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comar 7P.i ECO LT

February 2020

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## COMAR 7Pi ECO LT DOORS

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# INTRODUCTION

comar 7P.i ECO LT

INTRODUCTION

1



A4 Scale: NTS

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## INTRODUCTION

### COMAR 7Pi ECO LT DOOR SYSTEM

The Comar 7Pi ECO LT door has been designed to provide high performance solutions for today's specification demands.

Utilising Comar's trademark P.i. (Polyamide Insulation) thermal break technology, it delivers superior thermal performance with an aesthetic edge.

Aesthetics comes from its slim 75 mm profiles, seamlessly integrating with the Comar 5Pi ECO LT casement window system.

Offering single or double doors that can open out, the door is ideally suited to light commercial, residential or social housing projects.

Comar 7Pi ECO LT has been tested to PAS 23 which ensures the door performs well against the rigours of the British weather, reducing draughts and providing excellent weather proofing.

Security concerns are alleviated with the Comar 7Pi. ECO LT door exceeding the requirements of PAS 24 with its secured by design multi-point locking system and key cylinder that is both bump resistant and snap resistant, ensuring the highest levels of reassurance against intruder attack.

Comar 7Pi ECO LT comes with various threshold options, such as rebated for weather performance or low-rise for compliance with the Disability Discrimination Act. (D.D.A).

The glazed area has the capacity to accept glazed units from 24mm up to 33mm thick.

Comar 7Pi ECO LT doors provide a realm of design opportunities with dual colour options: the internal and external faces of the profiles can be polyester powder coated or anodised in a multitude of colours and finishes.

Rebated doors are internally beaded for domestic applications that allow for multi-light construction.

Tooling is available, ensuring that preparations are accurate and wastage reduced. The door uses spring loaded cleats to enable fast-track manufacture.

All technical aspects of the product range are covered in this Product Manual and further information is available from Comar's Technical Department for specific contract requirements.

comar 7P.i ECO LT

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Introduction

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## SYSTEM SPECIFICATION

### COMAR 7Pi ECO LT DOOR SYSTEM

The product was successfully tested to PAS 23 & PAS 24.

For Open In arrangement:- Water Tightness: 450Pa  
Class 3 Air Permiability: 600Pa  
Wind Resistance: 1200Pa

For Open Out arrangement:- Water Tightness: 900Pa  
Class 4 Air Permiability: 600Pa  
Wind Resistance: 1200Pa

Test reports are available on request.

In addition the door system conforms to recognised industry standards as adopted by Centre for Windows and Cladding Technology and trade associations.  
i.e. The Council for Aluminium in Building.

Profiles are extruded from Aluminium Alloy 6063TF or TB, to BS EN 12020 & BS EN 755.

Profiles may be finished to the following specifications:-

Anodising to BS EN 12373 & BS 3987.

Liquid organic coatings to BS 4842.

Powder organic coating to BS 6496.

Weather strip and glazing to BS 6375 & BS 4255-1.

Glass and glazing to BS 6262.

The doors are mitre jointed using stainless steel chevrons, alignment cleats and spring loaded cleats. All mitre joints incorporate aluminium adhesive for added strength.

comar 7P.i ECO LT

INTRODUCTION

1

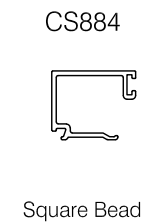
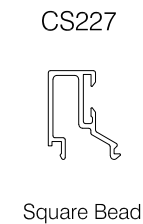
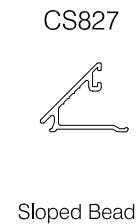
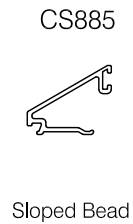
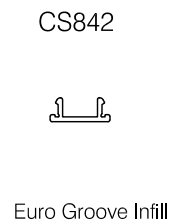
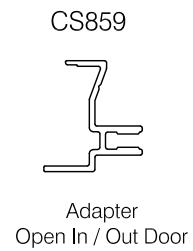
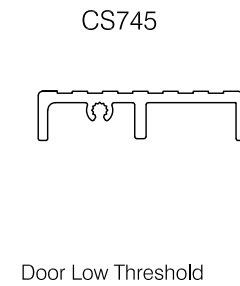
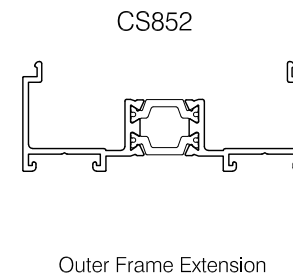
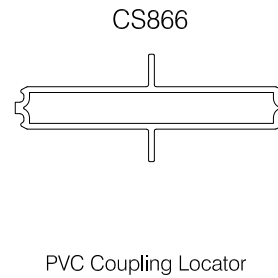
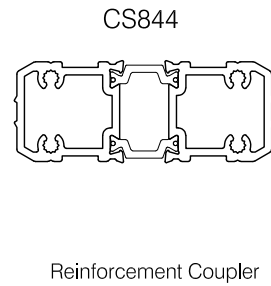
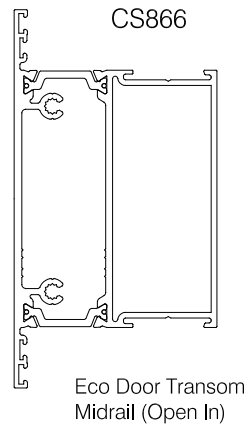
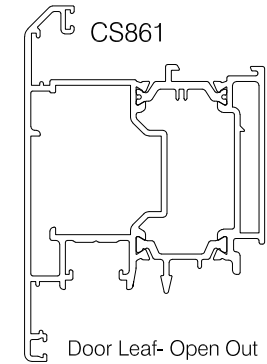
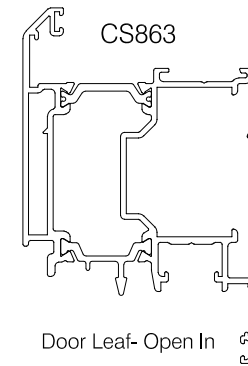
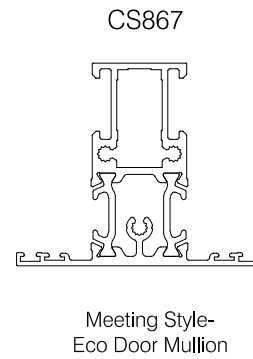
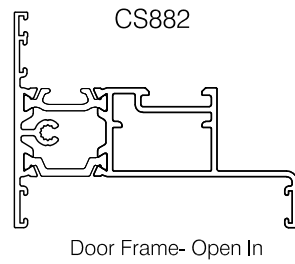
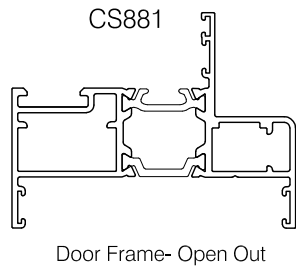


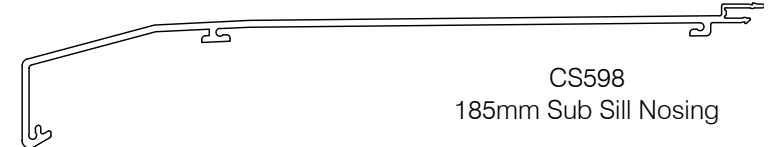
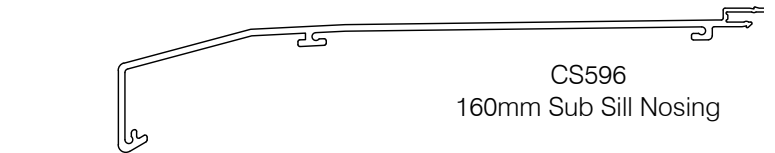
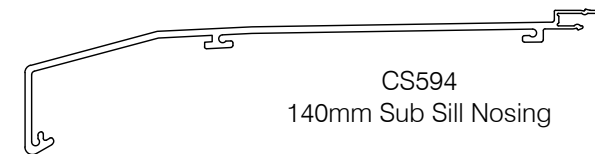
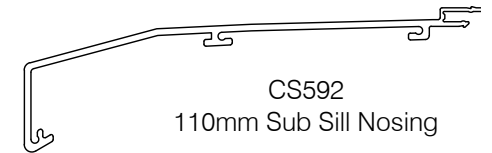
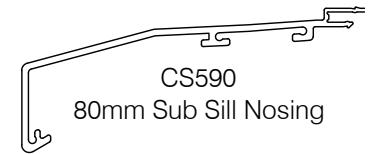
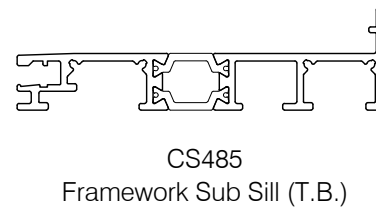
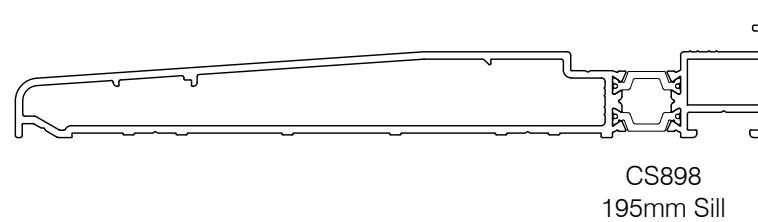
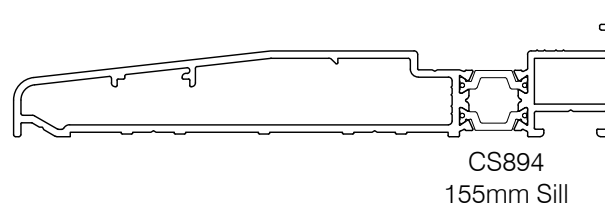
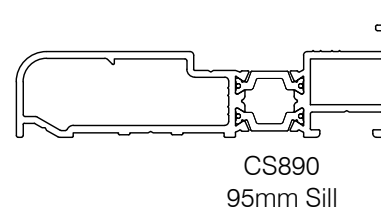
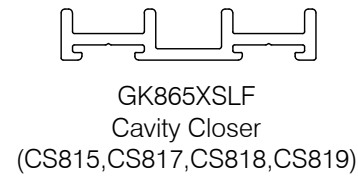
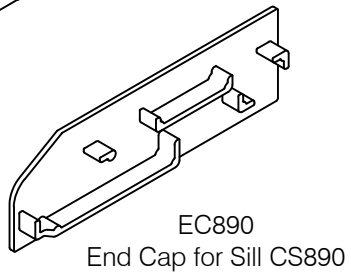
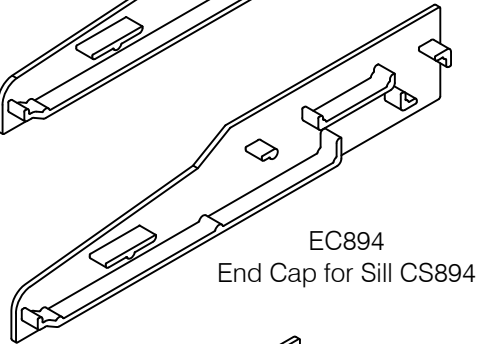
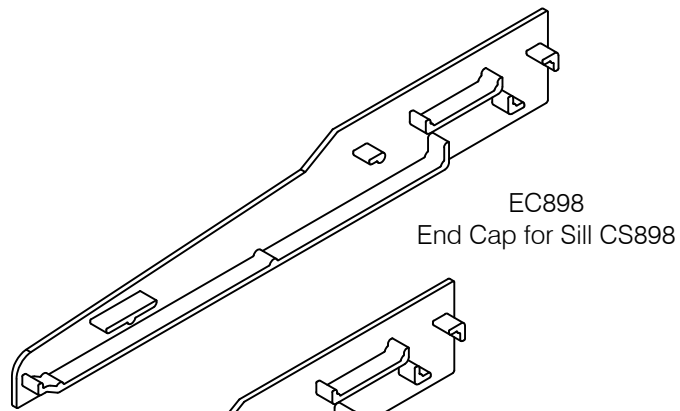
Introduction

A4 Scale

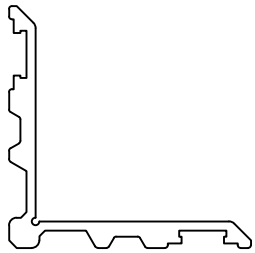
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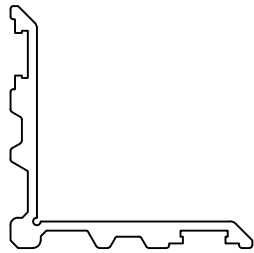


WS890XSFL



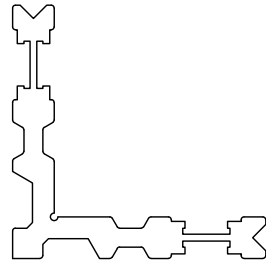
Window Corner Cleat  
16.5mm cut from CS546

WS891XSFL



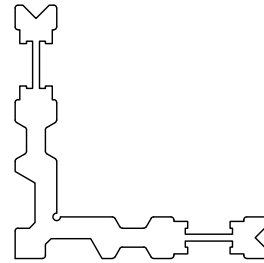
Window Corner Cleat  
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WS892XSFL



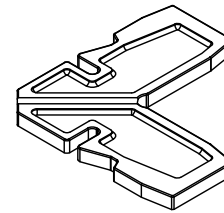
Door Corner Cleat  
25.5mm cut from CS246

WS893XSFL



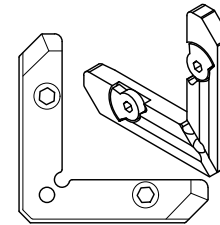
Door Corner Cleat  
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WS172XSFL



Cleat for  
CS861/CS863

WS416XSFL

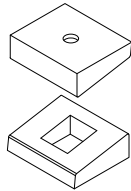


Alignment Square  
CS861/CS863

WS092XSFL

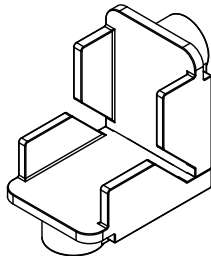


WS561XSFL



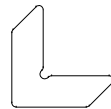
Adjustable Lifting  
Wedges

WS395XSFL



Mechanical Cleat for  
CS861/CS863

WS815XSFL



8mm Chevron

GK401



2.2mm Wedge  
Gasket

GK403



3mm Wedge  
Gasket

GK405



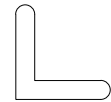
4mm Wedge  
Gasket

GK407



5.2mm Wedge  
Gasket

WS515XSFL



5mm Chevron

GK408



6mm Wedge  
Gasket

GK422



2mm Arrow  
Head Gasket

GK425



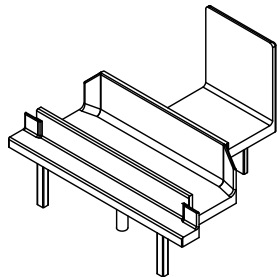
5mm Arrow  
Head Gasket

GK441

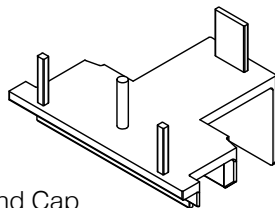


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Weather Strip

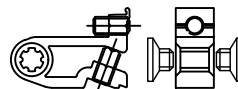
EC867DBLK



Mullion End Cap



WS808 XKIT



Cruciform Cleat Kit

GK840



Weather Seal  
Gasket

GK841



Weather Seal  
Gasket

GK054



Euro Groove Filler

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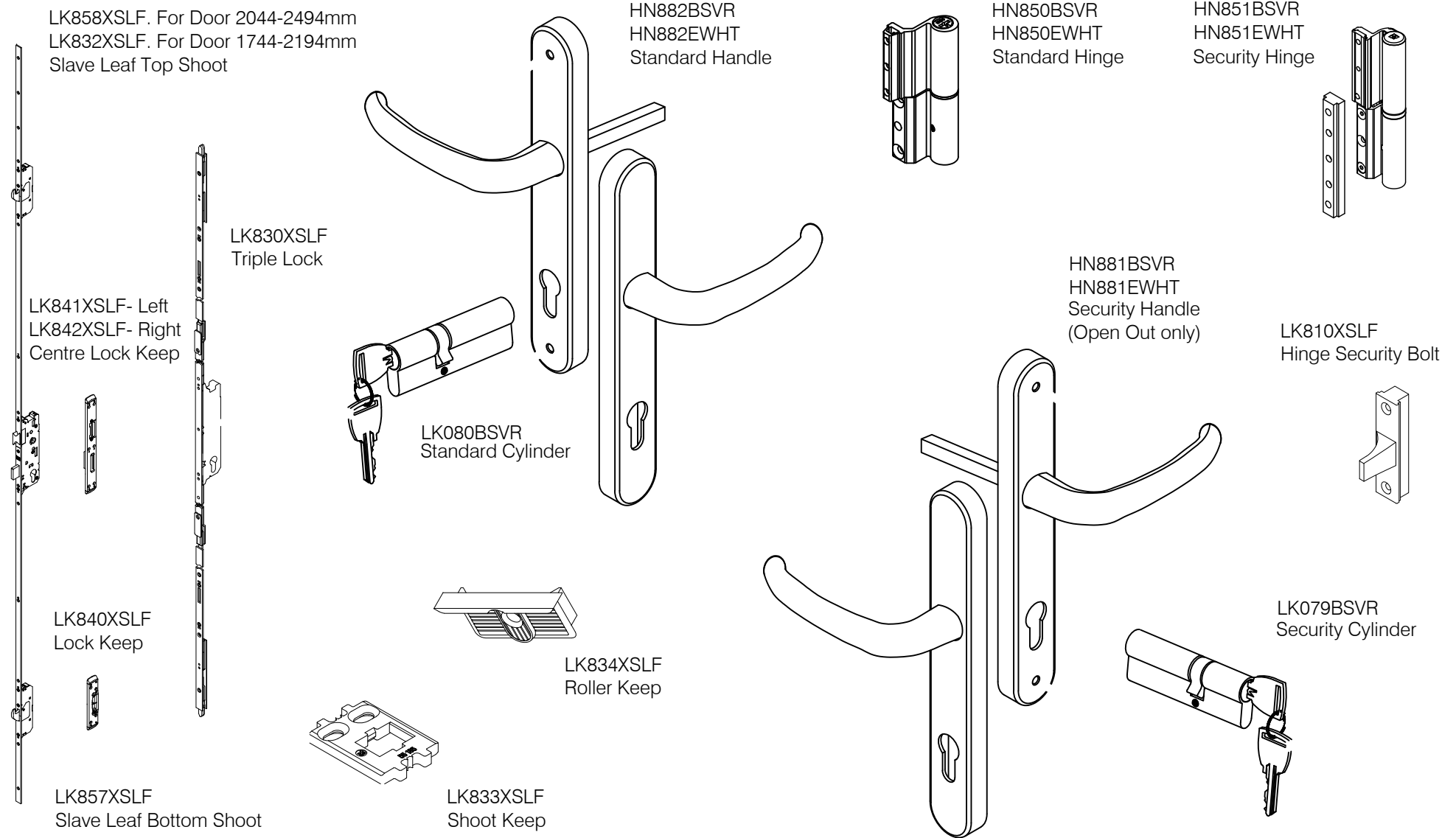


Broadsheet  
Profiles

A4 Scale: NTS

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1.05



comar 7P.i ECO LT

INTRODUCTION

1



Broadsheet  
Hardware

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1.06



# VIEWS & SECTIONS

comar 7P.i ECO LT

VIEWS & SECTIONS

2

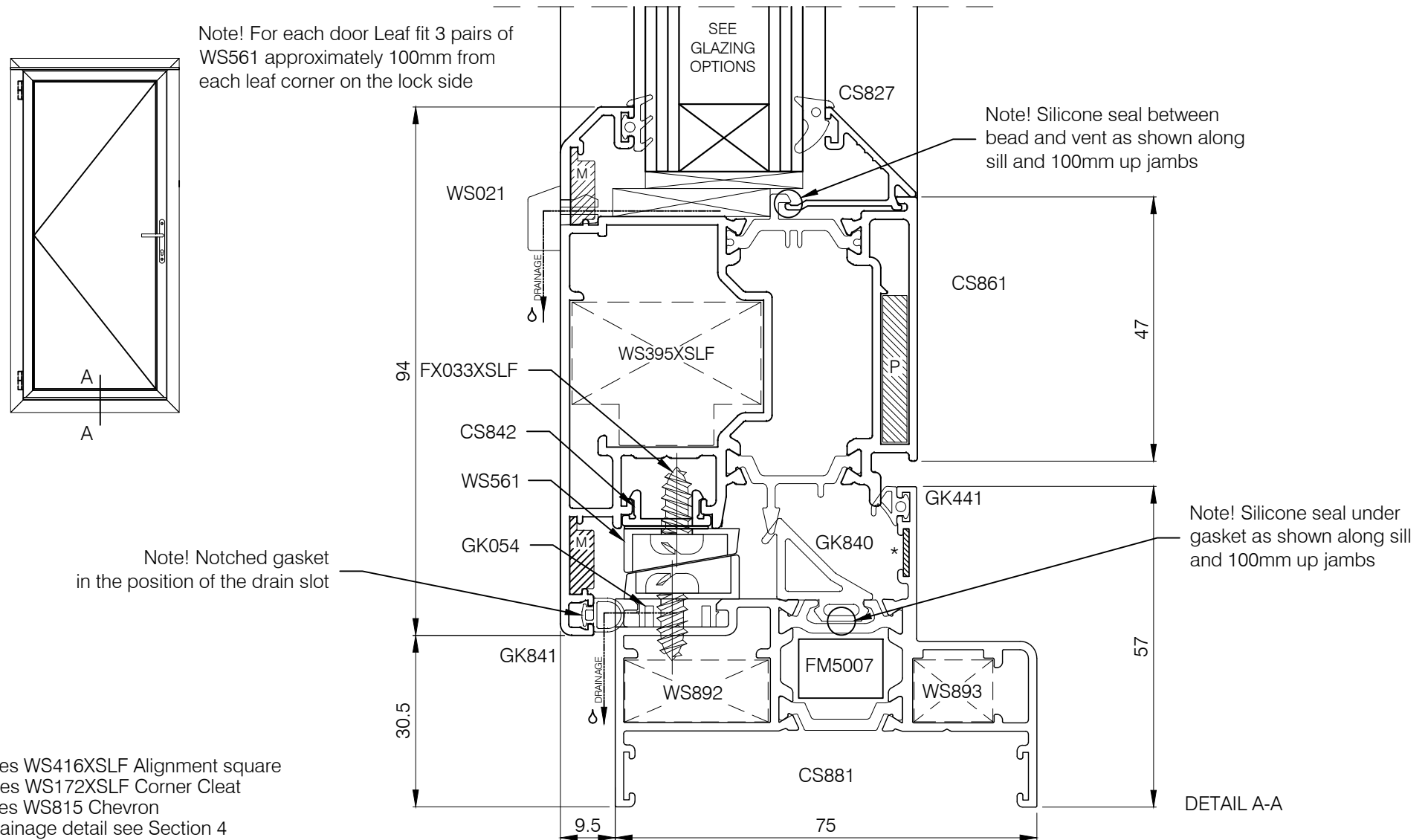


A4 Scale: NTS

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2.00





comar 7P.i ECO LT

VIEWS & SECTIONS

2

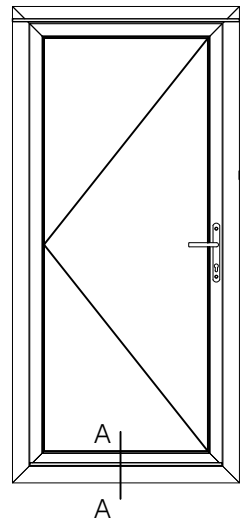


Threshold detail  
Rebated Door - Open Out  
CS881/CS861

A4 Scale: 1:1

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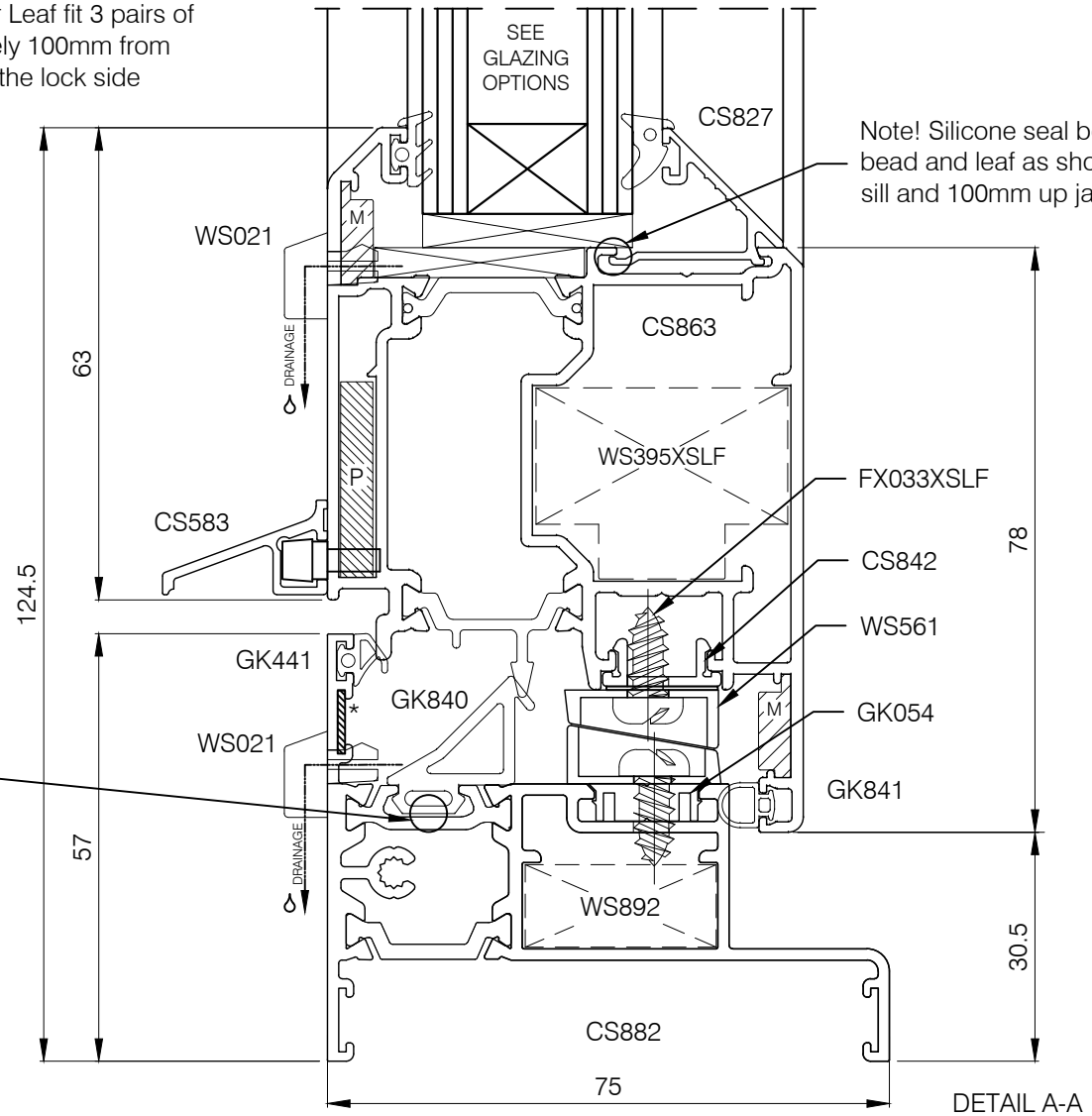
2.01



Note! For each door Leaf fit 3 pairs of WS561 approximately 100mm from each leaf corner on the lock side

Note! Silicone seal under gasket as shown along sill and 100mm up jambs

M Denotes WS416XSLF Alignment square  
P Denotes WS172XSLF Corner Cleat  
\* Denotes WS815 Chevron  
δ For drainage detail see Section 4



comar 7P.i ECO LT

VIEWS & SECTIONS

2

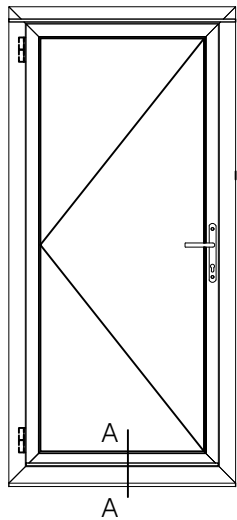


Threshold detail  
Rebated Door- Open In  
CS882/CS863

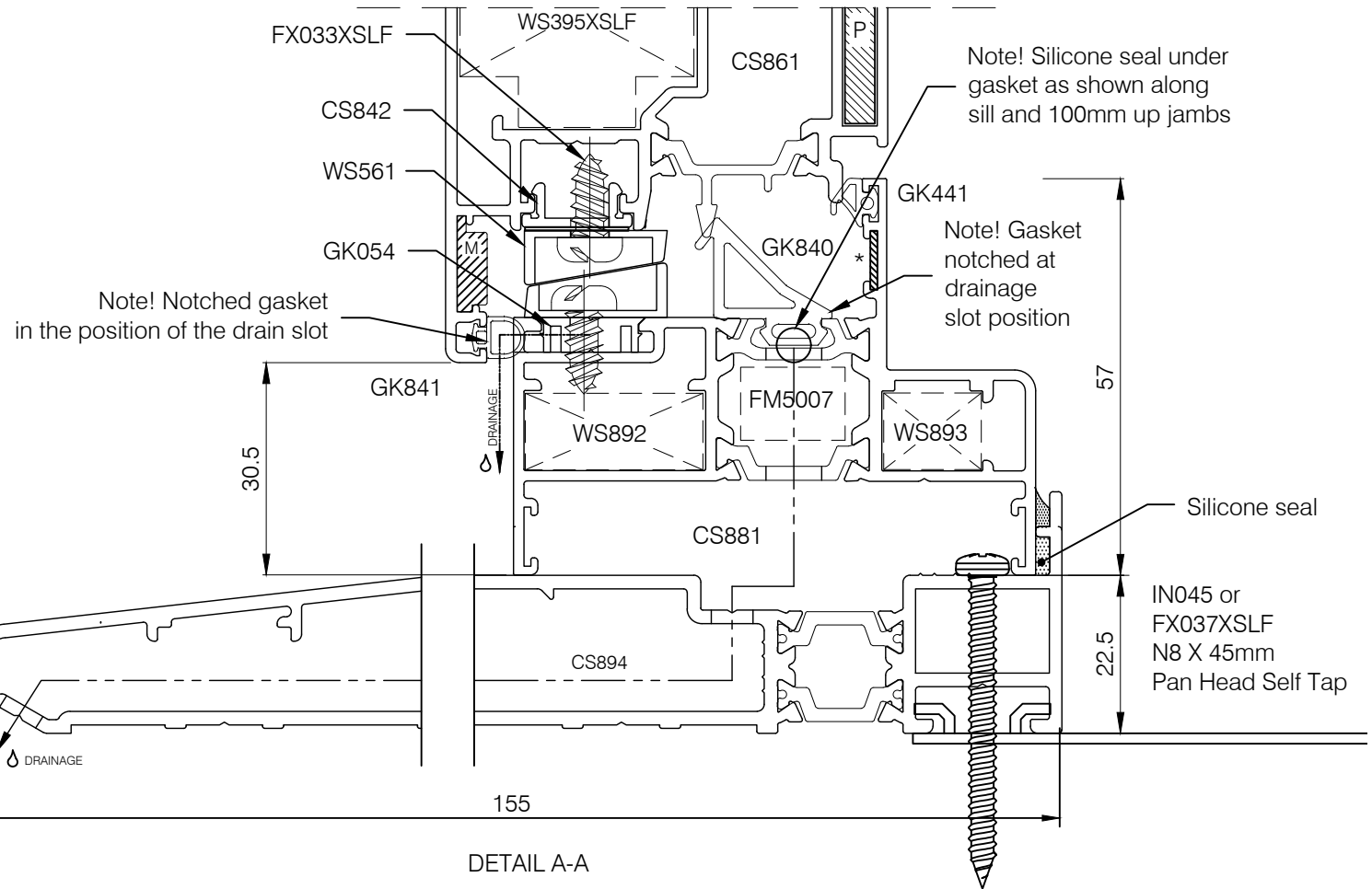
A4 Scale: 1:1

R0 - 10-02-2020

2.02



Note! For each door Leaf fit 3 pairs of WS561 approximately 100mm from each leaf corner on the lock side



- M Denotes WS416XSLF Alignment square
- P Denotes WS172XSLF Corner Cleat
- \* Denotes WS815 Chevron
- Δ For drainage detail see Section 4

DETAIL A-A

comar 7P.i ECO LT

VIEWS & SECTIONS

2

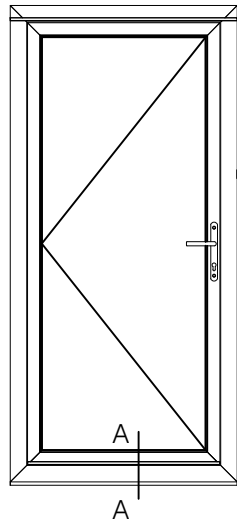


Threshold Sub Sill Detail  
Rebated Door- Open Out  
CS881

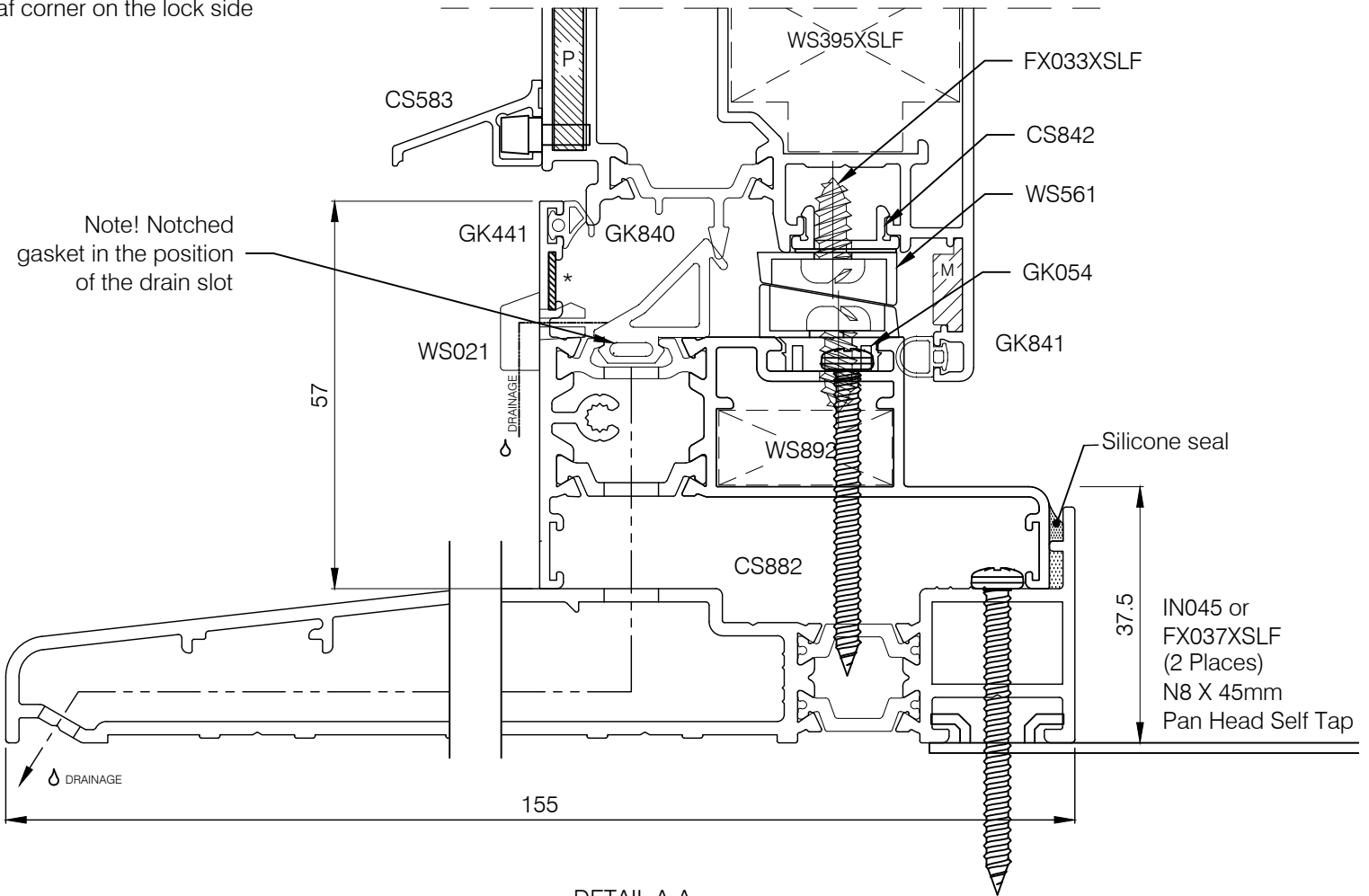
A4 Scale: 1:1

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2.03



Note! For each door Leaf fit 3 pairs of WS561 approximately 100mm from each leaf corner on the lock side



- M Denotes WS416XSLF Alignment square
- P Denotes WS172XSLF Corner Cleat
- \* Denotes WS815 Chevron
- △ For drainage detail see Section 4

comar 7P.i ECO LT

VIEWS & SECTIONS

2

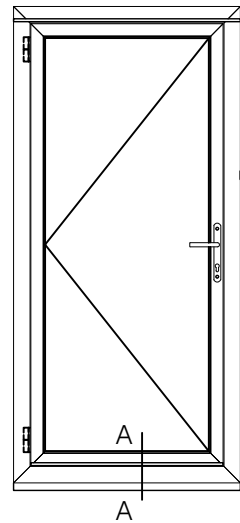


Threshold Sub Sill Detail  
Rebated Door- Open In  
CS882

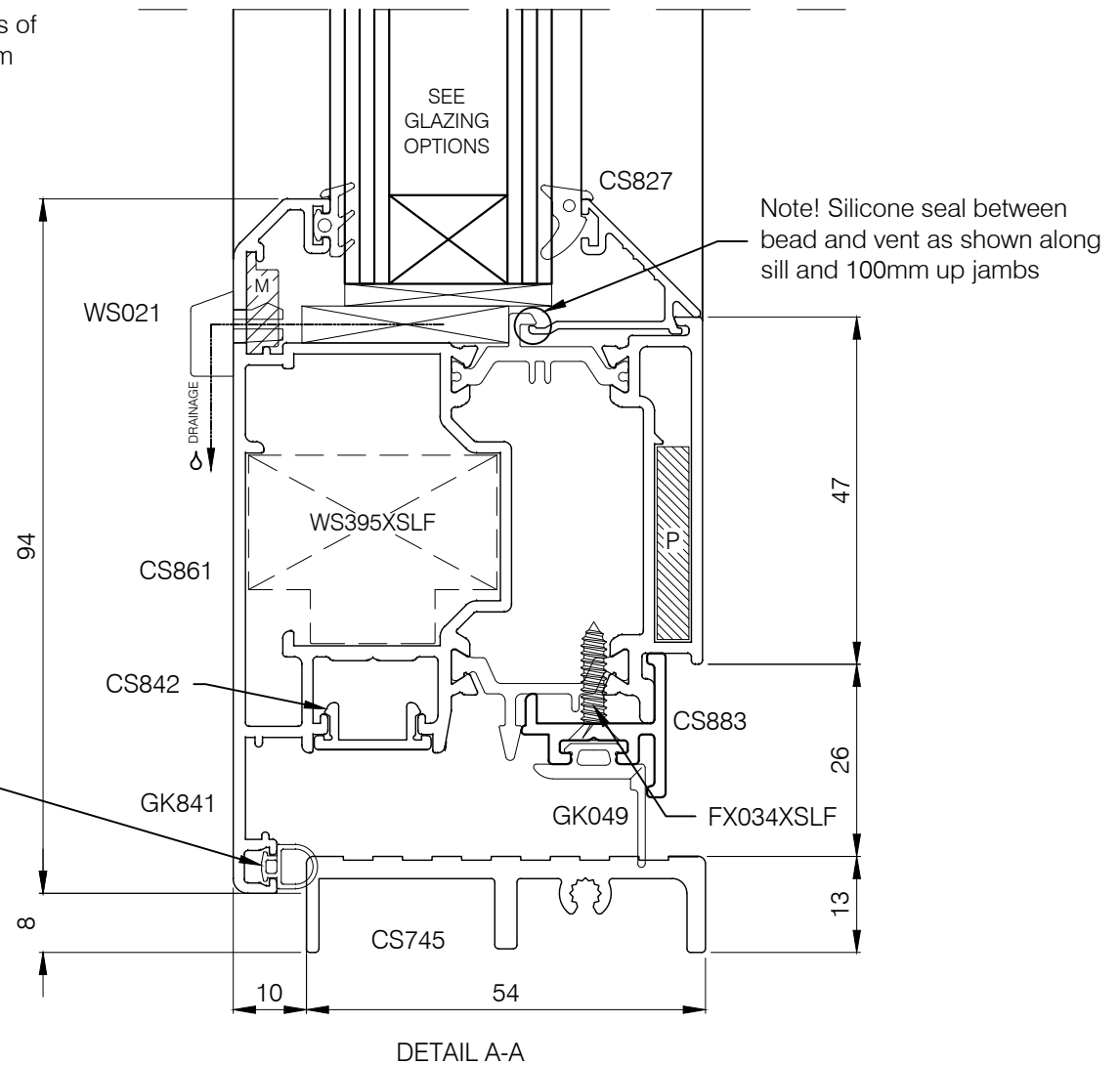
A4 Scale: 1:1

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2.04



Note! For each door Leaf fit 3 pairs of WS561 approximately 100mm from each leaf corner on the lock side



