

MILLOM PUBLIC TOILET

IDK

TOILET BLOCK
LANCASHIRE ROAD
MILLOM, CUMBRIA

As If By Magic Ltd
Directors: Raymond Towers, Sally Woods,
Gavin Towers, Maria Woods

Planning Response
05.2022

CONTACT PERSON:
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EXECUTIVE STATEMENT

Dear Mr Woodford

Many thanks for your report and comments with regards to the planning application for the Former Toilet Block at Lancashire Road, Millom (REF: 4/22/2100/0F1)

We have compiled the attached document and specification sheets that we hope addresses the questions that you have raised. Should you have any further follow up queries or wish to discuss the proposal in more detail please do not hesitate to get in touch.

As the scheme is presently at planning stage we will be happy to further develop additional details pending the council's determination for conditional approval as construction information is developed.

We very much look forward to progressing this scheme which as you note will have a significant positive impact on the Millom conservation area and local amenity provision.

Yours sincerely,

Mike Lim
Partner. ARB

For and on behalf of
AIBM

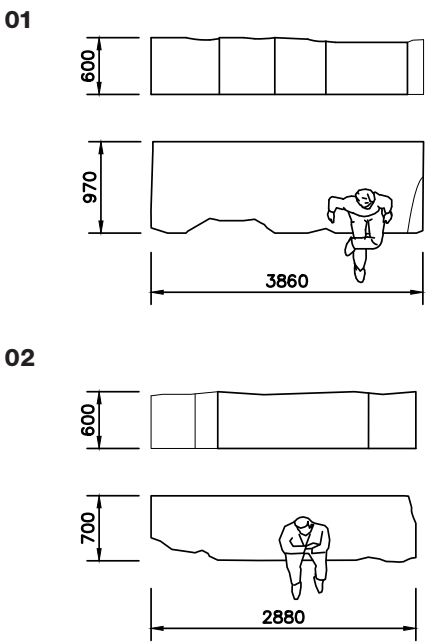
Provide specifications of the following:

- Proposed external furniture and fixtures such as benches, rainwater harvest tanks, railings, planters etc.
- Proposed external windows and doors

Full specification & detail to be provided for conditional discharge



Benches carved from locally quarried Alston Natural stone to dimensions above



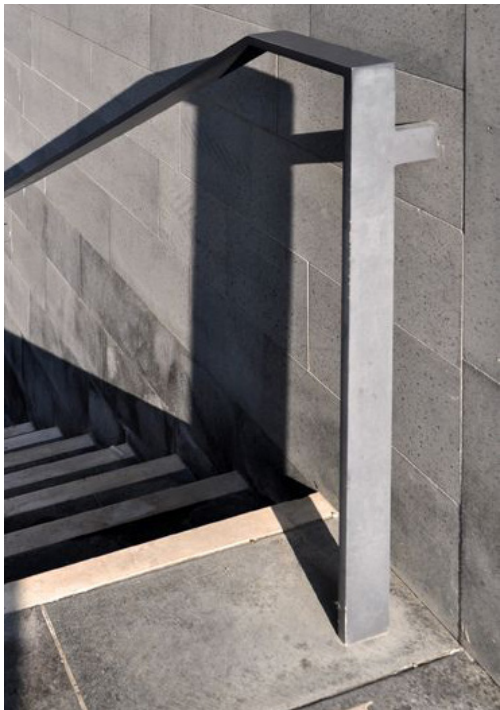
01 - Bench located on SE elevation
02 - Bench located on NE elevation



Graf Platin House Direct Package
Underground Rainwater Harvesting System
3000L
Vehicle loading lid



Precast concrete planters against wal
Depth of planters 450mm
Height of planters 600mm



Custom galvanised steel handrail
Height of rail 1000mm
Width of rail 50mm

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- Proposed external furniture and fixtures such as benches, rainwater harvest tanks, railings, planters etc.
- Proposed external windows and doors

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Schueco
Aluminium Sliding System ASE60
Double glazed toughened glass
Aluminium finish



Schueco
Window System AWS 70 SC
Top hung
Double glazed toughened glass
Aluminium finish

Choice of corrugated metal roof & alternative considerations.



During the concept phase we explored three options for the roof. Firstly we looked at retaining the existing concrete tiles - however our initial surveys showed that they are significantly degraded and any long term restoration of this building would require their replacement. Subsequently we tested two options which we saw reflected in the local buildings; slate and corrugated metal. We found examples of other civic buildings with corrugated metal - notably a Chapel on Mainsgate Road - and were inspired to draw on this as a simple way to elevate the building whilst remaining in keeping with aspects of the surrounding architecture. This further draws on the heritage and history of the architecture of ‘tin tabernacles,’ a reference we enjoy celebrating.

Top: The Tin Chapel, Mainsgate Road, Millom (image internet source).
Left: Proposed exterior with corrugated roof. Right: proposed exterior with slate roof.



PV panels should be mounted flush with the roof surface, and request a spec sheet for the proposed system.

Product brochure attached



**Viridian Solar Clearline Fusion Solar
Photovoltaic 300Wp Panels
Monocrystalline-black**



Rooflights should be mounted flush to the roof surface, with a conservation style flashing kit.

Product brochure attached



Velux
Centre pivot roof window PK04
Internal finish white painted
Electric control
Comfort glazing
EDJ Recessed flashing kit

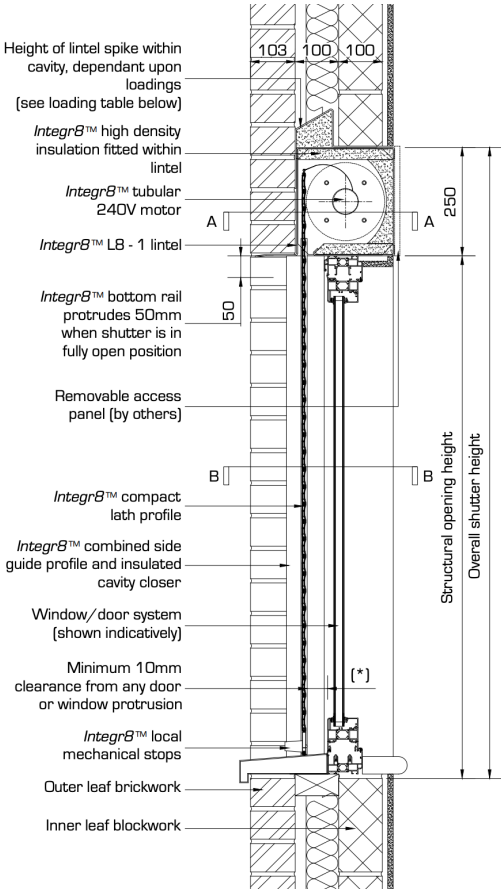


Detail of proposed external security shutters & exploration into alternatives.

Product brochure attached

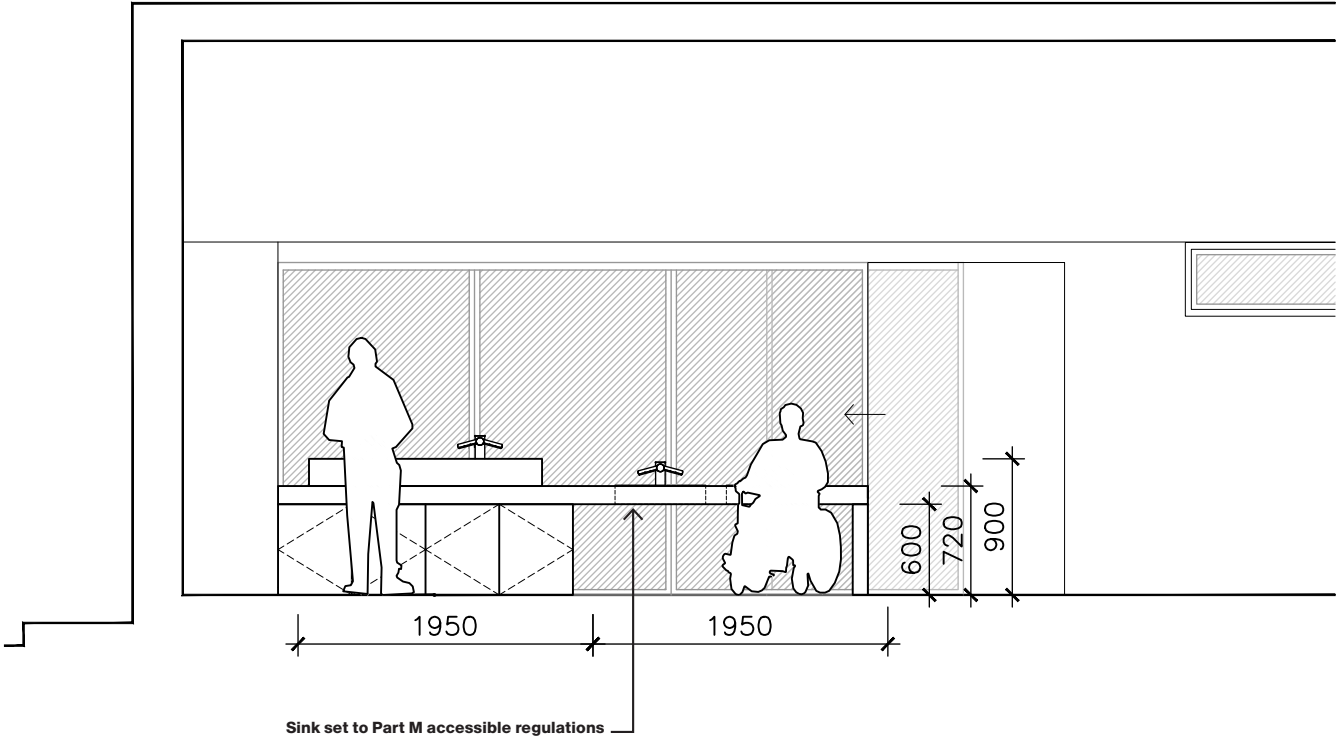


CGT Security
Xonar 610 Security Shutter
Concealed side guide cavity closers
Powder coated finish colour matched to facade



