

# Space 3

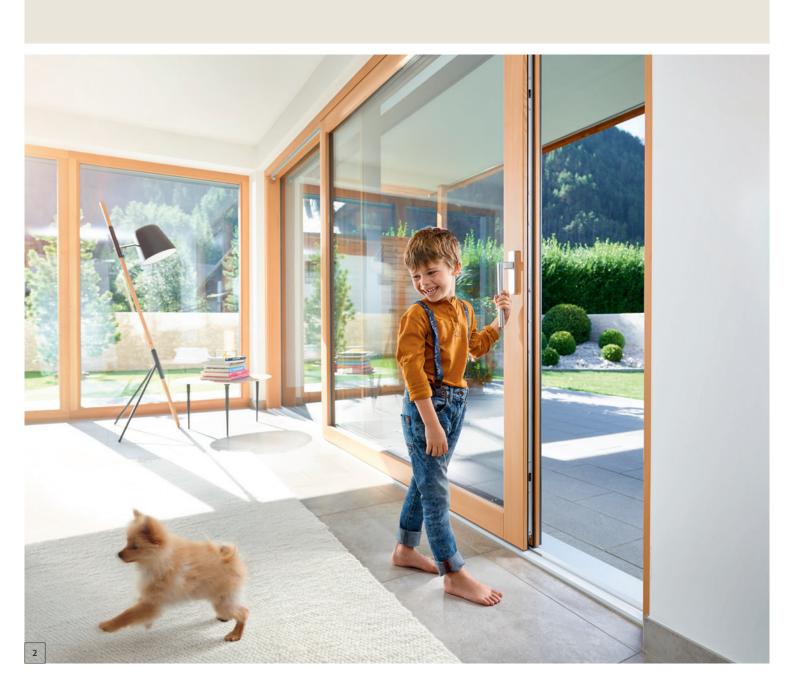
The high-performance hardware system for sliding elements.

Window systems

Door systems

Comfort systems

We bring spaces to life.



# PORTAL offers solutions with vision.

Three dimensions and four walls result in a space. But still no living space. Because that is a dynamic construction of many factors and functions: security, comfort, health, aesthetics, sustainability, energy efficiency and much more. But the focus is always on people.

In short: A space is a system and sliding door hardware, therefore, is not just sliding door hardware. It is part of the system that brings spaces to life and gives people a sense of well-being. Living spaces.

This kind of thinking in terms of systems has a long tradition at SIEGENIA. Today, we are the leading system provider of room comfort: with window, door and comfort systems. Sliding elements with integrated drive solutions or their appbased motor-driven control are just two examples of room comfort of the future.

Room comfort is thus no longer the sum of many detailed solutions, but the result of a holistic approach. To convert diverse requirements, expectations and needs into innovative and marketable solutions is what drives us. For example, with our PORTAL hardware system.

PORTAL brings visual and functional ease into sliding elements up to 400 kg. Whether it be design versatility, comfort, security and accessibility: PORTAL simply pushes itself far ahead when it comes to room comfort. In terms of workmanship, assembly and logistics, PORTAL continues to stand for the many opportunities to save time and cut costs in the production process.





#### More width and a wide variety of designs.

With an opening width of up to 12 m and a total width of up to 19.8 m, sliding doors with PORTAL hardware create the space for more beautiful and brighter living. A simple movement of the hand is enough to make the glass boundaries between the inside and outside disappear. Large-scale PORTAL elements practically let you make walls "vanish into thin air" and, thanks to their high ease of use, they also greatly increase operating comfort as well. By selecting different opening types, you can individually customize your premises.

