CONTENTS

LIST OF ILLUSTRATIONS

A. SYSTEM SPECIFICATIONS

A. 1. INTRODUCTION (Figs.1 and 2)

The Monarch Reversible Window suite comprises top swing fully reversible windows, project out top hung windows with heavy duty friction hinges, and compatible fixed light frame.

The system will accept selected MILA and Peder Nielsen hardware.

The frames are 75 mm wide and can be coupled to other profiles in the Monaframe range.

The window should be used with the Monaframe cills A9941312 as appropriate. Where an add-on cill is not specified use Drainage Tray A988. Face drainage through the CKF14 frame is unsightly and should be avoided if possible.

The vent and fixed tight windows are internally beaded, and have mullion/transom sections to suit. Mullion CKM19 is used to separate two or more top swing vents within the same outer frame. For vent/fixed combinations the separate fixed light frame CKF1 5 must be used; hidden coupling CKM20 is used to join the frames. Mullion CKM21 is used to divide a fixed light or vent vertically or horizontally.

The frameworks are crimped together with aluminium corner cleats, and using special anvils with the Monarch crimper (W570).

Locking cockspur handles supplied by Monarch are compatible.

The system has been independently weather tested to BS6375:Pt 1 and has formally achieved:-

Air Permeability	600 Pa.
Water Penetration	300 Pa. (actually reached 1000 Pa.)
Gust Deflection	2400 Pa.

Macdata Test Report.

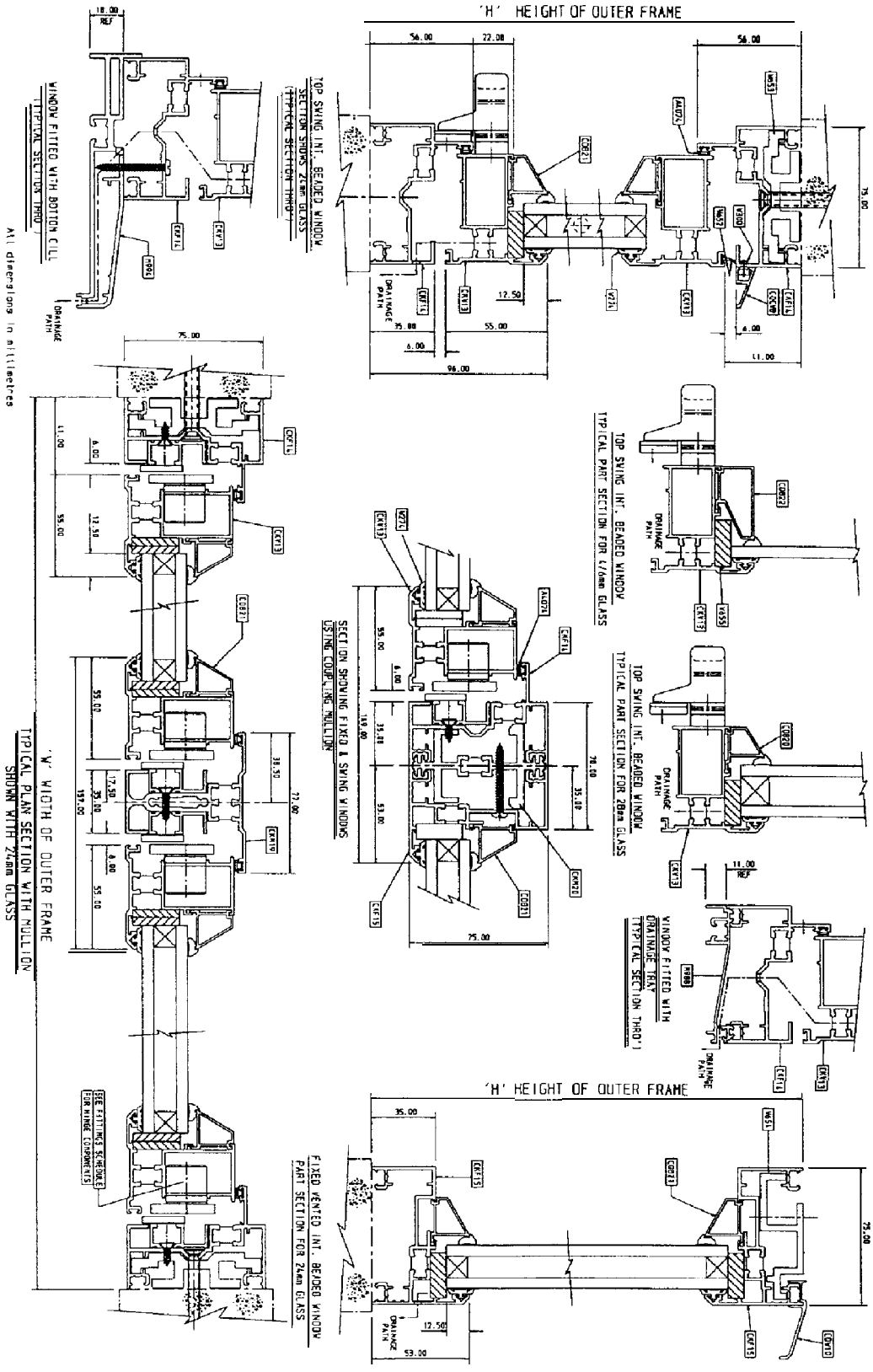


Fig. 1. REVERSIBLE WINDOWS - GA (PN-UNI TOP SWING GEAR)

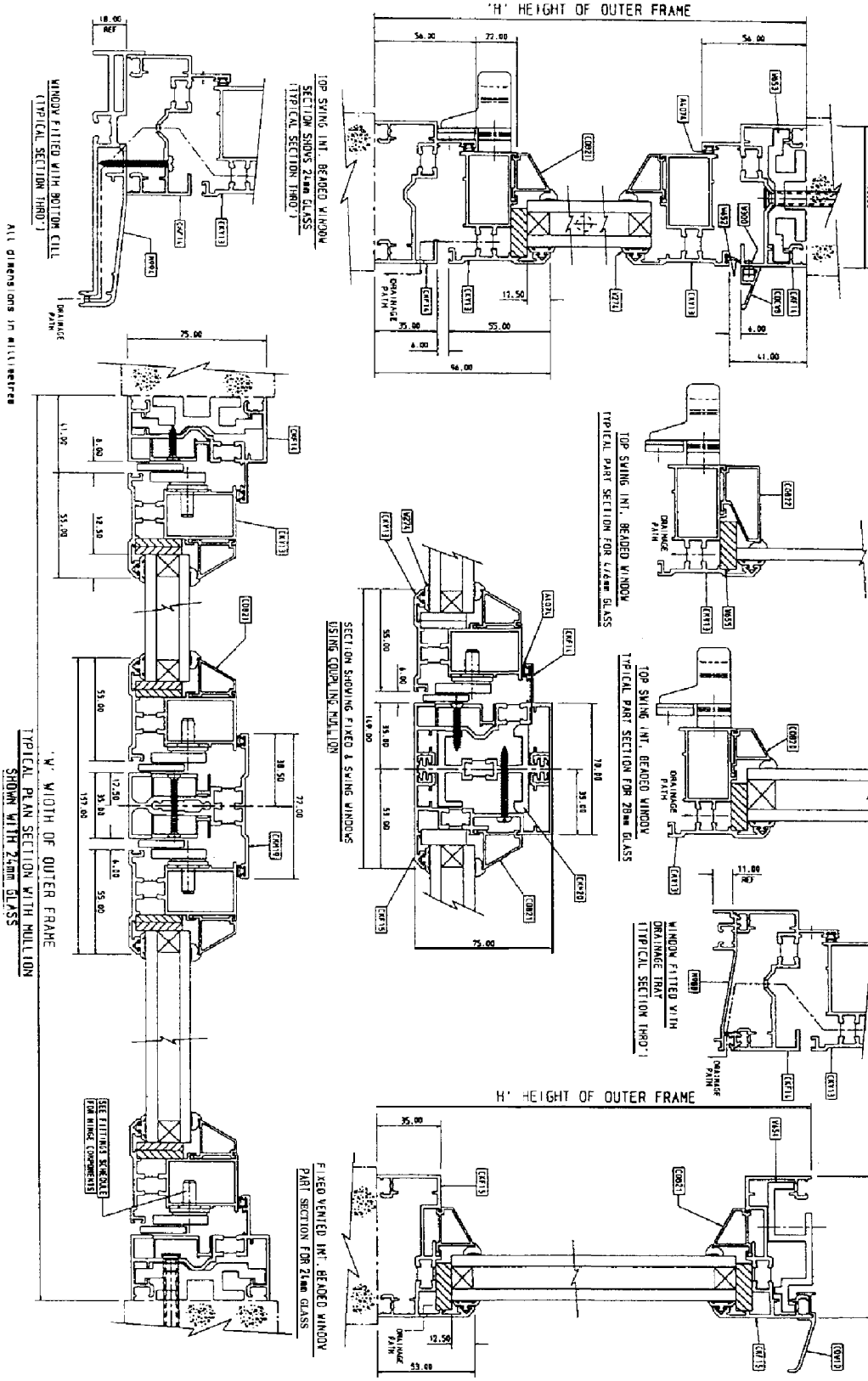
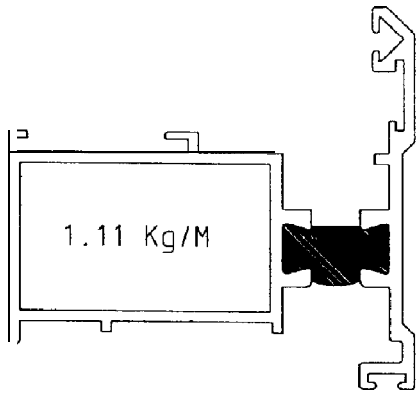
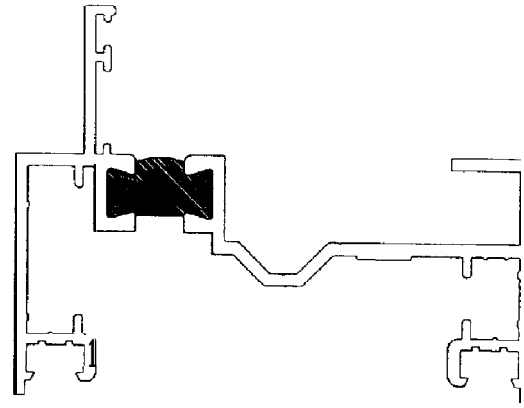


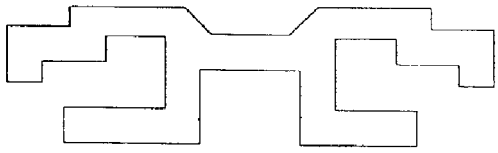
Fig. 2. REVERSIBLE WINDOWS - GA (MILA-TOP SWING GEAR)



