HL STUDIJA

COto windows and terrace/balcony doors

COto windows and terrace/balcony doors

COto windows features **traditional Scandinavian design**, which is combined with:

- up-to-date shapes,
- faultless functionality
- highest quality product for upper and premium market.

COto windows are made of a **wooden frame** with **recycled composite material** and **aluminum claddings** on the outside.

Window technical performance and design is **suitable for:**

- private houses
- residential buildings
- public buildings with technically complicated engineering solutions.

COto windows overview

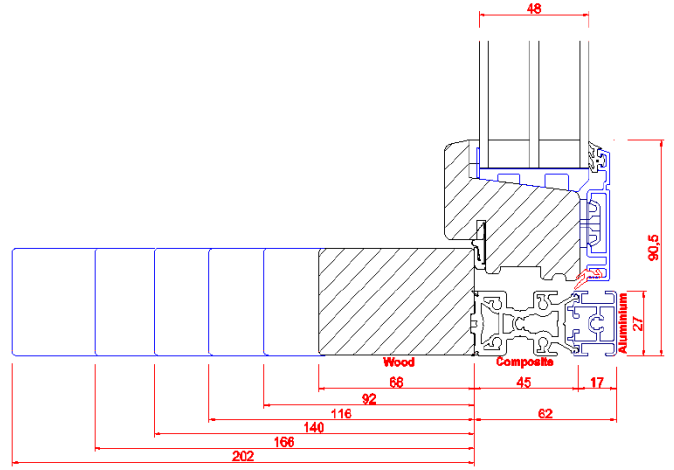
Design: Clean and minimalistic design with slim contemporary ALUclad, high performance triple glazed IGU, superior spacers and FSC certified timber.

Sash frame: made of heartwood for higher durability

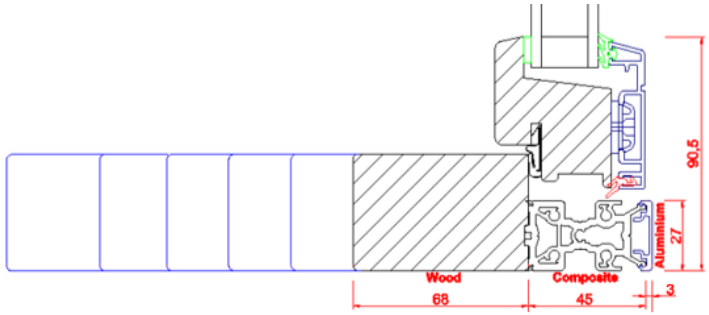
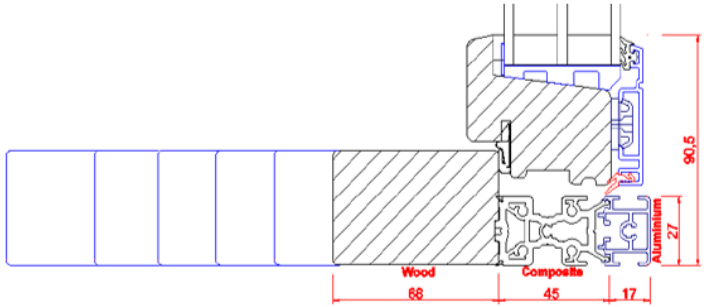
Composite: indestructible composite material, which breaks the cold bridge, minimizes heat loss and provides higher temperatures around the edges of the glass and internal condensation is greatly minimized.

Watertightness: COto windows watertightness rating is 1500 Pa that is well beyond CE standart.

Wood frame: opportunity to customize dramatic frame depth up to 390 mm



COto technical characteristics

	COto 48	COto 62
		
Instalation depth	116 mm; 140 mm, 164 mm, 188 mm, 214 mm, 250 mm	130 mm; 154 mm, 178 mm, 202 mm, 228 mm, 264 mm
Thickness of IGU	26mm	48mm
Materials	Wood, aluminium, composite	Wood, aluminium, composite
Thermal insulation (glass) **Uf** **Uw** **Ug**	1.22 W/m²K 1.29 W/m²K 1.0 W/m²K	1.18 W/m²K 0.77 W/m²K 0.5 W/m²K
Sound up to:	33 dB Rw+Ctr	40 dB Rw+Ctr
Hardware	IPA/MILA	IPA/MILA
Handles	Hoppe, Mila, ASSA	Hoppe, Mila, ASSA
Air permeability (EN 1026)	Class 4 (classification EN12207)	Class 4 (classification EN12207)
Watertightness (EN 1027)	E1500 (classification EN12208)	E1200 (classification EN12208)
Resistance to wind loads (EN12211)	Class C3 (classification EN12210)	Class C3 (classification EN12210)

COto windows types and sizes

	Fixed		Side hung		Side guided		Top guided		Turn/tilt		Fully reversible	
	COto 48	COto 62	COto 48	COto 62	COto 48	COto 62	COto 48	COto 62	COto 48	COto 62	COto 48	COto 62
Min. sizes (WxH)	300x300 mm		400x400 mm		400x350 mm		350x350 mm		540x470 mm		500x600 mm	
Max. sizes (WxH)	5000x5000* mm		800x2150 mm		800x2000 mm		1600x1600mm		1000x2200mm		1500x1500mm	

! Window size depends on IGU weight per sash

** Max. size for shortest side is 2.7 m*

COto terrace/balcony doors

	Outwards open		Inwards open	
	COto 48	**COto 62**	**COto 48**	**COto 62**
Instalation depth	116 mm; 140 mm, 164 mm, 188 mm, 214 mm, 250mm	130 mm; 154 mm, 178 mm, 202 mm, 228 mm, 264 mm	116 mm	116 mm
Thickness of IGU	26mm	48mm	26mm	48mm
Materials	Wood, aluminium, composite	Wood, aluminium, composite	Wood, aluminium	Wood, aluminium
Thermal insulation (glass) Ud	1.2-1.5 W/m^{2}K	0.78-1.0 W/m^{2}K	1.2-1.5 W/m^{2}K	0.78-1.0 W/m^{2}K
Sound up to:	33 dB Rw+Ctr	40 dB Rw+Ctr	33 dB Rw+Ctr	40 dB Rw+Ctr
Hardware	IPA/MILA	IPA/MILA	IPA/MILA	IPA/MILA
Min. sizes (WxH)	450x1750 mm	450x1750 mm	450x1750 mm	450x1750 mm
Max. sizes (WxH)	1100x2400 mm	1100x2400 mm	1100x2400 mm	1100x2400 mm
Double doors	Yes	Yes	Yes	Yes
Threshold	Aluminium or hardwood	Aluminium or hardwood	Aluminium or hardwood	Aluminium or hardwood

Exterior and interior finish

- **External aluminium cladding**: all colors offered by the RAL, NCS catalogue with different surface finish such as Gloss, Matt, Granite, Marine grade or other texture.
- **Internal wooden part:** all colors offered by the RAL, NCS catalogue. Water-based stains and lacquers provide ecological, environment-friendly and natural product look.

  Also possible to oil, bleach, varnish interior surfaces.
- **Most used wood** is finger-jointed (fj) pine and non-finger-jointed pine.
- Oak, mahogany, sapeli and other wood species can be offered to meet client's expectations and wishes.
- Non-finger-jointed option is available for all types of wood.

fj pine

pine

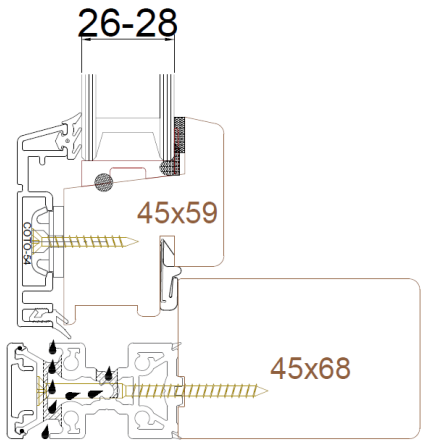
oak

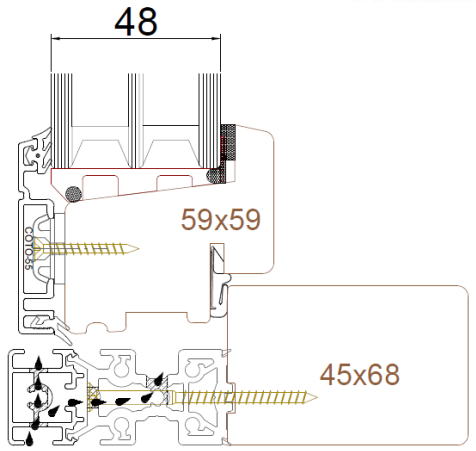
mahogany

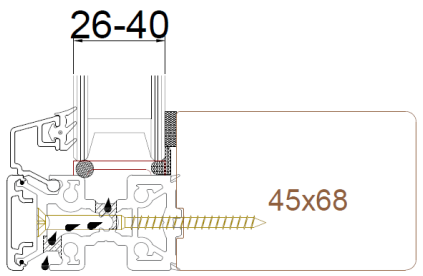
Glass options

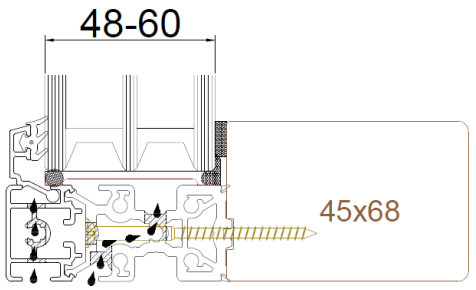
Windows have **extensive possibilities for glazing type of the choice,** such as:

- sun protection,
- sound insulation,
- personal safety,
- self-cleaning,
- self-dimming,
- painted glass,
- fire safety,
- anti-burglar,
- thermal insulation with different levels,
- covered with MDF panels inside insulated glass unit,
- IGMA certified





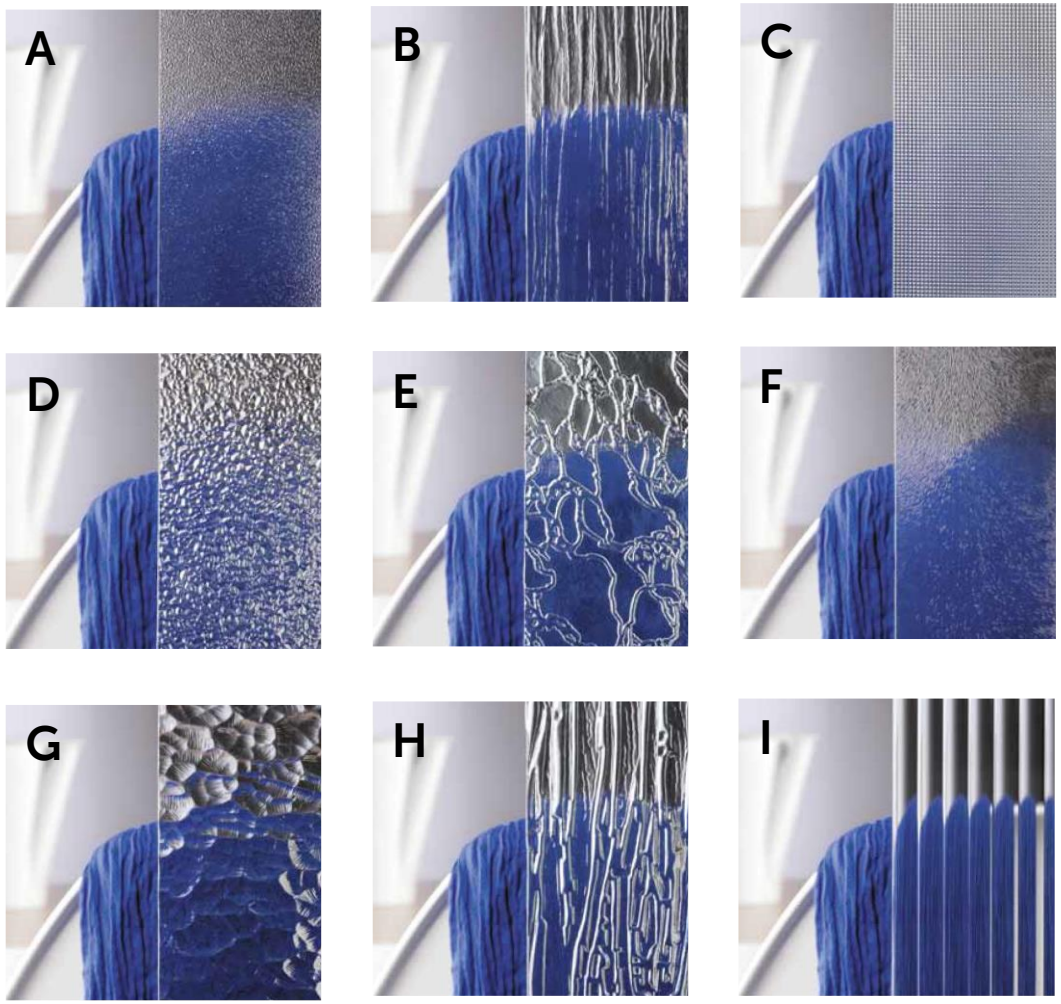




Privacy glass options

A. CREPI Clear
B. KURA Clear
C. KRIZET Clear
D. DIAMANTE Clear
E. DELTA Clear
F. CHINCHILLA Clear
G. ATLANTIC Clear
H. NIAGARA Clear
I. FLUTES

- Triple glazed IGU middle glass
- Double glazed IGU inside glass



Spacers

CHROMATECH ultra

Colors:

RAL9004 (black)

RAL7035 (light grey)

RAL7040 (window grey)

RAL8003 (light brown)

RAL8016 (mahogany brown)

RAL9016 (traffic white)

SWISSPACER ULTIMATE PRO

Colors:

RAL9005 (black)

RAL8003 (light brown)

RAL8017 (dark brown)

Multitech G

Colors:

RAL9005 (black)

