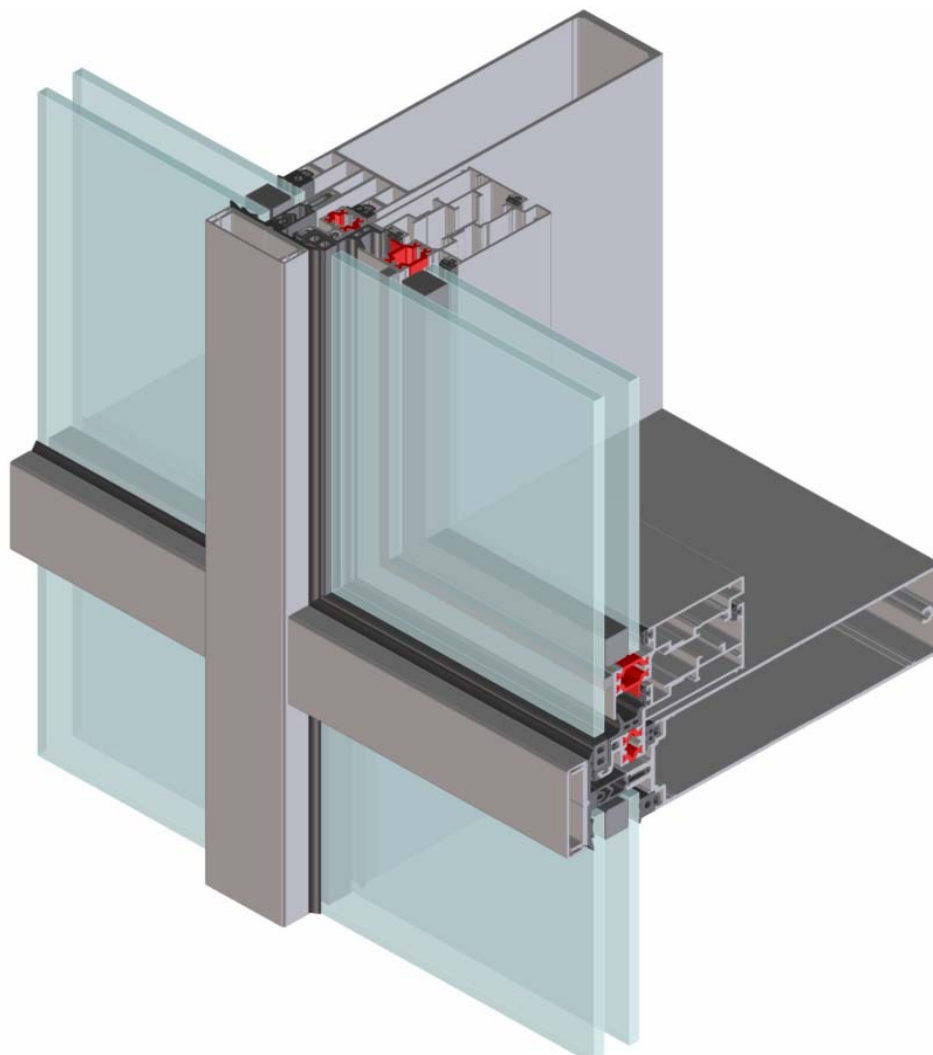
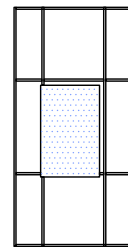
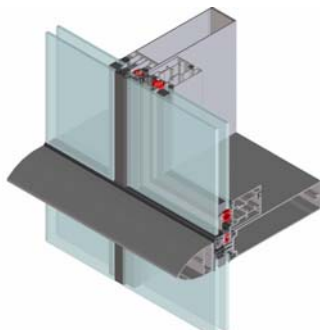


## Parallel Hinge System

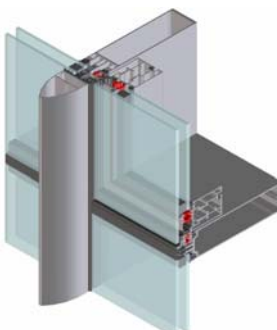
Comar 6EFT



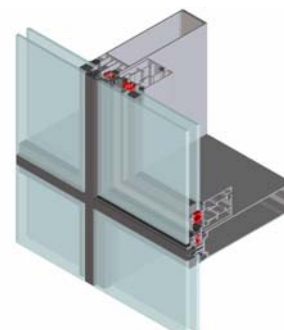
## Concealed Vent into Capped CW



2sided SGH



2sided SGV



4sided SG

Fabricators Guide

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Issue:04  
Date :01-14

## Introduction

### Comar 6 EFT Concealed Vent

#### Comar 6 EFT Concealed Vent - Parallel Hinge System

is a window fitted with scissor action friction hinges that allows the window to be pushed out horizontally and is available in single or double glazed units.

## Specification Summary

### Glazing

The system is glazed from the outside, structurally bonded to the moving frame (window vent)  
Glass should conform to the requirements of BS 6262 for thickness and type, in terms of wind resistance, safety and security.

### Drainage

The system is drained and achieved by meeting the requirements of "ventilated and drained glazing system" as specified in BS 6262

### Thermal Insulation

Classification in accordance with DIN 4108 or EN ISO 10077 - 1

#### Thermally Concealed Vent:

The thermal transmittance ( $U_f$ )  $W/m^2 K$ , is dependant on the insulator strip, calculated as per EN ISO 10077 - 1.

Comparable with class 1.0 or 2.1 DIN 4108 - 4 Table 3

### Sound Insulation

Depending largely upon the glass specification, generally the curtain wall framing reduces the figure by 2dB (A).

### Materials

The system is constructed from extruded aluminium profiles, using alloy 6063 complying to the requirements of BS 1474.

The thermal barrier system is achieved by means of PVC/PP extrusion. with the requirements of BS1474.

## Construction

Any instructions regarding the manufacture and installation of the system must be strictly adhered to.

## Weathering

Glazing vision strips are made of EPDM conforming to BS 4255 Part 1

## Performance / exposure category

The system will achieve the following criteria when manufactured, installed and glazed to EFT recommended procedures.

## Classification

Air permeability: BS EN 12207 - Class 4

Water tightness: BS EN 12208 - Class E 750

Wind resistance: BS EN 13116 - 2400 Pa design  
- 3600 Pa safety

2400Pa (Pascal's) depends upon correct mullion and transom selection to suit span and spacing on a project-by-project basis.

## Size limitations

The size limitations of the system depends mainly on the hardware used. Please refer to Comar's Technical Office for advise.

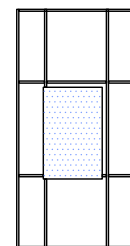
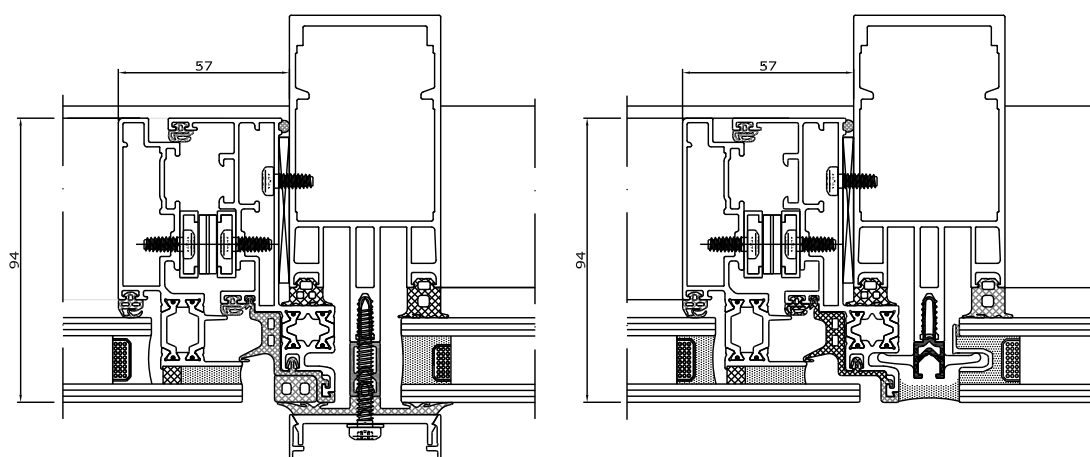


**comar**

ARCHITECTURAL ALUMINIUM SYSTEMS

## Parallel Hinge System Overview

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9.00

### Notes:

1. For manual operation up to 1500mm wide 2 handles central at the sides. Can also be mechanically or electrically operated.
2. For vents 1500mm to 2000mm wide electric operation should be used.
2. Vents either side of a faceted mullion may be possible depending on the angle, contact Comar's technical department for advice.
3. A minimum of a 60mm transom (1150) must be used above and below where a concealed vent is to be positioned.
4. For width / height / weight combination options, please contact Comar's technical department.

### Integrates into:

Fully capped Curtain Walling  
2 sided with vertical capping  
(2sided SGV)

### Integrates into:

2 sided with horizontal capping  
(2sided SGH)  
4 sided structural glazing  
(4sided SG)

### Limitations

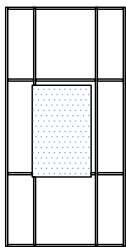
	Max. width	Max. height	Max. weight
<b>Parallel Hinge System</b>	2000mm depends on height	2500mm depends on width	100 / 200kg depends on sizing

