HOMELIGHT

CLASSIC ⊘ WINDOWS ⊘ FROM ⊘ CRITTALL

FIXING, GLAZING AND FRAME SEALING INSTRUCTIONS FOR HOMELIGHT WINDOWS

SINGLE GLASS & SEALED UNITS

CRITTALL™

Crittall Windows Limited Francis House Freebournes Road Witham Essex CM8 3UN
01376 530800 email: hq@crittall-windows.co.uk

This leaflet illustrates how Homelight windows are fixed, sealed and glazed into the most frequently used perimeter details and where the various screws, lugs and other components are used to provide good fixing. It includes the coupling of windows with mullions and transomes.

INDEX:

General notes on fixing details, sealants and glazing 2-4

Glazing details 4-10

Perimeter details 11, 12, 14, 15

Fixing positions 13

Lintels and sills 15

Mullion and transome coupling 15

Screw selection chart 17

Fixing pressed metal sills 17

Site Handling:

All windows should be unloaded, stacked and handled with great care on site, particularly powder coated windows. Stack windows on level battens away from mud and site traffic, and never on ashes because sulphur will attack the metal. Windows need not be stacked undercover, but should never be stacked on other materials nor other materials stacked on windows.

Inspection at the factory ensures that opening lights fit correctly and they should never be opened prior to installation. After installation, windows must remain closed until they have been glazed. Unglazed windows must never be used for access for men or materials.

Bad site handling can cause distortion and damage to window frames and/or fittings, resulting in unnecessary site rectification and cost to the builder.

GENERAL NOTES:

General:

Windows can be fixed direct into prepared openings or into wood or plastic subframes.
All windows are supplied with fixing holes positioned as shown on page 13 with sufficient quantities of suitable lugs, screws, plugs etc. Extra holes, additional to those shown in the chart on page 13, appear in the frames; these are incidental to manufacture, need not be used for fixing and are silicone-sealed in the factory. Holes used for fixing must be sealed on site during installation. Pointing and glazing materials are not supplied by Crittall Windows Ltd., but are provided by the installer.

Building in:

Frames must be fixed plumb, square and free from twist, and all vents set square in their openings. Ensure that coupled assemblies are not bent at the coupling position. Polyester powder coated frames should not be built in, as damage to the finish may be incurred.

Prepared openings:

These must always be built square and plumb to sizes which provide a 3-6mm clearance between window and work for perimeter sealant. Extra allowances must be added to window frame sizes for pressed steel sills and mullion/transome couplings, as shown on pages 14 & 15. Templates ensure accurate preparation of openings.

Windows fitted into oversized openings can present weathering and fixing problems. Where openings are undersized, never force windows into position: instead, have the openings enlarged.

GENERAL NOTES (CONTINUED):

Head details:

Steel windows are not designed to withstand imposed structural loads, this being the function of the lintel. This is especially important when a window is built in, and where a minimum 3mm clearance must be maintained between the window and the work for the perimeter sealant.

Steel lintels can be drilled to suit window fixing centres, to take a No 10 self-tapping screw as supplied by Crittall Windows Limited.

Concrete lintels can be drilled for No. 10 woodscrews & plugs, but if preferred anchor bolts supplied by the builder can be used.

Jamb details:

When building a window into cavity brickwork at the jamb, it is most important to position dpc and window correctly. The face of the window should be positioned 6mm forward of the inside face of the outer brick leaf so that the dpc can be placed immediately behind the outer brick and project approximately 15mm; it can then be tucked behind the long leg of the window but in front of the fixing lug. The window should be held plumb and a minimum 3mm clearance maintained between window and brick for the perimeter sealant.

Sill details:

The required opening height size will not always coincide with an exact number of brick courses, therefore the window may need to be set up at the sill with packers to enable the window head to be fixed at the lintel leaving the required minimum 3mm clearance for the perimeter sealant.

Pressed steel sills should be clamped on to the frame before fixing the window. For the sequence of fixing pressed steel sills refer to page 16.

With other types of sill such as tile, brick on edge or special brick, the details should be designed to lap the dpc as shown on the details on page 14.

After fixing:

When windows have been fixed to a non-rebated surround, an expanding foam fillet should be applied behind the long leg of the window. This serves as a key for the internal plaster and as a backing for the external perimeter pointing, which must always be applied.
Holes formed in the frame during manufacture and not used for fixing are silicone-sealed in the factory. Holes used for fixing must be sealed on site during installation.

Used and unused fixing, coupling and galvanising drainage holes in the window frame must be sealed to prevent water running through them to the inside.

After fixing, but before glazing, it is important to check that all window fittings engage and operate properly. Apart from this testing, the windows should remain closed until they have been glazed.

Also ensure that opening light margins are equal all round. If casements have dropped and become distorted for any reason, adjust them before glazing.

GENERAL NOTES (CONTINUED):

Vents should be checked by glaziers to ensure that they are square prior to glazing. Glazing should be carried out in accordance with BS 6262 & Building Regulation Part N, using setting blocks and distance pieces to prevent glass moving and vents dropping under the weight of the glass. See below for further advice on glazing and page 7 for typical blocking positions.

After glazing, adjust friction hinges to hold side hung windows open in any position up to 90 degrees.

Glazing:

Homelight steel windows are supplied unglazed. The glazier supplies the glass, spring glazing clips, spacers, distance pieces, putty and other glazing materials.

Single glazing:

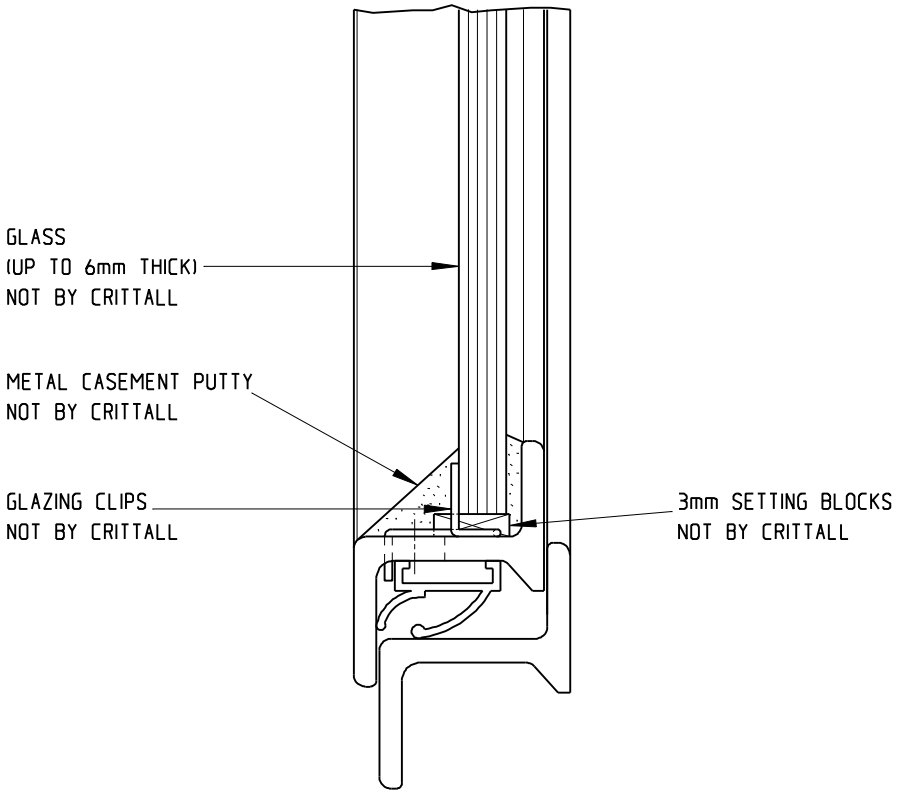
Glazing beads, matching the finish of the windows, can be supplied by Crittall and the use of these is recommended, especially with polyester powder coated frames. When glazing beads are specified, the associated bead screws are also provided by Crittall for application by the glazing contractor to prepared holes in the frame. The beads clip over the studs as shown in the following pages.

Alternatively, spring glazing clips and Metal Window Putty can be used. Putty requires painting after glazing. For use with white powder coated windows, a special proprietry glazing compound, which does not require painting for a prolonged period, can be used with spring clips. It does not always match the white finish of the frames and the setting time may be prolonged.

Double glazing:

14mm & 16mm sealed units can be glazed into Homelight DG construction windows, which are specially designed to receive glass of this thickness. Glazing beads, matching the finish of the windows, are applied to special glazing clips pre-fitted to the frames in the factory, as shown in the following section. In all cases, spacers and distance pieces must be used and correct glazing practice followed as laid down in BS 6262, Glazing for Buildings. This British Standard, together with Building Regulation Part N, should also be consulted with regard to the selection of glass, including the use of safety glass where appropriate.

It is important that all fixing holes in fixed lights and in vent outer frames, together with fixed light glazing clip rivets, galvanising drain holes, unused frame holes and fenestra/tenon joints are sealed with silicone in order to prevent water ingress. Extra holes, additional to those shown in the chart on page 13, appear in the frames; these are incidental to manufacture, need not be used for fixing and are silicone-sealed in the factory. Holes used for fixing must be sealed on site during installation.



