

# SAPA SLIDING DOOR 2160 S

HIGH INSULATED LIFT & SLIDE DOOR WITH A SLEEK DESIGN

**sapa:**

By  Hydro



# Sapa 2160 S

High end lift-and-slide door that combine a minimal sightline with high thermal performance

The all new Sapa 2160 S is an optimised, high performing, thermally insulated lift-and-slide door with a sleek sightline. The sliding door belongs to an entirely new generation of sliding systems thanks to technical innovation and well-considered design.



## **Advanced energy saving on a modular basis**

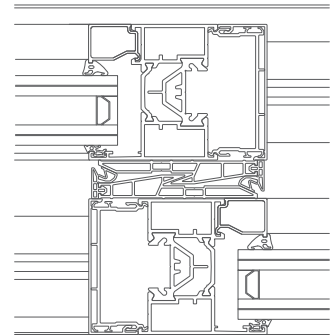
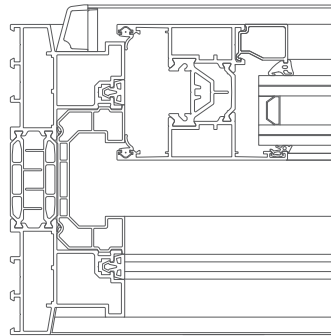
The Sapa 2160 S profiles are coupled with 50 mm glass fibre reinforced polyamide strips, which reduce thermal conduction. These polyamide strips are specially designed in order to improve the thermal values, without adding extra internal inserts in the profiles. The bigger cavities between profiles are insulated with customised PE-strips. The result is that Sapa 2160 S achieves a high thermal performance level, leading to lower total energy consumption and a reduced environmental impact.

The system accommodates glazing up to 53 mm.

# Thermal values in 3 levels

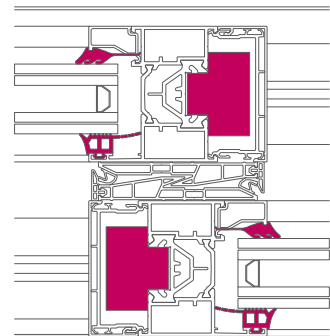
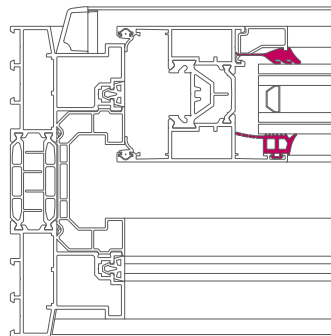
## Sapa 2160 S Basic

- Standard glazing gaskets
- No inserts in vent profiles



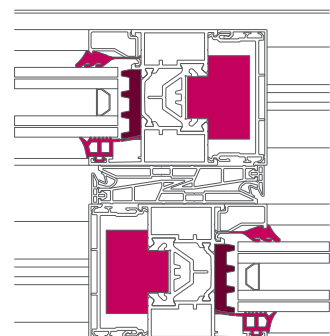
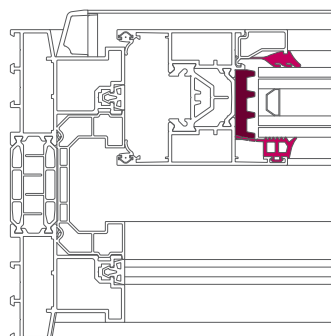
## Sapa 2160 S Super Insulated

- Improved thermal glazing gaskets
- PE inserts in the interlock vent profiles (Foam-power®)



## Sapa 2160 S Super High Insulated

- Improved thermal glazing gaskets
- PE inserts in the interlock vent profiles (Foam-power®)
- PE insert thermal improved glazing unit



# Sapa 2160 S

## Contact system with outstanding thermal insulation

Outstanding thermal insulation is the critical first step to achieve energy-efficient buildings. Using triple-insulated glass, the Sapa 2160 S solution reaches an excellent insulation level for new build as well as renovation projects. Without any loss of its effortless sliding function, Sapa 2160 S offers expansive glass surfaces combined with an attractive sightline.

The double row PA strips, which ensure the unsurpassed insulation level doesn't have an impact on the building depth: the Sapa 2160 S remains a compact system (160 mm).

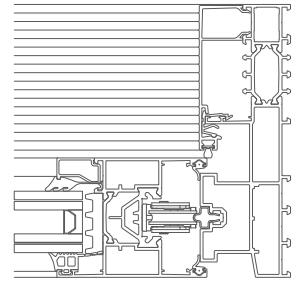
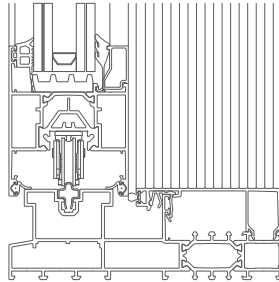
The Sapa 2160 S highly insulated lift-and-sliding system is recognised as the optimum solution for environmentally conscious architects, fabricators and builders introducing an excellent level of insulation. With its large lift-and-sliding panes, the Sapa 2160 S brings comfort, quality and convenience to modern and environmental friendly building standards.



