SPECIFICATION SUMMARY

Brindishe Lee School 2022 Refurbishment

Particulars

PROJECT:	Brindishe Lee School 2022 Refurbishment
PREPARED FOR:	McBains 26 Finsbury Square, London EC2A 1DS
	For the attention of Mr Elliott Goodridge
DATE:	11th April 2022
PREPARED BY:	Simon Cray
ALUK REF. NO:	PRO-GBR-2122-0170
FROM:	LBS61886 - Brindishe Lee - Window Drawings Brindishee Lee - Window Photo Schedule Window Schedule

Brindishe Lee School 2022 Refurbishment

Scope

Project General Description	Remove and replace approximately 145 square meters of window and door to Brindishe Lee Primary School, a CLASP system building with new high performance aluminium units.

System Supplier

AluK (GB) Ltd

Address: Newhouse Farm Industrial Estate, Chepstow NP16 6UD

Phone: 01291 639739

Contact: Simon Cray

INTRODUCTION

AluK is a designer and engineer of high quality, reliable and performance driven aluminium window, door and curtain wall profile systems, providing expert solutions and personal support for clients in the built environment, through local knowledge combined with international representation.

A collaboration at heart! At AluK GB, we understand that every project has its own unique challenges. And as part of AluK International, we have been working with over 2500 clients worldwide that have different challenges, which is why we offer different solutions for every project type.

We will work with you, detailing the specification your project really needs to make it the best it can be – whilst adopting a 'right first time and on-schedule' attitude.

AluK helps you from design to build! Whatever your tailored aluminium system might be, our team will be able to advise you, help you through any new and current legislation, and help guide you through all stages of the RIBA Plan of Work. You will also have access to literature, drawings, NBS documents and BIM Components.

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** Drawings available in .dwg or .dxf format*

Footnotes:

- Notes provided in this document refer to information and discussions at the time of writing and may not be applicable if it is subject to change. Please advise of any omissions, additions or alterations as this may significantly affect the products, sections and fittings described.
- All drawing details are generic for the purpose of illustration and do not constitute 'Working Drawings' or any other contractural obligation.
- Information regarding products not manufactured or supplied by Aluk is given on an advisory basis only, and specifiers are recommended to contact specialist suppliers to ensure that such products are suitable.
- A risk assessment in accordance with BS 8213 Part 1:2004 has not been included as final details including the position, access and occupancy are not available at the time of writing. We recommend that a risk assessment be carried out, taking into account of the relative priority needs established in each situation.
- Specifiers are advised to contact a glass supplier and check that the glass is not at risk of thermal over stressing. In the avoidance of doubt, specifically with high performance glass, it is advisable to perform a thermal safety calculation.
- We recommend that the window fabricator or installer calculate framing requirements to comply with Approved Document K3 and BS6180 with regard to loading and barriers.
- Any AluK fabricators or installation contractors listed in these pages are not employed or instructed by us. Aluk cannot accept any responsibility for their workmanship or installation.
- The aluminium constructions must be fabricated using appropriate skills, to an industry-accepted level of craftsmanship and according to the AluK manuals and maintenance requirements.
- The data and observations made are for information purposes only and are not intended to be, nor should they be construed as, an expert or professional opinion given by AluK as to the suitability of the design or drawings generally nor the agreement by AluK to enter into any contractual arrangement. AluK will not be liable for any loss arising directly or indirectly from reliance upon the said data and observations.

SYSTEM DESCRIPTION

AluK C70S Open Out Thermally Broken Window System

The C70S series for external opening windows brings the latest technology and manufacturing techniques typical on most ALUK systems.

The sash and outer frame profiles are 70mm deep overall with internal and external faces being coplanar. The square glazing beads are only available in tubular options for security.

The profiles within the system range allows to assemble single and multi-light window configurations, opening outward, making them ideal for almost any application.

Designed with security and flexibility front of mind the locking hardware options vary from shoot bolt to multipoint locking.

AluK 77ID Thermally Broken Commercial Door System

The 77ID series for external pedestrian door sets brings the technology and manufacturing typical on ALUK systems onto a set of profiles in synergy with 77IW and 77WE systems.

The sash and outer frame profiles are 77mm deep overall with internal and external faces being coplanar. The square glazing beads are available in standard or tubular option for security, with rounded or shaped beads available upon request.

The profiles within the system range allows to assemble single and double door leaf configurations, opening inward or outward, with fan lights and for use on escape routes, making them ideal for almost any application.

Designed with security and flexibility front of mind the locking hardware options vary from single point to multipoint locking with the option of electrical access control.

Technical Description

The 77ID and C70S system consists of a range of thermally broken profiles and accessories incorporating door hardware designed to meet current building regulations with an improved thermal performance.

SECTIONS
The extruded aluminium sections are made from homogenised billets, EN AW-6060 alloy (Chemical composition according to EN 573-3 and mechanical properties according to EN 755-2 standard), with limited composition tolerances, suitable for anodising or painting.
All extruded aluminium sections are supplied at physical state T6; dimension tolerances are in compliance with EN 12020-2.

THERMAL BREAK
The thermal break is obtained by inserting some special reinforced polyamide bars, mechanically hooked to aluminium knurled extruded sections.
Mean thermal transmittance of frames Uf, calculated according to EN ISO 10077-2, is shown in the present technical catalogue.

