

Installation - Framing

Assembly of Subcill

Fit STP107 cill end mouldings into cill using Tremco Small Joint Sealant (or equivalent) to seal into position. These mouldings are positioned under the door jambs.

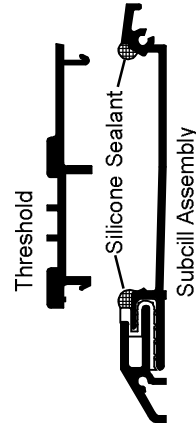
Coat ends of sub cill with small joint sealant. Fit STP108 cill end cap using 2 off No. 8 x 1/2" truncated csk self tapping screws (DFP478 - Pack 100). Where STP107 cill end mouldings occur at the extreme cill ends, drill a 3.5dia hole through the hole in the STP108 cill end cap first.

Fit STC120 threshold insulation gasket to ST216 threshold inner insert using silicone sealant to hold it in place. Gun silicone sealant into recess in ST215 subcill outer and fit ST216 between STP107 cill mouldings.

Installation of Subcill

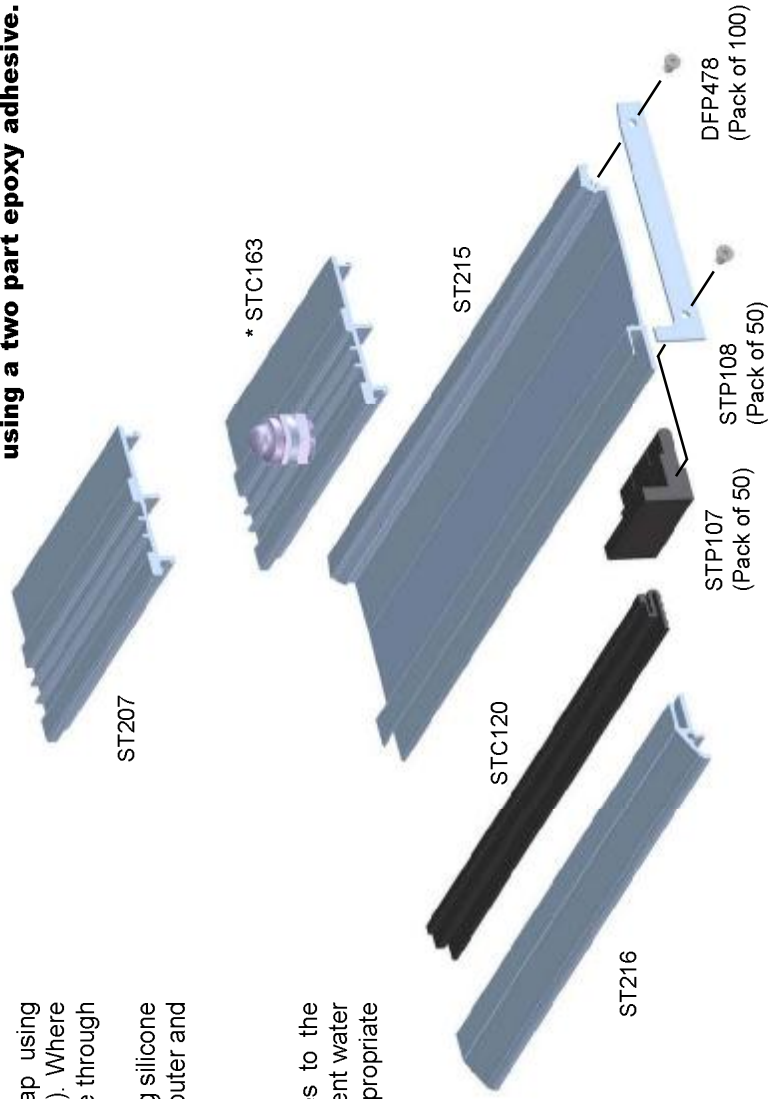
The subcill assembly must be fixed down securely at max. 600 centres to the structure using appropriate fixings. All screw heads must be sealed to prevent water ingress. Ideally the subcill should be bedded onto a bed of mortar with appropriate packing at each fixing to achieve a flat level finish.