# Sapa 2160 S – a variety of versions

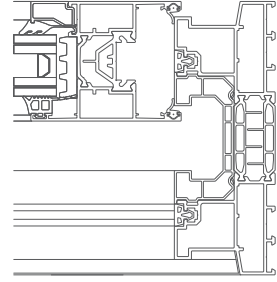
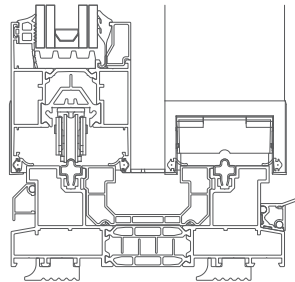
## Monorail

- Larger glazed surfaces
- No additional profile for central sealing gasket
- Lift-and-sliding vent on the inside or on the outside



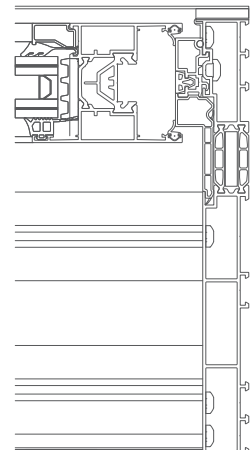
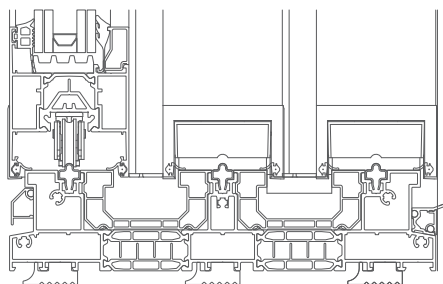
## Duo-Rail

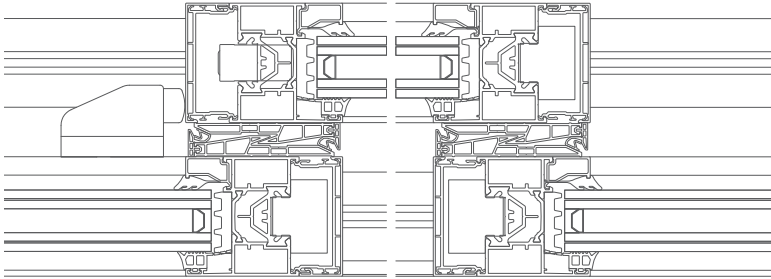
- Optimized fabrication by use of clip connections, special end-pieces to a large extent
- Total preparation in workshop with minimum of operations left to do on-site
- Multipoint locking
- Wide range of finishing possibilities



## 3-rail

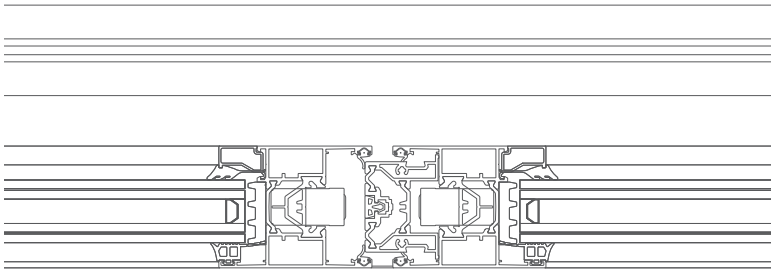
- Three vents beside each others
- Two thirds of the window can be opened
- Same insulation pieces and sealing profiles
- Easy fabrication with straight cut profiles
- Profile connection with screws
- Preformed gaskets to seal profile joints





### Fix-Slide-Fix

- Larger glazed surfaces
- No additional profile on the lockside, reducing the sightline



### Bi-Parting Vent

- Fully thermally insulated
- Standard locking plate
- Click system when installing

### Attractive design

- The Sapa 2160 S lift-and sliding door was designed to offer a high performing sliding system with an attractive, slim sightline.
- The system is designed to be compatible with other Sapa Building System products such as our curtain walls and glass partitions.
- The frame allows the internal floor finishes to be flush with the inner frame avoiding thresholds.
- Standard ventilation systems can easily be integrated.
- A comprehensive range of supplementary profiles allows the fenestration to be integrated perfectly into the building.
- Specially designed end pieces make the Sapa 2160 S complete in all respects.
- Reversed locking principle for liftslide comes with elegant locking plates on the frame side, avoiding the unattractive and protruding locking bolts from the past.
- Interlocking section with patented design gives minimal interruption of the glazed surface.
- Design handles complete the high standard finish.