GASKETS

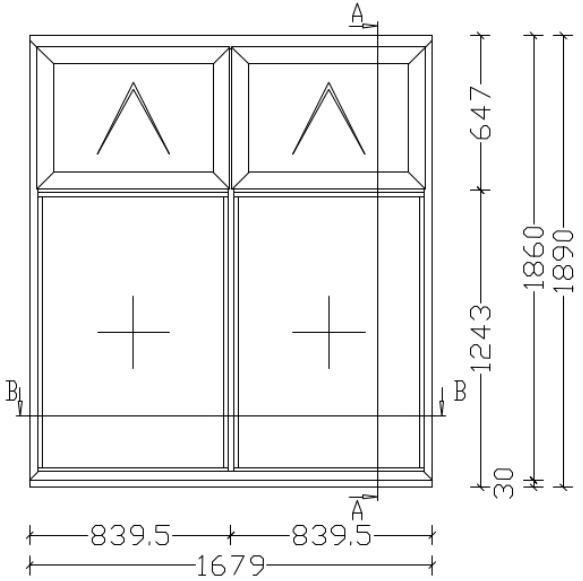
Both static and dynamic gaskets are realised in coextruded TPE (thermoplastic elastomer), silicone and EPDM (ethylene-propylene elastomer).

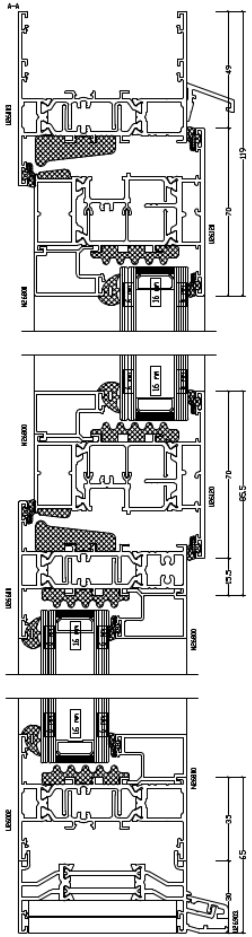
ACCESSORIES

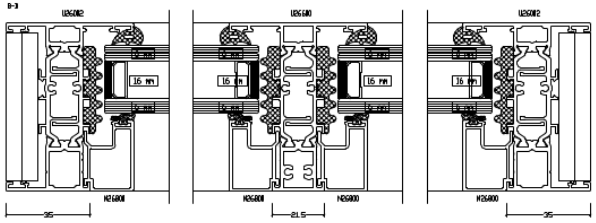
Patented AluK accessories of the highest quality are expressly designed by AluK to offer the utmost reliability and safety. Corner joints are monolithic, extruded from the highest quality aluminium alloy and tested to the latest standards. Knuckle hinges, made from aluminium extrusion and are equipped with bushes made of anti-friction and synthetic material with stainless steel pins and screws. Flag hinges are also available for wing weight up to 160kg.

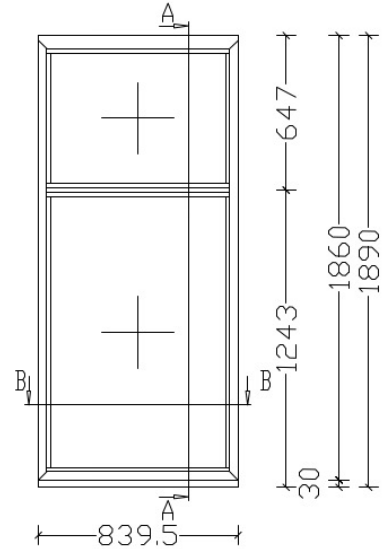
GLAZING

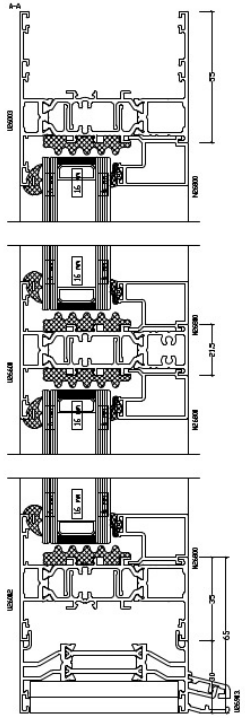
The system allows the application of glass or panels with a thickness from 24mm to 50mm. The choice of glazing is purely the responsibility of the fabricator/installer through compliance with legislation and glass manufactures recommendations.

