



工程指示 / 要求簡箋 ENGINEER INSTRUCTIONS(E.I.)

工程指示編號:	EI- 4557	修改版本:	-
	HK- 0563/22		
工程編號:	J 857	工程名稱:	啟德6552
收件人:	生統	發件人:	Yancy Chen
工程項目:	幕牆單元件-鋁型材料頭樣板	日期:	07/04/2022

<input checked="" type="checkbox"/> 原合約工程包	<input type="checkbox"/> 原合約工程加 / 減賬 QT-	<input type="checkbox"/> 新工程報價 QT-
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信件批核號碼/圖紙參考編號:	批核模具圖紙編號:
客戶指示附件: SR-5/23	管理內部批簽署:

<input type="checkbox"/> 初步鋁料 B.M.	<input type="checkbox"/> 加工拆圖, 然後生產	<input type="checkbox"/> 尺寸表
<input type="checkbox"/> 正式鋁料 B.M.	<input type="checkbox"/> 技術上資料/指示	<input type="checkbox"/> 報價
<input type="checkbox"/> 配件 B.M.	<input checked="" type="checkbox"/> 樣辦或貨品說明書	<input type="checkbox"/> 分判合約
<input type="checkbox"/> 其他:		

內容:
請按附件圖紙, 把各款鋁料頭樣板(長度: 30mm, 光身料) 各1件, 送香港寫字樓 (1樓師傅強 收).
附: 封面1頁, 附件6頁. 共7頁.
完成上列要求日期: 12/04/2022

國內

<input type="checkbox"/> 生產技術總監	<input type="checkbox"/> 連附件	<input type="checkbox"/> 技術部	<input type="checkbox"/> 連附件	<input checked="" type="checkbox"/> 生產部	<input checked="" type="checkbox"/> 連附件
<input type="checkbox"/> 採購部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 生產統籌部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 報關組	<input type="checkbox"/> 連附件
<input type="checkbox"/> 質檢部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 會計部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 機械設計部	<input type="checkbox"/> 連附件
<input type="checkbox"/> 其他:					

香港

<input type="checkbox"/> 行政部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 會計部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 統籌部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 工程部	<input type="checkbox"/> 連附件
<input type="checkbox"/> 採購部	<input type="checkbox"/> 連附件	<input type="checkbox"/> QS部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 地盤管理	<input type="checkbox"/> 連附件	<input type="checkbox"/> 維修部	<input type="checkbox"/> 連附件

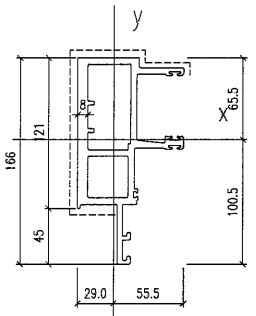
*發件人簽署:	*組別成員批核簽署:
傳遞編號: HK 0563/22	項目經理簽署:

**(II) 工料及技術規範：(續)**

(四) 提交文件、圖則、樣辦及其他：

- A. 正式外牆施工前，依照主判人指定位置，按圖則及質量要求做妥施工樣辦 (CONTROL SAMPLE)，經主判人認可後方能全面施工。
- B. 提交材料樣辦期限：參閱 **Part 1** 章程附錄
- C. 主判人提供之圖則只作表達外型及美觀上之需求，各結構部份之實際尺寸須由承判人自行計算，以符合政府有關條例要求為準，並依照批准圖則做妥。
- D. 提交大樣圖及數據期限：參閱 **Part 1** 章程附錄
- E. 主判人有權要求承判人提供圖則所示之任何材料之樣辦 (另見 Specification)。
- F. 所有配件及切面之樣辦必須交予主判人批准，任何不符合本章程及 Specification 內所要求及未經批准之材料，一概不得用以施工。
- G. 承判人須依主判人指示於施工前預先做妥實地樣辦，經批准後方可作全面開工 (承判人須負責空運材料之費用)。
- H. 所有有關需要由承判人供應的材料項目均需提供樣辦、材料證明書交主判人審批。若然超過時限亦未能交出予主判人審批，當作合約逾期論，主判人有權依 分包合約協議第四附表 6.2 項 逾期罰款處理，扣罰承判人有關款項直至可完成履行合約指定事項為止，承判人不得異議。
- I. 提交有關文件期限：參閱 **Part 1** 章程附錄
- J. 投標商必須於隨標後附的工程計價表內，填報各項工程單價，如無呈交上述資料，標書不會被考慮。另投標商必須填報及隨回標時交回附件 “Request Document for Tender” [見 **Part 1** 章程附件 (七)]，供主判人分析及考慮。
- K. 所有有關需要提供樣辦、材料證明書、Shop Drawings、計算數據、人則等等合約工程項目，於章程內均加以說明需要提交主判人審批的時限，若然超過時限亦未能交出予主判人審批，則當作合約逾期論，主判人有權依照合約條款內逾期罰則，扣罰承判人有關款項直至可以完成履行合約指定事項為止，承判人不得異議。
- L. 投標商回標時必須按 Specification 要求提交有關文件及資料，及填報工程計價表內各項目單價及計算總價，否則來標不予考慮。

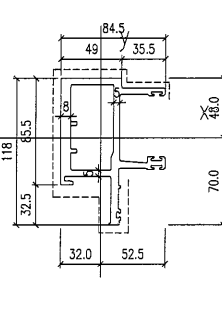
**M1 X86047**



**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUM. MALE MULLION (AL03)**  
**GRADE: 6063-T6**

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	2734
Perimeter (mm)	1034.6
Bounding Box - X (mm)	-28.9 to 55.6
Bounding Box - Y (mm)	-100.3 to 65.7
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	5277145.5
Moments of inertia - Y (mm <sup>4</sup> )	1439687.3
Product of inertia - XY (mm <sup>4</sup> )	-12790.7
Radius of gyration - X (mm)	43.6
Radius of gyration - Y (mm)	22.8
Principal moments along X-Y (mm <sup>4</sup> )	5281530.3 along [1.0 0.0]
Principal moments along Y-X (mm <sup>4</sup> )	1435286.5 along [0.0 1.0]
Elastic Modulus - Zx (mm <sup>2</sup> )	1 / y-max= 52621.7
Elastic Modulus - Zy (mm <sup>2</sup> )	1 / x-max= 25875.6

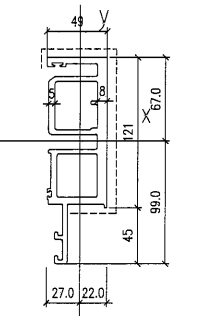
**M2 X86048**



**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUM. MALE MULLION (AL03A)**  
**GRADE: 6063-T6**

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	2118.8
Perimeter (mm)	795.1
Bounding Box - X (mm)	-32.2 to 52.3
Bounding Box - Y (mm)	-70.0 to 48.0
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	2215208.2
Moments of inertia - Y (mm <sup>4</sup> )	1223371.7
Product of inertia - XY (mm <sup>4</sup> )	-16754.4
Radius of gyration - X (mm)	32.3
Radius of gyration - Y (mm)	24.0
Principal moments along X-Y (mm <sup>4</sup> )	2242780.9 along [1.0 0.0]
Principal moments along Y-X (mm <sup>4</sup> )	1195799.0 along [-0.2 1.0]
Elastic Modulus - Zx (mm <sup>2</sup> )	1 / y-max= 31658.8
Elastic Modulus - Zy (mm <sup>2</sup> )	1 / x-max= 23381.7

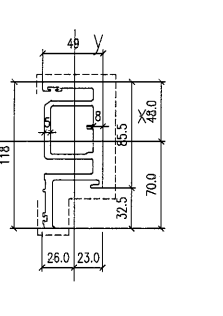
**M3 X86049**



**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUM. FEMALE MULLION (AL04)**  
**GRADE: 6063-T6**

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	2481.3
Perimeter (mm)	942.3
Bounding Box - X (mm)	-27.2 to 21.8
Bounding Box - Y (mm)	-70.0 to 67.2
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	4902834.6
Moments of inertia - Y (mm <sup>4</sup> )	891832.5
Product of inertia - XY (mm <sup>4</sup> )	-354465.4
Radius of gyration - X (mm)	44.5
Radius of gyration - Y (mm)	16.8
Principal moments along X-Y (mm <sup>4</sup> )	4924759.6 along [1.0 -0.1]
Principal moments along Y-X (mm <sup>4</sup> )	674637.4 along [-0.2 1.0]
Elastic Modulus - Zx (mm <sup>2</sup> )	1 / y-max= 49603.6
Elastic Modulus - Zy (mm <sup>2</sup> )	1 / x-max= 25836.8

