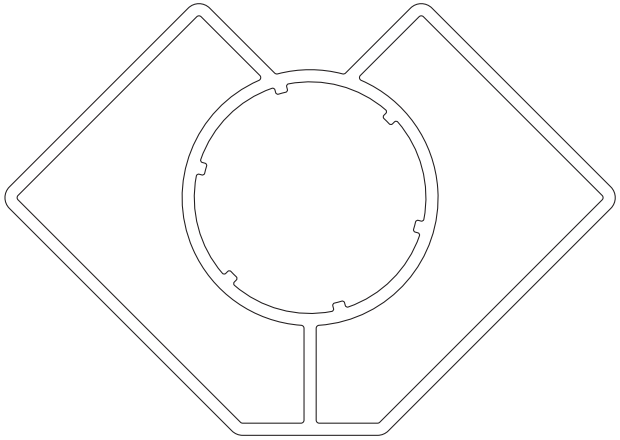
BUILDING REGULATIONS AND APPROVED DOCUMENTS (ENGLAND)

APPROVED DOCUMENTS A

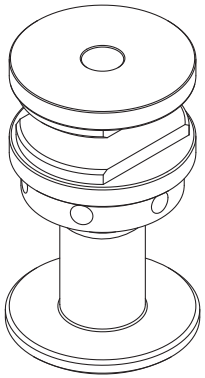
STRUCTURE

SHEERLINE®
ALUMINIUM WINDOWS AND DOORS

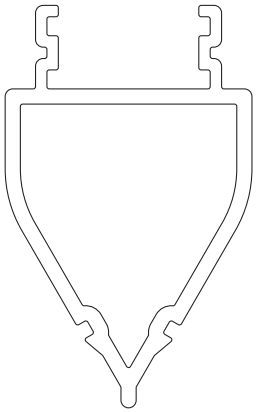
BAY POLE AXIAL LOADING



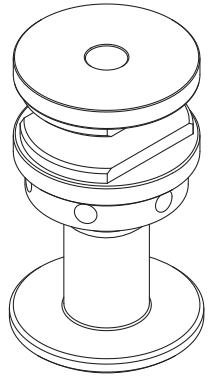
SA022
90° STRUCTURAL
CORNER POST



SH109
BAY POLE JACK



SA023
VARIABLE BAY
POLE



SH109
BAY POLE JACK

*Information shown is for axial load calculations only.

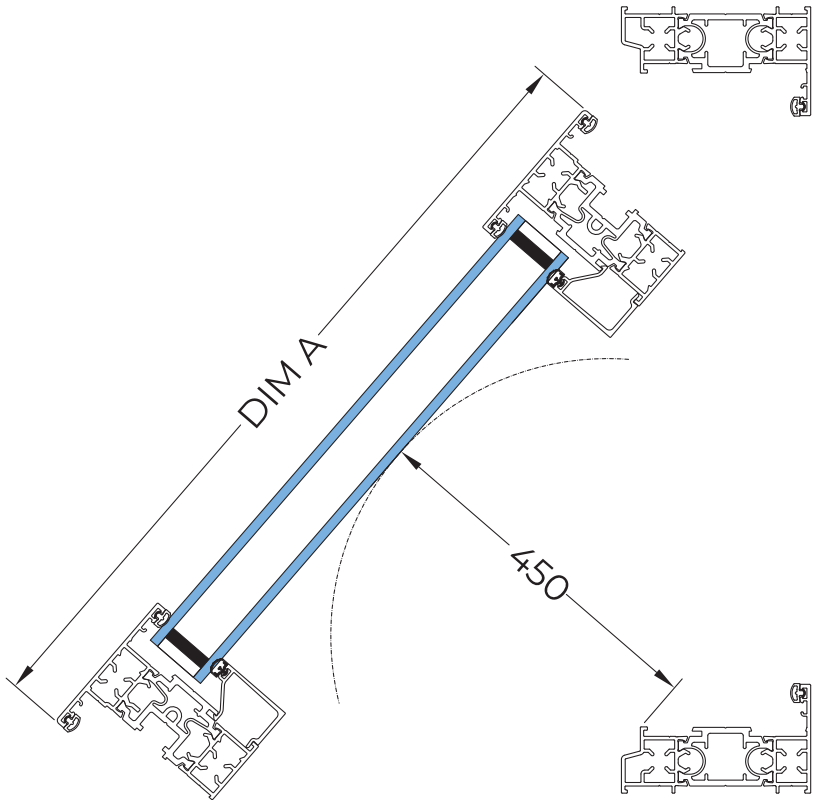
BUILDING REGULATIONS AND APPROVED DOCUMENTS (ENGLAND)

APPROVED DOCUMENT B

FIRE SAFETY

SHEERLINE®
ALUMINIUM WINDOWS AND DOORS

PRESTIGE
Top Hung Window



HINGE TYPE	MIN SASH HEIGHT	MAX SASH HEIGHT	MAX SASH WEIGHT (kg)	OPENING ANGLE	MIN SASH HEIGHT (DIM A) (TO ACHIEVE 450mm)		
					SP400/ SP401	SP402/ SP403	SP404
YALE DEFENDER EDT20	700	1100	26	50°	785	796	807
YALE DEFENDER EDT24	850	1300	40	37.5°	890	901	912
YALE DEFENDER EDTH24	850	1500	50	32°	970	981	992

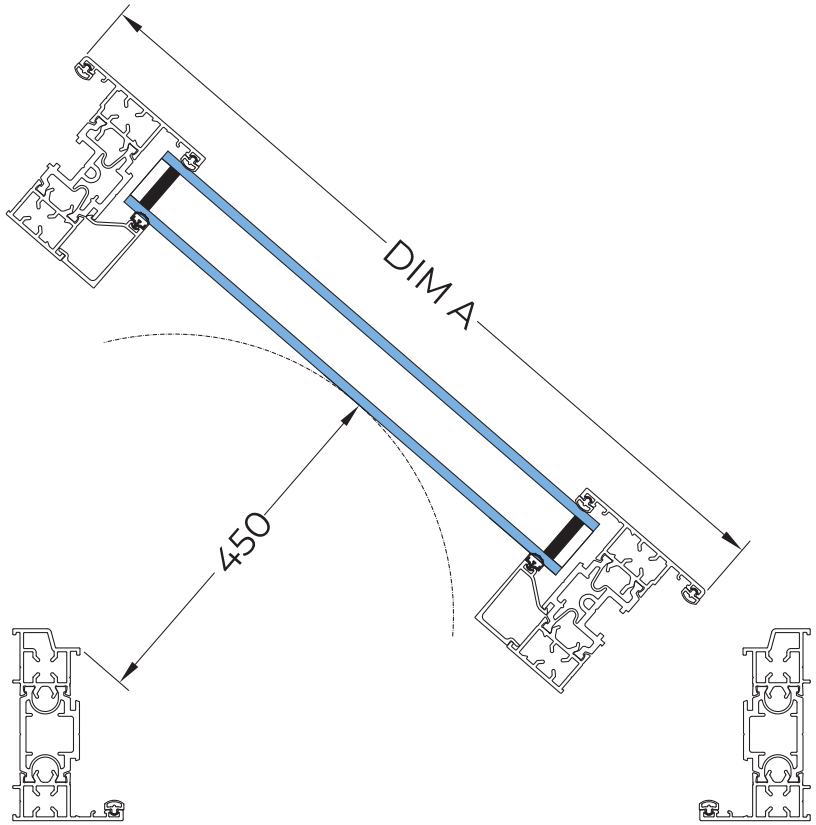
PLEASE NOTE: FOR APPROVED DOCUMENT B - FIRE REGULATIONS - IF MIN SASH HEIGHTS ARE APPLIED THE MINIMUM SASH WIDTH WOULD NEED TO BE 746mm TO ACHIEVE A MINIMUM AREA OF 0.33m².

PLEASE NOTE

Dimensions stated are **overall sash sizes**. Projecting external brickwork, cladding, cill may reduce the stated clear opening dimension.

These dimesions should be regarded as absolute minimums and do not account for any tolerances relatated to glazing, fabrication or hinge manufacture

PRESTIGE
Side Hung Window



HINGE TYPE	MIN SASH WIDTH	MAX SASH WIDTH	MAX SASH WEIGHT (kg)	OPENING ANGLE	MIN SASH WIDTH (DIM A) (TO ACHIEVE 450mm)		
					SP400/ SP401	SP402/ SP403	SP404
YALE DEFENDER EDSH16A, EDSH16H6A, EDSH16H7A	400	1000	40	60°	662	673	684
YALE DEFENDER EDSE12	300	600	22	80°	525	536	547
YALE DEFENDER EDSE16	400	700	24	90°	531	542	553