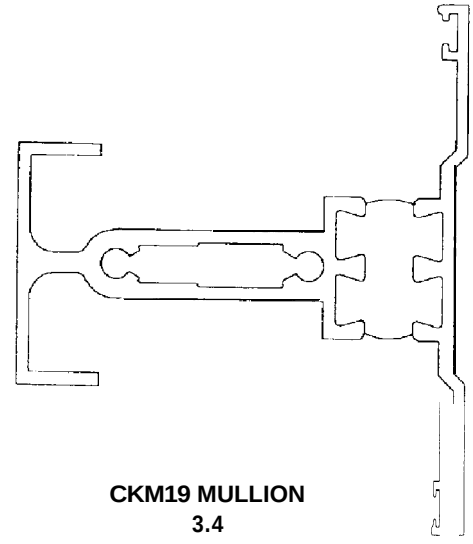
CKV13 SASH FRAME
3.1



CKF14 OUTER FRAME
3.2

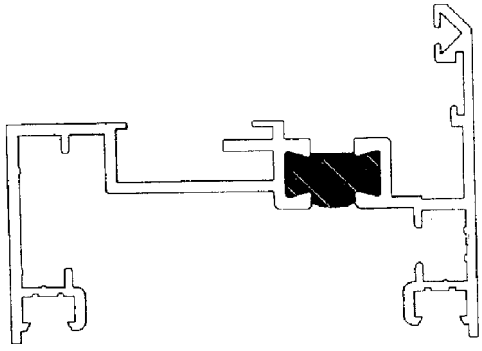


W653 BRACE
3.3

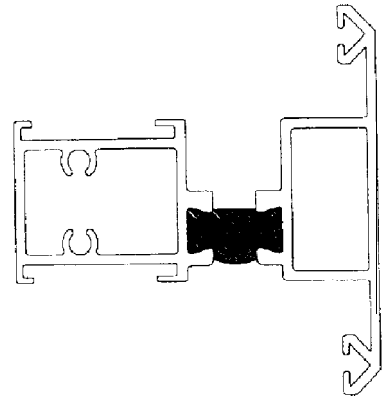


CKM19 MULLION
3.4

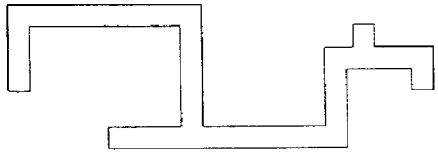
Fig. 3. REVERSIBLE WINDOWS EXTRUSIONS



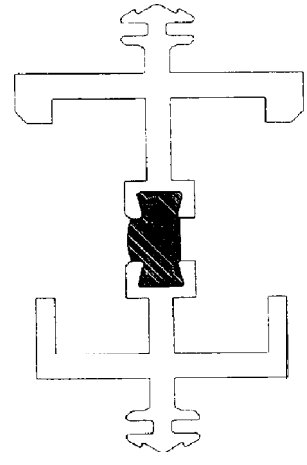
CKF15 FIXED OUTER FRAME
4.1



CKM21 FIXED - MULLION
4.2

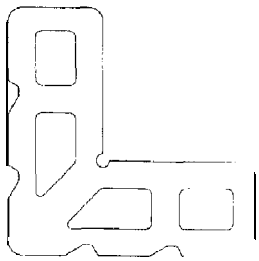


W654 BRACE
4.3

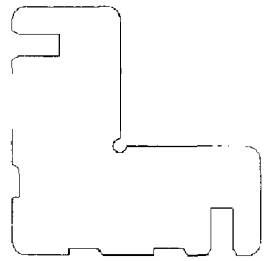


CKM20 COUPLING MULLION
4.4

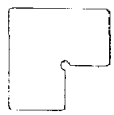
Fig. 4. FIXED LIGHT EXTRUSIONS



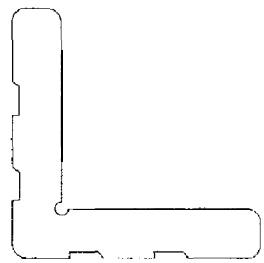
W676 CLEAT
5.1



C3123 CLEAT 24mm
5.2

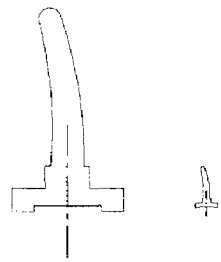


W677 CORNER BRACE
5.3

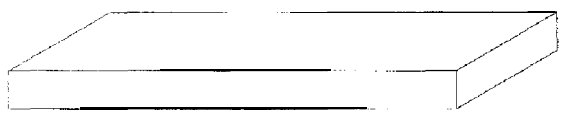


C4038 CLEAT
5.4

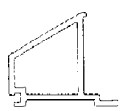
A4074 BUBBLE SEAL (SCALE 5:1)
5.5



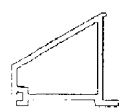
W652 FLIPPER SEAL (SCALE 5:1)
5.6



W655 GLASS PACKER
5.7



CDB20 28mm BEAD
5.8



CDB21 24mm BEAD
5.9

CDB22 4/6mm BEAD
5.10

Fig. 5. ACCESSORIES

B. FORMULAE

B. 1. HARDWARE

1 .IPN - Heavy Duty Projection Hinges

PN - UN PROJECTING TOP HUNG WINDOWS

WINDOW HEIGHT RANGE 'H' (mm)	Length of fitting supplied 'L' (mm)	MONARCH PART No. = PAIR	SUPPLIERS REF. PART No. (l-Set o fittings)	MAXIMUM VENT WEIGHT KGS.	MAX. OPENING ANGLE
288 - 488	228	AW695	50-37450936	40	80°
489 - 988	129	AW696	5O-37460936	50	50°
989 - 1588	650	AW697	50-37L70936	60	50°

TABLE 1.

PN - UNI TOP SWING GEAR - FITTINGS SCHEDULE

WINDOW HEIGHT RANGE 'H' (mm)	Length of fitting supplied 'L'	Dimension 'F'	Module size No.	'C' = Length of track to be removed to maintain 5.5mm clearance at top. Formula = 1) 'H' - 63mm = 'X' 2) 'L' - 'X' = 'C'	The same amount 'C' to be deducted from 'F' dimension to achieve mounting pivot position from the top of sash face.	MONARCH PART No. = PAIR	SUPPLIERS REF. PART No. (Set of fittings)
537 - 636	524	238	6			AW657	50-37760990
637 - 736	624	288	7			AW658	50-37770990
737 - 836	724	338	8			AW659	50-37780990
837 - 936	824	388	9			AW660	50-37790990
937 - 1036	924	438	10			AW661	50-37800990
994 - 1093	981	465	10A			AW662	50-37710990
1037 - 1136	1024	488	11			AW663	50-37810990
1137 - 1236	1124	538	12			AW664	50-37820990
1237 - 1336	1224	588	13A			AW665	50-37730990
1337 - 1436	1324	638	14			AW667	50-37840990
1437 - 1536	1424	688	15			AW795	50-37850990
1537 - 1636	1524	738	16			AW796	50-37860990

To complete a hinge assembly for one window
the following items to be ordered with the above:

1 No. TOPGLIDER SET
2 No. BRACKETS — AW727 (Supplier ref. 50-38890000)
3 No. LOCKING DEVICE

NOTE:
Monarch Aluminium no longer stocks modules 15 and 16 PN-UNI gear.

OPTIONAL ITEM (IF REQUIRED)
2 No. STOP BLOCKS MONARCH Pt. No. AW729 (Supplier ref. 47-38200990)
(Supplied in packs of 10)

NOTE: MAXIMUM SASH WEIGHT = 60kg.

TABLE 2.

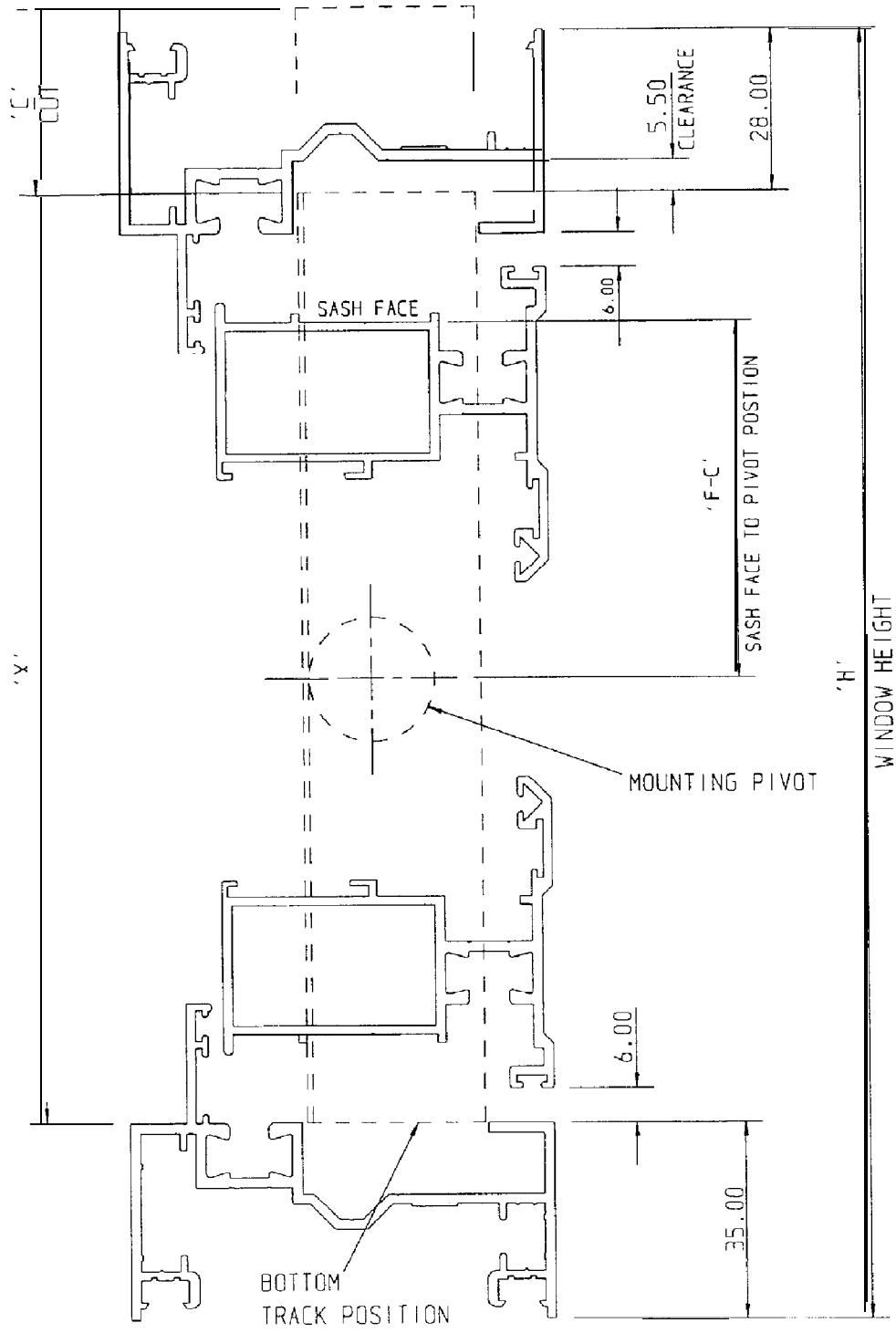


Fig. 6. LAYOUT FOR PN - UNI TOP SWING HINGE

1.2 MILA - 'H' Top Swing Gear

WARNING: Actual track length must never be less than 'RL'.

MICA VIKING - 'H' TOP SWING GEAR - FITTINGS SCHEDULE

HE I GHT OF FRAME	TRACK LENGTH SUPPLIED & MODULE No	MONARRCH PART No	SUPPLIERS REF.	TRACK LENGTH 'RL'
404 to 619	574 & MOD.No.0	AW678	AH.085000 LH.085001	TRACK LENGTH IS DERIVED FROM: HEIGHT OF FRAME - 45mm
620 ta 789	744 & MOD.No.1	AW679	RH.085005 LH.085006	
790 to 999	954 & MOD.No.2	AW680	RH.085010 LH.085011	
1000 to 1249	1204 & MOD.No.3		RH.085015 LH.085016	
1250 to 1373	1328 & MOD.No.4A	AW682	RH.085020 LH.085021	
1250 ta 1573	1528 & MOD.No.4B	AW683	RH.085025 LH.085026	

NOTE: MAXIMUM SASH WEIGHT = 60kg.

