

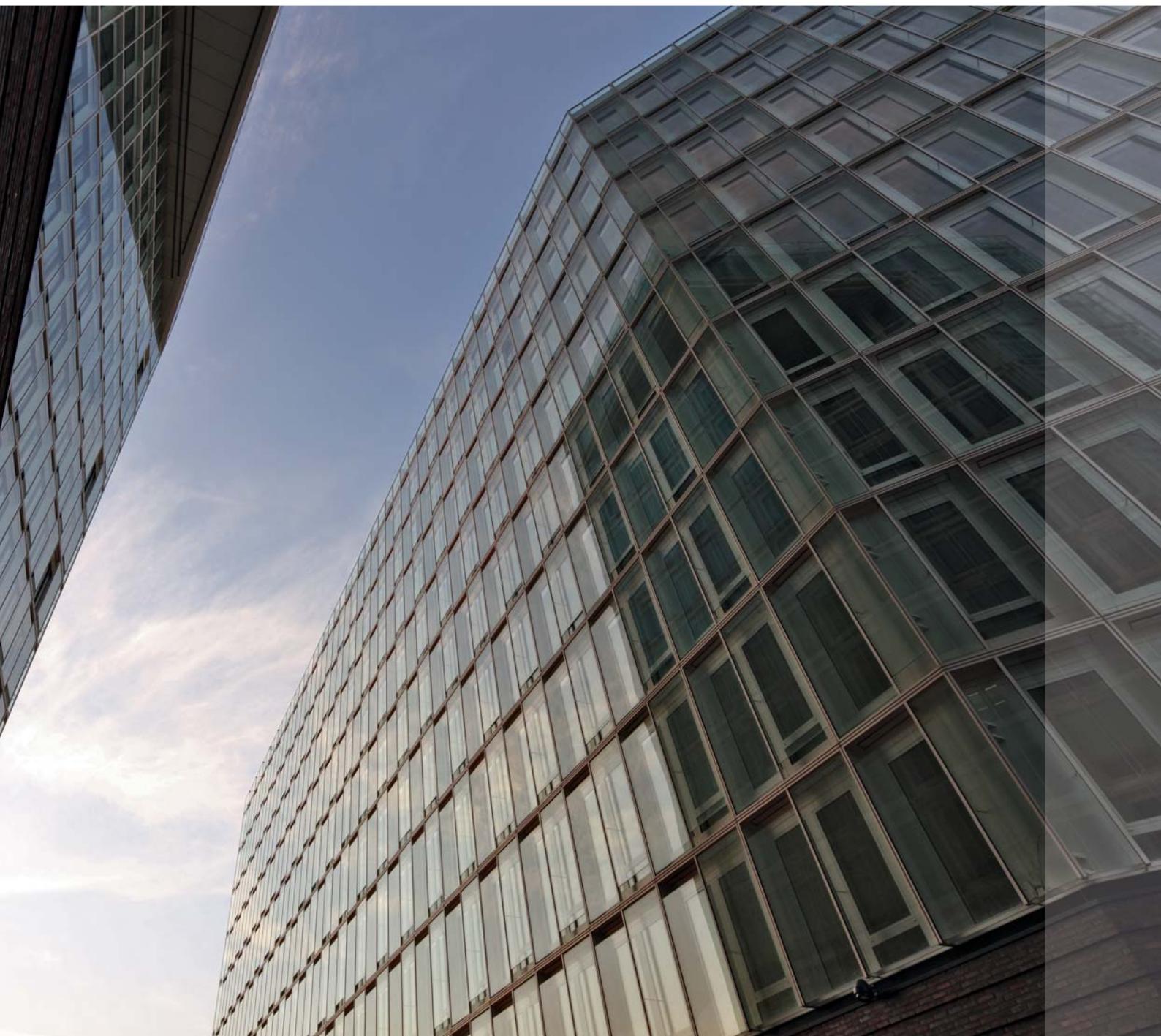
Window and door technology



Roto AluVision T300

Comprehensive hardware solutions
for aluminium windows and doors

Catalogue for
aluminium profiles



Liability exclusion

All specifications in this document were diligently compiled and validated. Changes due to technical progress, changes in legislation and the passage of time are unavoidable. We therefore hope you understand that we cannot be held liable for the accuracy or completeness of the contents.

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Roto Frank AG
Wilhelm-Frank-Platz 1
D-70771 Leinfelden-Echterdingen
Germany
Telephone: +49 711 7598 0
Telefax: +49 711 7598 253
info@ROTO-FRANK.COM
www.ROTO-FRANK.COM

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

Production companies





Entrance area of the Leinfelden-Echterdingen production plant.

The Roto Group – leading the way for over 70 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. A good example of this is our hardware systems for aluminium windows. Roto AluVision offers aesthetically attractive solutions for nearly all opening types in connection with maximum security as well as perfect fabrication. Even large and heavy windows and balcony doors with weights of up to 300kg, that are almost common in current construction projects, are not a problem.

And even other trends are fulfilled by the Roto fenestration technology: there is a heavy emphasis on large sash elements and complex multiple glazings and at the same time a growing preference for aesthetic shapes and slimline profiles. The less one sees of the fenestration technology involved, the better. Roto AluVision Designo meets these demands – as a fully concealed hardware system for large aluminium windows with a sash weight of up to 150kg. No hinges visible from the outside that need to be colour-matched. Nothing detracts from the window's aesthetics. Due to the use of tempered non-corrosive steel plus the innovative Roto-Sil Nano surface coating, the hardware lasts longer and offers high resistance against environmental influences.

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 information

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 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 (for example 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 fixing, the "Implementation regulations for the fixing of supporting hinge sided 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 – Manufacturers 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.
- 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.

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 manufacturer's or authorised dealer's '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.

Roto information

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.

 Gütekennzeichnung Schlosser und Beschläge e.V.
Quality Assurance Association: Locks and Hardware
Directive: VHbh
Version: 2009-11-12
TRANSLATION OF THE ORIGINAL VERSION

Directive
Hardware for windows and balcony doors
Guidelines/advice on the product and on liability (VHbh)

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Fax: +49 (0)2051 / 95 06 - 20
web: www.beschlagindustrie.de

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TRANSLATION OF THE ORIGINAL VERSION

Directive
Hardware for windows and balcony doors
Guidelines/advice for end-users (VHbe)

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Directive
Hardware for windows and balcony doors
Guidelines/advice for end-users (Vtbdk)

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Vtbdk directive 1 / 25

■ 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

Certified environmental management system

Roto's ecology-minded action is certified in accordance with the international standard for environmental management systems 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 its 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 information

Management and test certificates

The Roto quality management system

Certified QMS

The certification in accordance with international standard DIN EN ISO 9001 incorporates the architectural hardware technology division.

The certificate certifies that our entire design, production and marketing processes have been systematically planned, documented and realised appropriately. Starting with quality planning to production testing, from development and design through to production and assembly, right up to marketing and customer services. All significant production locations and sales companies in the Roto company-group have been certified in accordance with DIN EN ISO 9001. 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 holistic quality containing all company processes and activities, as the key for long-term company success.

Roto employees are supported in their personal development and challenging work; practising high-quality philosophy in their daily performance and goal-oriented work.



1 / 3

Accredited test centre

The Roto Group has had a modern test centre at their disposal 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 Roto test centre is accredited in accordance with DIN EN ISO/IEC 17025 by the German Accreditation Body ('DAkkS'=Deutsche Akkreditierungsstelle). It was confirmed by means of the accreditation that the Roto test centre ITC (International Technology Centre) 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 tests.

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.



Environmental compatibility classification of Roto hardware**■ Hardware component environmental compatibility:**

We endeavour to manage with the lowest possible energy and water consumption levels in the manufacturing of our hardware components and strive to produce hardware components which have 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 treated surfaces is abrasion-resistant. No environmental pollution is caused by hardware components upon stipulated application. The grease used is environmentally friendly.

■ Environmental compatibility of the packaging:

We use disposable packaging material made of reinforced cardboard, steel, PVC packaging tape, cable straps, elastomer cord as well as returnable packaging, reusable 'Schäfer' boxes, crate pallets and 'EURO'-pallets.

■ Returning the packaging material:

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.

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.

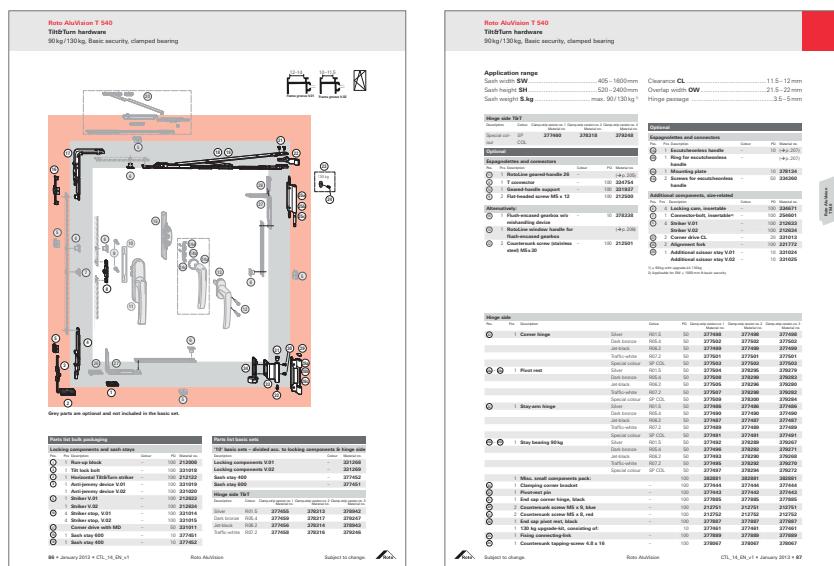
■ Protection against chemicals

Protect the components against substances which promote the corrosion (such as varnishes, solvents, acids and alkalis).

Explanation on the hardware overview chapter

The hardware overviews on the following pages are recommendations of Roto Frank AG.

The hardware overview chapter shows on the left page the single hardware components of the opening type in the overview and on the right page the respective parts list. Position numbers allow the allocation between overview and parts list.



The parts list includes all profile related versions of the AluVision hardware system. Technical details, special groove and clearance version information available upon request.

The actual scope of delivery depends on the ordered hardware configuration (height and width of the window). Handles have to be ordered separately.

Colour descriptions		Surface-finish
R01.1	Silver	anodised or coated
R01.2	Nickel silver	anodised or coated
R01.3	Titanium matt	anodised or coated
R01.5	Silver	anodised or coated
R01.6	Silver	coated
R03.1	Brass matt	anodised or coated
R04.1	Grey-brown	(RAL 8019) coated
R05.3	Medium bronze	anodised or coated
R05.5	Bronze	anodised or coated
R06.2	Jet-black	(RAL 9005) coated
R07.2	Traffic white	(RAL 9016) coated

All visible hardware components are coated, painted or rather powder-coated, or anodised. The bronze tone R05.4 corresponds to the same colour tone in coating or anodising. The black tone R06.2 corresponds to the same colour tone in coating or anodising.

All RAL colour tones are available as coating in special colours upon request (catalogue description: "SP COL" = special colour, price upon request).

Abbreviation	Explanation
III.	Illustration
TU-ON	Turn-Only hardware
TU-ON C	Turn-Only hardware, Comfort
TU-ON-adj	Turn-Only hardware, adjustable
TU-ONc	Turn-Only hardware with coupleable rebate hinge
T&T	Tilt&Turn hardware
SW	Sash width
S.kg-max	Maximum sash weight
SH	Sash height
S.kg	Sash weight
CL	Clearance
HH	Handle height
TI-ONt	Tilt-Only hardware / handle on top
TI-ONs	Tilt-Only hardware / handle on side
L	DIN left
w.	with
Mat. no.	Material number
MG	Material group
CL	Centre lock
w/o.	without
Pos.	Position number
R	DIN right
FWi	Frame width, inside
RC1	Resistance Class 1
RC2	Resistance Class 2
RC3	Resistance Class 3

Special anodisations / special colours

- Provided that AL 2, AL 3 & AL 4 are requested according to the Roto colour chart or the RAL colour chart, the following arrangement applies (with the exception of R01.1, R01.5, R05.4, R06.2 and R07.2 standard colours):

The visible AluVision hardware components are dispatched in processed unpainted condition to an anodising plant named by the customer. After the colouring is completed, the components are to be returned to us for assembly. Arising freight costs are payable by the buyer. The costs for the anodisation or colouring, as well as the risk for colour matching are assumed by the buyer.

- For the special anodisation or special colouring costs arising in Roto, net surcharges will be invoiced.

Abbreviation	Explanation
raw	Unpainted, uncoated
FHi	Frame height, inside
SP COL	Special colour
SEC	Security
MD	Mishandling device
DM	Dummy-mullion hardware (concealed lever-operated espagnolette)
DM-SM	Dummy-mullion hardware (surface-mounted geared-handle)
DM-SB	Dummy-mullion hardware (with shootbolt)
DM-SL	Dummy-mullion hardware (with slider)
Pcs	Pieces
TF	Tilt-First hardware
OW	Overlap width
OH	Overlap height
V.01	Frame groove version 01
V.02	Frame groove version 02
VdS	German association of property insurers
PQ	Packaging quantity

The figures show DIN right-hand versions. All dimensions stated in mm. Otherwise the values are indicated.

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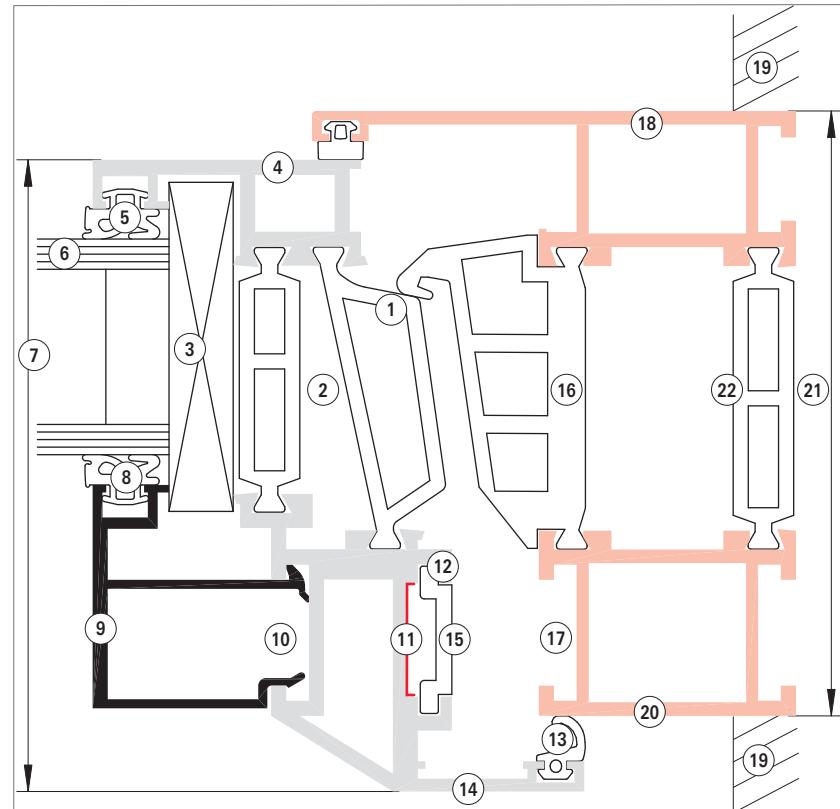
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Roto information

Aluminium window terminology

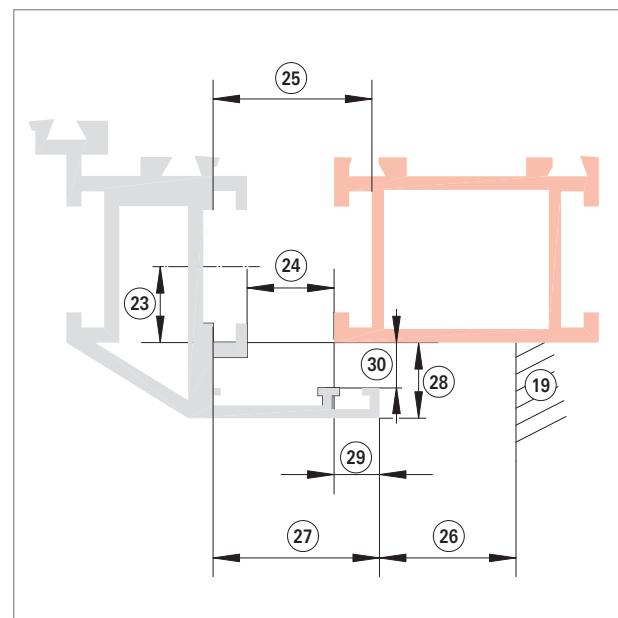
Sash profile

- ① Contact lip for central gasket
- ② Thermal break
- ③ Spacer blocking
- ④ Exterior profile shell (sash)
- ⑤ Glazing gasket, outside
- ⑥ Glazing (laminated glass)
- ⑦ Sash profile thickness
- ⑧ Glazing gasket, inside
- ⑨ Glazing-bead
- ⑩ Sash glazing-bead groove
- ⑪ Extended connecting-rod C-groove (ECC groove)
- ⑫ Connecting-rod C-groove
- ⑬ Overlap gasket
- ⑭ Interior profile shell (sash)
- ⑮ Connecting-rod



