



THERMAFRAME
THERMALLY BROKEN WINDOW AND DOOR SYSTEMS

ThermAFrame Awning & Casement Windows

Technical Manual
March 2025 | ISSUE E

alspec[®]
EVERYTHING ALUMINIUM
& HARDWARE

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Changes or additions to this manual will be itemised with a brief description and date when the amendments were made.

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2. Technical Specifications

ALUMINIUM

Aluminium frames should be manufactured using Alspec's **THERMAFRAME AWNING & CASEMENT WINDOW** system

AWNING

Maximum Height = 1800
Minimum Height = 450
Maximum Width = 1200
Minimum Width = 350
Maximum Area = 2.16m

CASEMENT

Maximum Height = 1500
Minimum Height = 450
Maximum Width = 800
Minimum Width = 350
Maximum Sash Width = 1.2m

Maximum weight is determined by the capacity of the Stays & Cleats used.

Maximum size with Chainwinder is 1500mm H x 1000mm W
Minimum width with Chainwinder is 320mm

GLAZING

- Minimum glass thickness is 22mm
- Maximum glass thickness is 32mm
- Glazing wedges shall be Alspec's wedges for **THERMAFRAME AWNING & CASEMENT WINDOWS** to suit, refer glazing pages 12.1 and 12.2.

HARDWARE

- All other hardware as per Alspec Technical Manual.

FINISHES

- All powder coated material shall be produced to AS3715.
- All anodised material shall be produced to AS1231.

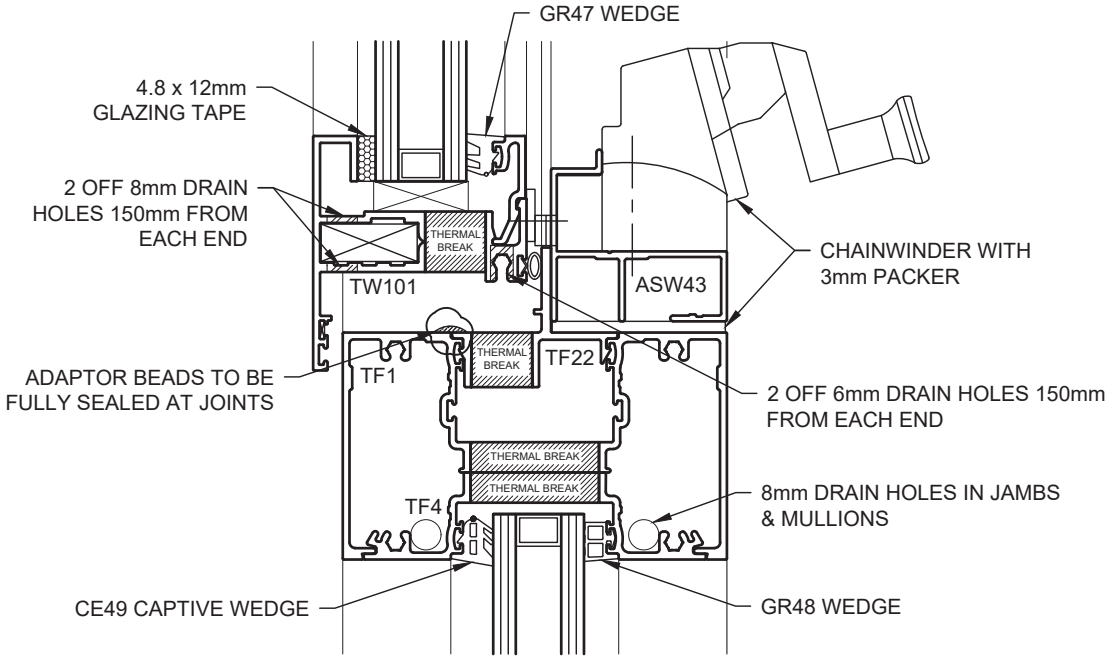
All products are available from Alspec (A.B.N. 63 001 252 259) as detailed in the "Alspec" catalogue or on the Internet at www.alspec.com.au. All such is to be constructed, assembled and fixed to meet the requirement of AS2047 (windows in buildings), AS1170 (loading code). All glass, glazing rubbers, seals and gaskets shall be applied in accordance with the requirements of AS1288 (glass in buildings - selection and installation).

Fabricators of the **THERMAFRAME AWNING & CASEMENT WINDOW** system should seek certification by a consultant structural engineer as to the being acceptable for the design wind pressure and deflection characteristics required of the site.

4. Test Summary

AS2047 - Awning/ Fixed over Fixed/ Fixed

TEST REPORT:	AS15.280
SYSTEM CONFIGURATION	THERMAFRAME 101.6mm CP DG CENTRE POCKET WITH AWNING, TF107 SUBHEAD & TF106S SUB SILL
TEST SAMPLE SIZE	2.4 (H) x 2.4 (W)
SERVICEABILITY LOAD	+/- 2 kPa
ULTIMATE LOAD	+/- 4 kPa
WATER PENETRATION	710 Pa
AIR INFILTRATION @ 75Pa	+ 0.16 L/s/ms ² - 0.18 L/s/ms ²
OPERATING FORCE TEST	
INITIAL OPENING	10N
INITIAL CLOSING	92.8N
SUSTAINED OPENING	14.5N
SUSTAINED CLOSING	67.4N

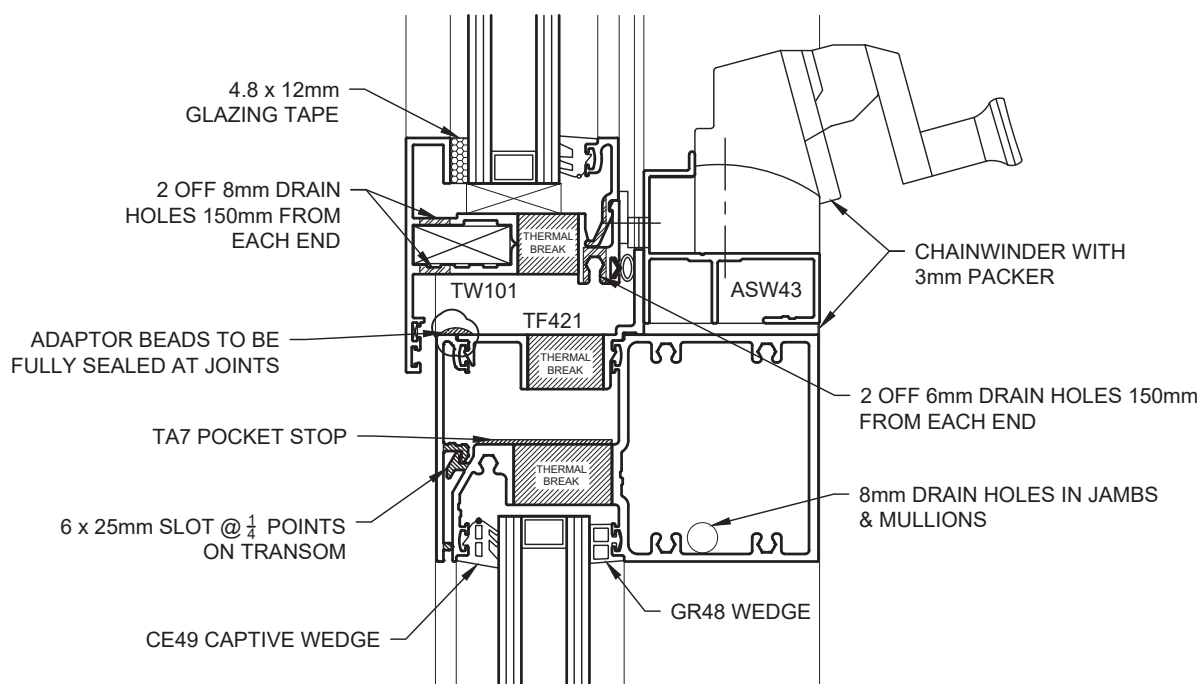


DISCLAIMER:
Please note that the test results shown above reflect specific configurations of a system and are representative only. If a specific high wind load or a different configuration (i.e. changes to frames, transoms, mullions) is required on a project please discuss with Alspec prior to commencement.

4. Test Summary

AS2047 - Awning/ Fixed over Fixed/ Fixed

TEST REPORT:	AS15.275
SYSTEM CONFIGURATION	THERMAFRAME FG 101.6mm FG DG TF422/TF423, TF108 SUBHEAD, TF331S SUB SILL WITH AWNING
TEST SAMPLE SIZE	2.4 (H) x 2.4 (W)
SERVICEABILITY LOAD	+/- 2.0 kPa
ULTIMATE LOAD	+/- 3.8 kPa
WATER PENETRATION	800 Pa
AIR INFILTRATION @ 75Pa	+ 0.37 L/s/ms ² - 0.37 L/s/ms ²



NOTE:

1. TF331S obsolete, substitute with TF106S

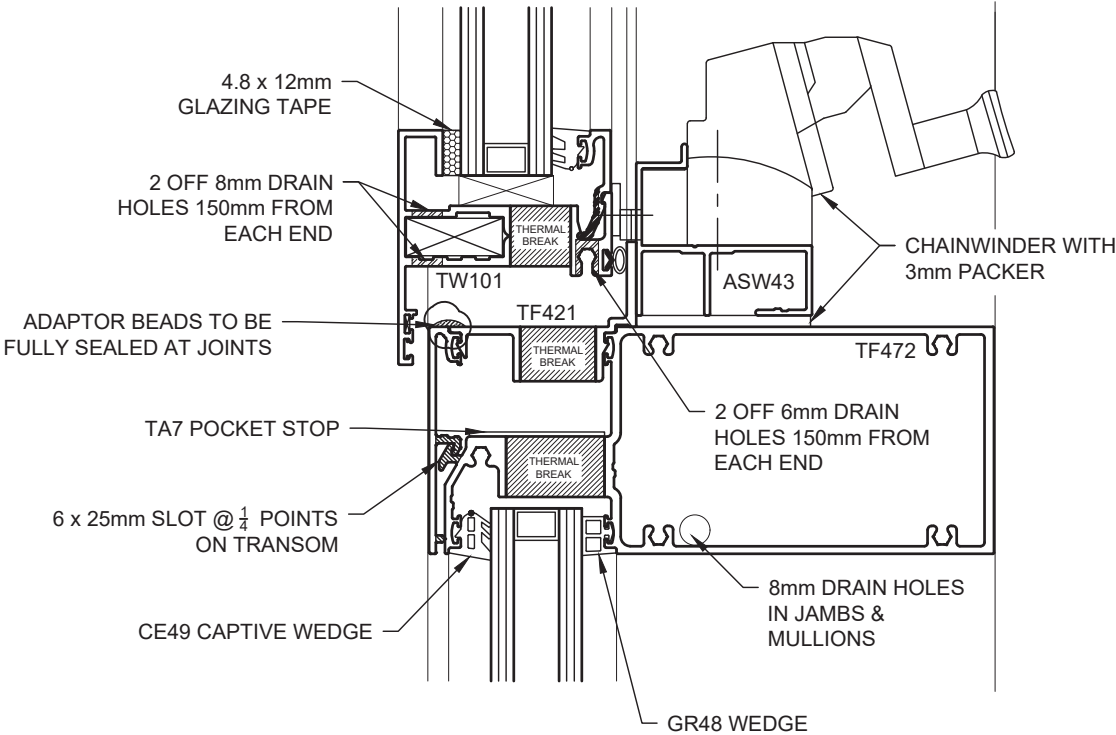
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4. Test Summary

AS2047 - Awning/ Fixed over Fixed/ Fixed

TEST REPORT:	AS15.277
SYSTEM CONFIGURATION	THERMAFRAME 150mm FG DG TF482/TF483 WITH AWNING
TEST SAMPLE SIZE	2.7 (H) x 2.46 (W)
SERVICEABILITY LOAD	+/- 3.0 kPa
ULTIMATE LOAD	+/- 4.15 kPa
WATER PENETRATION	700 Pa
AIR INFILTRATION @ 75Pa	+ 0.38 L/s/ms ² - 0.46 L/s/ms ²
OPERATING FORCE TEST	
INITIAL OPENING	10.1N
INITIAL CLOSING	52.7N
SUSTAINED OPENING	7.3N
SUSTAINED CLOSING	41.6N

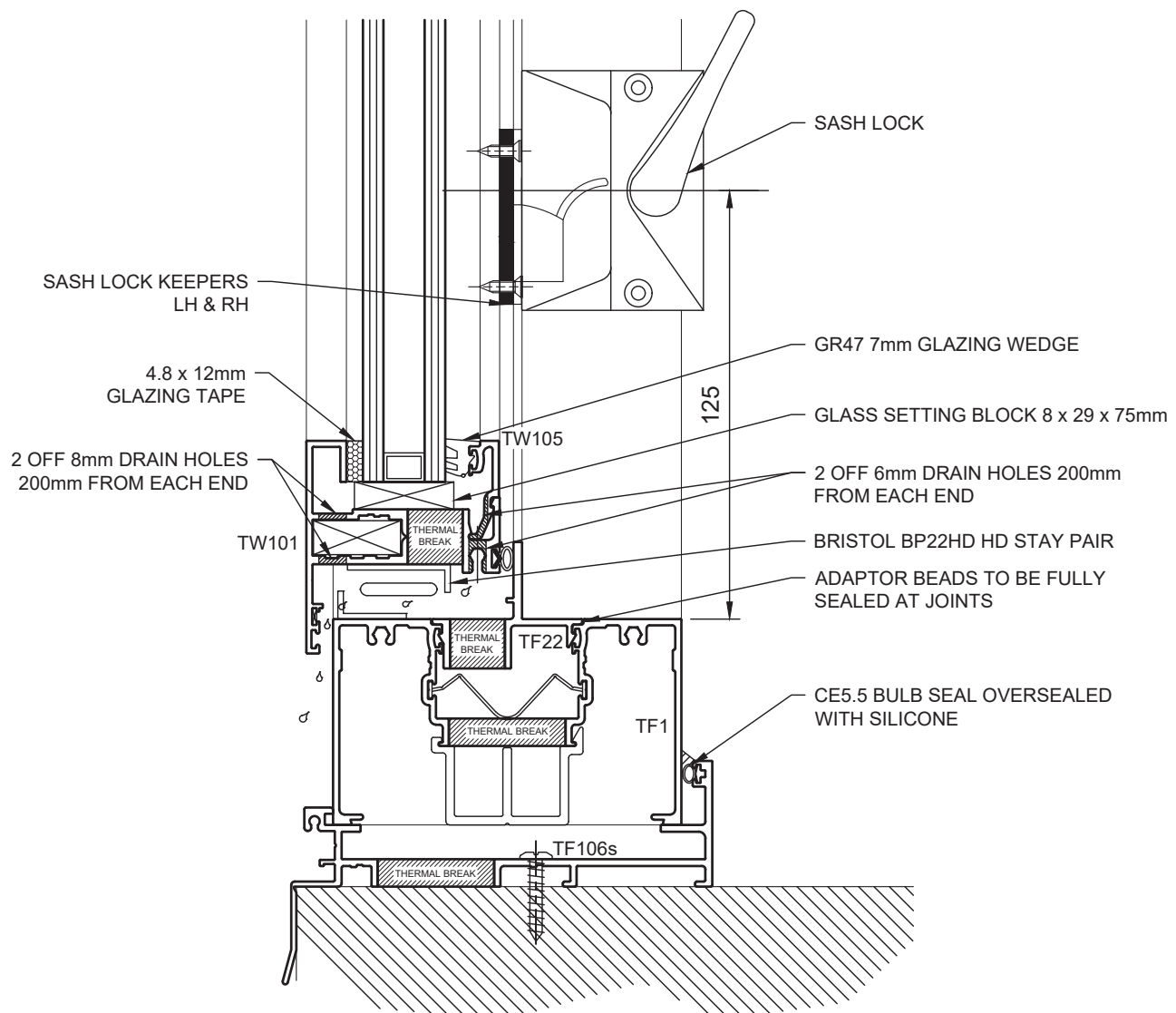


DISCLAIMER:
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4. Test Summary

AS2047 - Casement

TEST REPORT:	OT23-174
SYSTEM CONFIGURATION	THERMAFRAME CG 101.6mm DG CENTRE POCKET WITH CASEMENT AND LOCKS, TF106S SUB SILL
TEST SAMPLE SIZE	1.6 (H) x 0.9 (W)
SERVICEABILITY LOAD	+/- 3.002 kPa
ULTIMATE LOAD	+/- 4.403 kPa
WATER PENETRATION	900 Pa
AIR INFILTRATION @ 75Pa	+ 0.09 L/s/ms ² - 0.22 L/s/ms ²



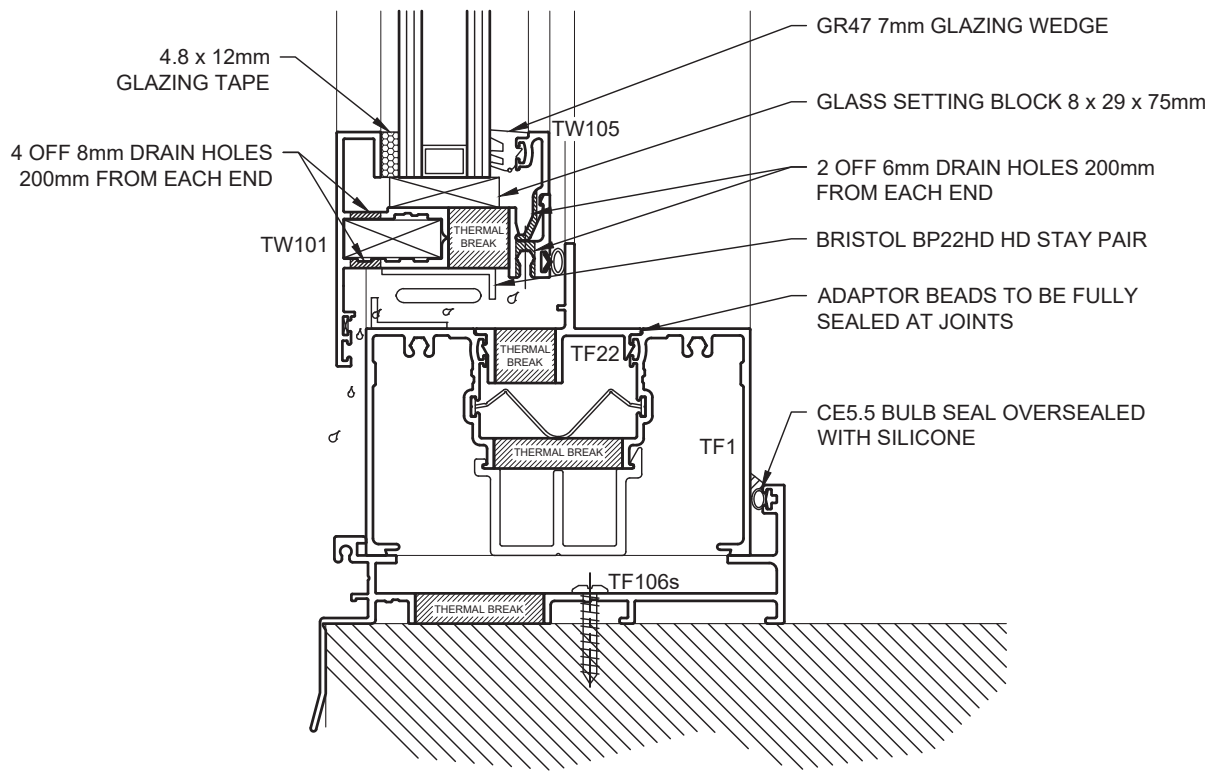
DISCLAIMER:

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4. Test Summary

AS2047 - Casement

TEST REPORT:	OT23-177
SYSTEM CONFIGURATION	THERMAFRAME CG 101.6mm DG CENTRE POCKET WITH CASEMENT, TF106S SUB SILL
TEST SAMPLE SIZE	1.6 (H) x 0.9 (W)
SERVICEABILITY LOAD	+/- 2.002 kPa
ULTIMATE LOAD	+/- 2.504 kPa
WATER PENETRATION	602 Pa
AIR INFILTRATION @ 75Pa	+ 0.12 L/s/ms ² - 0.89 L/s/ms ²



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4. Test Summary

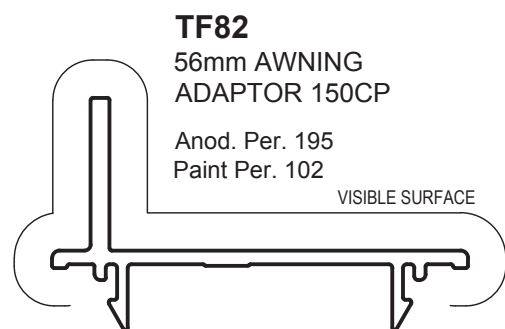
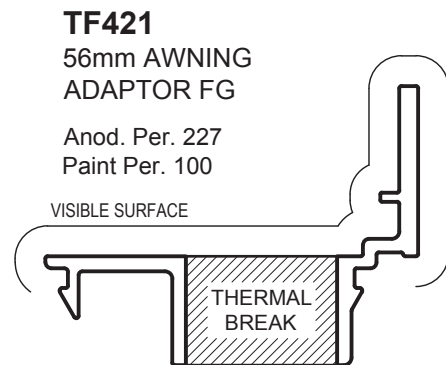
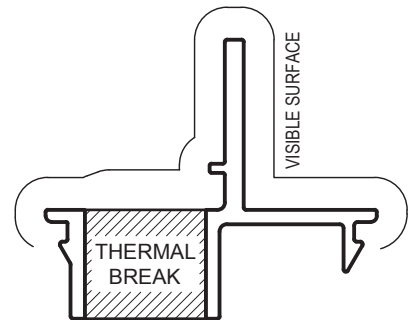
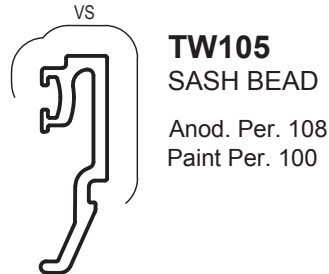
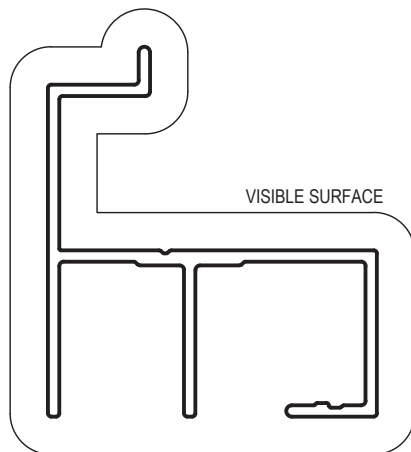
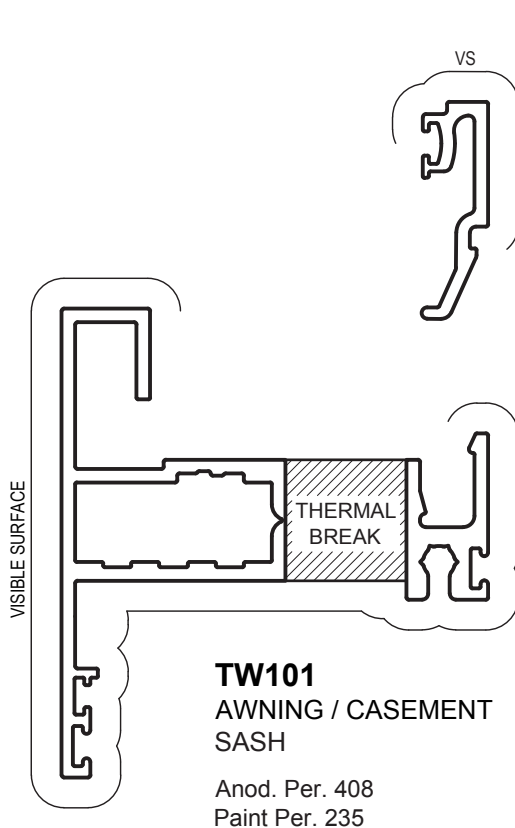
Acoustic - AS/NZS ISO 717.1

TEST REPORT	PRODUCT DESCRIPTION	SIZE	GLASS	Rw
TL581-05-1	THERMAFRAME 101.6mm FG DG AWNING/ FIXED over FIXED/ FIXED	2.1m (H) x 1.8m (W)	6.38mm LAM/ 12mm AIR/ 6.38mm LAM	37

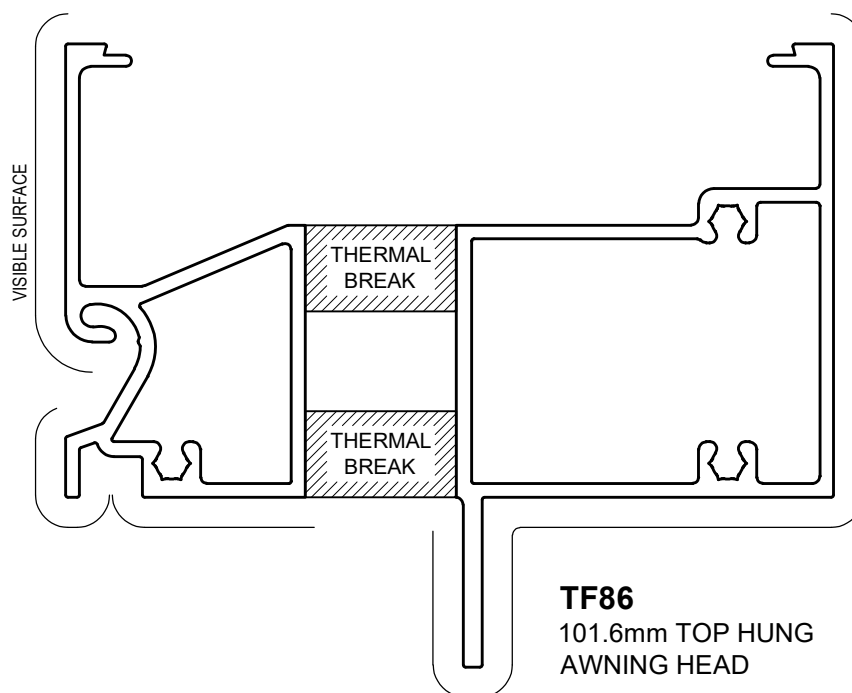
BAL40 - 1530.8.1

TEST REPORT	DESCRIPTION	SIZE	SEALS	RESULT
FSZ180018.3	THERMAFRAME AWNING & CASEMENT with THERMAFRAME 101.6mm CP DG	0.8m (H) x 0.75m (W)	GR47FR	BAL A-40

