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Foshan YT Aluminum Co., LTD

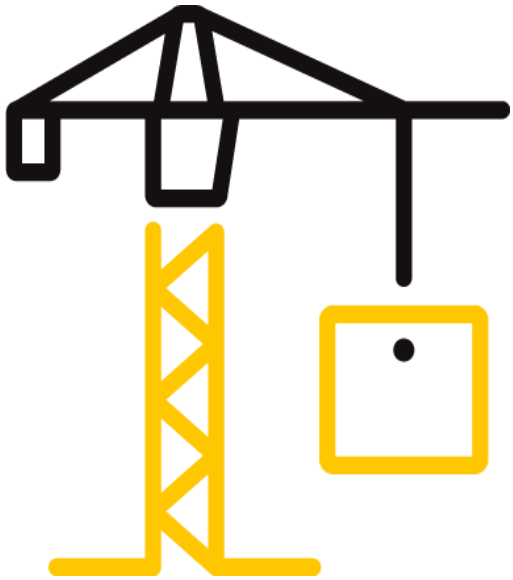
TEST REPORT

SCOPE OF WORK
WINDOWS AND DOORS

REPORT NUMBER
230928017GZC-001

ISSUE DATE
2024/11/18

PAGES
16



Intertek Testing Services Shenzhen Ltd. Guangzhou Branch

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Test Report

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Applicant:	Foshan YT Aluminum Co., LTD
Address:	Self-designed No. 2 factory building next to Fumin 3rd Road, Guanyao Hongsha Development Zone, Shishan Town, Nanhai District, Foshan City
Attn:	skuang2023@gmail.com

Manufacturer:	Foshan YT Aluminum Co., LTD
Address:	Self-designed No. 2 factory building next to Fumin 3rd Road, Guanyao Hongsha Development Zone, Shishan Town, Nanhai District, Foshan City
Attn:	skuang2023@gmail.com

SUBJECT: Performance testing
< Awning Window>

Dear Sir,
This test report for represents the results of our evaluation of the above referenced product(s) to the requirements contained in the following standards:

TEST METHODS AND STANDARDS
AS 2047:2014+A1:2016+A2:2017 Windows and external glazed doors in buildings

SAMPLE ID	MODEL	SPECIFICATION
S230928017GZU.001	80 series	2000 mm (Width) × 1500 mm (Height) × 76.7 mm (Thickness)

SAMPLE RECEIVED: 2024/8/15
TESTED FROM: 2024/8/29 TO 2024/8/29

TEST LOCATION: C2-1, Heping Xu, Yongning Street, Zengcheng District, Guangzhou, China.

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Test Items, Method and Results：

1 Test Samples

A full scale of sample was provided by the manufacturer that was not weathered nor conditioned.
The description of the samples given below has been prepared from information provided by the sponsor of the test. All values quoted are nominal, unless tolerances are given.

Table 1 Product Information

1	Product Name	80 series awning window
2	Model	80 series
3	Dimension of Window Frame	2000 mm (Width) × 1500 mm (Height) × 76.7 mm (Thickness)
4	Dimension of Window Sash	Operable sash: 977 mm (Width) × 1467 mm (Height) × 72 mm (Thickness)
5	Aluminum Profile	Model: 80 series Manufacturer: Foshan Chenjie Aluminum Industry Co., Ltd
6	Frame Corner Construction Details	Mitre-cut, assembly with corners keys and glue
7	Reinforcement	Not Applicable
8	Glazing	Operable sash: 863 mm (Width) × 1352 mm (Height) Fixed panel: 880 mm (Width) × 1369 mm (Height) Structure: 30 mm thickness, 5mm +20mm Argon +5mm Tempered Insulating Glass Supplier: Jiangmen Junfa Safety Glass Co., Ltd.
9	Hardware	Crank Operator Model: SC-A06; Supplier: Jiangmen Licheng Hardware Co., Ltd. Friction Stay Model: PK-08; Supplier: Jiangmen Licheng Hardware Co., Ltd. Handle Lock Model:SY-03L; Supplier: Jiangmen Licheng Hardware Co., Ltd.
10	Weather-strip	Not Applicable
11	Thermal Break	Model: C18.6, C25, HK25 Material: PA66GF25 Supplier: Foshan Forest Wind Plastic Technology Co., Ltd

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Table 1 Product Information(Cont.)

12	Drainage	Not Applicable
13	Gasket	Model: FH201 Material: EPDM Supplier: Aobi Shidai (Foshan) Technology Co., Ltd.
14	Sealant of Glass	Model: 563 Neutral silicone sealant Material: Silicone sealant Supplier: Chengdu Guibao Science and Technology Co., Ltd.
15	Installation	The rough opening allowed for a 1/4" shim space. The exterior perimeter of the test specimen was sealed with silicone sealant.