Top: Section through Xonar built in shutter (image by supplier).
Bottom: Facade colour swatch. Colour to be custom mixed.

Purpose of the proposed metal trough sink.



In keeping with the all-inclusive ambition of the proposal the sinks have been designed as a unified joinery unit in line with Part M requirements. The surface mounted sink is situated at height for standing users with closed storage beneath for cleaning and maintenance items. The inset sinks are set at height for wheelchair users, children and those with restricted growth with a void beneath for ease of access. All sinks in the unit are intended for handwashing use.

1:50 @ A4

APPENDIX A - SPECIFICATIONS

A photograph of a modern building's exterior featuring a large, floor-to-ceiling aluminum sliding glass door. The door is partially open, revealing a wooden interior with a small glass table and chairs. Outside, a paved walkway leads through a green lawn with several trees towards a waterfront area with a railing and a ship in the distance. The Schüco logo is in the top right, and the product name is in the bottom left.

SCHÜCO

SCHÜCO ASE 60/80
ALUMINUM SLIDING ELEMENT

SCHÜCO ASE 60/80



Schüco Sliding Element ASE 60

Schüco is opening up many new dimensions with the new Aluminum Sliding Elements ASE 60/80. The profile systems with their optimized insulation zones offer significantly improved thermal insulation properties in all basic depths, even up to passive house level (with the basic depth of 3-1/8" (80 mm). Further, all system versions – single, double and triple track – are based on multifunctional profiles, which allow optimal use of identical parts.

The fittings system, which is also modular, can be used as both sliding and lift-and-slide fittings: apart from a few expectations, all the components are identical. An expanded range of sizes, slim line profile constructions and solutions complement the forward-looking thermal insulation, thereby fulfilling countless architectural design options. The fittings' components are covered by a cover profile, ensuring that the straight design is maintained even when the vent is open. A central fittings groove guarantees optimal distribution of the glass weight and thereby quiet operation. Narrow vent profiles with a face width from just 3-1/4" (82 mm).



Schüco Sliding Element ASE 80.HI – outstanding design combined with optimal thermal insulation

The narrow face widths and the option of level thresholds make the new Schüco Sliding Elements unique in terms of form, design and user comfort. Moreover, the concealed fittings groove means that technical components, such as fittings or insulating foams, are no longer visible.

Vent weights of up to 1300 lb (500 kg) are now possible, with vents available in both internally and externally running configurations. The travel range of the sliding system has also been maximized up to approximately 59' 11/16" (18 m). The new system permits extremely simple cabling and assembly without the need for a cable link connector between the vent frame and outer frame.

The aluminum outer frame with thermal break, roller profiles made from folded stainless steel with specific surface design, reduces friction for particularly quiet operation. An integrated, continuous cover strap on the insides of the coupling profiles covers the fixing screws with a uniform appearance. Three sealing levels exist in the center area for a reliable sealing function.



Schüco Sliding Element ASE 80.HI – integration of the outer frame in the building structure and narrow interlocking section for maximum transparency

The center gaskets in the magnetic design ensure reliable gasket pressure, even with increased wind loads. The transparency can be increased even more by means of the optional narrow interlock piece with a face width of just 1-9/16" (40 mm).

TECHNICAL DATA ASE 60/80

Maximum Vent Dimensions	137" x 126" (3500 mm x 3200 mm) 125" x 137" (3200 mm x 3500 mm)
Maximum Weight	Up to 1300 lb (500 kg)
Glass Thickness	ASE 60: 15/16"-1-9/16" (24 mm – 40 mm) ASE 80: 1-1/16"-2-3/8" (36 mm – 60 mm)
Water Tightness	12 psf (X0, XX)
AMMA Rating	AW-PG 60 (X0, XX)
Hardware	Sliding, Lift-and-Slide
Thermal Performance*	0.24 Btu/hr-ft ² /-°F

*Information based on NFRC standard test size with TGI-M spacer, IGU U Value: 0.16

PRODUCT BENEFITS

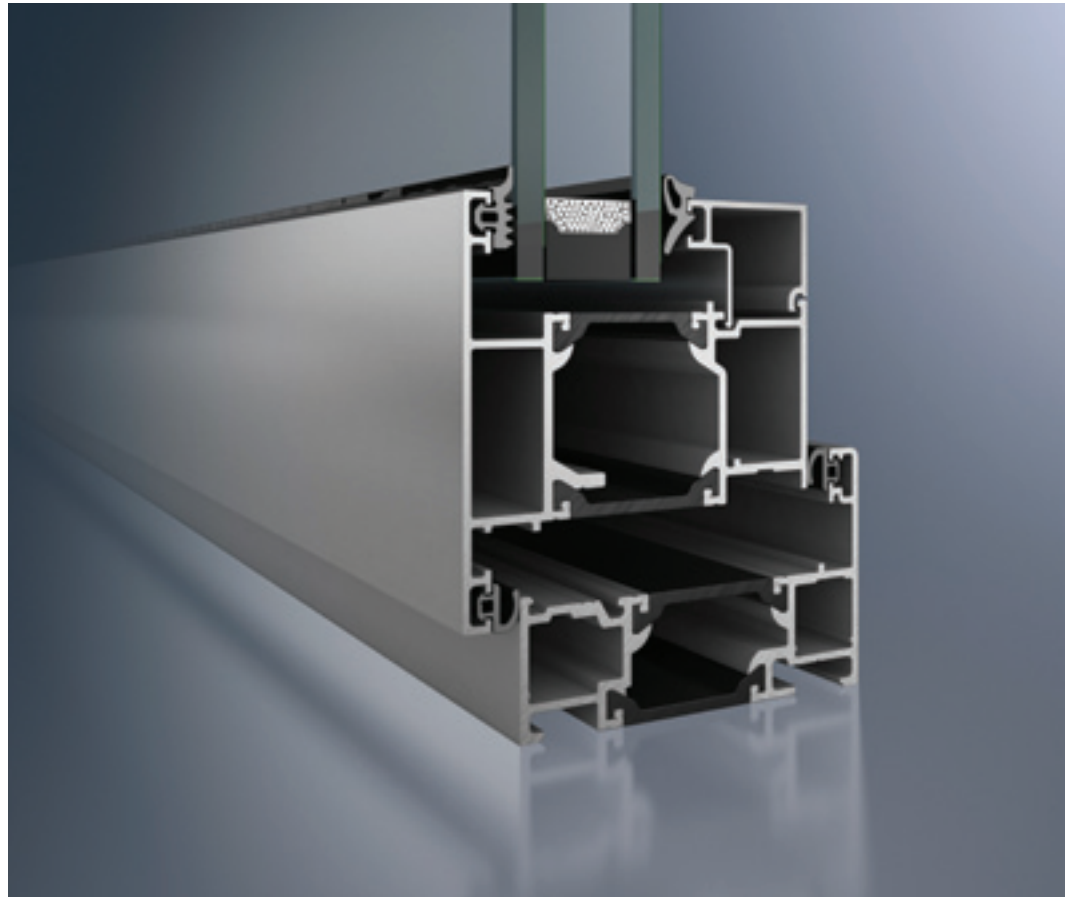
- Single, double and triple track options with basic frame depths ranging from 5-1/2" (140 mm) to 11" (280 mm)
- Modularity of the scalable profile system ensures high level of flexibility when it comes to thermal insulation
- Concealed fittings groove without visible components provide a clear and elegant look
- Multi-functional components shorten fabrication time
- Vent frame: ASE 60 = 2-3/8" (60 mm), ASE 80 = 3-1/8" (80 mm)
- Additional functions: Easy access with a convenient level threshold in the lift-and-slide fittings type that creates a particularly flat connection between the interior and exterior
- Narrow interlock piece is available with a face width of just 1-9/16" (40 mm) and can increase transparency even more
- Support spring reduces operating forces for lifting the moving vent and increased comfort
- Handle damper gently dampens the lowering of the moving vent and the movement of the operating handle

Schueco AWS 70 SC Outward Opening Window



Schueco AWS 70 SC Outward Opening Window

An outward opening window, with a 70 mm outer frame depth, that is ideal for both the new-build and refurbishment markets. Economically priced, it is a versatile addition to the Schueco AWS range.



