



**ALBENestra**<sup>®</sup>



# Performance Casement Window **SCW02**

Designed and tested according to MS832



**LB  
ALUMINIUM  
BERHAD**  
198501006093 (138535-V)

## Product

ALBENestra SCW02

## Typical Technical Features

|                        |                                      |
|------------------------|--------------------------------------|
| Nominal Wall Thickness | : 1.30mm - 1.35mm                    |
| Standard Frame Depth   | : 40.00mm                            |
| Mullion Depth          | : 40.00mm & 80.00mm                  |
| Glazing Gap            | : 12.00mm - 19.00mm                  |
| Locking System         | : Single-point & Multipoint          |
| Surface Finish         | : Overlap                            |
| Hinges                 | : Friction Stay                      |
| Corner Joints          | : Mitre Joints With Brackets (Inner) |



## Performance Test

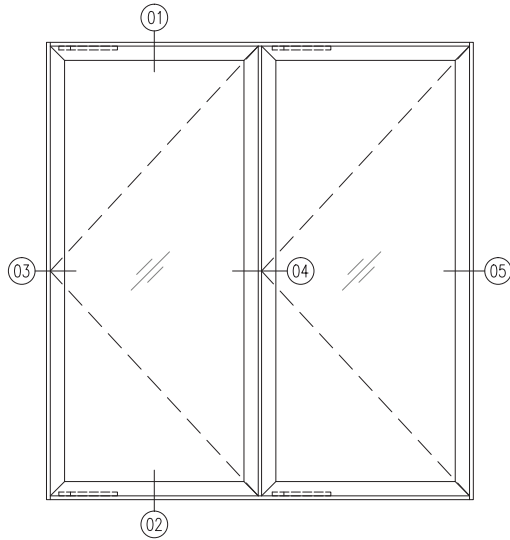
This casement window suite had been tested in compliance to MS 832:2022 performance test procedure for:

1. 1500Pa windload : Passed
2. 300Pa air leakage : Passed
3. 450Pa water infiltration : Passed

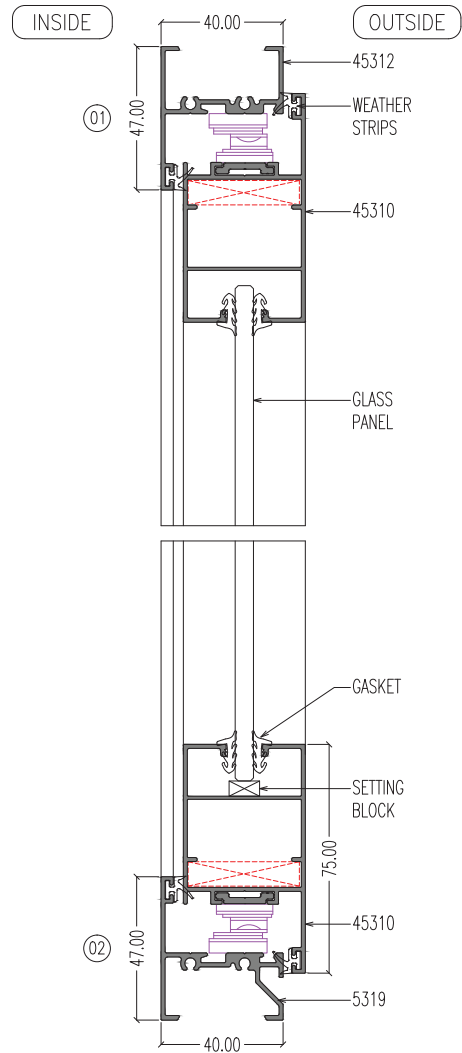
*Note: Test report available upon request.*