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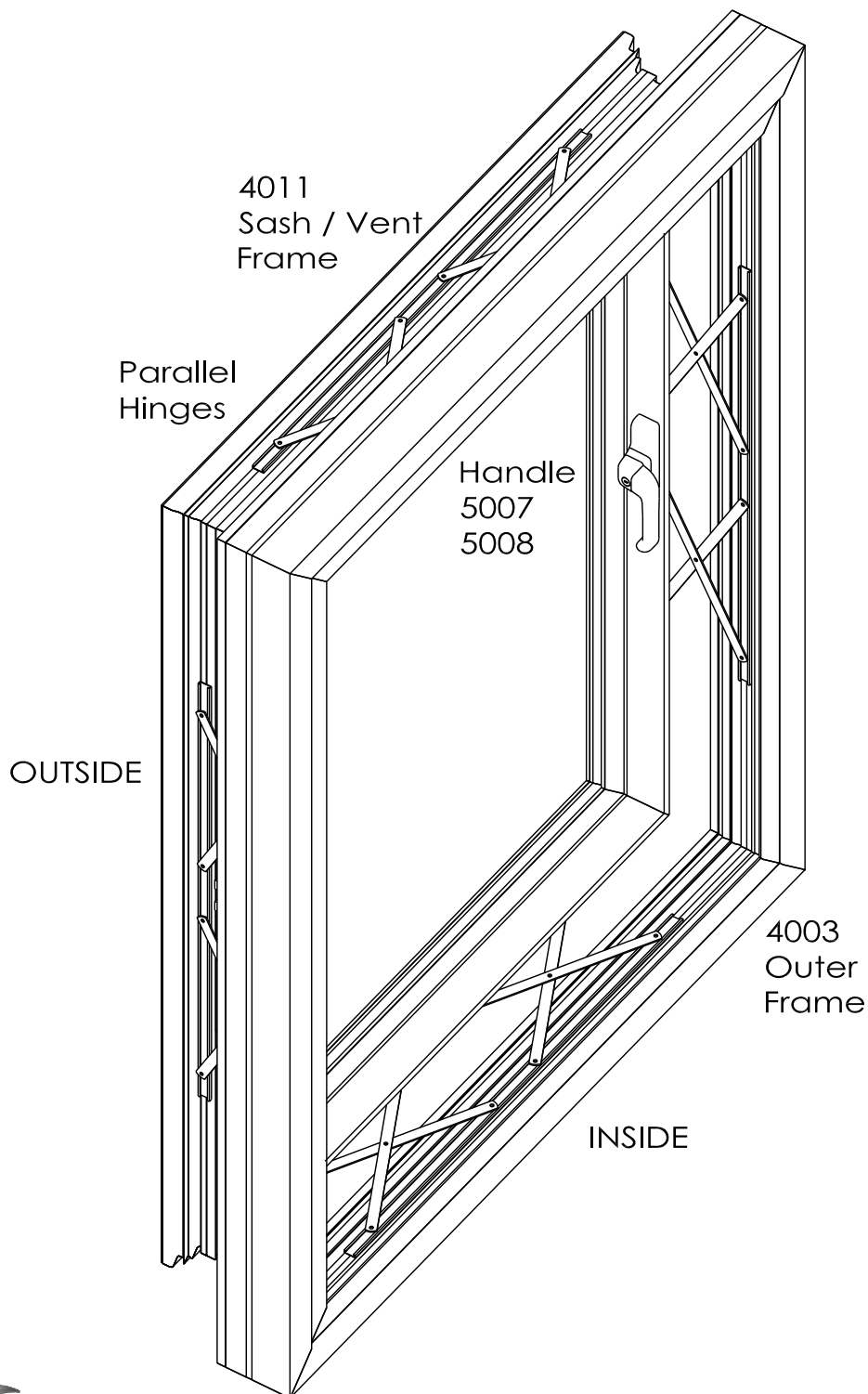
Comar 6EFT

Parallel Hinge System  
Typical window



9.01

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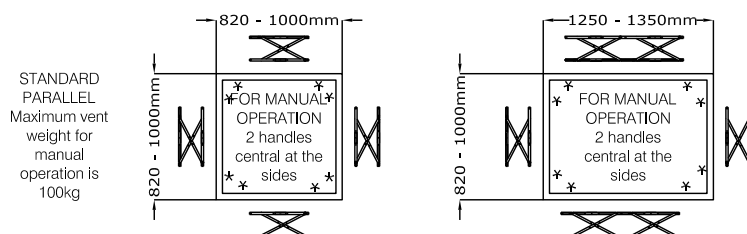
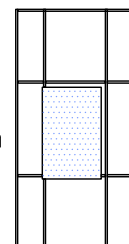
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## Parallel Hinge System Hinges charts

### FAQ

Maximum Opening Distance 180 mm  
Minimum Height 640 mm



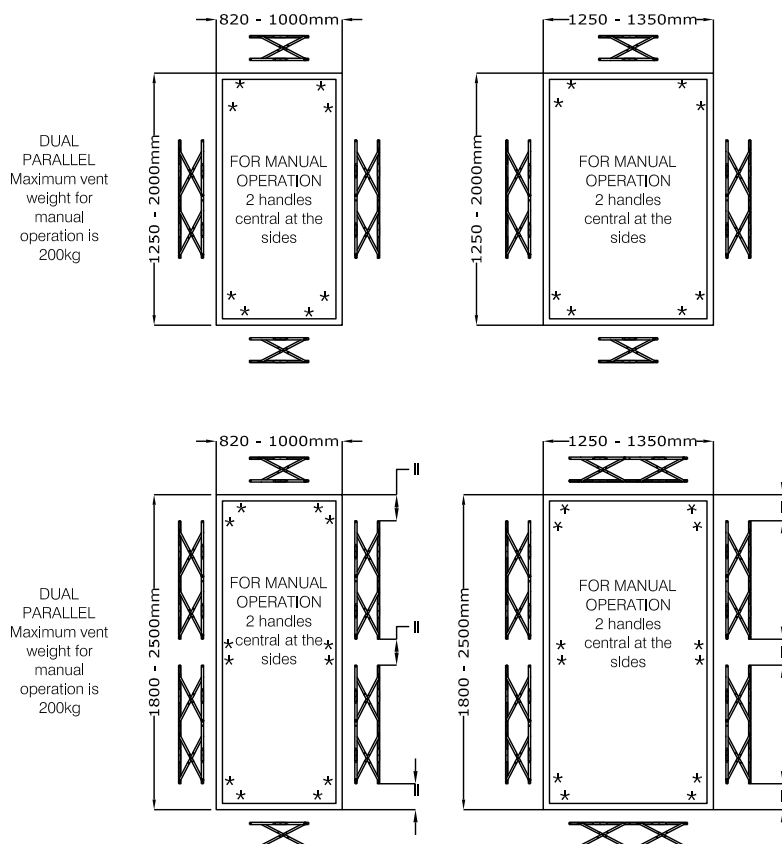
STANDARD  
PARALLEL  
Maximum vent  
weight for  
manual  
operation is  
100kg

9.02

FOR FUTURE ADDITIONS  
TO THE MANUAL

Dimensions shown are  
mullion and transom  
centre to centre

For other sizes please  
contact Comar  
Technical Department



DUAL  
PARALLEL  
Maximum vent  
weight for  
manual  
operation is  
200kg

DUAL  
PARALLEL  
Maximum vent  
weight for  
manual  
operation is  
200kg

Standard parallel hinge  
HN600XSLF



470 mm Overall

Dual parallel hinge  
HN601XSLF



940 mm Overall  
Opening distance 180 mm

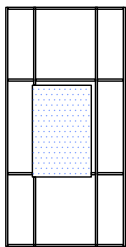
Parallel hinges are available  
for special order

Recommended positions  
of locking points \*

For windows with a width of  
2500 mm and a height of  
820 mm or greater then  
powered opening  
mechanism's should be used.

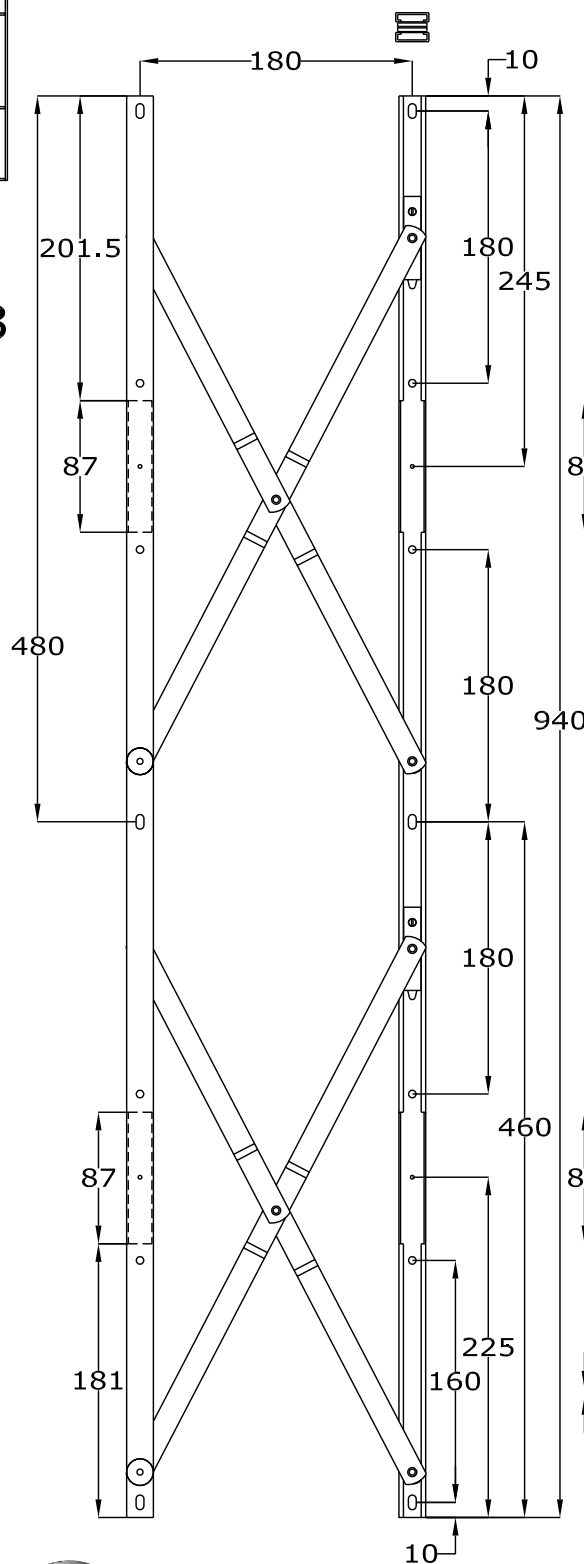


## Comar 6EFT



9.03

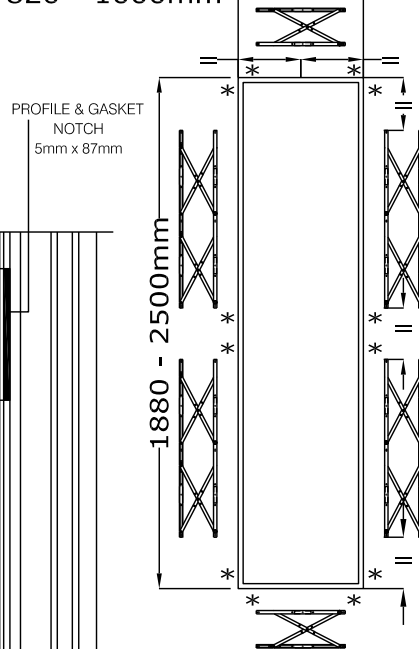
## Fabricators Guide



## Parallel Hinge System Dual hinges

Hinges are universal and will open & close for left & right hand sides also, top & bottom frame / sash fitting.