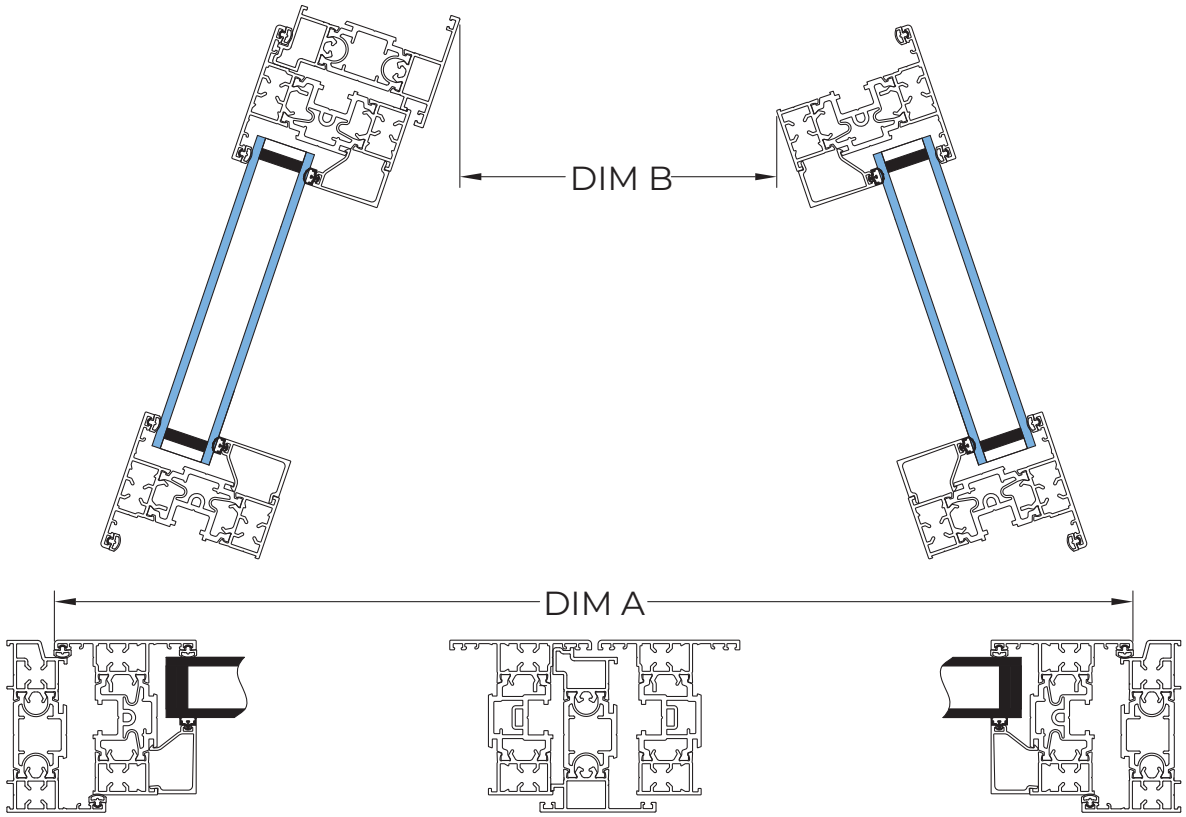
PLEASE NOTE: FOR APPROVED DOCUMENT B - FIRE REGULATIONS - IF MIN SASH WIDTHS ARE APPLIED THE MINIMUM SASH HEIGHT WOULD NEED TO BE 746mm TO ACHIEVE A MINIMUM AREA OF 0.33m².

PLEASE NOTE

Dimensions stated are **overall sash sizes**. Projecting external brickwork, cladding, cill may reduce the stated clear opening dimension.

These dimesions should be regarded as absolute minimums and do not account for any tolerances relatated to glazing, fabrication or hinge manufacture

PRESTIGE
French Window



HINGE TYPE	MIN SASH WIDTH	MAX SASH WIDTH	MAX SASH WEIGHT (kg)	OPENING ANGLE	MIN OVERALL SASH WIDTH (DIM A)	CLEAR OPENING (DIM B)
YALE DEFENDER EDSE12	300	600	22	80	806	450
YALE DEFENDER EDSE16	400	700	24	90°	976	755
TROJAN MEGA EGRESS 0115	400	900	40	90°	818	697

IF MINIMUM OVERALL SASH WIDTHS (DIM A) ARE APPLIED THE MINIMUM SASH HEIGHTS ARE AS FOLLOWS:

THIS ACHIEVES A MINIMUM AREA OF 0.33m².

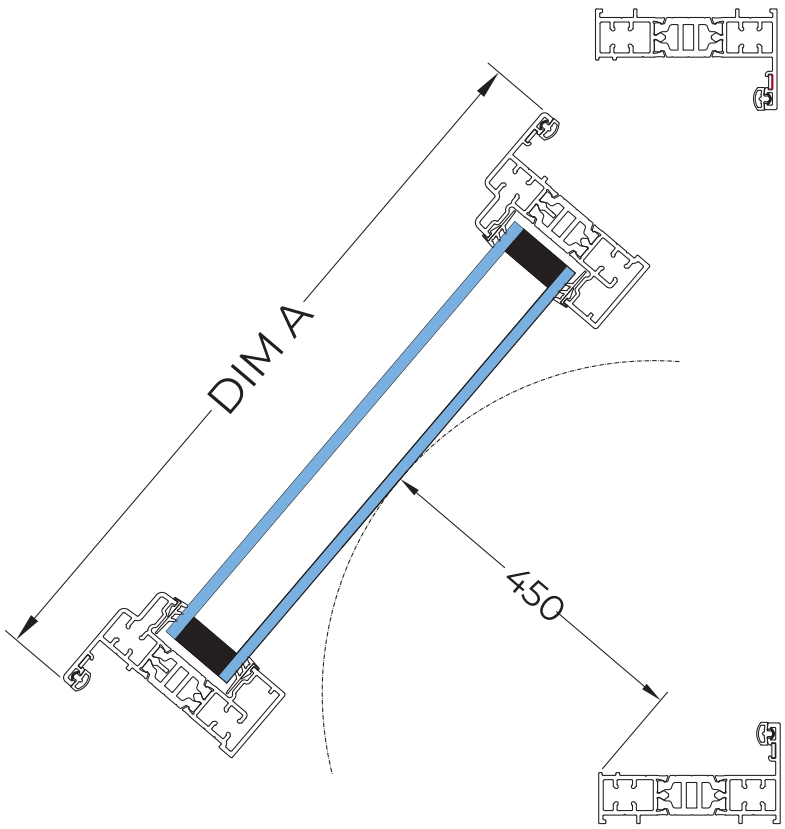
HINGE TYPE	(DIM A) APPLIED	MIN SASH HEIGHT
YALE DEFENDER EDSE12	806	746
YALE DEFENDER EDSE16	976	462
TROJAN MEGA EGRESS 0115	818	474

PLEASE NOTE

Dimensions stated are **overall sash sizes**. Projecting external brickwork, cladding, cill may reduce the stated clear opening dimension.

These dimesions should be regarded as absolute minimums and do not account for any tolerances relatated to glazing, fabrication or hinge manufacture

CLASSIC
Top Hung Window



HINGE TYPE	MIN SASH HEIGHT (DIM A)	MAX SASH HEIGHT (DIM A)	MAX SASH WEIGHT (kg)	OPENING ANGLE	MIN SASH HEIGHT (DIM A) (TO ACHIEVE 450mm)	
					SC400	SC402
YALE DEFENDER EDT20	700	1100	26	50°	766	777
YALE DEFENDER EDT24	850	1300	40	37.5°	871	882
YALE DEFENDER EDTH24	850	1500	50	32°	951	962

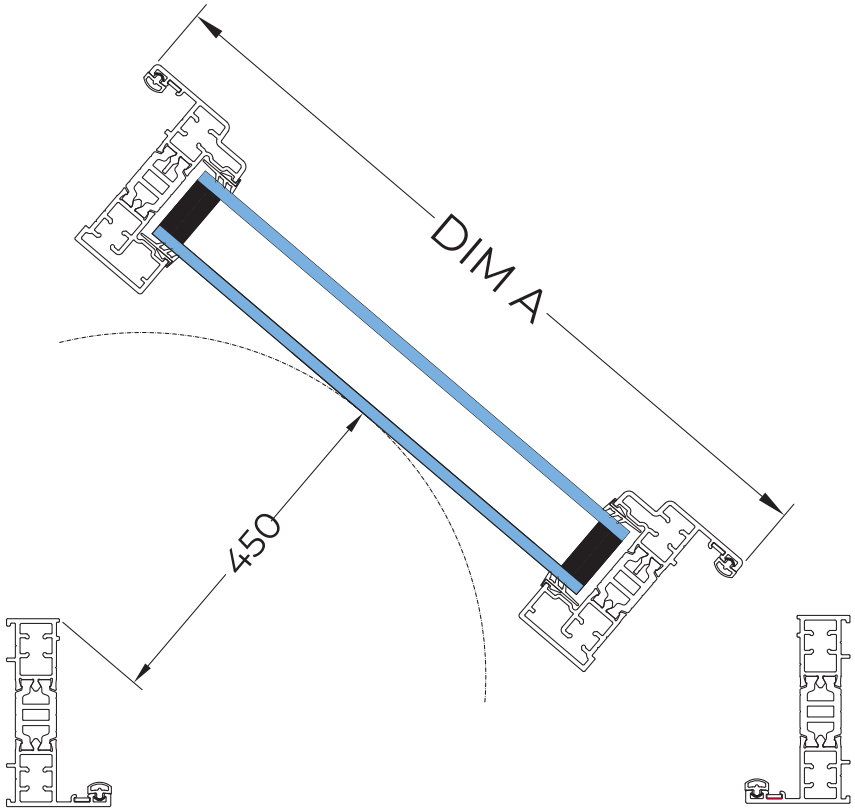
PLEASE NOTE: FOR APPROVED DOCUMENT B - FIRE REGULATIONS - IF MIN SASH HEIGHTS ARE APPLIED THE MINIMUM SASH WIDTH WOULD NEED TO BE 746mm TO ACHIEVE A MINIMUM AREA OF 0.33m².

PLEASE NOTE

Dimensions stated are **overall sash sizes**. Projecting external brickwork, cladding, cill may reduce the stated clear opening dimension.

