|---|---|---|---|---|---|---|---|---|---|
| 1 | corner drive AF VSO 1RS | TEUL4010–... | 1 | 640 – 1364 | | | 1 | | |
| 2 | stay AF/iP Z rh | TSZK0011–... | 1 | 640 – 1364 | | | | | |
| | stay AF/iP Z lh | TSZK0012–... | | | | | | | |
| 3 | linkage KK/AF sz 1 1RS | TZKK1010–... | 1 | 765 – 964 | | | | 1 | |
| | linkage KK/AF sz 2 1RS | TZKK1020–... | | 965 – 1164 | | | | 1 | |
| | linkage KK/AF sz 3 1RS | TZKK1050–... | | 1165 – 1364 | | | | 1 | |
| 4 | fastening plate sec. sash A0204 | ZFAP0020–... | 2 | 640 – 1364 | 540 – 1600 | | | | |
| 5 | corner drive AF/PSK 1S 1RS | PEUJ0010–... | 1 | 640 – 1364 | | | | 1 | 1 |
| 6 | corner drive BSU H 1RS rh/lh | Ref. PDB, TEUL06 | 1 | 640 – 1364 | | | 1 | | |
| 7 | gear 15 AF sz 60/G300 | TGKK4030–... | 1 | 640 – 1364 | | 300 | | | |
| 8 | cover piece | TFAP0010–... | 2 | 640 – 840 | 540 – 600 | | | | |
| 9 | linkage AF/RB sz 1 1RS | TZZS0110–... | 1 | 841 – 1040 | | | | 1 | |
| | linkage AF/RB sz 2 1RS | TZZS0120–... | | 1041 – 1240 | | | | 1 | |
| | linkage AF/RB sz 3 1RS | TZZS0130–... | | 1241 – 1364 | | | | 1 | |
| 10 | mishandling device | TFBS0010–... | 1 | 640 – 1364 | | | | | |
| 11 | pressure piece rh/lh | Ref. PDB, TFFD | 1 | 640 – 1364 | | | | | |
| 12 | stop FBS | Ref. PDB, FRZF01 | 1 | 640 – 1364 | | | | | |
| 13 | gear OS-AF sz 60 | TGMK0500–... | 1 | | 540 – 800 | | | | |
| | gear OS-AF sz 80 1RS | TGMK0510–... | | | 801 – 1200 | | | 1 | |
| | gear OS-AF sz 120 1RS | TGMK0520–... | | | 1201 – 1600 | | | 1 | |
| 14 | corner drive BSO/A3 1RS | TEUL2300–... | 1 | | 540 – 1600 | | 1 | | |
| 15 | linkage AF/RB sz 1 OZ | TZZS0100–... | 1 | | 601 – 800 | | | | |
| | linkage AF/RB sz 2 1RS | TZZS0120–... | | | 801 – 1000 | | | 1 | |
| | linkage AF/RB sz 3 1RS | TZZS0130–... | | | 1001 – 1600 | | | 1 | |
| 16 | linkage AF/RB sz 1 OZ | TZZS0100–... | 1 | | 1201 – 1400 | | | | |
| | linkage AF/RB sz 2 1RS | TZZS0120–... | | | 1401 – 1600 | | | 1 | |
| 17 | run-up | 884959 | 1 | | | | | | |
| 18 | striker plate SL-RS | Ref. PDB, TRSK | | | | | | | |
| 19 | striker plate 56 | Ref. PDB, FRSB | | | | | | | |
| 20 | tilt lock bear. S-ES FH rh/lh | Ref. PDB, FRKA | | | | | | | |

**Accessories**

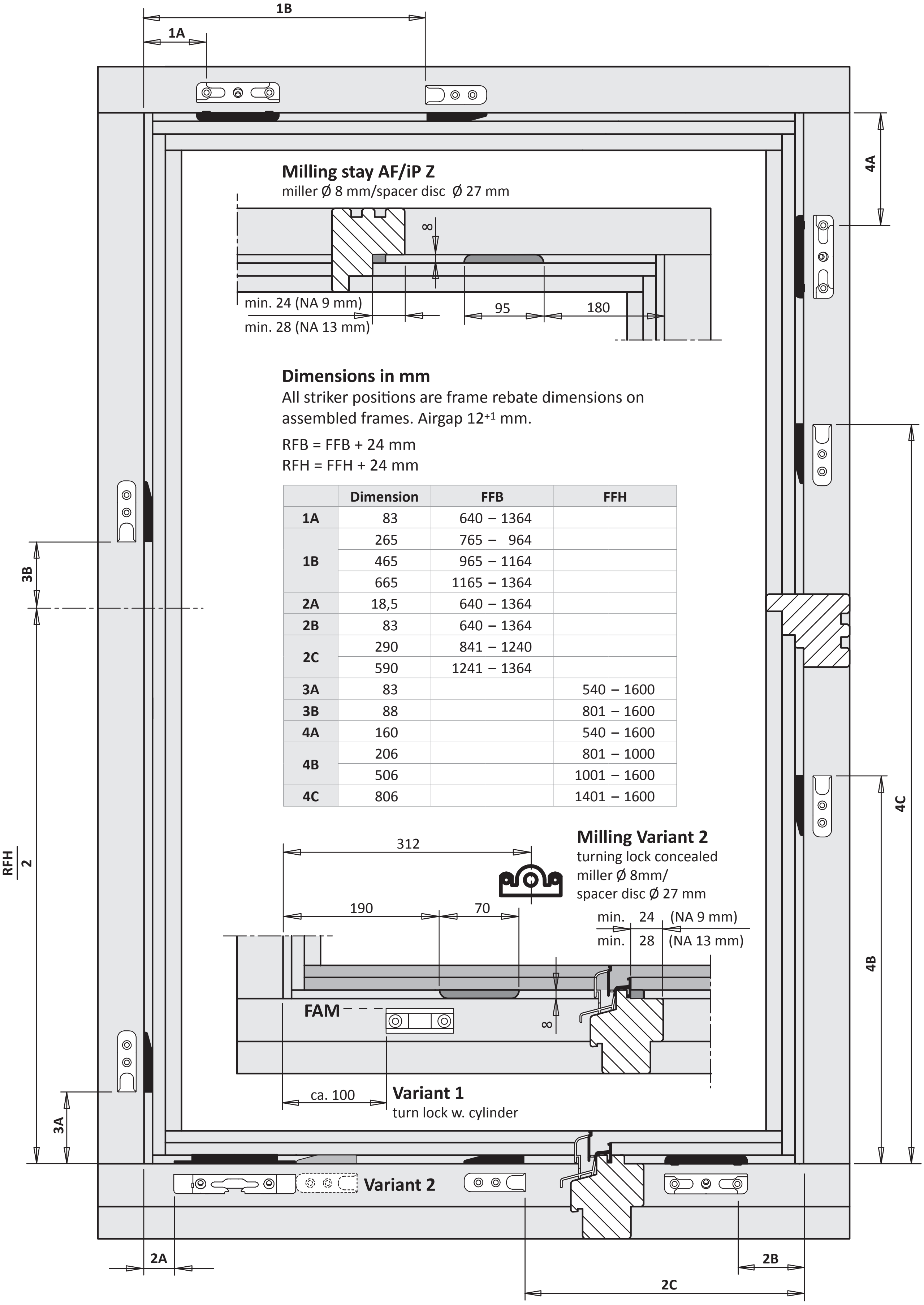
| Pos. | Description | Part number surface TS | QTY | RAL9016 | RAL9003 | RAL8022 | RAL8019 |
|---|---|---|---|---|---|---|---|
| 21 | handle Si-line PSK ABS 31 | | 1 | | 858318 | 895641 | 858325 |
| 22 | anti-drill guard E | TGBS0010–... | 1 | | | | |
| | **Variant 1** | | | | | | |
| 23a | packer turn lock (clearance > 3 mm) | 801277 | 1 | | 801284 | | 801291 |
| 23b | turn lock w. cylinder (incl. 1 key) | ZMDS0040-100... | 1 | | ZMDS0040-002... | | ZMDS0040-011... |
| 23c | compens. pc 5° for turn lock | 801215 | 1 | | 801215 | | 801215 |
| | **Variant 2** | | | | | | |
| 24a | turning lock concealed | | 1 | ZMDS0010–004.. | | | ZMDS0010–011.. |
| 24b | key DSV | | 1 | ZSDS0010–1.. | | | ZSDS0010–1.. |

