



ALBENestra®



Performance Casement Window **PCW01**

Designed and tested according to MS832



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

Product

ALBENestra PCW01

Typical Technical Features

Nominal Wall Thickness	: 1.30mm - 1.35mm
Standard Frame Depth	: 40.00mm
Mullion Depth	: 40.00mm, 80.00mm & 100.00mm
Glazing Gap	: 10.00mm - 34.00mm
Locking System	: Single-point & Multipoint
Surface Finish	: Overlap
Hinges	: Butt. Hinges (Exposed Only) & Friction Stay
Corner Joints	: Mitre Joints With Brackets

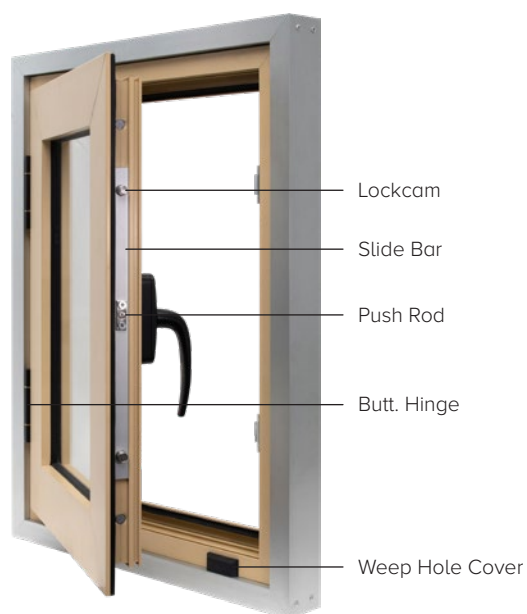


Performance Test

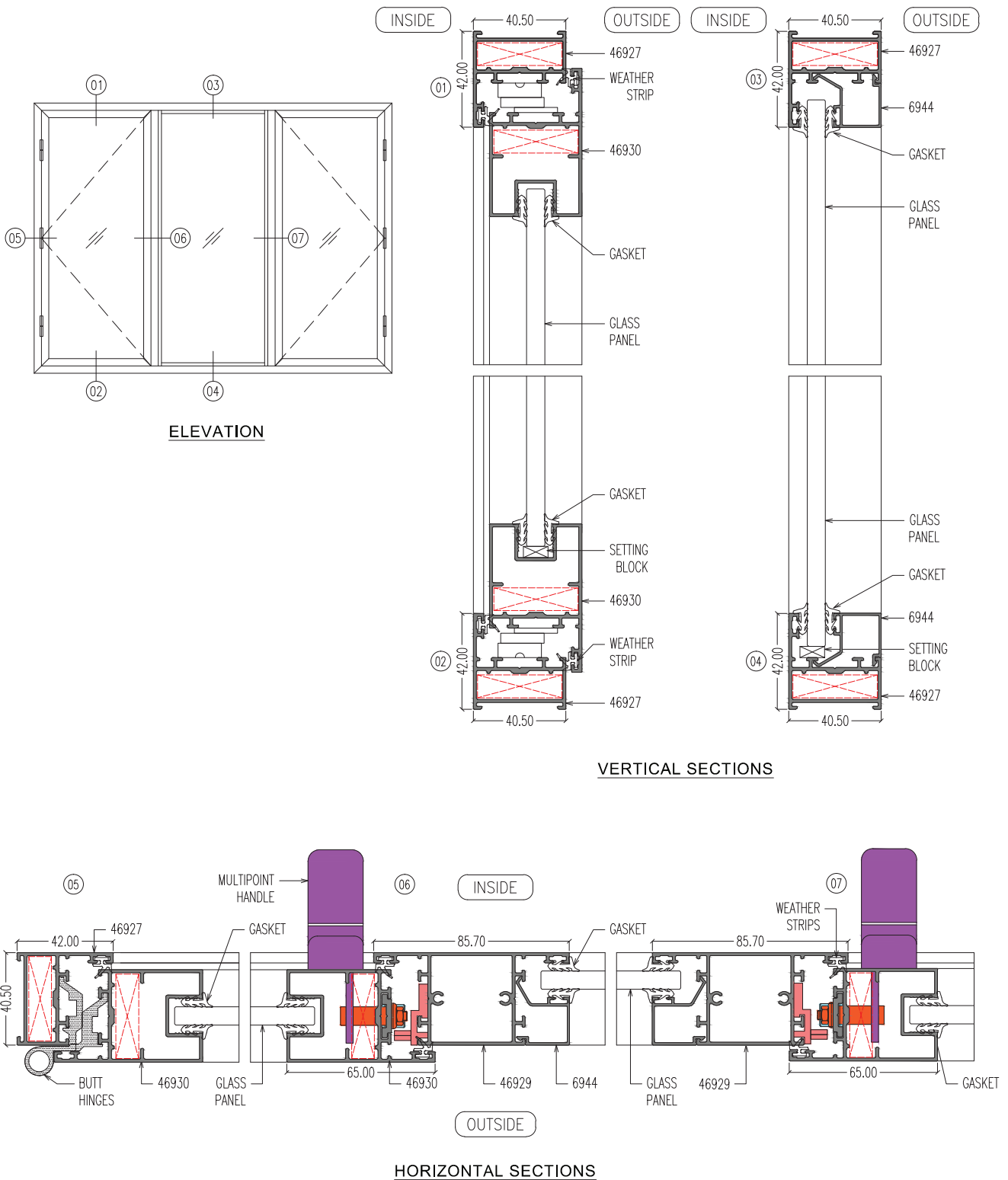
This casement window suite had been tested in compliance to MS 832:2022 performance test procedure for:

1. 1800Pa windload : Passed
2. 360Pa air leakage : Passed
3. 540Pa water infiltration : Passed