These dimesions should be regarded as absolute minimums and do not account for any tolerances relatated to glazing, fabrication or hinge manufacture

CLASSIC
Side Hung Window



HINGE TYPE	MIN SASH WIDTH (DIM A)	MAX SASH WIDTH (DIM A)	MAX SASH WEIGHT (kg)	OPENING ANGLE	MIN SASH WIDTH (DIM A) (TO ACHIEVE 450mm)	
					SC400	SC402
YALE DEFENDER EDSH16A, EDSH16H6A, EDSH16H7A	400	1000	40	60°	643	654
YALE DEFENDER EDSE12	300	600	22	80°	506	517
YALE DEFENDER EDSE16	400	700	24	90°	512	523

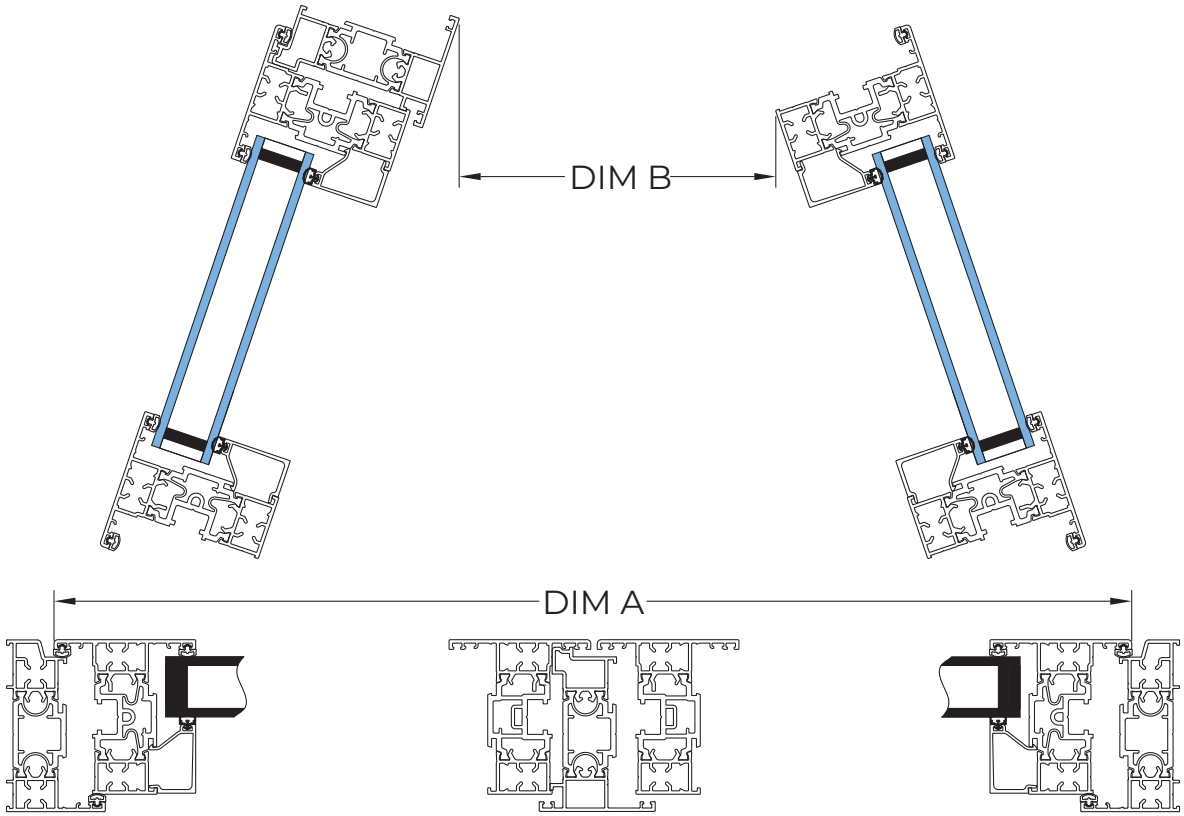
PLEASE NOTE: FOR APPROVED DOCUMENT B - FIRE REGULATIONS - IF MIN SASH WIDTHS ARE APPLIED THE MINIMUM SASH HEIGHT WOULD NEED TO BE 746mm TO ACHIEVE A MINIMUM AREA OF 0.33m².

PLEASE NOTE

Dimensions stated are **overall sash sizes**. Projecting external brickwork, cladding, cill may reduce the stated clear opening dimension.

These dimesions should be regarded as absolute minimums and do not account for any tolerances relatated to glazing, fabrication or hinge manufacture

CLASSIC
French Window



HINGE TYPE	MIN SASH WIDTH	MAX SASH WIDTH	MAX SASH WEIGHT (kg)	OPENING ANGLE	MIN OVERALL SASH WIDTH (DIM A)	CLEAR OPENING (DIM B)
YALE DEFENDER EDSE12	300	600	22	80	787	450
YALE DEFENDER EDSE16	400	700	24	90°	976	755
TROJAN MEGA EGRESS 0115	400	900	40	90°	818	697

IF MINIMUM OVERALL SASH WIDTHS (DIM A) ARE APPLIED THE MINIMUM SASH HEIGHTS ARE AS FOLLOWS:

THIS ACHIEVES A MINIMUM AREA OF 0.33m².

HINGE TYPE	(DIM A) APPLIED	MIN SASH HEIGHT
YALE DEFENDER EDSE12	787	746
YALE DEFENDER EDSE16	976	462
TROJAN MEGA EGRESS 0115	818	474

PLEASE NOTE

Dimensions stated are **overall sash sizes**. Projecting external brickwork, cladding, cill may reduce the stated clear opening dimension.

These dimesions should be regarded as absolute minimums and do not account for any tolerances relatated to glazing, fabrication or hinge manufacture

BUILDING REGULATIONS AND APPROVED DOCUMENTS (ENGLAND)

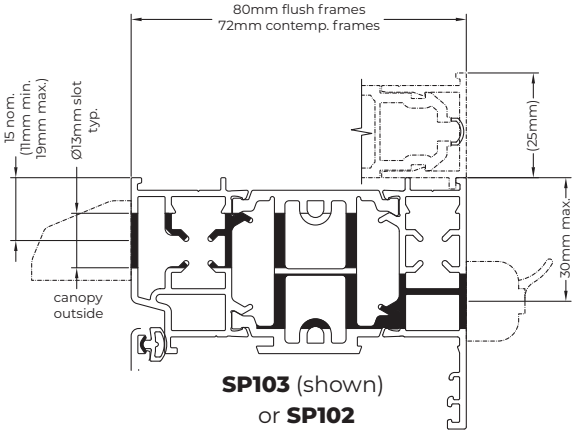
APPROVED DOCUMENT F

VENTILATION

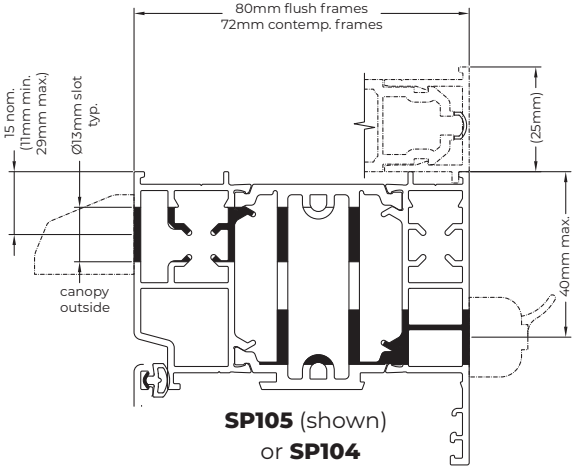
SHEERLINE®
ALUMINIUM WINDOWS AND DOORS

PRESTIGE

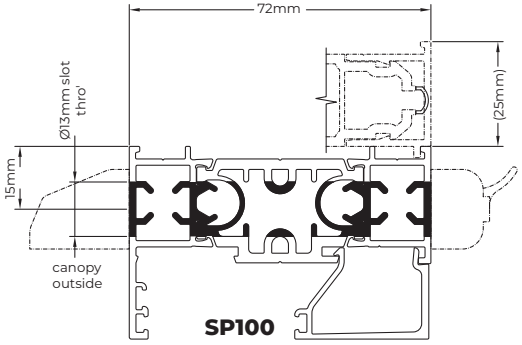
Thro' Frame Ventilation



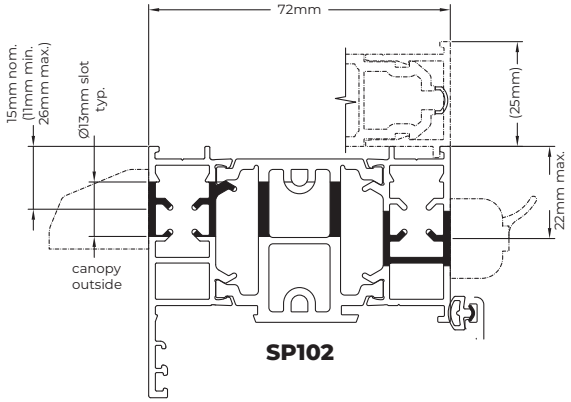
SP103 (shown)
or **SP102**



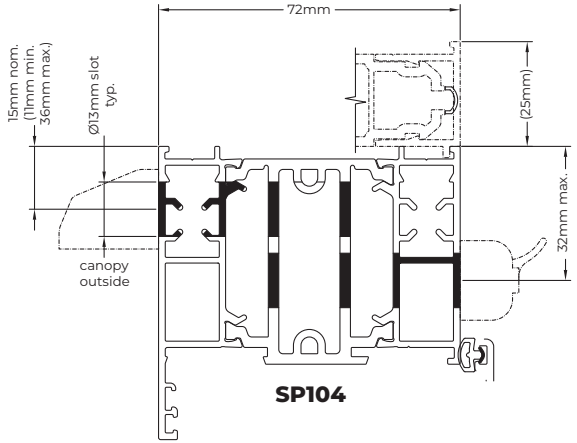
SP105 (shown)
or **SP104**



SP100
(ventilation suitable
for fixed frame only
no sashes)



