

Smart Systems Ltd  
**Signature Range Doors**

**Technical Guide**

Version 1

June 2023

## Index

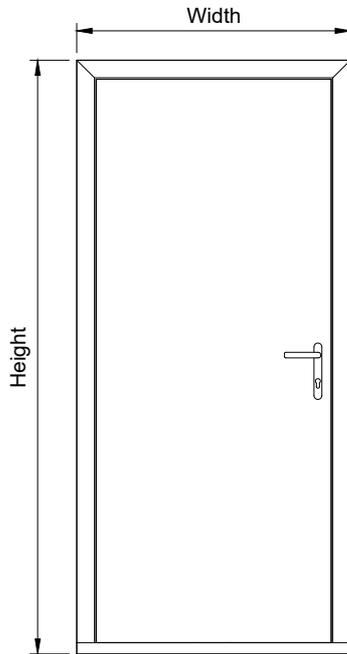
<b>Basic</b>	1	<b>Maintenance</b>	43
Size Limits & System Overview	02	Hardware	44
Door Handing	02	Locks	44
Clear Opening - Width	03	Threshold & Seals	45
Hinge Clearance	03	Paint	45
Door Clearance	04	Glass	46
<b>Designs</b>	05	Notes	47
Design Information	06 - 08	Contact Information	48
<b>Glass</b>	09		
Clear Glass Specification	10		
Satin Glass Specification	11		
<b>Hardware &amp; Furniture</b>	13		
Locks - Standard Lift Lever	14		
Locks - Premium Lift Lever	15		
Locks - Slam Lock	16		
Hinge - 3D Adjustable	17		
Cylinders	18		
Furniture Options	19		
<b>Site Survey &amp; Installation</b>	21		
Site Survey - Dimensions	22		
Installation Guide	23		
De-Glaze Moulings	24		
Re-Glaze Mouldings	24		
<b>Sectional Details</b>	25		
Extras - Cills	26		
Extras - Add-ons	26		
Extras - Trims	26		
Low Threshold	27		
Full Frame Threshold	27		
Sectional Details	28 - 41		

**Do Not Scale From This Drawing**

Basic

Do Not Scale From This Drawing

## Size Limits & System Overview



### Size Limitations

- Minimum Width: 800mm
- Minimum Height: 1950mm
- Maximum Width: 1050mm
- Maximum Height: 2200mm

These sizes are overall door sizes excluding any frame extensions, add ons or cills and do not change based on threshold.

### Threshold Options

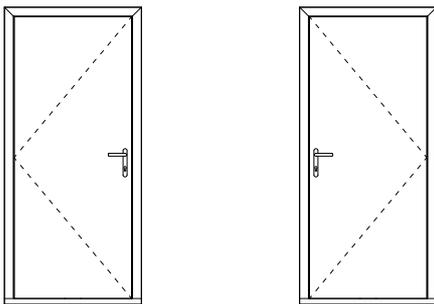
- Standard Full Frame
- Low Threshold

### Weights

- All doors range between 30kg - 55kg

## Door Handing

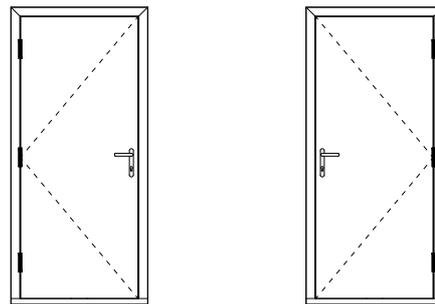
### VIEWED FROM OUTSIDE OPEN IN



LEFT HAND HUNG  
KEEP = RIGHT HAND

RIGHT HAND HUNG  
KEEP = LEFT HAND

### VIEWED FROM OUTSIDE OPEN OUT

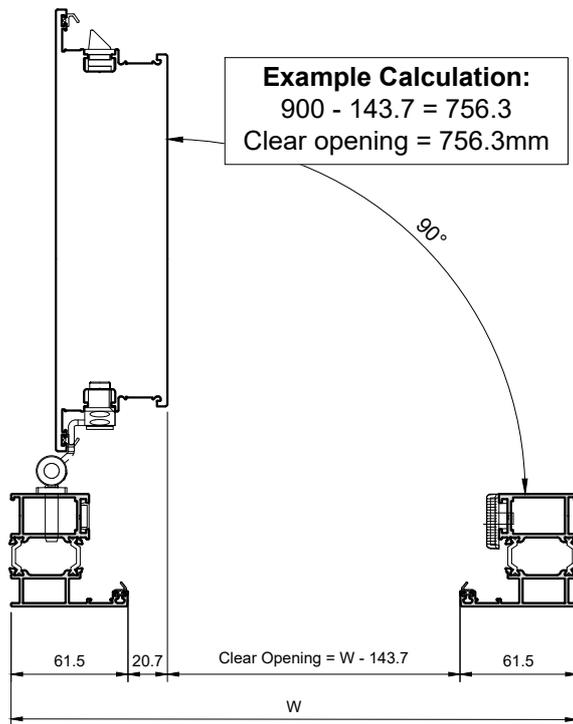


LEFT HAND HUNG  
KEEP = LEFT HAND

RIGHT HAND HUNG  
KEEP = RIGHT HAND

**Do Not Scale From This Drawing**

## Clear Opening



**Clear Opening** is the size of the gap any persons/objects can pass through freely when the door is opened to its full potential. Please consider hardware when calculating clear opening.

**Signature Doors** are able to open past 90°.

If the door opens to more than 90°, door furniture may not obstruct the clear opening width.

**Clear Opening = Width\* - 143.7mm**

\*Width is calculated from edge of outerframe to edge of outerframe

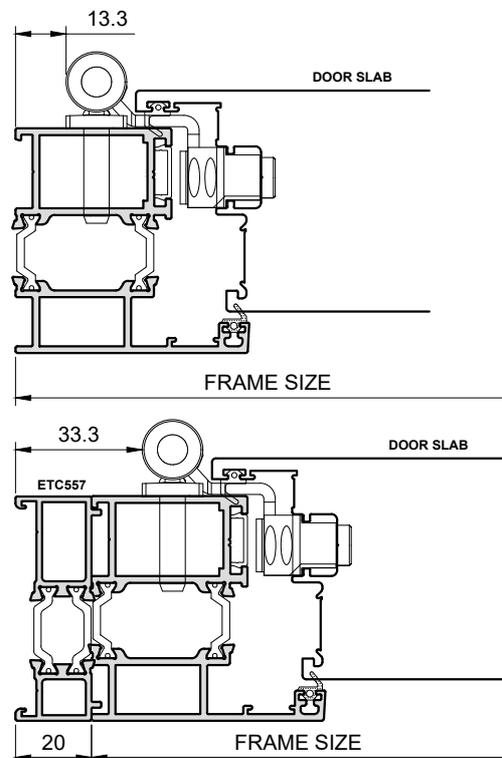
## Hinge Clearance

**Hinge clearance** refers to the space required around the hinges to allow for proper operation of the door.

Hinge clearance is necessary for a few reasons:

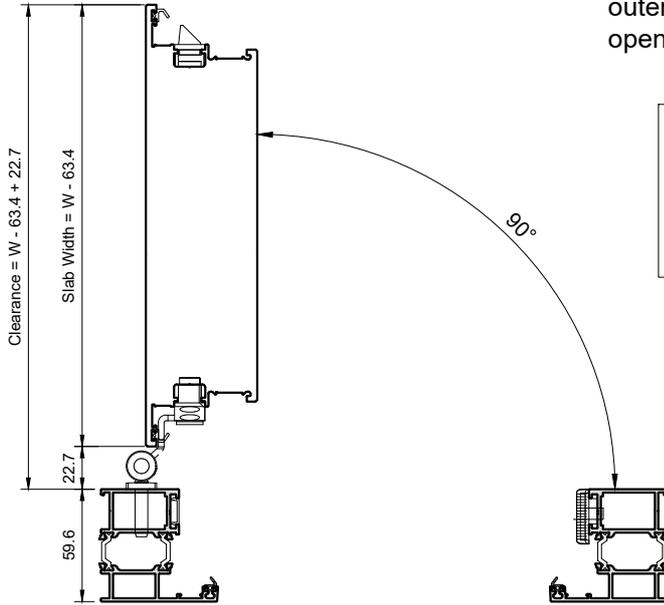
1. Avoiding contact with the plaster line or wall: The hinge side of a door should have enough clearance to prevent the hinges from coming into contact with internal finishes.
2. Ensuring smooth operation: Sufficient hinge clearance allows the door to open and close smoothly without any binding or resistance.

ETC557 Add on provides an additional 20mm of hinge clearance.



## Door Clearance

**Clearance** is the distance between the face of the outerframe to the edge of the slab when the door is open to 90°.



$$\text{Clearance} = \text{Width}^* - 63.4 + 22.7$$

\*Width is calculated from edge of outerframe to edge of outerframe

### Example Calculation:

$$900 - 63.4 + 22.7 = 859.3$$

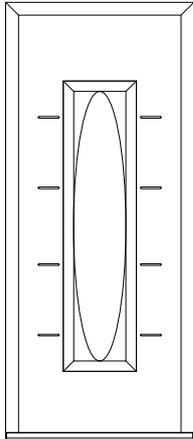
$$\text{Clearance} = 859.3\text{mm}$$

**Do Not Scale From This Drawing**

Designs

Do Not Scale From This Drawing

**Designs**



**DM3001**  
Carnaby

**Moulding Size:**  
350mm x 1400mm

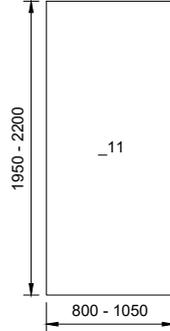
**Moulding Shape:**  
A - Rounded

**Glass Size:**  
284mm x 1334mm x 28.8mm

**Visible Glass:**  
250mm x 1300mm

**U Value:**  
1.3 W/m<sup>2</sup>K

**Size Variants:**



**Notes:**

.....

.....

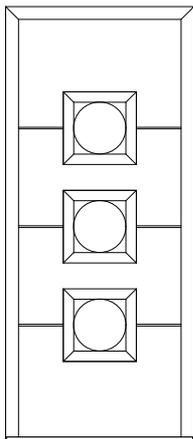
.....

.....

.....

.....

.....



**DM3002**  
Lansdown

**Moulding Size:**  
350mm x 350mm

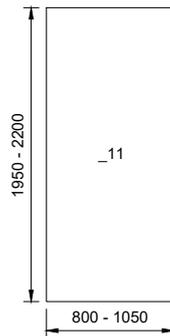
**Moulding Shape:**  
A - Rounded

**Glass Size:**  
284mm x 284mm x 29.6mm

**Visible Glass:**  
250mm x 250mm

**U Value:**  
1.3 W/m<sup>2</sup>K

**Size Variants:**



**Notes:**

.....

.....

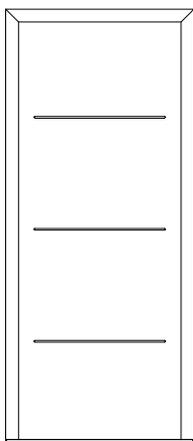
.....

.....

.....

.....

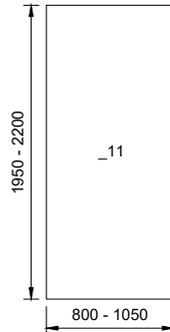
.....



**DM3003**  
Millbrook

**U Value:**  
1.2 W/m<sup>2</sup>K

**Size Variants:**



**Notes:**

.....

.....

.....

.....

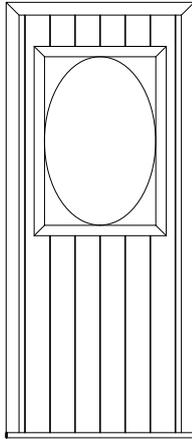
.....

.....

.....

\*Achievable overall u-value based on best configuration. At a minimum, all doors can achieve 1.4 W/m<sup>2</sup>K

**Designs**



**DT3001**  
Woodchester

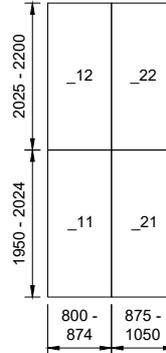
**Moulding Size:**  
 \_11 = 532mm x 850mm  
 \_12 = 532mm x 912.5mm  
 \_21 = 632mm x 850mm  
 \_22 = 632mm x 912.5mm

**Moulding Shape:**  
A - Rounded

**Glass Size:**  
 \_11 = 466mm x 784mm x 28.8mm  
 \_12 = 466mm x 846mm x 28.8mm  
 \_21 = 566mm x 784mm x 28.8mm  
 \_22 = 566mm x 846mm x 28.8mm

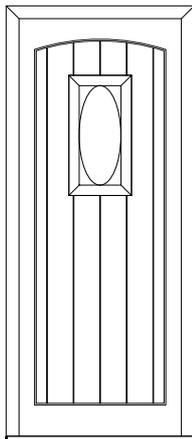
**Visible Glass:**      **U Value:**  
 \_11 = 432mm x 750mm      1.4 W/m<sup>2</sup>K  
 \_12 = 432mm x 812mm  
 \_21 = 532mm x 750mm  
 \_22 = 532mm x 812mm

**Size Variants:**



**Notes:**

.....  
 .....  
 .....  
 .....  
 .....  
 .....  
 .....



**DT3002**  
Broadfield

**Moulding Size:**  
\_11, \_12, \_13 = 300mm x 580mm

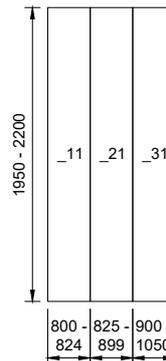
**Moulding Shape:**  
A - Rounded

**Glass Size:**  
\_11, \_12, \_13 = 234mm x 514mm x 28.8mm

**Visible Glass:**  
\_11, \_12, \_13 = 200mm x 480mm

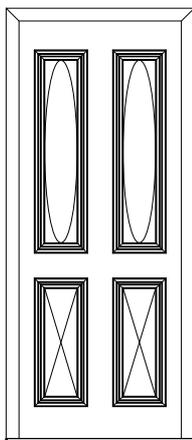
**U Value:**  
1.3 W/m<sup>2</sup>K

**Size Variants:**



**Notes:**

.....  
 .....  
 .....  
 .....  
 .....  
 .....  
 .....



**DT3003**      **U Value:**  
Harley      1.4 W/m<sup>2</sup>K

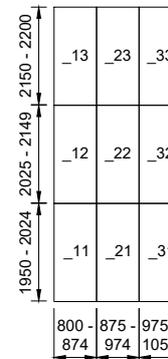
**Glazed Moulding Size:**  
 \_11 = 225mm x 930mm      \_23 = 255mm x 1030mm  
 \_12 = 225mm x 980mm      \_31 = 285mm x 930mm  
 \_13 = 225mm x 1030mm      \_32 = 285mm x 980mm  
 \_21 = 255mm x 930mm      \_33 = 285mm x 1030mm  
 \_22 = 255mm x 980mm

**Moulding Shape:**  
C - Ovolo

**Glass Size:**  
 \_11 = 159mm x 864mm x 28.8mm      \_23 = 189mm x 964mm x 28.8mm  
 \_12 = 159mm x 914mm x 28.8mm      \_31 = 219mm x 864mm x 28.8mm  
 \_13 = 159mm x 964mm x 28.8mm      \_32 = 219mm x 914mm x 28.8mm  
 \_21 = 189mm x 864mm x 28.8mm      \_33 = 219mm x 964mm x 28.8mm  
 \_22 = 189mm x 914mm x 28.8mm

