

THE NEW HARDWARE SYSTEM

A low-angle photograph of a modern glass skyscraper is positioned on the left side of the page. The building's facade is composed of a grid of white window frames and reflective glass panels, set against a clear blue sky.

ALU 540

APPLICATION RANGE

- Hinge-side compatible with all conventional Euro-chamber profiles
- Clampable hinge-side with preassembled clamp-strips
- Available for all standard opening types: Tilt&Turn, Turn-Only, Tilt-Only, French windows, and Tilt-First
- Compatible with the ALU 540 and ALU 540i locking system
- All hardware components are non-handed
- Maximum sash weight 90kg / 130kg
- Various hinge-side versions available; 90-130kg
- Superior hardware version available (T&T-V & TU.-ON.-V.)

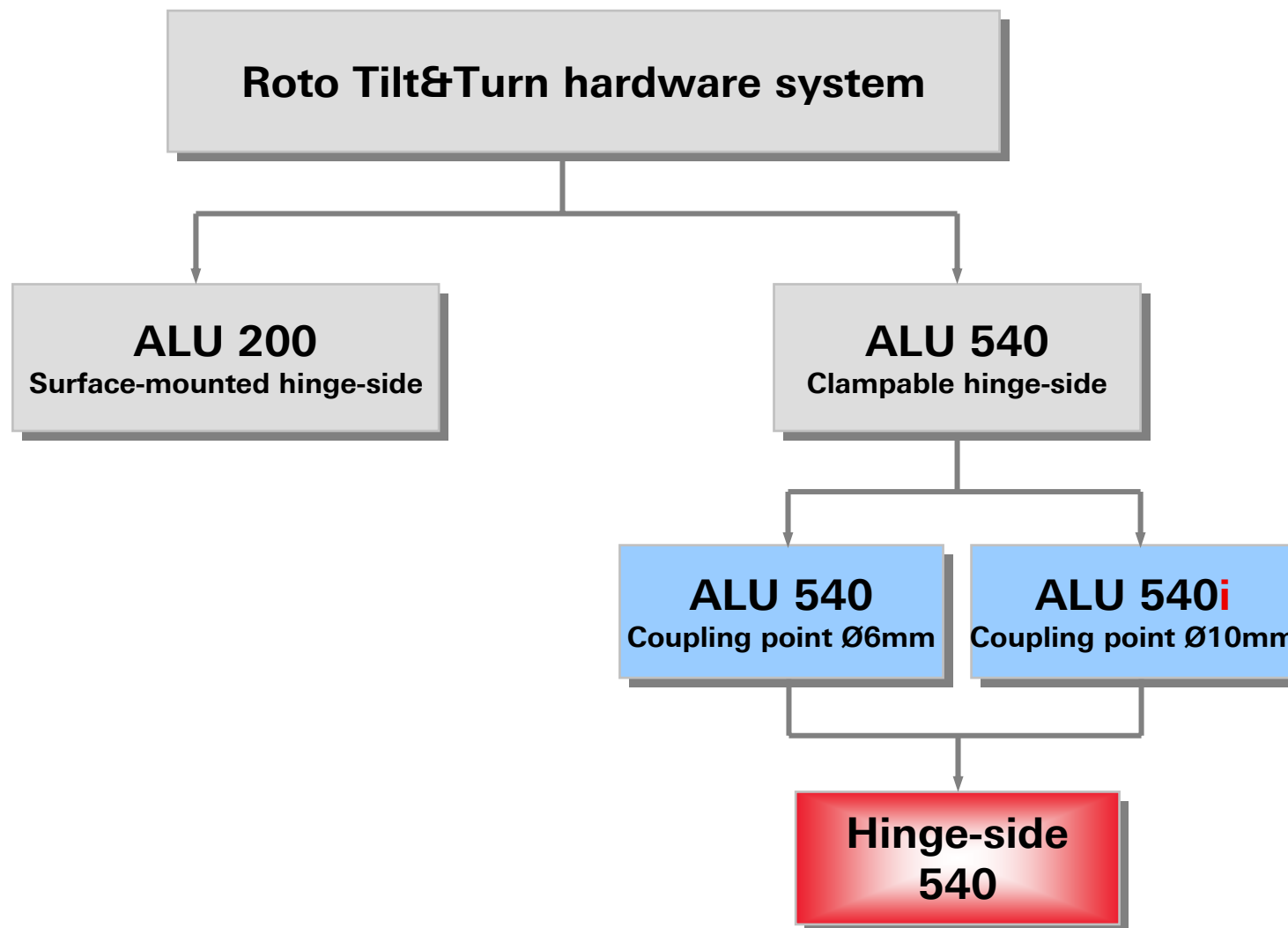
THE NEW ALU 540 HINGE-SIDE'S ADVANTAGES



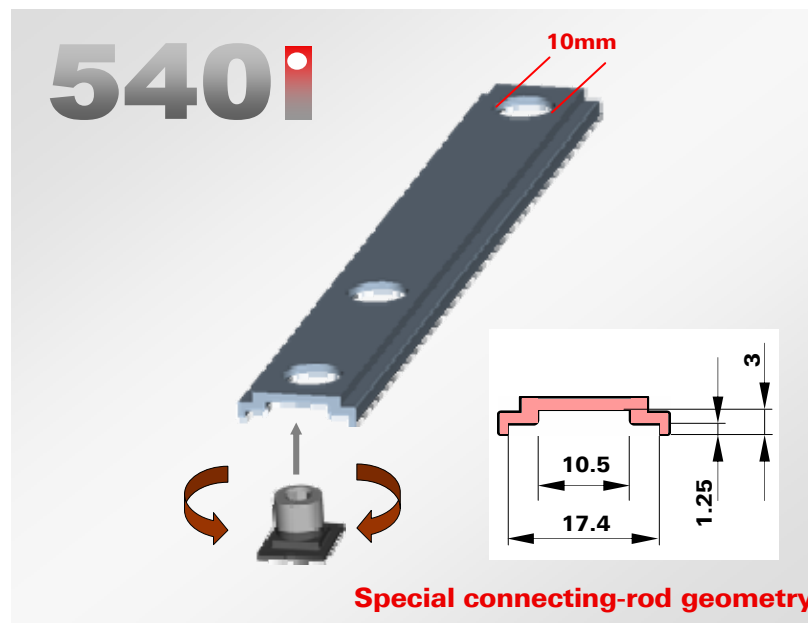
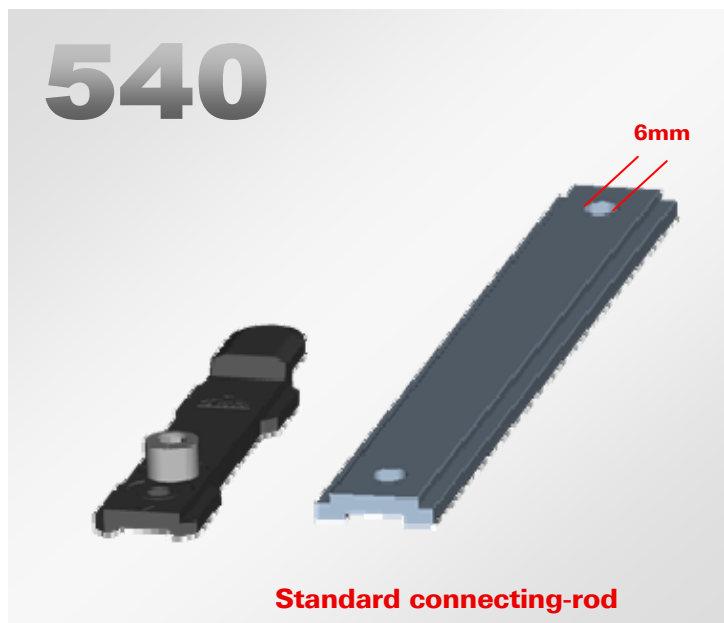
- Easy, efficient installation by means of prefabricated assemblies
- Optimal screwing axis position, providing convenient and simple installation
- Reduction of clamp-strips and components to be mounted
- Reduced component diversity and logistical advantages through the use of only one hinge version up to 130kg
- Simple upgrading to 130kg
- Reduced hardware mounting times during installation for the fabricator
- Attractive aesthetics: bearings flush with the sash, no visible screws
- The hardware concept is of modular design and compatible with the 200kg and 300kg hinge-side hardware series
- Optimal lateral and vertical adjustments possible while the sash is still connected to the frame
- Sash stays and corner hinges, as well as the stay bearings and pivot rests are non-handed
- Simple and trouble-free retrofitting and upgrading for up to burglary-resistance grade 3 "WK3" - (WK4 under preparation)

Roto ALU 540

THE ROTO ALUMINIUM HARDWARE SYSTEMS



Roto ALU 540



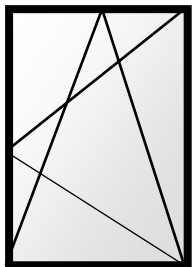
ALU 540 technical details:

- ➔ Cams can only be inserted at the end of the connecting-rods
- ➔ Gasket-compression adjustment via eccentric cams (1+/-mm)
- ➔ Connecting-rod drill hole $\varnothing 6\text{mm}$
- ➔ The connector-bolt can be riveted onto the connecting-rod when using continuous connecting-rods

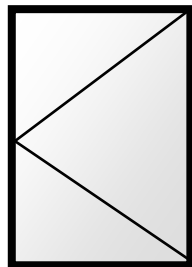
ALU 540i technical details:

- ➔ 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 (+/-1mm)
- ➔ Connecting-rod drill hole $\varnothing 10.1\text{mm}$
- ➔ The cams can be randomly positioned along the connecting-rod
- ➔ Continuous connecting-rod on the espagnolette side possible
- ➔ Material saving due to the connecting-rod's smaller cross-section

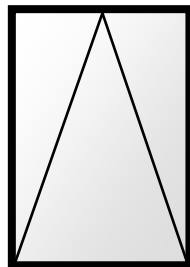
OPENING TYPES "HARDWARE VERSIONS"



- ➔ Tilt&Turn
- ➔ Tilt-First



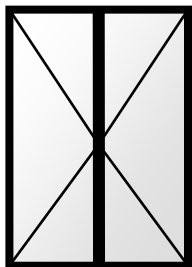
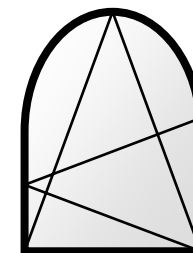
- ➔ Turn-Only



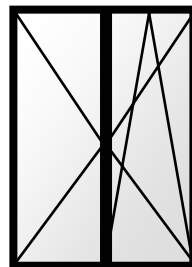
- ➔ Tilt-Only



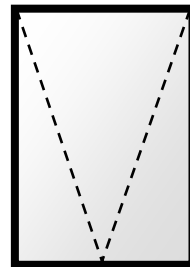
- ➔ Tilt&Turn pitched/arched windows "remain unchanged", based on ALU 400i/500



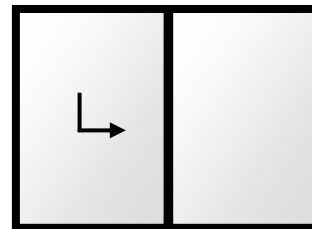
- ➔ Floating-mullion Turn-Only/ Turn-Only



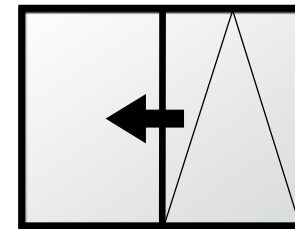
- ➔ Floating-mullion Turn-Only/ Tilt&Turn