Note! Notched gasket in the position of the drain slot

M Denotes WS416XSLF Alignment square  
P Denotes WS172XSLF Corner Cleat  
δ For drainage detail see Section 4

comar 7P.i ECO LT

VIEWS & SECTIONS

2

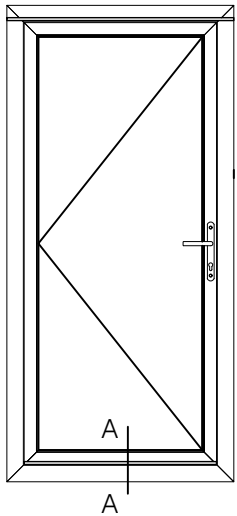


Low Threshold Detail  
Rebated Door- Open Out  
CS861/CS745

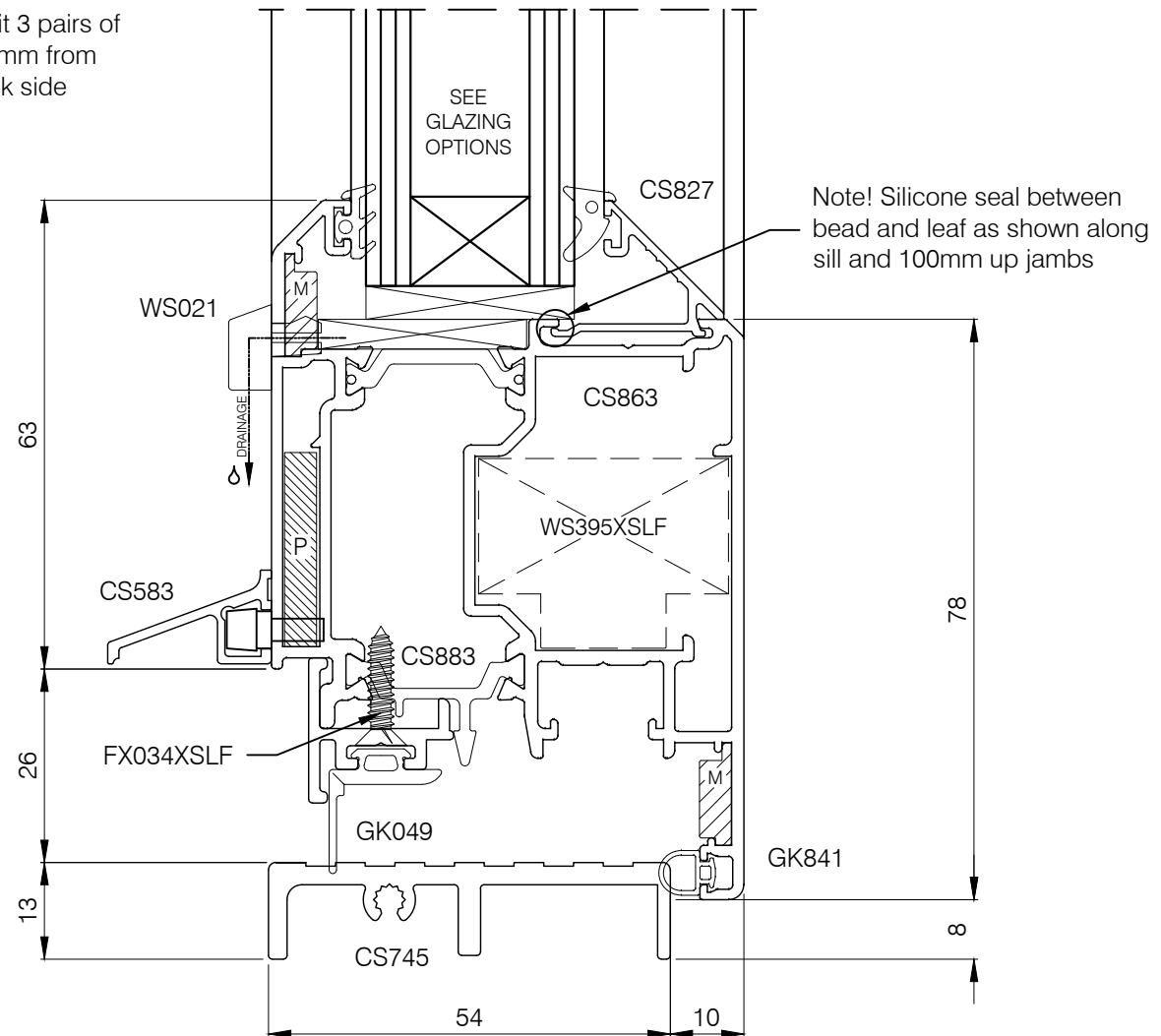
A4 Scale: 1:1

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2.05



Note! For each door Leaf fit 3 pairs of WS561 approximately 100mm from each leaf corner on the lock side



M Denotes WS416XSLF Alignment square  
P Denotes WS172XSLF Corner cleat  
δ For drainage detail see Section 4

DETAIL A-A

comar 7P.i ECO LT

VIEWS & SECTIONS

2



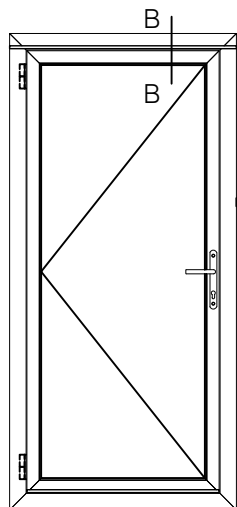
Low Threshold Detail  
Rebated Door- Open In  
CS863/CS745

A4 Scale: 1:1

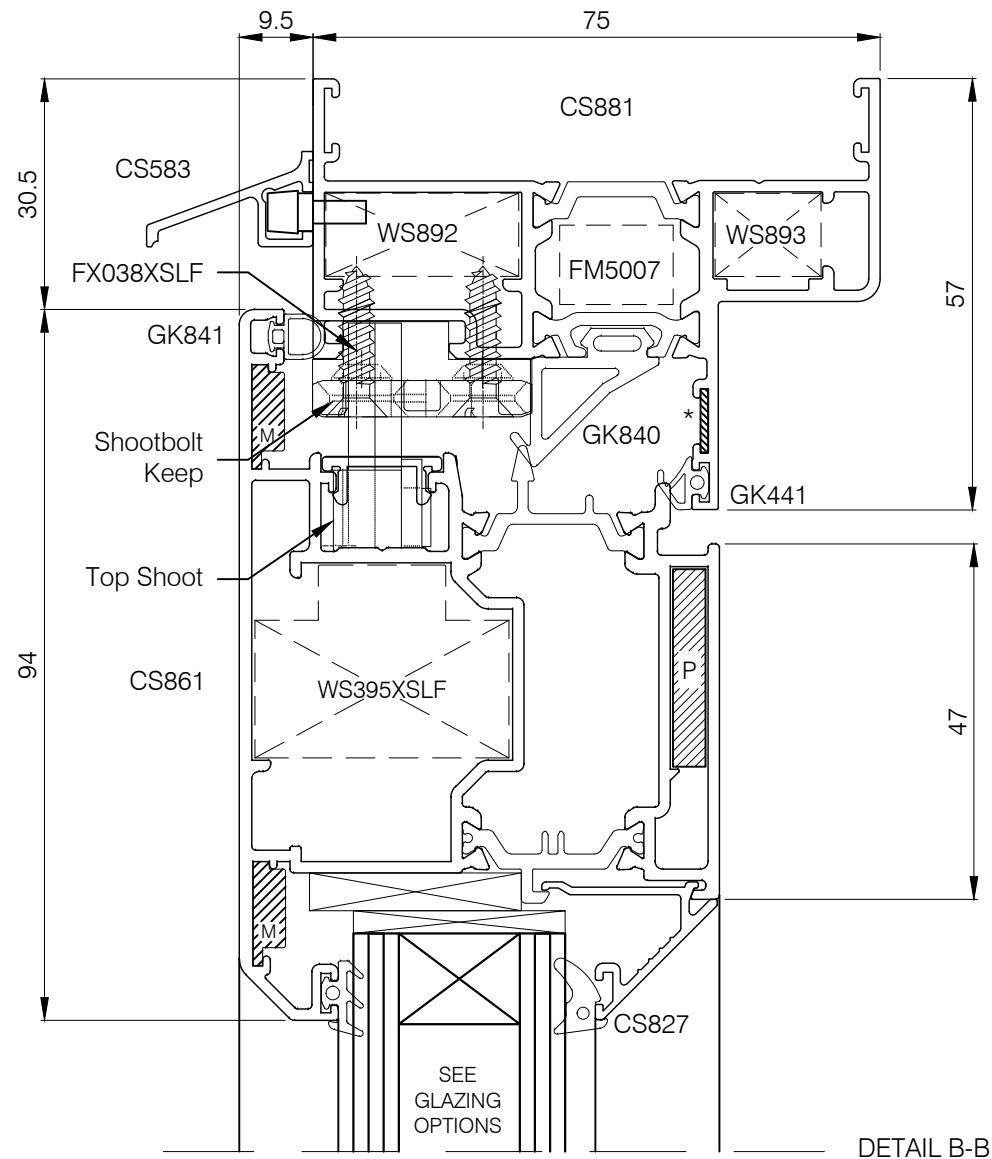
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2.06





Note! For each door Leaf fit 3 pairs of WS561 approximately 100mm from each leaf corner on the lock side



- M Denotes WS416XSLF Alignment square
- P Denotes WS172XSLF Corner Cleat
- \* Denotes WS815 Chevron
- δ For drainage detail see Section 4

comar 7P.i ECO LT

VIEWS & SECTIONS

2

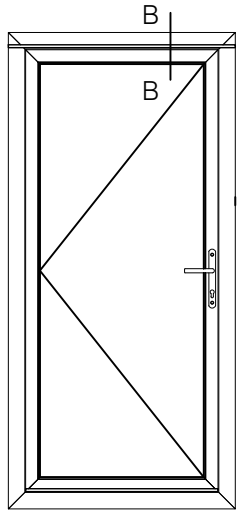


Head Detail  
Rebated Door- Open Out  
CS881/CS861

A4 Scale: 1:1

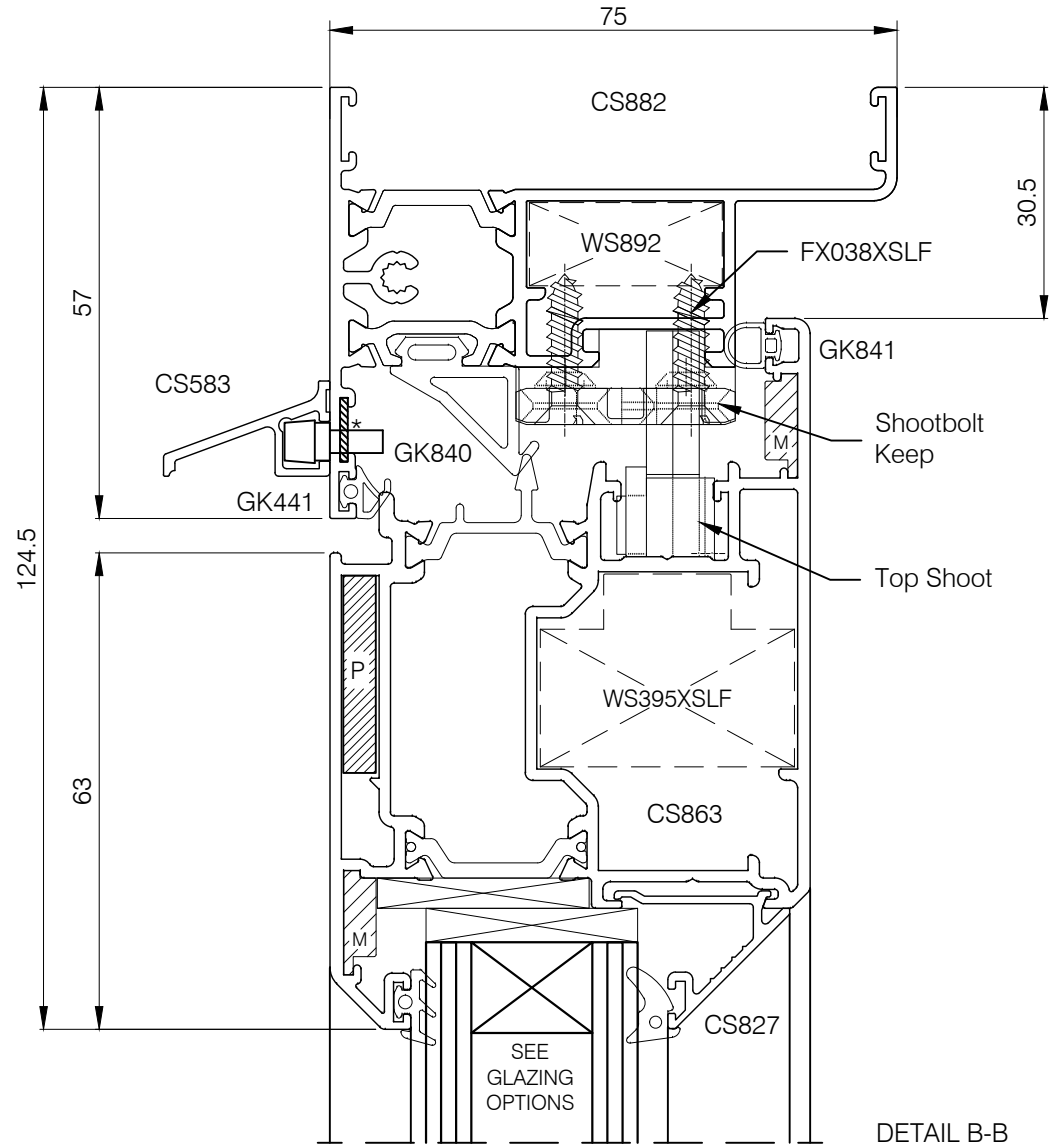
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2.07



Note! For each door Leaf fit 3 pairs of WS561 approximately 100mm from each leaf corner on the lock side

- M Denotes WS416XSLF Alignment square
- P Denotes WS172XSLF Corner Cleat
- \* Denotes WS815 Chevron
- ♢ For drainage detail see Section 4



comar 7P.i ECO LT

VIEWS & SECTIONS

2

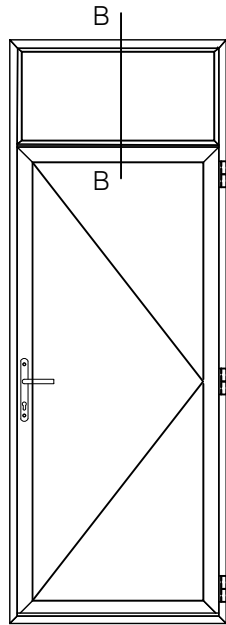


Head Detail  
Rebated Door- Open In  
CS882/CS863

A4 Scale: 1:1

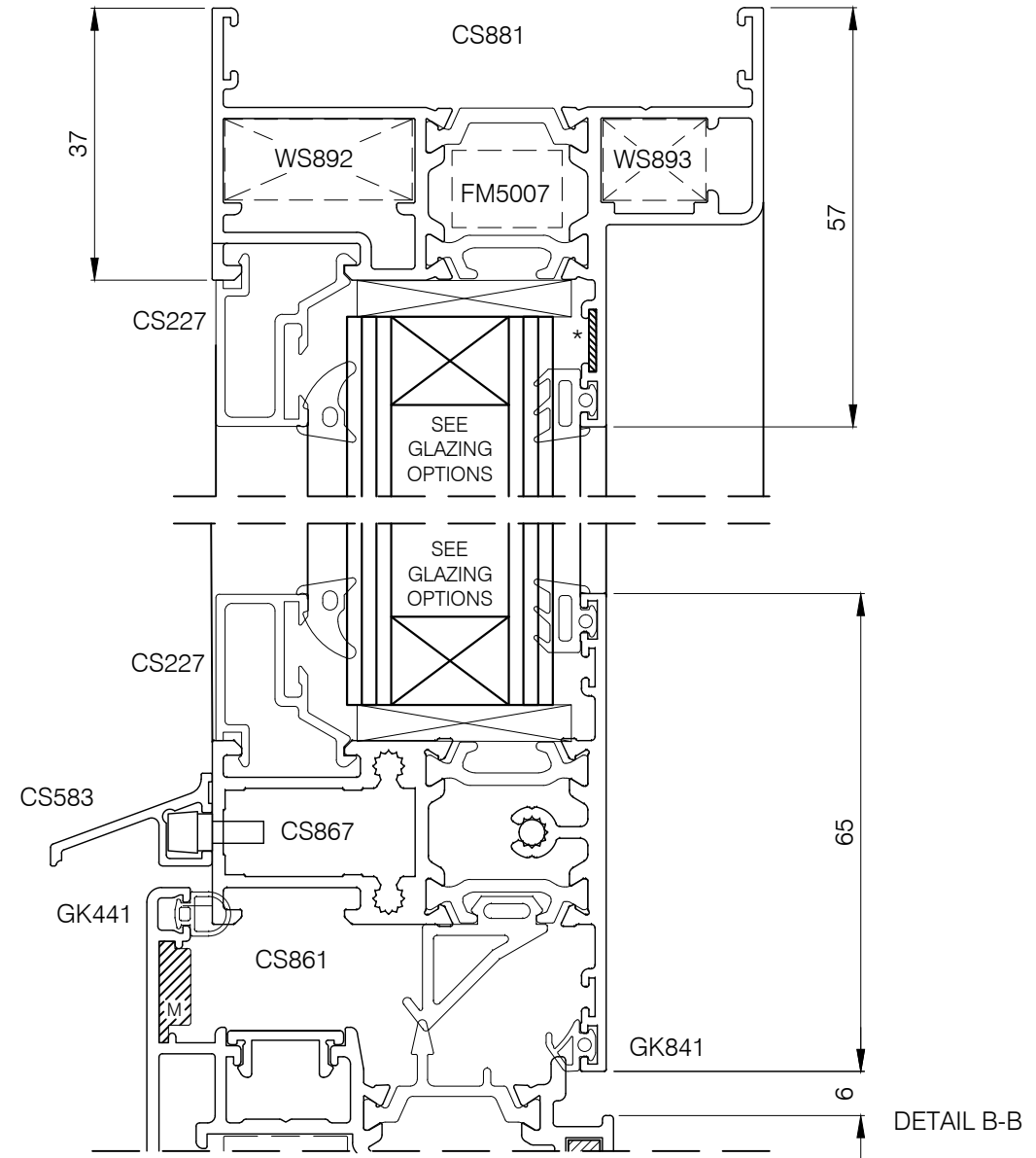
R0 - 10-02-2020

2.08



Note! For each door Leaf fit 3 pairs of WS561 approximately 100mm from each leaf corner on the lock side

- M Denotes WS416XSLF Alignment square
- P Denotes WS172XSLF Corner Cleat
- \* Denotes WS815 Chevron
- ♠ For drainage detail see Section 4



comar 7P.i ECO LT

VIEWS & SECTIONS

2

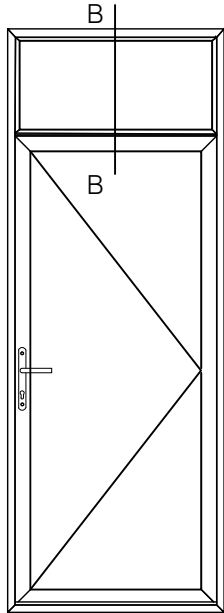


Head Detail- Fixed Light with  
Rebated Door- Open Out  
CS881/CS861/ CS867

A4 Scale: 1:1

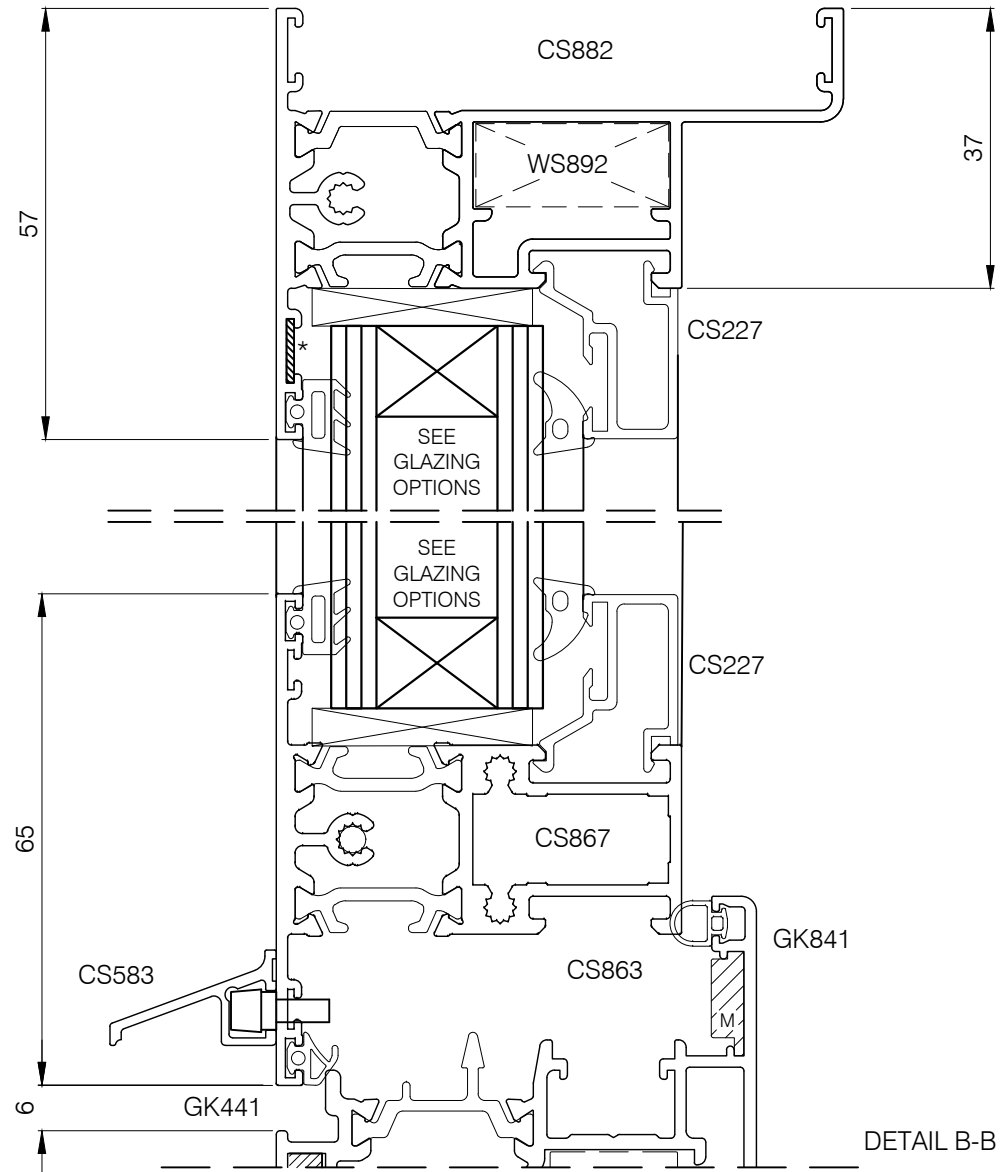
R0 - 10-02-2020

2.09



Note! For each door Leaf fit 3 pairs of WS561 approximately 100mm from each leaf corner on the lock side

- M Denotes WS416XSLF Alignment square
- P Denotes WS172XSLF Corner Cleat
- \* Denotes WS815 Chevron
- ♠ For drainage detail see Section 4



comar 7P.i ECO LT

VIEWS & SECTIONS

2

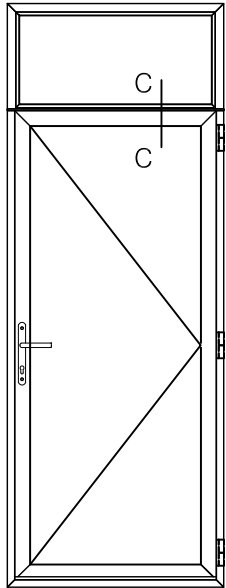


Head Detail Fixed Light with  
Rebated Door- Open In  
CS882/CS863/CS867

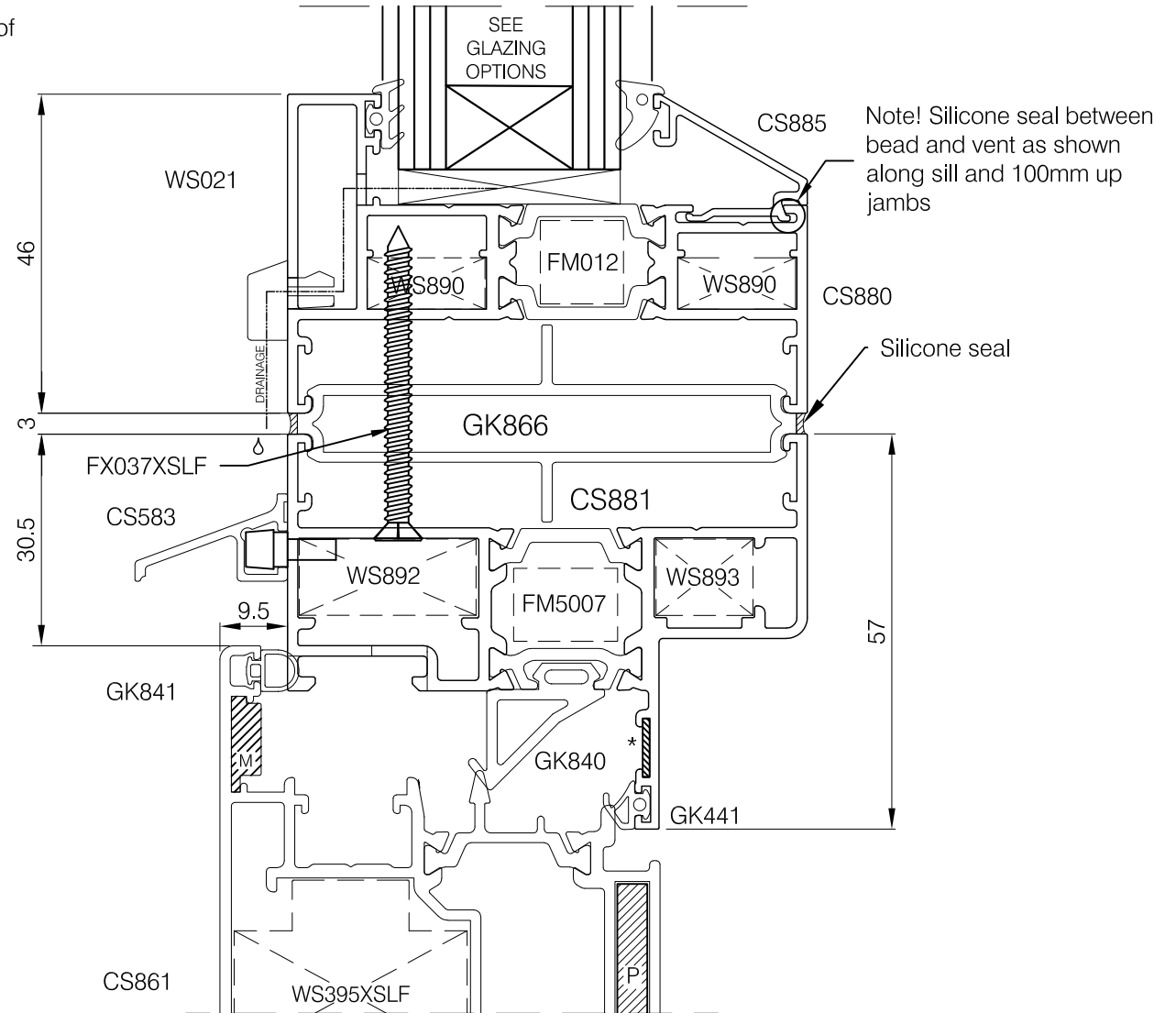
A4 Scale: 1:1

R0 - 10-02-2020

2.10



Note! For each door Leaf fit 3 pairs of WS561 approximately 100mm from each leaf corner on the lock side



DETAIL C-C

- M Denotes WS416XSLF Alignment square
- P Denotes WS172XSLF Corner Cleat
- \* Denotes WS815 Chevron
- △ For drainage detail see Section 4

comar 7P.i ECO LT

VIEWS & SECTIONS

2

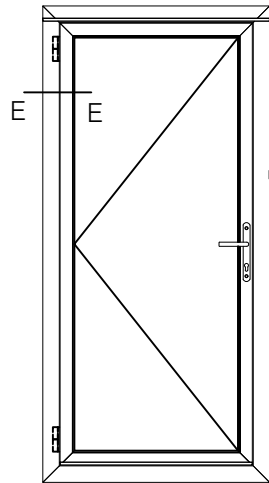


Coupling Rebated Door- Open Out  
with Fixed Eco Lt Light Above  
CS881/CS861/CS880

A4 Scale: 1:1

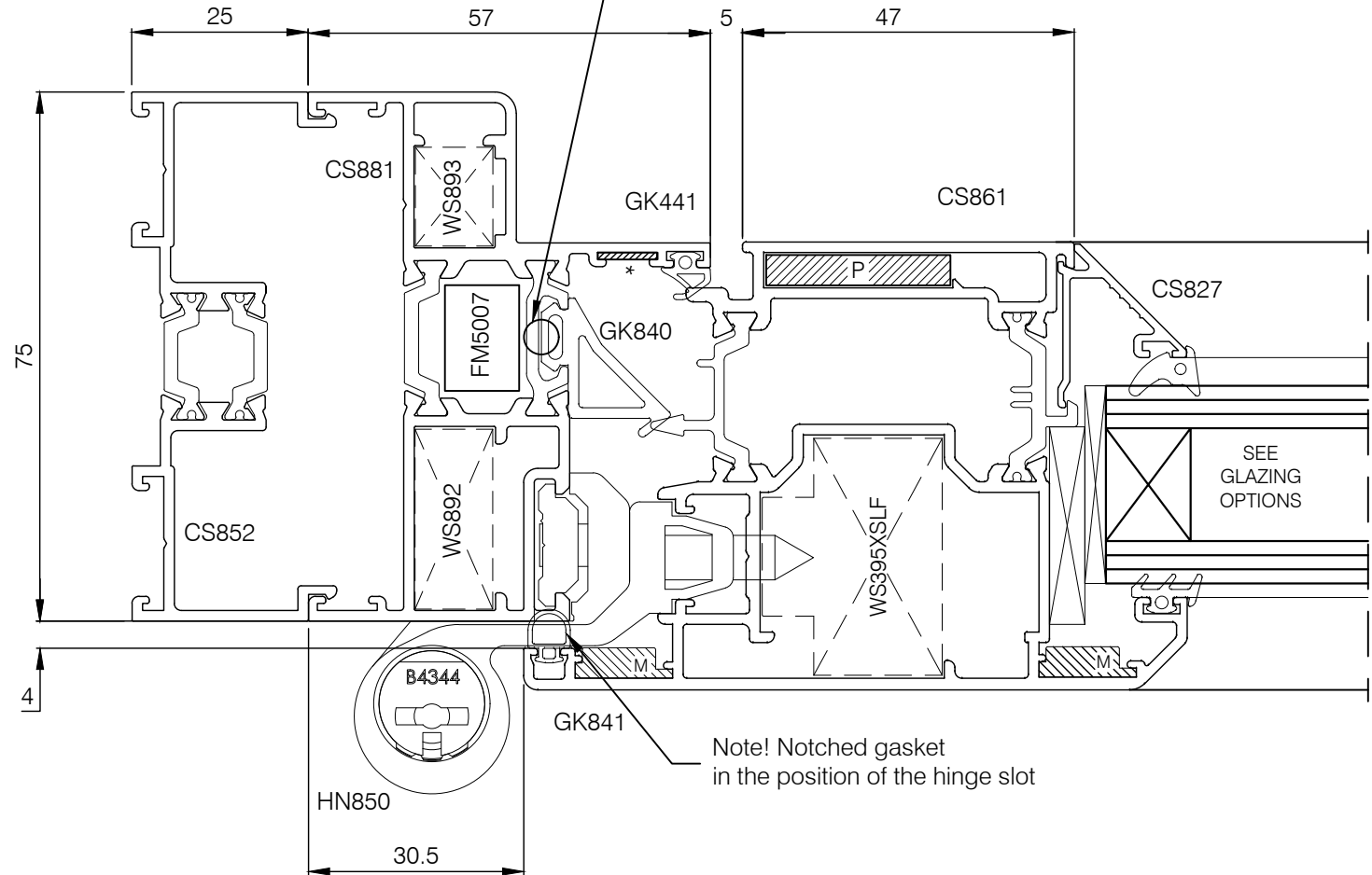
R0 - 10-02-2020

2.11



Note! For each door Leaf fit 3 pairs of WS561 approximately 100mm from each leaf corner on the lock side

Note! Silicone seal under gasket as shown along sill and 100mm up jambs



CS852- For ease of sealing or extra space for plastering a frame extension can be used as shown.

M Denotes WS416XSLF Alignment square  
P Denotes WS172XSLF Corner Cleat  
\* Denotes WS815 Chevron

DETAIL E-E

comar 7P.i ECO LT

VIEWS & SECTIONS

2

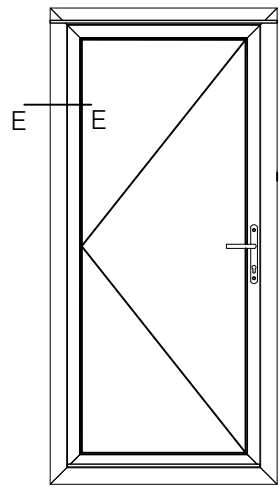


Jamb Detail  
Rebated Door- Open Out  
CS881/CS861

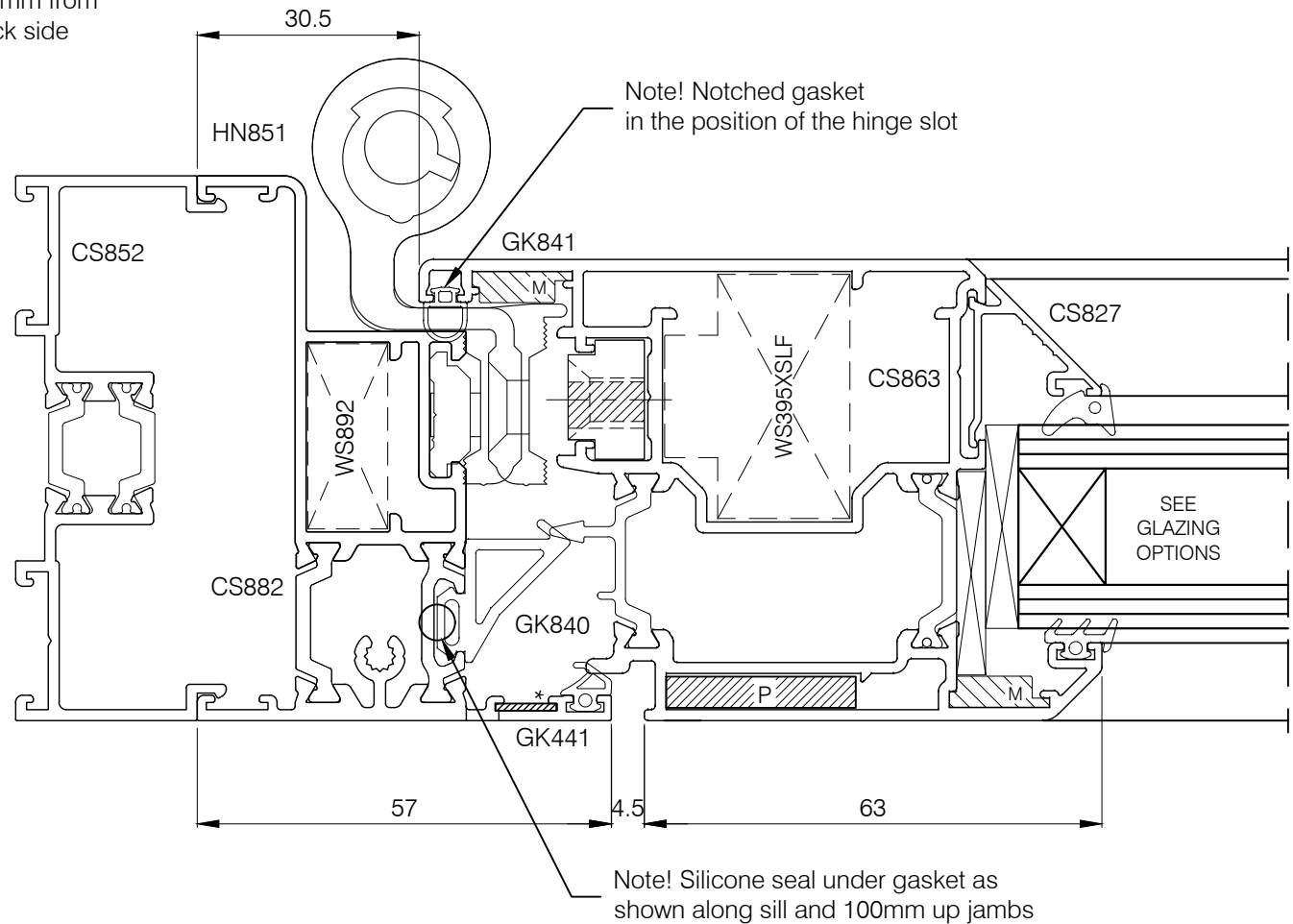
A4 Scale: 1:1

R0 - 10-02-2020

2.12



Note! For each door Leaf fit 3 pairs of WS561 approximately 100mm from each leaf corner on the lock side



CS852- For ease of sealing or extra space for plastering a frame extension can be used as shown.

