

## **Roto AL**

Universal hardware for aluminium windows and balcony doors

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#### **Efficiency**

- Clampable installation: no additional drilling into the profile is necessary
- Maximum long-term functional performance class and corrosion resistance in accordance with QM 328
- The Roto AL modular system requires less storage capacity and reduces the logistics expenditure
- Fewer parts required because the left and right sides are symmetrical, resulting in reduced logistics and administrative outlay



#### Security

■ Burglary protection up to RC 3 in accordance with DIN EN 1627-1630 is possible thanks to small, compact hinge-side components combined with the Roto AL central locking system



### Comfort

- Hexalobular socket screws: cordless drill/drivers can be used for rapid and simple installation
- Optional accessories, such as a damped turn restrictor, are available for meeting the most stringent project tender
- Preassembled sash stay with integrated anti-slam



### Design

- Roto standard colours and special colours are possible
- Great freedom of design thanks to max. sash weight of 300 kg and max. sash height of 3000 mm
- Wide selection of handle versions



# Universal hardware for aluminium windows and balcony doors

## Pioneering in the aluminium sector

Roto hardware systems for aluminium windows and balcony doors combine state-of-the-art technology with ultimate security and an appealing appearance.

Based on the modular design concept, they can be integrated into all common Euro-chamber profile systems. Corrosion-resistant materials make the hardware very durable and offer a high degree of resistance to environmental influences.



## The Roto aluminium range – discover the progress made!

Today, with the Roto hardware system for aluminium windows and balcony doors, any project can be implemented in a short time frame and with outstanding quality. This is because our new Roto AL and Roto AL | Designo hardware systems provide the right solution for any project.

#### Roto AL

The universal hardware with a surface-mounted hinge side sets new standards when it comes to ease of processing and efficiency.

#### Roto AL | Designo

However, if you require particularly attractive windows without any other design elements to detract from their appearance, then Roto AL | Designo, fully concealed hardware for large aluminium windows and balcony doors, will be your first choice.

### Roto AL | Designo STS

The new concealed hinge side for attractive aluminium windows and balcony doors with a stainless-steel hinge side – for high resistance to corrosion, especially in tropical and Mediterranean climates. Certified in accordance with DIN EN 1670, corrosion protection class 5.

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## Roto AL – the all-rounder

Large sash elements are on-trend – at the same time, the requirements regarding durability, operating convenience and security are becoming more stringent.

The Roto AL hardware system fulfils all these expectations, and can be implemented for all window formats and sizes, as well as for all opening types. Combining it with the Roto AL central locking system for sash heights up to 3000 mm reduces the logistics expenditure and storage space requirements.

Roto has also successfully optimised the installation effort of the hardware system. For example, through hexalobular socket drives on the frames and sash components.

Roto AL, universal hardware for aluminium windows and balcony doors, is suitable for:

- all common window formats
- sash heights up to 3000 mm
- sash weights up to 300 kg
- all standard opening types: Tilt&Turn, Turn-Only, Tilt-Only or floating-mullion sashes and Tilt-First
- resistance classes RC 1 to RC 3
- accessible threshold for T8T | 90 130 kg, T8T | 160 kg (incl. RC 2), T-O | 90 130 kg, FM (second opening sash) | 90 130 kg









## No matter what projects or plans you have in mind

## Because speed pays off

## Freedom of design up to 3000 mm

There are no limits when it comes to planning and designing attractive construction projects with ceiling-height sash elements. This is because, with Roto AL, universality also means staying flexible regarding the sash height and enabling a maximum sash height of up to 3000 mm.



#### Standardised hinge side – standardised appearance

Combining windows of different sizes soon leads to a mismatched look. This is not the case with Roto AL. The hardware system is distinguished by a standardised hinge side up to 3000 mm for ceiling-height sash elements.



## 3000 mm-high sashes – for very high potential turnover

Ceiling-height sash elements look good and are on-trend. Roto has increased the maximum sash height of Roto AL to 3000 mm. The hinge side remains standardised. By doing so, Roto makes it possible to increase turnover – no matter the customer's requirements.

