

Foshan DTOP Window and Doors Co., Ltd.

TEST REPORT

SCOPE OF WORK

WINDOWS AND DOORS

REPORT NUMBER

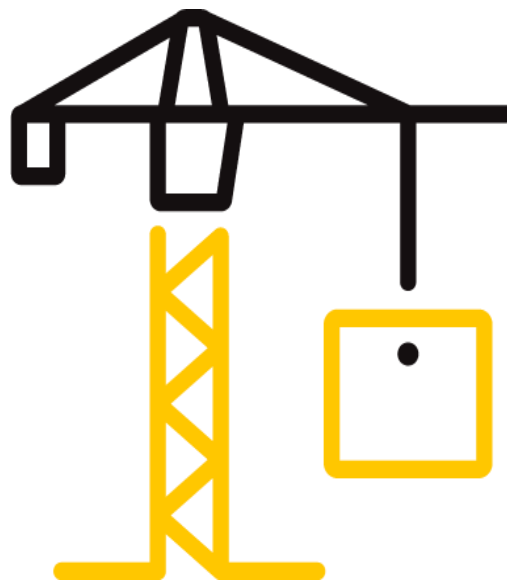
260121006GZC-003

ISSUE DATE

2026/6/16

PAGES

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Intertek Testing Services Shenzhen Ltd. Guangzhou Branch

DOCUMENT CONTROL NUMBER

TTRF_AAMA 101_b

Effective date: 2024-3-1

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Test Report

Issue Date: 2026/6/16

Intertek Report No. : 260121006GZC-003

Applicant:	Foshan DTOP Window and Doors Co., Ltd.
Address:	Factory Building No. 2 (self-numbered) next to Fumin Third Road, Guanyao Hongsha Development Zone, Shishan Town, Nanhai District, Foshan City (registered address)
Attn:	info@dtpalumn.com

Manufacturer:	Foshan DTOP Window and Doors Co., Ltd.
Address:	Factory Building No. 2 (self-numbered) next to Fumin Third Road, Guanyao Hongsha Development Zone, Shishan Town, Nanhai District, Foshan City (registered address)
Attn:	info@dtpalumn.com

Primary designator:	Class CW - PG30: Size Tested 800mm × 1500mm (31.50in. × 59.06in.) - Type C
Secondary	Positive Design Pressure = +1440 Pa (+30.08 psf)
designator:	Negative Design Pressure = -1440 Pa (-30.08 psf)
	Water penetration resistance test pressure = 220 Pa (4.59 psf)
	Canadian Air Infiltration/Exfiltration = A3 level

SUBJECT: Performance testing
< Casement 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
AAMA/WDMA/CSA 101/I.S.2/A440-17 (NAFS 2017 - North American Fenestration Standard / Specification for Windows, Doors and Skylights)
CSA A440S1-19 (Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440-17)

SAMPLE ID	MODEL	SPECIFICATION
S260121006GZU.003	120 series	800 mm (Width) × 1500 mm (Height) × 120 mm (Thickness)

SAMPLE RECEIVED: 2026/2/5

TESTED FROM: 2026/2/6

TO 2026/3/3

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

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Test Items, Method and Results:

1 Test Sample

Sample was submitted to Intertek directly from the client. Sample was not independently selected for testing. Sample was received at the Evaluation Center on February 5, 2026.

A full scale sample of Casement window (Model: 120 series) was provided by the manufacturer that was not weathered nor conditioned.

The description of the sample 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

Product Name	120 series Casement window
Model	120 series
Dimension of Window Frame	800 mm (Width) x 1500 mm (Height) x 120 mm (Thickness)
Dimension of Window Sash	Operable sash: 743 mm (Width) x 1443 mm (Height) x 68.8 mm (Thickness)
Aluminum Profile	Model: DT120-001; DT120-002; DT120-003 Material: 6063-T5 Manufacturer: Foshan Chenjie Aluminum Co., Ltd.
Frame Corner Construction Details	45° Mitre-cut, assembly with corners keys and Glued
Reinforcement	Not applicable
Glazing	Dimension: 672 mm (Width) x 1372mm (Height) Structure: 34 mm thick, 8 mm +18Air+8 mm Low-e Tempered Insulating Glass Supplier: Guangdong Honghua Glass Technology Co., Ltd
Hardware	Lock Model: HMCW-L-15 Hinge Model: HMCW-H-15 Supplier: Hörmann Beijing Trading Co., Ltd
Weather-strip	Not applicable
Thermal Break	Model: CG12; CG20 Material: PA66GF25 Nylon insulation strip Supplier: Foshan Forest Wind Plastic Technology Co., Ltd

