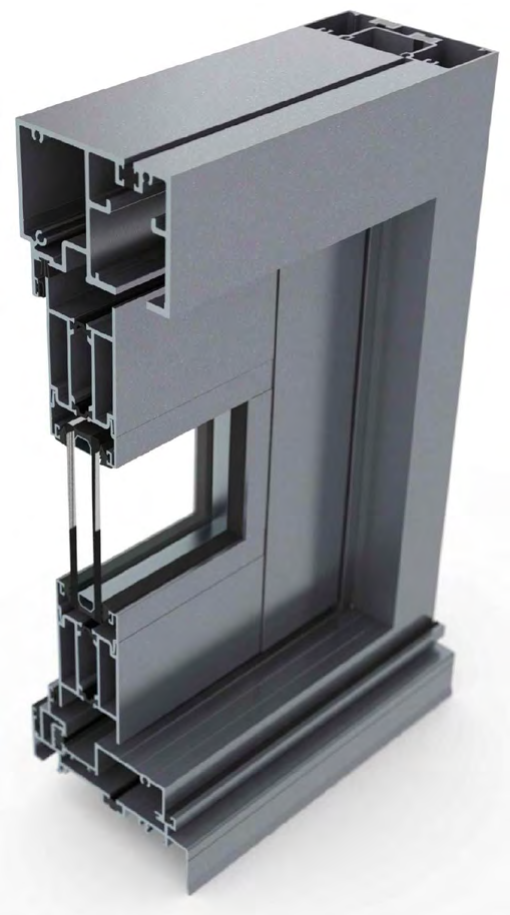


U-Max™ THERMAL BREAK BIFOLD DOOR

U-Max Doors: UBIFOLD - 1

U-MAX™ Bifold Door



FEATURES:

- Suited for use with 100 Centre Glaze Framing
- Comprehensive range of configurations
- 50mm thick commercial door leaf for additional strength
- Stainless steel roller & hinge assemblies
- 90kg panel weights
- Accepts 6mm to 12.38mm single glazed
- Accepts 24mm to 34mm IGU's
- Optional rebated, flat & recessed tracks
- Open IN or OUT
- Flat or Recessed tracks
- Designed for Thermal Break applications

FABRICATION:

- Square cut manufacture
- Simple panelized assembly

PRODUCT APPLICATIONS:

- High end residential applications
- Apartments

LIMITATIONS:

- Recommended Maximum panel height 2700, subject to structural limits (refer structural tables)
- 1000 panel width
- Maximum 90kg per panel
- A 2700 x 1000 panel with 6/12/6 glass is less than 90kg
- 7 panels stacking to one end
- Structural performance of the supporting beam above



Chadstone Shopping Centre, Food Court Renovation
U-MAX™ Bifold Door

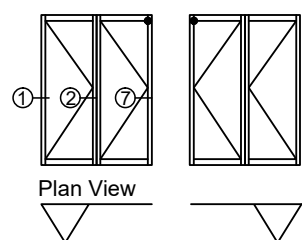
U-Max™ THERMAL BREAK BIFOLD DOOR

U-Max Doors: UBIFOLD - 2 Bifold Door Configurations

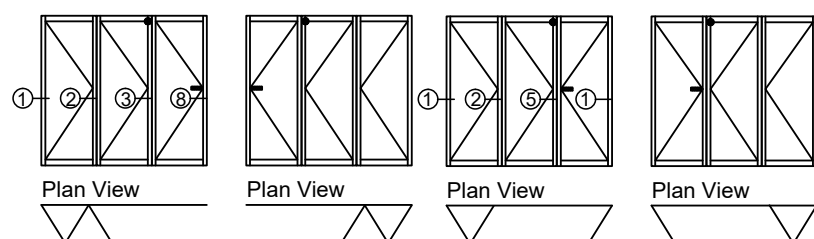
Some typical configurations are depicted below from 2 to 7 panel doors. Many more panel configurations are available but it needs to be kept in mind that as panels stack back to one side, the load is concentrated to the stacking end. For practical purposes a limit of 7 panels in each direction is recommended provided the supporting beam above can bear this weight without deflection.

- Maximum Height: 2700
- Maximum Panel Width: 1000
- Maximum weight per leaf: 90kg (limited by the hardware)
- Active hinged door leaves are indicated with a handle symbol. Note that odd leaf configurations are preferred as it allows an active leaf which can be opened from outside.
- Configurations like 2.0, 0.2, 2.2, 4.2, 2.4 do not have active hinged leaves & can only be unlocked by releasing flushbolts or twinbolt activators from inside. Configurations marked *

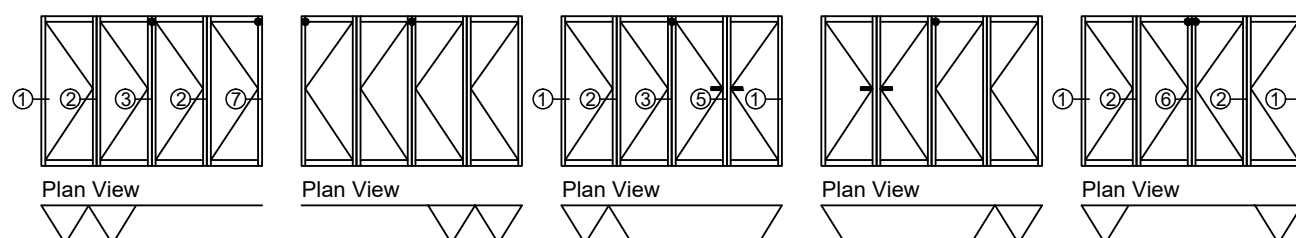
Type 2.0 * Type 0.2 *



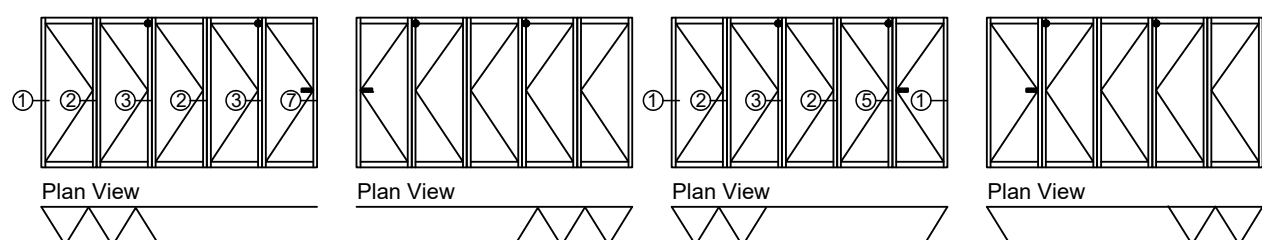
Type 3.0 Type 0.3 Type 2.1 Type 1.2



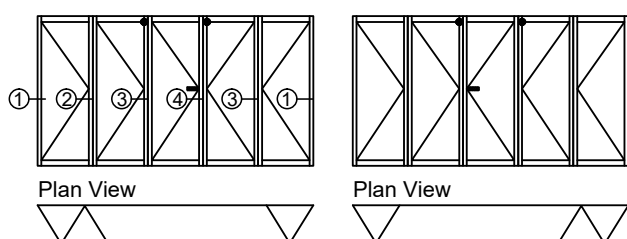
Type 4.0 * Type 0.4 * Type 3.1 Type 1.3 Type 2.2 *



Type 5.0 Type 0.5 Type 4.1 Type 1.4

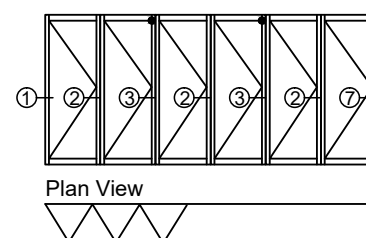


Type 3.2 Type 2.3

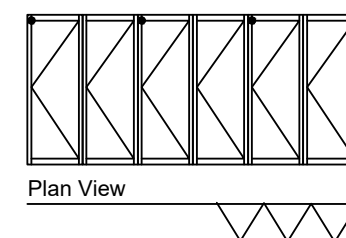


Bifold Door Configurations

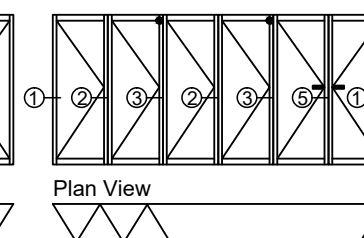
Type 6.0 *



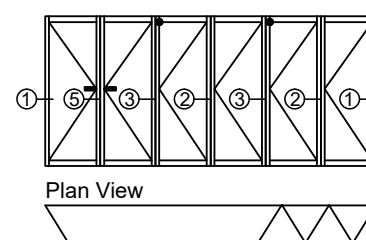
Type 0.6 *



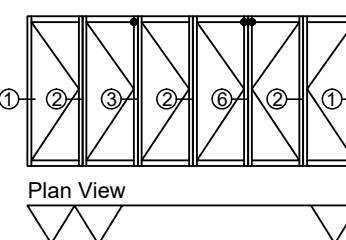
Type 5.1



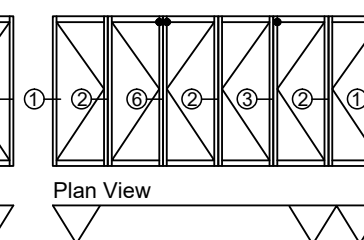
Type 1.5



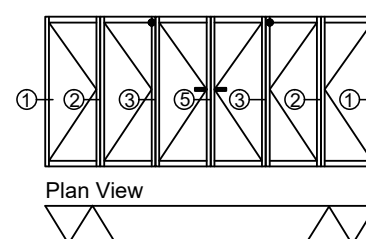
Type 4.2 *



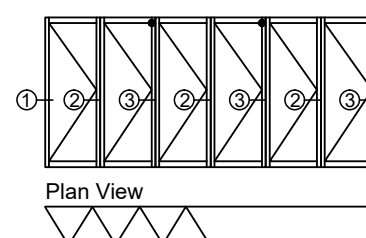
Type 2.4 *



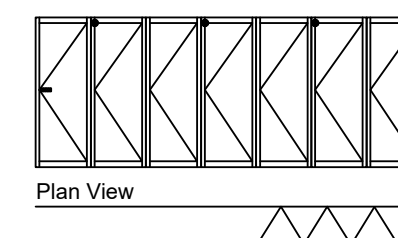
Type 3.3



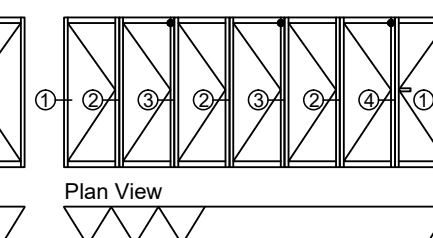
Type 7.0



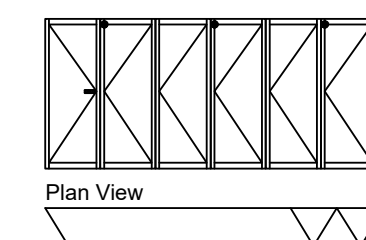
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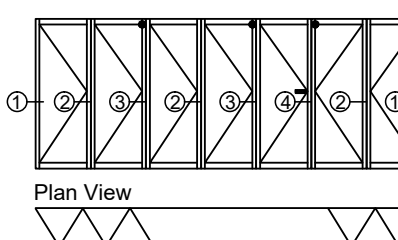
Type 6.1