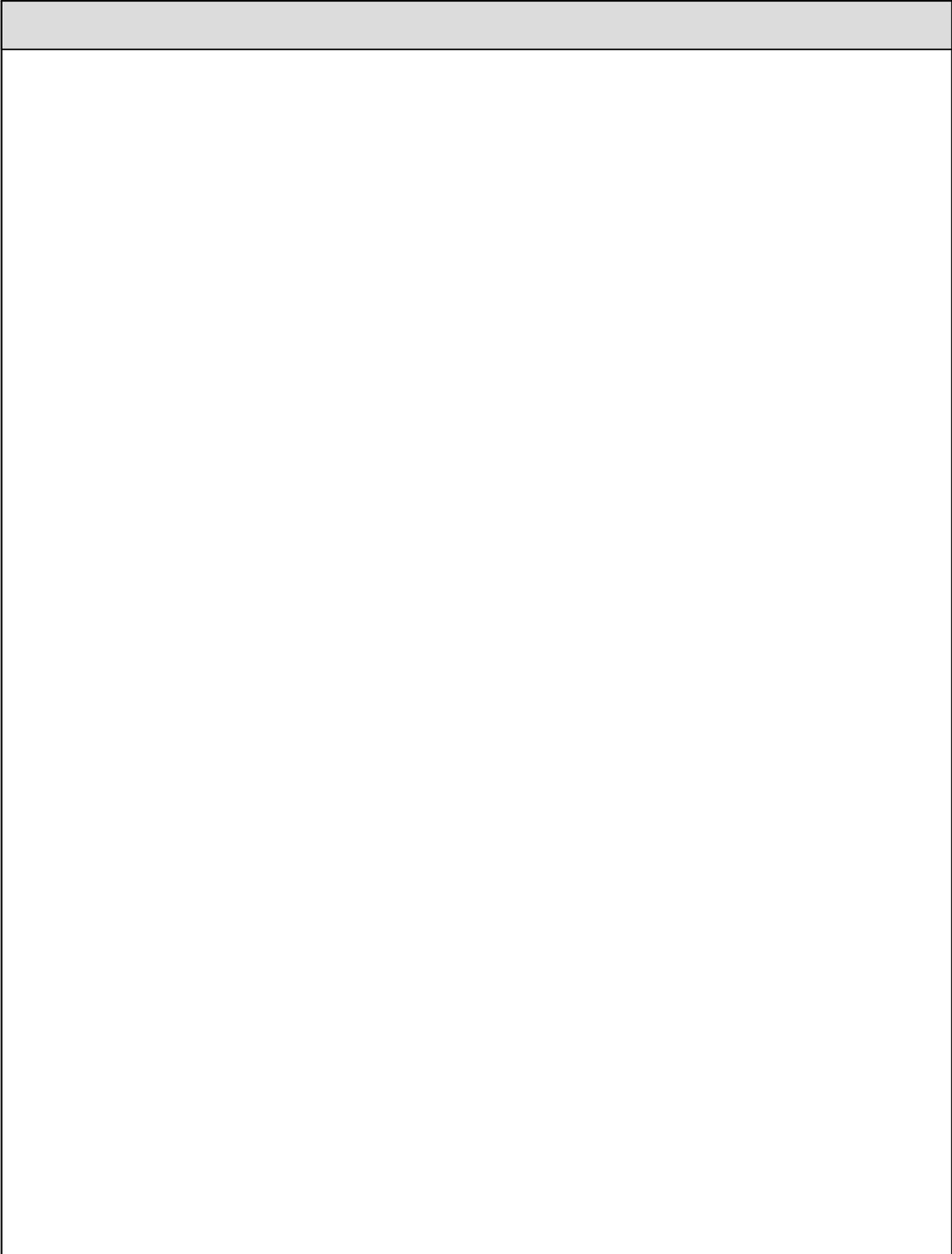
**Visible Glass:**  
 \_11 = 125mm x 830mm      \_23 = 155mm x 930mm  
 \_12 = 125mm x 880mm      \_31 = 185mm x 830mm  
 \_13 = 125mm x 930mm      \_32 = 185mm x 880mm  
 \_21 = 155mm x 830mm      \_33 = 185mm x 930mm  
 \_22 = 155mm x 880mm

**Size Variants:**



\*Achievable overall u-value based on best configuration. At a minimum, all doors can achieve 1.4 W/m<sup>2</sup>K

**Do Not Scale From This Drawing**



**Do Not Scale From This Drawing**

Glass

**Clear Glazing 28.8mm**

**28.8mm Clear Double Glazed Unit**

- Pane 1: 6.8mm Clear Laminate
- Cavity: 18mm Black Spacer 90% Argon
- Pane 2: 4mm Toughened Planitherm One T FG

**Solar Factors EN410 (2011-04)**

- Solar Factor (g) 0.46
- Shading Coefficient (SC) 0.53

**Thermal Transmission (Ug) EN673-2011**

- Ug 1.0 W/(m2.K)
- 0° related to a vertical position

**Burglar Resist EN356**

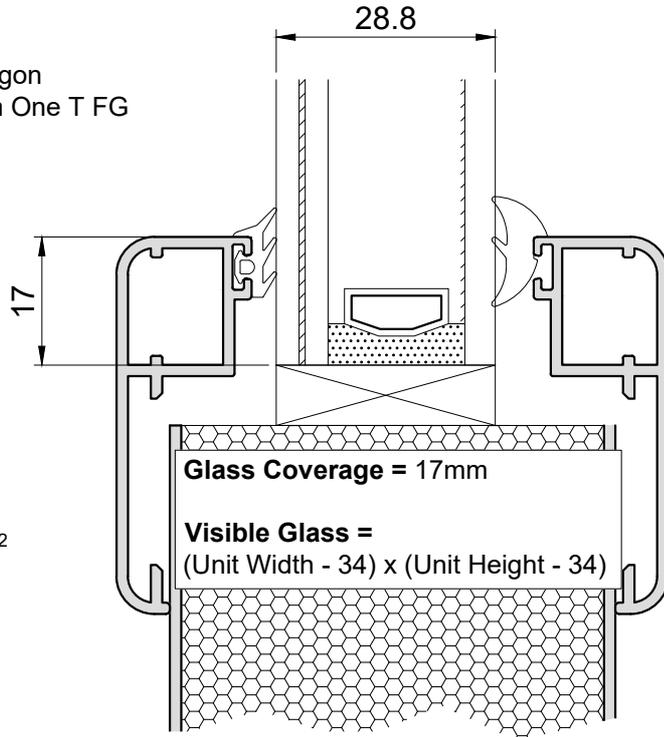
- Result : P1A / NPD

**Carbon Footprint EN15804 + A2**

- Global Warming Potential: 46 kg(CO2)/m<sup>2</sup> (A1-A3)

**Manufacturing Sizes**

- Nominal Thickness: 28.8mm
- Weight: 26 kg/m<sup>2</sup>



FULL DATA SHEET AVAILABLE ON REQUEST

**Clear Glazing 29.6mm**

**29.6mm Clear Double Glazed Unit**

- Pane 1: 6.8mm Clear Laminate
- Cavity: 16mm Black Spacer 90% Argon
- Pane 2: 6.8mm Clear Laminate Planitherm One T FG

**Solar Factors EN410 (2011-04)**

- Solar Factor (g) 0.46
- Shading Coefficient (SC) 0.53

**Thermal Transmission (Ug) EN673-2011**

- Ug 1.0 W/(m2.K)
- 0° related to a vertical position

**Burglar Resist EN356**

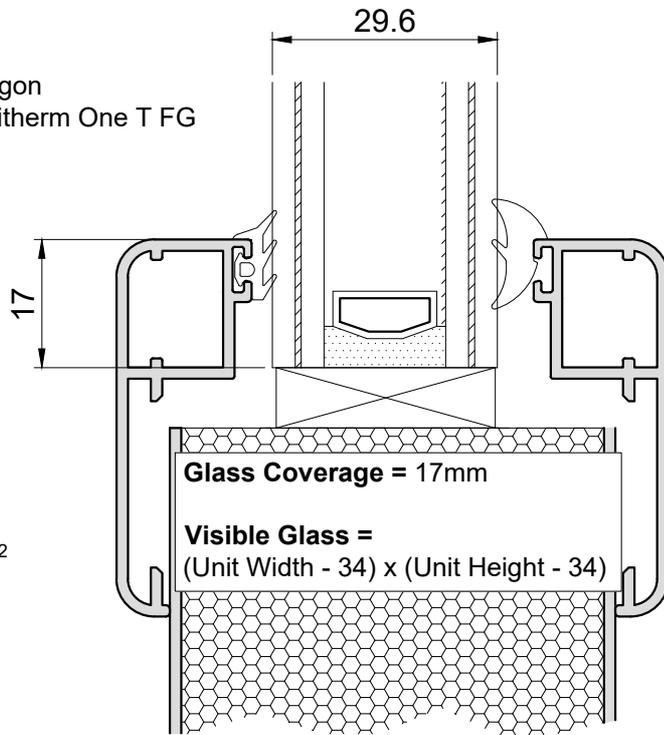
- Result : P1A / P1A

**Carbon Footprint EN15804 + A2**

- Global Warming Potential: 59 kg(CO2)/m<sup>2</sup> (A1-A3)

**Manufacturing Sizes**

- Nominal Thickness: 29.5mm
- Weight: 31.6 kg/m<sup>2</sup>



FULL DATA SHEET AVAILABLE ON REQUEST

**Do Not Scale From This Drawing**

**Satin Glazing 28.8mm**

**28.8mm Satin Double Glazed Unit**

- Pane 1: 6.8mm Diffused Laminate
- Cavity: 18mm Black Spacer 90% Argon
- Pane 2: 4mm Toughened Planitherm One T FG

**Solar Factors EN410 (2011-04)**

- Solar Factor (g) 0.46
- Shading Coefficient (SC) 0.53

**Thermal Transmission (Ug) EN673-2011**

- Ug 1.0 W/(m<sup>2</sup>.K)
- 0° related to a vertical position

**Burglar Resist EN356**

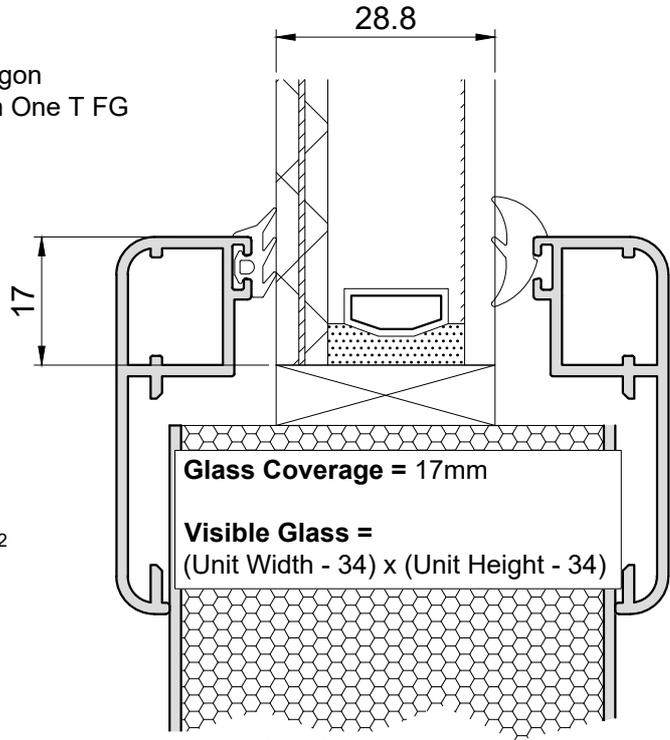
- Result : P1A / NPD

**Carbon Footprint EN15804 + A2**

- Global Warming Potential: 46 kg(CO<sub>2</sub>)/m<sup>2</sup> (A1-A3)

**Manufacturing Sizes**

- Nominal Thickness: 28.8mm
- Weight: 26 kg/m<sup>2</sup>



FULL DATA SHEET AVAILABLE ON REQUEST

**Satin Glazing 29.6mm**

**29.6mm Satin Double Glazed Unit**

- Pane 1: 6.8mm Diffused Laminate
- Cavity: 16mm Black Spacer 90% Argon
- Pane 2: 6.8mm Clear Laminate Planitherm One T FG

**Solar Factors EN410 (2011-04)**

- Solar Factor (g) 0.46
- Shading Coefficient (SC) 0.53

**Thermal Transmission (Ug) EN673-2011**

- Ug 1.0 W/(m<sup>2</sup>.K)
- 0° related to a vertical position

**Burglar Resist EN356**

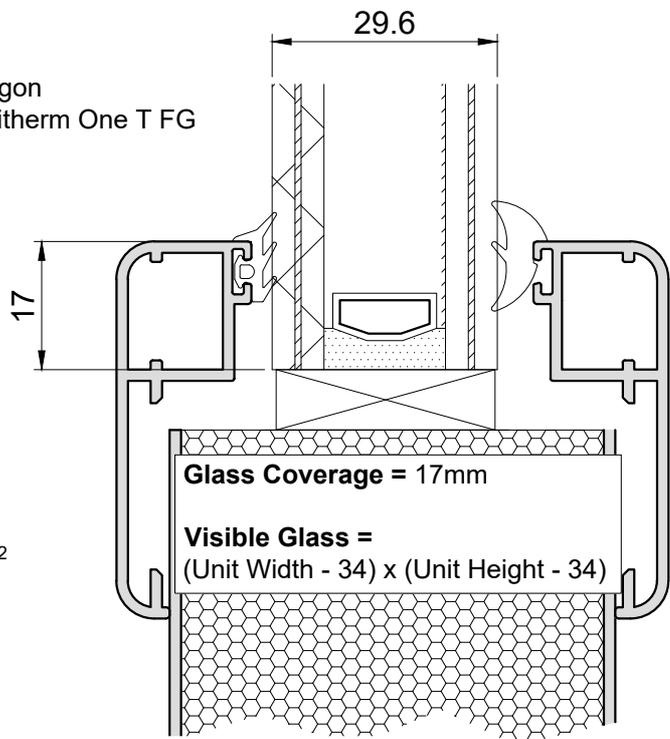
- Result : P1A / P1A

**Carbon Footprint EN15804 + A2**

- Global Warming Potential: 59 kg(CO<sub>2</sub>)/m<sup>2</sup> (A1-A3)

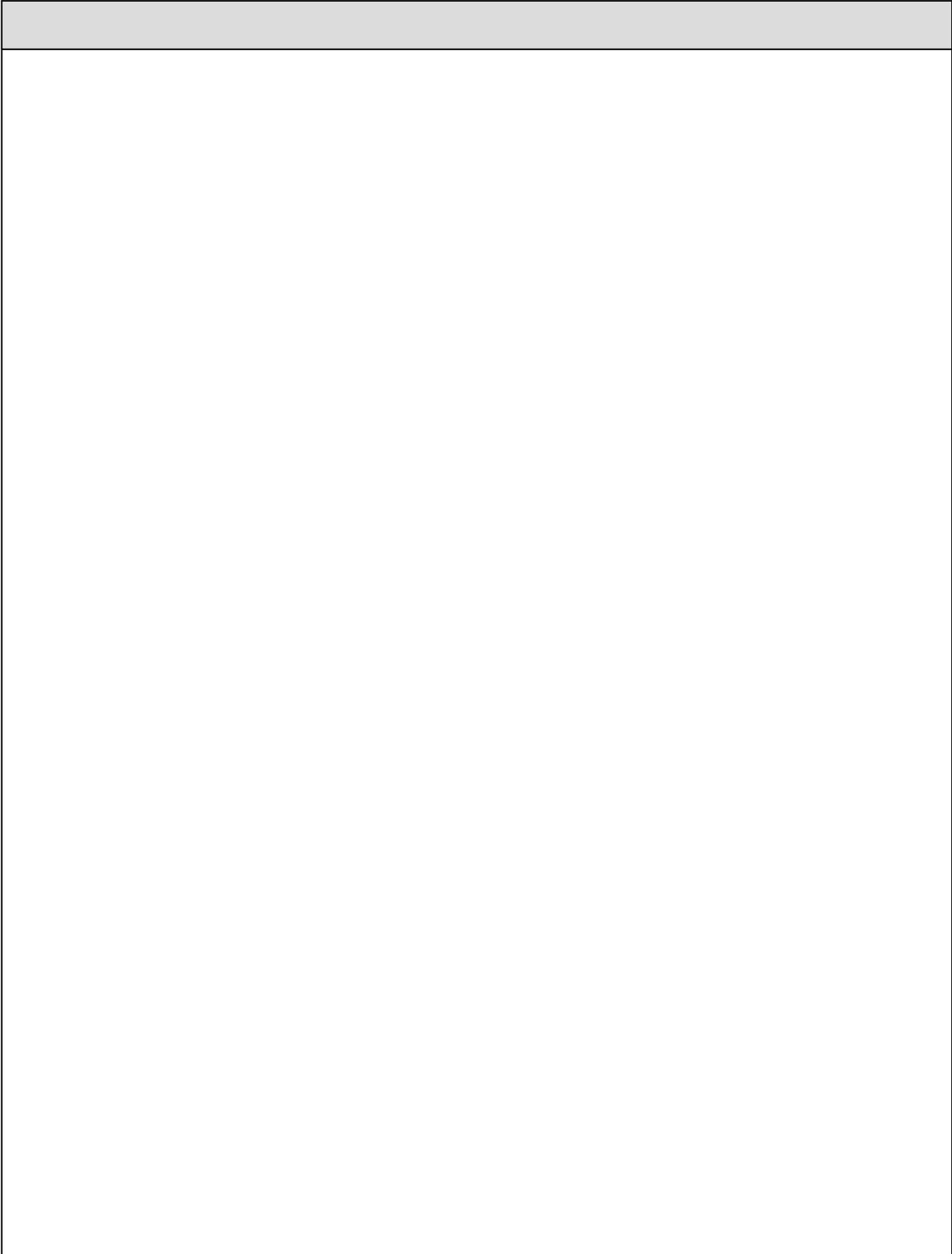
**Manufacturing Sizes**

- Nominal Thickness: 29.5mm
- Weight: 31.6 kg/m<sup>2</sup>



FULL DATA SHEET AVAILABLE ON REQUEST

**Do Not Scale From This Drawing**



**Do Not Scale From This Drawing**

Hardware & Furniture

Do Not Scale From This Drawing

## Standard Lift Lever Lock

### Key Features of Cam Lift Lever Lock are:

- Sturdy steel hook bolts
- Nickel-plated latch for smooth closure
- Rugged main deadbolt
- Adjustable compression cams with brass rollers
- Classic lift lever operation
- Adjustable (+/- 2mm) latch keep
- PAS24:2022 compliant