SINGLE GLAZED WITH PUTTY
ALL REDUNDANT HOLES AND SLOTS
IN INNER AND OUTER FRAMES ARE SEALED IN THE FACTORY,
HOLES USED FOR FIXING MUST BE SEALED BY THE INSTALLER

The glazier should provide spring glazing clips which engage in holes prepared by Crittall and secure the glass in position while the face putty is hardening. Metal Casement Putty must be used. not linseed oil putty.

The glazing rebate must be clean and dry.

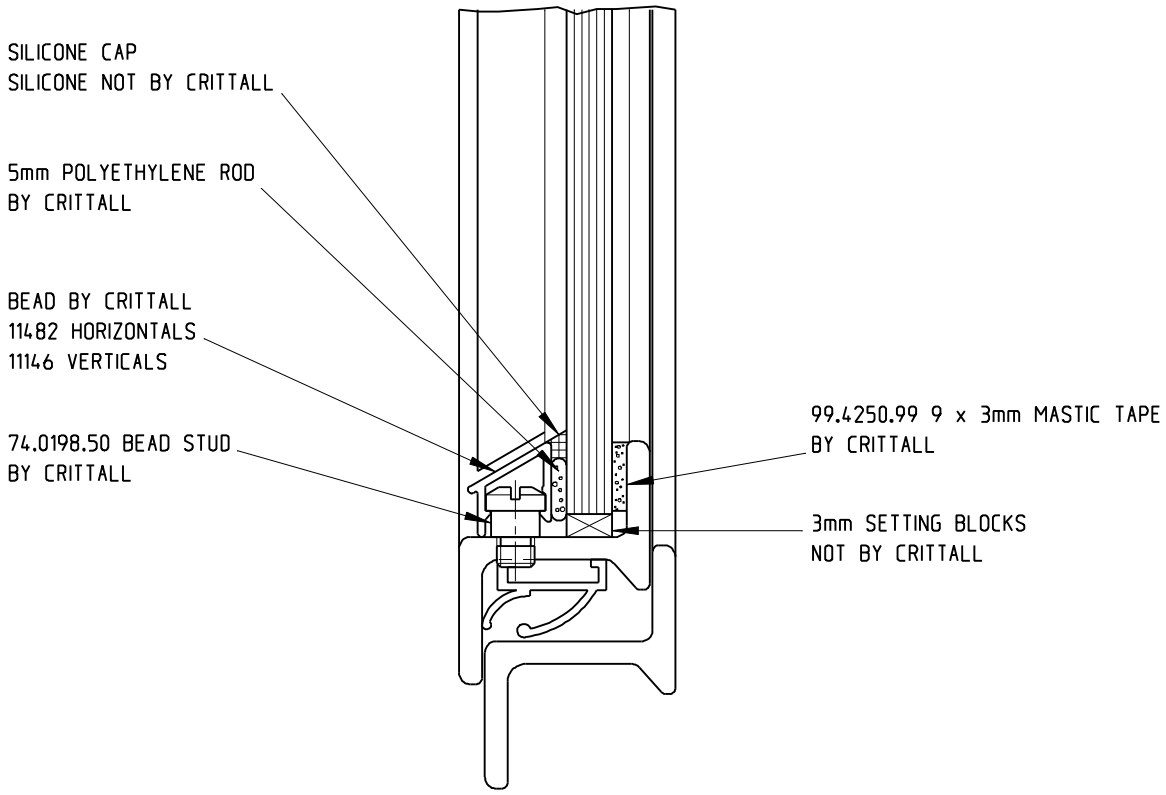
Apply a continuous fillet of putty along the upstand and in the angle of the glazing rebate. Position setting and location blocks in accordance with BS 6262.

Offer the glass into the pane and press the perimeter to squeeze the putty out so that it forms an unbroken bedding between the glass and the upstand about 3mm thick and between the glass edge and the glazing platform. Apply the spring glazing clips: use at least two to each edge of a pane more than 600mm long. On small panes under 300mm high or wide a total of two clips per pane will suffice.

Apply facing putty, striking off with the putty knife to form a slope from the front edge of the glazing platform to a line about 1mm below the line of the glazing upstand on the inside of the glass.

Strike off the internal putty smooth and flush with the upstand on head and jambs and leaving a slight slope for drainage at the sill. Ensure that there are no gaps between glass and upstand.

Note: Metal Casement Putty requires painting to ensure durability and performance. This should be done between two and four weeks after application.



SINGLE GLAZED WITH BEAD
ALL REDUNDANT HOLES AND SLOTS
IN INNER AND OUTER FRAMES ARE SEALED IN THE FACTORY,
HOLES USED FOR FIXING MUST BE SEALED BY THE INSTALLER

The frame is prepared by Crittall with holes for metal studs, which are screwed into the holes. The studs are supplied by Crittall.

The glazing rebate must be clean and dry. Apply the tape to the frame upstand and position setting and location blocks in accordance with BS 6262.

Offer the glass into the frame and press the perimeter to ensure adhesion to the tape. Apply the bead studs.

Clip the beads over the studs and tap firmly into place. Take steps to avoid damage to the bead finish.

Centralise beads to ensure equal gaps at each end.

Note: Window frames are corner welded and glazing beads are cut to length, in each case to close tolerances within manufacturing limitations. These tolerances mean that the gaps at the ends of the beads may vary slightly.

After fitting the beads, push the compressible polyethylene rod between glass and bead. Silicone cap externally.

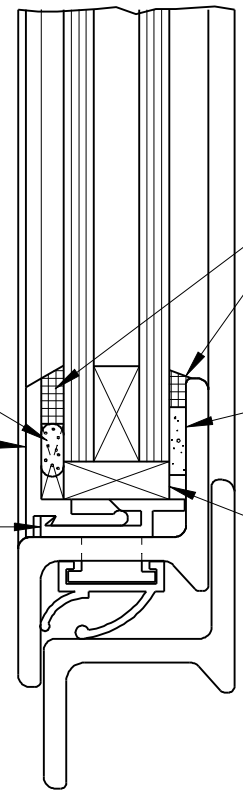
16mm GLASS (STANDARD)
1.5mm DISTANCE PIECE AT
BEAD CLIP LOCATIONS & CORNERS,
REQUIRED AS BEAD SUPPORT

14mm GLASS (OPTIONAL)
5mm POLYETHYLENE ROD BY CRITTALL.
3mm DISTANCE PIECE AT
CORNERS ONLY,
REQUIRED AS BEAD SUPPORT

DISTANCE PIECES NOT BY CRITTALL

9879 BEAD BY CRITTALL

PRE-FIXED BEAD CLIPS BY CRITTALL



SILICONE CAP
SILICONE NOT BY CRITTALL

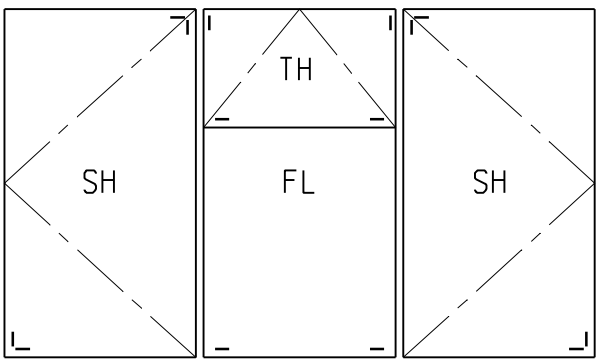
STANDARD 16mm GLASS -
99.2021.99 12 x 1.5mm FOAM TAPE
OPTIONAL 14mm GLASS -
99.2030.99 9 x 3mm FOAM TAPE
TAPES BY CRITTALL

4mm SETTING BLOCK
NOT BY CRITTALL

DOUBLE GLAZED
ALL REDUNDANT HOLES AND SLOTS
IN INNER AND OUTER FRAMES ARE SEALED IN THE FACTORY,
HOLES USED FOR FIXING MUST BE SEALED BY THE INSTALLER

INITIALLY POSITION SETTING BLOCKS AT SILL CORNERS ONLY. SETTING BLOCKS SHOULD BE 30mm LONG MINIMUM AND MAY BE ATTACHED WITH SILICONE IF NECESSARY. THEY SHOULD BE AS WIDE AS THE GLASS UNIT. NOTE THAT THE GLAZING MATERIALS FOR 14mm & 16mm SEALED UNITS VARY; DETAILED GLAZING INSTRUCTIONS FOR SEALED UNITS ARE SET OUT ON THE FOLLOWING PAGES. MATERIAL FOR 16mm GLAZING IS SUPPLIED UNLESS STATED OTHERWISE AT TIME OF ORDER.

