





PORTAL for timber and PVC.

Technical information: ES, HS, PSK^{PLUS}, PS^{PLUS}, FS^{PLUS}, CS.

WINDOW HARDWARE
DOOR HARDWARE
SLIDING DOOR HARDWARE
VENTILATION TECHNOLOGY

SLIDING DOOR HARDWARE



ECO SLIDE - closed tight.

MEN

The special sealing system of the ECO SLIDE fitting from SIEGENIA is what sets it apart from the competition. This completely newly developed product from the PORTAL product range combines the simple operation of Lift & Slide systems with the superior weather tightness of Tilt & Slide mechanisms. All this is made possible through its unique design,

which combines an uninterrupted, all-round gear and finally to the two locking bo seal with special bogie wheels and innovative These locking parts then generate the guide and locking elements.

gear and finally to the two locking bo These locking parts then generate the approximately 15 mm closing or oper

A total of four of these elements guide the sash precisely into its final locked position. The force required to create the seal is transferred from the handle through the gear and finally to the two locking bolts. These locking parts then generate the approximately 15 mm closing or opening movement of the sash. special polymer stops absorb the impact noise. The gear fitting groove is 16 mm, which is identical to the standard groove used in Tilt & Turn windows. No conversion is therefore necessary.

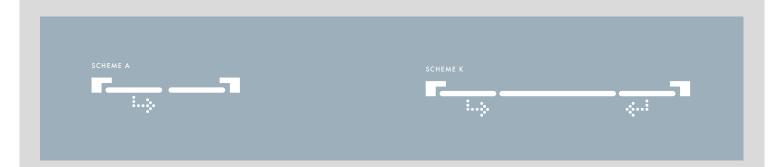
- Highly waterproof thanks to continuous, all-round seal
- Requires new profile systems
- Night vent as standard
- Easy to operate
- Barrier-free solutions available
- Narrow face widths available
- Quick and simple installation
- Low-maintenance





More information can be found at: http://werkbank.siegenia.com

	PORTAL ES 250
> Sash weight	max. 250 kg
> Sash rebate width	680 mm — 2500 mm
> Sash rebate height	1200 mm – 2500 mm
> Backset	15 mm — 55 mm
> Rear backset	Gear casing: 12.5 mm Cylinder casing: 17 mm
> Schemes	A, K
> Handle colours	White, cream, brown, silver, F9, medium bronze
	 With stay control For new profile systems with a 16-mm fitting groove in all frame materials
> Quality testing	The QM 346 seal of approval issued by the Rosenheim Institute for Window Technology (IFT) in Germany guarantees that the quality of the tested hardware is consistently high. Tested in accordance with EN 13126-16 and EN 1191.



Bogie wheels

SCREW CONNECTION IN GROOVE BASE







- 9-mm lateral movement of sash
- Two screw-connection variants: lateral or in the groove base
- Load-bearing capacity of up to 150 kg for two bogie wheels; 150 – 250 kg for four
- Low-maintenance
- The inner casing can be fixed for installation
- Fitting grooves for sealing brushes are provided





- Guide and locking elements in each corner
- In the closed position, these four parts form the seal
- With integrated height adjustment for optimal settings during assembly
- Mounted on roller bearings for a smooth sliding motion



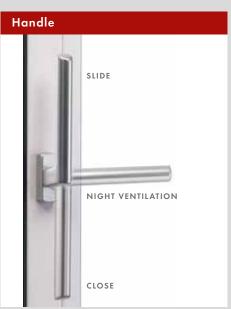
Two locking bolts generate the 15-mm, handle-driven closing and opening movement of the sash. Special polymer stops absorb the impact noise.

- High-quality cast brass locking bolts in a rounded design
- Locking bolts on roller bearings for a smooth and wear-free closing motion



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

- Integrated as standard
- Easy to operate
- Effective ventilation
- Healthy indoor environment



The colour-coordinated SIEGENIA handle range offers a variety of options for your window design.

- Handle length 160 mm
- Square spindle 7 mm

PORTAL HS. Movement in all weight classes.