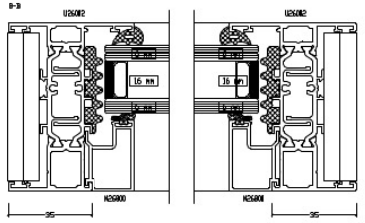












Rev	Revised by	Date	Modification

NOTE: THIS DRAWING IS ISSUED AS DESIGN INTENT ONLY NOT FOR FABRICATION THE APPOINTED FABRICATOR & STRUCTURAL ENGINEER ARE RESPONSIBLE FOR THE FACADE STRUCTURAL DESIGN PERFORMANCE AND FINALISED INSTALLATION DETAILS

Drawing Title: Typical Window Types			Project Name: Brindishe Lee School	Project Code: PRO-GBR-2122-0170
Drawing Sub-Title: System: AluK GB C70S Standard			Drawing Number: -	
Drawing Title: Simon Cray	Date: 11.04.2022	DIMS: mm	Scale: NTS	Format:

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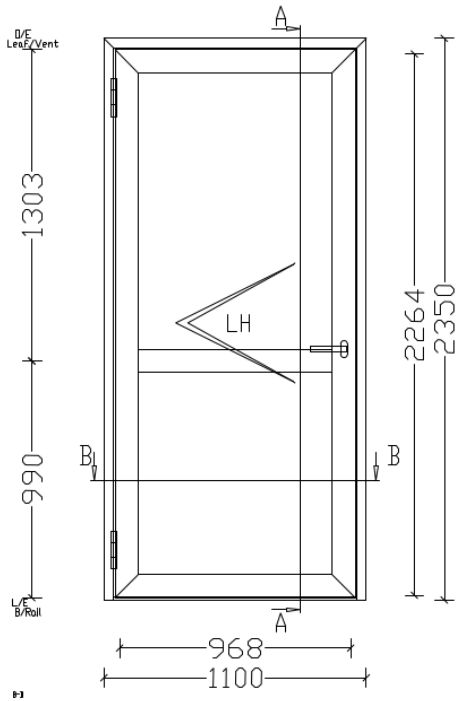
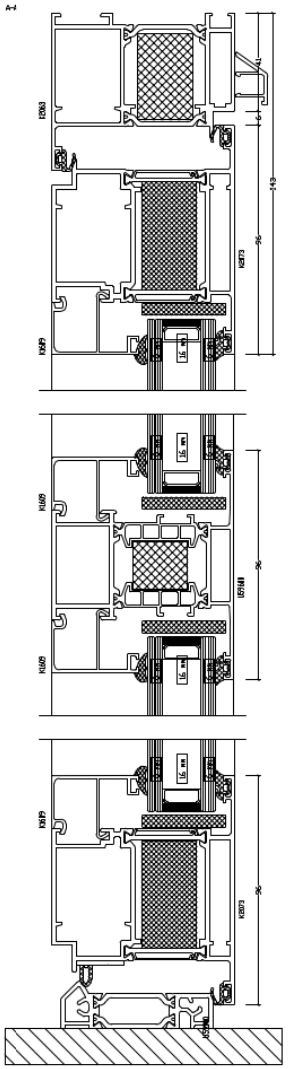
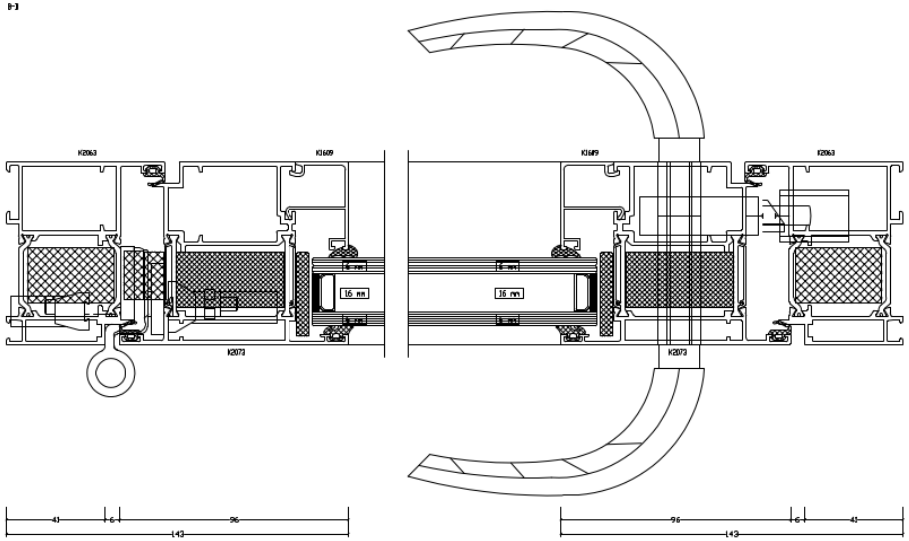
www.aluk.com







Rev	Revised by	Date	Modification

NOTE: THIS DRAWING IS ISSUED AS DESIGN INTENT ONLY NOT FOR FABRICATION THE APPOINTED FABRICATOR & STRUCTURAL ENGINEER ARE RESPONSIBLE FOR THE FACADE STRUCTURAL DESIGN PERFORMANCE AND FINALISED INSTALLATION DETAILS

Drawing Title: Typical Door Types			Project Name: Brindishe Lee School
Drawing Sub-Title: System: AluK GB 77 Systems Squared Standard			Drawing Number: -
Drawing Title: Simon Cray	Date: 11.04.2022	DIMS: mm	Scale: NTS / Format:

Project Code: PRO-GBR-2122-0170

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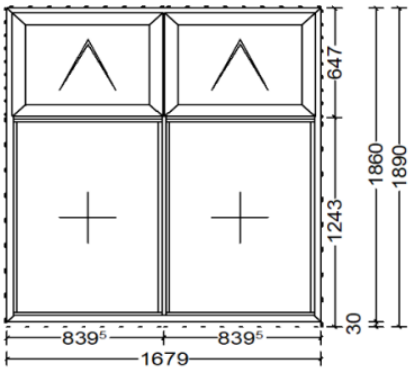
Thermal Calculations