- ➔ Top-Hung

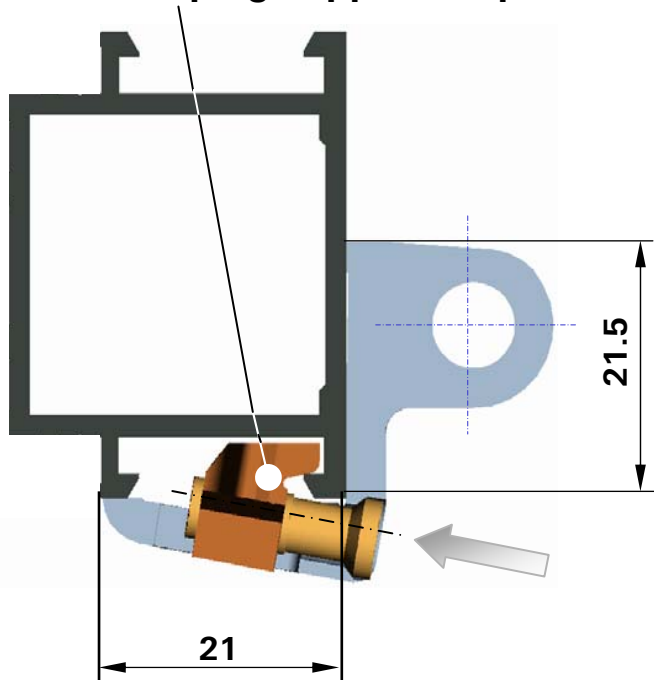


- ➔ Patio 150 S Tilt&Slide



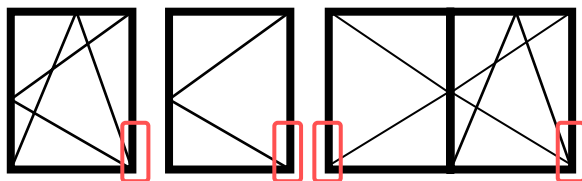
Roto ALU 540

ALU clamping support-strip



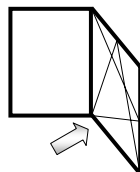
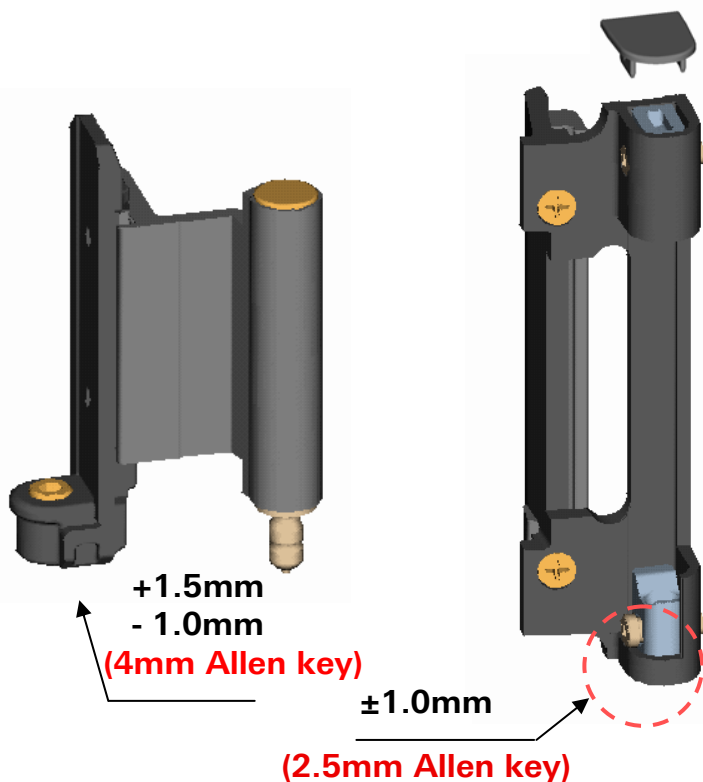
- Hinge-side with preassembled clamping support-strip
- Compatible with V.01 and V.02 frame grooves
- 3 clamping support-strips for all standard profiles (until now 6 clamping support-strips)
- Clamping support-strip made of aluminium
- Easy, rapid, and convenient installation by means of the new screwing axis position
- Screws with nut-retention agent
- Required space remains unchanged

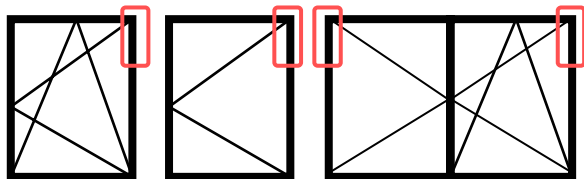
TECHNICAL DETAILS



Pivot rest / Corner hinge:

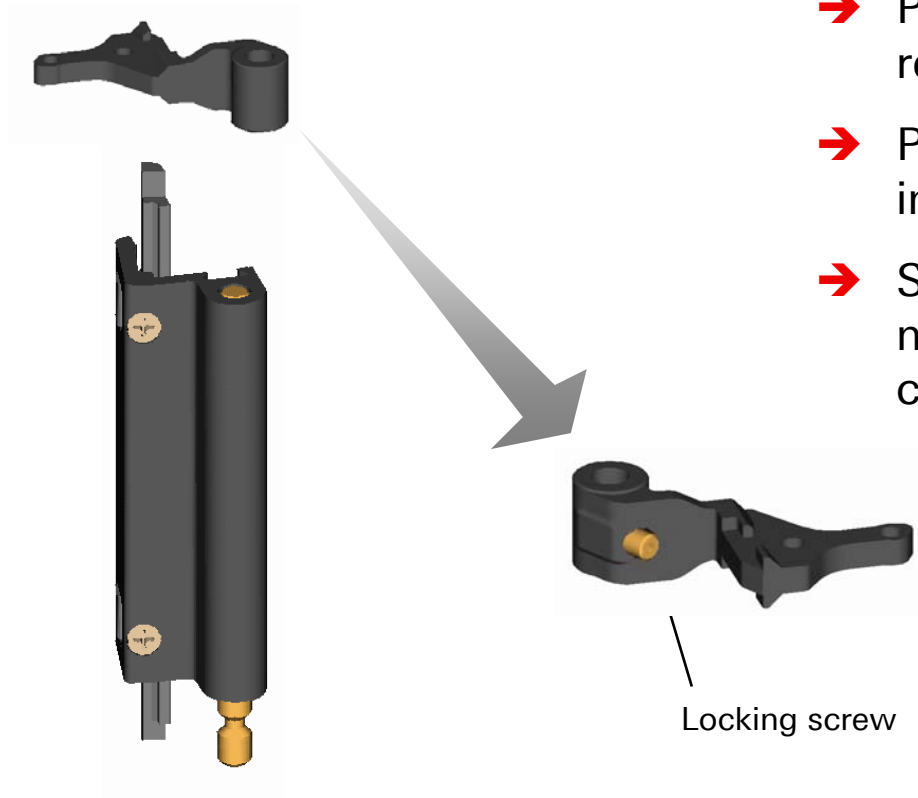
- ➔ Non-handed
- ➔ Pre-assembled pivot-rest insert
- ➔ Lateral adjustment ± 1 mm
- ➔ Height adjustment $+1.5$ mm / -1 mm

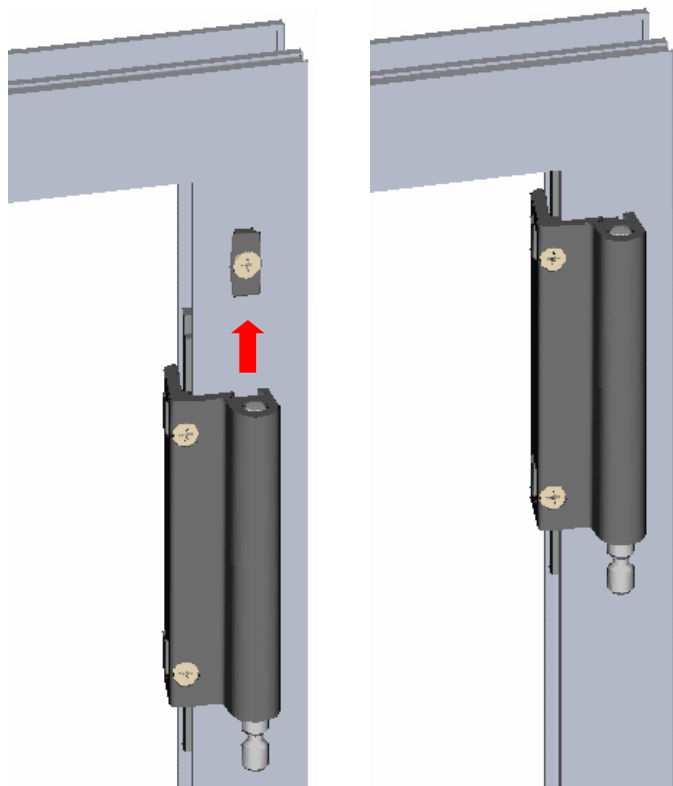
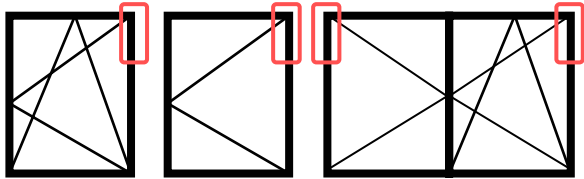




Stay-arm hinge / Stay bearing:

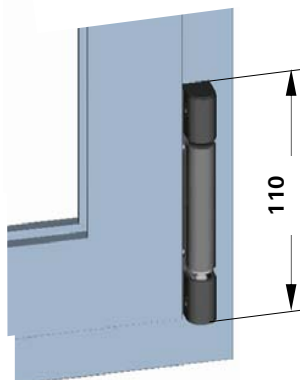
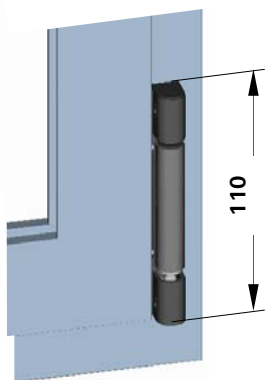
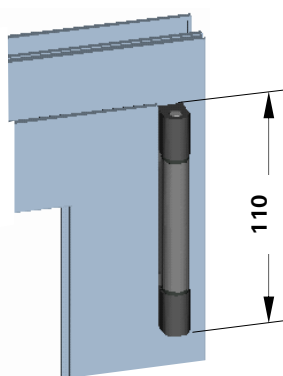
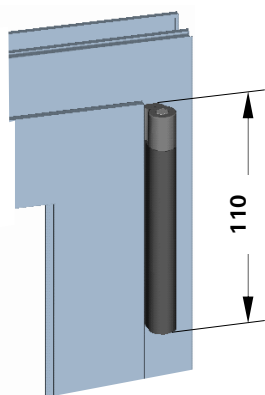
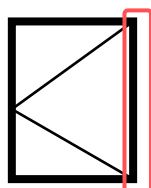
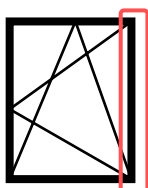
- ➔ Non-handed
- ➔ Preassembled stay bearing pins
- ➔ Preassembled stay bearing pin-retention
- ➔ Pin retention by means of screw in the stay-arm hinge
- ➔ Stay arm and stay-arm hinge mounted with 2 screws (red-coloured nut-retention agent)