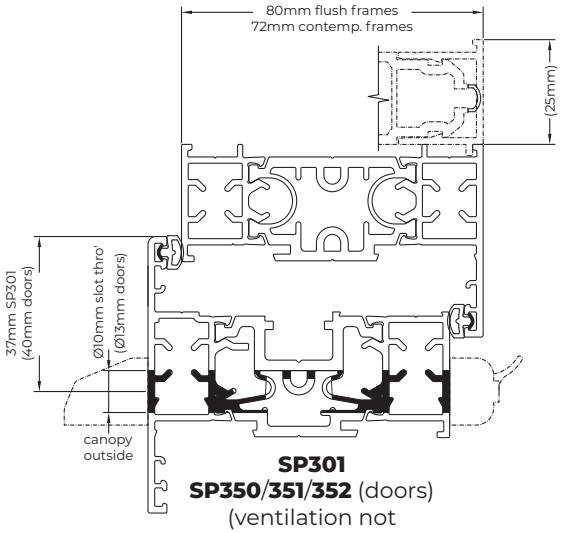
SP102



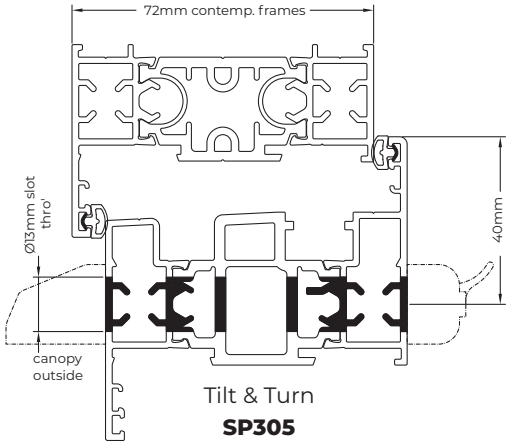
SP104

PRESTIGE

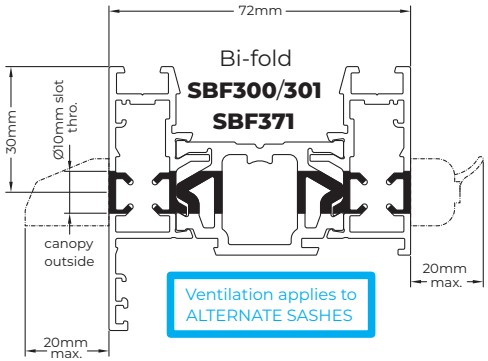
Thro' Sash Ventilation



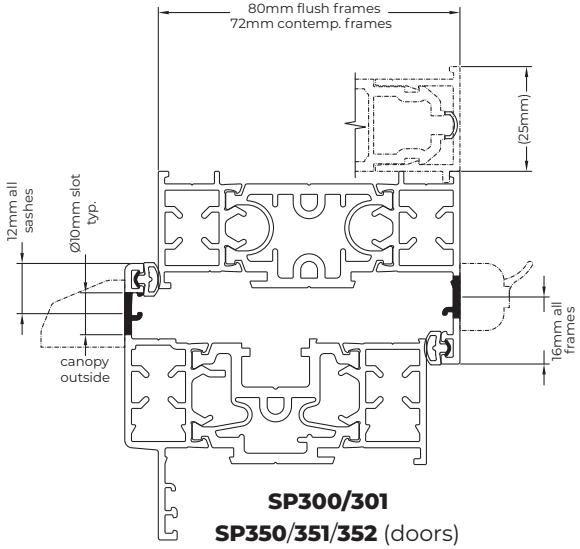
SP301
SP350/351/352 (doors)
(ventilation not suitable for **SP300**)



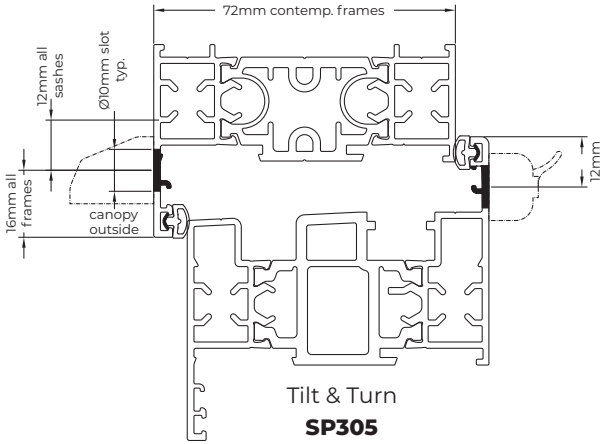
Tilt & Turn
SP305



Thro' Rebate Ventilation

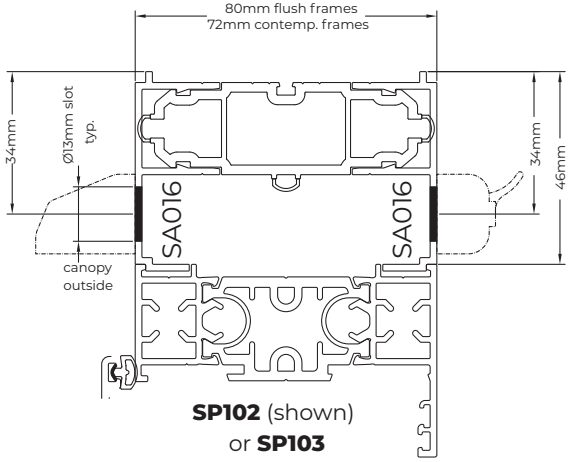


SP300/301
SP350/351/352 (doors)

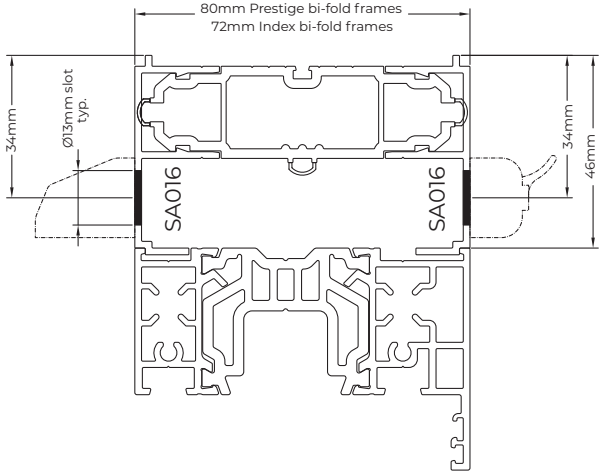


Tilt & Turn
SP305

Thro' Trim Ventilation

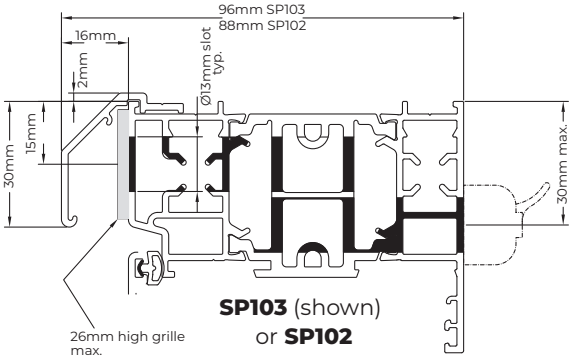


SP102 (shown)
or **SP103**

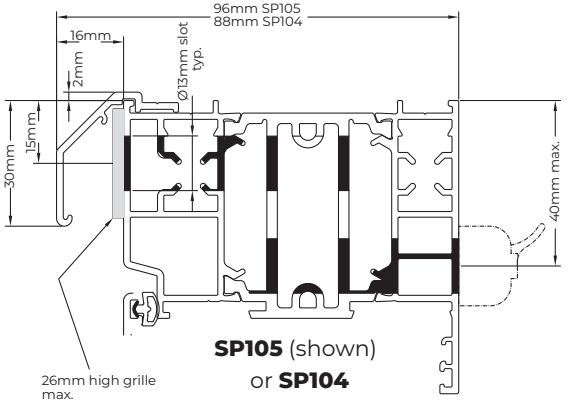


PRESTIGE

Grille Shroud Ventilation



SP103 (shown)
or **SP102**

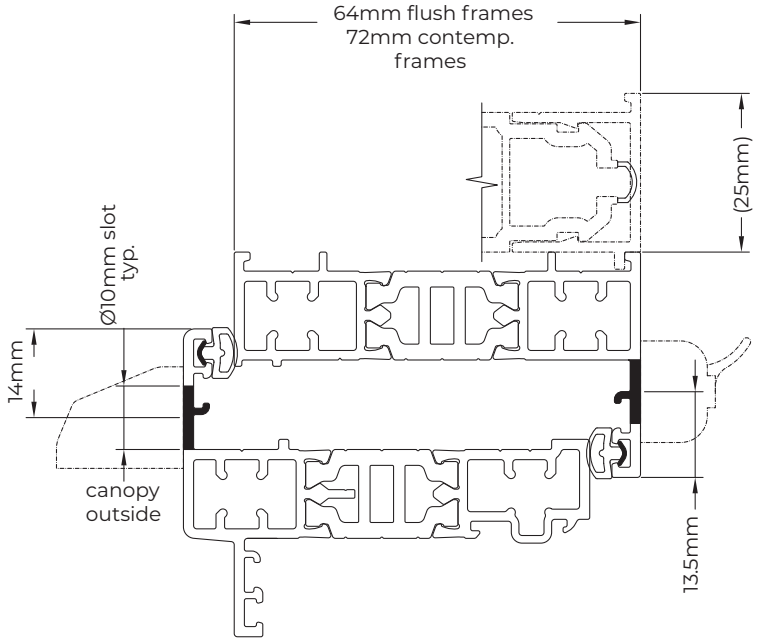


SP105 (shown)
or **SP104**

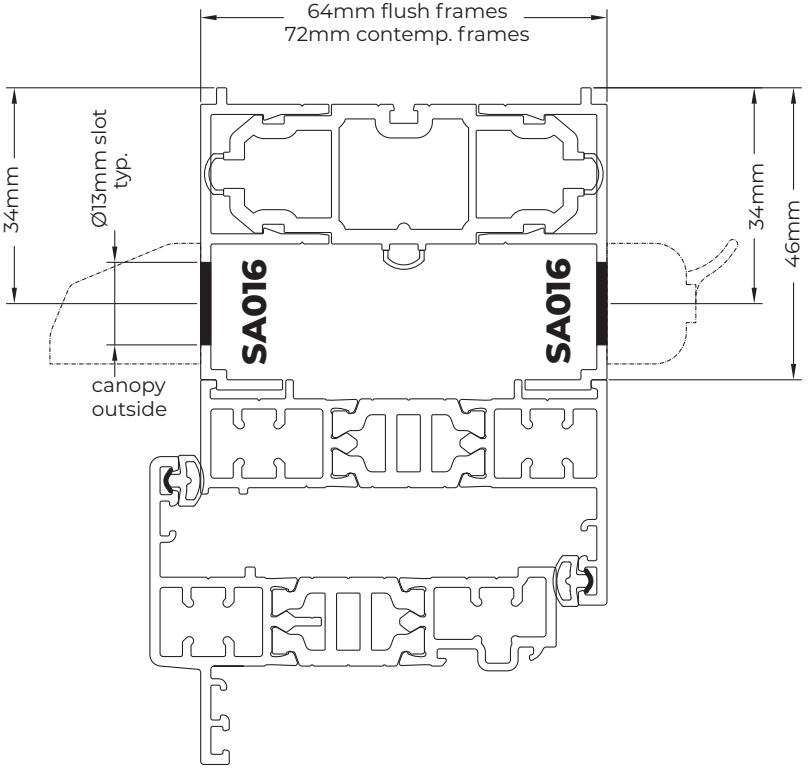
Grille Shroud not suitable for use with
frame extension or coupling products

CLASSIC

Thro' Rebate Ventilation



Thro' Trim Ventilation



BUILDING REGULATIONS AND APPROVED DOCUMENTS (ENGLAND)