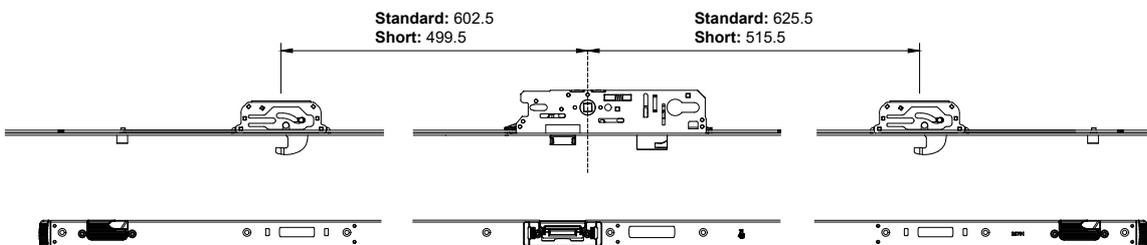


Size	Lock	Keep	
		LH	RH
Short	ACUL275	ACUL270	ACUL271
Standard	ACUL379	ACUL371	ACUL372

**IMPORTANT NOTE:**

Door height  $\geq$  2019mm use Standard locks  
Door height  $<$  2019mm use Short locks

## Details



## Premium Lift Lever Lock

### Key Features of Premium Lift Lever Lock are:

- Sturdy steel hook bolts
- Bank Vault style dual round security bolts
- Adjustable (+/- 2mm) locking box keeps
- Adjustable (+/- 2mm) latch keep
- Classic lift lever operation
- PAS24:2022 compliant

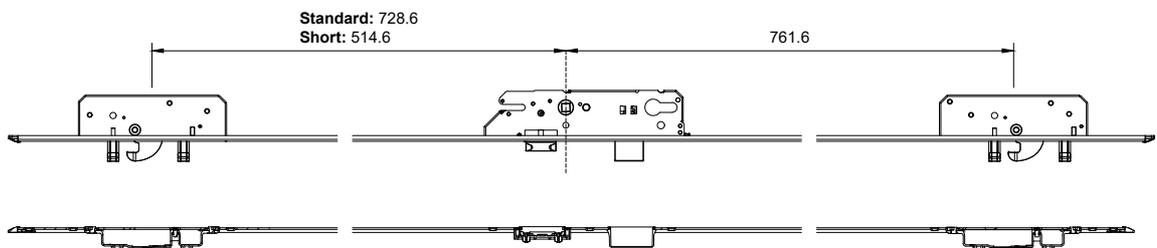


		Lock	Keep	
			LH	RH
Size	Short	ACUL376	ACUL391	ACUL393
	Standard	ACUL298	ACUL288	ACUL289

**IMPORTANT NOTE:**

Door height  $\geq$  2019mm use Standard locks  
Door height  $<$  2019mm use Short locks

## Details

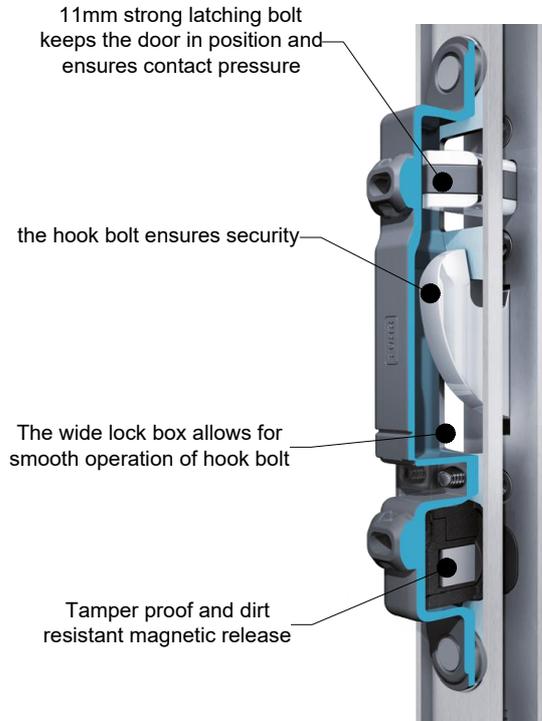


**Do Not Scale From This Drawing**

## Slam Lock

### Key Features of Slam Lock are:

- DuoSecure - Increased Security
- Sturdy steel hook bolts
- Enhanced Security Pin
- Adjustable (+/- 2mm) locking box keeps
- Adjustable (+/- 2mm) latch keep
- Automatic locking on close
- PAS24:2022 compliant

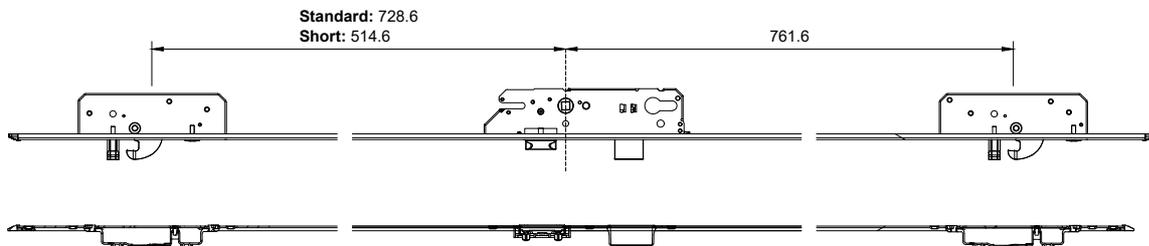


		Lock	Keep	
			LH	RH
Size	Short	ACUL386	ACUL391	ACUL393
	Standard	ACUL285	ACUL288	ACUL289

**IMPORTANT NOTE:**  
Each Slam Lock Keep will require  
2no ACUL286 - Release magnet

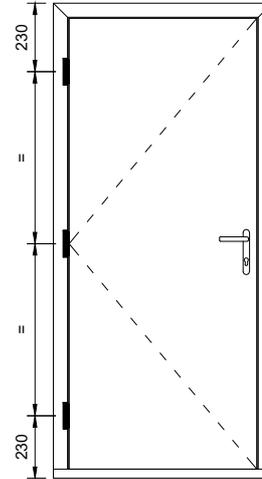
**IMPORTANT NOTE:**  
Door height  $\geq$  2019mm use Standard locks  
Door height  $<$  2019mm use Short locks

## Details



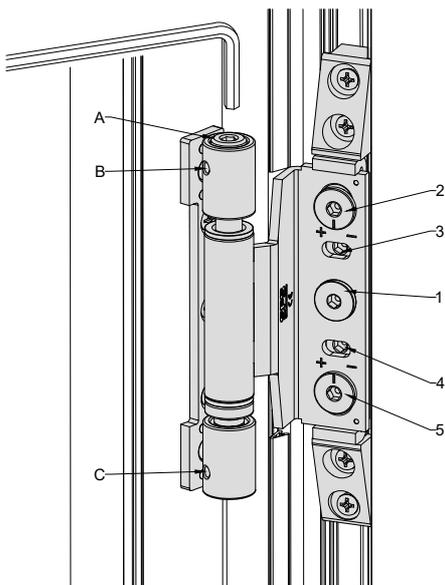
**Do Not Scale From This Drawing**

## Hinge Data



PAS24:2022	Materials	Corrosion Resistance UNI EN 1670	Load Capacity Per Hinge
Yes	Steel & Zamak	Minimum 1000 hours	35kg

## Hinge Adjustment



### Horizontal Adjustment ( $\pm 3\text{mm}$ )

- Unscrew Screw 1 by three turns
- Tighten or loosen Grub Screws 3 and 4 with a 4mm Allen Key
- Tighten Screw 1

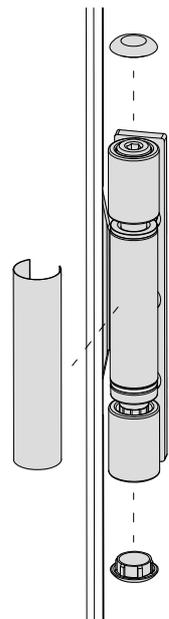
### Gasket Pressure Adjustment ( $\pm 2\text{mm}$ )

- Unscrew Screw 1 by three turns
- Turn Screws 2 and 5 in direction of + or - to have more or less gasket pressure.
- Tighten Screw 1

### Height Adjustment ( $-2\text{mm}/+6\text{mm}$ )

- Loosen Grub Screws B and C
- Turn Pin A
- Tighten Grub Screws B and C

**INSTALL END CAPS AND COVERS AS SHOWN**

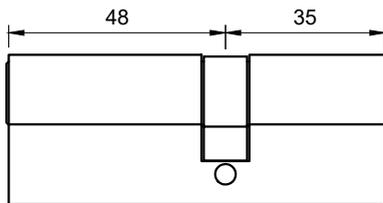


## Cylinders

		Door Configuration	
		Open In	Open Out
Cylinder Operation	Key / Key	ACCY4835NKS3	ACCY3548NKS3
	Key / Thumbturn	ACCY4835NKTTTS3	ACCY3548NKTTTS3

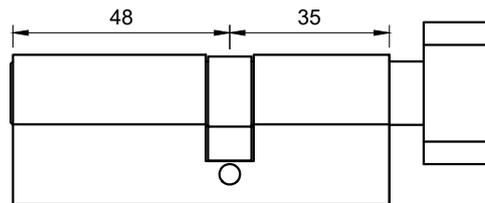
**ACCY4835NKS3**

← OUTSIDE



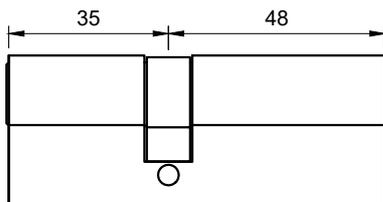
**ACCY4835NKTTTS3**

← OUTSIDE



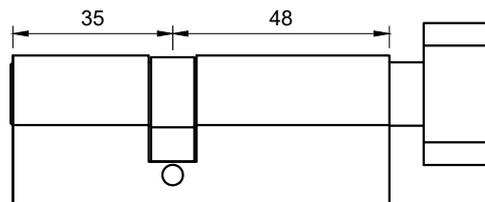
**ACCY3548NKS3**

← OUTSIDE



**ACCY3548NKTTTS3**

← OUTSIDE



Security Rating	Spare Keys	Security Features	Extras
BSI 3* Kitemarked Sold Secure Diamond Standard SBD Approved	3	Anti-Bump Anti-Pick Anti-Drill Anti-Tilt Anti-Snap	1hr Fire Rated Easy Turn Helix Thumbturn Standard Keyway for easy spares £4000 supplier guarantee

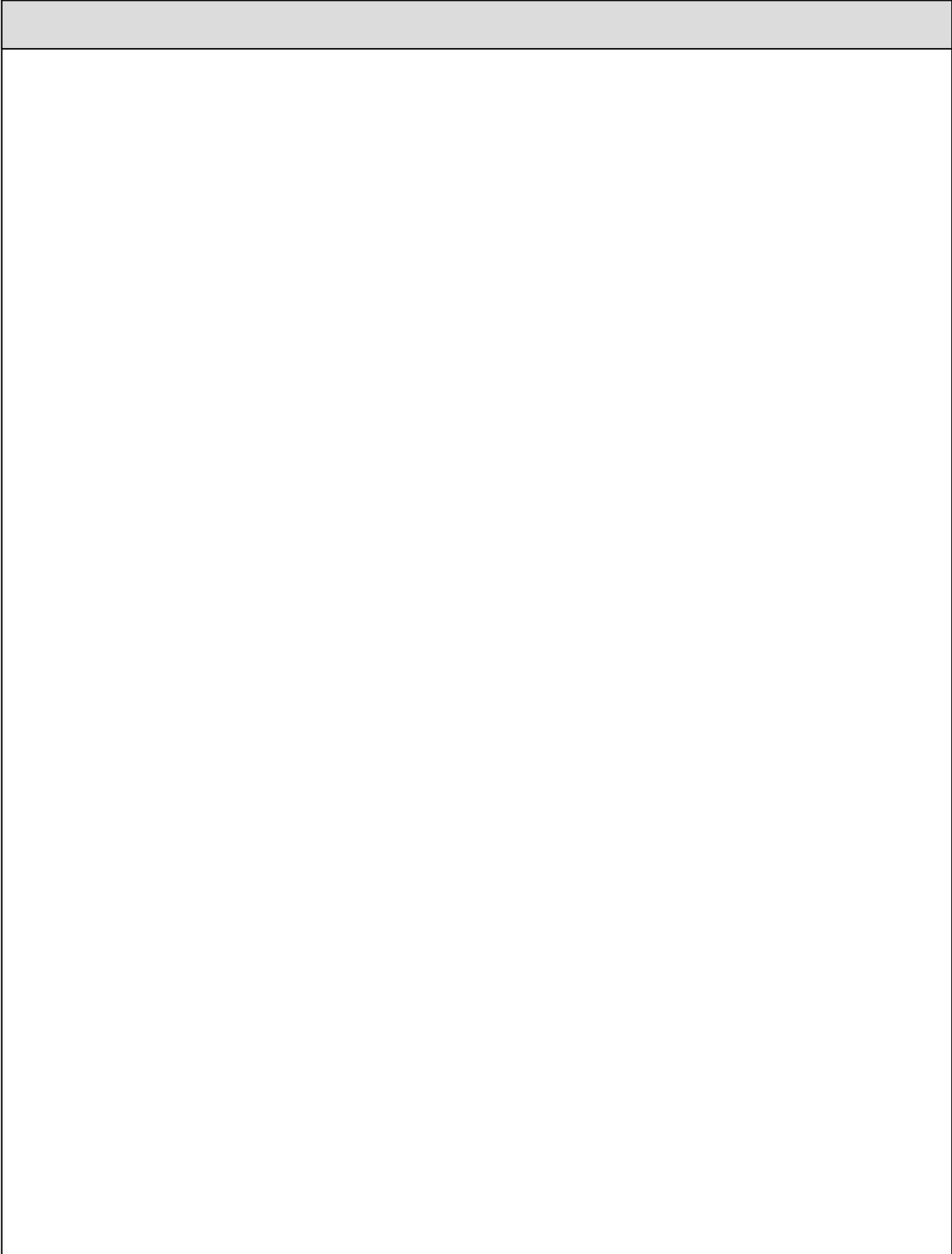
## Furniture Options

Part Number	Description	Black	Graphite	Gold	Chrome	Matt Chrome	White	Stainless Steel	Nickel	Brass	Colour Match
ACCY3548NKS3	3" Cylinder Key / Key Open Out								•		
ACCY4835NKS3	3" Cylinder Key / Key Open In								•		
ACCY3548NKTTS3	3" Cylinder Key / Thumbturn Open Out								•		
ACCY4835NKTTS3	3" Cylinder Key / Thumbturn Open In								•		
ACPD6051	Nu Mail Letterplate	•	•	•	•		•				
ACPD6151	Nu Victorian Urn Large Slim Face Fix	•	•	•	•		•				
ACPD6200	Balmoral Inline Lever - Lever Handle	•	•	•	•		•				
ACPD6201	Windsor Inline Lever - Lever Handle	•	•	•	•		•				
ACPD6207	Architectural Inline Lever - Lever Handle	•	•	•	•		•				
ACPD645	Spyhole				•					•	
ACPD667	Letterplate							•			
ACPD669	Door Knocker							•			
ACPD741	Architectural Door Knocker	•	•	•	•						
ACPD742	Architectural Letterplate		•	•	•						
ACPD746	Nu Victorian Urn Medium Face Fix	•	•	•	•		•				
ACPD747	Nu Victorian Urn Medium Face Fix w/ Spyhole	•	•	•	•		•				
ACPD748	Bull Ring Knocker	•	•	•	•						
ACPD759	Decorative Door Knob	•	•	•	•		•				
ACPD775	Architectural Oval Cylinder Escutcheon	•	•	•	•		•				
ACPD970	Finger Pull	•	•	•	•		•				
ACSM015	Oval Door Escutcheon							•			
ACSM026	32mm Diameter x 400mm Round Pull Handle							•			
ACSM027	32mm Diameter x 1200mm Round Pull Handle							•			
ACSM028	32mm Diameter x 1500mm Round Pull Handle							•			
ACSM029	32mm Diameter x 1800mm Round Pull Handle							•			
ACSM080	Ergonomic Lever Handle on Round Rose							•			
ACSM081	Mitre Lever Handle on Round Rose							•			
ACSM082	T-Bar Lever on Round Rose							•			
ACSM085	Center Door Knob							•			
ACSM086	Finger Pull							•			
ACSM087	Mitre Lever Handle on Oval Rose							•			
ACSM088	Ergonomic Lever Handle on Oval Rose							•			
ACSM089	T-Bar Lever Handle on Oval Rose							•			
ACUL250	3D Adjustable Hinge	•				•	•				•

**IMPORTANT NOTE:**

Smart Systems Ltd only provides hardware warranty for products supplied by us. Any hardware not supplied by us is not covered under this warranty. We cannot be held responsible for the installation, maintenance, or repairs of such products.