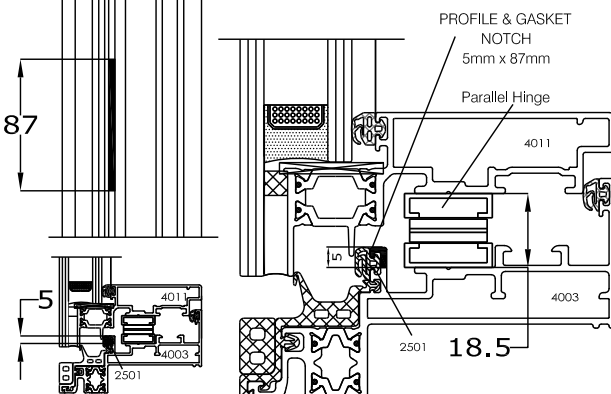
820 - 1000mm



\* Indicates locking points

FOR MANUAL OPERATION  
2 handles  
central at the sides

Profile  
4003



Handing is achieved by opening the hinge either to the left or to the right as required.



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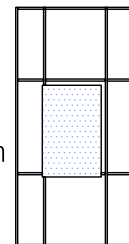
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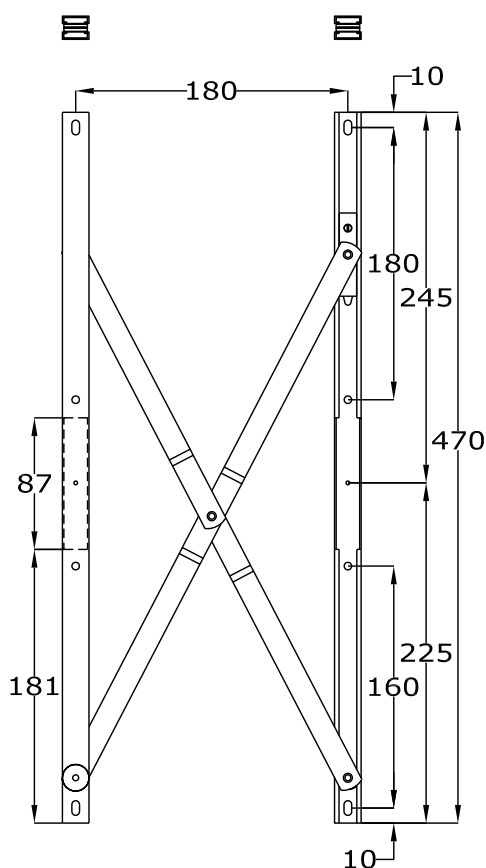
## Parallel Hinge System Single hinges

### NOTE:-

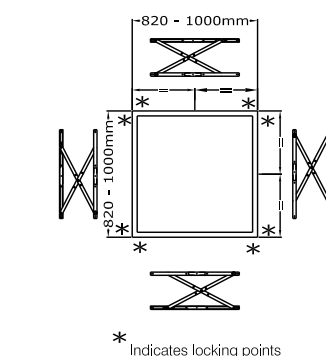
Hinges are universal and will open & close for left & right hand sides also, top & bottom frame / sash fitting.



9.04



Single hinge

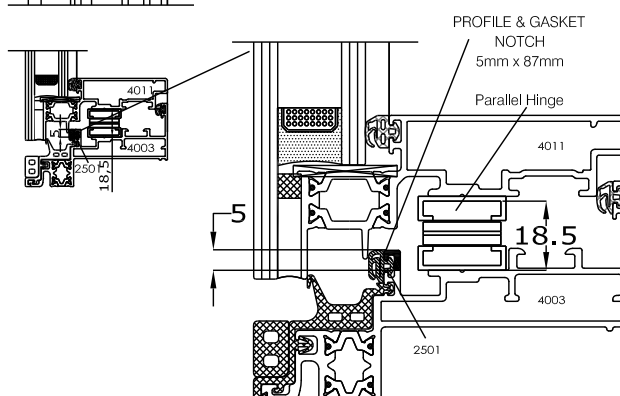


\* Indicates locking points

PROFILE & GASKET  
NOTCH  
5mm x 87mm

Profile  
4003

FOR MANUAL  
OPERATION  
2 handles  
central at the  
sides



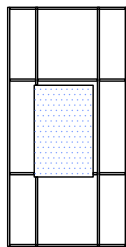
Hinges are universal and will open and operate for both left and right sides of the frame and sash and for the top and bottom.

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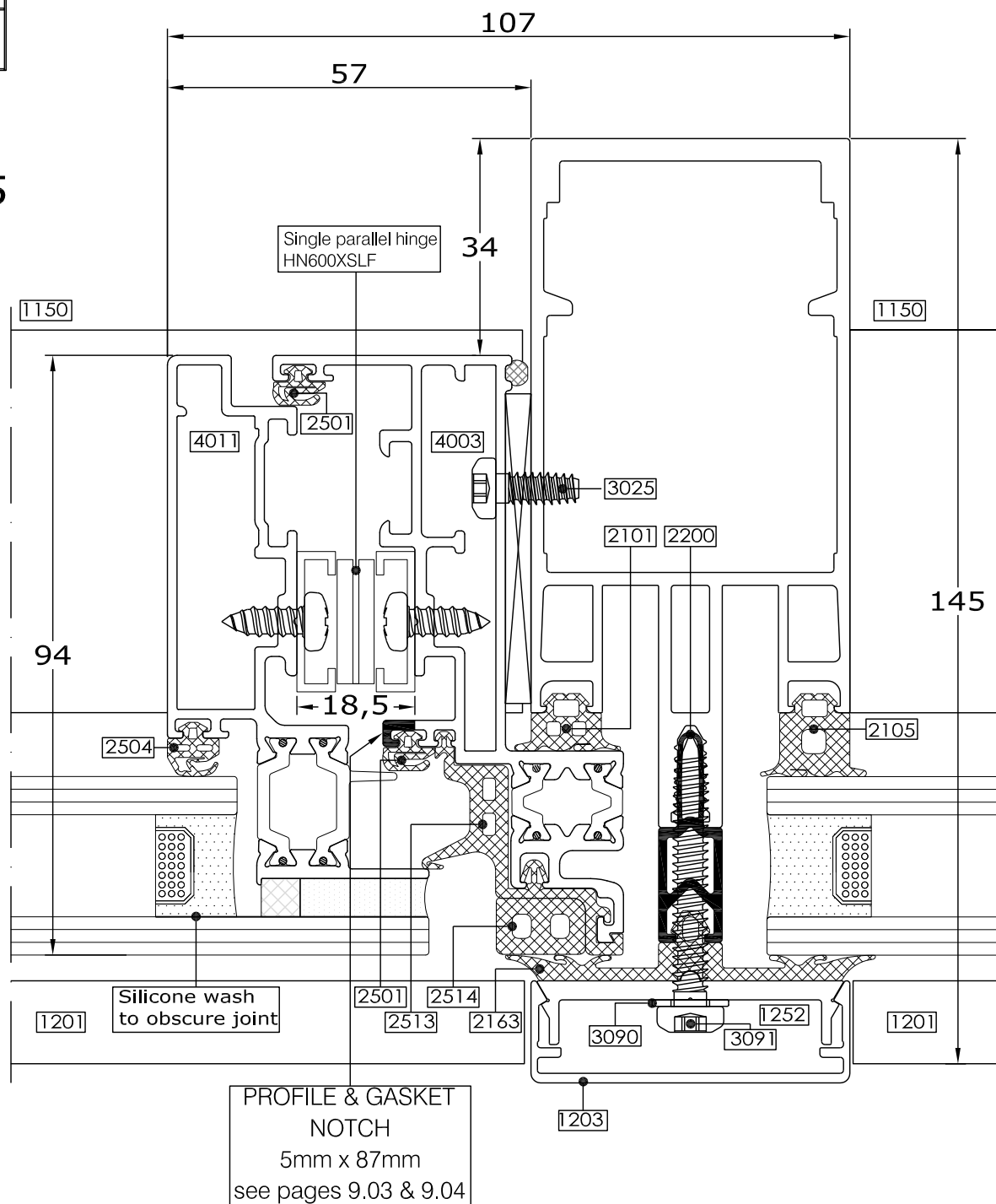
## Comar 6EFT

## Parallel Hinge System Mullion section - Capped



9.05

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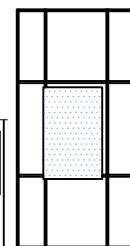
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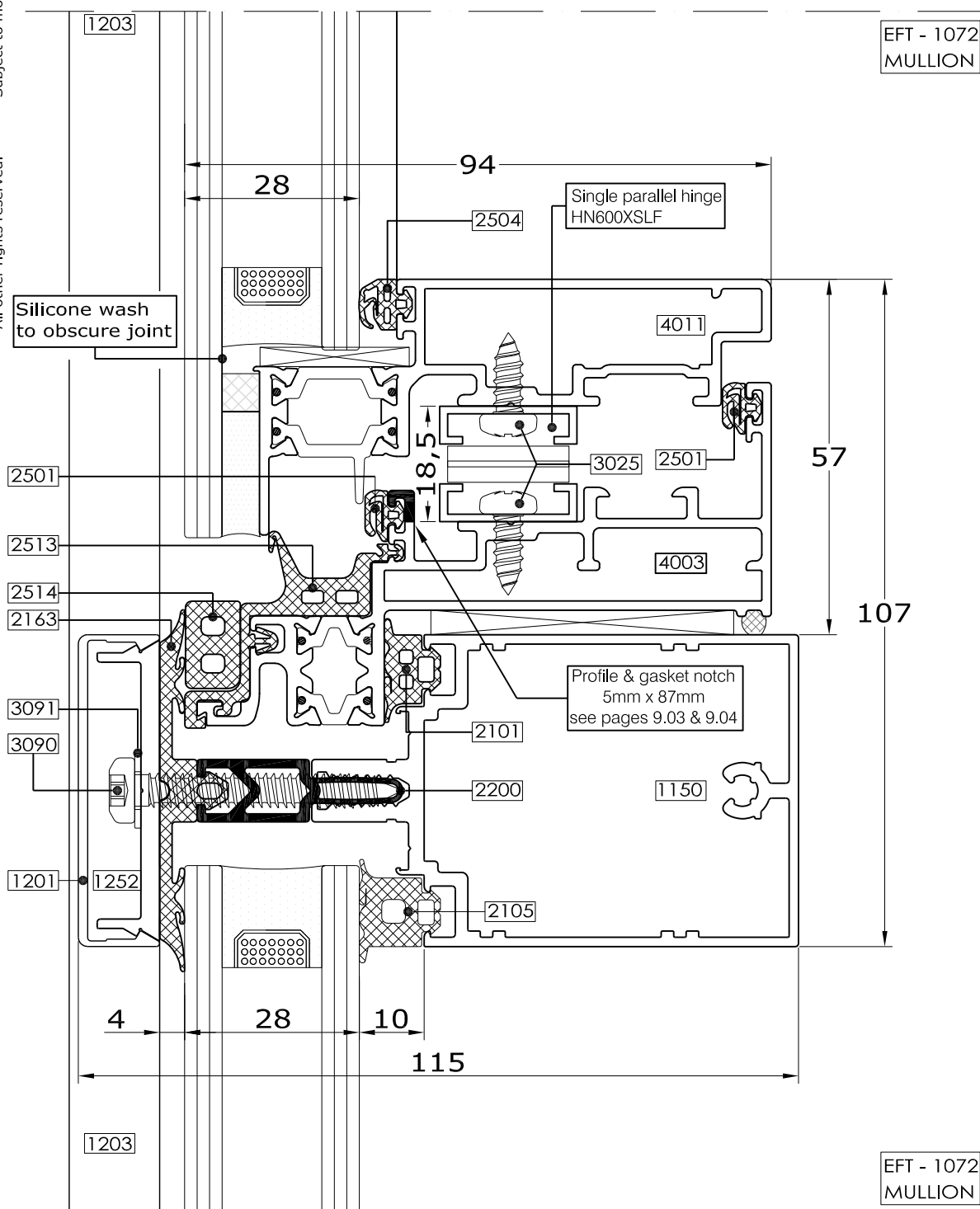
## Parallel Hinge System Transom section - Capped