LIFT & SLIDE SYSTEMS

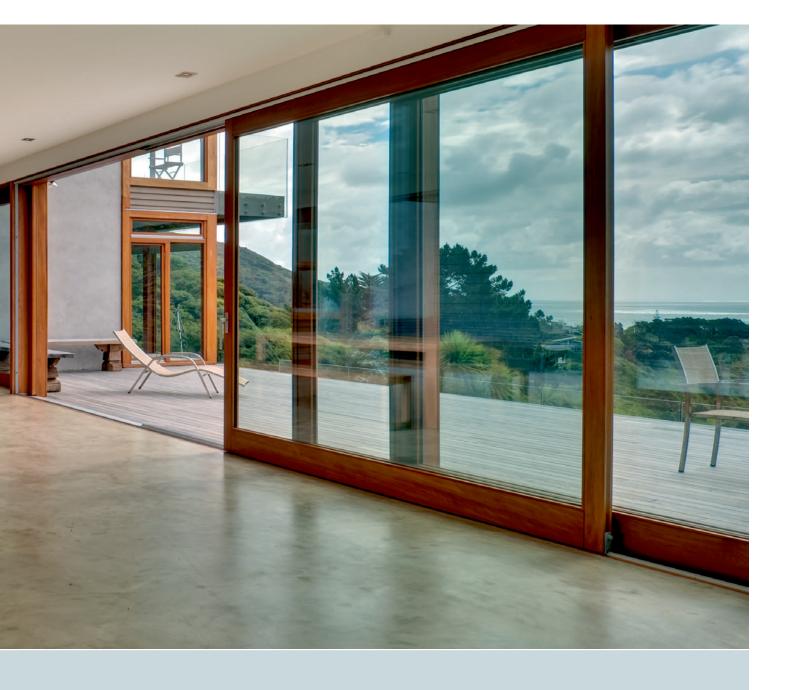
ECO SLIDE SLIDE SYSTEMS

**PORTAL HS** 









PARALLEL TILT & SLIDE SYSTEMS

PORTAL PSK comfort

PC

PARALLEL SLIDE SYSTEMS

PORTAL PS comfort

FOLD & SLIDE SYSTEMS

PORTAL FS PLUS

SLIDE SYSTEMS

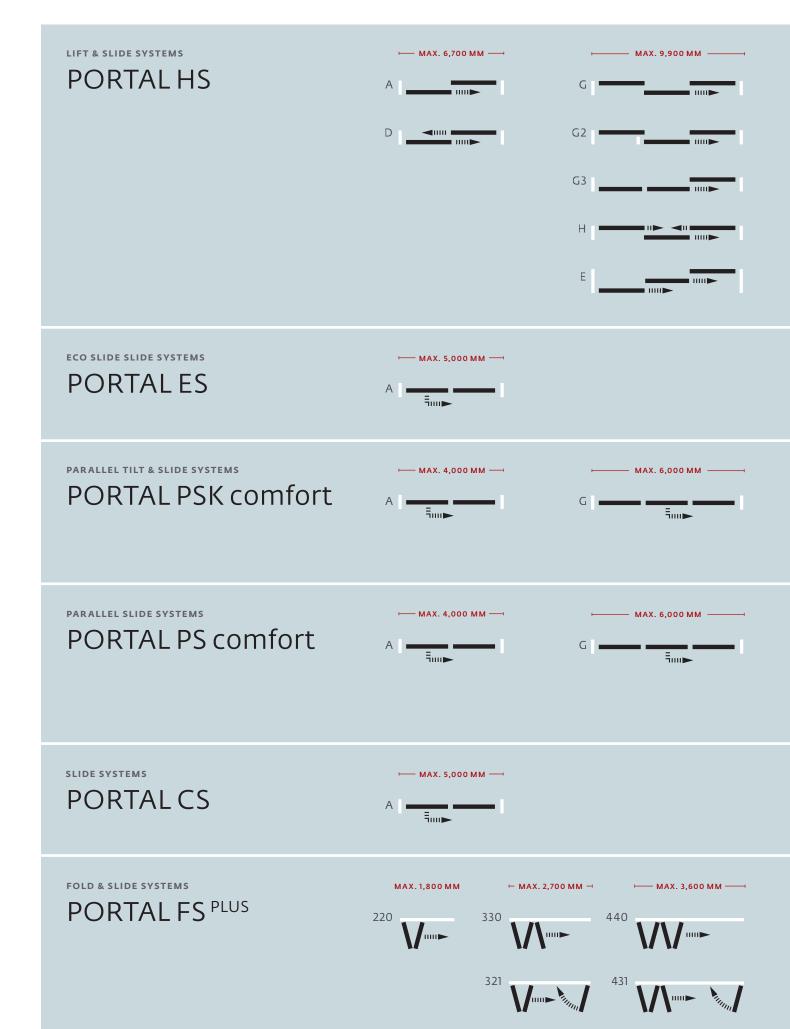
**PORTAL CS** 



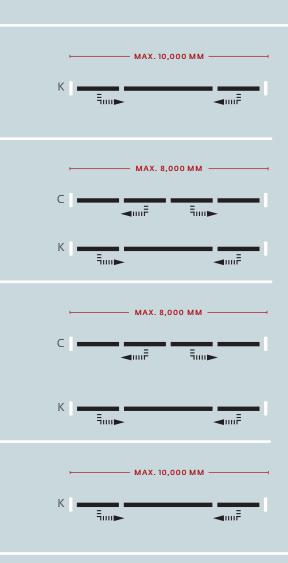




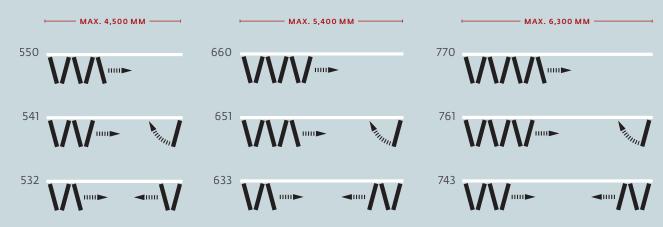








More than just a cookie cutter approach: All opening types at a glance.



# It's not that easy to move 400 kilograms aside. Or is it?



#### PORTAL HS. Lift-slide hardware.

Decades of development expertise have made SIEGENIA lift-slide technology so sophisticated that even a sash weighing up to 400 kg can be operated safely, conveniently and effortlessly. This is how the new PORTAL HS technology is able to reach opening widths of up to 12 metres, at a total width of over 19 metres, in timber, PVC and aluminium.

A wide range of handles is available to allow you to choose the best colours for your lift-slide doors: white, cream, brown, medium bronze, old gold, silver, titanium matt bright, F9, black. Handles can be painted in absolutely any colour retrospectively, as required.

- Easy to operate
- Can be combined with the SOFT CLOSE damper for gentle sliding of the sash into the locking position
- Smooth-running sliding movement thanks to the HS400 compact bogie wheels
- High level of basic security as standard
- Upgradable in stages up to resistance class RC2 in accordance with EN 1627-1630
- Concealed locking technology thanks to the hook bolt gear
- Outstanding energy-efficiency and completely barrier-free thanks to the ECO PASS threshold
- Maximum light incidence thanks to the ECO PASS SKY solutions
- Motorised operation and electronic locking monitoring system possible
- Available as a zero-hassle COMFORT UNIT package for optimised production



WITH AN OPENING WIDTH OF UP TO 12 M, PORTAL SLIDING DOORS
CREATE THE SPACE FOR MORE BEAUTIFUL AND BRIGHTER LIVING.

#### **SOFT CLOSE function**

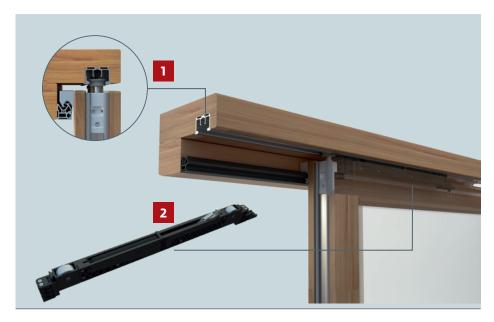
The SOFT CLOSE function – which consists of a guiding rail and a damper – brakes heavy sashes just before the end position and then gently pulls them

into the locking position. This helps to rule out any risk of injury, protects the window elements, and prevents damage to the building structure.

#### Benefits for fabricators:

- Spring-mounted, it automatically adjusts to each sash position and tolerances
- Maintenance-free
- Easy-to-understand function since the damping function is already a familiar part of daily life (e.g. drawers, car tailgates, etc.)
- Faulty switching is eliminated due to automatic regulation
- No design compromises, as it is fully concealed

- Completely new sliding feeling through maximum smooth operation
- Simple and intuitive operation
- Prevents damage caused by improper operation when opening or closing the lift & slide sash
- Reduces the risk of injury (risk of crushing) significantly
- High design standards through concealed positioning



soft close guiding rail, soft close damper fully concealed creating a visual highlight for sophisticated tastes.

#### Sealing rail C

#### Sealing rail C28/48

#### Hook bolt gear

The sealing rail C for timber elements facilitates the creation of a reliable seal of the space between the sliding and fixed sash. Three rear security interlocks can be attached to the rail as necessary to effectively prevent the sash from being pried open.

The new C28/48 sealing rail offers lasting room comfort through its effective seal of the critical upper sash area.

Secure, tight, durable – those are the main characteristics that merge the new hook bolt gear with a stylish look.

