582 Awning

Features

The series 582 awning window is designed for simplicity of operation, stylish appearance and great flexibility. All this, in low maintenance aluminium, with long life finishes that require minimal upkeep.

- Interchangeable couplers range from domestic to light commercial applications
- Glazing capacity up to 6.38mm in standard configurations, double glazing up to 18mm units
- Full perimeter sash seal minimises draughts
- Chain winder with sturdy metal support as standard
- Continuous hinge for complete weather proofing and trouble free operation
- Bevelled beads on fixed panels compliment bevel edged sash
- Designed to comply with the requirements of Australian Standard AS2047-1999

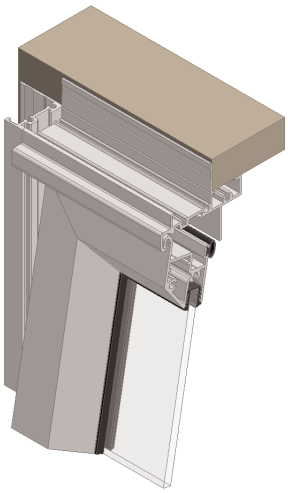
Options

- Key lock winder
- Heavy duty transoms and mullions to suit local conditions
- Stays or handle options available
- Casement window
- Federation outer frame
- Couplers to suit 90, 135 and 180 degree adaption
- Single glazed up to 6.38mm laminated glass
- Double glazed up to 18mm DGU

- Max 1500mm high and 1200mm wide awning sash
- Max 1500mm high and 700mm wide casement sash

© Capral Aluminium Limited

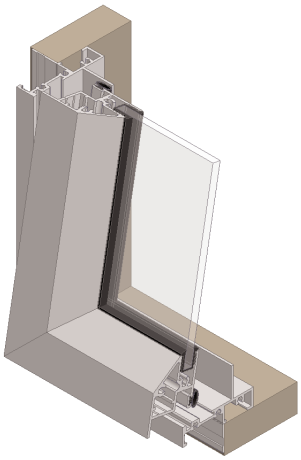
Product Performance Data



Structural performance

NATA report: 9915S4A (2030mm x 910mm, type D sample)

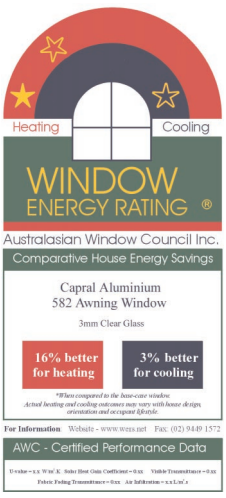
- Housing (span/150):
  - Serviceability limit state: +1500 Pa (span/190); -1500 Pa (span/222)
  - Ultimate strength: ±2300 Pa
- Residential (span/180)
  - Serviceability limit state: +1500 Pa (span/190); -1500 Pa (span/222)
  - Ultimate strength: ±2300 Pa
- Water penetration: 200 Pa
- Air infiltration: +75 Pa: 4.56
  +150 Pa: 5.66
- Operating force: initiate movement: 82.6N (worst measurement)
  maintain movement: 115.6N (worst measurement)



Acoustic performance

ATF report: 1141 (1200mm x 1810mm sample, type DF 6.38mm glass)

- STC: 31
- OITC: 28
- R_W = 31
- C_T = -1
- C_{TR} = -1
- C_T (50-5000) = 0
- C_{TR} (50-5000) = -2
- R_W (C_T; C_{TR}) = 31(-1;-1)
- R_W (C_T; C_{TR};C_T (50-5000); C_{TR} (50-5000)) = 31(-1; -1; 0; -2)



Energy performance

Operator Type	Glazing	Cooling Star	Heating Star	Cooling % Impr.	Heating % Impr.
Double Hung	3mm clear	0.5	1.5	3%	14%
Double Hung	6.38mm laminated ComfortPlus low-e	3.0	2.0	43%	17%

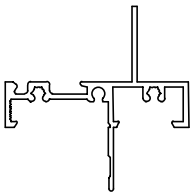
Whole window static results				
U_w	$SHGC_w$	T_{vw}	T_{dw}	Max. air infil
5.2	0.81	0.78	0.72	0.50
3.8	0.51	0.51	0.24	0.50

Note:

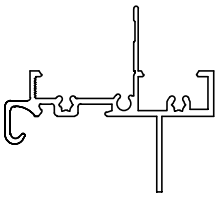
1. Subscript 'w' refers to whole-window properties, which apply to all parameters except the damage-weighted fading transmittance, Tdw. Uw is the whole-window U-value. SHGCw is the whole-window solar heat gain coefficient. Tvw is the whole-window visible (light) transmittance.
2. Percentage improvement figures are compared with using base-case Generic Window 1 (3mm clear in std aluminium frame).
3. A negative percentage improvement figure indicates performance worse than the base-case window and a positive percentage improvement figure indicates performance better than the base-case window.
4. Maximum air infiltration is 0.5 L/s.m2 at a positive pressure difference of 75 Pa as measured according to AS 2047.
5. Static performance (Uw, SHGCw, Tvw, Tdw) calculated using Window 4.1 and Therm 2.1 software (Lawrence Berkeley National Laboratory), 2000-2001.
6. Annual energy performance (stars and % improvements) calculated using Nationwide House Energy Rating Software (NatHERS) according to procedures of WERS 2000 (Australasian Window Council), www.wers.net.

RTAW582.01
RTDM001.01
July 2002
© Capral Aluminium Limited

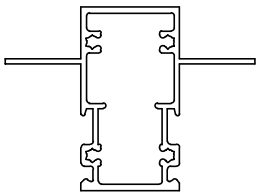
Half size sections



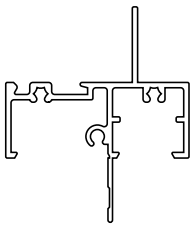
EA1702
FRAME/JAMB



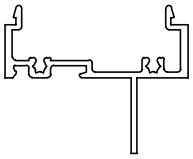
EA1703
HEAD HINGE



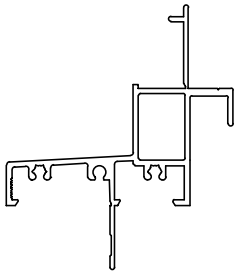
EA1704
MULLION/TRANSOM



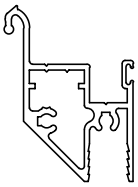
EP5688
RENDER FRAME



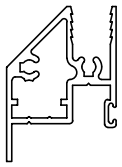
EA1705
SNAP FRAME



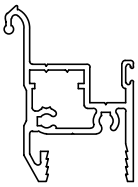
EP3843
NON STANDARD WINDER SILL



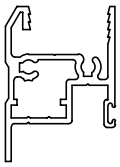
EU8516
SASH HINGE HEAD



EL6793
AWNING SASH



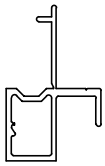
EP3395
D/G HINGE HEAD



EU8855
D/G SASH

EU8857
18mm GLAZING BEAD

EL6474
BEVEL BEAD



EP3309
WINDER SUPPORT

REF: 582–F01

© Capral Aluminium Limited

Hardware

M027229
Glazing Channel
3mm Glass
100m roll

M027235
Glazing Channel
4-5mm Glass
100m roll

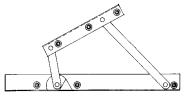
M027246
Glazing Channel
6mm Glass
100m roll

M027314
Sash Bulb Seal
300m roll

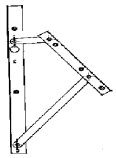
M027273
14mm Glazing Channel
150m roll

M027274
16mm Glazing Channel
150m roll

M027275
18mm Glazing Channel
150m roll



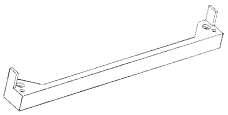
M138118BK
300C Casement Stay (pair)



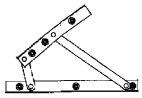
Friction Stays

Part No	Stay Size	Dim 'A'
M138187BK	230V	235
M138188BK	230A	235
M138189BK	330A	330
M138164BK	500A	510
M138191BK	420HD A	440

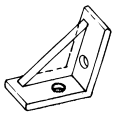
M110CASECLIPCLR
11mm Casement clip



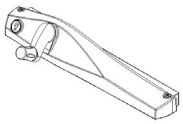
MSSS351317
Chain Winder Spacer



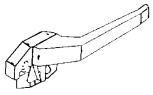
M138186BK
Frictionless Stay



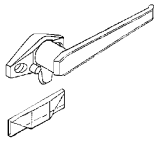
M572107
Corner Stake



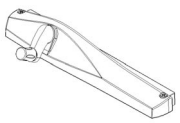
M582256BK (Black)
M582256PW (White)
M582256PR (Primrose)
Doric Lockable Winder
Keyed Alike



Cam Handle Wedgeless
M572120BK RH (as shown)
M572121BK LH opposite

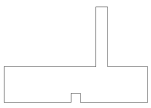


Cam Handle Package
MSSS220917 RH (as shown)
MSSS221017 LH opposite

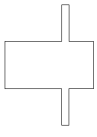


M582257BK (Black)
Doric Winder

M582101BK (Black)
M582101PR (Primrose)
M582101PW (White)
Corner Protector



M582102
Frame Gasket
61m Roll



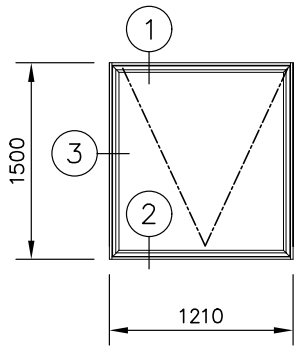
M582103
Transom Gasket
61m Roll

M580251
Transom Cap
Short

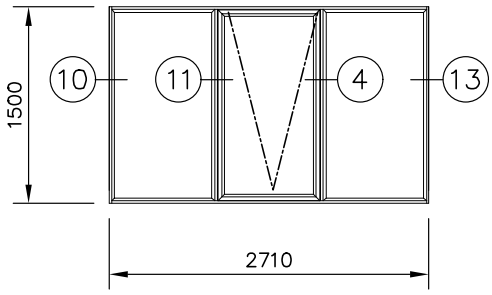
© Capral Aluminium. Limited

Configurations and recommended maximum sizes

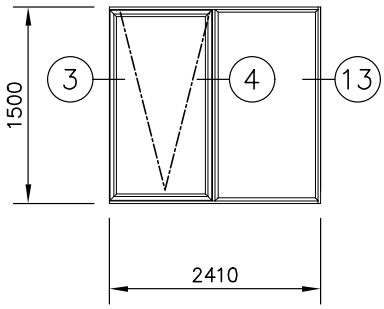
AWNING SASHES
ELEVATIONS VIEWED FROM OUTSIDE



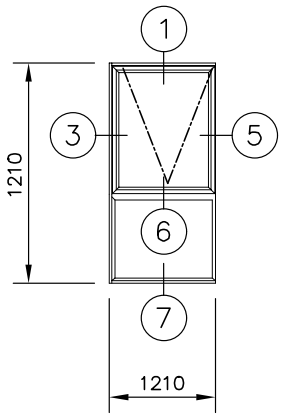
TYPE A



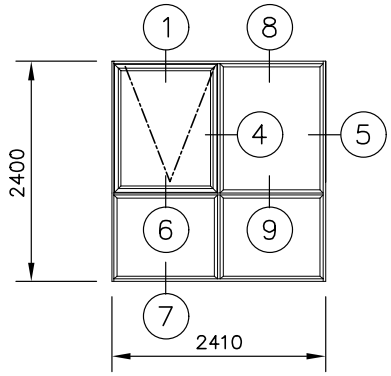
TYPE FAF



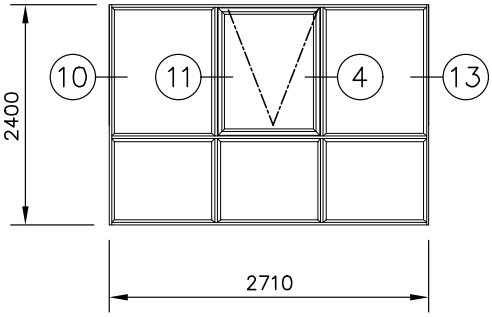
TYPE AF



TYPE A/F



TYPE AF TRANSOM



TYPE FAF

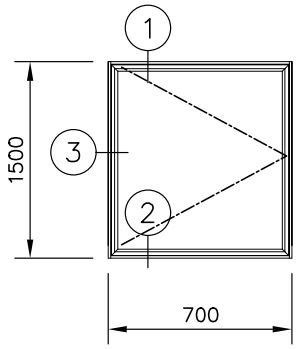
NOTES:
1) THE SIZES LISTED ARE MAXIMUM RECOMMENDED FOR AWNING SASHES ON CONTINUOUS HINGE FOR RESIDENTIAL HOUSING APPLICATIONS.
2) FOR SASHES ON STAYS PLEASE REFER STAY SELECTION.