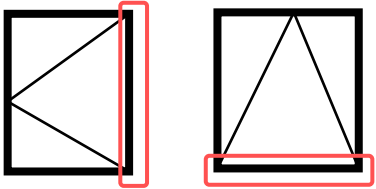
Mounting the 130kg stay bearing:

- Non-handed
- Attach the fixing connecting-link to the frame with countersunk screws - use the original screws!
- Drill hole position on the frame remains unchanged
- The stay bearing is positioned via the clamping support-strip



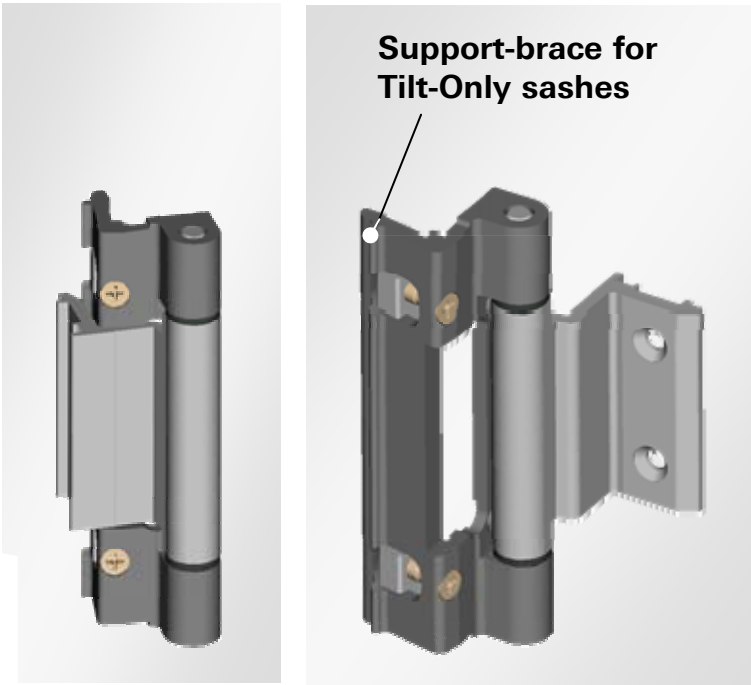
Tilt&Turn / Turn-Only hinge-side:

- ➔ Hinge-side components are non-handed
- ➔ Top & bottom hinges do not stand proud of sash
- ➔ 3.5mm hinge passage
- ➔ The hinge is positioned by means of the clamping support-strip
- ➔ Pin retention by means of screw in the stay-arm hinge
- ➔ Stay bearing available in 2 versions:
 - ➔ Up to 90kg clampable
 - ➔ From 90kg to 130kg with additional screw
- ➔ Preassembled stay bearing pin in the stay bearing



TU.-ON. hinge / TI.-ON. hinge:

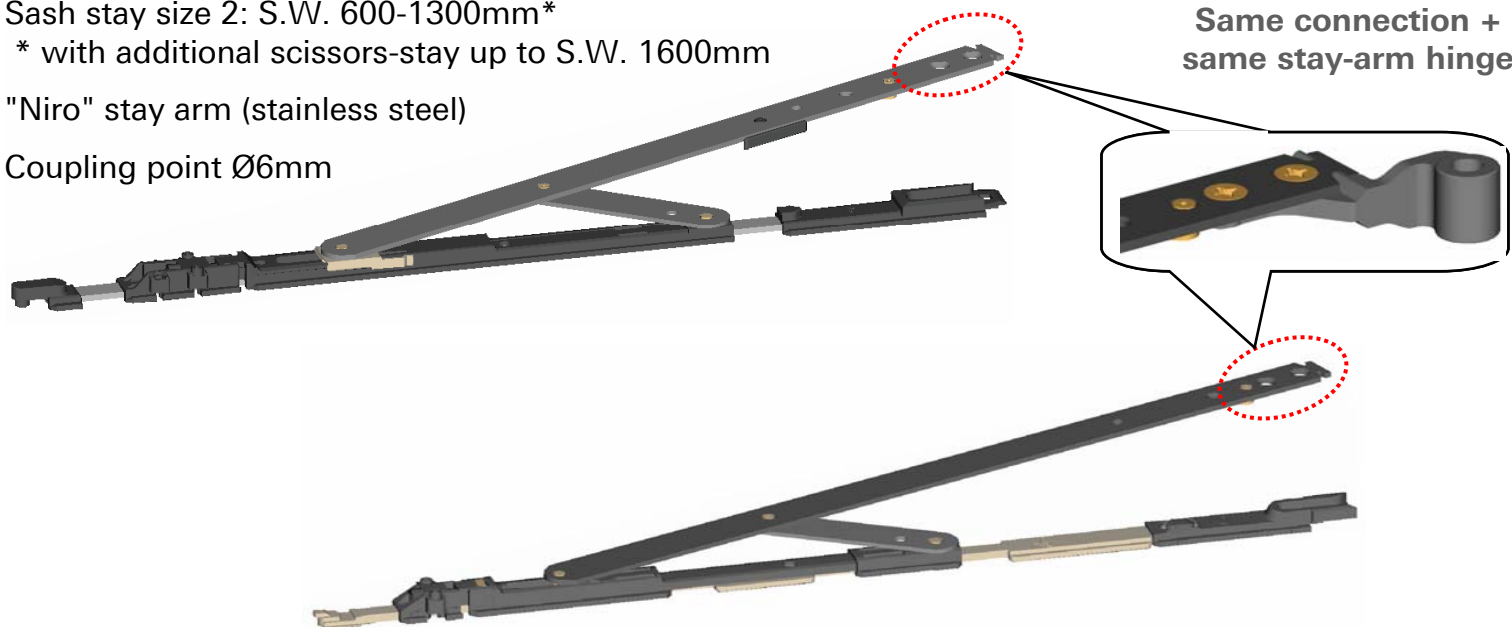
- TU.-ON. hinge for use on Turn-Only and Tilt-Only sashes up to 130kg sash weight
- Additional support-brace guarantees fixed rebate dimension, even with sash weights up to 130kg



TECHNICAL DETAILS

ALU 540 - Sash stay 600:

- Sash stay size 1: S.W. 370-600mm
- Sash stay size 2: S.W. 600-1300mm*
* with additional scissors-stay up to S.W. 1600mm
- "Niro" stay arm (stainless steel)
- Coupling point Ø6mm

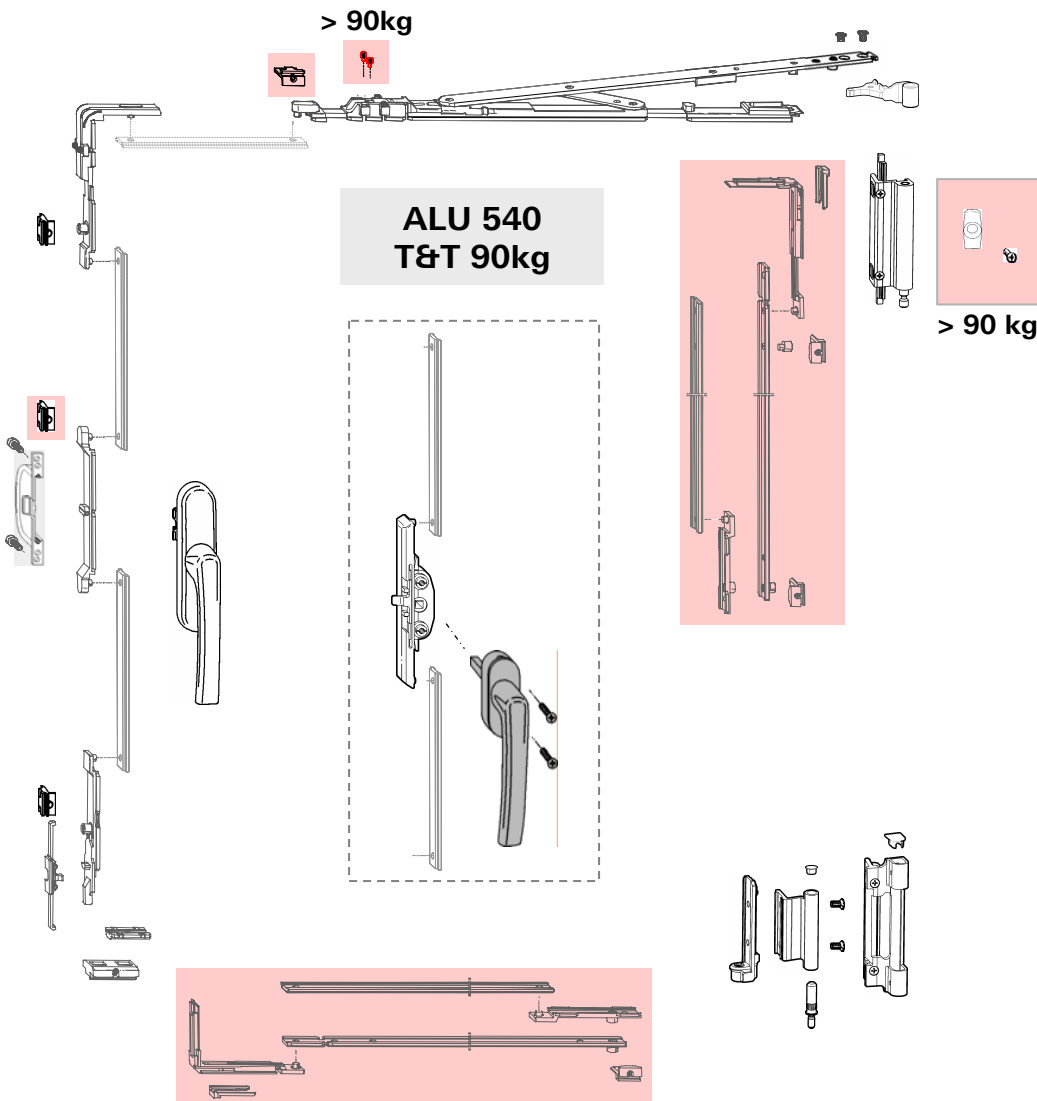


ALU 540i - Sash stay 600:

- Sash stay size 1: S.W. 405-600mm
- Sash stay size 2: S.W. 600-1300mm*
* with additional scissors-stay up to S.W. 1600mm
- Stay arm in steel / KTL (= Matt black kataphoritic-Dip lacquer) or "Niro" (stainless steel)
- Coupling point Ø10mm

HARDWARE OVERVIEW

ALU 540 TILT&TURN



- ➔ T&T hardware 90kg / 130kg
- ➔ Non-handed hardware components
- ➔ Aluminium hinge-side with preassembled clamping support-strip
- ➔ Espagnolette versions: RotoLine geared-handle / Flush encased gearbox
- ➔ 2 stay sizes (370 / 600)
- ➔ Scissors-stay in "Niro" (stainless steel)
- ➔ Lateral adjustment; Pivot rest $\pm 1.0\text{mm}$, Sash stay 600 $\pm 2.0\text{mm}$, Sash stay 370 $+ 1.5\text{mm}$
- ➔ Height adjustment; $+1.5\text{mm}/-1\text{mm}$ in the clampable corner bracket