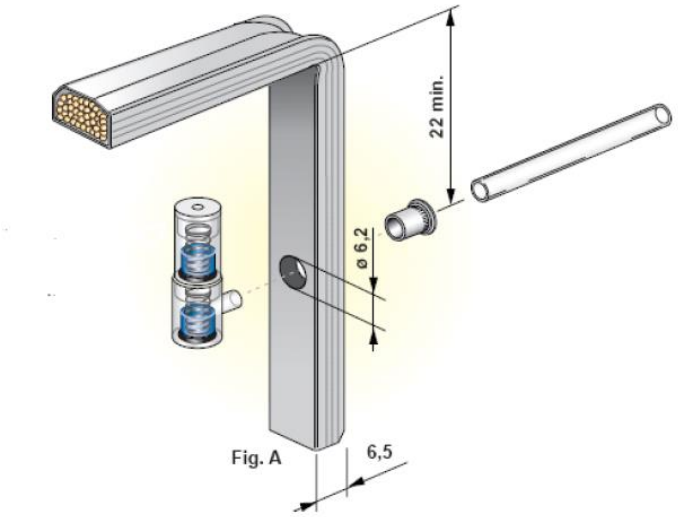
RAL9016 (white)

RAL9023 (dark grey)

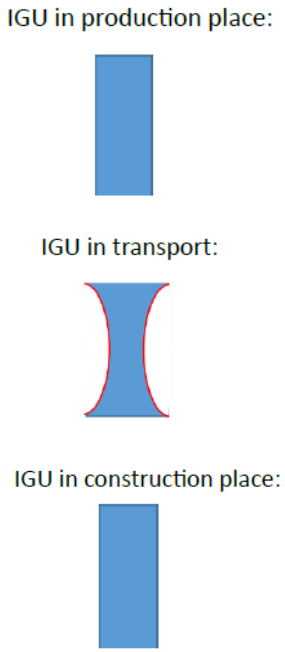
Valve and altimeter technology

- **Swisspacer AIR**
  from 550 m*

- **Valvola TWO-WAY valve**
  from 550 m*



- For IGMA **altimeter technology**
  from 750 m*



***** Object altitude

Window standart equipment

Standart side-guided, top-guided, fully reversible window equipment consist of:

- finger-jointed pine
- MILA Grant locking mechanism
- IPA fricton hinges (concealed)
- HOPPE window handle inside
- ventilation «lock mode»

Standart: HOPPE Tokyo 0710LVK

If side-hung window used, then additionally equiped with:

- with handle operated brake
- visible exterior hinges

Window optional equipment

Optional window equipment consist of:

Handles:

- window handle lockable
- window handle + kissi child safety
- window handle + opening limiter
- rossete with removable handle
- design handles
- flushed handle

Finishing:

- custom exterior finish such as:
  - anodized,
  - marine grade,
  - metallic
- custom interior finish such as:
  - varnished,
  - bleached,
  - oiled
- frame depth up to 390 mm

Functionality:

- opening limiters
- motorized opening
- manual openers
- integrated ventilation grille

Accessories:

- integrated insect screen
- integrated sun screen
- magnet contact
- Klickventil
- exterior sill
- interior sill
- packer: plywood, hardwood
- window bars

Turn&tilt window standart equipment

Standart turn&tilt window equipment consist of:

- finger-jointed pine
- G-U turn&tilt hardware
- G-U Dirigent window handle
- concealed hinges
- ventilation «lock mode»

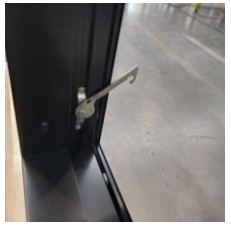
Optional window equipment consist of:

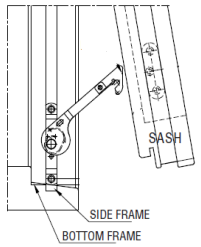
- window handle lockable
- window handle lockable + kissi safety
- opening limiter
- rossete with removable handle
- secustik handles
- TBT hardware and handles
- design handles
- flushed handle

Opening limiters

Child safety devices:

- HOPPE KISI F U71Z
- HOPPE KISI2 F U34
- HOPPE KISI2 U14 / U26
- IPA 21237

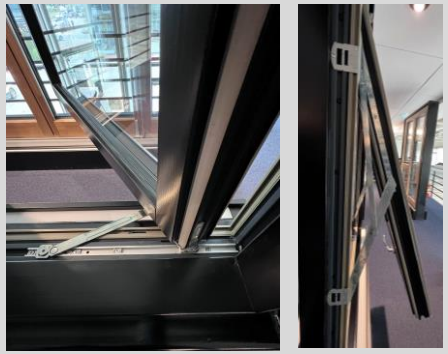




For side-hung window opening limiters:

- window friction stay

Hinges

Window type	Top guided, side guided, fully reversible		Top hung, side hung		Terrace/balcony door		Turn&tilt windows	
	COto 48	COto 62	COto 48	COto 62	COto 48	COto 62	COto 48	COto 62
Hinge name	IPA		PN (MILA)		PN (MILA)		UNI-JET SCF (G-U)	
Type	hidden		visible		visible		hidden	
Color	No (anodized aluminium)		Yes (silver or painted RAL)		Yes (silver or painted RAL)		No (aluminium)	
Weight up to *	70 kg		60 kg		100 kg		130 kg	
Anti-corrosion class	Grade 5		Grade 4		Grade 4		Grade 5	
								

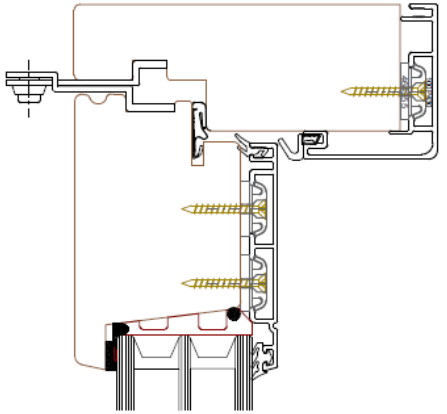
** size of the sash depends on the weight of the sash*

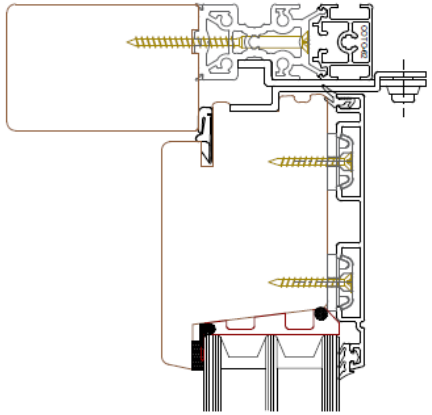
Terrace/balcony door standart equipment

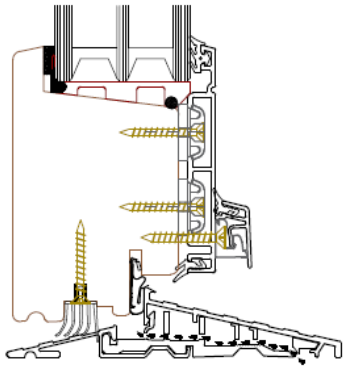
Standart terrace/balcony door equipment consist of:

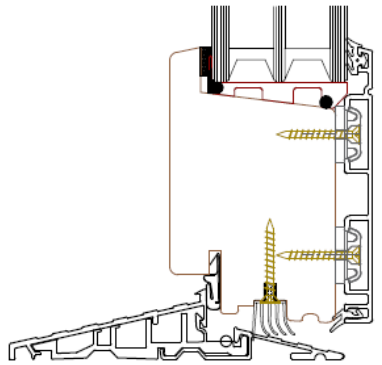
- finger-jointed pine
- window handle only inside
- visible hinges
- MILA Garant hardware
- fixation in all positions with a handle
- max. door aperture 95* degrees
- MILA Aqua stop aluminium threshold

Standart: HOPPE Tokyo 0710LVK









Terrace/balcony door optional equipment

Optional terrace equipment consist of:

Handles:

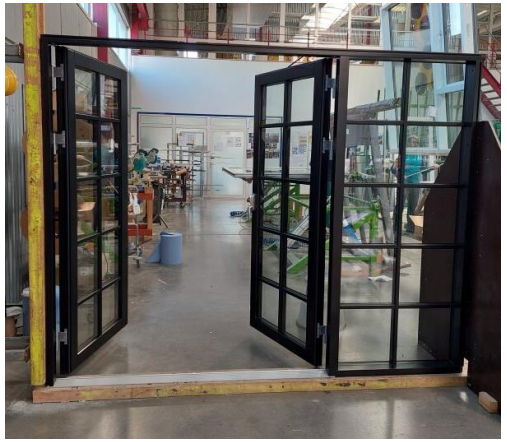
- handle inside
- handle on both sides
- handle inside/pull handle outside
- lockable handle inside key/ thumb turn
- lockable handle inside and outside
- lockable handle with cylinder inside and outside
- rossete with removable handle
- design handles
- flushed handle

Finishing:

- custom exterior finish such as:
  - anodized,
  - marine grade,
  - metallic
- custom interior finish such as:
  - varnished,
  - bleached
- Frame depth up to 390 mm (outwards open)

Functionality:

- visible hinges
- opening limiters
- hardwood threshold
- produced as window block with top lights and/or side lights
- double doors



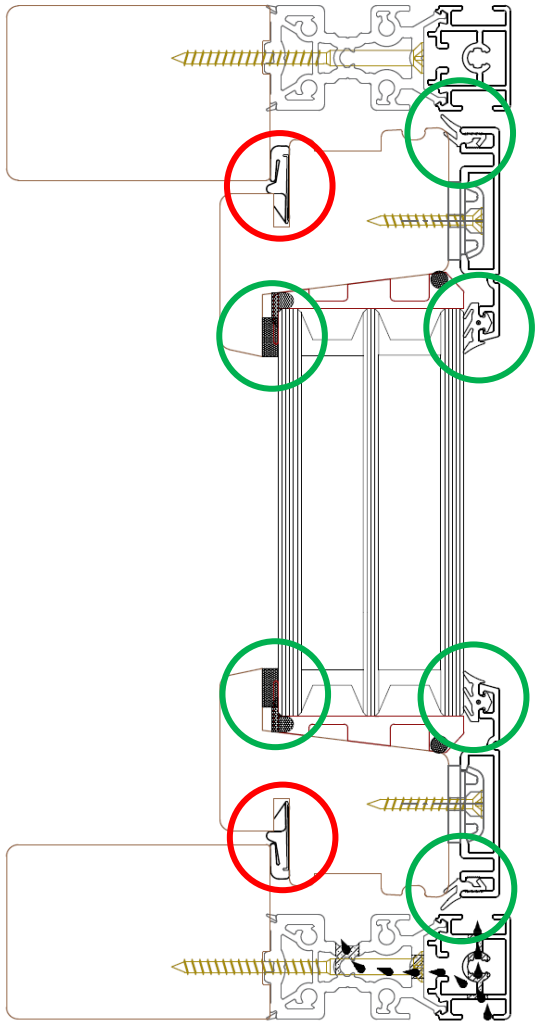
Accessories:

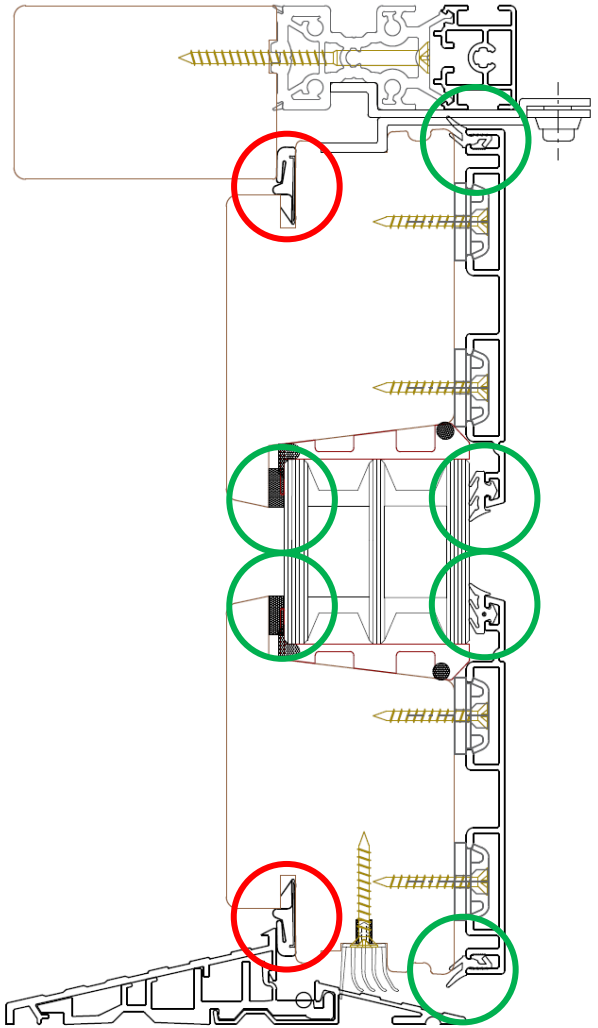
- magnet contact
- Klickventil
- alu/mdf filling
- window bars
- packer: plywood, hardwood

Gaskets

Available colors:

Available colors:

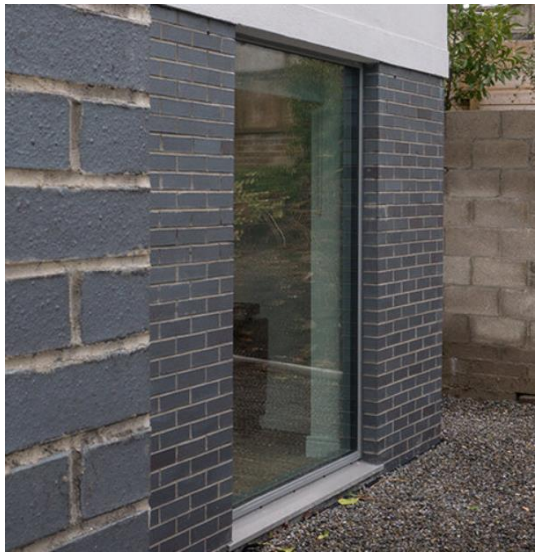


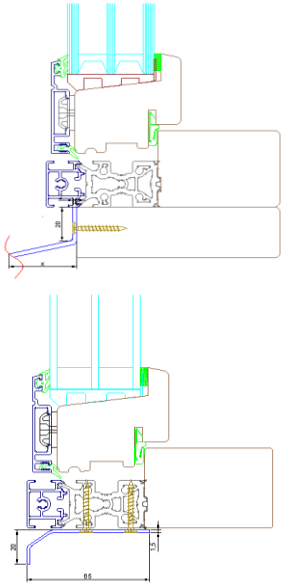


Exterior and interior sills

Exterior aluminium sills:

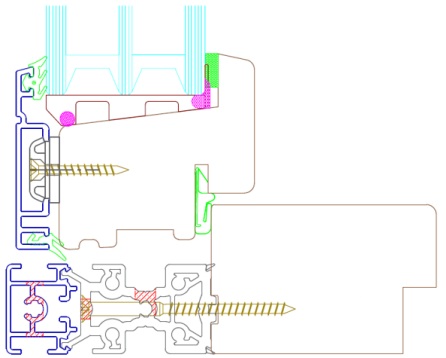
- made from tin
- possible to paint in any RAL (gloss, matt, texture)
- consist of sill ends, screws and screw cups
- sill up to 3 m in lenght (more lenght with connection)
- possible sill design modification



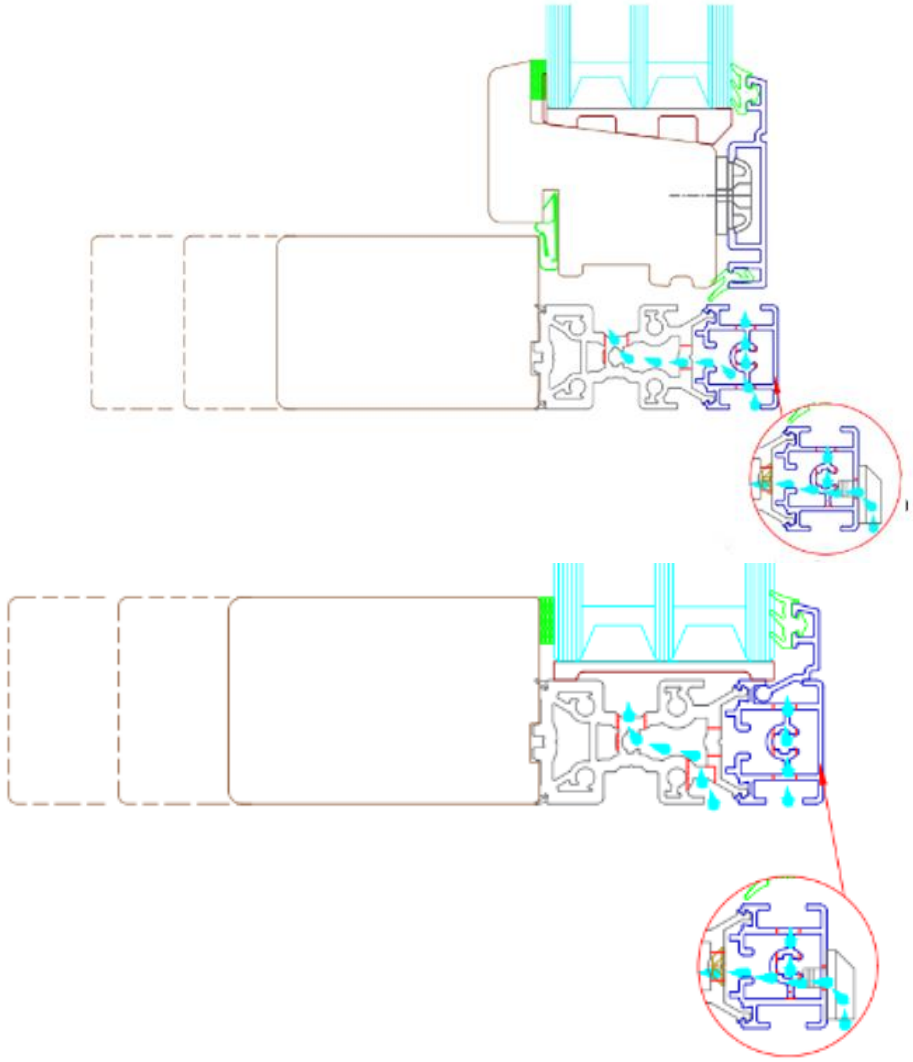


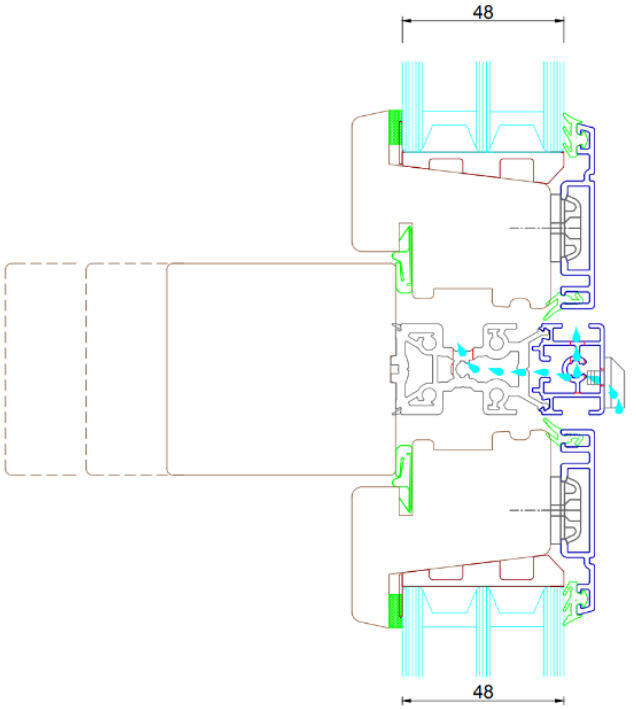
Interior wooden sills:

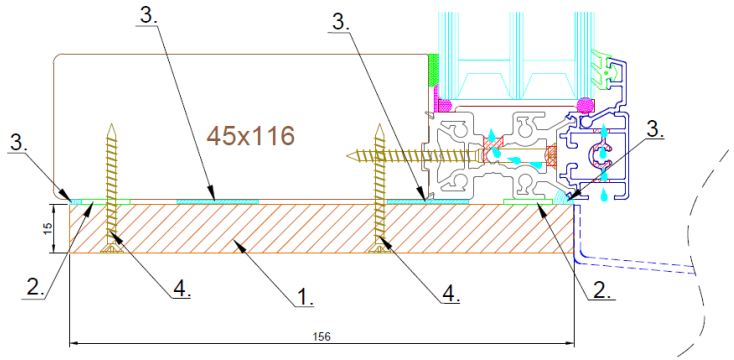
- 20-30 mm thick
- availabe in pine, oak, mahogany and more
- rounded or square corners
- rounded or square interior front
- individual finish or matching window interior wood
- milling for each project according to individual instructions



Drainage options







1. - 15x156mm plywood extension
2. - Joint sealing tape GreenteQ 600 15/1-4
3. - Silicone seam
4. - Screw PZ 3.5x40mm

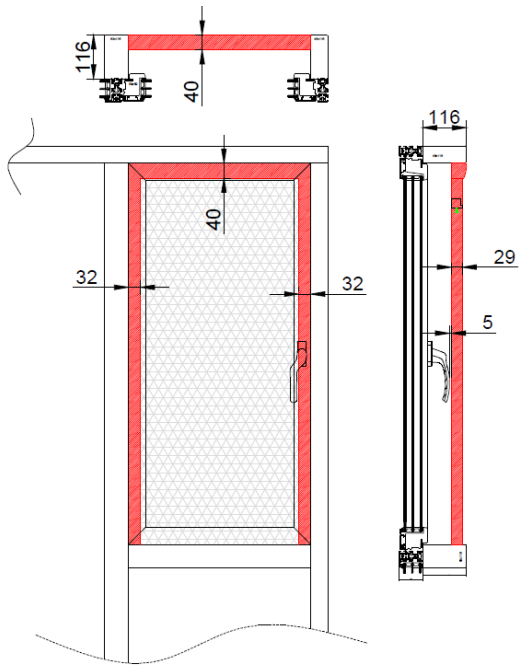
Rectractable insect screen

- Insect screens are installed in window interior side
- **Min.** size: **400x300** mm, **max.** size: **1800x2400** mm
- Insect mesh colors: **grey**
- Insect screen transparency: **60% or 80%**
- Tear-resistant and weather-resistant fabric made of plastic-coated fiberglass
- Possibility to lower the screen with a string
- Standart colors:

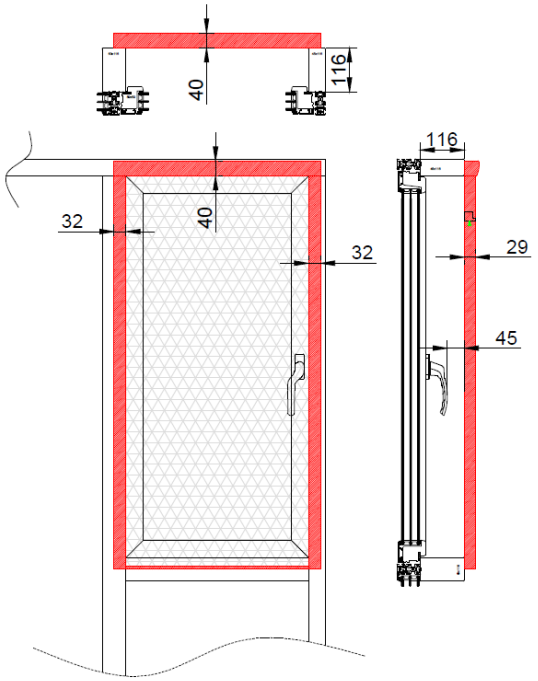
other RAL colors on request

Rectractable insect screen

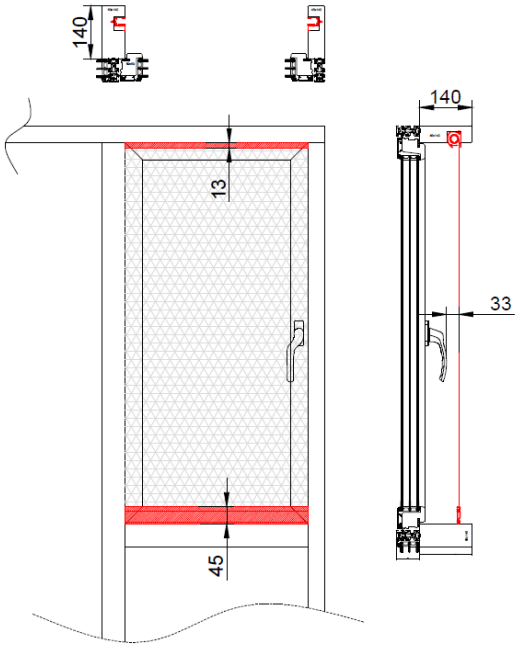
Between wood frame
Min. frame **depth 116 mm**