Comar 6EFT



9.06

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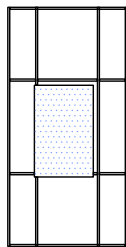
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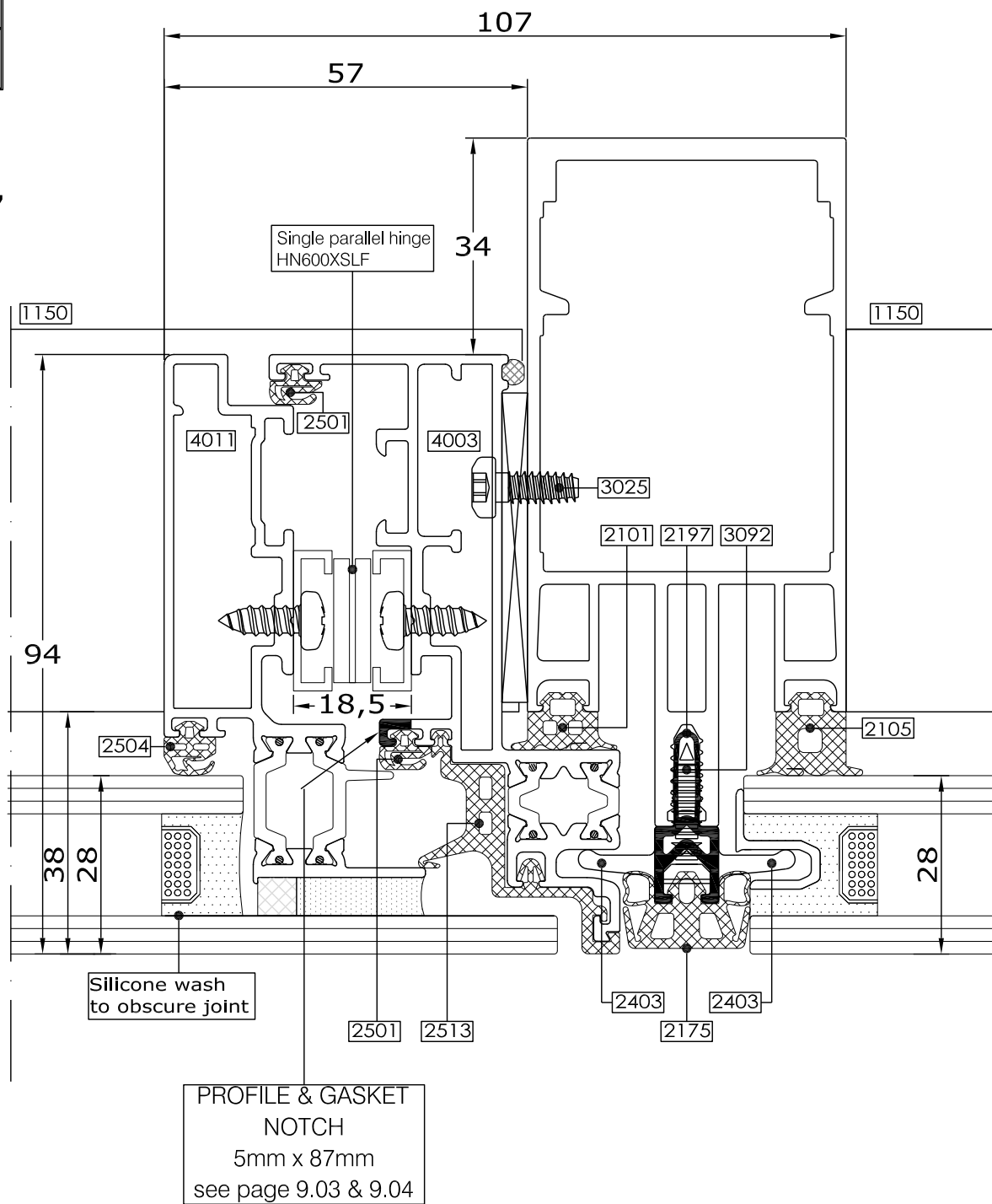
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## Parallel Hinge System Mullion section - SG



9.07

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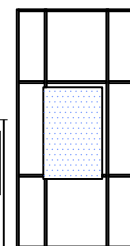
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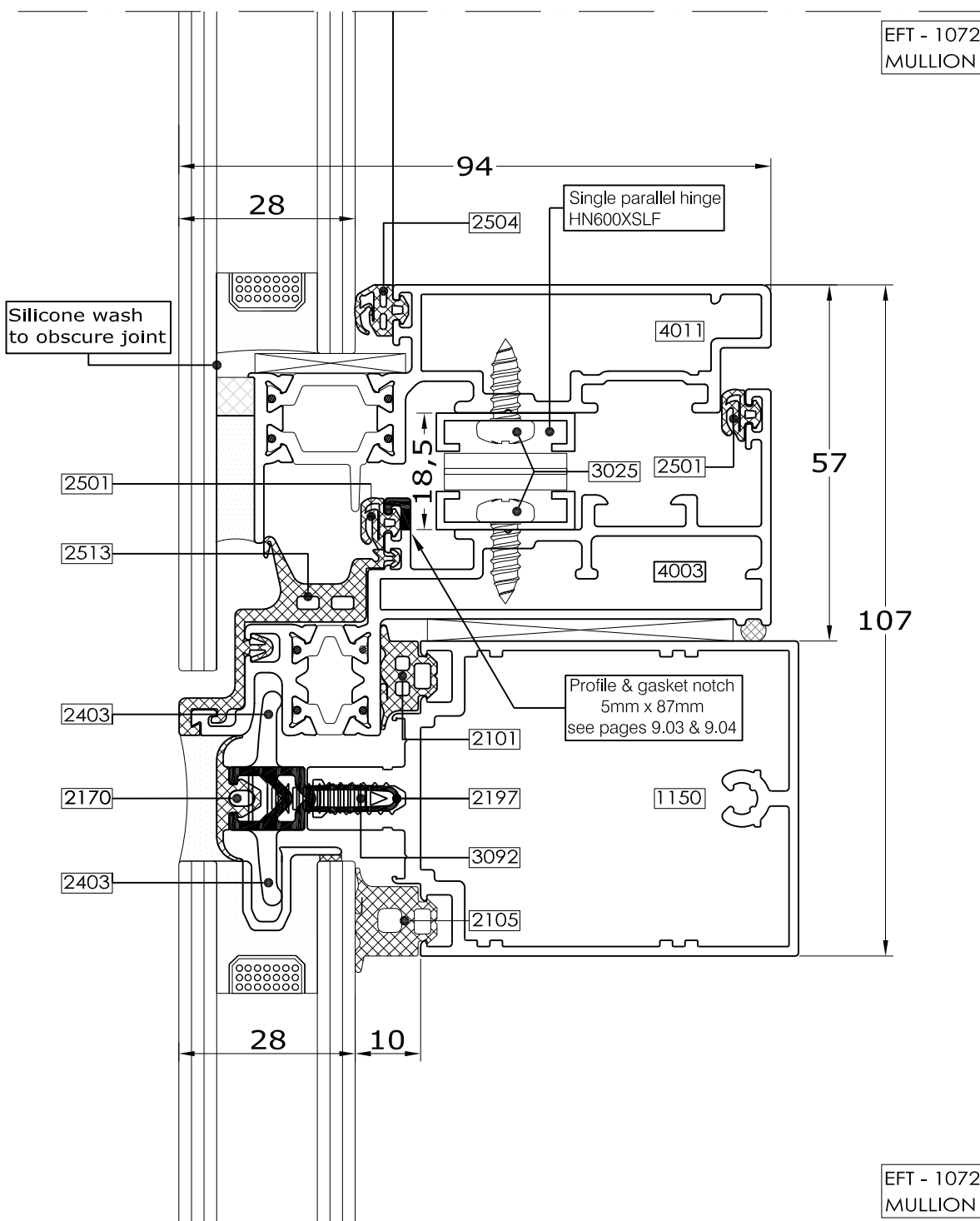
## Parallel Hinge System Transom hinge - SG

Comar 6EFT



9.08

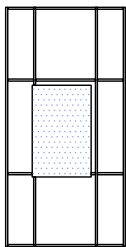
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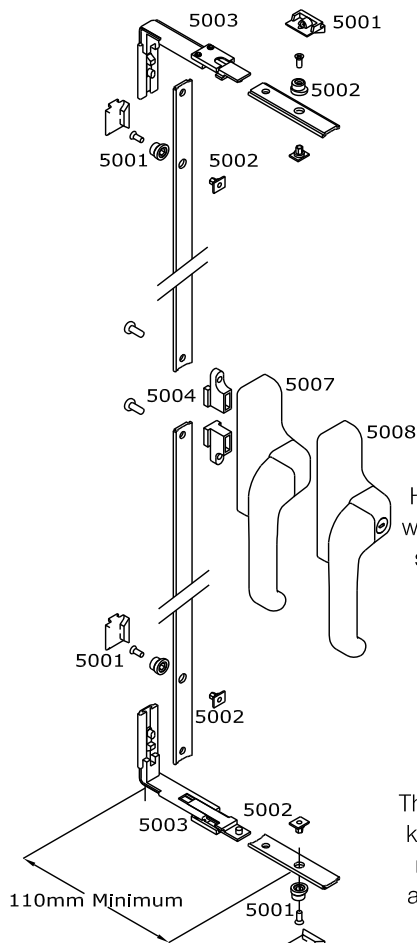
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9.09