Security Hinge HN851 has to be used only for Open in Door

M Denotes WS416XSLF Alignment square  
P Denotes WS172XSLF Corner cleat  
\* Denotes WS815 Chevron

DETAIL E-E

comar 7P.i ECO LT

VIEWS & SECTIONS

2

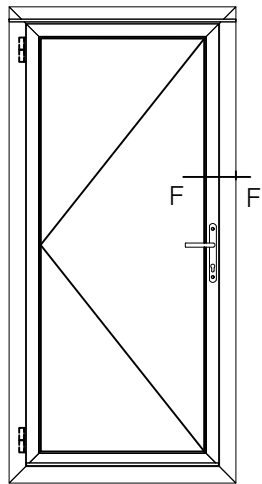


Jamb Detail  
Rebated Door- Open In  
CS882/CS863

A4 Scale: 1:1

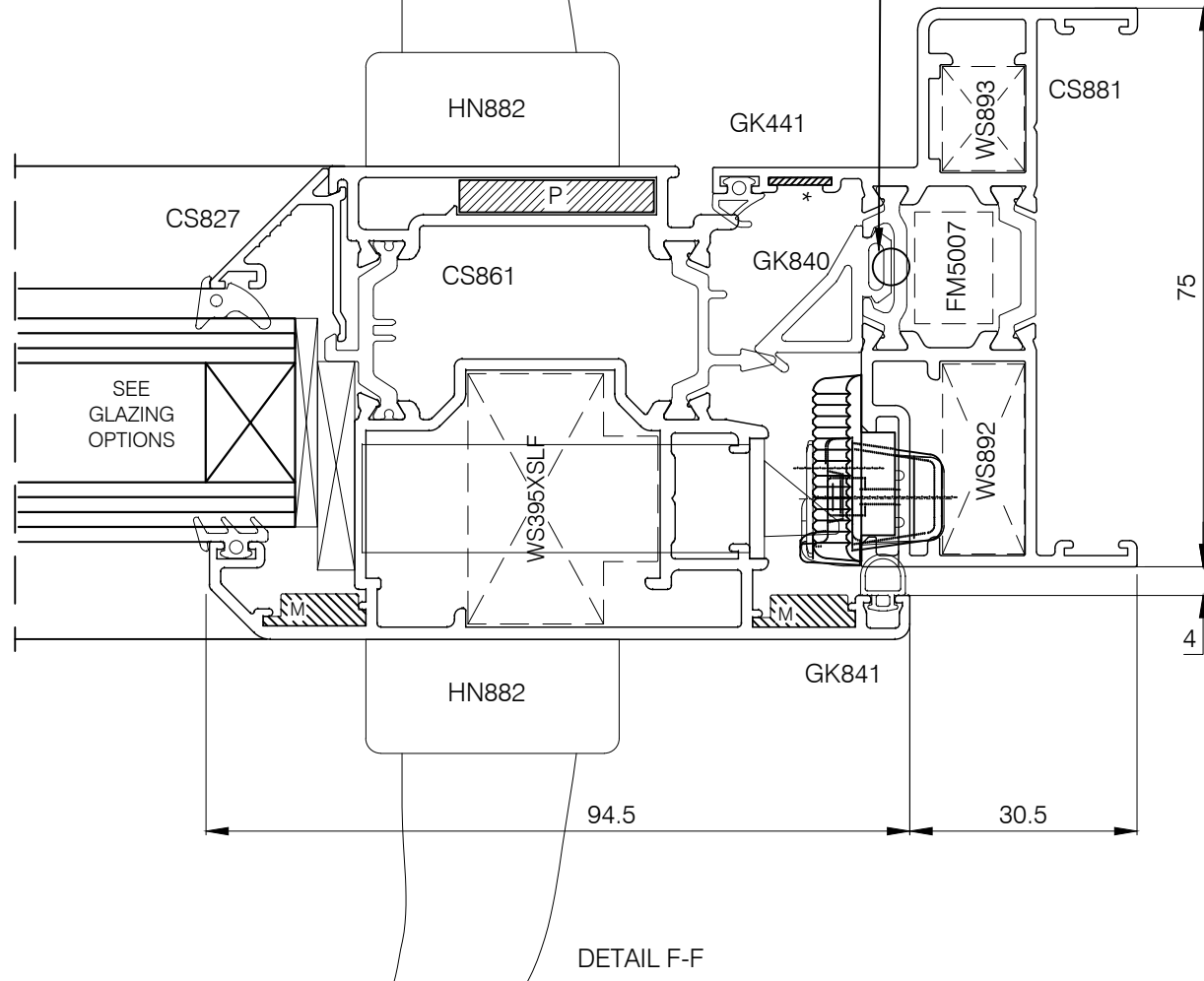
R0 - 10-02-2020

2.13



Note! For each door Leaf fit 3 pairs of WS561 approximately 100mm from each leaf corner on the lock side

Note! Silicone seal under gasket as shown along sill and 100mm up jambs



M Denotes WS416XSLF Alignment square  
P Denotes WS172XSLF Corner Cleat  
\* Denotes WS815 Chevron

comar 7P.i ECO LT

VIEWS & SECTIONS

2



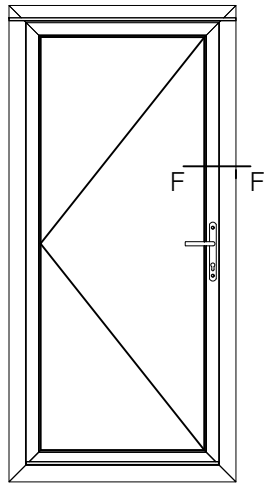
Jamb Detail  
Rebated Door- Open Out  
CS881/CS861

A4 Scale: 1:1

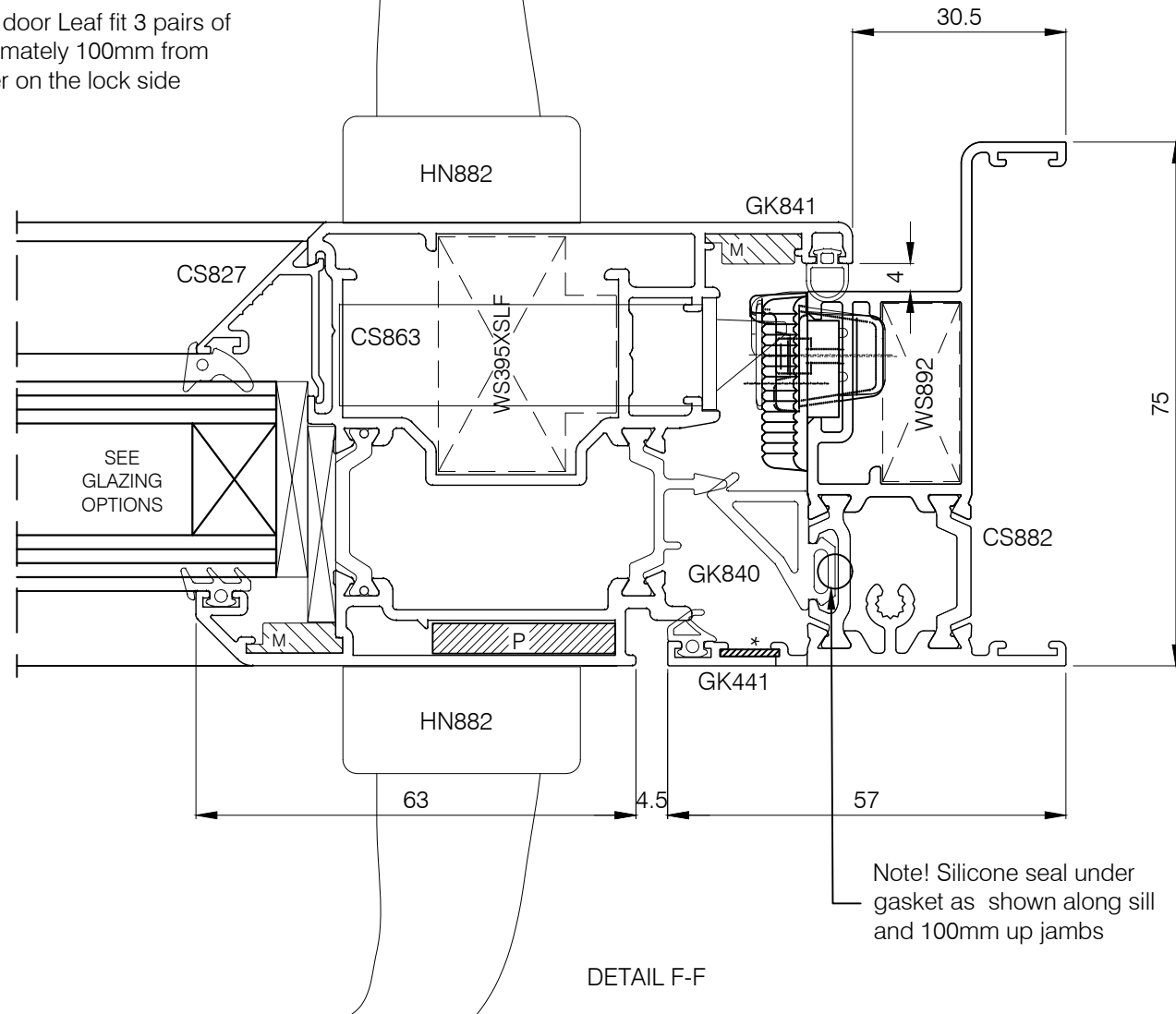
R0 - 10-02-2020

2.14





Note! For each door Leaf fit 3 pairs of WS561 approximately 100mm from each leaf corner on the lock side



M Denotes WS416XSLF Alignment square  
P Denotes WS172XSLF Corner Cleat  
\* Denotes WS815 Chevron

comar 7P.i ECO LT

VIEWS & SECTIONS

2

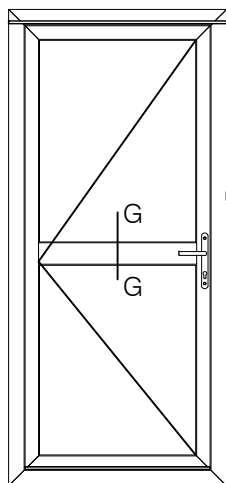


Jamb Detail  
Rebated Door- Open In  
CS882/CS863

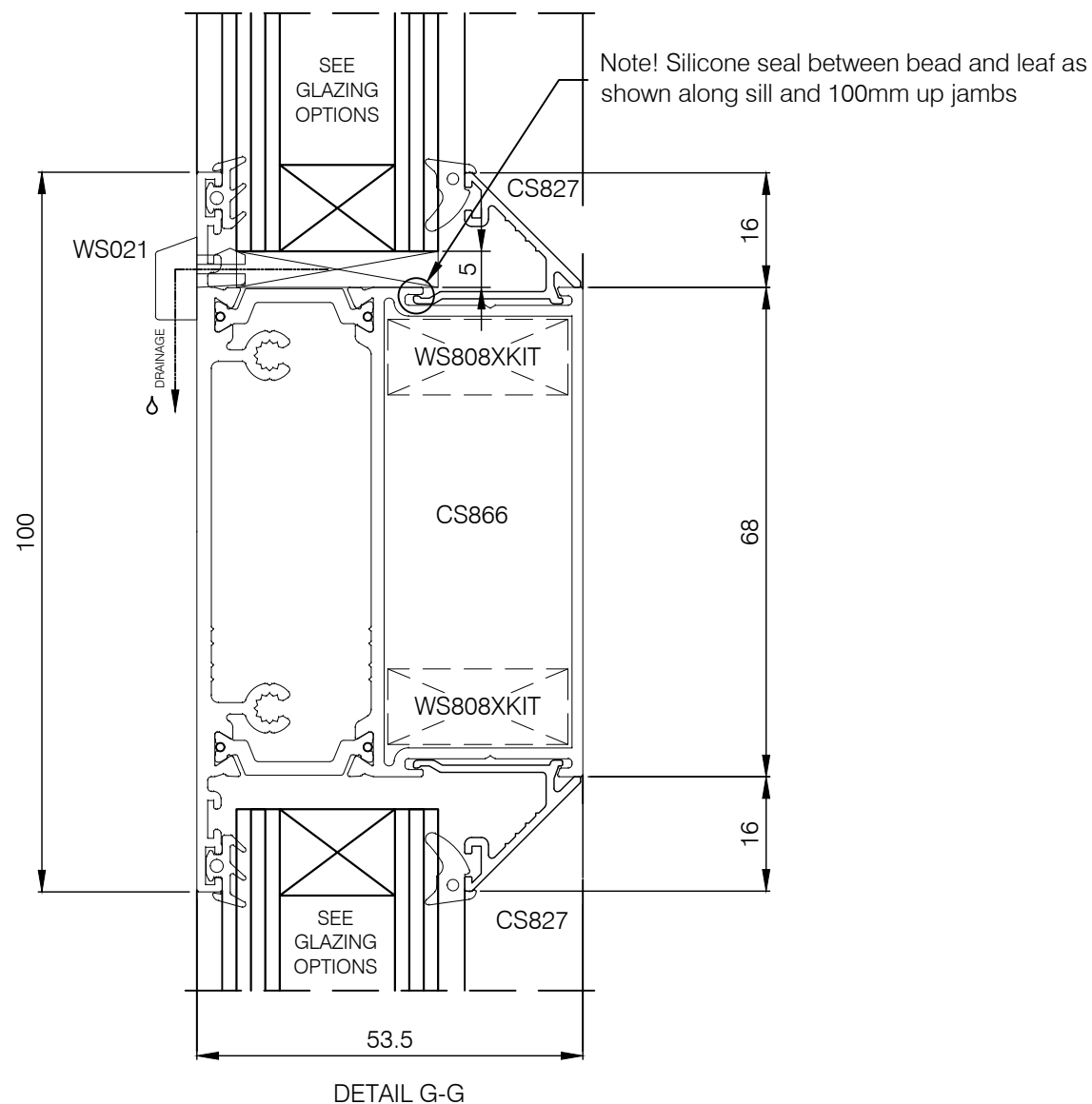
A4 Scale: 1:1

R0 - 10-02-2020

2.15



Note! For each door Leaf fit 3 pairs of WS561 approximately 100mm from each leaf corner on the lock side



Drainage shown is optional.  
drain to transom ends is standard

δ For drainage detail see Section 4

comar 7P.i ECO LT

VIEWS & SECTIONS

2

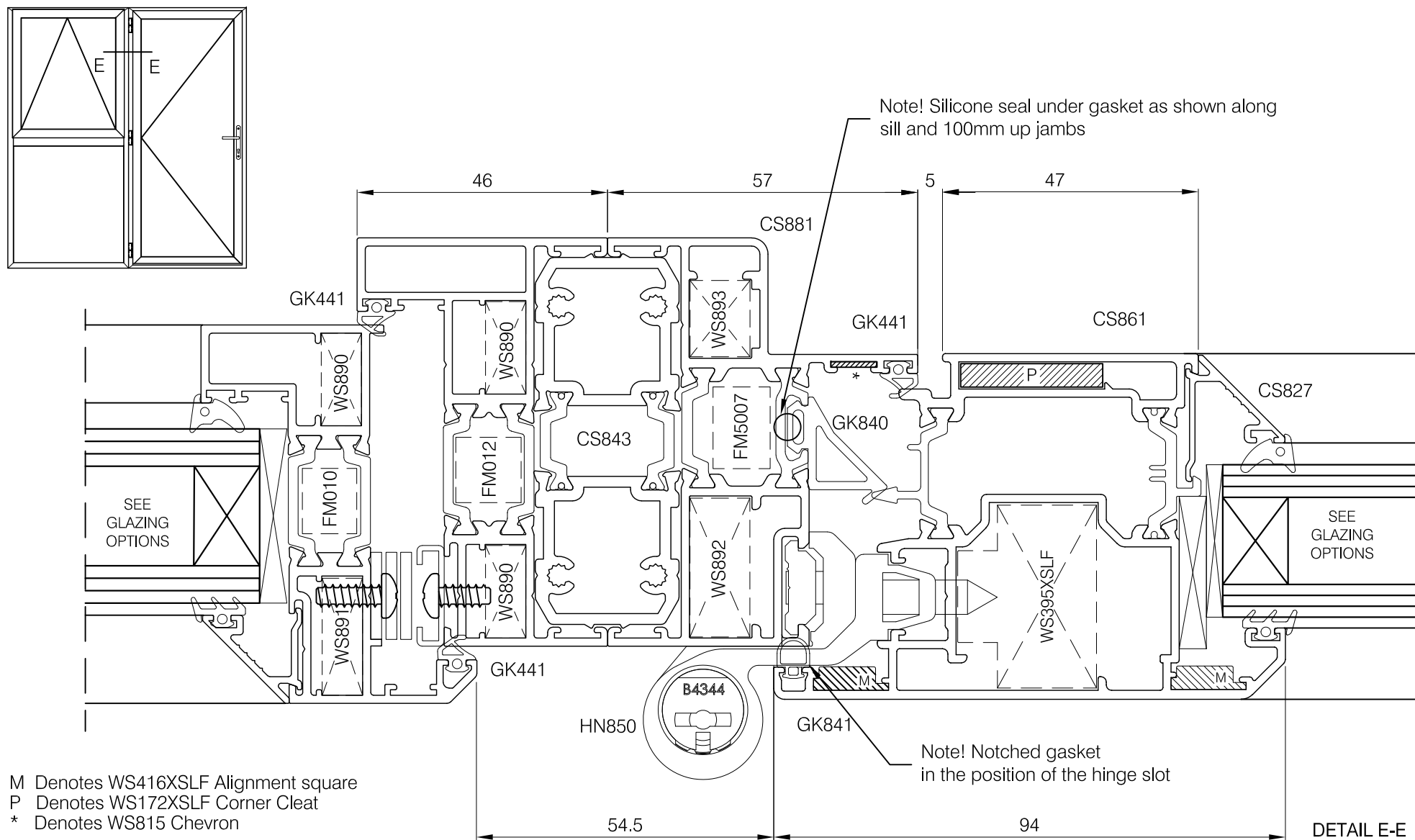


Mid Rail Detail  
Rebated Door- Open In  
CS882/CS863/ CS866

A4 Scale: 1:1

R0 - 10-02-2020

2.16



comar 7P.i ECO LT

VIEWS & SECTIONS

2

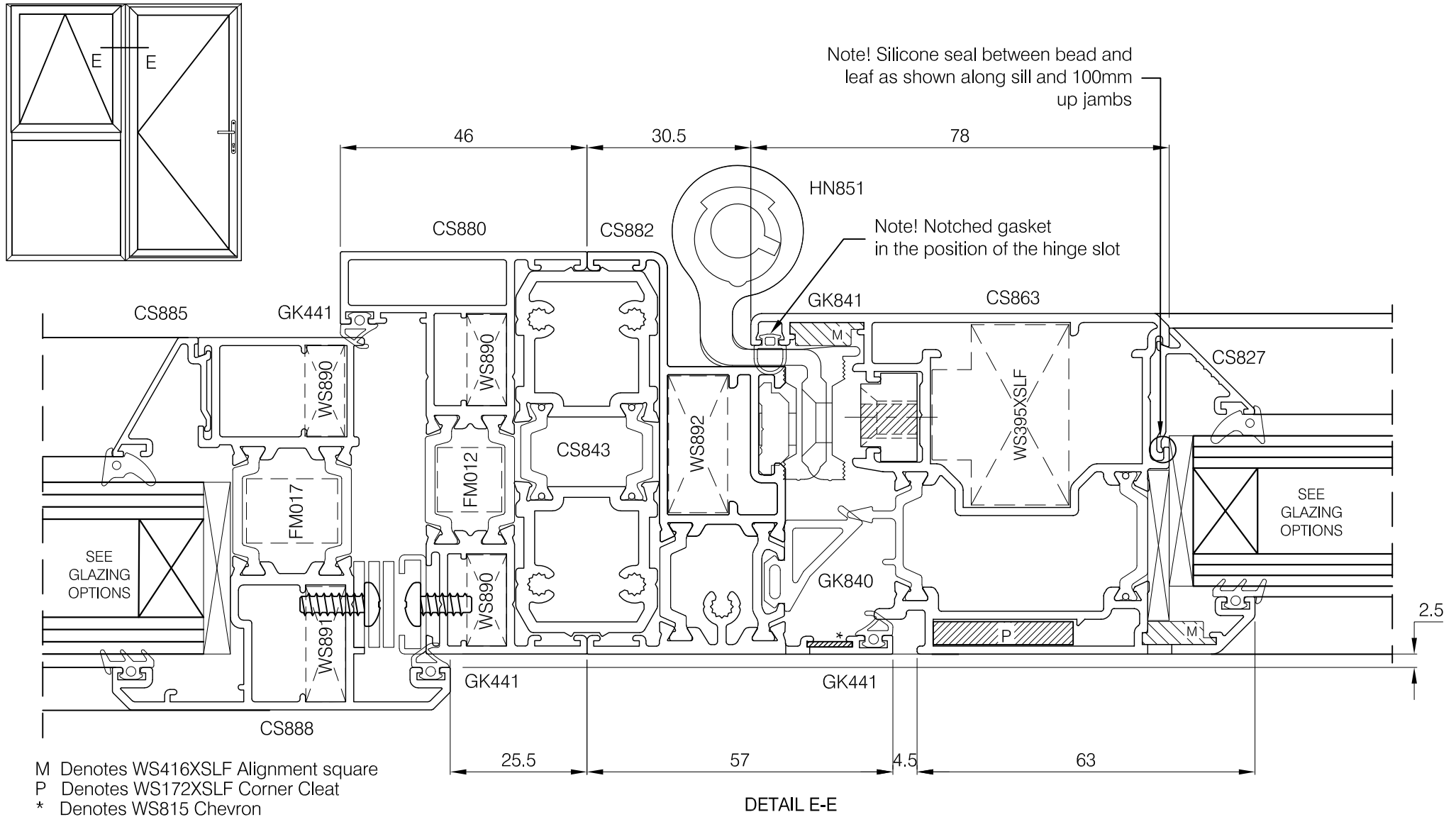


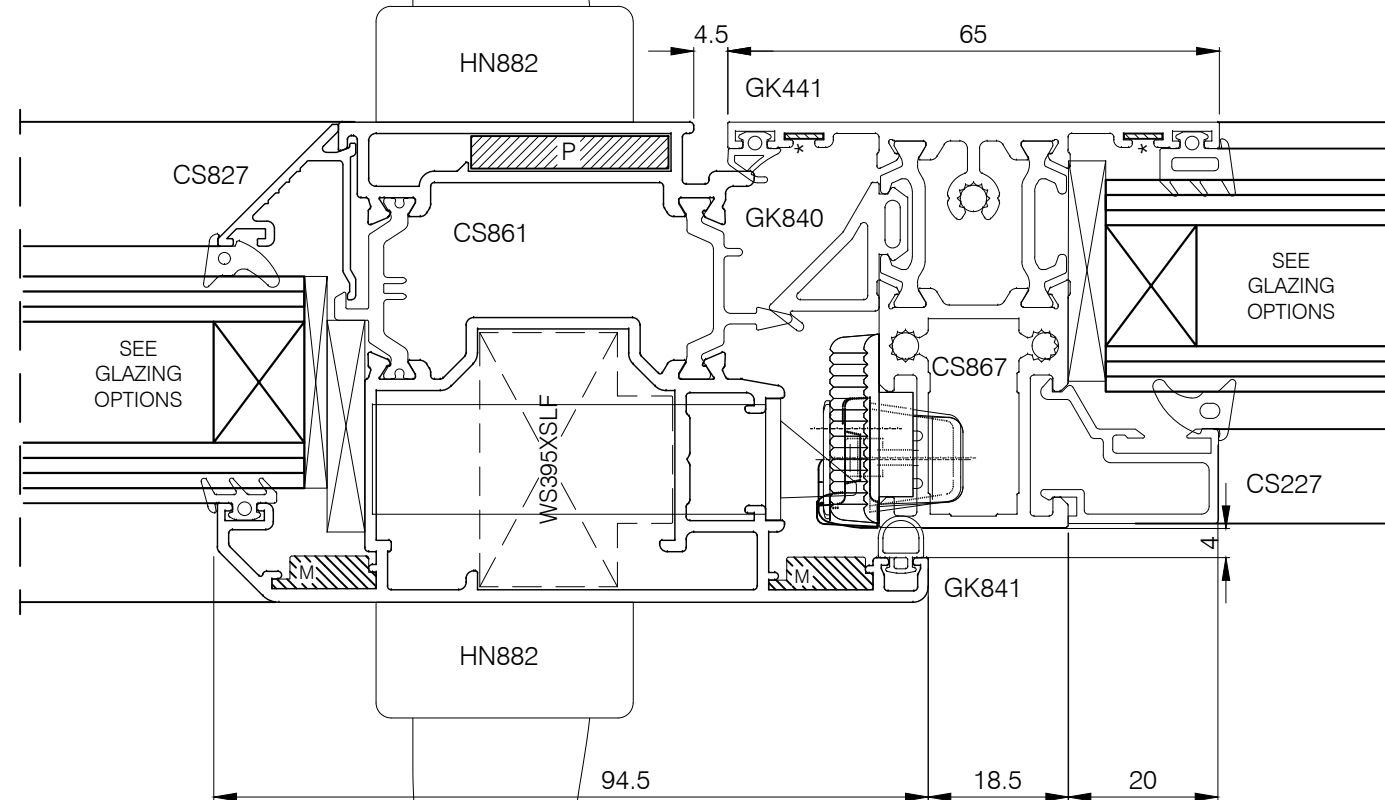
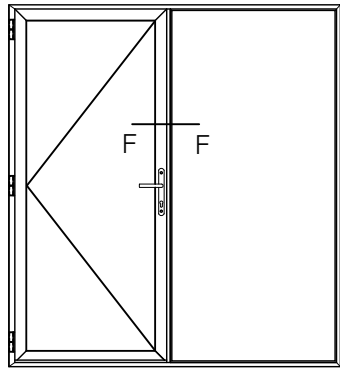
Coupling Ext Beaded Top Hung Vent  
with Rebated Door- Open Out  
CS881/CS861/ CS843

A4 Scale: 1:1

R0 - 10-02-2020

2.17





M Denotes WS416XSLF Alignment square  
P Denotes WS172XSLF Corner cleat  
\* Denotes WS515 Chevron

DETAIL F-F

comar 7P.i ECO LT

VIEWS & SECTIONS

2

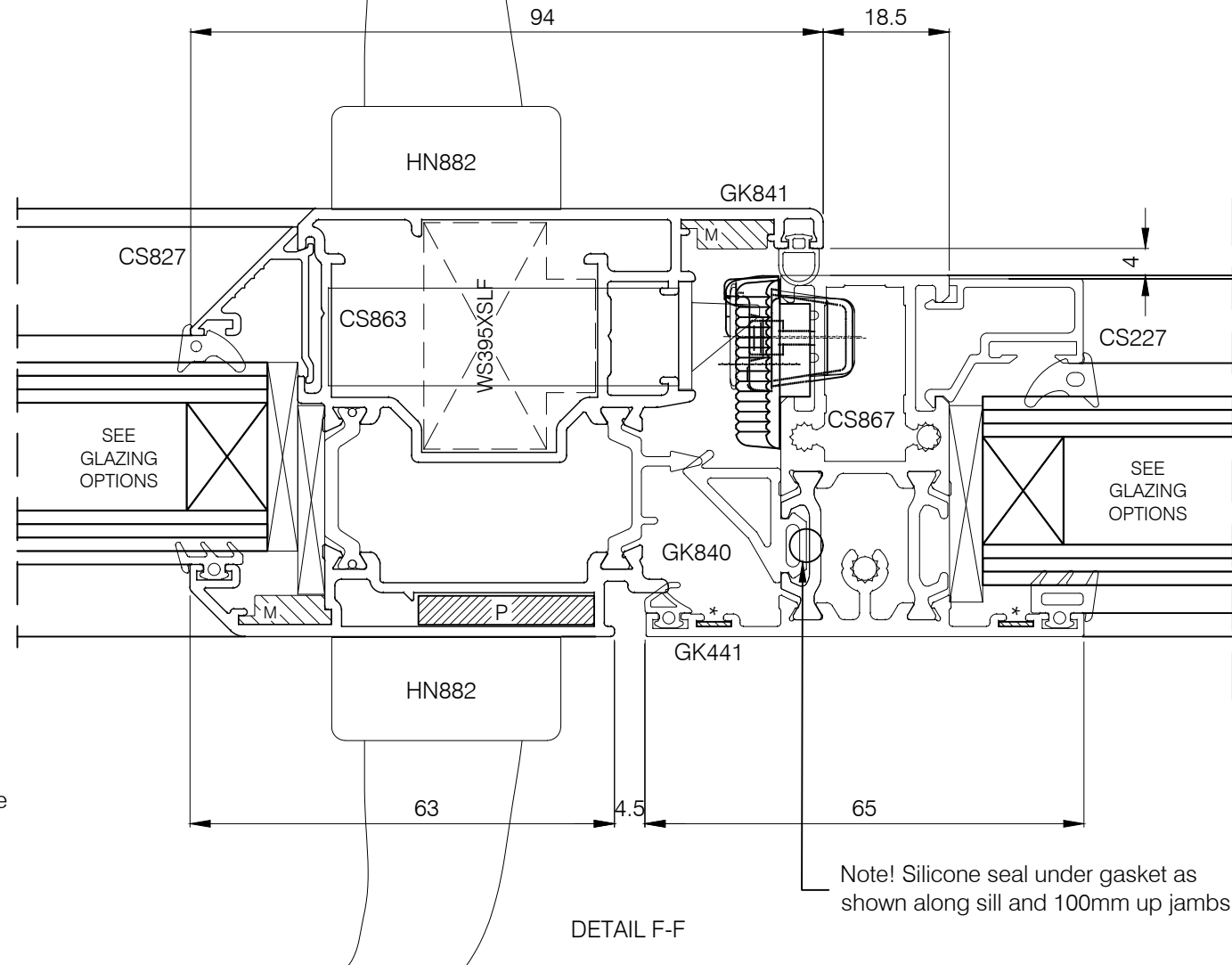
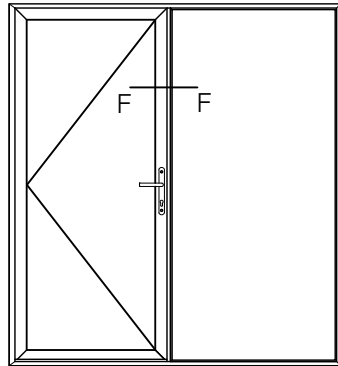


Rebated Door- Open Out  
with Fixed Light- Mullion Detail  
CS881/CS861/CS867

A4 Scale: 1:1

R0 - 10-02-2020

2.19



M Denotes WS416XSLF Alignment square  
P Denotes WS172XSLF Corner cleat  
\* Denotes WS515 Chevron

comar 7P.i ECO LT

VIEWS & SECTIONS

2

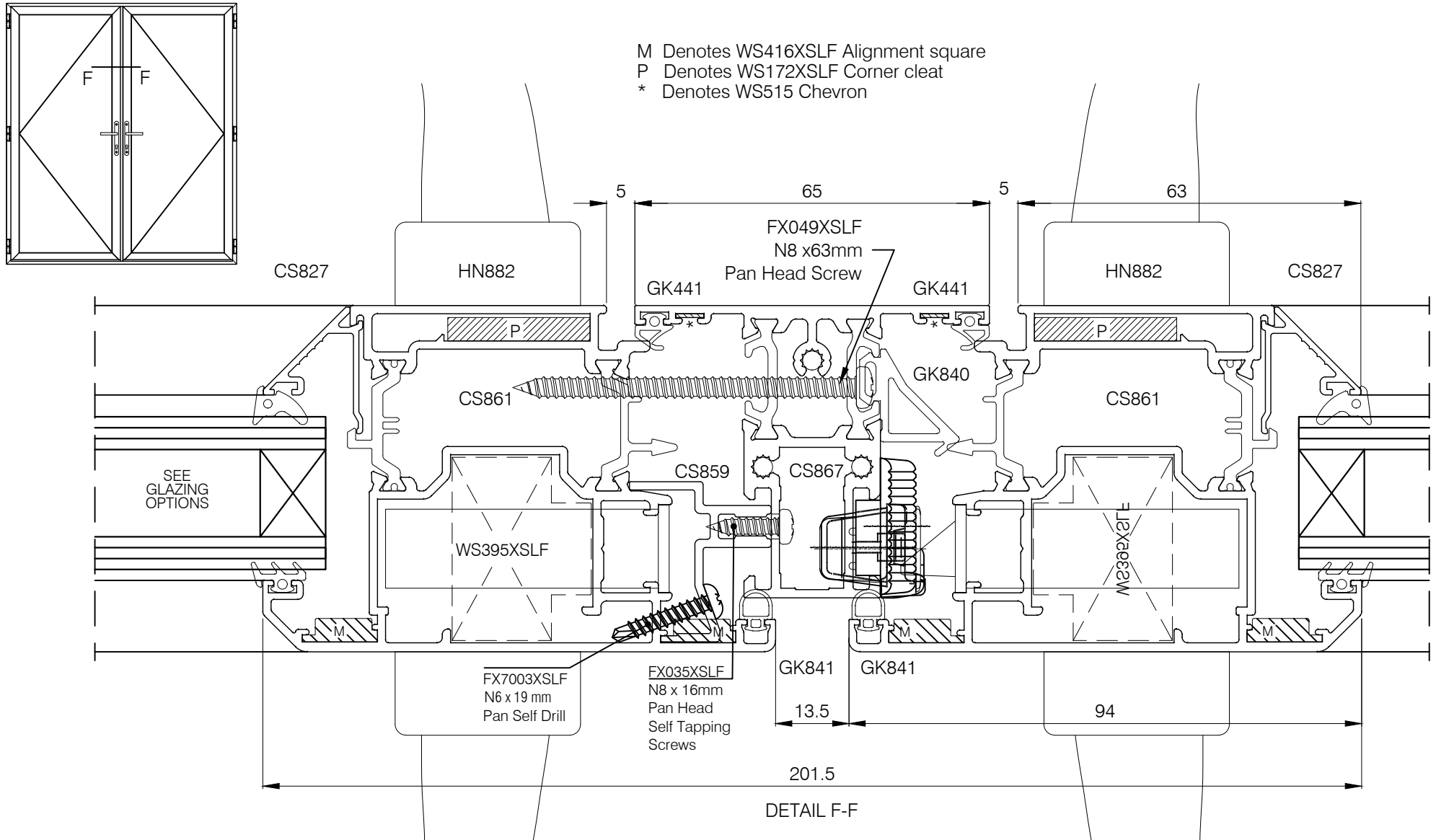


Rebated Door- Open In with  
Fixed Light- Mullion Detail  
CS882/CS863/CS867

A4 Scale: 1:1

R0 - 10-02-2020

2.20



comar 7P.i ECO LT

VIEWS & SECTIONS

2

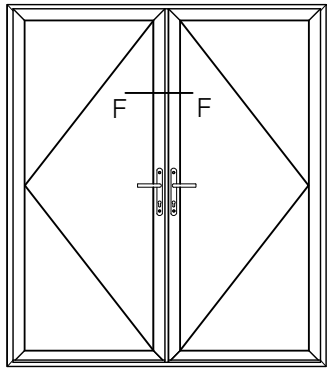


Double Rebated Door- Open Out  
Meeting Stile Detail  
CS861/CS867

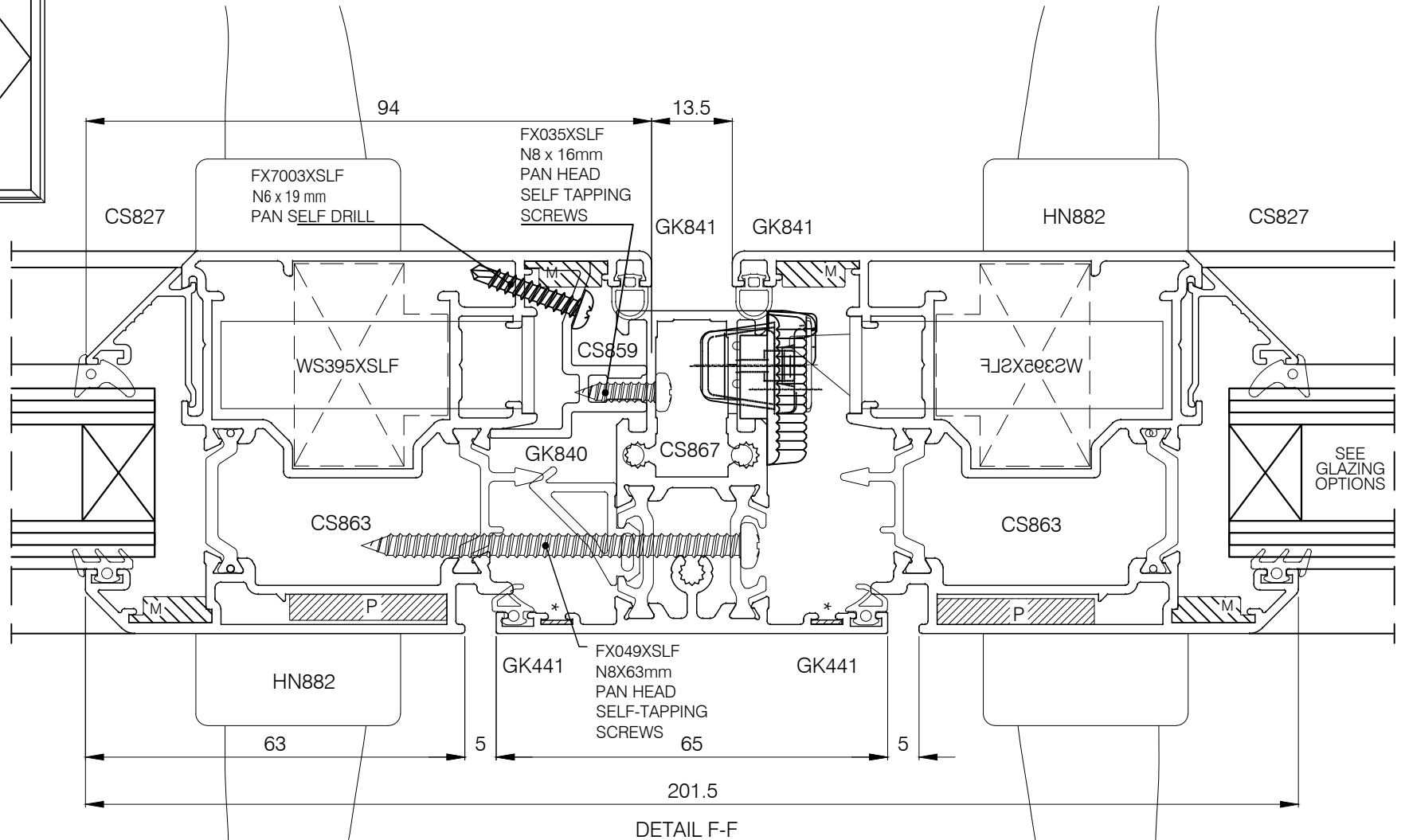
A4 Scale: 1:1

R0 - 10-02-2020

2.21



M Denotes WS416XSFL Alignment square  
 P Denotes WS172XSFL Corner cleat  
 \* Denotes WS515 Chevron



comar 7P.i ECO LT

VIEWS & SECTIONS

2



Double Rebated Door- Open In  
 Meeting Stile Detail  
 CS863/CS867

A4 Scale: 1:1

R0 - 10-02-2020

2.22



# CUTTING LIST

comar 7P.i ECO LT

CUTTING LIST

3

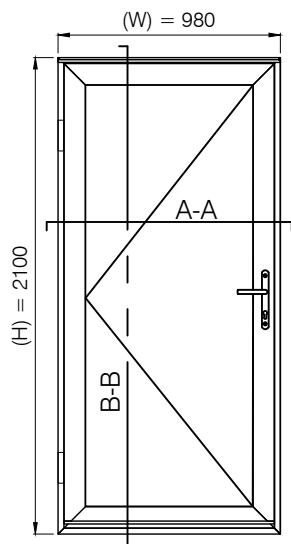


A4 Scale: NTS

R0 - 10-02-2020

3.00

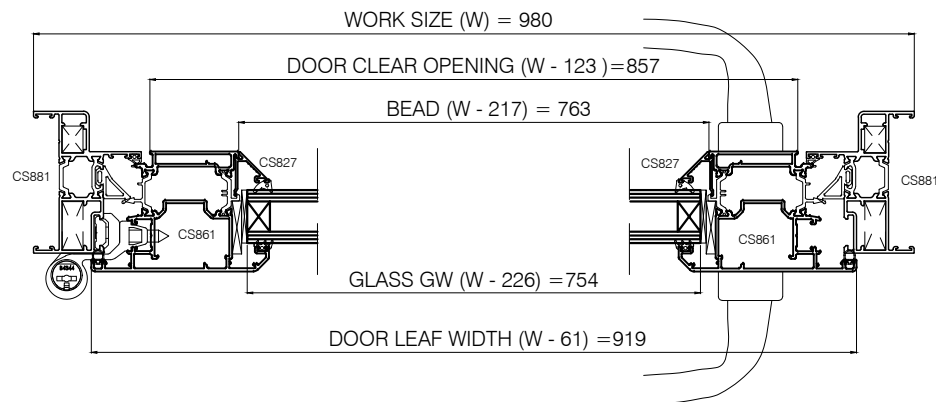




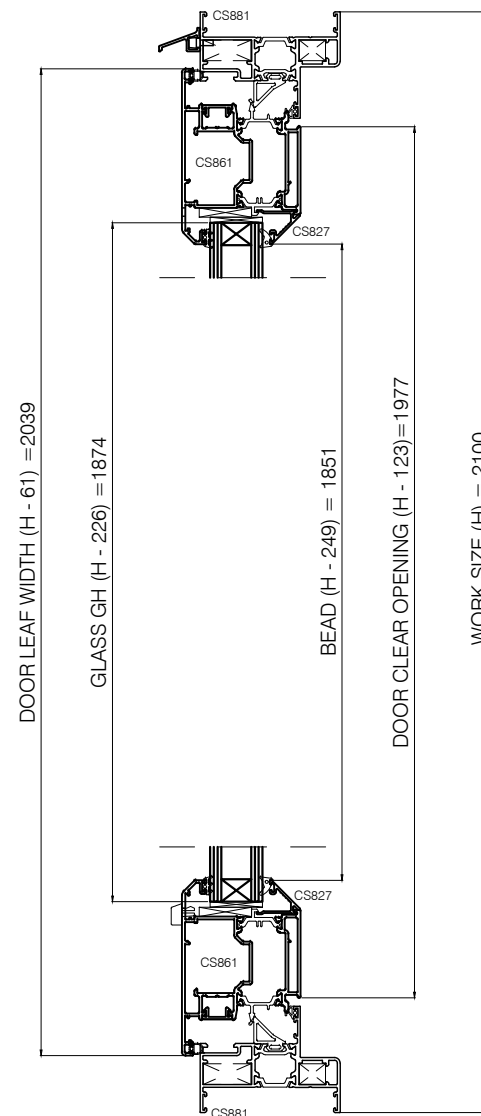
Cutting List Example for Single Rebated Door Open Out (2100mm x 980mm)					
FRAME - VERTICAL	CS860	—	2 @	H	2100mm 45°
FRAME - HORIZONTAL	CS860	—	2 @	W	980mm 45°
LEAF - VERTICAL	CS861	—	2 @	H - 61	2039mm 45°
LEAF - HORIZONTAL	CS861	—	2 @	W - 61	919mm 45°
BEAD - VERTICAL	CS827	—	2 @	H - 249	1851mm 45°
BEAD - HORIZONTAL	CS827	—	2 @	W - 217	763mm 45°

GLASS 28mm - 1 @ SIZE	
GH=H - 226	GW=W - 226
1874	754

Note: Gaskets & Glass dimensions will differ depending on the profiles selected. Please check your dimensions and cutting calculations carefully before ordering.



SECTION A-A



SECTION B-B

comar 7P.i ECO LT

CUTTING LIST

3

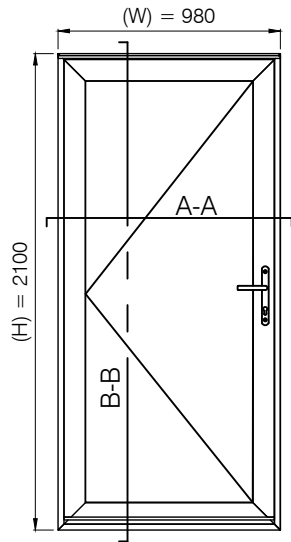


Example Cutting List  
Single Door Leaf- Open Out  
CS881/CS861

A4 Scale: 1:4

R0 - 10-02-2020

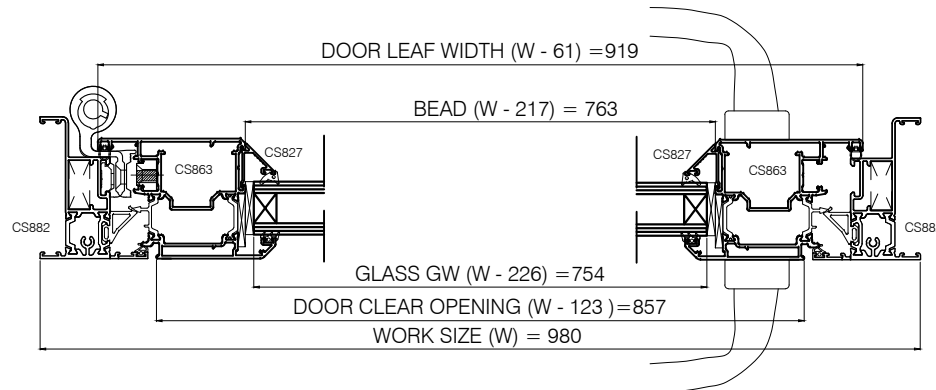
3.01



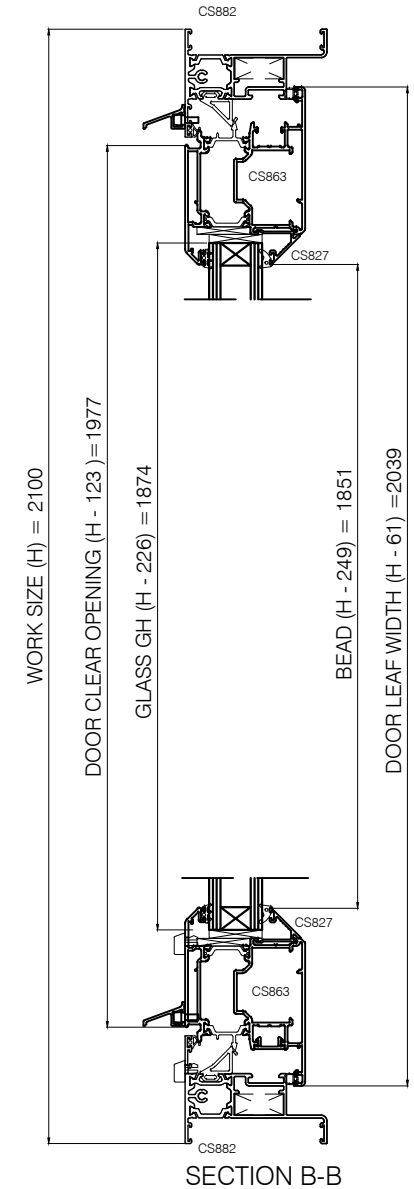
Cutting List Example for Single Rebated Door Open In (2100mm x 980mm)					
FRAME - VERTICAL	CS882	— 2 @	H	2100mm	45°
FRAME - HORIZONTAL	CS882	— 2 @	W	980mm	45°
LEAF - VERTICAL	CS863	— 2 @	H - 61	2039mm	45°
LEAF - HORIZONTAL	CS863	— 2 @	W - 61	919mm	45°
BEAD - VERTICAL	CS827	— 2 @	H - 249	1851mm	45°
BEAD - HORIZONTAL	CS827	— 2 @	W - 217	763mm	45°

GLASS 28mm - 1 @ SIZE	
GH=H-226	GW=W-226
1874	754

Note: Gaskets & Glass dimensions will differ depending on the profiles selected. Please check your dimensions and cutting calculations carefully before ordering.



