



## **Safety and convenience**

for high-quality sliding doors and windows



Window and door technology

## Roto Patio – hardware technology for the highest demands

### **Competence from Roto**

Our name stands for innovation and technically perfected system solutions in the professional world. We provide high-quality modern hardware technology for windows and doors – branded products with visible and perceptible advantages. Within the framework of our integrated management system (certified in accordance with DIN EN ISO 9001: 2000), we constantly optimise the performance of our processes. In this way, we ensure that the quality of Roto products contributes towards increased customer satisfaction and benefit.

### **Convenience, security and design**

have been the focal point of our company's philosophy for many years now. This can be clearly seen in the case of Roto Patio – the proven hardware system for sliding doors and windows. Patio's particularly smooth hardware operation means plus points regarding ease of operation and makes opening and closing even heavy sashes child's play. Standard integrated security components, such as security cams and strikers, ensure a high level of protection against burglary. Patio offers numerous design options and enhances the aesthetic appearance of the sliding elements.

### **Versatility is trumps**

Choose from the Tilt&Slide Patio S and Patio Z range, as well as Patio 6080 Fold&Slide hardware. This hardware can be used on timber profiles as well as on PVC or aluminium profiles; covering a wide application range and fulfilling individual customers' requests. Patio Life, the convenient hardware system for Lift&Slide doors for timber, timber/aluminium and PVC rounds off the extensive Patio product range.

### **Better safe than sorry**

All Patio hardware system versions are compatible with the Roto MVS magnetic locking and opening monitoring system. It can be integrated simply and promptly into the hardware at any time. Connected to an alarm system, the Roto MVS sends a signal if windows or doors are not properly locked, or are opened by force.



## Overview

**Patio S/Z**

**4**

**Patio details**

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**Patio 6080**

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**Patio Life**

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## More security and convenience for sliding doors

### The smooth running of the Tilt&Slide hardware

as well as the standard integrated security components, offer considerable operation and security advantages, when compared with conventional designs. Both the standard Patio S version, as well as the Patio Z version with positive control is available. The locking system offers burglary protection by means of security cams in conjunction with security strikers located at those positions which are at risk.

Patio S and Z is particularly recommended for balcony and terrace doors, extensions/glass buildings and conservatory applications. Large patio doors with sash widths from 450 up to 2000mm can be installed. Sash heights from 800 up to 2700mm are not a problem due to the extremely robust bogie and scissor-stay design. With this, floor-to-ceiling balcony-doors – the new architectural trend – can be implemented with the innovative Patio Z hardware.

### A clever combination

Patio S combines Patio sliding technology with the advantages of the worldwide best-selling Roto NT Tilt&Turn hardware. The advantage: more logistics and installation efficiency for dealers as well as for window and door manufacturers.



#### Patio S with NT corner drive

The height and gasket compression, adjustable V-cam, is, as a multifunctional locking system, particularly user-friendly. The security mushroom cam can be distinguished by its optimised smooth operation and easy adjustability.



#### NT security striker

Compatible with the overall Patio concept. The aesthetical security strikers provide, in conjunction with mushroom cams, for high levels of security



Photograph: fnp architects



The integrated  
**Patio Z mishandling  
device as standard**  
facilitates convenient  
operation and prevents  
mishandling errors



**Patio Z  
with 125mm  
retracting distance**  
enables the use of  
very deep sash  
profiles, as used with  
highly-insulated  
windows.

## Patio: the window space-saving solution

### Space advantage

Inward opening windows have a small disadvantage: They occupy quite a lot of internal space. In the office for example, the PC monitor must be moved aside to ventilate the room; in restaurants, perhaps one has to shift the table decoration. This can be an annoying matter, but now you can spare yourself this bother. Tilt and slide both small and large windows conveniently and in a space-saving manner, with Patio S and Patio Z. A just as simple, as well as practical solution with both the functional Patio 3090/3130/4150 S and the convenient Patio 160/200 Z. The newly designed slimline cover caps explicitly emphasise modern sliding windows' clear inconspicuous lines. The cover caps are available in five different colours and can be colour-matched with the handle and cover profile.

### The new Patio Z hard-wearing bogie technology

The high-quality bogies, easy-to-clean guide striker and dirt-free guide block provide for a long term perfect function and enable convenient operation of your Tilt&Slide system.

New: The particularly smooth running and quiet rollers with a large diameter of 28mm also facilitate the operation and are – due to less wear and tear – more durable.



**The new Patio Z's durable bogies** provide convenient ease of operation of Tilt&Slide elements











## Operational advantage by means of positive control

### Easy sliding of heavy sashes

The positive controlled top corner drives of the Patio Z enable smooth operation of large and heavy sashes up to 200kg. By means of (handle-operated) positive control, the sash is automatically brought back into the locked and/or tilted mode. The robust, quiet running heavy-duty bogies are used on sash weights from 160kg.