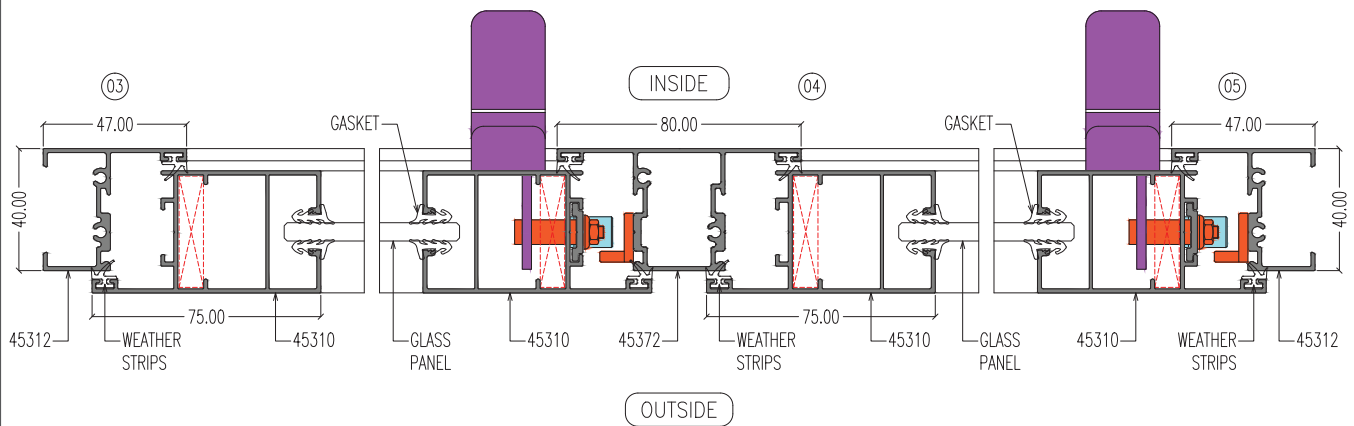
### Typical Assembly Details



**ELEVATION**

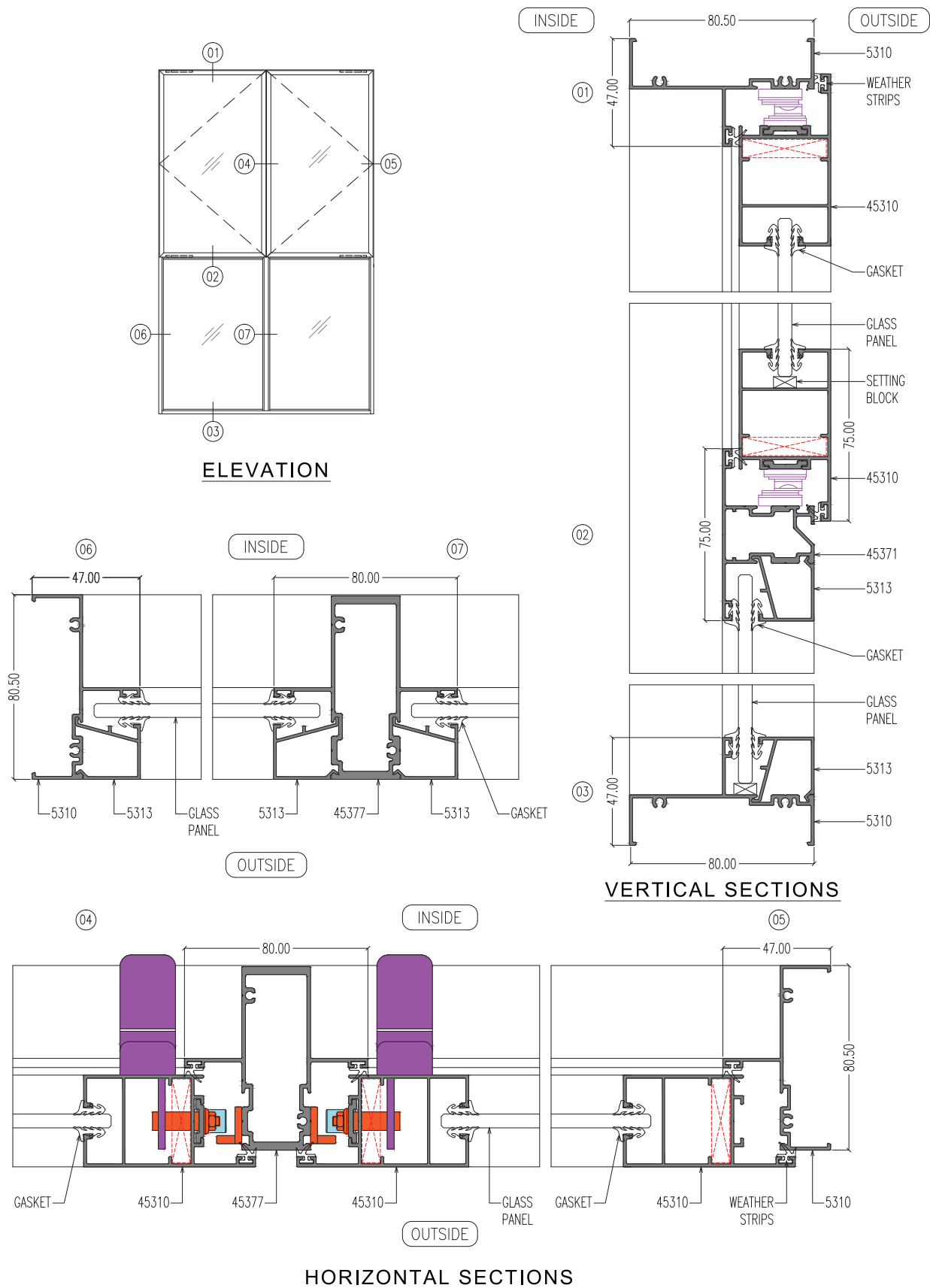


**VERTICAL SECTIONS**

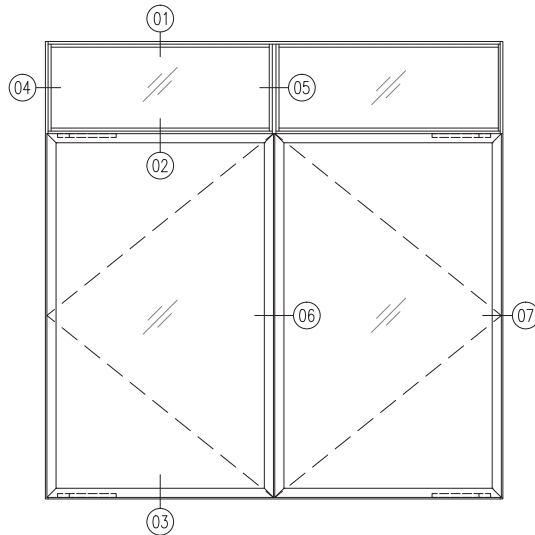


**HORIZONTAL SECTIONS**

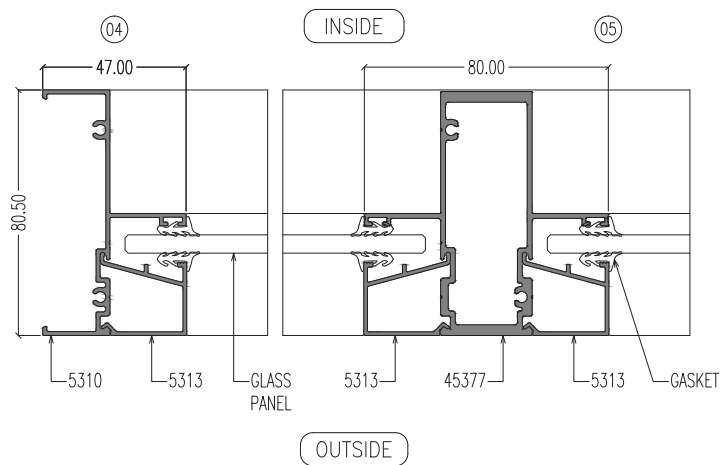
### Typical Assembly Details



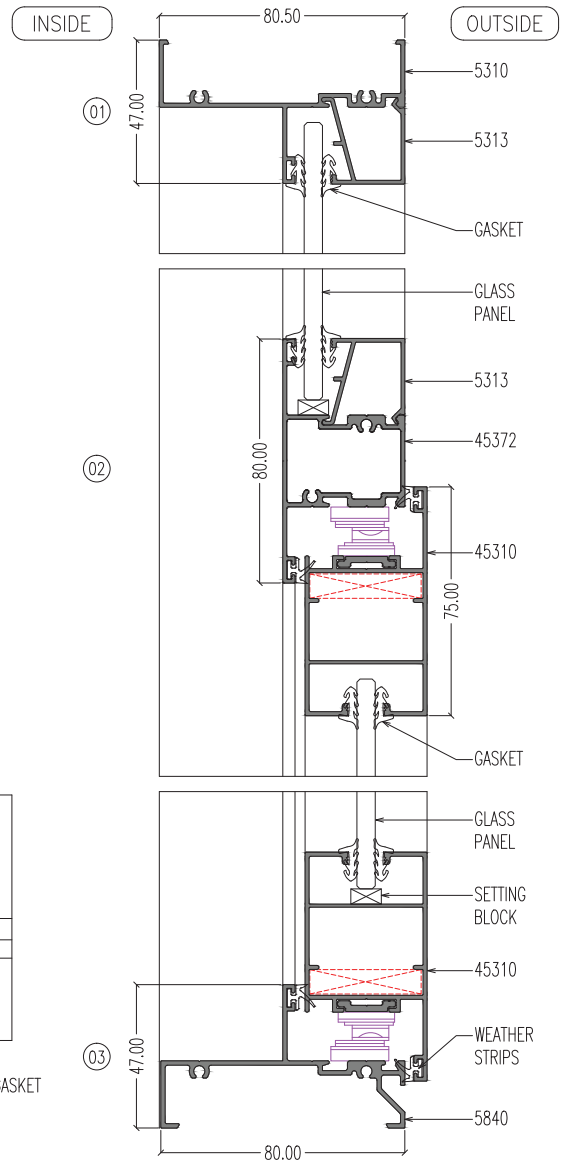
### Typical Assembly Details



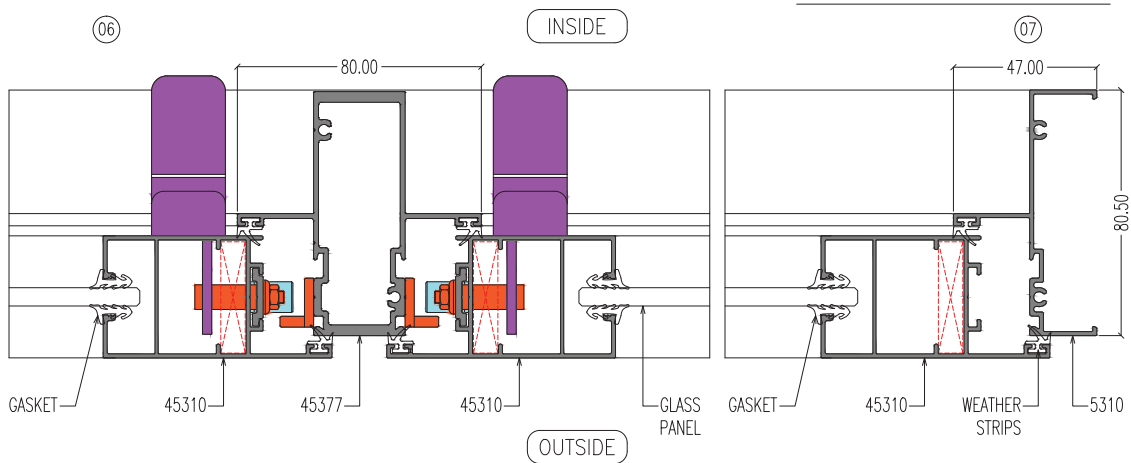
**ELEVATION**



**OUTSIDE**



**VERTICAL SECTIONS**

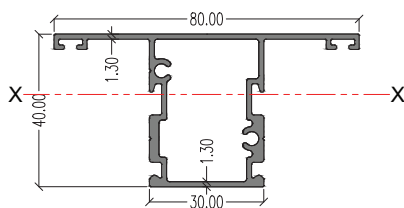


**HORIZONTAL SECTIONS**

## Wind Load Chart

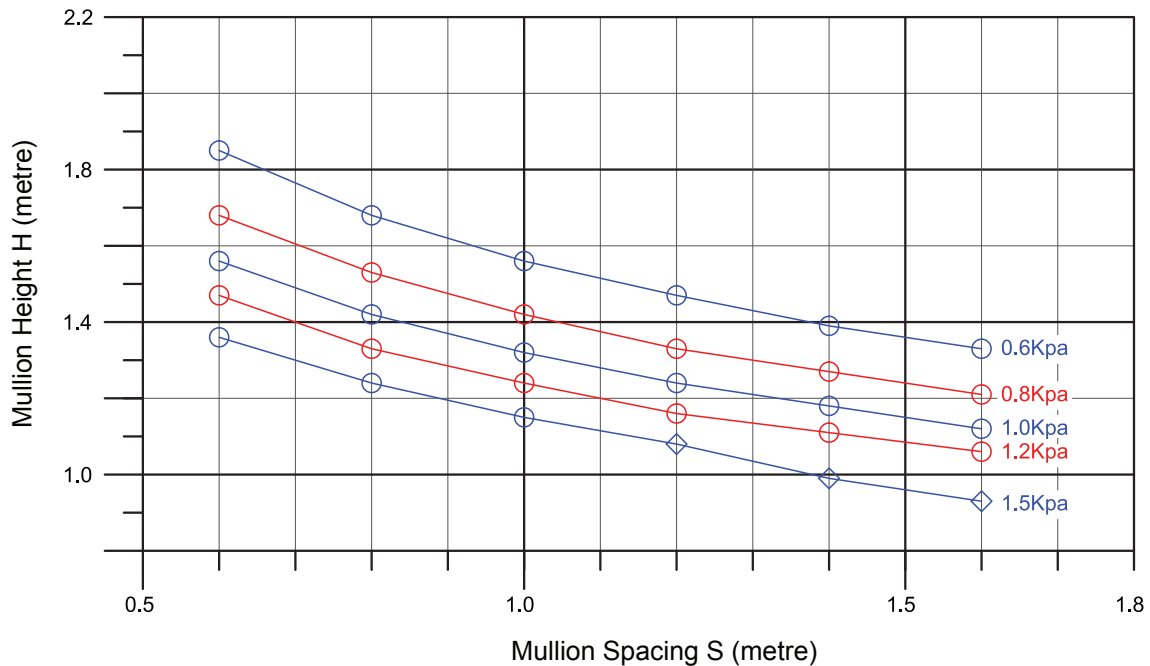
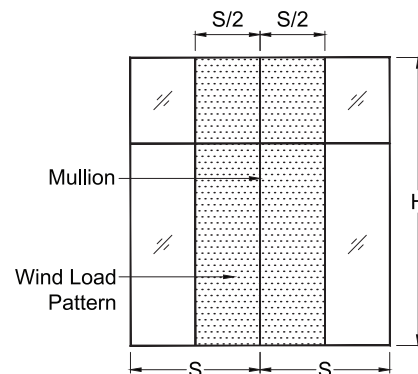
MULLION SECTION : 45372  
 Alum. alloy : 6063-T5  
 Moment of inertia  $I_{xx}$  :  $7.4 \text{ cm}^4$   
 Mod. of section  $Z_{xx}$  :  $3.1 \text{ cm}^3$

