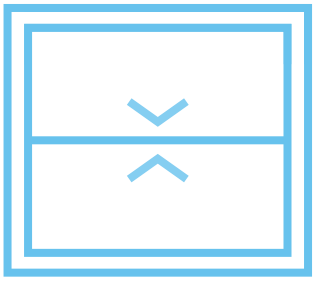
KlassicView™
Residential Windows & Doors

DARLEY ALUMINIUM

TECHNICAL MANUAL

76mm Double Hung Window System



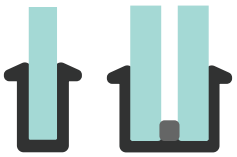
2000 Structural Deflection
Tested Pressure (Pa)

0.63 Air Infiltration
Leakage at 75 Pa

250 Water Rated
Tested Pressure (Pa)

4500 Ultimate Strength
Tested Pressure (Pa)

36 Acoustic Performance
(Estimated Rw Value)



U Value
3.3 - 6.4

Max 20mm

N2 N3* N4* C1*

* Conditions Apply

Self Draining

SEP 2023 | Version 7

Disclaimer

Darley Aluminium strives to ensure the technical details contained in this manual are complete and correct. Occasionally, some errors or outdated information may require rectification - Darley Aluminium takes no responsibility for any loss or damage as a result of these errors. If you are unsure of any information provided within this manual, please contact your nearest Darley Aluminium office.

Engineering, manufacture and installation of frames must meet requirements of AS2047 (Windows in Buildings), AS 3959 (BAL) and WERS (Window Energy Rating Scheme). Glazing selected must meet requirements of AS 1288 (Glass in Buildings). Size limitations are governed by design intent, glass selection, and local wind load requirements as per AS/NZS 1170.2 (Wind Actions) or AS 4055 (Wind Loads for Housing). An Engineer should be consulted to ensure selected framing and installation meets the requirements as set out by the relevant Australian Standards.

Any reference to an Australian Standard within this manual is based on the interpretations of Darley Aluminium. Code Compliance responsibility remains with the user of this manual. Misuse or misinterpretation of the information in this manual or of the Australian Standards remains the responsibility of the user of this manual.

Copyright

Contents

Resources Available

KlassicView

Software Packages

softtech V6 LogiKal®

Darley offers our fabrication customers 2 different types of software packages for window and door fabrication: *V6 & Logikal*. This software can be used to generate quotes, orders and bill of materials for our range of aluminium window and door systems.

CAD Drawings

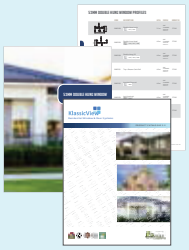
DXF DWG

We also give our customers access to CAD drawings of our profiles, assemblies and wall charts. Contact your Account Manager to register for the customer portal on the Darley website www.darleyaluminium.com.au to gain access to these drawings.

Tooling Systems

We offer a range of tooling machines used to punch/crop extrusions in our KlassicView residential window & door systems. Each tooling machine has been designed and enginneered in Australia, made with high quality steel and available in either pneumatic, hydraulic and air-over-hydraulic options.

Catalogues & Brochures



KlassicView brochures are available for distribution to the end-users, while our NEW KlassicView catalogues provide an overview of the specific profiles that are needed to fabricate the windows and doors in the KlassicView range.

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DARLEY ALUMINIUM

Welcome

Overview

Darley Aluminium's KlassicView 76mm Double Hung Window is the ideal solution to many residential or low end commercial requirements. The system works seamlessly within the 76mm suite and can also be combined with other Darley systems such as the 53mm suite and commercial suites.

Easily assembled, all of Darley's 76mm and 53mm range can be purchased either in standard lengths, or as a flatpack kit where tooling or time costraints exist. Designed for Australian climatic conditions, the KlassicView 76mm Double Hung Window has been tested and exceeds Australian Standard AS2047, with a variety of interlock options for different wind loads.

Design Features

- Accepts glass thickness from 4mm to 20mm
- Slide in flyscreens with no need for any clips
- Can be attached to fixed window systems to have lowlights, highlights, or sidelights
- Compatible with other Darley Aluminium KlassicView Systems with use of adaptors
- Tested and Approved by an independent NATA accredited laboratory

Performance Summary

- Tested overall unit height of 1500mm, min 700mm
- Tested overall unit width of 900mm, min 600mm
- Serviceability: 2000Pa Positive and Negative
- Air Infiltration: 0 L/s.m^2 Positive and 0.63 L/s.m^2 Negative
- Water Penetration: 250Pa
- Ultimate: 4500Pa Positive and Negative
- Max. sash weight = 16kg (contact Doric for larger weights), min 2.1kg
- (See 'Performance' section for more detail)
- Size limitations are governed by design intent, glass selection and local wind load and deflection requirements. For further technical assistance and fabricator selection contact Darley Aluminium.
- An Engineer should be consulted to ensure selected framing meets the requirements as set out in the relevant Australian Standards.

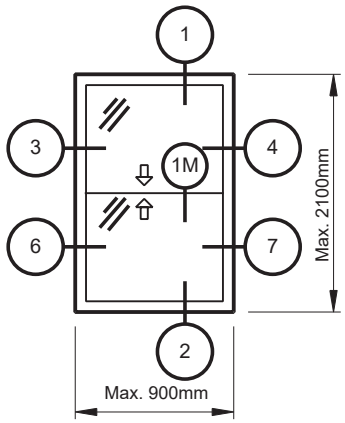
System Requirements

- Engineering, manufacture and installation of frames must meet requirements of:
  - AS2047-2048 (Windows in Buildings)
  - AS/NZS 1170 (Loading Code)
  - AS/NZS 1664 (Aluminium Structures Code)
- Glazing selected must meet requirements of AS1288 (Glass in Buildings)

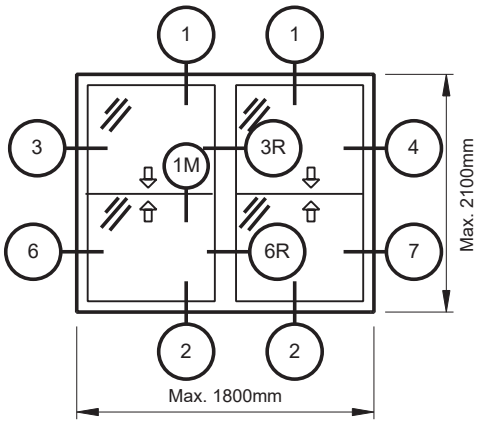
Configuration

General Configuration

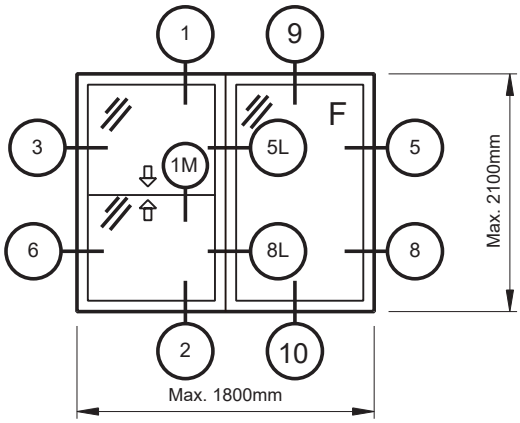
Type: DH



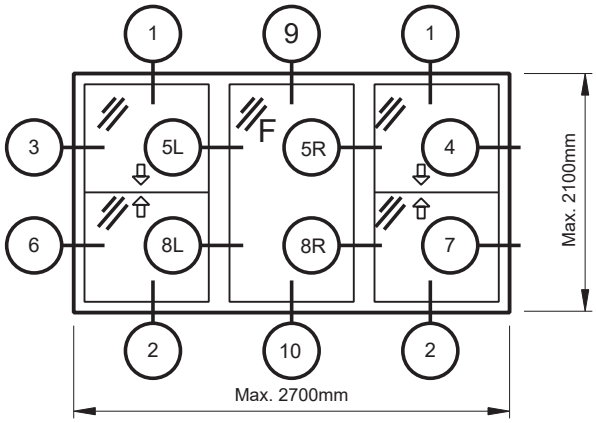
Type: DH-DH



Type: DH-F



Type: DH-F-DH

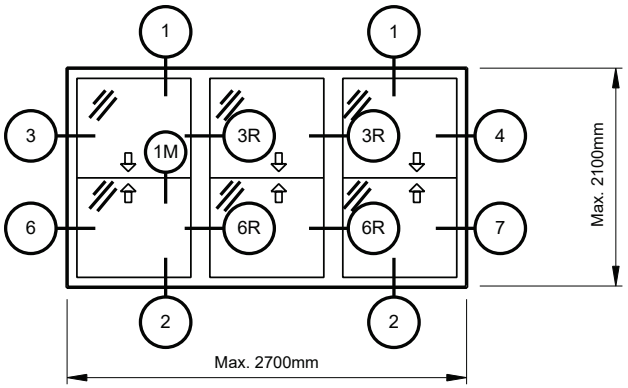


Max. sash weight = 16kg (contact Doric for larger weights)

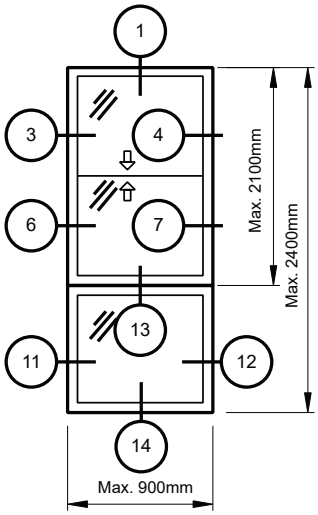
NOTES:
Engineering, manufacture and installation must meet requirements of AS 2047, AS3959, WERS and Acoustic requirements. Glazing selected must meet requirements of AS 1288.
Size limitations are governed by design intent, glass selection, and local wind load requirements as per AS/NZS 1170.2 or AS 4055.
N.B.
- For frames, designs, and configurations outside the tested scope, an engineer or suitably qualified person should be consulted.
- All raw joints need to be sealed with small joint sealer or foam tab option.

General Configuration

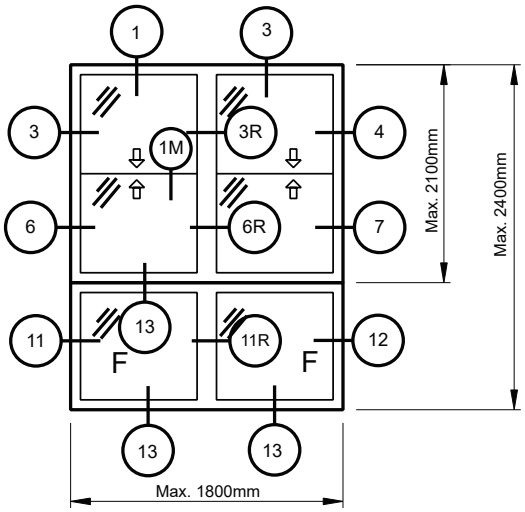
Type: DH-DH-DH



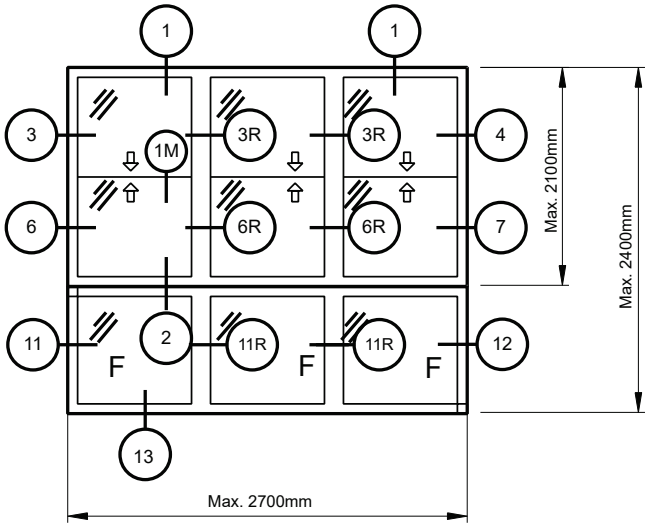
Type: DH/F with Lowlight



Type: DH-DH/F-F with Lowlight



Type: DH-DH-DH/F-F-F with Lowlight



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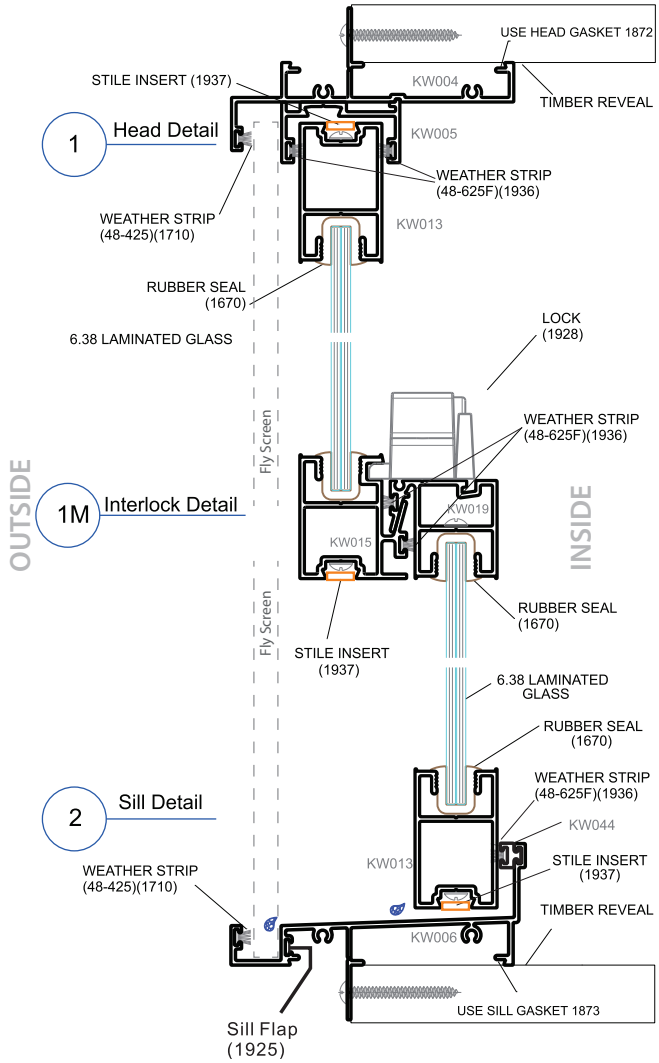
N.B.
- For frames, designs, and configurations outside the tested scope, an engineer or suitably qualified person should be consulted.
- All raw joints need to be sealed with small joint sealer or foam tab option.

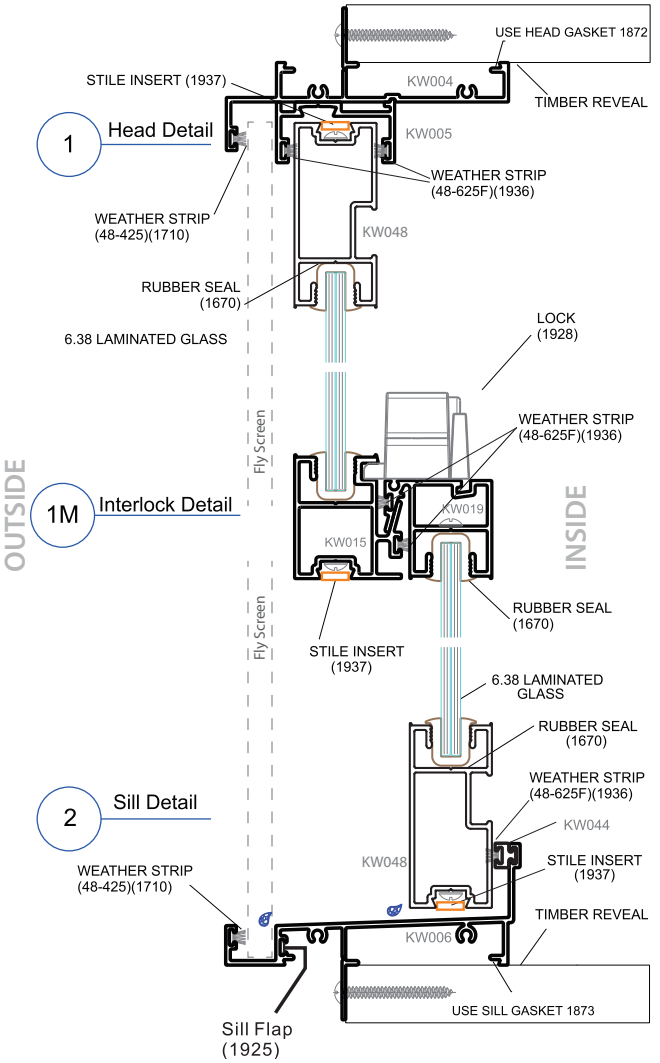
Cross Sections

Head and Sill Option: Single Glazed

Sash Stile KW013



Sash Stile KW048



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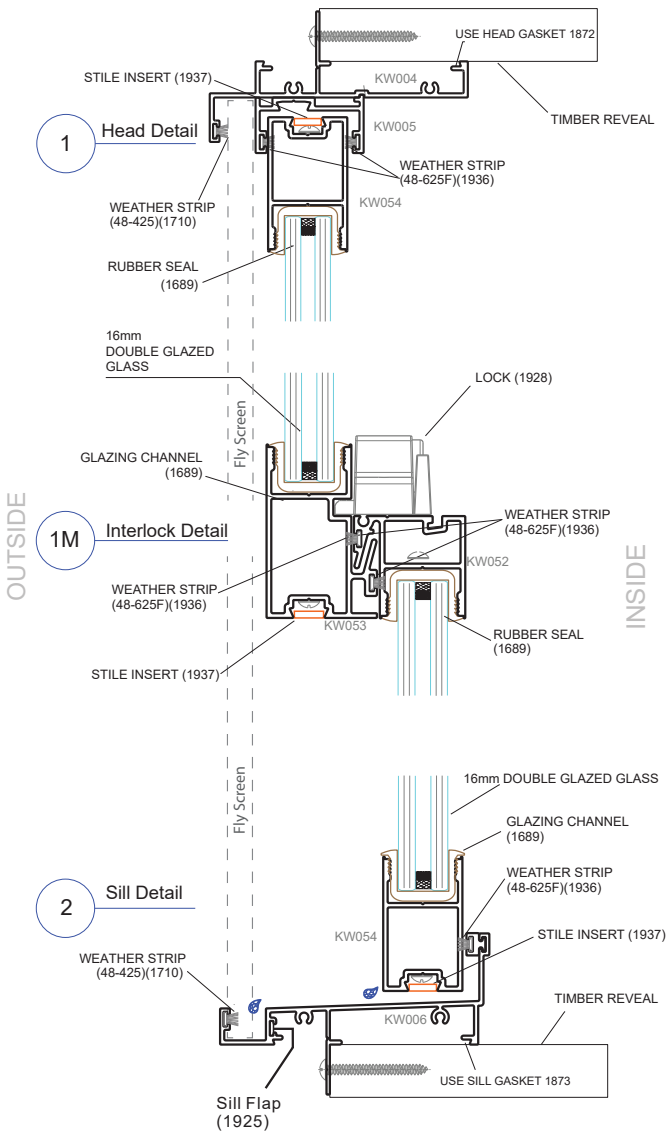
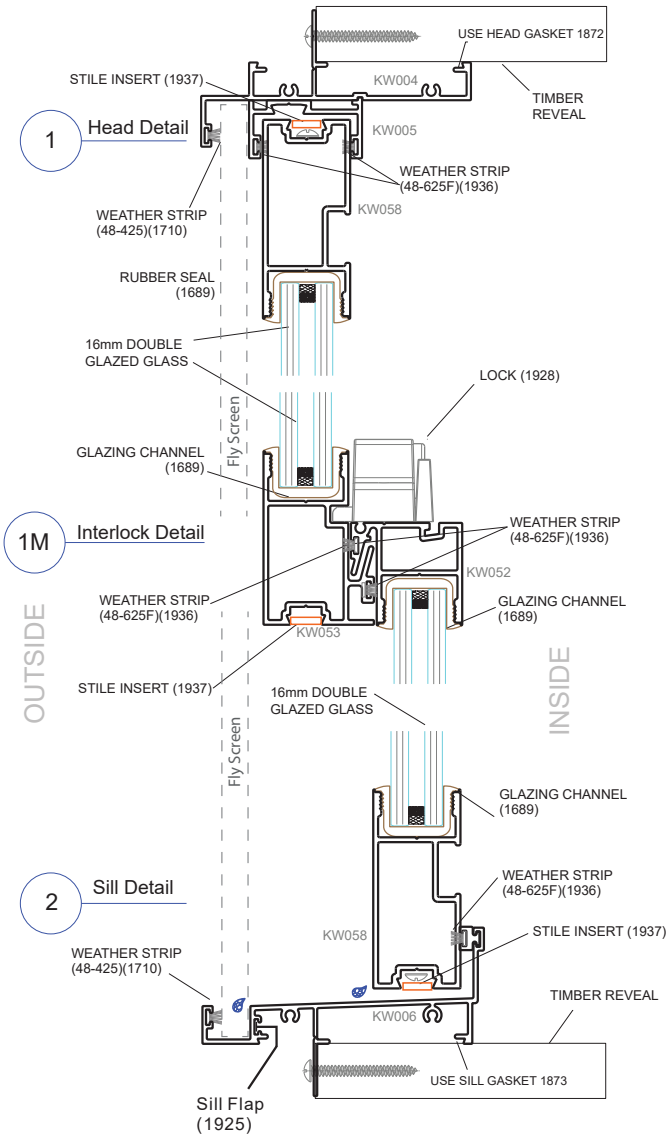
Head and Sill Option: Double Glazed

Sash Stile KWD054



Sash Stile KW047



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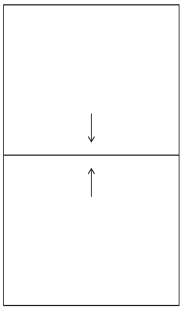
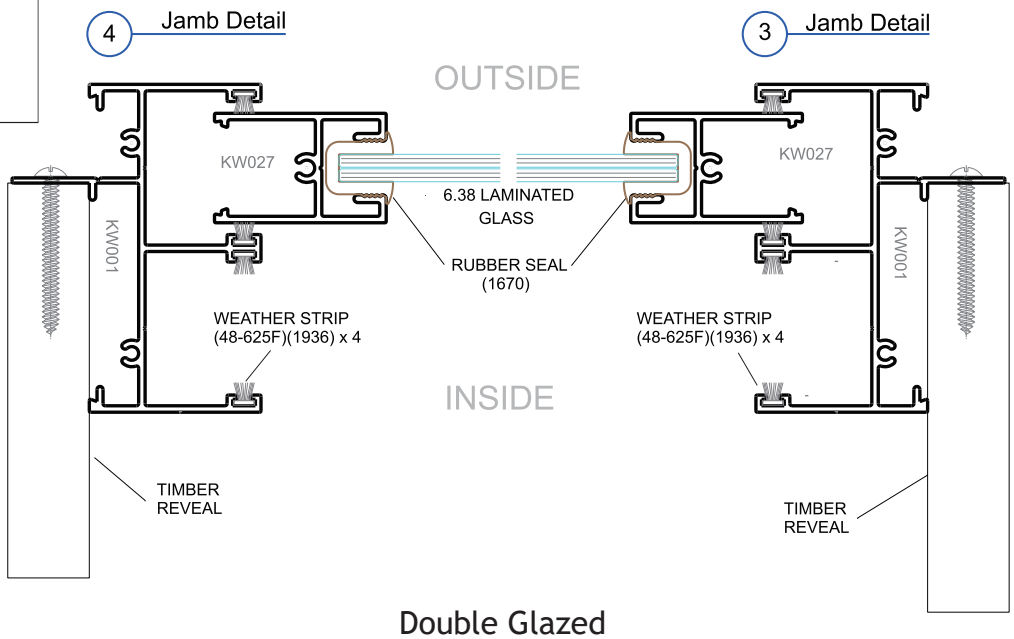
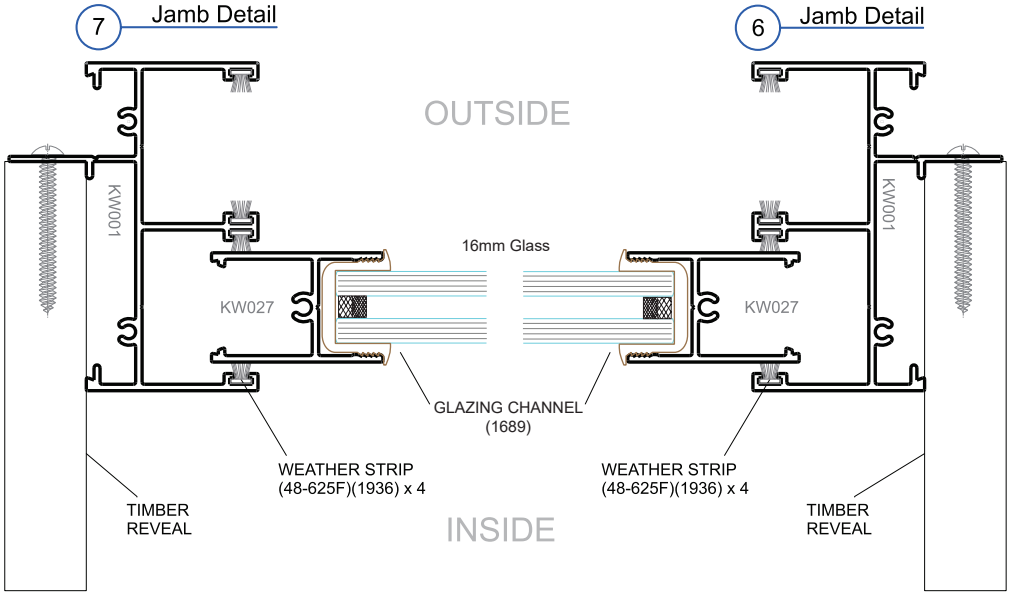
Jamb Option: Single & Double Glazed