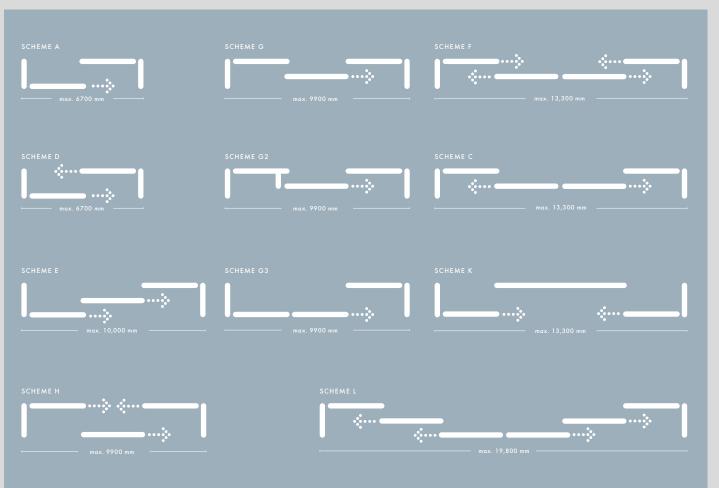
Decades of development expertise have made SIEGENIA Lift & Slide technology so sophisticated that even a sash weighing up to 400 kg can be operated safely, conveniently, and effortlessly. This is how the new PORTAL HS technology is able to reach opening widths of up to 12 metres, at a total width of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

- With a step of 19 mm, the new threshold allows for disabled access in accordance with DIN 18040
- Night vent as standard
- Standard hardware already features the basic security level; easy to upgrade to RC2 resistance requirements in accordance with EN 1627-1630
- Bogie wheels fixed during installation: this simplifies assembly and reduces the potential for errors

- 3 gear sizes only, reducing logistics costs
- The functional frame corner connections provide high stability in the corner area and, together with the end caps, create an attractive appearance
- Minimum recess for gear box the stability of the sash profile is maintained



	PORTAL HS 150	PORTAL HS 200	PORTAL HS 300	PORTAL HS 400
> Sash weight	max. 150 kg	max. 200 kg	max. 300 kg	max. 400 kg
> Sash width	590 mm — 2485 mm	590 mm — 2485 mm	720 mm — 3335 mm	1370 mm — 3335 mm
> Sash height	1175 mm – 2690 mm	1175 mm — 2690 mm	1175 mm — 3325 mm	1175 mm — 3325 mm
> Backset	25 mm	27.5 mm	37.5 mm	37.5 mm
> Handle position	Variable in steps (510, 810, 910, 1010, 1110 mm)	Constant 410 mm, size 170 1010 mm, sizes 220, 260	Constant 410 mm, size 170 1010 mm, sizes 220, 260	Constant 410 mm, size 170 1010 mm, sizes 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	A, C, D, G, G2, G3, H, K, F E, L
> Handle colours	White, brown, EV1, F9	White, cream, brown, EV1, titan matt light, F9, medium bronze, EV2, old gold, black	White, cream, brown, EV1, titan matt light, F9, middle bronze, EV2, old gold, black	White, cream, brown, EV1, titan matt light, F9, middle bronze, EV2, old gold, black
	Thermally-isolated aluminium threshold (barrier-free option available)	 Thermally-isolated aluminium threshold (barrier-free option available) 	 Thermally-isolated aluminium threshold (barrier-free option available) 	 Thermally-isolated alumini- um threshold (barrier-free option available)
> Quality testing	1 1 1 1 1		nstitute for Window Technology (If	





- Thermal separation thanks to PVC profile with three chambers
- Good U values, no condensation
- Good tolerance compensation and a tight seal thanks to the large surface area of the sealing strip
- Centre locks with compression adjustment and aluminium rear gripping security device to meet RC2 resistance requirements can be retrofitted





- Preassembled damper unit, ready for installation
- Reduction in force required when lifting sash into the slide position
- Handle is prevented from snapping back in an uncontrolled manner when the sash is lowered into its locked or open position
- Greater ease of operation and safety

Height-adjustable bogie wheels



The height-adjustable bogie wheels make it possible to lift the rear sliding sash up to approx. 3 mm. This facilitates the quick and easy alignment of the sliding sash during assembly.



