

# CONFORT 160

ALUMINIUM SLIDING SYSTEM



By  Hydro





# CONFORT 160

## / PRODUCT TAGLINE

### HIGH END SLIDING DOORS WITH LARGE GLASS SURFACES AND HEAVY GLASS LOADS AT MINIMAL SIGHTLINE

Confort 160 is a high performance thermally insulated sliding door system, with a user-friendly (lift-) slide action. The system, with an attractive aesthetic line, is durable, stable and remarkably energy efficient. With a maximum vent weight up to 400 kg large glazed areas are easily attainable.

### ADVANCED ENERGY SAVING ON A MODULAR BASIS

- Confort 160 profiles are coupled with 40 mm omega shaped, glass fibre reinforced polyamide strips, which reduce thermal conduction. Thermal values can further be enhanced through the selective application of thermal inserts. The result is that Confort 160 achieves a high thermal performance level and improved total insulation, leading to lower total energy consumption, a positive benefit to the environment
- The system accommodates glazing up to 53 mm.



#### MODULAR THERMICITY

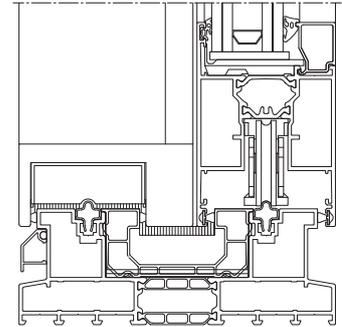
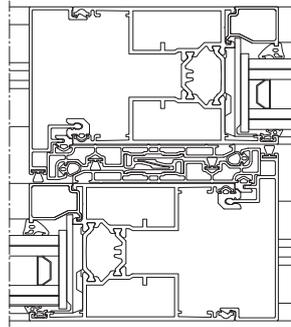
Confort 160 SHI	$U_w$ up to 0.80 W/m <sup>2</sup> K
Confort 160 SI	$U_w$ up to 0.82 W/m <sup>2</sup> K
Confort 160 I	$U_w$ up to 0.84 W/m <sup>2</sup> K
Confort 160 Basic	$U_w$ up to 0.88 W/m <sup>2</sup> K

# CONFORT 160

/ THERMICITY IN 4 LEVELS

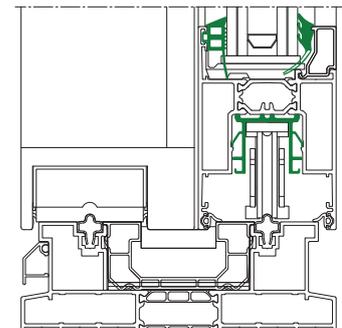
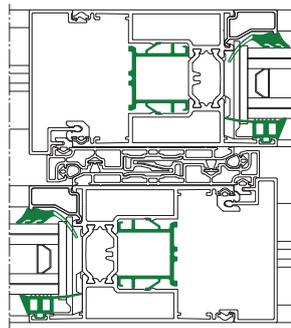
## CONFORT 160 BASIC

- $U_w$  up to 0.88 W/m<sup>2</sup>K



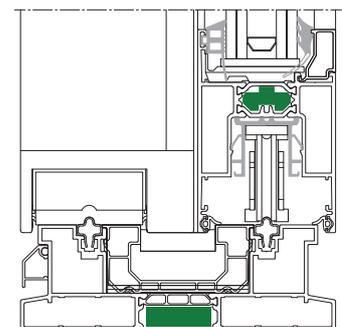
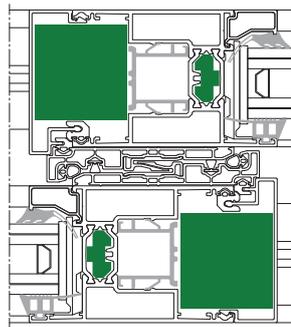
## CONFORT 160 I

- $U_w$  up to 0.84 W/m<sup>2</sup>K
- Improved thermal glazing gaskets
- Bottom rollers assembled in insulation profile