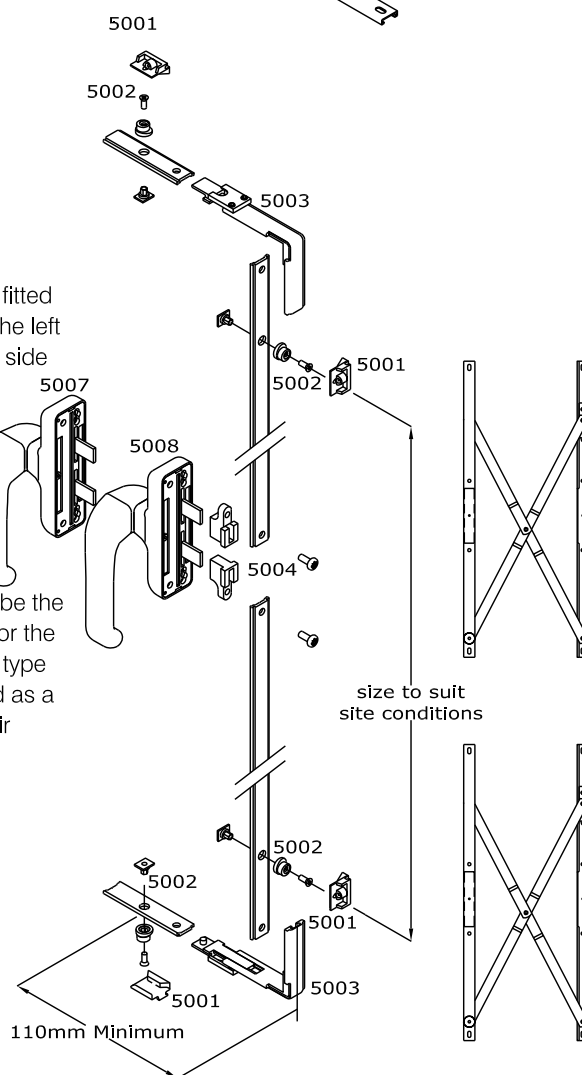
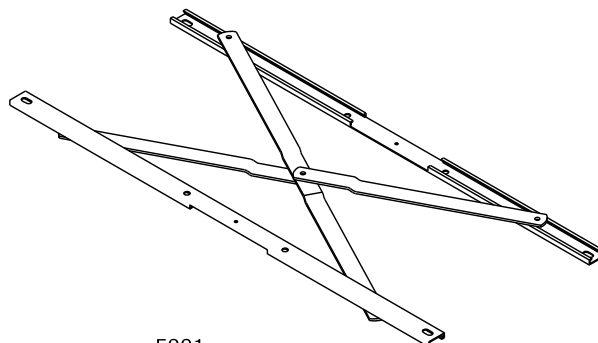
Fabricators Guide

## Parallel Hinge System Twin single hinge locking



Handles can be fitted with the lock on the left side or the right side

The handles can be the key locked type or the non-key locked type and are supplied as a matched pair



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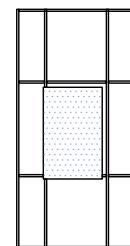
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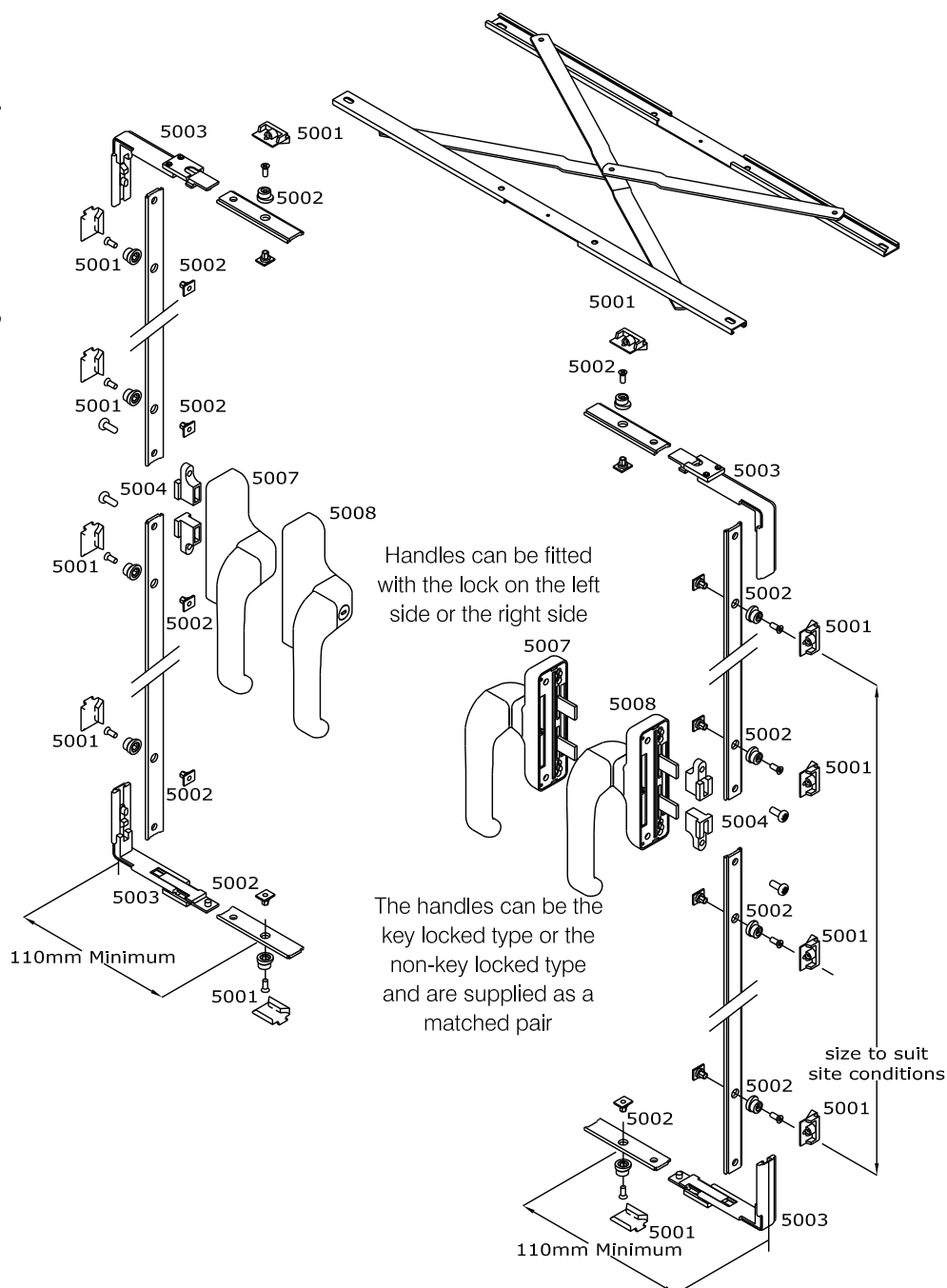
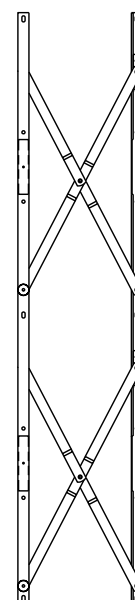
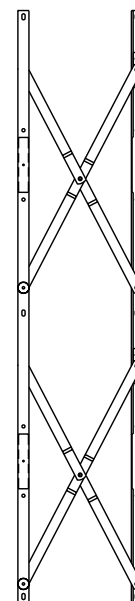
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## Parallel Hinge System Twin dual hinge locking



9.10

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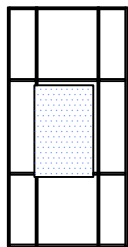
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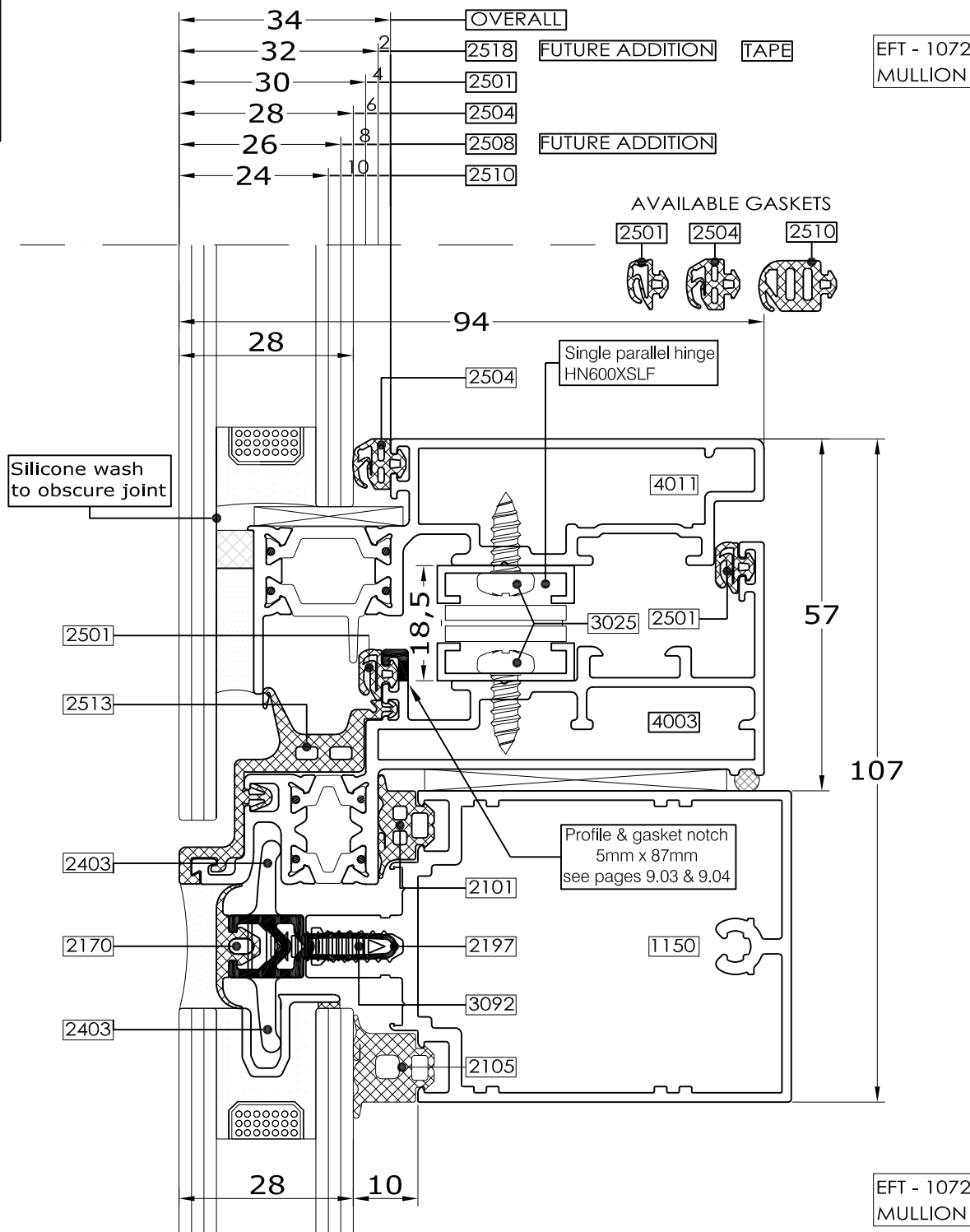
## Comar 6EFT

## Parallel Hinge System Glazing Chart - SG



9.11

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A 3x3 grid of squares. The central square (middle row, middle column) is filled with a blue dotted pattern. The other eight squares are empty.