5. Extrusions

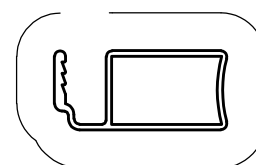
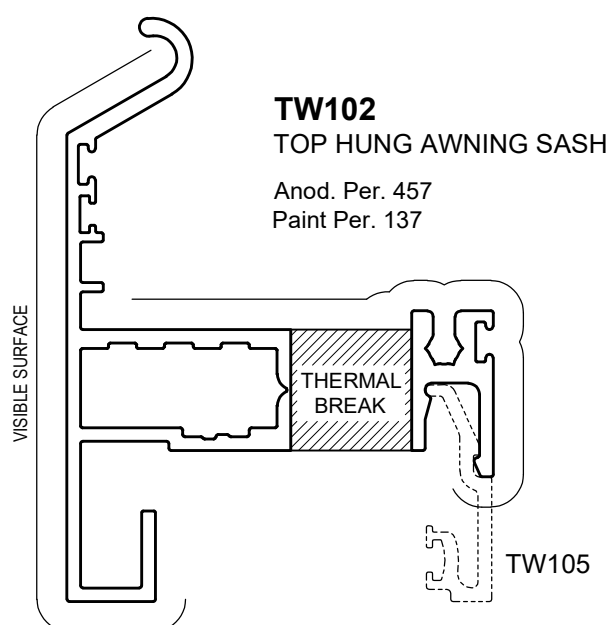


5. Extrusions



TF86
101.6mm TOP HUNG
AWNING HEAD

Anod. Per. 608
Paint Per. 245



FS2
25 x 11mm EXTRUDED
FLYSCREEN

Mass. 0.144 Kg/m
Anod. Per. 100
Paint Per. 100

6. Hardware & Components

Glazing Wedges

IMAGE	TO SUIT GAP	MATERIAL	PART #	DESCRIPTION
	3mm	PVC	1313055	GR43 GLAZING WEDGE (BROWN) (3mm GAP) PVC x 200m ROLL
		S/PRENE	1313063	GR43S GLAZING WEDGE (BROWN) (3mm GAP) S/PRENE x 200m ROLL
	4mm	PVC	1313056	GR44 GLAZING WEDGE (WHITE) (4mm GAP) PVC x 200m ROLL
		S/PRENE	1313064	GR44S GLAZING WEDGE (WHITE) (4mm GAP) S/PRENE x 200m ROLL
	5mm	PVC	1313057	GR45 GLAZING WEDGE (BLUE) (5mm GAP) PVC x 150m ROLL
		S/PRENE	1313065	GR45S GLAZING WEDGE (BLUE) (5mm GAP) S/PRENE x 150m ROLL
	6mm	PVC	1313058	GR46 GLAZING WEDGE (YELLOW) (6mm GAP) PVC x 150m ROLL
		S/PRENE	1313066	GR46S GLAZING WEDGE (YELLOW) (6mm GAP) S/PRENE x 150m ROLL
	7mm	PVC	1313059	GR47 GLAZING WEDGE (RED) (7mm GAP) PVC x 150m ROLL
		S/PRENE	1313062	GR47S GLAZING WEDGE (RED) (7mm GAP) S/PRENE x 150m ROLL
	8mm	PVC	1313060	GR48 GLAZING WEDGE (ORANGE) (8mm GAP) PVC x 150m ROLL
		S/PRENE	1313067	GR48S GLAZING WEDGE (ORANGE) (8mm GAP) S/PRENE x 150m ROLL
	9mm	PVC	1313076	GR50 GLAZING WEDGE (GREEN) (9mm GAP) PVC x 100m ROLL

6. Hardware & Components

Seals

IMAGE	PART #	FINISH	DESCRIPTION
	1376300	BLACK (034)	HB1 BULB SEAL x 100m

Glazing Tapes

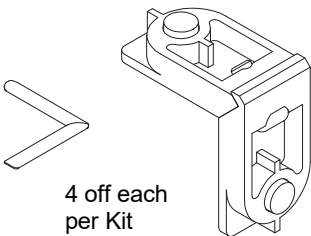
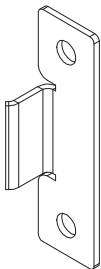
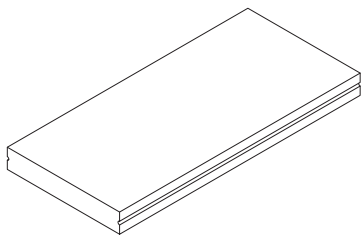
Double Sided Glazing Tape		
PART #	FINISH	DESCRIPTION
1385580	BLACK (034)	12mm x 1.6mm DOUBLE SIDED GLAZING TAPE x 61m ROLL
1385549	BLACK (034)	12mm x 3.2mm DOUBLE SIDED GLAZING TAPE x 30.5m ROLL
1385577	BLACK (034)	12mm x 4.8mm DOUBLE SIDED GLAZING TAPE x 15.2m ROLL
1385506	BLACK (034)	12mm x 6.4mm DOUBLE SIDED GLAZING TAPE x 10.7m ROLL

Fasteners

SCREWS			
PART #	HEAD	DESCRIPTION	LOCATION
1382002	PHILLIPS #2	6g x 1/2 (13mm) SS PHIL CSK S/TAP SCREW x 1000	SASH LOCK KEEPERS
1382022	PHILLIPS #2	8g x 1/2 (13mm) SS PHILLIPS U/CUT SELF TAPPING x 1000	CHAIN WINDER & CAM HANDLES
1382042	PHILLIPS #2	8g x 1/2 (13mm) SS PHILLIPS PAN S/TAP SCREW x 1000	SNUBBERS
1382048	PHILLIPS #2	8g x 1 1/4 (32mm) SS PHILLIPS PAN S/TAP x 500	CHAIN WINDER
1382016	PHILLIPS #2	8g x 1 1/2 (40mm) SS PHILLIPS CSK S/TAP x 500	SASH LOCKS
1382026	PHILLIPS #2	10g x 1/2 (13mm) SS PHILLIPS U/CUT SELF TAPPING x 1000	STAYS and RESTRICTORS
1382054	PHILLIPS #2	10g x 1 (25mm) SS PHIL PAN S/TAP SCREW x 500	AWNING/ CASEMENT SASH

6. Hardware & Components

Accessories

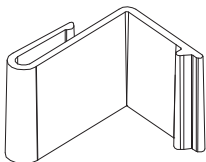


4 off each
per Kit

SETTING BLOCK 8 x 29 x 75mm BAG OF 50	
PART	1376771
FINISH	BLACK (034)
QTY	BAG

CONCEALED SNUBBER	
PART	1317060
FINISH	NOT SPECIFIED (099)
QTY	EACH

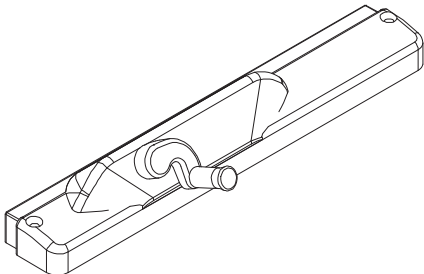
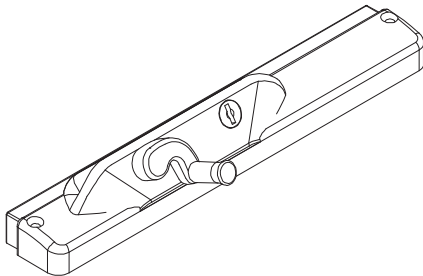
TA10 AWNING SASH ASSEMBLY KIT	
PART	1316114
FINISH	NOT SPECIFIED (099)
QTY	BAG



FS11 ALSPEC 11mm FLYSCREEN RETAINER CLIP	
PART	1309055
FINISH	TRANSPARENT (050)
QTY	EACH

6. Hardware & Components

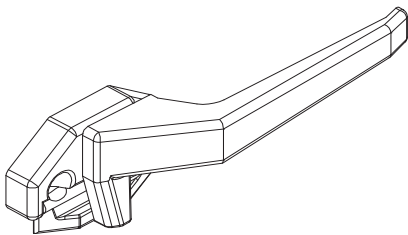
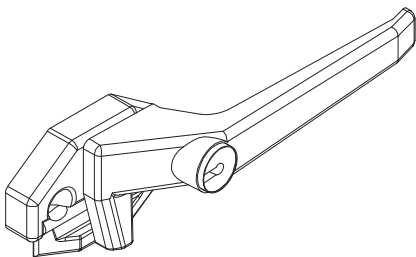
Chainwinders



ALSPEC CHAIN WINDER - LOCKING 300mm LH		
PART	FINISH	QTY
1338061	PEARL WHITE (010)	EACH
	PRIMROSE (012)	
	WHITE BIRCH (027)	
	BLACK (034)	
	PAPERBARK (058)	

ALSPEC CHAINWINDER - NON LOCKING 300mm LH		
PART	FINISH	QTY
1338062	PEARL WHITE (010)	EACH
	PRIMROSE (012)	
	WHITE BIRCH (027)	
	BLACK (034)	
	PAPERBARK (058)	

Cam Handles

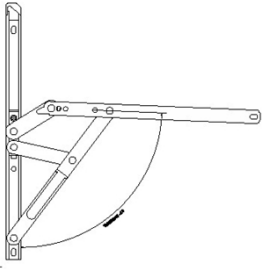


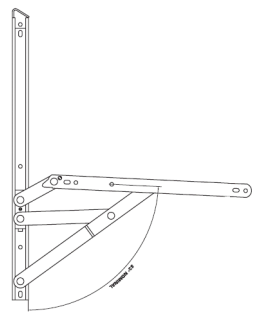
ASCOT CAM HANDLE HI-PROFILE SELF LATCH - LOCKABLE		
PART	1377876 (RH) 1377875 (LH)	
FINISH	BLACK (034)	
QTY	EACH	

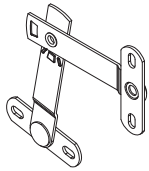
ASCOT CAM HANDLE HI-PROFILE SELF LATCH		
PART	1377851 (RH) 1377850 (LH)	
FINISH	BLACK (034)	
QTY	EACH	

6. Hardware & Components

Awning/ Casement Stays

	BRISTOL HD AWNING/ CASEMENT FRICITON STAYS					
	CODE	DESCRIPTION	SASH WEIGHT	SASH HEIGHT	OPENING ANGLE	QTY
	1377935	BRISTOL BP12SH SS STAY 14 x 305mm	24kg	N/A	87°	PAIR
	1377936	BRISTOL BP16SH SS STAY 14 x 414mm	30kg	N/A	88°	PAIR

	BRISTOL HD AWNING/ CASEMENT FRICITON STAYS					
	CODE	DESCRIPTION	SASH WEIGHT	SASH HEIGHT	OPENING ANGLE	QTY
	1377970	BRISTOL BP10HD FRICTION STAY 16 x 263mm	50kg/ 34.4kg	762mm/ N/A	82°	PAIR
	1377971	BRISTOL BP16HD FRICTION STAY 16 x 414.5mm	63kg/ 37kg	1120mm/ N/A	83°	PAIR
	1377973	BRISTOL BP22HD FRICTION STAY 16 x 567.5mm	74kg/ 42kg	1321mm/ N/A	83°	PAIR
	1377974	BRISTOL BP26HD FRICTION STAY 17 x 683mm	90kg	1800mm	23°	PAIR

	RESTRICTOR STAYS		
	CODE	DESCRIPTION	QTY
	1377928	BRISTOL 13mm BPRESTLD RESTRICTOR STAY	PAIR
	1377975	BRISTOL 16mm BPRESTHD RESTRICTOR STAY	PAIR
	1377976	BRISTOL 16mm BPRESTKRHD RESTRICTOR STAY & KEY	PAIR

6. Hardware & Components

Silicone



100% NEUTRAL CURE SILICONE

- Premium 100% silicone
- UV Stable
- Superior adhesion
- Flexible + 25%
- AS4020 Approved



100% MATTE NEUTRAL CURE SILICONE

- Premium 100% silicone
- Matte finish
- UV Stable
- Outstanding elongation
- Higher strength



41 CLADDING SILICONE

- Premium 100% silicone
- UV Stable
- Superior adhesion
- Movement capability + 50%



WET AREA SILICONE

- Premium 100% silicone
- Mould inhibited
- Movement capability + 25%
- UV Stable
- Non corrosive
- Superior adhesion



HYBRID PU ADHESIVE SEALANT

- No isocyanates
- Internal/External
- No shrinking/staining
- Paintable
- Excellent adhesion



20 ACETIC CURE SILICONE

- Premium 100% silicone
- UV Stable
- Superior adhesion
- Flexible + 25%



D60 SILICONE

- Premium 100% silicone
- UV Stable
- 2-5 minute skin time
- Flexible + 25%
- No slump

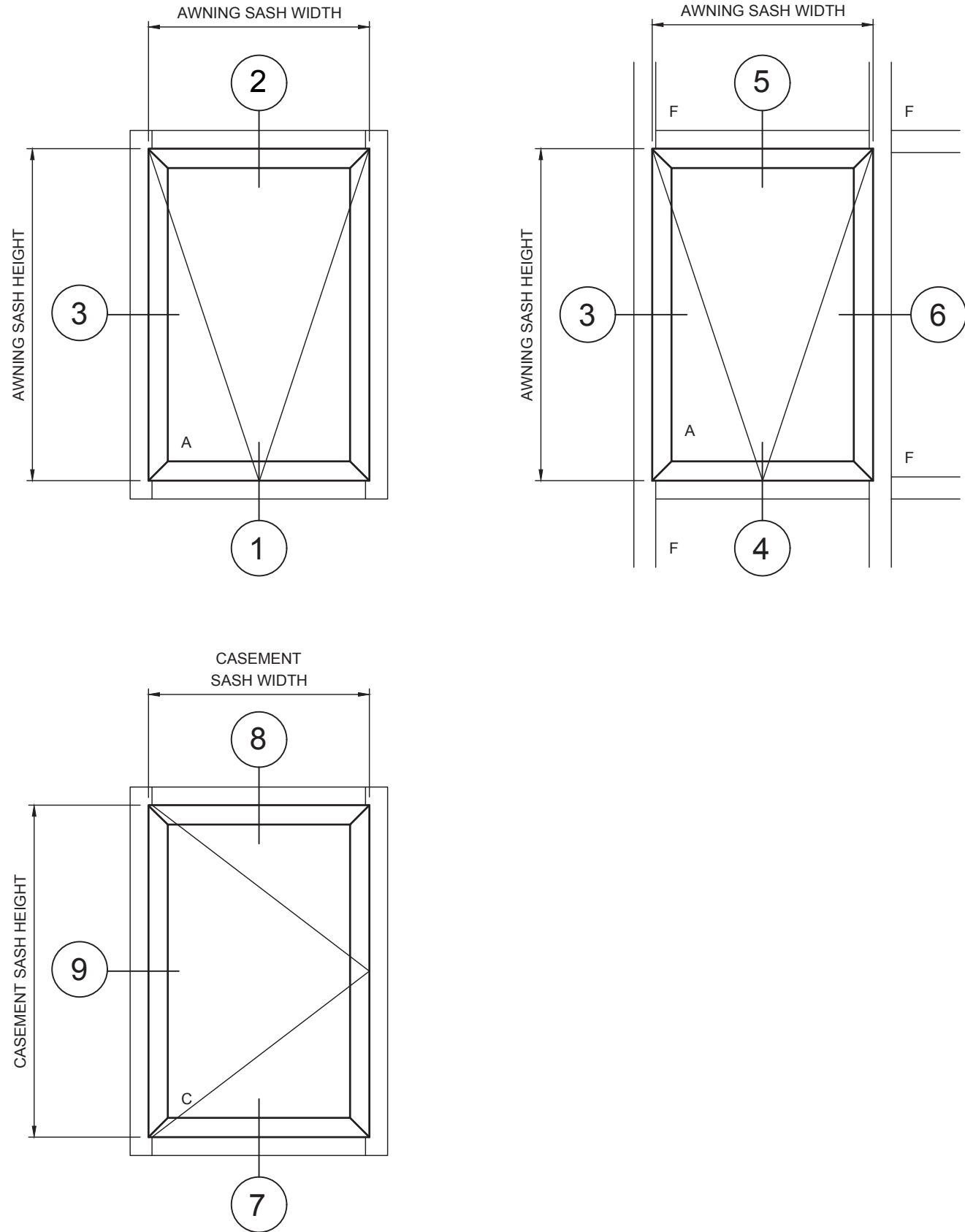
***FOR MORE INFORMATION ON SILICONES,
PLEASE REFER TO ALSPEC SILICONE BROCHURE.**

6. Hardware & Components

Silicone Product Codes

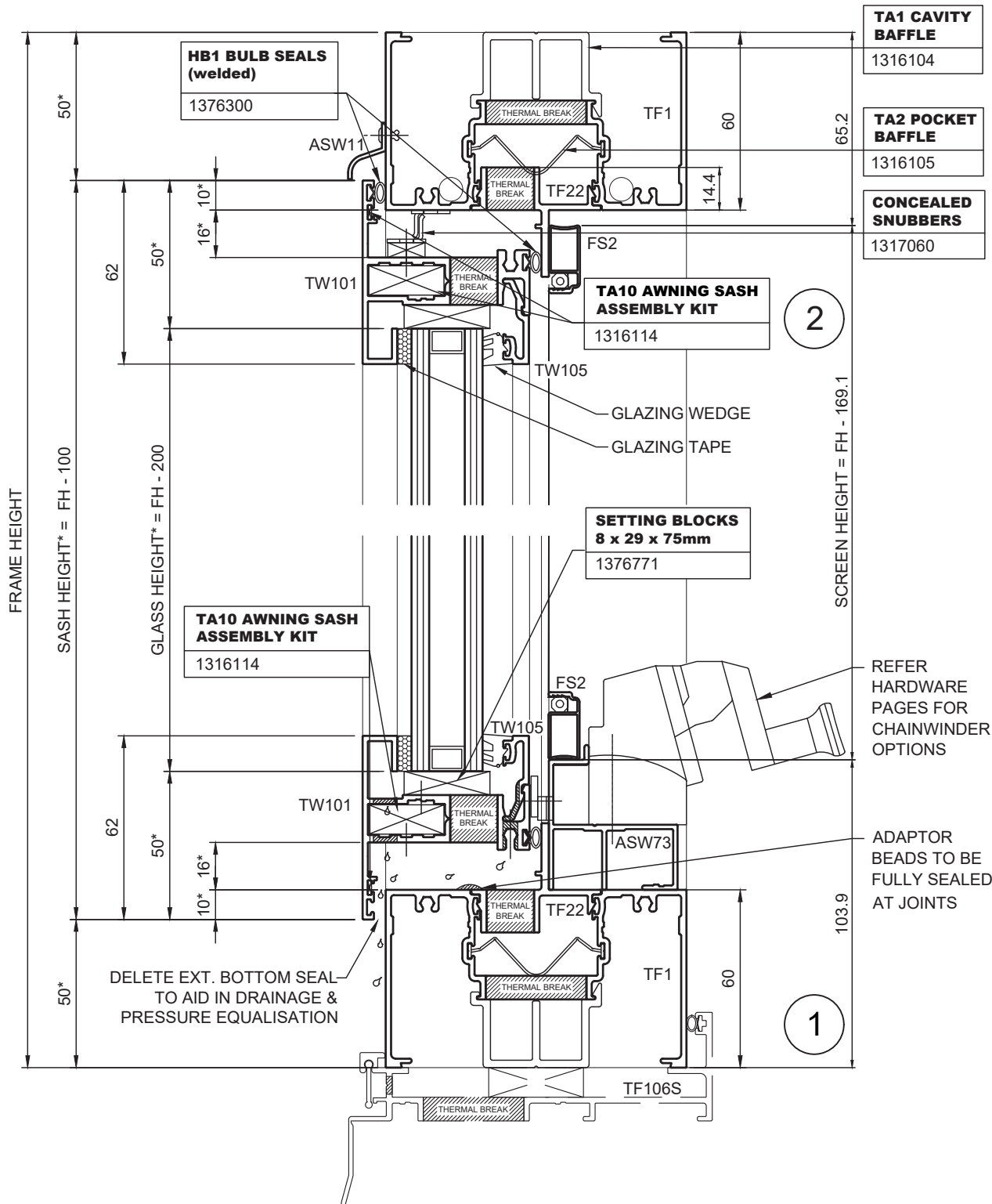
Product Category	Item No.	Alspec Part No.	Description	Finish	Pack
ALSPEC 100%	1	1386113	ALSPEC 100% NEUTRAL CURE SILICONE x 300ml CAT	ALMOND IVORY	CARTRIDGE
	2	1386114	ALSPEC 100% NEUTRAL CURE SILICONE x 300ml CAT	ALUMINIUM	CARTRIDGE
	3	1386105	ALSPEC 100% NEUTRAL CURE SILICONE x 300ml CAT	BLACK	CARTRIDGE
	4	1386140	ALSPEC 100% NEUTRAL CURE SILICONE x 300ml CAT	CAULFIELD GREEN	CARTRIDGE
	5	1386111	ALSPEC 100% NEUTRAL CURE SILICONE x 300ml CAT	CLASSIC CREAM	CARTRIDGE
	6	1386108	ALSPEC 100% NEUTRAL CURE SILICONE x 300ml CAT	LIGHT GREY	CARTRIDGE
	7	1386138	ALSPEC 100% NEUTRAL CURE SILICONE x 300ml CAT	MONUMENT	CARTRIDGE
	8	1386112	ALSPEC 100% NEUTRAL CURE SILICONE x 300ml CAT	OFF WHITE	CARTRIDGE
	9	1386141	ALSPEC 100% NEUTRAL CURE SILICONE x 300ml CAT	STONE BEIGE	CARTRIDGE
	10	1386101	ALSPEC 100% NEUTRAL CURE SILICONE x 300ml CAT	TRANSLUCENT	CARTRIDGE
	11	1386106	ALSPEC 100% NEUTRAL CURE SILICONE x 300ml CAT	WHITE	CARTRIDGE
	12	1386143	ALSPEC 100% NEUTRAL CURE SILICONE x 300ml CAT	WOODLAND GREY	CARTRIDGE
ALSPEC 100% MATT	13	1386103	ALSPEC 100% NEUTRAL CURE SILICONE x 300ml CAT	BLACK MATT	CARTRIDGE
	14	1386107	ALSPEC 100% NEUTRAL CURE SILICONE x 300ml CAT	LIGHT GREY MATT	CARTRIDGE
	15	1386144	ALSPEC 100% NEUTRAL CURE SILICONE x 300ml CAT	WHITE MATT	CARTRIDGE
ALSPEC 20	16	1386115	ALSPEC 20 ACETIC CURE SILICONE x 300ml CAT	TRANSLUCENT	CARTRIDGE
ALSPEC 41 CLADDING	17	1386159	ALSPEC 41 CLADDING SILICONE x 300ml CAT	BLACK MATT	CARTRIDGE
	18	1386117	ALSPEC 41 CLADDING SILICONE x 600ml SAU	BLACK MATT	SAUSAGE
	19	1386158	ALSPEC 41 CLADDING SILICONE x 300ml CAT	LIGHT GREY MATT	CARTRIDGE
	20	1386118	ALSPEC 41 CLADDING SILICONE x 600ml SAU	LIGHT GREY MATT	SAUSAGE
	21	1386157	ALSPEC 41 CLADDING SILICONE x 300ml CAT	WHITE MATT	CARTRIDGE
	22	1386145	ALSPEC 41 CLADDING SILICONE x 600ml SAU	WHITE MATT	SAUSAGE
ALSPEC D60	23	1386121	ALSPEC D60 SILICONE x 300ml CAT	BLACK	CARTRIDGE
	25	1386123	ALSPEC D60 SILICONE x 300ml CAT	GREY	CARTRIDGE
	26	1386120	ALSPEC D60 SILICONE x 300ml CAT	TRANSLUCENT	CARTRIDGE
	27	1386124	ALSPEC D60 SILICONE x 300ml CAT	WHITE	CARTRIDGE
ALSPEC HYBRID PU	28	1386127	ALSPEC HYBRID PU x 300ml CAT	BLACK	CARTRIDGE
	29	1386126	ALSPEC HYBRID PU x 600ml SAU	BLACK	SAUSAGE
	30	1386160	ALSPEC HYBRID PU x 300ml CAT	GREY	CARTRIDGE
	31	1386128	ALSPEC HYBRID PU x 600ml SAU	GREY	SAUSAGE
	32	1386130	ALSPEC HYBRID PU x 300ml CAT	WHITE	CARTRIDGE
	33	1386129	ALSPEC HYBRID PU x 600ml SAU	WHITE	SAUSAGE
ALSPEC WET AREA	34	1386137	ALSPEC WET AREA SILICONE x 300ml CAT	ALMOND IVORY	CARTRIDGE
	35	1386139	ALSPEC WET AREA SILICONE x 300ml CAT	BLACK	CARTRIDGE
	36	1386146	ALSPEC WET AREA SILICONE x 300ml CAT	BLUESTONE	CARTRIDGE
	37	1386147	ALSPEC WET AREA SILICONE x 300ml CAT	CHARCOAL	CARTRIDGE
	38	1386136	ALSPEC WET AREA SILICONE x 300ml CAT	LIGHT GREY	CARTRIDGE
	39	1386148	ALSPEC WET AREA SILICONE x 300ml CAT	MID GREY	CARTRIDGE
	40	1386149	ALSPEC WET AREA SILICONE x 300ml CAT	OFF WHITE	CARTRIDGE
	41	1386150	ALSPEC WET AREA SILICONE x 300ml CAT	PEWTER	CARTRIDGE
	42	1386151	ALSPEC WET AREA SILICONE x 300ml CAT	STONE BEIGE	CARTRIDGE
	43	1386154	ALSPEC WET AREA SILICONE x 300ml CAT	TAUPE	CARTRIDGE
	44	1386152	ALSPEC WET AREA SILICONE x 300ml CAT	TILE GREY	CARTRIDGE
	45	1386133	ALSPEC WET AREA SILICONE x 300ml CAT	TRANSLUCENT	CARTRIDGE
	46	1386153	ALSPEC WET AREA SILICONE x 300ml CAT	TRAVERTINE	CARTRIDGE
	47	1386134	ALSPEC WET AREA SILICONE x 300ml CAT	WHITE	CARTRIDGE