REF 582–C01

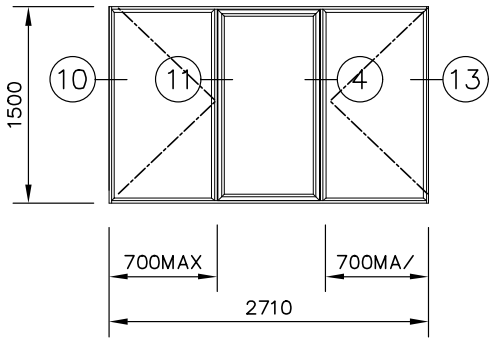
© Capral Aluminium Limited

Configurations and recommended maximum sizes (cont)

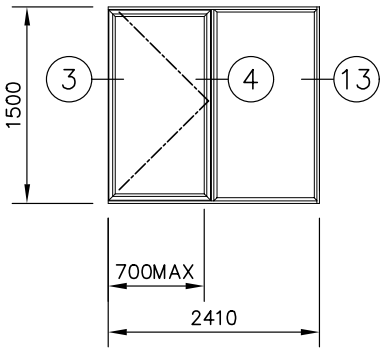
CASEMENT SASHES
ELEVATIONS VIEWED FROM OUTSIDE



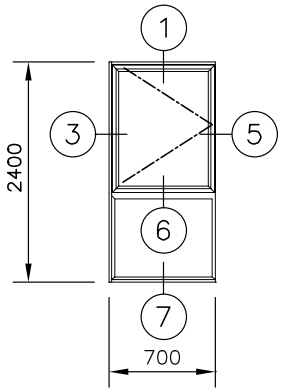
TYPE A



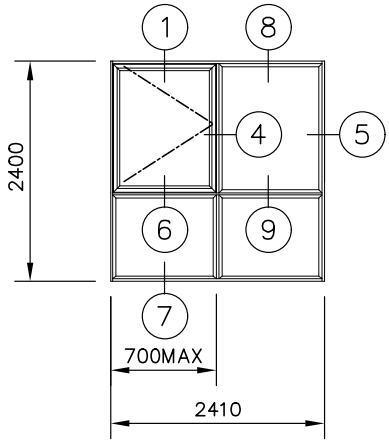
TYPE FAF



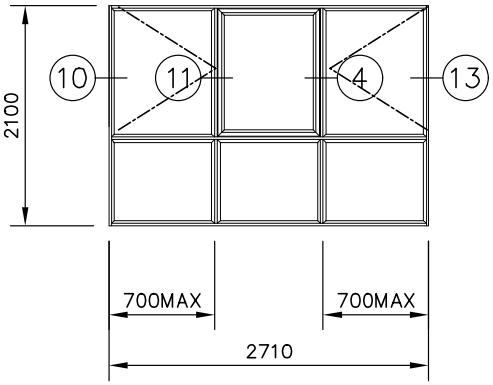
TYPE AF



TYPE A/F



TYPE AF TRANSOM



TYPE FAF

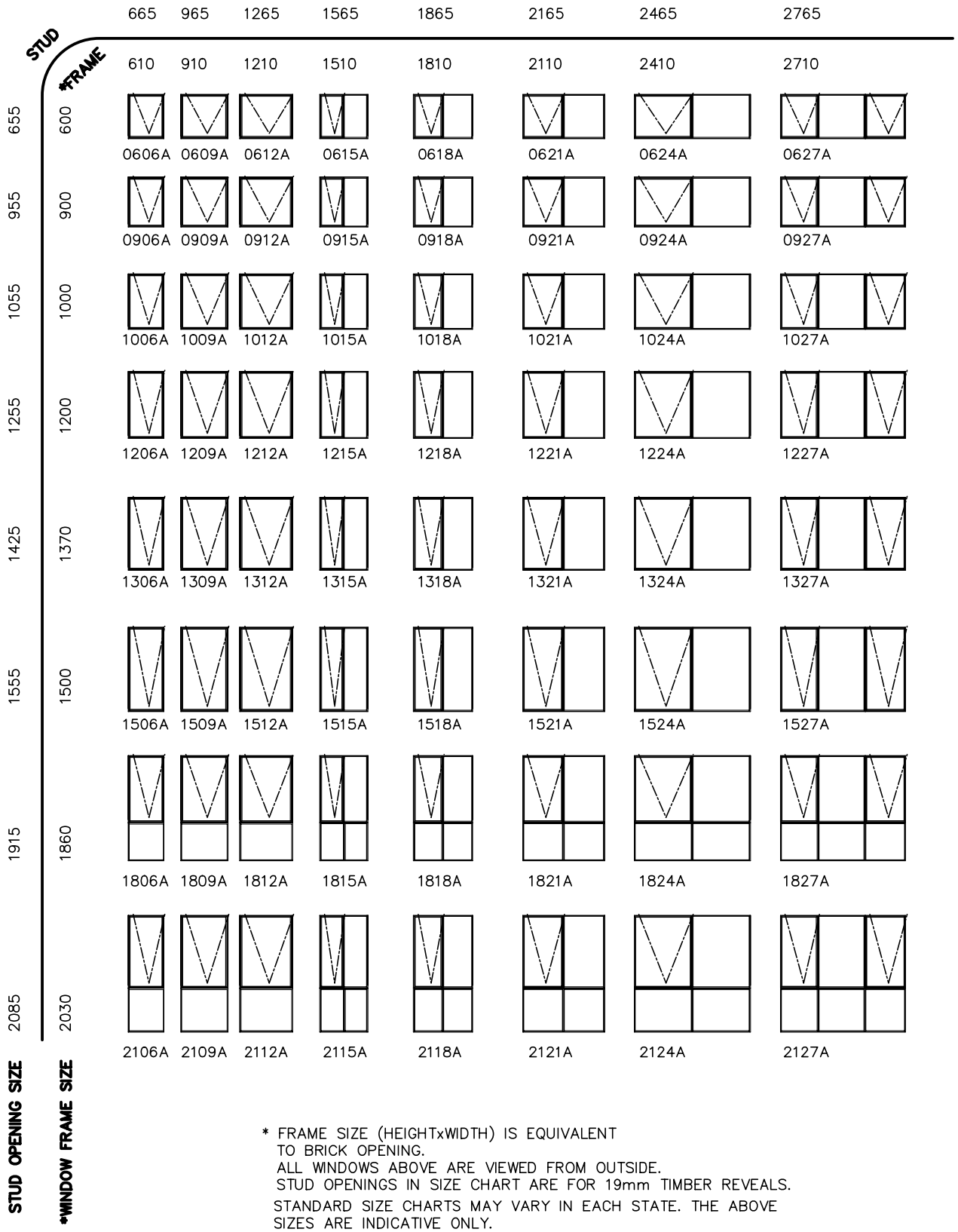
NOTES:

1) THE SIZES LISTED ARE MAXIMUM RECOMMENDED FOR CASEMENT SASHES ON CASEMENT STAYS FOR RESIDENTIAL HOUSING APPLICATIONS.
2) FOR SASHES ON STAYS PLEASE REFER STAY SELECTION CHART.
3) CASEMENT SASHES MUST NOT EXCEED 700mm WIDTH.

REF 582–C02

© Capral Aluminium. Limited

Configurations and recommended maximum sizes (cont)



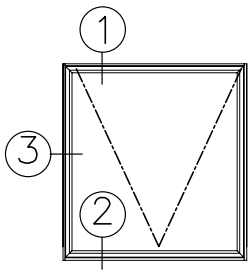
* FRAME SIZE (HEIGHTxWIDTH) IS EQUIVALENT TO BRICK OPENING.
ALL WINDOWS ABOVE ARE VIEWED FROM OUTSIDE.
STUD OPENINGS IN SIZE CHART ARE FOR 19mm TIMBER REVEALS.
STANDARD SIZE CHARTS MAY VARY IN EACH STATE. THE ABOVE SIZES ARE INDICATIVE ONLY.