#### Benefits for fabricators:

- Thermal separation thanks to PVC profile with three chambers
- Centre locks with compression adjustment and security interlock made of aluminium

#### Benefits for users:

- Good U values, no condensation
- Good tolerance compensation and a tight compression thanks to the large surface area of the seal
- Can be retrofitted for burglar resistance RC2

#### Benefits for fabricators:

- Multi-chamber PVC sealing rail
- Sash tolerance range +/- 3mm in both directions
- Application with and without sealing brush possible
- Prefabricated screw holes
- Easy mounting

#### Benefits for users:

- Optimised thermal separation through a vertical and horizontal multi-chamber sealing rail made of PVC – no condensation formation
- High resistance to wind and driving rain
- Invisible screwing
- Narrow profiles for maximum light incidence
- RC2 burglar resistance is possible by means of fewer and smaller accessory parts

#### Benefits for fabricators:

- Backset 27.5 mm and 37.5 mm
- Locking roller in the frame parts ensures smooth running
- Concealed pressure adjustment+/- 2 mm

- No more protruding hardware components because of our concealed locking technology
- Lock function on locking hook for tighter seal and increased intruder protection
- Effective reduction of the gear load due to the hook bolt movement from bottom to top
- Night vent possible
- No wear thanks to the roller guide in the frame part







# HS 400 compact bogie wheels

#### HS 300 height-adjustable bogie wheels

Greater light incidence from narrower profiles, smoother running from the sash weight distribution across eight bogie wheels and improved energy efficiency are what actually make the HS 400 compact bogie wheels.

The height-adjustable bogie-wheels for sash weights up to 350 kg make installing HS elements significantly easier.

#### Benefits for fabricators:

- Short assembly time since no tandem solutions for weights of 350 400 kg need be installed
- Smaller profile sections possible, which means lower costs

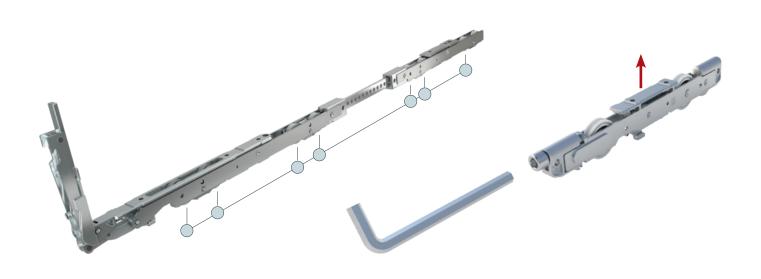
#### Benefits for users:

- Smooth-running sliding due to optimal load distribution on 8 rollers
- Lower load on each roller reduces wear on the bogie wheel rollers
- Increased light incidence from a large glass surface
- Improved U-values from narrow profiles and a greater glass content

#### Benefits for fabricators:

- Make it possible to lift the rear sliding sash up to approx. 3 mm
- Quick and easy adjustment of the sliding sash during assembly

- Smooth-running sliding due to optimal adjustment options
- Professional adjustment on site



#### Comfort gear

#### Gear damper

#### Night vent

The gear features an integrated damper unit for heavy sashes. This supports the torque in the handle, significantly reducing the effort needed to operate lift & slide sashes.

The gear damper ensures a backlash-free connection between handle and gear, meaning that no cracking noises are generated when operating heavy sashes. The PORTAL HS is fitted with a night vent as standard. This allows for an efficient night vent with optimal air exchange at any time simply by using the handle.

#### Benefits for fabricators:

- Preassembled damper unit, ready for installation
- Reduction in force required when lifting sash into the slide position
- Greater operating safety

#### Benefits for users:

- Handle is prevented from snapping back in an uncontrolled manner when the sash is lowered into the locking position
- Less effort required when lifting heavy sashes into the opening position

#### Benefits for fabricators:

■ Integrated in all HS gears with 37.5 mm backset – no additional parts

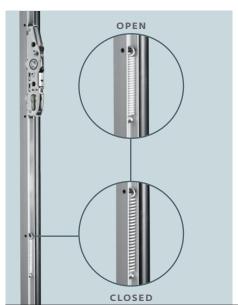
#### Benefits for users:

- Transmits the force flow, which is transferred to the drive when operating the element, but without stroke loss
- No cracking noises when operating the handle

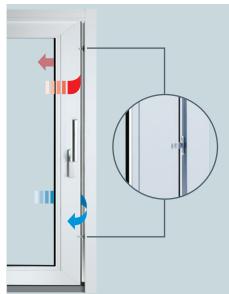
#### Benefits for fabricators:

- Integrated as standard
- Easy-to-understand night vent function

- Easy to operate
- Effective ventilation up to 265 m³/h air exchange
- Healthy indoor environment







#### ECO PASS threshold: barrier-free and ECOlogical.

Outstanding energy-efficiency and completely barrier-free - the unique benefits of the ECO PASS threshold from SIEGENIA.

A versatile system that is also easy to install. With its sights set firmly on the future, SIEGENIA has developed its new ECO PASS threshold to fulfil both the

requirements of the existing German energy saving regulations (EnEV 2014) as well as the anticipated requirements of the new EnEV. In addition to excellent thermal insulation, the product also offers a barrier-free option, thus providing optimum comfort combined with attractive design. Only the running rail is raised above the threshold by 5 mm.

#### Available PVC profile systems:

- Gealan S8000 IQ
- Gealan S9000
- Profine PremiDoor 76
- Profine PremiDoor 88
- Rehau Geneo
- Rehau Synego
- Salamander Design iD
- Salamander evolutionDrive: HST
- Vekaslide 82

#### Available timber profile systems: IV 68 / IV 78 / IV 88 / IV 92

#### Available timber/aluminium profile systems:

Aluron / Bug / Gutmann / Stemeseder

#### Benefits for fabricators:

- running rail create a barrier-free system in accordance with DIN 18040-2
- Single piece solution with flush adaptation of the threshold to the installation depth of the frame
- Removable running rail
- Diverse programme of connection profiles for the perfect structural attachment
- Available as a zero-hassle COMFORT UNIT package

- Retrofittable step plates and the 5 mm 10-chamber design allows for optimal thermal insulation
  - Barrier-free without compromising compression
  - High stability thanks to an aluminium profile integrated into the threshold that fits perfectly







THE ECO PASS THRESHOLD COMBINES ENERGY EFFICIENCY WITH CONVENIENCE, AESTHETICS AND ABSOLUTE ACCESSIBILITY.

#### Stability

#### Thermal insulation

- High threshold stability thanks to aluminium reinforcement that fits perfectly
- High stability in the corner area thanks to functional frame corner connectors
- The high-insulation threshold offers thermal insulation beyond the requirements of the German energy saving regulations
- The risk of condensation is significantly reduced
- Base profile that fits perfectly in many height variants for the perfect floor level







## ECO PASS SKY threshold: Elegant look — barrier-free access.

The innovative version of the ECO PASS threshold is suitable for both timber and timber-aluminium systems, allowing glazing of the element virtually right down to the threshold. In the SKY PLUS version, this actually extends into the threshold. This allows a lot of light into the house and, at the same time, makes every living space seem larger.

