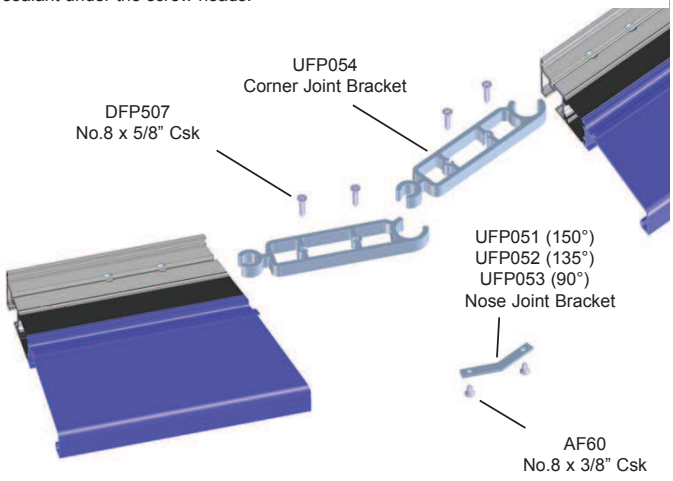
Subcill Corner Joint

Profile UF506, CW314

All subcill joints must be sealed with silicone sealant. Sealing over the joint again after assembly in the area covered by the framework is recommended. Only clean sealant from surfaces that will be visible.

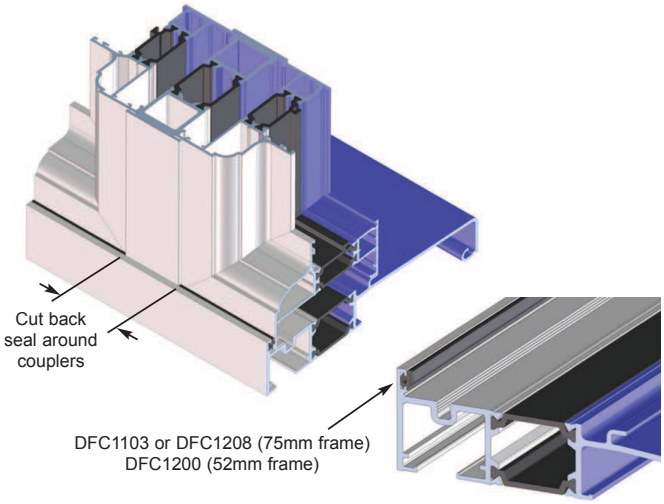
Seal along the mitred ends of the subcill prior to assembly, then assemble the cill joint using listed brackets and screws. Before final tightening of the fixing screws apply sealant under the screw heads.



Subcill Seal

Profile UF506, CW314

To provide a water barrier between the subcill and the outerframe, a seal is to be fitted into the subcill rebate. This seal is to run full length of the subcill, but in instances where there is a coupler between windows. The seal is cut each side of the coupler and Henkel Terostat 934 or 939 must be used to form a water tight join between the coupler and the subcill.



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Fitting Of Subcill

Profile UF506, CW314

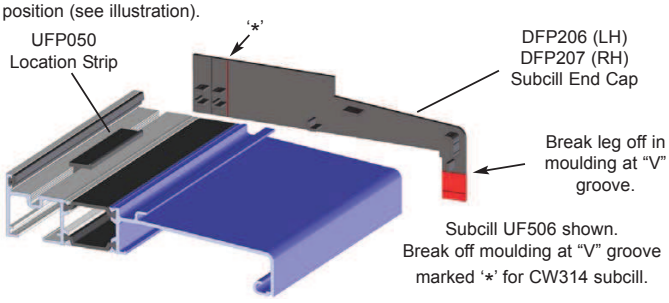
The drainage path through the subcill can be seen on the illustration alongside, so care must be taken to ensure that it is not obstructed.

Seal under the head of any fixing screws to prevent water ingress and if used, seal DFP267 hole plugs into position.