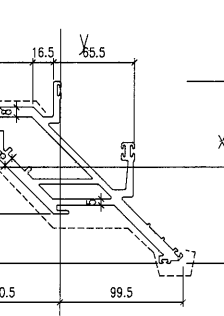
**M4 X86050**



**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUM. FEMALE MULLION (AL04A)**  
**GRADE: 6063-T6**

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	1859
Perimeter (mm)	701.6
Bounding Box - X (mm)	-28.0 to 23.0
Bounding Box - Y (mm)	-70.2 to 47.8
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	1920265.5
Moments of inertia - Y (mm <sup>4</sup> )	585157.2
Product of inertia - XY (mm <sup>4</sup> )	-254699.1
Radius of gyration - X (mm)	32.1
Radius of gyration - Y (mm)	17.4
Principal moments along X-Y (mm <sup>4</sup> )	1966287.1 along [1.0 -0.2]
Principal moments along Y-X (mm <sup>4</sup> )	519075.5 along [0.2 1.0]
Elastic Modulus - Zx (mm <sup>2</sup> )	1 / y-max= 27392.5
Elastic Modulus - Zy (mm <sup>2</sup> )	1 / x-max= 21738.3

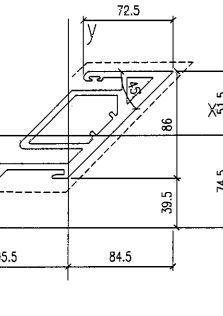
**M7 X86051**



**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUM. OUTER CORNER MALE MULLION (AL07)**  
**GRADE: 6063-T6**

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	3581.5
Perimeter (mm)	1170.5
Bounding Box - X (mm)	-90.6 to 98.6
Bounding Box - Y (mm)	-77.6 to 88.7
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	4361519.1
Moments of inertia - Y (mm <sup>4</sup> )	8366925.2
Product of inertia - XY (mm <sup>4</sup> )	4655690.7
Radius of gyration - X (mm)	34.9
Radius of gyration - Y (mm)	48.3
Principal moments along X-Y (mm <sup>4</sup> )	1295066.8 along [0.8 -0.5]
Principal moments along Y-X (mm <sup>4</sup> )	11432357.5 along [0.5 0.8]
Elastic Modulus - Zx (mm <sup>2</sup> )	1 / y-max= 56186.6
Elastic Modulus - Zy (mm <sup>2</sup> )	1 / x-max= 84019.1

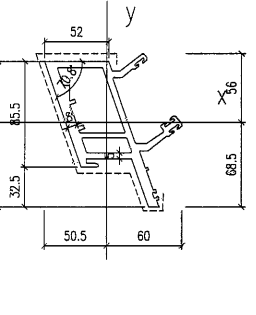
**M8 X86052**



**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUM. OUTER CORNER FEMALE MULLION (AL08)**  
**GRADE: 6063-T6**

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	2330
Perimeter (mm)	1014.5
Bounding Box - X (mm)	-105.5 to 84.7
Bounding Box - Y (mm)	-74.3 to 51.4
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	3553130.5
Moments of inertia - Y (mm <sup>4</sup> )	6888499.4
Product of inertia - XY (mm <sup>4</sup> )	-438249.5
Radius of gyration - X (mm)	34.9
Radius of gyration - Y (mm)	48.8
Principal moments along X-Y (mm <sup>4</sup> )	565186.4 along [0.8 0.6]
Principal moments along Y-X (mm <sup>4</sup> )	9888443.5 along [-0.6 0.8]
Elastic Modulus - Zx (mm <sup>2</sup> )	1 / y-max= 47938.2
Elastic Modulus - Zy (mm <sup>2</sup> )	1 / x-max= 66245.4

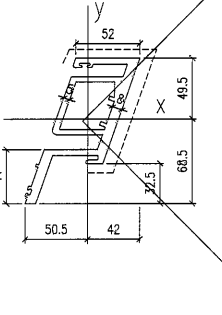
**M9 X86053**



**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUM. MALE MULLION (AL86)**  
**GRADE: 6063-T6**

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	2495.1
Perimeter (mm)	903.4
Bounding Box - X (mm)	-50.5 to 60.0
Bounding Box - Y (mm)	-68.6 to 55.8
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	2574786.6
Moments of inertia - Y (mm <sup>4</sup> )	1932970.6
Product of inertia - XY (mm <sup>4</sup> )	1083244.5
Radius of gyration - X (mm)	32.1
Radius of gyration - Y (mm)	27.8
Principal moments along X-Y (mm <sup>4</sup> )	3383857.5 along [0.8 0.6]
Principal moments along Y-X (mm <sup>4</sup> )	1124099.6 along [-0.6 0.8]
Elastic Modulus - Zx (mm <sup>2</sup> )	1 / y-max= 37586.6
Elastic Modulus - Zy (mm <sup>2</sup> )	1 / x-max= 32216.5

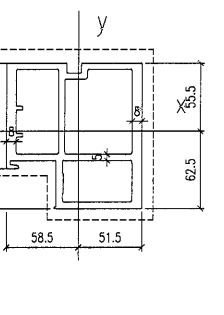
**M10 X86054**



**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUM. FEMALE MULLION (AL85)**  
**GRADE: 6063-T6**

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	2123
Perimeter (mm)	753
Bounding Box - X (mm)	-50 to 42
Bounding Box - Y (mm)	-69 to 49
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	2281509
Moments of inertia - Y (mm <sup>4</sup> )	1287529
Product of inertia - XY (mm <sup>4</sup> )	-1170556
Radius of gyration - X (mm)	33
Radius of gyration - Y (mm)	28
Principal moments along X-Y (mm <sup>4</sup> )	2060354 along [1 -1]
Principal moments along Y-X (mm <sup>4</sup> )	508884 along [1 1]
Elastic Modulus - Zx (mm <sup>2</sup> )	1 / y-max= 33329
Elastic Modulus - Zy (mm <sup>2</sup> )	1 / x-max= 25613

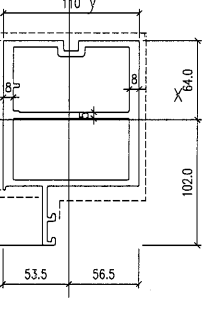
**M13 X86055**



**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUM. INTERMEDIATE MULLION (AL85)**  
**GRADE: 6063-T6**

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	3508.2
Perimeter (mm)	1144.9
Bounding Box - X (mm)	-58.6 to 51.4
Bounding Box - Y (mm)	-62.7 to 55.3
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	4989216.5
Moments of inertia - Y (mm <sup>4</sup> )	5178984.5
Product of inertia - XY (mm <sup>4</sup> )	-391003.6
Radius of gyration - X (mm)	44.3
Radius of gyration - Y (mm)	38.4
Principal moments along X-Y (mm <sup>4</sup> )	4153543.0 along [0.7 -0.7]
Principal moments along Y-X (mm <sup>4</sup> )	6014326.3 along [0.7 0.7]
Elastic Modulus - Zx (mm <sup>2</sup> )	1 / y-max= 79592.5
Elastic Modulus - Zy (mm <sup>2</sup> )	1 / x-max= 88351.7

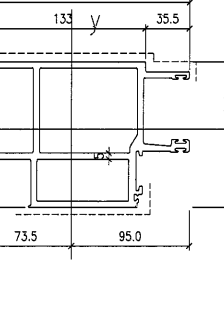
**M14 X86056**



**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUM. INTERMEDIATE MULLION (AL86)**  
**GRADE: 6063-T6**

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	3654.2
Perimeter (mm)	1207.3
Bounding Box - X (mm)	-53.3 to 56.7
Bounding Box - Y (mm)	-101.9 to 84.1
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	7162911.8
Moments of inertia - Y (mm <sup>4</sup> )	6114287.5
Product of inertia - XY (mm <sup>4</sup> )	-391003.6
Radius of gyration - X (mm)	44.3
Radius of gyration - Y (mm)	40.9
Principal moments along X-Y (mm <sup>4</sup> )	7292634.0 along [0.9 -0.3]
Principal moments along Y-X (mm <sup>4</sup> )	5884545.4 along [0.3 0.9]
Elastic Modulus - Zx (mm <sup>2</sup> )	1 / y-max= 70298.9
Elastic Modulus - Zy (mm <sup>2</sup> )	1 / x-max= 107870.6