When fitting the threshold to the subcill silicone sealant must be applied as shown to ensure that a watertight joint is created on the inside and outside of the frame.



* STC163 Floor threshold pivot insert is only required for pivot doors. One for single doors and two for double doors, positioned at the hanging jamb end.

This item must be securely glued into position using a two part epoxy adhesive.



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Fitting Frame To Aperture

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 an appropriate gap would have been allowed around the framing, this will allow the frame to be packed to ensure that it is plumb and square within the opening.

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 profiles.

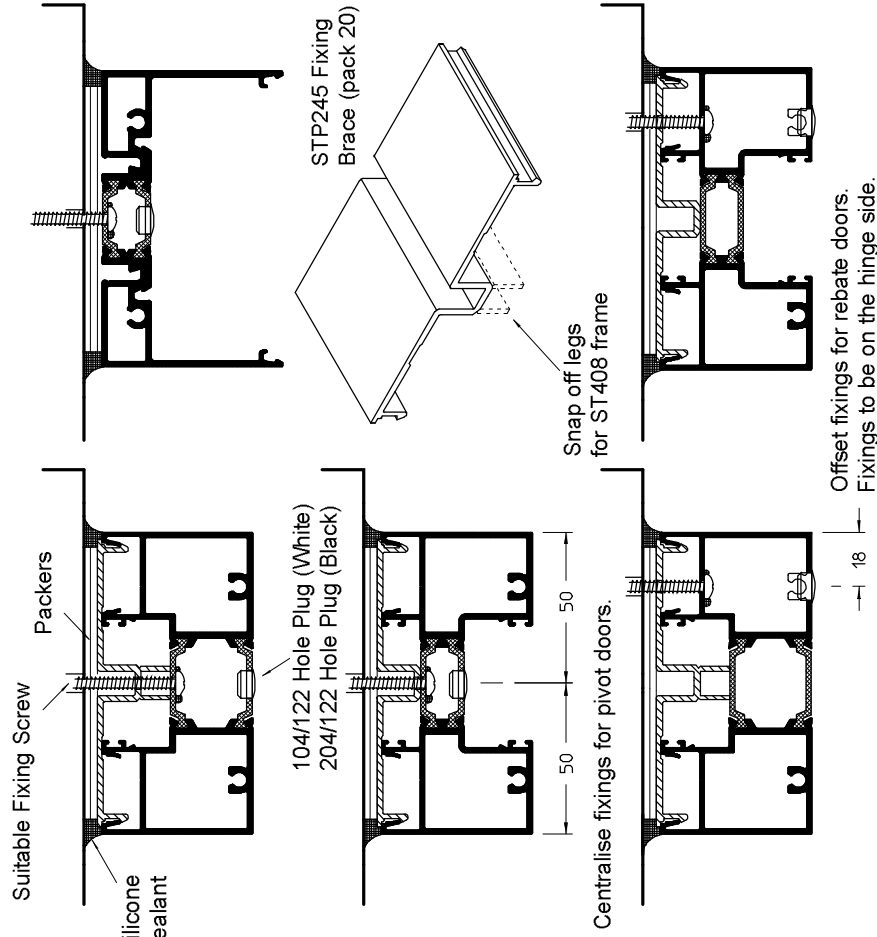
To check for squareness, measure the diagonals from corner to corner, these diagonal dimensions should not differ by more than 2mm, if they do then adjust the packing until the frame is square within the opening.

The frame should be checked for plumb using a spirit level on the jambs and mullions. On replacement frames, the correct position of the frame might not align with the original, therefore, 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 will be required.

Frame to masonry fixing points should be 150mm from each corner and not more than 450mm apart. Clip in frame fixing brace STP245, in line with all frame fixings.

Drill a clearance hole through frame members for fixing screws at appropriate fixing centres. When securing the frame into place, do not over tighten as this may distort the outer frame. All screw head clearance holes must be plugged and sealed.

Note that fixings for rebate doors are not centrally located in the outer frame, but are offset with the door leaf. Always position a fixing in line with door hinges adding an extra fixing if necessary.