Brief Description:	<None>
System:	AluK GB C70S Standard Glazing Bead List: Standard Foam Ir
Quantity:	1 Pcs
View:	Exterior View

Profile	Af(m²)	Uf(W/m²K)	Af * Uf (W/K)
U26002	0.209 m²	1.5 W/m²K	0.31 W/K
U26002, U26120	0.260 m²	2.1 W/m²K	0.55 W/K
U26120, U26600	0.158 m²	1.9 W/m²K	0.30 W/K
U26120, U26600, U26120	0.084 m²	2.0 W/m²K	0.17 W/K
U26600	0.067 m²	1.3 W/m²K	0.087 W/K
Total	**0.778 m²**	**1.8 W/m²K**	**1.4 W/K**

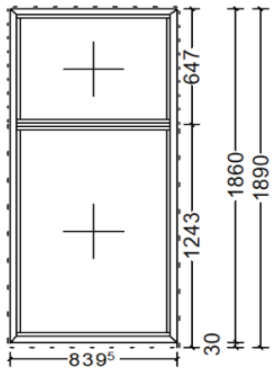
Glass	Ag(m²)	Ug(W/m²K)	Ag * Ug (W/K)
{6B786A8D-17B1-4B54-9EB0-9B9E1AD7E2F2	2.345 m²	1.0 W/m²K	2.3 W/K
Total	**2.345 m²**	**1.0 W/m²K**	**2.3 W/K**

Interconnection Glass	Lg(W/mK)	Psi(W/mK)	Psi * Lg (W/K)
Total	**12.112 m**	**0.042 W/mK**	**0.509 W/K**

Position 20220404 007	3.123 m²	1.4 W/m²K	4.3 W/K

Remarks:
This calculation is only for information.

Notice: Using this design tool doesn't entitle you to enforce any claim by legal action!



Brief Description:	<None>
System:	AluK GB C70S Standard Glazing Bead List: Standard Foam Ir
Quantity:	1 Pcs
View:	Exterior View

Profile	**Af(m²)**	**Uf(W/m²K)**	**Af * Uf (W/K)**
U26002	0.272 m²	1.5 W/m²K	0.41 W/K
U26600	0.045 m²	1.3 W/m²K	0.059 W/K
Total	**0.317 m²**	**1.5 W/m²K**	**0.47 W/K**

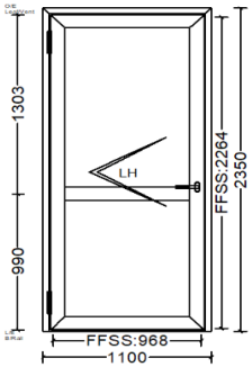
Glass	**Ag(m²)**	**Ug(W/m²K)**	**Ag * Ug (W/K)**
{6B786A8D-17B1-4B54-9EB0-9B9E1AD7E2F2	1.244 m²	1.0 W/m²K	1.2 W/K
Total	**1.244 m²**	**1.0 W/m²K**	**1.2 W/K**

Interconnection Glass	**Lg(W/mK)**	**Psi(W/mK)**	**Psi * Lg (W/K)**
Total	**6.327 m**	**0.042 W/mK**	**0.266 W/K**

Position 20220404 008	**1.561 m²**	**1.3 W/m²K**	**2.0 W/K**

Remarks:
This calculation is only for information.

Notice: Using this design tool doesn't entitle you to enforce any claim by legal action!



Brief Description:	<None>
System:	AluK GB 77 Systems Standard Standard Glazing Bead List: S
Quantity:	1 Pcs
View:	Exterior View

Profile	**Af(m²)**	**Uf(W/m²K)**	**Af * Uf (W/K)**
U59600*	0.092 m²	1.4 W/m²K	0.13 W/K
K2073, U59900, U59900*	0.101 m²	1.8 W/m²K	0.18 W/K
K2063, K2073*	0.760 m²	1.4 W/m²K	1.1 W/K
Total	**0.953 m²**	**1.4 W/m²K**	**1.4 W/K**

Glass	**Ag(m²)**	**Ug(W/m²K)**	**Ag * Ug (W/K)**
{6B786A8D-17B1-4B54-9EB0-9B9E1AD7E2F2	1.632 m²	1.0 W/m²K	1.6 W/K
Total	**1.632 m²**	**1.0 W/m²K**	**1.6 W/K**

Interconnection Glass	**Lg(W/mK)**	**Psi(W/mK)**	**Psi * Lg (W/K)**
Total	**7.266 m**	**0.042 W/mK**	**0.305 W/K**

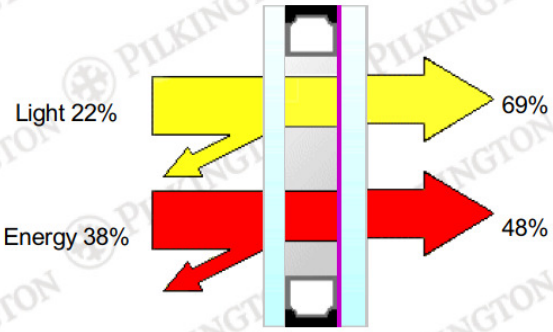
Position 20220404 009	**2.585 m²**	**1.3 W/m²K**	**3.3 W/K**

Remarks:
This calculation is only for information. * = For these U-values there are no corresponding entries in the database. Thus, the standard U-value is applied instead.