Single Glazed



Double Glazed



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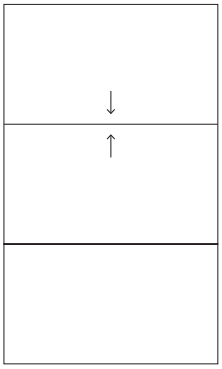
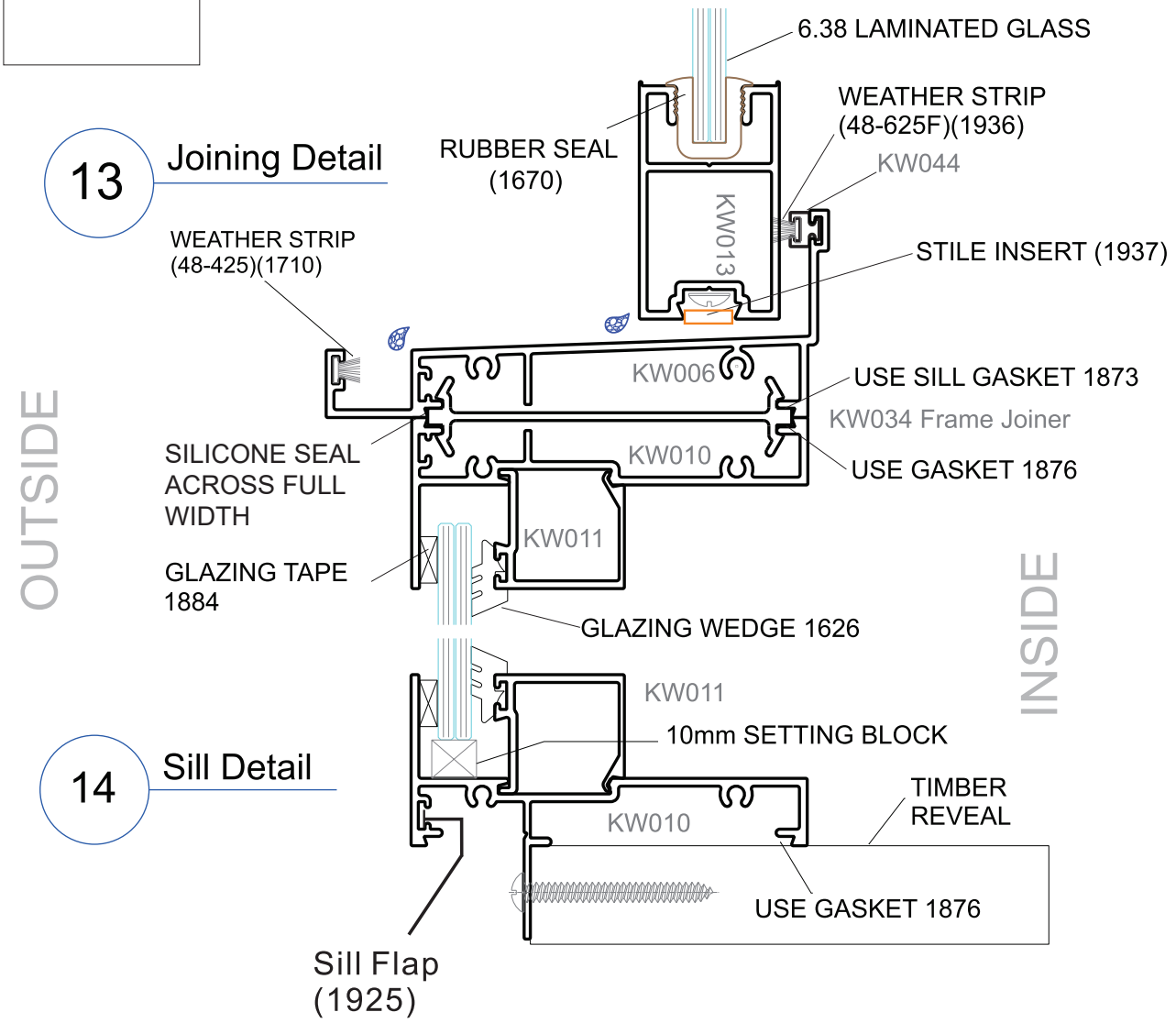
Transom Option: Lowlight





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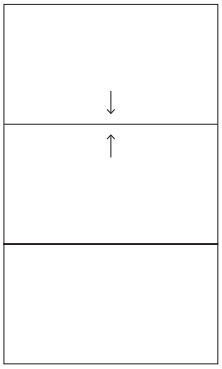
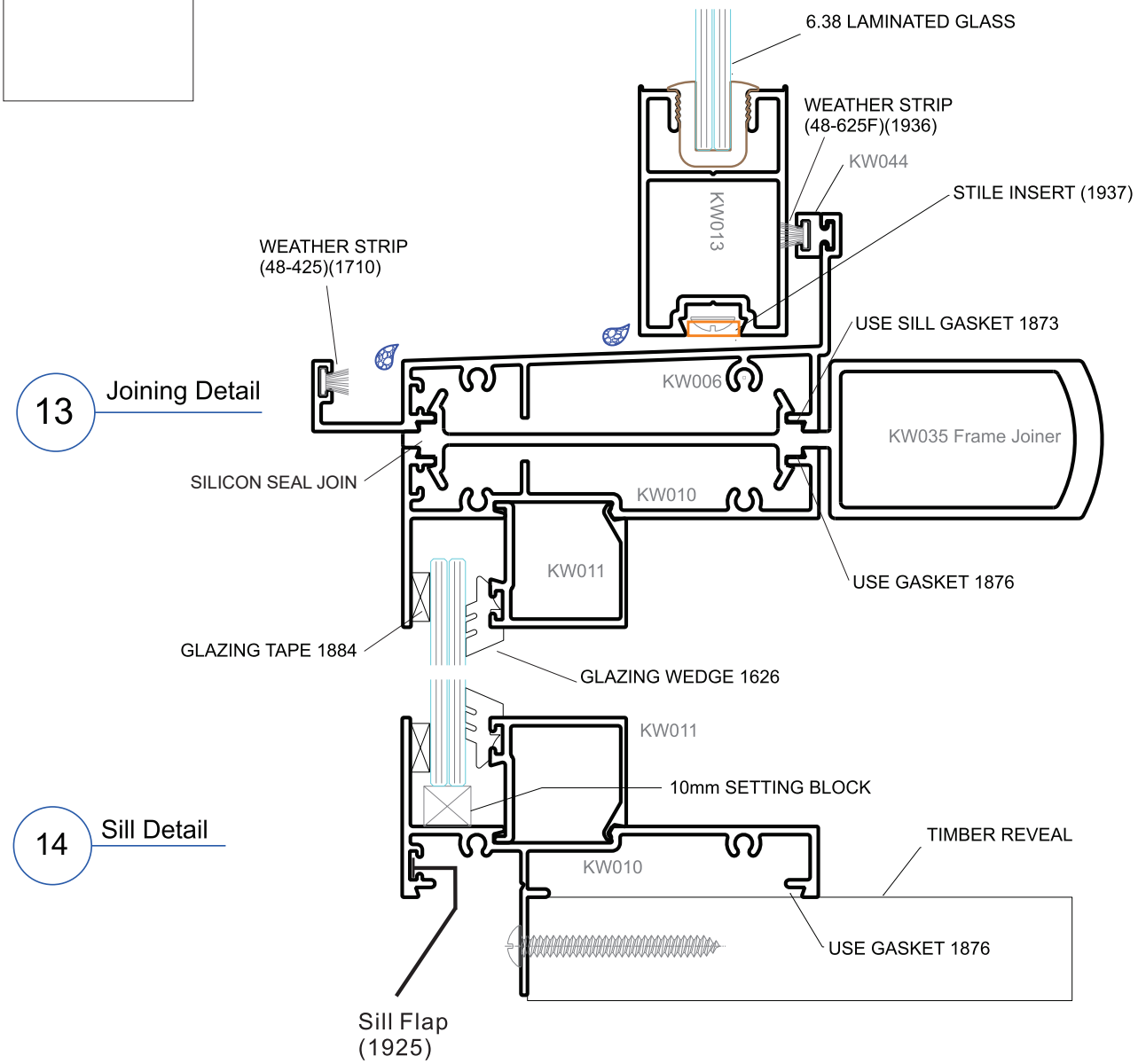
- All raw joints need to be sealed with small joint sealer or foam tab option.

Transom Option: Heavy Duty for Lowlight





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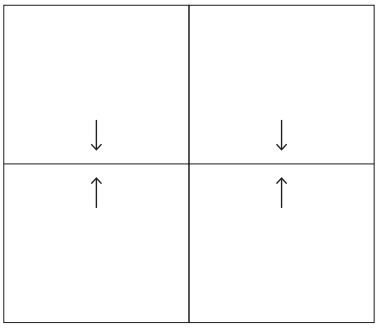
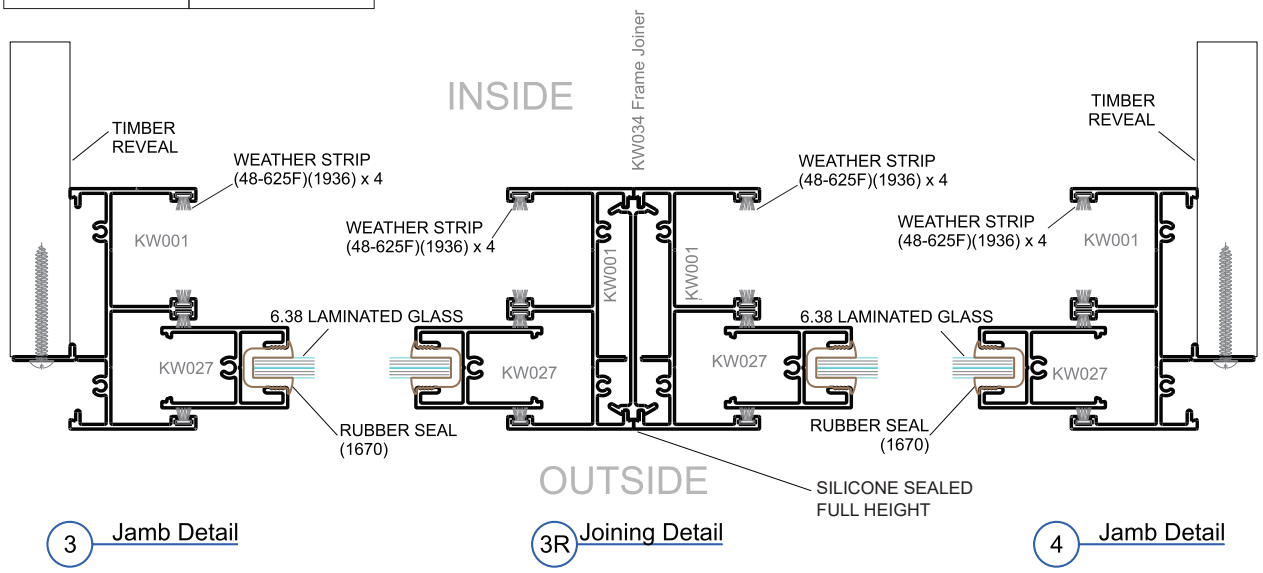
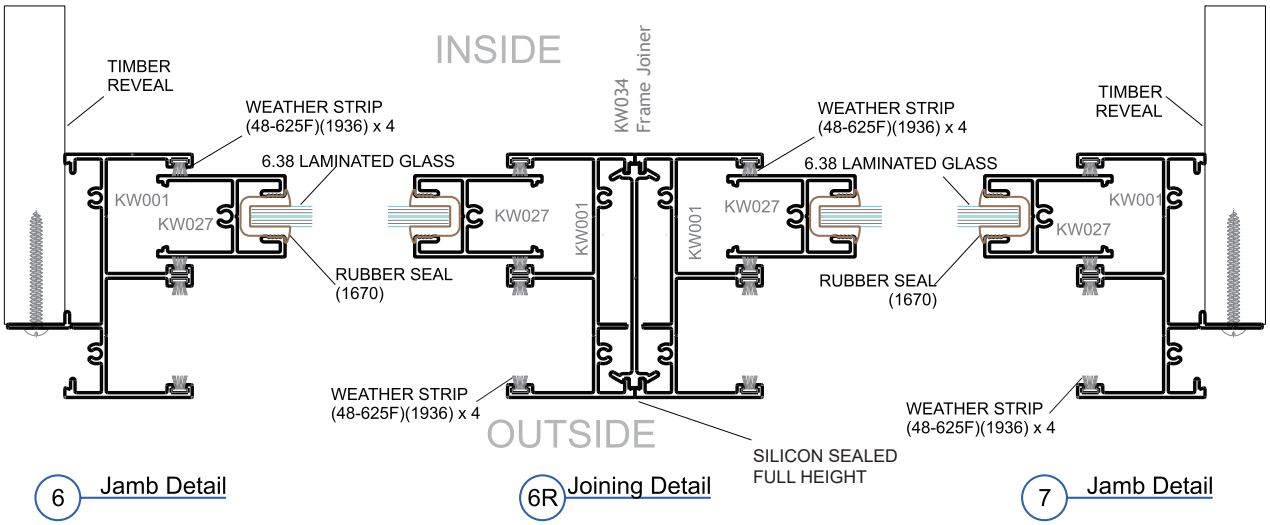
Jamb Option: Double DH





3 Jamb Detail | 3R Joining Detail | 4 Jamb Detail



6 Jamb Detail | 6R Joining Detail | 7 Jamb Detail

NOTES:
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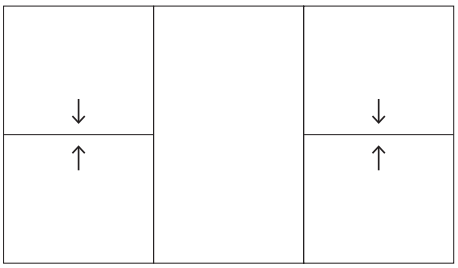
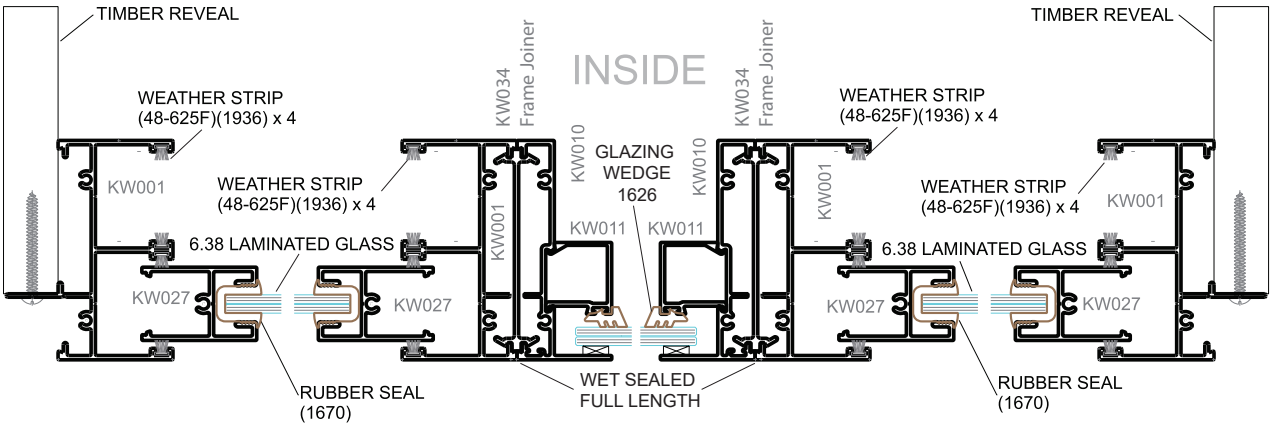
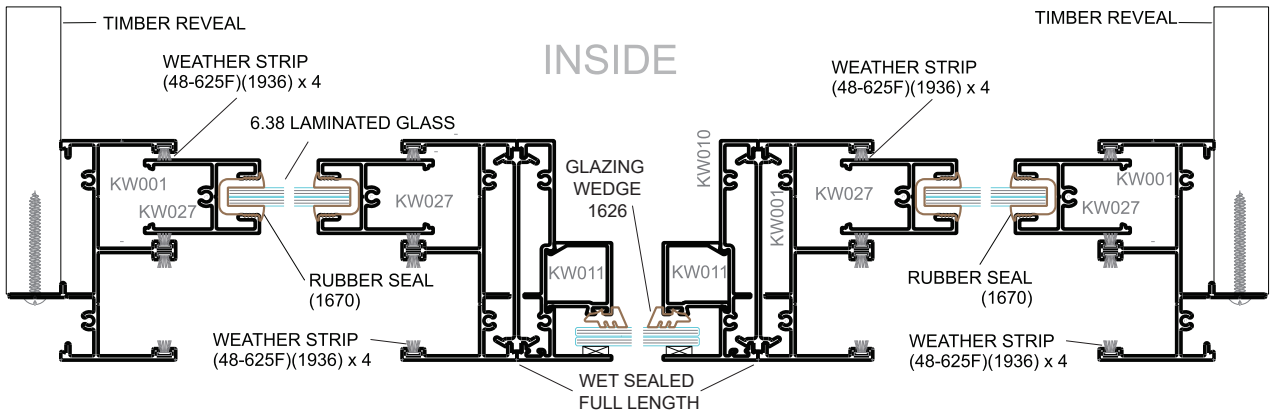
Jamb Option: DH-F-DH





3 Jamb Detail | 5L Joining Detail | 5R Joining Detail | 4 Jamb Detail



6 Jamb Detail | 8L Joining Detail | 8R Joining Detail | 7 Jamb Detail

NOTES:
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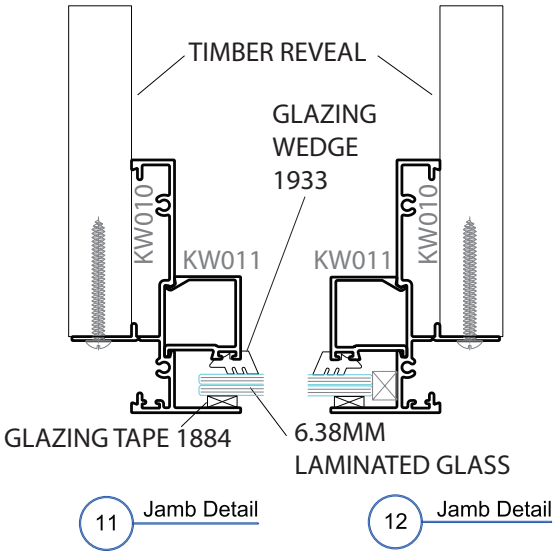
Fabrication

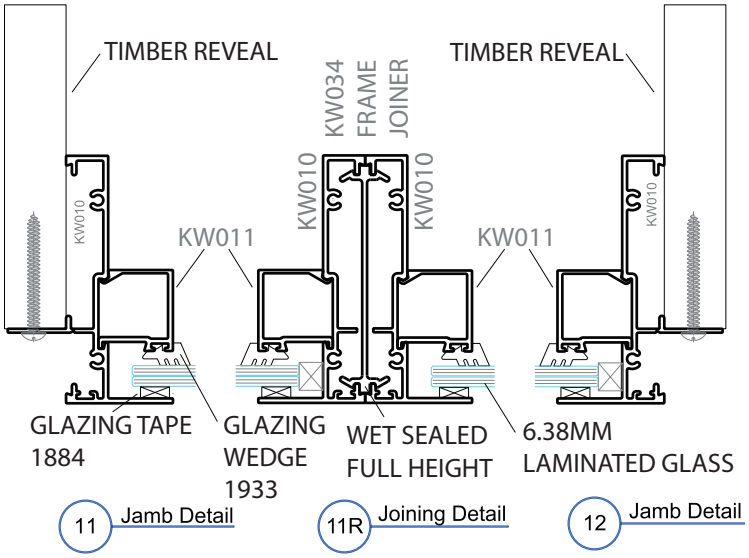
Jamb Option: Lowlights

Single Glazed Options:

Single Lowlight

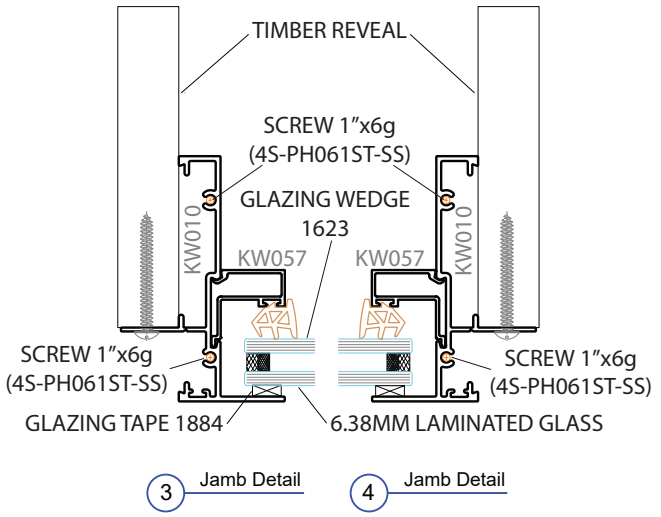


Double Lowlight

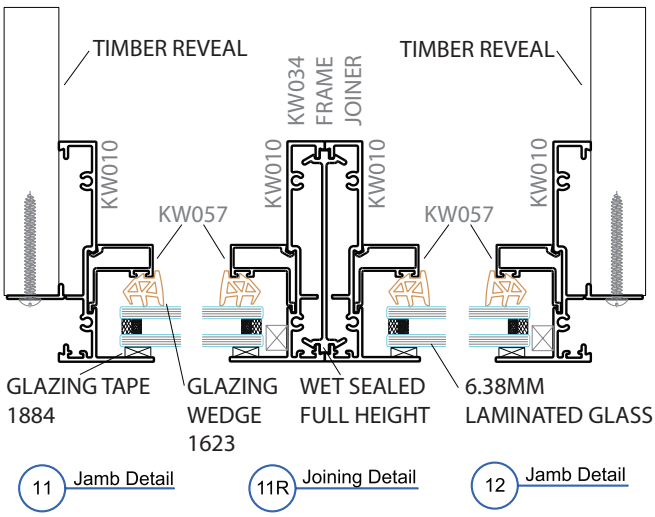


Double Glazed Options:

Single Lowlight



Double Lowlight



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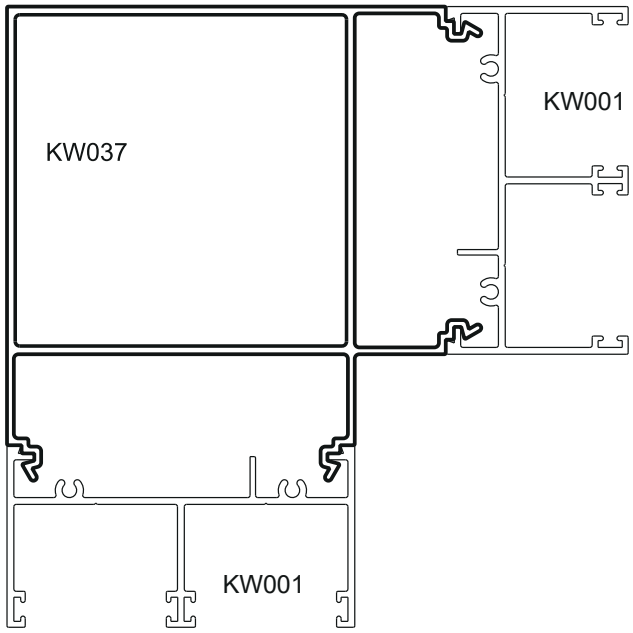
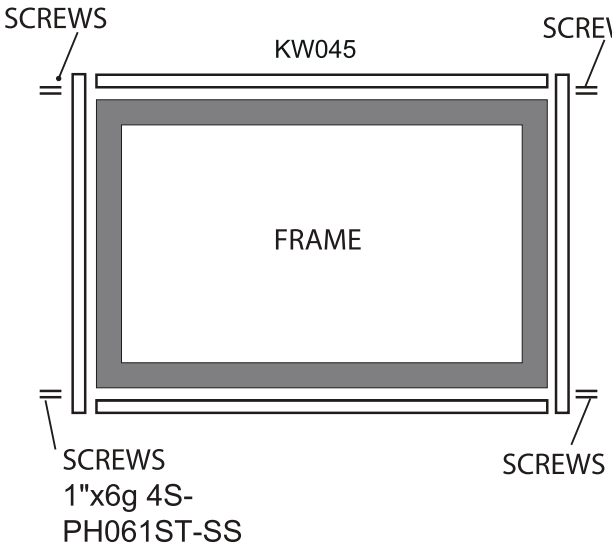
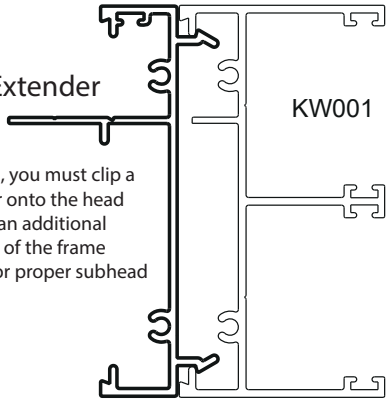
Additional Frame Options

KW037 90 Degree Corner Post



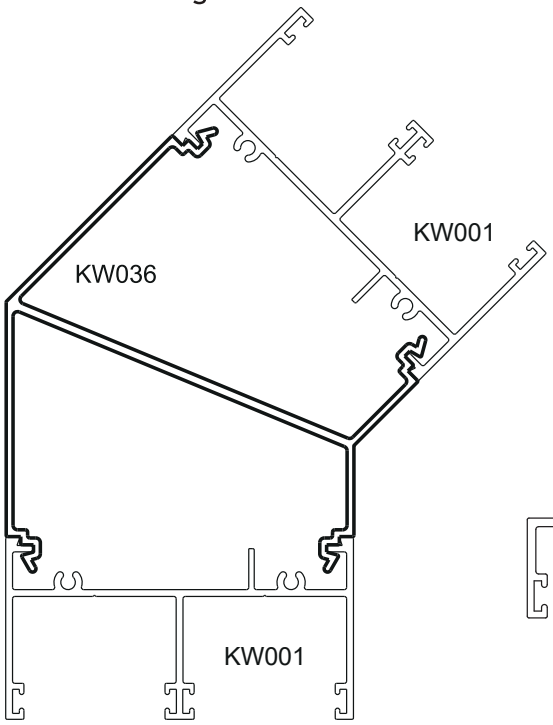


KW045 Frame Extender

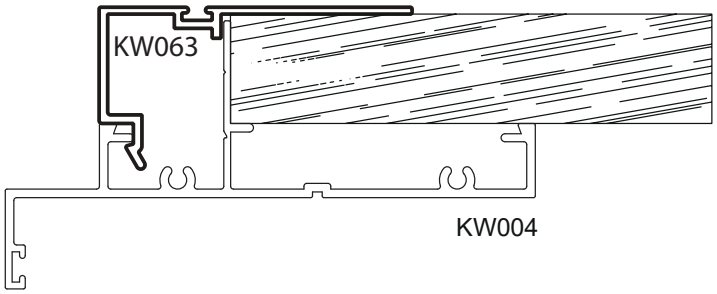


When using a subhead, you must clip a KW045 frame extender onto the head and extend the jambs an additional 15mm to meet the top of the frame extender. This allows for proper subhead coverage.