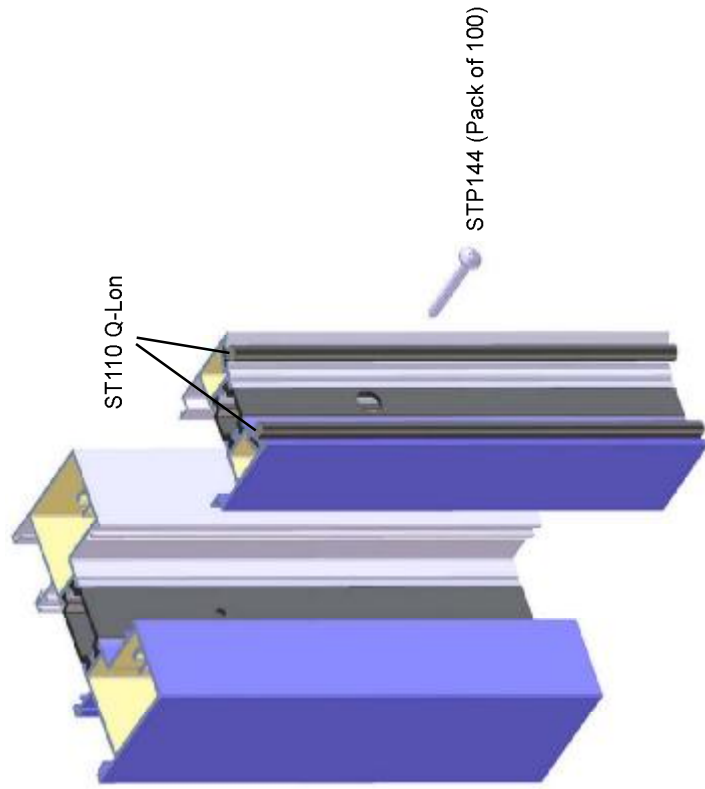
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Installation - Framing

Anti Finger Trap Jamb Adaptor ST404

The jamb adaptor is fitted to the hanging jamb of pivot doors, fitted with an anti finger trap stile. This operation is performed after the outerframe has been fitted into the opening.

Insert ST110 Q-Lon into both seal recesses, the full length of the profile. Run silicone sealant along both clip in legs, then clip the adaptor onto the jamb. Now spot through the pre drilled holes in the adaptor with a 3.5 dia drill into the jamb. And finally secure in place with No. 8 x 1 3/4" pan head self tap screws (STP144 pack of 100)



Installation - Door Hanging

Door frame installation will have been completed with the general frame work.

Centre pivot doors

The printed instructions provided with every Dorma door closer should be followed meticulously when hanging a centre pivot door leaf. The following points are given in addition to these instructions to assist the installer.

The Dorma instructions and the following points must be observed.

Door leaves are prepared for end or side load applications in the factory. Particular attention should be given to accurate and secure assembly of closer spindle into closer arm.

Bottom pivot

Special consideration must be given to floor pivot before hanging of door.

Accuracy of positioning is essential and height to be adjusted to give an 8mm gap between the bottom of the door and the threshold. Dead load of door must not be carried by an unsupported floor pivot component or threshold profile. Ensure that there is adequate packing between floor and pivot component.

Security of closer accessories

Before proceeding with door hanging, ensure that all door frame accessories are secure:-

- Door closer fixing brackets.
- Door closer.
- Bottom pivot assembly.

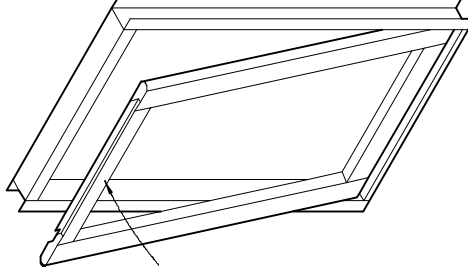
Check that door leaf accessories are secure:-

- Closer arm adjusting shoe.
- Bottom pivot bearing housing.

Side load door leaves

Position bottom of door on floor pivot with side load cut-out facing closer spindle. Swing top of door into position ensuring that closer spindle engages fully and correctly with closer arm. Fit clamping piece to closer arm ensuring that socket head screws are tightened evenly and firmly.