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Test Items, Method and Results:

2 Test Result

Table 2 Test Results

Test Description	Test Result				Rating	Verdict
Deflection / Span Ratio AS/NZS 4420.1-2016 section 3	Serviceability Design Wind Pressure		± 600 Pa		N3 (General) N2 (Corner windows)	Pass
	Structural member #1: ***Operable sash stile***		1/2333			
	Structural member #2: ***Operable sash bottom rail***		1/9000			
	Structural member #3: ***Mullion***		1/2333			
Operating Force AS/NZS 4420.1-2016 section 4	Initial Movement Requirement: < 160N		Open	5 N	NA	Pass
			Close	6 N		
	Maintain Movement Requirement: < 80N		Open	5 N		
			Close	5 N		
Air Infiltration AS/NZS 4420.1-2016 section 5	Overall area: 3.00 m^2	at +75Pa:	0.59	$L/s \cdot m^2$	High	Pass
		at -75Pa:	1.03	$L/s \cdot m^2$		
Water Penetration AS/NZS 4420.1-2016 section 6	No water penetration at:		450 Pa		N6 (Non-exposed) N5 (Exposed)	Pass
	Description: Water penetration occurred at the joint between crank operator and aluminum frame when tested at 600Pa for 5 minutes.					
Ultimate Strength AS/NZS 4420.1-2016 section 7		±	1400	Pa with no collapse	N3 (General) N2 (Corner windows)	Pass
	Description: No significant breakage, permanent deformation or operational malfunction after ultimate strength was released.					

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Appendix A: Test Data and Sample Drawings:

A.1 Deflection Test – Test method AS/NZS 4420.1-2016

Test Pressure (Serviceability design wind pressure), P= 600 Pa , rating: N3 (General).

Note : No structural members in a completely assembled and glazed window shall deflect by an amount greater than the following, when tested at the serviceability design wind pressure:

(a) Span/250 for windows and sliding doors

(b) Span/100 for doors other than sliding

Table 3 Test Data of Deflection Test

Member (mm)		Test Pressure (Pa)	Displacement(mm)			Actual Deflection	Deflection/Span Ratio
Item	Span Length		1	2	3		
Operable sash stile	1400	+P/4=150	0.0	0.2	0.1	0.2	/
		+2P/4=300	0.1	0.4	0.2	0.3	/
		+3P/4=450	0.1	0.7	0.4	0.5	/
		+4P/4=600	0.3	1.0	0.5	0.6	1:2333
		0	0.1	0.3	0.1	0.2	/
Operable sash stile	1400	-P/4=-150	0.0	0.1	0.1	0.1	/
		-2P/4=-300	0.1	0.2	0.2	0.1	/
		-3P/4=-450	0.1	0.4	0.5	0.1	/
		-4P/4=-600	0.2	0.8	0.9	0.3	1:4667
		0	0.1	0.2	0.2	0.1	/

Table 4 Test Data of Deflection Test

Member (mm)		Test Pressure (Pa)	Displacement(mm)			Actual Deflection	Deflection/Span Ratio
Item	Span Length		3	4	5		
Operable sash bottom rail	900	+P/4=150	0.1	0.1	0.0	0.1	/
		+2P/4=300	0.2	0.2	0.1	0.1	/
		+3P/4=450	0.4	0.3	0.2	<0.1	/
		+4P/4=600	0.5	0.5	0.4	0.1	1:9000
		0	0.1	0.1	0.1	0.1	/
Operable sash bottom rail	900	-P/4=-150	0.1	0.1	0.0	0.1	/
		-2P/4=-300	0.2	0.2	0.1	0.1	/
		-3P/4=-450	0.5	0.4	0.3	<0.1	/
		-4P/4=-600	0.9	0.8	0.6	0.1	1:9000
		0	0.2	0.2	0.2	<0.1	/

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A.1 Deflection Test – Test method AS/NZS 4420.1-2016

Table 5 Test Data of Deflection Test

Member (mm)		Test Pressure (Pa)	Displacement(mm)			Actual Deflection	Deflection/Span Ratio
Item	Span Length		6	7	8		
Mullion	1400	+P/4=150	0.0	0.1	0.0	0.1	/
		+2P/4=300	0.1	0.3	0.1	0.2	/
		+3P/4=450	0.1	0.5	0.2	0.4	/
		+4P/4=600	0.2	0.8	0.3	0.6	1:2333
		0	0.1	0.1	0.1	<0.1	/
Mullion	1400	-P/4=-150	0.0	0.1	0.0	0.1	/
		-2P/4=-300	0.0	0.2	0.1	0.2	/
		-3P/4=-450	0.1	0.5	0.2	0.4	/
		-4P/4=-600	0.1	0.7	0.3	0.5	1:2800
		0	0.0	0.2	0.1	0.2	/

