

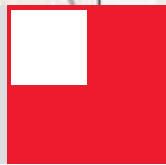
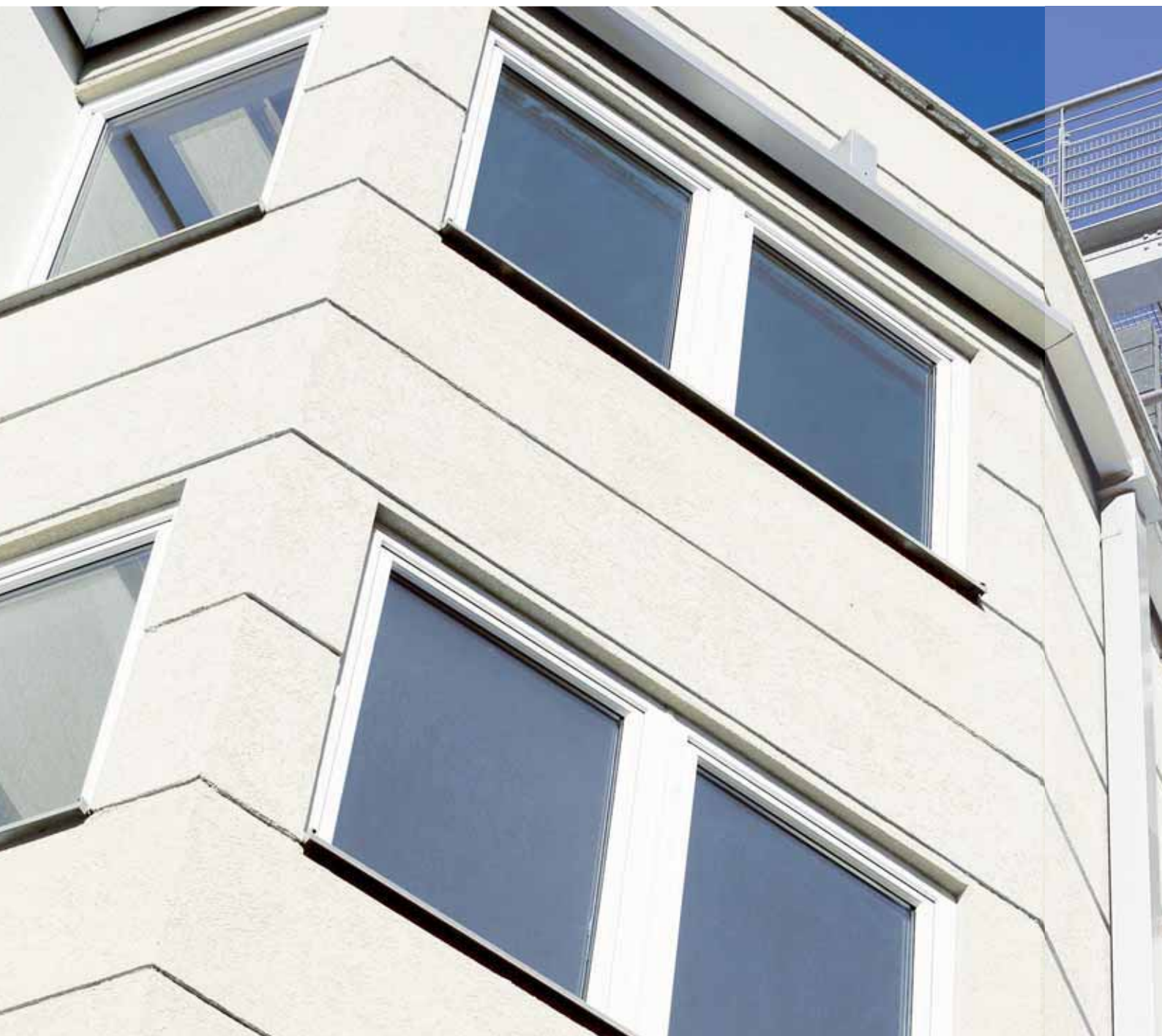
Window and Door Technology



## **Roto NT**

The world's biggest selling Tilt&Turn hardware system for windows and balcony doors

Catalogue  
for PVC profiles



**Imprint**

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**Roto Frank AG**

**Window and Door Technology**

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# Roto

## Window and Door Technology



Production plant in Leinfelden-Echterdingen, Germany – Roto group headquarters.

### Production companies



Roto Frank Austria GmbH  
Kalsdorf (AUT)



Roto Fasco Canada Inc.  
Mississauga, Ontario (CAN)



Roto Frank  
Building Materials Co. Ltd.  
Beijing (CHN)



Roto Frank AG  
Leinfelden-Echterdingen (GER)



Roto Frank AG  
Velbert production plant (GER)



Roto Elzett Certa Kft.  
Lövö (HUN)



Elzett Sopron Kft.  
Sopron (HUN)  
(50 %)



OOO Roto Frank  
Moscow (RUS)



Roto Frank of America Inc.  
Chester, Ct. (USA)

## Sales subsidiaries / sales partners



Entrance area of the Leinfelden-Echterdingen production plant

### The Roto group of companies – leading the way for over 75 years

Only a few brands in the construction world can look back at a similar success story, and only a few are at the forefront over decades. Roto is one of the leading manufacturers of window and door technology worldwide and a major supplier of roof and solar technology.

Our history begins, as in the case of many successful companies, with the name of a personality: Wilhelm Frank. He became a pioneer with his ideas; the first industrially-produced Tilt&Turn hardware in 1935. Our company founder was a classic Swabian inventor. Under his direction and that of his immediate successors, Roto developed with its headquarters in Leinfelden-Echterdingen (Stuttgart), from being a one man operation to an international group of companies.

Over 4000 employees around the globe work on the task of recognising customers' needs early on and developing products to enhance the increased value of windows and doors for mankind.

Creating inner – and with it permanent – values is our utmost objective. The unique modular system 'Roto NT' for windows and balcony doors best depicts this with its ten-year performance warranty. 100 million sets of hardware sold since its market launch in the year 2000 clearly demonstrates why Roto has earned the first place worldwide.

A state of the art cross linked network of nine production plants worldwide warrants a high level of flexibility, productivity and supply security. With our international distribution network consisting of over 40 own subsidiaries, representations and trading partners, we ensure that we are always close to our customers. Both the customers and Roto benefit equally from the continuous close dialogue with planning engineers, dealers and window & door fabricators.

## Roto NT

Roto NT is a high-quality, well tried and tested hardware system for Tilt&Turn windows, that meets the highest requirements for security, ease of operation, durability and design. It enables simple manufacturing processes, that can be further automated at any time due to the NT concept. The modular design of Roto NT provides fabricators with the possibility of individually addressing and serving the needs of the market, so that all market segments from "Basic" to "Premium" can be covered with a single hardware system. Special solutions for every room situation are possible with the extensive product and accessories range from Roto NT, such as for example; a secure child's room window, a burglar-proof balcony door, a designer oriented living room window or a bedroom window providing the best possible ventilation convenience.

### ■ Roto Sil Nano – an excellent surface

Roto Sil Nano offers a high degree of surface protection in all Roto NT modular system's components. With the help of Nano particles a surface is created that is equipped with an excellent corrosion protection.

- Matt silver look for noble aesthetics
- Extremely resistant and scratch-resistant
- The entire coating system is free from Chromium (VI) compounds
- Represents no environmental, toxicological, hygienical or sanitary health hazards

### ■ 100% quality testing right from the idea through to production

Extensive component as well as window and door tests are carried out in accordance with the current standards and regulations with the help of modern equipment. Roto has a clear benchmark status in the testing sector. This is equally valid for systems engineering as well as implementation. The tests are carried out both by independent test institutes and by our own accredited International Technology Centre. This accreditation represents the highest award for a testing laboratory in the private-law sector and confirms that the corresponding tests are always performed correctly, in line with the current standards, and above all in a neutral manner. Already during the development process, three-dimensional computer models simulate forces and eliminate possible component failure prior to the design phase. The raw materials are inspected to ensure that they meet up to the NT quality standards during receiving. If they pass this test, further checks are carried out in many work steps at regular intervals during ongoing production.

### ■ The extended 10 year guarantee on the operativeness of Roto NT hardware

Roto's highest test requirements on its products have a decisive influence on the hardware's durability. The systematic quality controls with the strictest test requirements, warrant that every individual NT component is in accordance with our quality standards. Only this exemplary quality management enables us to set new standards: The 10-year functional warranty for our partners – this is our benchmark.

**10 year guarantee**  
for Roto NT standard windows

**Guarantee conditions and guarantee period**

Roto warrants a 10 year guarantee on the hardware components in Roto NT standard windows. This guarantee is exclusively for the benefit of window fabricators that have installed the Roto hardware components in windows that they themselves, have produced. All other persons are excluded from the guarantee.

The guarantee is only valid for hardware components bought by guarantee beneficiaries after the 1<sup>st</sup> of January 2008, the date of the conclusion of the sales contract with the beneficiary's salesman is applicable. The 10 year guarantee period commences on the date of purchase.

The guarantee exclusively comprises operation of the hardware components. Natural wear and tear is not covered in this, nor are losses in aesthetics or convenience that lead to no functional loss.

The guarantee is only granted under the following conditions: the verifiable professional installation in accordance with the "Roto installation instructions" as well maintenance in accordance with the "maintenance instructions". A further condition is the verifiable, appropriate and specified operation.

Electronic and magnetic components are excluded from the guarantee. Also excluded from the guarantee are hardware components installed in passageway doors in public or commercial areas, or hardware used within the framework of industrial applications. Damages resulting from third parties actions are also excluded.

**Guarantee claims**

In case of a guarantee claim, Roto grants functional equivalent replacement of the defective hardware component, without delivery and without installation.

Claims for subsequent improvement and compensation are also excluded. The statutory rights of the guarantee beneficiary towards his seller are not restricted by this guarantee.

Roto NT standard windows consist of:

- Single and double-sashed rectangular windows with Turn-Only and Tilt&Turn sashes
- Timber, PVC and aluminium profiles
- Hinge-slides A, E5, K, R, V and Designo
- With standard, lever operated, reverse-action, and Turn-Only/Tilt-Only espagnolettes
- With RotoLine and DecoLine handles
- Including burglar-inhibiting windows with zinc die-cast/steel sliders
- Excluding electrical drive units and electronic components
- Excluding the tilt-stay and arrestable brake-stay accessories
- Technically implemented within the framework of the "Roto application diagrams and installation instructions"

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### ■ The surface-finish

Roto Sil Nano surface-finish for elegant matt silvery aesthetics. Unmistakable consistent silver look.

Optimal protection by means of galvanising, chromating, and additional sealing.

Increased corrosion protection.

### ■ The NT security concept

The basic version of Roto NT is already equipped with basic security on the bottom horizontal sash-plane.

Highest burglary inhibition results are achieved with exemplary hardware combinations for security windows in accordance with DIN V ENV 1627–1630. This standard includes an overall test of all individual window components.

### ■ The NT striker concept

All strikers in the Roto NT hardware system have identical screwing axes.

This concept renders prefitting the sash with security cams possible, and a later frame retrofitting with security strikers (zinc or steel).

All locking cam versions are combinable with all strikers.

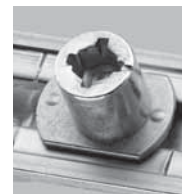
### ■ Three locking cam versions

The Roto NT hardware system offers 3 different locking cam versions that differ in application and adjusting capabilities.

The detailed adjusting dimensions can be found in these installation instructions.

#### Locking cam E

Gasket-compression adjustable cam



#### Locking cam P

Gasket-compression adjustable security cam



#### Locking cam V

Height and gasket-compression adjustable security cam



## Product liability guidelines

### Tilt&Turn hardware for windows and balcony doors

According to the defined manufacturer's liability described in paragraph 4 of the "product liability law", the following information regarding Turn-Only and Tilt&Turn hardware for window and balcony door sashes should be observed. Non-compliance exempts the manufacturer of his liability.

#### 1. Product information and stipulated application

##### 1.1 Turn-Only and Tilt&Turn hardware

**Definition:** Turn-Only and Tilt&Turn hardware as covered by this definition is one-hand-operation Turn-Only and Tilt&Turn hardware for windows and balcony doors in building construction. This is used to enable windows and balcony-door sashes into a turning position by operating a 'hand-lever' (handle) or into a limited tilting position in the case of the scissors (sash-stay) version.

**Application:** Turn-Only and Tilt&Turn hardware is used on vertically installed windows and balcony-doors made of timber, PVC, aluminium or steel and their corresponding material combinations. Conventional Turn-Only and Tilt&Turn hardware as covered by this definition, locks window and balcony door sashes or enables various ventilating positions. When closing, the gasket counter force must be overcome as a rule.

##### 1.2 Sliding hardware

**Definition:** Sliding hardware as covered by this definition, is hardware for sliding sashes for balcony doors and windows that are mainly used as glazed exterior structures. In combination with the sliding sashes, fixed-glazing-units and/or further sashes i.e. Turn-Only sashes for cleaning purposes can be situated in a window element.

**Application:** Sliding hardware is used on vertically installed windows and balcony door sashes made of timber, PVC, aluminium or steel, and their corresponding material combinations. Sliding hardware as covered by this definition is equipped with a locking mechanism that fastens the sliding sash as well as rollers located on the bottom horizontal plane of the sliding sash. In addition, scissor stay-arms for tilting and mechanisms to lift and/or parallel-retract

the sashes can be specified. By means of the hardware, the sashes are locked, brought into the ventilation position and pushed to the side.

Depending on the outside temperature, relative air humidity of the ambient air, as well as the application location of the sliding element, a temporary formation of condensation water on the aluminium track on the inside may occur. This is particularly promoted when the air circulation is hindered; for example due to deep reveals, curtains as well as unfavourable radiator positioning and the like.

##### 1.3 Differing application – Liability exclusion

All applications differing from § 1.1 and/or 1.2 are regarded as non-stipulated applications and excludes any liability on our part.

##### 1.4 Advice concerning restrictions of use

Opened balcony doors and window sashes, as well as window and balcony door sashes not locked or in the tilted modus, provide only a shielding function and do not meet any demands on joint impermeability, water tightness, sound reduction, heat-insulation and burglary resistance.

In the case of wind and draught, the window and balcony door sashes must be closed and locked. Wind and draught is present, if a window or balcony-door sash while in one of its opening positions, can open or close on its own, in an uncontrolled manner by means of either air pressure or air suction. A static opening position of window and balcony-door sashes can only be achieved by means of additional hardware.

##### 1.5 Particular necessary agreements for extended requirements

Burglar-resistant windows and balcony doors, windows and balcony doors for damp rooms and those for use in environments with aggressive, corrosive air content, require hardware adapted for the respective application and individually agreed upon performance features.

The resistance against wind loads in a closed and locked state is dependent on the respective designs of windows & balcony doors. If wind loading tests need to be carried out (for example in accordance with DIN EN 12210 – in particular pressure test p3), suitable hardware compilations are to be matched in relation to the respective window design and frame material, and each case individually agreed upon.

Generally speaking, the hardware defined in § 1.1 and/or § 1.2 fulfils the requirements for barrier-free dwellings (for example, in accordance with DIN 18025). However corresponding hardware compilations and installations for windows and balcony doors are necessary, which must be coordinated and each case individually agreed upon.

#### 2. Misuse

Misuse – therefore not the stipulated product utilisation – occurs in particular with hardware for windows and balcony doors as described in § 1.1 and/or § 1.2 in particular:

- if obstacles are inserted in the opening vicinity between the frame and sash, thus impeding or preventing its proper specified use,
- if additional loads are put on window or balcony-door sashes (for example if children swing on the window or balcony-door sash),
- if window and balcony-door sashes are pressed adversatively or uncontrolled (e.g. by the wind) up against the window reveals, so that the hardware or the frame material or other individual window or balcony-door components are damaged or destroyed and/or if consequential damage can arise,
- if while closing (or sliding) someone reaches between the sash and frame, and/or a person (or parts thereof) are in the vicinity (risk to life and limb).

### 3. Liability

The respective entire hardware set may only consist of hardware components from Roto's NT system. In the case of non factory-approved combinations by Roto Frank AG and/or inappropriately assembled hardware, and/or the use of non-original and/or non factory-approved accessory components, no liability is accepted.

For professional screw-fixing, the Quality Assurance Association: Locks and Hardware's directive 'TBDK' (Fixing load-bearing Turn-Only and Tilt&Turn hardware components) is to be adhered.

When using PVC or light metal profiles, the profile manufacturers and/or system owners information is to be observed.

The window fabricator is essentially responsible for the compliance of the specified system-related dimensions (for example, the gasket gap dimensions). These specified system-related dimensions are to be checked regularly, in particular when using new hardware components for the first time, and also during production as well as during the window installation process. The hardware components are designed in such a manner, that the system-related dimensions can be adjusted, provided the hardware can have an effect on these. Should there be a deviation from these dimensions that leads to a fault that has not been noted before the window installation, no liability is accepted for the additional expenses incurred.

### 4. Product performance – Manufacturer's application advice

#### 4.1 Maximum sash weights

The listed maximum sash weights for the individual hardware versions may not be exceeded. The building component with the least permissible load-carrying capacity determines the maximum sash weight.

Application diagrams and component classification are to be adhered to. (refer to chapter Diagrams / Profile cross sections)

### 4.2 Sash sizes

The description of the application diagrams in the planning documentation, product catalogues or installation instructions depict the relationships between the permissible sash rebate widths and sash rebate heights, depending on various glass weights and/or thickness. The resulting sash dimensions or sash formats (portrait and/or landscape format) – as well as the maximum sash weight – may not under any circumstance be exceeded.

### 4.3 Hardware combination

The manufacturer's regulations that deal with the combination of hardware are obligatory (for example: the application of additional stay arms, the hardware design for burglar-resistant window sashes and balcony-door leaves etc.).

### 5. Product maintenance

Security relevant hardware components are to be examined at least once a year for stability and wear and tear. Depending on the requirements, the fixing screws are to be tightened and/or parts to be replaced. In addition to this, the following maintenance work is to be carried out at least once a year:

- All movable parts and all locking points of the hardware are to be lubricated and tested.
- Only cleaning and maintenance agents, that do not damage the corrosion protection of the hardware components, are to be used.

The hardware adjustment work – particularly in the vicinity of the pivot rest, bogies and the scissor stays – as well as replacing parts and the unhinging & hinging of the active sash are to be carried out by a specialist company.

When coating – for example when painting or varnishing – the windows' and balcony doors hardware is to be excluded from this process and is also to be protected against any impurities (paint/varnish splashes).

### 5.1 Preservation of the surface finish

Electrolytically applied zinc coatings are not attacked in a normal room climate, if no condensation can form on the hardware or occasionally formed condensation can dry rapidly.

In order to permanently preserve the hardware's surface quality and to avoid deterioration by corrosion, it is imperative to observe the following points:

- The hardware and/or the rebate areas are to be ventilated sufficiently in particular during the building phase so that they are not exposed to either direct wetness or to condensation. In any case, necessary steps are to be taken to ensure that (permanent) moist ambient air cannot condense in the rebate areas.
- The hardware is to be kept free from deposits and soiling from building materials (building dust, plaster, cement etc.). Possible soiling from plaster, mortar or similar materials is to be removed with water before it cures.
- Aggressive vapours (e.g. by means of formic acid or acetic acid, ammonia, amine or ammonia compounds, aldehydes, phenols, chlorine, tannic acid etc.) in connection with even small formations of condensation can lead to fast corrosion of the hardware. For this reason, evaporation in the vicinity of the windows is to be absolutely avoided.
- On windows and balcony doors made of oak or other types of timber with a high concentration of (tannic-) acid, ensure that by means of a suitable window surface treatment, these content substances can not evaporate out of the timber. The hardware may not come in direct contact with untreated timber surfaces.

(Continued on the next page)

## Product liability guidelines

### Tilt&Turn hardware for windows and balcony doors

- Furthermore no acetic-acid or crosslinked acidic sealing compounds or those with the above mentioned contents may be used, since both the direct contact with the sealing compound and its vaporisation can attack the hardware's surface.
- The hardware may only be cleaned with mild, pH-neutral cleaning agent in diluted form. Under no circumstances may aggressive, acidiferous cleaners or abrasive cleaning agents whose contents are listed in the above paragraph be used.
- Basically only zinc-plated and passivated screws are to be used for fixing the hardware components. By no means may stainless-steel screws be used, as this promotes the corrosion of zinc-plated surfaces.

#### 6. Obligation to issue information and instructions

The following documentation in particular is available in order to fulfil the information and instruction duties, as well as implementing maintenance operations. This documentation is to be passed on to dealers, intermediaries, fabricators and end users.

- Planning documentation
- Product catalogues
- Installation instructions
- Maintenance and care instructions as well as operating instructions

This is described subsequently as 'product information' – whether in whole or in part.

In order to safeguard the relevant function of windows and balcony doors:

- Planning engineers are obliged to request and comply with the manufacturers or authorised dealers 'product information'.
- Specialised dealers are obliged to observe the 'product information' from

the manufacturer – particularly valid for advertising measures – and to pass this on to subsequent dealers and/or fabricators, and to point out to them that they are also obliged to pass this on to their customers.

- Fabricators are obliged to observe the 'product information' and in particular, to pass on service & maintenance instructions as well as operating manuals to the builders and end-users.

#### 7. Use of related hardware

The variations possible within individual hardware systems (e.g. Tilt-Only and Top-Hung hardware, or hardware that provides a circumferential ventilation-gap by parallel-retracting the sash instead of, or in addition to the tilted position) are to be treated according to the corresponding valid features of product information, stipulated application, misuse, product performance, product maintenance, information & instruction obligations.

## Storage conditions

### ■ **Component protection against dirt and dust**

Always keep the hardware bundles closed, and always cover up hardware bundles or opened goods (i.e. with a layer of cardboard).

### ■ **Component protection against mechanical damage**

Transport and handling of the hardware bundles only to be carried out with suitable transport or conveying means (forklift trucks, hoisting devices / cranes and elevators, roller belts, etc.). Maximum pallet and cardboard-box stack-heights (during transport) in accordance with the printed instructions on the packaging are to be strictly adhered.

### ■ **Component protection against direct humidity and wetness**

The components may not get wet. The packaging must remain dry.

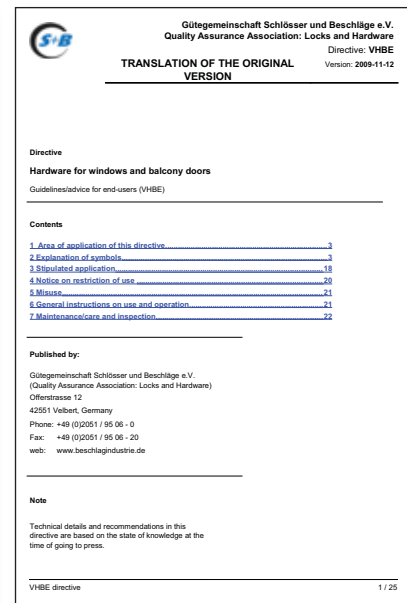
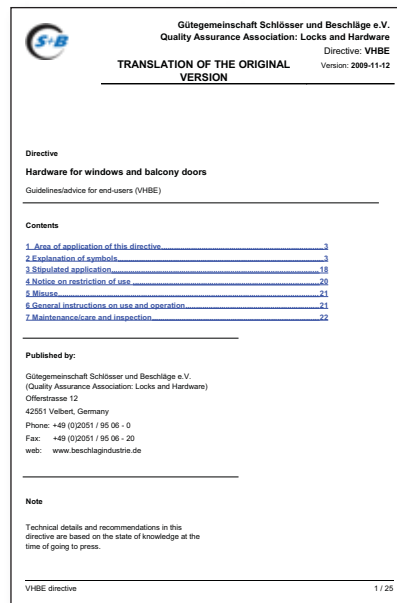
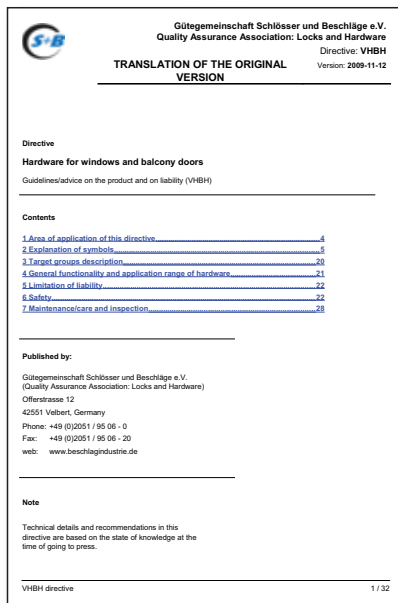
This applies to storage and transport, as well as for unloading and loading procedures. Where appropriate, plastic protective sheets or similar are to be used during outdoor transport when raining (i.e. on-site transport). Storage may only be carried out in suitable, closed rooms and not outdoors. Condensation is to be absolutely avoided during the entire transport and storage duration.

### ■ **Should hardware bundles nevertheless get wet...**

Immediately unpack the components from the wet bundles, dry the components and check for signs of corrosion. In any case repack the usable components when dry with new packing material.

# Directives of the Quality Assurance Association: Locks and Hardware

In the directives of the Quality Assurance Association: Locks and Hardware all information about the correct use and maintenance of the hardware for windows and balcony doors can be found.



■ **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

■ **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

# ift certification Hardware



Please contact our sales staff for the current certificates.

Anlagennummer 1 Blattseite 1 von 2  
Zertifikat-Nr./Certificate No. 228 7012530-1-B  
Hersteller/Manufacturer Roto Frank AG  
Ausgabedatum/date of issue: 13.03.2013

#### In der Zertifizierung für anrollbare Produktfamilien für Fenster- und Fenstertürsysteme mit geeigneter Beschlagsaufnahme. Product families for anrollable and assembled window systems with grooved designed for accommodation of hardware, covered by certification.

No	Ausführung/Configuration for single leaf	Ausführung/Configuration for assembled leaf	Beschreibung der Ausführung der Hochdruckverspannung/Description of frame members fastening type				Flügel-gewicht/leaf weight	Klassifizierung entsprechend der Nachweise nach EN 13030-B classification in accordance with test reports as per EN 13120-0											
			Auswahl für alle Ansprachen/Selection for all languages	Auswahl für alle Ansprachen/Selection for all languages	Auswahl für alle Ansprachen/Selection for all languages	Auswahl für alle Ansprachen/Selection for all languages		1	2	3	4	5	6	7	8	9	10		
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2	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	100 kg	-	-	0	100	0	1	0	-	0	0	0	0	
3	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	100 kg	-	-	0	100	0	1	0	-	0	0	0	0	
4	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	100 kg	-	-	0	100	0	1	0	-	0	0	0	0	
5	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	100 kg	-	-	0	100	0	1	0	-	0	0	0	0	
6	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	100 kg	-	-	0	100	0	1	0	-	0	0	0	0	
7	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	100 kg	-	-	0	100	0	1	0	-	0	0	0	0	
8	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	100 kg	-	-	0	100	0	1	0	-	0	0	0	0	
9	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	100 kg	-	-	0	100	0	1	0	-	0	0	0	0	
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12	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	100 kg	-	-	0	100	0	1	0	-	0	0	0	0	
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15	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	100 kg	-	-	0	100	0	1	0	-	0	0	0	0	
16	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	100 kg	-	-	0	100	0	1	0	-	0	0	0	0	
17	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	100 kg	-	-	0	100	0	1	0	-	0	0	0	0	

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Ausgabedatum/date of issue: 13.03.2013

#### In der Zertifizierung für anrollbare Produktfamilien für Fenster- und Fenstertürsysteme mit geeigneter Beschlagsaufnahme. Product families for anrollable and assembled window systems with grooved designed for accommodation of hardware, covered by certification.

No	Ausführung/Configuration for single leaf	Ausführung/Configuration for assembled leaf	Beschreibung der Ausführung der Hochdruckverspannung/Description of frame members fastening type				Flügel-gewicht/leaf weight	Klassifizierung entsprechend der Nachweise nach EN 13030-B classification in accordance with test reports as per EN 13120-0											
			Auswahl für alle Ansprachen/Selection for all languages	Auswahl für alle Ansprachen/Selection for all languages	Auswahl für alle Ansprachen/Selection for all languages	Auswahl für alle Ansprachen/Selection for all languages		1	2	3	4	5	6	7	8	9	10		
18	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	100 kg	-	-	0	100	0	1	0	-	0	0	0	0	
19	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	100 kg	-	-	0	100	0	1	0	-	0	0	0	0	
20	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	100 kg	-	-	0	100	0	1	0	-	0	0	0	0	
21	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	100 kg	-	-	0	100	0	1	0	-	0	0	0	0	
22	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	100 kg	-	-	0	100	0	1	0	-	0	0	0	0	
23	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	100 kg	-	-	0	100	0	1	0	-	0	0	0	0	
24	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	100 kg	-	-	0	100	0	1	0	-	0	0	0	0	
25	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	100 kg	-	-	0	100	0	1	0	-	0	0	0	0	
26	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	100 kg	-	-	0	100	0	1	0	-	0	0	0	0	
27	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	228 7012530-1-B	100 kg	-	-	0	100	0	1	0	-	0	0	0	0	

Die technische Dokumentation des Beschlags Herstellers, insbesondere die entsprechenden Anwendungsdiagramme, sind zu beachten. Die Ergebnisse sind auf Beschlagsysteme für anrollbare Fenstertürsysteme oder Systeme mit anderer Achsenmaßstab übertragbar. The results are transferable to other hardware configurations with different roller designs or systems with different axis dimensions.

ift certification

Burglar-inhibiting retrofitting products

KOPIE



**ift-KONFORMITÄTSZERTIFIKAT**  
ift-CERTIFICATE OF CONFORMITY



## Einbruchhemmende Nachrüstprodukte

*burglar inhibiting retrofittable products /*

<b>Produkt</b> <i>product</i>	<b>Roto NT</b>
<b>Einsatzbereich</b> <i>field of application</i>	<b>Einbruchhemmende Nachrüstprodukte für Fenster und Fenstertüren</b> <i>burglar inhibiting retrofittable products for windows and balcony door</i>
<b>Hersteller</b> <i>manufacturer</i>	<b>ROTO Frank AG</b> Wilhelm-Frank-Platz 1, 70771 Leinfelden-Echterdingen
<b>Produktionsstandort</b> <i>production site</i>	<b>ROTO Frank AG</b> Wilhelm-Frank-Platz 1, 70771 Leinfelden-Echterdingen

Mit diesem Zertifikat wird bescheinigt, dass die benannten Bauprodukte den Anforderungen des ift-Zertifizierungsprogramms für einbruchhemmende Nachrüstprodukte (QM314 : 2005) entsprechen.

Grundlagen sind eine Prüfung durch das Prüflabor nach DIN 18104-2 : 2002, eine werkseigene Produktionskontrolle des Herstellers und eine Fremdüberwachung der Fertigung durch die Überwachungsstelle in den benannten Standorten.

Die Gültigkeitsdauer des Zertifikates beträgt 5 Jahre. Mit der Erteilung des Zertifikates ist eine regelmäßige Fremdüberwachung des Herstellers verbunden.

Das Zertifikat darf nur unverändert vervielfältigt werden. Alle Änderungen der Voraussetzungen für die Zertifizierung sind dem ift-Q-Zert mit den erforderlichen Nachweisen unverzüglich schriftlich anzuzeigen.

Das Unternehmen ist berechtigt, die Bauprodukte gemäß der ift-Zeichensatzung mit dem „ift-zertifiziert“-Zeichen zu kennzeichnen.

This Certificate attests that the construction products mentioned fulfil the requirements of the ift Certification Scheme for burglar resistant retrofit products (QM314 : 2004).

Basis are tests performed by the testing laboratory as per DIN 1804-2: 2002, factory production control by the manufacturer and third-party surveillance audits of the production by the surveillance bodies at the plants mentioned.

The Certificate is valid for a period of 5 years. Award of the Certificate is subject to regular third-party surveillance of the manufacturer.

The reproduction of the Certificate without any change whatsoever from the original, is permitted. Any changes to the requirements and conditions applicable to the certification shall be immediately communicated in writing to ift-Q-Zert accompanied by the necessary evidence.

The company is authorised to affix the "ift-certified"-mark to the construction product according to the "ift Rules for Use of the "ift-certified"-mark.

**Einbruchhemmende Nachrüstprodukte**  
*burglar inhibiting retrofittable products*



DIN 18104-2



**Andreas Mayschi**  
Leiter Zertifizierungs- und Überwachungsstelle  
*Head of ift Certification and Surveillance Body*

Vertrag-Nr. / Contract No.: 219 7012530  
Prüfbericht-Nr. / test report No: 215 28906

Zertifikat-Nr. / Certificate No.: 219 7012530-1-2  
Gültig bis / Valid: 19. Dezember 2014

2006-10 / 219



ift Rosenheim GmbH  
Zertifizierungsstelle  
Theodor-Gieß Str. 7-9  
83026 Rosenheim  
Germany



DAP-ZE-2288 CO





DAP-ZE-2288 CO

Please contact our sales staff for the current certificates.



# Environment

## Environmental compatibility classification of Roto hardware

### ■ Hardware component environmental compatibility

It is our goal to manage with the lowest possible energy and fuel consumption levels in the manufacturing of our hardware components and strive to produce hardware components with great durability. In this case care is taken of our natural resources, minimising energy consumption and using raw materials in an ecology-minded manner.

### ■ Environmental impacts resulting from the hardware

The surface-finish composition of our treated surfaces is abrasion-resistant.

No environmental pollution is caused by hardware components upon stipulated application. The grease we use is environmentally friendly.

### ■ Environmental compatibility of the packaging

We use disposable packaging material made of reinforced cardboard, steel/PVC packaging tape, polyethylene (PE) sheeting, timber frames, cable ties, elastomer cord as well as reusable packaging, reusable "Schäfer" boxes, crate pallets and 'EURO' pallets.

### ■ Environmental compatibility of disposal

Our hardware is made of materials, which enable environmentally friendly material utilisation and can be disposed of as mixed scrap.

### ■ Returning the packaging material

Our packaging with the INTERSEROH logo is accepted free of charge by every INTERSEROH disposal partner. The directory of your local disposal partners can be requested nation-wide at the telephone exchange of ISD INTERSEROH GmbH in Cologne under the following telephone number: +49 2203 9147 322. The Roto INTERSEROH registered number is 25582.

## Roto environmental management system

The Roto Frank AG Leinfelden provides the proof of environmental awareness in accordance with DIN EN ISO 14001.

Roto considers the environmental compatibility of products and environmentally sound procedures right from the beginning, during development, design, planning, production, and logistics.

The certification underlines the environmental awareness in Roto:

**Roto** pursues occupational safety, accident prevention and plant safety as their fundamental goal within the guidelines of industrial safety.

**Roto** views environmental protection as an integral part of all entrepreneurial activities and decisions are shaped by ecology-minded behaviour, environmental compatibility of the products and procedures, as well as preservation of existing resources.

In addition, the high durability of Roto products is a contribution to the preservation of existing resources.



## Roto quality management system

The certification in accordance with the international standard DIN EN ISO 9001 certifies that Roto has systematically planned, documented, and appropriately implemented the entire design, production, and sales processes. Starting with development and design through to quality planning, from production and assembly, right through to sales and customer services.

The certification is an external indication of the high-quality philosophy practised in Roto:

**Roto's** objective is the continuous product and service improvement for its customers benefit.

**Roto** offers its customers innovative and technically pretentious architectural hardware technology.

**Roto** products are supplied punctually worldwide with constant guaranteed quality.

**Roto** views integrated quality containing all company activities as the key to long-term company success.

**Roto** employees are supported in their personal development and challenging work; Roto employees practise high-quality philosophy in their daily work. They work service- and goal-oriented.



## International Technology Centre (ITC) of Roto Frank AG

The Roto company-group benefits from their modern International Technology Centre (ITC) at the Leinfelden headquarters since October 1996. This is at disposal for both our own material and product testing, as well as for finished window tests from Roto market partners.

The ITC is accredited in accordance with DIN EN ISO/IEC 17025 and has the competence to carry out tests in areas such as mechanical-technological tests of facade elements such as windows, doors and hardware, as well as metallic material.

The attainment of the accreditation in accordance with DIN EN ISO/IEC 17025 represents the highest distinction for a test institute in private industry. The preconditions for this are an extensive quality management system, trained personnel, high-quality test rigs and measuring equipment, as well as continuous external monitoring by the accreditation authorities.

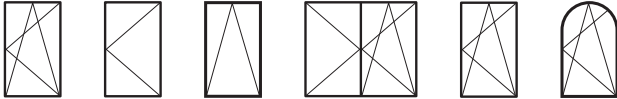






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## General advice



### Hardware functional safety

- To ensure continual functional safety of the hardware, the following should be observed:
  1. Professional installation of the hardware components in accordance with the installation instructions.
  2. Professional installation of the elements throughout the window installation process.
  3. The window fabricator is obliged to give the maintenance and operation instructions and where appropriate, the product liability guidelines to the user.
  4. The entire hardware may consist of only original Roto system components. The use of non-Roto components excludes any liability on our part.

### Product liability regulations

- For fixing the hardware components, zinc-plated steel fenestration screws are to be used (refer to the installation instructions).  
The window fabricator must ensure adequate fixing of the hardware components, consulting the screw manufacturer if necessary.  
When fixing **security relevant**, supportive hardware components such as **stay bearings** and **pivot rests**, the tearing-forces vertical to the sash plane surface must be reached in accordance with the following table (the tractive-force values depend on the sash weights from the TBDK).

Sash weight in kg	Tractive force in N <sup>1)</sup>
60	1650
70	1900
80	2200
90	2450
100	2700
110	3000
120	3250
130	3500

The stated values refer to the stay bearing. These are also valid for the pivot rest if the fixing is carried out in the same manner as with the stay bearing.

Do not use any acid cross-linked sealing compounds that could lead to corrosion of the hardware components.

The glazing spacer-block regulations for the glazing method are to be adhered to.



## Product liability – Liability exclusion

- The hardware manufacturer is not liable for malfunctions or damage to the hardware and to the windows or balcony doors equipped with the hardware, if any such malfunctions or damage have been caused by inadequate tendering procedures, failure to adhere to the installation instructions or application drawings, or was exposed to stringent soiling.  
The warranty covers only original Roto components.

## Profile classification – Application ranges

- The specification of values, diagrams and weights from Roto refer exclusively to **grade A profiles** / DIN EN 12608 <sup>1)</sup>, provided that the screw-fixing and pull-out force values of the hinge sided hardware components adhere to the TBDK directives of the Gütegemeinschaft Schlösser und Beschläge e. V.

**Grade B profiles** are generally limited to 60 kg on the weight specifications.

**Grade C profiles** are not permissible without consultation with Roto. Test documentation must be produced on a case-to-case basis (e.g. in accordance with DIN EN 1191 or RAL).

1) DIN EN 12608: Profiles made of unplasticised polyvinyl chloride (PVC) for the production of windows and doors; Classification, requirements and test methods; Figure – Cross section of three typical main profiles and the minimum profile-wall thickness in grades A, B, and C.

## Application diagram

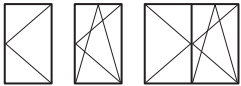
Hinge side K 100 kg

Turn-Only/Tilt&Turn hardware for rectangular windows

### Application diagram

Hinge side K 3/100, K 6/100

Turn-Only/Tilt&Turn hardware for rectangular windows



Limitation of sash formats depending on the glass thickness

### Application range

Sash rebate width **SRW** .....290 – 1600 mm


Sash rebate height **SRH** .....280 – 2600 mm

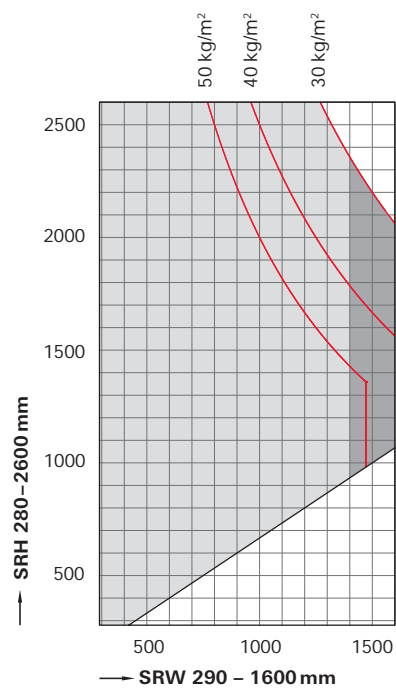
Sash weight **S.kg** .....max. 100 kg

The information in the application diagram refers to the glass weight in kg/m<sup>2</sup>.

1 mm/m<sup>2</sup> glass thickness = 2.5 kg

 = Impermissible application range

 = Additional scissor stay required



## Application diagram

Hinge side K 130 kg

Turn-Only/Tilt&Turn hardware for rectangular windows

### Application diagram

Hinge side K 6/130

Tilt&Turn hardware for rectangular windows



Limitation of sash formats depending on the glass thickness

### Application range

Sash rebate width **SRW** .....290 – 1600 mm


Sash rebate height **SRH** .....280 – 2600 mm

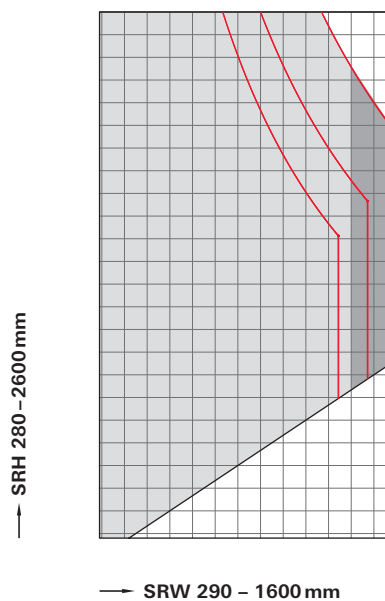
Sash weight **S.kg** .....max. 130 kg

The information in the application diagram refers to the glass weight in kg/m<sup>2</sup>.

1 mm/m<sup>2</sup> glass thickness = 2.5 kg

 = Impermissible application range

 = Additional scissor stay required



## Application diagram

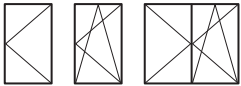
Hinge side A 100 kg

Turn-Only/Tilt&Turn hardware for rectangular windows

### Application diagram

Hinge side A

Turn-Only/Tilt&Turn hardware for rectangular windows



Limitation of sash formats depending on the glass thickness

### Application range

Sash rebate width **SRW** ..... 290 – 1600 mm


Sash rebate height **SRH** ..... 280 – 2600 mm

Sash weight **S.kg** ..... max. 100 kg

The information in the application diagram refers to the glass weight in kg/m<sup>2</sup>.

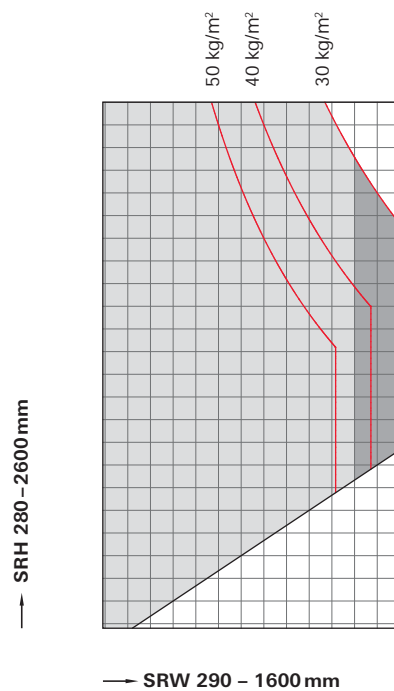
1 mm/m<sup>2</sup> glass thickness = 2.5 kg

 = Impermissible application range

 = Additional scissor stay required

### Please note:

Sash weight > 80 kg with 2 screws in the overlap.



## Application diagram

Hinge side K and A

Tilt&Turn hardware for pitched windows 25°

### Application diagram

Hinge side K and A

Tilt&Turn hardware for pitched windows 25°



Limitation of sash formats depending on the glass thickness

### Application range

Sash rebate width **SRW** .....see diagram

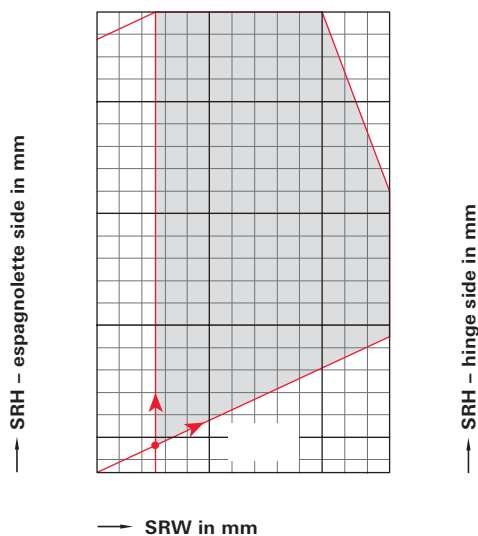
Sash rebate height **SRH** .....see diagram

Sash weight **S.kg** ..... max. 80kg

The information in the application diagram refers to the glass weight in kg/m<sup>2</sup>.

1 mm/m<sup>2</sup> glass thickness = 2.5 kg

 = Impermissible application range



## Application diagram

Hinge side K and A

Tilt&Turn hardware for pitched windows 40°

### Application diagram

Hinge side K and A

Tilt&Turn hardware for pitched windows 40°



Limitation of sash formats depending on the glass thickness

### Application range

Sash rebate width **SRW** .....see diagram

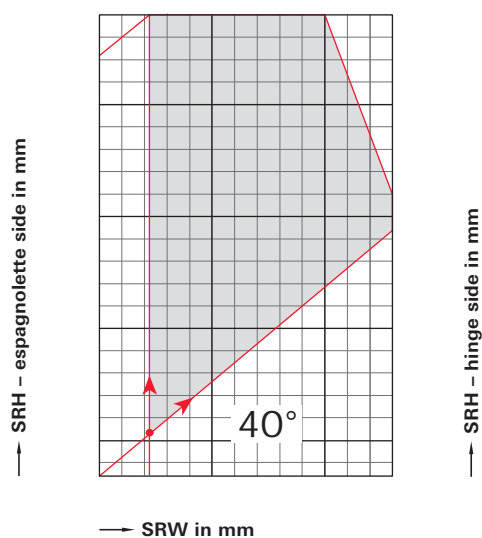
Sash rebate height **SRH** .....see diagram

Sash weight **S.kg** ..... max. 80kg

The information in the application diagram refers to the glass weight in kg/m<sup>2</sup>.

1 mm/m<sup>2</sup> glass thickness = 2.5 kg

 = Impermissible application range



## Application diagram

Hinge side K and A

Tilt&Turn hardware for pitched windows 50°

### Application diagram

Hinge side K and A

Tilt&Turn hardware for pitched windows 50°



Limitation of sash formats depending on the glass thickness

### Application range

Sash rebate width **SRW** .....see diagram

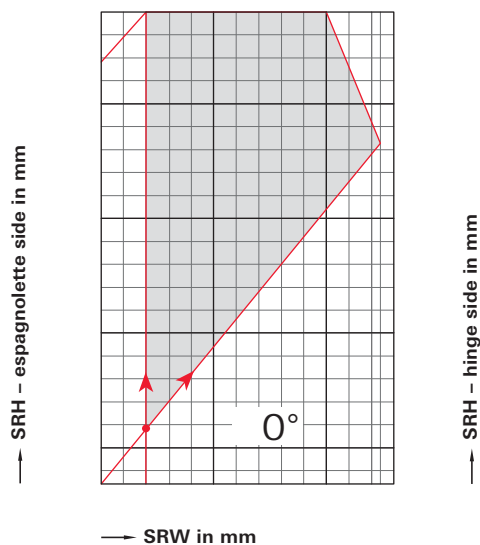
Sash rebate height **SRH** .....see diagram

Sash weight **S.kg** ..... max. 80kg

The information in the application diagram refers to the glass weight in kg/m<sup>2</sup>.

1 mm/m<sup>2</sup> glass thickness = 2.5 kg

 = Impermissible application range



## Application diagram

Hinge side K and A

Tilt&Turn hardware for pitched windows  $-15^\circ$

### Application diagram

Hinge side K and A

Tilt&Turn hardware for pitched windows  $-15^\circ$



Limitation of sash formats depending on the glass thickness

### Application range


Sash rebate width **SRW** .....see diagram

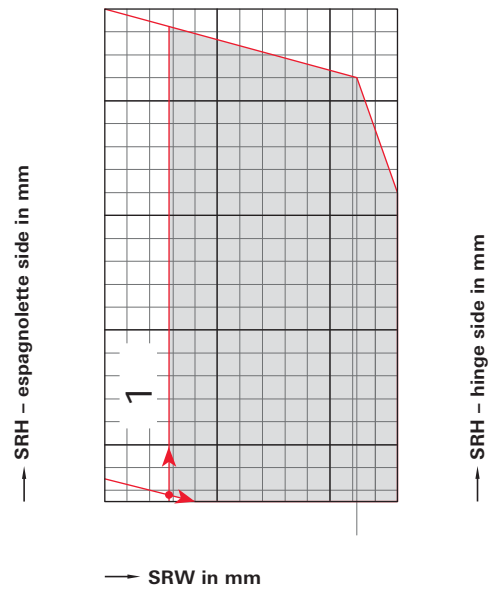
Sash rebate height **SRH** .....see diagram

Sash weight **S.kg** ..... max. 80kg

The information in the application diagram refers to the glass weight in  $\text{kg}/\text{m}^2$ .

1  $\text{mm}/\text{m}^2$  glass thickness = 2.5 kg

 = Impermissible application range





# Application diagram

## Hinge side K

### Tilt&Turn hardware for arched windows

#### Application diagram

Hinge side K  
Tilt&Turn hardware for arched windows



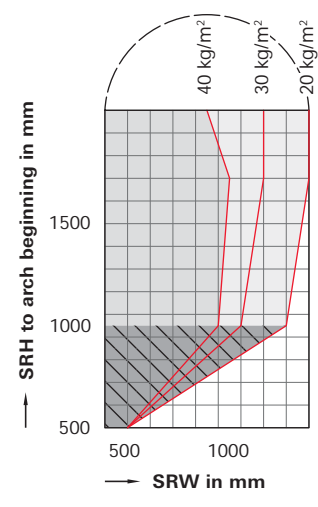
Limitation of sash formats depending on the glass thickness

#### Application range

Sash rebate width **SRW** ..... 400 – 1300 mm  
 Sash rebate height **SRH** ..... 500 – 1900 mm  
 Sash weight **S.kg** ..... max. 80 kg

The information in the application diagram refers to the glass weight in kg/m<sup>2</sup>.

1 mm/m<sup>2</sup> glass thickness = 2.5 kg



- = Impermissible application range
- = Additional scissor stay required
- = Additional scissor stay possible, however not required
- = Additional scissor stay not possible

## Application diagram

### Hinge side K and A

### Tilt-Only hardware for rectangular windows

#### Application diagram

Hinge side K and A

Tilt-Only hardware for rectangular windows



Limitation of sash formats depending on the glass thickness

#### Application range

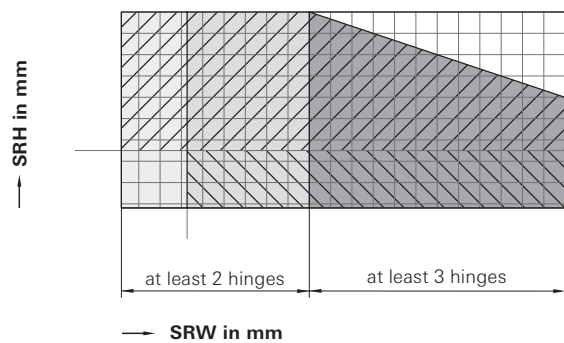
Sash rebate width **SRW** ..... 310<sup>1)</sup> – 2400 mm

Sash rebate height **SRH** ..... 290 – 1200 mm

Sash weight **S.kg** ..... max. 80 kg

The information in the application diagram refers to the glass weight in kg/m<sup>2</sup>.

1 mm/m<sup>2</sup> glass thickness = 2.5 kg



= Impermissible application range

= 2 tilt-stays laterally

= 1 tilt-stay on top or 2 tilt-stays laterally

= 2 tilt-stays on top or 2 tilt-stays laterally

= Restrictor and cleaning stays required in addition

= Additional restrictor and cleaning stays for top tilt-stay(s)

#### Please note:

Restrictor and cleaning stays are recommended; and necessary on fanlights (in accordance with RAL RG 607/12).

For restrictor and cleaning stays diagram refer to installation instructions AB 544 EN.

1) SRW 310 – 449 only with Turn-Only/Tilt-Only espagnolette

## Application diagram

Hinge side K

Turn-Only sash overlap hinge for rectangular windows

### Application diagram

Hinge side K

Turn-Only sash overlap hinge for rectangular windows



Limitation of sash formats depending on the glass thickness

### Application range

Sash rebate width **SRW** ..... 290 – 1200 mm

Sash rebate height **SRH** ..... 280 – 2400 mm

Sash weight **S.kg** ..... max. 80 kg

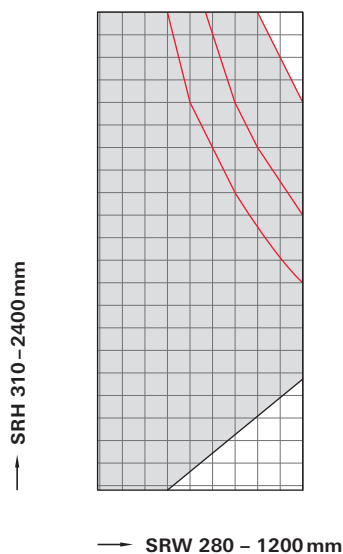
The information in the application diagram refers to the glass weight in kg/m<sup>2</sup>.

1 mm/m<sup>2</sup> glass thickness = 2.5 kg

 = Impermissible application range

### Please note:

Turn-Only sash overlap hinge for rectangular windows with Turn-Only/Tilt-Only sash overlap hinge K only in conjunction with corner hinge / pivot rest.



## Application diagram

### Hinge side K

### Tilt-Only sash overlap hinge for rectangular windows

#### Application diagram

Hinge side K

Tilt-Only sash overlap hinge for rectangular windows  
with Turn-Only/Tilt-Only sash overlap hinge K



Limitation of sash formats depending on the glass thickness

#### Application range

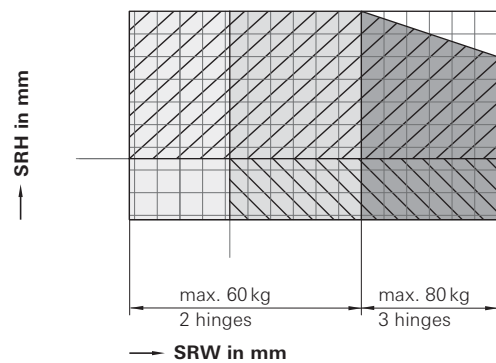
Sash rebate width **SRW** ..... 180<sup>1)</sup> – 1800 mm

Sash rebate height **SRH** ..... 290 – 1200 mm

Sash weight **S.kg** ..... max. 60 and/or 80 kg

The information in the application diagram refers to the glass weight in kg/m<sup>2</sup>.


1 mm/m<sup>2</sup> glass thickness = 2.5 kg





 = Impermissible application range

 = 2 tilt-stays laterally

 = 1 tilt-stay on top or 2 tilt-stays laterally

 = 2 tilt-stays on top or 2 tilt-stays laterally

 = Restrictor and cleaning stays required in addition

 = Additional restrictor and cleaning stays for top tilt-stay(s)

#### Please note:

Restrictor and cleaning stays are recommended; and necessary on fanlights (in accordance with RAL RG 607/12).

1) SRW 180 – 449 only with Turn-Only/Tilt-Only espagnolette

# Application diagram

## Hinge side K

### Comfort windows

#### Application diagram

Hinge side K

Comfort windows



Limitation of sash formats depending on the glass thickness

#### Application range

Sash rebate width **SRW** ..... 520 – 1400 mm

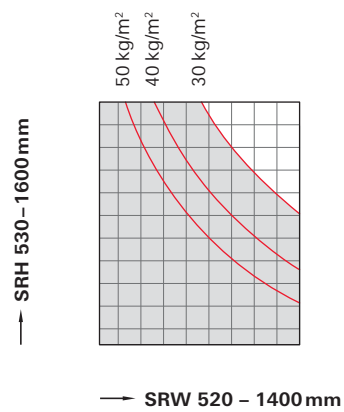
Sash rebate height **SRH** ..... 530 – 1600 mm

Sash weight **S.kg** ..... max. 50 kg

The information in the application diagram refers to the glass weight in kg/m<sup>2</sup>.

1 mm/m<sup>2</sup> glass thickness = 2.5 kg

 = Impermissible application range



## Application diagram

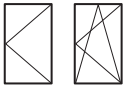
### Hinge side NT Royal

### Turn-Only/Tilt&Turn hardware for rectangular windows

#### Application diagram

Hinge side NT Royal

Turn-Only/Tilt&Turn hardware for rectangular windows



Limitation of sash formats depending on the glass thickness

#### Application range

Sash rebate width **SRW** ..... 380 – 1400 mm

Sash rebate height **SRH** ..... 280 – 2400 mm


Sash weight **S.kg** windows ..... max. 80 kg

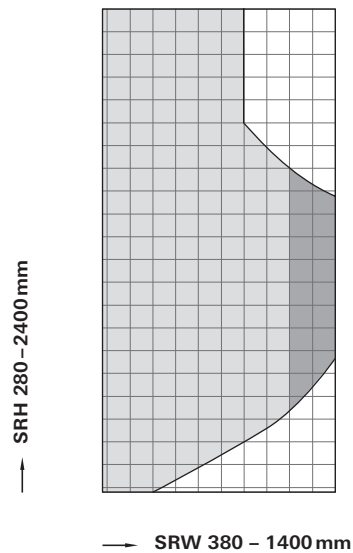
Sash weight **S.kg** balcony doors ..... max. 100 kg

The information in the application diagram refers to the glass weight in kg/m<sup>2</sup>.

1 mm/m<sup>2</sup> glass thickness = 2.5 kg

 = Impermissible application range

 = Tilt&Turn: additional scissor stay required  
= Turn-Only: with espagnolette extension



## Application diagram

### Hinge side NT Royal

### Tilt-Only hardware for rectangular windows

#### Application diagram

Hinge side NT Royal

Tilt-Only hardware for rectangular windows



Limitation of sash formats depending on the glass thickness

#### Application range

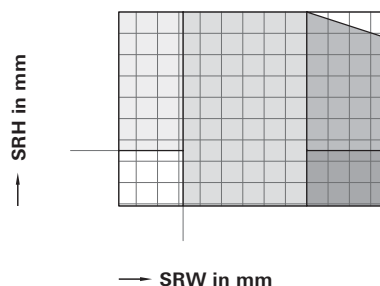
Sash rebate width **SRW** ..... 310 – 1600 mm

Sash rebate height **SRH** ..... 290 – 1200 mm

Sash weight **S.kg** ..... max. 80 kg

The information in the application diagram refers to the glass weight in kg/m<sup>2</sup>.

1 mm/m<sup>2</sup> glass thickness = 2.5 kg



 = Impermissible application range

 = 2 tilt-stays laterally

 = 1 tilt-stay on top

 = 2 tilt-stays laterally or on top

 = 2 tilt-stays on top

## Application diagram

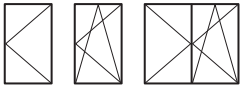
### Hinge side NT Designo

### Turn-Only/Tilt&Turn hardware for rectangular windows 80 kg

#### Application diagram

Hinge side NT Designo

Turn-Only/Tilt&Turn hardware for rectangular windows 80 kg



Limitation of sash formats depending on the glass thickness

#### Application range

Sash rebate width **SRW** ..... 330–1400 mm


Sash rebate height **SRH** ..... 280–2600 mm

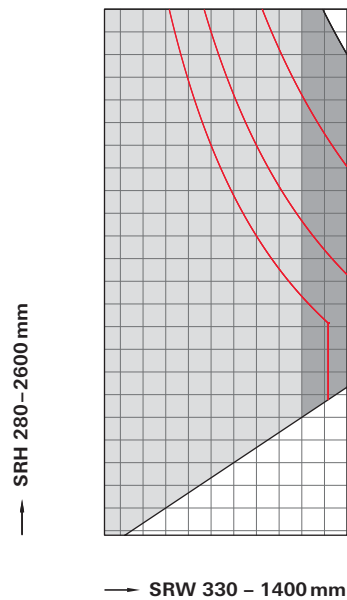
Sash weight **S.kg** ..... max. 80 kg

The information in the application diagram refers to the glass weight in kg/m<sup>2</sup>.

1 mm/m<sup>2</sup> glass thickness = 2.5 kg

 = Impermissible application range

 = Additional scissor stay required





## Application diagram

### Hinge side NT Designo

T&T hardware rectangular windows with load transfer from 80–130 kg

#### Application diagram

Hinge side NT Designo

Tilt&Turn hardware rectangular windows with load transfer device or counter bearing for 80–130 kg



Limitation of sash formats depending on the glass thickness

#### Application range

Sash rebate width **SRW** ..... 600–1400 mm

Sash rebate height **SRH** ..... 1000–2600 mm

Sash weight **S.kg** ..... max. 80–130 kg

The information in the application diagram refers to the glass weight in kg/m<sup>2</sup>.

1 mm/m<sup>2</sup> glass thickness = 2.5 kg

= Impermissible application range

= Additional scissor stay required

#### Please note:

When using the stay arm 350 and the sash weight is > 80 kg, set the stay arm's tilt restrictor to 80 mm.

Maximum sash weight for stay arm 350: 100 kg.



## Application diagram

### Hinge side NT Designo

T&T hardware rectangular windows with load transfer from 80–150 kg

#### Application diagram

Hinge side NT Designo

Tilt&Turn hardware rectangular windows with load transfer device from 80–150 kg



Limitation of sash formats depending on the glass thickness

#### Application range

Sash rebate width **SRW** ..... 800–1400 mm


Sash rebate height **SRH** ..... 1000–2600 mm

Sash weight **S.kg** ..... max. 80–150 kg

The information in the application diagram refers to the glass weight in kg/m<sup>2</sup>.

1 mm/m<sup>2</sup> glass thickness = 2.5 kg

 = Impermissible application range

 = Additional scissor stay required

#### Please note:

If the sash weight is > 130 kg, set the stay arm's tilt restrictor to 80 mm.



## Application diagram

### Hinge side NT Designo

### Tilt-Only hardware for rectangular windows

#### Application diagram

Hinge side NT Designo

Tilt-Only hardware for rectangular windows



Limitation of sash formats depending on the glass thickness

#### Application range

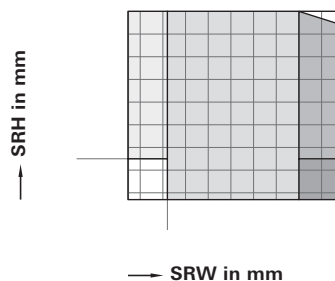
Sash rebate width **SRW** ..... 450 – 1400 mm

Sash rebate height **SRH** ..... 370 – 1200 mm

Sash weight **S.kg** ..... max. 80 kg

The information in the application diagram refers to the glass weight in kg/m<sup>2</sup>.

1 mm/m<sup>2</sup> glass thickness = 2.5 kg



 = Impermissible application range

 = 2 tilt-stays laterally

 = 1 tilt-stay on top

 = 2 tilt-stays laterally or on top

 = 2 tilt-stays on top

## Application diagram

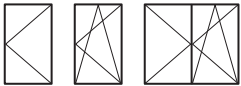
### Hinge side NT Designo II

TU-ON/T&T hardware for rectangular windows 80 kg w/o load transfer

#### Application diagram

Hinge side NT Designo II

Turn-Only/Tilt&Turn hardware for rectangular windows 80 kg without load transfer



Limitation of sash formats depending on the glass thickness

#### Application range

Sash rebate width **SRW** ..... 330 – 1400 mm


Sash rebate height **SRH** ..... 280 – 2600 mm

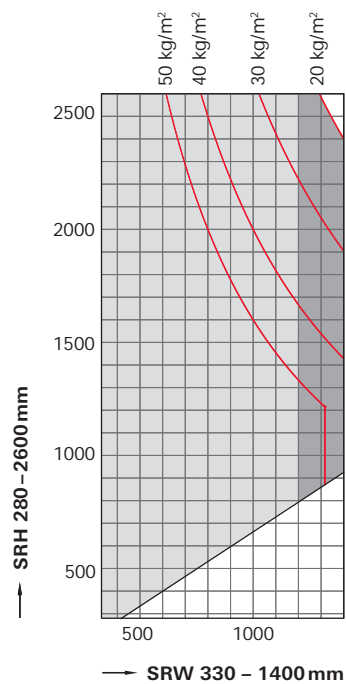
Sash weight **S.kg** ..... max. 80 kg

The information in the application diagram refers to the glass weight in kg / m<sup>2</sup>.

1 mm/m<sup>2</sup> glass thickness = 2.5 kg

 = Impermissible application range

 = Additional scissor stay required



## Application diagram

### Hinge side NT Designo II

### TU-ON/T&T hardware for rectangular windows 100 kg w/o load transfer

#### Application diagram

Hinge side NT Designo II

Turn-Only/Tilt&Turn hardware for rectangular windows 100 kg without load transfer



Limitation of sash formats depending on the glass thickness

#### Application range

Sash rebate width **SRW** ..... 600 – 1400 mm


Sash rebate height **SRH** ..... 280 – 2600 mm

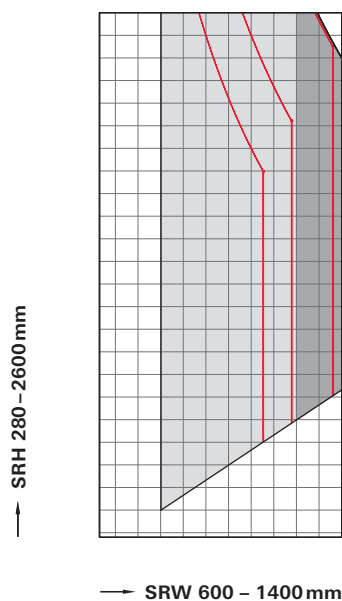
Sash weight **S.kg** ..... max. 100 kg

The information in the application diagram refers to the glass weight in kg / m<sup>2</sup>.

1 mm/m<sup>2</sup> glass thickness = 2.5 kg

 = Impermissible application range

 = Additional scissor stay required



## Application diagram

### Hinge side NT Designo II

T&T hardware rectangular windows with load transfer from 80–150 kg

#### Application diagram

Hinge side NT Designo II

Tilt&Turn hardware rectangular windows with load transfer device from 80–150 kg



Limitation of sash formats depending on the glass thickness

#### Application range

Sash rebate width **SRW** ..... 800–1400 mm


Sash rebate height **SRH** ..... 1000–2600 mm

Sash weight **S.kg** ..... max. 80–150 kg

The information in the application diagram refers to the glass weight in kg/m<sup>2</sup>.

1 mm/m<sup>2</sup> glass thickness = 2.5 kg

 = Impermissible application range

 = Additional scissor stay required

#### Please note:

If the sash weight is > 130 kg, set the stay arm's tilt restrictor to 80 mm.



## Application diagram

### Hinge side NT Designo II

### Tilt-Only hardware for rectangular windows

#### Application diagram

Hinge side NT Designo II

Tilt-Only hardware for rectangular windows



Limitation of sash formats depending on the glass thickness

#### Application range

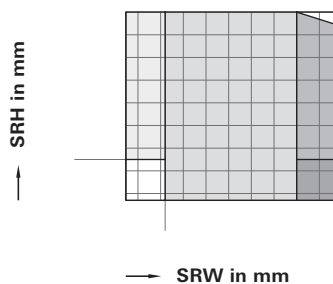
Sash rebate width **SRW** ..... 450 – 1400 mm

Sash rebate height **SRH** ..... 370 – 1200 mm

Sash weight **S.kg** ..... max. 80 kg

The information in the application diagram refers to the glass weight in kg/m<sup>2</sup>.


1 mm/m<sup>2</sup> glass thickness = 2.5 kg



 = Impermissible application range

 = 2 tilt-stays laterally

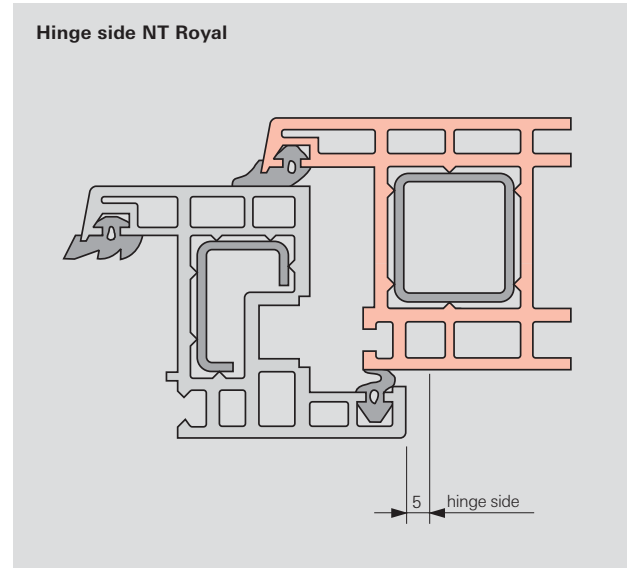
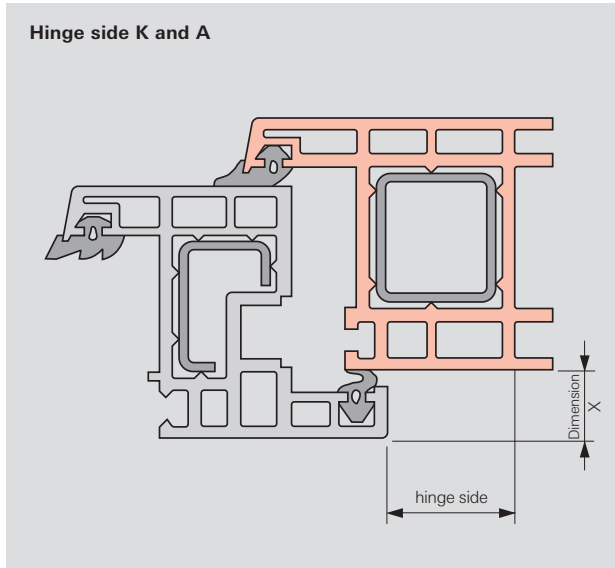
 = 1 tilt-stay on top

 = 2 tilt-stays laterally or on top

 = 2 tilt-stays on top

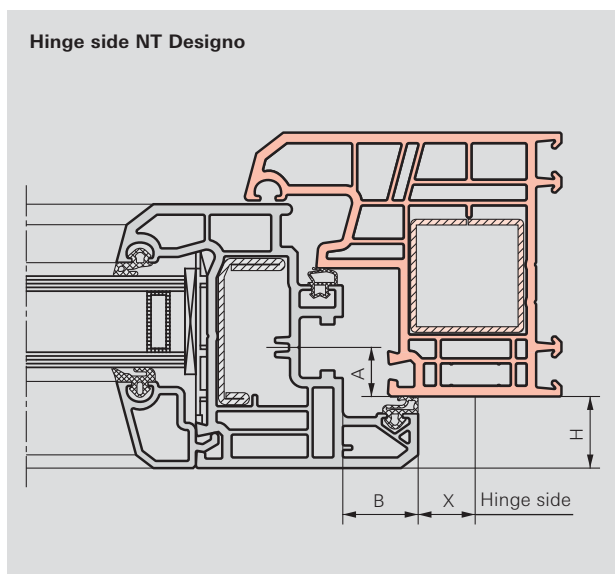
## Frame clearance information

### Tilt&Turn hardware



Frame clearance (in mm) at an overlap width of 20 mm						
		Top	Hinge side X	Bottom	Overlap height H	Opening angle
Hinge side K	100kg	1.5 <sup>1)</sup>	20.0 <sup>1)</sup>	2.0 <sup>1)</sup>	min. 16	approx. 180°
Hinge side K	130kg	15.0 <sup>1)</sup>	20.0 <sup>1)</sup>	15.0 <sup>1)</sup>	min. 16	approx. 180°
Hinge side A	100kg	0 <sup>1)</sup>	20.5 <sup>1)</sup>	0 <sup>1)</sup>	min. 16	Up to 20mm overlap height, approx. 180°
NT Royal	80/100kg	0	5.0	0	–	approx. 90°

1) Clearances including cover cap



Frame clearance at a 90° opening angle (OA 90°)			
Hinge side NT Designo II			
Axis dimension	Overlap height H	Overlap width B	Frame clearance (OA 90°) X
<b>A</b>			
<b>13</b>	16	18	<b>5.2</b>
<b>13</b>	20	18	<b>7.6</b>
<b>13</b>	24	18	<b>10.6</b>
<b>13</b>	16	20	<b>4.9</b>
<b>13</b>	20	20	<b>7.2</b>
<b>13</b>	24	20	<b>9.9</b>
<b>13</b>	16	22	<b>4.7</b>
<b>13</b>	20	22	<b>6.8</b>
<b>13</b>	24	22	<b>9.3</b>

Frame clearance (in mm) at an opening angle of 90° (OA 90°)			
Axis dimension A	Overlap height H	Overlap width B	Frame clearance (OA 90°) X
<b>13</b>	16	20	<b>16</b>
<b>13</b>	18	20	<b>18</b>
<b>13</b>	20	20	<b>20</b>
<b>13</b>	22	20	<b>22</b>
<b>13</b>	24	20	<b>24</b>

**Frame clearance dimension formulas at a 90° opening angle (OA 90°):**

**Axis dimension 13:**

Frame clearance (OA 90°) = overlap height + 20 mm – overlap width.

The frame clearance at a 100° opening angle depends on the reveal depth.

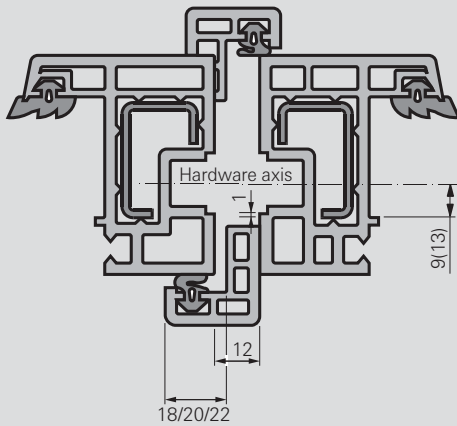
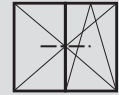


## Groove and rebate dimension systems

### Floating mullion of 2-sashed window without fixed centre post

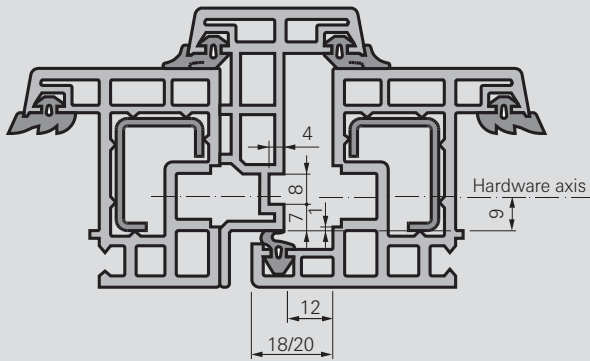
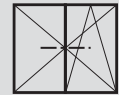
System 12/18-9, 12/20-9, 12/20-13,  
12/21-13, 12/22-13 with opposing hardware grooves

12 mm clearance  
18/20/21/22 mm overlap width  
9/13 mm hardware axis



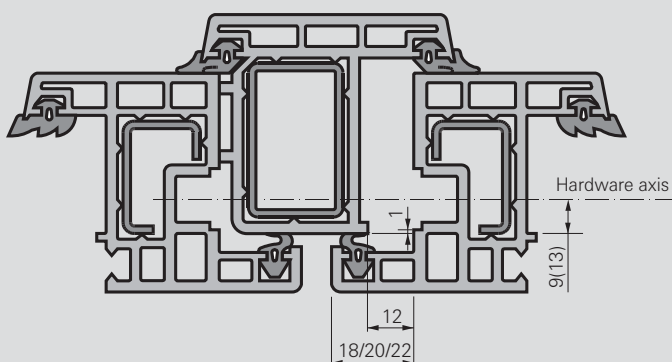
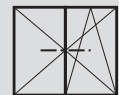
System 12/18-9, 12/20-9  
7/8 Euro-groove

12 mm clearance  
18/20/22 mm overlap width  
9 mm hardware axis



System 12/18-9, 12/20-9, 12/20-13, 12/21-13, 12/22-13 with op-  
posing striker installation, profile related

12 mm clearance  
18/20/21/22 mm overlap width  
9/13 mm hardware axis





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All hardware set combinations shown in this chapter are for illustration purposes only. Please refer to the valid installation instructions for specific information and installation advice.

# Roto NT

## Tilt&Turn hardware K / A

### Basic security



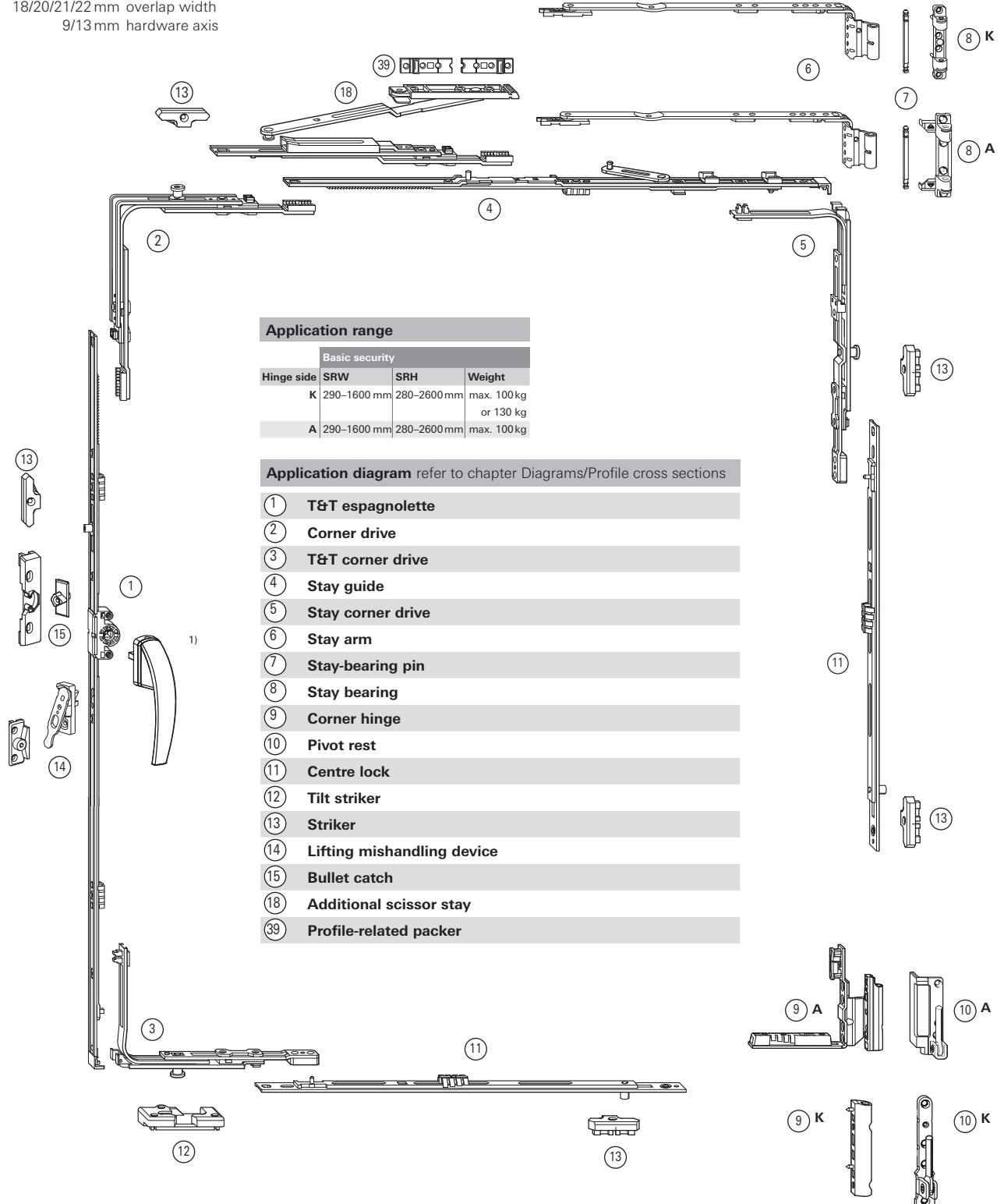
Hinge side K, systems 12/18(20)-9 and 12/20(21, 22)-13

Hinge side A, systems 12/18(20)-9 and 12/20-13

12 mm clearance

18/20/21/22 mm overlap width

9/13 mm hardware axis



#### Application range

Basic security			
Hinge side	SRW	SRH	Weight
K	290-1600 mm	280-2600 mm	max. 100 kg or 130 kg
A	290-1600 mm	280-2600 mm	max. 100 kg

#### Application diagram refer to chapter Diagrams/Profile cross sections

- ① T&T espagnolette
- ② Corner drive
- ③ T&T corner drive
- ④ Stay guide
- ⑤ Stay corner drive
- ⑥ Stay arm
- ⑦ Stay-bearing pin
- ⑧ Stay bearing
- ⑨ Corner hinge
- ⑩ Pivot rest
- ⑪ Centre lock
- ⑫ Tilt striker
- ⑬ Striker
- ⑭ Lifting mishandling device
- ⑮ Bullet catch
- ⑰ Additional scissor stay
- ⑱ Profile-related packer

1) Refer to Roto catalogue BK 5 EN for handles

# Roto NT

## Tilt&Turn hardware K / A

### Tested security



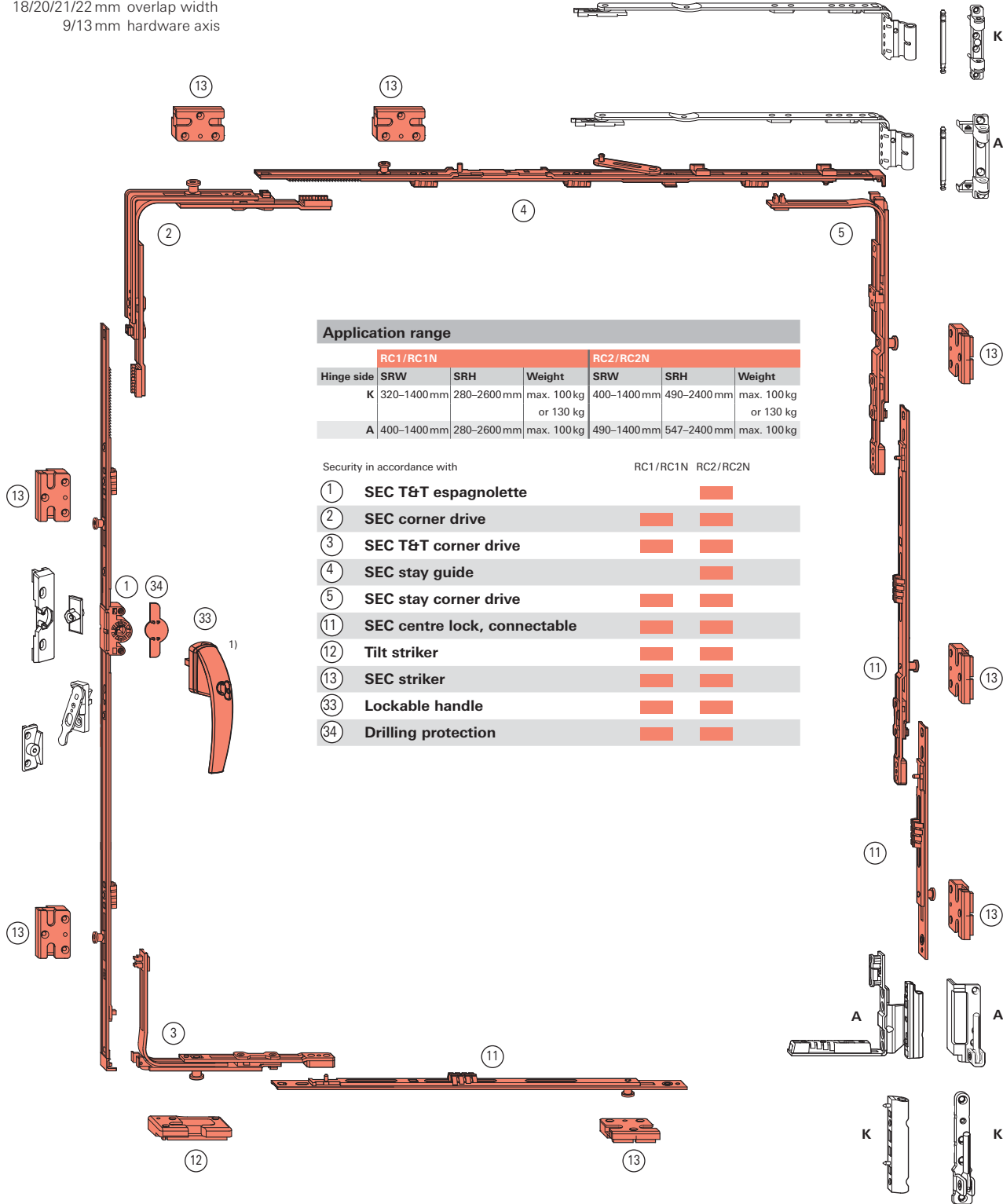
Hinge side K, systems 12/18(20)-9 and 12/20(21, 22)-13

Hinge side A, systems 12/18(20)-9 and 12/20-13

12 mm clearance

18/20/21/22 mm overlap width

9/13 mm hardware axis



#### Application range

Hinge side	RC1/RC1N			RC2/RC2N		
	SRW	SRH	Weight	SRW	SRH	Weight
K	320-1400 mm	280-2600 mm	max. 100 kg or 130 kg	400-1400 mm	490-2400 mm	max. 100 kg or 130 kg
A	400-1400 mm	280-2600 mm	max. 100 kg	490-1400 mm	547-2400 mm	max. 100 kg

Security in accordance with	RC1/RC1N	RC2/RC2N
① SEC T&T espagnolette		
② SEC corner drive		
③ SEC T&T corner drive		
④ SEC stay guide		
⑤ SEC stay corner drive		
⑪ SEC centre lock, connectable		
⑫ Tilt striker		
⑬ SEC striker		
⑬ Lockable handle		
⑭ Drilling protection		

Hardware set combinations

1) Refer to Roto catalogue BK 5 EN for handles



# Roto NT

## Turn-Only hardware K / A

### Basic security



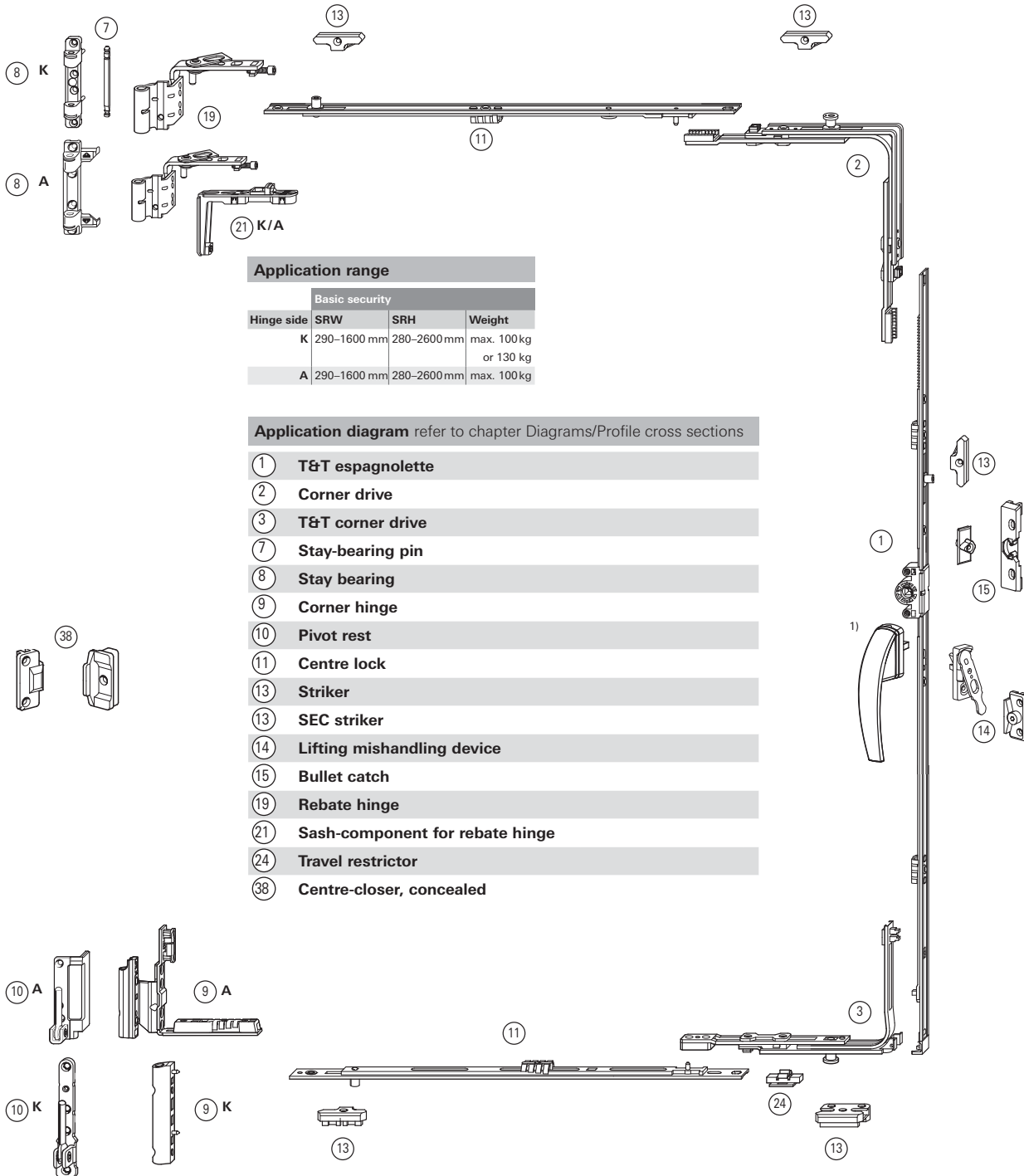
Hinge side K, systems 12/18(20)-9 and 12/20(21, 22)-13

Hinge side A, systems 12/18(20)-9 and 12/20-13

12 mm clearance

18/20/21/22 mm overlap width

9/13 mm hardware axis



#### Application range

Basic security			
Hinge side	SRW	SRH	Weight
K	290-1600 mm	280-2600 mm	max. 100 kg or 130 kg
A	290-1600 mm	280-2600 mm	max. 100 kg

#### Application diagram refer to chapter Diagrams/Profile cross sections

- 1** T&T espagnolette
- 2** Corner drive
- 3** T&T corner drive
- 7** Stay-bearing pin
- 8** Stay bearing
- 9** Corner hinge
- 10** Pivot rest
- 11** Centre lock
- 13** Striker
- 13** SEC striker
- 14** Lifting mishandling device
- 15** Bullet catch
- 19** Rebate hinge
- 21** Sash-component for rebate hinge
- 24** Travel restrictor
- 38** Centre-closer, concealed

1) Refer to Roto catalogue BK 5 EN for handles

# Roto NT

## Turn-Only hardware K / A Tested security



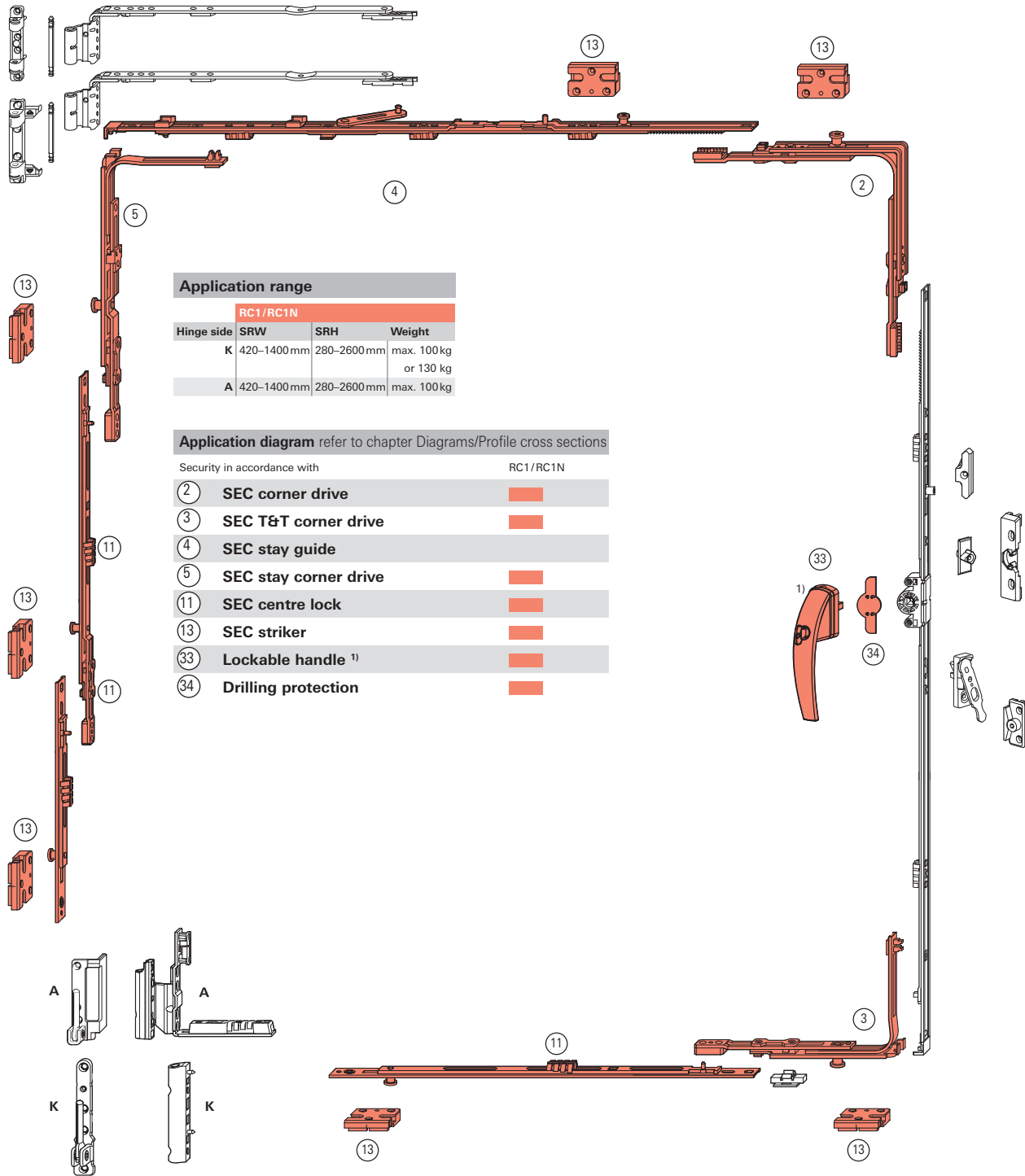
Hinge side K, systems 12/18(20)-9 and 12/20(21, 22)-13

Hinge side A, systems 12/18(20)-9 and 12/20-13

12 mm clearance

18/20/21/22 mm overlap width

9/13 mm hardware axis



Hardware set combinations

1) Refer to Roto catalogue BK 5 EN for handles

# Roto NT

## Tilt-Only hardware K / A

### Basic security



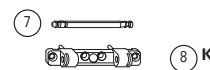
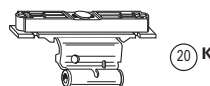
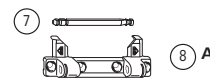
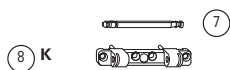
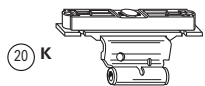
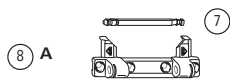
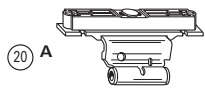
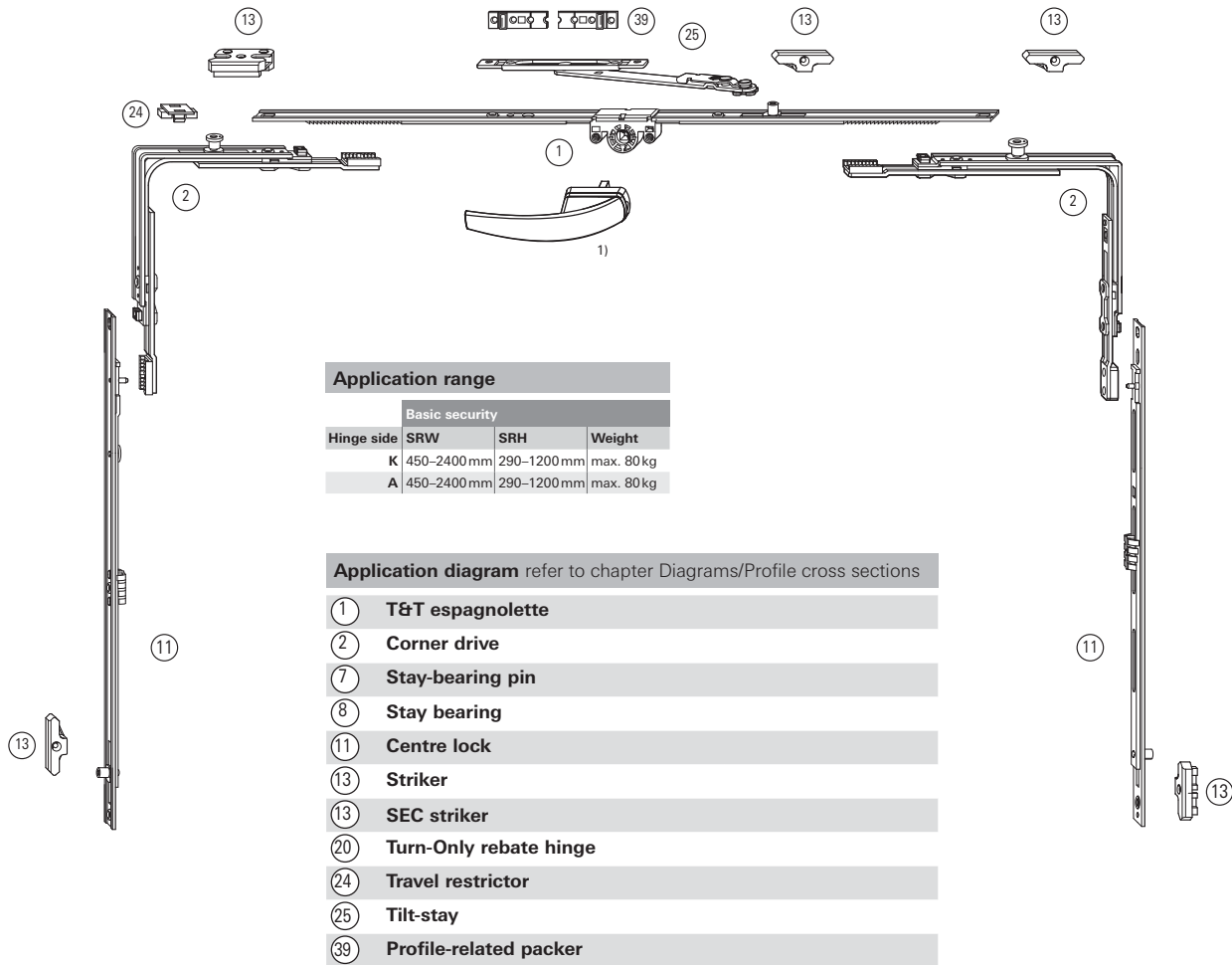
Hinge side K, systems 12/18(20)-9 and 12/20(21, 22)-13

Hinge side A, systems 12/18(20)-9 and 12/20-13

12 mm clearance

18/20/21/22 mm overlap width

9/13 mm hardware axis



1) Refer to Roto catalogue BK 5 EN for handles



# Roto NT

## Tilt-Only hardware K / A Tested security



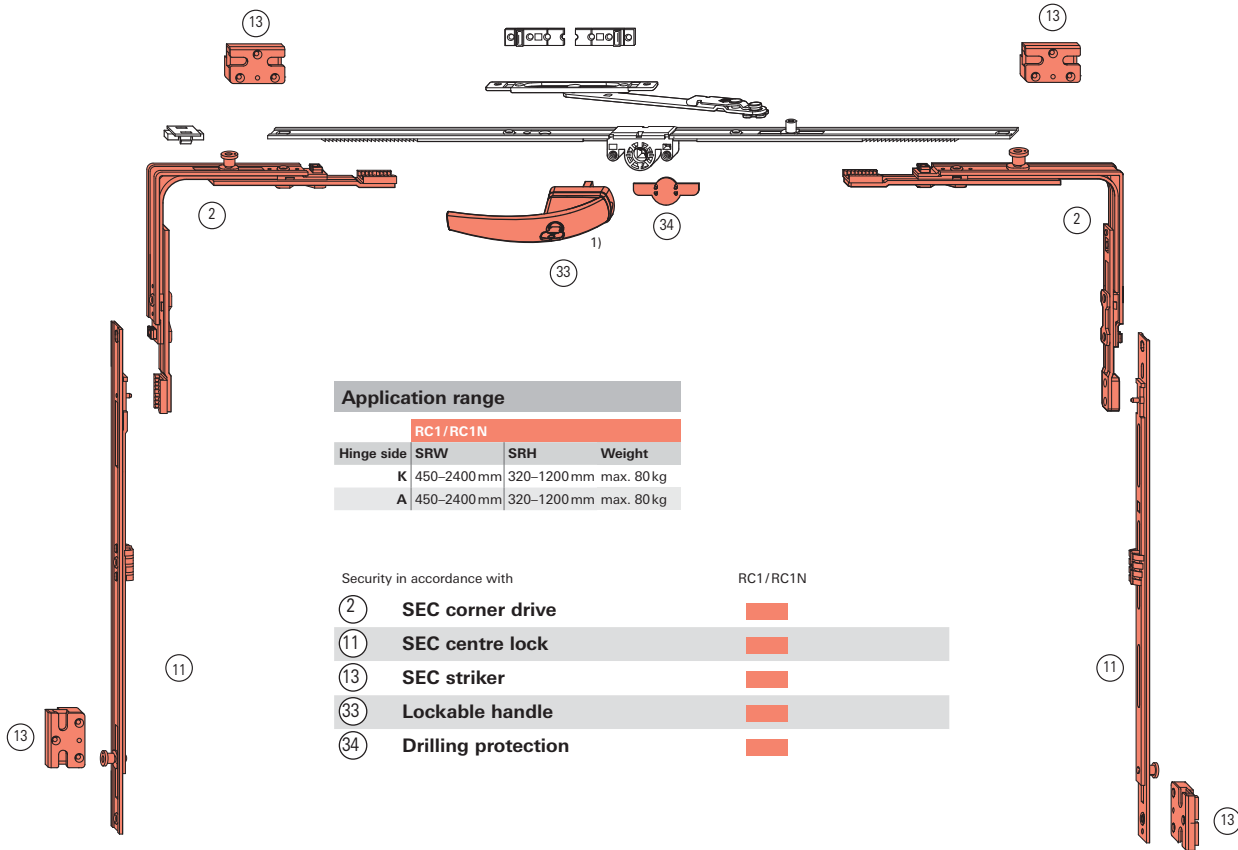
**Hinge side K, systems 12/18(20)-9 and 12/20(21, 22)-13**

**Hinge side A, systems 12/18(20)-9 and 12/20-13**

12 mm clearance

18/20/21/22 mm overlap width

9/13 mm hardware axis



Application range			
RC1/RC1N			
Hinge side	SRW	SRH	Weight
K	450-2400 mm	320-1200 mm	max. 80 kg
A	450-2400 mm	320-1200 mm	max. 80 kg

Security in accordance with		RC1/RC1N
2	SEC corner drive	■
11	SEC centre lock	■
13	SEC striker	■
33	Lockable handle	■
34	Drilling protection	■

Hardware set combinations



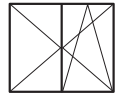
1) Refer to Roto catalogue BK 5 EN for handles



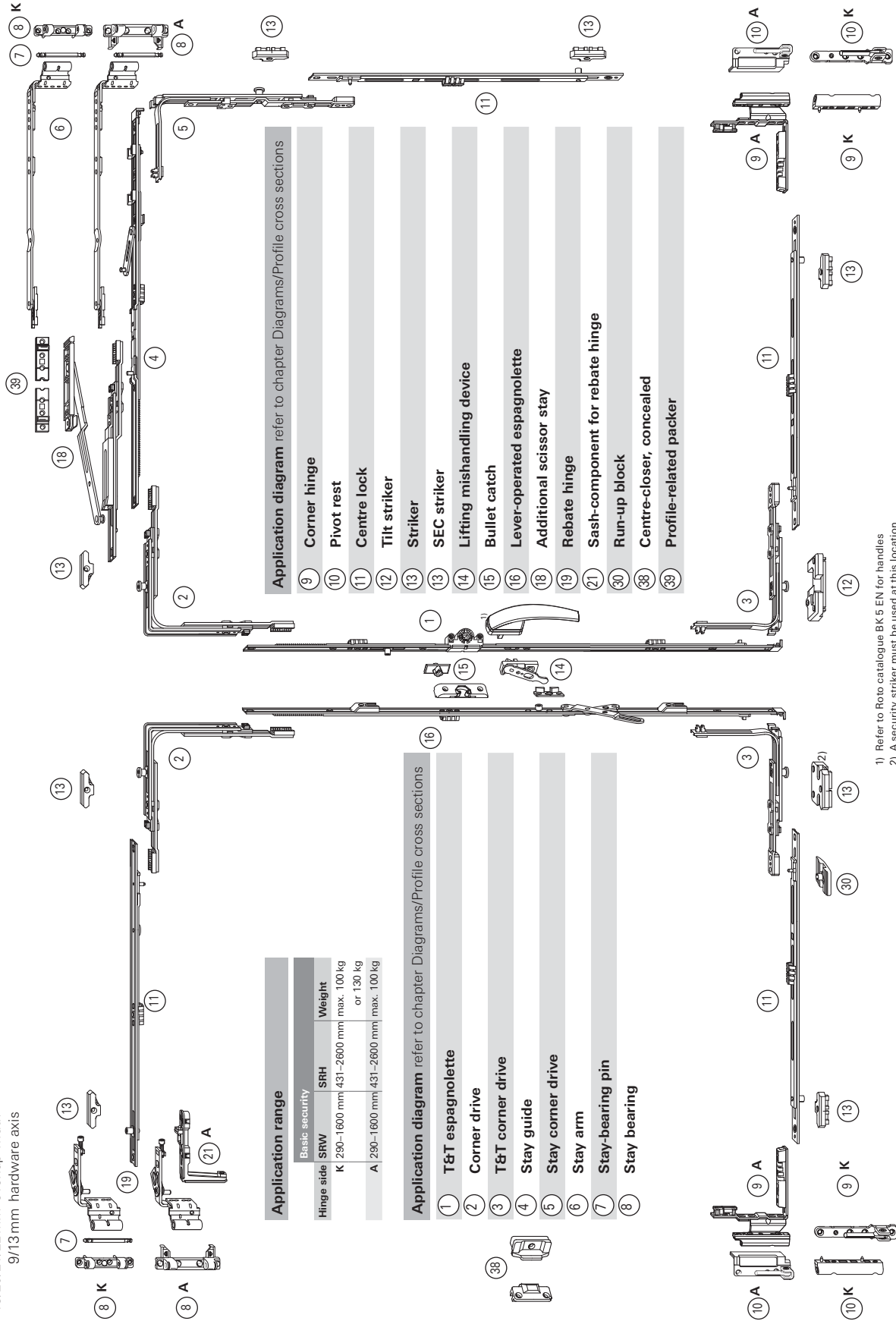
# Roto NT

## Turn-Only / Tilt&Turn hardware K / A

### Basic security



Hinge side K, systems 12/18(20)-9 and 12/20(21, 22)-13  
 Hinge side A, systems 12/18(20)-9 and 12/20-13  
 12mm clearance  
 18/20/21/22mm overlap width  
 9/13mm hardware axis



**Application range**

Basic security		
Hinge side	SRW	SRH Weight
K	290-1600 mm	431-2600 mm   max. 100 kg
A	290-1600 mm	431-2600 mm   max. 100 kg or 130 kg

- Application diagram refer to chapter Diagrams/Profile cross sections
- 1 T&T espagnolette
  - 2 Corner drive
  - 3 T&T corner drive
  - 4 Stay guide
  - 5 Stay corner drive
  - 6 Stay arm
  - 7 Stay-bearing pin
  - 8 Stay bearing

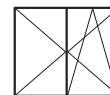
- Application diagram refer to chapter Diagrams/Profile cross sections
- 9 Corner hinge
  - 10 Pivot rest
  - 11 Centre lock
  - 12 Tilt striker
  - 13 Striker
  - 13 SEC striker
  - 14 Lifting mishandling device
  - 15 Bullet catch
  - 16 Lever-operated espagnolette
  - 18 Additional scissor stay
  - 19 Rebate hinge
  - 21 Sash-component for rebate hinge
  - 30 Run-up block
  - 38 Centre-closer, concealed
  - 39 Profile-related packer

1) Refer to Roto catalogue BK 5 EN for handles  
 2) A security striker must be used at this location.