Mod. of elasticity :  $70 \times 10^9 \text{ N/m}^2$   
 Design bend. stress :  $1.25 \times 67^6 \text{ N/m}^2$   
 Deflection limit :  $S_{pan}/175$ , up to max. 20mm  
 Nature of anchor : Simply supported at both ends



Note:  
 Suffix xx denotes axis perpendicular to wind load

Typical configuration of window:



Note:

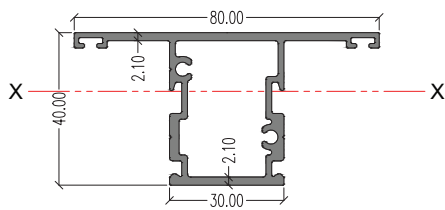
- Deflection limit governs
- ◇ Design bending stress governs

:- Buckling has not been taken into account in this chart

:- This windload chart is solely for reference only

## Wind Load Chart

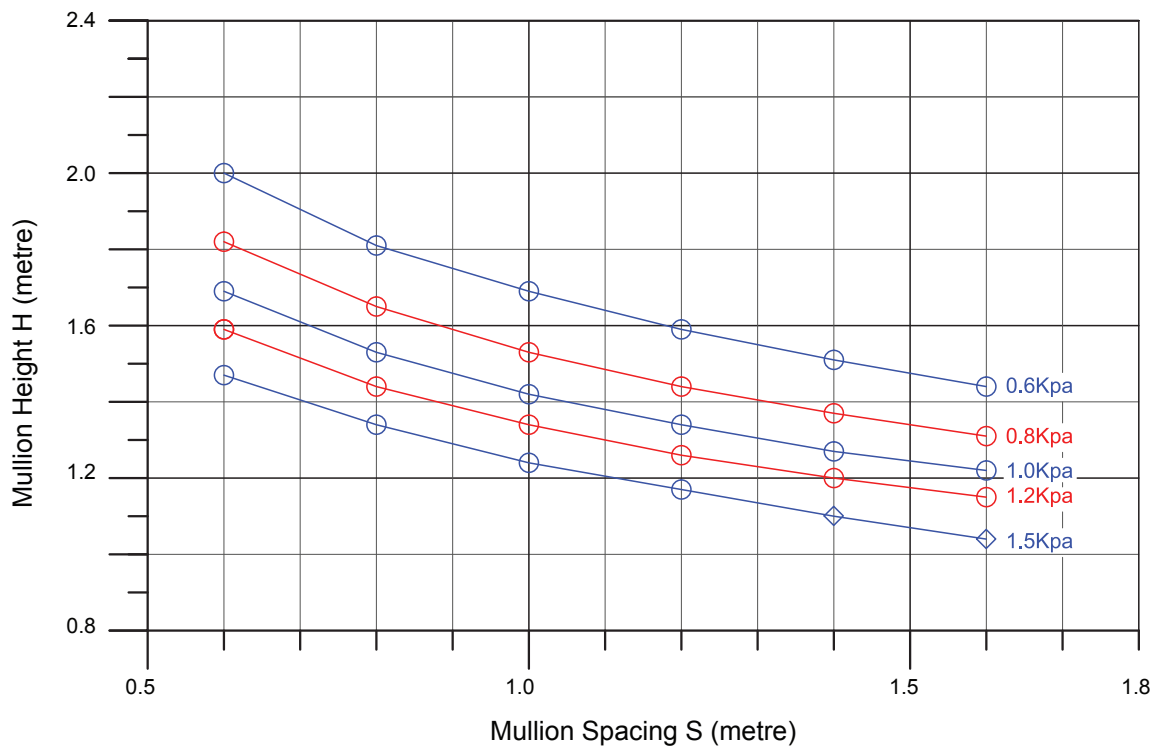
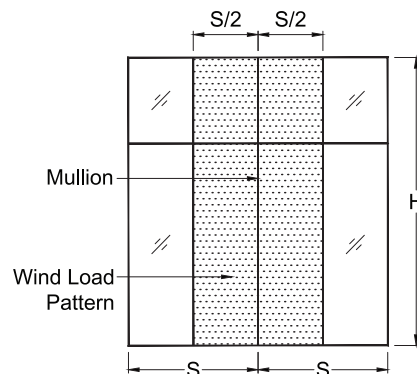
MULLION SECTION : 45376  
 Alum. alloy : 6063-T5  
 Moment of inertia  $I_{xx}$  : 9.4 cm<sup>4</sup>  
 Mod. of section  $Z_{xx}$  : 3.8 cm<sup>3</sup>