In combination with barrier-free accessibility – the threshold height is just 5 mm – this opens up new creative opportunities for architects and planners. The option of glazing from the inside or outside ensures maximum flexibility in fabrication.

#### Available timber profile systems:

■ IV 78 / IV 88 / IV 92

### Available timber/aluminium profile systems:

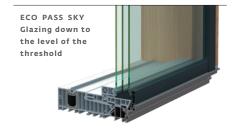
- Aluron
- Bug
- Gutmann
- Stemeseder

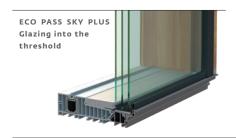
#### Benefits for fabricators:

- Opening up new business fields thanks to the current trend for large glass surfaces and high light incidence
- Reduction of the window sash for fixed glazing
- Single piece solution with flush adaptation of the threshold to the installation depth of the frame
- Available as a zero-hassle COMFORT UNIT package

#### Benefits for users:

- Increased light incidence from a large glass surface
- 10-chamber design allows for optimal thermal insulation
- Improved U-values from narrow profiles and a greater glass content
- Barrier-free access without compromising compression







SIEGENIA'S NEW ECO PASS SKY AND ECO PASS SKY PLUS FLOOR THRESHOLD VARIANTS OFFER OPTIMUM TRANSPARENCY AND ROOM COMFORT.

#### **COMFORT UNIT:** The new zero-hassle lift & slide package.

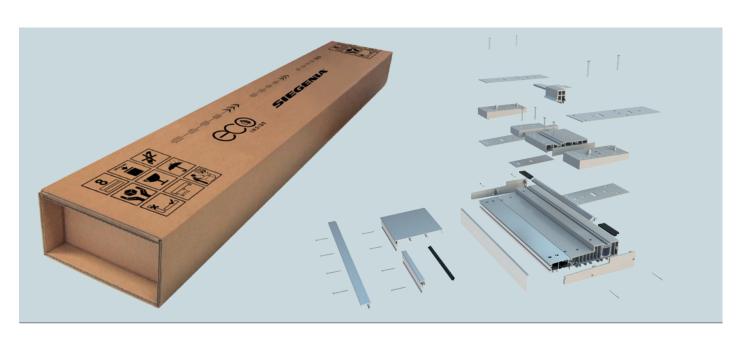
Inspired by the new ECO PASS threshold, guide rail to threshold, is individual-SIEGENIA is now offering not only stand- ly manufactured and delivered in full. ard lengths and individual hardware com- Using the online ordering tool you can ponents, but also a lift & slide complete package - the COMFORT UNIT.

A big advantage for fabricators of liftslide elements is the comprehensive service from SIEGENIA, which means that every order, from bogie wheels,

provide us with the relevant information about the elements required. All components are cut to millimetre precision and pre-drilled individually, saving time and money thanks to their high degree of pre-assembly.

- Standard delivery time 5 8 working
- Easy-to-understand order forms (pdf with user-friendly XML programming); no complicated teaching-in thanks to new software
- Individually adapted to the requirements of timber/aluminium, timber and many PVC systems
- Optimises manufacturing processes, thereby saving time and money
- No tedious, time-consuming searching for components and putting them together

- No stock and no inventory management required
- No inventory risks such as discontinued items, soiling or damage
- No manufacturing risks in terms of miscutting, incorrect drilling, guarantee, etc.
- No rubbish, no cutoffs, quick fabrication, flexible in production peaks
- Less stock, meaning more space



THE COMFORT UNIT CONTAINS ALL REQUIRED ELEMENTS, AT EXACTLY THE RIGHT FIT AND READY FOR INSTALLATION.

## Fully automatic lift-slide system: DRIVE axxent HSA smart.

As a design element for living concepts where aesthetics matter, the fully automatic DRIVE axxent HSA lift-slide drive makes a real impression when it comes to ease of use: At just the press of a button, it automatically opens and closes lift-slide doors with a sash weight of up to 400 kg. With a concealed design, the

lift drive ensures reliable locking and unlocking of extremely large windows and, along with the high-quality button, creates a highly attractive look. The sash can be opened or closed either by this button, or conveniently from a smartphone via the SI Comfort app.

#### For fabricators:

- Suitable for a sash weight up to 400 kg
- Suitable for schemes A and C
- Automatic programming, night vent secured with locking bolts, programmable opening width, timer facility
- Rapid installation: Drive pre-installed and plug & play system ready for connection

#### For users:

- Modern, unobtrusive design thanks to concealed lift drive
- Can be operated via button on the sash, smartphone and tablet (SIEGENIA Comfort app)
- High level of operating safety due to status LED
- Motorised night vent, freely adjustable timer function in the app from 1-59 minutes
- Option of a limited opening width
- Smooth start and stop motion
- Electronic anti-trap protection feature conforming to relevant standards
- Manual emergency operation



A CLEVER COMBINATION: THE DRIVE AXXENT HSA SMART LIFT-SLIDE SYSTEM WITH CONCEALED DRIVE AUTOMATICALLY OPENS AND CLOSES ELEMENTS WEIGHING UP TO 400 KG AT THE TOUCH OF A BUTTON.

#### **AEROCONTROL**

#### SIEGENIA Comfort

AEROCONTROL is an opening and locking monitoring system. Magnetic switches in the lift-slide door signal the respective opening state.

The SIEGENIA Comfort app allows you to conveniently operate a range of SIEGENIA devices using your own smartphone and tablet.

#### For fabricators:

- For universal use
- Integrates into frame rebate, independently of profile, a concealed version is also available for timber elements
- BUS-compatible for integration in building control technology
- VdS tested and certified to the maximum protection class C, depending on switch type

#### Benefits for users:

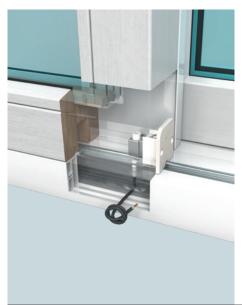
- Security you can rely on
- Saves energy costs by notifying the central building control technology of any open lift-slide doors
- With sabotage monitoring and external magnetic field control of magnetic switch (depending on switch type)

#### For fabricators:

- Standard equipment for all HS drives, convincing in consultation and sales
- Easy, intuitive start-up thanks to an installation wizard integrated in the app
- Enables acquisition of a smartphone-savvy customer target group

#### For users:

- Convenient operation of SIEGENIA devices using a smartphone and tablet, either as a stand-alone solution or integrated in your own WLAN home network
- No need for additional remote control
- Perfect control thanks to feedback about the device status or command execution
- Notes on compatibility can be found at: www.siegenia.com/qr/comfort-app/faq







APP CONTROL:
YOUR SMARTPHONE BECOMES
A REMOTE CONTROL.