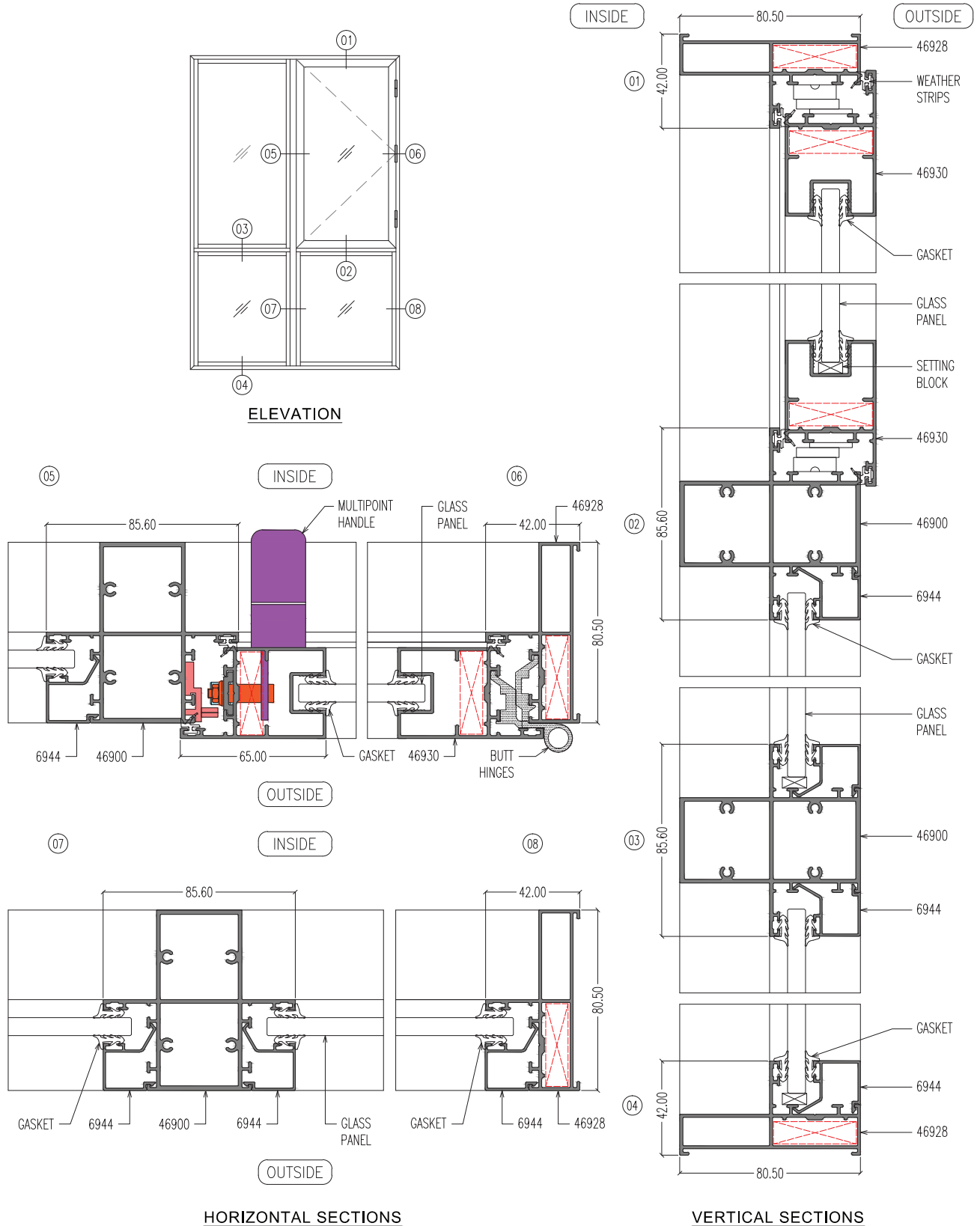
Note: Test report available upon request.



Typical Assembly Details

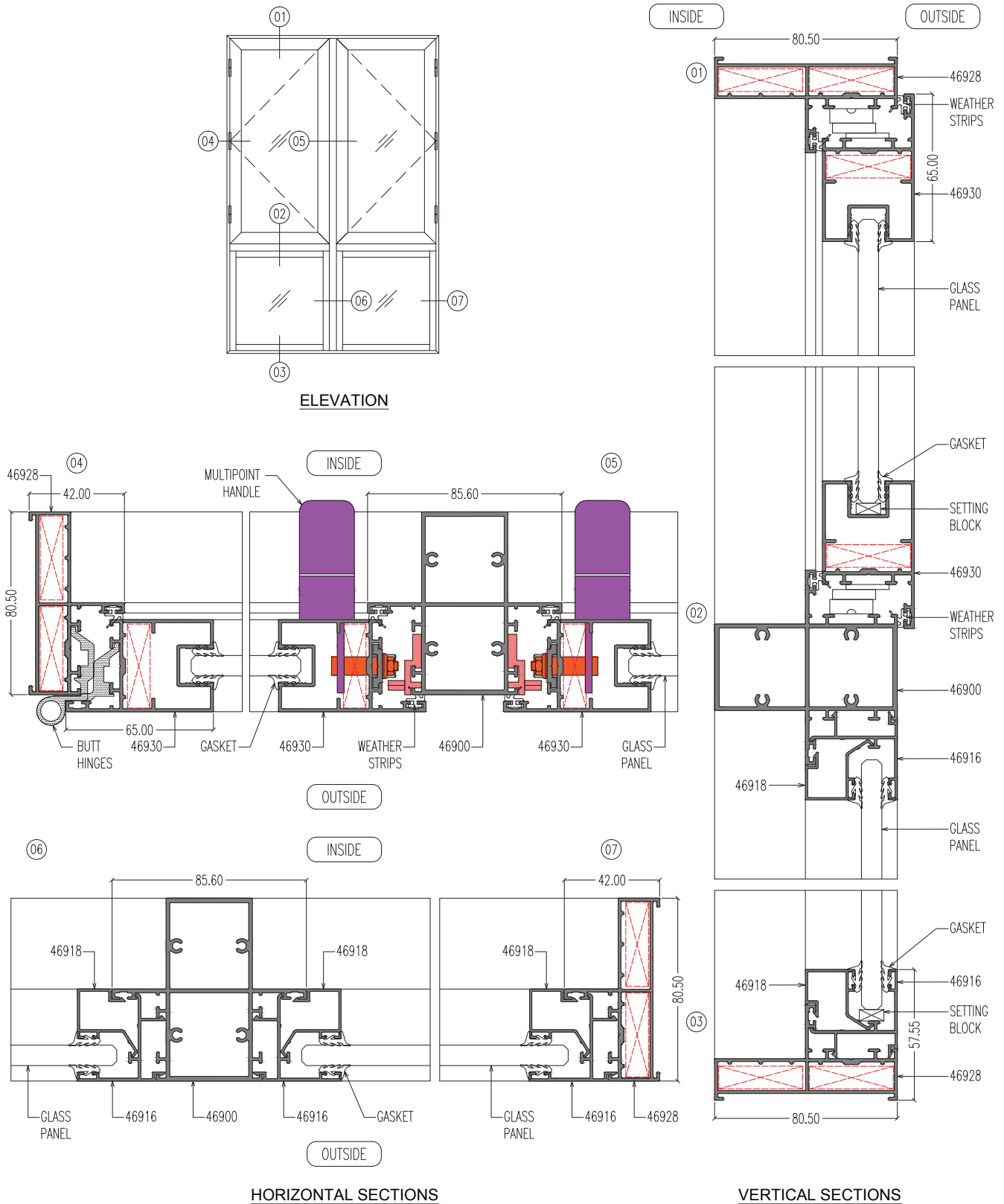


Typical Assembly Details



Typical Assembly Details

(Internal Beading)



ELEVATION

The image contains two technical cross-section drawings of window profiles, labeled 01 and 02.