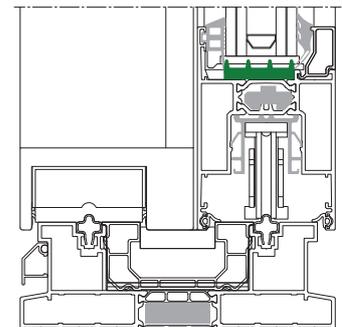
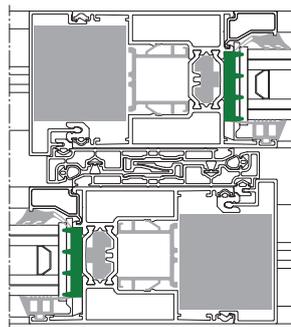
## CONFORT 160 SI

- $U_w$  up to 0.82 W/m<sup>2</sup>K
- Improved thermal glazing gaskets
- Bottom rollers assembled in insulation profile
- PE inserts in frame and vent profile (concept Foam-power®)



## CONFORT 160 SHI

- $U_w$  up to 0.80 W/m<sup>2</sup>K
- Improved thermal glazing gaskets
- Bottom rollers assembled in insulation profile
- PE inserts in frame and vent profile (concept Foam-power®)
- PE insert thermal improved glazing unit



## THERMICITY

Confort 160	Basic	I	SI	SHI
$U_{\text{window}}$ ( $U_{\text{glazing}} = 1.0 \text{ W/m}^2\text{K}$ )	1.3	1.3	1.3	1.3
$U_{\text{window}}$ ( $U_{\text{glazing}} = 0.6 \text{ W/m}^2\text{K}$ )	1.1	1.1	1.0	1.0
$U_{\text{window}}$ ( $U_{\text{glazing}} = 0.5 \text{ W/m}^2\text{K}$ )	0.88	0.84	0.82	0.80



Private house, Waasmunster, Belgium  
**Architect:** Van Raemdonck-Millau Architecten  
**Photography:** FC Lama

# CONFORT 160

## / MINERGIE

### WHAT IS MINERGIE?

Minergie® is a sustainability brand for new and refurbished buildings.

At the heart of Minergie® is comfort – the comfort of people living or working in the building.

Healthy comfort levels are made possible through high-grade building envelopes and the provision of high levels of air quality through managed replenishment.

Energy consumption is used as the primary quantifiable indicator of building quality. In this way, a reliable and consistent assessment can be made. Only the final energy consumed by the building's operation is relevant. A Minergie® building must consume no more than 3 litres of fuel for every square metre —which means up to 5 times energy consumption less than traditional construction.

The Minergie® Standard is widely recognised and accepted, primarily due its objective approach:

Providing builders and designers can achieve the standard, they have complete freedom both in their design and choice of materials and also in their choice of internal and external building structures.

The Minergie® standard is not limited to residential property. Other buildings that have received the Minergie® label include office blocks, schools and even shopping centres.

#### MINERGIE SPECIFICATIONS FOR SLIDING SYSTEMS

frame dimensions W x H	4500 x 2300 mm
U-value of the glazing	0,7 W/m <sup>2</sup> K
minimum glazing surface	75 %

# CONFORT 160

/ MINERGIE SOLUTION

Outstanding thermal insulation is the critical first step to achieve energy-efficient buildings. Using triple-insulated glass, the Confort 160 solution reaches an excellent insulation level for new build as well as renovation projects. Without any loss of its effortless sliding function, Confort 160 offers expansive glass surfaces combined with an attractive sightline. On top of that, it offers the opportunity to work with an innovative, energy-efficient and sustainable system in order to meet the latest technical standards and building trends. It also demonstrates that modern standards of building can go hand in hand with the comfort and convenience offered by large sliding doors. The double row PA strips, which ensure the unsurpassed insulation level doesn't have an impact on the building depth: the Confort 160 remains a compact system (160 mm).

