

CUSTOMER TECHNICAL MEMO # 255

Subject: Hawkesbury I/100 wind load charts

Date: March 2016

The Hawkesbury wind load charts have now been updated to include I/100 span ratios.

This is the required limit state for **FOLDING/HINGED WINDOWS AND DOORS ONLY** which is defined in AS2047-2014.

I/250 deflection charts have still been included as a reference when higher span ratios are specified.

The updated technical manual has been updated and is available on the Alspec website.

Regards,
Product Development

ALSPEC ALUMINIUM SYSTEMS

TECHNICAL MANUAL

HAWKESBURY

Section 2.2

LOADING TABLES

The following pages contain span tables that may be used as a guide to the suitability of ALSPEC ALUMINIUM SYSTEMS framing for various wind loads and frame sizes.

The classification of a building is determined by the purpose for which it is designed, constructed or adapted for use. The determination of the buildings end use is essential in calculating a windows rating and performance capabilities.

AS2047-2014 stipulates the deflection/span ratio of 1/100 for folding windows and doors in buildings. 1/250 deflection charts have been included as reference when higher span ratios are specified.

In most situations the Design Wind Pressure for a particular building should be available from the building designer or engineer.

For a window/door frame which is 2400mm high and 1000mm wide, refer to the table below;

Step 1: Locate the height

Step 2: Locate the width

Step 3: Determine the Maximum Serviceability load (S) and maximum Ultimate load (U) based on the height and width.

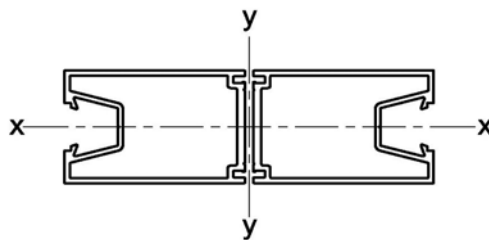
L/250

Panel Height		Maximum Design Pressure (Pa)				
2850	S	1040	840	720	630	570
	U	2410	1960	1660	1460	1310
2700	S	1230	1000	850	750	680
	U	2700	2190	1870	1640	1480
2550	S	1460	1200	1020	910	830
	U	3040	2470	2110	1860	1690
2400	S	1770	1450	1250	1100	1010
	U	3440	2810	2410	2110	1940
2250	S	2160	1780	1530	1370	1270
	U	3940	3230	2780	2470	2270
2100	S	2670	2210	1920	1730	1610
	U	4550	3750	3240	2900	2680
Mullion Centres		800	1000	1200	1400	1600

Diagram illustrating the steps to find the Maximum Design Pressure (Pa) for a window/door frame with a height of 2400mm and a width of 1000mm:

- STEP 1: Locate the height (2400mm) in the Panel Height column.
- STEP 2: Locate the width (1000mm) in the Mullion Centres row.
- STEP 3: Determine the Maximum Serviceability load (S) and maximum Ultimate load (U) based on the height and width. For 2400mm height and 1000mm width, the S load is 1450 Pa and the U load is 2810 Pa.

MF14 DOOR STILE



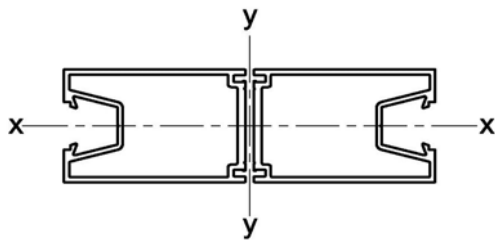
MF14 BIFOLD STILE
$I_{xx} = 334 \times 10^3 \text{ mm}^4$
Max Stress = 110 Mpa
S = Serviceability limit state I/100
U = Ultimate limit state