**Hinge side turning points**

| Pos. | Description | Part number surface TS | RAL9016 | RAL8022 | required as per sash weight 80 kg |
|---|---|---|---|---|---|
| 25 | stay hinge DH H | Ref. PDB, TBWB81 | | | 1 |
| 26 | cover cap W H | | TKWB7010– 004... | TKWB7010– 012... | 1 |
| 27 | top hinge H | Ref. PDB, TBSL81 | | | 1 |
| 28 | cover cap S | | TKSL0020– 004... | TKSL0020– 012... | 1 |
| 29 | top hinge pin Poly | TBSB6020– 1... | | | 1 |
| 30 | cover cap FEB rh | | TKFE7011– 004... | TKFE7011– 012... | 1 |
| | cover cap FEB lh | | TKFE7012– 004... | TKFE7012– 012... | |
| 31 | bottom hinge H | Ref. PDB, TBEL81 | | | 1 |
| 32 | cover cap EL O MB | | TKEO0010– 004... | TKEO0010– 012... | 1 |
| 33 | cover cap EL U | | TKEU0010– 004... | TKEU0010– 012... | 1 |

# Frame dimensions

1-sash square tilt-turn
H12 GK Hinge side TITAN




**Milling stay AF/iP Z**
miller Ø 8 mm/spacer disc Ø 27 mm

**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 | 640 – 1364 | |
| 1B | 265 | 765 – 964 | |
| | 465 | 965 – 1164 | |
| | 665 | 1165 – 1364 | |
| 2A | 18,5 | 640 – 1364 | |
| 2B | 83 | 640 – 1364 | |
| 2C | 290 | 841 – 1240 | |
| | 590 | 1241 – 1364 | |
| 3A | 83 | | 540 – 1600 |
| 3B | 88 | | 801 – 1600 |
| 4A | 160 | | 540 – 1600 |
| 4B | 206 | | 801 – 1000 |
| | 506 | | 1001 – 1600 |
| 4C | 806 | | 1401 – 1600 |

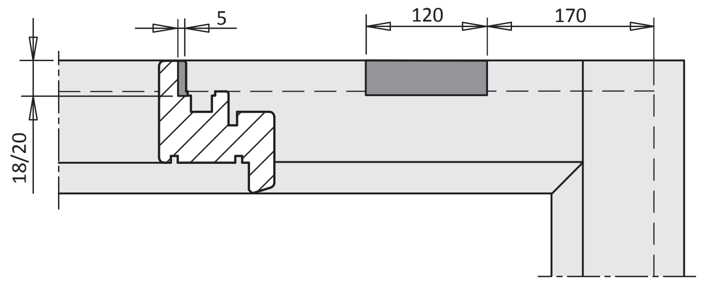
**Milling Variant 2**
turning lock concealed
miller Ø 8mm/
spacer disc Ø 27 mm

**Variant 1**
turn lock w. cylinder

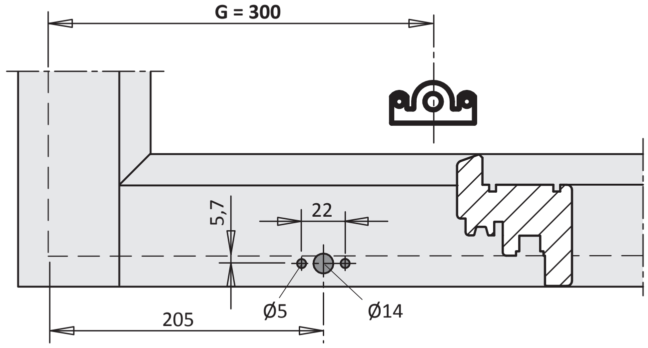
**Please note:**

- The gear driven scissor stay AF/iP Z makes it possible to have a horizontal handle position on the bottom sash rail allowing tilt open or close operation of the sash by turning the operating handle through 180°.
- Opening in the turn position for cleaning is possible by turning the handle through 90° but the use of a turn lock is recommended for safety and to prevent mishandling should be fitted on the sash bottom rail.
- For ease of operation a larger PSK handleis used because of the increased torque required and in addition the fastening plates are fitted to prevent deflection of the corner drives.
- If the sash does not tilt the 90 -100 mm you can adjust the gear driven scissor stay AF/iP Z buy one tooth at a time in the direction of the handle jamb to achieve these dimensions.
- It is possible for the operation to be automated using a motorised handle from the SIEGENIA-AUBI SIMotion product range (eg., Motor Lever MH10) and can be combined with automated building ventilation systems. They will also provide ease of use.
- If a motorised operation is specified the width (FFB) of 1200mm should not be exceeded.
- For correct operation the windows must be fitted plumb and square within the masonry openings.

**Milling stay AF/iP Z only groove axis 9 mm (sash)**
miller Ø 8 mm/spacer disc  Ø 27 mm
(alternatively with jig EB 643-3/-7)



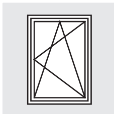
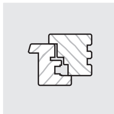