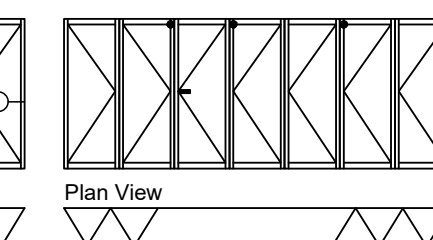
Type 1.6



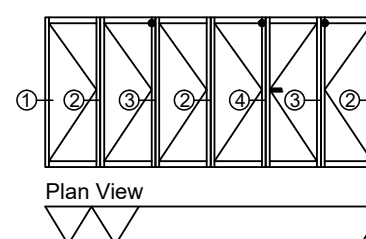
Type 5.2



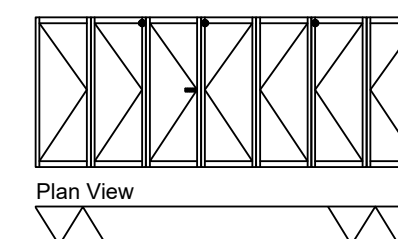
Type 2.5



Type 4.3

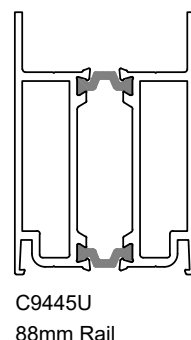
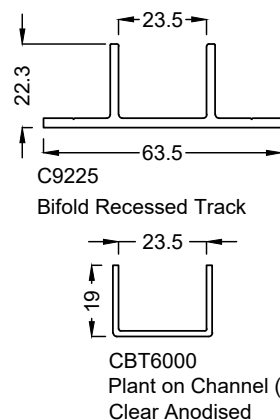
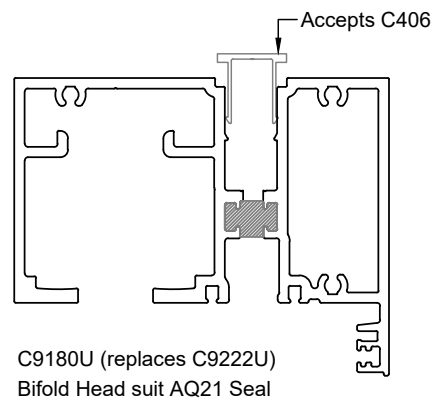


Type 3.4



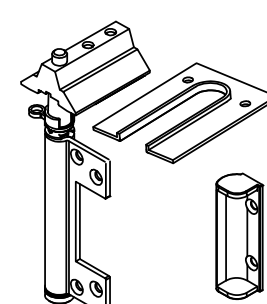
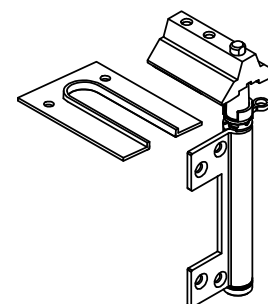
U-Max™ THERMAL BREAK BIFOLD DOOR

U-Max Doors: UBIFOLD - 3 Extrusion ID

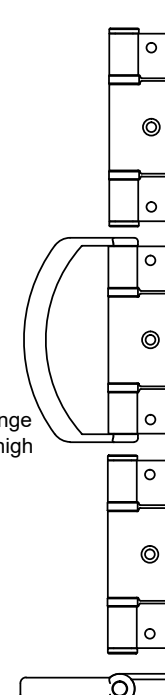
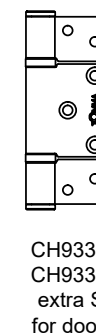
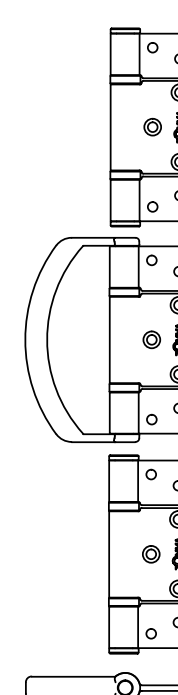
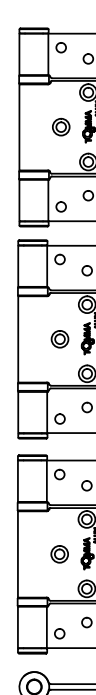
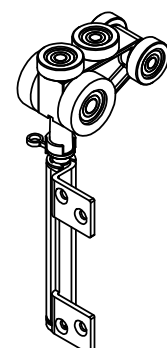
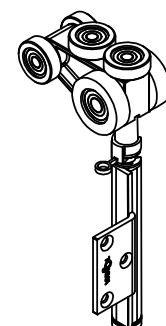
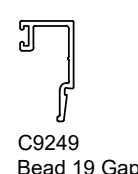
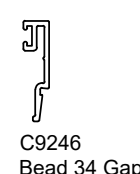
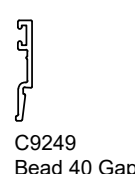
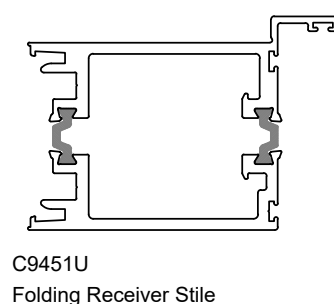
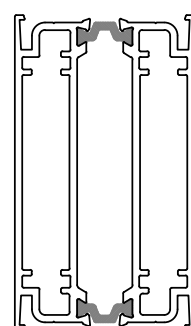
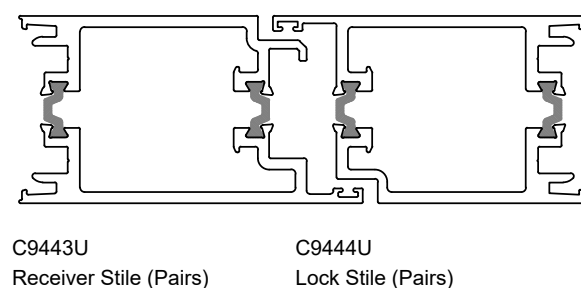
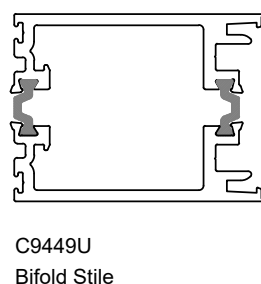
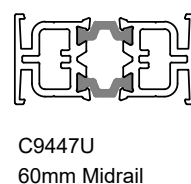
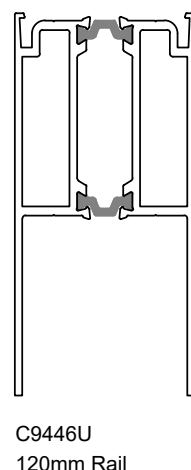
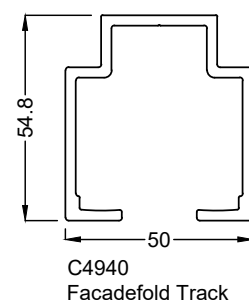
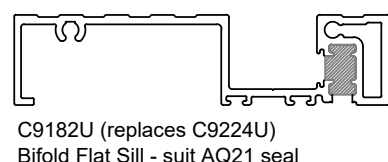
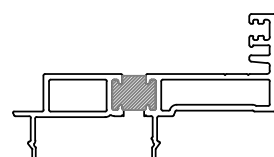
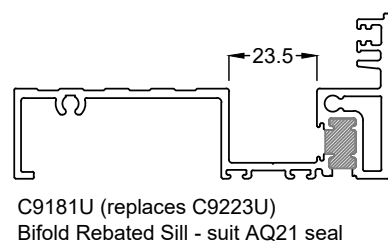
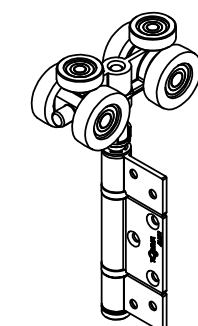
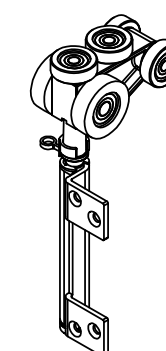
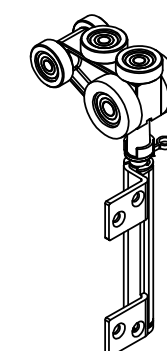


Component ID

Note: Bifold hardware is supplied pre-set to the correct clearances. Please Do Not adjust unless it is necessary to do so.