7. Typical Elevation



8. Typical Details

Typical Awning Head/Sill Details in 101.6mm CP Framing

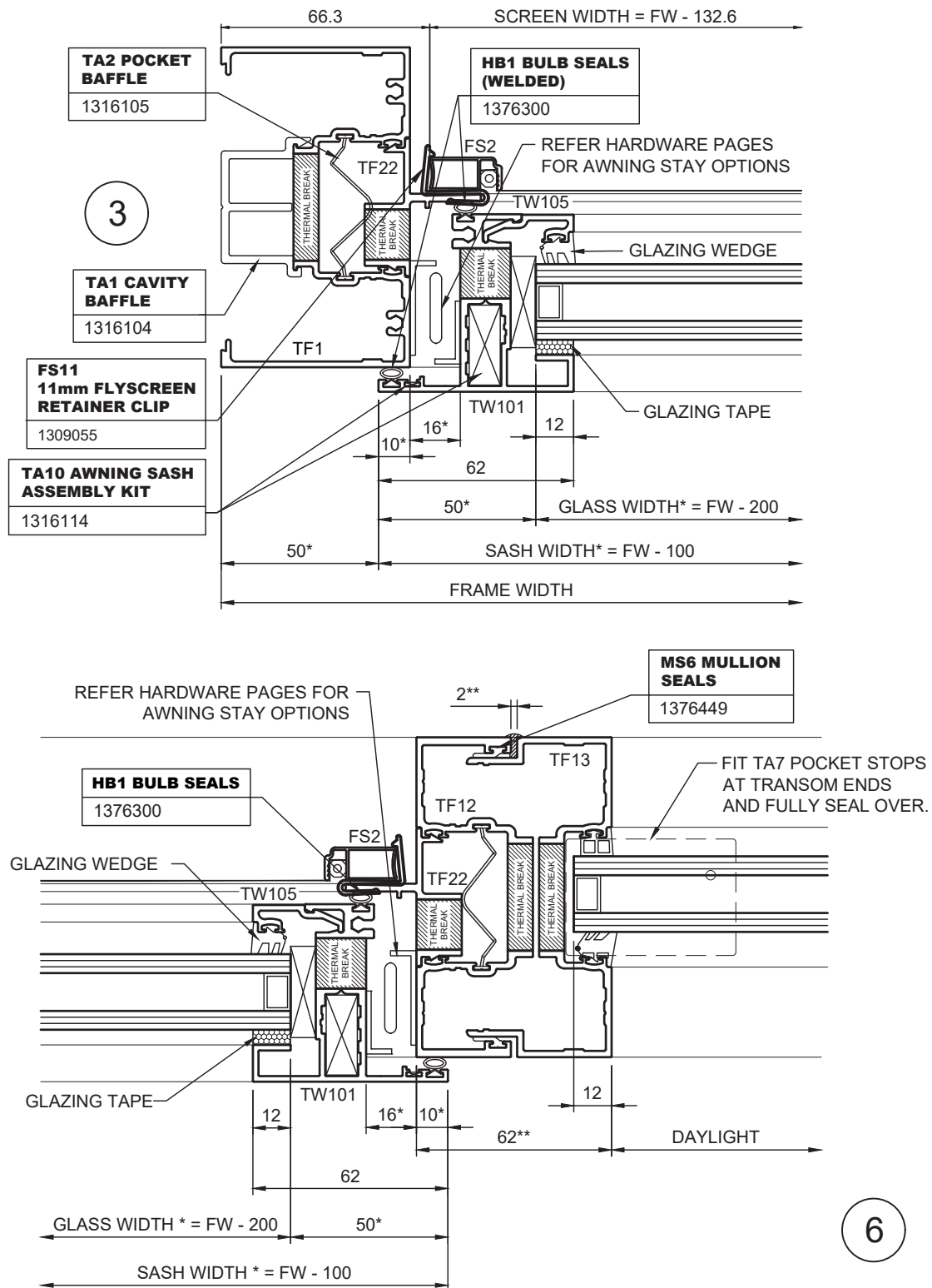


REFER TO THERMAFRAME 101.6mm CENTRE POCKET FRAMING
TECHNICAL MANUAL FOR FULL SHOPFRONT FRAMING DETAILS

* VARIES DEPENDING ON STAY SPECIFIED. DIMENSIONS HAVE BEEN DETERMINED USING 16mm STAYS.

8. Typical Details

Typical Awning Jamb/Mullion Details in 101.6mm CP Framing



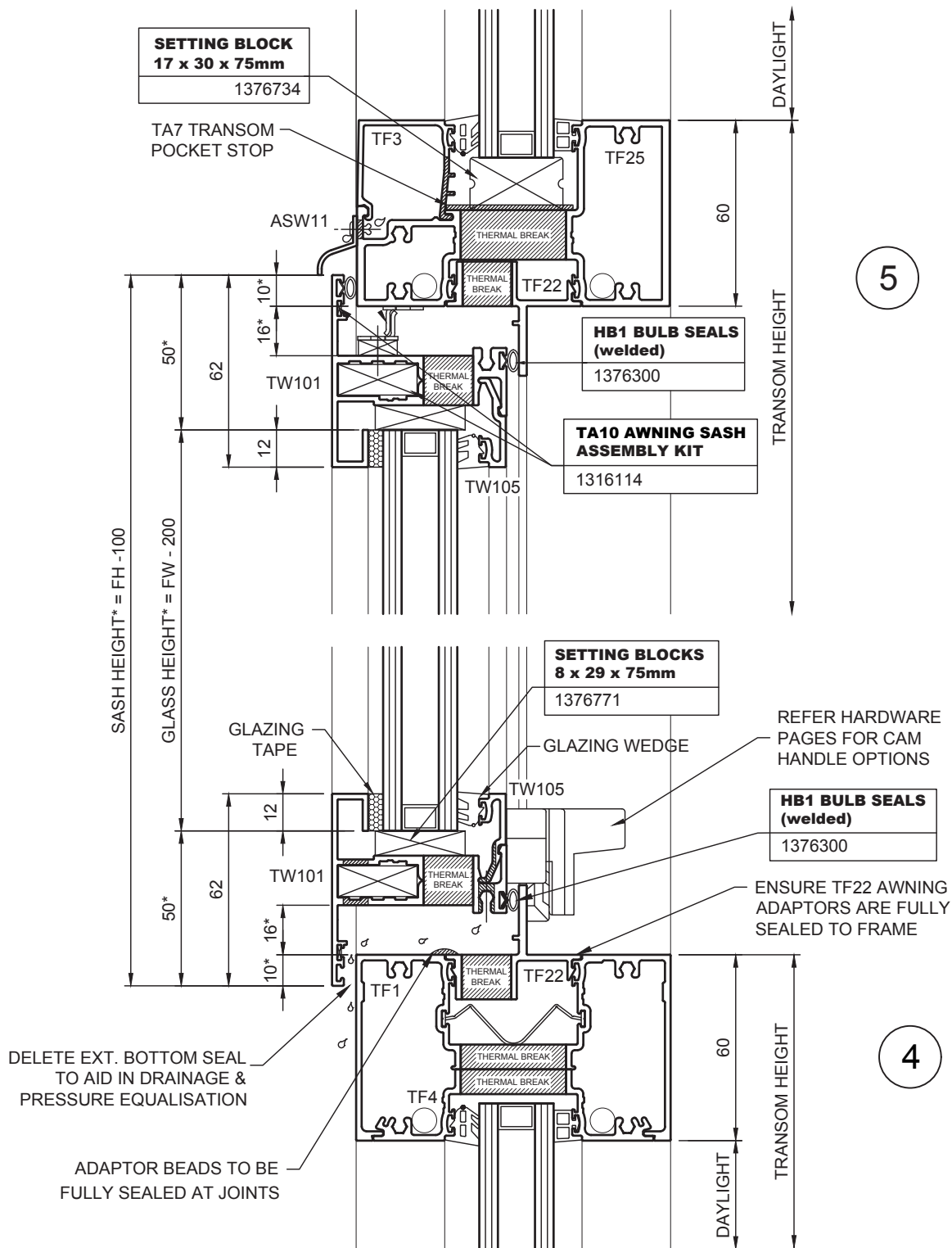
REFER TO THERMAFRAME 101.6mm CENTRE POCKET FRAMING
TECHNICAL MANUAL FOR FULL SHOPFRONT FRAMING DETAILS

* VARIES DEPENDING ON STAY SPECIFIED. DIMENSIONS HAVE BEEN DETERMINED USING 16mm STAYS.

** NOMINAL DIMENSION ONLY. MAY VARY DUE TO PROJECT REQUIREMENTS.

8. Typical Details

Typical Awning Transom Details in 101.6mm CP Framing

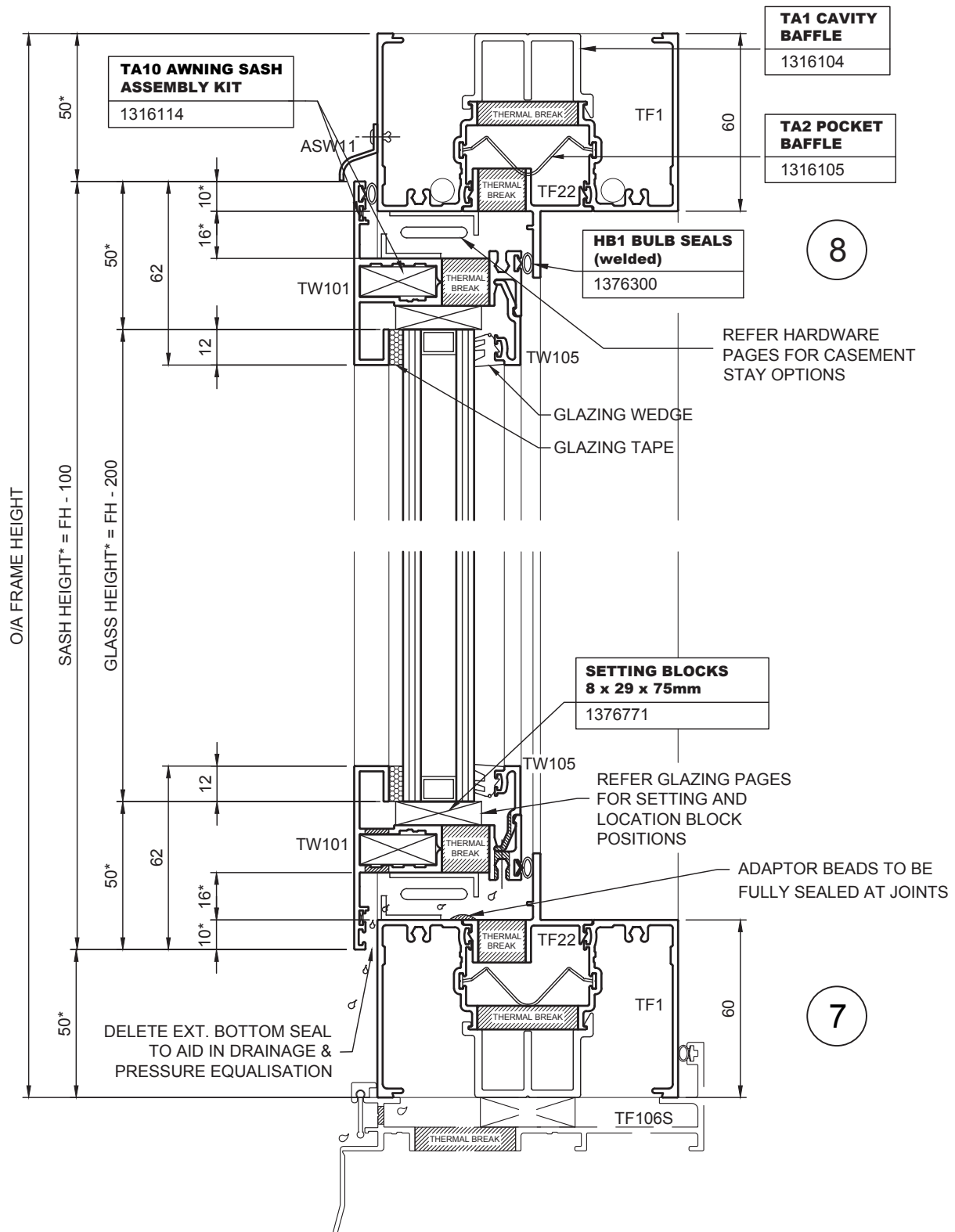


REFER TO THERMAFRAME 101.6mm CENTRE POCKET FRAMING
TECHNICAL MANUAL FOR FULL SHOPFRONT FRAMING DETAILS

* VARIES DEPENDING ON STAY SPECIFIED. DIMENSIONS HAVE BEEN DETERMINED USING 16mm STAYS.

8. Typical Details

Typical Casement Head/Sill Details in 101.6mm CP Framing

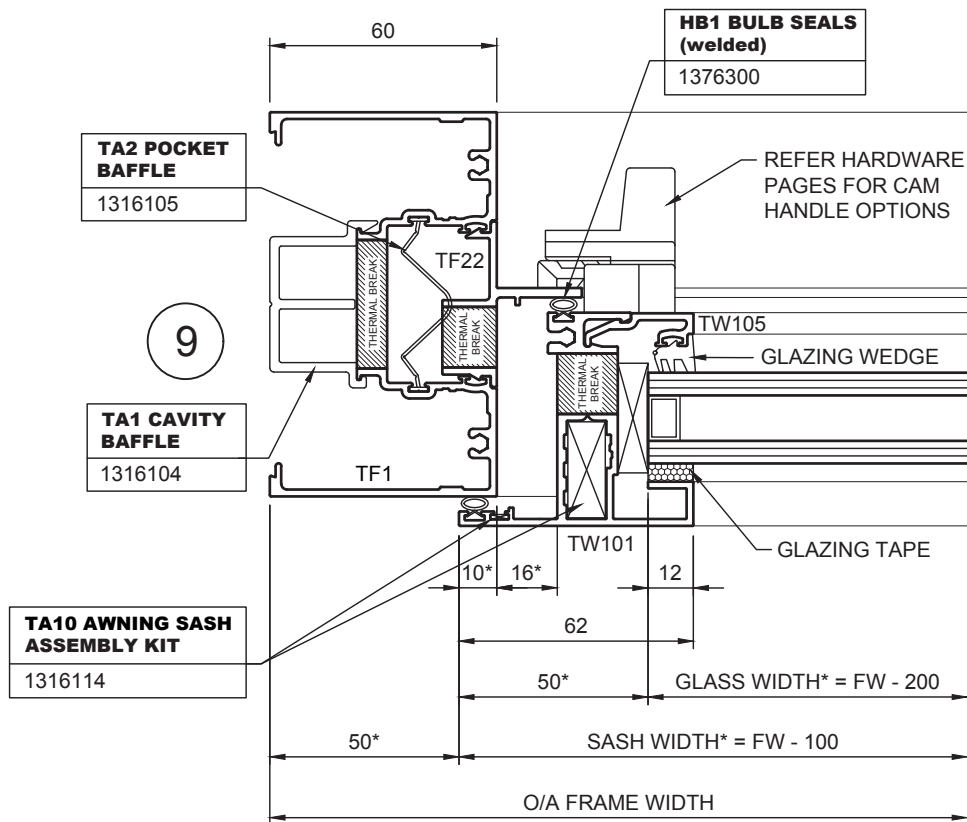


REFER TO THERMAFRAME 101.6mm CENTRE POCKET FRAMING
TECHNICAL MANUAL FOR FULL SHOPFRONT FRAMING DETAILS

* VARIES DEPENDING ON STAY SPECIFIED. DIMENSIONS HAVE BEEN DETERMINED USING 16mm STAYS.

8. Typical Details

Typical Casement Jamb Detail in 101.6mm CP Framing

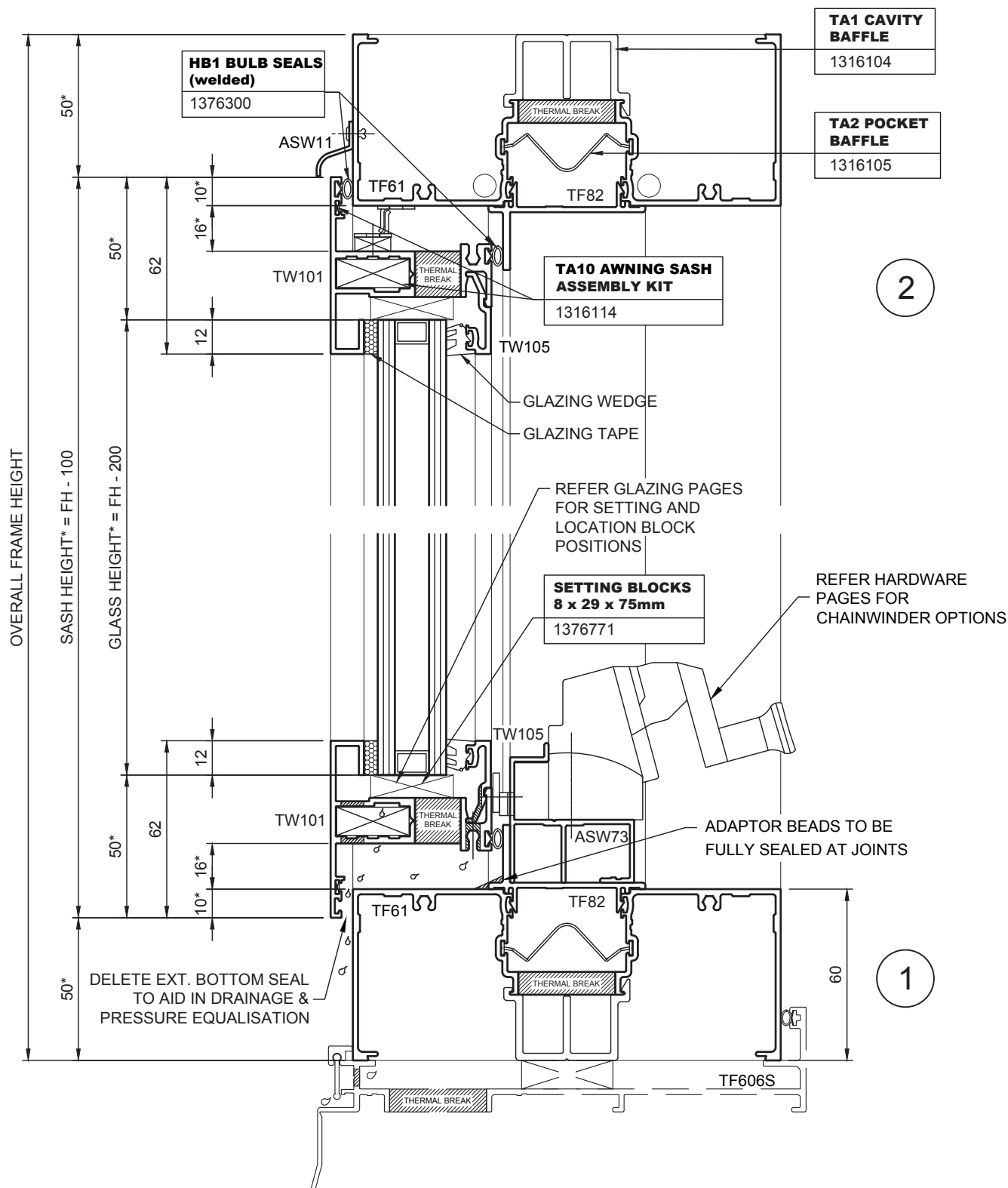


REFER TO THERMAFRAME 101.6mm CENTRE POCKET FRAMING
TECHNICAL MANUAL FOR FULL SHOPFRONT FRAMING DETAILS

* VARIES DEPENDING ON STAY SPECIFIED. DIMENSIONS HAVE BEEN DETERMINED USING 16mm STAYS.

8. Typical Details

Typical Awning Head/Sill Details in 150mm CP Framing

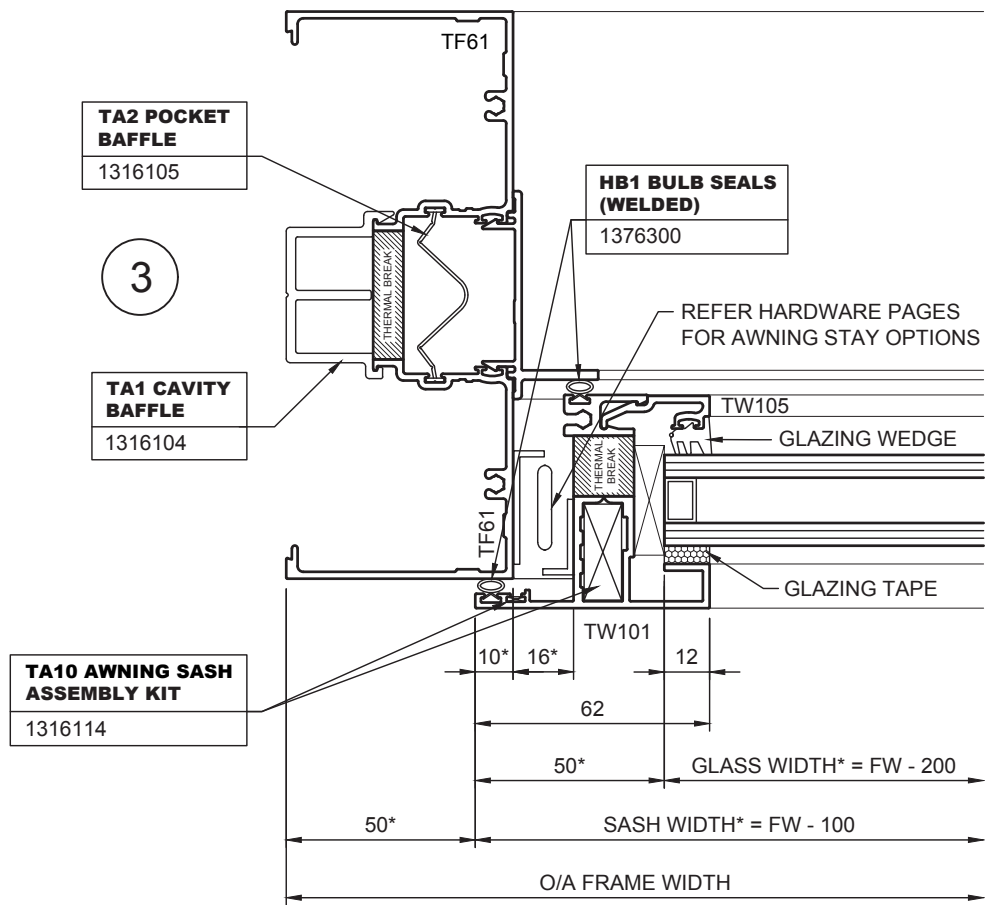


REFER TO THERMAFRAME 150mm CENTRE POCKET FRAMING
TECHNICAL MANUAL FOR FULL SHOPFRONT FRAMING DETAILS

* VARIES DEPENDING ON STAY SPECIFIED. DIMENSIONS HAVE BEEN DETERMINED USING 16mm STAYS.