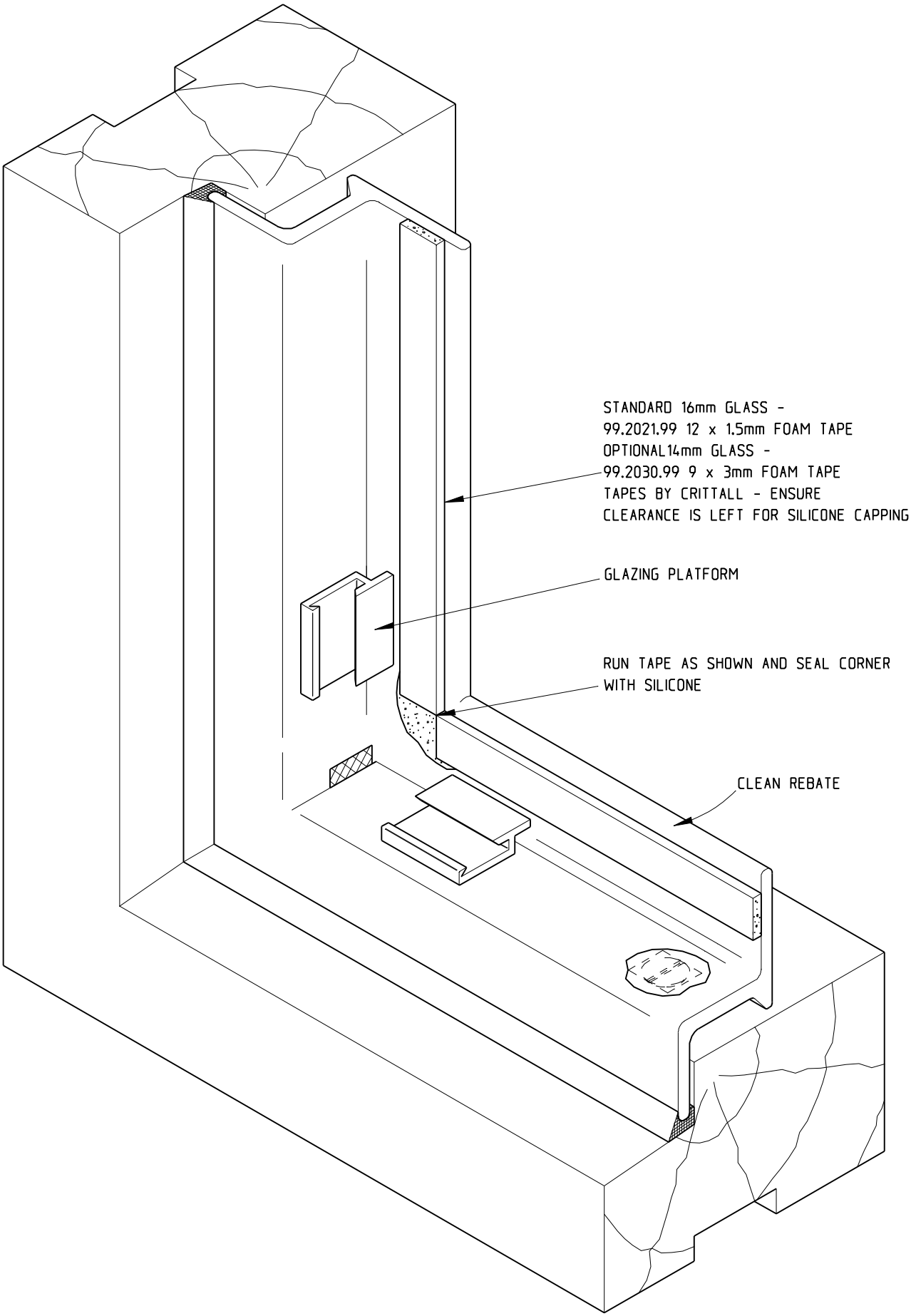
FULLY BLOCK PANE AFTER THE GLASS UNIT HAS BEEN POSITIONED. SETTING BLOCKS FOR FIXED LIGHTS SHOULD PREFERABLY BE 100-150mm FROM CORNERS, BUT CAN BE LESS ON SMALL PANES.



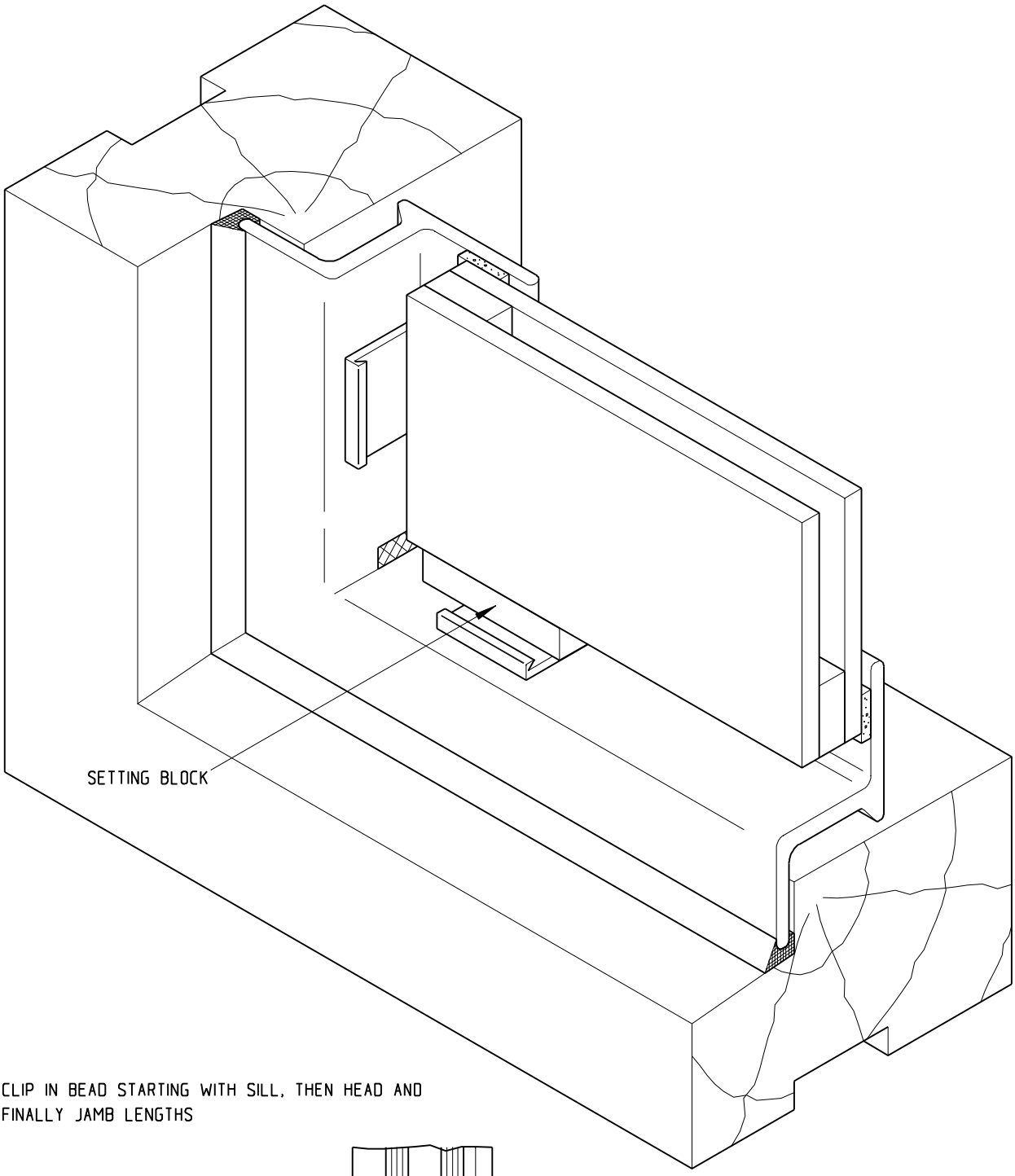
SETTING BLOCK POSITIONS FOR VARIOUS WINDOW TYPES

NOTE: GLAZING TO BE GENERALLY IN ACCORDANCE WITH BS 6262

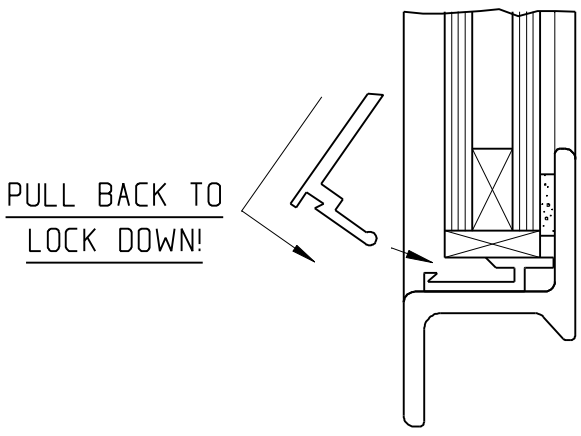
BEFORE COMMENCING GLAZING, CLEAN REBATE AND ENSURE GLAZING AREA IS FREE FROM DEBRIS