# Versatile opportunities, for perfect utilisation of the space.



#### PORTAL ES. ECO SLIDE sliding hardware.

The ECO SLIDE hardware from SIEGENIA 

Convenient operation is distinguished by its special sealing system. This completely newly developed product from the PORTAL product group combines the simple operation of <a> Can be used for practically any sliding</a> lift & slide systems with the high compression of parallel tilt & slide systems. All this is made possible through its unique design, which combines an uninterrupted, all-round seal with special bogie wheels and innovative guiding and locking elements.

- Continuous seal for high compression
- Economical hardware for sash weights up to 250 kg
- window and lightweight sliding doors
- Can be combined with narrow profiles for maximum light incidence
- Low-maintenance
- Can be combined with the SOFT CLOSE damper for gentle sliding of the sash into the locking position
- Can be used in aluminium, PVC and timber systems



#### Guiding and locking elements

#### Night vent

A total of four of the guiding and locking elements guide the sash precisely into its final locking position. The force required to create the seal is transferred from the handle through the gear and finally to the two locking hooks.

The PORTAL ECO SLIDE is fitted with a night vent as standard. This allows for an efficient night vent with optimal air exchange at any time simply by using the handle.

#### Benefits for fabricators:

- Guiding and locking elements in each corner create the compression in the locked position
- With integrated height adjustment for optimal adjustment during assembly
- Force-controlled locking and opening movement for intuitive operation
- The 16 mm eurogroove is identical to the standard groove used in turnand-tilt windows no modifications required

#### Benefits for users:

- High compression
- PVC stops absorb the impact noise
- Locking bolts on roller bearings for a smooth and wear-free locking movement
- High-quality brass cast locking hooks in a rounded design
- Simple and intuitive operation

#### Benefits for fabricators:

- Integrated as standard
- Easy-to-understand operation

- Effective ventilation
- Healthy indoor environment
- Intuitive operation



#### **Bogie wheels**

#### SOFT CLOSE damper

The ECO SLIDE bogie wheels gently absorb the put-down movement of the sash by a side movement and ensure a gliding movement.

The SOFT CLOSE damper brakes the sash just before the end position and then gently pulls it into the locking position.

This helps to rule out any risk of injury, protects the window elements, and prevents damage to the building structure.

#### Benefits for fabricators:

- Three screwing variants: in the eurogroove, in the groove base or laterally
- Load-bearing capacity up to 150 kg with two bogie wheels; from 150 to 250 kg with four bogie wheels
- Low-maintenance
- The inner casing can be fixed for installation
- Grooves for sealing brushes are provided

#### Benefits for users:

- Intuitive operation
- Low-maintenance

#### Benefits for fabricators:

- Easy to access and therefore easy to adjust, maintenance-free
- Easy-to-understand function since the damping function is already a familiar part of daily life (e.g. drawers, car tailgates, etc.)
- No design compromises, as it is fully concealed

#### Benefits for users:

- Completely new sliding feeling through maximum smooth operation
- Simple and intuitive operation
- Prevents damage caused by improper operation when opening or closing
- Reduces the risk of injury (risk of crushing) significantly
- High design standards through concealed positioning





ECO SLIDE BOGIE WHEELS:
LATERAL SCREWING VERSION.

The magic words have changed from "Open Sesame" to "intuitive operation".



# PORTAL PS/PSK comfort. Parallel-slide or parallel tilt & slide hardware.

The new PORTAL PS/PSK comfort is suitable for parallel slide or parallel slide & tilt systems made of timber, aluminium and PVC. This combines intuitive and convenient operation with a high standard of ease of use.

As the frame to sash clearance for the bogie wheels is very large at 125 mm, the hardware is suitable for very deep window profiles.

- Intuitive operation, supported by several clever comfort components
- Elegant, smooth gliding of the sash into or out of the locking position
- Simplified installation thanks to height and tilt adjustment and a self-supporting running rail without support profile up to 160 kg (dependent on profile)
- Solutions that fit perfectly for various sash weights
- Can be flexibly adjusted to user requirements (basic and premium equipment)
- Contemporary cover cap design



A COMPLETELY NEW PSK HARDWARE CONCEPT WHICH MAKES HANDLING
PS AND PSK ELEMENTS EQUALLY SIMPLE IN TERMS OF INSTALLATION AND DAILY USE.

#### Innovative hardware components create complete ease of use.

The new PS/PSK comfort consists of multiple hardware components which all together, facilitate intuitive operation even for inexperienced users. This effect is achieved by the optimised, parallel, kinematic mechanism at the top and bottom side of the sash, which ensures

a quiet and smooth running performance. At the same time, the new effective rebate brakes from SIEGENIA almost completely prevent the sash from swinging back when retracting and extending. The slider combination and the bogie wheels with decoupled

inlet and outlet control ensure maximum quiet and smooth running. This makes opening and closing easy and protects the sash. The appealing cover caps give the window element a fresh, contemporary look.

#### Benefits for fabricators:

- Sash weights up to 200 kg (PSK 160 comfort up to 160 kg), sash widths up to 2,000 mm and sash heights up to 2,800 mm are achievable (PS 200 and PSK 160)
- Fabrication is optimised due to the use of the standard turn and tilt hardware for the central lock
- Operation is easy to explain
- Mutually compatible basic and premium equipment for a customised offer

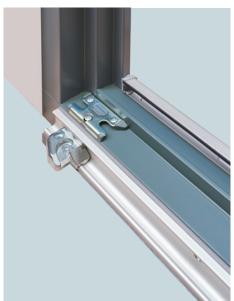
- Flexible adjustment possibilities (height and tilt adjustment)
- Simple installation of the sash (anti-lift device)
- Intuitive operation and damping of the end positions protect the element 

  Sturdy and safe to use

- Intuitive and convenient operation
- Outstanding ease of operation
- Quiet, smooth running performance
- Sash swings smoothly when opening and closing
- High compression as there is no break in the perimeter seal
- Contemporary cover cap design
- Burglar resistance up to RC2



THE ADDITIONAL BRAKE DAMPENS THE SASH WHEN CLOSING AND MINIMISES OVERSHOOT.



THE TRIGGER IN THE RUNNING RAIL TO-GETHER WITH THE TOP TRIGGER ENSURE THAT THE SASH SWINGS OPEN AND CLOSED SOFTLY.



THE DECOUPLED CONTROL ARM ON THE **BOGIE WHEELS ENSURES QUIET OPERATION** AND GENTLE OPENING AND CLOSING OF THE SASH.

#### PS 200 comfort

Less is often more. That's certainly true of the new PS 200 comfort parallel sliding hardware: its no-frills approach means that the focus is strictly on its basic function and as a result it offers end users maximum ease of use. Firstly, this is down to the intuitive operation similar to that of a turn-only window, which guarantees extremely easy handling.