# Roto NT

## Turn-Only / Tilt&Turn hardware K / A

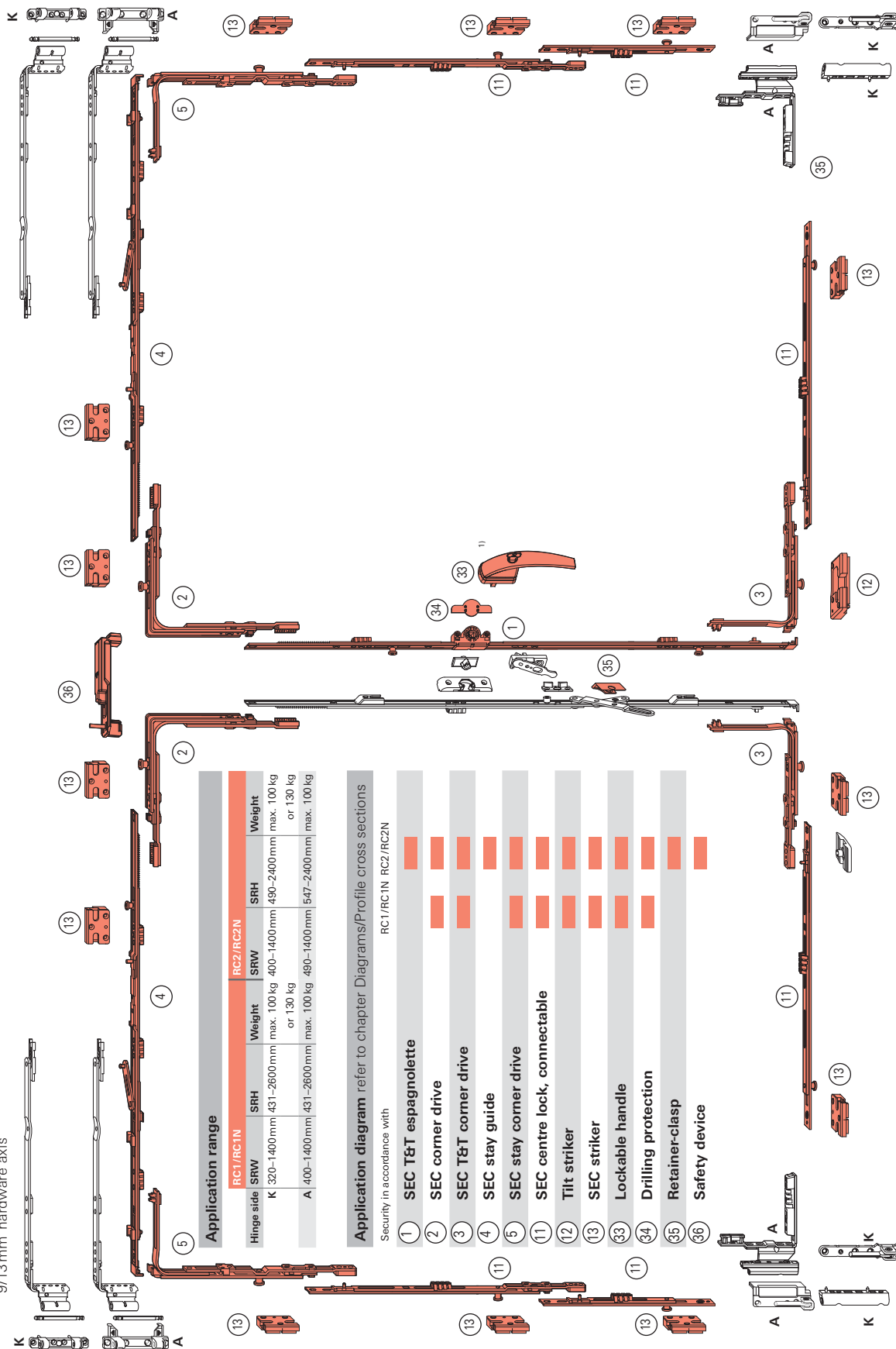
Tested security



Hinge side K, systems 12/18(20)-9 and 12/20(21, 22)-13  
 Hinge side A, systems 12/18(20)-9 and 12/20-13

12mm clearance

18/20/21/22mm overlap width  
 9/13mm hardware axis



Application range			
	RC1/RC1N	RC2/RC2N	
Hinge side	SRW	SRW	SRH
K	320-1400mm	431-2600mm	490-2400mm
A	400-1400mm	431-2600mm	547-2400mm
			Weight
			max. 100 kg
			or 130 kg
			max. 100 kg

Application diagram refer to chapter Diagrams/Profile cross sections

Security in accordance with RC1/RC1N RC2/RC2N

- 1 SEC T&T espagnolette
- 2 SEC corner drive
- 3 SEC T&T corner drive
- 4 SEC stay guide
- 5 SEC stay corner drive
- 11 SEC centre lock, connectable
- 12 Tilt striker
- 13 SEC striker
- 33 Lockable handle
- 34 Drilling protection
- 35 Retainer-clasp
- 36 Safety device

1) Refer to Roto catalogue BK 5 EN for handles

Hardware set combinations

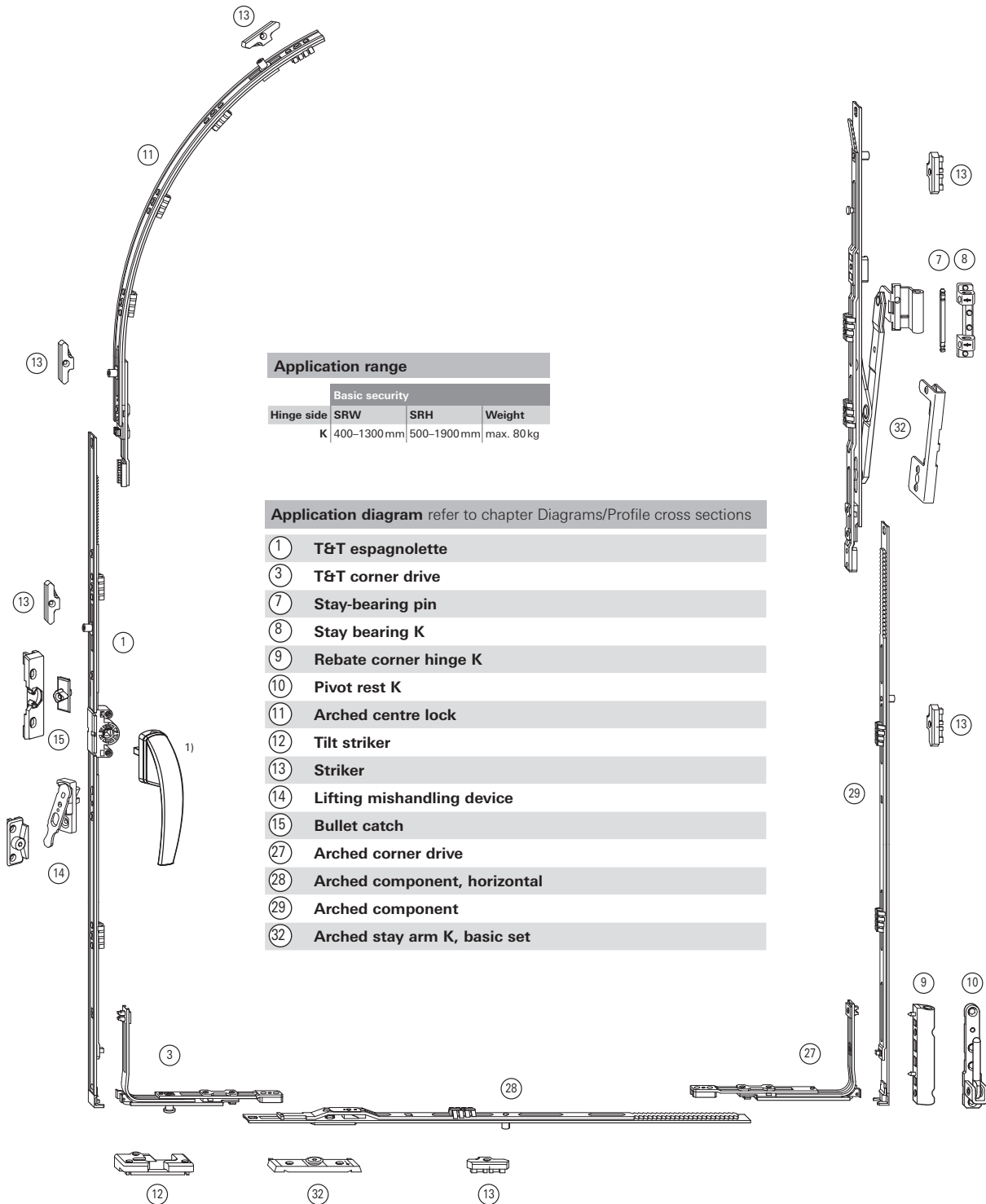
# Roto NT

## Tilt&Turn hardware K for arched windows Basic security



### Hinge side K, systems 12/18(20)-9 and 12/20(22)-13

12 mm clearance  
18/20/22 mm overlap width  
9/13 mm hardware axis



#### Application range

Basic security			
Hinge side	SRW	SRH	Weight
K	400-1300 mm	500-1900 mm	max. 80 kg

#### Application diagram refer to chapter Diagrams/Profile cross sections

- 1 T&T espagnolette
- 3 T&T corner drive
- 7 Stay-bearing pin
- 8 Stay bearing K
- 9 Rebate corner hinge K
- 10 Pivot rest K
- 11 Arched centre lock
- 12 Tilt striker
- 13 Striker
- 14 Lifting mishandling device
- 15 Bullet catch
- 27 Arched corner drive
- 28 Arched component, horizontal
- 29 Arched component
- 32 Arched stay arm K, basic set

1) Refer to Roto catalogue BK 5 EN for handles

# Roto NT

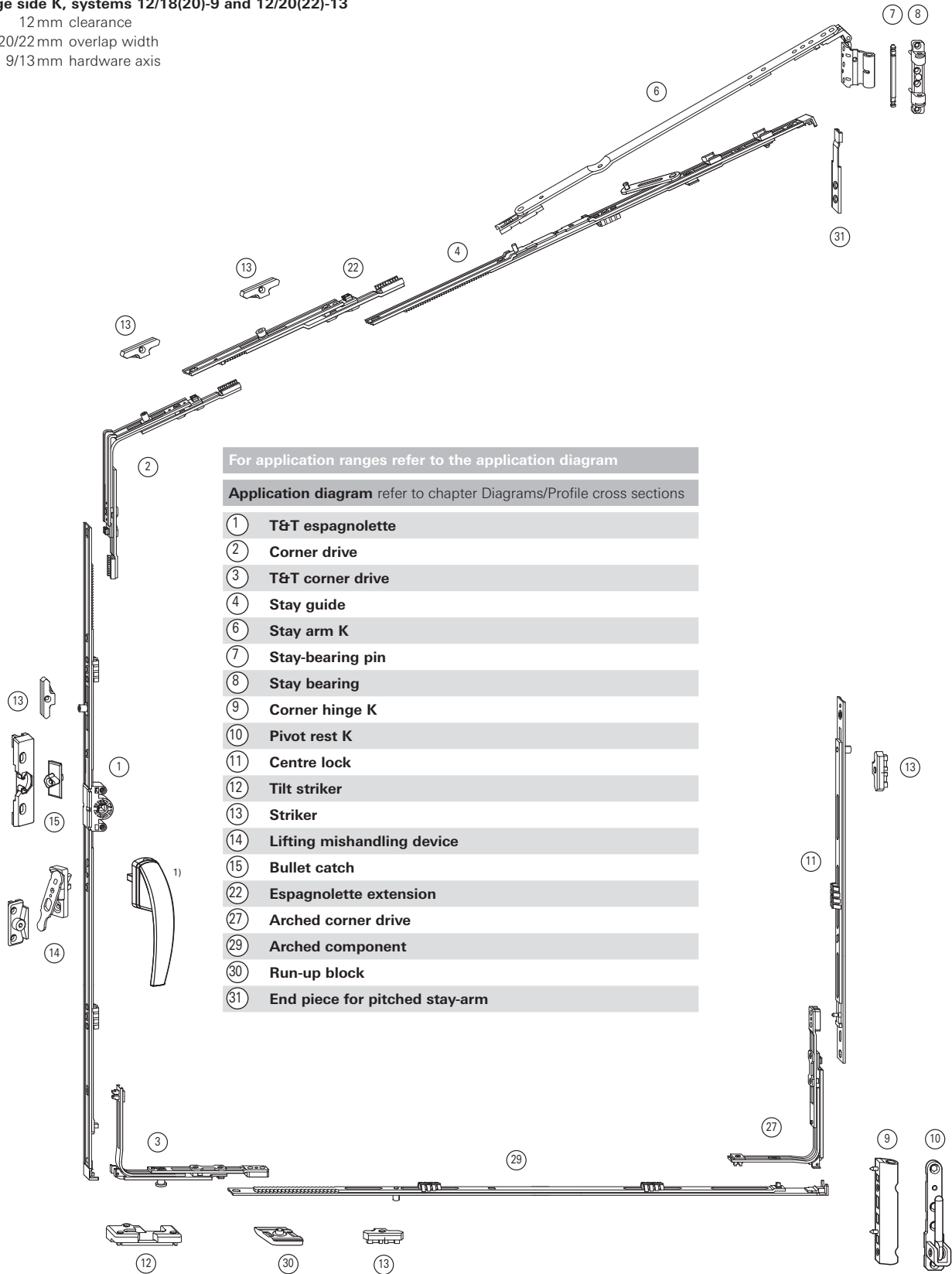
## Tilt&Turn hardware K for pitched windows

### Basic security



#### Hinge side K, systems 12/18(20)-9 and 12/20(22)-13

12 mm clearance  
18/20/22 mm overlap width  
9/13 mm hardware axis



Hardware set combinations

1) Refer to Roto catalogue BK 5 EN for handles



# Roto NT Royal

## Tilt&Turn hardware

### Basic security

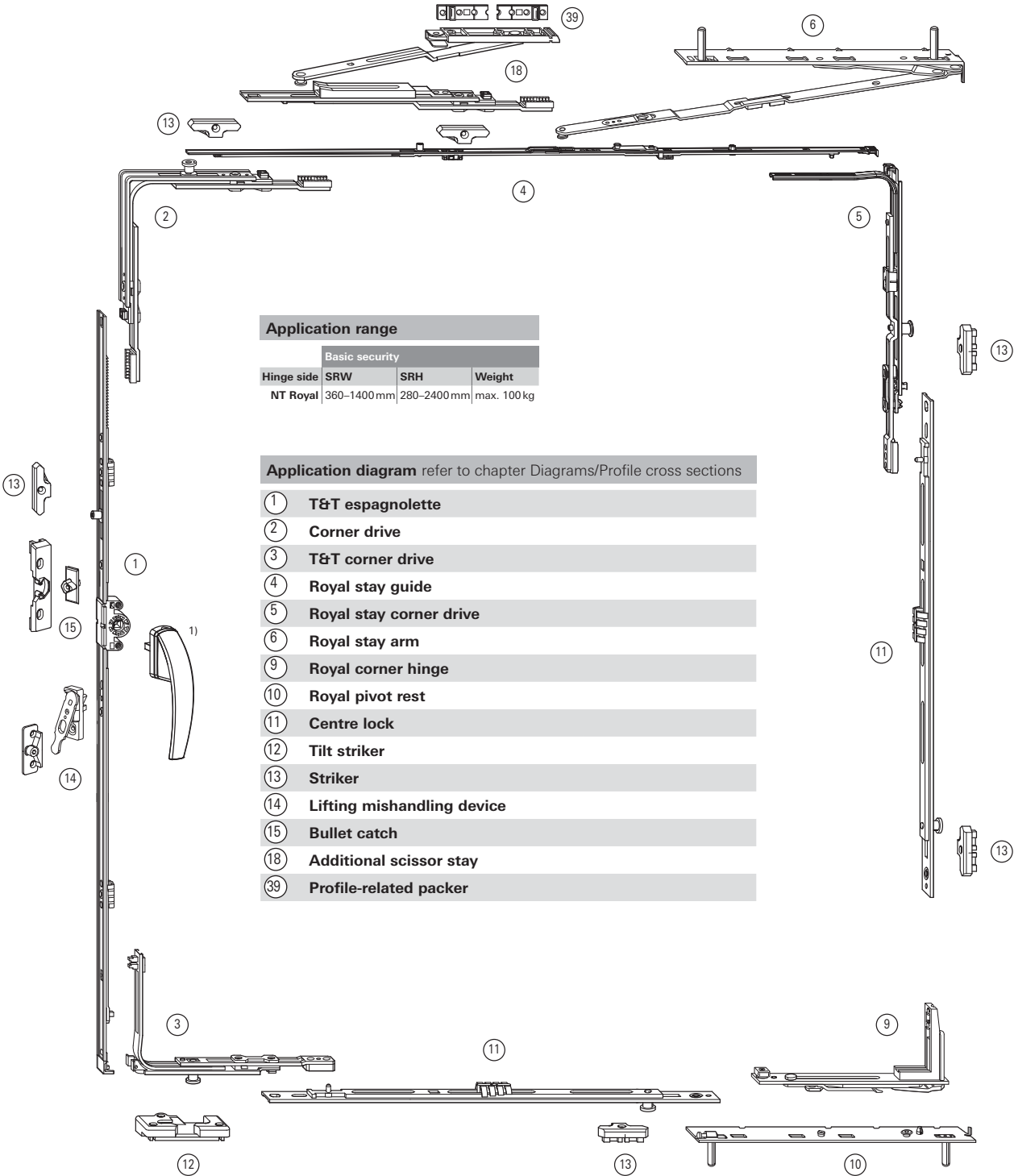


Systems 12/18(20, 22)-9 and 12/20-13

12 mm clearance

18/20/22 mm overlap width

9/13 mm hardware axis



1) Refer to Roto catalogue BK 5 EN for handles

# Roto NT Royal

## Tilt&Turn hardware

### Tested security

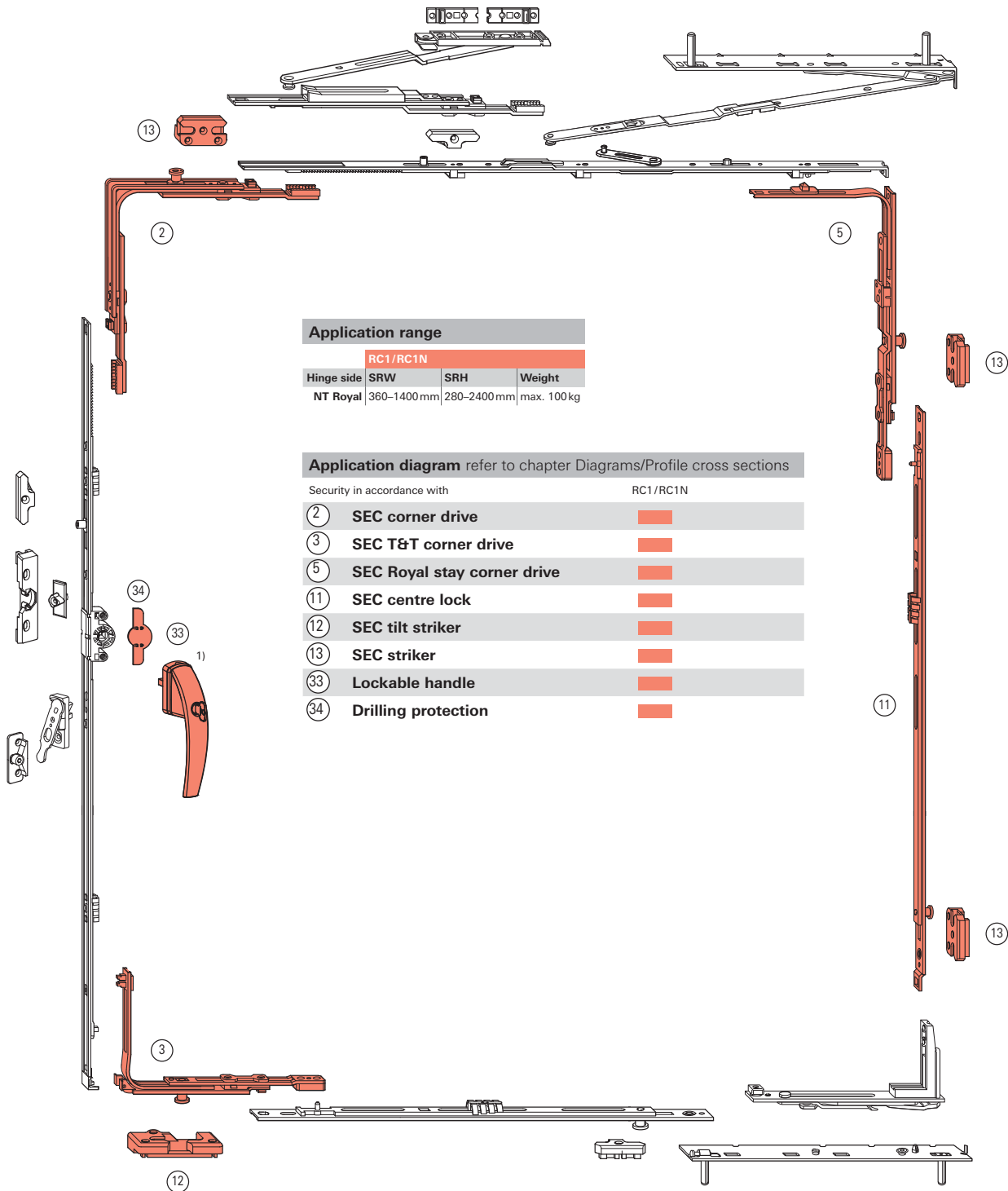


Systems 12/18(20, 22)-9 and 12/20-13

12 mm clearance

18/20/22 mm overlap width

9/13 mm hardware axis



Hardware set combinations

1) Refer to Roto catalogue BK 5 EN for handles

# Roto NT Royal

## Turn-Only hardware

### Basic security

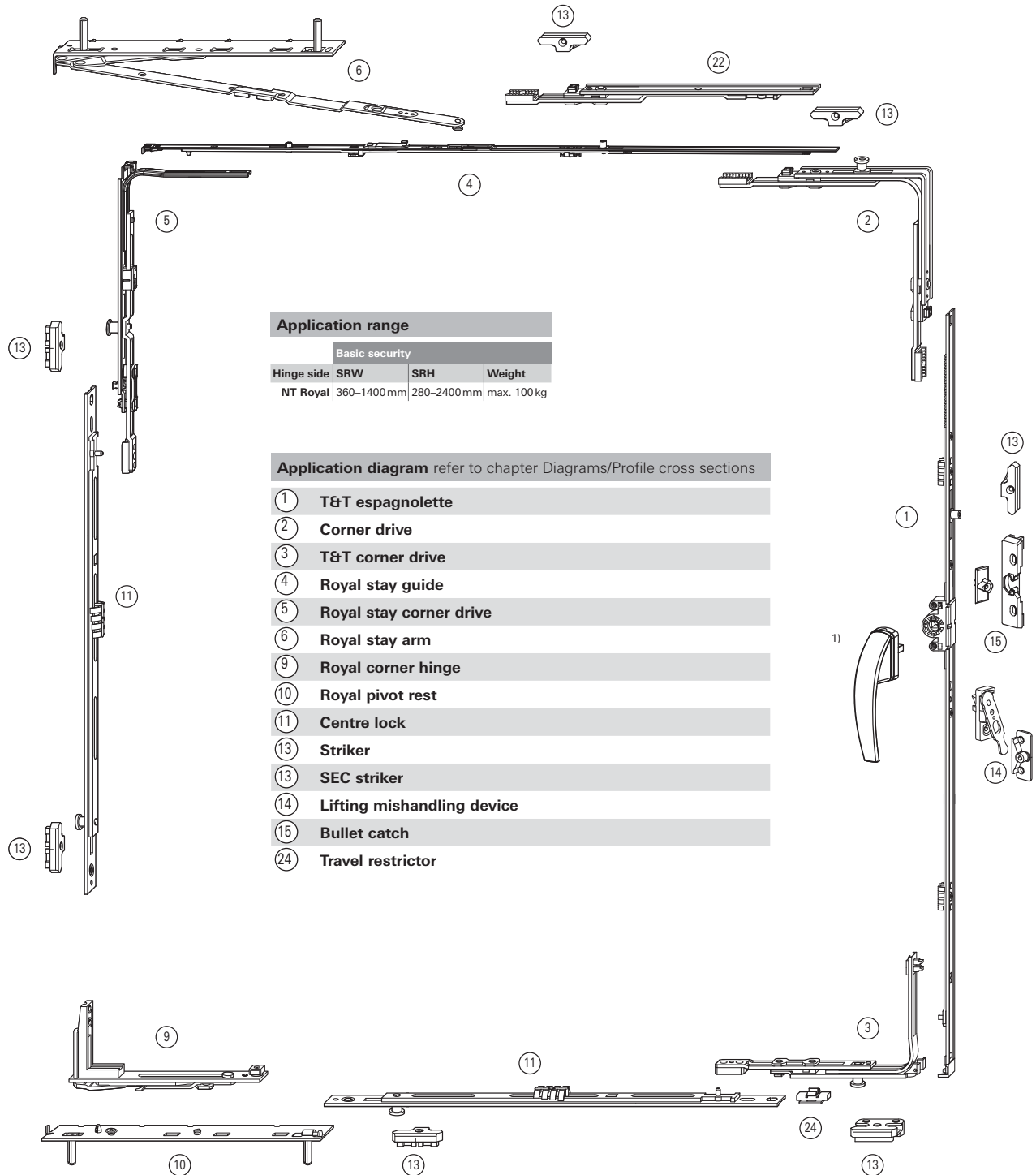


Systems 12/18(20, 22)-9 and 12/20-13

12 mm clearance

18/20/22 mm overlap width

9/13 mm hardware axis



1) Refer to Roto catalogue BK 5 EN for handles



# Roto NT Royal

## Turn-Only hardware

### Tested security

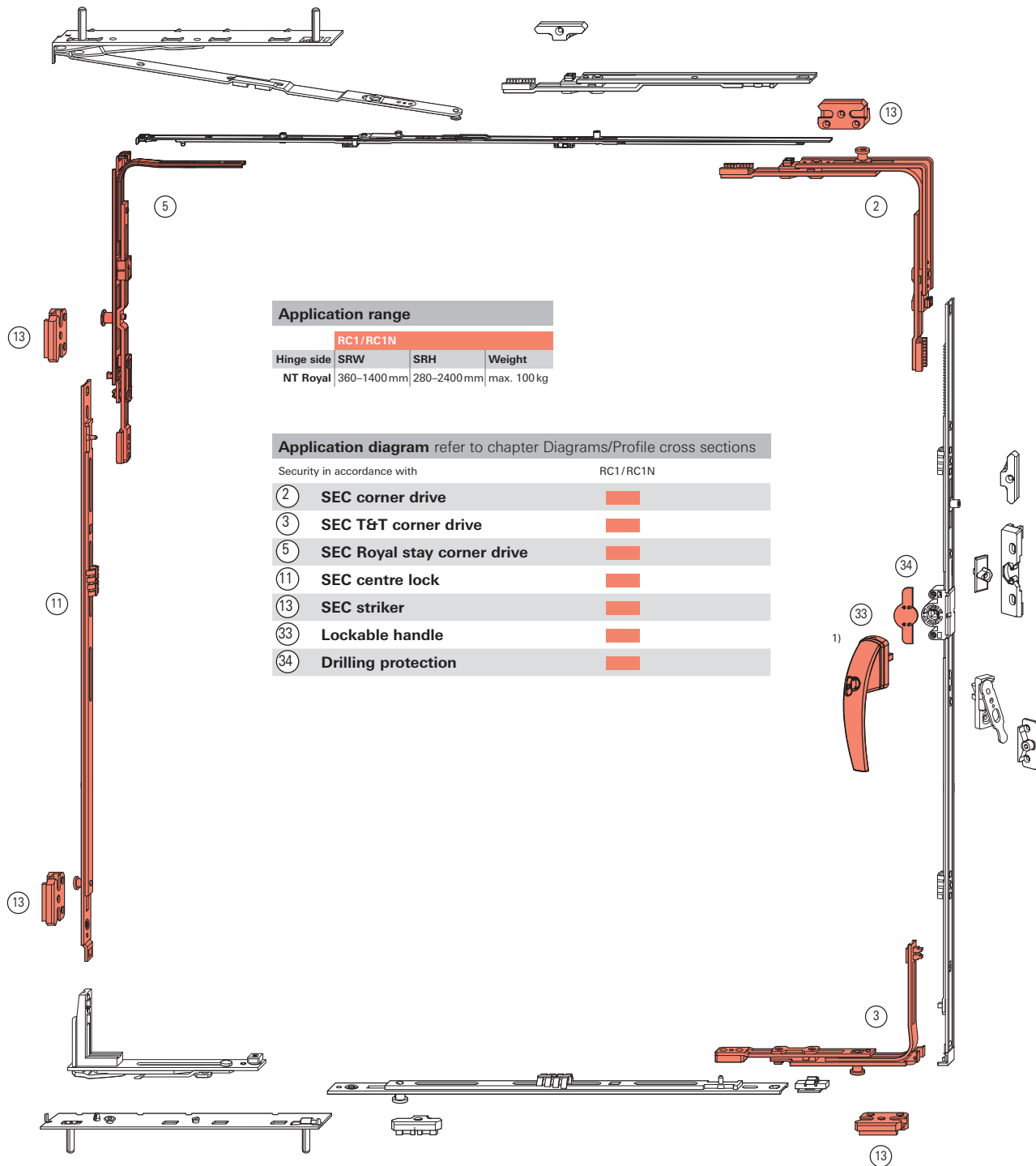


Systems 12/18(20, 22)-9 and 12/20-13

12 mm clearance

18/20/22 mm overlap width

9/13 mm hardware axis



Hardware set combinations

1) Refer to Roto catalogue BK 5 EN for handles

# Roto NT Royal

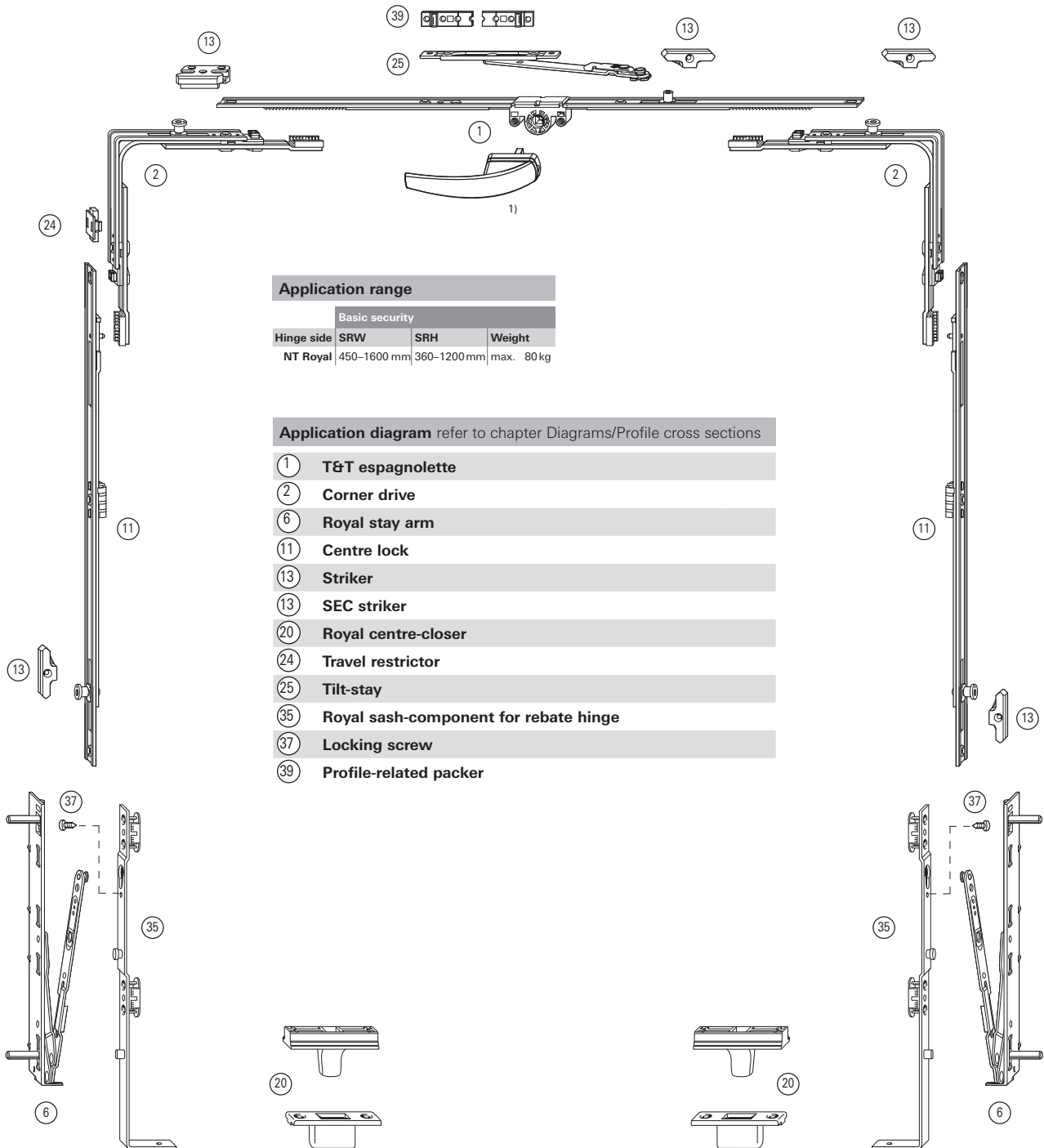
## Tilt-Only hardware

### Basic security



Systems 12/18(20, 22)-9 and 12/20-13

12 mm clearance  
18/20/22 mm overlap width  
9/13 mm hardware axis



1) Refer to Roto catalogue BK 5 EN for handles

# Roto NT Royal

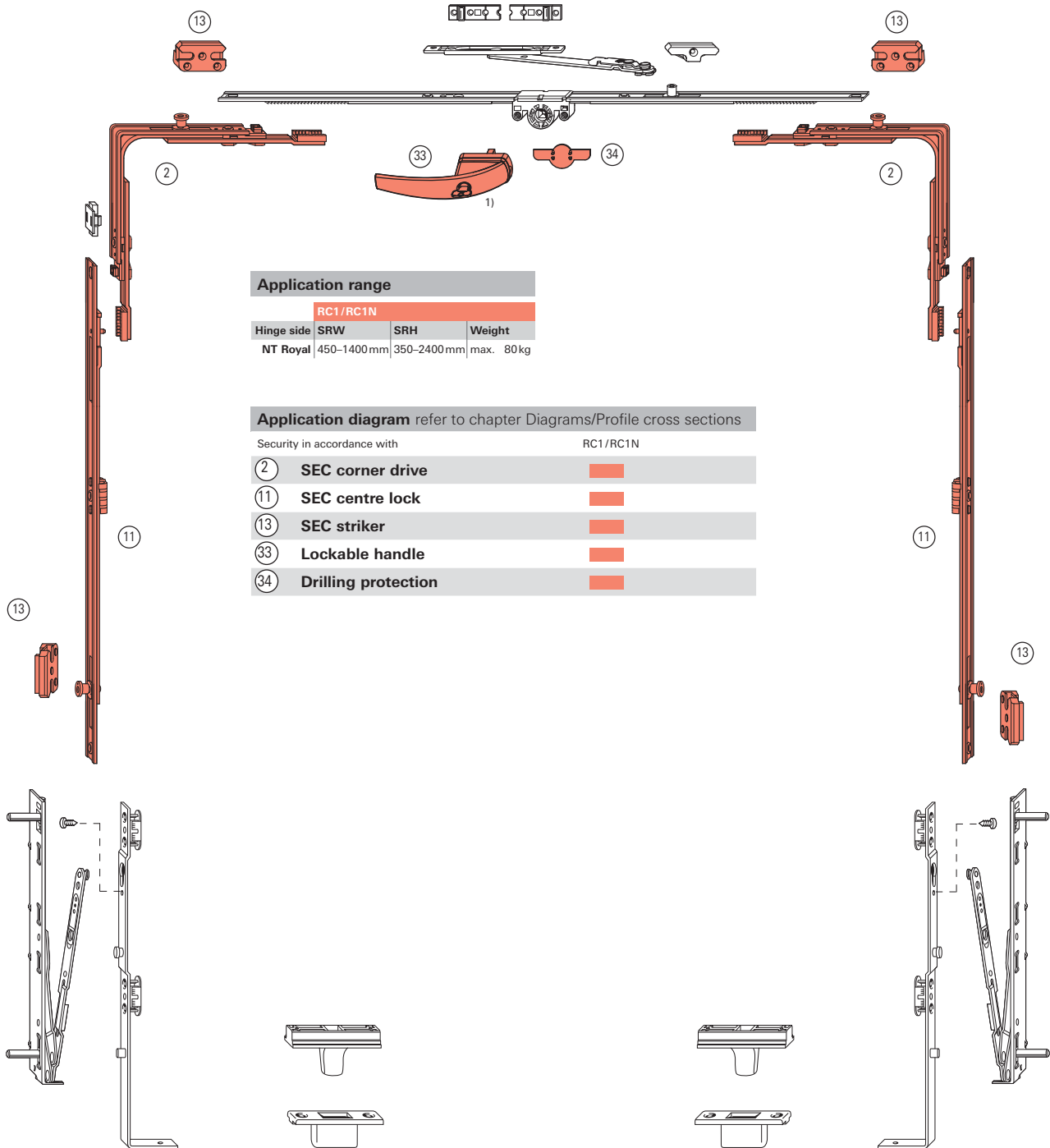
## Tilt-Only hardware

### Tested security



Systems 12/18(20, 22)-9 and 12/20-13

12 mm clearance  
18/20/22 mm overlap width  
9/13 mm hardware axis



Application range			
RC1/RC1N			
Hinge side	SRW	SRH	Weight
NT Royal	450-1400 mm	350-2400 mm	max. 80 kg

Application diagram refer to chapter Diagrams/Profile cross sections		
Security in accordance with	RC1/RC1N	
② SEC corner drive	■	
⑪ SEC centre lock	■	
⑬ SEC striker	■	
⑳ Lockable handle	■	
㉓ Drilling protection	■	

Hardware set combinations

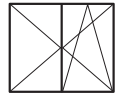
1) Refer to Roto catalogue BK 5 EN for handles



# Roto NT Royal

## Turn-Only / Tilt&Turn hardware

### Basic security

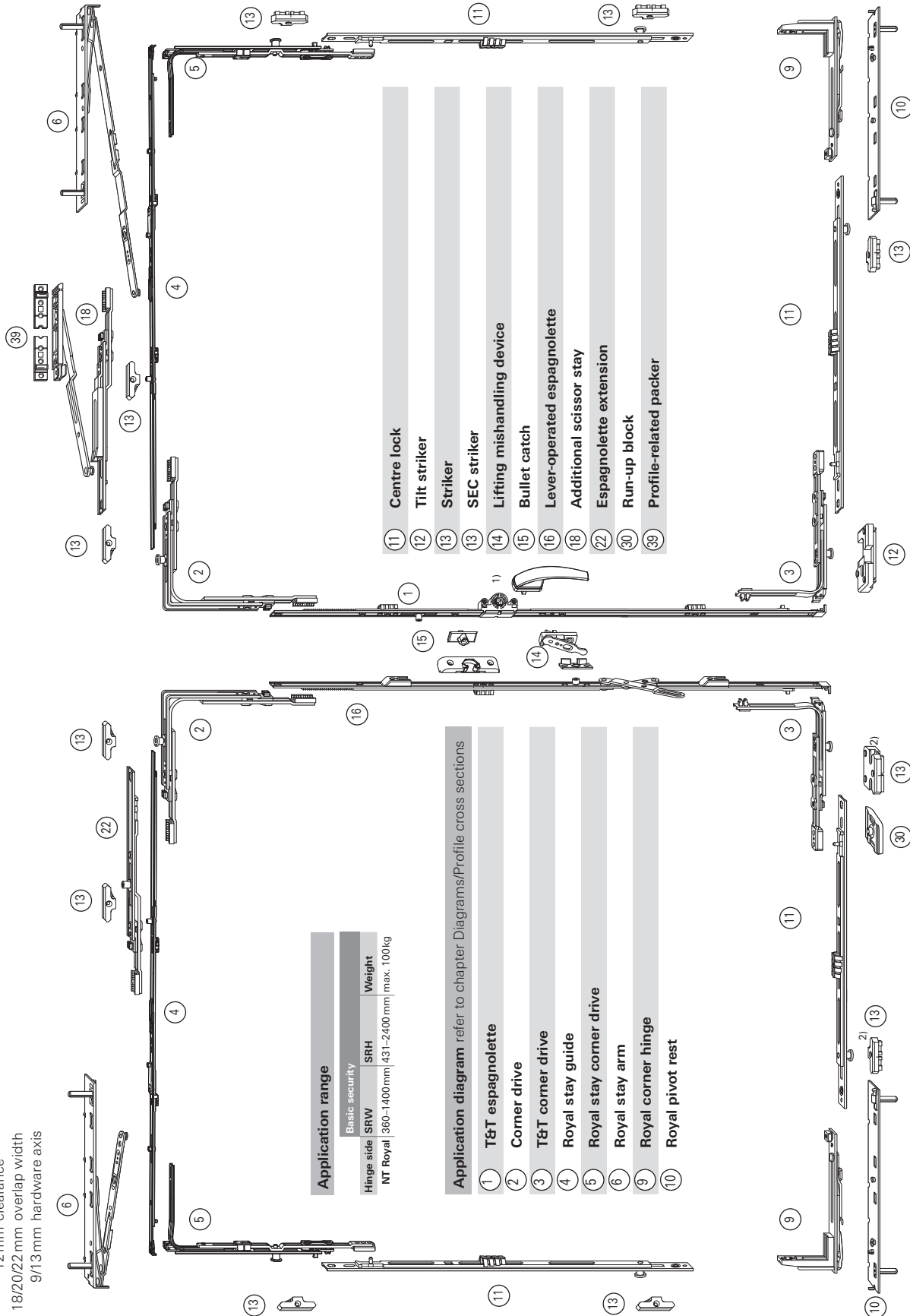


Systems 12/18(20, 22)-9 and 12/20-13

12 mm clearance

18/20/22 mm overlap width

9/13 mm hardware axis



Application range		
Basic security		
Hinge side	SRW	SRH
NT Royal	360-1400mm	431-2400mm
	max. 100kg	

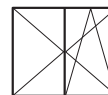
- Application diagram refer to chapter Diagrams/Profile cross sections
- 1 T&T espagnolette
  - 2 Corner drive
  - 3 T&T corner drive
  - 4 Royal stay guide
  - 5 Royal stay corner drive
  - 6 Royal stay arm
  - 9 Royal corner hinge
  - 10 Royal pivot rest

1) Refer to Roto catalogue BK 5 EN for handles  
2) A security striker must be used at this location.

# Roto NT Royal

## Turn-Only / Tilt&Turn hardware

### Tested security

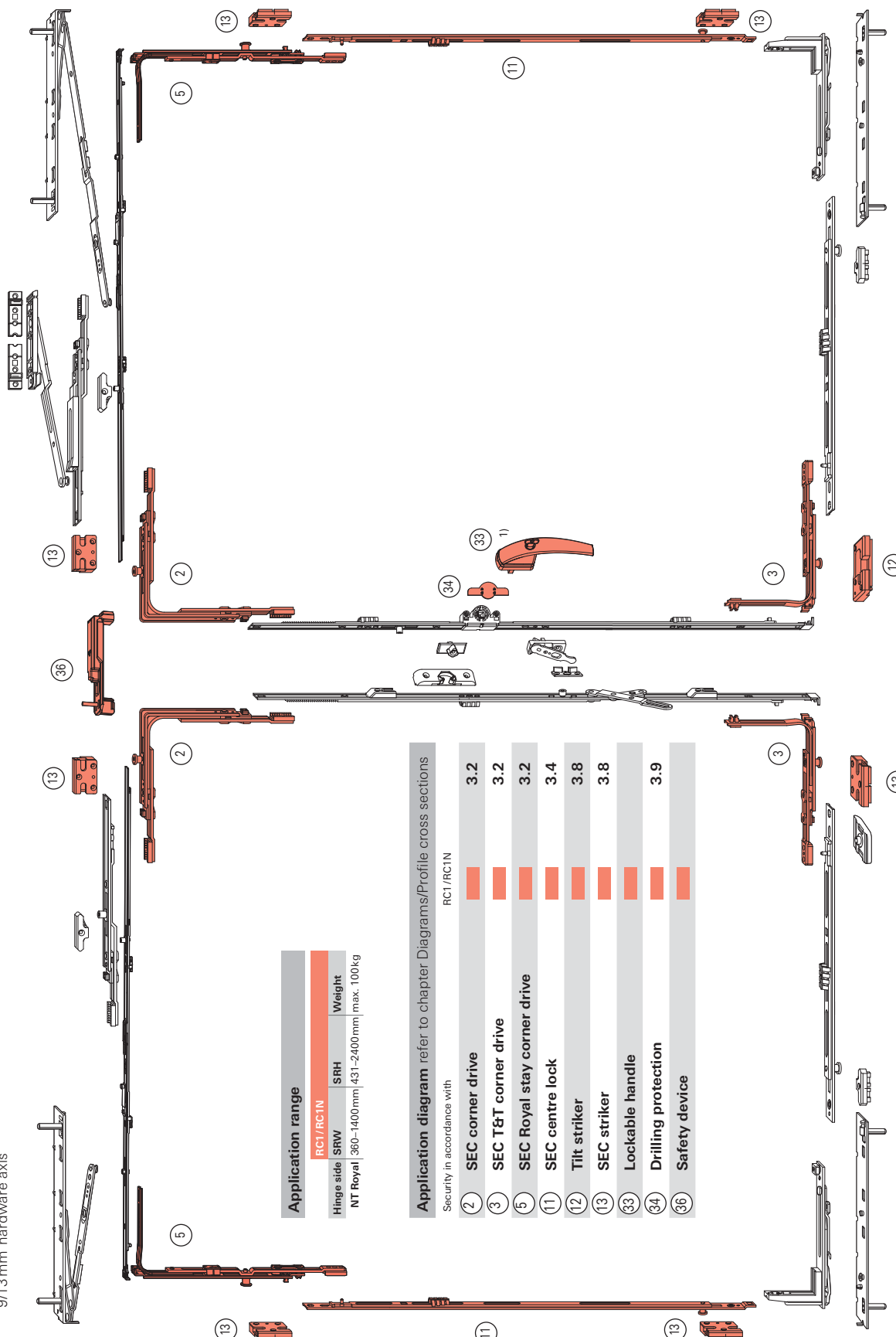


Systems 12/18(20, 22)-9 and 12/20-13

12 mm clearance

18/20/22 mm overlap width

9/13 mm hardware axis



Application range		
	RC1 / RC1N	
Hinge side	SRW	SRH
NT Royal	360-1400mm	431-2400mm
	max. 100kg	

Application diagram refer to chapter Diagrams/Profile cross sections	
Security in accordance with	RC1 / RC1N
2 SEC corner drive	3.2
3 SEC T&T corner drive	3.2
5 SEC Royal stay corner drive	3.2
11 SEC centre lock	3.4
12 Tilt striker	3.8
13 SEC striker	3.8
33 Lockable handle	
34 Drilling protection	3.9
36 Safety device	

1) Refer to Roto catalogue BK 5 EN for handles

Hardware set combinations



# Roto NT Designo

## Tilt&Turn hardware

### Basic security

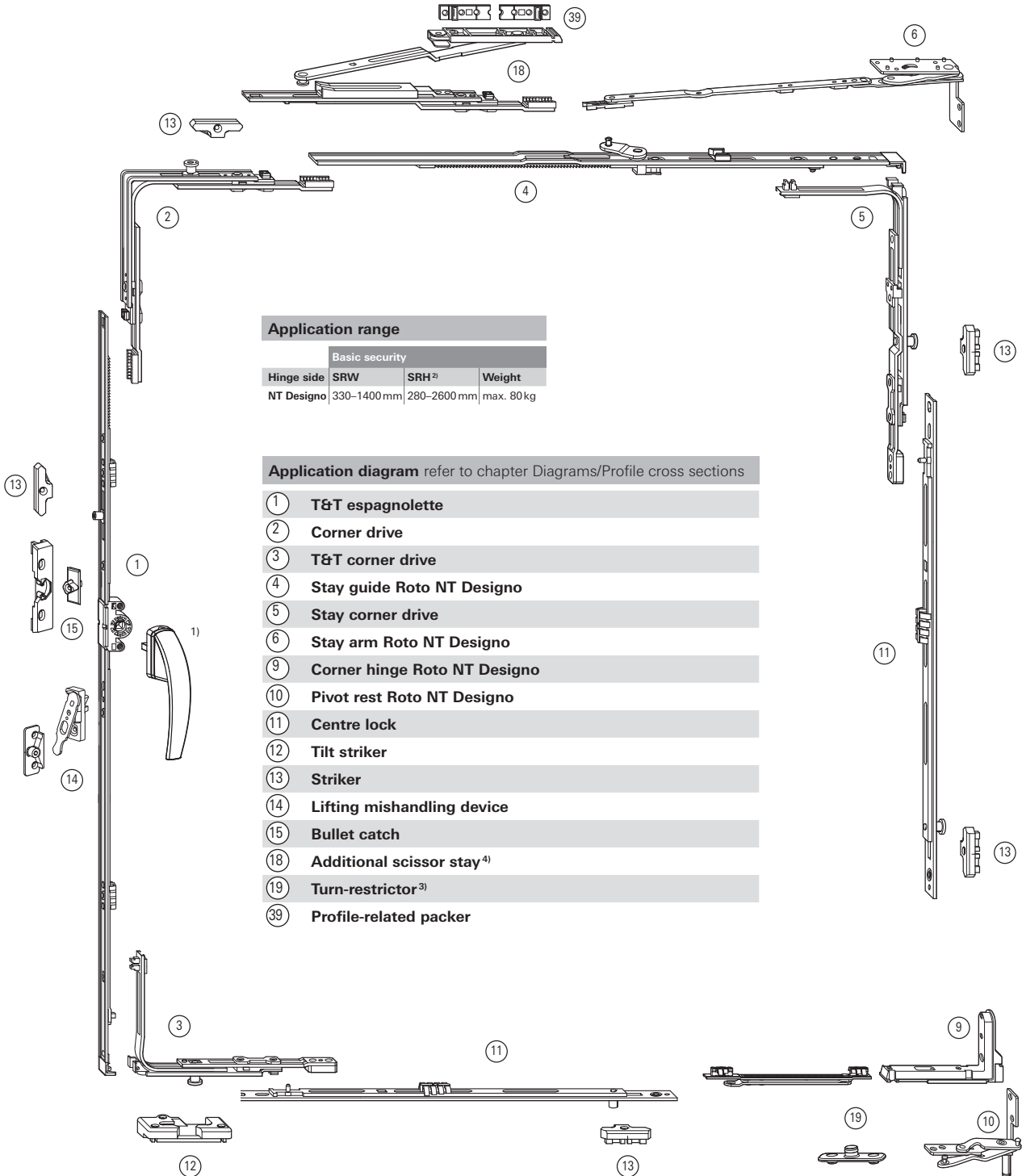


System 12/18(20)-9 and 12/20(21,22)-13

12 mm clearance

18/20/21/22 mm overlap width

9/13 mm hardware axis



1) Refer to Roto catalogue BK 5 EN for handles

2) On SRH < 500 mm the tilt-depth must be limited to 80 mm.

3) From SRW 1050 mm

4) From SRW 1201 mm

# Roto NT Designo

## Tilt&Turn hardware

### Tested security

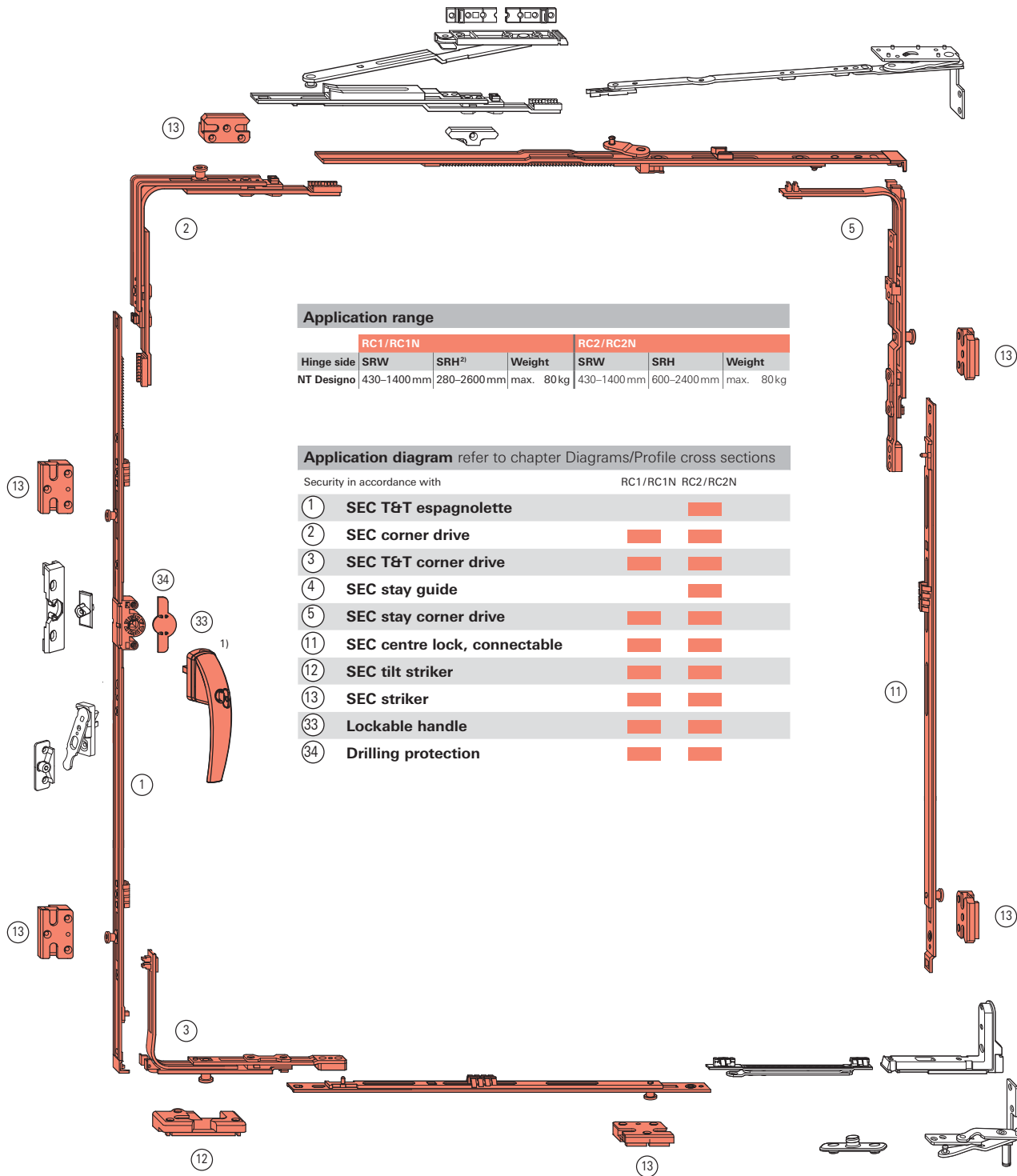


**System 12/18(20)-9 and 12/20(21,22)-13**

12 mm clearance

18/20/21/22 mm overlap width

9/13 mm hardware axis



Hardware set combinations

1) Refer to Roto catalogue BK 5 EN for handles

2) On SRH < 500 mm the tilt-depth must be limited to 80 mm.

# Roto NT Designo

## Turn-Only hardware

### Basic security

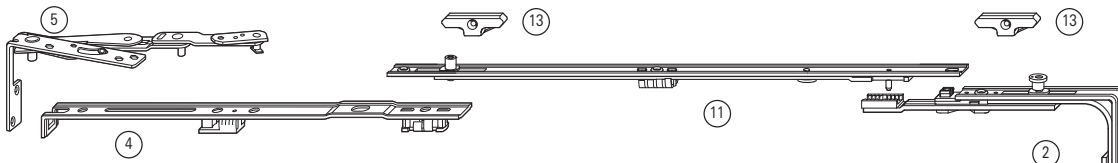


System 12/18(20)-9 and 12/20(21,22)-13

12 mm clearance

18/20/21/22 mm overlap width

9/13 mm hardware axis

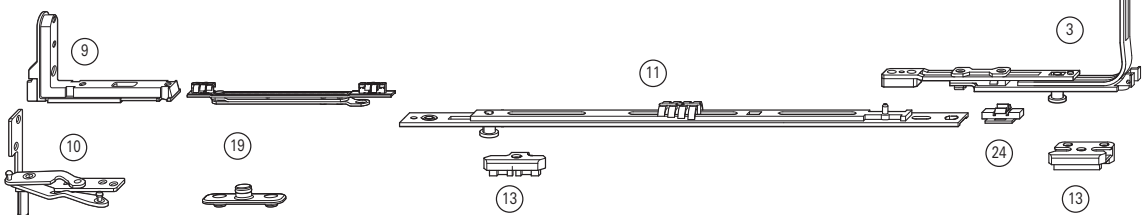
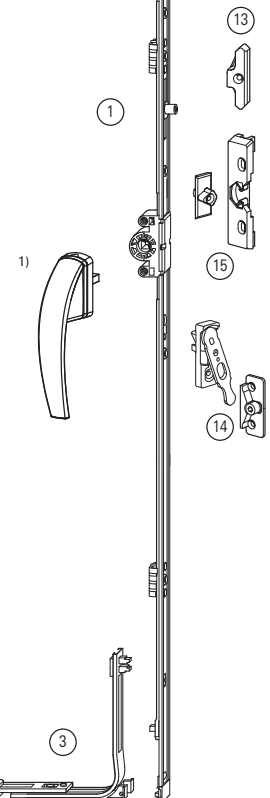
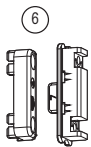


#### Application range

Basic security			
Hinge side	SRW	SRH	Weight
NT Designo	370-1400 mm	280-2600 mm	max. 80 kg

Application diagram refer to chapter Diagrams/Profile cross sections

- ① T&T espagnolette
- ② Corner drive
- ③ T&T corner drive
- ④ Sash-component for rebate hinge Roto NT Designo
- ⑤ Rebate-hinge arm Roto NT Designo
- ⑥ Centre-closer, concealed
- ⑨ Corner hinge Roto NT Designo
- ⑩ Pivot rest Roto NT Designo
- ⑪ Centre lock
- ⑬ Striker
- ⑬ SEC striker
- ⑭ Lifting mishandling device
- ⑮ Bullet catch
- ⑰ Turn-restrictor<sup>2)</sup>
- ⑳ Travel restrictor



1) Refer to Roto catalogue BK 5 EN for handles  
2) From SRW 1050 mm



# Roto NT Designo

## Tilt-Only hardware

### Basic security

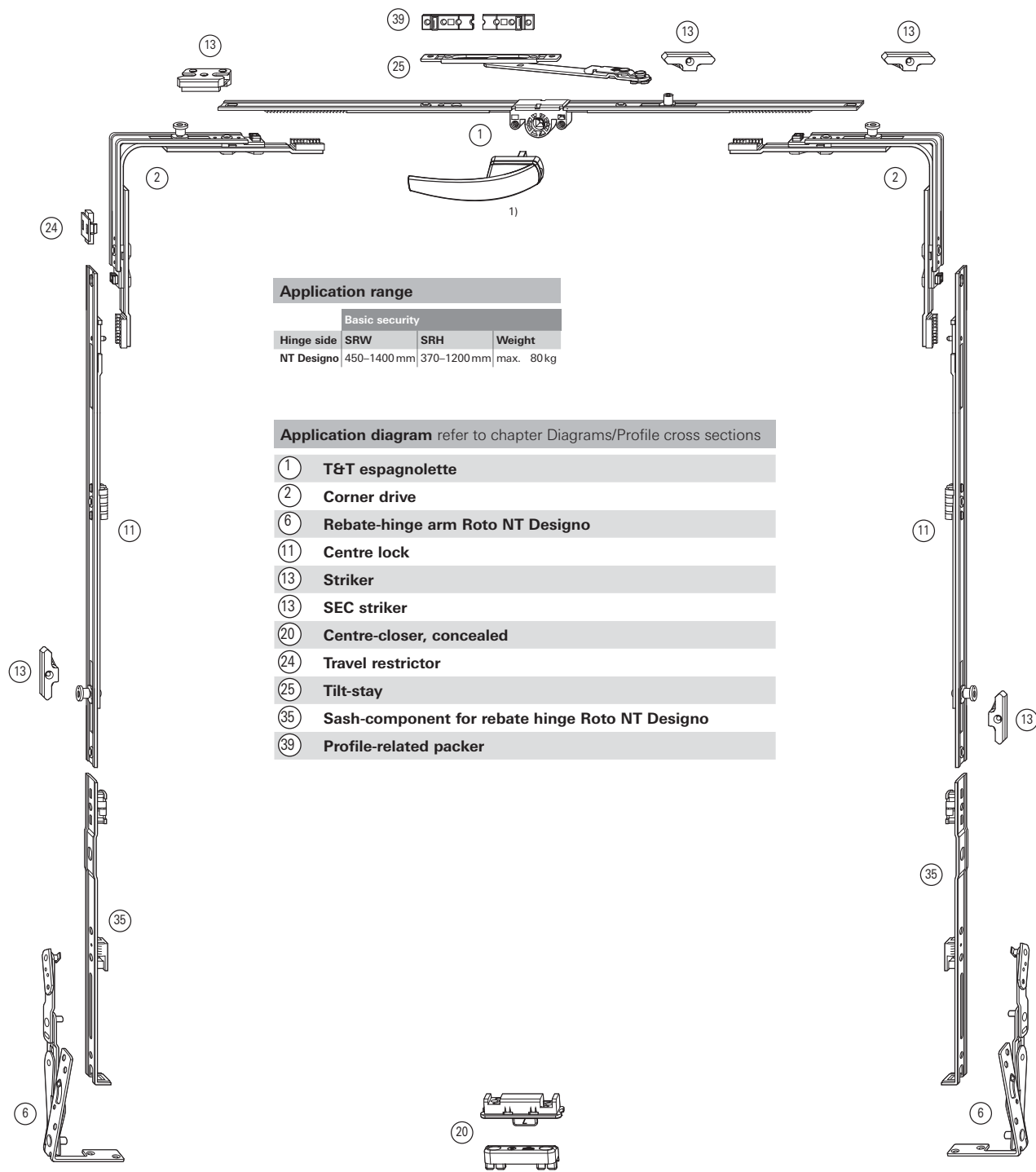


**System 12/18(20)-9 and 12/20(21,22)-13**

12 mm clearance

18/20/21/22 mm overlap width

9/13 mm hardware axis



#### Application range

Basic security			
Hinge side	SRW	SRH	Weight
NT Designo	450-1400 mm	370-1200 mm	max. 80 kg

**Application diagram** refer to chapter Diagrams/Profile cross sections

- ① T&T espagnolette
- ② Corner drive
- ⑥ Rebate-hinge arm Roto NT Designo
- ⑪ Centre lock
- ⑬ Striker
- ⑬ SEC striker
- ⑳ Centre-closer, concealed
- ⑳ Travel restrictor
- ㉕ Tilt-stay
- ㉞ Sash-component for rebate hinge Roto NT Designo
- ㉟ Profile-related packer

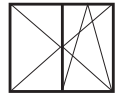
Hardware set combinations

1) Refer to Roto catalogue BK 5 EN for handles

# Roto NT Designo

## Turn-Only / Tilt&Turn hardware

### Basic security

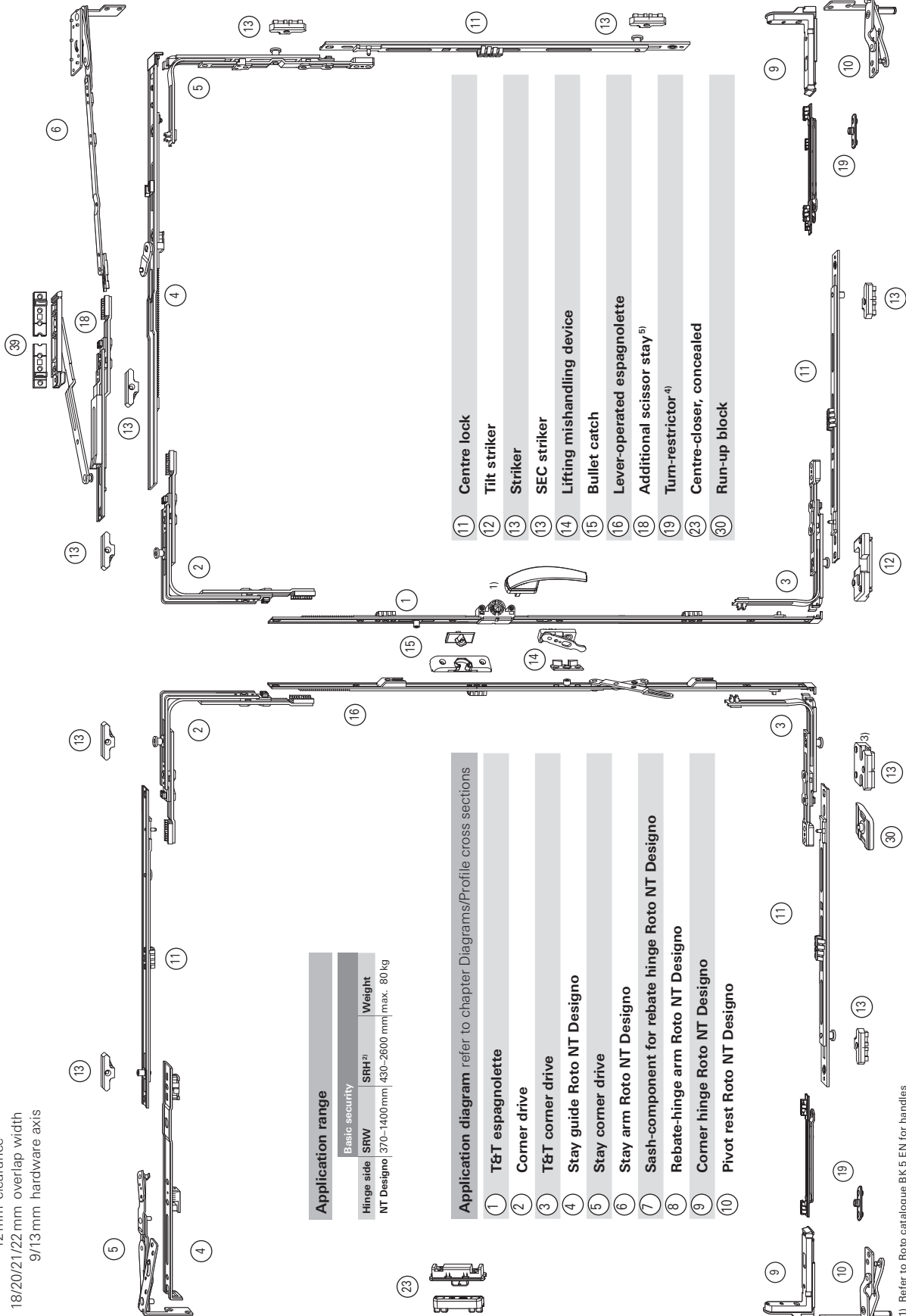


**System 12/18(20)-9 and 12/20(21,22)-13**

12 mm clearance

18/20/21/22 mm overlap width

9/13 mm hardware axis



**Application range**

Basic security	
Hinge side	Weight
SRW	SRH <sup>2)</sup>
NT Designo 370-1400 mm	430-2600 mm   max. 80 kg

**Application diagram refer to chapter Diagrams/Profile cross sections**

- 1 T&T espagnolette
- 2 Corner drive
- 3 T&T corner drive
- 4 Stay guide Roto NT Designo
- 5 Stay corner drive
- 6 Stay arm Roto NT Designo
- 7 Sash-component for rebate hinge Roto NT Designo
- 8 Rebate-hinge arm Roto NT Designo
- 9 Corner hinge Roto NT Designo
- 10 Pivot rest Roto NT Designo

- 11 Centre lock
- 12 Tilt striker
- 13 Striker
- 13 SEC striker
- 14 Lifting mishandling device
- 15 Bullet catch
- 16 Lever-operated espagnolette
- 18 Additional scissor stay<sup>5)</sup>
- 19 Turn-restrictor<sup>4)</sup>
- 23 Centre-closer, concealed
- 30 Run-up block

1) Refer to Roto catalogue BK 5 EN for handles  
 2) On SRH < 500mm the tilt-depth must be limited to 80 mm.  
 3) A security striker must be used at this location.  
 4) From SRW 1050 mm  
 5) From SRW 1201 mm

# Roto NT Designo

## Turn-Only / Tilt&Turn hardware

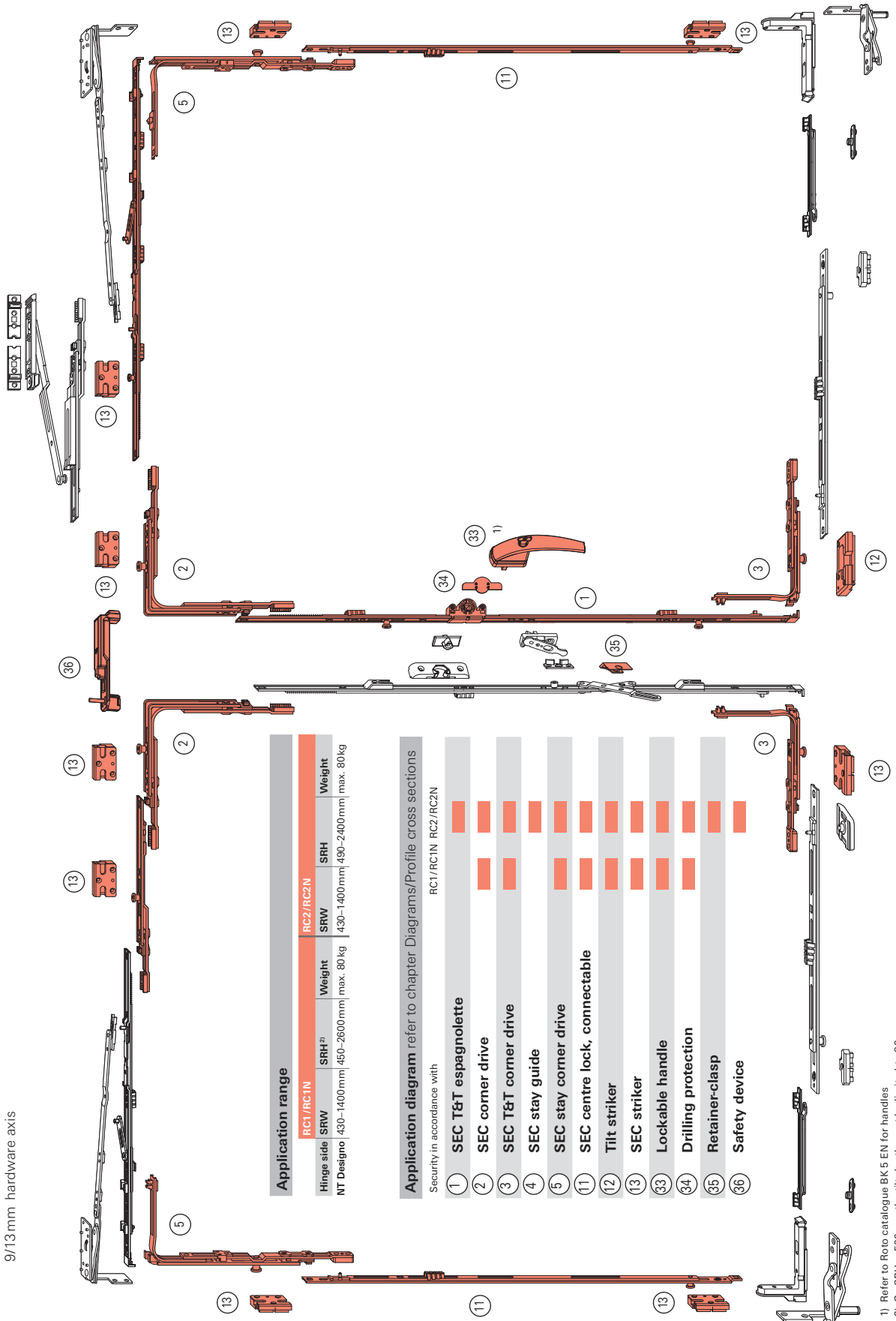
### Tested security

#### System 12/18(20)-9 and 12/20(21,22)-13

12 mm clearance

18/20/21/22 mm overlap width

9/13 mm hardware axis



Application range	
RC1/RC1N	RC2/RC2N
Hinge side SRW	SRH <sup>2)</sup>
Weight	SRH
NT Designo   430-1400 mm   (450-2600 mm) max. 80 kg	SRW   430-1400 mm   (430-2400 mm) max. 80 kg

#### Application diagram refer to chapter Diagrams/Profile cross sections

Security in accordance with RC1/RC1N RC2/RC2N

1	SEC T&T espagnolette	
2	SEC corner drive	
3	SEC T&T corner drive	
4	SEC stay guide	
5	SEC stay corner drive	
11	SEC centre lock, connectable	
12	Tilt striker	
13	SEC striker	
33	Lockable handle	
34	Drilling protection	
35	Retainer-clasp	
36	Safety device	

1) Refer to Roto catalogue BK 5 EN for handles

2) On SRH < 500 mm the tilt-depth must be limited to 80 mm.

# Roto NT Designo II

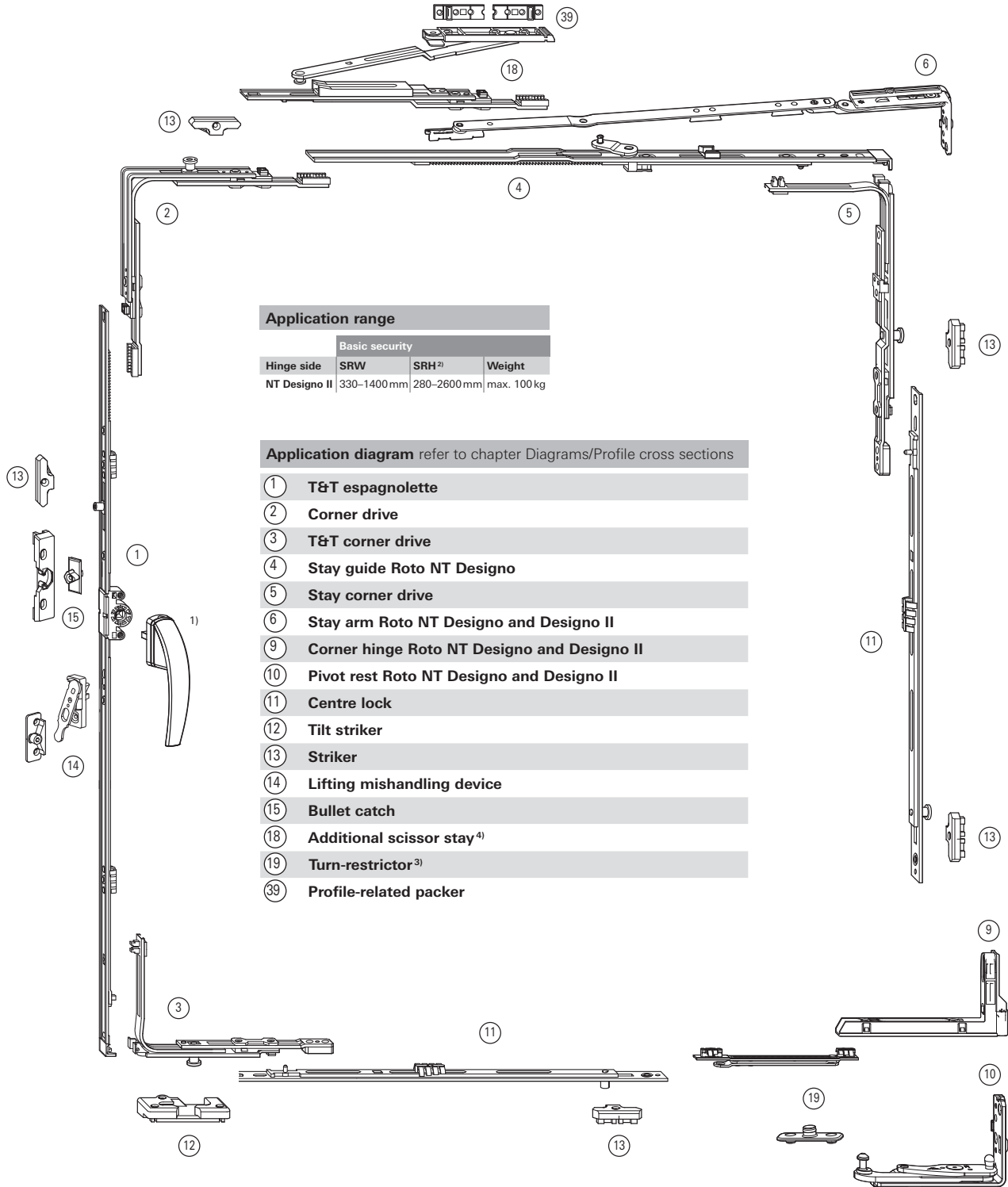
## Tilt&Turn hardware

### Basic security



System 12/18(20,22) rebate depth 24/30 mm

- 12 mm clearance
- 18/20/22 mm overlap width
- 13 mm hardware axis



1) Refer to Roto catalogue BK 5 EN for handles  
 2) On SRH < 500 mm the tilt-depth must be limited to 80 mm.  
 3) From SRW 1000 mm  
 4) From SRW 1201 mm

# Roto NT Designo II

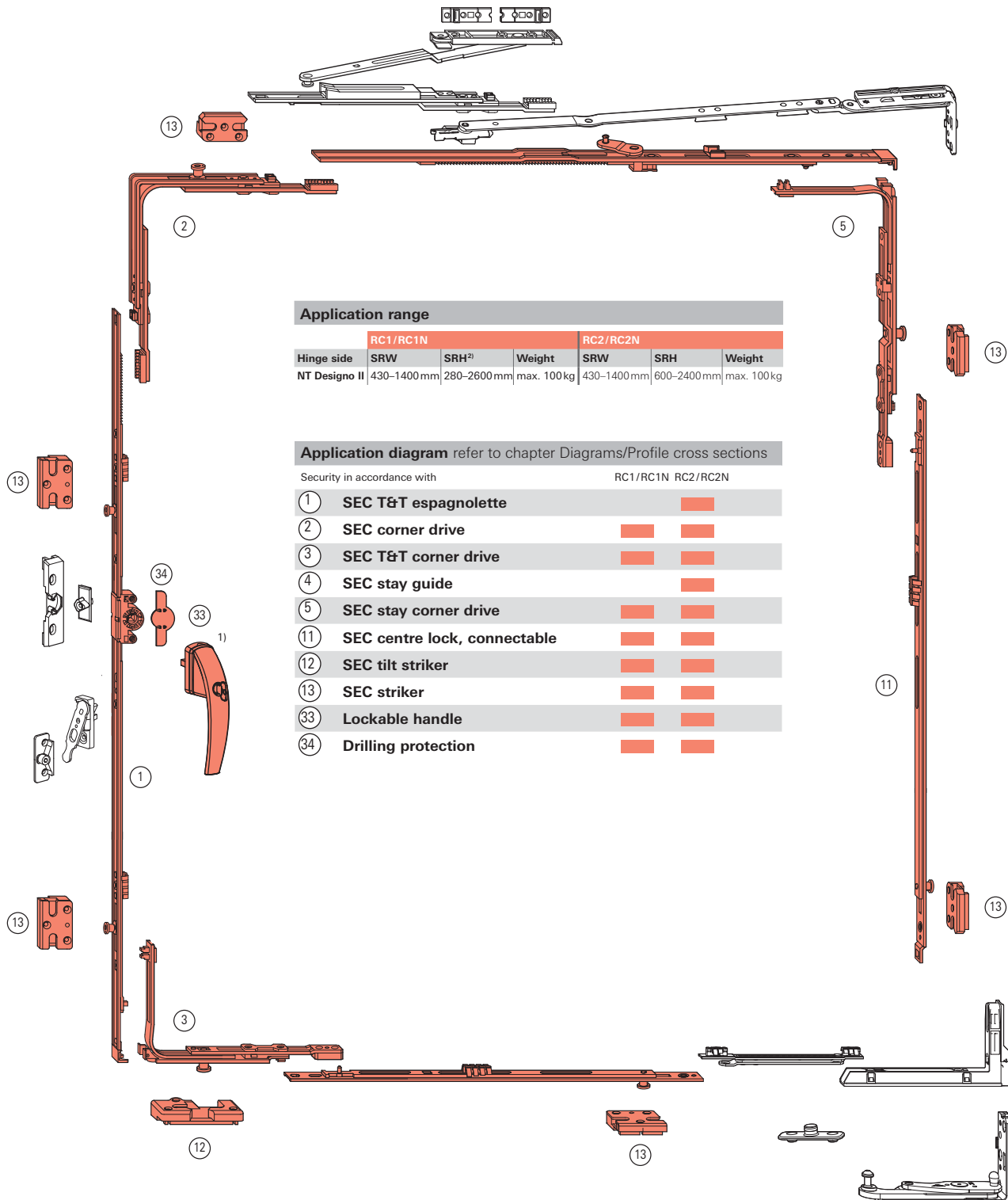
## Tilt&Turn hardware

### Tested security



#### System 12/18(20,22) rebate depth 24/30 mm

- 12 mm clearance
- 18/20/22 mm overlap width
- 13 mm hardware axis



Hardware set combinations

1) Refer to Roto catalogue BK 5 EN for handles  
 2) On SRH < 500 mm the tilt-depth must be limited to 80 mm.

# Roto NT Designo II

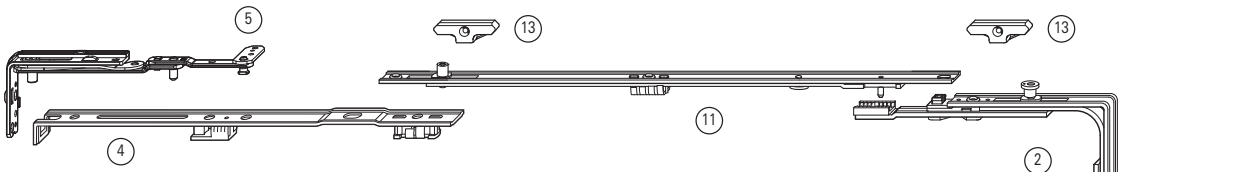
## Turn-Only hardware

### Basic security



System 12/18(20,22) rebate depth 24/30 mm

- 12 mm clearance
- 18/20/22 mm overlap width
- 13 mm hardware axis

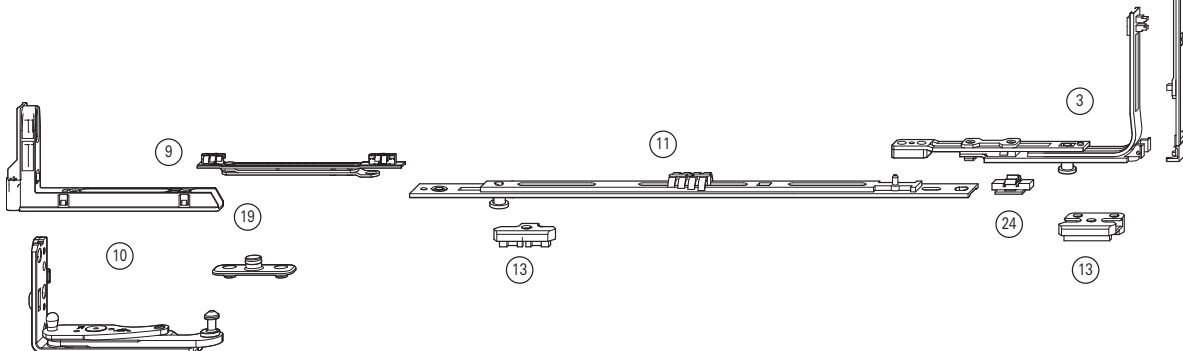
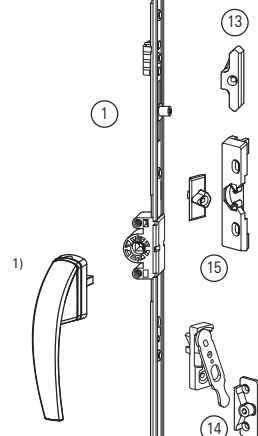
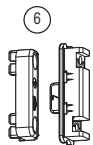


#### Application range

Hinge side	Basic security		Weight
	SRW	SRH	
NT Designo II	370-1400 mm	280-2600 mm	max. 100 kg

#### Application diagram refer to chapter Diagrams/Profile cross sections

- ① T&T espagnolette
- ② Corner drive
- ③ T&T corner drive
- ④ Sash-component for rebate hinge Roto NT Designo
- ⑤ Rebate-hinge arm Roto NT Designo
- ⑥ Centre-closer, concealed
- ⑨ Corner hinge Roto NT Designo II
- ⑩ Pivot rest Roto NT Designo II
- ⑪ Centre lock
- ⑬ Striker
- ⑬ SEC striker
- ⑭ Lifting mishandling device
- ⑮ Bullet catch
- ⑰ Turn-restrictor<sup>2)</sup>
- ⑳ Travel restrictor



1) Refer to Roto catalogue BK 5 EN for handles  
 2) From SRW 1000 mm

# Roto NT Designo II

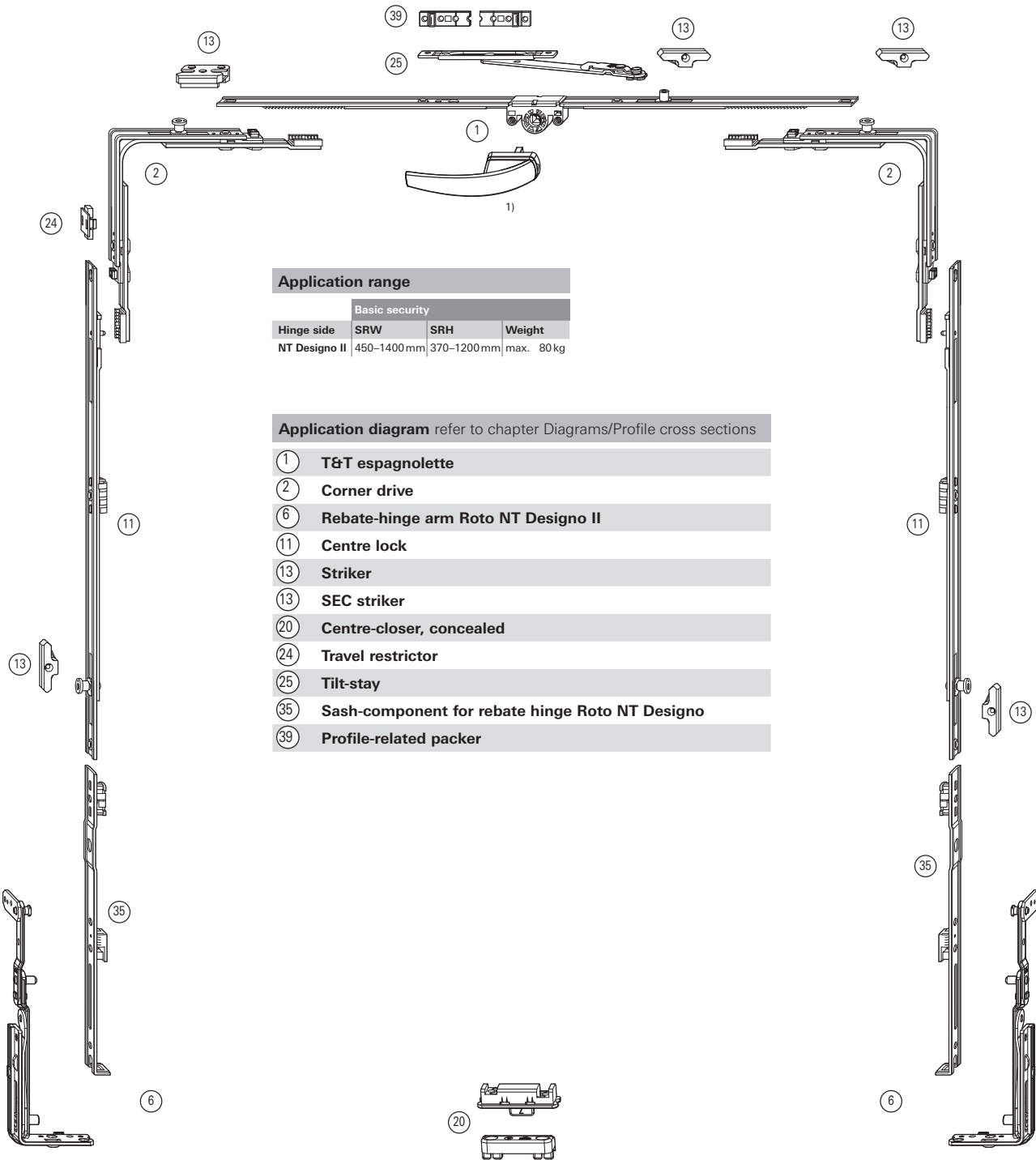
## Tilt-Only hardware

### Basic security



**System 12/18(20,22) rebate depth 24/30 mm**

- 12 mm clearance
- 18/20/22 mm overlap width
- 13 mm hardware axis



#### Application range

Hinge side	Basic security		Weight
	SRW	SRH	
NT Designo II	450-1400 mm	370-1200 mm	max. 80 kg

#### Application diagram refer to chapter Diagrams/Profile cross sections

- ① T&T espagnolette
- ② Corner drive
- ⑥ Rebate-hinge arm Roto NT Designo II
- ⑪ Centre lock
- ⑬ Striker
- ⑬ SEC striker
- ⑳ Centre-closer, concealed
- ㉔ Travel restrictor
- ㉕ Tilt-stay
- ㉞ Sash-component for rebate hinge Roto NT Designo
- ㉟ Profile-related packer

Hardware set combinations

1) Refer to Roto catalogue BK 5 EN for handles



# Roto NT Designo II

## Turn-Only / Tilt&Turn hardware

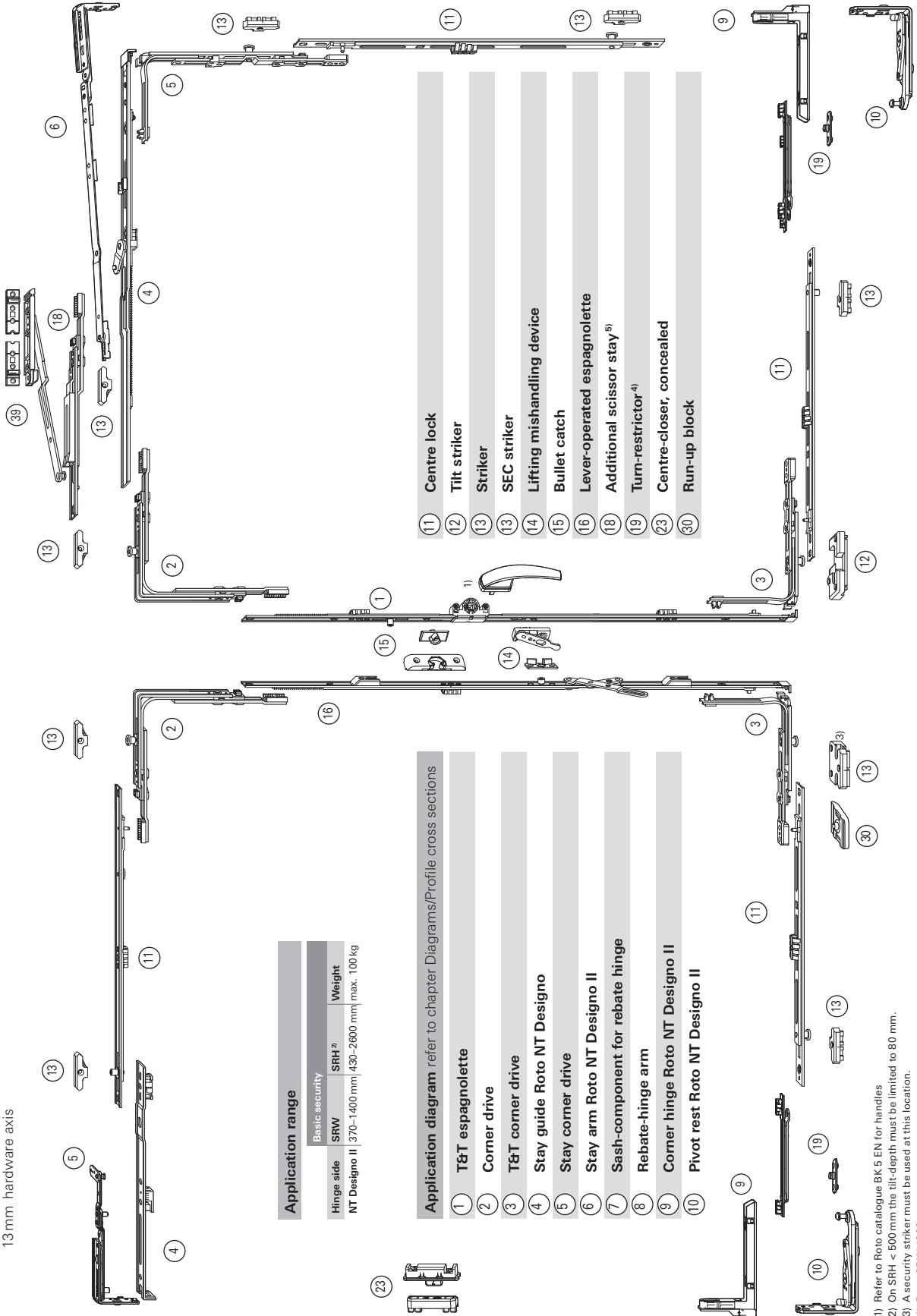
### Basic security

**System 12/18(20,22) rebate depth 24/30 mm**

12 mm clearance

18/20/22 mm overlap width

13 mm hardware axis



Application range		
Basic security		
Hinge side	SRW	Weight
NT Designo II	370-1400 mm	430-2600 mm   max. 100 kg

**Application diagram** refer to chapter Diagrams/Profile cross sections

1) Refer to Roto catalogue BK 5 EN for handles  
 2) On SRH < 500mm the tilt-depth must be limited to 80 mm.  
 3) A security striker must be used at this location.  
 4) From SRW 1000 mm  
 5) From SRW 1201 mm



# Roto NT Designo II

## Turn-Only / Tilt&Turn hardware

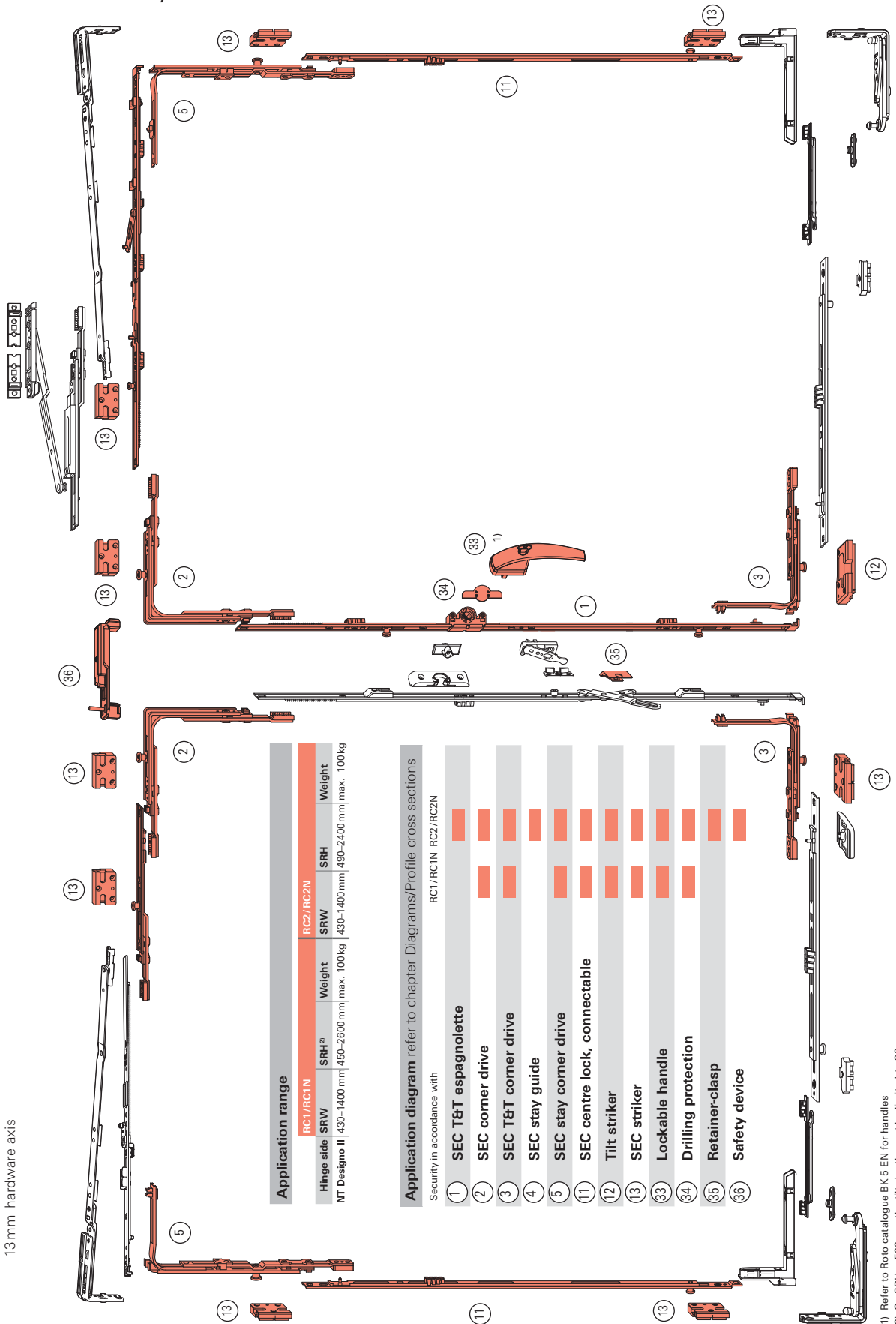
### Tested security

System 12/18(20,22) rebate depth 24/30 mm

12 mm clearance

18/20/22 mm overlap width

13 mm hardware axis



Application range			
RC1/RC1N	RC2/RC2N	Weight	SRH
Hinge side SRW	SRW	SRW	SRH
NT Designo II   430-1400 mm	450-2600 mm	max. 100 kg	430-1400 mm   450-2400 mm
max. 100 kg			

Application diagram refer to chapter Diagrams/Profile cross sections	
Security in accordance with	RC1/RC1N RC2/RC2N
1 SEC T&T espagnolette	■
2 SEC corner drive	■
3 SEC T&T corner drive	■
4 SEC stay guide	■
5 SEC stay corner drive	■
11 SEC centre lock, connectable	■
12 Tilt striker	■
13 SEC striker	■
33 Lockable handle	■
34 Drilling protection	■
35 Retainer-clasp	■
36 Safety device	■

1) Refer to Roto catalogue BK 5 EN for handles  
2) On SRH < 500 mm the tilt-depth must be limited to 80 mm.