Profile 01: This drawing shows a window profile with a width of 140.00 and a height of 65.00. It features an "INSIDE" face and an "OUTSIDE" face. Key components labeled include:

- 46932:** Located at the top and bottom corners of the outside face.
- WEATHER STRIPS:** Indicated by arrows pointing to the seals on the outside face.
- 46933:** Located on the inside face, pointing to the upper and lower sections.
- 46934:** Located on the inside face, pointing to the central locking mechanism.
- GLASS PANEL:** Indicated by an arrow pointing to the central opening.

Profile 02: This drawing shows a similar window profile with a width of 140.00. It includes an "INSIDE" face and an "OUTSIDE" face. Key components labeled include:

- S/S MESH:** Located on the left side of the inside face.
- 7994:** Located on the inside face, pointing to the upper section.
- 46934:** Located on the inside face, pointing to the central locking mechanism.
- 46933:** Located on the inside face, pointing to the lower section.
- GASKET:** Located on the outside face, pointing to the seal.
- SETTING BLOCK:** Located on the outside face, pointing to the internal support structure.
- 46930:** Located on the outside face, pointing to the upper and lower sections.
- 46932:** Located at the bottom corners of the outside face.

Technical drawings of vertical sections of a window frame, showing inside and outside views with various components and dimensions.

Vertical Sections (Left):

- Top View (03):** Labeled "INSIDE". Shows the internal structure with components 46934, 46933, and 46903. A "MULTIPOINT HANDLE" is indicated. A dimension of 59.00 is shown.
- Bottom View:** Shows the external structure with components 46930, 6219, and 46930. A "GLASS PANEL" is indicated. A dimension of 140.00 is shown.

Vertical Sections (Right):

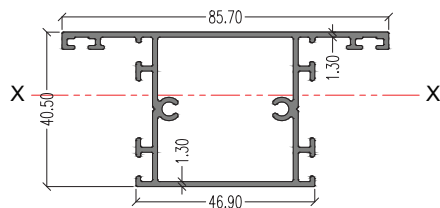
- Top View (04):** Labeled "OUTSIDE". Shows the external structure with components 7994, 46934, 46933, and 46932. A "GLASS PANEL" is indicated. A dimension of 140.00 is shown.
- Bottom View:** Shows the internal structure with components 46930 and 46932. A "GLASS PANEL" is indicated.

Common Labels:

- GLASS PANEL:** Indicated in both views of both sections.
- BUTT HINGES:** Indicated in the bottom view of the right section.
- GASKET:** Indicated in the bottom view of the left section.
- S/S MESH:** Indicated in the top view of the left section.

Wind Load Chart

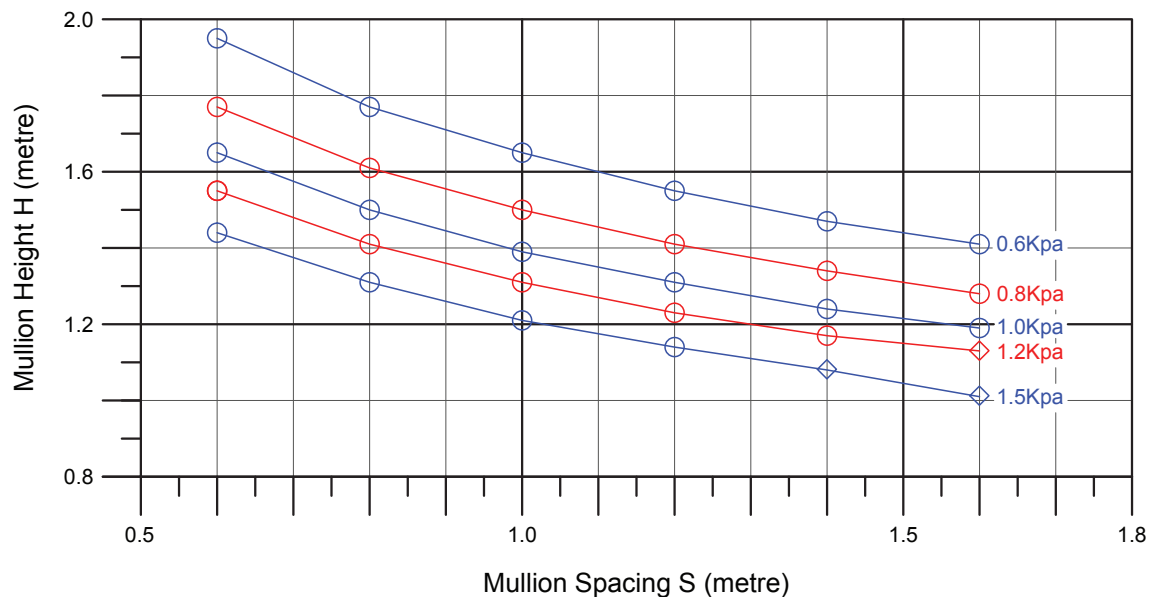
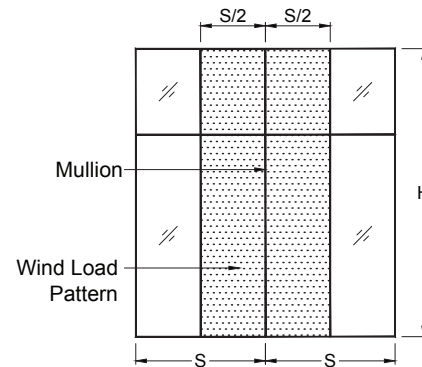
MULLION SECTION : 46929
 Alum. alloy : 6063-T5
 Moment of inertia I_{xx} : 8.7 cm^4
 Mod. of section Z_{xx} : 3.6 cm^3



Note:
 Suffix xx denotes axis perpendicular to wind load

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 : $\text{Span}/175$, up to max. 20mm
 Nature of anchor : Simply supported at both ends

Typical configuration of window:



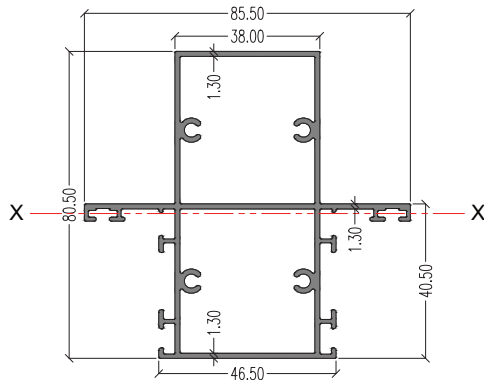
Note:

- 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

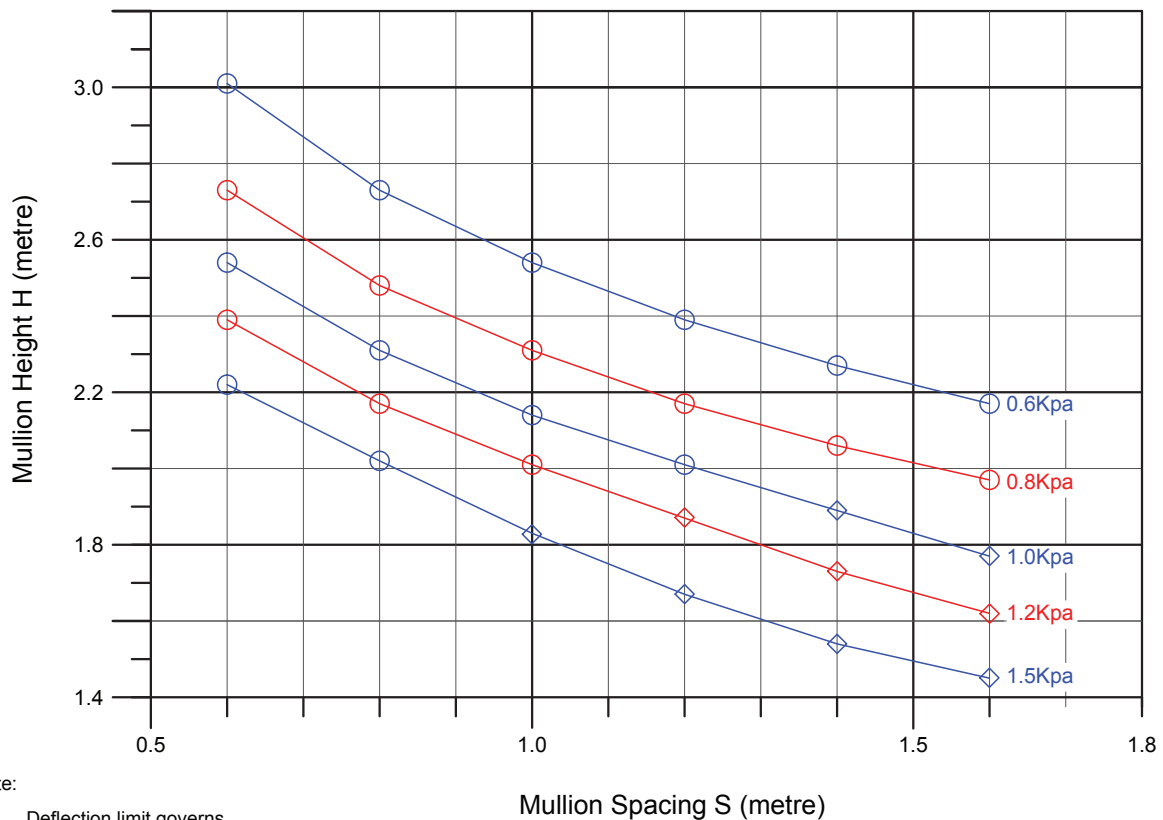
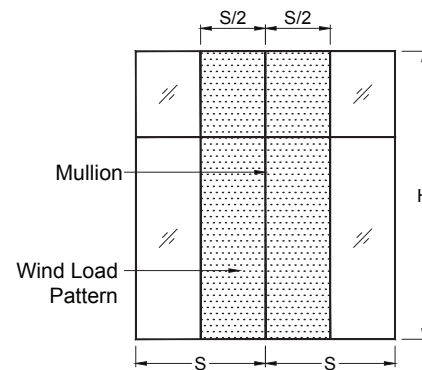
MULLION SECTION : 6977
Alum. alloy : 6063-T5
Moment of inertia I_{xx} : 31.9 cm⁴
Mod. of section Z_{xx} : 7.4 cm³



Note:
 Suffix xx denotes axis perpendicular to wind load

Mod. of elasticity : 70×10^9 N/m²
Design bend. stress : 1.25×67^6 N/m²
Deflection limit : $\text{Span}/175$, up to max. 20mm
Nature of anchor : Simply supported at both ends

Typical configuration of window:



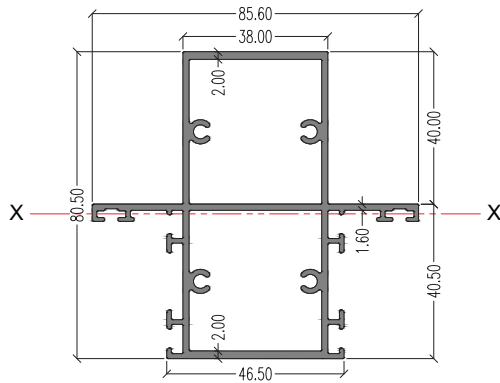
Note:

- 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

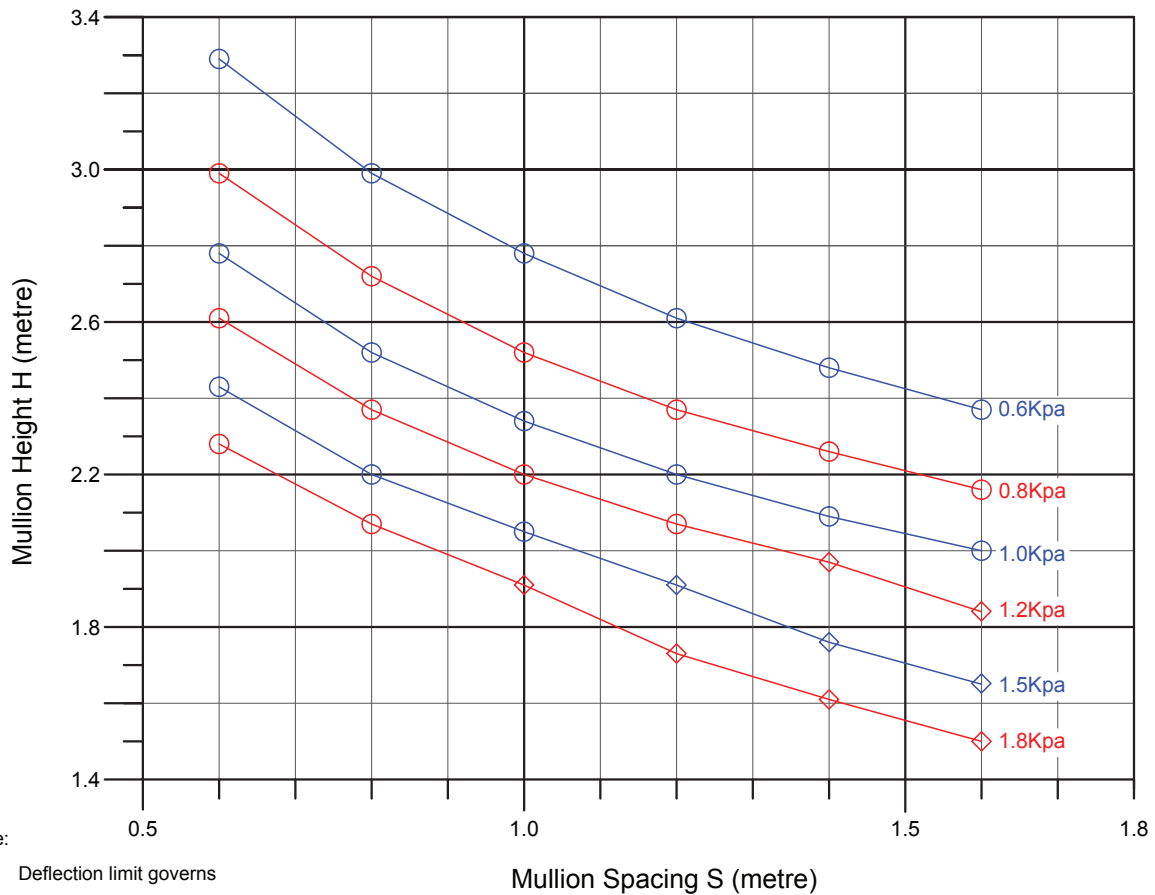
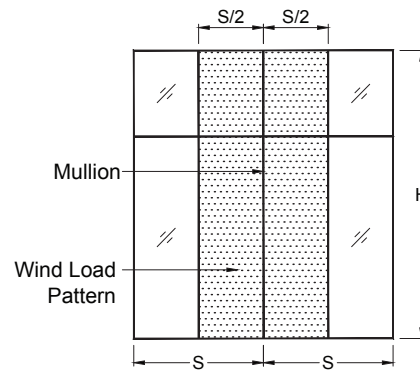
MULLION SECTION : 46900
 Alum. alloy : 6063-T5
 Moment of inertia I_{xx} : 41.8 cm⁴
 Mod. of section Z_{xx} : 9.7 cm³



Note:
 Suffix xx denotes axis perpendicular to wind load

Mod. of elasticity : 70 x 10⁹ N/m²
 Design bend. stress : 1.25 x 67⁶ N/m²
 Deflection limit : $\text{Span}/175$, up to max. 20mm
 Nature of anchor : Simply supported at both ends

Typical configuration of window:



Note:

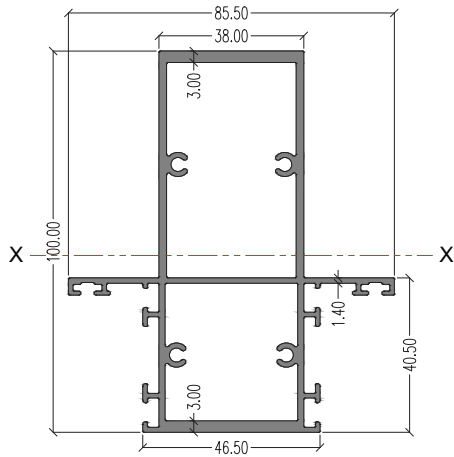
- Deflection limit governs
- ◇ Design bending stress governs

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

:- This windload chart is solely for reference only

Wind Load Chart

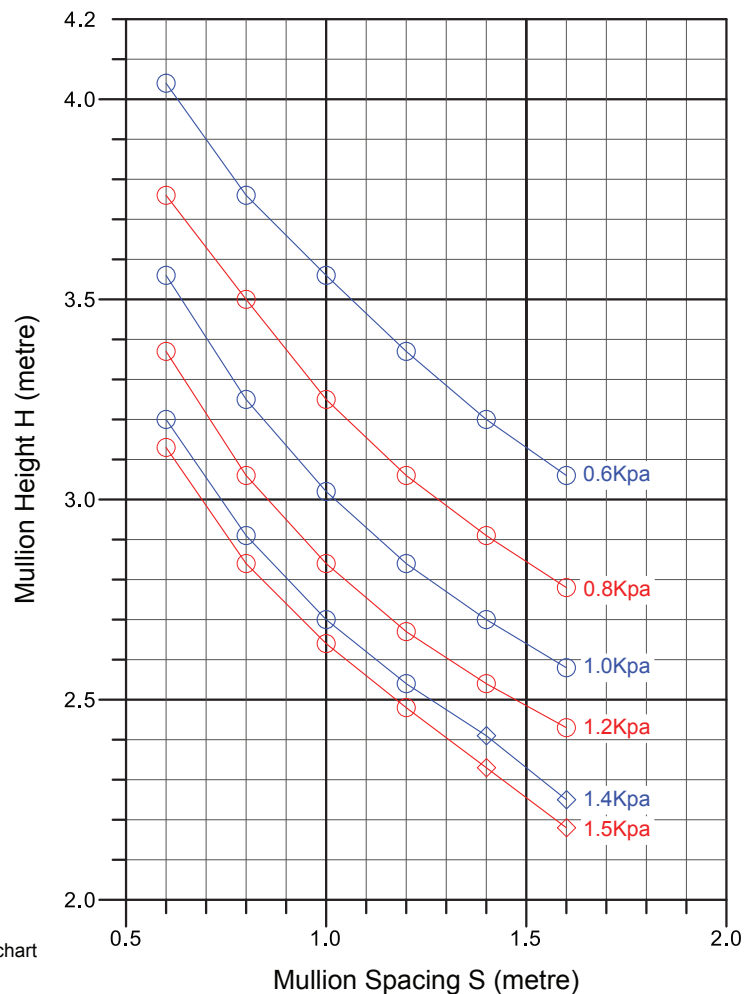
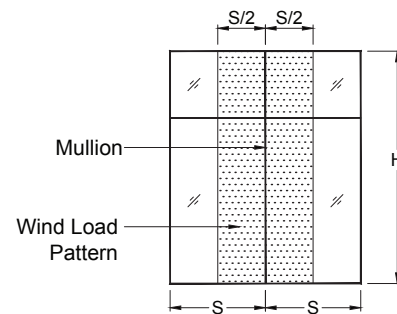
MULLION SECTION : 6965
Alum. alloy : 6063-T5
Moment of inertia I_{xx} : 91.0 cm⁴
Mod. of section Z_{xx} : 17 cm³