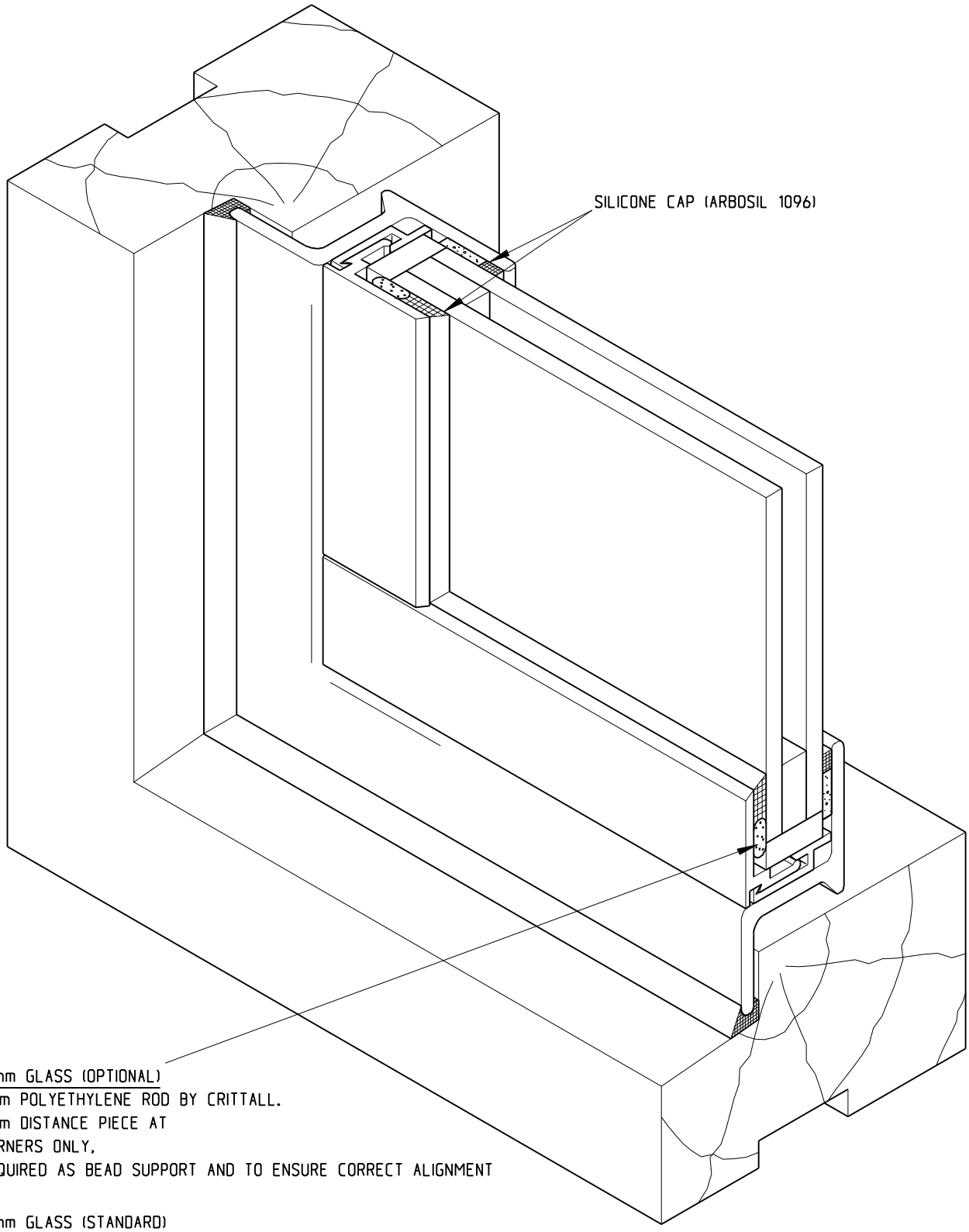


POSITION GLASS ON SETTING BLOCKS. CENTRALISE GLASS IN FRAME AND PUSH FIRMLY ONTO THE TAPE



CLIP IN BEAD STARTING WITH SILL, THEN HEAD AND FINALLY JAMB LENGTHS





14mm GLASS (OPTIONAL)
5mm POLYETHYLENE ROD BY CRITTALL.
3mm DISTANCE PIECE AT
CORNERS ONLY,
REQUIRED AS BEAD SUPPORT AND TO ENSURE CORRECT ALIGNMENT

16mm GLASS (STANDARD)
1.5mm DISTANCE PIECE AT
BEAD CLIP LOCATIONS & CORNERS,
REQUIRED AS BEAD SUPPORT AND TO ENSURE CORRECT ALIGNMENT

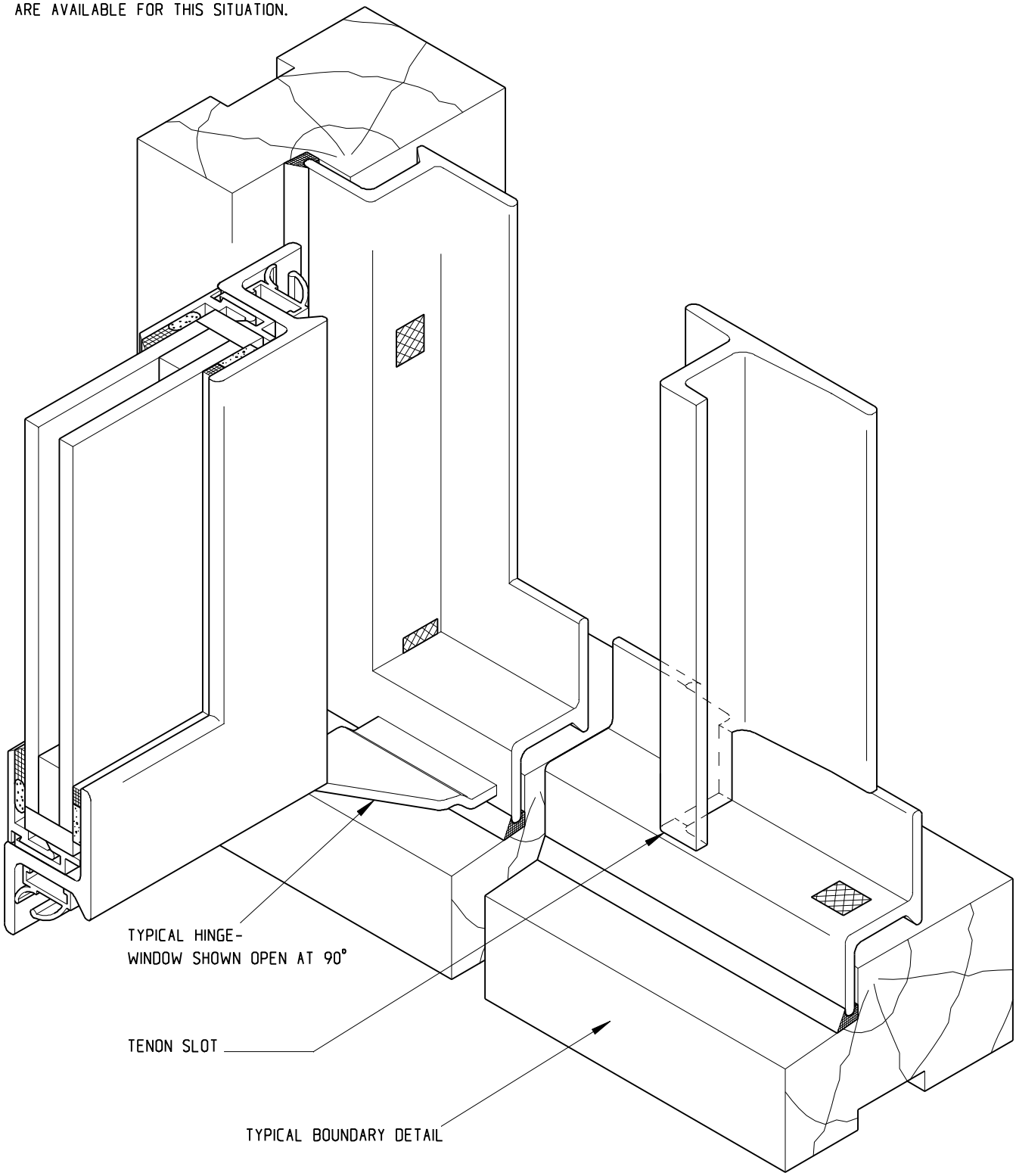
DISTANCE PIECES NOT BY CRITTALL

16mm GLASS (STANDARD) - ENSURE BEAD IS LOCKED BACK. PUSH IN A 1.5mm DISTANCE PIECE AT EVERY GLAZING PLATFORM LOCATION AND AT BEAD JOINTS TO ENSURE THAT BEAD EDGES ARE FLUSH WITH EACH OTHER. FINISH OFF WITH A SILICONE CAP, USING ARBOSIL 1096