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A.2 Sample Drawings

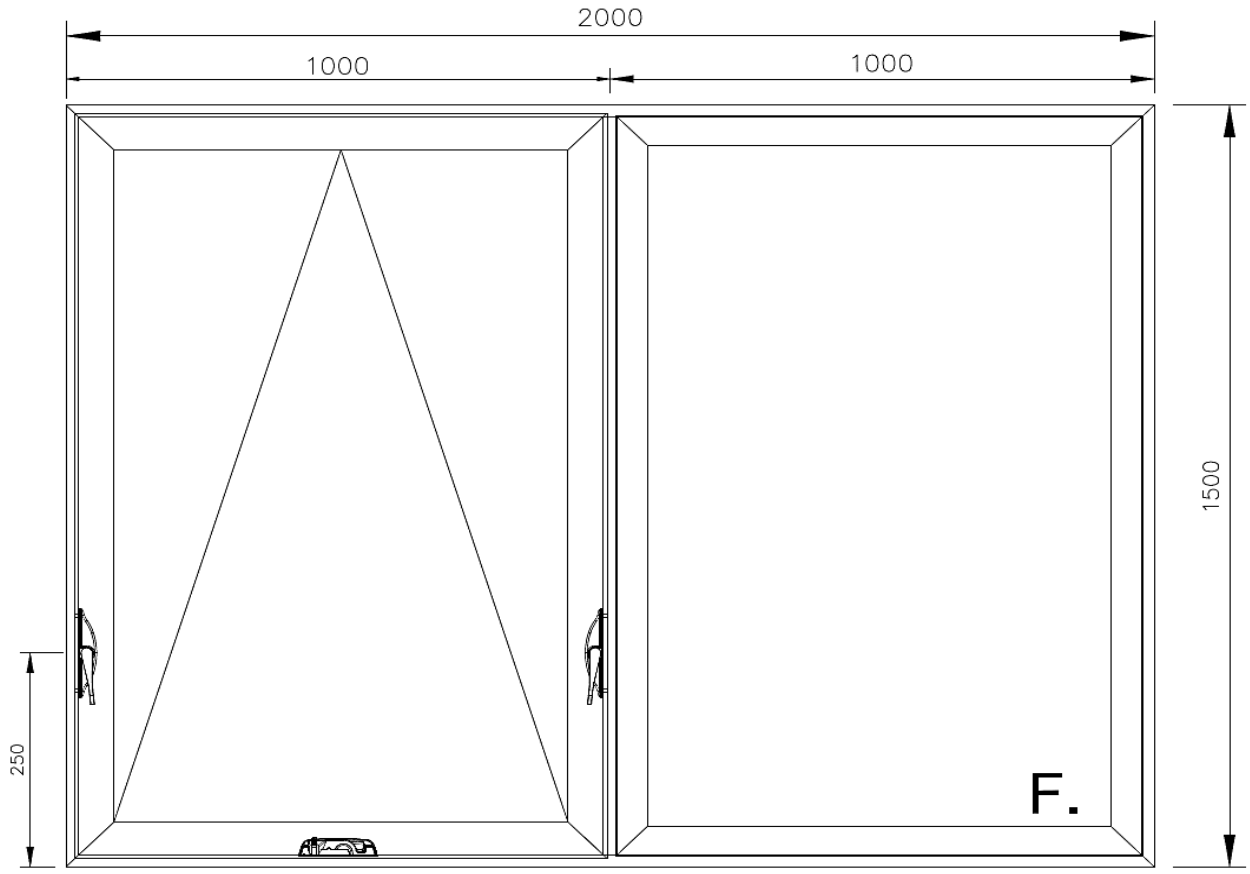


Fig.1 Drawing of Representative Sample

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A.2 Sample Drawings(Cont.)