**Drilling variant 2 (sash)**
turning lock concealed
(alternatively with jig DSV ZABL0030-....)




12

# TITAN AF

## Installation instructions

  **RC2**

1-sash square tilt-turn

stay handle driven

timber 12 mm

RC2

fixed handle position

hinge side TITAN

surface TS

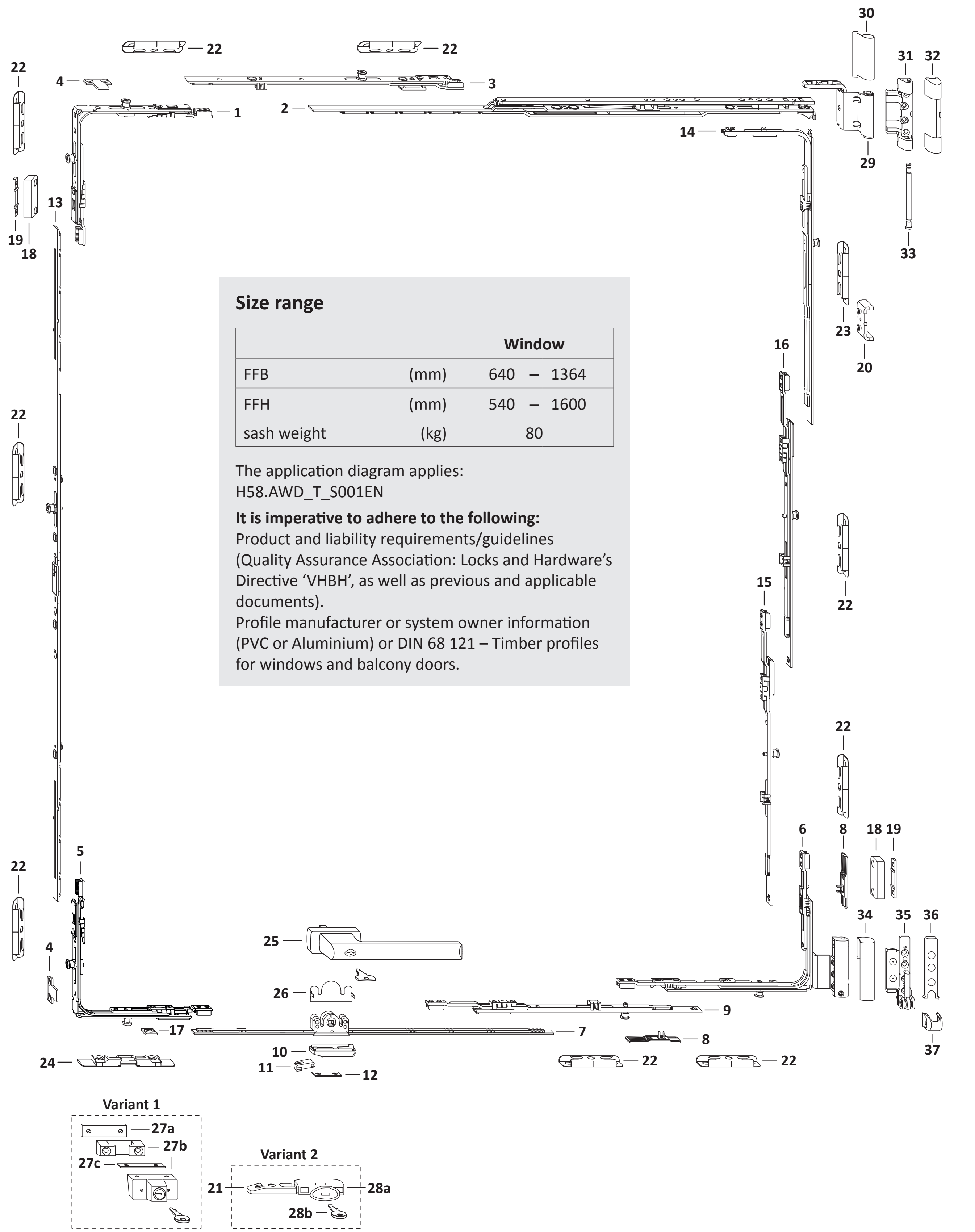
backset 15 mm

Bottom: Inliner

12

# Hardware layout

1-sash square tilt-turn
H12 GK Hinge side TITAN




## Size range

| | | Window |
|---|---|---|
| FFB | (mm) | 640 – 1364 |
| FFH | (mm) | 540 – 1600 |
| sash weight | (kg) | 80 |

The application diagram applies:
H58.AWD_T_S001EN

**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. 22 | Pos. 23 | Pos. 24 |
|---|---|---|---|---|---|---|---|---|---|
| 1 | corner drive AF VSO 2RS A0055 | TEUL4070–... | 1 | 640 – 1364 | | | 2 | | |
| 2 | stay AF/iP Z rh | TSZK0011–... | 1 | 640 – 1364 | | | | | |
| | stay AF/iP Z lh | TSZK0012–... | | | | | | | |
| 3 | linkage KK/AF sz 1 1RS | TZKK1010–... | 1 | 765 – 964 | | | 1 | | |
| | linkage KK/AF sz 2 1RS | TZKK1020–... | | 965 – 1164 | | | 1 | | |
| | linkage KK/AF sz 3 1RS | TZKK1050–... | | 1165 – 1364 | | | 1 | | |
| 4 | fastening plate sec. sash A0204 | ZFAP0020–... | 2 | 640 – 1364 | 540 – 1600 | | | | |
| 5 | corner drive AF/PSK 1S 1RS | PEUJ0010–... | 1 | 640 – 1364 | | | 1 | | 1 |
| 6 | corner drive BSU H 1RS rh/lh | Ref. PDB, TEUL06 | 1 | 640 – 1364 | | | 1 | | |
| 7 | gear 15 AF sz 60/G300 | TGKK4030–... | 1 | 640 – 1364 | | 300 | | | |
| 8 | cover piece | TFAP0010–... | 2 | 640 – 840 | 540 – 600 | | | | |
| 9 | linkage AF/RB sz 1 1RS | TZZS0110–... | 1 | 841 – 1040 | | | 1 | | |
| | linkage AF/RB sz 2 1RS | TZZS0120–... | | 1041 – 1240 | | | 1 | | |
| | linkage AF/RB sz 3 1RS | TZZS0130–... | | 1241 – 1364 | | | 1 | | |
| 10 | mishandling device | TFBS0010–... | 1 | 640 – 1364 | | | | | |
| 11 | pressure piece rh/lh | Ref. PDB, TFFD | 1 | 640 – 1364 | | | | | |
| 12 | stop FBS | Ref. PDB, FRZF01 | 1 | 640 – 1364 | | | | | |
| 13 | gear OS-AF sz 60 | TGMK0500–... | 1 | | 540 – 800 | | | | |
| | gear OS-AF sz 80 1RS | TGMK0510–... | | | 801 – 1200 | | 1 | | |
| | gear OS-AF sz 120 1RS | TGMK0520–... | | | 1201 – 1600 | | 1 | | |
| 14 | corner drive BSO/A3 1RS | TEUL2300–... | 1 | | 540 – 1600 | | | 1 | |
| 15 | linkage AF/RB sz 1 OZ | TZZS0100–... | 1 | | 601 – 800 | | | | |
| | linkage AF/RB sz 2 1RS | TZZS0120–... | | | 801 – 1000 | | 1 | | |
| | linkage AF/RB sz 3 1RS | TZZS0130–... | | | 1001 – 1600 | | 1 | | |
| 16 | linkage AF/RB sz 1 OZ | TZZS0100–... | 1 | | 1201 – 1400 | | | | |
| | linkage AF/RB sz 2 1RS | TZZS0120–... | | | 1401 – 1600 | | 1 | | |
| 17 | run-up | 884959 | 1 | | | | | | |
| 18 | air gap limiter | Ref. PDB, FRFL | 2 | | | | | | |
| 19 | packer RB/FPS | Ref. PDB, FRUP02 | 2 | | | | | | |
| 20 | anti-lift device | Ref. PDB, TFAH | 1 | | | | | | |
| 21 | striker plate 56 | Ref. PDB, FRSB | 1 | | | | | | |
| 22 | striker plate SL-RS | Ref. PDB, TRSK | | | | | | | |
| 23 | striker plate SL-RS WK2 BSO | Ref. PDB, TRSK03 | | | | | | | |
| 24 | tilt lock bear. S-ES FH rh/lh | Ref. PDB, FRKA | | | | | | | |