70.5 mm inside glazed vent with 28 mm glazing unit

Schueco AWS 70 SC is an outward opening aluminium window system delivering quality with economy. It represents a cost effective solution for new and replacement windows in houses and apartments, light commercial buildings, local authority properties, schools, hospitals and clinics.

While using the minimum number of profiles, the system provides a wide variety of sightlines, sizes and weights from slimline to heavy duty. It can be used for the fenestration in punched openings, ribbon windows and curtain walling.

The range

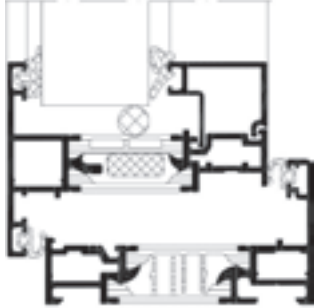
- Slimline inside glazed
- Slimline outside glazed
- Standard inside glazed
- HD inside glazed
- HD inside glazed for multi-point locking

Additional options

- 90° and variable angle, bay window connections
- Projecting sills
- Dual colour choice

Thermal insulation

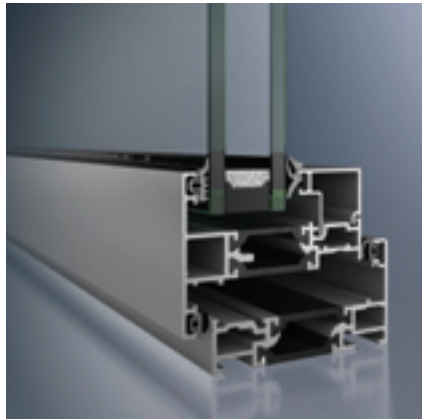
- Typical 'U' value 1.5 W/m²K with 1.0 W/m²K glazing units and polyamide (PA) insulating bars
- Compliant with Document L
- WER up to 'A' Rating with polythermide (PT) insulating bar option



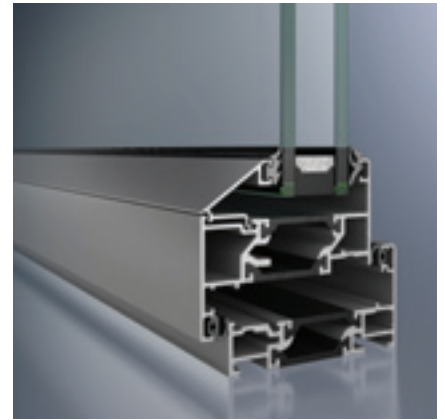
Detail illustrating polythermide insulation bars

Hardware

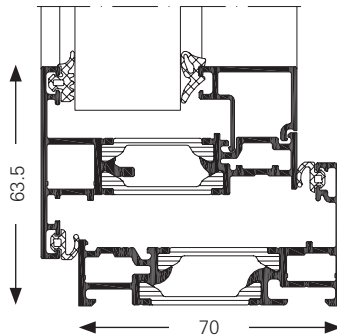
- Stainless steel friction hinges, including egress
- Heavy duty austenitic stainless steel friction hinges, including egress
- Stainless steel, reverse action mushroom espagnolettes
- 3-sided locking system for large vents
- Opening limiters



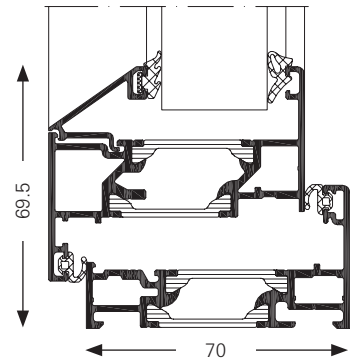
51 mm inside glazed vent



56.5 mm outside glazed vent



Scale 2:1



Scale 2:1



Product benefits

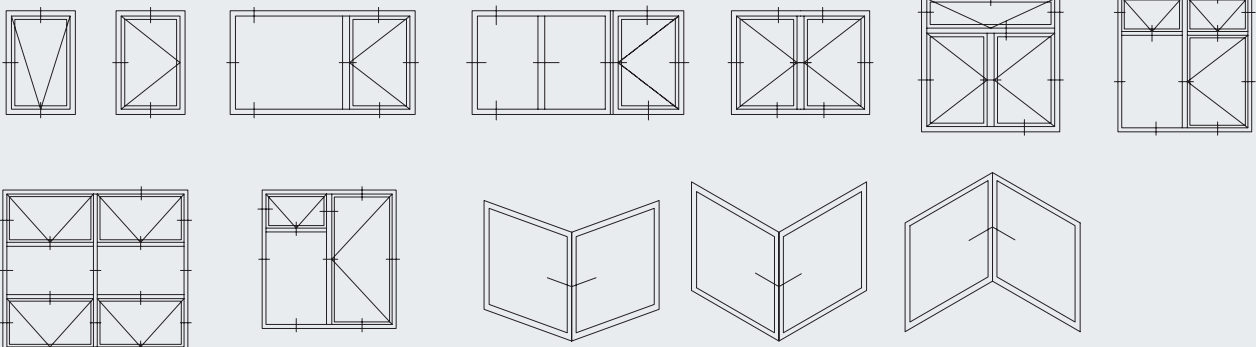
- Compact outward opening window system with Schueco 'build quality'
- Slim sightlines from 63.5 mm (outer frame/vent) for maximum daylight area
- Five vent profiles offer optimum cost/size/weight options
- Heavy duty hinge alternative for heavier glass weights and larger sizes
- Double or triple glazed units up to 34 mm thickness
- WER up to 'A', with polythermide insulating bar option, for ideal energy balance in houses and apartments
- Full range of frame couplings, bay window attachments, structural profiles and sills
- Square or chamfered glazing beads for design flexibility
- Polyester powder coat or anodised frame finishes including dual colour
- Security tested to PAS 24:2014
- Compatible with Schueco ADS 70 doors

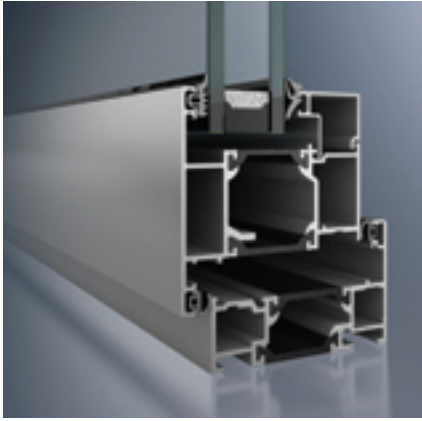


Fabrication benefits

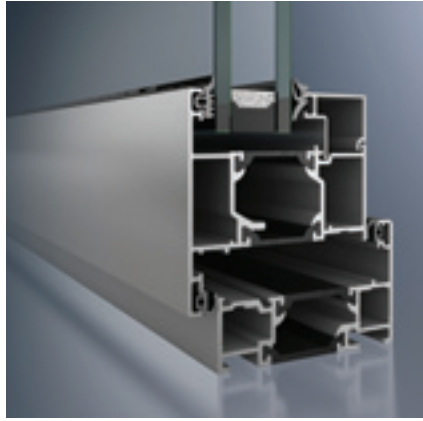
- Simple, flexible system of profiles and fittings
- Robust construction with Schueco profile corner and T-joint technology
- Choice of nailed or crimped corner fabrication
- Hardware location points ensure ease of fitting and accuracy
- Optional components for added thermal insulation
- Minimum tooling requirements