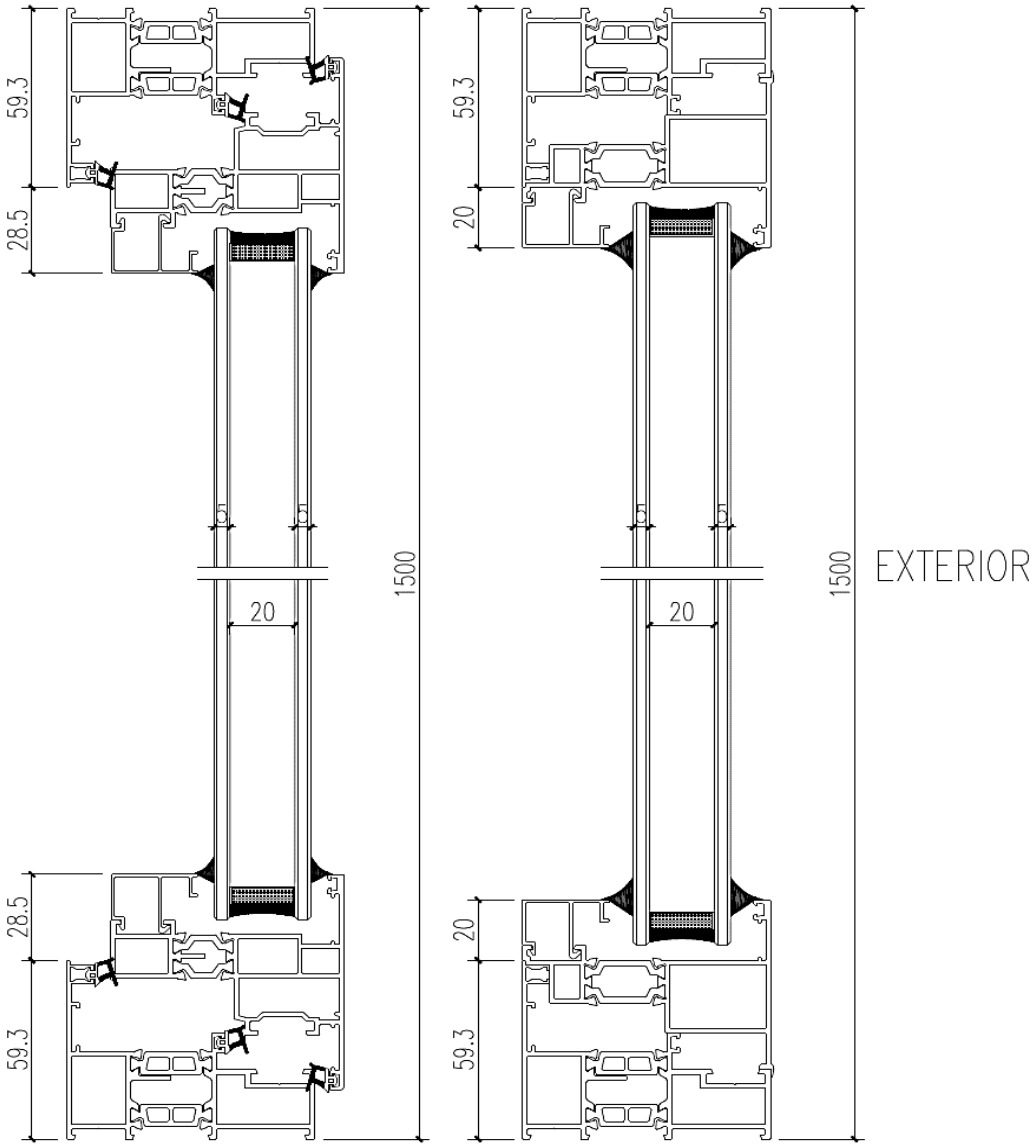


Fig.2 Drawing of Representative Sample

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A.2 Sample Drawings(Cont.)

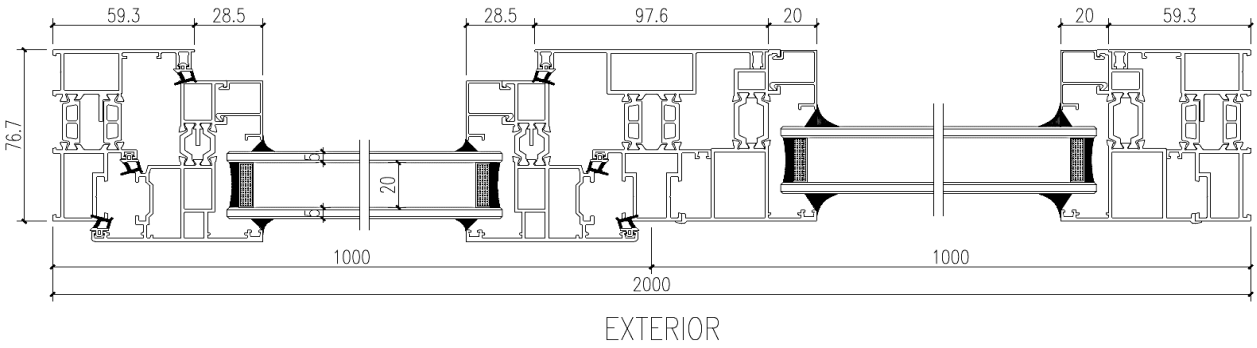


Fig.3 Drawing of Representative Sample

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A.2 Sample Drawings(Cont.)