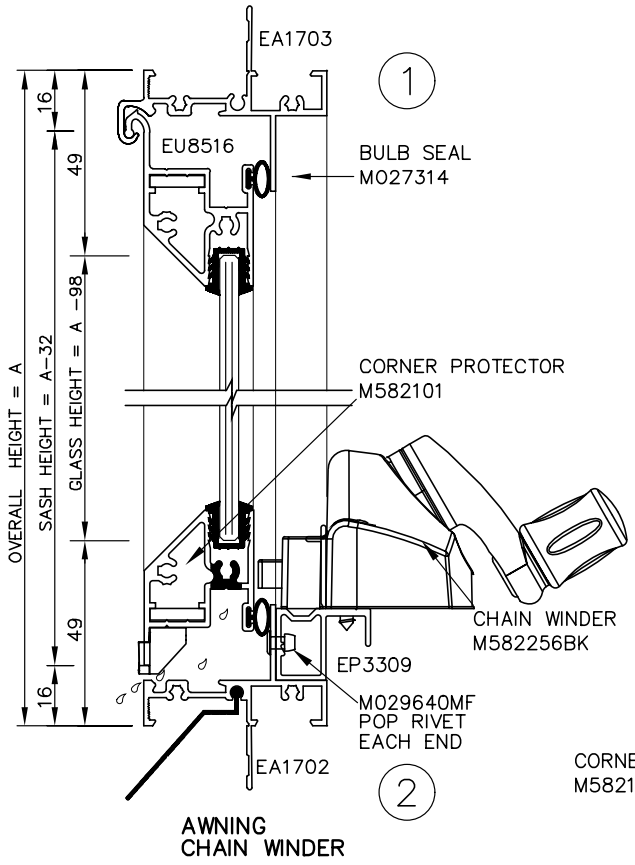
REF: 582–C03

© Capral Aluminium Limited

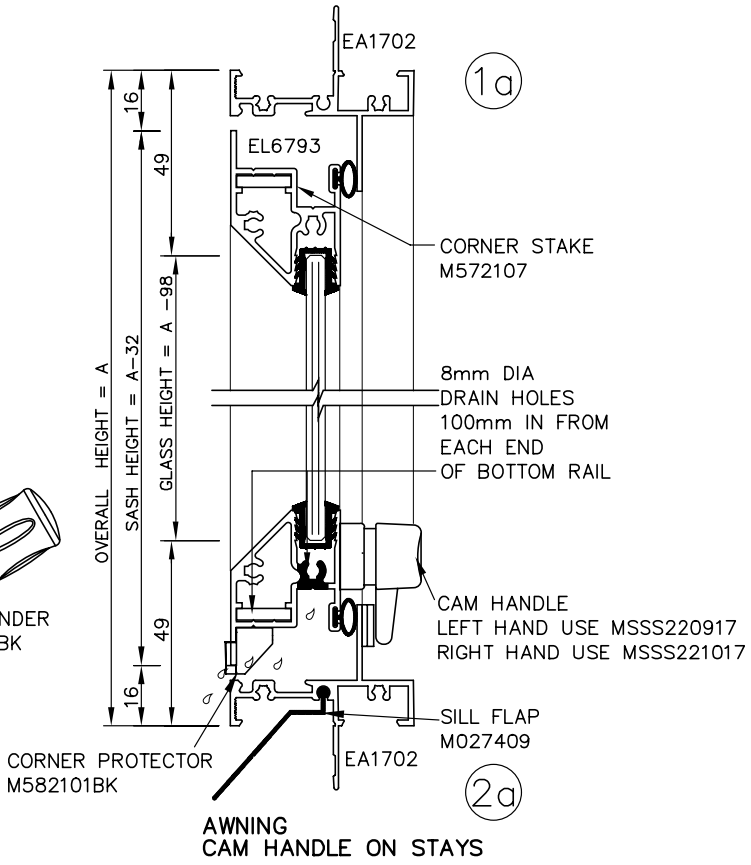
Half Size Assembly

TYPE A
AWNING CHAIN WINDER/CAM HANDLES

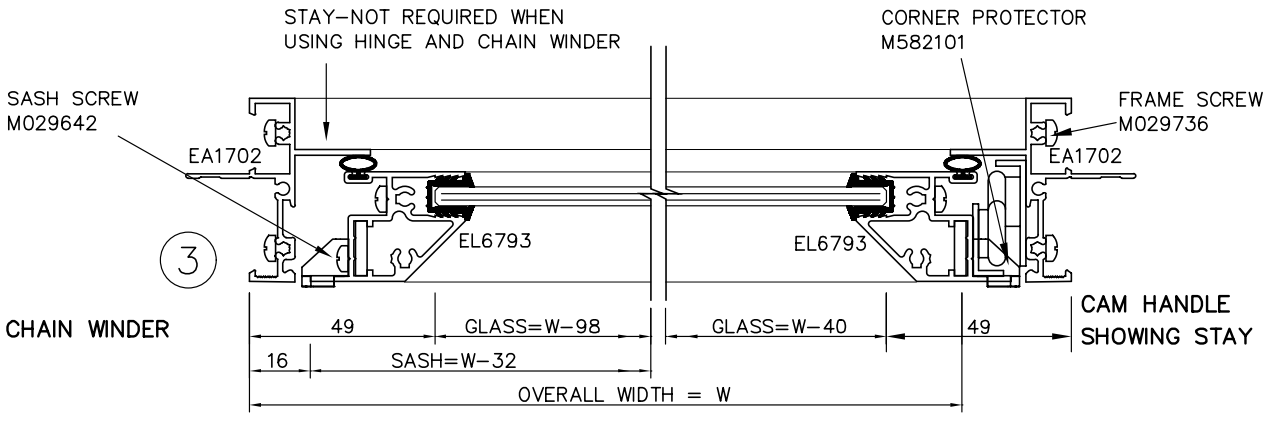




AWNING
CHAIN WINDER



AWNING
CAM HANDLE ON STAYS

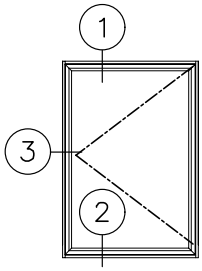


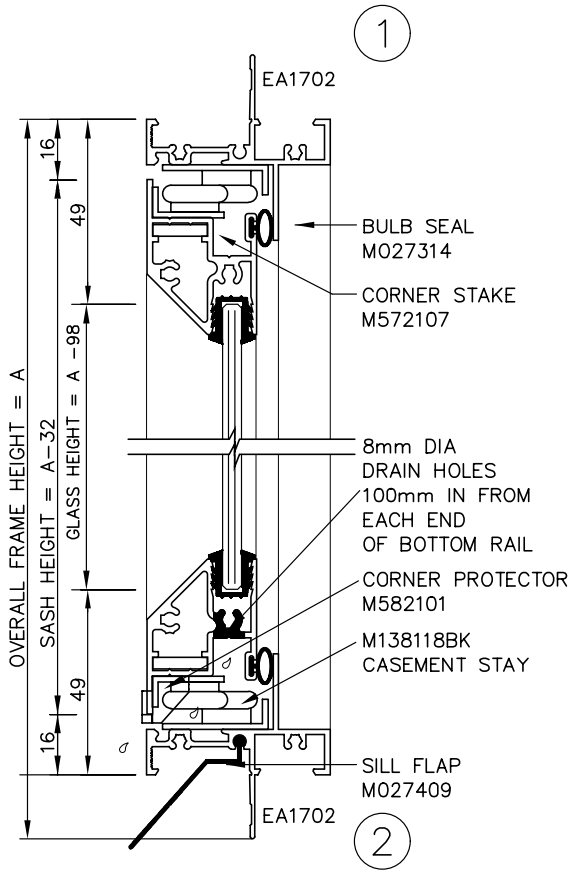
REF: 582–A01

RTAW582.01
RTDM001.01
June 2002
© Capral Aluminium. Limited

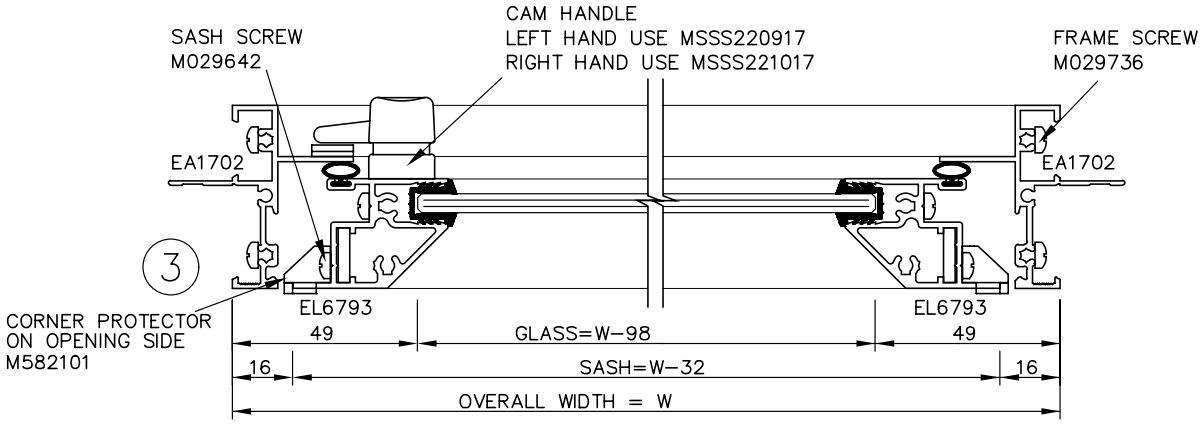
Half size assembly (cont)

TYPE C
CASEMENT CHAIN WINDER/CAM HANDLES





CASEMENT
CAM HANDLE



NOTE

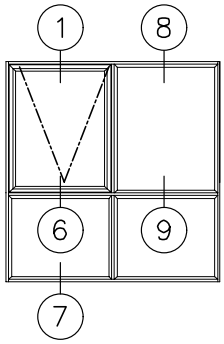
NORMAL CAM HANDLE ILLUSTRATED.
WEDGELESS TYPE IS RECOMMENDED BUT
CANNOT BE USED IF FLYSCREENS ARE FITTED.

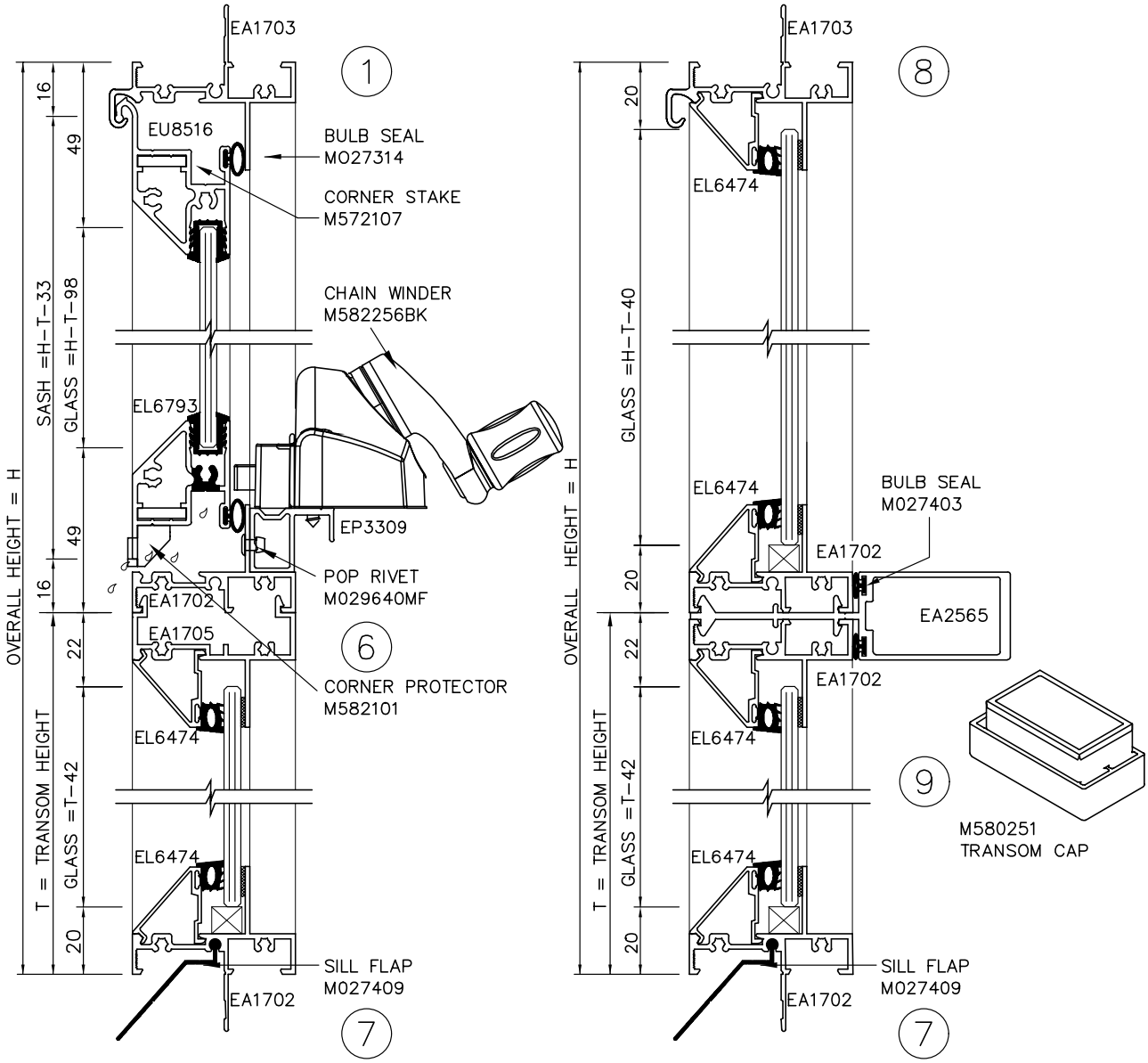
REF: 582–A02

© Capral Aluminium Limited

Half size assembly (cont)