Hardware set combinations

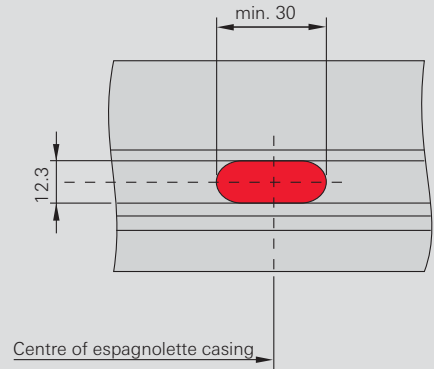
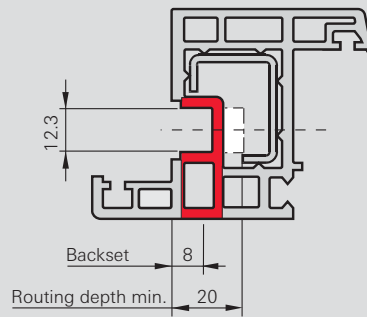
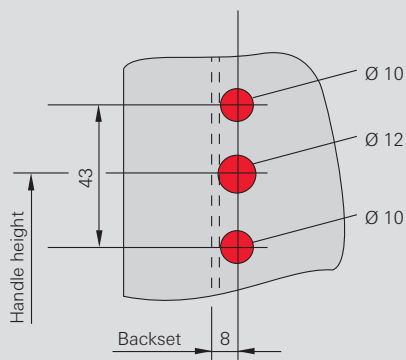


<b>T&amp;T espagnolette</b> .....	<b>84</b>
Fixed handle height.....	84
8, 15 mm backset .....	84
without locking cam, 15 mm backset .....	86
25, 30, 35 mm backset .....	88
40, 45, 50 mm backset .....	90
Centred/variable handle height .....	92
8, 15 mm backset .....	92
25, 30, 35, 40, 45, 50 mm backset .....	94
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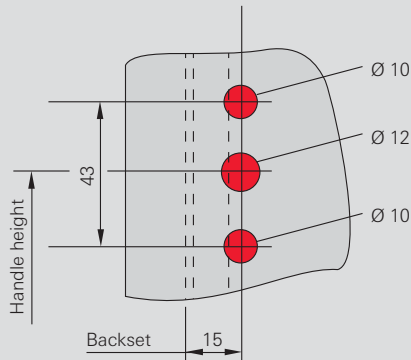
# T&T espagnolette

Fixed handle height  
8, 15 mm backset

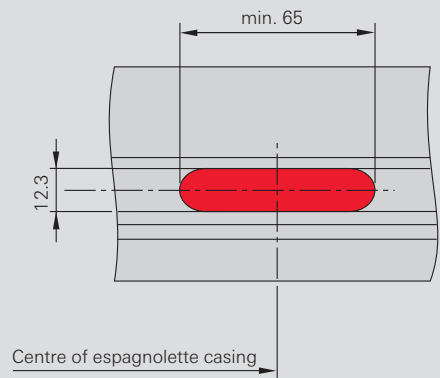
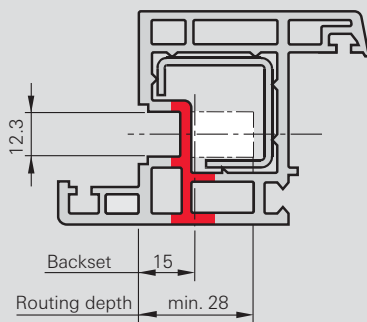
Drilling and routing hole-pattern

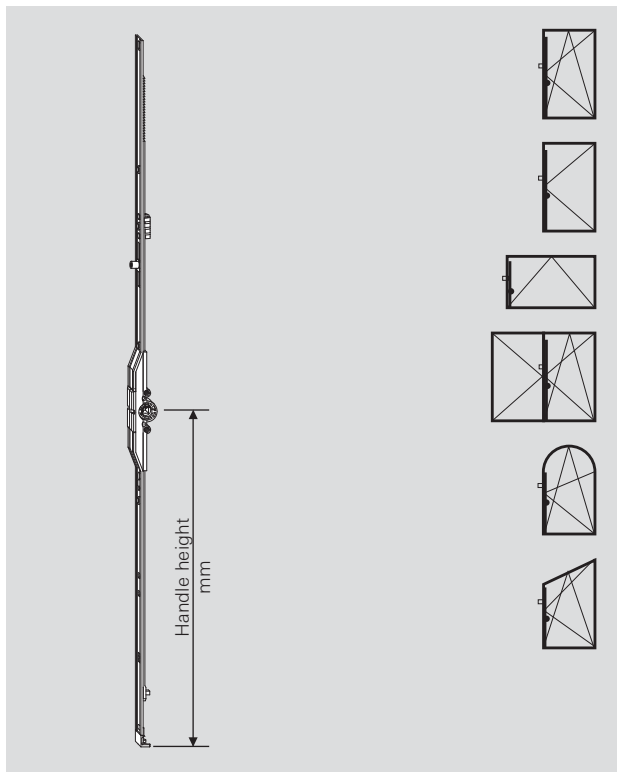


$\varnothing 10$  Drilling depth 33 mm  
(for 16 mm overlap)  
for countersunk screws  
M 5 x ... DIN EN ISO 7046

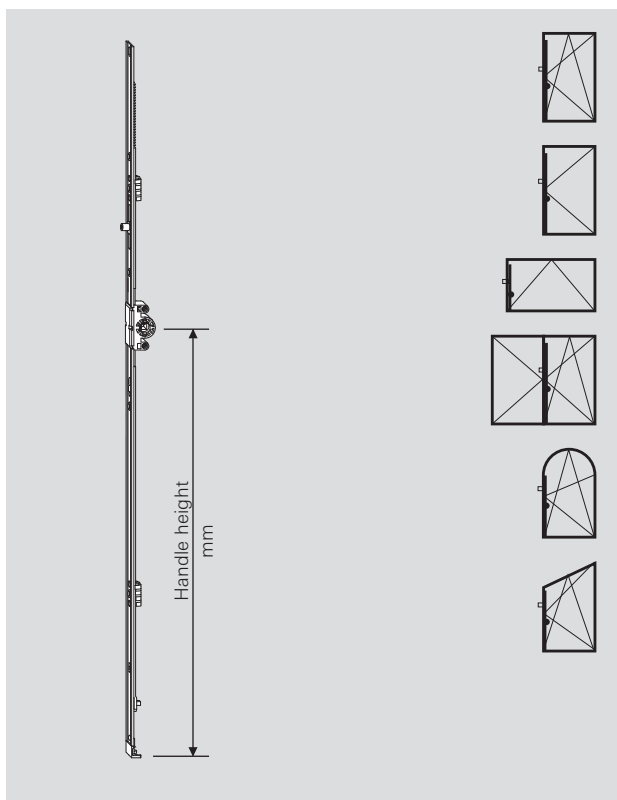


$\varnothing 10$  Drilling depth 33 mm  
(for 16 mm overlap)  
for countersunk screws  
M 5 x ... DIN EN ISO 7046




**T&T espagnolette, fixed handle height, 8 mm backset**

SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
300 – 480 <sup>1)2)</sup>	370	120		<b>457255</b>
365 – 600 <sup>1)3)</sup>	490	170		<b>259856</b>
601 – 800	690	263		<b>259857</b>
601 – 800 <sup>4)</sup>	690	263		<b>259858</b>
601 – 800	690	263	1 E	<b>259860</b>
801 – 1000	890	413		<b>259861</b>
801 – 1000	890	413	1 E	<b>259863</b>
1001 – 1200	1090	513	1 E	<b>259865</b>
1201 – 1400	1290	563	1 E	<b>259867</b>
1401 – 1600	1490	563	1 E	<b>259869</b>
1401 – 1600	1490	563	2 E	<b>259870</b>
1601 – 1800	1690	563	2 E	<b>259873</b>
1601 – 1800	1690	1000	2 E	<b>259874</b>
1801 – 2000	1890	1000	2 E	<b>259876</b>
2001 – 2200	2090	1000	2 E	<b>259878</b>
2001 – 2200	2090	1000	3 E	<b>259879</b>
2201 – 2600 <sup>5)</sup>	2290	1000	2 E	<b>259881</b>
2201 – 2600 <sup>5)</sup>	2290	1000	3 E	<b>259882</b>


**T&T espagnolette, fixed handle height, 15 mm backset**

SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
280 – 480 <sup>1)2)</sup>	370	120		<b>376456</b>
280 – 480 <sup>1)3)</sup>	370	120		<b>284314</b>
481 – 600	490	170		<b>259830</b>
601 – 800	690	263		<b>259831</b>
601 – 800	690	263	1 E	<b>259833</b>
801 – 1000	890	413		<b>259834</b>
801 – 1000	890	413	1 E	<b>259836</b>
1001 – 1200	1090	513	1 E	<b>259838</b>
1201 – 1400	1290	563	1 E	<b>259840</b>
1401 – 1600	1490	563	1 E	<b>259842</b>
1401 – 1600	1490	563	2 E	<b>259843</b>
1601 – 1800	1690	563	2 E	<b>259846</b>
1601 – 1800	1690	1000	2 E	<b>259847</b>
1801 – 2000	1890	1000	2 E	<b>259849</b>
2001 – 2200	2090	1000	2 E	<b>259851</b>
2001 – 2200	2090	1000	3 E	<b>259852</b>
2201 – 2600 <sup>5)</sup>	2290	1000	2 E	<b>259854</b>
2201 – 2600 <sup>5)</sup>	2290	1000	3 E	<b>259855</b>

**T&T espagnolette, fixed handle height, 15 mm backset,  
with punched hole for night-vent**

1001 – 1200	1090	513	1 E punch.	<b>318598</b>
1201 – 1400	1290	563	1 E punch.	<b>318599</b>
1401 – 1600	1490	563	2 E punch.	<b>318600</b>
1601 – 1800	1690	563	2 E punch.	<b>457913</b>
2001 – 2200	2090	1000	3 E punch.	<b>335974</b>

1) Not possible in combination with a lifting mishandling device

2) With integrated T&amp;T corner drive with special P cam

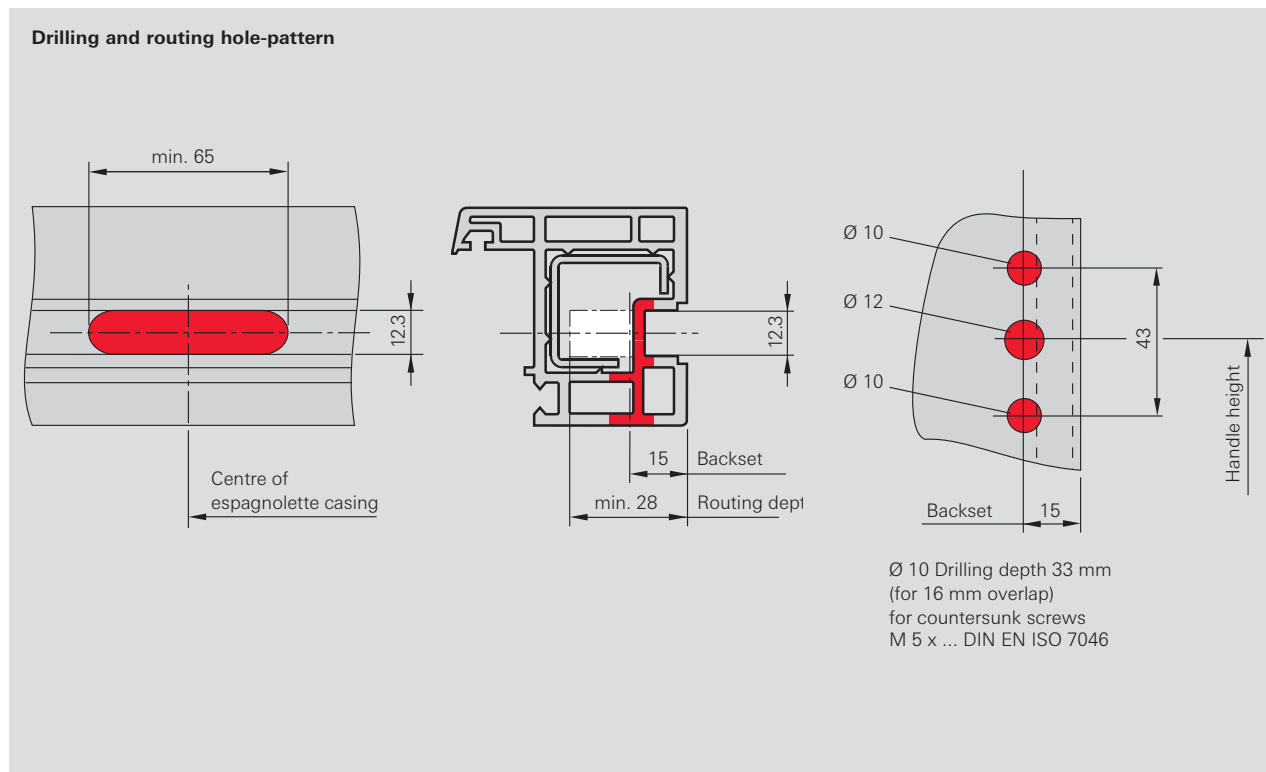
3) With integrated T&amp;T corner drive with P cam

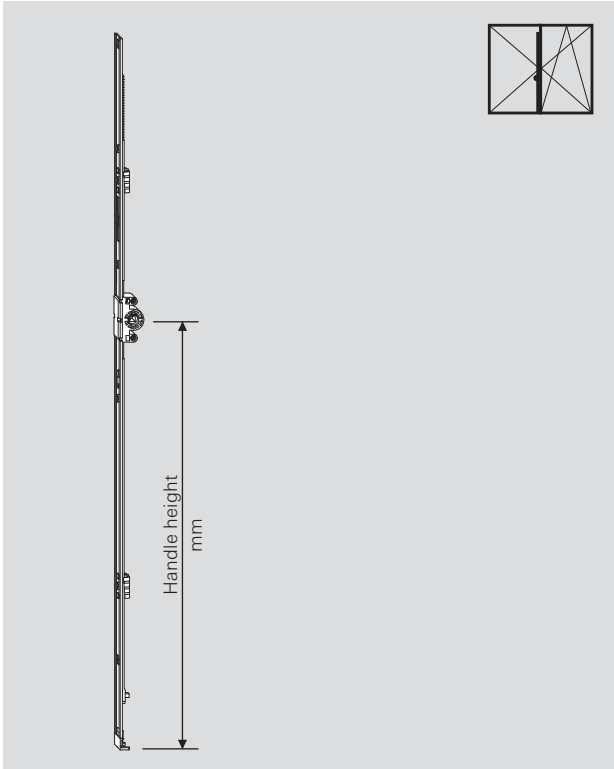
4) Suitable for lever-operated espagnolette 242730; lifting mishandling device located above main-lock casing

5) From SRH2401 mm connectable with CL 200

## T&T espagnolette

Fixed handle height  
without locking cam, 15 mm backset





**T&T espagnolette, fixed handle height, 15 mm backset, without locking cam**

SRH/mm	Length/mm	Handle height/mm	Material no.
280 – 480 <sup>1) 2)</sup>	370	120	<b>284314</b>
481 – 600	490	170	<b>259830</b>
601 – 800	690	263	<b>259831</b>
801 – 1000	890	413	<b>259834</b>
1001 – 1200	1090	513	<b>256111</b>
1201 – 1400	1290	563	<b>256112</b>
1401 – 1600	1490	563	<b>256113</b>
1601 – 1800	1690	563	<b>256114</b>
1601 – 1800	1690	1000	<b>256115</b>
1801 – 2000	1890	1000	<b>256116</b>
2001 – 2200	2090	1000	<b>256117</b>
2201 – 2600 <sup>3)</sup>	2290	1000	<b>256118</b>

Espagnolettes  
Espagnolette  
components

1) Not possible in combination with a lifting mishandling device  
 2) With integrated T&T corner drive with P cam  
 3) From SRH2401 mm connectable with CL 200

## T&T espagnolette

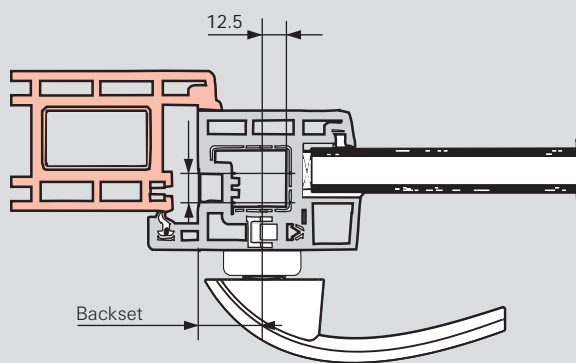
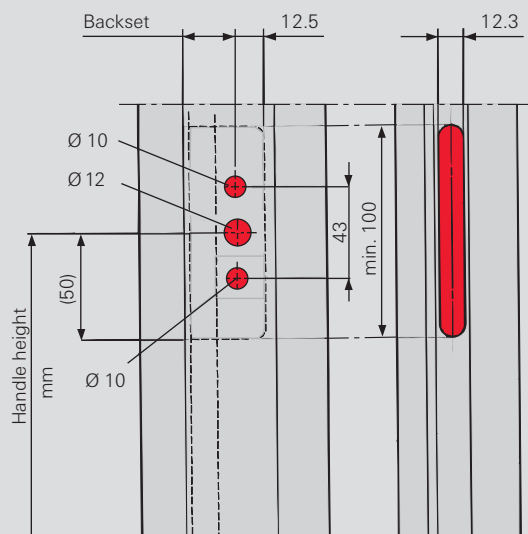
Fixed handle height

25, 30, 35 mm backset

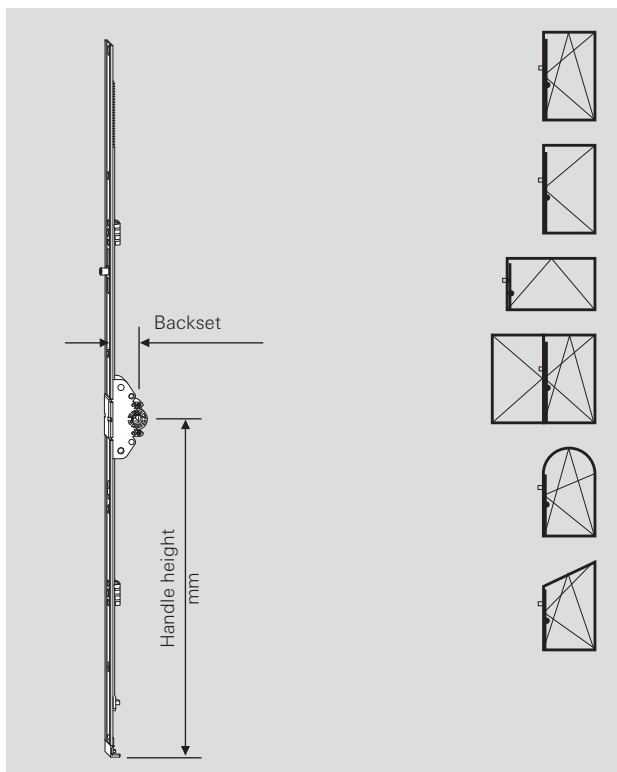
### Drilling and routing hole-pattern

#### Profile cross section:

Windows and doors  
(outward opening)






**T&T espagnolette, fixed handle height, 25 mm backset**

SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
481 – 600	490	170		<b>259883</b>
601 – 800	690	263		<b>259884</b>
801 – 1000	890	413	1 E	<b>259885</b>
1001 – 1200	1090	513	1 E	<b>259886</b>
1201 – 1400	1290	563	1 E	<b>259887</b>
1401 – 1600	1490	563	2 E	<b>259888</b>
1601 – 1800	1690	563	2 E	<b>259889</b>
1601 – 1800	1690	1000	2 E	<b>259890</b>
1801 – 2000	1890	1000	2 E	<b>259891</b>
2001 – 2200	2090	1000	3 E	<b>259892</b>
2201 – 2600 <sup>1)</sup>	2290	1000	3 E	<b>259893</b>

**T&T espagnolette, fixed handle height, 30 mm backset**

SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
481 – 600	490	170		<b>259894</b>
601 – 800	690	263		<b>259895</b>
801 – 1000	890	413	1 E	<b>259896</b>
1001 – 1200	1090	513	1 E	<b>259897</b>
1201 – 1400	1290	563	1 E	<b>259898</b>
1401 – 1600	1490	563	2 E	<b>259899</b>
1601 – 1800	1690	563	2 E	<b>259900</b>
1601 – 1800	1690	1000	2 E	<b>259901</b>
1801 – 2000	1890	1000	2 E	<b>259902</b>
2001 – 2200	2090	1000	3 E	<b>259903</b>
2201 – 2600 <sup>1)</sup>	2290	1000	3 E	<b>259904</b>

**T&T espagnolette, fixed handle height, 35 mm backset**

SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
481 – 600	490	170		<b>259905</b>
601 – 800	690	263		<b>259906</b>
801 – 1000	890	413	1 E	<b>259907</b>
1001 – 1200	1090	513	1 E	<b>259908</b>
1201 – 1400	1290	563	1 E	<b>259909</b>
1401 – 1600	1490	563	2 E	<b>259910</b>
1601 – 1800	1690	563	2 E	<b>259911</b>
1601 – 1800	1690	1000	2 E	<b>259912</b>
1801 – 2000	1890	1000	2 E	<b>259913</b>
2001 – 2200	2090	1000	3 E	<b>259914</b>
2201 – 2600 <sup>1)</sup>	2290	1000	3 E	<b>259915</b>

1) From SRH2401 mm connectable with CL 200

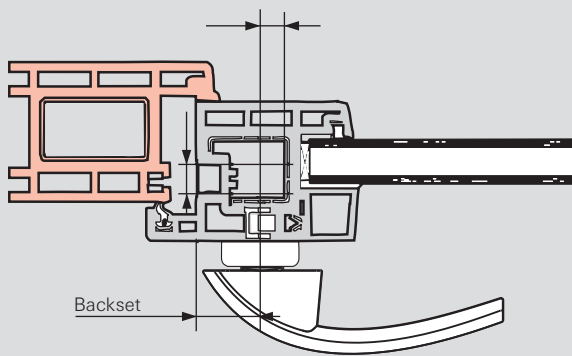
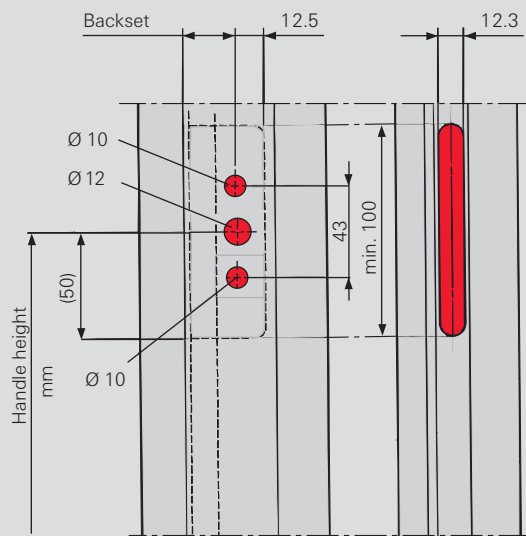
# T&T espagnolette

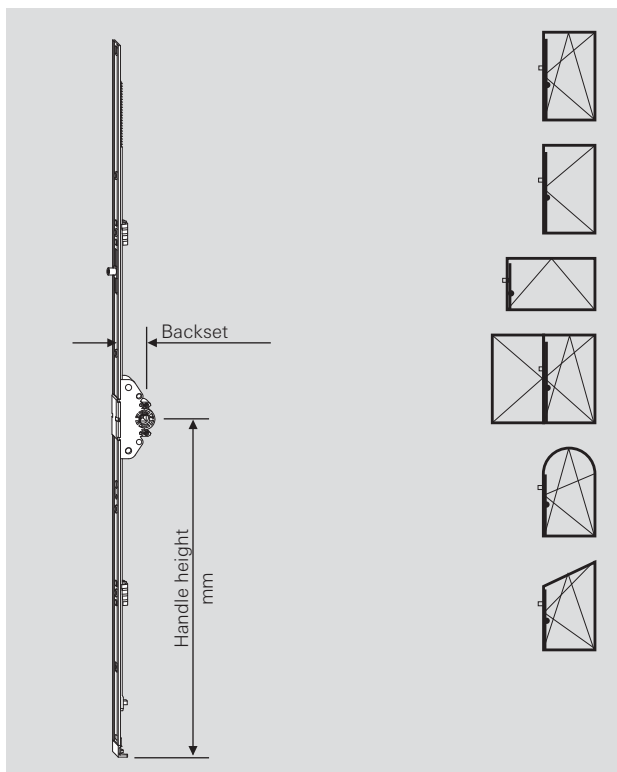
Fixed handle height  
40, 45, 50 mm backset

## Drilling and routing hole-pattern

### Profile cross section:

Windows and doors  
(outward opening)




**T&T espagnolette, fixed handle height, 40 mm backset**

SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
481 – 600	490	170		<b>259916</b>
601 – 800	690	263		<b>259917</b>
801 – 1000	890	413	1 E	<b>259918</b>
1001 – 1200	1090	513	1 E	<b>259919</b>
1201 – 1400	1290	563	1 E	<b>259920</b>
1401 – 1600	1490	563	2 E	<b>259921</b>
1601 – 1800	1690	1000	2 E	<b>259923</b>
1801 – 2000	1890	1000	2 E	<b>259924</b>
2001 – 2200	2090	1000	3 E	<b>259925</b>
2201 – 2600 <sup>1)</sup>	2290	1000	3 E	<b>259926</b>

**T&T espagnolette, fixed handle height, 45 mm backset**

SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
481 – 600	490	170		<b>259927</b>
601 – 800	690	263		<b>259928</b>
801 – 1000	890	413	1 E	<b>259929</b>
1001 – 1200	1090	513	1 E	<b>259930</b>
1201 – 1400	1290	563	1 E	<b>259931</b>
1401 – 1600	1490	563	2 E	<b>259932</b>
1601 – 1800	1690	563	2 E	<b>259933</b>
1601 – 1800	1690	1000	2 E	<b>259934</b>
1801 – 2000	1890	1000	2 E	<b>259935</b>
2001 – 2200	2090	1000	3 E	<b>259936</b>
2201 – 2600 <sup>1)</sup>	2290	1000	3 E	<b>259937</b>

**T&T espagnolette, fixed handle height, 50 mm backset**

SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
481 – 600	490	170		<b>259938</b>
601 – 800	690	263		<b>259939</b>
801 – 1000	890	413	1 E	<b>259940</b>
1001 – 1200	1090	513	1 E	<b>259941</b>
1201 – 1400	1290	563	1 E	<b>259942</b>
1401 – 1600	1490	563	2 E	<b>259943</b>
1601 – 1800	1690	563	2 E	<b>259944</b>
1601 – 1800	1690	1000	2 E	<b>259945</b>
1801 – 2000	1890	1000	2 E	<b>259946</b>
2001 – 2200	2090	1000	3 E	<b>259947</b>
2201 – 2600 <sup>1)</sup>	2290	1000	3 E	<b>259948</b>

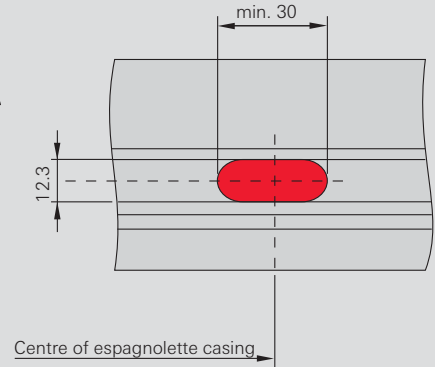
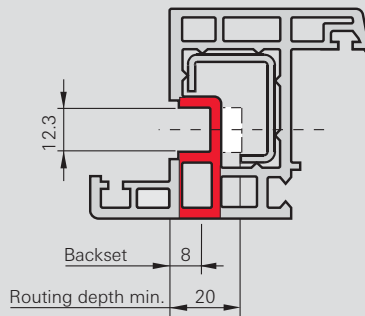
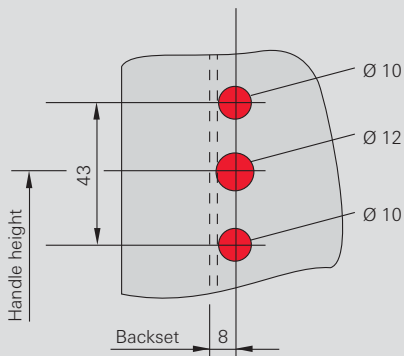
1) From SRH2401 mm connectable with CL 200

## T&T espagnolette

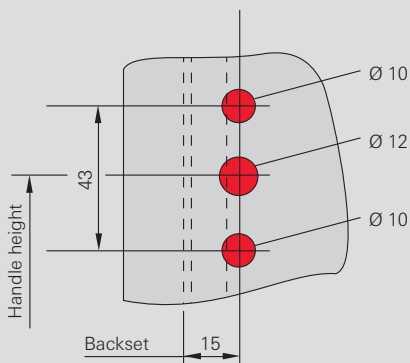
Centred/variable handle height

8, 15 mm backset

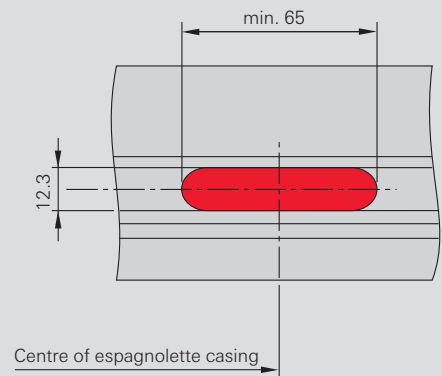
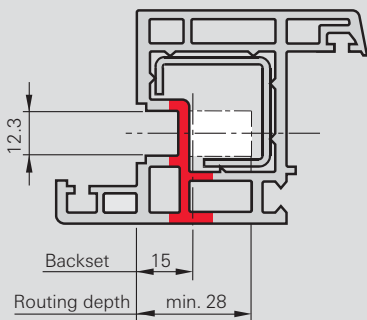
Drilling and routing hole-pattern

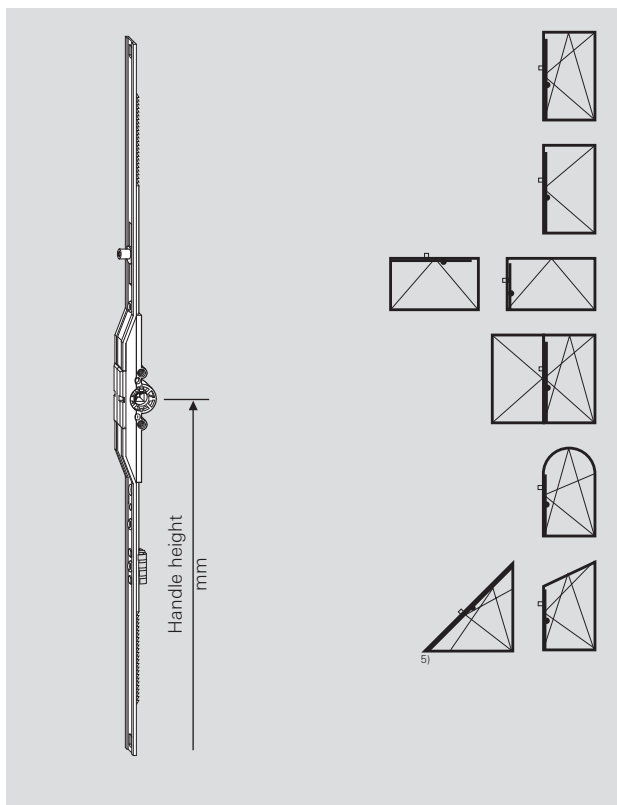


Ø 10 Drilling depth 33 mm  
(for 16 mm overlap)  
for countersunk screws  
M 5 x ... DIN EN ISO 7046



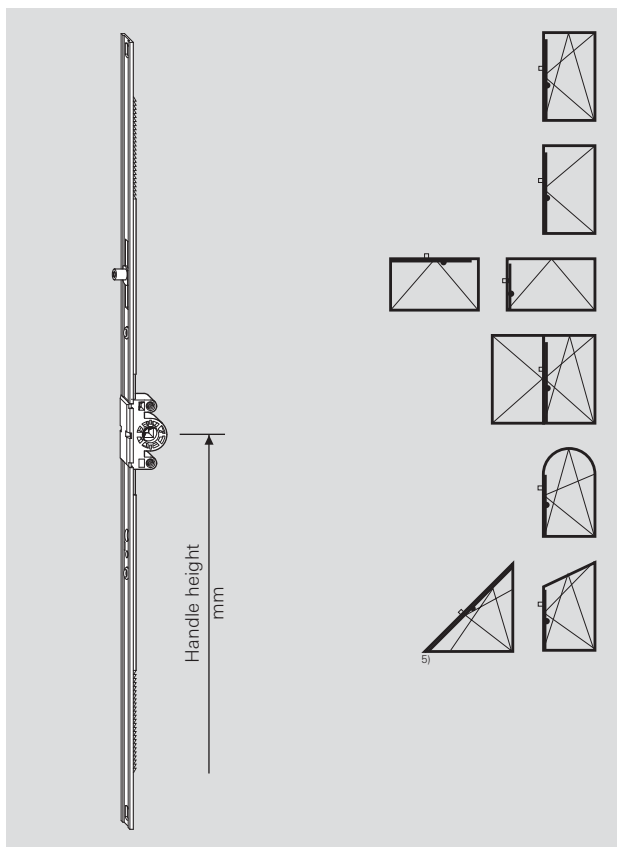
Ø 10 Drilling depth 33 mm  
(for 16 mm overlap)  
for countersunk screws  
M 5 x ... DIN EN ISO 7046





#### T&T espagnolette, centred/variable handle height, 8 mm backset

SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
380 – 520 <sup>1)2)</sup>	500	190 – 260		<b>259764</b>
521 – 620 <sup>1)3)</sup>	400	260 – 310		<b>259765</b>
621 – 800	580	311 – 400	1 E	<b>259766</b>
801 – 1200	980	401 – 600	1 E	<b>623646</b>
1201 – 1600	1380	601 – 800	2 E	<b>259768</b>
1601 – 2000	1780	801 – 1000	2 E	<b>259769</b>
2001 – 2600 <sup>4)</sup>	2180	1001 – 1200	4 E	<b>259770</b>



#### T&T espagnolette, centred/variable handle height, 15 mm backset

SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
310 – 450 <sup>1)2)</sup>	430	155 – 225		<b>259717</b>
451 – 620 <sup>1)3)</sup>	400	225 – 310		<b>259718</b>
621 – 800	580	311 – 400	1 E	<b>259719</b>
801 – 1200	980	401 – 600	1 E	<b>259720</b>
1201 – 1600	1380	601 – 800	2 E	<b>259721</b>
1601 – 2000	1780	801 – 1000	2 E	<b>259762</b>
2001 – 2600 <sup>4)</sup>	2180	1001 – 1200	4 E	<b>259763</b>

#### T&T espagnolette, centred/variable handle height, 15 mm backset, with punched hole for night-vent

801 – 1200	980	401 – 600	1 E	<b>318596</b>
1201 – 1600	1380	601 – 800	2 E	<b>318597</b>
1601 – 2000	1780	801 – 1000	2 E	<b>457914</b>
2001 – 2600 <sup>4)</sup>	2180	1001 – 1200	4 E	<b>335975</b>

- 1) Not possible in combination with a lifting mishandling device
- 2) With special corner drive top/bottom
- 3) With standard corner drive top/bottom
- 4) From SRH 2401 mm connectable with CL 200
- 5) To be used on triangular windows instead of corner drive 260278

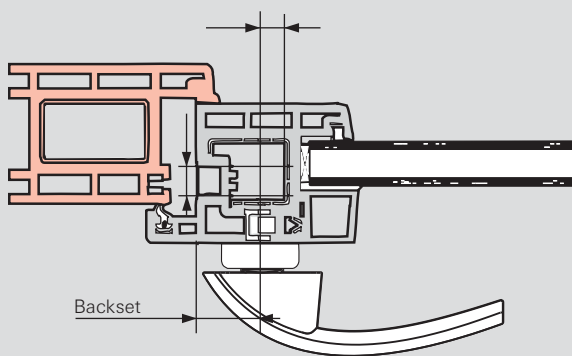
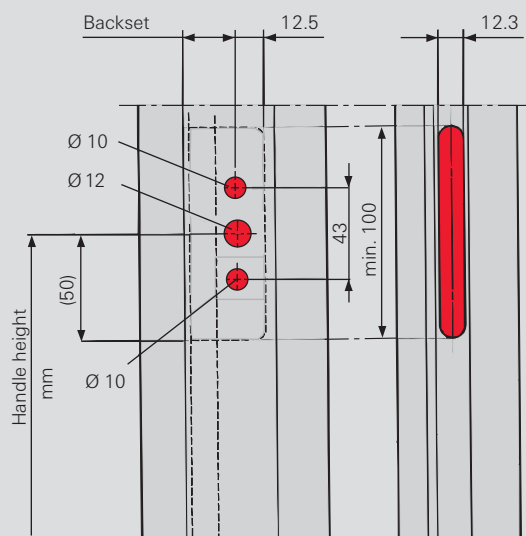
## T&T espagnolette

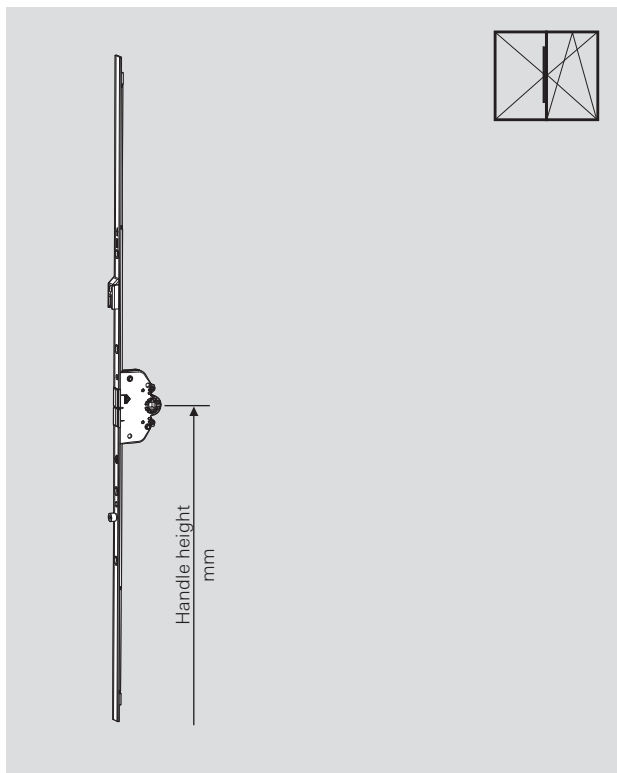
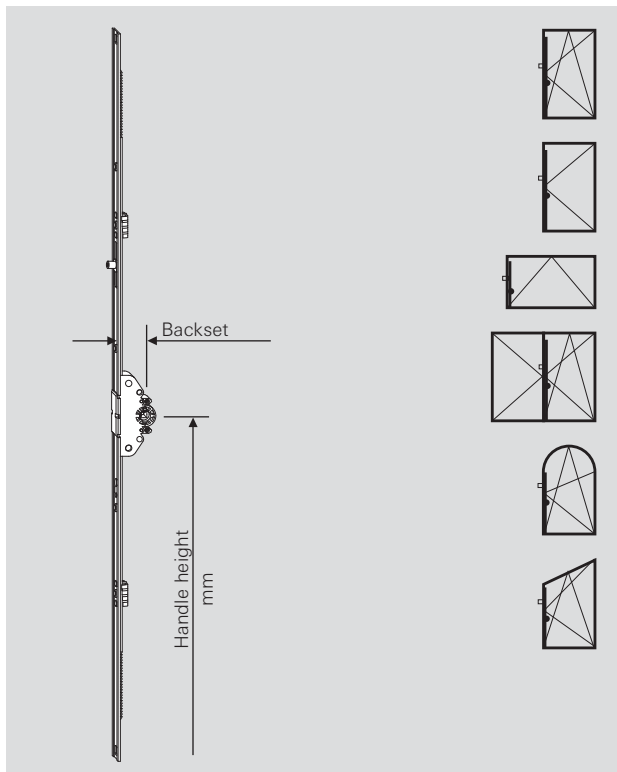
Centred/variable handle height  
25, 30, 35, 40, 45, 50 mm backset

### Drilling and routing hole-pattern

#### Profile cross section:

Windows and doors  
(outward opening)





**T&T espagnolette, centred/variable handle height, 25 mm backset**

SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
520 – 620 <sup>1)</sup>	400	260 – 310		<b>259771</b>
621 – 800	580	311 – 400	1 E	<b>259772</b>
801 – 1200	980	401 – 600	1 E	<b>259773</b>
1201 – 1600	1380	601 – 800	2 E	<b>259774</b>
1601 – 2000	1780	801 – 1000	2 E	<b>259775</b>
2001 – 2600 <sup>2)</sup>	2180	1001 – 1200	4 E	<b>259776</b>

**T&T espagnolette, centred/variable handle height, 30 mm backset**

SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
520 – 620 <sup>1)</sup>	400	260 – 310		<b>259777</b>
621 – 800	580	311 – 400	1 E	<b>259778</b>
621 – 800	580	311 – 400	1 Striker	<b>386707</b>
801 – 1200	980	401 – 600	1 E	<b>259779</b>
801 – 1200	980	401 – 600	1 Striker	<b>607898</b>
1201 – 1600	1380	601 – 800	2 E	<b>259780</b>
1201 – 1600	1380	601 – 800	2 Striker	<b>607899</b>
1601 – 2000	1780	801 – 1000	2 E	<b>259781</b>
1601 – 2000	1780	801 – 1000	2 Striker	<b>607900</b>
2001 – 2600 <sup>2)</sup>	2180	1001 – 1200	4 E	<b>259782</b>

**T&T espagnolette, centred/variable handle height, 35 mm backset**

SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
520 – 620 <sup>1)</sup>	400	260 – 310		<b>259783</b>
621 – 800	580	311 – 400	1 E	<b>259784</b>
801 – 1200	980	401 – 600	1 E	<b>259785</b>
1201 – 1600	1380	601 – 800	2 E	<b>259786</b>
1601 – 2000	1780	801 – 1000	2 E	<b>259787</b>
1601 – 2000	1780	801 – 1000	2 Striker	<b>568357</b>
2001 – 2600 <sup>2)</sup>	2180	1001 – 1200	4 E	<b>259788</b>

**T&T espagnolette, centred/variable handle height, 40 mm backset**

SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
520 – 620 <sup>1)</sup>	400	260 – 310		<b>259789</b>
621 – 800	580	311 – 400	1 E	<b>259790</b>
801 – 1200	980	401 – 600	1 E	<b>259791</b>
1201 – 1600	1380	601 – 800	2 E	<b>259792</b>
1601 – 2000	1780	801 – 1000	2 E	<b>259793</b>
2001 – 2600 <sup>2)</sup>	2180	1001 – 1200	4 E	<b>259794</b>

**T&T espagnolette, centred/variable handle height, 45 mm backset**

SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
520 – 620 <sup>1)</sup>	400	260 – 310		<b>259795</b>
621 – 800	580	311 – 400	1 Striker	<b>259796</b>
621 – 800	580	311 – 400	1 E	<b>259797</b>
801 – 1200	980	401 – 600	1 Striker	<b>259798</b>
801 – 1200	980	401 – 600	1 E	<b>259799</b>
1201 – 1600	1380	601 – 800	2 Striker	<b>259800</b>
1201 – 1600	1380	601 – 800	2 E	<b>259801</b>
1601 – 2000	1780	801 – 1000	2 Striker	<b>259802</b>
1601 – 2000	1780	801 – 1000	2 E	<b>259803</b>
2001 – 2600 <sup>2)</sup>	2180	1001 – 1200	4 Striker	<b>259804</b>
2001 – 2600 <sup>2)</sup>	2180	1001 – 1200	4 E	<b>259805</b>

**T&T espagnolette, centred/variable handle height, 50 mm backset**

SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
520 – 620 <sup>1)</sup>	400	260 – 310		<b>259806</b>
621 – 800	580	311 – 400	1 Striker	<b>259807</b>
621 – 800	580	311 – 400	1 E	<b>259808</b>
801 – 1200	980	401 – 600	1 Striker	<b>259809</b>
801 – 1200	980	401 – 600	1 E	<b>259810</b>
1201 – 1600	1380	601 – 800	2 Striker	<b>259811</b>
1201 – 1600	1380	601 – 800	2 E	<b>259812</b>
1601 – 2000	1780	801 – 1000	2 Striker	<b>259813</b>
1601 – 2000	1780	801 – 1000	2 E	<b>259814</b>
2001 – 2600 <sup>2)</sup>	2180	1001 – 1200	4 Striker	<b>259815</b>
2001 – 2600 <sup>2)</sup>	2180	1001 – 1200	4 E	<b>259816</b>

1) Not possible in combination with a lifting mishandling device  
2) From SRH2401 mm connectable with CL 200

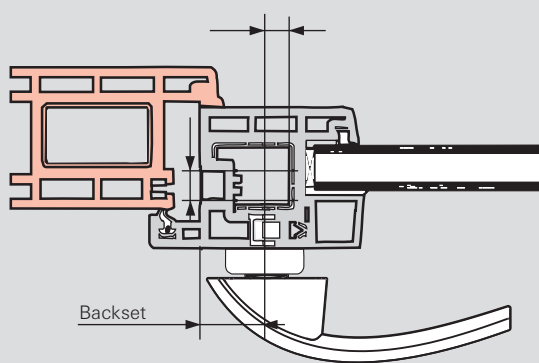
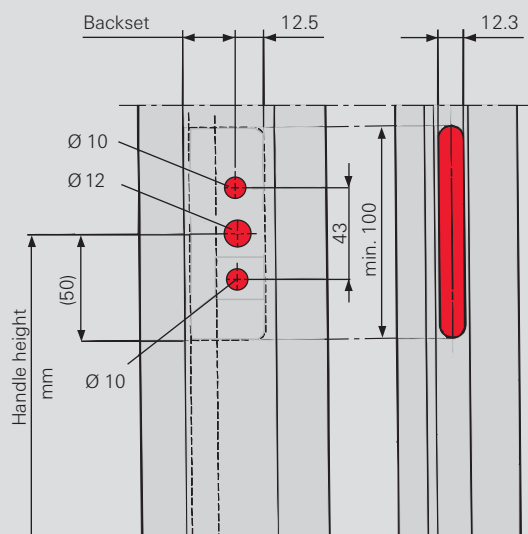
# T&T adaptable espagnolette

Centred/variable handle height  
25, 30, 35, 40, 45, 50 mm backset

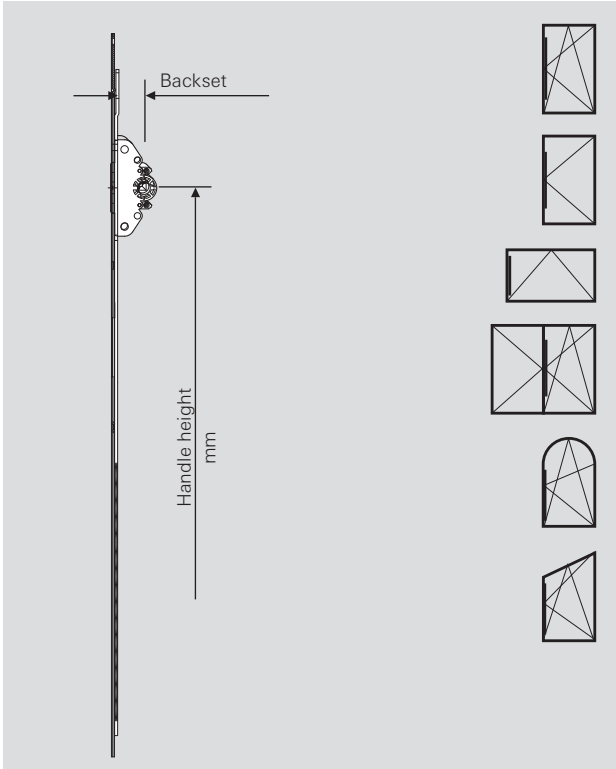
## Drilling and routing hole-pattern

### Profile cross section:

Windows and doors  
(outward opening)







**T&T adaptable espagnolette, centred/variable handle height**

SRH/mm	Length/mm	Handle height/mm	Backset/mm	Material no.
690 – 2600 <sup>1)</sup>	680	from 435	25	<b>318310</b>
690 – 2600 <sup>1)</sup>	680	from 435	30	<b>318311</b>
690 – 2600 <sup>1)</sup>	680	from 435	35	<b>318312</b>
690 – 2600 <sup>1)</sup>	680	from 435	40	<b>318313</b>
690 – 2600 <sup>1)</sup>	680	from 435	45	<b>318314</b>

**In conjunction with**

Connectable centre lock  
Espagnolette extension  
components

refer to chapter Centre lock  
refer to chapter Espagnolettes/Espagnolette  
components

Espagnolettes  
Espagnolette  
components

1) From SRH2401 mm connectable with CL 200

## T&T espagnolette, lockable

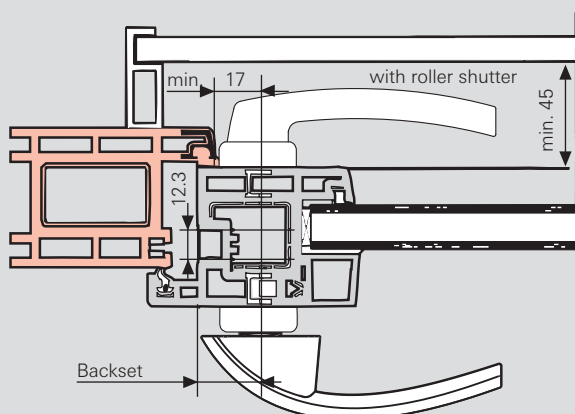
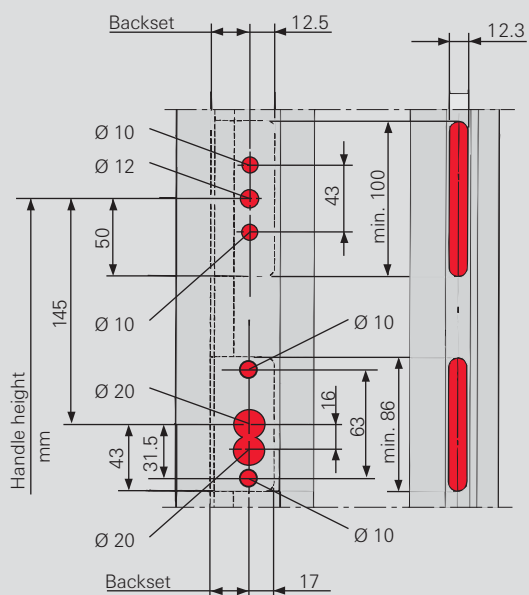
Fixed handle height

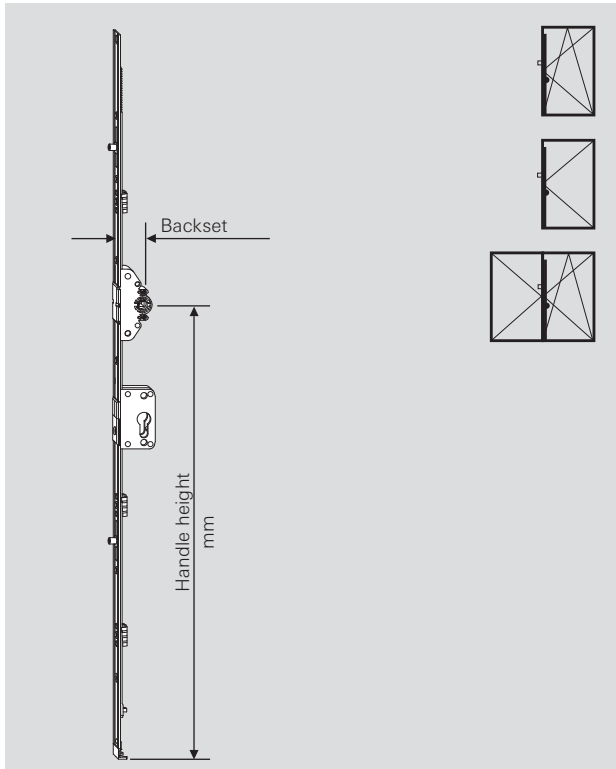
25, 30, 35, 40, 45, 50 mm backset

### Drilling and routing hole-pattern

#### Profile cross section:

Doors  
(inward opening)





**T&T espagnolette, fixed handle height, lockable, 25 mm backset**

SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
1601 – 1800	1690	1000	2 E	<b>259950</b>
1801 – 2000	1890	1000	2 E	<b>259952</b>
2001 – 2200	2090	1000	3 E	<b>259954</b>
2201 – 2600 <sup>1)</sup>	2290	1000	3 E	<b>259956</b>

**T&T espagnolette, fixed handle height, lockable, 30 mm backset**

1601 – 1800	1690	1000	2 E	<b>259958</b>
1801 – 2000	1890	1000	2 E	<b>259960</b>
2001 – 2200	2090	1000	3 E	<b>259962</b>
2201 – 2600 <sup>1)</sup>	2290	1000	3 E	<b>259964</b>

**T&T espagnolette, fixed handle height, lockable, 35 mm backset**

1601 – 1800	1690	1000	2 E	<b>259966</b>
1801 – 2000	1890	1000	2 E	<b>259968</b>
2001 – 2200	2090	1000	3 E	<b>259970</b>
2201 – 2600 <sup>1)</sup>	2290	1000	3 E	<b>259972</b>

**T&T espagnolette, fixed handle height, lockable, 40 mm backset**

1601 – 1800	1690	1000	2 E	<b>259974</b>
1801 – 2000	1890	1000	2 E	<b>259976</b>
2001 – 2200	2090	1000	3 E	<b>259978</b>
2201 – 2600 <sup>1)</sup>	2290	1000	3 E	<b>259980</b>

**T&T espagnolette, fixed handle height, lockable, 45 mm backset**

1601 – 1800	1690	1000	2 E	<b>259982</b>
1801 – 2000	1890	1000	2 E	<b>259984</b>
2001 – 2200	2090	1000	3 E	<b>259986</b>
2201 – 2600 <sup>1)</sup>	2290	1000	3 E	<b>259988</b>

**T&T espagnolette, fixed handle height, lockable, 50 mm backset**

1601 – 1800	1690	1000	2 E	<b>259990</b>
1801 – 2000	1890	1000	2 E	<b>259992</b>
2001 – 2200	2090	1000	3 E	<b>259994</b>
2201 – 2600 <sup>1)</sup>	2290	1000	3 E	<b>259996</b>

1) From SRH2401 mm connectable with CL 200

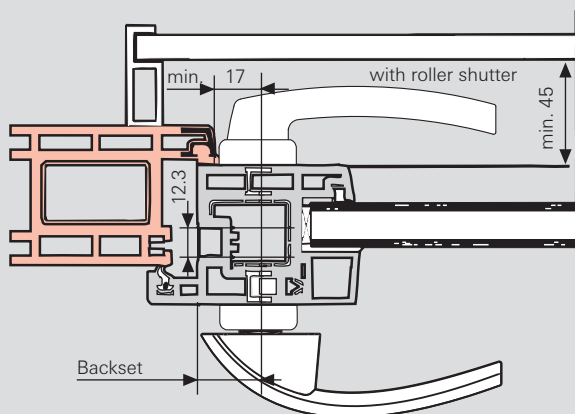
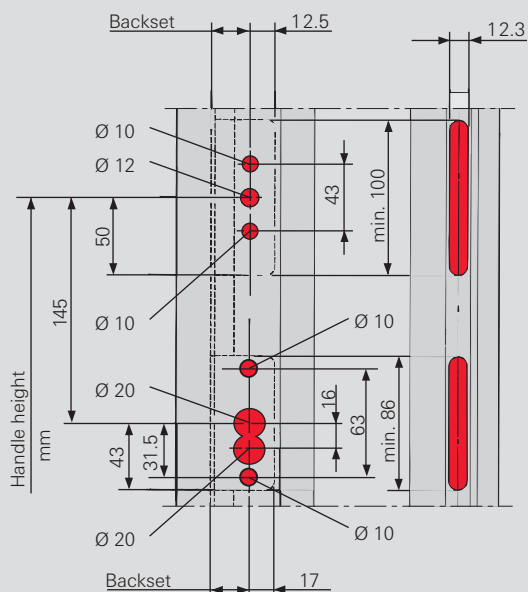
# T&T espagnolette, lockable

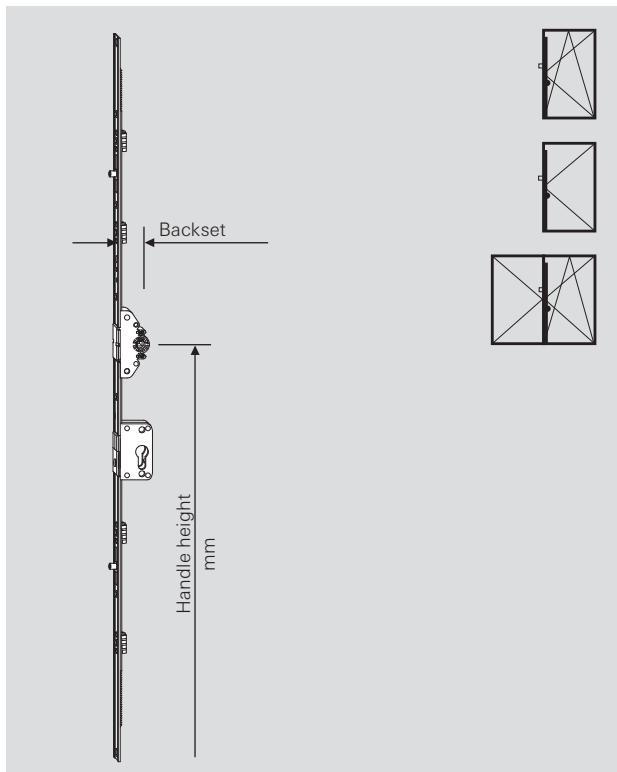
Centred/variable handle height  
25, 30, 35, 40, 45, 50 mm backset

**Drilling and routing hole-pattern**

**Profile cross section:**

Doors  
(inward opening)




**T&T espagnolette, centred/variable handle height, lockable, 25 mm backset**

SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
1601 – 2000	1780	801 – 1000	2 E	<b>259817</b>
2001 – 2600 <sup>1)</sup>	2180	1001 – 1200	4 E	<b>259818</b>

**T&T espagnolette, centred/variable handle height, lockable, 30 mm backset**

1601 – 2000	1780	801 – 1000	2 E	<b>259819</b>
2001 – 2600 <sup>1)</sup>	2180	1001 – 1200	4 E	<b>259820</b>

**T&T espagnolette, centred/variable handle height, lockable, 35 mm backset**

1601 – 2000	1780	801 – 1000	2 E	<b>259821</b>
2001 – 2600 <sup>1)</sup>	2180	1001 – 1200	4 E	<b>259822</b>

**T&T espagnolette, centred/variable handle height, lockable, 40 mm backset**

1601 – 2000	1780	801 – 1000	2 E	<b>259823</b>
2001 – 2600 <sup>1)</sup>	2180	1001 – 1200	4 E	<b>259824</b>

**T&T espagnolette, centred/variable handle height, lockable, 45 mm backset**

1601 – 2000	1780	801 – 1000	2 E	<b>259825</b>
2001 – 2600 <sup>1)</sup>	2180	1001 – 1200	4 E	<b>259826</b>

**T&T espagnolette, centred/variable handle height, lockable, 50 mm backset**

1601 – 2000	1780	801 – 1000	2 E	<b>259827</b>
2001 – 2600 <sup>1)</sup>	2180	1001 – 1200	4 E	<b>259828</b>

1) From SRH2401 mm connectable with CL 200

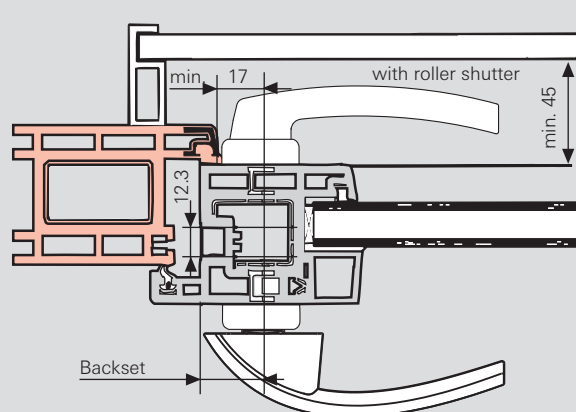
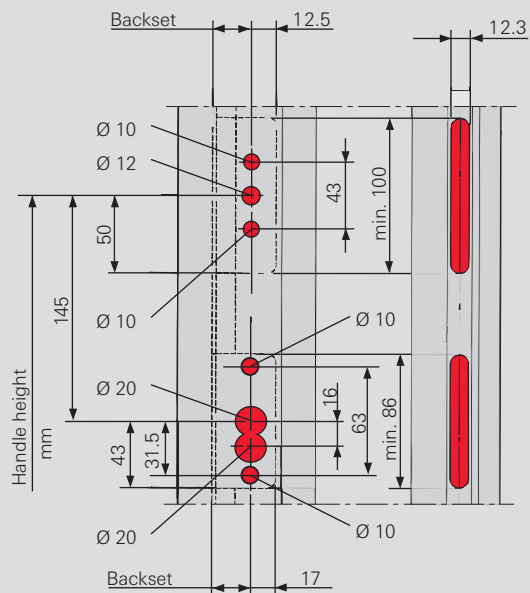
# T&T adaptable espagnolette, lockable

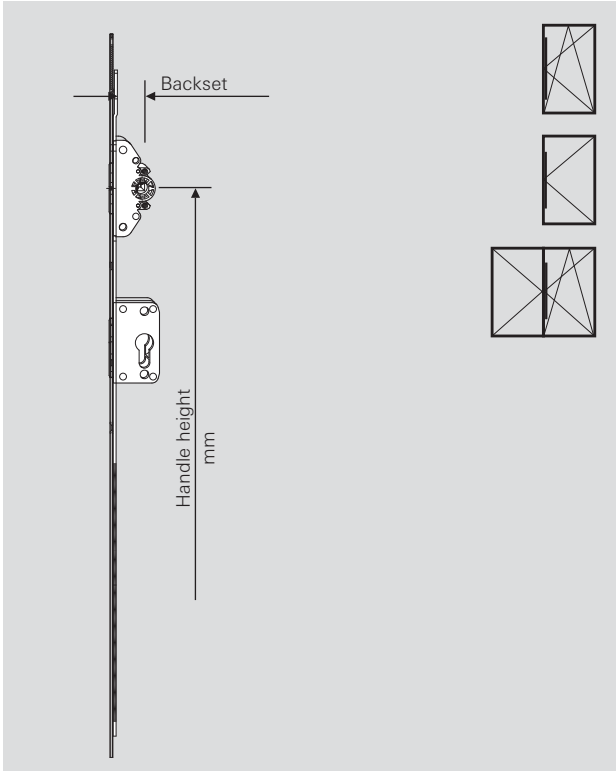
Centred/variable handle height  
25, 30, 35, 40, 45 mm backset

**Drilling and routing hole-pattern**

**Profile cross section:**

Doors  
(inward opening)





**T&T adaptable espagnolette, centred/variable handle height, lockable**

SRH/mm	Length/mm	Handle height/mm	Backset/mm	Material no.
690 – 2600 <sup>1)</sup>	680	from 435	25	<b>262353</b>
690 – 2600 <sup>1)</sup>	680	from 435	30	<b>262354</b>
690 – 2600 <sup>1)</sup>	680	from 435	35	<b>317455</b>
690 – 2600 <sup>1)</sup>	680	from 435	40	<b>314236</b>
690 – 2600 <sup>1)</sup>	680	from 435	45	<b>262355</b>

**In conjunction with**

Connectable centre lock  
Espagnolette extension

refer to chapter Centre lock  
refer to chapter Espagnolettes/  
Espagnolette components

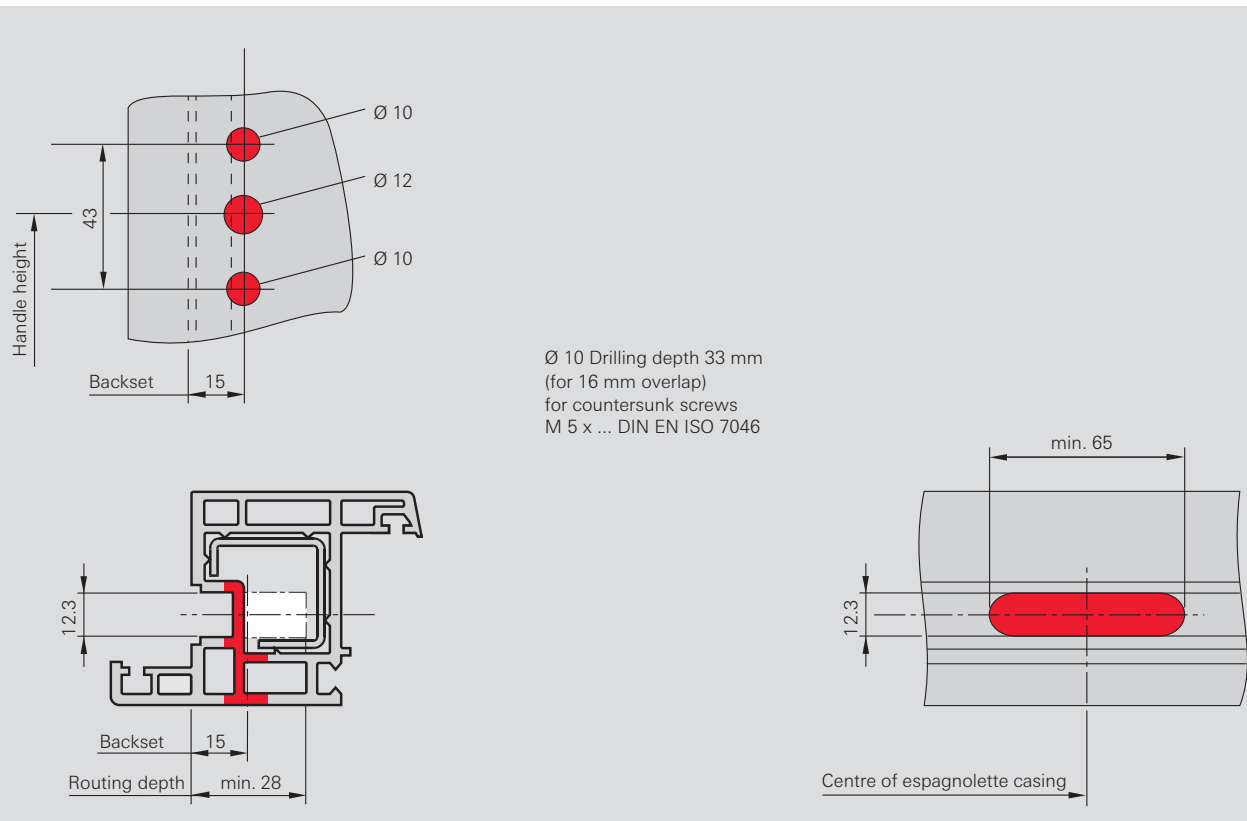
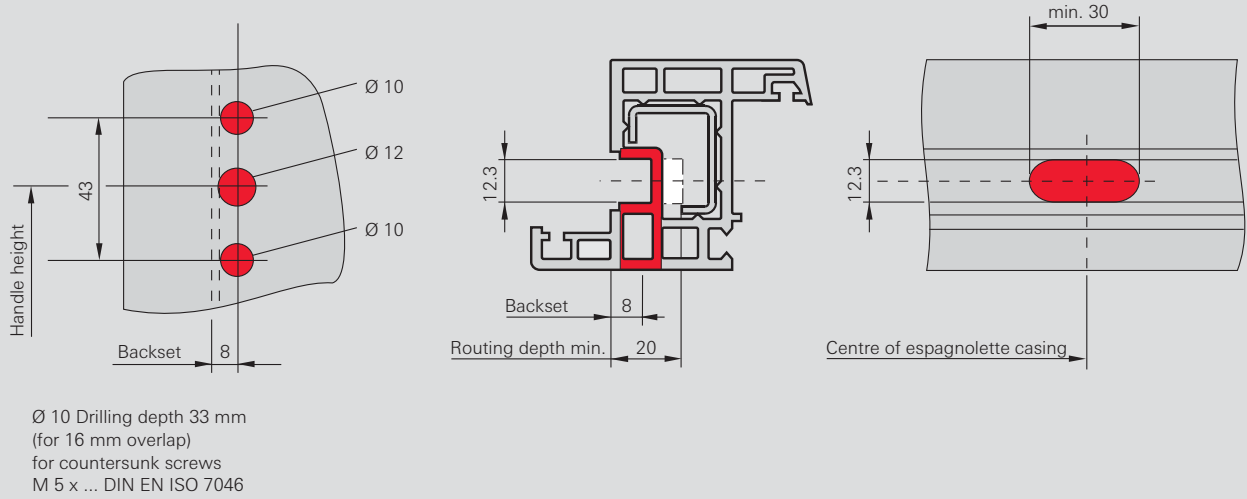
Espagnolettes  
Espagnolette  
components

1) From SRH2401 mm connectable with CL 200

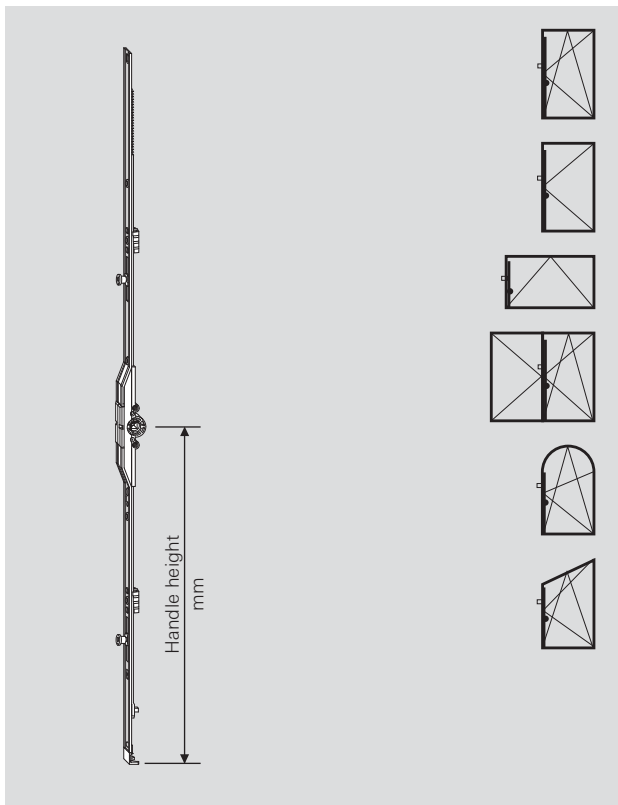
# Security T&T espagnolette

Fixed handle height  
8, 15 mm backset

## Drilling and routing hole-pattern

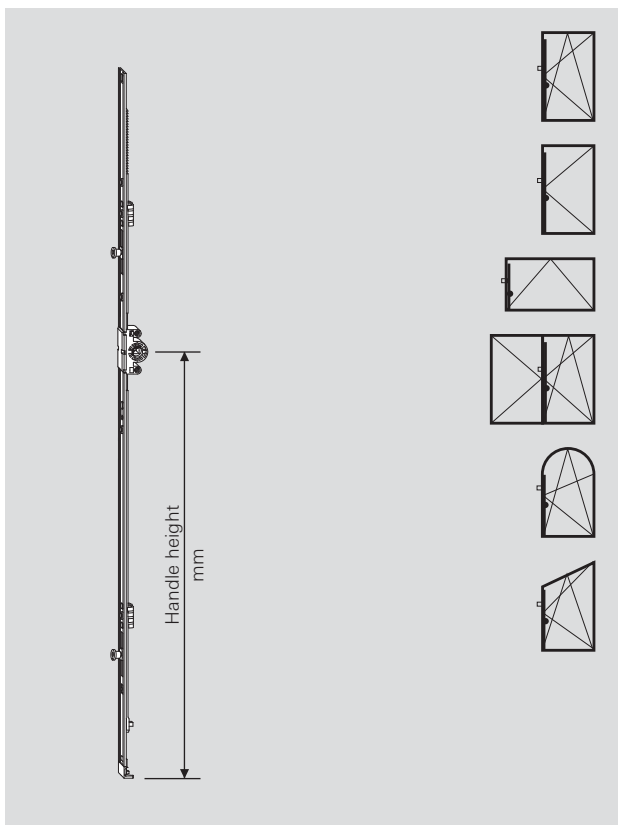






**Security T&T espagnolette, fixed handle height, 8 mm backset**

SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
601 – 800 <sup>1)</sup>	690	263	1 V	<b>259859</b>
801 – 1000	890	413	2 V	<b>259862</b>
1001 – 1200	1090	513	2 V	<b>259864</b>
1201 – 1400	1290	563	2 V	<b>259866</b>
1401 – 1600	1490	563	3 V	<b>259868</b>
1601 – 1800	1690	563	3 V	<b>259871</b>
1601 – 1800	1690	1000	3 V	<b>259872</b>
1801 – 2000	1890	1000	3 V	<b>259875</b>
2001 – 2200	2090	1000	4 V	<b>259877</b>
2201 – 2400	2290	1000	4 V	<b>259880</b>



**Security T&T espagnolette, fixed handle height, 15 mm backset**

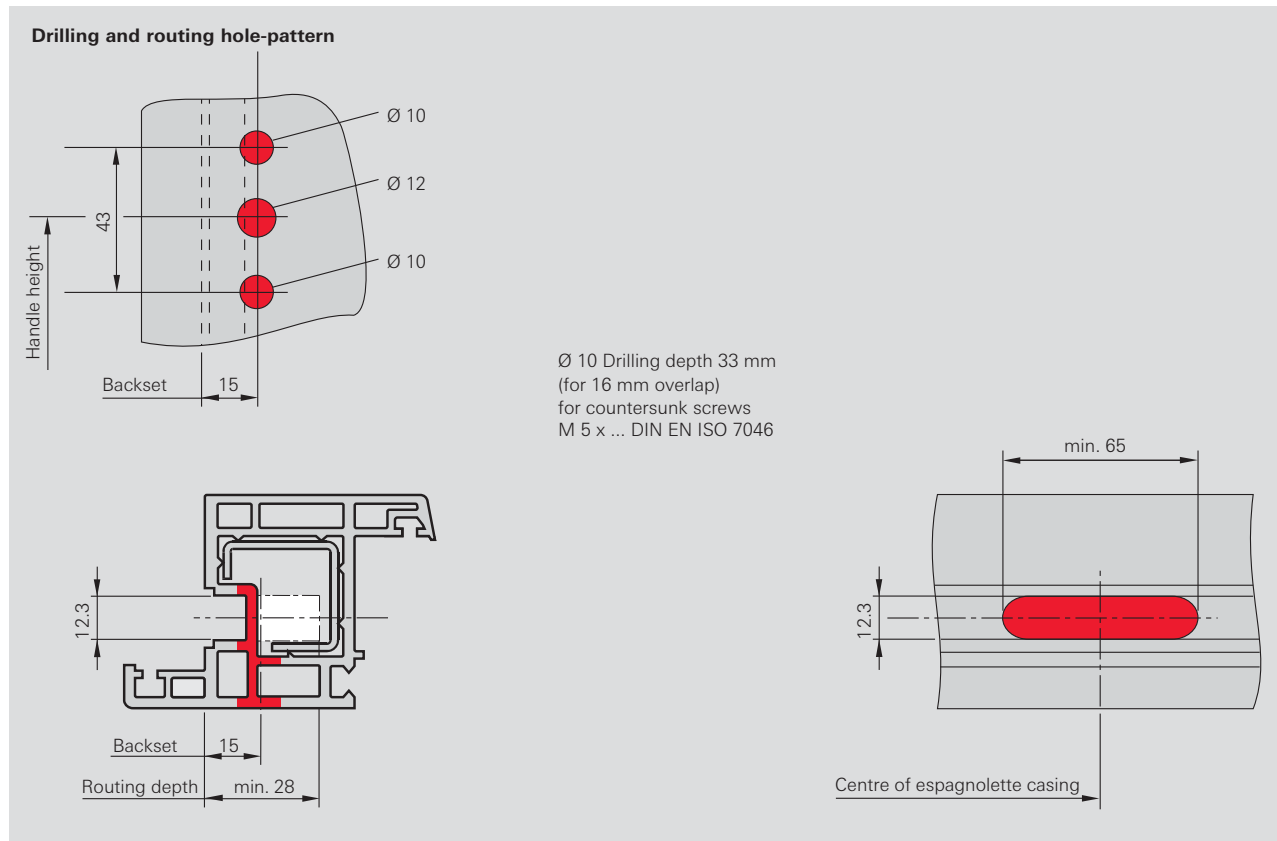
SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
490 – 600	490	170		<b>259830</b>
600 – 800	690	263	1 V	<b>259832</b>
801 – 1000	890	413	2 V	<b>259835</b>
1001 – 1200	1090	513	2 V	<b>259837</b>
1201 – 1400	1290	563	2 V	<b>259839</b>
1401 – 1600	1490	563	3 V	<b>259841</b>
1601 – 1800	1690	563	3 V	<b>259844</b>
1601 – 1800	1690	1000	3 V	<b>259845</b>
1801 – 2000	1890	1000	3 V	<b>259848</b>
2001 – 2200	2090	1000	4 V	<b>259850</b>
2201 – 2400	2290	1000	4 V	<b>259853</b>

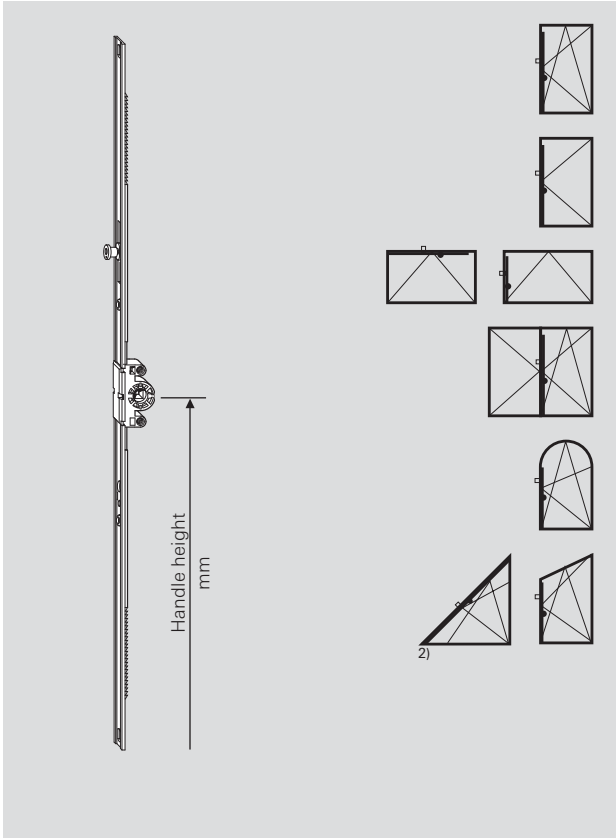
1) Not possible in combination with a lifting mishandling device  
2) With integrated T&T corner drive

# Security T&T espagnolette

## Centred/variable handle height

### 15 mm backset





**Security T&T espagnolette, centred/variable handle height, 15 mm backset**

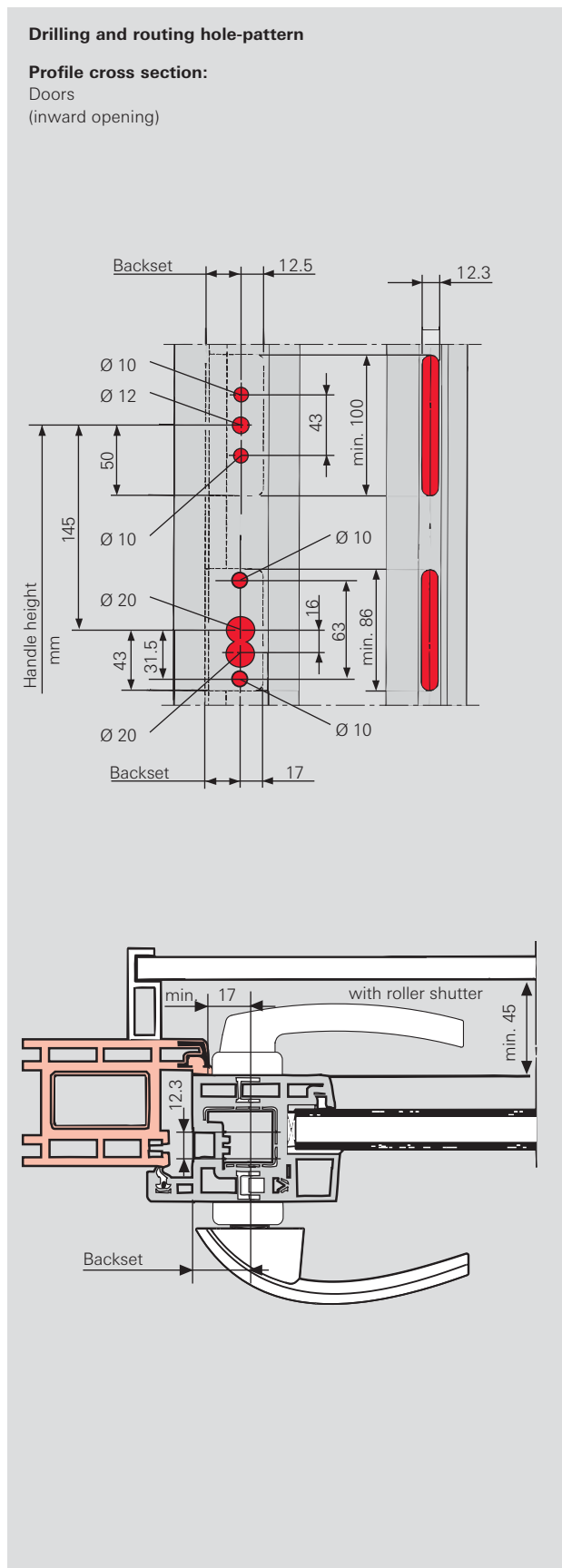
SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
540 – 620	515	226 – 315	1 V	<b>566500</b> <sup>1,3)</sup>
621 – 800	580	311 – 400	1 V	<b>355743</b>
801 – 1200	980	401 – 600	1 V	<b>355744</b>
1201 – 1600	1380	601 – 800	2 V	<b>355745</b>
1601 – 2000	1780	801 – 1000	2 V	<b>355746</b>
2001 – 2400	2180	1001 – 1200	4 V	<b>355747</b>

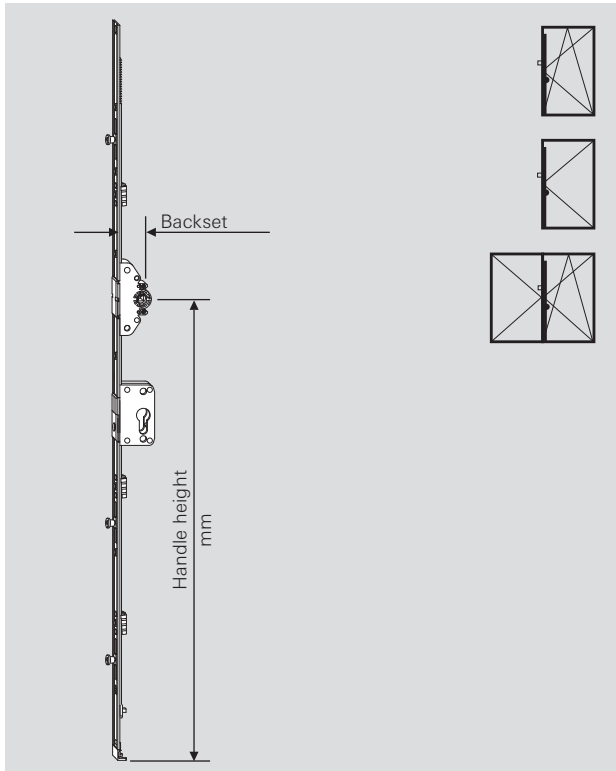
1) Not possible in combination with a lifting mishandling device  
 2) On triangular windows use corner drive 260278 instead of the T&T corner drive  
 3) Not centred

## Security T&T espagnolette, lockable

Fixed handle height

25, 30, 35, 40, 45, 50 mm backset




**Security T&T espagnolette, fixed handle height,  
lockable, 25 mm backset**

SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
1601 – 1800	1690	1000	3 V	<b>259949</b>
1801 – 2000	1890	1000	3 V	<b>259951</b>
2001 – 2200	2090	1000	4 V	<b>259953</b>
2201 – 2400	2290	1000	4 V	<b>259955</b>

**Security T&T espagnolette, fixed handle height,  
lockable, 30 mm backset**

1601 – 1800	1690	1000	3 V	<b>259957</b>
1801 – 2000	1890	1000	3 V	<b>259959</b>
2001 – 2200	2090	1000	4 V	<b>259961</b>
2201 – 2400	2290	1000	4 V	<b>259963</b>

**Security T&T espagnolette, fixed handle height,  
lockable, 35 mm backset**

1601 – 1800	1690	1000	3 V	<b>259965</b>
1801 – 2000	1890	1000	3 V	<b>259967</b>
2001 – 2200	2090	1000	4 V	<b>259969</b>
2201 – 2400	2290	1000	4 V	<b>259971</b>

**Security T&T espagnolette, fixed handle height,  
lockable, 40 mm backset**

1601 – 1800	1690	1000	3 V	<b>259973</b>
1801 – 2000	1890	1000	3 V	<b>259975</b>
2001 – 2200	2090	1000	4 V	<b>259977</b>
2201 – 2400	2290	1000	4 V	<b>259979</b>

**Security T&T espagnolette, fixed handle height,  
lockable, 45 mm backset**

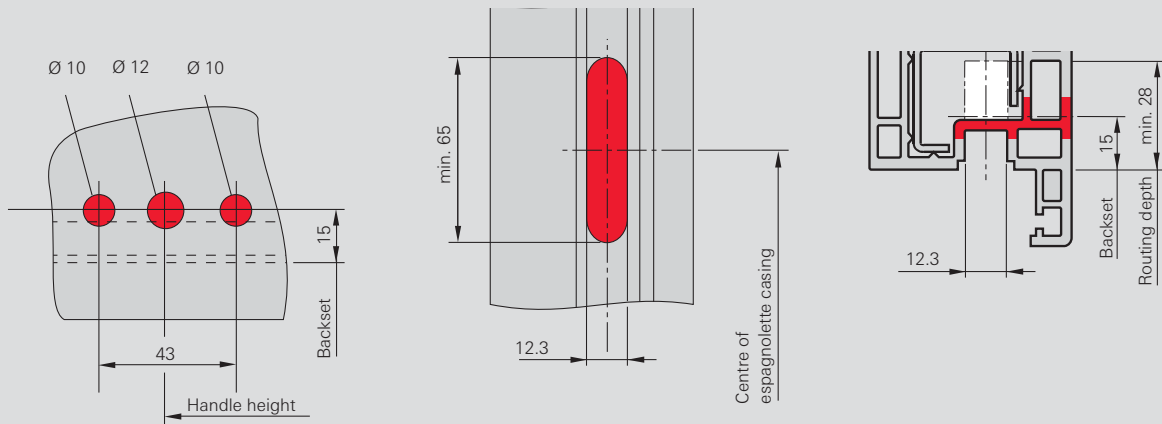
1601 – 1800	1690	1000	3 V	<b>259981</b>
1801 – 2000	1890	1000	3 V	<b>259983</b>
2001 – 2200	2090	1000	4 V	<b>259985</b>
2201 – 2400	2290	1000	4 V	<b>259987</b>

**Security T&T espagnolette, fixed handle height,  
lockable, 50 mm backset**

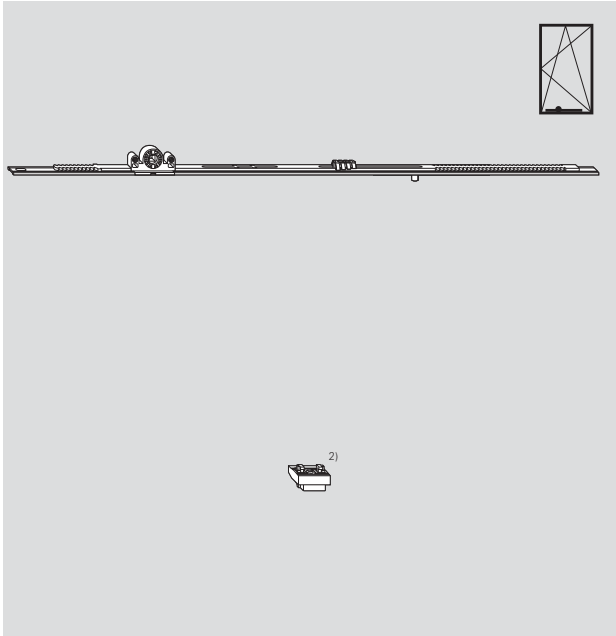
1601 – 1800	1690	1000	3 V	<b>259989</b>
1801 – 2000	1890	1000	3 V	<b>259991</b>
2001 – 2200	2090	1000	4 V	<b>259993</b>
2201 – 2400	2290	1000	4 V	<b>259995</b>

# T&T espagnolette Comfort 15 mm backset

## Drilling and routing hole-pattern



Ø 10 Drilling depth 33 mm  
(for 16 mm overlap)  
for countersunk screws M 5 x ... DIN EN ISO 7046



**T&T espagnolette Comfort, 15 mm backset**

SRH/mm	Length/mm	Locking cam	Material no.
520 – 700	490		<b>307029</b>
701 – 900	690	1 E	<b>307030</b>
701 – 900	690	1 V	<b>309399</b>
901 – 1400 <sup>1)</sup>	690	1 E	<b>307030</b>

2) To be used with run-up block with mishandling device

**307050**

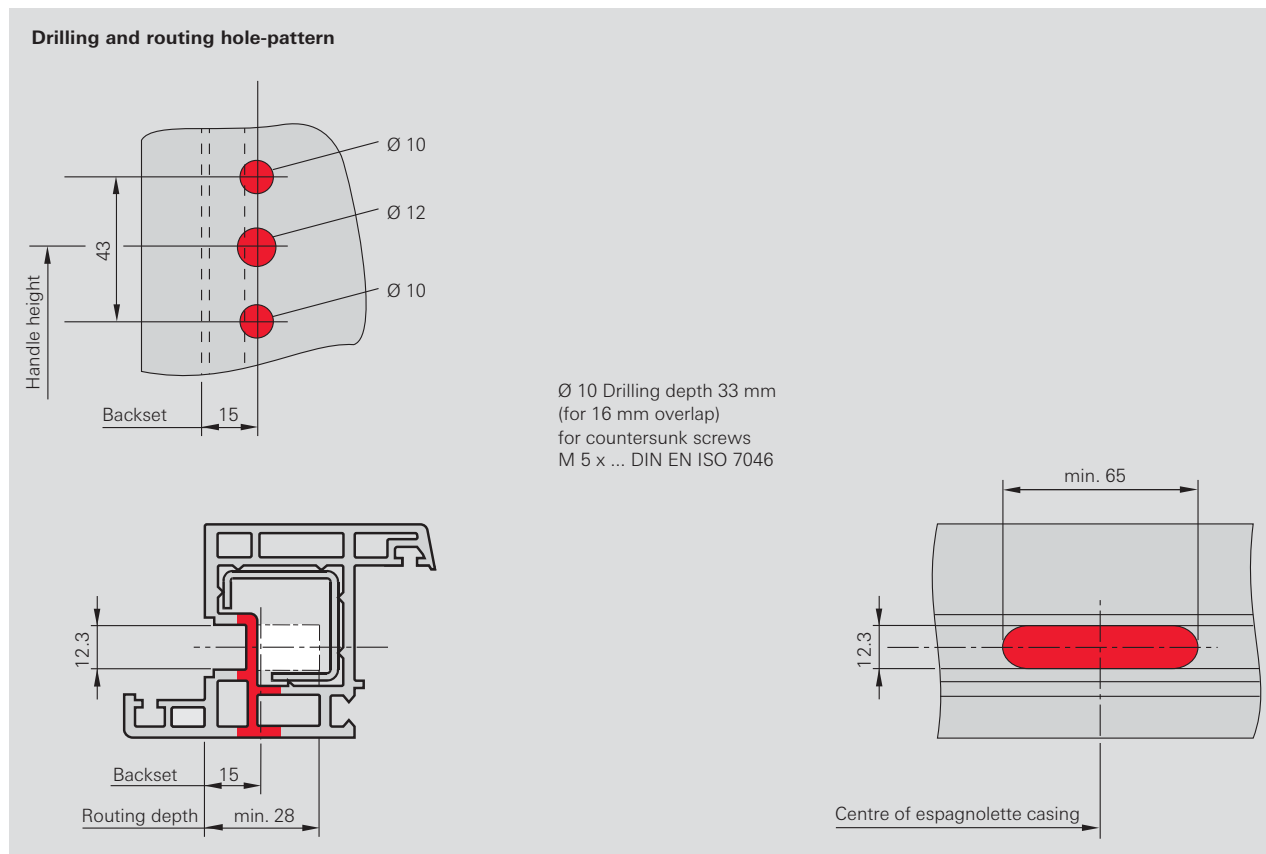
Espagnolettes  
Espagnolette  
components

1) Use additional espagnolette extension on application ranges from SRW 901-1400 mm

## T&T espagnolette – Vertical-Tilter

Fixed handle height

15 mm backset

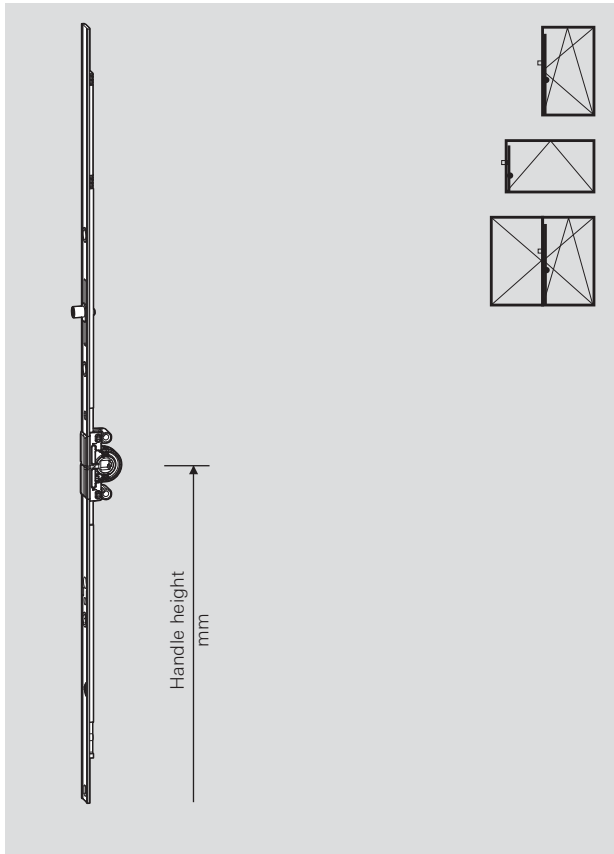




## T&T espagnolette – Vertical-Tilter

Fixed handle height

15 mm backset



### T&T espagnolette, fixed handle height, 15 mm backset, Vertical-Tilter

SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
280 – 480	370	120	1 P <sup>1)</sup>	<b>376456<sup>2)</sup></b>
481 – 600	490	170		<b>628750</b>
601 – 800	690	263		<b>619591</b>
801 – 1000	890	413	1 E	<b>619592</b>
1001 – 1200	1090	513	1 E	<b>619593</b>
1201 – 1400	1290	563	1 E	<b>619594</b>
1401 – 1600	1490	563	2 E	<b>619595</b>
1601 – 1800	1690	563	2 E	<b>619596</b>
1801 – 2000	1890	1000	2 E	<b>619597</b>
2001 – 2200	2090	1000	3 E	<b>619598</b>
2201 – 2400	2290	1000	3 E	<b>619599</b>

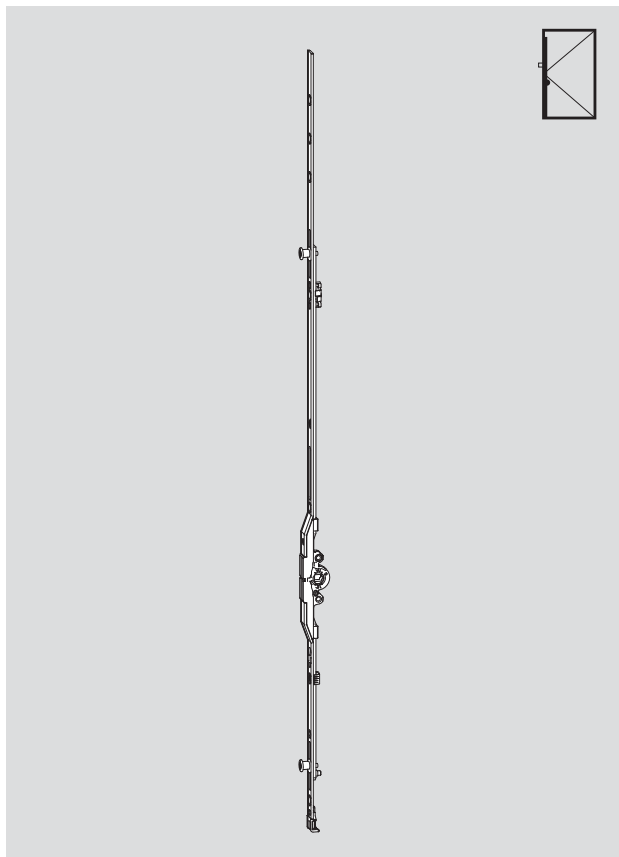
Espagnolettes  
Espagnolette  
components

1) Special P cam  
2) Bottom horizontal Tilt striker

## Turn-Only/Tilt-Only espagnolette

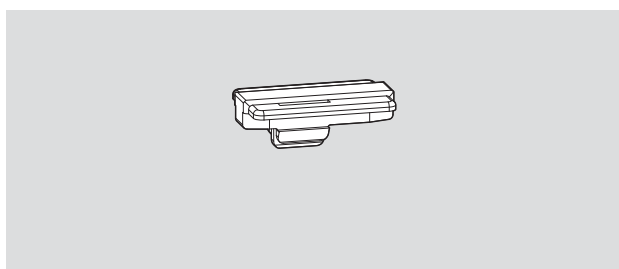
Fixed handle height

8 mm backset

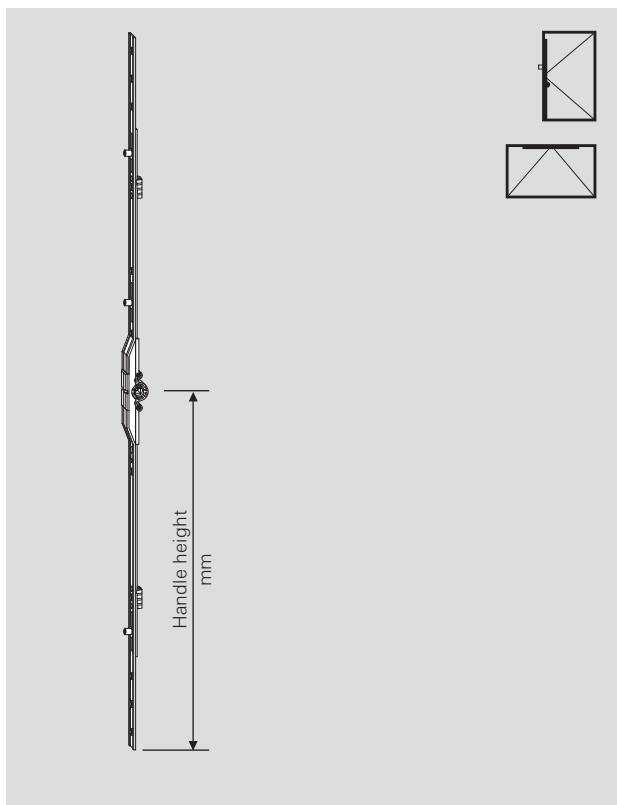


### Turn-Only/Tilt-Only espagnolette, fixed handle height, 8 mm backset with punched hole for night-vent

SRH/mm	Length/mm	Handle height/mm	Vent.pos.	Locking cam	Material no.
400 – 500	500	170	–	2 P	<b>609213**</b>
501 – 600	600	170	–	2 P	<b>609214**</b>
601 – 700	700	263	371	2 P	<b>609235</b>
701 – 800	800	263	371	2 P	<b>609236</b>
801 – 900	900	413	180	2 P	<b>609237</b>
801 – 900	900	413	180	3 P	<b>609238</b>
901 – 1000	1000	413	180	2 P	<b>609239</b>
901 – 1000	1000	413	180	3 P	<b>609240</b>
1001 – 1100	1100	513	180	3 P	<b>609241</b>
1101 – 1200	1200	513	815	3 P	<b>609242</b>
1201 – 1300	1300	563	815	3 P	<b>609243</b>
1301 – 1400	1400	563	815	3 P	<b>609244</b>
1401 – 1500	1500	563	815	3 P	<b>609245</b>
1501 – 1600	1600	563	815	3 P	<b>609246</b>
1601 – 1700	1700	563	815	3 P	<b>609247</b>
1701 – 1850	1850	563	815	4 P	<b>609248</b>
1851 – 2050	2050	1000	815	4 P	<b>609249</b>
2051 – 2250	2250	1000	815	4 P	<b>609250</b>

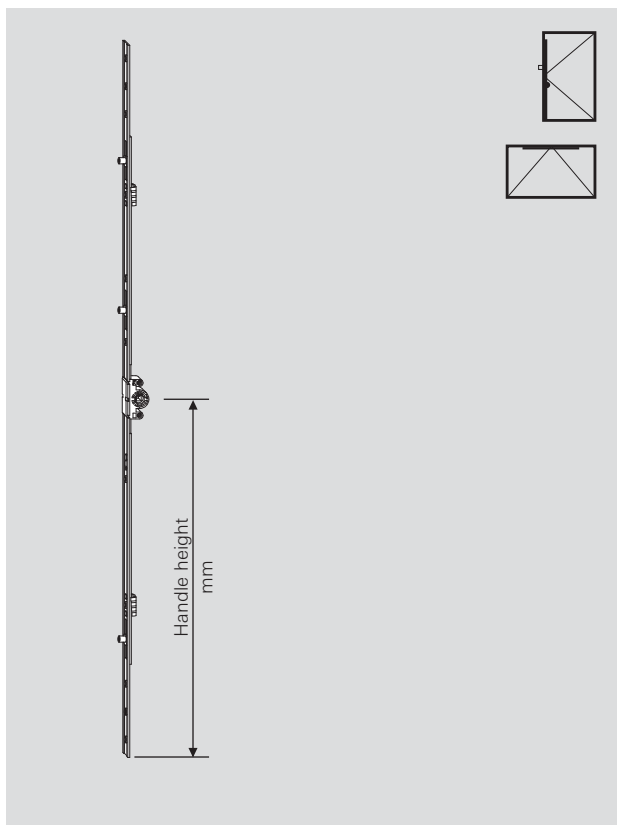


**90° travel restrictor for Turn-Only/Tilt-Only espagnolette, fixed handle height** **565965**



**Turn-Only/Tilt-Only espagnolette, centred/variable handle height, 8 mm backset**

SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
238 – 390	238	min. 88	1 E	<b>260136</b>
391 – 500	500	125 – 250	1 E	<b>260137</b>
501 – 800	800	251 – 400	2 E	<b>260138</b>
801 – 1100	1100	401 – 550	3 E	<b>260139</b>
1101 – 1400	1400	551 – 700	3 E	<b>260140</b>
1401 – 1800	1800	701 – 900	4 E	<b>260141</b>
1801 – 2400	2400	901 – 1200	4 E	<b>260142</b>



**Turn-Only/Tilt-Only espagnolette, centred/variable handle height, 15 mm backset**

SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
180 – 250	180	90 – 125	1 E	<b>260129</b>
251 – 500	500	126 – 250	1 E	<b>260130</b>
501 – 800	800	251 – 400	2 E	<b>260131</b>
801 – 1100	1100	401 – 550	3 E	<b>260132</b>
1101 – 1400	1400	551 – 700	3 E	<b>260133</b>
1401 – 1800	1800	701 – 900	4 E	<b>260134</b>
1801 – 2400	2400	901 – 1200	4 E	<b>260135</b>

180 – 250	180	90 – 125	1 P	<b>288093</b>
251 – 500	500	126 – 250	1 P	<b>288094</b>
501 – 800	800	251 – 400	2 P	<b>288095</b>
801 – 1100	1100	401 – 550	3 P	<b>288096</b>
1101 – 1400	1400	551 – 700	3 P	<b>288097</b>
1401 – 1800	1800	701 – 900	4 P	<b>288098</b>
1801 – 2400	2400	901 – 1200	4 P	<b>288099</b>

1) Changed cam position

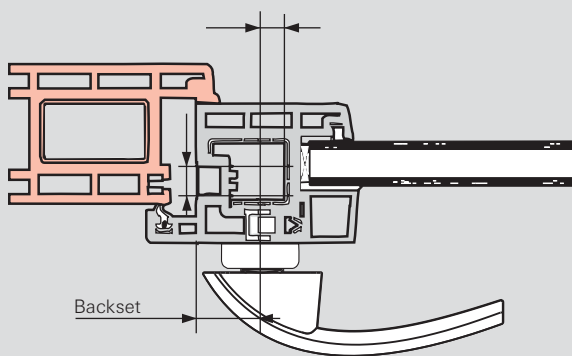
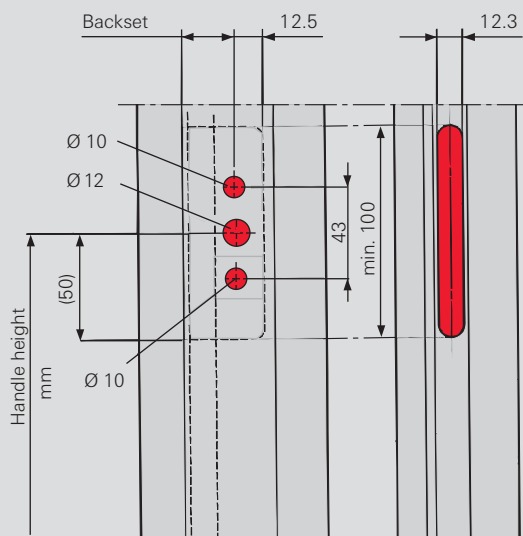
# Turn-Only/Tilt-Only espagnolette

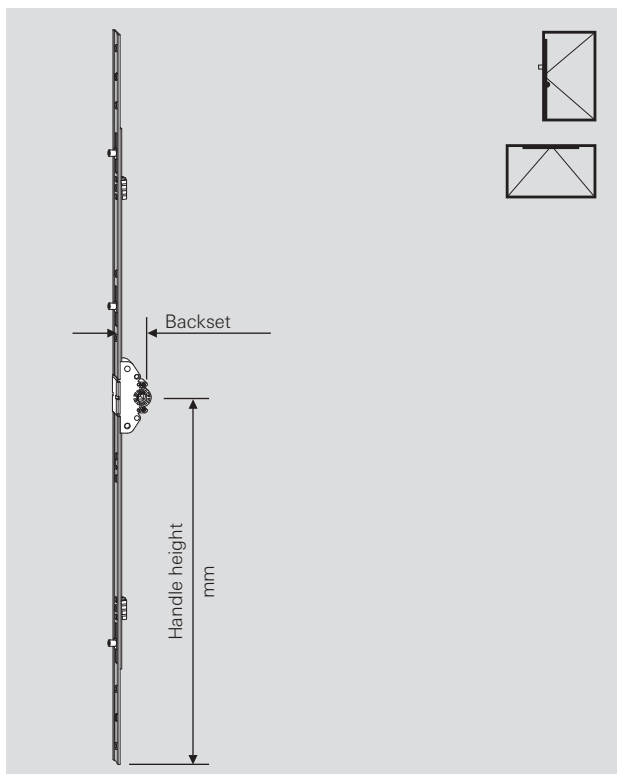
Centred/variable handle height  
25, 30, 35, 40, 45, 50 mm backset

## Drilling and routing hole-pattern

### Profile cross section:

Windows and doors  
(outward opening)




**Turn-Only/Tilt-Only espagnolette, centred/variable handle height, 25 mm backset**

SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
180 – 250	180	105 – 150	1 E	<b>260143</b>
251 – 500	500	100 – 250	1 E	<b>260144</b>
501 – 800	800	251 – 400	2 E	<b>260145</b>
801 – 1100	1100	401 – 550	3 E	<b>260146</b>
1101 – 1400	1400	551 – 700	3 E	<b>260147</b>
1401 – 1800	1800	701 – 900	4 E	<b>260148</b>
1801 – 2400	2400	901 – 1200	4 E	<b>260149</b>

**Turn-Only/Tilt-Only espagnolette, centred/variable handle height, 30mm backset**

SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
180 – 250	180	105 – 150	1 E	<b>260150</b>
251 – 500	500	100 – 250	1 E	<b>260151</b>
501 – 800	800	251 – 400	2 E	<b>260152</b>
801 – 1100	1100	401 – 550	3 E	<b>260153</b>
1101 – 1400	1400	551 – 700	3 E	<b>260154</b>
1401 – 1800	1800	701 – 900	4 E	<b>260155</b>
1801 – 2400	2400	901 – 1200	4 E	<b>260156</b>

**Turn-Only/Tilt-Only espagnolette, centred/variable handle height, 35mm backset**

SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
180 – 250	180	105 – 150	1 E	<b>260157</b>
251 – 500	500	100 – 250	1 E	<b>260158</b>
501 – 800	800	251 – 400	2 E	<b>260159</b>
801 – 1100	1100	401 – 550	3 E	<b>260160</b>
1101 – 1400	1400	551 – 700	3 E	<b>260161</b>
1401 – 1800	1800	701 – 900	4 E	<b>260162</b>
1801 – 2400	2400	901 – 1200	4 E	<b>260163</b>

**Turn-Only/Tilt-Only espagnolette, centred/variable handle height, 40mm backset**

SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
180 – 250	180	105 – 150	1 E	<b>260164</b>
251 – 500	500	100 – 250	1 E	<b>260165</b>
501 – 800	800	251 – 400	2 E	<b>260166</b>
801 – 1100	1100	401 – 550	3 E	<b>260167</b>
1101 – 1400	1400	551 – 700	3 E	<b>260168</b>
1401 – 1800	1800	701 – 900	4 E	<b>260169</b>
1801 – 2400	2400	901 – 1200	4 E	<b>260170</b>

**Turn-Only/Tilt-Only espagnolette, centred/variable handle height, 45mm backset**

SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
180 – 250	180	105 – 150	1 E	<b>260171</b>
251 – 500	500	100 – 250	1 E	<b>260172</b>
501 – 800	800	251 – 400	2 E	<b>260173</b>
801 – 1100	1100	401 – 550	3 E	<b>260174</b>
1101 – 1400	1400	551 – 700	3 E	<b>260175</b>
1401 – 1800	1800	701 – 900	4 E	<b>260176</b>
1801 – 2400	2400	901 – 1200	4 E	<b>260177</b>

**Turn-Only/Tilt-Only espagnolette, centred/variable handle height, 50mm backset**

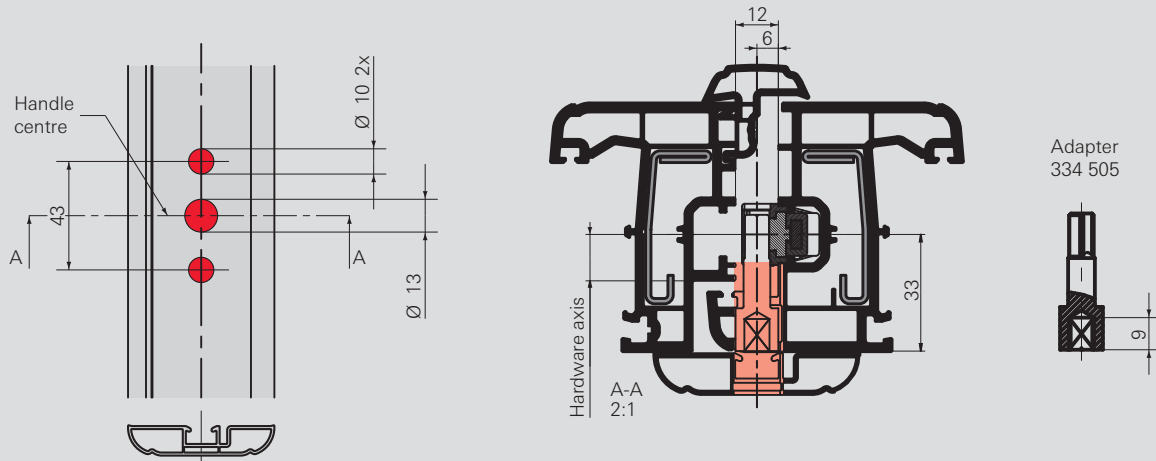
SRH/mm	Length/mm	Handle height/mm	Locking cam	Material no.
180 – 250	180	105 – 150	1 E	<b>260178</b>
251 – 500	500	100 – 250	1 E	<b>260179</b>
501 – 800	800	251 – 400	2 E	<b>260180</b>
801 – 1100	1100	401 – 550	3 E	<b>260181</b>
1101 – 1400	1400	551 – 700	3 E	<b>260182</b>
1401 – 1800	1800	701 – 900	4 E	<b>260183</b>
1801 – 2400	2400	901 – 1200	4 E	<b>260184</b>

## Negative backset espagnolette

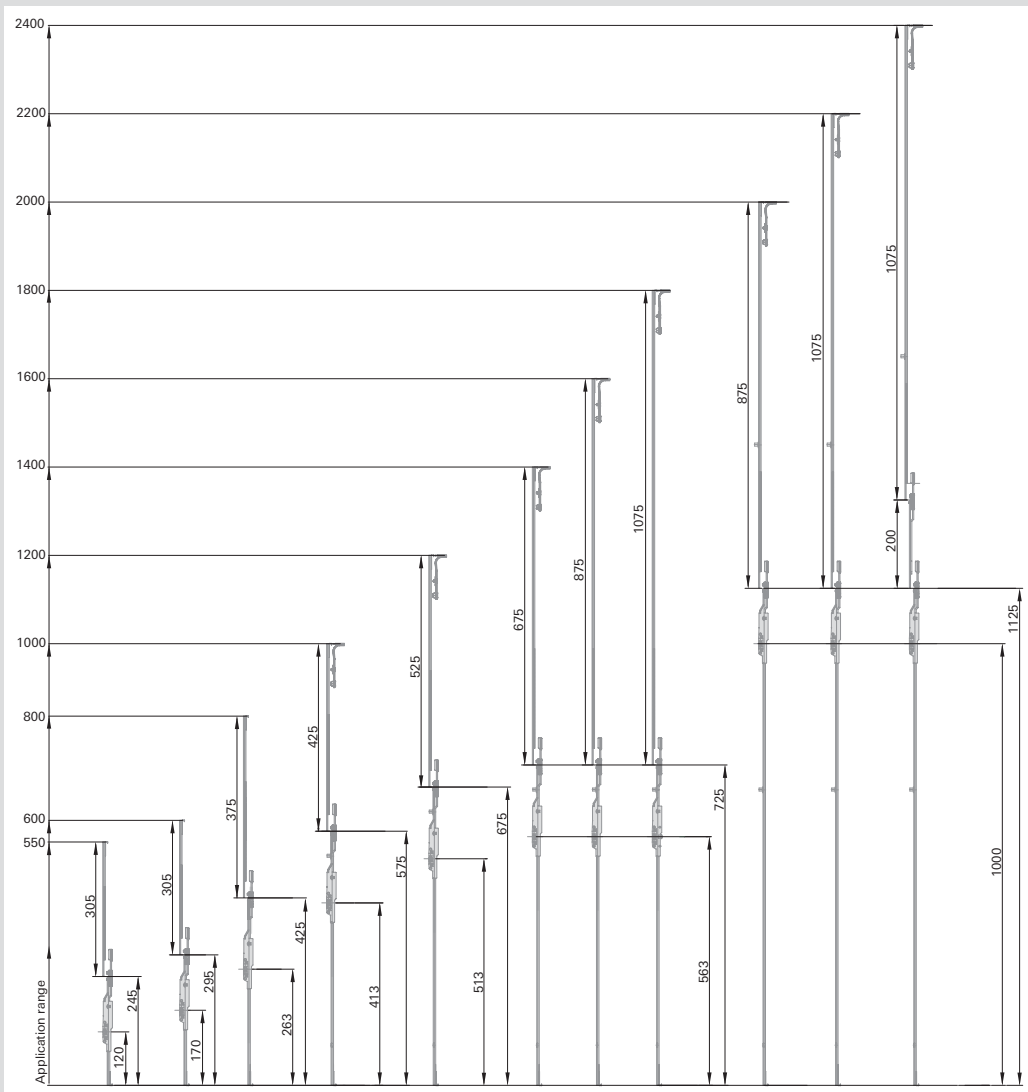
Fixed handle height

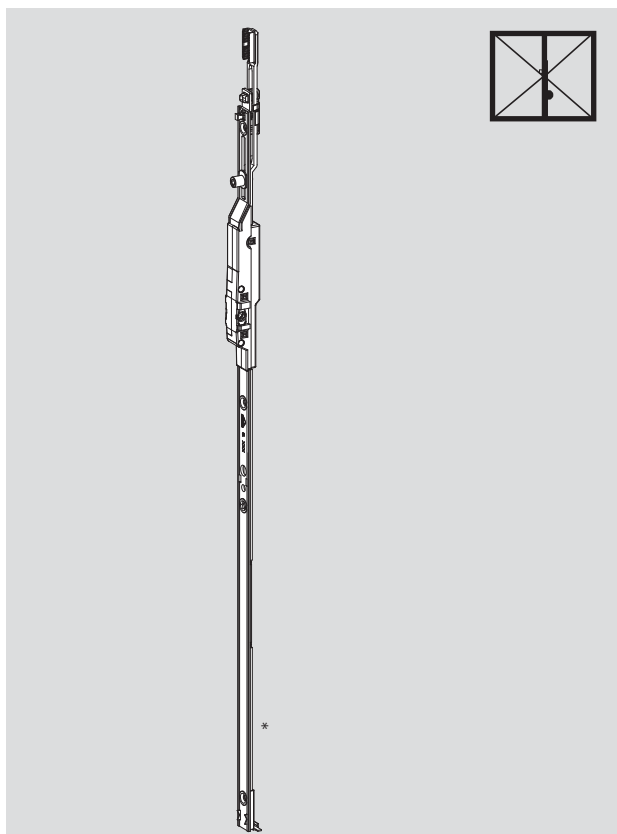
-6 mm backset

### Drilling and routing hole-pattern



### Negative backset espagnolette and espagnolette connector combinations

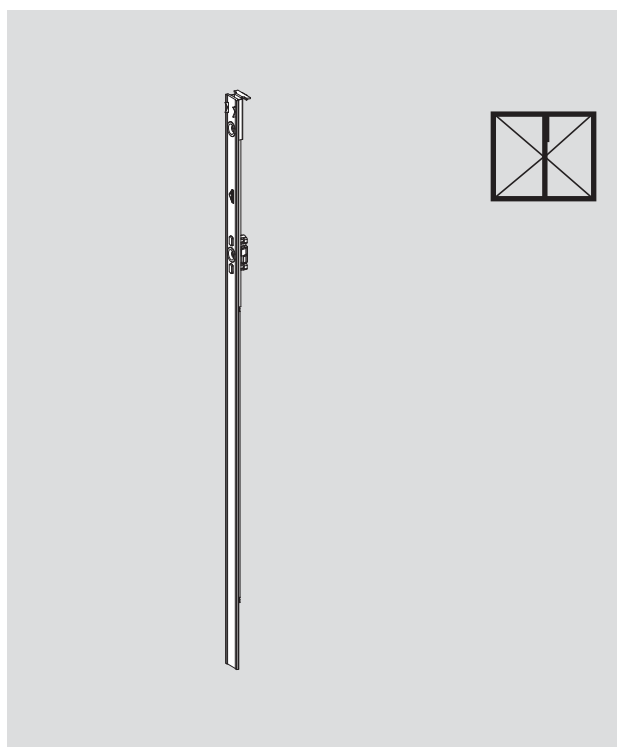



**Negative backset espagnolette with backset –  
14 mm shootbolt protrusion**

801 – 1000	575	413	1 P	<b>623214</b>
1001 – 1200	675	513	1 P	<b>623215</b>
1201 – 1800	725	563	1 P	<b>623216</b>
1801 – 2400	925	763	1 P	<b>623217</b>
1801 – 2400	1125	1000	1 P	<b>623218</b>