Dimensions

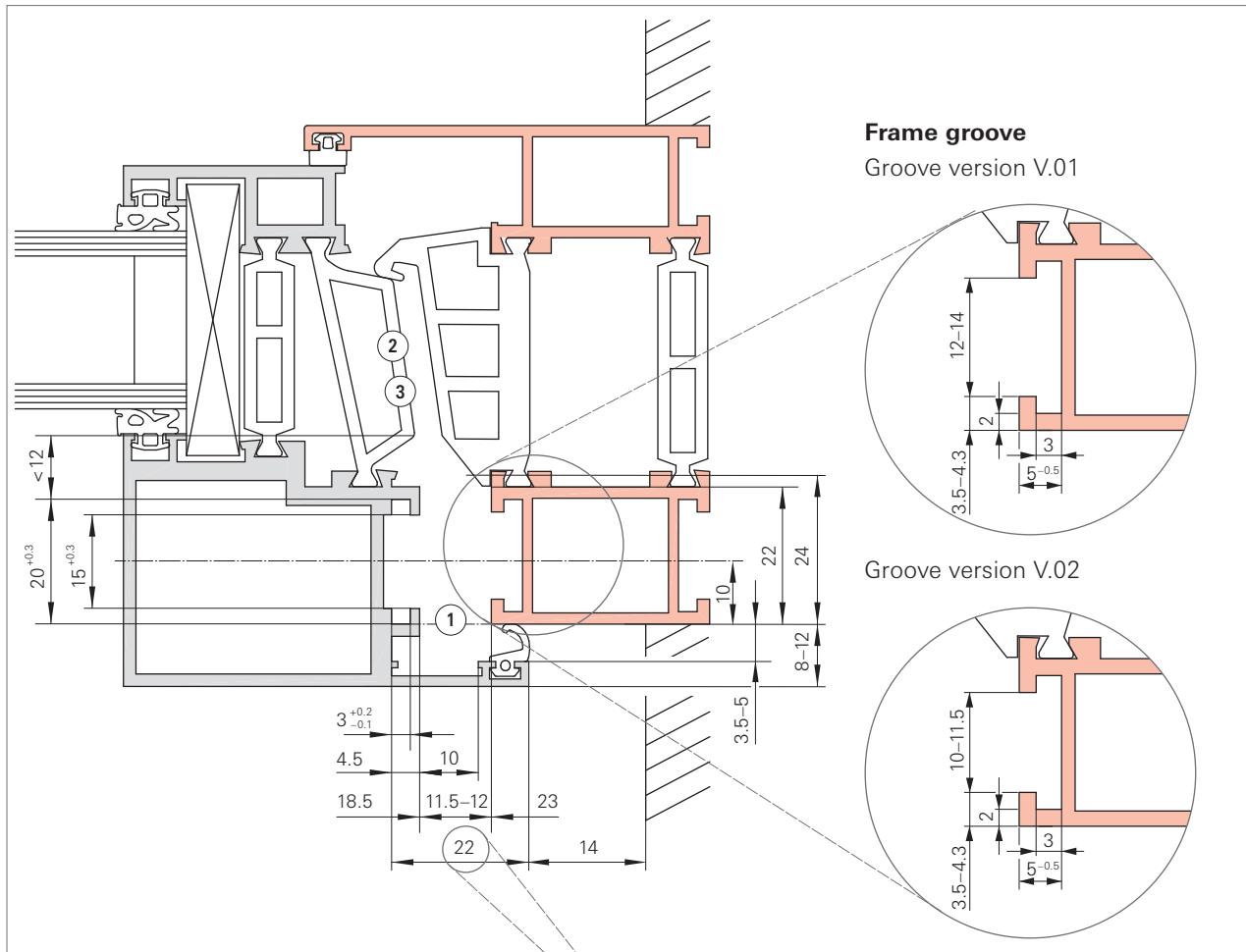
- ⑯ Hardware axis
- ⑰ Clearance
- ⑱ Chamber dimension (for hardware)
- ⑲ Frame clearance
- ⑳ Overlap width
- ㉑ Overlap height (including gasket)
- ㉒ Overlap coverage
- ㉓ Hinge passage



Roto information

Advice on the profile

Required space for 1-sashed window



NOTE!

All connecting-rod dimensions with respect to an overlap width of 22 mm. Upon deviating overlap widths, the connecting-rod dimensions have to be adjusted accordingly.

Required space and profile machining AluVision

Frame / sash

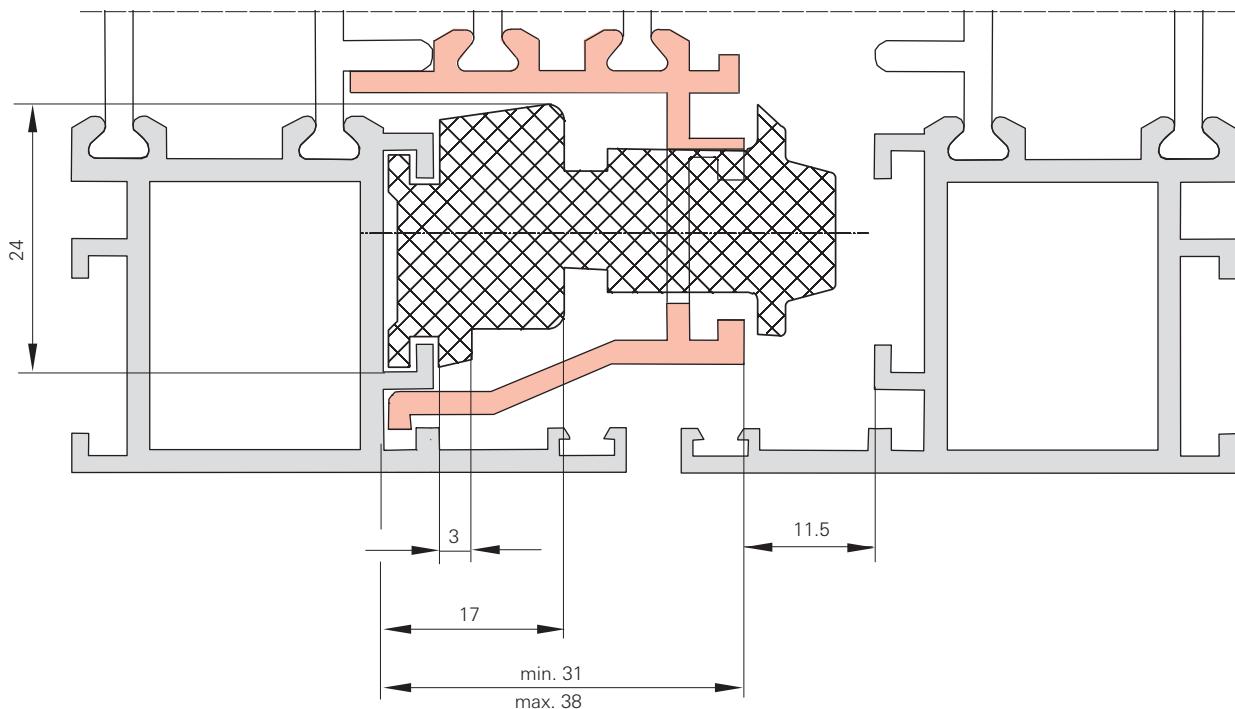
- ① It is imperative to adhere to the sash-frame alignment!
- ② 12° for a sash width of 370 mm, 9° for a sash width of 500 mm with a profile thickness of maximum 100 mm.
- ③ No contact lip from the central gasket etc. may extend beyond the connecting-rod C-groove plane.

Upon deviating dimensions, please consult with Roto! All dimensions in mm.

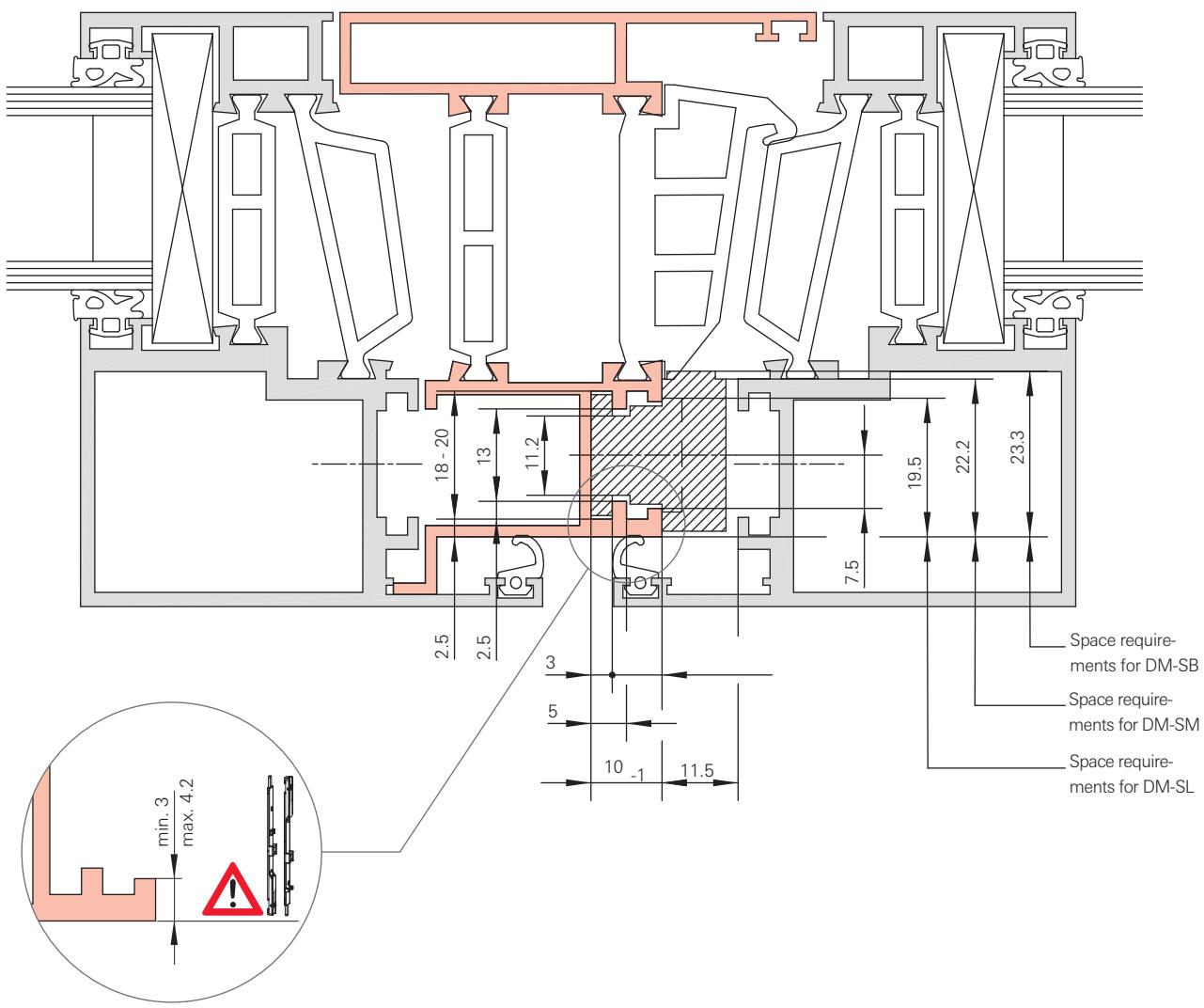
Roto information

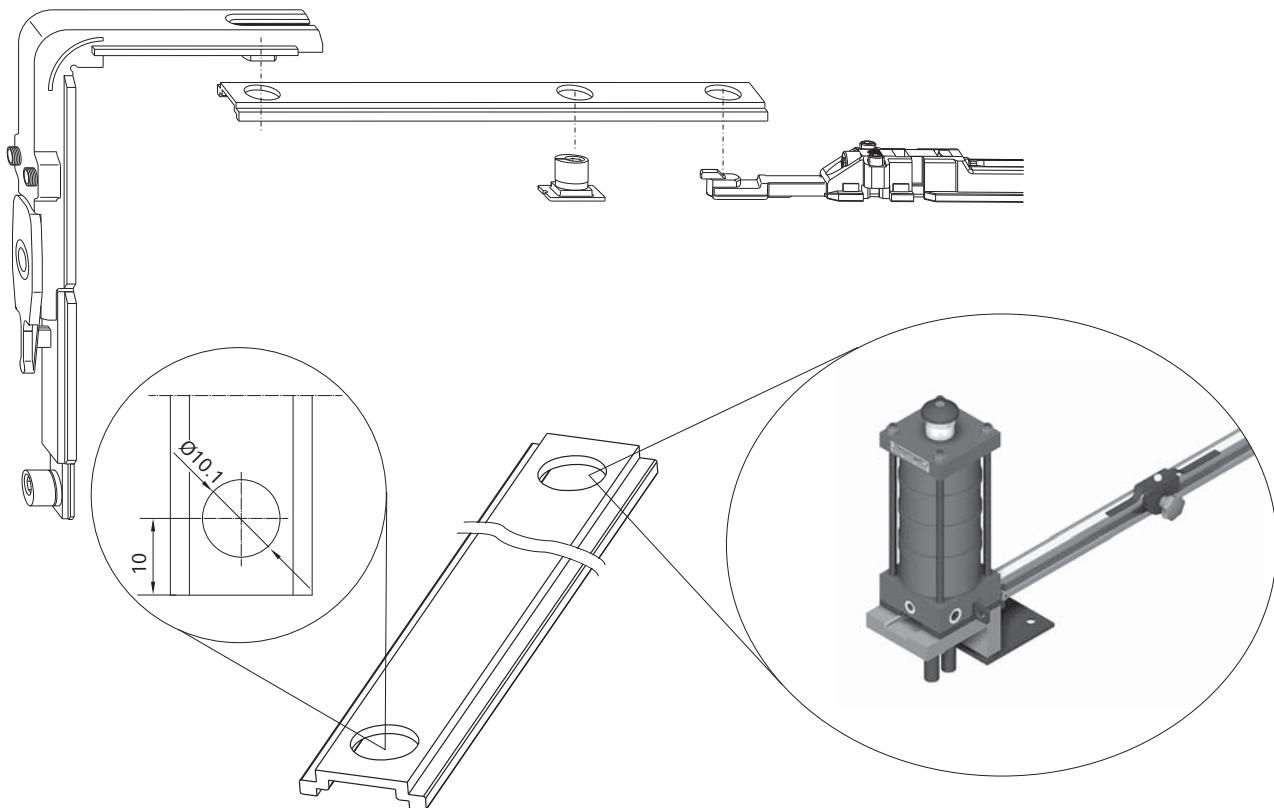
Advice on the profile

Required space for 2-sashed (dummy mullion profile without fixed centre post)



Espagnolette version DM-SM, DM-SL, DM-SB





Connecting-rod application

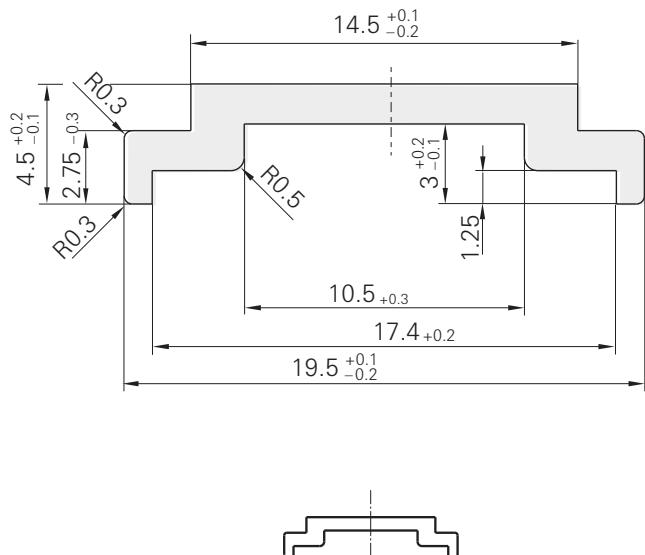
	(1) (made of ALU)
Standard groove	<input checked="" type="checkbox"/>
ECC groove	<input checked="" type="checkbox"/>

- ① Connecting-rod geometry applicable for sash profiles with and without extended connecting-rod C-groove (ECC groove).

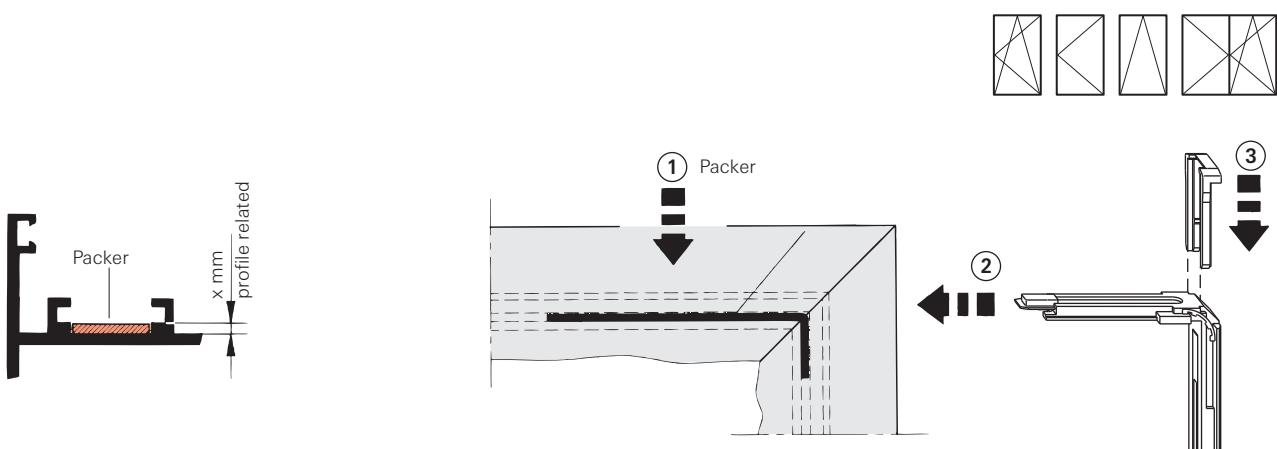
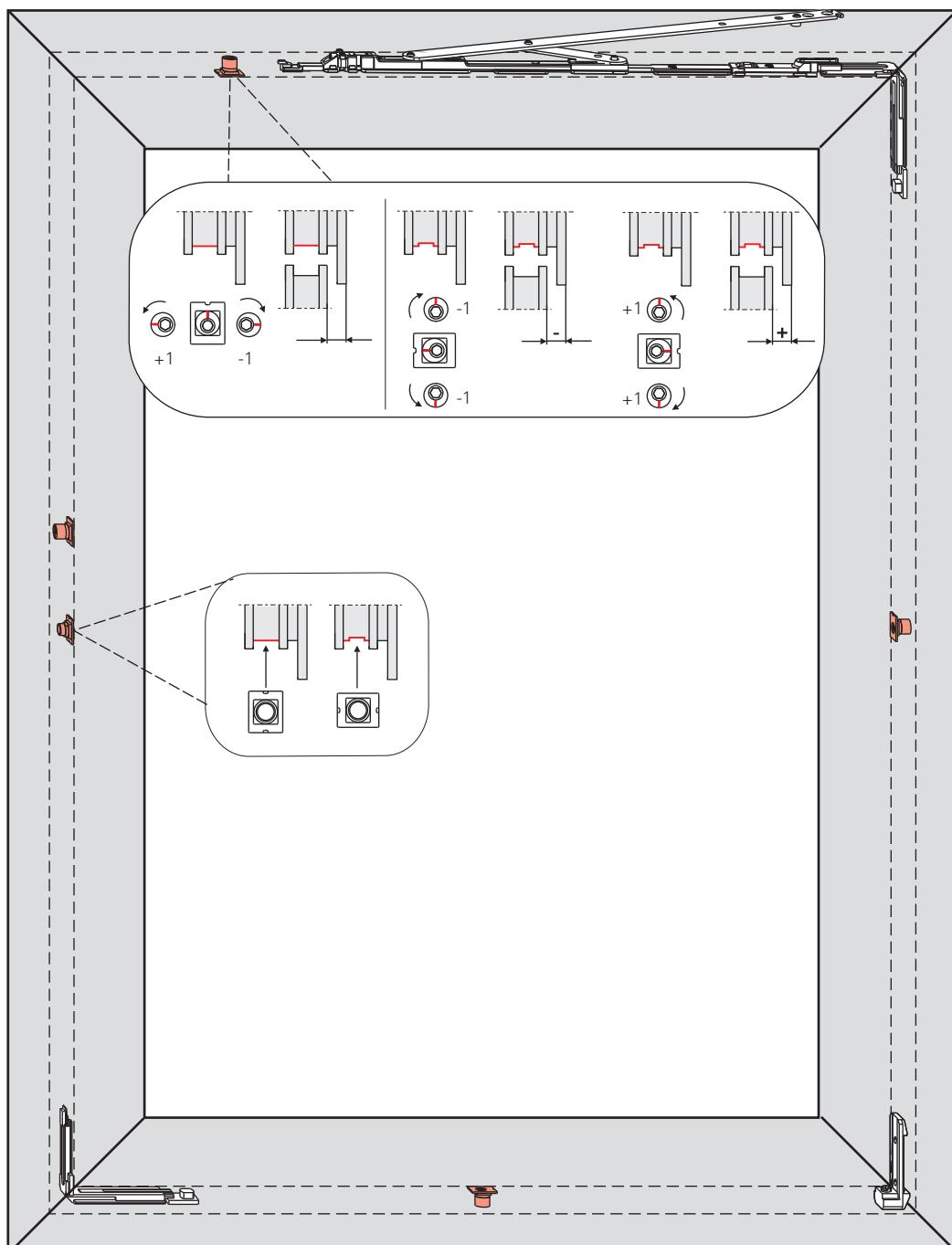
Ideal pre-conditions

With the 10 mm coupling point AluVision offers even more security against destruction and enables easier fabrication.