**Accessories**

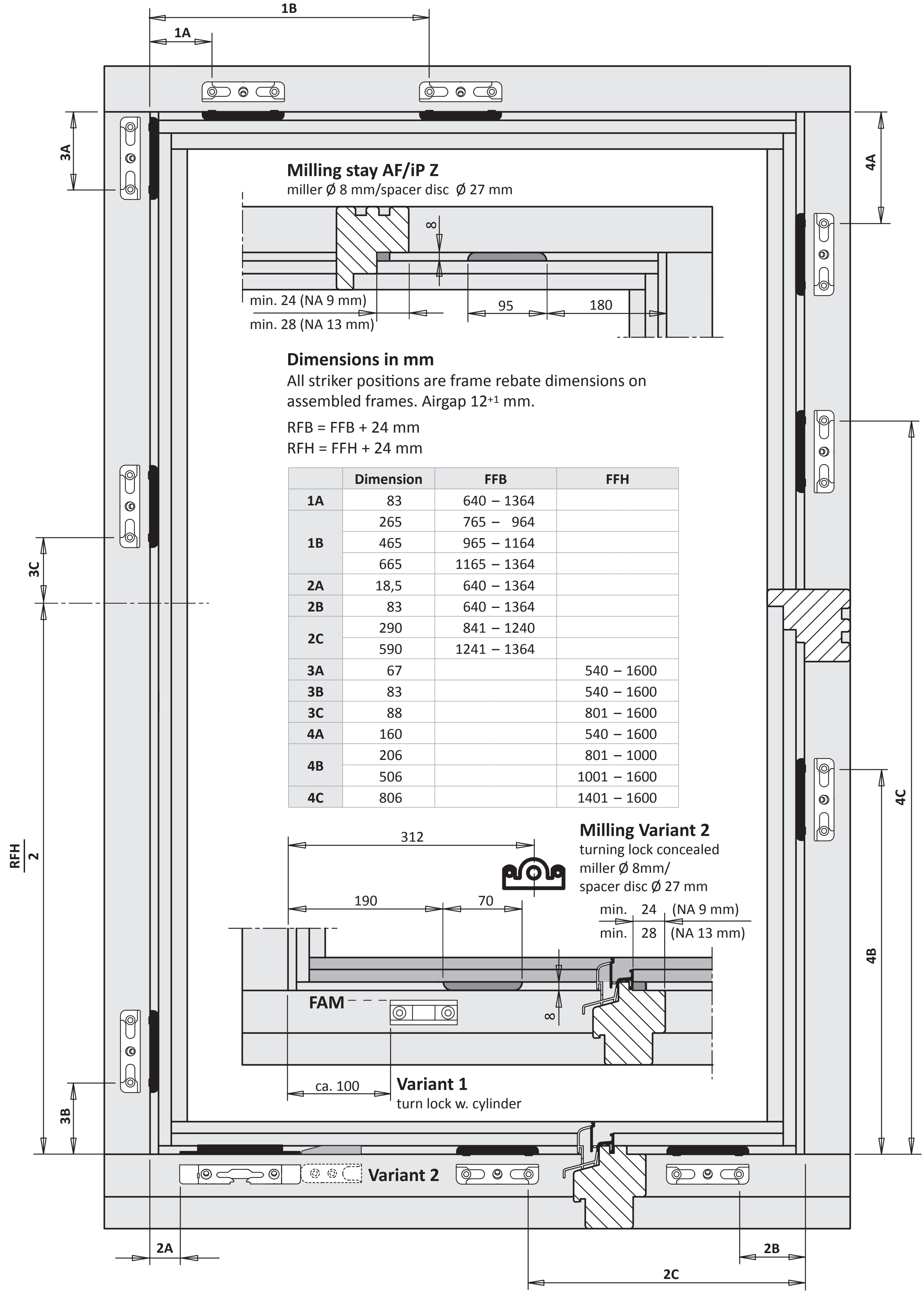
| Pos. | Description | Part number surface TS | QTY | RAL9016 | RAL9003 | RAL8022 | RAL8019 |
|---|---|---|---|---|---|---|---|
| 25 | handle Si-line PSK ABS 31 | | 1 | | 858318 | 895641 | 858325 |
| 26 | anti-drill guard E | TGBS0010–... | 1 | | | | |
| | **Variant 1** | | | | | | |
| 27a | packer turn lock (clearance > 3 mm) | 801277 | 1 | | 801284 | | 801291 |
| 27b | turn lock w. cylinder (incl. 1 key) | ZMDS0040-100... | 1 | | ZMDS0040-002... | | ZMDS0040-011... |
| 27c | compens. pc 5° for turn lock | 801215 | 1 | | 801215 | | 801215 |
| | **Variant 2** | | | | | | |
| 28a | turning lock concealed | | 1 | ZMDS0010–004.. | | | ZMDS0010–011.. |
| 28b | key DSV | | 1 | ZSDS0010–1.. | | | ZSDS0010–1.. |

**Hinge side turning points**

| Pos. | Description | Part number surface TS | RAL9016 | RAL8022 | required as per sash weight 80 kg |
|---|---|---|---|---|---|
| 29 | stay hinge DH H | Ref. PDB, TBWB81 | | | 1 |
| 30 | cover cap W H | | TKWB7010– 004... | TKWB7010– 012... | 1 |
| 31 | top hinge H | Ref. PDB, TBSL81 | | | 1 |
| 32 | cover cap S | | TKSL0020– 004... | TKSL0020– 012... | 1 |
| 33 | top hinge pin Poly | TBSB6020– 1... | | | 1 |
| 34 | cover cap FEB rh | | TKFE7011– 004... | TKFE7011– 012... | 1 |
| | cover cap FEB lh | | TKFE7012– 004... | TKFE7012– 012... | |
| 35 | bottom hinge H | Ref. PDB, TBEL81 | | | 1 |
| 36 | cover cap EL O MB | | TKEO0010– 004... | TKEO0010– 012... | 1 |
| 37 | cover cap EL U | | TKEU0010– 004... | TKEU0010– 012... | 1 |

# Frame dimensions

1-sash square tilt-turn
H12 GK Hinge side TITAN




**Milling stay AF/iP Z**
miller Ø 8 mm/spacer disc Ø 27 mm

**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 | 640 – 1364 | |
| **1B** | 265 | 765 – 964 | |
| | 465 | 965 – 1164 | |
| | 665 | 1165 – 1364 | |
| **2A** | 18,5 | 640 – 1364 | |
| **2B** | 83 | 640 – 1364 | |
| **2C** | 290 | 841 – 1240 | |
| | 590 | 1241 – 1364 | |
| **3A** | 67 | | 540 – 1600 |
| **3B** | 83 | | 540 – 1600 |
| **3C** | 88 | | 801 – 1600 |
| **4A** | 160 | | 540 – 1600 |
| **4B** | 206 | | 801 – 1000 |
| | 506 | | 1001 – 1600 |
| **4C** | 806 | | 1401 – 1600 |

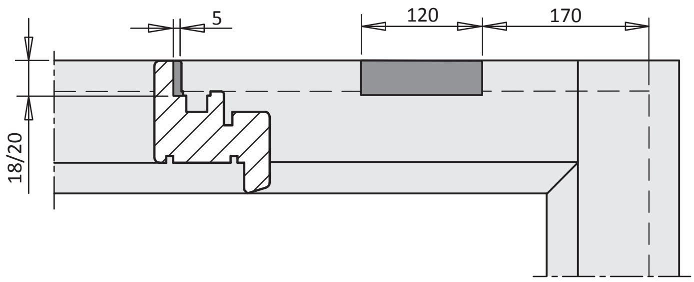
**Milling Variant 2**
turning lock concealed
miller Ø 8mm/
spacer disc Ø 27 mm

**Variant 1**
turn lock w. cylinder

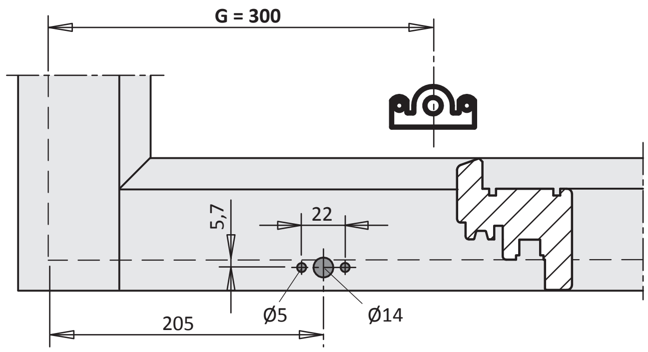
**Please note:**

- The gear driven scissor stay AF/iP Z makes it possible to have a horizontal handle position on the bottom sash rail allowing tilt open or close operation of the sash by turning the operating handle through 180°.
- Opening in the turn position for cleaning is possible by turning the handle through 90° but the use of a turn lock is recommended for safety and to prevent mishandling should be fitted on the sash bottom rail.
- For ease of operation a larger PSK handleis used because of the increased torque required and in addition the fastening plates are fitted to prevent deflection of the corner drives.
- If the sash does not tilt the 90 -100 mm you can adjust the gear driven scissor stay AF/iP Z buy one tooth at a time in the direction of the handle jamb to achieve these dimensions.
- It is possible for the operation to be automated using a motorised handle from the SIEGENIA-AUBI SIMotion product range (eg., Motor Lever MH10) and can be combined with automated building ventilation systems. They will also provide ease of use.
- If a motorised operation is specified the width (FFB) of 1200mm should not be exceeded.
- For correct operation the windows must be fitted plumb and square within the masonry openings.