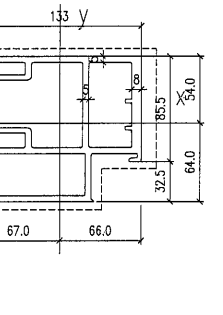
**M15 X86057**



**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUM. MALE MULLION (AL67)**  
**GRADE: 6063-T6**

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	3899.6
Perimeter (mm)	1487.0
Bounding Box - X (mm)	-73.3 to 95.2
Bounding Box - Y (mm)	-63.4 to 54.6
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	5684785.2
Moments of inertia - Y (mm <sup>4</sup> )	8852565.3
Product of inertia - XY (mm <sup>4</sup> )	668855.9
Radius of gyration - X (mm)	38.2
Radius of gyration - Y (mm)	50.1
Principal moments along X-Y (mm <sup>4</sup> )	5520345.6 along [1.0 -0.2]
Principal moments along Y-X (mm <sup>4</sup> )	9557304.9 along [0.2 1.0]
Elastic Modulus - Zx (mm <sup>2</sup> )	1 / y-max= 89728.1
Elastic Modulus - Zy (mm <sup>2</sup> )	1 / x-max= 103521.7

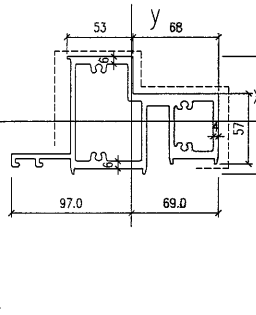
**M16 X86058**



**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUM. FEMALE MULLION (AL68)**  
**GRADE: 6063-T6**

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	3747.1
Perimeter (mm)	1435.8
Bounding Box - X (mm)	-67.0 to 66.0
Bounding Box - Y (mm)	-63.8 to 54.2
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	5463720.4
Moments of inertia - Y (mm <sup>4</sup> )	7175685.5
Product of inertia - XY (mm <sup>4</sup> )	-823822.2
Radius of gyration - X (mm)	38.2
Radius of gyration - Y (mm)	43.9
Principal moments along X-Y (mm <sup>4</sup> )	5137515.5 along [0.9 0.4]
Principal moments along Y-X (mm <sup>4</sup> )	751890.4 along [-0.4 0.9]
Elastic Modulus - Zx (mm <sup>2</sup> )	1 / y-max= 85833.3
Elastic Modulus - Zy (mm <sup>2</sup> )	1 / x-max= 107163.2

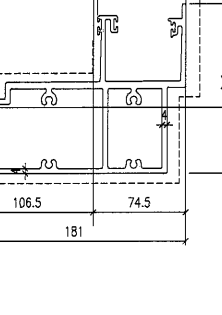
**T1 X86059**



**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUM. SILL STACK JOINT (AL11)**  
**GRADE: 6063-T6**

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	2858.8
Perimeter (mm)	1146.8
Bounding Box - X (mm)	-97.0 to 89.0
Bounding Box - Y (mm)	-42.5 to 52.5
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	2406108.9
Moments of inertia - Y (mm <sup>4</sup> )	5235950.7
Product of inertia - XY (mm <sup>4</sup> )	-156794.7
Radius of gyration - X (mm)	29.0
Radius of gyration - Y (mm)	42.8
Principal moments along X-Y (mm <sup>4</sup> )	2394312.9 along [1.0 0.1]
Principal moments along Y-X (mm <sup>4</sup> )	5245746.7 along [-0.1 1.0]
Elastic Modulus - Zx (mm <sup>2</sup> )	1 / y-max= 45827.2
Elastic Modulus - Zy (mm <sup>2</sup> )	1 / x-max= 53996.9

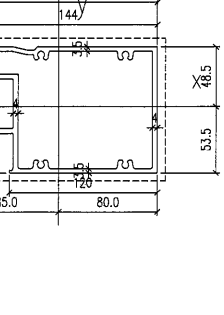
**T2 X86060**



**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUM. GUTTER STACK JOINT (AL12)**  
**GRADE: 6063-T6**

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	3175.1
Perimeter (mm)	1257.0
Bounding Box - X (mm)	-106.3 to 74.7
Bounding Box - Y (mm)	-53.3 to 83.7
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	4356896.8
Moments of inertia - Y (mm <sup>4</sup> )	8192586.5
Product of inertia - XY (mm <sup>4</sup> )	-1548832.9
Radius of gyration - X (mm)	37.0
Radius of gyration - Y (mm)	52.8
Principal moments along X-Y (mm <sup>4</sup> )	3745635.4 along [0.9 0.3]
Principal moments along Y-X (mm <sup>4</sup> )	8803937.9 along [-0.3 0.9]
Elastic Modulus - Zx (mm <sup>2</sup> )	1 / y-max= 52034.3
Elastic Modulus - Zy (mm <sup>2</sup> )	1 / x-max= 77092.4

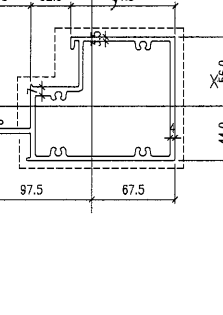
**T3 X86061**



**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUM. INTERMEDIATE TRANSOM (AL13)**  
**GRADE: 6063-T6**

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	2392.4
Perimeter (mm)	1098.3
Bounding Box - X (mm)	-85.0 to 80.0
Bounding Box - Y (mm)	-53.6 to 48.4
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	3420463.6
Moments of inertia - Y (mm <sup>4</sup> )	6978517.5
Product of inertia - XY (mm <sup>4</sup> )	-430357.5
Radius of gyration - X (mm)	37.8
Radius of gyration - Y (mm)	44.6
Principal moments along X-Y (mm <sup>4</sup> )	3229122.5 along [1.0 -0.1]
Principal moments along Y-X (mm <sup>4</sup> )	7327858.6 along [0.1 1.0]
Elastic Modulus - Zx (mm <sup>2</sup> )	1 / y-max= 63797.2
Elastic Modulus - Zy (mm <sup>2</sup> )	1 / x-max= 82035.2

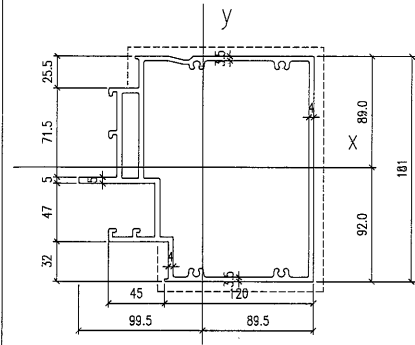
**T4 X86062**



**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUM. INTERMEDIATE TRANSOM (AL15)**  
**GRADE: 6063-T6**

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	2103.3
Perimeter (mm)	1139.6
Bounding Box - X (mm)	-97.7 to 67.3
Bounding Box - Y (mm)	-43.9 to 56.1
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	2607312.2

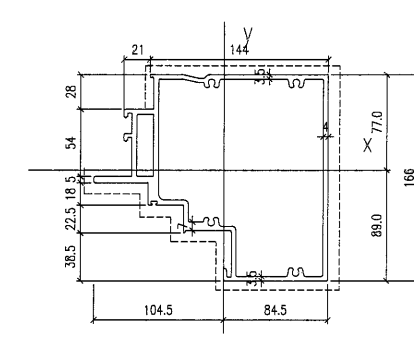
**T8 X86065**



**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUM. TRANSOM (AL70)**  
**GRADE: 6063-T6**

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	3456.7
Perimeter (mm)	1761.0
Bounding Box - X (mm)	-99.5 to 89.4
Bounding Box - Y (mm)	-92.0 to 89.2
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	13773053.4
Moments of inertia - Y (mm <sup>4</sup> )	12978567.0
Product of inertia - XY (mm <sup>4</sup> )	626447.1
Radius of gyration - X (mm)	63.1
Radius of gyration - Y (mm)	61.3
Principal moments along X-Y (mm <sup>4</sup> )	1411726.6 along [0.9 -0.5]
Principal moments along Y-X (mm <sup>4</sup> )	12632491.8 along [-0.5 0.9]
Elastic Modulus - Zx (mm <sup>2</sup> )	1 / y-max= 149665.7
Elastic Modulus - Zy (mm <sup>2</sup> )	1 / x-max= 130410.4