Notice: Using this design tool doesn't entitle you to enforce any claim by legal action!

PILKINGTON

NSG GROUP



DESCRIPTION

Position	Product	Process	Thickness (nominal) mm	Weight kg/m²
Pilkington **Insulight™** Protect				
Glass 1	Pilkington **Optifloat™** Clear	Toughened	6.0	
Cavity 1	Argon (90%)		16.0	
Glass 2	Pilkington **Optilam™** Therm S1 Plus	Laminated	6.4	
Product Code	6T-16Ar-		28.4	30.38

PERFORMANCE

Light		
Transmittance	LT	69%
	UV %	2%
Reflectance Out	LR out	22%
Reflectance In	LR in	24%

Performance Code	
U_g-value/Light/Energy	1.0 / 69 / 48
Ra	94

The values of some of characteristics are displayed as NPD. This stands for No Performance Determined.

Energy		
Direct Transmittance	ET	40%
Reflectance	ER	38%
Absorptance	EA	22%
Total Transmittance	g	48%
Shading Coefficient Total		0.55
Shading Coefficient Shortwave		0.45
Sound Reduction	R_w (C;C_{tr}) dB	33 (-2; -5)
Thermal Transmittance	W/m²K	1.0

Pilkington Spectrum allows you to combine a wide range of products available from Pilkington and determine their key properties such as light transmittance, g value and U value. The program includes restrictions that prevent some combinations being selected that may be considered unwise or impractical. Even with these restrictions, it is still possible to create product combinations that may not be available from your supplier. Please check with your supplier that your chosen product combination is possible, available in the sizes required and in a timescale appropriate to your project. Furthermore, it is essential that you check that your product combination is appropriate for satisfying local, regional, national and other project-specific requirements.

Calculations are made according to EN standards 410 and 673/12898

NSG GROUP

PYRAMID

Smallest vent on the market that provides 5000 mm² EA airflow

HIGH AIRFLOW

COANDA EFFECT

INSECT MESH

INTRODUCTION

The Pyramid is a non-self-regulating compact slotvent kit. It is the smallest vent on the market responding to the ventilation regulation Part F (England & Wales) providing an Equivalent Area of 5000 mm2. The Pyramid ventilator is surface mounted on uPVC, Timber and Aluminium windows and is compatible with slot heights from 13 up to 16 mm.

The external canopy offers excellent weather protection and incorporates a stainless steel fly screen. The vent is easy to open and to control.
The internal slotvent deflects, in open position, the incoming air upwards for air optimal spread of fresh air in the room. The Pyramid is available in 2 types: 2500 EA or 5000 EA (other lengths on demand)

The Pyramid Vent is available in black, grey or white. Other colours on demand.

COANDA EFFECT

The interior profile deflects the incoming air upwards, causing an optimal spread of fresh air in the room.

TECHNICAL CHARACTERISTICS

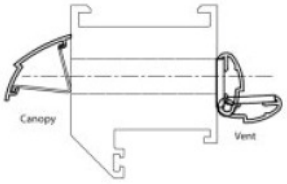
	2500	5000
Airflow		
Equivalent area	2723	5229
Q at 1 Pa	2,1 l/s	4,2 l/s
Q at 1 Pa	7,6 m^3/h	15,1 m^3/h
Q at 2 Pa	3,1 l/s	6,0 l/s
Q at 10 Pa	7,0 l/s	13,6 l/s
Q at 20 Pa	10,1 l/s	19,4 l/s
Comfort		
Sound reduction $D_{n,e,w}$ [C;C_{tr}]		
in open position	36 (0; 0) dB	33 (-1; 0) dB
in closed position	51 (-2; -3) dB	51 (-1; -3) dB
Technical characteristics		
Controllable internal flap	Continuous adjustment	
Control options internal flap	Manual	
U value	n.p.d.	
Air leakage at 50 Pa	n.p.d.	
Watertightness in closed position, up to	n.p.d.	
Watertightness in open position, up to	n.p.d.	
Dimensions		
Height	25 mm	
Length*	248 mm	410 mm
Slotsize opening	192 x 13	(172 x 13 to 16) + 10 + (172 x 13 to 16)