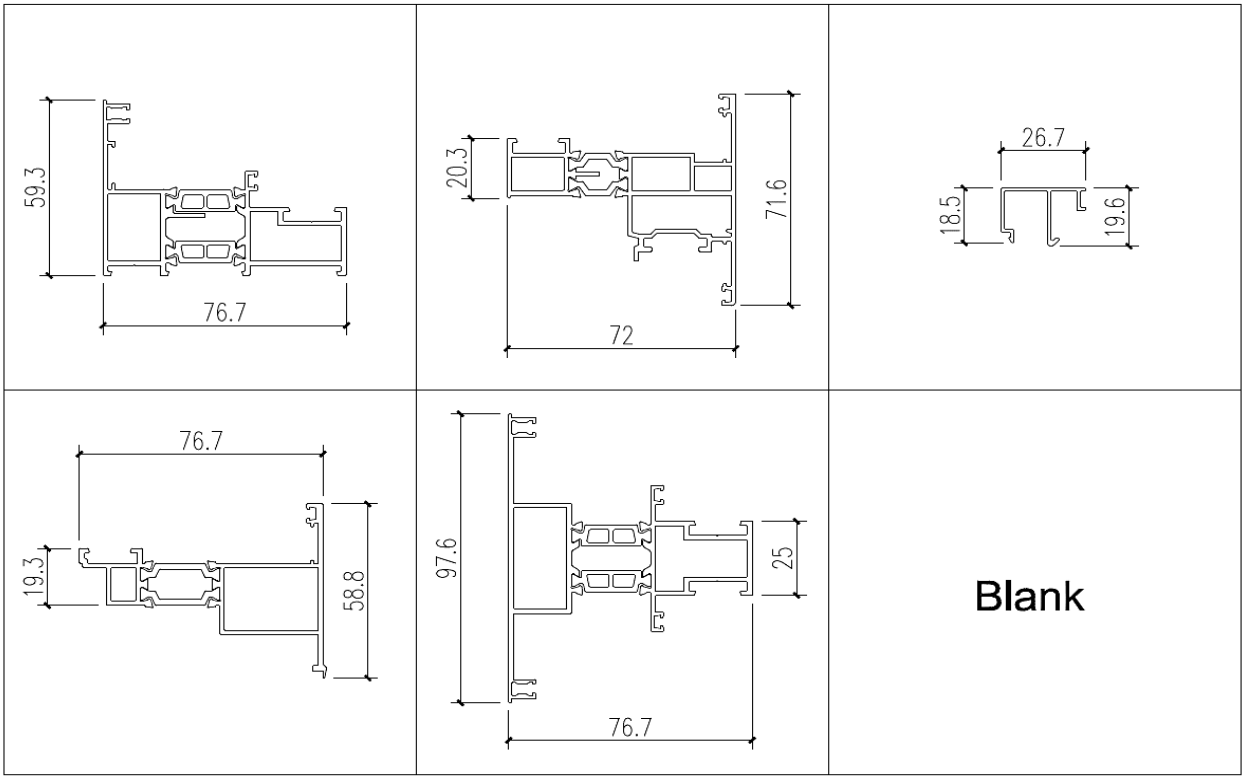


Fig.4 Drawing of Aluminum Profiles

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A.2 Sample Drawings(Cont.)