8. Typical Details

Typical Awning Jamb Detail in 150mm CP Framing

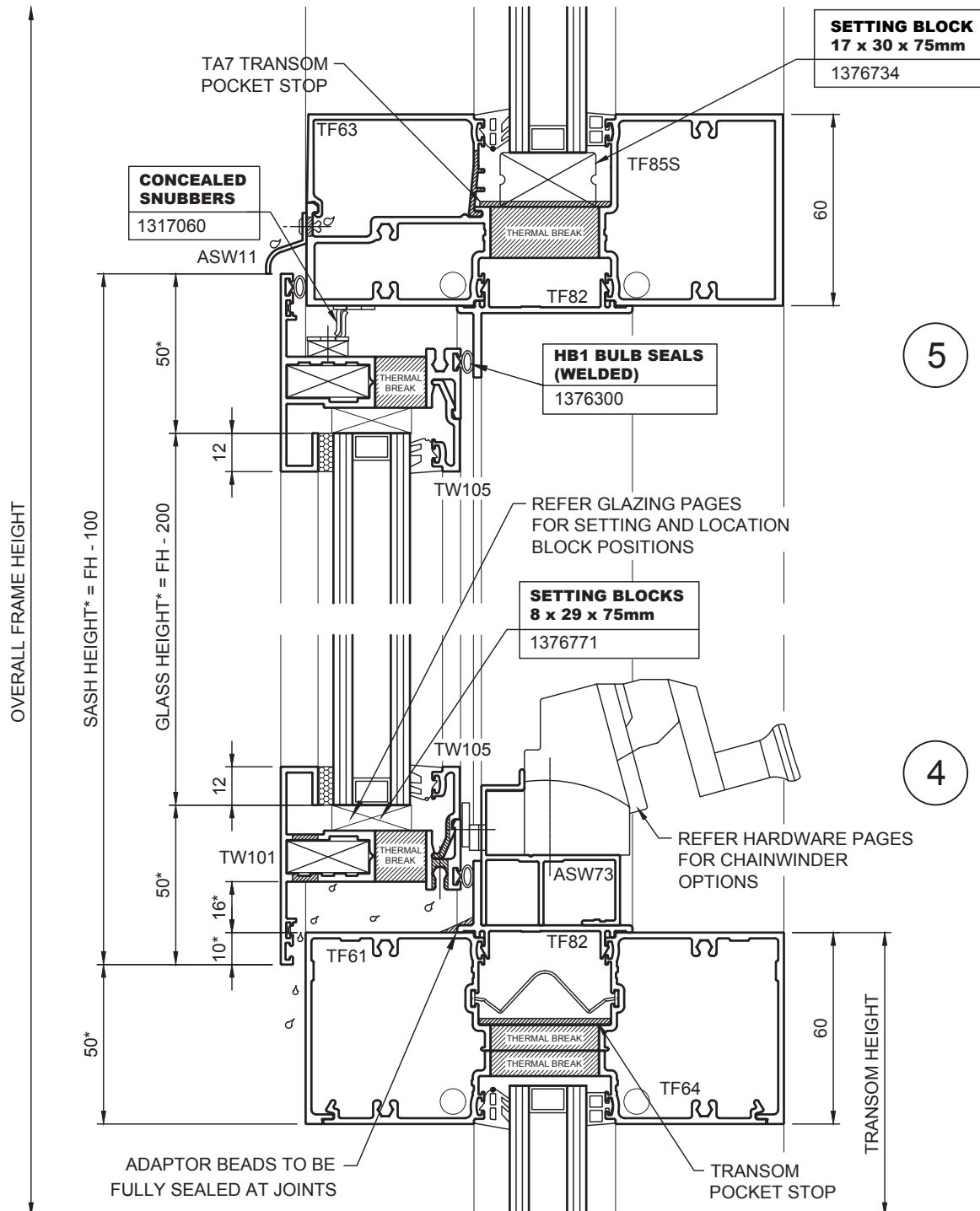


REFER TO THERMAFRAME 101.6mm CENTRE POCKET FRAMING
TECHNICAL MANUAL FOR FULL SHOPFRONT FRAMING DETAILS

* VARIES DEPENDING ON STAY SPECIFIED. DIMENSIONS HAVE BEEN DETERMINED USING 16mm STAYS.

8. Typical Details

Typical Awning Transom Details in 150mm CP Framing

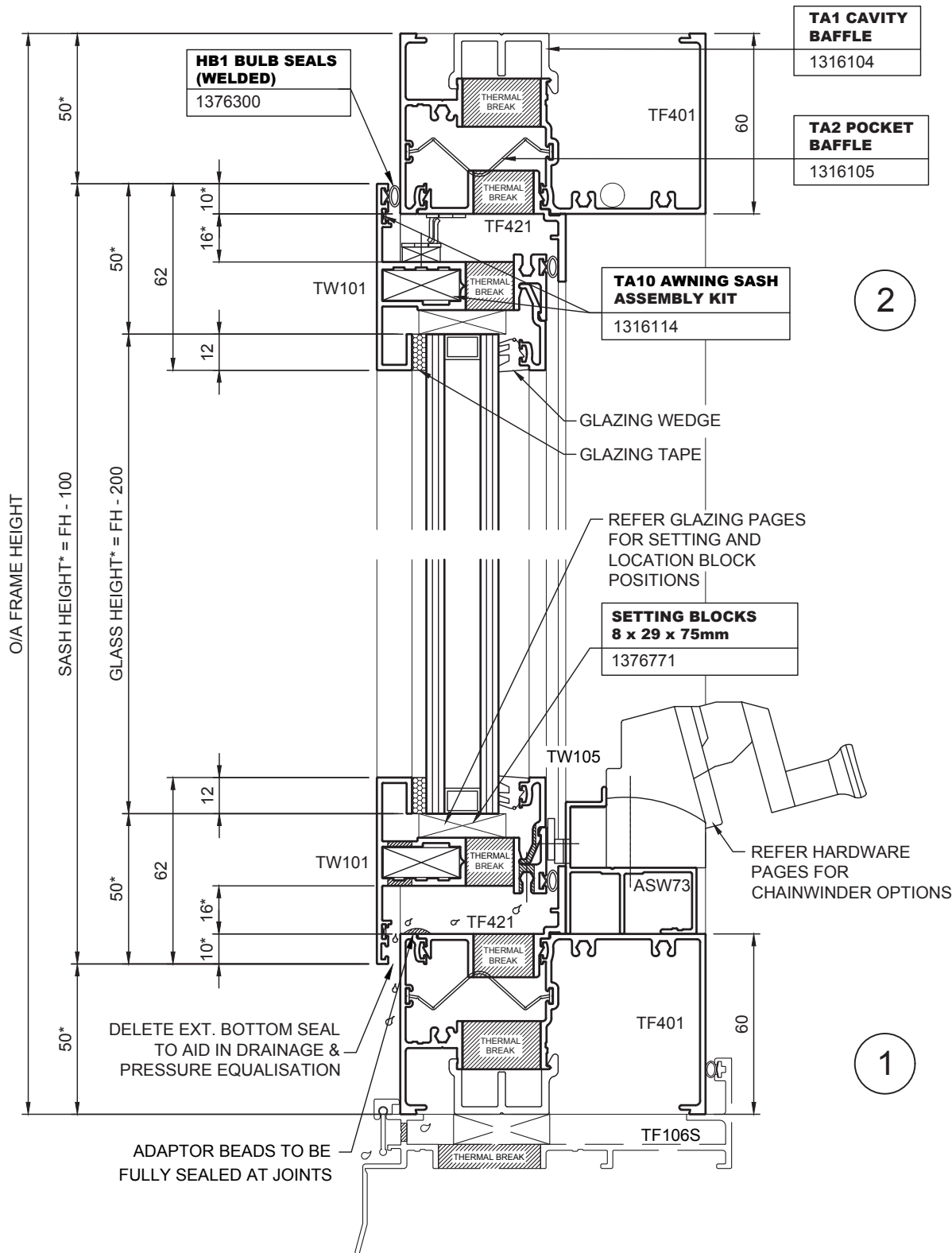


REFER TO THERMAFRAME 101.6mm CENTRE POCKET FRAMING
TECHNICAL MANUAL FOR FULL SHOPFRONT FRAMING DETAILS

* VARIES DEPENDING ON STAY SPECIFIED. DIMENSIONS HAVE BEEN DETERMINED USING 16mm STAYS.

8. Typical Details

Typical Awning Head/Sill Details in 101.6mm FG Framing

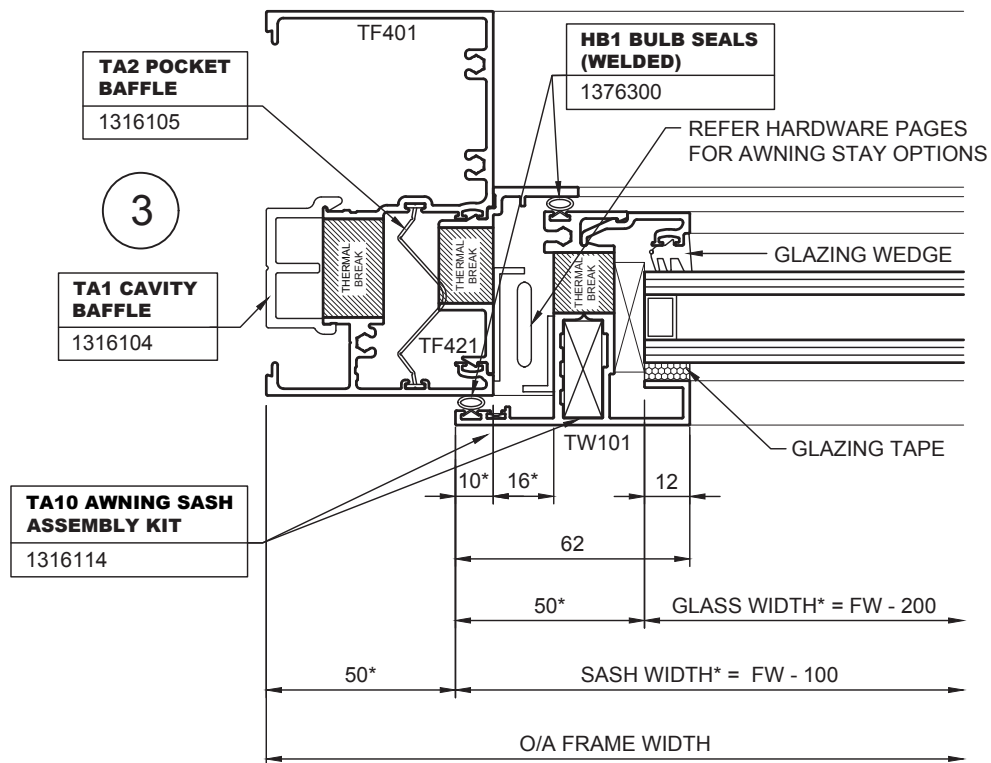


REFER TO THERMAFRAME 101.6mm FLUSH GLAZE FRAMING
TECHNICAL MANUAL FOR FULL SHOPFRONT FRAMING DETAILS

* VARIES DEPENDING ON STAY SPECIFIED. DIMENSIONS HAVE BEEN DETERMINED USING 16mm STAYS.

8. Typical Details

Typical Awning Jamb Detail in 101.6mm FG Framing

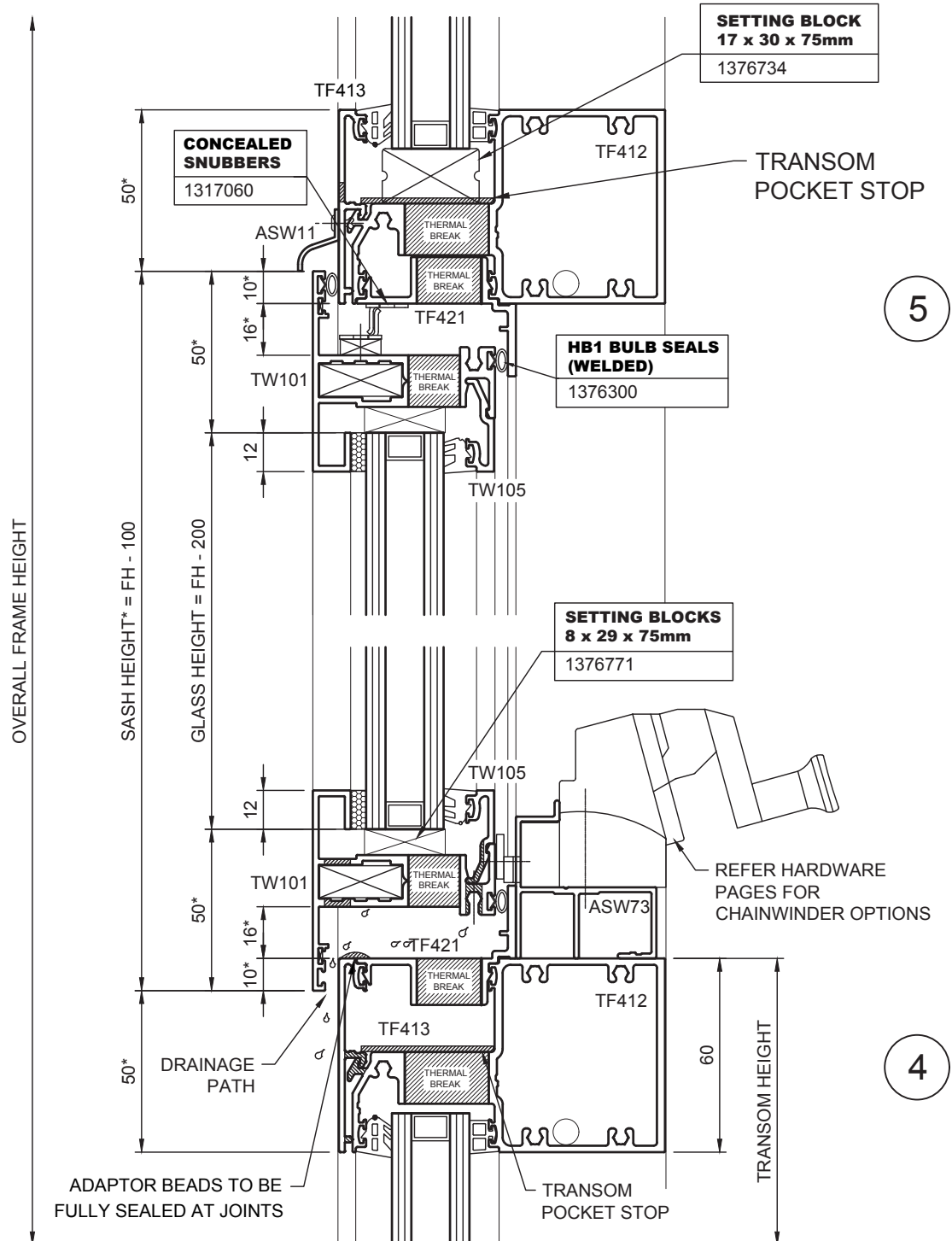


REFER TO THERMAFRAME 101.6mm FLUSH GLAZE FRAMING
TECHNICAL MANUAL FOR FULL SHOPFRONT FRAMING DETAILS

* VARIES DEPENDING ON STAY SPECIFIED. DIMENSIONS HAVE BEEN DETERMINED USING 16mm STAYS.

8. Typical Details

Typical Awning Transom Detail in 101.6mm FG Framing

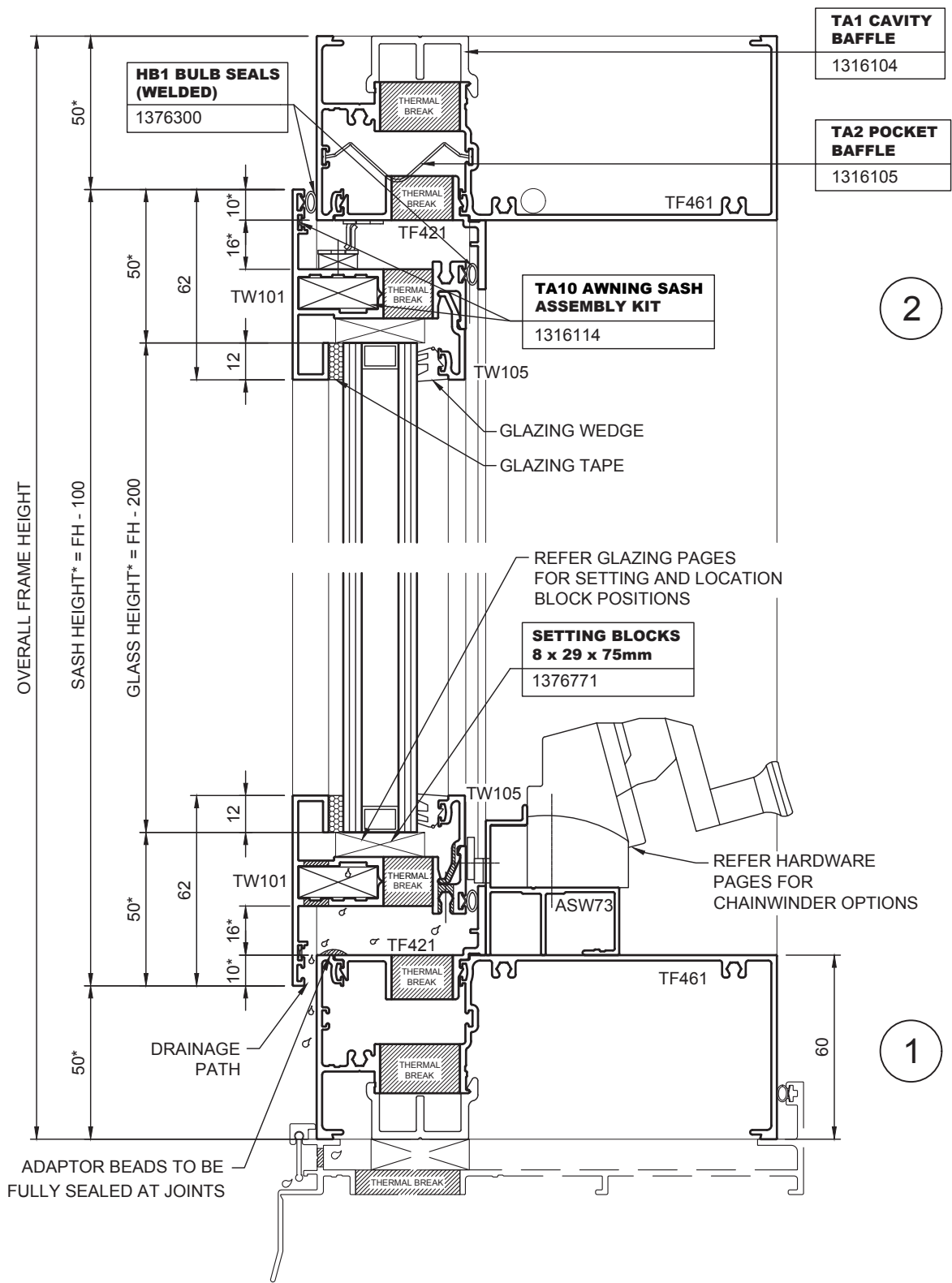


REFER TO THERMAFRAME 101.6mm FLUSH GLAZE FRAMING
TECHNICAL MANUAL FOR FULL SHOPFRONT FRAMING DETAILS

* VARIES DEPENDING ON STAY SPECIFIED. DIMENSIONS HAVE BEEN DETERMINED USING 16mm STAYS.

8. Typical Details

Typical Awning Head/Sill Details in 150mm FG Framing

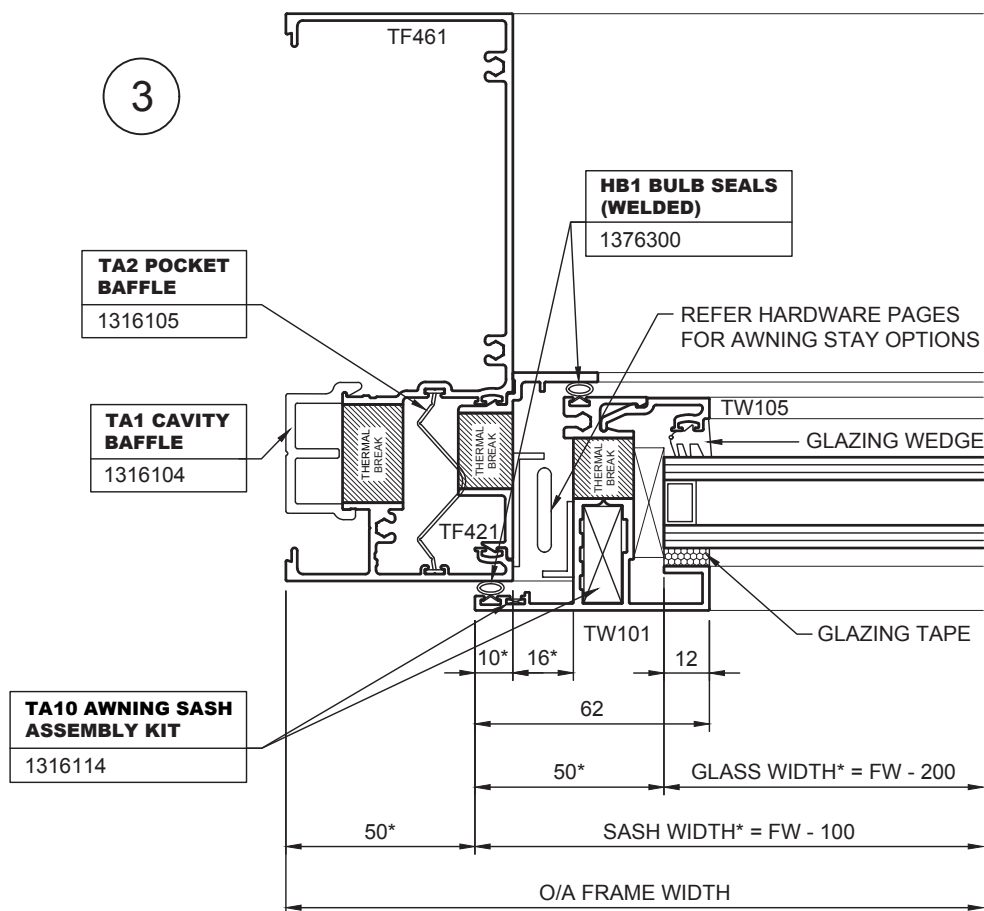


REFER TO THERMAFRAME 150mm FLUSH GLAZE FRAMING
TECHNICAL MANUAL FOR FULL SHOPFRONT FRAMING DETAILS

* VARIES DEPENDING ON STAY SPECIFIED. DIMENSIONS HAVE BEEN DETERMINED USING 16mm STAYS.

8. Typical Details

Typical Awning Jamb Detail in 150mm FG Framing

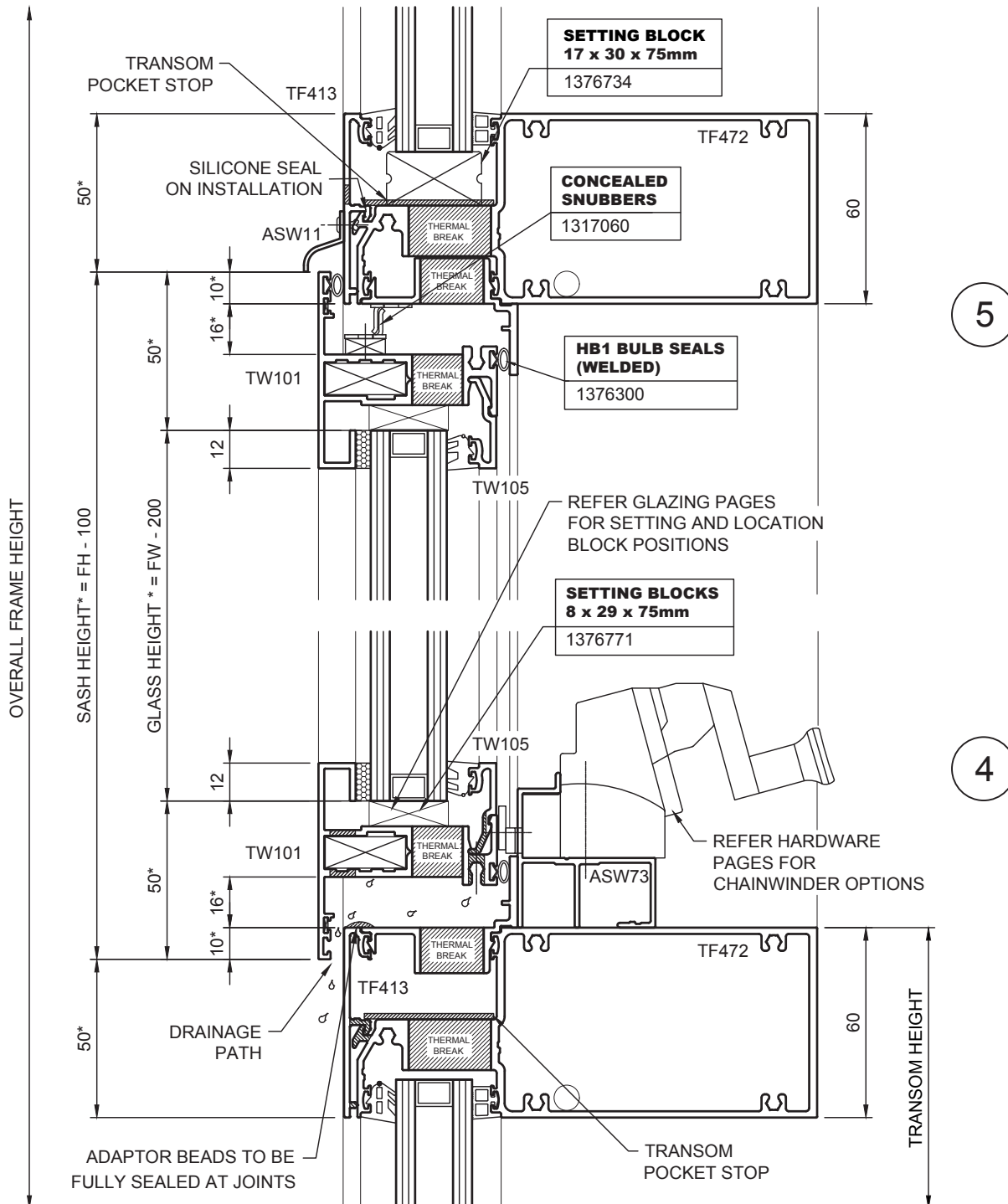


REFER TO THERMAFRAME 150mm FLUSH GLAZE FRAMING
TECHNICAL MANUAL FOR FULL SHOPFRONT FRAMING DETAILS

* VARIES DEPENDING ON STAY SPECIFIED. DIMENSIONS HAVE BEEN DETERMINED USING 16mm STAYS.