The product lines AluVision T 300, AluVision T 540 and AluVision Designo are compatible with almost all conventional profile systems.

**Special connecting-rod geometry**

- The locking cams can be inserted into the connecting-rod from underneath in an anti-jemmy manner
- Budget-priced locking components
- Gasket-compression adjustment via eccentric cams ($\pm 1 \text{ mm}$)
- The centre lock can be randomly located along the connecting-rod
- Continuous connecting-rod can be implemented on the handle side
- Material saving due to the connecting-rod's smaller cross section

**Installation situation of locking cam and gasket-compression adjustment**

Roto AluVision T 300	28
Tilt&Turn / Turn-Only hardware – 80 kg	28
Turn-Only hardware – 50 kg.....	29
Tilt-Only hardware, handle on top, 70 kg	30

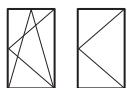
Application diagrams

Roto AluVision T 300

Tilt&Turn / Turn-Only hardware – 80 kg

Tilt&Turn and Turn-Only hardware 80 kg

T&T, TU-ON-adj



Limitation of sash formats depending on the glass thickness

Application range T&T

Sash width **SW** 390–1600 mm

Sash height **SH** 580–2400 mm

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

Application range TU-ON-adj

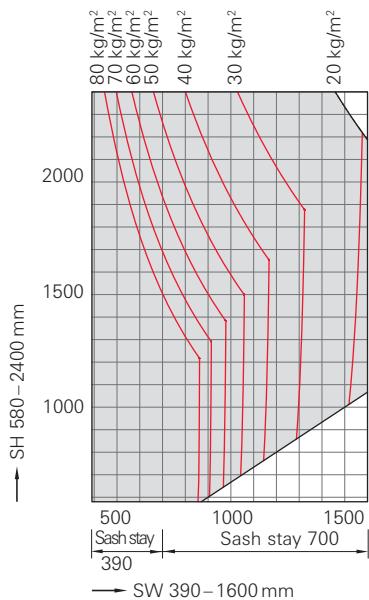
Sash width **SW** 370–1600 mm

Sash height **SH** 500–2400 mm

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

The information in the application diagram refers to the glass weight in kg/m².

1 mm/m² glass thickness = 2.5 kg



 = Impermissible application range

Turn-Only hardware – 50 kg

TU-ON



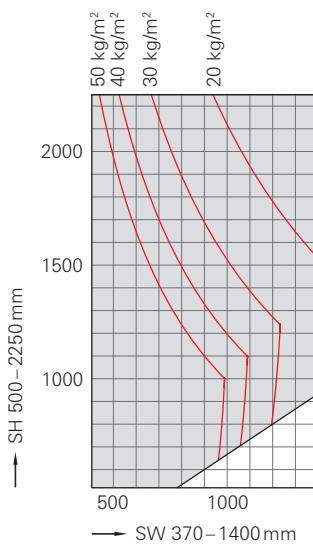
Limitation of sash formats depending on the glass thickness

Application rangeSash width **SW** 370–1400 mmSash height **SH** 500–2250 mmSash weight **S.kg** max. 50 kg

The information in the application diagram refers to the glass weight in kg/m².

1 mm/m² glass thickness = 2.5 kg

= Impermissible application range



Application diagrams

Roto AluVision T300

Tilt-Only hardware, handle on top, 70kg

Tilt-Only hardware 70 kg

TI-ON



Limitation of sash formats depending on the glass thickness

Application range

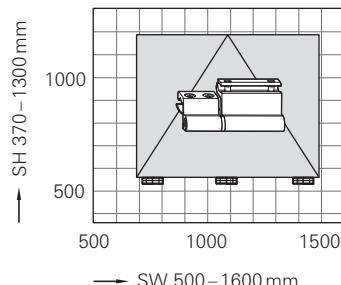
Sash width **SW** 500 – 1600 mm

Sash height **SH** 370 – 1300 mm

Sash weight **S.kg** max. 70 kg

The information in the application diagram refers to the glass weight in kg/m².

1 mm/m² glass thickness = 2.5 kg



= Impermissible application range

Everything that Tilt&Turn hardware needs.....	54
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Lever-operated espagnolette, concealed, coupleable	74

Simply well made: Roto AluVision T 300

Often an economical, universally applicable hardware solution for all Turn-Only and Tilt-Only applications is demanded. But without compromising the quality. And Roto has developed the AluVision T 300 exactly for this reason. The economically priced hardware system extends the product range for light and medium-weight window sashes, in particular for the southern European and Asian markets. Thanks to preassembled, clampable components, the installation time and expense is considerably reduced. Roto AluVision T 300 is the entry-level solution for many applications.

Never was adjustment easier.

The proof for the innovative Roto technology is the corner drive: The tool-free fastening is carried out by an insertable retaining fork. The mishandling device is already integrated. In addition, AluVision T 300 offers various adjusting possibilities. The sash can be laterally adjusted while still hinged and due to the new rebate hinge solution, the adjustment of Turn-Only sashes is particularly easy.

Rebate hinge solution**Stay-arm hinge with stay bearing****Corner hinge with pivot rest****Corner drive with retaining fork**

Just one preassembled clamp-strips for all profiles.

For AluVision T 300 we have developed a standardised, aesthetically attractive hinge side for Turn-Only and Tilt&Turn sashes. All components are preassembled as standard and can be mounted using just one clamp-strip. This increases the installation security and reduces your fabrication time. Stay-arm hinge and corner hinge, as well as the stay bearings and pivot rests are non-handed. Due to the fact that fewer components are used, AluVision T 300 also reduces stockkeeping.

Well-proven espagnolette with new handle design.

The handle gives a window its character. This central element is visible and tangible for customers displaying the quality and ease of operation of the fenestration technology. Roto offers you a proven geared-handle for AluVision T 300. It fulfils the RAL criteria and is presented with a new and extremely attractive handle design. Make use of this highlight for your sales success.

Ideal for Turn-Only and Tilt&Turn solutions.

A common requirement is to implement standard openings. Roto developed a uniform, aesthetically attractive hinge-side for all Tilt&Turn, Turn-Only and Tilt-Only windows with sash weights up to 80 kg. Left or right handed sashes? As you wish. Economical and practically universally applicable.

The system advantages at a glance:

- Economically priced product in Roto quality
- Opening types: Tilt&Turn, Turn-Only and dummy mullion sashes
- For sashes up to 80 kg
- Time-saving installation due to clampable hardware
- To be used in all frame grooves from 10 up to 14 mm
- Multiple adjusting capabilities
- Straightforward corner drive retention
- Use of jigs kept to a minimum
- New, elegant handle design
- Aesthetically pleasing hinges



- Applicable with aluminium profiles with:
Overlap width: 21.5 mm / 22 mm,
clearance: 11.5 mm,
hardware axis 9.5 / 10 mm
- Hinge passage: 3 – 5 mm
- Hardware certified according to QM 328
- Clampable hinge side in the frame groove with preassembled clamp-strips
- Gasket-compression adjustable via eccentric cams
- Same hinge-side aesthetics for Tilt&Turn and Turn-Only sashes, components non-handed, no visible screws, all RAL colour tones and other surface-finishes possible
- Corrosion resistance grade 5 (sash-stay rod made of stainless steel)
- T&T sash stay with integrated lateral adjustment while still hinged
- Turn-Only sash optionally with rebate hinge and integrated lateral adjustment while still hinged
- Lateral adjustment in the pivot rest via spacing fork, straightforward vertical adjustment in the clamping corner bracket
- Centre locks can be randomly located due to insertable locking cams
- Corner drive with integrated mishandling device
- T 300 geared-handle upon request with mishandling device against incorrect operation
- Concealed dummy-mullion hardware (sash with floating mullion) in the versions:
Alu DM (concealed lever-operated espagnolette for dummy mullion)
Alu DM-SB (shootbolt)
Alu DM-SM (surface-mounted lever-operated espagnolette)
Alu DM-SL (slider)

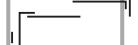
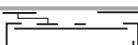
Roto AluVision T 300

Hardware set combinations

Tilt&Turn hardware

Example: T 300 in silver (V.01)					
SW SH	390 – 700 mm	701 – 1300 mm	1301 – 1600 mm		
580 – 1200 mm	Pcs Description Material no. 1 Locking components V.01 486495 1 Sash stay 390 490172 1 Hinge-side set T&T 488297	Pcs Description Material no. 1 Locking components V.01 486495 1 Sash stay 700 490171 1 Hinge-side set T&T 488297	Pcs Description Material no. 1 Locking components V.01 486493 1 Sash stay 700 490171 1 Hinge-side set T&T 488297 1 Additional scissor stay V.01 331024 1 Corner drive CL set V.01 334668		
1201 – 1800 mm		The above-mentioned components, combined with: Pcs Description Material no. 1 Corner drive CL set V.01 334668			
1801 – 2400 mm		The above-mentioned components, combined with: Pcs Description Material no. 2 Locking cam, insertable 334671 2 Striker V.01 490182			

	Espagnolette		
		Geared-handle Pcs Description Material no. 1 T 300 espagnolette 486161 1 T connector set 335184 1 or: Connector set 486273	

SW SH	390 – 700 mm	701 – 1300 mm	1301 – 1600 mm
580 – 1200 mm			
1201 – 1800 mm			
1801 – 2400 mm			

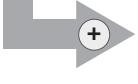
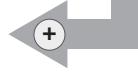
Note: The number of centre locks depends on the profile stability (profile system) and is to be adapted in accordance with the requirements resp. the stress test groups.

Roto AluVision T 300

Hardware set combinations

Turn-Only hardware

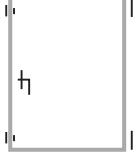
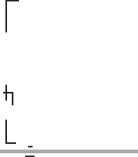
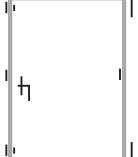
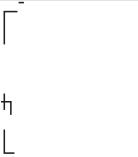
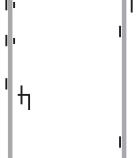
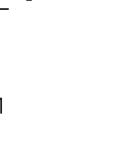
Example: T 300 in silver (V.01)

SW SH	370 – 1300 mm*		1301 – 1400 mm*
500 – 1200 mm	Pcs Description Material no. 1 Locking components V.01 486533 1 Turn-Only hinge 486480		Pcs Description Material no. 1 TU-ON C locking components V.01 486535 1 Turn-Only hinge 486480
1201 – 1800 mm		Above-mentioned components, combined with: Pcs Description Material no. 1 CL frame striker V.01 212768 1 CL sash striker 212770 1 Striker V.01 490182 1 Locking cam, insertable 334671	
1801 – 2250 mm		Above-mentioned components, combined with: Pcs Description Material no. 1 CL frame striker V.01 212768 1 CL sash striker 212770 1 Striker V.01 490182 1 Locking cam, insertable 334671	

* Note the different application diagrams for the different hinge sides.

Espagnolettes

	Geared-handle
	Pcs Description Material no. 1 T 300 espagnolette 486161 1 T connector set 335184 1 or: Connector set 486273

SW SH	370 – 1300 mm		1301 – 1400 mm
500 – 1200 mm			
1201 – 1800 mm			
1801 – 2250 mm			

Note: The number of centre locks depends on the profile stability (profile system) and is to be adapted in accordance with the requirements resp. the stress test groups.



Subject to change.

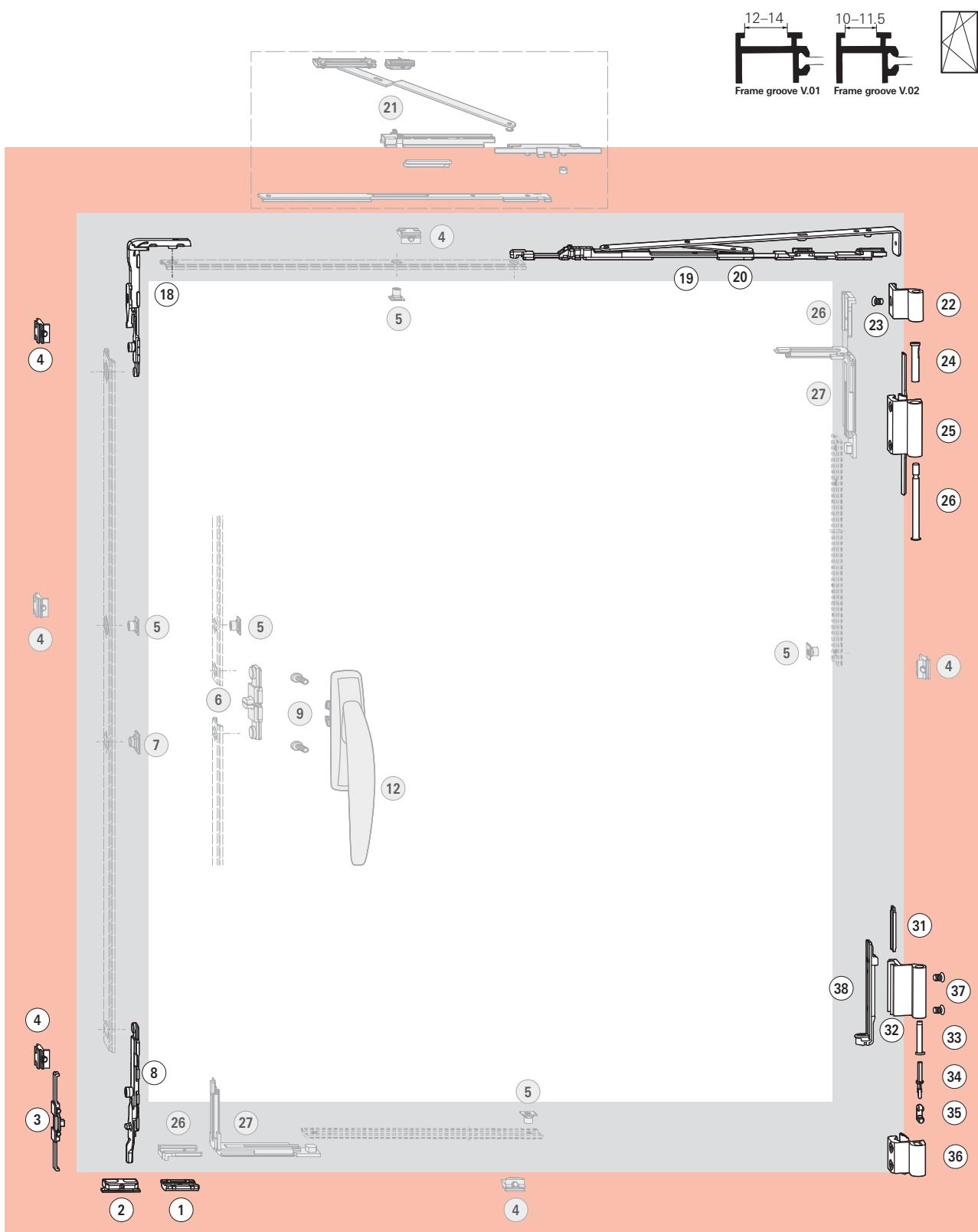
Roto AluVision

CTL_14_EN_v1 = January 2013 = 35

Roto AluVision T 300

Tilt&Turn hardware

80 kg, hinge passage 3–3.5 mm

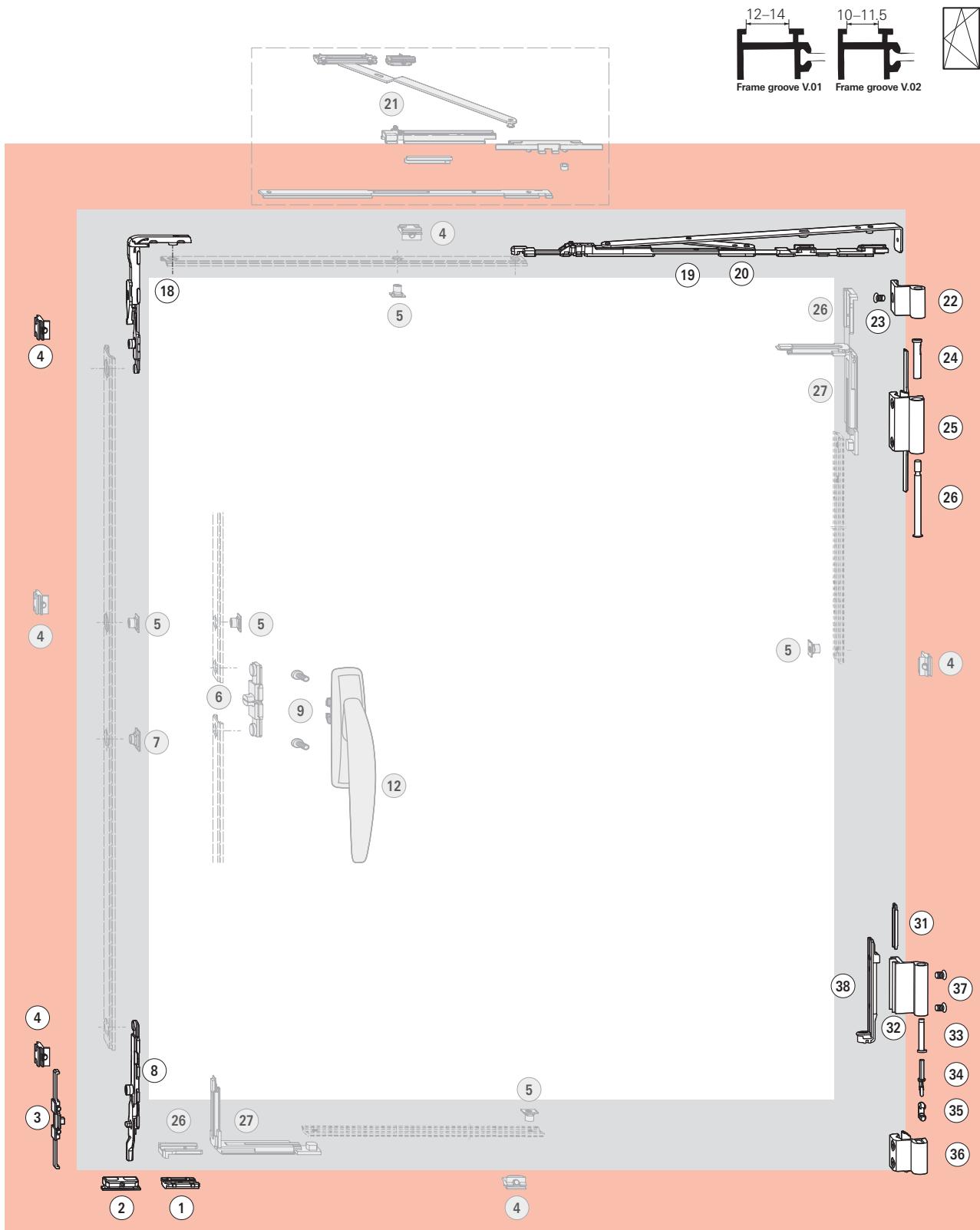


Grey parts are optional and not included in the basic set.