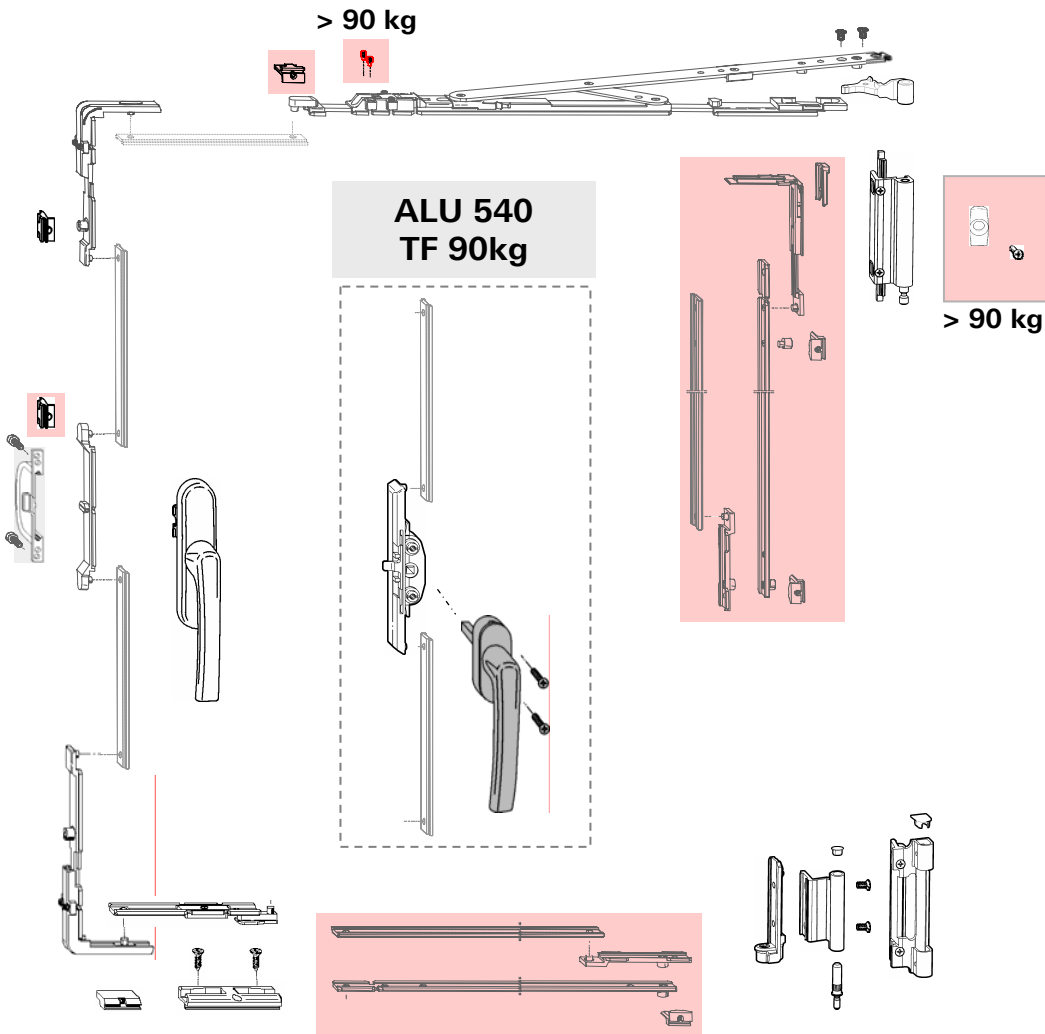
Application range:

- ➔ Scissors-stay size 1 (S.W. = 370-600mm)
- ➔ Scissors-stay size 2 (S.W. = 600-1300mm) * with additional scissors-stay up to S.W. 1600mm
- ➔ Centre locks

Roto ALU 540

HARDWARE OVERVIEW

ALU 540 TILT-FIRST



- ➔ TF hardware 90kg / 130kg
- ➔ Non-handed hardware components
- ➔ Aluminium hinge-side with preassembled clamping support-strip
- ➔ ALU handle versions: RotoLine geared-handle / Flush encased gearbox
- ➔ Scissors-stay in "Niro" (stainless steel)
- ➔ 2 stay sizes (390 / 600)
- ➔ Lateral adjustment; Pivot rest $\pm 1.0\text{mm}$, Sash stay $600 \pm 2.0\text{mm}$, Sash stay $390 + 1.5\text{mm}$
- ➔ Height adjustment; $+1.5\text{mm}/-1\text{mm}$ in the clampable corner bracket

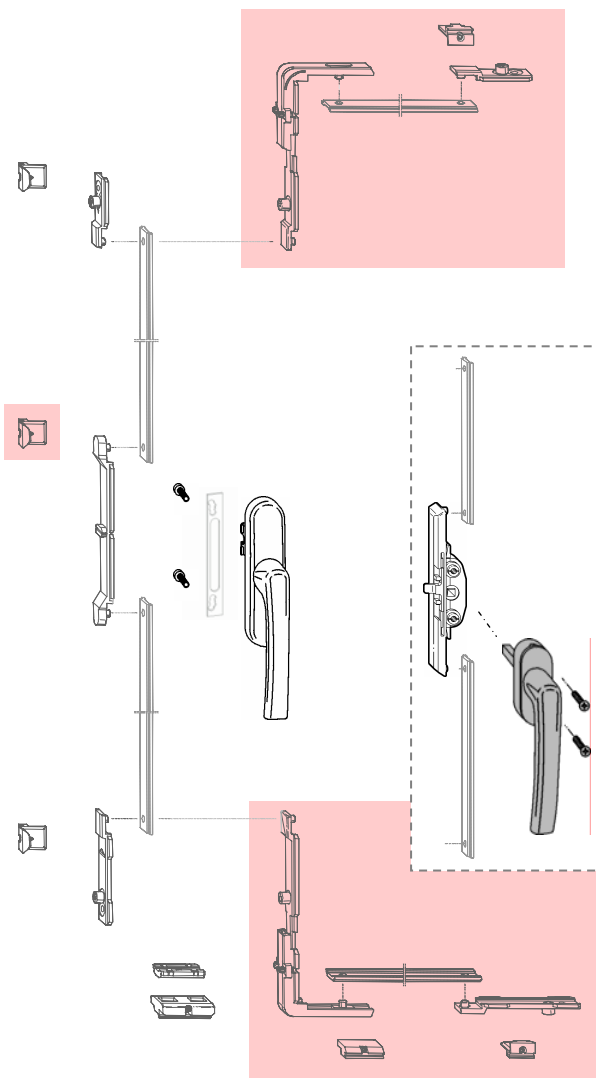
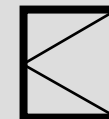
Application range:

- ➔ Scissors-stay size 1 (S.W. = 390-600mm)
- ➔ Scissors-stay size 2 (S.W. = 600-1300mm)
* with TF additional scissors-stay up to S.W. 1600mm
- ➔ Centre locks

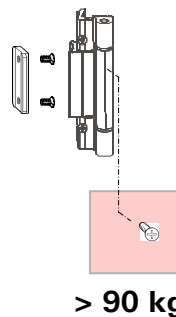
Roto ALU 540

HARDWARE OVERVIEW

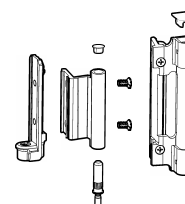
ALU 540 TURN-ONLY HARDWARE



**ALU 540
TU.-ON.
90kg**



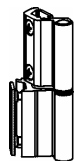
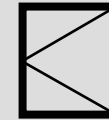
- ➔ TU.-ON. hardware
90kg / 130kg
- ➔ Lateral adjustment
 $\pm 1.0\text{mm}$
- ➔ Height adjustment
 $+1.5\text{mm} / -1\text{mm}$



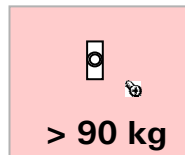
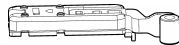
Roto ALU 540

HARDWARE OVERVIEW

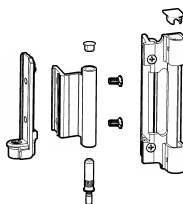
ALU 540 TURN-ONLY HARDWARE



ALU 540
TU.-ON.
hinge EU
50/70kg



ALU 540
TU.-ON-V.
90 kg



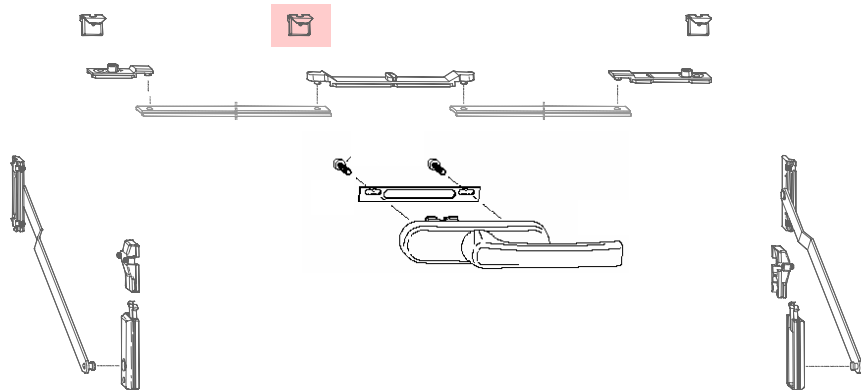
TU.-ON. hinge versions:

- ➔ EU hinge:
 - ➔ TU.-ON. hardware 50kg / 70kg
 - ➔ Lateral adjustment $\pm 0.6\text{mm}$
- ➔ TU.ON-V hinge:
 - ➔ TU.-ON. 90kg / 130kg
 - ➔ Lateral adjustment - Pivot rest $\pm 1.0\text{mm}$
 - ➔ Lateral adjustment - Turn-Only stay $\pm 2.0\text{mm}$
 - ➔ Height adjustment +1.5mm / -1mm

Roto ALU 540

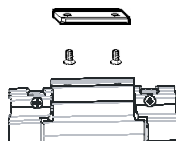
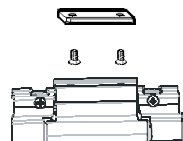
HARDWARE OVERVIEW