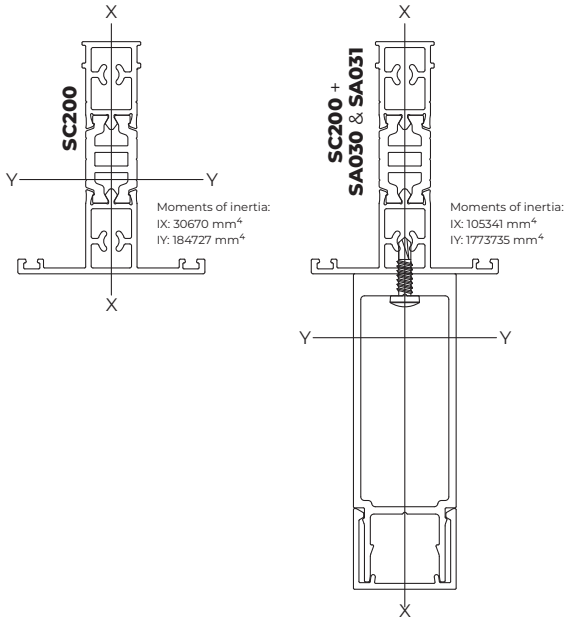
APPROVED DOCUMENT K

PROTECTION FROM FALLING, COLLISION & IMPACT

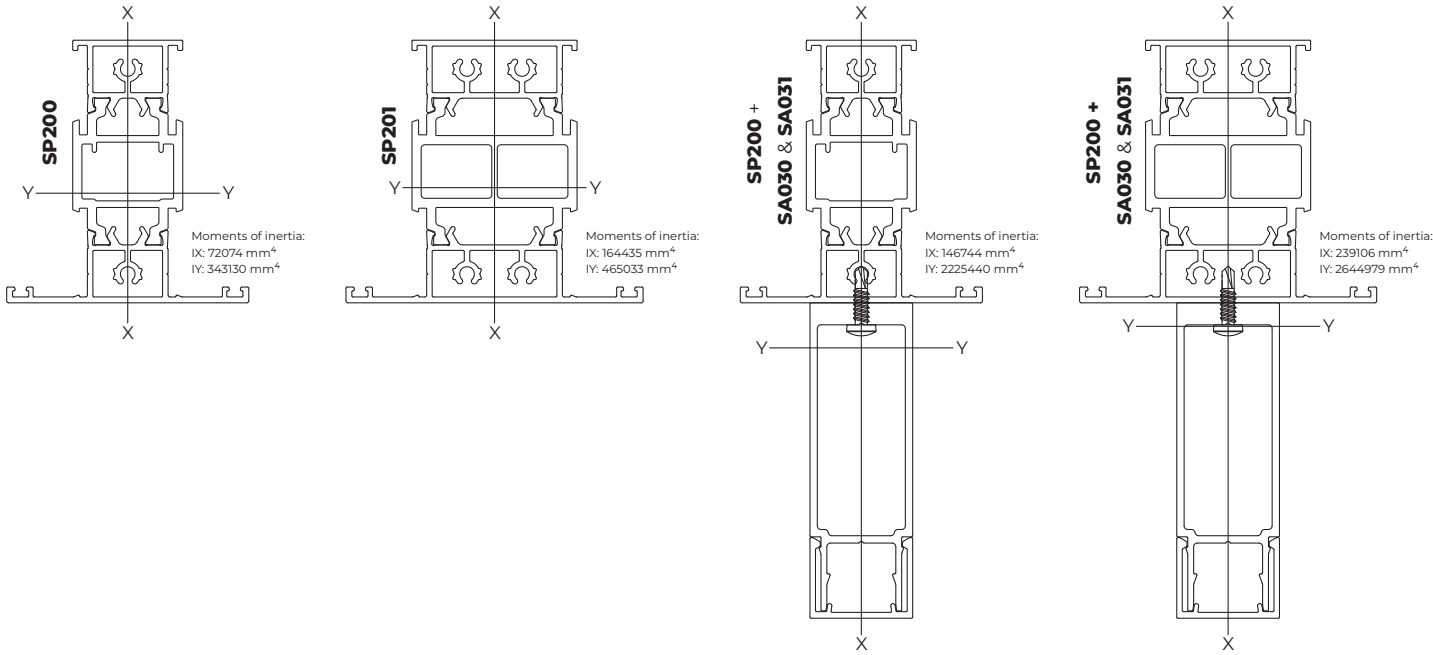
SHEERLINE®
ALUMINIUM WINDOWS AND DOORS

TRANSOM/MULLION I VALUES
(Moments of Inertia)

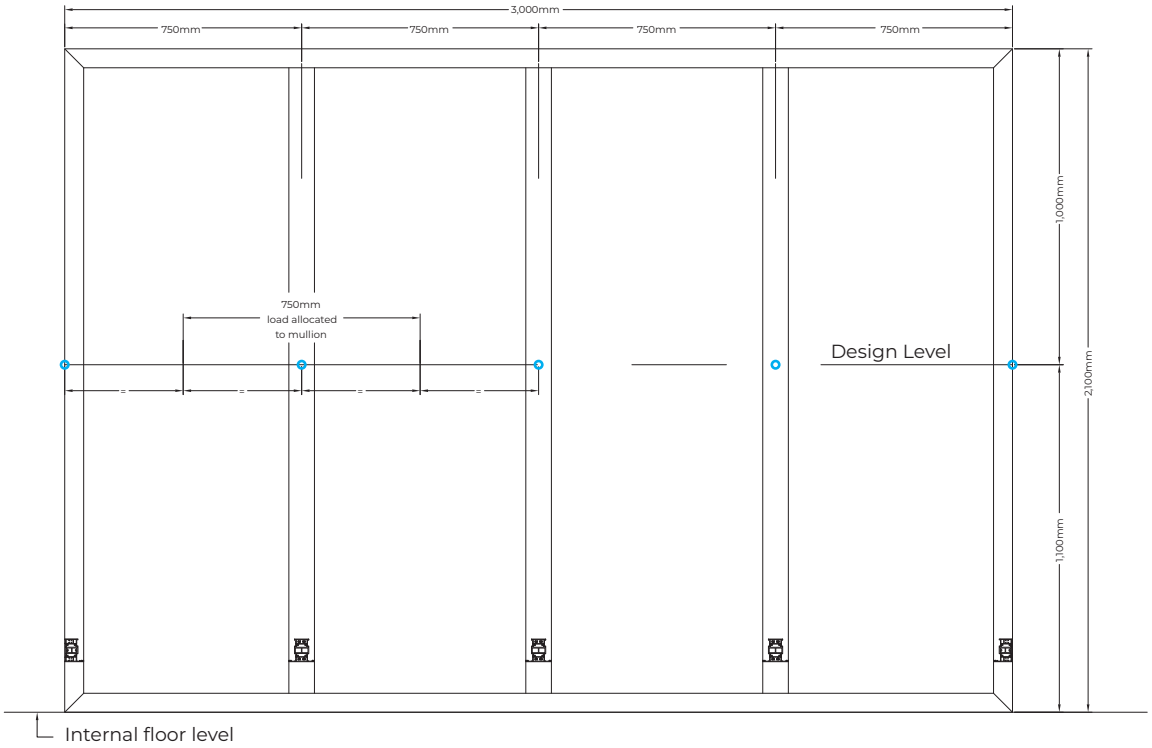
CLASSIC



PRESTIGE



example of mullion barrier load



In this example, use a Horizontal Uniformly Distributed Load (UDL) of
0.74 kN/m OR 0.74 N/mm (from Table 2 BS6180). Applied to Prestige mullion SP201.

Point Load allocated to each mullion (F) = 0.74 N/mm x 750 mm = 555 N (Total UDL = 0.74 x 3000 = 2220 N).

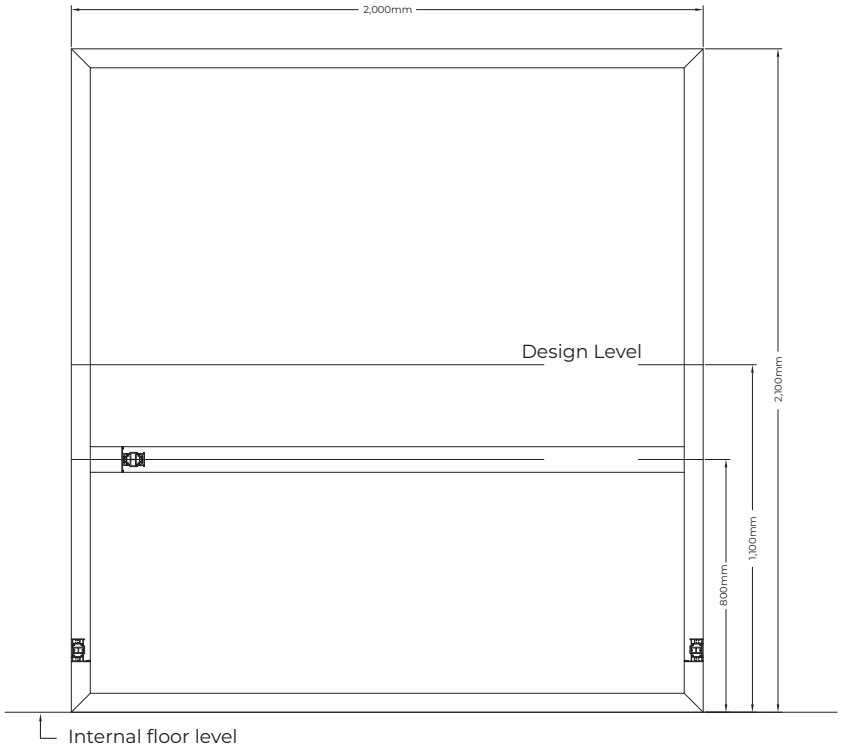
a -	Dist. Internal floor to Design Level:	1100 mm
b -	Dist: Design Level to Head:	1000 mm
I -	Moments of inertia (IYY) for SP201:	465033 mm^4
E -	Modulus of Elasticity for 6063T6:	70,000 N/mm^2
L -	Length of Beam (mullion):	2100 mm
F -	Point Load allocated to each mullion:	555 N

Maximum deflection at point of load can be expressed as: $\frac{F\,a^2\,b^2}{3\,E\,I\,L}$ $\frac{555 \times 1100^2 \times 1000^2}{3 \times 70000 \times 465033 \times 2100}$ = 3.27mm deflection

Allowable Deflection of mullion (GGF) = L/175 = 2100/175 = 12 mm

The calculated mullion deflection of 3.27mm is well within the allowable deflection of 12mm (L/175) AND the 25mm maximum stated in BS6180

example of transom barrier load



In this example, use a Horizontal Uniformly Distributed Load (UDL)
of 0.74 kN/m OR 0.74 N/mm (from Table 2 BS6180). Applied to Prestige transom SP201.