Side load door



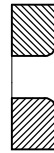
Installation - Door Hanging

End load doors

Place thrust bearing on floor pivot with the radiused inside edge facing down.

For closers without hold-open facility, fully close both regulating valves (turn clockwise). This will help to hang the door, in that the closer will tend to return very slowly to closed position.

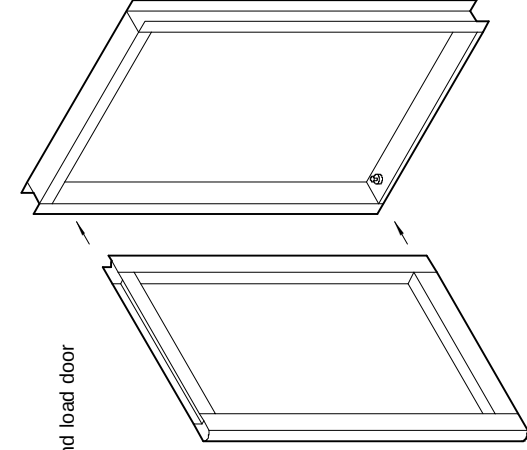
Use 14mm spanner to rotate spindle to 90° open position taking care not to damage machined faces of closer spindle. With door upright in 90° open position, slide door leaf into position so that the floor pivot spring catch and closer arm engage with the floor pivot and closer spindle. Ensure that full engagement is achieved at the top and bottom of the door. Fit clamping piece to closer arm ensuring that socket head screws and washers are fitted, tightened evenly and firmly.



End load door



Detail showing thrust bearing.

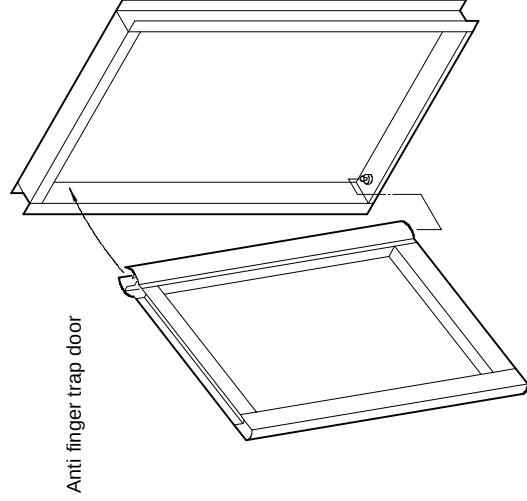


Anti finger trap doors

All Anti finger trap doors are prepared for end load application, but are fitted with a side load type bottom shoe.

For closers without hold-open facility, fully close both regulating valves (turn clockwise). This will help to hang the door, in that the closer will tend to return very slowly to closed position.

Use 14mm spanner to rotate spindle to 90° open position taking care not to damage machined faces of closer spindle. With door slightly tilted in the 90° open position, lift the bottom shoe onto the bottom pivot ensuring that the bearing fully engages onto the pivot point. Tilt the top of the door up onto the closer spindle ensuring that the spindle locates into the top arm. Fit clamping piece to closer arm ensuring that socket head screws and washers are fitted, tightened evenly and firmly.



Anti finger trap door

Installation - Door Hanging

Pivot door alignment with frame

The top of the door leaf may be moved towards or away from the jambs by adjustment of the closer arm.

Open door and slacken socket head countersunk screw in top of closer arm.

Adjust door by turning the adjustment screw in the closer arm:-

Hex head screw at lock stile end of closer arm (Anti Finger Trap)

Grub screw at closer spindle end of closer arm (End & Side load)

After adjustment has been made, ensure that adjustment screw bears firmly against end of closer arm then retighten the countersunk screw in the top of the closer arm.

To centralise the lock stile with the jamb, neutral position is regulated by two hex head bolts at the top of closer arm which should be locked tightly in opposition. (If necessary one bolt may be omitted to obtain maximum adjustment in which case the remaining screw is securely tightened to hold arm against opposite flange.)

The bottom of the door leaf may be moved towards or away from the jambs by adjustment of the floor pivot shoe. (The door leaf will have to be taken out of the frame for this operation.)