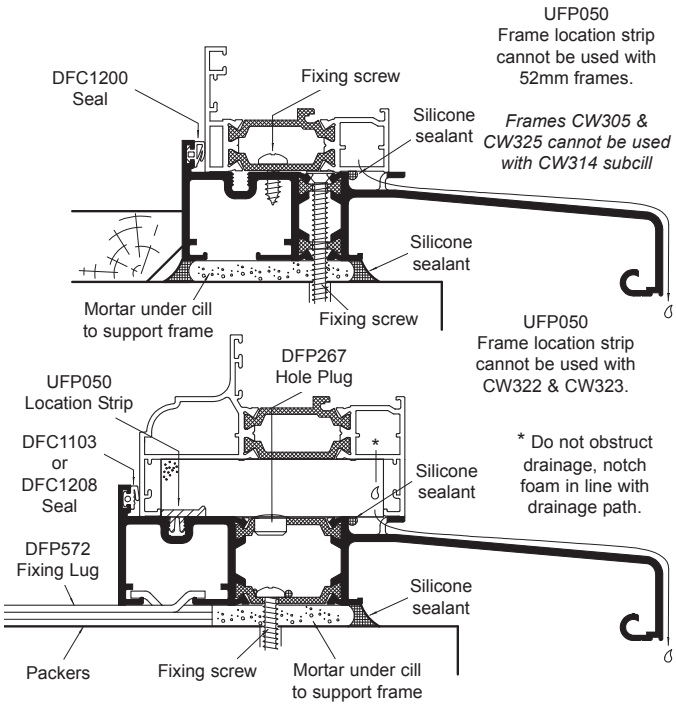
Subcill end caps must be fully sealed then pushed into position (see illustration below)

Before positioning the frame to the subcill, fit the seal to the cill rebate (see previous page), and apply sealant to areas shown on detail opposite.

75mm frames are held in position on the subcill by the use of location strips, 52mm frames are screw fixed into position. Location strips are positioned 150mm from the ends and then at 300mm centres. Apply a spot of silicone sealant into the subcill recess before clip fitting the location strip, checking orientation before clipping into position (see illustration).



Subcill UF506 shown.
Break off moulding at "V" groove marked '*' for CW314 subcill.

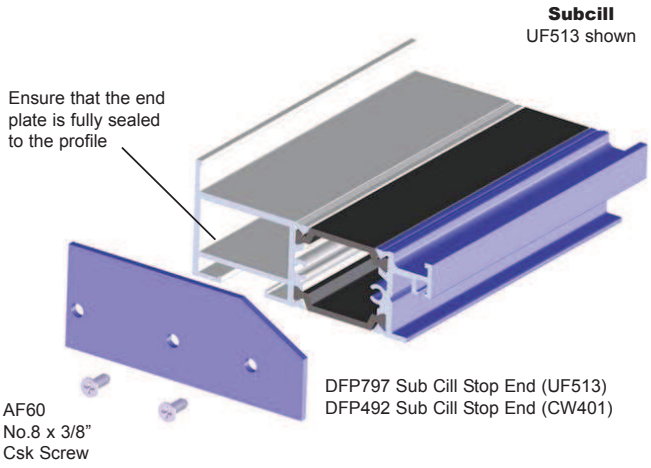


Assembling the Applied Nose Subcill

Profile CW401, UF513

The applied nose subcill must have an aluminium end plate sealed and screwed to each end of the profile, with 2 off No.8 x 3/8" Csk screws.

Care must be take to ensure that the end of the subcill is fully sealed to the end plate to prevent any water that enters the subcill penetrating the structure.



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Fitting of Subcill with Applied Nose

Profile CW401, UF513

Drainage paths through the subcill are as shown below right, care must be taken to ensure that they do not become blocked when fitting.