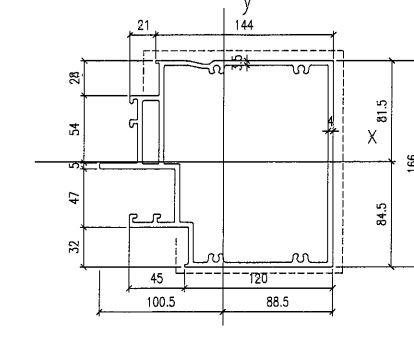
**T9 X86066**



**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUM. TRANSOM (AL71)**  
**GRADE: 6063-T6**

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	3191.1
Perimeter (mm)	1576.5
Bounding Box - X (mm)	-104.6 to 84.3
Bounding Box - Y (mm)	-99.1 to 76.9
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	8653960.0
Moments of inertia - Y (mm <sup>4</sup> )	11366636.9
Product of inertia - XY (mm <sup>4</sup> )	1889370.3
Radius of gyration - X (mm)	55.0
Radius of gyration - Y (mm)	62.7
Principal moments along X-Y (mm <sup>4</sup> )	8921742.6 along [0.9 -0.5]
Principal moments along Y-X (mm <sup>4</sup> )	1241854.3 along [0.5 0.9]
Elastic Modulus - Zx (mm <sup>2</sup> )	1 / y-max= 108357.7
Elastic Modulus - Zy (mm <sup>2</sup> )	1 / x-max= 108855.9

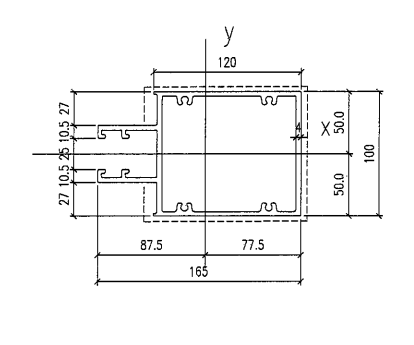
**T10 X86067**



**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUM. TRANSOM (AL72)**  
**GRADE: 6063-T6**

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	3264.3
Perimeter (mm)	1564.8
Bounding Box - X (mm)	-100.3 to 88.6
Bounding Box - Y (mm)	-84.6 to 81.4
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	11024824.8
Moments of inertia - Y (mm <sup>4</sup> )	12041853.6
Product of inertia - XY (mm <sup>4</sup> )	614603.0
Radius of gyration - X (mm)	58.1
Radius of gyration - Y (mm)	62.7
Principal moments along X-Y (mm <sup>4</sup> )	10735904.0 along [0.9 -0.4]
Principal moments along Y-X (mm <sup>4</sup> )	12330874.7 along [0.4 0.9]
Elastic Modulus - Zx (mm <sup>2</sup> )	1 / y-max= 130276.9
Elastic Modulus - Zy (mm <sup>2</sup> )	1 / x-max= 120107.6

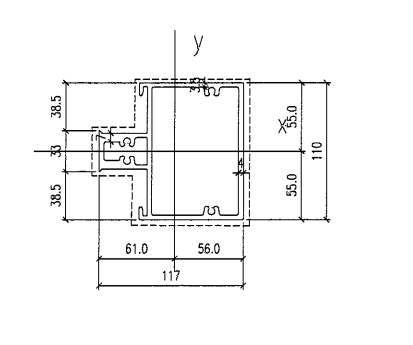
**T11 X86068**



**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUM. INTERMEDIATE TRANSOM (AL106)**  
**GRADE: 6063-T6**

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	2297.8
Perimeter (mm)	1246.4
Bounding Box - X (mm)	-87.5 to 77.5
Bounding Box - Y (mm)	-50.0 to 50.0
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	3088485.3
Moments of inertia - Y (mm <sup>4</sup> )	6516592.1
Product of inertia - XY (mm <sup>4</sup> )	132.5
Radius of gyration - X (mm)	36.7
Radius of gyration - Y (mm)	54.3
Principal moments along X-Y (mm <sup>4</sup> )	3088485.3 along [1.0 0.0]
Principal moments along Y-X (mm <sup>4</sup> )	12330874.7 along [0.0 1.0]
Elastic Modulus - Zx (mm <sup>2</sup> )	1 / y-max= 61768.8
Elastic Modulus - Zy (mm <sup>2</sup> )	1 / x-max= 74483.2

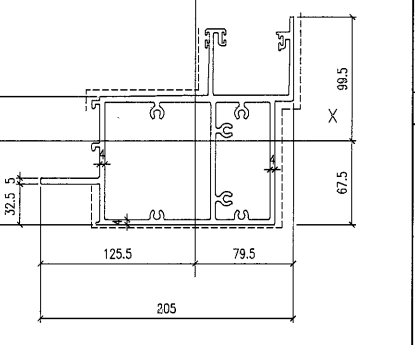
**T12 X86069**



**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUM. INTERMEDIATE TRANSOM (AL107)**  
**GRADE: 6063-T6**

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	2071.3
Perimeter (mm)	1046.4
Bounding Box - X (mm)	-81.0 to 56.0
Bounding Box - Y (mm)	-55.0 to 55.0
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	2781010.3
Moments of inertia - Y (mm <sup>4</sup> )	3180874.4
Product of inertia - XY (mm <sup>4</sup> )	30.8
Radius of gyration - X (mm)	34.5
Radius of gyration - Y (mm)	39.1
Principal moments along X-Y (mm <sup>4</sup> )	2781010.2 along [1.0 0.0]
Principal moments along Y-X (mm <sup>4</sup> )	13188674.5 along [0.0 1.0]
Elastic Modulus - Zx (mm <sup>2</sup> )	1 / y-max= 50199.1
Elastic Modulus - Zy (mm <sup>2</sup> )	1 / x-max= 51787.3

**T13 X86070**



**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUM. GUTTER STACK JOINT (AL105)**  
**GRADE: 6063-T6**

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	3826.3
Perimeter (mm)	1888.4
Bounding Box - X (mm)	-125.4 to 79.5
Bounding Box - Y (mm)	-67.3 to 99.7
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	8395833.3
Moments of inertia - Y (mm <sup>4</sup> )	11480291.5
Product of inertia - XY (mm <sup>4</sup> )	-2861742.7
Radius of gyration - X (mm)	46.3
Radius of gyration - Y (mm)	54.8
Principal moments along X-Y (mm <sup>4</sup> )	6667077.2 along [0.9 0.5]
Principal moments along Y-X (mm <sup>4</sup> )	13188674.5 along [-0.5 0.9]
Elastic Modulus - Zx (mm <sup>2</sup> )	1 / y-max= 84238.0
Elastic Modulus - Zy (mm <sup>2</sup> )	1 / x-max= 91524.7

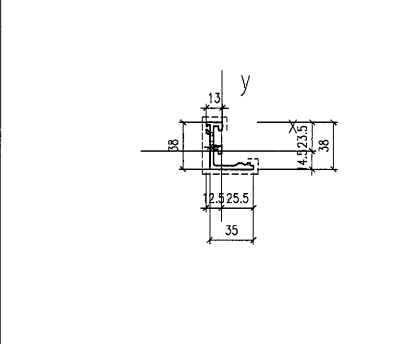
B.D. REF :  
 F.S.D. REF :  
**Note :**  
 1. All dimensions are in mm.  
 2. All elevations are viewed from outside.  
 3. All dimensions to be verified on site before fabrication.

**GENERAL NOTES**

**Legend :**  
 1. F.F.L--- Finished Floor Level  
 2. S.F.L--- Structural Floor Level  
 3. (R) --- Reversed Detail

X1 --- DETAIL MARK NO.  
 X001 --- REFER SHEET NO.