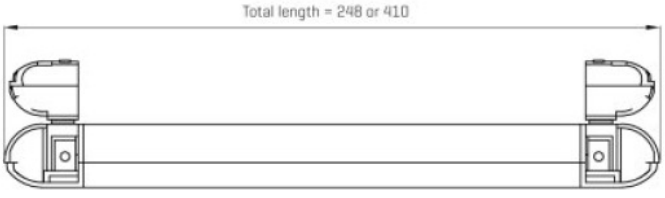
** other lengths on demand*

TECHNICAL DRAWINGS

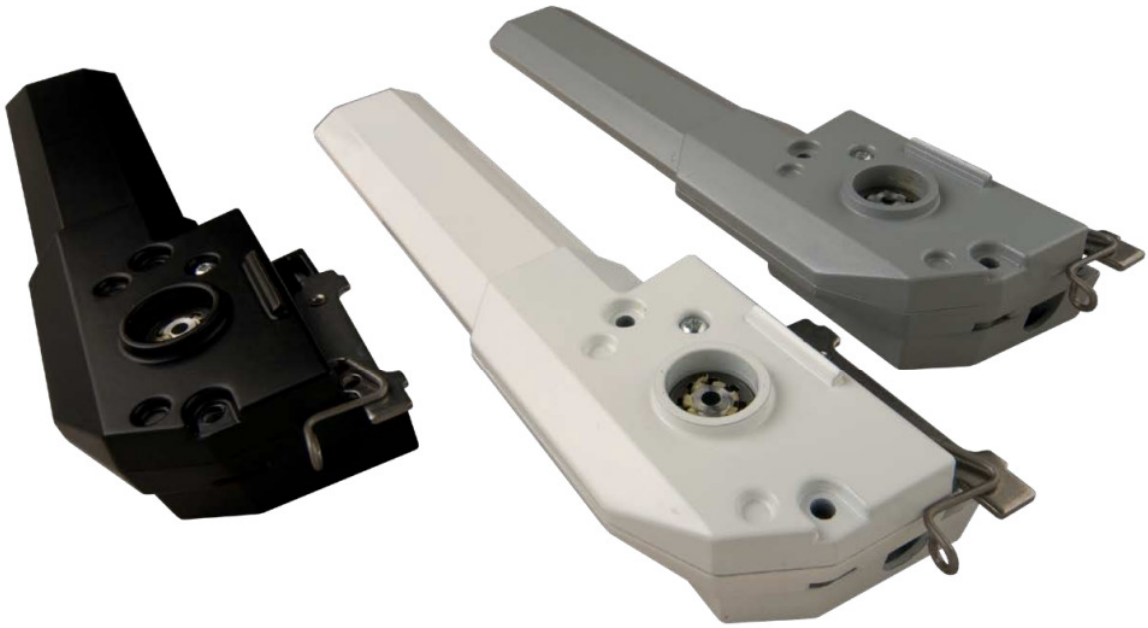
Section detail Pyramid

Pyramid 2500 / 5000





Manual controls - Chain Opener



This inconspicuous opener features a fully retracting stainless steel chain with quick release window attachments to facilitate window cleaning. With an internal projection of 64mm (2 1/2") the enclosed chain case permits ease of operation whilst allowing close fitting of curtains or blinds.
Available complete in both 250mm (10") and 400mm (14") travel increments, the chain opener will remain as rigid as a peg stay when extended throughout it's working lifetime.
The all metal chain opener has a high resistant polyester powder white, silver, brown or black finish now with stainless steel chain for greater strength, durability and corrosion free.

Colours:
White, Silver, Brown and Black

Part Numbers
Part No. 213241 250mm
Part No. 231242 400mm.

contact us for more details:
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8.15 - 13.15 (fri)
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Christopher Martin rd.
Basildon
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England