Roto AluVision T 300

Tilt&Turn hardware

80 kg, hinge passage 3.5–3.5 mm

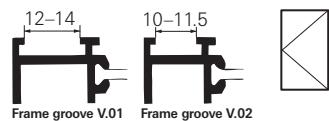


Grey parts are optional and not included in the basic set.

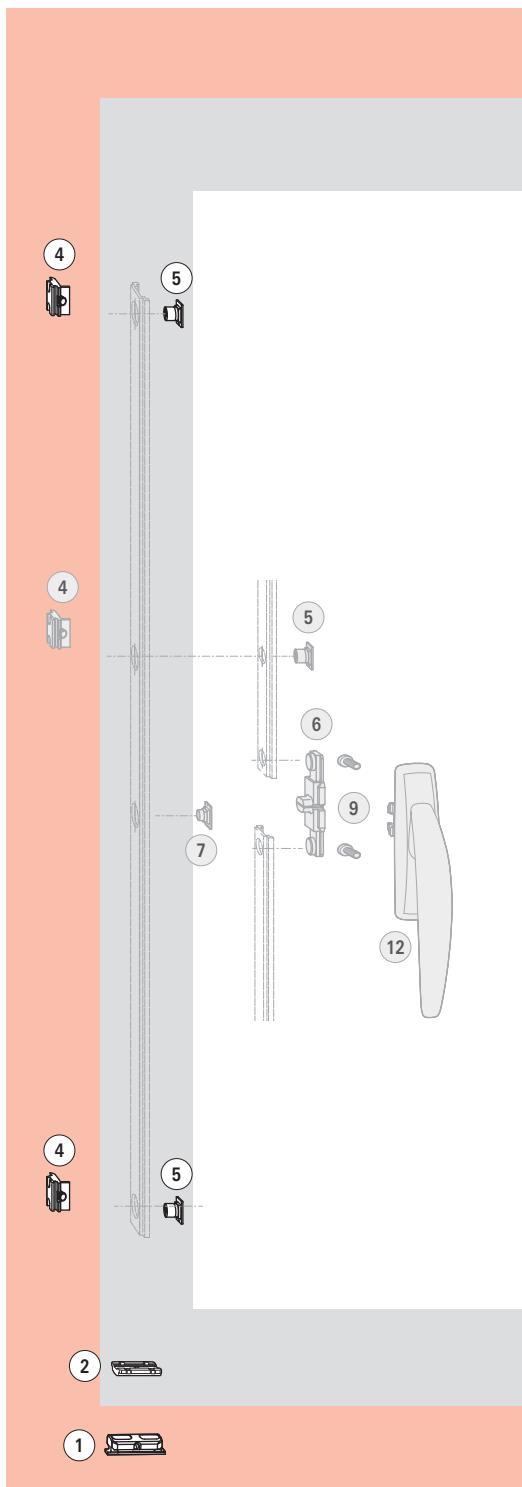
Roto AluVision T 300

Turn-Only hardware

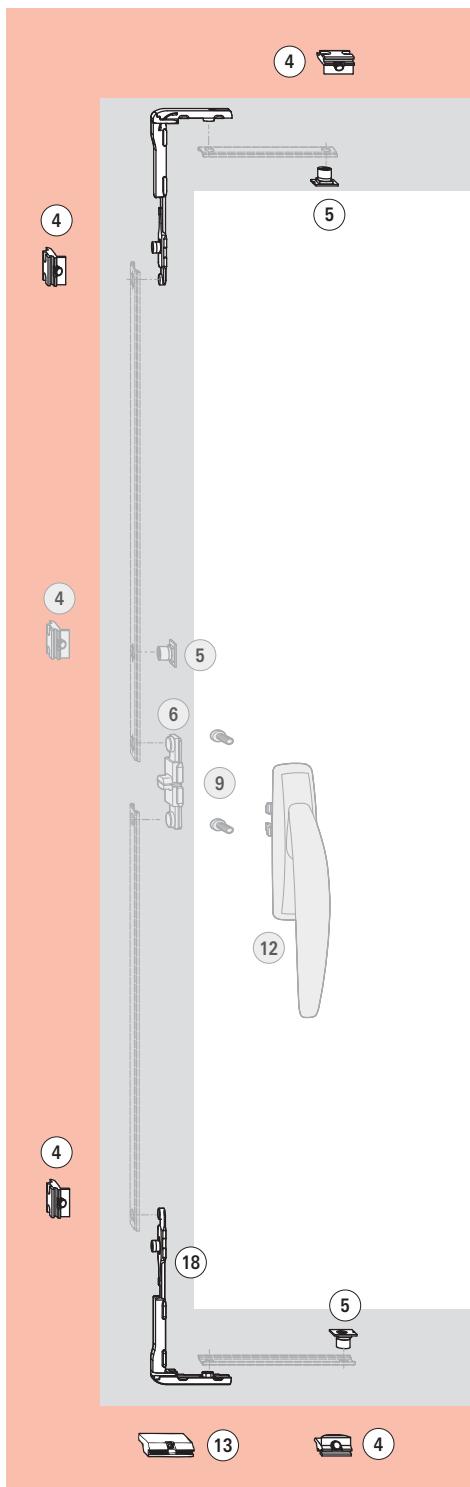
50 kg, with central locking system (TU-ON C), hinge passage 3.5–5 mm



TU-ON



TU-ON C



TU-ON & TU-ON C

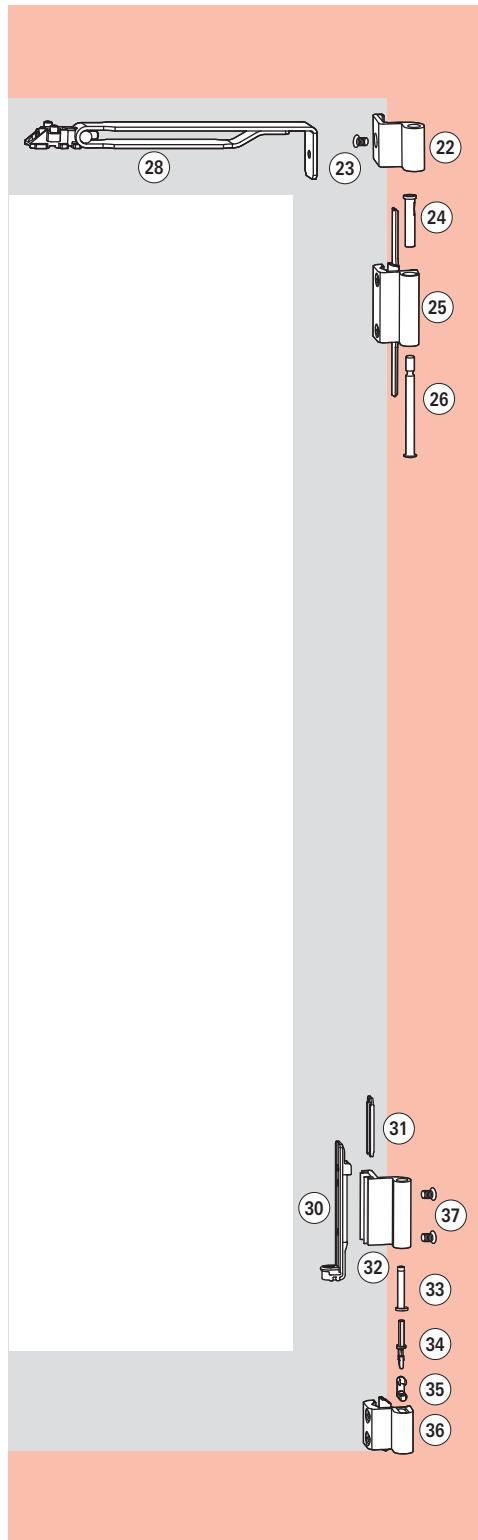
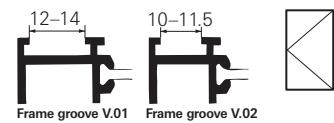


Grey parts are optional and not included in the basic set.

Roto AluVision T 300

Turn-Only hardware

80 kg, with rebate hinge (TU-ON-adj), hinge passage 3.5–5 mm



Roto AluVision T 300

Turn-Only hardware

80kg, with rebate hinge, hinge passage 3.5–5 mm

Application range

Sash width **SW** 370–1600 mm
 Sash height **SH** 500–2400 mm
 Sash weight **S.kg** max. 80 kg

Clearance **CL** 11.5–12 mm
 Overlap width **OW** 21.5–22 mm
 Hinge passage 3.5–5 mm

Basic sets

Hinge-side set T&T (axis dimension 10 mm)

Pos.	Pcs	Description	Colour	PQ	Material no.
–	1	Silver R01.5	10	486497	
		Jet-black R06.2	10	486498	
		Traffic-white R07.2	10	486499	
		Special colour SP COL	10	486456	
1	Rebate hinge	–	10	486537	

Hinge-side set T&T unpainted (axis dimension 10 mm)

Pos.	Pcs	Description	Colour	PQ	Material no.
–	1	Hinge-side set	raw	50	486500
		incl. small hardware items			
–	1	Rebate hinge	raw	10	486537

Bulk packaging

Hinge side T&T (axis dimension 10 mm)

Pos.	Pcs	Description	Colour	PQ	Material no.
(32)	1	Corner hinge	Silver R01.5	50	486463
		Jet-black R06.2	50	486464	
		Traffic-white R07.2	50	486465	
		Special colour SP COL	50	488265	
(36)	1	Pivot rest	Silver R01.5	50	486467
		Jet-black R06.2	50	486468	
		Traffic-white R07.2	50	486469	
		Special colour SP COL	50	488266	
(22)	1	Stay-arm hinge	Silver R01.5	50	486471
		Jet-black R06.2	50	486472	
		Traffic-white R07.2	50	486473	
		Special colour SP COL	50	488267	
(25)	1	Stay bearing	Silver R01.5	50	486475
		Jet-black R06.2	50	486476	
		Traffic-white R07.2	50	486477	
		Special colour SP COL	50	488268	
1	Misc. small components pack:	–	50	486454	
(38)	1	Clamping corner bracket	–	100	486485
(34)	1	Pivot-rest pin	–	100	486489
(31)	1	Spacing fork	–	100	486486
(37)	2	Countersunk screw M5 x 12	–	100	486487
(35)	1	Pivot-rest insert	–	100	486488
(33)	1	Corner hinge sleeve	–	100	486490
(26)	1	Stay-bearing pin	–	100	486491
(24)	1	Stay-bearing bush	–	100	486492
(23)	1	Countersunk screw M5 x 8	–	100	212752

Hinge side, unpainted T&T (axis dimension 10mm)

Pos.	Pcs	Description	Colour	PQ	Material no.
(36)	1	Pivot rest	raw	50	486470
(22)	1	Stay-arm hinge	raw	50	486474
(25)	1	Stay bearing	raw	50	486478
–	1	Installation bag	raw	50	488338
(32)	1	Corner hinge	raw	50	486466
–	1	Misc. small components pack	raw	50	486454

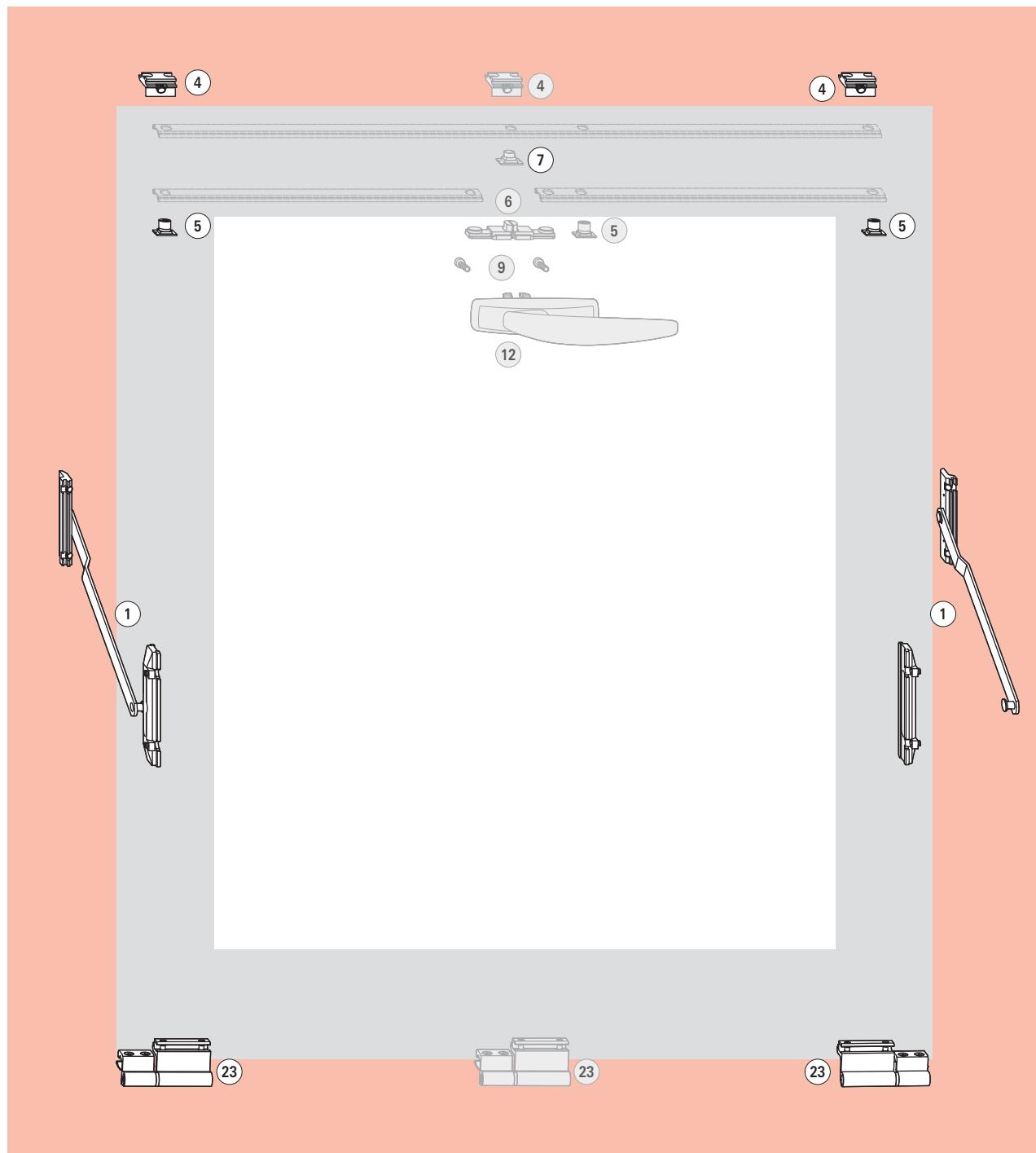
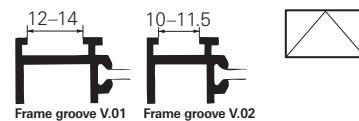
Rebate hinge

Pos.	Pcs	Description	Colour	PQ	Material no.
(28)	1	Rebate hinge	–	10	486537

Roto AluVision T 300

Tilt-Only hardware

70kg, hinge passage 3.5–3.5 mm



Grey parts are optional and not included in the basic set.