**The new Patio Z heavy-duty bogie**  
with integrated anti-jemmy device



### The new Patio Z advantages at a glance

- New tandem bogies with one-piece housing for particularly high sash weights from 160 up to 200kg
- New retracting distance of 125mm is the highest on the market and meets the requirements for extreme thermally insulated window systems with triple glazing
- New snapper catch made of special synthetic material engage the sash particularly easily in the Tilt position, warranting secure and convenient operation
- New bogie concept with maximum roll diameter. Sash adjustments can be carried out with just one tool due to the new height adjustment facility with safety clip
- Application possible on large, floor-to-ceiling balcony doors
- Integrated mishandling-device as standard



**Patio Z with positive control corner drive**  
for increased ease of operation

## The details are what count

### An overview of the Patio Tilt&Slide technology:

all hardware is compatible with Roto MVS, in conjunction with burglar alarm and monitoring systems.

#### Patio 3090 S

- Sash weight up to 90kg
- Sash rebate width from 450mm to 1200mm
- Sash rebate height from 800mm up to 2400mm

#### Patio 3130 S

- Sash weight up to 130kg
- Sash rebate width from 600mm to 1650mm
- Sash rebate height from 800mm up to 2400mm

#### Patio 4150 S

- Sash weight up to 150kg
- Sash rebate width from 600mm to 1650mm
- Sash rebate height from 800mm to 2400mm

#### Patio 160 Z

- Sash weight up to 160kg
- Sash rebate width from 720mm to 2000mm
- Sash rebate height from 900mm to 2700mm

#### Patio 200 Z

- Sash weight up to 200kg
- Sash rebate width from 1060mm to 2000mm
- Sash rebate height from 900mm to 2700mm



### Operational order for Patio Z handles

All positions are exclusively controlled via the handle. The integrated positive-control function automatically brings the sash into the Tilting and Locking position – pushing the sash by hand is not necessary. This facilitates the sliding door's easy operation.



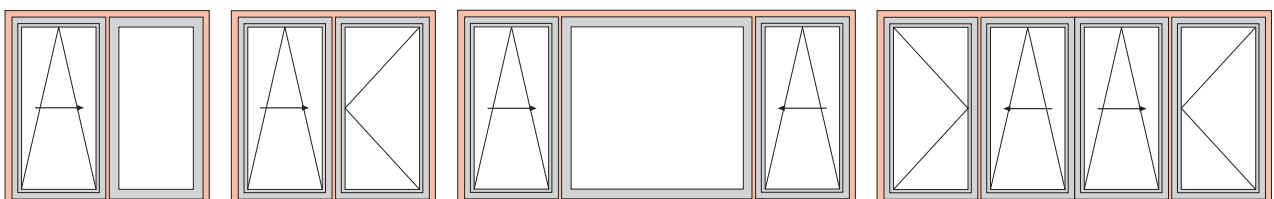
**Patio S handle**  
Standard version for Tilt&Slide hardware. Accustomed Tilt&Turn window operating mode

**Patio Z handle**  
Lockable version for Tilt&Slide hardware with positive control





**The extensive range of Patio Tilt&Slide doors**  
Additional versions also available





## Let your rooms unfold!

### **The Patio 6080 technology for Fold&Slide doors**

opens up rooms in a particularly elegant and efficient way. All doors are folded in a space-saving manner and conveniently slide to the side. In this manner, every room can be opened out fully, making use of the whole width; spacious access to the terrace or conservatory is provided, as well as to rooms for conferences, visitors and for business purposes. An additional plus for enhanced comfort: thanks to the thermally broken threshold, Patio 6080 ensures there are no chances of slipping or stumbling.

This is of particular advantage, e.g. for families with toddlers, or in apartments and buildings specially built for old folks or the disabled. Of course, optimal room ventilation has also been thought of: an integral Tilt&Turn sash that can be operated independently of the folding sashes, makes this possible.

In daily use, this active sash serves as a balcony and/or terrace door, so that one has all the advantages possible.

### **A wide range of applications**

Patio Fold&Slide hardware can be used in timber, timber/aluminium, PVC and aluminium profiles.



**Stable bogies**  
enable effortless, wear-resistant  
sliding and folding



**Frame hinge**  
Adjustable and powder-  
coated



**Concealed screw fixings**  
Burglar-inhibiting and elegant aesthetics



**Support-bracket with bogie and enhanced roller track**  
The flush-fit version facilitates **barrier-free** living



**Design diversity**  
Powder-coated frame hinges in silver, white and medium bronze

And it doesn't only  
**look great!**

## **Functionality and beauty – all in one.**

Thanks to the optimised bogie technology and pin-guided rollers, the Patio Fold&Slide hardware convinces by means of its perfectly smooth operation. The slimline, flat and powder-coated components are available in many colours and make individual designs possible.

