

# CONCEALED HARDWARE

DESIGN, PERFORMANCE & TIME SAVING

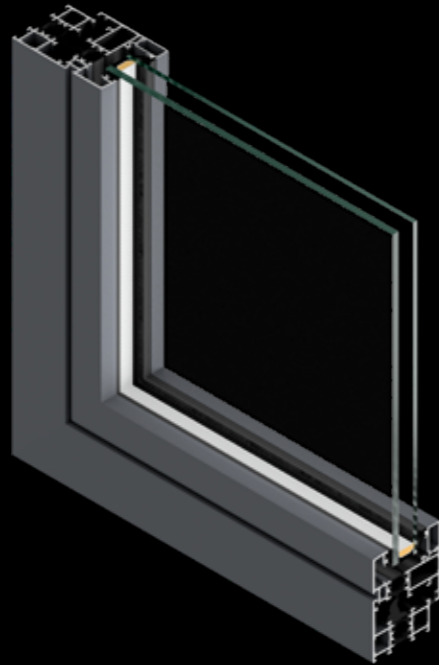


**TECHNAL®**

By  Hydro

# CONCEALED HARDWARE

/ DESIGN, PERFORMANCE & TIME SAVING



## CHARACTERISTICS AND KEY INNOVATIONS

### COMPATIBLE WITH ALL APPLICATIONS

- Available on SOLEAL FY55 and FY65 Visible and Minimal ranges
- Inward opening applications
- New disabled threshold in turn only, tilt/turn and turn/tilt
- Opening up to 180°

### FAST ASSEMBLY

- Frontal mounted elements
- Direct punching of the tie rod
- No groove notching on the sash
- Positioning with breakable stoppers

### SIMPLE SUPPLY

- No coated or anodized part, which reduces lead time for supply
- All components are common except for the bottom hinge, which enables stock to be built up according to weight and left- or right-opening version

### AESTHETICS

- Invisible hinges to create a minimalistic look
- Thin hardware components, harmonious finishes
- Finishing covers (tie rod and frame groove) for a clean appearance
- Large windows to let in more light

### COMPREHENSIVE SOLUTION

- Bottom hinges adapted to the weight of the glazing and the type of project:
  - 80 kg
  - 110 kg
  - 160 kg

### OPTIMUM PERFORMANCE

- SOLEAL FY55 thermal performance:  
 $U_w$  up to 1,2 W/m<sup>2</sup>K;  $S_w = 0,48$ ;  $T_{LW} = 0,58$   
1-leaf window, L x H = 1250 x 1480 mm, triple glazing ( $U_g = 0,6$  + warm edge)
- SOLEAL FY65 thermal performance:  
 $U_w$  up to 0,9 W/m<sup>2</sup>K;  $S_w = 0,48$ ;  $T_{LW} = 0,58$   
1-leaf window, L x H = 1250 x 1480 mm, triple glazing ( $U_g = 0,5$  + warm edge)
- Optimum weather tightness:
  - Air: up to class A4
  - Water: class E1200
  - Wind: class VC5
- Corrosion resistance: grade 5
- Endurance tested at 20.000 cycles

### LARGE DIMENSIONS

- Up to 3 m height
- 160 kg per sash

### SOFTWARE

- Available in TechDesign

### SUSTAINABLE DEVELOPMENT

- The SOLEAL profile sections are made of Hydro CIRCAL®, a premium quality aluminum range comprising at least 75% of recycled aluminum sourced from post-consumption waste, i.e. end-of-life joinery. Hydro CIRCAL® has one of the lowest carbon footprints in the world: 2.3 kg of CO<sub>2</sub>/kg of aluminum. Environmental Product Declaration (EPD) available on request.

# CONCEALED HARDWARE

/ TIME SAVING: PRODUCTIVITY AND REACTIVITY

## SIMPLE AND INTUITIVE ASSEMBLY FOR MORE PRODUCTIVITY

TECHNAL concealed hardware is designed to ensure simple and intuitive assembly, significantly reducing assembly time and consequently improving productivity.