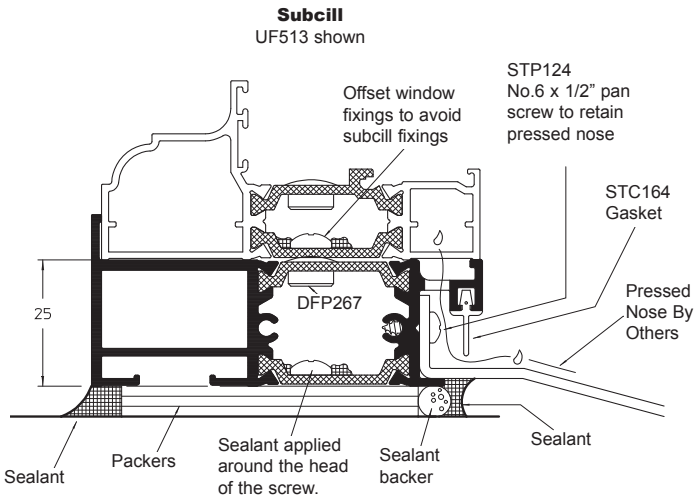
The subcill must be secured to the structure as shown, using suitable fixings, and packed as necessary to ensure it is level.

The subcill must then be silicone sealed to the structure along its length and across its ends. 9.0mm hole plugs must be sealed into the clearance holes in the top of the subcill after it has been secured to the structure.

The pressed nosing should now be offered into position with No.6 x 1/2" Pan head fixing screws at a maximum of 600mm centres. STC164 gasket is now fitted along the full length of the subcill, taking care not to stretch during fitting.

A bead of sealant should then be applied along the ends of the subcill at the point that it abuts the structure. Note that additional packing may be required if the nose pressing is particularly large to prevent sag.

When fitting the frame to the subcill silicone sealant must be gunned as shown alongside to ensure that a watertight joint is created on the inside and outside under the pressed nose.



Fitting Of Foam Infill

Backing foam infill CWP058 or CWP119 must be inserted into the open back of outerframe profiles listed below. This will provide an additional thermal barrier, improving overall window energy ratings (WER), plus window 'U' values.

The foam join at the corners can either be mitre cut or butt jointed as desired.

Important!
Frames that are drained onto a subcill, must have appropriate drainage clearance cutouts in the foam. this will allow water access to the drainage paths in the subcill.

Frame/Backing Foam Combinations

Frame	-	Foam Part Number
CW305	-	N/A
CW320	-	CWP058
CW321	-	CWP058
CW322	-	N/A
CW323	-	N/A
CW324	-	N/A
CW325	-	N/A
CW327	-	CWP058
CW328	-	CWP119
CW329	-	CWP119

Fitting Frame Into Aperture

It is vitally important that the cill is laid flat and level to achieve good performance. Jambs must be vertical in both planes, and no twist or other distortion allowed in the frame.

Prior to installing the frame, the opening should be checked to ensure that it is free of debris, and that any projecting brickwork has been trimmed back.

Any damaged damp proof membranes should be replaced or additional membranes incorporated.

When the opening was originally measured a suitable gap should have been allowed around the window, this will allow the window to be packed to ensure that it is plumb and square within the opening.

Ideally the frame should be bedded on mortar.

The frame can then be positioned in the opening and held square by packing at the very corners of the frame, taking care not to damage or deform the frame profiles.

To check for squareness, measure the diagonals from corner to corner, these diagonal dimensions should not differ by more than 1 or 2mm, if they do then adjust the packing until the frame is square within the opening.

The lay of the frame in to out can be checked by using a spirit level on the jambs. On replacement applications, the correct position of the frame might not align with the original. This will require some remedial work to make good the plaster reveal around the frame on the inside as well as any render that is present on the outside.

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Fixing Of Frame

Before deciding on the frame fixing method, see example frame profile illustrations and the fixing options available.

Screw Fixing

The first fixing must always occur within 150mm of the corner of the unit and then at no more than 600mm centres (do not over-tighten fixings), the type and frequency depends on the expected applied loadings. Any fixed lights that have been glazed may need to be deglazed to allow for fixing.