CH93SN001
CH93SN001BLK Black P/Coat
Snubber Hinge Package

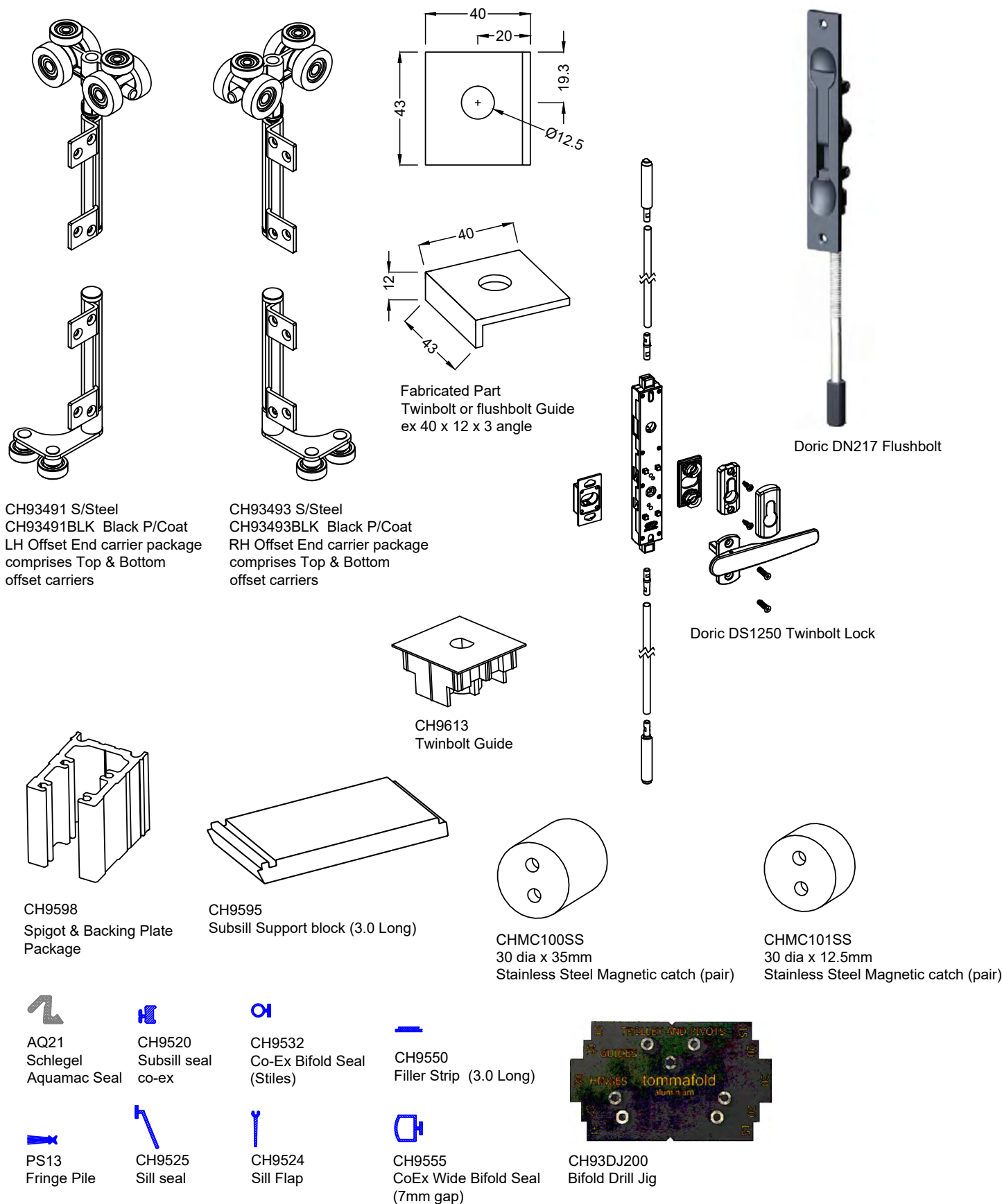


CH93400 S/Steel
CH93400BLK Black P/Coat
Straight Intermediate carrier package
comprises 1 standard hinge,
Top & Bottom intermediate carriers