**Negative backset espagnolette with backset –  
14 mm shootbolt protrusion**

375 – 550	245	120		<b>623206</b>
450 – 600	295	170		<b>623204</b>
601 – 800	425	263		<b>623205</b>
801 – 1000	575	413	1 E	<b>623199</b>
1001 – 1200	675	513	1 E	<b>623200</b>
1201 – 1800	725	563	1 E	<b>623201</b>
1801 – 2400	925	763	1 E	<b>623207</b>
1801 – 2400	1125	1000	1 E	<b>623203</b>


**Espagnolette connector – 11 mm shootbolt protrusion**

SRH/mm	Length/mm	Locking cam	Material no.
265 – 315	305		<b>385474</b>
212 – 412	375		<b>386025</b>
225 – 425	425		<b>386026</b>
325 – 525	525		<b>386027</b>
475 – 675	675		<b>386028</b>
675 – 875	875		<b>386029</b>
675 – 875	875	1 E	<b>386030</b>
675 – 875	875	1 P	<b>456690</b>
875 – 1075	1075		<b>386031</b>
875 – 1075	1075	1 E	<b>386032</b>
875 – 1075	1075	1 P	<b>456691</b>

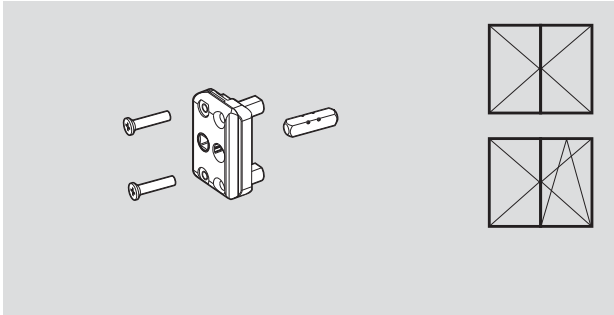
**Espagnolette connector – 14 mm shootbolt protrusion**

265 – 315	305		<b>364484</b>
212 – 412	375		<b>623603</b>
225 – 425	425		<b>364488</b>
325 – 525	525		<b>367088</b>
475 – 675	675		<b>623645</b>
475 – 675	675	1 E	<b>473099</b>
675 – 875	875	1 E	<b>375797</b>
875 – 1075	1075	1 E	<b>375799</b>

**Adapter** **493348**

Compulsory for espagnolettes with negative backset

## Negative backset espagnolette



### Negative backset espagnolette for PVC

Description	Material no.
Aluplast 2000/3000	<b>375417</b>
Deceuninck Mondial	<b>262342</b>
Gealan 3000 / 7000	<b>262352</b>
Kömmerling 3S	<b>262345</b>
Rehau S729	<b>262346</b>
Salamander 3D	<b>262348</b>

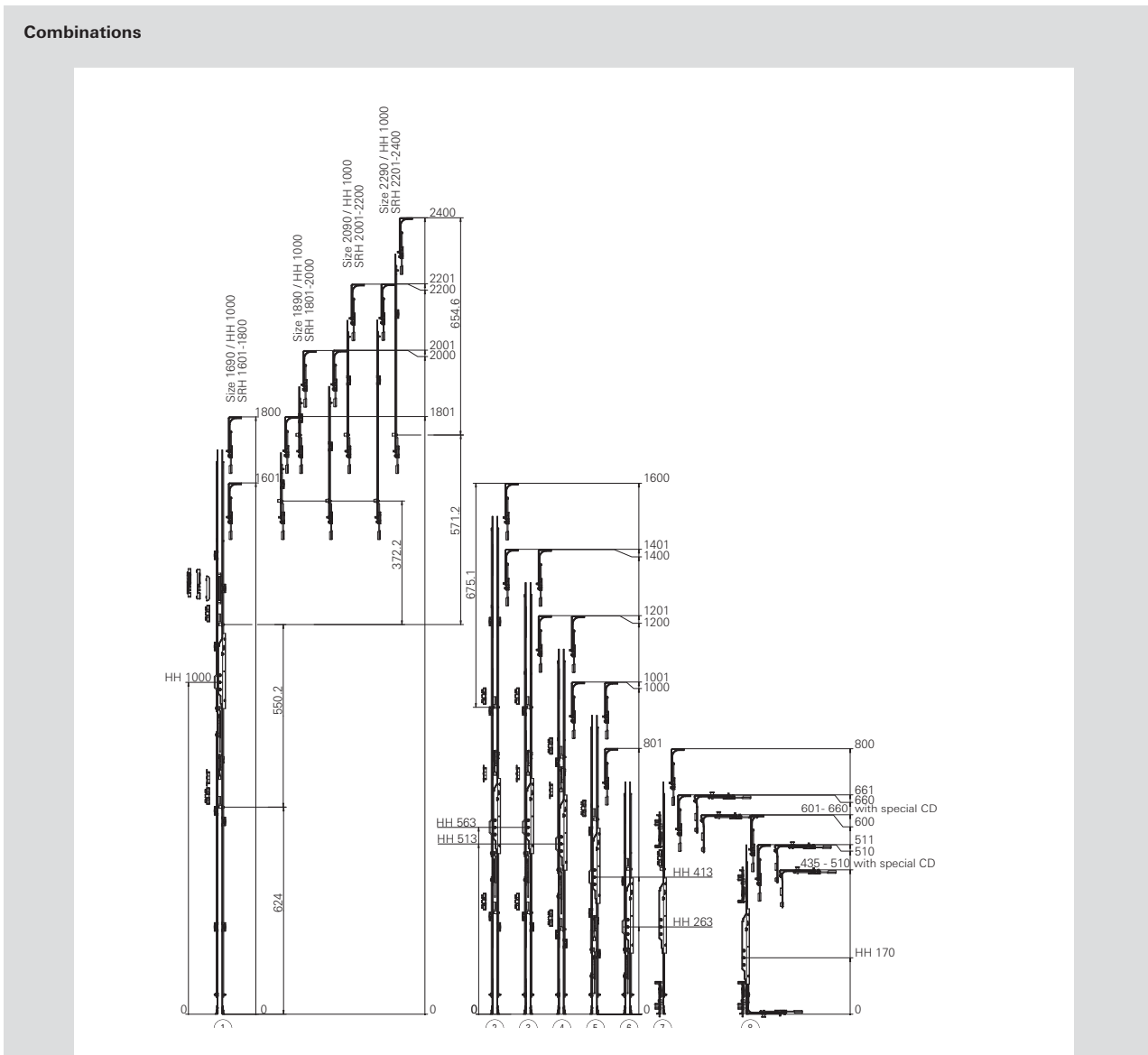
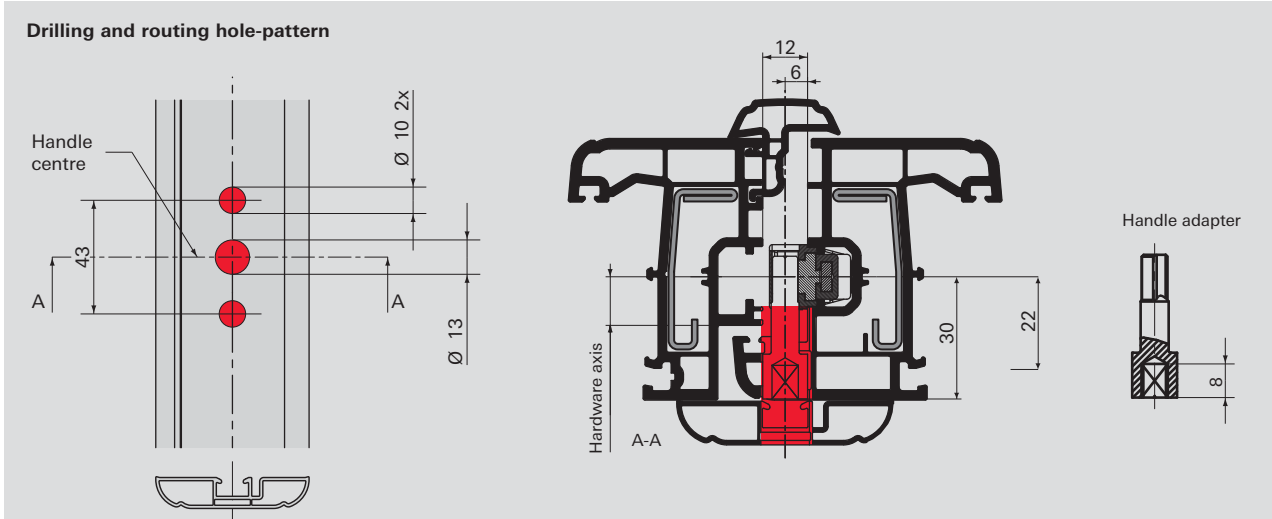


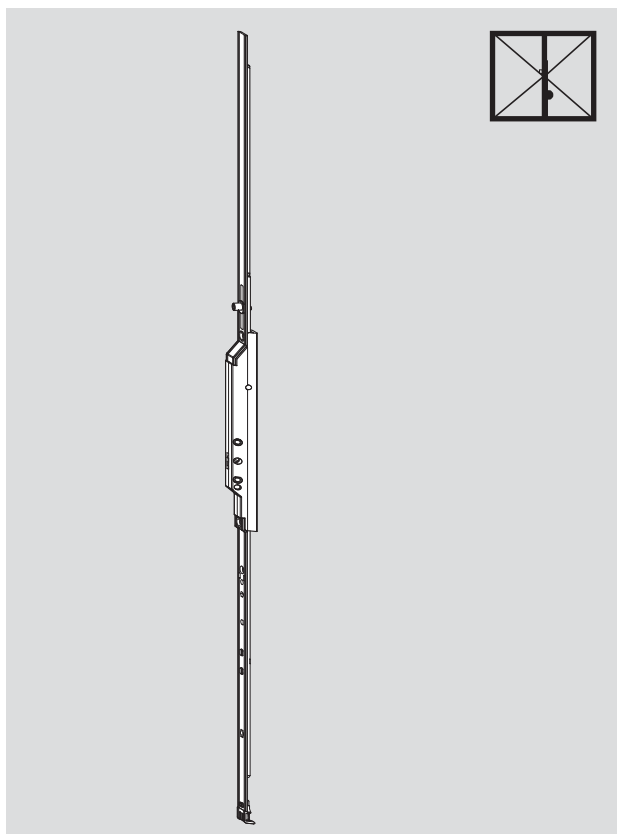


## T&T negative backset espagnolette

Fixed handle height

-6 mm backset



**T&T negative backset espagnolette with backset – 6 mm****Fixed handle height**

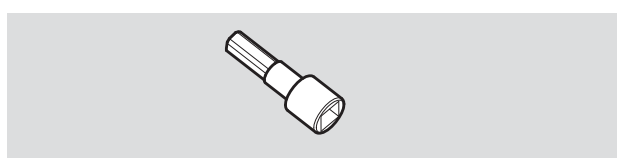
Sash rebate height	Handle height/mm	Size/mm	Material no.
435 – 510	170	500	<b>602130</b> <sup>(1,2)</sup>
511 – 600	170	500	<b>602130</b> <sup>(2)</sup>
601 – 660	263	690 1 E	<b>602131</b> <sup>(1,2)</sup>
661 – 800	263	690 1 E	<b>602131</b> <sup>(1,2)</sup>
801 – 1000	413	890 1 E	<b>602132</b> <sup>(2)</sup>
1001 – 1200	513	1090 1 E	<b>602133</b>
1201 – 1400	563	1290 1 E	<b>602134</b>
1401 – 1600	563	1490 1 E	<b>602165</b>
1601 – 1800	1000	1690 2 E	<b>602166</b>

1) With special corner drive

2) Not possible in combination with a lifting mishandling device



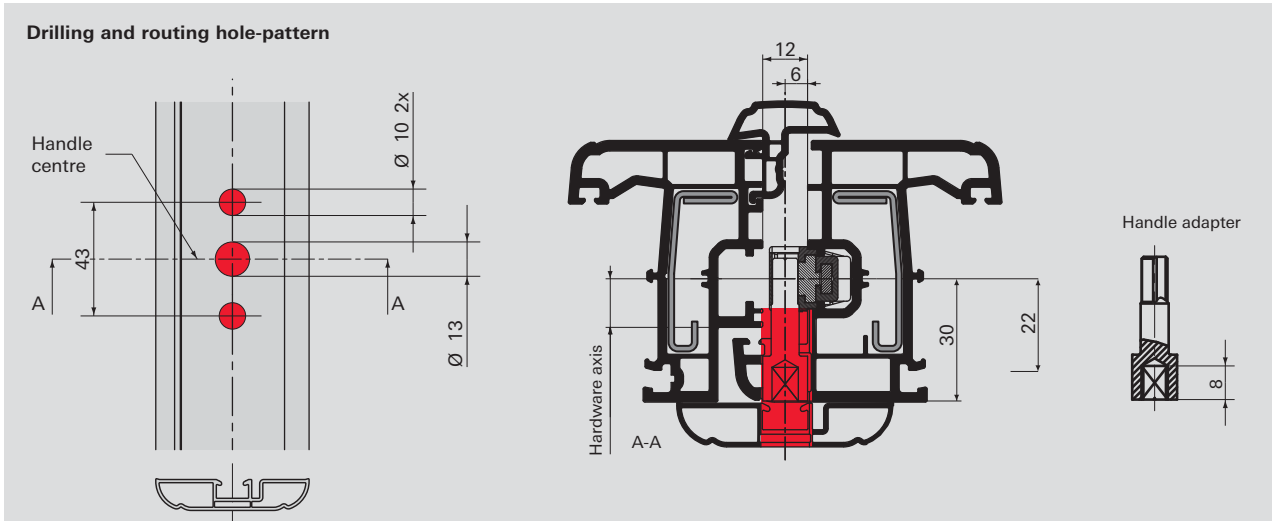
Profile	Support	
	3.3 mm	2.3 mm
Description	Material no.	Material no.
Aluplast 2000/3000	1x 495096	2x 498312
Aluplast Ideal 4000/5000/6000	2x 495096	1x 498312
Alphacan-Lucobay-Esthéa	1x 495096	2x 498312
Deceuninck Zendow	1x 495096	2x 498312
Gealan 8000		3x 498312
Inoutic AD/MD 13	1x 495096	2x 498312
KBE 70 AD	2x 495096	1x 498312
Kömmerling Eurodur 3S/MPF	1x 495096	2x 498312
Kömmerling Eurofutur	1x 495096	2x 498312
Rehau 730	1x 495096	1x 498312
Schüco Corona 70 mm	3x 495096	
Schüco Corona MD	3x 495096	
Schüco Corona CT70 AD/MD	3x 495096	
Trocal InnoNova 70 AD/MD Plus	1x 495096	2x 498312
Veka Topline AD 103200	2x 495096	1x 498312
Wymar-Profex 2000	1x 495096	2x 498312
Plastival PF 5900	1x 495096	2x 498312

**Adapter** 493348

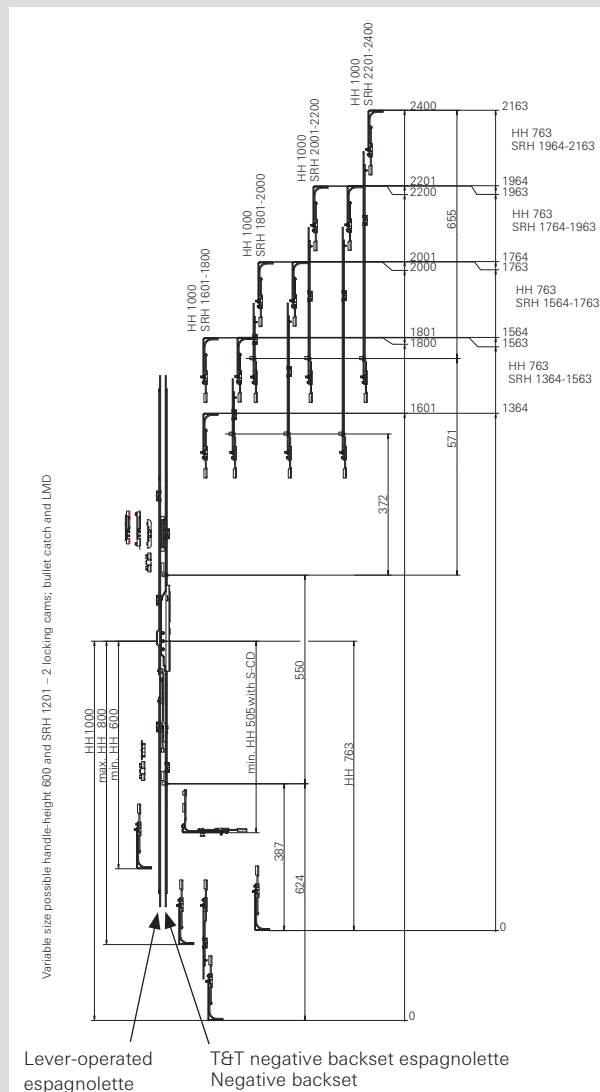
# T&T negative backset espagnolette

Centred/variable handle height

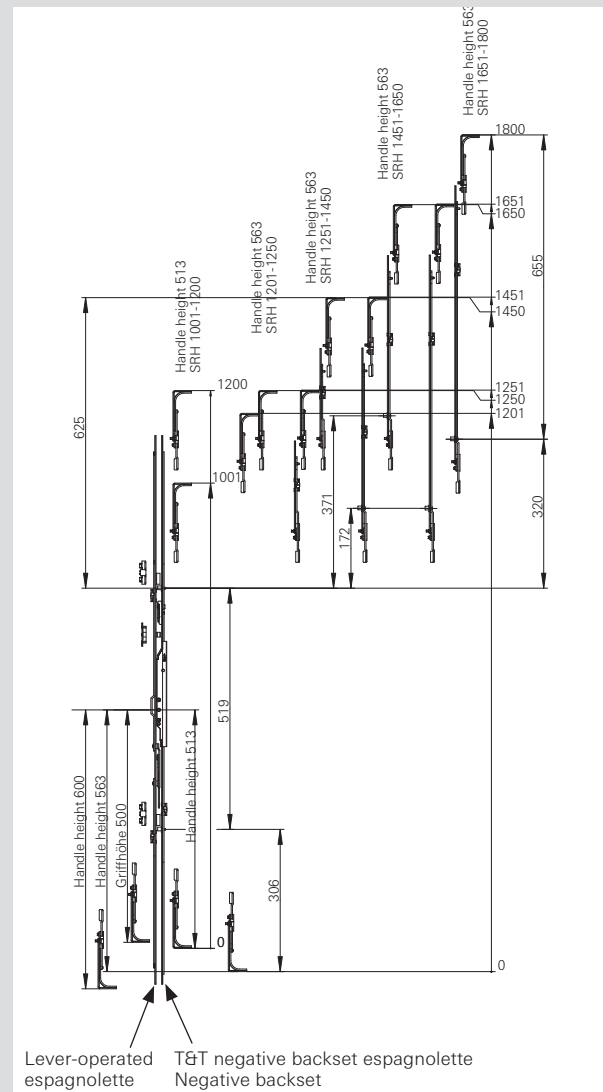
-6 mm backset

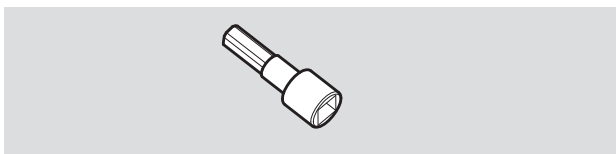
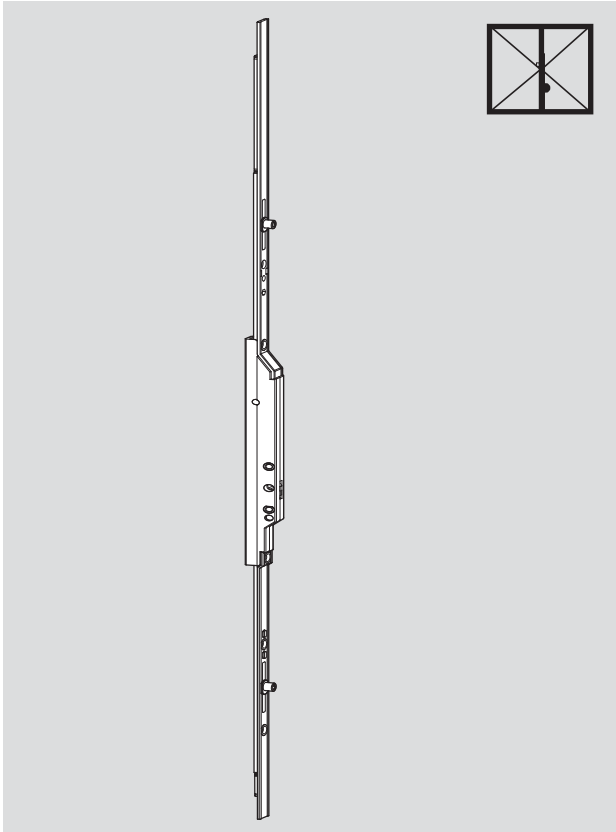


**Combinations with bullet catch**



**Combinations without bullet catch**





**T&T negative backset espagnolette<sup>3)</sup> with backset -6 mm**  
**Centred/variable handle height, multipart vertical**

SRH/mm	Handle height/mm	Espagnolette length/mm	Material no.
1001 – 1200	513	500 T&T SB espag.	2E <b>602167</b>
1201 – 1250	563	500 T&T SB espag.	2E <b>602167</b>
1251 – 1450	563	500 T&T SB espag. CL 200 CON	2E <b>602167</b> <b>308267</b>
1451 – 1650	563	500 T&T SB espag. CL 400 CON	2E <b>602167</b> 1E <b>280346</b>
1651 – 1800	563	500 T&T SB espag. CL 600 CON	2E <b>602167</b> 1E <b>255282</b>
1601 – 1800	1000	600 CL 200 CON T&T SB espag.	<b>308267</b> 2E <b>602168</b>
1801 – 2000	1000	600 CL 200 CON T&T SB espag. CL 200 CON	<b>308267</b> 2E <b>602168</b> 1E <b>450821</b>
2001 – 2200	1000	600 CL 200 CON T&T SB espag.	<b>308267</b> 2E <b>602168</b>
2201 – 2400	1000	600 CL 400 CON CL 200 CON T&T SB espag. CL 600 CON	1E <b>280346</b> <b>308267</b> 2E <b>602168</b> 1E <b>255282</b>

Profile	Support	
	3.3 mm	2.3 mm
Description	Material no.	Material no.
Aluplast 2000/3000	1x <b>495096</b>	2x <b>498312</b>
Aluplast Ideal 4000/5000/6000	2x <b>495096</b>	1x <b>498312</b>
Alphacan-Lucobay-Esthéa	1x <b>495096</b>	2x <b>498312</b>
Deceuninck Zendow	1x <b>495096</b>	2x <b>498312</b>
Gealan 8000		3x <b>498312</b>
Inotic AD/MD 13	1x <b>495096</b>	2x <b>498312</b>
KBE 70 AD	2x <b>495096</b>	1x <b>498312</b>
Kömmerling Eurodur 3S/MPF	1x <b>495096</b>	2x <b>498312</b>
Kömmerling Eurofutur	1x <b>495096</b>	2x <b>498312</b>
Rehau 730	1x <b>495096</b>	1x <b>498312</b>
Schüco Corona 70 mm	3x <b>495096</b>	
Schüco Corona MD	3x <b>495096</b>	
Schüco Corona CT70 AD/MD	3x <b>495096</b>	
Trocal InnoNova 70 AD/MD Plus	1x <b>495096</b>	2x <b>498312</b>
Veka Topline AD 103200	2x <b>495096</b>	1x <b>498312</b>
Wymar-Profex 2000	1x <b>495096</b>	2x <b>498312</b>
Plastival PF 5900	1x <b>495096</b>	2x <b>498312</b>

**Adapter** 493348

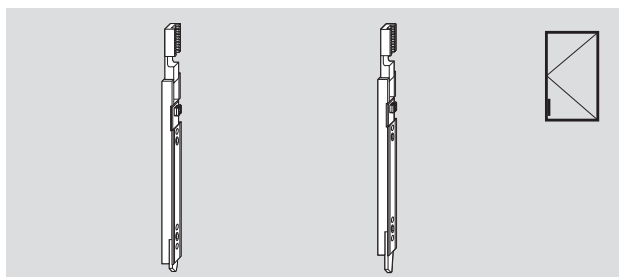
Espagnolettes  
Espagnolette  
components

## Espagnolette connector



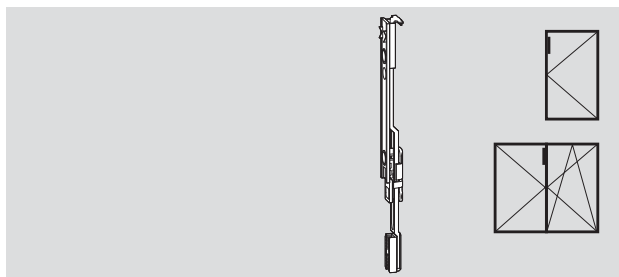
### Shootbolt protrusion

Description	Material no.
Shootbolt protrusion for Vertical-Tilter	<b>628290</b>



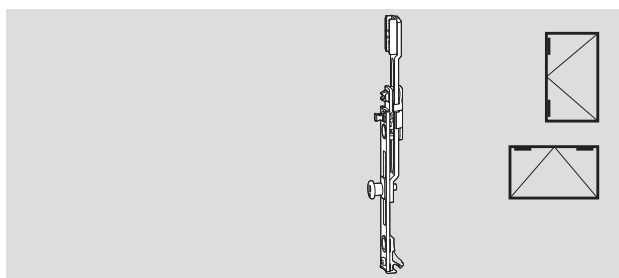
Espagnolette connector with reverse-action travel  
11 mm protrusion **312032**

Espagnolette connector with reverse-action travel  
18 mm protrusion **312033**



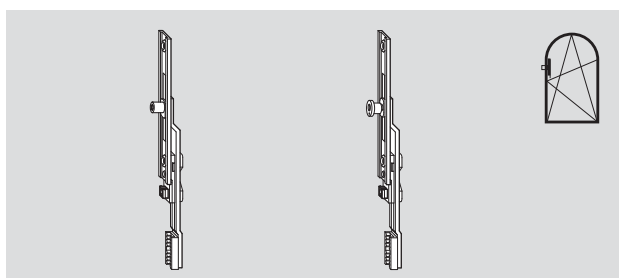
Espagnolette connector without reverse action travel  
(length 110 mm) – 11 mm protrusion **457626**

Espagnolette connector without reverse action travel  
(length 110 mm) – 14 mm protrusion **349187**



### Espagnolette connector for Tilt-Only sashes

Espagnolette connector for Tilt-Only sashes 1 V **382716**

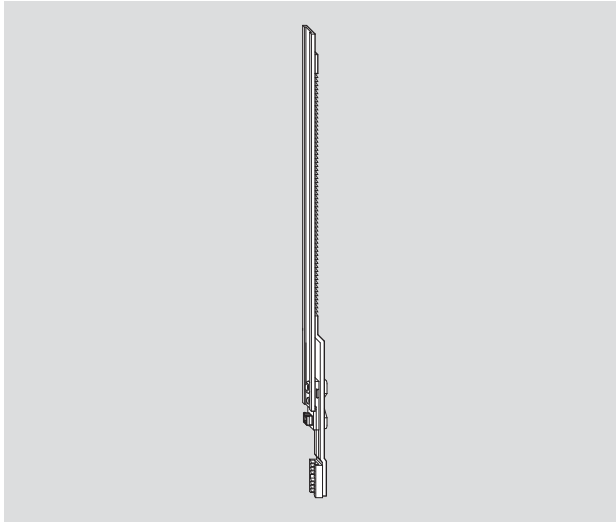


### Arched espagnolette connector

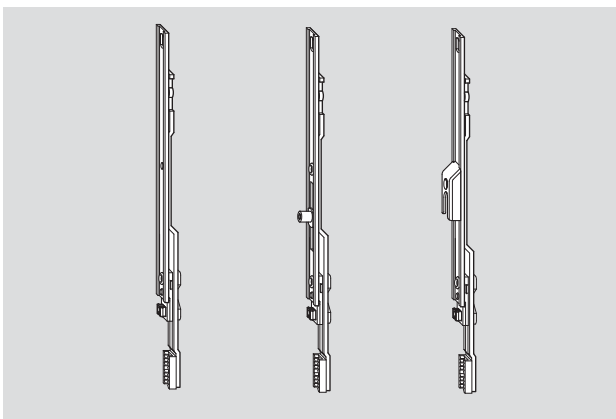
Arched espagnolette connector 1 E **245688**

Arched espagnolette connector 1 V **245687**

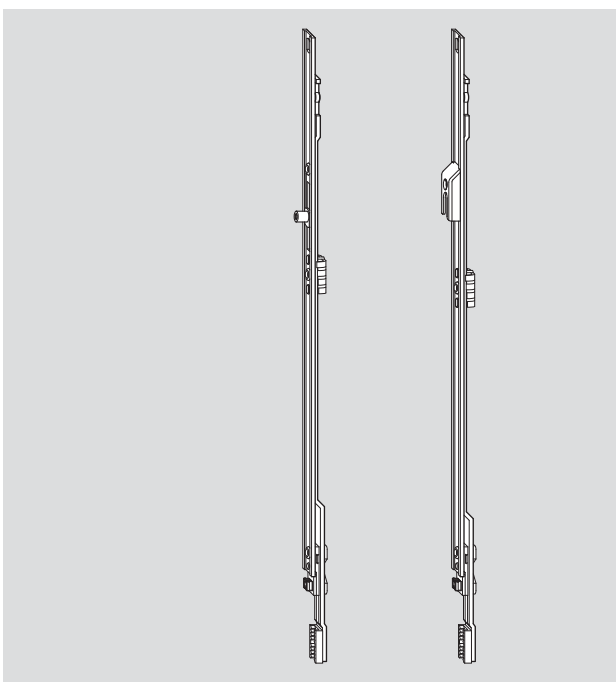
# Espagnolette extension



Espagnolette extension 330	
Description	Material no.
Espagnolette extension 330	<b>489993</b>



Espagnolette extension 200	
Description	Material no.
Espagnolette extension 200	<b>308267</b>
Espagnolette extension 200	1 E <b>450821</b>
Espagnolette extension 200 for the top of dummy mullion sashes (with welded-on striker)	<b>450822</b>
Espagnolette extension 200 for the bottom of dummy mullion sashes (not dep.) (with welded-on striker)	<b>280342</b>



Espagnolette extension 400	
Description	Material no.
Espagnolette extension 400	1 E <b>260193</b>
Espagnolette extension 400 for dummy mullion sashes (with welded-on striker)	<b>260195</b>

Espagnolettes  
Espagnolette  
components

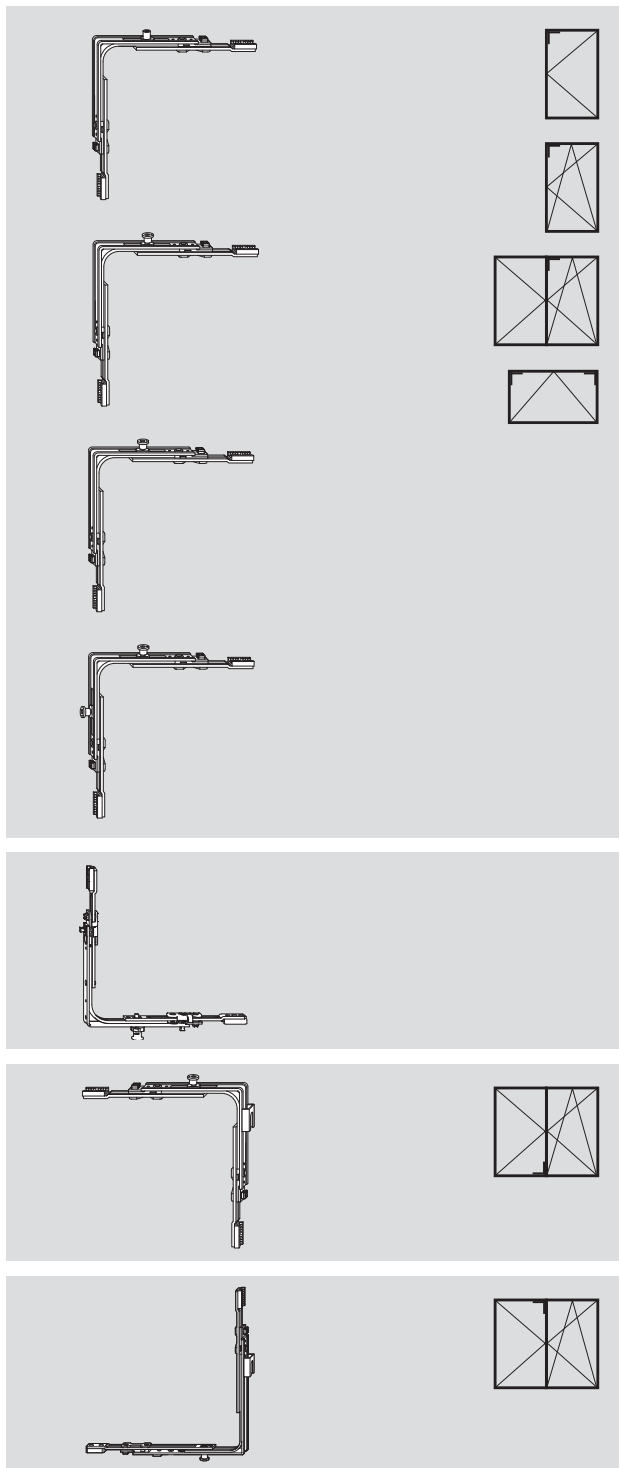




Corner drive .....	130
Special corner drive .....	131
Stay corner drive .....	132
Royal stay corner drive .....	132
T&T corner drive .....	133
Corner drive for arched windows .....	133
Corner drive for pitched windows .....	133
Miscellaneous corner drives .....	134

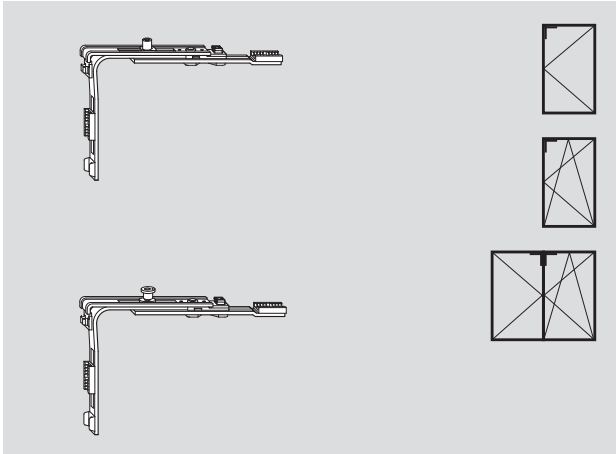
## Corner drive

Basic security, RC1/RC1N, RC2/RC2N, RC3, threshold



Description	Locking cam	Material no.
<b>Corner drive</b>	1 E	<b>260275</b>
<b>Corner drive RC1/RC1N/RC2/RC2N</b>	1 P	<b>260277</b>
<b>Corner drive RC1/RC1N/RC2/RC2N</b>	1 V	<b>260272</b>
<b>Corner drive RC3</b>	2 V	<b>260274</b>
<b>Corner drive threshold</b>	1 V extended	<b>614456</b>
<b>Corner drive RC2/RC2N/RC3</b>	1 V	<b>313538</b>
With welded-on striker for 2-sashed windows		
<b>Corner drive RC2/RC2N/RC3</b>	1 V	<b>367227</b>
With welded-on striker for 2-sashed windows		

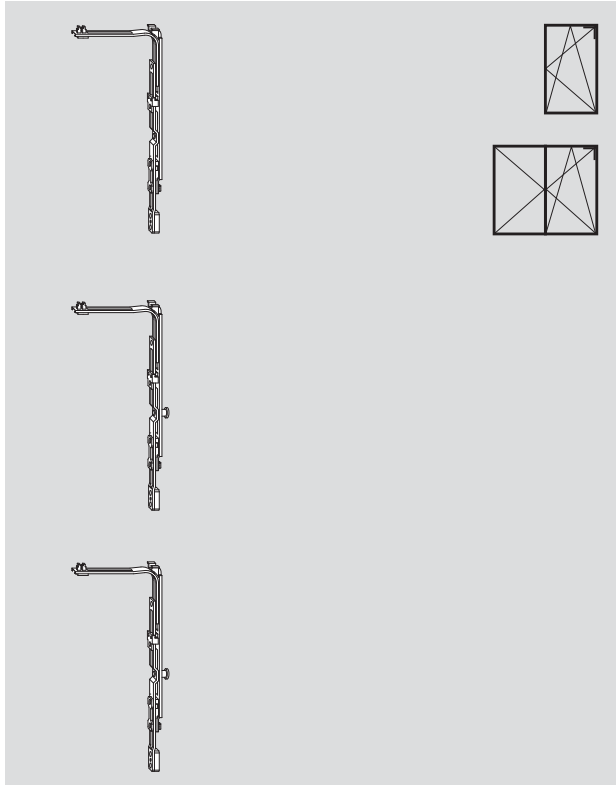
# Special corner drive



Description	Locking cam	Material no.
<b>Special corner drive, short</b> (SRH < 360 mm)	1 E	<b>260280</b>
<b>Special corner drive, short</b> (SRH < 360 mm)	1 P	<b>260282</b>
<b>Special corner drive, short</b> (SRH < 360 mm)	1 V	<b>281288</b>

Corner drive

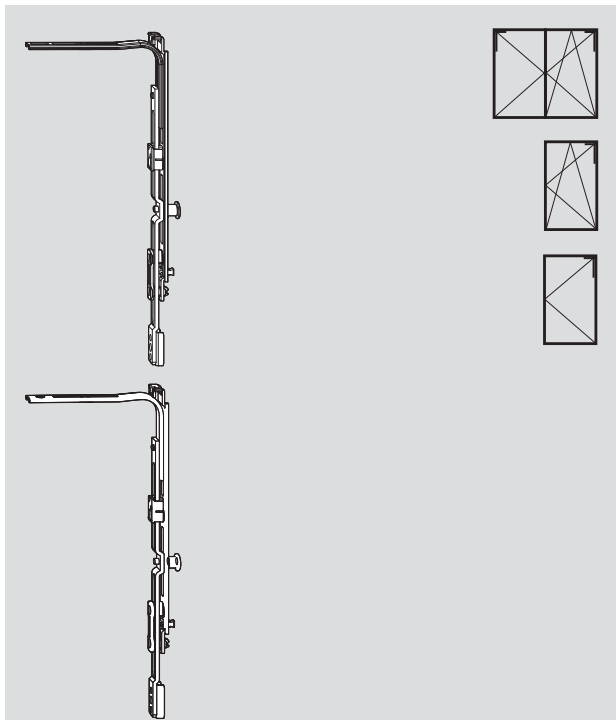
Stay corner drive  
Royal stay corner drive



Description	Locking cam	Material no.
Stay corner drive	–	293521

Stay corner drive	1 P	260286
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Stay corner drive	1 V	260284
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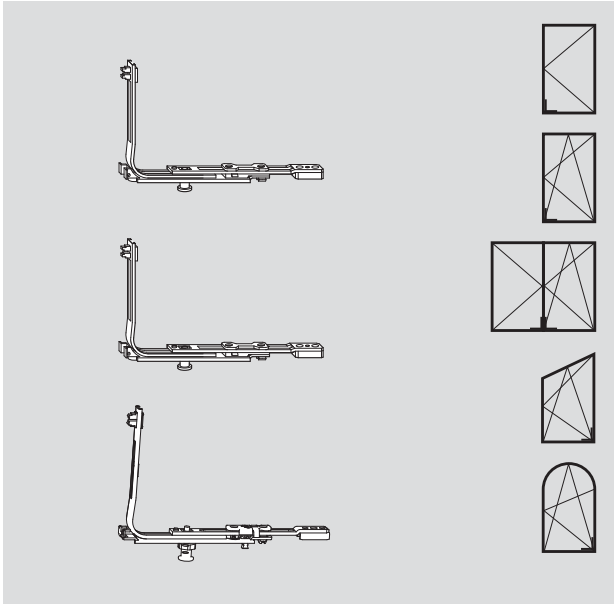
Stay corner drive Royal 250	1 P	617126
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Stay corner drive Royal 250	1 V	617127
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# T&T corner drive

## Corner drive for arched windows

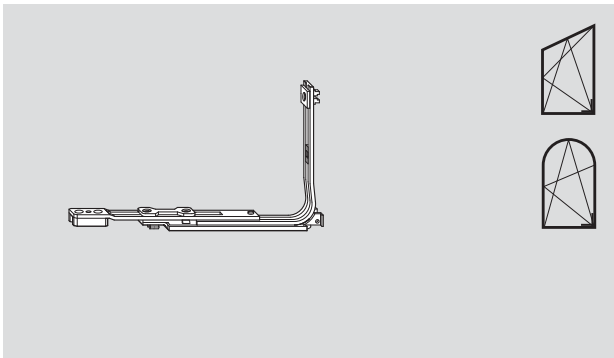
## Corner drive for pitched windows



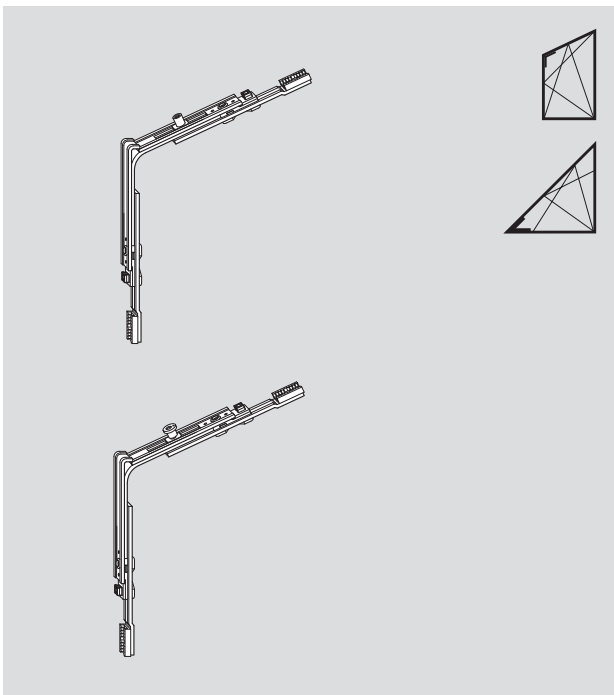
Description	Locking cam	Material no.
<b>T&amp;T corner drive</b>	1 P	<b>260290</b>

<b>T&amp;T corner drive</b>	1 V	<b>260288</b>
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<b>T&amp;T corner drive threshold</b>	1 V extended	<b>566650</b>
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<b>Corner drive for arched windows</b>		<b>255273</b>
<b>Corner drive for arched windows, short, not dep.</b>		<b>253240</b>

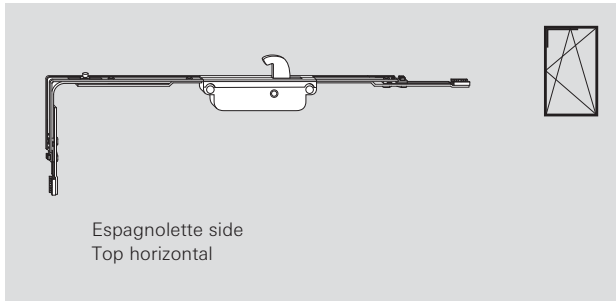


<b>Corner drive for pitched windows</b>	1 E	<b>260279</b>
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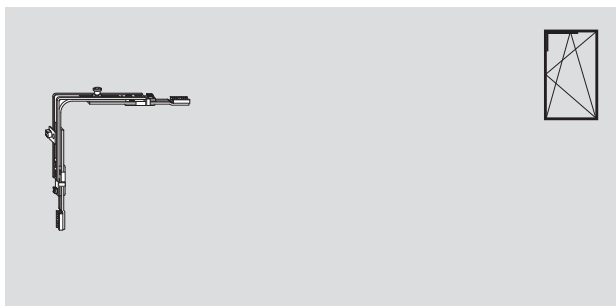
<b>Corner drive for pitched windows</b>	1 V	<b>260278</b>
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Corner drive

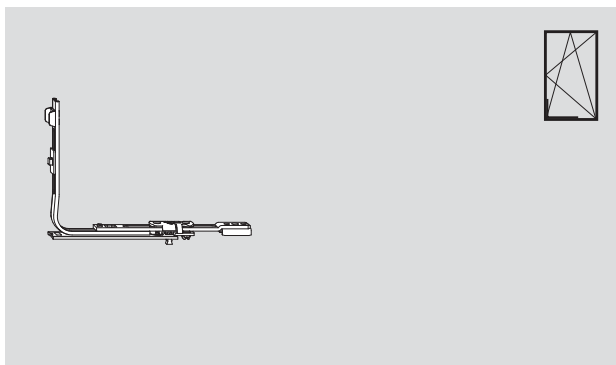
## Miscellaneous corner drives



Description	Locking cam	Material no.
<b>Standard corner drive with hook</b>	1 E	<b>365301</b>

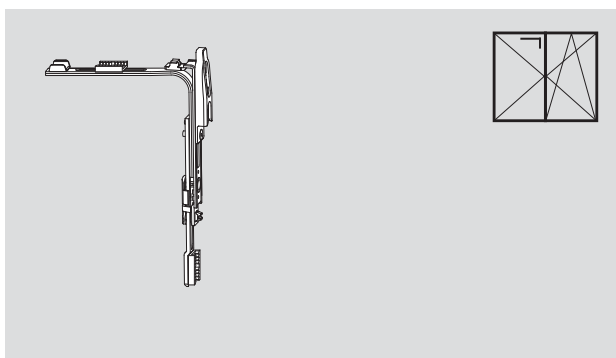


<b>Night-vent corner drive</b>		
9 mm hardware axis	1 P L	<b>389819</b>
	1 P R	<b>389818</b>
13 mm hardware axis	1 P L	<b>389817</b>
	1 P R	<b>389816</b>



<b>Corner drive for negative backset and reverse-action espagnolettes and T&amp;T espagnolettes</b>		
Espagnolette side-tilter		
	w/o cam	<b>383480</b>
	1 V	<b>533749</b>

<b>Corner drive for negative backset and reverse-action espagnolettes, T&amp;T espagnolettes</b>		
Espagnolette side-tilter		
Lever-operated espagnolette side-tilter		
	w/o cam	<b>383480</b>
	1 V	<b>533749</b>



<b>Special corner drive with striker and shootbolt protrusion</b>		<b>484686</b>
-------------------------------------------------------------------	--	---------------

Corner drive





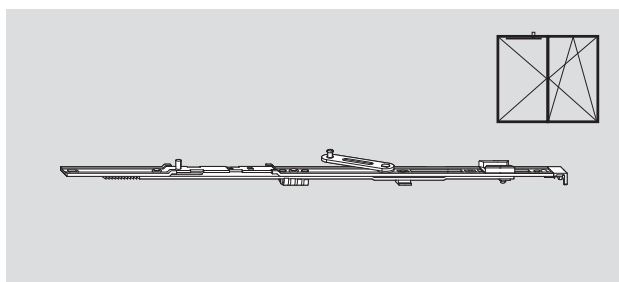
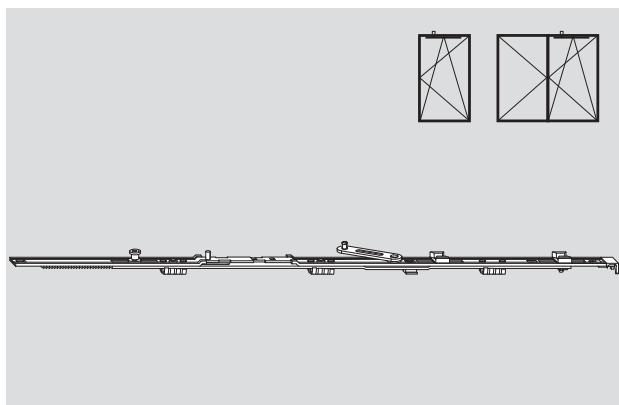
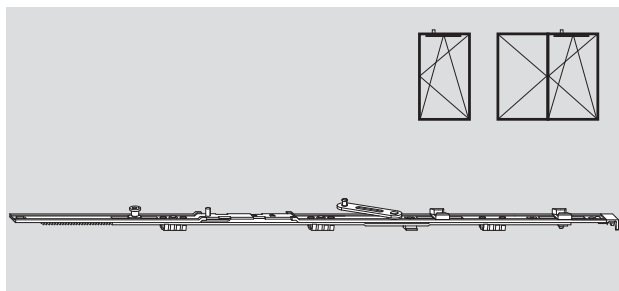
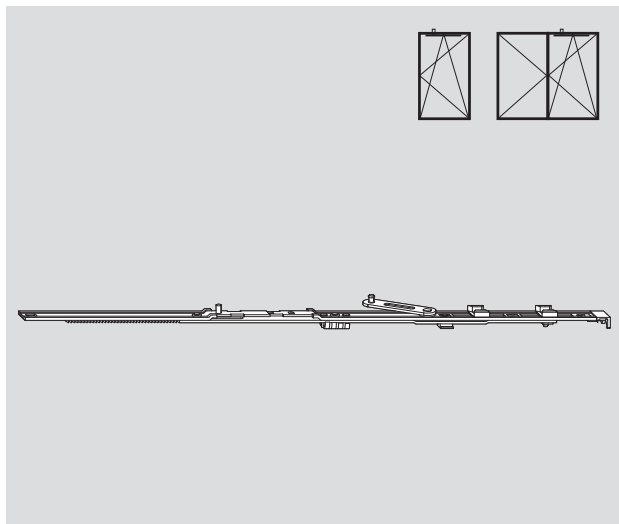


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# Stay guide

## Basic security

### Security



SRW/mm	Description / size	Locking cam	Material no.
<b>Stay guide</b>			
290 – 410	Stay guide 150 / 300		<b>260201</b>
411 – 600	Stay guide 250 / 490		<b>256024</b>
601 – 800	Stay guide 350 / 690		<b>260204</b>
801 – 1000	Stay guide 500 / 890		<b>260205</b>
801 – 1000	Stay guide 500 / 890	1 E	<b>260208</b>
1001 – 1200	Stay guide 500 / 1090		<b>260209</b>
1001 – 1200	Stay guide 500 / 1090	1 E	<b>260212</b>
1201 – 1600 <sup>1)</sup>	Stay guide 500 / 1290	1 E	<b>260215</b>

<b>Stay guide without blocker <sup>4)</sup></b>			
290 – 410	Stay guide 150 / 300		<b>288150</b>
411 – 600	Stay guide 250 / 490		<b>284217</b>
601 – 800	Stay guide 350 / 690		<b>284218</b>
801 – 1000	Stay guide 500 / 890	1 E	<b>284219</b>
1001 – 1200	Stay guide 500 / 1090	1 E	<b>284216</b>
1201 – 1600 <sup>1)</sup>	Stay guide 500 / 1290	1 E	<b>286496</b>

<b>Security stay guide</b>			
801 – 1000	Stay guide 500 / 890	1 V	<b>260206</b>
1001 – 1200	Stay guide 500 / 1090	1 V	<b>260210</b>
1201 – 1400	Stay guide 500 / 1290	1 V	<b>260213</b>

<b>Security stay guide without blocker <sup>4)</sup></b>			
801 – 1000	Stay guide 500 / 890	1 V	<b>287528</b>
1001 – 1200	Stay guide 500 / 1090	1 V	<b>287530</b>
1201 – 1400	Stay guide 500 / 1290	1 V	<b>287531</b>

<b>Security stay guide RC3</b>			
801 – 1000	Stay guide 350 / 890	1 V	<b>261752</b>
1001 – 1400 <sup>3)</sup>	Stay guide 350 / 890	1 V	<b>261752</b>
	+1 MV 200 CON	1 V	<b>337708</b>

<b>Security stay guide RC3 without blocker <sup>4)</sup></b>			
801 – 1000	Stay guide 350 / 890	1 V	<b>288073</b>
1001 – 1400 <sup>3)</sup>	Stay guide 350 / 890	1 V	<b>288073</b>
	+1 MV 200 CON	1 V	<b>337708</b>

<b>Turn-Only stay guide</b>			
290 – 410	TU-ON stay guide 150 / 300		<b>255957</b>
411 – 600	TU-ON stay guide 250 / 490		<b>255967</b>
601 – 800	TU-ON stay guide 350 / 690		<b>257137</b>
801 – 1600 <sup>2)</sup>	TU-ON stay guide 500 / 890	1 E	<b>257138</b>

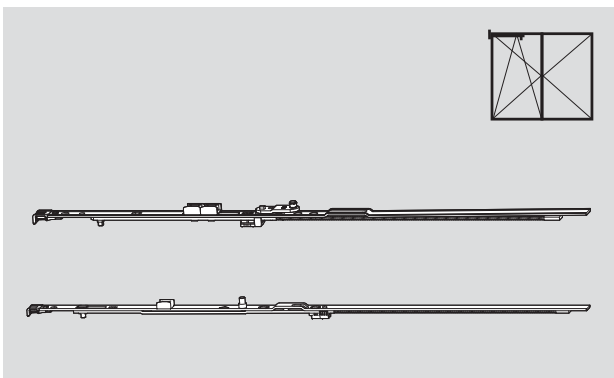
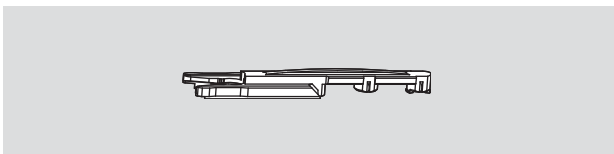
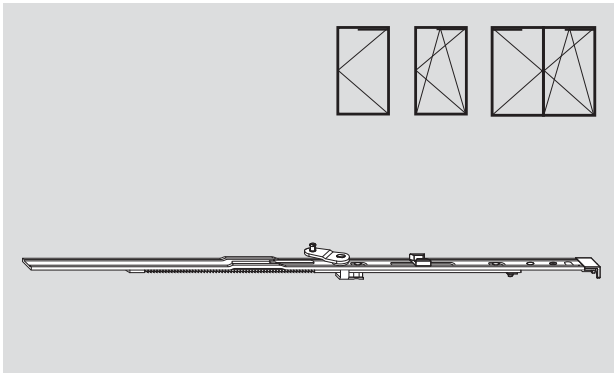
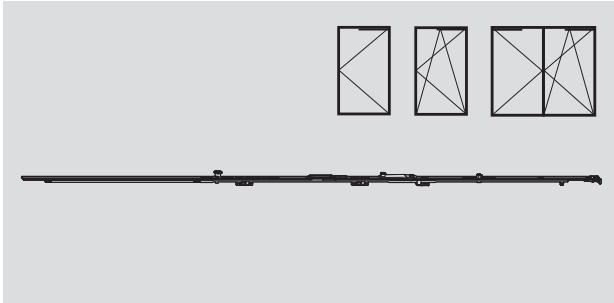
<b>Security Turn-Only stay guide</b>			
801 – 1400 <sup>2)</sup>	TU-ON stay guide 500 / 890	1 V	<b>257139</b>

1) From SRW 1400 mm additional scissor stay required  
 2) From SRW 1001 mm with espagnolette extension  
 3) From SRW 1201 mm additional scissor stay required  
 4) Only with additional mishandling device or arrestable ventilation-stay

## Stay guide

### Roto NT Royal

### Roto NT Designo and Designo II



SRW/mm                      Description / length                      Locking cam                      Material no.

<b>Stay guide NT Royal</b>			
360 – 410	Stay guide	250 / 300	<b>570222</b>
411 – 600	Stay guide	250 / 490	<b>570223</b>
601 – 800	Stay guide	250 / 690	<b>570224</b>
801 – 1000	Stay guide	450 / 890	1 E <b>570345</b>
1001 – 1400 <sup>1)</sup>	Stay guide	450 / 1090	1 E <b>570346</b>

<b>Security stay guide NT Royal</b>			
801 – 1000	Stay guide	450 / 890	1 E <b>601551</b>
1001 – 1400 <sup>1)</sup>	Stay guide	450 / 1090	1 E <b>601552</b>

<b>Stay guide NT Designo and Designo II</b>			
330 – 430 <sup>2) 3)</sup>	Stay guide	250 / 490	<b>385393</b>
431 – 600	Stay guide	250 / 490	<b>385393</b>
601 – 800	Stay guide	350 / 690	<b>385394</b>
801 – 1000	Stay guide	500 / 890	1 E <b>385415</b>
1001 – 1400 <sup>1)</sup>	Stay guide	500 / 1090	1 E <b>385416</b>

<b>Security stay guide NT Designo and Designo II</b>			
801 – 1000	Stay guide	500 / 890	1 V <b>450373</b>
1001 – 1400 <sup>1)</sup>	Stay guide	500 / 1090	1 V <b>450374</b>

<b>Anti-slam device 80 mm NT Designo and Designo II</b>		<b>487206</b>
(for stay guide 250 Designo and Designo II 385393)		

<b>Security Turn-Only stay guide, NT Designo and Designo II</b>			
430 – 510	TU-ON stay guide	250 / 510	<b>482571</b>
511 – 1400 <sup>4)</sup>	TU-ON stay guide	250 / 1400	<b>473381</b>

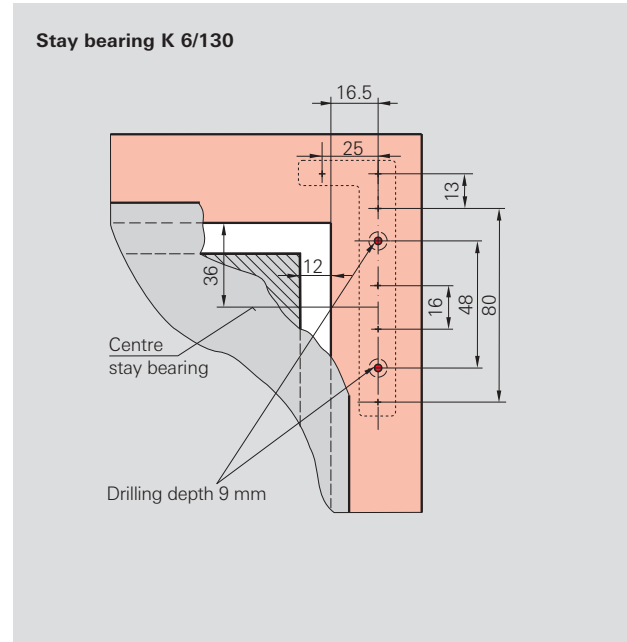
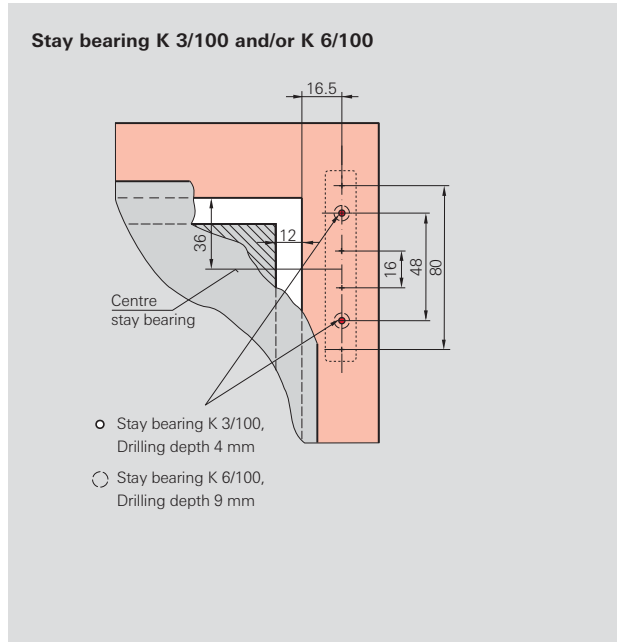
Stay guide  
Stay arm  
Stay bearing

1) Additional scissor stay required from SRW 1201 mm  
 2) With special corner drive  
 3) For 80 mm tilt-depth with anti-slam device 80 mm Designo  
 4) From SRW 711–1400 mm with espagnolette extension

## Stay arm

Hinge side K







System 12/18-9



# Stay arm

## Hinge side K

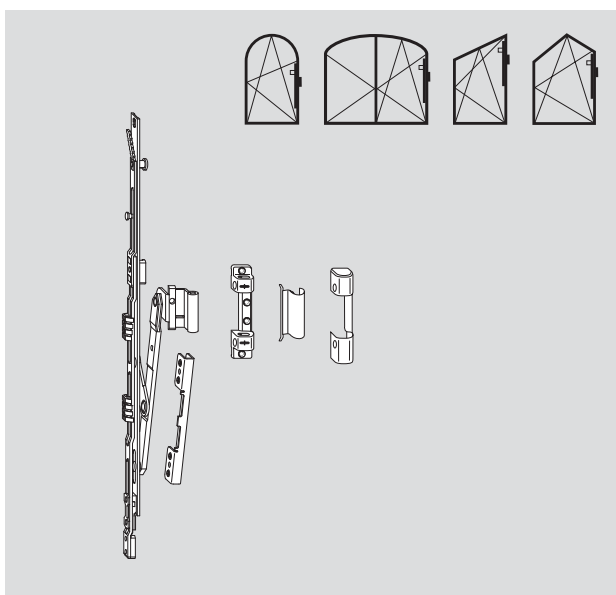
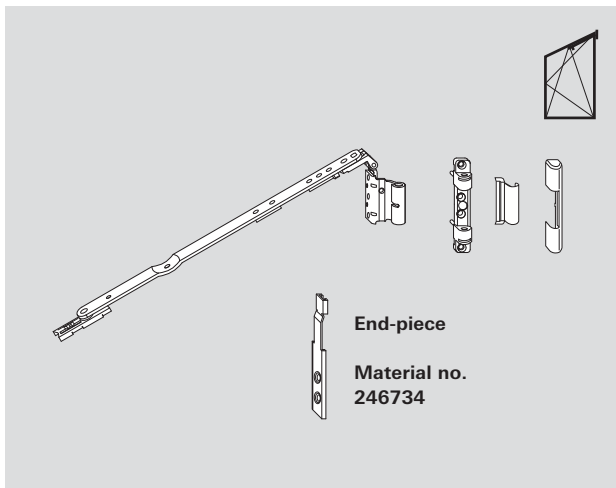
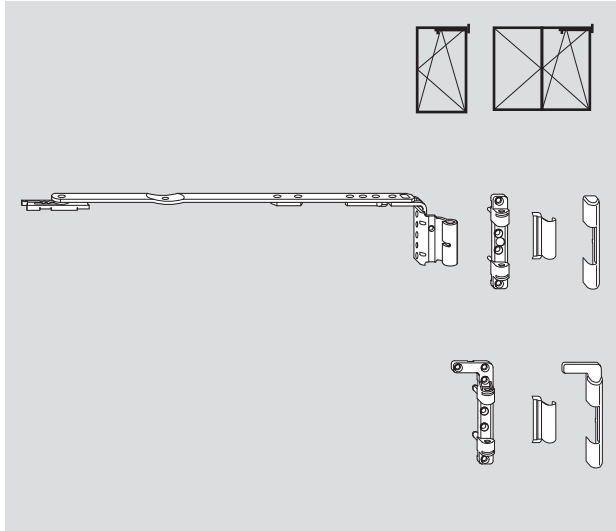
### Cover caps

Description	 <b>Cover cap Stay-arm hinge K</b> Also for pitched stay-arms	 <b>Cover cap Stay-arm hinge K Without base-plate</b>	 <b>Cover cap Stay bearing K 100 kg</b>	 <b>Cover cap Arched windows Stay-arm hinge K</b>	 <b>Cover cap Stay bearing K adjustable</b>	 <b>Cover cap Stay bearing K 130 kg</b>
	Material no.	Material no.	Material no.	Material no.	Material no.	Material no.
R01.1 Silver	<b>230243</b>		<b>230195</b>	<b>231355</b>	<b>230304</b>	L <b>230211</b> R <b>230212</b>
R01.2 Nickel silver	<b>230244</b>		<b>230196</b>	<b>231356</b>	<b>230305</b>	L <b>230213</b> R <b>230214</b>
R01.3 Titanium-matt	<b>329179</b>		<b>329180</b>	<b>329892</b>	<b>329183</b>	L <b>329181</b> R <b>329182</b>
R03.1 Brass matt	<b>230246</b>	<b>642367</b>	<b>230199</b>	<b>642358</b>	<b>642354</b>	L <b>642349</b> R <b>642350</b>
R03.2 Polished brass	<b>230245</b>		<b>230198</b>	<b>213047</b>	<b>230307</b>	L <b>230217</b> R <b>230218</b>
R04.1 Grey-brown	<b>230251</b>		<b>230204</b>		<b>230313</b>	L <b>230229</b> R <b>230230</b>
R04.3 Olive-brown	<b>230248</b>		<b>230201</b>	<b>213046</b>	<b>230310</b>	L <b>230223</b> R <b>230224</b>
R04.4 Black-brown	<b>230247</b>		<b>230200</b>	<b>213045</b>	<b>230309</b>	L <b>230221</b> R <b>230222</b>
R05.3 Medium bronze	<b>230249</b>		<b>230202</b>	<b>231366</b>	<b>230311</b>	L <b>230225</b> R <b>230226</b>
R05.5 Bronze	<b>230250</b>		<b>230203</b>	<b>637885</b>	<b>637881</b>	L <b>637876</b> R <b>637877</b>
R07.2 White	<b>230252</b>		<b>230205</b>	<b>213044</b>	<b>230314</b>	L <b>230231</b> R <b>230232</b>
RAL 9016			<b>230253</b>			
Special colour	<b>230254</b>		<b>230206</b>	<b>213049</b>	<b>230315</b>	

# Stay arm

## Hinge side K

### System 12/18-9



**12 mm clearance**  
**18 mm overlap width**  
**9 mm hardware axis**

**Stay arm K, system 12/18-9, max. sash weight 130 kg**

SRW/mm	Size		Material no.
290 – 410	150	L	<b>258048</b>
		R	<b>258049</b>
411 – 600 <sup>1)</sup>	250	L	<b>258050</b>
		R	<b>258051</b>
601 – 800 <sup>1)</sup>	350	L	<b>258052</b>
		R	<b>258053</b>
801 – 1400 <sup>1)</sup>	500	L	<b>258037</b>
		R	<b>258038</b>

**Stay bearing K 3/100<sup>(\*)</sup>, max. sash weight 100 kg** **230177**  
2 x Ø 3 mm supporting-pins

**Stay bearing K 6/100<sup>(\*)</sup> not dep., max. sash weight 100 kg** **230178**  
2 x Ø 5.8 mm supporting-pins

**Stay bearing K 6/130<sup>(\*)</sup> not dep., max. sash weight 130 kg** L **230179**  
2 x Ø 5.8 mm supporting-pins R **230180**

**Stay arm K, system 12/18-9 for pitched windows**  
**Max. sash weight 80 kg**

SRW / leg length	Size		Material no.
290 – 410	150	L	<b>245359</b>
		R	<b>245365</b>
411 – 600 <sup>1)</sup>	250	L	<b>245367</b>
		R	<b>245368</b>
601 – 800 <sup>1)</sup>	350	L	<b>245369</b>
		R	<b>245370</b>
801 – 1400 <sup>1)</sup>	500	L	<b>245371</b>
		R	<b>245374</b>

**Stay bearing K 3/100<sup>(\*)</sup>, max. sash weight 100 kg** **230177**  
2 x Ø 3 mm supporting-pins

**Stay bearing K 6/100<sup>(\*)</sup> not dep., max. sash weight 100 kg** **230178**  
2 x Ø 5.8 mm supporting-pins

**Arched window set consists of:**

**Arched stay arm / Arched window retainer / Run-up block housing**  
**Max. sash weight 80 kg**

Description		Material no.
Arched window set K 12/18-9	1 E	<b>245690</b>
Arched window set K 12/18-9	1 V	<b>245689</b>

**Stay bearing K 3/100, adjustable<sup>(\*)</sup> for** **245706**  
**arched windows and TU-ON and/or TI-ON sashes, not dep.**  
2 x Ø 3 mm supporting-pins, laterally adjustable

**Stay bearing K 6/100, adjustable<sup>(\*)</sup> for** **245707**  
**arched windows and TU-ON and/or TI-ON sashes, not dep.**  
2 x Ø 5.8 mm supporting-pins, laterally adjustable

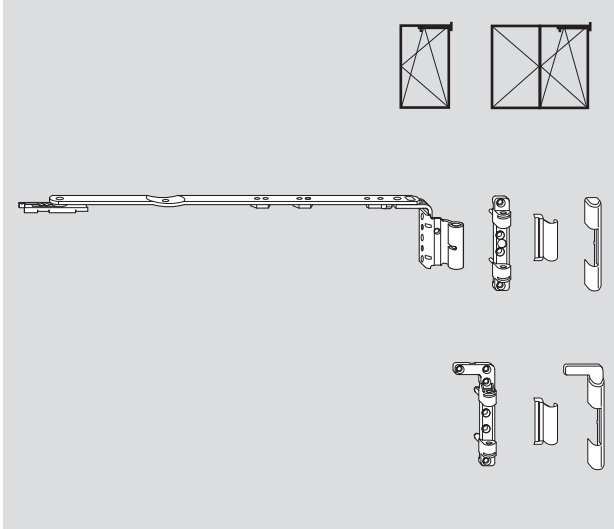
**(\*) In addition: Stay-bearing pin** **227354**

<sup>1)</sup> Stay arm K – On SRH < 500 mm the tilt-depth must be limited to 80 mm

# Stay arm

## Hinge side K

### System 12/18-9 (Tilt-First)



**12 mm clearance**  
**18 mm overlap width**  
**9 mm hardware axis**

**Stay arm K, system 12/18-9 TF, max. sash weight 130 kg**

SRW/mm	Size		Material no.
290 – 410	150	L	<b>260216</b>
		R	<b>260217</b>
411 – 600 <sup>1)</sup>	250	L	<b>260218</b>
		R	<b>260219</b>
601 – 800 <sup>1)</sup>	350	L	<b>260220</b>
		R	<b>260221</b>
801 – 1400 <sup>1)</sup>	500	L	<b>260222</b>
		R	<b>260223</b>

**Stay bearing K 3/100<sup>(\*)</sup>, max. sash weight 100 kg** **230177**

2 x Ø 3 mm supporting-pins  
 White coated **595149**

**Stay bearing K 6/100<sup>(\*)</sup> not dep., max. sash weight 100 kg** **230178**

2 x Ø 5.8 mm supporting-pins

**Stay bearing K 6/130<sup>(\*)</sup>, max. sash weight 130 kg** L **230179**

2 x Ø 5.8 mm supporting-pins R **230180**

**(\*) In addition: Stay-bearing pin** **227354**

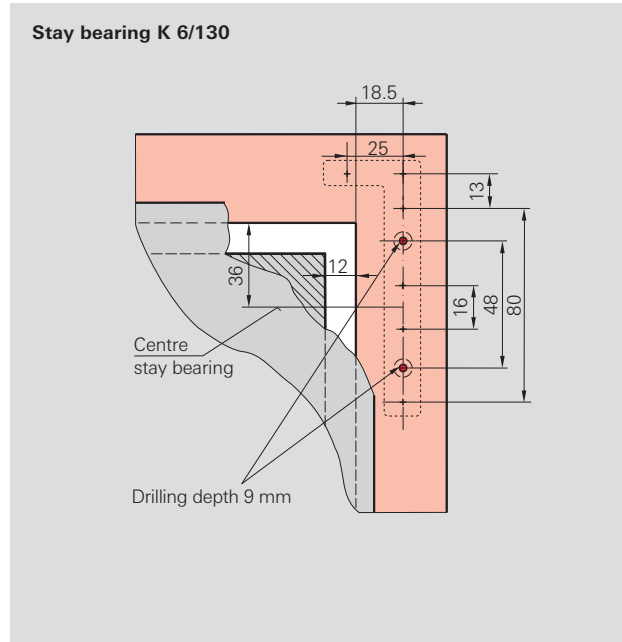
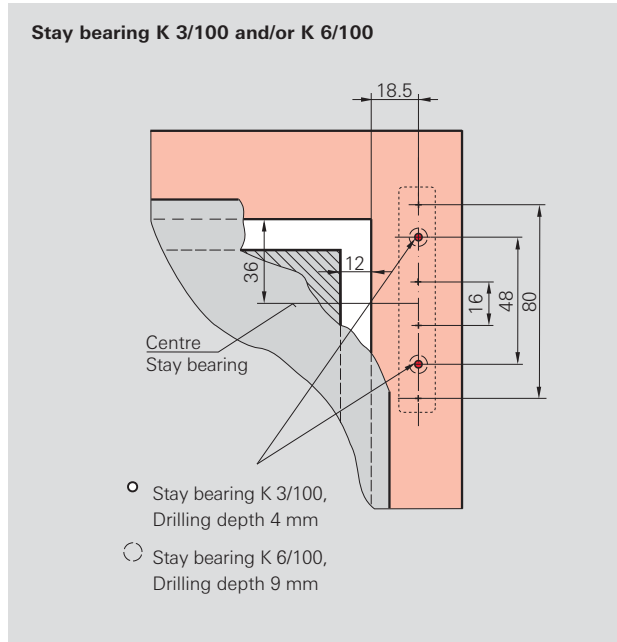
1) Stay arm K – On SRH < 500 mm the tilt-depth must be limited to 80 mm

Stay guide  
 Stay arm  
 Stay bearing

## Stay arm

Hinge side K

System 12/20-9











# Stay arm

## Hinge side K

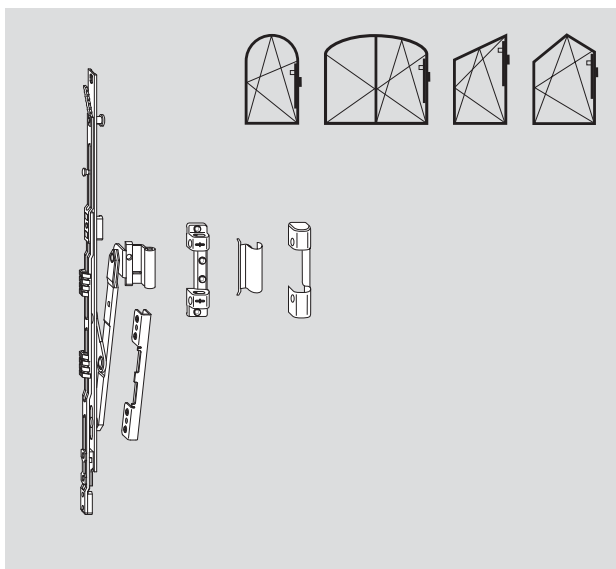
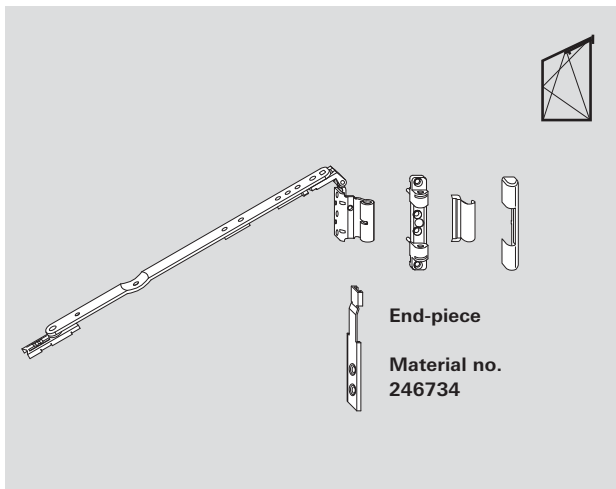
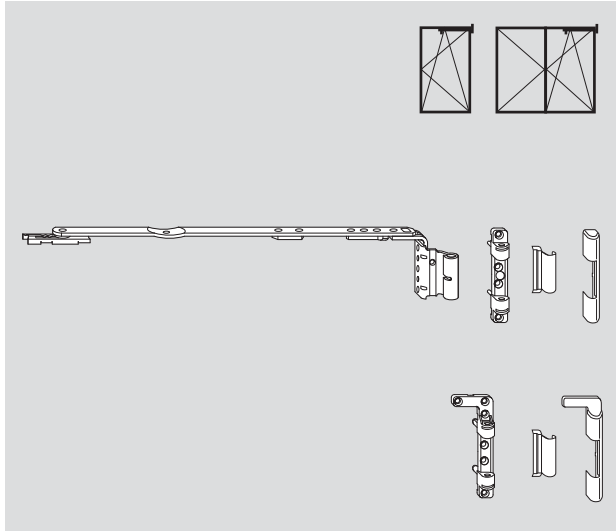
### Cover caps

Description	 <b>Cover cap Stay-arm hinge K</b> Also for pitched stay-arms	 <b>Cover cap Stay-arm hinge K Without base-plate</b>	 <b>Cover cap Stay bearing K 100 kg</b>	 <b>Cover cap Arched windows Stay-arm hinge K</b>	 <b>Cover cap Stay bearing K adjustable</b>	 <b>Cover cap Stay bearing K 130 kg</b>
	Material no.	Material no.	Material no.	Material no.	Material no.	Material no.
R01.1 Silver	<b>230243</b>		<b>230195</b>	<b>231355</b>	<b>230304</b>	L <b>230211</b> R <b>230212</b>
R01.2 Nickel silver	<b>230244</b>		<b>230196</b>	<b>231356</b>	<b>230305</b>	L <b>230213</b> R <b>230214</b>
R01.3 Titanium-matt	<b>329179</b>		<b>329180</b>	<b>329892</b>	<b>329183</b>	L <b>329181</b> R <b>329182</b>
R03.1 Brass matt	<b>230246</b>	<b>642367</b>	<b>230199</b>	<b>642358</b>	<b>642354</b>	L <b>642349</b> R <b>642350</b>
R03.2 Polished brass	<b>230245</b>		<b>230198</b>	<b>213047</b>	<b>230307</b>	L <b>230217</b> R <b>230218</b>
R04.1 Grey-brown	<b>230251</b>		<b>230204</b>		<b>230313</b>	L <b>230229</b> R <b>230230</b>
R04.3 Olive-brown	<b>230248</b>		<b>230201</b>	<b>213046</b>	<b>230310</b>	L <b>230223</b> R <b>230224</b>
R04.4 Black-brown	<b>230247</b>		<b>230200</b>	<b>213045</b>	<b>230309</b>	L <b>230221</b> R <b>230222</b>
R05.3 Medium bronze	<b>230249</b>		<b>230202</b>	<b>231366</b>	<b>230311</b>	L <b>230225</b> R <b>230226</b>
R05.5 Bronze	<b>230250</b>		<b>230203</b>	<b>637885</b>	<b>637881</b>	L <b>637876</b> R <b>637877</b>
R07.2 White	<b>230252</b>		<b>230205</b>	<b>213044</b>	<b>230314</b>	L <b>230231</b> R <b>230232</b>
Special colour	<b>230254</b>		<b>230206</b>	<b>213049</b>	<b>230315</b>	

## Stay arm

### Hinge side K

### System 12/20-9



12 mm clearance  
20 mm overlap width  
9 mm hardware axis

#### Stay arm K<sup>1)</sup>, system 12/20-9, max. sash weight 130 kg

SRW/mm	Size		Material no.
290 – 410	150	L	<b>258054</b>
		R	<b>258055</b>
411 – 600 <sup>1)</sup>	250	L	<b>258056</b>
		R	<b>258057</b>
601 – 800 <sup>1)</sup>	350	L	<b>258058</b>
		R	<b>258059</b>
801 – 1400 <sup>1)</sup>	500	L	<b>258039</b>
		R	<b>258041</b>

**Stay bearing K 3/100<sup>(\*)</sup>**, max. sash weight 100 kg **230177**  
2 x Ø 3 mm supporting-pins

**Stay bearing K 6/100<sup>(\*)</sup>** not dep., max. sash weight 100 kg **230178**  
2 x Ø 5.8 mm supporting-pins

**Stay bearing K 6/130<sup>(\*)</sup>**, max. sash weight 130 kg L **230179**  
2 x Ø 5.8 mm supporting-pins R **230180**

#### Stay arm K, system 12/20-9 for pitched windows Max. sash weight 80 kg

SRW / leg length	Size		Material no.
290 – 410	150	L	<b>245375</b>
		R	<b>245376</b>
411 – 600 <sup>1)</sup>	250	L	<b>245377</b>
		R	<b>245378</b>
601 – 800 <sup>1)</sup>	350	L	<b>245379</b>
		R	<b>245380</b>
801 – 1400 <sup>1)</sup>	500	L	<b>245381</b>
		R	<b>245382</b>

**Stay bearing K 3/100<sup>(\*)</sup>**, max. sash weight 100 kg **230177**  
2 x Ø 3 mm supporting-pins

**Stay bearing K 6/100<sup>(\*)</sup>** not dep., max. sash weight 100 kg **230178**  
2 x Ø 5.8 mm supporting-pins

#### Arched window set consists of:

**Arched stay arm / Arched window retainer / Run-up block housing**  
**Max. sash weight 80 kg**

Description		Material no.
Arched window set K 12/20-9	1 E	<b>245692</b>
Arched window set K 12/20-9	1 V	<b>245691</b>

**Stay bearing K 3/100, adjustable<sup>(\*)</sup>** for **245706**  
**arched windows and TU-ON and/or TI-ON sashes**  
2 x Ø 3 mm supporting-pins, laterally adjustable

**Stay bearing K 6/100, adjustable<sup>(\*)</sup>** for **245707**  
**arched windows and TU-ON and/or TI-ON sashes, not dep.**  
2 x Ø 5.8 mm supporting-pins, laterally adjustable

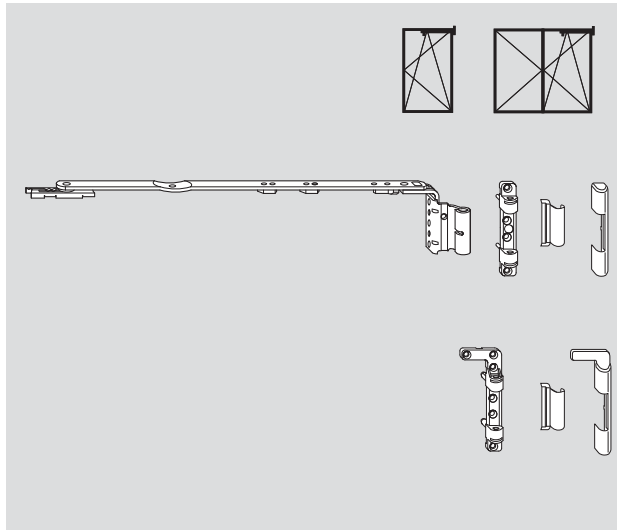
**(\*) In addition: Stay-bearing pin **227354****

1) Stay arm K – On SRH < 500 mm the tilt-depth must be limited to 80 mm

# Stay arm

## Hinge side K

### System 12/20-9 (Tilt-First)



12 mm clearance  
20 mm overlap width  
9 mm hardware axis

#### Stay arm K, system 12/20-9 TF, max. sash weight 130 kg

SRW/mm	Size		Material no.
290 – 410	150	L	<b>260224</b>
		R	<b>260225</b>
411 – 600 <sup>1)</sup>	250	L	<b>260226</b>
		R	<b>260227</b>
601 – 800 <sup>1)</sup>	350	L	<b>260228</b>
		R	<b>260229</b>
801 – 1400 <sup>1)</sup>	500	L	<b>260230</b>
		R	<b>260231</b>

**Stay bearing K 3/100<sup>(\*)</sup>**, max. sash weight 100 kg **230177**  
2 x Ø 3 mm supporting-pins

**Stay bearing K 6/100<sup>(\*)</sup>** not dep., max. sash weight 100 kg **230178**  
2 x Ø 5.8 mm supporting-pins

**Stay bearing K 6/130<sup>(\*)</sup>**, max. sash weight 130 kg L **230179**  
2 x Ø 5.8 mm supporting-pins R **230180**

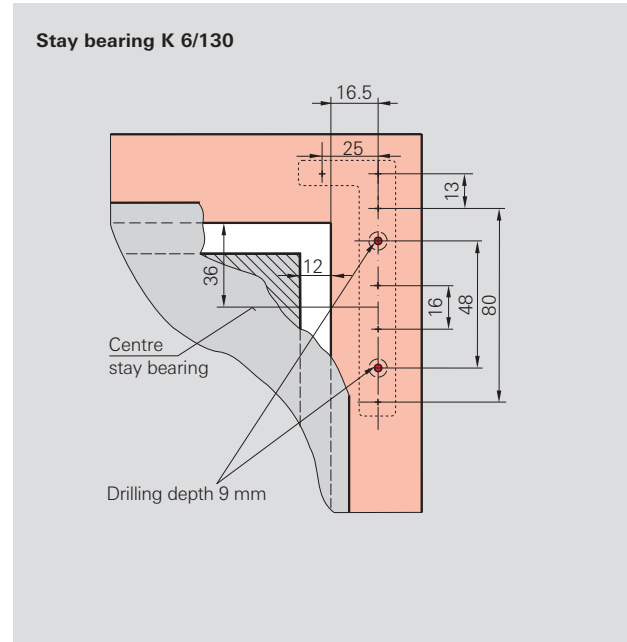
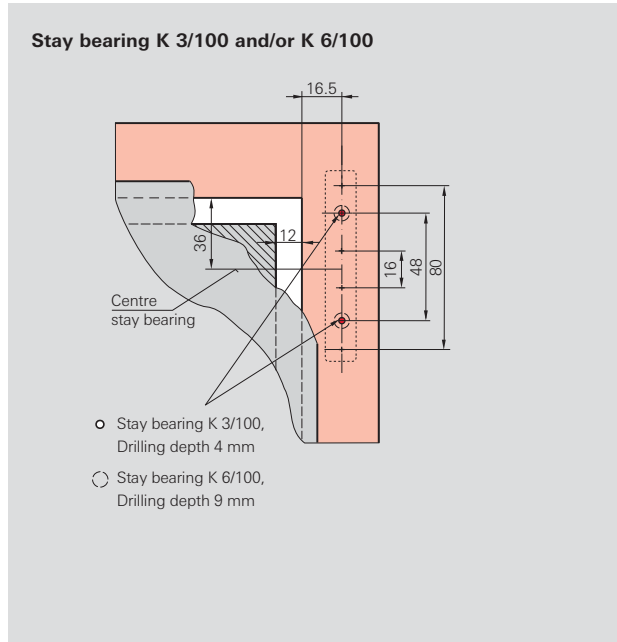
**(\*) In addition: Stay-bearing pin 227354**

<sup>1)</sup> Stay arm K – On SRH < 500 mm the tilt-depth must be limited to 80 mm

## Stay arm

Hinge side K

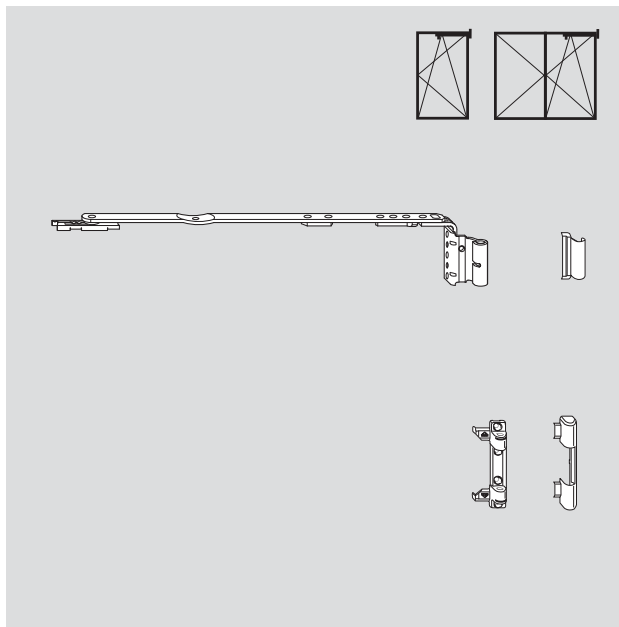
System 12/18-13



# Stay arm

## Hinge side K

### System 12/18-13



**12 mm clearance**  
**18 mm overlap width**  
**13 mm hardware axis**

#### Stay arm K, system 12/18-13, max. sash weight 100 kg

SRW/mm	Size		Material no.
290 – 410	150	L	<b>349687</b>
		R	<b>349688</b>
411 – 600 (1)	250	L	<b>349689</b>
		R	<b>349690</b>
601 – 800 (1)	350	L	<b>349691</b>
		R	<b>349692</b>
801 – 1400 (1)	500	L	<b>349693</b>
		R	<b>349694</b>

**Stay bearing A<sup>(\*)</sup> 12/18-13**, max. 100 kg **245709**  
 Suitable for installation without jigs

**(\*) In addition: Stay-bearing pin** **227354**

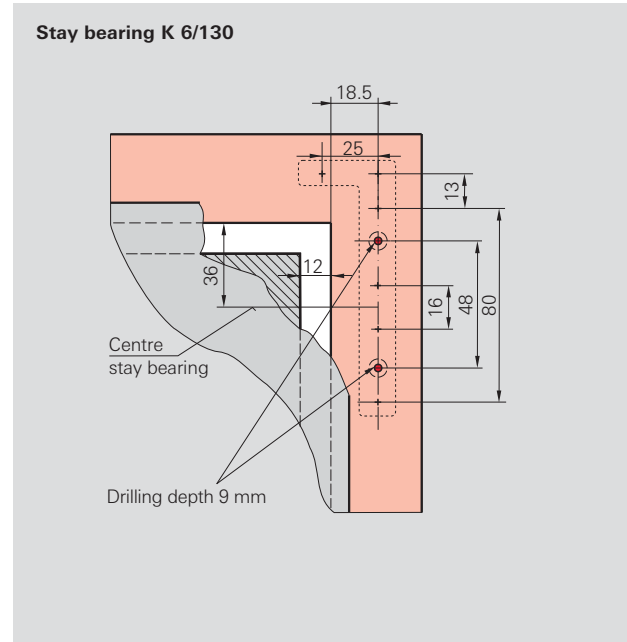
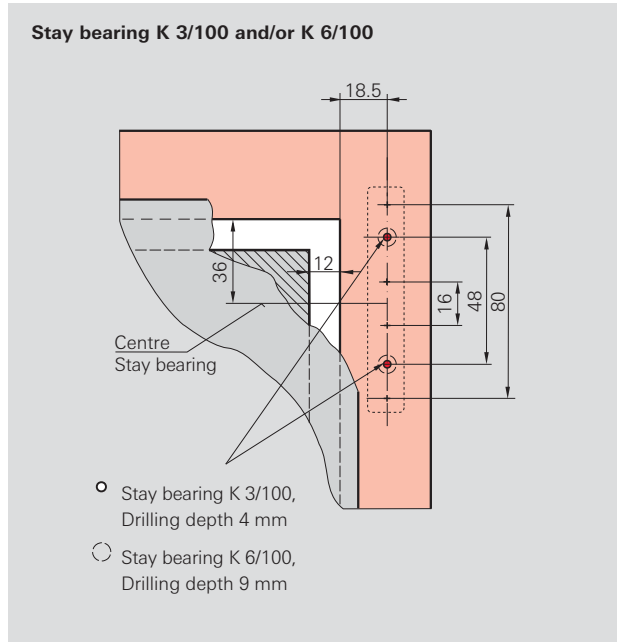
For cover caps refer to the table on the left hand page

1) Stay arm K – On SRH < 500 mm the tilt-depth must be limited to 80 mm

## Stay arm

Hinge side K







System 12/20-13



# Stay arm

## Hinge side K

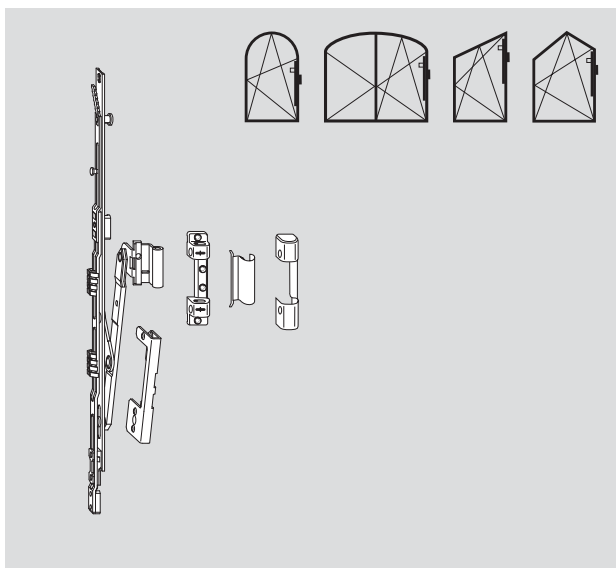
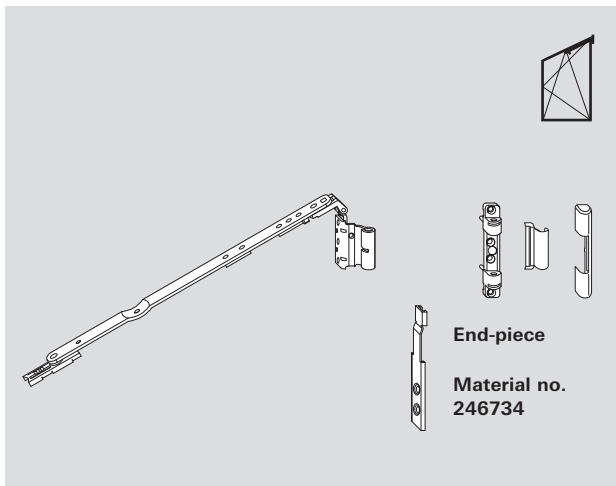
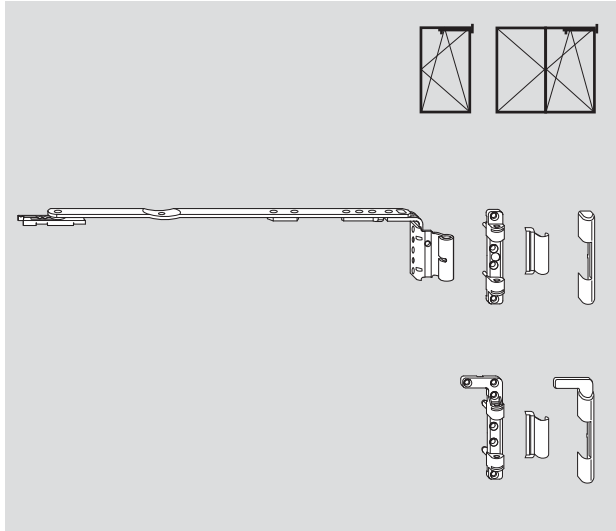
### Cover caps

Description	 <b>Cover cap Stay-arm hinge K</b> Also for pitched stay-arms	 <b>Cover cap Stay-arm hinge K</b> Without base-plate	 <b>Cover cap Stay bearing K</b> 100 kg	 <b>Cover cap Arched windows Stay-arm hinge K</b>	 <b>Cover cap Stay bearing K adjustable</b>	 <b>Cover cap Stay bearing K</b> 130 kg
	Material no.	Material no.	Material no.	Material no.	Material no.	Material no.
R01.1 Silver	<b>230243</b>		<b>230195</b>	<b>231355</b>	<b>230304</b>	L <b>230211</b> R <b>230212</b>
R01.2 Nickel silver	<b>230244</b>		<b>230196</b>	<b>231356</b>	<b>230305</b>	L <b>230213</b> R <b>230214</b>
R01.3 Titanium-matt	<b>329179</b>		<b>329180</b>	<b>329892</b>	<b>329183</b>	L <b>329181</b> R <b>329182</b>
R03.1 Brass matt	<b>230246</b>	<b>642367</b>	<b>230199</b>	<b>642358</b>	<b>642354</b>	L <b>642349</b> R <b>642350</b>
R03.2 Polished brass	<b>230245</b>		<b>230198</b>	<b>213047</b>	<b>230307</b>	L <b>230217</b> R <b>230218</b>
R04.1 Grey-brown	<b>230251</b>		<b>230204</b>		<b>230313</b>	L <b>230229</b> R <b>230230</b>
R04.3 Olive-brown	<b>230248</b>		<b>230201</b>	<b>213046</b>	<b>230310</b>	L <b>230223</b> R <b>230224</b>
R04.4 Black-brown	<b>230247</b>		<b>230200</b>	<b>213045</b>	<b>230309</b>	L <b>230221</b> R <b>230222</b>
R05.3 Medium bronze	<b>230249</b>		<b>230202</b>	<b>231366</b>	<b>230311</b>	L <b>230225</b> R <b>230226</b>
R05.5 Bronze	<b>230250</b>		<b>230203</b>	<b>637885</b>	<b>637881</b>	L <b>637876</b> R <b>637877</b>
R07.2 White	<b>230252</b>		<b>230205</b>	<b>213044</b>	<b>230314</b>	L <b>230231</b> R <b>230232</b>
Special colour	<b>230254</b>		<b>230206</b>	<b>213049</b>	<b>230315</b>	

## Stay arm

### Hinge side K

### System 12/20-13



**12 mm clearance**  
**20 mm overlap width**  
**13 mm hardware axis**

#### Stay arm K, system 12/20-13, max. sash weight 130 kg

SRW/mm	Size		Material no.
290 – 410	150	L	<b>258060</b>
		R	<b>258061</b>
411 – 600 <sup>1)</sup>	250	L	<b>258062</b>
		R	<b>258063</b>
601 – 800 <sup>1)</sup>	350	L	<b>258064</b>
		R	<b>258065</b>
801 – 1400 <sup>1)</sup>	500	L	<b>258042</b>
		R	<b>258043</b>

**Stay bearing K 3/100<sup>(\*)</sup>**, max. sash weight 100 kg **230177**  
2 x Ø 3 mm supporting-pins

**Stay bearing K 6/100<sup>(\*)</sup>** not dep., max. sash weight 100 kg **230178**  
2 x Ø 5.8 mm supporting-pins

**Stay bearing K 6/130<sup>(\*)</sup>**, max. sash weight 130 kg L **230179**  
2 x Ø 5.8 mm supporting-pins R **230180**

#### Stay arm K, system 12/20-13 for pitched windows Max. sash weight 80 kg

SRW / leg length	Size		Material no.
290 – 410	150	L	<b>245383</b>
		R	<b>245384</b>
411 – 600 <sup>1)</sup>	250	L	<b>245385</b>
		R	<b>245386</b>
601 – 800 <sup>1)</sup>	350	L	<b>245387</b>
		R	<b>245388</b>
801 – 1400 <sup>1)</sup>	500	L	<b>245389</b>
		R	<b>245390</b>

**Stay bearing K 3/100<sup>(\*)</sup>**, max. sash weight 100 kg **230177**  
2 x Ø 3 mm supporting-pins

**Stay bearing K 6/100<sup>(\*)</sup>** not dep., max. sash weight 100 kg **230178**  
2 x Ø 5.8 mm supporting-pins

#### Arched window set consists of:

**Arched stay arm / Arched window retainer / Run-up block housing**  
**Max. sash weight 80 kg**

Description			Material no.
Arched window set K 12/20-13	1 E	L	<b>245695</b>
Arched window set K 12/20-13	1 E	R	<b>245696</b>
Arched window set K 12/20-13	1 V	L	<b>245693</b>
Arched window set K 12/20-13	1 V	R	<b>245694</b>

**Stay bearing K 3/100, adjustable<sup>1)</sup> for** **245706**  
**arched windows and TU-ON and/or TI-ON sashes**  
2 x Ø 3 mm supporting-pins, laterally adjustable

**Stay bearing K 6/100, adjustable<sup>(\*)</sup> for** **245707**  
**arched windows and TU-ON and/or TI-ON sashes, not dep.**  
2 x Ø 5.8 mm supporting-pins, laterally adjustable

**(\*) In addition: Stay-bearing pin** **227354**

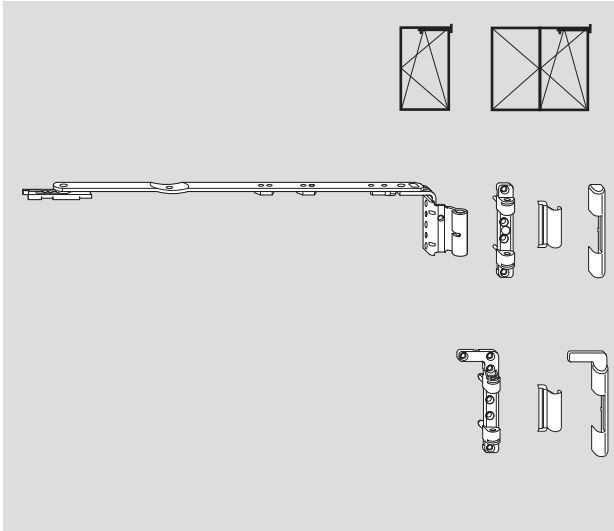
1) Stay arm K – On SRH < 500 mm the tilt-depth must be limited to 80 mm



# Stay arm

## Hinge side K

### System 12/20-13 (Tilt-First)



12 mm clearance  
20 mm overlap width  
13 mm hardware axis

#### Stay arm K, system 12/20-13 TF, max. sash weight 130 kg

SRW/mm	Size		Material no.
290 – 410	150	L	<b>260232</b>
		R	<b>260233</b>
411 – 600 <sup>1)</sup>	250	L	<b>260234</b>
		R	<b>260235</b>
601 – 800 <sup>1)</sup>	350	L	<b>260236</b>
		R	<b>260237</b>
801 – 1400 <sup>1)</sup>	500	L	<b>260238</b>
		R	<b>260239</b>

**Stay bearing K 3/100<sup>(\*)</sup>**, max. sash weight 100 kg **230177**  
2 x Ø 3 mm supporting-pins

**Stay bearing K 6/100<sup>(\*)</sup>** not dep., max. sash weight 100 kg **230178**  
2 x Ø 5.8 mm supporting-pins

**Stay bearing K 6/130<sup>(\*)</sup>**, max. sash weight 130 kg L **230179**  
2 x Ø 5.8 mm supporting-pins R **230180**

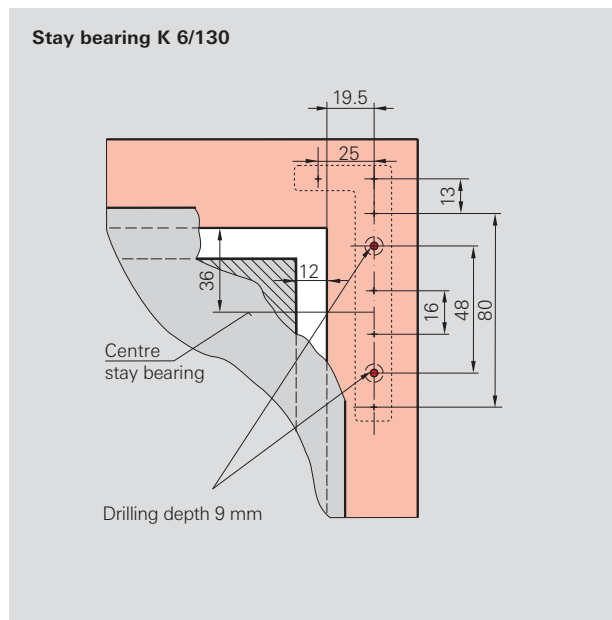
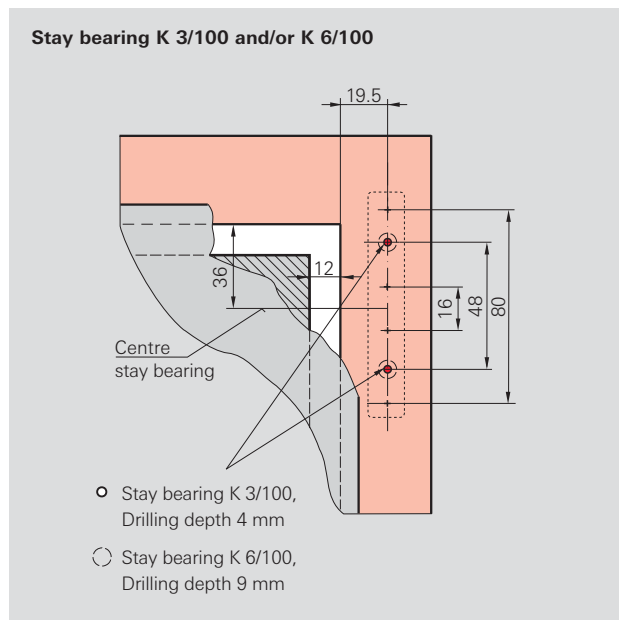
**(\*) In addition: Stay-bearing pin 227354**

<sup>1)</sup> Stay arm K – On SRH < 500 mm the tilt-depth must be limited to 80 mm

## Stay arm

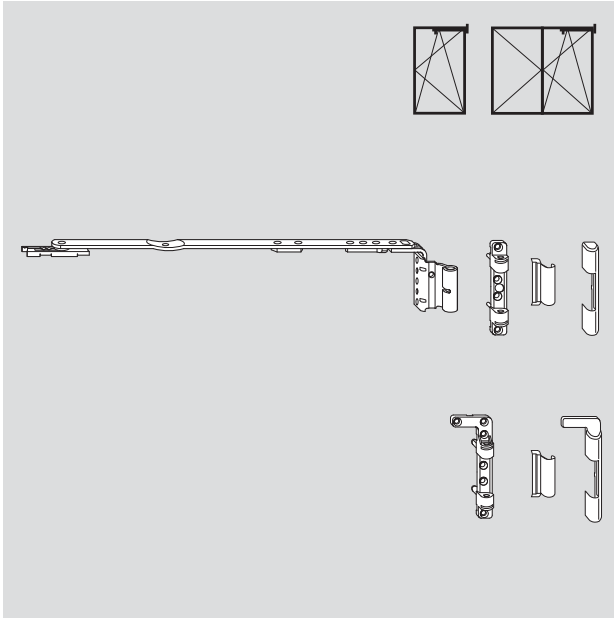
### Hinge side K

### System 12/21-13



Description	Cover cap Stay-arm hinge K Also for pitched stay-arms		Cover cap Stay bearing K 100 kg		Cover cap Stay bearing K 130 kg	
	Material no.	Material no.	Material no.	Material no.	Material no.	Material no.
R01.1 Silver	230243	230195	L	230211	R	230212
R01.2 Nickel silver	230244	230196	L	230213	R	230214
R01.3 Titanium-matt	329179	329180	L	329181	R	329182
R03.1 Brass matt	230246	230199	L	642349	R	642350
R03.2 Polished brass	230245	230198	L	230217	R	230218
R04.1 Grey-brown	230251	230204	L	230229	R	230230
R04.3 Olive-brown	230248	230201	L	230223	R	230224
R04.4 Black-brown	230247	230200	L	230221	R	230222
R05.3 Medium bronze	230249	230202	L	230225	R	230226
R05.5 Bronze	230250	230203	L	637876	R	637877
R07.2 White	230252	230205	L	230231	R	230232
Special colour	230254	230206				