The Confort 160 highly insulated sliding system with Minergie® certification is recognised as the optimum solution for environmentally conscious architects, fabricators and builders introducing an unparalleled level of insulation for passive houses.

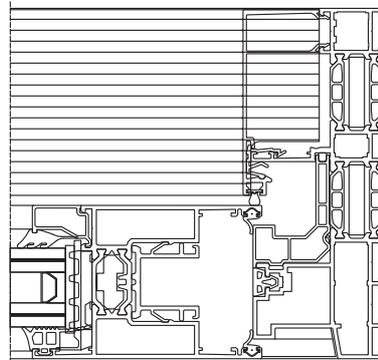
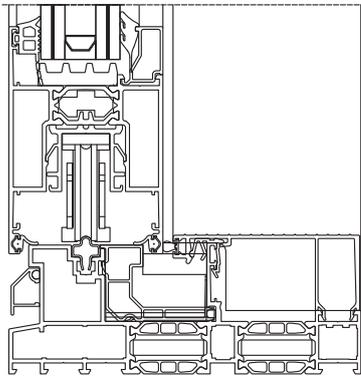


# CONFORT 160

/ A VARIETY OF VERSIONS

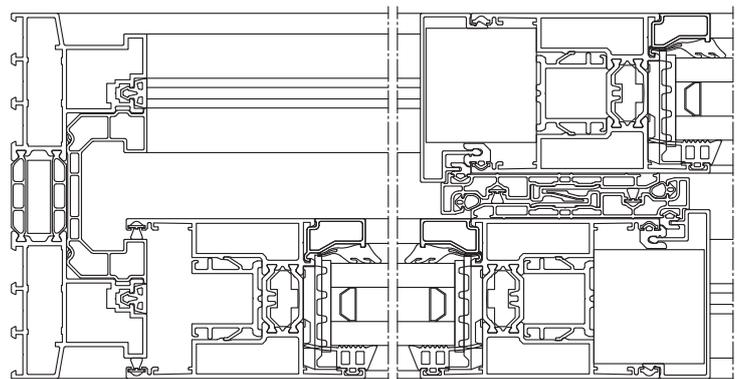
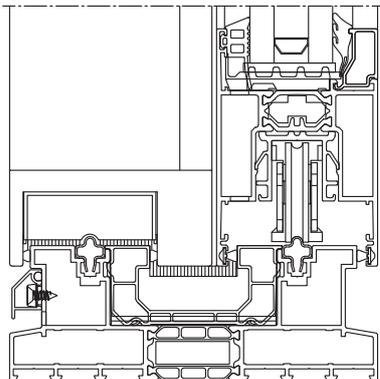
## MONORAIL

- Slide and lift-slide version
- Larger glazed surfaces
- No additional profile for central sealing gasket
- Sliding vent on the inside or on the outside