L/100

Panel Height	Maximum Design Pressure (Pa)									
	S	U	S	U	S	U	S	U	S	U
3000	S	1110	1020	950	890	840	790	750	710	680
	U	2450	2260	2110	1970	1850	1750	1660	1580	1500
2900	S	1230	1130	1060	990	930	880	830	790	760
	U	2620	2430	2260	2110	1990	1880	1780	1690	1610
2800	S	1360	1260	1180	1100	1040	980	930	880	840
	U	2820	2610	2430	2270	2140	2020	1910	1820	1740
2700	S	1520	1410	1310	1230	1160	1100	1040	990	950
	U	3030	2810	2610	2450	2300	2180	2060	1960	1870
2600	S	1710	1580	1480	1380	1300	1230	1170	1110	1060
	U	3270	3030	2820	2650	2490	2350	2230	2120	2030
2500	S	1930	1790	1670	1560	1470	1390	1320	1260	1200
	U	3550	3280	3060	2870	2700	2550	2420	2310	2200
2400	S	2180	2020	1890	1770	1670	1580	1500	1430	1370
	U	3860	3570	3330	3120	2940	2780	2640	2510	2400
2300	S	2490	2310	2150	2020	1900	1800	1720	1640	1570
	U	4210	3900	3640	3410	3210	3040	2890	2750	2630
2200	S	2850	2640	2470	2320	2190	2070	1970	1880	1800
	U	4610	4270	3990	3740	3520	3340	3170	3020	2890
2100	S	3000	3000	2850	2680	2530	2400	2280	2180	2090
	U	5070	4700	4390	4120	3890	3680	3500	3340	3200
Panel Widths		600	650	700	750	800	850	900	950	1000

This table is based on theoretical section properties

MF14 DOOR STILE



MF14 BIFOLD STILE

$I_{xx} = 334 \times 10^3 \text{ mm}^4$

Max Stress = 110 Mpa

S = Serviceability limit state I/250

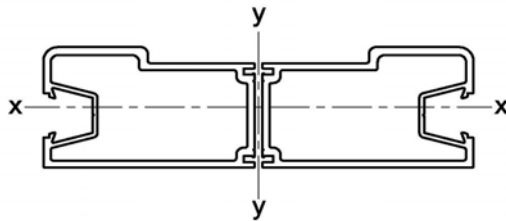
U = Ultimate limit state

L/250

Panel Height		Maximum Design Pressure (Pa)								
3000	S									
	U									
2900	S									
	U									
2800	S	540								
	U	2820								
2700	S	610	560	520						
	U	3030	2810	2610						
2600	S	680	630	590	550	520				
	U	3270	3030	2820	2650	2490				
2500	S	770	710	660	620	590	550	530		
	U	3550	3280	3060	2870	2700	2550	2420		
2400	S	870	810	750	710	660	630	600	570	540
	U	3860	3570	3330	3120	2940	2780	2640	2510	2400
2300	S	990	920	860	800	760	720	680	650	620
	U	4210	3900	3640	3410	3210	3040	2890	2750	2630
2200	S	1140	1050	980	920	870	830	790	750	720
	U	4610	4270	3990	3740	3520	3340	3170	3020	2890
2100	S	1310	1220	1140	1070	1010	960	910	870	830
	U	5070	4700	4390	4120	3890	3680	3500	3340	3200
Panel Widths		600	650	700	750	800	850	900	950	1000

This table is based on theoretical section properties

MF27 HEAVY DUTY DOOR STILE



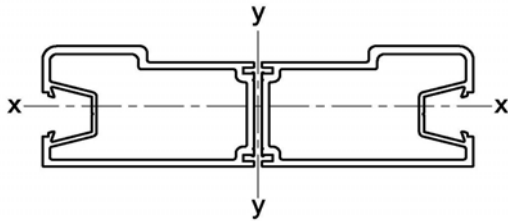
MF27 HD BIFOLD STILE
$I_{xx} = 682 \times 10^3 \text{ mm}^4$
Max Stress = 110 Mpa
S = Serviceability limit state I/100
U = Ultimate limit state