TYPE AF TRANSOM
AWNING CHAIN WINDER



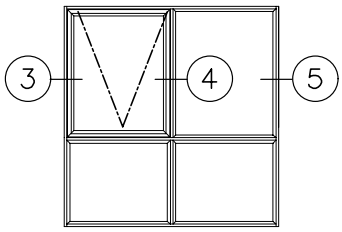


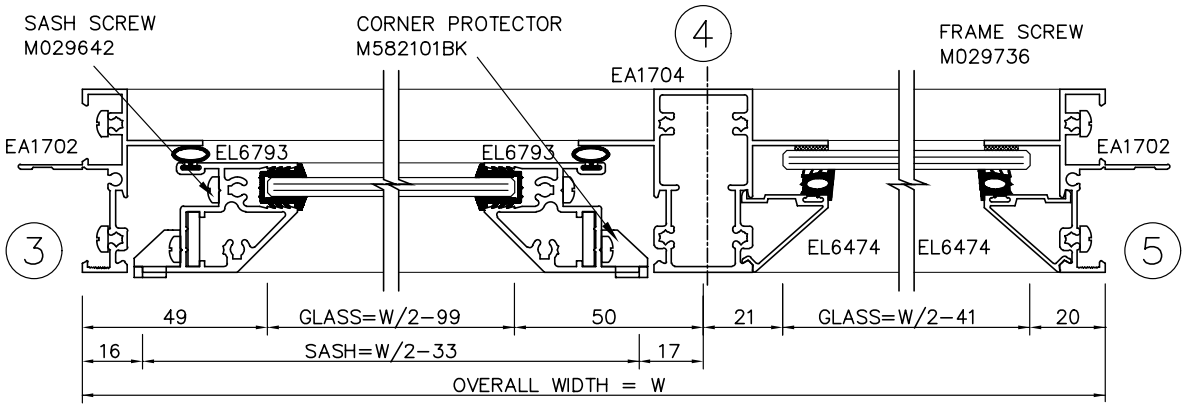
REF: 582−A03

© Capral Aluminium. Limited

Half size assembly (cont)

TYPE AF TRANSOM
AWNING CHAIN WINDER



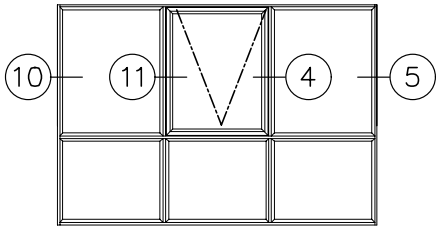


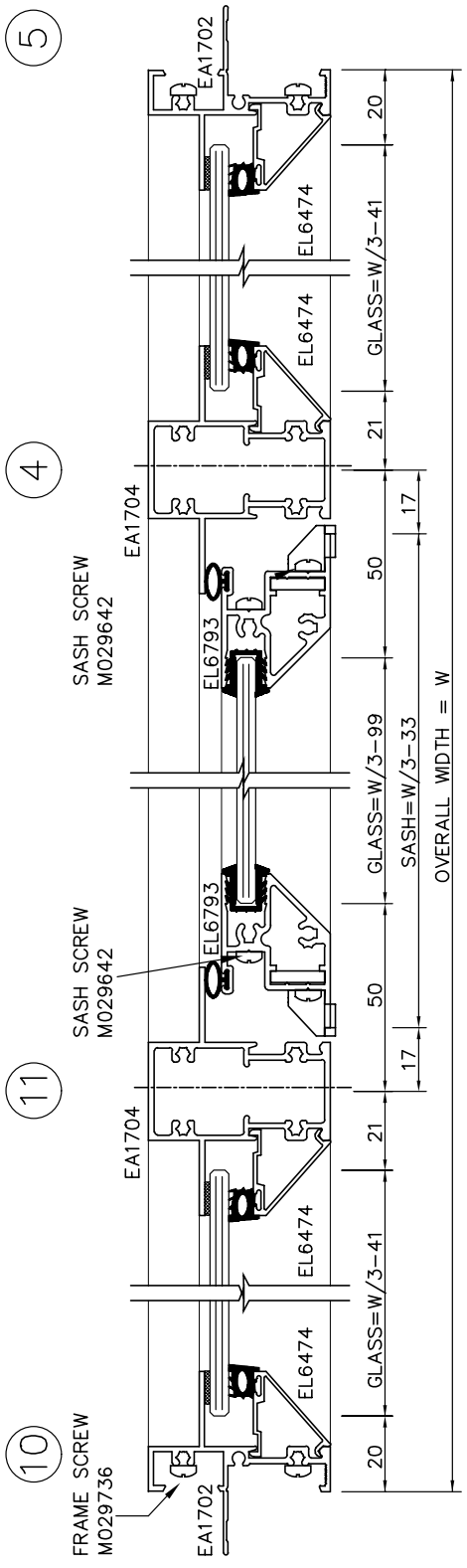
REF: 582−A04

© Capral Aluminium Limited

Half size assembly (cont)

TYPE FAF TRANSOM
AWNING CHAIN WINDER/CAM HANDLES



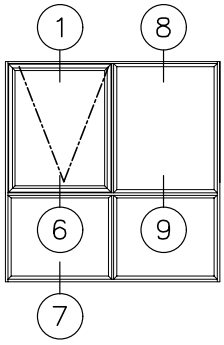


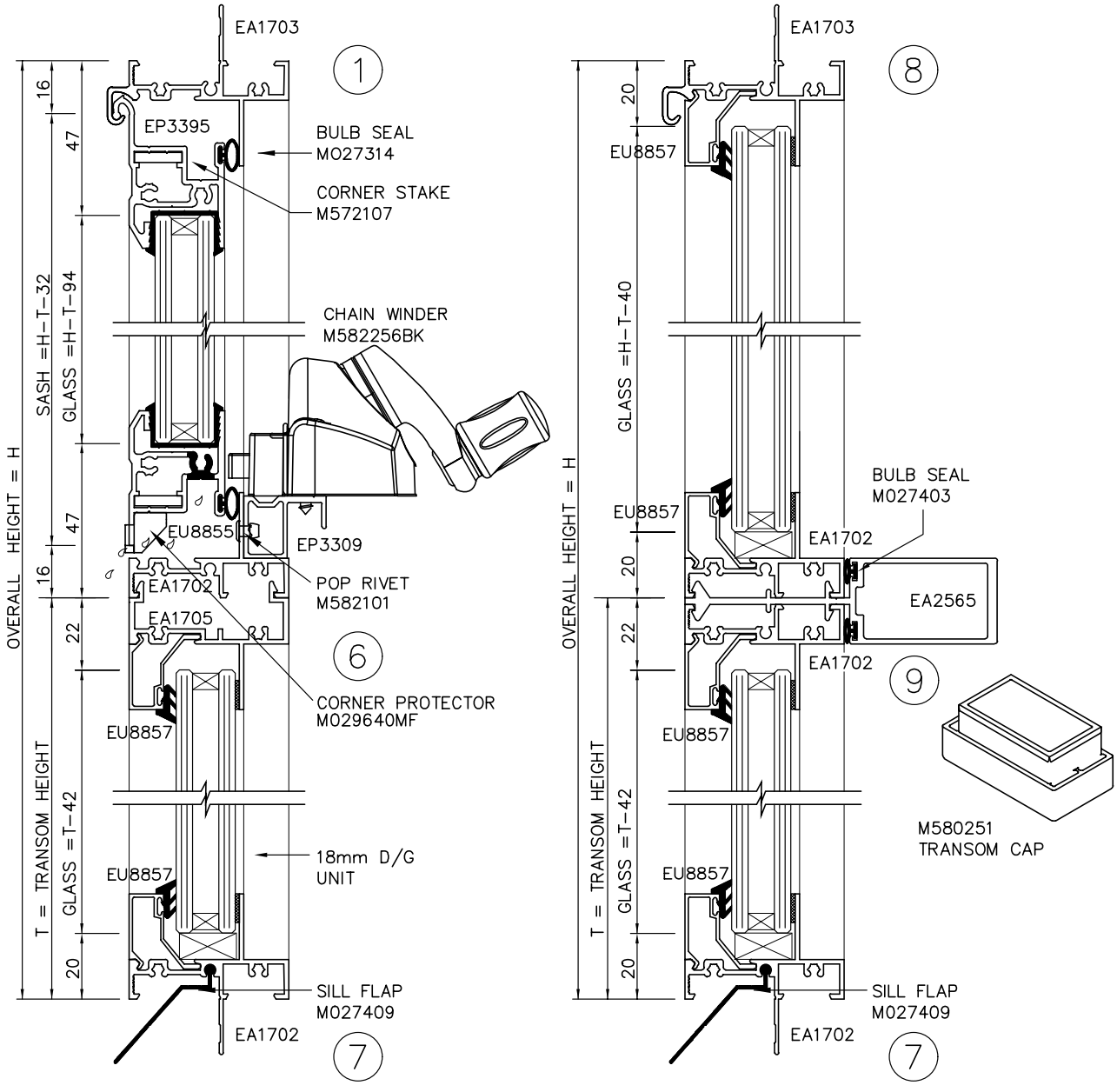
REF: 582-A05

© Capral Aluminium. Limited

Half size assembly (cont)

TYPE AF TRANSOM
DOUBLE GLAZED AWNING CHAIN WINDER



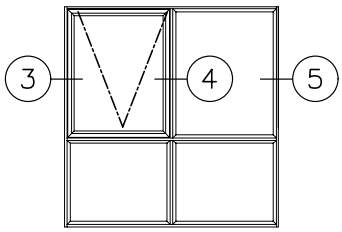


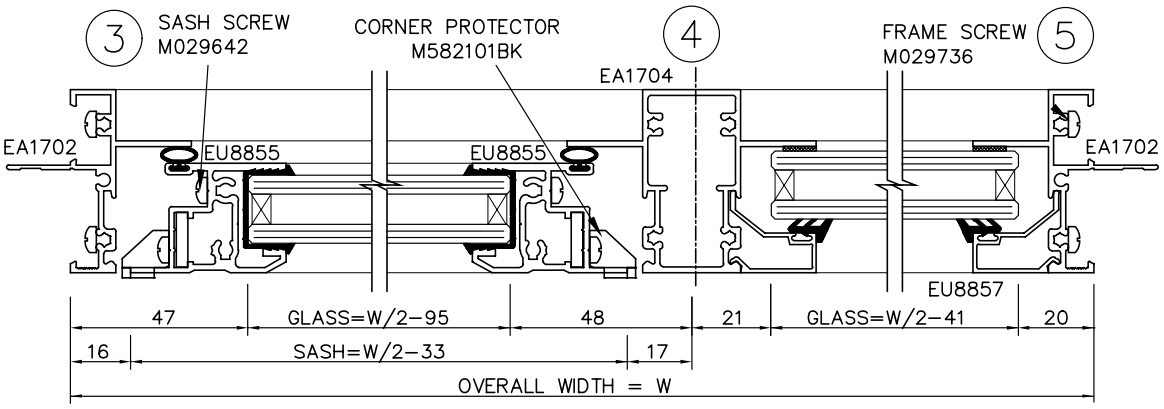
REF: 582–A06

© Capral Aluminium Limited

Half size assembly (cont)