14mm GLASS (OPTIONAL) - ENSURE BEAD IS LOCKED BACK. PUSH IN A 3mm DISTANCE PIECE AT EVERY GLAZING PLATFORM LOCATION AND AT BEAD JOINTS TO ENSURE THAT BEAD EDGES ARE FLUSH WITH EACH OTHER. APPLY 5mm POLYETHYLENE ROD BETWEEN THEM. FINISH OFF WITH A SILICONE CAP, USING ARBOSIL 1096

Perimeter pointing:

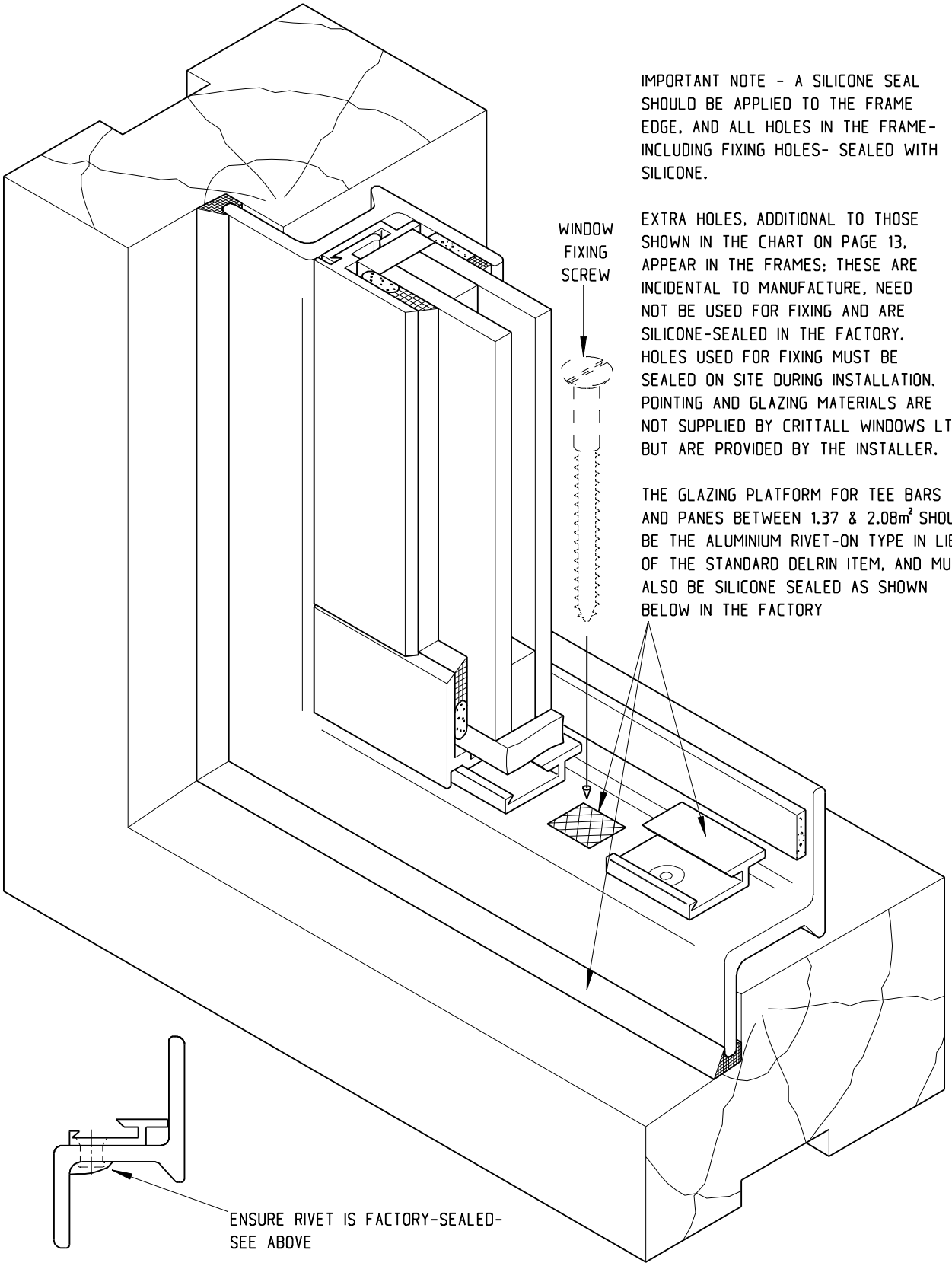
SEALANTS ARE NOT SUPPLIED BY CRITTALL. THEY ARE TO BE PROVIDED BY THE INSTALLER, WHO SHOULD BE ABLE TO OBTAIN THEM THROUGH HIS LOCAL TRADE MERCHANT.
A LOW MODULUS, NEUTRAL-CURE SILICONE SEALANT SHOULD BE USED TO SEAL THE FRAME BOTH TO THE PERIMETER AND TO THE COUPLING BARS WHERE SUPPLIED AND SHOULD BE SUITABLE FOR BOTH GALVANISED AND POLYESTER POWDER COATED FRAMES, ALTHOUGH CERTAIN BRANDS MAY REQUIRE A PRIMER. WHEN SEALING TO A TIMBER SUBFRAME, ENSURE THAT THE SEALANT IS COMPATIBLE WITH THE WOOD FINISH, ESPECIALLY WHERE AN OIL-BASED STAIN IS USED AS THE SILICONE SEALANT MAY NOT ADHERE. TIMBER AND STONE SURROUNDS MAY REQUIRE SEALING TO PREVENT STAINING - SPECIAL ANTI-BLEED SILICONES ARE AVAILABLE FOR THIS SITUATION.



IMPORTANT NOTE REGARDING THE FIXING OF FIXED LIGHT & CASEMENT WINDOWS:

GALVANISING DRAINAGE HOLES IN THE INNER FRAME CORNERS OF CASEMENT WINDOWS ARE FACTORY-SEALED WITH SILICONE. THE INSTALLER SHOULD ENSURE THAT ALL HOLES IN THE OUTER FRAME AND ALL TENON SLOTS ARE SEALED AFTER FIXING

AFTER THE WINDOW HAS BEEN FIXED TO THE OPENING, THE WINDOW FIXING HOLES ARE TO BE SEALED WITH SILICONE (FRAME SHOWN GLAZED FOR ILLUSTRATIVE PURPOSES)

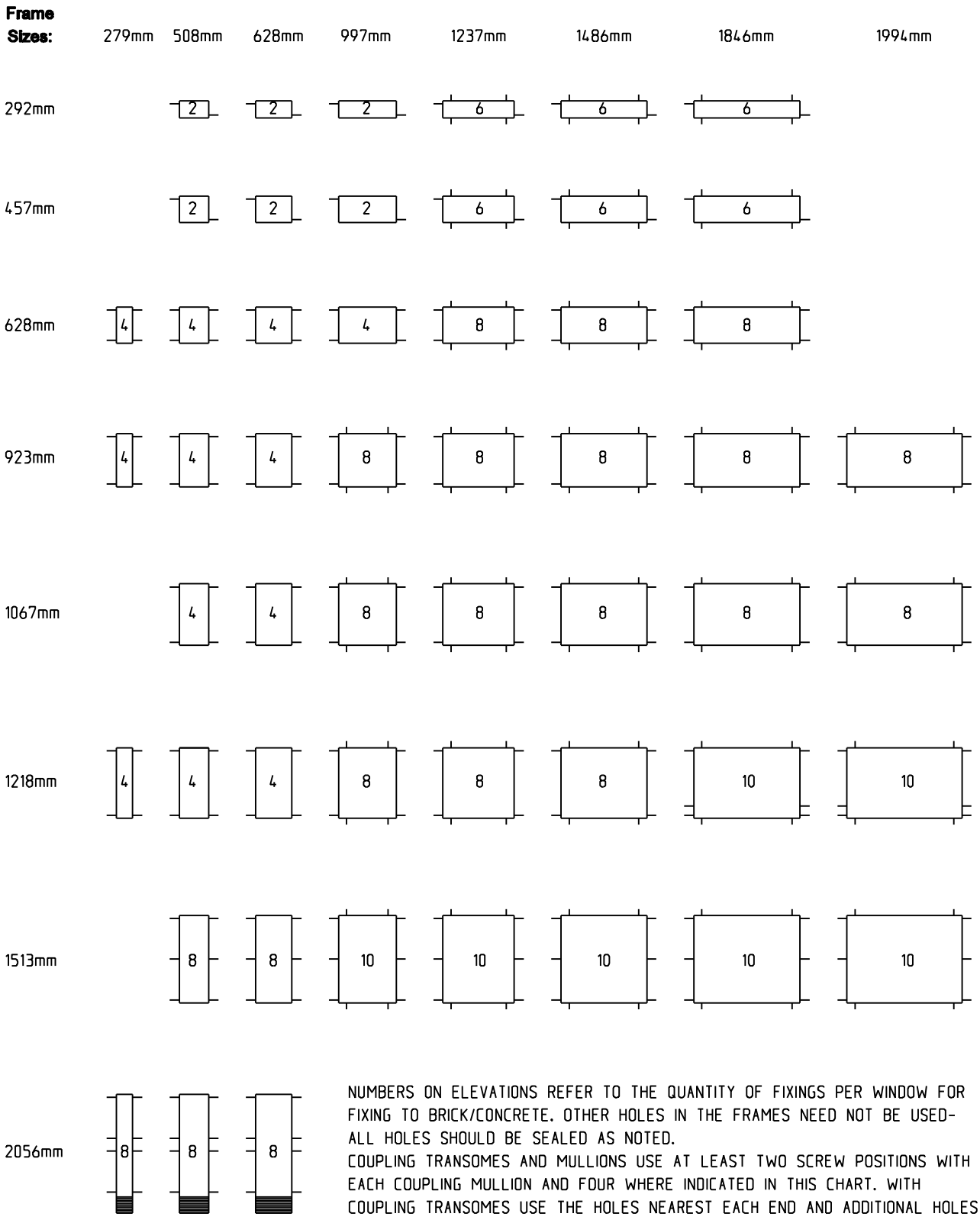


IMPORTANT NOTE - A SILICONE SEAL SHOULD BE APPLIED TO THE FRAME EDGE, AND ALL HOLES IN THE FRAME- INCLUDING FIXING HOLES- SEALED WITH SILICONE.