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Table 1 Product Information

Drainage	Not applicable
Gasket	Model: FH201; FH202 Material: EPDM Supplier: Aobi Shidai (Foshan) Technology Co., Ltd.
Sealant of Glass	Model: 563 Neutral silicone sealant Material: Silicone sealant Supplier: Chengdu Guibao Science and Technology Co.,LTD
Installation	The rough opening allowed for a 1/4" shim space. The exterior perimeter of the test specimen was sealed with silicone sealant.

The sample ID number was S260121006GZU.003. The drawings of the representative sample were referenced in Appendix A, the test data was referenced in Appendix B and the photo of the representative sample was referenced in Appendix C.

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Test Items, Method and Results:

2 Test Result

Table 2 Test Result

Test Description	Requirements (Class CW-PG30)		Results		Verdict
Operating Force Test	Maximum Force to Initial Movement	155 N	Force to Initial Movement	28 N	Pass
	Maximum Force to Initial Movement	135 N	Force to Maintain Movement	15 N	
Air Leakage Resistance Test	Maximum air leakage at +75 Pa	0.5 L/s·m ²	Air leakage at +75 Pa	0.04 L/s·m ²	Pass
	Maximum air leakage at -75 Pa	0.5 L/s·m ²	Air leakage at -75 Pa	0.04 L/s·m ²	
Water Penetration Resistance Test	Minimum water pressure	220 Pa	Test Pressure	220 Pa	Pass
			No water penetration occurred after testing at 220Pa by the method of cyclic static air pressure difference.		
Uniform Load Deflection Test	Design Pressure (DP)	1440 Pa	Test Pressure	1440 Pa	Pass
			Maximum deflection at Handle side stile	1.0 mm	
			Maximum deflection at Bottom rail	0.3 mm	
			Maximum deflection at Hinge side stile	1.0 mm	

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Table 2 Test Result (Cont.)

Test Description	Requirements (Class CW-PG30)		Results		Verdict
Uniform Load Structural Test	Structural Test Pressure (STP)	2160 Pa	Test Pressure	2160 Pa	Pass
			After the test loads were released, there was no disengagement or non-superficial cracking of the sash, frame, or glazing. There was no permanent deformation which was in excess of 0.3% of its span.		
			Maximum permanent deflection at Handle side stile	0.1 mm	
			Maximum permanent deflection at Bottom rail	0.1 mm	
			Maximum permanent deflection at Hinge side stile	0.1 mm	
Sash vertical deflection test	Sash width: 743 mm	Deflection limit: 14.86 mm	Deflection at 270N	1.5 mm	Pass
			After load removal, the test specimen was properly closed and operated. In addition, there was no glazing breakage.		
Casement hardware load test	The load for casement hardware: 300 Pa		After load removal, the sash was properly and fully close. There was no failure of screws, track, or hinge, or permanent deformation of support arms.		Pass
Forced-entry Resistance Test	Minimum Grade 10		Test Class	Grade 10	Pass
			After test, there was no opening which allows for entrance through the tested specimen. The sash remained locked and closed. Lock and hinges were not disengaged.		