ALU 540 TILT-ONLY HARDWARE

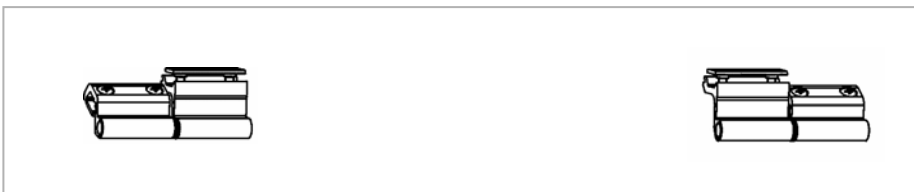


**ALU 540
Tilt-Only
130 kg**

➔ Sash weight 130kg



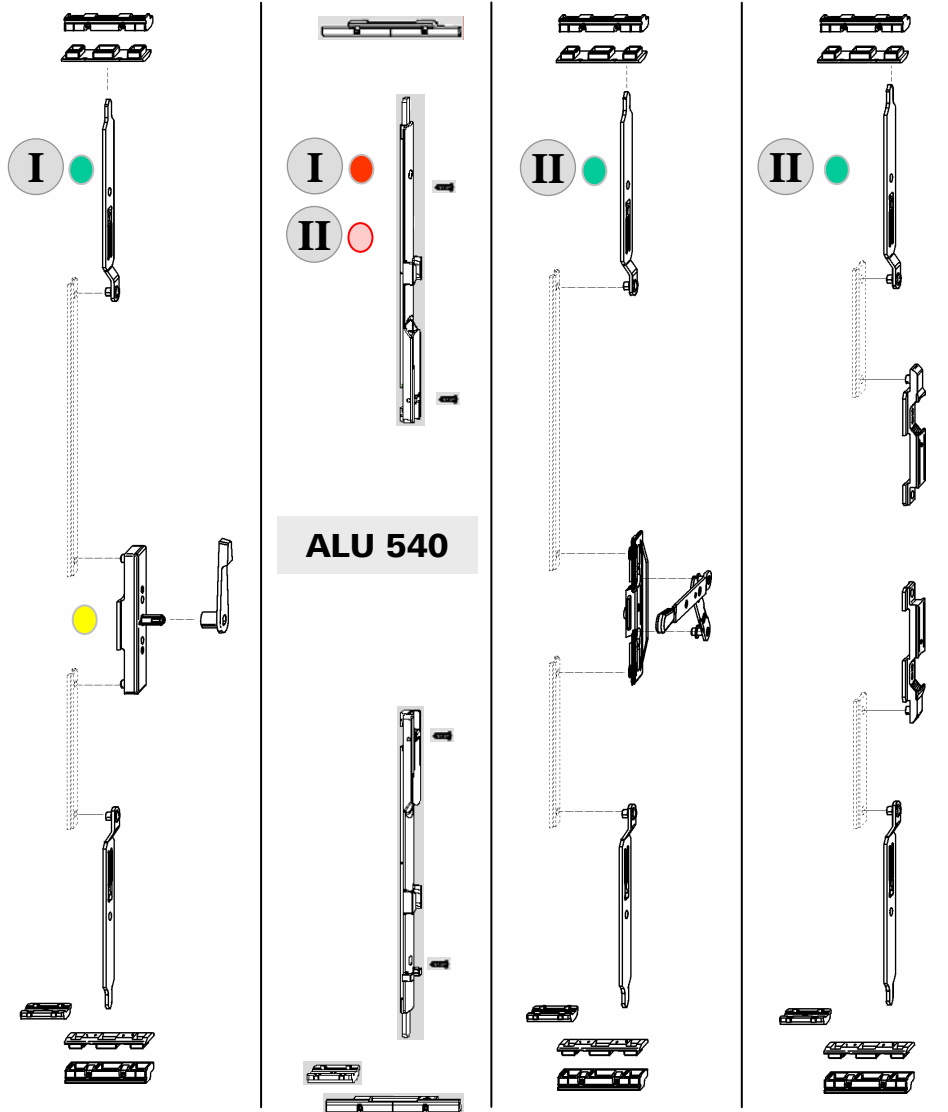
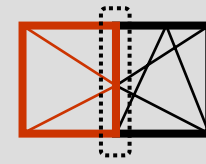
**EU version of TU.-ON.
hinge:**



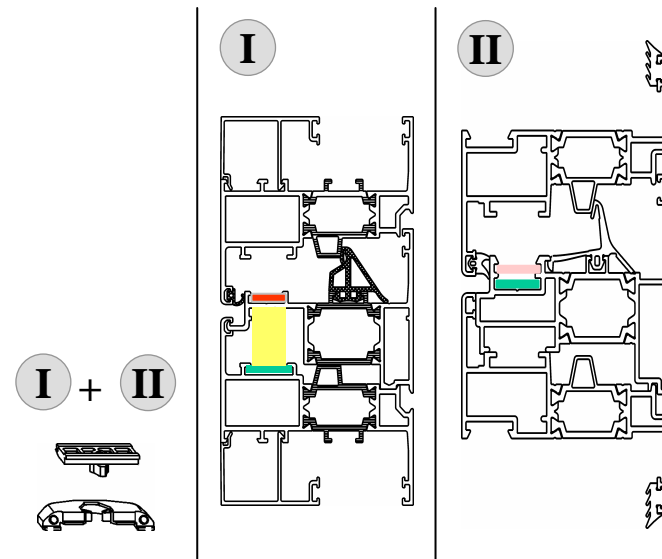
➔ Hinge-side for 70kg
sash weight

Roto ALU 540

HARDWARE OVERVIEW - ALU 540 FLOATING-MULLION HARDWARE



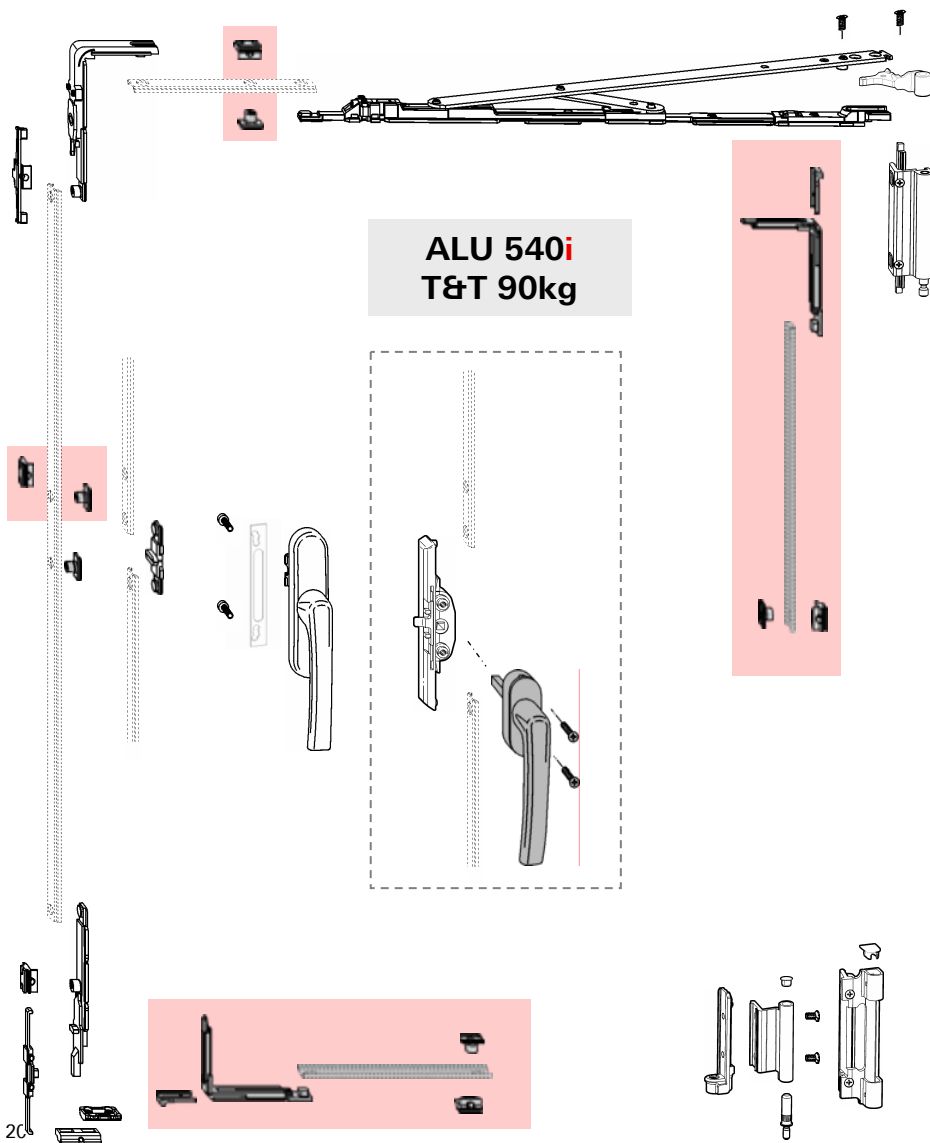
- ➔ Concealed lever-operated espagnolette
- ➔ D.M.-S.M. concealed lever espagnolette
- ➔ Shootbolts
- ➔ Slider shootbolt
- ➔ Bullet catch (for 2-sashed windows)



Roto ALU 540

HARDWARE OVERVIEW

ALU 540i TILT&TURN



**ALU 540i
T&T 90kg**

- ➔ T&T hardware 90kg / 130kg
- ➔ Non-handed hardware components
- ➔ Aluminium hinge-side with preassembled clamping support-strip
- ➔ ALU handle versions: RotoLine / Flush encased gearbox
- ➔ Hardware components can be coupled from underneath
- ➔ 2 stay sizes (400 / 600)
- ➔ Scissors-stay in steel / KTL (= Matt black kataphoritic-Dip lacquer) or "Niro" (stainless steel)
- ➔ Mishandling-device integrated in the corner drive,
- ➔ Lateral adjustment - Pivot rest $\pm 1.0\text{mm}$, Sash stay $\pm 2.0\text{mm}$,
- ➔ Height adjustment; $+1.5\text{mm}/-1\text{mm}$

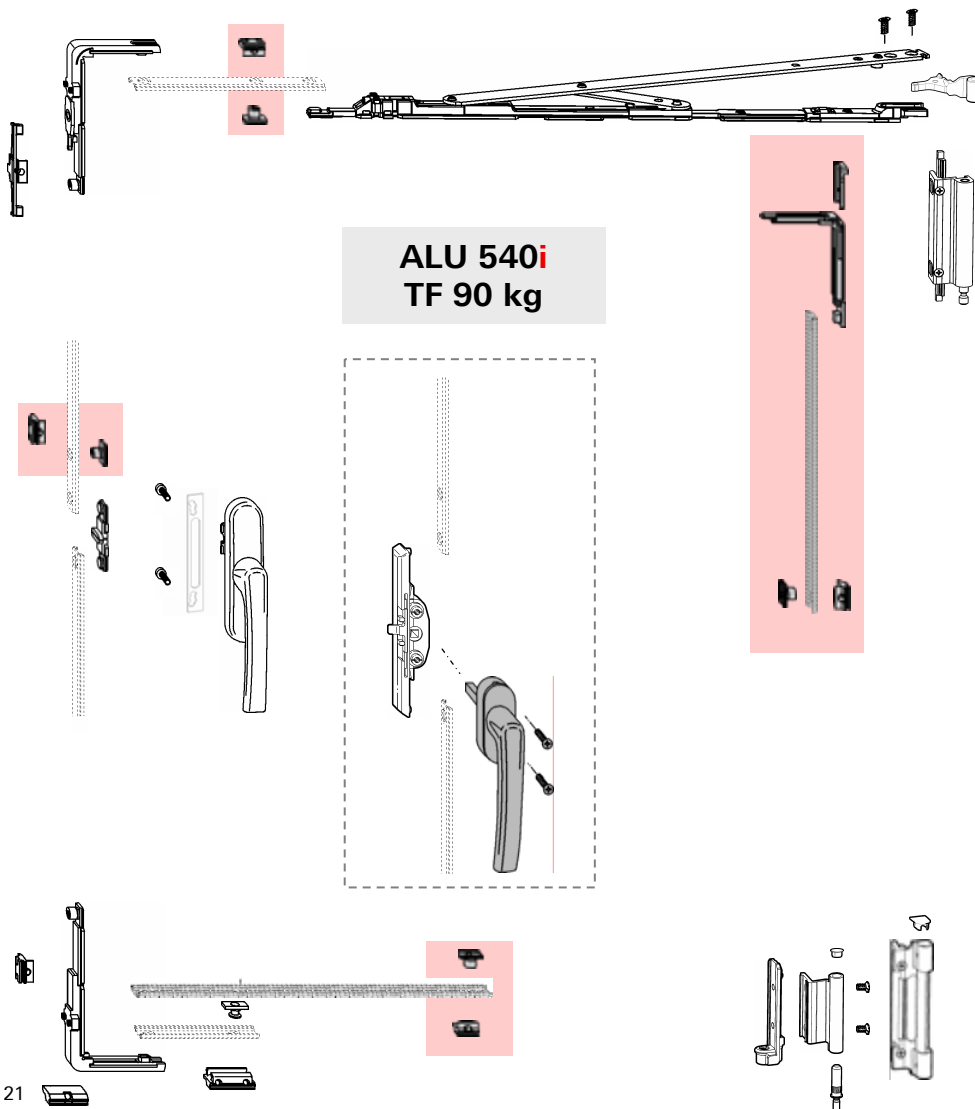
Application range:

- ➔ Scissors-stay size 1 (S.W. = 405-600mm)
- ➔ Scissors-stay size 2 (S.W. = 600-1300mm) * with additional scissors-stay up to S.W. 1600mm
- ➔ Centre locks

Roto ALU 540

HARDWARE OVERVIEW

ALU 540i TILT-FIRST



- ➔ TF hardware 90kg / 130kg
- ➔ Non-handed hardware components
- ➔ Aluminium hinge-side with preassembled clamping support-strip
- ➔ Scissors-stay in steel / KTL (= Matt black kataphoritic-Dip lacquer) or "Niro" (stainless steel)
- ➔ 2 stay sizes
- ➔ Lateral adjustment; Pivot rest $\pm 1.0\text{mm}$, Sash stay $600 \pm 2.0\text{mm}$, Sash stay $390 + 1.5\text{mm}$
- ➔ Height adjustment $+1.5\text{mm} / -1\text{mm}$

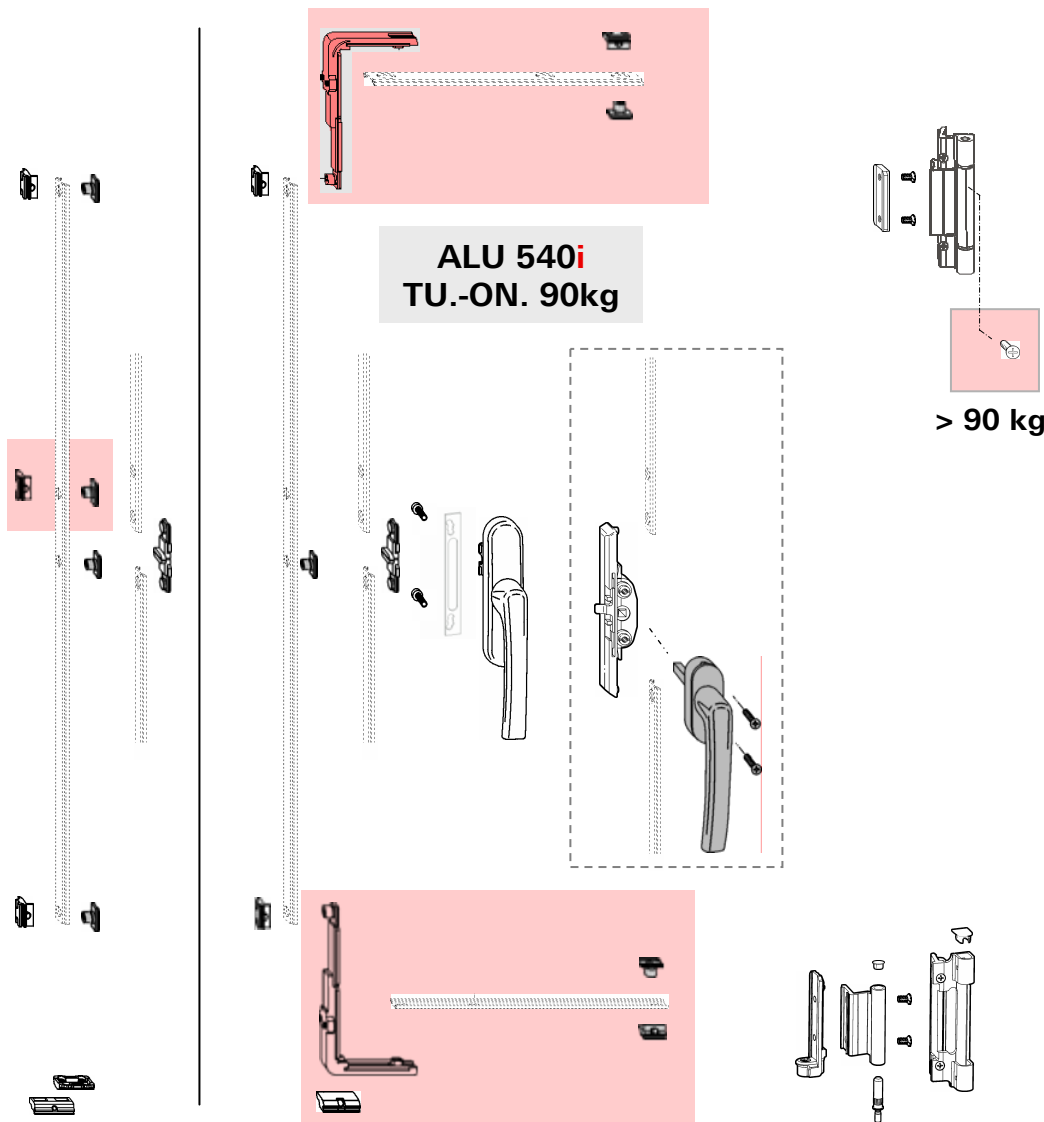
Application range:

- ➔ Scissors-stay size 1 (S.W. = 390-600mm)
- ➔ Scissors-stay size 2* (S.W. = 600-1300mm)
*with TF additional scissors-stay up to S.W. 1600mm
- ➔ Centre locks

Roto ALU 540

HARDWARE OVERVIEW

ALU 540i TURN-ONLY HARDWARE

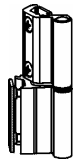
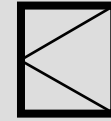


- TU.-ON. hardware
90kg / 130kg
- Lateral adjustment
 $\pm 1.0\text{mm}$
- Height adjustment
 $+1.5\text{mm} / -1\text{mm}$

Roto ALU 540

HARDWARE OVERVIEW

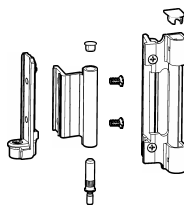
ALU 540i TURN-ONLY HARDWARE



ALU 540i
Turn-Only
hinge EU
50/70kg



ALU 540i
TU.ON-V.
90 kg



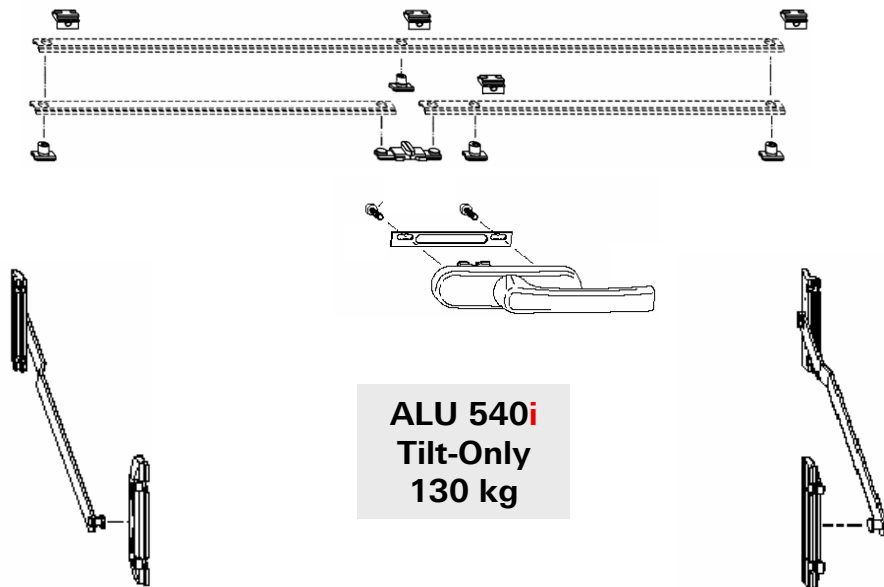
TU.-ON. hinge versions:

- ➔ EU hinge:
 - ➔ TU.-ON. hardware 50kg / 70kg
 - ➔ Lateral adjustment $\pm 0.6\text{mm}$
- ➔ TU.ON-V hinge:
 - ➔ TU.-ON. 90kg / 130kg
 - ➔ Lateral adjustment; Pivot rest $\pm 1.0\text{mm}$,
 - ➔ Lateral adjustment; Turn-Only stay $\pm 2.0\text{mm}$,
 - ➔ Height adjustment; $+1.5\text{mm} / -1\text{mm}$

Roto ALU 540

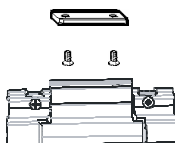
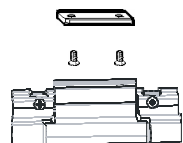
HARDWARE OVERVIEW

ALU 540i TILT-ONLY HARDWARE



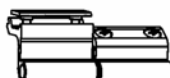
ALU 540i
Tilt-Only
130 kg

➔ Sash weight 130kg



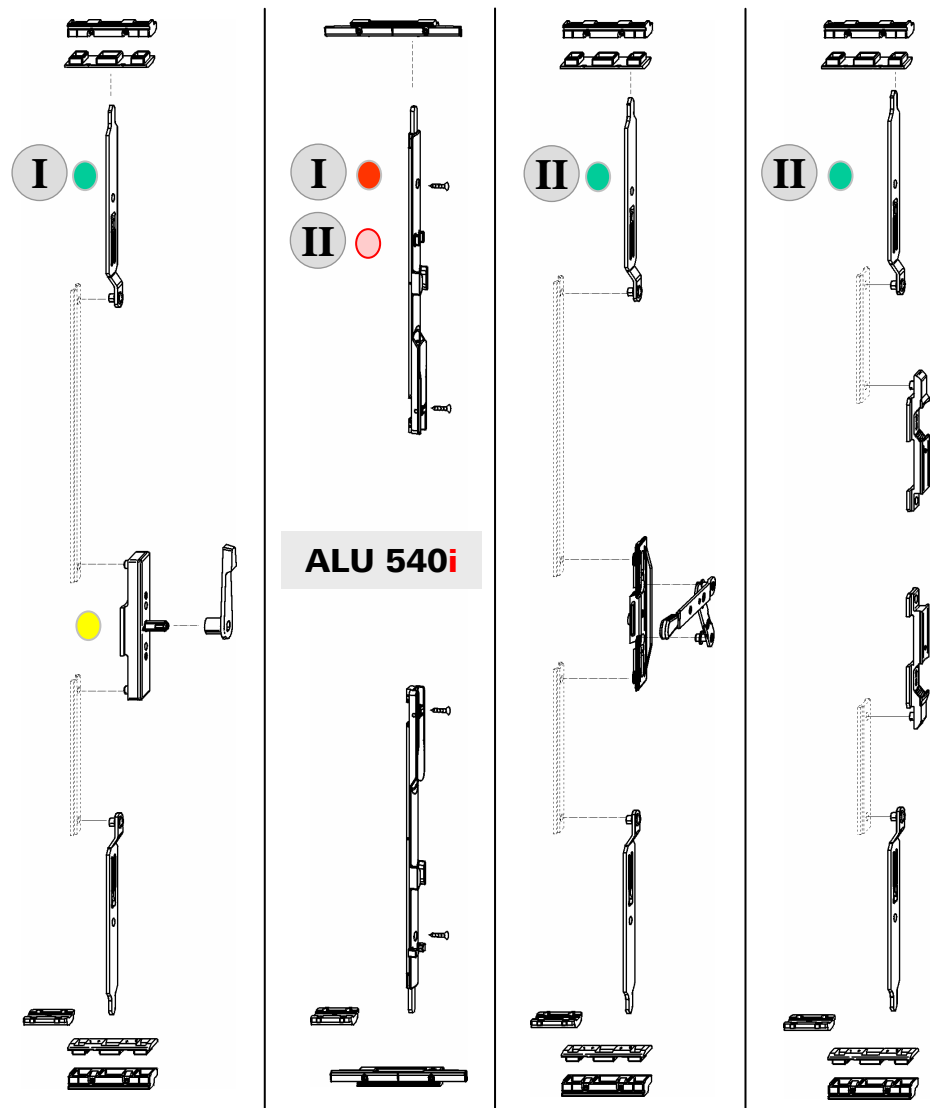
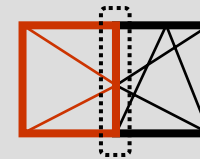
**EU version of TU.-ON.
hinge:**