AW698
- 2 No.CONSOLE PACKER (SUPPLIER REF.085484 TYPE (P-4)
- 1 No.RH.GLIDER (SUPPLIER REF.085105 TYPE TG-2)
- 1 No.LH.GLIDER ISUPPLIER REF.085406 TYPE TG-21

TABLE 3.

EXAMPLE

Height of Frame	'H'		1500 mm
Track Length	'RL'	=	1500-45
		=	1455 mm
Track Length Supplied	'TL'	=	1528
Amount to cut off each end	'C'	=	$\frac{1528 - 1455}{2}$
		=	36.5 mm

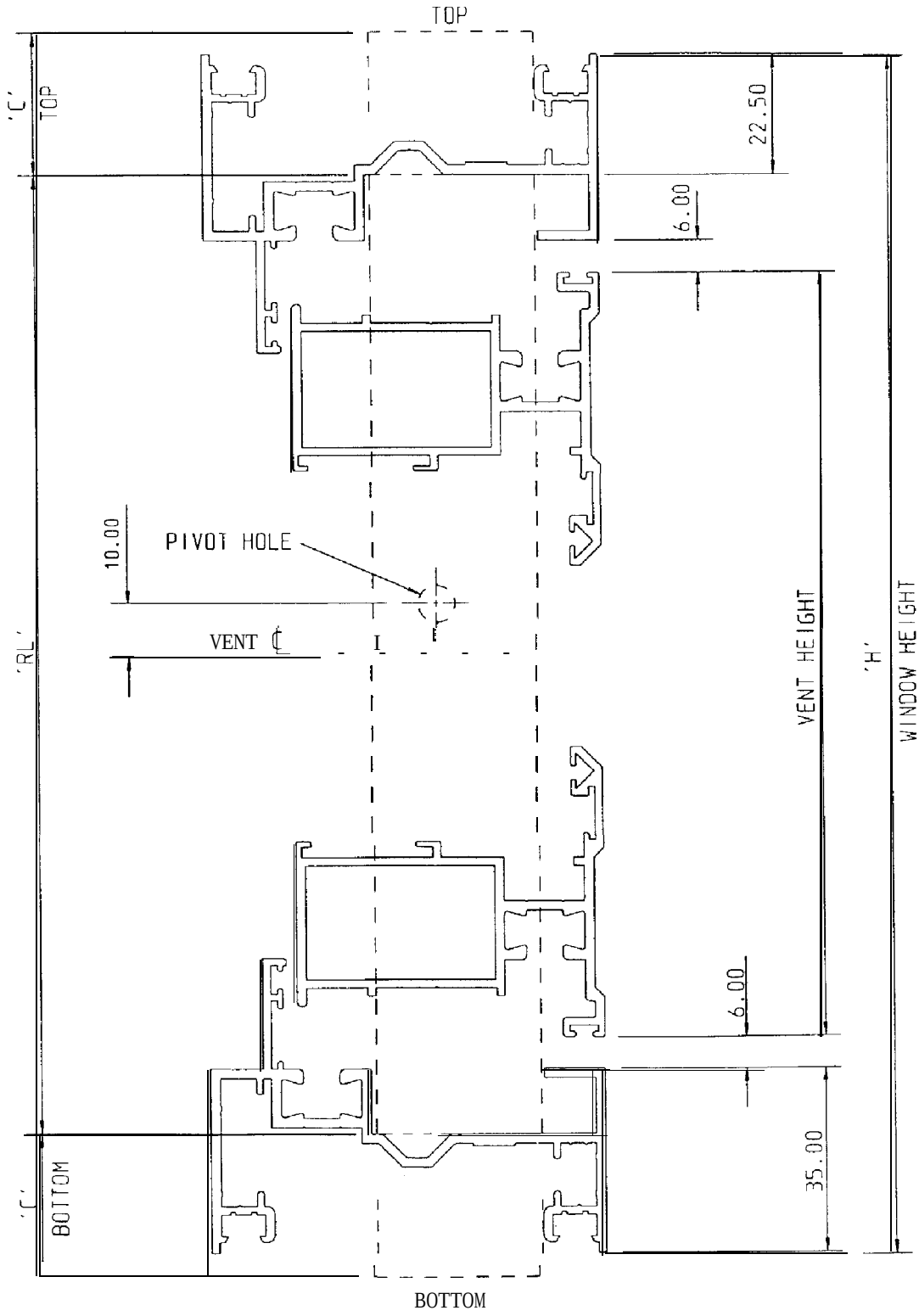
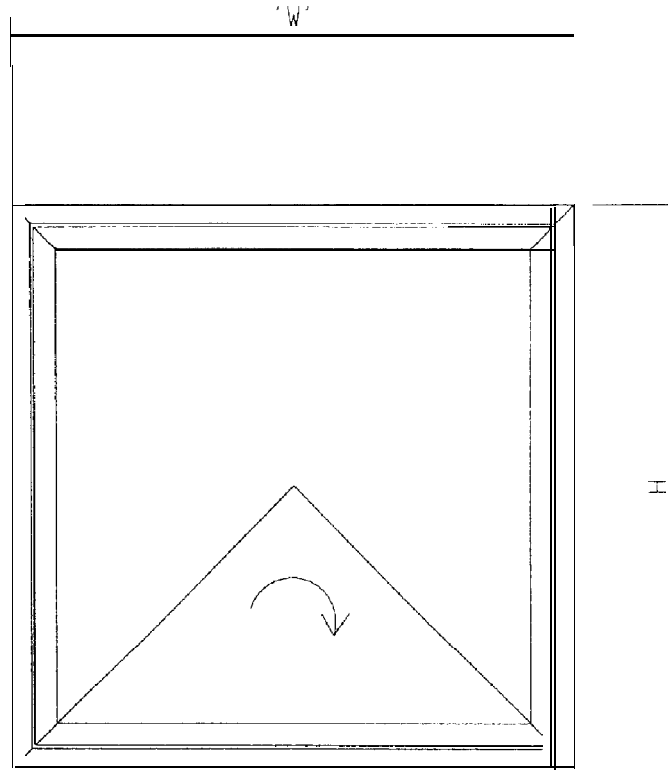


Fig. 7. LAYOUT FOR MILA VIKING 'H' TOP SWING GEAR



GLASS AND COMPONENI EQUATIONS

ALL FORMULAE FOR GLASS AND COMPONENT MEASUREMEN S EXCLUDE THE ADD-ON C ILL WHICH OCCUPIES 18mm OF THE APER URF.

Outer Frame

W

'H'

Weather Bar

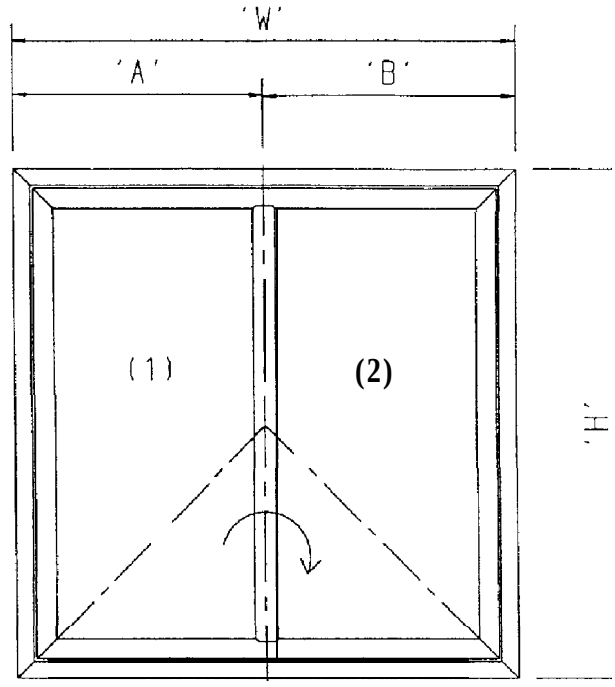
'W'

Vent Frame Glass Size

'W'- 82	'W'- 167
'H'- 82	'H'- 167

N.B. All dimensions are in mi llimetres

TOP SWING FORMULAE



GLASS AND COMPONENT EQUATIONS

ALL FORMULAE FOR GLASS AND COMPONENT MEASUREMENTS EXCLUDE THE ADO ON CILL WHICH OCCUPIES 18mm OF THE APERTURE.

N.B. All dimensions are in millimetres

Outer Frame

'W'
'H'

Weather Bar

'W'

Vent Frame

'W' - a2
'H' - 82

Mullion

'H' - 156

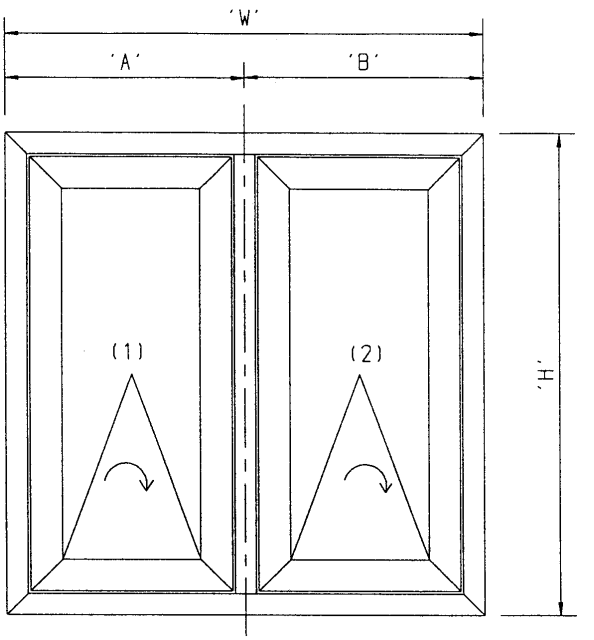
Glass Size (1)

'A' - 102
'H' - 167

Glass Size (2)

'8' - 102
'H' - 167

TOP SWING FORMULAE (MULLION IN VENT)



GLASS AND COMPONENT EQUATIONS

ALL FORMULAE FOR GLASS AND COMPONENT MEASUREMENTS EXCLUDE THE ADD-ON CILL WHICH OCCUPIES 18mm OF THE APERTURE.