Note:
 Suffix xx denotes axis perpendicular to wind load

Mod. of elasticity : 70×10^9 N/m²
Design bend. stress : 1.25×67^6 N/m²
Deflection limit : $\text{Span}/175$, up to max. 20mm
Nature of anchor : Simply supported at both ends

Typical configuration of window:

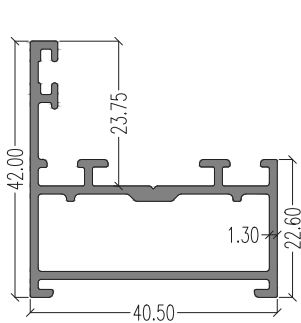


Note:

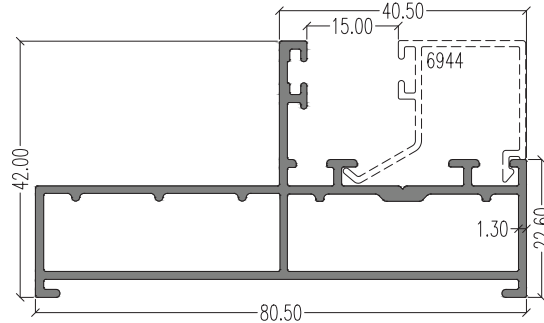
- Deflection limit governs
- ◇ Design bending stress governs

:- Buckling has not been taken into account in this chart
 :- This windload chart is solely for reference only

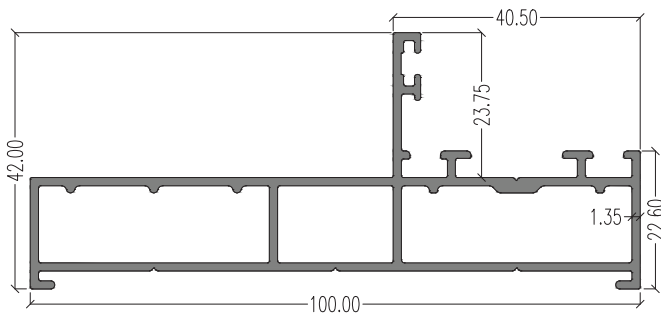
Sectional Details



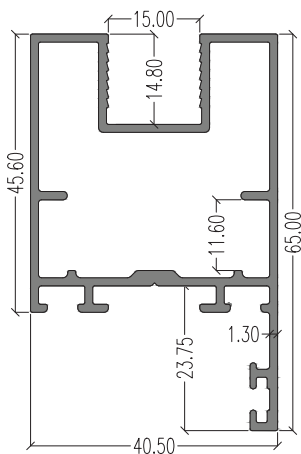
46927 (Outer)
LW : 0.649 kg/m
AP : 241.29 mm



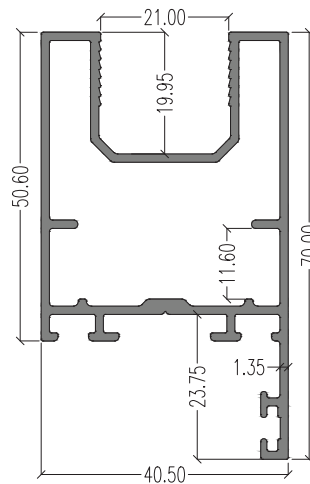
46928 (Outer)
LW : 0.978 kg/m
AP : 322.37 mm



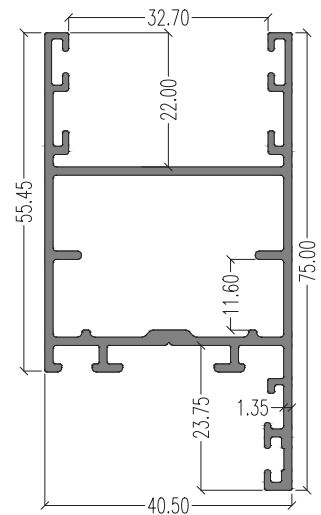
46960 (Outer)
LW : 1.193 kg/m
AP : 362.08 mm



46930 (Inner)
LW : 0.946 kg/m
AP : 306.18 mm

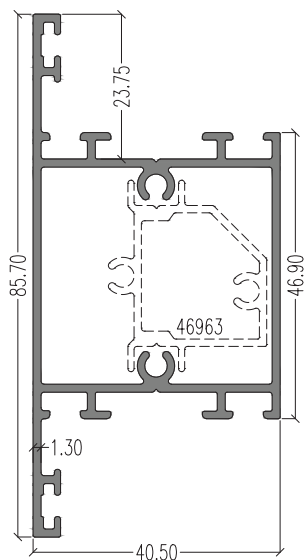


46961 (Inner)
LW : 1.035 kg/m
AP : 323.13 mm

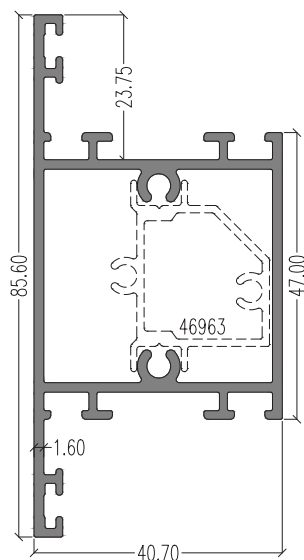


46962 (Inner)
LW : 1.004 kg/m
AP : 394.21 mm

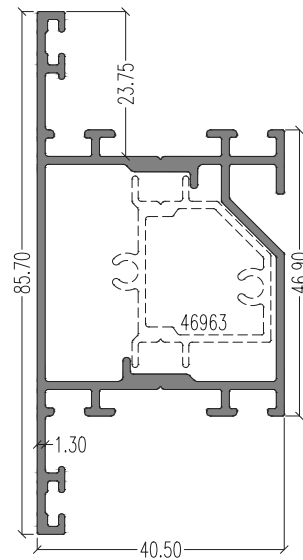
Sectional Details



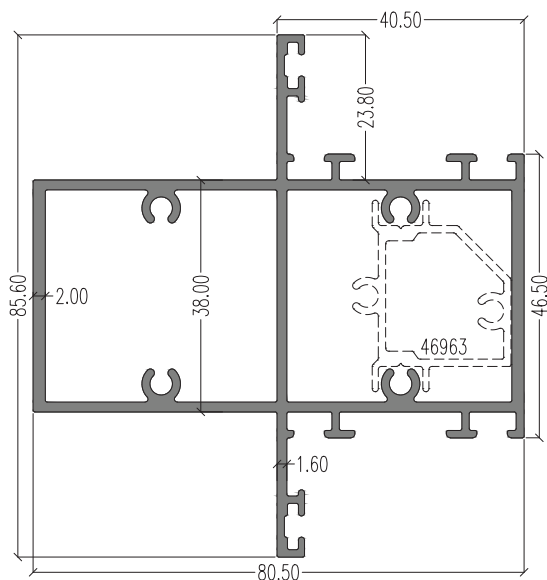
46929 (Mullion)
 LW : 1.028 kg/m
 AP : 377.38 mm
 Ixx : 18.50 cm⁴
 Iyy : 8.757 cm⁴