Roto AluVision T 300

Tilt-Only hardware

70kg, hinge passage 3.5–3.5 mm

Application range

Sash width **SW** 500–1600 mm
 Sash height **SH** 370–1300 mm
 Sash weight **S.kg** max. 70 kg

Clearance **CL** 11.5–12 mm
 Overlap width **OW** 21.5–22 mm
 Hinge passage 3.5–5 mm

Basic sets

'10' basic set (without hinge side)

Pos.	Pcs	Frame-groove version	Colour	PQ	Material no.
		TI-ON basic set V.01	–	490540	
		TI-ON basic set V.02	–	490541	

Hinge side TU-ON (preassembled R/L)

Pos.	Pcs	Description	Colour	PQ	Material no.
(23)	1	Turn-Only hinge side			
		(2 hinges)	Silver R01.5	10	486480
			Jet-black R06.2	10	486481
			Traffic-white R07.2	10	486482
			Unpainted, raw uncoated	25	486483
			Special colourSP COL	25	486484

Bulk packaging

Locking components

Pos.	Pcs	Description	Colour	PQ	Material no.
(4)	2	Striker V.01	–	100	490182
		Striker V.02	–	100	490183
(5)	2	Locking cam, insertable	–	100	334671
(1)	2	Tilt-Only stay-arm V.01	–	20	331022
		Tilt-Only stay-arm V.02	–	20	331023

Bulk packaging espagnolettes and connectors → S.204

Optional

Espagnolettes and connectors

Pos.	Pcs	Description	Colour	PQ	Material no.
(12)	1	T 300 espagnolette	Silver R01.5	10	486161
			Jet-black R06.2	10	486162
			Traffic-white R07.2	10	486163
			Unpainted, raw uncoated	50	486165
			Special colourSP COL	10	486164
(7)	1	Connector set	–	10	486273
(9)					

Alternatively: connector, size-related

Pos.	Pcs	Description	Colour	PQ	Material no.
(6)	1	T connector set	–	10	335184
(9)					

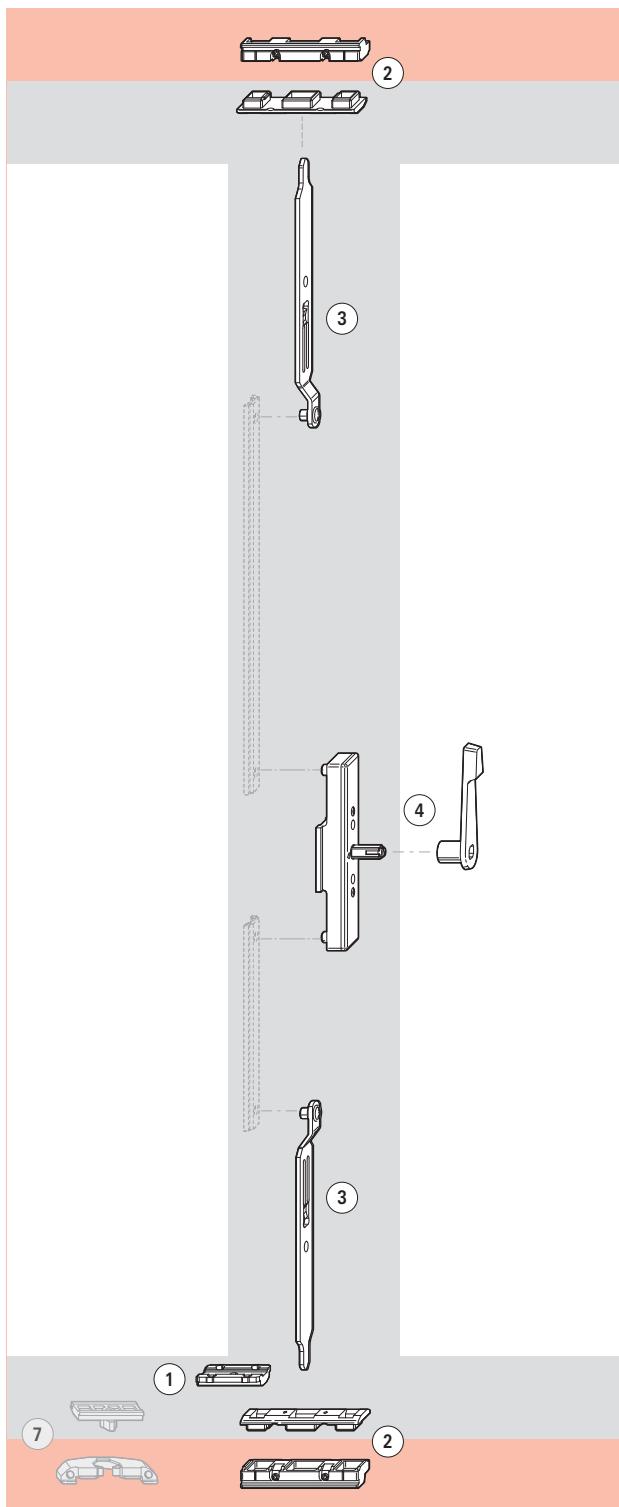
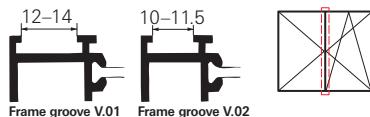
Additional components, size-related (not dep.)

Pos.	Pcs	Description	Colour	PQ	Material no.
(7)	1	Connector-bolt, insertable	–	100	254601
(5)	1	Locking cam, insertable	–	100	334671
(4)	1	Striker V.01	–	100	490182
		Striker V.02	–	100	490183

Roto AluVision T 300

Floating-mullion hardware

Lever-operated espagnolette, concealed (DM)



Grey parts are optional and not included in the basic set.

Application range

Sash width **SW** (passive sash: TU-ON)....370–1600 mm
Sash height **SH**.....max. 2400 mm
Clearance **CL**11.5–12 mm
Overlap width **OW**21.5–22 mm

Basic sets DM

'10' basic set Lever-operated espagnolette, concealed (DM)

Pos.	Pcs	Description	Colour	PQ	Material no.
		DM basic set VS.1/VB.5/6	–	20	212200

Bulk packaging DM

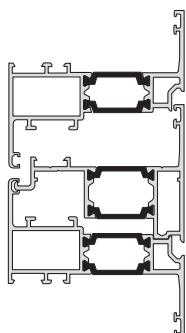
Locking components

Pos.	Pcs	Description	Colour	PQ	Material no.
④	1	DM lever-operated espagnolette, concealed	–	20	212264
③	2	Shootbolt-rod	VS1 –	100	212144
②	2	Multi-ported striker	VB 5/6 –	20	212120
①	1	Run-up block	–	100	212008

Optional:

Bullet catch

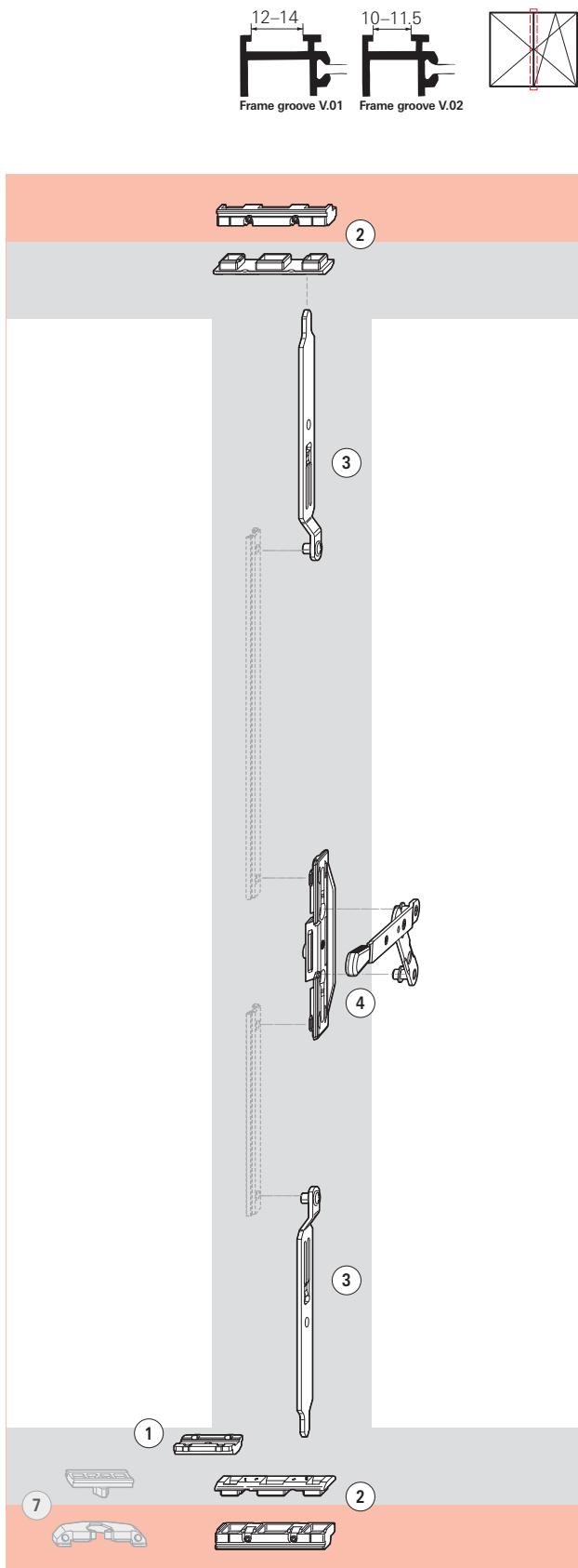
Pos.	Description	Material no.
⑦	Bullet catch set	334667



Roto AluVision T 300

Floating-mullion hardware

Lever-operated espagnolette, surface-mounted (DM-SM)



Grey parts are optional and not included in the basic set.

Application range

Sash width **SW** (passive sash: TU-ON) 370 – 1600 mm
 Sash height **SH** max. 2400 mm
 Clearance **CL** 11.5 – 12 mm
 Overlap width **OW** 21.5 – 22 mm

Basic sets DM-SM

'10' basic set Lever-operated espagnolette, surface-mounted (DM-SM)

Pos.	Description	Material no.
Basic set DM-SM	VS.1–VB.1/2	212201
	VS.1–VB.3/4	212202
	VS.1–VB.5/6	212203
	VS.2–VB.1/2	212204
	VS.2–VB.3/4	212205
	VS.2–VB.5/6	212206
	VS.3–VB.1/2	212207
	VS.3–VB.3/4	212208
	VS.3–VB.5/6	212209

Bulk packaging DM-SM

Locking components

Pos.	Pcs	Description	Colour	PQ	Material no.
(3)	2	Shootbolt-rod	VS1 –	100	212144
		Shootbolt-rod	VS2 –		212145
		Shootbolt-rod	VS3 –		212146
(2)	2	Multi-ported striker	VB 1/2 –	20	212118
		Multi-ported striker	VB 3/4 –		212119
		Multi-ported striker	VB 5/6 –		212120
(4)	1	DM-SM espagnolette, surface-mounted	–	20	256474
(1)	1	Run-up block	–	100	212008

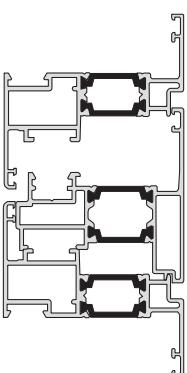
Optional:

Bullet catch

Pos.	Description	Material no.
(7)	Bullet catch set	334667

NOTE

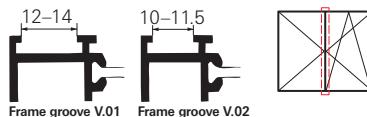
Floating-mullion hardware DM-SM can only be used for profiles with double-C-groove.



Roto AluVision T 300

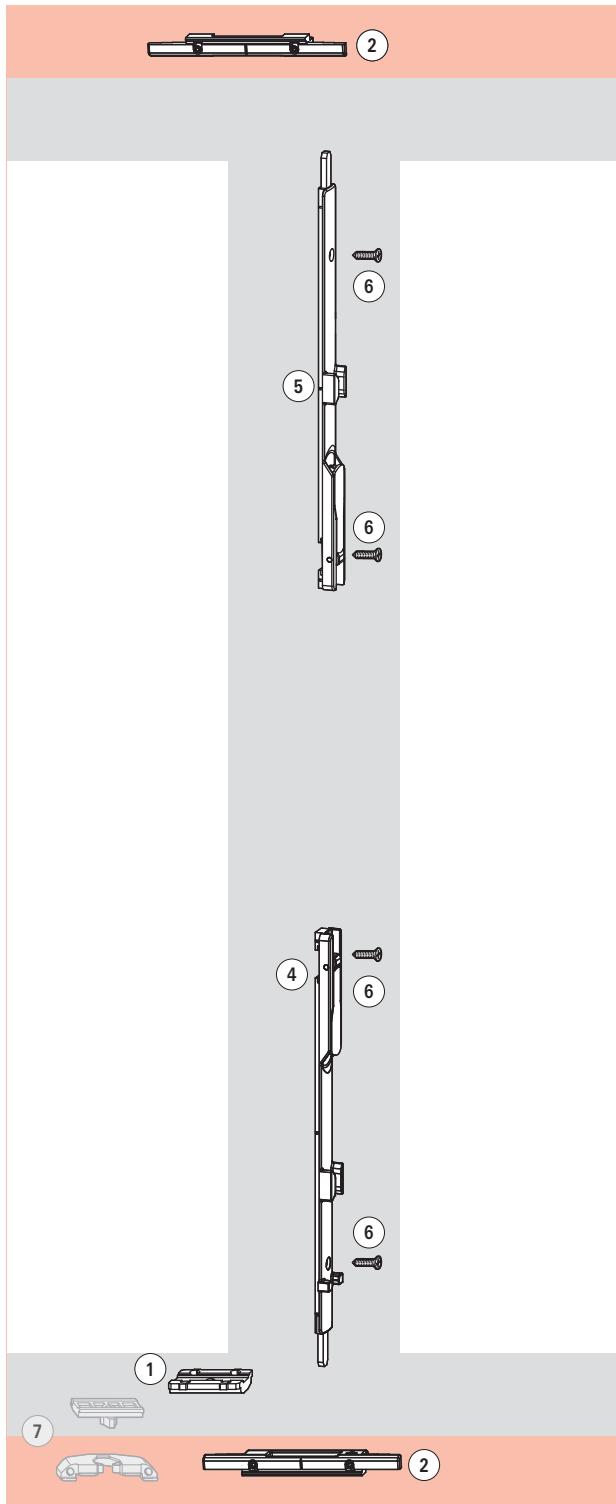
Floating-mullion hardware

Dummy mullion – shootbolt (DM-SB)



Application range

Sash width **SW** (passive sash: TU-ON)....370–1600 mm
Sash height **SH**.....max. 2400 mm
Clearance **CL**11.5–12 mm
Overlap width **OW**.....21.5–22 mm



Grey parts are optional and not included in the basic set.

Basic sets DM-SB

'10' basic set Dummy mullion – shootbolt (DM-SB)

Pos.	Pcs	Description	Colour	PQ	Material no.
		DM-SB basic set	–	—	301544

Bulk packaging DM-SB

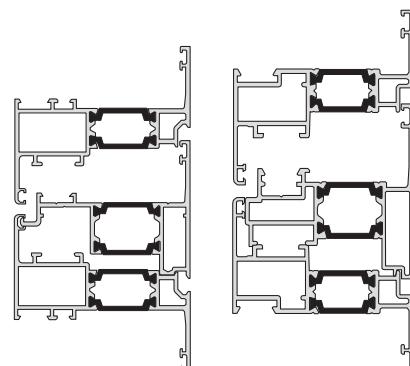
Locking components

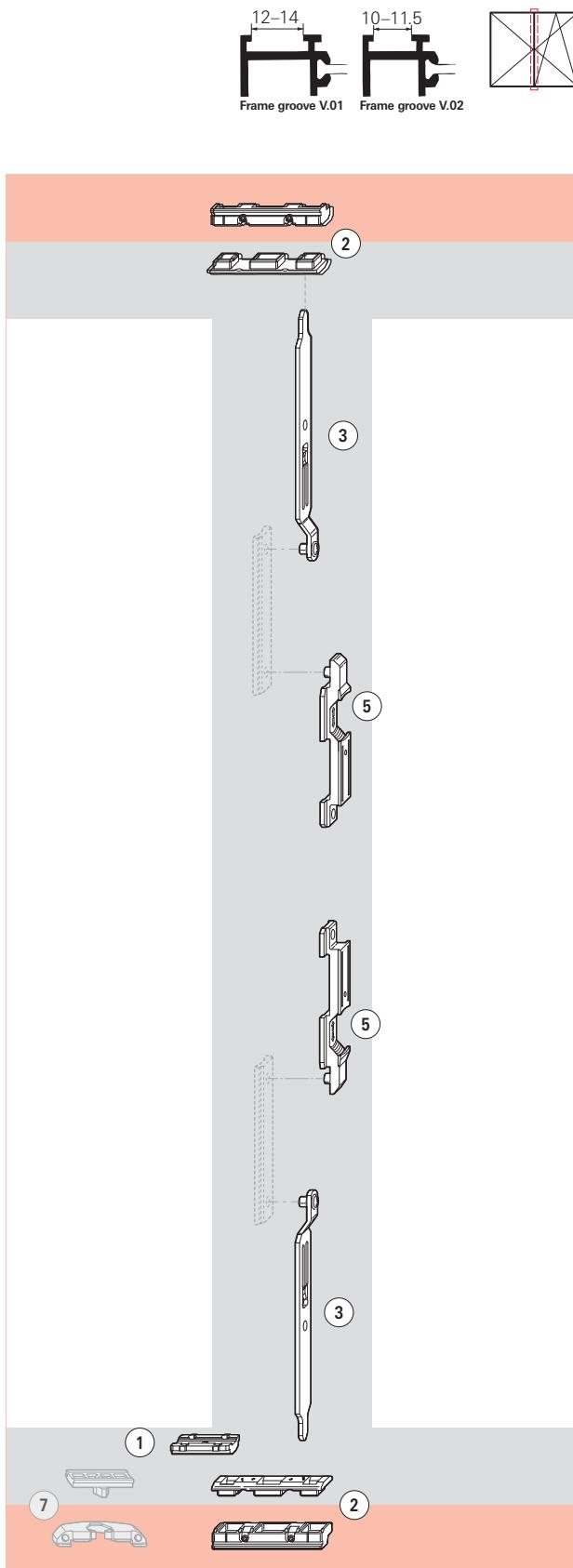
Pos.	Pcs	Description	Colour	PQ	Material no.
(5)	1	DM shootbolt, top	–	50	355560
(4)	1	DM shootbolt, bottom	–	50	355561
(2)	2	DM-SB Multi-ported striker	–	100	355559
(6)	4	Countersunk screw 3.9 x 25	–	100	213006
(1)	1	Run-up block	–	100	212008

Optional:

Bullet catch

Pos.	Description	Material no.
(7)	Bullet catch set	334667





Grey parts are optional and not included in the basic set.