Note:  
 Suffix xx denotes axis perpendicular to wind load

Mod. of elasticity : 70 x 10<sup>9</sup> N/m<sup>2</sup>  
 Design bend. stress : 1.25 x 67<sup>6</sup> N/m<sup>2</sup>  
 Deflection limit :  $S_{pan}/175$ , up to max. 20mm  
 Nature of anchor : Simply supported at both ends

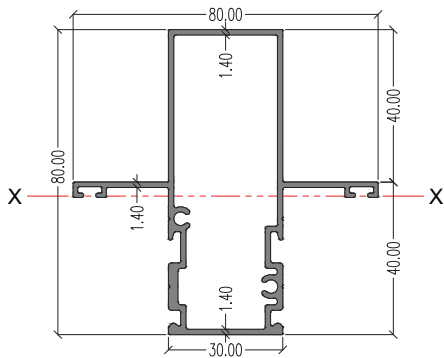
Typical configuration of window:



Note:  
 ○ Deflection limit governs , ◇ Design bending stress governs  
 :- Buckling has not been taken into account in this chart  
 :- This windload chart is solely for reference only

## Wind Load Chart

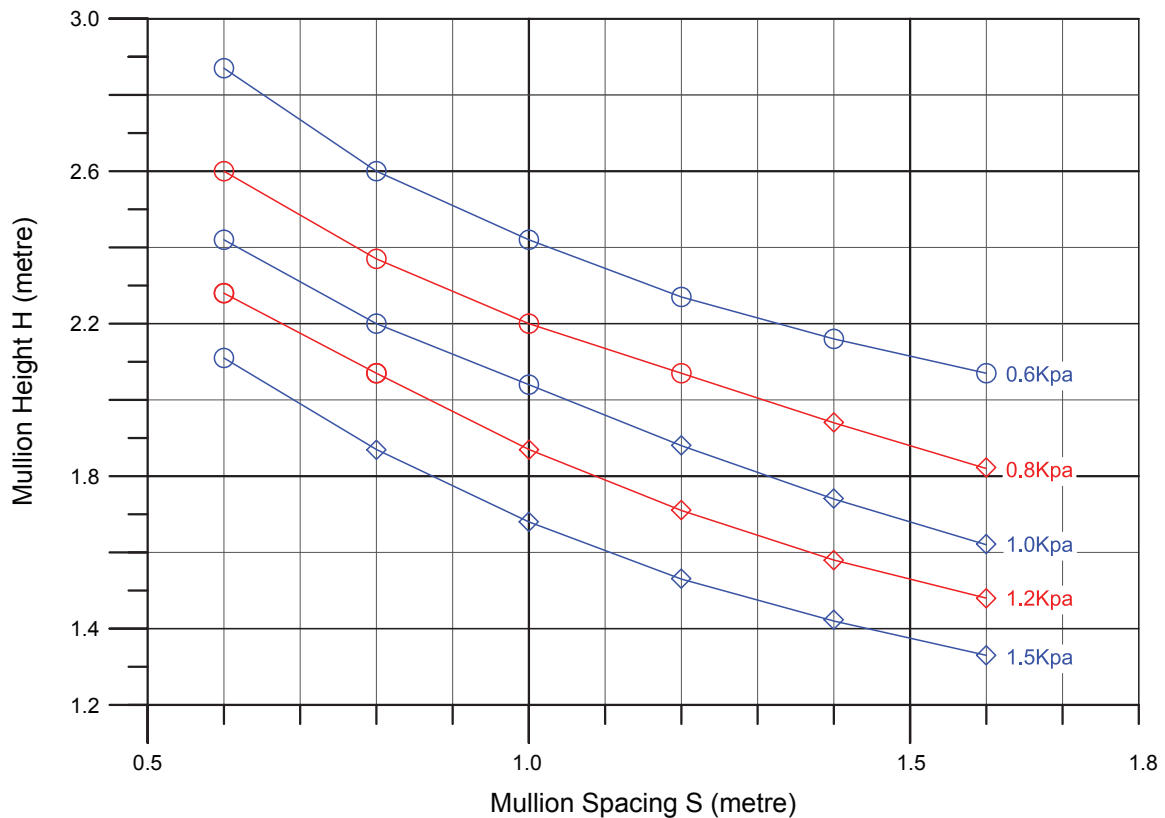
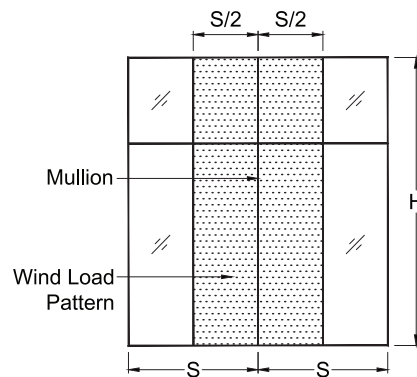
MULLION SECTION : 45373  
 Alum. alloy : 6063-T5  
 Moment of inertia  $I_{xx}$  : 27.6 cm<sup>4</sup>  
 Mod. of section  $Z_{xx}$  : 6.3 cm<sup>3</sup>



Note:  
 Suffix xx denotes axis perpendicular to wind load

Mod. of elasticity :  $70 \times 10^9$  N/m<sup>2</sup>  
 Design bend. stress :  $1.25 \times 67^6$  N/m<sup>2</sup>  
 Deflection limit :  $S_{pan}/175$ , up to max. 20mm  
 Nature of anchor : Simply supported at both ends

Typical configuration of window:

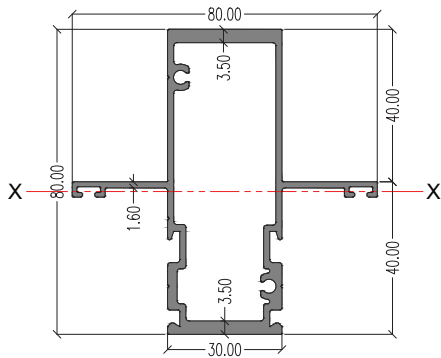


Note:  
 ○ Deflection limit governs , ◇ Design bending stress governs  
 :- Buckling has not been taken into account in this chart  
 :- This windload chart is solely for reference only