KW036 45 Degree Corner Post

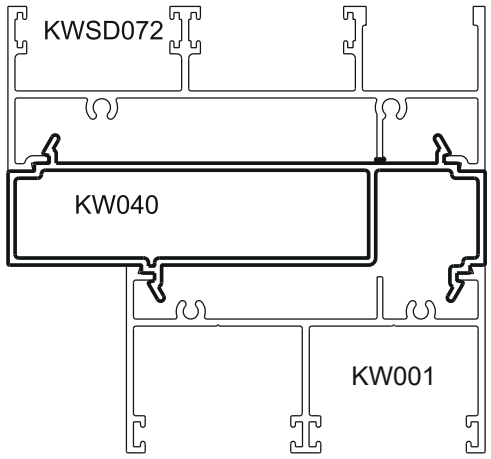


KW063 Inline Reveal Adaptor

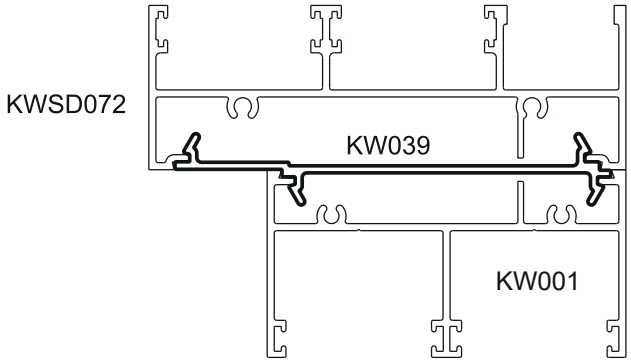


Additional Frame Options

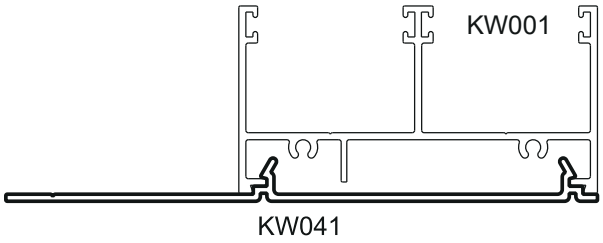
KW040 101.6mm to 76mm Box Joiner



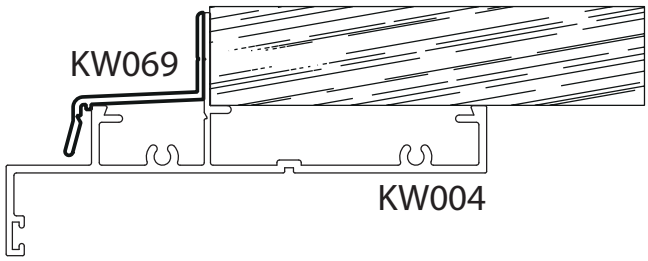
KW040 101.6mm to 76mm Flat Joiner



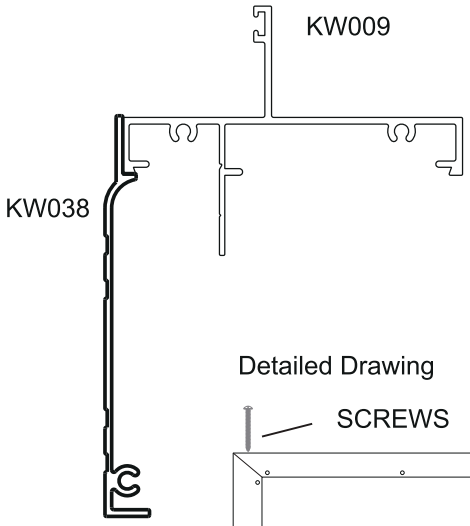
KW041 76mm Fixing Plate



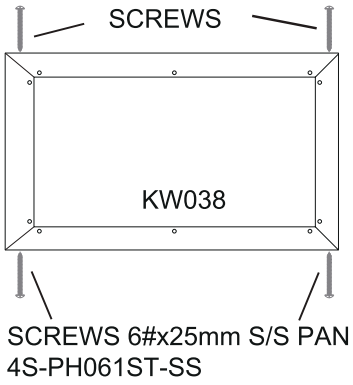
KW069 Drip Mould (Head Flashing)



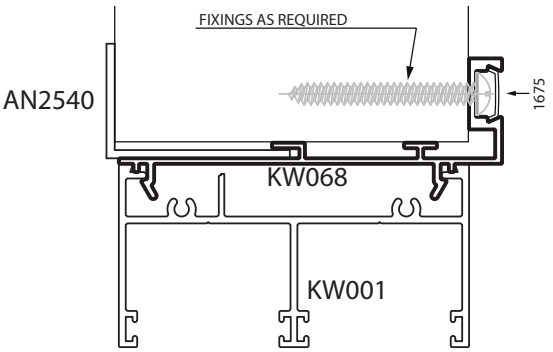
KW038 90mm architrave



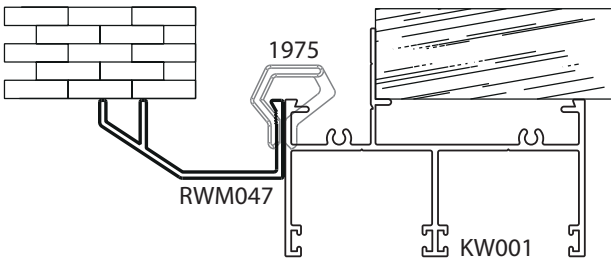
Detailed Drawing



KW068 Concealed Face Fixing



RWM047 Storm Cavity Mould



Hardware

Small Parts

Weather Strip
Part No. 1710 (48-425)
1936 (48-625F)

Glazing Channel
Part No. 4mm - 1923
5mm - 1924
6mm - 1670
8mm - 1604
10.35mm - 1671
12.38mm - 1666
16mm - 1689
18mm - 1667
20mm - 1677

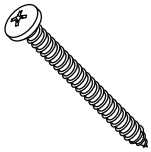
Gasket List
Part No. 1872 Double Hung Head
1873 Double Hung Sill

Glazing Tape
Part No. 1884

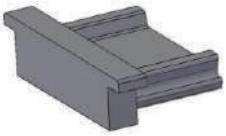
Glazing Wedge
Part No. 4mm - 1931
5mm - 1623
6mm - 1933
8mm - 1615*
10mm - 1625
12mm - 1933
16mm - 1625
18mm - 1931
20mm - 1623

Sill Flap
Part No. 1925

Stile Insert
Part No. 1937



Fixing Screws
Part No.
1"x6g 4S-PH061ST-SS
1"x8g 4S-PH081ST-SS
1 1/2"x8g 4S-PH08112ST-SS
2"x8g



Rubber Stop
Part No. 1837

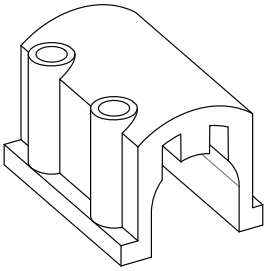
Fabrication

Small Parts

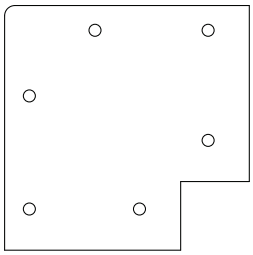
Double Hung Lock
Part No. 1928

Friction Foot
Part No. 1929

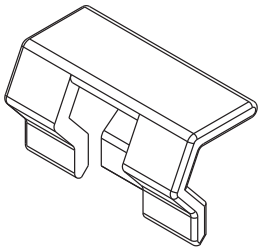
Sash Spring
Part No. 1929-06G
to
1929-24B



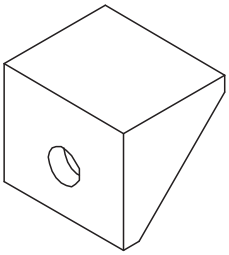
Universal Window Stop
Part No. 1963



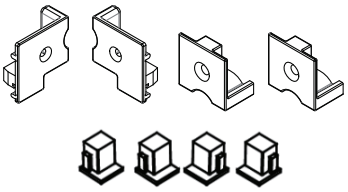
76mm Fixed Corner Plate
Part No. 1993



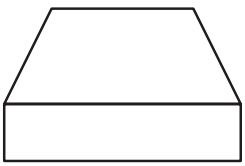
Storm Mould Clip
Part No. 1975



Double Hung Stop
Part No. 1943



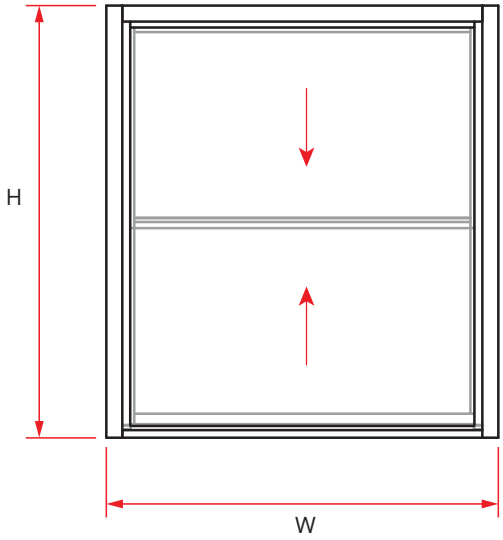
Sash Blocks
Part No. 1891
(5 sets per bag)



Finger-Jointed 138mmx18mm
Laminated Timber Reveal
Part No.
TR01-138T18M58

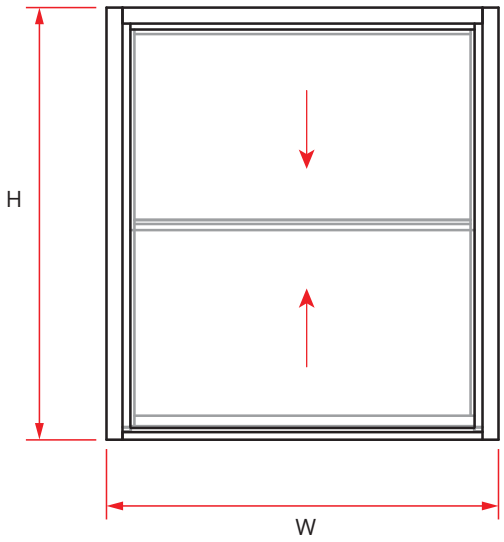
Machining

Cutting Formula: Without Finger Pulls



	Code	Description	Quantity	SG Formula	
	KW001	Double Hung Jambs	2	Height - 26	
	KW004	Double Hung Head	1	Width	
	KW006	Double Hung Sill	1	Width	
DG Code	KW005	Double Hung Head Sash Receiver	1	Width - 80	
KW054	KW013	Top/Bottom Sash Rails	2	Width - 58	
KW053	KW015	Outer Interlock	1	Width - 58	
KW052	KW019	Inner Interlock	1	Width - 58	**DG Formula**
KW055	KW027	Side Sash Rails	4	(Height - 170)/2	(Height - 185)/2
	KW044	Seal Adaptor	1	Width - 80	
	KW031	Frame Stop Filler	4	115	
		Glass Height	2	Side Sash Rails + 20	
		Glass Width		Interlocks - 60	
	HFF180	Flyscreen Height	2	Height - 27	
	HFF180	Flyscreen Width		Width - 34	
	Note	Jambs have 2° bottom cut			

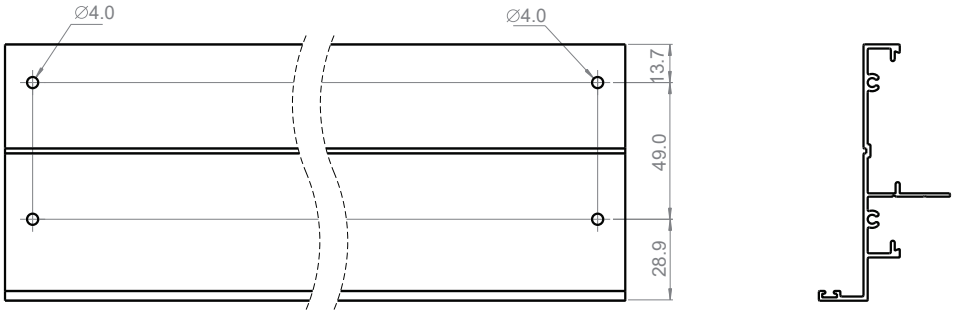
Cutting Formula: With Finger Pulls



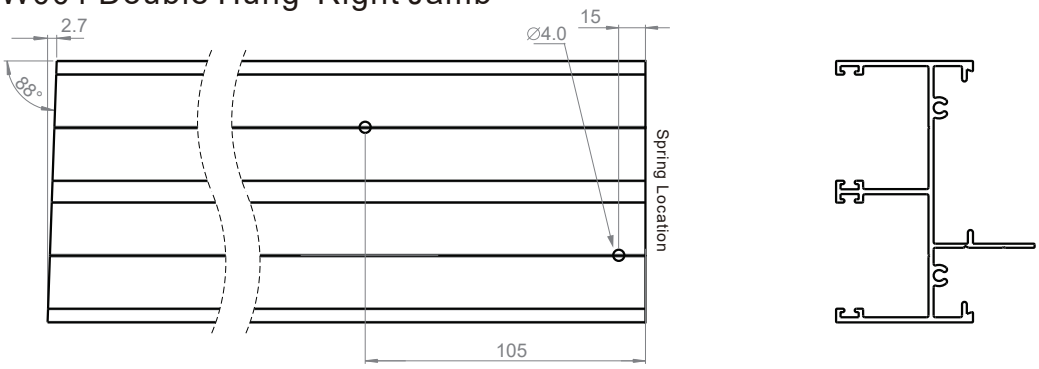
	Code	Description	Quantity	SG Formula	
	KW001	Double Hung Jambs	2	Height - 26	
	KW004	Double Hung Head	1	Width	
	KW006	Double Hung Sill	1	Width	
DG Code	KW005	Double Hung Head Sash Receiver	1	Width - 80	
KW058	KW048	Top/Bottom Sash Rails	2	Width - 58	
KW053	KW015	Outer Interlock	1	Width - 58	
KW052	KW019	Inner Interlock	1	Width - 58	**DG Formula**
KW055	KW027	Side Sash Rails	4	(Height - 200)/2	(Height - 215)/2
	KW044	Seal Adaptor	1	Width - 80	
	KW031	Frame Stop Filler	4	115	
		Glass Height	2	Side Sash Rails + 20	
		Glass Width		Interlock - 60	
		Flyscreen Height	2	Height - 27	
		Flyscreen Width		Width - 34	
	Note	Jambs have 2° bottom cut			

Machining Details

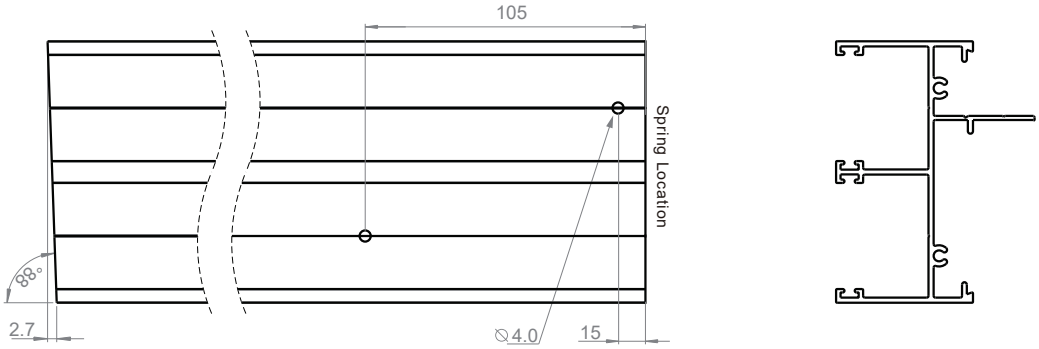
KW004 Double Hung Head



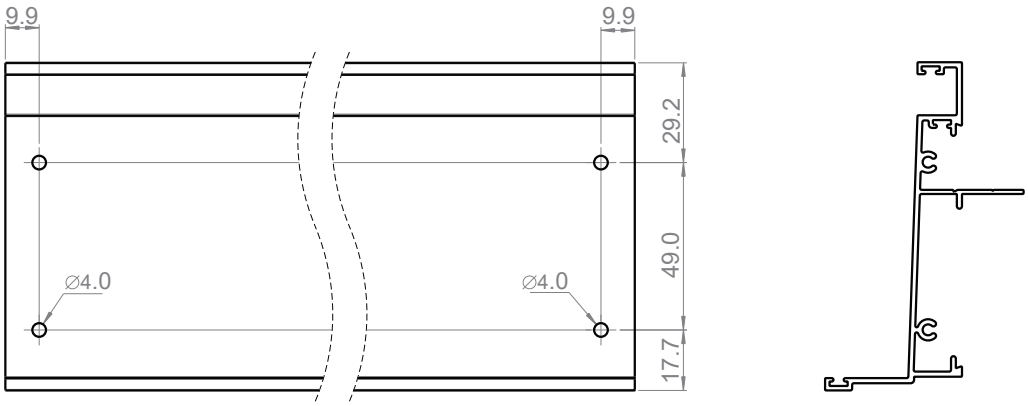
KW001 Double Hung Right Jamb



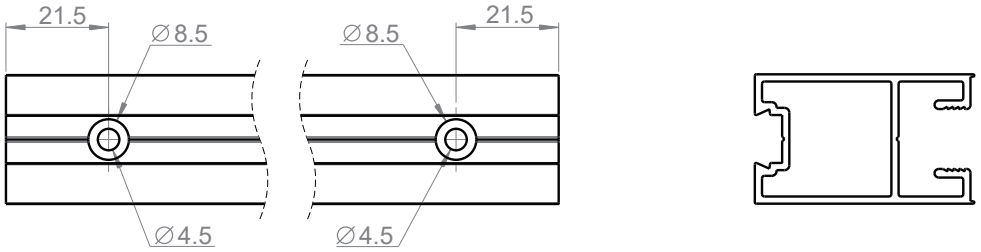
KW001 Double Hung Left Jamb



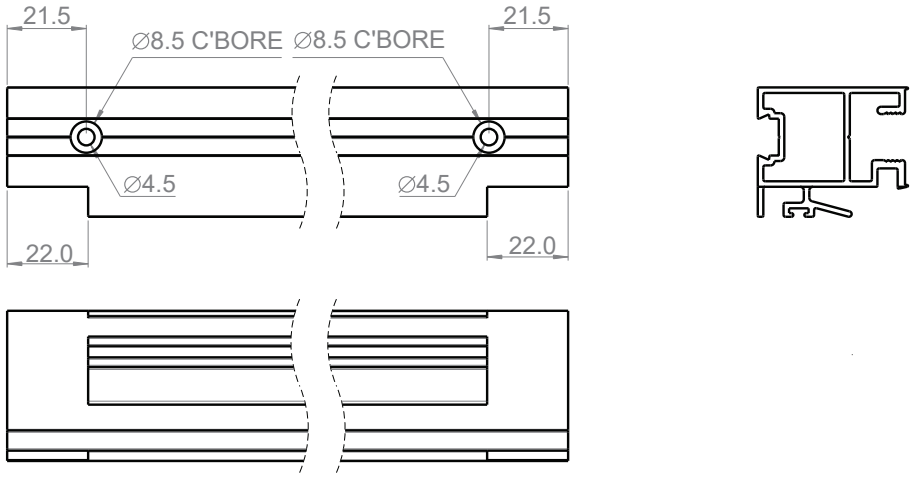
KW006 Double Hung Sill



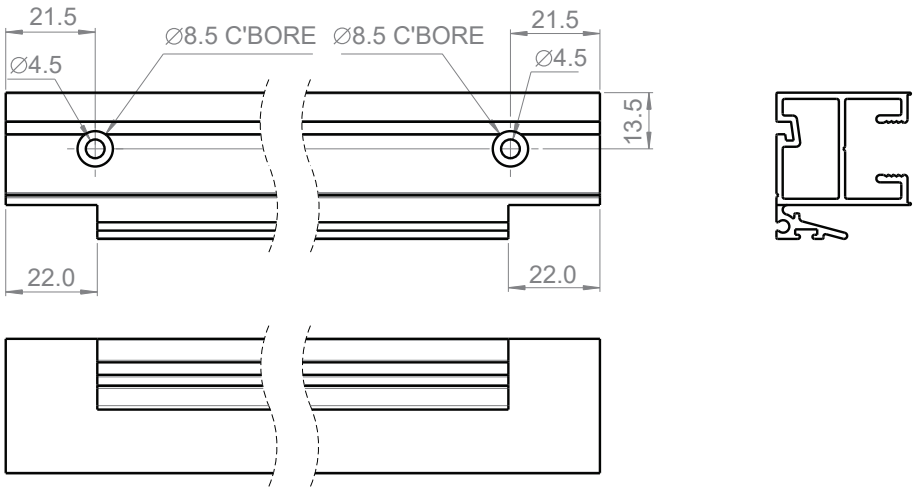
KW013/KW054 Double Hung Sash Top/Bottom Rail