**Do Not Scale From This Drawing**



**Do Not Scale From This Drawing**

**Site Survey & Installation**

## Site Survey

**THIS IS A GUIDE ONLY.**

Survey should always be conducted by competent person.  
We do not accept liability for inaccurate surveys.

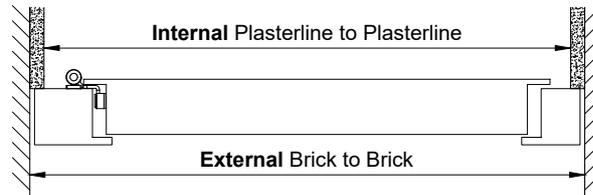
### Measure both Internal and External Dimensions

**Width** measure at 3 points; top, middle and bottom. Take the smallest measurement and deduct 10mm.

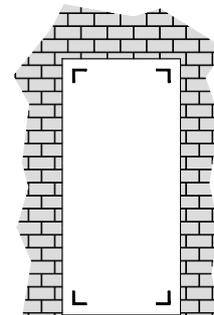
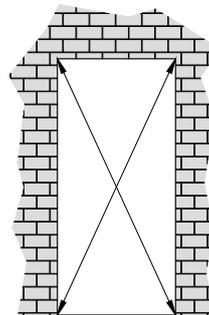
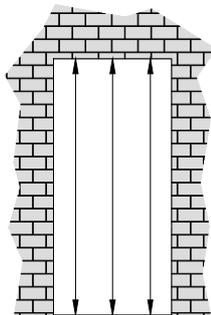
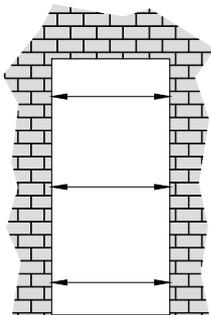
**Height** measure at 3 points; left, middle and right. Take the smallest measurement and deduct 10mm.

**Diagonal** measure at 2 points; bottom left corner to top right corner and bottom right corner to top left corner. These dimensions should be within 5mm of each other.

Internal dimensions should be taken from plasterline to plasterline.



External dimensions should be taken from brick to brick and to below any existing cills (if cill is being replaced).



## Extra Considerations

### Considerations when conducting site survey:

- Is the opening level?
- Is the opening square?
- Are the walls plumb?
- Is a cill required?
- Is the reveal depth adequate?
- Are any specific fixings or fasteners needed?
- Is there sufficient clearance for the hinges to operate?
- Is an add on required?
- Will the door operate without any obstructions?
- Is the clear opening suitable for the customer's needs?
- Are trims needed to complete the installation?

**Do Not Scale From This Drawing**

## Installation

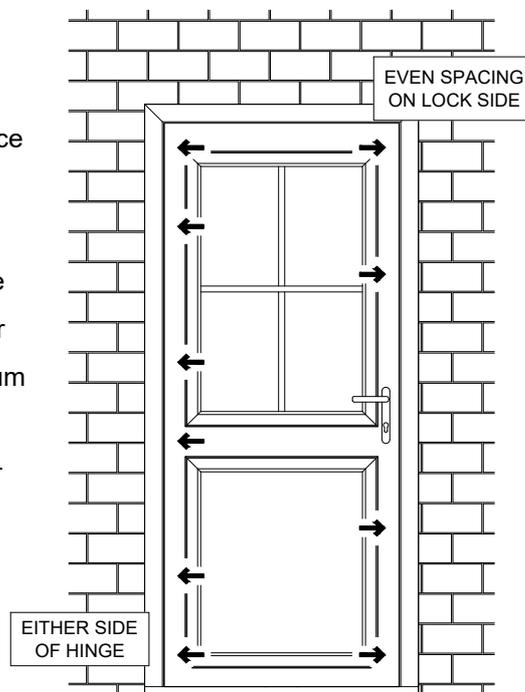
To ensure satisfactory operation Doors should only be fitted by experienced installers using appropriate tools and equipment. Failure to follow the steps in this guide may result in unsatisfactory operation.

### IMPORTANT:

DO NOT OPEN THE DOOR UNTIL IT IS HELD SQUARE IN THE APERTURE USING AIR BAGS. DOORS ARE A SOLID 'SLAB' DESIGN THAT CANNOT BE 'TOE & HEELED'. THE CORRECT INSTALLATION OF THE OUTER FRAME IS CRITICAL TO THE OPERATION OF THE DOOR

1. Offer the Door into the aperture.
2. Place an air bag on the hinge side at the bottom of the outer frame.
3. Place an air bag on the lock side at the top of the outer frame.
4. 'Square up' the hinge side by deflating/inflating the air bag and using a spirit level/laser level.
5. Using the air bag on the lock side adjust the Door until there is a 5mm gap all the way the around sash, from edge of sash to outer frame.
6. Place air bags into top hinge side and bottom lock side. Inflate air bags to hold the Door in securely in place.
7. Open the sash and remove the lock keep.
8. Check that the hinge jamb is level. Fix the hinge jamb through the aluminium (DO NOT fix through the polyamide), ensuring the first fixing is located by the top hinge (indicated right). All fixings should be in accordance with British Standard BS8213-4:2016.
9. Before fixing the lock jamb confirm the Door opens and closes satisfactorily. If not, use the air bags to adjust the alignment of the lock jamb with the sash. Once the Door operates correctly fix the lock jamb through the aluminium (DO NOT fix through the polyamide).
10. Re-fit the lock keep onto lock jamb. Test to confirm door latches & locks satisfactorily. If the Door operates correctly then final fix the lock keep.

#### EXAMPLE FIXING LOCATIONS



**Do Not Scale From This Drawing**

### De-Glaze Mouldings

**Recommended:**

- 2 people

**Method:**

1. Carefully run a sharp blade around the edges of both internal and external mouldings, loosening the silicone or tape.
2. Remove wedge gasket from internal moulding. Using a glazing spade, apply levering action to push the internal moulding away from the door skin. Repeat this process at multiple locations around the perimeter. As a result, the internal moulding should detach. Set this aside.
3. Unscrew the machine screws with that are located in the glass retainers around the perimeter of the glass unit.
4. Prior to removing all the screws, make sure to support to the external moulding and the glass unit to prevent any damage from dropping. Set aside the external moulding and glass unit.
5. Remove any remaining silicone or tape from the door skins and mouldings, taking extra care to avoid scratching or damaging these components.

### Re-Glaze Mouldings

**Recommended:**

- 2 people
- door to be horizontal on trestles

External Gasket	Internal Gasket
ACVG31	ACVG340N

**Method:**

1. Place appropriate silicone or glazing tape along the perimeter channel of the external moulding. Suitable watertight seal should be created.
2. Install the external moulding onto the door slab opening, ensuring it fits properly. Place the glass in the opening, pushing it up to the gasket on the external moulding. Hold everything securely in position.
3. Lift the glass using a glazing spade and slide glass retainers underneath using cut outs in foam core and aluminium skin as guide. Fasten the retainers to rivnuts the external moulding using machine screws. Ensure that the lip of each retainer rests over the door skin. Be cautious not to overtighten the screws, using the lowest torque setting. Repeat this process in at least two opposite corners to hold the external moulding and glass in position.
4. Now that the glass is secure, proceed to install the remaining glass retainers. Make any necessary adjustments and pack the glass as required.
5. Apply expanding foam tape to the perimeter channel of the internal moulding.
6. Position the internal moulding on top of the glass retainers and firmly push it until it snaps into place.
8. Wipe away any excess silicone on door skins.
9. Fit wedge gasket to internal moulding ensuring finish is ripple free and straight.

**Do Not Scale From This Drawing**

**Sectional Details**

**Do Not Scale From This Drawing**

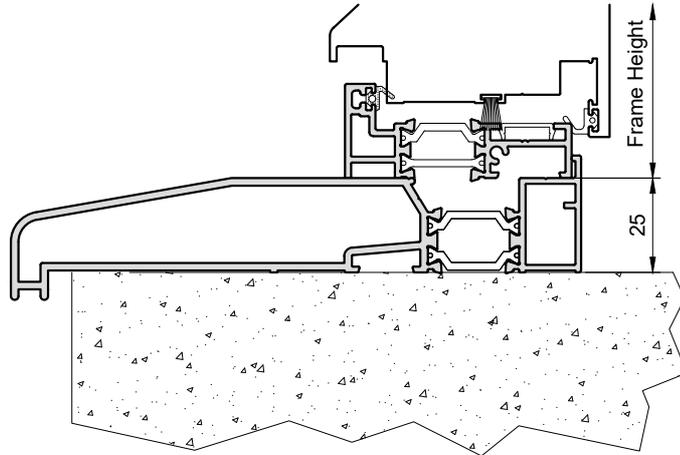
## Cills

**Cills** are available as:

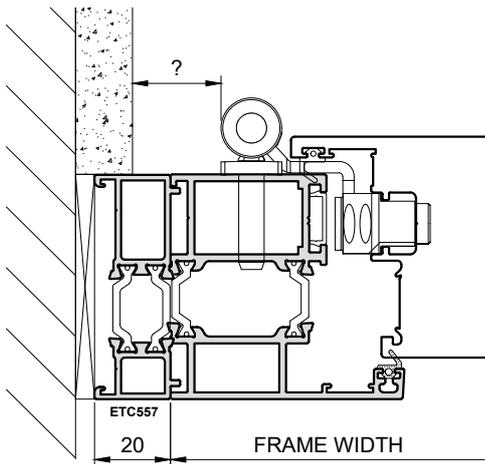
- 85mm - coming soon
- 150mm - ETC457
- 190mm - ETC458

Cills are compatible with both full frame and low threshold

When Cills are used, 25mm should be taken off the height of the door.



## Add on

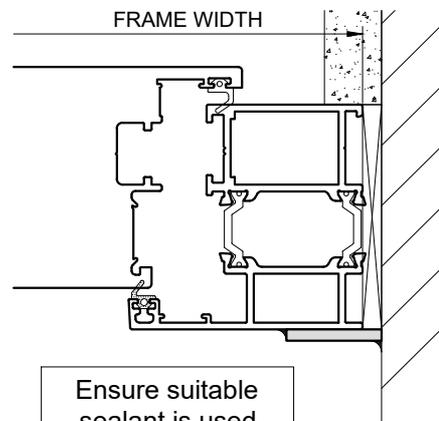


ETC557 Add on is available to add 20mm onto outerframe profile.

Ensure there is enough clearance on the hinge side to ensure smooth operation without any binding or resistance.

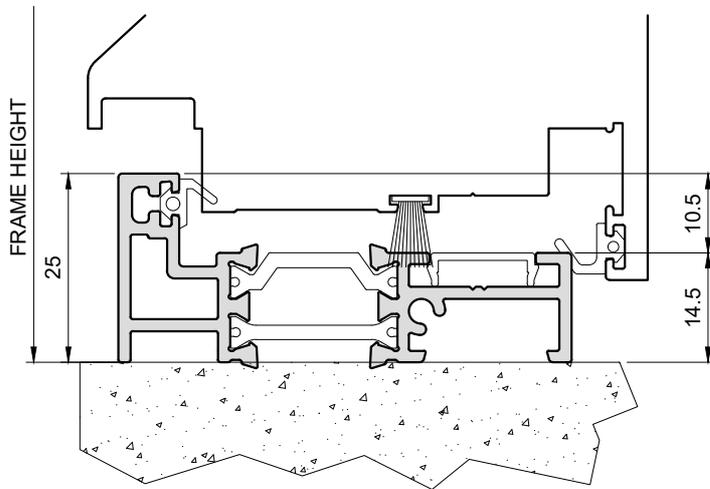
## Trims

Flat Trim
25mm x 4mm
50mm x 3mm
70mm x 5mm
100mm x 5mm



**Do Not Scale From This Drawing**

**Low Threshold**



**Low threshold** offers a sleek alternative to traditional full frame threshold. It is double rebated and has 3 weather seals for great weather and thermal performance.

Available for both open in and open out doors.

Low Threshold is available in Satin Anodised only.

Please see 'maintaining your door' section for cleaning advice.

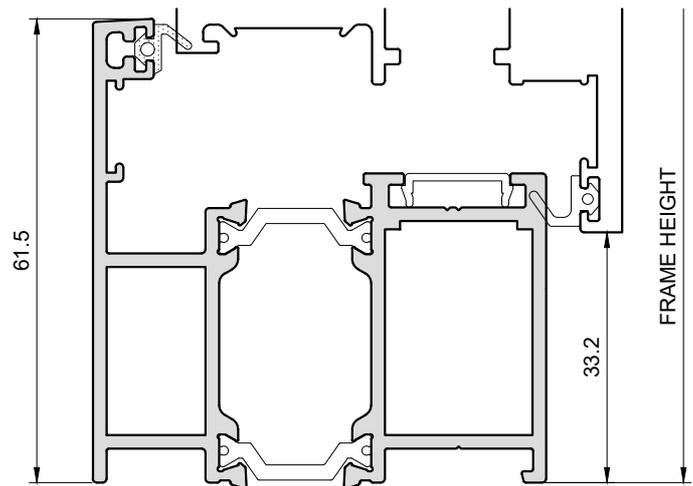
**Full Frame Threshold**

**Full Frame Threshold** offers the classic composite style full frame threshold. It is double rebated and 2 weather seals for great weather and thermal performance.

Available for both open in and open out doors.

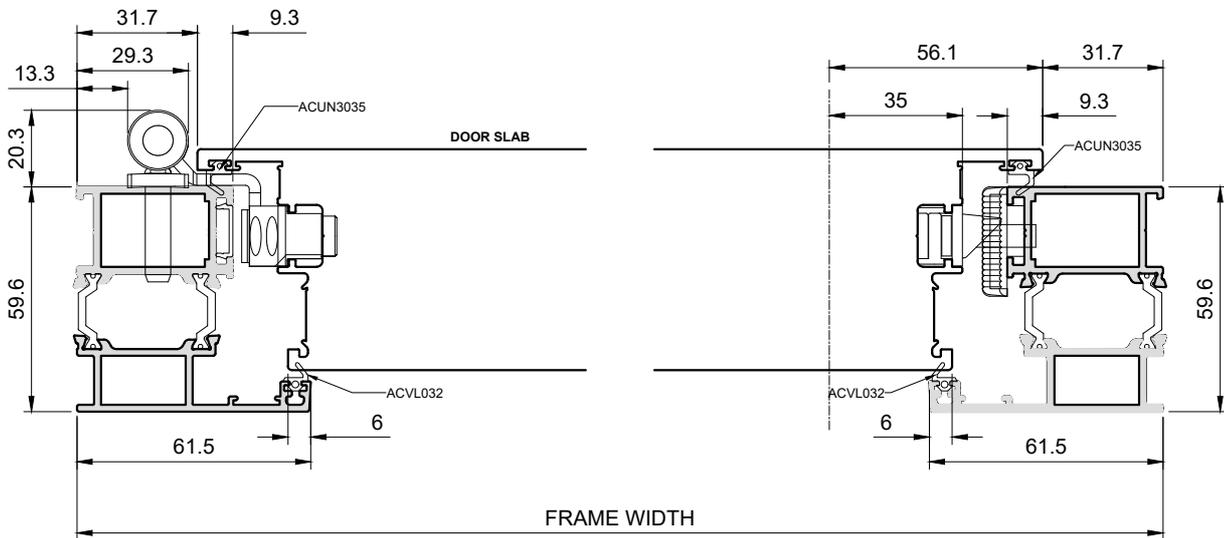
Full frame threshold is available in all colours to match your door surround.

Please see 'maintaining your door' section for cleaning advice.