## Wind Load Chart

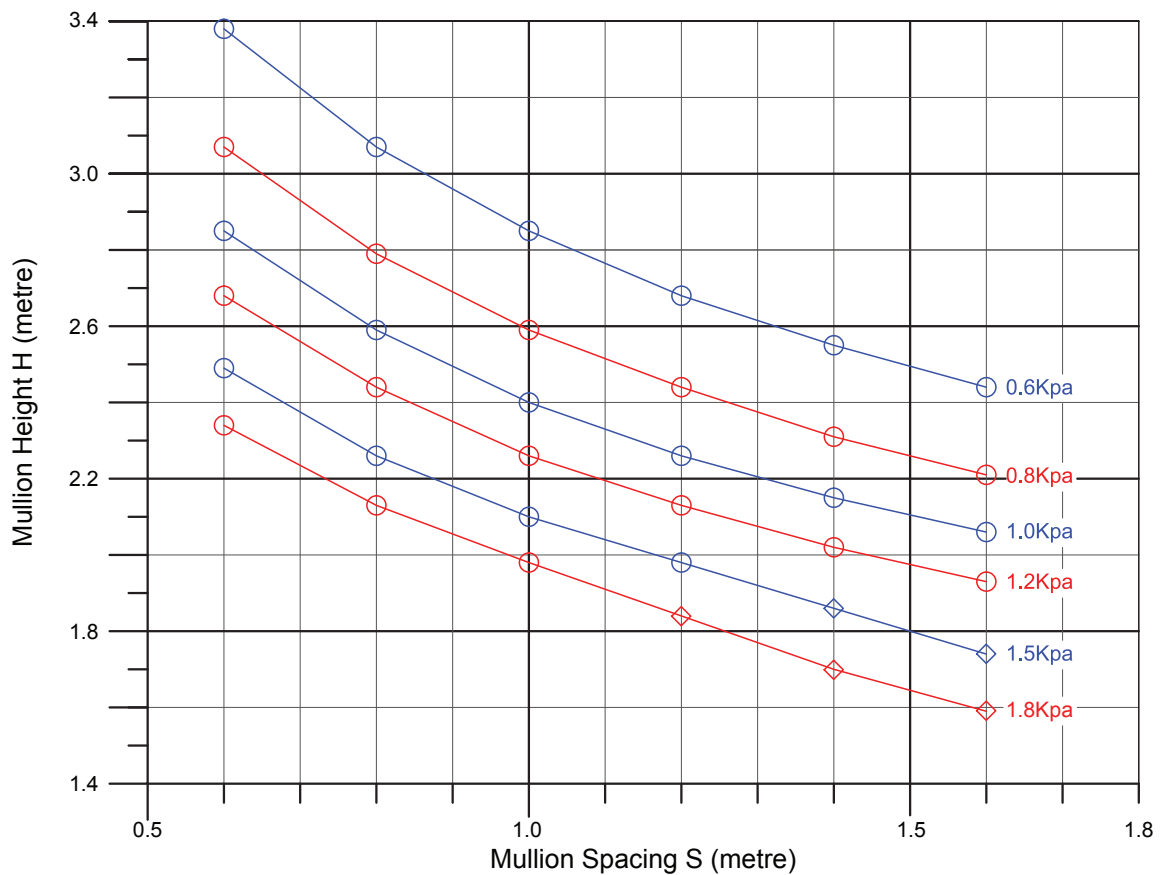
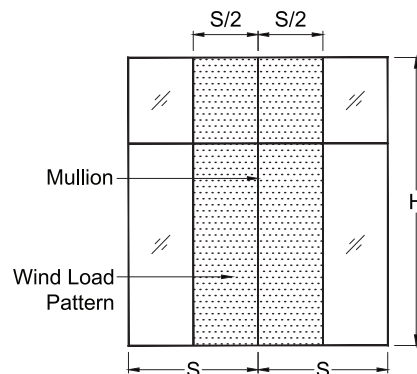
MULLION SECTION : 45377  
 Alum. alloy : 6063-T5  
 Moment of inertia  $I_{xx}$  : 45.2 cm<sup>4</sup>  
 Mod. of section  $Z_{xx}$  : 10.8 cm<sup>3</sup>



Note:  
 Suffix xx denotes axis perpendicular to wind load

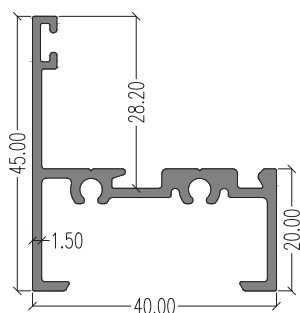
Mod. of elasticity :  $70 \times 10^9$  N/m<sup>2</sup>  
 Design bend. stress :  $1.25 \times 67^6$  N/m<sup>2</sup>  
 Deflection limit :  $S_{pan}/175$ , up to max. 20mm  
 Nature of anchor : Simply supported at both ends

Typical configuration of window:

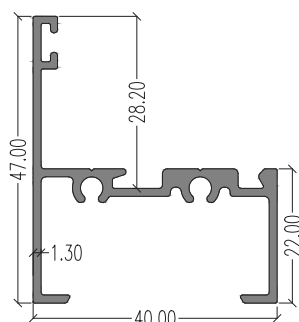


Note:  
 ○ Deflection limit governs , ◇ Design bending stress governs  
 :- Buckling has not been taken into account in this chart  
 :- This windload chart is solely for reference only

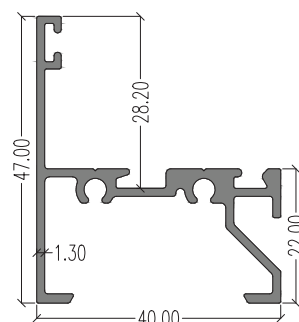
### Sectional Details



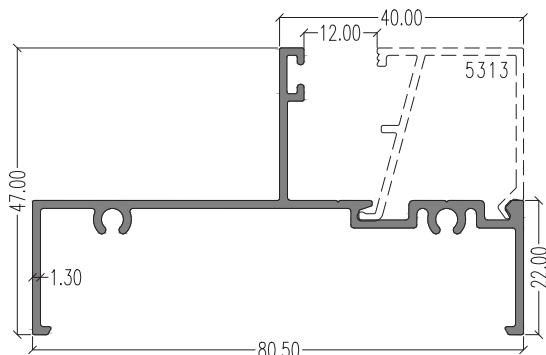
**5321** (Outer)  
LW : 0.607 kg/m  
AP : 274.19 mm



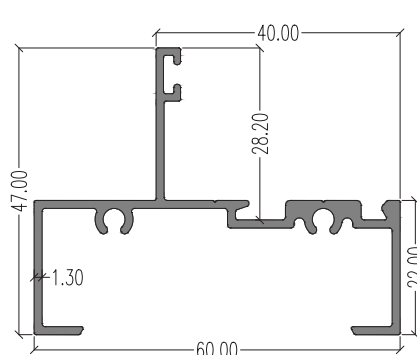
**45312** (Outer)  
LW : 0.562 kg/m  
AP : 283.73 mm



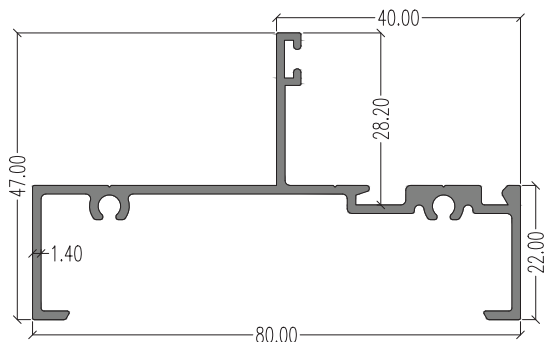
**5319** (Bottom Outer)  
LW : 0.607 kg/m  
AP : 294.73 mm



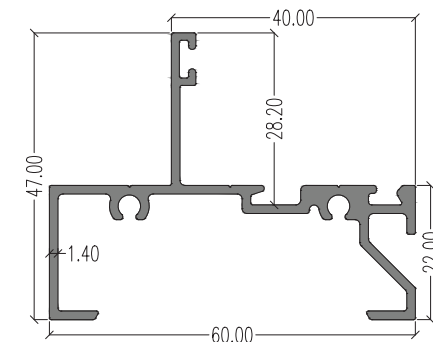
**5310** (Outer)  
LW : 0.672 kg/m  
AP : 365.03 mm



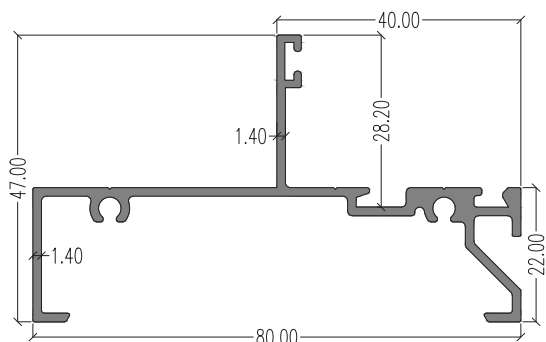
**45379** (Outer)  
LW : 0.651 kg/m  
AP : 337.85 mm



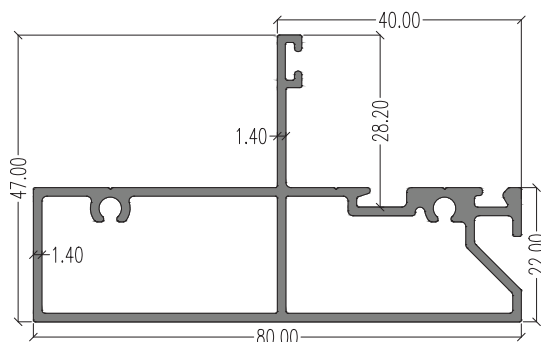
**5838** (Outer)  
LW : 0.760 kg/m  
AP : 369.03 mm