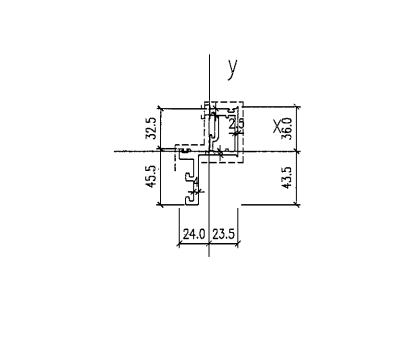
**X86071**



**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUM. CAPPING (AL17)**  
**GRADE: 6063-T6**

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	301
Perimeter (mm)	203
Bounding Box - X (mm)	-12 to 26
Bounding Box - Y (mm)	-15 to 23
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	63340
Moments of inertia - Y (mm <sup>4</sup> )	31288
Product of inertia - XY (mm <sup>4</sup> )	23569
Radius of gyration - X (mm)	13
Radius of gyration - Y (mm)	10
Principal moments along X-Y (mm <sup>4</sup> )	66334 along [1 1]
Principal moments along Y-X (mm <sup>4</sup> )	16294 along [-1 1]
Elastic Modulus - Zx (mm <sup>2</sup> )	1 / y-max= 2294
Elastic Modulus - Zy (mm <sup>2</sup> )	1 / x-max= 1219

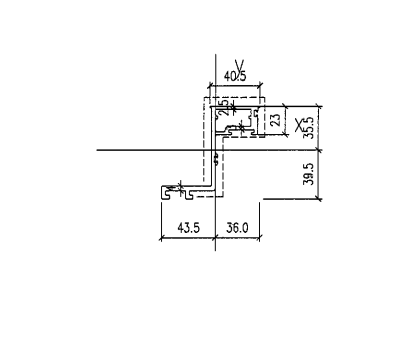
**X86072**



**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUM. OPENABLE WINDOW SASH (AL26)**  
**GRADE: 6063-T6**

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	695.5
Perimeter (mm)	427.5
Bounding Box - X (mm)	-24.0 to 23.5
Bounding Box - Y (mm)	-43.5 to 36.0
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	333016.8
Moments of inertia - Y (mm <sup>4</sup> )	137589.1
Product of inertia - XY (mm <sup>4</sup> )	-146308.9
Radius of gyration - X (mm)	21.9
Radius of gyration - Y (mm)	14.1
Principal moments along X-Y (mm <sup>4</sup> )	411706.1 along [0.9 -0.5]
Principal moments along Y-X (mm <sup>4</sup> )	59497.8 along [0.5 0.9]
Elastic Modulus - Zx (mm <sup>2</sup> )	1 / y-max= 7667.5
Elastic Modulus - Zy (mm <sup>2</sup> )	1 / x-max= 5735.9

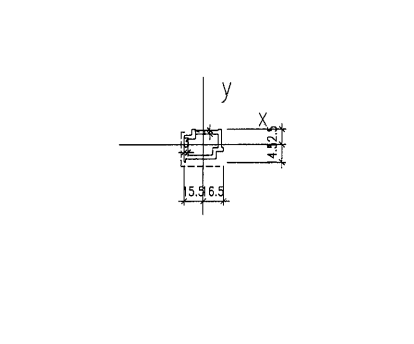
**X86073**



**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUM. OPENABLE WINDOW SASH (AL31)**  
**GRADE: 6063-T6**

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	717.2
Perimeter (mm)	469.1
Bounding Box - X (mm)	-43.6 to 35.9
Bounding Box - Y (mm)	-39.5 to 35.5
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	502980.2
Moments of inertia - Y (mm <sup>4</sup> )	332834.6
Product of inertia - XY (mm <sup>4</sup> )	-329397.5
Radius of gyration - X (mm)	26.5
Radius of gyration - Y (mm)	21.5
Principal moments along X-Y (mm <sup>4</sup> )	758119.0 along [0.8 -0.6]
Principal moments along Y-X (mm <sup>4</sup> )	77704.9 along [0.8 0.8]
Elastic Modulus - Zx (mm <sup>2</sup> )	1 / y-max= 12727.9
Elastic Modulus - Zy (mm <sup>2</sup> )	1 / x-max= 7625.5

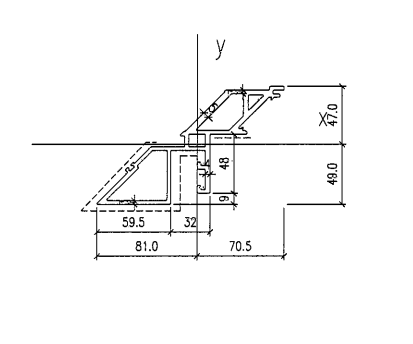
**X86074**



**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUM. ADAPTOR (AL34)**  
**GRADE: 6063-T6**

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	298.5
Perimeter (mm)	197.8
Bounding Box - X (mm)	-15.4 to 16.6
Bounding Box - Y (mm)	-14.6 to 12.4
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	20029.7
Moments of inertia - Y (mm <sup>4</sup> )	35666.4
Product of inertia - XY (mm <sup>4</sup> )	-3344.2
Radius of gyration - X (mm)	8.2
Radius of gyration - Y (mm)	10.5
Principal moments along X-Y (mm <sup>4</sup> )	19199.3 along [1.0 0.2]
Principal moments along Y-X (mm <sup>4</sup> )	33498.8 along [-0.2 1.0]
Elastic Modulus - Zx (mm <sup>2</sup> )	1 / y-max= 1373.7
Elastic Modulus - Zy (mm <sup>2</sup> )	1 / x-max= 1964.6

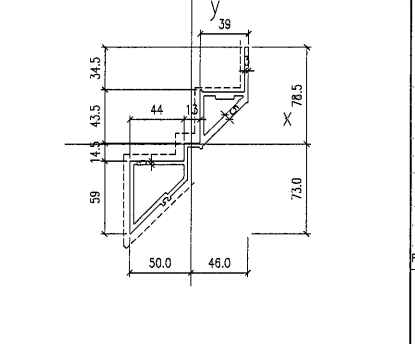
**X86075**



**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUMINIUM OUTER CORNER EDGE PROTECTION (AL38)**  
**GRADE: 6063-T6**

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	1717.2
Perimeter (mm)	942.6
Bounding Box - X (mm)	-89.8 to 70.6
Bounding Box - Y (mm)	-46.5 to 45.9
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	1305892.2
Moments of inertia - Y (mm <sup>4</sup> )	2381925.4
Product of inertia - XY (mm <sup>4</sup> )	-1570201.3
Radius of gyration - X (mm)	29.6
Radius of gyration - Y (mm)	37.1
Principal moments along X-Y (mm <sup>4</sup> )	308238.4 along [0.8 0.6]
Principal moments along Y-X (mm <sup>4</sup> )	3581318.1 along [-0.6 0.8]
Elastic Modulus - Zx (mm <sup>2</sup> )	1 / y-max= 30807.4
Elastic Modulus - Zy (mm <sup>2</sup> )	1 / x-max= 29185.9

**X86076**



**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUMINIUM OUTER CORNER EDGE PROTECTION (AL39)**  
**GRADE: 6063-T6**

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	1274.2
Perimeter (mm)	735.7
Bounding Box - X (mm)	-49.8 to 46.2
Bounding Box - Y (mm)	-72.9 to 78.9
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	1803398.1
Moments of inertia - Y (mm <sup>4</sup> )	1267372.4
Product of inertia - XY (mm <sup>4</sup> )	-1366851.7
Radius of gyration - X (mm)	37.6
Radius of gyration - Y (mm)	31.5
Principal moments along X-Y (mm <sup>4</sup> )	2928245.5 along [0.8 -0.6]
Principal moments along Y-X (mm <sup>4</sup> )	142824.9 along [0.6 0.8]
Elastic Modulus - Zx (mm <sup>2</sup> )	1 / y-max= 22954.7
Elastic Modulus - Zy (mm <sup>2</sup> )	1 / x-max= 25469.9

D 22.Nov.2021 GENERAL REVISION  
 C 13.Nov.2021 GENERAL REVISION  
 B 8.Nov.2021 GENERAL REVISION  
 A 18.Oct.2021 GENERAL REVISION

REV. DATE DESCRIPTION BY

CLIENT :  
**MARBLE EDGE INVESTMENT LTD.**

ARCHITECT :  
**RONALD LU & PARTNERS**  
 ARCHITECTS | PLANNERS | INTERIOR DESIGNERS

STRUCTURAL ENGINEER :  
**ICMA C-M WONG & ASSOCIATES LTD**

MAIN CONTRACTOR :  
**裕民建築有限公司**

**美特鋁質有限公司**  
**MIDI ALUMINIUM FABRICATOR LTD.**  
 Units 6-8, Sunray Industrial Centre, 1/F  
 610 Cha Kwo Ling Road, Kowloon  
 Tel:23489211-4 Fax:(852)27727666