L/100

Panel Height	Maximum Design Pressure (Pa)									
3000	S	2260	2090	1950	1830	1720	1620	1540	1460	1400
	U	4170	3860	3590	3360	3160	2980	2820	2680	2560
2900	S	2510	2320	2160	2020	1900	1800	1710	1620	1550
	U	4460	4130	3850	3600	3380	3200	3030	2880	2750
2800	S	2790	2580	2410	2250	2120	2010	1900	1810	1730
	U	4790	4440	4130	3870	3640	3440	3260	3100	2960
2700	S	3000	2890	2690	2520	2370	2240	2130	2030	1940
	U	5160	4780	4450	4170	3920	3700	3510	3340	3190
2600	S	3000	3000	3000	2830	2670	2520	2390	2280	2180
	U	5570	5160	4810	4500	4240	4010	3800	3620	3450
2500	S	3000	3000	3000	3000	3000	2850	2700	2580	2460
	U	6040	5590	5210	4880	4600	4350	4130	3930	3750
2400	S	3000	3000	3000	3000	3000	3000	3000	2930	2800
	U	6560	6080	5670	5310	5000	4730	4490	4280	4090
2300	S	3000	3000	3000	3000	3000	3000	3000	3000	3000
	U	7160	6640	6190	5800	5470	5170	4910	4680	4480
2200	S	3000	3000	3000	3000	3000	3000	3000	3000	3000
	U	7840	7270	6780	6370	6000	5680	5400	5150	4930
2100	S	3000	3000	3000	3000	3000	3000	3000	3000	3000
	U	8630	8010	7470	7010	6620	6270	5960	5690	5450
Panel Widths		600	650	700	750	800	850	900	950	1000

This table is based on theoretical section properties

MF27 HEAVY DUTY DOOR STILE



MF27 HD BIFOLD STILE

$I_{xx} = 682 \times 10^3 \text{ mm}^4$

Max Stress = 110 Mpa

S = Serviceability limit state I/250

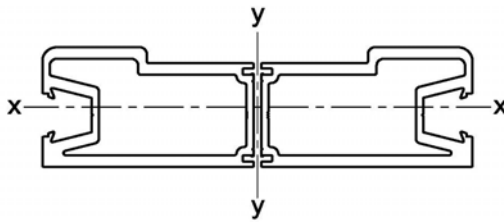
U = Ultimate limit state

L/250

Panel Height		Maximum Design Pressure (Pa)								
3000	S	900	830	780	730	680	650	610	580	560
	U	4170	3860	3590	3360	3160	2980	2820	2680	2560
2900	S	1000	930	860	810	760	720	680	650	620
	U	4460	4130	3850	3600	3380	3200	3030	2880	2750
2800	S	1110	1030	960	900	850	800	760	720	690
	U	4790	4440	4130	3870	3640	3440	3260	3100	2960
2700	S	1240	1150	1070	1010	950	890	850	810	770
	U	5160	4780	4450	4170	3920	3700	3510	3340	3190
2600	S	1400	1290	1200	1130	1060	1010	950	910	870
	U	5570	5160	4810	4500	4240	4010	3800	3620	3450
2500	S	1570	1460	1360	1270	1200	1140	1080	1030	980
	U	6040	5590	5210	4880	4600	4350	4130	3930	3750
2400	S	1780	1650	1540	1450	1360	1290	1230	1170	1120
	U	6560	6080	5670	5310	5000	4730	4490	4280	4090
2300	S	2030	1880	1760	1650	1550	1470	1400	1340	1280
	U	7160	6640	6190	5800	5470	5170	4910	4680	4480
2200	S	2330	2160	2020	1890	1790	1690	1610	1540	1470
	U	7840	7270	6780	6370	6000	5680	5400	5150	4930
2100	S	2680	2490	2330	2190	2060	1960	1860	1780	1710
	U	8630	8010	7470	7010	6620	6270	5960	5690	5450
Panel Widths		600	650	700	750	800	850	900	950	1000

This table is based on theoretical section properties

MF227 EXTRA HEAVY DUTY DOOR STILE



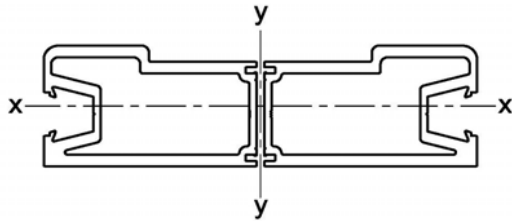
MF227 XHD BIFOLD STILE
$I_{xx} = 956 \times 10^3 \text{ mm}^4$
Max Stress = 110 Mpa
S = Serviceability limit state I/100
U = Ultimate limit state