**Table 1: Dimensions and Gasket Specifications**

Dimension (mm)	Gasket Type	Notes
34	OVERALL	
32	2518	FUTURE ADDITION
30	2501	TAPE
28	2504	
26	2508	FUTURE ADDITION
24	2510	

**Table 2: Available Gaskets**

Gasket Type	Profile
2501	[Cross-section diagram]
2504	[Cross-section diagram]
2510	[Cross-section diagram]

**Key Components and Dimensions:**

- Dimensions:** 4, 28, 10, 115, 107, 57, 18,5, 2, 4, 6, 8, 10.
- Hardware:** Single parallel hinge HN600XSLF, 3025, 2200, 2101, 2105, 2150, 3091, 3090, 1201, 1252.
- Materials:** Silicone wash to obscure joint.
- Profile & gasket notch:** 5mm x 87mm (see pages 9.03 & 9.04).

9.12

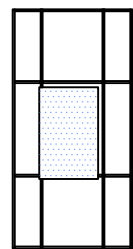
# Fabricators Guide

# Fabrication

9

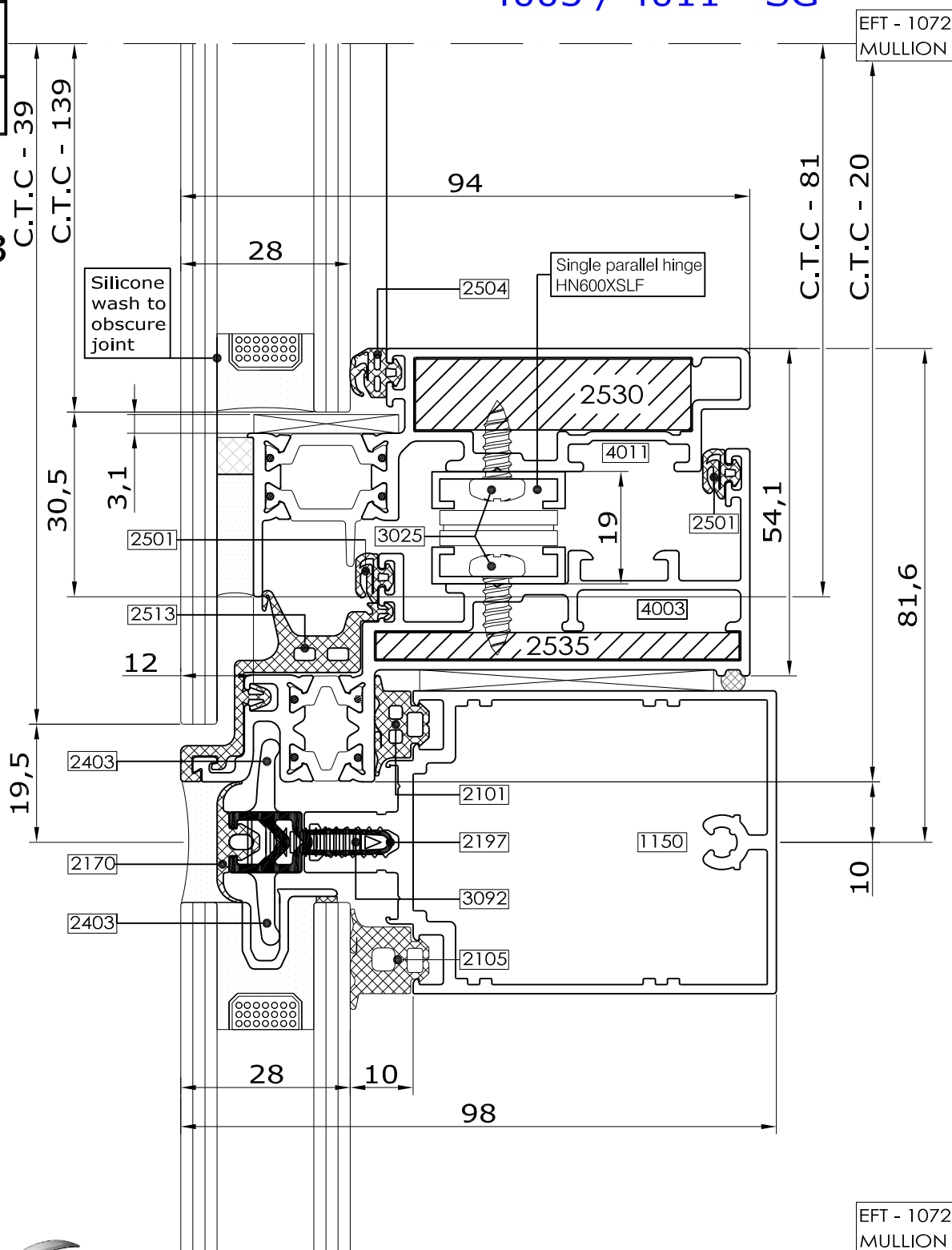
## Comar 6EFT

## Parallel Hinge System Cutting sizes 4003 / 4011 - SG



9.13

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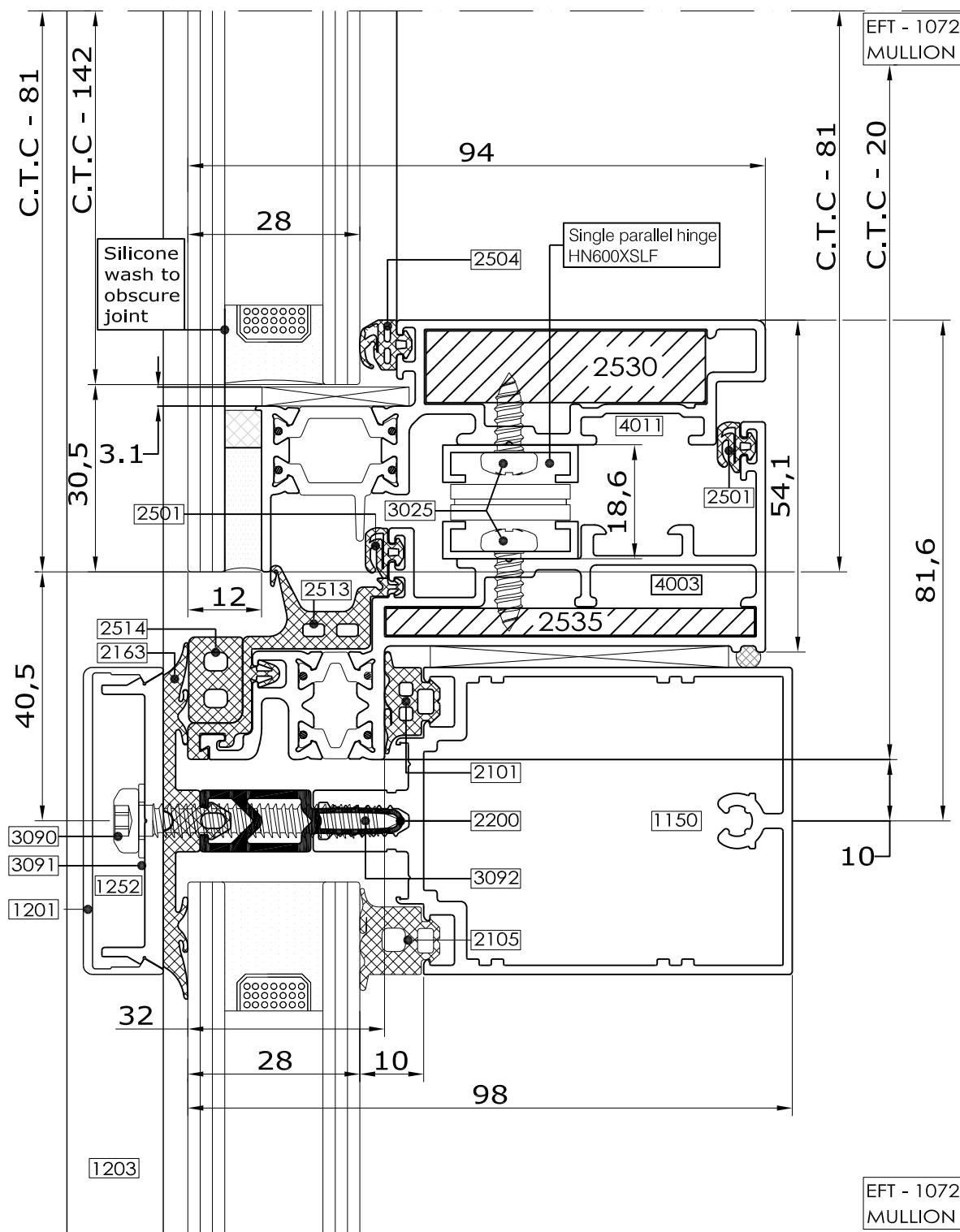
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2

9.14

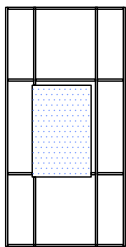


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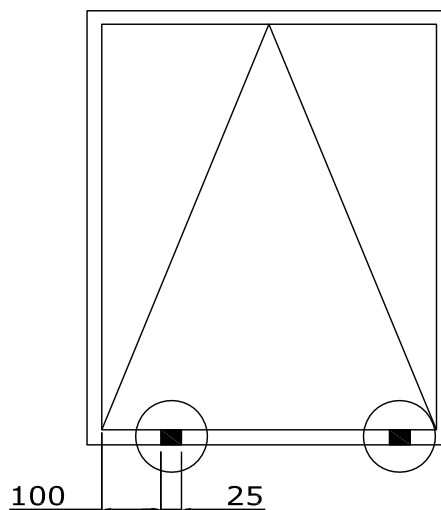
## Fabrication

9

## Comar 6EFT

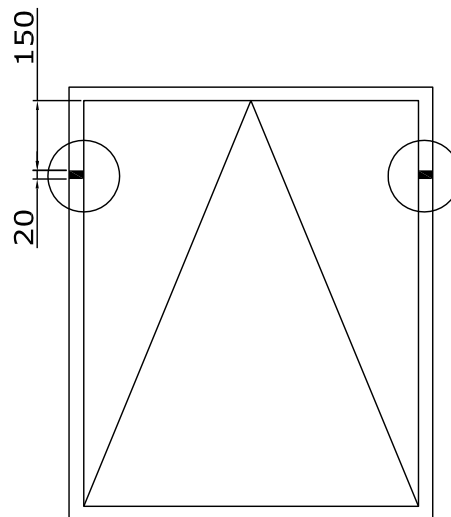
Parallel Hinge System  
Drainage & Ventilation  
Option 1**Drainage: Option 1****Drainage through frame chamber**

1. Drill minimum 8mm CWCT diameter hole into frame.
2. Mill slot of 5mm x 25mm CWCT minimum.
3. Mill upstands away, 2 x approx. 10mm wide.
4. Remove/cut EPDM air seal profile. Length approx. 25mm.
5. Drill 8mm CWCT diameter hole for drainage & ventilation.