## SIMPLIFIED ORDER PROCESS FOR GREATER RESPONSIVENESS

All of the components are common for the same application. Only the bottom hinge differs depending on the weight of the opening sash. Receiving no surface treatment, TECHNAL concealed hardware can be supplied quickly and is readily available.

The ordering process is simplified ensuring greater responsiveness in dealing with customer requests



Frontal mounted elements: quick and easy assembly



No groove notching on the sash: fewer machining operations



Direct punching of the tie rod



Positioning with breakable stoppers to eliminate risks of error

# LARGE DIMENSIONS

/ UP TO 3 METER HEIGHT



# CONCEALED HARDWARE

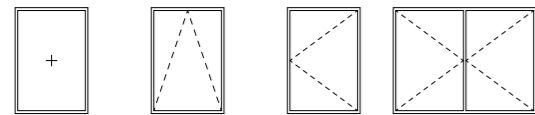
/ A COMPREHENSIVE OFFER

## BOTTOM HINGE ADAPTED TO WEIGHT

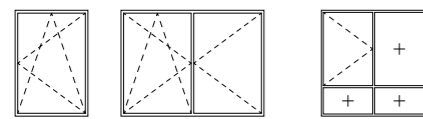


## AVAILABLE FOR ALL APPLICATIONS

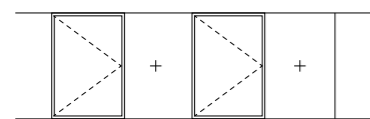
### Inward opening



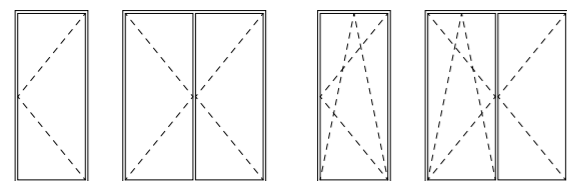
Fixed frame    Bottom hung    Side hung window and balcony door 1 and 2 leaves



Turn & tilt / tilt & turn window and balcony door, 1 and 2 leaves    Composite frame with side hung window



Ribbon window



Side hung balcony door 1 and 2 leaves with disabled threshold    Turn & tilt / tilt & turn balcony door, 1 and 2 leaves, with disabled threshold



# SOLEAL FY55 and FY65

AIR, WATER, WIND SEALING PERFORMANCE (air, water, wind)							
Applic.	L x H (mm)	Air permeability	Water tightness	Resistance to wind pressure	Test report	Q4	Q100
<b>SOLEAL minimal, concealed hardware, inward opening</b>							
<b>Window, 1 leaf, turn &amp; tilt</b>							
	1200 x 1600	Class 4	Class E900	Class C5	40-34-19 PIV	0,05	0,39
<b>Window, bottom-hung</b>							
	2400 x 555	Class 4	Class E1050	Class C3	404/20/150-1 FCBA	0,07	0,60
<b>Balcony door, 2 leaves, side hung</b>							
	1600 x 2300	Class 4	Class E750	Class B2	40-41-19 PIV	0,06	0,50
<b>Balcony door, 1 leaf, side hung</b>							
	1200 x 2300	Class 4	Class E1050	Class C3	40-39-19 PIV	0,04	0,31
<b>Balcony door, 1 leaf, side hung, with disabled threshold</b>							
	1000 x 2700	Class 4	Class E750	Class C3	40-43-19 PIV	0,03	0,29
<b>SOLEAL visible, concealed hardware, inward opening</b>							
<b>Window, 1 leaf, turn &amp; tilt</b>							
	1200 x 1600	Class 4	Class E1200	Class C5	40-33-19 PIV	0,06	0,54
<b>Balcony door, 2 leaves, side hung</b>							
	1600 x 2300	Class 4	Class E9A	Class C3	40-40-19 PIV	0,12	1,01
<b>Balcony door, 1 leaf, side hung</b>							
	1200 x 2300	Class 4	Class E1200	Class C3	40-38-19 PIV	0,04	0,35
<b>Balcony door, 1 leaf, side hung, with disabled threshold</b>							
	1000 x 2700	Class 4	Class E750	Class C3	40-42-19 PIV	0,07	0,59





IMAGINE WHAT'S NEXT

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