Outer Frame

'W'
'H'

Weather Bar

'W'

Mullion (Transom Bar)

'H' - 70

Vent Frame (1)

'A' - 64.5
'H' - 82

Vent Frame (2)

'B' - 64.5
'H' - 82

GLASS SIZE (1)

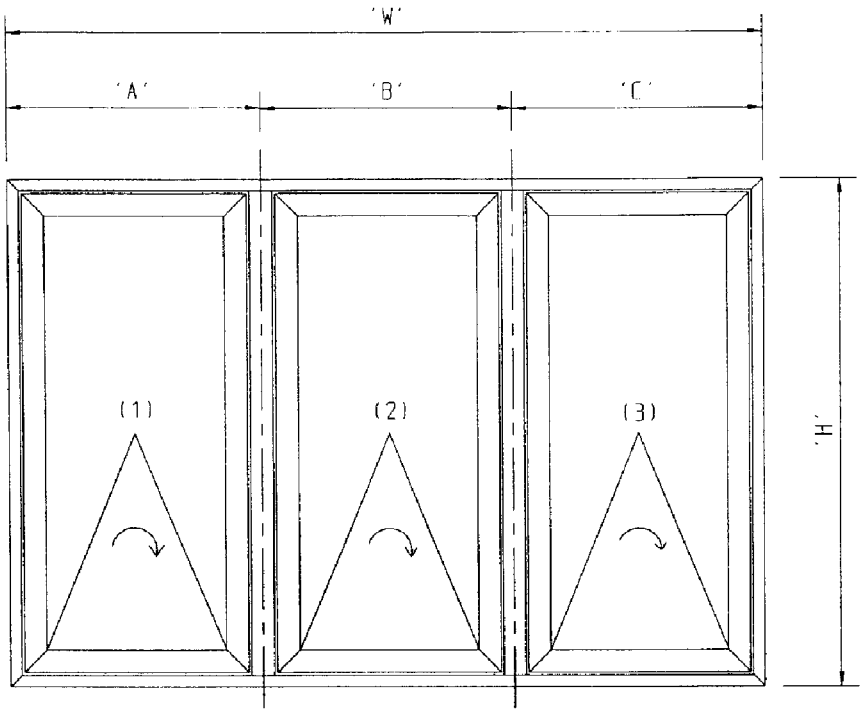
'A' - 149.5
'H'- 167

GLASS SIZE (2)

'B' - 149.5
'H'- 167

N.B. All dimensions are in millimetres

TOP SWING FORMULAE (MULLION BETWEEN VENTS)



GLASS AND COMPONENT EQUATIONS

ALL FORMULAE FOR GLASS AND COMPONENT MEASUREMENTS EXCLUDE THE ADD-ON CILL WHICH OCCUPIES 18mm OF THE APERTURE.

Outer Frame

'W'
'H'

Weather Bar

'W'

2- Mullions (transoms)

'H' - 70

Vent Frame (1)

'A' - 64.5
'H' - 82

Vent Frame (2)

'B' - 47
'H' - 82

Vent Frame (3)

'C' - 64.5
'H' - 82

Glass Size (1)

'A' - 149.5
'H' - 167

Glass Size (2)

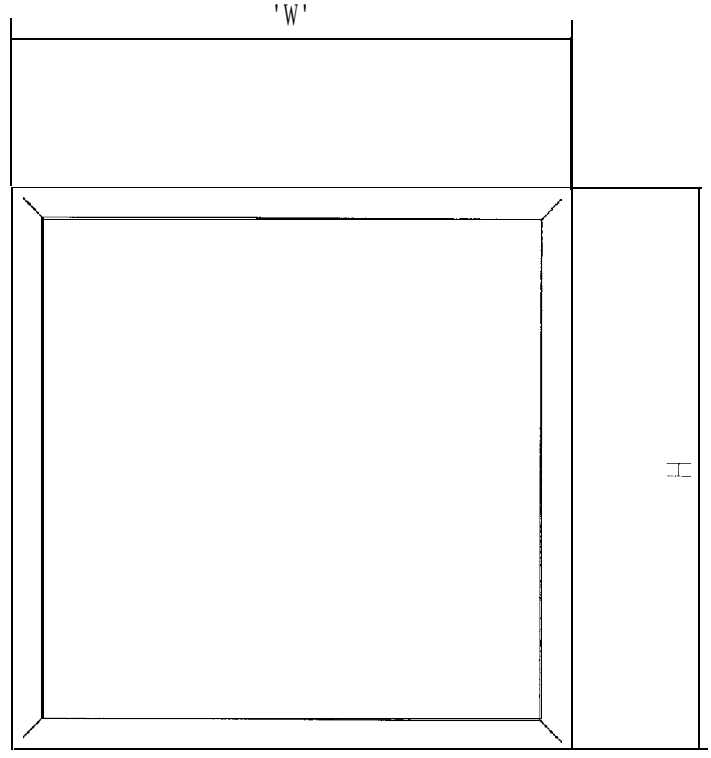
'B' - 132
'H' - 167

Glass Size (3)

'C' - 149.5
'H' - 167

N.B. All dimensions are in millimetres

TOP SWING FORMULAE (TWO MULLIONS)



ALL FORMULAE FOR GLASS AND COMPONENT MEASUREMENTS EXCLUDE THE ACID-ON CILL WHICH OCCUPIES 18mm OF THE APERTURE

Outer Frame

'W'

'H'

Weather Bar

'W'

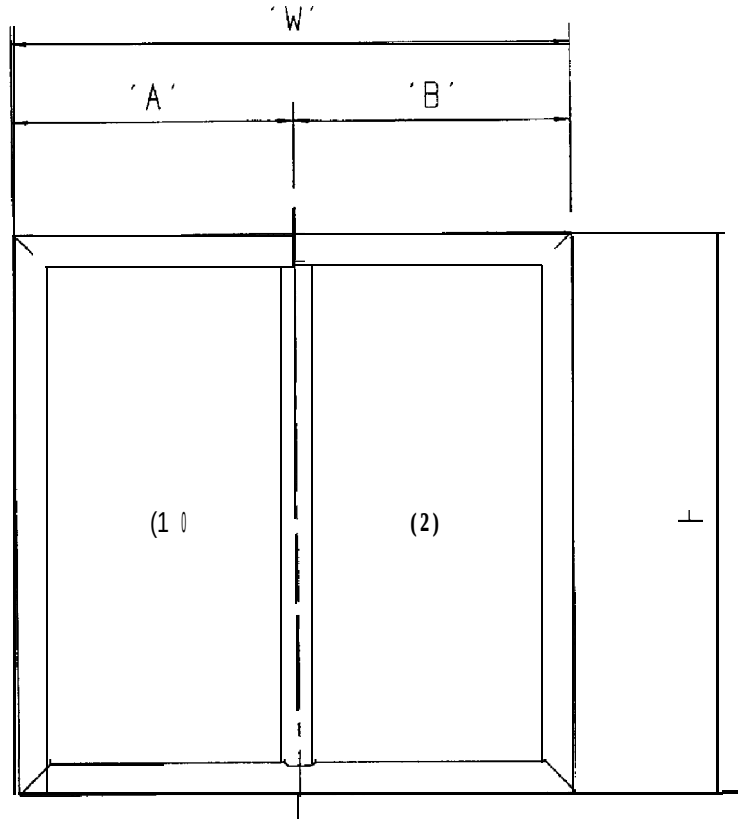
Glass Size

'W'- 81

'H'- 81

N.B. All dimensions are in millimetres

FIXED LIGHT FORMULAE



ALL FORMULAE FOR GLASS AND COMPONENT MEASUREMENTS EXCLUDE THE ADD-ON CILL WHICH OCCUPIES 18mm OF THE APERTURE

N.B. ALL dimensions are in millimetres

Outer Frame

'W'

'H'

Weather Bar

'W'

Mullion

'H'- 70

Glass Size III

'A'- 59

'H'- 81

Glass Size (2)

'B'- 59

'H'- 81

FIXED LIGHT FORMULAE (WITH MULLION)

C. 1. SAFETY AND IMPORTANT NOTES

Always wear suitable eye protection when sawing or machining aluminium extrusions.

The reversible window hinges incorporate safety catches which must be released to rotate and shut the vent.

Always use both hands to operate these windows.

Always hold the vent firmly when releasing the safety catch.

Always keep hold of the moving vent, especially in windy conditions.

When installing the vent on site make sure your footing is firm and dry.

c. 2. TOOLING AND EQUIPMENT

W689 Crimper Anvil for CKF14 Window Frame
W690 Crimper Anvil for CKF1 5 Fixed Frame
W691 Crimper Anvil for CKV13 Vent

Note: W574 Punch Heads are used for crimping the frame.
W575 Punch Heads are used for crimping the vent.

W687 Cockspur Handle Drill Jig.
W789 Mullion Drill Jig CKM19
W788 Mullion Drill Jig CKM21

We recommend using a 22 mm (7/8") Hole Saw with pilot drill to cut the pivot locating holes for the PN gear.

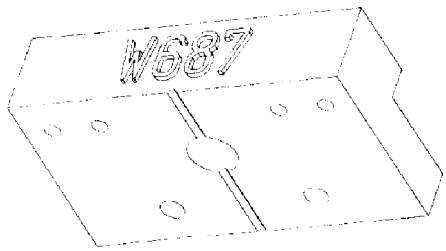


Fig. 8. W687 DRILL **JIG**

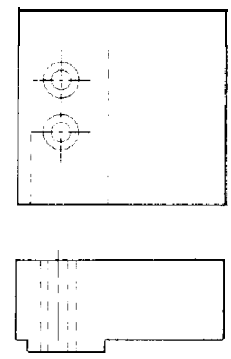


Fig. 9. W788 - CKM21 MULLIONS

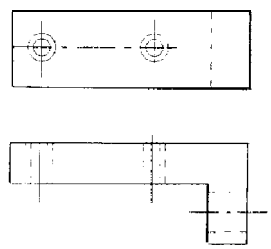


Fig. 10. W789 - CKM19 MULLION

C. 3. FABRICATION AND ASSEMBLY

3.1 Peder Nielsen Hardware

See Section B 1 .1 for details of how to calculate hinge track lengths, and Section B 2 for component length formulae.

3.1.1 Outer Frame

Cut the frame members to length, fit the bubble seal, cleats and chevron see Fig. 11.

Slide sufficient support brace/s (W653) into the side and top extrusions (1/300 mm).

Coat mating surfaces with silicone sealant and crimp using the correct anvil and direct fix heads - see Section A 4.

Wipe off excess sealant.

Drill at least two equally spaced 8 mm diameter drainage holes in the frame cill fixing channel - see Fig. 12.

If frame fixing points are known the support braces can be positioned using the insulating foam strip (C3131). Clearance holes of appropriate diameter can be drilled through frame and braces - see Fig. 13.

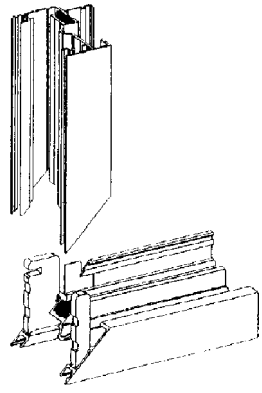
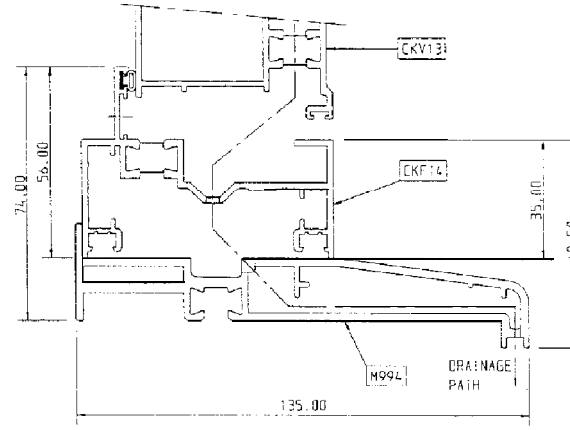


Fig. 11. OUTER FRAME CORNER ASSEMBLY



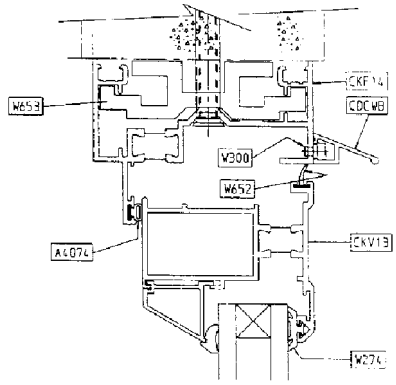


Fig. 13. FIXING METHOD

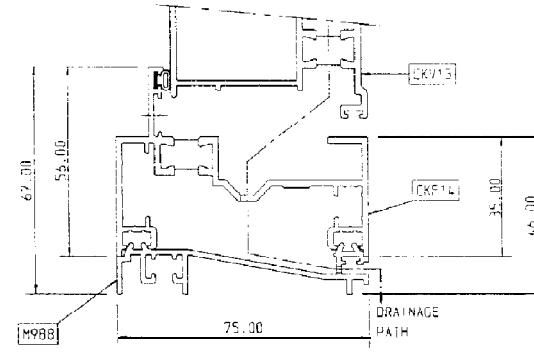


Fig. 12. DRAINAGE PATHS

3.1.2 Vent

Cut the vent members to length and fit the 'E' gasket,

Drill 22 mm diameter holes in the vent side members to the dimensions worked out from Section B tables. The hole centre must be on the die line on the extrusions - see Fig. 6 (page B3).