Whether a standard design, with profile cylinders or a design for indoor and outdoor use, whatever your installation requirements, this range of handles offers the right grip. A wide range of handles is available to allow you to choose the best colours for your Lift & Slide doors.

- The variable pin length means that sash thicknesses of 56 98 mm can be accommodated
- Handles can be painted in absolutely any colour retrospectively, as required



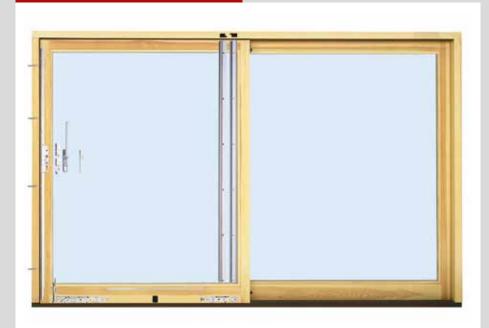
The PORTAL HS is fitted with a night vent as standard. This allows for efficient ventilation and optimal air circulation at any time simply by using the handle.

- Integrated as standard
- Easy to operate

FOR USE INSIDE AND OUT

- Effective ventilation up to 265 m³/h air circulation
- Healthy indoor environment

Intruder Resistance



- High level of basic security as standard
- Upgradable in stages up to RC2 resistance requirements in accordance with EN1627-1630
- Electronic locking monitoring can be integrated into the standard hardware



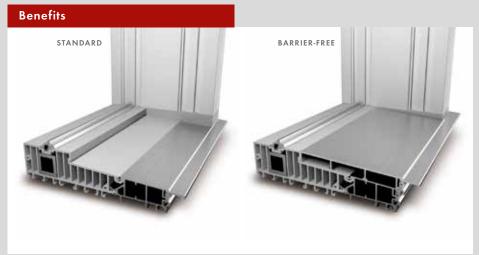


Highly energy efficient and fully accessible — the unique benefits of the ECO PASS threshold from SIEGENIA. A versatile system that is also easy to install.

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 2009) as well as the anticipated requirements of the new EnEV. In addition to excellent heat insulation, the product also offers a fully-accessible (barrier-free) option,

thus offering optimum comfort combined with attractive design. Only the running rail is raised above the threshold by 5 mm. The new 10-chamber profile lies at the heart of this innovative development for pvc and timber systems, providing an exceptional thermal transmission values. At the same time, the special design, with its integrated aluminium reinforcement, makes the threshold particularly robust. Thanks to its one-piece construction and unique degree of pre-assembly, the ECO PASS is quick and inexpensive to install. Together with the

frame profile, this energy efficient threshold provides the perfect finishing touch both inside and out. An extensive modular system also offers various possibilities for expansion and customisation to the existing building structure, including a variety of weather protection, adapter and compensation profiles. The individual sealing profile can be used to generate a sufficient adhesive surface (50 mm) for sealing membranes.



- 10-chamber design allows for optimal heat insulation
- Fully accessible (barrier-free) system thanks to retrofittable step plates
- Fits flush with the frame both inside and out and can be transported easily and economically
- Stable, single-part solution with individual design options
- Optimal sealing thanks to 50 mm adhesive surface
- Removable running rail



- The high-insulation threshold offers heat insulation beyond the requirements of the German energy saving regulations
- The risk of condensation is significantly reduced



The functional frame corner connections provide high stability in the corner area and, together with the end caps, create an attractive appearance when the threshold is used in block frame systems or conservatories for example.

COMFORT UNIT –

The new zero-hassle Lift & Slide package.

Inspired by the new ECO PASS threshold, SIEGENIA is now offering not only standard lengths and individual hardware components, but also a complete Lift & Slide package – the **COMFORT UNIT**.