L/100

Panel Height	Maximum Design Pressure (Pa)									
		600	650	700	750	800	850	900	950	1000
3000	S	3000	2940	2730	2560	2410	2280	2160	2050	1960
	U	5740	5310	4940	4620	4350	4100	3890	3700	3520
2900	S	3000	3000	3000	2840	2670	2520	2390	2280	2170
	U	6150	5690	5290	4960	4660	4400	4170	3970	3780
2800	S	3000	3000	3000	3000	2980	2810	2670	2540	2430
	U	6600	6110	5690	5330	5010	4730	4490	4270	4070
2700	S	3000	3000	3000	3000	3000	3000	2990	2840	2720
	U	7110	6580	6130	5740	5400	5100	4840	4600	4390
2600	S	3000	3000	3000	3000	3000	3000	3000	3000	3000
	U	7670	7110	6620	6200	5840	5520	5230	4980	4760
2500	S	3000	3000	3000	3000	3000	3000	3000	3000	3000
	U	8310	7700	7180	6720	6330	5980	5680	5410	5170
2400	S	3000	3000	3000	3000	3000	3000	3000	3000	3000
	U	9000	8370	7800	7310	6890	6520	6190	5890	5630
2300	S	3000	3000	3000	3000	3000	3000	3000	3000	3000
	U	9000	9000	8520	7990	7530	7120	6770	6450	6170
2200	S	3000	3000	3000	3000	3000	3000	3000	3000	3000
	U	9000	9000	9000	8760	8260	7820	7430	7090	6780
2100	S	3000	3000	3000	3000	3000	3000	3000	3000	3000
	U	9000	9000	9000	9000	9000	8630	8210	7830	7500
Panel Widths		600	650	700	750	800	850	900	950	1000

This table is based on theoretical section properties

MF227 EXTRA HEAVY DUTY DOOR STILE



MF227 XHD BIFOLD STILE

$I_{xx} = 956 \times 10^3 \text{ mm}^4$

Max Stress = 110 Mpa

S = Serviceability limit state I/250

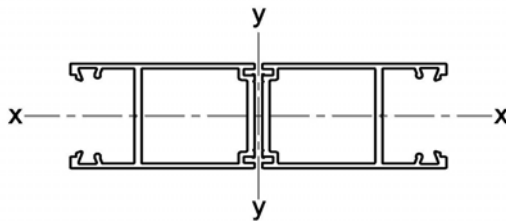
U = Ultimate limit state

L/250

Panel Height		Maximum Design Pressure (Pa)								
3000	S	1270	1170	1090	1020	960	910	860	820	780
	U	5740	5310	4940	4620	4350	4100	3890	3700	3520
2900	S	1400	1300	1210	1130	1070	1010	950	910	870
	U	6150	5690	5290	4960	4660	4400	4170	3970	3780
2800	S	1560	1450	1350	1260	1190	1120	1060	1010	970
	U	6600	6110	5690	5330	5010	4730	4490	4270	4070
2700	S	1750	1620	1510	1410	1330	1260	1190	1130	1080
	U	7110	6580	6130	5740	5400	5100	4840	4600	4390
2600	S	1960	1810	1690	1580	1490	1410	1340	1280	1220
	U	7670	7110	6620	6200	5840	5520	5230	4980	4760
2500	S	2210	2050	1910	1790	1680	1590	1510	1440	1380
	U	8310	7700	7180	6720	6330	5980	5680	5410	5170
2400	S	2500	2320	2160	2030	1910	1810	1720	1640	1570
	U	9000	8370	7800	7310	6890	6520	6190	5890	5630
2300	S	2850	2640	2460	2310	2180	2070	1960	1870	1790
	U	9000	9000	8520	7990	7530	7120	6770	6450	6170
2200	S	3000	3000	2830	2650	2500	2370	2260	2160	2070
	U	9000	9000	9000	8760	8260	7820	7430	7090	6780
2100	S	3000	3000	3000	3000	2900	2750	2620	2500	2400
	U	9000	9000	9000	9000	9000	8630	8210	7830	7500
Panel Widths		600	650	700	750	800	850	900	950	1000

This table is based on theoretical section properties

MF70 DOUBLE GLAZED DOOR STILE



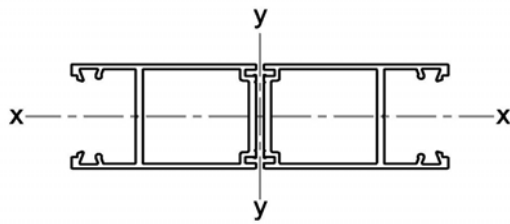
MF70 DG BIFOLD STILE
$I_{xx} = 382 \times 10^3 \text{ mm}^4$
Max Stress = 110 Mpa
S = Serviceability limit state I/100
U = Ultimate limit state

