

Press release

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Specialist solutions for aluminium windows / Special Turn-Only hinge side to aid dismantling of heavy sashes in facade windows / Safety for public buildings: ELA opening restrictor with cleaning function / Flexible special corner drive for Turn-Only and Tilt&Turn windows with obtuse and acute angles

Hardware solutions from Roto Aluvision at BAU 2023

Leinfelden-Echterdingen – ambitious architects often design freeform facades and building elements made from aluminium. To ensure the opening elements still meet the requirements for thermal insulation, operating safety and user comfort, aluminium specialists Roto Frank Fenster- und Türtechnologie (Roto FTT) are always developing innovative hardware solutions. At the BAU trade fair, the manufacturer presented new products and concepts that still guarantee the sealing and operability of windows even with non-standard formats or requirements.

Dismantling sashes in challenging conditions

In 2022, Roto Aluvision, together with the team of advisors at Roto Object Business, developed a special Turn-Only hinge side for facade specialists Dobler. This is designed in such a way that, after undoing the safety screws on the bottom pivot rest and the top Turn-Only hinge, their bolts can be pulled out upwards or downwards as necessary. This makes it much safer when dismantling sashes, even when they are hard to access and cannot be opened fully. This hardware configuration was developed for the "FOUR Frankfurt" project, a new district in the centre of Frankfurt. The sashes on some of the facade windows installed there could only be opened up to 40° due to structural constraints. But even here, it must be possible to fully dismantle the sashes when necessary.

"The unique facades of these high-rise buildings incorporate more than 70 different aluminium profiles. Many of them were designed by Schüco specially for this project," explains Matthias Nagat, Head of Sales and Product Management at Roto Aluvision. "We are proud to have played our part in uniting innovative architecture with safety, quality and functionality."

Open, turn, lock – intuitively using the handle

Around the world, demand is growing for Turn-Only windows for public buildings with an opening width that can be individually restricted for specific user groups. On show at BAU was the "ELA" opening restrictor, which locks in the end position and is controlled by the handle. It is fully concealed and ultra-simple to use. Being a turn restrictor, the ELA enables a sash to stop at a freely defined opening width, because it can be locked through a single movement of the handle. Authorised staff are able to unlock the window sash with a key on the TiltFirst handle and disable the turn restrictor for cleaning purposes by turning the handle to 180°.

This hardware solution has already been applied in many hotels. That's why it was presented on the trade fair stand in a hotel room setting. While the facility management team of a hotel are able to open every sash fully for cleaning and maintenance purposes, the turning movement is limited for guests other unauthorised users.

Flexible special corner drive for designer windows

The designers at Roto Aluvision see more and more window designs featuring obtuse and acute angles. Consequently, they have been grappling with the question of how to make sure window hardware in these elements can guarantee the full functionality and sealing properties



of a sash. Their solution? A flexible special corner drive that is suitable for controlling the Tilt&Turn function or the Turn-Only function. Since this adapts to the window shape in a way that facilitates circumferential locking points, a trapezoid-shaped window, for instance, can still achieve the sealing properties of a normal rectangular window.

The special corner drive, which was premiered at BAU in Munich, can be coupled using "Roto AL" and the "Roto AL Designo" concealed hardware and is easy to install. Once the corner drive has been pushed into the profile, it is simply secured in position with four piercing screws.

Roto Object Business: Partners for design and production

Project solutions like this come about when customers send special enquiries to Roto Object Business. The advisors in this team provide support to facade and window manufacturers, system suppliers, architects and inventors when it comes to designing and developing innovative building elements. In consultation with the Roto Aluvision designers, they make timely and reliable assessments of the technical feasibility of window elements with complex requirements.

Inside the specially built Roto Aluvision advice centre at BAU in Munich, visitors had the opportunity to discover a range of hardware solutions for aluminium window construction and to find out about the services of Roto Object Business. Jordi Nadal, Managing Director of Roto Aluvision, was delighted with how it was received: "After a few years without any trade fairs, we were excited to see how the visitors would react to the new Aluvision products on show. We are really pleased with the response and we are encouraged by the enquiries we've received here. Aluminium facades remain a creative area of construction, and we are looking forward to the opportunity to help our customers make innovative opening elements a reality."



Roto Aluvision developed this fully concealed special Turn-Only hinge side for heavy facade windows with non-standard profile geometries: This means even sashes with a restricted opening that are hard to access can be dismantled with ease.

Image: Roto Frank Fenster- und Türtechnologie GmbH
Turn_Only_hinge_side_central_hinge.jpg



Roto's ELA opening restrictor, which locks in the end position and is controlled by the handle, is ideal for outward and inward opening windows alike, and for Turn-Only, Side-Hung and Top-Hung opening types.

Image: Roto Frank Fenster- und Türtechnologie GmbH

ELA.jpg



The designers at Roto Aluvision see more and more window designs featuring obtuse and acute angles. They developed a flexible special corner drive, which adapts to the window shape in a way that facilitates circumferential locking points.

Image: Roto Frank Fenster- und Türtechnologie GmbH.

Corner_drive.jpg



Matthias Nagat, Head of Sales and Product Management at Roto Aluvision

Image: Roto Frank Fenster- und Türtechnologie GmbH

Matthias_Nagat.jpg



Jordi Nadal, Managing Director Roto Aluvision

Image: Roto Frank Fenster- und Türtechnologie GmbH

Jordi_Nadal.jpg

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