I -	Moments of inertia (IYY) for SP201:	465033 mm^4
E -	Modulus of elasticity for 6063T6:	70,000 N/mm^2
L -	Length of Beam (mullion):	2000 mm
q -	Unit load allocated to transom:	0.74 N/mm

Maximum deflection at centre can be expressed as: $\frac{5\,q\,L^4}{384\,E\,I}$ = $\frac{5 \times 0.74 \times 2000^4}{384 \times 70000 \times 465033}$ = 4.74mm deflection

Allowable transom deflection = L/175 (GGF) = 2000/175 = 11.4 mm

The calculated transom deflection of 4.74mm is well within the allowable deflection of 11.4mm (L/175) AND the 25mm maximum stated in BS6180

APPROVED DOCUMENT K: PROTECTION FROM FALLING, COLLISION AND IMPACT

Minimum horizontal imposed loads apply to barriers intended to retain, stop or guide people and should be determined in accordance with Table 2,

EXTRACT FROM BS6180 SECTION 3 – PROTECTION FROM FALLING:

TABLE 2 MINIMUM HORIZONTAL IMPOSED LOADS FOR PARAPETS, BARRIERS AND BALUSTRADES				
Type of occupancy for part of the building or structure	**Examples of specific use**	**Horizontal uniformly distributed line load (kN/m)**	**Uniformly distributed load applied to the infill (kN/m2)**	**A point load applied to part of the infill (kN)**
Domestic and residential activities	(i) All areas within or serving exclusively one single family dwelling including stairs, landings, etc. but excluding external balconies and edges of roofs	0.36	0.5	0.25
	(ii) Other residential, i.e. houses of multiple occupancy and balconies, including Juliette balconies and edges of roofs in single family dwellings	0.74	1.0	0.5

The Table 2 extract (not comprehensive) above states the loads which all internal frame members need to be shown to withstand, along with two additional loads to the glazing or infill (refer to glazing/infill supplier). These loads are not additive and should be considered as three separate load cases. Wind loads should also be considered separately.

Horizontal uniformly distributed line load for the majority of installations should be applied at a design level of 1100mm above FFL.

Max permissible deflection should not exceed L/175 OR 25mm, whichever is the smaller.
Refer to the respective Sheerline Installation Guide for the position of suitable fixings.

BUILDING REGULATIONS AND APPROVED DOCUMENTS (ENGLAND)