**Milling stay AF/iP Z only groove axis 9 mm (sash)**
miller Ø 8 mm/spacer disc Ø 27 mm
(alternatively with jig EB 643-3/-7)




**Drilling variant 2 (sash)**
turning lock concealed
(alternatively with jig DSV ZABL0030-....)



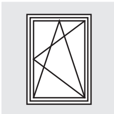
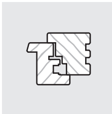
**Fixed handle position**



**Centre handle pos. (variable)**

# TITAN AF

## Installation instructions

  without security

1-sash square tilt-turn

timber 12 mm

without security

fixed handle position

Hinge side TITAN

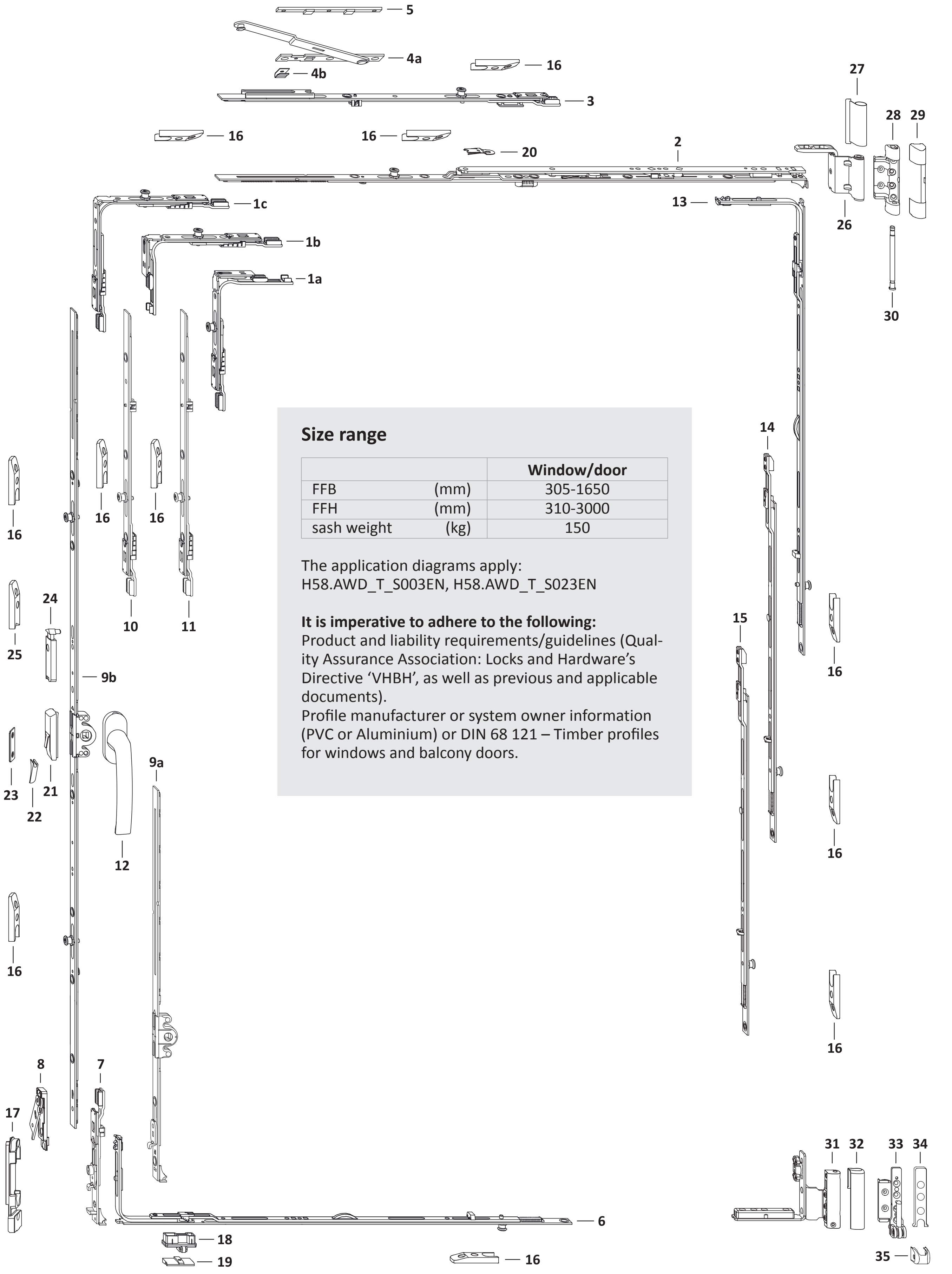
surface TS

backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000; vertical tilt point |
| **Stay side** | one-piece stay |
| **Bottom** | loose sash lift |
| **Locking side** | sash lift arm + mishandl.dev. |
| **Hinge side** | corner drive BS sz 1+2 1RS |
| **Hinge side turning points** | Standard HZ12 |

## hardware layout

1-sash square tilt-turn
H12 GK Hinge side TITAN




### Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 305-1650 |
| FFH | (mm) | 310-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

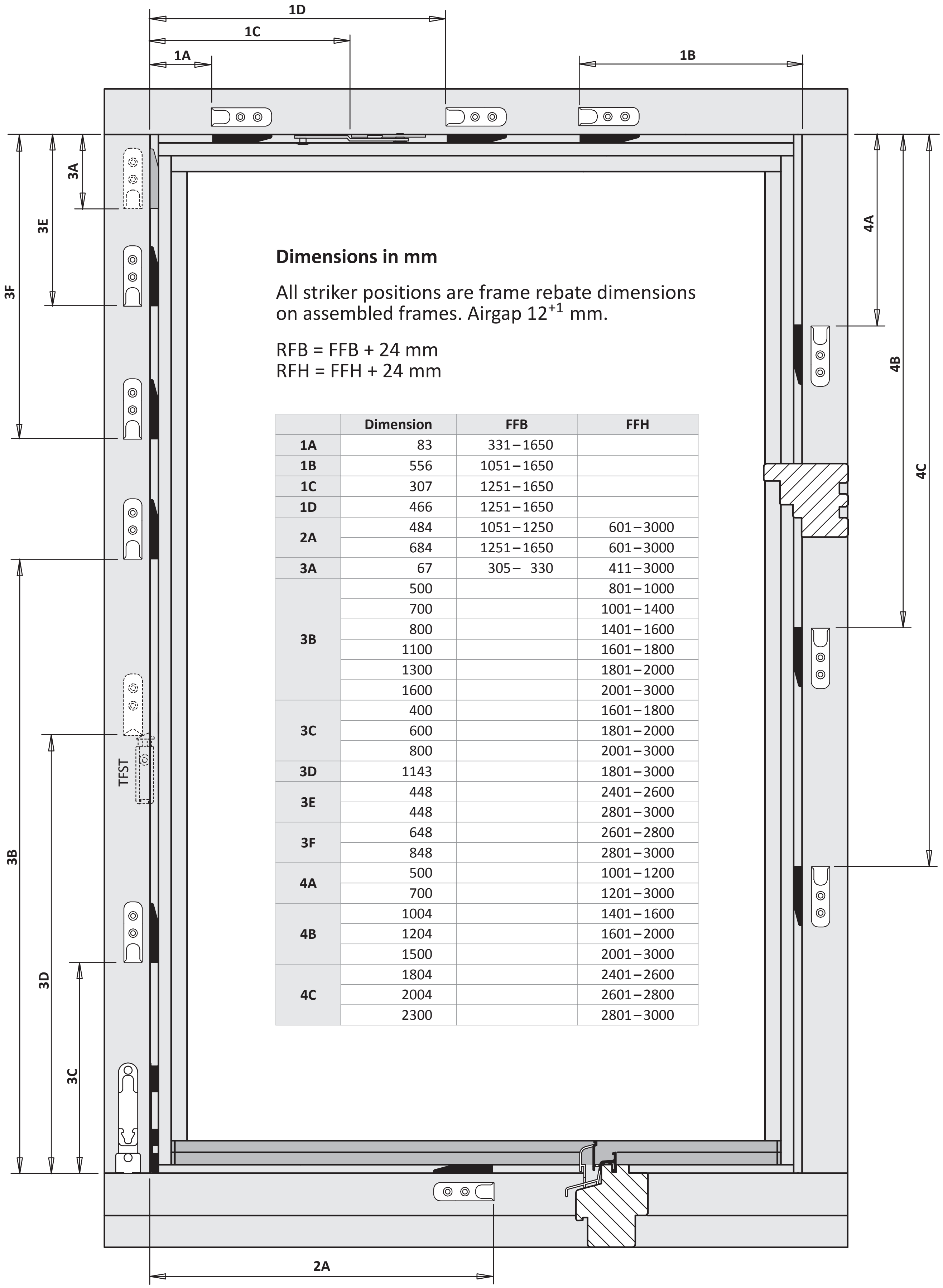
**It is imperative to adhere to the following:**
Product and liability requirements/guidelines (Quality Assurance Association: Locks and Hardware's Directive 'VHBH', as well as previous and applicable documents).
Profile manufacturer or system owner information (PVC or Aluminium) or DIN 68 121 – Timber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

| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 16 | 17 |
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 305 – 330 | 411 – 3000 | | 1 | |
| 1b | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 331 – 850 | 310 – 410 | | 1 | |
| 1c | corn.drive VSO 1RS | TEUL4010- ... | 1 | 331 – 1650 | 411 – 3000 | | 1 | |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 305 – 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | 1 | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | 1 | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | 1 | |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | |
| 6 | corn.drive BS/K3 sz 1+ 1RS | TEUL2410- ... | 1 | 1051 – 1250 | | | 1 | |
| | corn.drive BS/K3 sz 2+ 1RS | TEUL2420- ... | | 1251 – 1650 | | | 1 | |
| 7 | tilt lock element AF/FH | TEKB1130- ... | 1 | | 601 – 3000 | | | 1 |
| 8 | sash lift KRB .. rh. | TFFH0151- ... | 1 | | 601 – 3000 | | | |
| | sash lift KRB .. lh. | TFFH0152- ... | | | 601 – 3000 | | | |
| 9a | gear 15 AF sz 30/G180 KRB | TGKK4000- ... | 1 | 331 – 850 | 310 – 410 | 180 | | 1 |
| | gear 15 AF sz 30/G180 KRB | TGKK4000- ... | | 305 – 1250 | 411 – 600 | 180 | | 1 |
| 9b | gear 15 AF sz 60/G300 | TGKK4030- ... | 1 | | 601 – 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/G700 1RS | TGKK4080- ... | | | 1401 – 1600 | 700 | 1 | |
| | 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 2RS | TGKK4110- ... | | | 2001 – 3000 | 1000 | 2 | |
| 10 | linkage AF sz 1 | TZZS0150- ... | 1 | | 2201 – 2400 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2401 – 2600 | | 1 | |
| | linkage AF sz 1 | TZZS0150- ... | | | 2601 – 2800 | | | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | 1 | |
| 11 | linkage KK/AF sz 2 1RS | TZKK1020- ... | 1 | | 2601 – 2800 | | 1 | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | 1 | |
| 12 | handle Globe | Ref.access. ZHGS | 1 | | 310 – 3000 | | | |
| 13 | corn.drive BS/K3 sz 1+ 1RS | TEUL2410- ... | 1 | | 1001 – 1200 | | 1 | |
| | corn.drive BS/K3 sz 2+ 1RS | TEUL2420- ... | | | 1201 – 3000 | | 1 | |
| 14 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | 1 | |
| 15 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | 1 | |
| 16 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| 17 | tilt striker plate FHA | Ref. PDB, TRKV | | | | | | |
| **on request** | | | | | | | | |
| 18 | sash lift .. A2000 | TFFH0010- ... | 1 | 305 – 1050 | 310 – 600 | | | |
| 19 | run-up FH/TiP | Ref. PDB, TRAL | 1 | 305 – 1050 | 310 – 600 | | | |
| 20 | tilt restrictor .. | TFKB0010- ... | 1 | | 310 – 800 | | | |
| 21 | mishandling device | TFBS0010- ... | 1 | | | | | |
| 22 | pressure piece | Ref. PDB, TFFD | 1 | | | | | |
| 23 | stop | Ref. PDB, FRZF01 | 1 | | | | | |
| 24 | snapper switchable rh. | TFST0011- ... | 1 | | 1801 – 3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1801 – 3000 | | | |
| 25 | frame part snapper | Ref. PDB, TRST | 1 | | 1801 – 3000 | | | |

# List of fittings

1-sash square tilt-turn
H12 GK Hinge side TITAN

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| **26** | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| **27** | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| **28** | top hinge | Ref. PDB, TBSL81 | | | 1 |
| **29** | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| **30** | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| **31** | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| **32** | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| **33** | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| **34** | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| **35** | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |




**Dimensions in mm**

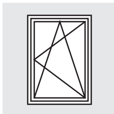
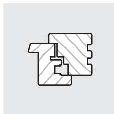
All striker positions are frame rebate dimensions on assembled frames. Airgap $12^{+1}$ mm.

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

| | Dimension | FFB | FFH |
|---|---|---|---|
| **1A** | 83 | 331 – 1650 | |
| **1B** | 556 | 1051 – 1650 | |
| **1C** | 307 | 1251 – 1650 | |
| **1D** | 466 | 1251 – 1650 | |
| **2A** | 484 | 1051 – 1250 | 601 – 3000 |
| | 684 | 1251 – 1650 | 601 – 3000 |
| **3A** | 67 | 305 – 330 | 411 – 3000 |
| **3B** | 500 | | 801 – 1000 |
| | 700 | | 1001 – 1400 |
| | 800 | | 1401 – 1600 |
| | 1100 | | 1601 – 1800 |
| | 1300 | | 1801 – 2000 |
| | 1600 | | 2001 – 3000 |
| **3C** | 400 | | 1601 – 1800 |
| | 600 | | 1801 – 2000 |
| | 800 | | 2001 – 3000 |
| **3D** | 1143 | | 1801 – 3000 |
| **3E** | 448 | | 2401 – 2600 |
| | 448 | | 2801 – 3000 |
| **3F** | 648 | | 2601 – 2800 |
| | 848 | | 2801 – 3000 |
| **4A** | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| **4B** | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| **4C** | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

# TITAN AF

## Installation instructions

without
security

1-sash square tilt-turn

timber 12 mm

without security

centre handle pos. (variable)