SECTION A-A



SECTION B-B

comar 7P.i ECO LT

CUTTING LIST

3

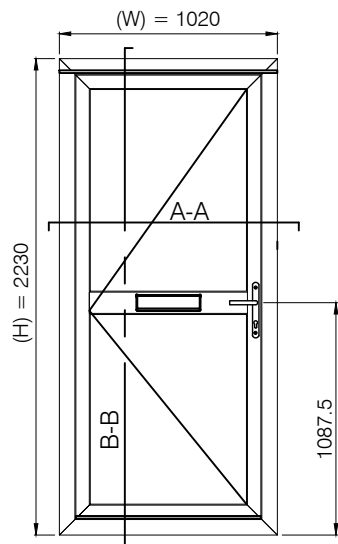


Example Cutting List  
Single DoorLeaf - Open In  
CS882/CS863

A4 Scale: 1:4

R0 - 10-02-2020

3.02

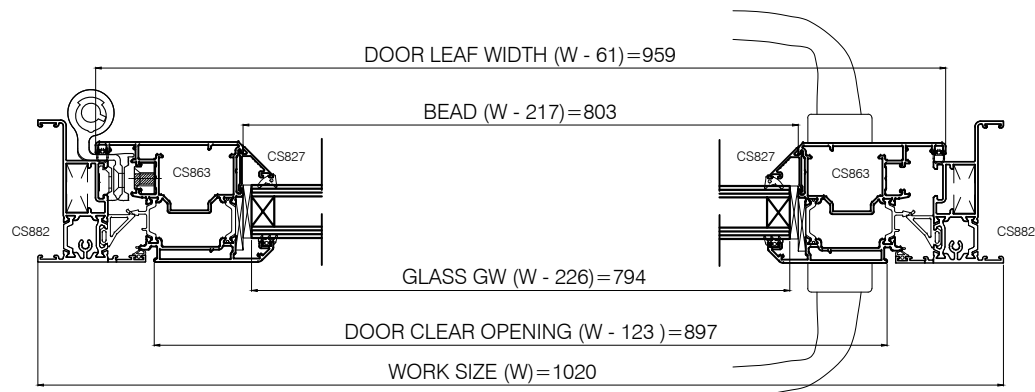


Cutting List Example for Single Rebated Door Open In (2230mm x 1020mm)					
FRAME - VERTICAL	CS882	—	2 @	H	2230mm 45°
FRAME - HORIZONTAL	CS882	—	2 @	W	1020mm 45°
LEAF - VERTICAL	CS863	—	2 @	H - 61	2169mm 45°
LEAF - HORIZONTAL	CS863	—	2 @	W - 61	959mm 45°
BEAD 1 - VERTICAL	CS827	—	2 @		913mm 45°
BEAD 2 - VERTICAL	CS827	—	2 @	H - 1262	968mm 45°
BEAD - HORIZONTAL	CS827	—	2 @	W - 217	803mm 45°
MIDRAIL	CS866	—	1 @	W - 217	803mm 90°

GLASS 28mm - 1 @ SIZE	
GH = (1087.5 - 153)	GW = W - 226
935.5	794

GLASS 28mm - 2 @ SIZE	
GH = H - 1239.5	GW = W - 226
990.5	794

Note: Gaskets & Glass dimensions will differ depending on the profiles selected. Please check your dimensions and cutting calculations carefully before ordering.



SECTION A-A

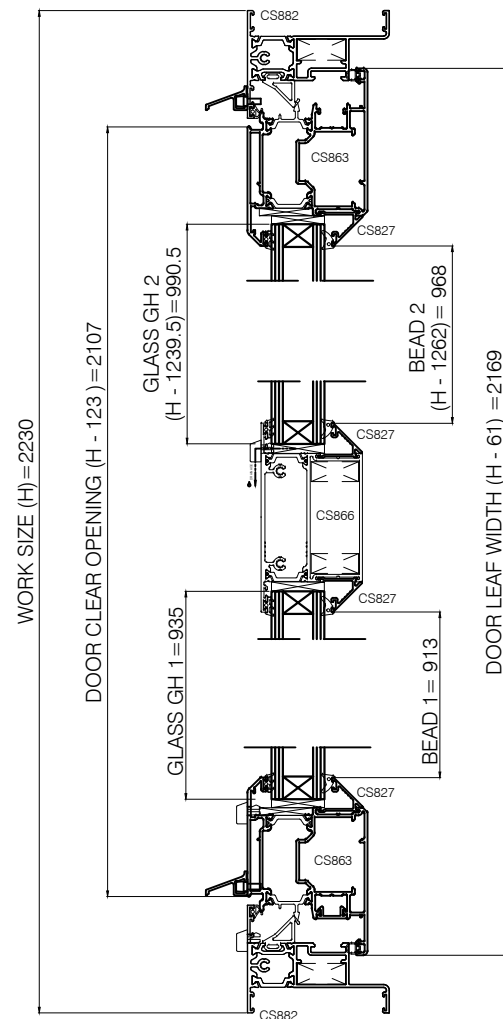


comar 7P.i ECO LT

CUTTING LIST

3

Single Door Leaf - Open In  
with Midrail  
CS882/CS863/CS886

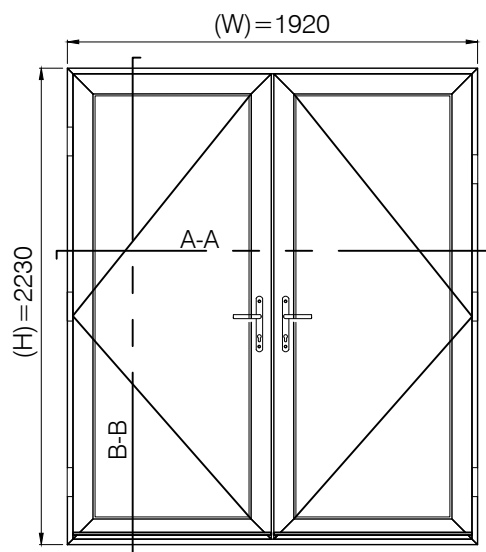


SECTION B-B

A4 Scale: 1:1

R0 - 10-02-2020

3.03

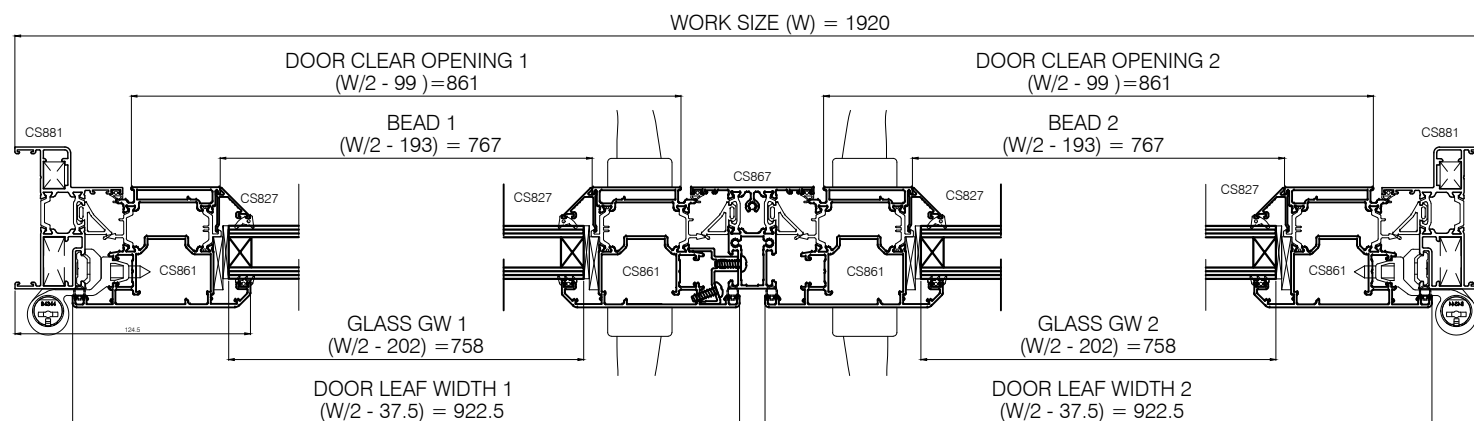


Cutting List Example for Double Rebated Door Open Out (2230 x 1920mm)					
FRAME - VERTICAL	CS860	—	2 @	H	2230mm 45°
FRAME - HORIZONTAL	CS860	—	2 @	W	1920mm 45°
LEAF - VERTICAL	CS861	—	2 @	H - 61	2039mm 45°
LEAF 1 - HORIZONTAL	CS861	—	2 @	W/2 - 37.5	922.5mm 45°
LEAF 2 - HORIZONTAL	CS861	—	2 @	W/2 - 37.5	922.5mm 45°
BEAD - VERTICAL	CS827	—	2 @	H - 249	1981mm 45°
BEAD 1 - HORIZONTAL	CS827	—	2 @	W/2 - 193	767mm 45°
BEAD 2 - HORIZONTAL	CS827	—	2 @	W/2 - 193	767mm 45°
FLOATING MULLION	CS867	—	1 @	H - 128	2102mm 90°

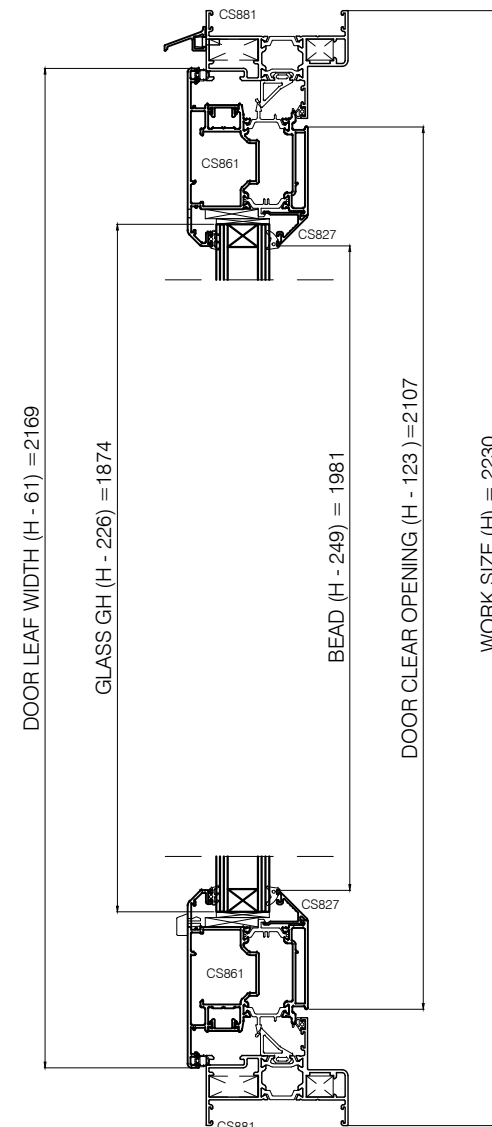
GLASS 28mm - 1 @ SIZE	
GH=H - 226	GW=W/2 - 202
2004	758

GLASS 28mm - 2 @ SIZE	
GH=H - 226	GW=W/2 - 202
2004	758

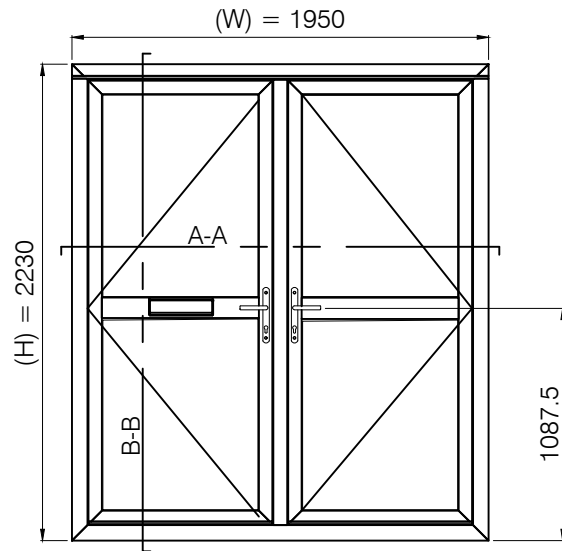
Note: Gaskets & Glass dimensions will differ depending on the profiles selected. Please check your dimensions and cutting calculations carefully before ordering.



SECTION A-A



SECTION B-B

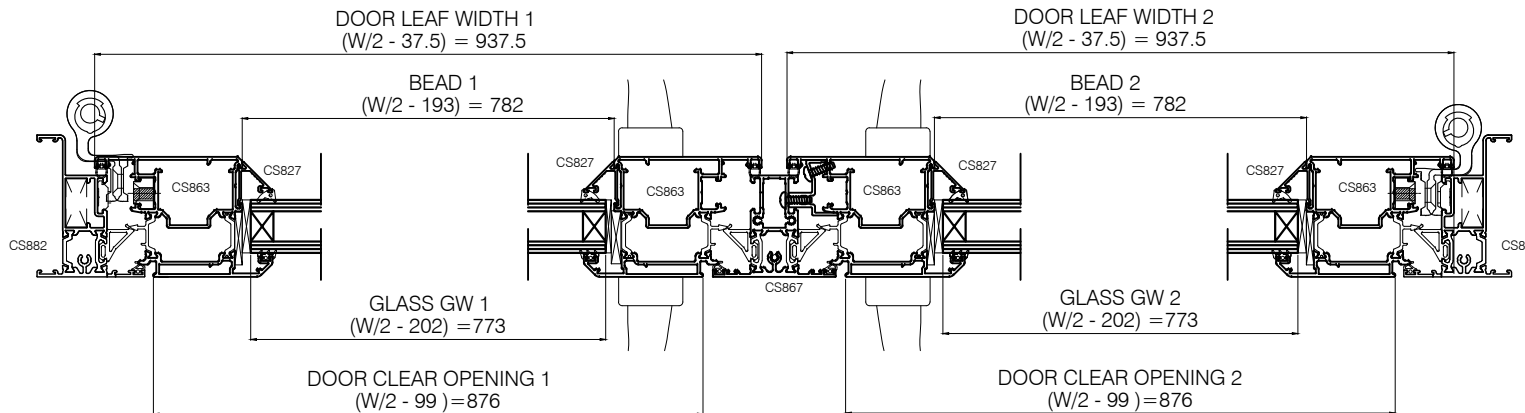


Cutting List Example for Double Rebated Door Open In (2230 x 1950mm)					
FRAME - VERTICAL	CS860	— 2 @	H	2230mm	45°
FRAME - HORIZONTAL	CS860	— 2 @	W	1950mm	45°
LEAF - VERTICAL	CS861	— 2 @	H - 61	2039mm	45°
LEAF 1 - HORIZONTAL	CS861	— 2 @	W/2 - 37.5	937.5mm	45°
LEAF 2 - HORIZONTAL	CS861	— 2 @	W/2 - 37.5	937.5mm	45°
BEAD 1 - VERTICAL	CS827	— 2 @		945mm	45°
BEAD 2 - VERTICAL	CS827	— 2 @	H - 1231	999mm	45°
BEAD 1 - HORIZONTAL	CS827	— 2 @	W/2 - 193	782mm	45°
BEAD 2 - HORIZONTAL	CS827	— 2 @	W/2 - 193	782mm	45°
FLOATING MULLION	CS867	— 1 @	H - 128	2102mm	90°
MIDRAIL	CS866	— 1 @	W/2 - 193	782mm	90°

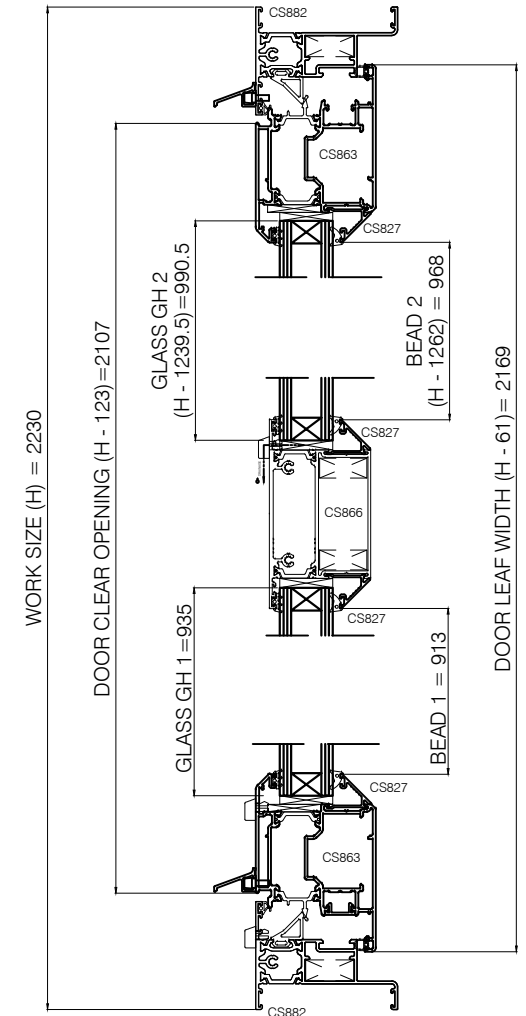
GLASS 28mm - 1 @ SIZE	
GH=1087.5-153	GW=W/2 - 202
934.5	773

GLASS 28mm - 2 @ SIZE	
GH=H-1239.5	GW=W/2 - 202
990.5	773

Note: Gaskets & Glass dimensions will differ depending on the profiles selected. Please check your dimensions and cutting calculations carefully before ordering.



SECTION A-A



SECTION B-B

comar 7P.i ECO LT

CUTTING LIST

3



Example Cutting List  
Double Door Leaf - Open In With Midrail  
CS882/CS863/CS866

A4 Scale: 1:4

R0 - 10-02-2020

3.05





# FABRICATION DETAILS

comar 7P.i ECO LT

FABRICATION DETAILS

4

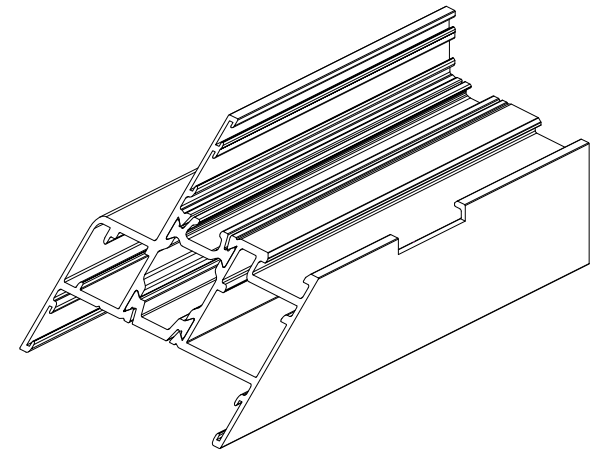
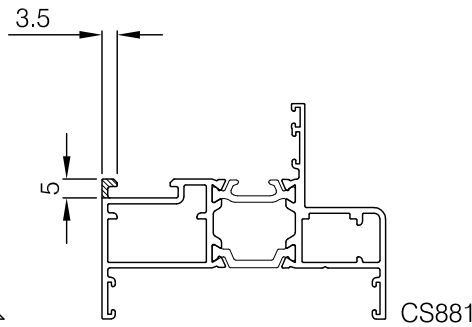
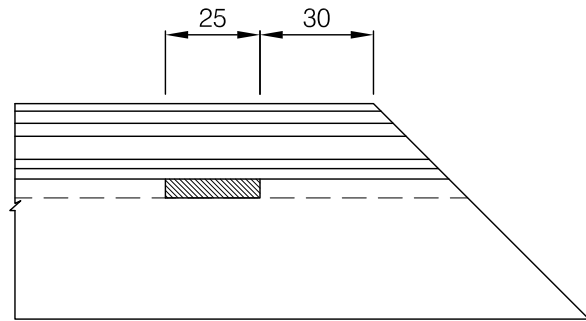


A4 Scale: NTS

R0 - 10-02-2020

4.00





Tooling Ref:

COM 5 ECO T28 STATION 8

Open Out Outer Frame- CS881

comar 7P.i ECO LT

FABRICATION DETAILS

4

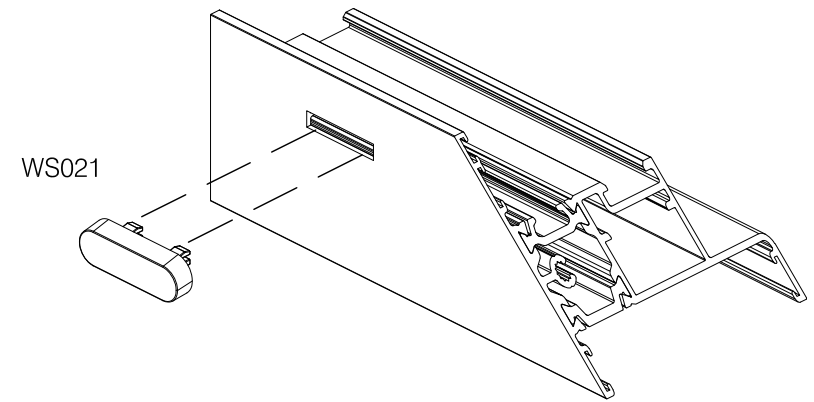
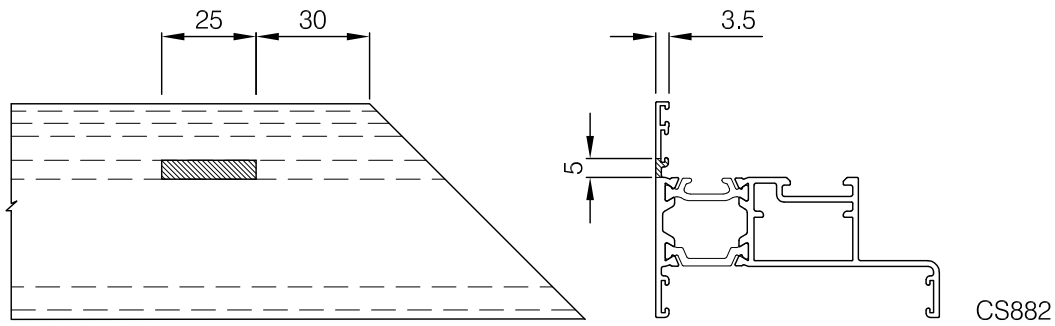


Typical Drainage Detail  
Outer Frame Open Out  
CS881

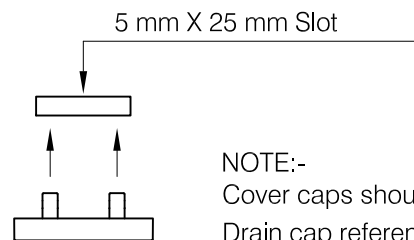
A4 Scale: 1:2

R0 - 10-02-2020

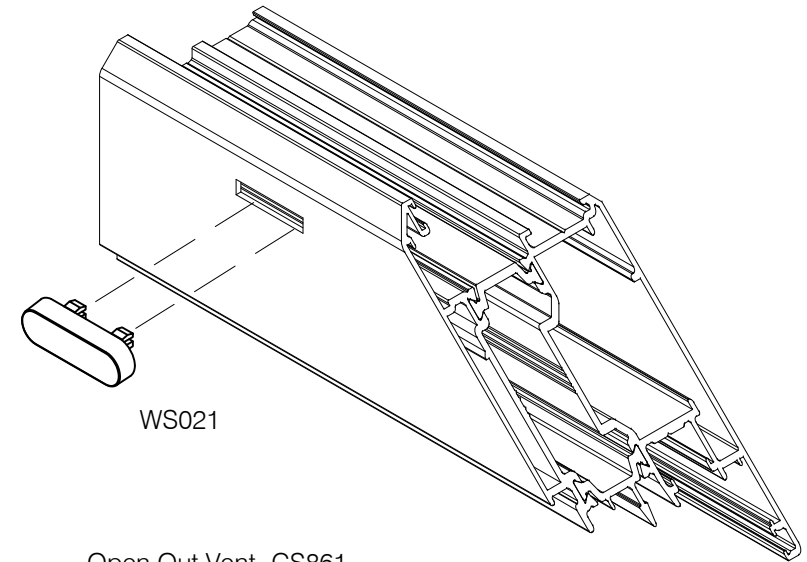
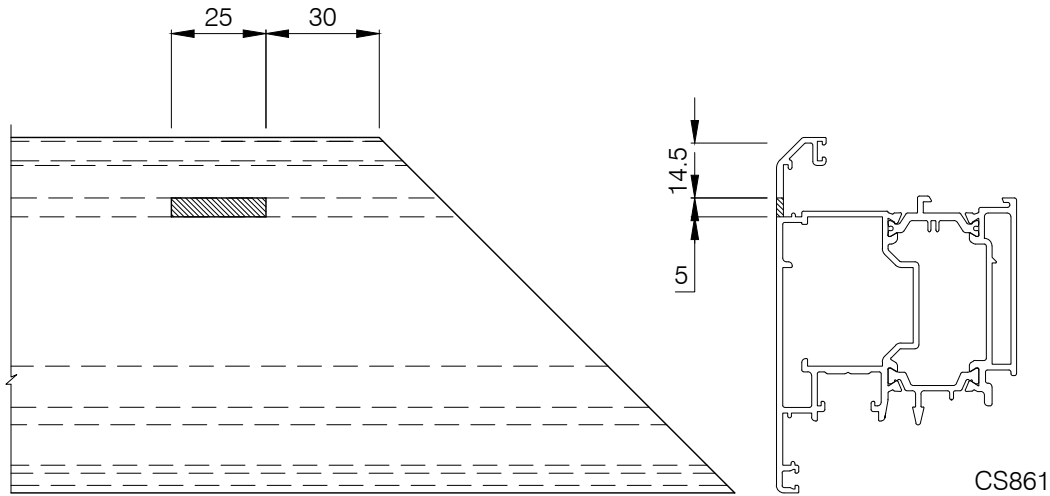
4.01



Open In Outer Frame- CS882

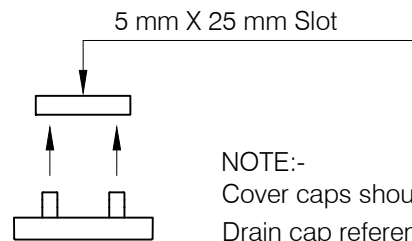


NOTE:-  
Cover caps should be secured with glue Ref SE009  
Drain cap reference: WS021

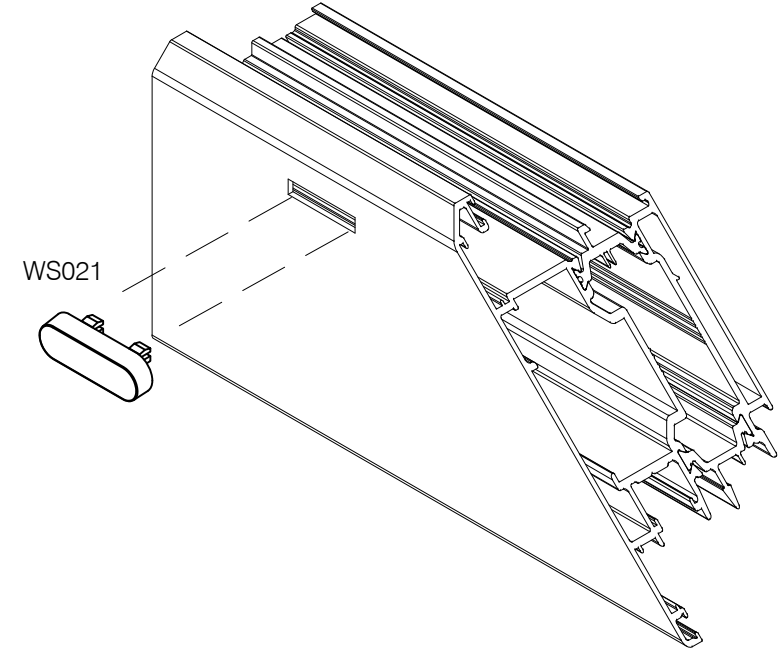
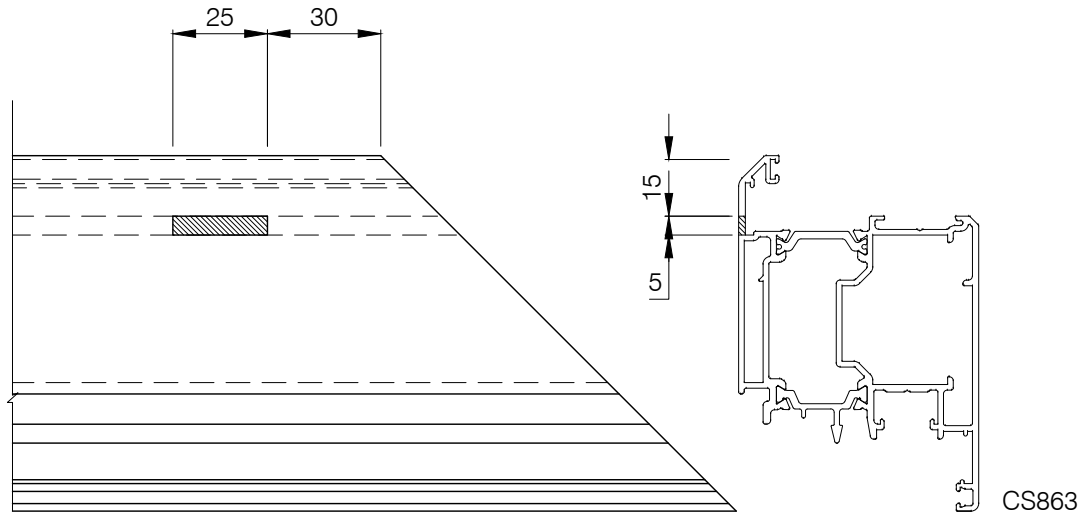


Tooling Ref:

COM 7 ECO T15 STATION 6



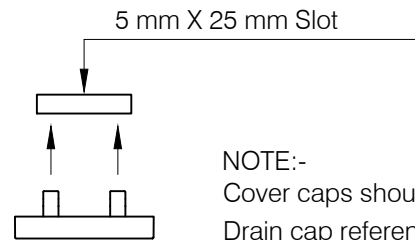
NOTE:-  
Cover caps should be secured with glue Ref SE009  
Drain cap reference: WS021



Open In Vent- CS863

Tooling Ref:

COM 7 ECO T15 STATION 6



NOTE:-

Cover caps should be secured with glue Ref SE009

Drain cap reference: WS021

comar 7P.i ECO LT

FABRICATION DETAILS

4

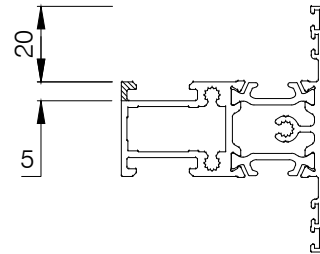
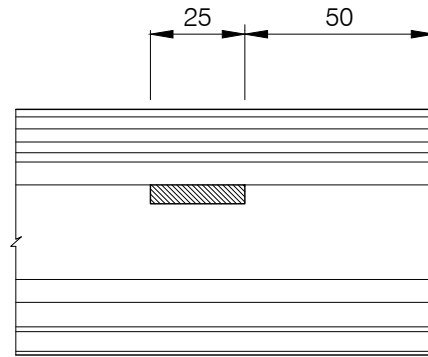


Typical Drainage Detail  
Open In Door Leaf  
CS863

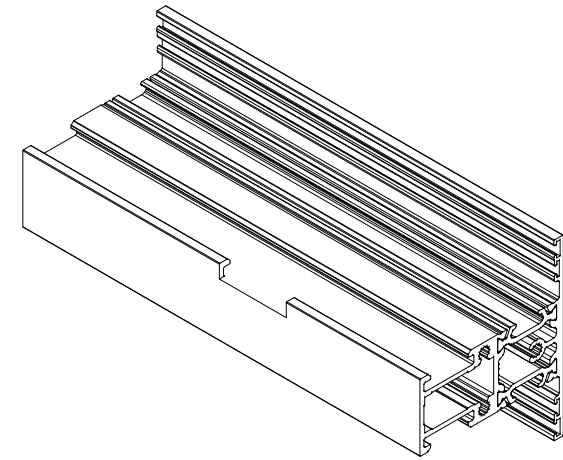
A4 Scale: 1:2

R0 - 10-02-2020

4.04

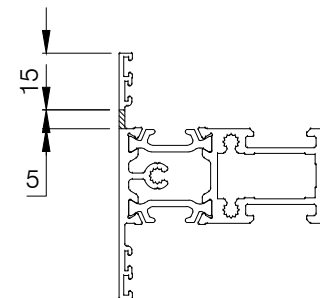
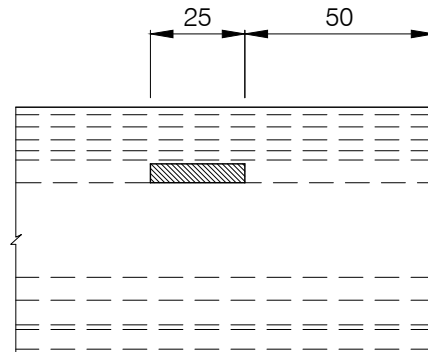


CS867

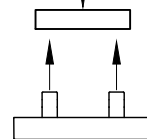


Transom- CS867

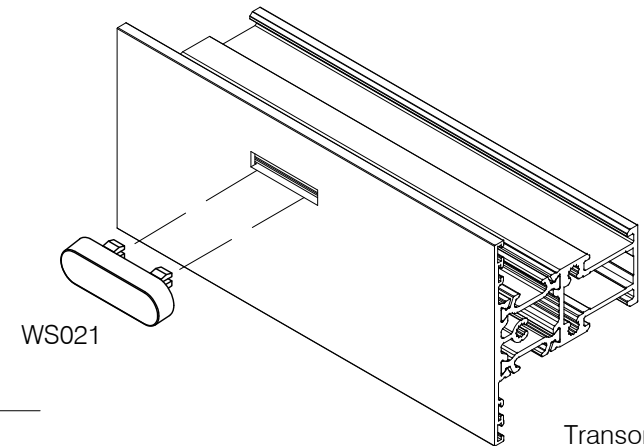
For Open Out configuration  
Tooling Ref:  
COM 7 ECO T15 STATION 7



5 mm X 25 mm Slot



NOTE:-  
Cover caps should be secured with glue Ref SE009  
Drain cap reference: WS021



Transom- CS867

For Open Out configuration  
Tooling Ref:  
COM 7 ECO T15 STATION 6

comar 7P.i ECO LT

FABRICATION DETAILS

4

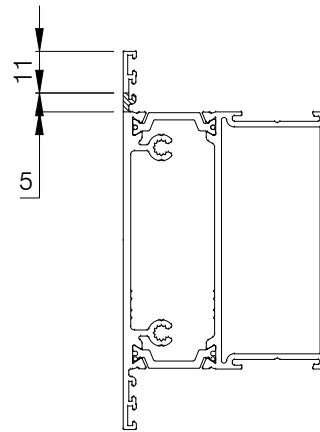
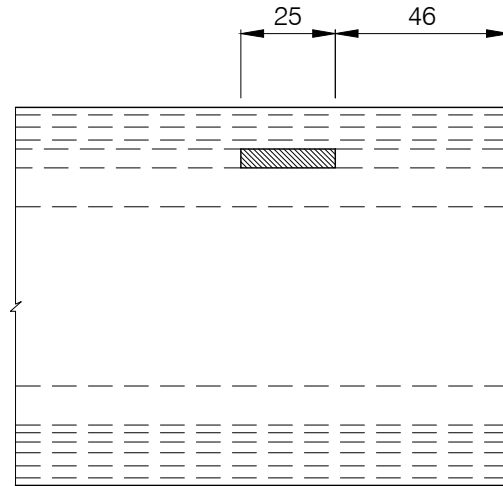


Typical Drainage Detail  
Transom- Open Out Leaf Door  
CS867

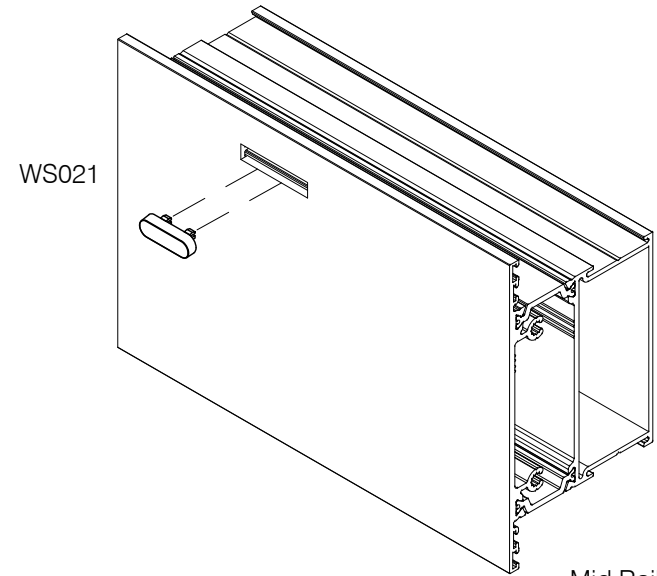
A4 Scale: 1:2

R0 - 10-02-2020

4.05



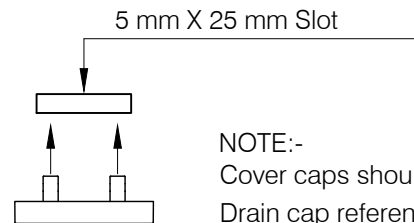
CS866



Mid Rail- CS866

Tooling Ref:

COM 7 ECO T15 STATION 1



NOTE:-

Cover caps should be secured with glue Ref SE009

Drain cap reference: WS021

comar 7P.i ECO LT

FABRICATION DETAILS

4



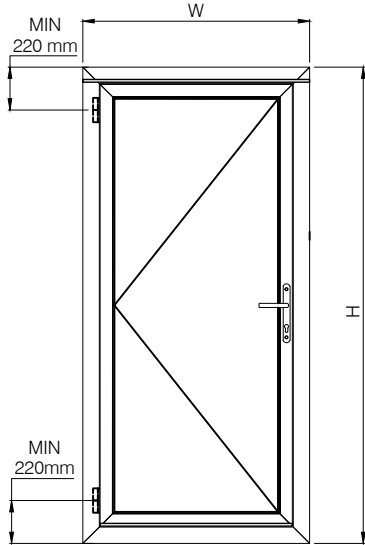
Typical Drainage Detail  
Mid- Rail  
CS866

A4 Scale: 1:2

R0 - 10-02-2020

4.06





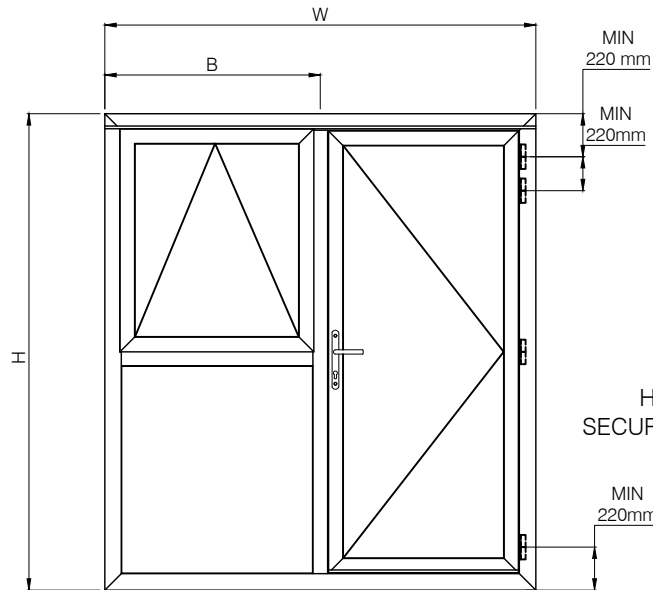
LIGHT DUTY  
WITH TWO HINGES FITTED  
MAX DOOR SIZE WIDTH 1100  
MAX DOOR SIZE HEIGHT 2400  
WEIGHT 90Kgs

HINGE: HN850EWHT/HN850BSVR  
SECURITY HINGE: HN851EWHT/HN851BSVR

FOR EXTERNAL OPEN OUT DOORS PROVISION  
MUST BE MADE TO PROTECT THE DOOR FROM ADJACENT  
WALLS AND OBSTRUCTION.

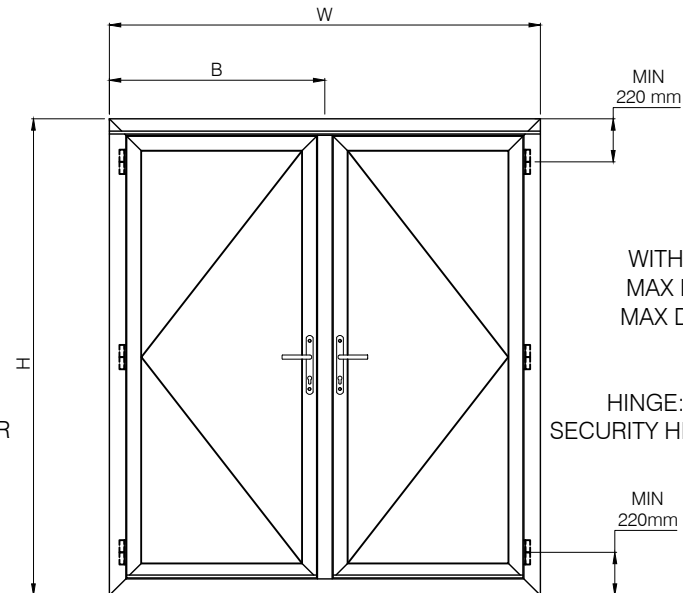
DOORS SHOULD NOT EXCEED AN AREA OF 2.2M .  
FOR SAFETY COMAR DO NOT RECOMMEND SIZES  
EXCEEDING LIMITS (2.4M HIGH OR 1.1M WIDTH)

NOTE:EWHT AND BSVR REFERS TO THE PAINT  
FINISH WHITE OR SILVER RESPECTIVELY.