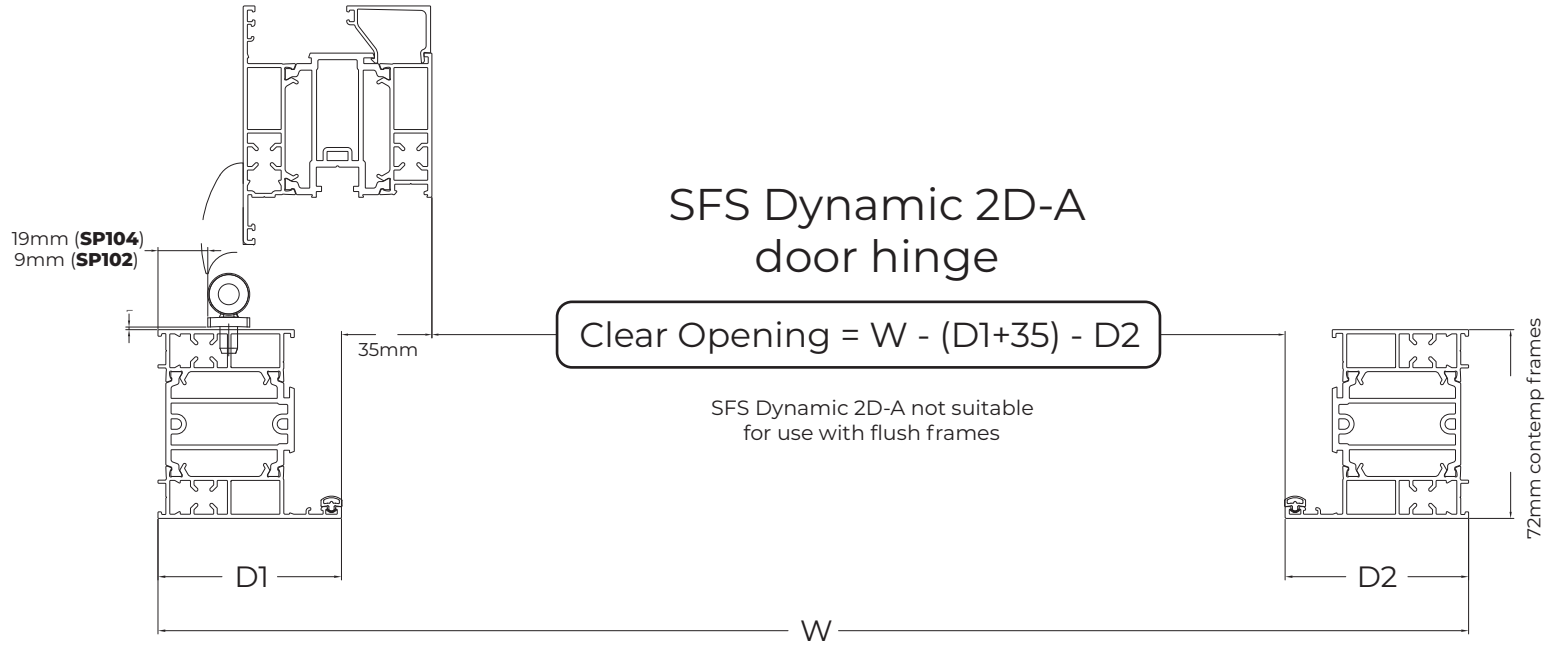
APPROVED DOCUMENT M

ACCESS TO AND USE OF BUILDINGS

SHEERLINE®
ALUMINIUM WINDOWS AND DOORS

DOOR OPENINGS

PRESTIGE
Single Contemporary Door



SFS Dynamic 2D-A door hinge

Clear Opening = W - (D1+35) - D2

SFS Dynamic 2D-A not suitable for use with flush frames

PRESTIGE
Single Flush Door

Mila Prosecure composite door hinge

Clear Opening = W - (D1+54) - D2

Mila Prosecure not suitable for use with contemp. frames

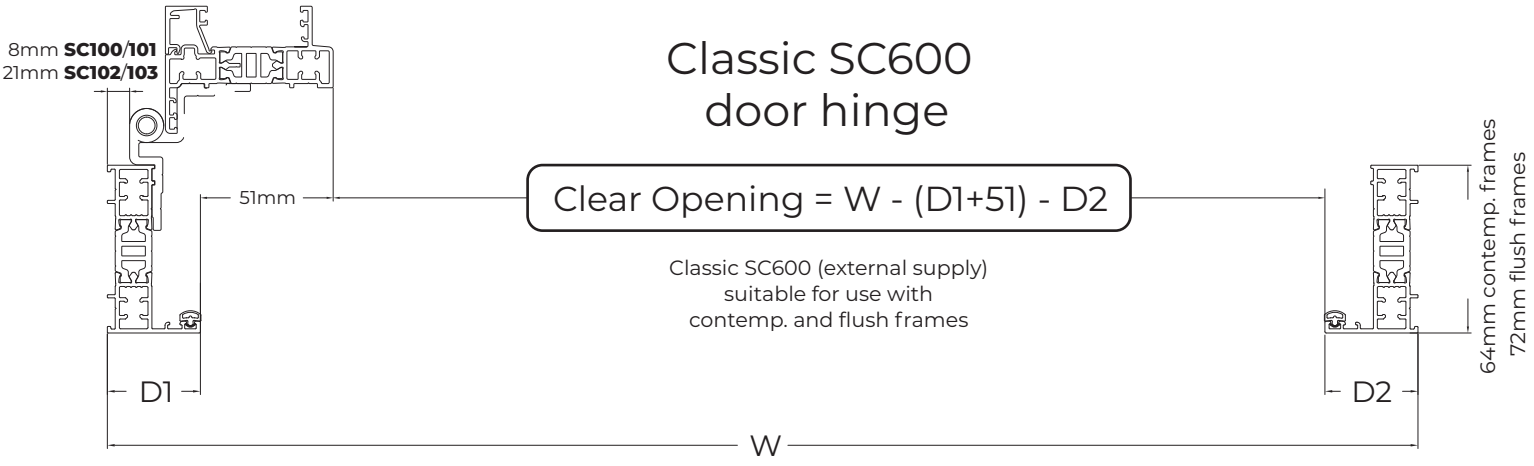
DOOR OPENINGS

PRESTIGE
Single Bi-fold Single Door

VBH bi-fold door hinge

Clear Opening = W - 177

CLASSIC
Single Door



Classic SC600
door hinge

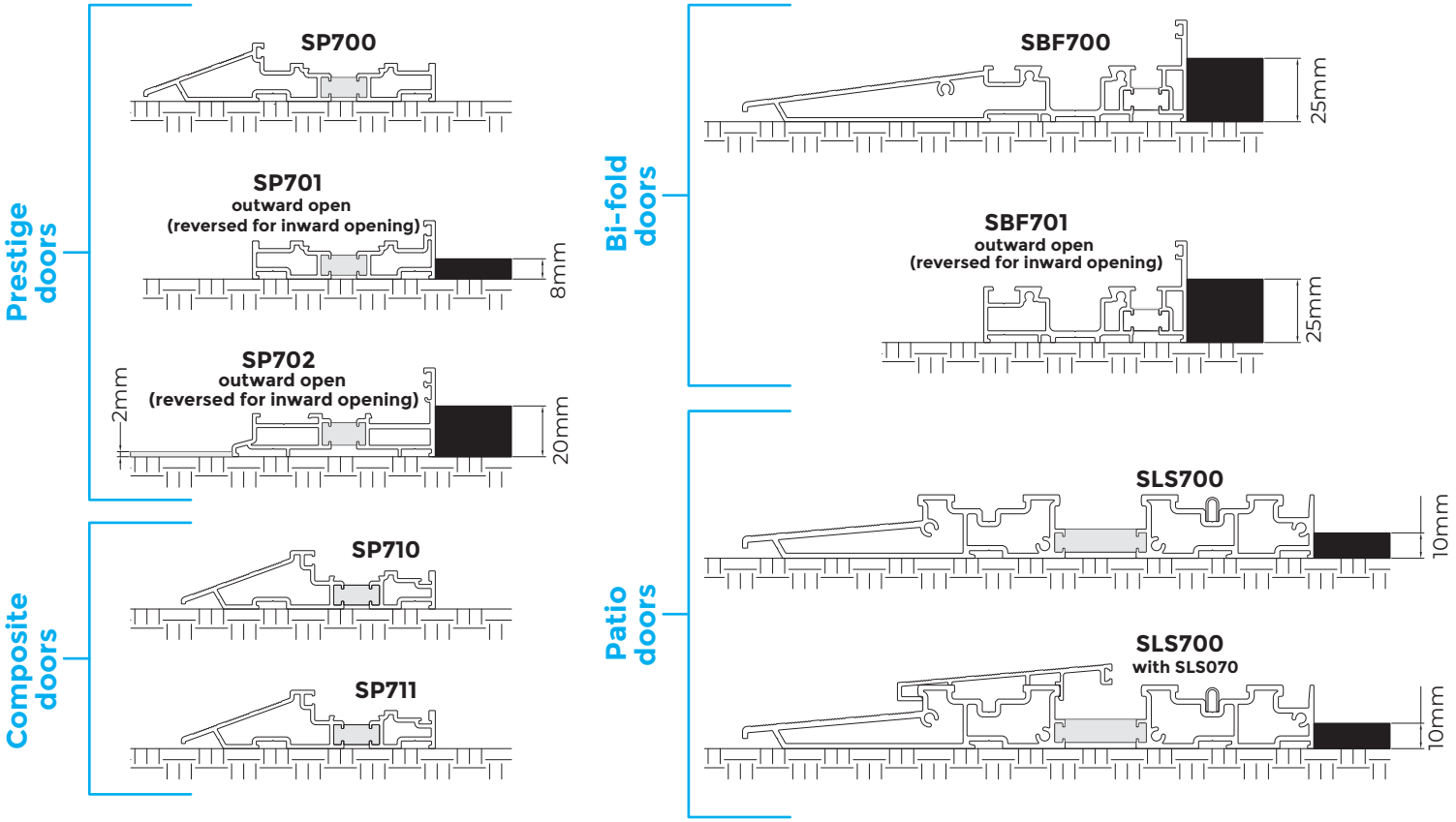
Clear Opening = W - (D1+51) - D2

Classic SC600 (external supply)
suitable for use with
contemp. and flush frames

THRESHOLDS

Surface Level Requirements to Meet Accessibility Testing

Packers were fitted to represent flooring / paving.
No up-stands were greater than 15mm - see below diagrams for details



'Part M' Low Threshold Testing

WHEELCHAIR REGS	SP700	SP701	SP702	SP710	SP711	SBF700	SBF701	SLS700	SLS W/ SLS070
ASSISTED SMALL CHAIR	LEVEL 7	LEVEL 9	LEVEL 9	LEVEL 7	LEVEL 7	LEVEL 7	LEVEL 7	LEVEL 7	LEVEL 7
NON ASSISTED LARGE CHAIR	LEVEL 9	LEVEL 9	LEVEL 9	LEVEL 9	LEVEL 9	N/A			
ASSISTED LARGE CHAIR	LEVEL 9	LEVEL 9	LEVEL 9	LEVEL 9	LEVEL 9				
LIGHTWEIGHT ELECTRIC	LEVEL 10	LEVEL 10	LEVEL 10	LEVEL 10	LEVEL 10				
MIDWEIGHT ELECTRIC	N/A					LEVEL 9	LEVEL 9	LEVEL 9	LEVEL 9
HEAVYWEIGHT ELECTRIC	LEVEL 10	LEVEL 10	LEVEL 10	LEVEL 10	LEVEL 10	LEVEL 9	LEVEL 9	LEVEL 9	LEVEL 9

Note: A scale of 1 to 10 (1 being extremely difficult and 10 being very easy) has been devised to determine the ease of operation over each low threshold with each type of wheelchair provided.

BUILDING REGULATIONS AND APPROVED DOCUMENTS (ENGLAND)

APPROVED DOCUMENT Q

SECURITY IN DWELLINGS

SHEERLINE®
ALUMINIUM WINDOWS AND DOORS

PART Q			
SYSTEM	**KITE MARK**	**TEST FACILITY**	**REPORT NUMBER**
CLASSIC TOP HUNG CASEMENT	721083	BSI	3103974
CLASSIC SIDE HUNG CASEMENT	721083	BSI	3103974
CLASSIC DUMMY (TOP HUNG) CASEMENT - MULTI LIGHT	721083	BSI	3103974
CLASSIC SIDE HUNG NEXT TO FIXED - MULTI LIGHT	721083	BSI	3756828
CLASSIC SIDE HUNG NEXT TO SIDE HUNG - MULTI LIGHT	721083	ASSA ABLOY	087-21
PRESTIGE TOP HUNG CASEMENT	721083	ASSA ABLOY	085-21
PRESTIGE FIXED CASEMENT - EXTERNALLY GLAZED	721083	ASSA ABLOY	083-21
PRESTIGE TILT & TURN	721083	BSI	3492714
PRESTIGE SINGLE (RESIDENTIAL) DOOR	721084	BSI	3498703
PRESTIGE DOUBLE DOOR	721084	BSI	3498703
BI-FOLD DOOR	721084	BSI	3492291
PATIO LIFT & SLIDE	721084	BSI	3868487

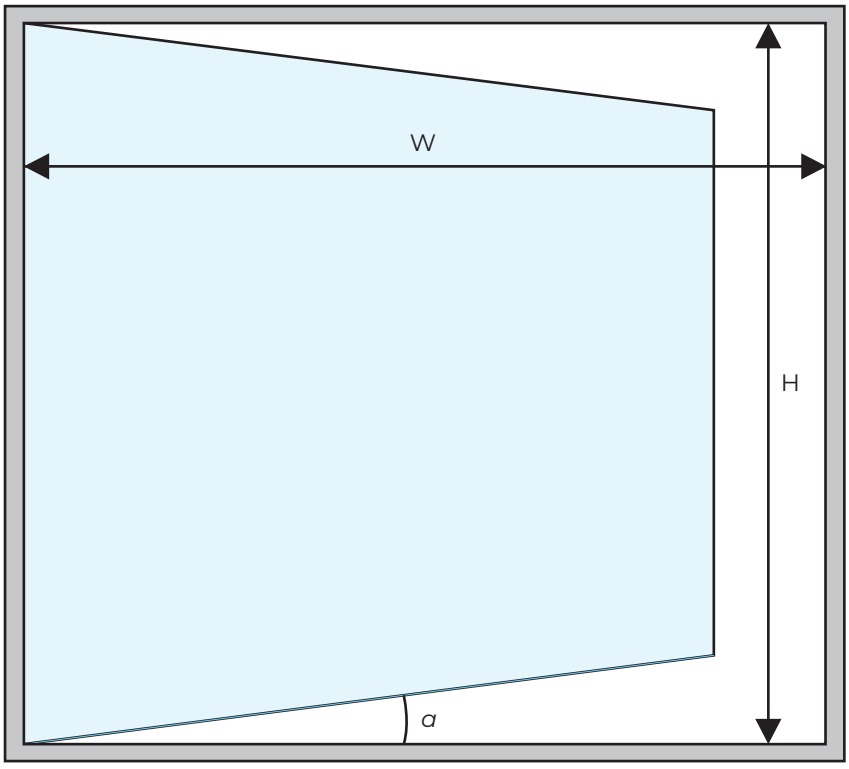
BUILDING REGULATIONS AND APPROVED DOCUMENTS (ENGLAND)

APPROVED DOCUMENT O

OVERHEATING

SHEERLINE®
ALUMINIUM WINDOWS AND DOORS

SIDE HUNG WINDOW ILLUSTRATION WITH TABLE REFERENCES



The above diagram shows the
rebate-to-rebate dimensions being used
to input in to the below tables.

TABLE D1 EQUIVALENT AREA OF A WINDOW WITH AN OPENING ANGLE OF a = 10°

OPENING HEIGHT, h (m)	OPENING WIDTH, w (m)				
	0.5	0.75	1	1.25	1.5
0.5	0.08	0.14	0.18	0.28	0.34
0.75	0.11	0.17	0.27	0.34	0.41
1	0.14	0.23	0.30	0.45	0.54
1.25	0.18	0.28	0.38	0.47	0.68
1.5	0.21	0.32	0.45	0.57	0.68
0.75	0.25	0.37	0.53	0.66	0.79
2	0.28	0.42	0.56	0.75	0.91
2.25	0.32	0.47	0.63	0.85	1.02
2.5	0.35	0.53	0.70	0.88	1.13
2.75	0.39	0.58	0.77	0.96	1.25
3	0.42	0.63	0.84	1.05	1.26

TABLE D2 EQUIVALENT AREA OF A WINDOW WITH AN OPENING ANGLE OF a = 20°

OPENING HEIGHT, h (m)	OPENING WIDTH, w (m)				
	0.5	0.75	1	1.25	1.5
0.5	0.13	0.22	0.29	0.43	0.52
0.75	0.19	0.28	0.44	0.55	0.66
1	0.24	0.38	0.50	0.73	0.88
1.25	0.29	0.47	0.63	0.79	1.10
1.5	0.35	0.53	0.76	0.94	1.13
0.75	0.41	0.62	0.88	1.10	1.32
2	0.47	0.71	0.94	1.26	1.51
2.25	0.53	0.80	1.06	1.42	1.70
2.5	0.59	0.88	1.18	1.47	1.89
2.75	0.65	0.97	1.30	1.62	2.08
3	0.71	1.06	1.42	1.77	2.12

OPENING ANGLE WILL BE DEPENDENT ON THE HARDWARE USED AND STYLE OF OPENER.