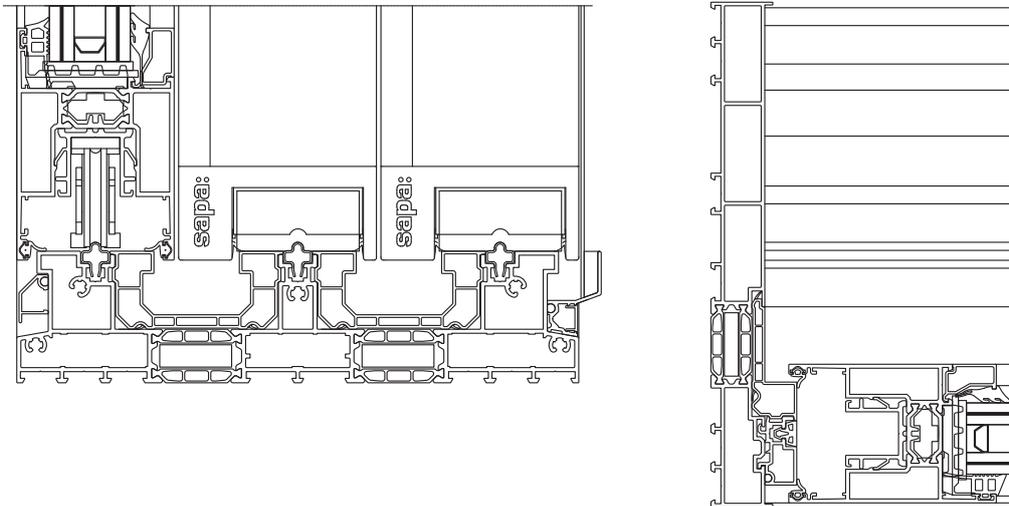
## DUO-RAIL

- Identical profiles for slide and lift slide
- Optimized fabrication by use of clipped connections, straight cuts, 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



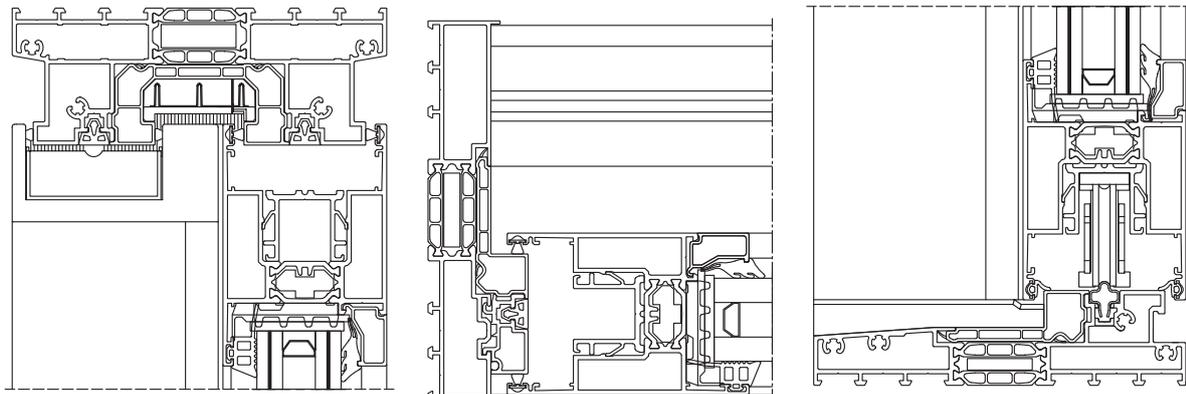
## STRAIGHT CUT / 3-RAIL

- 3 vents besides each other
- 2 thirds of the window can be opened
- Same insulation pieces and sealing profiles
- 3-rail in straight cut assembly is possible



## STRAIGHT CUT / LOW SILL

- All frame profiles are straight cut: no milling required
- Small sightline
- Fully compatible with standard frame
- Straight Cut version can be combined with low sill
- Low Sill features treshold-to-floor height difference of < 20 mm