➔ Hinge-side for 70kg
sash weight

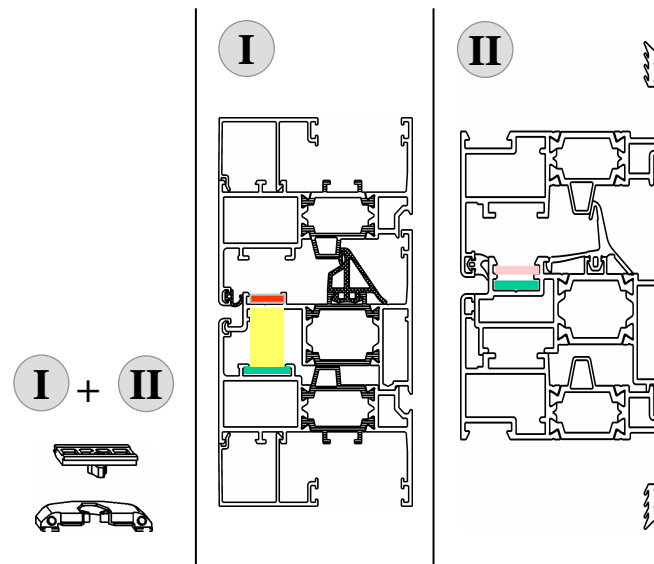


Roto ALU 540

HARDWARE OVERVIEW - ALU 540i FLOATING MULLION HARDWARE



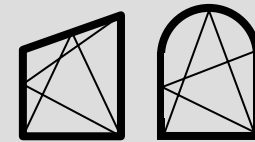
- ➔ Concealed lever-operated espagnolette
- ➔ D.M.-S.M. (Dummy-Mullion Surface-Mounted) concealed lever espagnolette
- ➔ Shootbolt
- ➔ Slider shootbolt
- ➔ Bullet catch (for 2-sashed windows)



Roto ALU 540

HARDWARE OVERVIEW

PITCHED & ARCHED T&T HARDWARE



- Use on pitched and arched windows
- 80kg sash weight
- Opening distance of 120mm at the stay bearing
- Hinge-side is clampable with ALU 500
- 6 clamp-strips
- Left-handed / right-handed hardware
- Compatible with ALU 540 and ALU 540i !

Roto ALU 540

ESCUTCHEONLESS ROTOLINE HANDLE



→ Escutcheonless RotoLine:

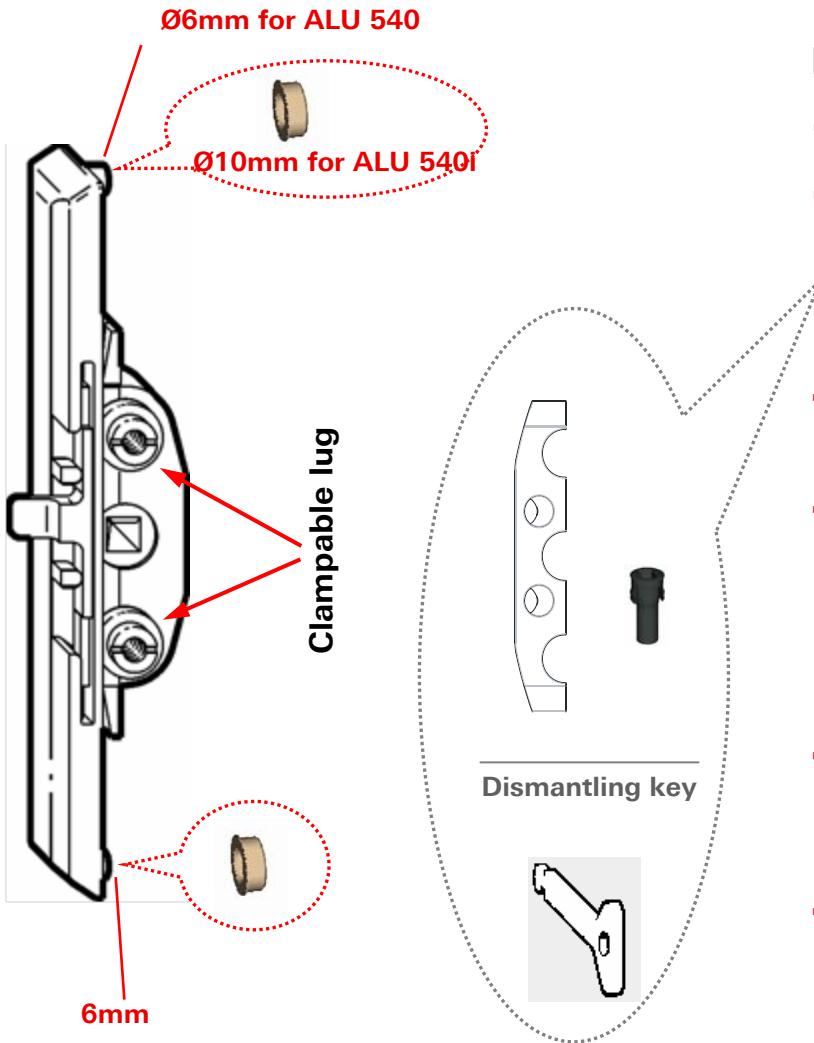
- For standard profiles with overlap height >10mm
- Special machining is necessary on standard profiles
- When using special sash profiles, no routing is necessary
- Available in standard and lockable versions

→ Escutcheonless RotoLine with ring:

- Installation with and without ring is possible

Roto ALU 540

SPECIAL FEATURES

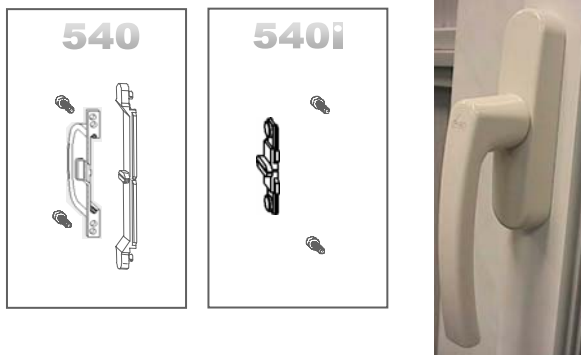


New flush encased gearbox:

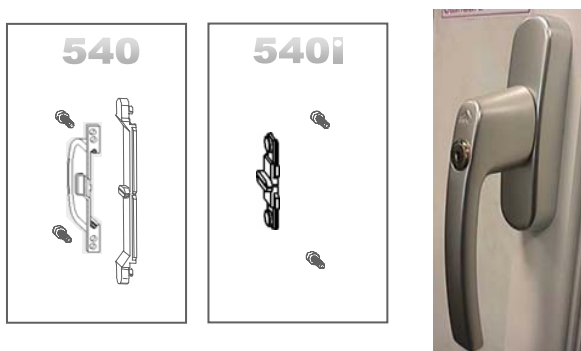
- For window handles with spindle
- For escutcheonless handle: Mounting plate (additional component) necessary, handle support packer for transport (dismantle with key)
- Available **with** und **without** integrated mishandling-device
- Handle is fixed by means of two clampable lugs. Activate the transport protection by installing the handle. The handle can then be removed, for transport.
- Connection to the connecting-rod with 10mm insertable cams (ALU 540i), prefitted PVC bushes
- Connection to the connecting-rod with 6mm insertable cams (ALU 540)

Roto ALU 540

HANDLES



- **RotoLine 26** + Connector set
- **RotoLine 32** + Connector set



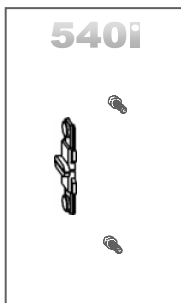
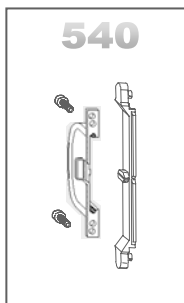
- **RotoLine 26 lockable**
+ Connector set
- **RotoLine 32 lockable**
+ Connector set



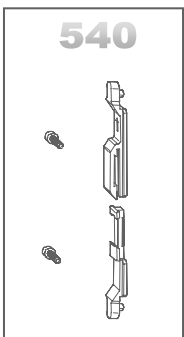
- **RotoLine 26 TF lockable**
+ Connector set
- **RotoLine 32 TF lockable**
+ Connector set

Roto ALU 540

HANDLES



- **RotoLine escutcheon-plate**
(for service handle)
+ connector set
- **RotoLine service handle**
(removable)

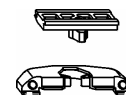
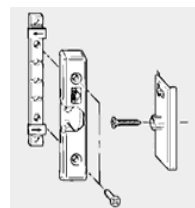
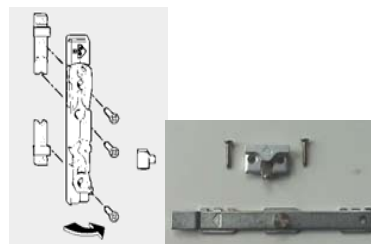
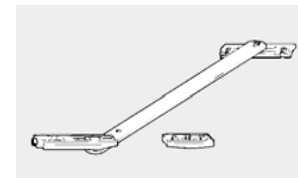
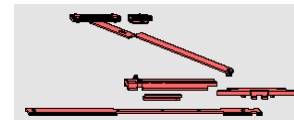


- **RotoLine reverse-action handle 26**
+ connector set

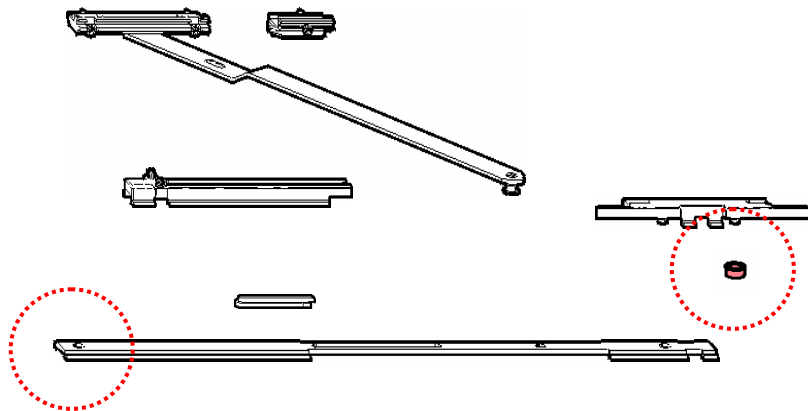
Roto ALU 540

Additional components:

- ➔ **Additional scissors-stay** (from the ALU 400i and/or ALU 500 product range)
- ➔ **Turn-restrictor** from ALU 400i / ALU 500
- ➔ **Child safety lock** from ALU 400i / ALU 500
- ➔ **Balcony door bullet catch**
- ➔ **Night-vent** - two versions