Note: These holes may be drilled after the vent is crimped.

Coat mating surfaces with silicone sealant and crimp using the correct anvil and CK heads - see Fig. 14.

Fit the flipper seal (W652) into the vent head - see Fig. 13.

Drill at least two equally spaced 6 mm dia drain holes through the thermal break in the bottom of frame - see Fig. 12.

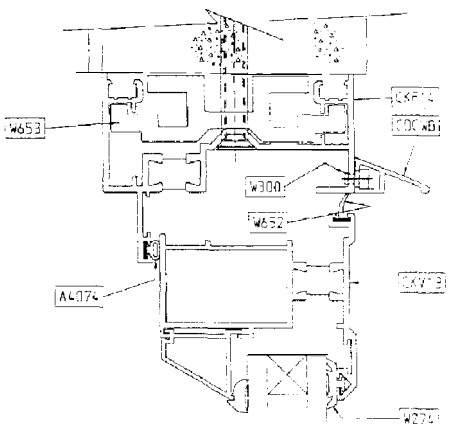


Fig. 13. FIXING METHOD

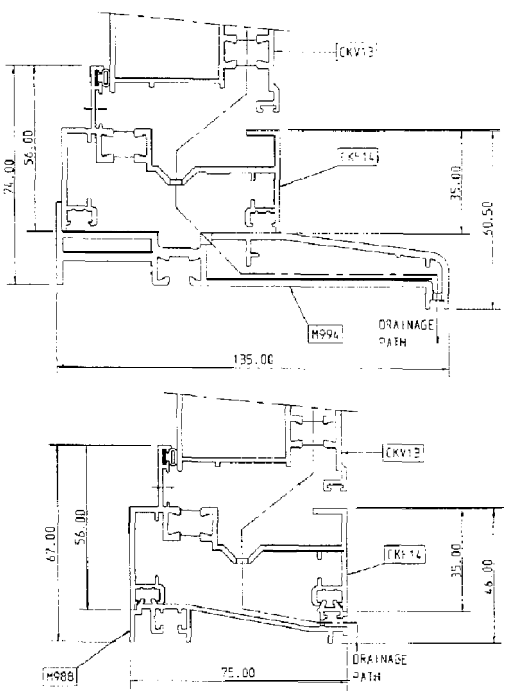


Fig. 12. DRAINAGE PATHS

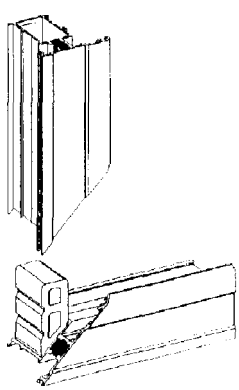


Fig. 14. VENT CORNER ASSEMBLY

3.1.3 Fitting the Gear - Top Swing

Having cut the tracks to length place them into the outer frame with 5.5 mm clearance at the top - Fig. 6 (page 83). Fix them with No. 8 x 1/2" (or longer) Pozi CSK S/T screws through the middle of the elongated hole just below the top plate - see Fig. 15.

Note: The safety catch track must be fitted to the left side of the frame viewed from INSIDE.

Fit the top gliders (left and right hand) and brackets to the vent as shown with No. 8 x 1/2" **Pozi** CSK S/T screws - see Fig. 16.

Optional stop blocks should be fitted, if specified, to the top glider channel - see Fig. 17.

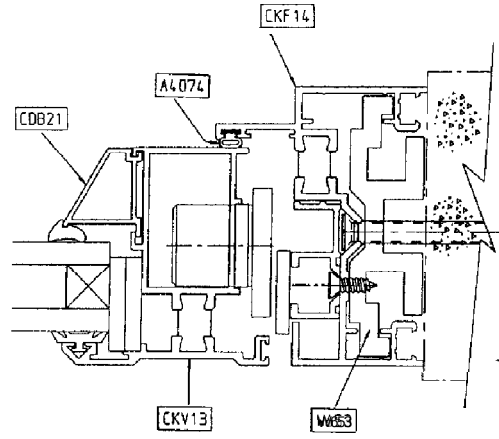


Fig. **15.** FIXING PN - UNI TRACKS

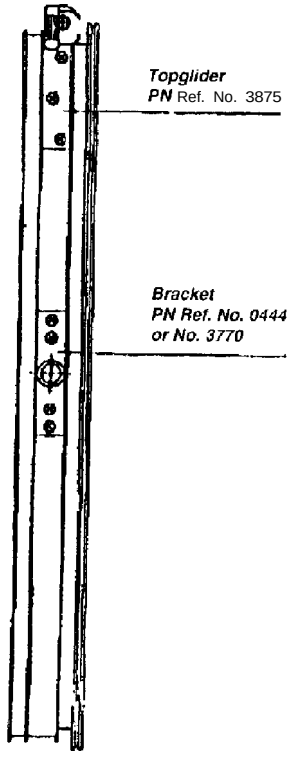


Fig. 16. FITTING TOP GLIDERS

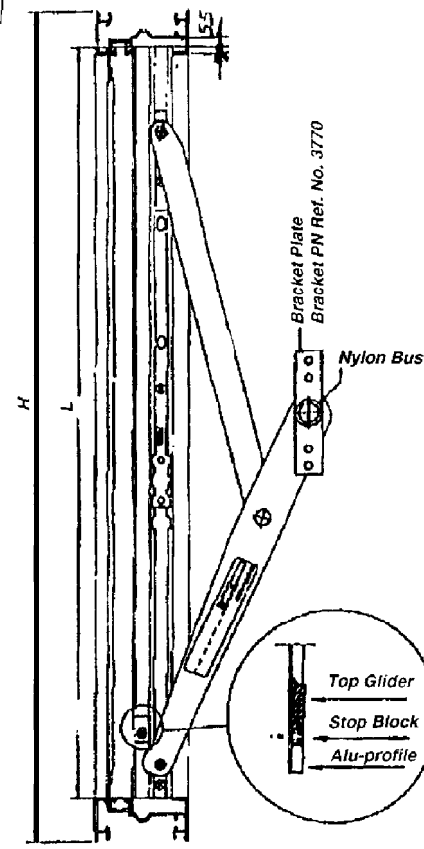


Fig. 17. FITTING STOP BLOCK

3.1.4 Assembly

Tilt the vent and locate the nylon top gliders into the inner channel of the track - see Fig. 18. Ensure the glider block is correctly orientated with the flange to the inside of the track.

Lubricate then locate the pivot points into the brackets.

NOTE: The vent can be removed only by unscrewing the brackets.

3.1.5 Adjustment - Vent to Frame

Align the vent within the frame by moving the tracks up or down. Finally fix the tracks with No. 8 x 1/2" Pozi CSK S/T screws.

3.1.6 Fitting the Handle

Close the vent then mark lightly the position of the handle(s) centre line(s).

NOTE: For windows of 1000 mm or more in width two handles must be used.

Place the drill jig (W687) in position and keeping a firm hold of the jig, drill 3.2 mm holes in the vent and 4.8 mm holes in the frame - see Fig. 19.

NOTE: If jig is not available use the dimensions given in Casement Manual C2027 Page 34 or Fig. 19.

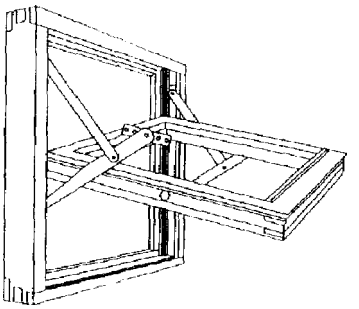


Fig. 18. ASSEMBLY OF VENT TO FRAME

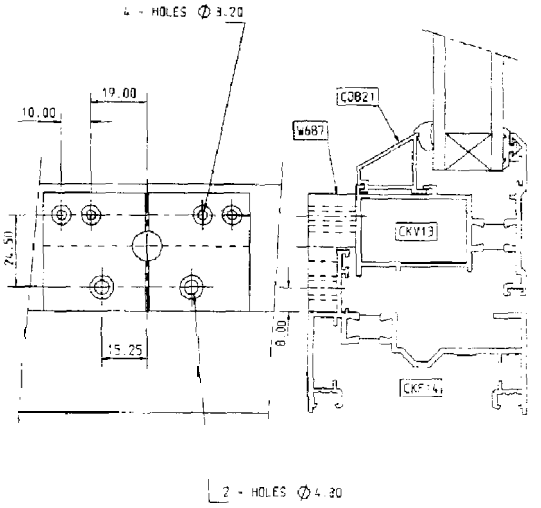


Fig. 19. HANDLE DRILL JIG

3.1.7 Fitting the Gear - Top Hung Friction Hinges

Butt the top of the slide rail into the top corner of the jamb and fix it with No. 6 x 1/2" Pozi PH S/T screws.

Offer the vent to the hinges, locate the top brackets in the channel around the top corners and fix with No. 8 x 1/2" Pozi CSK S/T screws.

Adjust the friction on each hinge so the vent moves smoothly.

Fix the stop blocks in the rails with No. 6 x 3/4" Pozi CSK S/T screws at the desired position to prevent over rotation of the vent.

3.2 MILA **Hardware**

See Section B.1.2 for details of how to calculate hinge track lengths, and Section B.2 for component length formulae.

3.2.1 Outer Frame

Cut the frame members to length, fit the bubble seal, cleats and chevron see Fig. 11.

Slide sufficient support brace/s (W653) into the side and top extrusions (11300 mm).

Coat mating surfaces with silicone sealant and crimp using the correct anvil and direct fix heads - see Section A 4.

Wipe off excess sealant.

Drill at least two equally spaced 8 mm diameter drainage holes in the frame cill fixing channel - see Fig. 12.

If frame fixing points are known the support braces can be positioned using the insulating foam strip (C3131). Clearance holes of appropriate diameter can be drilled through frame and braces - see Fig. 13.

3.2.2 Vent

Cut the vent members to length and fit the 'E' gasket.

On the outside face of the vertical members mark a point 1 Omm up from the mid-point centred on the die line in the extrusion. Dnll 7 mm holes at these points for the pivots - see Fig. 7 (section B5).

Note: These holes may be drilled after the vent is crimped.

Coat mating surfaces with silicone sealant and crimp using the correct anvil and CK heads.

Fit the flipper seal (W652) into the vent head - see Fig. 13

Drill at least two equally spaced 6 mm dia. drain holes through the thermal break in the bottom of the frame - see Fig. 12.