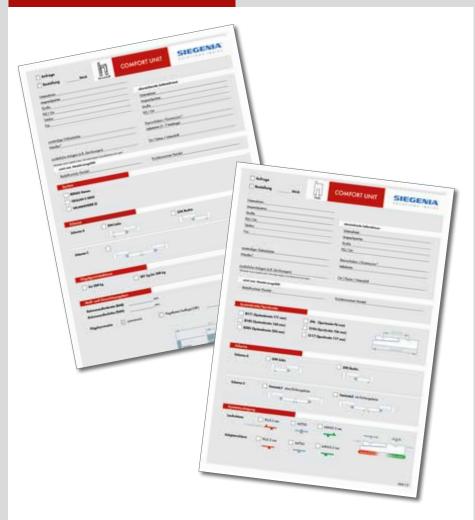
A significant benefit for fabricators of Lift & Slide units is the comprehensive service from SIEGENIA, covering which means that every

order, from bogie wheels to guide rail to threshold, is individually manufactured. All components are cut to millimetre precision and pre-drilled individually, thereby saving time and money thanks to their high degree of pre-assembly. Subject to our delivery schedule.



More information can be found at: http://werkbank.siegenia.com

Order sheet



Using the online ordering tool, provide us with the relevant information about the elements required:

- Materials profile: PVC, timber, or aluminium
- Scheme: A or C
- DIN direction
- Exterior width and exterior height of frame
- Fixed sash width
- Sash weight
- Design
- Desired accessories
- Handle design with colour specifications
- Delivery address
- Property or consignment number
- Number of packages required

Delivery



Subject to our delivery schedule, we will supply you with a complete package for your chosen element containing the following items:

- ECO PASS threshold, fully assembled and drilled with frame corner connector, midsection, support rail, and adapter rail, complete with all seals and mounted running rail
- Running rail, guide rail and connecting rod cut to size
- All compact components such as bogie wheels, gears, handles, etc.
- For barrier-free design: mounted threshold and compensation rail including the drainage holes
- Weatherboard and sealing sheet are predrilled

Benefits



The COMFORT UNIT optimises manufacturing processes, thereby saving time and money:

- No tedious, time-consuming searching for components and putting them together
- No stock keeping or inventory management required
- No inventory risks such as discontinued items, soiling, or damage
- Less stock, meaning more space
- Manufacturing cost savings
- No manufacturing risks relating to miscutting, irregular drilling, etc.
- No waste, no cutting scrap
- Fast processing thanks to simplified, numbered installation instructions

The PSK^{PLUS} generation.

PSK 100PLUS.

Thanks to the significant reduction in the number of its components, the PSK 100^{PLUS} for sash weights of up to 100 kg combines benefits in logistics, handling and processing.

PSK 130PLUS.

The logical level of expansion for mediumsized sashes which continues to offer all of the benefits of the PSK^{PLUS} family.

PSK 160PLUS.

Specifically designed to operate larger sash weights of up to 160 kg manually.

PSK 100^{PLUS}, 130^{PLUS} and 160^{PLUS} can be brought into the tilt position by rotating the handle by 90°. The sliding position can be achieved by rotating further.

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

PSK 200-ZPLUS.

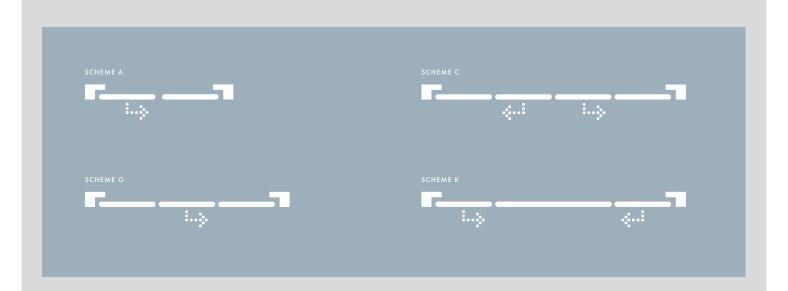
Specially for large-area sashes, up to 200 kg in weight, up to 2000 mm wide, and made from timber, PVC or aluminium.