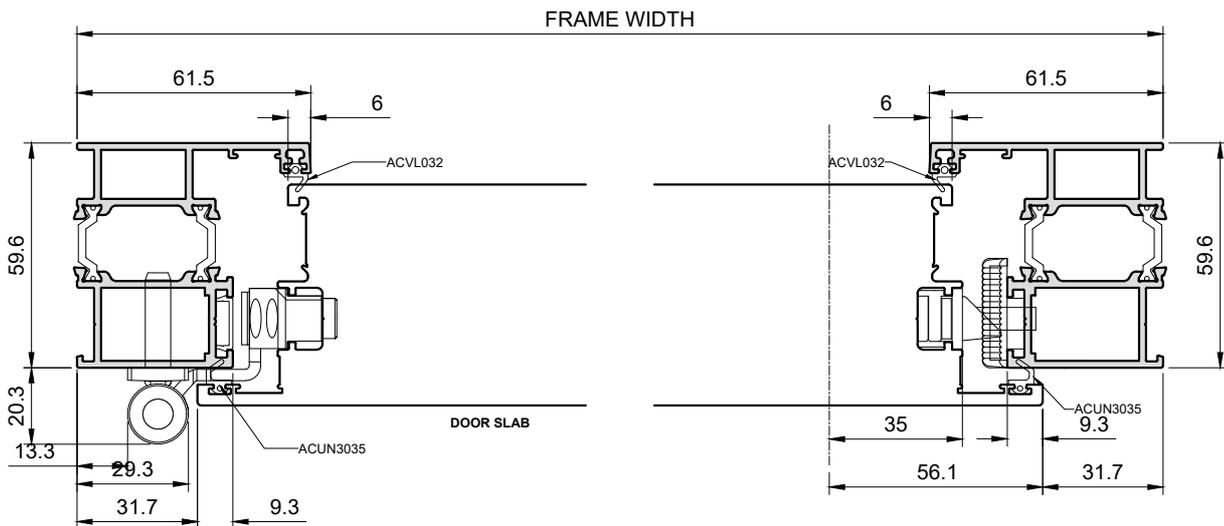


**Do Not Scale From This Drawing**

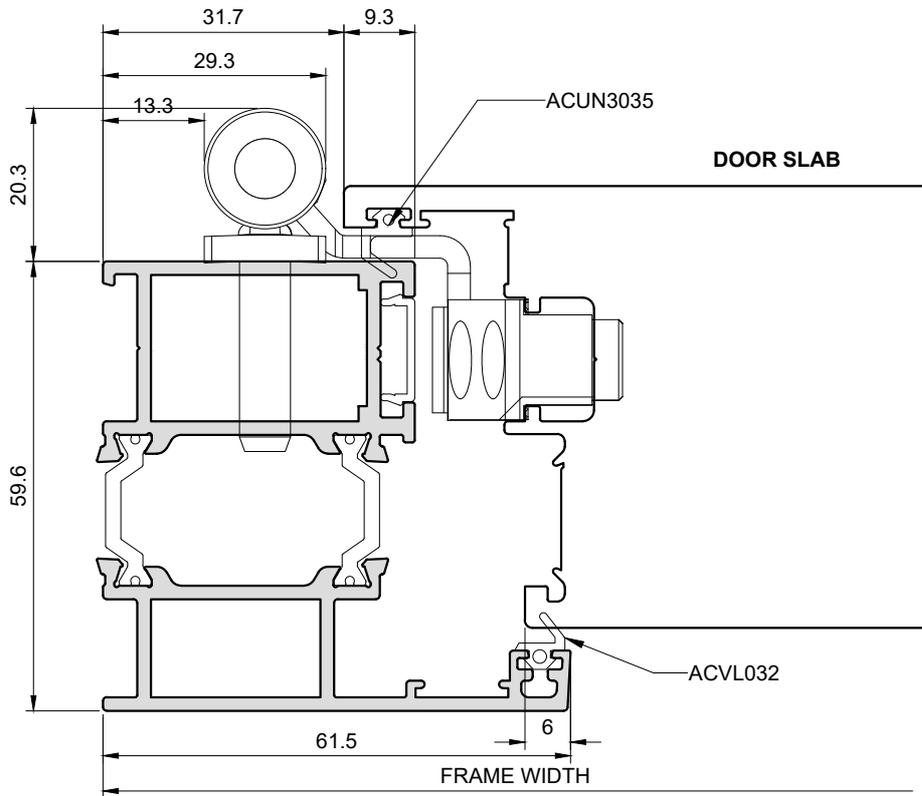
**Open In - Sectional Details**



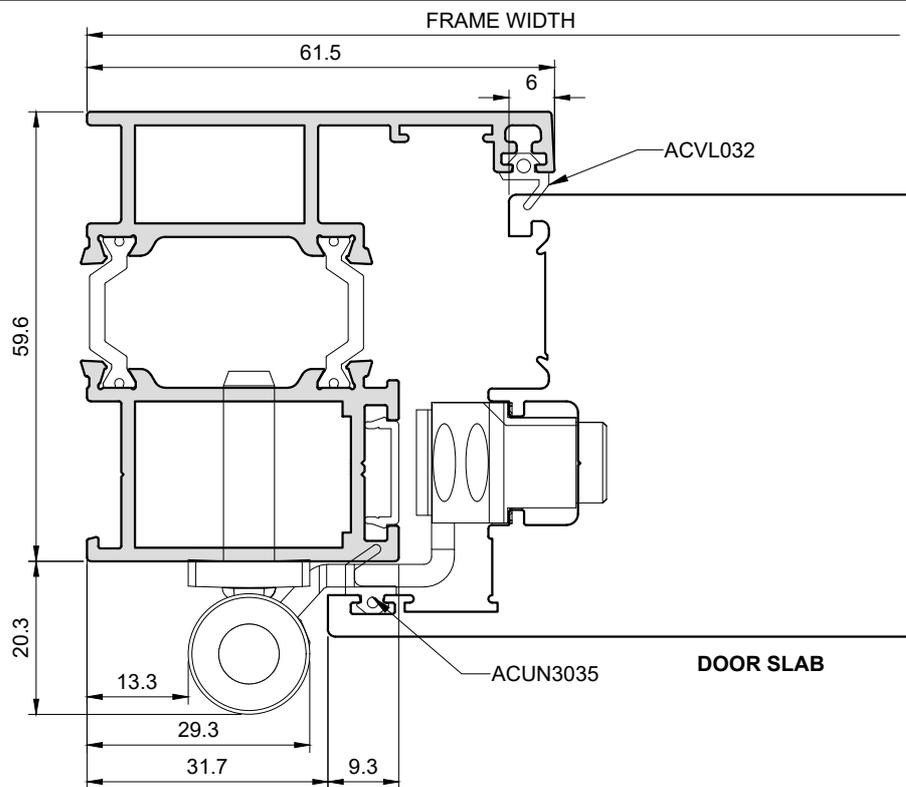
**Open Out - Sectional Details**



**Open In - Hinge Jamb**

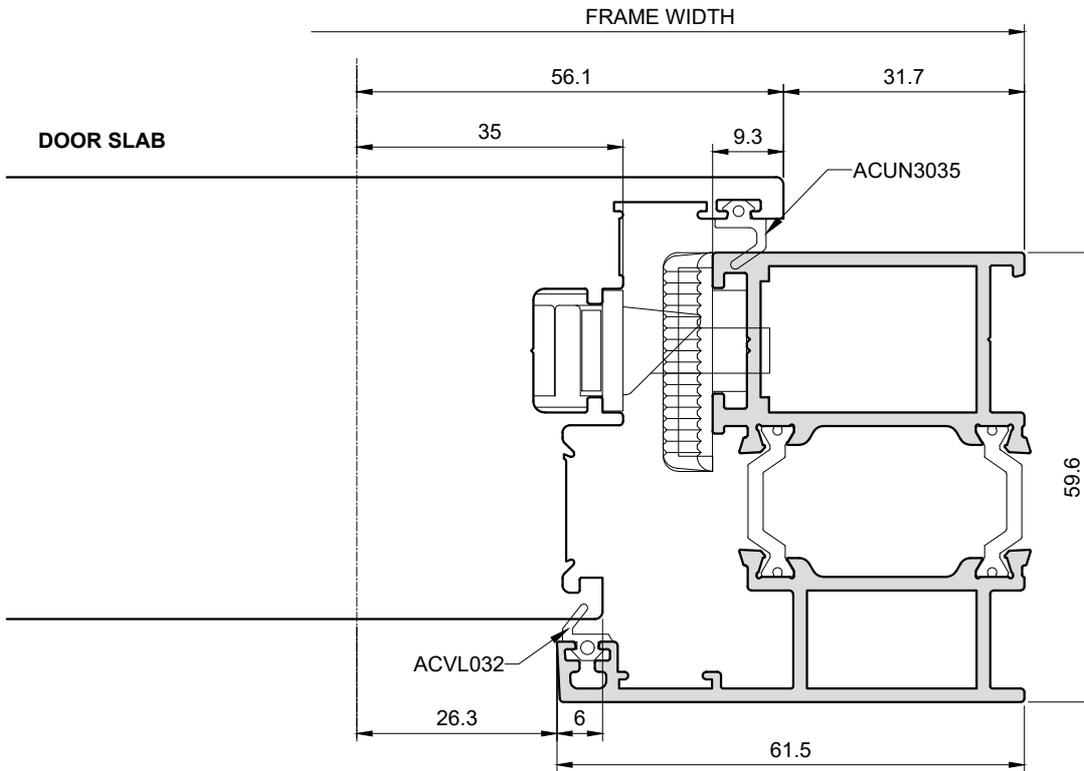


**Open Out - Hinge Jamb**

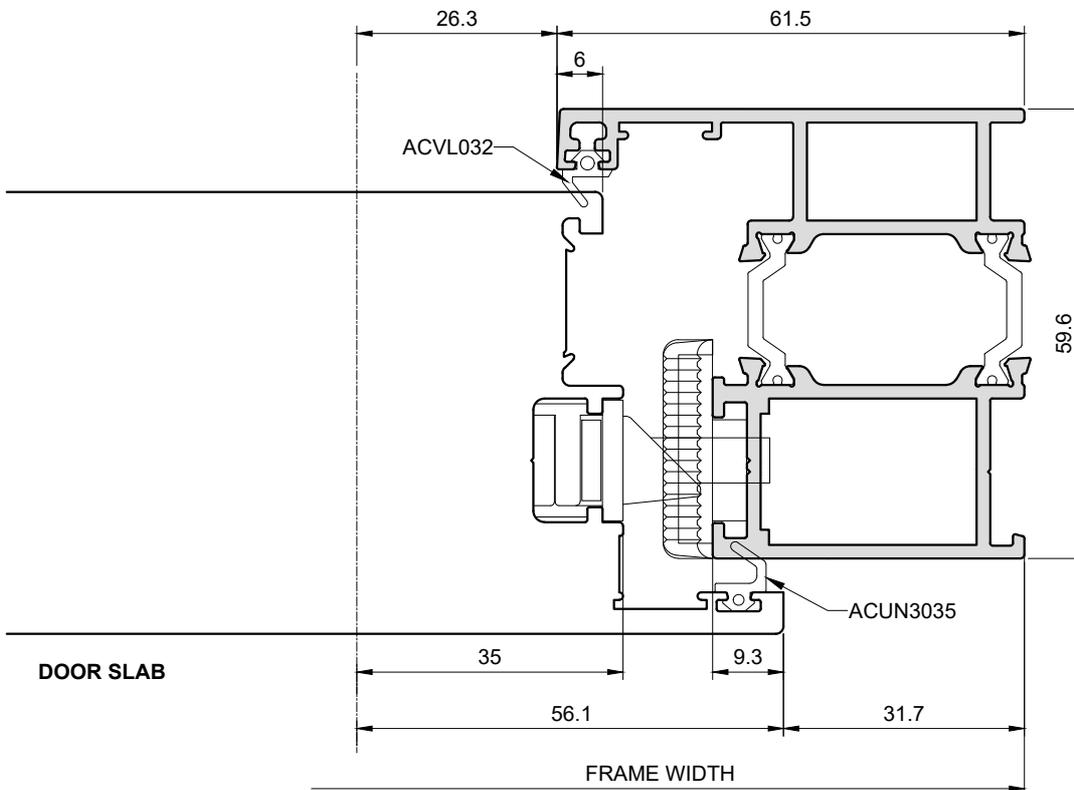


**Do Not Scale From This Drawing**

**Open In - Lock Jamb**

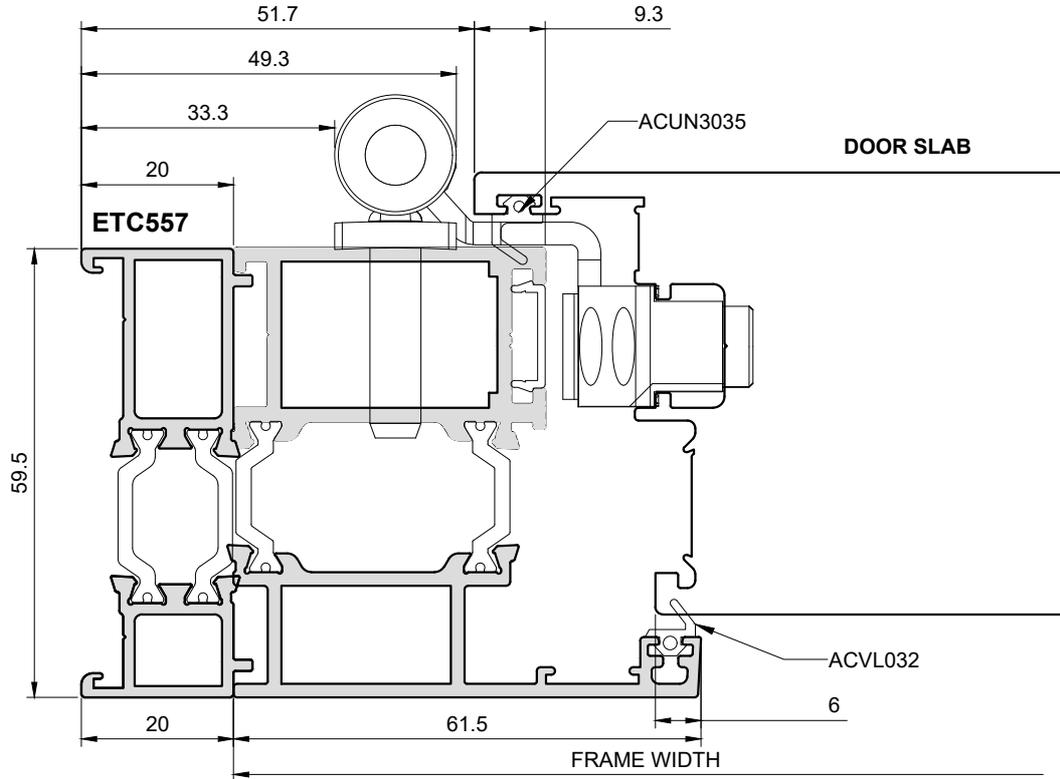