L/100

Panel Height	Maximum Design Pressure (Pa)									
	S	U	S	U	S	U	S	U	S	U
3000	S	1260	1170	1090	1020	960	910	860	820	780
	U	2800	2590	2410	2260	2120	2000	1900	1800	1720
2900	S	1400	1300	1210	1130	1060	1010	950	910	870
	U	3000	2770	2580	2420	2270	2150	2030	1930	1840
2800	S	1560	1440	1350	1260	1190	1120	1060	1010	970
	U	3220	2980	2780	2600	2440	2310	2190	2080	1990
2700	S	1740	1610	1500	1410	1330	1250	1190	1130	1080
	U	3470	3210	2990	2800	2630	2490	2360	2250	2140
2600	S	1960	1810	1690	1580	1490	1410	1340	1270	1220
	U	3750	3470	3230	3030	2850	2690	2550	2430	2320
2500	S	2200	2040	1910	1790	1680	1590	1510	1440	1380
	U	4060	3760	3500	3280	3090	2920	2770	2640	2520
2400	S	2500	2320	2160	2030	1910	1810	1720	1640	1570
	U	4410	4090	3810	3570	3360	3180	3020	2880	2750
2300	S	2840	2640	2460	2310	2180	2060	1960	1870	1790
	U	4810	4460	4160	3900	3670	3480	3300	3150	3010
2200	S	3000	3000	2820	2650	2500	2370	2260	2150	2060
	U	5270	4890	4560	4280	4030	3820	3630	3460	3310
2100	S	3000	3000	3000	3000	2890	2740	2610	2500	2390
	U	5800	5380	5020	4710	4450	4210	4000	3820	3660
Panel Widths		600	650	700	750	800	850	900	950	1000

This table is based on theoretical section properties

MF70 DOUBLE GLAZED DOOR STILE



MF70 DG BIFOLD STILE

$I_{xx} = 382 \times 10^3 \text{ mm}^4$

Max Stress = 110 Mpa

S = Serviceability limit state 1/250

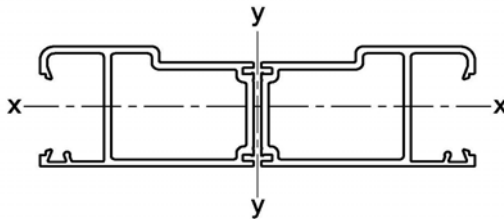
U = Ultimate limit state

L/250

Panel Height		Maximum Design Pressure (Pa)								
3000	S									
	U									
2900	S	560	520							
	U	3000	2770							
2800	S	620	570	540						
	U	3220	2980	2780						
2700	S	690	640	600	560	530				
	U	3470	3210	2990	2800	2630				
2600	S	780	720	670	630	590	560	530	510	
	U	3750	3470	3230	3030	2850	2690	2550	2430	
2500	S	880	810	760	710	670	630	600	570	550
	U	4060	3760	3500	3280	3090	2920	2770	2640	2520
2400	S	1000	920	860	810	760	720	680	650	620
	U	4410	4090	3810	3570	3360	3180	3020	2880	2750
2300	S	1130	1050	980	920	870	820	780	750	710
	U	4810	4460	4160	3900	3670	3480	3300	3150	3010
2200	S	1300	1210	1130	1060	1000	950	900	860	820
	U	5270	4890	4560	4280	4030	3820	3630	3460	3310
2100	S	1500	1390	1300	1220	1150	1090	1040	1000	950
	U	5800	5380	5020	4710	4450	4210	4000	3820	3660
Panel Widths		600	650	700	750	800	850	900	950	1000

This table is based on theoretical section properties

MF73 HEAVY DUTY DOOR STILE



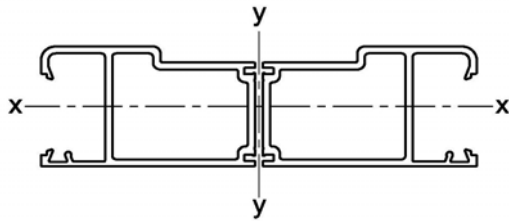
MF73 HD DG BIFOLD STILE
$I_{xx} = 668 \times 10^3 \text{ mm}^4$
Max Stress = 110 Mpa
S = Serviceability limit state I/100
U = Ultimate limit state