12 mm clearance  
21 mm overlap width  
13 mm hardware axis



**Stay arm K, system 12/21-13, max. sash weight 130 kg**

SRW/mm	Size		Material no.
290 – 410	150	L	<b>260248</b>
		R	<b>260249</b>
411 – 600 <sup>1)</sup>	250	L	<b>260250</b>
		R	<b>260251</b>
601 – 800 <sup>1)</sup>	350	L	<b>260252</b>
		R	<b>260253</b>
801 – 1400 <sup>1)</sup>	500	L	<b>260254</b>
		R	<b>260255</b>

**Stay bearing K 3/100<sup>(\*)</sup>**, max. sash weight 100 kg **230177**  
2 x Ø 3 mm supporting-pins

**Stay bearing K 6/100<sup>(\*)</sup>** not dep., max. sash weight 100 kg **230178**  
2 x Ø 5.8 mm supporting-pins

**Stay bearing K 6/130<sup>(\*)</sup>**, max. sash weight 130 kg L **230179**  
2 x Ø 5.8 mm supporting-pins R **230180**

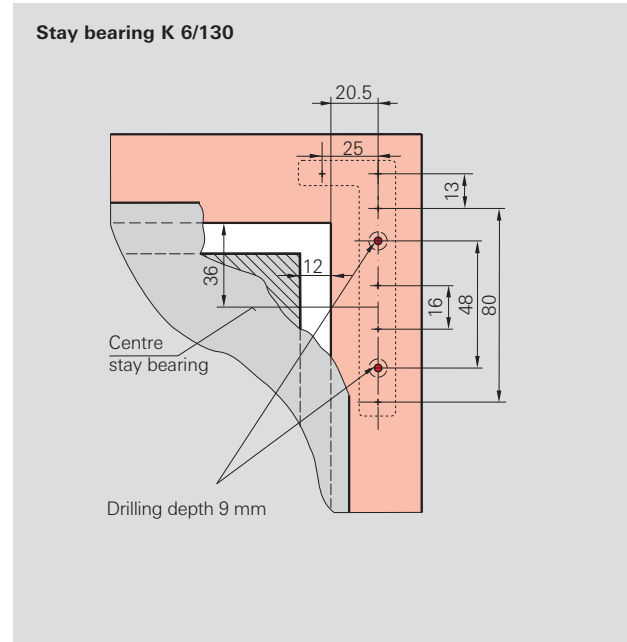
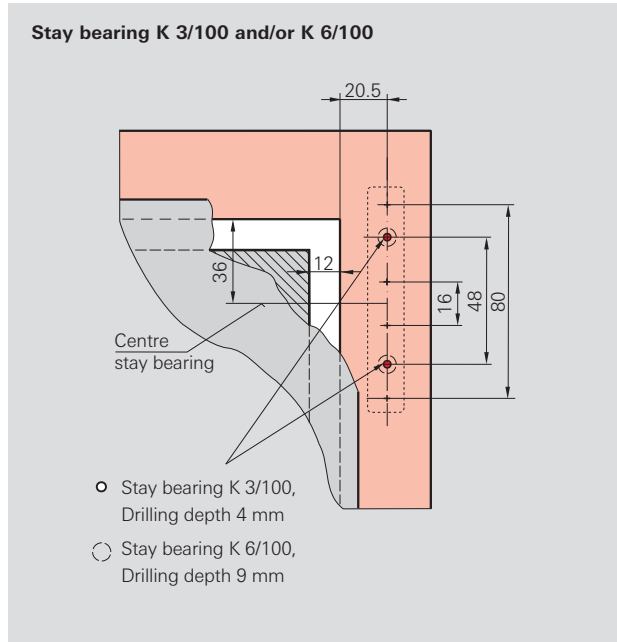
**(\*) In addition: Stay-bearing pin **227354****

1) Stay arm K – On SRH < 500 mm the tilt-depth must be limited to 80 mm

## Stay arm

Hinge side K







System 12/22-13



# Stay arm

## Hinge side K

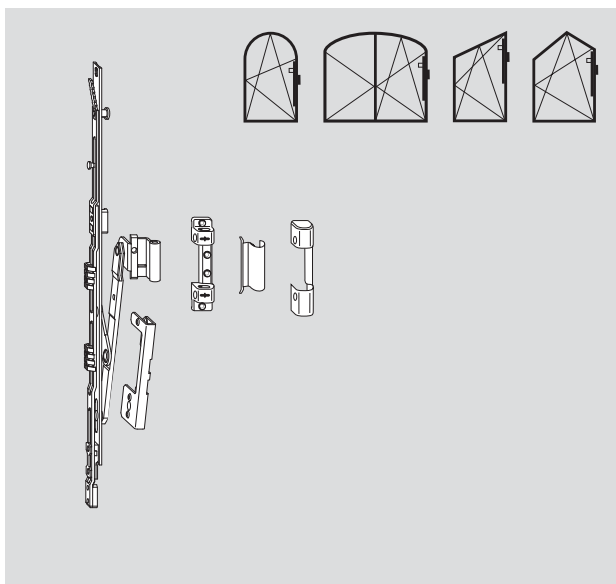
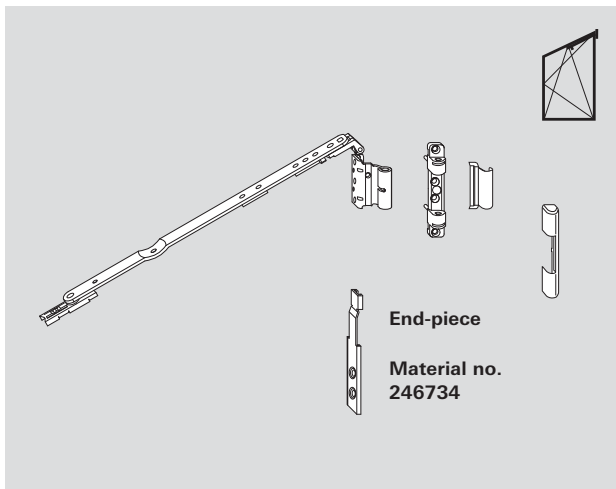
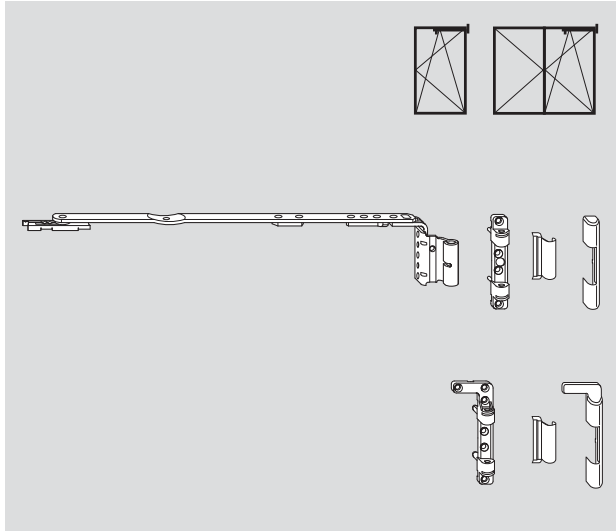
### Cover caps

Description	 <b>Cover cap Stay-arm hinge K</b> Also for pitched stay-arms	 <b>Cover cap Stay-arm hinge K</b> Without base-plate	 <b>Cover cap Stay bearing K</b> 100 kg	 <b>Cover cap Arched windows Stay-arm hinge K</b>	 <b>Cover cap Stay bearing K adjustable</b>	 <b>Cover cap Stay bearing K</b> 130 kg
	Material no.	Material no.	Material no.	Material no.	Material no.	Material no.
R01.1 Silver	<b>230243</b>		<b>230195</b>	<b>231355</b>	<b>230304</b>	L <b>230211</b> R <b>230212</b>
R01.2 Nickel silver	<b>230244</b>		<b>230196</b>	<b>231356</b>	<b>230305</b>	L <b>230213</b> R <b>230214</b>
R01.3 Titanium-matt	<b>329179</b>		<b>329180</b>	<b>329892</b>	<b>329183</b>	L <b>329181</b> R <b>329182</b>
R03.1 Brass matt	<b>230246</b>	<b>642367</b>	<b>230199</b>	<b>642358</b>	<b>642354</b>	L <b>642349</b> R <b>642350</b>
R03.2 Polished brass	<b>230245</b>		<b>230198</b>	<b>213047</b>	<b>230307</b>	L <b>230217</b> R <b>230218</b>
R04.1 Grey-brown	<b>230251</b>		<b>230204</b>		<b>230313</b>	L <b>230229</b> R <b>230230</b>
R04.3 Olive-brown	<b>230248</b>		<b>230201</b>	<b>213046</b>	<b>230310</b>	L <b>230223</b> R <b>230224</b>
R04.4 Black-brown	<b>230247</b>		<b>230200</b>	<b>213045</b>	<b>230309</b>	L <b>230221</b> R <b>230222</b>
R05.3 Medium bronze	<b>230249</b>		<b>230202</b>	<b>231366</b>	<b>230311</b>	L <b>230225</b> R <b>230226</b>
R05.5 Bronze	<b>230250</b>		<b>230203</b>	<b>637885</b>	<b>637881</b>	L <b>637876</b> R <b>637877</b>
R07.2 White	<b>230252</b>		<b>230205</b>	<b>213044</b>	<b>230314</b>	L <b>230231</b> R <b>230232</b>
Special colour	<b>230254</b>		<b>230206</b>	<b>213049</b>	<b>230315</b>	

## Stay arm

### Hinge side K

### System 12/22-13



**12 mm clearance**  
**22 mm overlap width**  
**13 mm hardware axis**

#### Stay arm K, system 12/22-13, max. sash weight 130 kg

SRW/mm	Size		Material no.
290 – 410	150	L	<b>258066</b>
		R	<b>258067</b>
411 – 600 <sup>1)</sup>	250	L	<b>258068</b>
		R	<b>258069</b>
601 – 800 <sup>1)</sup>	350	L	<b>258070</b>
		R	<b>258071</b>
801 – 1400 <sup>1)</sup>	500	L	<b>258044</b>
		R	<b>258045</b>

**Stay bearing K 3/100<sup>(\*)</sup>**, max. sash weight 100 kg **230177**  
2 x Ø 3 mm supporting-pins

**Stay bearing K 6/100<sup>(\*)</sup>** not dep., max. sash weight 100 kg **230178**  
2 x Ø 5.8 mm supporting-pins

**Stay bearing K 6/130<sup>(\*)</sup>**, max. sash weight 130 kg L **230179**  
2 x Ø 5.8 mm supporting-pins R **230180**

#### Stay arm K, system 12/22-13 for pitched windows Max. sash weight 80 kg

SRW / leg length	Size		Material no.
290 – 410	150	L	<b>245391</b>
		R	<b>245394</b>
411 – 600 <sup>1)</sup>	250	L	<b>245395</b>
		R	<b>245396</b>
601 – 800 <sup>1)</sup>	350	L	<b>245397</b>
		R	<b>245398</b>
801 – 1400 <sup>1)</sup>	500	L	<b>245399</b>
		R	<b>245400</b>

**Stay bearing K 3/100<sup>(\*)</sup>**, max. sash weight 100 kg **230177**  
2 x Ø 3 mm supporting-pins

**Stay bearing K 6/100<sup>(\*)</sup>** not dep., max. sash weight 100 kg **230178**  
2 x Ø 5.8 mm supporting-pins

#### Arched window set consists of:

**Arched stay arm / Arched window retainer / Run-up block housing**  
**Max. sash weight 80 kg**

Description			Material no.
Arched window set K 12/22-13	1 E	L	<b>245699</b>
Arched window set K 12/22-13	1 E	R	<b>245700</b>
Arched window set K 12/22-13	1 V	L	<b>245697</b>
Arched window set K 12/22-13	1 V	R	<b>245698</b>

**Stay bearing K 3/100, adjustable<sup>(\*)</sup> for** **245706**  
**arched windows and TU-ON and/or TI-ON sashes**  
2 x Ø 3 mm supporting-pins, laterally adjustable

**Stay bearing K 6/100, adjustable<sup>(\*)</sup> for** **245707**  
**arched windows and TU-ON and/or TI-ON sashes, not dep.**  
2 x Ø 5.8 mm supporting-pins, laterally adjustable

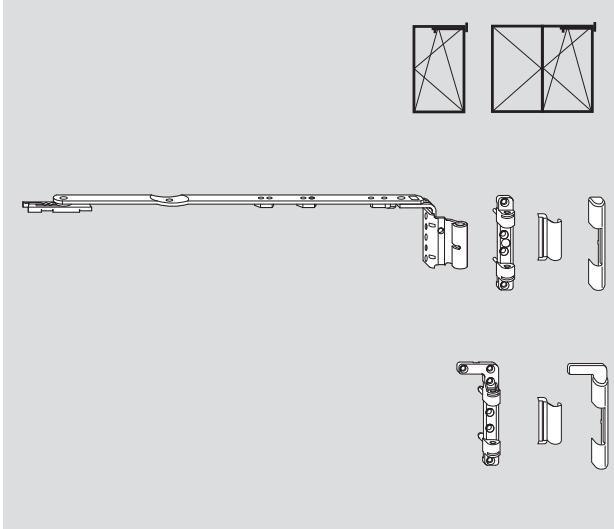
**(\*) In addition: Stay-bearing pin** **227354**

1) Stay arm K – On SRH < 500 mm the tilt-depth must be limited to 80 mm

# Stay arm

## Hinge side K

### System 12/22-13 (Tilt-First)



12 mm clearance  
22 mm overlap width  
13 mm hardware axis

#### Stay arm K, system 12/22-13 TF, max. sash weight 130 kg

SRW/mm	Size	Material no.	
290 – 410	150	L	<b>260240</b>
		R	<b>260241</b>
411 – 600 <sup>1)</sup>	250	L	<b>260242</b>
		R	<b>260243</b>
601 – 800 <sup>1)</sup>	350	L	<b>260244</b>
		R	<b>260245</b>
801 – 1400 <sup>1)</sup>	500	L	<b>260246</b>
		R	<b>260247</b>

**Stay bearing K 3/100\***, max. sash weight 100 kg **230177**  
2 x Ø 3 mm supporting-pins

**Stay bearing K 6/100\*** not dep., max. sash weight 100 kg **230178**  
2 x Ø 5.8 mm supporting-pins

**Stay bearing K 6/130\***, max. sash weight 130 kg L **230179**  
2 x Ø 5.8 mm supporting-pins R **230180**

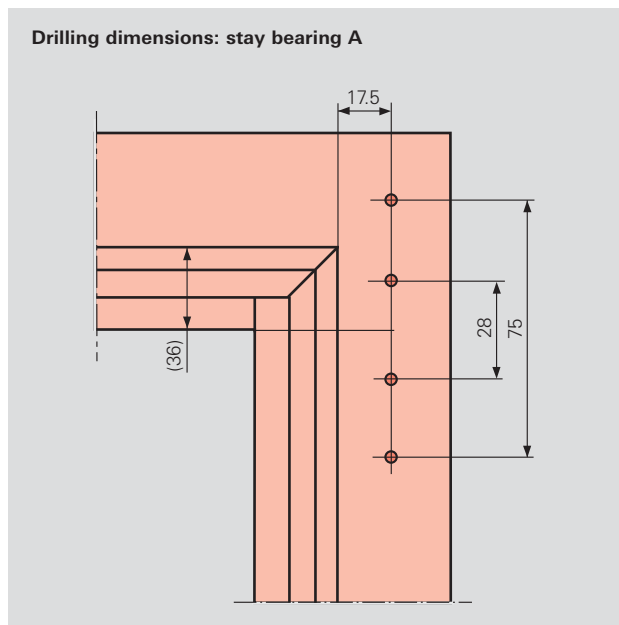
**(\*) In addition: Stay-bearing pin 227354**

<sup>1)</sup> Stay arm K – On SRH < 500 mm the tilt-depth must be limited to 80 mm

## Stay arm

Hinge side A

System 12/18-9



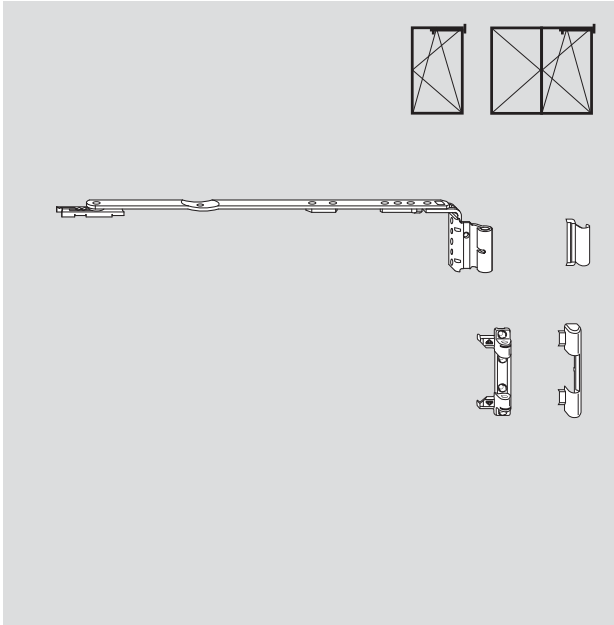
Description	 <b>Cover cap Stay-arm hinge K</b>	 <b>Cover cap Stay bearing A</b>
	Material no.	Material no.
R01.1 Silver	<b>230243</b>	<b>230320</b>
R01.2 Nickel silver	<b>230244</b>	<b>230321</b>
R01.3 Titanium-matt	<b>329179</b>	<b>329184</b>
R03.1 Brass matt	<b>230246</b>	<b>642355</b>
R03.2 Polished brass	<b>230245</b>	<b>230323</b>
R04.1 Grey-brown	<b>230251</b>	<b>230329</b>
R04.3 Olive-brown	<b>230248</b>	<b>230326</b>
R04.4 Black-brown	<b>230247</b>	<b>230325</b>
R05.3 Medium bronze	<b>230249</b>	<b>230327</b>
R05.5 Bronze	<b>230250</b>	<b>637882</b>
R07.2 White	<b>230252</b>	<b>230330</b>
Special colour	<b>230254</b>	<b>230331</b>



## Stay arm

### Hinge side A

### System 12/18-9



**12 mm clearance**  
**18 mm overlap width**  
**9 mm hardware axis**

#### Stay arm K, system 12/18-9, max. sash weight 100 kg

SRW/mm	Size	Material no.	
290 – 410	150	L	<b>258048</b>
		R	<b>258049</b>
411 – 600 <sup>1)</sup>	250	L	<b>258050</b>
		R	<b>258051</b>
601 – 800 <sup>1)</sup>	350	L	<b>258052</b>
		R	<b>258053</b>
801 – 1400 <sup>1)</sup>	500	L	<b>258037</b>
		R	<b>258038</b>

**Stay bearing A<sup>(\*)</sup> 12/18-9, max. 100 kg** **245709**  
 Suitable for installation without jigs

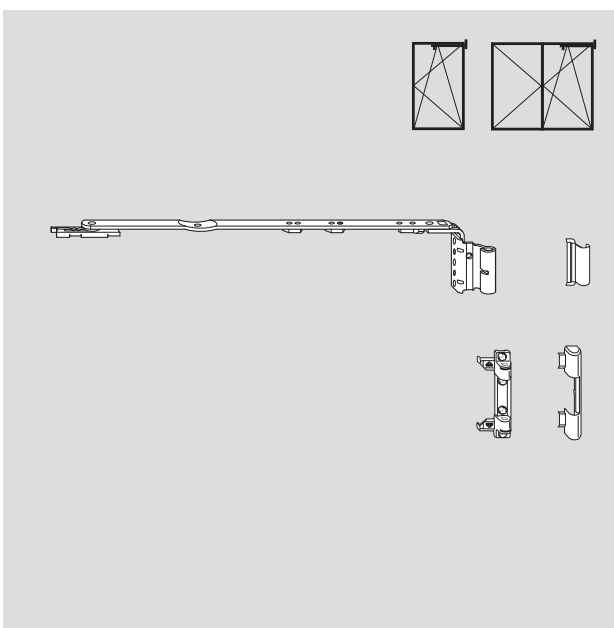
**(\*) In addition: Stay-bearing pin** **227354**

For cover caps refer to the table on the left hand page

## Stay arm

### Hinge side A

### System 12/18-9 (Tilt-First)



#### Stay arm K, system 12/18-9 TF, max. sash weight 100 kg

SRW/mm	Size	Material no.	
290 – 410	150	L	<b>260216</b>
		R	<b>260217</b>
411 – 600 <sup>1)</sup>	250	L	<b>260218</b>
		R	<b>260219</b>
601 – 800 <sup>1)</sup>	350	L	<b>260220</b>
		R	<b>260221</b>
801 – 1400 <sup>1)</sup>	500	L	<b>260222</b>
		R	<b>260223</b>

**Stay bearing A<sup>(\*)</sup> 12/18-9, max. 100 kg** **245709**  
 Suitable for installation without jigs

**(\*) In addition: Stay-bearing pin** **227354**

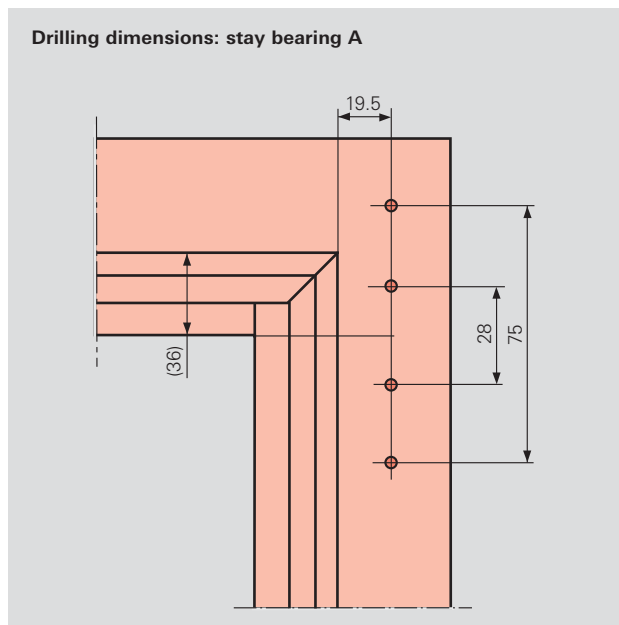
For cover caps refer to the table on the left hand page

<sup>1)</sup> Stay arm K – On SRH < 500 mm the tilt-depth must be limited to 80 mm

## Stay arm

Hinge side A

System 12/20-9

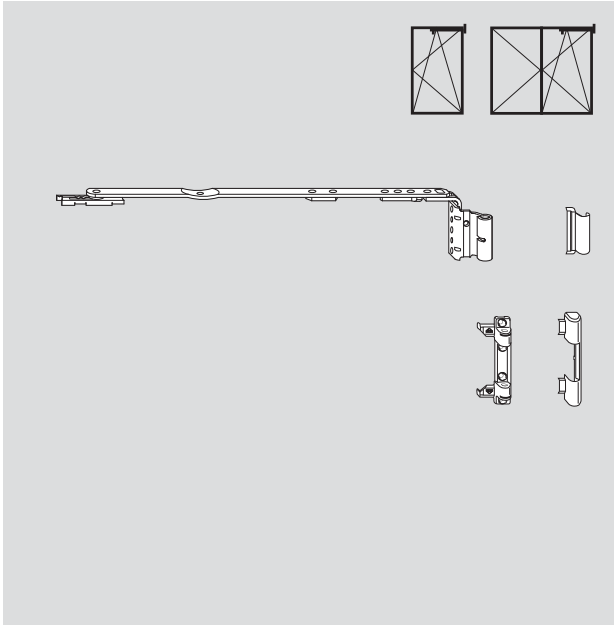


Description	Cover cap Stay-arm hinge K		Cover cap Stay bearing A	
	Material no.	Material no.	Material no.	Material no.
R01.1 Silver	<b>230243</b>	<b>230320</b>		
R01.2 Nickel silver	<b>230244</b>	<b>230321</b>		
R01.3 Titanium-matt	<b>329179</b>	<b>329184</b>		
R03.1 Brass matt	<b>230246</b>	<b>642355</b>		
R03.2 Polished brass	<b>230245</b>	<b>230323</b>		
R04.1 Grey-brown	<b>230251</b>	<b>230329</b>		
R04.3 Olive-brown	<b>230248</b>	<b>230326</b>		
R04.4 Black-brown	<b>230247</b>	<b>230325</b>		
R05.3 Medium bronze	<b>230249</b>	<b>230327</b>		
R05.5 Bronze	<b>230250</b>	<b>637882</b>		
R07.2 White	<b>230252</b>	<b>230330</b>		
Special colour	<b>230254</b>	<b>230331</b>		

## Stay arm

### Hinge side A

### System 12/20-9



12 mm clearance  
20 mm overlap width  
9 mm hardware axis

#### Stay arm K, system 12/20-9, max. sash weight 100 kg

SRW/mm	Size		Material no.
290 – 410		L	<b>258054</b>
		R	<b>258055</b>
411 – 600 <sup>1)</sup>	250	L	<b>258056</b>
		R	<b>258057</b>
601 – 800 <sup>1)</sup>	350	L	<b>258058</b>
		R	<b>258059</b>
801 – 1400 <sup>1)</sup>	500	L	<b>258039</b>
		R	<b>258041</b>

**Stay bearing A<sup>1)</sup> 12/20-9**, max. 100 kg **245714**  
Suitable for installation without jigs

**\*) In addition: Stay-bearing pin** **227354**

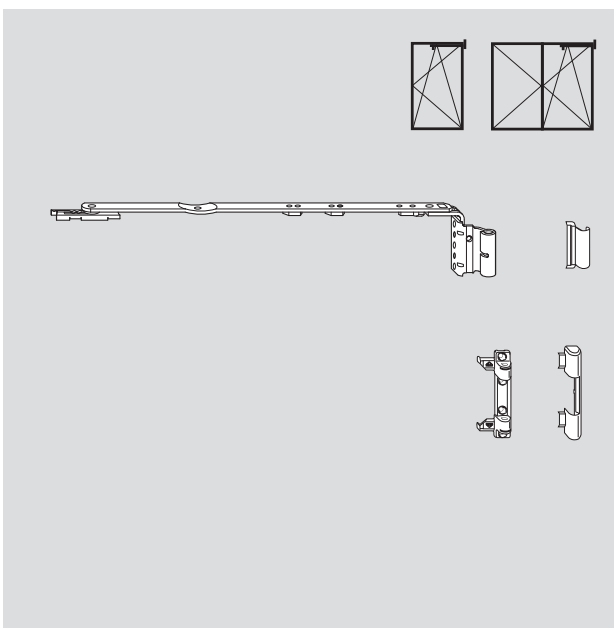
For cover caps refer to the table on the left hand page

Stay guide  
Stay arm  
Stay bearing

## Stay arm

### Hinge side A

### System 12/20-9 (Tilt-First)



#### Stay arm K, system 12/20-9 TF, max. sash weight 100 kg

SRW/mm	Size		Material no.
290 – 410		L	<b>260224</b>
		R	<b>260225</b>
411 – 600 <sup>1)</sup>	250	L	<b>260226</b>
		R	<b>260227</b>
601 – 800 <sup>1)</sup>	350	L	<b>260228</b>
		R	<b>260229</b>
801 – 1400 <sup>1)</sup>	500	L	<b>260230</b>
		R	<b>260231</b>

**Stay bearing A<sup>1)</sup> 12/20-9**, max. 100 kg **245714**  
Suitable for installation without jigs

**\*) In addition: Stay-bearing pin** **227354**

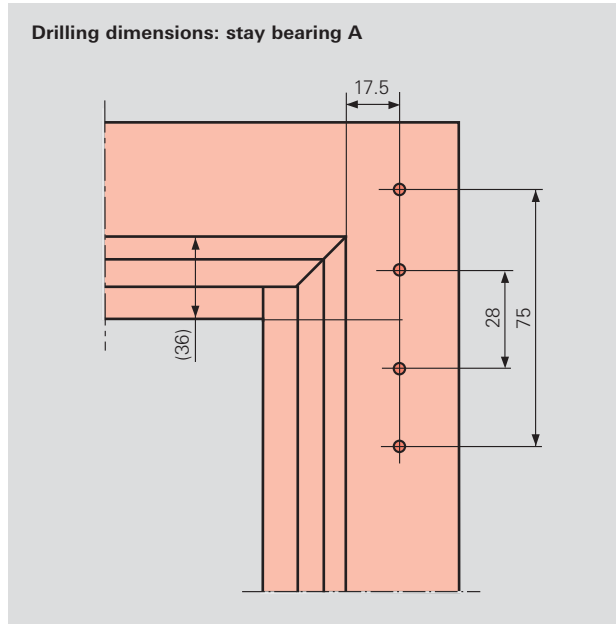
For cover caps refer to the table on the left hand page

<sup>1)</sup> Stay arm K (On sash rebate heights under 500 mm, the tilt-depth must be limited to 80 mm!)

## Stay arm

Hinge side A

System 12/18-13

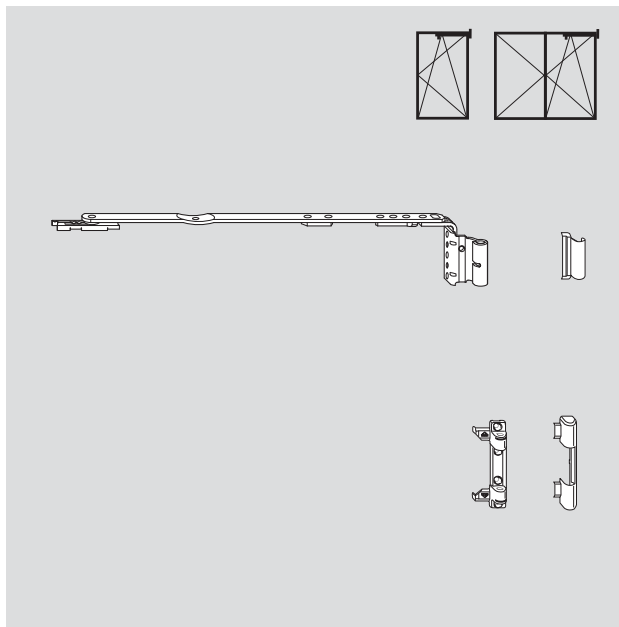


Description	 <b>Cover cap Stay-arm hinge K</b>	 <b>Cover cap Stay bearing A</b>
	Material no.	Material no.
R01.1 Silver	<b>230243</b>	<b>230320</b>
R01.2 Nickel silver	<b>230244</b>	<b>230321</b>
R01.3 Titanium-matt	<b>329179</b>	<b>329184</b>
R03.1 Brass matt	<b>230246</b>	<b>642355</b>
R03.2 Polished brass	<b>230245</b>	<b>230323</b>
R04.1 Grey-brown	<b>230251</b>	<b>230329</b>
R04.3 Olive-brown	<b>230248</b>	<b>230326</b>
R04.4 Black-brown	<b>230247</b>	<b>230325</b>
R05.3 Medium bronze	<b>230249</b>	<b>230327</b>
R05.5 Bronze	<b>230250</b>	<b>637882</b>
R07.2 White	<b>230252</b>	<b>230330</b>
Special colour	<b>230254</b>	<b>230331</b>

# Stay arm

## Hinge side A

### System 12/18-13



12 mm clearance  
18 mm overlap width  
13 mm hardware axis

#### Stay arm K, system 12/18-13, max. sash weight 100 kg

SRW/mm	Size	Material no.	
290 – 410	150	L	<b>349687</b>
		R	<b>349688</b>
411 – 600 (1)	250	L	<b>349689</b>
		R	<b>349690</b>
601 – 800 (1)	350	L	<b>349691</b>
		R	<b>349692</b>
801 – 1400 (1)	500	L	<b>349693</b>
		R	<b>349694</b>

#### Stay bearing A<sup>(\*)</sup> 12/18-13, max. 100 kg

Suitable for installation without jigs **245709**

(\*) In addition: Stay-bearing pin

**227354**

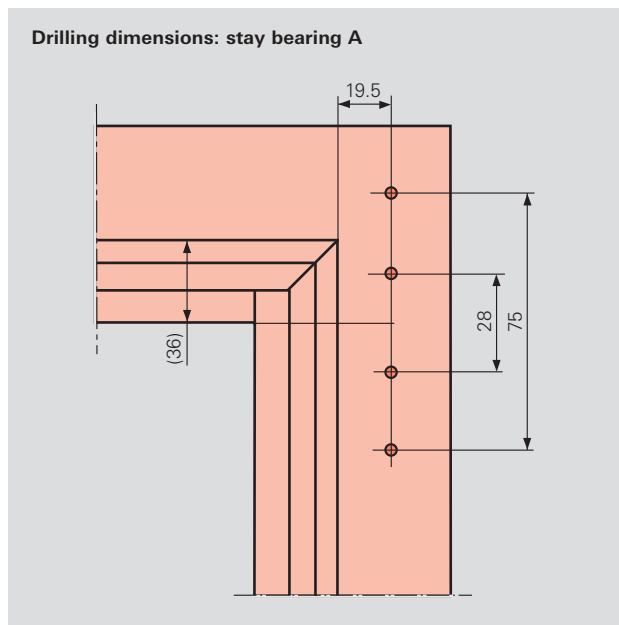
For cover caps refer to the table on the left hand page

1) Stay arm K – On SRH < 500 mm the tilt-depth must be limited to 80 mm

## Stay arm

Hinge side A

System 12/20-13

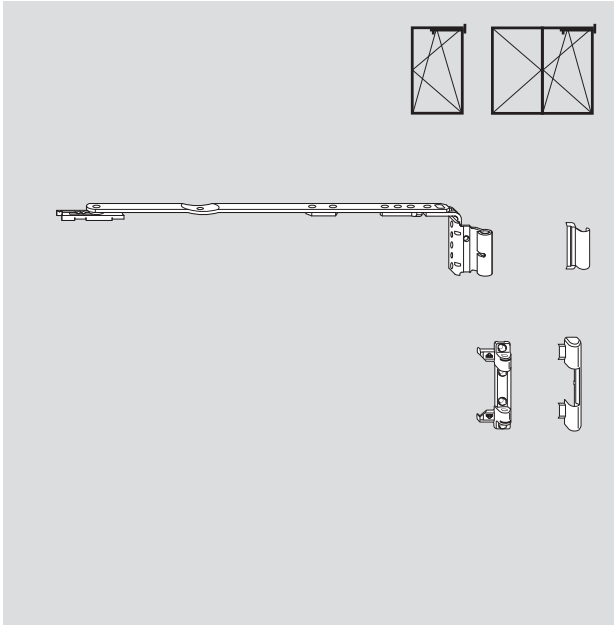


Description	Cover cap Stay-arm hinge K		Cover cap Stay bearing A	
	Material no.	Material no.	Material no.	Material no.
R01.1 Silver	<b>230243</b>	<b>230320</b>		
R01.2 Nickel silver	<b>230244</b>	<b>230321</b>		
R01.3 Titanium-matt	<b>329179</b>	<b>329184</b>		
R03.1 Brass matt	<b>230246</b>	<b>642355</b>		
R03.2 Polished brass	<b>230245</b>	<b>230323</b>		
R04.1 Grey-brown	<b>230251</b>	<b>230329</b>		
R04.3 Olive-brown	<b>230248</b>	<b>230326</b>		
R04.4 Black-brown	<b>230247</b>	<b>230325</b>		
R05.3 Medium bronze	<b>230249</b>	<b>230327</b>		
R05.5 Bronze	<b>230250</b>	<b>637882</b>		
R07.2 White	<b>230252</b>	<b>230330</b>		
Special colour	<b>230254</b>	<b>230331</b>		

## Stay arm

### Hinge side A

### System 12/20-13



12 mm clearance  
20 mm overlap width  
13 mm hardware axis

#### Stay arm K, system 12/20-13, max. sash weight 100 kg

SRW/mm	Size		Material no.
290 – 410	150	L	<b>258060</b>
		R	<b>258061</b>
411 – 600 <sup>1)</sup>	250	L	<b>258062</b>
		R	<b>258063</b>
601 – 800 <sup>1)</sup>	350	L	<b>258064</b>
		R	<b>258065</b>
801 – 1400 <sup>1)</sup>	500	L	<b>258042</b>
		R	<b>258043</b>

**Stay bearing A<sup>(\*)</sup> 12/20-13**, max. 100 kg **245714**  
Suitable for installation without jigs

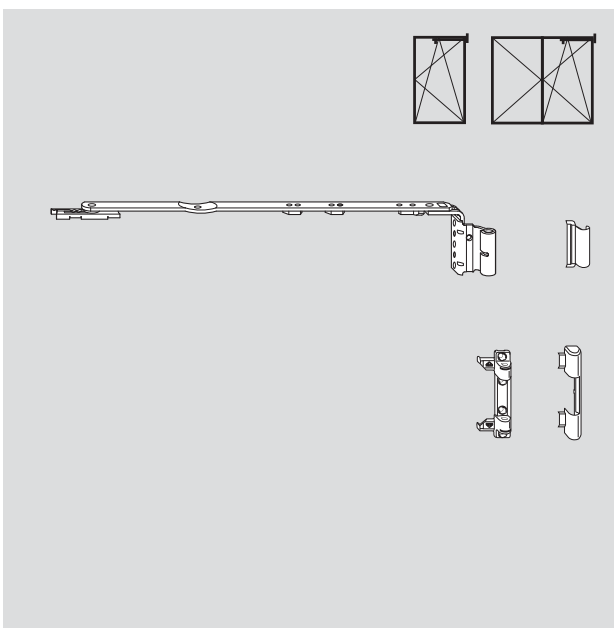
**(\*) In addition: Stay-bearing pin** **227354**

For cover caps refer to the table on the left hand page

## Stay arm

### Hinge side A

### System 12/20-13 (Tilt-First)



#### Stay arm K, system 12/20-13 TF, max. sash weight 100 kg

SRW/mm	Size		Material no.
290 – 410	150	L	<b>260232</b>
		R	<b>260233</b>
411 – 600 <sup>1)</sup>	250	L	<b>260234</b>
		R	<b>260235</b>
601 – 800 <sup>1)</sup>	350	L	<b>260236</b>
		R	<b>260237</b>
801 – 1400 <sup>1)</sup>	500	L	<b>260238</b>
		R	<b>260239</b>

**Stay bearing A<sup>(\*)</sup> 12/20-13**, max. 100 kg **245714**  
Suitable for installation without jigs

**(\*) In addition: Stay-bearing pin** **227354**

For cover caps refer to the table on the left hand page

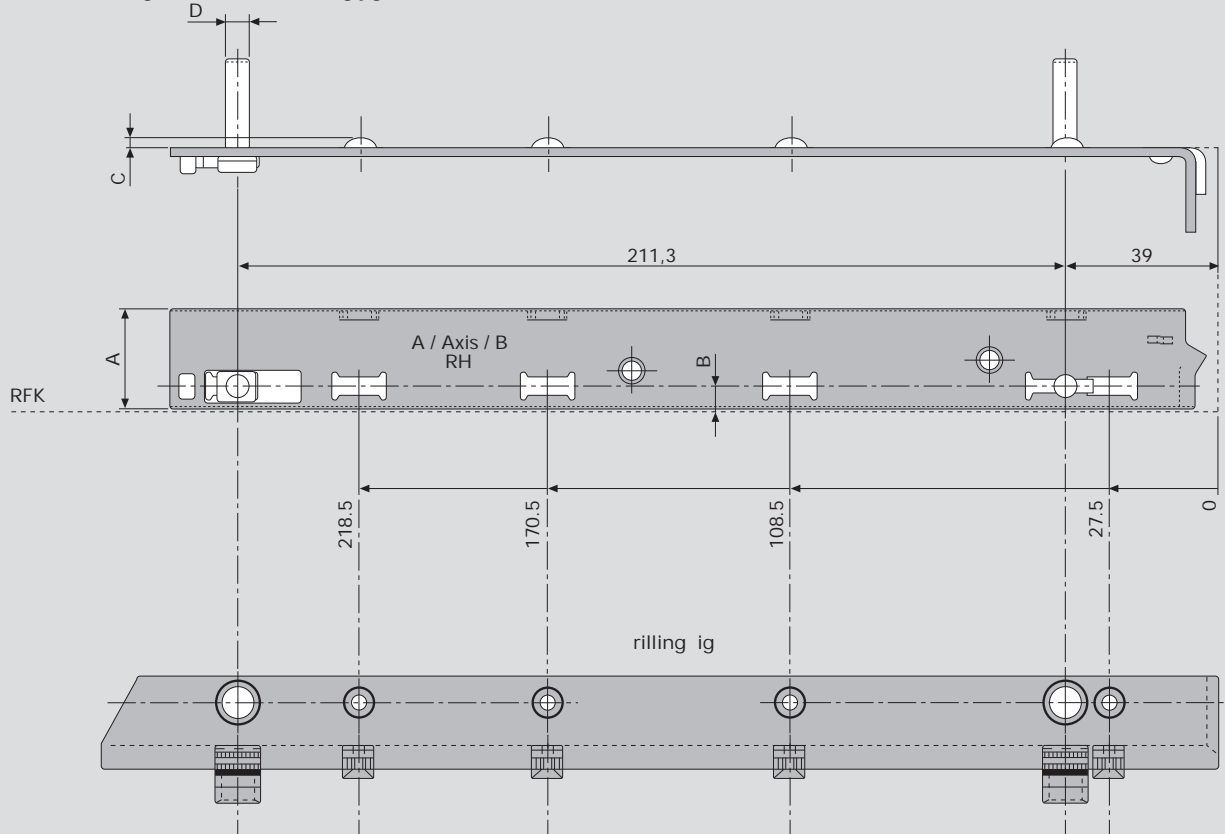
<sup>1)</sup> Stay arm K – On SRH < 500 mm the tilt-depth must be limited to 80 mm

## Sash stay

Hinge side NT Royal

Sash stay 250 Royal and 450 Royal

Frame / Drilling dimensions / Drilling jigs



Base plates	Drilling jig	Axis	A	B	C	D	Pivot rest (Base plate)	Sash stay 250 (Base plate)	Sash stay 450 (Base plate)
	Material no.						Material no.	Material no.	Material no.
No. 03	259157	9	19.5	9.5	2.3	6	L 286950	L 286952	L 286954
							R 286951	R 286953	R 286955
No. 04	259152	9	23.5	7	3	6	L 283984	L 283972	L 283981
							R 283982	R 268953	R 283973
No. 05	259152	13	28.2	7	3	6	L 254029	L 254039	L 254042
							R 254030	R 254041	R 254043
No. 06	259153	13	28.2	18	5	6	L 258964	L 258959	L 258961
							R 258965	R 258960	R 258962
No. 07	259152	13	23.5	7	4	6	L 254031	L 254044	L 254046
							R 254032	R 254045	R 254047
No. 08	259152	13	23.5	7	-	6	L 257124	L 257116	L 257121
							R 280426	R 257120	R 257122
No. 11	259152	9	23.5	7	2	6	L 254033	L 254048	
							R 254034	R 254049	
No. 12	259246	8.5	23.5	14	4	6	L 317831	L 317827	L 317829
							R 317832	R 317828	R 317830

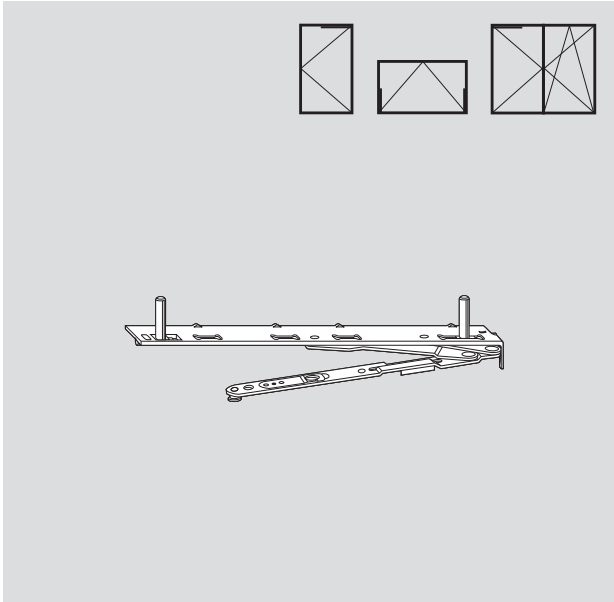
Further profile-related components are available upon request



## Sash stay

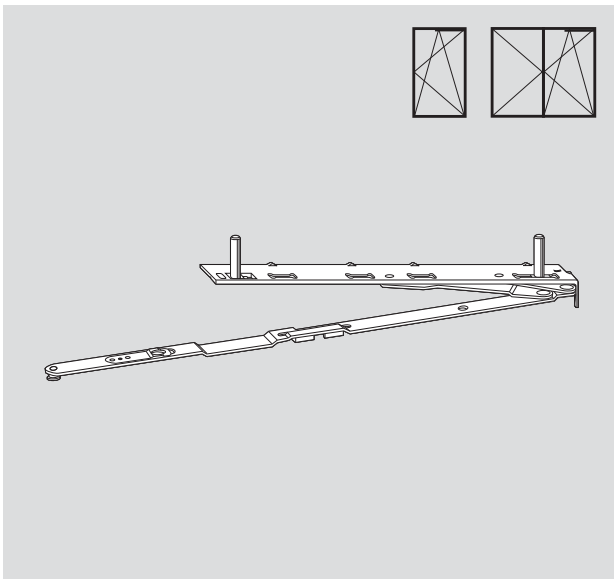
### Hinge side NT Royal

### Sash stay 250 Royal and 450 Royal



#### Royal sash stay 250

SRW/mm	Description	Material no.
360 – 800	Sash stay 250 no. 03	L <b>286952</b>
		R <b>286953</b>
360 – 800	Sash stay 250 no. 04	L <b>283972</b>
		R <b>268953</b>
360 – 800	Sash stay 250 no. 05	L <b>254039</b>
		R <b>254041</b>
360 – 800	Sash stay 250 no. 06	L <b>258959</b>
		R <b>258960</b>
360 – 800	Sash stay 250 no. 07	L <b>254044</b>
		R <b>254045</b>
360 – 800	Sash stay 250 no. 08	L <b>257116</b>
		R <b>257120</b>
360 – 800	Sash stay 250 no. 11	L <b>254048</b>
		R <b>254049</b>
360 – 800	Sash stay 250 no. 12	L <b>317827</b>
		R <b>317828</b>



#### Royal sash stay 450

801 – 1400	Sash stay 450 no. 03	L <b>286954</b>
		R <b>286955</b>
801 – 1400	Sash stay 450 no. 04	L <b>283981</b>
		R <b>283973</b>
801 – 1400	Sash stay 450 no. 05	L <b>254042</b>
		R <b>254043</b>
801 – 1400	Sash stay 450 no. 06	L <b>258961</b>
		R <b>258962</b>
801 – 1400	Sash stay 450 no. 07	L <b>254046</b>
		R <b>254047</b>
801 – 1400	Sash stay 450 no. 08	L <b>257121</b>
		R <b>257122</b>
801 – 1400	Sash stay 450 no. 12	L <b>317829</b>
		R <b>317830</b>

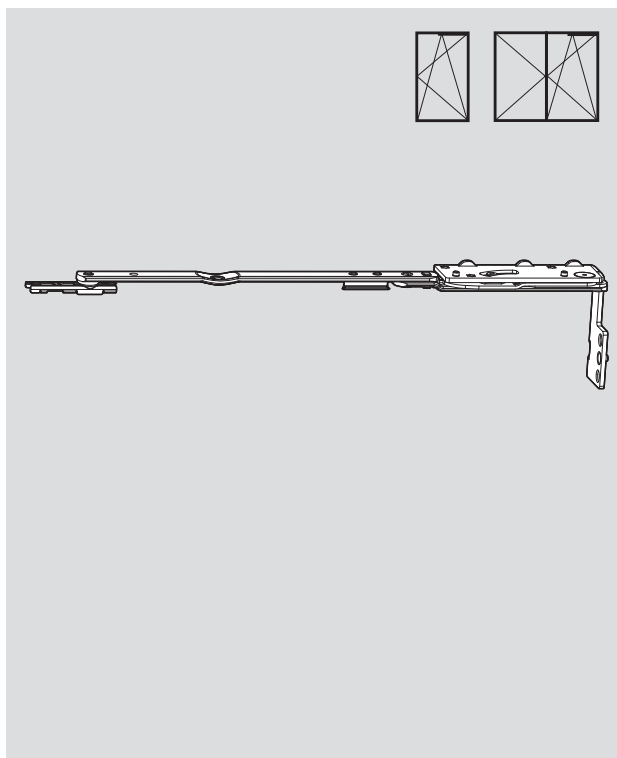
#### The base plates are suitable for the following systems:

- Base plate **No. 03:** Trocal 900
- Base plate **No. 04:** Veka Softline AD 9
- Base plate **No. 05:** Veka Topline AD 13, Aluplast 3000,  
Schüco Corona CT70 AD, Schüco Corona SI82 MD
- Base plate **No. 06:** Kömmerling Eurodur 3S, Schüco Corona AD
- Base plate **No. 07:** Deceuninck Zendow, Gealan 3000, Gealan 7000,  
KBE 70 AD, Plus Plan Plus Tec,  
Rehau 799 Brillant Design (S730), Roplasto 4K
- Base plate **No. 08:** Salamander Design 2D, Salamander Design 3D  
Salamander Design BluEvolution  
Salamander Design Streamline 76
- Base plate **No. 11:** KBE MD9
- Base plate **No. 12:** KBE AD9
- Base plate **No. 18:** Inoutic Prestige AD, Inoutic Prestige MD

## Stay arm

### Hinge side NT Designo

### Stay arm 250, 350, 500



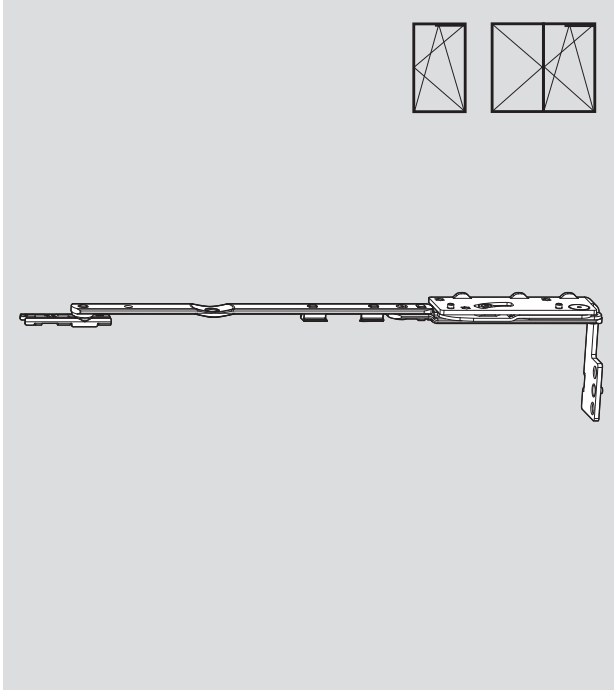
Description		Material no.	Material no.	Material no.
<b>Stay arm NT Designo</b>				
		Stay arm 250 Designo	Stay arm 350 Designo	Stay arm 500 Designo
Aluplast 3000	L	390143	390145	390147
	R	390142	390144	390146
Aluplast 4000	L	390137	390139	390141
	R	390136	390138	390140
Aluplast 5000	L	390137	390139	390141
	R	390136	390138	390140
Aluplast 6000	L	390137	390139	390141
	R	390136	390138	390140
Brüggmann AD 13	L	385426	385428	385430
	R	385425	385427	385429
Brüggmann MD 13	L	385426	385428	385430
	R	385425	385427	385429
Deceuninck Zendow	L	390199	390201	390203
	R	390198	390200	390202
Géalan 3000	L	390187	390189	390191
	R	390186	390188	390190
Géalan 7000	L	390187	390189	390191
	R	390186	390188	390190
Géalan 8000	L	390187	390189	390191
	R	390186	390188	390190

Description		Material no.	Material no.	Material no.
<b>Stay arm NT Designo</b>				
		Stay arm 250 Designo	Stay arm 350 Designo	Stay arm 500 Designo
Inoutic Prestige AD	L	451021	451023	451025
	R	451020	451022	451024
Inoutic Prestige MD	L	451021	451023	451025
	R	451020	451022	451024
KBE 70 AD	L	390199	390201	390203
	R	390198	390200	390202
Kömmerling	L	390193	390195	390197
Eurofutur Classic	R	390192	390194	390196
Kömmerling 88 Plus	L	390193	390195	390197
	R	390192	390194	390196
Rehau 799,	L	390161	390163	390185
Brillant Design (S730)	R	390160	390162	390164
Rehau Geneo	L	390161	390163	390185
	R	390160	390162	390164
Roplasto 7001 AD	L	390107	390109	390111
	R	390106	390108	390110
Roplasto 7001 MD	L	390107	390109	390111
	R	390106	390108	390110
Salamander 2D	L	390137	390139	390141
	R	390136	390138	390140
Salamander 3D	L	390137	390139	390141
	R	390136	390138	390140
Salamander BluEvolution	L	390161	390163	390185
	R	390160	390162	390164
Schüco Corona CT70 AD	L	390143	390145	390147
	R	390142	390144	390146
Schüco Corona CT70 MD	L	390143	390145	390147
	R	390142	390144	390146
Schüco Corona SI82 MD	L	390143	390145	390147
	R	390142	390144	390146
Trocal 88+	L	486003	486065	486067
	R	486002	486004	486066
Trocal Innonova 2000	L	486003	486065	486067
	R	486002	486004	486066
Trocal Innonova 70.A5 AD	L	390462	390515	390517
	R	390461	390463	390516
Trocal Innonova 70.M5 MD	L	390462	390515	390517
	R	390461	390463	390516
Veka Alphasline 90	L	385426	385428	385430
	R	385425	385427	385429
Veka Softline 70 AD	L	385426	385428	385430
	R	385425	385427	385429
Veka Softline 70 MD	L	385426	385428	385430
	R	385425	385427	385429
Veka Topline AD 13	L	385426	385428	385430
	R	385425	385427	385429
Veka Topline MD 13	L	385426	385428	385430
	R	385425	385427	385429

# Stay arm

## Hinge side NT Designo

### Stay arm 250, 350, 500 (Tilt-First)



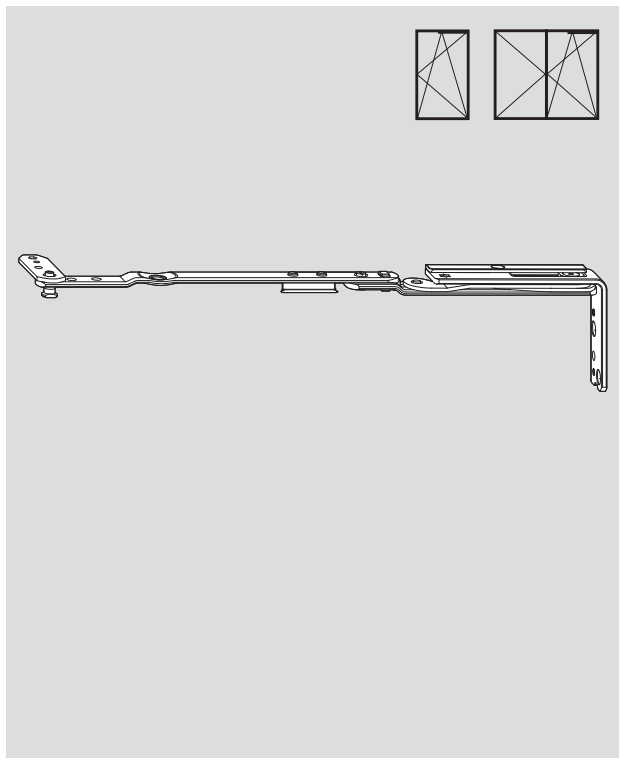
Description		Material no.		
<b>Stay arm NT Designo</b>				
		Stay arm 250	Stay arm 350	Stay arm 500
		TF Designo	TF Designo	TF Designo
Aluplast Ideal 3000 MD	L	<b>477206</b>	<b>477208</b>	<b>477210</b>
	R	<b>477205</b>	<b>477207</b>	<b>477209</b>
Brüggmann MD	L	<b>389524</b>	<b>389536</b>	<b>389538</b>
	R	<b>389523</b>	<b>389535</b>	<b>389537</b>
Inoutic Prestige	L	<b>482946</b>	<b>482948</b>	<b>482950</b>
	R	<b>482945</b>	<b>482947</b>	<b>482949</b>
Rehau S 703	L	<b>475573</b>	<b>475595</b>	<b>475597</b>
	R	<b>475572</b>	<b>475574</b>	<b>475596</b>
Rehau S 730 AD	L	<b>475573</b>	<b>475595</b>	<b>475597</b>
	R	<b>475572</b>	<b>475574</b>	<b>475596</b>
Rehau S 735 MD	L	<b>475573</b>	<b>475595</b>	<b>475597</b>
	R	<b>475572</b>	<b>475574</b>	<b>475596</b>
Rehau S 799 AD	L	<b>475573</b>	<b>475595</b>	<b>475597</b>
	R	<b>475572</b>	<b>475574</b>	<b>475596</b>
Schüco CT70 AD/MD	L	<b>477206</b>	<b>477208</b>	<b>477210</b>
	R	<b>477205</b>	<b>477207</b>	<b>477209</b>
Veka Topline AD	L	<b>389524</b>	<b>389536</b>	<b>389538</b>
	R	<b>389523</b>	<b>389535</b>	<b>389537</b>
Veka Topline MD	L	<b>389524</b>	<b>389536</b>	<b>389538</b>
	R	<b>389523</b>	<b>389535</b>	<b>389537</b>

Stay guide  
Stay arm  
Stay bearing

## Stay arm

### Hinge side NT Designo II

### Stay arm 250, 350, 500



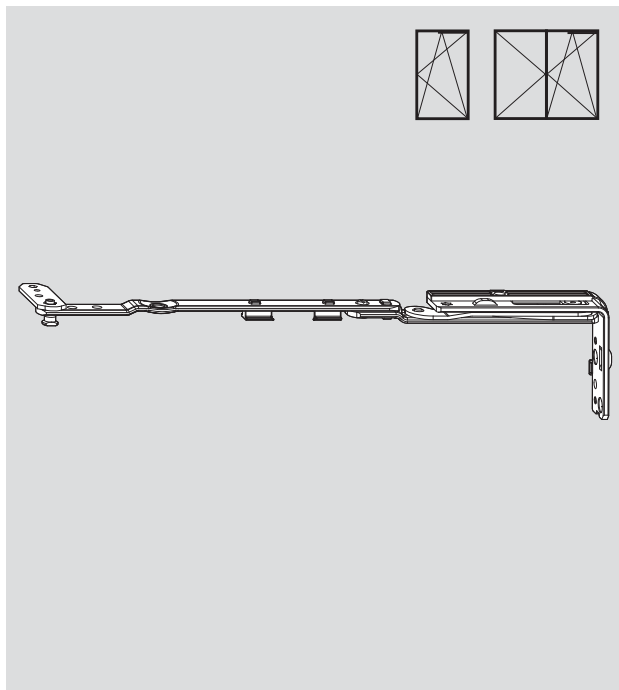
Description	Material no.	Material no.	Material no.
<b>Stay arm NT Designo II</b>			
	Stay arm 250 Designo II	Stay arm 350 Designo II	Stay arm 500 Designo II
Aluplast 2000	L 623968	623970	623972
	R 623967	623969	623971
Aluplast 4000	L 628938	628941	628948
	R 628937	628939	628947
Aluplast 5000	L 628938	628941	628948
	R 628937	628939	628947
Aluplast 6000	L 628938	628941	628948
	R 628937	628939	628947
Aluplast 8000	L 628938	628941	628948
	R 628937	628939	628947
Brüggmann AD 13	L 635229	635231	635233
	R 635228	635230	635232
Brüggmann MD 13	L 635229	635231	635233
	R 635228	635230	635232

Description	Material no.	Material no.	Material no.
<b>Stay arm NT Designo II</b>			
	Stay arm 250 Designo II	Stay arm 350 Designo II	Stay arm 500 Designo II
Deceuninck Zendow	L 623948	623950	623952
	R 623947	623949	623951
Gealan 3000	L 606334	606336	606339
	R 606326	606335	606338
Gealan 7000	L 606334	606336	606339
	R 606326	606335	606338
Gealan 8000	L 606334	606336	606339
	R 606326	606335	606338
Inoutic Eforte	L 635396	635398	635400
	R 635395	635397	635399
Inoutic Prestige AD/MD	L 635396	635398	635400
	R 635395	635397	635399
Kömmerling Eurofutur Classic	L 606347	606349	606353
	R 606346	606348	606352
Kömmerling Eurofutur Elegance	L 606347	606349	606353
	R 606346	606348	606352
Kömmerling 88 Plus	L 606347	606349	606353
	R 606346	606348	606352
Rehau 799, Brillant Design (S 730)	L 610950	610952	610954
	R 610949	610951	610953
Rehau 980, Geneo	L 606364	606366	606369
	R 606363	606365	606367
Salamander 2D, 3D	L 635510	635512	635514
	R 635509	635511	635513
Salamander BluEvolution	L 635620	635622	635624
	R 635619	635621	635623
Schüco Corona CT70 AD	L 623968	623970	623972
	R 623967	623969	623971
Schüco Corona CT70 MD	L 623968	623970	623972
	R 623967	623969	623971
Schüco Corona SI82 MD	L 623968	623970	623972
	R 623967	623969	623971
Trocal Innonova 70.A5 AD	L 626595	626597	626599
	R 626594	626596	626598
Trocal Innonova 70.M5 MD	L 626595	626597	626599
	R 626594	626596	626598
Trocal 88+	L 637763	637775	637777
	R 637762	637764	637776
Veka Alphaline 90	L 635229	635231	635233
	R 635228	635230	635232
Veka Softline 70 AD	L 635229	635231	635233
	R 635228	635230	635232
Veka Softline 70 MD	L 606391	606393	606395
	R 606390	606392	606394

## Stay arm

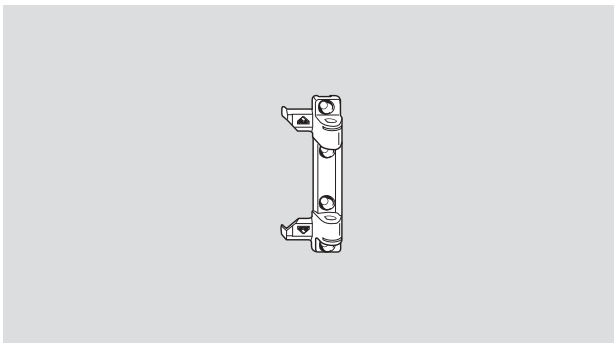
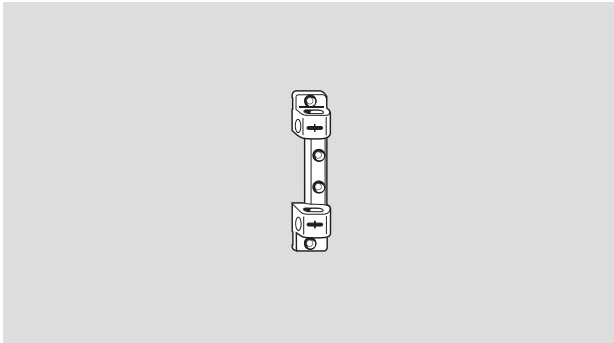
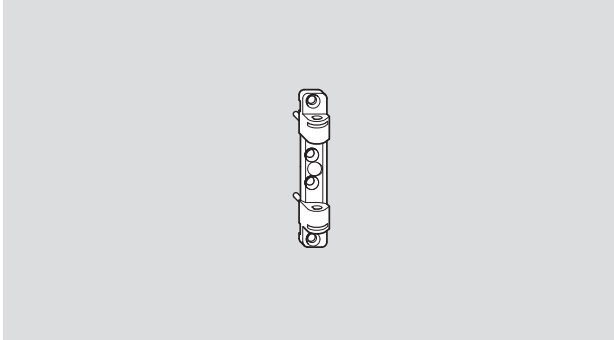
### Hinge side NT Designo II

### Stay arm 250, 350, 500 (Tilt-First)



Description		Material no.		
<b>Stay arm NT Designo II</b>				
		Stay arm 250	Stay arm 350	Stay arm 500
		TF Designo II	TF Designo II	TF Designo II
Aluplast 4000	L	<b>643247</b>	<b>643249</b>	<b>643251</b>
	R	<b>643246</b>	<b>643248</b>	<b>643250</b>
Aluplast 5000	L	<b>643247</b>	<b>643249</b>	<b>643251</b>
	R	<b>643246</b>	<b>643248</b>	<b>643250</b>
Aluplast 6000	L	<b>643247</b>	<b>643249</b>	<b>643251</b>
	R	<b>643246</b>	<b>643248</b>	<b>643250</b>
Aluplast 8000	L	<b>643247</b>	<b>643249</b>	<b>643251</b>
	R	<b>643246</b>	<b>643248</b>	<b>643250</b>
Deceuninck Zendow	L	<b>643253</b>	<b>643255</b>	<b>643257</b>
	R	<b>643252</b>	<b>643254</b>	<b>643256</b>
Gealan 3000	L	<b>638965</b>	<b>638967</b>	<b>638969</b>
	R	<b>638944</b>	<b>638966</b>	<b>638968</b>
Gealan 7000	L	<b>638965</b>	<b>638967</b>	<b>638969</b>
	R	<b>638944</b>	<b>638966</b>	<b>638968</b>
Gealan 8000	L	<b>638965</b>	<b>638967</b>	<b>638969</b>
	R	<b>638944</b>	<b>638966</b>	<b>638968</b>
Inoutic Eforte	L	<b>643259</b>	<b>643261</b>	<b>643263</b>
	R	<b>643258</b>	<b>643260</b>	<b>643262</b>
Inoutic Prestige AD/MD	L	<b>643259</b>	<b>643261</b>	<b>643263</b>
	R	<b>643258</b>	<b>643260</b>	<b>643262</b>
Kömmerling Eurofutur Classic	L	<b>643265</b>	<b>643267</b>	<b>643269</b>
	R	<b>643264</b>	<b>643266</b>	<b>643268</b>
Kömmerling Eurofutur Elegance	L	<b>643265</b>	<b>643267</b>	<b>643269</b>
	R	<b>643264</b>	<b>643266</b>	<b>643268</b>
Kömmerling 88 Plus	L	<b>643265</b>	<b>643267</b>	<b>643269</b>
	R	<b>643264</b>	<b>643266</b>	<b>643268</b>
Rehau 799, Brillant Design	L	<b>640572</b>	<b>640574</b>	<b>640576</b>
	R	<b>640573</b>	<b>640575</b>	<b>640577</b>
Rehau 980, Geneo	L	<b>640566</b>	<b>640568</b>	<b>640570</b>
	R	<b>640567</b>	<b>640569</b>	<b>640571</b>
Trocac Innova 70.A5 AD	L	<b>626601</b>	<b>626603</b>	<b>626605</b>
	R	<b>626600</b>	<b>626602</b>	<b>626604</b>
Trocac Innova 70.M5 MD	L	<b>626601</b>	<b>626603</b>	<b>626604</b>
	R	<b>626600</b>	<b>626602</b>	<b>626605</b>
Veka Softline 70 MD	L	<b>636481</b>	<b>636484</b>	<b>636515</b>
	R	<b>636480</b>	<b>636483</b>	<b>636516</b>

## Stay bearing, white Hinge side K and A



Description	Material no.
<b>Stay bearing K, white <sup>(*)</sup></b>	
Stay bearing K 3/100, raised, white	<b>230175</b>
Stay bearing K 6/100, raised, white	<b>230176</b>

<b>Cover cap for stay-arm hinge</b>	
for raised white stay bearing K	<b>230253</b>

<b>Stay bearing K, adjustable, white <sup>(*)</sup></b>	
Stay bearing K 3/100, white	<b>482342</b>

<b>Stay bearing A, white <sup>(*)</sup></b>	
Stay bearing A 12/18-9, raised, white	<b>230185</b>
Stay bearing A 12/20-9, raised, white	<b>230194</b>

<b>Cover cap for stay-arm hinge</b>	
for raised white stay bearing A	<b>230253</b>

<b>(*) In addition: Stay-bearing pin</b>	<b>227354</b>
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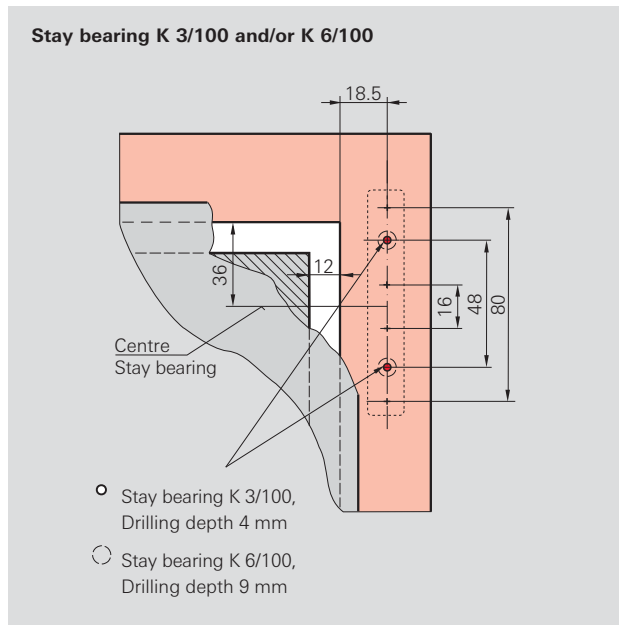
Stay guide  
Stay arm  
Stay bearing



## Scissor stay, positive control – comfort hardware

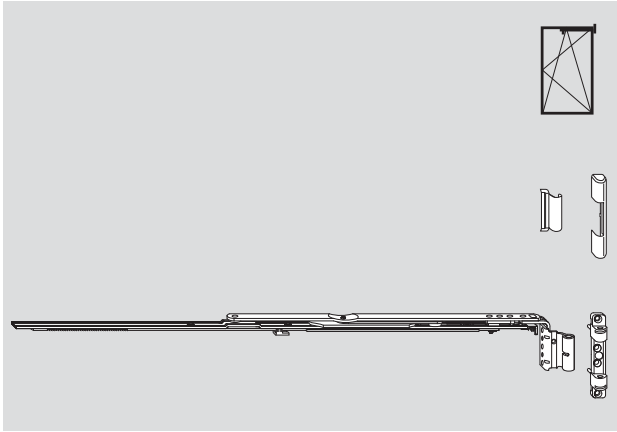
Hinge side K

System 12/20-9



Description	 Cover cap Stay-arm hinge K	 Cover cap Stay bearing A
	Material no.	Material no.
R01.1 Silver	<b>230243</b>	<b>230195</b>
R01.2 Nickel silver	<b>230244</b>	<b>230196</b>
R01.3 Titanium-matt	<b>329179</b>	<b>329180</b>
R03.1 Brass matt	<b>230246</b>	<b>230199</b>
R03.2 Polished brass	<b>230245</b>	<b>230198</b>
R04.1 Grey-brown	<b>230251</b>	<b>230204</b>
R04.3 Olive-brown	<b>230248</b>	<b>230201</b>
R04.4 Black-brown	<b>230247</b>	<b>230200</b>
R05.3 Medium bronze	<b>230249</b>	<b>230202</b>
R05.5 Bronze	<b>230250</b>	<b>230203</b>
R07.2 White	<b>230252</b>	<b>230205</b>
Special colour	<b>230254</b>	<b>230206</b>





**12 mm clearance**  
**20 mm overlap width**  
**9 mm hardware axis**

**Stay arm K, positive control, system 12/20-9**

Max. sash weight 50 kg

SRW/mm	Size	Material no.
460 – 600	450	L <b>477459</b>
		R <b>477458</b>
601 – 800	690	L <b>477461</b>
		R <b>477460</b>
801 – 1000 <sup>1)</sup>	890	L <b>477463</b>
		R <b>477462</b>

**Stay bearing K 3/100<sup>(\*)</sup>**, max. sash weight 100 kg **230177**  
 2 x Ø 3 mm supporting-pins

**Stay bearing K 6/100<sup>(\*)</sup>** not dep., max. sash weight 100 kg **230178**  
 2 x Ø 5.8 mm supporting-pins

**(\*) In addition: Stay-bearing pin 227354**

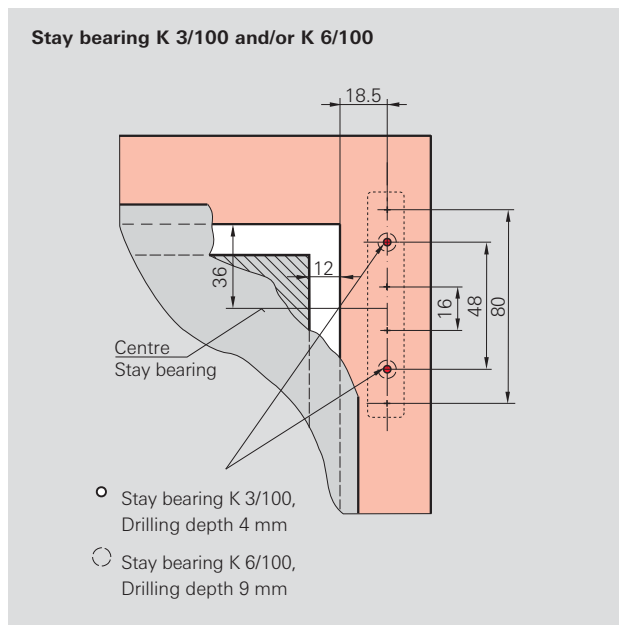
Stay guide  
 Stay arm  
 Stay-bearing

1) Use additional espagnolette extension on application ranges from SRW 1001–1400 mm

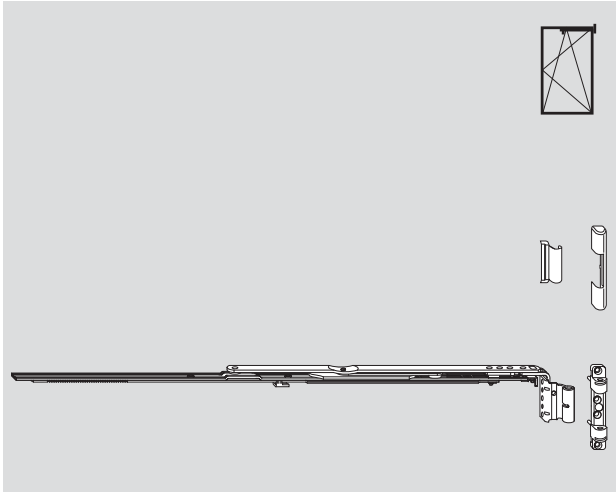
## Scissor stay, positive control – comfort hardware

Hinge side K

System 12/20-13



Description	 Cover cap Stay-arm hinge K	 Cover cap Stay bearing A
	Material no.	Material no.
R01.1 Silver	<b>230243</b>	<b>230195</b>
R01.2 Nickel silver	<b>230244</b>	<b>230196</b>
R01.3 Titanium-matt	<b>329179</b>	<b>329180</b>
R03.1 Brass matt	<b>230246</b>	<b>230199</b>
R03.2 Polished brass	<b>230245</b>	<b>230198</b>
R04.1 Grey-brown	<b>230251</b>	<b>230204</b>
R04.3 Olive-brown	<b>230248</b>	<b>230201</b>
R04.4 Black-brown	<b>230247</b>	<b>230200</b>
R05.3 Medium bronze	<b>230249</b>	<b>230202</b>
R05.5 Bronze	<b>230250</b>	<b>230203</b>
R07.2 White	<b>230252</b>	<b>230205</b>
Special colour	<b>230254</b>	<b>230206</b>



12 mm clearance  
 20 mm overlap width  
 13 mm hardware axis

**Stay arm K, positive control, system 12/20-13**

**Max. sash weight 50 kg**

SRW/mm	Size	Material no.
460 – 600	490	L <b>307032</b>
		R <b>307031</b>
601 – 800	690	L <b>307034</b>
		R <b>307033</b>
801 – 1000 <sup>1)</sup>	890	1 E L <b>307036</b>
		R <b>307035</b>
801 – 1000 <sup>1)</sup>	890	1 V L <b>309397</b>
		R <b>309398</b>

**Stay bearing K 3/100<sup>(\*)</sup>**, max. sash weight 100 kg **230177**  
 2 x Ø 3 mm supporting-pins

**Stay bearing K 6/100<sup>(\*)</sup>** not dep., max. sash weight 100 kg **230178**  
 2 x Ø 5.8 mm supporting-pins

**(\*) In addition: Stay-bearing pin 227354**

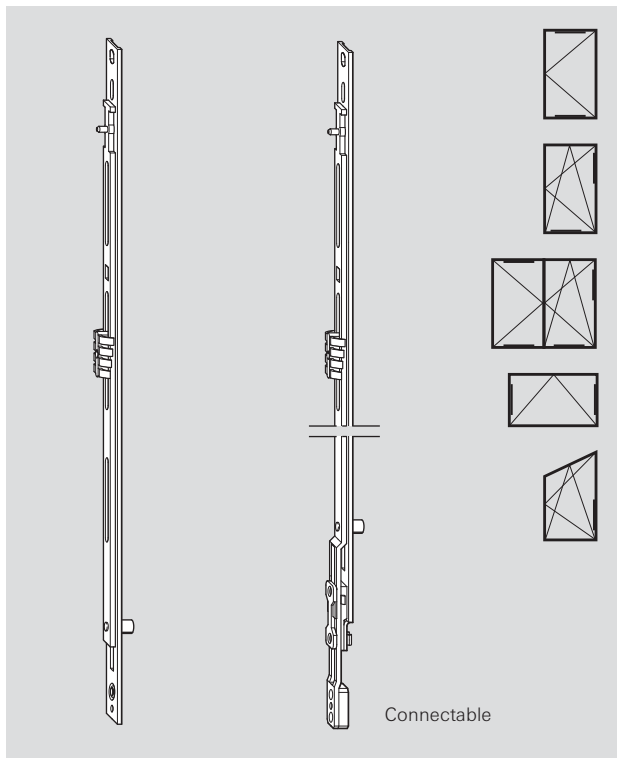
Stay guide  
 Stay arm  
 Stay-bearing

1) Use additional espagnolette extension on application ranges from SRW 1001–1400 mm



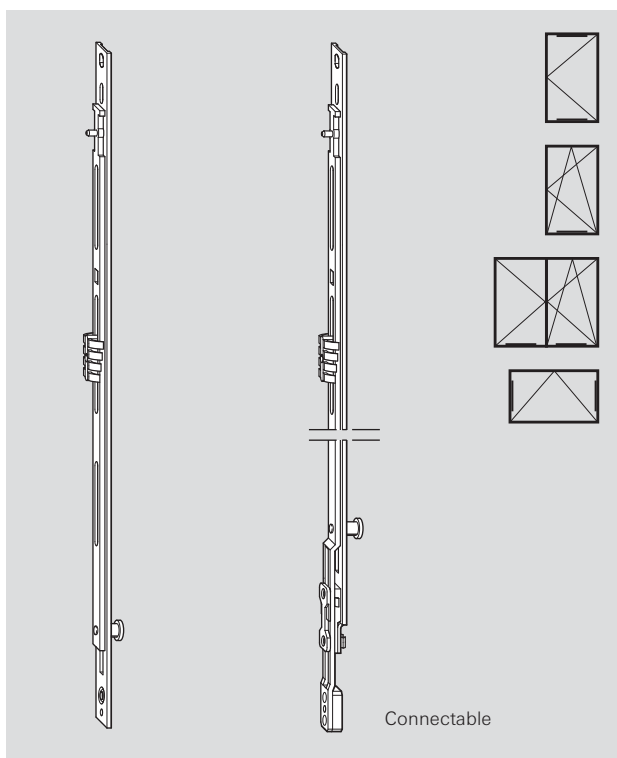
Multipart centre lock .....	182
Multipart security centre lock.....	182
Centre lock for lever-operated espagnolettes .....	183
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## Multipart centre lock Multipart security centre lock



### Multipart centre lock

Description	Locking cam	Material no.
CL 400	1 E	<b>255280</b>
CL 600	1 E	<b>255281</b>
CL 200 connectable	–	<b>308267</b>
CL 400 connectable	–	<b>297858</b>
CL 200 connectable	1 E	<b>450821</b>
CL 400 connectable	1 E	<b>280346</b>
CL 600 connectable	1 E	<b>255282</b>



### Multipart security centre lock

Description	Locking cam	Material no.
CL 200	1 P	<b>255284</b>
CL 400	1 P	<b>255285</b>
CL 600	1 P	<b>255286</b>
CL 200 connectable	1 P	<b>622880</b>
CL 400 connectable	1 P	<b>622881</b>
CL 600 connectable	1 P	<b>622882</b>
CL 200	1 V	<b>296853</b>
CL 400	1 V	<b>296854</b>
CL 600	1 V	<b>296855</b>
CL 200 connectable	1 V	<b>337708</b>
CL 400 connectable	1 V	<b>337710</b>
CL 600 connectable	1 V	<b>337711</b>

### Multipart security centre lock, short <sup>1)</sup>

CL 130 connectable	1 V	<b>567456</b>
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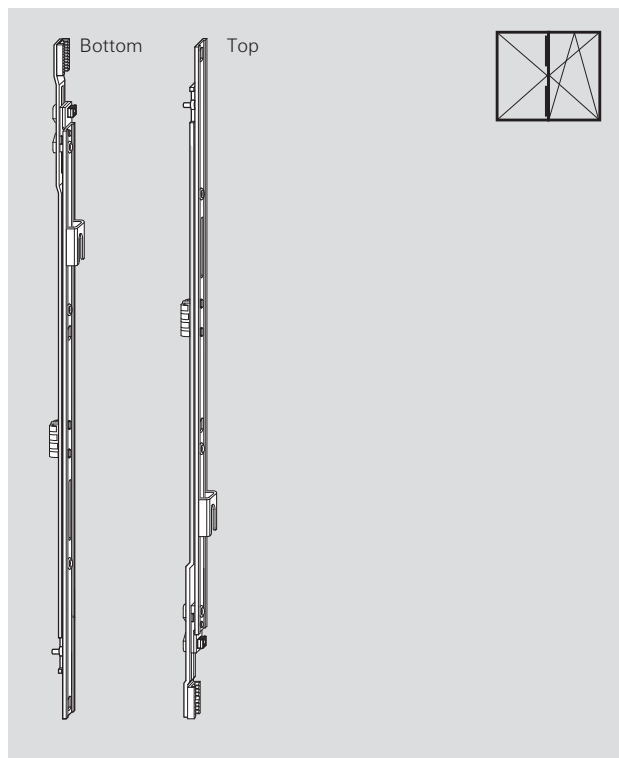
### MVS installation set (not dep.)

for centre locks		<b>292119</b>
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1) Changed striker position

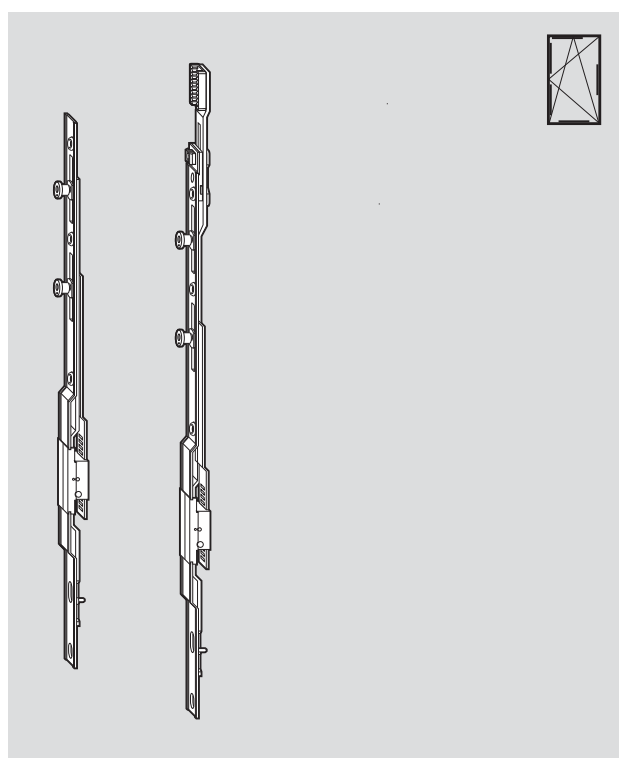
## Centre lock for lever-operated espagnolettes

### Reverse-action centre lock



#### Centre lock for lever-operated espagnolettes

Description	Material no.
CL 200 connectable, for the bottom of dummy mullion (not dep.)	<b>280342</b>
CL 200 connectable, for the top of dummy mullion (not dep.)	<b>450822</b>
CL 400 connectable, for the bottom of dummy mullion	<b>280343</b>
CL 400 connectable, for the top of dummy mullion	<b>280345</b>
CL 600 connectable, for the bottom of dummy mullion (not dep.)	<b>609059</b>
CL 600 connectable, for the top of dummy mullion (not dep.)	<b>280331</b>

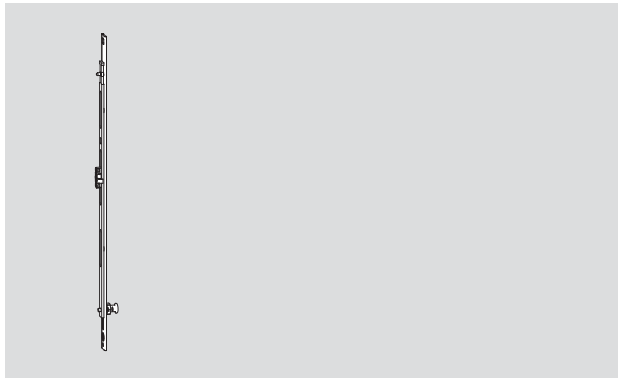


#### Reverse-action centre lock

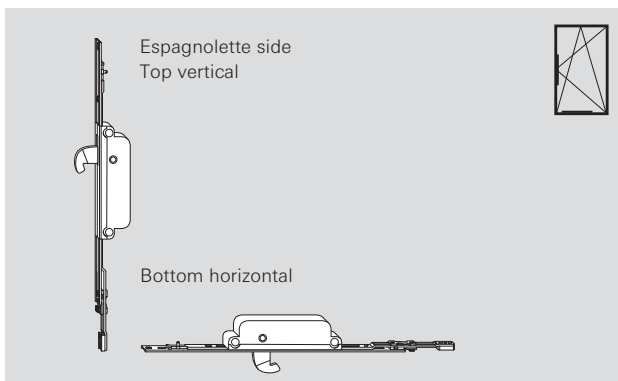
Description	Locking cam	Material no.
CL 400 reverse-action To be used horizontally on the bottom	2 P	<b>330079</b>
CL 400 reverse-action, connectable To be used horizontally on the bottom and above the handle	2 P	<b>373968</b>
CL 400 reverse-action, connectable (not dep.) To be used horizontally on the top, below the handle, and on the hinge side	2 P	<b>377263</b>

Centre lock

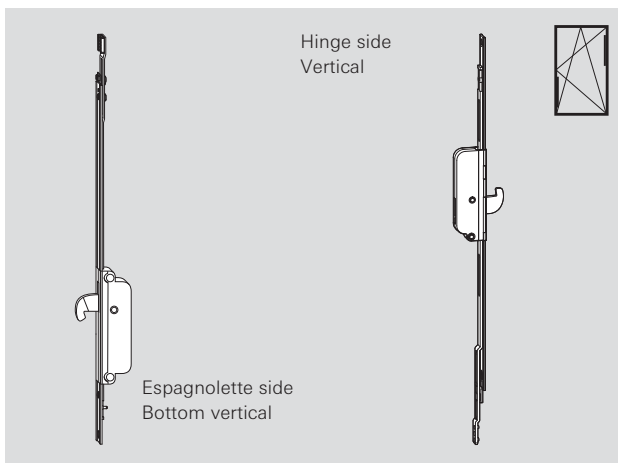
## Multipart centre lock, threshold Centre lock with hook



Multipart centre lock, threshold		
Description	Locking cam	Material no.
CL 400	1 V extended	<b>566651</b>
CL 200 connectable	1 V extended	<b>618552</b>
CL 400 connectable	1 V extended	<b>618554</b>
CL 600 connectable	1 V extended	<b>618553</b>



Centre lock with hook	
Description	Material no.
CL 200 connectable	<b>365299</b>



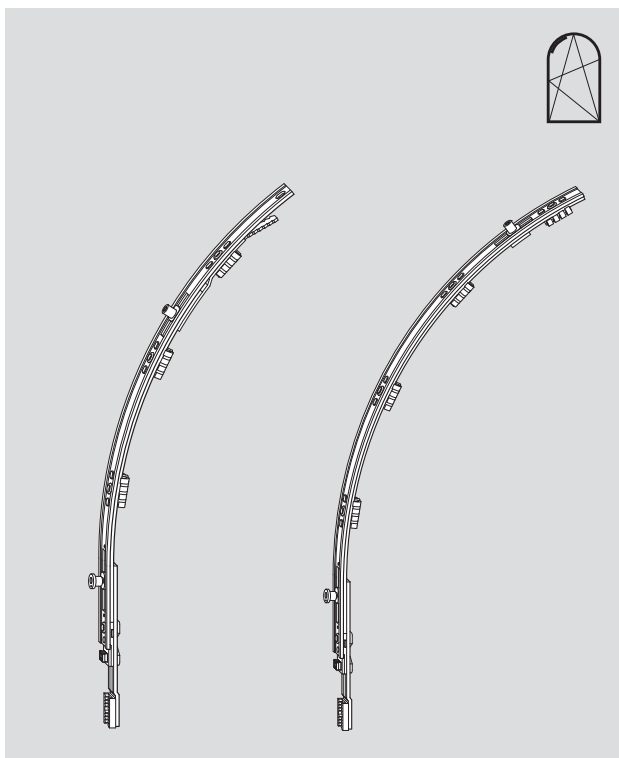
Centre lock with hook	
Description	Material no.
CL 400 connectable	<b>365300</b>



## Arched centre lock



Arched centre lock			
SRW/mm	Description	Locking cam	Material no.
601 – 1300	AR-CL 590 short connectable	2 E	<b>245734</b>
601 – 1300	AR-CL 750	2 E	<b>245736</b>

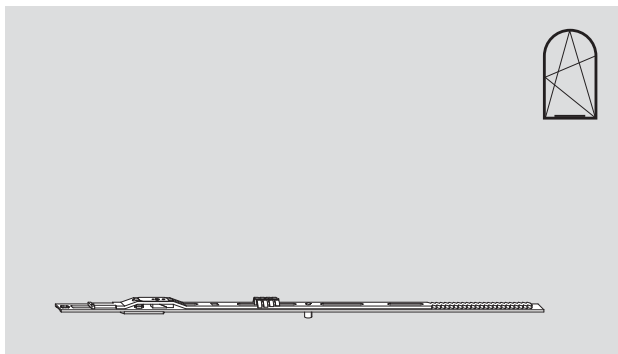


Arched centre lock			
SRW/mm	Description	Locking cam	Material no.
601 – 1300	AR-CL 590 short connectable	1 V / 1 E	<b>245733</b>
601 – 1300	AR-CL 750	1 V / 1 E	<b>245735</b>

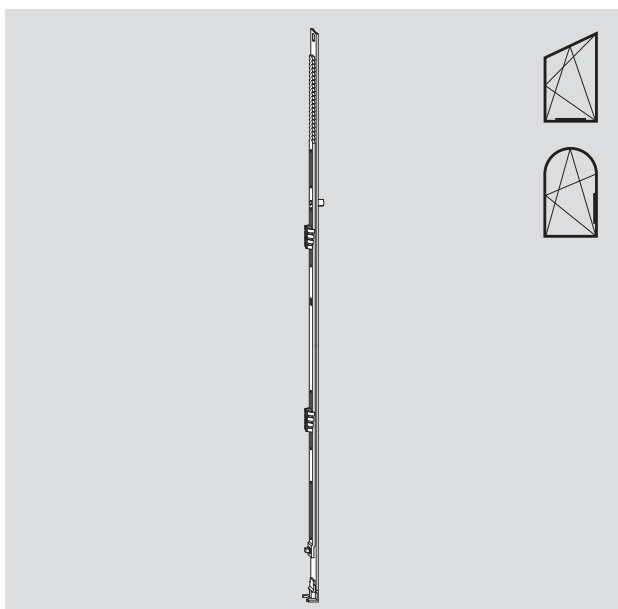
Centre lock

## Arched component, horizontal

### Arched component, vertical

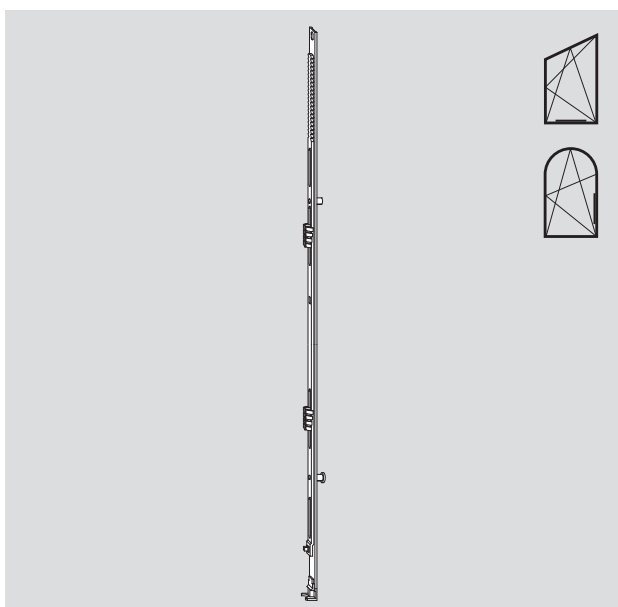


Arched component, horizontal			
SRW/mm	Description	Locking cam	Material no.
400 – 500	Arched component 280		<b>245728</b>
501 – 700	Arched component 480		<b>245729</b>
701 – 900	Arched component 680	1 E	<b>245730</b>
901 – 1100	Arched component 880	1 E	<b>245731</b>
1101 – 1300	Arched component 1080	1 E	<b>245732</b>

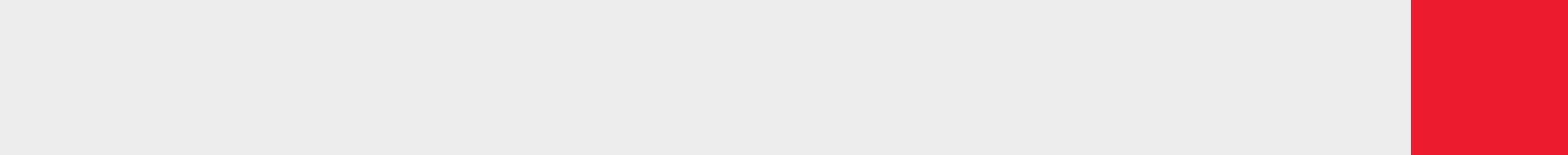


Arched component, vertical				
SRH/mm	SRW/mm	Description	Locking cam	Material no.
For arched windows		For pitched windows		
500 – 700 <sup>1)</sup>	340 – 530	Arched component 420		<b>245715</b>
701 – 900	531 – 730	Arched component 620	1 E	<b>245717</b>
901 – 1100	731 – 930	Arched component 820	1 E	<b>245719</b>
1101 – 1300	931 – 1130	Arched component 1020	1 E	<b>245721</b>
1301 – 1500	1131 – 1330	Arched component 1220	2 E	<b>245723</b>
1501 – 1700		Arched component 1420	2 E	<b>245725</b>
1701 – 1900		Arched component 1620	2 E	<b>245727</b>

1) With integrated corner drive for arched component



Arched component, vertical				
SRH/mm	SRW/mm	Description	Locking cam	Material no.
For arched windows		For pitched windows		
701 – 900	531 – 730	Arched component 620	1 V / 1 E	<b>245716</b>
901 – 1100	731 – 930	Arched component 820	1 V / 1 E	<b>245718</b>
1101 – 1300	931 – 1130	Arched component 1020	1 V / 1 E	<b>245720</b>
1301 – 1500	1131 – 1330	Arched component 1220	1 V / 1 E	<b>245722</b>
1501 – 1700		Arched component 1420	1 V / 2 E	<b>245724</b>
1701 – 1900		Arched component 1620	1 V / 2 E	<b>245726</b>



Centre lock





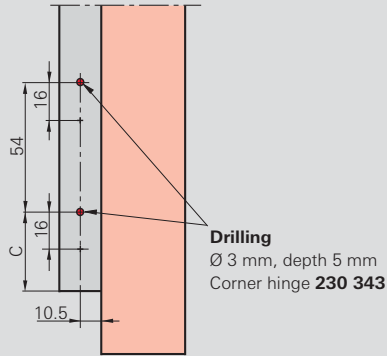
<b>Corner hinge / Pivot rest .....</b>	<b>190</b>
Hinge side K .....	190
System 12/18(20, 21, 22)-9(13).....	190
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Hinge side A .....	196
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Systems 12/18(20)-9 and 12/18(20)-13.....	205

# Corner hinge / Pivot rest

## Hinge side K

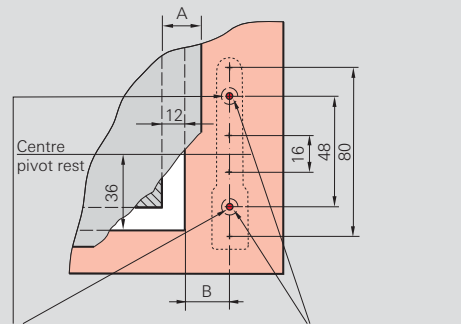
### System 12/18(20, 21, 22)-9(13)

Corner hinge K 3/100 and corner hinge K 3/100 for low tilting axis



Overlap width	Dimension C K 3/100	Dimension C K 3/100 for low tilting axis
18	49.5	40.5
20	51.5	42.5
21	52.5	43.5
22	53.5	44.5

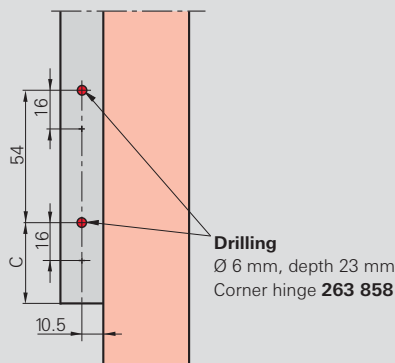
Pivot rest K 3/100, K 3/100 for low tilting axis and K 6/100\*



**Cams and screws have to penetrate at least 2 profile walls.**

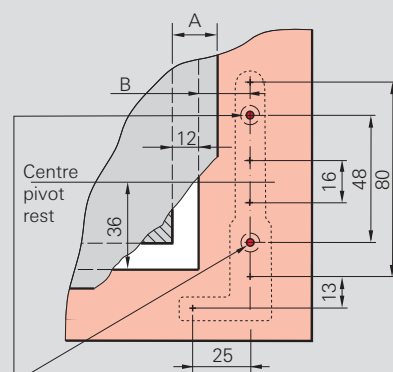
Overlap width/dimension A	Dimension B
18	16.5
20	18.5
21	19.5
22	20.5

Corner hinge K 6/130



Overlap width	Dimension C
18	49.5
20	51.5
21	52.5
22	53.5

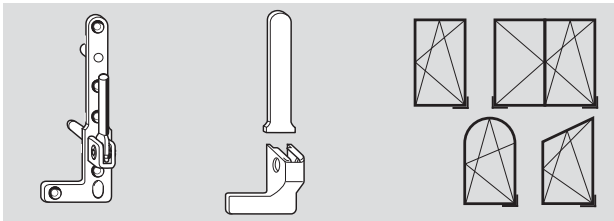
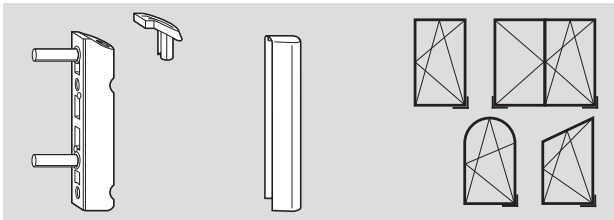
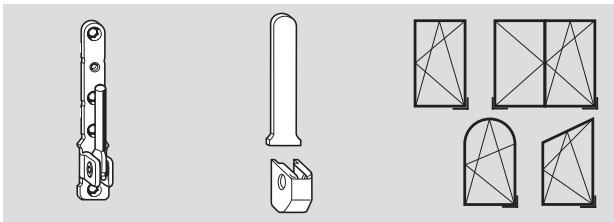
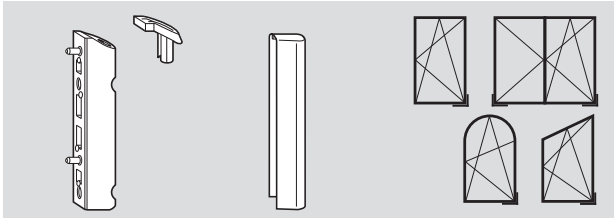
Pivot rest K 6/130



**Cams and screws have to penetrate at least 2 profile walls.**

Overlap width/dimension A	Dimension B
18	16.5
20	18.5
21	19.5
22	20.5

**12 mm clearance**  
**18/20/21/22 mm overlap width**  
**9/13 mm hardware axis**



Description	Material no.
<b>Corner hinge K 3/100</b> , max. sash weight 100 kg Height adjustable, 2 x Ø 3 mm supporting-pins	<b>230343</b>
<b>Corner hinge K 3/100</b> , max. sash weight 100 kg Gasket-compression and height adjustable	<b>445170</b>
<b>Corner hinge plug K</b>	<b>642266</b>
<b>Pivot rest K 3/100</b> Laterally adjustable, 2 x Ø 3 mm supporting-pins	<b>258590</b>
<b>Pivot rest K 6/100</b> (not dep.) Laterally adjustable, 2 x Ø 5.8 mm supporting-pins	<b>258592</b>
Mirror-image drilling and screw-fixing pattern, max. 100 kg	
<b>Pivot rest K 3/100</b> , low tilting axis (not dep.)	<b>306662</b>
<b>Corner hinge K 6/130</b> , max. sash weight 130 kg Height adjustable, 2 x Ø 5.8 mm supporting-pins	<b>263858</b>
<b>Corner hinge K 6/130</b> , max. sash weight 130 kg Gasket-compression and height adjustable	<b>445171</b>
<b>Corner hinge plug K</b>	<b>642266</b>
<b>Pivot rest K 6/130</b> , max. sash weight 130 kg Laterally adjustable, 2 x Ø 5.8 mm supporting-pins	L <b>230354</b> R <b>230355</b>
<b>For cover caps refer to the table below</b>	

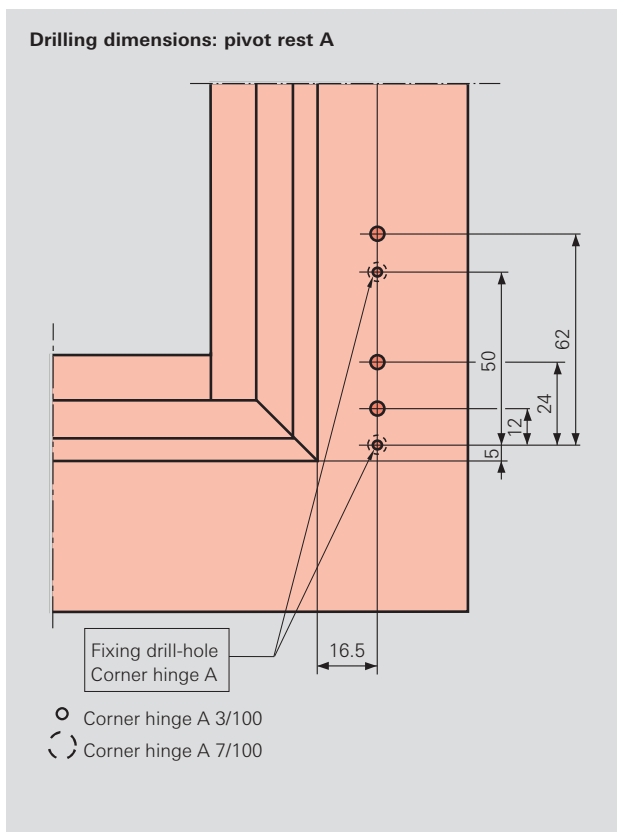
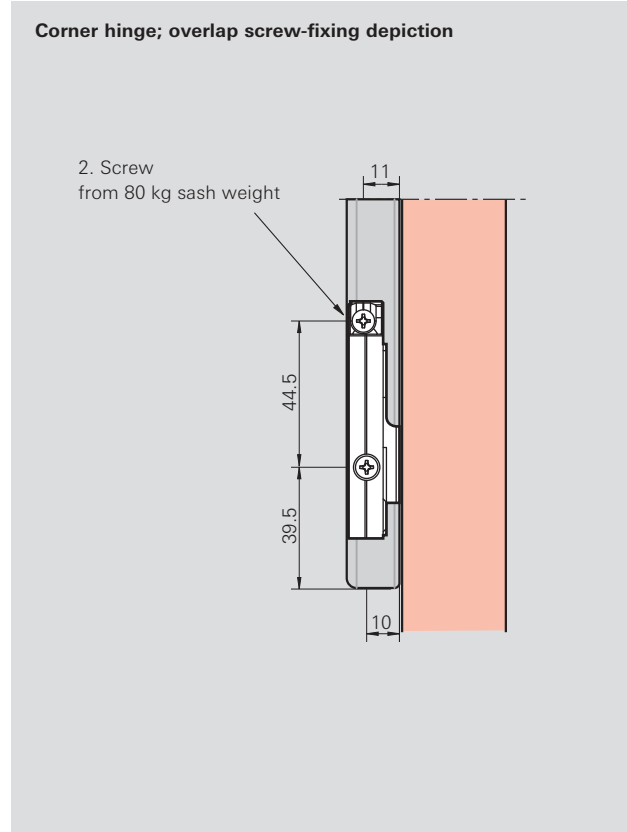
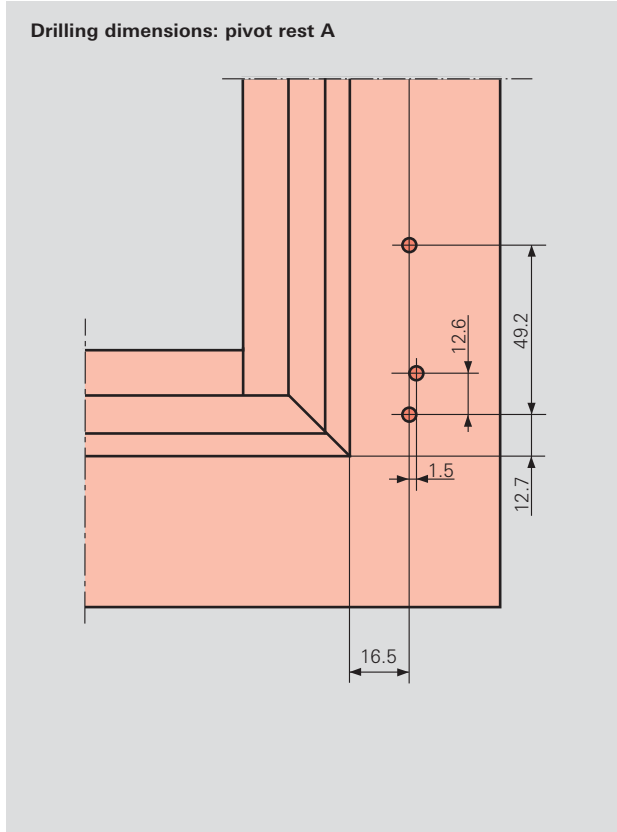
Description	Cover cap Corner hinge K	Cover cap Pivot rest K Base-plate	Cover cap Pivot rest K base-plate Low tilting axis	Cover cap Pivot rest K 100 kg	Cover cap Pivot rest Low tilting axis	Cover cap Pivot rest K 130 kg
	Material no.	Material no.	Material no.	Material no.	Material no.	Material no.
R01.1 Silver	<b>230481</b>	<b>230416</b>		<b>258545</b>	<b>309878</b>	L <b>230449</b> R <b>230450</b>
R01.2 Nickel silver	<b>230482</b>	<b>230417</b>		<b>258546</b>		L <b>230451</b> R <b>230452</b>
R01.3 Titanium-matt	<b>329188</b>	<b>329189</b>		<b>329190</b>	<b>309879</b>	L <b>329191</b> R <b>329192</b>
R03.1 Brass matt	<b>230485</b>	<b>230420</b>		<b>258919</b>		L <b>642356</b> R <b>642357</b>
R03.2 Polished brass	<b>230484</b>	<b>230419</b>	<b>318579</b>	<b>258920</b>		L <b>230455</b> R <b>230456</b>
R04.1 Grey-brown	<b>230490</b>	<b>230425</b>		<b>258921</b>		L <b>230467</b> R <b>230468</b>
R04.3 Olive-brown	<b>230487</b>	<b>230422</b>		<b>258923</b>		L <b>230461</b> R <b>230462</b>
R04.4 Black-brown	<b>230486</b>	<b>230421</b>	<b>309911</b>	<b>258922</b>	<b>309881</b>	L <b>230459</b> R <b>230460</b>
R05.3 Medium bronze	<b>230488</b>	<b>230423</b>		<b>258924</b>		L <b>230463</b> R <b>230464</b>
R05.5 Bronze	<b>230489</b>	<b>230424</b>		<b>258925</b>		L <b>637883</b> R <b>637884</b>
R07.2 White	<b>230491</b>	<b>230426</b>	<b>309912</b>	<b>258926</b>	<b>309892</b>	L <b>230469</b> R <b>230470</b>
Special colour	<b>230492</b>	<b>230427</b>		<b>258928</b>		L <b>230471</b> R <b>230472</b>