Secondly, this can be attributed to having an uninterrupted seal. This stops drafts and ensures room comfort thanks to high levels of energy efficiency. With burglar resistance up to RC2 even in the standard version, the PS 200 comfort also offers impressive features when it comes to security.

#### Benefits for fabricators:

- Sash weights up to 200 kg can be achieved
- Use of the standard turn-and-tilt hardware for the central locking gear
- Operation is easy to explain
- Mutually compatible basic and premium equipment for a customised offer
- Can optionally be used with secured night vent, TITAN vent secure

#### Benefits for users:

- Easy and convenient to use, supported by several clever comfort components
- Burglar resistance up to resistance class RC2
- Intuitive operation, similar to that of a turn-only window
- Sturdy and safe to use as operating errors are practically impossible
- High compression as there is no break in the perimeter seal
- Contemporary cover cap design
- On request, available with secured night vent, TITAN vent secure



TRULY IMPRESSIVE: THE CONTEMPORARY, NEW DESIGN
OF THE BOGIE WHEEL COVER CAPS.

#### **Bogie wheels**

#### Top stay

The PSK comfort is suitable for sash weights up to 160 kg. The running rail does not need lining for this as a rule.

Furthermore, the parallel slide function is even possible up to 200 kg with two additional bogie wheels.

The top stay allows tilting up to 160 kg; even up to a sash weight of 200 kg in the PSK-Z version.

#### Benefits for fabricators:

- Self-supporting running rail up to 160 kg; no support profile required (dependent on profile)
- Height and tilt adjustment for optimal adaptation to sash weight and height
- Suitable for narrow sash profiles due to small dimensions
- From 160 kg, two additional bogie wheels ensure convenient operation

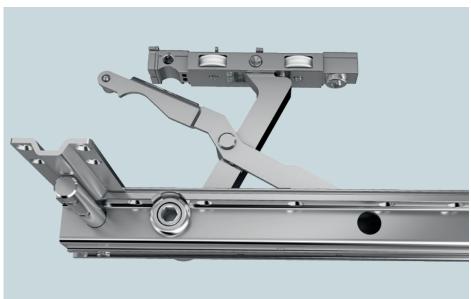
#### Benefits for users:

- The diameter of the new rollers is 25% bigger, ensuring that the sliding movement of the sash is comfortably smooth
- High level of operating safety
- Metal positive locking bogie wheel supports securely and permanently hold the bogie wheels in the running rail and allow the sash to be tilted without tension at the same time

#### Benefits for fabricators:

- Thanks to its laser-welded design and material combinations such as brass and high-strength steel, the top stay is an extremely secure component
- With a frame to sash clearance of 125 mm, even PSK elements can be manufactured with very deep sash profiles
- Well-placed screw positions and an assembly fixing guarantee efficient installation

- Smoothly pushes sash out and pulls sash in when tilting
- Optimised sealing behaviour when pulling in the sash
- Tilting up to a sash weight of 200 kg (PSK 200-Z) permits use of heavy functional glass (e.g. noise insulation or safety glass)





#### PSK 160 comfort linkages

#### PSK 200-Z comfort gear set PZ

#### Frame clearance

Linkages offer a locking function in the tilt position. This fixes the sash against gusts of wind, for example. The tilt position is reversed using the handle.

A 90° rotation brings the sash automati- The small frame clearance of 35 mm cally into the tilt position. After a further allows larger glass surfaces in keeping 45°, the sash can be moved.

with the times.

#### Benefits for fabricators:

- No increase in the installation time
- Low additional costs
- Automatic function with snapper
- Bag of frame parts from the PSK 200-Z comfort range

#### Benefits for users:

- Includes a locking function so that the sash is fixed against wind during ventilation
- Basic security since the sash cannot be pushed open easily

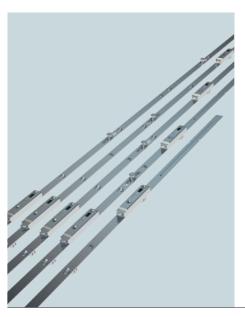
#### Benefits for fabricators:

- 30, 35, 40, 45 and 50 mm backsets for optimal adaptation to profile require-
- Also lockable in tilt position
- For adaptation to standard linkages
- Low logistics costs

#### For fabricators:

- Reduction of logistics costs thanks to a profile set for various applications for all PSK comfort versions
- Reduction of the threshold height allows larger glass surfaces to be used
- Reduction of the material consumption in production by using significantly narrower frame profiles

- Design freedom thanks to reduced frame clearance
- Permits the use of larger glass surfaces and gives homeowners secure access outside







#### Comfort mushroom cam

# Secured night vent TITAN vent secure

The TITAN comfort mushroom cam demonstrates the fact that huge progress can be made on a small scale.

This incorporates enormous advantages in a tiny space for fabricators as well as end users.

The new night vent enables the exchange of air to create a healthy indoor environment and ensures that the building is protected both from intruders and from driving rain.

#### Benefits for fabricators:

 Implemented using special frame parts, no additional parts required

#### Benefits for users:

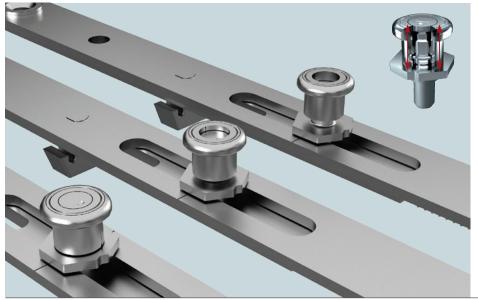
- Optional burglar resistance up to RC3 in locked position and RC2 in ventilation position allows secure ventilation even when you are away
- Ventilation regardless of weather thanks to high resistance to driving rain
- Guarantees continuous basic ventilation and ensures a pleasant indoor environment
- Minimises the risk of mould formation
- Appearance of the window remains unchanged, as there are no visible, unsightly components
- Intuitive operation with the familiar turn and tilt switching sequence
- Retrofitting possible

#### Benefits for fabricators:

- Ensures straightforward and absolutely precise installation with its continuous height adjustment
- Automatically compensates for clearance tolerances, which means it can reduce adjustment work considerably both during production and assembly on site
- Prevents costly and time-consuming complaints
- The pressure adjustment of the comfort mushroom cam also has an effect on the individual adjustment to tolerances

#### Benefits for users:

- Ensures smooth and faultless opening, tilting and closing of window elements
- Automatic adjustment for changing conditions, e.g. temperature fluctuations
- Guarantees a durable locking system that is optimally adjusted at all times
- Ensures individual adaptation to tolerances





SECURED NIGHT VENT

COMFORT MUSHROOM CAM WITH INTEGRATED HEIGHT ADJUSTMENT.