PROJECT :  
**PROPOSED RESIDENTIAL DEVELOPMENT AT NEW KOWLOON INLAND LOT. NO.6552**

TITLE :  
**SECTION PROPERTIES (PAGE 2 OF 5)**

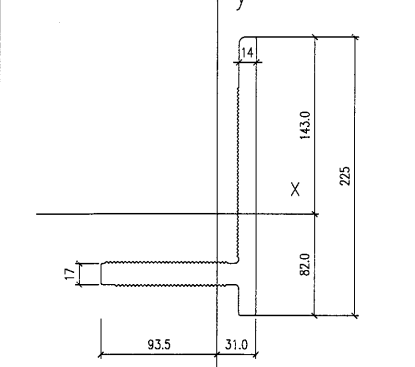
JOB NO. : J-857

DRAWN BY : AN DATE : 18.Oct.2021

CHKD BY : SCALE A1: 1:3 A3:

DWG. NO. : SD-SP-0006 REV. : -

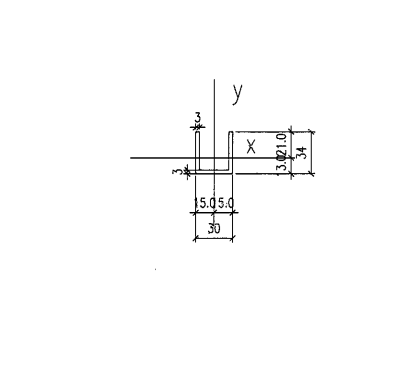
**X86077**



**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUM. ANGLE BRACKET (AL45)**  
**GRADE: 6063-T6**

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	5288.3
Perimeter (mm)	809.2
Bounding Box - X (mm)	-93.4 to 31.1
Bounding Box - Y (mm)	-82.1 to 142.9
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	21284372.5
Moments of inertia - Y (mm <sup>4</sup> )	8913805.6
Product of inertia - XY (mm <sup>4</sup> )	-6130406.5
Radius of gyration - X (mm)	63.4
Radius of gyration - Y (mm)	36.1
Principal moments along X-Y (mm <sup>4</sup> )	23826581.1 along [0.9 -0.3]
Principal moments along Y-X (mm <sup>4</sup> )	4481580.0 along [0.3 0.9]
Elastic Modulus - Zx (mm <sup>2</sup> )	1 / y-max= 146766.2
Elastic Modulus - Zy (mm <sup>2</sup> )	1 / x-max= 74028.4

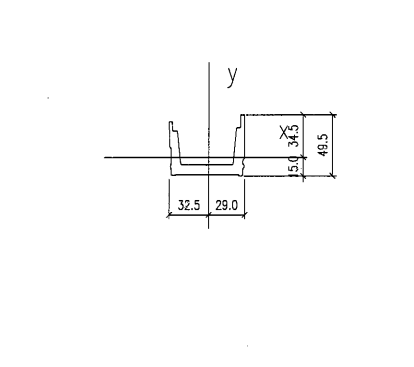
**X86078**



**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUM. U-CHANNEL (FOR GLASS BARRIER) (AL49)**  
**GRADE: 6063-T6**

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	275.8
Perimeter (mm)	188.3
Bounding Box - X (mm)	-15.0 to 15.0
Bounding Box - Y (mm)	-12.9 to 21.1
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	32360.1
Moments of inertia - Y (mm <sup>4</sup> )	40739.9
Product of inertia - XY (mm <sup>4</sup> )	0.0
Radius of gyration - X (mm)	10.8
Radius of gyration - Y (mm)	12.2
Principal moments along X-Y (mm <sup>4</sup> )	32360.1 along [1.0 0.0]
Principal moments along Y-X (mm <sup>4</sup> )	40739.9 along [0.0 1.0]
Elastic Modulus - Zx (mm <sup>2</sup> )	1 / y-max= 1538.1
Elastic Modulus - Zy (mm <sup>2</sup> )	1 / x-max= 2718.0

**X86079**

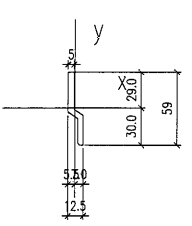


**COLOUR: Dark Grey**  
**EXTRUSION MARK: EXTRUDED ALUM. GUTTER SLEEVE (AL58)**  
**GRADE: 6063-T6**

B.D. REF :  
 F.S.D. REF :  
 Note :  
 1. All dimensions are in mm.  
 2. All elevations are viewed from outside.  
 3. All dimensions to be verified on site before fabrication.

GENERAL NOTES  
**Legend :**  
 1. F.F.L--- Finished Floor Level  
 2. S.F.L--- Structural Floor Level  
 3. (R) --- Reversed Detail  
 X1 --- DETAIL MARK NO.  
 X001 --- REFER SHEET NO.

X86083

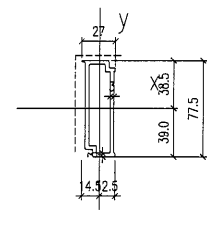


COLOUR: Dark Grey

EXTRUSION MARK: EXTRUDED ALUM. BRACKET (AL75)  
 GRADE: 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> ) :	297.9
Perimeter (mm) :	133.3
Bounding Box - X (mm) :	-5.6 to 6.9
Bounding Box - Y (mm) :	-29.9 to 28.8
Centroid - X (mm) :	0.0000
Centroid - Y (mm) :	0.0090
Moments of inertia - X (mm <sup>4</sup> ) :	79620.5
Moments of inertia - Y (mm <sup>4</sup> ) :	4549.3
Product of inertia - XY (mm <sup>4</sup> ) :	15338.1
Radius of gyration - X (mm) :	18.3
Radius of gyration - Y (mm) :	3.9
Principal moments along X-Y (mm <sup>4</sup> ) :	80833.4 along [1.0 0.2]
Principal moments along Y-X (mm <sup>4</sup> ) :	1538.4 along [-0.2 1.0]
Elastic Modulus - Zx (mm <sup>2</sup> ) :	1 / y-max= 2661.3
Elastic Modulus - Zy (mm <sup>2</sup> ) :	1 / x-max= 683.3

X86084

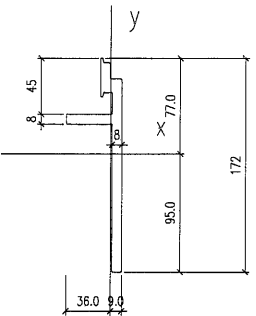


COLOUR: Dark Grey

EXTRUSION MARK: EXTRUDED ALUM. ADAPTOR (AL80)  
 GRADE: 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> ) :	576.8
Perimeter (mm) :	383.1
Bounding Box - X (mm) :	-14.6 to 12.4
Bounding Box - Y (mm) :	-39.0 to 38.5
Centroid - X (mm) :	0
Centroid - Y (mm) :	0
Moments of inertia - X (mm <sup>4</sup> ) :	374485.4
Moments of inertia - Y (mm <sup>4</sup> ) :	48107.8
Product of inertia - XY (mm <sup>4</sup> ) :	8572.9
Radius of gyration - X (mm) :	25.5
Radius of gyration - Y (mm) :	8.1
Principal moments along X-Y (mm <sup>4</sup> ) :	374786.0 along [1.0 0.0]
Principal moments along Y-X (mm <sup>4</sup> ) :	47827.3 along [0.0 1.0]
Elastic Modulus - Zx (mm <sup>2</sup> ) :	1 / y-max= 9594.9
Elastic Modulus - Zy (mm <sup>2</sup> ) :	1 / x-max= 3294.4