Opening types

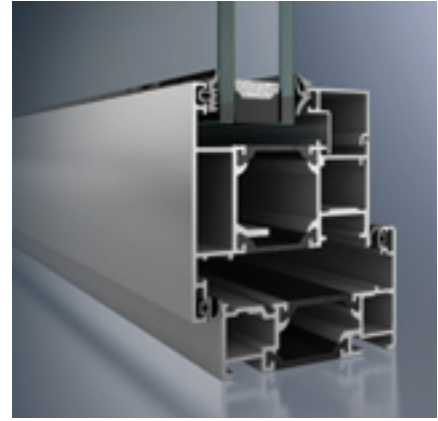




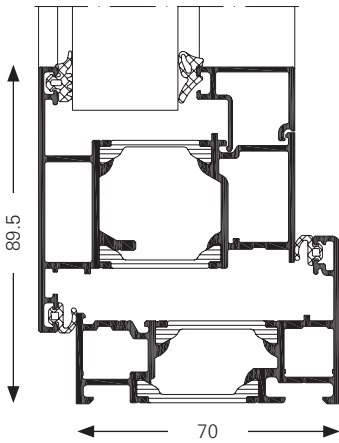
70.5 mm inside glazed vent



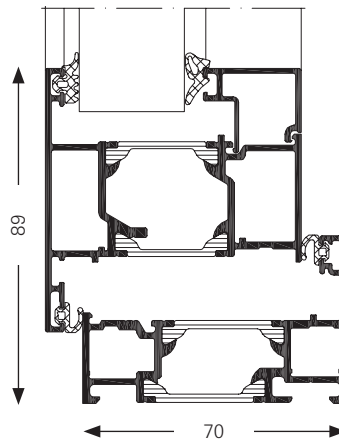
70 mm inside glazed HD vent



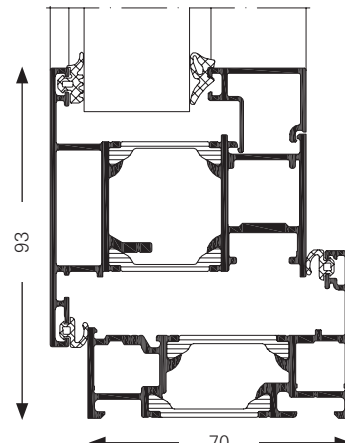
74 mm inside glazed HD vent/multi-point locking



Scale 2:1



Scale 2:1



Scale 2:1

AWS 70 SC Outward Opening Window					
	51 mm Vent (Inside glazed)	56.5 mm Vent (Outside glazed)	70.5 mm Vent (Inside glazed)	70 mm HD Vent (Inside glazed)	74 mm HD Vent (Inside glazed)
Thermal Insulation					
Typical U value W/m ² K	1.5	1.5	1.6	1.6	1.6
Meets or exceeds requirements of Document L 2013	n	n	n	n	n
Fittings					
Stainless steel friction hinges incl. egress	n	n	n		
HD austenitic stainless steel friction hinges incl. egress				n	n
Twin cam stainless steel espagnolette with night vent keeps	n	n	n	n	n
Three-sided locking for high/wide vent					n
100 mm opening limiter	n	n	n	n	n
Sizes					
Minimum face width in mm (vent + frame)	63.5	69.5	83	82.5	86.5
Maximum top hung vent size (m)	1.2 x 1.0	1.4 x 1.2	1.4 x 1.2	1.4 x 1.2	1.8 x 1.8
Maximum side hung vent size (m)	0.65 x 1.2	0.7 x 1.4	0.7 x 1.4	0.7 x 1.4	0.7 x 1.6
Maximum top hung vent weight (kg)	50	50	50	100	100
Maximum side hung vent weight (kg)	30	30	30	42	42
Performance					
Air permeability (EN 12207)	3	3	4	4	4
Water tightness (EN 12208)	9A	9A	9A	9A	9A
Security					
Tested to PAS 24: 2014		yes	yes	yes	yes

U values based on window 1.2 m x 1.0 m with 1.0 W/m²K glazing and ψ 0.04



Schueco AWS 70 SC Outward Opening Window



The Schueco AWS 70 SC outward opening window is a thermally insulated system aimed specifically at the trade residential and light commercial markets. Economically priced, it delivers the full 'build quality' for which Schueco is renowned and is the perfect solution for new and replacement windows in both new-build and refurbishment projects.

Slim sightlines and a choice of five vent profiles offering optimum cost/size/weight options, mean

Schueco AWS 70 SC is ideal for the fenestration in punched openings, ribbon windows and curtain walling. The window is complemented by a choice of standard or heavy-duty stainless steel friction hinges, while multi-point locking helps provide a security rating of up to PAS 24.

Schueco UK Ltd

www.schueco.co.uk

Schueco – System solutions for windows, doors and façades.

Together with its worldwide network of partners, architects, specifiers and investors, Schueco creates sustainable building envelopes that focus on people and their needs in harmony with nature and technology. Windows, doors and façade solutions from Schueco meet the highest requirements in terms of design, comfort and security, whilst simultaneously reducing CO₂ emissions through energy efficiency, thereby conserving natural resources.

The company delivers tailored Metal and PVC-U products for newbuilds and renovations, designed to meet individual user needs in all climate zones. Everyone involved is supported with a comprehensive range of services at every stage of the construction process.

With 4,800 employees and 12,000 partner companies, Schueco is active in more than 80 countries and achieved a turnover of 1.425 billion euros in 2014.

For more information, visit www.schueco.com

SCHÜCO

Product information

VELUX INTEGRA® Electric centre-pivot roof window GGL



Product description

- Simple, convenient wall switch
- Pre-installed hidden window operator
- Rain sensor ensures that the window closes automatically in case of rain
- Easy installation of mains powered decoration and sunscreening products
- Wall switches use secure radio frequency (RF) technology to operate individual or groups of roof windows, blinds, awnings and roller shutters from anywhere in the building
- Ventilation flap allows fresh air to circulate even when your window is closed
- Integrated dust and insect filter

Roof pitch

- Can be installed in roof pitches between 15° and 90°

Materials

- High quality natural pinewood coated with impregnation and layers of water-based acrylic white paint or clear lacquer
- VELUX ThermoTechnology™ insulation ensures an excellent energy performance
- Maintenance-free exterior covers in lacquered aluminium, copper or zinc

Downloads

For installation instructions, CAD drawings, 3D BIM objects, 3D GDL objects etc, please visit velux.co.uk

Certifications



The VELUX product factories guarantee quality systems implementation process and environmental management systems through appropriate accreditations ISO 9001 and ISO 14001

EUTR In compliance with the EU Timber Regulation (EUTR), EU regulation 995/2010

REACH We are aware of the REACH regulation and acknowledge the obligations. No products are obliged to be registered in accordance to REACH and none of our products contains any Substances of Very High Concern.

Available sizes and daylight area

	472 mm	550 mm	660 mm	780 mm	942 mm	1140 mm	1340 mm
778 mm		GGL CK02 (0.22)					
978 mm	GGL BK04 (0.23)	GGL CK04 (0.29)	GGL FK04 (0.38)	GGL MK04 (0.47)	GGL PK04 (0.60)		GGL UK04 (0.91)
1178 mm		GGL CK06 (0.37)	GGL FK06 (0.47)	GGL MK06 (0.59)	GGL PK06 (0.75)	GGL SK06 (0.95)	
1398 mm			GGL FK08 (0.58)	GGL MK08 (0.72)	GGL PK08 (0.92)	GGL SK08 (1.16)	GGL UK08 (1.40)
1600 mm				GGL MK10 (0.85)	GGL PK10 (1.07)	GGL SK10 (1.35)	GGL UK10 (1.63)

() = Effective daylight area, m²

Lining measurements

Size	Width (mm)
BK--	417
CK--	495
FK--	605
MK--	725
PK--	887
SK--	1085
UK--	1285

Size	Height (mm)
--02	719
--04	919
--06	1119
--08	1339
--10	1549



Recommended application

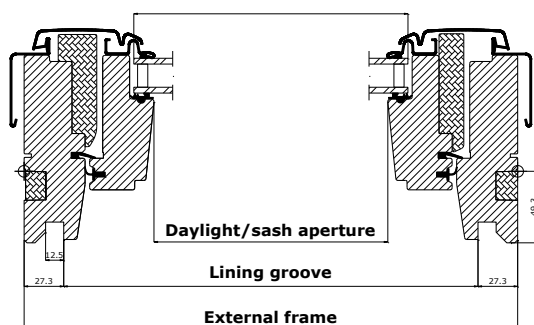
Mains powered VELUX INTEGRA® roof windows are

- perfect for new installations where frequent use of the window is essential
- ideal for out-of-reach situations or when extra convenience is needed

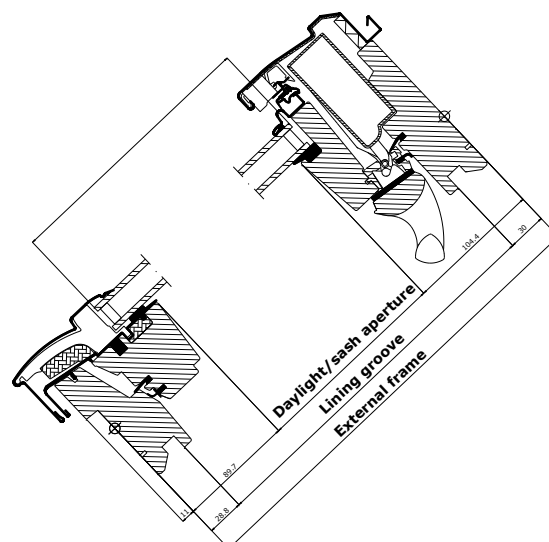
VELUX INTEGRA® wall switch ensures

- a perfect level of energy efficiency and comfort
- easy ventilation and better indoor air quality

Width



Height



Technical values

	--70	--68	--66	--62	--69	--67
U_w [W/m²K]	1.3	1.1	1.0	0.96	1.1	0.86
U_g [W/m²K]	1.0	0.7	0.6	0.5	0.7	0.5
R_w [dB]	35	35	37	42	35	38
g []	0.46	0.55	0.44	0.52	0.27	0.44
τ_v []	0.68	0.73	0.62	0.73	0.57	0.62
τ_{UV} []	0.05	0.05	0.05	0.05	0.05	0.05
Air permeability [class]	4	4	4	4	4	4

Thermal improvements such as lower U-value (U_w) and lower linear heat loss coefficient (φ) can, for some variants, be obtained with frame insulation collar and/or recessed installation.