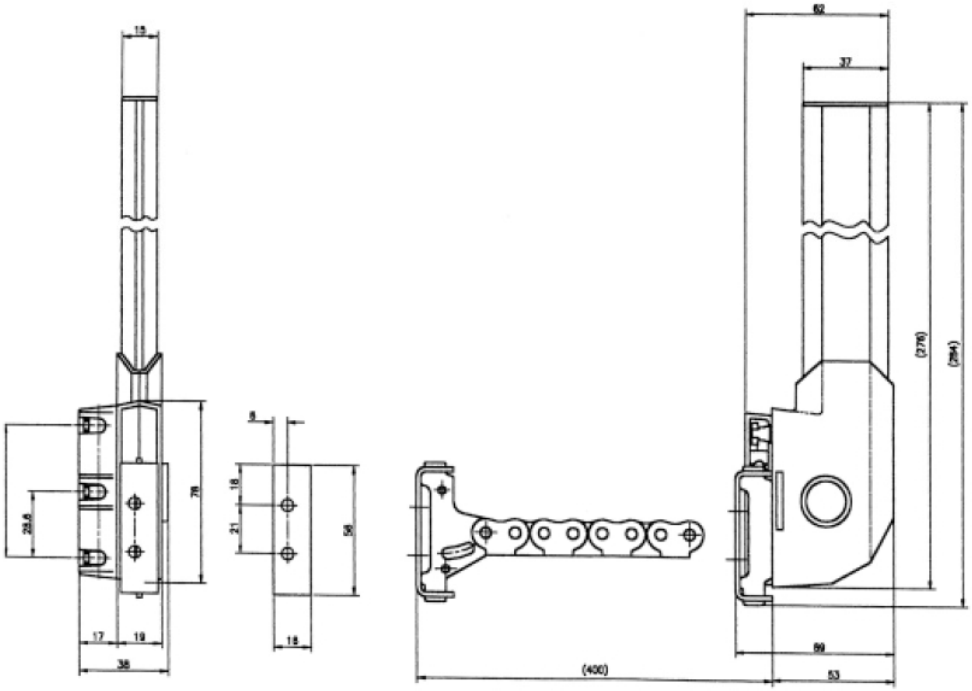
ISSUE DATE: March 09

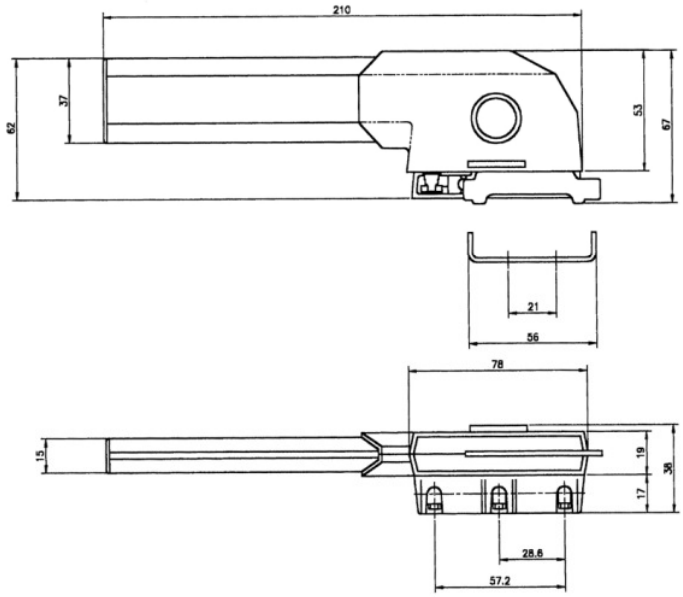
Architectural mechanical equipment

clearline
Manual and Electronic Window Openers

Manual controls - Chain Opener

Technical Specification





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SS14 3ES
England

ISSUE DATE: March 09

KONGSBERG
AUTOMOTIVE

Anti-Finger Trap

Finger Defender RP

Prevents finger trapping accidents. Hard-wearing synthetic fibre fabric. washable and difficult to ignite B1. Suitable for most doors depending on door configuration. 2,000,000 test cycles.

Options Available:

Finger Defender RP

The Finger Defender RP is a high quality finger guard with resilient blind. When the door opens the roller blind extends to prevent fingers entering the cavity formed between the edge of the door and door frame. A hard wearing synthetic fibre fabric which is mountable, removable, washable and also fire retardant B1 treated.

The Finger Defender RP comes with 4 concealed housing fastening screws and 4 visible fabric profile screws. The housing position on this finger guard is adjustable (elongated holes). It is suitable for almost all doors depending on door configuration and has a Certified and supervised quality (MPA).

The profile is made of aluminium and available in a standard finish. The standard length is 1925mm with a 260mm extended fabric blind. The Finger Defender RP has been independently tested to over 2 million test cycles.

Use the Quick Install **Mark Aid kit** (Sold Separately) to make the installation of the Finger Defender RP easier and quicker. Please get in touch with us for a price on the **Mark Aid Kit**.

Key Points:

- Prevents finger trapping accidents.
- Proven standard roller protector.
- Hard-wearing synthetic fibre fabric.
- The fibre fabric is washable and difficult to ignite B1.
- Concealed housing fastening screws and visible fabric profile screws.
- Housing position adjustable (elongated holes).
- Suitable for most doors depending on door configuration.
- Certified and supervised quality (MPA).
- 2,000,000 test cycles.

Product Details:

- Available in a Standard length 1925mm with a 260mm extended fabric blind.
- Finishes: Satin Anodised Aluminium.

Selected AluK Fabricators

Aluminium Construction
Address: Unit 19, Trade City Uxbridge, Cowley Mill Road, Uxbridge, Middlesex, UB8 2DB
Phone: 01895 542 650
Contact: Stuart Collman
Email: scollman@allglassfacades.co.uk

Anthony Fox
Address: Harbour Exchange Square, London E14 9GE
Phone: 020 7538 1700
Contact: Darius Paskauskas
Email: darius@anthonyfox.london

Hazlemere Window Company
Address: Cressex Business Park, Wellington Rd, High Wycombe. HP12 3PR
Phone: 01494 854536
Contact: Jamie Lewis
Email: j.lewis@hazlemere.co.uk

London Architectural Glazing Ltd
Address: Unit 18, Harlow, Essex, CM19 5QE
Phone: 020 3918 8465
Contact: James Tweedie
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Window Schedule

Window Ref	Size/ Style	Indicative Dimension	Elevation
1	M / Sliding	1807 X 1669mm	East
2	M / Sliding	1809 X 1673mm	East
3	M / Sliding	1674 X 1809mm	East
4	S / Fixed	670 X 1807mm	East
Door 1	Single	1115mm x 2496	East
5	M / Sliding	1672 X 1808mm	East
6	M / Sliding	1671 X 1809mm	East
Door 2	Single	1100 X 2247	East
7	S / Fixed	670 X 1807	East
8	M / Sliding	1671 X 1808	East
9	M / Sliding	1676 X 1809	East
10	M / Sliding	1673 X 1809	East
11	M / Sliding	1671 X 1805	East
12	M / Sliding	1671 X 1816	South
13	M / Sliding	1671 X 1838	South
14	M / Sliding	1671 X 1837	South
15	L/ Top	4034 X 2229	South
16	M / Sliding	1678 X 1812	West
17	M / Sliding	1672 X 1807	West
18	M / Sliding	1672 X 1808	West
19	S / Fixed	670 X 1807	West
20	M / Sliding	671 X 1807	West
21	M / Sliding	1675 X 1809	West
22	S / Fixed	670 X 1800	West
23	M / Sliding	1681 X 1809	West
24	M / Sliding	1677 X 1805	West
25	M / Sliding	1677 X 1810	West
26	M / Sliding	1680 X 1814	West
27	M / Sliding	1673 X 1810	North
Door 3	Double Set	1812 X 2347	North
28	M / Sliding	1672 X 1218	North
29	M / Sliding	1675 X 1214	North
30	M / Top	1164 X 1229	North
31	M / Sliding	1229 X 1661	North
32	M / Sliding	1220 X 1675	North
Door 4	Single	1136 X 2409	North
33	M / Sliding	1293 X 1674	North