On wood frame
Min. frame **depth 116 mm**

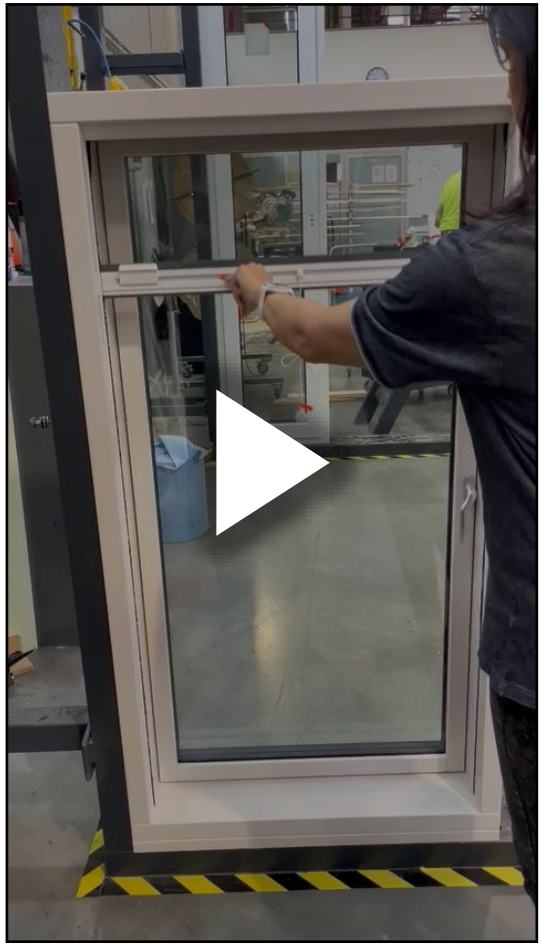


Milled inside of wood frame
Min. frame **depth 140 mm**

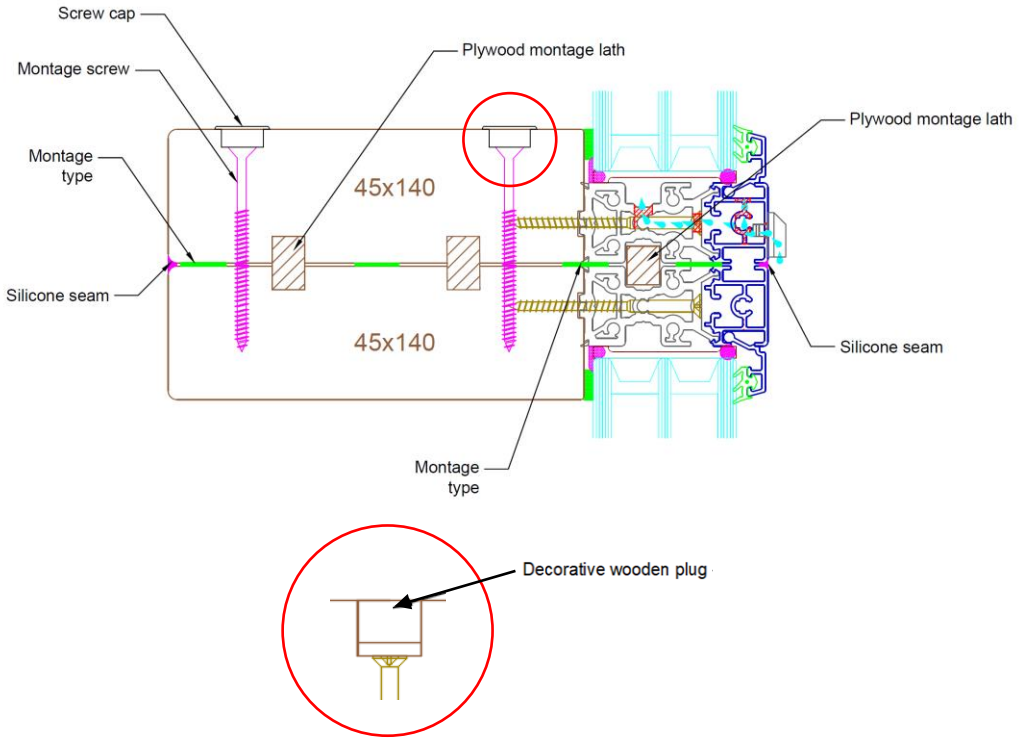


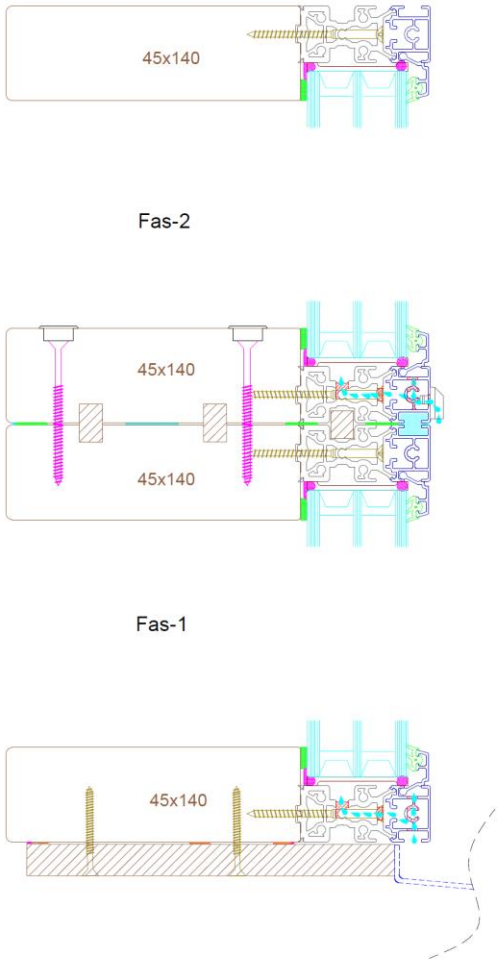
Insect screen between wood frame

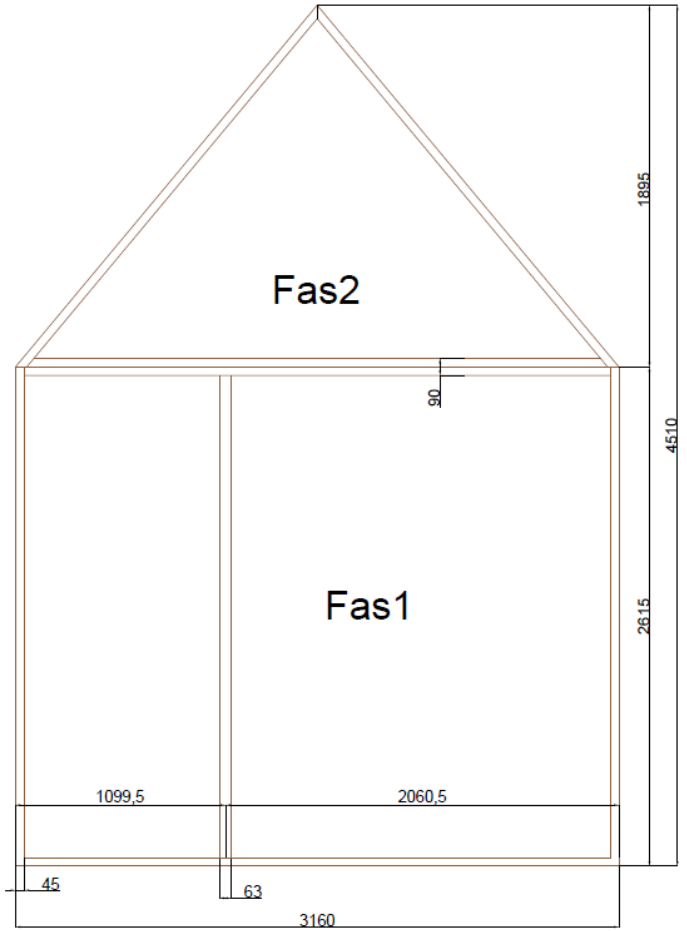
Integrated insect screen



Window connection

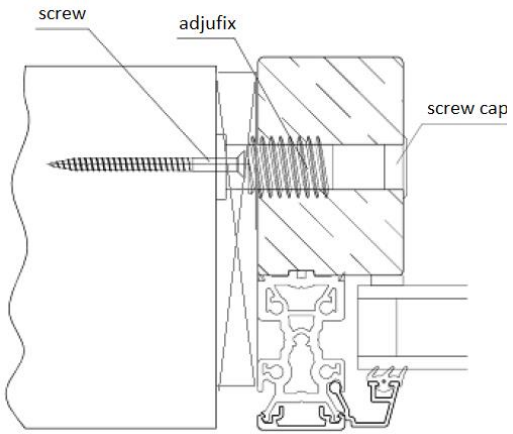


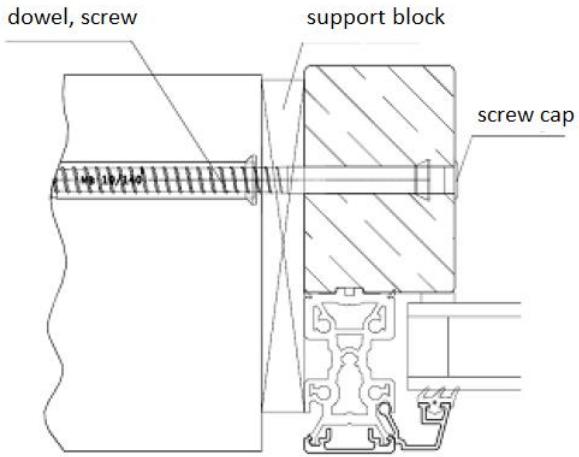


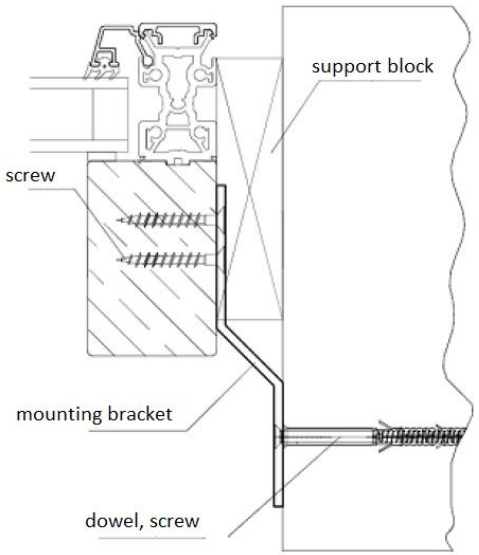


Montage accessories

- Adjufix
- Fixing with screws
- Mounting brackets





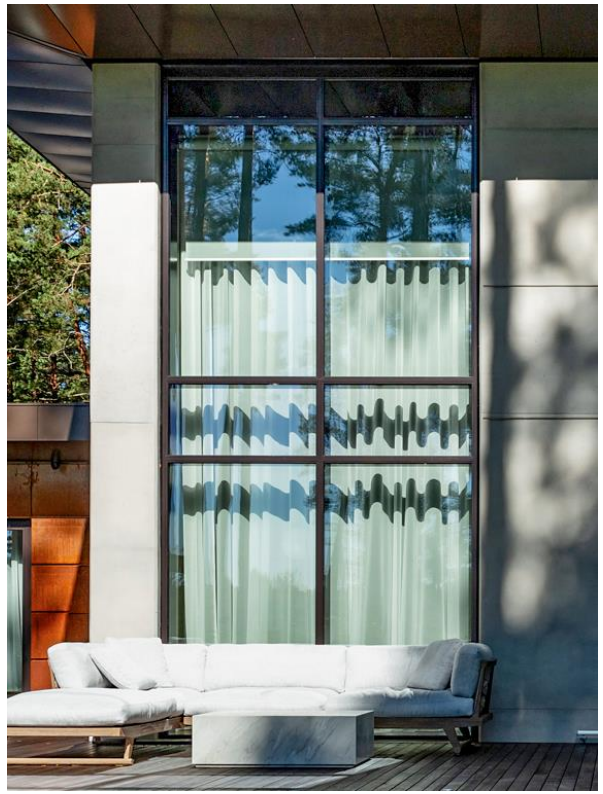


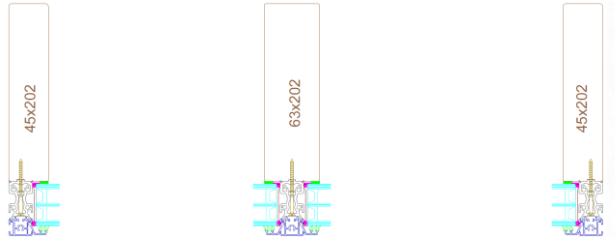
Screw cups for frame:

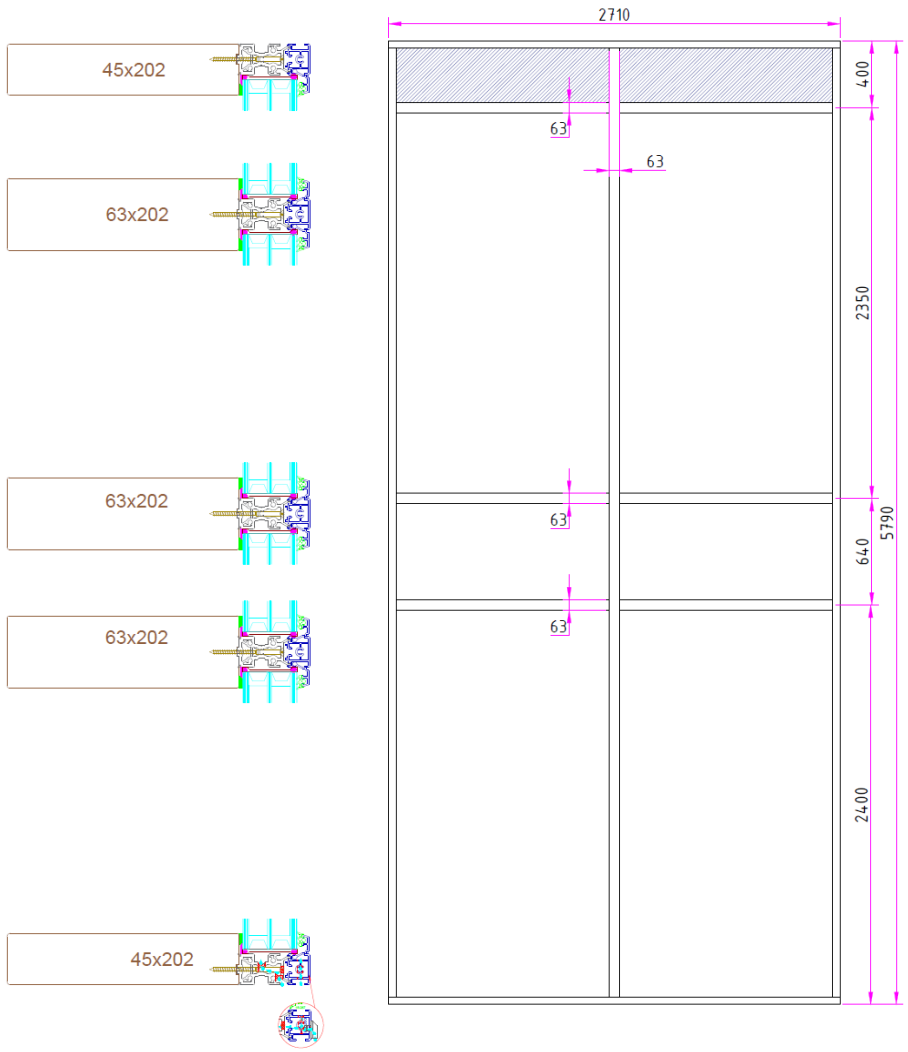
- Wood plug inside frame (painted RAL or varnish)
- Wooden cup (painted RAL or varnish)
- Plastic cup