Thanks to the sophisticated stay control, user convenience is increased further still. A simple 90° rotation of the handle brings the sash automatically into the tilt position. A further movement allows the sash to reach the sliding position.

A very large frame to sash clearance for deep window profiles also applies here.



	PORTAL PSK 100 ^{PLUS}	PORTAL PSK 130 ^{PLUS}	PORTAL PSK 160 ^{PLUS}	PORTAL PSK 200-Z ^{PLUS}
> Sash weight	max. 100 kg	max. 130 kg	max. 160 kg	max. 200 kg
> Sash rebate width	640 mm — 1400 mm	670 mm — 1400 mm	670 mm — 1600 mm	770 mm – 2000 mm
> Sash rebate height	840 mm – 2360 mm	840 mm — 2360 mm	840 mm — 2360 mm	1000 mm — 2360 mm
> Bogie wheels frame to sash clearance	125 mm	125 mm	125 mm	125 mm
> Schemes	A, C, G, K	A, C, G, K	A, C, G, K	A, C, G, K
> Cover colours	White, cream, brown, silver, F9	White, cream, brown, silver, F9	White, cream, brown, silver, F9, medium bronze	White, cream, brown, silver, F9, medium bronze
	 Requires 35 mm for running rails Tilt stays with integrated and adjustable lock-in position, easy to assemble, no synchronisation required For Tilt & Turn profiles with 16-mm eurogroove in all frame materials 	 Requires 35 mm for running rails Tilt stays with integrated and adjustable lock-in position, easy to assemble, no synchronisation required For Tilt & Turn profiles with 16-mm eurogroove in all frame materials 	 Requires 35 mm for running rails For Tilt & Turn profiles with 16-mm eurogroove in all frame materials 	 With handle-driven stays Requires 35 mm for running rails For Tilt & Turn profiles with 16-mm eurogroove in all frame materials
> Quality testing			nstitute for Window Technology (I	





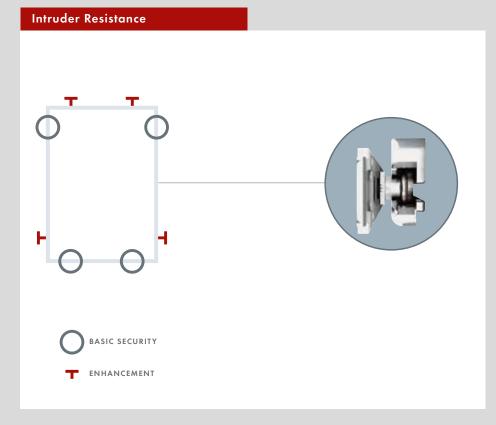
- Easy to use due to integrated damper thanks to an integrated accumulator
- High level of operating safety
- Intruder resistance to meet RC2 requirements for effortless ease of use



- No increase in the fabrication time
- Low additional costs
- Automatic function with snapper
- Bag of frame components from the PSK 200-Z^{PLUS} range



- All-round night ventilation instead of tilt ventilation
- Very easy to use
- High level of operating safety
- Intruder resistance to meet RC2 requirements for effortless ease of use
- 13-mm groove position required
- Sash lift (combination of the corner drive and striker)
- Mishandling device
- Low additional costs
- No increase in the fabrication time



Even the basic versions of the PSKPLUS fittings provide security and intruder protection thanks to the integrated mushroom-head locking cams in all four corners that prevent the door from being levered open. Using additional mushroom-head locking cams and striker plates made of special hardened metal, the level of security can be continuously increased.