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Appendix A: Sample Drawings

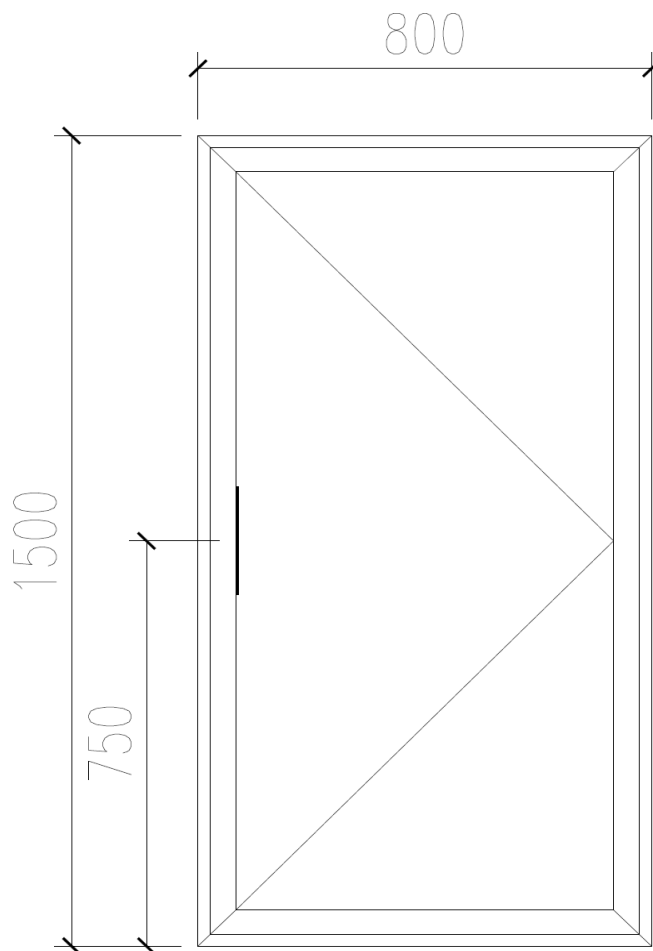


Fig.1 Drawing of Representative Sample

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Appendix A: Sample Drawings (Cont.)

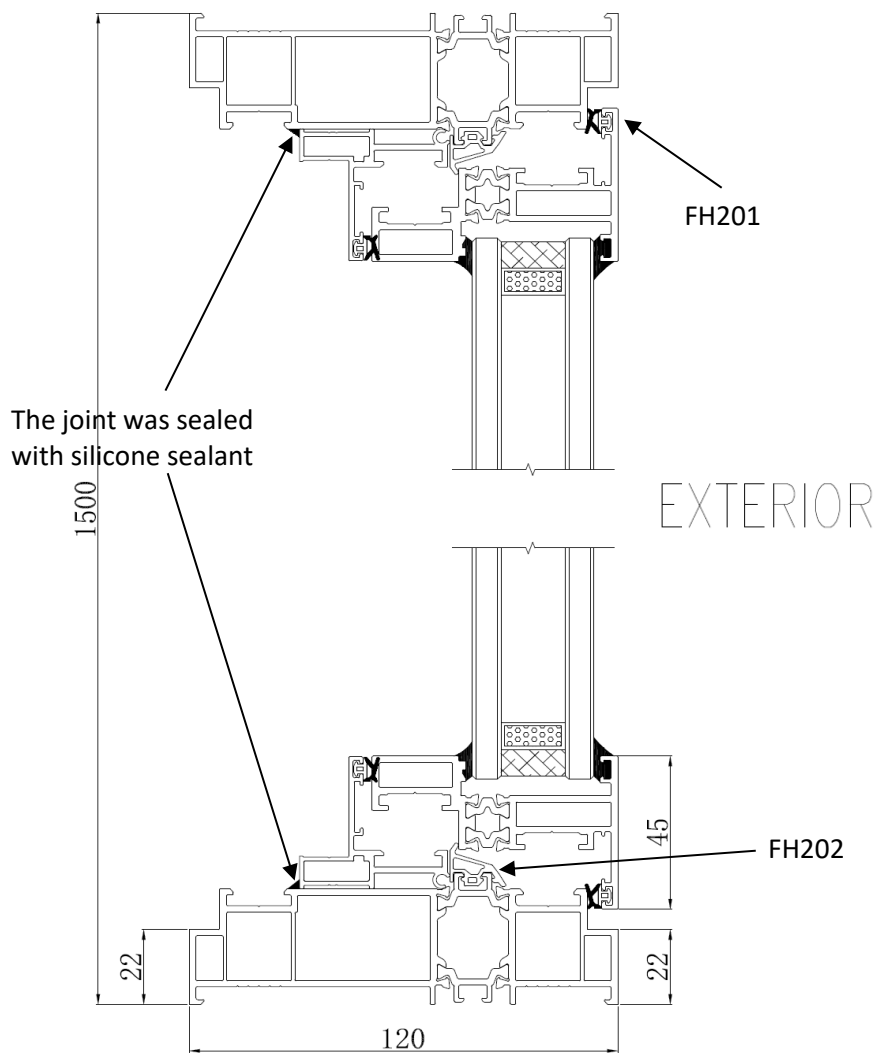


Fig.2 Drawing of Representative Sample

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Appendix A: Sample Drawings (Cont.)