3.2.3 Fitting the Gear

Having cut the tracks to length and removed any swarf fit them into the outer frame using No. 8 x 3/4" Pozi CSK S/T screws - see Fig. 20.

Note: The track with the safety catch spigot must be fitted to the RIGHT hand side - viewed from INSIDE.

Fit the top gliders (left and right hand viewed **from inside)** to the vent top corners using No. 8 x 1/2" Pozi PH S/T screws.

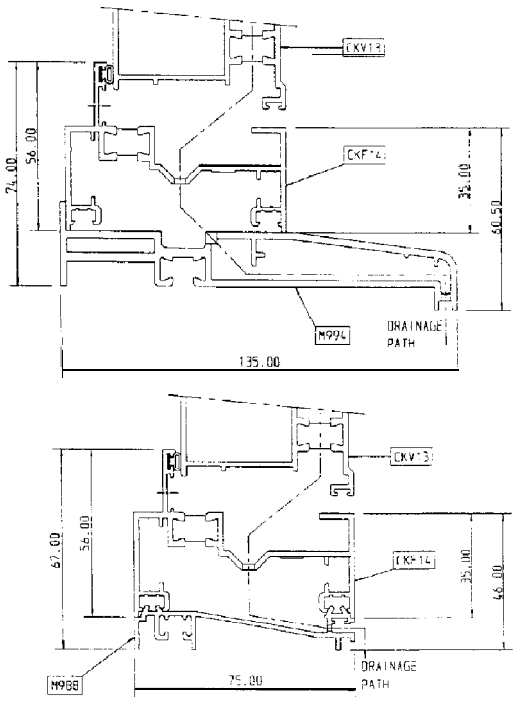


Fig. 12. DRAINAGE PATHS

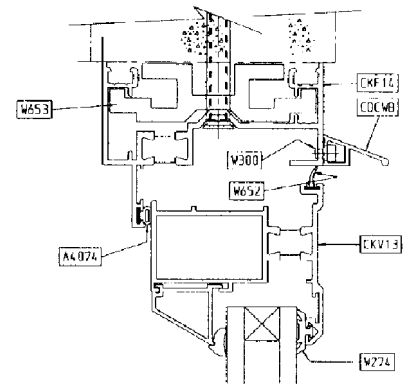


Fig. 13. **FIXING METHOD**

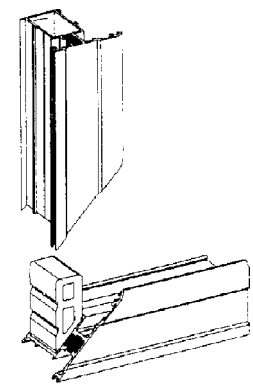


Fig. 14. VENT CORNER ASSEMBLY

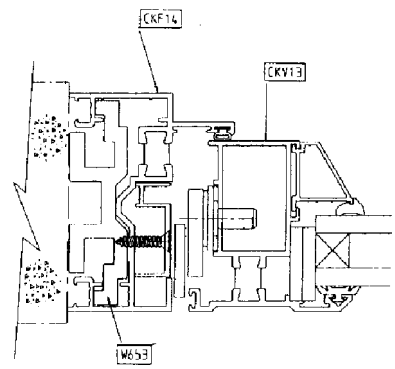


Fig. 20. FIXING MILA TRACKS

3.2.4 Assembly

Tilt the vent and locate the top gliders into the track.

Place a 1 mm packer (W686) onto **each** pivot pin then engage the pins in the **holes** in the vent. Fix the pin support brackets with No.8 x 1/2" **CSK SIT screws.**

3.3 **Fixed Lights (Figs. 21 & 22)**

Cut the **frame** members to length, fit the 'E' gasket, cleats and chevron.

Slide sufficient support braces (W654) into the side and top **extrusions** (1 per 300 mm).

Coat mating surfaces with silicone sealant and crimp using the correct **anvil and** direct fix heads - see Section A.4.

Wipe off excess sealant, then fit the insulating foam strip (C3131) to the sides and top of the frame.

- Rout or drill the face or concealed drainage slots depending on method chosen for each installation.

Note: Where the fixed frame is coupled to a reversible window or internally beaded vent/ frame unit the drainage method should be the same for both.

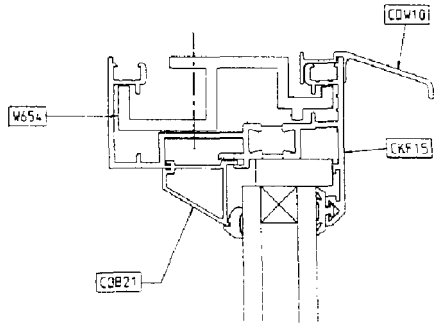


Fig. 21. FIXED LIGHT - HEAD

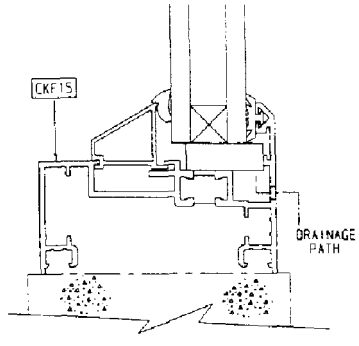


Fig. 22. FIXED LIGHT - CILL

3.4 Fitting Mullions

3.4.1 Fitting a CKM19 Mullion

This mullion may be fitted into the frame between two vents.

Cut the mullion to lengths (see Section 8.2) and prepare both ends - see Fig. 23.1.

Mark the mullion centre line position then drill ø 5mm fixing screw clearance holes using drill jig W789 - see Fig.23.2.

Apply colour matched or clear silicone to both ends then place it in position and secure with No. 10 x 1" (PN) or No. 8 x 5/8"Type B (MILA) Pozi PH S/T screws - see Figs. 24.1 & 2.

NOTE: When fitting PN-UNI tracks to the mullion use No. 8 x 5/8" Pozi CSK flat end screws.

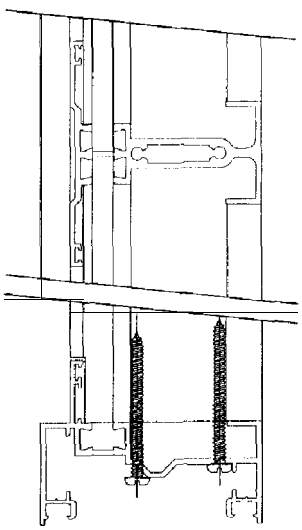


Fig. 23.1. CKM19 MULLION PREPARATION

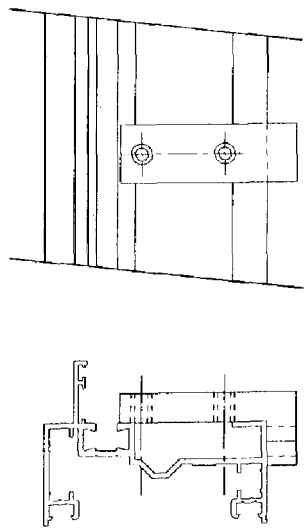


Fig. 23.2. DRILL JIG W789

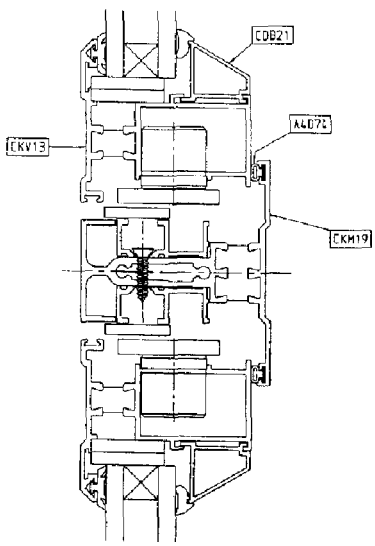


Fig.24.1. CKM19 MULLION - PN GEAR

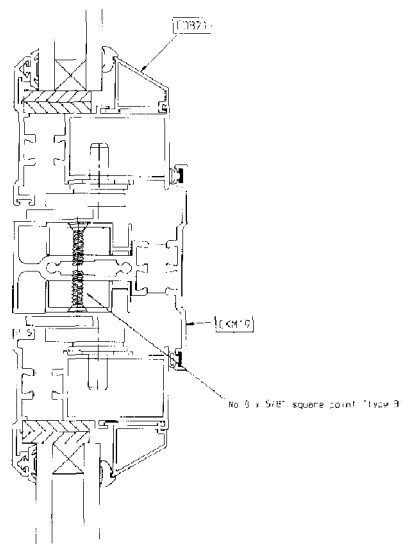


Fig. 24.2. CKM19 MULLION MILA GEAR

3.4.2 Fitting a CKM21 Mullion

This mullion may be fitted into a reversible window vent, or fixed frame.

Prepare the mullion as shown in Fig. 25. Take care to ensure the 45° chamfer Cut is free from burrs.

On the relevant frame members mark the centre line of the mullion, and using drill jig W788 drill the fixing screw clearance holes (ø 5 mm). Fig. 26.

Fit gasket to one free end, and between the mullion position and that end, and crimp a 'U' shape.

Carefully slide the mullion into position, apply silicone sealant to the ends then screw fix it using No. 8 x 1" Pozi PH S/T screws.

Fit gasket to remaining members and crimp them together.

NOTE: For cruciform joints, and fitting the mullion to CKV13 Vent frame, use cleat C4224.