COto FACADES - Example 1

- Facade is produced in one block
- Top section is covered with painted glass



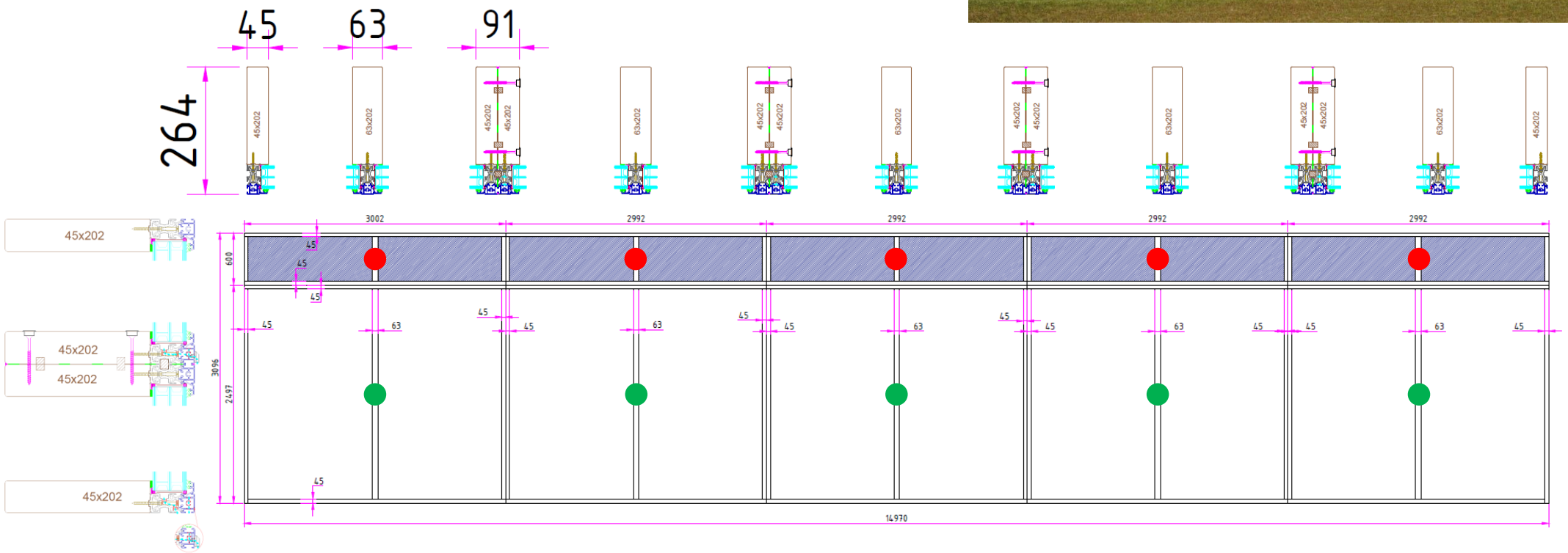




COto FACADES - Example 1

COto FACADES - Example 2

- Facade is produced in several blocks (● ; ●)
- Assembled together in the object
- Toplight is covered with painted glass



Schüco AOC TI (50/60)

The add-on construction Schüco AOC TI (50/60) with timber frames **combines energy-efficient, aesthetically sophisticated facade** with maximum design freedom.

Components enable **simple and reliable execution,** including load transfer and screw guidance, even when working with large panes and triple glazing.

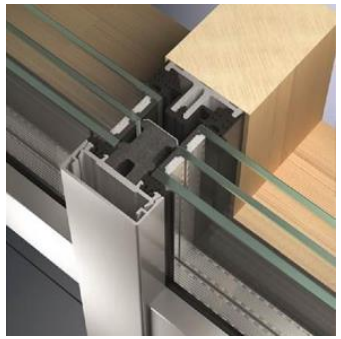
Installation manuals can be processed upon individual project.

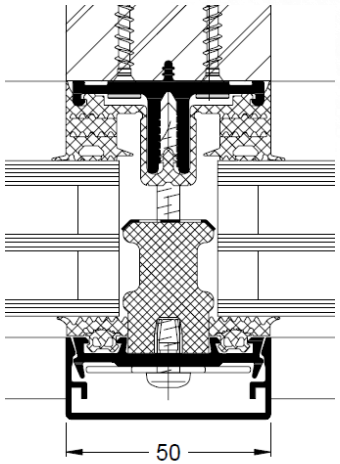
Schüco AOC TI (50/60)

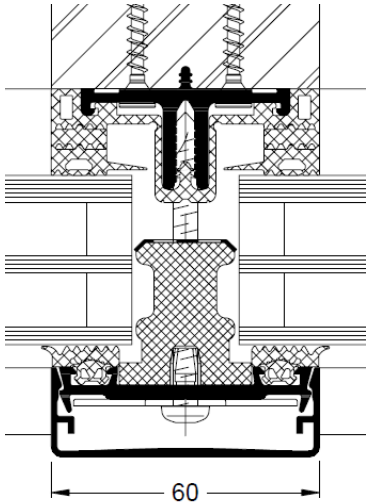
Tehnical data:

- thermal insulation: **up to 0.77 W/(m²K)**
- watertightness: **RE 2550**
- glass IGU thickness up to **70 mm**
- max. IGU weight: **810 kg**
- max. unit weight **1100 kg**
- surface finishes:
  powder, anodised, paint
- interior finishes:
  clear, paint, stain, oil, bleach, varnish

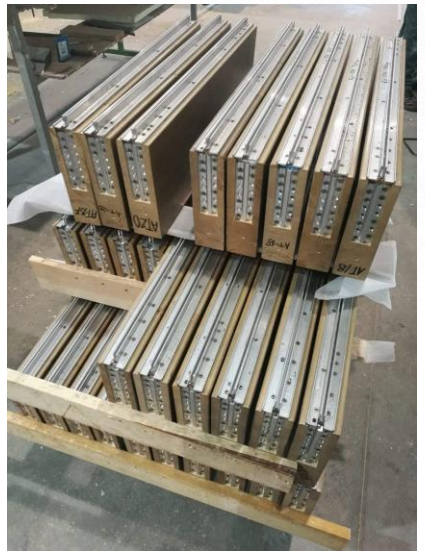
Facede is produced in elements and buyer install frames, glass, connections on site.

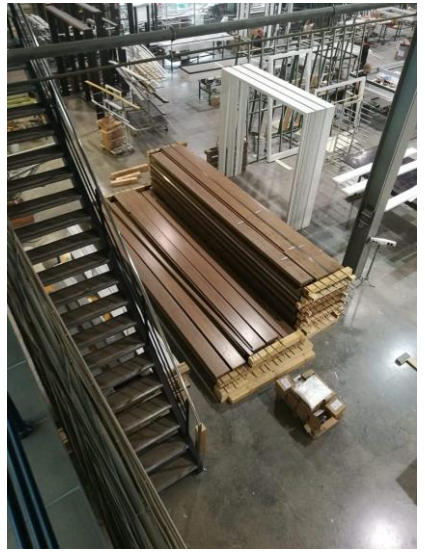




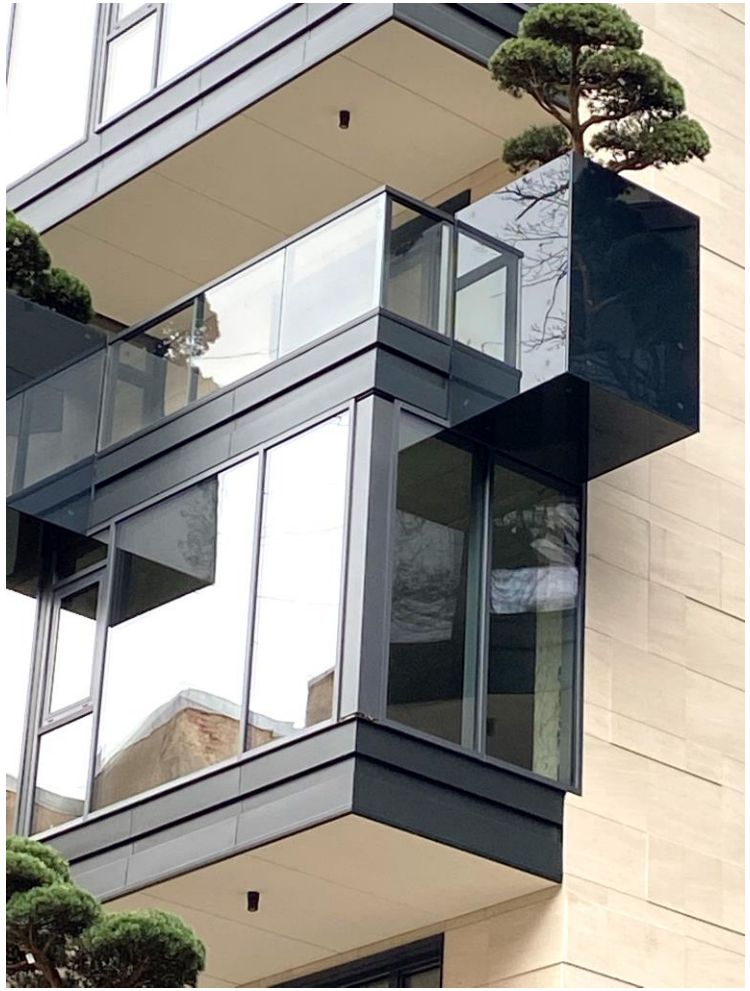


Schüco AOC





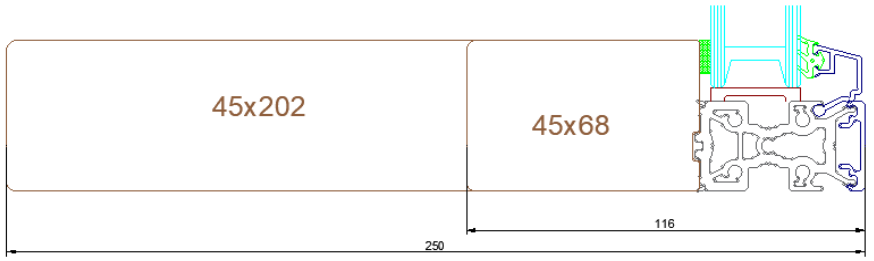
ALU flashing

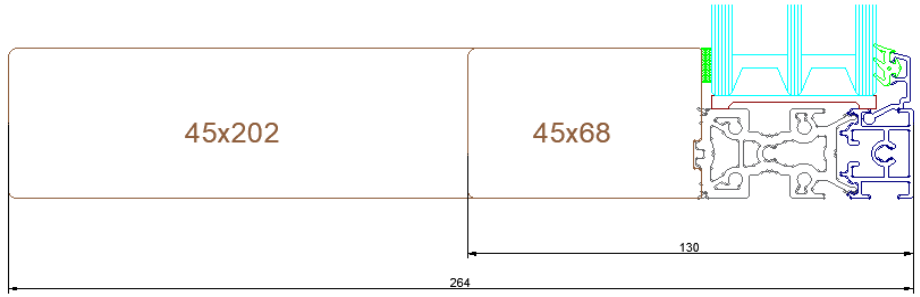


Special solutions: Figure windows

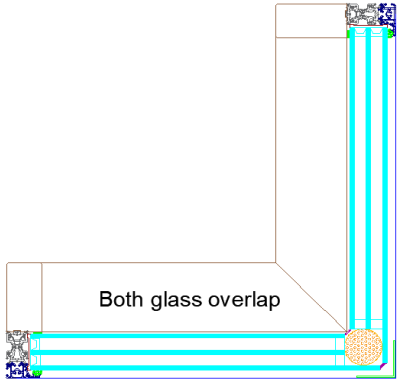
Special solutions: Segmented facade in angle