Hinge side TITAN

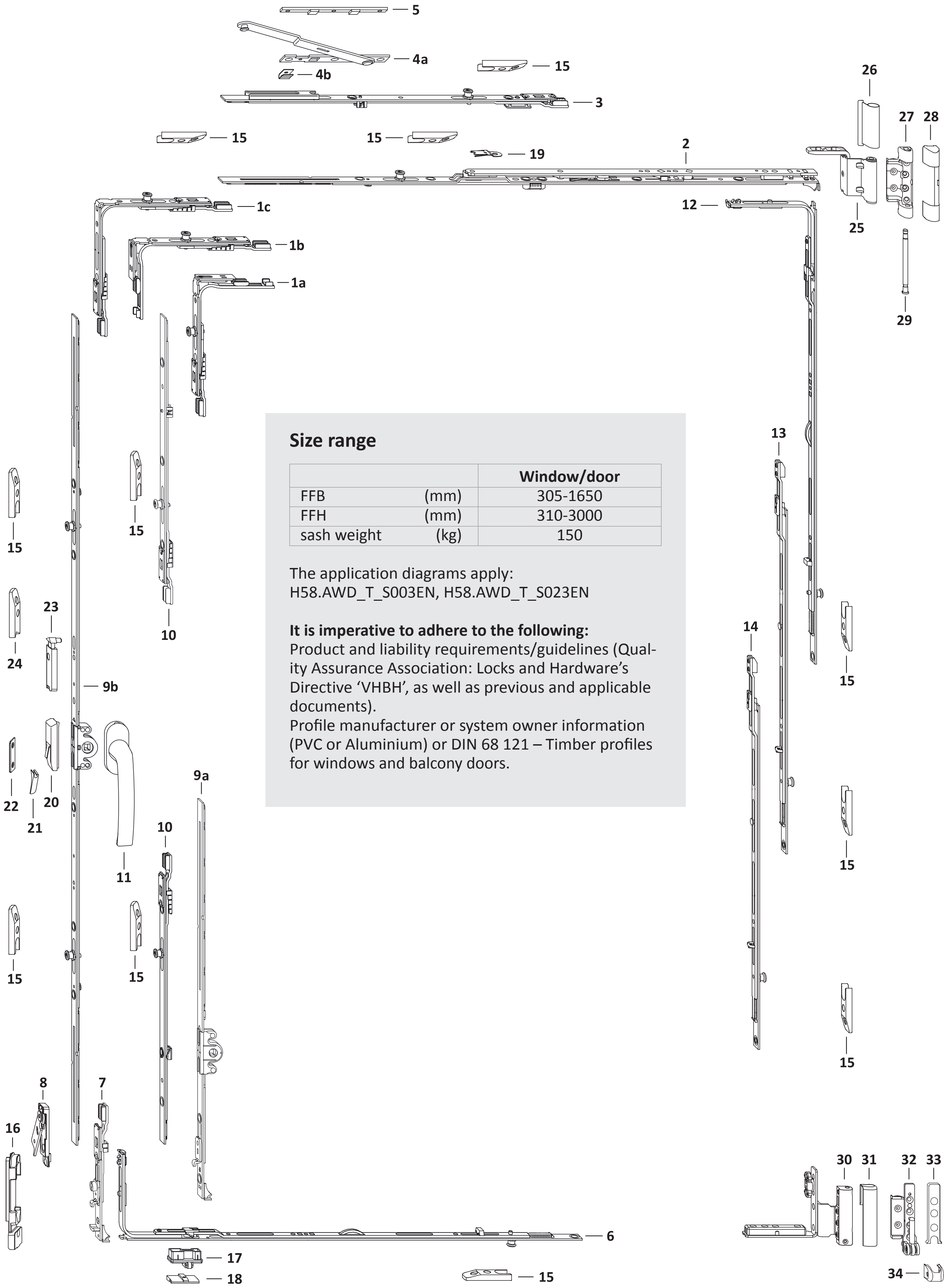
surface TS

backset 15 mm

| Hardware set configuration | |
|---|---|
| **General** | Locking-points distance 1000; vertical tilt point |
| **Stay side** | one-piece stay |
| **Bottom** | loose sash lift |
| **Locking side** | sash lift arm + mishandl.dev. |
| **Hinge side** | corner drive BS sz 1+2 1RS |
| **Hinge side turning points** | Standard HZ12 |

# hardware layout

1-sash square tilt-turn
H12 GM Hinge side TITAN

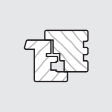



## Size range

| | | Window/door |
|---|---|---|
| FFB | (mm) | 305-1650 |
| FFH | (mm) | 310-3000 |
| sash weight | (kg) | 150 |

The application diagrams apply:
H58.AWD_T_S003EN, H58.AWD_T_S023EN

**It is imperative to adhere to the following:**
Product and liability requirements/guidelines (Quality Assurance Association: Locks and Hardware's Directive 'VBHB', 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.