TYPE AF TRANSOM
DOUBLE GLAZED AWNING CHAIN WINDER



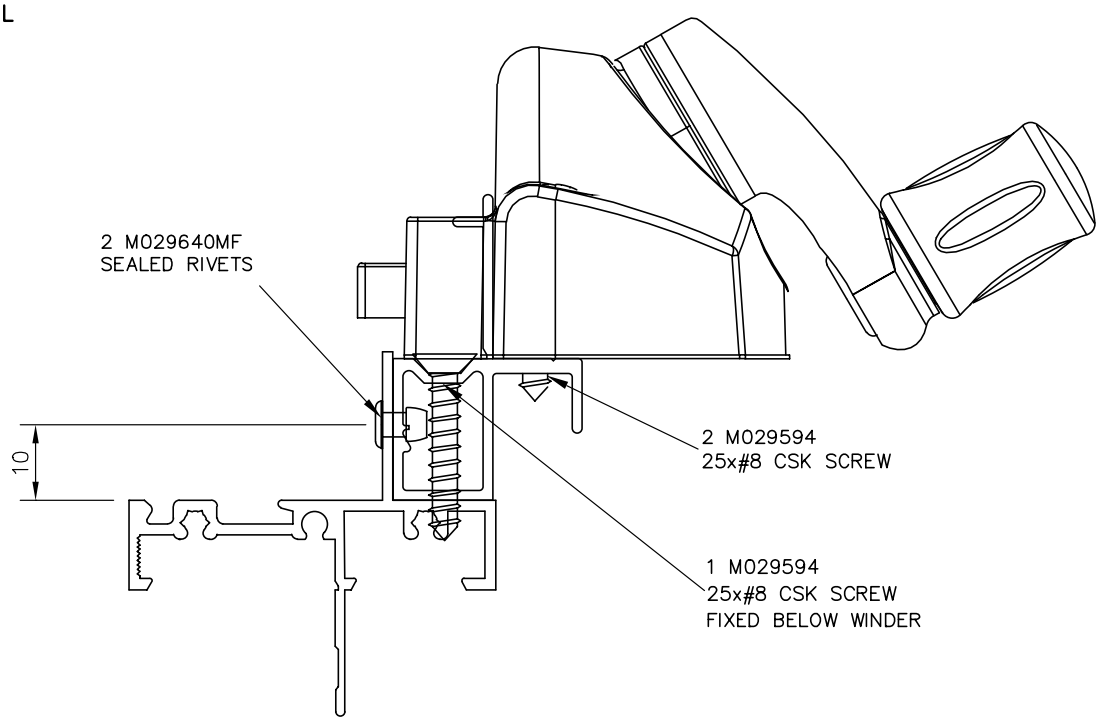


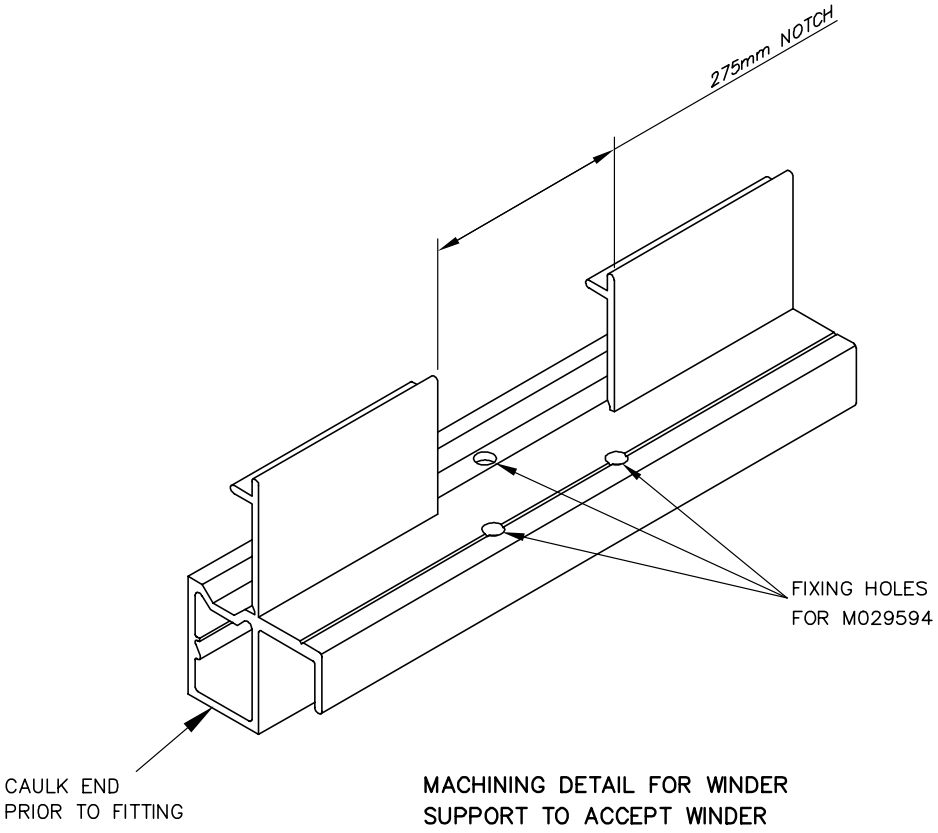
REF: 582−A07

© Capral Aluminium. Limited

Half size assembly (cont)

WINDER SUPPORT
FITTING DETAIL





MACHINING DETAIL FOR WINDER
SUPPORT TO ACCEPT WINDER

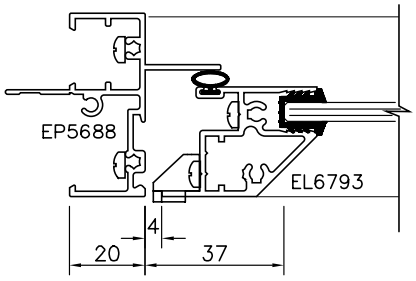
REF 582–A08

© Capral Aluminium Limited

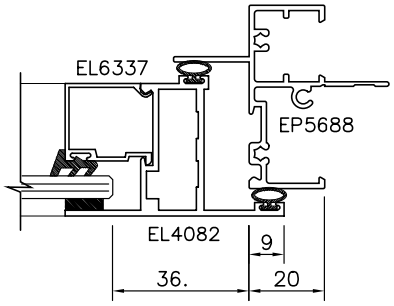
Assembly details (cont)

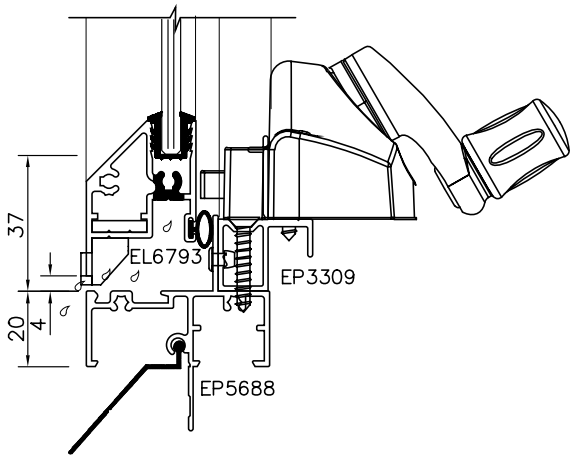
NON STANDARD RENDER FRAME DETAIL

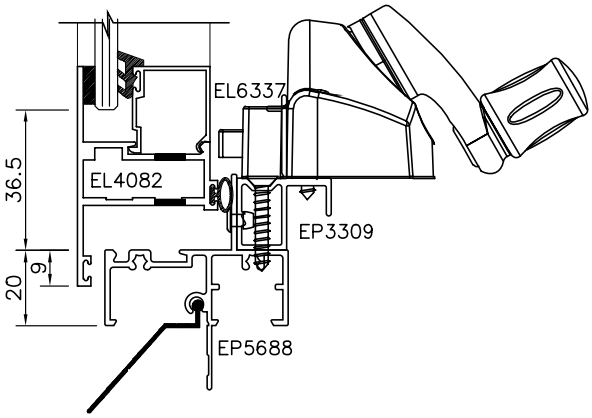
RENDER FRAME AND
STANDARD RESIDENTIAL SASH



RENDER FRAME AND
COMMERCIAL SASH







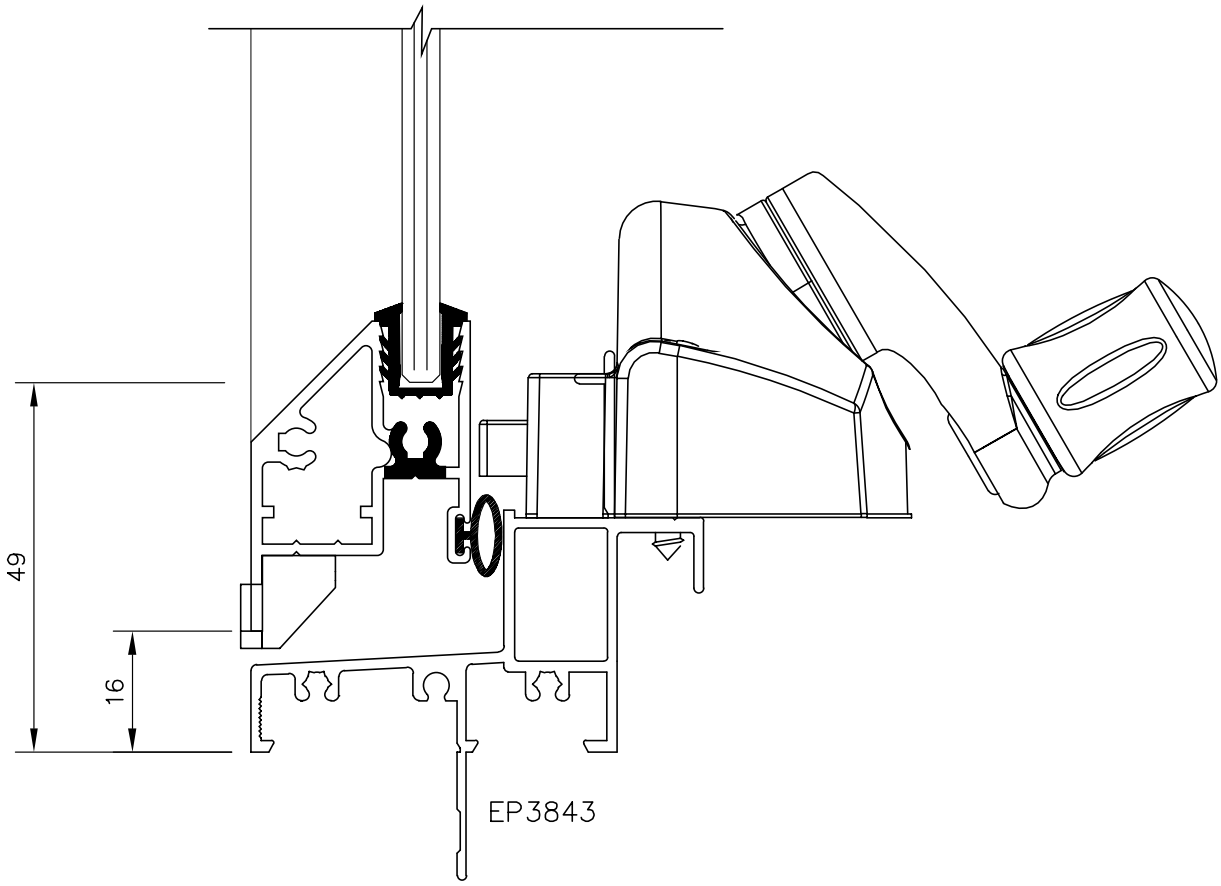
THE RENDER FRAME OFFERS A 20mm WIDE FACE WHICH BETTER SUITS RENDERED BRICKWORK, AND THE COMMERCIAL SASH.
THIS EXTRUSION IS NOT ADAPTABLE TO ALL 582 TOOLING.
AN ALTERNATIVE TO THIS RENDER FRAME
IS THE RENDER ADAPTOR EP5687 WHICH COUPLES
TO THE STANDARD FRAME EA1702.

REF 582–A09

© Capral Aluminium. Limited

Assembly details (cont)

NON STANDARD WINDER SILL DETAIL



NOTE: THIS SILL CAN ONLY BE USED ON WINDOWS WHERE MULLIONS CUT THROUGH HEAD, SILL AND TRANSOMS.