X86085

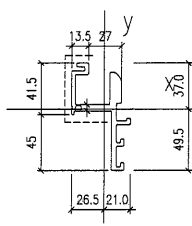


COLOUR: Dark Grey

EXTRUSION MARK: EXTRUDED ALUM. BRACKET (AL81)  
 GRADE: 6061-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> ) :	1757.7
Perimeter (mm) :	454.9
Bounding Box - X (mm) :	-36.1 to 8.8
Bounding Box - Y (mm) :	-85.1 to 76.9
Centroid - X (mm) :	0
Centroid - Y (mm) :	0
Moments of inertia - X (mm <sup>4</sup> ) :	3931245.4
Moments of inertia - Y (mm <sup>4</sup> ) :	167354.1
Product of inertia - XY (mm <sup>4</sup> ) :	339380.8
Radius of gyration - X (mm) :	47.3
Radius of gyration - Y (mm) :	9.8
Principal moments along X-Y (mm <sup>4</sup> ) :	395807.5 along [1.0 0.1]
Principal moments along Y-X (mm <sup>4</sup> ) :	142072.0 along [-0.1 1.0]
Elastic Modulus - Zx (mm <sup>2</sup> ) :	1 / y-max= 41352.7
Elastic Modulus - Zy (mm <sup>2</sup> ) :	1 / x-max= 4639.9

X86086

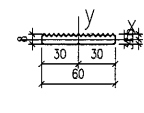


COLOUR: Dark Grey

EXTRUSION MARK: EXTRUDED ALUM. OPENABLE FRAME (AL82)  
 GRADE: 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> ) :	419
Perimeter (mm) :	157
Bounding Box - X (mm) :	-30 to 30
Bounding Box - Y (mm) :	-4 to 4
Centroid - X (mm) :	0.0000
Centroid - Y (mm) :	0.0000
Moments of inertia - X (mm <sup>4</sup> ) :	424878.9
Moments of inertia - Y (mm <sup>4</sup> ) :	180727.1
Product of inertia - XY (mm <sup>4</sup> ) :	0
Radius of gyration - X (mm) :	22.8
Radius of gyration - Y (mm) :	13.7
Principal moments along X-Y (mm <sup>4</sup> ) :	468370.9 along [0.9 0.4]
Principal moments along Y-X (mm <sup>4</sup> ) :	117265.0 along [-0.4 0.9]
Elastic Modulus - Zx (mm <sup>2</sup> ) :	1 / y-max= 8589.2
Elastic Modulus - Zy (mm <sup>2</sup> ) :	1 / x-max= 6093.7

X86087

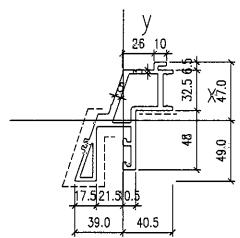


COLOUR: Dark Grey

EXTRUSION MARK: EXTRUDED ALUM. WASHER (AL83)  
 GRADE: 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> ) :	419
Perimeter (mm) :	157
Bounding Box - X (mm) :	-30 to 30
Bounding Box - Y (mm) :	-4 to 4
Centroid - X (mm) :	0.0000
Centroid - Y (mm) :	0.0000
Moments of inertia - X (mm <sup>4</sup> ) :	1776
Moments of inertia - Y (mm <sup>4</sup> ) :	125579
Product of inertia - XY (mm <sup>4</sup> ) :	0
Radius of gyration - X (mm) :	2
Radius of gyration - Y (mm) :	17
Principal moments along X-Y (mm <sup>4</sup> ) :	1776 along [1 0]
Principal moments along Y-X (mm <sup>4</sup> ) :	125579 along [0 1]
Elastic Modulus - Zx (mm <sup>2</sup> ) :	1 / y-max= 397
Elastic Modulus - Zy (mm <sup>2</sup> ) :	1 / x-max= 4186

X86088

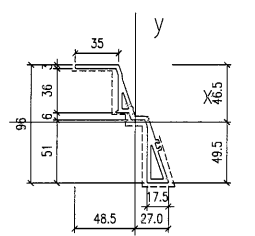


COLOUR: Dark Grey

EXTRUSION MARK: EXTRUDED ALUM. ADAPTOR (AL87)  
 GRADE: 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> ) :	1581.9
Perimeter (mm) :	681.9
Bounding Box - X (mm) :	-39.0 to 40.3
Bounding Box - Y (mm) :	-48.9 to 48.9
Centroid - X (mm) :	0
Centroid - Y (mm) :	0
Moments of inertia - X (mm <sup>4</sup> ) :	897703.1
Moments of inertia - Y (mm <sup>4</sup> ) :	354003.0
Product of inertia - XY (mm <sup>4</sup> ) :	-469179.7
Radius of gyration - X (mm) :	26.5
Radius of gyration - Y (mm) :	20.8
Principal moments along X-Y (mm <sup>4</sup> ) :	1225514.9 along [0.8 -0.6]
Principal moments along Y-X (mm <sup>4</sup> ) :	228191.2 along [0.6 0.8]
Elastic Modulus - Zx (mm <sup>2</sup> ) :	1 / y-max= 18349.0
Elastic Modulus - Zy (mm <sup>2</sup> ) :	1 / x-max= 13738.3

X86089

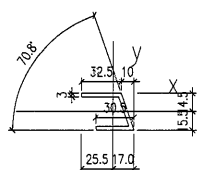


COLOUR: Dark Grey

EXTRUSION MARK: EXTRUDED ALUM. ADAPTOR (AL88)  
 GRADE: 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> ) :	704.9
Perimeter (mm) :	427.9
Bounding Box - X (mm) :	-48.6 to 27.2
Bounding Box - Y (mm) :	-49.4 to 46.3
Centroid - X (mm) :	0.0000
Centroid - Y (mm) :	0.0090
Moments of inertia - X (mm <sup>4</sup> ) :	680155.8
Moments of inertia - Y (mm <sup>4</sup> ) :	222089.2
Product of inertia - XY (mm <sup>4</sup> ) :	347988.3
Radius of gyration - X (mm) :	30.6
Radius of gyration - Y (mm) :	17.8
Principal moments along X-Y (mm <sup>4</sup> ) :	651975.3 along [0.9 0.5]
Principal moments along Y-X (mm <sup>4</sup> ) :	30289.5 along [-0.5 0.9]
Elastic Modulus - Zx (mm <sup>2</sup> ) :	1 / y-max= 1380.5
Elastic Modulus - Zy (mm <sup>2</sup> ) :	1 / x-max= 4571.7

X86090

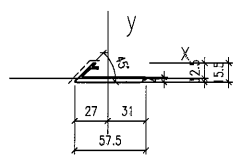


COLOUR: Dark Grey

EXTRUSION MARK: EXTRUDED ALUM. U-CHANNEL (FOR GLASS BARRIER) (AL89)  
 GRADE: 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> ) :	285.1
Perimeter (mm) :	181.0
Bounding Box - X (mm) :	-25.7 to 16.9
Bounding Box - Y (mm) :	-15.4 to 14.6
Centroid - X (mm) :	0.0
Centroid - Y (mm) :	0.0
Moments of inertia - X (mm <sup>4</sup> ) :	38137.3
Moments of inertia - Y (mm <sup>4</sup> ) :	3827.5
Product of inertia - XY (mm <sup>4</sup> ) :	1541.0
Radius of gyration - X (mm) :	12.0
Radius of gyration - Y (mm) :	11.1
Principal moments along X-Y (mm <sup>4</sup> ) :	31123.3 along [0.8 0.8]
Principal moments along Y-X (mm <sup>4</sup> ) :	1864.4 along [-0.8 0.8]
Elastic Modulus - Zx (mm <sup>2</sup> ) :	1 / y-max= 2476.1
Elastic Modulus - Zy (mm <sup>2</sup> ) :	1 / x-max= 1278.7

X86091

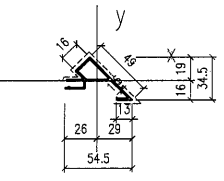


COLOUR: Dark Grey

EXTRUSION MARK: EXTRUDED ALUM. ADAPTOR (AL90)  
 GRADE: 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> ) :	249
Perimeter (mm) :	165
Bounding Box - X (mm) :	-27 to 31
Bounding Box - Y (mm) :	-3 to 12
Centroid - X (mm) :	0
Centroid - Y (mm) :	0
Moments of inertia - X (mm <sup>4</sup> ) :	2347
Moments of inertia - Y (mm <sup>4</sup> ) :	63572
Product of inertia - XY (mm <sup>4</sup> ) :	3224
Radius of gyration - X (mm) :	3
Radius of gyration - Y (mm) :	16
Principal moments along X-Y (mm <sup>4</sup> ) :	2178 along [1 0]
Principal moments along Y-X (mm <sup>4</sup> ) :	1864.4 along [-0.8 0.8]
Elastic Modulus - Zx (mm <sup>2</sup> ) :	1 / y-max= 708
Elastic Modulus - Zy (mm <sup>2</sup> ) :	1 / x-max= 2058