Corner hinge  
Pivot rest

## Rebate corner hinge / Pivot rest

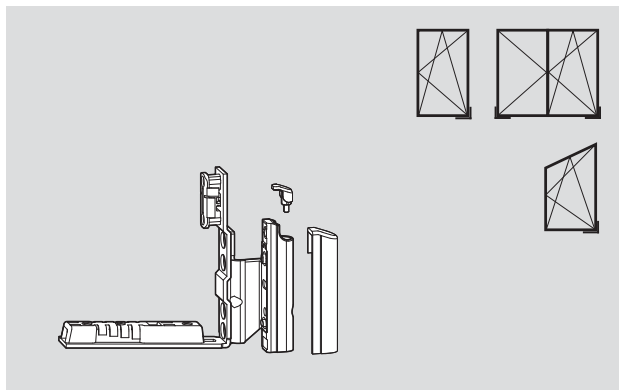
Hinge side A

System 12/18-9

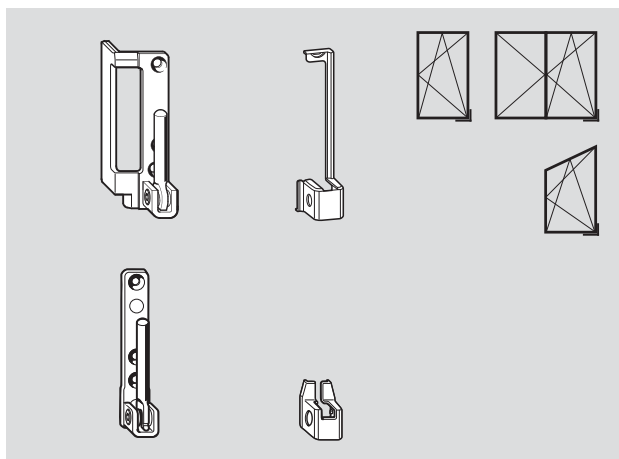




12 mm clearance  
18 mm overlap width  
9 mm hardware axis



Description	Material no.
<b>Rebate corner hinge A, 12/18-9, with groove</b>	L <b>447339</b>
Height / gasket-compression adjustable	R <b>447340</b>
<b>Plug</b>	<b>490197</b>



<b>Pivot rest A, 12/18-9, sash weight 100 kg</b>	L <b>261910</b>
Laterally adjustable	R <b>261911</b>
<b>Pivot rest A 3/100, 12/18-9, sash weight 100 kg</b>	<b>230410</b>
Laterally adjustable, 2 x Ø 3 mm supporting-pins	
<b>For cover caps refer to the table below</b>	

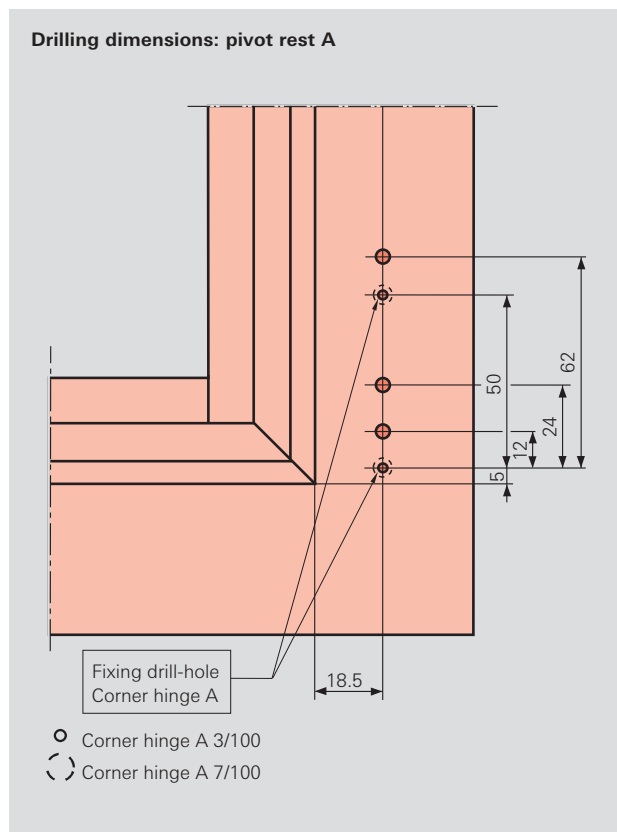
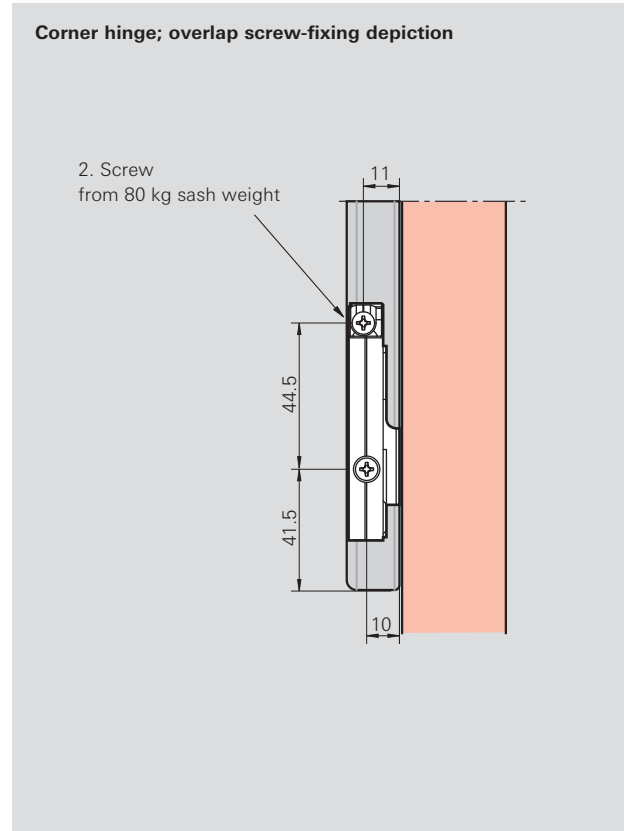
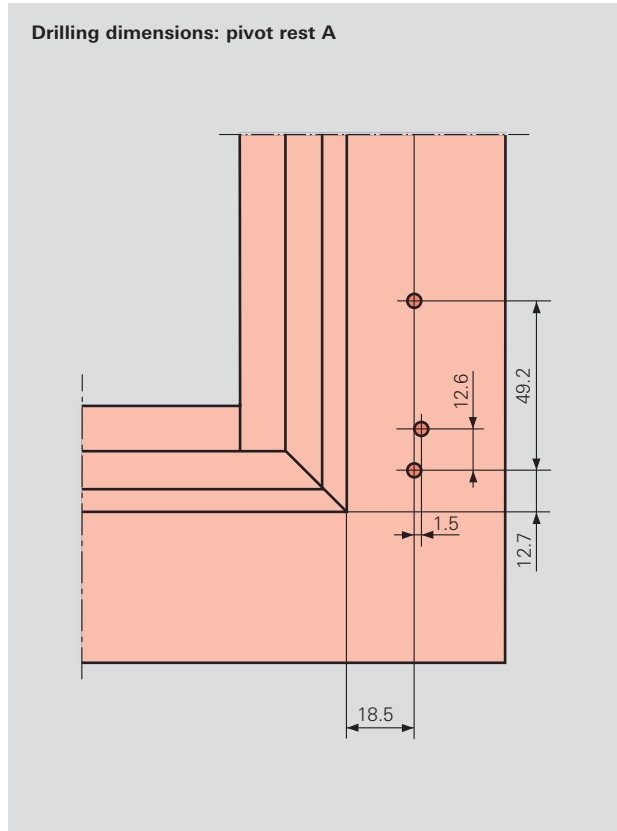
Description	Cover cap Rebate corner hinge A		Cover cap Pivot rest A Rebate stop		Cover cap Pivot rest A Supporting- pins	
	L	R	L	R	L	R
R01.1 Silver	L <b>309943</b>	R <b>309944</b>	L <b>264342</b>	R <b>264343</b>		
R01.2 Nickel silver	L <b>491818</b>	R <b>491819</b>	L <b>264356</b>	R <b>264357</b>		
R01.3 Titanium-matt	L <b>309945</b>	R <b>309946</b>	L <b>329193</b>	R <b>329194</b>		
R03.1 Brass matt	L <b>642361</b>	R <b>642362</b>	L <b>642359</b>	R <b>642360</b>		
R03.2 Polished brass	L <b>318587</b>	R <b>318586</b>	L <b>264348</b>	R <b>264349</b>		<b>231681</b>
R04.3 Olive-brown	L <b>491822</b>	R <b>491823</b>	L <b>264350</b>	R <b>264351</b>		
R04.4 Black-brown	L <b>309949</b>	R <b>309950</b>	L <b>264346</b>	R <b>264347</b>		<b>231680</b>
R05.3 Medium bronze	L <b>491824</b>	R <b>491845</b>	L <b>264362</b>	R <b>264363</b>		
R05.5 Bronze	L <b>637890</b>	R <b>637891</b>	L <b>637886</b>	R <b>637887</b>		
R07.2 White	L <b>309951</b>	R <b>309952</b>	L <b>264344</b>	R <b>264345</b>		<b>231679</b>
Special colour	L <b>491848</b>	R <b>491849</b>	L <b>264353</b>	R <b>264355</b>		

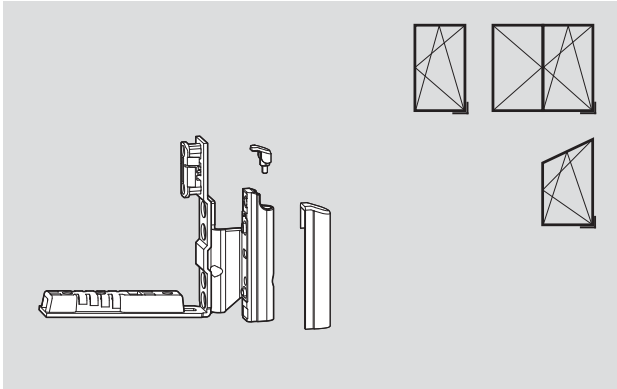
Corner hinge  
Pivot rest

## Rebate corner hinge / Pivot rest

Hinge side A

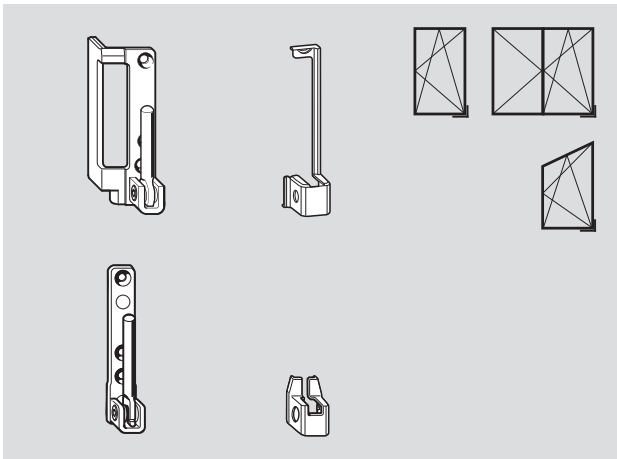
System 12/20-9





**12 mm clearance**  
**20 mm overlap width**  
**9 mm hardware axis**

Description	Material no.
<b>Rebate corner hinge A, 12/20-9, with groove</b>	L <b>447347</b>
Height / gasket-compression adjustable	R <b>447348</b>
<b>Rebate corner hinge A, 12/20-9 (not dep.)</b>	L <b>447349</b>
Height / gasket-compression adjustable	R <b>447350</b>
<b>Plug</b>	<b>490197</b>



<b>Pivot rest A, 12/20-9, sash weight 100 kg</b>	L <b>262004</b>
Laterally adjustable	R <b>262005</b>
<b>Pivot rest A 3/100, 12/20-9 (not dep.), sash weight 100 kg</b>	<b>230410</b>
Laterally adjustable, 2 x Ø 3 mm supporting-pins	
<b>For cover caps refer to the table below</b>	

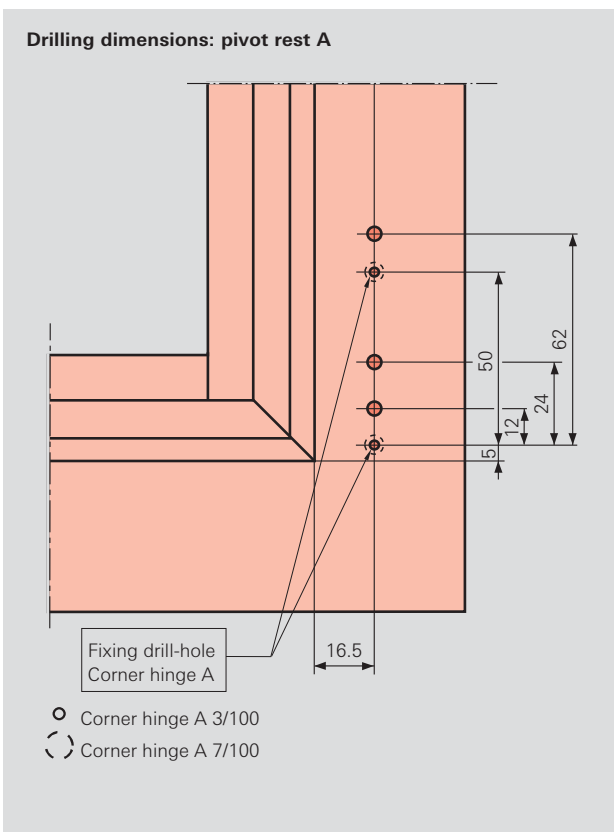
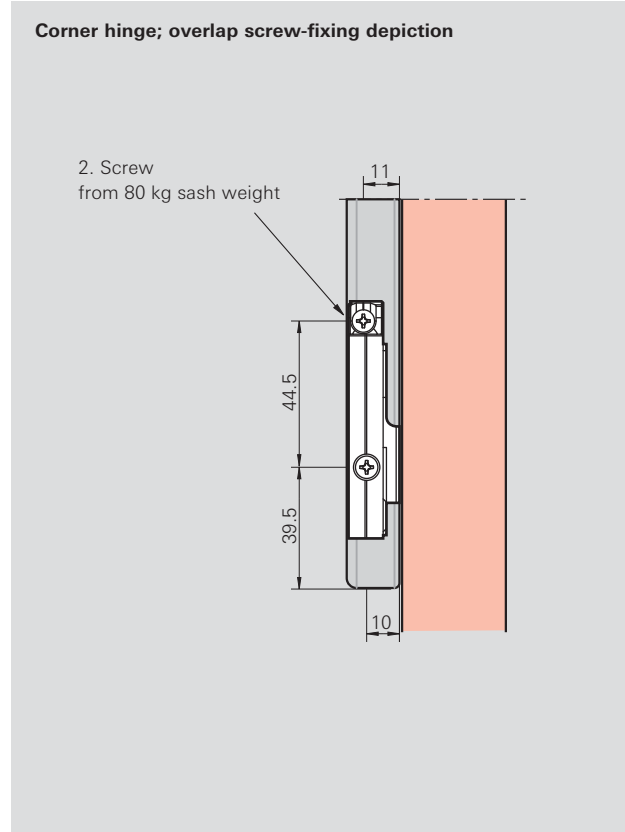
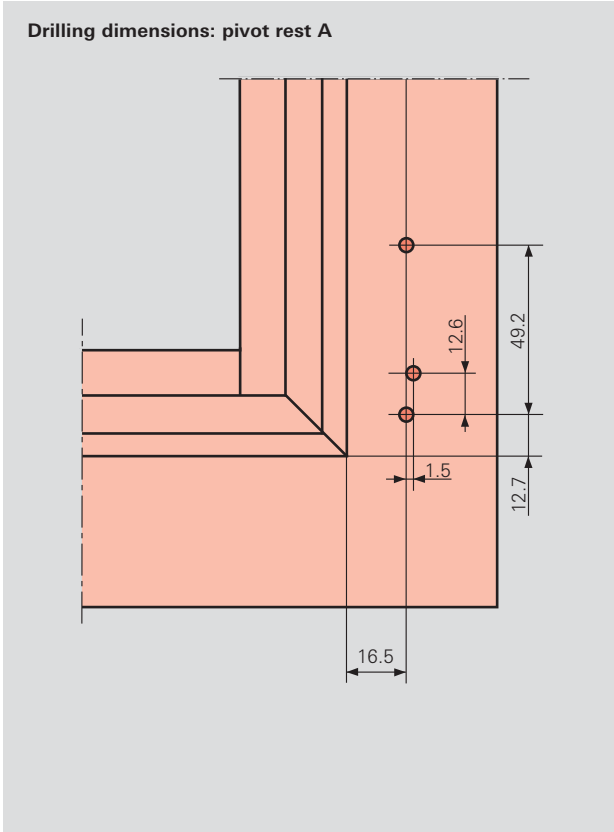
Description	Cover cap Rebate corner hinge A		Cover cap Pivot rest A Rebate stop		Cover cap Pivot rest A Supporting-pins	
	Material no.	Material no.	Material no.	Material no.	Material no.	Material no.
R01.1 Silver	L <b>309943</b>	L <b>264342</b>	L <b>309944</b>	L <b>264343</b>		
R01.2 Nickel silver	L <b>491818</b>	L <b>264356</b>	R <b>491819</b>	R <b>264357</b>		
R01.3 Titanium-matt	L <b>309945</b>	L <b>329193</b>	R <b>309946</b>	R <b>329194</b>		
R03.1 Brass matt	L <b>642361</b>	L <b>642359</b>	R <b>642362</b>	R <b>642360</b>		
R03.2 Polished brass	L <b>318587</b>	L <b>264348</b>	R <b>318586</b>	R <b>264349</b>	<b>231681</b>	
R04.3 Olive-brown	L <b>491822</b>	L <b>264350</b>	R <b>491823</b>	R <b>264351</b>		
R04.4 Black-brown	L <b>309949</b>	L <b>264346</b>	R <b>309950</b>	R <b>264347</b>	<b>231680</b>	
R05.3 Medium bronze	L <b>491824</b>	L <b>264362</b>	R <b>491845</b>	R <b>264363</b>		
R05.5 Bronze	L <b>637890</b>	L <b>637886</b>	R <b>637891</b>	R <b>637887</b>		
R07.2 White	L <b>309951</b>	L <b>264344</b>	R <b>309952</b>	R <b>264345</b>	<b>231679</b>	
Special colour	L <b>491848</b>	L <b>264353</b>	R <b>491849</b>	R <b>264355</b>		

Corner hinge  
Pivot rest

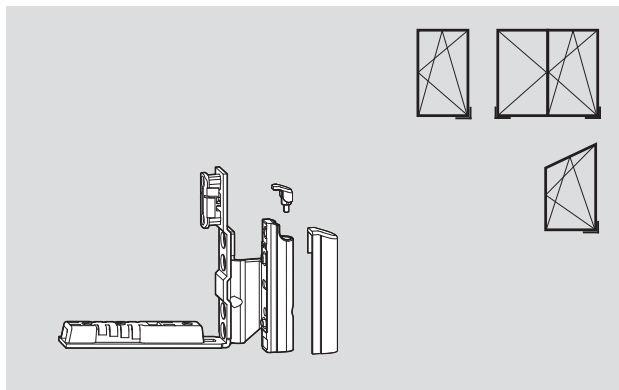
# Rebate corner hinge / Pivot rest

## Hinge side A

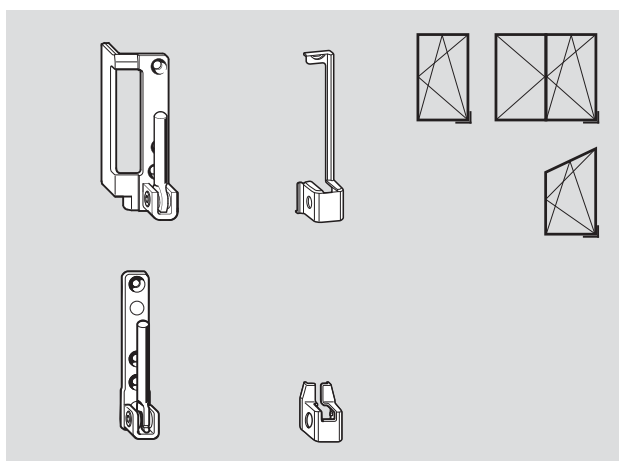
### System 12/18-13



**12 mm clearance**  
**18 mm overlap width**  
**13 mm hardware axis**



Description	Material no.
<b>Rebate corner hinge A, 12/18-13, with groove</b>	L <b>447353</b>
Height / gasket-compression adjustable	R <b>447354</b>
<b>Plug</b>	<b>490197</b>



<b>Pivot rest A, 12/18-13, sash weight 100 kg</b>	L <b>261910</b>
Laterally adjustable	R <b>261911</b>
<b>Pivot rest A 3/100, 12/18-13, sash weight 100 kg</b>	<b>230410</b>
Laterally adjustable, 2 x Ø 3 mm supporting-pins	
<b>For cover caps refer to the table below</b>	

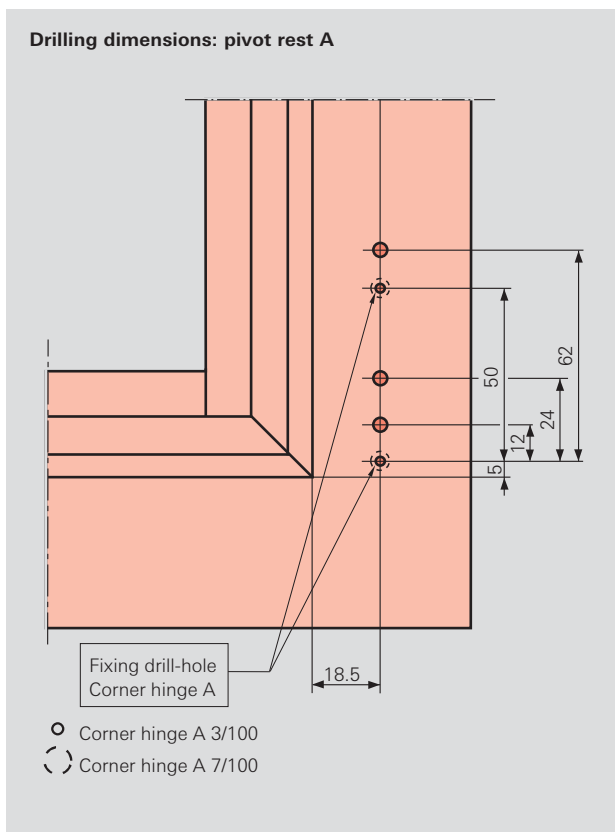
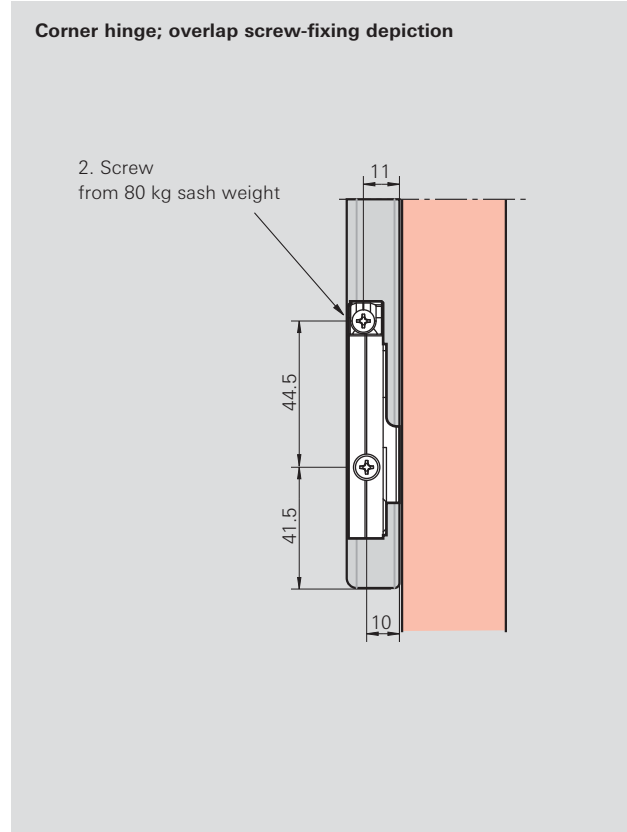
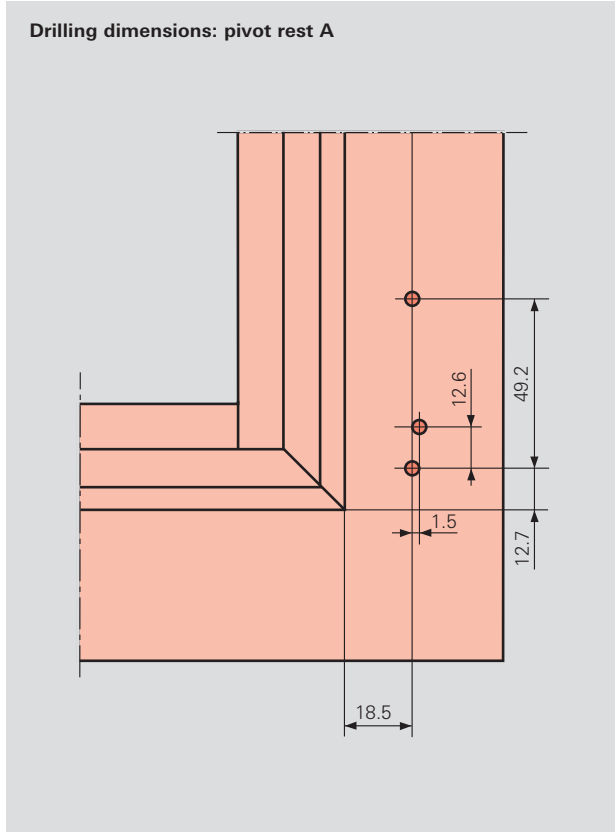
Description	Cover cap Rebate corner hinge A		Cover cap Pivot rest A Rebate stop		Cover cap Pivot rest A Supporting- pins	
	L	R	L	R	L	R
R01.1 Silver	L	<b>309943</b>	L	<b>264342</b>		
	R	<b>309944</b>	R	<b>264343</b>		
R01.2 Nickel silver	L	<b>491818</b>	L	<b>264356</b>		
	R	<b>491819</b>	R	<b>264357</b>		
R01.3 Titanium-matt	L	<b>309945</b>	L	<b>329193</b>		
	R	<b>309946</b>	R	<b>329194</b>		
R03.1 Brass matt	L	<b>642361</b>	L	<b>642359</b>		
	R	<b>642362</b>	R	<b>642360</b>		
R03.2 Polished brass	L	<b>318587</b>	L	<b>264348</b>		<b>231681</b>
	R	<b>318586</b>	R	<b>264349</b>		
R04.3 Olive-brown	L	<b>491822</b>	L	<b>264350</b>		
	R	<b>491823</b>	R	<b>264351</b>		
R04.4 Black-brown	L	<b>309949</b>	L	<b>264346</b>		<b>231680</b>
	R	<b>309950</b>	R	<b>264347</b>		
R05.3 Medium bronze	L	<b>491824</b>	L	<b>264362</b>		
	R	<b>491845</b>	R	<b>264363</b>		
R05.5 Bronze	L	<b>637890</b>	L	<b>637886</b>		
	R	<b>637891</b>	R	<b>637887</b>		
R07.2 White	L	<b>309951</b>	L	<b>264344</b>		<b>231679</b>
	R	<b>309952</b>	R	<b>264345</b>		
Special colour	L	<b>491848</b>	L	<b>264353</b>		
	R	<b>491849</b>	R	<b>264355</b>		

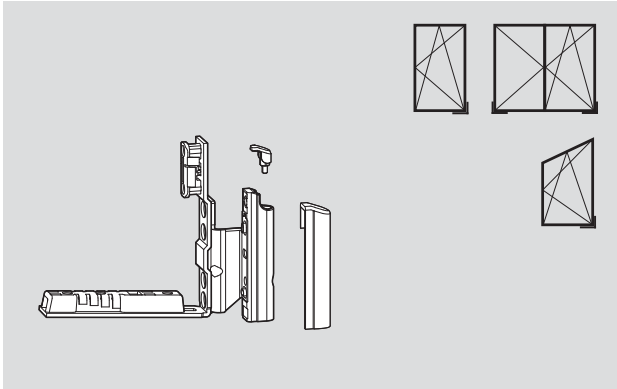
Corner hinge  
Pivot rest

## Rebate corner hinge / Pivot rest

Hinge side A

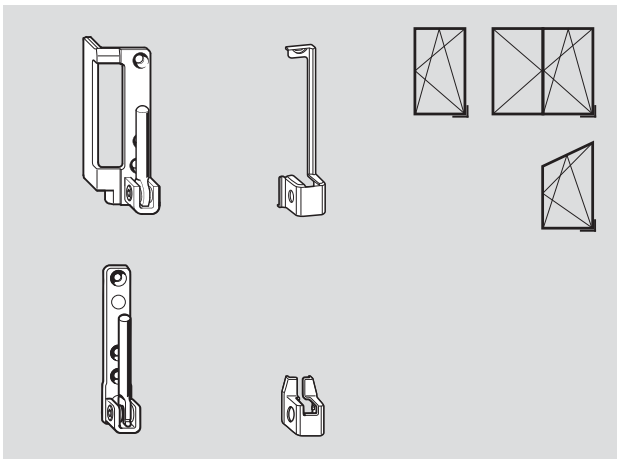
System 12/20-13





**12 mm clearance**  
**20 mm overlap width**  
**13 mm hardware axis**

Description	Material no.
<b>Rebate corner hinge A, 12/20-13, with groove</b>	L <b>447357</b>
Height / gasket-compression adjustable	R <b>447358</b>
<b>Plug</b>	<b>490197</b>



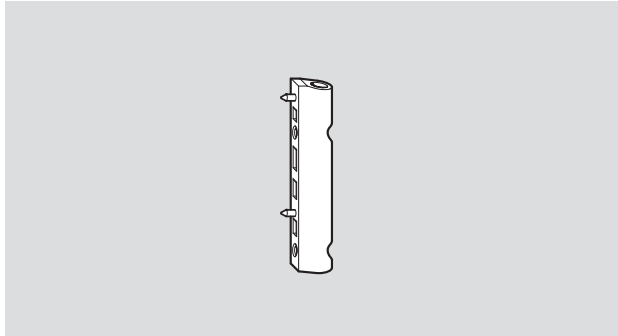
<b>Pivot rest A, 12/20-13, sash weight 100 kg</b>	L <b>262004</b>
Laterally adjustable	R <b>262005</b>
<b>Pivot rest A 3/100, 12/20-13 (not dep.), sash weight 100 kg</b>	<b>230410</b>
Laterally adjustable, 2 x Ø 3 mm supporting-pins	
<b>For cover caps refer to the table below</b>	

Description	Cover cap Rebate corner hinge A		Cover cap Pivot rest A Rebate stop		Cover cap Pivot rest A Supporting-pins	
	Material no.	Material no.	Material no.	Material no.	Material no.	Material no.
R01.1 Silver	L	<b>309943</b>	L	<b>264342</b>		
	R	<b>309944</b>	R	<b>264343</b>		
R01.2 Nickel silver	L	<b>491818</b>	L	<b>264356</b>		
	R	<b>491819</b>	R	<b>264357</b>		
R01.3 Titanium-matt	L	<b>309945</b>	L	<b>329193</b>		
	R	<b>309946</b>	R	<b>329194</b>		
R03.1 Brass matt	L	<b>642361</b>	L	<b>642359</b>		
	R	<b>642362</b>	R	<b>642360</b>		
R03.2 Polished brass	L	<b>318587</b>	L	<b>264348</b>		<b>231681</b>
	R	<b>318586</b>	R	<b>264349</b>		
R04.3 Olive-brown	L	<b>491822</b>	L	<b>264350</b>		
	R	<b>491823</b>	R	<b>264351</b>		
R04.4 Black-brown	L	<b>309949</b>	L	<b>264346</b>		<b>231680</b>
	R	<b>309950</b>	R	<b>264347</b>		
R05.3 Medium bronze	L	<b>491824</b>	L	<b>264362</b>		
	R	<b>491845</b>	R	<b>264363</b>		
R05.5 Bronze	L	<b>637890</b>	L	<b>637886</b>		
	R	<b>637891</b>	R	<b>637887</b>		
R07.2 White	L	<b>309951</b>	L	<b>264344</b>		<b>231679</b>
	R	<b>309952</b>	R	<b>264345</b>		
Special colour	L	<b>491848</b>	L	<b>264353</b>		
	R	<b>491849</b>	R	<b>264355</b>		

Corner hinge  
Pivot rest

# Corner hinge / Pivot rest

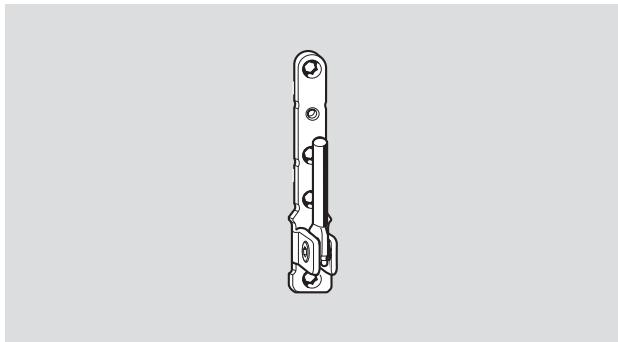
## Hinge side K and A, white



Description Material no.

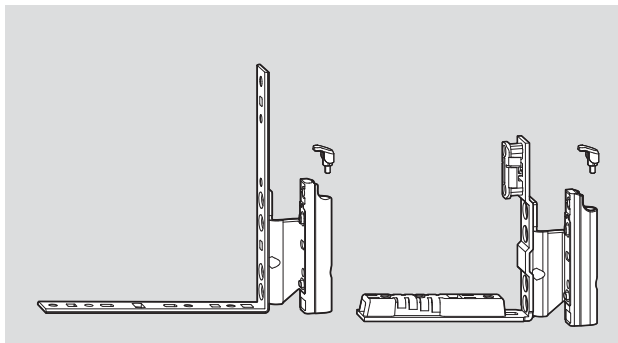
<b>Corner hinge K, white</b>	
Corner hinge K 3/100, white	<b>230341</b>
Corner hinge K 6/130, white	<b>230342</b>
Corner hinge K 3/100, white	<b>493268</b>
Gasket-compression and height adjustable	

Corner hinge plug K, white (not dep.) **245362**



**Pivot rest K, white**

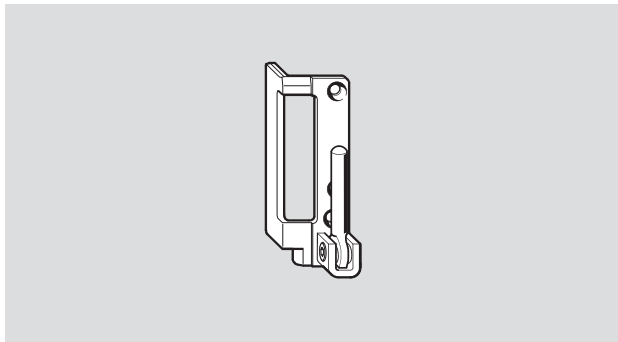
Pivot rest K 3/100, white	<b>230349</b>
Pivot rest K 6/100, white	<b>230350</b>



**Rebate corner hinge A, white**

Rebate corner hinge A 12/18-9, white	L	<b>451149</b>
	R	<b>451150</b>
Rebate corner hinge A 12/20-9, with groove, white	L	<b>451155</b>
	R	<b>451156</b>
Rebate corner hinge A 12/20-13, with groove, white	L	<b>451157</b>
	R	<b>451158</b>

**Plug, white** **490198**

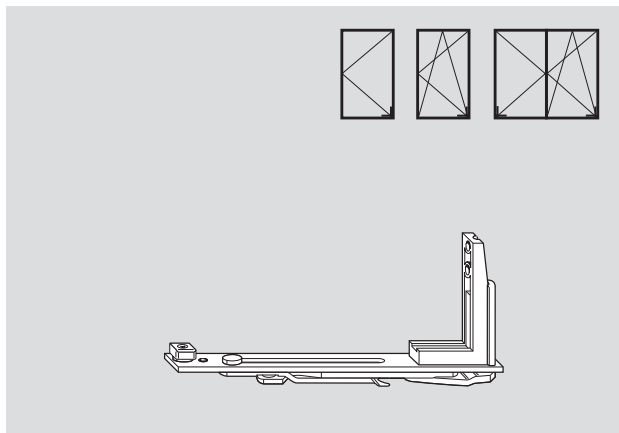


**Pivot rest A, white**

Pivot rest A 12/20-9 and 12/20-13, white	L	<b>231731</b>
	R	<b>231732</b>

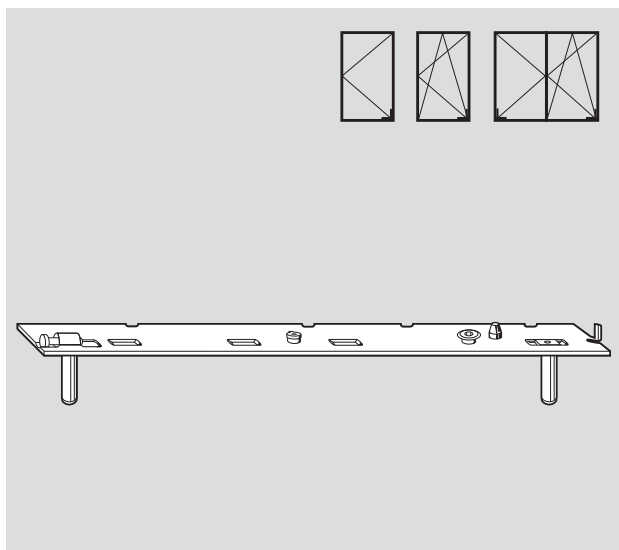


## Corner hinge / Pivot rest Hinge side NT Royal



### Corner hinge Royal

Description	Material no.
Corner hinge 20	L <b>254026</b> R <b>254028</b>



### Pivot rest Royal

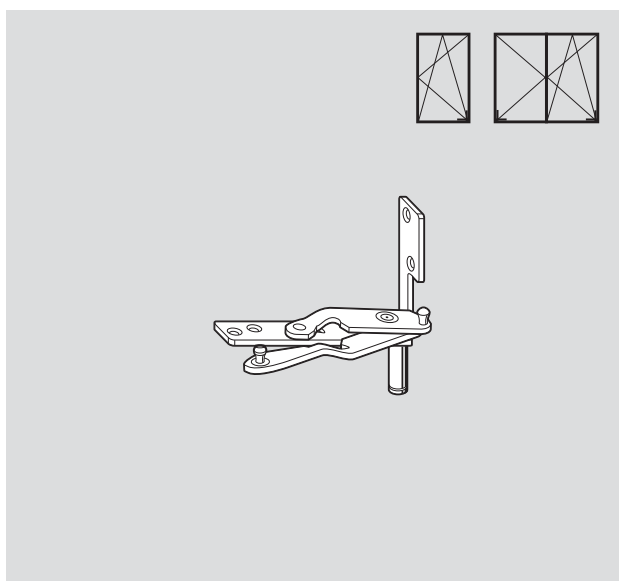
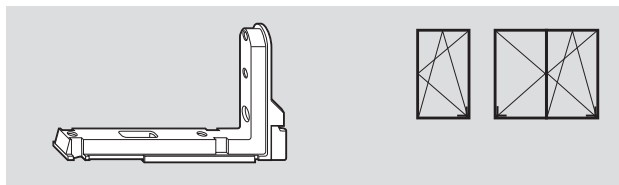
Description	Material no.
Pivot rest no. 03	L <b>286950</b> R <b>286951</b>
Pivot rest no. 04	L <b>283984</b> R <b>283982</b>
Pivot rest no. 05	L <b>254029</b> R <b>254030</b>
Pivot rest no. 06	L <b>258964</b> R <b>258965</b>
Pivot rest no. 07	L <b>254031</b> R <b>254032</b>
Pivot rest no. 08	L <b>257124</b> R <b>280426</b>
Pivot rest no. 11	L <b>254033</b> R <b>254034</b>
Pivot rest no. 12	L <b>317831</b> R <b>317832</b>

### The base plates are suitable for the following systems:

- Base plate **No. 03:** Trocal 900
- Base plate **No. 04:** Veka Softline AD 9
- Base plate **No. 05:** Veka Topline AD 13, Aluplast 3000,  
Schüco Corona CT70 AD, Schüco Corona SI82 MD
- Base plate **No. 06:** Kömmerling Eurodur 3S, Schüco Corona AD
- Base plate **No. 07:** Deceuninck Zendow, Gealan 3000, Gealan 7000,  
KBE 70 AD, Plus Plan Plus Tec,  
Rehau 799 Brillant Design (S730), Roplasto 4K
- Base plate **No. 08:** Salamander Design 2D, Salamander Design 3D  
Salamander Design BluEvolution  
Salamander Design Streamline 76
- Base plate **No. 11:** KBE MD
- Base plate **No. 12:** KBE AD
- Base plate **No. 18:** Inoutic Prestige AD, Inoutic Prestige MD

# Corner hinge / Pivot rest

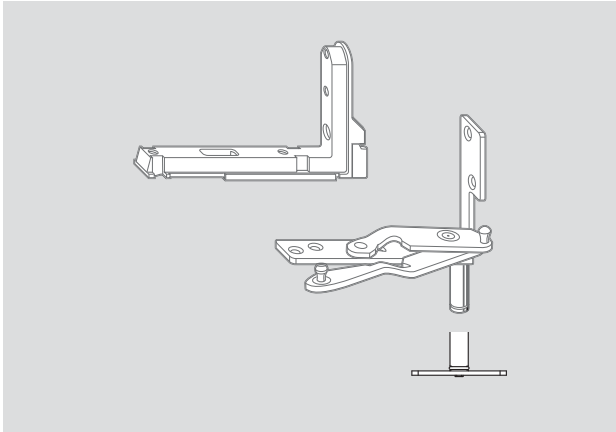
## Hinge side NT Designo



NT Designo pivot rest		
Manufacturer	Profile system	Pivot rest
Aluplast	Aluplast 3000	L <b>477232</b>
		R <b>477231</b>
	Aluplast 4000	L <b>477228</b>
		R <b>477229</b>
	Aluplast 5000	L <b>477228</b>
		R <b>477229</b>
Aluplast 6000	L <b>477228</b>	
	R <b>477229</b>	
Brüggmann	Brüggmann AD 13	L <b>477027</b>
		R <b>477026</b>
	Brüggmann MD 13	L <b>477027</b>
		R <b>477026</b>
Deceuninck	Deceuninck Zendow	L <b>477238</b>
		R <b>477237</b>
Gealan	Gealan 3000	L <b>477234</b>
		R <b>477233</b>
	Gealan 7000	L <b>477234</b>
		R <b>477233</b>
	Gealan 8000	L <b>477234</b>
		R <b>477233</b>
Inoutic	Prestige AD	L <b>477242</b>
		R <b>477241</b>
	Prestige MD	L <b>477242</b>
		R <b>477241</b>

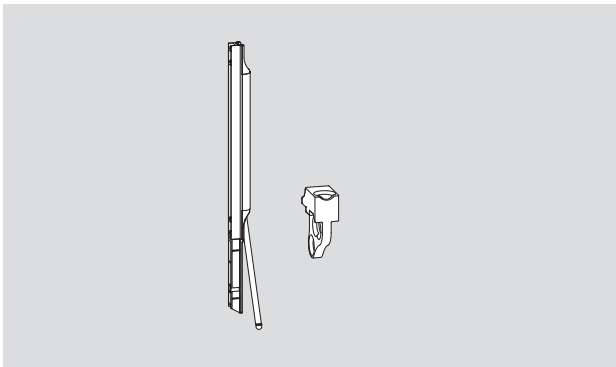
Description	Material no.
<b>Corner hinge NT Designo</b>	L <b>477212</b>
	R <b>477211</b>

NT Designo pivot rest			
Manufacturer	Profile system	Pivot rest	
KBE	KBE 70 AD	L <b>477238</b>	
		R <b>477237</b>	
Kömmerling	Kömmerling Eurofutur Classic	L <b>477236</b>	
		R <b>477235</b>	
	Kömmerling 88 Plus	L <b>477236</b>	
		R <b>477235</b>	
Rehau	Rehau 799, Brillant Design (S730)	L <b>477230</b>	
		R <b>477229</b>	
	Rehau 980, Geneo	L <b>477230</b>	
		R <b>477229</b>	
Roplasto	Roplasto 7001 AD	L <b>477226</b>	
		R <b>477225</b>	
	Roplasto 7001 MD	L <b>477226</b>	
		R <b>477225</b>	
	Salamander	Salamander 2D	L <b>477228</b>
			R <b>477227</b>
Salamander 3D		L <b>477228</b>	
		R <b>477227</b>	
Salamander BluEvolution	Salamander BluEvolution	L <b>477230</b>	
		R <b>477229</b>	
	Schüco	Schüco Corona CT70 AD	L <b>477232</b>
			R <b>477231</b>
Schüco	Schüco Corona CT70 MD	L <b>477232</b>	
		R <b>477231</b>	
	Schüco Corona SI82 MD	L <b>477232</b>	
		R <b>477231</b>	
Tropical	Tropical 88+	L <b>565715</b>	
		R <b>565664</b>	
	Tropical Innonova 2000	L <b>565715</b>	
		R <b>565664</b>	
	Tropical Innonova 70.A5 AD	L <b>477240</b>	
		R <b>477239</b>	
Tropical Innonova 70.M5 MD	L <b>477240</b>		
	R <b>477239</b>		
Veka	Veka Alphaline 90	L <b>477027</b>	
		R <b>477026</b>	
	Veka Softline 70 AD	L <b>477027</b>	
		R <b>477026</b>	
	Veka Softline 70 MD	L <b>477027</b>	
		R <b>477026</b>	
Veka Topline AD 13	L <b>477027</b>		
	R <b>477026</b>		
Veka Topline MD 13	L <b>477027</b>		
	R <b>477026</b>		



Counter bearing for sash weight 80–130 kg

**474138**



**Load transfer device NT Designo – for sash weight up to 130 kg**

Load transfer device sash component

**603079**

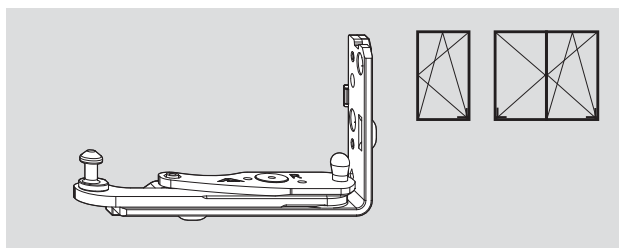
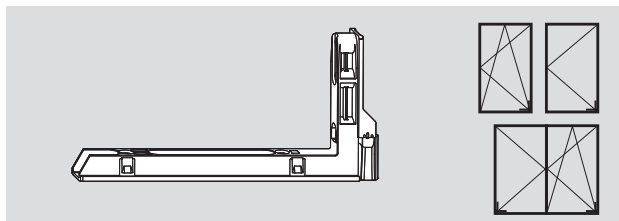
**Load transfer device, frame component**

Manufacturer	Profile system	Material no.
Aluplast	Aluplast 3000	<b>603216</b>
	Aluplast 4000	<b>603216</b>
	Aluplast 5000	<b>603216</b>
	Aluplast 6000	<b>603216</b>
Brügmann	Brügmann AD 13	<b>603216</b>
	Brügmann MD 13	<b>603216</b>
Deceuninck	Deceuninck Zendow	<b>603216</b>
Gealan	Gealan 3000	<b>603216</b>
	Gealan 7000	<b>603216</b>
	Gealan 8000	<b>603216</b>
Inoutic	Prestige AD	<b>603215</b>
	Prestige MD	<b>603215</b>
KBE	KBE 70 AD	<b>603216</b>
Kömmerling	Kömmerling Eurofutur Classic	<b>603216</b>
	Kömmerling 88 Plus	<b>603216</b>
Rehau	Rehau 799, Brillant Design (S730)	<b>603216</b>
	Rehau 980, Geneo	<b>603216</b>
Roplasto	Roplasto 7001 AD	<b>603216</b>
	Roplasto 7001 MD	<b>603216</b>
Salamander	Salamander 2D	<b>603216</b>
	Salamander 3D	<b>603216</b>
	Salamander BluEvolution	<b>603216</b>
Schüco	Schüco Corona CT70 AD	<b>603216</b>
	Schüco Corona CT70 MD	<b>603216</b>
	Schüco Corona SI82 MD	<b>603216</b>
Tropical	Tropical 88+	<b>603215</b>
	Tropical Innonova 2000	<b>603215</b>
	Tropical Innonova 70.A5 AD	<b>603216</b>
	Tropical Innonova 70.M5 MD	<b>603216</b>
Veka	Veka Alphaline 90	<b>603216</b>
	Veka Softline 70 AD	<b>603216</b>
	Veka Softline 70 MD	<b>603216</b>
	Veka Topline AD 13	<b>603216</b>
	Veka Topline MD 13	<b>603216</b>

Corner hinge  
Pivot rest

# Corner hinge / Pivot rest

## Hinge side NT Designo II



### Pivot rest NT Designo II

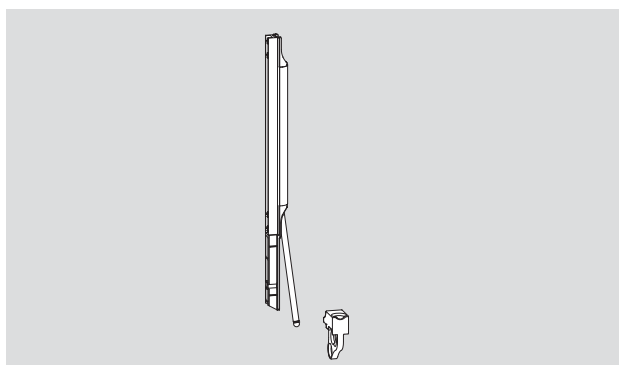
Manufacturer	Profile system	Pivot rest
Aluplast	Aluplast 2000	L <b>623974</b>
		R <b>623973</b>
	Aluplast 4000	L <b>628950</b>
		R <b>628949</b>
	Aluplast 5000	L <b>628950</b>
		R <b>628949</b>
Aluplast 6000	L <b>628950</b>	
	R <b>628949</b>	
Aluplast 8000	L <b>628950</b>	
	R <b>628949</b>	
Brüggmann	Brüggmann AD 13	L <b>635235</b>
		R <b>635234</b>
	Brüggmann MD 13	L <b>635235</b>
		R <b>635234</b>
Deceuninck	Deceuninck Zendow	L <b>623953</b>
		R <b>623954</b>
Gealan	Gealan 3000	L <b>606343</b>
		R <b>606341</b>
	Gealan 7000	L <b>606343</b>
		R <b>606341</b>
	Gealan 8000	L <b>606343</b>
		R <b>606341</b>
Inoutic	Inoutic Eforte, Inoutic Prestige AD/MD	L <b>635402</b>
		R <b>635401</b>

### Corner hinge NT Designo II

Description	Material no.
Corner hinge NT Designo II	<b>634705</b>

### Pivot rest NT Designo II

Manufacturer	Profile system	Pivot rest
Kömmerling	Kömmerling Eurofutur Classic	L <b>606355</b>
		R <b>606354</b>
	Kömmerling Eurofutur Elegance	L <b>606355</b>
		R <b>606354</b>
	Kömmerling 88 Plus	L <b>606355</b>
		R <b>606354</b>
Rehau	Rehau 799, Brillant Design (S730)	L <b>610966</b>
		R <b>610965</b>
	Rehau 980, Geneo	L <b>606371</b>
		R <b>606370</b>
Salamander	Salamander 2D, 3D	L <b>635616</b>
		R <b>635615</b>
	Salamander BluEvolution	L <b>635626</b>
		R <b>635625</b>
Schüco	Schüco CT70 AD	L <b>623974</b>
		R <b>623973</b>
	Schüco Corona CT70 MD	L <b>623974</b>
		R <b>623973</b>
	Schüco Corona SI82 MD	L <b>623974</b>
		R <b>623973</b>
Trocal	Trocal Innonova 70.A5 AD	L <b>626609</b>
		R <b>626608</b>
	Trocal Innonova 70.M5 MD	L <b>626609</b>
		R <b>626608</b>
Trocal 88 +	L <b>637781</b>	
	R <b>637780</b>	
Veka	Veka Alphasine 90	L <b>635235</b>
		R <b>635234</b>
	Veka Softline 70 AD	L <b>635235</b>
		R <b>635234</b>
	Veka Softline 70 MD	L <b>606397</b>
		R <b>606396</b>



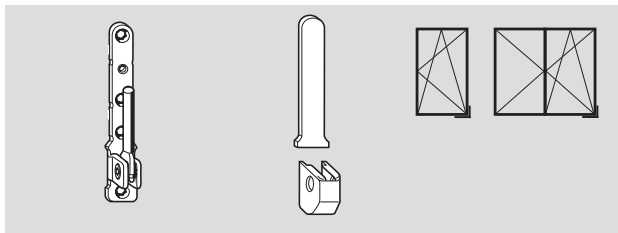
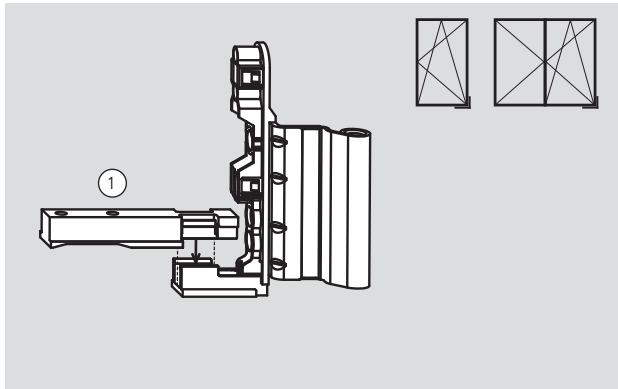
### Load transfer device NT Designo II – for sash weight up to 150 kg

Description	Material no.
Load transfer device sash component	<b>567972</b>
Load transfer device, frame component	<b>565254</b>

# Rebate corner hinge NT Alu

## Hinge side NT Aluminium

### Systems 12/18(20)-9 and 12/18(20)-13



Description	Material no.
<b>Rebate corner hinge NT Alu 12/18-9,</b> max. sash weight 100 kg	L <b>616324</b> R <b>616366</b>
<b>Rebate corner hinge NT Alu 12/20-9,</b> max. sash weight 100 kg	L <b>616369</b> R <b>616370</b>
<b>Rebate corner hinge NT Alu 12/18-13,</b> max. sash weight 100 kg	L <b>616367</b> R <b>616368</b>
<b>Rebate corner hinge NT Alu 12/20-13,</b> max. sash weight 100 kg	L <b>616371</b> R <b>616372</b>
<b>① Rebate corner hinge extension</b>	<b>624462</b>

<b>Pivot rest K 3/100</b> Laterally adjustable, 2 x Ø 3 mm supporting-pins	<b>258590</b>
<b>Pivot rest K 6/100</b> (not dep.) Laterally adjustable, 2 x Ø 5.8 mm supporting-pins Mirror-image drilling and screw-fixing pattern, sash weight 100 kg	<b>258592</b>

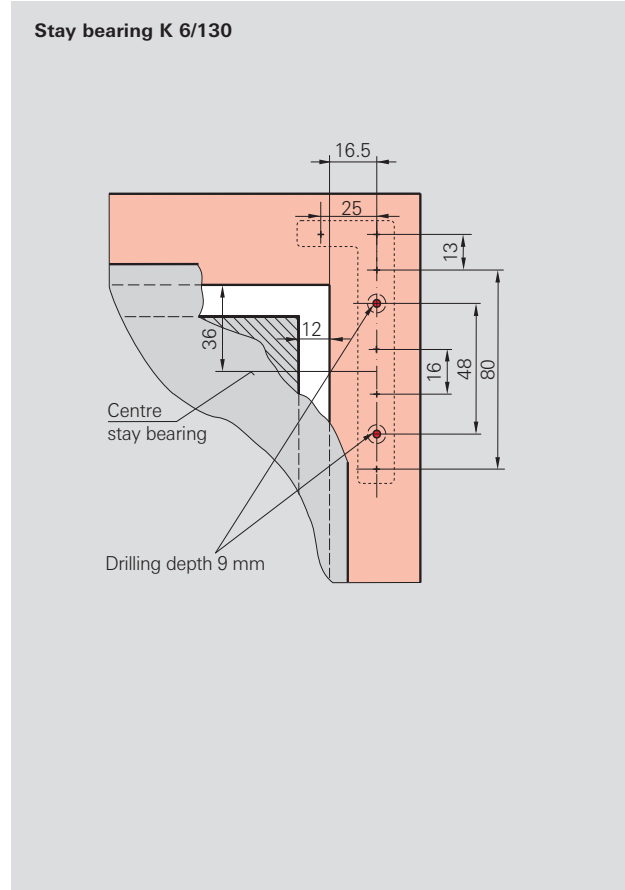
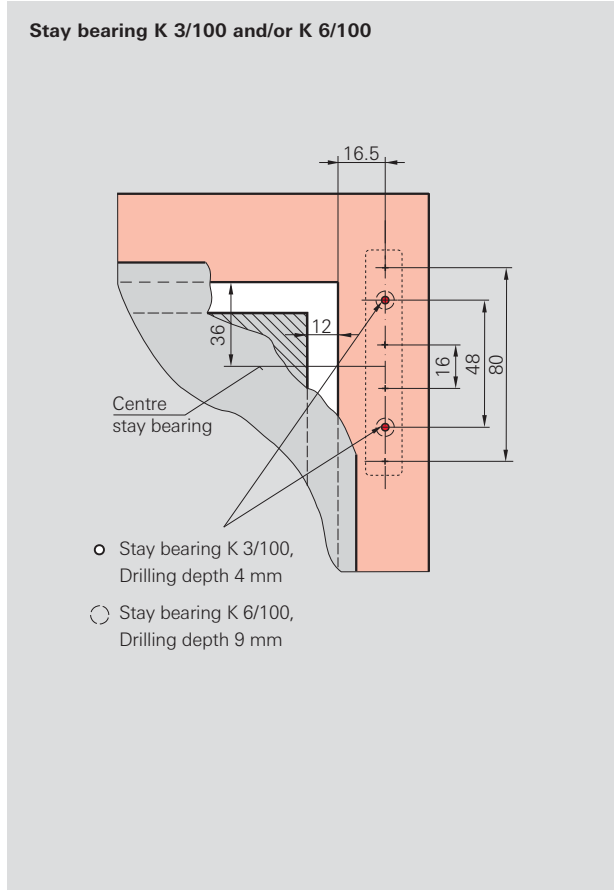
For cover caps refer to the table below








Description	Cover cap Rebate corner hinge NT Alu		Cover cap Pivot rest K Base-plate	Cover cap Pivot rest K 100 kg
	L	R	Material no.	Material no.
R01.1 Silver	L <b>389407</b> R <b>389408</b>		<b>230416</b>	<b>258545</b>
R01.2 Nickel silver			<b>230417</b>	<b>258546</b>
R01.3 Titanium-matt	L <b>374978</b> R <b>374979</b>		<b>329189</b>	<b>329190</b>
R03.1 Brass matt	L <b>374976</b> R <b>374977</b>		<b>230420</b>	<b>258919</b>
R03.2 Polished brass	L <b>449992</b> R <b>449993</b>		<b>230419</b>	<b>258920</b>
R04.4 Black-brown	L <b>374974</b> R <b>374975</b>		<b>230421</b>	<b>258922</b>
R05.3 Medium bronze	L <b>449990</b> R <b>449991</b>		<b>230423</b>	<b>258924</b>
R06.2 Jet-black	L <b>493505</b> R <b>493507</b>		<b>492346</b>	<b>492347</b>
R07.2 White	L <b>341154</b> R <b>341155</b>		<b>230426</b>	<b>258926</b>
Special colour	L <b>494948</b> R <b>494949</b>		<b>230427</b>	<b>258928</b>



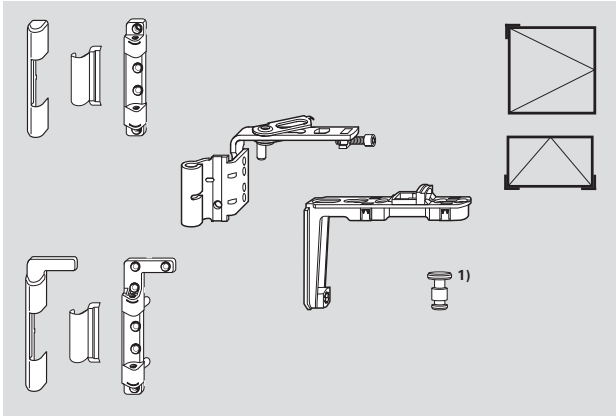
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Hinge side NT Designo II .....	231

# Hinge side K System 12/18-9



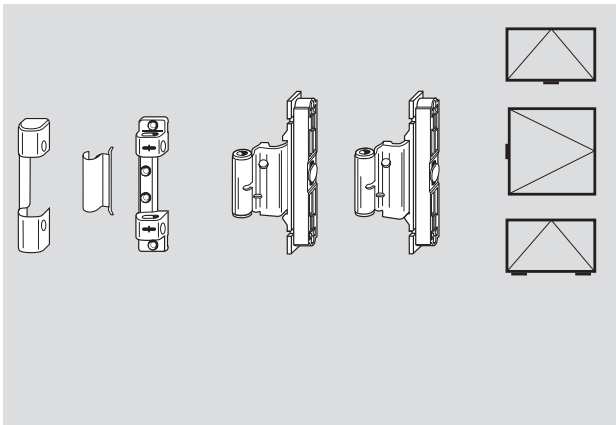
Description	 Cover cap Stay-arm hinge K Also for pitched stay-arms	 Cover cap Stay-arm hinge K Without base-plate	 Cover cap Turn-Only sash	 Cover cap Stay bearing K 100 kg	 Cover cap Arched windows Stay-arm hinge K	 Cover cap Stay bearing K adjustable	 Cover cap Stay bearing K 130 kg
	Material no.	Material no.	Material no.	Material no.	Material no.	Material no.	Material no.
R01.1 Silver	<b>392065</b>		<b>392065</b>	<b>230195</b>	<b>231355</b>	<b>230304</b>	L <b>230211</b> R <b>230212</b>
R01.2 Nickel silver	<b>230244</b>			<b>230196</b>		<b>230305</b>	L <b>230213</b> R <b>230214</b>
R01.3 Titanium-matt	<b>329179</b>		<b>493499</b>	<b>329180</b>	<b>329892</b>	<b>329183</b>	L <b>329181</b> R <b>329182</b>
R03.1 Brass matt	<b>230246</b>	<b>642367</b>		<b>230199</b>	<b>642358</b>	<b>642354</b>	L <b>642349</b> R <b>642350</b>
R03.2 Brass Polished	<b>484580</b>		<b>484580</b>	<b>230198</b>	<b>213047</b>	<b>230307</b>	
R04.1 Grey-brown	<b>230251</b>			<b>230204</b>		<b>230313</b>	L <b>230229</b> R <b>230230</b>
R04.3 Olive-brown	<b>230248</b>			<b>230201</b>	<b>213046</b>	<b>230310</b>	L <b>230223</b> R <b>230224</b>
R04.4 Black-brown	<b>483374</b>		<b>483374</b>	<b>230200</b>	<b>213045</b>	<b>230309</b>	L <b>230221</b> R <b>230222</b>
R05.3 Medium bronze	<b>230249</b>		<b>491326</b>	<b>230202</b>	<b>231366</b>	<b>230311</b>	L <b>230225</b> R <b>230226</b>
R05.5 Bronze	<b>230250</b>			<b>230203</b>	<b>637885</b>	<b>637881</b>	L <b>637876</b> R <b>637877</b>
R07.2 White	<b>390460</b>		<b>390460</b>	<b>230205</b>	<b>213044</b>	<b>230314</b>	L <b>230231</b> R <b>230232</b>
RAL 9016				<b>230253</b>			
Special colour	<b>230254</b>			<b>230206</b>	<b>213049</b>	<b>230315</b>	





**12 mm clearance**  
**18 mm overlap width**  
**9 mm hardware axis**

Description		Material no.
<b>Rebate-hinge arm K 12/18-9</b>	L	<b>264081</b>
	R	<b>264083</b>
<b>Sash-component for rebate hinge</b>		<b>331488</b>
<b>Stay bearing K 3/100<sup>(*)</sup></b> , max. sash weight 100 kg		<b>230177</b>
2 x Ø 3 mm supporting-pins		
<b>Stay bearing K 6/100<sup>(*)</sup></b> (not dep.), max. sash weight 100 kg		<b>230178</b>
2 x Ø 5.8 mm supporting-pins		
<b>Stay bearing K 6/130<sup>(*)</sup></b> , max. sash weight 130 kg	L	<b>230179</b>
	R	<b>230180</b>
2 x Ø 5.8 mm supporting-pins		
<b>1) Clasp for Tilt-Only sashes</b>		<b>230651</b>



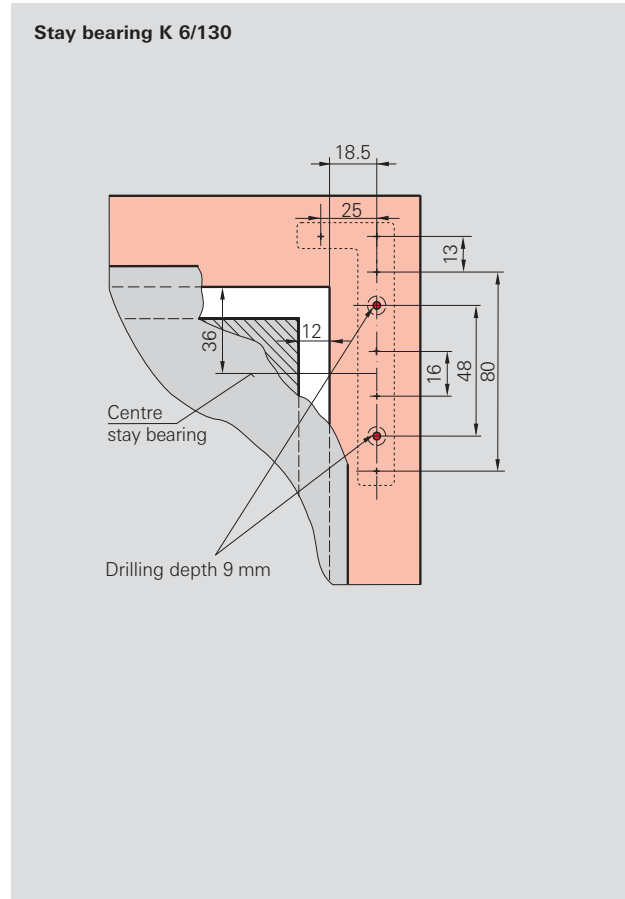
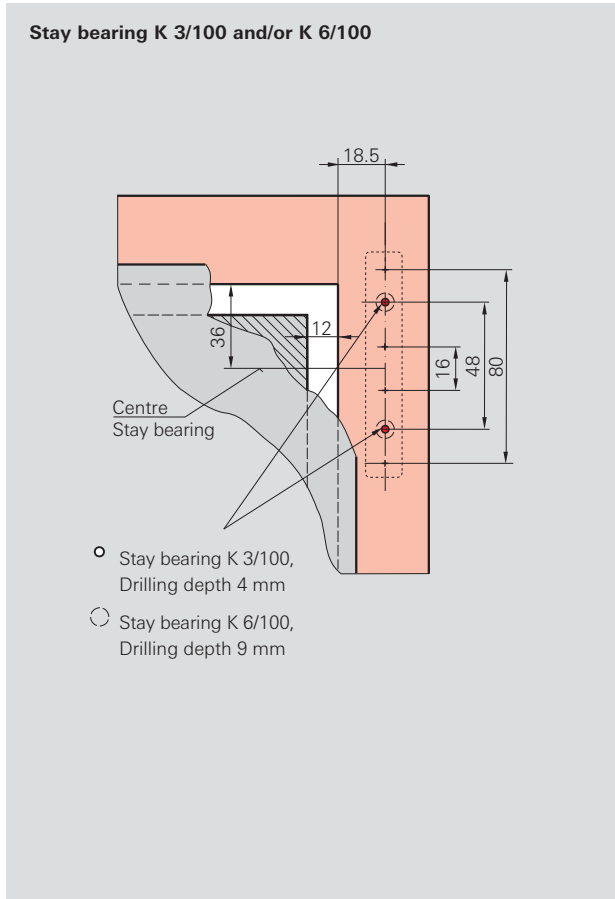
<b>Turn-Only and Tilt-Only rebate hinge K, 12/18-9 with +/- 3 mm alignment</b>		<b>264001</b>
<b>Turn-Only and Tilt-Only rebate hinge K, 12/18-9 with +/- 3 mm alignment, without groove</b> (not dep.)		<b>264002</b>
<b>Turn-Only and Tilt-Only rebate hinge K, 12/18-9 without alignment</b>		<b>264003</b>
<b>Turn-Only and Tilt-Only rebate hinge K, 12/18-9 without alignment, without groove</b> (not dep.)		<b>264004</b>
<b>Stay bearing K 3/100<sup>(*)</sup></b> (not dep.)		<b>230177</b>
<b>Stay bearing K 6/100<sup>(*)</sup></b> (not dep.)		<b>230178</b>
<b>Stay bearing K 3/100, adjustable<sup>(*)</sup></b>		<b>245706</b>
<b>Stay bearing K 6/100, adjustable<sup>(*)</sup></b> (not dep.)		<b>245707</b>

**(\*) In addition: Stay-bearing pin** **227354**

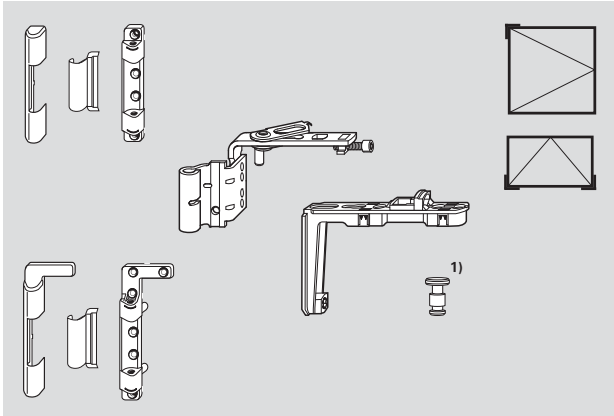
For cover caps refer to the table on the bottom of the left hand page

Rebate hinge  
 Turn-Only hinge  
 Tilt-Only hinge

# Hinge side K System 12/20-9

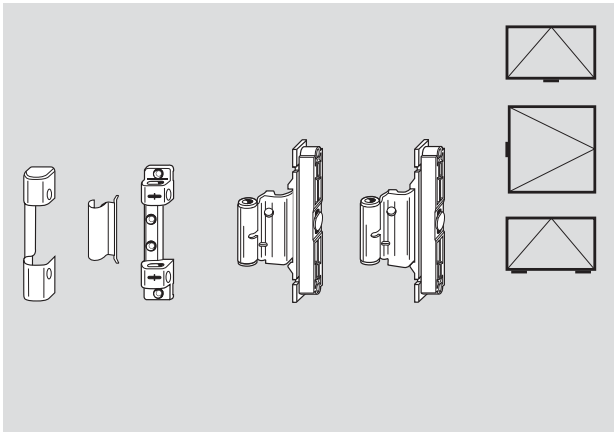


Description	Cover cap Stay-arm hinge K Also for pitched stay-arms	Cover cap Stay-arm hinge K Without base-plate	Cover cap Turn-Only sash	Cover cap Stay bearing K 100 kg	Cover cap Arched windows Stay-arm hinge K	Cover cap Stay bearing K adjustable	Cover cap Stay bearing K 130 kg
	Material no.	Material no.	Material no.	Material no.	Material no.	Material no.	Material no.
R01.1 Silver	<b>392065</b>		<b>392065</b>	<b>230195</b>	<b>231355</b>	<b>230304</b>	L <b>230211</b> R <b>230212</b>
R01.2 Nickel silver	<b>230244</b>			<b>230196</b>		<b>230305</b>	L <b>230213</b> R <b>230214</b>
R01.3 Titanium-matt	<b>329179</b>		<b>493499</b>	<b>329180</b>	<b>329892</b>	<b>329183</b>	L <b>329181</b> R <b>329182</b>
R03.1 Brass matt	<b>230246</b>	<b>642367</b>		<b>230199</b>	<b>642358</b>	<b>642354</b>	L <b>642349</b> R <b>642350</b>
R03.2 Brass Polished	<b>484580</b>		<b>484580</b>	<b>230198</b>	<b>213047</b>	<b>230307</b>	
R04.1 Grey-brown	<b>230251</b>			<b>230204</b>		<b>230313</b>	L <b>230229</b> R <b>230230</b>
R04.3 Olive-brown	<b>230248</b>			<b>230201</b>	<b>213046</b>	<b>230310</b>	L <b>230223</b> R <b>230224</b>
R04.4 Black-brown	<b>483374</b>		<b>483374</b>	<b>230200</b>	<b>213045</b>	<b>230309</b>	L <b>230221</b> R <b>230222</b>
R05.3 Medium bronze	<b>230249</b>		<b>491326</b>	<b>230202</b>	<b>231366</b>	<b>230311</b>	L <b>230225</b> R <b>230226</b>
R05.5 Bronze	<b>230250</b>			<b>230203</b>	<b>637885</b>	<b>637881</b>	L <b>637876</b> R <b>637877</b>
R07.2 White	<b>390460</b>		<b>390460</b>	<b>230205</b>	<b>213044</b>	<b>230314</b>	L <b>230231</b> R <b>230232</b>
RAL 9016				<b>230253</b>			
Special colour	<b>230254</b>			<b>230206</b>	<b>213049</b>	<b>230315</b>	



12 mm clearance  
 20 mm overlap width  
 9 mm hardware axis

Description	Material no.	
<b>Rebate-hinge arm K 12/20-9</b>	L	<b>263183</b>
	R	<b>263184</b>
<b>Sash-component for rebate hinge</b>	<b>331488</b>	
<b>Stay bearing K 3/100<sup>(*)</sup></b> , max. sash weight 100 kg	<b>230177</b>	
2 x Ø 3 mm supporting-pins		
<b>Stay bearing K 6/100<sup>(*)</sup></b> (not dep.), max. sash weight 100 kg	<b>230178</b>	
2 x Ø 5.8 mm supporting-pins		
<b>Stay bearing K 6/130<sup>(*)</sup></b> , max. sash weight 130 kg	L	<b>230179</b>
	R	<b>230180</b>
2 x Ø 5.8 mm supporting-pins		
<b>1) Clasp for Tilt-Only sashes</b>	<b>230651</b>	



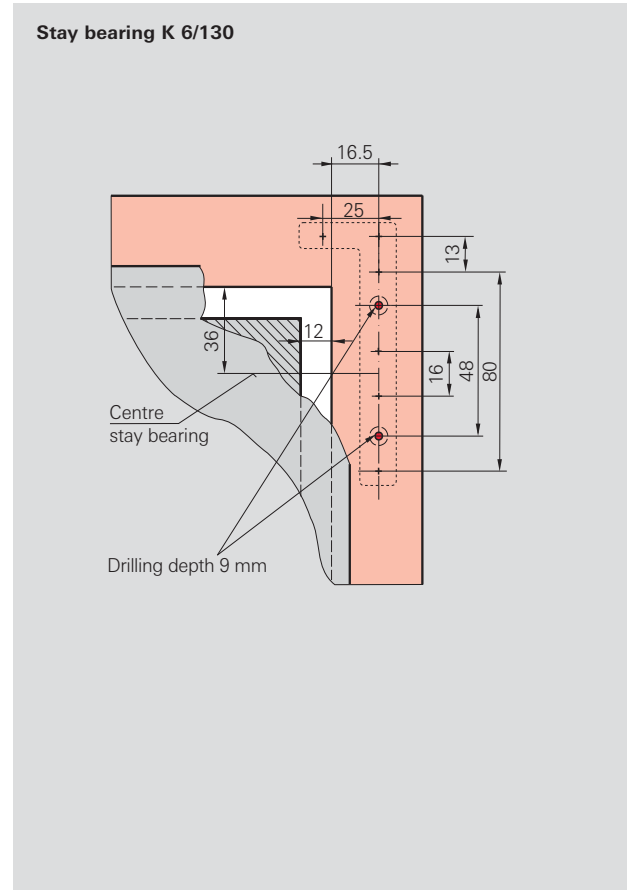
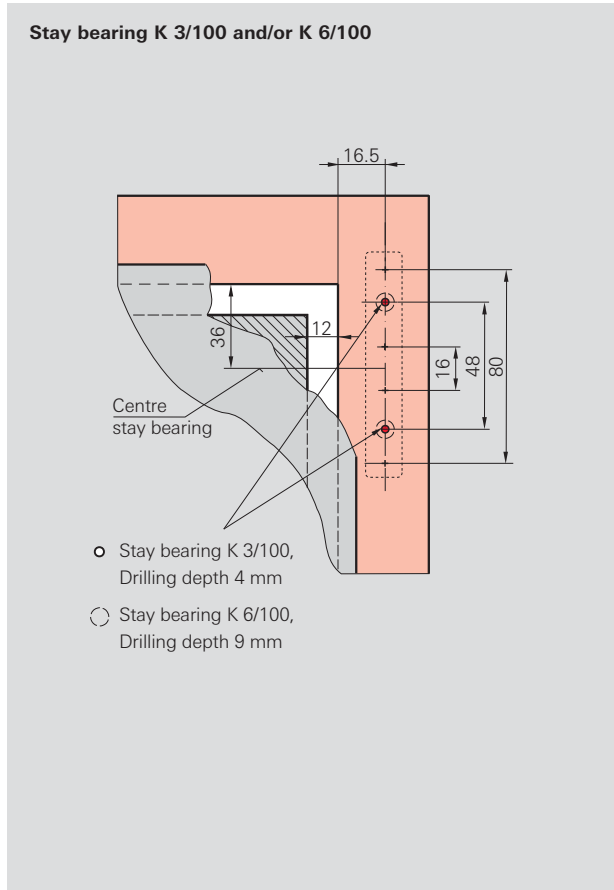
<b>Turn-Only and Tilt-Only rebate hinge K, 12/20-9 with +/- 3 mm alignment</b>	<b>264007</b>	
<b>Turn-Only and Tilt-Only rebate hinge K, 12/20-9 without alignment</b>	<b>264009</b>	
<b>Stay bearing K 3/100<sup>(*)</sup></b> (not dep.)	<b>230177</b>	
<b>Stay bearing K 6/100<sup>(*)</sup></b> (not dep.)	<b>230178</b>	
<b>Stay bearing K 3/100, adjustable<sup>(*)</sup></b>	<b>245706</b>	
<b>Stay bearing K 6/100, adjustable<sup>(*)</sup></b> (not dep.)	<b>245707</b>	

(\*) In addition: Stay-bearing pin **227354**

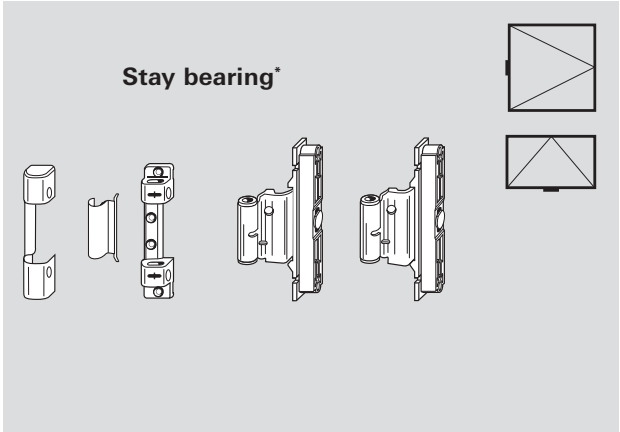
For cover caps refer to the table on the bottom of the left hand page

Rebate hinge  
 Turn-Only hinge  
 Tilt-Only hinge

# Hinge side K System 12/18-13



Description	Cover cap Turn-Only sash	Cover cap Stay bearing K 100kg	Cover cap Stay bearing K adjustable
R01.1 Silver	<b>392065</b>	<b>230195</b>	<b>230304</b>
R01.2 Nickel silver		<b>230196</b>	<b>230305</b>
R01.3 Titanium-matt	<b>493499</b>	<b>329180</b>	<b>329183</b>
R03.1 Brass matt		<b>230199</b>	<b>642354</b>
R03.2 Brass Polished	<b>484580</b>	<b>230198</b>	<b>230307</b>
R04.1 Grey-brown		<b>230204</b>	<b>230313</b>
R04.3 Olive-brown		<b>230201</b>	<b>230310</b>
R04.4 Black-brown	<b>483374</b>	<b>230200</b>	<b>230309</b>
R05.3 Medium bronze	<b>491326</b>	<b>230202</b>	<b>230311</b>
R05.5 Bronze		<b>230203</b>	<b>637881</b>
R07.2 White	<b>390460</b>	<b>230205</b>	<b>230314</b>
RAL 9016		<b>230253</b>	
Special colour		<b>230206</b>	<b>230315</b>



**12 mm clearance**  
**18 mm overlap width**  
**13 mm hardware axis**

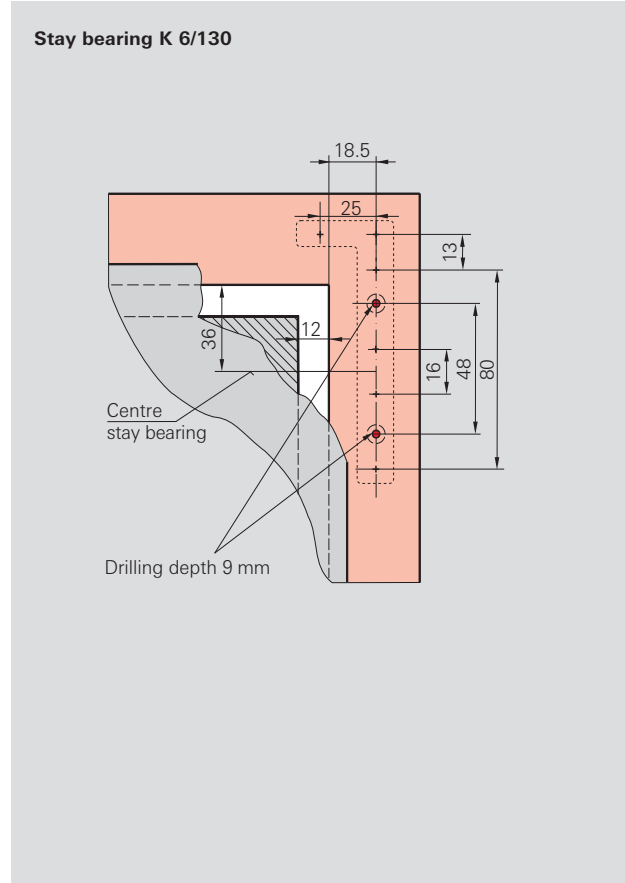
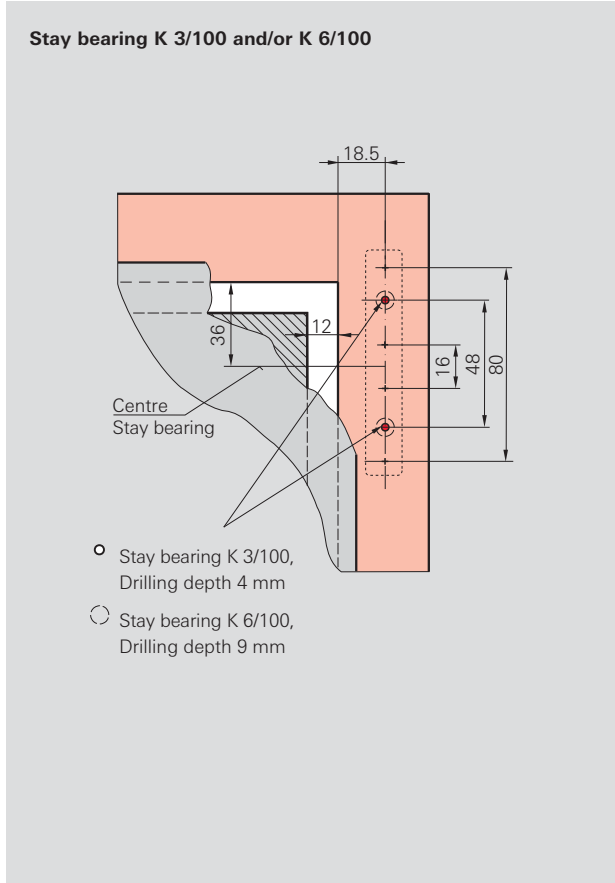
Description	Material no.
<b>Turn-Only and Tilt-Only rebate hinge K, 12/18-13 with +/- 3 mm alignment</b>	<b>563843</b>
<b>Turn-Only and Tilt-Only rebate hinge K, 12/18-13 without alignment</b>	<b>563844</b>
<b>Stay bearing K 3/100<sup>(*)</sup> (not dep.)</b>	<b>230177</b>
<b>Stay bearing K 6/100<sup>(*)</sup> (not dep.)</b>	<b>230178</b>
<b>Stay bearing K 3/100, adjustable<sup>(*)</sup></b>	<b>245706</b>
<b>Stay bearing K 6/100, adjustable<sup>(*)</sup> (not dep.)</b>	<b>245707</b>

**(\*) In addition: Stay-bearing pin** **227354**

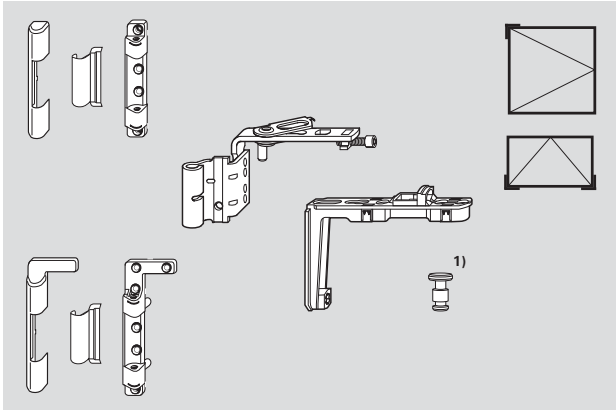
**For cover caps refer to the table on the bottom of the left hand page**

Rebate hinge  
 Turn-Only hinge  
 Tilt-Only hinge

# Hinge side K System 12/20-13

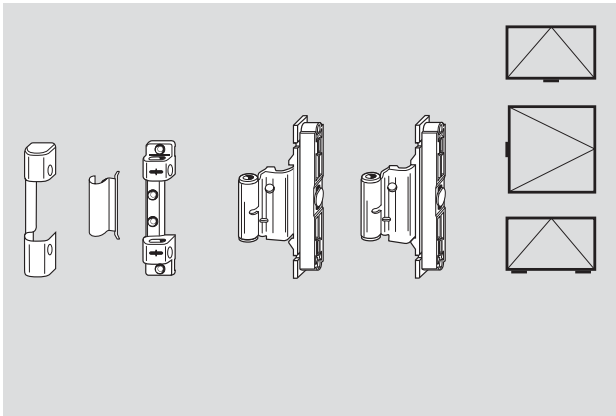


Description	Cover cap Stay-arm hinge K Also for pitched stay-arms	Cover cap Stay-arm hinge K Without base-plate	Cover cap Turn-Only sash	Cover cap Stay bearing K 100 kg	Cover cap Arched windows Stay-arm hinge K	Cover cap Stay bearing K adjustable	Cover cap Stay bearing K 130 kg
	Material no.	Material no.	Material no.	Material no.	Material no.	Material no.	Material no.
R01.1 Silver	<b>392065</b>		<b>392065</b>	<b>230195</b>	<b>231355</b>	<b>230304</b>	L <b>230211</b> R <b>230212</b>
R01.2 Nickel silver	<b>230244</b>			<b>230196</b>		<b>230305</b>	L <b>230213</b> R <b>230214</b>
R01.3 Titanium-matt	<b>329179</b>		<b>493499</b>	<b>329180</b>	<b>329892</b>	<b>329183</b>	L <b>329181</b> R <b>329182</b>
R03.1 Brass matt	<b>230246</b>	<b>642367</b>		<b>230199</b>	<b>642358</b>	<b>642354</b>	L <b>642349</b> R <b>642350</b>
R03.2 Brass Polished	<b>484580</b>		<b>484580</b>	<b>230198</b>	<b>213047</b>	<b>230307</b>	
R04.1 Grey-brown	<b>230251</b>			<b>230204</b>		<b>230313</b>	L <b>230229</b> R <b>230230</b>
R04.3 Olive-brown	<b>230248</b>			<b>230201</b>	<b>213046</b>	<b>230310</b>	L <b>230223</b> R <b>230224</b>
R04.4 Black-brown	<b>483374</b>		<b>483374</b>	<b>230200</b>	<b>213045</b>	<b>230309</b>	L <b>230221</b> R <b>230222</b>
R05.3 Medium bronze	<b>230249</b>		<b>491326</b>	<b>230202</b>	<b>231366</b>	<b>230311</b>	L <b>230225</b> R <b>230226</b>
R05.5 Bronze	<b>230250</b>			<b>230203</b>	<b>637885</b>	<b>637881</b>	L <b>637876</b> R <b>637877</b>
R07.2 White	<b>390460</b>		<b>390460</b>	<b>230205</b>	<b>213044</b>	<b>230314</b>	L <b>230231</b> R <b>230232</b>
RAL 9016				<b>230253</b>			
Special colour	<b>230254</b>			<b>230206</b>	<b>213049</b>	<b>230315</b>	



**12 mm clearance**  
**20 mm overlap width**  
**13 mm hardware axis**

Description	Material no.	
<b>Rebate-hinge arm K 12/20-13</b>	L	<b>230639</b>
	R	<b>230640</b>
<b>Sash-component for rebate hinge</b>		<b>331488</b>
<b>Stay bearing K 3/100<sup>(*)</sup></b> , max. sash weight 100 kg		<b>230177</b>
2 x Ø 3 mm supporting-pins		
<b>Stay bearing K 6/100<sup>(*)</sup></b> (not dep.), max. sash weight 100 kg		<b>230178</b>
2 x Ø 5.8 mm supporting-pins		
<b>Stay bearing K 6/130<sup>(*)</sup></b> , max. sash weight 130 kg	L	<b>230179</b>
	R	<b>230180</b>
2 x Ø 5.8 mm supporting-pins		
<b>1) Clasp for Tilt-Only sashes</b>		<b>230651</b>



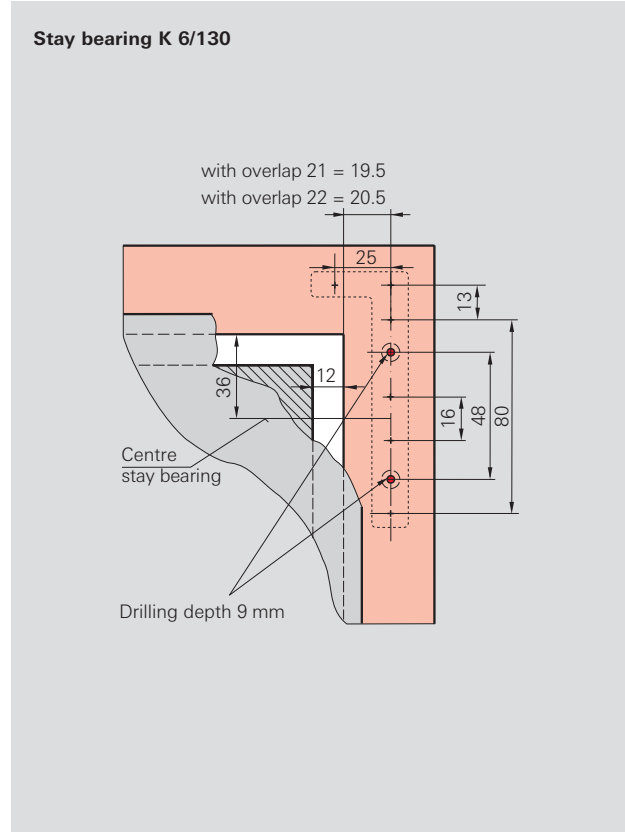
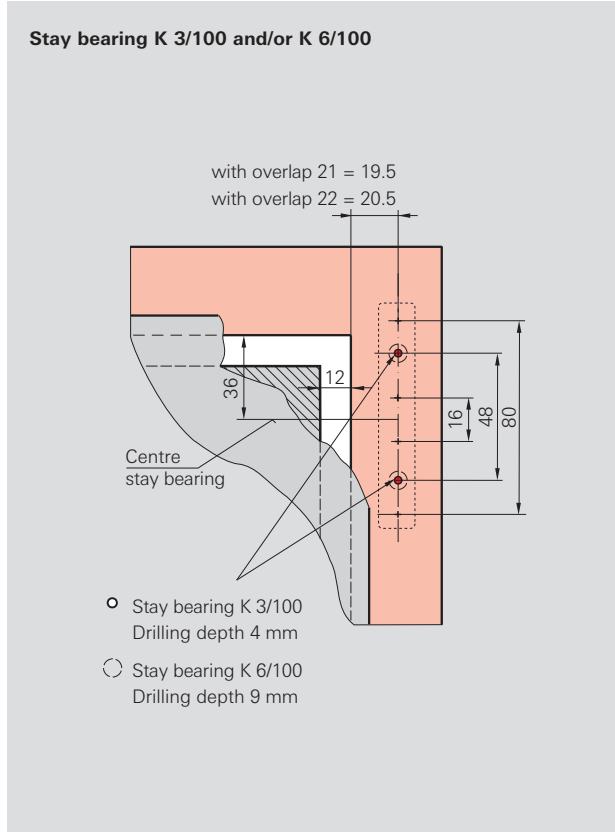
<b>Turn-Only and Tilt-Only rebate hinge K, 12/20-13 with +/- 3 mm alignment</b>		<b>264015</b>
<b>Turn-Only and Tilt-Only rebate hinge K, 12/20-13 without alignment</b>		<b>264019</b>
<b>Stay bearing K 3/100<sup>(*)</sup></b> (not dep.)		<b>230177</b>
<b>Stay bearing K 6/100<sup>(*)</sup></b> (not dep.)		<b>230178</b>
<b>Stay bearing K 3/100, adjustable<sup>(*)</sup></b>		<b>245706</b>
<b>Stay bearing K 6/100, adjustable<sup>(*)</sup></b> (not dep.)		<b>245707</b>

**(\*) In addition: Stay-bearing pin** **227354**

For cover caps refer to the table on the bottom of the left hand page

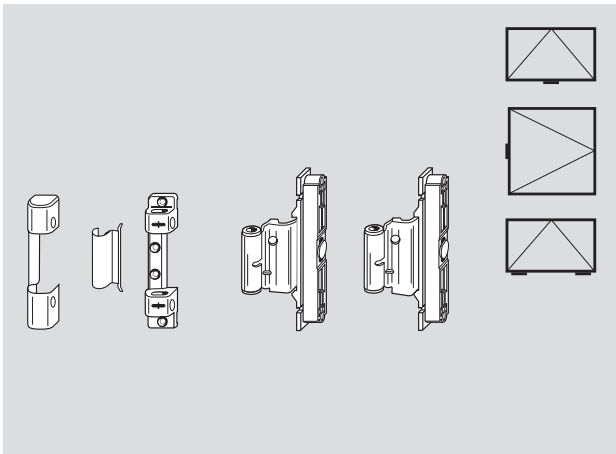
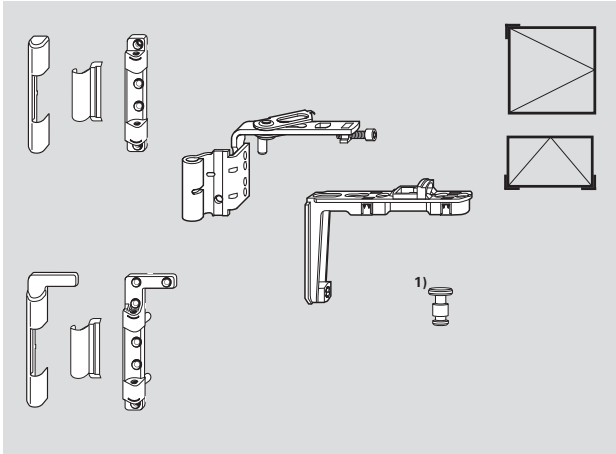
Rebate hinge  
 Turn-Only hinge  
 Tilt-Only hinge

# Hinge side K System 12/21(22)-13



Description	Cover cap Stay-arm hinge K Also for pitched stay-arms	Cover cap Stay-arm hinge K Without base-plate	Cover cap Turn-Only sash	Cover cap Stay bearing K 100 kg	Cover cap Arched windows Stay-arm hinge K	Cover cap Stay bearing K adjustable	Cover cap Stay bearing K 130 kg
	Material no.	Material no.	Material no.	Material no.	Material no.	Material no.	Material no.
R01.1 Silver	<b>392065</b>		<b>392065</b>	<b>230195</b>	<b>231355</b>	<b>230304</b>	L <b>230211</b> R <b>230212</b>
R01.2 Nickel silver	<b>230244</b>			<b>230196</b>		<b>230305</b>	L <b>230213</b> R <b>230214</b>
R01.3 Titanium-matt	<b>329179</b>		<b>493499</b>	<b>329180</b>	<b>329892</b>	<b>329183</b>	L <b>329181</b> R <b>329182</b>
R03.1 Brass matt	<b>230246</b>	<b>642367</b>		<b>230199</b>	<b>642358</b>	<b>642354</b>	L <b>642349</b> R <b>642350</b>
R03.2 Brass Polished	<b>484580</b>		<b>484580</b>	<b>230198</b>	<b>213047</b>	<b>230307</b>	
R04.1 Grey-brown	<b>230251</b>			<b>230204</b>		<b>230313</b>	L <b>230229</b> R <b>230230</b>
R04.3 Olive-brown	<b>230248</b>			<b>230201</b>	<b>213046</b>	<b>230310</b>	L <b>230223</b> R <b>230224</b>
R04.4 Black-brown	<b>483374</b>		<b>483374</b>	<b>230200</b>	<b>213045</b>	<b>230309</b>	L <b>230221</b> R <b>230222</b>
R05.3 Medium bronze	<b>230249</b>		<b>491326</b>	<b>230202</b>	<b>231366</b>	<b>230311</b>	L <b>230225</b> R <b>230226</b>
R05.5 Bronze	<b>230250</b>			<b>230203</b>	<b>637885</b>	<b>637881</b>	L <b>637876</b> R <b>637877</b>
R07.2 White	<b>390460</b>		<b>390460</b>	<b>230205</b>	<b>213044</b>	<b>230314</b>	L <b>230231</b> R <b>230232</b>
RAL 9016				<b>230253</b>			
Special colour	<b>230254</b>			<b>230206</b>	<b>213049</b>	<b>230315</b>	





12 mm clearance  
21 (22) mm overlap width  
13 mm hardware axis

Description		Material no.
<b>Rebate-hinge arm K 12/21-13</b>	L	<b>264115</b>
	R	<b>264117</b>
<b>Rebate-hinge arm K 12/22-13</b>	L	<b>264105</b>
	R	<b>264108</b>
<b>Sash-component for rebate hinge</b>		<b>331488</b>
<b>Stay bearing K 3/100*</b> (*) , max. sash weight 100 kg 2 x Ø 3 mm supporting-pins		<b>230177</b>
<b>Stay bearing K 6/100*</b> (*) (not dep.) , max. sash weight 100 kg 2 x Ø 5.8 mm supporting-pins		<b>230178</b>
<b>Stay bearing K 6/130*</b> (*) , max. sash weight 130 kg 2 x Ø 5.8 mm supporting-pins	L	<b>230179</b>
	R	<b>230180</b>
<b>1) Clasp for Tilt-Only sashes</b>		<b>230651</b>

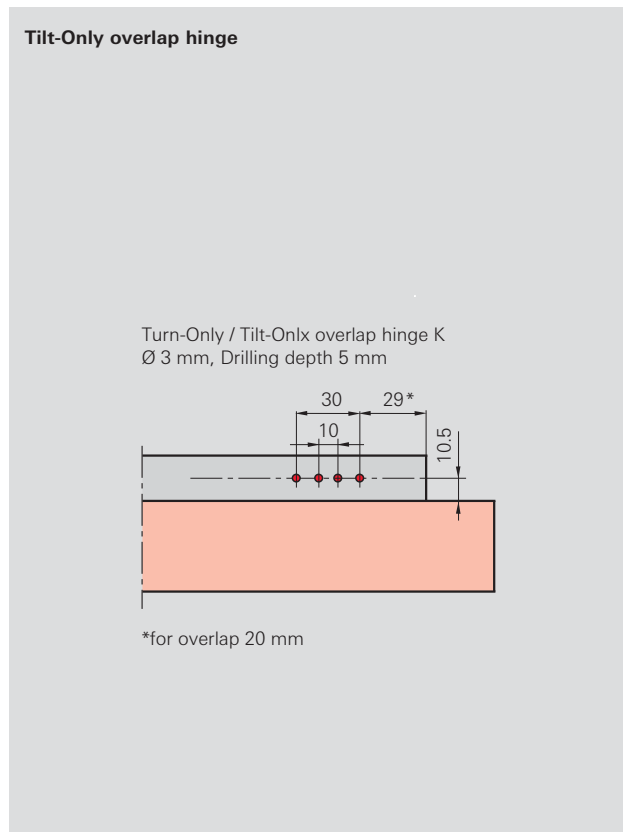
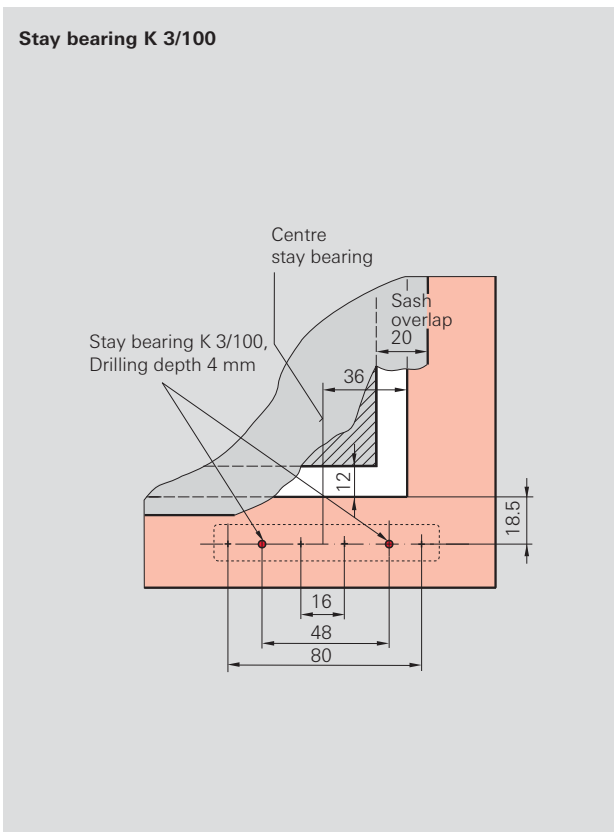
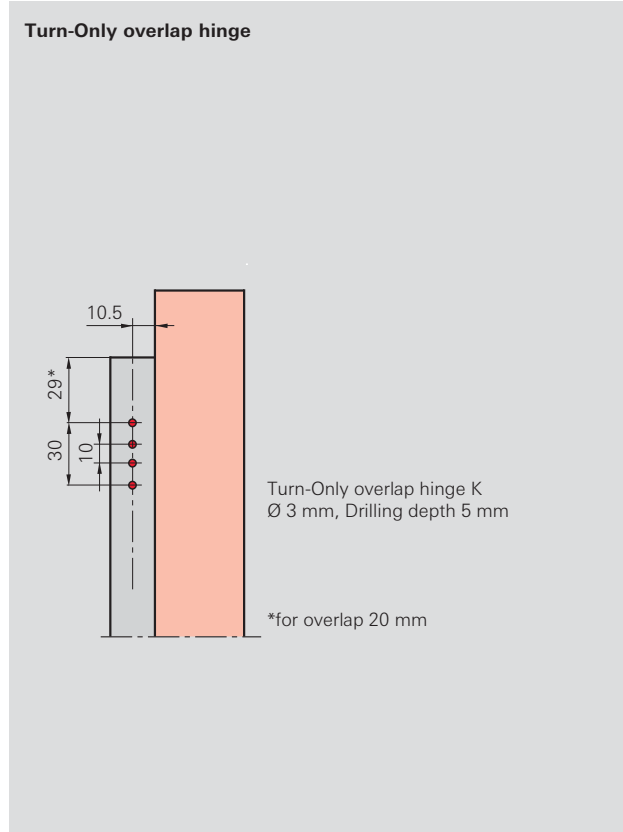
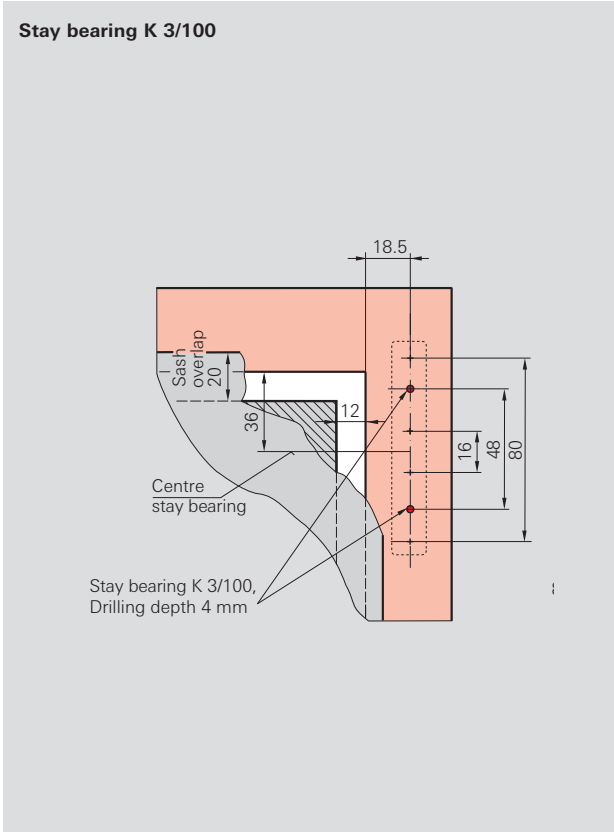
<b>Turn-Only and Tilt-Only rebate hinge K, 12/21-13 with +/- 3 mm alignment</b>	<b>258450</b>
<b>Turn-Only and Tilt-Only rebate hinge K, 12/21-13 without alignment</b>	<b>258451</b>
<b>Turn-Only and Tilt-Only rebate hinge K, 12/22-13 with +/- 3 mm alignment</b>	<b>264030</b>
<b>Turn-Only and Tilt-Only rebate hinge K, 12/22-13 without alignment</b>	<b>264031</b>
<b>Stay bearing K 3/100*</b> (*) (not dep.)	<b>230177</b>
<b>Stay bearing K 6/100*</b> (*) (not dep.)	<b>230178</b>
<b>Stay bearing K 3/100, adjustable*</b> (*)	<b>245706</b>
<b>Stay bearing K 6/100, adjustable*</b> (*) (not dep.)	<b>245707</b>
<b>(*) In addition: Stay-bearing pin</b>	<b>227354</b>

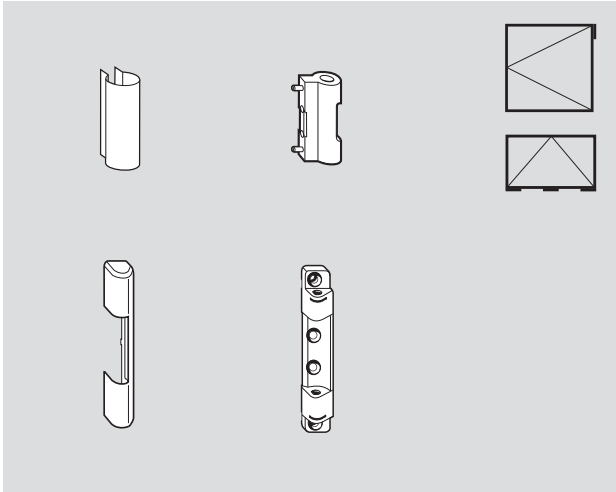
For cover caps refer to the table on the bottom of the left hand page

# Turn-Only / Tilt-Only overlap hinge

## Hinge side K

### System 12/20-9(13)





Description

Material no.