EXTRA HOLES, ADDITIONAL TO THOSE SHOWN IN THE CHART ON PAGE 13, APPEAR IN THE FRAMES; THESE ARE INCIDENTAL TO MANUFACTURE, NEED NOT BE USED FOR FIXING AND ARE SILICONE-SEALED IN THE FACTORY. HOLES USED FOR FIXING MUST BE SEALED ON SITE DURING INSTALLATION. POINTING AND GLAZING MATERIALS ARE NOT SUPPLIED BY CRITTALL WINDOWS LTD., BUT ARE PROVIDED BY THE INSTALLER.

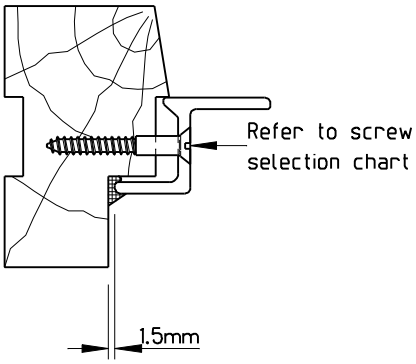
THE GLAZING PLATFORM FOR TEE BARS AND PANES BETWEEN 1.37 & 2.08m² SHOULD BE THE ALUMINIUM RIVET-ON TYPE IN LIEU OF THE STANDARD DELRIN ITEM, AND MUST ALSO BE SILICONE SEALED AS SHOWN BELOW IN THE FACTORY

Fixing positions:

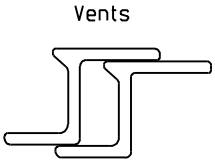


NUMBERS ON ELEVATIONS REFER TO THE QUANTITY OF FIXINGS PER WINDOW FOR FIXING TO BRICK/CONCRETE. OTHER HOLES IN THE FRAMES NEED NOT BE USED- ALL HOLES SHOULD BE SEALED AS NOTED.
COUPLING TRANSOMES AND MULLIONS USE AT LEAST TWO SCREW POSITIONS WITH EACH COUPLING MULLION AND FOUR WHERE INDICATED IN THIS CHART. WITH COUPLING TRANSOMES USE THE HOLES NEAREST EACH END AND ADDITIONAL HOLES AT NOT MORE THAN 760mm CENTRES.

Perimeter details:



Timber surround - head, sill & jambs

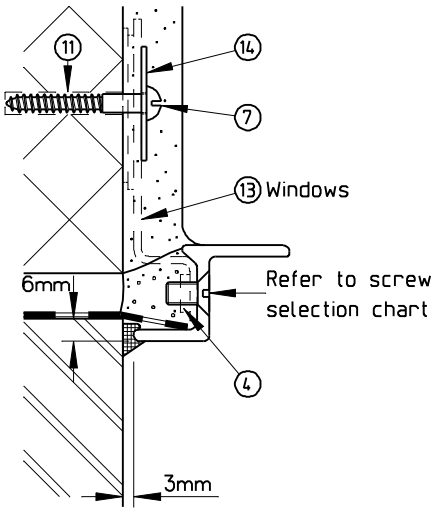


Legend:

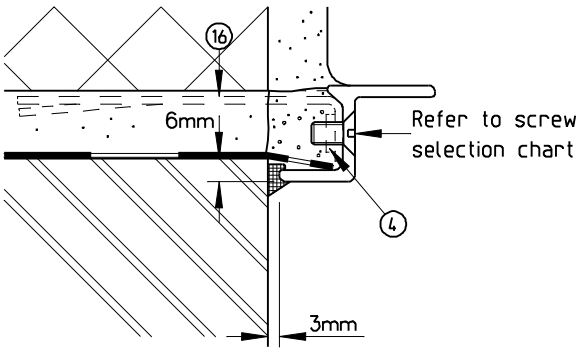
Denotes perimeter pointing

Number indicates reference of fixing bag containing fixing component

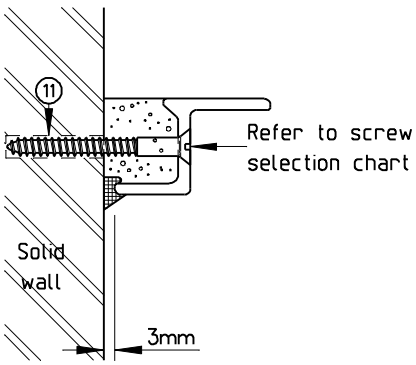
Refer to screw selection chart, page 17, to obtain screw reference number to suit window type for fixing window to work or attaching lug to window.



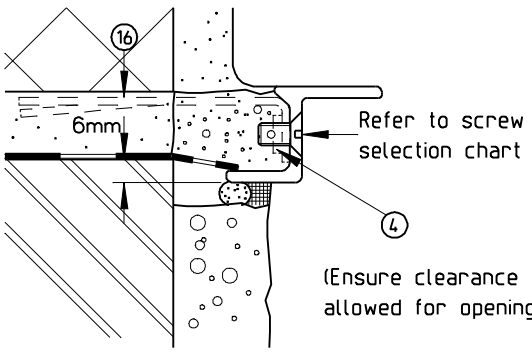
Prepared opening with internal plaster, head and jambs



Built-in cavity wall with internal plaster, head and jambs

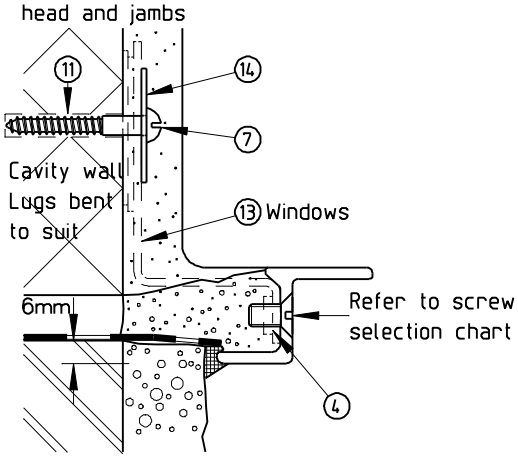


Prepared opening without plaster, head and jambs



(Ensure clearance is allowed for opening lights)

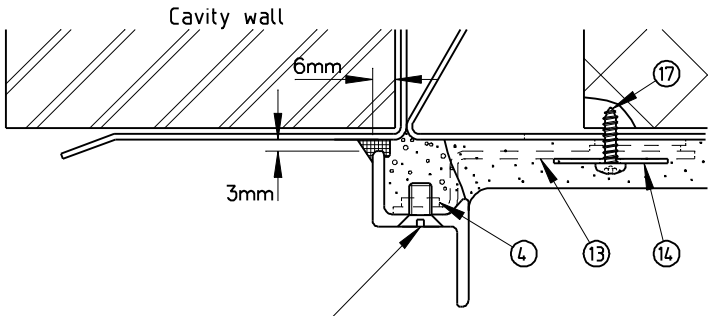
Built-in cavity wall with external render Jamb detail, head similar



Prepared opening with external render, head and jambs

Lintels and sills:

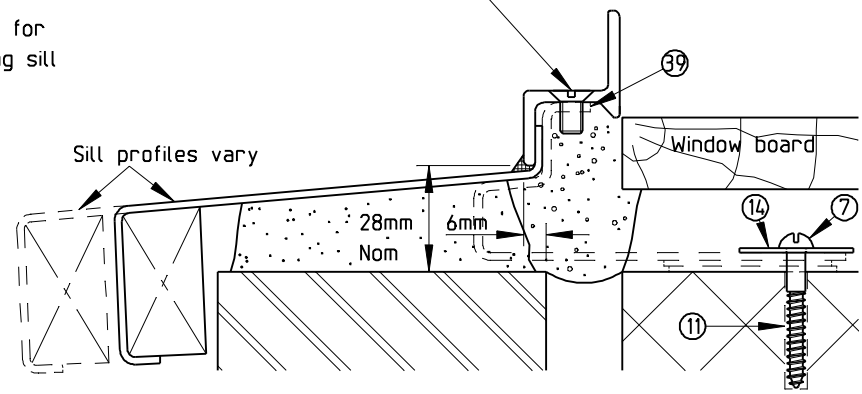
Pressed steel lintel:



Refer to screw selection chart

Pressed steel sill:

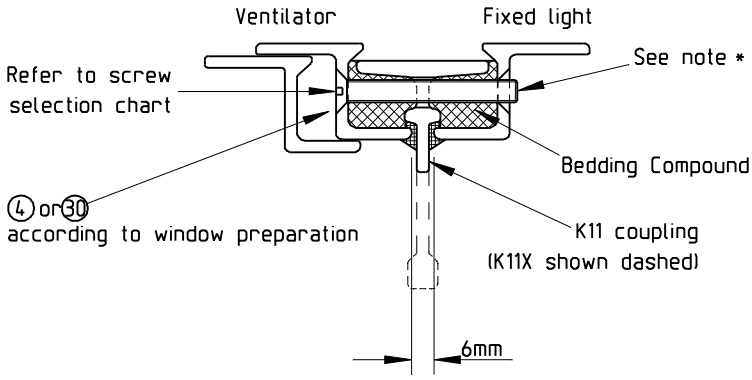
Refer to page 16 for sequence of fixing sill to window



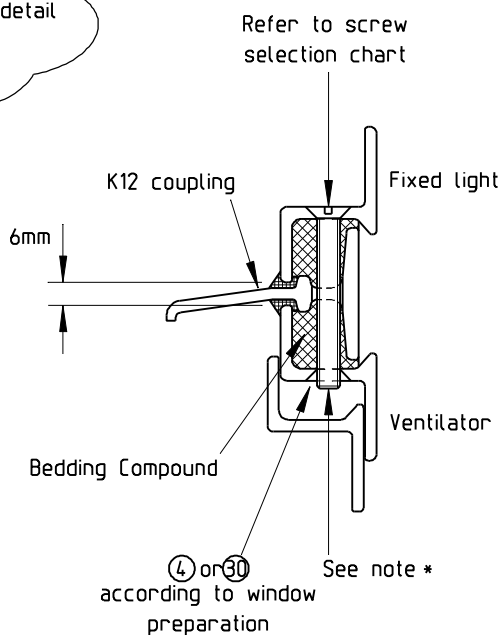
Mullion & transome couplings:

Mullion couplings:

Refer to page 17 for window to door coupling detail



Transome couplings:



* Note: Projecting ends of coupling screws should be cut off with a cold chisel to prevent interference with the weatherstrip at opening lights, and with beads or glass clearance at fixed lights

Fixing pressed metal sills:

Pressed steel sills:

Pressed steel sills are clamped on to windows and can be supplied in one piece, up to a maximum of 3040mm in length. Sills over 3040mm in length will be supplied in two or more lengths, complete with joint plates.

1. Loosely screw the sill lugs onto the window. Lug positions should be approximately 150mm on from each corner, with intermediate lugs not exceeding 760mm maximum centres. Lug screws should be selected from the chart on page 17.

2. Place the pressed steel sill onto the lugs and push the sill rebate upwards behind the window leg, centralising the sill about the window before tightening the lug screws to secure the sill.

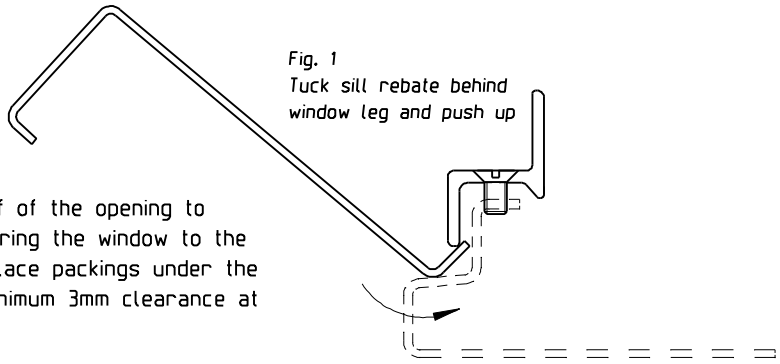


Fig. 1
Tuck sill rebate behind window leg and push up

3. Trowel some cement along the outer brick leaf of the opening to provide a bedding for the window sill before offering the window to the opening. Offer the window, plumb the jambs and place packings under the window to level up the sill and to provide the minimum 3mm clearance at the window head for sealing.

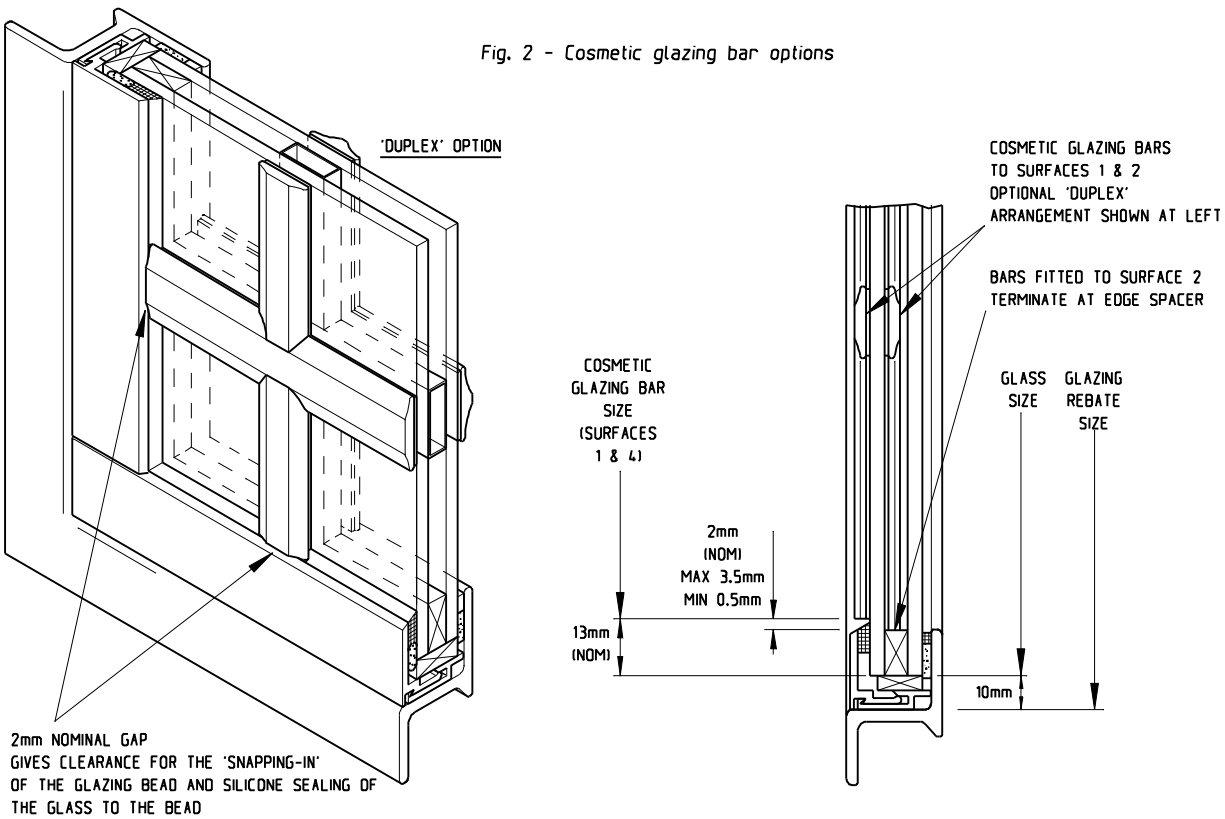
If the sill is jointed, point down the slope of the joint plate between corrugations with silicone sealant. The next length of sill has two hole preparations at the left hand end. Mark off and drill two 3.5mm diameter holes through the csk holes in the sill into the joint plate, and secure with 1/2" x No 8 csk screws. A 6mm pointing gap should be left between the two sills.

4. After fixing the sills, apply triangulated pointing as shown for the sill detail on page 15. Also point down the slope of the sill at each end and between the lengths of sill at the sill joints.

Additional notes:

The optional cosmetic glazing bars fitted to our Homelight range of windows have a nominal clearance between the end of the bar and the edge of the bead of 2mm, although this can vary depending upon glass and frame tolerances. See fig.2.