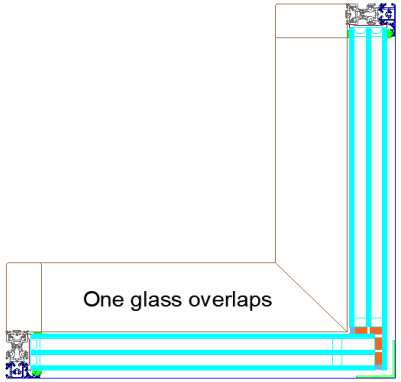
Special solutions: Extended frames

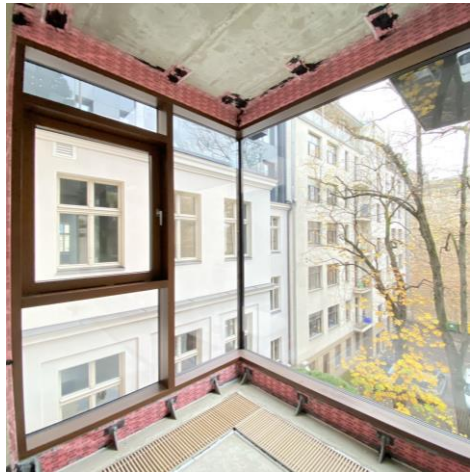


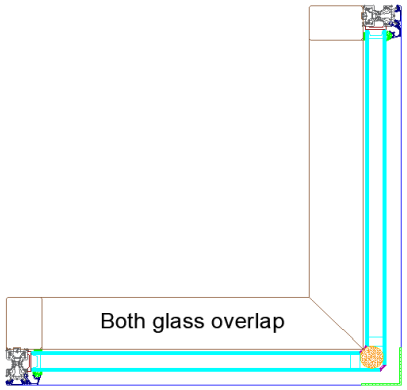


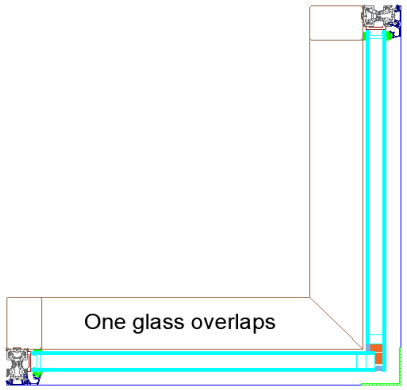
Special solutions: Glass corners

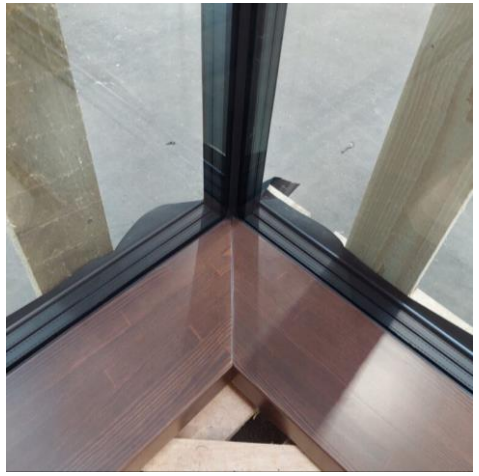




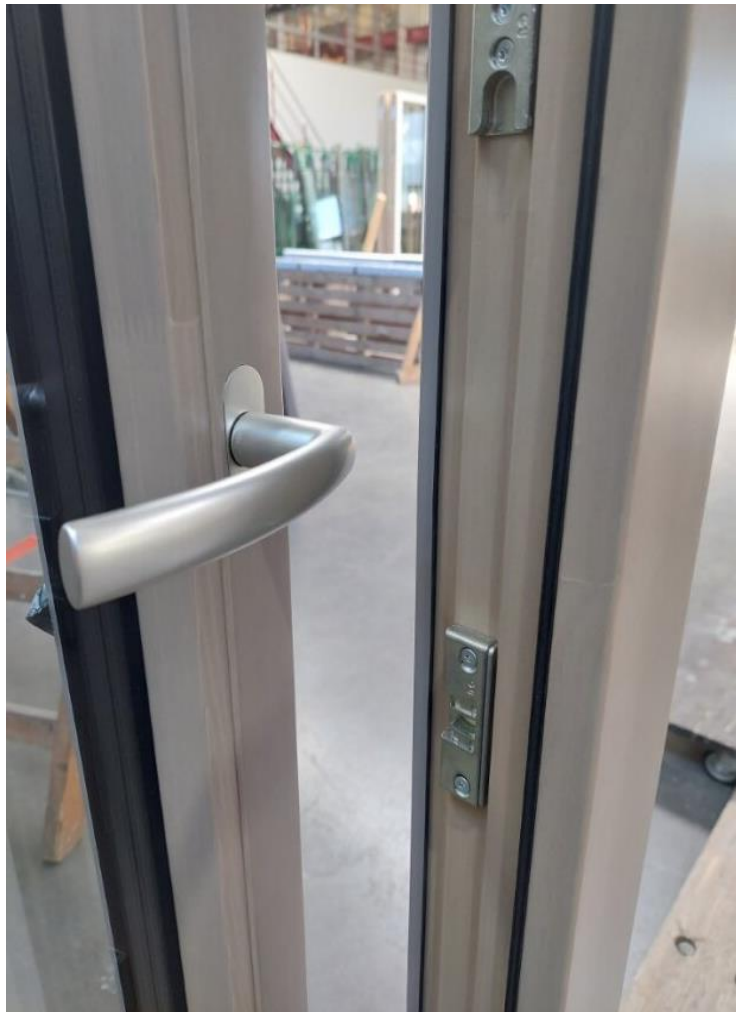


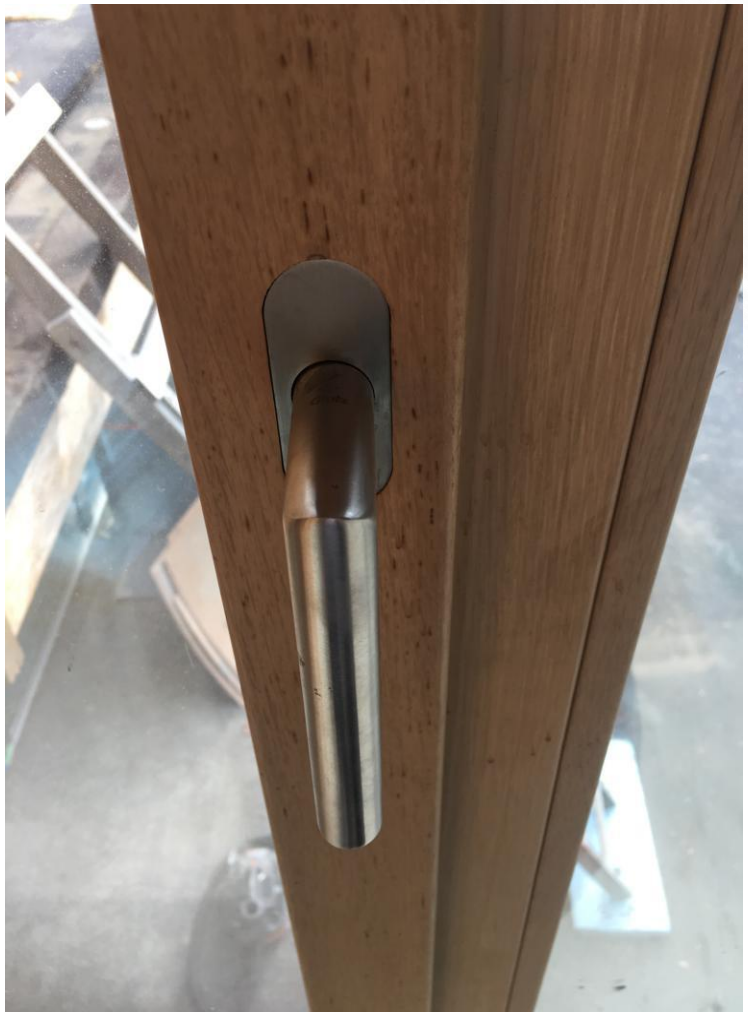




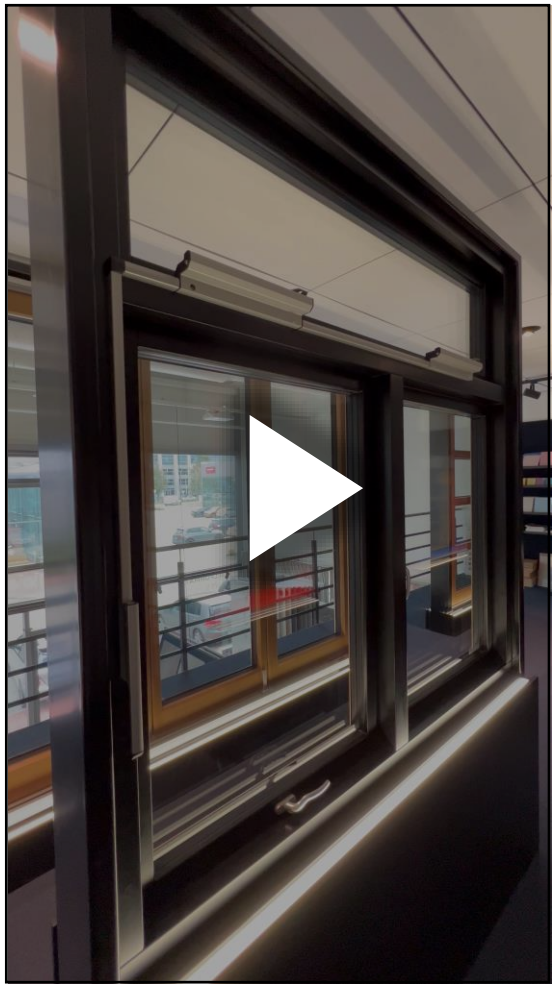


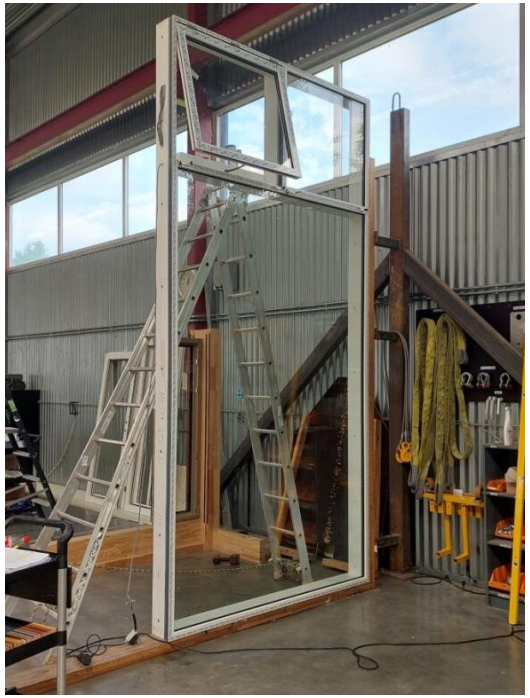
Special solutions: Flush window handle





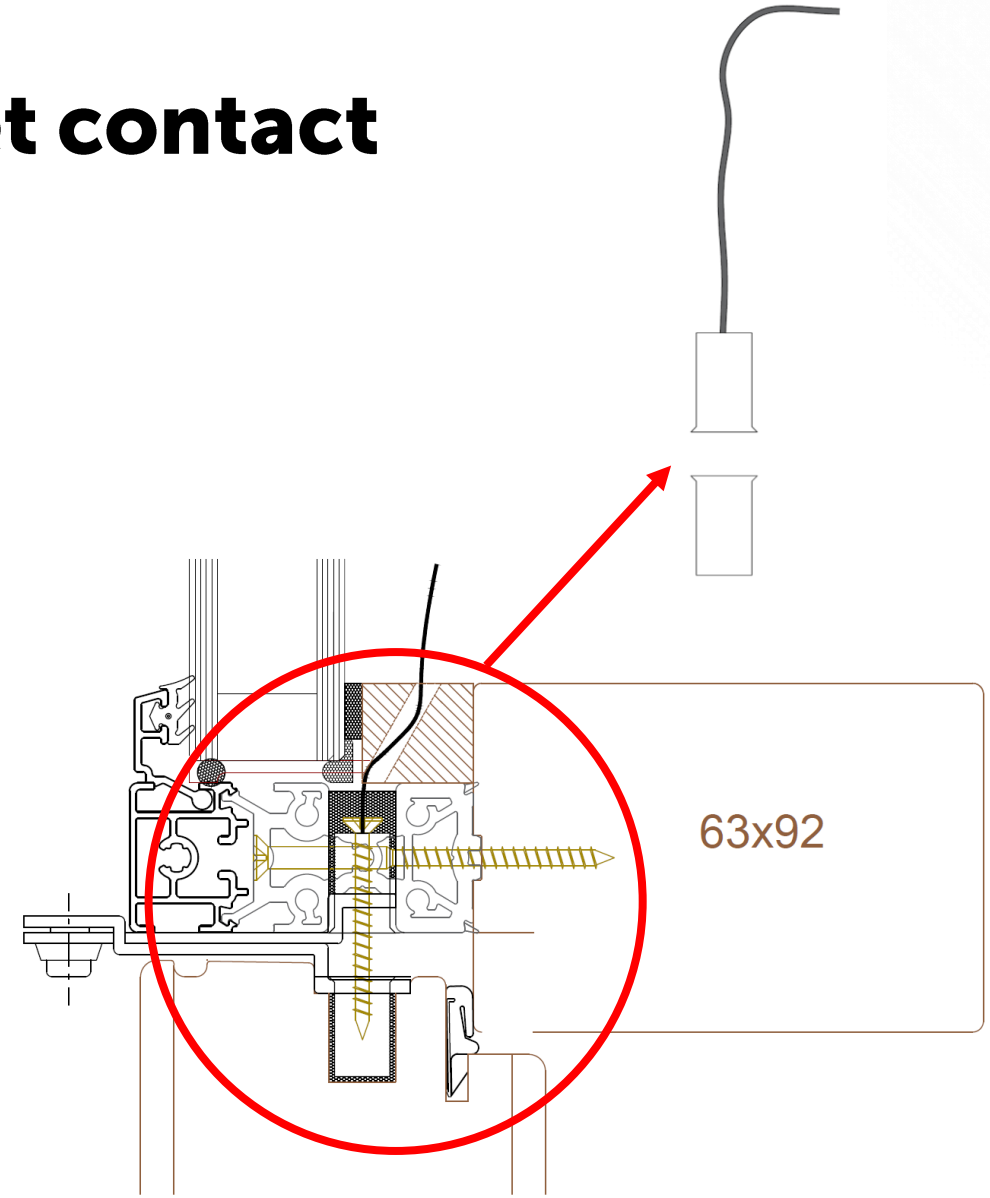
Special solutions: Window closers: manual or motorised





Special solutions: Magnet contact

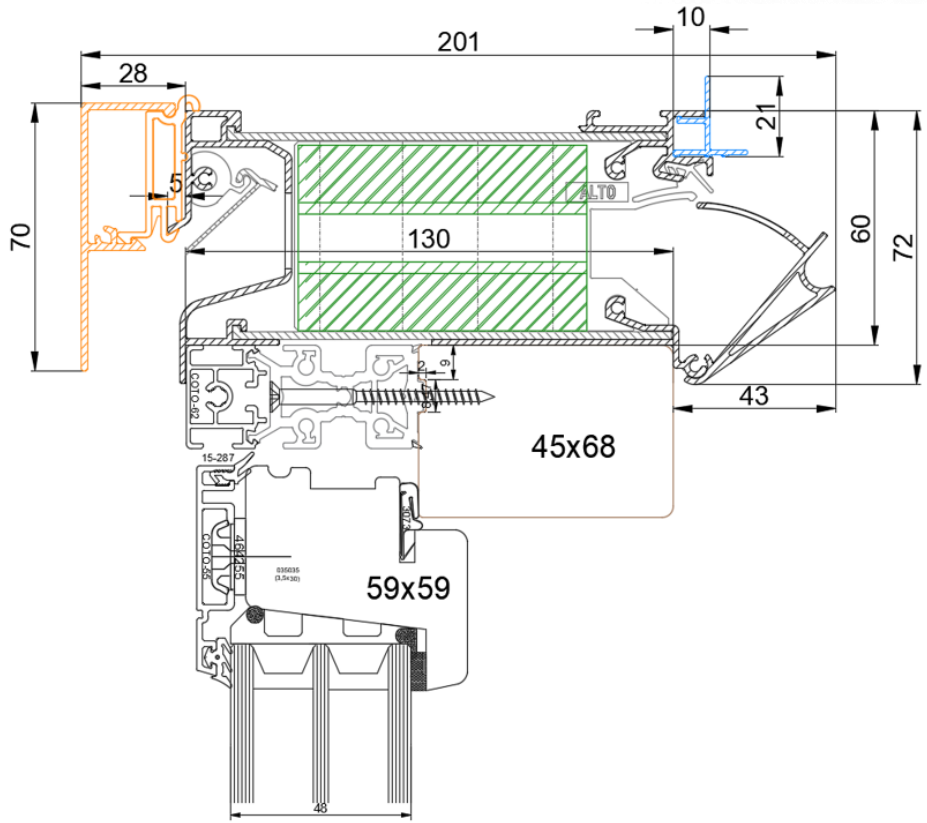
Magnet contact purpose is to control window openings from centralised security system.