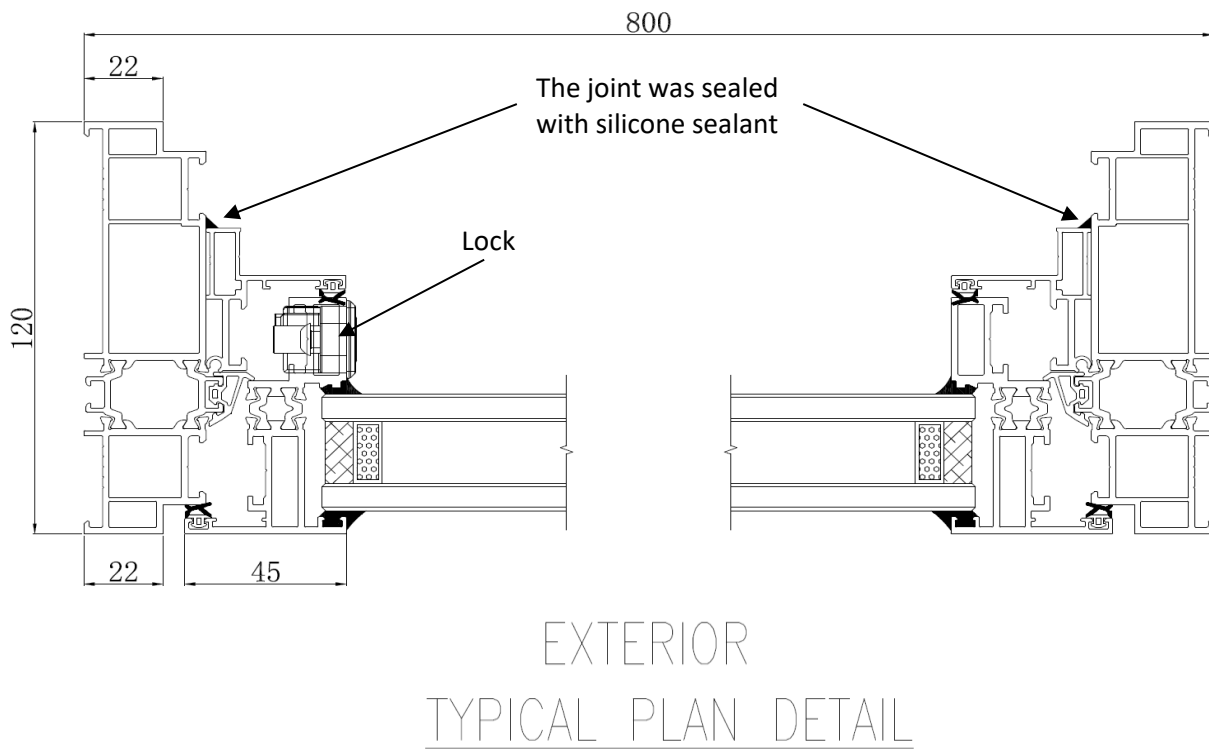


Fig.3 Drawing of Representative Sample

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Appendix A: Sample Drawings (Cont.)

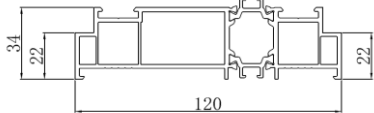
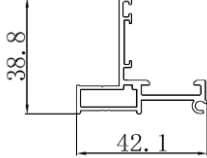
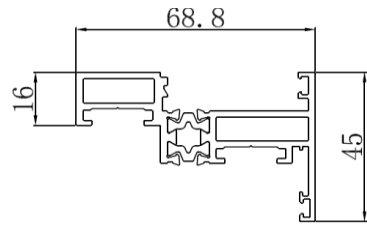
		
DT120-001	DT120-002	DT120-003

Fig.4 Drawing of profile section

GUANGZHOU PA

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Appendix A: Sample Drawings (Cont.)