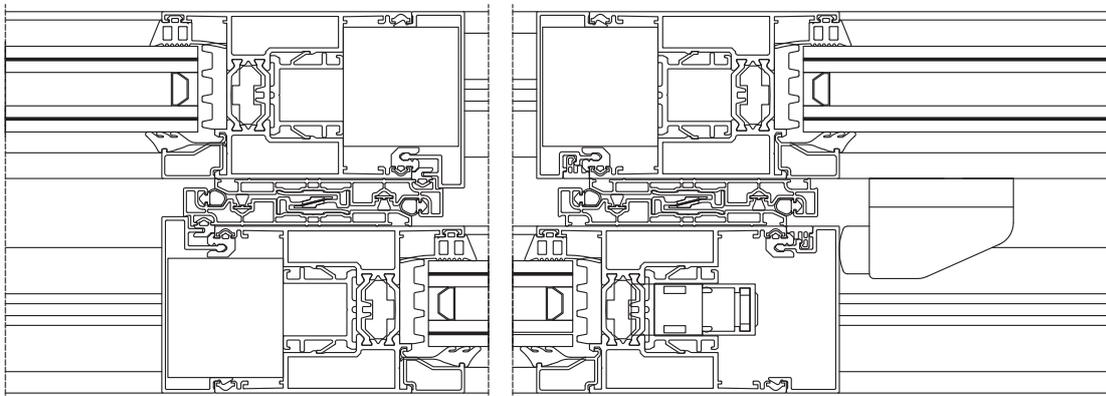


# CONFORT 160

/ A VARIETY OF VERSIONS

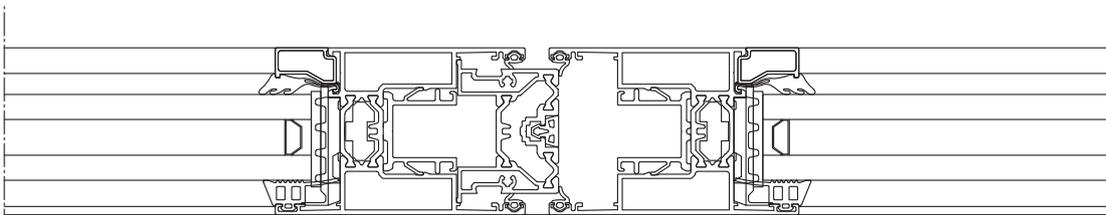
## FIX-SLIDING-FIX SOLUTION

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



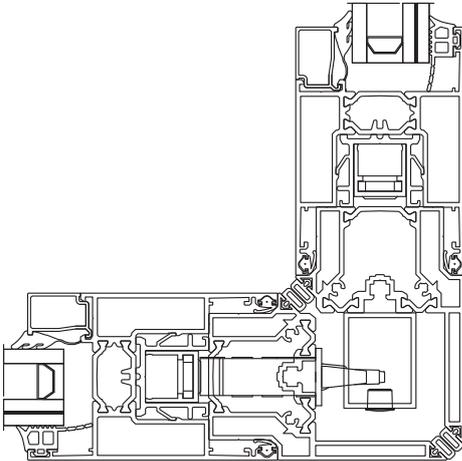
## BI-PARTING VENT

- Fully thermally insulated
- Standard locking plate
- Click system when installing
- Available for slide and lift-slide-versions



**OPEN CORNER SOLUTION**

- applicable on 1-, 2- and 3-rail versions
- both inner and outer corner
- simple fabrication
- secure locking with a soft-stop function



# CONFORT 160

## PERFORMANCE

- Perfect water evacuation is ensured via drainage holes and integrated sealings.
- Separated drainage: two levels of drainage.
- Q-Lon seals ensure perfect weather resistance for the sliding version, EPDM gaskets for the lift-slide version.
- Combined gasket and brush sealings in central joint of sashes ensure a draught free door.
- Special profile for bi-metal solution
- Weather resistance sliding version:
  - air permeability (EN12207): 4
  - water tightness (EN12208):8A
  - wind resistance (EN12210): C4
- Weather resistance Lift and slide:
  - air permeability (EN12207): 4
  - water tightness (EN12208):E1350
  - wind resistance (EN12210): C4