8. Typical Details

Typical Awning Transom Detail in 150mm FG Framing

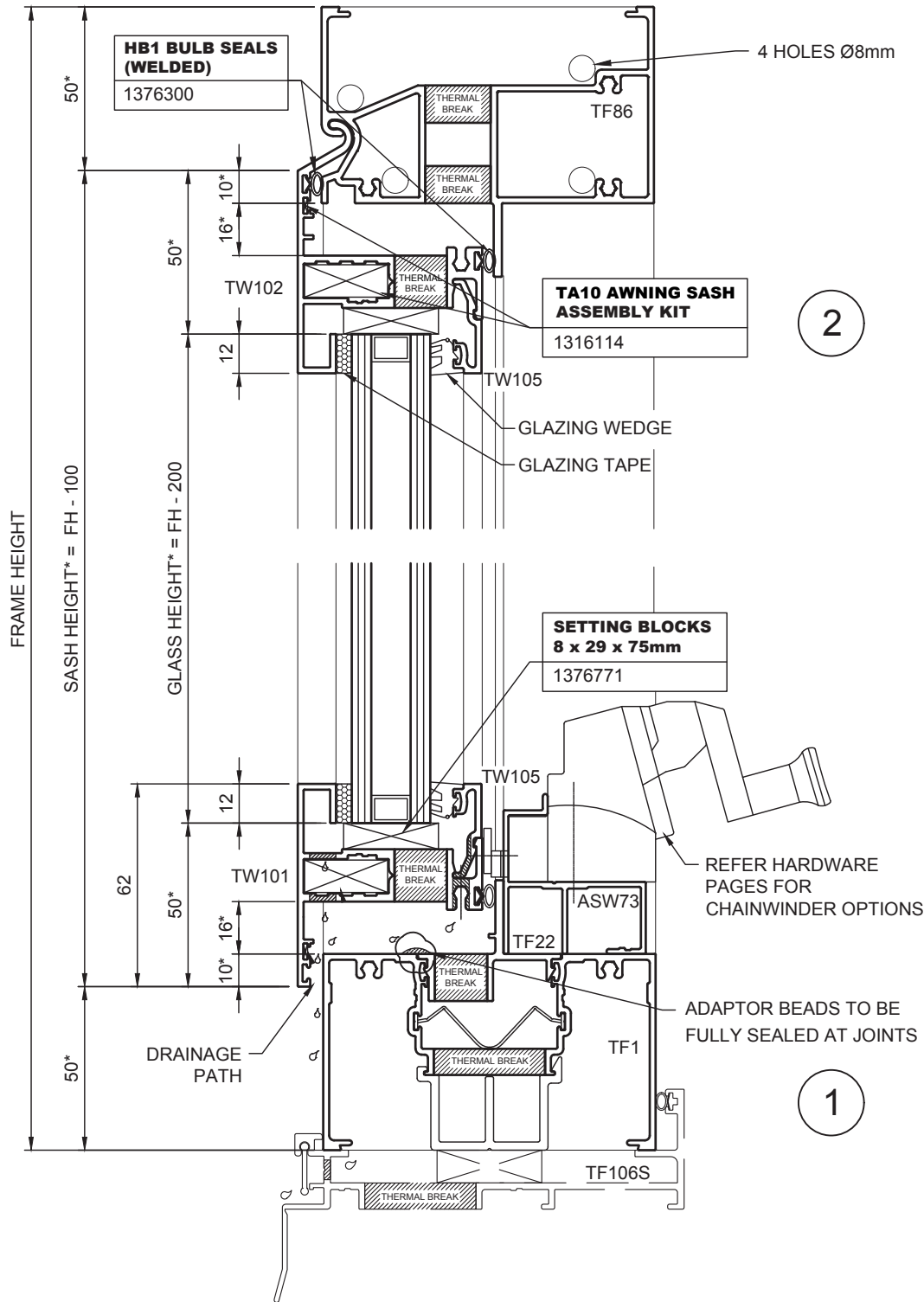


REFER TO THERMAFRAME 150mm FLUSH GLAZE FRAMING
TECHNICAL MANUAL FOR FULL SHOPFRONT FRAMING DETAILS

* VARIES DEPENDING ON STAY SPECIFIED. DIMENSIONS HAVE BEEN DETERMINED USING 16mm STAYS.

8. Typical Details

Top Hung Awning Head/Sill Details in 101.6mm CP Framing

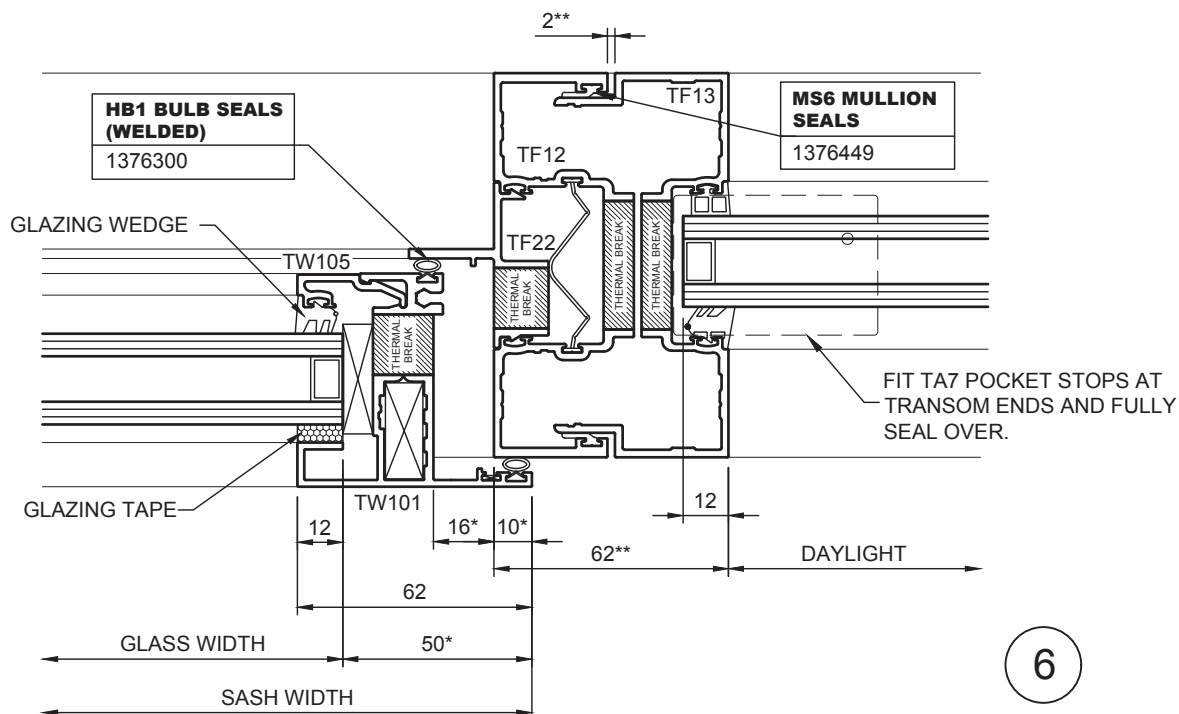
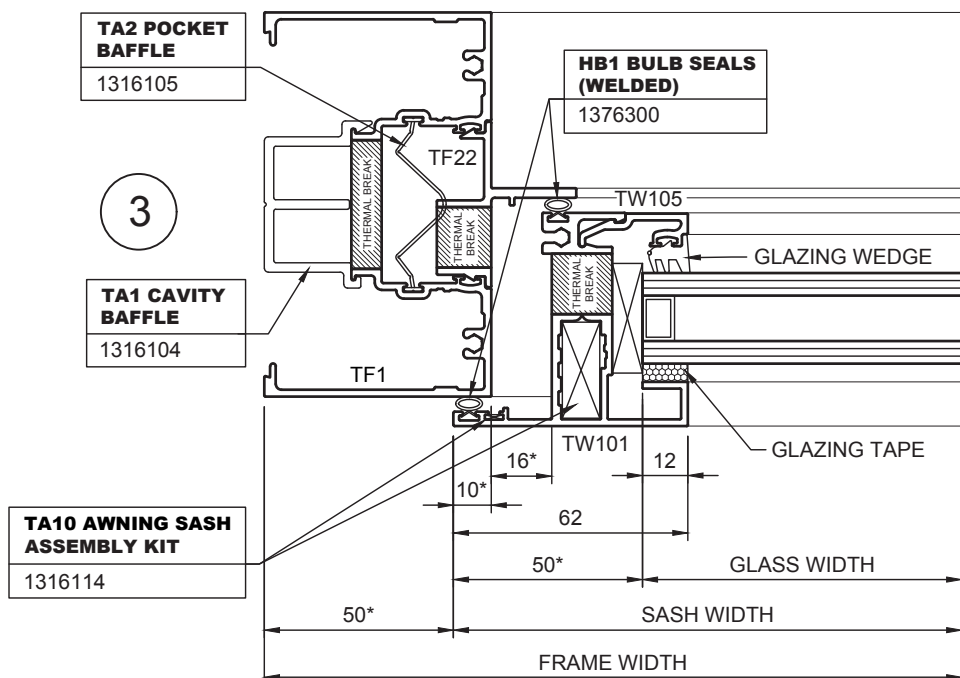


REFER TO THERMAFRAME 101.6mm CENTRE POCKET FRAMING
TECHNICAL MANUAL FOR FULL SHOPFRONT FRAMING DETAILS

* VARIES DEPENDING ON STAY SPECIFIED. DIMENSIONS HAVE BEEN DETERMINED USING 16mm STAYS.

8. Typical Details

Top Hung Awning Jamb/Mullion Details in 101.6mm CP

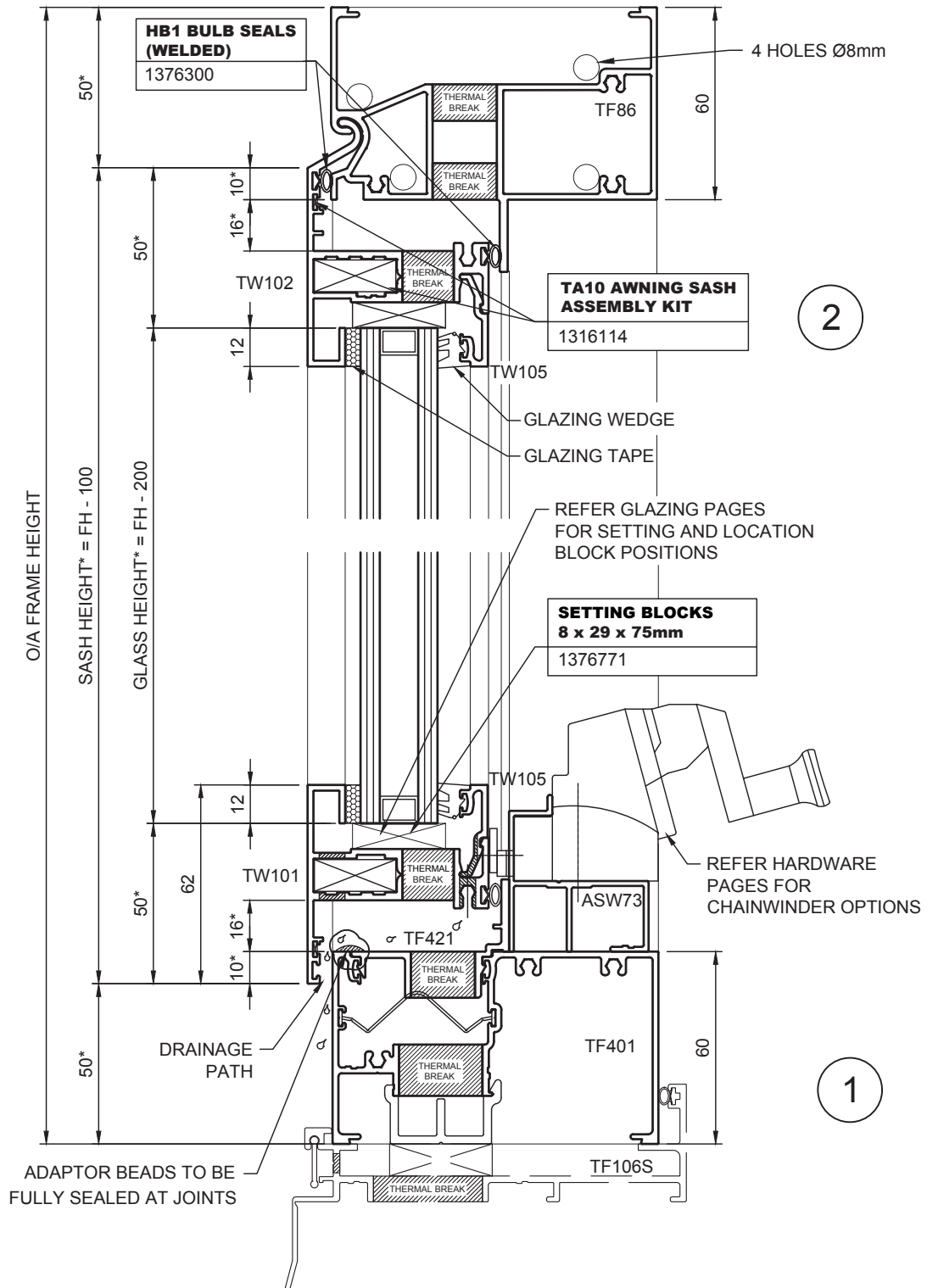


REFER TO THERMAFRAME 101.6mm CENTRE POCKET FRAMING
TECHNICAL MANUAL FOR FULL SHOPFRONT FRAMING DETAILS

** NOMINAL DIMENSION ONLY. MAY VARY DUE TO PROJECT REQUIREMENTS.

8. Typical Details

Top Hung Awning Head/Sill Details in 101.6mm FG Framing

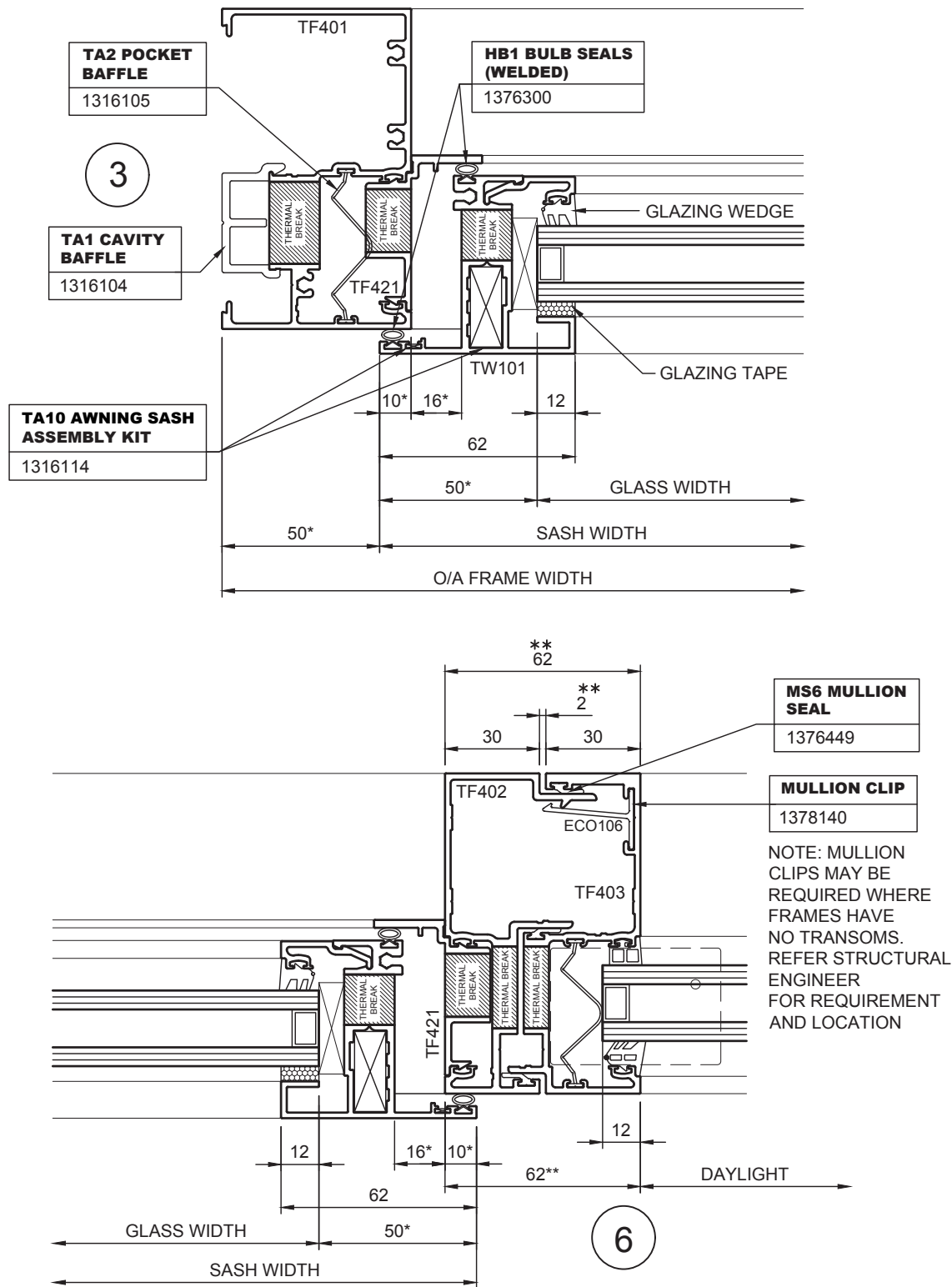


REFER TO THERMAFRAME 101.6mm CENTRE POCKET FRAMING
TECHNICAL MANUAL FOR FULL SHOPFRONT FRAMING DETAILS

** NOMINAL DIMENSION ONLY. MAY VARY DUE TO PROJECT REQUIREMENTS.

8. Typical Details

Top Hung Awning Jamb/Mullion Details in 101.6mm FG

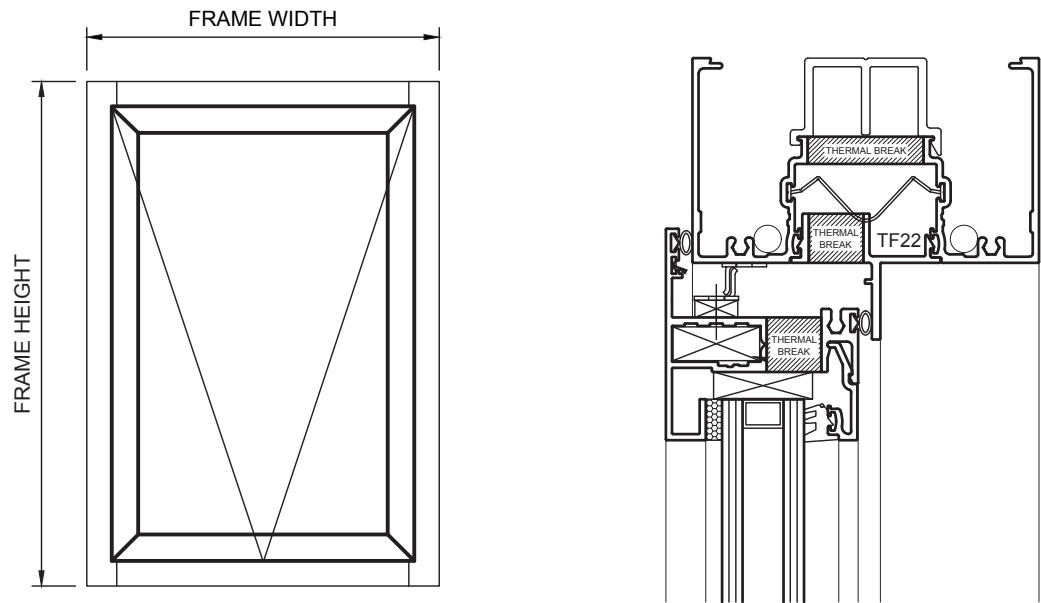


REFER TO THERMAFRAME 101.6mm CENTRE POCKET FRAMING
TECHNICAL MANUAL FOR FULL SHOPFRONT FRAMING DETAILS

** NOMINAL DIMENSION ONLY. MAY VARY DUE TO PROJECT REQUIREMENTS.

9. Cutting Formulas

ThermAFrame 101.6mm Centre Pocket Frame

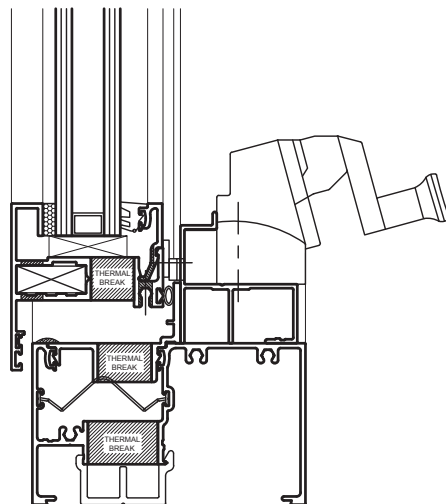
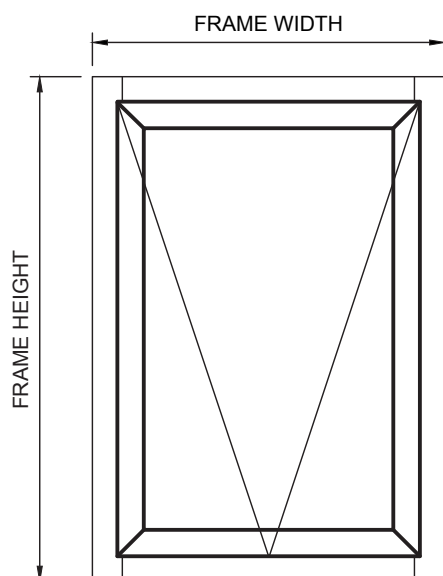


NOTE: * Varies depending on stay specified. Dimensions have been determined using 16mm stays

PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	ASW73	Winder/ Flyscreen Adaptor	Frame Width - 120.5	1
	TA1	Centre Pocket Frame Cavity Baffle	Frame Height	2
	TA1	Centre Pocket Frame Cavity Baffle	Frame Width - 89	2
	TF1	Frame/ Jamb	Frame Height	2
	TF1	Frame/ Jamb	Frame Width - 120	2
	TF22	56mm Awning Adaptor CP	Frame Height - 91 (Mitre Cut)	2
	TF22	56mm Awning Adaptor CP	Frame Height - 91 (Mitre Cut)	2
	TW101	Awning/ Casement Sash	Frame Height - 100* (Mitre Cut)	2
	TW101	Awning/ Casement Sash	Frame Width - 100* (Mitre Cut)	2
	TW105	Sash Bead	Frame Height - 228*	2
	TW105	Sash Bead	Frame Width - 191*	2
GLASS	HEIGHT		O/A Frame Height - 200mm	1
	WIDTH		O/A Frame Width - 200mm	

9. Cutting Formulas

ThermAFrame 101.6mm Flush Glazed Frame

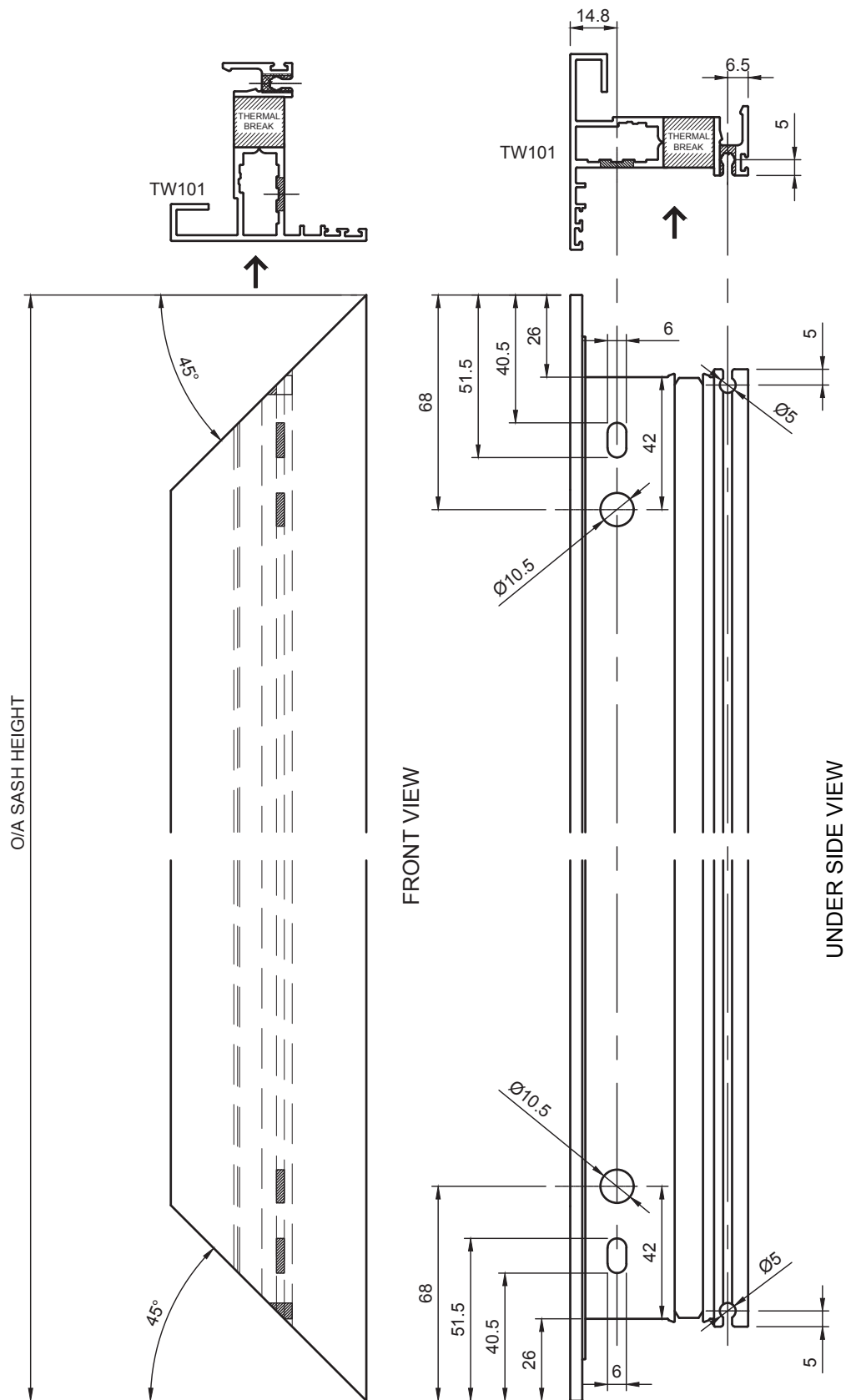


NOTE: * Varies depending on stay specified. Dimensions have been determined using 16mm stays