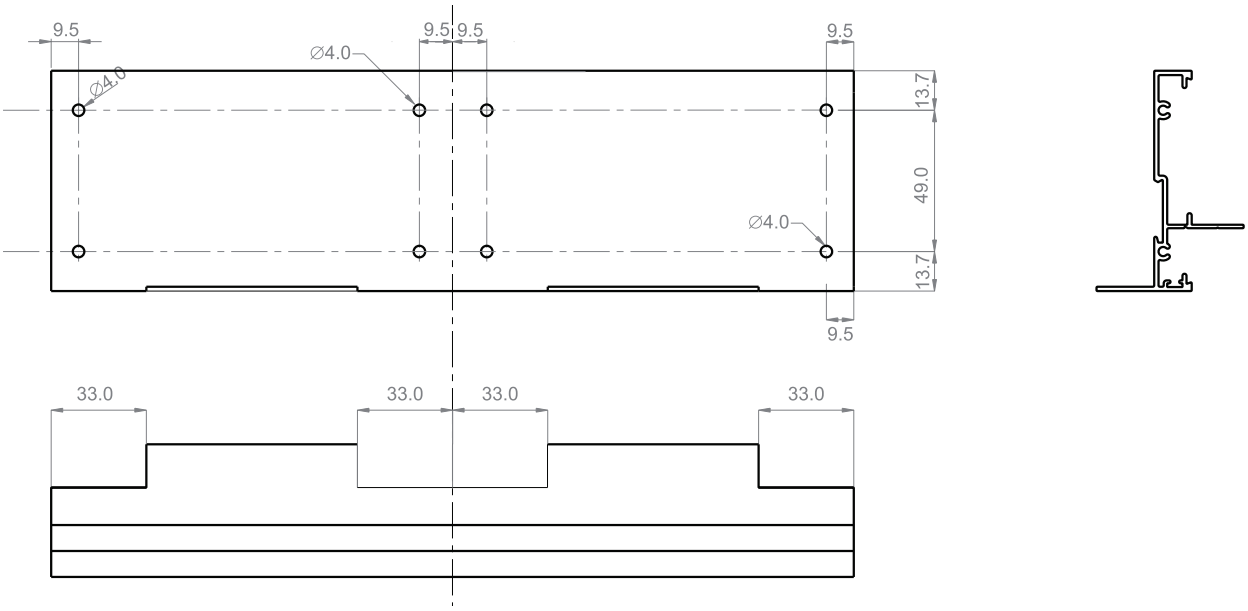
KW015/KW053 Double Hung Top Sash / Interlock Stile



KW019/KW052 Double Hung Bottom Sash / Interlock Lock Stile

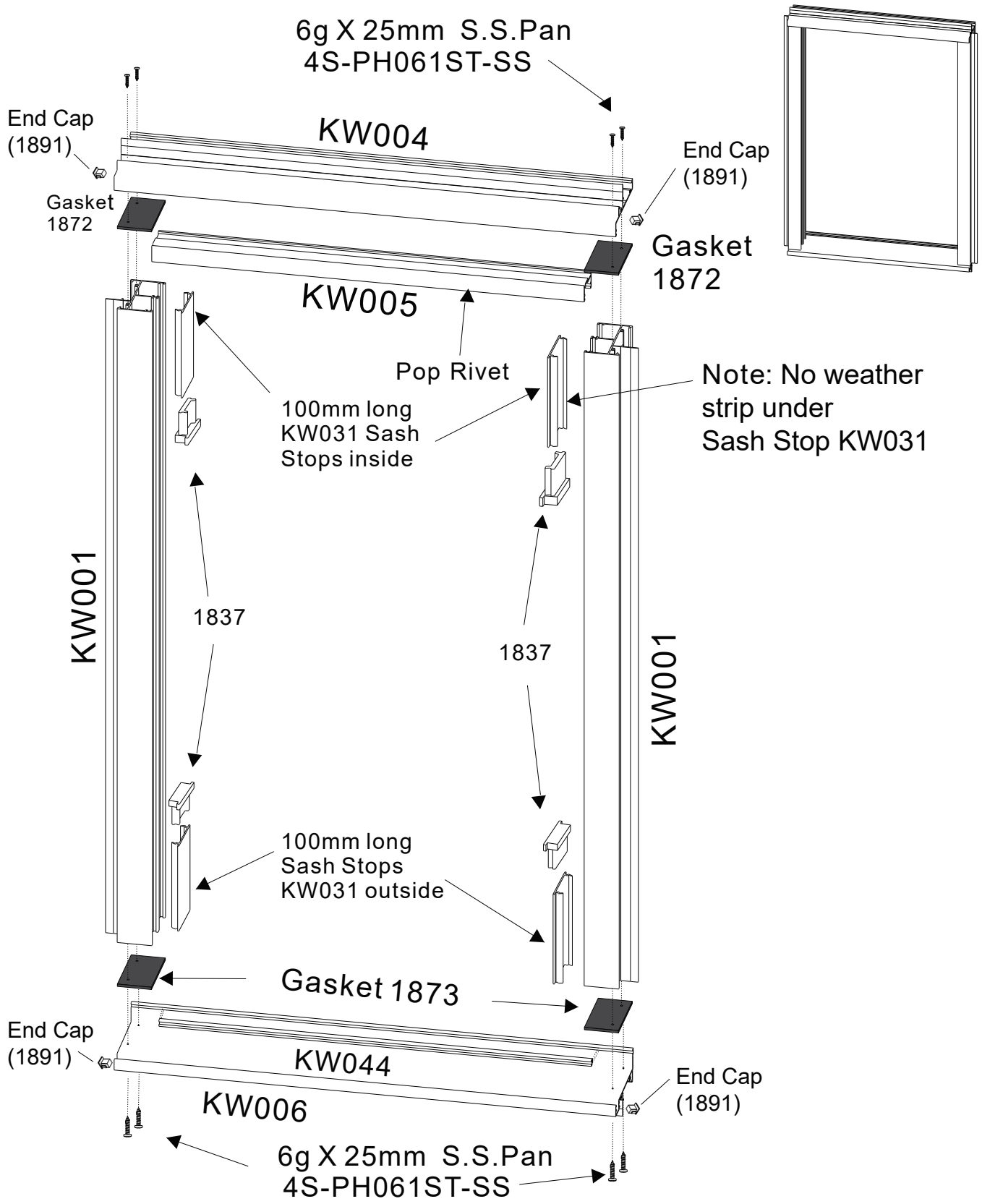


KW010 Fixed Light Continuous Head & Sill Notching



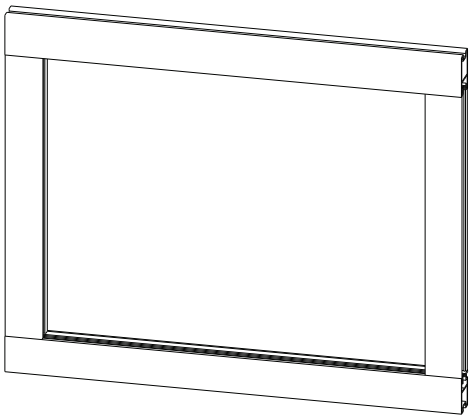
Assembly

Exploded Frame Assembly

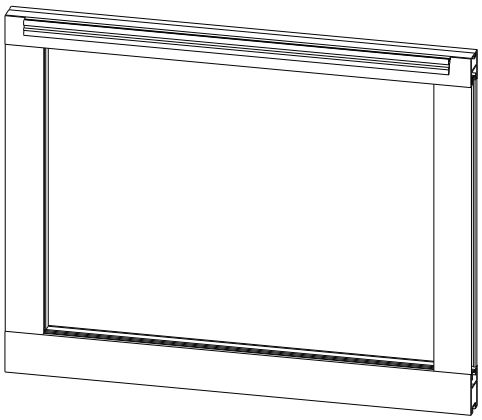


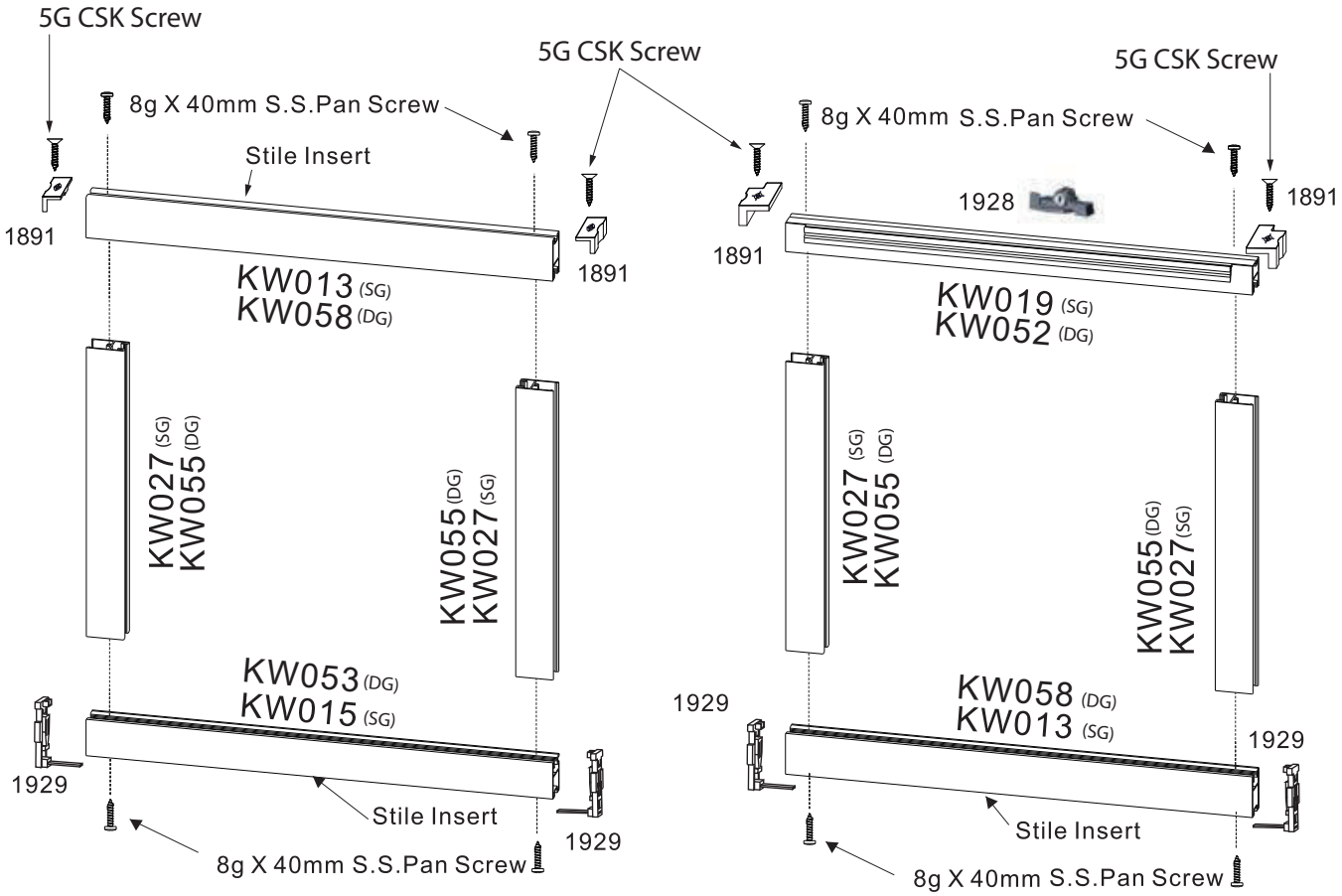
Single & Double Glazed Panel Assembly

Upper Panel



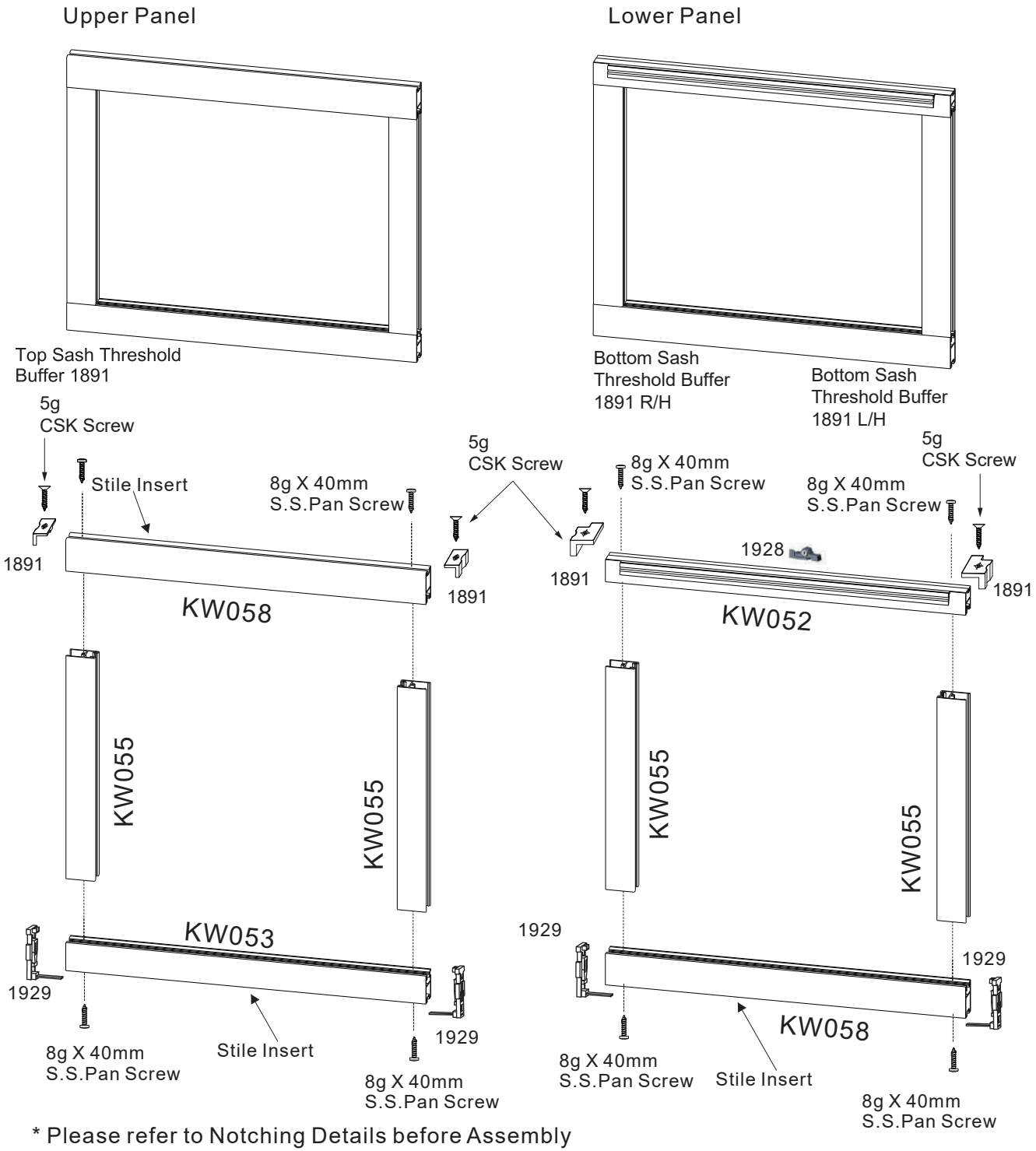
Lower Panel





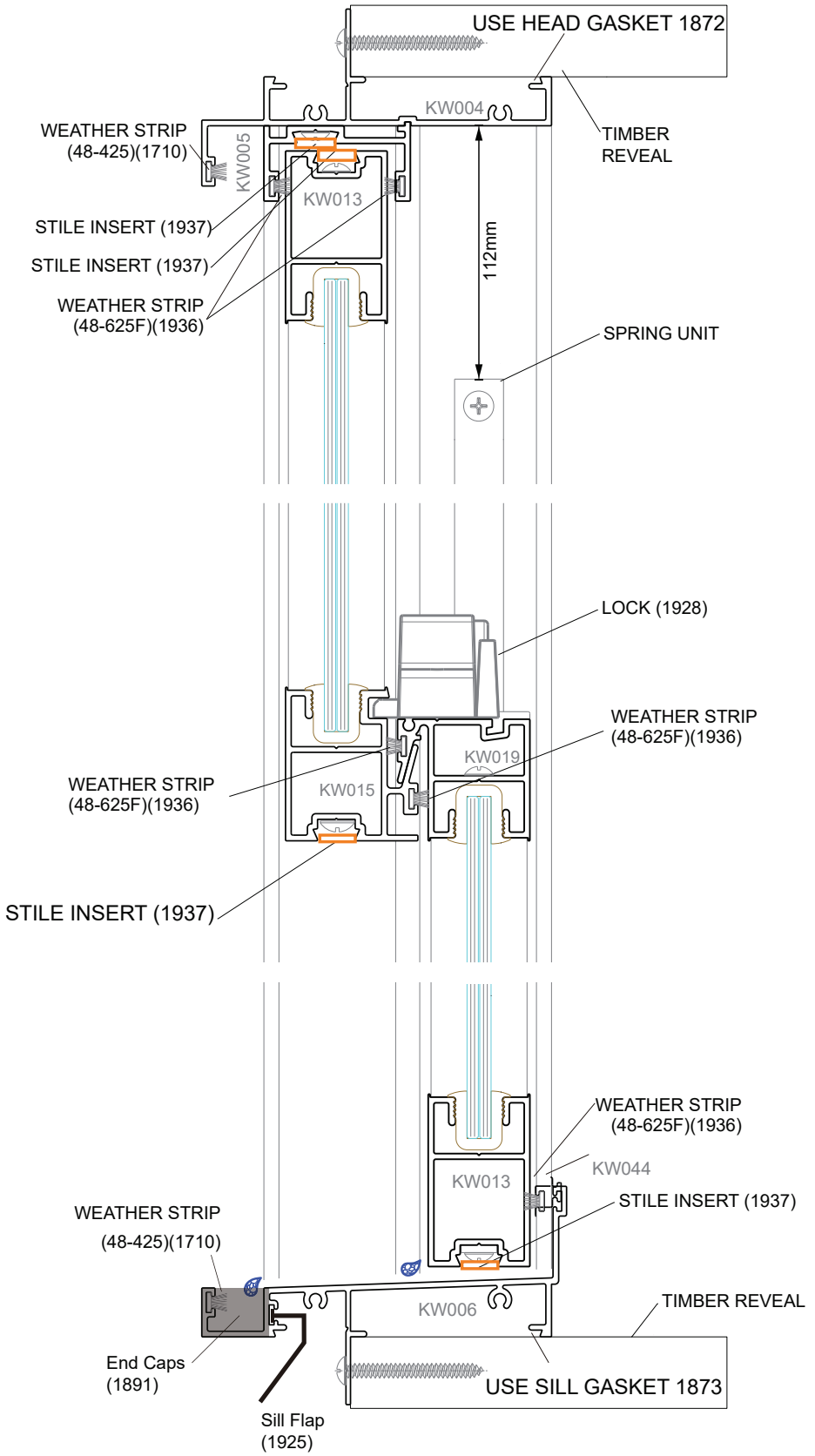
* Please refer to Notching Details before Assembly