**Ventilation**

(pressure equalisation)

6. Remove / cut out EPDM seal & EPDM air seal (if applicable) at both sides of window at approx. 150 mm from top. Length: approx. 20 mm



Note: Drainage and ventilation prep. is the same for capped / non capped, top project/side project concealed vents.



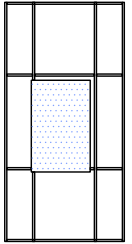
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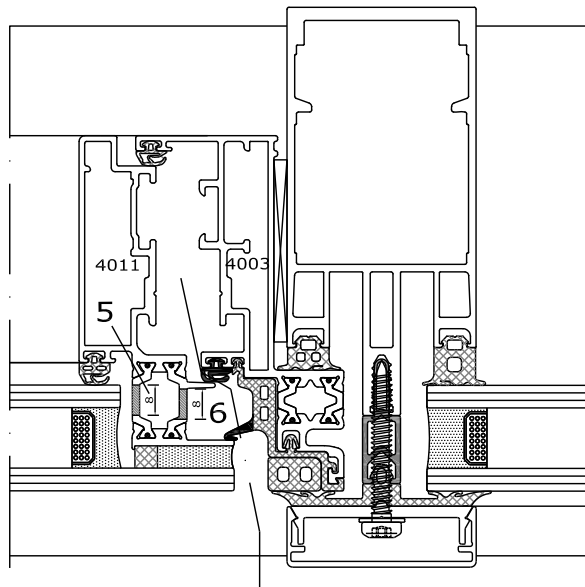
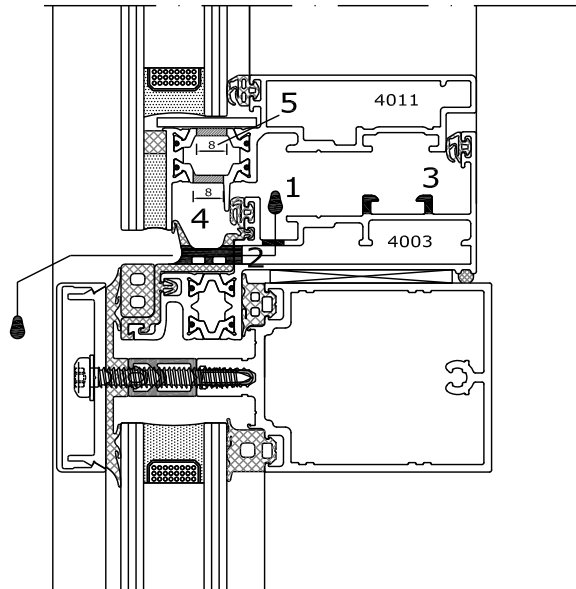
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## Parallel Hinge System Drainage & Ventilation Option 1



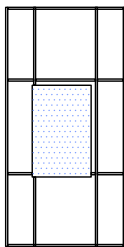
9.16



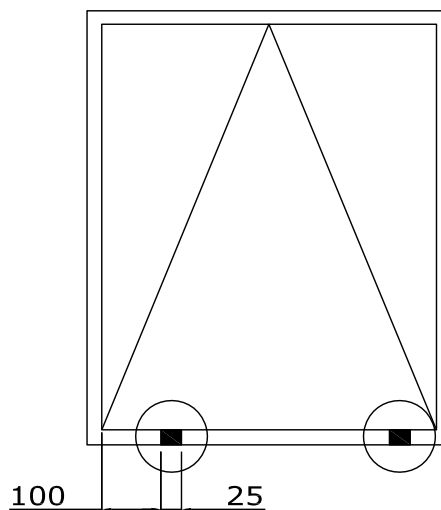
## Fabrication

9

## Comar 6EFT

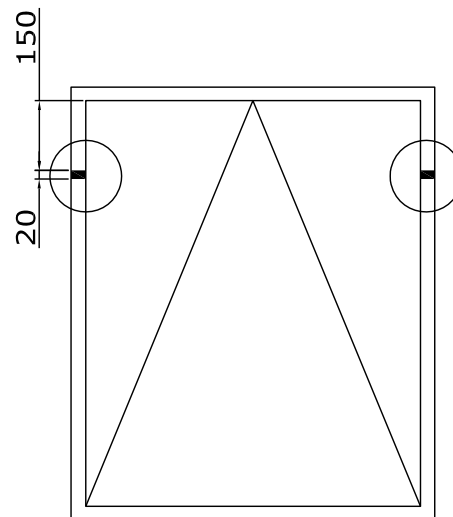
Parallel Hinge System  
Drainage & Ventilation  
Option 2**Drainage: Option 2****Drainage flush at window sill**

1. Mill slot of 5mm x 25mm CWCT minimum.
2. Mill upstands away, 2 x approx. 10mm wide.
3. Drill 8mm CWCT diameter hole for drainage & ventilation.
4. Remove/cut EPDM air seal profile. Length approx. 25mm.

**Ventilation**

(pressure equalisation)

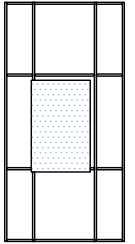
5. Remove / cut out EPDM seal & EPDM air seal (if applicable) at both sides of window at approx. 150 mm from top. Length: approx. 20 mm



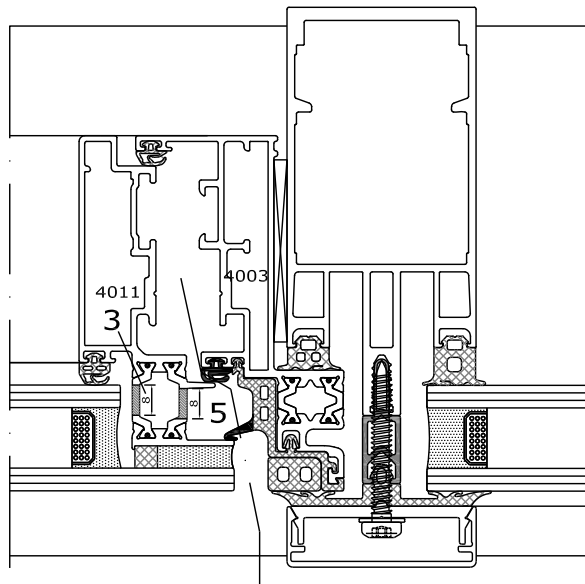
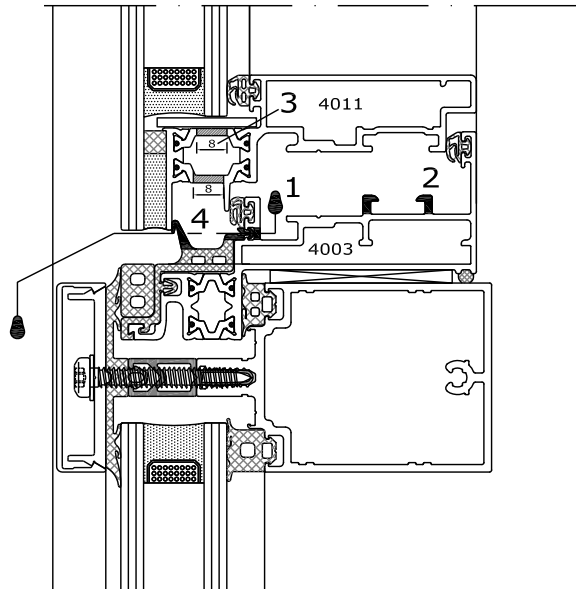
Note: Drainage and ventilation prep. is the same for capped / non capped, top project/side project concealed vents.

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## Parallel Hinge System Drainage & Ventilation Option 2