L/100

Panel Height	Maximum Design Pressure (Pa)									
3000	S	2220	2050	1910	1790	1680	1590	1510	1430	1370
	U	4160	3850	3580	3350	3150	2970	2820	2680	2550
2900	S	2460	2270	2120	1980	1870	1760	1670	1590	1520
	U	4450	4120	3840	3590	3380	3190	3020	2870	2740
2800	S	2730	2530	2360	2210	2080	1960	1860	1770	1690
	U	4780	4430	4120	3860	3630	3430	3250	3090	2950
2700	S	3000	2830	2630	2470	2320	2200	2090	1990	1900
	U	5150	4770	4440	4160	3910	3700	3510	3340	3180
2600	S	3000	3000	2960	2770	2610	2470	2340	2230	2130
	U	5560	5150	4800	4500	4230	4000	3790	3610	3450
2500	S	3000	3000	3000	3000	2950	2790	2650	2520	2410
	U	6030	5580	5200	4870	4590	4340	4120	3920	3740
2400	S	3000	3000	3000	3000	3000	3000	3000	2870	2740
	U	6550	6070	5660	5300	4990	4720	4480	4270	4080
2300	S	3000	3000	3000	3000	3000	3000	3000	3000	3000
	U	7150	6620	6180	5790	5460	5160	4900	4680	4470
2200	S	3000	3000	3000	3000	3000	3000	3000	3000	3000
	U	7830	7260	6770	6350	5990	5670	5390	5140	4920
2100	S	3000	3000	3000	3000	3000	3000	3000	3000	3000
	U	8610	7990	7460	7000	6600	6250	5950	5680	5440
Panel Widths		600	650	700	750	800	850	900	950	1000

This table is based on theoretical section properties

MF73 HEAVY DUTY DOOR STILE



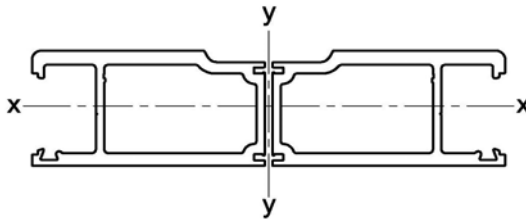
MF73 HD DG BIFOLD STILE
$I_{xx} = 668 \times 10^3 \text{ mm}^4$
Max Stress = 110 Mpa
S = Serviceability limit state 1/250
U = Ultimate limit state

L/250

Panel Height	Maximum Design Pressure (Pa)									
	S	U	S	U	S	U	S	U	S	U
3000	S	880	820	760	710	670	630	600	570	540
	U	4160	3850	3580	3350	3150	2970	2820	2680	2550
2900	S	980	910	840	790	740	700	670	630	600
	U	4450	4120	3840	3590	3380	3190	3020	2870	2740
2800	S	1090	1010	940	880	830	780	740	710	670
	U	4780	4430	4120	3860	3630	3430	3250	3090	2950
2700	S	1220	1130	1050	980	930	880	830	790	760
	U	5150	4770	4440	4160	3910	3700	3510	3340	3180
2600	S	1370	1270	1180	1110	1040	980	930	890	850
	U	5560	5150	4800	4500	4230	4000	3790	3610	3450
2500	S	1540	1430	1330	1250	1180	1110	1060	1010	960
	U	6030	5580	5200	4870	4590	4340	4120	3920	3740
2400	S	1750	1620	1510	1420	1330	1260	1200	1140	1090
	U	6550	6070	5660	5300	4990	4720	4480	4270	4080
2300	S	1990	1840	1720	1610	1520	1440	1370	1310	1250
	U	7150	6620	6180	5790	5460	5160	4900	4680	4470
2200	S	2280	2110	1970	1850	1750	1660	1580	1510	1440
	U	7830	7260	6770	6350	5990	5670	5390	5140	4920
2100	S	2630	2440	2280	2140	2020	1920	1830	1740	1670
	U	8610	7990	7460	7000	6600	6250	5950	5680	5440
Panel Widths		600	650	700	750	800	850	900	950	1000