Application range

Sash width **SW** (passive sash: TU-ON)....370–1600 mm
 Sash height **SH**.....max. 2400 mm
 Clearance **CL**11.5–12 mm
 Overlap width **OW**21.5–22 mm

Basic sets DM-SL

'10' basic set Slider (DM-SL)

Pos.	Description	Material no.
	DM-SL basic set VS.1–VB.1/2	212210
	VS.1–VB.3/4	212211
	VS.1–VB.5/6	212212
	VS.2–VB.1/2	212213
	VS.2–VB.3/4	212214
	VS.2–VB.5/6	212215
	VS.3–VB.1/2	212216
	VS.3–VB.3/4	212217
	VS.3–VB.5/6	212218

Bulk packaging DM-SL

Locking components

Pos.	Pcs	Description	Colour	PQ	Material no.
(3)	2	Shootbolt-rod	VS1 –	100	212144
		Shootbolt-rod	VS2 –		212145
		Shootbolt-rod	VS3 –		212146
(2)	2	Multi-ported striker	VB 1/2 –	20	212118
		Multi-ported striker	VB 3/4 –		212119
		Multi-ported striker	VB 5/6 –		212120
(5)	2	Slider	VS1 –		212141
		Slider	VS2 –		212142
		Slider	VS3 –		121143
(1)	1	Run-up block	–	100	212008

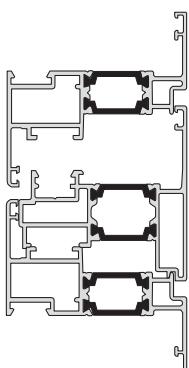
Optional:

Bullet catch

Pos.	Description	Material no.
(7)	Bullet catch set	334667

NOTE

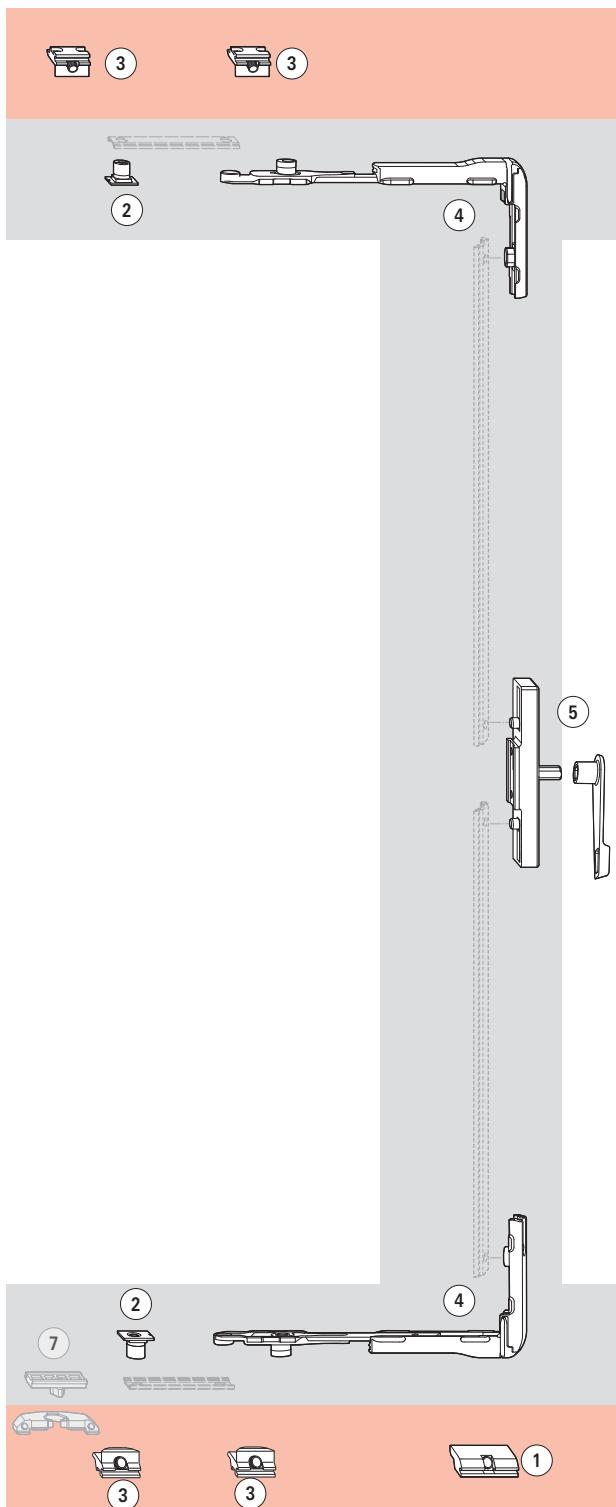
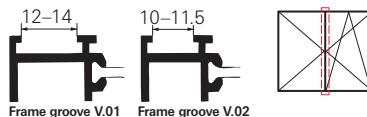
Floating-mullion hardware DM-SL can only be used for profiles with double-C-groove.



Roto AluVision T 300

Floating-mullion hardware

Lever-operated espagnolette, concealed, coupleable



Grey parts are optional and not included in the basic set.

Application range

Sash width **SW** (passive sash: TU-ON)....370–1600 mm
 Sash height **SH**.....max. 2400 mm
 Clearance **CL**11.5–12 mm
 Overlap width **OW**.....21.5–22 mm

Basic sets

Dummy mullion with central locking, TU-ON/TU-ON w/o hinge side

Pos.	Description	Colour	PQ	Material no.
	TU-ON C basic set V.01	–	100	486535
	TU-ON C basic set V.02	–	20	486536

Bulk packaging

Locking parts of the central locking system

Pos.	Pcs	Description	Colour	PQ	Material no.
(1)	1	Run-up wedge V.01	–	100	490184
		Run-up wedge V.02	–	20	490185
(2)	2	Locking cam, insertable	–	100	334671
(3)	4	Striker V.01	–	100	490182
		Striker V.02	–	100	490183
(4)	2	Corner drive w/o MD	–	50	490175
(5)	1	DM lever-operated espagnolette, concealed	–	20	212264

Optional:

Bullet catch

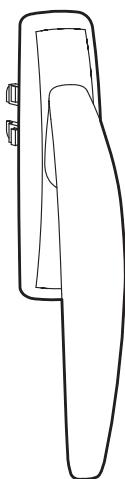
Pos.	Description	Material no.
(7)	Bullet catch set	334667

Espagnolette T 300	204
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RotoLine espagnolettes	205
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RotoSwing window handles with logo.....	211

Espagnolettes, connector sets & window handles

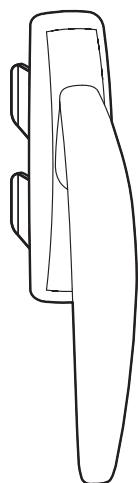
Espagnolette T 300

Connector sets



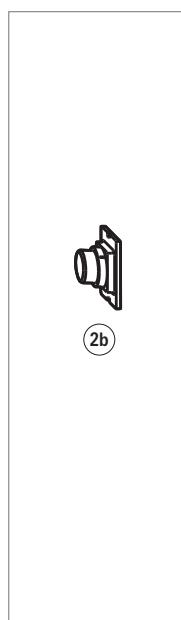
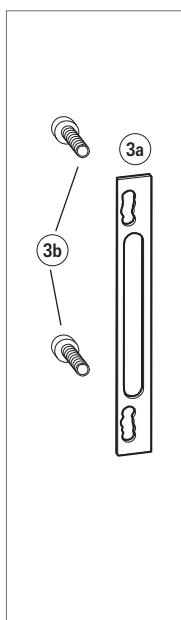
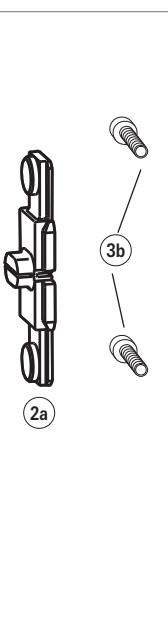
Espagnolette T 300

Colour description	Colour	PQ	Material no.
Silver	R01.5	10	486161
Jet-black	R06.2	10	486162
Traffic-white	R07.2	10	486163
Unpainted, uncoated	raw	50	486165
Special colour	SP COL	10	486164



T 300 Reverse-action espagnolette

Colour description	Colour	PQ	Material no.
Silver	R01.5	10	486277
Jet-black	R06.2	10	490162
Traffic-white	R07.2	10	490163
Unpainted, uncoated	raw	50	490164
Special colour	SP COL	10	490235



Connector set for RotoLine espagnolette 26

Description	PQ	Material no.
Connector set AluVision	10	335184
contains T connector and 2 screws		

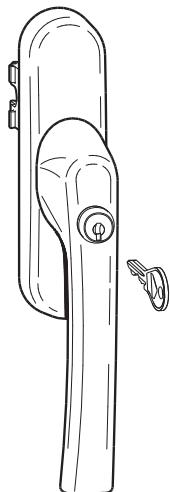
Espag. accessories set AluVision T 540-10 10 **335002**
Geared-handle support and 2 screws

Connector set bulk packaging, parts list

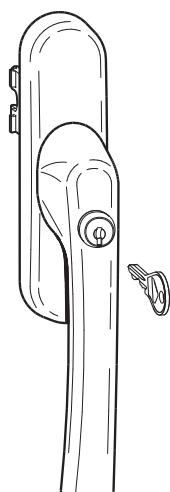
Pos.	Pcs	Description	PQ	Material no.
2a	1	T connector	100	334754
3b	2	Flat-headed screw M5 x 12	100	212500
3a	2	Geared-handle support	100	331937
2b	1	Connector-bolt, insertable		
		Zn alloy	100	254601
		PVC	100	334672

**RotoLine espagnolette 26 with logo**

Description	Colour	PQ	Material no.
Silver	R01.1	10	238671
Silver	R01.5	10	377474
Dark bronze	R05.4	10	377478
Jet-black	R06.2	10	377475
Traffic-white	R07.2	10	377477
Special colour	SP COL	10	377479
Unpainted, uncoated	raw	10	632981

**RotoLine espagnolette 26, 100 Nm, lockable, with logo**

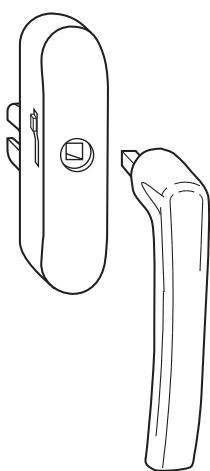
Description	Colour	PQ	Material no.
Silver	R01.1	10	238692
Silver	R01.5	10	378843
Dark bronze	R05.4	10	378917
Jet-black	R06.2	10	378844
Traffic-white	R07.2	10	378916
Special colour	SP COL	10	378918
Unpainted, uncoated	raw	10	238700

**RotoLine espagnolette 26, Tilt-First, 100 Nm, lockable, with logo**

Description	Colour	PQ	Material no.
Silver	R01.1	10	238708
Silver	R01.5	10	378919
Dark bronze	R05.4	10	378923
Jet-black	R06.2	10	378920
Traffic-white	R07.2	10	378922
Special colour	SP COL	10	378924
Unpainted, uncoated	raw	10	238716

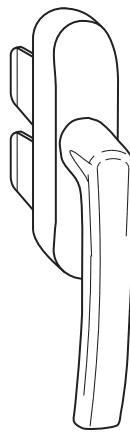
Espagnolettes, connector sets and window handles

Flush-encased gearbox, RotoLine window handles without logo



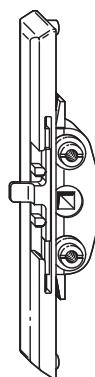
RotoLine escutcheon plate for service handle 26

Description	Colour	PQ	Material no.
Silver	R01.1	10	570458
Silver	R01.5	10	570459
Silver, powder-coated	R01.6	10	570457
Dark bronze	R05.4	10	570463
Jet-black	R06.2	10	570462
Traffic-white	R07.2	10	570460
Special colour	SP COL	10	570464
Unpainted, uncoated	raw	10	570461



RotoLine reverse-action espagnolette 26 with logo

Description	Colour	PQ	Material no.
Silver	R01.5	10	378925
Dark bronze	R05.4	10	378929
Jet-black	R06.2	10	378926
Traffic-white	R07.2	10	378928
Special colour	SP COL	10	378930
Unpainted, uncoated	raw	10	238742



9



9a

Flush-en. gearbox w. integr. mishandling device f. window handles with 24 mm spindle length / 10 mm lugs

Description	PQ	Material no.
9 Flush-encased gearbox AluVision	10	378337

Flush-encased gearbox w/o mishandling device for window handles

with 24 mm spindle length / 10 mm lugs

Description	PQ	Material no.
9a Flush-encased gearbox w/o mishandling device	10	378338

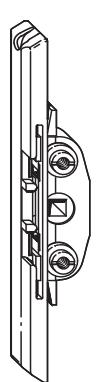
Note

RotoLine window handles for flush-encased gearboxes can be found in the **Handle catalogue BK 5 EN**.

The spindle of 30 resp. 35 mm must be shortened to a length of 24 mm.



10



10a

SEC flush-enc. gearbox w. integr. mishandling device f. window handles with 24 mm spindle length / 10 mm lugs (ill. 9)

Description	PQ	Material no.
10 SEC flush-encased gearbox AluVision	10	607736

Flush-enc. gearbox w/o mishandling device f. window handles

with 24 mm spindle length / 10 mm lugs (ill. 9a)

Description	PQ	Material no.
10a SEC flush-enc. gearbox w/o mishandling device	10	457210

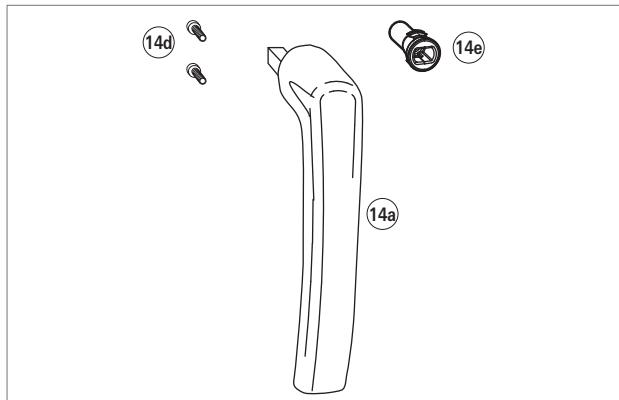
Note

RotoLine window handles for flush-encased gearboxes can be found in the **Handle catalogue BK 5 EN**.

The spindle of 30 resp. 35 mm must be shortened to a length of 24 mm.

Espagnolettes, connector sets and window handles

RotoLine window handles, escutcheonless handle



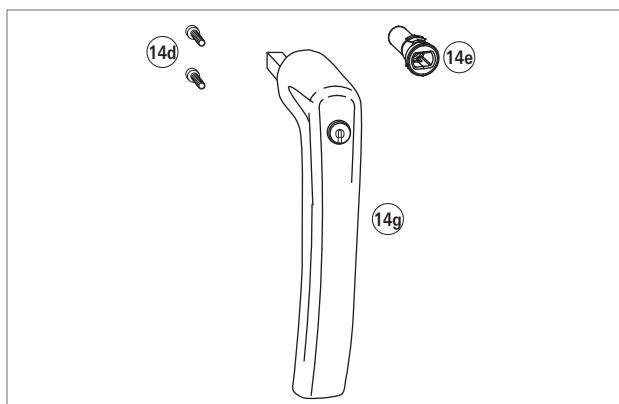
RotoLine handle, escutcheonless¹⁾

Pos.	Pcs	Description	Colour	PQ	Material no.
14a		Silver	R01.1	10	623294
		Silver	R01.5	10	377908
		Dark bronze	R05.4	10	377912
		Jet-black	R06.2	10	377909
		Traffic-white	R07.2	10	377911
		Stainless-steel design	SSD	10	619288
		Special colour	SP COL	10	377913

Packaging contains:

(14d) 2 Screws for escutcheonless handle

(14e) 1 Transport protection



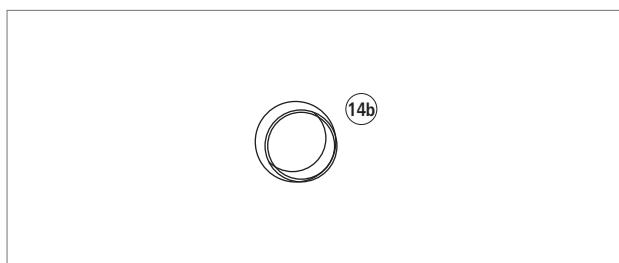
RotoLine handle, escutcheonless, lockable¹⁾

Pos.	Pcs	Description	Colour	PQ	Material no.
14g		Silver	R01.1	10	623475
		Silver	R01.5	10	377914
		Dark bronze	R05.4	10	377918
		Jet-black	R06.2	10	377915
		Traffic-white	R07.2	10	377917
		Stainless-steel design	SSD	10	619289
		Special colour	SP COL	10	377919

Packaging contains:

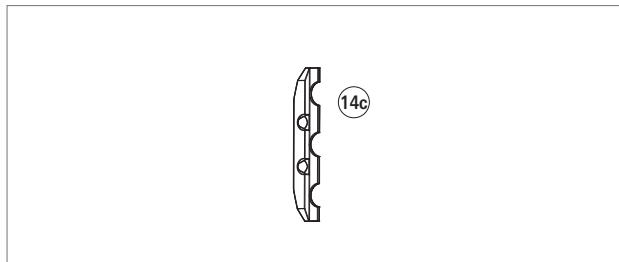
(14d) 2 Screws for escutcheonless handle

(14e) 1 Transport protection



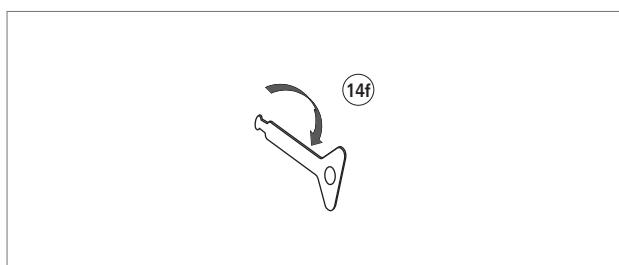
Ring for escutcheonless handle

Pos.	Pcs	Description	Colour	PQ	Material no.
14b		Silver	R01.1	10	623476
		Silver	R01.5	10	377979
		Dark bronze	R05.4	10	377983
		Jet-black	R06.2	10	377980
		Traffic-white	R07.2	10	377982
		Stainless-steel design	SSD	10	619289
		Special colour	SP COL	10	377984



Mounting plate for escutcheonless handle

Pos.	Pcs	Description	Colour	PQ	Material no.
14c		Mounting plate for Escutcheonless handle	–	10	378134
not dep.		Mounting plate for overlap width > 22 mm	–	10	374726



Pull key for escutcheonless handle

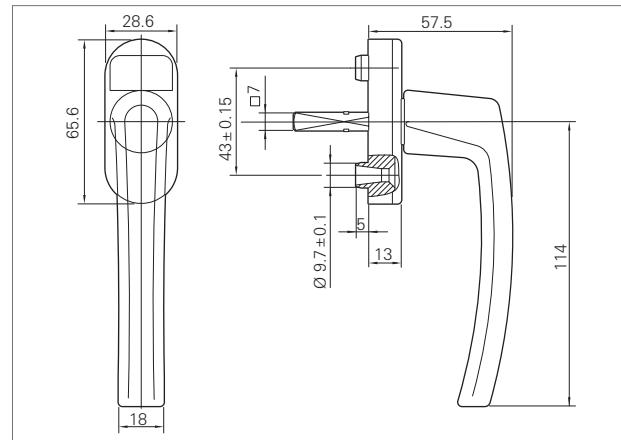
Pos.	Pcs	Description	Colour	PQ	Material no.
14f		Pull key for escutcheonless handle	–	10	377995

for removing the transport protection

1) The escutcheonless handle can only be used with profile systems with an overlap height (OH) ≥ 10 mm.