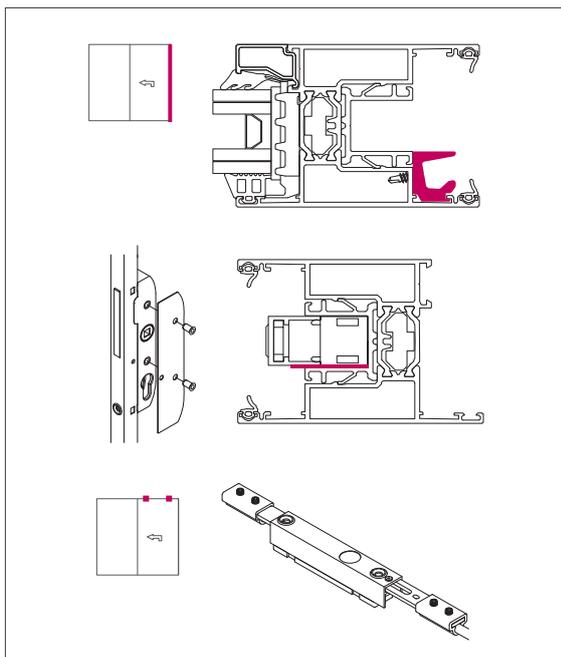
## DESIGN

- Confort 160 was designed to offer a very appealing design in frame and vent.
- The system is compatible with other Sapa Building System products such as our curtain wall and conservatory systems
- The frame allows the internal floor finishes to be flush with the inner frame and avoids 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 Confort 160 complete in all respects.
- The lock of Confort 160 Lift-Slide includes a locked night vent position, which assures a healthy ventilation of the building.



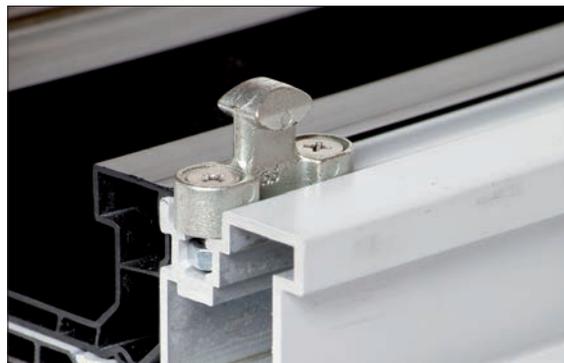
## ENHANCED SECURITY: CONFORT 160 CLASS 2

- The combination of multipoint locking, safety glass and special hardware ensures a high resistance against forced entry.
- Anti burglary profile prevents penetration via vertical flange (top part image below).
- Armour plate protects lock case (middle part image below).
- Security pieces on top of the vent prevent lifting (bottom part image below).
- Internal tubular glazing beads prevent unclipping of the glazing beads from the outside (4).
- Resistance class ENV 1627 – 1630 WK2



## EASY TO MANUFACTURE AND INSTALL

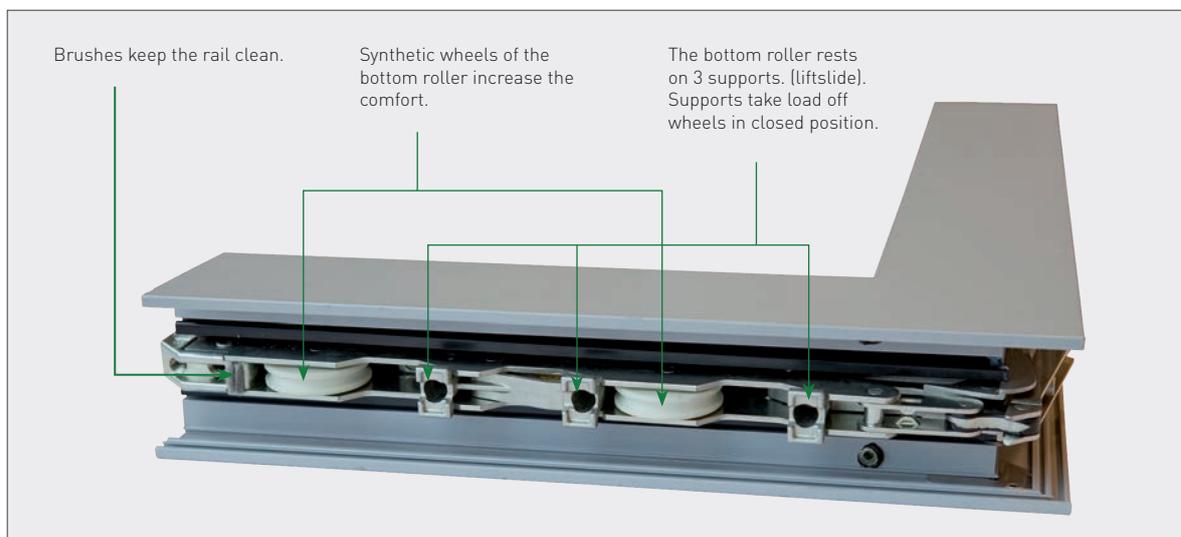
- The Confort 160 sliding system is designed in such a way that it is easy to fabricate for the manufacturer: the number of operations necessary to fabricate the Confort 160 is very limited.
- Frames and sashes are assembled using eccentric, pin or press corners. Stainless steel corner chevrons guarantee 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 punching 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.
- Similar fabrication procedures between lift and lift-and-slide version.
- Fabrication manuals and precise software give the fabricator the information he requires to proceed swiftly.
- Sapa Building System offers its software SapaLogic, an open concept for automation, to fabricators who have a CNC machining center.