## **The Patio 6080's application range**

- Sash weight up to 80kg per sash
- Sash rebate width from 450mm up to 1200mm (active sash)
- Sash rebate width from 450mm up to 900mm (folding sash)
- Sash rebate height from 600mm to 2400mm

## **Perfect protection against damp**

Due to the differences in temperature in the vicinity of the threshold door leaves, humidity can arise. In order to prevent this, Patio has a thermally-broken threshold and improved gasket system. An additional cover strip with anti-slide grooves protects against soiling in the passage area.

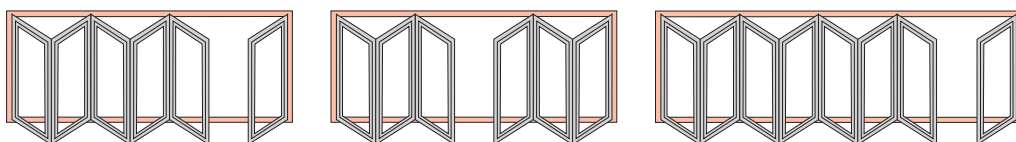
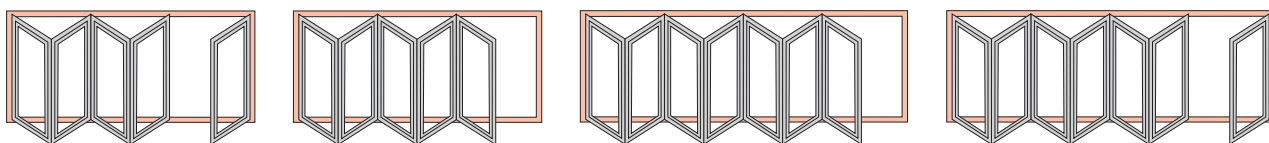
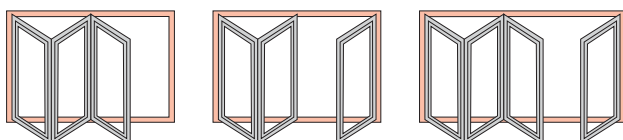
## **Extremely variable**

The hinges can be steplessly adjusted  $\pm 3$ mm with an Allen key. Variable fixing locations enable optimal adaptation to the profile system. The system can also be adjusted to accommodate different overlap heights.

**Patio 6080**  
with integrated Tilt&Turn sash







#### Application variants

The application diagrams depict the possible Patio 6080 Fold&Slide hardware versions

## More convenience and security for large sliding doors up to 400kg

### Only the gasket is lifted!

Conventional hardware technology makes opening large Lift&Slide doors a true show of strength. Before the door or window can be slid to the side, the entire sash must be lifted. Patio Life's unique technology makes this exertion unnecessary. Because instead of the sash, only the gaskets are raised – and these are simply lowered again when closing. And all this via the handle. With so much ease of operation, Roto is well ahead of the competition.

### Roto provides the best protection

Security components with mushroom cams are integrated in our premium product 'Patio Life' even in the basic version as standard, providing effective anti-jimmy protection, and as a result meet the highest security and burglary protection demands.

### Concealed night ventilation

Ingenious and very convenient: with a 180° turn of the door handle, the top gasket of the sliding door retracts and enables night ventilation in an easy way – protected in such a way that neither rain, insects nor dirt can penetrate. In doing so, the sliding doors remain completely locked. A clear product advantage for more convenience, particularly in cases of extended absence.

### Night ventilation function as standard Not visible from the outside



### Double security

The mushroom cam is firmly engaged in the security striker both in the locked position, as well as in the night ventilation position.