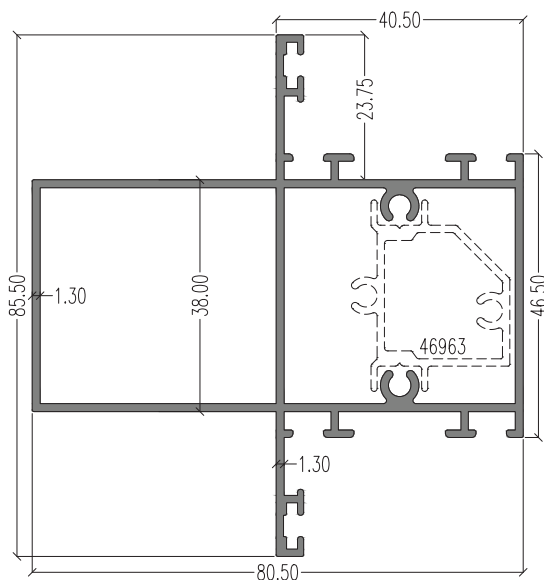
6993 (Mullion)
 LW : 1.211 kg/m
 AP : 375.44 mm
 Ixx : 21.05 cm⁴
 Iyy : 10.36 cm⁴



46964 (Transom)
 LW : 1.071 kg/m
 AP : 398.79 mm
 Ixx : 18.88 cm⁴
 Iyy : 8.846 cm⁴

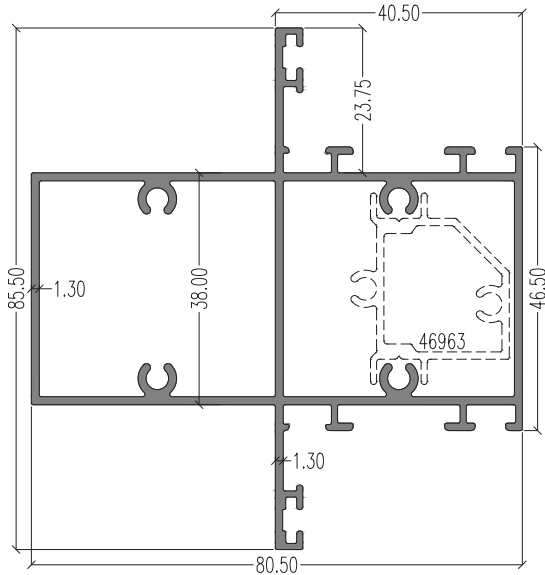


46900 (Mullion)
 LW : 1.829 kg/m
 AP : 454.30 mm
 Ixx : 25.38 cm⁴
 Iyy : 41.89 cm⁴

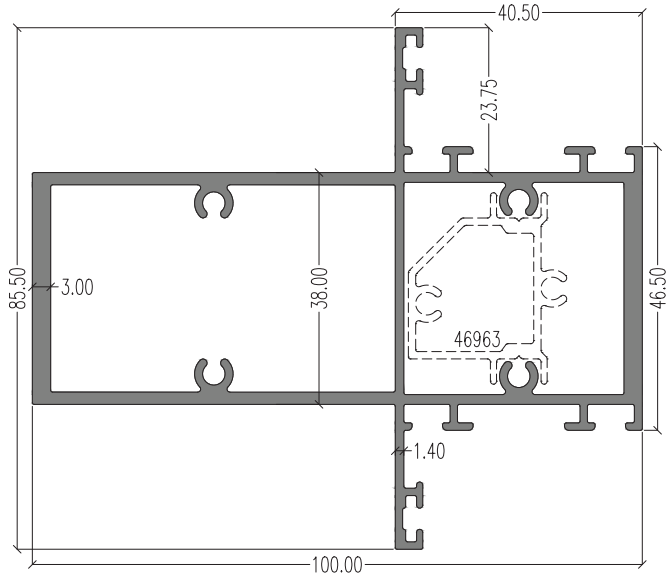


14296 (Mullion)
 LW : 1.427 kg/m
 AP : 462.13 mm
 Ixx : 21.97 cm⁴
 Iyy : 30.40 cm⁴

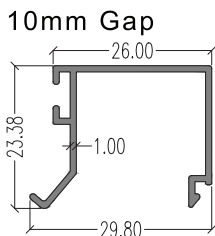
Sectional Details



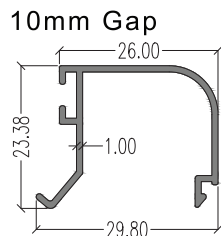
6977 (Mullion)
LW : 1.495 kg/m
AP : 451.00 mm
Ixx : 22.17 cm⁴
Iyy : 31.95 cm⁴



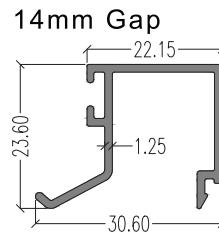
6965 (Mullion)
LW : 2.277 kg/m
AP : 494.70 mm
Ixx : 28.98 cm⁴
Iyy : 91.00 cm⁴



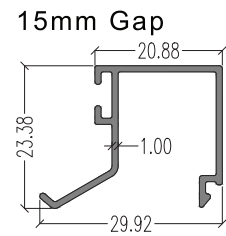
6985 (Beading)
LW : 0.231 kg/m
AP : 169.79 mm



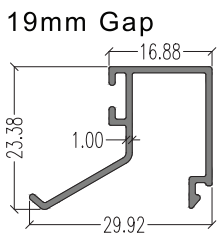
6986 (Beading)
LW : 0.233 kg/m
AP : 163.56 mm