# CONFORT 160

## / STRENGTH AND DURABILITY

- A combination of strong profiles, stainless steel rails and polyamide rollers with needle bearings, allows Confort 160 to be used for glazed areas up to 3 meter high without external reinforcement.
- The use of a stainless steel rail ensures the smooth movement of the vents and avoids surface finish peeling off.
- Polyamide bottom rollers can take up to 400 kg for each vent and still ensure a smooth operation.
- The vent profiles with a building depth of 70 mm accommodate glazing up to 55 mm. So triple and laminated glass are possible.





## FINISHES

- Over 400 powder coated paint colours in matt, gloss or satin.
- Unique wood effect, textured and textured metallic ranges are available.
- Anodised finish is also an option.
- Accessories can be supplied in corresponding colours to match the profiles.
- Polyamide thermal breaks allow bi-colour finishes, so that the exterior design requirements do not infringe the interior design requests.
- Our surface finishes meet the highest standards of Qualicoat or Qualanod.

## ENVIRONMENT

- All Sapa System profiles can be easily cleaned.
- Aluminium does not rust, rot or tear and the shape does not deform.
- Aluminium is a green product. It can be recycled infinitely without quality loss.



# CONFORT 160

## / APPLICATIONS

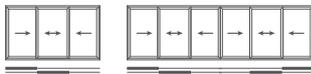
Sliding version, monorail



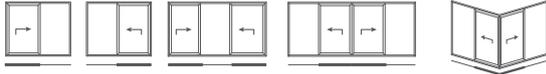
Sliding version, 2-rail



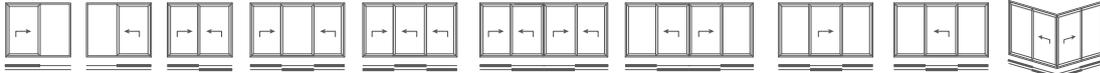
Sliding version, 3-rail



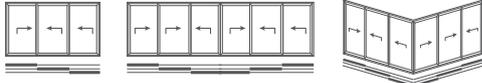
Lift-sliding version, monorail



Lift-sliding version, 2-rail



Lift-sliding version, 3-rail



# CONFORT 160

## / CHARACTERISTICS

### DIMENSIONS

Min. sightline 2-rail (fixed & sliding part)	149 mm
Min. sightline 2-rail (straight cut)	138 mm
Min. sightline transom in vent	126 mm
Profile depth 2-rail	160 mm
Profile depth vent	70 mm
Max dimensions vent hardware related* - (W x H)	3835 x 3300 mm
* weight limit = 400 kg	

### GLAZING

Infill thickness sliding parts 2- and 3-rail	23 - 53 mm
Glazing method	dry glazed with EPDM gaskets or silicon