PROFILE	SECTION NO.	DESCRIPTION	CUTTING FORMULA	QTY
	ASW43	Winder/ Flyscreen Adaptor	Frame Width - 120.5	1
	TA3	Centre Pocket Frame Cavity Baffle	Frame Height	2
	TA3	Centre Pocket Frame Cavity Baffle	Frame Width - 89	2
	TF401	Frame/ Jamb	Frame Height	2
	TF401	Frame/ Jamb	Frame Width - 120	2
	TF421	56mm Awning Adaptor CP	Frame Height - 91 (Mitre Cut)	2
	TF421	56mm Awning Adaptor CP	Frame Height - 91 (Mitre Cut)	2
	TW101	Awning/ Casement Sash	Frame Height - 100* (Mitre Cut)	2
	TW101	Awning/ Casement Sash	Frame Width - 100* (Mitre Cut)	2
	TW105	Sash Bead	Frame Height - 228*	2
	TW105	Sash Bead	Frame Width - 191*	2
GLASS	HEIGHT		O/A Frame Height - 200mm	1
	WIDTH		O/A Frame Width - 200mm	

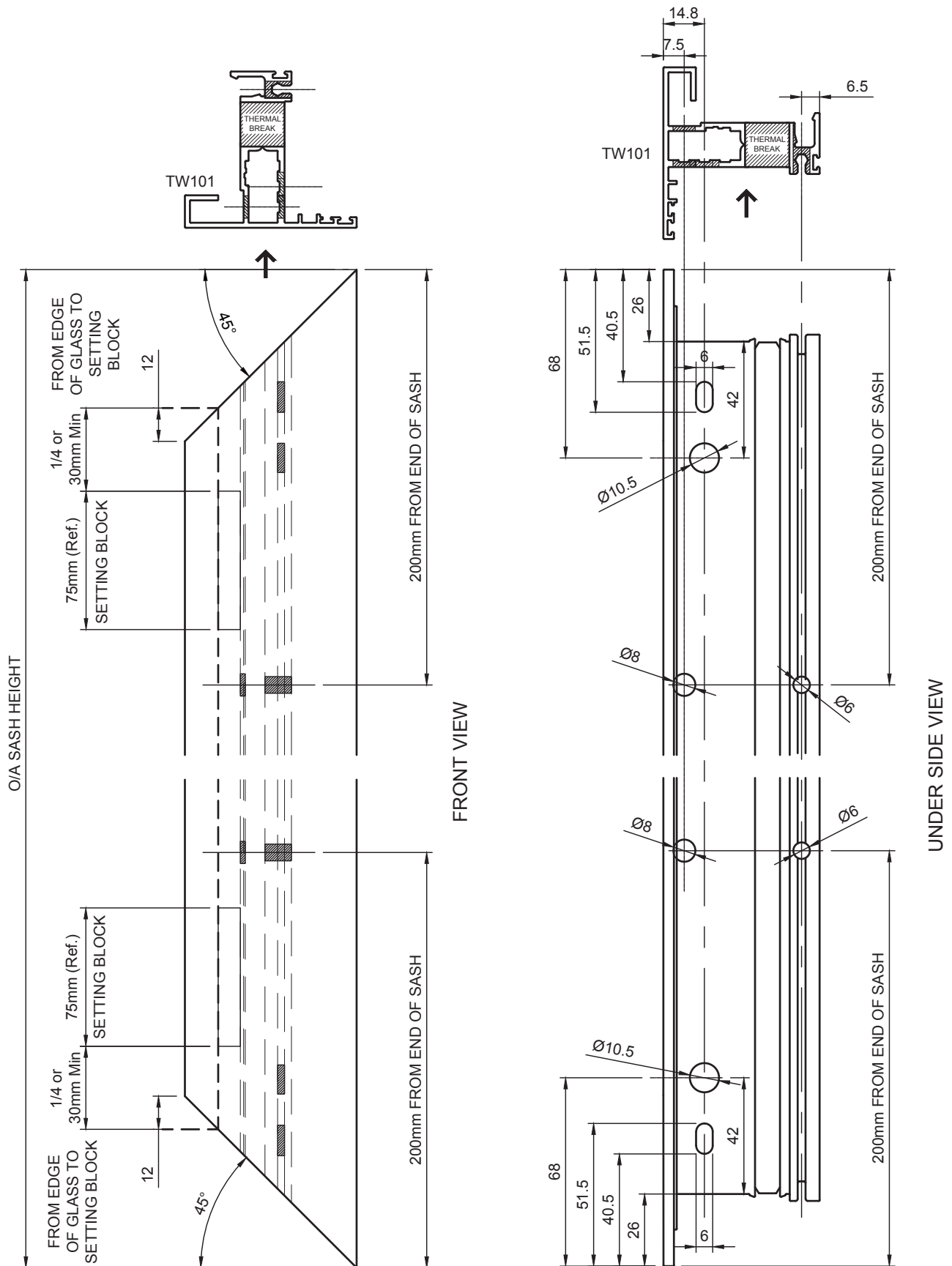
10. Manufacturing Details

Sash Preparation



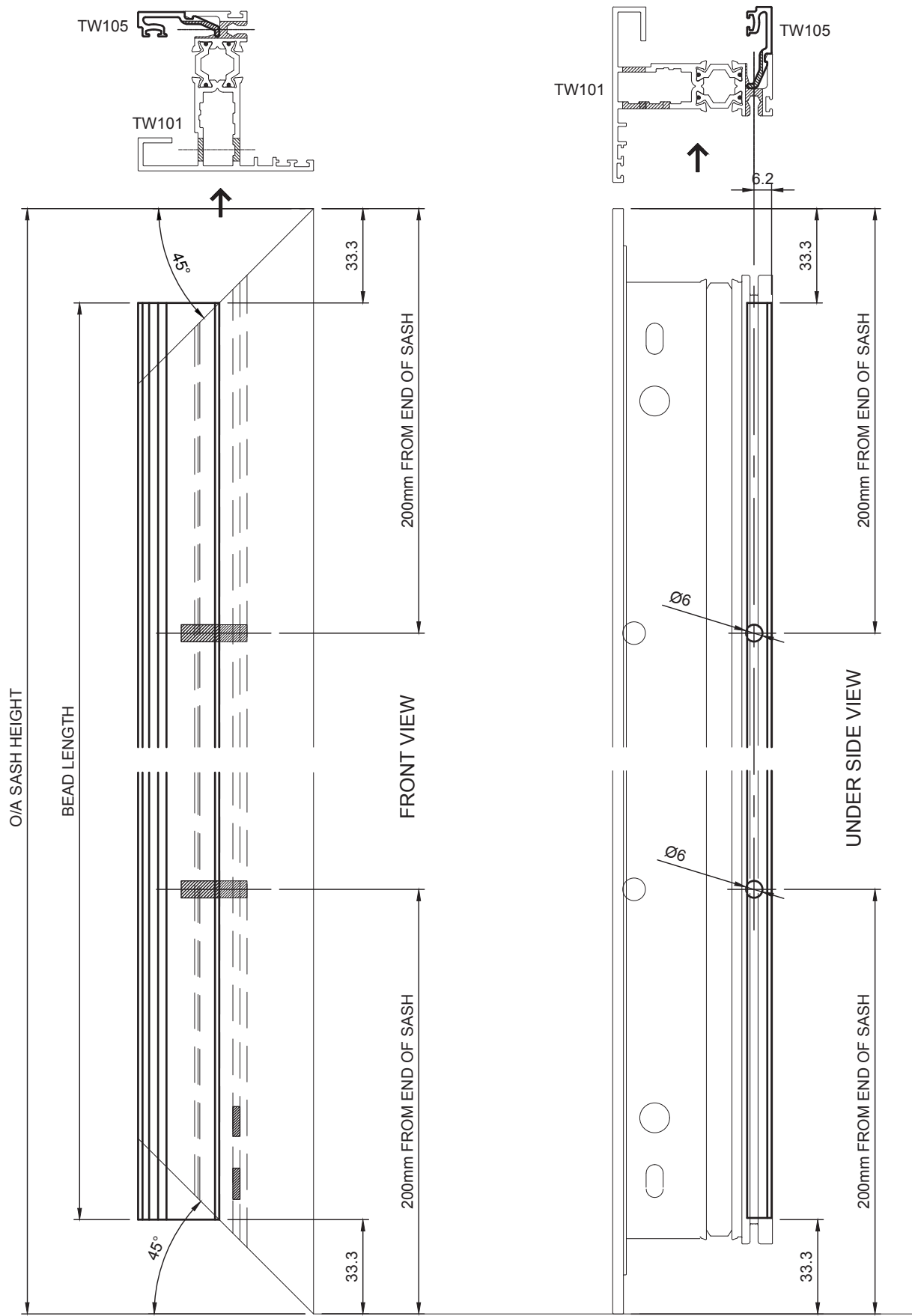
10. Manufacturing Details

Sash Preparation - Bottom Rail Drainage



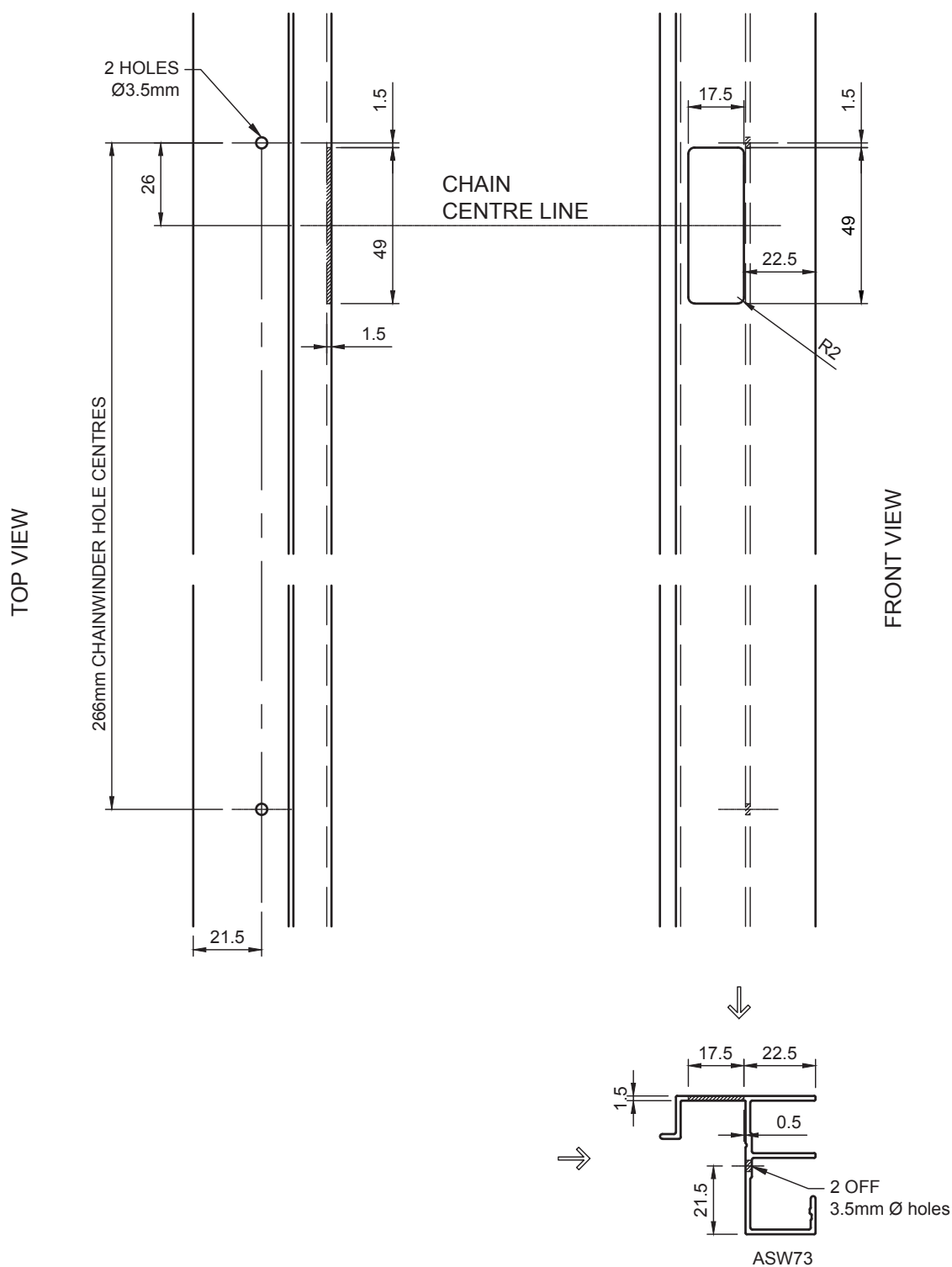
10. Manufacturing Details

Bead Preparation - Bottom Rail Drainage



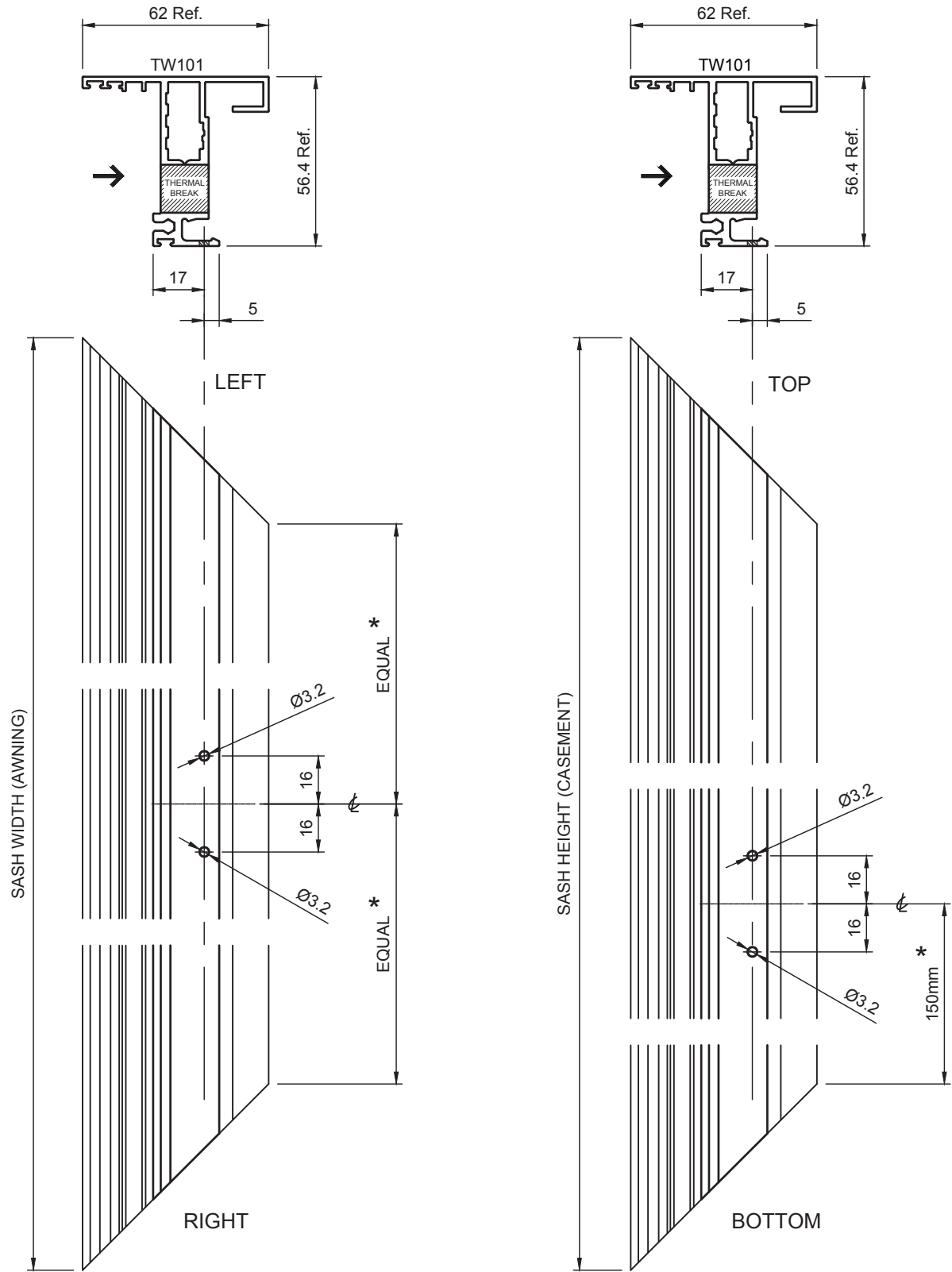
10. Manufacturing Details

Alspec Chainwinder Installation Preparation



10. Manufacturing Details

Ascot & Alspec Cam Handle Installation Preparations

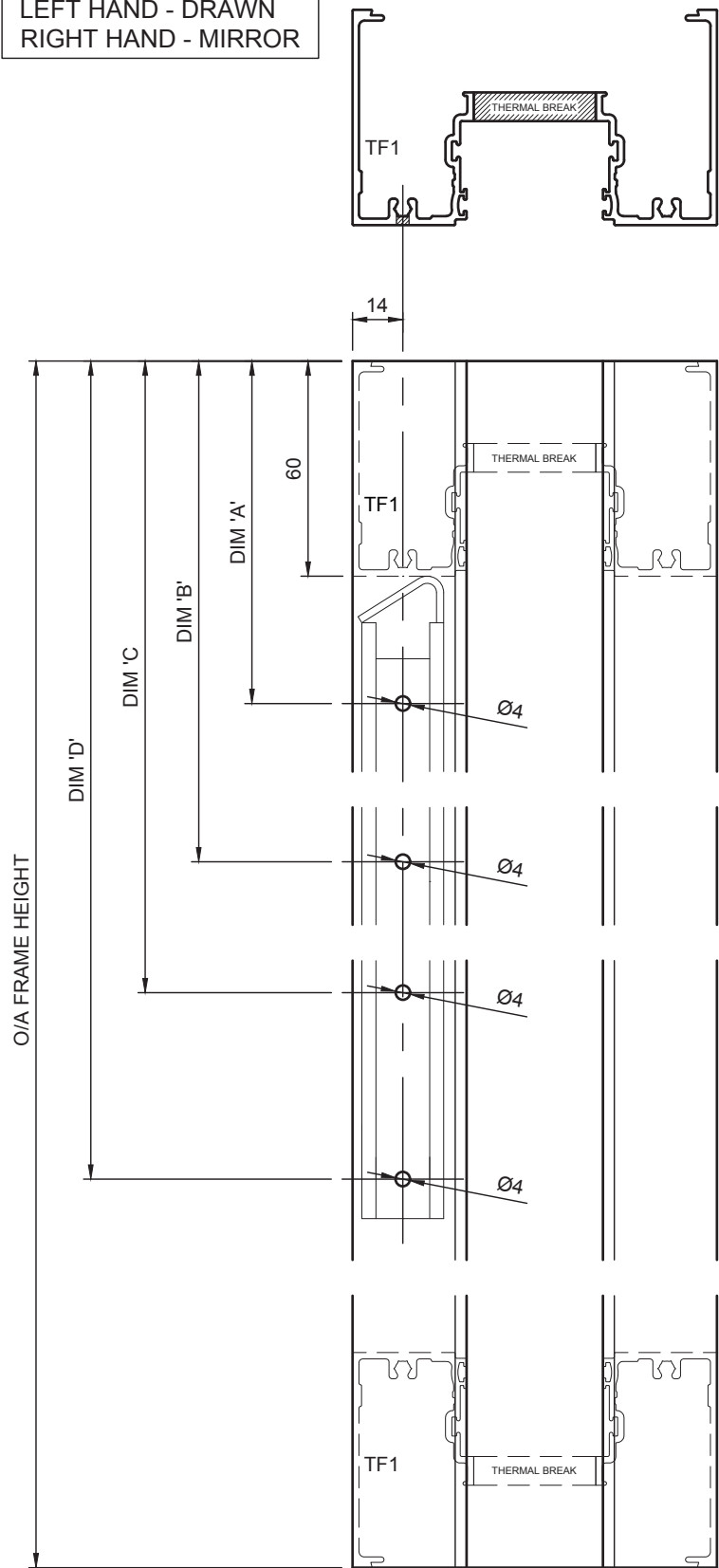


NOTE: * DIMENSION MAY BE VARIABLE DEPENDING ON SASH HEIGHT AND WINDLOADS.

10. Manufacturing Details

Frame Arm Awning Stay Machining for Bristol Stays

LEFT HAND - DRAWN
RIGHT HAND - MIRROR



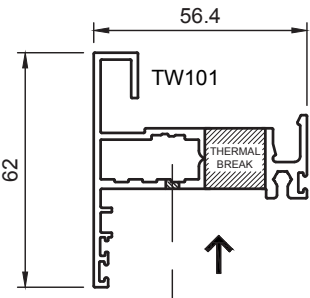
NOTE: FOR MACHINING COMPLETED BY HAND WE RECOMMEND TO DRILL SLOT HOLE LOCATIONS FIRST TO ALLOW FOR ADJUSTMENT. THE REMAINING HOLES CAN THEN BE DRILLED ONCE THE STAY HAS BEEN FITTED. SLOT LOCATIONS ARE MARKED WITH AN * (STAY DRAWN IS A REPRESENTATION ONLY)

STAY	CAVITY	DIM 'A'	DIM 'B'	DIM 'C'	DIM 'D'
BP10HD	16mm	95.5*	273.5	314*	
BP16HD	16mm	95.5*	284.5	399.5	466.5*
BP22HD	16mm	95.5*	343.5	513.5	618.5*
BP26HD	17mm	95.5*	415.5	680*	732*

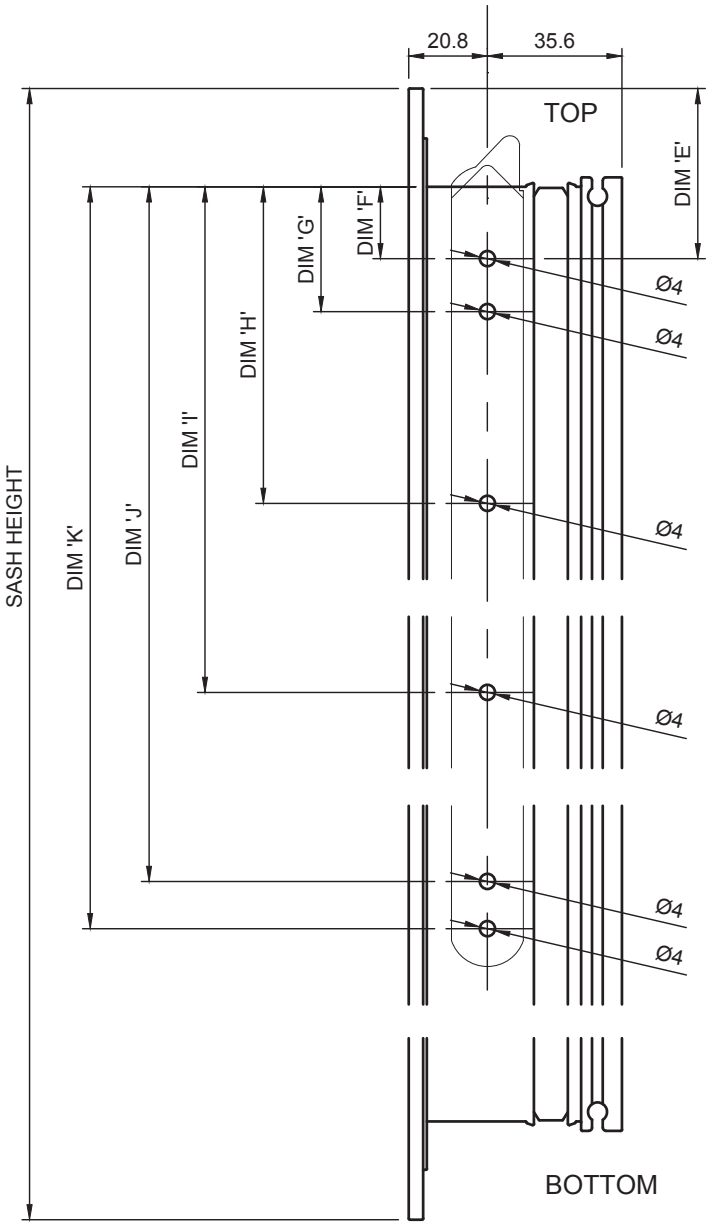
10. Manufacturing Details

Sash Arm Awning Stay Machining for Bristol Stays

RIGHT HAND - DRAWN
LEFT HAND - MIRROR



NOTE: FOR MACHINING COMPLETED BY HAND WE RECOMMEND TO DRILL SLOT HOLE LOCATIONS FIRST TO ALLOW FOR ADJUSTMENT. THE REMAINING HOLES CAN THEN BE DRILLED ONCE THE STAY HAS BEEN FITTED. SLOT LOCATIONS ARE MARKED WITH AN * (STAY DRAWN IS A REPRESENTATION ONLY)