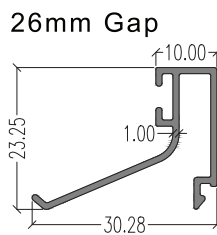
6996 (Beading)
LW : 0.286 kg/m
AP : 168.80 mm



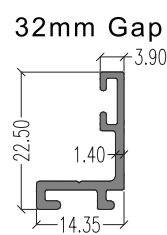
6944 (Beading)
LW : 0.228 kg/m
AP : 166.07 mm



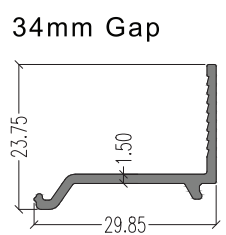
46902 (Beading)
LW : 0.224 kg/m
AP : 162.69 mm



6997 (Beading)
LW : 0.219 kg/m
AP : 159.37 mm

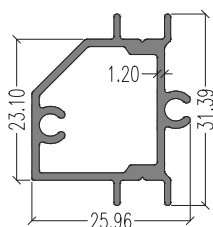


6218 (Beading)
LW : 0.179 kg/m
AP : 101.90 mm

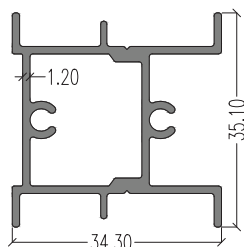


46910 (Beading)
LW : 0.213 kg/m
AP : 108.69 mm

Sectional Details

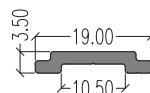


46963 (Bracket)
LW : 0.407 kg/m
AP : 133.22 mm
Ixx : 1.150 cm⁴
Iyy : 1.011 cm⁴

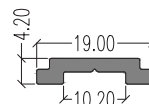


6976 (Bracket)
LW : 0.553 kg/m
AP : 214.74 mm
Ixx : 2.163 cm⁴
Iyy : 2.349 cm⁴

(Matching with 46929, 6977
& 14296 only)

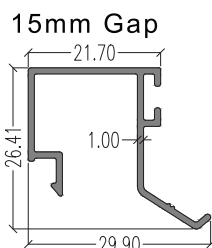


6219
LW : 0.117 kg/m
AP : 45.58 mm
(For Powder Coated &
PVDF Finish Only)

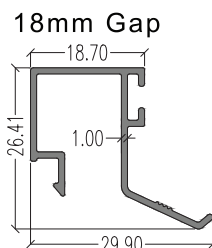


6987
LW : 0.140 kg/m
AP : 49.24 mm
(For Anodised Finish Only)

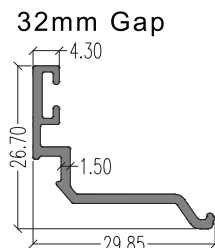
FOR INTERNAL BEADING



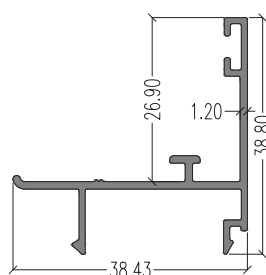
46918 (Beading)
LW : 0.236 kg/m
AP : 172.01 mm



46917 (Beading)
LW : 0.235 kg/m
AP : 171.92 mm



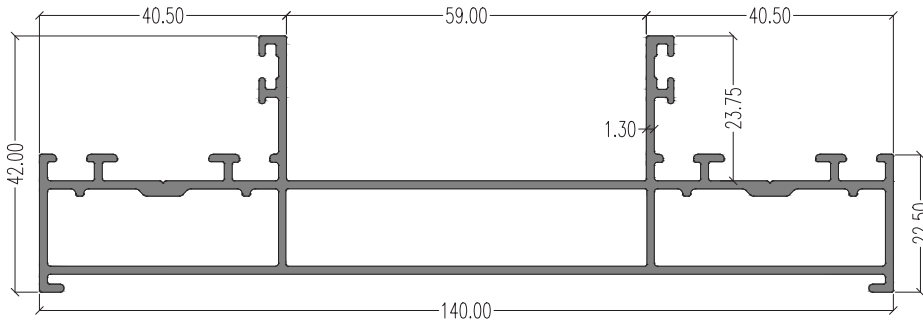
46965 (Beading)
LW : 0.238 kg/m
AP : 126.67 mm



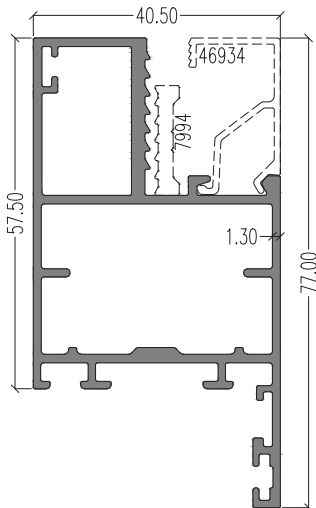
46916 (Attachment
Beading)
LW : 0.333 kg/m
AP : 215.22 mm

Sectional Details

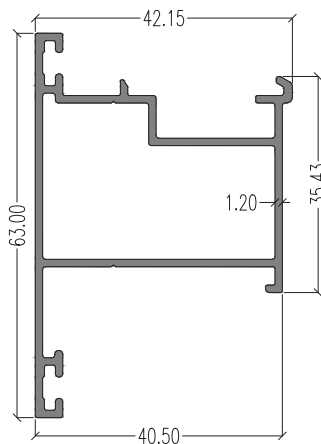
FOR STAINLESS STEEL MESH



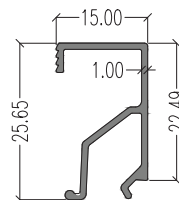
46932 (Outer)
LW : 1.671 kg/m
AP : 550.33 mm



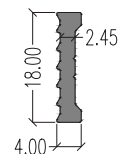
46933 (Inner)
LW : 1.136 kg/m
AP : 324.59 mm



46903 (Attachment Inner)
LW : 0.694 kg/m
AP : 282.94 mm



46934 (Beading)
LW : 0.189 kg/m
AP : 136.28 mm



7994
LW : 0.141 kg/m
AP : 47.33 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

Butt. Hinge



MP92HD

Catches



MP930

Latch Bolt & Keeper



MP960



MP962

Friction Stay



12", 18" SS304 (2.0mm)
Top Hung



8", 12" 16" SS304 (2.0mm)
Side Hung

Push Rod



MP943KS (L30mm)

Weather Strip



PLG5904
Suntoprene
(100m / roll)

Lockcam



MP950
(10mm, 12mm)

Corner Brackets



MP590A



MP90

Restrictor Bar



CB8, CB12



CB04



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

Now available at:



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+603-8725 8866 (Export)

W : www.lbalum.com



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