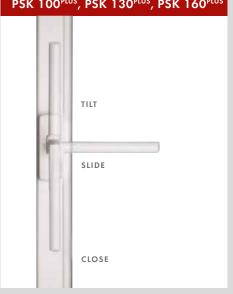
Comfort mushrooms





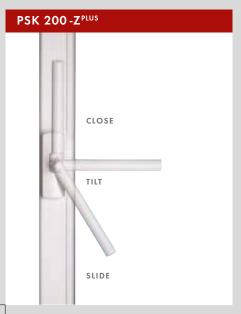
- The infinitely-variable height adjustment automatically compensates air-gap tolerances, and therefore greatly simplifies adjustment both during production and during installation on site
- Automatic alignment for changing conditions, for example temperature fluctua-
- Guarantees a durable locking system that is optimally adjusted at all times
- The compression adjustment of the comfort mushroom also has an effect on the individual adaptation to tolerances

PSK 100PLUS, PSK 130PLUS, PSK 160PLUS



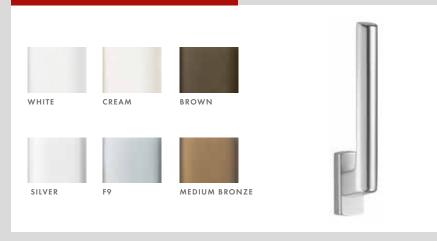
After rotating the handle 90°, the sash can be brought into the sliding position manually. Further rotation allows the sashes to be tilted. Using the SIEGENIA central locking system with Tilt & Turn components as standard, any closing sequence can be achieved without

the need for additional components.



The PSK element can be operated with one hand thanks to the automatic stay control. A 90° rotation brings the sash automatically into the tilt position. After a further 45° , the sash can be moved.

Handle and hardware covers





The handle design and the colour-coordinated hardware covers offer a variety of options for your window design.

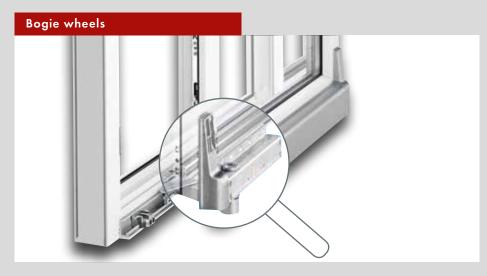


- Thanks to its laser-welded design and material combinations such as brass and high-strength steel, the stay is an extremely secure component
- With a frame to sash clearance of 125 mm, even PSK elements can be manufactured with very deep sash profiles
- Well-placed screw positions and an assembly fixing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

PORTAL PSK 200-ZPLUS gear set PZ



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



- Suitable for narrow sash profiles due to its small dimensions
- High safety margins due to 200 kg load capacity with two additional bogie wheels from 160 kg
- Frame clearance of just 35 mm

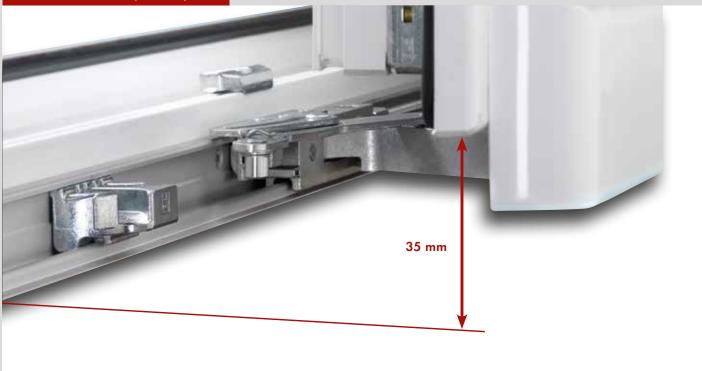


- The self-locking height adjustment allows the bogie wheels to be aligned simply and safely
- An 8-mm Allen key can be used to ensure that making adjustments is easy



With a frame to sash clearance of 125 mm, highly-insulating window systems with large thicknesses can also be manufactured as PSK elements

Frame clearance / Space required



Logistics costs for window manufacturers and hardware distributors are reduced due to a universal set of profiles for the PSK 100^{PLUS}, PSK 130^{PLUS}, PSK 160^{PLUS}, and PSK 200-Z^{PLUS} series. As a result of the visible reduction in track size from 44 to

35 mm, the scope for creative freedom in architectural concepts has increased noticeably compared with the previous model. It reduces the threshold height, allowing larger glazed areas to be inserted and providing homeowners with a secure passage to the

outdoors. The reduced track size also has a positive impact in terms of processing. Using a significantly slimmer frame profile reduces the level of material consumption during the manufacturing process.