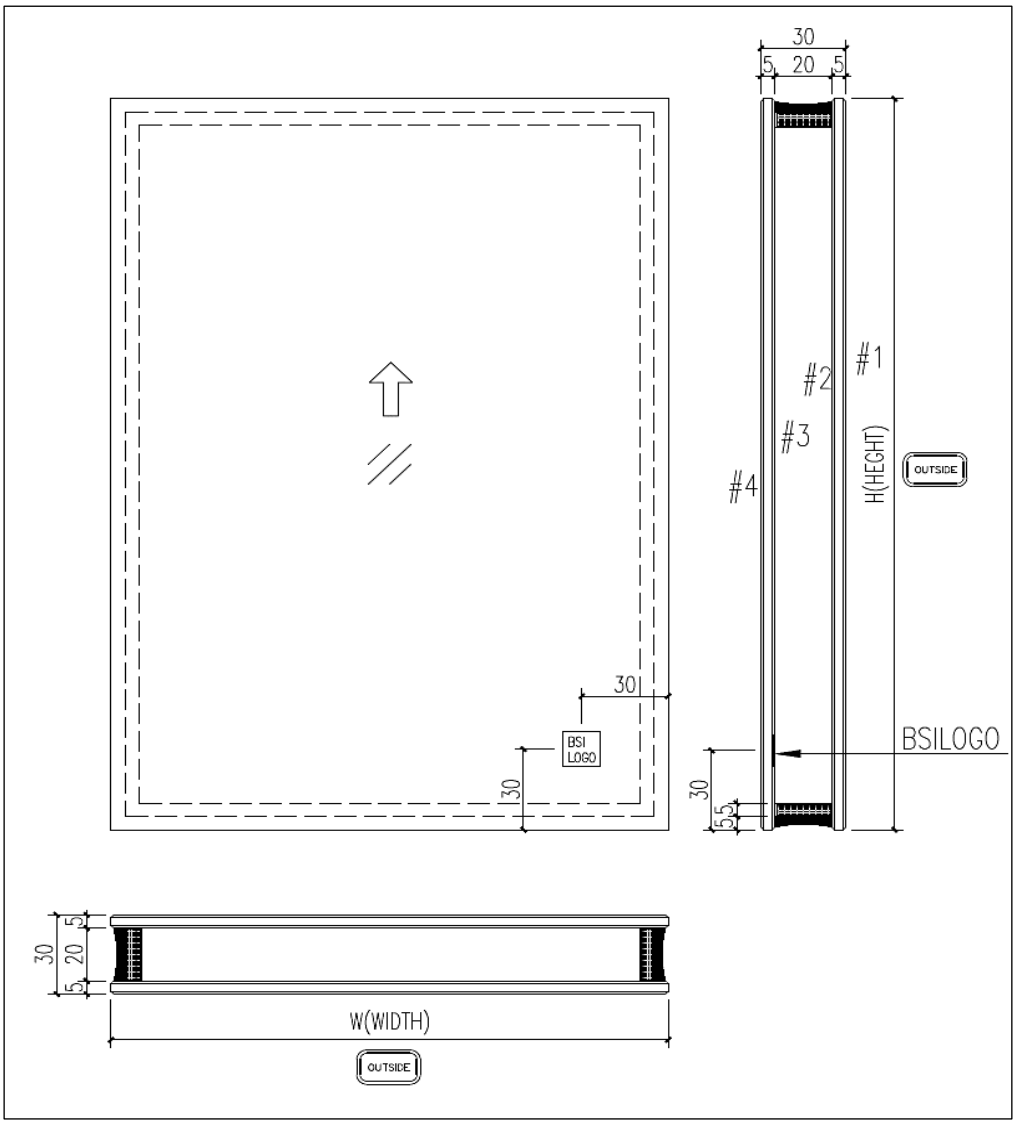
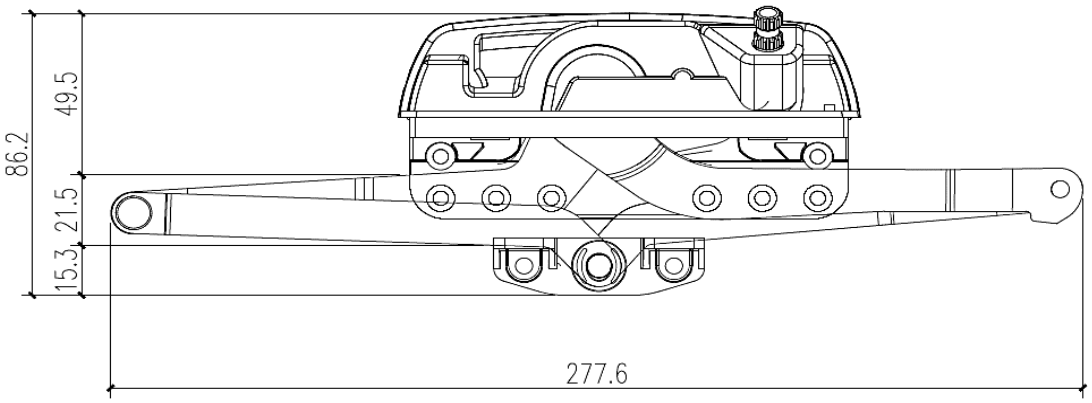