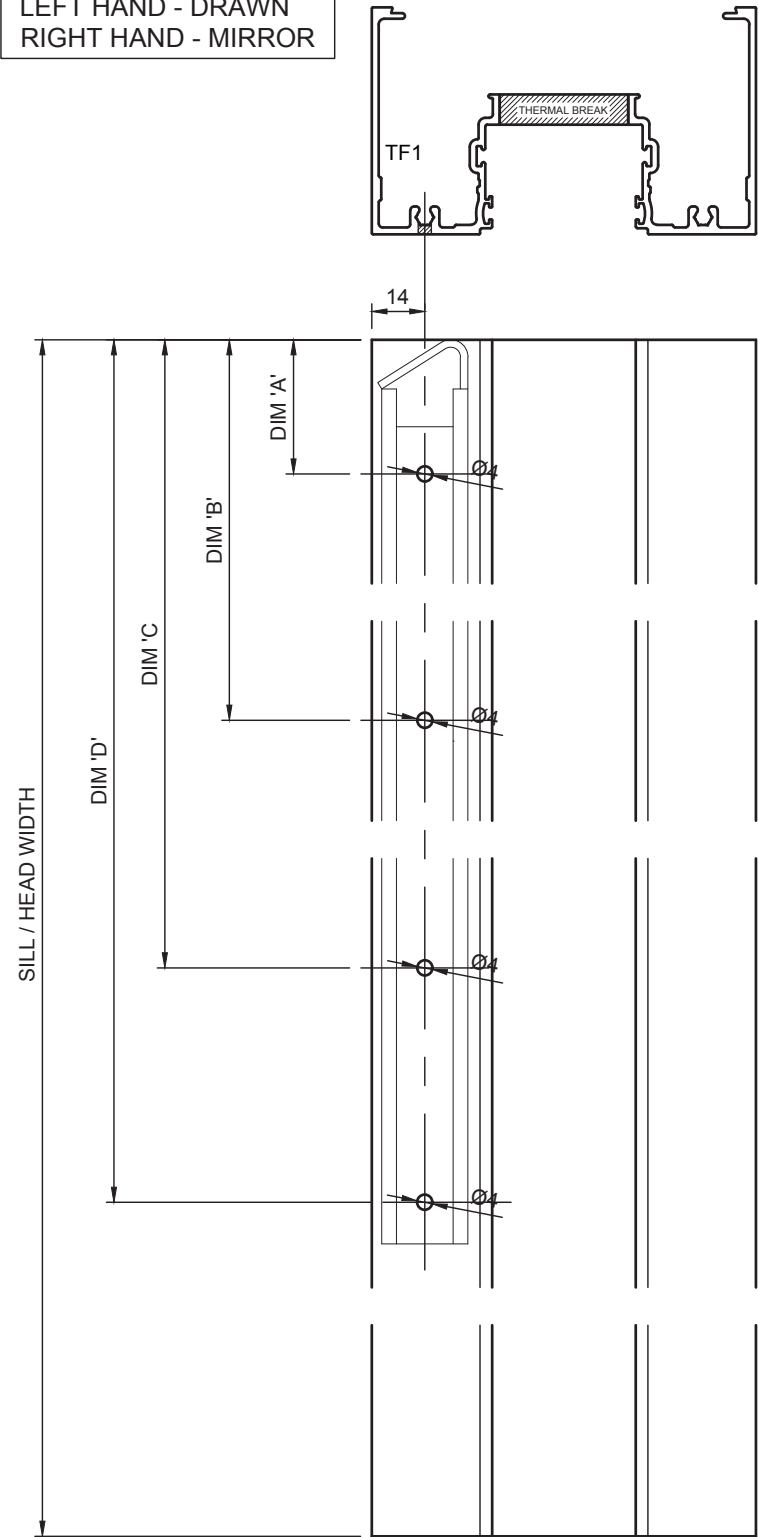


STAY	CAVITY	DIM 'E'	DIM 'F'	DIM 'G'	DIM 'H'	DIM 'I'	DIM 'J'	DIM 'K'
BP10HD	16mm	45*	19*	33	53	184.5*	197.2	
BP16HD	16mm	47.5*	21.5*	34	85	261.5*	275.2	
BP22HD	16mm	47.5*	21.5*	34	85	185	337*	350.7
BP26HD	17mm	45.5*	19.5*	33.5	84.5	318.5*	440	452.5

10. Manufacturing Details

Frame Arm Casement Stay Machining for Bristol Stays

LEFT HAND - DRAWN
RIGHT HAND - MIRROR



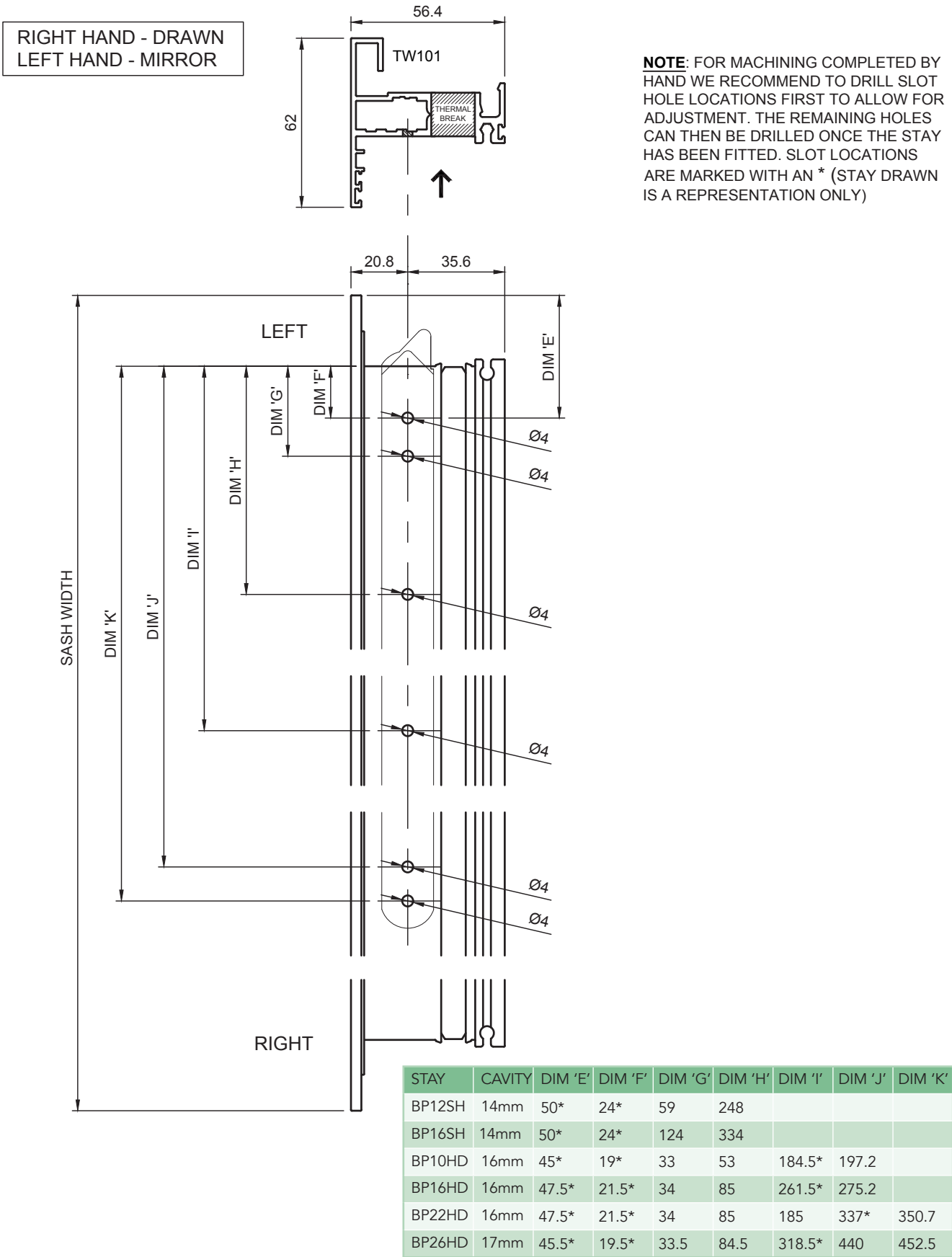
NOTE: FOR MACHINING COMPLETED BY HAND WE RECOMMEND TO DRILL SLOT HOLE LOCATIONS FIRST TO ALLOW FOR ADJUSTMENT. THE REMAINING HOLES CAN THEN BE DRILLED ONCE THE STAY HAS BEEN FITTED. SLOT LOCATIONS ARE MARKED WITH AN * (STAY DRAWN IS A REPRESENTATION ONLY)

LEFT HAND CASEMENT SHOWN
REVERSE FOR RIGHT HAND CASEMENT

STAY	CAVITY	DIM 'A'	DIM 'B'	DIM 'C'	DIM 'D'
BP12SH	14mm	31.8*	197.3	296.8*	
BP16SH	14mm	29.8*	301.8	406.8*	
BP10HD	16mm	35.5*	213.5	254*	
BP16HD	16mm	35.5*	224.5	339.5	406.5*
BP22HD	16mm	35.5*	283.5	453.5	558.5*
BP26HD	17mm	35.5*	355.5	620*	672*

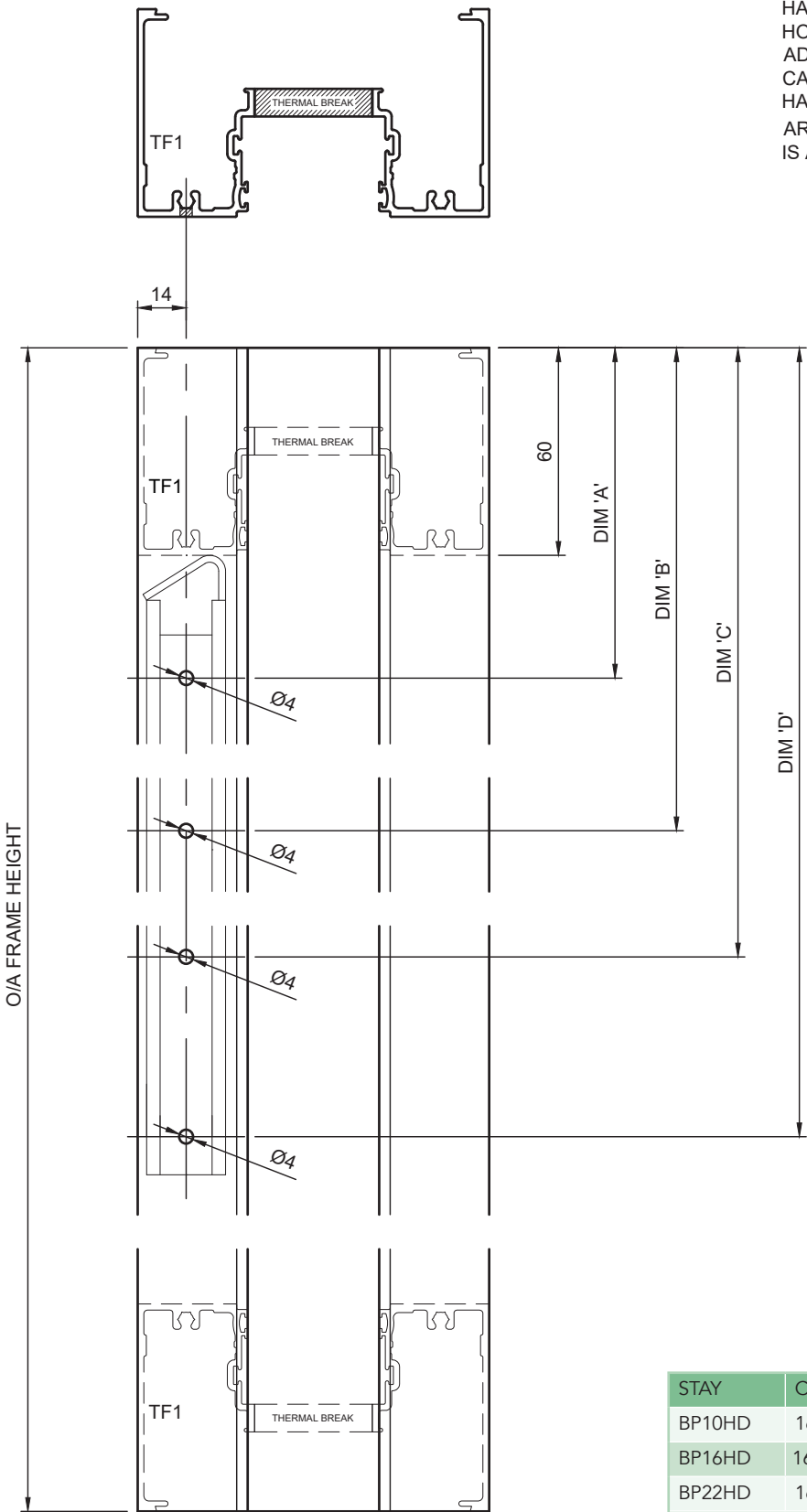
10. Manufacturing Details

Sash Arm Casement Stay Machining for Bristol Stays



10. Manufacturing Details

Frame Arm Awning Stay Machining for Bristol Stays



NOTE: FOR MACHINING COMPLETED BY HAND WE RECOMMEND TO DRILL SLOT HOLE LOCATIONS FIRST TO ALLOW FOR ADJUSTMENT. THE REMAINING HOLES CAN THEN BE DRILLED ONCE THE STAY HAS BEEN FITTED. SLOT LOCATIONS ARE MARKED WITH AN * (STAY DRAWN IS A REPRESENTATION ONLY)

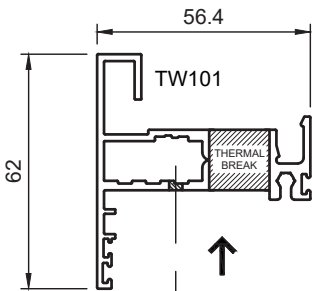
LEFT HAND - DRAWN
RIGHT HAND - MIRROR

STAY	CAVITY	DIM 'A'	DIM 'B'	DIM 'C'	DIM 'D'
BP10HD	16mm	95.5*	273.5	314*	
BP16HD	16mm	95.5*	399.5	466.5*	
BP22HD	16mm	95.5*	513.5	618.5*	
BP26HD	17mm	95.5*	415.5	680*	732*

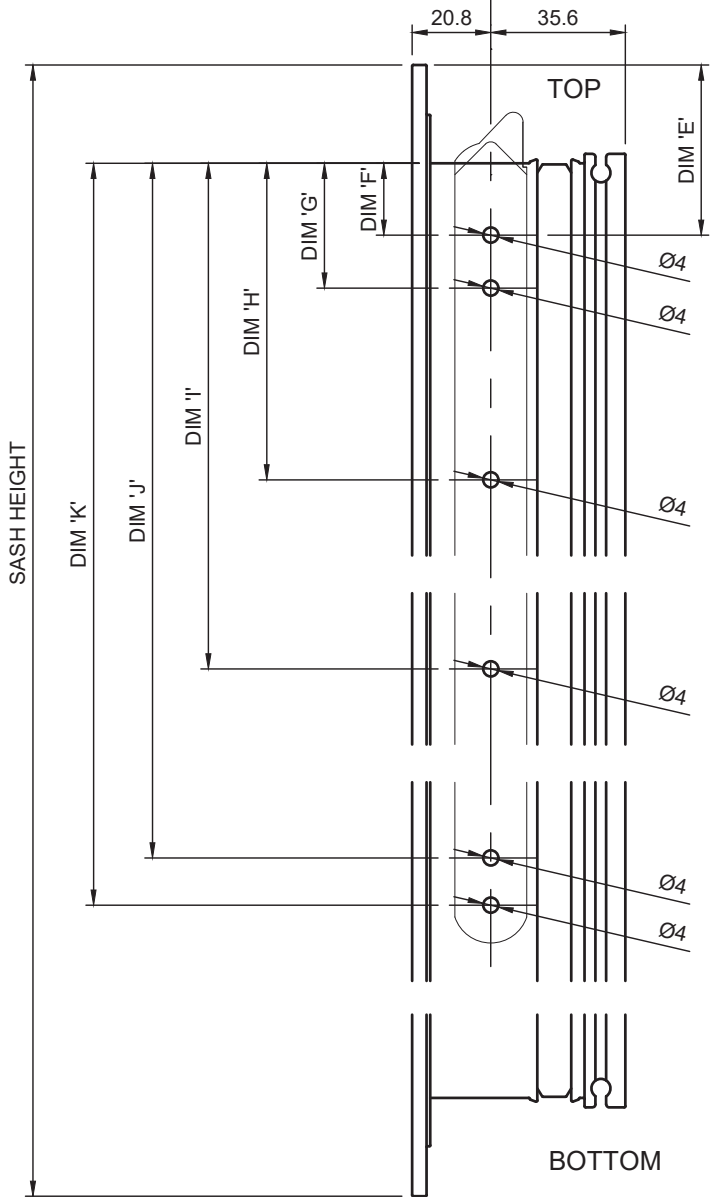
10. Manufacturing Details

Sash Arm Awning Stay Machining for Bristol Stays

RIGHT HAND - DRAWN
LEFT HAND - MIRROR



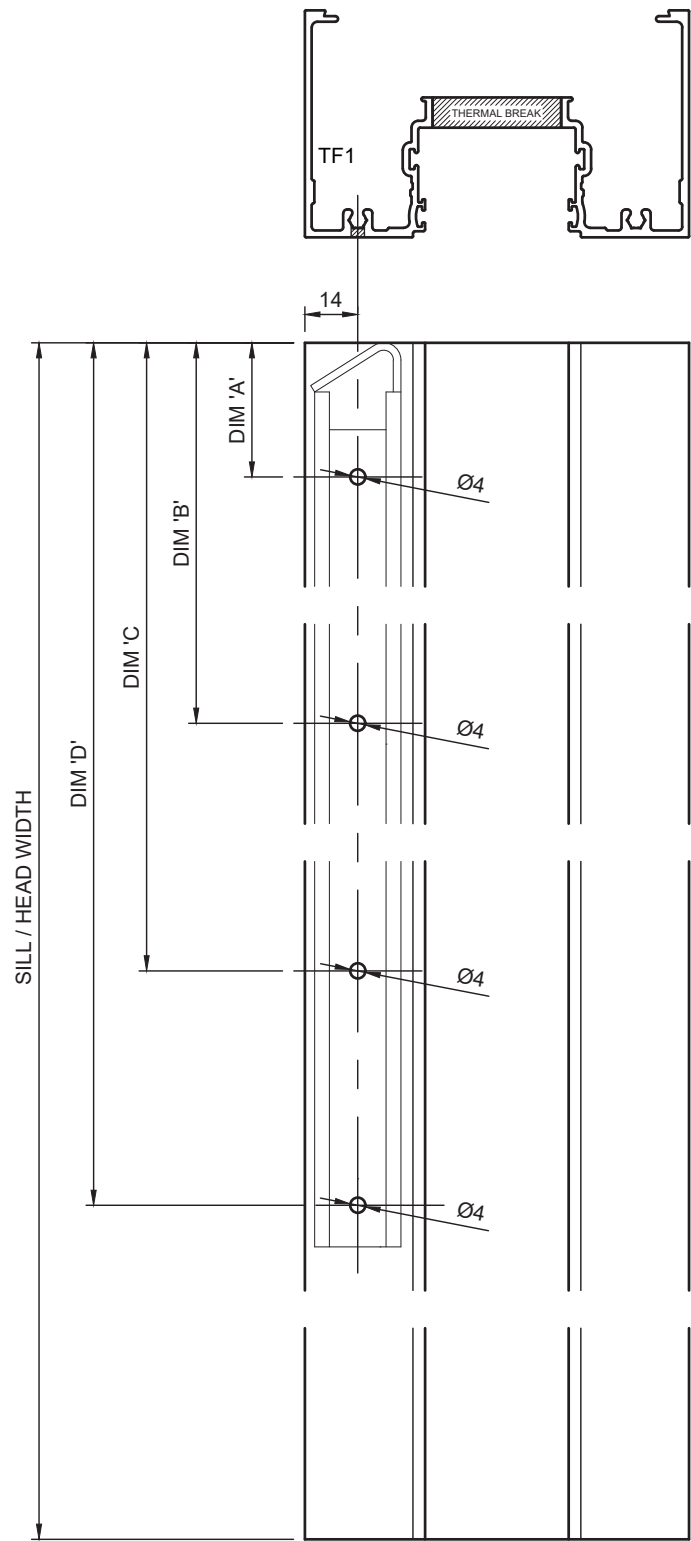
NOTE: FOR MACHINING COMPLETED BY HAND WE RECOMMEND TO DRILL SLOT HOLE LOCATIONS FIRST TO ALLOW FOR ADJUSTMENT. THE REMAINING HOLES CAN THEN BE DRILLED ONCE THE STAY HAS BEEN FITTED. SLOT LOCATIONS ARE MARKED WITH AN * (STAY DRAWN IS A REPRESENTATION ONLY)



STAY	CAVITY	DIM 'E'	DIM 'F'	DIM 'G'	DIM 'H'	DIM 'I'	DIM 'J'	DIM 'K'
BP10HD	16mm	45*	19*	33	53	184.5*	197.2	
BP16HD	16mm	47.5*	21.5*	34	85	261.5*	275.2	
BP22HD	16mm	47.5*	21.5*	34	85	185	337*	350.7
BP26HD	17mm	45.5*	19.5*	33.5	84.5	318.5*	440	452.5

10. Manufacturing Details

Frame Arm Casement Stay Machining for Bristol Stays



NOTE: FOR MACHINING COMPLETED BY HAND WE RECOMMEND TO DRILL SLOT HOLE LOCATIONS FIRST TO ALLOW FOR ADJUSTMENT. THE REMAINING HOLES CAN THEN BE DRILLED ONCE THE STAY HAS BEEN FITTED. SLOT LOCATIONS ARE MARKED WITH AN * (STAY DRAWN IS A REPRESENTATION ONLY)

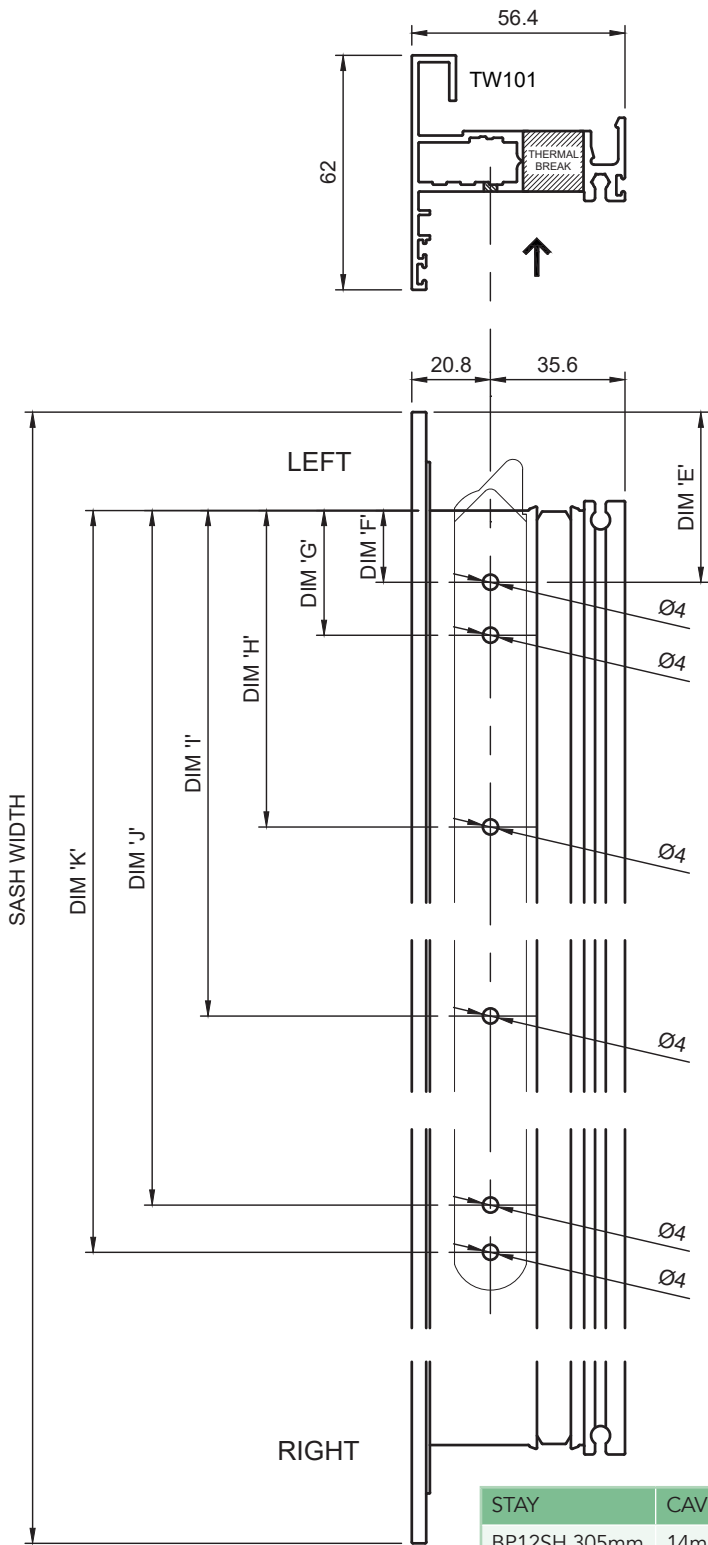
LEFT HAND - DRAWN
RIGHT HAND - MIRROR

LEFT HAND CASEMENT SHOWN
REVERSE FOR RIGHT HAND CASEMENT

STAY	CAVITY	DIM 'A'	DIM 'B'	DIM 'C'	DIM 'D'
BP12SH 305mm	14mm	30*	220	302*	
BP16SH 414mm	14mm	30*	315	405*	
BP10HD	16mm	35.5*	213.5	254*	
BP16HD	16mm	35.5*	339.5	406.5	
BP22HD	16mm	35.5*	453.5	558.5*	
BP26HD	17mm	35.5*	355.5	620*	672*