HEAVY DUTY  
WITH FOUR HINGES FITTED  
MAX DOOR SIZE WIDTH 1100  
MAX DOOR SIZE HEIGHT 2400  
WEIGHT 90Kgs

HINGE: HN850EWHT/HN850BSVR  
SECURITY HINGE: HN851EWHT/HN851BSVR



NORMAL DUTY  
WITH THREE HINGES FITTED  
MAX DOOR SIZE WIDTH 1100  
MAX DOOR SIZE HEIGHT 2400  
WEIGHT 90Kgs

HINGE:HN850EWHT/HN850BSVR  
SECURITY HINGE:HN851EWHT/HN851BSVR

comar 7P.i ECO LT

FABRICATION DETAILS

4

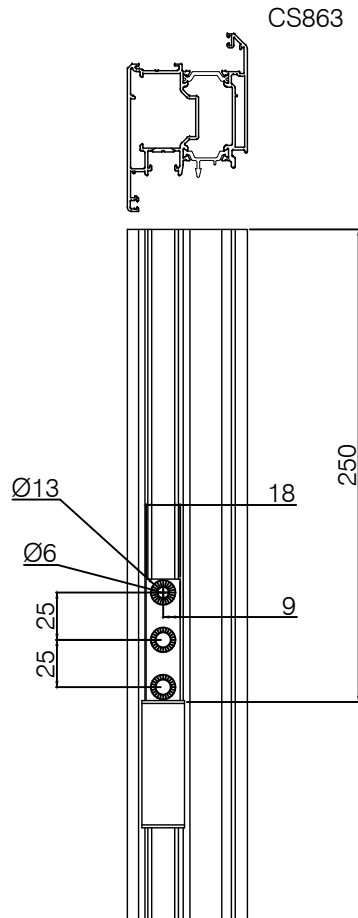


Hinge Detail  
Limitation  
CS866

A4 Scale: NTS

R0 - 10-02-2020

4.07



1. Prior to assembly slide the hinge plate into the outer frame as shown and secure in position using the two M6 x 12 mm screws supplied.

2. Position the hinge and drill three pilot holes for the hinge screws.

3. Screw the hinge to the door leaf with the 3 x 6.3 x 32 mm self tapping screws provided.

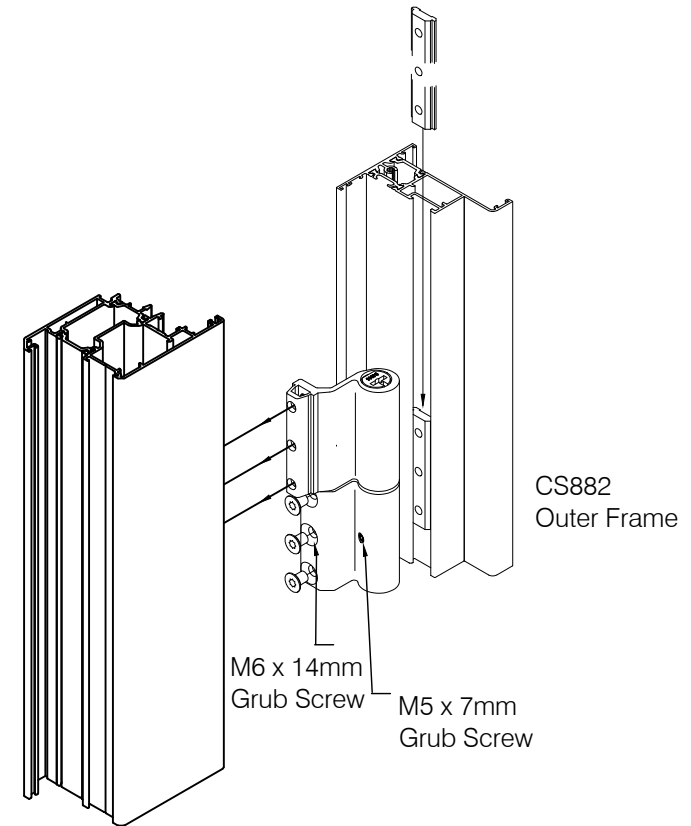
4. With the door installed the hinge has a side adjustment of the distance between the door leaf and the outer frame of  $\pm 1\text{mm}$ .

Side adjustments can be made using a screwdriver.

Height adjustments can be made by loosening the plate fixing screws on the outer frame and moving the hinge to the required position.

Lock the M6 x 14mm stainless steel grub screw to secure.

CS863  
Leaf Door



CAUTION:

To avoid an accident while removing the door leaf, the door leaf should be supported while removing the hinge pin.

The stainless pin is completely removable, enabling the leaf to be easily removed from the frame without lifting it.

The pin is held by M5 x 7 stainless grub screw, which can be accessed when leaf is open, using 2.5mm Allen key.

comar 7P.i ECO LT

FABRICATION DETAILS

4



Hinge Preparation Detail  
HN850XSLF Hinge Pre- Assembled  
to CS882 & CS863

A4 Scale: 1:4

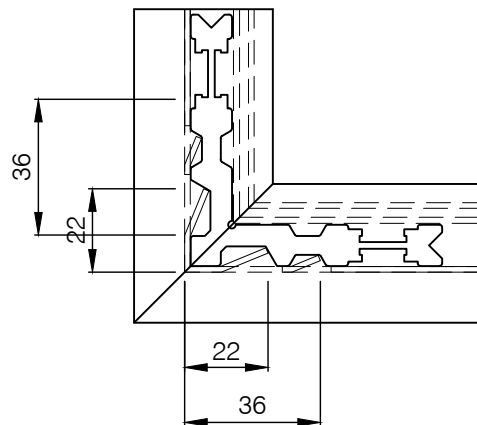
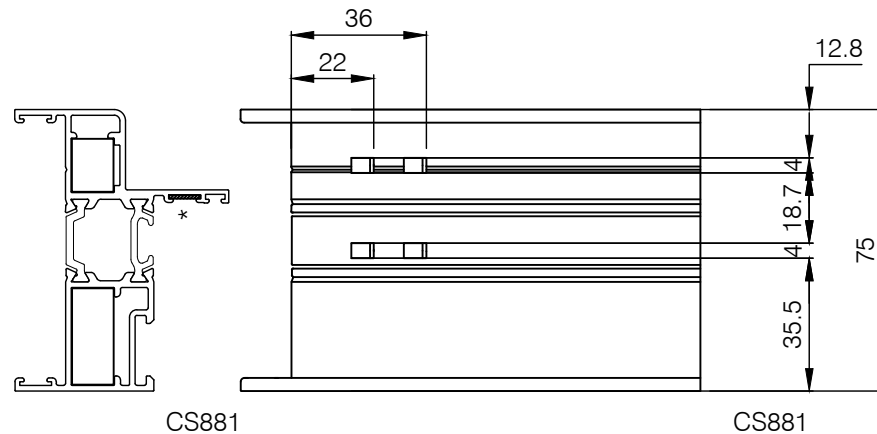
R0 - 10-02-2020

4.08

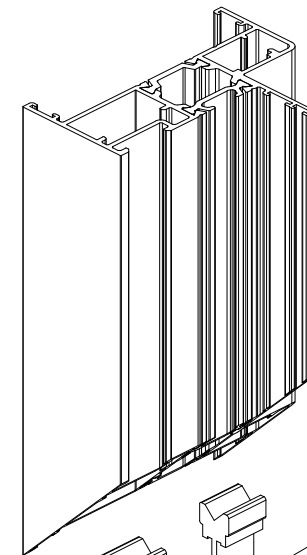
## CORNER JOINTING BY CRIMP INDENT

- 1) Apply joint adhesive to joint faces and cleat cavities, then insert cleat.
- 2) Crimp corner as shown

Adhesive Ref: SE007WHT (White)  
SE007BLK (Black)  
SE008XSLF (Clear)



CS881 CRIMP CORNER		
Cleats	Knife Ref	Anvil Ref
WS892XSLF	KNV-P36	ANV-A37
WS893XSLF		

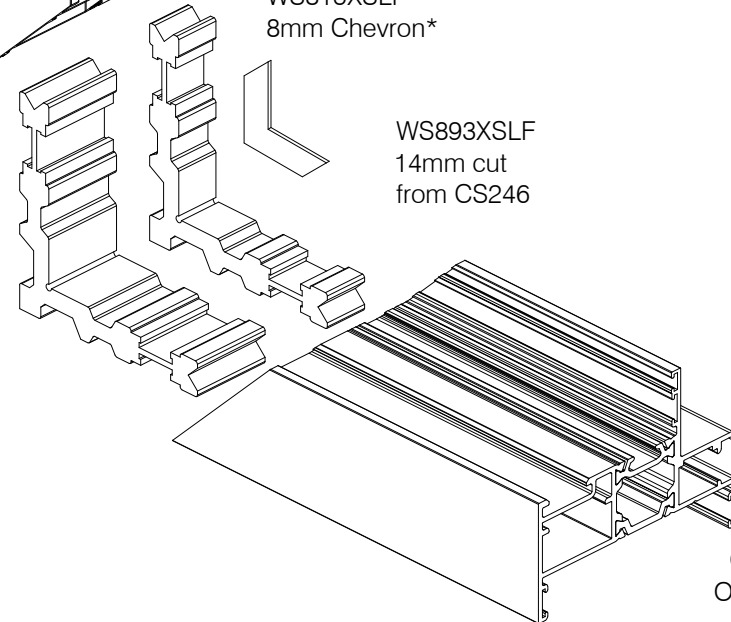


- 1) Seal inside cavity and mating surfaces.
- 2) Insert cleats and chevrons as shown.
- 3) Insert cam locks to be adjusted.
- 4) Assemble and tighten.

WS815XSLF  
8mm Chevron\*

WS893XSLF  
14mm cut  
from CS246

WS892XSLF  
25.5mm cut  
from CS246



Open Out  
Outer Frame  
CS881

comar 7P.i ECO LT

FABRICATION DETAILS

4



Open Out  
CS881- Outer Frame  
Corner Cramping Detail

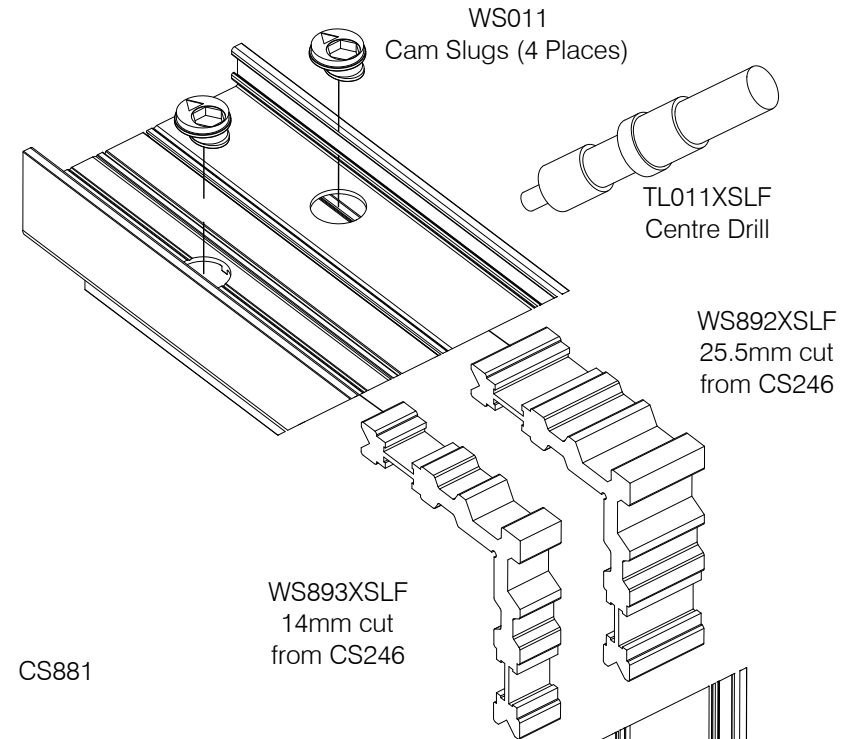
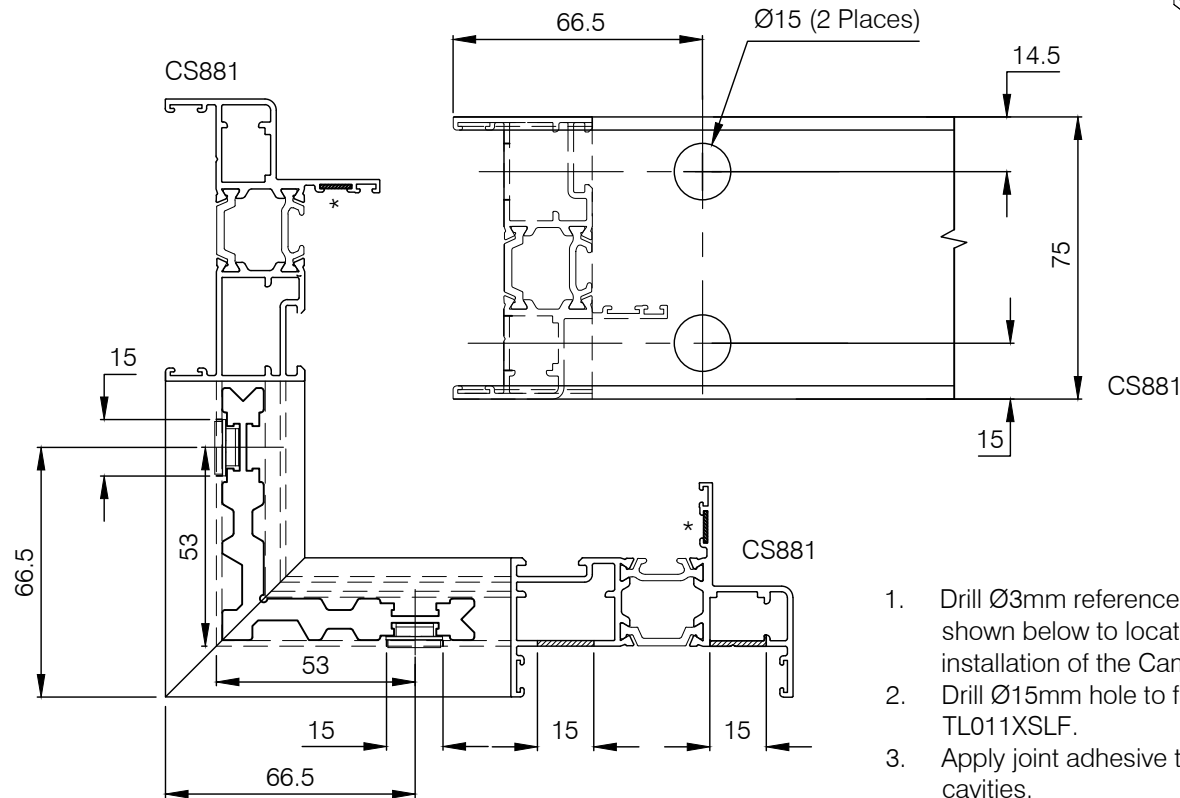
A4 Scale: 1:2

R0 - 10-02-2020

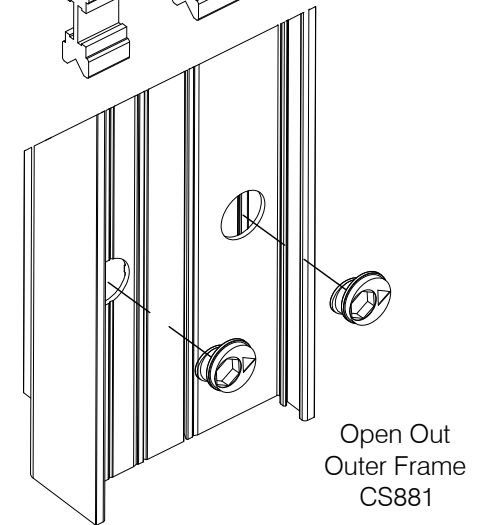
4.09

- 1) Seal inside cavity and mating surfaces.
- 2) Insert cleats and chevrons as shown.
- 3) Insert cam slugs to be adjusted.
- 4) Assemble and tighten.

Open Out  
Outer Frame  
CS881



1. Drill Ø3mm reference hole with the dimensions shown below to locate the correct place for installation of the Cam Plug on CS881 profiles.
2. Drill Ø15mm hole to fit Cam plug with the help of TL011XSFL.
3. Apply joint adhesive to joint faces and cleat cavities.
4. Insert the Cleat in the right place to be adjusted using Cam Plug WS011XSFL.



Open Out  
Outer Frame  
CS881

comar 7P.i ECO LT

FABRICATION DETAILS

4



Door Outer Frame  
CS881  
Cam Slugs Detail

A4 Scale: 1:2

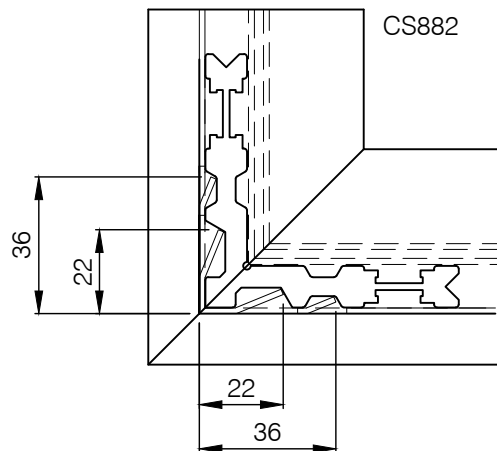
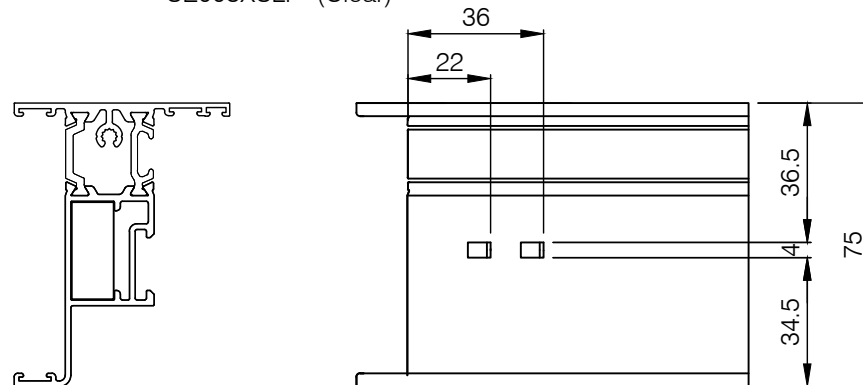
R0 - 10-02-2020

4.10

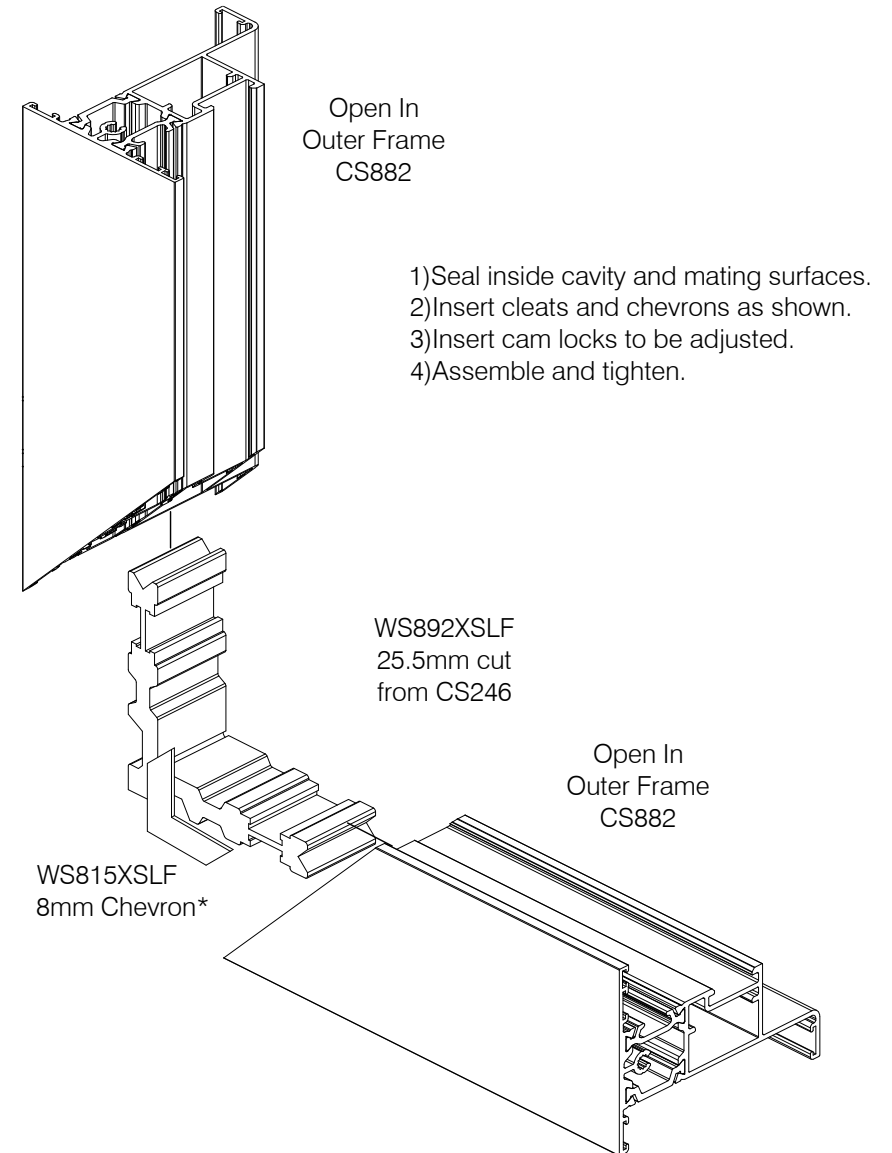
## CORNER JOINTING BY CRIMP INDENT

- 1) Apply joint adhesive to joint faces and cleat cavities, then insert cleat.
- 2) Crimp corner as shown

Adhesive Ref: SE007WHT (White)  
SE007BLK (Black)  
SE008XSLF (Clear)



CS882 CRIMP CORNER		
Cleats	Knife Ref	Anvil Ref
WS892XSLF	KNV-P37	ANV-A40



comar 7P.i ECO LT

FABRICATION DETAILS

4



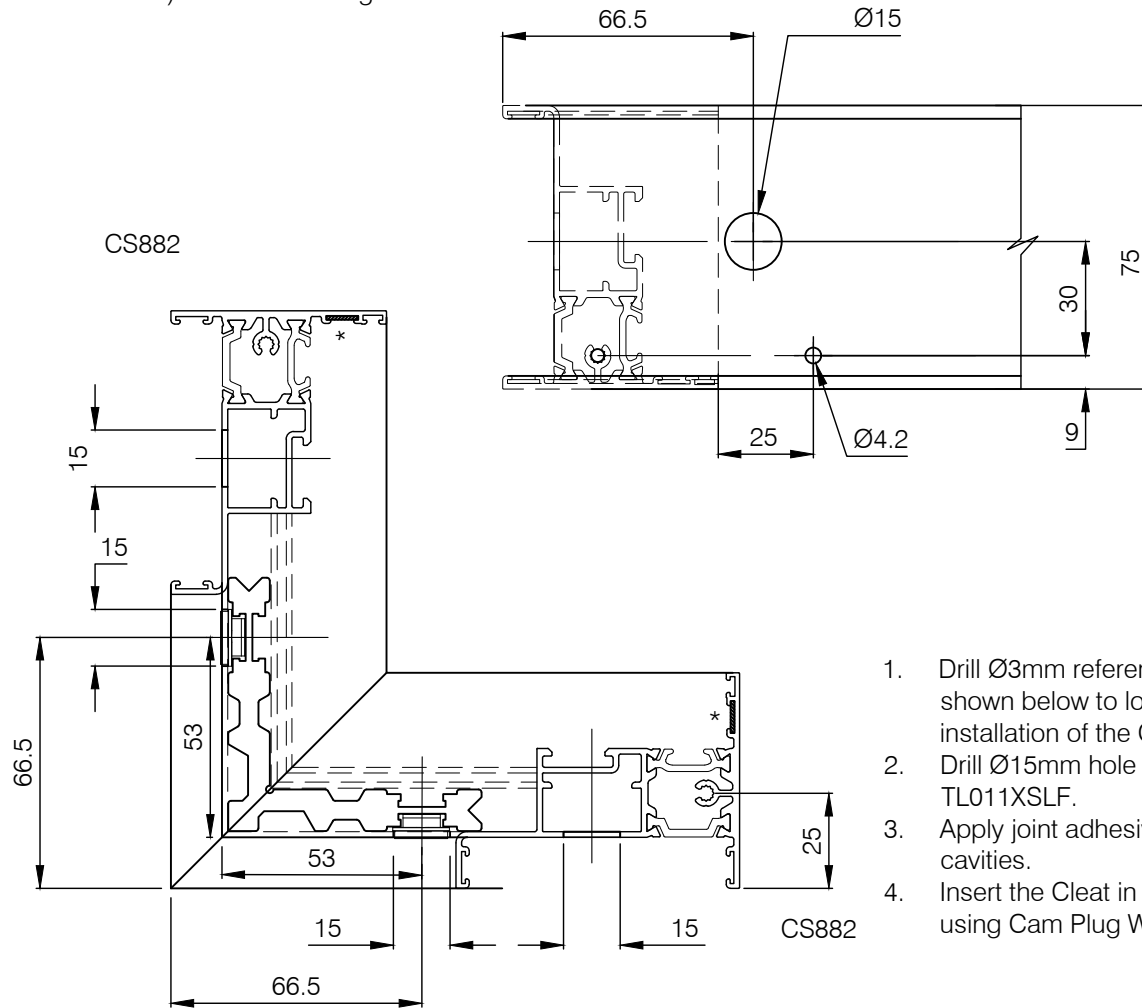
Open In  
CS882- Outer Frame  
Corner Crimping Detail

A4 Scale: 1:2

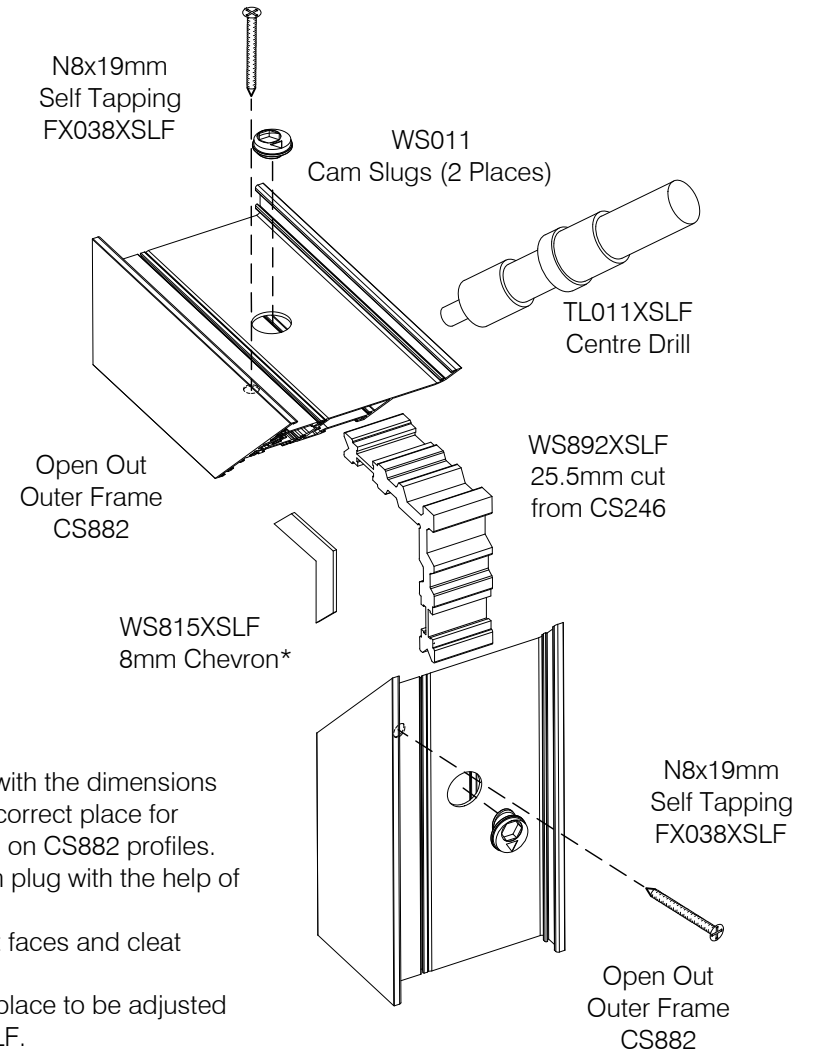
R0 - 10-02-2020

4.11

- 1) Seal inside cavity and mating surfaces.
- 2) Insert cleats and chevrons as shown.
- 3) Insert cam slugs to be adjusted.
- 4) Assemble and tighten.



1. Drill Ø3mm reference hole with the dimensions shown below to locate the correct place for installation of the Cam Plug on CS882 profiles.
2. Drill Ø15mm hole to fit Cam plug with the help of TL011XSFL.
3. Apply joint adhesive to joint faces and cleat cavities.
4. Insert the Cleat in the right place to be adjusted using Cam Plug WS011XSFL.



comar 7P.i ECO LT

FABRICATION DETAILS

4

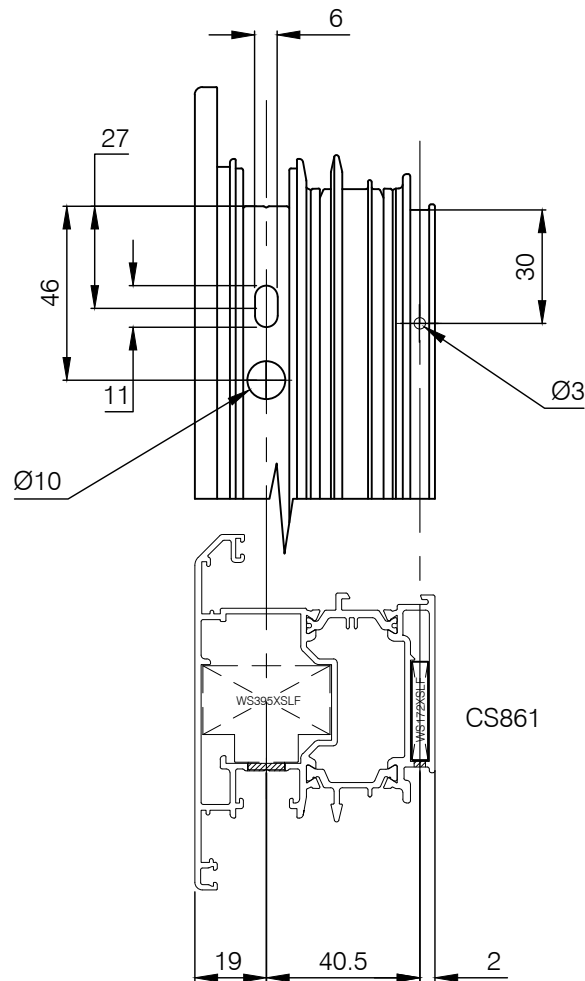


Door Outer Frame  
CS882  
Cam Slugs Detail

A4 Scale: 1:2

R0 - 10-02-2020

4.12

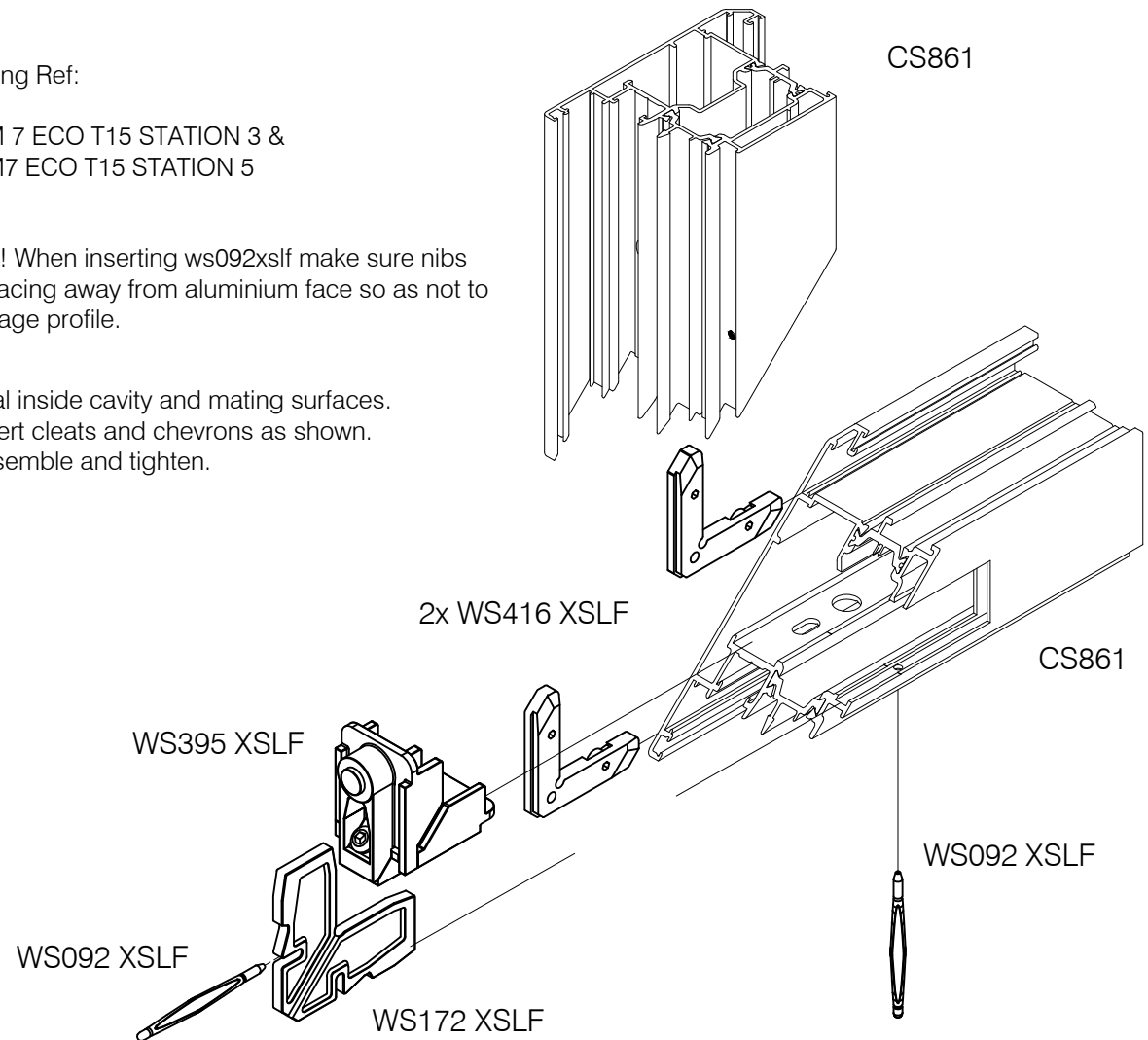


Tooling Ref:

COM 7 ECO T15 STATION 3 &  
COM7 ECO T15 STATION 5

Note! When inserting ws092xslf make sure nibs  
are facing away from aluminium face so as not to  
damage profile.

- 1) Seal inside cavity and mating surfaces.
- 2) Insert cleats and chevrons as shown.
- 3) Assemble and tighten.



comar 7P.i ECO LT

FABRICATION DETAILS

4

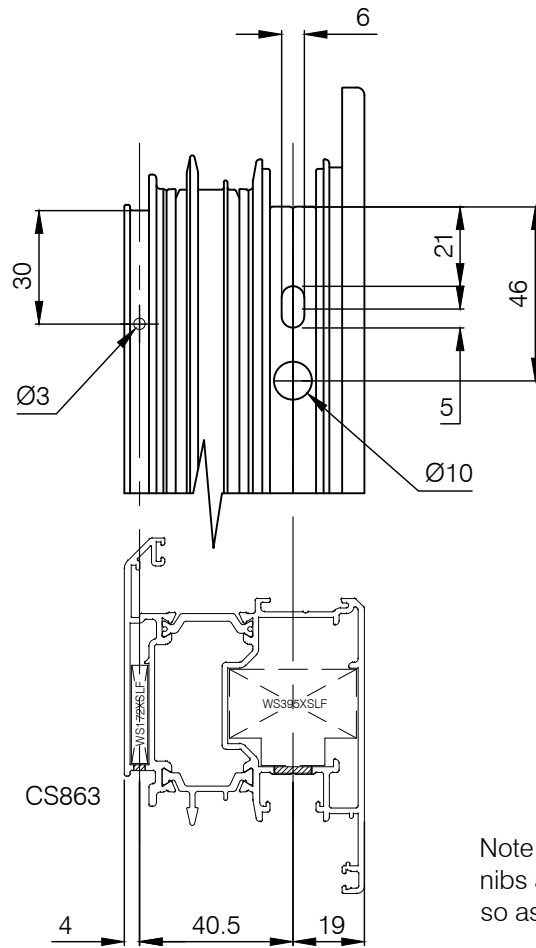


Fabrication Details  
Spring Loaded Cleats Preparation  
Open Out Leaf Door- CS861

A4 Scale: 1:2

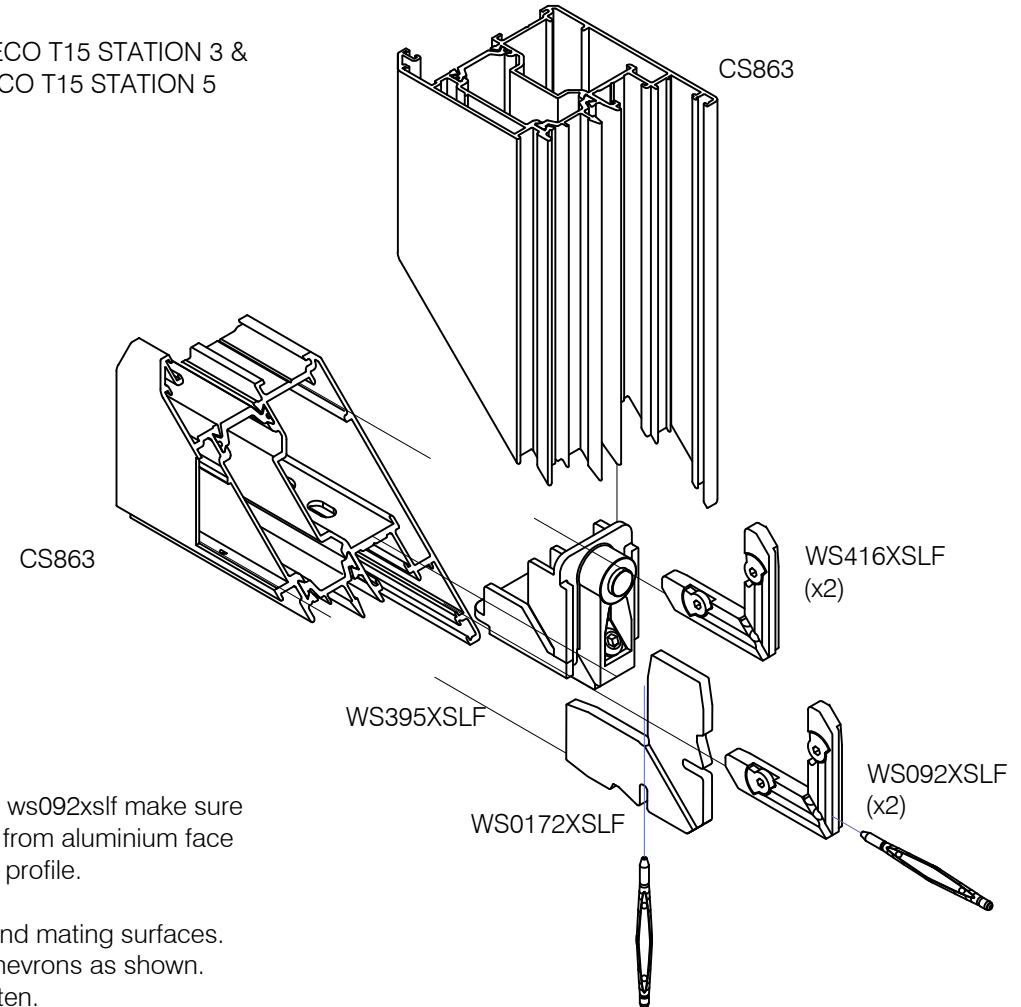
R0 - 10-02-2020

4.13



Tooling Ref:

COM 7 ECO T15 STATION 3 &  
COM7 ECO T15 STATION 5



Note! When inserting ws092xslf make sure  
nibs are facing away from aluminium face  
so as not to damage profile.