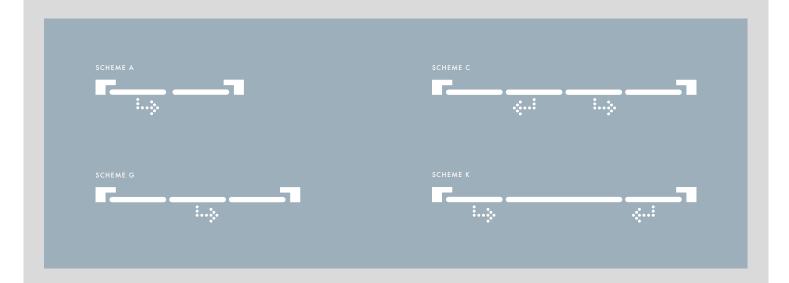
PORTAL PS^{PLUS}. New lifestyle concepts with easy operation.

With a simple 90-degree turn of the handle, even heavyweight, large-area sliding elements can be opened with practically no effort at all. An important technical detail of the new PS 160-ZPLUS.hardware is the manual stay control. The previously-complex opening process, which involved the manual effort of bringing the sash into the tilt and

slide position, has been simplified considerably. In addition, the hardware shares all of the same advantages of the trusted PSK 200-Z PLUS.

- Easy operation: a solution for buildings with frequently-changing user groups, such as hotels and offices, etc.
- Simplified opening process: bogie wheels and stays move the sash out of the frame synchronously
- High level of security: integration of mushroom-head locking cams on all corner drives
- Option to combine with security strike plates
- Upgradable to RC2 resistance requirements
- The reduced number of components required facilitates lower warehousing costs and shorter lead times
- Use of all PSK 200-Z^{PLUS} jigs for the PS hardware

	PORTAL PS 160-Z ^{PLUS}
> Sash weight	max. 160 kg
> Sash rebate width	770 mm — 1600 mm
> Sash rebate height	1000 mm — 2360 mm
> Frame to sash clearance	125 mm
> Schemes	A, C, G, K
> Cover colours	White, cream, brown, silver, F9, medium bronze
	 With dual stay control for the stays and bogie wheels For Tilt & Turn profiles with 16-mm eurogroove in all frame materials





Using the stay control for the bogie wheels and stays, a simple 90° turn of the handle opens the sash at the top and bottom at the same time.

PORTAL FSPLUS.

Freedom to move — however you want.

Fold & Slide elements with up to seven elements, weighing up to 80 kg per sash, can be folded back effortlessly to create 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.

Fold & Slide elements that open outwards also open up new areas of business. The use of new materials and coating technologies make the new hardware ideal for long-term use outdoors as well.

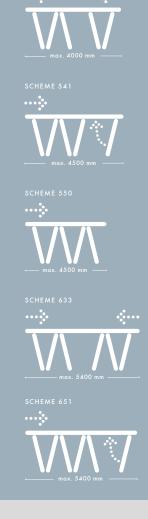
- Large passage, unrestricted opening widths
- Easy to use
- Flexible technology designed for efficient and highly cost-effective installation
- Smooth sash motion thanks to ball-bearing rollers
- High quality polymer bearings make the sash hinges maintenance free
- Available in a highly corrosion-resistant stainless steel look
- Tilt & Turn sashes can be incorporated
- Barrier-free threshold versions in accordance with DIN 18040 are available
- Brush elements in the running rails keep them free of dust and dirt and improve the quality of movement