U-Max™ THERMAL BREAK BIFOLD DOOR

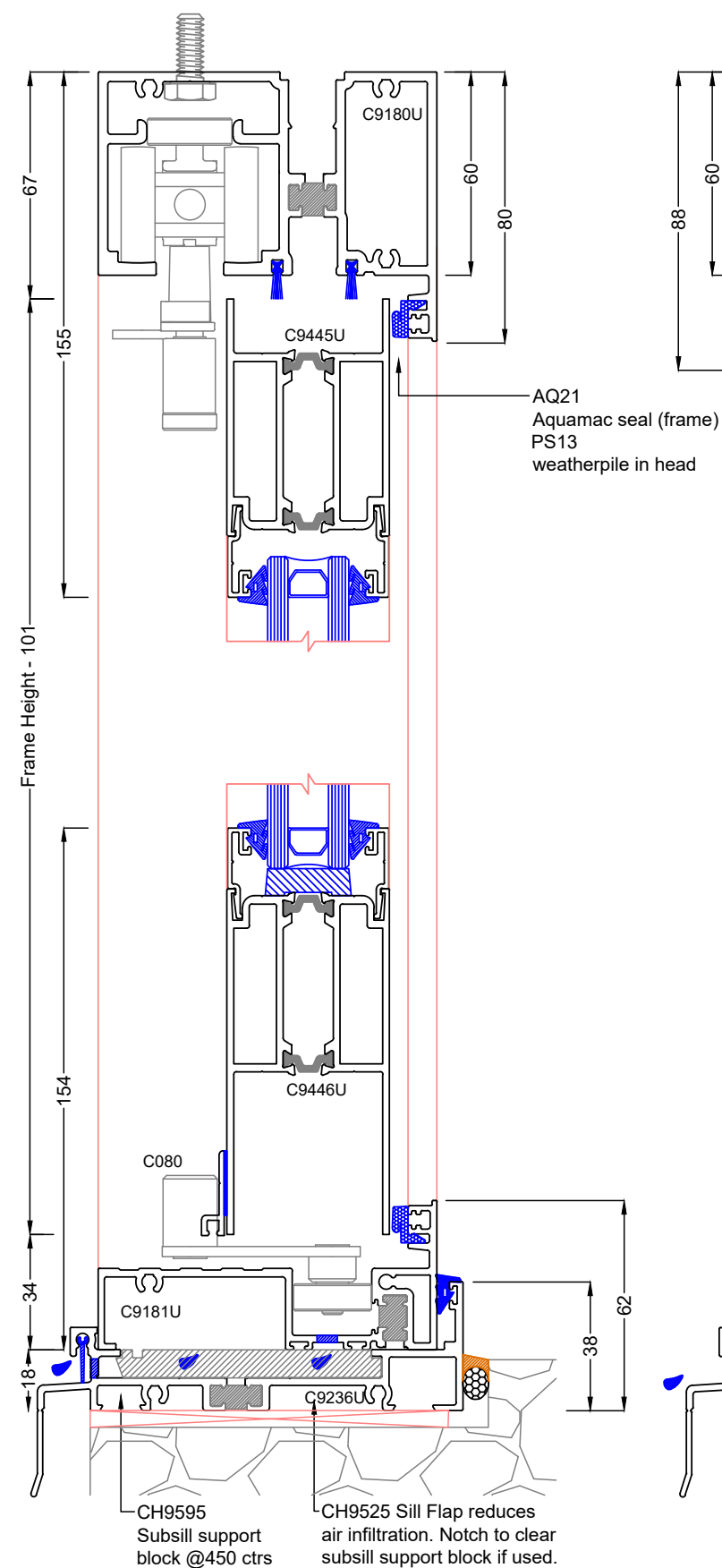
U-Max Doors: UBIFOLD - 4

Component ID



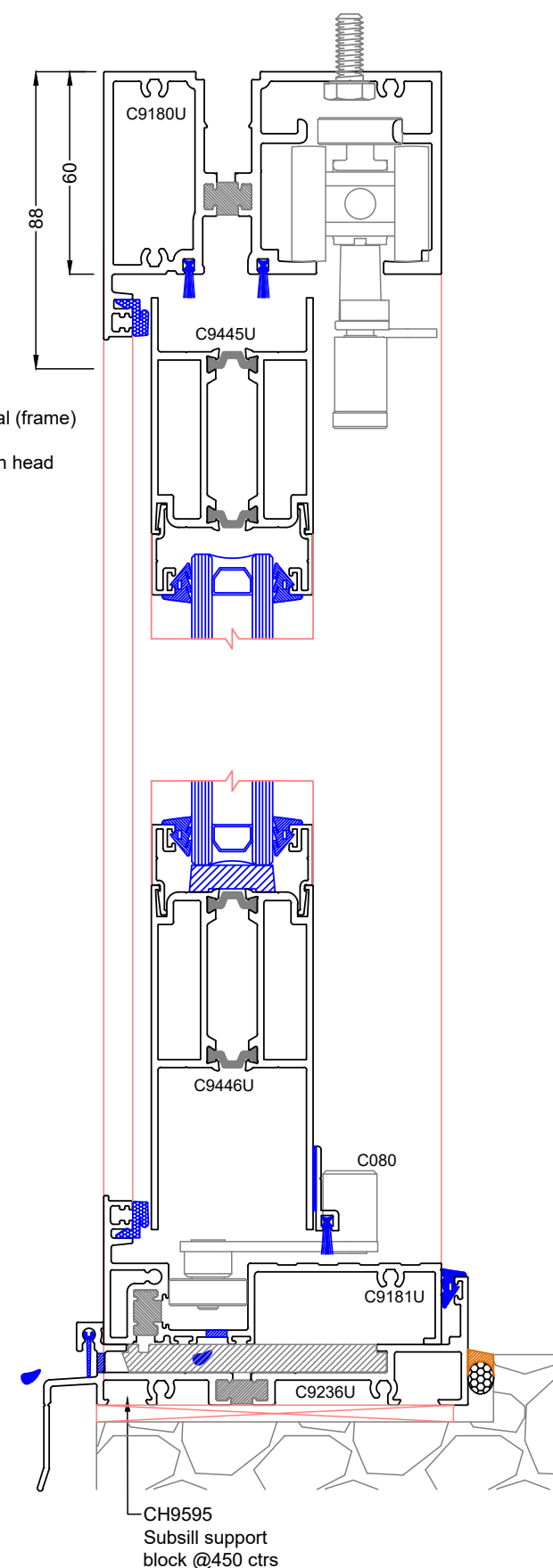
Bifold Door Open OUT

with standard top & bottom rails



Bifold Door Open IN

with standard top & bottom rails

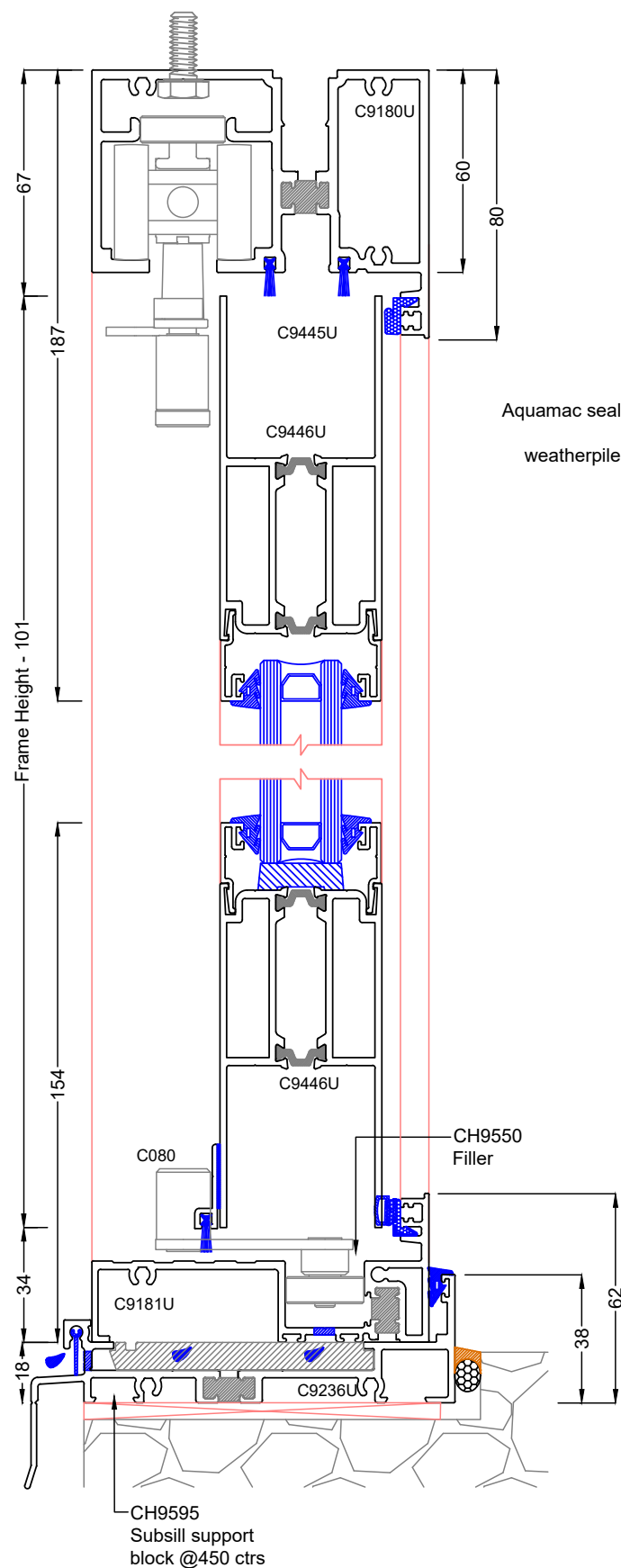


U-Max™ THERMAL BREAK BIFOLD DOOR

U-Max Doors: UBIFOLD - 5

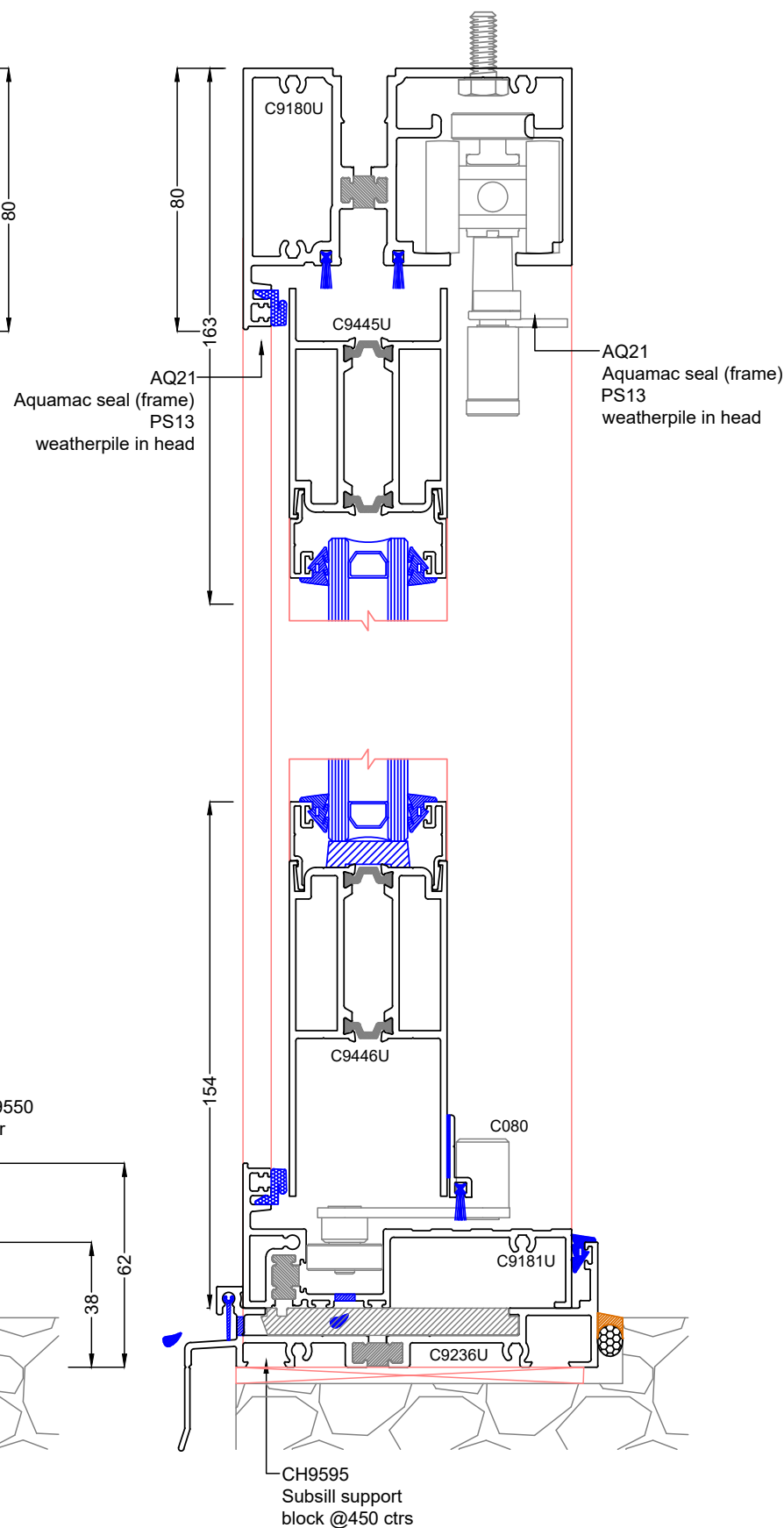
Bifold Door Open OUT

with alternate Bottom rail Top & Bottom



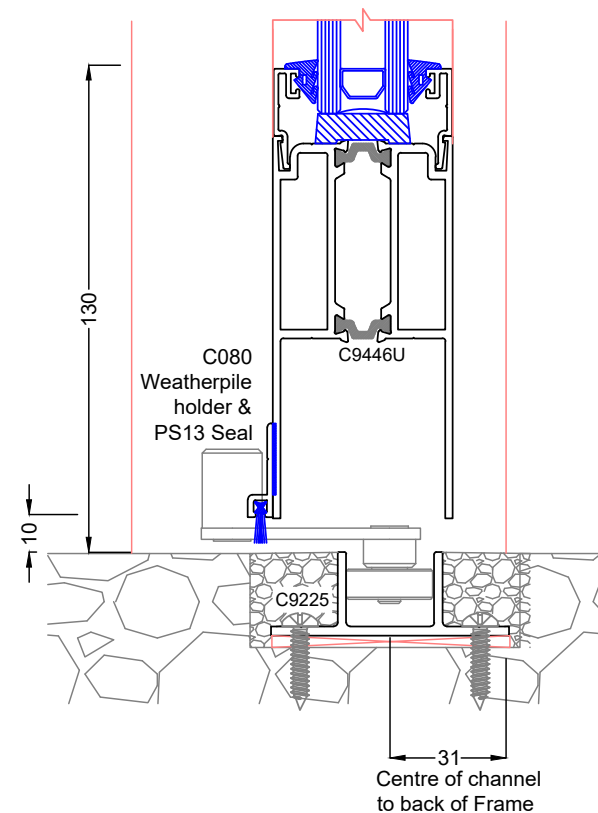
Bifold Door Open IN

with standard Top & Bottom Rails

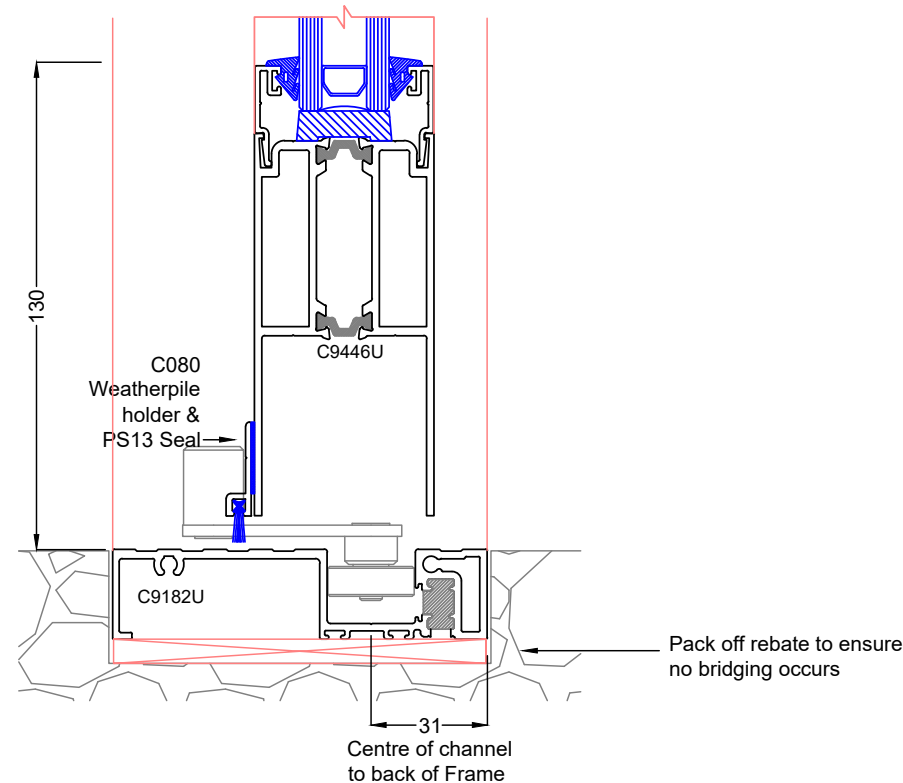


Bifold Door Recessed track

Recessed track commonly used in public areas where trip hazards need to be avoided or as a service when acting as a bifold window. Note that these details are not weatherproof or draught proof & must be used only in areas protected from weather.

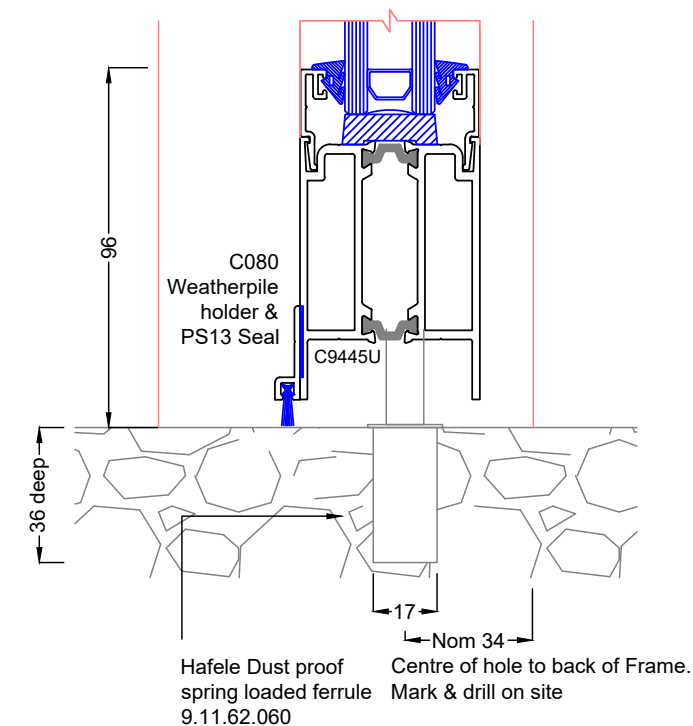


Bifold Door Flat Recessed track



Bifold Window without track.