Fig.5 Drawing of Glazing

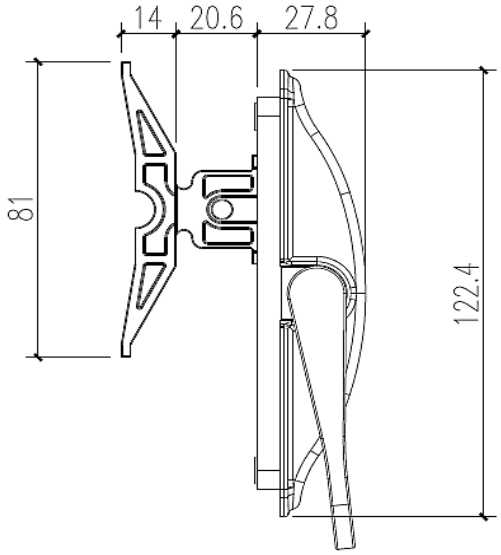
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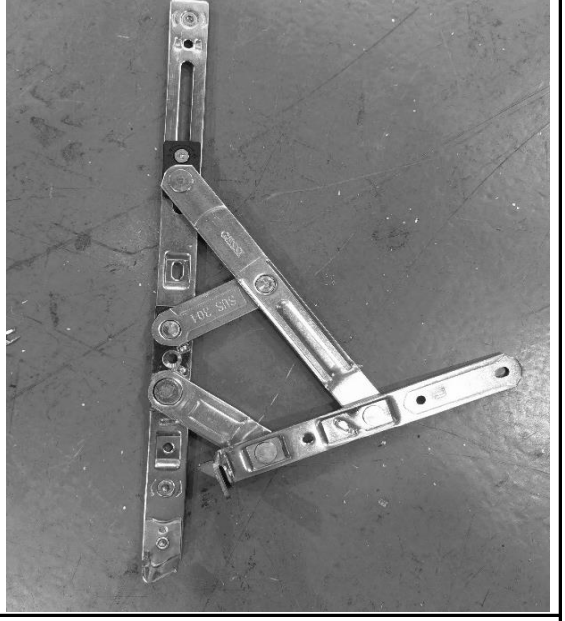
A.2 Sample Drawings(Cont.)



Crank Operator



Handle Lock



Friction Stay

Fig.6 Drawing and Photo of Hardware

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A.2 Sample Drawings(Cont.)

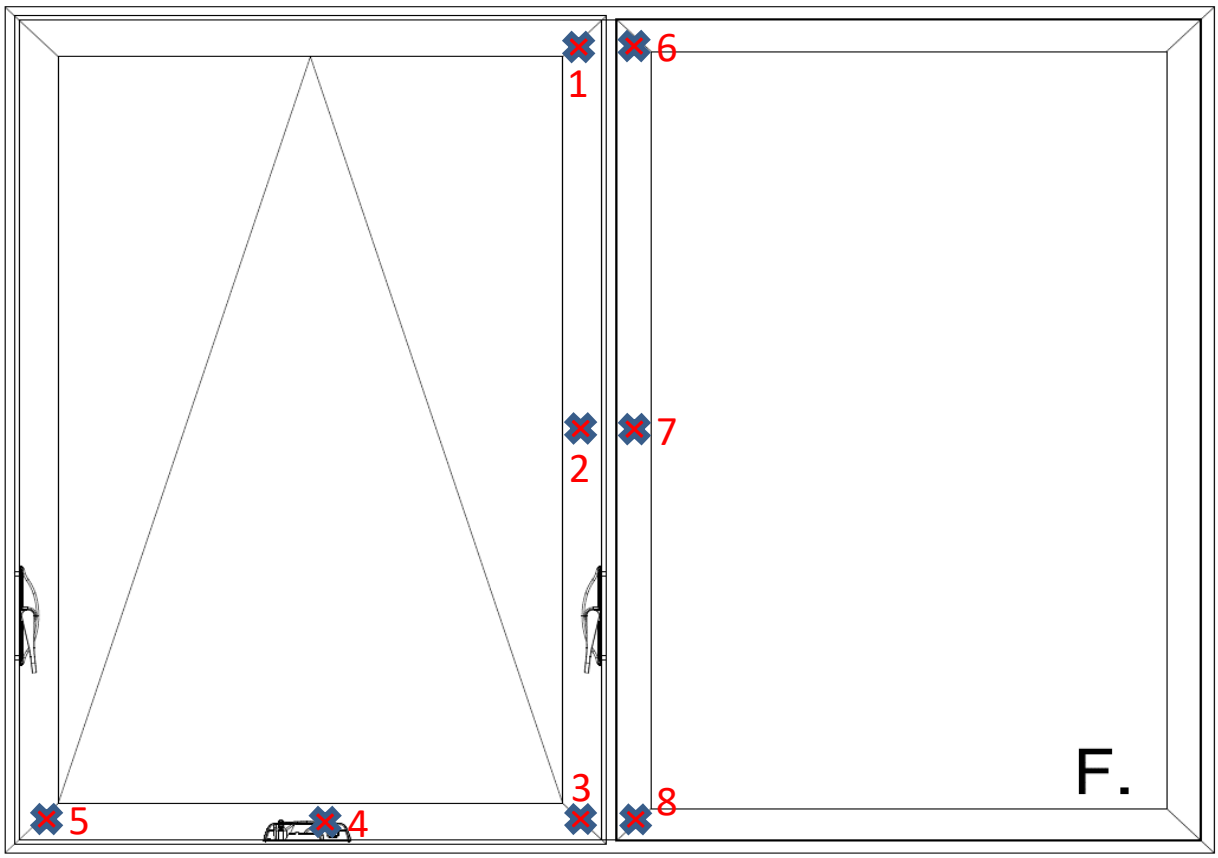


Fig.7 Locations of Displacement Measuring Devices

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A.2 Sample Drawings(Cont.)