# Sapa 2160 S

## Enhanced performance

- Perfect water evacuation is ensured via drainage holes and integrated sealings
- Separate drainage: two levels of drainage
- EPDM gaskets
- Very efficient gasket sealings in central joint of sashes
- Special profile for dual metal solution
- Weather resistance:

<b>Air Tightness</b>	<b>Water Tightness</b>	<b>Wind Resistance</b>
<b>4</b>	<b>E900</b>	<b>C3</b>
(EN 12207)	(EN 12208)	(EN 12210)

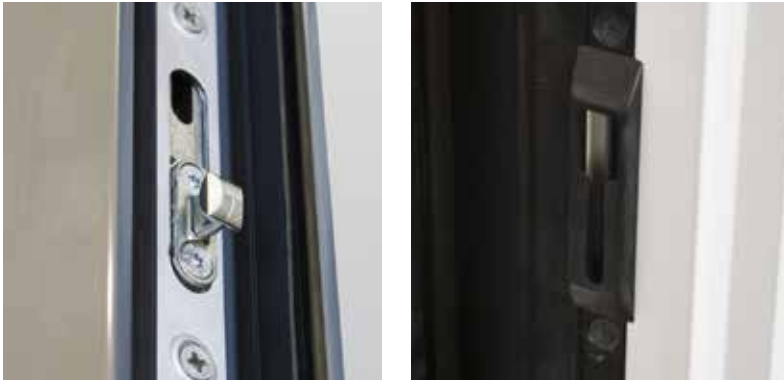


## Impressive strength & durability

- A combination of strong profiles, stainless steel rails and polyamide rollers with needle bearings allows the Sapa 2160 S to be used for glazing areas up to 2,8 meter high without external reinforcement.
- The use of a stainless steel rail ensures the smooth movement of the vents and avoids surface finishing peeling off.
- Polyamide bottom rollers can take up to 250 kg for each vent and still ensure a smooth operation.
- The vent profiles with a building depth of 70 mm accommodate glazing up to 53 mm, so triple and laminated glass options are possible.







### Easy to manufacture and install

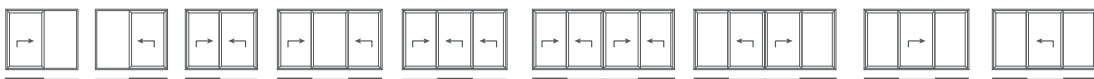
- The Sapa 2160 S lift-and sliding system is designed in such a way that it is easy to fabricate for the manufacturer, the number of operations necessary to fabricate the slider is reduced.
- Frames and sashes are assembled using eccentric, pin or press corners. Stainless steel corner chevrons guarantee a perfect alignment of the corners.
- All profiles are prefabricated using the specially designed punching tools or machining centers. Drainage holes, vent cut outs and the holes punched for the eccentric cleats are therefore very precise, ensuring fast and accurate assembly.
- No machining needed for the installation of the bottom rollers.
- Easy to install central drainage system.
- Straight cut finishing profiles at interlock.
- Maximum preparation in-house, minimum assembly on site.
- Fabrication manuals and precise software give the fabricator the information he requires to proceed swiftly.

### Configurations

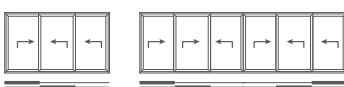
#### Monorail version



#### 2-rail version



#### 3-rail version



# Sapa 2160 S characteristics

## Finishes

- Over 400 powder coated paint colours in matt, gloss or satin.
- Anodised finish is also available as an option.
- The polyamide thermal break allows for dual colour finishes. As a result, the exterior building requirements do not need to affect the interior design choices.

## Dimensions

Min. sightline monorail (fixed glazing), Top/Bottom/Side	53/53/53 mm
Min. sightline monorail (sliding part), Top/Bottom/Side	127/137/137 mm
Min. sightline 2-rail (fixed or sliding), Top/Bottom/Side	133/143/143 mm
Min. sightline interlock section in vent	92 mm
Profile depth vent	70 mm
Profile depth 2-rail	160 mm
Profile depth 3-rail	250 mm
Max vent dimensions - hardware related* (W x H) weight limit = 250 kg	3100 x 2800 mm
Max recommended vent dimensions (W x H) considering normal windload	2800 x 2500 mm
<b>Glazing</b>	
Infill thickness sliding parts 2- and 3-rail	23 - 53 mm