## Hexalobular socket drives – quicker and more reliable installation

Roto makes hardware installation easier using hexalobular socket drives on the frames and sash components. This ensures that the necessary torques are always achieved, and results in a quicker, more reliable and less laborious installation process. The result is that fabricators benefit from lower production costs and workmanship of increased quality.



#### Plug-in corner drive - save time without tools

Roto has equipped the Roto AL hardware system with a corner drive which is fixed in place by a plug-in clamping fork – for faster installation without the need for tools.





## Fixed-dimension connecting rods Roto Con

## **Roto Object Business**



Errors when calculating the striker positions are a thing of the past. Roto has standardised connecting rods T4 and T5, and determined the corresponding fixed dimensions. The fixed-dimension connecting rods can be cropped in advance. In this way, Roto AL helps reduce production costs in two ways.

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## Configure and order with Roto Con

Activate our Roto Con hardware configurator and configure your windows. Select the "ready to use connecting rod" option and generate the technical master data specific to the order.

Finally, the order is sent to your contact at Roto using a form generated in Roto Con.



## Roto Con Orders - the online hardware configurator

With the high-performance Roto Con Orders online hardware configurator, an individual configuration of window and door hardware can be generated very easily and in an extremely short time – for all common window formats and opening types. You can get your individual parts list, including a technical illustration of hardware itemising, in just four steps. The list can be changed, adapted or personalised as desired. You too can save time when configuring, managing and ordering: with Roto Con Orders.

Roto Object Business – security in planning and implementing special solutions



As a technological and market leader in hardware systems for windows and doors, not only do we offer you the highest standards when it comes to security, comfort and design, but we also prioritise first-class service. In this regard, we follow our maxim of "Close to the customer" and support you wherever you need help.

Are you facing a challenge that you can't readily overcome with standard hardware systems? Roto
Object Business is your expert partner when it comes to implementing your projects reliably and economically.
Our experienced specialists from Technology, Design and Sales develop the ideal hardware solution for your objectives, in close coordination with you. Whether large-scale, extremely heavy windows, particularly delicate profiles or futuristic geometries – we can help.

Quickly, flexibly, reliably and personally.





here: Bosco Verticale, Milan, Italy Roto AL

## **Accessories**

## Certified in accordance with QM 328

## Opening restrictors – simply controlled and secure

Opening restrictors have become an intrinsic feature in the modern fenestration industry, especially for multi-storey buildings. Today, a growing number of specifications list tested opening restrictors as a requirement for manufacturers of aluminium windows. The opening restrictors from Roto satisfy the quality criteria stipulated by ift Rosenheim in specifications. In addition, they impress with their excellent durability and especially flexible options for use.





High maintenance and repair costs are therefore a thing of the past. The Roto AL | opening restrictors protect the hinge side of the reveal against damage from uncontrolled sash movements, caused by draughts or operating errors. The service life of the windows is increased as a result. The same version of the Roto AL | opening restrictors can be used on both sides (right/left), regardless of whether the hinge side is concealed or surface-mounted (version: 1.2, 1.3, 2.1).

#### **Bullet catch**

The new bullet catch keeps the sash in the locked position when closing. A spring is centred on the cam if the bullet catch is inaccurately installed or if the sash is incorrectly adjusted. The bullet catch can be used on the left and right, as well as horizontally and vertically.









From a single source.	
<b>Optimum hardware systems</b>	to meet all challenges.

#### Window

Hardware systems for windows and balcony doors

## Sliding

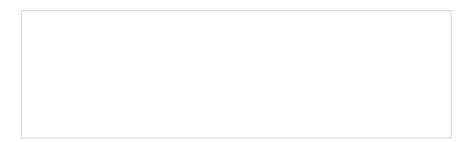
Hardware systems for large sliding windows and doors

#### Door

Matching hardware technology everything about doors

#### **Equipment**

Additional technology for windows and doors



### Location finder