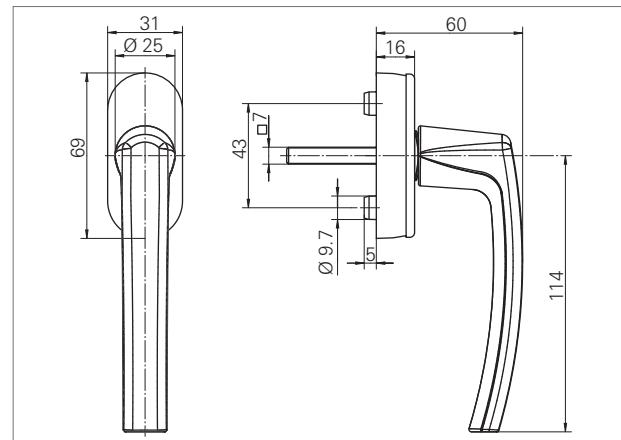
Espagnolettes, connector sets and window handles

RotoLine window handles



RotoLine window handle, 30 mm spindle length, with Ø 10 mm lugs – **without Roto logo**

Handle and escutcheon cover colour	Roto colour no.	Base plate colour	Material group	PQ	Material no.
Silver, anodised	R01.1	Silver-grey	17	20	228079
Nickel silver, anodised	R01.2	Beige	17	20	228081
Titanium-matt, anodised	R01.3	Grey	17	20	227982
Brass matt, anodised	R03.1	Brass-coloured	17	20	228083
RAL 8019 Grey-brown	R04.1	Brown	17	20	227986
Medium bronze, anodised	R05.3	Medium bronze	17	20	228086
Bronze, anodised	R05.5	Bronze	17	20	228088
RAL 9016 Traffic-white, powder-coated	R07.2	White	17	20	227990

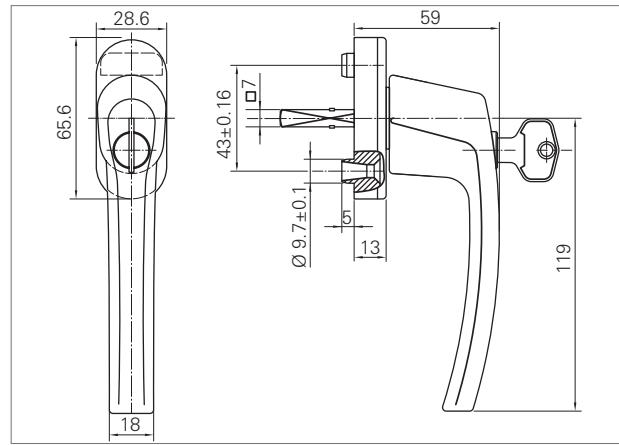


RotoLine window handle Secustik®, 32 mm spindle length, with Ø 10 mm lugs – **without Roto logo**

Handle and escutcheon cover colour	Roto colour no.	Base plate colour	Material group	PQ	Material no.
Silver, anodised	R01.1	Silver-grey	17	20	351756
Nickel silver, anodised	R01.2	Beige	17	20	351757
Titanium-matt, anodised	R01.3	Grey	17	20	351758
RAL 8019 Grey-brown	R04.1	Brown	17	20	351759
Medium bronze, anodised	R05.3	Medium bronze	17	20	351760
Bronze, anodised	R05.5	Bronze	17	20	351761
RAL 9016 Traffic-white, powder-coated	R07.2	White	17	20	351763

Espagnolettes, connector sets and window handles

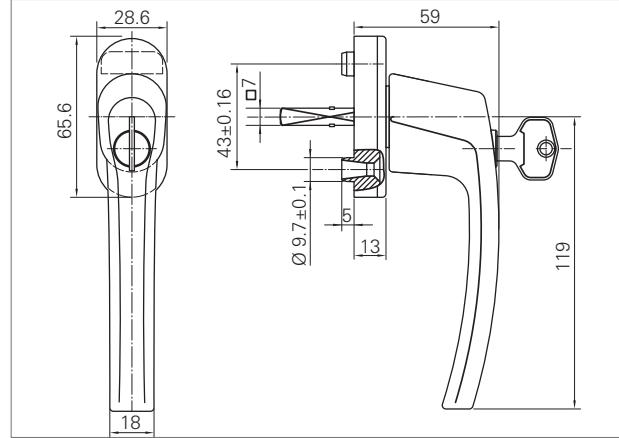
RotoLine window handles



RotoLine window handle, 40 Nm, lockable, keyed-alike locking, turn cylinder

30mm spindle length, with Ø10mm lugs, including 1 nickel-plated turn-key – **without Roto logo**

Handle and escutcheon cover colour	Roto colour no.	Base plate colour	Material group	PQ	Material no.
Silver, anodised	R01.1	Silver-grey	17	20	228125
Nickel silver, anodised	R01.2	Beige	17	20	228126
Titanium-matt, anodised	R01.3	Grey	17	20	228035
Brass matt, anodised	R03.1	Brass-coloured	17	20	228127
RAL 8019 Grey-brown	R04.1	Brown	17	20	228037
Medium bronze, anodised	R05.3	Medium bronze	17	20	228128
Bronze, anodised	R05.5	Bronze	17	20	228129
RAL 9016 Traffic-white, powder-coated	R07.2	White	17	20	228039



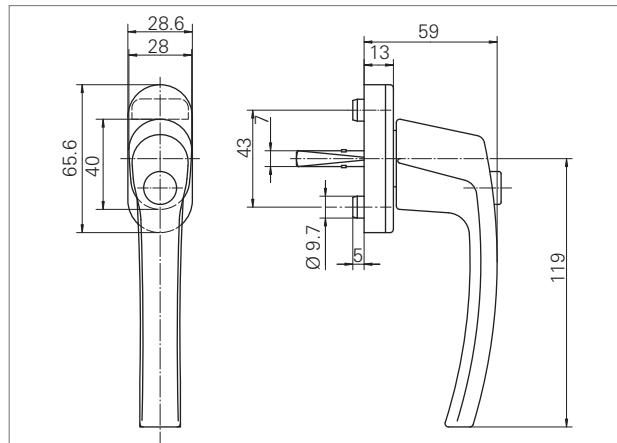
RotoLine window handle 100 Nm, lockable in accordance with DIN V ENV 1627-1630 and DIN 18104-1, keyed-alike locking, push cylinder

30mm spindle length, with Ø 10mm lugs, including 1 nickel-plated turn-key – **without Roto logo**

Handle and escutcheon cover colour	Roto colour no.	Base plate colour	Material group	PQ	Material no.
Silver, anodised	R01.1	Silver-grey	17	20	333964
Nickel silver, anodised	R01.2	Beige	17	20	333965
Titanium-matt, anodised	R01.3	Grey	17	20	333966
Brass matt, anodised	R03.1	Brass-coloured	17	20	333967
RAL 8019 Grey-brown	R04.1	Brown	17	20	333968
Medium bronze, anodised	R05.3	Medium bronze	17	20	333969
Bronze, anodised	R05.5	Bronze	17	20	333970
RAL 9016 Traffic-white, powder-coated	R07.2	White	17	20	333972

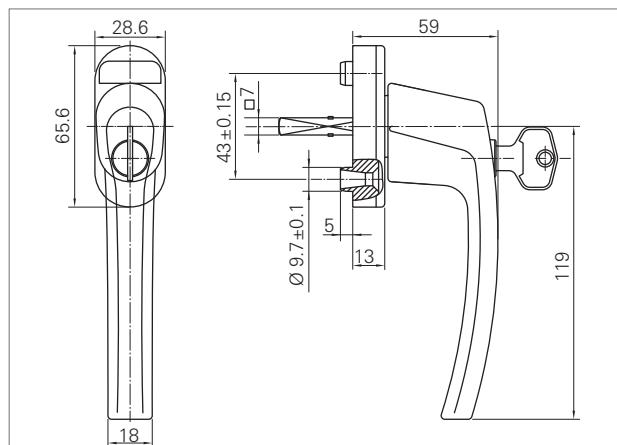
Espagnolettes, connector sets and window handles

RotoLine window handles



RotoLine window handle push-to-open, 30mm spindle length, with Ø 10 mm lugs – **without Roto logo**

Handle and escutcheon cover colour	Roto colour no.	Base plate colour	Material group	PQ	Material no.
Silver, anodised	R01.1	Silver-grey	17	20	228135
Nickel silver, anodised	R01.2	Beige	17	20	228136
Titanium-matt, anodised	R01.3	Grey	17	20	228045
Brass matt, anodised	R03.1	Brass-coloured	17	20	228137
RAL 8019 Grey-brown	R04.1	Brown	17	20	228047
Medium bronze, anodised	R05.3	Medium bronze	17	20	228138
Bronze, anodised	R05.5	Bronze	17	20	228139
RAL 9016 Traffic-white, powder-coated	R07.2	White	17	20	228049



RotoLine Tilt-First window handle, lockable, keyed-alike locking, **turn-cylinder**

Spindle length 32 mm, including 1 turn-key, nickel-plated, with Ø 10 mm lugs – **with Roto logo**

Handle and escutcheon cover colour	Roto colour no.	Base plate colour	Material group	PQ	Material no.
Silver, anodised	R01.1	Silver-grey	17	20	335309
Nickel silver, anodised	R01.2	Beige	17	20	335310
Titanium-matt, anodised	R01.3	Grey	17	20	335314
RAL 9016 Traffic-white, powder-coated	R07.2	White	17	20	335313

Colour schemes of the RotoSwing handles

The versions are available in the colour tones R07.2 (traffic-white, powder-coated), R01.1 (silver, anodised) and R01.3 (titanium matt, anodised).

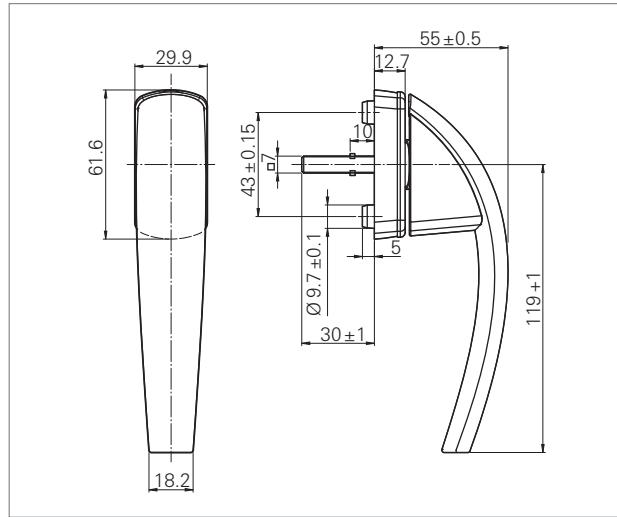
The unicoloured versions of RotoSwing are defined as standard. In order to differentiate precisely, the handle is classified into the elements: lever handle, design element, escutcheon and escutcheon cover.



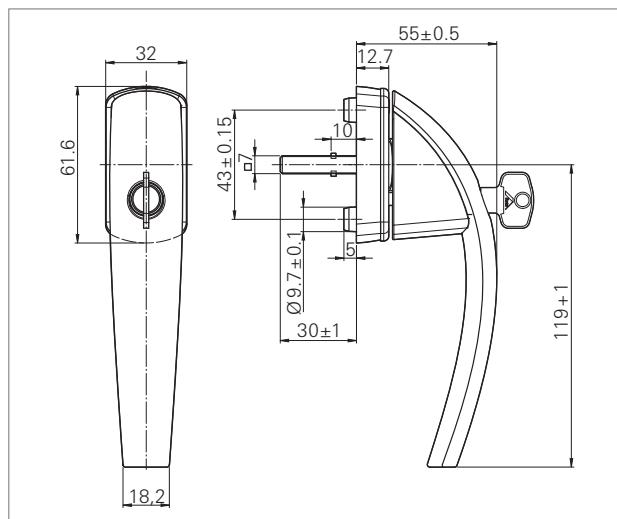
The lever handle determines the colouring. The elements: design element, escutcheon cover and escutcheon are furnished with a colour-coordinated colour tone:

Colour description

Description	Lever handle	Design element	Escutcheon cover	Escutcheon
Silver, uni	R01.1	7503	7503	7503
Titanium-matt, uni	R01.3	7501	7501	7501
Traffic-white, uni	R07.2	9016	9016	9016

**RotoSwing window handle standard, 32 mm spindle length, with Ø 10 mm lugs – with Roto logo**

Handle and escutcheon cover colour	Roto colour no.	Base plate colour	Material group	PQ	Material no.
Silver, anodised	R01.1	Silver-grey	17	20	602348
Titanium-matt, anodised	R01.3	Grey	17	20	602349
RAL 9016 Traffic-white, powder-coated	R07.2	White	17	20	602350

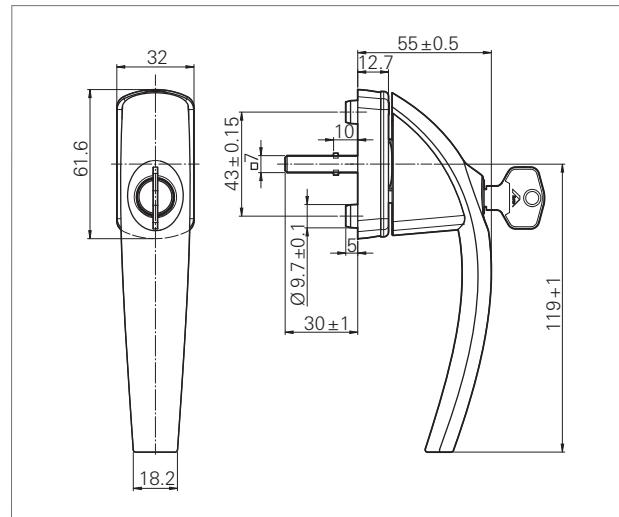
**RotoSwing window handle 40 Nm, lockable, basic security (not tested), turn cylinder**

32 mm spindle length, with Ø 10 mm lugs, including 1 nickel-plated turn-key – **with Roto logo**

Handle and escutcheon cover colour	Roto colour no.	Base plate colour	Material group	PQ	Material no.
Silver, anodised	R01.1	Silver-grey	17	20	602353
Titanium-matt, anodised	R01.3	Grey	17	20	602354
RAL 9016 Traffic-white, powder-coated	R07.2	White	17	20	602355

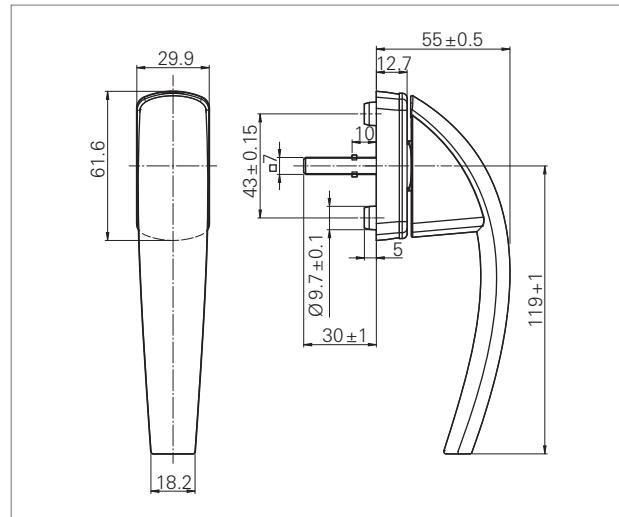
Espagnolettes, connector sets and window handles

RotoSwing window handles with logo



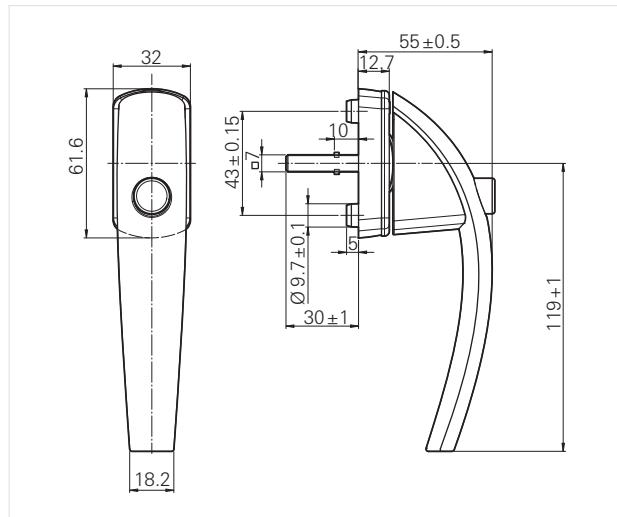
RotoSwing window handle 100 Nm, lockable, burglar-inhibiting retrofit product conforming to DIN 18104-1, **keyed-alike locking, push cylinder**
32 mm spindle length, with Ø 10 mm lugs, including 1 nickel-plated turn-key – **with Roto logo**

Handle and escutcheon cover colour	Roto colour no.	Base plate colour	Material group	PQ	Material no.
Silver, anodised	R01.1	Silver-grey	17	20	602356
Titanium-matt, anodised	R01.3	Grey	17	20	602357
RAL 9016 Traffic-white, powder-coated	R07.2	White	17	20	602358

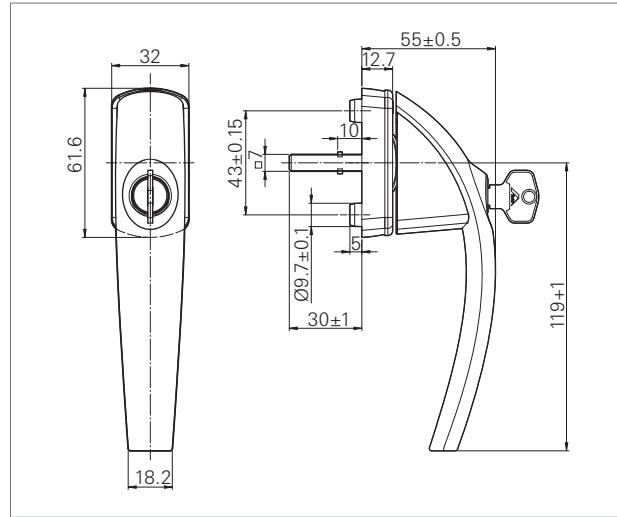


RotoSwing window handle Secustik®, security against manipulation from the outside, 32 mm spindle length, with Ø10 mm lugs – **with Roto logo**