#### Form and function

Design freedom is part of the PS/PSK comfort hardware concept - it allows different design ideas to be implemented more easily. e.g. handle and hardware slide doors are easy to open and close. covers that can be colour-matched to one another. Available in colours: white, brown, silver, old gold, F9. PSK-Z comfort is additionally available in stainless steel.

Moreover, the PSK elements combine space-saving functionality with incredible ease of use. Even large parallel tilt &

#### Handle operation: PSK 100 comfort, PSK 130 comfort, PSK 160 comfort

- After rotating the handle 90°, the sash can be brought into the sliding position manually; the sash can be tilted with an additional rotation
- Using the SIEGENIA central locking gear system with turn-and-tilt components as standard, any closing sequence can be achieved without the need for additional parts

#### Handle operation: PSK 200-Z comfort

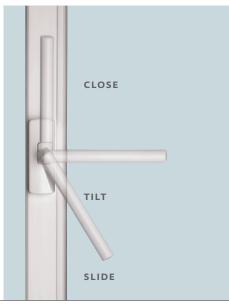
- A 90° rotation brings the sash automatically into the tilt position; the sash can be moved after another 45°
- The PSK element can be operated with one hand thanks to the automatic positive control

#### Handle operation: PS 200 comfort

- The sash can be opened and pushed after a 90° turn
- Using the SIEGENIA central locking gear system with turn-and-tilt components as standard, any closing sequence can be achieved without the need for additional parts



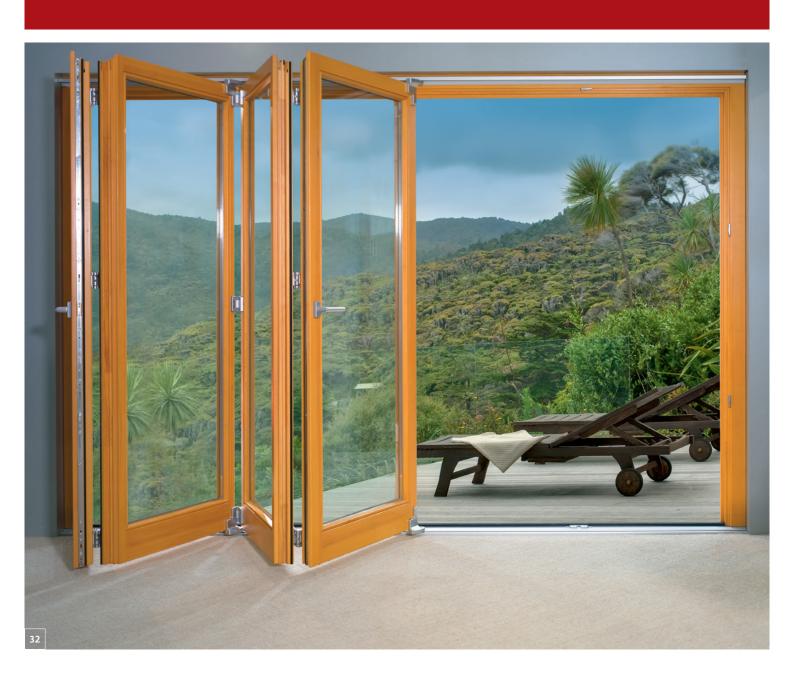




SWITCHING SEQUENCE FOR PSK 100 comfort, PSK 130 comfort, PSK 160 comfort

SWITCHING SEQUENCE FOR PSK 200-Z comfort

Freedom to move — however you want.



#### PORTAL FSPLUS. Fold and slide hardware.

elements, weighing up to 80 kg per sash, can be folded back effortlessly to create 

Convenient operation opening widths of up to 6.3 metres. The hardware covers can be coated, which opens up an equally flexible range of colours to choose from.

Even during fabrication, PORTAL FSPLUS proves its worth with its rational installation technology, great flexibility, and high cost-effectiveness. As the only hardware of its kind, PORTAL FSPLUS is also available in a highly corrosion-resistant stainless steel finish.

- Fold and slide elements with up to seven 

  Large passage, unrestricted opening widths

  - Rational assembly and flexible technology designed for efficient and highly cost-effective installation
  - Smooth sash motion thanks to bogie wheels on ball bearings
  - PVC bearing for maintenance-free sash
  - Available in a highly corrosion-resistant stainless steel look
  - Turn-and-tilt sash can be integrated
  - Barrier-free threshold version in accordance with DIN 18040 available
  - Brush elements keep the running rails dust and dirt free and thus improve the quality of movement



FOLD AND SLIDE ELEMENTS CAN BE EASILY FOLDED INWARD OR OUTWARD.

#### **Threshold**

Thanks to the threshold, the fold and slide elements can be produced with virtually no step at all. The thermally

separated threshold also prevents the formation of condensation and enables barrier-free design in accordance with DIN 18040.

#### Benefits for fabricators:

- Large, special PVC rollers on ball bearings
- Rebate hinges with special friction bearings guarantee easy, noiseless and long-lasting ease of use

- Brush elements keep the running rails dust and dirt free and thus improve the quality of movement
- Easy operation
- Barrier-free threshold version in accordance with DIN 18040 available



# Comfort mushroom cam

#### Cleaning hinges

## Outward-opening FS elements

The TITAN comfort mushroom cam incorporates enormous advantages in a tiny space for fabricators as well as end users.

Another option is the availability of a fold and slide element as a balcony door.

The fold and slide elements can also be configured to open outwards thanks to the high-quality surface technology. Burglar resistance is further prioritised in these elements through the use of bolt security and special screws.

#### Benefits for fabricators:

- Ensures straightforward and absolutely precise installation with its continuous height adjustment
- Automatically compensates for clearance tolerances and reduces adjustment work considerably both during production and assembly on site
- Prevents costly and time-consuming complaints
- The pressure adjustment of the comfort mushroom cam also has an effect on the individual adjustment to tolerances

#### Benefits for users:

The FS-RS sash hinge lets you conveniently clean the outsides from the inside and thus clean the elements even on narrow balconies

#### Benefits for users:

- Weather-proof hardware components
- The hinge can only be removed when the sash is open

- Ensures smooth and faultless opening, tilting and closing of window elements
- Automatic adjustment for changing conditions, e.g. temperature fluctuations
- Guarantees a durable locking system that is optimally adjusted at all times





Smooth and easy operation.



# PORTAL CS. Sliding hardware.

Even simple sliding doors and sliding windows can be transformed into high-quality sliding elements with the PORTAL CS hardware system from SIEGENIA. The handles, available in various designs and colours, fulfil all the requirements for the easy operation of a sliding element.