**45380** (Bottom Outer)  
LW : 0.726 kg/m  
AP : 346.65 mm

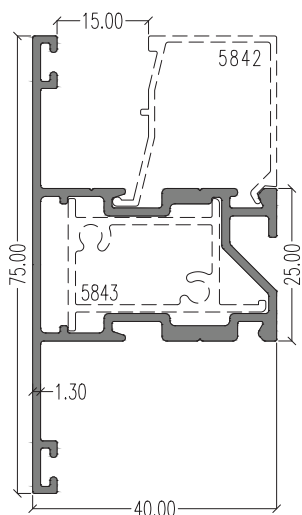


**5840** (Bottom Outer)  
LW : 0.786 kg/m  
AP : 380.05 mm

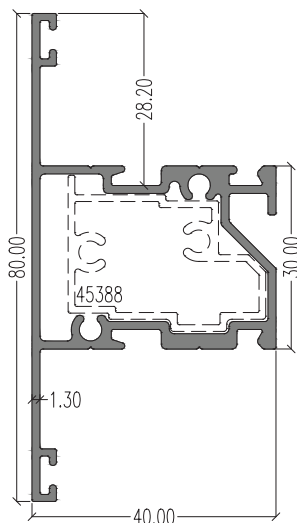


**46231** (Bottom Outer)  
LW : 1.120 kg/m  
AP : 302.31 mm

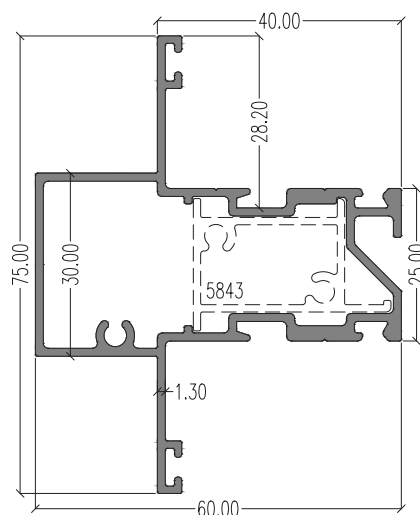
### Sectional Details



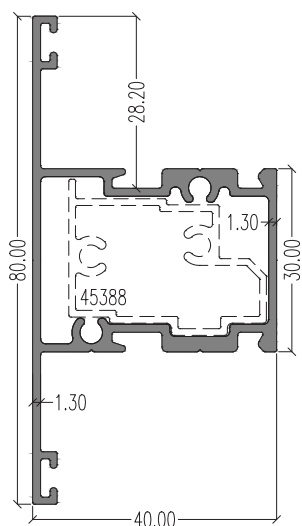
**45371** (Transom)  
 LW : 0.869 kg/m  
 AP : 310.09 mm  
 Ixx : 8.696 cm<sup>4</sup>  
 Iyy : 6.749 cm<sup>4</sup>



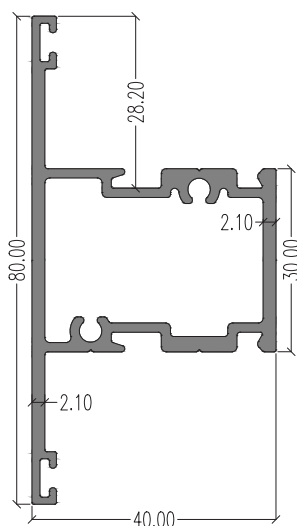
**45387** (Transom)  
 LW : 0.941 kg/m  
 AP : 320.35 mm  
 Ixx : 11.26 cm<sup>4</sup>  
 Iyy : 7.40 cm<sup>4</sup>



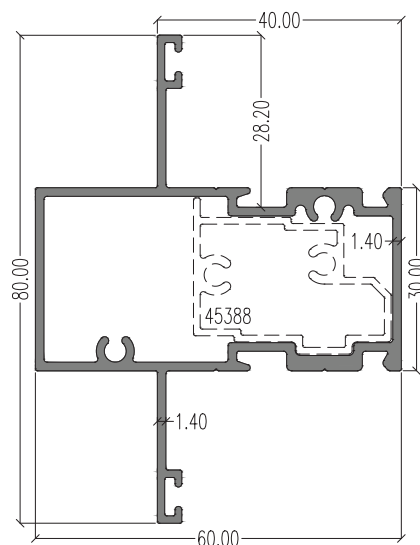
**45381** (Transom)  
 LW : 1.070 kg/m  
 AP : 350.30 mm  
 Ixx : 10.12 cm<sup>4</sup>  
 Iyy : 13.45 cm<sup>4</sup>