Handle and escutcheon cover colour	Roto colour no.	Base plate colour	Material group	PQ	Material no.
Silver, anodised	R01.1	Silver-grey	17	20	602362
Titanium-matt, anodised	R01.3	Grey	17	20	602363
RAL 9016 Traffic-white, powder-coated	R07.2	White	17	20	602364

**RotoSwing window handle push-to-open**, security against displacement of the hardware from the outside32 mm spindle length, with Ø 10 mm lugs – **with Roto logo**

Handle and escutcheon cover colour	Roto colour no.	Base plate colour	Material group	PQ	Material no.
Silver, anodised	R01.1	Silver-grey	17	20	602359
Titanium-matt, anodised	R01.3	Grey	17	20	602360
RAL 9016 Traffic-white, powder-coated	R07.2	White	17	20	602361

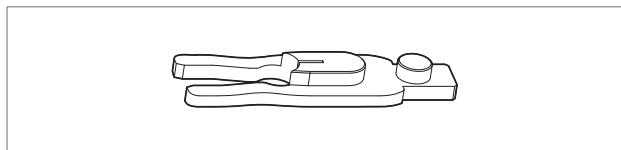
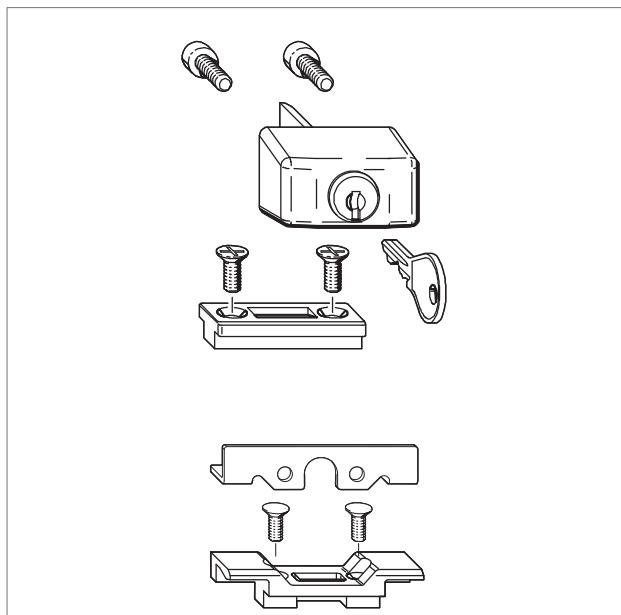
**RotoSwing window handle Tilt-First**, lockable with turn cylinder, Tilt before Turn in conjunction with TF sash stay and horizontal Tilt-First striker32 mm spindle length, with Ø 10 mm lugs – **with Roto logo**

Handle and escutcheon cover colour	Roto colour no.	Base plate colour	Material group	PQ	Material no.
Silver, anodised	R01.1	Silver-grey	17	20	602365
Titanium-matt, anodised	R01.3	Grey	17	20	602366
RAL 9016 Traffic-white, powder-coated	R07.2	White	17	20	602367

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Additional components and accessories

Child safety lock, bullet catch, tilt-depth regulator



Child safety lock

Pcs	Description	Colour	PQ	Material no.
1	Child safety lock with cylinder locking	R01.1	20	212774
		R01.5		377996
		R05.4		212775
		R07.1		212776
	(incl. 1 key, 2 flat-headed screws)	R07.2		208645
		SP COL		212777

Striker plate (incl. 2 countersunk screws M5 x 16) 212778

Key 208248

Additional parts bag; anti-jemmy version

Pcs	Description	PQ	Material no.
1	Striker plate, locking plate,	10	213076
2	countersunk screws M5 x 16		
Packer 1 mm		10	208230

for 22 mm chamber dimension (not dep.)

Tilt-depth regulator Roto AluVision Designo on sash heights \leq 800 mm

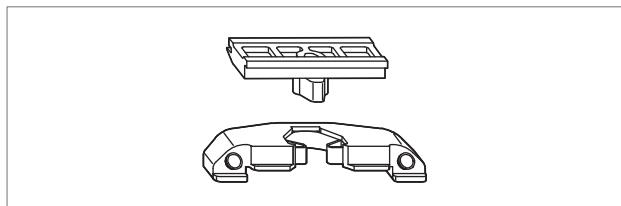
Pcs	Description	PQ	Material no.
1	Night-vent set V.01	100	502834



NOTE!

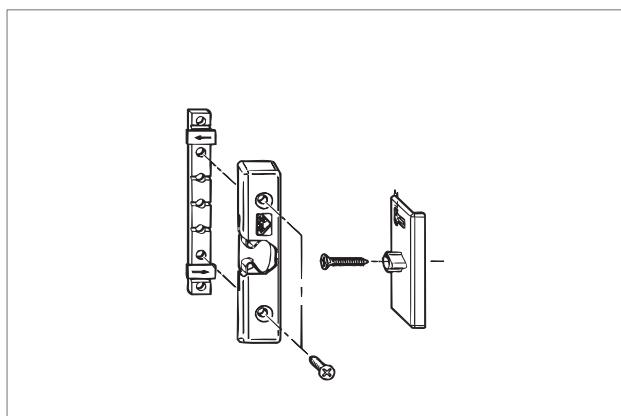
The bullet catch

holds the active sash (window/door) in the closed position, without locking it.



Bullet catch

Pcs	Description	PQ	Material no.
1	Bullet catch	10	334667



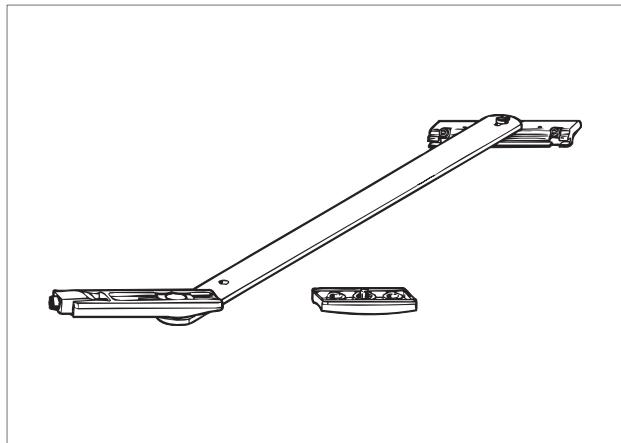
Bullet catch

with housing, cam, packer and 3 countersunk tapping-screws 3.9 x 25

Pcs	Description	PQ	Material no.
1	Bullet catch set	20	208249

Additional components and accessories

Turn-restrictor



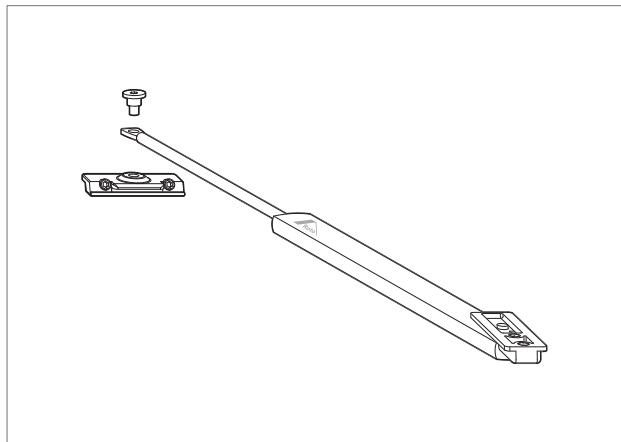
NOTE!

The turn-restrictor is recommended,

if the sash is pressed adversatively or uncontrolled (e.g. by wind) up against window reveals or aluminium support profiles in such a way that the hardware and/or profiles can be damaged or destroyed. Adjust the brake after installation.

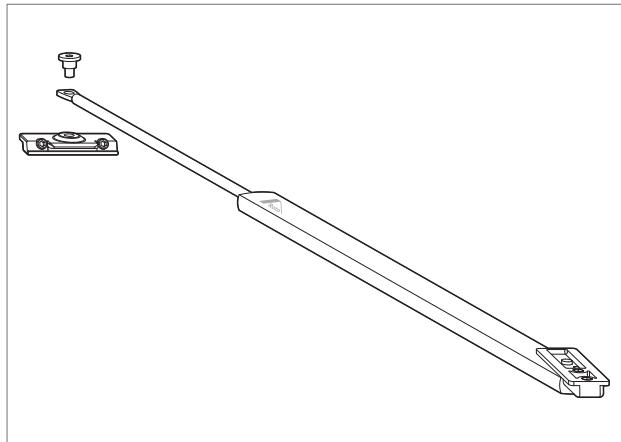
Turn-restrictor set with brake and stop

Pcs	Description	PQ	Material no.
AluVision T 300 and T 540			
1	Turn-restrictor set, clampable V.01	10	212151
1	Turn-restrictor set, clampable V.02	10	212152
1	Turn-restrictor set, screwable	10	212150



Turn-restrictor set, damped, arrestable, size 1

Pcs	Description	PQ	Material no.
AluVision Designo			
1	Turn-restrictor set V.01	10	627243
1	Turn-restrictor set V.02	10	627244
AluVision T 540			
1	Turn-restrictor set V.01	10	627685
1	Turn-restrictor set V.02	10	627686

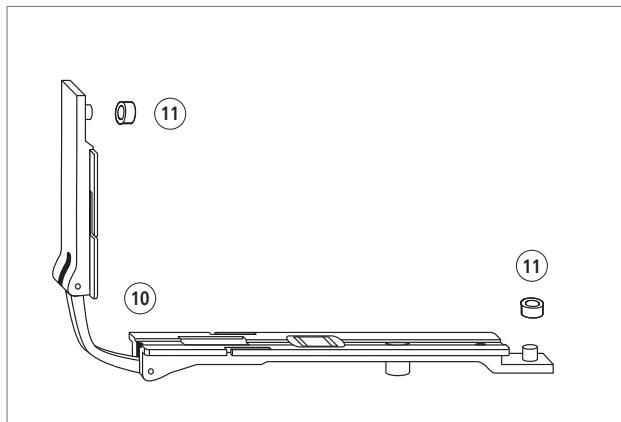
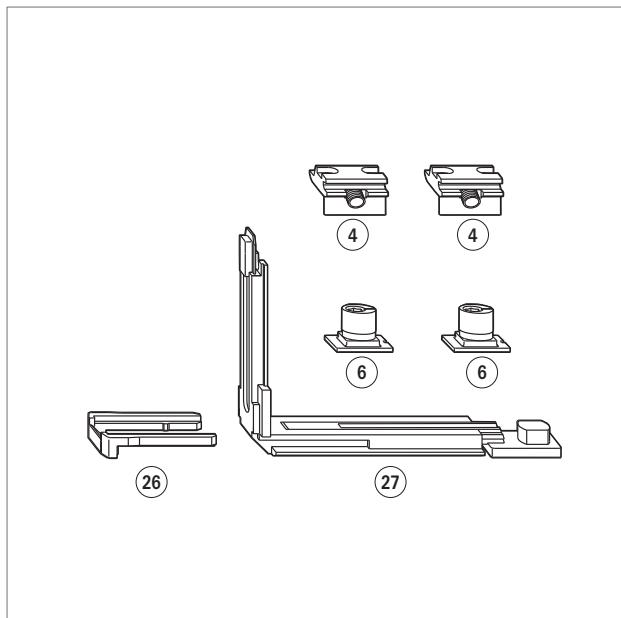
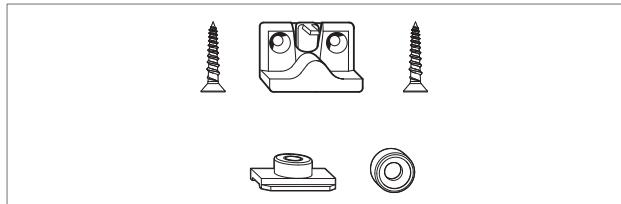


Turn-restrictor set, damped, arrestable, size 2

Pcs	Description	PQ	Material no.
AluVision Designo			
1	Turn-restrictor set V.01	10	627245
1	Turn-restrictor set V.02	10	627246
AluVision T 540			
1	Turn-restrictor set V.01	10	627687
1	Turn-restrictor set V.02	10	627688

Additional components and accessories

Night-vent, CL corner drive, special corner drive



NOTE!

Night-vent

By turning the window handle 45° downwards (on Tilt&Turn from the tilting position) or 45° upwards (on Turn-Only from the turning position), the sash is retracted 7 mm away from the frame.

Night-vent

Pcs	Description	PQ Material no.
1	Night-vent set V.01	10 334666

Corner drive CL set for AluVision T540-10/AluVision Designo

Pcs	Description	PQ Material no.
1	Corner drive CL set V.01	20 334668
1	Corner drive CL set V.02	20 334669
consists of:		
(27)	1 Corner drive CL	100 331013
(26)	1 Alignment fork	100 221772
(6)	2 Locking cam, insertable	100 334671
(4)	2 Striker V.01	100 212633
	Striker V.02	100 212634

Corner drive CL for AluVision T 300

Pos.	Pcs	Description	PQ Material no.
(27)	1 Corner drive CL	100 331013	
(26)	1 Alignment fork	100 221772	
(6)	2 Locking cam, insertable	100 334671	
(4)	2 Striker V.01	100 490182	
	Striker V.01	100 490183	

Special corner drive (for Tilt-Only sashes with central locking, not dep.)

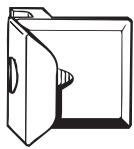
Pcs	Description	PQ Material no.
1	Special corner drive	50 208359
1	Tension spring for corner drive	100 208237

Corner drive for Turn-Only windows (applicable for Turn-Only and Top-Hung windows)

Pcs	Description	PQ Material no.
1	Flex corner drive V.01	50 213833
1	Reducer-bush	100 334352

Additional components and accessories

Striker 8 mm, transport protection, glazing accessories



Striker, 8 mm installation height

(to be used on disadvantageous sash turning curves)

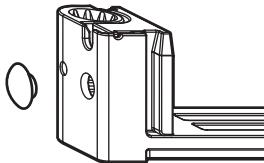
Pcs	Description	PQ	Material no.
1	Striker, 8mm, V.01	100	212760
1	Striker, 8mm, V.02	100	351123



Striker A, 8 mm installation height

(to be used on disadvantageous sash turning curves)

Pcs	Description	PQ	Material no.
1	Striker A, 8mm, V.01	100	486501
1	Striker A, 8mm, V.02	100	351124



Transport protection for corner hinge AluVision Designo

Description	PQ	Material no.
Transport protection for corner hinge	100	624333

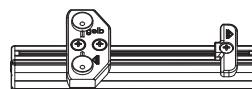


Glazing accessories

Further information on glazing procedures and corresponding products can be found in the chapter "Glazing accessories" of this catalogue, in the Glazing guide "FLY_11_EN", and in the catalogue "CTL_15_EN" from Roto Gluske-BKV.

Additional components and accessories

Jigs



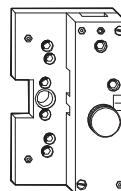
Jig for pivot rest and stay bearing

Description

Material no.

Jig for groove-base thickness > 2 mm

628534



Jig for espagnolette

Description

Material no.

Jig for espagnolette, connecting-rod & child safety lock

212544



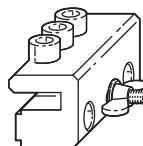
Jig for flush-encased gearbox

Description

Material no.

Jig for flush-encased gearbox and escutcheonless handle

365361



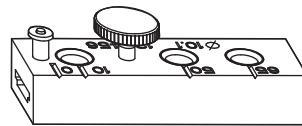
Jig for flush-encased gearbox

Description

Material no.

Jig for flush-encased gearbox and handle

212155



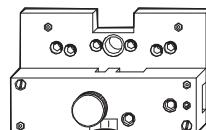
Jig for connecting-rod

Description

Material no.

Jig for connecting-rod

333472



Jig for connecting-rod

Description

Material no.

Jig for connecting-rod

212753



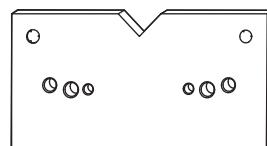
Positioning jig 695 for CL striker

Description

Material no.

Jig for flush-encased gearbox and handle

212595



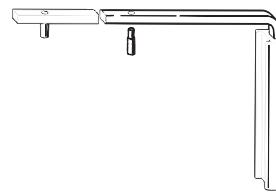
Jig for geared-handle

Description

Material no.

Jig for geared-handle 130 kg

333473



Jig for sash stay

Description

Material no.

Jig for sash stay, additional scissor stay, striker AluVision T 540, AluVision Designo

333471



Jig for turn-restrictor

Description

Material no.

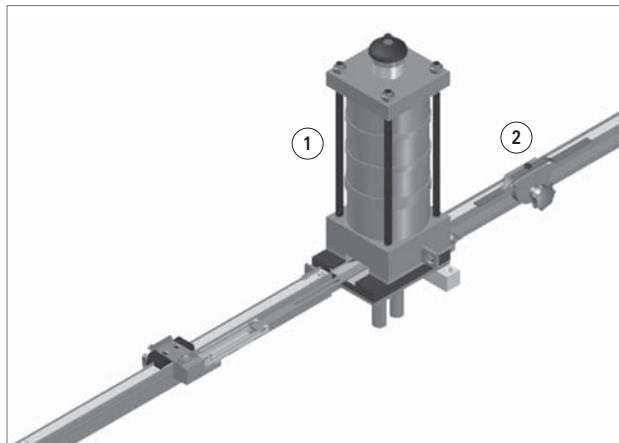
Jig for turn-restrictor

212156

Additional components and accessories

Cropper

Connecting-rod VTC (ECC)



Cropper

Pneumatic cropper for cropping and hole-stamping the connecting-rod.

Pos.	Description	PQ	Material no.
(1)	'Comfort' cropper PS4 G Ø 10 mm	1	350309
(2)	Standard linear ruler	1	350314



Connecting-rod

(specific connecting-rod profile)

Description	Length	Material no.
Connecting-rod AluVision T 540-10, AluVision Designo	6 m	334665



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Window and door technology

Wilhelm-Frank-Platz 1
D-70771 Leinfelden-Echterdingen
Telephone +49 711 7598 0
Telefax +49 711 7598 253
info@ROTO-FRANK.COM

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