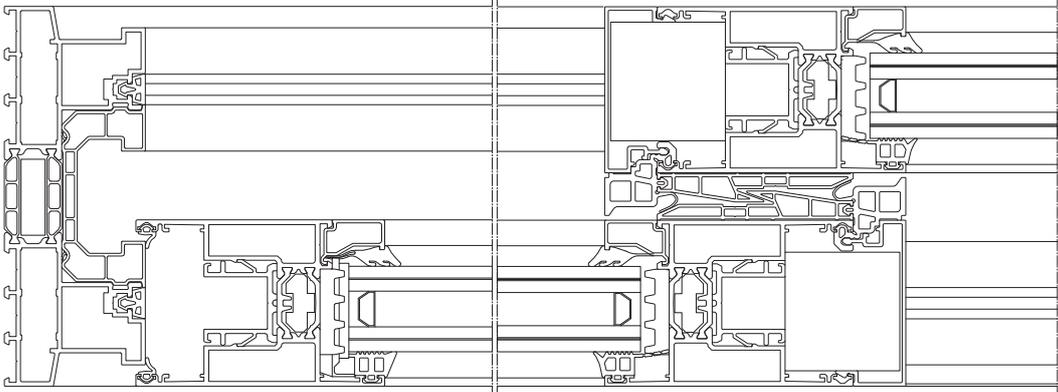
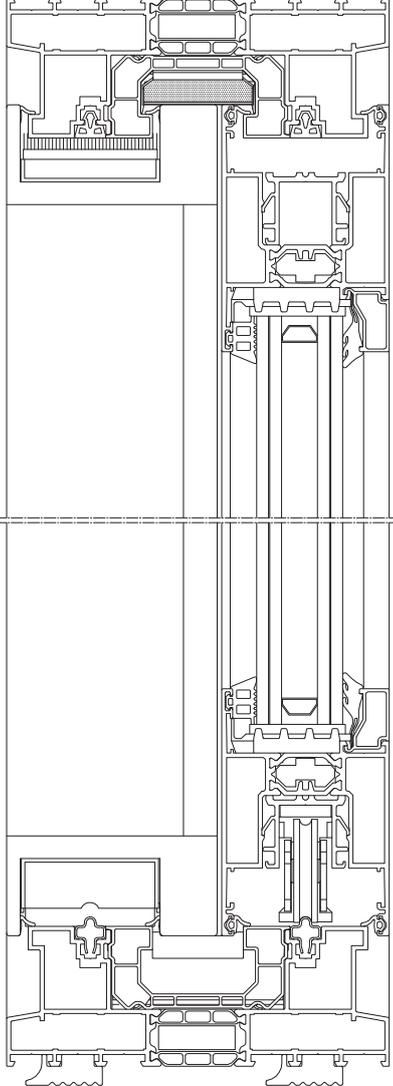
### PERFORMANCES

Technical approval	ATG 12/2872				
Thermal break	40 mm polyamides PA 6.6 GF25 (30 mm in the vent)				
Thermal insulation (Uw = combined U value of the profile and glazing)					
	SHI:	Uw up to 0.80 W/m <sup>2</sup> K			EN ISO 10077-2
	SI:	Uw up to 0.82 W/m <sup>2</sup> K			EN ISO 10077-2
	I:	Uw up to 0.84 W/m <sup>2</sup> K			EN ISO 10077-2
	Basic:	Uw up to 0.88 W/m <sup>2</sup> K			EN ISO 10077-2
	Sliding	Lift-Slide	Slide	Lift-Slide	
Air permeability	4	4	600 Pa	600 Pa	EN 12207
Watertightness	8A	E1350	450 Pa	1350 Pa	EN 12208
Windresistance	C4	C4	1600 Pa, sec. 2400 Pa	1600 Pa, sec. 2400 Pa	EN 12210

This information is only an indication. For more information, please consult your local Sapa Building System branch.

# CONFORT 160

/ CROSS SECTION



**sapa:**

By  **Hydro**

Hydro Building Systems  
Roosveld 11,  
3400 Landen, Belgium  
tel +32 11 69 03 11  
[www.sapabuildingsystem.com](http://www.sapabuildingsystem.com)

Profile Systems  
Newhall House, M7 Business Park,  
Newhall, Naas, Co. Kildare  
tel 045 980000