Fig. 2 - Cosmetic glazing bar options



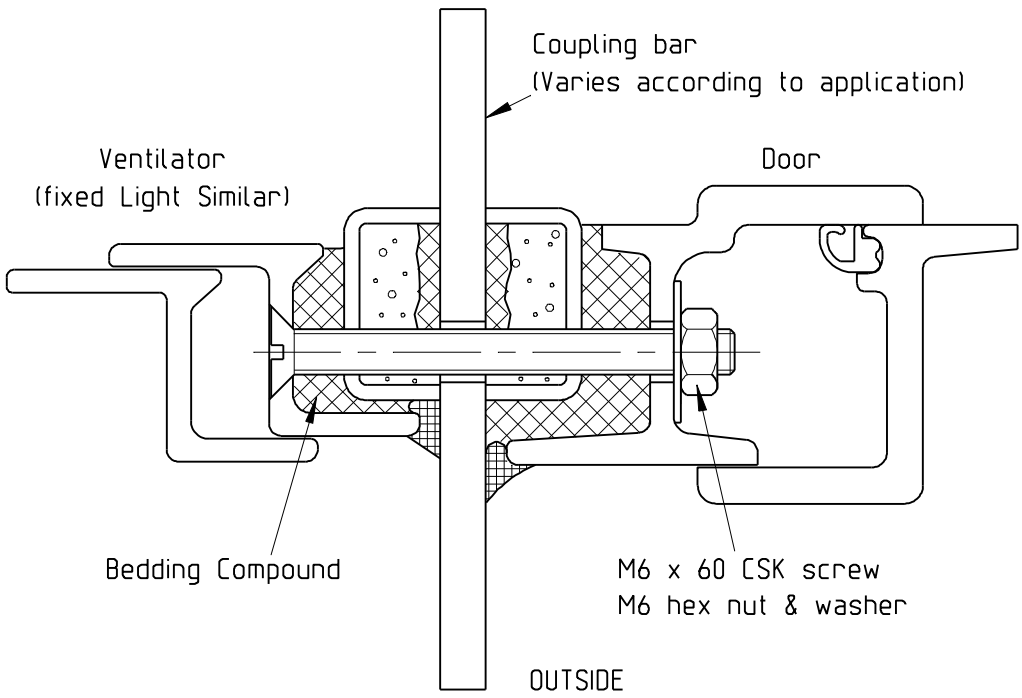
SCREW SELECTION CHART:

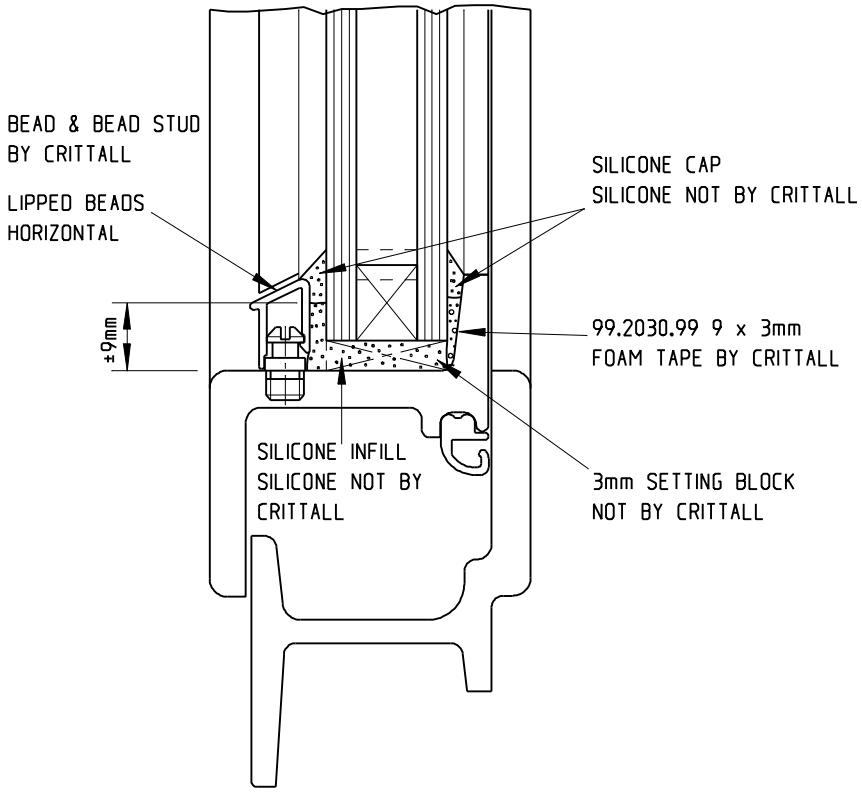
The numbers are the reference numbers of the bags containing the screws.

Refer to this chart when ordering lost or replacement fixing components		
FIXING BAG		CRITTALL WINDOWS PART No.
No.	CONTENTS	
1	M6 x 13 CSK SCREW	74.2636.14
2	M6 x 12 PAN HD SCREW	74.2133.14
3	M6 x 45 PAN HD SCREW	74.2152.14
4	M6 SQ NUT	74.0112M19
5	1 1/2" x No 10 CSK W/SCREW	74.9130.14
6	2" x No 10 CSK W/SCREW	74.9328.14
7	1 1/2" x No 10 PAN HD W/SCREW	74.4604.14
8	2" x No 10 PAN HD W/SCREW	74.4606.14
9	2 1/2" x No 10 PAN HD W/SCREW	74.4607.14
10	3" x No 10 PAN HD W/SCREW	74.4608.14
11	PLUG S6	70.9640.80
13	LUG	65.0078.11
14	CLAMP WASHER	81.9781.14
16	LUG	65.0180.11
17	3/4" x No 10 PAN HD PK SCREW	74.8105.19
20	PLUG	70.0286.98
25	M6 x 51 CSK SCREW	74.2654.14
26	M6 x 80 CSK SCREW	74.2080.14
27	M6 x 50 PAN HD SCREW	74.2157.19
29	M6 x 114 PAN HD SCREW	74.2767.19
30	M6 CSK NUT	74.0019M14
34	M6 x 20 CSK SCREW	74.2052.14
35	M6 x 20 PAN HD SCREW	74.2137.14
36	M6 x 60 PAN HD SCREW	74.2159.14
39	SILL LUG	65.0206.19

Fixing/Coupling Screws:

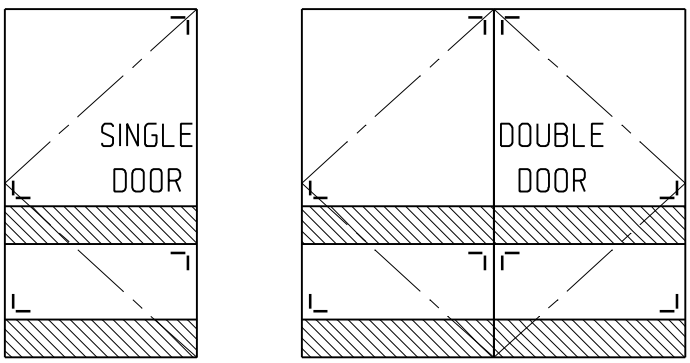
PERIMETER TYPE:	SCREW REF:
Wood surround	**5**
Prepared opening with plaster	**1**
Prepared opening without plaster	**6**
Built into cavity wall	**1**
Built into solid wall	**1**
Steel lintel	**1**
Pressed steel sill	**34**
Coupling screws	**27**





14 & 16mm DOUBLE GLAZED DOOR
ALL REDUNDANT HOLES AND SLOTS
IN INNER AND OUTER FRAMES ARE SEALED IN THE FACTORY,
HOLES USED FOR FIXING MUST BE SEALED BY THE INSTALLER

1) ARRANGE SETTING BLOCKS IN ACCORDANCE WITH BS 6262
2) APPLY FOAM TAPE TO THE GLAZING NIB AS PER STANDARD GLAZING INSTRUCTIONS
3) POSITION THE GLASS UNIT ONTO THE SETTING BLOCKS AND PRESS FIRMLY ONTO THE GLAZING TAPE
4) ARRANGE LOCATION BLOCKS IN ACCORDANCE WITH BS 6262
5) RUN 2 OR 3 LINES OF SILICONE UNDER THE GLASS, AROUND THE SETTING BLOCKS AND UP THE FACE OF THE GLASS AROUND 9mm AS SHOWN, ENSURING THAT THE GLAZING POCKET IS WELL PACKED WITH SILICONE
6) SNAP THE BEAD OVER THE STUDS AND SILICONE CAP INSIDE AND OUT IN THE USUAL WAY



SETTING BLOCK POSITIONS FOR VARIOUS DOOR TYPES
(SEE PAGE 7 FOR COMMON WINDOW TYPES)

NOTE: GLAZING TO BE GENERALLY IN ACCORDANCE WITH BS 6262

NOTES

CRITTALL WINDOWS LIMITED
Francis House
Freebournes Road
Witham
Essex
CM8 3UN
Tel. +44 (0) 1376 530800 Fax. +44 (0) 1376 530801

Website: http://www.crittall-windows.co.uk
email: hq@crittall-windows.co.uk

FENSA
Registered Company

CRITTALL

Leaflet No. 76/G, MAY 2010
Revised November 2012

All specifications are subject to alteration without notice

© CRITTALL WINDOWS LTD. 2010