In the CS 150 version, a load capacity of up to 150 kg can be moved effortlessly using height-adjustable bogie wheels on ball bearings. The bogie wheels in the CS 80 version for smaller elements are made out of stainless steel. Locking hooks made out of special steel, up to four lock parts on the locking side, as well as the integrated anti-lift device provide increased security.

The PORTAL CS ALU range with its locking sides, has been specially developed for sliding elements made of aluminium profiles. The recessed handle, which can be milled and clamped, has a lock indicator that shows you from the outside whether the element is locked. The locking hooks and locking parts are made out of stainless steel.

- Economical sliding window system
- Two versions for sash weights up to 80 or 150 kg for flexibility to meet requirements
- Convenient operation via durable rollers on ball bearings



HEIGHT-ADJUSTABLE BOGIE
WHEELS ON BALL BEARINGS.

THE HANDLES, AVAILABLE IN VARIOUS DESIGNS AND COLOURS, FULFIL ALL THE REQUIREMENTS FOR EASY OPERATION OF A SLIDING ELEMENT.

	PORTAL HS 150	PORTAL HS 200	PORTAL HS 300
> Sash rebate width	_	_	_
> Sash rebate height	_	_	_
> Sash width	650 mm – 2485 mm	590 mm – 2485 mm	720 mm – 3335 mm
> Sash height	1175 mm – 2690 mm	1175 mm – 2690 mm	1175 mm – 3325 mm
> Sash weight	max. 150 kg	max. 200 kg	max. 300 kg
> Handle position	variable in steps (510, 810, 910, 1010, 1110 mm)	410 mm size 170 1010 mm size 220, 260	410 mm size 170 1010 mm size 220, 260
> Schemes	A, C, D, G, G2, G3, H, K, F, E, L	A, C, D, G, G2, G3, H, K, F, E, L	A, C, D, G, G2, G3, H, K, F, E, L
	<ul> <li>Thermally isolated aluminium threshold (barrier-free option available)</li> <li>For timber, aluminium and PVC profiles</li> </ul>	<ul> <li>Self-cleaning roller</li> <li>Thermally isolated aluminium threshold (barrier-free option available)</li> <li>For timber, aluminium and PVC profiles</li> </ul>	<ul> <li>Self-cleaning roller</li> <li>Thermally isolated aluminium threshold (barrier-free option available)</li> <li>For timber, aluminium and PVC profiles</li> </ul>

	PORTAL PSK 100 / 130 comfort	PORTAL PSK 160 comfort	PORTAL PSK 200-Z comfort
> Sash rebate width	670 mm – 1200 mm	670 mm – 2000 mm	770 mm – 2000 mm
> Sash rebate height	840 mm – 2360 mm	840 mm – 2800 mm	1000 mm – 2360 mm
> Sash width	_	_	_
> Sash height	_	_	_
> Sash weight	max. 100 kg/130 kg	max. 160 kg	max. 200 kg
> Handle position	_	-	_
> Schemes	A, C, G, K	A, C, G, K	A, C, G, K
> Frame to sash clearance	125 mm	125 mm	125 mm
	<ul> <li>Requires 35 mm for running rail</li> <li>Self-cleaning roller</li> <li>For turn-and-tilt profiles with 16 mm eurogroove in all frame materials</li> </ul>	<ul> <li>Requires 35 mm for running rail</li> <li>Self-cleaning roller</li> <li>For turn-and-tilt profiles with 16 mm eurogroove in all frame materials</li> </ul>	<ul> <li>With force-controlled top stays</li> <li>Requires 35 mm for running rail</li> <li>Self-cleaning roller</li> <li>For turn-and-tilt profiles with 16 mm eurogroove in all frame materials</li> </ul>

PORTAL HS 400 PORTAL HS 400 compact	PORTAL CS	PORTAL CS ALU	PORTAL ES 250
_	_	_	680 mm – 2500 mm
_	_	_	1200 mm – 2500 mm
1370 mm – 3335 mm	_	_	_
1175 mm – 3325 mm	_	_	_
max. 400 kg	CS 80 = 80 kg CS 150 = 150 kg	100 kg	max. 250 kg
410 mm size 170 1010 mm size 220, 260	variable, centre	variable, centre	constant 500 mm and 1000 mm
A, C, D, G, G2, G3, H, K, F, E, L	A, C, D, K	A, C, D, K	А, К
<ul> <li>Self-cleaning roller</li> <li>Thermally isolated aluminium threshold (barrier-free option available)</li> <li>For timber, aluminium and PVC profiles</li> </ul>	<ul> <li>Gear with locking hook</li> <li>CS 80 bogie wheels, height adjustable, made of stainless steel with rollers on ball bearings</li> <li>CS 150 bogie wheels, height adjustable, with rollers on ball bearings</li> <li>For profiles with a 16 mm hardware groove in all frame materials</li> </ul>	<ul> <li>Recessed handle that can be milled and clamped</li> <li>CS ALU bogie wheels, height adjustable, with rollers on ball bearings</li> <li>For aluminium profiles with ALU eurogroove</li> </ul>	<ul> <li>With positive control</li> <li>For profiles with 16-mm fitting groove in all frame materials</li> <li>For timber, aluminium and PVC profiles</li> </ul>

PORTAL PSK 160 comfort ALU PS 200 comfort ALU	PORTAL PS 200 comfort	PORTAL FSPLUS	PORTAL FSPLUS ALU
_	670 mm — 2000 mm (up to 160 kg) 770 mm — 2000 mm (> 160 kg)	up to 900 mm	_
_	840 mm – 2800 mm	840 mm – 2360 mm	_
700 mm – 1650 mm	_	_	up to 900 mm
850 mm – 2400 mm	_	_	850 mm – 2400 mm
max. 160 kg (PSK) / max. 200 kg (PS)	max. 200 kg	max. 80 kg per sash	max. 80 kg per sash
_	_	_	_
A, C, G, K	A, C, G, K	220, 321, 330, 431, 440, 541, 550, 532, 651, 660, 633, 761, 770, 743	321, 330, 431, 541, 550, 532, 651, 633, 761, 770, 743
118 mm	125 mm	_	-
■ For aluminium turn and tilt profiles with ALU 16 mm groove	<ul> <li>Requires 35 mm for running rail</li> <li>Self-cleaning roller</li> <li>For turn-and-tilt profiles with 16 mm eurogroove in all frame materials</li> </ul>	<ul> <li>Top and bottom running</li> <li>Inward and outward opening</li> <li>Barrier-free with threshold</li> <li>For turn-and-tilt profiles with 16 mm eurogroove in all frame materials</li> </ul>	<ul> <li>Top and bottom running</li> <li>For aluminium turn and tilt profiles with ALU 16 mm groove</li> </ul>



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