Bifold windows can be manufactured without a bottom track provided there are not more than 2 panels stacking each way. The top roller system, & intermediate hinged provide good support in operation. Note the use of a Hafele spring loaded ferrule recessed into the bench. The twinbolt shoot bolt keys into the ferrule to captivate the panels. This is not a weatherproof application, but draughts can be reduced with a weatherpile holder fitted to the face of panels.



U-Max™ THERMAL BREAK BIFOLD DOOR

U-Max Doors: UBIFOLD - 6

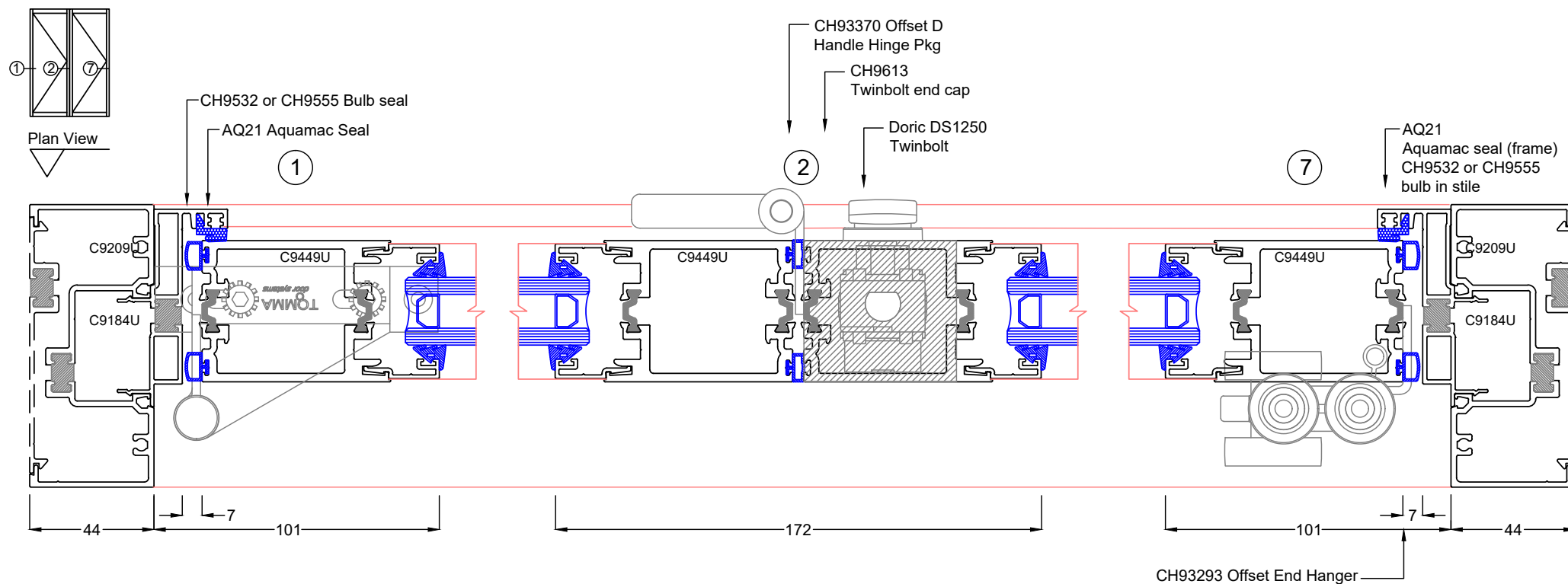
Bifold Configurations

Below are some examples detailing the assemblies used in the makeup of different configurations.

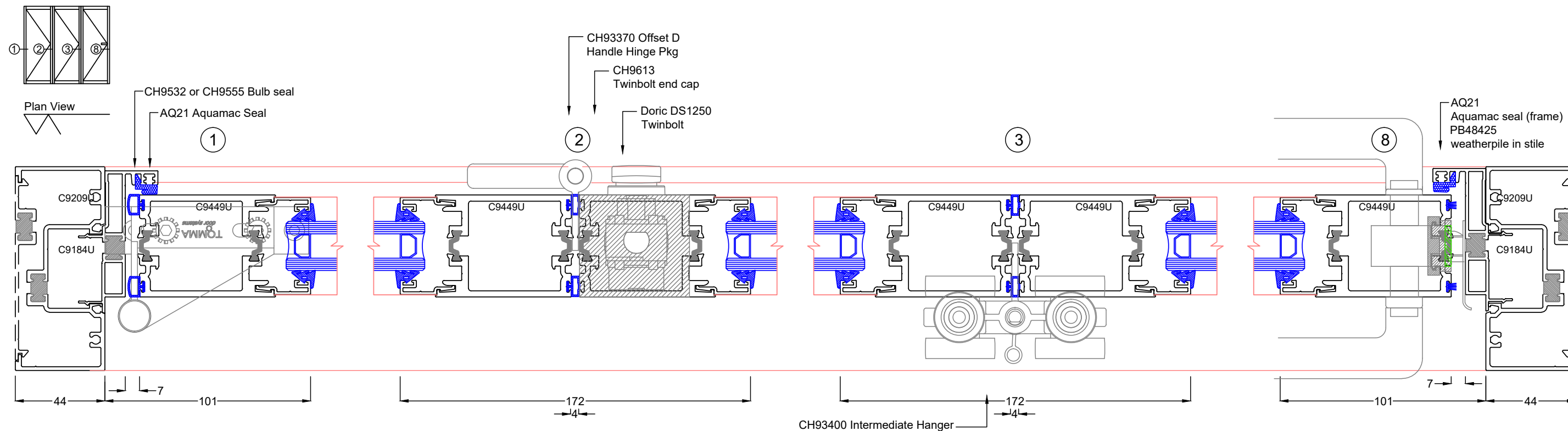
Note the configurations below: even panel configurations cannot be unlocked from outside as they do not have a free swinging panel. Odd leaf configurations are preferred as they can be locked or unlocked from outside.

Refer the following page for a detail of all assemblies.