**45372** (Mullion)  
 LW : 0.921 kg/m  
 AP : 300.50 mm  
 Ixx : 11.25 cm<sup>4</sup>  
 Iyy : 7.375 cm<sup>4</sup>

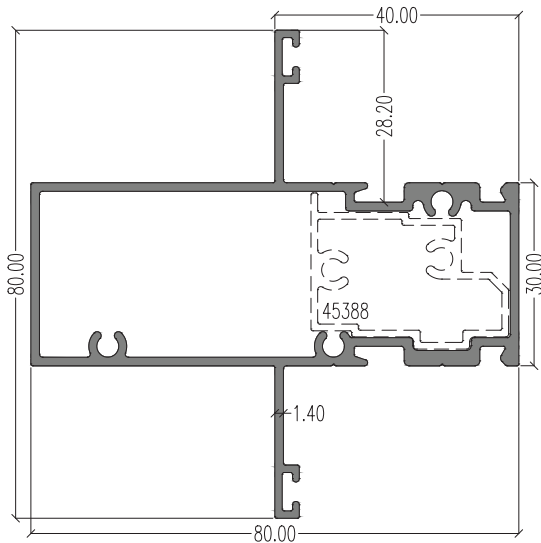


**45376** (Mullion)  
 LW : 1.143 kg/m  
 AP : 297.30 mm  
 Ixx : 13.14 cm<sup>4</sup>  
 Iyy : 9.378 cm<sup>4</sup>

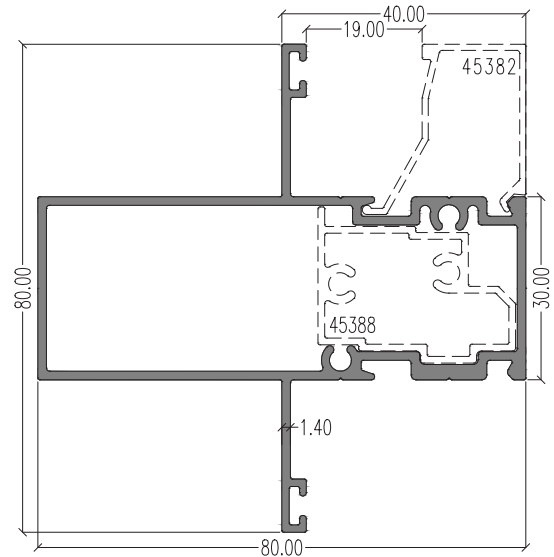


**45378** (Mullion)  
 LW : 1.116 kg/m  
 AP : 340.17 mm  
 Ixx : 12.59 cm<sup>4</sup>  
 Iyy : 14.69 cm<sup>4</sup>

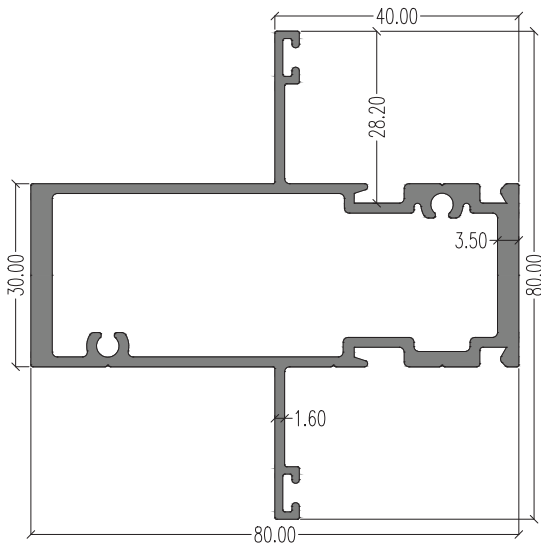
### Sectional Details



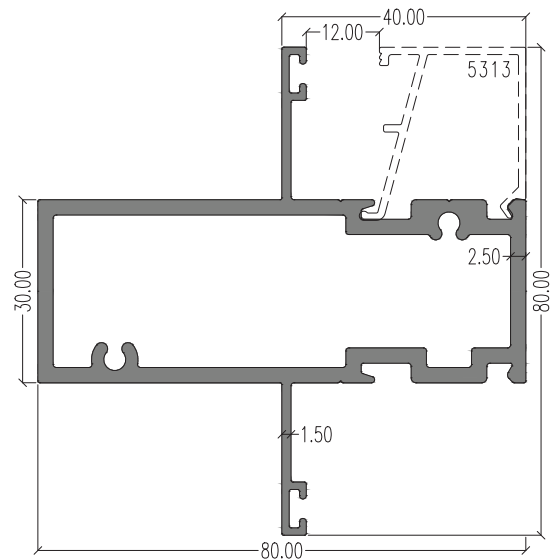
**45389** (Mullion)  
 LW : 1.292 kg/m  
 AP : 380.17 mm  
 Ixx : 13.85 cm<sup>4</sup>  
 Iyy : 29.05 cm<sup>4</sup>



**45373** (Mullion)  
 LW : 1.245 kg/m  
 AP : 380.17 mm  
 Ixx : 13.60 cm<sup>4</sup>  
 Iyy : 27.59 cm<sup>4</sup>

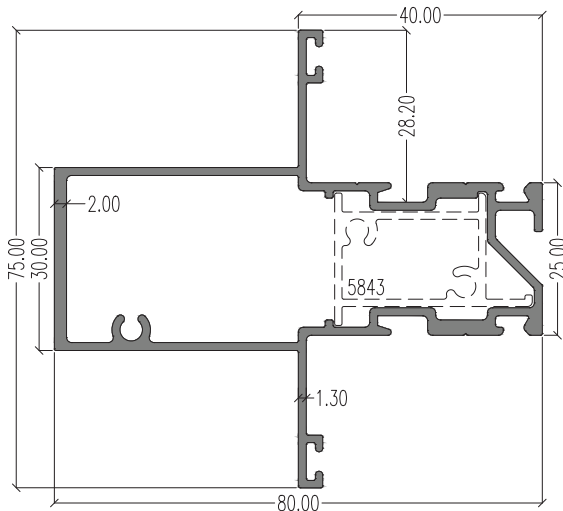


**45377** (Mullion)  
 LW : 1.659 kg/m  
 AP : 380.94 mm  
 Ixx : 15.37 cm<sup>4</sup>  
 Iyy : 45.21 cm<sup>4</sup>



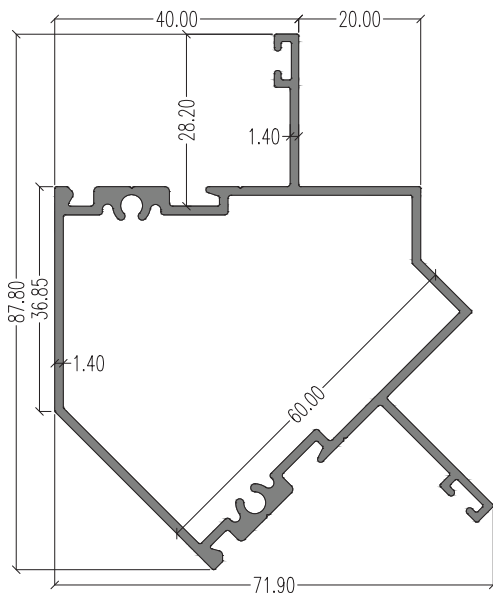
**45362** (Mullion)  
 LW : 1.897 kg/m  
 AP : 379.55 mm  
 Ixx : 16.73 cm<sup>4</sup>  
 Iyy : 45.15 cm<sup>4</sup>

### Sectional Details



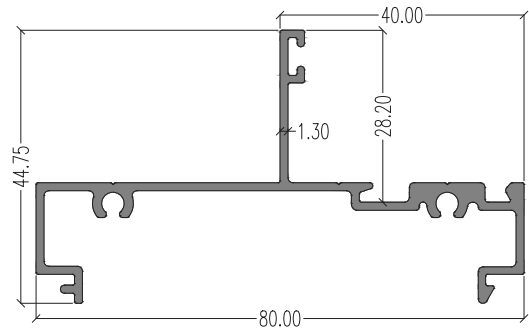
#### **45370** (Transom)

LW : 1.263 kg/m  
AP : 390.68 mm  
Ixx : 11.32 cm<sup>4</sup>  
Iyy : 29.97 cm<sup>4</sup>



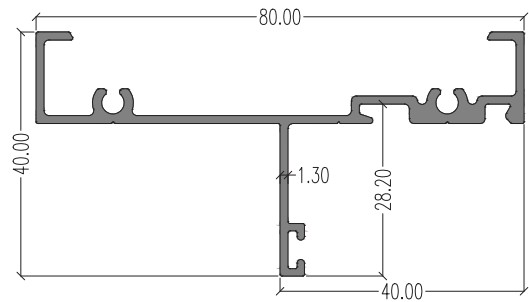
#### **45384** (Corner Frame)

LW : 1.240 kg/m  
AP : 379.52 mm  
Ixx : 25.39 cm<sup>4</sup>  
Iyy : 21.11 cm<sup>4</sup>



#### **45390** (Mullion)

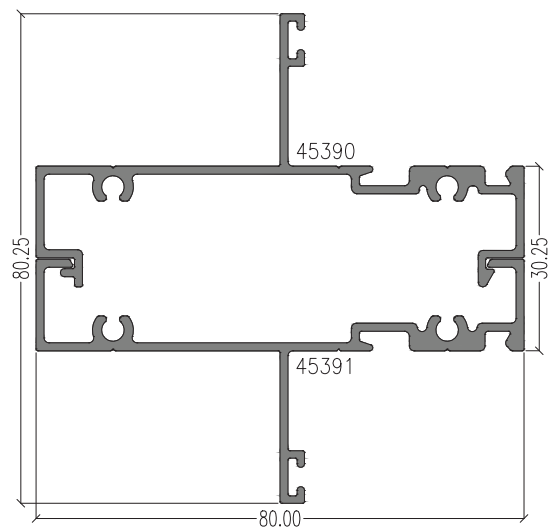
LW : 0.737 kg/m  
AP : 370.73 mm  
Ixx : 2.235 cm<sup>4</sup>  
Iyy : 19.06 cm<sup>4</sup>



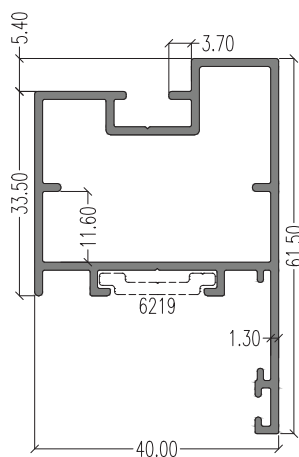
#### **45391** (Mullion)

LW : 0.681 kg/m  
AP : 340.70 mm  
Ixx : 1.724 cm<sup>4</sup>  
Iyy : 16.71 cm<sup>4</sup>