This table is based on theoretical section properties

MF77 HEAVY DUTY DOOR STILE



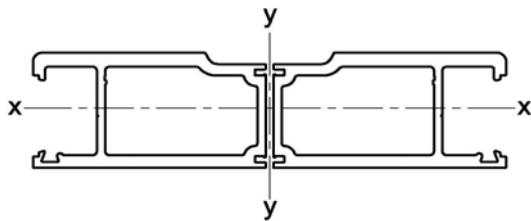
MF77 XHD DG BIFOLD STILE
$I_{xx} = 1078 \times 10^3 \text{ mm}^4$
Max Stress = 110 Mpa
S = Serviceability limit state I/100
U = Ultimate limit state

L/100

Panel Height	Maximum Design Pressure (Pa)									
	S	U	S	U	S	U	S	U	S	U
3000	S	3000	3000	3000	2890	2720	2570	2430	2310	2210
	U	6990	6470	6020	5630	5300	5000	4740	4510	4300
2900	S	3000	3000	3000	3000	3000	2850	2700	2570	2450
	U	7490	6930	6450	6040	5680	5360	5080	4830	4610
2800	S	3000	3000	3000	3000	3000	3000	3000	2860	2740
	U	8040	7440	6930	6490	6100	5770	5470	5200	4960
2700	S	3000	3000	3000	3000	3000	3000	3000	3000	3000
	U	8660	8020	7470	6990	6580	6220	5890	5610	5350
2600	S	3000	3000	3000	3000	3000	3000	3000	3000	3000
	U	9000	8660	8070	7560	7110	6720	6380	6070	5790
2500	S	3000	3000	3000	3000	3000	3000	3000	3000	3000
	U	9000	9000	8740	8190	7710	7290	6920	6590	6290
2400	S	3000	3000	3000	3000	3000	3000	3000	3000	3000
	U	9000	9000	9000	8910	8400	7940	7540	7180	6860
2300	S	3000	3000	3000	3000	3000	3000	3000	3000	3000
	U	9000	9000	9000	9000	9000	8680	8250	7860	7520
2200	S	3000	3000	3000	3000	3000	3000	3000	3000	3000
	U	9000	9000	9000	9000	9000	9000	9000	8640	8270
2100	S	3000	3000	3000	3000	3000	3000	3000	3000	3000
	U	9000	9000	9000	9000	9000	9000	9000	9000	9000
Panel Widths		600	650	700	750	800	850	900	950	1000

This table is based on theoretical section properties

MF77 HEAVY DUTY DOOR STILE



MF77 XHD DG BIFOLD STILE

$I_{xx} = 1078 \times 10^3 \text{ mm}^4$

Max Stress = 110 Mpa

S = Serviceability limit state I/250

U = Ultimate limit state

L/250

Panel Height		Maximum Design Pressure (Pa)								
3000	S	1430	1320	1230	1150	1080	1020	970	920	880
	U	6990	6470	6020	5630	5300	5000	4740	4510	4300
2900	S	1580	1470	1370	1280	1200	1140	1080	1020	980
	U	7490	6930	6450	6040	5680	5360	5080	4830	4610
2800	S	1760	1630	1520	1420	1340	1270	1200	1140	1090
	U	8040	7440	6930	6490	6100	5770	5470	5200	4960
2700	S	1970	1820	1700	1590	1500	1420	1340	1280	1220
	U	8660	8020	7470	6990	6580	6220	5890	5610	5350
2600	S	2210	2050	1910	1790	1680	1590	1510	1440	1380
	U	9000	8660	8070	7560	7110	6720	6380	6070	5790
2500	S	2490	2310	2150	2020	1900	1800	1710	1630	1560
	U	9000	9000	8740	8190	7710	7290	6920	6590	6290
2400	S	2820	2610	2440	2290	2160	2040	1940	1850	1770
	U	9000	9000	9000	8910	8400	7940	7540	7180	6860
2300	S	3000	2980	2780	2610	2460	2330	2220	2110	2020
	U	9000	9000	9000	9000	9000	8680	8250	7860	7520
2200	S	3000	3000	3000	2990	2830	2680	2550	2430	2330
	U	9000	9000	9000	9000	9000	9000	9000	8640	8270
2100	S	3000	3000	3000	3000	3000	3000	2950	2820	2700
	U	9000	9000	9000	9000	9000	9000	9000	9000	9000
Panel Widths		600	650	700	750	800	850	900	950	1000

This table is based on theoretical section properties