Special solutions: Additional integrated ventilation

Natural ventilation valve for window (Duco TopVent)

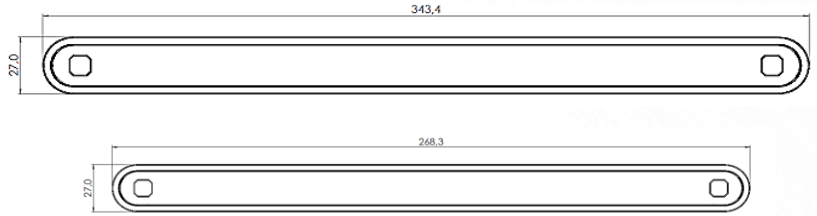
- Optimum aesthetics thanks to ‘invisible’ punching
- Suitable for fitting on any window section:
  depths from 60 to 215 mm
- Only 60 mm grille height



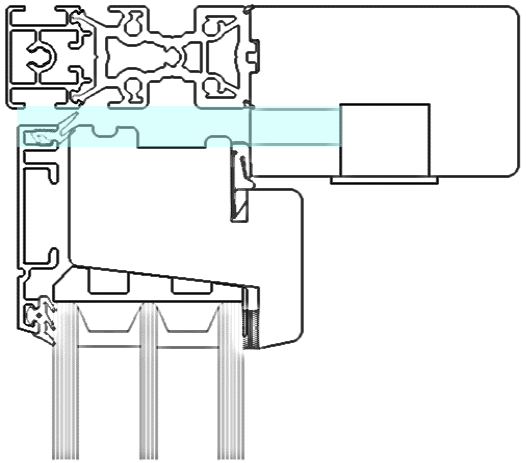
Special solutions: Klikventil ventilation

Natural ventilation valve for window (KLIKVENTIL)

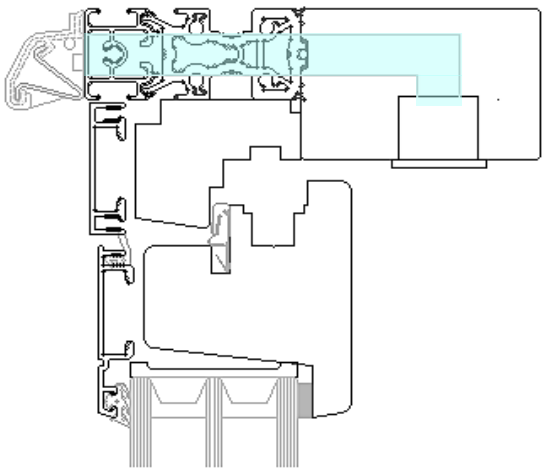
- Ventilation is installed on the top OR side of the window interior frame
- Klickventilation is possible in two options:
  - 2K-4010 (Airflow: Eqv. area: 3100 mm^2)
  - 2K-3010 (Airflow: Eqv. area: 2060 mm^2)
- Turn&tilt / fixed windows have outside visible Trimvent CANOPY, all RAL colors available.



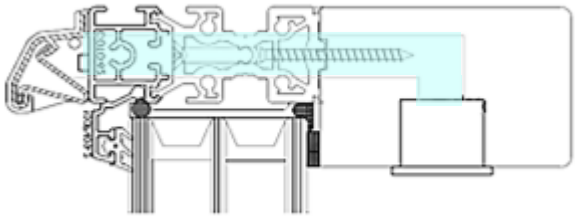
outwards open



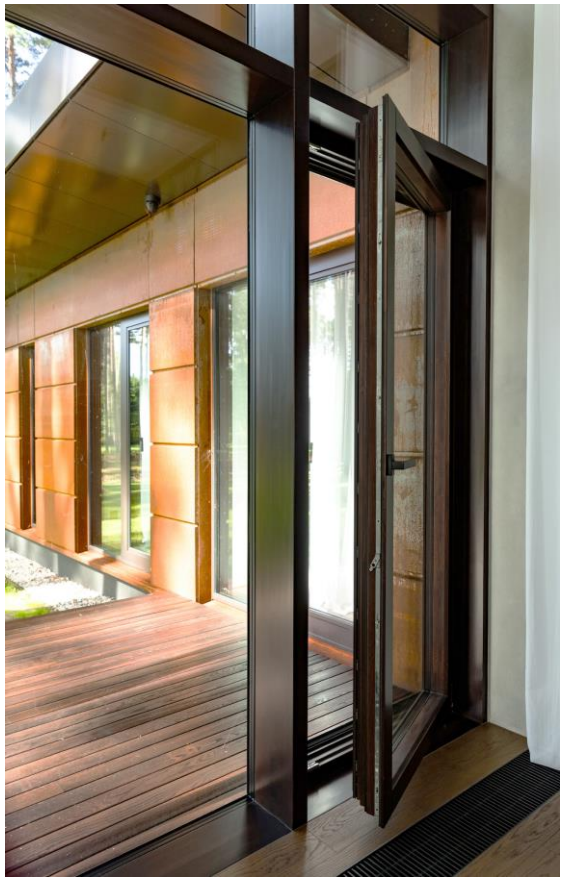
inwards open

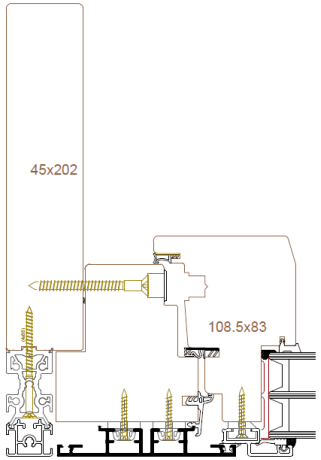


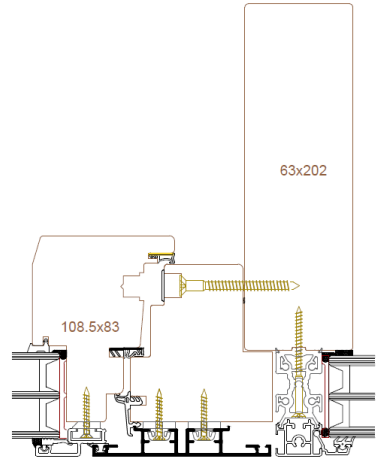
fixed



Special solutions:
COto curtain wall + integrated AltoNova window





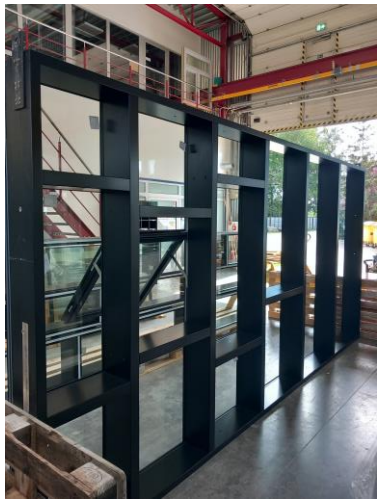


Special solutions: Painted glass / mirror glass

Special solutions:
Integrated ventilation grill in COto window

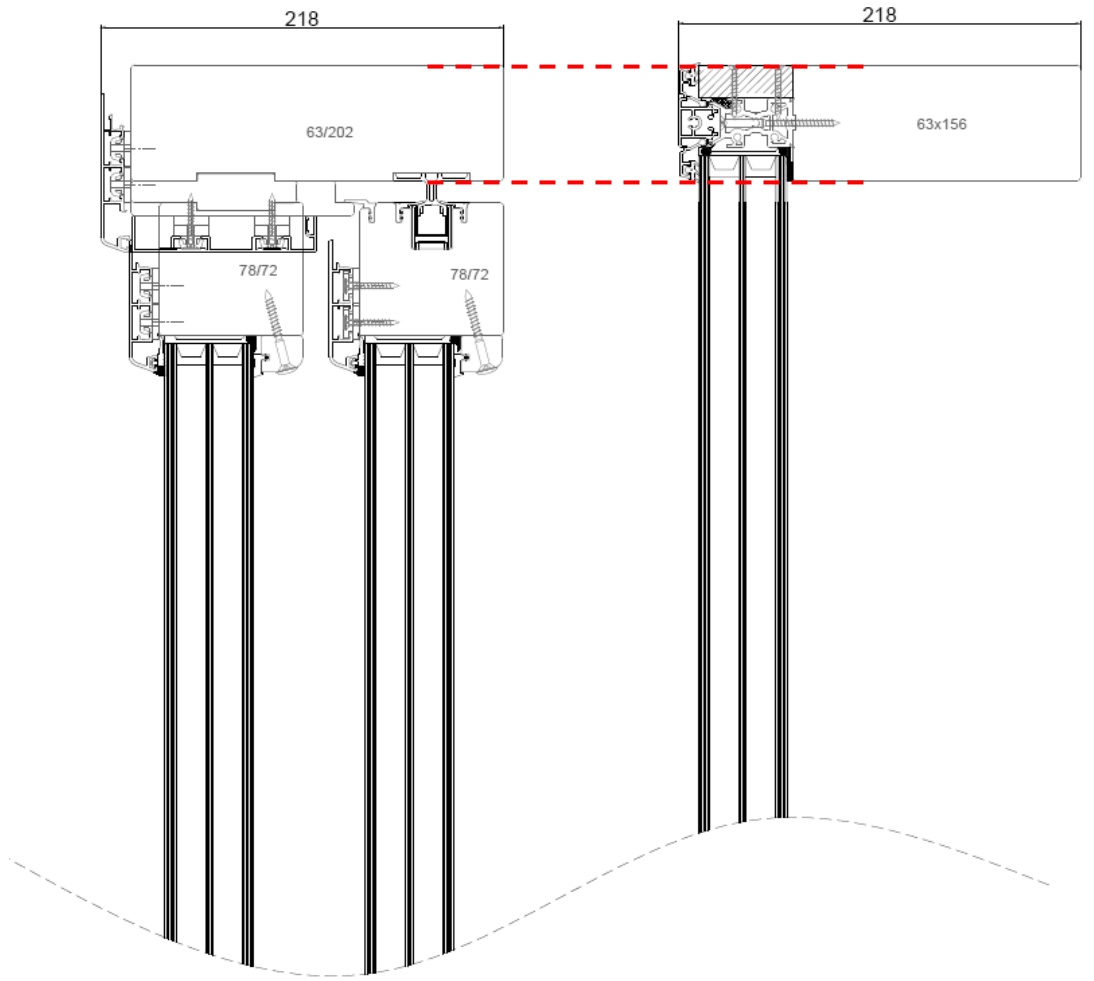
Special solutions: Dummy sash

Special solutions: Large window blocks



Special solutions: Large fixed window

Produced examples:
COto fixed + AltoNova lift&slide door



Product quality

ISO 9001 – Quality management system certificate (Bureau Veritas)
ISO 14001 – Environmental management system certificate (Bureau Veritas)
EN 14351-1; EN 13830 – Manufacture process control certificates (Inspecta), Dansk Vindues Certificering certificates