- 1) Seal inside cavity and mating surfaces.
- 2) Insert cleats and chevrons as shown.
- 3) Assemble and tighten.

comar 7P.i ECO LT

FABRICATION DETAILS

4



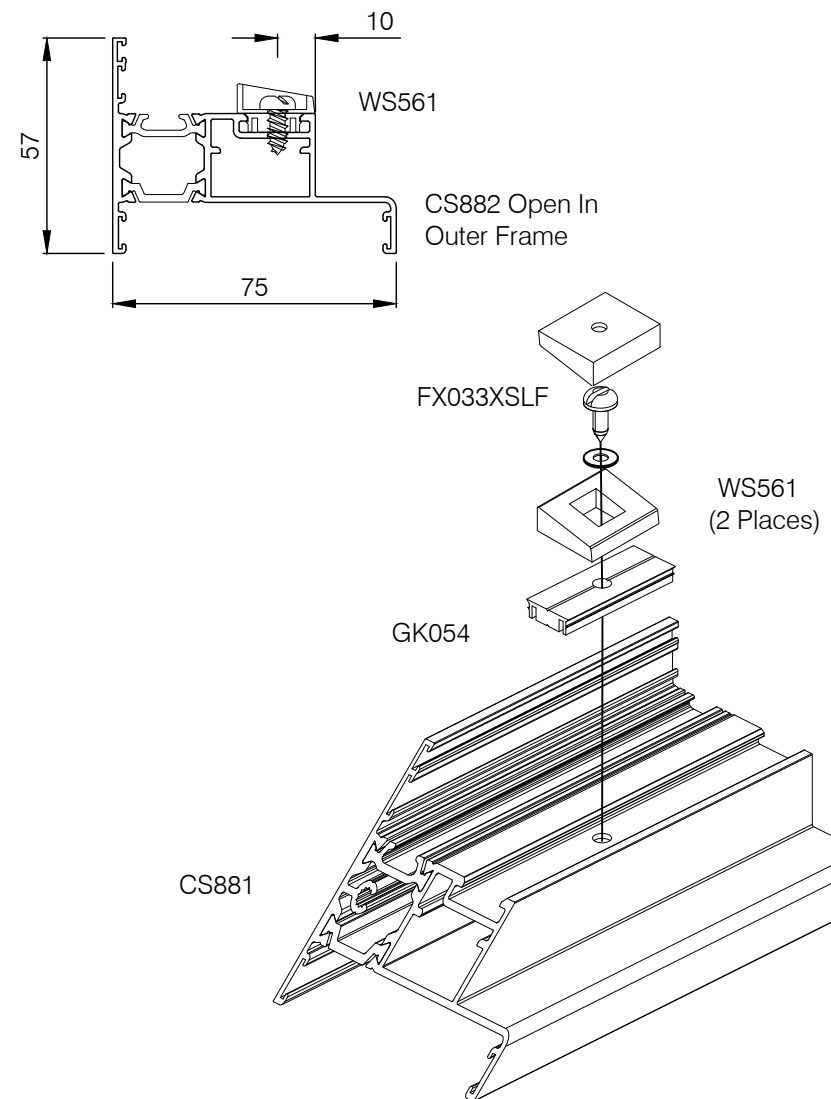
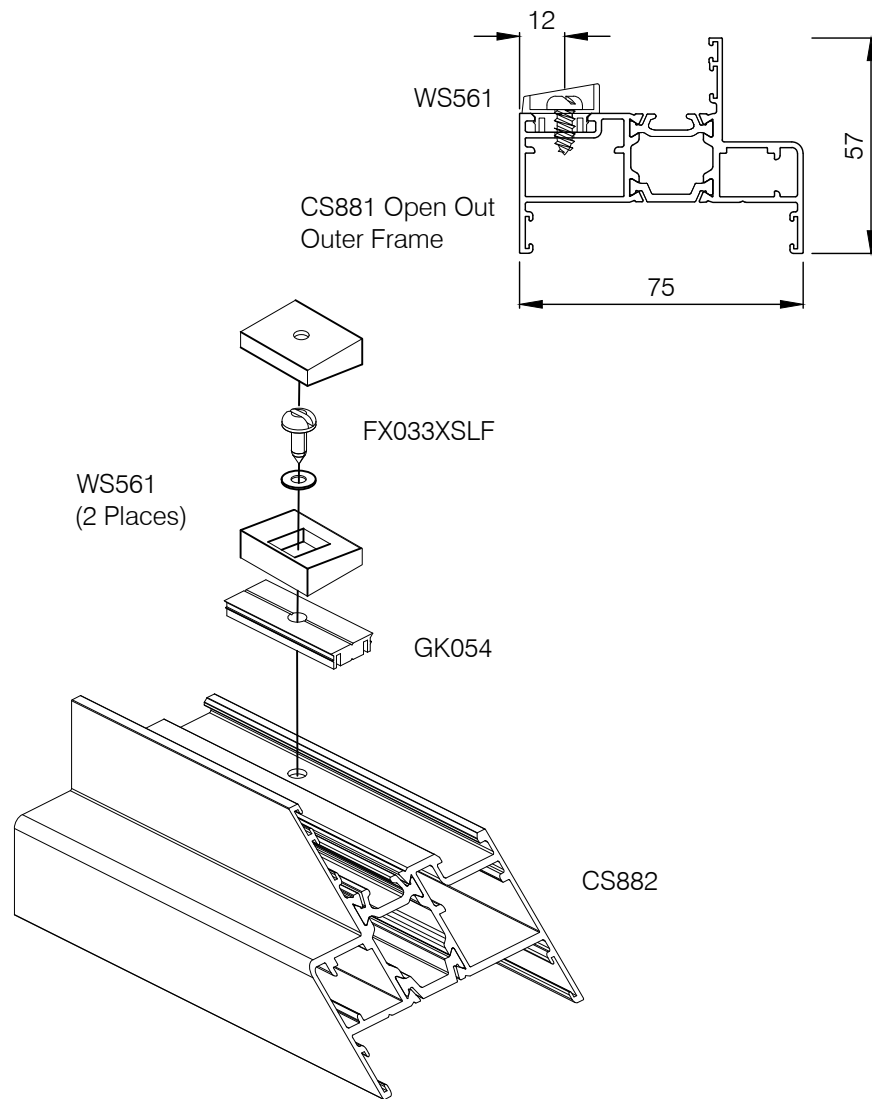
Fabrication Details  
Spring Loaded Cleats Preparation  
Open In Leaf Door- CS863

A4 Scale: 1:2

R0 - 10-02-2020

4.14





comar 7P.i ECO LT

FABRICATION DETAILS

4

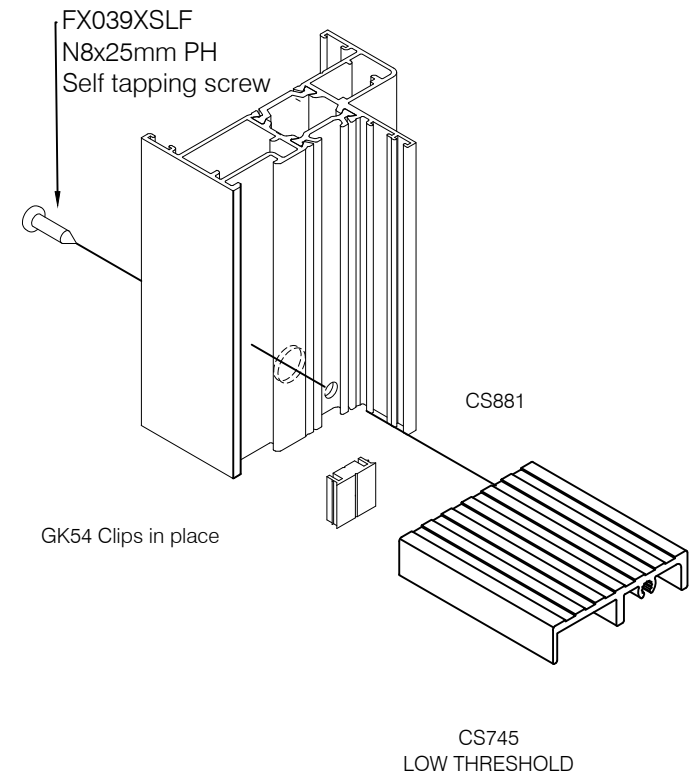
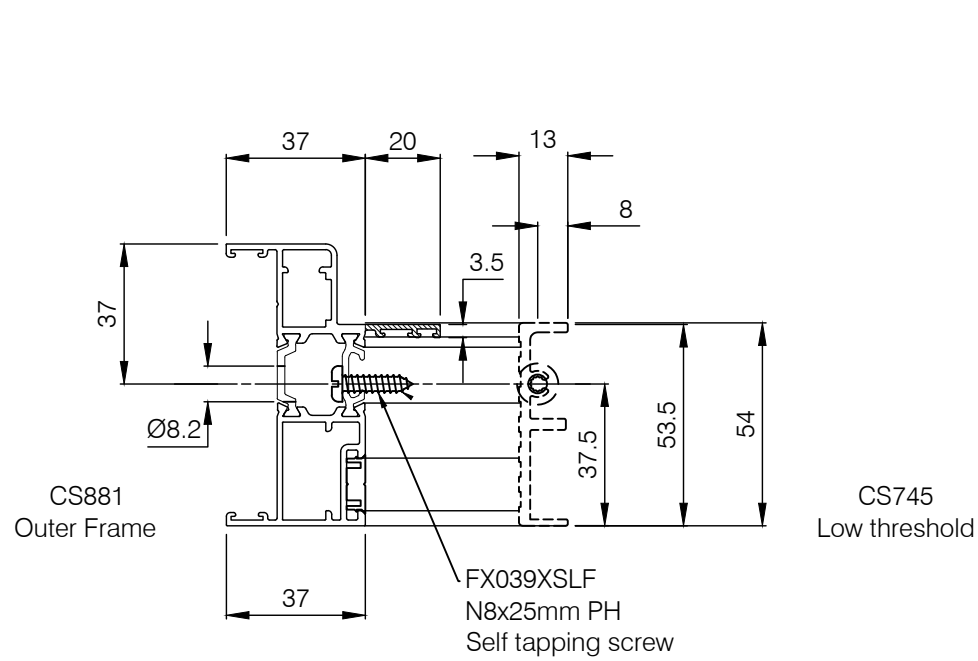


Fabrication Details  
Adjustable Lifting Wedge  
CS881 - CS882

A4 Scale: 1:2

R0 - 10-02-2020

4.15



comar 7P.i ECO LT

FABRICATION DETAILS

4

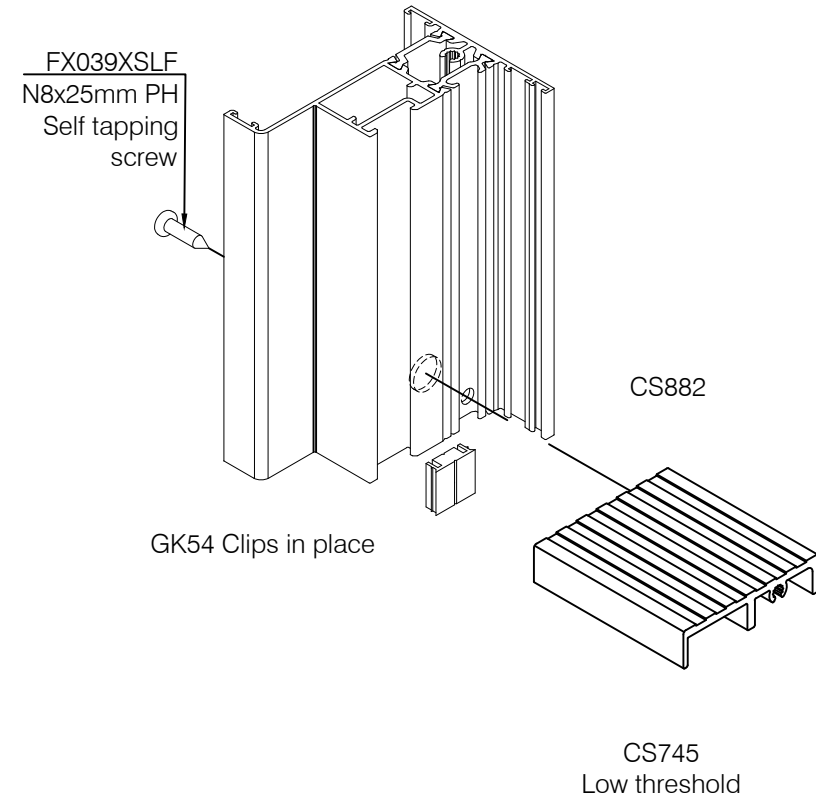
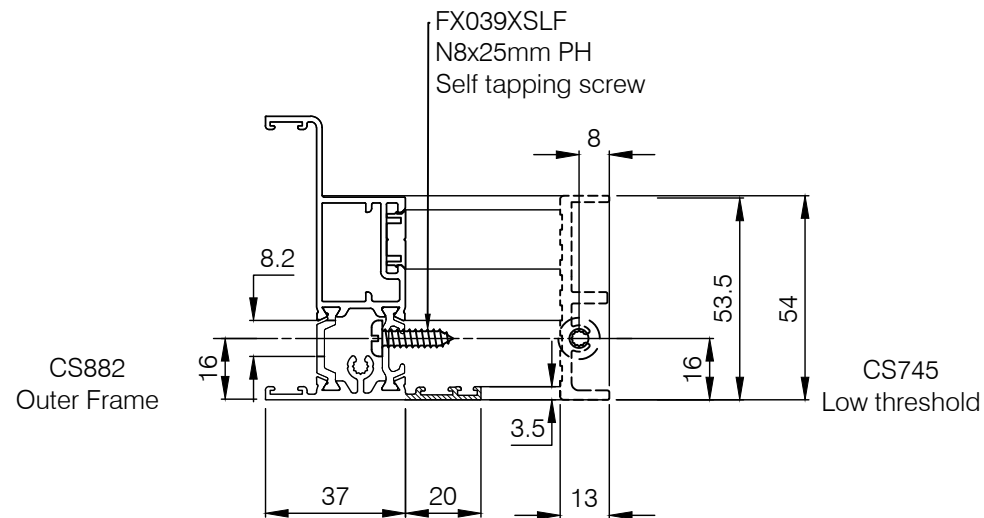


Low Threshold with  
Outer Frame Open Out  
CS881

A4 Scale: 1:2

R0 - 10-02-2020

4.16



comar 7P.i ECO LT

FABRICATION DETAILS

4

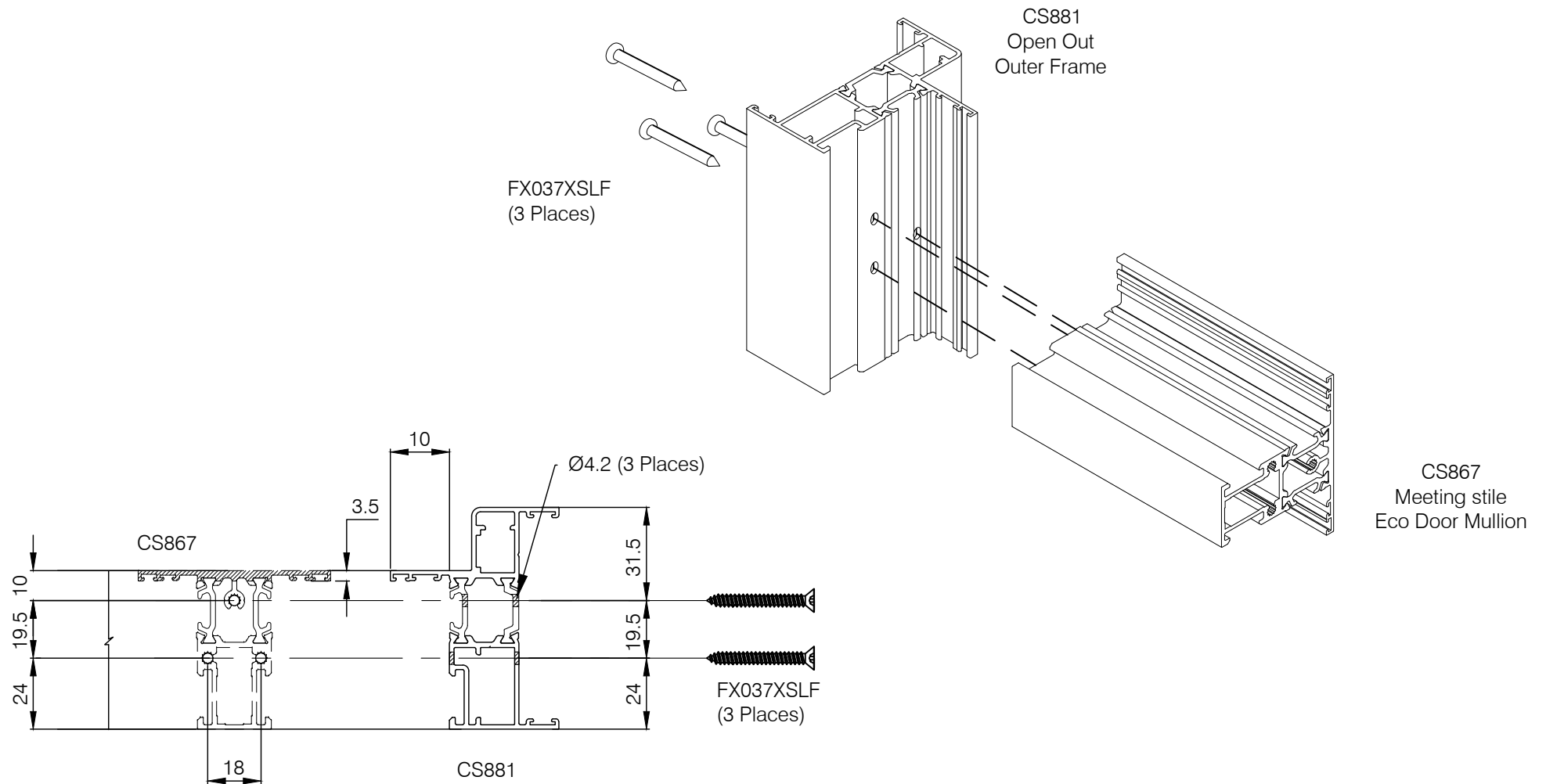


Low Threshold with  
Outer Frame Open In  
CS882

A4 Scale: 1:2

R0 - 10-02-2020

4.17



comar 7P.i ECO LT

FABRICATION DETAILS

4



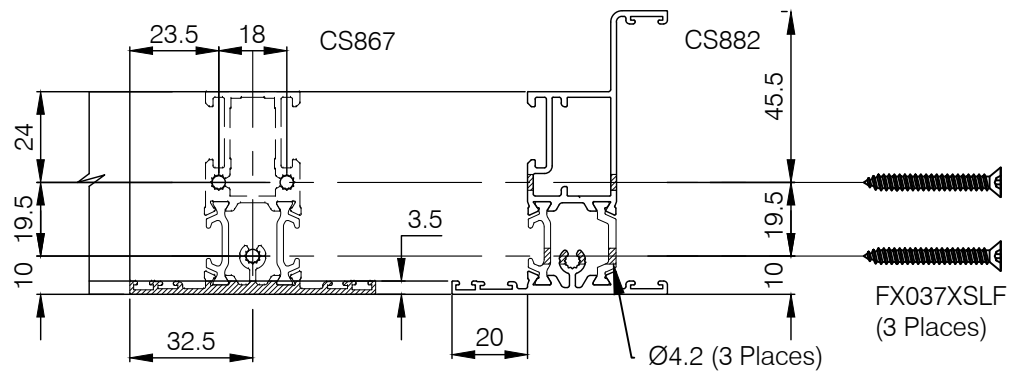
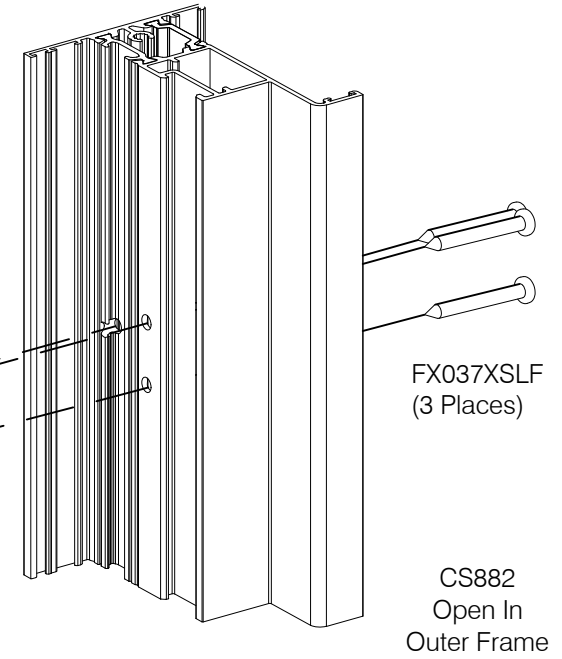
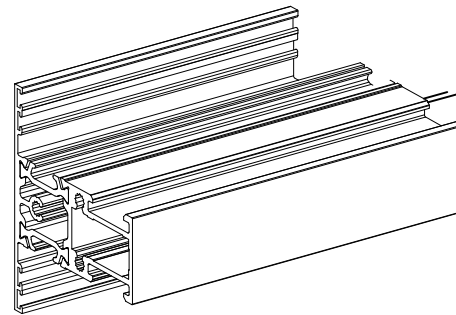
Fabrication Details  
Transom Preparation  
CS867- CS881

A4 Scale: 1:2

R0 - 10-02-2020

4.18

CS867  
Meeting Stile  
Eco Door Mullion



comar 7P.i ECO LT

FABRICATION DETAILS

4

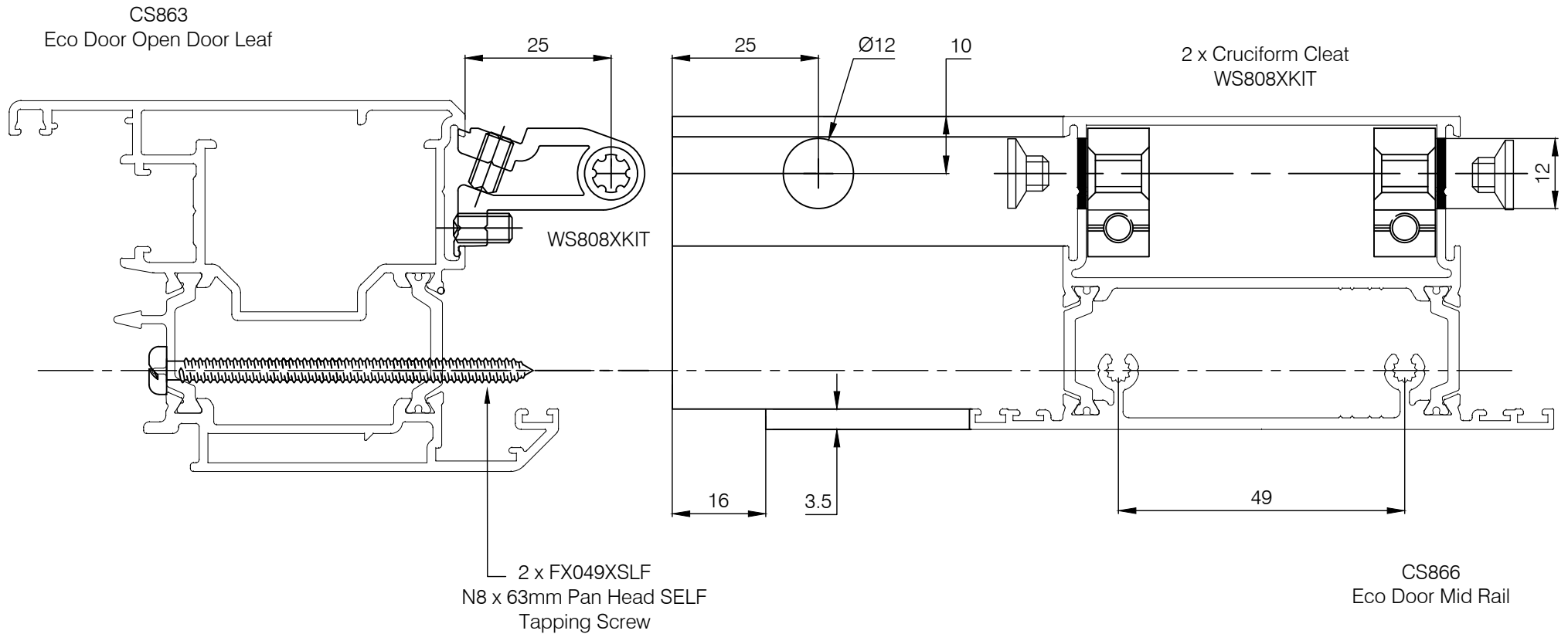


Fabrication Details  
Transom Preparation  
CS867- CS882

A4 Scale: 1:2

R0 - 10-02-2020

4.19



When fitting mid rail using ws808xkit fit Mid Rail  
prior to fitting top and bottom rails.

COM7 ECO T15 STATION 1

comar 7P.i ECO LT

FABRICATION DETAILS

4

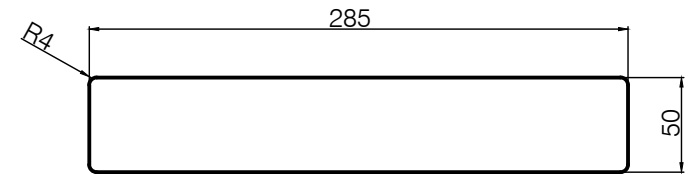
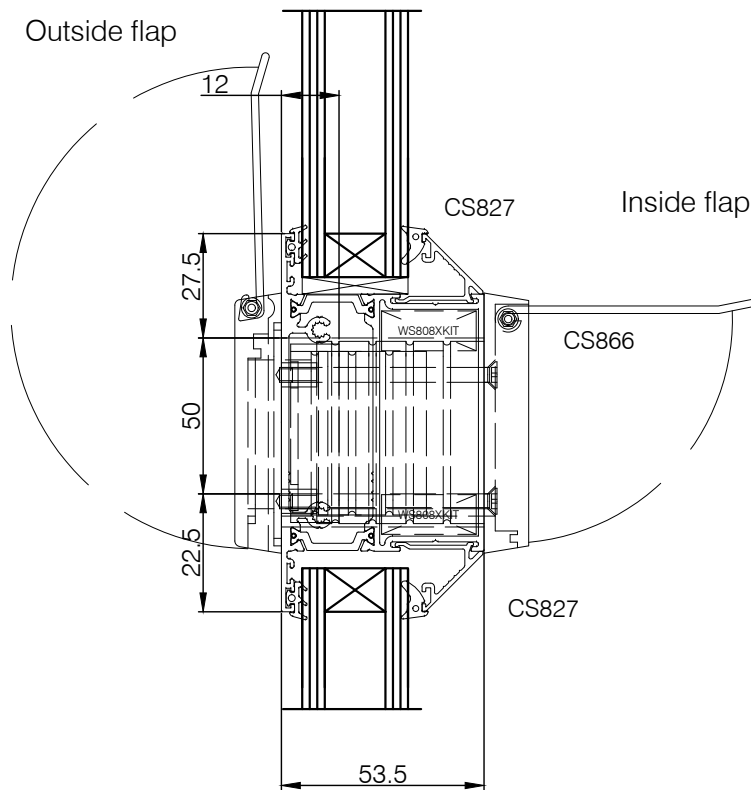


Fabrication Details  
Mid Rail Preparation with Open In Leaf Door  
CS866- CS863

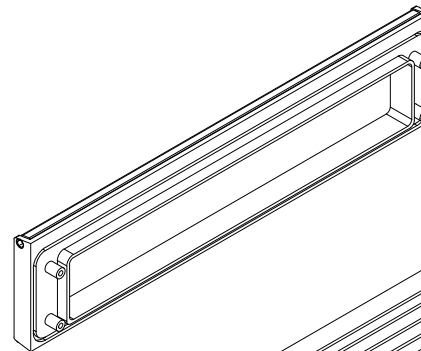
A4 Scale: 1:1

R0 - 10-02-2020

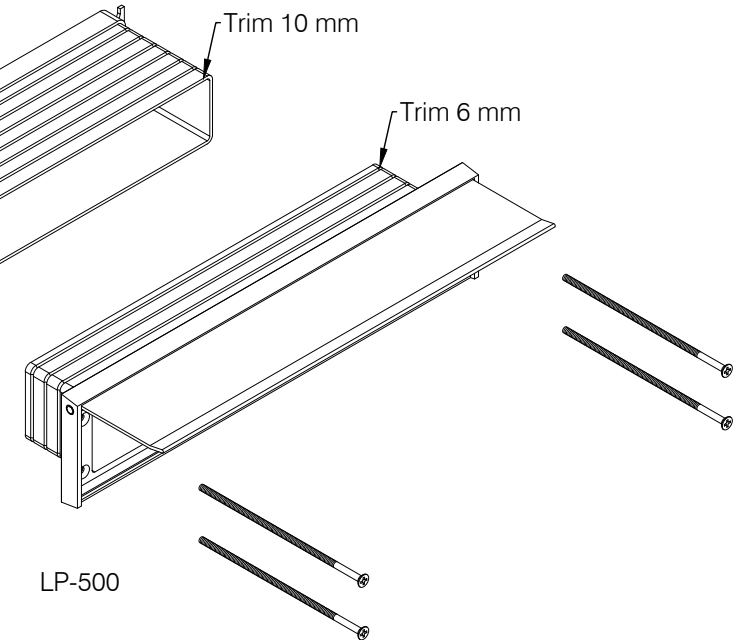
4.20



Rail preparation:  
285 x 50 mm cut out  
\*No fixing holes necessary\*



EX-570



LP-500

Extension piece fitted as shown  
and secured to outer part of  
LP-500 using suitable adhesive

comar 7P.i ECO LT

FABRICATION DETAILS

4

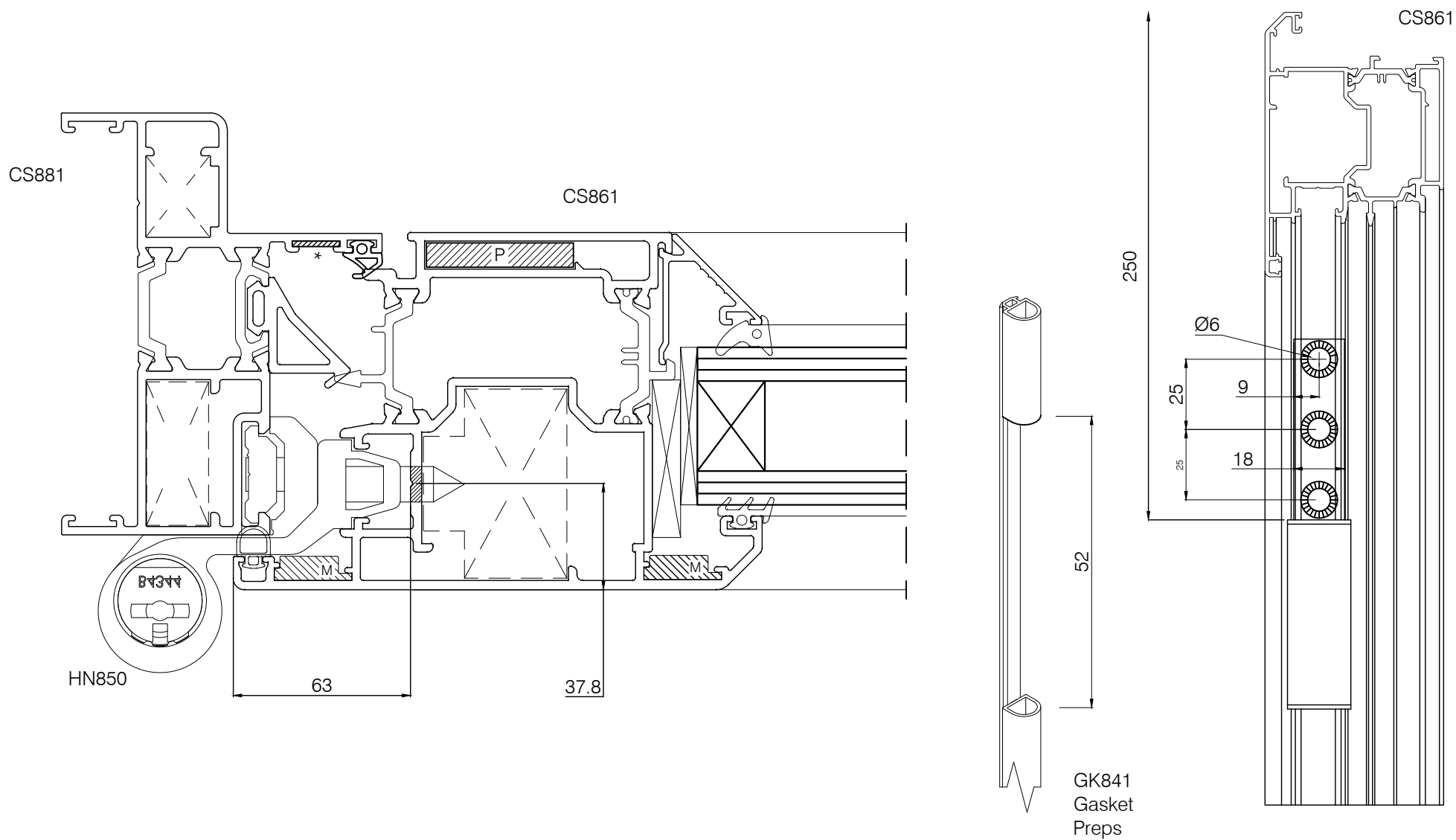


Letter Box  
Open In Rebated Door  
EX-570 & LP-500

A4 Scale: 1:2

R0 - 10-02-2020

4.21



comar 7P.i ECO LT

FABRICATION DETAILS

4



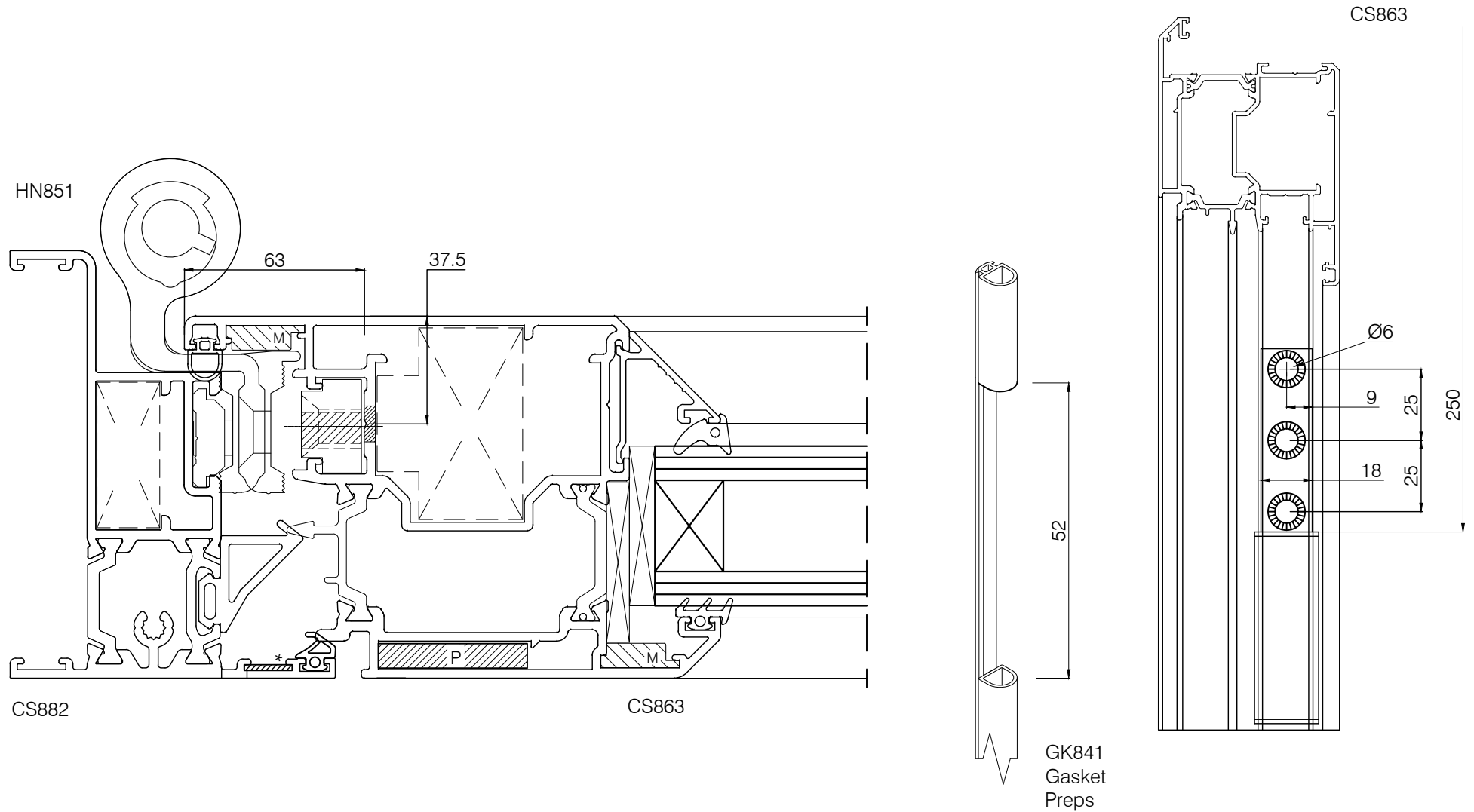
Giesse Hinge Preparation  
Open Out Door Leaf  
CS881 & CS861 & HN850

A4 Scale: 1:1

R0 - 10-02-2020

4.22





comar 7P.i ECO LT

FABRICATION DETAILS

4

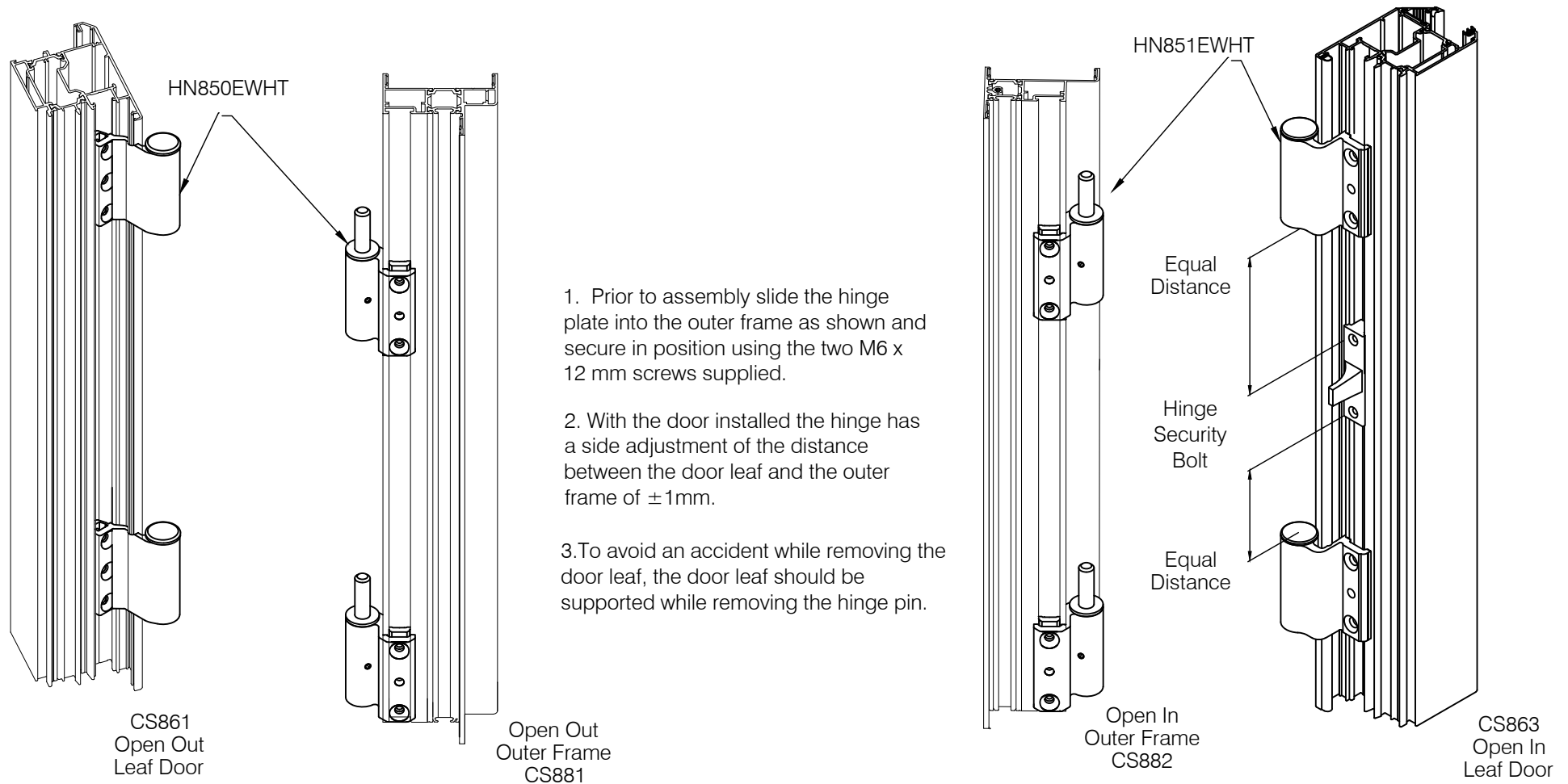


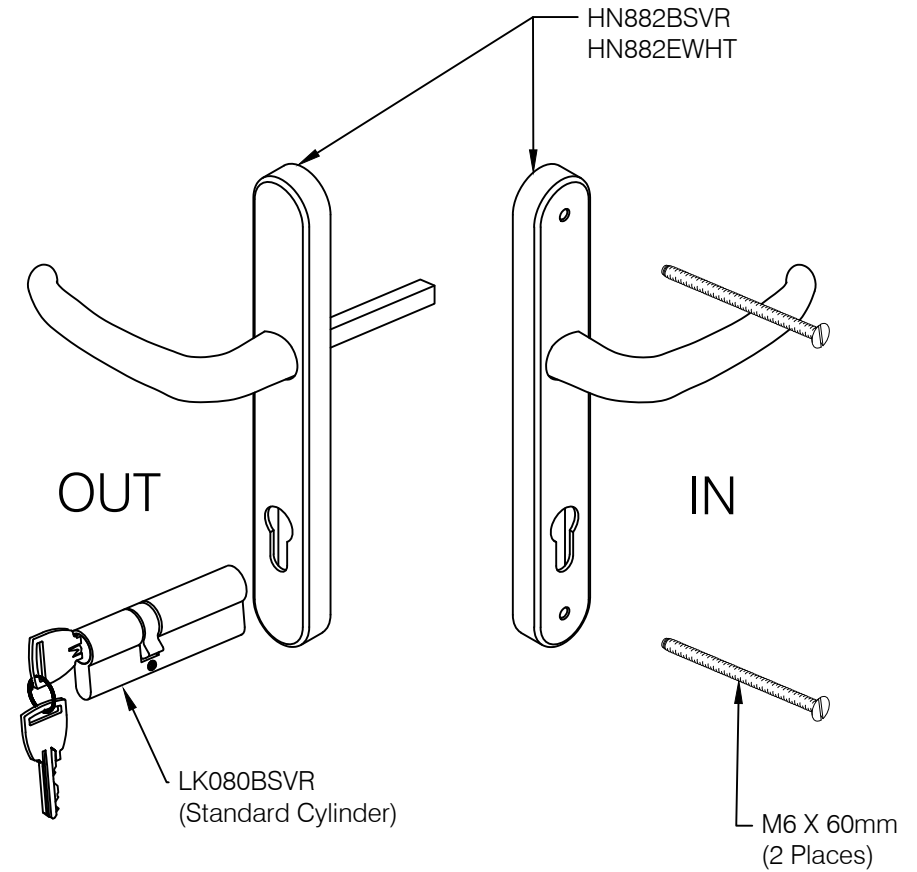
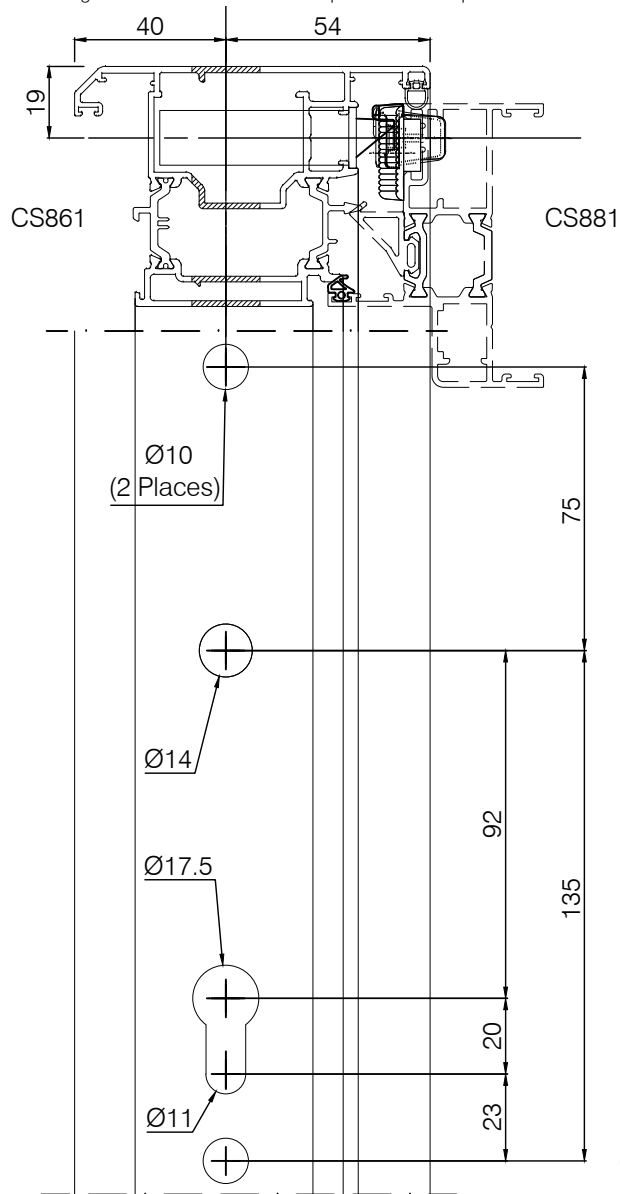
Security Hinge Preparation  
Open In Door Leaf  
CS882 & CS863 & HN851