Glazing structure

	--70	--68	--66	--62	--69	--67
Inner glass pane	2 x 3 mm laminated float with low ε coating	2 x 3 mm laminated float with low ε coating	2 x 3 mm laminated float with low ε coating	2 x 3 mm laminated float with low ε coating	2 x 3 mm laminated float with low ε coating	2 x 3 mm laminated float with low ε coating
Middle glass pane		3 mm heat strengthened float with low ε coating	3 mm heat strengthened float with low ε coating	3 mm heat strengthened float with low ε coating	3 mm heat strengthened float	3 mm heat strengthened float with low ε coating
Outer glass pane	4 mm toughened	4 mm toughened with coatings	4 mm toughened with coatings	8 mm toughened with coating	4 mm toughened with coatings	4 mm toughened with coating
Cavity	15 mm	2 x 12 mm	2 x 13 mm	2 x 11 mm	2 x 12 mm	2 x 12 mm
Glass panes	Double	Triple	Triple	Triple	Triple	Triple
Gas filling	Argon	Argon	Argon	Krypton	Argon	Krypton

Glazing features

		--70	--68	--66	--62	--69	--67
	Heat insulation Low energy glazing provides reduced heat loss through the window and enhanced indoor comfort.	•	••	•••	•••	••	•••
	Solar gain In the wintertime, the heat from the sun entering through the windows is a usable solar gain.	•••	••	••	••	•	••
	Solar protection In warm climates and in rooms with large window areas, a sun protective coating provides a better indoor climate during summer periods. Alternatively, exterior sun screening can be installed.					•••	
	Sound insulation A combination of laminated glass and optimal glass thickness provides better sound insulation. Frame/sash construction and gaskets are equally important.	••	••	•••	•••	••	•••
	Security Thicker laminated inner glass pane designed to increase resistance to manual attack (burglary).	•	•	•	•	•	•
	Safety Laminated inner glass is designed to hold the fragments together if the glass breaks. We recommend that you consider using glass units with laminated glass on the inside for windows placed above areas where people sleep, play or work.	✓	✓	✓	✓	✓	✓
	Outside strength Toughened outer glass pane makes your glazing more resistant to hail, heavy wind and snow loads.	✓	✓	✓	✓	✓	✓
	Delayed fading of materials Inner laminated glass protects materials behind the glass against the UV radiation and therefore delays fading of the materials.	✓	✓	✓	✓	✓	✓
	Rain noise reduction The combination of laminated glass and extra thick glass helps provide a significant, audible reduction of rainfall sound. Frame/sash construction and gaskets are equally important.	✓	✓	✓	✓	✓	✓
	Easy-to-clean The easy-to-clean coating minimises the cleaning frequency of the outer glass pane and gives you a clearer view in case of rain.			✓			✓
	Anti-dew The anti-dew coating significantly reduces the days with dew on the outer glass pane and thus gives you a clear view.			✓	✓		✓

• Good •• Better ••• Best ✓ Feature included in glazing variant

Technical values, ventilation through ventilation flap

Property	Windows with double or triple glazing					
	Width					
	CK--	FK--	MK--	PK--	SK--	UK--
Air flow characteristics [l/s]	1.9	2.3	2.8	3.4	4.1	4.8
Air flow exponent [-]	0.53	0.53	0.53	0.53	0.53	0.53
Ventilation capacity at 4 Pa [l/s]	4.0	4.8	5.8	7.1	8.5	10.0
Ventilation capacity at 8 Pa [l/s]	5.7	6.9	8.4	10.2	12.3	14.5
Ventilation capacity at 10 Pa [l/s]	6.4	7.8	9.5	11.5	13.9	16.3
Ventilation capacity at 20 Pa [l/s]	9.3	11.3	13.7	16.6	20.1	23.5
Equivalent area through ventilation flap [mm ²]	2600	3100	3700	4600	5600	6600
Geometrical free area [mm ²]	2000	3100	3600	5800	9100	12500

Please note that glazing type 62 has negligible ventilation through the ventilation flap due to the construction of the window.

Visible features



1 Window opening

When operated with the control pad, the window opens variably up to 200 mm. The window can also be opened manually, eg in case of power failure



2 Data plate

Each VELUX roof window has a unique data plate showing type, size, variant etc of the window. QR code with link to local mobile website



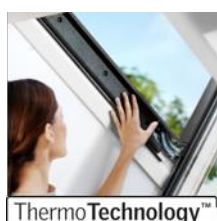
3 Lock casing

Electro-galvanised steel



4 Ventilation flap with control bar

The ventilation flap is designed with a control bar to allow for manual operation



5 Excellent insulation

Elements of expanded polystyrene ensure an excellent energy performance



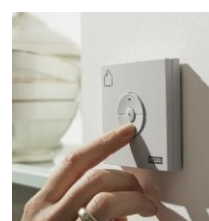
6 Barrel bolt

The roof window can be rotated and secured in position with a barrel bolt to ensure safe and easy cleaning of the outside pane from the inside



7 Brackets for accessories

With the pre-installed VELUX Pick&Click!™ brackets, installation of solar powered blinds could not be easier



8 Wall switch

VELUX INTEGRA® wall switch for simple, convenient operation of the window.

Visible features



1 Rain sensor

The rain sensor ensures that the window closes automatically if it starts raining



2 Click-on covers

Click-on covers make installation easier, faster and safer



3 Window operator and chain

Fully integrated, hidden motor with chain. Silent motor operation



4 Laminated pane

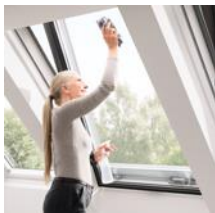
Laminated inner glass on all variants for personal safety



5 Pivot hinge

VELUX high quality pivot hinge provides stability and perfect sash balance. Electro-galvanised steel

Cleaning and maintenance



To clean the outer pane from the inside, rotate sash and secure in cleaning position with barrel bolt.



VELUX repair and maintenance kits are available.

Exterior covers

Material	NCS standard colour	RAL nearest standard colour
Lacquered aluminium (-0--) grey	S 7500-N	7043
Lacquered aluminium (-5--) black	S 9000-N	9005
Copper (-1--)	-	-
Titanium zinc (-3--)	-	-

Special colour requests, please contact velux.co.uk

Interior finish

White paint	Impregnation and layers of water-based acrylic lacquer and paint, NCS standard colour: S 0500-N, nearest RAL standard colour: 9003.
Clear lacquer	Impregnation and layers of water-based acrylic lacquer

Special colour requests, please contact velux.co.uk

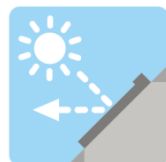
Blinds, awnings and shutters



Interior suncreening

Blackout blind
Roller blind
Pleated blind
Flying pleated blind
Double pleated energy blind
Venetian blind
Duo blackout blind

•••
•••
★
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Exterior suncreening

Awning blind
Roller shutter

•••
•••



Additional accessories

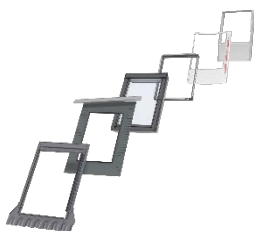
Insect roller screen

•

••• Available in manual and mains/solar powered versions
•• Available in manual and mains powered versions
• Available in manual version
★ Available in mains powered version

The mains and solar powered versions are part of the VELUX INTEGRA® product range.