Type 2.0



Type 3.0

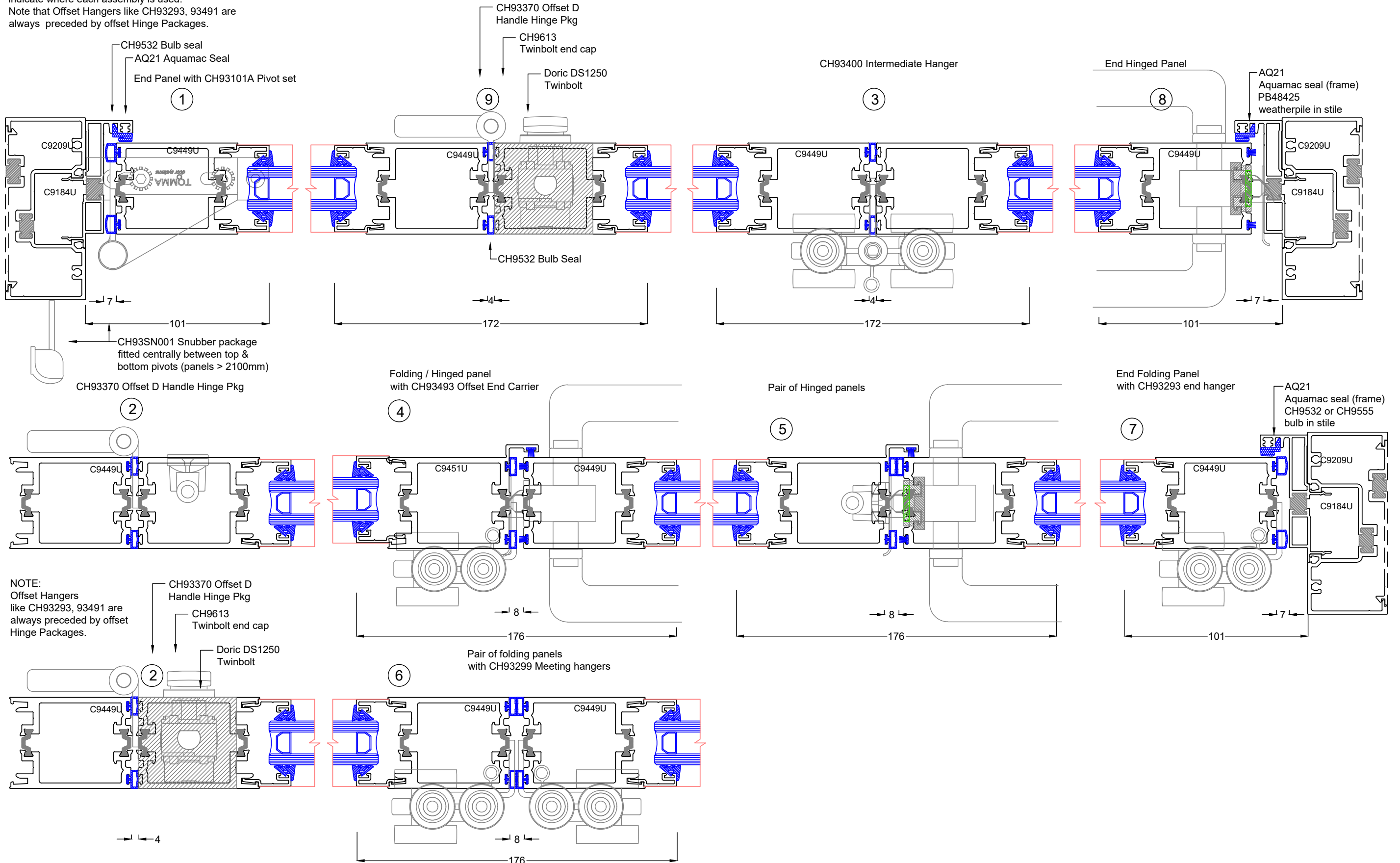


U-Max™ THERMAL BREAK BIFOLD DOOR

U-Max Doors: UBIFOLD - 7

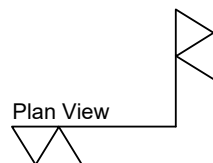
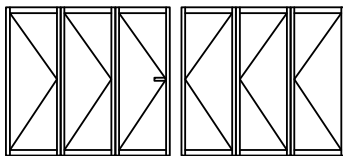
Bifold Assemblies

Please refer the configurations pages which indicate where each assembly is used.
Note that Offset Hangers like CH93293, 93491 are always preceded by offset Hinge Packages.

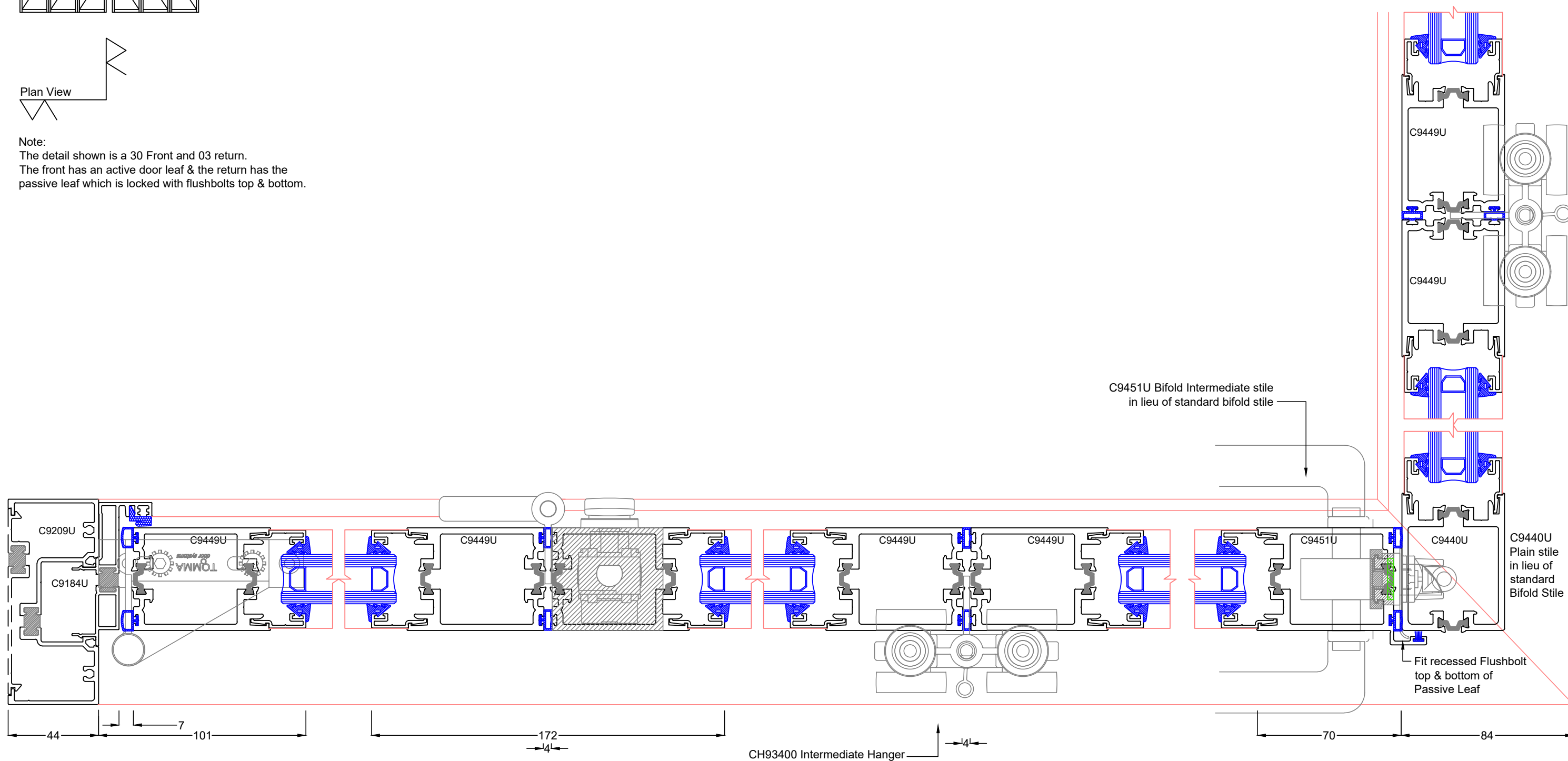


U-Max™ THERMAL BREAK BIFOLD DOOR

U-Max Doors: UBIFOLD - 8 Odd Leaf Corner Bifold Door



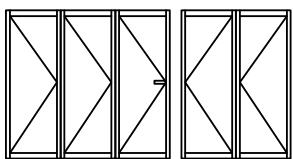
Note:
The detail shown is a 30 Front and 03 return.
The front has an active door leaf & the return has the passive leaf which is locked with flushbolts top & bottom.