Double Glazed Panel Assembly



* Please refer to Notching Details before Assembly

Spring and Small Parts Assembly



Head Detail 1

Spring Position

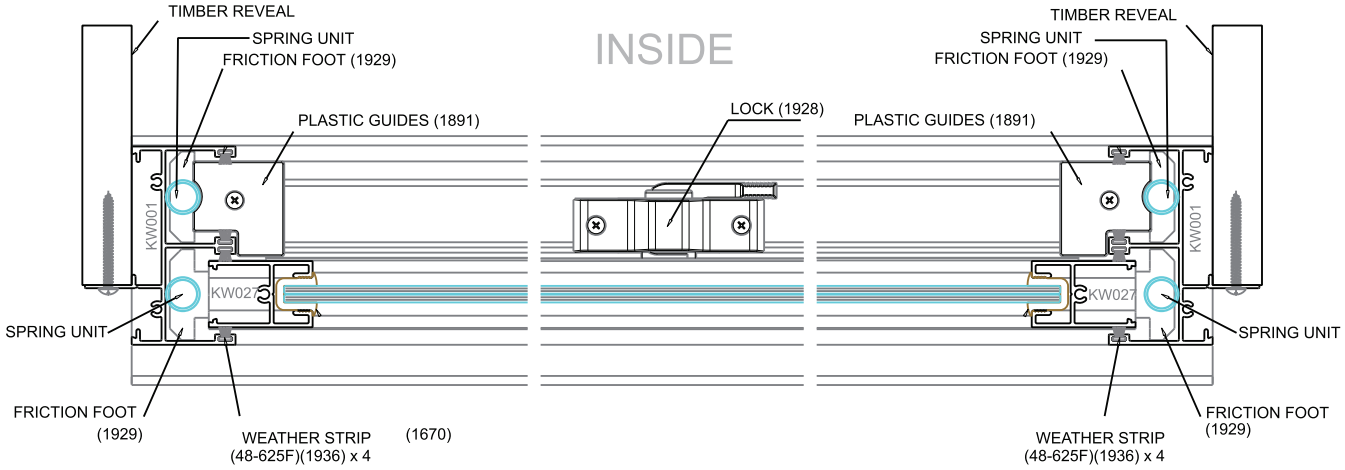
- Top Spring = 18mm from head

- Bottom Spring = 112mm from head

Interlock Detail 1M

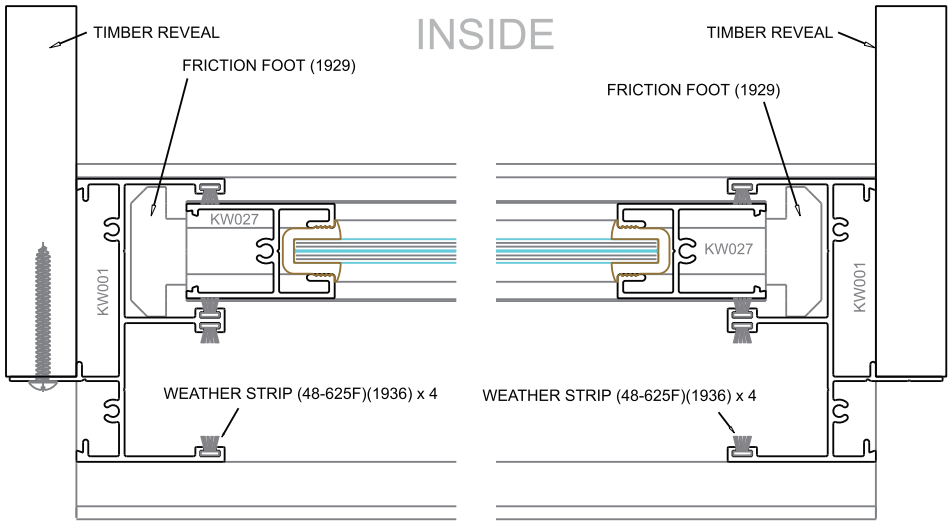
Sill Detail 2

Spring and Small Parts Assembly



3 Jamb Detail

4 Jamb Detail



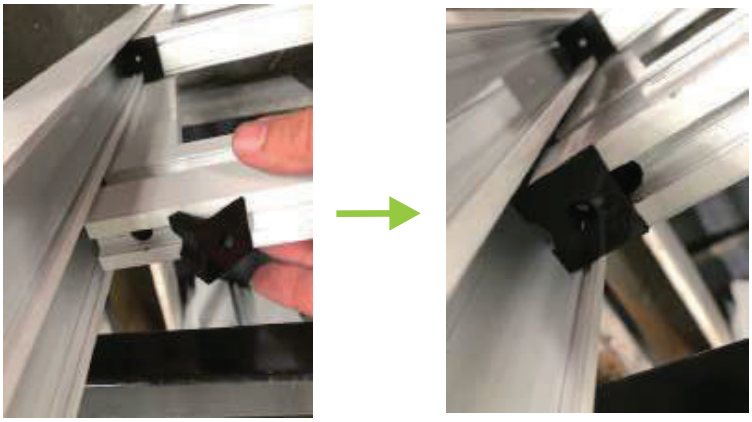
6 Jamb Detail

7 Jamb Detail

Lock and Small Parts Assembly

TOP SASH GUIDE

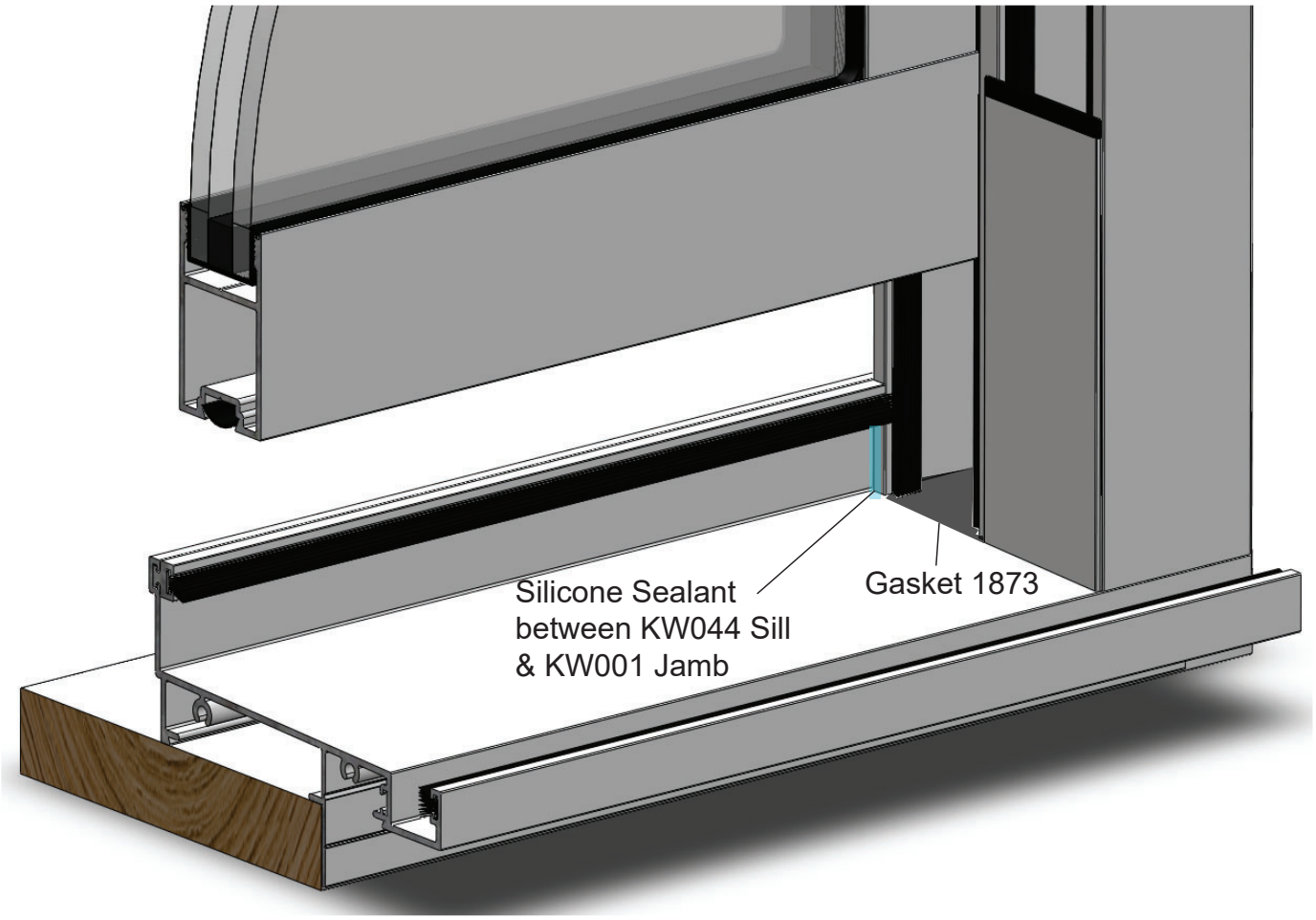
BOTTOM SASH GUIDE



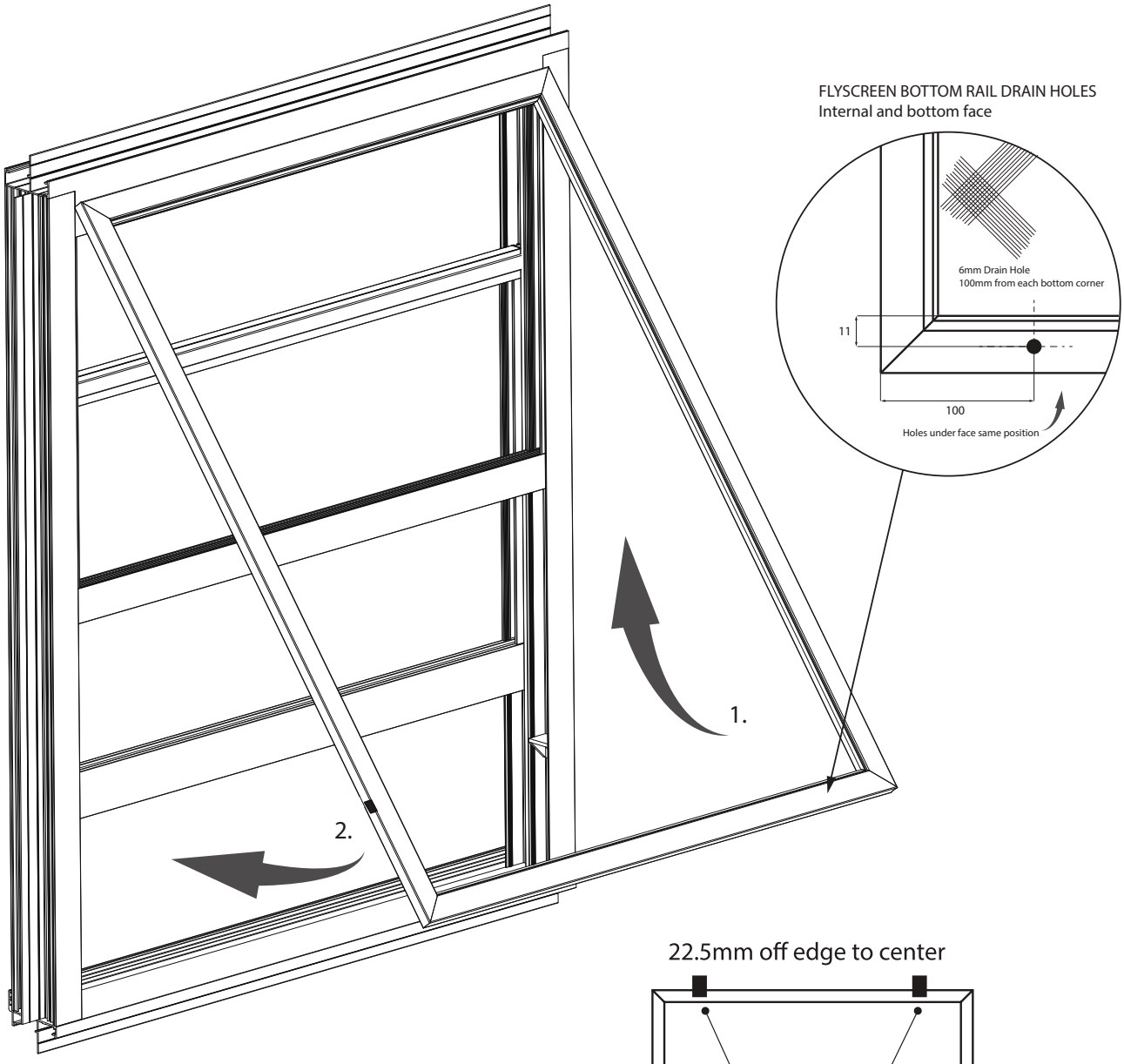
NOTE

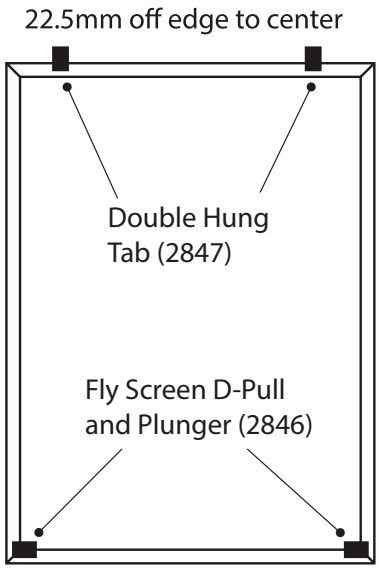
1. Mount plastic caps after inserting sash
2. It is recommended to pre-drill plastic locating screw holes prior to inserting sash

Sill to Jamb Sealing Detail



Fly Screen Assembly





11mm from side edge,
31mm up to center of tab

Spring and Friction Foot Assembly

Friction Foot 1929 Assembly

1. Screw springs into jamb
(see page 29 for spring placement)

2. Replace spring plastic wrings with long cord or string for easier access

3. Install sash(es) into frame

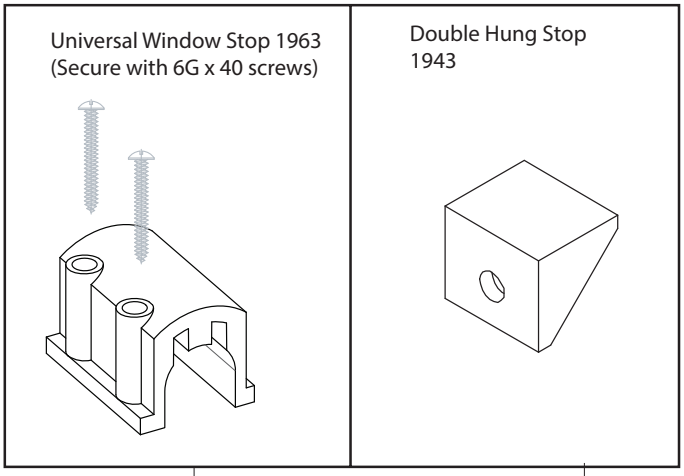
4. Fit friction foot onto end of spring after removing cord and slide up into the side of the sash

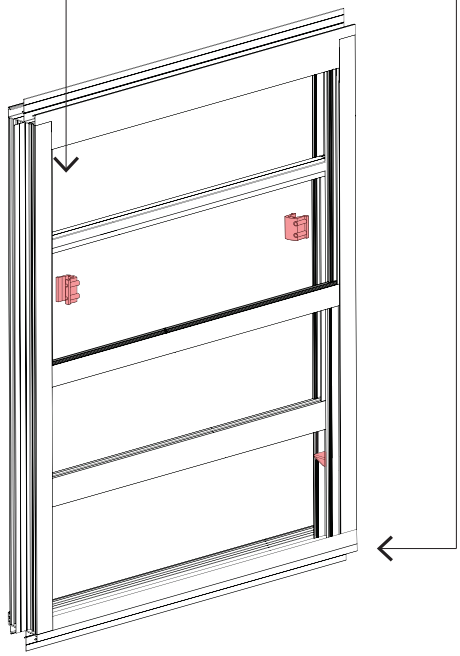
5. Screw/pop-rivet friction feet onto bottom of sash

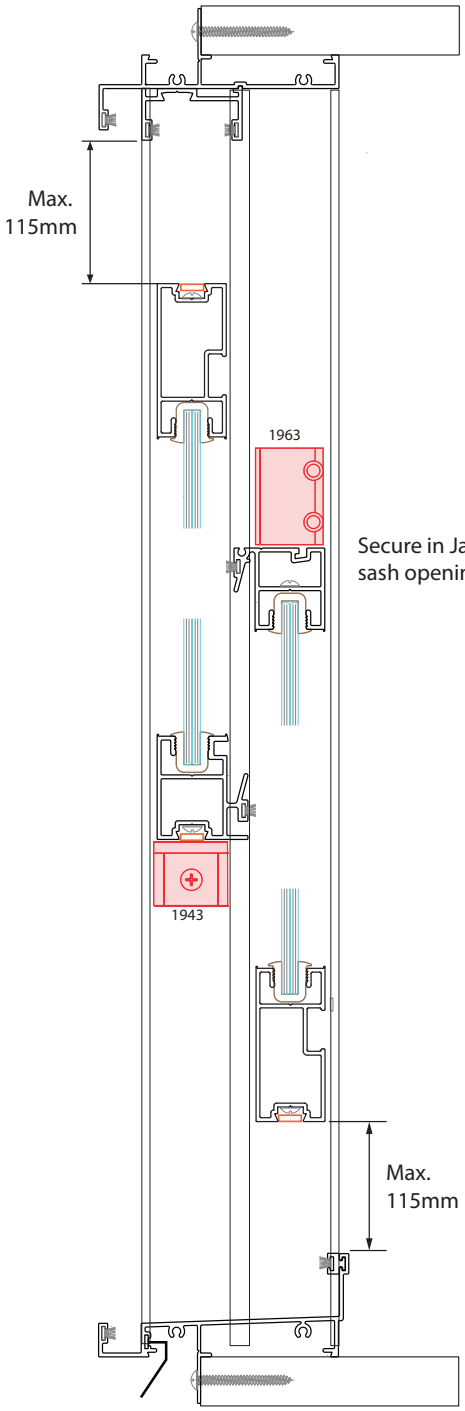
6. Push in stile insert

Fall Prevention Assembly

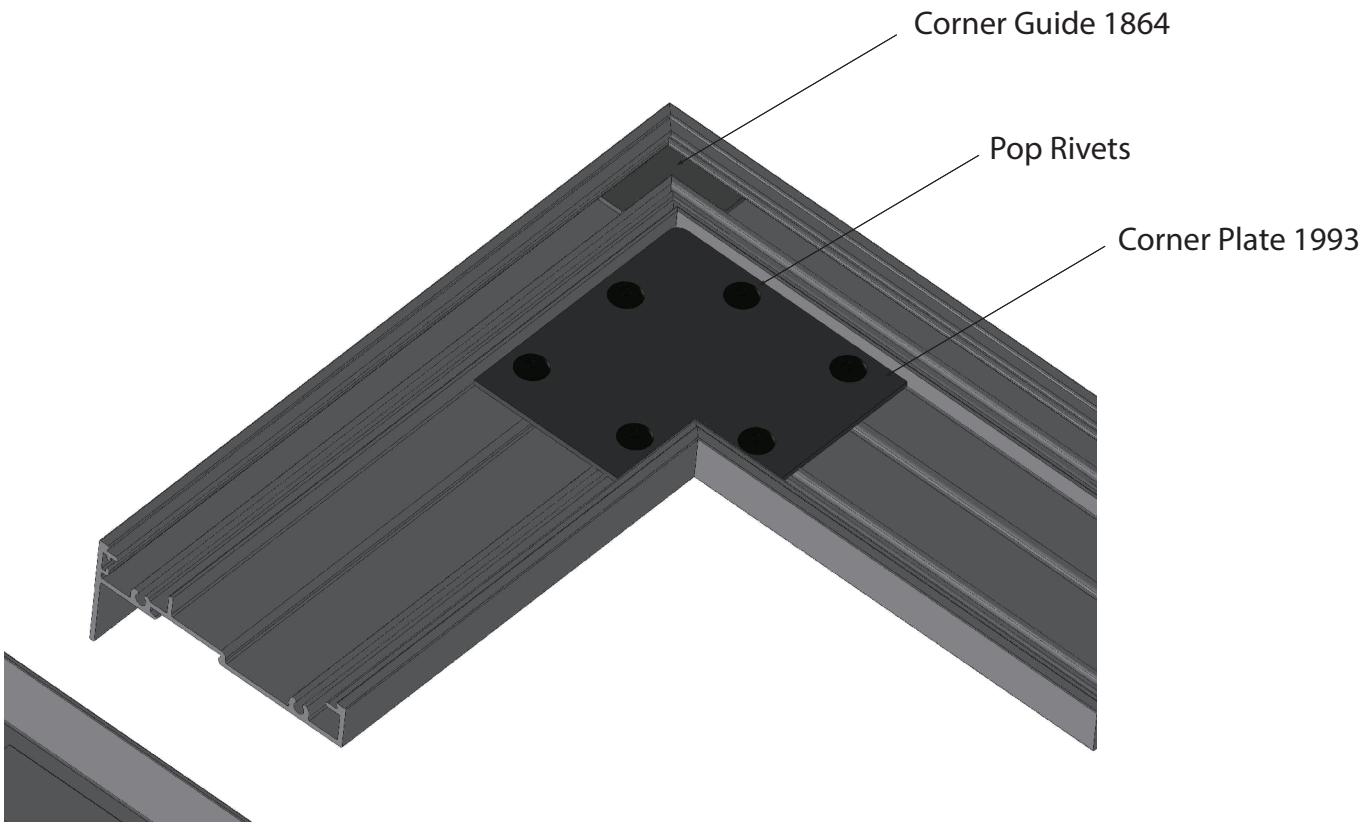
**NOTE : If Top Sash opening locates within fall prevention height zone on wall, please also restrict Top Sash to 115mm using the same block and fixings as the Bottom Sash, or adjust height of block 1943 **



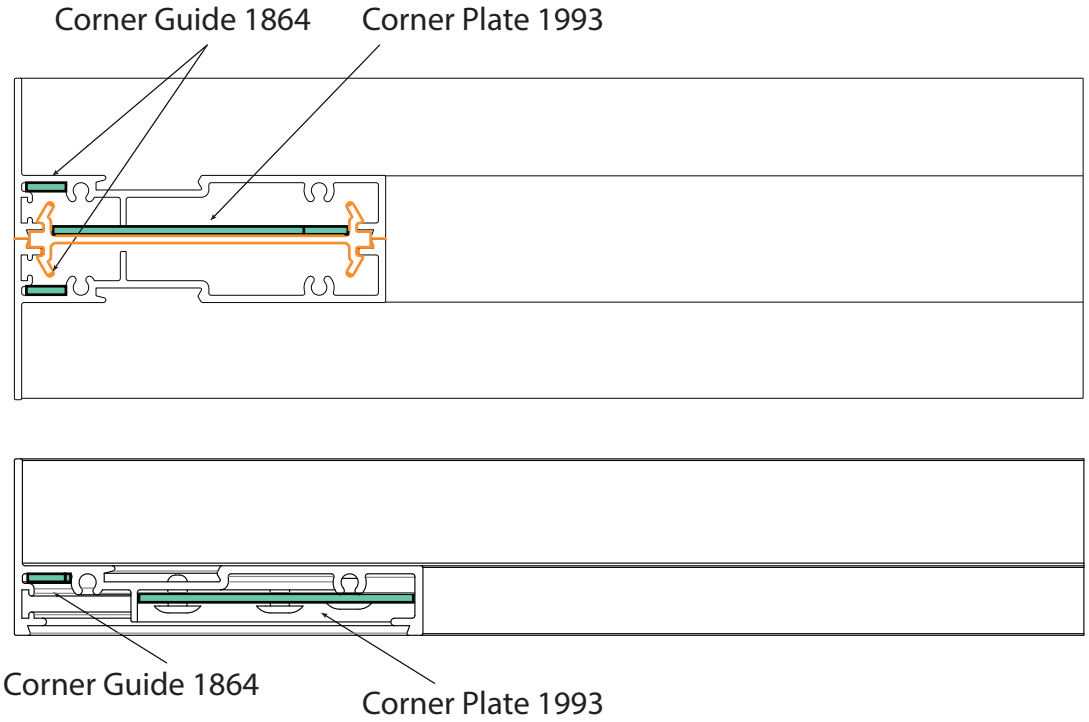




Fixed Frame Corner Assembly



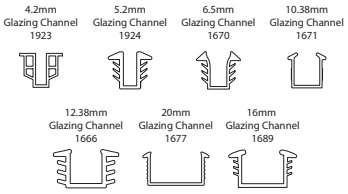
Transom



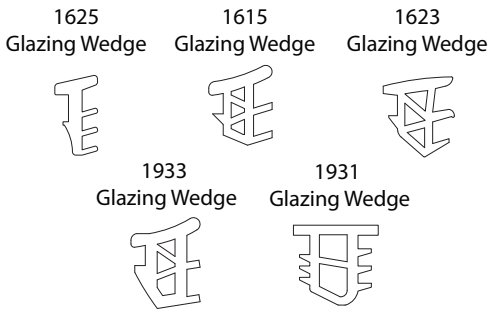
Glazing

Glass & Rubber Combinations

KV 76mm DOUBLE HUNG WINDOW		
Glass Thickness	**Channel Rubber Required**	**Pocket Size**
4mm	1923	12.5mm
5mm	1924	
6mm	1670	
8mm	1604	
10mm	1671	
12mm	1666	21.5mm
16mm	1689	
20mm	1677	



KlassicView 76mm Fixed Framing			
Glass Thickness	**Rubber / Tape Required**	**Bead Required**	**Pocket Size**
4mm	1931 – 1884	KW011	14.5 mm
5mm	1923 – 1884		
6mm	1933 – 1884		
8mm	1615 – 1884		
10mm	1625 – 1884		
12mm	1933 – 1884	KW012	20 mm
16mm	1625 – 1884		
18mm	1931 – 1884	KW057	28.1 mm
20mm	1623 – 1884		



Energy Ratings Definitions

All Darley products have been rated under the Australian Fenestration Ratings Council (AFRC) Energy Rating Scheme.

Definitions

The following are terms used in describing the energy ratings of windows as defined by the Window Energy Rating Scheme (WERS). For further information go to www.wers.net.

U-Value (U_w)

U-Value measures how well a product prevents heat from escaping. It is a measure of the rate of non solar heat loss or gain through a material or assembly. U-Value ratings generally fall between 2.0 - 10.0 W/m^2 for Australian products. The rate of heat is indicated in the terms of the U-Value of a window assembly which includes the effect of the grame, glass, seals and any spacers. The lower the U-value, the greater a window's resistance to heat flow and the better its insulating value. The U-Value for a window takes account for the various U-values for the components making up the window, so you may see these in technical literature:

UW is the value for the whole window and because of it's importance is usually abbreviated to U.
U_c is the value at the centre of glass.
U_f is the value for the frame.

Solar Heat Gain Coefficient ($SHGC_w$)

SHGC measures how well a product blocks heat caused by sunlight. The SHGC is a fraction of incident solar radiation admitted through a window, both directly transmitted, and absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.

Visible Transmittance (T_{vw})

Visible transmittance measures how much light comes in through a product. It is an optical property that indicates the amount of visible light transmitted. T_{vw} is expressed as a number between 0 and 1. The higher the number, the more light is transmitted.

Energy Ratings: Single Glazed

Window ID	Glazing	Uw	SHGC
DAR-035-01	10.38CPClr	4.7	0.51
DAR-035-02	6.38CPClr	4.7	0.55
DAR-035-03	10.38CPGy	4.7	0.38
DAR-035-04	10.38ClrLam	6.2	0.59
DAR-035-05	10.38GyLam	6.2	0.47
DAR-035-06	10.38EVGy	4.8	0.32
DAR-035-07	10.38EVSpGn	4.7	0.32
DAR-035-08	10.38VLamSpGn	6.2	0.41
DAR-035-09	6.38ClrLam	6.3	0.65
DAR-035-10	6.38CPGy	4.7	0.4
DAR-035-11	6.38CPNtl	4.8	0.41
DAR-035-12	6.38CPGn	4.7	0.41
DAR-035-13	6.38TransLam	6.3	0.33
DAR-035-14	6.38GyLam	6.3	0.49
DAR-035-15	6EVGy	4.9	0.33
DAR-035-16	6AzTS21	5.7	0.24
DAR-035-17	6EVBlGn	4.9	0.37
DAR-035-18	6EVSpGn	4.9	0.3
DAR-035-19	6EVClr	4.9	0.51
DAR-035-20	6ET	4.7	0.56
DAR-035-21	6.38SnClr	5.1	0.47
DAR-035-22	6.38SnGy	5.1	0.35
DAR-035-23	6SnClr	5.1	0.48
DAR-035-24	5Clr	6.4	0.66
DAR-035-25	5Gy	6.4	0.49
DAR-035-26	5SpGy	6.4	0.31
DAR-035-27	4Clr	6.4	0.68
DAR-035-28	4Gy	6.4	0.53
DAR-035-29	4SnClr	5.2	0.49

KEY
Gy = Grey, Ntl = Neutral, Gn = Green, Clr = Clear, B = Blue, Bz = Bronze, Lam = Laminate, ComPls = Comfort Plus, SolT - SolTech, Sp = Super, ET = Energy Tech, EVan = Evantage, AZT = Solar Cool Azuria, Sngy = Sunergy.

NOTES

1. U is the whole window U-Value
2. SHGC is the whole window solar heat gain coefficient
3. Tvw is the whole window visible light transmittance
4. Percentage improvement figures are compared with using base-case Generic Window 1 (3mm clear in standard aluminium frame)
5. A negative percentage improvement figure indicates performance worse than the base-case window
6. A positive percentage improvement figure indicates performane better than the base-case window
7. Maximum air infiltration is 5.0 L/s.m^2 at a positive pressure difference of 75Pa as measured according to AS 2047
8. Static performance (U, SHFC, Tvw, Tdw) Calculated using Window 5.2 and Therm 5.2 software (LBNL), 2000-2003
9. Annual energy performance (stars and % improvements) calculated using Nationwide House Energy Rating Software (AccuRate)
10. Results disclosed at National fenestration Rating Council (NFRC) regulations

Energy Ratings: Double Glazed

Window ID	Glazing	Uw	SHGC
DAR-036-01	6.38CPGy/6/4Clr	3.9	0.36
DAR-036-02	6.38CP/6/4Clr	3.9	0.37
DAR-036-03	6.38CPClr/6/4Clr	3.9	0.49
DAR-036-04	6TS21/6/4Clr	4.2	0.2
DAR-036-05	6TS21/6/4ET	3.9	0.18
DAR-036-06	6EVGy/6/4Clr	4	0.29
DAR-036-07	6SGrn/6/4Clr	4.4	0.34
DAR-036-08	5Clr/6/5Clr	4.4	0.57
DAR-036-09	4Sn/8/4Clr	3.9	0.43
DAR-036-10	4SpGn/8/4ET	3.7	0.34
DAR-036-11	4Clr/8/4Clr	4.2	0.6
DAR-036-12	4Clr/8/4ET	3.7	0.56
DAR-036-13	4FGI Mat/ 8Ar / 6FGI OE Prv	3.3	0.5
DAR-036-14	4FGI Env Clr / 8Ar / 4FGI OE Clr	3.3	0.49
DAR-036-15	4FGI Env Gy / 8Ar / 4FGI OE Gy	3.3	0.35

KEY
Gy = Grey, Ntl = Neutral, Gn = Green, Clr = Clear, B = Blue, Bz = Bronze, Lam = Laminate, ComPls = Comfort Plus, SolT - SolTech, Sp = Super, ET = Energy Tech, EVan = Evantage, AZT = Solar Cool Azuria, Sngy = Sunergy.