Flashings and installation products



Flashings:

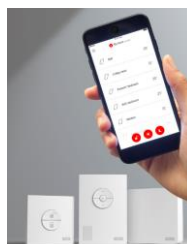
- ED- for single installation
- EB- for twin installation
- EK- for combi installation

Available for standard and recessed installation

Installation products:

- Installation set BDX 2000 (incl. BFX)
- Underfelt collar BFX 1000 incl. transverse drainage gutter
- Vapour barrier collar BBX 0000
- Linings LS- (incl. BBX)

Control options



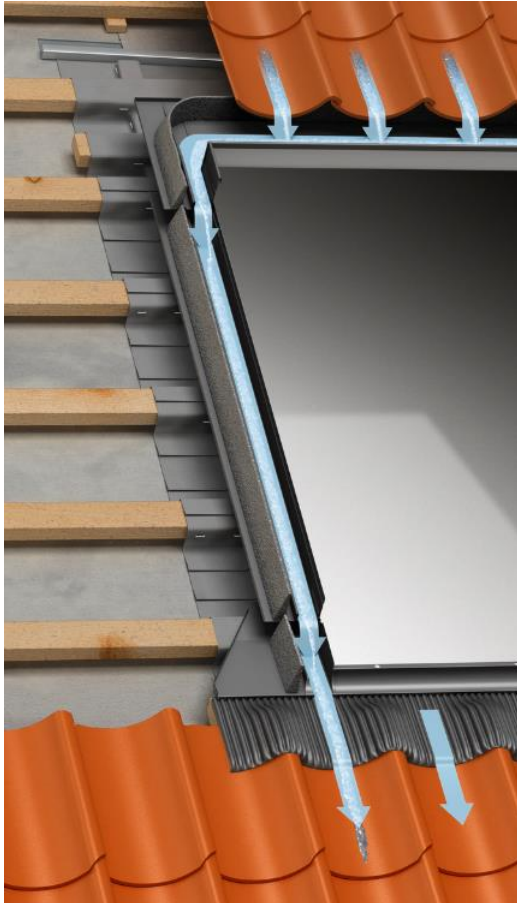
Upgrade your system

VELUX INTEGRA® Active sensor system monitors and receives data from the outside solar and temperature sensors and activates blinds and shutters when necessary. In this way, the system improves thermal comfort while also reducing cooling costs in summer and heating costs in winter.

Technical information

Material and colour	Roof window: See brochure or price list for variants. Wall Switch: ABS, white (NCS S 1000-N). Window operator: PBT with glass fibre, black (NCS S 9000-N) and stainless steel chain. Rain sensor: Gold-coated sensor, grey (RAL 7022)
Size and weight	Size of product including packaging: The same as equivalent manually operated roof window. Weight: Approx 3 kg more than equivalent manually operated roof window. Wall switch: 82 x 82 x 17 mm (W x H x D), 114 g (with batteries 125 g).
Installation and use	The window is classified in protection class IP44. The window operator hidden in the top cover and functions at temperatures between -10°C and +60°C. The wall switch is for indoor use, maximum ambient temperature 45°C. Radio frequency range: 300 m free field. Depending on building construction, the indoor range is approximately 30 m. Installation in rooms with a high level of humidity must comply with relevant regulations (contact a qualified electrician if necessary).
Window opening	Max 200 mm within 35 seconds. Due to a shorter chain, small/special window sizes have a different window opening. Window opening for sizes --01 and --02 = 135 mm. Window opening for sizes --25 and --27 = 38 mm.
Power consumption	230/240 V a.c. – 50 Hz / 40 VA Wall switch: 2 x alkaline AAA (1.5 V) batteries. Expected battery lifetime: Approximately 2 years.
Motor capacity	Traction capacity: Min 225 N Pressure capacity: Min 150 N
Connection	The window is equipped with a 7.5 m 2-core cable (H05VV-F) with a standard mains plug for connection to the mains supply (2.5 m for the UK).
Compatibility	The window is based on radio frequency (RF) technology, 868 MHz range, and is compatible with other products with the io-homecontrol® logo. The window is prepared for subsequent installation of mains powered VELUX INTEGRA® interior and exterior decoration and sunscreening products as well as frame lights. It is not compatible with battery powered or VELUX INTEGRA® Solar decoration and suncreening products. Connection to non-compatible products may cause damage or malfunction.
CE marking	The window is CE-marked to indicate that it is in accordance with the EU directives CPD, LVD, MD, R&TTE and EMC for household, trade and light industry.
Note	This sheet describes the added features of mains powered VELUX INTEGRA® roof window GGL compared with manually operated VELUX roof window GGL. For further information on the features and specifications of GGL, please see the main VELUX brochure. We reserve the right to make technical changes.

Product information VELUX Flashings



Installation

- Easy to install.
- Discreet installation is ensured in the roofing material.
- The roofing material conceals the top and side flashing components.

Watertight

- The flashing components overlap each other to create weather tight joints.
- Foam gasket creates a seal between the flashing and profiled roofing materials
- The construction ensures safe drainage of water from the roof above the window.

Materials

- Corrosion proof materials.
- Colours match the claddings of the roof window
- Lacquered aluminium, copper or zinc

Maintenance

- Leaves and other debris should be removed from any flashing at least once per year to allow rainwater to run freely.
- Heavy snow should not be allowed to lie on the flashing for long periods of times.

Certifications



The VELUX product factories guarantee quality systems implementation process and environmental management systems through appropriate accreditations ISO 9001 and ISO 14001

EUTR In compliance with the EU Timber Regulation (EUTR), EU regulation 995/2010

REACH We are aware of the REACH regulation and acknowledge the obligations. No products are obliged to be registered in accordance to REACH and none of our products contain any Substances of Very High Concern.

Product Information

Type	E-W	E-L	E-P	E-T	E-J	E-N
Standard or Recessed	Standard	Standard	Standard	Standard	Recessed	Recessed
Roof Pitch	15-90°	15-90°	25-90°	20-90°	20-90°	20-90°
Roofing Material	Flat or Profiled Tiles	Slate	Plain Tiles	Flat Tiles	Flat or Profiled Tiles	Slate
Material Thickness	Up to 120mm	Up to 8mm	Up to 14mm	15mm-40mm	Up to 90mm	Up to 8mm
2000 (with BDX) Option	Yes	Yes	No	Yes	Yes	Yes

Compatibility

Flashing E-W



Applications

- Standard flashing suitable for flat or profiled roofing materials with a maximum profile of 120mm measured from the top of the tile batten to the highest point of the tile.
- Also used with thatched roofs, corrugated sheets and interlocking slate.

Combinations

- EDW single flashing
- EBW twin flashing for side by side installation
- EKW combination flashing for combined installation of two or more roof windows
- EFW flashing for roof window and vertical window element
- ETW additional flashing for fixed lower element

Flashing E-L



Applications

- Standard flashing suitable for flat roofing materials with a maximum profile of 8mm.
- Also used with roofing felt and membranes. Cannot be used for interlocking slate.

Combinations

- EDL single flashing
- EBL twin flashing for side by side installation
- EKL combination flashing for combined installation of two or more roof windows
- EFL flashing for roof window and vertical window element
- ETL additional flashing for fixed lower element

Flashing E-P



Applications

- Standard flashing suitable for plain tiles with a maximum thickness of 14mm and maximum length of 300mm

Combinations

- EDP single flashing
- EBP twin flashing for side by side installation
- EKP combination flashing for combined installation of two or more roof windows

Flashing E-T



Applications

- Standard flashing suitable for flat tiles between 15mm-40mm in thickness

Combinations

- EDT single flashing
- EKT combination flashing for combined installation of two or more roof windows side by side

Flashing E-J



Applications

- Recessed flashing suitable for flat or profiled roofing materials with a maximum profile of 90mm measured from the top of the tile batten to the highest point of the tile. Roof pitches from 20-90°
- Also used with thatched roofs, corrugated sheets and interlocking slate.

Combinations

- EDJ single flashing
- EKJ combination flashing for combined installation of two or more roof windows
- EFJ flashing for roof window and vertical window element
- ETJ additional flashing for fixed lower element

Flashing E-N



Applications

- Recessed flashing suitable for flat roofing materials with a maximum profile of 8mm. Roof pitches from 20-90°
- Also used with roofing felt and membranes. Cannot be used for interlocking slate.

Combinations

- EDN single flashing
- EKN combination flashing for combined installation of two or more roof windows
- EFN flashing for roof window and vertical window element
- ETN additional flashing for fixed lower element

Flashing EW



Applications

- Replacement flashing suitable for flat or profiled roofing materials with a maximum profile of 120mm measured from the top of the tile batten to the highest point of the tile.
- Allows roof windows manufactured before 2001 to be replaced without disturbing the interior finish of the room.
- Also used with roofing felt and membranes. Cannot be used for interlocking slate.

Flashing EL



Applications

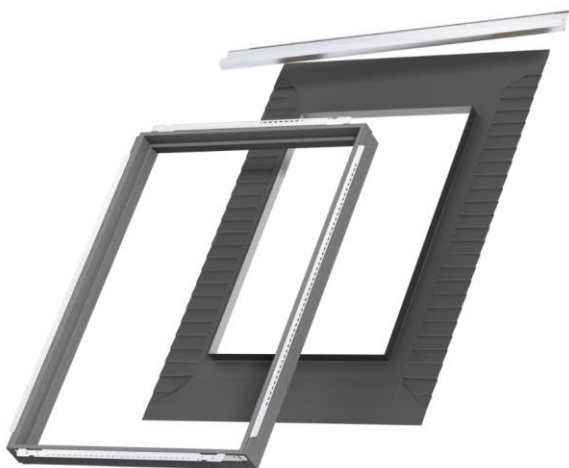
- Replacement flashing suitable for flat roofing materials with a maximum profile of 8mm.
- Allows roof windows manufactured before 2001 to be replaced without disturbing the interior finish of the room.
- Also used with roofing felt and membranes. Cannot be used for interlocking slate.