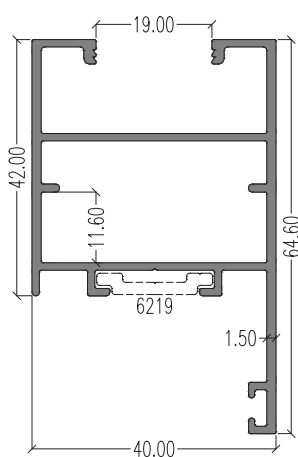
### Assembly of 45390 & 45391



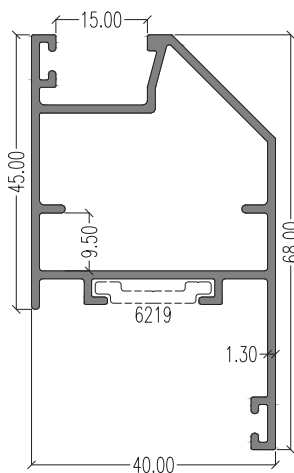
### Sectional Details



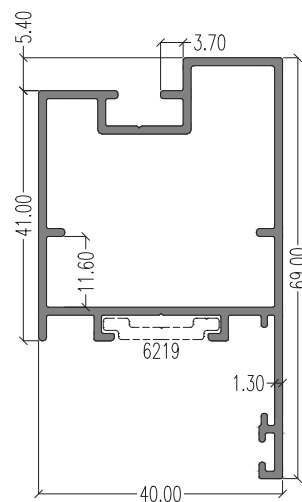
**45331 (Inner)**  
LW : 0.773 kg/m  
AP : 276.36 mm



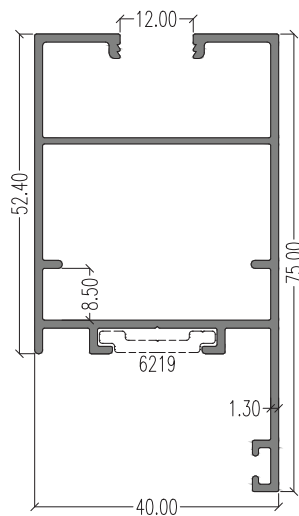
**45383 (Inner)**  
LW : 0.847 kg/m  
AP : 334.50 mm



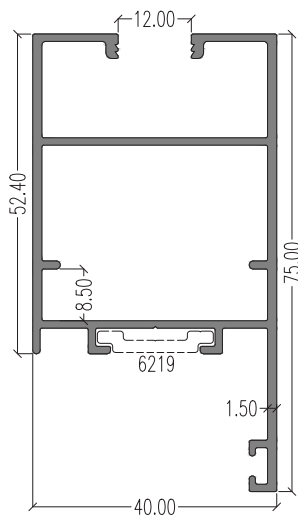
**45358 (Inner)**  
LW : 0.804 kg/m  
AP : 293.28 mm



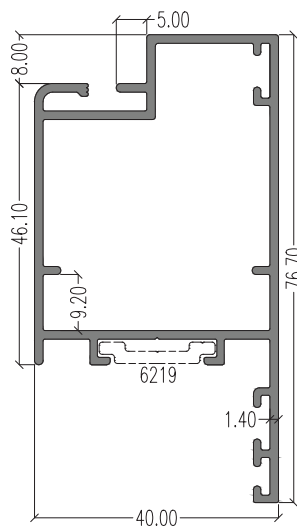
**45307 (Inner)**  
LW : 0.826 kg/m  
AP : 291.36 mm



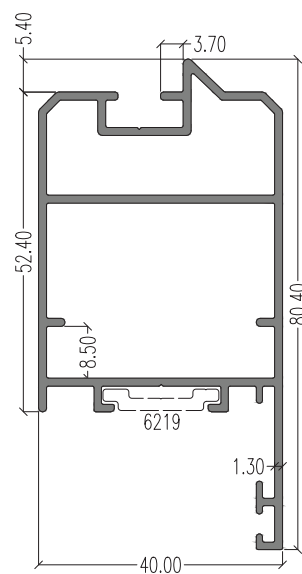
**45310 (Inner)**  
LW : 0.889 kg/m  
AP : 372.86 mm



**5312 (Inner)**  
LW : 0.954 kg/m  
AP : 372.50 mm



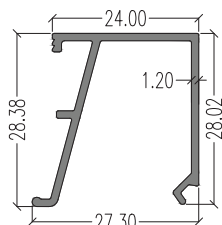
**6287 (Inner)**  
LW : 0.972 kg/m  
AP : 321.99 mm



**5377 (Inner)**  
LW : 1.021 kg/m  
AP : 312.10 mm

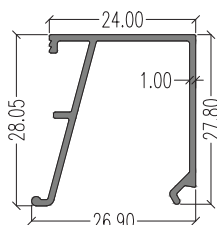
## Sectional Details

12mm Gap



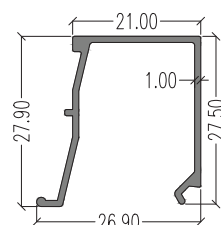
**5313** (Beading)  
LW : 0.287 kg/m  
AP : 176.59 mm

12mm Gap



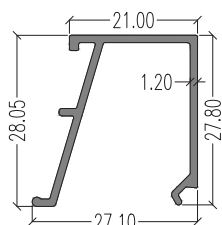
**45308** (Beading)  
LW : 0.244 kg/m  
AP : 176.23 mm

15mm Gap



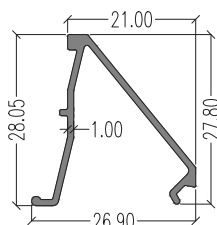
**5842** (Beading)  
LW : 0.233 kg/m  
AP : 163.07 mm

15mm Gap



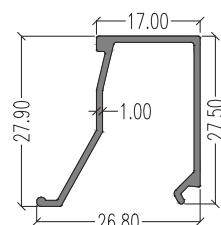
**5323** (Beading)  
LW : 0.275 kg/m  
AP : 167.77 mm

15mm Gap

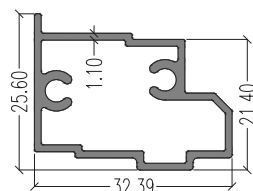


**45309** (Beading)  
LW : 0.204 kg/m  
AP : 140.22 mm

19mm Gap

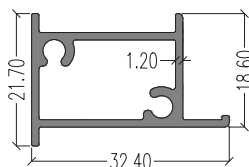


**45382** (Beading)  
LW : 0.222 kg/m  
AP : 155.36 mm



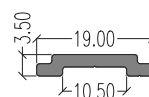
**45388** (Bracket)  
LW : 0.409 kg/m  
AP : 111.70 mm

( For 45372, 45373, 45378, 45387  
& 45389)

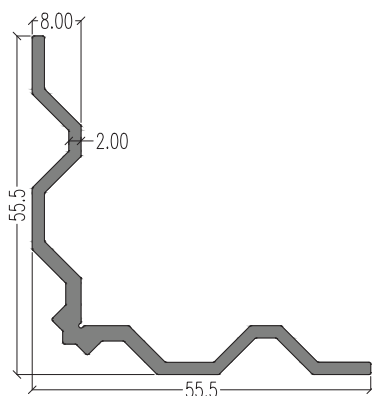


**5843** (Bracket)  
LW : 0.366 kg/m  
AP : 113.70 mm

( For 45370, 45371 & 45381)



**6219** (Slide Bar)  
LW : 0.117 kg/m  
AP : 45.58 mm



**6905** (Corner Bracket)  
LW : 0.681 kg/m  
AP : 232.60 mm

## Accessories

### Handles



CH100 Single-Point



CH200 Single-Point



MPH3903 Multi-Point  
Single Fork



MPH3707A Multi-Point  
Single/Double Fork



MPH3701A Multi-Point  
Single/Double Fork

### Catches



MP930S

### Weather Strip



PLG 3785  
Suntoprene  
(153m / roll)

### Friction Stay



12", 14", 16", 18", 20" SS304  
Top Hung



8", 12", 16", SS304  
Side Hung

### Push Rod



MP943KS (L30mm)

### Corner Bracket



MP580A

### Lockcam



MP950  
(10mm, 12mm)

### Restrictor Bar



CB8, CB12



CB04



**LB  
ALUMINIUM  
BERHAD**  
198501006093 (138535-V)

Now available at:



### HEAD OFFICE & FACTORY

Lot 11, Jalan Perusahaan 1, Kawasan Perusahaan Beranang,  
43700 Beranang, Selangor Darul Ehsan, Malaysia.

T : +603-8725 8822 (Gen)

F : +603-8725 8828 (Gen)

E : enquiry@lbalum.com.my

+603-8725 8866 (Export)

W : www.lbalum.com



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