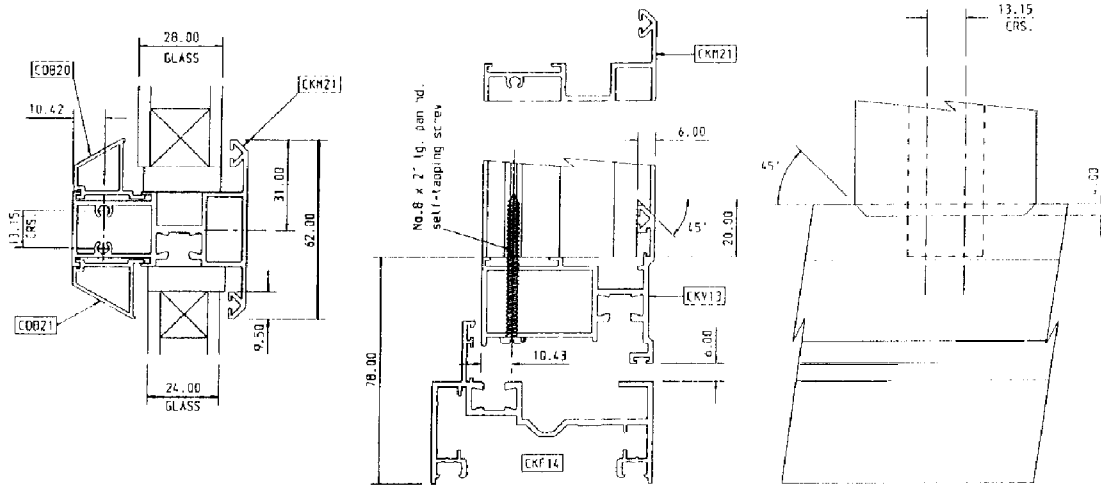


Fig. 25 PREPARATION AND FITTING OF CKM21 MULLION

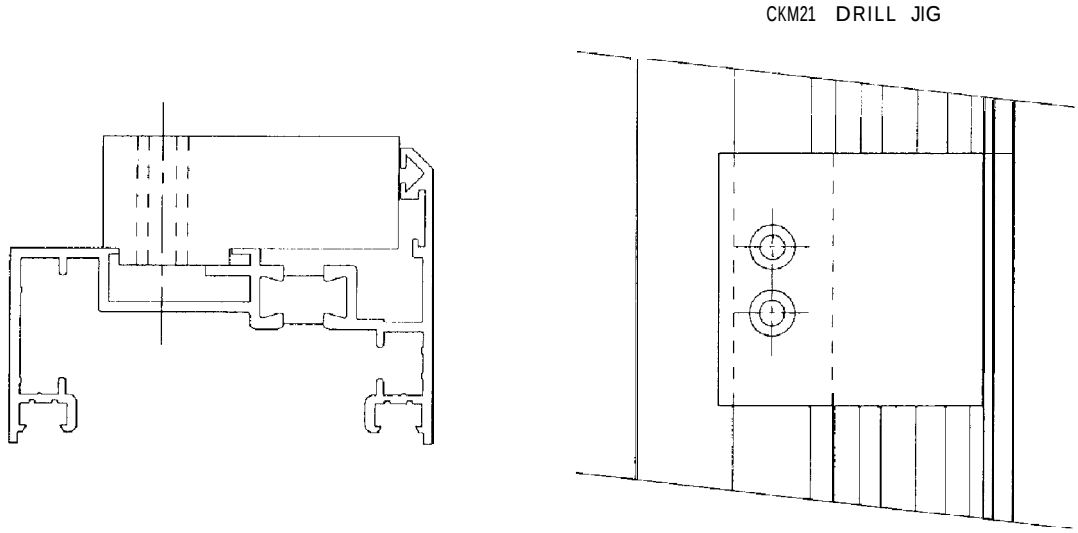


Fig. 26 USING DRILL JIG W788

3.5 Trickle Vents (Figs. 27 & 28)

Trickle vent assembly (AW647) can be fitted to reversible and fixed frames. Packer(s) must be fitted as shown.

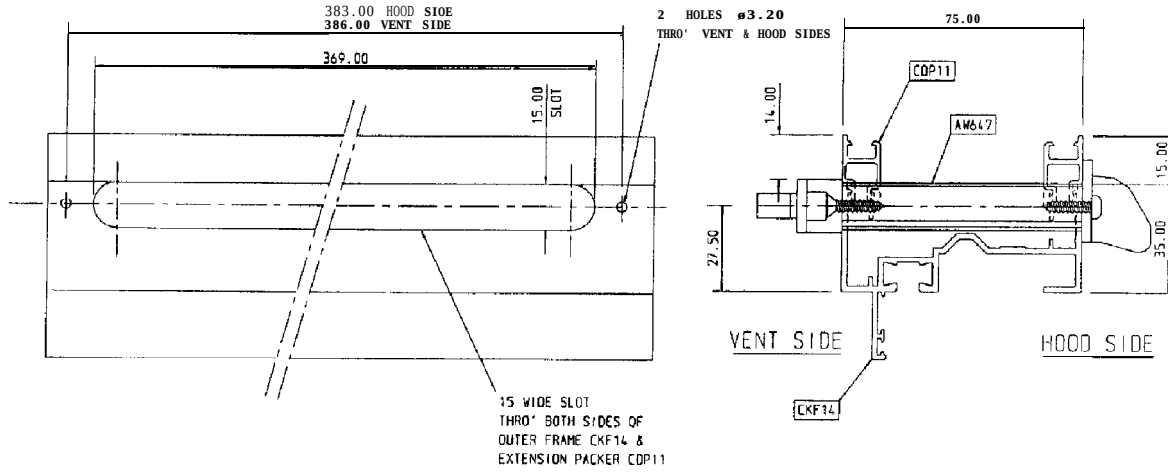


Fig. 27 FITTING TRICKLE VENT TO WINDOW FRAME

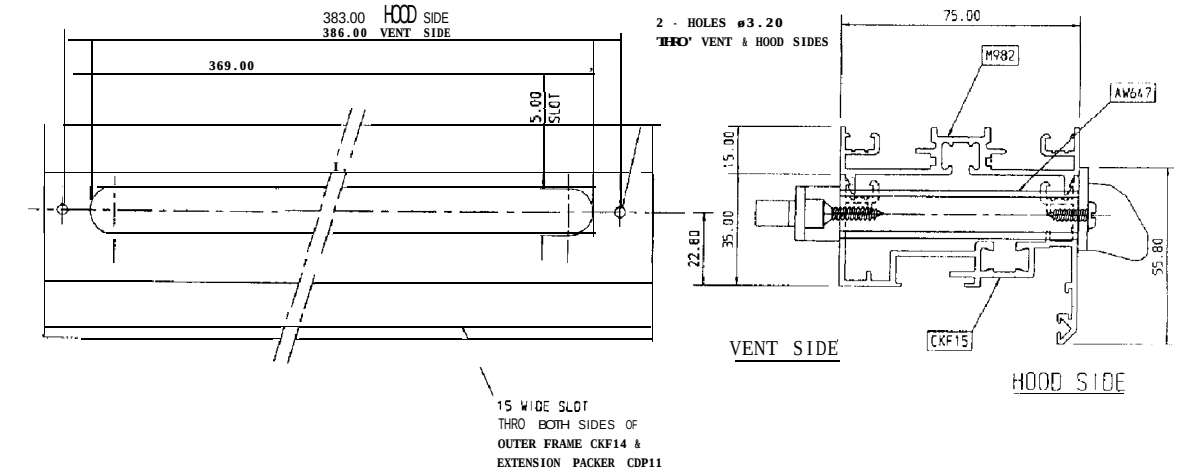


Fig. 28 FITTING TRICKLE VENT TO FIXED LIGHT

C. 4. GLAZING (Fig. 29)

Notes:

1. Vents may be glazed in the factory or on site.

   In 'high rise' installations, to simplify the fitting of the vent and to prevent accidents or injury to people, we recommend vents are installed unglazed.

2. For transit the sealed units can be fitted and held securely by short lengths of wedge on each side.

   - Place glass packers (W655) into the vent frame bottom corners, insert the sealed unit then pack each side to centralise it.
   - Fit the relevant glazing beads and wedge - See chart.

GLAZING CHART FOR REQUIRED UNIT					
GLAZING THICKNESS	GLAZING BEAD	'E' GASKET	GLAZING WEDGE (WITH DESIGN GAP)		BEAD CUT ANGLE
28mm	COB20	W274 (PURPLE)	W265 (YELLOW)	6-7mm	30°
24mm	COB21	W274 (PURPLE)	W264 (WHITE)	5-6mm	30°
6mm	COB22	W274 (PURPLE)	W262 (ORANGE)	3-4mm	SQUARE
4mm	COB22	W274 (PURPLE)	W264 (WHITE)	5-6mm	SQUARE

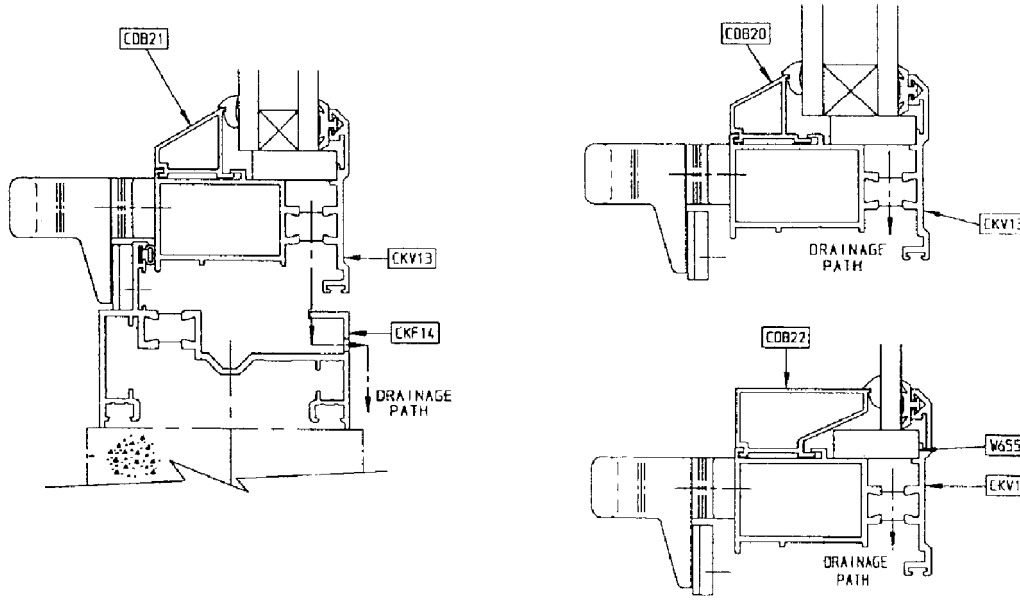


Fig. 29. GLAZING

D. INSTALLATION

D. **1.** TOP SWING WINDOWS

Note: The windows will normally be supplied to site with the vent glazed and fitted to the frame. A drainage tray or projecting cill may also be fitted.

For safety, and for ease of installation, always de-glaze the vent before offering the assembly into the aperture from the outside of the building.

1.1. Peder Nielsen Hardware (Fig. 30)

Choose the frame fixing positions - minimum of 3 each side and maximum 300 mm between fixings.

As necessary reposition the plastic braces in the back of the frame using the foam strip to hold them in place.

Open the vent and drill suitable diameter clearance holes through the inner track channel ‘and’ the fixing braces. De-burr and clean the track of debris.

Offer the assembly into the aperture, ensure it is square and plumb, and fix with suitable heavy duty fixings through the sides, and the head if appropriate.

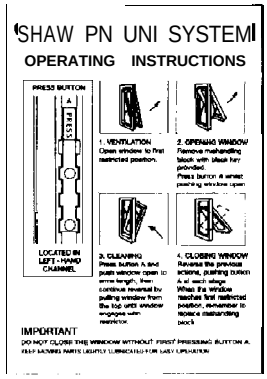
Refit the sealed unit, beads and glazing wedge.

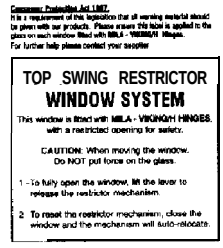
Thoroughly clean and lightly lubricate the tracks with Vaseline, silicone lubricant or acid free oil. Joints and pivots should be similarly lubricated.

Check that the window functions correctly and smoothly.

The Key operated locking device should be fitted to the left hand track immediately above the latch.

Apply the self adhesive Operating Instructions label to the sealed unit at an appropriate position.





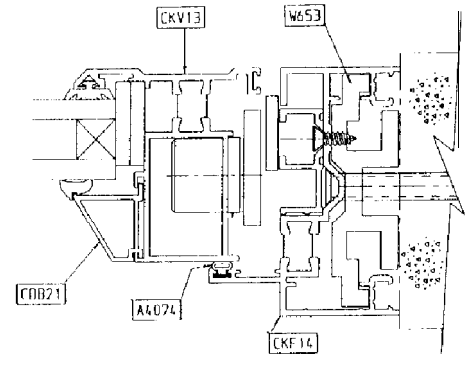


Fig. 30. INSTALLATION - PN GEAR

1.2 MILA Hardware (Fig. 31)

Choose the frame fixing positions - minimum of 3 each side and maximum 300 mm between fixings. Avoid the area between the hinge pivots.

As necessary reposition the plastic braces in the back of the frame using the foam strip to hold them in place.

Drill 14 mm clearance holes centrally in the track face in line with the braces. Then drill

clearance holes of appropriate size through the frame, braces and into the masonry. Offer the assembly into the aperture, ensure it is square and plumb, and fix with suitable heavy duty fixings through sides and the head if appropriate.