NOTES

1. U is the whole window U-Value
2. SHGC is the whole window solar heat gain coefficient
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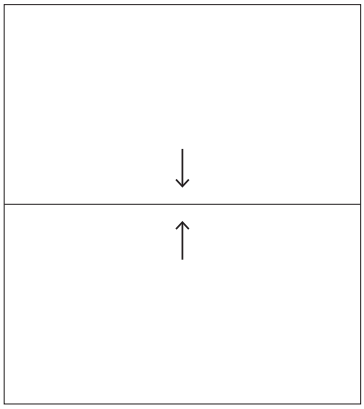
10. Results disclosed at National fenestration Rating Council (NFRC) regulations

Test Results

Structural Test Report

LABORATORY TEST RESULTS: KlassicView 76mm Double Hung Window

The following data was obtained from the results of the tests on the KlassicView 76mm Double Hung Window as performed in the Azuma Testing Laboratory (NATA Accredited).



Test Report No. : AZT0148.13
Date: 25/06/2013
Test Size: 1500mm H x 900mm W
Jamb Type: KW004
Subsill Used: No

Test: Deflection Test
Results: The test unit satisfied the requirement of AS 2047.1 in both positive and negative deflection at the nominated design pressure of 1300 Pa.

Test: Air Infiltration Test
Results: The test unit satisfied the requirements of AS 2047.1. The unit passed 75Pa and 150Pa air pressure in the sealed and unsealed states. Results were as follows:

- 0.00 L/s.m^2 @75Pa Positive
- 0.32 L/s.m^2 @75Pa Negative
- 0.00 L/s.m^2 @150Pa Positive
- 0.63 L/s.m^2 @150Pa Negative

Test: Operating Force
Results: The test unit satisfied the requirement of AS 2047.
For Sash 1:
• Opening force was initiated at 112N and sustained at 78N.
• Closing force was initiated at 26N and sustained at 34N.
For Sash 2:
• Opening force was initiated at 68N and sustained at 64N.
• Closing force was initiated at 72N and sustained at 70N.

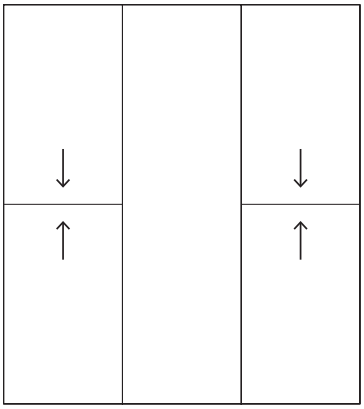
Test: Water Penetration
Results: The test unit satisfied the requirement of AS 2047 in positive pressure at the maximum pressure of 250Pa.

Test: Ultimate Strength Test
Results: The test unit satisfied the requirement of AS 2047 at the maximum pressure of 2800Pa Positive and Negative.

Structural Test Report

LABORATORY TEST RESULTS: KlassicView 76mm Double Hung Window

The following data was obtained from the results of the tests on the KlassicView 76mm Double Hung Window as performed in the Azuma Testing Laboratory (NATA Accredited).



Test Report No. : AZT0492.19
Date: 18/10/2019
Test Size: 1500mm H x 2000mm W
Jamb Type: KW001
Subsill Used: No

Test: Deflection Test
Results: The test unit satisfied the requirement of AS 2047.1 in both positive and negative deflection at the nominated design pressure of 2000 Pa.

Test: Air Infiltration Test
Results: The test unit satisfied the requirements of AS 2047.1. The unit passed 75Pa air pressure in the sealed and unsealed states. Results were as follows:

- 2.62 L/s.m^2 @75Pa Positive
- 1.81 L/s.m^2 @75Pa Negative

Test: Operating Force
Results: The test unit satisfied the requirement of AS 2047.
For Sash 1:
• Opening force was initiated at 20N and sustained at 10N.
• Closing force was initiated at 40N and sustained at 20N.
For Sash 2:
• Opening force was initiated at 30N and sustained at 40N.
• Closing force was initiated at 25N and sustained at 25N.

Test: Water Penetration
Results: The test unit satisfied the requirement of AS 2047 in positive pressure at the maximum pressure of 200Pa.

Test: Ultimate Strength Test
Results: The test unit satisfied the requirement of AS 2047 at the maximum pressure of 4500Pa Positive and 4000Pa Negative.

Acoustic Test Report

Acoustic Performance

LABORATORY TEST RESULTS:

Estimated Rw value of 35 based on results of a similar system; see results below

Test Report No. : TL666-03-1
Date: 01/05/2019
Glass Type: 10.52 VLam Hush
Acoustic Rating: 35Rw

Test Report No. : TL-666-04-1
Date: 01/05/2019
Glass Type: 4 clr / 8 air / 8.52 VLam Hush
Acoustic Rating: 36Rw

BAL Compliance

BAL Fire Rating

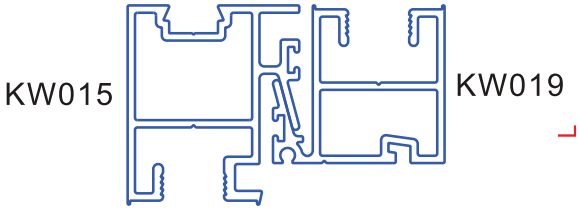
Bushfire attack levels achievable with “Deemed to Satisfy” checklist.

Bushfire Attack Level	Description of Predicted Bushfire Attack and Levels of Exposure	
BAL-Low	There is insufficient risk to warrant specific construction requirements	✓
BAL-12.5	Ember attack.	✓
BAL-19	Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing heat flux between 12.5 and 19 kWm2.	✓
BAL-29	Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing heat flux between 19 and 29 kWm2.	×
BAL-40	Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing heat flux and the increased likelihood of exposure to flames.	×
BAL-FZ	Direct exposure to flames from fire front in addition to heat flux and ember attack.	×

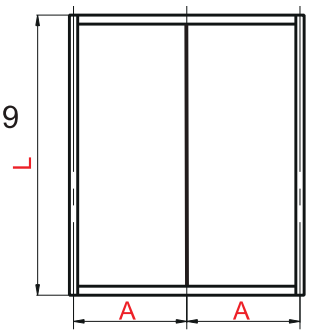
	BAL-12.5	BAL-19	BAL-29	BAL-40
FRAME	Low-level framing must be manufactured from either: • **Metal**, or • Bushfire resistant timber or • Timber species with a density greater than 650 kg/m3 or • Metal reinforced uPVC.	Low-level framing must be manufactured from either: • **Metal**, or • Bushfire resistant timber or • Timber species with a density greater than 650 kg/m3 or • Metal reinforced uPVC.	Low-level framing must be manufactured from either: • **Metal**, or • Bushfire resistant timber or • Metal reinforced uPVC.	All framing must be **metal**.
GLAZING	Low-level glazing must be Grade A safety glass with a minimum thickness of 4 mm.	Low-level glazing must be Grade A safety glass with a minimum thickness of 5 mm. In all other locations where annealed glass is used, it must be protected by an external screen (see screen requirements).	All glazing must be toughened glass with a minimum thickness of 5 mm. Low-level glazing must be protected by an external screen (see screen requirements).	All glazing must be toughened glass with a minimum thickness of 6 mm. All glazing must be protected by an external screen (see screen requirements).
SCREENS	Openable portions of windows must be screened either internally or externally. Mesh or perforated sheet with a maximum aperture of 2mm manufactured from either: - **Corrosion resistant steel (Screenguard)**, or - Bronze, or - **Aluminium (Perfguard).** Supporting frame must be manufactured from either: • Metal (including aluminium), or • Bushfire resistant timber or • Timber species with a density greater than 650 kg/m3.	Openable portions of windows must be screened either internally or externally. Mesh or perforated sheet with a maximum aperture of 2mm manufactured from either: - **Corrosion resistant steel (Screenguard)**, or - Bronze, or - **Aluminium (Perfguard).** Supporting frame must be manufactured from either: • Metal (including aluminium), or • Bushfire resistant timber or • Timber species with a density greater than 650 kg/m3. Where annealed glass is used, it must be protected by an external screen.	Openable portions of windows must be screened either internally or externally. Mesh or perforated sheet with a maximum aperture of 2mm manufactured from either: - **Corrosion resistant steel (Screenguard)**, or - Bronze, or - **Aluminium (Perfguard).** Supporting frame must be manufactured from either: • Metal (including aluminium), or • Bushfire resistant timber. Low-level glazing must be protected by an external screen. Screen assemblies must be attached using metal fixings.	Fixed and openable portions of windows must be screened either internally or externally. Mesh or perforated sheet with a maximum aperture of 2 mm manufactured from either: **- Corrosion resistant steel (Screenguard)**, or - Bronze. Aluminium mesh or perforated sheet cannot be used. Supporting frame must be manufactured from metal (including aluminium). Screen assemblies must be attached using metal fixings.
SEALS	N/A	N/A	N/A	Seals must be manufactured from **silicone** or have a flammability index less than 5.
HARDWARE	N/A	N/A	Externally fitted hardware that supports the sash in its functions of opening and closing must be metal unless shielded by metal frame components.	Externally fitted hardware that supports the sash in its functions of opening and closing, must be metal.

Strength Charts

Interlock Strength Chart: KW015 + KW019



Y_{max} = 18.4 mm I_{yy} = 79.6 mm^4



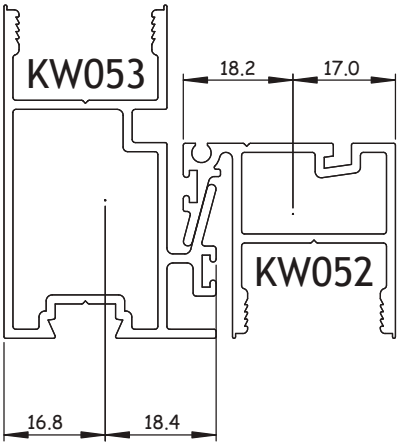
S = Serviceability limit state (defection = L/150, L/180, L/250)
U = Ultimate strength limit state (factored yield strength =110 mPa)

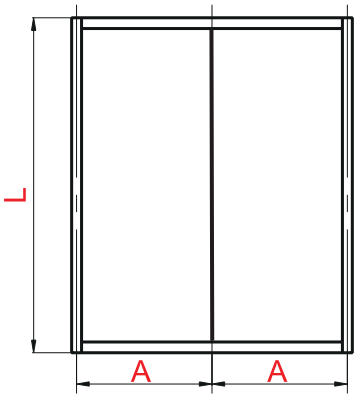
These tables have been calculated using nominal section properties.
A typical assembly has been tested as per the requirements of As2047.

Serviceability rating has been limited to 5000 Pa and Ultimate strength rating has been limited to 8000 Pa.

Mullion/Transom Pressure Ratings (Pa): Symmetrical Panels									
DARLEY ALUMINIUM	1/250 Serviceability	Ultimate	Limitations: Serviceability to 5000Pa and Ultimate to 8000Pa						
	Panel Width (mm) (A)								
Window Height (mm) (L)	700	800	900	1000	1100	1200	1300	1400	1500
900	5000	5000	5000	5000	5000	5000	5000	5000	5000
	8000	7975	7833	7987	8000	8000	8000	8000	8000
1000	4109	3847	3702	3656	3656	3656	3656	3656	3656
	6500	6049	5794	5710	5800	6101	6706	7844	8000
1100	2974	2748	2604	2523	2497	2497	2497	2497	2497
	5196	4775	4500	4343	4290	4346	4528	4885	5517
1200	2227	2039	1910	1826	1779	1763	1763	1763	1763
	4260	3879	3615	3440	3338	3305	3340	3457	3678
1300	1715	1559	1448	1370	1319	1290	1280	1280	1280
	3562	3223	2979	2806	2690	2622	2599	2623	2700
1400	1350	1220	1126	1058	1009	977	958	952	952
	3027	2724	2503	2340	2223	2144	2097	2081	2097
1500	1083	974	895	835	791	760	739	726	722
	2606	2337	2136	1986	1974	1792	1736	1703	1692
1600	882	791	723	672	633	604	583	569	561
	2269	2028	1847	1710	1605	1525	1467	1426	1402

Interlock Strength Chart: KW053 + KW052





S = Serviceability limit state (defection = L/150, L/180, L/250)
U = Ultimate strength limit state (factored yield strength =110 mPa)

These tables have been calculated using nominal section properties.
A typical assembly has been tested as per the requirements of As2047.

Serviceability rating has been limited to 5000 Pa and Ultimate strength rating has been limited to 8000 Pa.

KW053
Iyy = 48.89 x 10^3 mm^4
x max = 18.4 mm

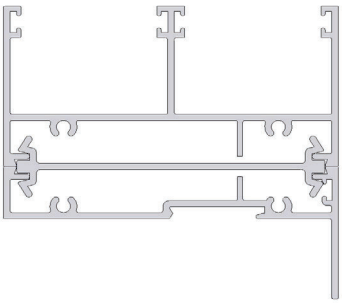
KW052
Iyy = 34.98 x 10^3 mm^4
x max = 18.2 mm

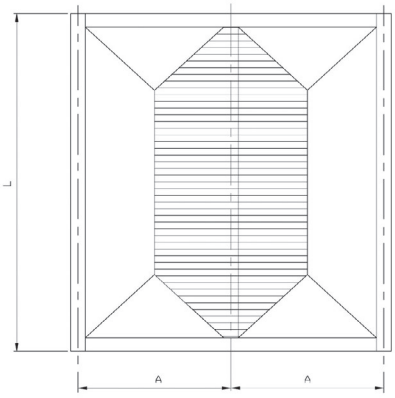
Total Ixx = 83.87 x 10^3 mm^4
Total y max = 18.4 mm

Mullion Pressure Ratings (Pa): Symmetrical Panels

Darley Aluminium			Serviceability 1/250	Ultimate U			Limitations: Serviceability to 5000Pa & Ultimate to 8000Pa			KW052-KW053
	Panel Width (mm) (A)									
Window Height (mm) (L)	800	900	1000	1100	1200	1300	1400	1500	1600	Serviceability
900	4287	4234	4234	4234	4234	4234	4234	4234	4234	250
	8000	8000	8000	8000	8000	8000	8000	8000	8000	U
1000	2923	2806	2778	2778	2778	2778	2778	2778	2778	250
	6374	6105	6017	6017	6017	6017	6017	6017	6017	U
1100	2070	1962	1913	1897	1897	1897	1897	1897	1897	250
	5031	4741	4575	4520	4520	4520	4520	4520	4520	U
1200	1522	1443	1378	1349	1340	1340	1340	1340	1340	250
	4087	3809	3625	3518	3482	3482	3482	3482	3482	U
1300	1153	1085	1038	996	978	973	973	973	973	250
	3395	3139	2957	2834	2763	2739	2739	2739	2739	U
1400	923	837	795	766	738	727	723	723	723	250
	2871	2637	2466	2343	2259	2209	2193	2193	2193	U
1500	731	680	624	597	577	559	551	549	549	250
	2462	2251	2093	1975	1888	1829	1794	1783	1783	U
1600	589	546	498	474	457	439	431	426	424	250
	2137	1946	1801	1691	1607	1545	1503	1477	1469	U
1700	481	445	417	384	368	356	343	337	334	250
	1873	1701	1569	1466	1387	1326	1281	1250	1231	U
1800	399	368	343	315	301	290	281	272	268	250
	1657	1501	1380	1285	1211	1153	1108	1074	1050	U
1900	334	307	286	270	249	239	231	225	219	250
	1476	1334	1224	1137	1068	1013	969	935	909	U
2000	298	259	241	227	215	200	193	187	183	250
	1324	1195	1094	1014	950	898	856	823	797	U
2100	254	221	205	192	182	169	162	157	153	250
	1195	1077	984	910	851	802	763	731	705	U
2200	219	190	176	165	156	148	138	133	129	250
	1084	975	890	822	767	721	684	654	629	U
2300	190	173	152	142	134	128	118	114	111	250
	988	888	809	746	695	653	618	589	565	U
2400	166	151	132	123	116	110	106	98	95	250
	904	812	739	681	633	594	561	534	511	U
2500	145	132	122	108	102	96	92	88	83	250
	831	745	678	624	579	543	512	486	465	U
2600	128	117	108	95	89	84	80	77	72	250
	766	687	624	574	532	498	469	445	424	U
2700	114	103	95	84	79	74	71	68	65	250
	709	635	577	530	491	459	432	409	389	U
2800	101	92	85	79	70	66	63	60	58	250
	657	589	534	490	454	424	399	377	359	U

Transom Strength Chart: KW001 + KW010 + KW034



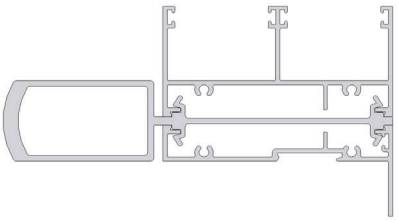


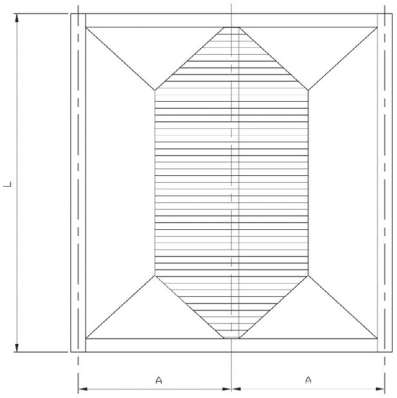
I - moment of inertia	570
y - max depth of section from N axis	44.1
E- Modulus	69
Ultimate stress	110
Z - Section modulus	12.9

Mullion/Transom Pressure Ratings (Pa): Symmetrical Panels

Darley Aluminium	Serviceability =1/150	Serviceability =1/180	Serviceability =1/250	Ultimate = U			Limitations: Serviceability to 5000Pa & Ultimate to 8000Pa			Double Hung/Double Hung
	Panel Width (mm) (A)									
Window Height (mm) (L)	400	500	600	700	800	900	1000	1100	1200	Serviceability
1500	5000	5000	5000	5000	4654	4255	3956	3733	3570	150
	5000	5000	5000	5000	4654	4255	3956	3733	3570	180
	5000	5000	5000	5000	4654	4255	3956	3733	3570	250
	8000	8000	8000	7787	6981	6383	5934	5599	5355	U
1600	5000	5000	5000	4520	4039	3679	3405	3196	3038	150
	5000	5000	5000	4520	4039	3679	3405	3196	3038	180
	5000	5000	5000	4390	4001	3679	3386	3196	3038	250
	8000	8000	7769	6780	6059	5519	5108	4794	4557	U
1700	5000	5000	4562	3973	3541	3216	2966	2772	2622	150
	5000	5000	4562	3973	3541	3216	2966	2772	2622	180
	5000	4951	4273	3600	3271	3024	2835	2608	2499	250
	8000	8000	6844	5959	5312	4824	4449	4158	3933	U
1800	5000	4804	4051	3521	3132	2837	2609	2430	2289	150
	5000	4804	4051	3521	3132	2837	2609	2430	2289	180
	5000	4131	3557	3154	2710	2498	2334	2140	2044	250
	8000	7206	6076	5281	4697	4255	3913	3645	3434	U
1900	5000	4300	3621	3143	2791	2523	2314	2150	2019	150
	5000	4300	3621	3143	2791	2523	2314	2150	2019	180
	4225	3483	2993	2648	2270	2087	1945	1834	1693	250
	7995	6450	5432	4714	4186	3784	3471	3225	3028	U
2000	4803	3872	3257	2823	2503	2259	2068	1917	1795	150
	4803	3872	3257	2823	2503	2259	2068	1917	1795	180
	3856	2964	2542	2245	2026	1762	1639	1541	1463	250
	7205	5808	4886	4235	3755	3388	3102	2875	2693	U
2100	4351	3505	2946	2551	2259	2035	1860	1720	1608	150
	4351	3505	2946	2551	2259	2035	1860	1720	1608	180
	3313	2543	2178	1920	1729	1501	1393	1308	1239	250
	6527	5258	4419	3826	3388	3053	2790	2581	2412	U
2200	3960	3188	2678	2316	2049	1844	1683	1554	1449	150
	3960	3053	2611	2299	2049	1791	1660	1554	1449	180
	2868	2198	1880	1655	1488	1290	1195	1119	1058	250
	5941	4782	4016	3474	3073	2765	2524	2331	2174	U
2300	3620	2913	2444	2113	1867	1678	1530	1411	1314	150
	3471	2657	2269	1995	1792	1636	1434	1341	1265	180
	2499	1913	1634	1436	1290	1178	1033	966	911	250
	5430	4369	3667	3169	2801	2518	2295	2116	1971	U
2400	3322	2672	2241	1936	1709	1535	1397	1287	1197	150
	3043	2327	1985	1743	1563	1425	1248	1165	1098	180
	2191	1675	1429	1255	1126	1026	898	839	790	250
	4983	4007	3361	2903	2563	2302	2096	1930	1795	U

Transom Strength Chart: KW001 + KW010 + KW035



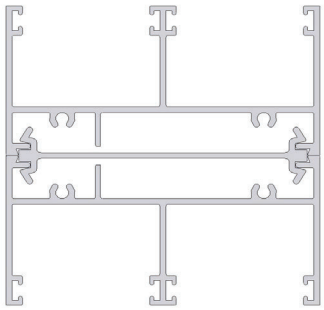


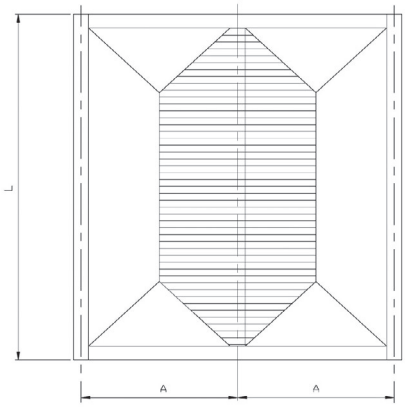
I - moment of inertia	1466.04
y - max depth of section from N axis	80
E- Modulus	69
Ultimate stress	110
Z - Section modulus	18.3

Mullion/Transom Pressure Ratings (Pa): Symmetrical Panels

Darley Aluminium	Serviceability =1/150	Serviceability =1/180	Serviceability =1/250	Ultimate = U			Limitations: Serviceability to 5000Pa & Ultimate to 8000Pa			Double Hung/Double Hung (Heavy Duty)
	Panel Width (mm) (A)									
Window Height (mm) (L)	400	500	600	700	800	900	1000	1100	1200	Serviceability
1500	5000	5000	5000	5000	5000	5000	5000	5000	5000	150
	5000	5000	5000	5000	5000	5000	5000	5000	5000	180
	5000	5000	5000	5000	5000	5000	5000	5000	5000	250
	8000	8000	8000	8000	8000	8000	8000	7939	7592	U
1600	5000	5000	5000	5000	5000	5000	4828	4532	4307	150
	5000	5000	5000	5000	5000	5000	4828	4532	4307	180
	5000	5000	5000	5000	5000	5000	4828	4532	4307	250
	8000	8000	8000	8000	8000	7825	7242	6798	6461	U
1700	5000	5000	5000	5000	5000	4559	4205	3930	3717	150
	5000	5000	5000	5000	5000	4559	4205	3930	3717	180
	5000	5000	5000	5000	5000	4559	4205	3930	3717	250
	8000	8000	8000	8000	7531	6839	6308	5896	5576	U
1800	5000	5000	5000	4992	4440	4022	3699	3445	3246	150
	5000	5000	5000	4992	4440	4022	3699	3445	3246	180
	5000	5000	5000	4992	4440	4022	3699	3445	3246	250
	8000	8000	8000	7488	6660	6033	5548	5168	4869	U
1900	5000	5000	5000	4456	3956	3577	3281	3048	2862	150
	5000	5000	5000	4456	3956	3577	3281	3048	2862	180
	5000	5000	5000	4456	3956	3577	3281	3048	2862	250
	8000	8000	7701	6684	5935	5365	4922	4572	4294	U
2000	5000	5000	4618	4003	3549	3203	2932	2717	2545	150
	5000	5000	4618	4003	3549	3203	2932	2717	2545	180
	5000	5000	4618	4003	3549	3203	2932	2717	2545	250
	8000	8000	6927	6005	5323	4804	4398	4076	3818	U
2100	5000	4970	4177	3617	3202	2885	2637	2439	2280	150
	5000	4970	4177	3617	3202	2885	2637	2439	2280	180
	5000	4970	4177	3617	3202	2885	2637	2439	2280	250
	8000	7454	6265	5425	4803	4328	3956	3659	3420	U
2200	5000	4520	3796	3284	2905	2614	2386	2203	2055	150
	5000	4520	3796	3284	2905	2614	2386	2203	2055	180
	5000	4520	3796	3284	2905	2614	2386	2203	2055	250
	8000	6781	5694	4926	4357	3921	3578	3304	3082	U
2300	5000	4130	3466	2996	2647	2380	2169	2000	1863	150
	5000	4130	3466	2996	2647	2380	2169	2000	1863	180
	5000	4130	3466	2996	2647	2380	2169	2000	1863	250
	7699	6195	5199	4494	3971	3569	3253	3000	2794	U
2400	4710	3788	3177	2744	2423	2176	1981	1825	1697	150
	4710	3788	3177	2744	2423	2176	1981	1825	1697	180
	4710	3788	3177	2744	2423	2176	1981	1825	1697	250
	7065	5682	4765	4116	3634	3264	2972	2737	2545	U