C1	M / Sliding	1657 X 1782	Central Core
C2	M / Sliding	1665 X 1782	Central Core
C3	M / Sliding	1661 X 1788	Central Core
Door 5	Single	767 X 2255	Central Core
C4	M / Sliding	1661 X 1789	Central Core
C5	M / Sliding	1665 X 1788	Central Core
C6	M / Sliding	1661 X 1788	Central Core
Door 6	Single	807 X 2397	Central Core
C7	M / Sliding	1666 X 1790	Central Core
C8	M / Sliding	1661 X 1726	Central Core
C9	M / Sliding	1669 X 1798	Central Core
Door 7	Single	818 X 2321	Central Core
C10	M / Sliding	1660 X 1788	Central Core
C11	M / Sliding	1682 X 1788	Central Core
C12	M / Sliding	1663 X 1792	Central Core
Door 8	Single	Door 812 X 2296	Central Core

Window Numbers: #1 & #2 - EAST

Window Numbers: #3 - EAST

Window Numbers: #4 (small (s)), Door 1, #5 - EAST

Window Numbers: #6, Door 2, #7 (s) - EAST

Window Numbers: #8, #9, - EAST

Window Numbers: #10, #11 - EAST

Window Numbers: #12, #13, #14 - SOUTH

Window Numbers: #15 - SOUTH

Window Numbers: #16, #17 - WEST

Window Numbers: #18 - WEST

Window Numbers: #19, #20, #21, #22 - WEST

Window Numbers: #23, #24 - WEST

Window Numbers: #25, #26 - WEST

Window Numbers: #27 - NORTH

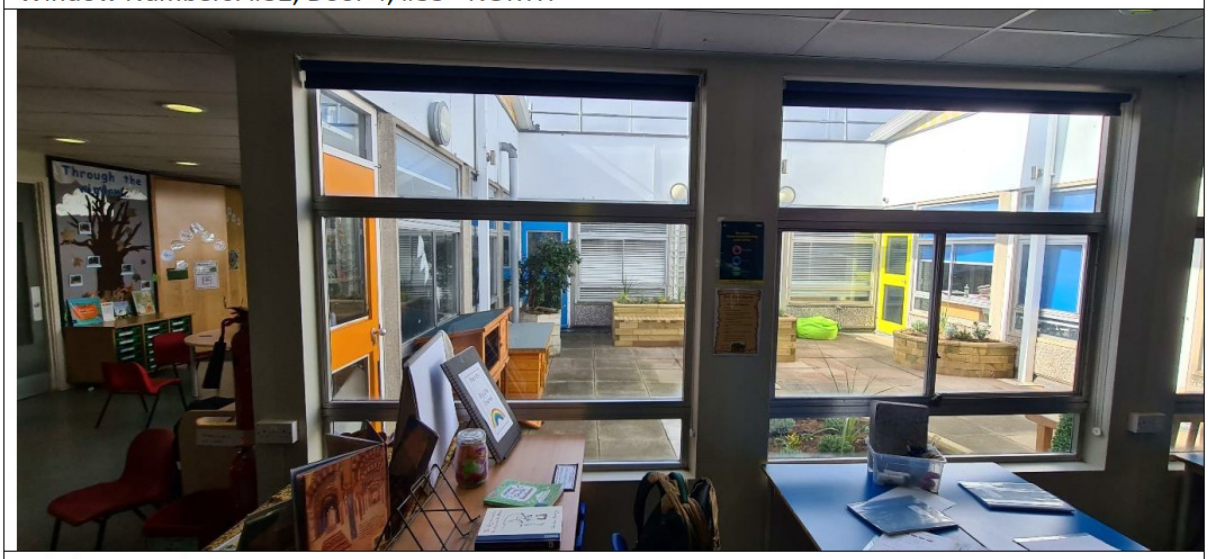
Main entrance door - NORTH

Window Numbers: #28 - NORTH

Window Numbers: #29 - NORTH

Window Numbers: #30, #31- NORTH

Window Numbers: #32, Door 4, #33 - NORTH



Window Numbers: C1, C2

Window Numbers: C3, Door 5

Window Numbers: C4, C5, C6, Door 6 (not in photo)

Window Numbers: C7, C8

Window Numbers: C9, Door 7

Window Numbers: C10, C11

C12, Door 8

Example External Door to be replaced with mag sensors and door closer to be considered.