U-Max™ THERMAL BREAK BIFOLD DOOR

U-Max Doors: UBIFOLD - 9

Odd & Even Corner Bifold Door

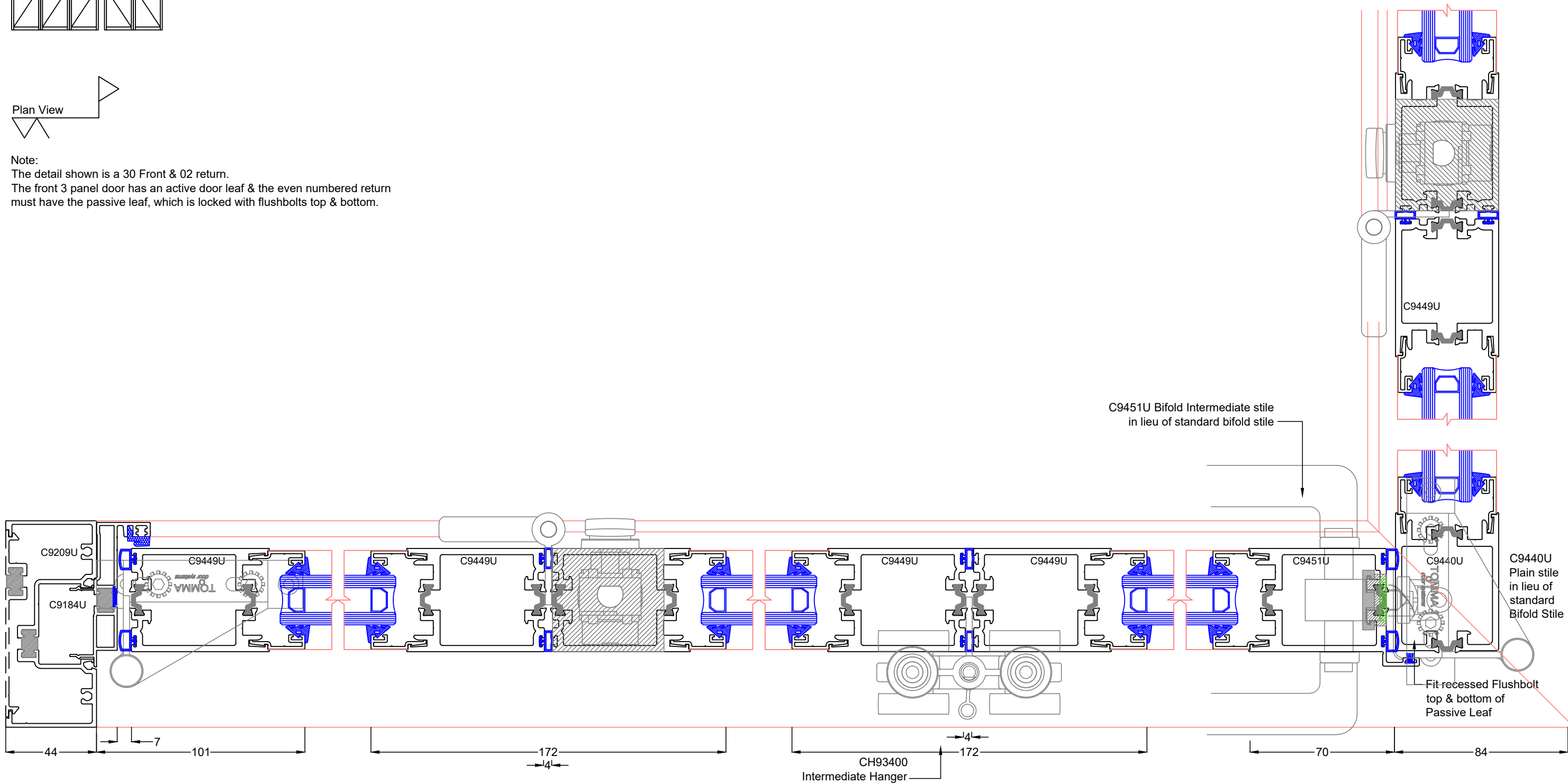


Plan View

Note:

The detail shown is a 30 Front & 02 return.

The front 3 panel door has an active door leaf & the even numbered return must have the passive leaf, which is locked with flushbolts top & bottom.



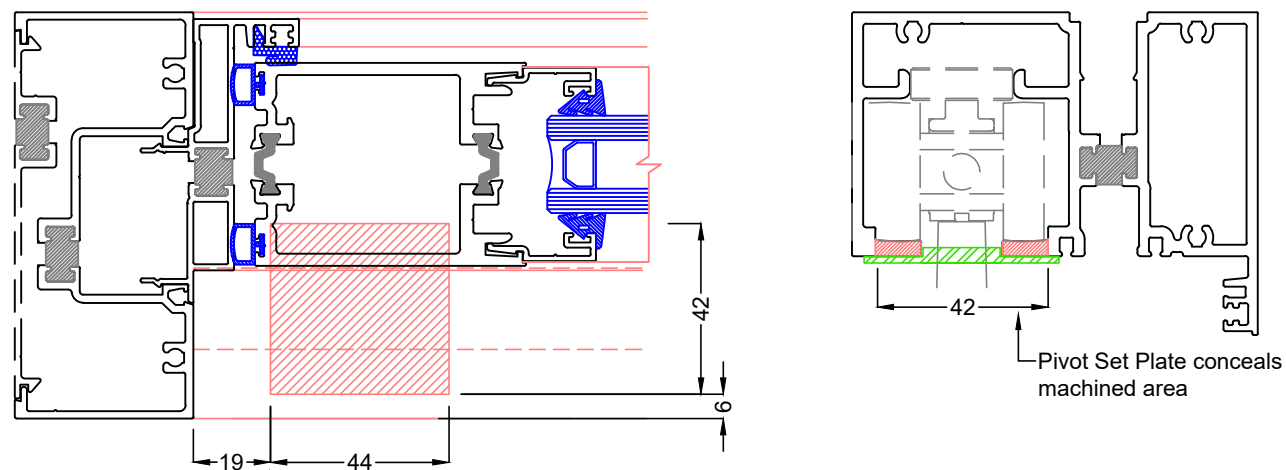
U-Max™ THERMAL BREAK BIFOLD DOOR

U-Max Doors: UBIFOLD - 10

Bifold Head Machining to accept Rollers

This detail is performed at the Pivot Set end of the Bifold head to allow roller hardware to be threaded into the head of the bifold frame prior to fitting to panels. The machining is concealed by a Stainless Steel plate which is part of the Pivot Set assembly.

This allows easy removal of hardware if required in the future.



Machine out 44mm long x 42mm wide slot in one end of head to allow roller hardware to be threaded up into head for fitting to panel. The length of slot is sufficient that it also allows hardware can be removed if required for service or replacement in the future without removal of the jamb adaptor.

Bifold Head showing S/Steel concealment plate

Slot is concealed behind Stainless steel plate which is supplied as part of the Pivot Set Package.

The plate still allows access to the Pivot Set adjustment screws.

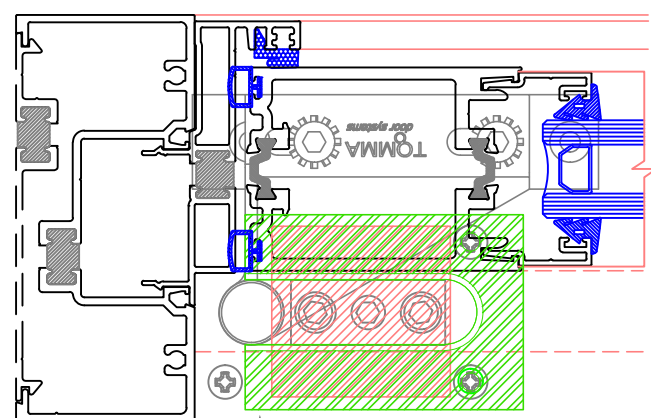
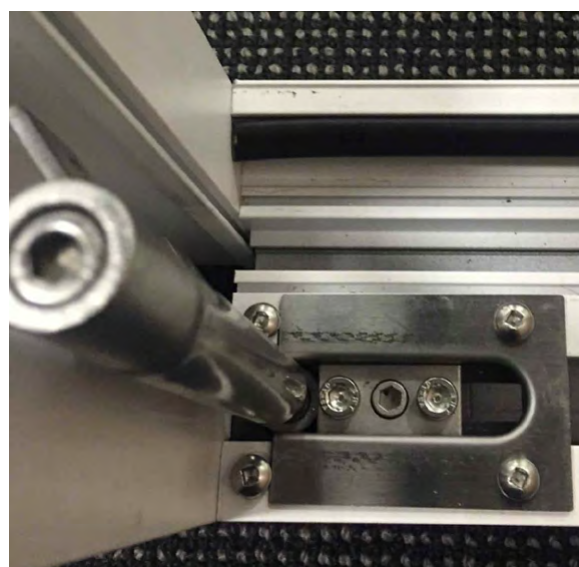


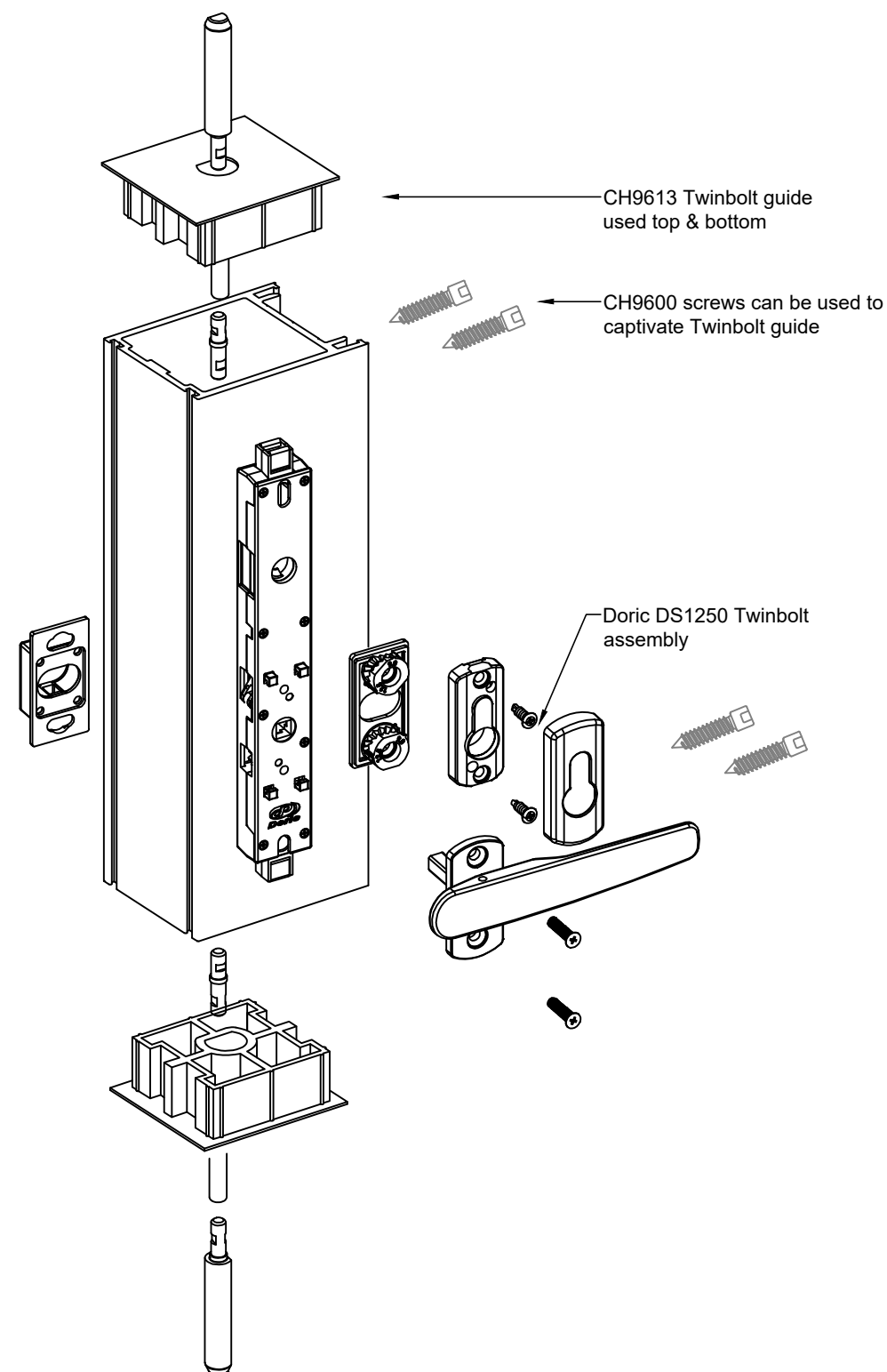
Plate shown in green conceals the machined slot which allows hardware to be fitted from the pivot set end.