**Turn-Only & Tilt-Only overlap hinge K**

**332686**

Max. sash weight 80 kg

2 x Ø 3 mm supporting-pins

**Stay bearing K 3/100<sup>(\*)</sup>, (not dep.)** max. sash weight 100 kg

**230177**

2 x Ø 3 mm supporting-pins

**(\*) In addition: Stay-bearing pin**

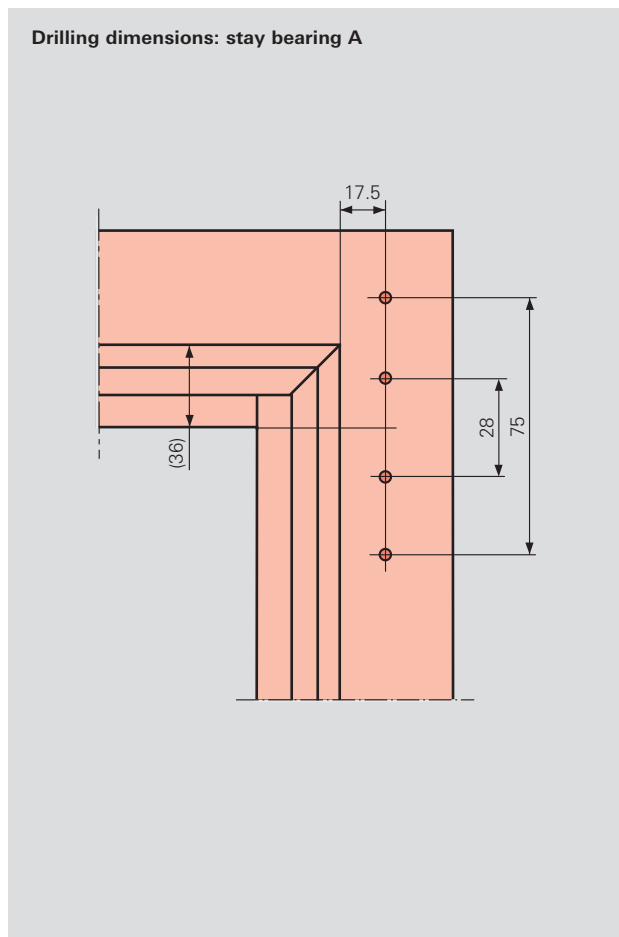
**227354**

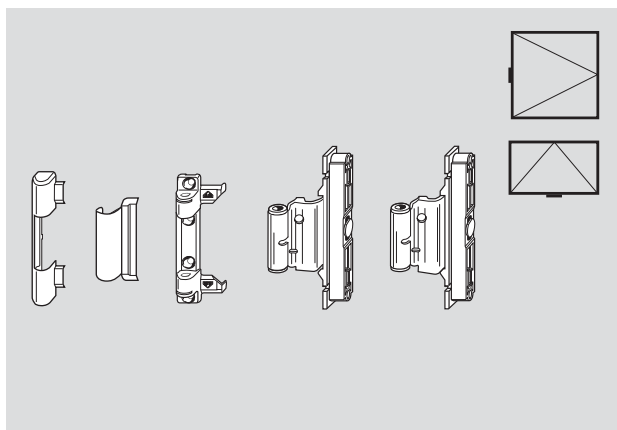
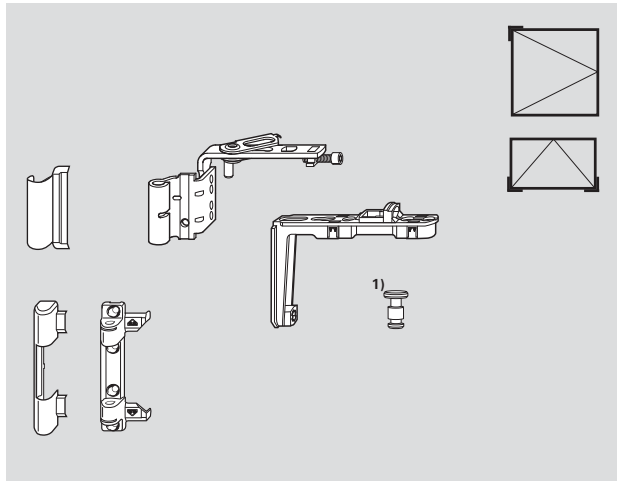
For cover caps refer to the table below

Description	Cover cap	
	Stay bearing K 100 kg	Overlap hinge K 80 kg
	Material no.	Material no.
R01.1 Silver	<b>230195</b>	<b>469375</b>
R01.2 Nickel silver	<b>230196</b>	
R01.3 Titanium-matt	<b>329180</b>	<b>446064</b>
R03.1 Brass matt	<b>230199</b>	
R03.2 Polished brass	<b>230198</b>	
R04.1 Grey-brown	<b>230204</b>	(RAL 8019) <b>348176</b>
R04.3 Olive-brown	<b>230201</b>	
R04.4 Black-brown	<b>230200</b>	(RAL 8022) <b>348154</b>
R05.3 Medium bronze	<b>230202</b>	<b>348177</b>
R05.5 Bronze	<b>230203</b>	
R07.2 White	<b>230205</b>	<b>332693</b>
Special colour	<b>230206</b>	

Rebate hinge  
 Turn-Only hinge  
 Tilt-Only hinge

# Hinge side A System 12/18-9









12 mm clearance  
18 mm overlap width  
9 mm hardware axis

Description		Material no.
<b>Rebate-hinge arm K 12/18-9</b>	L	264081
	R	264083
<b>Sash-component for rebate hinge</b>		331488
<b>Stay bearing A(*) 12/18-9, max. 100 kg</b>		245709
Suitable for installation without jigs		
<b>1) Clasp for Tilt-Only sashes</b>		230651

<b>Turn-Only and Tilt-Only rebate hinge K, 12/18-9 with +/- 3 mm alignment</b>	264001
<b>Turn-Only and Tilt-Only rebate hinge K, 12/18-9 with +/- 3 mm alignment, without groove (not dep.)</b>	264002
<b>Turn-Only and Tilt-Only rebate hinge K, 12/18-9 without alignment</b>	264003
<b>Turn-Only and Tilt-Only rebate hinge K, 12/18-9 without alignment, without groove (not dep.)</b>	264004
<b>Stay bearing A(*) 12/18-9, max. 100 kg</b>	245709
Suitable for installation without jigs	

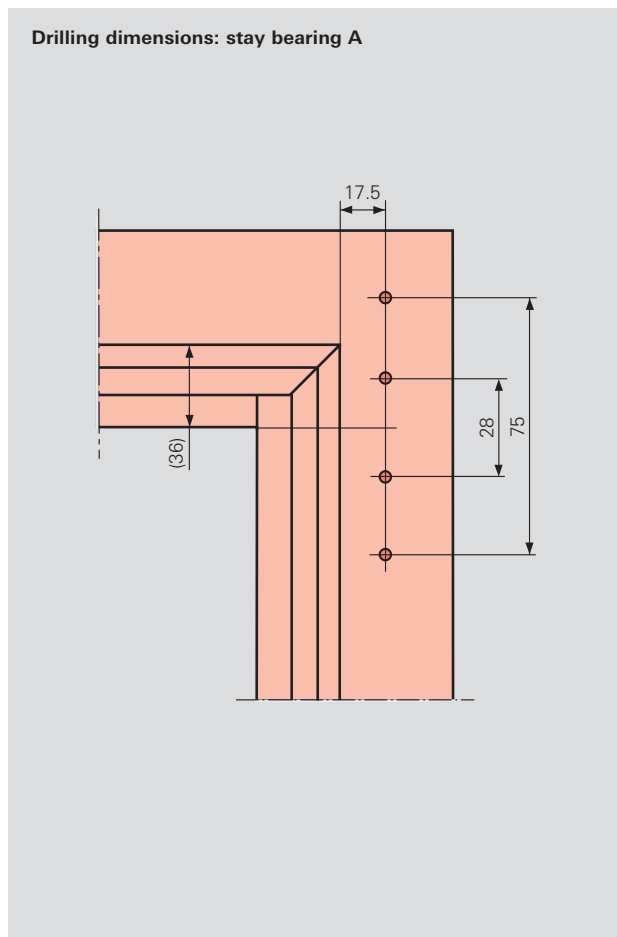
(\*) In addition: Stay-bearing pin 227354

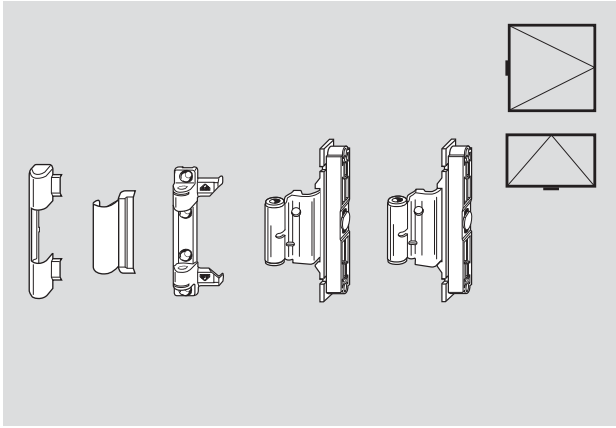
For cover caps refer to the table below

Description		 <b>Cover cap Stay-arm hinge K</b>	 <b>Cover cap Stay-arm hinge K Without base-plate</b>	 <b>Cover cap Turn-Only sash</b>	 <b>Cover cap Stay bearing A</b>
		Material no.	Material no.	Material no.	Material no.
R01.1	Silver	230243		392065	230320
R01.2	Nickel silver	230244			230321
R01.3	Titanium-matt	329179		493499	329184
R03.1	Brass matt	230246	642367		642355
R03.2	Polished brass	230245		484580	230323
R04.1	Grey-brown	230251			230329
R04.3	Olive-brown	230248			230326
R04.4	Black-brown	230247		483374	230325
R05.3	Medium bronze	230249		491326	230327
R05.5	Bronze	230250			637882
R07.2	White	230252		390460	230330
Special colour		230254			230331
R06.2				593508	230330

Rebate hinge  
Turn-Only hinge  
Tilt-Only hinge

# Hinge side A System 12/18-13





**12 mm clearance**  
**18 mm overlap width**  
**13 mm hardware axis**

Description	Material no.
<b>Turn-Only and Tilt-Only rebate hinge K, 12/18-13 with +/- 3 mm alignment</b>	<b>563843</b>
<b>Turn-Only and Tilt-Only rebate hinge K, 12/18-13 without alignment</b>	<b>563844</b>
<b>Stay bearing A<sup>(*)</sup> 12/18-13, max. 100 kg</b> Suitable for installation without jigs	<b>245709</b>

**(\*) In addition: Stay-bearing pin** **227354**

**For cover caps refer to the table below**

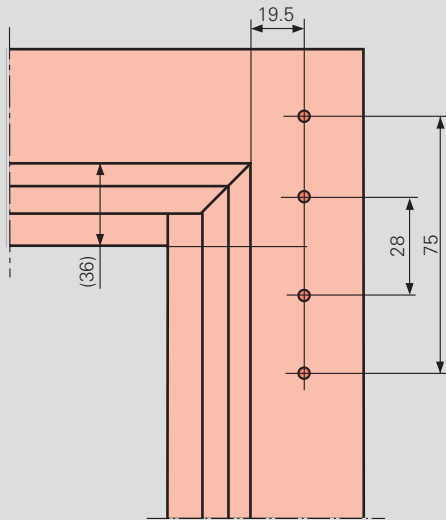
Description	Cover cap	Cover cap
	Turn-Only sash	Stay bearing A
	Material no.	Material no.
R01.1 Silver	<b>392065</b>	<b>230320</b>
R01.2 Nickel silver		<b>230321</b>
R01.3 Titanium-matt	<b>493499</b>	<b>329184</b>
R03.1 Brass matt		<b>642355</b>
R03.2 Polished brass	<b>484580</b>	<b>230323</b>
R04.1 Grey-brown		<b>230329</b>
R04.3 Olive-brown		<b>230326</b>
R04.4 Black-brown	<b>483374</b>	<b>230325</b>
R05.3 Medium bronze	<b>491326</b>	<b>230327</b>
R05.5 Bronze		<b>637882</b>
R07.2 White	<b>390460</b>	<b>230330</b>
Special colour		<b>230331</b>
R06.2	<b>593508</b>	<b>230330</b>

Rebate hinge  
 Turn-Only hinge  
 Tilt-Only hinge

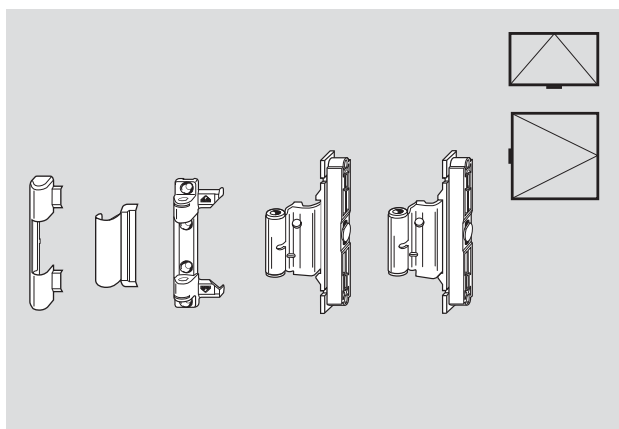
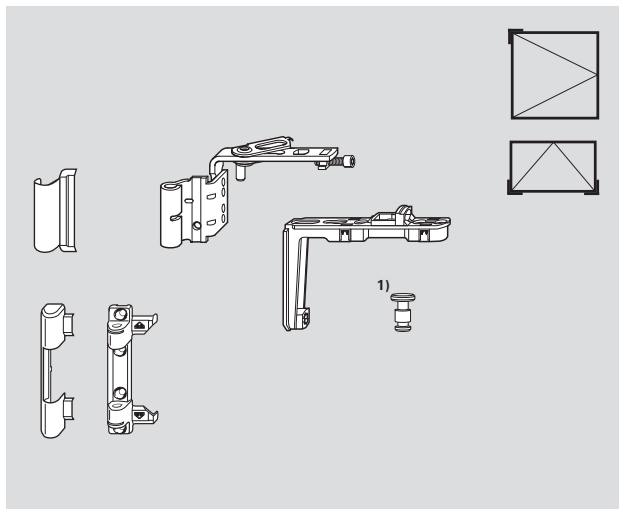


# Hinge side A System 12/20-9

Drilling dimensions: stay bearing A











12 mm clearance  
20 mm overlap width  
9 mm hardware axis

Description	Material no.	
<b>Rebate-hinge arm K 12/20-9</b>	L	263183
	R	263184
<b>Sash-component for rebate hinge</b>	331488	
<b>Stay bearing A(*) 12/20-9, max. 100 kg</b>	245714	
Suitable for installation without jigs		
<b>1) Clasp for Tilt-Only sashes</b>	230651	

<b>Turn-Only and Tilt-Only rebate hinge K, 12/20-9 with +/- 3 mm alignment</b>	264007
<b>Turn-Only and Tilt-Only rebate hinge K, 12/20-9 without alignment</b>	264009
<b>Stay bearing A(*) 12/20-9, max. 100 kg</b>	245714
Suitable for installation without jigs	

(\*) In addition: Stay-bearing pin **227354**

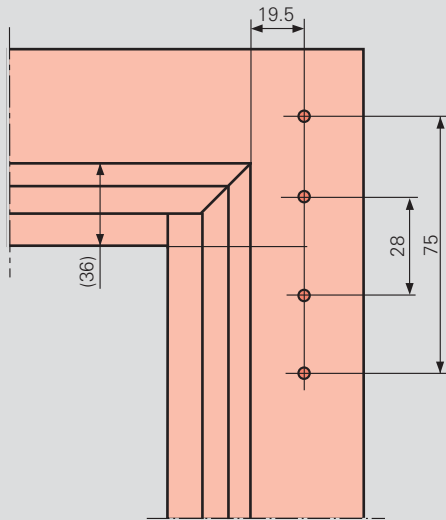
For cover caps refer to the table below

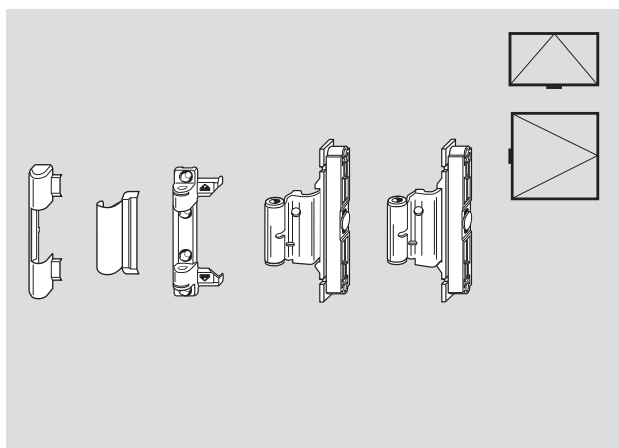
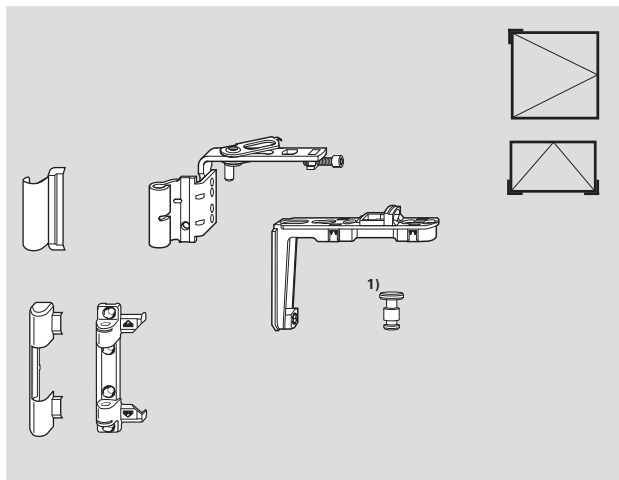
Description		 <b>Cover cap Stay-arm hinge K</b>	 <b>Cover cap Stay-arm hinge K Without base-plate</b>	 <b>Cover cap Turn-Only sash</b>	 <b>Cover cap Stay bearing A</b>
		Material no.	Material no.	Material no.	Material no.
R01.1	Silver	<b>230243</b>		<b>392065</b>	<b>230320</b>
R01.2	Nickel silver	<b>230244</b>			<b>230321</b>
R01.3	Titanium-matt	<b>329179</b>			<b>329184</b>
R03.1	Brass matt	<b>230246</b>	<b>642367</b>		<b>642355</b>
R03.2	Polished brass	<b>230245</b>		<b>484580</b>	<b>230323</b>
R04.1	Grey-brown	<b>230251</b>			<b>230329</b>
R04.3	Olive-brown	<b>230248</b>			<b>230326</b>
R04.4	Black-brown	<b>230247</b>		<b>483374</b>	<b>230325</b>
R05.3	Medium bronze	<b>230249</b>		<b>491326</b>	<b>230327</b>
R05.5	Bronze	<b>230250</b>			<b>637882</b>
R07.2	White	<b>230252</b>		<b>390460</b>	<b>230330</b>
Special colour		<b>230254</b>			<b>230331</b>
R06.2				<b>593508</b>	<b>230330</b>

Rebate hinge  
Turn-Only hinge  
Tilt-Only hinge

# Hinge side A System 12/20-13

Drilling dimensions: stay bearing A





12 mm clearance  
20 mm overlap width  
13 mm hardware axis





Description		Material no.
<b>Rebate-hinge arm K 12/20-13</b>	L	<b>230639</b>
	R	<b>230640</b>
<b>Sash-component for rebate hinge</b>		<b>331488</b>
<b>Stay bearing A(*) 12/20-13, max. 100 kg</b>		<b>245714</b>
Suitable for installation without jigs		
<b>1) Clasp for Tilt-Only sashes</b>		<b>230651</b>

<b>Turn-Only and Tilt-Only rebate hinge K, 12/20-13 with +/- 3 mm alignment</b>	<b>264015</b>
<b>Turn-Only and Tilt-Only rebate hinge K, 12/20-13 without alignment</b>	<b>264019</b>
<b>Stay bearing A(*) 12/20-13, max. 100 kg</b>	<b>245714</b>
Suitable for installation without jigs	

(\*) In addition: Stay-bearing pin

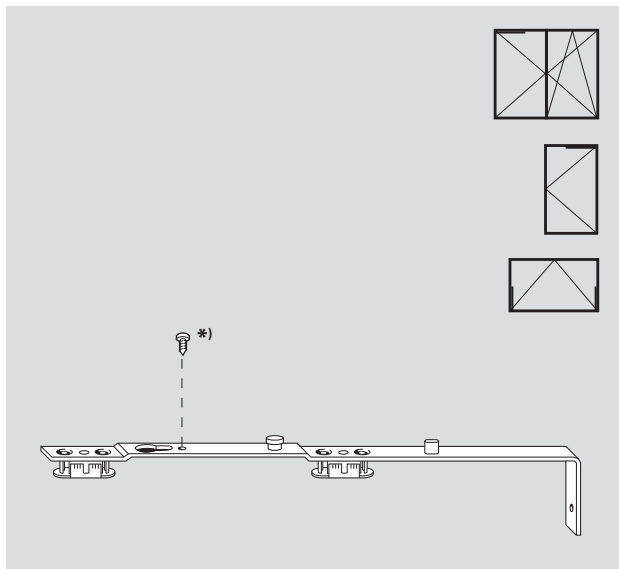
227354

For cover caps refer to the table below

Description		 <b>Cover cap Stay-arm hinge K</b>	 <b>Cover cap Stay-arm hinge K Without base-plate</b>	 <b>Cover cap Turn-Only sash</b>	 <b>Cover cap Stay bearing A</b>
		Material no.	Material no.	Material no.	Material no.
R01.1	Silver	<b>230243</b>		<b>392065</b>	<b>230320</b>
R01.2	Nickel silver	<b>230244</b>			<b>230321</b>
R01.3	Titanium-matt	<b>329179</b>			<b>329184</b>
R03.1	Brass matt	<b>230246</b>	<b>642367</b>		<b>642355</b>
R03.2	Polished brass	<b>230245</b>		<b>484580</b>	<b>230323</b>
R04.1	Grey-brown	<b>230251</b>			<b>230329</b>
R04.3	Olive-brown	<b>230248</b>			<b>230326</b>
R04.4	Black-brown	<b>230247</b>		<b>483374</b>	<b>230325</b>
R05.3	Medium bronze	<b>230249</b>		<b>491326</b>	<b>230327</b>
R05.5	Bronze	<b>230250</b>			<b>637882</b>
R07.2	White	<b>230252</b>		<b>390460</b>	<b>230330</b>
Special colour		<b>230254</b>			<b>230331</b>
R06.2				<b>593508</b>	<b>230330</b>

Rebate hinge  
Turn-Only hinge  
Tilt-Only hinge

## Hinge side NT Royal



Description

Material no.

**Royal sash-component for rebate hinge**

**254068**

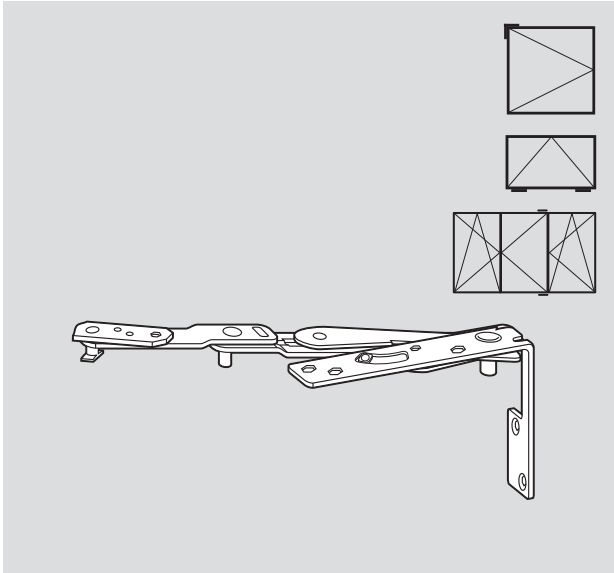
**(\*) Locking screw Royal**

**227131**

For Tilt-Only sashes

Self-tapping screw B 3.5 x 9.5 DIN 7981

# Hinge side NT Designo



## Rebate-hinge arm NT Designo

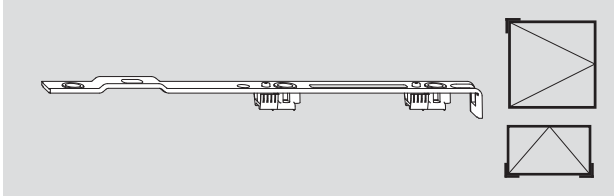
Manufacturer	Profile system	Material no.	
Aluplast	Aluplast 3000	L	<b>391945</b>
		R	<b>391914</b>
	Aluplast 4000	L	<b>391947</b>
		R	<b>391946</b>
	Aluplast 5000	L	<b>391947</b>
		R	<b>391946</b>
Aluplast 6000	L	<b>391947</b>	
		<b>391946</b>	
	R	<b>391946</b>	
		<b>391946</b>	
Brüggmann	Brüggmann AD 13	L	<b>391911</b>
		R	<b>391910</b>
	Brüggmann MD 13	L	<b>391911</b>
		R	<b>391910</b>
Deceuninck	Deceuninck Zendow	L	<b>391953</b>
		R	<b>391952</b>
Gealan	Gealan 3000	L	<b>391949</b>
		R	<b>391948</b>
	Gealan 7000	L	<b>391949</b>
		R	<b>391948</b>
	Gealan 8000	L	<b>391949</b>
		R	<b>391948</b>
Inoutic	Prestige AD	L	<b>451029</b>
		R	<b>451028</b>
	Prestige MD	L	<b>451029</b>
		R	<b>451028</b>

## Rebate-hinge arm NT Designo

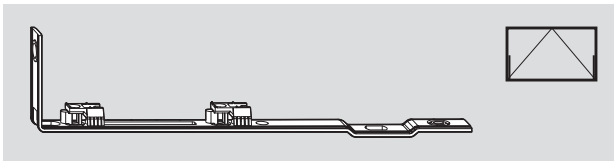
Manufacturer	Profile system	Material no.	
KBE	KBE 70 AD	L	<b>391953</b>
		R	<b>391952</b>
Kömmerling	Kömmerling Eurofutur Classic	L	<b>391951</b>
		R	<b>391950</b>
	Kömmerling 88 Plus	L	<b>391951</b>
		R	<b>391950</b>
Rehau	Rehau 799, Brillant Design (S730)	L	<b>391913</b>
		R	<b>391912</b>
	Rehau 980, Geneo	L	<b>391913</b>
		R	<b>391912</b>
Roplasto	Roplasto 7001 AD	L	<b>391955</b>
		R	<b>391954</b>
	Roplasto 7001 MD	L	<b>391955</b>
		R	<b>391954</b>
Salamander	Salamander 2D	L	<b>391947</b>
		R	<b>391946</b>
	Salamander 3D	L	<b>391947</b>
		R	<b>391946</b>
	Salamander BluEvolution	L	<b>391913</b>
		R	<b>391912</b>
Schüco	Schüco Corona CT70 AD	L	<b>391945</b>
		R	<b>391914</b>
	Schüco Corona CT70 MD	L	<b>391945</b>
		R	<b>391914</b>
Schüco Corona SI82 MD	L	<b>391945</b>	
		<b>391914</b>	
	R	<b>391914</b>	
		<b>391914</b>	
Trocac	Trocac 88+	L	<b>486071</b>
		R	<b>486070</b>
	Trocac Innonova 2000	L	<b>486071</b>
		R	<b>486070</b>
	Trocac Innonova 70.A5 AD	L	<b>391957</b>
		R	<b>391956</b>
Trocac Innonova 70.M5 MD	L	<b>391957</b>	
	R	<b>391956</b>	
Veka	Veka Alphaline 90	L	<b>391911</b>
		R	<b>391910</b>
	Veka Softline 70 AD	L	<b>391911</b>
		R	<b>391910</b>
	Veka Softline 70 MD	L	<b>391911</b>
		R	<b>391910</b>
Veka Topline AD 13	L	<b>391911</b>	
	R	<b>391910</b>	
Veka Topline MD 13	L	<b>391911</b>	
	R	<b>391910</b>	

Rebate hinge  
Turn-Only hinge  
Tilt-Only hinge

## Hinge side NT Designo

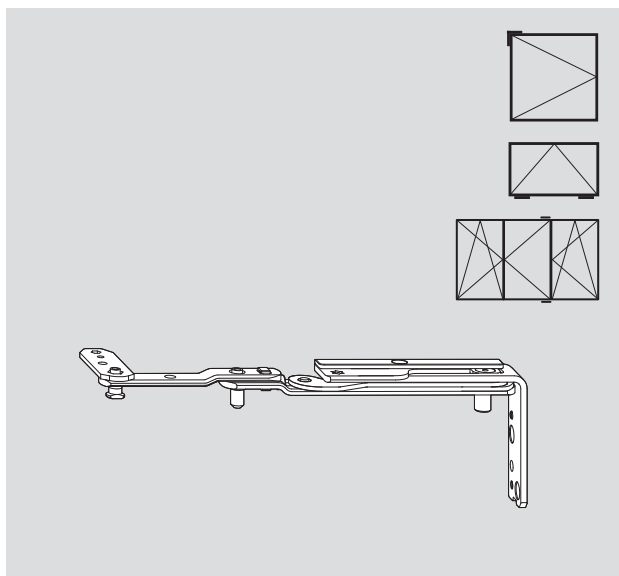


Sash-component for rebate hinge NT Designo 477255



Sash-component for rebate hinge Tilt-Only NT Designo 640563

# Hinge side NT Designo II



## Rebate-hinge arm NT Designo II

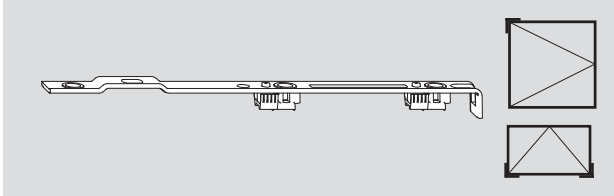
Manufacturer	Profile system	Material no.
Aluplast	Aluplast 2000	L <b>623966</b>
		R <b>623965</b>
	Aluplast 4000	L <b>628936</b>
		R <b>628914</b>
	Aluplast 5000	L <b>628936</b>
		R <b>628914</b>
Aluplast 6000	L <b>628936</b>	
	R <b>628914</b>	
Aluplast 8000	L <b>628936</b>	
	R <b>628914</b>	
Brüggmann	Brüggmann AD 13	L <b>635227</b>
		R <b>635226</b>
Brüggmann	Brüggmann MD 13	L <b>635227</b>
		R <b>635226</b>
Deceuninck	Deceuninck Zendow	L <b>623946</b>
		R <b>623945</b>

## Rebate-hinge arm NT Designo II

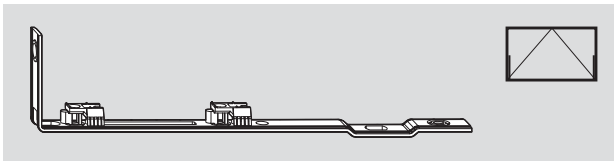
Manufacturer	Profile system	Material no.
Gealan	Gealan 3000	L <b>606325</b>
		R <b>606324</b>
	Gealan 7000	L <b>606325</b>
		R <b>606324</b>
	Gealan 8000	L <b>606325</b>
		R <b>606324</b>
Inoutic	Inoutic Eforte, Inoutic Prestige AD/MD	L <b>635274</b>
		R <b>635273</b>
Kömmerling	Kömmerling Eurofutur Classic	L <b>606345</b>
		R <b>606344</b>
	Kömmerling Eurofutur Elegance	L <b>606345</b>
		R <b>606344</b>
Kömmerling 88 Plus	L <b>606345</b>	
	R <b>606344</b>	
Rehau	Rehau 799, Brillant Design (S730)	L <b>610948</b>
		R <b>610947</b>
	Rehau 980, Geneo	L <b>606362</b>
		R <b>606361</b>
Salamander	Salamander 2D, 3D	L <b>635508</b>
		R <b>635507</b>
	Salamander BluEvolution	L <b>635618</b>
Schüco	Schüco CT70 AD	L <b>623966</b>
		R <b>623965</b>
Schüco	Schüco Corona CT70 MD	L <b>623966</b>
		R <b>623965</b>
Schüco	Schüco Corona SI82 MD	L <b>623966</b>
		R <b>623965</b>
Trocal	Trocal Innonova 70.A5 AD	L <b>626607</b>
		R <b>626606</b>
	Trocal Innonova 70.M5 MD	L <b>626607</b>
		R <b>626606</b>
Trocal 88+	L <b>637779</b>	
	R <b>637778</b>	
Veka	Veka Alphaline 90	L <b>606388</b>
		R <b>606387</b>
	Veka Softline 70 AD	L <b>606388</b>
		R <b>606387</b>
	Veka Softline 70 MD	L <b>606388</b>
		R <b>606387</b>

Rebate hinge  
Turn-Only hinge  
Tilt-Only hinge

## Hinge side NT Designo II

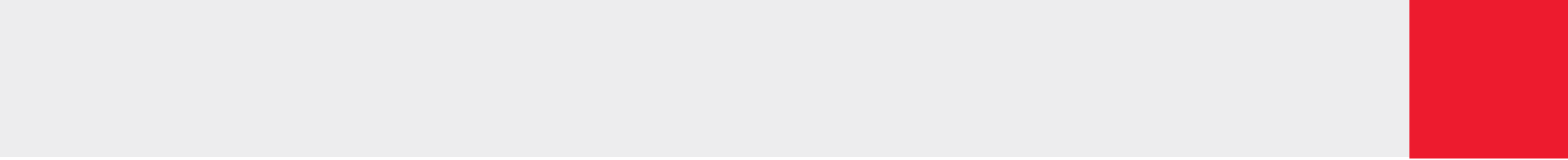


Sash-component for rebate hinge NT Designo II 477255



Sash-component for rebate hinge Tilt-Only NT Designo and Designo II 640563





Rebate hinge  
Turn-Only hinge  
Tilt-Only hinge

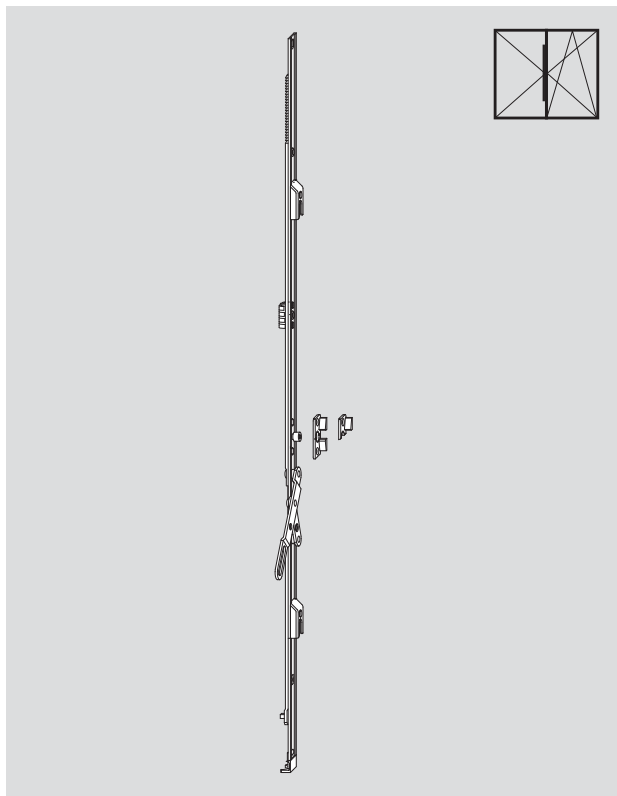




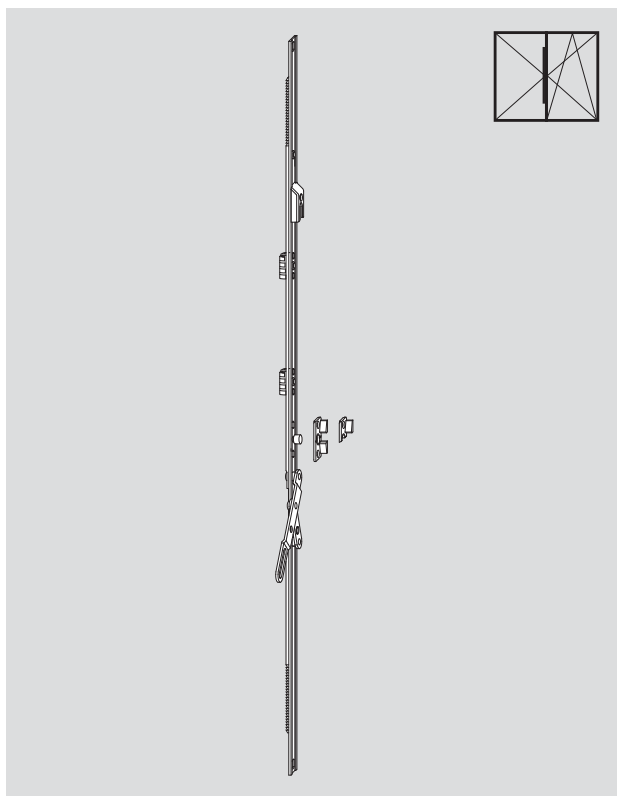
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## Lever-operated espagnolette

### Fixed and centred/variable handle height



Lever-operated espagnolette, fixed lever-height			
SRH/mm	Length/mm	Lever position/mm	Material no.
431 – 500 <sup>2)</sup>	490	195	<b>233408</b>
501 – 600 <sup>3)</sup>			
431 – 600	490	233	<b>317047<sup>1)</sup></b>
601 – 800	690	195	<b>242730<sup>1)5)</sup></b>
601 – 800	690	195	<b>242731<sup>1)4)</sup></b>
601 – 800	690	335	<b>233409</b>
801 – 1000	890	490	<b>233410</b>
801 – 1000	890	195	<b>242732<sup>1)</sup></b>
1001 – 1200	1090	335	<b>233411</b>
1201 – 1400	1290	335	<b>233412</b>
1401 – 1600	1490	335	<b>233413</b>
1601 – 1800	1690	335	<b>296145<sup>6)</sup></b>
1801 – 2000	1890	640	<b>296074</b>
2001 – 2200	2090	640	<b>296075</b>
2201 – 2400	2290	640	<b>296076</b>



Lever-operated espagnolette, centred/variable lever-height			
SRH/mm	Length/mm	Lever position/mm	Material no.
370 – 620	400	225 – 350	<b>233418<sup>4)</sup></b>
621 – 800	680	393 – 482	<b>233419</b>
621 – 900	680		<b>242726<sup>1)4)</sup></b>
801 – 1200	980	482 – 682	<b>233420</b>
901 – 1200	980		<b>242728<sup>1)</sup></b>
1201 – 1600	1380	448 – 658	<b>290912</b>
1601 – 2000	1780	680 – 890	<b>296146</b>
2001 – 2400	2180	880 – 1090	<b>296147</b>

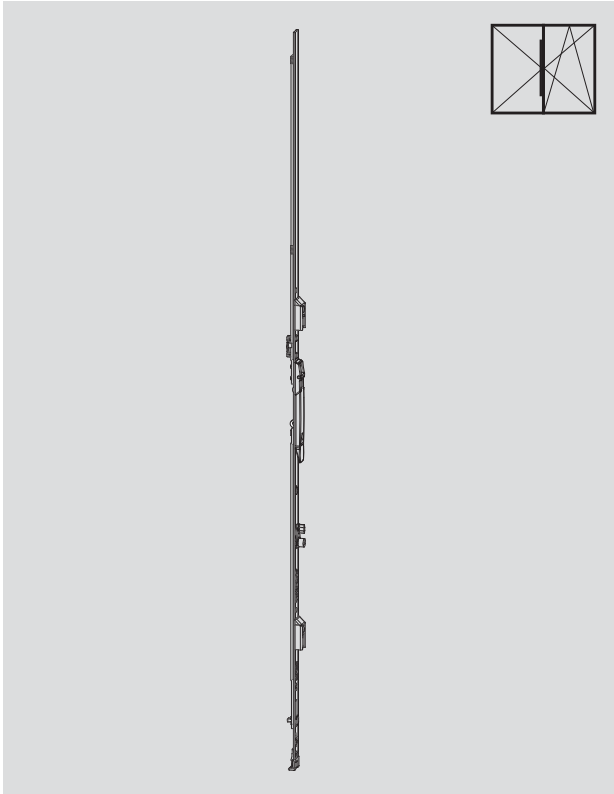
**Retainer-clasp** not dep. **314203**

Compulsory for lever-operated espagnolettes  
on 2-sashed  
BRG2 windows

- 1) For T&T espagnolette, 8 mm backset
- 2) With special corner drive
- 3) With corner drive
- 4) Without lifting mishandling device
- 5) Possible in combination with lifting mishandling device, not with strikers
- 6) Lifting mishandling device and bullet catch (handle height 563/1000)

## Lever-operated espagnolette Plus

### Fixed and centred/variable handle height

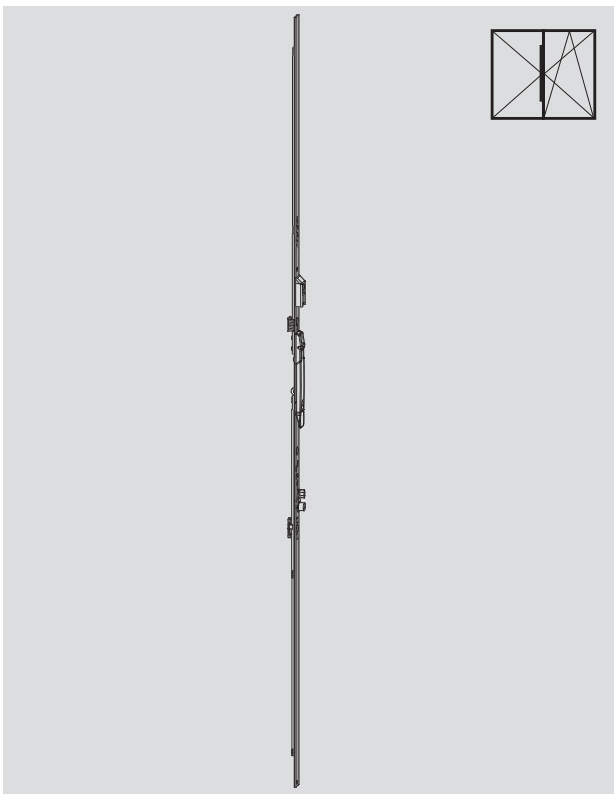


#### Lever-operated espagnolette Plus, fixed lever-height

SRH/mm	Length/mm	Lever position/mm	Material no.
431 – 500 <sup>2)</sup>	490	195	<b>623365</b>
501 – 600 <sup>3)</sup>			
431 – 600	490	233	<b>623366</b> <sup>1)</sup>
601 – 800	690	195	<b>623368</b> <sup>1) 5)</sup>
601 – 800	690	195	<b>623367</b> <sup>1)</sup>
601 – 800	690	335	<b>623369</b>
801 – 1000	890	490	<b>623371</b>
801 – 1000	890	195	<b>623370</b> <sup>1) 4)</sup>
1001 – 1200	1090	335	<b>623372</b>
1201 – 1400	1290	335	<b>623373</b>
1401 – 1600	1490	335	<b>623374</b>
1601 – 1800	1690	335	<b>623375</b>
1801 – 2000	1890	640	<b>623376</b>
2001 – 2200	2090	640	<b>623377</b>
2201 – 2400	2290	640	<b>623378</b>

#### Note:

Lifting mishandling device (stop for lever-operated espagnolette), preassembled as standard.



#### Lever-operated espagnolette Plus, centred/variable lever-height

SRH/mm	Length/mm	Lever position/mm	Material no.
370 – 620	400	225 – 350	<b>623379</b> <sup>4)</sup>
621 – 800	680	393 – 482	<b>623380</b>
621 – 900	680		<b>623381</b> <sup>1)</sup>
801 – 1200	980	482 – 682	<b>623382</b>
901 – 1200	980		<b>623383</b> <sup>1)</sup>
1201 – 1600	1380	448 – 658	<b>623384</b>
1601 – 2000	1780	680 – 890	<b>623385</b>
2001 – 2400	2180	880 – 1090	<b>623386</b>

#### Note:

Lifting mishandling device (stop for lever-operated espagnolette), preassembled as standard.

1) For T&T espagnolette, 8 mm backset

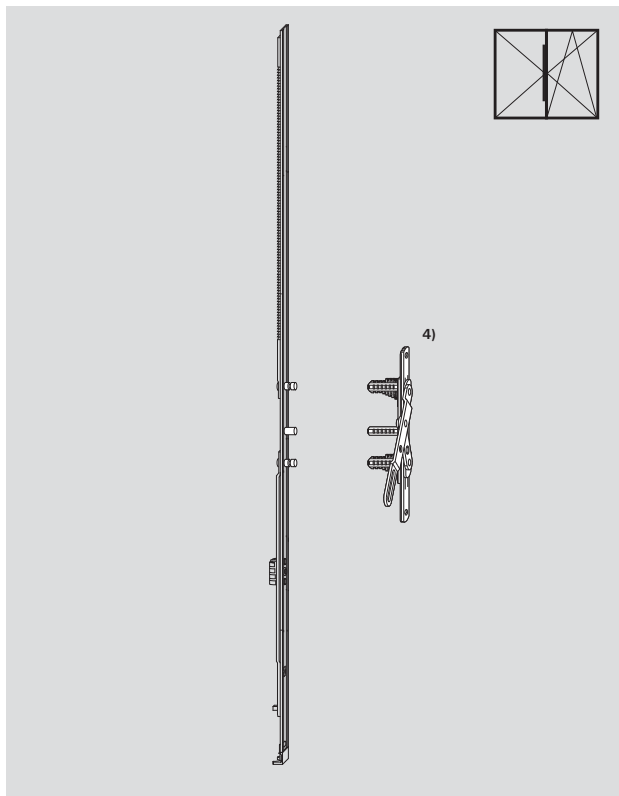
2) With special corner drive

3) With corner drive

4) Without lifting mishandling device (stop for lever-operated espagnolette)

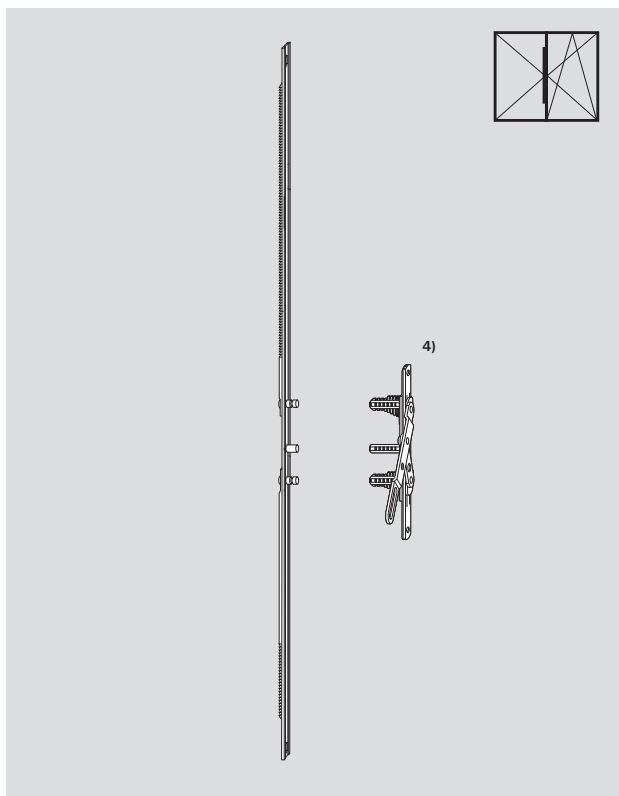
5) No striker possible

## Lever-operated espagnolette with separate lever Fixed and centred/variable handle height



### Lever-operated espagnolette, fixed lever-height

SRH/mm	Length/mm	Lever position/mm	Material no.
431 – 500 <sup>2)</sup>	490	195	<b>291744</b>
501 – 600 <sup>3)</sup>			
431 – 600	490	233	<b>291765<sup>1)</sup></b>
601 – 800 <sup>3)</sup>	690	335	<b>338124</b>
601 – 800	690	195	<b>338125</b>
801 – 1000	890	490	<b>291746</b>
801 – 1000	890	195	<b>291770<sup>1)</sup></b>
1001 – 1200	1090	335	<b>291747</b>
1201 – 1400	1290	335	<b>291748</b>
1401 – 1600	1490	335	<b>291749</b>
1601 – 1800	1690	335	<b>291750</b>
1801 – 2000	1890	640	<b>291751</b>
2001 – 2200	2090	640	<b>291762</b>
2201 – 2400	2290	640	<b>291763</b>



### Lever-operated espagnolette, centred/variable lever-height

SRH/mm	Length/mm	Lever position/mm	Material no.
370 – 620	400	225 – 350	<b>293629</b>
621 – 800	680	393 – 482	<b>293631</b>
801 – 1200	980	482 – 682	<b>293633</b>
1201 – 1600	1380	448 – 658	<b>293635</b>
1601 – 2000	1780	680 – 890	<b>293636</b>
2001 – 2400	2180	880 – 1090	<b>293637</b>

### 4) Separate lever 291743

(Always to be ordered separately for every lever-operated espagnolette!)

1) For T&T espagnolette, 8 mm backset  
2) With special corner drive  
3) With corner drive

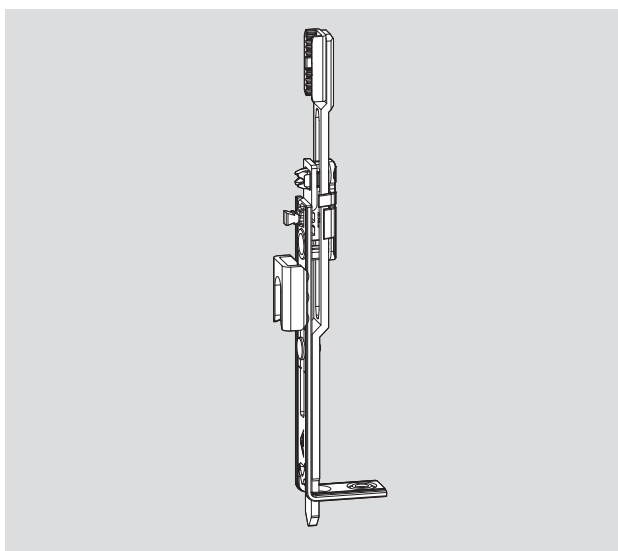
## Lever-operated espagnolette, Vertical-Tilter

### Fixed lever-height



#### Lever-operated espagnolette, Vertical-Tilter

SRH / mm	Espagnolette length/mm	Lever position / mm	Material no.
601 – 800	690	195	<b>628308</b>
801 – 1000	890	490	<b>628309</b>
1001 – 1200	1090	335	<b>628310</b>
1201 – 1400	1290	335	<b>628311</b>
1401 – 1600	1490	335	<b>628312</b>
1601 – 1800	1690	335	<b>628313</b>
1801 – 2000	1890	640	<b>628314</b>
2001 – 2200	2090	640	<b>628325</b>
2201 – 2400	2290	640	<b>628326</b>



#### Espagnolette connection for lever-operated espagnolette VT

**628701**

Lever-operated  
espagnolette  
Shootbolt

## Lever-operated espagnolette & T&T espagnolette: possible combinations

### Lever-operated espagnolette / T&T espagnolette, fixed handle height, 15 mm backset

Lever-operated espagnolette, fixed lever-height			
SRH/mm	Length/mm	Lever position/mm	Material no.
431 – 480	490	195	<b>233408</b> <sup>1)</sup>
481 – 500	490	195	<b>233408</b> <sup>1)</sup>
501 – 600	490	195	<b>233408</b>
601 – 800	690	335	<b>233409</b>
801 – 1000	890	490	<b>233410</b>
1001 – 1200	1090	335	<b>233411</b>
1201 – 1400	1290	335	<b>233412</b>
1401 – 1600	1490	335	<b>233413</b>
1601 – 1800	1690	335	<b>296145</b>
1601 – 1800	1690	335	<b>296145</b>
1801 – 2000	1890	640	<b>296074</b>
2001 – 2200	2090	640	<b>296075</b>
2201 – 2400	2290	640	<b>296076</b>
2401 – 2600	2290	640	<b>296076</b>

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T&T espagnolette, fixed handle height			
Lifting mishandling device possible	Length/mm	Handle height	Material no.
	370	120	<b>284314</b> <sup>2)</sup>
	490	170	<b>259830</b>
X	490	170	<b>259830</b>
X	690	263	<b>259833</b>
X	890	413	<b>259836</b>
X	1090	513	<b>259838</b>
X	1290	563	<b>259840</b>
X	1490	563	<b>259843</b>
X	1690	563	<b>259846</b>
X	1690	1000	<b>259847</b>
X	1890	1000	<b>259849</b>
X	2090	1000	<b>259852</b>
X	2290	1000	<b>259855</b>
X	2290	1000	<b>259855</b>

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### Lever-operated espagnolette / T&T espagnolette, centred/variable handle height, 15 mm backset

Lever-operated espagnolette, centred/variable lever-height			
SRH/mm	Length/mm	Lever position/mm	Material no.
370 – 450	400	225 – 265	<b>233418</b> <sup>1)</sup>
451 – 520	400	266 – 300	<b>233418</b> <sup>1)</sup>
521 – 620	400	301 – 350	<b>233418</b>
621 – 650	680	393 – 407	<b>233419</b> <sup>1)</sup>
651 – 800	680	408 – 482	<b>233419</b>
801 – 1200	980	482 – 682	<b>233420</b>
1201 – 1600	1380	448 – 648	<b>290912</b>
1601 – 2000	1780	680 – 880	<b>296146</b>
2001 – 2400	2180	880 – 1080	<b>296147</b>
2401 – 2600	2180	1080	<b>296147</b>

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T&T espagnolette, centred/variable handle height			
Lifting mishandling device possible	Length/mm	Handle height	Material no.
	430	155 – 225	<b>259717</b> <sup>1)</sup>
	400	226 – 310	<b>259718</b>
	400	226 – 310	<b>259718</b>
X	580	311 – 400	<b>259719</b>
X	580	311 – 400	<b>259719</b>
X	980	401 – 600	<b>259720</b>
X	1380	601 – 800	<b>259721</b>
X	1780	801 – 1000	<b>259762</b>
X	2180	1001 – 1200	<b>259763</b>
X	2180	1200	<b>259763</b>

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### Lever-operated espagnolette / T&T espagnolette, fixed handle height, 8 mm backset

Lever-operated espagnolette, fixed lever-height			
SRH/mm	Length/mm	Lever position/mm	Material no.
431 – 510	490	233	<b>317047</b> <sup>1)</sup>
511 – 600	490	233	<b>317047</b>
601 – 800	690	195	<b>242731</b>
801 – 1000	890	490	<b>242732</b>
1001 – 1200	1090	335	<b>233411</b>
1201 – 1400	1290	335	<b>233412</b>
1401 – 1600	1490	335	<b>233413</b>
1601 – 1800	1690	335	<b>296145</b>
1601 – 1800	1690	335	<b>296145</b>
1801 – 2000	1890	640	<b>296074</b>
2001 – 2200	2090	640	<b>296075</b>
2201 – 2400	2290	640	<b>296076</b>
2401 – 2600	2290	640	<b>296076</b>

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T&T espagnolette, fixed handle height			
Lifting mishandling device possible	Length/mm	Handle height	Material no.
	490	170	<b>259856</b> <sup>2)</sup>
	490	170	<b>259856</b> <sup>2)</sup>
	690	263	<b>259860</b>
X	890	413	<b>259863</b>
X	1090	513	<b>259865</b>
X	1290	563	<b>259867</b>
X	1490	563	<b>259870</b>
X	1690	563	<b>259873</b>
X	1690	1000	<b>259874</b>
X	1890	1000	<b>259876</b>
X	2090	1000	<b>259879</b>
X	2290	1000	<b>259882</b>
X	2290	1000	<b>259882</b>

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### Lever-operated espagnolette / T&T espagnolette, centred/variable handle height, 8 mm backset

Lever-operated espagnolette, centred/variable lever-height			
SRH/mm	Length/mm	Lever position/mm	Material no.
621 – 800	680	236 – 325	<b>242726</b> <sup>1)</sup>
801 – 900	680	325 – 375	<b>242726</b>
901 – 1200	980	298 – 448	<b>242728</b>
1201 – 1600	1380	448 – 658	<b>290912</b>
1601 – 2000	1780	680 – 880	<b>296146</b>
2001 – 2400	2180	880 – 1080	<b>296147</b>
2401 – 2600	2180	1080	<b>296147</b>

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T&T espagnolette, centred/variable handle height			
Lifting mishandling device possible	Length/mm	Handle height	Material no.
	580	311 – 400	<b>259766</b>
	980	401 – 450	<b>623646</b>
X	980	451 – 600	<b>623646</b>
X	1380	601 – 800	<b>259768</b>
X	1780	801 – 1000	<b>259769</b>
X	2180	1001 – 1200	<b>259770</b>
X	2180	1200	<b>259770</b>

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1) With special corner drive  
2) With integrated T&T corner drive with P cam



## Lever-operated espagnolette Plus/T&T espagnolette: possible combinations

### Lever-operated espagnolette Plus / T&T espagnolette, fixed handle height, 15 mm backset

Lever-operated espagnolette, fixed lever-height			
SRH/mm	Length/mm	Lever position/mm	Material no.
431 – 480	490	195	<b>623365</b> <sup>1)</sup>
481 – 500	490	195	<b>623365</b> <sup>1)</sup>
501 – 600	490	195	<b>623365</b>
601 – 800	690	335	<b>623369</b>
801 – 1000	890	490	<b>623371</b>
1001 – 1200	1090	335	<b>623372</b>
1201 – 1400	1290	335	<b>623373</b>
1401 – 1600	1490	335	<b>623374</b>
1601 – 1800	1690	335	<b>623375</b>
1601 – 1800	1690	335	<b>623375</b>
1801 – 2000	1890	640	<b>623376</b>
2001 – 2200	2090	640	<b>623377</b>
2201 – 2400	2290	640	<b>623378</b>
2401 – 2600	2290	640	<b>623378</b>

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T&T espagnolette, fixed handle height			
Lifting mishandling device possible	Length/mm	Handle height	Material no.
	370	120	<b>284314</b> <sup>2)</sup>
	490	170	<b>259830</b>
X	490	170	<b>259830</b>
X	690	263	<b>259833</b>
X	890	413	<b>259836</b>
X	1090	513	<b>259838</b>
X	1290	563	<b>259840</b>
X	1490	563	<b>259843</b>
X	1690	563	<b>259846</b>
X	1690	1000	<b>259847</b>
X	1890	1000	<b>259849</b>
X	2090	1000	<b>259852</b>
X	2290	1000	<b>259855</b>
X	2290	1000	<b>259855</b>

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### Lever-operated espagnolette Plus / T&T espagnolette, centred/variable handle height, 15 mm backset

Lever-operated espagnolette, centred/variable lever-height			
SRH/mm	Length/mm	Lever position/mm	Material no.
370 – 450	400	225 – 265	<b>623379</b> <sup>1)</sup>
451 – 520	400	266 – 300	<b>623379</b> <sup>1)</sup>
521 – 620	400	301 – 350	<b>623379</b>
621 – 650	680	393 – 407	<b>623380</b> <sup>1)</sup>
651 – 800	680	408 – 482	<b>623380</b>
801 – 1200	980	482 – 682	<b>623382</b>
1201 – 1600	1380	448 – 648	<b>623384</b>
1601 – 2000	1780	680 – 880	<b>623385</b>
2001 – 2400	2180	880 – 1080	<b>623386</b>
2401 – 2600	2180	1080	<b>623386</b>

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T&T espagnolette, centred/variable handle height			
Lifting mishandling device possible	Length/mm	Handle height	Material no.
	430	155 – 225	<b>259717</b> <sup>1)</sup>
	400	226 – 310	<b>259718</b>
	400	226 – 310	<b>259718</b>
X	580	311 – 400	<b>259719</b>
X	580	311 – 400	<b>259719</b>
X	980	401 – 600	<b>259720</b>
X	1380	601 – 800	<b>259721</b>
X	1780	801 – 1000	<b>259762</b>
X	2180	1001 – 1200	<b>259763</b>
X	2180	1200	<b>259763</b>

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### Lever-operated espagnolette Plus / T&T espagnolette, fixed handle height, 8 mm backset

Lever-operated espagnolette, fixed lever-height			
SRH/mm	Length/mm	Lever position/mm	Material no.
431 – 510	490	233	<b>623366</b> <sup>1)</sup>
511 – 600	490	233	<b>623366</b>
601 – 800	690	195	<b>623367</b>
801 – 1000	890	490	<b>623370</b>
1001 – 1200	1090	335	<b>623372</b>
1201 – 1400	1290	335	<b>623373</b>
1401 – 1600	1490	335	<b>623374</b>
1601 – 1800	1690	335	<b>623375</b>
1601 – 1800	1690	335	<b>623375</b>
1801 – 2000	1890	640	<b>623376</b>
2001 – 2200	2090	640	<b>623377</b>
2201 – 2400	2290	640	<b>623378</b>
2401 – 2600	2290	640	<b>623378</b>

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T&T espagnolette, fixed handle height			
Lifting mishandling device possible	Length/mm	Handle height	Material no.
	490	170	<b>259856</b> <sup>2)</sup>
	490	170	<b>259856</b> <sup>2)</sup>
	690	263	<b>259860</b>
X	890	413	<b>259863</b>
X	1090	513	<b>259865</b>
X	1290	563	<b>259867</b>
X	1490	563	<b>259870</b>
X	1690	563	<b>259873</b>
X	1690	1000	<b>259874</b>
X	1890	1000	<b>259876</b>
X	2090	1000	<b>259879</b>
X	2290	1000	<b>259882</b>
X	2290	1000	<b>259882</b>

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### Lever-operated espagnolette Plus / T&T espagnolette, centred/variable handle height, 8 mm backset

Lever-operated espagnolette, centred/variable lever-height			
SRH/mm	Length/mm	Lever position/mm	Material no.
621 – 800	680	236 – 325	<b>623381</b> <sup>1)</sup>
801 – 900	680	325 – 375	<b>623381</b>
901 – 1200	980	298 – 448	<b>623383</b>
1201 – 1600	1380	448 – 658	<b>623384</b>
1601 – 2000	1780	680 – 880	<b>623385</b>
2001 – 2400	2180	880 – 1080	<b>623386</b>
2401 – 2600	2180	1080	<b>623386</b>

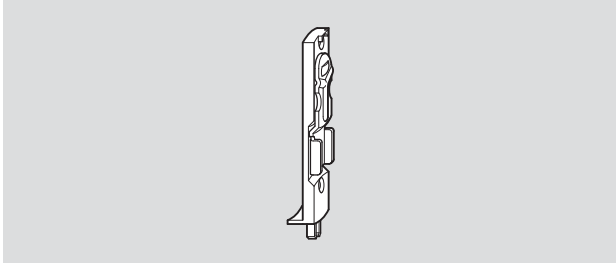
(CL 200) 308267

T&T espagnolette, centred/variable handle height			
Lifting mishandling device possible	Length/mm	Handle height	Material no.
	580	311 – 400	<b>259766</b>
	980	401 – 450	<b>623646</b>
X	980	451 – 600	<b>623646</b>
X	1380	601 – 800	<b>259768</b>
X	1780	801 – 1000	<b>259769</b>
X	2180	1001 – 1200	<b>259770</b>
X	2180	1200	<b>259770</b>

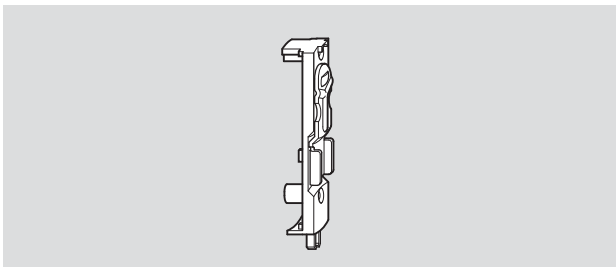
(CL 200) 308267

1) With special corner drive  
2) With integrated T&T corner drive with P cam

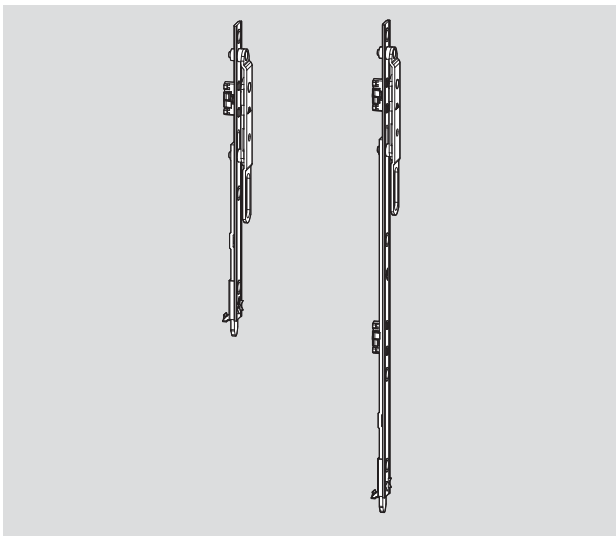
# Shootbolt



Description	Material no.
Shootbolt for 18 mm Euro-rebate	260189



Shootbolt for opposing hardware grooves	305638
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Shootbolt, length 200	633419
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Shootbolt, length 390	618666
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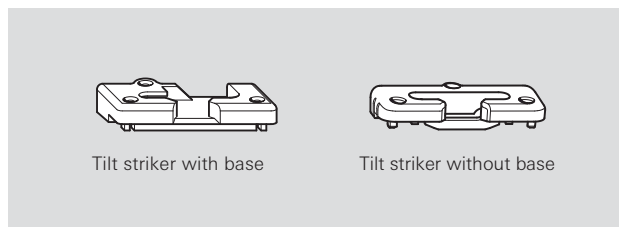
SRH / mm	position on the bottom	position on top
480 – 600	x	
601 – 2400	x	x





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## Tilt striker, zinc



Tilt striker, zinc				
System	Profile	HA	Floor	Material no.
<b>Aluplast</b>	Aluplast 2000	13	–	<b>331487</b>
	Aluplast 2000	13	X	R <b>260502</b>
	Aluplast 2000	13	X	L <b>260501</b>
	Aluplast 3000	13	–	<b>331487</b>
	Aluplast 3000	13	X	R <b>260502</b>
	Aluplast 3000	13	X	L <b>260501</b>
	Aluplast 4000	13	–	<b>350190</b>
	Aluplast 4000	13	X	R <b>257365</b>
	Aluplast 4000	13	X	L <b>257364</b>
	Aluplast 5000	13	–	<b>350190</b>
	Aluplast 5000	13	X	R <b>257365</b>
	Aluplast 5000	13	X	L <b>257364</b>
	Aluplast 6000	13	–	<b>350190</b>
	Aluplast 6000	13	X	R <b>257365</b>
	Aluplast 6000	13	X	L <b>257364</b>
<b>Brüggmann</b>	Brüggmann AD 13	13	X	R <b>292196</b>
	Brüggmann AD 13	13	X	L <b>292195</b>
	Brüggmann MD 13	13	X	R <b>292196</b>
	Brüggmann MD 13	13	X	L <b>292195</b>
<b>Deceuninck</b>	Deceuninck Klassiek	13	X	R <b>281600</b>
	Deceuninck Klassiek	13	X	L <b>281599</b>
	Deceuninck Mondial with VK	13	X	R <b>281600</b>
	Deceuninck Mondial with VK	13	X	L <b>281599</b>
	Deceuninck Zendow	13	X	R <b>370074</b>
	Deceuninck Zendow	13	X	L <b>370073</b>
	Deceuninck Zendow	13	X	R <b>370074</b>
<b>Gealan</b>	Gealan 3000	13	–	<b>367200</b>
	Gealan 3000	13	X	R <b>260498</b>
	Gealan 3000	13	X	L <b>260497</b>
	Gealan 7000	13	–	<b>367200</b>
	Gealan 7000	13	X	R <b>260498</b>
	Gealan 7000	13	X	L <b>260497</b>
	Gealan 8000	13	–	<b>367200</b>
	Gealan 8000	13	X	R <b>260498</b>
	Gealan 8000	13	X	L <b>260497</b>
<b>Inoutic</b>	Inoutic Eforte	13	X	R <b>260500</b>
	Inoutic Eforte	13	X	L <b>260499</b>
	Inoutic AD 13	13	X	R <b>260500</b>
	Inoutic AD 13	13	X	L <b>260499</b>
	Inoutic MD 100	13	X	R <b>260500</b>
	Inoutic MD 100	13	X	L <b>260499</b>
	Inoutic Prestige AD	13	X	R <b>260500</b>
	Inoutic Prestige AD	13	X	L <b>260499</b>

Tilt striker, zinc				
System	Profile	HA	Floor	Material no.
<b>Inoutic</b>	Inoutic Prestige AD	13	X	L <b>260499</b>
	Inoutic Prestige MD	13	X	R <b>288118</b>
	Inoutic Prestige MD	13	X	L <b>288117</b>
	Inoutic Prestige MD	13	X	L <b>288117</b>
<b>KBE</b>	KBE 70 AD	13	–	<b>338071</b>
	KBE 70 AD	13	X	R <b>289974</b>
	KBE 70 AD	13	X	L <b>289973</b>
	KBE 88 AD	13	X	R <b>289974</b>
	KBE 88 AD	13	X	L <b>289973</b>
	KBE AD	9	X	R <b>260494</b>
	KBE AD	9	X	L <b>260493</b>
	KBE MD	9	X	R <b>260506</b>
	KBE MD	9	X	L <b>260505</b>
	KBE MD	9	X	L <b>260505</b>
<b>Kömmerling</b>	Kömmerling 88 Plus	13	–	<b>334954</b>
	Kömmerling Eurodur 3S	13	X	R <b>260490</b>
	Kömmerling Eurodur 3S	13	X	L <b>260489</b>
	Kömmerling Eurofutur Classic	13	–	<b>334954</b>
	Kömmerling Eurofutur Elegance	13	–	<b>334954</b>
	Kömmerling Eurofutur Elegance	13	–	<b>334954</b>
	Kömmerling Eurofutur Elegance	13	–	<b>334954</b>
<b>Plus Plan</b>	Plus Plan Plus Tec	13	X	R <b>264421</b>
	Plus Plan Plus Tec	13	X	L <b>264420</b>
<b>Rehau</b>	Rehau 799, Brillant Design, Rehau S730	13	–	<b>338021</b>
	Rehau 799, Brillant Design, Rehau S730	13	X	R <b>316940</b>
	Rehau 799, Brillant Design, Rehau S730	13	X	L <b>316939</b>
	Rehau S788 MD, Rehau 735	13	–	<b>338021</b>
	Rehau S788 MD, Rehau 735	13	X	R <b>316940</b>
	Rehau S788 MD, Rehau 735	13	X	L <b>316939</b>
	Rehau 980, Geneo EuroDesign 86	13	X	R <b>496017</b>
	Rehau 980, Geneo EuroDesign 86	13	X	L <b>496018</b>
	Rehau 986, EuroDesign 86	13	–	<b>338021</b>
	Rehau 986, EuroDesign 86	13	X	R <b>316940</b>
Rehau 986, EuroDesign 86	13	X	L <b>316939</b>	

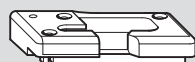
**Tilt striker, zinc**

System	Profile	HA	Floor	Material no.
<b>Roplasto</b>	Roplasto 4K	13	X	R <b>260508</b>
	Roplasto 4K	13	X	L <b>260507</b>
	Roplasto 7001 AD	13	X	R <b>260508</b>
	Roplasto 7001 AD	13	X	L <b>260507</b>
	Roplasto 7001 MD	13	X	R <b>260508</b>
	Roplasto 7001 MD	13	X	L <b>260507</b>
<b>Salamander</b>	Salamander Streamline 76	13	X	R <b>261725</b>
	Salamander Streamline 76	13	X	L <b>261724</b>
	Salamander 2D	13	X	R <b>261725</b>
	Salamander 2D	13	X	L <b>261724</b>
	Salamander 3D	13	X	R <b>261725</b>
	Salamander 3D	13	X	L <b>261724</b>
	Salamander BluEvolution	13	-	<b>604887</b>
	Salamander BluEvolution	13	X	L <b>599778</b>
	Salamander BluEvolution	13	X	R <b>599779</b>
	Salamander BluEvolution	13	X	L <b>599778</b>
<b>Schüco</b>	Schüco Corona AD	13	X	R <b>257365</b>
	Schüco Corona AD	13	X	L <b>257364</b>
	Schüco Corona CT70 AD	13	-	<b>338019</b>
	Schüco Corona CT70 AD	13	X	R <b>256784</b>
	Schüco Corona CT70 AD	13	X	L <b>256783</b>
	Schüco Corona CT70 MD	13	-	<b>331487</b>
	Schüco Corona CT70 MD	13	X	R <b>260502</b>
	Schüco Corona CT70 MD	13	X	L <b>260501</b>
	Schüco Corona SI82 MD	13	X	R <b>260502</b>
	Schüco Corona SI82 MD	13	X	L <b>260501</b>
	Schüco Corona SI82 MD	13	X	R <b>260502</b>
	Schüco Corona SI82 MD	13	X	L <b>260501</b>
<b>Trocal</b>	Trocal 88 Plus	13	X	R <b>290152</b>
	Trocal 88 Plus	13	X	L <b>290131</b>
	Trocal 900	9	X	R <b>260506</b>
	Trocal 900	9	X	L <b>260505</b>
	Trocal Innonova 2000	13	X	R <b>290152</b>
	Trocal Innonova 2000	13	X	L <b>290131</b>
	Trocal Innonova 70.A5 AD	13	-	
	Trocal Innonova 70.M5 MD	13	-	<b>336808</b>

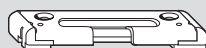
**Tilt striker, zinc**

System	Profile	HA	Floor	Material no.
<b>Veka</b>	Veka Alphaline 90	13	-	
	Veka Softline 70 AD	13	-	<b>338019</b>
	Veka Softline 70 AD	13	X	R <b>256784</b>
	Veka Softline 70 AD	13	X	L <b>256783</b>
	Veka Softline 70 MD	13	-	<b>338019</b>
	Veka Softline 70 MD	13	X	R <b>256784</b>
	Veka Softline 70 MD	13	X	L <b>256783</b>
	Veka Softline AD 9	9	X	R <b>260496</b>
	Veka Softline AD 9	9	X	L <b>260495</b>
	Veka Topline AD 13	13	-	<b>338019</b>
	Veka Topline AD 13	13	X	R <b>256784</b>
	Veka Topline AD 13	13	X	L <b>256783</b>
	Veka Topline MD 13	13	-	<b>338019</b>
	Veka Topline MD 13	13	X	R <b>256784</b>
	Veka Topline MD 13	13	X	L <b>256783</b>
	<b>Wymar</b>	Wymar 2500	13	X
Wymar 2500		13	X	L <b>254468</b>
Wymar 3000		13	X	R <b>373963</b>
Wymar 3000		13	X	L <b>373964</b>

## Tilt striker, steel



Tilt striker with base



Tilt striker without base

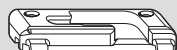
Tilt striker, steel				
System	Profile	HA	Floor	Material no.
<b>Aluplast</b>	Aluplast 2000	13	X	R <b>260350</b>
	Aluplast 2000	13	X	L <b>260349</b>
	Aluplast 3000	13	X	R <b>260350</b>
	Aluplast 3000	13	X	L <b>260349</b>
	Aluplast 4000	13	X	R <b>257354</b>
	Aluplast 4000	13	X	L <b>257353</b>
	Aluplast 5000	13	X	R <b>257354</b>
	Aluplast 5000	13	X	L <b>257353</b>
	Aluplast 6000	13	X	R <b>257354</b>
Aluplast 6000	13	X	L <b>257353</b>	
<b>Deceuninck</b>	Deceuninck Zendow	13	–	<b>607926</b>
<b>Gealan</b>	Gealan 3000	13	X	R <b>260346</b>
	Gealan 3000	13	X	L <b>260345</b>
	Gealan 7000	13	X	R <b>260346</b>
	Gealan 7000	13	X	L <b>260345</b>
	Gealan 8000	13	X	R <b>260346</b>
	Gealan 8000	13	X	L <b>260345</b>
<b>Inoutic</b>	Inoutic Eforte	13	X	R <b>260348</b>
	Inoutic Eforte	13	X	L <b>260347</b>
	Inoutic AD 13	13	X	R <b>260348</b>
	Inoutic AD 13	13	X	L <b>260347</b>
	Inoutic MD 100	13	X	R <b>260348</b>
	Inoutic MD 100	13	X	L <b>260347</b>
	Inoutic Prestige AD	13	X	R <b>260348</b>
	Inoutic Prestige AD	13	X	L <b>260347</b>
<b>KBE</b>	KBE 70 AD	13	–	<b>289975</b>
	KBE AD	9	–	<b>291594</b>
<b>Kömmerling</b>	Kömmerling 88 Plus	13	–	<b>334956</b>
	Kömmerling Eurodur 3S	13	X	R <b>260338</b>
	Kömmerling Eurodur 3S	13	X	L <b>260337</b>
	Kömmerling Eurofutur Classic	13	X	R <b>260338</b>
	Kömmerling Eurofutur Classic	13	–	<b>334956</b>
	Kömmerling Eurofutur Classic	13	X	L <b>260337</b>
	Kömmerling Eurofutur Elegance	13	X	R <b>260338</b>
	Kömmerling Eurofutur Elegance	13	–	<b>334956</b>
	Kömmerling Eurofutur Elegance	13	X	L <b>260337</b>
	Kömmerling Eurofutur Elegance	13	X	R <b>260338</b>
	Kömmerling Eurofutur Elegance	13	–	<b>334956</b>
	Kömmerling Eurofutur Elegance	13	X	L <b>260337</b>
	Kömmerling Eurofutur Elegance	13	X	R <b>260338</b>
	Kömmerling Eurofutur Elegance	13	–	<b>334956</b>
	Kömmerling Eurofutur Elegance	13	X	L <b>260337</b>

Tilt striker, steel					
System	Profile	HA	Floor	Material no.	
<b>Rehau</b>	Rehau 799, Brillant Design, Rehau S730	13	X	R <b>260340</b>	
	Rehau 799, Brillant Design, Rehau S730	13	X	L <b>260339</b>	
	Rehau S788 MD, Rehau 735	13	X	R <b>260340</b>	
	Rehau S788 MD, Rehau 735	13	X	L <b>260339</b>	
	Rehau 980, Geneo	13	X	R <b>260340</b>	
	Rehau 980, Geneo	13	X	L <b>260339</b>	
	Rehau 986, EuroDesign 86	13	X	R <b>260340</b>	
	Rehau 986, EuroDesign 86	13	X	L <b>260339</b>	
	<b>Roplasto</b>	Roplasto 4K	13	X	R <b>260354</b>
		Roplasto 4K	13	X	L <b>260353</b>
Roplasto 7001 AD		13	X	R <b>260354</b>	
Roplasto 7001 AD		13	X	L <b>260353</b>	
Roplasto 7001 MD		13	X	R <b>260354</b>	
Roplasto 7001 MD		13	X	L <b>260353</b>	
<b>Salamander</b>	Salamander Streamline 76	13	–	<b>314269</b>	
	Salamander 2D	13	–		
	Salamander 3D	13	–		
<b>Schüco</b>	Schüco Corona AD	13	X	R <b>257354</b>	
	Schüco Corona AD	13	–	<b>311975</b>	
	Schüco Corona AD	13	X	L <b>257353</b>	
	Schüco Corona CT70 AD	13	X	R <b>260352</b>	
	Schüco Corona CT70 AD	13	X	L <b>260351</b>	
	Schüco Corona CT70 MD	13	X	R <b>260350</b>	
	Schüco Corona CT70 MD	13	–	<b>333251</b>	
	Schüco Corona CT70 MD	13	X	L <b>260349</b>	
	Schüco Corona SI82 MD	13	X	R <b>260350</b>	
	Schüco Corona SI82 MD	13	X	L <b>260349</b>	
	Schüco Corona SI82 MD	13	X	R <b>260350</b>	

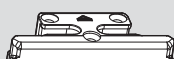


<b>Tilt striker, steel</b>				
System	Profile	HA	Floor	Material no.
<b>Trocal</b>	Trocal 88 Plus	13	–	
	Trocal 900	9	–	<b>291564</b>
	Trocal Innonova 2000	13	–	
	Trocal Innonova 70.A5 AD	13	–	<b>389598</b>
	Trocal Innonova 70.M5 MD	13	–	
<b>Veka</b>	Veka Softline AD 9	9	–	<b>291593</b>
	Veka Topline AD 13	13	X	R <b>260352</b>
	Veka Topline AD 13	13	X	L <b>260351</b>
	Veka Topline MD 13	13	X	R <b>260352</b>
	Veka Topline MD 13	13	X	L <b>260351</b>
<b>Wymar</b>	Wymar 3000	13	X	R <b>260338</b>
	Wymar 3000	13	X	L <b>260337</b>

## Tilt striker Tilt-First



Tilt striker, right/left

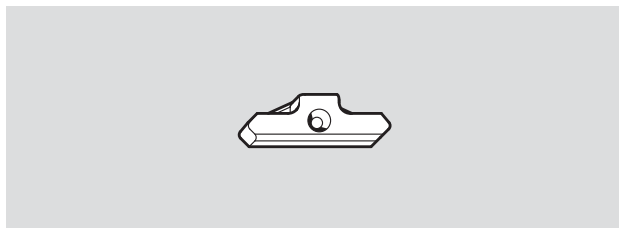


Tilt striker, symmetrical

Tilt striker Tilt-First					
System	Profile	HA	Floor		Material no.
<b>Aluplast</b>	Aluplast 2000	13	X	R	<b>332801</b>
	Aluplast 2000	13	X	L	<b>332802</b>
	Aluplast 3000	13	X	R	<b>332801</b>
	Aluplast 3000	13	X	L	<b>332802</b>
	Aluplast 4000	13	X	R	<b>336106</b>
	Aluplast 4000	13	X	L	<b>336105</b>
	Aluplast 5000	13	X	R	<b>336106</b>
	Aluplast 5000	13	X	L	<b>336105</b>
	Aluplast 6000	13	X	R	<b>336106</b>
Aluplast 6000	13	X	L	<b>336105</b>	
<b>Brüggmann</b>	Brüggmann AD 13	13	X	R	<b>320609</b>
	Brüggmann AD 13	13	X	L	<b>320608</b>
	Brüggmann MD 13	13	X	R	<b>320609</b>
	Brüggmann MD 13	13	X	L	<b>320608</b>
<b>Deceuninck</b>	Deceuninck Mondial with VK	13	X	R	<b>309803</b>
	Deceuninck Mondial with VK	13	X	L	<b>309802</b>
	Deceuninck Zendow	13	X	R	<b>493426</b>
	Deceuninck Zendow	13	X	L	<b>493547</b>
<b>Gealan</b>	Gealan 3000	13	X	R	<b>280123</b>
	Gealan 3000	13	X	L	<b>280122</b>
	Gealan 8000	13	X	R	<b>280123</b>
	Gealan 8000	13	X	L	<b>280122</b>
<b>Inoutic</b>	Inoutic Eforte	13	X	R	<b>493839</b>
	Inoutic Eforte	13	X	L	<b>493840</b>
	Inoutic AD 13	13	X	R	<b>493839</b>
	Inoutic AD 13	13	X	L	<b>493840</b>
	Inoutic Prestige AD	13	X	R	<b>493839</b>
Inoutic Prestige AD	13	X	L	<b>493840</b>	
<b>KBE</b>	KBE 70 AD	13	X	R	<b>335462</b>
	KBE 70 AD	13	X	L	<b>335459</b>
	KBE AD	9	X	R	<b>317005</b>
	KBE AD	9	X	L	<b>317004</b>
<b>Kömmerling</b>	Kömmerling 88 Plus	13	X	R	<b>309133</b>
	Kömmerling 88 Plus	13	X	L	<b>309132</b>
	Kömmerling Eurodur 3S	13	X	R	<b>309133</b>
	Kömmerling Eurodur 3S	13	X	L	<b>309132</b>
	Kömmerling Eurofutur Classic	13	X	R	<b>309133</b>
	Kömmerling Eurofutur Classic	13	X	L	<b>309132</b>
	Kömmerling Eurofutur Elegance	13	X	R	<b>309133</b>
	Kömmerling Eurofutur Elegance	13	X	L	<b>309132</b>
	Kömmerling Eurofutur Elegance	13	X	L	<b>309132</b>
	Kömmerling Eurofutur Elegance	13	X	L	<b>309132</b>
	Kömmerling Eurofutur Elegance	13	X	L	<b>309132</b>

Tilt striker Tilt-First					
System	Profile	HA	Floor		Material no.
<b>Rehau</b>	Rehau 799, Brillant Design, Rehau S730	13	X	R	<b>261729</b>
	Rehau 799, Brillant Design, Rehau S730	13	X	L	<b>261728</b>
	Rehau S788 MD, Rehau 735	13	X	R	<b>261729</b>
	Rehau S788 MD, Rehau 735	13	X	L	<b>261728</b>
	Rehau 980, Geneo	13	X	R	<b>261729</b>
	Rehau 980, Geneo	13	X	L	<b>261728</b>
	Rehau 986, EuroDesign 86	13	X	R	<b>261729</b>
	Rehau 986, EuroDesign 86	13	X	L	<b>261728</b>
	Rehau 986, EuroDesign 86	13	X	L	<b>261728</b>
<b>Salamander</b>	Salamander Streamline 76	13	X	R	<b>316978</b>
	Salamander Streamline 76	13	X	L	<b>316977</b>
	Salamander 2D	13	X	R	<b>316978</b>
	Salamander 2D	13	X	L	<b>316977</b>
	Salamander 3D	13	X	R	<b>316978</b>
	Salamander 3D	13	X	L	<b>316977</b>
<b>Schüco</b>	Schüco Corona AD	13	X	R	<b>336106</b>
	Schüco Corona AD	13	X	L	<b>336105</b>
	Schüco Corona CT70 AD	13	X	R	<b>332801</b>
	Schüco Corona CT70 AD	13	X	L	<b>332802</b>
	Schüco Corona CT70 MD	13	X	R	<b>332801</b>
	Schüco Corona CT70 MD	13	X	L	<b>332802</b>
	Schüco Corona SI82 MD	13	X	R	<b>332801</b>
Schüco Corona SI82 MD	13	X	L	<b>332802</b>	
<b>Trocal</b>	Trocal 88 Plus	13	X	R	<b>606636</b>
	Trocal 88 Plus	13	X	L	<b>606635</b>
	Trocal 900	9	X	R	<b>309137</b>
	Trocal 900	9	X	L	<b>309136</b>
	Trocal Innonova 2000	13	X	R	<b>606636</b>
	Trocal Innonova 2000	13	X	L	<b>606635</b>
	Trocal Innonova 70.A5 AD	13	X	R	<b>336108</b>
	Trocal Innonova 70.A5 AD	13	X	L	<b>336107</b>
	Trocal Innonova 70.M5 MD	13	X	R	<b>336108</b>
	Trocal Innonova 70.M5 MD	13	X	L	<b>336107</b>
<b>Veka</b>	Veka Softline 70 AD	13	-		<b>617391</b>
	Veka Softline AD 9	9	X	R	<b>328016</b>
	Veka Softline AD 9	9	X	L	<b>328015</b>
	Veka Topline AD 13	13	X	R	<b>309135</b>
	Veka Topline AD 13	13	-		<b>617391</b>
	Veka Topline AD 13	13	X	L	<b>309134</b>
	Veka Topline MD 13	13	X	R	<b>309135</b>
	Veka Topline MD 13	13	X	L	<b>309134</b>
	Veka Topline MD 13	13	X	L	<b>309134</b>

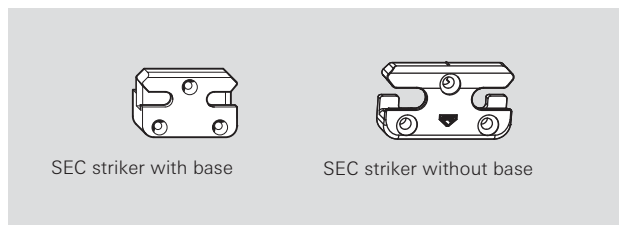
# Strikers NT



Strikers NT				
System	Profile	HA	Floor	Material no.
<b>Aluplast</b>	Aluplast 2000	13	–	<b>331489</b>
	Aluplast 3000	13	–	
	Aluplast 4000	13	–	<b>350192</b>
	Aluplast 5000	13	–	
	Aluplast 6000	13	–	
<b>Brüggmann</b>	Brüggmann AD 13	13	–	<b>341485</b>
	Brüggmann MD 13	13	–	
	Brüggmann AD 13	13	X	<b>292193</b>
	Brüggmann MD 13	13	X	
<b>Deceuninck</b>	Deceuninck Klassiek	13	X	<b>281601</b>
	Deceuninck Mondial with VK	13	X	
	Deceuninck Zendow	13	–	<b>370071</b>
<b>Gealan</b>	Gealan 3000	13	–	<b>319744</b>
	Gealan 7000	13	–	
	Gealan 8000	13	–	
<b>Inoutic</b>	Inoutic AD 13	13	X	<b>260370</b>
	Inoutic Eforte	13	X	
	Inoutic MD 100	13	X	
	Inoutic Prestige AD	13	X	
	Inoutic Prestige MD	13	X	
<b>KBE</b>	KBE AD	9	X	<b>260367</b>
	KBE MD	9	X	<b>260373</b>
	KBE 70 AD	13	–	<b>338070</b>
	KBE 70 MD	13	–	
	KBE 88 AD	13	–	
<b>Kömmerling</b>	Kömmerling Eurodur 3S	13	X	<b>260365</b>
	Kömmerling Eurofutur Classic	13	–	<b>334957</b>
	Kömmerling Eurofutur Elegance	13	–	
	Kömmerling 88 Plus	13	–	
<b>Plus Plan</b>	Plus Plan Plus Tec	13	X	<b>264316</b>
<b>Rehau</b>	Rehau 799, Brillant Design, Rehau S730	13	–	<b>332439</b>
	Rehau S788 MD, Rehau 735	13	–	
	Rehau 980, Geneo	13	–	
	Rehau 986, EuroDesign 86	13	–	
<b>Roplasto</b>	Roplasto 4K	13	–	<b>482541</b>
	Roplasto 7001 AD	13	–	
	Roplasto 7001 MD	13	–	
<b>Salamander</b>	Salamander 2D	13	–	<b>486195</b>
	Salamander 3D	13	–	
	Salamander BluEvolution	13	–	
	Salamander Streamline 76	13	–	
<b>Schüco</b>	Schüco Corona AD	13	–	<b>350192</b>
	Schüco Corona CT70 AD	13	–	<b>332438</b>
	Schüco Corona CT70 MD	13	–	<b>331489</b>
	Schüco Corona S182 MD	13	–	

Strikers NT				
System	Profile	HA	Floor	Material no.
<b>Trocal</b>	Trocal 88 Plus	13	X	<b>290127</b>
	Trocal 900	9	X	<b>260373</b>
	Trocal Innonova 2000	13	X	<b>290127</b>
	Trocal Innonova 70.A5 AD	13	–	<b>336797</b>
	Trocal Innonova 70.M5 MD	13	–	
<b>Veka</b>	Veka Alphaline 90	13	–	<b>332438</b>
	Veka Softline 70 AD	13	–	
	Veka Softline 70 MD	13	–	
	Veka Topline AD 13	13	–	
	Veka Topline MD 13	13	–	
<b>Wymar</b>	Veka Softline AD 9	9	X	<b>260368</b>
	Wymar 2500	13	–	<b>380088</b>
	Wymar 3000	13	–	<b>374157</b>

## Security strikers, zinc



Security strikers, zinc					
System	Profile	HA	Floor	Material no.	
<b>Aluplast</b>	Aluplast 2000	13	–	<b>331490</b>	
	Aluplast 2000	13	X	<b>260395</b>	
	Aluplast 3000	13	–	<b>331490</b>	
	Aluplast 3000	13	X	<b>260395</b>	
	Aluplast 4000	13	–	<b>350191</b>	
	Aluplast 4000	13	X	<b>257357</b>	
	Aluplast 5000	13	–	<b>350191</b>	
	Aluplast 5000	13	X	<b>257357</b>	
	Aluplast 6000	13	–	<b>350191</b>	
Aluplast 6000	13	X	<b>257357</b>		
<b>Brüggmann</b>	Brüggmann AD 13	13	X	<b>292194</b>	
	Brüggmann MD 13	13	X		
<b>Deceuninck</b>	Deceuninck Klassiek	13	X	<b>281632</b>	
	Deceuninck Mondial with VK	13	X		
	Deceuninck Zendow	13	X	<b>370072</b>	
<b>Gealan</b>	Gealan 3000	13	–	<b>367201</b>	
	Gealan 3000	13	X	<b>260393</b>	
	Gealan 7000	13	–	<b>367201</b>	
	Gealan 7000	13	X	<b>260393</b>	
	Gealan 8000	13	–	<b>367201</b>	
	Gealan 8000	13	X	<b>260393</b>	
<b>Inoutic</b>	Inoutic AD 13	13	X	<b>260394</b>	
	Inoutic Eforte	13	X		
	Inoutic MD 100	13	X		
	Inoutic Prestige AD	13	X		
	Inoutic Prestige MD	13	X		
<b>KBE</b>	KBE 70 AD	13	X	<b>289941</b>	
	KBE 88 AD	13	X		
	KBE AD	9	X		
	KBE MD	9	X		R <b>260398</b>
	KBE MD	9	X		L <b>260397</b>
<b>Kömmerling</b>	Kömmerling Eurodur 3S	13	X	<b>258303</b>	
	Kömmerling Eurofutur Classic	13	–		
	Kömmerling Eurofutur Elegance	13	–		<b>334958</b>
<b>Plus Plan</b>	Plus Plan Plus Tec	13	X	<b>264327</b>	

Security strikers, zinc				
System	Profile	HA	Floor	Material no.
<b>Rehau</b>	Rehau 799, Brillant Design, Rehau S730	13	X	<b>316942</b>
	Rehau 799, Brillant Design, Rehau S730	13	–	<b>348407</b>
	Rehau S788 MD, Rehau 735	13	X	<b>316942</b>
	Rehau S788 MD, Rehau 735	13	–	<b>348407</b>
	Rehau 980, Geneo	13	X	<b>496019</b>
	Rehau 986, EuroDesign 86	13	X	<b>316942</b>
	Rehau 986, EuroDesign 86	13	–	<b>348407</b>
<b>Roplasto</b>	Roplasto 4K	13	X	<b>260399</b>
	Roplasto 7001 AD	13	X	
	Roplasto 7001 MD	13	X	
<b>Salamander</b>	Salamander Streamline 76	13	X	<b>365385</b>
	Salamander 2D	13	X	
	Salamander 3D	13	X	
	Salamander BluEvolution	13	X	
<b>Schüco</b>	Schüco Corona AD	13	X	<b>257357</b>
	Schüco Corona CT70 AD	13	X	
	Schüco Corona CT70 AD	13	–	
	Schüco Corona CT70 MD	13	X	
	Schüco Corona CT70 MD	13	–	
	Schüco Corona SI82 MD	13	X	
	Schüco Corona SI82 MD	13	–	
	Schüco Corona SI82 MD	13	–	
	Schüco Corona SI82 MD	13	–	
	Schüco Corona SI82 MD	13	–	
Schüco Corona SI82 MD	13	–		
<b>Trocal</b>	Trocal 88 Plus	13	X	<b>290128</b>
	Trocal 900	9	X	R <b>260398</b>
	Trocal 900	9	X	L <b>260397</b>
	Trocal Innonova 70.A5 AD	13	–	<b>336810</b>
	Trocal Innonova 70.M5 MD	13	–	

<b>Security strikers, zinc</b>					
System	Profile	HA	Floor	Material no.	
<b>Veka</b>	Veka Alphaline 90	13	–		
	Veka Softline 70 AD	13	–	<b>348410</b>	
	Veka Softline 70 MD	13	–		
	Veka Softline AD 13	13	X	<b>260396</b>	
	Veka Softline AD 13	13	–	<b>348410</b>	
	Veka Softline AD 9	9	X		
	Veka Softline MD 9	9	X	<b>260392</b>	
	Veka Topline AD 13	13	X	<b>260396</b>	
	Veka Topline AD 13	13	–	<b>348410</b>	
	Veka Topline MD 13	13	X	<b>260396</b>	
	Veka Topline MD 13	13	–	<b>348410</b>	
	<b>Wymar</b>	Wymar 2500	13	X	<b>284091</b>
		Wymar 3000	13	X	<b>374194</b>

## Security strikers, steel



SEC striker,  
symmetrical



SEC striker,  
right/left

Security strikers, steel						
System	Profile	HA	Floor	Material no.		
<b>Aluplast</b>	Aluplast 2000	13	X	<b>260423</b>		
	Aluplast 3000	13	X			
	Aluplast 4000	13	X	<b>257358</b>		
	Aluplast 5000	13	X			
	Aluplast 6000	13	X			
<b>Brüggmann</b>	Brüggmann AD 13	13	–	R <b>306317</b>		
	Brüggmann AD 13	13	–	L <b>305737</b>		
	Brüggmann MD 13	13	–	R <b>306317</b>		
	Brüggmann MD 13	13	–	L <b>305737</b>		
<b>Deceuninck</b>	Deceuninck Zendow	13	X	<b>607925</b>		
<b>Gealan</b>	Gealan 3000	13	X	<b>260421</b>		
	Gealan 7000	13	X			
	Gealan 8000	13	X			
<b>Inoutic</b>	Inoutic Eforte	13	X	<b>260422</b>		
	Inoutic AD 13	13	X			
	Inoutic MD 100	13	X			
	Inoutic Prestige AD	13	X			
<b>KBE</b>	KBE 70 AD	13	–	R <b>289976</b>		
	KBE 70 AD	13	–	L <b>289972</b>		
	KBE AD	9	–	<b>291597</b>		
<b>Kömmerling</b>	Kömmerling 88 Plus	13	–	<b>334962</b>		
	Kömmerling Eurodur 3S	13	X	<b>260417</b>		
	Kömmerling Eurofutur Classic	13	–	<b>334962</b>		
	Kömmerling Eurofutur Elegance	13	–			
	<b>Rehau</b>	Rehau 799, Brillant Design, Rehau S730	13	X	<b>260418</b>	
		Rehau S788 MD, Rehau 735	13	X		
Rehau 980, Geneo		13	X			
Rehau 986, EuroDesign 86		13	X			
<b>Roplasto</b>		Roplasto 4K	13	X		<b>260425</b>
		Roplasto 7001 AD	13	X		
	Roplasto 7001 MD	13	X			
<b>Salamander</b>	Salamander Streamline 76	13	–	R <b>314271</b>		
	Salamander Streamline 76	13	–	L <b>314270</b>		
	Salamander 2D	13	–	R <b>314271</b>		
	Salamander 2D	13	–	L <b>314270</b>		
	Salamander 3D	13	–	R <b>314271</b>		
	Salamander 3D	13	–	L <b>314270</b>		

Security strikers, steel					
System	Profile	HA	Floor	Material no.	
<b>Schüco</b>	Schüco Corona AD	13	X	<b>257358</b>	
	Schüco Corona CT70 AD	13	X	<b>260424</b>	
	Schüco Corona CT70 MD	13	X	<b>260423</b>	
	<b>Trocal</b>	Trocal 88 Plus	13	–	R <b>291566</b>
Trocal 88 Plus		13	–	L <b>291565</b>	
Trocal 900		9	–	R <b>291566</b>	
Trocal 900		9	–	L <b>291565</b>	
Trocal Innonova 2000		13	–	R <b>291566</b>	
Trocal Innonova 2000		13	–	L <b>291565</b>	
Trocal Innonova 70.A5 AD		13	–	<b>336812</b>	
Trocal Innonova 70.M5 MD		13	–		
<b>Veka</b>		Veka Softline AD 9	9	–	<b>291596</b>
		Veka Topline AD 13	13	X	<b>260424</b>
	Veka Topline MD 13	13	X		
	<b>Wymar</b>	Wymar 3000	13	X	<b>260417</b>

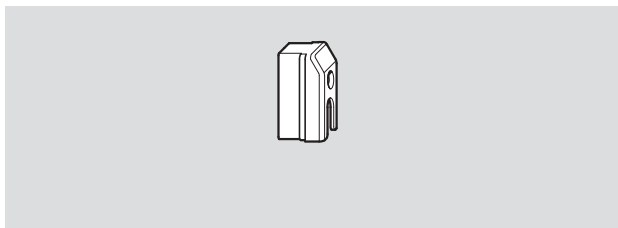
## Strikers for 2-sashed windows



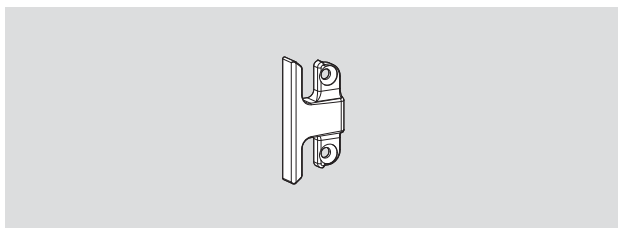
### 2-ported striker for 2-sashed windows (not adjustable)

System	Profile	HA	Material no.
Aluplast	Aluplast 2000	13	<b>260439</b>
	Aluplast 3000	13	<b>260439</b>
	Aluplast 4000	13	<b>257360</b>
	Aluplast 5000	13	<b>257360</b>
	Aluplast 6000	13	<b>257360</b>
Brüggmann	Brüggmann AD 13	13	<b>263783</b>
	Brüggmann MD 13	13	<b>263783</b>
Deceuninck	Deceuninck Klassiek	13	<b>281634</b>
	Deceuninck Mondial with VK	13	<b>281634</b>
	Deceuninck Zendow	13	<b>370177</b>
Gealan	Gealan 3000	13	<b>260437</b>
	Gealan 7000	13	<b>260437</b>
	Gealan 8000	13	<b>260437</b>
Inoutic	Inoutic AD 13	13	<b>260438</b>
	Inoutic Eforte	13	<b>260438</b>
	Inoutic MD 100	13	<b>260438</b>
	Inoutic Prestige AD	13	<b>260438</b>
	Inoutic Prestige MD	13	<b>260438</b>
KBE	KBE MD	9	<b>260442</b>
	KBE 70 AD	13	<b>286640</b>
	KBE AD	9	<b>485436</b>
Kömmerling	Kömmerling 88 Plus	13	<b>260433</b>
	Kömmerling Eurodur 3S	13	<b>260433</b>
	Kömmerling Eurofutur Classic	13	<b>260433</b>
	Kömmerling Eurofutur Elegance	13	<b>260433</b>
Plus Plan	Plus Plan Plus Tec	13	<b>264369</b>
Rehau	Rehau 799, Brillant Design (730)	13	<b>260434</b>
	Rehau 788, MD (735)	13	<b>260434</b>
	Rehau 980, Geneo	13	<b>260434</b>
	Rehau 986, EuroDesign 86	13	<b>260434</b>
Roplasto	Roplasto 4K	13	<b>260443</b>
	Roplasto 7001 AD	13	<b>260443</b>
	Roplasto 7001 MD	13	<b>260443</b>
Salamander	Salamander Streamline 76	13	<b>260446</b>
	Salamander 2D	13	<b>260446</b>
	Salamander 3D	13	<b>260446</b>
	Salamander BluEvolution	13	<b>604886</b>
Schüco	Schüco Corona AD	13	<b>257360</b>
	Schüco Corona CT70 MD	13	<b>260439</b>
	Schüco Corona SI82 MD	13	<b>260439</b>
	Schüco Corona CT70 AD	13	<b>263783</b>
Trocacal	Trocacal 900	9	<b>260442</b>
	Trocacal Innonova 70.A5 AD	13	<b>263035</b>
	Trocacal Innonova 70.M5 MD	13	<b>263035</b>
	Trocacal 88+	13	<b>290213</b>
	Trocacal Innonova 2000	13	<b>290213</b>
Veka	Veka Topline AD 13	13	<b>263783</b>
	Veka Topline MD 13	13	<b>263783</b>
Wymar	Wymar 2500	13	<b>342017</b>
	Wymar 3000	13	<b>374161</b>

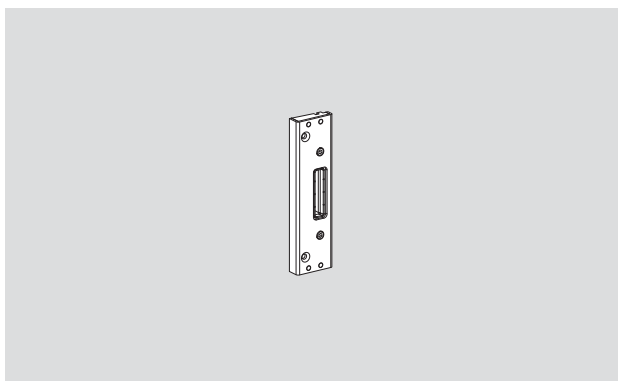
## Strikers for 2-sashed windows Hook strikers



**Opposing hardware grooves in floating-mullion profile-area** 260359



**Face-fixed striker for lever-operated espagnolette (variable handle height)** 339395

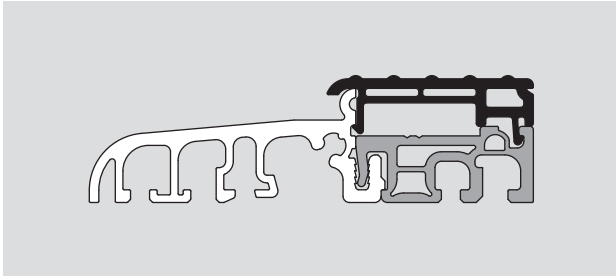


### Adjustable hook striker

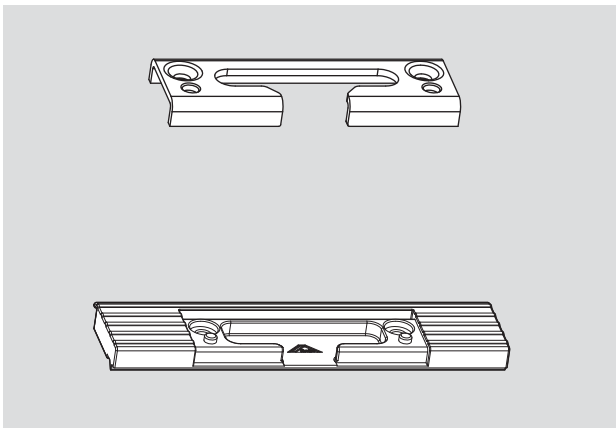
Description	Material no.
Aluplast 2000/3000	349261
Aluplast 4000/5000/6000	349290
Brügmann AD13/MD13	382521
Deceuninck Zendow	382703
Gealan 3000, Gealan 7000	349237
Inoutic AD 13/Prestige AD/Prestige MD/MD100	350507
KBE 70 AD	349237
Kömmerling Eurodur 3S	350528
Kömmerling Eurofutur Classic/Elegance	350528
Rehau 799, Brilliant Design	349214
Rehau 788 / Rehau 986 (EuroDesign 86)	
Roplasto 7001	351453
Salamander 2D/3D/MD13	351510
Schüco Corona CT70 AD + Schüco Corona CT70 MD	349261
Trocal Innonova 70.A5 AD + Trocal Innonova 70.M5 MD	355822
Veka Softline 70 AD + Veka Softline 70 MD	355675
Veka Topline AD 13 + Veka Topline MD 13	355675



## Tilt strikers for thresholds



**Roto Gluske-BKV, system Eifel TB**



**Frame components**

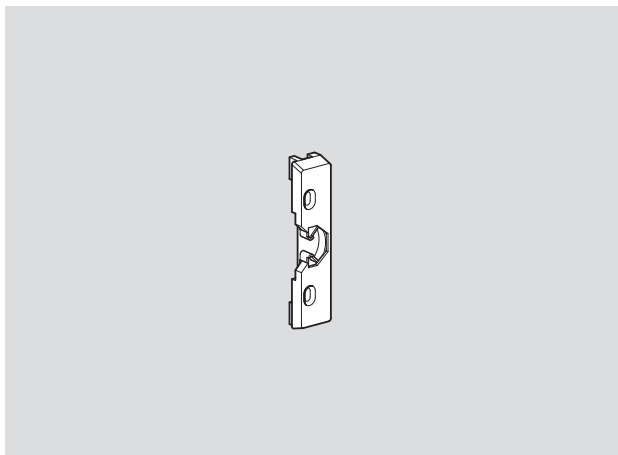
Description	Remarks	Hardware axis	Material no.
<b>Tilt striker</b>	Set: Tilt striker + packer signal grey RAL 7004	9	<b>496779</b>

<b>Tilt striker</b>	Set: Tilt striker + packer signal grey RAL 7004	13	<b>534929</b>
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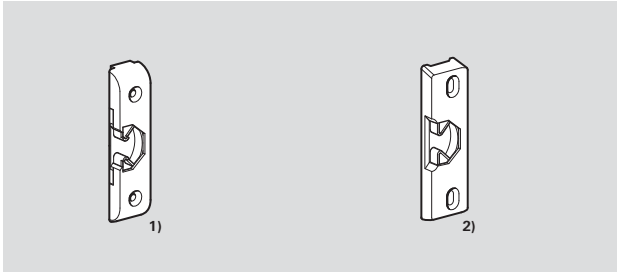


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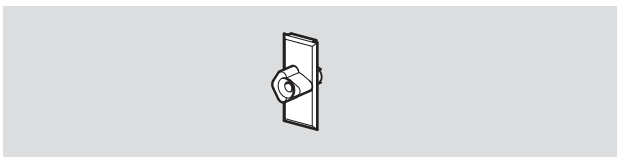
## Bullet catch



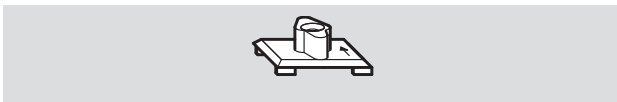
Description	Hardware axis	Material no.
<b>Bullet catch</b>		
Aluplast 2000	13	258939
Aluplast 3000	13	258939
Aluplast 4000	13	257362
Aluplast 5000	13	257362
Aluplast 6000	13	257362
Brügmann AD 13	13	292197
Brügmann MD 13	13	292197
Inoutic AD 13	13	260468
Inoutic Eforte	13	260468
Inoutic MD 100	13	260468
Inoutic Prestige AD	13	260468
Inoutic Prestige MD	13	260468
KBE 70 AD	13	264391
KBE AD	9	260465
KBE MD	9	260472
Kömmerling 88 Plus	13	334959
Kömmerling Eurodur 3S	13	260463
Kömmerling Eurofutur Classic	13	334959
Kömmerling Eurofutur Elegance	13	334959
Plus Plan Plus Tec	13	264391
Rehau 799, Brillant Design (730)	13	260464
Rehau 788, MD (735)	13	260464
Rehau 980, Geneo	13	260464
Rehau 986, EuroDesign 86	13	260464
Roplasto 4K	13	260473
Roplasto 7001 AD	13	260473
Roplasto 7001 MD	13	260473
Salamander Streamline 76	13	258993
Salamander 2D	13	258993
Salamander 3D	13	258993
Schüco Corona AD	13	257362
Schüco Corona CT70 AD	13	258939
Schüco Corona CT70 MD	13	258939
Trocal 88+	13	290214
Trocal 900	9	260472
Trocal Innonova 2000	13	290214
Veka Softline 70 AD	13	256781
Veka Softline 70 MD	13	256781
Veka Softline AD 9	9	256782
Veka Topline AD 13	13	256781
Veka Topline MD 13	13	256781
Wymar 2500	13	287064



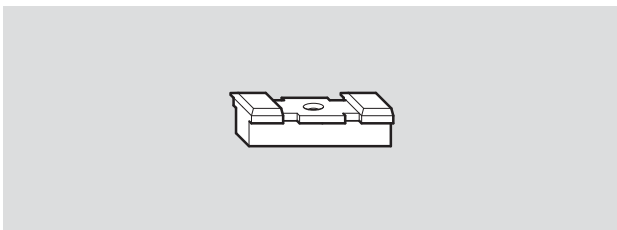
Description	Material
<b>Bullet catch frame component</b>	
Elvial	<b>260459</b>
Exlabesa	<b>491063</b>
Heroal	<b>290214</b>
Metra	<b>260472</b>
Raico	<b>260459</b>
1) Face-fixed on lever-operated espagnolette	<b>385031</b>
2) Face-fixed on 7/8 Euro-groove lever-operated espagnolette	<b>244594</b>



<b>Bullet catch cam</b>	<b>256020</b>
To be clipped on to espagnolettes	



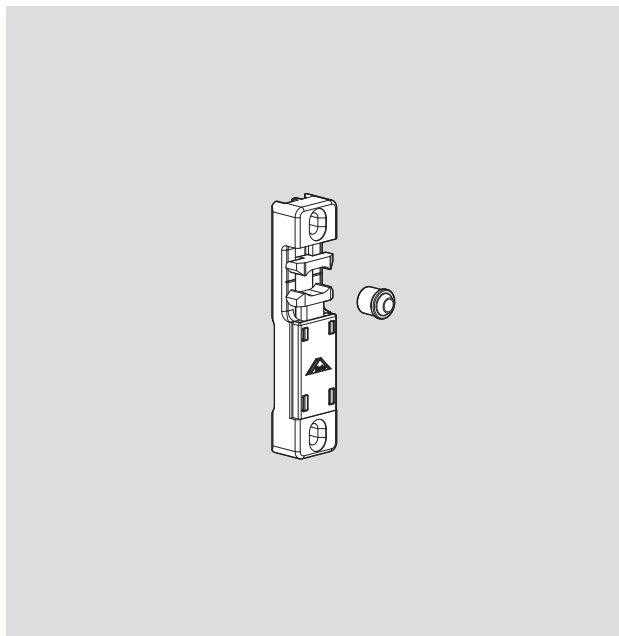
<b>Bullet catch cam</b>	<b>260477</b>
(Can only be used in conjunction with packer 260478 or 260458)	



<b>Packer for bullet catch cam</b>	<b>260478</b>
To be used horizontally in the hardware groove on the top & bottom	

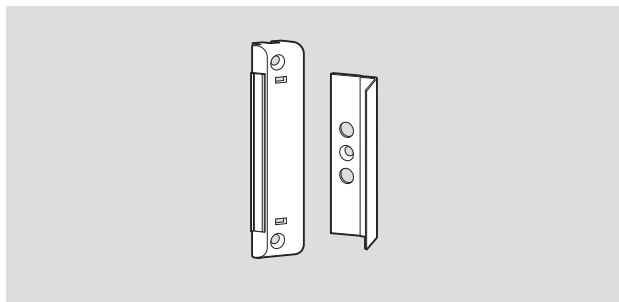
<b>Packer for bullet catch</b>	
Opposing hardware groove on dummy mullion sash (not dep.)	<b>260458</b>
In conjunction with bullet catch	<b>260459</b>

## Bullet catch



Description	Hardware axis	Material no.
<b>NTI bullet catch</b>		
Aluplast 2000	13	<b>483496</b>
Aluplast 3000	13	<b>483496</b>
Aluplast 4000	13	<b>483496</b>
Aluplast 5000	13	<b>483496</b>
Brüggmann AD 13	13	<b>483496</b>
Brüggmann MD 13	13	<b>483496</b>
Gealan 3000	13	<b>449920</b>
Gealan 7000	13	<b>449920</b>
Rehau 799, Brillant Design (730)	13	<b>483496</b>
Rehau 788, MD (735)	13	<b>483496</b>
Trocal 88+	13 L	<b>595155</b>
Trocal 88+	13 R	<b>595156</b>
Trocal Innonova 70.A5 AD	13 L	<b>595155</b>
Trocal Innonova 70.A5 AD	13 R	<b>595156</b>
Trocal Innonova 70.M5 MD	13 L	<b>595155</b>
Trocal Innonova 70.M5 MD	13 R	<b>595156</b>
Veka Topline AD 13	13	<b>483496</b>
Veka Topline MD 13	13	<b>483496</b>
<b>Bullet catch cam</b>		<b>534670</b>
<b>Faceplate bullet catch</b>		<b>600642</b>

## Magnetic bullet catch

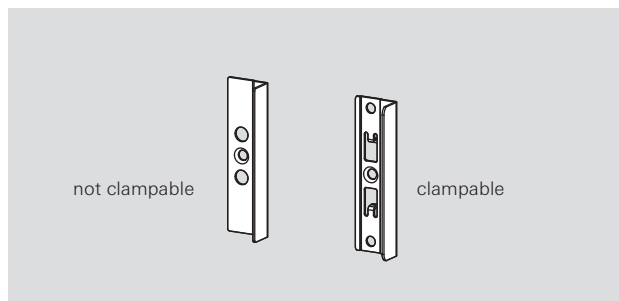


Description	Hardware axis	Material
<b>Magnetic bullet catch for 1-sashed windows</b>		
Aluplast 2000	13	<b>331765</b>
Aluplast 3000	13	<b>331765</b>
Aluplast 4000	13	<b>331774</b>
Aluplast 5000	13	<b>331774</b>
Aluplast 6000	13	<b>331774</b>
Deceuninck Klassiek	13	<b>331777</b>
Deceuninck Mondial with VK	13	<b>331777</b>
Deceuninck Zendow	13	<b>328836</b>
Gealan 3000	13	<b>331764</b>
Gealan 3000	13	<b>606797</b>
Gealan 7000	13	<b>331764</b>
Inoutic AD 13	13	<b>258515</b>
Inoutic Eforte	13	<b>258515</b>
Inoutic MD 100	13	<b>258515</b>
KBE 70 AD	13	<b>328836</b>
KBE AD	9	<b>328836</b>
KBE MD	9	<b>328837</b>
Kömmerling 88 Plus	13	<b>328836</b>
Kömmerling Eurodur 3S	13	<b>245320</b>
Kömmerling Eurofutur Classic	13	<b>328836</b>
Kömmerling Eurofutur Elegance	13	<b>328836</b>
Plus Plan Plus Tec	13	<b>331768</b>
Rehau 799, Brillant Design (730)	13	<b>245321</b>
Rehau 788, MD (735)	13	<b>245321</b>
Rehau 986, EuroDesign 86	13	<b>245321</b>
Roplasto 4K	13	<b>331767</b>
Roplasto 7001 AD	13	<b>331767</b>
Roplasto 7001 MD	13	<b>331767</b>
Salamander 2D	13	<b>331769</b>
Salamander 3D	13	<b>331769</b>
Salamander BluEvolution	13	<b>331769</b>
Schüco Corona CT70 AD	13	<b>331765</b>
Schüco Corona CT70 MD	13	<b>331765</b>
Trocal 88+	13	<b>377363</b>
Trocal Innonova 2000	13	<b>377363</b>
Trocal Innonova 70.A5 AD	13	<b>329214</b>
Trocal Innonova 70.M5 MD	13	<b>329214</b>
Veka Softline AD 9	9	<b>245323</b>
Veka Topline AD 13	13	<b>245323</b>
Veka Topline MD 13	13	<b>245323</b>
Wymar 3000	13	<b>374158</b>
<b>Magnetic bullet catch for lever-operated espagnolette</b>		
Magnetic bullet catch for lever-operated espagnolette, 9 mm hardware axis <sup>1)</sup>		<b>330081</b>
Magnetic bullet catch for lever-operated espagnolette, 13 mm hardware axis <sup>2)</sup>		<b>482418</b>
Magnetic bullet catch for lever-operated espagnolette, 7/8 Euro-groove (only for timber)		<b>330082</b>
Packer for magnetic bullet catch, corner-bracket, 9/13 mm hardware axis		<b>622589</b>
Packer for magnetic bullet catch in hardware groove		<b>330080</b>

1) Only in connection with corner-bracket, material no. 329981

2) Only in connection with corner-bracket, material no. 244517

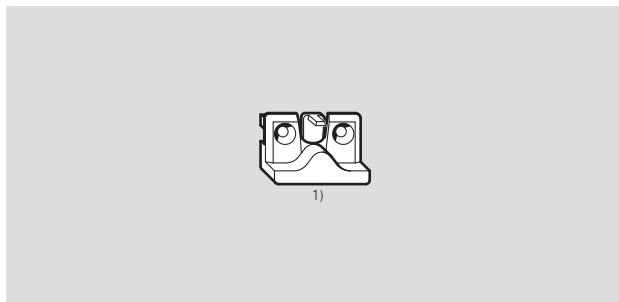
## Magnetic bullet catch corner bracket



Description	Hardware axis	Material
<b>Magnetic bullet catch corner bracket</b>		
Magnetic bullet catch corner bracket K13	13	<b>244517</b>
Magnetic bullet catch corner bracket K13, clampable	13	<b>535468</b>
Magnetic bullet catch corner bracket K9	9	<b>244516</b>
Packer for magnetic bullet catch, corner-bracket, 9/13 mm hardware axis		<b>622589</b>



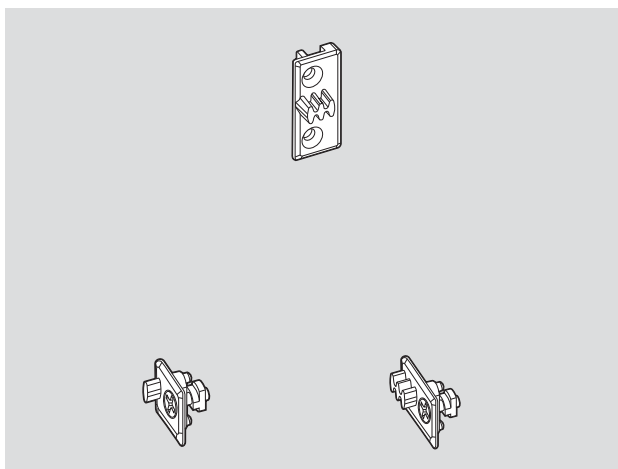
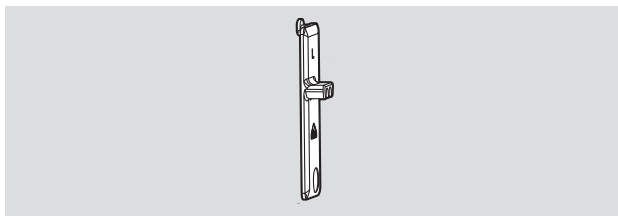
# Night-vent



Description	Hardware axis	Material no.
<b>Night-vent</b>		
Aluplast 2000	13	260532
Aluplast 3000	13	260532
Aluplast 4000	13	260534
Aluplast 5000	13	260534
Aluplast 6000	13	260534
Brüggmann AD 13	13	292198
Brüggmann MD 13	13	292198
Deceuninck Zendow	13	260532
Deceuninck Klassiek	13	260534
Deceuninck Mondial with VK	13	260534
Gealan 3000	13	260530
Gealan 7000	13	260530
Gealan 8000	13	260530
Inoutic AD 13	13	260531
Inoutic Eforte	13	260531
Inoutic MD 100	13	260531
Inoutic Prestige AD	13	260531
Inoutic Prestige MD	13	260531
KBE AD	9	260529
KBE MD	9	260533
KBE 70 AD	13	263232
Kömmerling 88 Plus	13	260528
Kömmerling Eurodur 3S	13	260528
Plus Plan Plus Tec	13	263232
Rehau 799, Brillant Design (730)	13	260534
Rehau 788, MD (735)	13	260534
Rehau 980, Geneo	13	260534
Rehau 986, EuroDesign 86	13	260534
Roplasto 4K	13	260532
Roplasto 7001 AD	13	260532
Roplasto 7001 MD	13	260532
Salamander Streamline 76	13	260534
Salamander 2D	13	260534
Salamander 3D	13	260534
Salamander BluEvolution	13	260534
Schüco Corona AD	13	260534
Schüco Corona CT70 AD	13	260534
Schüco Corona CT70 MD	13	260534
Schüco Corona SI82 MD	13	260534
Trocal Innonova 70.A5 AD	13	336815
Trocal Innonova 70.M5 MD	13	336815
Trocal 88+	13	451418
Trocal 900	9	451418
Trocal Innonova 2000	13	451418
Veka Softline AD 9	9	260529
Veka Softline 70 AD	13	260532
Veka Softline 70 MD	13	260532
Veka Topline AD 13	13	260532
Veka Topline MD 13	13	260532
Wymar 2500	13	284627
Wymar 3000	13	374159

1) Only in connection with corner drive P or V.