X86092

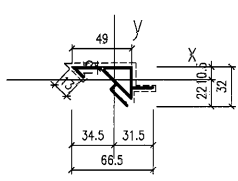


COLOUR: Dark Grey

EXTRUSION MARK: EXTRUDED ALUM. CAPPING (AL91)  
 GRADE: 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> ) :	170
Perimeter (mm) :	277
Bounding Box - X (mm) :	-26 to 29
Bounding Box - Y (mm) :	-16 to 19
Centroid - X (mm) :	0
Centroid - Y (mm) :	0
Moments of inertia - X (mm <sup>4</sup> ) :	13278
Moments of inertia - Y (mm <sup>4</sup> ) :	35325
Product of inertia - XY (mm <sup>4</sup> ) :	10708
Radius of gyration - X (mm) :	9
Radius of gyration - Y (mm) :	15
Principal moments along X-Y (mm <sup>4</sup> ) :	3098 along [1 0]
Principal moments along Y-X (mm <sup>4</sup> ) :	40705 along [0 1]
Elastic Modulus - Zx (mm <sup>2</sup> ) :	1 / y-max= 708
Elastic Modulus - Zy (mm <sup>2</sup> ) :	1 / x-max= 1270

X86093

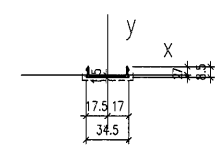


COLOUR: Dark Grey

EXTRUSION MARK: EXTRUDED ALUM. CAPPING (AL92)  
 GRADE: 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> ) :	194
Perimeter (mm) :	316
Bounding Box - X (mm) :	-35 to 32
Bounding Box - Y (mm) :	-22 to 10
Centroid - X (mm) :	0
Centroid - Y (mm) :	0
Moments of inertia - X (mm <sup>4</sup> ) :	16123
Moments of inertia - Y (mm <sup>4</sup> ) :	49665
Product of inertia - XY (mm <sup>4</sup> ) :	16217
Radius of gyration - X (mm) :	9
Radius of gyration - Y (mm) :	16
Principal moments along X-Y (mm <sup>4</sup> ) :	9555 along [1 0]
Principal moments along Y-X (mm <sup>4</sup> ) :	55223 along [0 1]
Elastic Modulus - Zx (mm <sup>2</sup> ) :	1 / y-max= 741
Elastic Modulus - Zy (mm <sup>2</sup> ) :	1 / x-max= 1458

X86094



COLOUR: Silver

EXTRUSION MARK: EXTRUDED ALUM. CAPPING (AL93)  
 GRADE: 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> ) :	71
Perimeter (mm) :	100
Bounding Box - X (mm) :	-17 to 17
Bounding Box - Y (mm) :	-2 to 7
Centroid - X (mm) :	0
Centroid - Y (mm) :	0
Moments of inertia - X (mm <sup>4</sup> ) :	308
Moments of inertia - Y (mm <sup>4</sup> ) :	9472
Product of inertia - XY (mm <sup>4</sup> ) :	2
Radius of gyration - X (mm) :	2
Radius of gyration - Y (mm) :	12
Principal moments along X-Y (mm <sup>4</sup> ) :	308 along [1 0]
Principal moments along Y-X (mm <sup>4</sup> ) :	9472 along [0 1]
Elastic Modulus - Zx (mm <sup>2</sup> ) :	1 / y-max= 45
Elastic Modulus - Zy (mm <sup>2</sup> ) :	1 / x-max= 545

D 22.Nov.2021	GENERAL REVISION
C 13.Nov.2021	GENERAL REVISION
B 8.Nov.2021	GENERAL REVISION
A 18.Oct.2021	GENERAL REVISION
REV.	DATE DESCRIPTION BY

CLIENT :  
**MARBLE EDGE INVESTMENT LTD.**

ARCHITECT :  
**RONALD LU & PARTNERS**  
 ARCHITECTS | PLANNERS | INTERIOR DESIGNERS

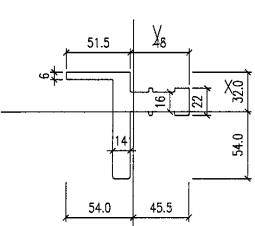
STRUCTURAL ENGINEER :  
**ICMA CHAN WONG & ASSOCIATES LTD**  
 10/F, 100, WING LOK STREET, HONG KONG

MAIN CONTRACTOR :  
**裕民建築有限公司**  
**美特鋁質有限公司**  
**MIDI ALUMINIUM FABRICATOR LTD.**  
 Units 6-8, Sunray Industrial Centre, 1/F  
 610 Cha Kwo Ling Road, Kowloon  
 Tel:23489211-4 Fax:(852)27727666

PROJECT :  
**PROPOSED RESIDENTIAL DEVELOPMENT AT NEW KOWLOON INLAND LOT. NO.6552**

TITLE :  
**SECTION PROPERTIES (PAGE 3 OF 5)**  
 JOB NO. : J-857  
 DRAWN BY : AN DATE : 18.Oct.2021  
 CHKD BY : SCALE A1: 1:3 A3:  
 DWG. NO. : SD-SP-0007 REV. : -

X86095

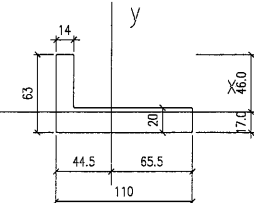


COLOUR: Dark Grey

EXTRUSION MARK: EXTRUDED ALUM. CORNER HOOK-ON BRACKET (AL94)  
 GRADE: 6061-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> ) :	2286.1
Perimeter (mm) :	390.3
Bounding Box - X (mm) :	-54.1 to 45.4
Bounding Box - Y (mm) :	-54.1 to 31.8
Centroid - X (mm) :	0.00
Centroid - Y (mm) :	0.00
Moments of inertia - X (mm <sup>4</sup> ) :	115559.7
Moments of inertia - Y (mm <sup>4</sup> ) :	1052871.0
Product of inertia - XY (mm <sup>4</sup> ) :	-52522.0
Radius of gyration - X (mm) :	22.5
Radius of gyration - Y (mm) :	21.5
Principal moments along X-Y (mm <sup>4</sup> ) :	117766.7 along [0.9 -0.4]
Principal moments along Y-X (mm <sup>4</sup> ) :	1030766.1 along [0.4 0.9]
Elastic Modulus - Zx (mm <sup>2</sup> ) :	1 / y-max= 21389.2
Elastic Modulus - Zy (mm <sup>2</sup> ) :	1 / x-max= 19459.3

X86096

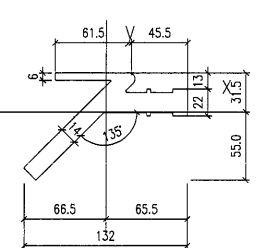


COLOUR: Dark Grey

EXTRUSION MARK: EXTRUDED ALUM. ANGLE BRACKET (AL95)  
 GRADE: 6061-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> ) :	2801.8
Perimeter (mm) :	344.7
Bounding Box - X (mm) :	-44.7 to 65.3
Bounding Box - Y (mm) :	-16.8 to 46.2
Centroid - X (mm) :	0.00
Centroid - Y (mm) :	0
Moments of inertia - X (mm <sup>4</sup> ) :	634832.8
Moments of inertia - Y (mm <sup>4</sup> ) :	3316510.0
Product of inertia - XY (mm <sup>4</sup> ) :	714477.0
Radius of gyration - X (mm) :	15.1
Radius of gyration - Y (mm) :	34.4
Principal moments along X-Y (mm <sup>4</sup> ) :	453354.0 along [1.0 -0.2]
Principal moments along Y-X (mm <sup>4</sup> ) :	3494988.9 along [0.2 1.0]
Elastic Modulus - Zx (mm <sup>2</sup> ) :	1 / y-max= 13731.0
Elastic Modulus - Zy (mm <sup>2</sup> ) :	1 / x-max= 50778.4

X86097



COLOUR: Dark Grey

EXTRUSION MARK: EXTRUDED ALUM. CORNER HOOK-ON BRACKET (AL96)  
 GRADE: 6061-T6

MASS PROPERTIES (UNIT)	VALUES
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