Use plugs (Al 1 00W/S/E) to cover the clearance holes.

Refit the sealed unit, beads and glazing wedge.

Thoroughly clean and lightly lubricate the tracks with Vaseline, silicone lubricant or acid free oil. Joints and pivots should be similarly lubricated.

Check that the window functions correctly and smoothly.

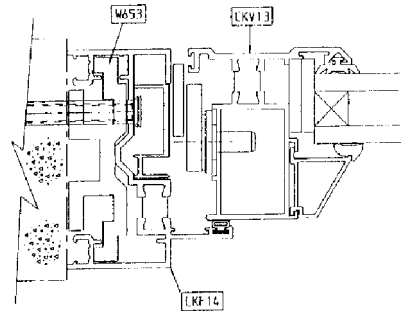


Fig. 31. INSTALLATION - MILA GEAR

1.3. **General (Figs. 32 & 33)**

Where a drainage tray or projecting cill is fitted make sure foam bungs (W692) are inserted at both ends of the cill/frame joint. The bungs must be silicone sealed in place to prevent water tracking to the brickwork - Fig. 32

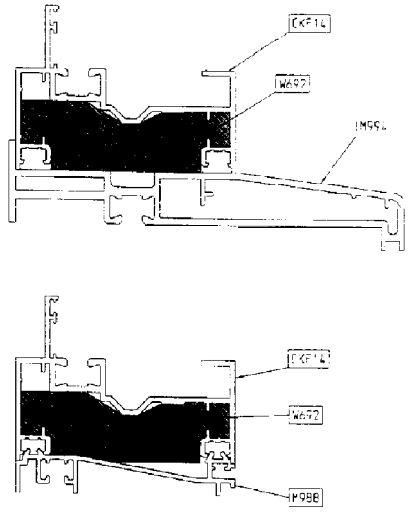


Fig. 32. FITTING FOAM BUNGS

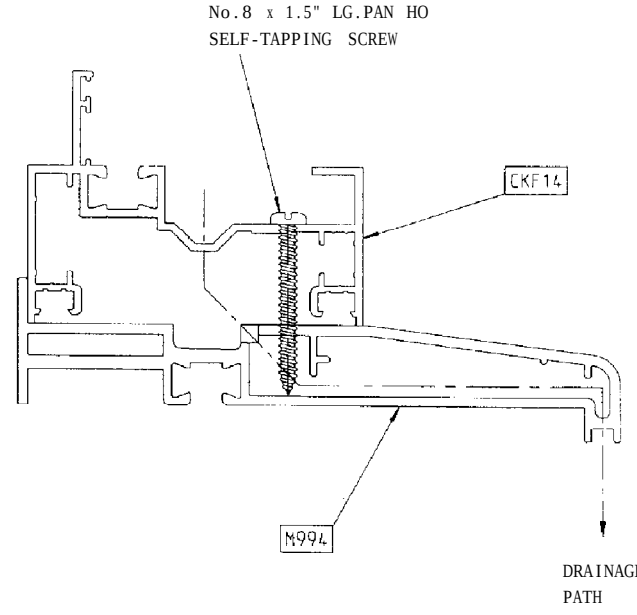


Fig. 33. FIXING ADD-ON CILL TO WINDOW

D. 2. FIXED LIGHTS AND COMBINATIONS

2.1 Fixed Lights Only (Figs. 22 & 34)

Choose the frame fixing positions - minimum of 3 each side and maximum 300 mm between fixings.

As necessary reposition the plastic braces in the back of the frame using the foam strip to hold them in place.

De-glaze if necessary and drill suitable size clearance holes through frame and braces.

Offer the assembly into the aperture, ensure it is square and plumb, and fix with suitable heavy duty fixings through the sides, and the head if appropriate.

Refit the sealed unit, beads and glazing wedge.

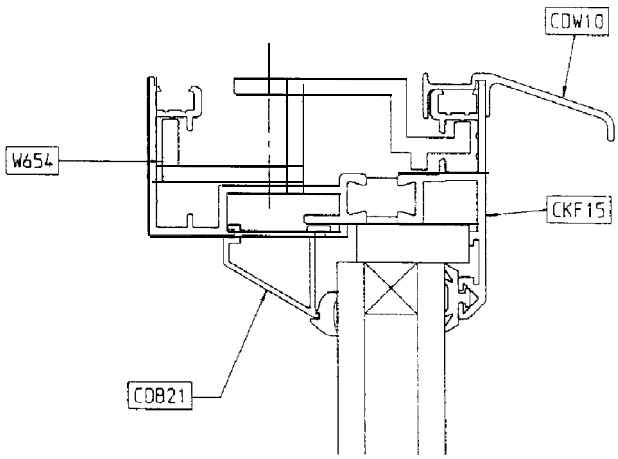


Fig. 21. FIXED LIGHT - HEAD

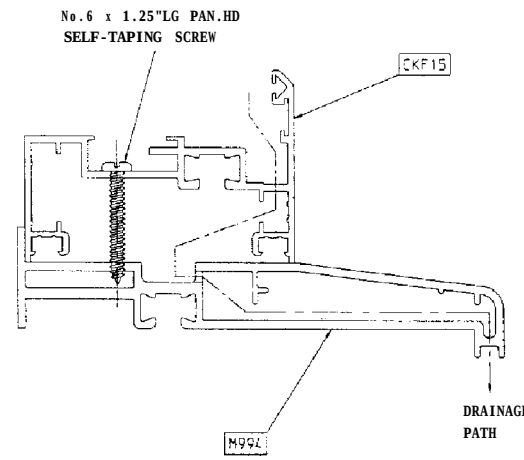


Fig. 34. FIXING ADD-ON CILL TO FIXED LIGHT

DRAINAGE

For combinations of window/fixed and fixed/ window the upper frame must be face drained. When CKF14 is on top the recessed channel should be levelled off using a colour matched A756 flat trim.

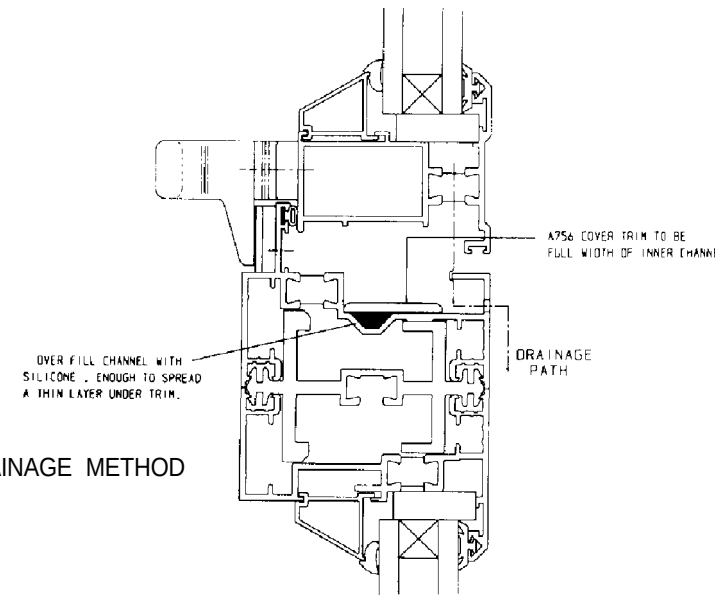


Fig. 35. DRAINAGE METHOD

2.2 Fixed Light/Window Combinations (Figs 36-39)

For ease of handling we recommend the two frames are fixed together before installation or vents are fitted.

Use No. 8 x 1 1/2" Pozi PH S/T screws from the fixed frame side and No. 8 x 1/2" (PN) or No. 8 x 1 1/4" (MILA) Pozi CSK S/T screws from the vent side.

Maximum distance between adjacent screws is 300 mm.

Proceed as in G.I and D. 2.1

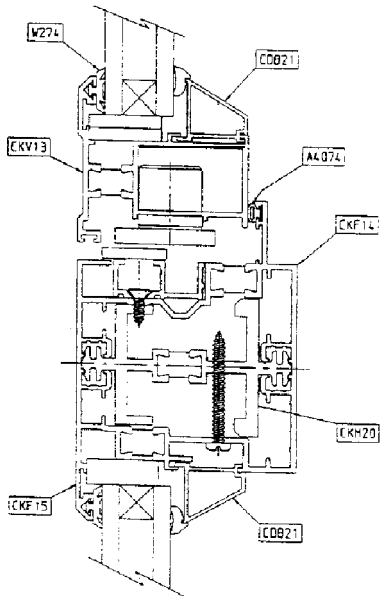


Fig. 36. FIXED LIGHT/PN TOP SWING COMBINATION

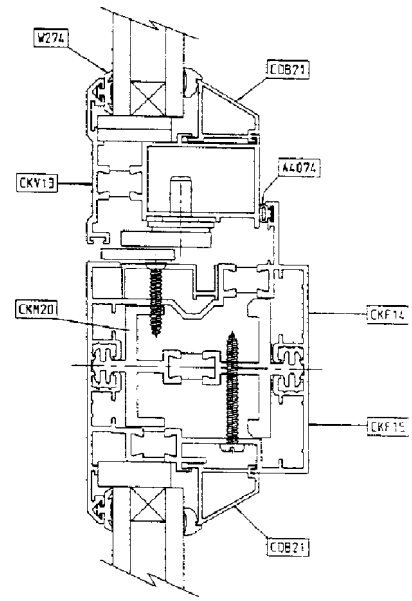


Fig. 37. FIXED LIGHT/M/LA TOP SWING COMBINATION

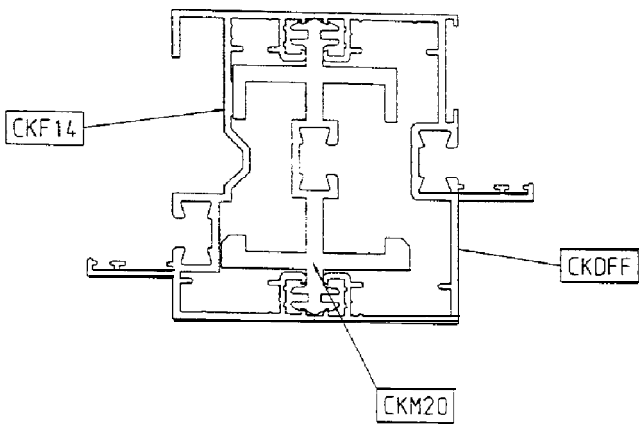


Fig. 38. REVERSIBLE WINDOW/CKDFF COMBINATION

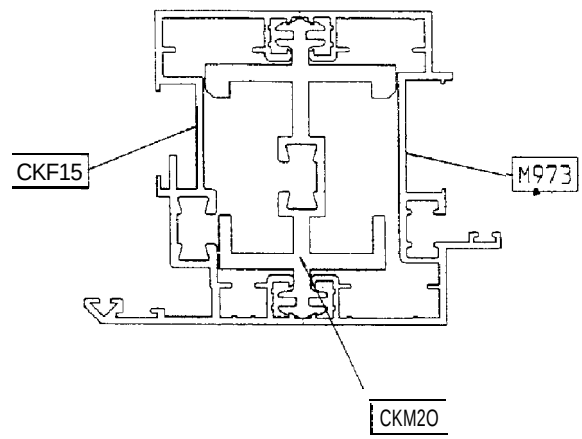


Fig. 39. FIXED LIGHT/MONAFRAME **RESI DOOR COMBINATION**