**Open Out - Lock Jamb**

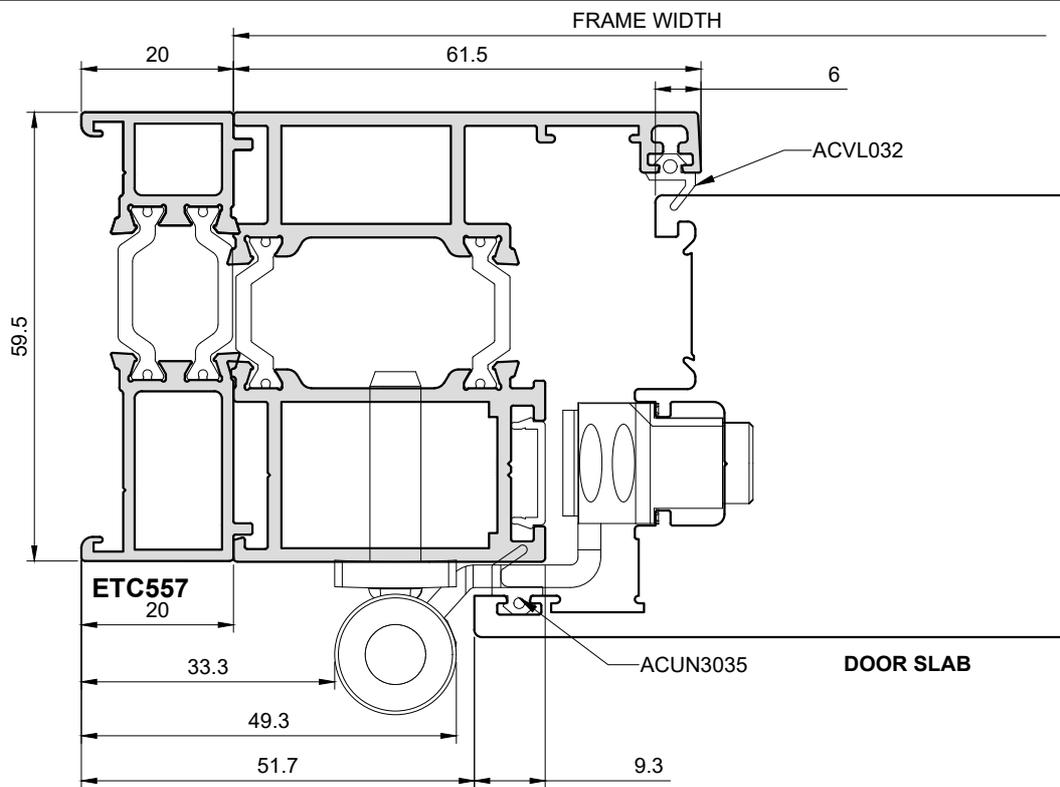


**Do Not Scale From This Drawing**

**Open In - Hinge Jamb with Add on**

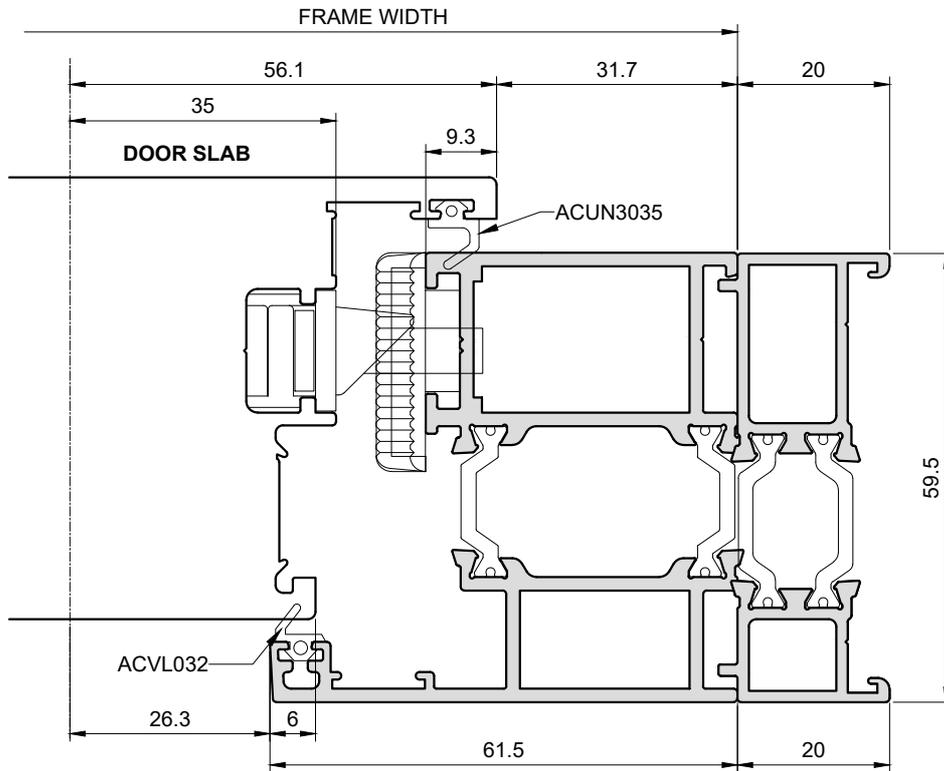


**Open Out - Hinge Jamb with Add on**

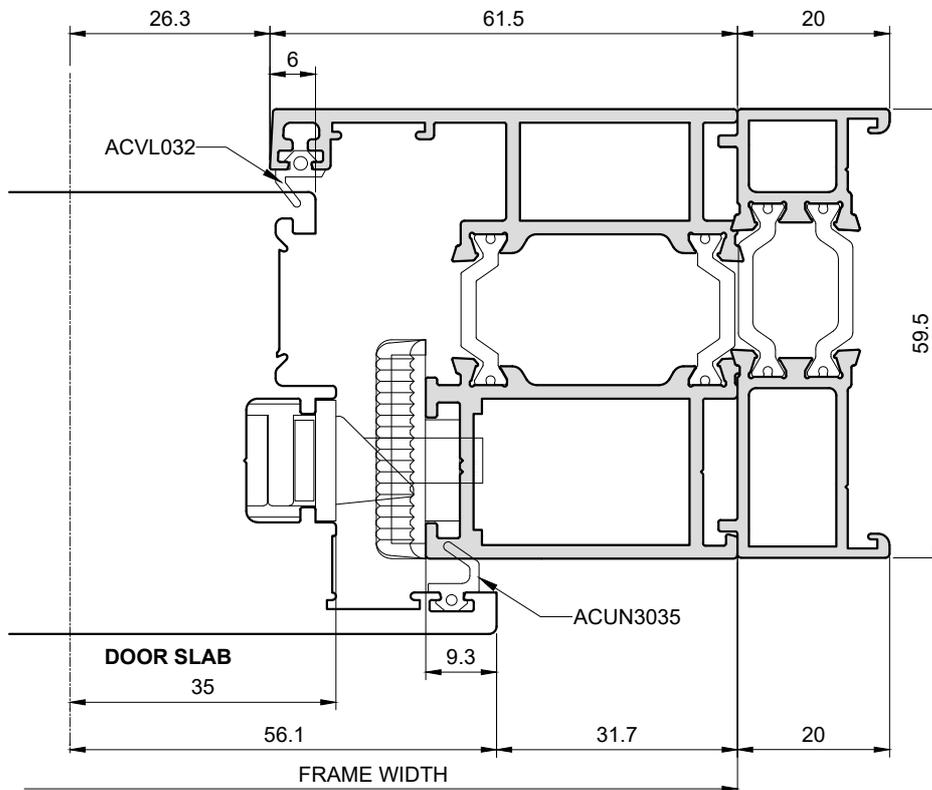


**Do Not Scale From This Drawing**

**Open In - Lock Jamb with Add on**

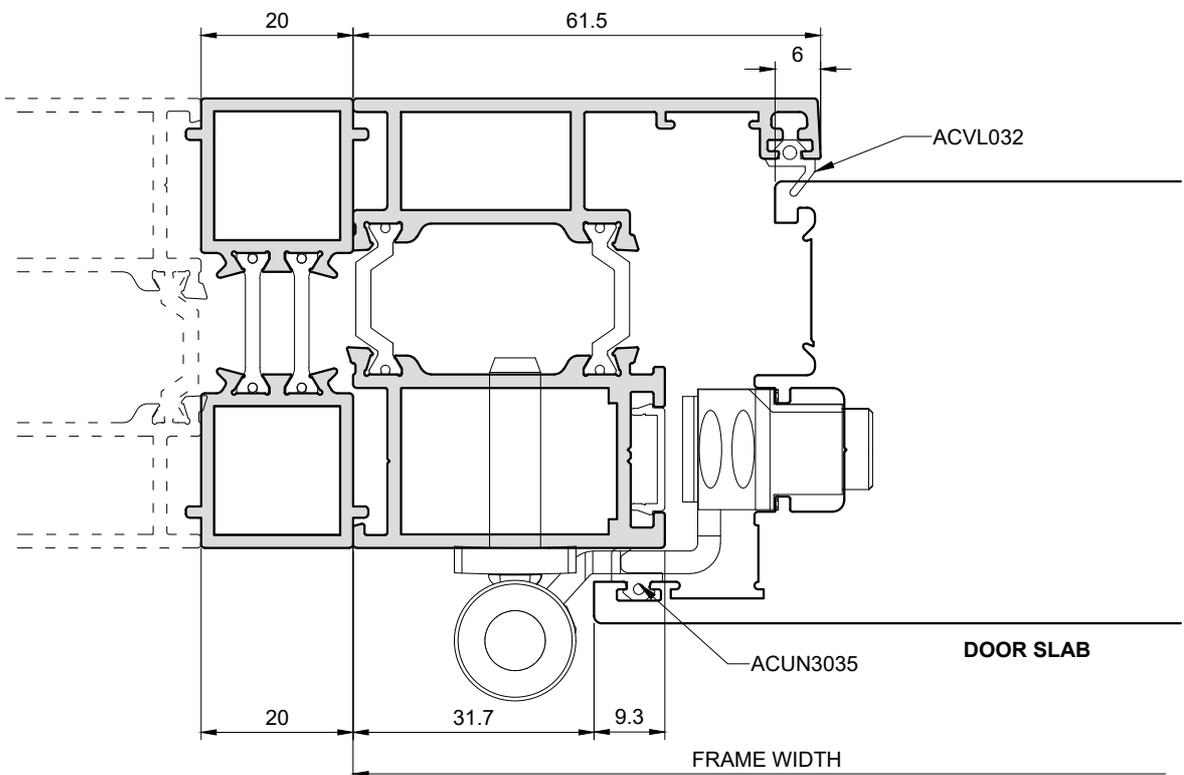
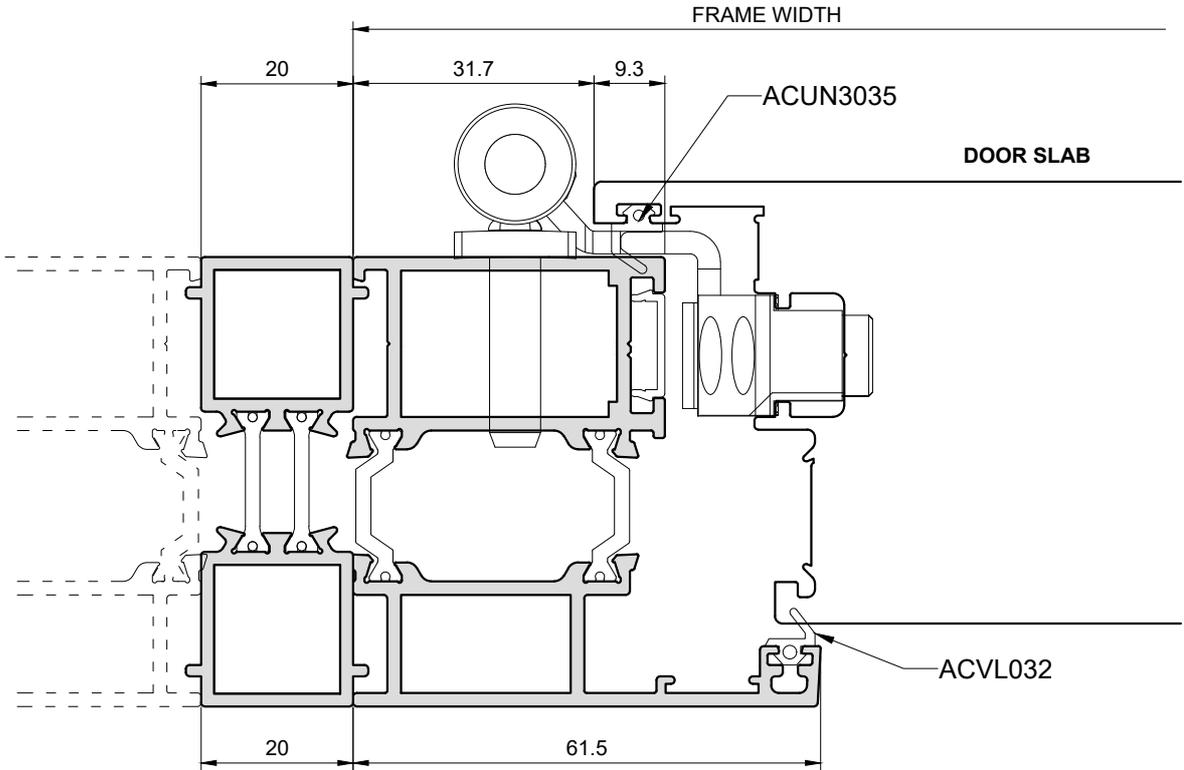