Finishes

Material	NCS standard colour	RAL nearest standard colour
Lacquered aluminium (-0--) grey (standard)	S 7500-N	7043
Lacquered aluminium (-5--) black	S 9000-N	9005
Copper (-1--)	-	-
Titanium zinc (-3--)	-	-

Special colour requests, please contact www.velux.co.uk

Variants



Flashings:

- 0-00 – without installation products
- 2-00 – with installation products

Available for standard and recessed installations.

Installation products:

- BDX Insulation collar and BFX Underfelt collar
(incl. transverse drainage gutter)

Note

We reserve the right to make technical changes.

For more information on flashings and other VELUX products, please visit www.velux.co.uk

610 SERIES DATA SHEET



BUILT IN ROLLER SHUTTERS WITH SELF-LOCKING TECHNOLOGY



FEATURES

- Polyester powder coated to any standard RAL /BS colour
- Structural steel lintel or non-structural UPVC box
- Self-Locking technology
- Twin skin extruded aluminium lath



OPTIONS

- Frame formers for combined cavity closer and guide
- Range of switches and access control
- Can be partially or fully perforated or punched



INSTALL

- Powder coated extruded aluminium guide with large return flanges
- Fully insulated cavity closer
- Ply temporary access panel to rear of lintel



TYPICAL APPLICATIONS

Suitable applications include:

- Medium to high risk commercial buildings
- Public facilities - schools, universities, community centers, pavilions
- Cultural Buildings
- Residential

610 SERIES DATA SHEET



BUILT IN ROLLER SHUTTERS WITH SELF-LOCKING TECHNOLOGY

PRODUCT REFERENCE

Xonar 610 Roller Shutter

APPROVED DIMENSIONS

Maximum width: 3200mm

Maximum height: 4000mm

Minimum width: 600mm

Minimum height: 600mm

SHUTTER CURTAIN

40mm twin wall self locking lath

Extruded aluminium profiles

Finish as delivered: polyester powder coated in standard RAL/BS colour

Option to fully or partially perforate

FRAMES/GUIDES

Extruded aluminium guide profiles recessed into cavity of external wall complete with fully insulated cavity closer

Finish as delivered: polyester powder coated in standard RAL/BS colour

INTEL/HEADBOX

Structural

Fully structural lintel system built into building construction and support imposed loads. Lintels are dependent on structural loads and shutter size

Non-Structural

PVC non load-bearing box to be incorporated in wall make up. Box size dependent on size of shutter



SUBSTRATE

Installation onto:

Brickwork

Blockwork

SFS & Timber Frame

OPERATION

240v Tube Motor to allow controlled ascent and descent

BOTTOM RAIL

Extruded aluminium section with rubber sealing gasket

Finish as delivered: polyester powder coated in standard RAL/BS colour

CONTROLS

Full range of compatible controls including push button switch, key switch, radio control or possible to integrate into building management systems and third party alarms

Safety on close as assessment directs

Battery backup options

Distributor



Platin House Direct Package



Platin House Direct package

- Simple & quick to install.
- Submersible pump supplies harvested rainwater on demand to WCs, washing machine & external tap.
- Mains-on-Tap unit tops up the water level in the Platin tank when rainwater levels are low to guarantee continued water supply.
- The quiet & conveniently sized Mains-on-Tap unit will fit in a kitchen or utility cupboard for very low visual impact.
- Innovative float sensor detection on Mains-on-Tap unit ensures that the underground tank is kept supplied with mains water but only the amount necessary.

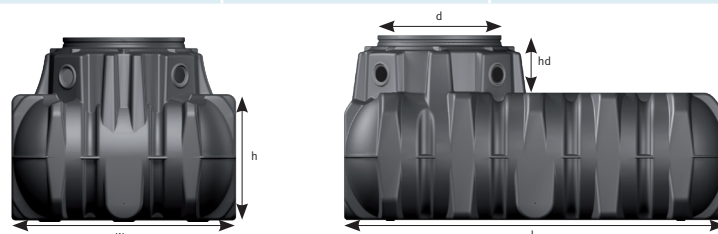
Scope of supply

- ① Underground tank (choice of tanks available, sizes vary according to property type)
- ② Telescopic lid (choice of telescopic lid available, depending on tank location)
- ③ Filter (Minimax filter supplied in accordance with type of tank)
- ④ Submersible pump with floating water intake
- ⑤ Mains-on-Tap unit
- ⑥ Float sensor (connected from Mains-on-Tap unit to the underground tank)

Supplied by others

- ⑦ 100mm diameter duct pipe to contain; float sensor cable, power cable for pump, also bringing mains water to underground tank as and when required
- ⑧ 100mm diameter drainage pipe connected from downpipes to the inlet at the top of the tank (all downpipes brought into one pipe for connection to the filter)
- ⑨ 100mm diameter pipe for overflow from the tank to mains drainage network or soakaway

Dimensions/weight	1,500 litres (400 US gallons)	3,000 litres (800 US gallons)	5,000 litres (1,350 US gallons)	7,500 litres (1,980 US gallons)
Length (l)	2,100mm (82.6")	2,450mm (96.5")	2,890 (113.8")	3,600 (141.7")
Width (w)	1,250mm (49.2")	2,100mm (82.7")	2,300mm (90.6")	2,250mm (88.6")
Height of tank shoulder (h)	700mm (27.5")	735mm (28.9")	950mm (37.4")	1250mm (49.2")
Height of dome collar (hd)	315mm (12.4")	315mm (12.4")	315mm (12.4")	315mm (12.4")
Ø tank dome (d)	800mm (31.5")	800mm (31.5")	800mm (31.5")	800mm (31.5")
Weight	80kg	170kg	240kg	360kg





Clearline
 fusion

roof integrated solar PV



Clearline
 fusion
 solar never
 looked
 so good



Clearline

fusion

Solar power has moved beyond government subsidy to become a home improvement option, and as a result its kerb-appeal is more important than ever. With Clearline Fusion, integrated solar has come of age and the highest quality and aesthetics are available at a price that is competitive with rack-mounted above-roof solar.

Why Roof Integration?

Roof-integrated solar has always been the obvious choice when refurbishing or building a new roof. Clearline Fusion brings high quality roof integration within reach for retrofit applications. Now more people can benefit from the advantages of going in-roof.

- **Aesthetics**
Roof integrated panels sit lower to the roofline, without brackets and racking on show, to look like an intended part of the roof.
- **Roof maintenance**
The roof covering can be easily maintained or replaced without the cost of dismantling a solar installation. Problems associated with bird infestation are avoided.



Available in a range of panel power output and styles



Why Clearline Fusion?

- **Economical**
Price is comparable with above-roof systems.
- **Rapid**
Installation times of less than 1 hour per kilowatt-peak are easily attainable. Our patented connection method means that panels are simply pushed together to create a weather-tight and secure fixing.
- **Compact**
Industry-leading panel spacing. The gap between rows is only 5mm. Columns are spaced by 30mm.
- **Sleek**
Invisible clamps give an uncluttered aesthetic. Panel spacing is automatically set to give consistently accurate shut-lines.
- **Simple**
Fusion achieves exceptional fire performance, wind resistance and weather tightness without extra roof battens, adhesive flashing rolls or fire proofing materials. Everything you need is right there in the kit.
- **Robust**
Certified wind resistance is more than four times higher than competitor products.
- **Universal**
Works with all commonly used tiles and slates, including slate over sarking.