### Handle in vertical position (upwards) for concealed night ventilation







**Top guiding component**  
with integrated control mechanism  
for the new circumferential gasket



## Lowering energy consumption and enabling barrier-free living

### Save energy with the new enhanced threshold

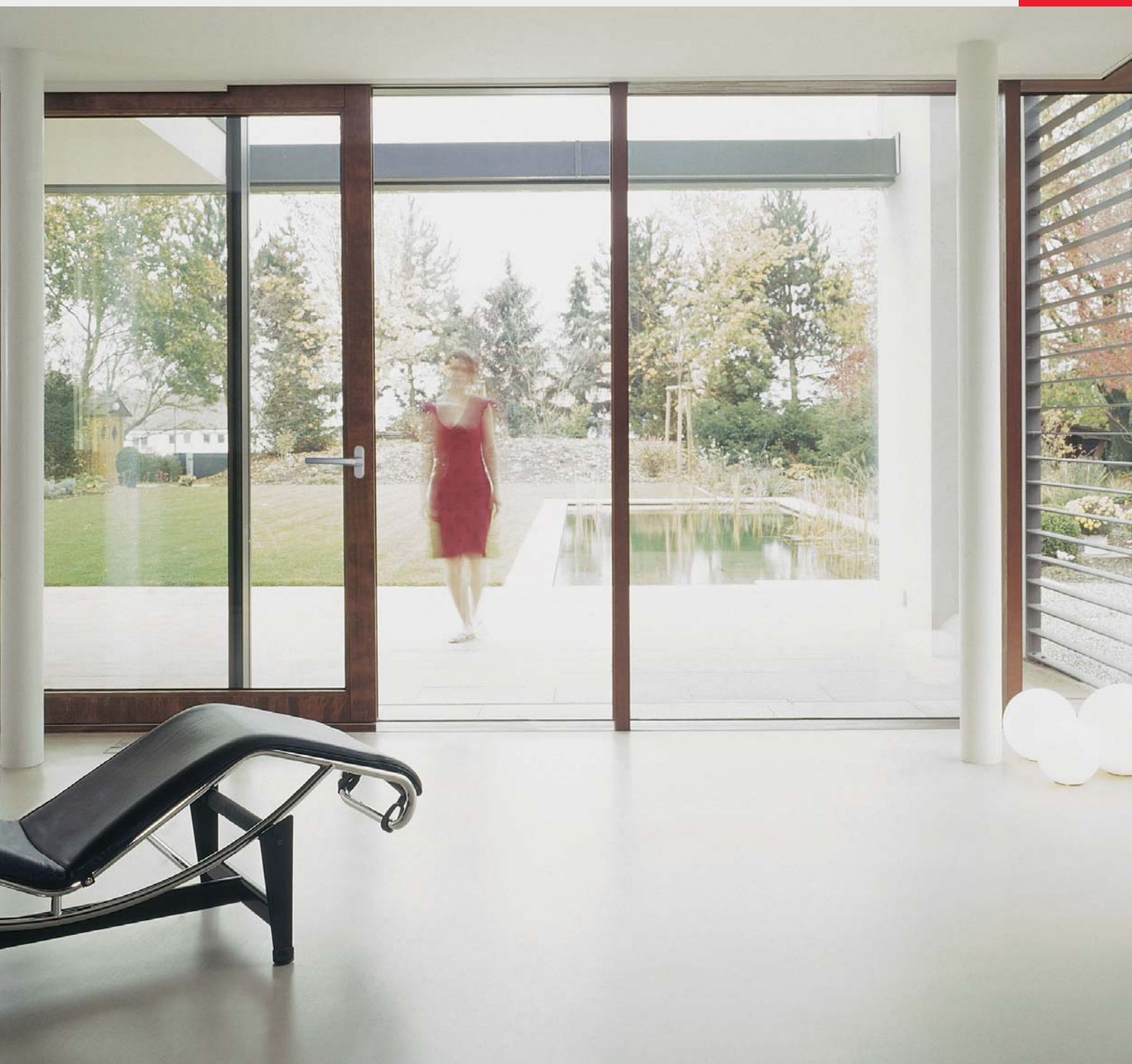
A special material mix of heat insulating substances produces optimal isothermal efficiency and prevents unwanted thermal bridges. The room temperature directly at the threshold is still above 10°C, even if during the cold season, the outdoor temperature sinks as low as –15°C. The advantage: no condensation.

### No tripping hazards as standard

Conventional thresholds are potential and dangerous tripping hazards – in particular for small children and older people. For the wheelchair-bound, this is an insurmountable obstacle. Roto offers a convincing solution with the innovative enhanced threshold Patio Life: The flat roller track rules out tripping enabling barrier-free living in its most beautiful shape. Remarkable: despite the low threshold, the highest impermeability requirements are fulfilled.

**New Patio Life enhanced threshold**  
with interchangeable aluminium cover, 100% recyclable  
and very durable. The flat roller track with an overall height  
of merely 56mm facilitates a barrier-free thoroughfare





#### Your advantages at a glance:

- Straightforward convenient operation of sliding doors up to 400kg
- Logical, intuitive handle operation; operating errors are not possible
- Low operational forces necessary
- The handles' locked position is the same as on windows
- Large glazed areas can be implemented: Window units up to 6.5 metres
- The barrier-free enhanced threshold is produced from a special material mix for optimal thermal insulation
- Secure night ventilation function is not visible from the outside
- High-quality aesthetics
- Integrated security components as standard for the highest burglary protection

#### The application ranges

- Barrier-free access to terraces or balconies
- Multipart elements for flexible interior design can be partially positioned in wall recesses
- Can be used as a room divider
- Max. sash width 3235mm
- Max. sash height 2670mm

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**Window and door technology**

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