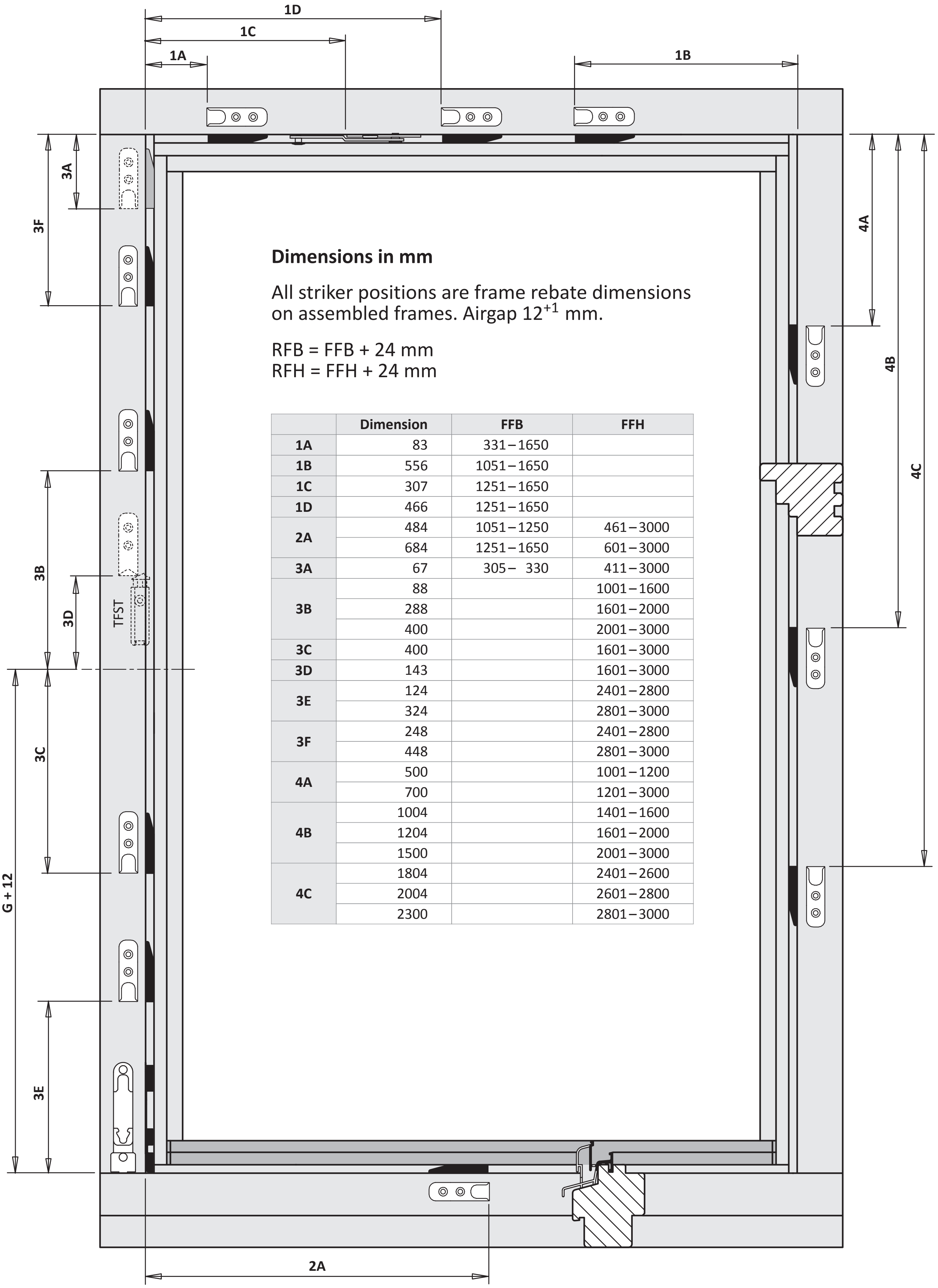


| Pos. | Description | Part number | QTY | FFB | FFH | Dimension G | Number of frame parts / Pos. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 15 | 16 |
| 1a | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 305 – 330 | 411 – 3000 | | 1 | |
| 1b | corn.drive AF VSO narrow 1RS | TEUL4020- ... | 1 | 331 – 850 | 310 – 460 | | 1 | |
| 1c | corn.drive VSO 1RS | TEUL4010- ... | 1 | 331 – 1650 | 461 – 3000 | | 1 | |
| 2 | stay AF sz 0 | TSKK2000- ... | 1 | 305 – 450 | | | | |
| | stay AF sz 1 | TSKK2010- ... | | 451 – 680 | | | | |
| | stay AF sz 2 | TSKK2020- ... | | 681 – 850 | | | | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 851 – 1050 | | | | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1051 – 1250 | | | 1 | |
| | stay AF sz 3 1RS | TSKK2030- ... | | 1251 – 1450 | | | 1 | |
| | stay AF sz 4 1RS | TSKK2040- ... | | 1451 – 1650 | | | 1 | |
| 3 | linkage additional stay 1RS | TZOK1010- ... | 1 | 1251 – 1650 | | | 1 | |
| 4 | additional stay | Ref. PDB, TSZS | 1 | 1251 – 1650 | | | | |
| 5 | packer Z | Ref. PDB, FRUP01 | 1 | 1251 – 1650 | | | | |
| 6 | corn.drive BS/K3 sz 1+ 1RS | TEUL2410- ... | 1 | 1051 – 1250 | | | 1 | |
| | corn.drive BS/K3 sz 2+ 1RS | TEUL2420- ... | | 1251 – 1650 | | | 1 | |
| 7 | tilt lock element AF/FH | TEKB1130- ... | 1 | | 461 – 3000 | | | 1 |
| 8 | sash lift KRB .. rh. | TFFH0151- ... | 1 | | 461 – 3000 | | | |
| | sash lift KRB .. lh. | TFFH0152- ... | | | 461 – 3000 | | | |
| 9a | gear 15 AF sz 30/G180 KRB | TGKK4000- ... | 1 | 331 – 850 | 310 – 410 | | | 1 |
| | gear 15 AF sz 30/G180 KRB | TGKK4000- ... | | 305 – 850 | 411 – 460 | | | 1 |
| 9b | gear 15 AF sz 20 | TGMK4010- ... | 1 | | 461 – 600 | 230 – 300 | | |
| | gear 15 AF sz 60 | TGMK4020- ... | | | 601 – 1000 | 300 – 400 | | |
| | gear 15 AF sz 80 1RS | TGMK4040- ... | | | 1001 – 1200 | | 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 2RS | TGMK4080- ... | | | 2001 – 3000 | 1000 – 1500 | 2 | |
| 10 | linkage KK/AF sz 1 1RS | TZKK1010- ... | 2 | | 2401 – 2800 | | 2 | |
| | linkage KK/AF sz 2 1RS | TZKK1020- ... | | | 2801 – 3000 | | 2 | |
| 11 | handle Globe | Ref.access. ZHGS | 1 | | 310 – 3000 | | | |
| 12 | corn.drive BS/K3 sz 1+ 1RS | TEUL2410- ... | 1 | | 1001 – 1200 | | 1 | |
| | corn.drive BS/K3 sz 2+ 1RS | TEUL2420- ... | | | 1201 – 3000 | | 1 | |
| 13 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 1401 – 1600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 1601 – 2000 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2001 – 3000 | | 1 | |
| 14 | linkage BS/FH sz 1+ 1RS | TZBS0180- ... | 1 | | 2401 – 2600 | | 1 | |
| | linkage BS/FH sz 2+ 1RS | TZBS0190- ... | | | 2601 – 2800 | | 1 | |
| | linkage BS/FH sz 3+ 1RS | TZBS0200- ... | | | 2801 – 3000 | | 1 | |
| 15 | striker plate 56 | Ref. PDB, FRSB | | | | | | |
| 16 | tilt striker plate FHA | Ref. PDB, TRKV | | | | | | |
| **on request** | | | | | | | | |
| 17 | sash lift .. A2000 | TFFH0010- ... | 1 | 305 – 1050 | 310 – 460 | | | |
| 18 | run-up FH/TiP | Ref. PDB, TRAL | 1 | 305 – 1050 | 310 – 460 | | | |
| 19 | tilt restrictor .. | TFKB0010- ... | 1 | | 310 – 800 | | | |
| 20 | mishandling device | TFBS0010- ... | 1 | | | | | |
| 21 | pressure piece | Ref. PDB, TFFD | 1 | | | | | |
| 22 | stop | Ref. PDB, FRZF01 | 1 | | | | | |
| 23 | snapper switchable rh. | TFST0011- ... | 1 | | 1601 – 3000 | | | |
| | snapper switchable lh. | TFST0012- ... | | | 1601 – 3000 | | | |
| 24 | frame part snapper | Ref. PDB, TRST | 1 | | 1601 – 3000 | | | |

# List of fittings

1-sash square tilt-turn
H12 GM Hinge side TITAN

| Hinge side turning points | | | | | |
|---|---|---|---|---|---|
| Pos. | Description | Part number | | | required as per sash weight |
| | | surface TS | RAL9016 | RAL8022 | 150 kg |
| 25 | stay hinge DH | Ref. PDB, TBWB81 | | | 1 |
| 26 | cover cap W timber | | TKWB7010-004 ... | TKWB7010-012 ... | 1 |
| 27 | top hinge | Ref. PDB, TBSL81 | | | 1 |
| 28 | cover cap S | | TKSL0020-004 ... | TKSL0020-012 ... | 1 |
| 29 | top hinge pin Poly | TBSB6020-1 ... | | | 1 |
| 30 | reb.cor.hinge | Ref. PDB, TBFE81 | | | 1 |
| 31 | cover cap FEB rh. | | TKFE7011-004 ... | TKFE7011-012 ... | 1 |
| | cover cap FEB lh. | | TKFE7012-004 ... | TKFE7012-012 ... | 1 |
| 32 | bottom hinge | Ref. PDB, TBEL81 | | | 1 |
| 33 | cover cap EL O MB | | TKEO0010-004 ... | TKEO0010-012 ... | 1 |
| 34 | cover cap EL U | | TKEU0010-004 ... | TKEU0010-012 ... | 1 |




**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 | 331 – 1650 | |
| **1B** | 556 | 1051 – 1650 | |
| **1C** | 307 | 1251 – 1650 | |
| **1D** | 466 | 1251 – 1650 | |
| **2A** | 484 | 1051 – 1250 | 461 – 3000 |
| | 684 | 1251 – 1650 | 601 – 3000 |
| **3A** | 67 | 305 – 330 | 411 – 3000 |
| **3B** | 88 | | 1001 – 1600 |
| | 288 | | 1601 – 2000 |
| | 400 | | 2001 – 3000 |
| **3C** | 400 | | 1601 – 3000 |
| **3D** | 143 | | 1601 – 3000 |
| **3E** | 124 | | 2401 – 2800 |
| | 324 | | 2801 – 3000 |
| **3F** | 248 | | 2401 – 2800 |
| | 448 | | 2801 – 3000 |
| **4A** | 500 | | 1001 – 1200 |
| | 700 | | 1201 – 3000 |
| **4B** | 1004 | | 1401 – 1600 |
| | 1204 | | 1601 – 2000 |
| | 1500 | | 2001 – 3000 |
| **4C** | 1804 | | 2401 – 2600 |
| | 2004 | | 2601 – 2800 |
| | 2300 | | 2801 – 3000 |

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