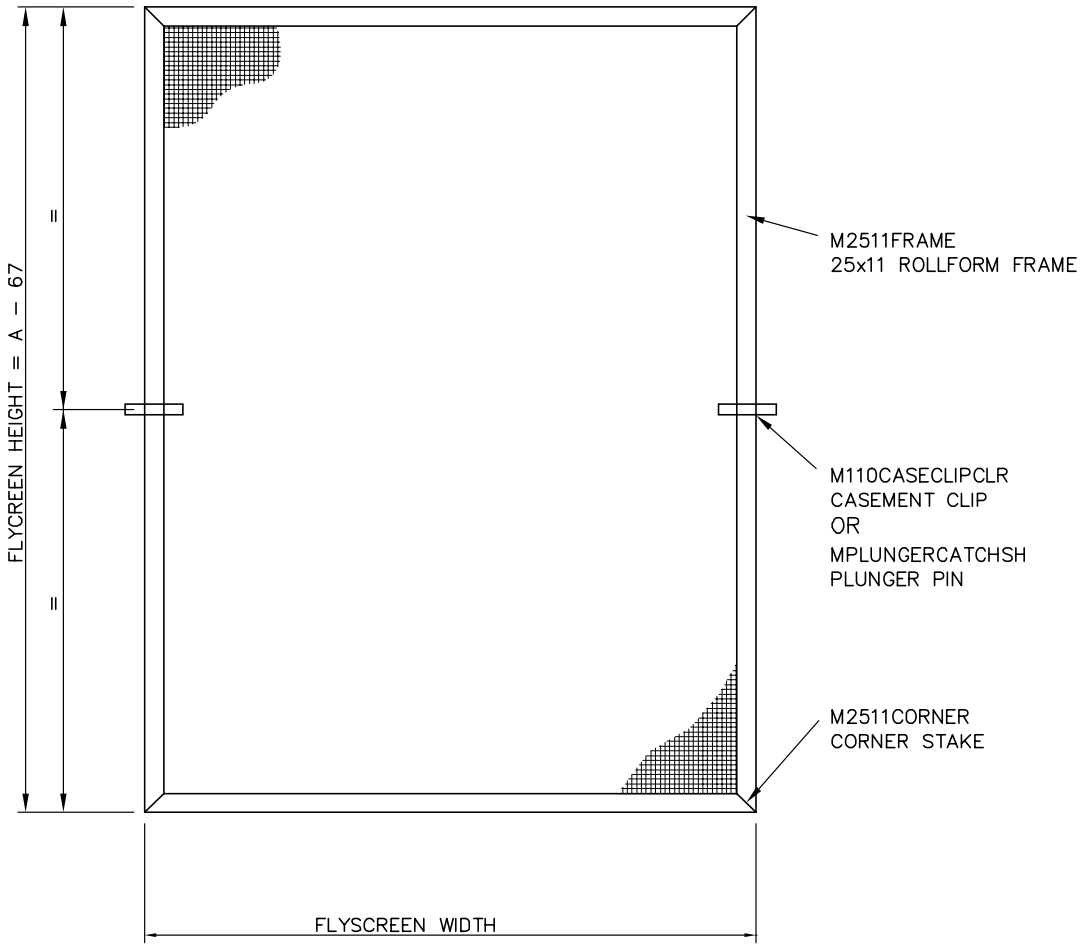
WHEN USED IN THIS MANNER, THEY ARE NOT SUPPORTED IN STANDARD CUTTING DATA.

REF 582–A10

© Capral Aluminium Limited

Flyscreen details

INTERNAL ELEVATION
FLYSCREEN FOR AWNING WINDOW
WITH CHAIN WINDER & EP3309 WINDER SUPPORT
OR NON STANDARD WINDER SILL EP384



FORMULA

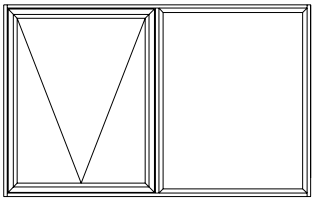
TYPE A	--	W–27
TYPE AF	--	W/2–27
TYPE AFA	--	W/3–27

REF: 582–FL01

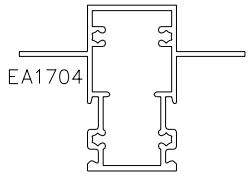
© Capral Aluminium. Limited

Structural tables

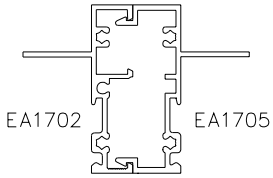
Type AF



R=Residential *l*/180
H=Housing *l*/150



Mullion type 1



Mullion type 2

Window size H x W (mm)		Wind Pressure Serviceability Limit State kPa	
		Mullion Type 1	Mullion Type 2
600 x 1510	R	5.000	5.000
	H	3.000 / N4	3.000 / N4
600 x 1810	R	5.000	5.000
	H	3.000 / N4	3.000 / N4
600 x 2410	R	5.000	5.000
	H	3.000 / N4	3.000 / N4
900 x 1510	R	5.000	5.000
	H	3.000 / N4	3.000 / N4
900 x 1810	R	5.000	5.000
	H	3.000 / N4	3.000 / N4
900 x 2410	R	5.000	5.000
	H	3.000 / N4	3.000 / N4
1000 x 1510	R	4.729	5.000
	H	3.000 / N4	3.000 / N4
1000 x 1810	R	4.459	5.000
	H	3.000 / N4	3.000 / N4
1000 x 2410	R	4.430	5.000
	H	3.000 / N4	3.000 / N4
1200 x 1510	R	2.488	2.914
	H	2.986 / N4	3.000 / N4
1200 x 1810	R	2.249	2.634
	H	2.699 / N4	3.000 / N4
1200 x 2410	R	2.102	2.461
	H	2.522 / N4	2.954 / N4
1370 x 1510	R	1.591	1.864
	H	1.909 / N4	2.236 / N4
1370 x 1810	R	1.409	1.650
	H	1.691 / N4	1.980 / N4
1370 x 2410	R	1.242	1.454
	H	1.490 / N3	1.745 / N4
1500 x 1510	R	1.180	1.382
	H	1.416 / N3	1.658 / N4
1500 x 1810	R	1.034	1.211
	H	1.240 / N3	1.453 / N3
1500 x 2410	R	.884	1.035
	H	1.061 / N3	1.242 / N3

Note: These tables are based on theoretical section properties, not on approved tests as specified by AS2047

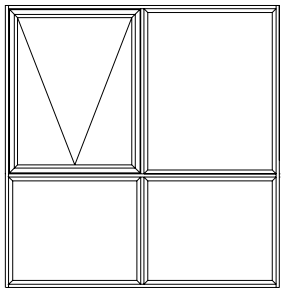
The N values in the above table represent the complete window rating based on NATA test reports, structural calculations and reinterpreted data from NATA test reports.

Residential (R) is limited to 5.000 kPa Housing (H) is limited to 3.000 kPa

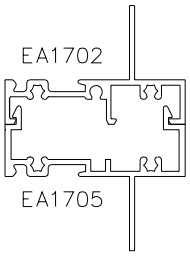
© Capral Aluminium Limited

Structural tables (cont)

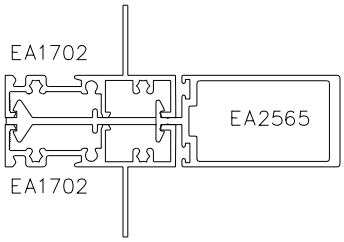
Type AF/FF



R=Residential *l*/180
H=Housing *l*/150



Transom type 1



Transom type 2

Window size H x W (mm)			Wind Pressure Serviceability Limit State kPa	
			Mullion Type 1	Mullion Type 2
TRANSOM TYPE 1	1860 x 1510	R	1.211	1.211
		H	1.453 / N3	1.453 / N3
	1860 x 1810	R	.654	.654
		H	.785 / N2	.785 / N2
	1860 x 2410	R	-	-
		H	-	-
	2030 X 1510	R	1.183	1.183
		H	1.419 / N3	1.419 / N3
	2030 X 1810	R	.626	.626
		H	.751 / N2	.751 / N2
	2030 X 2410	R	-	-
		H	-	-
TRANSOM TYPE 2	1860 x 1510	R	2.325	2.325
		H	2.791 / N4	2.791 / N4
	1860 x 1810	R	2.094	2.094
		H	2.513 / N4	2.513 / N4
	1860 x 2410	R	1.130	1.130
		H	1.352 / N3	1.352 / N3
	2030 X 1510	R	1.502	1.502
		H	1.802 / N4	1.802 / N4
	2030 X 1810	R	1.327	1.327
		H	1.592 / N4	1.592 / N4
	2030 X 2410	R	1.060	1.060
		H	1.265 / N3	1.265 / N3

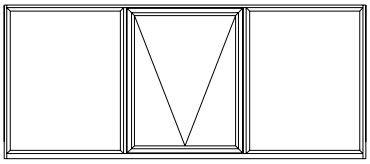
Italics represent Deflection limited by Mullion

Note: These tables are based on theoretical section properties, not on approved tests as specified by AS2047
The N values in the above table represent the complete window rating based on NATA test reports, structural calculations and reinterpreted data from NATA test reports.
Residential (R) is limited to 5.000 kPa Housing (H) is limited to 3.000 kPa

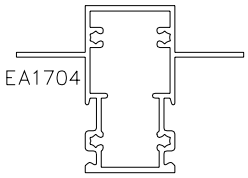
RTAW582.01
RTDM001.01
June 2002
© Capral Aluminium. Limited

Structural tables (cont)

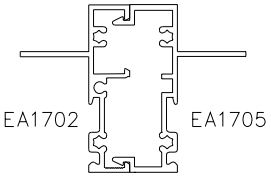
Type FAF



R=Residential *l*/180
H=Housing *l*/150



Mullion type 1



Mullion type 2

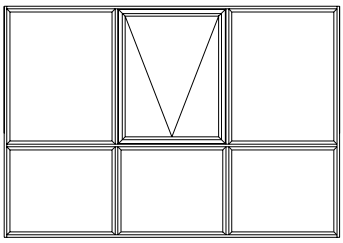
Window size H x W (mm)		Wind Pressure Serviceability Limit State kPa	
		Mullion Type 1	Mullion Type 2
600 x 2710	R	5.000	5.000
	H	3.000 / N4	3.000 / N4
900 x 2710	R	5.000	5.000
	H	3.000 / N4	3.000 / N4
1000 x 2710	R	4.460	5.000
	H	3.000 / N4	3.000 / N4
1200 x 2710	R	2.250	2.635
	H	2.700 / N4	3.000 / N4
1370 x 2710	R	1.410	1.651
	H	1.692 / N4	1.981 / N4
1500 x 2710	R	1.305	1.211
	H	1.241 / N3	1.454 / N3

Note: These tables are based on theoretical section properties, not on approved tests as specified by AS2047
The N values in the above table represent the complete window rating based on NATA test reports, structural calculations and reinterpreted data from NATA test reports.
Residential (R) is limited to 5.000 kPa Housing (H) is limited to 3.000 kPa

© Capral Aluminium Limited

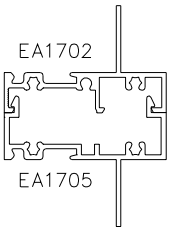
Structural tables (cont)

Type FAF/FFF

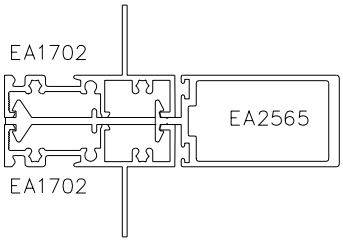


R=Residential *l*/180
H=Housing *l*/150

Window size H x W (mm)			Wind Pressure Serviceability Limit State kPa	
			Mullion Type 1	Mullion Type 2
TRANSOM 1	1860 x 2710	R	-	-
		H	-	-
	2030 x 2710	R	-	-
		H	-	-
TRANSOM 2	1860 x 2710	R	.779	.779
		H	.935 / N2	.935 / N2
	2030 x 2710	R	.727	.727
		H	.872 / N2	.872 / N2