**Open Out - Lock Jamb with Add on**



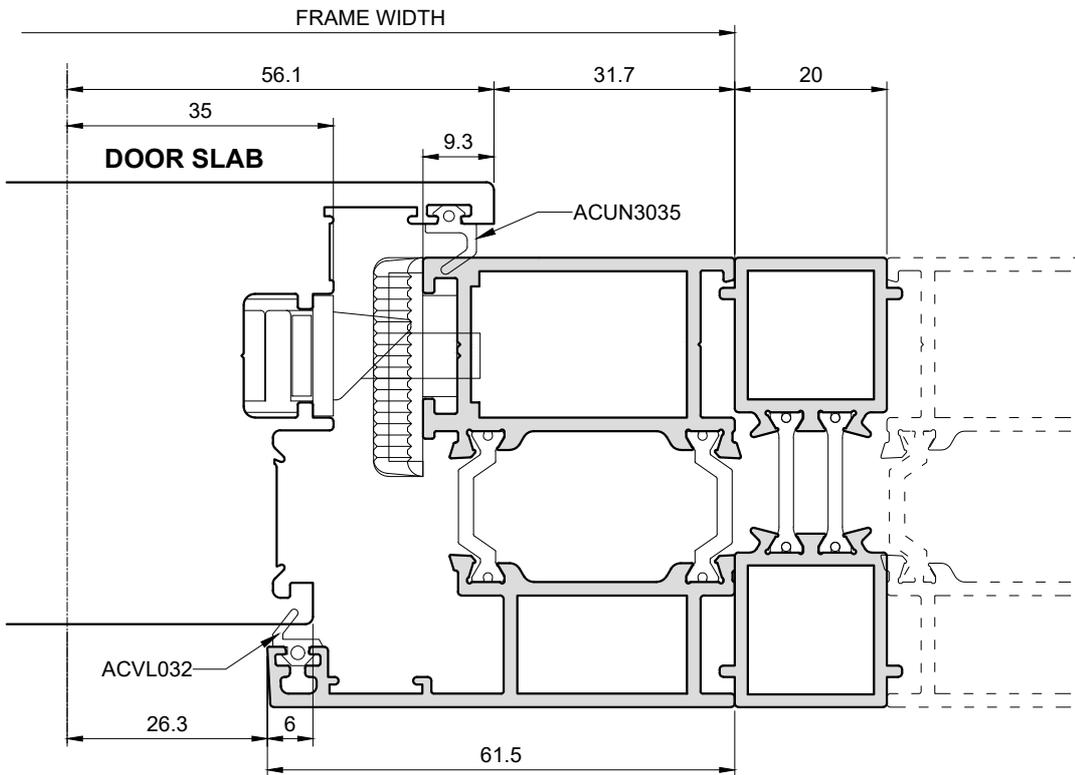
**Do Not Scale From This Drawing**

**Open In - Hinge Jamb with Coupler**

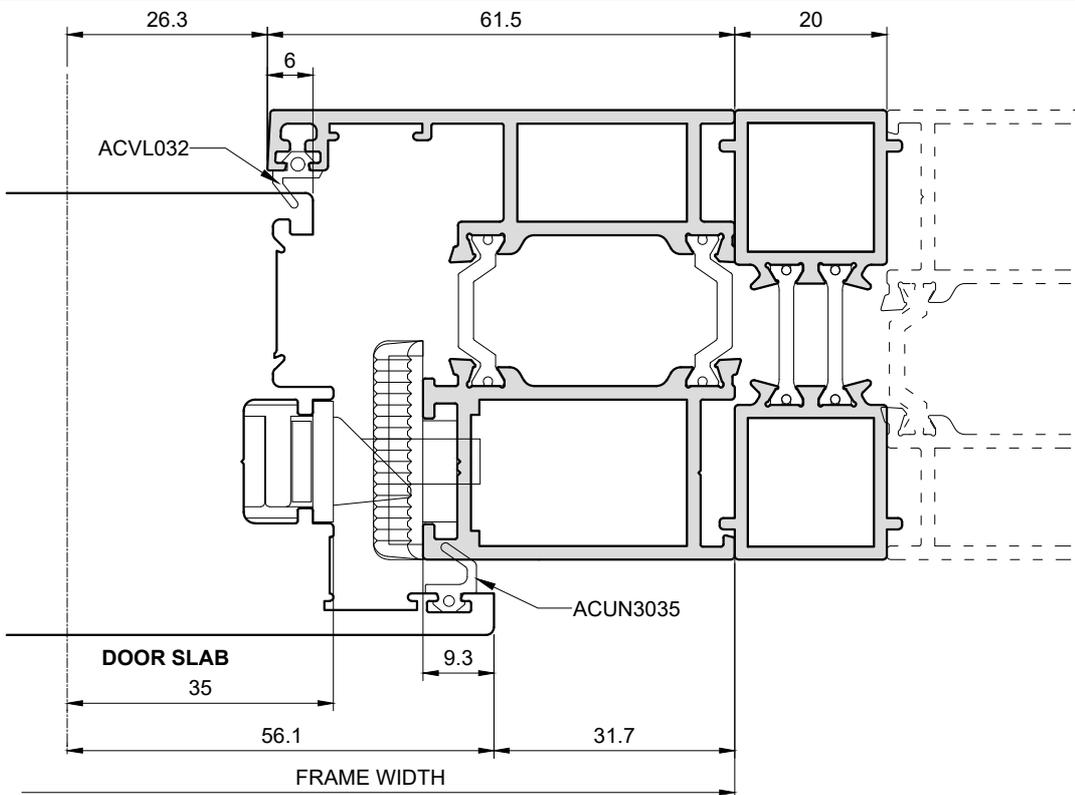


**Do Not Scale From This Drawing**

**Open In - Lock Jamb with Coupler**

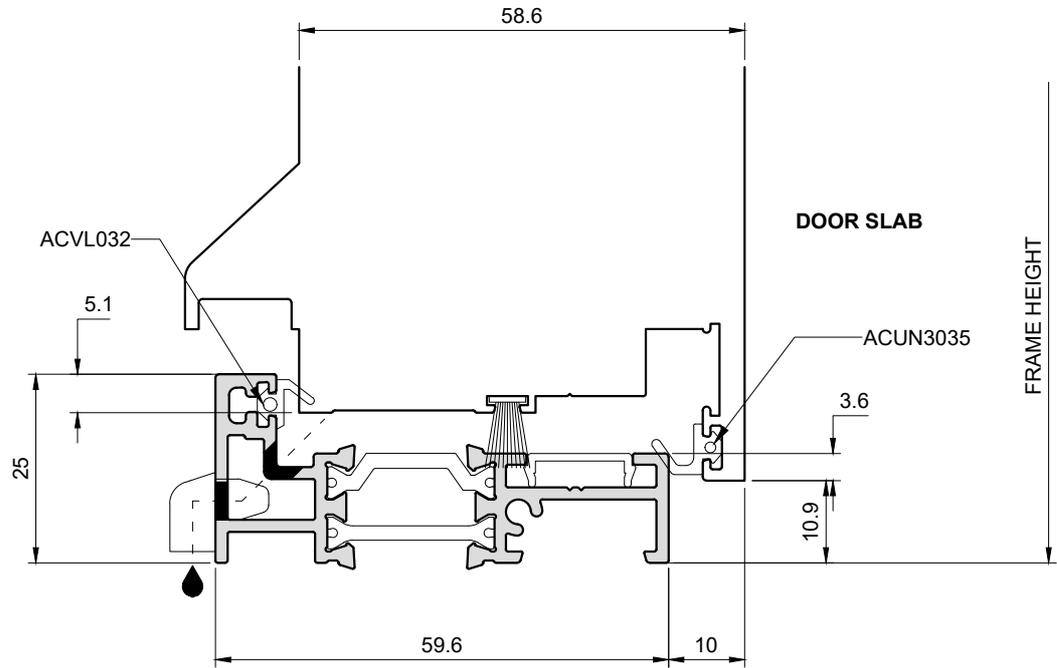


**Open Out - Lock Jamb with Coupler**

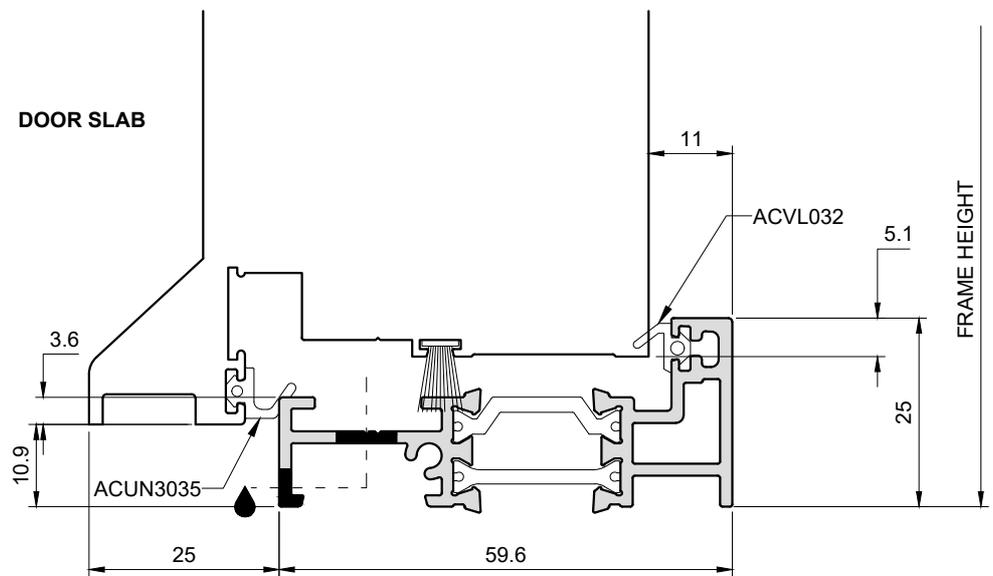


**Do Not Scale From This Drawing**

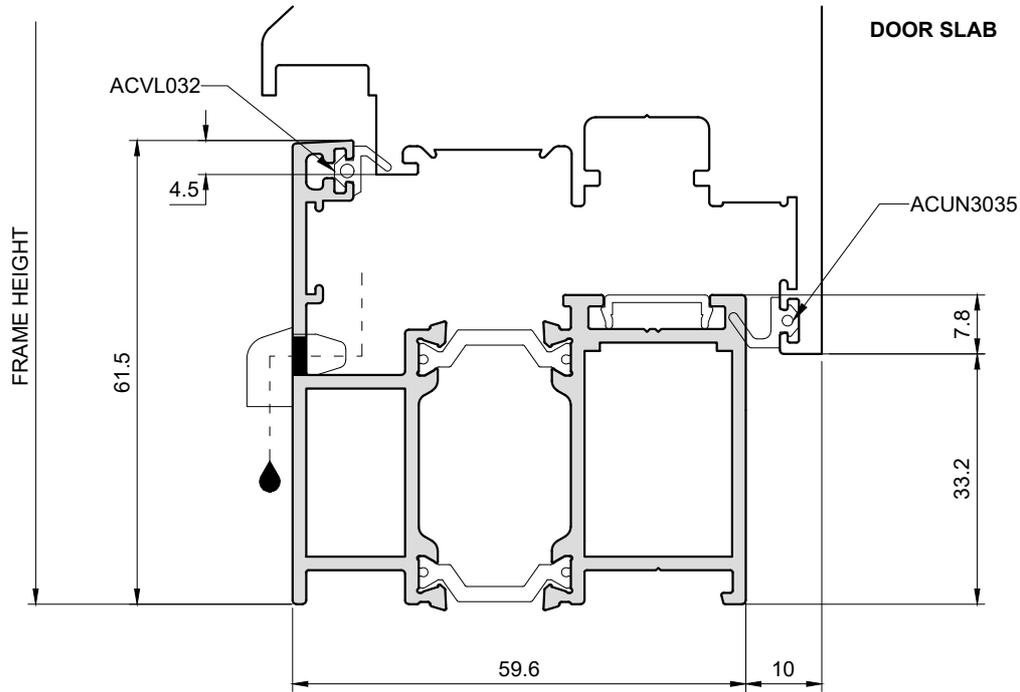
**Open In - Low Threshold**



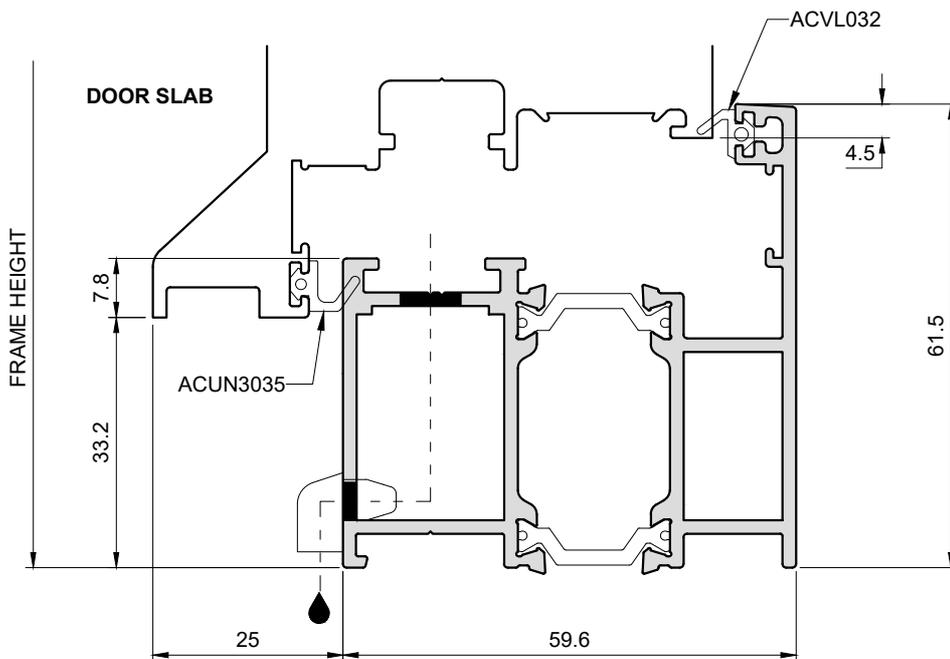
**Open Out - Low Threshold**



**Open In - Full Frame**

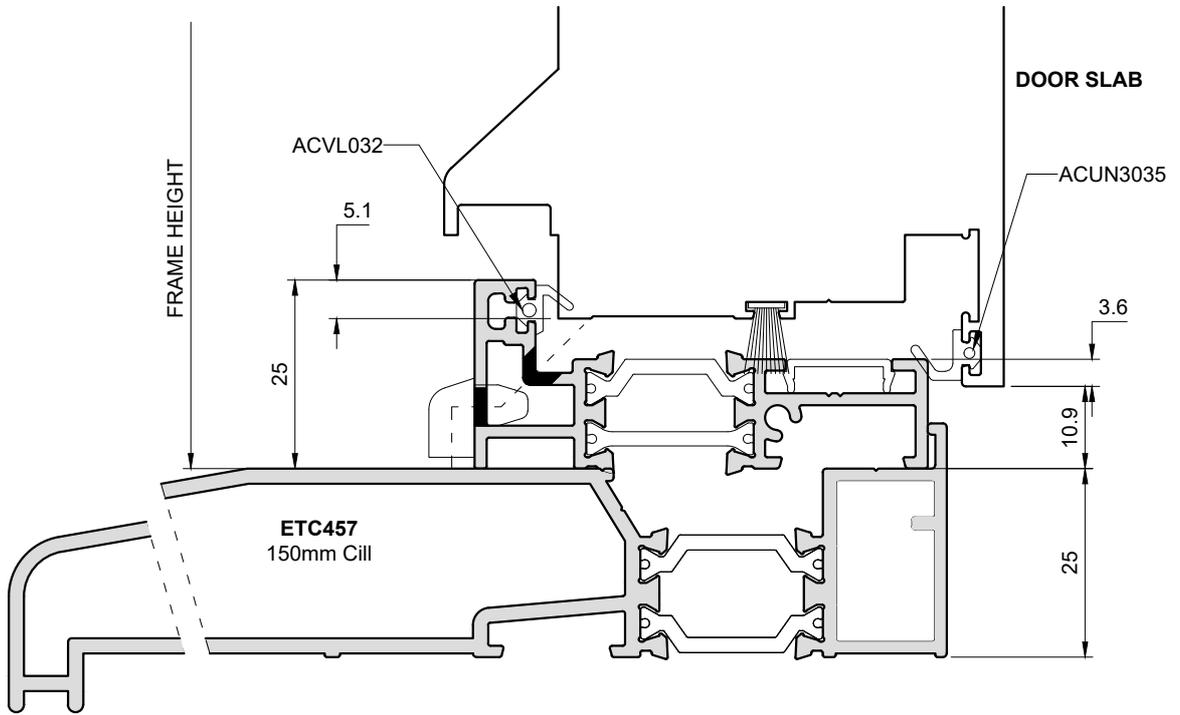


**Open Out - Full Frame**

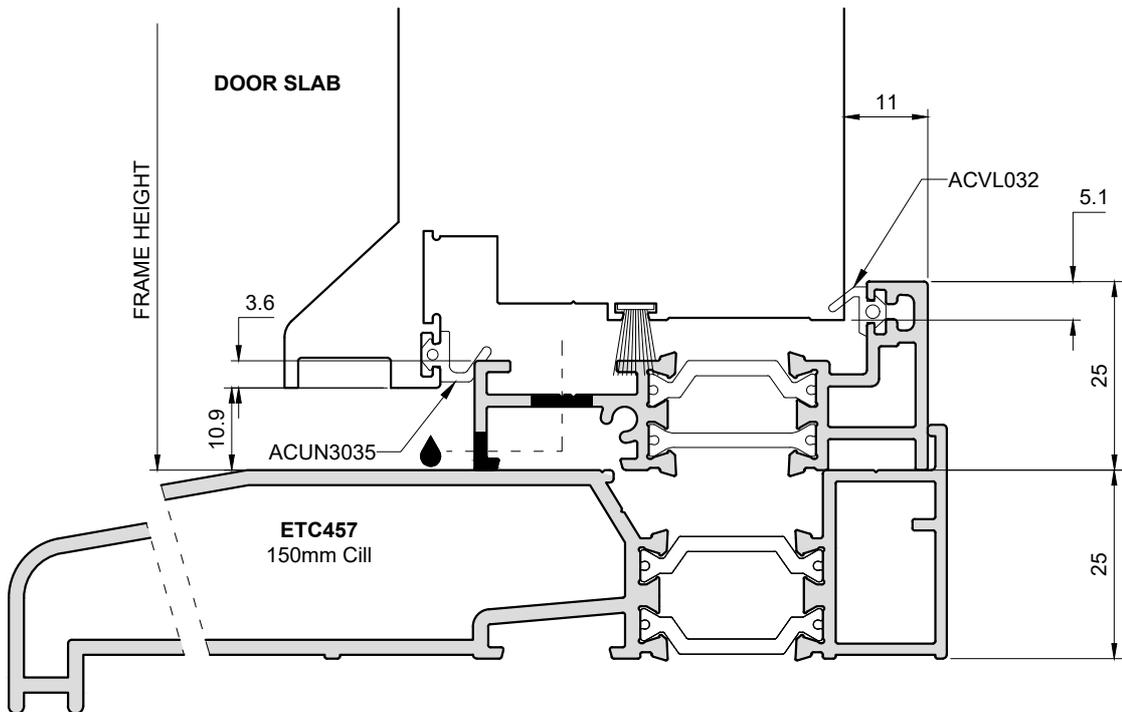


**Do Not Scale From This Drawing**

**Open In - Low Threshold with Cill**



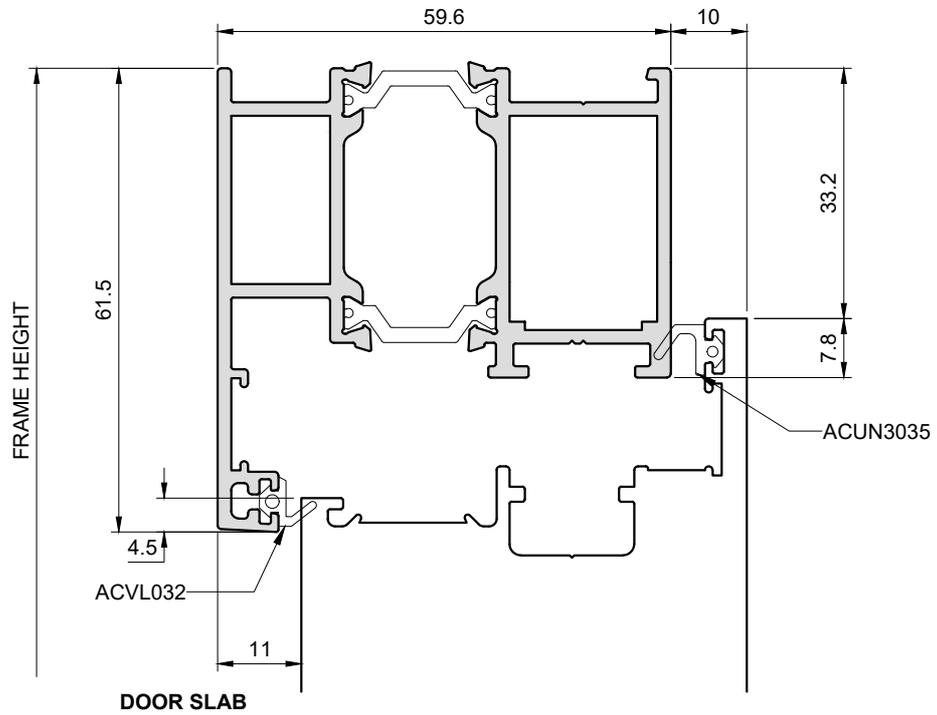
**Open Out - Low Threshold with Cill**



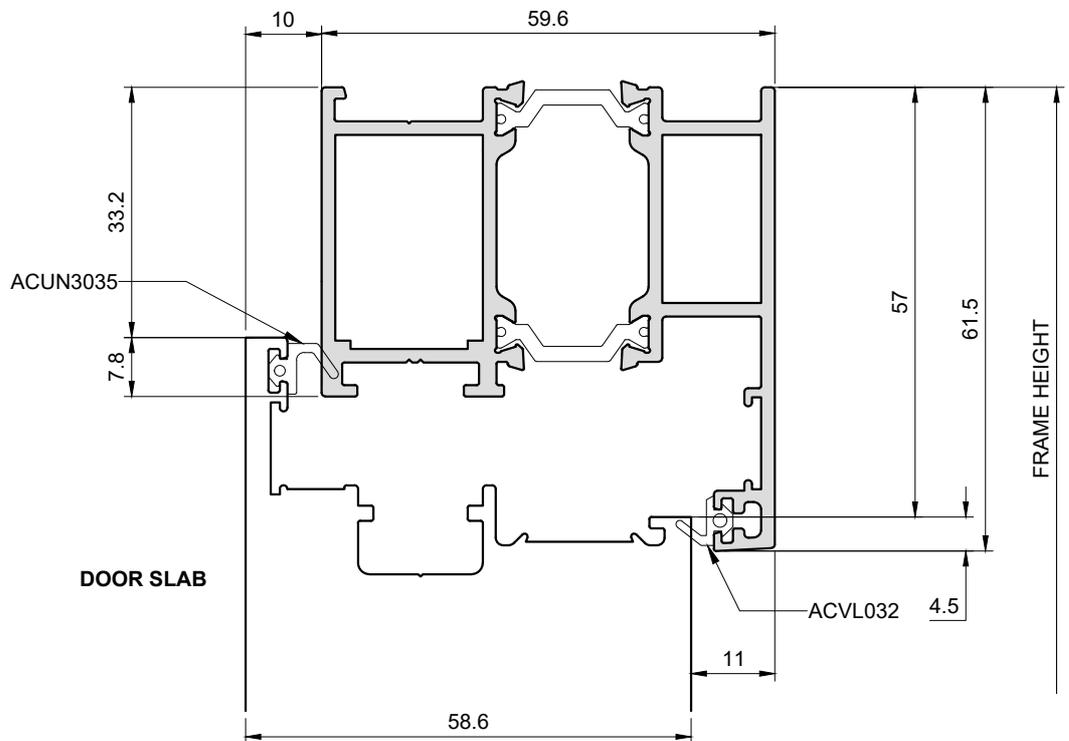
**Do Not Scale From This Drawing**



**Open In - Head**

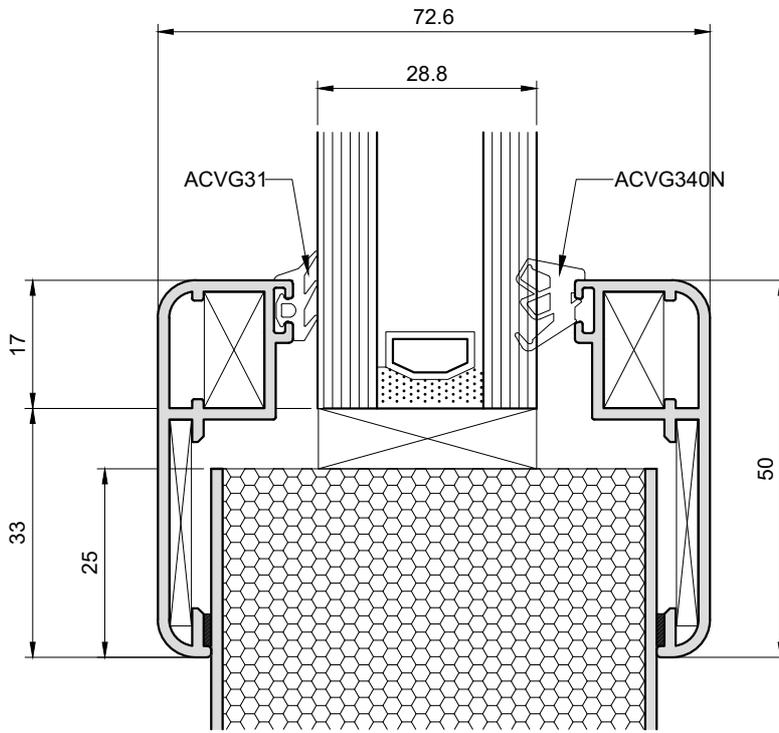


**Open Out - Head**

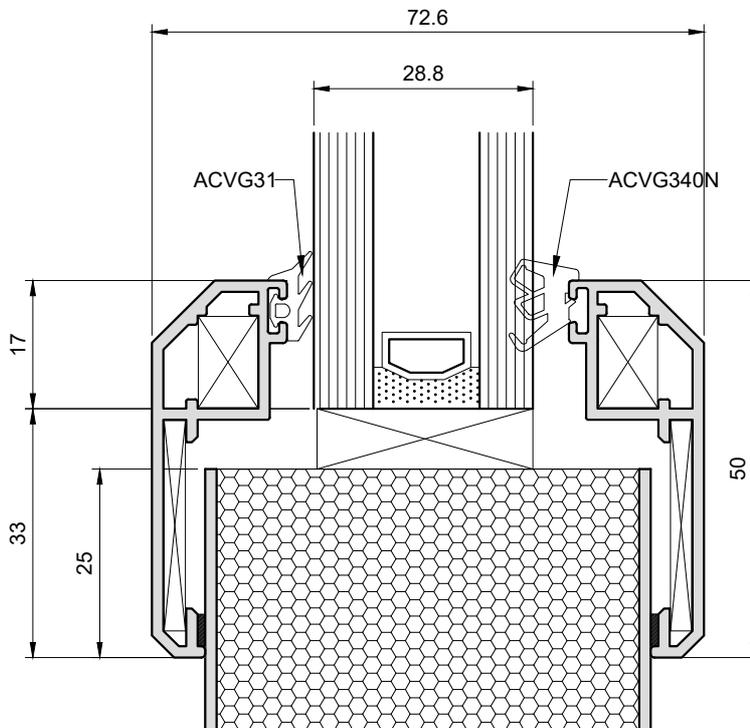


**Do Not Scale From This Drawing**

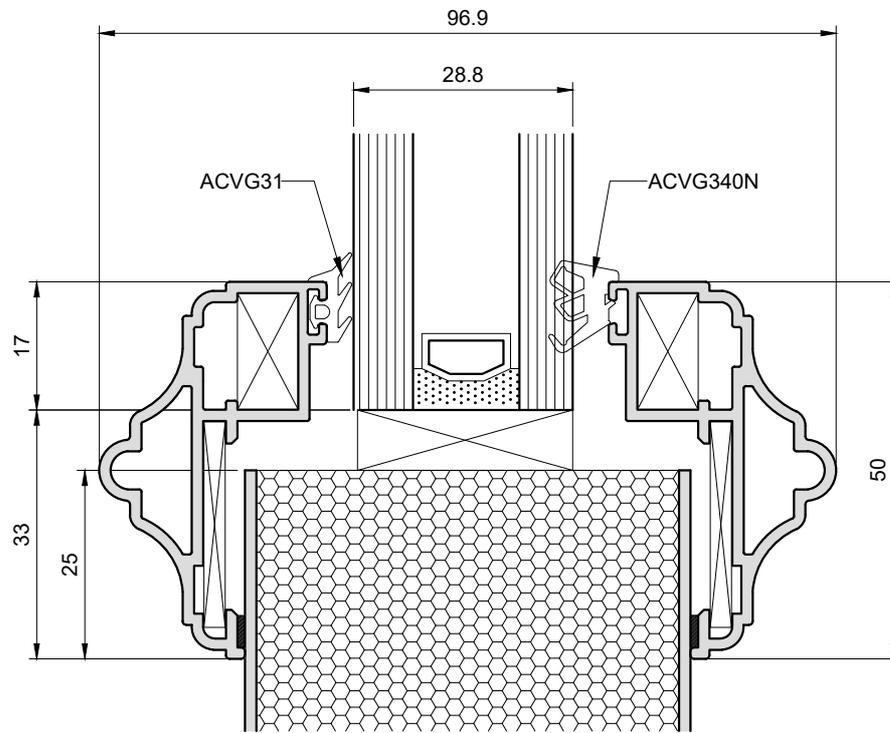
### Glazing - Rounded

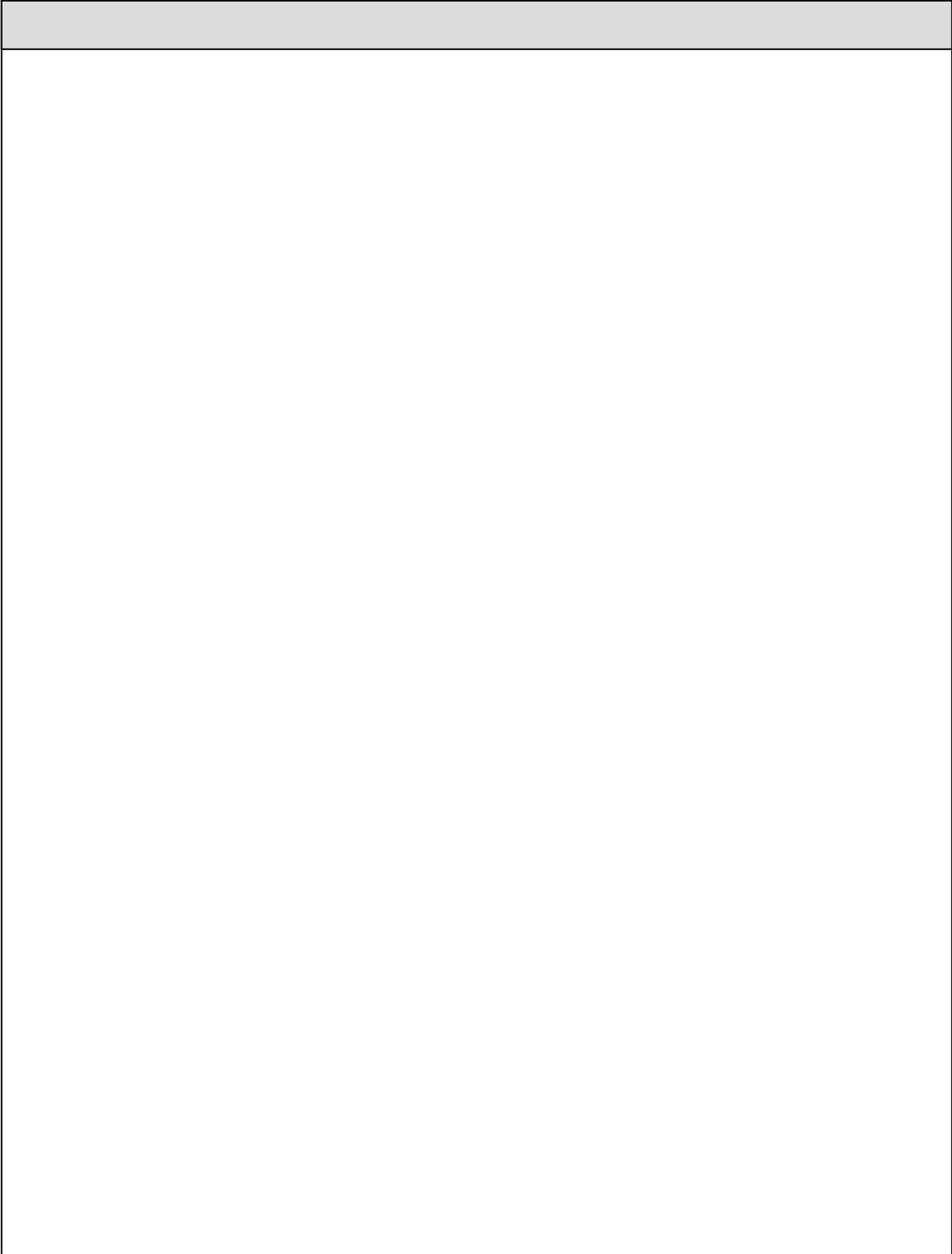


### Glazing - Sloped



Glazing - Ovolo





**Do Not Scale From This Drawing**

**Maintenance**

**Do Not Scale From This Drawing**

## Hardware

The hardware on your door is something you and your visitors touch everyday. Keeping them clean and tarnish free is an essential part of looking after your door.

1. Using a non-abrasive cloth and warm light detergent, ensure that all foreign contaminants are removed. Rinse with clean water.
2. Dry the hardware immediately to avoid streaks. Polish and buff the hardware with a soft, lint free cloth to shine.

### Important

- Do not use acid-based cleaning products or any other aids.
- Do not use an abrasive cloth to wipe away excess oil. This will damage the surface finish.

To maintain the appearance of any stainless steel hardware we recommend you use only the Stainless Steel Care Kit included with your door. Before you begin, carefully mask the powder coated finish of your door's sash using either masking tape or decorators tape.

1. Use a small amount of Smart Stainless Steel Cleaning Fluid on a micro-fibre cloth to clean the hardware. Ensure the product is spread evenly and remove any excess with a clean cloth (highly concentrated do not over apply).
2. Use a small amount of Smart Care Oil on a micro-fibre cloth and wipe the oil in the direction of the stainless steel grain. Remove any excess with a clean cloth. To finish, softly buff the oil to a sparkling finish with a clean micro-fibre cloth.

## Lock Maintenance

Knowing how to maintain your locks properly can help keep your home and family safe. Regular cleaning and lubrication every 3-6 months is recommended to keep your locks operating like new and will also help prevent freezing in cold weather.

1. It is important that the lock points are free of dirt and debris as this can impede the smooth operation of your lock. Use a small brush (a paint brush is ideal) to loosen any debris.
2. Place a protective sheet under the door, beneath the lock to protect your floor or carpet.
3. Check all movable and locking components for correct operation
4. Lightly grease all protruding latching and bolts. **DO NOT USE OIL.** Use acid-free multi-purpose grease e.g. Fuhr contact grease (art. no. VNZ80077).
5. Check all locking points for wear and tear and a firm fitting.

6. Depending on usage, fixing screws may have to be tightened or replaced if damaged.
7. Only use cleaning products that do not affect hardware anti-corrosion coatings.

### Important

- Take care when applying to not get cleaning products or grease on powder coating.
- Oil based products, for example WD40, should not be used on locks. This works as a degreaser and will impede performance and may even damage lock mechanism.
- Take good care of your keys, a damaged key can cause damage to your cylinder.