Packing will be required at the fixing points to prevent distortion of the frame. Drilled holes in the frame should be sealed and DFP267 hole plugs fitted.

Lug Fixing

Lug fixings should be spaced at the same intervals as screw fixings. The fixing lugs are twist fitted to the frame and then screw fixed to the structure.

Note that fixing lugs can be twist fitted to both frame braces as well as some outerframe profiles.

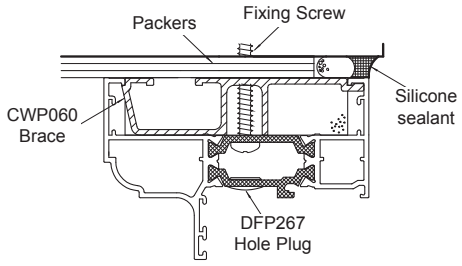
Packing the frame about the lug would be advisable to stabilize the frame, and on replacement windows, plaster on the internal reveal will have to be removed in the vicinity of the lug and made good after.

Foam Fixing

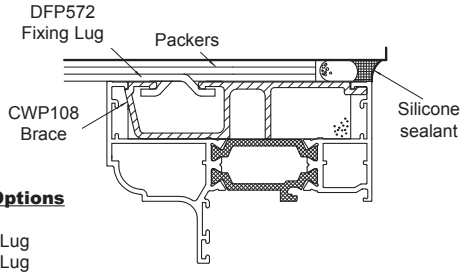
Fixing foam can be used in conjunction with screw and lug fixing, but must not be used as an alternative to mechanical fixing.

Care must be taken not to allow the foam to come into contact with the painted finish, and as such the use of some form of masking tape would be advisable. Permanent staining will be caused if the foam contacts the frame.

Screw Fixing



Lug Fixing



Frame	Fixing Options
CW305	Screw
CW320	Screw or Lug
CW321	Screw or Lug
CW322	Screw
CW323	Screw
CW324	Screw
CW325	Screw
CW327	Screw or Lug
CW328	Screw
CW329	Screw

Cut backing foam infill around frame braces

Finishing Off

Sealing

The recommended sealant for the exterior is Low Modulous Neutral Cure Silicone Sealant. Backing foam should be used where the perimeter gap is over 5mm. Where the gap is within the 5mm range, a neat application of silicone is all that is required on the outside.

A final check of the internal and external perimeter seals should be undertaken. Any weak spots that are identified should be rectified and tooled to a high visual finish. Any excess sealant must be cleaned off of the finished surfaces using appropriate cleaner.

Cleaning After Installation

If excess sealant is to be cleaned off. Ensure that any solvent used will not damage any of the metal finishes, synthetic rubbers or plastics which may be present.

Warning

Take particular care if there is any cement or plaster on the aluminium. It is harmful to the metal finish and should be washed off while still wet. DO NOT RUB or particles of grit will permanently damage the metal or paint finish.

Routine Cleaning

No aluminium finish is “Maintenance Free” and hence should be cleaned at regular intervals. See surface treatment suppliers literature/website for cleaning and maintenance requirements.

Maintenance

Periodic maintenance must be carried out on the locking gear at least once a year or more frequently depending upon the hostility of the environment, i.e. coastal regions or dusty environments.

All exposed moving parts and locking points should be greased and checked to see if they are functioning correctly.

Operating And Safety Instructions

In order to preserve functionality of the window, and to guarantee security, it is imperative the directives listed below are observed.

- *The window sash must not be burdened with additional weight.*
- *Do not place any objects between the sash and frame.*
- *Where small children or mentally handicapped persons have access to the window, the sash is to be safe guarded against opening, for example restrictor friction stays should be used.*
- *Do not leave sashes open during strong winds.*
- ***Caution!** A slamming sash can lead to injuries while closing. Do not grasp the window between the sash and frame.*