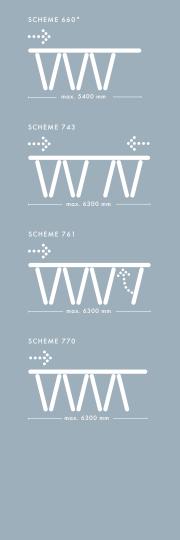


	PORTAL FS ^{PLUS}
> Sash weight	80 kg
> Sash width	330 mm – 900 mm
> Sash height	840 mm – 2360 mm
> Exterior width of frame	Up to 6300 mm, up to 7 sashes
> Schemes	330, 321, 431, 550, 541, 532, 651, 633, 770, 761, 743, 220*, 440*, 660*
	 Top or bottom running Inward or outward opening Barrier-free in accordance with DIN 18040 with threshold For Tilt & Turn profiles with 16-mm eurogroove in timber, PVC and aluminium
> Quality testing	The QM 345 seal of approval issued by the Rosenheim Institute for Window Technology (IFT) in Germany guarantees that the quality of the tested hardware is consistently high. Tested in accordance with EN 13126-15 and EN 1191.

 $^{\star}\,$ Please observe installation instructions in the technical documentation.









Due to the threshold, the Fold & Slide elements can be produced with virtually no step at all. The thermally-isolated threshold prevents water condensation from forming

and enables a barrier-free design in accordance with DIN 18040. Large ball-bearing rollers made of special nylon polymer and rebate hinges with special friction bearings

ensure easy, quiet and long-lasting use Brush elements keep the running rails free of dust and dirt and improve the quality of movement.



Comfort mushrooms



- The infinite height adjustment automatically compensates for air-gap tolerances, and therefore greatly simplifies adjustment both during production and during installation on site
- Automatic alignment for changing conditions, for example temperature fluctuations
- Guarantees a durable locking system that is optimally adjusted at all times

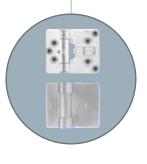


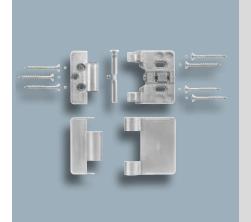
■ The compression adjustment of the comfort mushroom also has an effect on the individual adaptation to tolerances

Outward-opening FS elements



- The FS elements can also be configured to open outwards, thanks to the high-quality surface technology
- Intruder resistance is prioritised further through the use of elements such as locking bolts and special screws





PORTAL CS. Simply upgrade.

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 requirements for the easy operation of a sliding element.



SLIDING HANDLE TILT & TURN HANDLE POP UP HANDLE FLAT HANDLE

- Handles available in a variety of colours
- For different applications and profile situations

Bogie wheels



- Height-adjustable bogie wheels on ball bearings
- For all well-known profile manufacturers
- 80 kg sash weight (CS 80)
- 150 kg sash weight (CS 150)

Gear with locking bolts



- Gear with locking bolts and anti-lift device
- Stop buffer provides a convenient end stop
- Standard or locking versions available

PORTAL HS ALU



- For sash weights up to 400 kg
- Bogie wheels fixed during assembly
- Smooth, safe operation
- Handle-controlled night vent as standard
- Sash height up to 3300 mm and sash width of 3335 mm

PORTAL PSK 160PLUS ALU



- No special profiles required
- High level of stability in sash weights of up to 160 kg
- Compact stay component
- Jigs for installing ready-to-assemble components efficiently
- Running track height of only 29 mm

PORTAL FSPLUS ALU



- Top or bottom running with the same profile set
- Stable running rail with convenient threshold height
- Smooth running
- Efficient installation thanks to few, ready-to-assemble components
- Largest-possible opening width

PORTAL CS ALU



- No eurogroove
- Stainless steel and high-quality pvc material combinations
- Durable and easy to operate







axxent door hinge.

To combine strength, cost-effectiveness and styling into one piece of hardware, we have developed the axxent door hinge specifically for aluminium doors. This two-piece hinge with frame and sash part is designed for sash weights of up to 120 kg.

It requires only minor profile milling and offers many benefits in terms of installation: to connect the sash, simply push it in and then use the convenient 3D adjustment mechanism which offers maximum scope for lateral, height and compression adjustment.

MHS400.

The motor-driven Lift & Slide system MHS400, is the only one of its kind and is now available is the MSA400 for window facades with two sashes which sets new standards in reliability and user security. It can even control large sliding elements of up to 400 kg. Another innovative solution providing you with fresh opportunities to win new customers.



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