**Do Not Scale From This Drawing**

## Threshold & Seals

The build up of dirt and debris in a threshold can impede the performance and operation of your new door. Therefore we recommend cleaning your threshold every 6 months.

1. It is important that the door's threshold is clean and free from stones and any debris (leaves, accumulation of dirt etc) as this can impede the smooth operation of your door and can affect drainage.
2. Use a small brush (a paint brush is ideal) to loosen any debris from the threshold and then using a vacuum, remove the dirt that has been collected.
3. Ensure that the two drainage slots at either end of the threshold are not blocked and are free of debris.
4. Use a small brush to loosen any debris from the drainage slots and then vacuum away the dirt.

Fitted around the perimeter of the door sash and frame are rubber seals. To keep the seals in good condition to prevent drafts & loss of heat from your home we recommend cleaning the rubber seals every six months.

1. To clean the rubber seals, gently run across them with a light soapy solution and non-abrasive cloth.

### Important

Do not use solvent-based cleaning products on the seals. We recommend you use a silicone-based spray on the seals twice a year (or more regularly if needed).

## Paint

Doors are low maintenance and easy to take care of. Wiping your door and frame with fresh water and a light detergent once a month will help to prevent the build up of dirt. To preserve a stunning look all year round follow our simple guide.

### Do Not Use:

- Any type of heavy duty household cleaner, as this may damage the powder coat finish of the frame and door surface
- Solvent based cleaning fluid (such as cellulose thinners or nail polish remover) these will cause irreversible damage to the door.
- Abrasive or aggressive materials (such as wire wool, sand paper, scouring pads or abrasive cloths) or tools (such as scrapers or knives) as this will damage the surface finish.

1. If your house is located in a marine or coastal environment, the external surface of the doors and frames should be washed down with fresh clean water on a weekly basis to remove any salt deposits that can build up.
2. It is preferable to clean the metal when shaded. Do not attempt to clean surfaces when heated by the sun, as it is possible that chemical reactions will be highly accelerated and cause damage to the surface. Also avoid cleaning in freezing temperatures.

**Do Not Scale From This Drawing**

## Glass

Glazed doors are a beautiful addition to a home. But as they are exposed to wind, rain, fingerprints and marks, occasionally they need a good clean. Follow our simple guide to keep your glazing clean and smudge free.

1. Using a non-abrasive, window cleaning solution and a soft clean cloth or sponge gently wipe away any dirt on the glazing.
2. Rinse the glass immediately with clean water to remove the cleaning solution
3. After you have finished cleaning the glass, wipe away any cleaning solution from the glazing's gaskets, seals and frame with clean water.
4. After you have finished cleaning the glass, wipe away any cleaning solution from the glazing's gaskets, seals and frame with clean water.

### Important

- Do not use razor blades or scrapers to clean the glass; this carries a high risk of causing irreparable damage to the glass.
- Do not use acid-based cleaning products or any other aids.

### Please note:

If 3rd party glass unit is used, please follow the cleaning and maintenance guide from supplier. Take special care not to use any cleaning or maintenance products that may damage other aspects of door.

**Do Not Scale From This Drawing**



## Contact Information

Smart Systems Limited  
Arnolds Way  
Yatton  
Bristol  
BS49 4QN  
UK

[www.smartsystems.co.uk](http://www.smartsystems.co.uk)

**T:** +44 (0) 1934 876 100

**F:** +44 (0) 1934 835 169

**Sales:** [sales@smartsystems.co.uk](mailto:sales@smartsystems.co.uk)

**Technical:** [technical@smartsystems.co.uk](mailto:technical@smartsystems.co.uk)