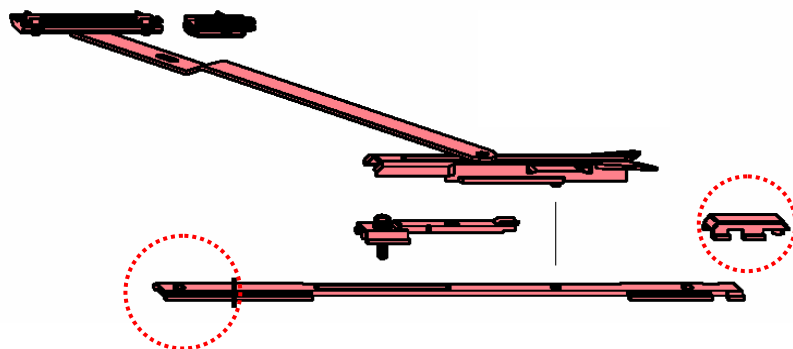


- ➔ **Jigs**



ALU 540i additional scissors-stay:

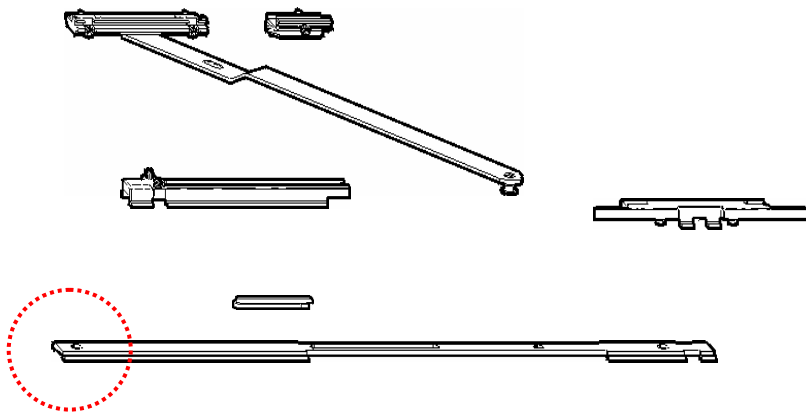
- 10mm compensation sleeve (loose)
- 10mm punched-hole



ALU 540i additional scissors-stay TF:

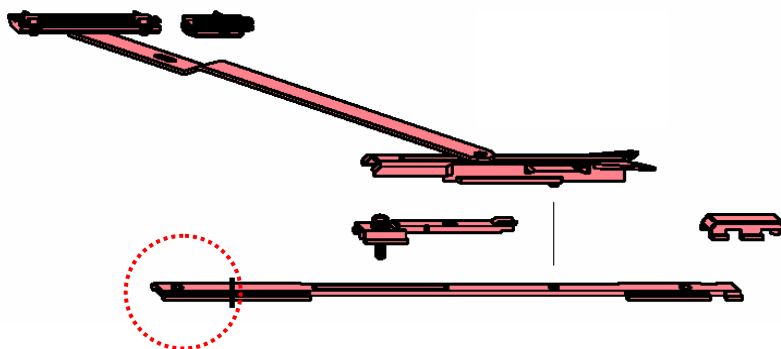
- Adapted coupler component
- 10mm punched-hole

ACCESSORIES



ALU 540 additional scissors-stay:

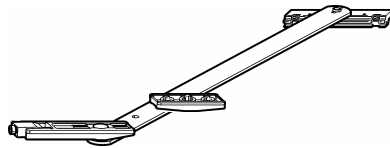
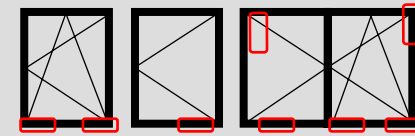
➔ 6mm punched-hole



**ALU 540 additional
scissors-stay TF:**

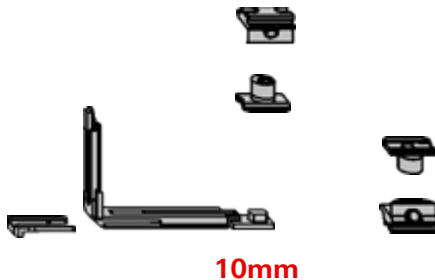
➔ 6mm punched-hole

Roto ALU 540



Turn-restrictor:

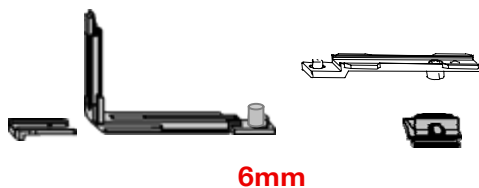
- From the ALU 200/ALU 500 product range
- Compatible with ALU 540 and ALU 540i



Corner drive C.L.-set 540i

(V.01 / V.02):

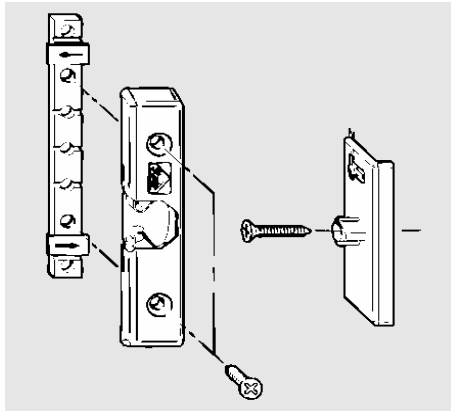
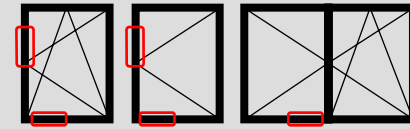
- Corner drive with alignment fork
- X 2 insertable cams
- X 2 strikers



New: C.L. corner drive set 540

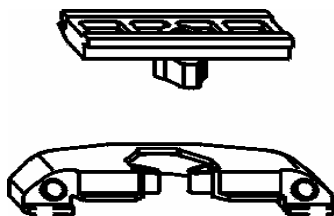
(V.01 / V.02):

- Corner drive with alignment fork
- X 1 C.L. connector 67
- X 1 striker



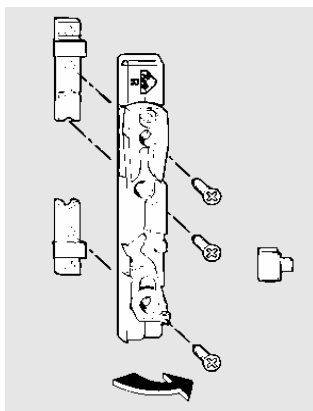
Balcony-door bullet catch:

- From the ALU 200/500 product range
- Compatible with ALU 540 and ALU 540i



Clampable bullet catch:

- Clampable frame component
- PVC sash component
- **Important:** Application only horizontally on the bottom!
- Compatible with ALU 540 and ALU 540i



Night-vent:

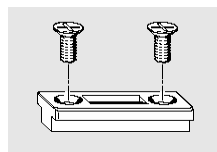
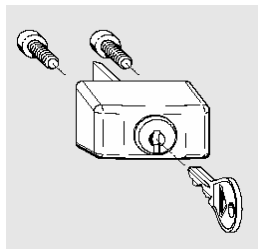
- ➔ From the ALU 200/500 product range
- ➔ Compatible with ALU 540 and ALU 540i

Night-vent set ALU 540i:

- ➔ Frame components from the NT product range
- ➔ Packers, bolts, and screws can be plugged-in

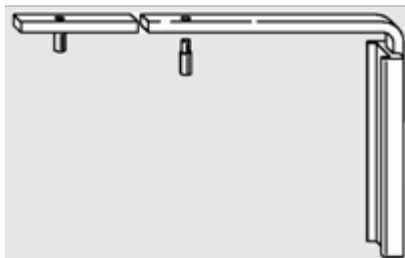
Night-vent set ALU 540:

- ➔ Frame components from the NT product range
- ➔ Night-vent sash component



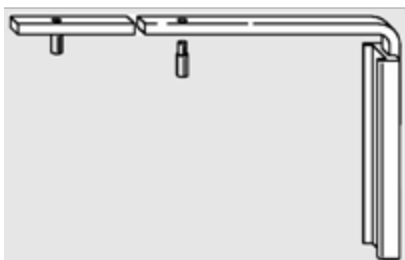
Child safety lock:

- From the ALU 200/500 product range
- Compatible with ALU 540 and ALU 540i



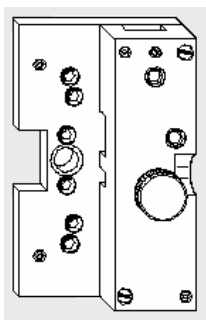
ALU 540 sash stay jig (212154):

- For sash stays 370/600
- TF sash stay 390/600
- Additional scissors-stay
- Striker



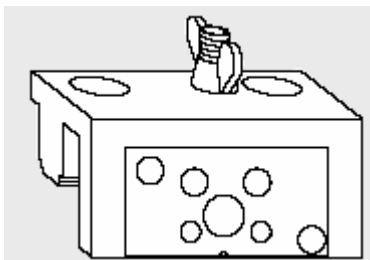
ALU 540i sash stay jig (333471):

- For sash stays 400/600
- TF sash stay 600
- Additional scissors-stay,
- Striker

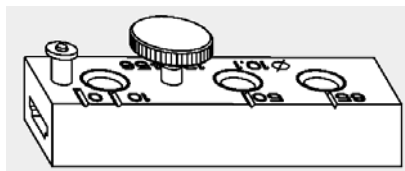


Jig (212544):

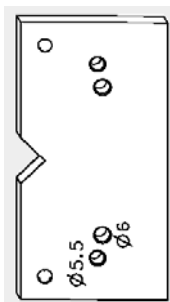
- for ALU handles
- Connecting-rod
- Child safety lock



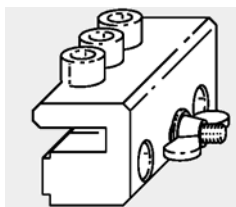
- **New: Jig for flush-encased gearboxes and escutcheonless handles**
(365361)



- **Drilling jig for connecting-rod**
(333472)



- **Drilling jig for 130kg and geared-handles** (333473)

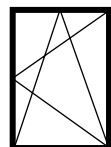


- **Jig for flush-encased gearboxes**
(212155)

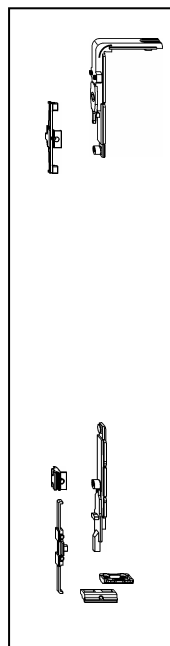
PACKAGING

Packaging versions in the catalogue:

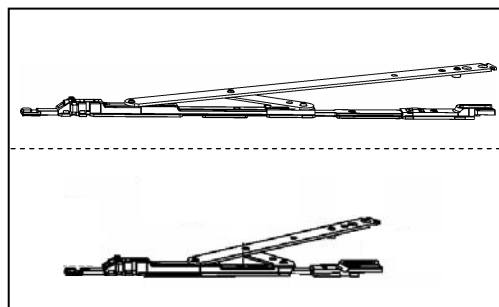
- ➔ Loose packaging
- ➔ Packed in 10 basic sets
- ➔ Packed in 1 basic sets - upon request



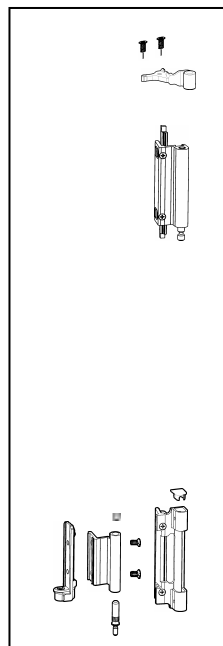
Locking mechanism



Sash stay



Hinge-side



"10" basic set
ALU 540i 90kg

Roto ALU 540