HL STUDIJA

Reference projects

Project: Family home

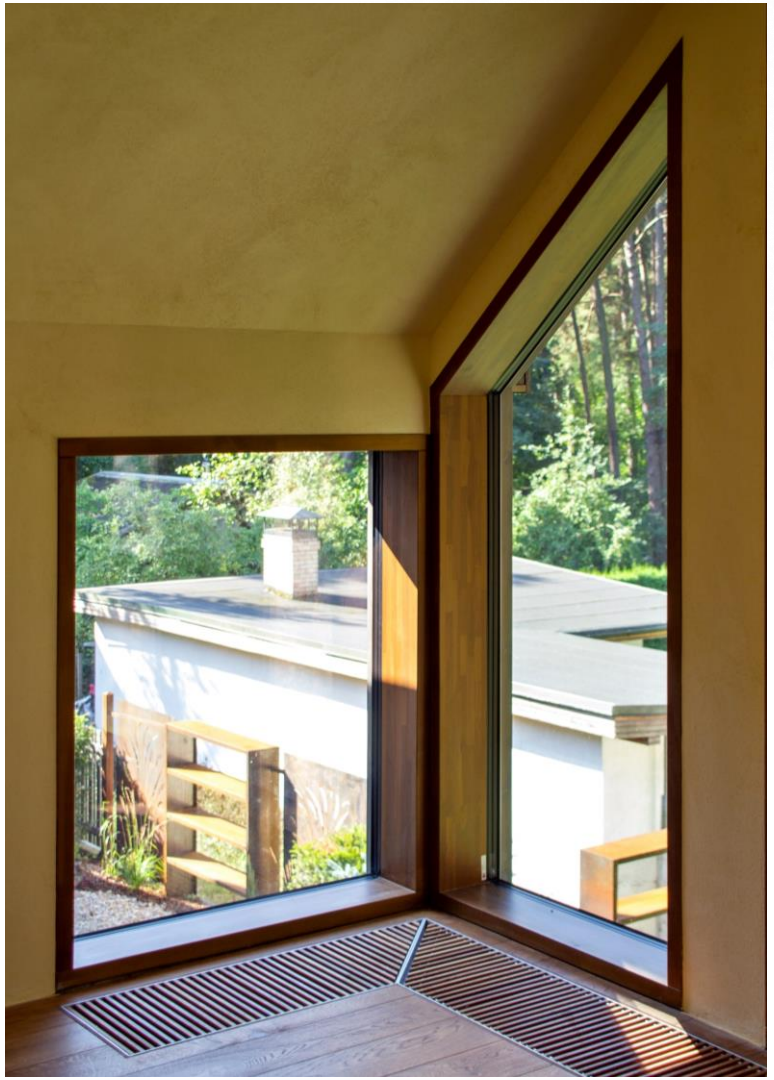
Location: Jurmala, Latvia

Project: Family home

Location: Jurmala, Latvia

Project: Family home

Location: Jurmala, Latvia



Project: Guest house

Location: Tervete, Latvia

Project: Family home

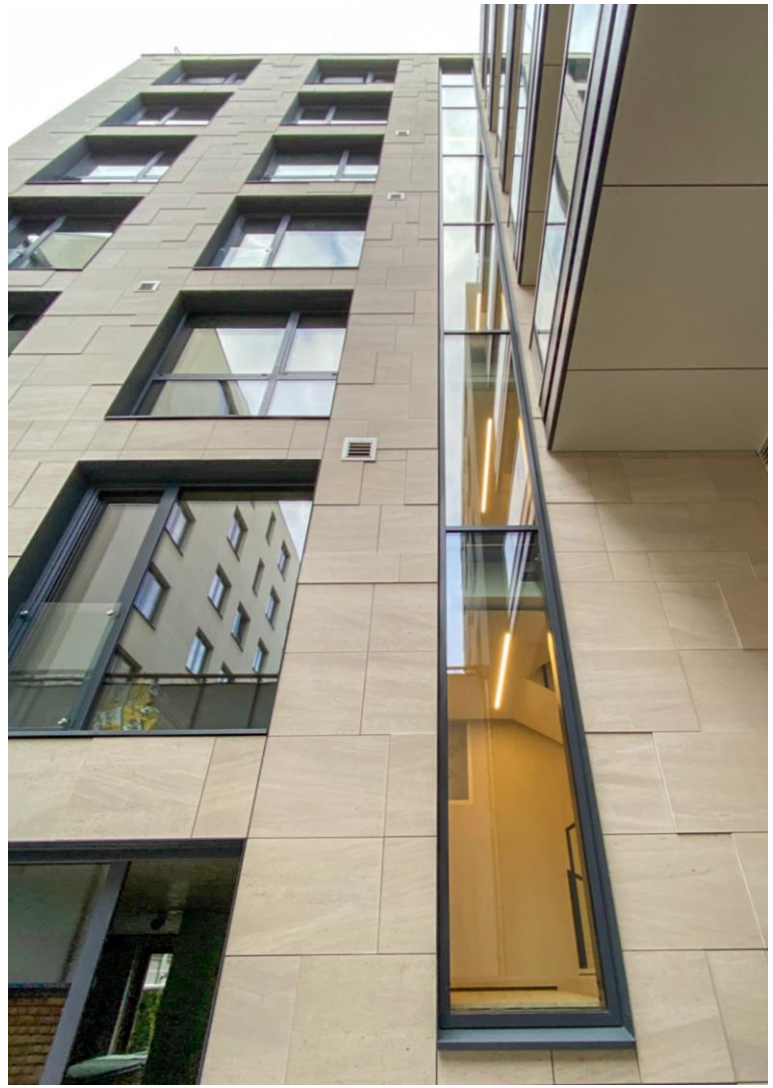
Location: Riga, Latvia

Project: Office bulding

Location: Riga, Latvia

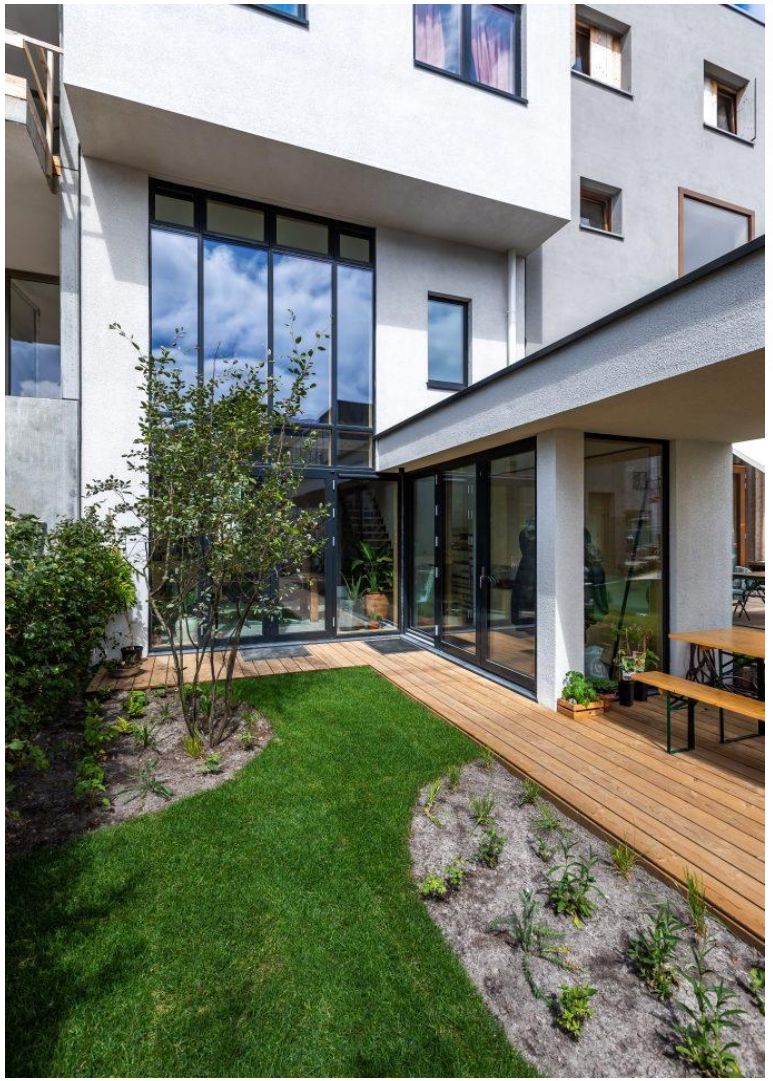
Project: Hoft

Location: Riga, Latvia



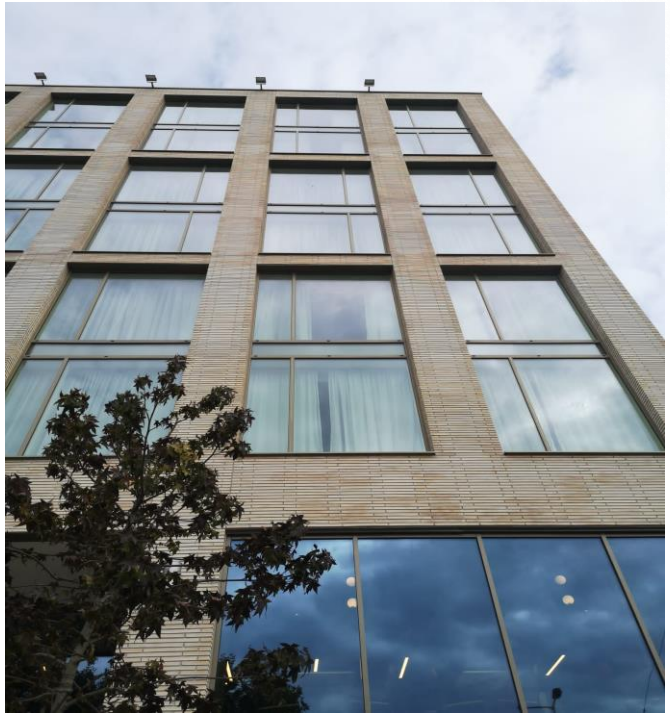
Project: Family home

Location: Amsterdam, Netherlands



Project: Hampton By Hilton Hotel

Location: Dublin, Ireland



Project: Family houses

Location: Dublin, Ireland

Project: Cork

Location: Ireland

Project: Residential building

Location: Dalkey (Dublin), Ireland

Project: Family house

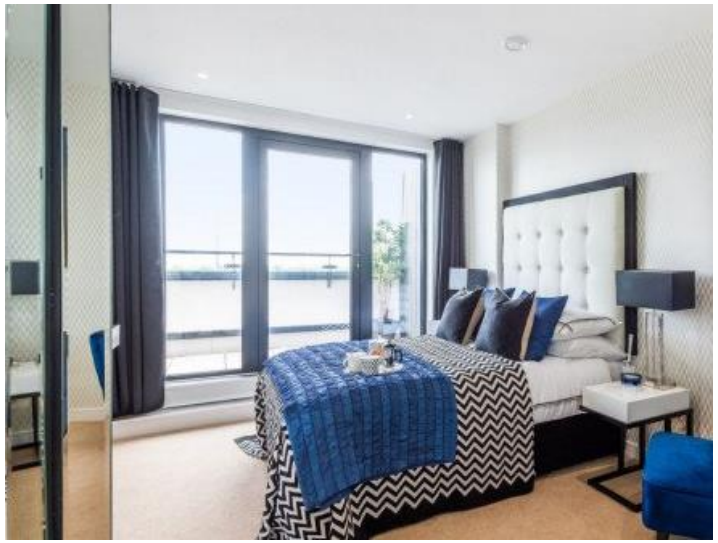
Location: Foxrock (Dublin), Ireland

Project: Finborough school

Location: Finborough, Great Britain

Project: Apartment buildings «LEADEN HILLS»

Location: Coulsdon, United Kingdom



Project: Family house

Location: Leyland, United Kingdom

Project: Family house

Location: Hove, United Kingdom

Project: School «LANDAMARESKOLAN»

Location: Gothenburg, Sweden

Project: Apartment building «ULLEVAL TARN»

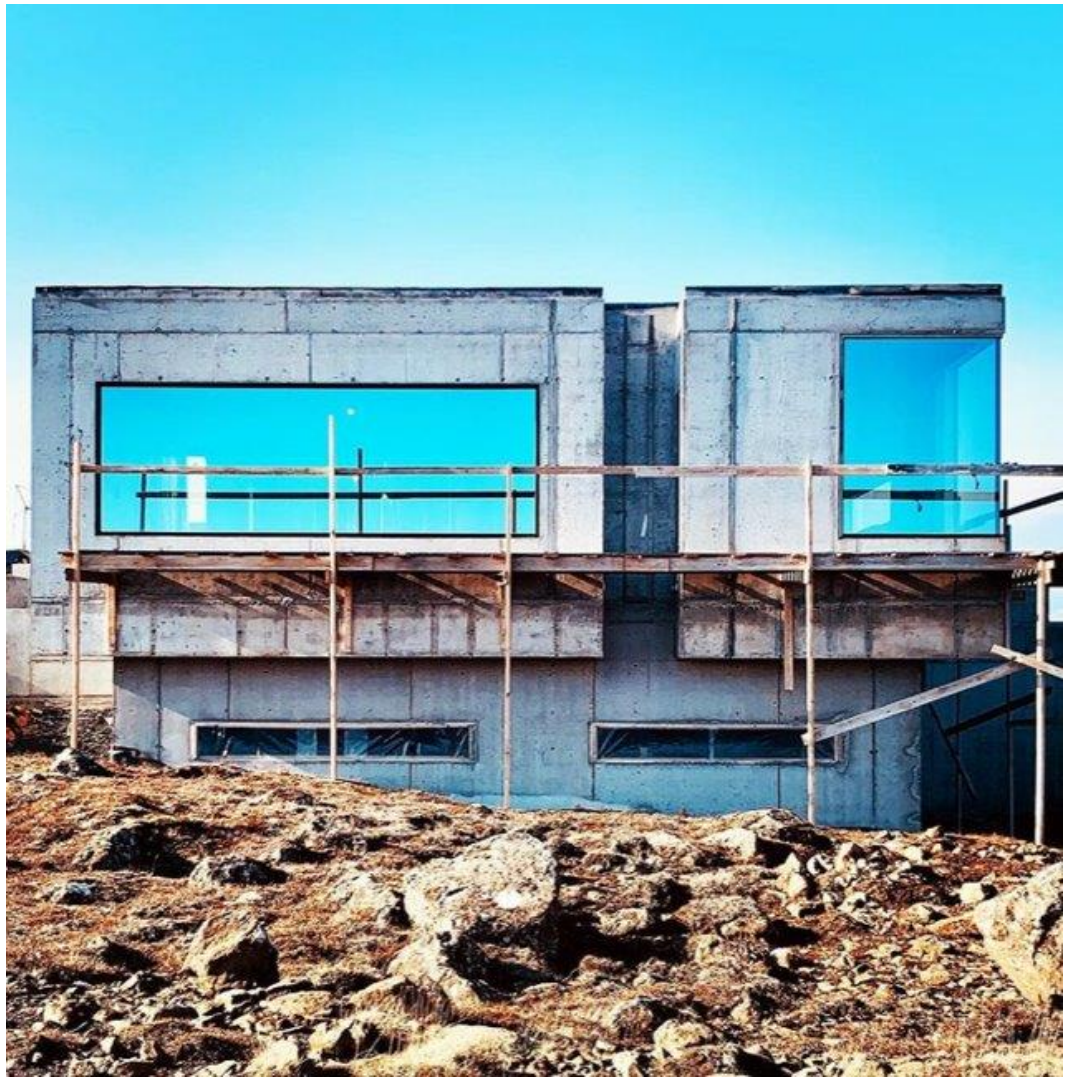
Location: Oslo, Norway

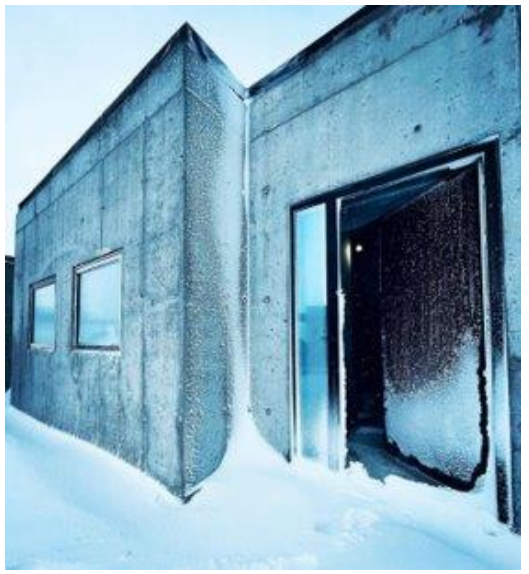
Project: Breidakur

Location: Iceland

Project: Geopark villa

Location: Iceland





Project: Office buildings «Hofdatorg S1 and H2»

Location: Reykjavik, Iceland

Project: Apartment building «NORDURBAKKI»

Location: Hafnarfjordur, Iceland

HL STUDIJA

COto windows and terrace/balcony doors