Transom Strength Chart: KW001 x 2 + KW034



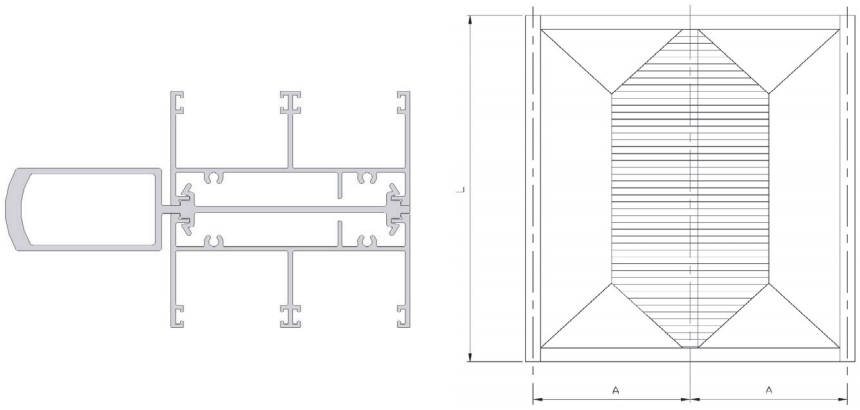


I - moment of inertia	666.46
y - max depth of section from N axis	38.7
E- Modulus	69
Ultimate stress	110
Z - Section modulus	17.2

Mullion/Transom Pressure Ratings (Pa): Symmetrical Panels

Darley Aluminium	Serviceability =1/150	Serviceability =1/180	Serviceability =1/250	Ultimate = U			Limitations: Serviceability to 5000Pa & Ultimate to 8000Pa		Double Hung/Double Hung
	Panel Width (mm) (A)								
Window Height (mm) (L)	400	500	600	700	800	900	1000	1100	1200	Serviceability
1500	5000	5000	5000	5000	5000	5000	5000	4974	4757	150
	5000	5000	5000	5000	5000	5000	5000	4974	4757	180
	5000	5000	5000	5000	5000	5000	4955	4741	4588	250
	8000	8000	8000	8000	8000	8000	7907	7460	7135	U
1600	5000	5000	5000	5000	5000	4902	4537	4259	4048	150
	5000	5000	5000	5000	5000	4902	4537	4259	4048	180
	5000	5000	5000	5000	4678	4339	3959	3770	3629	250
	8000	8000	8000	8000	8000	7353	6806	6388	6072	U
1700	5000	5000	5000	5000	4718	4285	3952	3694	3493	150
	5000	5000	5000	5000	4718	4285	3952	3694	3493	180
	5000	5000	4996	4210	3825	3536	3315	3049	2922	250
	8000	8000	8000	7940	7077	6427	5928	5540	5240	U
1800	5000	5000	5000	4691	4173	3780	3476	3238	3050	150
	5000	5000	5000	4691	4173	3780	3476	3238	3050	180
	5000	4830	4159	3688	3168	2920	2729	2502	2389	250
	8000	8000	8000	7037	6259	5670	5214	4857	4576	U
1900	5000	5000	4825	4188	3718	3361	3083	2864	2690	150
	5000	5000	4825	4188	3686	3361	3083	2864	2690	180
	4941	4072	3500	3096	2654	2440	2275	2145	1980	250
	8000	8000	7237	6281	5577	5041	4625	4296	4035	U
2000	5000	5000	4340	3762	3335	3010	2755	2554	2392	150
	5000	4813	4129	3646	3290	2862	2661	2503	2376	180
	4508	3465	2973	2625	2369	2060	1916	1802	1711	250
	8000	7739	6510	5643	5003	4514	4133	3830	3588	U
2100	5000	4670	3925	3399	3009	2712	2478	2292	2142	150
	5000	4129	3537	3118	2809	2438	2263	2124	2011	180
	3874	2973	2546	2245	2022	1755	1629	1529	1448	250
	8000	7005	5888	5098	4514	4067	3717	3439	3213	U
2200	5000	4248	3567	3086	2730	2456	2242	2070	1931	150
	4657	3570	3053	2687	2417	2095	1941	1818	1718	180
	3353	2570	2198	1935	1740	1508	1397	1309	1237	250
	7915	6372	5351	4629	4094	3685	3363	3105	2897	U
2300	4823	3728	3184	2799	2488	2236	2012	1880	1750	150
	4058	3107	2654	2333	2095	1912	1677	1568	1480	180
	2922	2237	1911	1680	1508	1377	1207	1129	1065	250
	7235	5821	4885	4223	3731	3354	3057	2819	2626	U
2400	4269	3264	2785	2445	2193	2000	1751	1635	1540	150
	3558	2720	2321	2038	1828	1666	1459	1362	1283	180
	2562	1959	1671	1467	1316	1200	1050	981	924	250
	6639	5339	4478	3868	3415	3067	2793	2572	2392	U

Transom Strength Chart: KW001 x 2 + KW035



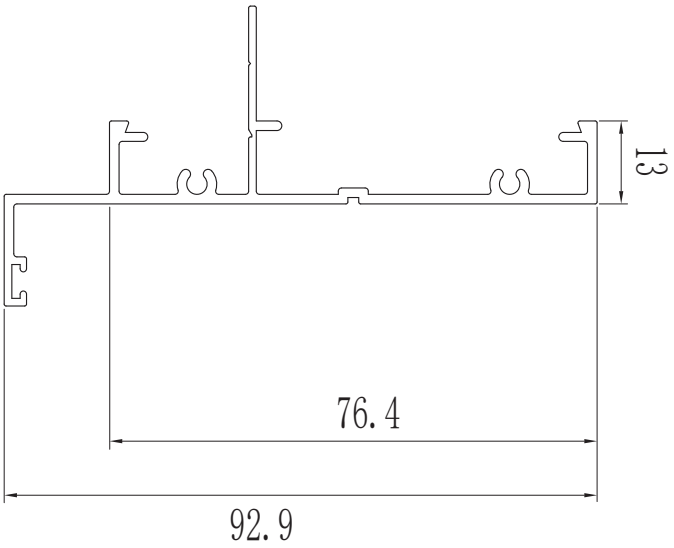
I - moment of inertia	1562.5
y - max depth of section from N axis	80
E- Modulus	69
Ultimate stress	110
Z - Section modulus	19.5

Mullion/Transom Pressure Ratings (Pa): Symmetrical Panels

Darley Aluminium	Serviceability =1/150	Serviceability =1/180	Serviceability =1/250	Ultimate = U			Limitations: Serviceability to 5000Pa & Ultimate to 8000Pa			Double Hung/Double Hung (Heavy Duty)
	Panel Width (mm) (A)									
Window Height (mm) (L)	400	500	600	700	800	900	1000	1100	1200	Serviceability
1500	5000	5000	5000	5000	5000	5000	5000	5000	5000	150
	5000	5000	5000	5000	5000	5000	5000	5000	5000	180
	5000	5000	5000	5000	5000	5000	5000	5000	5000	250
	8000	8000	8000	8000	8000	8000	8000	8000	8000	U
1600	5000	5000	5000	5000	5000	5000	5000	4830	4591	150
	5000	5000	5000	5000	5000	5000	5000	4830	4591	180
	5000	5000	5000	5000	5000	5000	5000	4830	4591	250
	8000	8000	8000	8000	8000	8000	7719	7245	6886	U
1700	5000	5000	5000	5000	5000	4859	4482	4189	3962	150
	5000	5000	5000	5000	5000	4859	4482	4189	3962	180
	5000	5000	5000	5000	5000	4859	4482	4189	3962	250
	8000	8000	8000	8000	8000	7289	6723	6284	5943	U
1800	5000	5000	5000	5000	4732	4287	3942	3672	3460	150
	5000	5000	5000	5000	4732	4287	3942	3672	3460	180
	5000	5000	5000	5000	4732	4287	3942	3672	3460	250
	8000	8000	8000	7981	7098	6430	5913	5508	5189	U
1900	5000	5000	5000	4749	4217	3812	3497	3248	3051	150
	5000	5000	5000	4749	4217	3812	3497	3248	3051	180
	5000	5000	5000	4749	4217	3812	3497	3248	3051	250
	8000	8000	8000	7124	6325	5718	5245	4873	4576	U
2000	5000	5000	4922	4266	3782	3413	3125	2896	2713	150
	5000	5000	4922	4266	3782	3413	3125	2896	2713	180
	5000	5000	4922	4266	3782	3413	3125	2896	2713	250
	8000	8000	7383	6400	5674	5120	4688	4344	4069	U
2100	5000	5000	4452	3855	3413	3075	2811	2600	2430	150
	5000	5000	4452	3855	3413	3075	2811	2600	2430	180
	5000	5000	4452	3855	3413	3075	2811	2600	2430	250
	8000	7945	6677	5782	5119	4613	4216	3900	3645	U
2200	5000	4818	4046	3500	3096	2786	2543	2348	2190	150
	5000	4818	4046	3500	3096	2786	2543	2348	2190	180
	5000	4818	4046	3500	3096	2786	2543	2348	2190	250
	8000	7227	6069	5250	4644	4179	3814	3522	3285	U
2300	5000	4401	3694	3193	2821	2536	2312	2132	1985	150
	5000	4401	3694	3193	2821	2536	2312	2132	1985	180
	5000	4401	3694	3193	2821	2536	2312	2132	1985	250
	8000	6602	5541	4789	4232	3804	3468	3197	2978	U
2400	5000	4037	3386	2925	2582	2319	2111	1945	1808	150
	5000	4037	3386	2925	2582	2319	2111	1945	1808	180
	5000	4037	3386	2925	2582	2319	2111	1945	1808	250
	7530	6055	5079	4387	3873	3479	3167	2917	2713	U

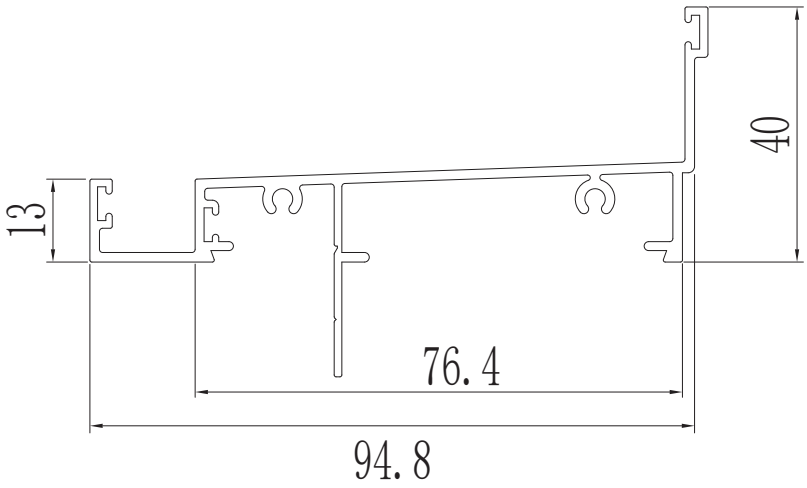
Section Profiles

Mainframe Profiles



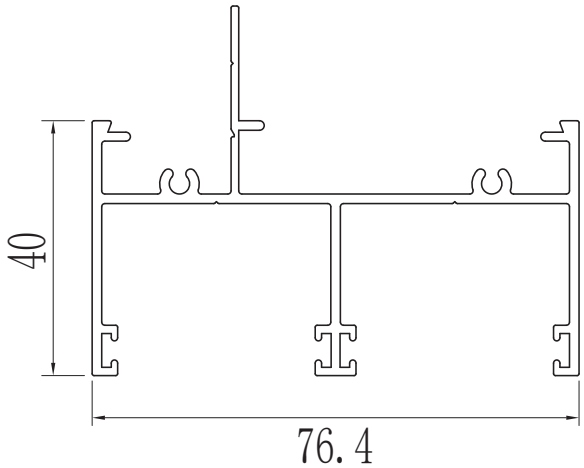
KW004
Double Hung Head

A.P. = 391 mm
P.P. = 184 mm



KW006
Double Hung Sill

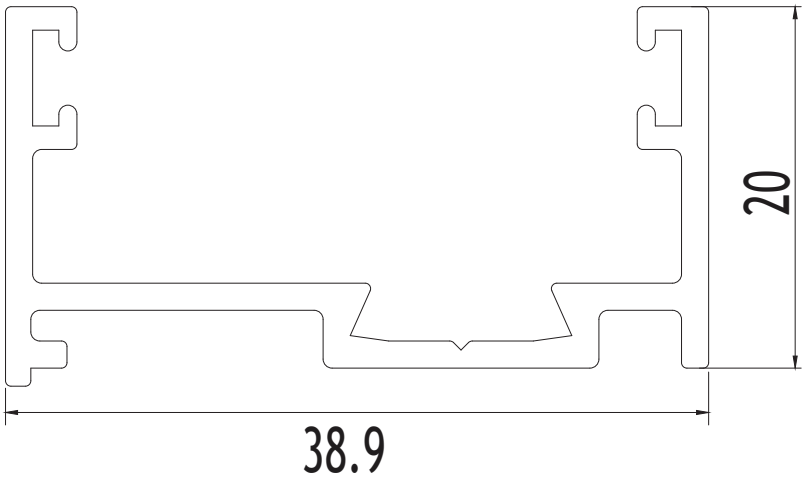
A.P. = 470 mm
P.P. = 241 mm



KW001
Double Hung Jamb

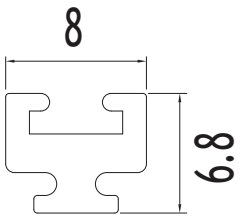
A.P. = 526 mm
P.P. = 322 mm

Mainframe Profiles



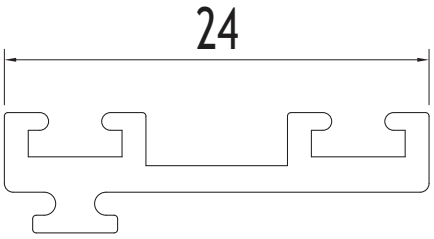
KW005
Double Hung Head
Sash Receiver

A.P. = 199 mm
P.P. = 146 mm



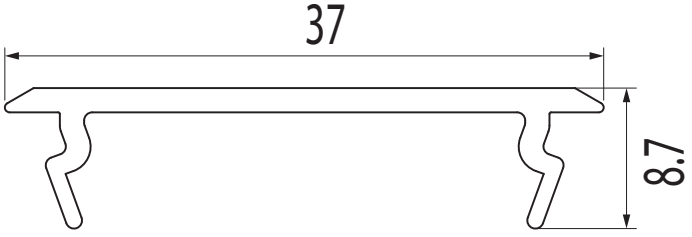
KW044
Double Hung
Single Seal Adaptor

A.P. = 41 mm
P.P. = 100 mm



KW043
Double Hung
Double Seal Adaptor

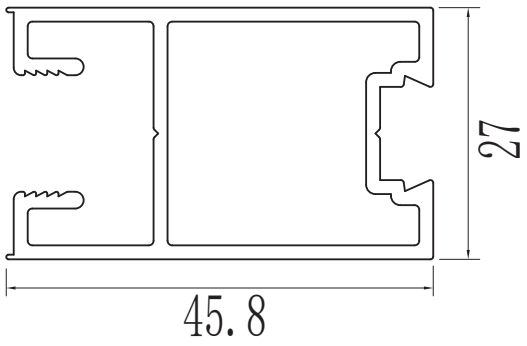
A.P. = 88 mm
P.P. = 100 mm



KW031
Flat Filler

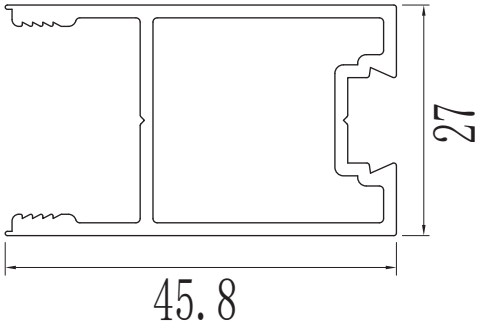
A.P. = 106 mm
P.P. = 100 mm

Panel Profiles



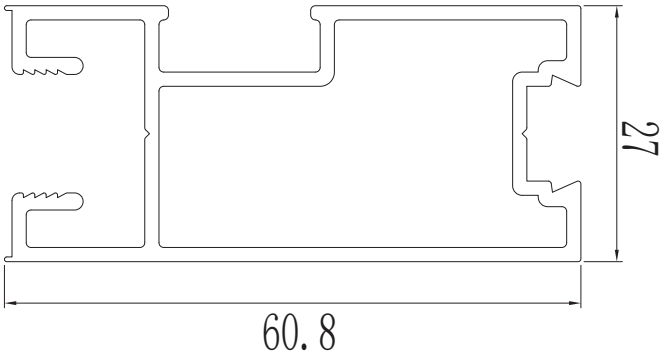
KW013
SG Sash Stile

A.P. = 239 mm
P.P. = 125 mm



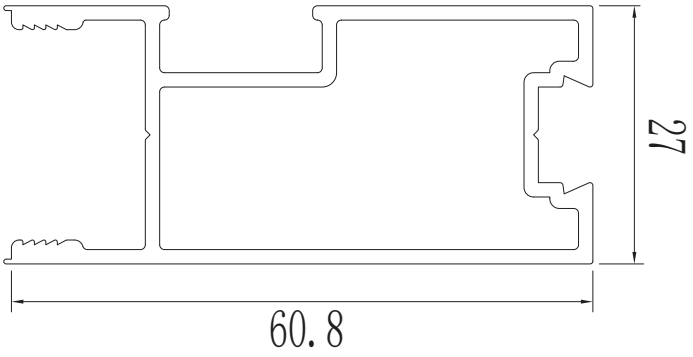
KW054
DG Sash Stile

A.P. = 197 mm
P.P. = 112 mm



KW048
SG Pocket Sash Stile

A.P. = 283 mm
P.P. = 169 mm

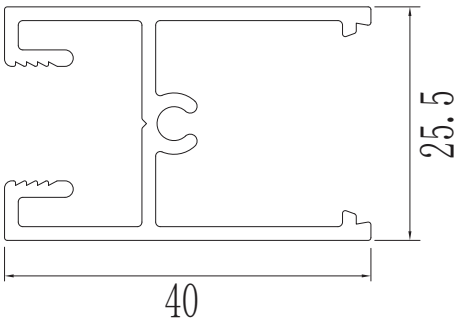


KW058
DG Pocket Sash Stile

A.P. = 243 mm
P.P. = 160 mm

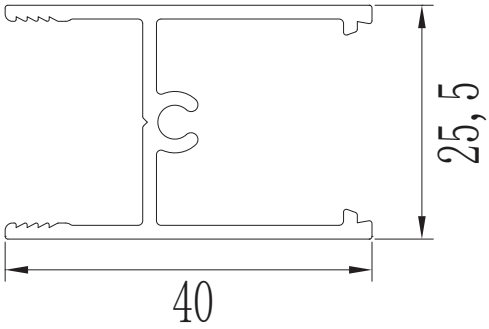
Appendix

Panel Profiles



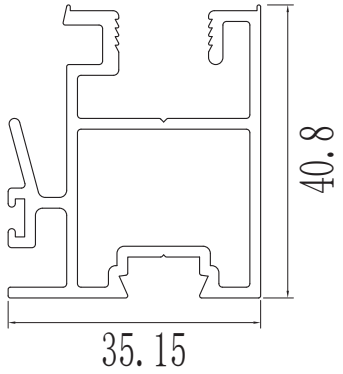
KW027
SG Double Hung Rail

A.P. = 274 mm
P.P. = 100 mm



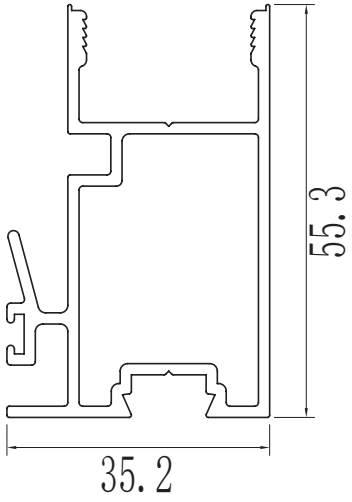
KW055
DG Double Hung Rail

A.P. = 233 mm
P.P. = 100 mm



KW015
SG Interlock Stile

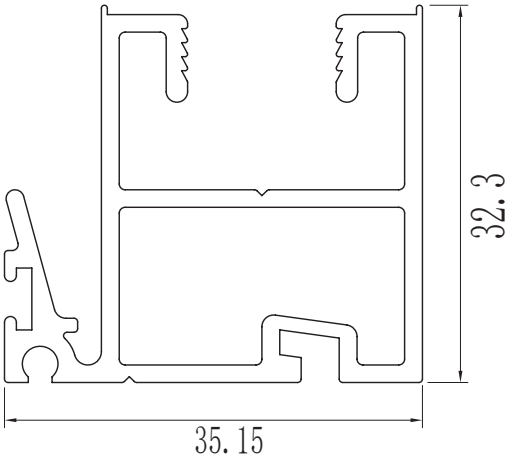
A.P. = 298 mm
P.P. = 197 mm



KW053
DG Interlock Stile

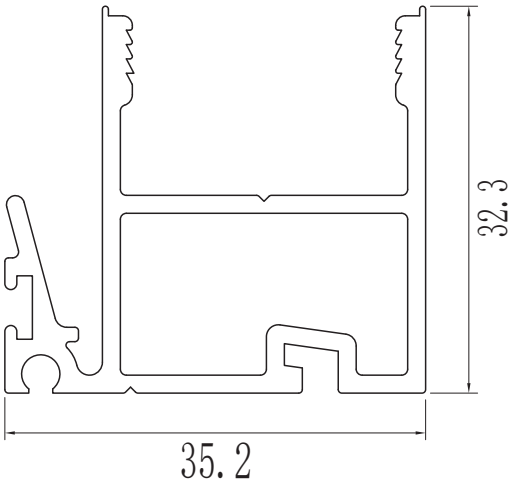
A.P. = 297 mm
P.P. = 214 mm

Panel Profiles



KW019
SG Lock Stile

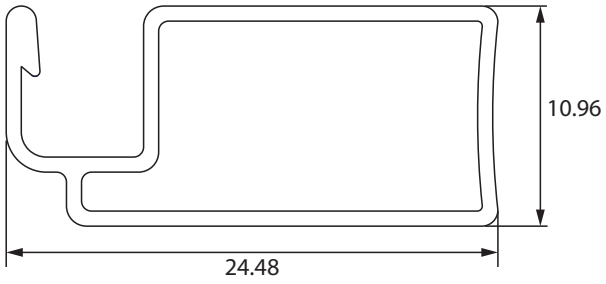
A.P. = 268 mm
P.P. = 177 mm



KW052
DG Lock Stile

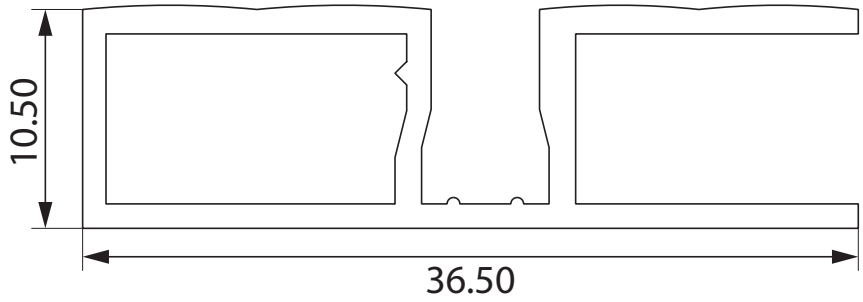
A.P. = 226 mm
P.P. = 150 mm

Flyscreen Profiles



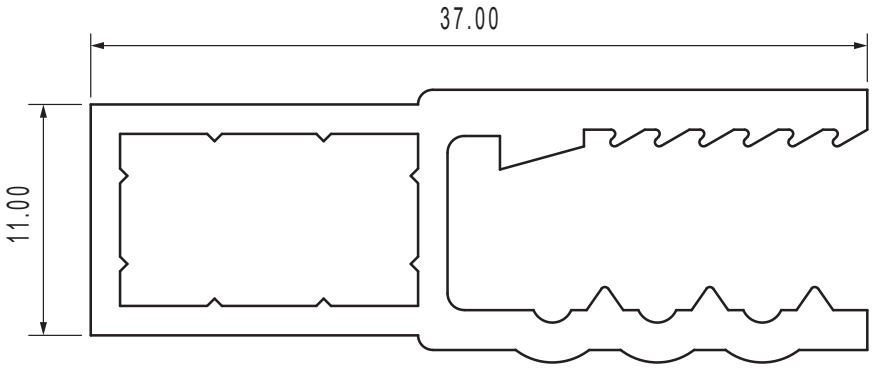
HFF180
11mm Flyscreen

A.P. = 85 mm
P.P. = 100 mm



WF001
Standard Security Flyscreen

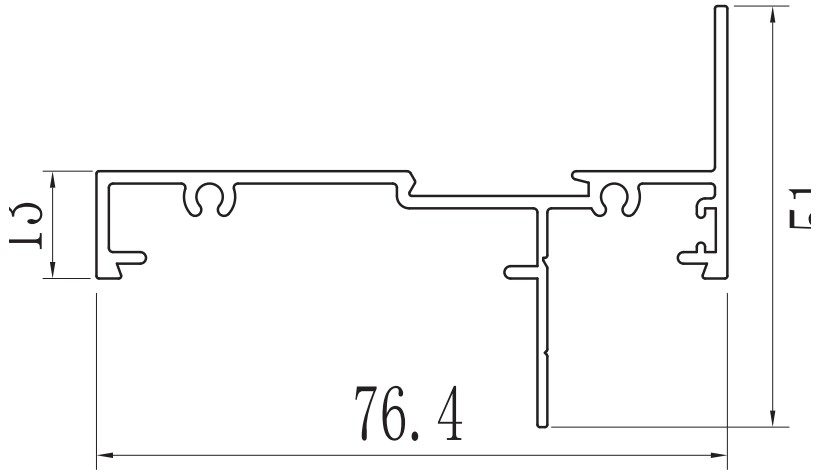
A.P. = 140 mm
P.P. = 100 mm



AU01002
Screenguard Security Screen

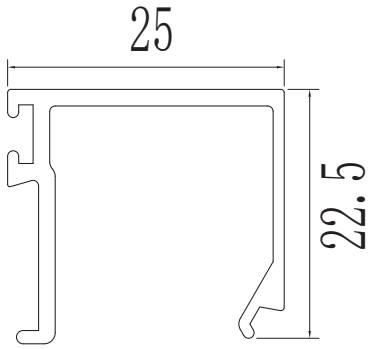
A.P. = 152 mm
P.P. = 100 mm

Additional Profiles



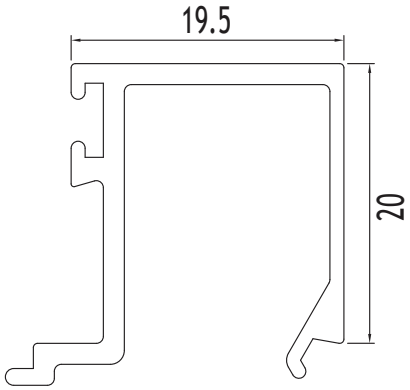
KW010
Fixed Glazing Frame

A.P. = 362 mm
P.P. = 157 mm



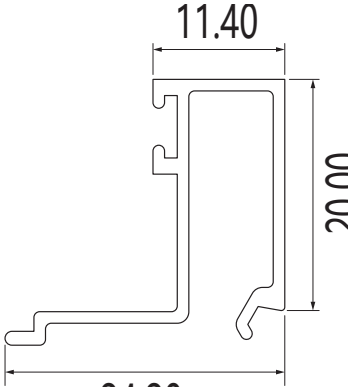
KW011
Fixed Frame Glazing Bead
4mm - 10mm