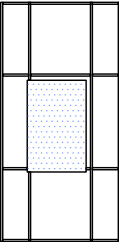


9.18



Refer to page 8.69 for details

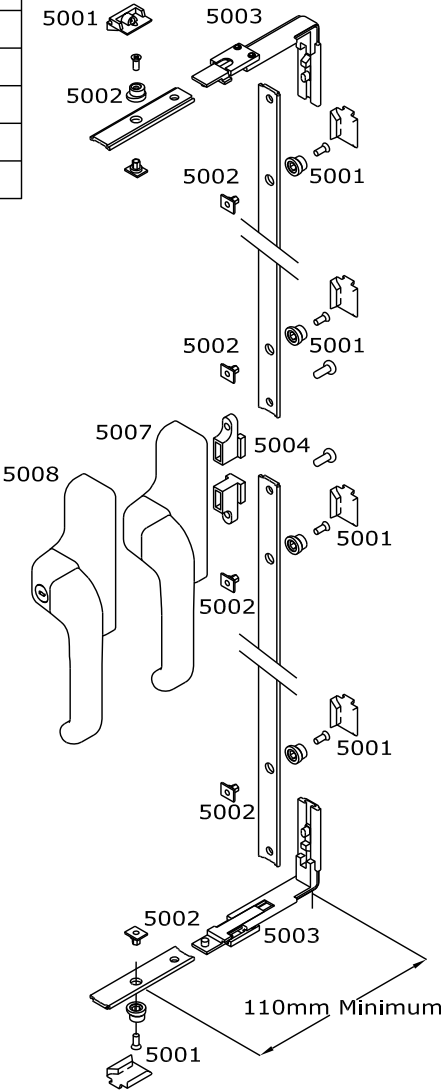
Comar 6EFT



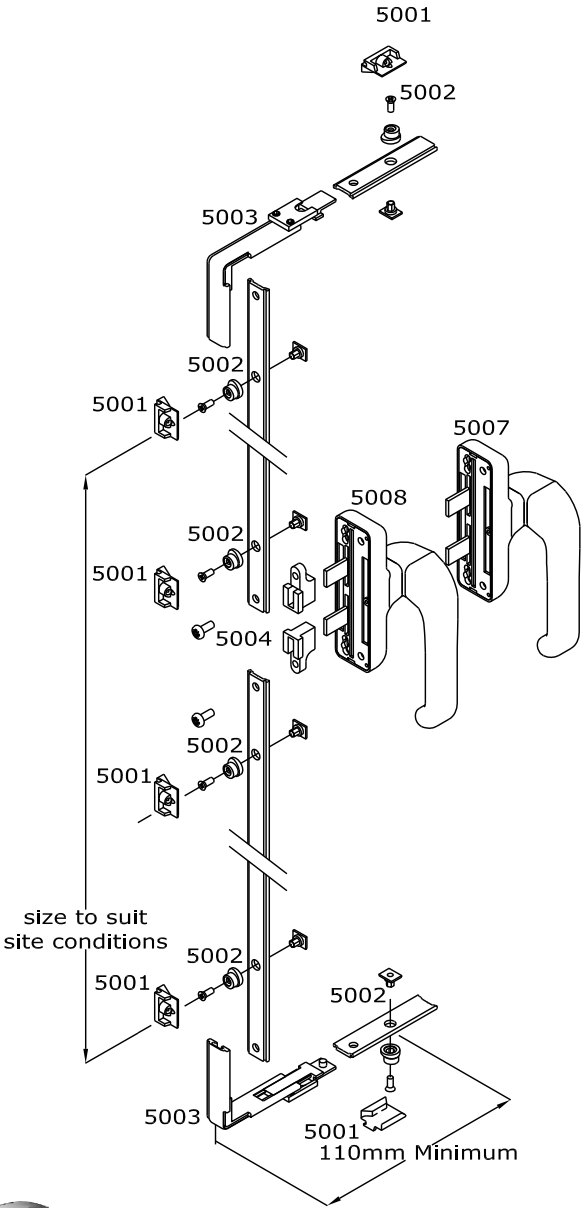
Parallel Hinge System  
Hardware Overview

9.19

Part no.	Description	Locking	
		2 points	4 points
1340	Drive rods	see 8.81	see 8.81
5001	Curtain wall striker	2 of	4 of
5002	Adjustable pawl	2 of	4 of
5003	Corner cleat	0 of	2 of
5004	Connection block	1 of	1 of
5007	Handle - non locking	1 of	1 of
5008	Handle - locking	1 of	1 of



Fabricators Guide

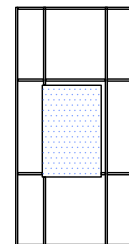
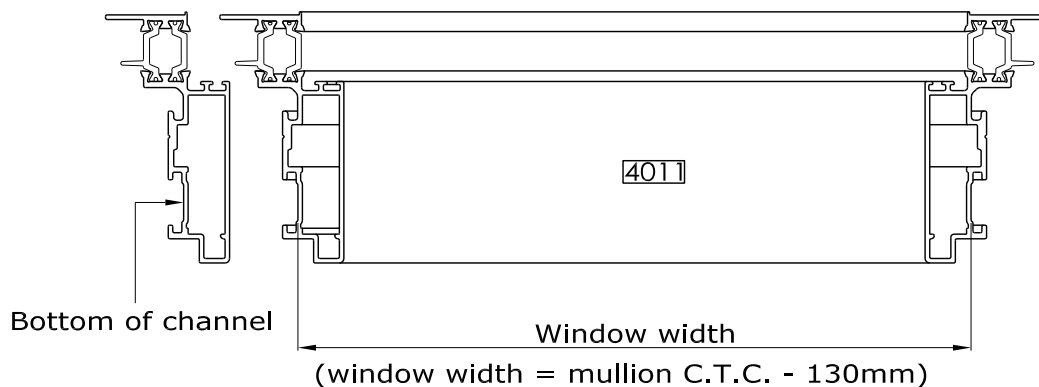


## Parallel Hinge System Drive rod preparation

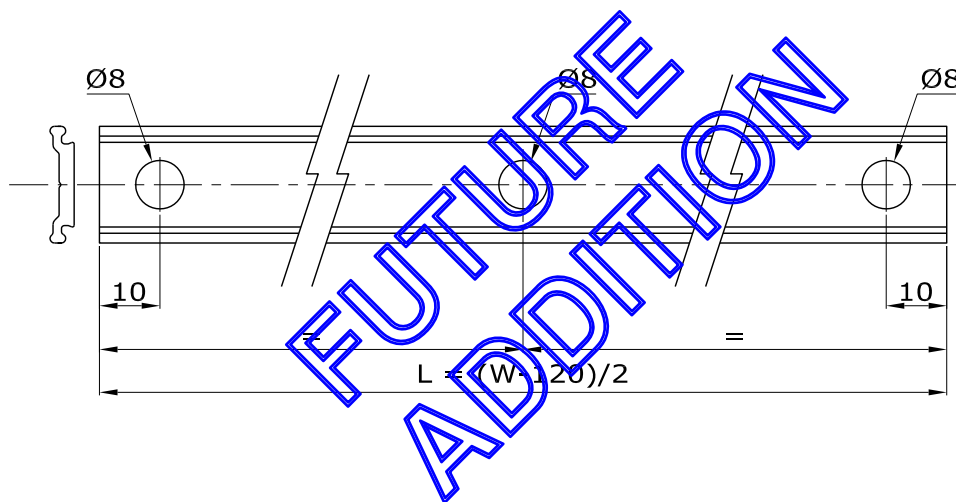
4 POINTS LOCKING: Rod lengths = window width - 124mm/2

2 POINTS LOCKING: Rod lengths = window width - 79mm/2

Window width measured along bottom of channel

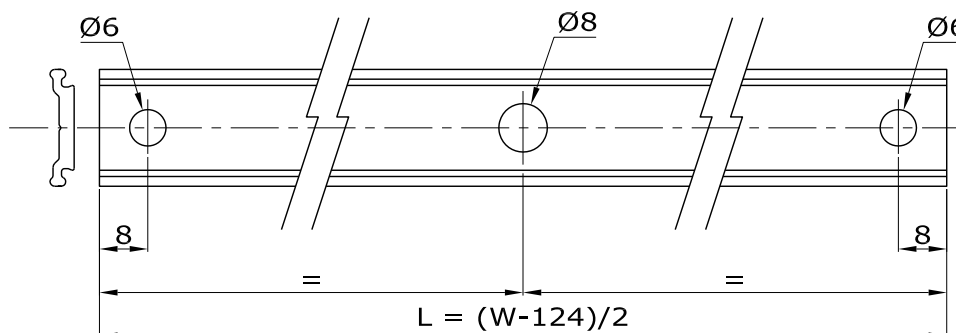


9.20



x2

"OR"

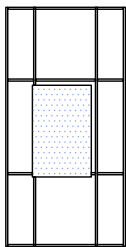


x2

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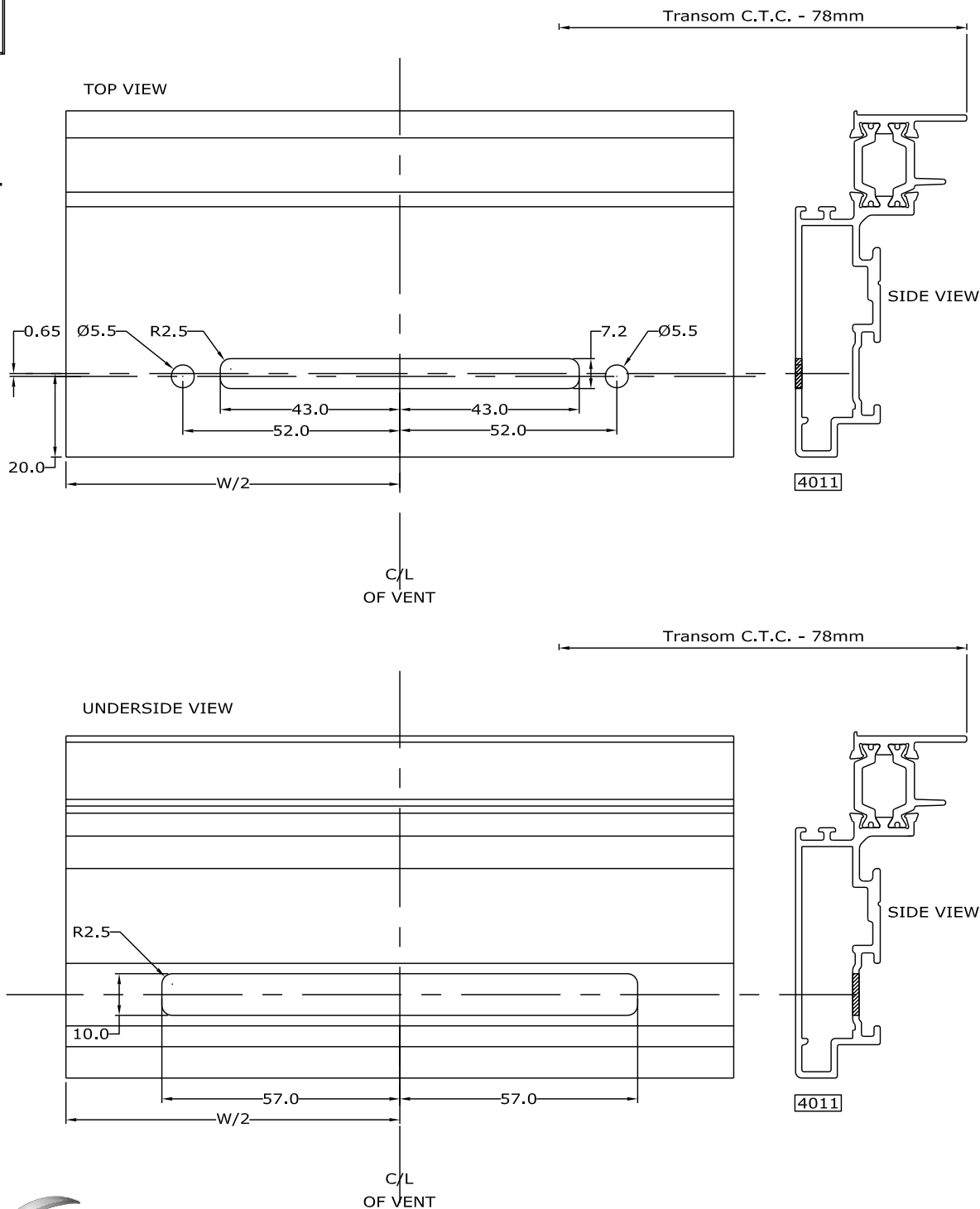
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9.21

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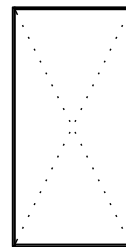
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9

Fabrication

Future Additions

Comar 6EFT



9.22-9.99

FUTURE  
ADDITION

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