THIS WILL BE ATTAINABLE FROM THE SUPPLIER.

TABLE D3 EQUIVALENT AREA OF A WINDOW WITH AN OPENING ANGLE OF a = 30°

OPENING HEIGHT, h (m)	OPENING WIDTH, w (m)				
	0.5	0.75	1	1.25	1.5
0.5	0.16	0.27	0.36	0.52	0.62
0.75	0.24	0.36	0.54	0.68	0.81
1	0.30	0.48	0.64	0.90	1.08
1.25	0.38	0.60	0.80	1.00	1.36
1.5	0.45	0.68	0.96	1.20	1.43
0.75	0.53	0.79	1.12	1.40	1.67
2	0.60	0.90	1.21	1.59	1.91
2.25	0.68	1.02	1.36	1.79	2.15
2.5	0.75	1.13	1.51	1.88	2.39
2.75	0.83	1.24	1.66	2.07	2.63
3	0.90	1.36	1.81	2.26	2.71

TABLE D4 EQUIVALENT AREA OF A WINDOW WITH AN OPENING ANGLE OF a = 40°

OPENING HEIGHT, h (m)	OPENING WIDTH, w (m)				
	0.5	0.75	1	1.25	1.5
0.5	0.18	0.30	0.40	0.56	0.67
0.75	0.27	0.41	0.61	0.76	0.91
1	0.35	0.55	0.73	1.01	1.21
1.25	0.43	0.68	0.91	1.14	1.52
1.5	0.52	0.78	1.09	1.36	1.64
0.75	0.61	0.91	1.27	1.59	1.91
2	0.69	1.04	1.38	1.82	2.18
2.25	0.78	1.17	1.56	2.05	2.46
2.5	0.86	1.30	1.73	2.16	2.73
2.75	0.95	1.43	1.90	2.38	3.00
3	1.04	1.56	2.08	2.59	3.11

OPENING ANGLE WILL BE DEPENDENT ON THE HARDWARE USED AND STYLE OF OPENER.

THIS WILL BE ATTAINABLE FROM THE SUPPLIER.

TABLE D5 EQUIVALENT AREA OF A WINDOW WITH AN OPENING ANGLE OF a = 50°

OPENING HEIGHT, h (m)	OPENING WIDTH, w (m)				
	0.5	0.75	1	1.25	1.5
0.5	0.20	0.32	0.43	0.59	0.70
0.75	0.30	0.44	0.65	0.81	0.97
1	0.38	0.59	0.79	1.08	1.29
1.25	0.47	0.74	0.98	1.23	1.62
1.5	0.56	0.85	1.18	1.48	1.77
0.75	0.66	0.99	1.38	1.72	2.07
2	0.75	1.13	1.51	1.97	2.36
2.25	0.85	1.27	1.69	2.21	2.66
2.5	0.94	1.41	1.88	2.35	2.95
2.75	1.04	1.55	2.07	2.59	3.25
3	1.13	1.99	2.26	2.82	3.39

TABLE D6 EQUIVALENT AREA OF A WINDOW WITH AN OPENING ANGLE OF a = 60°

OPENING HEIGHT, h (m)	OPENING WIDTH, w (m)				
	0.5	0.75	1	1.25	1.5
0.5	0.21	0.34	0.45	0.60	0.72
0.75	0.31	0.47	0.67	0.84	1.01
1	0.40	0.62	0.83	1.12	1.34
1.25	0.50	0.78	1.03	1.29	1.68
1.5	0.60	0.89	1.24	1.55	1.86
0.75	0.70	1.04	1.45	1.81	2.17
2	0.79	1.19	1.59	2.07	2.48
2.25	0.89	1.34	1.79	2.33	2.79
2.5	0.99	1.49	1.99	2.48	3.10
2.75	1.09	1.64	2.19	2.73	3.41
3	1.19	1.79	2.38	2.98	3.58

OPENING ANGLE WILL BE DEPENDENT ON THE HARDWARE USED AND STYLE OF OPENER.

THIS WILL BE ATTAINABLE FROM THE SUPPLIER.

TABLE D7 EQUIVALENT AREA OF A WINDOW WITH AN OPENING ANGLE OF a = 70°

OPENING HEIGHT, h (m)	OPENING WIDTH, w (m)				
	0.5	0.75	1	1.25	1.5
0.5	0.21	0.34	0.46	0.61	0.73
0.75	0.32	0.48	0.69	0.86	1.03
1	0.41	0.64	0.85	1.15	1.37
1.25	0.51	0.80	1.07	1.33	1.72
1.5	0.62	0.93	1.28	1.60	1.92
0.75	0.72	1.08	1.49	1.87	2.24
2	0.82	1.23	1.65	2.13	2.56
2.25	0.93	1.39	1.85	2.40	2.88
2.5	1.03	1.54	2.06	2.57	3.20
2.75	1.13	1.70	2.26	2.83	3.52
3	1.23	1.85	2.47	3.09	3.70

TABLE D8 EQUIVALENT AREA OF A WINDOW WITH AN OPENING ANGLE OF a = 80°

OPENING HEIGHT, h (m)	OPENING WIDTH, w (m)				
	0.5	0.75	1	1.25	1.5
0.5	0.22	0.35	0.46	0.61	0.73
0.75	0.33	0.49	0.70	0.87	1.04
1	0.42	0.65	0.87	1.16	1.39
1.25	0.53	0.82	1.09	1.36	1.74
1.5	0.63	0.95	1.31	1.63	1.96
0.75	0.74	1.11	1.53	1.91	2.29
2	0.84	1.26	1.68	2.18	2.61
2.25	0.95	1.42	1.90	2.45	2.94
2.5	1.05	1.58	2.11	2.63	3.27
2.75	1.16	1.74	2.32	2.90	3.60
3	1.26	1.90	2.53	3.16	3.79

OPENING ANGLE WILL BE DEPENDENT ON THE HARDWARE USED AND STYLE OF OPENER.

THIS WILL BE ATTAINABLE FROM THE SUPPLIER.

TABLE D9 EQUIVALENT AREA OF A WINDOW WITH AN OPENING ANGLE OF a = 90°						
		OPENING WIDTH, w (m)				
		0.5	0.75	1	1.25	1.5
OPENING HEIGHT, h (m)	0.5	0.22	0.35	0.47	0.61	0.74
	0.75	0.33	0.50	0.70	0.88	1.05
	1	0.43	0.66	0.88	1.17	1.40
	1.25	0.53	0.83	1.10	1.38	1.76
	1.5	0.64	0.96	1.33	1.66	1.99
	0.75	0.75	1.12	1.55	1.93	2.32
	2	0.86	1.28	1.71	2.21	2.65
	2.25	0.96	1.44	1.93	2.48	2.98
	2.5	1.07	1.60	2.14	2.67	3.31
	2.75	1.18	1.76	2.35	2.94	6.64
	3	1.28	1.93	2.57	3.21	3.85

OPENING ANGLE WILL BE DEPENDENT ON THE HARDWARE USED AND STYLE OF OPENER.

THIS WILL BE ATTAINABLE FROM THE SUPPLIER.

BUILDING REGULATIONS AND APPROVED DOCUMENTS (ENGLAND)

BS EN 14351-1

ACOUSTICS

WINDOWS AND EXTERNAL PEDESTRIAN DOORSETS

SHEERLINE®
ALUMINIUM WINDOWS AND DOORS

TABLE B.1

Rw for window based on Rw for IGU

IGU Rw[a] [dB]	SINGLE WINDOWS[b]		SINGLE, SLIDING WINDOWS[c]	
	WINDOW Rw [dB]	NUMBER OF SEALS REQUIRED[d]	WINDOW Rw [dB]	NUMBER OF SEALS REQUIRED[d]
27	30	1	25	1
28	31	1	26	1
29	32	1	27	1
30	33	1	28	1
32	34	1	29	1
34	35	1	29	1
36	36	2	30	1
38	37	2	N/A	N/A
40	38	2	N/A	N/A

a Test according to EN ISO140-3 (reference method) or generic data according to EN12758 or EN12354-3.

b Fixed and openable (top/side/bottom - hung or pivoted) single windows fulfilling air permeability Class 3, see 4.14.

c Single, sliding windows fulfilling air permeability Class 2, see 4.14.

d Openable windows only.

TABLE B.2

Rw + Ctr for window based on Rw + Ctr for IGU

IGU Rw[a] [dB]	SINGLE WINDOWS[b]		SINGLE, SLIDING WINDOWS[c]	
	WINDOW Rw [dB]	NUMBER OF SEALS REQUIRED[d]	WINDOW Rw [dB]	NUMBER OF SEALS REQUIRED[d]
24	26	1	24	1
25	27	1	25	1
26	28	1	26	1
27	29	1	26	1
28	30	1	27	1
30	31	1	27	1
32	32	2	28	1
34	33	2	N/A	N/A
36	34	2	N/A	N/A

a Test according to EN ISO140-3 (reference method) or generic data according to EN12758 or EN12354-3.

b Fixed and openable (top/side/bottom - hung or pivoted) single windows fulfilling air permeability Class 3, see 4.14.

c Single, sliding windows fulfilling air permeability Class 2, see 4.14.

d Openable windows only.

B.4 TEST RESULTS AND TABULATED VALUES – RANGE OF APPLICATION

The extrapolation rules for test results and tabulated values are shown in Table B.3.

TABLE B.3

Extrapolation rules for different window sizes

WINDOW SIZE RANGE		Sound insulation value for window
Test results (see B.2) for test specimen of any size	**Tabulated values** (see B. 3)[a]	
-100% to +50% of test specimen overall area	Overall area ≤ 2,7m^2	Rw and Rw + Ctr according to B.2 or B.3
+50% to +100% of test specimen overall area	2,7m^2 < Overall area ≤ 3,6m^2	Rw and Rw + Ctr corrected by -1 dB
+100% to +150% of test specimen overall area	3,6m^2 < Overall area ≤ 4,6m^2	Rw and Rw + Ctr corrected by -2 dB
>+150% of test specimen overall area	4,6m^2 < Overall area	Rw and Rw + Ctr corrected by -3 dB

a The area intervals indicated for tabulated values are identical to the intervals for test results according to B.2 using the recommended test specimen size 1,23 m x 1,48 m.