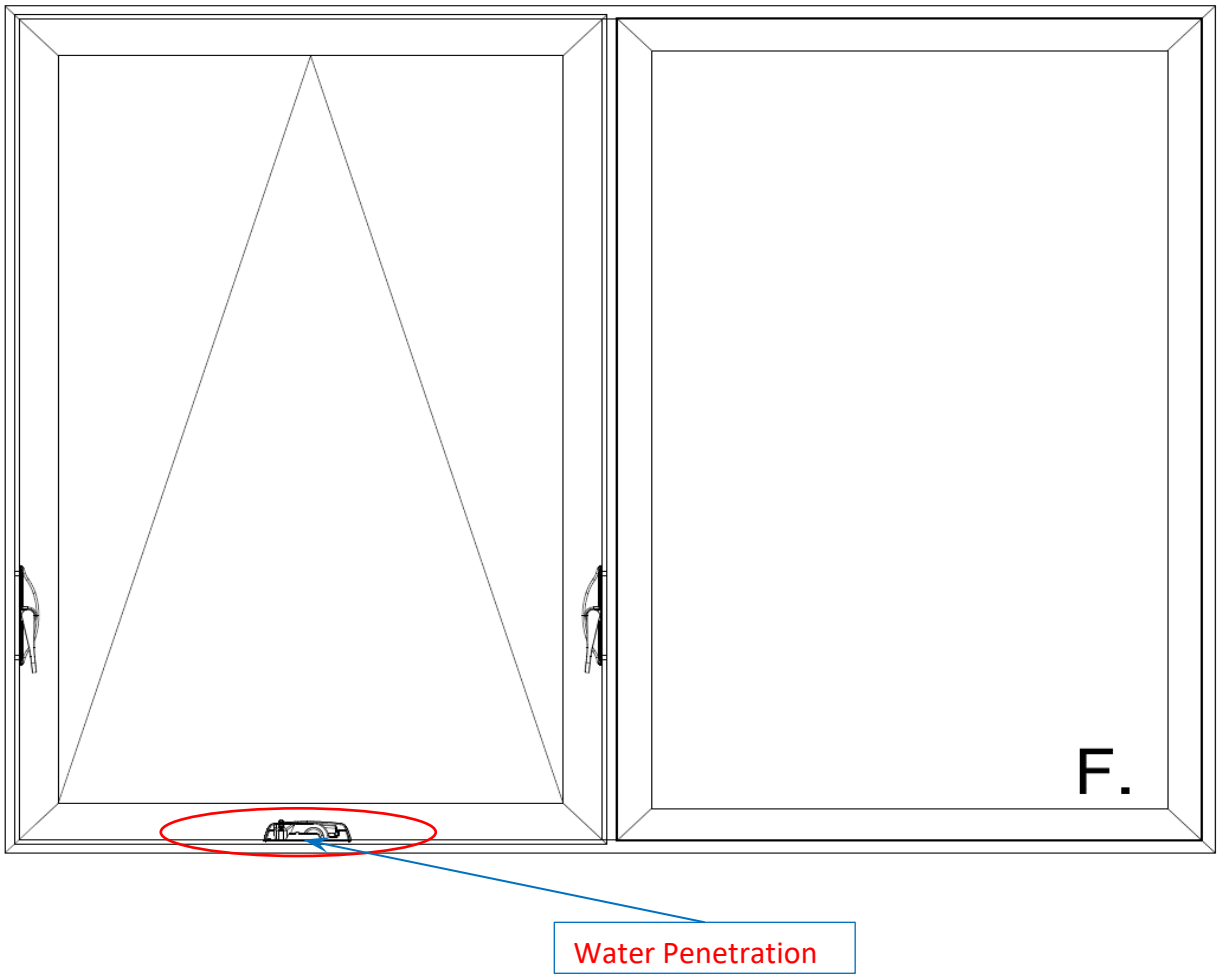


Fig.8 Locations of Water Penetration

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Appendix B: Sample Received Photo



REPORT AUTHORIZED

When signed with physical or electronic signature, the contents of this report have been prepared and approved per Intertek's quality process in accordance with ISO 17025.

Approved by:	**Prepared by:**
Ziqing Chen	Oliver zhu
Name: Ziqing Chen	Name: Oliver Zhu
Title: Reviewer	Title: Project Engineer

Revision:

Revision No.	Date	Revision Reason	Revision Summary	Author	Reviewer
R0	/	/	Original Report Issue	/	/

End of Test Report