## Performances

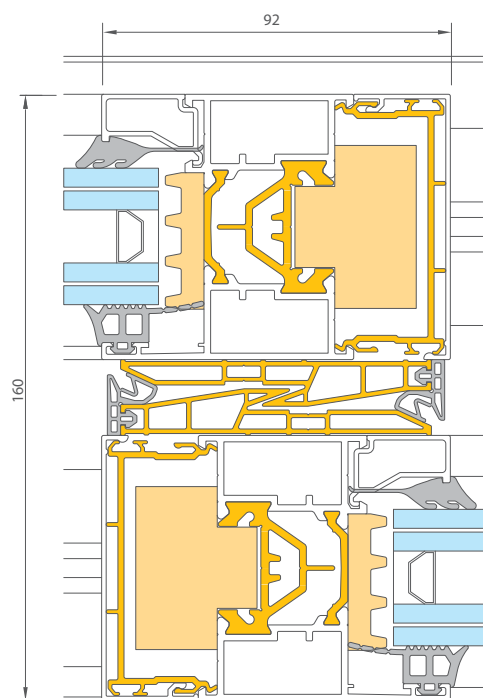
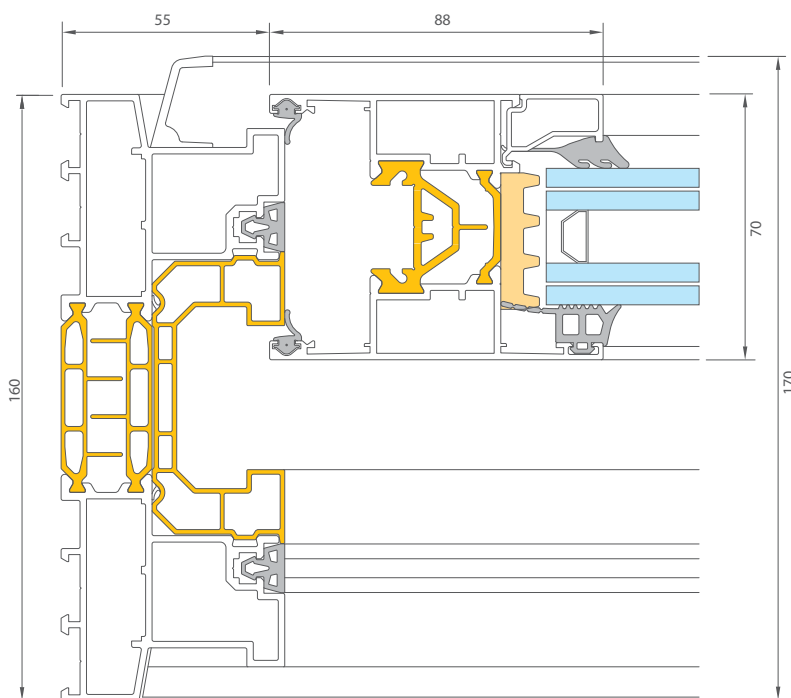
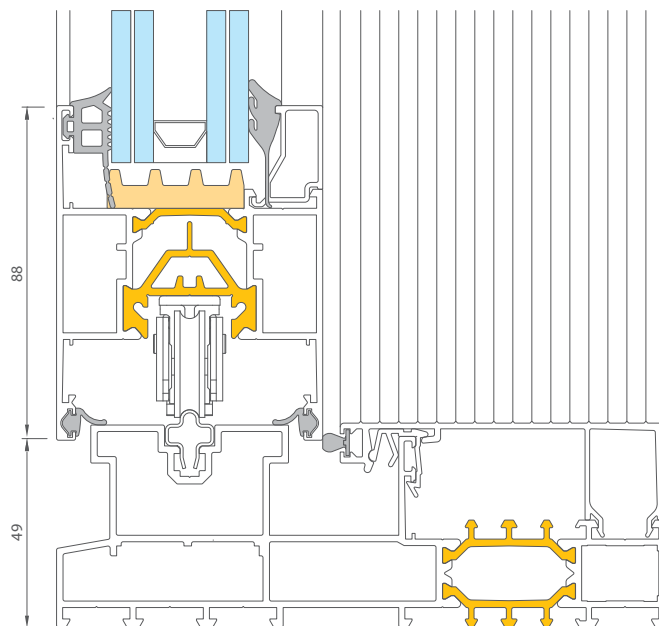
Thermal break	50 mm PA 6,6 GF25 (30 or 35 mm in the vent)	
Air permeability	Class 4 – 600 Pa	EN 12207
Watertightness	E900 – 900 Pa	EN 12208
Wind resistance	C3 – 1200 Pa	EN 12210

## U value

	U value of glass $U_g$ W/m <sup>2</sup> K (middle point) Warm edge distance strip		
	$U_g = 0,6$	$U_g = 0,9$	$U_g = 1,1$
Lift-sliding door 2160 S, width x height mm			
3000 x 2300	1,3	1,5	1,7
4000 x 2300	1,2	1,4	1,6
5000 x 2300	1,1	1,4	1,6

\*This information is only an indication. For more information, please consult your local Sapa Building Systems' office.

# Sapa 2160 S – detail drawings



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