Slacken the two M6 fixing screws in the floor pivot shoe then slide shoe in the required direction and retighten fixing screws. When the desired adjustment has been made, drill a 4.2 dia hole through the final fix hole in the shoe into the door leaf and secure in place with a No 10 x 3/4" pan head self tap screw (DFP508 - Pack of 100) (see page 5-5).

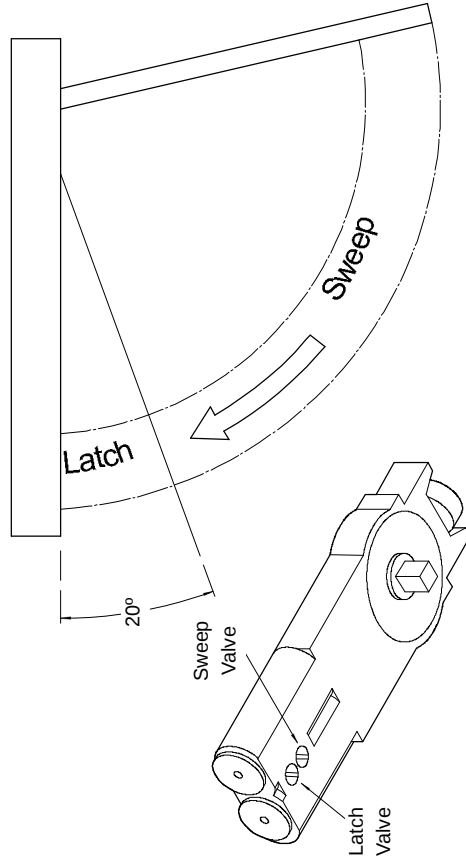
The height of the door leaf should not require adjustment since any change to the gap at the bottom of the door may affect weathering. However, if adjustment is required, remove 2027002 spacer washer and replace with lock nut supplied in Dorma pack. Adjust as necessary and lock off using lock nut (see page 5-8).

Pivot door operation adjustment

The door closing speed can be adjusted by two valves in the door closer.

The latch valve governs the speed at which the door latches.

The sweep valve governs the speed of door closure.



Adjust latch valve by opening door 20° and allowing it to close.
(clockwise = slower, anti-clockwise = faster)

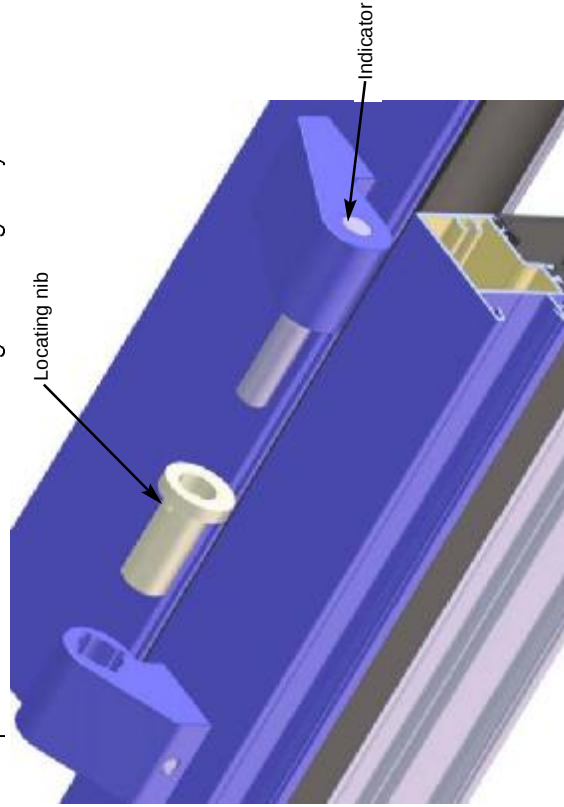
Adjust sweep valve by opening door 90° and allowing it to close.
(clockwise = slower, anti-clockwise = faster)

If the door closer fails to operate correctly, check security of assembly and make sure that all closer assembly details have been adhered to. If problems still persist then check strength of closer and replace if necessary.