## Night-vent

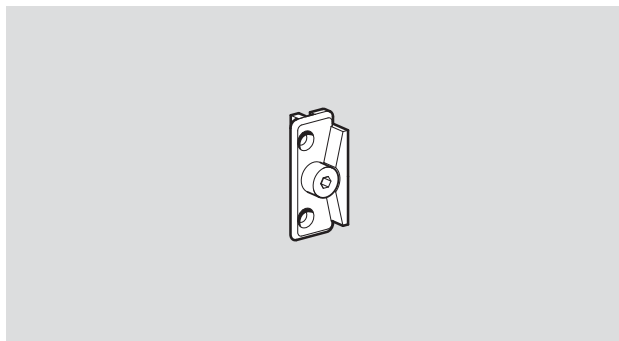


Description	Hardware axis	Material no.
<b>Multi-stepped night-vent (frame component) for 2-sashed windows</b>	L	<b>449982</b>
	R	<b>446060</b>

<b>NT multi-stepped night-vent</b>		
Aluplast 2000	13	<b>623064</b>
Aluplast 3000	13	<b>623064</b>
Deceuninck Mondial with VK	13	<b>319471</b>
Gealan 3000	13	<b>319473</b>
Inoutic AD 13	13	<b>319467</b>
Inoutic Eforte	13	<b>319467</b>
KBE AD	9	<b>623064</b>
Kömmerling Eurodur 3S	13	<b>319474</b>
Plus Plan Plus Tec	13	<b>319469</b>
Rehau 799, Brillant Design (730)	13	<b>319465</b>
Rehau 788, MD (735)	13	<b>319465</b>
Schüco Corona CT70 AD	13	<b>623064</b>
Veka Softline AD 9	9	<b>623064</b>

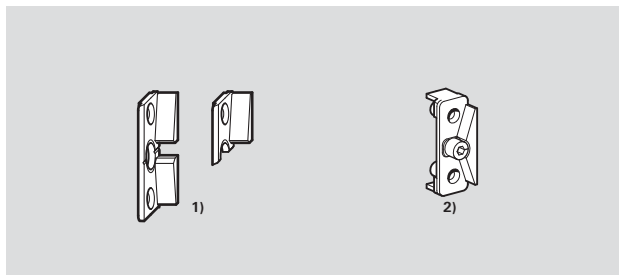
<b>Sash components</b>		
1-stepped, >18 mm		<b>318601</b>
3-stepped, >27 mm		<b>318602</b>

## Lifting mishandling device



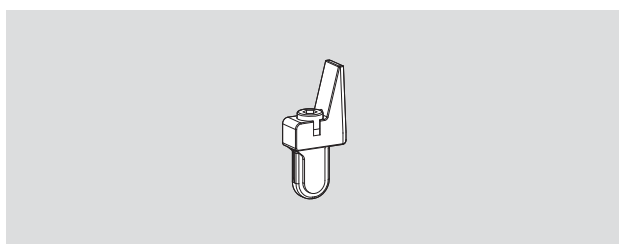
Description	Hardware axis	Material no.
<b>Frame components</b>		
Aluplast 2000	13	<b>260551</b>
Aluplast 3000	13	<b>260551</b>
Aluplast 4000	13	<b>260557</b>
Aluplast 5000	13	<b>260557</b>
Aluplast 6000	13	<b>260557</b>
Brüggmann AD 13	13	<b>483117</b>
Brüggmann MD 13	13	<b>483117</b>
Deceuninck Klassiek	13	<b>281636</b>
Deceuninck Mondial with VK	13	<b>281636</b>
Deceuninck Zendow	13	<b>370175</b>
Gealan 3000	13	<b>380118</b>
Gealan 7000	13	<b>380118</b>
Gealan 8000	13	<b>380118</b>
Gealan 3000	13	<b>380118</b>
Inoutic AD 13	13	<b>260550</b>
Inoutic Eforte	13	<b>260550</b>
Inoutic MD 100	13	<b>260550</b>
Inoutic Prestige AD	13	<b>260550</b>
Inoutic Prestige MD	13	<b>260550</b>
KBE AD	9	<b>260547</b>
KBE MD	9	<b>260553</b>
KBE 70 AD	13	<b>260554</b>
KBE 88 AD	13	<b>260554</b>
Kömmerling Eurodur 3S	13	<b>260545</b>
Kömmerling 88 Plus	13	<b>264523</b>
Kömmerling Eurofutur Classic	13	<b>264523</b>
Kömmerling Eurofutur Elegance	13	<b>264523</b>
Plus Plan Plus Tec	13	<b>264523</b>
Rehau 799, Brillant Design (730)	13	<b>260546</b>
Rehau 788, MD (735)	13	<b>260546</b>
Rehau 980, Geneo	13	<b>260546</b>
Rehau 986, EuroDesign 86	13	<b>260546</b>
Roplasto 4K	13	<b>260554</b>
Roplasto 7001 AD	13	<b>260554</b>
Roplasto 7001 MD	13	<b>260554</b>
Salamander Streamline 76	13	<b>260557</b>
Salamander 2D	13	<b>260557</b>
Salamander 3D	13	<b>260557</b>
Salamander BluEvolution	13	<b>260557</b>
Schüco Corona CT70 AD	13	<b>260551</b>
Schüco Corona CT70 MD	13	<b>260551</b>
Schüco Corona SI82 MD	13	<b>260551</b>
Schüco Corona AD	13	<b>260557</b>
Trocal 900	9	<b>260553</b>
Trocal 88+	13	<b>290155</b>
Trocal Innonova 2000	13	<b>290155</b>
Trocal Innonova 70.A5 AD	13	<b>336813</b>
Trocal Innonova 70.M5 MD	13	<b>336813</b>
Veka Softline AD 9	9	<b>260548</b>
Veka Alphaline 90	13	<b>260552</b>
Veka Softline 70 AD	13	<b>260552</b>
Veka Softline 70 MD	13	<b>260552</b>
Veka Topline AD 13	13	<b>260552</b>
Veka Topline MD 13	13	<b>260552</b>
Wymar 3000	13	<b>260552</b>
Wymar 2500	13	<b>290039</b>

## Lifting mishandling device



### Frame components and striker plates

- |                                     |               |
|-------------------------------------|---------------|
| 1) For lever-operated espagnolettes | <b>257600</b> |
| 2) For opposing hardware grooves    | <b>260539</b> |



### Plug-in part

**534908**

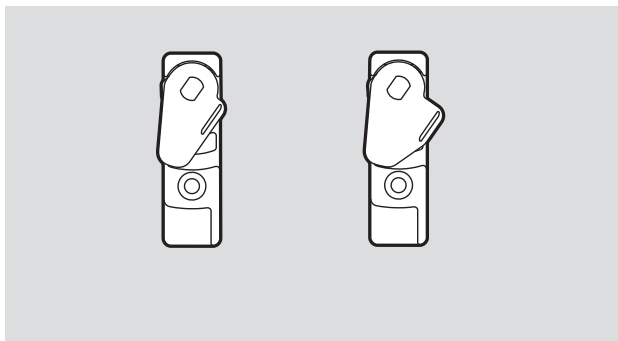
**Note:** Only in connection with SEC striker with base, hardware axis 13



### Sash component

**260538**

## Mishandling device

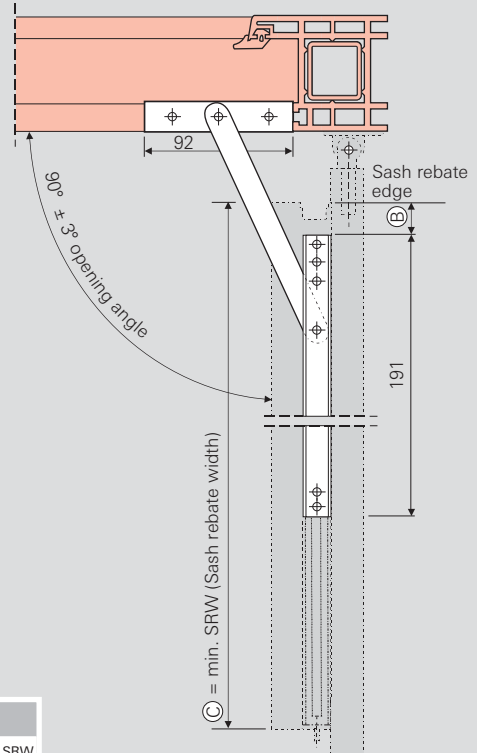


<b>Mishandling device</b> sash components		
Mishandling device 9 mm	L	<b>349128</b>
	R	<b>349129</b>
Mishandling device 13 mm	L	<b>349130</b>
	R	<b>349131</b>

# Turn-restrictor

## Turn-restrictor 191

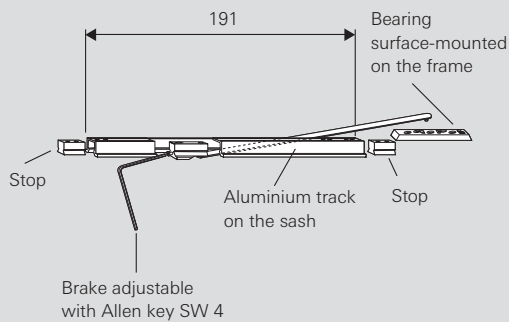
Turn-restrictor 191



### Application of the turn-restrictor 191

Clearance mm	Overlap width mm	When using:	Material no.	Opening angle	Installation dimensions mm		min. SRW <sup>1)</sup> mm	max. SRW mm
					Frame	Sash		
12	18–22	Corner hinge K	<b>230343</b>	90° ± 3°	–	37	240	660
		Pivot rest K	<b>258590</b>					

1) Minimum dimension when using the T&T corner drive: 430 mm



Description

Material no.

**Turn-restrictor 191**

**260564**

12 mm clearance

Selectable final position, steplessly adjustable brake

**Bearing**

**264625**

Surface-mounted

**Packer**

Profile-related

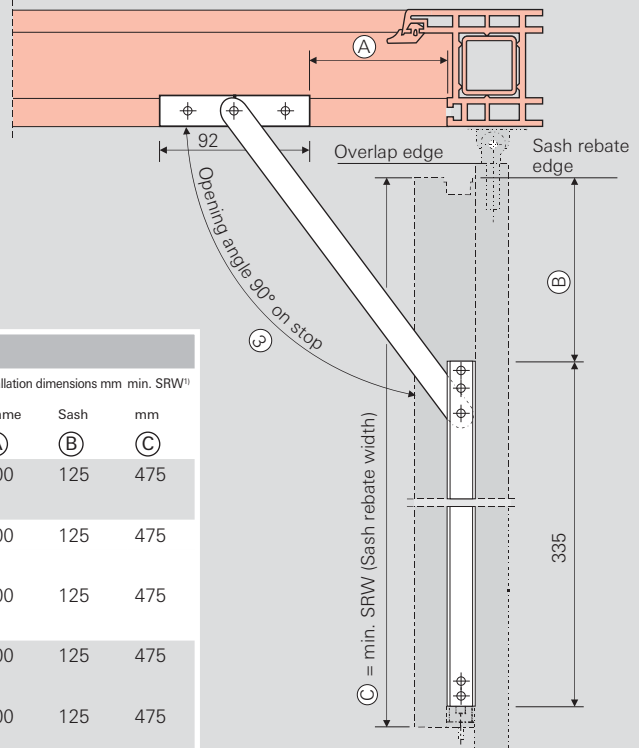
# Turn-restrictor

## Turn-restrictor 335

### Turn-restrictor 335

#### Installation advice

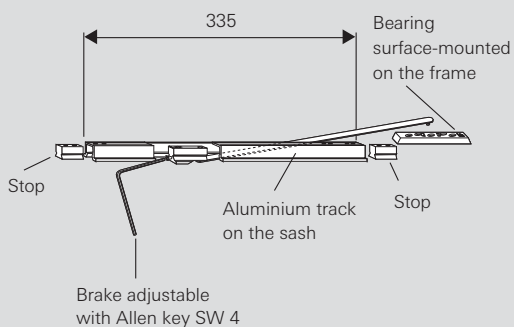
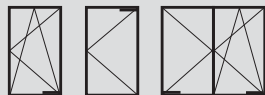
- 1) The numbers 1, 2 & 3 are punched in the guide channel.
- 2) The PVC stop-block (hinge side) is positioned at the pre-punched screw holes numbered 1, 2 or 3 and then screw-fixed.



#### Application of the turn-restrictor 335

Clearance mm	Overlap width mm	When using:	Material no.	Opening angle at			Installation dimensions mm min. SRW <sup>1)</sup>		
				stop no.	Frame	Sash	mm		
				①	②	③	Ⓐ	Ⓑ	Ⓒ
12	18-22	Corner hinge K Pivot rest K	<b>230343</b> <b>258590</b>	65°	80°	90°	100	125	475
12	18(18-9)	Rebate corner hinge A L Rebate corner hinge A R	<b>447341</b> <b>447342</b>	65°	80°	90°	100	125	475
12	18(18-9)	Pivot rest A L Pivot rest A R	<b>261910</b> <b>261911</b>	65°	80°	90°	100	125	475
12	20(20-9)	Rebate corner hinge A L Rebate corner hinge A R	<b>447349</b> <b>447350</b>	65°	80°	90°	100	125	475
12	20(20-9)	Pivot rest A L Pivot rest A R	<b>262004</b> <b>262005</b>	65°	80°	90°	100	125	475
12	20(20-13)	Rebate corner hinge A L Rebate corner hinge A R	<b>447357</b> <b>447358</b>	65°	80°	90°	100	125	475
12	20(20-13)	Pivot rest A L Pivot rest A R	<b>262004</b> <b>262005</b>	65°	80°	90°	100	125	475

1) Minimum dimension when using the T&T corner drive: 661 mm



#### Description

#### Turn-restrictor 335

12 mm clearance  
Selectable final position, steplessly adjustable brake

#### Material no.

**260565**

#### Bearing

Surface-mounted

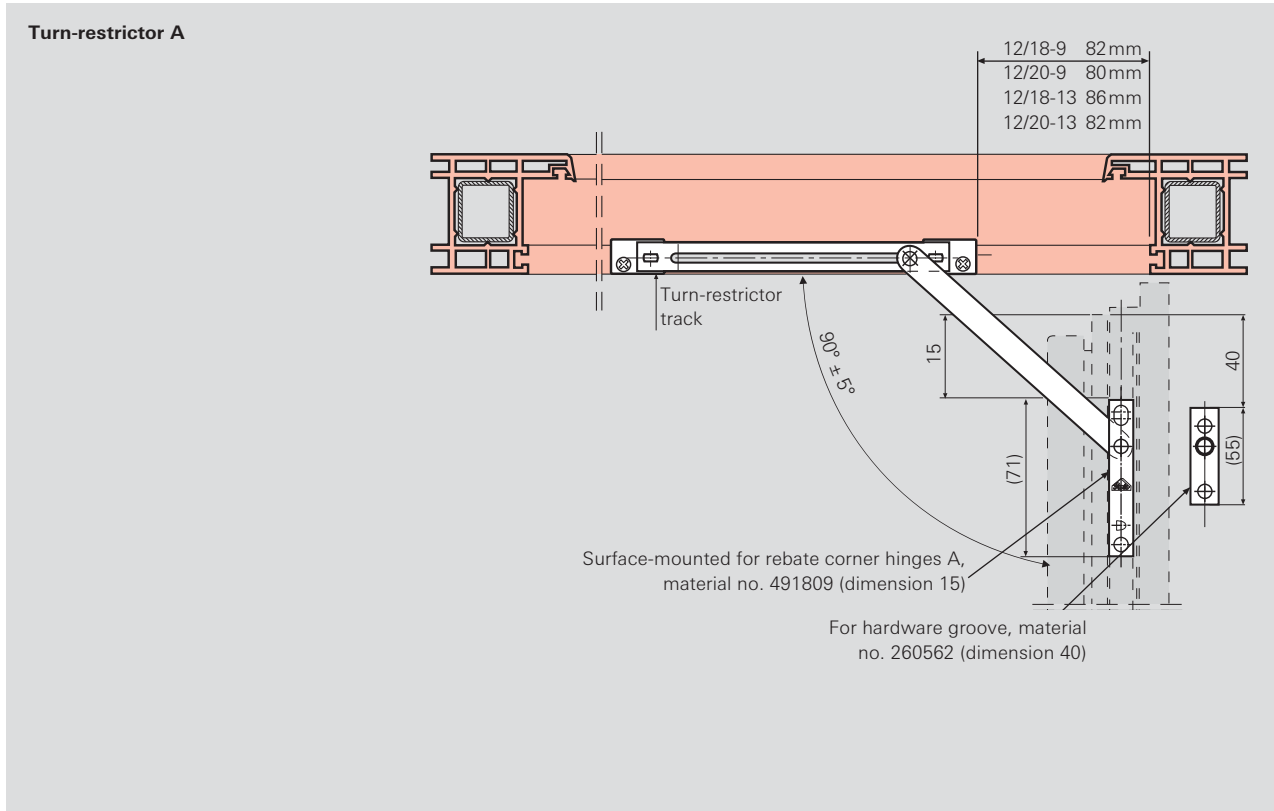
**264625**

#### Packer

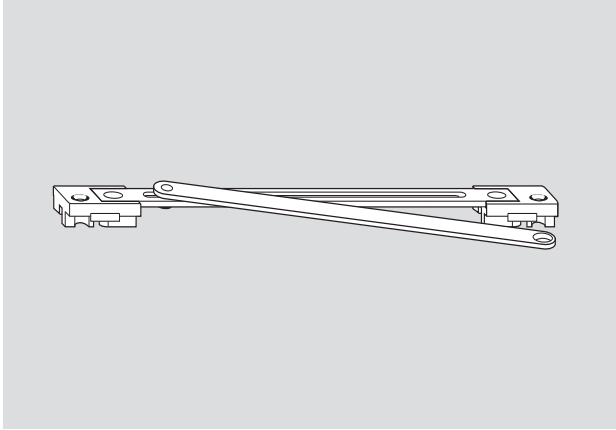
Profile-related

# Turn-restrictor

## Turn-restrictor A

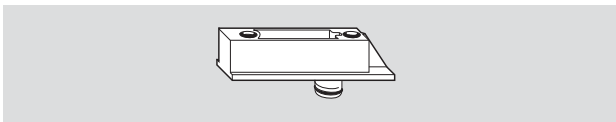






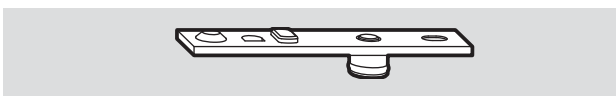
Description	Hardware axis	Material no.
<b>Turn-restrictor A, frame-track</b>		
Aluplast 2000	13	260570
Aluplast 3000	13	260570
Brüggmann AD 13	13	260570
Brüggmann AD 13	13	260570
Brüggmann MD 13	13	260570
Gealan 3000	13	259638
Gealan 7000	13	259638
Gealan 8000	13	259638
Inoutic AD 13	13	259633
Inoutic Eforte	13	259633
Inoutic MD 100	13	259633
Inoutic Prestige AD	13	259633
Inoutic Prestige MD	13	259633
KBE AD	9	260569
KBE MD	9	260573
Kömmerling 88 Plus	13	260567
Kömmerling Eurodur 3S	13	260567
Kömmerling Eurofutur Classic	13	260567
Kömmerling Eurofutur Elegance	13	260567
Rehau 799, Brillant Design (730)	13	260568
Rehau 788, MD (735)	13	260568
Rehau 980, Geneo	13	260568
Rehau 986, EuroDesign 86	13	260568
Roplasto 4K	13	260574
Roplasto 7001 AD	13	260574
Roplasto 7001 MD	13	260574
Salamander Streamline 76	13	259637
Salamander 2D	13	259637
Salamander 3D	13	259637
Schüco Corona CT70 AD	13	260570
Schüco Corona CT70 MD	13	260570
Schüco Corona SI82 MD	13	260570
Trocal 88+	13	483505
Trocal 900	9	260573
Trocal Innonova 2000	13	483505
Trocal Innonova 70.A5 AD	13	483507
Trocal Innonova 70.M5 MD	13	483507
Veka Topline AD 13	13	260570
Veka Topline MD 13	13	260570

Further profile-related components are available upon request



**Turn-restrictor A, sash bearing** 260562

For hardware groove

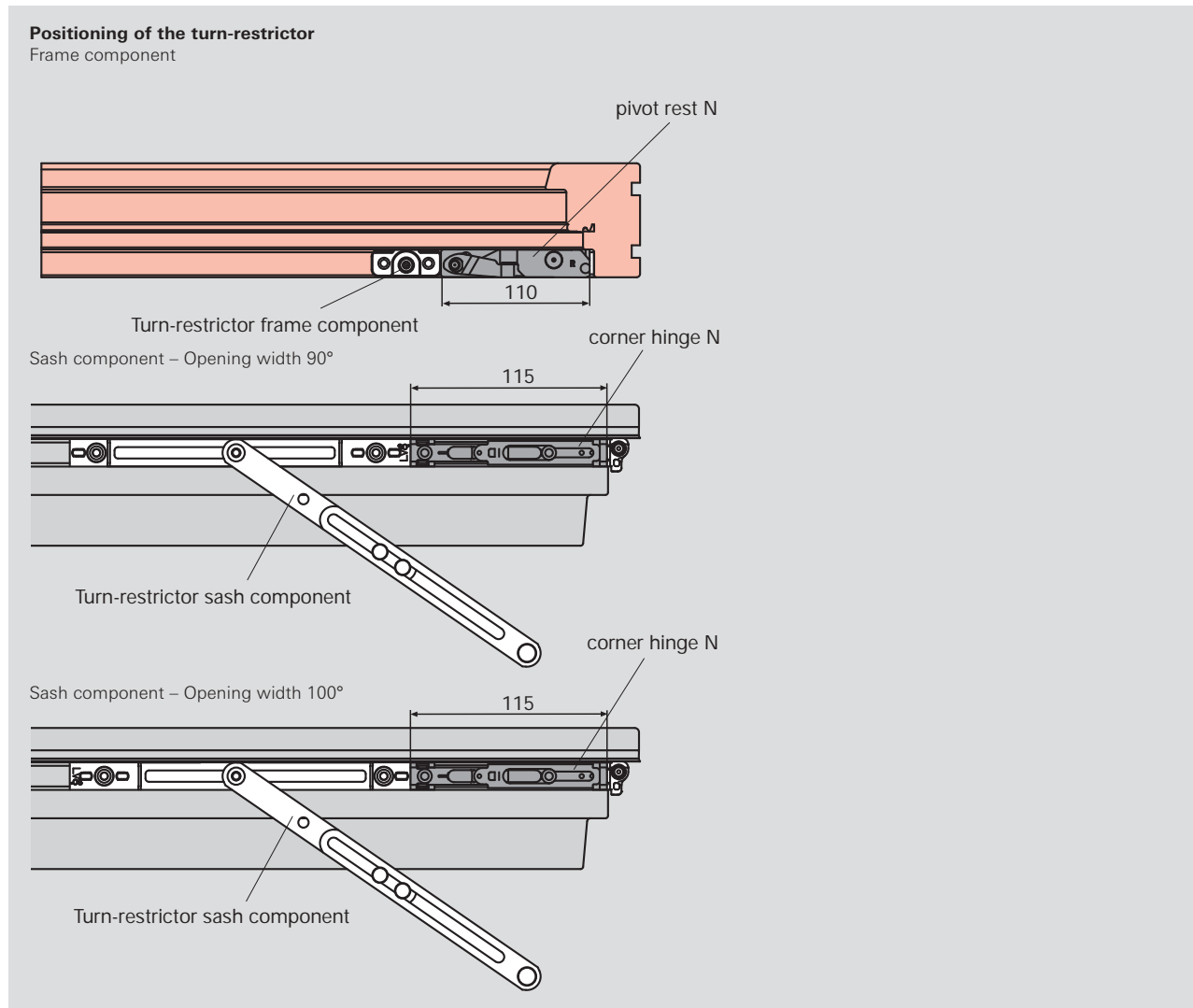


**Turn-restrictor A, sash bearing** 491809

Surface-mounted (for rebate corner hinge A with integrated sash hardware-groove packers)

# Turn-restrictor

## Turn-restrictor 198





Description

Material no.

**Turn-restrictor 198, frame component**  
(= arrestable brake-stay frame component)

Aluplast 2000	13	<b>477848</b>
Aluplast 3000	13	<b>477848</b>
Aluplast 4000	13	<b>490128</b>
Aluplast 5000	13	<b>490128</b>
Aluplast 6000	13	<b>490128</b>
Brüggmann AD 13	13	<b>477848</b>
Brüggmann MD 13	13	<b>477848</b>
Gealan 3000	13	<b>477848</b>
Gealan 7000	13	<b>477848</b>
Gealan 8000	13	<b>477848</b>
Inoutic AD 13	13	<b>490133</b>
Inoutic Eforte	13	<b>490133</b>
Inoutic MD 100	13	<b>490133</b>
Inoutic Prestige AD	13	<b>490133</b>
Inoutic Prestige MD	13	<b>490133</b>
KBE 70 AD	13	<b>477848</b>
KBE 70 MD	13	<b>477848</b>
KBE AD	9	<b>477848</b>
KBE MD	9	<b>477849</b>
Kömmerling Eurodur 3S	13	<b>477848</b>
Kömmerling Eurofutur Classic	13	<b>477848</b>
Kömmerling Eurofutur Elegance	13	<b>477848</b>
Plus Plan Plus Tec	13	<b>477848</b>
Rehau 799, Brillant Design (730)	13	<b>477848</b>
Rehau 788, MD (735)	13	<b>477848</b>
Rehau 980, Geneo	13	<b>477848</b>
Rehau 986, EuroDesign 86	13	<b>477848</b>
Salamander Streamline 76	13	<b>477848</b>
Salamander 2D	13	<b>477848</b>
Salamander 3D	13	<b>477848</b>
Schüco Corona AD	13	<b>477848</b>
Schüco Corona CT70 AD	13	<b>477848</b>
Schüco Corona CT70 MD	13	<b>477848</b>
Trocal 88+	13	<b>490159</b>
Trocal 900	9	<b>477849</b>
Trocal Innonova 2000	13	<b>490159</b>
Trocal Innonova 70.A5 AD	13	<b>477848</b>
Trocal Innonova 70.M5 MD	13	<b>477848</b>
Veka Softline AD 9	9	<b>477848</b>
Veka Topline AD 13	13	<b>477848</b>
Veka Topline MD 13	13	<b>477848</b>

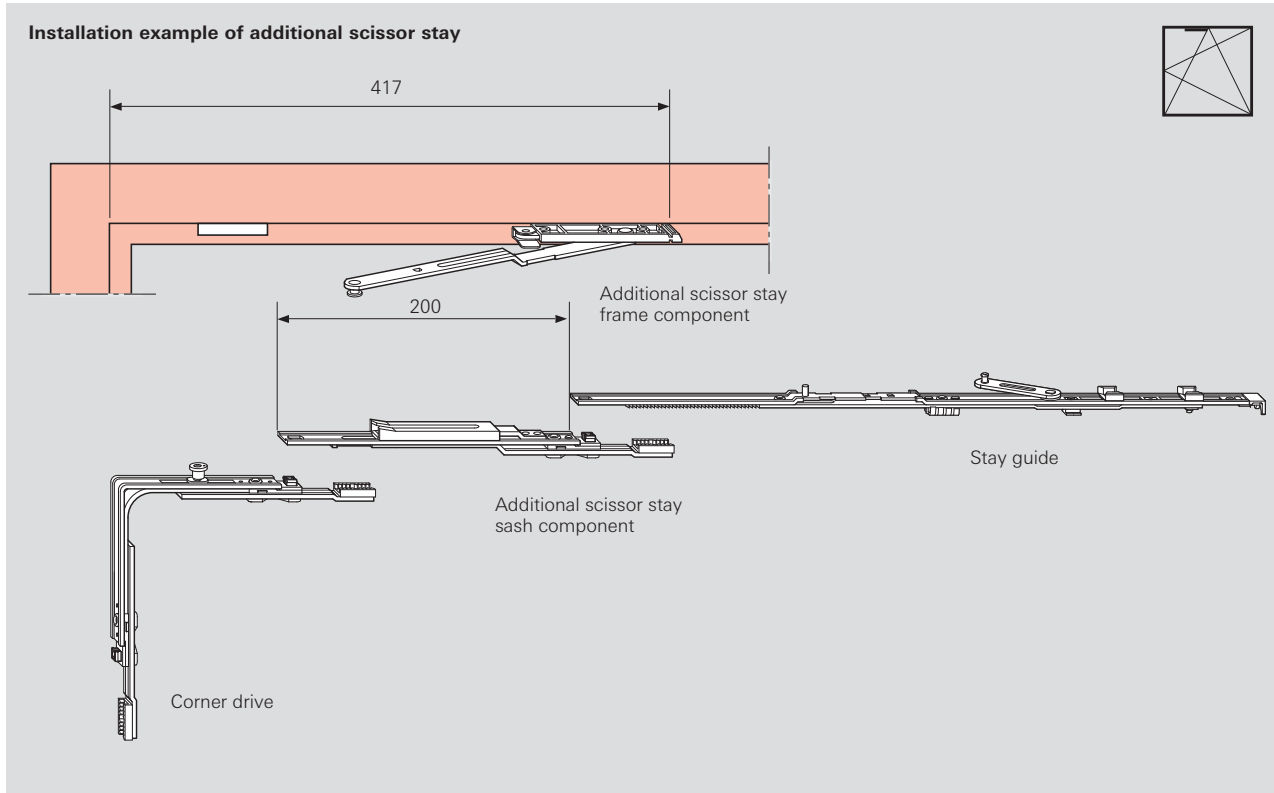


**Turn-restrictor 198, sash component**

Roto NT Designno turn-restrictor		<b>485591</b>
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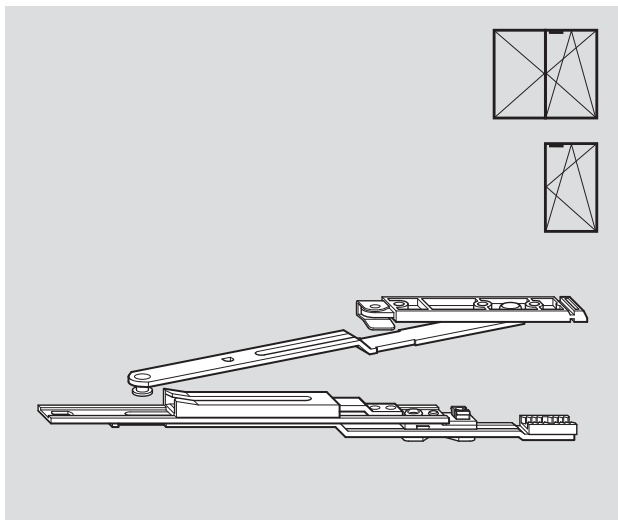
## Scissor stays

### Additional scissor stay / Tilt-stay

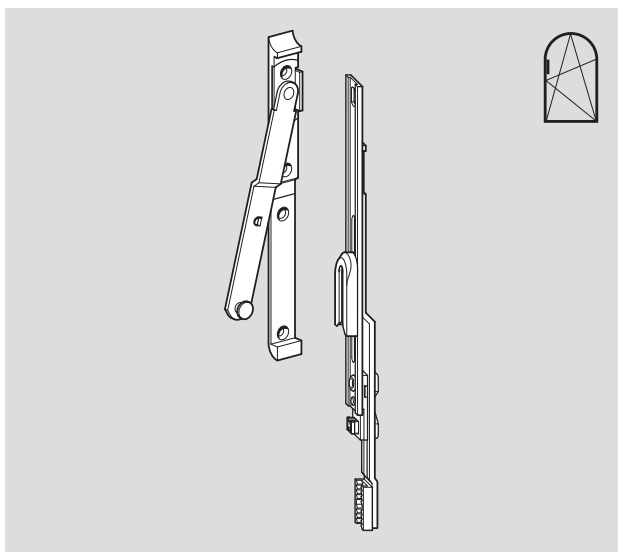


## Scissor stays

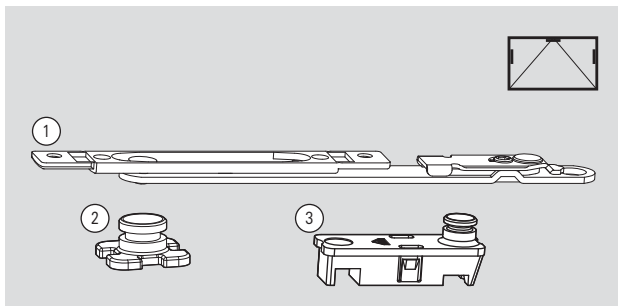
### Additional scissor stay / Tilt-stay



Description	Length/mm	Material no.
<b>Additional scissor stay</b>	200	<b>255237</b>
<b>Additional scissor stay Tilt-First</b> (not dep.)	200	<b>292022</b>

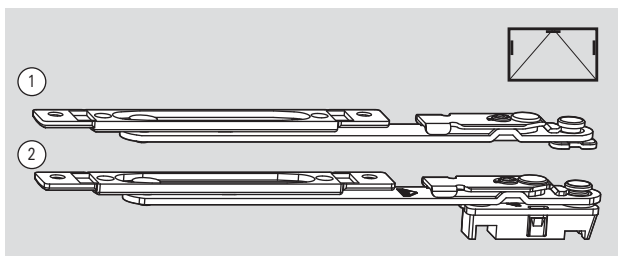


<b>Arched additional scissor stay</b>		<b>245764</b>
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<b>1 Tilt-stay frame component</b>	<b>451477</b>
<b>2 Tilt-stay sash component for dummy mullion mounting<sup>*)</sup></b>	<b>451432</b>
<b>3 Tilt-stay sash component for hardware groove</b>	<b>451431</b>

**\*) In addition: Screw for mounting on corner drive 567995**

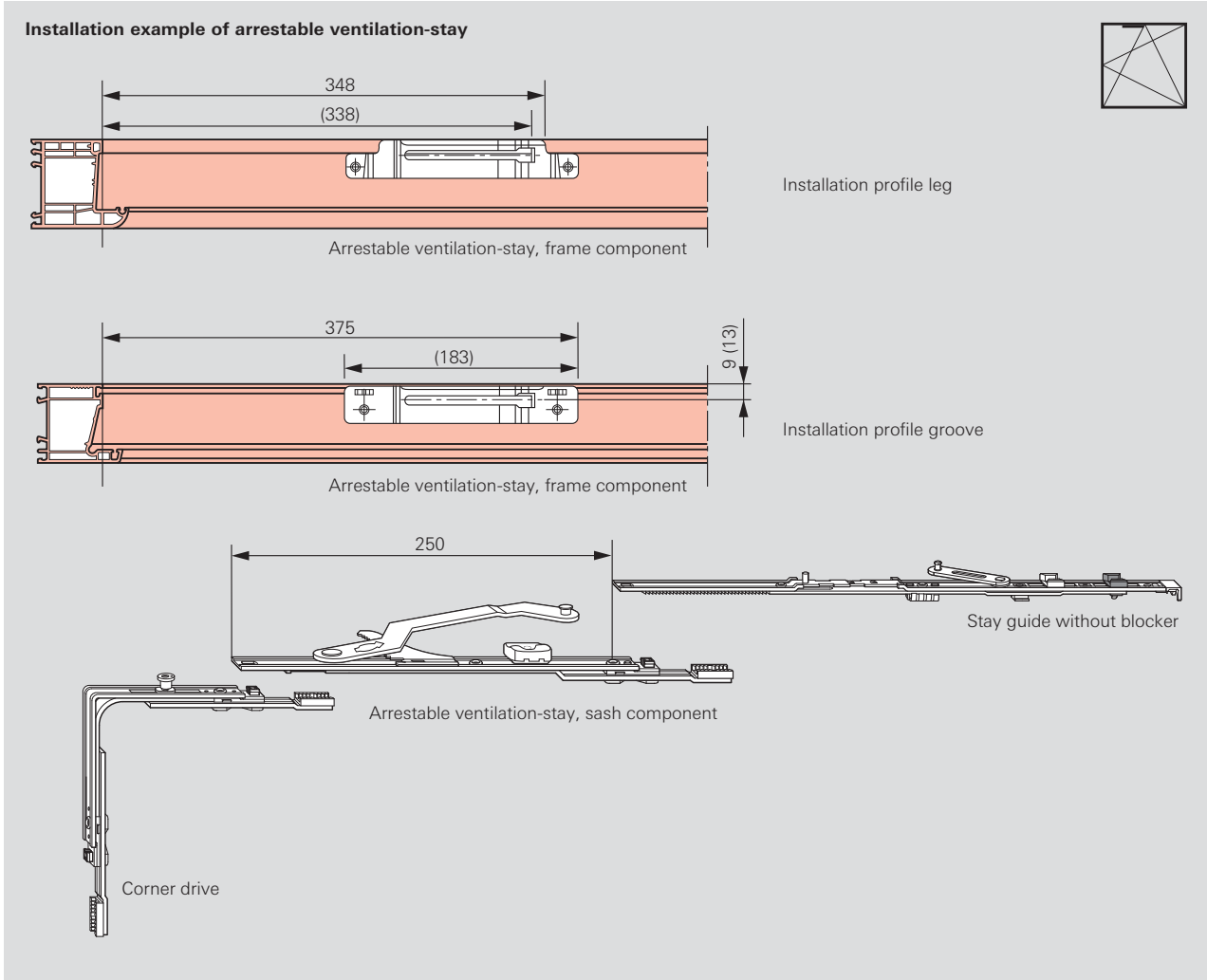


Tilt-stay kits	
<b>1 for dummy mullion mounting<sup>*)</sup></b>	<b>482823</b>
<b>2 for hardware groove</b>	<b>494389</b>

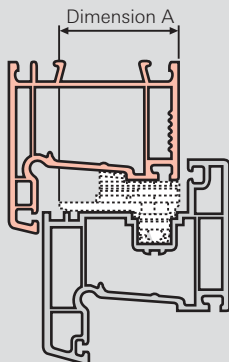
**\*) In addition: Screw for mounting on corner drive 567995**

# Scissor stays

## Arrestable ventilation-stay

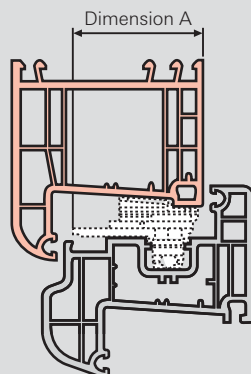


### 9 mm hardware axis



Dimension A (mm)	Arrestable brake-stay component
44	1
39	2
35	3
30	4

### 13 mm hardware axis

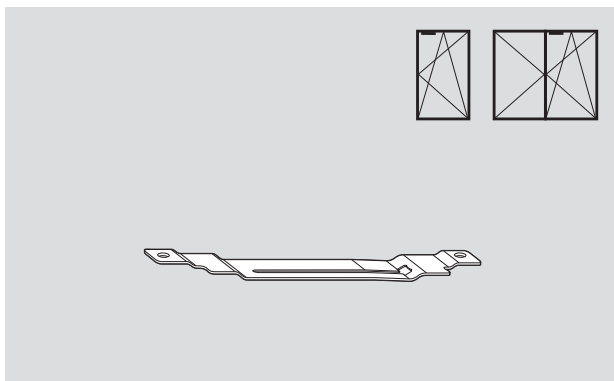
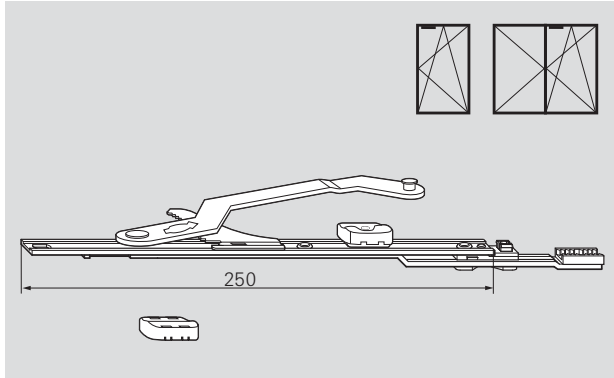


Dimension A (mm)	Arrestable brake-stay component
48	1
43	2
39	3
34	4

**The application of the arrestable ventilation-stay is subject to the sash rebate height (SRH)**

At a tilt-depth of 80 mm: SRH < 500	Arrestable ventilation-stay no. 03 + no. 04
At a tilt-depth of 140 mm: SRH > 500 – 600	Arrestable ventilation-stay no. 03 + no. 04
At a tilt-depth of 140 mm: SRH > 600 – 800	Arrestable ventilation-stay no. 02 + no. 03 + no. 04
At a tilt-depth of 140 mm: SRH < 800	Arrestable ventilation-stay no. 01 + no. 02 + no. 03 + no. 04

# Arrestable ventilation-stay Sash lifter

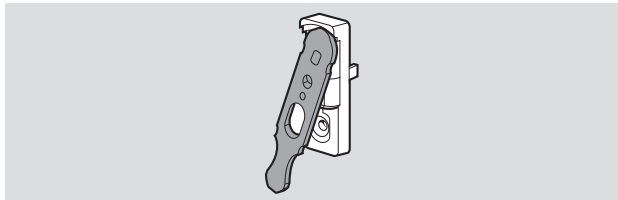


Description	Hardware axis	Material no.
<b>Arrestable ventilation-stay frame component</b>		
Aluplast 2000	13	L <b>316887</b> R <b>316888</b>
Aluplast 4000	13	L <b>316905</b> R <b>316906</b>
Aluplast 5000	13	L <b>316905</b> R <b>316906</b>
Aluplast 6000	13	L <b>316905</b> R <b>316906</b>
Brüggmann AD 13	13	L <b>316903</b> R <b>316904</b>
Brüggmann MD 13	13	L <b>316903</b> R <b>316904</b>
Deceuninck Klassiek	13	L <b>316893</b> R <b>316894</b>
Deceuninck Mondial AD	13	L <b>316891</b> R <b>316892</b>
Deceuninck Zendow	13	L <b>316917</b> R <b>316918</b>
Gealan 3000	13	L <b>316917</b> R <b>316918</b>
Gealan 7000	13	L <b>316917</b> R <b>316918</b>
Gealan 8000	13	L <b>316917</b> R <b>316918</b>
Inoutic AD 13	13	L <b>316937</b> R <b>316938</b>
Inoutic Eforte	13	L <b>316937</b> R <b>316938</b>

Description	Length/mm	Material no.
<b>Arrestable ventilation-stay sash component</b>		
Arrestable brake-stay component no. 1 (12 notches)	250	L <b>288001</b> R <b>288032</b>
Arrestable brake-stay component no. 2 (9 notches)	250	L <b>307605</b> R <b>307606</b>
Arrestable brake-stay component no. 3 (7 notches)	250	L <b>315996</b> R <b>315997</b>
Arrestable brake-stay component no. 4 (5 notches)	250	L <b>315998</b> R <b>315999</b>
<b>Spacer cap</b>		<b>281635</b>
Clearance 13.5–15 mm		

Description	Hardware axis	Material no.
<b>Arrestable ventilation-stay frame component</b>		
KBE 70 AD	13	L <b>316917</b> R <b>316918</b>
KBE AD	9	L <b>316928</b> R <b>316929</b>
Kömmerling 88 Plus	13	L <b>316895</b> R <b>316896</b>
Kömmerling Eurodur 3S	13	L <b>316895</b> R <b>316896</b>
Kömmerling Eurofutur Classic	13	L <b>316895</b> R <b>316896/</b>
Kömmerling Eurofutur Elegance	13	L <b>316895</b> R <b>316896/</b>
Plus Plan Plus Tec	13	L <b>316889</b> R <b>316890</b>
Rehau 799, Brillant Design (730)	13	L <b>288033</b> R <b>288034</b>
Roplasto 4K	13	L <b>316917</b> R <b>316918</b>
Roplasto 7001 AD	13	L <b>316917</b> R <b>316918</b>
Roplasto 7001 MD	13	L <b>316917</b> R <b>316918</b>
Salamander Streamline 76	13	L <b>316899</b> R <b>316900</b>
Salamander 2D	13	L <b>316899</b> R <b>316900</b>
Salamander 3D	13	L <b>316899</b> R <b>316900</b>
Salamander BluEvolution	13	L <b>316928</b> R <b>316929</b>
Schüco Corona AD	13	L <b>316905</b> R <b>316906</b>
Schüco Corona CT70 AD	13	L <b>316887</b> R <b>316888</b>
Schüco Corona SI82 MD	13	L <b>316887</b> R <b>316888</b>
Veka Softline AD 9	9	L <b>316930</b> R <b>316931</b>
Veka Topline AD 13	13	L <b>316903</b> R <b>316904</b>
Wymar 3000	13	L <b>316895</b> R <b>316896/</b>

## Arrestable ventilation-stay Sash lifter



### Sash lifter

284220

**Please note:** When using the arrestable ventilation-stay, only the stay guide without blocker and the sash lifter may be used and not the lifting mishandling device.

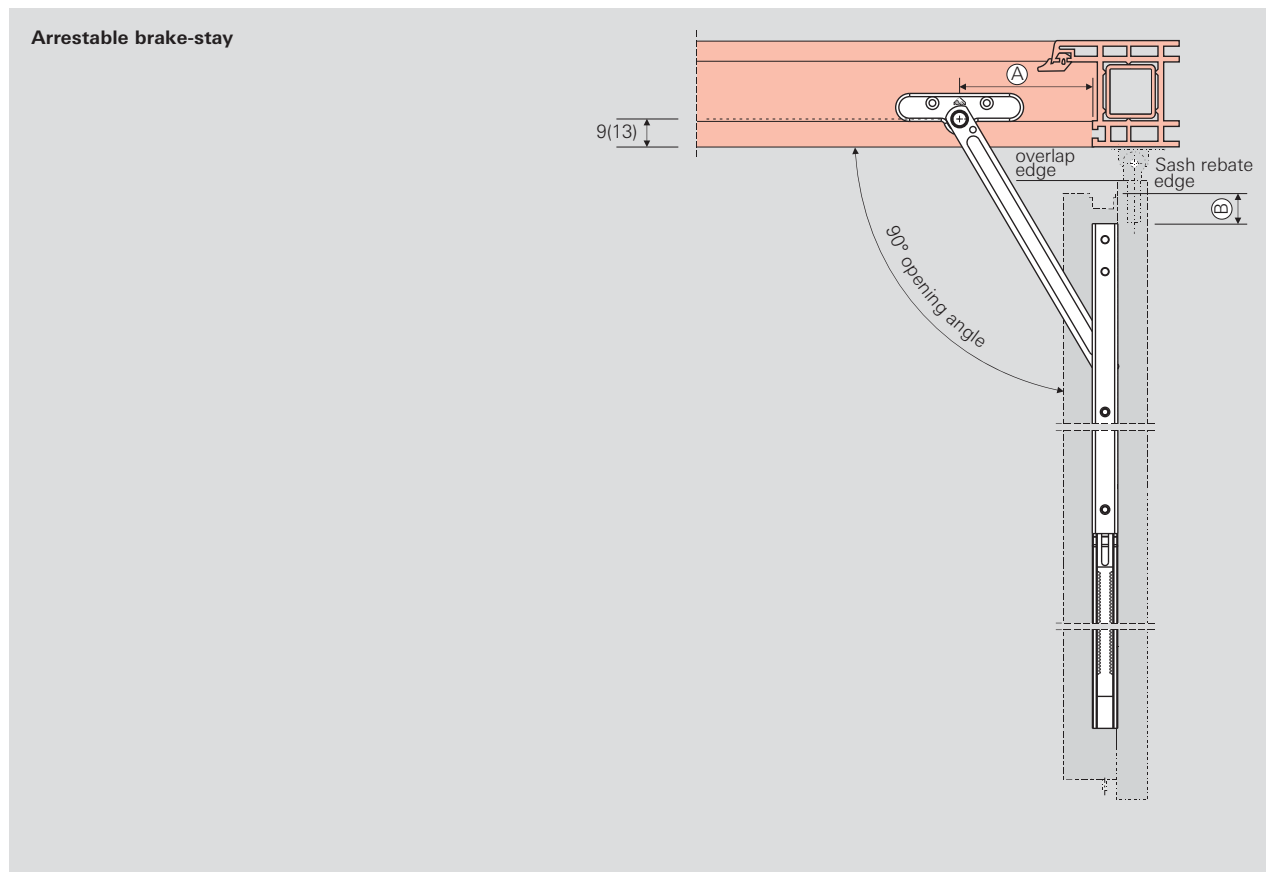
**Please note:** Installation of the arrestable ventilation-stay in profile systems with central gaskets ('MD') is not possible.





# Scissor stays

## Arrestable brake-stay



### Application ranges and installation dimensions hinge sides E5 and A, Turn-Only sashes and Tilt&Turn sashes

#### Arrestable brake-stay size 2 w. arm type 3

Sash rebate width (SRW) / mm	Corner drive	Centre lock	Arrestable brake-stay	Arm	Frame dimension (A)	Sash dimension (B)
360 – 450	Special corner drive	–	<b>486820</b>	<b>486821</b>	115	10
451 – 560	Corner drive T&T/standard	–	<b>486820</b>	<b>486821</b>	115	10
480 – 560	Special corner drive	–	<b>486820</b>	<b>492757</b>	130	125
561 – 760	Corner drive T&T/standard	–	<b>486820</b>	<b>492757</b>	130	125
761 – 890	Corner drive T&T/standard	CL 200, coupleable	<b>486820</b>	<b>492757</b>	130	125
891 – 1090	Corner drive T&T/standard	–	<b>632993</b>	<b>632994</b>	245	240
1091 – 1290	Corner drive T&T/standard	CL 200, coupleable	<b>632993</b>	<b>632994</b>	245	240
1291 – 1490	Corner drive T&T/standard	CL 400, coupleable	<b>632993</b>	<b>632994</b>	245	240
1491 – 1600	Corner drive T&T/standard	CL 600, coupleable	<b>632993</b>	<b>632994</b>	245	240

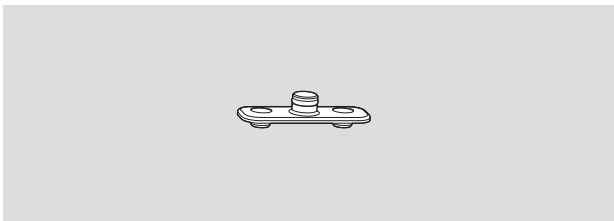
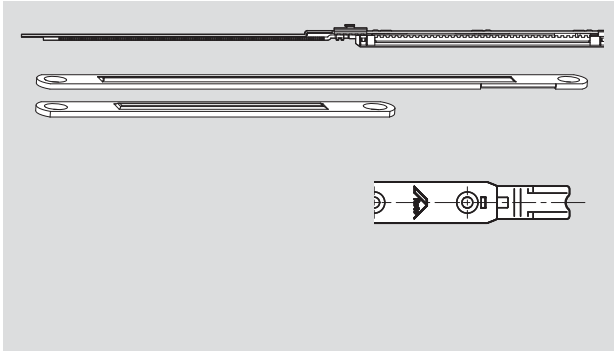
### Application ranges and installation dimensions hinge sides E5 and A, Turn-Only sashes and Tilt&Turn sashes

#### Arrestable brake-stay size 2 w. 1V, w. arm type 3

Sash rebate width (SRW) / mm	Corner drive	Centre lock	Arrestable brake-stay	Arm	Frame dimension (A)	Sash dimension (B)
1001 – 1200	Corner drive T&T/standard	–	<b>633026</b>	<b>632994</b>	245	240
1201 – 1400	Corner drive T&T/standard	CL 200, coupleable	<b>633026</b>	<b>632994</b>	245	240
1401 – 1600	Corner drive T&T/standard	CL 400, coupleable	<b>633026</b>	<b>632994</b>	245	240

### Application ranges and installation dimensions Designo hinge side, Turn-Only sashes and Tilt&Turn sashes

Sash rebate width (SRW) / mm	Corner drive	Centre lock	Arrestable brake-stay	Arm	Frame dimension (A)	Sash dimension (B)
490 – 570	Special corner drive	–	<b>486820</b>	<b>492757</b>	135	130
571 – 770	Corner drive T&T/standard	–	<b>486820</b>	<b>492757</b>	135	130
771 – 970	Corner drive T&T/standard	CL 200, coupleable	<b>486820</b>	<b>492757</b>	135	130
971 – 1170	Corner drive T&T/standard	CL 400, coupleable	<b>486820</b>	<b>492757</b>	135	130
1171 – 1370	Corner drive T&T/standard	CL 600, coupleable	<b>486820</b>	<b>492757</b>	135	130
1371 – 1570	Corner drive T&T/standard	CL 600, coupleable	<b>486820</b>	<b>492757</b>	135	130
		CL 200, coupleable				



Description Material no.

<b>Arrestable brake-stay sash component</b>		
Arrestable brake-stay size 1		<b>486820</b>
Arrestable brake-stay size 2		<b>632993</b>
Arrestable brake-stay size 2	1 V	<b>633026</b>
Arrestable brake-stay Arm size 1		<b>486821</b>
Arrestable brake-stay Arm size 2		<b>492757</b>
Arrestable brake-stay Arm size 3		<b>632994</b>
Spring stop for arrestable brake-stay		<b>491797</b>

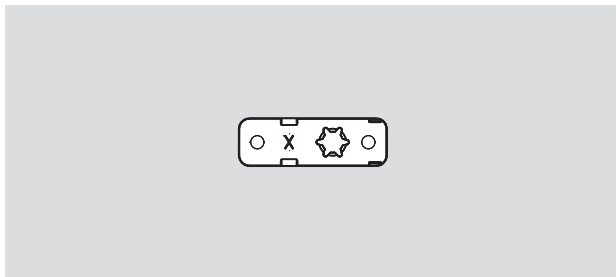
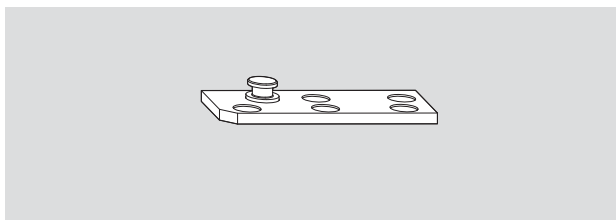
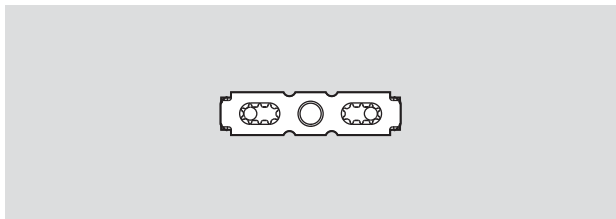
**Please note:** When using the arrestable brake-stay only the sash lifter may be used; and not the lifting mishandling device.

Description Hardware axis Material no.

<b>Arrestable brake-stay frame component</b> (= NT Designo turn-restrictor, frame component)		
Aluplast 2000	13.0	<b>477848</b>
Aluplast 3000	13.0	<b>477848</b>
Aluplast 4000	13.0	<b>490128</b>
Aluplast 5000	13.0	<b>490128</b>
Aluplast 6000	13.0	<b>490128</b>
Brüggmann AD 13	13.0	<b>477848</b>
Brüggmann MD 13	13.0	<b>477848</b>
Gealan 3000	13.0	<b>477848</b>
Gealan 7000	13.0	<b>477848</b>
Gealan 8000	13.0	<b>477848</b>
Inoutic AD 13	13.0	<b>490133</b>
Inoutic Eforte	13.0	<b>490133</b>
Inoutic MD 100	13.0	<b>490133</b>
Inoutic Prestige AD	13.0	<b>490133</b>
Inoutic Prestige MD	13.0	<b>490133</b>
KBE 70 AD	13.0	<b>477848</b>
KBE 70 MD	13.0	<b>477848</b>
KBE AD	9.0	<b>477848</b>
KBE MD	9.0	<b>477849</b>
Kömmerling Eurodur 3S	13.0	<b>477848</b>
Kömmerling Eurofutur Classic	13.0	<b>477848</b>
Kömmerling Eurofutur Elegance	13.0	<b>477848</b>
Plus Plan Plus Tec	13.0	<b>477848</b>
Rehau 799, Brillant Design (730)	13.0	<b>477848</b>
Rehau 788, MD (735)	13.0	<b>477848</b>
Rehau 980, Geneo	13.0	<b>477848</b>
Rehau 986, EuroDesign 86	13.0	<b>477848</b>
Salamander Streamline 76	13.0	<b>477848</b>
Salamander 2D	13.0	<b>477848</b>
Salamander 3D	13.0	<b>477848</b>
Schüco Corona AD	13.0	<b>477848</b>
Schüco Corona CT70 AD	13.0	<b>477848</b>
Schüco Corona CT70 MD	13.0	<b>477848</b>
Trocal 88+	13.0	<b>490159</b>
Trocal 900	9.0	<b>477849</b>
Trocal Innonova 2000	13.0	<b>490159</b>
Trocal Innonova 70.A5 AD	13.0	<b>477848</b>
Trocal Innonova 70.M5 MD	13.0	<b>477848</b>
Veka Softline AD 9	9.0	<b>477848</b>
Veka Topline AD 13	13.0	<b>477848</b>
Veka Topline MD 13	13.0	<b>477848</b>

## Scissor stays

### Restrictor and cleaning stay



Description	Material no.
<b>Restrictor and cleaning stay, frame component</b>	
Restrictor and cleaning stay for SRH 290 – 560 mm	<b>347131</b>
Restrictor and cleaning stay for SRH 561 – 1200 mm	<b>347132</b>

<b>Restrictor and cleaning stay, sash bearing for hardware groove</b>	<b>348277</b>
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<b>Restrictor and cleaning stay, sash bearing for dummy mullion mounting <sup>1)</sup></b>	<b>L 569892</b>
	<b>R 569893</b>

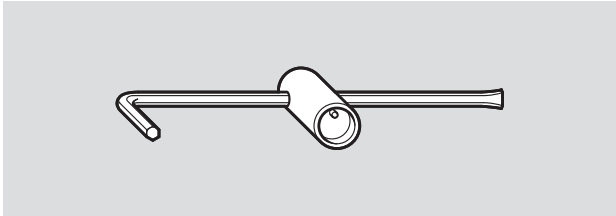
<b>Packer for frame component</b>	
3.5 mm packer, white (RAL 9016)	<b>347133</b>
3.5 mm packer, brown (RAL 8019)	<b>347134</b>
5.5 mm packer, white (RAL 9016)	<b>347236</b>
5.5 mm packer, brown (RAL 8019)	<b>347237</b>
8 mm packer, white (RAL 9016)	<b>347238</b>
8 mm packer, brown (RAL 8019)	<b>347239</b>
3.5 mm slanted packer, white (RAL 9016)	<b>347240</b>
3.5 mm slanted packer, brown (RAL 8019)	<b>347241</b>

<sup>1)</sup> Application depends on profile depth

## Adjusting tool

Allen key

Pin extractor handle



Description

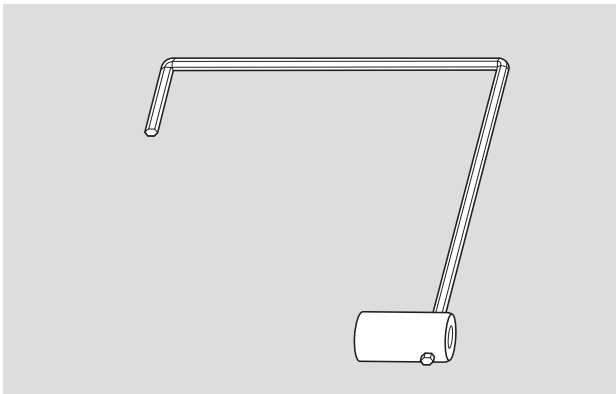
Material no.

**Adjusting tool**

**258191**

for locking cams

V

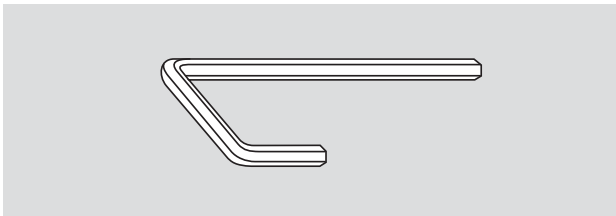


**Adjusting tool**

**381574**

for locking cams

V

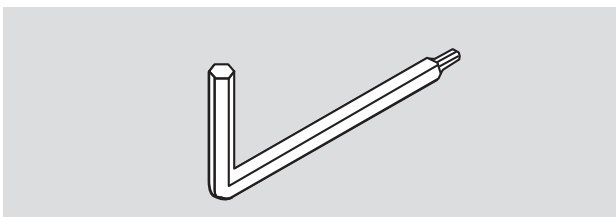


**Allen key**

**208609**

for locking cams

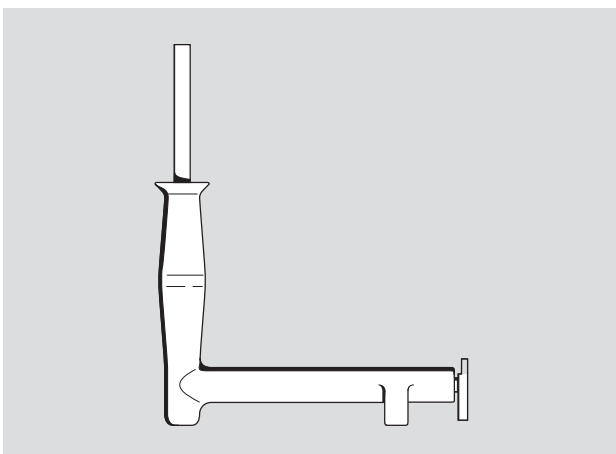
E and P



**2.5/4 mm Allen key**

**230764**

for retro adjusting



**Pin extractor handle**

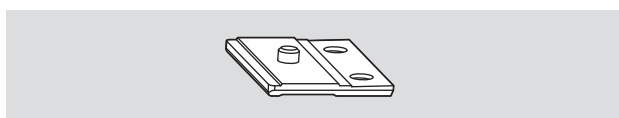
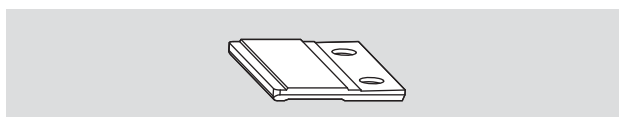
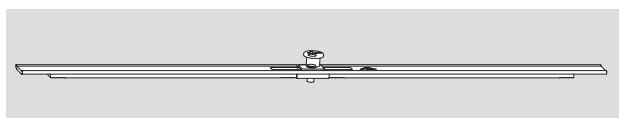
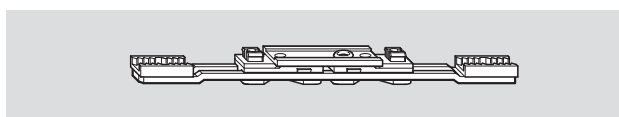
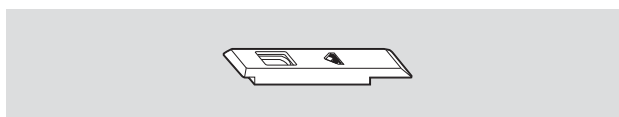
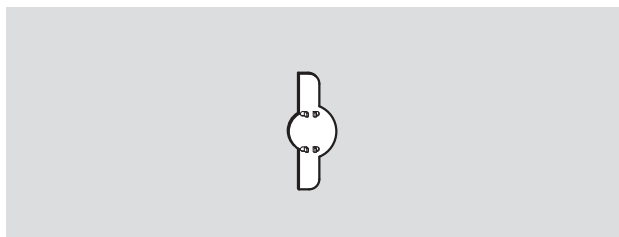
**311029**

used to insert and/or remove stay-bearing pins

**Replacement-blade for pin extractor handle**

**230765**

Travel restrictor  
Drilling protection  
Faceplate flap



Description Material no.

**Travel restrictor** 264603  
T&T espagnolettes to 90°

**Drilling protection** 627343  
8/15/25/30/35/40/45/50mm backset

**Faceplate flap** 350401

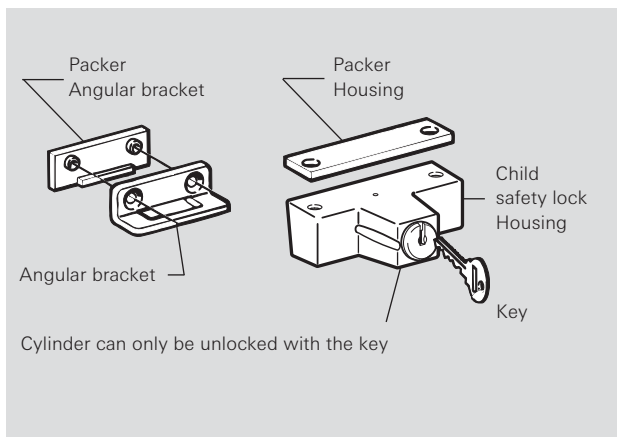
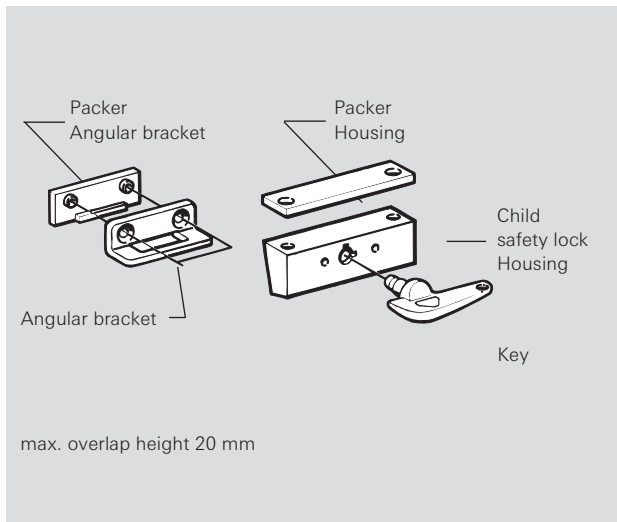
**Triangular window coupling** 264606

**Coupling 344** 572665  
Length range 144–344 mm

**Fastening plate without cam** 487264

**Fastening plate with cam** 255211

# Child safety lock



Description Material no.

<b>Surface-mounted child safety lock</b>	
Roto Sil child safety lock	<b>287575</b>
Roto Sil key	<b>287577</b>
White coated child safety lock	<b>230157</b>
White coated key	<b>230149</b>
Brown child safety lock	<b>230160</b>
Brown key	<b>230150</b>

<b>Packer for housing</b>	
Roto Sil	<b>287578</b>
White	<b>230155</b>
Brown	<b>230158</b>

<b>Packer for angular bracket</b>	
Roto Sil	<b>287579</b>
White	<b>230156</b>
Brown	<b>230159</b>

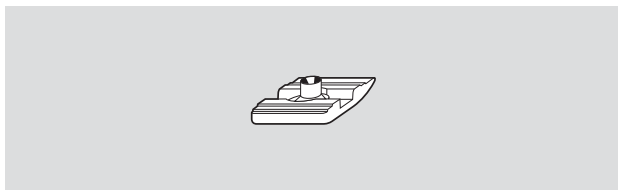
<b>Surface-mounted child safety lock with cylinder</b>	
Roto Sil child safety lock	<b>257070</b>
White coated	<b>230153</b>
Brown coated	<b>230152</b>

<b>Packer for housing (5° inclination)</b>	
Roto Sil	<b>287578</b>
White	<b>230155</b>
Brown	<b>230158</b>

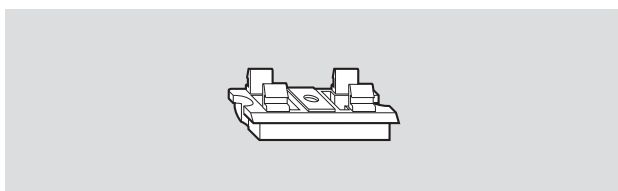
<b>Packer for angular bracket, 2 mm</b>	
Roto Sil	<b>287579</b>
White	<b>230156</b>
Brown	<b>230159</b>

<b>Packer for angular bracket, 4 mm</b>	
Roto Sil	<b>475594</b>

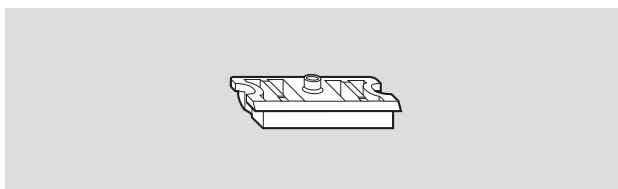
## Run-up blocks



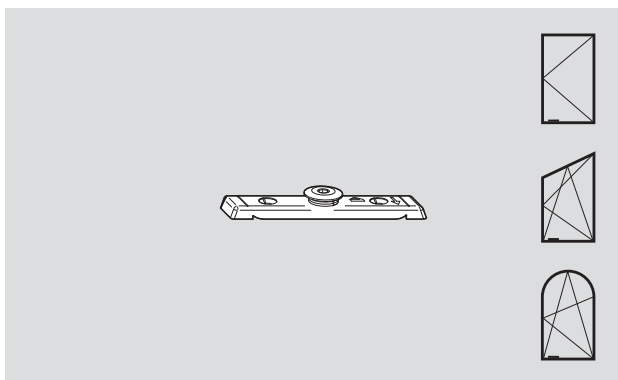
Description	Material no.
<b>Run-up block</b>	
12 mm clearance	<b>350402</b>
13 mm clearance	<b>350403</b>



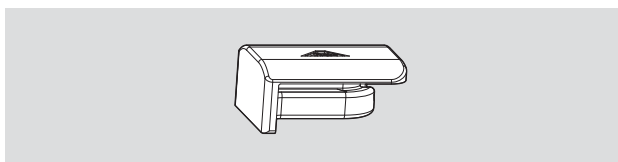
<b>Run-up block – hardware groove mounted</b>	<b>281290</b>
-----------------------------------------------	---------------



<b>Run-up block – faceplate mounted</b>	<b>281289</b>
-----------------------------------------	---------------



<b>Run-up block</b>	
Can only be used in connection with arched centre-lock	
4 mm and 12 mm clearance can be routed in or surface-mounted, adjustable	<b>245765</b>



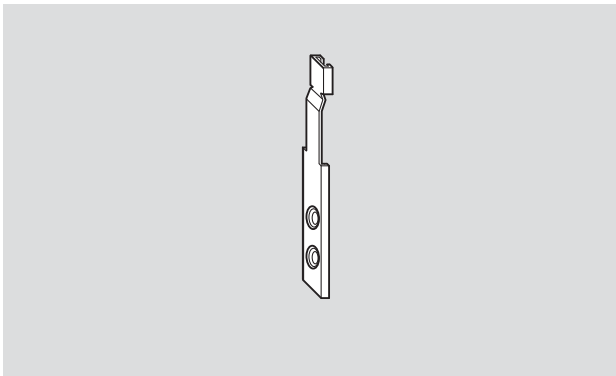
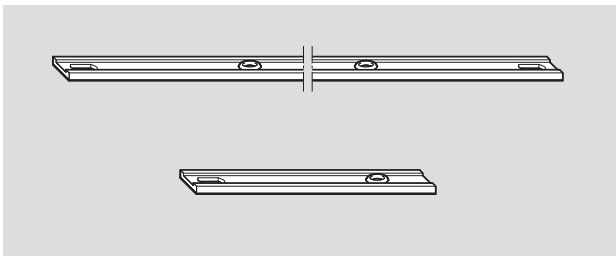
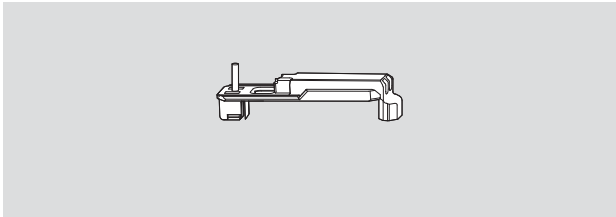
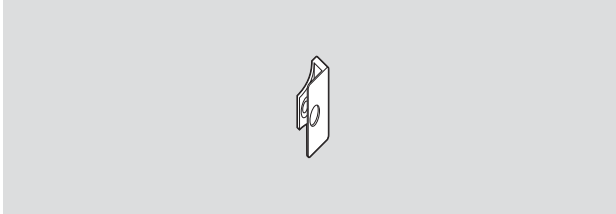
<b>Run-up block</b>	
Run-up block, insertable, Roto logo NT	<b>609211</b>
Only in conjunction with symmetrical SEC striker, zinc with base	



## Retainer-clasp for lever-operated espagnolettes

Faceplate strip

Pitched stay-guide end-piece



Description

Material no.

**Retainer-clasp for lever-operated espagnolettes**

**314203**

**Safety device for dummy mullion sash**

**552392**

**Faceplate strip**

**287483**

(Length 2015 mm, 10 mounting holes)

**Faceplate strip, short**

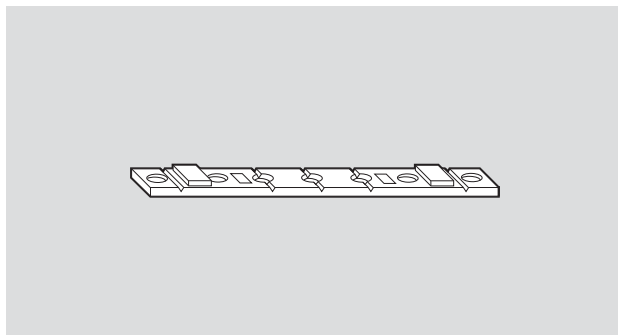
**296064**

(Length 105 mm, 1 mounting hole)

**End-piece for pitched stay guide**

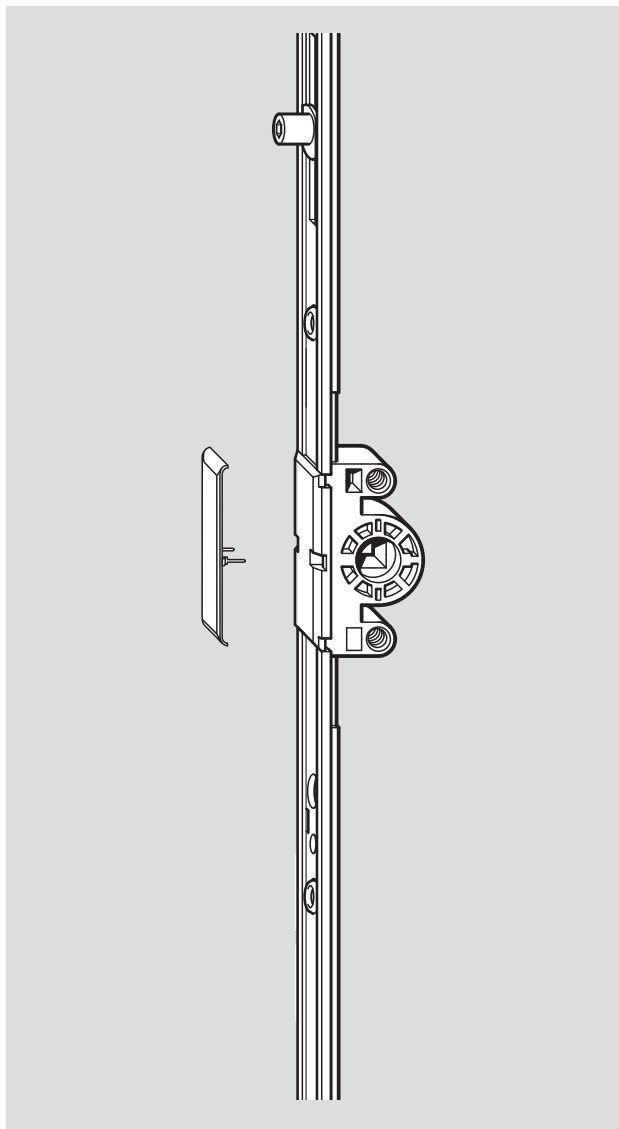
**246734**

# Packer



Description	Hardware axis	Material no.
<b>Packer</b>		
Alphacan Master AD 13	13	294365
Aluplast 2000	13	294364
Aluplast 3000	13	294364
Aluplast 4000	13	294365
Aluplast 5000	13	294365
Aluplast 6000	13	294365
Deceuninck Mondial with VK	13	477327
Brüggmann MD13	13	287070
Brüggmann AD13	13	294364
Deceuninck Klassiek	13	294365
Deceuninck Zendow	9	294469
Dimex Elegance	13	292201
Gealan 3000	13	294370
Gealan 7000	13	294370
Gealan 8000	13	294370
Inoutic AD 13	13	294369
Inoutic Eforte	13	294369
Inoutic MD 100	13	294369
Inoutic Prestige AD	13	294369
KBE AD	13	294439
KBE MD	13	294463
KBE 70 AD	13	294464
Kömmerling 88 Plus	13	294464
Kömmerling Eurodur 3S	13	294464
Kömmerling Eurofutur Classic	13	294464
Kömmerling Eurofutur Elegance	13	294464
Rehau 799, Brillant Design (730)	13	294469
Rehau 788 MD (735)	13	294469
Rehau 980 Geneo	13	294469
Roplasto 4K	13	294469
Roplasto 7001 AD	13	294469
Roplasto 7001 MD	13	294469
Salamander Streamline 76	13	294365
Schüco Corona CT 70 AD	13	294364
Schüco Corona CT 70 MD	13	294364
Schüco Corona SI82 MD	13	294364
Schüco Corona AD	13	294365
Trocal Innonova 70 A5 AD	13	294364
Trocal Innonova 70 M5 MD	13	294364
Trocal 88+	13	294463
Trocal 900	13	294463
Trocal Innonova 2000	13	294463
Veka Topline AD 13	13	294364
Veka Topline MD 13	13	294364
Veka Softline MD 13	13	294364
Veka Softline AD 13	13	294364
Wymar 2500	13	287070
Wymar 3000	13	374160

## Info-clip



Description

Material no.

### Info-clip

Display information (e.g. company logo) clipped on to the espagnolette gear casing

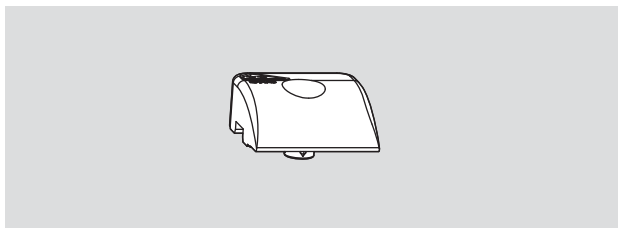
Print	Primary colour	
Blank	R06.2 jet-black	<b>230694</b>
Blank	R07.2 white	<b>230696</b>
Unicolour printing	R06.2 jet-black	<b>230692</b>
Unicolour printing	R07.2 white	<b>230695</b>
Unicolour printing	Special colour Green RAL 6018 or Yellow RAL 1003 or Red RAL 2002 or Blue RAL 5015	<b>230691</b>
Bicolour printing	R07.2 white	<b>230697</b>
Bicolour printing	Special colour Green RAL 6018 or Yellow RAL 1003 or Red RAL 2002 or Blue RAL 5015	<b>264629</b>

Upon submitting your order request, please enclose the artwork (format: approx. 15 x 40 mm).

### Application range:

Suitable for all espagnolettes with 8–15 mm backset

## Security components



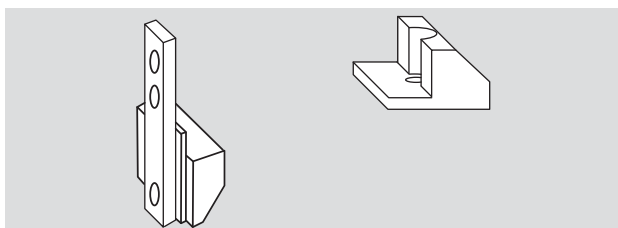
Description

Material no.

**Security component for filling up the clearance**

**601500**

Installation on NT faceplate



**Additional security component**

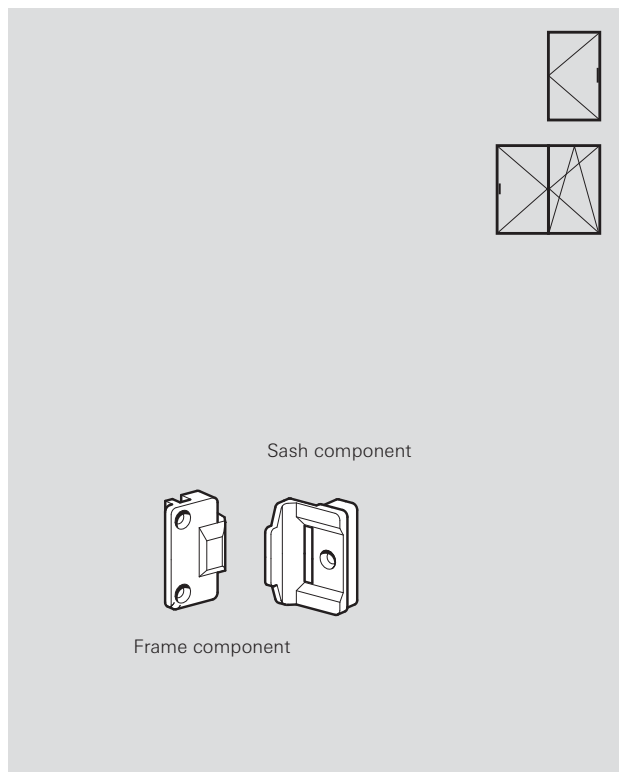
Security component for corners

**477863**

Security component for centre locks

**609838**

# Centre-closer Concealed



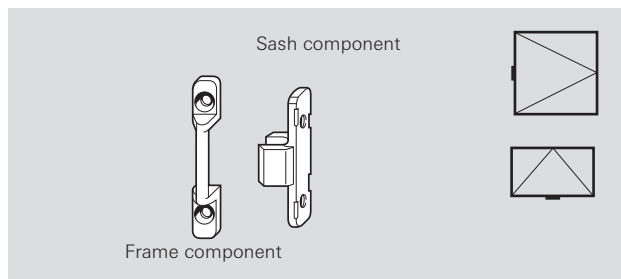
Description	Hardware axis	Material no.
Centre-closer, concealed		
<b>Sash component no. 11</b>		<b>264212</b>
Suitable frame components for PVC profiles:		
KBE MD	9	<b>250731</b>
Trocal 88+	13	<b>290158</b>
Trocal 900	9	<b>250731</b>
Trocal Innonova 2000	13	<b>290158</b>
<b>Sash component no. 12</b>		<b>331483</b>
Suitable frame components for PVC profiles:		
Inoutic Eforte	13	<b>264234</b>
Inoutic AD 13	13	<b>264234</b>
Inoutic MD 100	13	<b>264234</b>
Inoutic Prestige AD	13	<b>264234</b>
Inoutic Prestige MD	13	<b>264234</b>
Kömmerling 88 Plus	13	<b>292027</b>

Description	Hardware axis	Material no.
<b>Sash component no. 13</b>		<b>331484</b>
Suitable frame components for PVC profiles:		
Aluplast 3000	13	<b>264238</b>
Aluplast 4000	13	<b>257351</b>
Aluplast 5000	13	<b>257351</b>
Aluplast 6000	13	<b>257351</b>
Brüggmann AD 13	13	<b>280394</b>
Brüggmann MD 13	13	<b>284093</b>
Deceuninck Zendow	13	<b>370176</b>
KBE 70 MD	13	<b>348512</b>
Rehau 788, MD (735)	13	<b>264227</b>
Salamander Streamline 76	13	<b>262159</b>
Salamander 2D	13	<b>262159</b>
Salamander 3D	13	<b>262159</b>
Salamander BluEvolution	13	<b>262159</b>
Schüco Corona AD	13	<b>257351</b>
Schüco Corona CT70 MD	13	<b>264238</b>
Veka Topline MD 13	13	<b>284093</b>
Wymar 3000	13	<b>374162</b>
Wymar 2500	13	<b>343801</b>

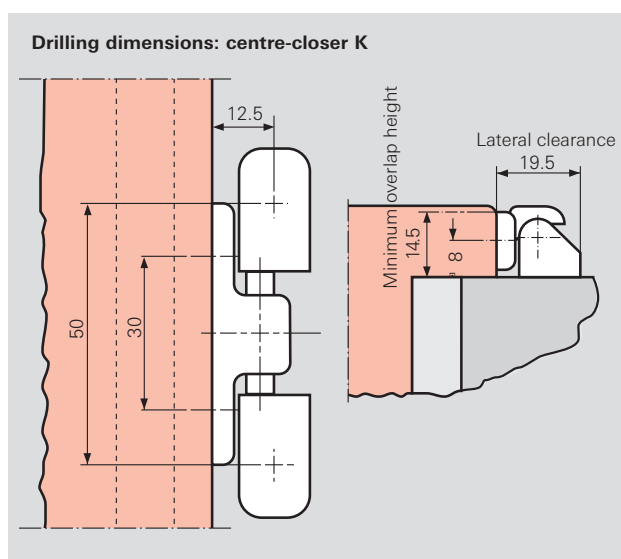
<b>Sash component no. 14</b>		<b>331485</b>
Suitable frame components for PVC profiles:		
Aluplast 2000	13	<b>264236</b>
Deceuninck Klassiek	13	<b>295042</b>
Deceuninck Mondial with VK	13	<b>295042</b>
Gealan 3000	13	<b>264230</b>
Gealan 8000	13	<b>264230</b>
KBE 70 AD	13	<b>264254</b>
KBE AD	9	<b>250727</b>
Kömmerling Eurodur 3S	13	<b>250726</b>
Kömmerling Eurofutur Classic	13	<b>334961</b>
Kömmerling Eurofutur Elegance	13	<b>334961</b>
Plus Plan Plus Tec	13	<b>264254</b>
Rehau 799, Brillant Design (730)	13	<b>250725</b>
Rehau 980, Geneo	13	<b>250725</b>
Rehau 986, EuroDesign 86	13	<b>250725</b>
Roplasto 4K	13	<b>264249</b>
Roplasto 7001 AD	13	<b>264249</b>
Roplasto 7001 MD	13	<b>264249</b>
Schüco Corona CT70 AD	13	<b>250728</b>
Schüco Corona SI82 MD	13	<b>264236</b>
Veka Alphaline 90	13	<b>250728</b>
Veka Softline AD 9	9	<b>250729</b>
Veka Topline AD 13	13	<b>250728</b>

<b>Sash component no. 15</b>		<b>264218</b>
Suitable frame components for PVC profiles:		
Trocal Innonova 70.A5 AD	13	<b>565260</b>
Trocal Innonova 70.M5 MD	13	<b>565260</b>

# Centre-closer Surface-mounted



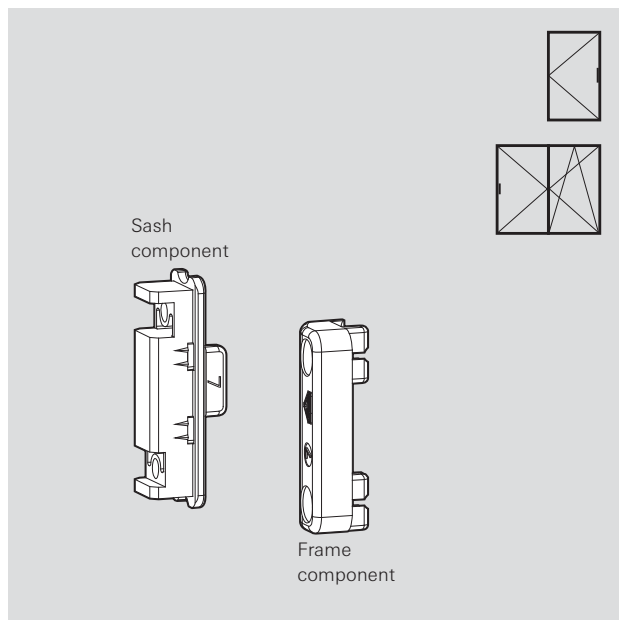
Surface-mounted centre-closer	
Description	Material no.
Centre-closer K – frame component	<b>281638</b>
Centre-closer K – sash component	<b>281639</b>



Description	Cover cap	
	Centre-closer K Frame component	Centre-closer K Sash component
	Material no.	Material no.
R01.1 Silver	<b>229858</b>	<b>229863</b>
R01.2 Nickel silver	<b>229859</b>	<b>229864</b>
R01.3 Titanium-matt	<b>329890</b>	<b>329891</b>
R03.1 Brass matt	<b>642347</b>	<b>642348</b>
R03.2 Polished brass	<b>229890</b>	<b>229888</b>
R04.1 Grey-brown	<b>213798</b>	<b>213797</b>
R04.3 Olive-brown	<b>229856</b>	<b>229857</b>
R04.4 Black-brown	<b>208602</b>	<b>208604</b>
R05.3 Medium bronze	<b>229862</b>	<b>229873</b>
R05.5 Bronze	<b>637874</b>	<b>637875</b>
R07.2 White	<b>208598</b>	<b>208600</b>
		<b>229889</b>

## Centre-closer

### NT Designo and Designo II, concealed

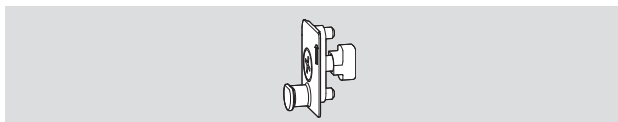


#### Centre-closer, concealed

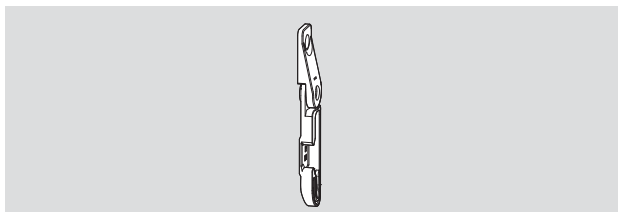
Description	Hardware axis	Material no.
<b>Roto NT Designo sash component</b>		<b>450984</b>
Suitable frame components for PVC profiles:		
Aluplast 2000	13	<b>451001</b>
Aluplast 3000	13	<b>451001</b>
Aluplast 4000	13	<b>450998</b>
Aluplast 5000	13	<b>450998</b>
Aluplast 6000	13	<b>450998</b>
Gealan 3000	13	<b>450999</b>
Gealan 7000	13	<b>450999</b>
Gealan 8000	13	<b>450999</b>
Inoutic AD 13	13	<b>451015</b>
Inoutic Eforte	13	<b>451015</b>
Inoutic MD 100	13	<b>451015</b>
Inoutic Prestige AD	13	<b>451015</b>
Inoutic Prestige MD	13	<b>451015</b>
KBE 70 AD	13	<b>451000</b>
KBE 70 MD	13	<b>451000</b>
Kömmerling 88 Plus	13	<b>451002</b>
Kömmerling Eurofutur Classic	13	<b>451002</b>
Kömmerling Eurofutur Elegance	13	<b>451002</b>
Rehau 799, Brillant Design (730)	13	<b>451003</b>
Rehau 788, MD (735)	13	<b>451003</b>
Rehau 980, Geneo	13	<b>451003</b>
Rehau 986, EuroDesign 86	13	<b>451003</b>
Roplasto 4K	13	<b>451004</b>
Roplasto 7001 AD	13	<b>451004</b>
Roplasto 7001 MD	13	<b>451004</b>
Salamander Streamline 76	13	<b>457106</b>
Salamander 2D	13	<b>457106</b>
Salamander 3D	13	<b>457106</b>
Schüco Corona AD	13	<b>450998</b>
Schüco Corona CT70 AD	13	<b>450997</b>
Schüco Corona CT70 MD	13	<b>451001</b>
Schüco Corona SI82 MD	13	<b>451001</b>
Trocal Innonova 70.A5 AD	13	<b>451016</b>
Trocal Innonova 70.M5 MD	13	<b>451016</b>
Veka Topline AD 13	13	<b>450997</b>
Veka Topline MD 13	13	<b>450997</b>

<b>Roto NT Designo II sash component</b>		<b>450984</b>
Suitable frame components for PVC profiles:		
Aluplast 2000	13	<b>630577</b>
Brügmann AD 13	13	<b>606607</b>
Brügmann MD 13	13	<b>606607</b>
Gealan 3000	13	<b>606608</b>
Gealan 7000	13	<b>606608</b>
Gealan 8000	13	<b>606608</b>
Kömmerling Eurofutur Classic	13	<b>606605</b>
Kömmerling Eurofutur Elegance	13	<b>606605</b>
Kömmerling 88 Plus	13	<b>606605</b>
Rehau 799, Brillant Design (S730)	13	<b>606606</b>
Rehau 980, Geneo	13	<b>606606</b>
Veka Alphaline 90	13	<b>606607</b>
Veka Softline 70 AD	13	<b>606607</b>
Veka Softline 70 MD	13	<b>606607</b>

## TurnPlus

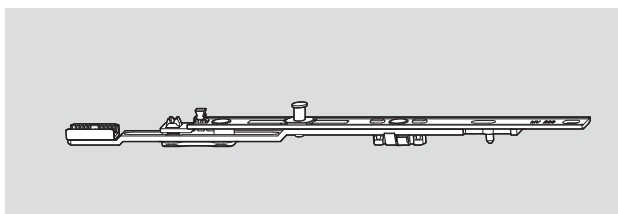


**Cam TurnPlus** 493923



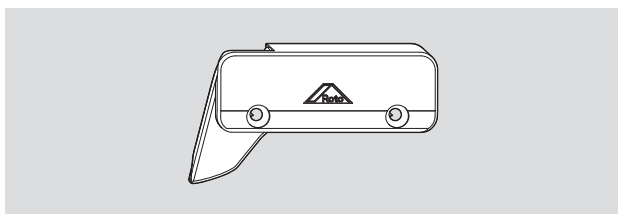
**Frame component TurnPlus** L 493916  
R 493917

Packers on request



**Centre lock TurnPlus** coupleable, 200 mm 493922

## SoftClose



**Window damper K** 625203









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info@roto-frank.com

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