A4 Scale: 1:1

R0 - 10-02-2020

4.23





Outward Opening

NOTE: EWHT & BSVR Refer to the paint finish white or silver respectively

comar 7P.i ECO LT

FABRICATION DETAILS

4

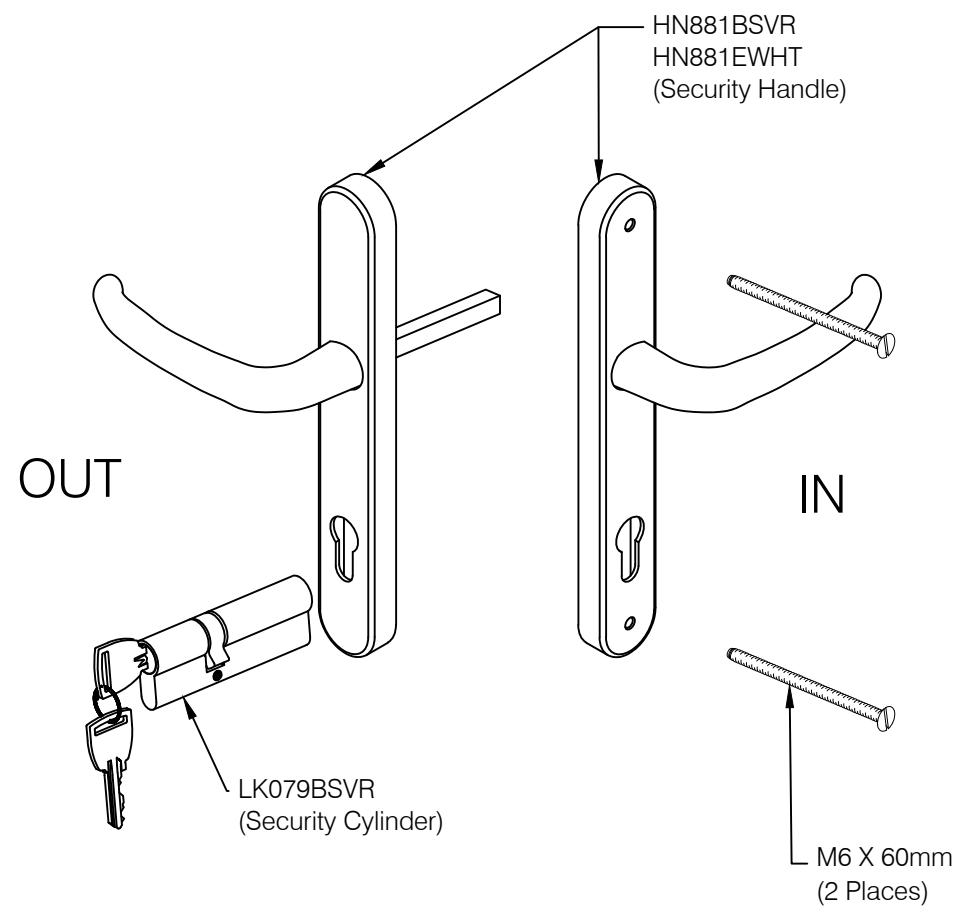
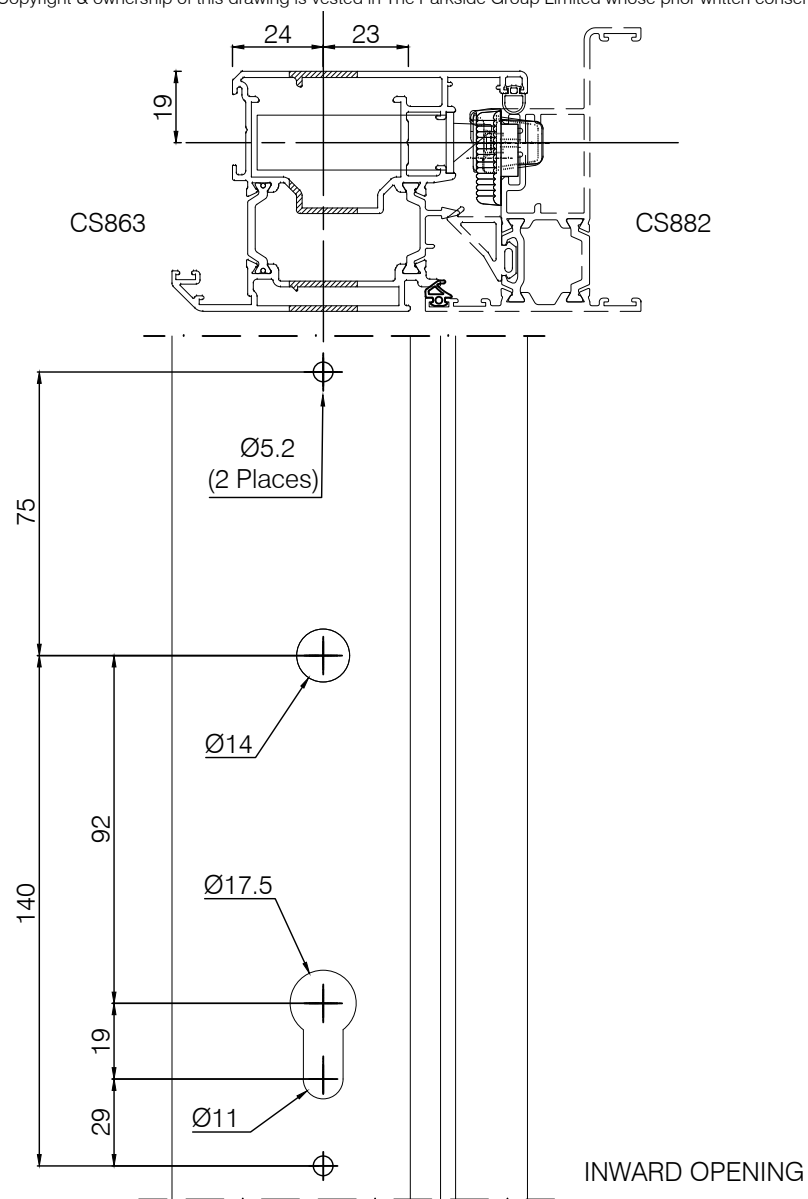


Standard Handle Preparation  
Open Out Door Leaf  
CS881 & CS861-HN882

A4 Scale: 1:2

R0 - 10-02-2020

4.25



NOTE: EWHT & BSVR refer to the paint finish white or silver respectively

comar 7P.i ECO LT

## FABRICATION DETAILS

4

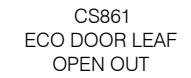
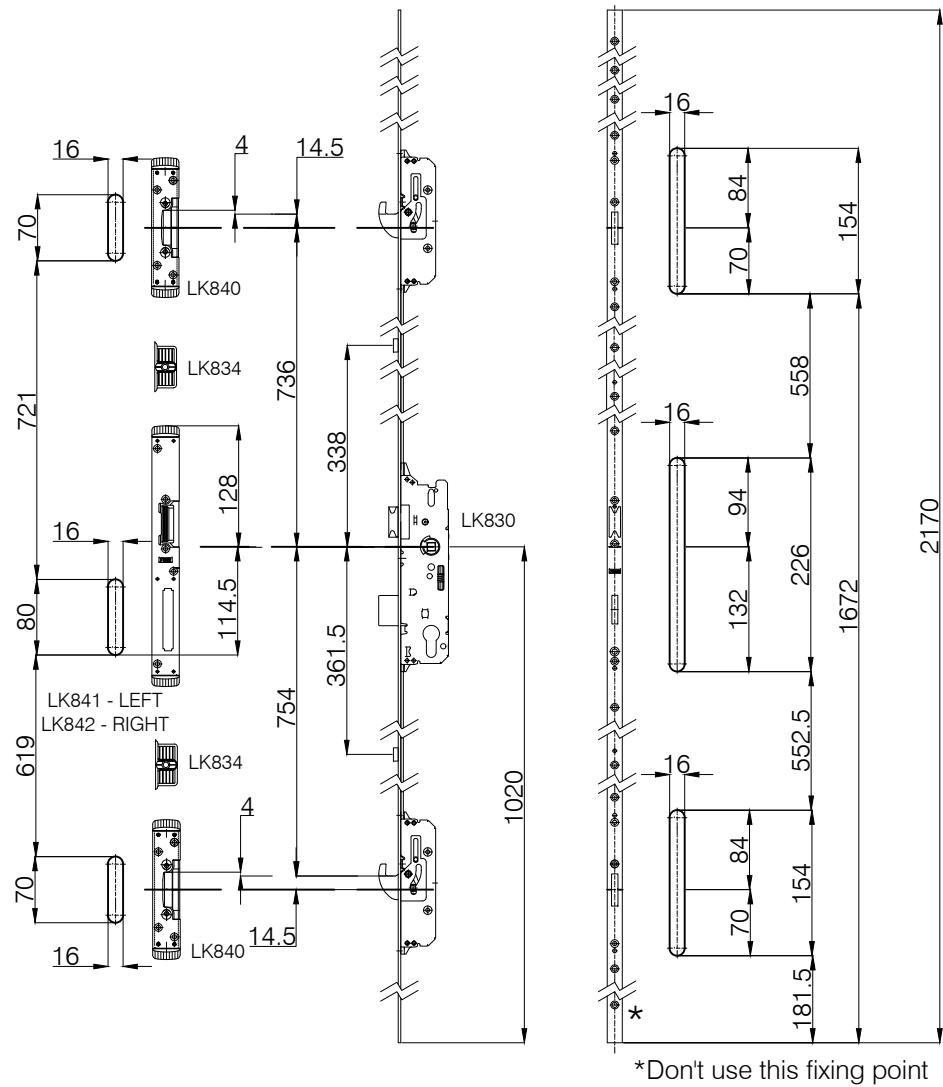


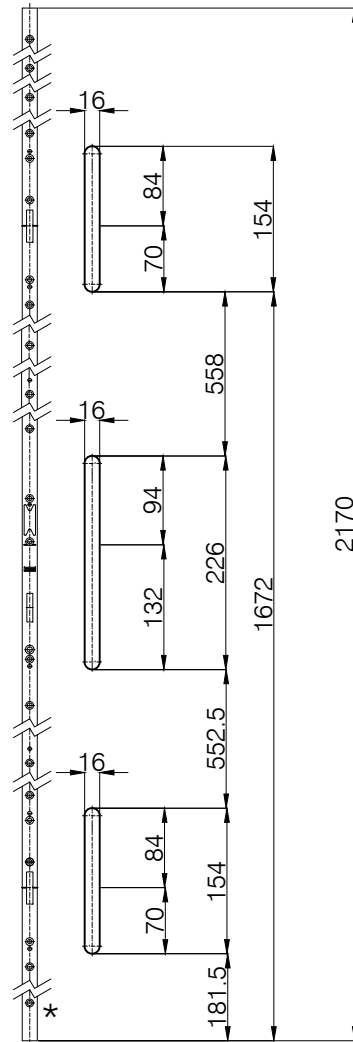
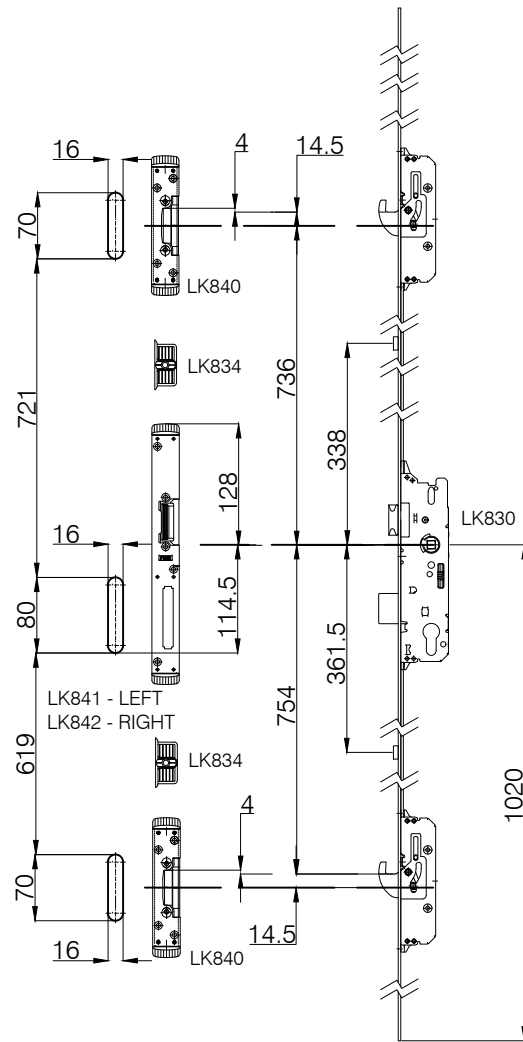
Security Handle Preparation  
Open In Door Leaf  
CS882 & CS863- HN881

A4 Scale: 1:2

R0 - 10-02-2020

4.26

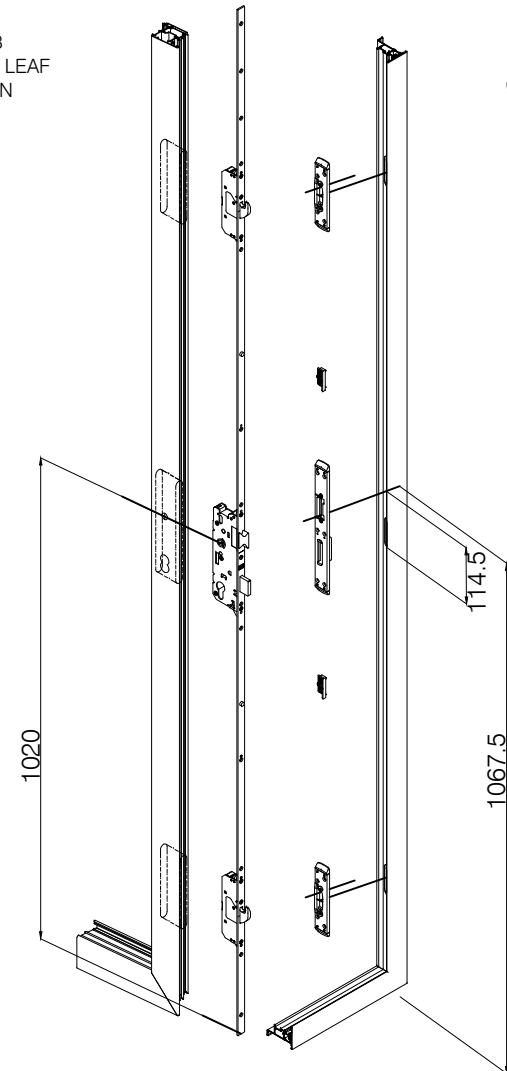




\*Don't use this fixing point

CS863  
ECO DOOR LEAF  
OPEN IN

CS882  
ECO DOOR  
OUTER FRAME



comar 7P.i ECO LT

FABRICATION DETAILS

4

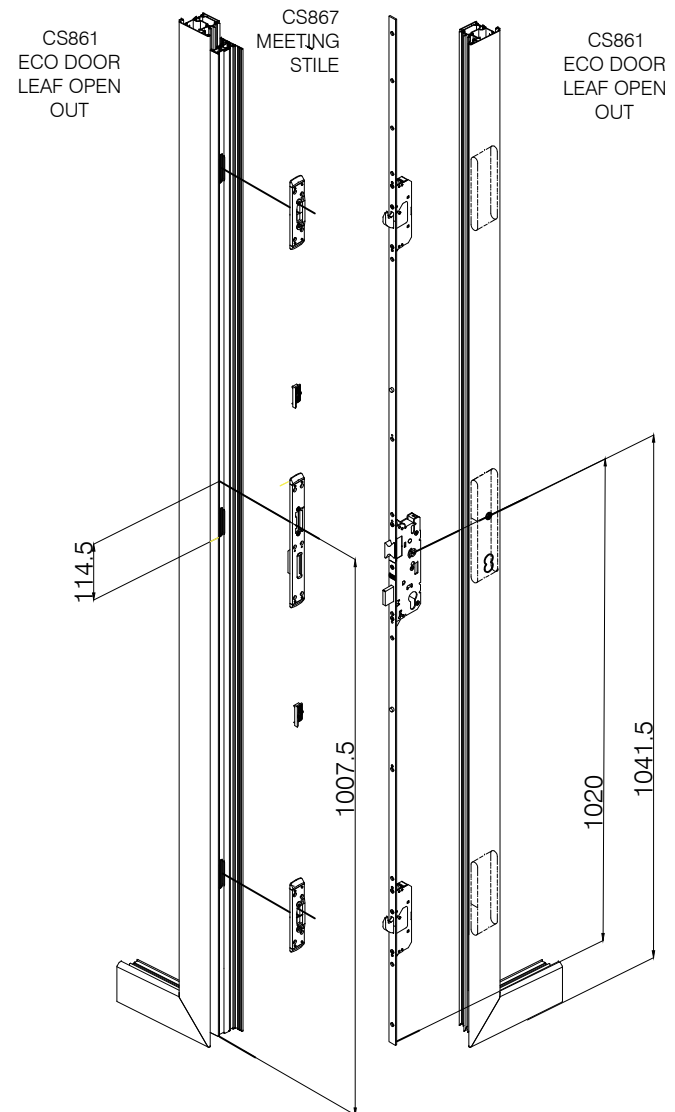
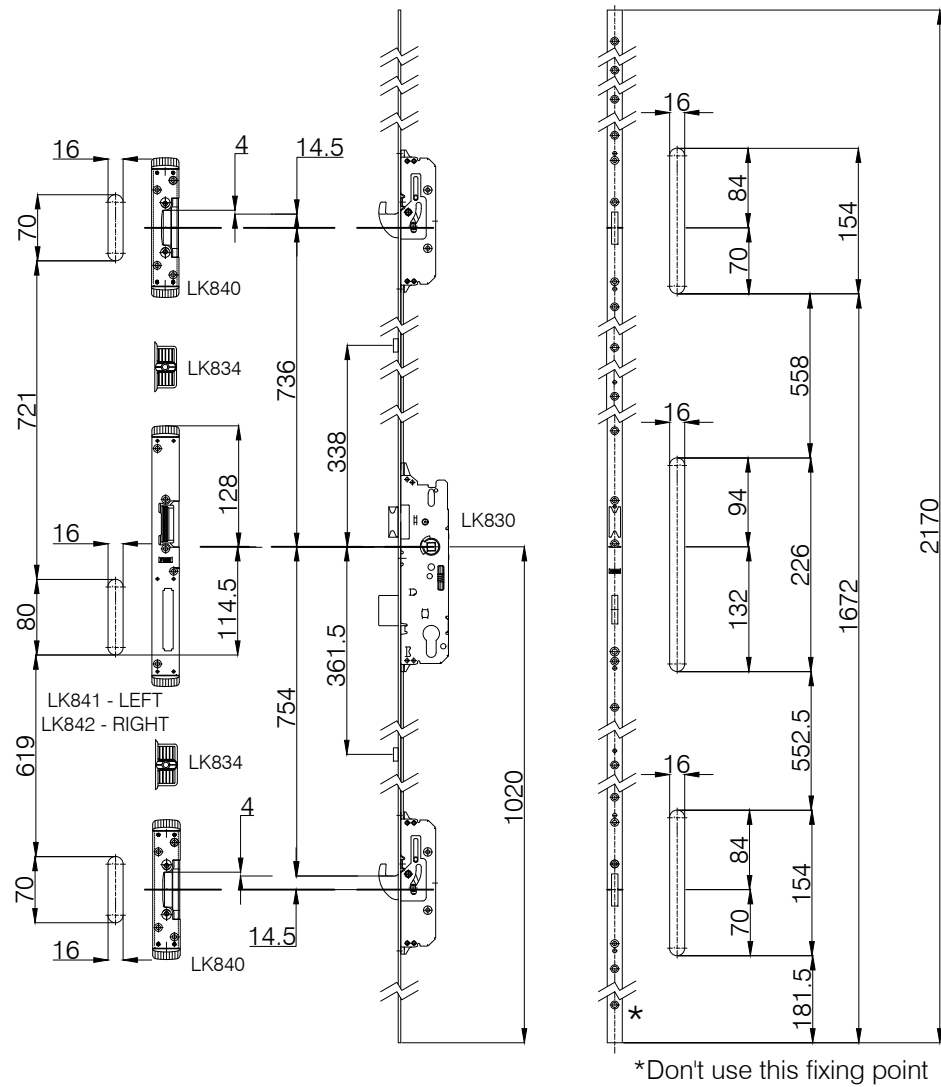


Single Leaf Open In  
Triple Lock Preparation  
CS882 & CS863

A4 Scale: 1:8

R0 - 10-02-2020

4.28



comar 7P.i ECO LT

## FABRICATION DETAILS

4

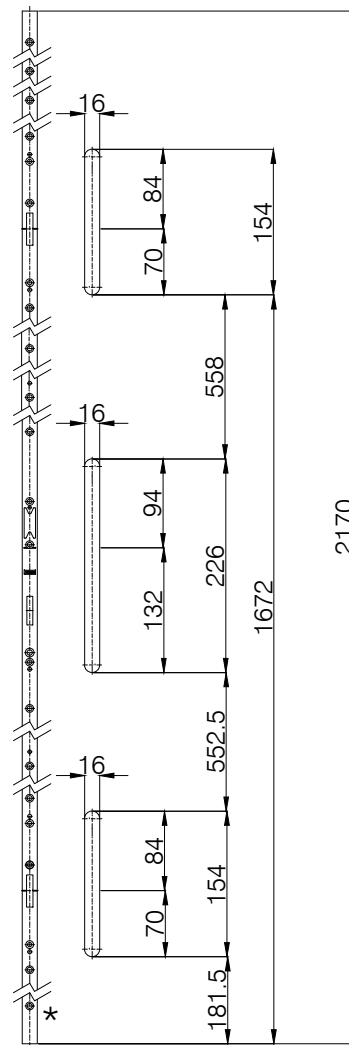
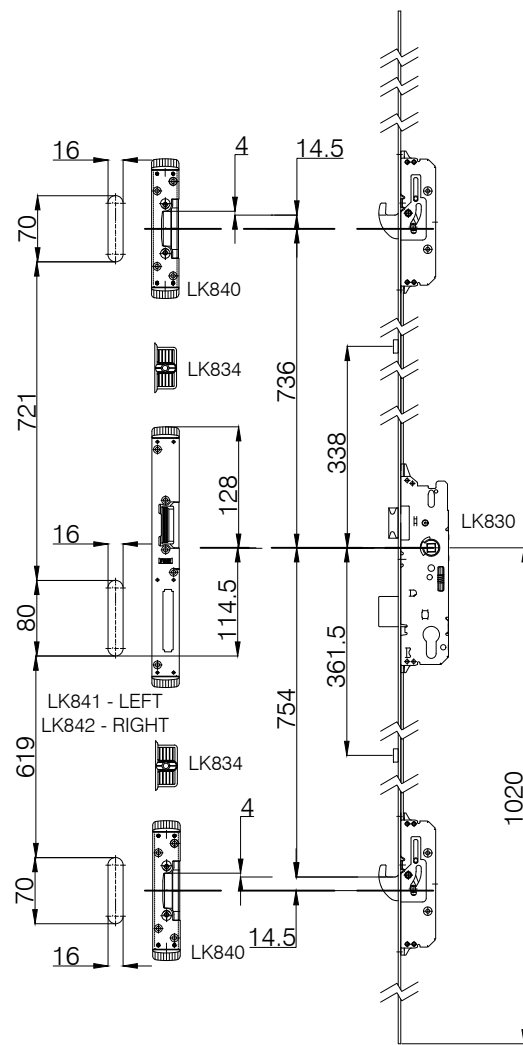


Double Leaf Open Out with Meeting Style  
Triple Lock Preparation  
CS881 & CS861- CS867

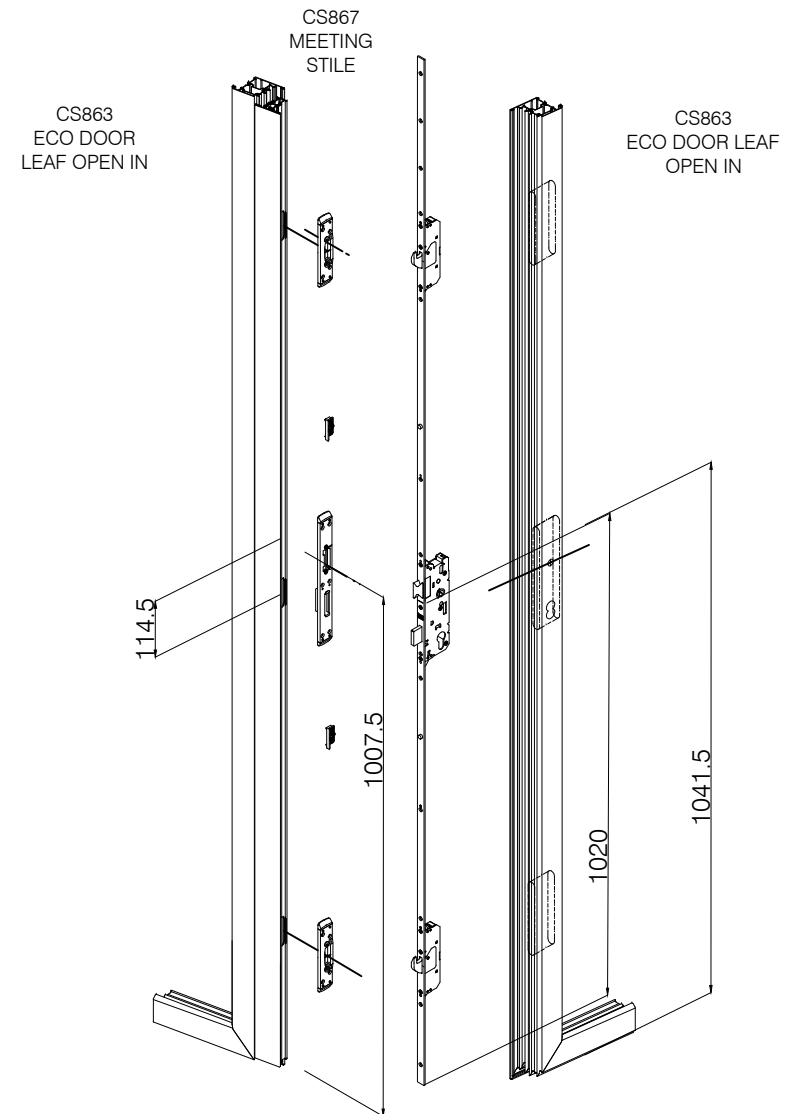
A4 Scale: 1:8

R0 - 10-02-2020

4.29



\*Don't use this fixing point



comar 7P.i ECO LT

FABRICATION DETAILS

4



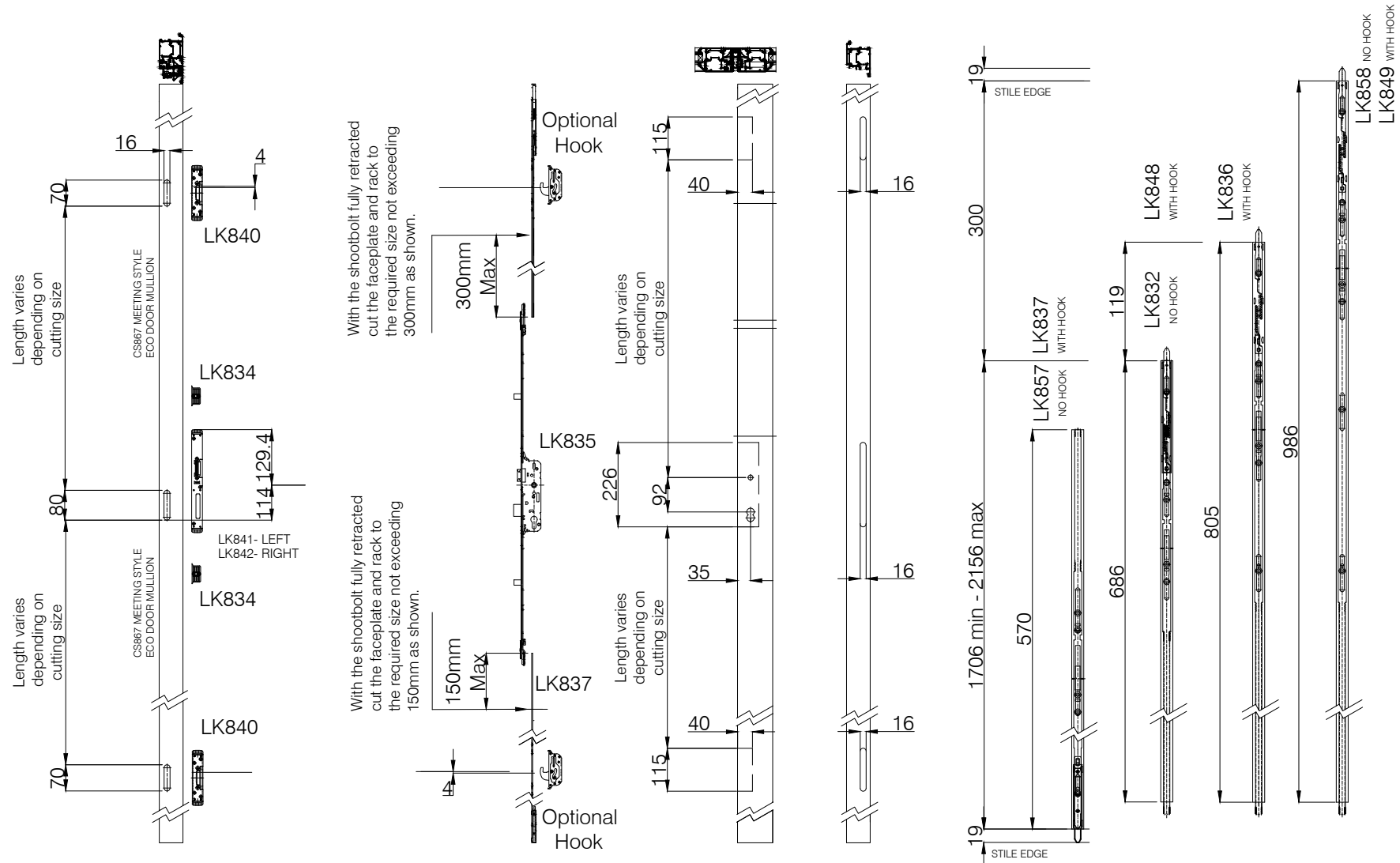
Double Leaf Open In with Meeting Style  
Triple Lock Preparation  
CS882 & CS863- CS867

A4 Scale: 1:8

R0 - 10-02-2020

4.30





For ECO Open Out Door Leaves Use CS861

comar 7P.i ECO LT

FABRICATION DETAILS

4

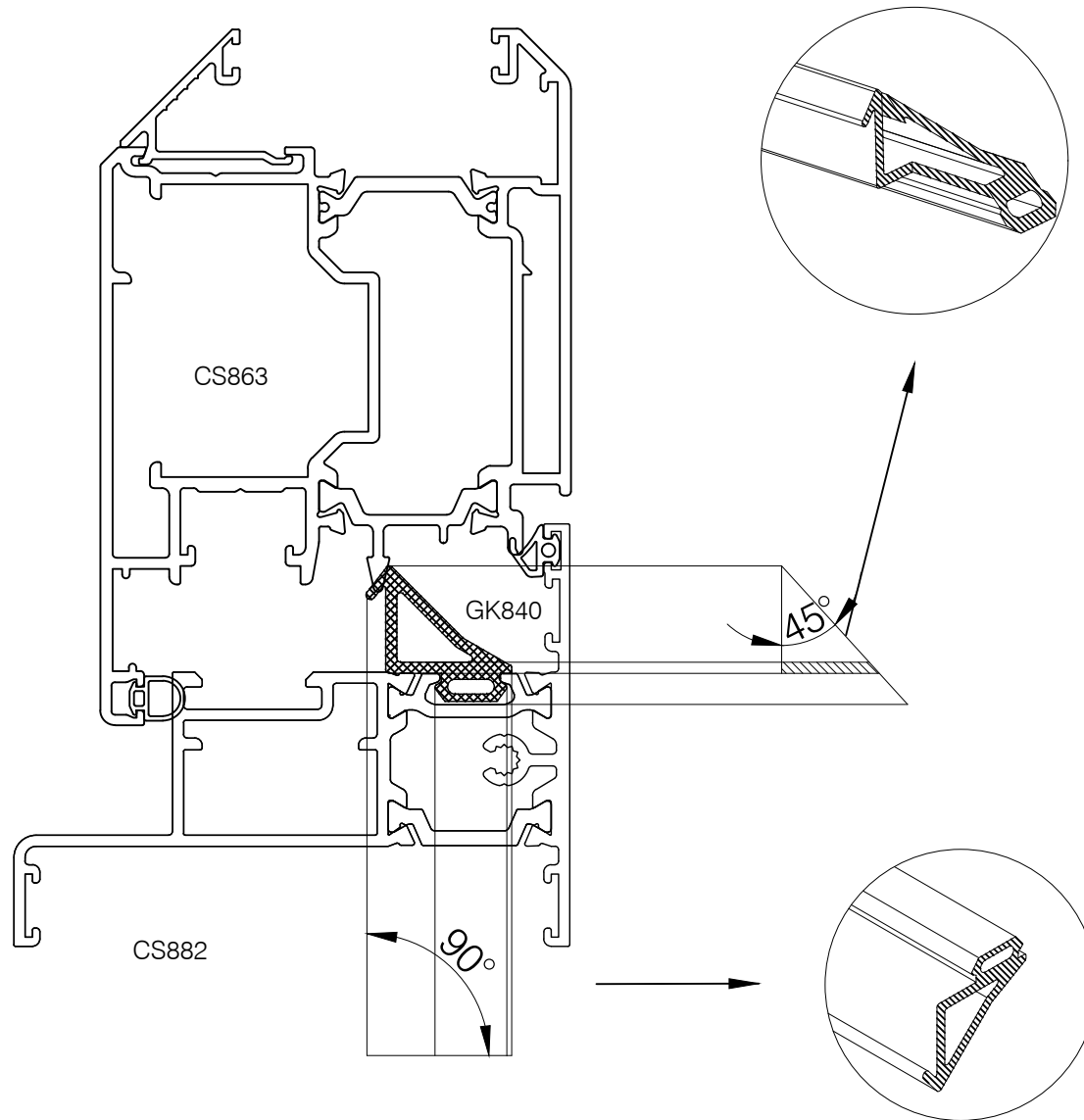


Shootbolt Preparation

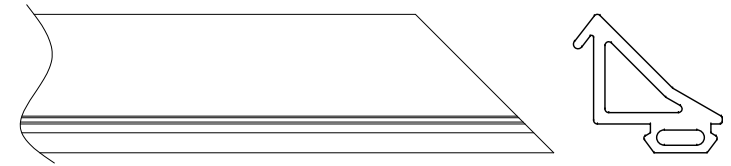
A4 Scale: 1:8

R0 - 10-02-2020

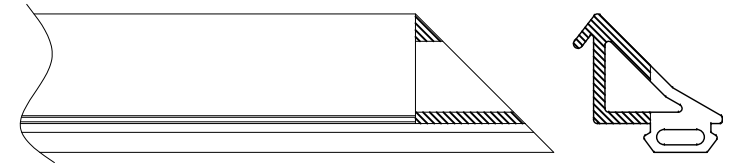
4.31



① Mitre cut GK840



② Trim as shown



Note: The same Gasket preparation using CS881 (OPEN OUT VENT)

comar 7P.i ECO LT

FABRICATION DETAILS

4

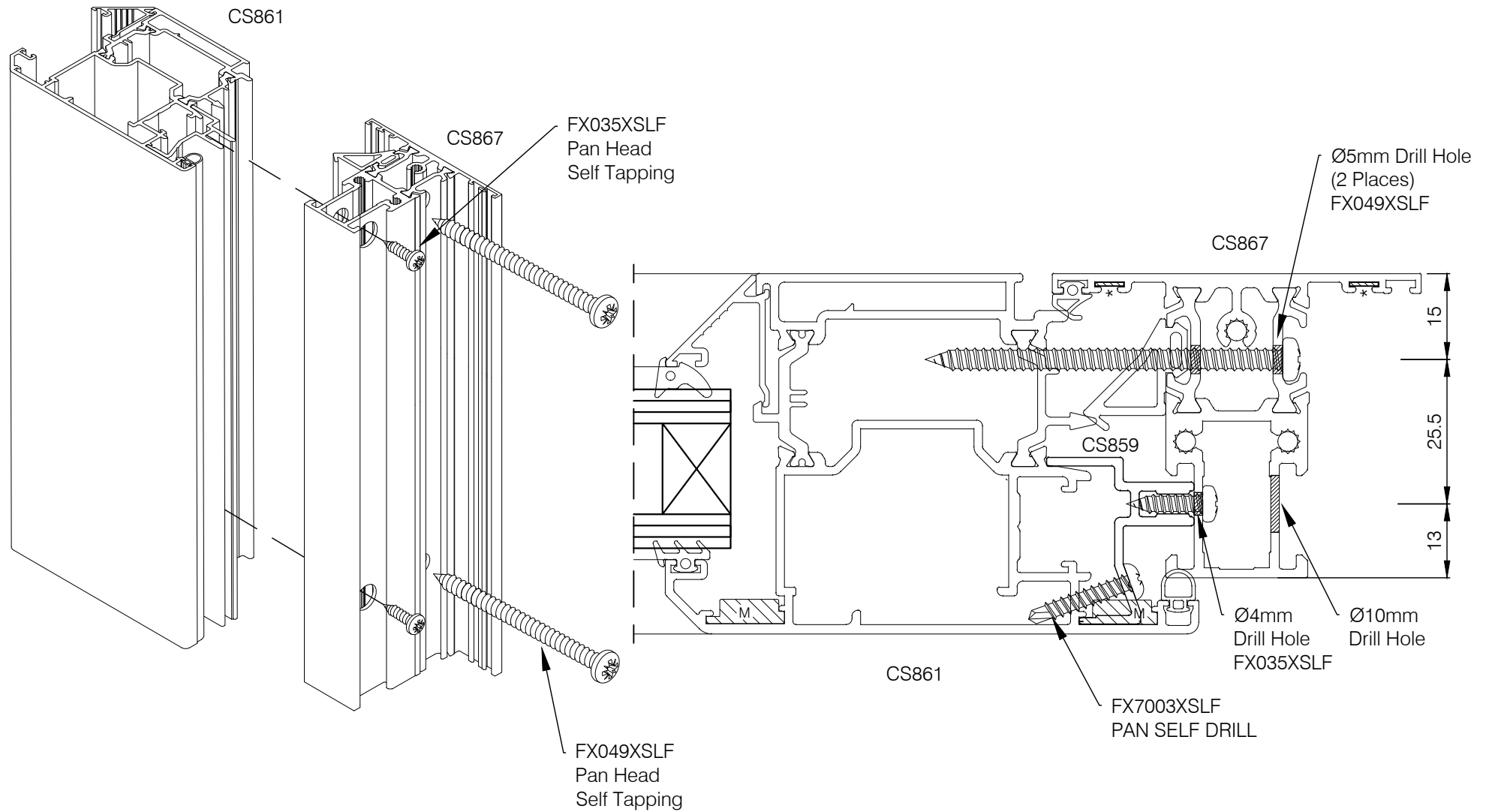


GK840 Preparation

A4 Scale: 1:1

R0 - 10-02-2020

4.32



comar 7P.i ECO LT

FABRICATION DETAILS

4



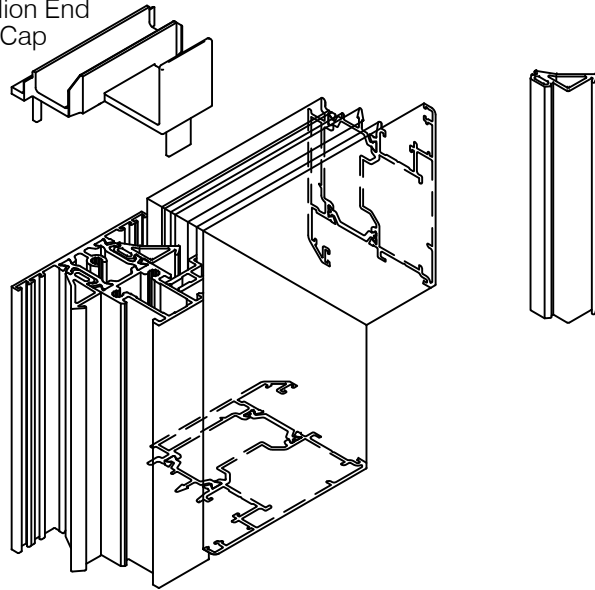
Fabrication Details  
Meeting Stile Mullion Preparation  
with CS859 Adapter