Installation - Door Hanging

Rebate hinge doors

Lower door leaf onto hinges and check for operation and alignment. The door alignment can be adjusted in two ways, by rotation of the hinge bush or rotation of the hinge pin or a combination of both the hinge bush and pin. Neutral position is as shown with the pin indicator and the bush locating nib facing away from the door.



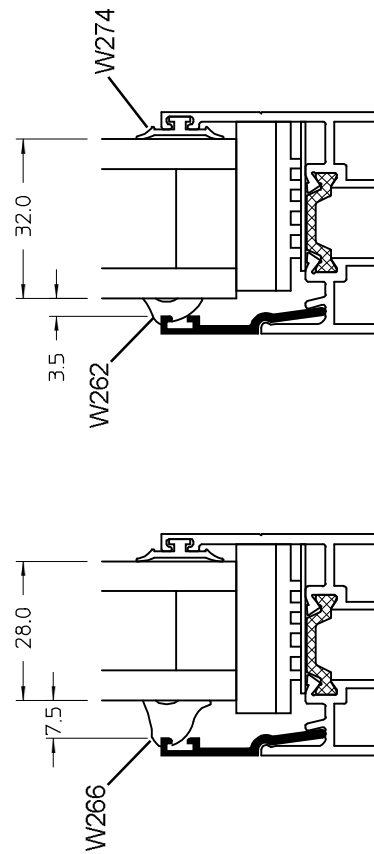
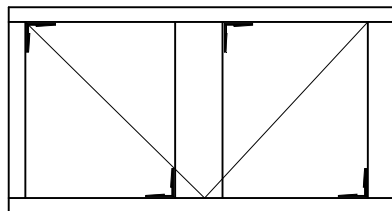
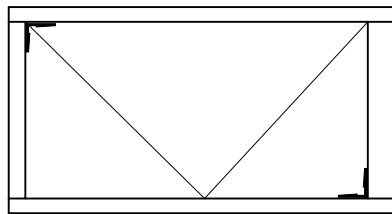
Initial adjustment can be obtained by inserting a 5mm Allen key into the end of the hinge pin and rotating in the desired direction. If further adjustment is required then the hinge bush can be rotated by removing from the hinge body and rotating 90° and reinserting into the hinge. Again final adjustment can be achieved by rotating the hinge pin. Once final adjustment has been made, insert the grub screw supplied with the hinge into the back of the door leaf hinge half and tighten in place in order to maintain correct door alignment. Note that it is advisable to take the door weight off of the door hinges when making adjustments.

Glazing

Note that the information on this page shows typical glass, bead and gasket relationships. Due to tolerances on glass, aluminium and gaskets, practical trials must be carried out to determine ideal wedge gasket fit. (Use reasonable pressure to fit wedge gasket)

Glazing

Apply the retaining gasket (W274) to the outside bead/upstand. Clip in the bead and position the adjustable glazing packers (STP126 - Pack of 50) in the required places. Use silicone to retain packers in place, taking care not to block any drainage paths. Note doors are 'toe and heel' packed as shown alongside. Additional resilient packing blocks are required if the door leaf is to be factory glazed prior to transport. Position the glass in the opening and adjust glazing packers by sliding the wedge part towards the corner until satisfactory adjustment has been made (making sure that the glass is centralised and that the door is square). Fit internal beads, sealing the ends with small joint sealant. (Note horizontal beads are fitted before vertical beads). Commence with fitting the appropriate wedge gasket, cutting oversize to allow for shrinkage and taking care not to stretch the gasket. Apply small joint sealant to all corner joints of the wedge and retained gasket plus all ends of all beads.



All parts for 50 corner
glazing packers in
pack STP126

Wedge (Black)

Base (Blue)

Flat packer (Green)

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Sealing & Finishing Off

The recommended sealant for the exterior is Low Modulus 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.

The internal sealing, if no plasterwork is necessary, can be done with Acrylic sealants "caulking" that can be tooled if required and easily decorated at a later date.

General cleaning down should be done with warm soapy water. Any mortar droppings should be removed immediately and with care not to damage the powder coated surfaces.

See powder suppliers recommendations for cleaning.