A.P. = 153 mm
P.P. = 100 mm



KW012
Fixed Frame DG Glazing Bead
12mm - 16mm

A.P. = 150 mm
P.P. = 100 mm

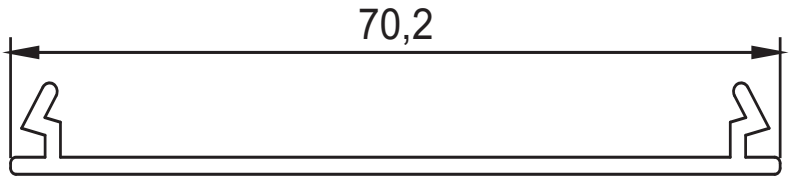


KW057
Fixed Frame DG Glazing Bead
18mm - 20mm

A.P. = 151 mm
P.P. = 100 mm

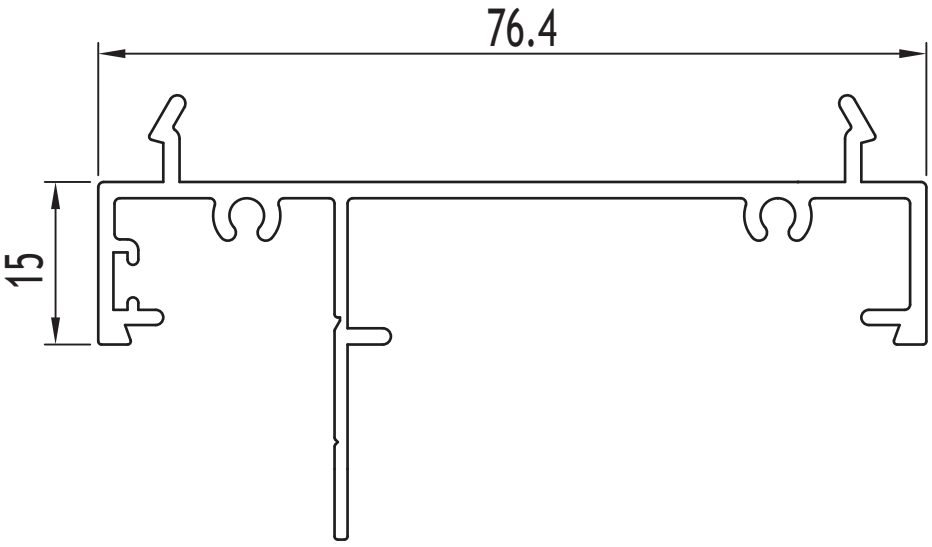
Appendix

Additional Profiles



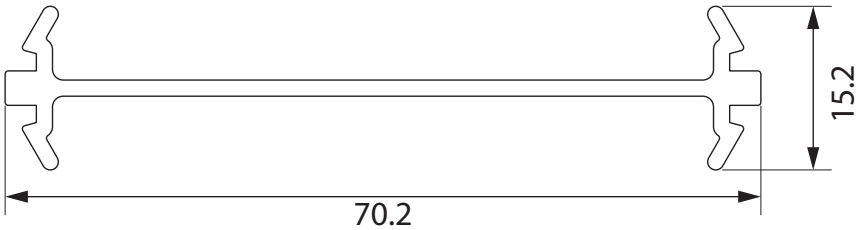
TJ705
Flush Adaptor

A.P. = 169 mm
P.P. = 100 mm



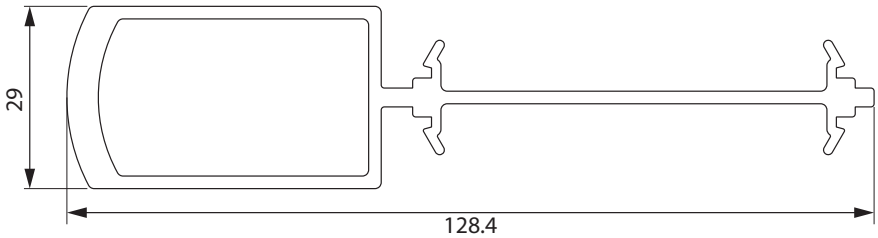
KW045
Frame Extender

A.P. = 366 mm
P.P. = 100 mm



KW034
Frame Joiner

A.P. = 207 mm
P.P. = N/A

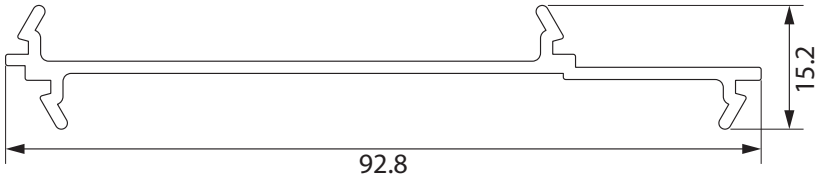


KW035
Heavy Duty Frame Joiner

A.P. = 372 mm
P.P. = 124 mm

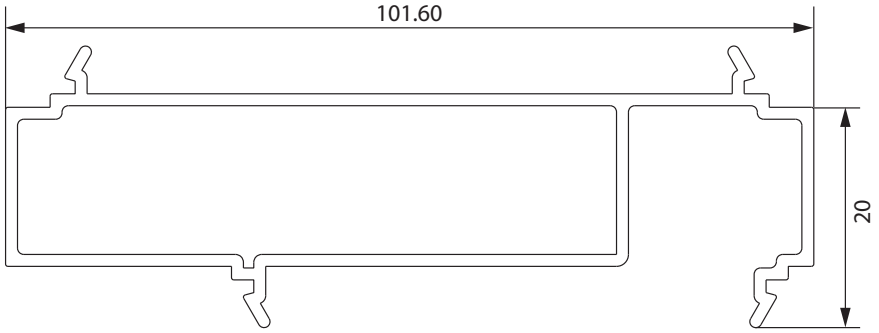
Appendix

Additional Profiles



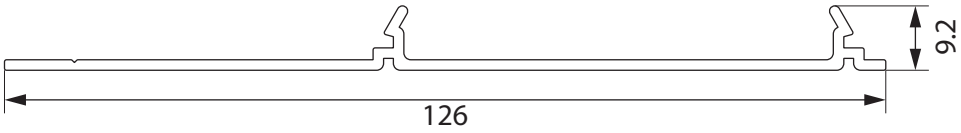
KW039
101.6mm to 76mm
Flat Joiner

A.P. = 246 mm
P.P. = 246 mm



KW040
101.6mm to 76mm
Box Joiner

A.P. = 355 mm
P.P. = 100 mm

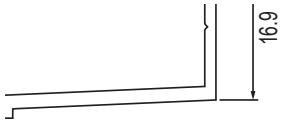


KW041
76mm Fixing Plate

A.P. = 292 mm
P.P. = 100 mm

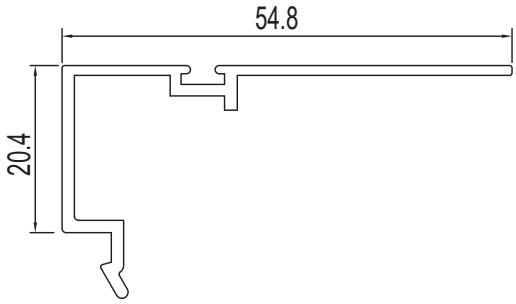
Appendix

Additional Profiles



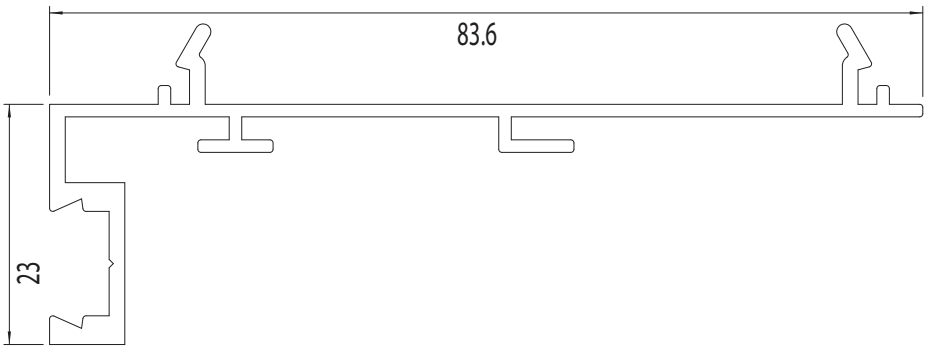
KW069
Drip Mould
(Head Flashing)

A.P. = 105 mm
P.P. = 100 mm



KW063
Inline Reveal Adaptor

A.P. = 196 mm
P.P. = 100 mm

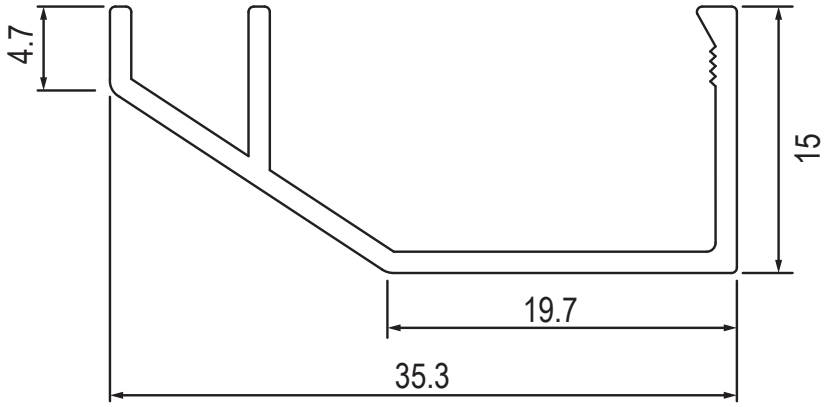


KW068
Concealed
Face Fix Adaptor

I_{xx} = 11.154 x 10^3 mm^4
I_{yy} = 156.072 x 10^3 mm^4

A.P. = 315 mm
P.P. = 100 mm

Additional Profiles

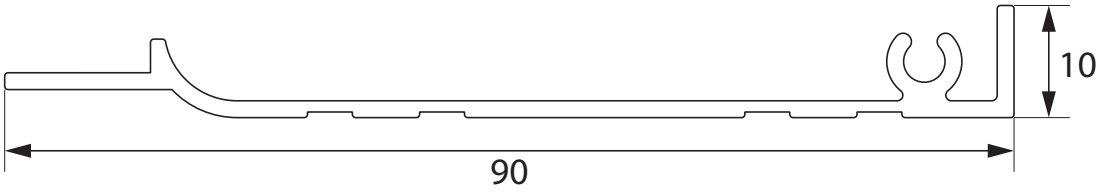


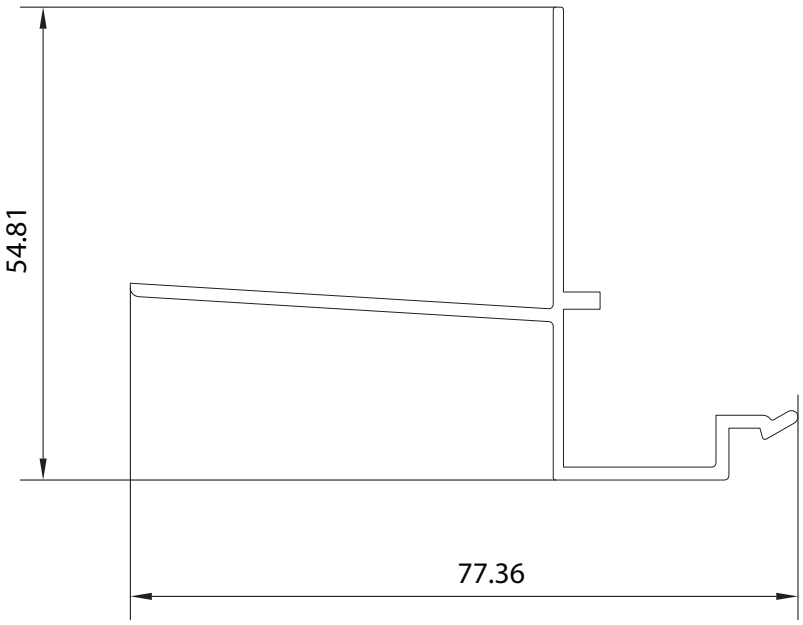
RWM047
Storm Mould

A.P. = 133 mm
P.P. = 100 mm

KW038
90mm Architrave

A.P. = 230 mm
P.P. = 104 mm





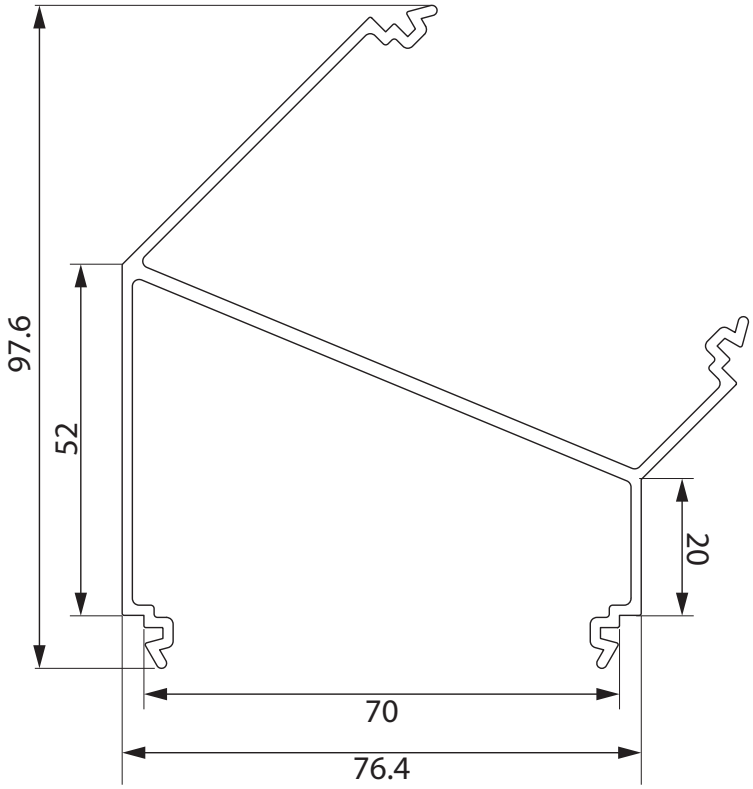
RWM057
Flashing Adapter

I_{xx} = ? x 10^3 mm^4
I_{yy} = ? x 10^3 mm^4

A.P. = 285 mm
P.P. = 174 mm

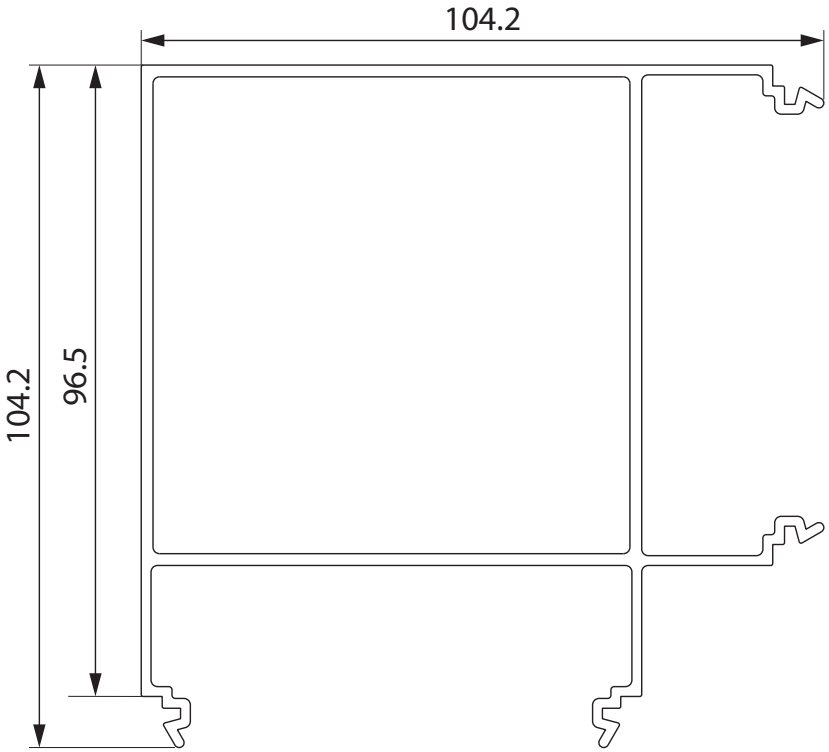
Appendix

Additional Profiles



KW036
45 Degree Corner Post

A.P. = 562 mm
P.P. = 163 mm

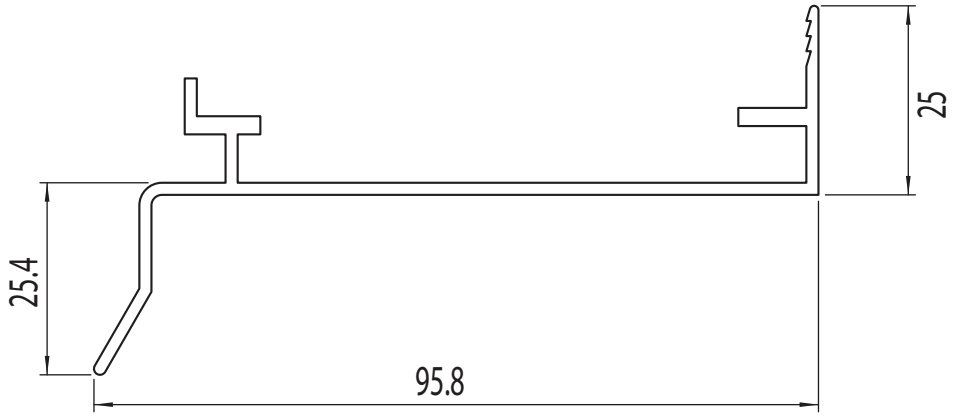


KW037
90 Degree Corner Post

A.P. = 581 mm
P.P. = 253 mm

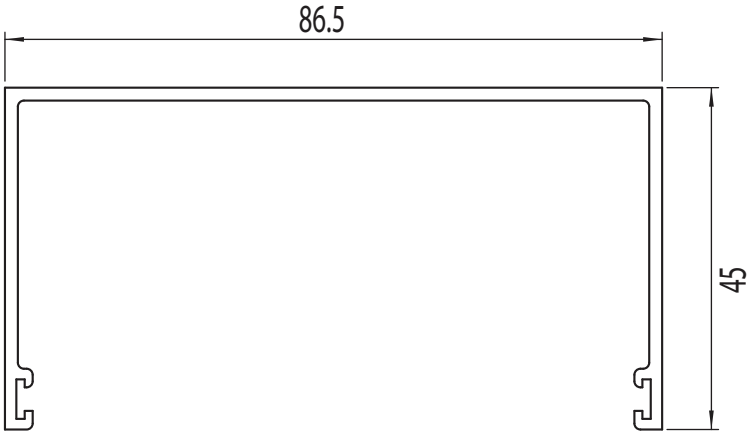
Appendix

Subframing Profiles



TJ759
Subsill

A.P. = 341 mm
P.P. = 100 mm



TJ760
76mm Sub Head 45mm Tall

A.P. = 371 mm
P.P. = 100 mm

Maintenance & Warranty

Maintenance & Warranty

Darley Aluminium

are long standing members of various industry associations including the Australian Glass & Window Association (AGWA) and the Window Energy Rating Scheme (WERS) and as such we conform to an Industry Code of Conduct designed to protect consumers.

Manufacturing Standards;

All aluminium extrusions supplied to by Darley Aluminium have been supplied in accordance with Australian Standard AS1866 - 'Aluminium and Aluminium alloy: Extruded rod, bar, solid and hollow shapes'. All Anodised and Painted Extrusions are as per AS1231 Aluminium and Aluminium Alloys - 'Anodic Oxidation Coatings' and AS3715 - 'Metal Finishing-Thermoset Powder Coatings for Architectural Applications of Aluminium and Aluminium Alloys'.

Product Testing and Compliance;

Darley Aluminium products are tested in NATA accredited independent laboratories to ensure they meet the relevant Australian Standards. Energy ratings can also be found on the Window Energy Rating Scheme (WERS) website:

https://agwa.imiscloud.com/WERS/

Warranty

Darley Aluminium, Door & Framing extrusions are warranted for a period of 6 years as per AS2047 requirements, unless otherwise specified.
Powder coat and anodised finished can be warranted for extended periods subject to application. Warranty is subject to the following conditions:

- The product is installed in accordance with the relevant Building Codes practices and maintained as per the recommended Care & Maintenance.
- The product has not been subject to misuse, physical abuse or neglect.
- Claims under this warranty should be made within one month of defect arising in the product.
- A documented maintenance schedule is required to obtain extended warranty.

Care & Maintenance

- A gentle wash with a soft non-abrasive brush or cloth using a mild detergent followed by a fresh water rinse will maintain the long term performance of the powder coat or anodised finish.
- If paint splashes, sealants or other residue need to be removed, then methylated spirits or white spirits can be applied with a soft cloth and gentle wiping only.
- In rural or normal urban environments, cleaning should occur at least every 12 months.
- In areas of pollution, industrial or coastal areas back one kilometre from the water, cleaning should occur at least every 3 months.
- In hazardous locations such as beachfronts, severe marine environments or areas of high industrial pollution, the frequency of cleaning should be increased to monthly.
- Special maintenance may be required in some extended warranty applications.

Tracks:

Keep tracks free from obstruction and excessive dirt or water.

Guides and Spindles:

To be greased with good quality automotive grease every 6 months.

Rollers:

As per manufacturer's instructions.

Hinges, Hangers & Flush Bolts:

Visible surfaces should be cleaned using a damp cloth and mild detergent, then wiped dry. Apply a light application of non-corrosive preventative lubricant to all surfaces and internals, using a dry cloth to remove excess. Repeat at intervals no greater than 3 months.

Seals and PVC Product:

An occasional wipe with a damp cloth or a wash with warm soapy water is all that is required.

Glass:

Simply wipe over the surface with a few drops of methylated spirits on a damp cloth, then polish the surface with a dry, lint-free, non-abrasive cloth.

Ver 3: August 2023

Darley Aluminium
Klassicview 76mm Double Hung Window

1.Technical Manual Release Notes

This page is intended to record all changes to the **KLASSICVIEW 76MM DOUBLE HUNG WINDOW SYSTEM** technical manual pages.
Changes or additions to this manual will be itemised with a brief description and date when the amendments were made. It is important that a copy of the page be issued with the update and inserted as the first page in the customers technical manual.

ISSUE	DATE	DESCRIPTION OF CHANGE	REFER TO SECTION
6	09/2023	Sealant detail	Fabrication pg.32
7	MAY 2026	min width, height and weight added for clarity	pg 6
		Finger Pulls - KW013 removed, KW048 added	pg 22
		Adjusted to reflected correct 1929 Assembly	pg 34