Stile & CH9613 Twinbolt Guide Detail

Used where Twinbolt operators are used.

Please refer the configurations pages which indicate where each assembly is used.



U-Max™ THERMAL BREAK BIFOLD DOOR

U-Max Doors: UBIFOLD - 11

Frame Seal Options & Water performance

As a result of NATA testing we have several details that gave different water results with an Open Out Bifold on subsill.

It was found a plant on weatherpile holder C080 significantly reduced water splashing onto the sill & wetting the inside of rails that impacted on seals. In particular the area around the internal hinge (when used) was the most vulnerable area.

As a result the following results were achieved using AQ21 aquamac seals.

Meeting stile detail only on internal hinge

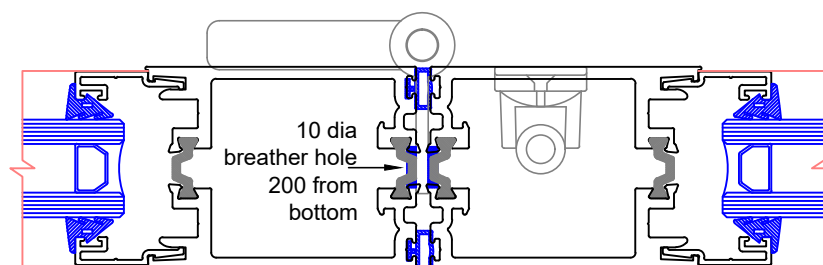
Because of the close proximity of the inner hinge to top of sill (20mm), water splashing onto the sill was able to track through the bottom hinge. This can be improved by lifting the location of the hinge.

Test results below:

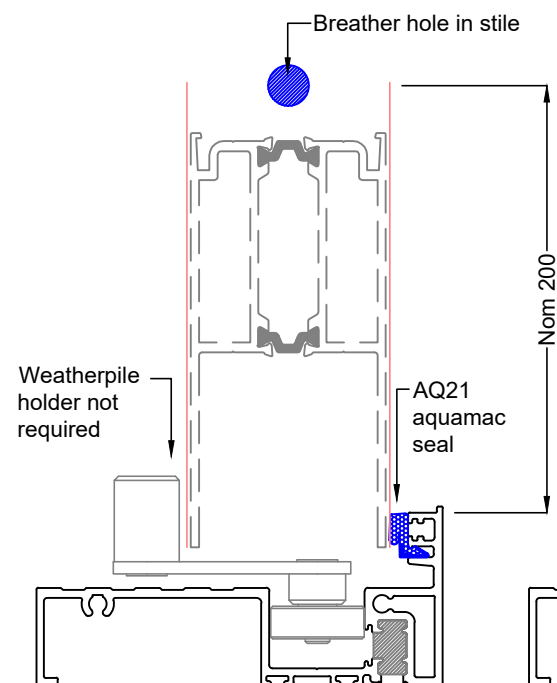
200pa water performance without external brush seal & breather hole

400pa water performance with external brush seal & no breather hole

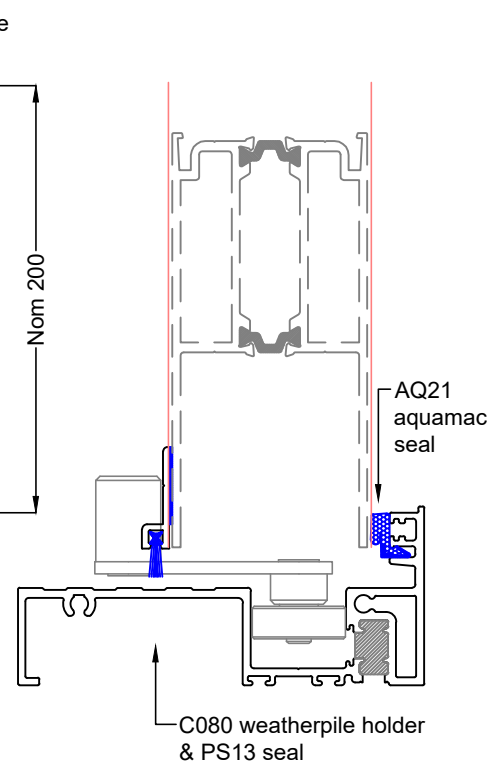
450pa water performance with external brush seal & breather hole



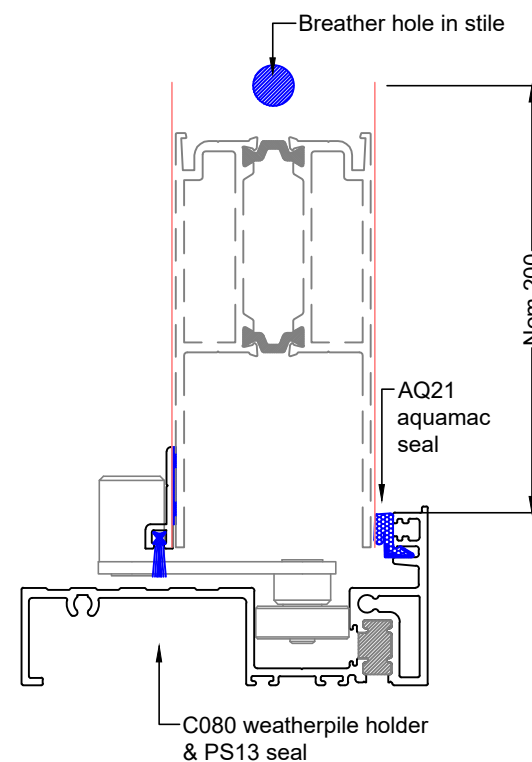
200pa Water performance



400pa Water performance

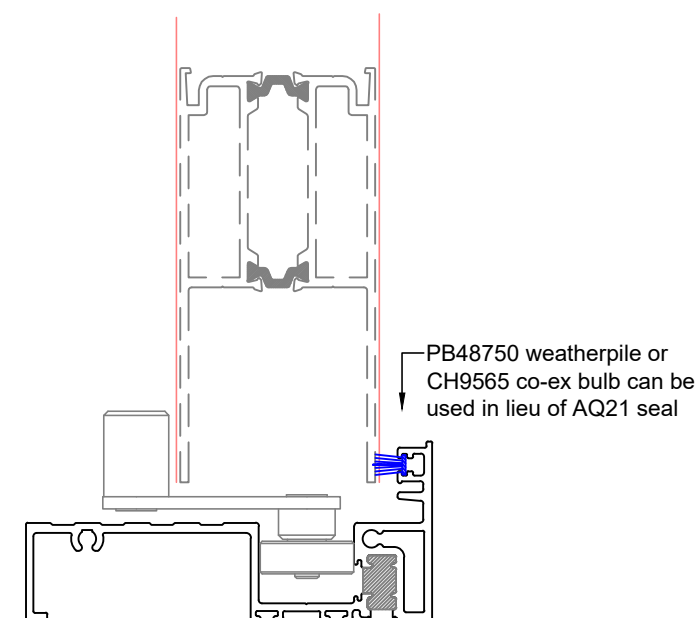


450pa Water performance

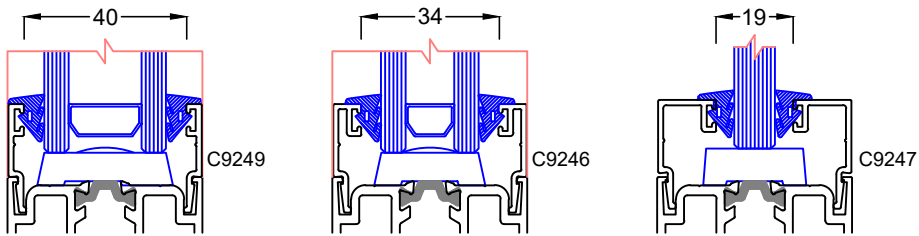


Non weathered conditions

Where weather performance is not a requirement - room divider or large overhang, a standard weather pile (4.9 backing) or CH9565 co-ex bulb seal can be used in lieu of AQ21 seal.



U-Max™ THERMAL BREAK BIFOLD DOOR
U-Max Doors: UBIFOLD - 12
Wedge glazing charts for U-MAX Commercial Doors



Commercial Doors	Glass thickness	Bead	Rebate wedge	Gap	Glazing wedge	Gap
	6mm	C9247	CH9503	7mm	CH9503	7mm
	8mm	C9247	CH9502	5mm	CH9503	7mm
	10mm	C9247	CH9502	5mm	CH9502	5mm
	14mm	C9246 / C9247	CH9502	5mm	CH9503	7mm
	18mm	C9246 / C9247	CH9500	3mm	CH9500	3mm
	Glass thickness	C9246 Bead	Rebate wedge	Gap	Glazing wedge	Gap
	24mm	6/12/6	CH9502	5mm	CH9502	5mm
	25mm	6.38/12/6	CH9502	5mm	CH9502	5mm
	26mm	8/12/6	CH9501	4mm	CH9501	4mm
	27mm	8.38/12/6	CH9501	4mm	CH9501	4mm
	28mm	8/12/8	CH9500	3mm	CH9500	3mm
	Glass thickness	C9249 Bead	Rebate wedge	Gap	Glazing wedge	Gap
	34mm	6/22/6	CH9500	3mm	CH9500	3mm