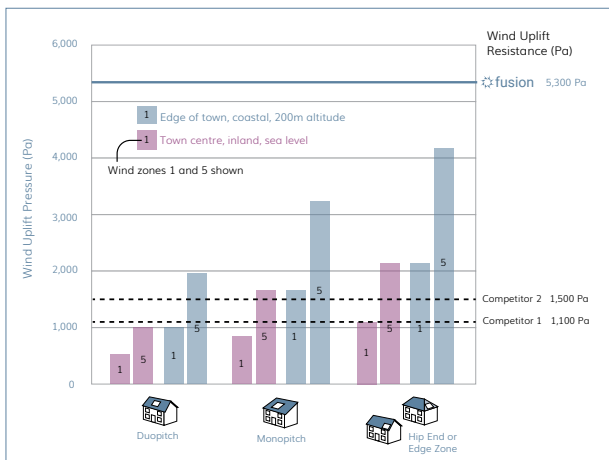
Specification

Thickness	mm	69
Static roof loading (distributed)	kg / m ²	12.9
Characteristic Wind Resistance	kPa	5.32
Ultimate Design Load ¹	kPa	5.32
Fire Rating to BS 476-3		AA
Standards		MCS012
Roof pitch		20 - 60°
Compatible roof coverings	Plain tile, Interlocking tile, Natural and artificial slate	

¹ Design resistance to ultimate loads includes a partial material safety factor of 1.0



Building Regulations

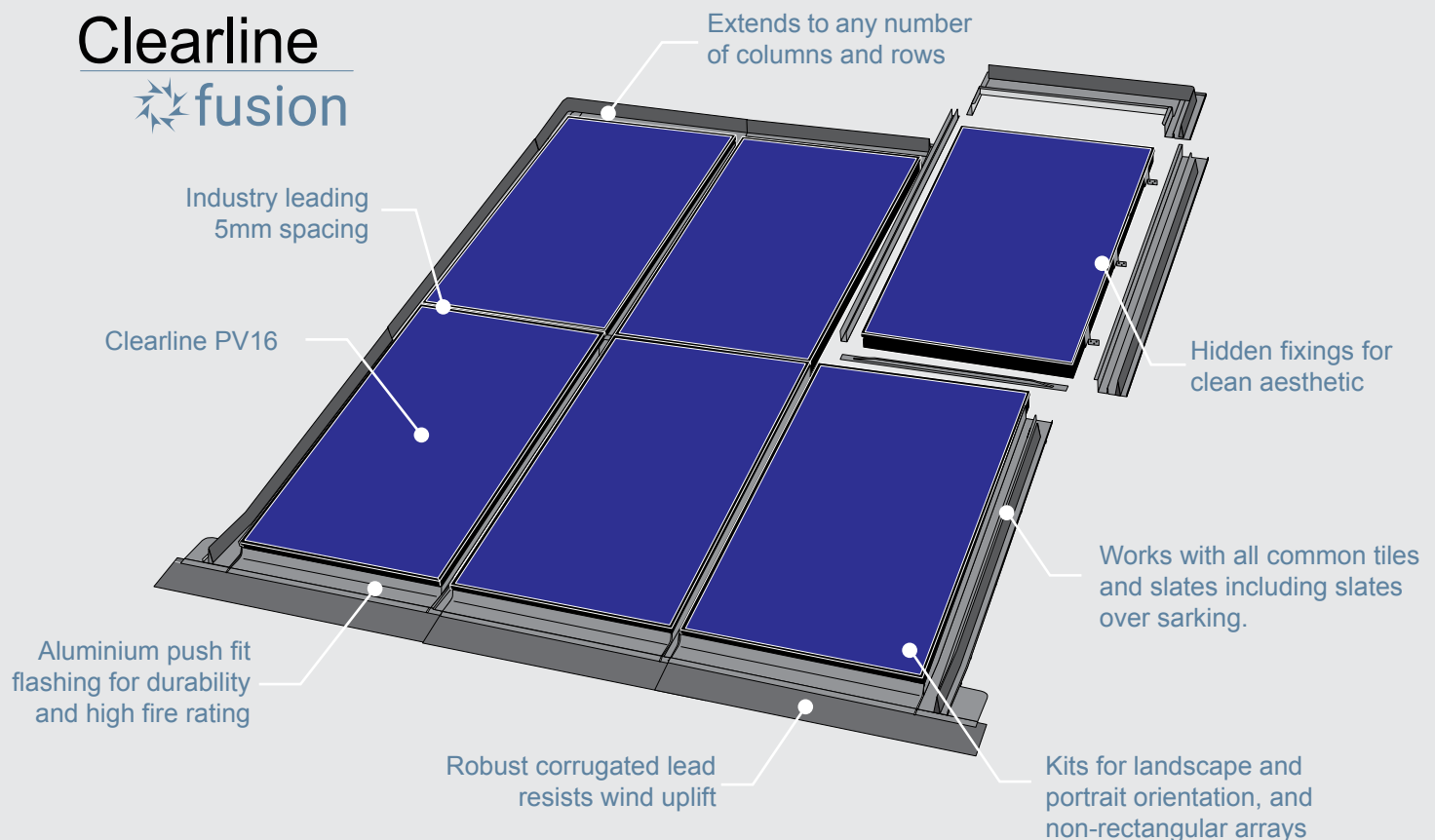


The certified wind resistance for Clearline Fusion is more than four times higher than competitor products and ready for even the most exposed locations (see chart).

Clearline Fusion is the only roof-integrated solar system accredited with the highest resistance to spread of flame and fire penetration in all European fire safety tests, achieving B Roof T1, T2, T3 and T4.



Clearline fusion



solar never looked so good



Viridian Solar

Viridian Solar is a manufacturer of roof integrated solar photovoltaic roofing systems. Based in Cambridge, UK the company has a track record of innovation spanning more than a decade.

Since it was founded by engineers from the university, Viridian Solar has established a strong reputation around the world for the durability, aesthetics and quality of its products.

available from

Viridian Solar
68 Stirling Way,
Papworth,
Cambridge UK CB23 3GY

Tel +44 1480 839 865
enquiries@viridiansolar.co.uk

COPELAND BOROUGH COUNCIL
CONSULTATION RESPONSE

Proposal: Alterations including part demolition and renovation

Address: WC Block, Lancashire Road, Millom

Reference: 4/22/2100/0F1

Date: 24/03/22

Description: This building is a toilet block, currently out of use. It is located in a prominent position near the centre of Millom's conservation area.

Conclusion: Request further information

Assessment: This proposal is clearly sound in principle and will improve the appearance of this rather unsightly building while providing greater amenity to the people of Millom, and its visitors. It is good to see this part of the conservation area receiving investment.

- I would be grateful if details (e.g. spec sheets) of the following could be supplied:
 - Proposed external furniture and fixtures such as benches, rainwater harvest tanks, railings, planters etc.
 - Proposed external windows and doors
- The proposed corrugated metal roof is an unusual choice and I would be interested to know if any alternatives have been considered.
- I suggest that PV panels should be mounted flush with the roof surface, and request a spec sheet for the proposed system.
- Similarly, rooflights should be mounted flush to the roof surface, with a conservation style flashing kit.
- The proposed external security shutters may not give the best appearance, particularly when lowered. Is an alternative available, such as mounting shutters internally (where protecting glazed openings)?
- Could I also query the purpose of the proposed metal trough sink? I'm not necessarily opposed to it, but wonder if it intended to provide drinking water, or for rinsing walking boots, or for use by staff for cleaning etc.?

Relevant Policies and Guidance:

Section 72 of the 1990 Act states that "special attention shall be paid to the desirability of preserving or enhancing the character or appearance of [a conservation] area."

Paragraph 134 of the National Planning Policy Framework (NPPF) asserts that "Development that is not well designed should be refused".

NPPF para. 194 states that "In determining applications, local planning authorities should take account of the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation..."

NPPF para. 199 states, in the case of designated heritage assets, “great weight should be given to the asset’s conservation”, irrespective of whether potential harm is substantial, less-than-substantial, or total loss. Where harm to a designated heritage asset is less-than-substantial, it should be weighed against the public benefits of the proposal (para. 202).

Paragraph 203 of the National Planning Policy Framework (NPPF) states the effect on the significance of a non-designated heritage asset should be taken into account when making decisions.

Referring to assets in a conservation area, NPPF para. 207 states that loss of an element that makes a positive contribution to a conservation area should be treated as either substantial (under para. 201) or less-than-substantial harm (under paragraph 202). In new development, opportunities should be sought to enhance or better reveal the significance of conservation areas (NPPF para. 206).

Copeland Borough Council’s Local Plan contains a number of relevant policies:

- Local Plan Policy ST1C(ii) highlights the importance of protecting, enhancing and restoring the Borough’s cultural and heritage features and their settings.
- ST1D emphasises the council’s commitment to creating and retaining quality places.
- ENV4A stresses the importance of protecting listed buildings, conservation areas and other features considered to be of historic, archaeological or cultural value.
- ENV4C aims to strengthen the distinctive character of Copeland’s settlements through high quality urban design and architecture that respect character and setting.
- DM10 emphasises the need for high quality design and quality places. Part B requires design to respond to local character at multiple scales, paying attention to plot size and arrangement, massing and scale, interstitial spaces, and materials. Part C requires the incorporation of existing features such as landscape and vernacular style.
- DM27A outlines support in principle for developments that “protect, conserve and where possible enhance the historic, cultural and architectural character of the borough’s historic sites and their settings”.
- DM27C outlines the restriction in principle of development within conservation areas to that which preserves or enhances the character or appearance of the area.

The Conservation Area Design Guide is a supplementary planning document adopted in 2017 that is a material consideration in the determination of planning applications within conservation areas. It is therefore applicable to this application.

Sammy Woodford

Conservation and Design Officer

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