Transom type 1



Transom type 2

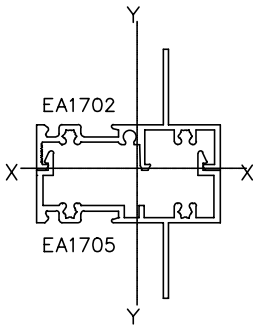
Italics represents Deflection limited by Mullion

Note: These tables are based on theoretical section properties, not on approved tests as specified by AS2047
The N values in the above table represent the complete window rating based on NATA test reports, structural calculations and reinterpreted data from NATA test reports.
Residential (R) is limited to 5.000 kPa Housing (H) is limited to 3.000 kPa

© Capral Aluminium. Limited

Structural details

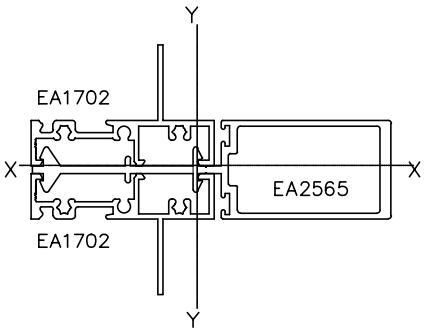
TRANSOM VALUES



TRANSOM TYPE 1

$I_{xx} = 19 \times 10^3 \text{ mm}^4$

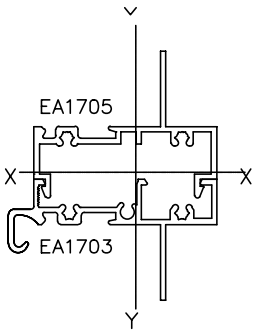
$I_{yy} = 102 \times 10^3 \text{ mm}^4$



TRANSOM TYPE 2

$I_{xx} = 41 \times 10^3 \text{ mm}^4$

$I_{yy} = 449 \times 10^3 \text{ mm}^4$

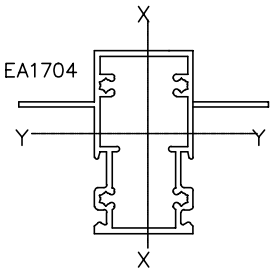


FIXED/AWNING TRANSOM TYPE 1

$I_{xx} = 23 \times 10^3 \text{ mm}^4$

$I_{yy} = 105 \times 10^3 \text{ mm}^4$

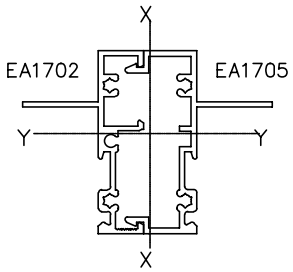
MULLION VALUES



MULLION TYPE 1

$I_{xx} = 60 \times 10^3 \text{ mm}^4$

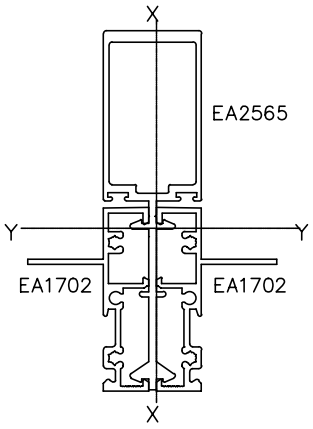
$I_{yy} = 87 \times 10^3 \text{ mm}^4$



MULLION TYPE 2

$I_{xx} = 19 \times 10^3 \text{ mm}^4$

$I_{yy} = 102 \times 10^3 \text{ mm}^4$



MULLION TYPE 3

$I_{xx} = 41 \times 10^3 \text{ mm}^4$

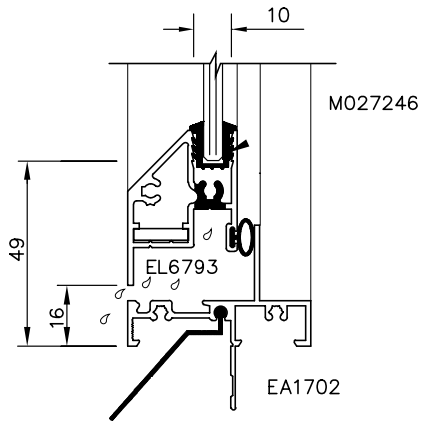
$I_{yy} = 449 \times 10^3 \text{ mm}^4$

NOTE: THE Y AXIS IS DEPICTED TO INDICATE THE GLASS PLANE ONLY AND HAS NO REFERENCE TO THE CENTRE OF GRAVITY OF THE ASSEMBLY.

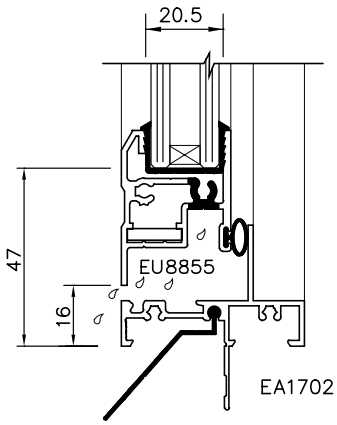
REF: 582–101

© Capral Aluminium Limited

Glazing details



AWNING SINGLE GLAZED

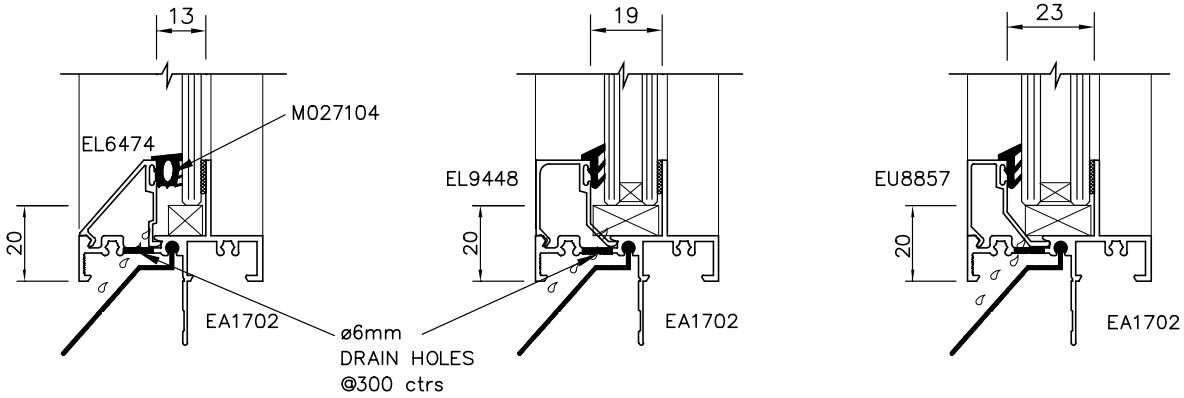


AWNING DOUBLE GLAZED

GLAZING METHOD – WRAP AROUND CHANNEL

GLASS SIZE	CHANNEL
3mm	M027229
4–5mm	M027235
6mm	M027246

GLASS SIZE	CHANNEL
14mm	M027273
16mm	M027274
18mm	M027275



FIXEDLIGHT SINGLE GLAZED

FIXEDLIGHT DOUBLE GLAZED

BEAD & ROLL IN WEDGE
GLAZING TAPE M027257

THEORETICAL GLAZING OPTIONS

GLASS SIZE	GAP	WEDGE
3mm	9.5	M027105
4mm	8.5	M027104 M027105
5mm	7.5	M027103 M027104
6mm	6.5	M027103

GLASS SIZE	BEAD	GAP	WEDGE
10mm	EL9448	9.5	M027104
12mm	EL9448	8.5	M027103
14mm	EL9448	7.5	M027142
16mm	EU8857	6.5	M027142
18mm	EU8857	6.5	M027103

REF: 582–G01

RTAW582.01
RTDM001.01
June 2002
© Capral Aluminium. Limited

Aluminium stay selection 582 sash

The stay charts are developed for low rise, residential applications;

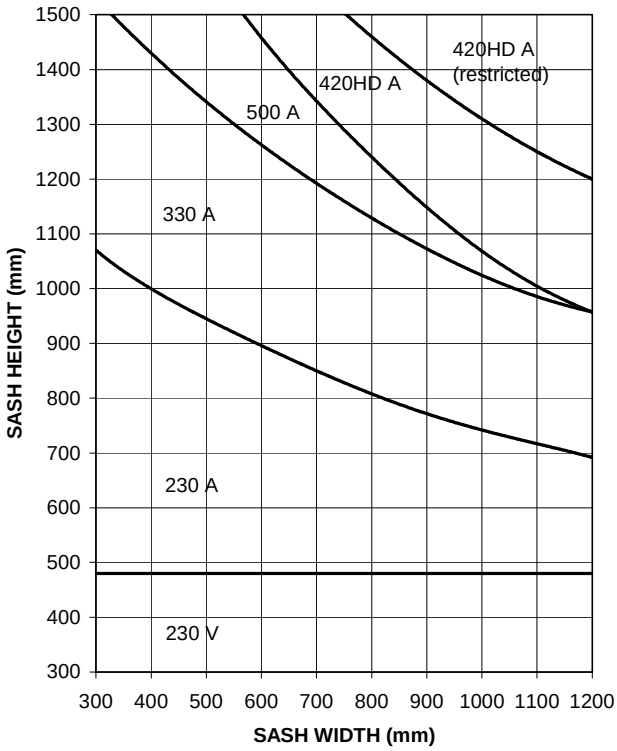
- still air conditions
- max negative pressure rating of 2.3 kPa.

Applications outside these limiting factors or outside of the ranges graphed, should be verified by Interlock on a case by case basis.

Restrictions of sashes is by either;

- P1097 Stainless Steel Restrictors
- P388 Securistay
- P1066/P1067 Securilatch

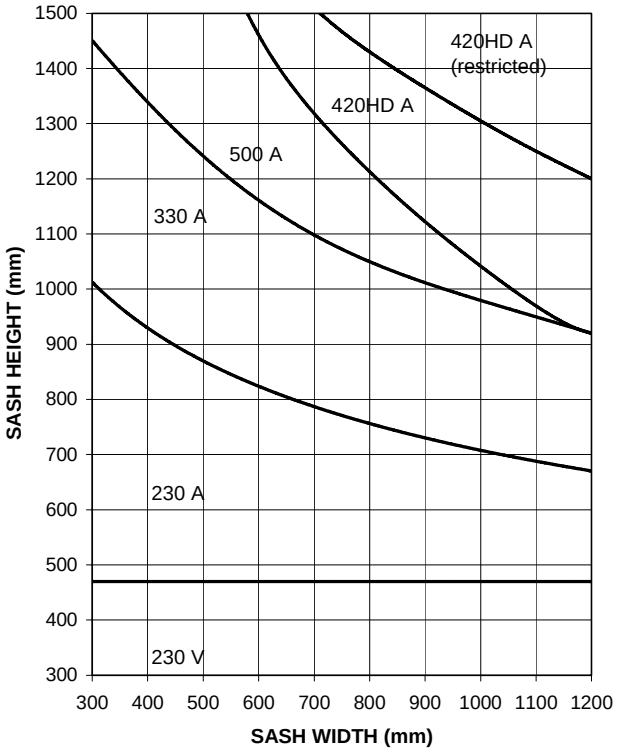
Glazing 4mm



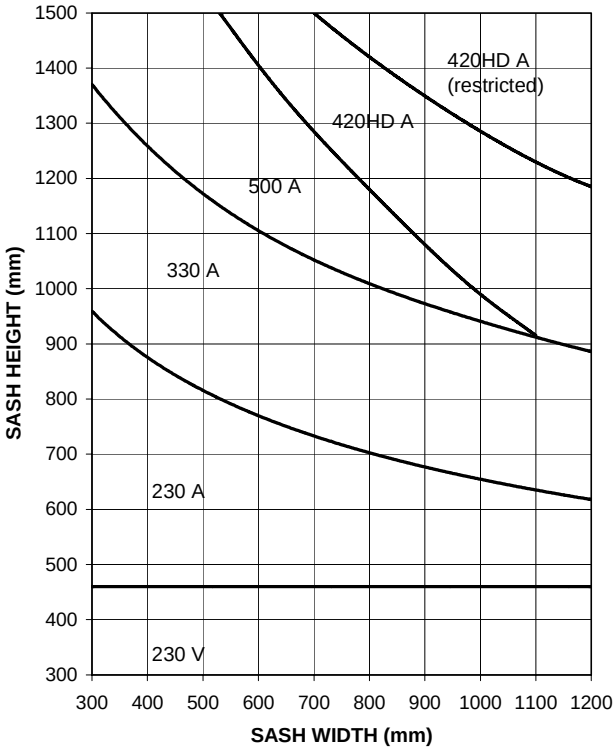
© Capral Aluminium Limited

Aluminium stay selection 582 sash (cont)