10. Manufacturing Details

Sash Arm Casement Stay Machining for Bristol Stays



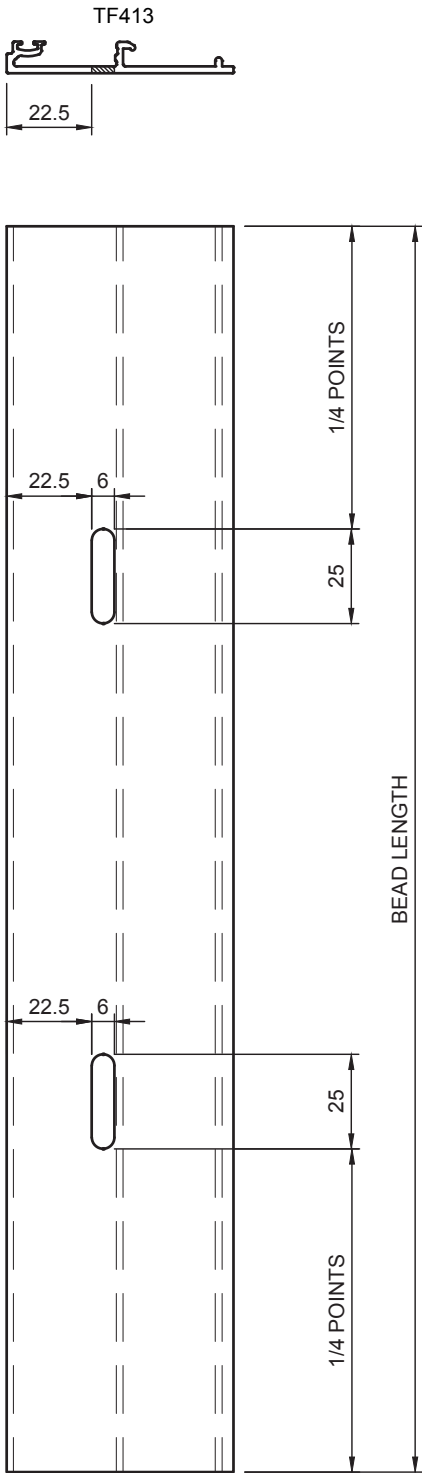
NOTE: FOR MACHINING COMPLETED BY HAND WE RECOMMEND TO DRILL SLOT HOLE LOCATIONS FIRST TO ALLOW FOR ADJUSTMENT. THE REMAINING HOLES CAN THEN BE DRILLED ONCE THE STAY HAS BEEN FITTED. SLOT LOCATIONS ARE MARKED WITH AN * (STAY DRAWN IS A REPRESENTATION ONLY)

RIGHT HAND - DRAWN
LEFT HAND - MIRROR

STAY	CAVITY	DIM 'E'	DIM 'F'	DIM 'G'	DIM 'H'	DIM 'I'	DIM 'J'	DIM 'K'
BP12SH 305mm	14mm	50	24	67*	248*			
BP16SH 414mm	14mm	50	24	124.5*	334*			
BP10HD	16mm	45*	19*	33	53	184.5*	197.2	
BP16HD	16mm	47.5*	21.5*	34	85	261.5*	275.2	
BP22HD	16mm	47.5*	21.5*	34	85	185	337*	350.7
BP26HD	17mm	45.5*	19.5*	33.5	84.5	318.5*	440	452.5

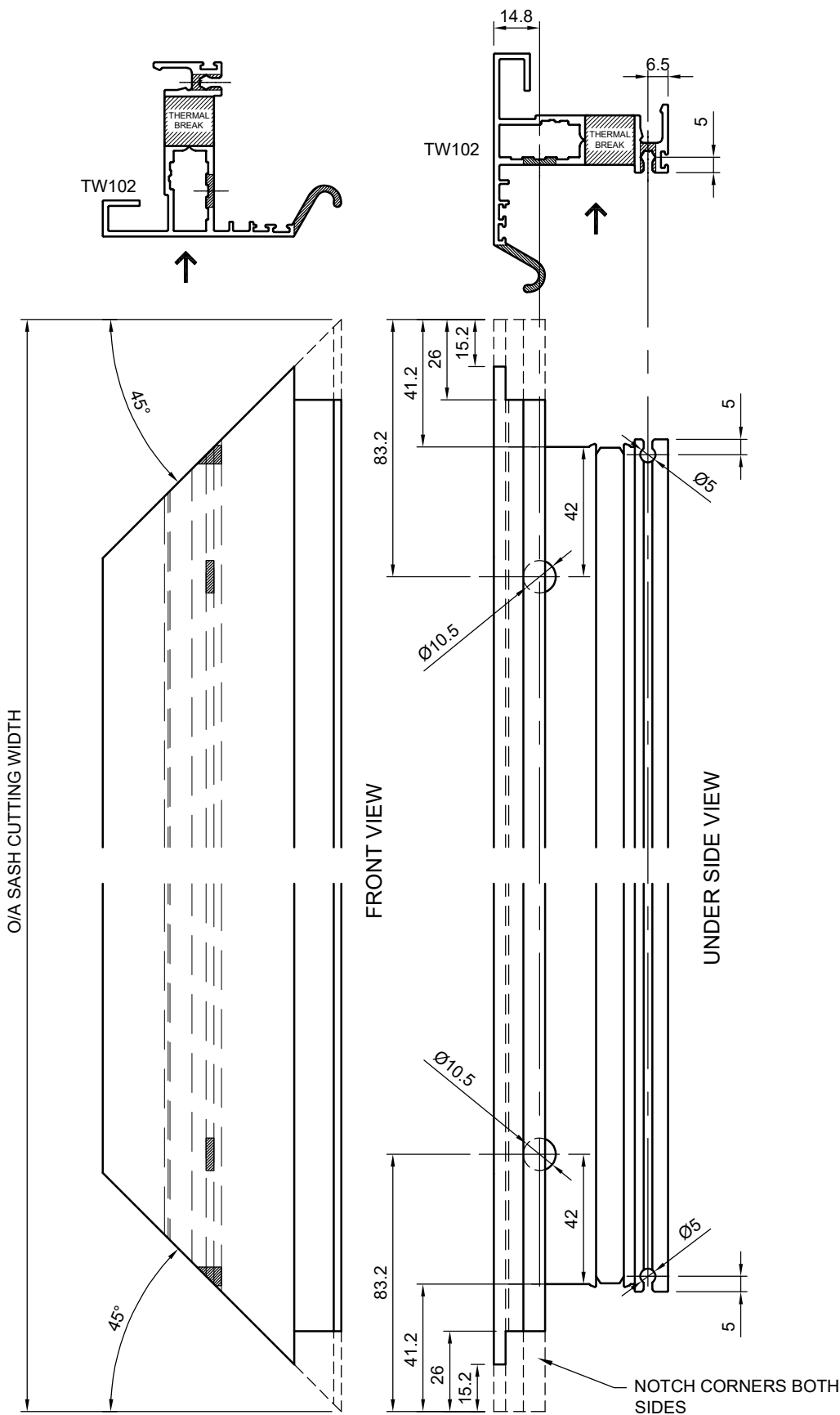
10. Manufacturing Details

TF413 Bead Slot for 150mm FG Transom above Sash



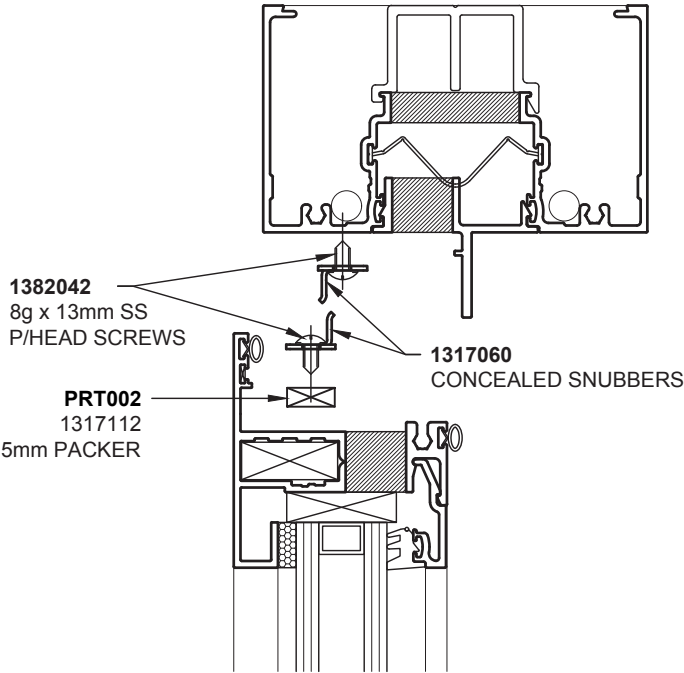
10. Manufacturing Details

Sash Preparation - Top Hung Awning Top Rail



11. Assembly Details

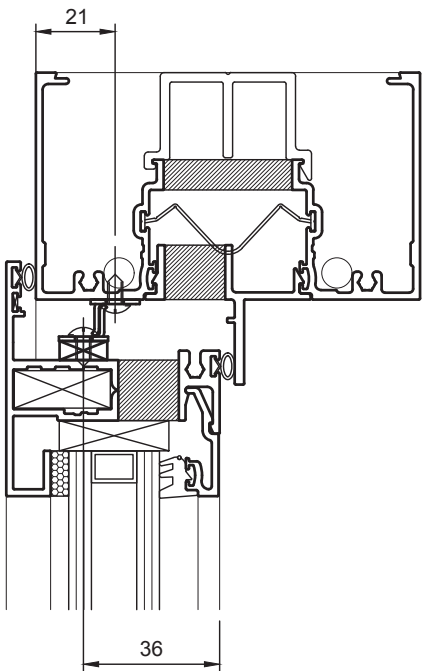
Snubber Assembly Details



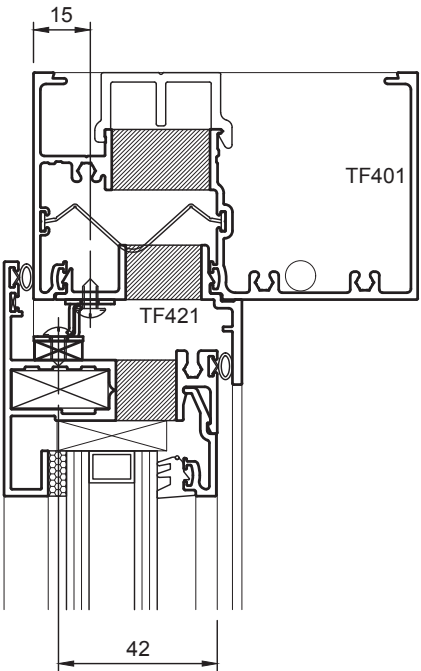
AWNING WINDOWS
SNUBBERS ARE REQUIRED
FOR AWNING WINDOWS
GREATER THAN 900mm WIDE.
TO BE INSTALLED BETWEEN
THE HEAD & THE SASH, IN
THE MIDDLE.

CASEMENT WINDOWS
SNUBBERS ARE REQUIRED
FOR CASEMENT WINDOWS
GREATER THAN 1300mm HIGH.
TO BE INSTALLED BETWEEN
THE JAMB AND SASH, ON THE
HINGED SIDE.

ThermAFrame 101.6mm
CENTRE POCKET FRAMING



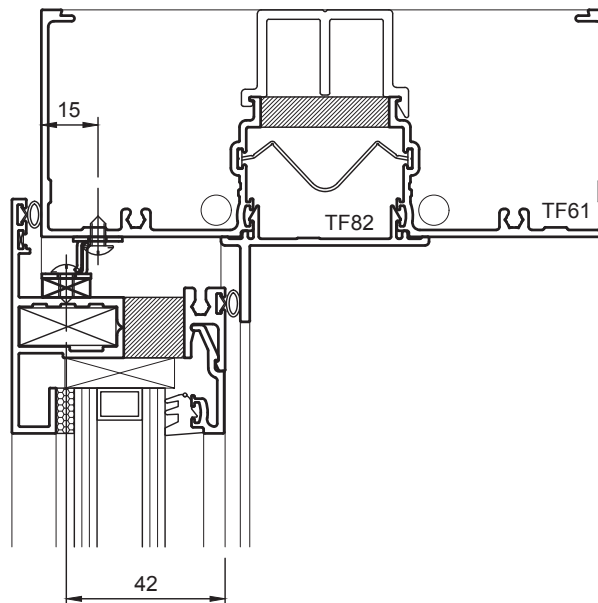
ThermAFrame 101.6mm
FLUSH GLAZED FRAMING



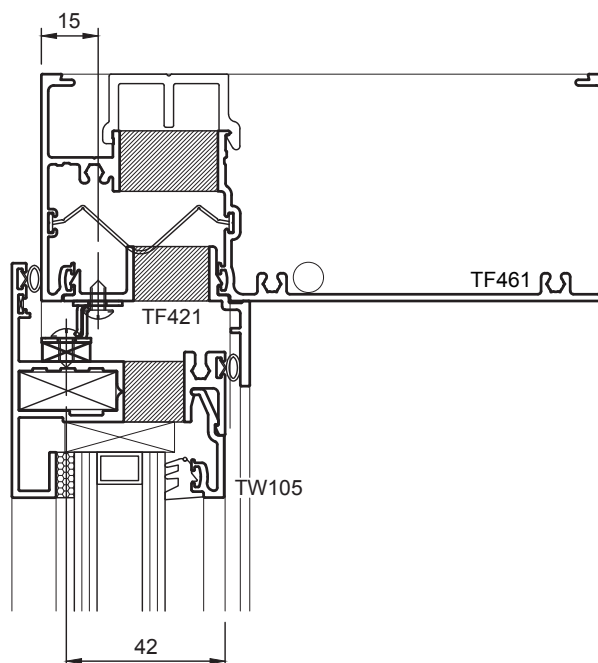
11. Assembly Details

Snubber Assembly Details

ThermAFrame 150mm CENTRE POCKET FRAMING

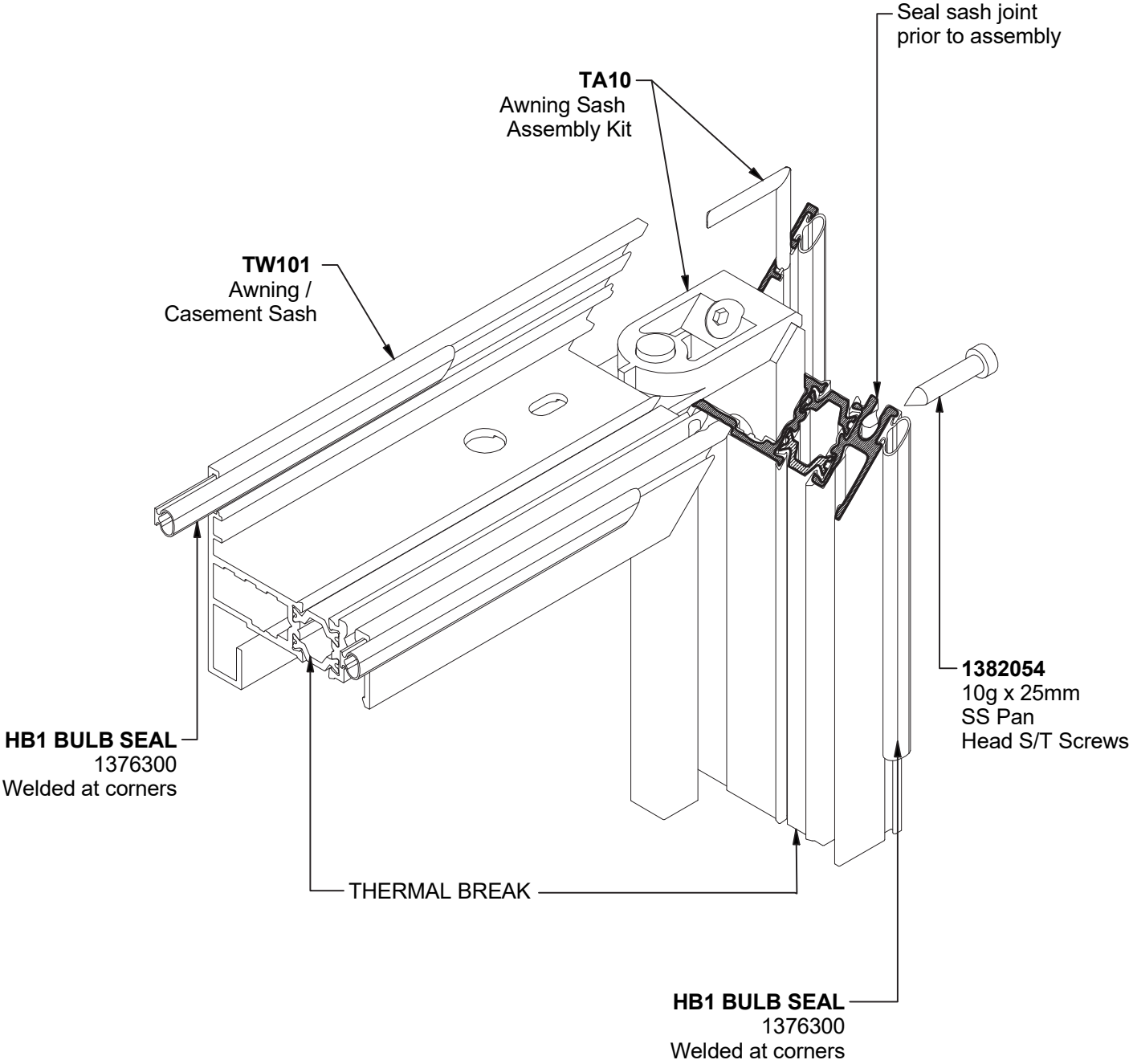


ThermAFrame 150mm FLUSH GLAZED FRAMING



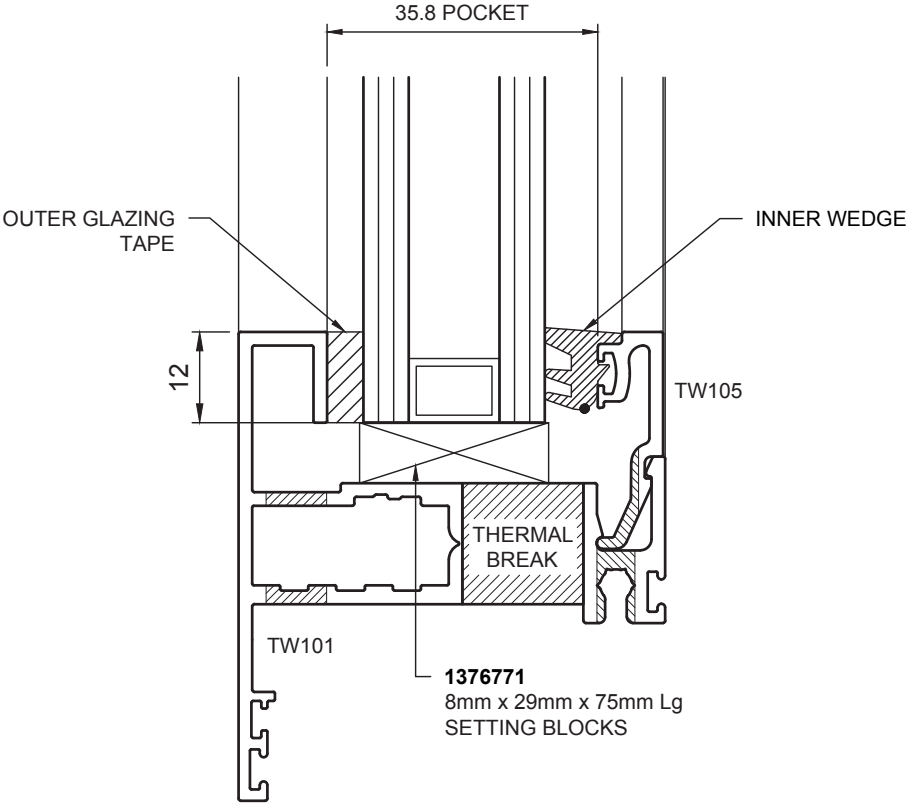
11. Assembly Details

Corner Stake Detail



12. Glazing Details

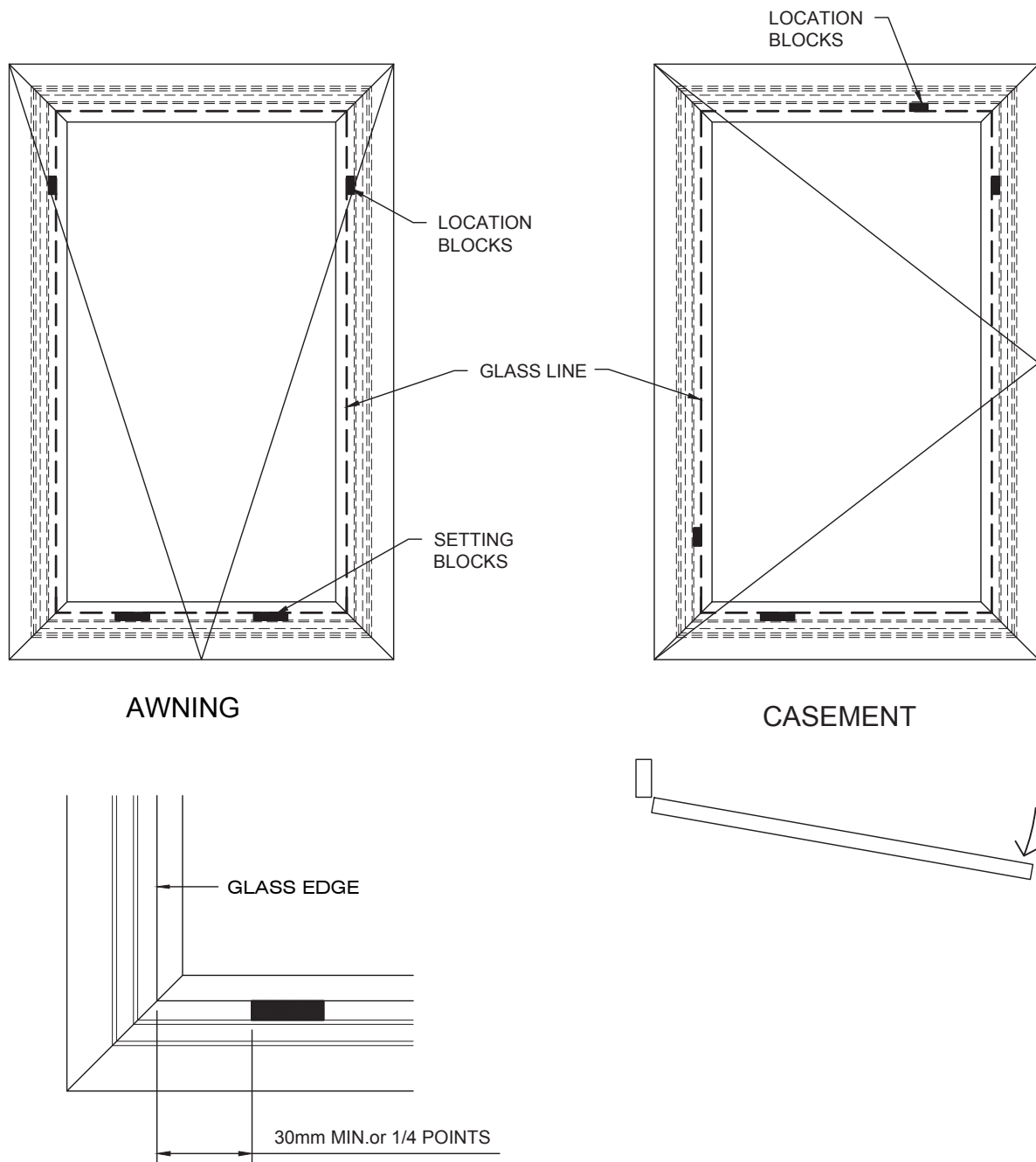
Glazing Details - Wedge Glazing



	INNER WEDGE		OUTER GLAZING TAPE
GLASS THICKNESS	ID COLOUR	REF. (GAP)	REFERENCE
22mm	GREEN	GR50 (9mm)	12mm x 4.8mm
24mm	RED	GR47 (7mm)	12mm x 4.8mm
25mm	YELLOW	GR46 (6mm)	12mm x 4.8mm
28mm	BLUE	GR45 (5mm)	12mm x 3.2mm
30mm	WHITE	GR44 (4mm)	12mm x 1.6mm
32mm	BROWN	GR43 (3mm)	12mm x 1.6mm

12. Glazing Details

Glazing Details - Setting and Location Block



- NOTE: 1. MINIMUM LENGTH OF SETTING BLOCKS SHALL BE 25mm IN LENGTH FOR EVERY SQUARE METRE OF GLASS AREA, WITH A MIN. LENGTH OF 50mm
2. MINIMUM LENGTH OF LOCATION BLOCKS SHALL BE 25mm

13. Care & Maintenance

FRAMING

Your new **ThermAFrame Awning & Casement Window** systems have been manufactured using the highest quality materials available to the Architectural industry. Constructed from Architectural grade aluminium, these products are highly corrosion resistant and exceptionally strong. With a moderate amount of maintenance, the **ThermAFrame Awning & Casement Window** systems will retain it's good looks and resist the elements for years to come.

The **ThermAFrame Awning & Casement Window** systems are the product of extensive research and development and designed to resist corrosion and rusting, but as with all external elements on the building require some maintenance to keep them looking good and performing well. Depending on how harsh the environment elements are, the maintenance period will vary. Refer to recommended maintenance table below.

Your **ThermAFrame Awning & Casement Window** systems should only ever need to be washed down with a soft bristled brush using warm water and mild detergent. Rinse well with fresh water and remove any detergent residue. Strong detergents and abrasive cleaners should never be used to clean the **ThermAFrame Awning & Casement Window** systems as they may scratch or damage the surface finish.

MAINTENANCE PERIOD TABLE

ENVIRONMENT	RECOMMENDED MAXIMUM MAINTENANCE INTERVAL
Mild	Six Months
Moderate	Three Months
Tropical/Severe	One Month

Environmental Definitions:

Mild – Being rural, away from the coast and remote from industry and urban activity.

Moderate – Being mainly urban, inland and away from heavy industry.

Tropical – Being coastal/marine, subject to salt deposition and within 15km of the Eastern coast or 10km of the Western coast of Australia.

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