A4 Scale: 1:1

R0 - 10-02-2020

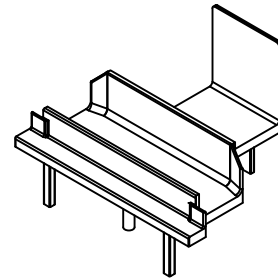
4.33

EC867DBLK  
Mullion End  
Cap



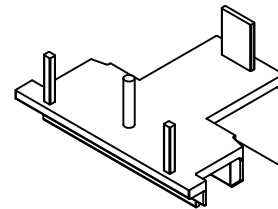
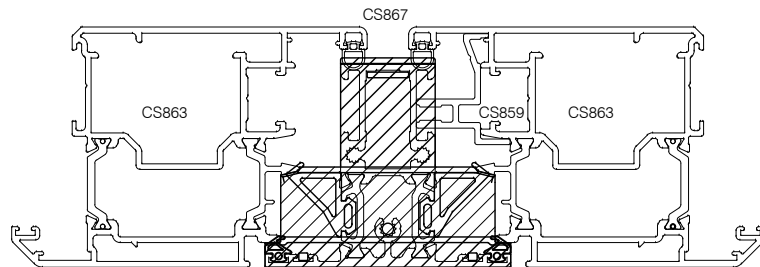
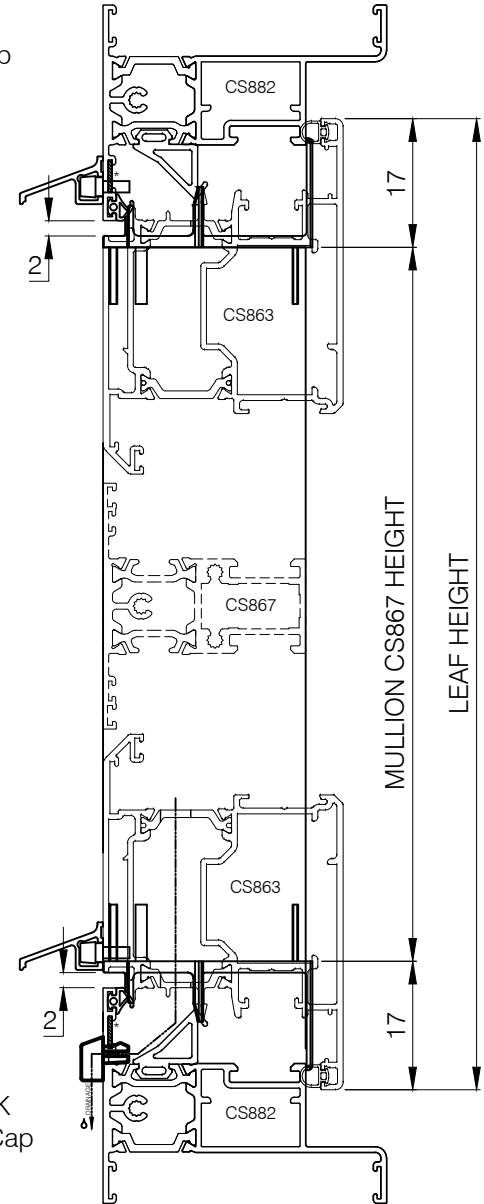
Cut to size CS867 : Leaf Height - 68mm

EC867DBLK  
Mullion End Cap



Apply adhesive or suitable  
equivalent to surface and  
into recesses

Adhesive Ref:  
SE008XSLF (Clear)  
SE007XSLF (White)  
SE007BLK (Black)



EC867DBLK  
Mullion End Cap

comar 7P.i ECO LT

FABRICATION DETAILS

4

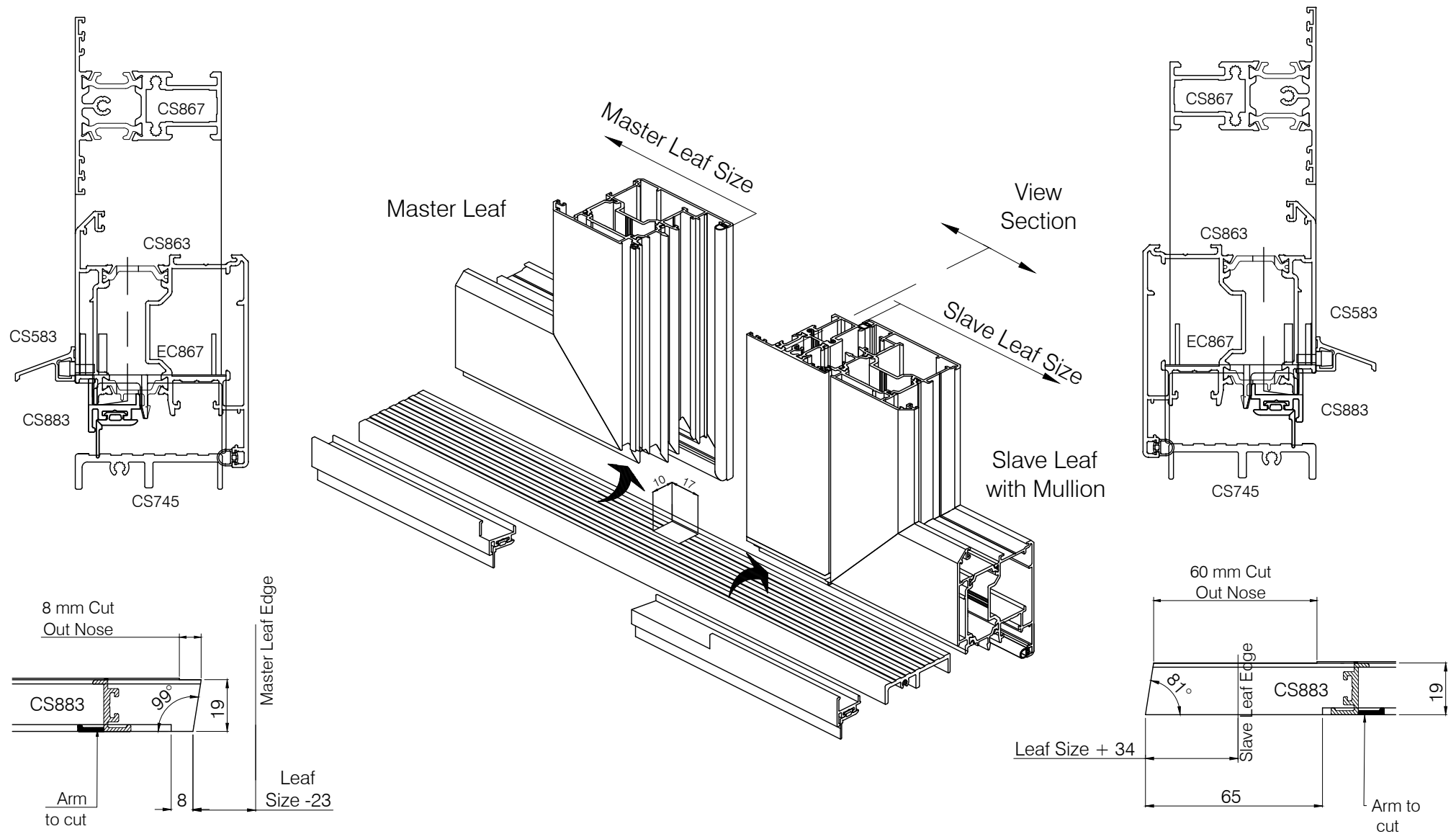


End Cap for Mullion  
Open In Leaf Door  
EC867

A4 Scale: 1:4

R0 - 10-02-2020

4.34



comar 7P.i ECO LT

FABRICATION DETAILS

4



Double Rebated Door  
Open In with Low Threshold  
CS882 & CS863-CS745

A4 Scale: 1:4

R0 - 10-02-2020

4.35



# GLAZING OPTIONS

comar 7P.i ECO LT

GLAZING OPTIONS

5



A4 Scale: NTS

R0 - 10-02-2020

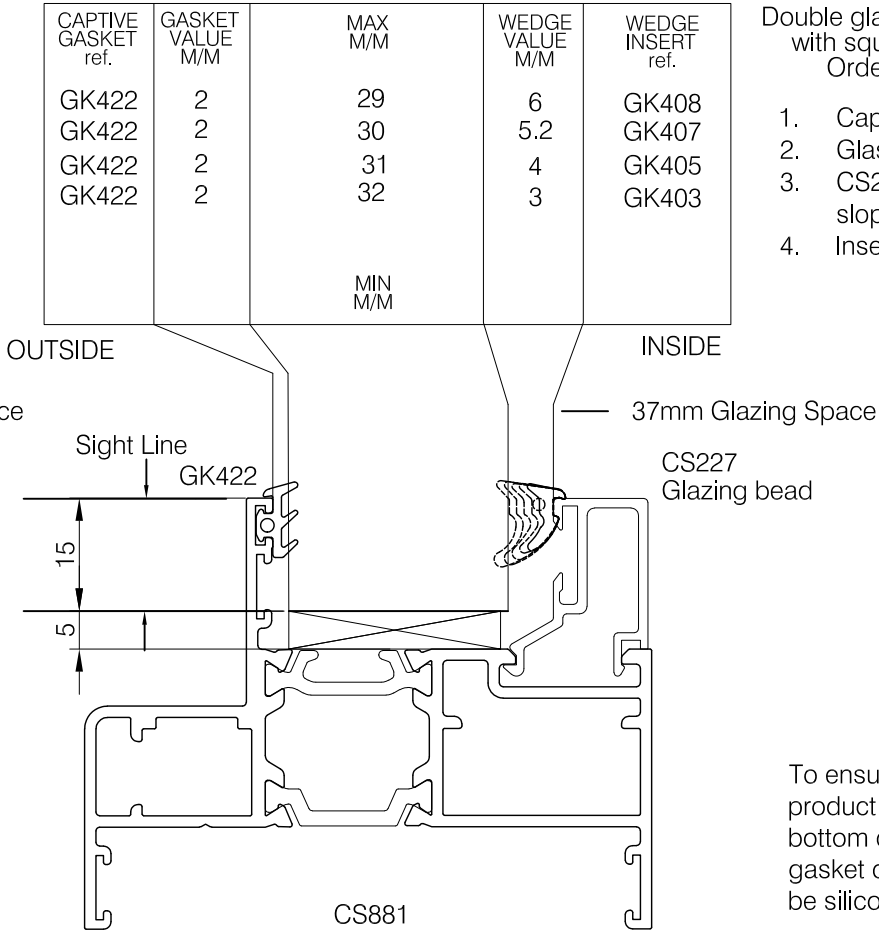
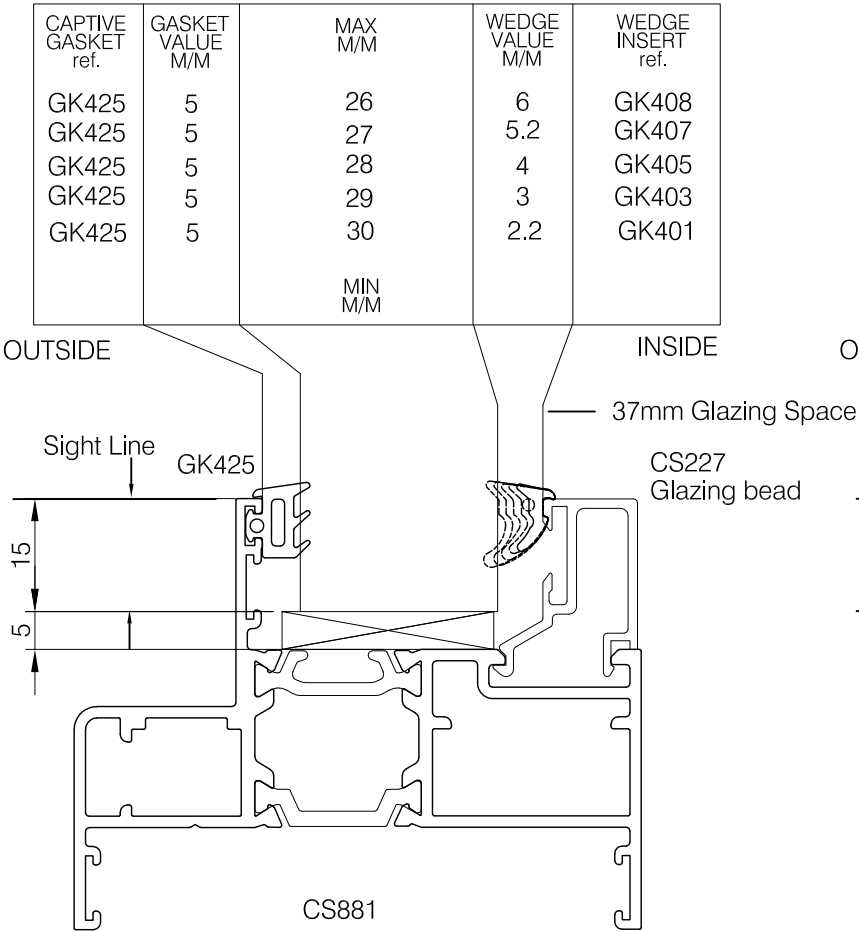
5.00





IMPORTANT NOTE

Due to the production tolerances in aluminum, painting / anodising, glass and gaskets, check and trial above formula before proceeding with bulk production.



Double glazed window system with square/sloped bead.  
Order of assembly:

1. Captive gasket
2. Glass or panel
3. CS230/CS227 sloped/square beads
4. Insert wedge gasket.

To ensure satisfactory product performance, bottom corners and internal gasket corner joints should be silicon sealed .

# IMPORTANT NOTE

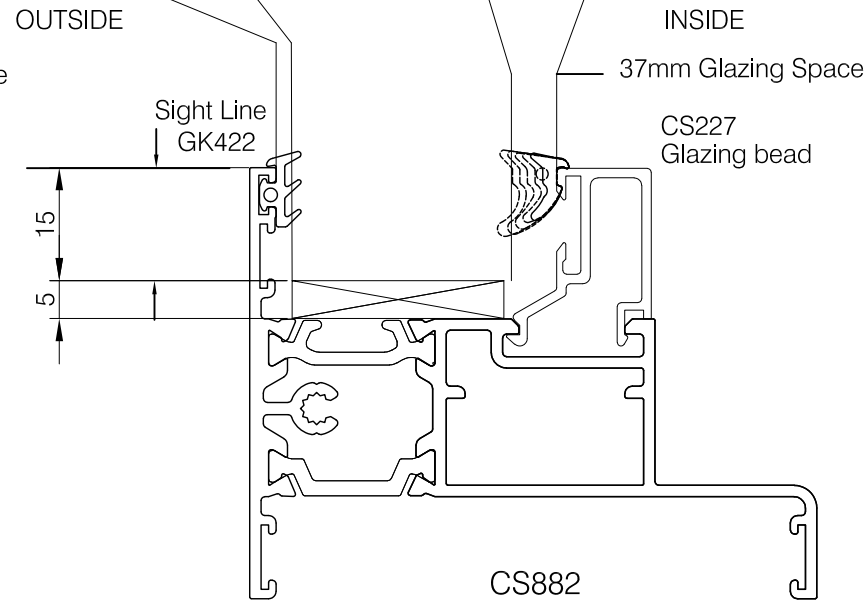
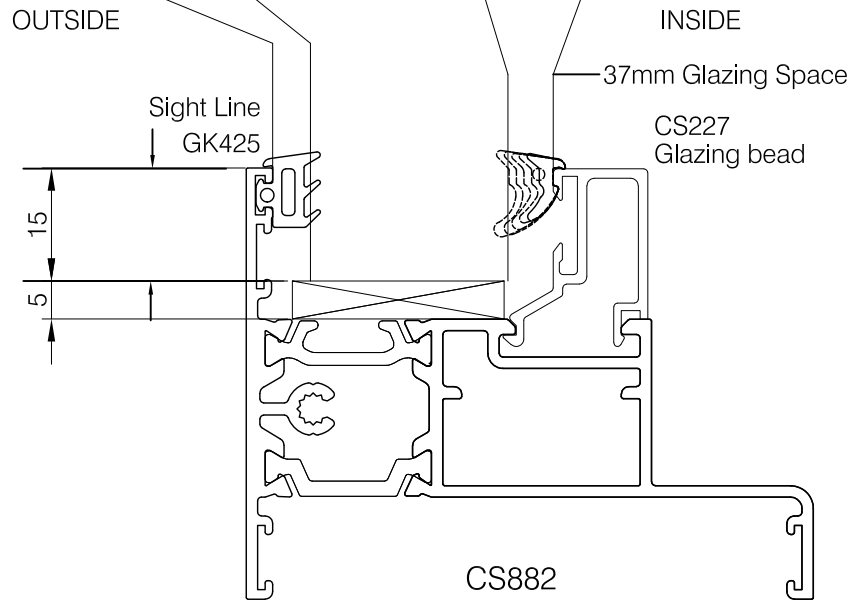
Due to the production tolerances in aluminum, painting / anodising, glass and gaskets, check and trial above formula before proceeding with bulk production.

CAPTIVE GASKET ref.	GASKET VALUE M/M	MAX M/M	WEDGE VALUE M/M	WEDGE INSERT ref.
GK425	5	26	6	GK408
GK425	5	27	5.2	GK407
GK425	5	28	4	GK405
GK425	5	29	3	GK403
GK425	5	30	2.2	GK401
		MIN M/M		

CAPTIVE GASKET ref.	GASKET VALUE M/M	MAX M/M	WEDGE VALUE M/M	WEDGE INSERT ref.
GK422	2	29	6	GK408
GK422	2	30	5.2	GK407
GK422	2	31	4	GK405
GK422	2	32	3	GK403
		MIN M/M		

Double glazed window system with square/sloped bead.  
Order of assembly:

1. Captive gasket
2. Glass or panel
3. CS230/ CS227 sloped/square beads
4. Insert wedge gasket.



To ensure satisfactory product performance, bottom corners and internal gasket corner joints should be silicon sealed .

comar 7P.i ECO LT

GLAZING OPTIONS

5



Glazing Options  
Open In Outer Frame  
CS230

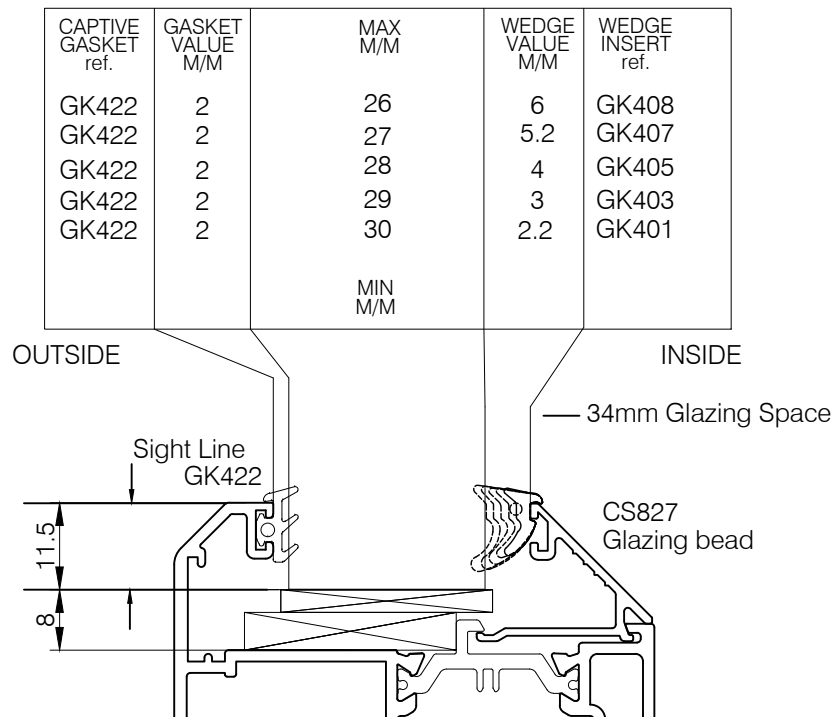
A4 Scale: 1:1

R0 - 10-02-2020

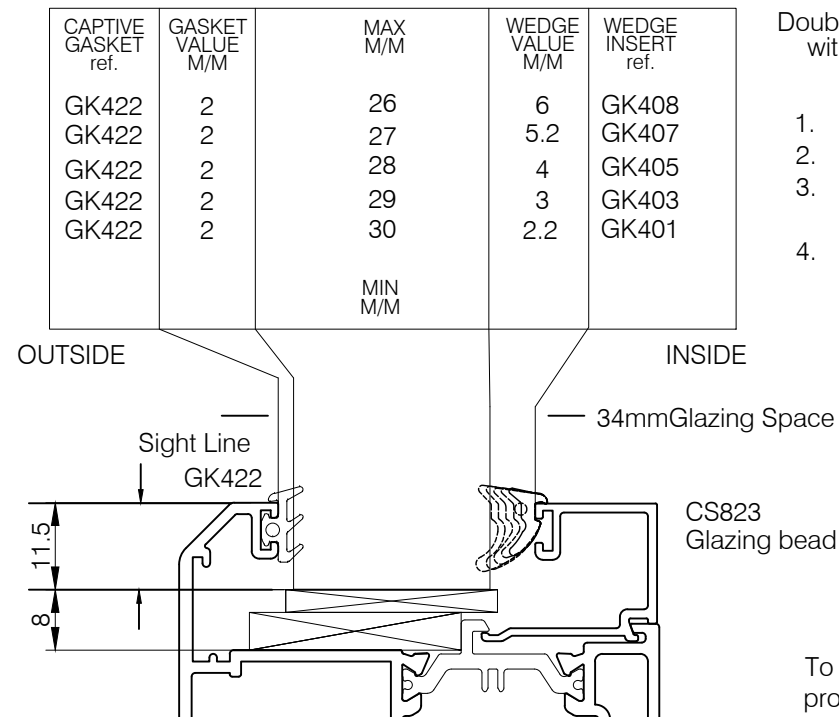
5.02

### IMPORTANT NOTE

Due to the production tolerances in aluminum, painting / anodising, glass and gaskets, check and trial above formula before proceeding with bulk production.



CS861/CS863/CS866



CS861/CS863/CS866

Double glazed window system with square/sloped bead.  
Order of assembly:

1. Captive gasket
2. Glass or panel
3. CS827/CS823 square/sloped beads
4. Insert wedge gasket.

To ensure satisfactory product performance, bottom corners and internal gasket corner joints should be silicon sealed .

comar 7P.i ECO LT

GLAZING OPTIONS

5



Glazing Options  
Open Out and Open In Leaf Door  
CS827 & CS823

A4 Scale: 1:1

R0 - 10-02-2020

5.03

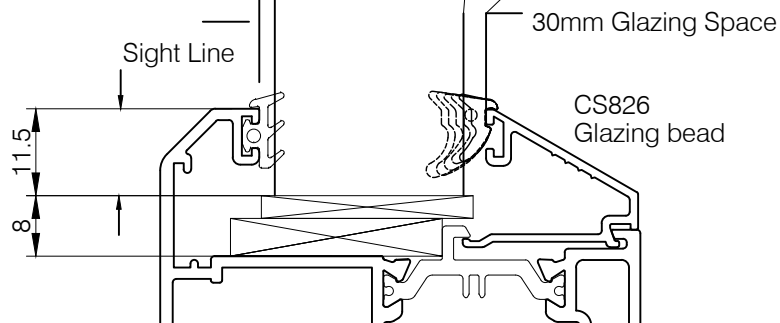
### IMPORTANT NOTE

Due to the production tolerances in aluminum, painting / anodising, glass and gaskets, check and trial above formula before proceeding with bulk production.

CAPTIVE GASKET ref.	GASKET VALUE M/M	MAX M/M	WEDGE VALUE M/M	WEDGE INSERT ref.
GK422	2	24	4	GK405
GK422	2	25	3	GK403
GK422	2	26	2.2	GK401
		MIN M/M		

OUTSIDE

INSIDE

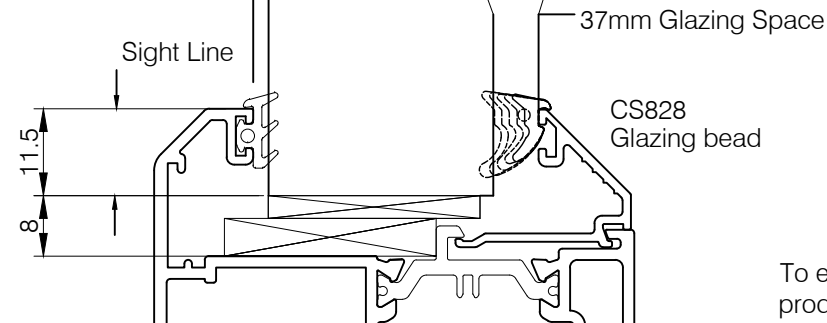


CS861/CS863/CS866

CAPTIVE GASKET ref.	GASKET VALUE M/M	MAX M/M	WEDGE VALUE M/M	WEDGE INSERT ref.
GK422	2	29	6	GK408
GK422	2	30	5.2	GK407
GK422	2	31	4	GK405
GK422	2	32	3	GK403
GK422	2	33	2.2	GK401
		MIN M/M		

OUTSIDE

INSIDE



CS861/CS863/CS866

Double glazed window system with square/sloped bead.  
Order of assembly:

1. Captive gasket
2. Glass or panel
3. CS826/CS828 sloped beads
4. Insert wedge gasket.

To ensure satisfactory product performance, bottom corners and internal gasket corner joints should be silicon sealed .

comar 7P.i ECO LT

GLAZING OPTIONS

5



Glazing Options  
Open Out and Open In Leaf Door  
CS827 & CS823

A4 Scale: 1:1

R0 - 10-02-2020

5.04

# U-VALUES

comar 7P.i ECO LT

U-VALUES

6

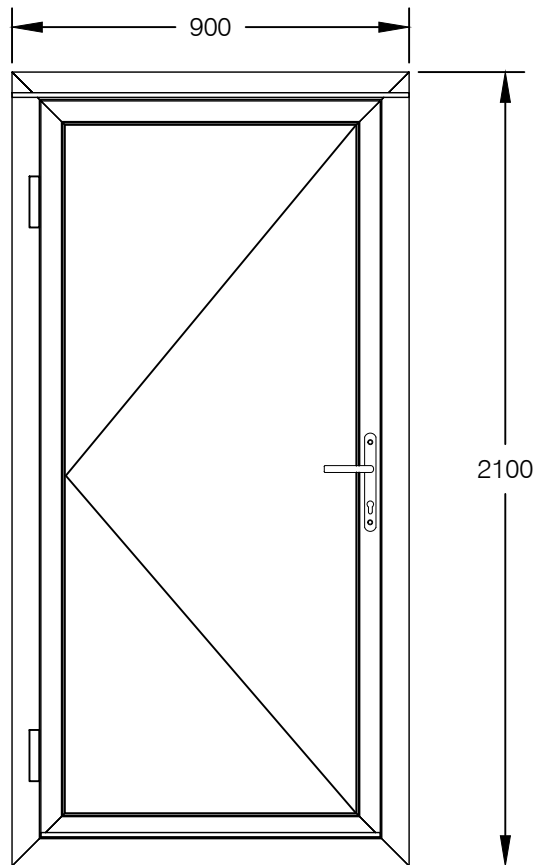


A4 Scale: NTS

R0 - 10-02-2020

6.00



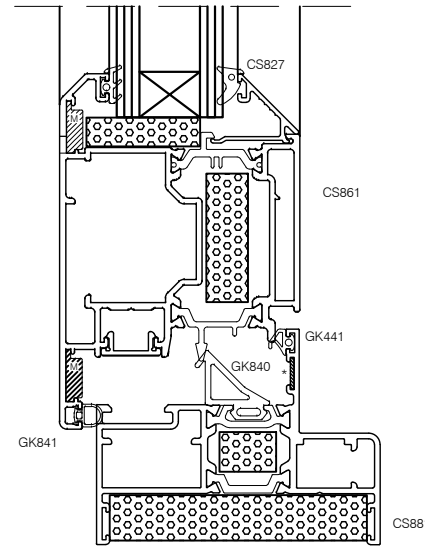


Glazing: 28mm Double Glaze (6/16/6)

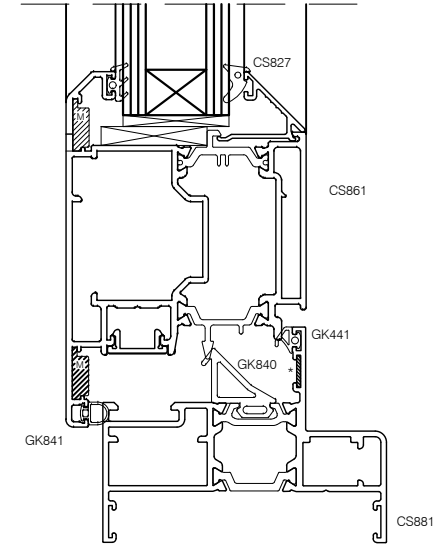
Centre Pane:  $1.0 \text{ W/m}^2\text{K}$

Door size: 900mm x 2100mm ( $1.89\text{m}^2$ )

Calculation Method: BS EN ISO 10077: Part 1



U-VALUE =  $1.56 \text{ W/m}^2 \text{ K}$



U-VALUE =  $1.88 \text{ W/m}^2 \text{ K}$

comar 7P.i ECO LT

U-VALUES

6

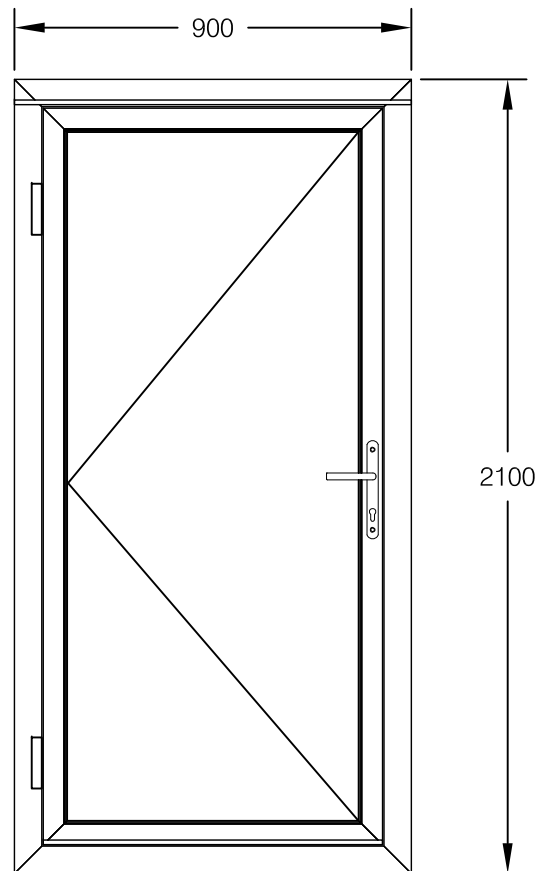


U-Values  
Open Out Single Rebated Door  
CS881 & CS861

A4 Scale: 1:2

R0 - 10-02-2020

6.01

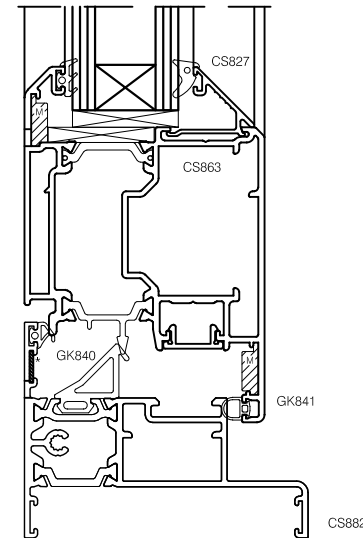


Glazing: 28mm Double Glaze (6/16/6)

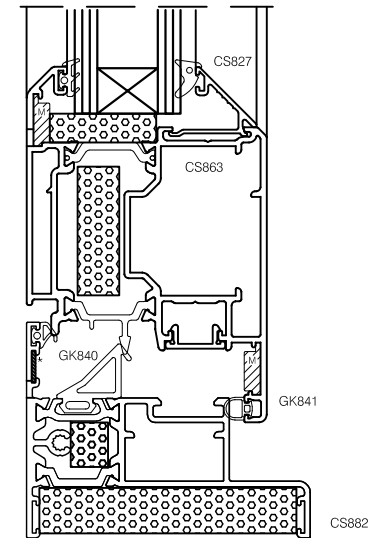
Centre Pane:  $1.0 \text{ W/m}^2\text{K}$

Door size: 900mm x 2100mm ( $1.89\text{m}^2$ )

Calculation Method: BS EN ISO 10077: Part 1



U-VALUE =  $1.86 \text{ W/m}^2\text{K}$



U-VALUE =  $1.55 \text{ W/m}^2\text{K}$

comar 7P.i ECO LT

U-VALUES

6



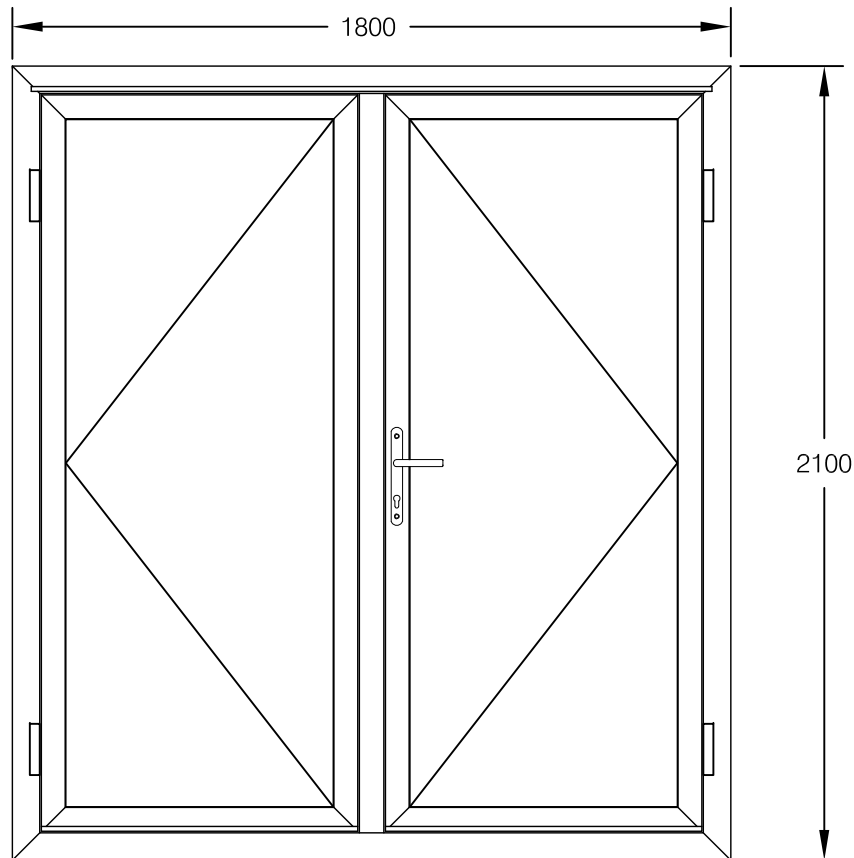
U-Values  
Open In Single Rebated Door  
CS882 & CS863

A4 Scale: 1:2

R0 - 10-02-2020

6.02



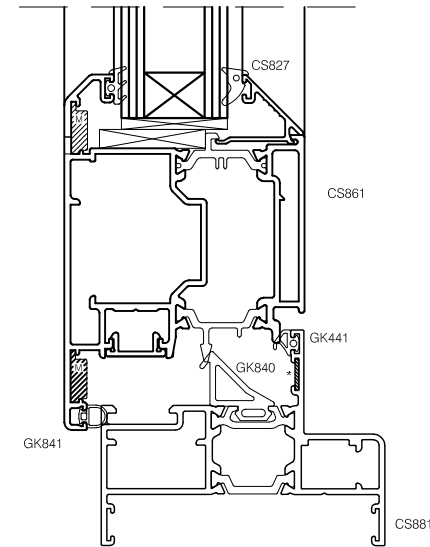


Glazing: 28mm Double Glaze (6/16/6)

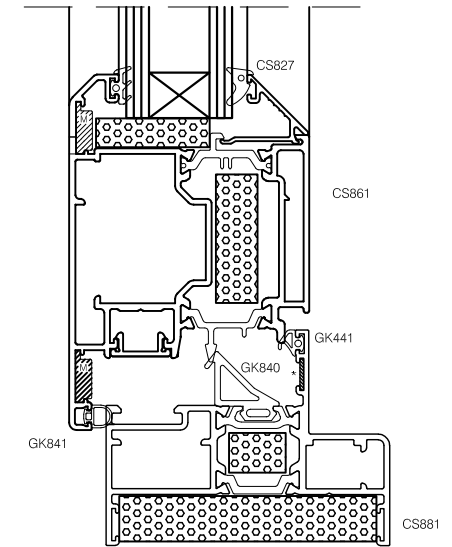
Centre Pane:  $1.0 \text{ W/m}^2\text{K}$

Door size: 1800mm x 2100mm ( $3.78\text{m}^2$ )

Calculation Method: BS EN ISO 10077: Part 1



U-VALUE =  $1.84 \text{ W/m}^2 \text{ K}$



U-VALUE =  $1.55 \text{ W/m}^2 \text{ K}$

comar 7P.i ECO LT

U-VALUES

6

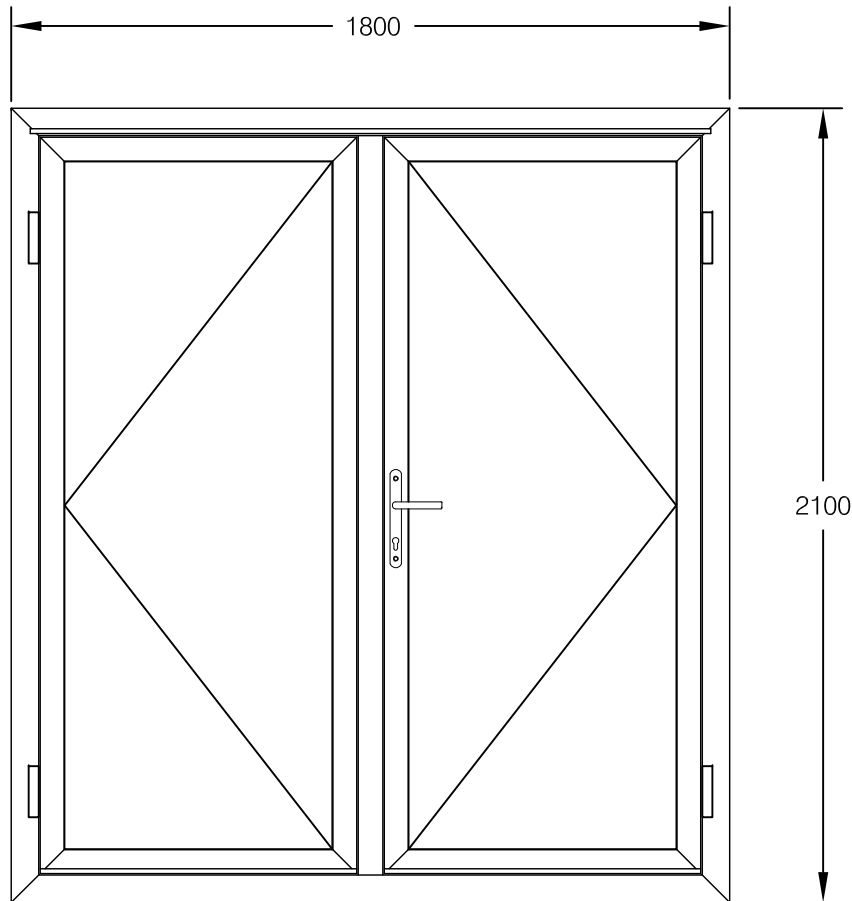


U-Values  
Open Out Double Rebated Door  
CS881 & CS861- Using CS867

A4 Scale: 1:2

R0 - 10-02-2020

6.03



Glazing: 28mm Double Glaze (6/16/6)

Centre Pane:  $1.0 \text{ W/m}^2\text{K}$

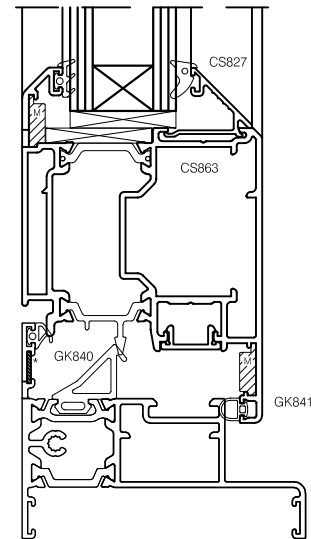
Door size: 1800mm x 2100mm ( $3.78\text{m}^2$ )

Calculation Method: BS EN ISO 10077: Part 1

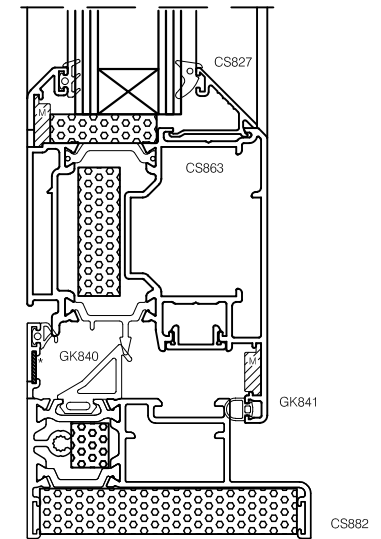
**comar 7P.i ECO LT**

U-VALUES

6



U-VALUE =  $1.80 \text{ W/m}^2\text{K}$



U-VALUE =  $1.51 \text{ W/m}^2\text{K}$

U-Values  
Open In Double Rebated Door  
CS882 & CS863- Using CS867

A4 Scale: 1:2

R0 - 10-02-2020

6.04