Glazing 5mm



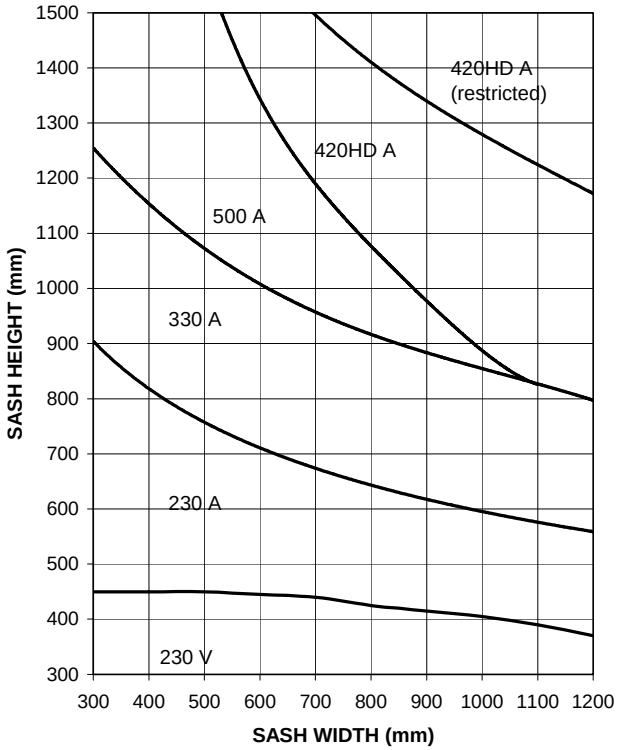
Glazing 6mm



© Capral Aluminium. Limited

Aluminium stay selection 582 sash (cont)

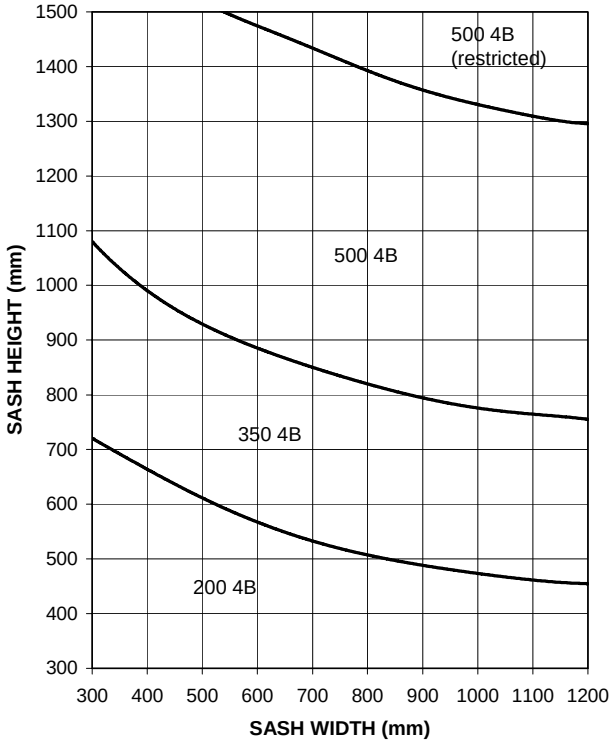
Glazing 8mm



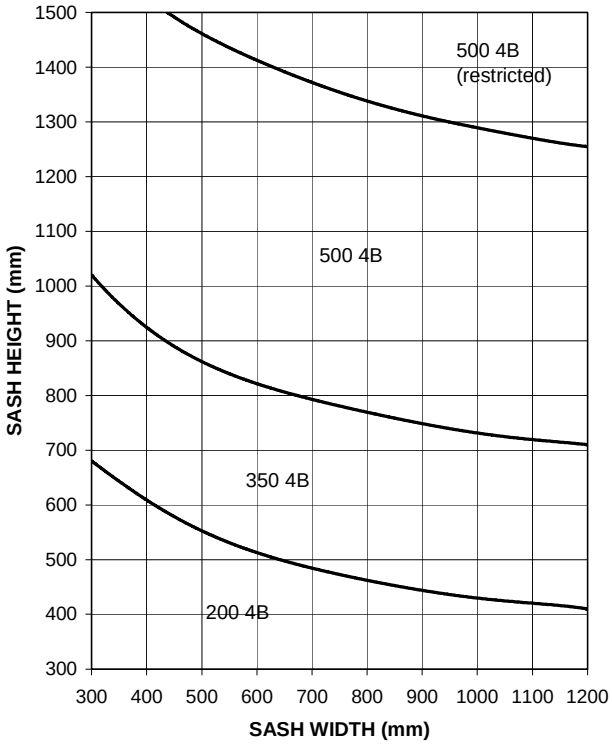
© Capral Aluminium Limited

Stainless Steel stay selection 582 sash

Glazing 4mm



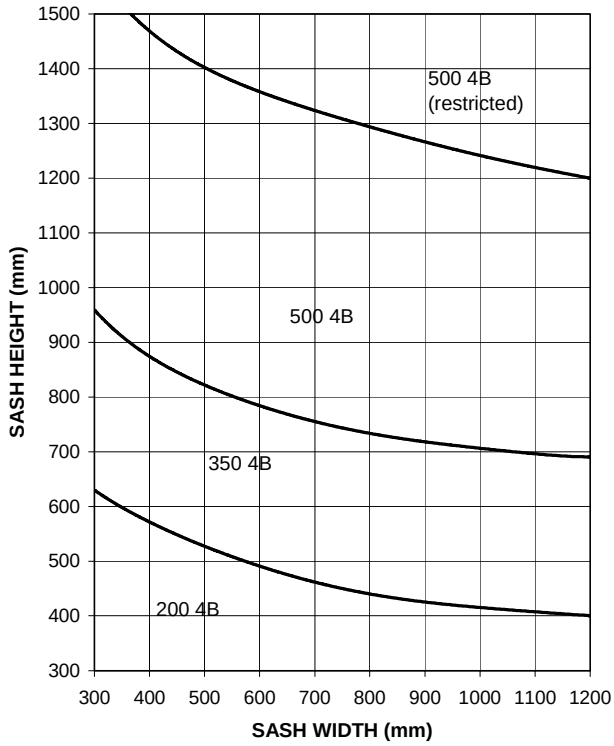
Glazing 5mm



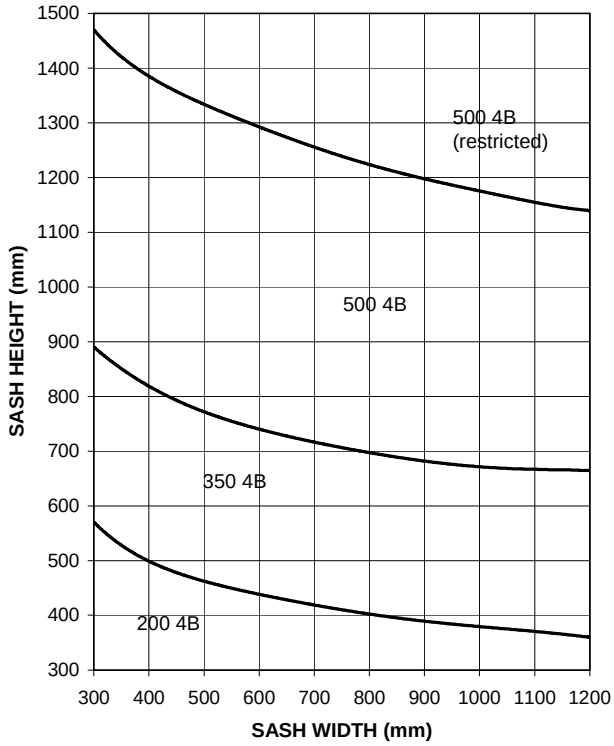
© Capral Aluminium. Limited

Stainless Steel stay selection 582 sash (cont)

Glazing 6mm



Glazing 8mm



© Capral Aluminium Limited

Stay selection 582 sash (cont)

Friction stays for awning sashes used with Cam handles

Capral Part No	Interlock Reference	Min Sash Height (mm)	Max Sash Height (mm)	Max Sash Weight (kg)	Opening Angle	Interlock Part No	Comments
M138188BK	230A	235	750	6.0	58^{o}	P1560	Aluminium
M138187BK*	230V	235	400	4.0	58^{o}	P509	Aluminium
M138189BK	330A	330	1000	9.0	35^{o}	P1561	Aluminium
M138164BK	500A	512	1300	12.0	27^{o}	P1531	Aluminium
M138191BK	420HDA	440	1800	15.0	20^{o}	P1553	Aluminium
	420HDA	440	1500	20.0	20^{o}	P1553	Aluminium
	420HDA	440	1200	43.0	20^{o}	P1553	Aluminium
	200 4BV	198	300	8.0	40^{o}	P1001	Stainless Steel
	200 4B	198	600	10.0	40^{o}	P1002	Stainless Steel
	350 4B	347	800	20.0	30^{o}	P1003	Stainless Steel
	500 4B	503	1800	30.0	25^{o}	P1004	Stainless Steel

Note: *230V sash designed for shallow sashes (low friction).

Non-friction stays for awning sashes used with chain winder or remote

Capral Part No	Interlock Reference	Min Sash Height (mm)	Max Sash Height (mm)	Max Sash Weight (kg)	Opening Angle	Interlock Part No	Comments
M138186BK	230 NF	235	-	10.0	45^{o}	P1559	Aluminium
	350 4BNF	349	-	20.0	30^{o}	P1003NF	Stainless Steel
	500 4BNF	503	-	30.0	25^{o}	P1004NF	Stainless Steel

© Capral Aluminium. Limited

Stay selection 582 sash (cont)

Stays for casement sashes used with cam handles

Capral Part No	Interlock Reference	Min Sash Width (mm)	Max Sash Width (mm)	Max Sash Weight (kg)	Opening Angle	Interlock Part No	Comments
M138118BK	300 C	312	750	20.0	55^{o}	P1523	
	230 4BC	230	700	20.0	90^{o}	P1090	Stainless Steel
	430 4BC	422	1000	25.0	90^{o}	P1080	Stainless Steel

Note: Casement sashes over 1200mm high generally should be fitted with M138221 snubber blocks.

Stays for casement sashes used with a winder

Capral Part No	Interlock Reference	Min Sash Width (mm)	Max Sash Width (mm)	Max Sash Weight (kg)	Opening Angle	Interlock Part No	Comments
	230 4BCNF	235	700	20.0	90^{o}	P1090NF	Stainless Steel

Note: Casement sashes over 1200mm high generally should be fitted with M138221 snubber blocks.

© Capral Aluminium Limited