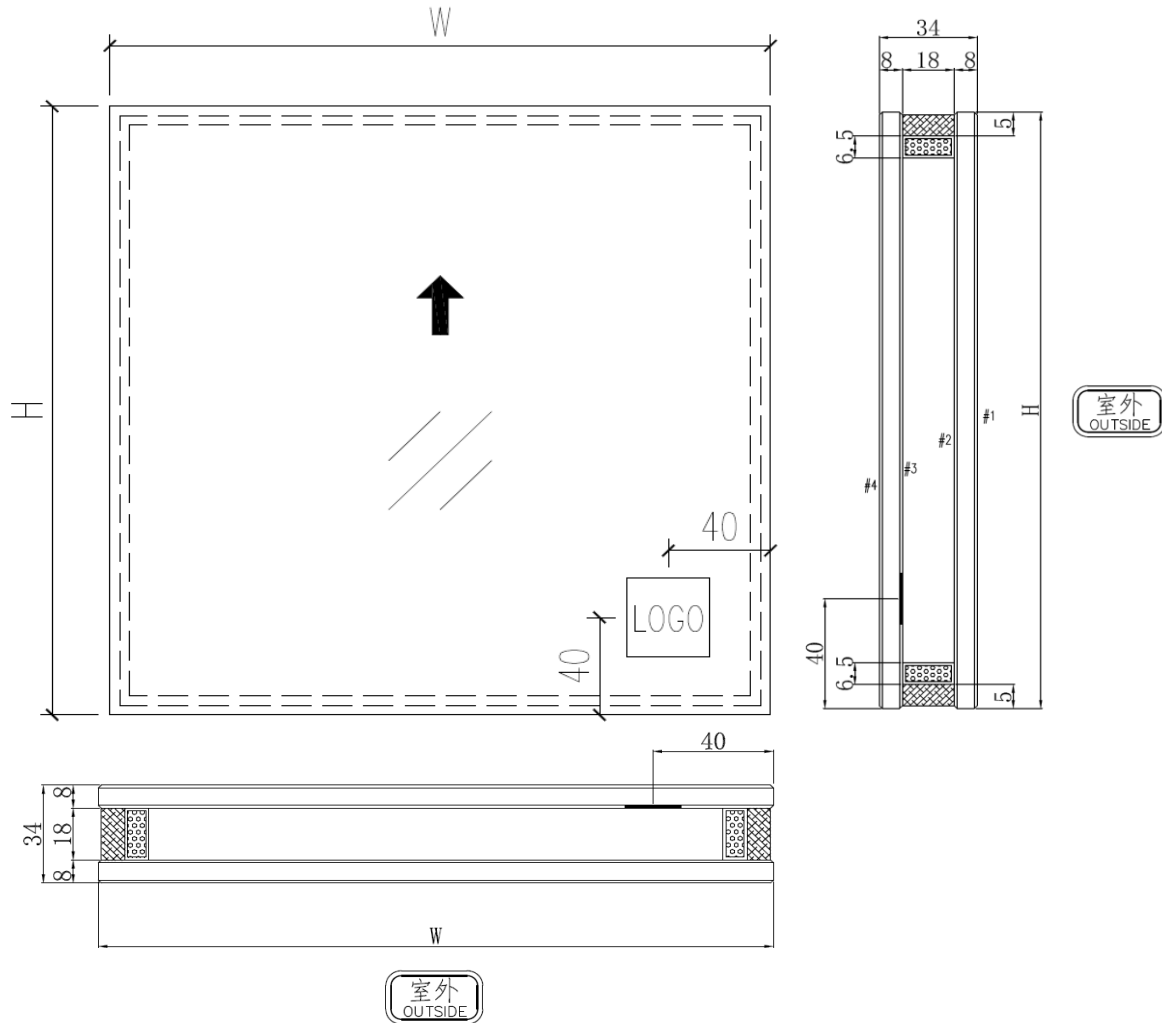


Fig.5 Drawing of glazing

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Appendix A: Sample Drawings (Cont.)

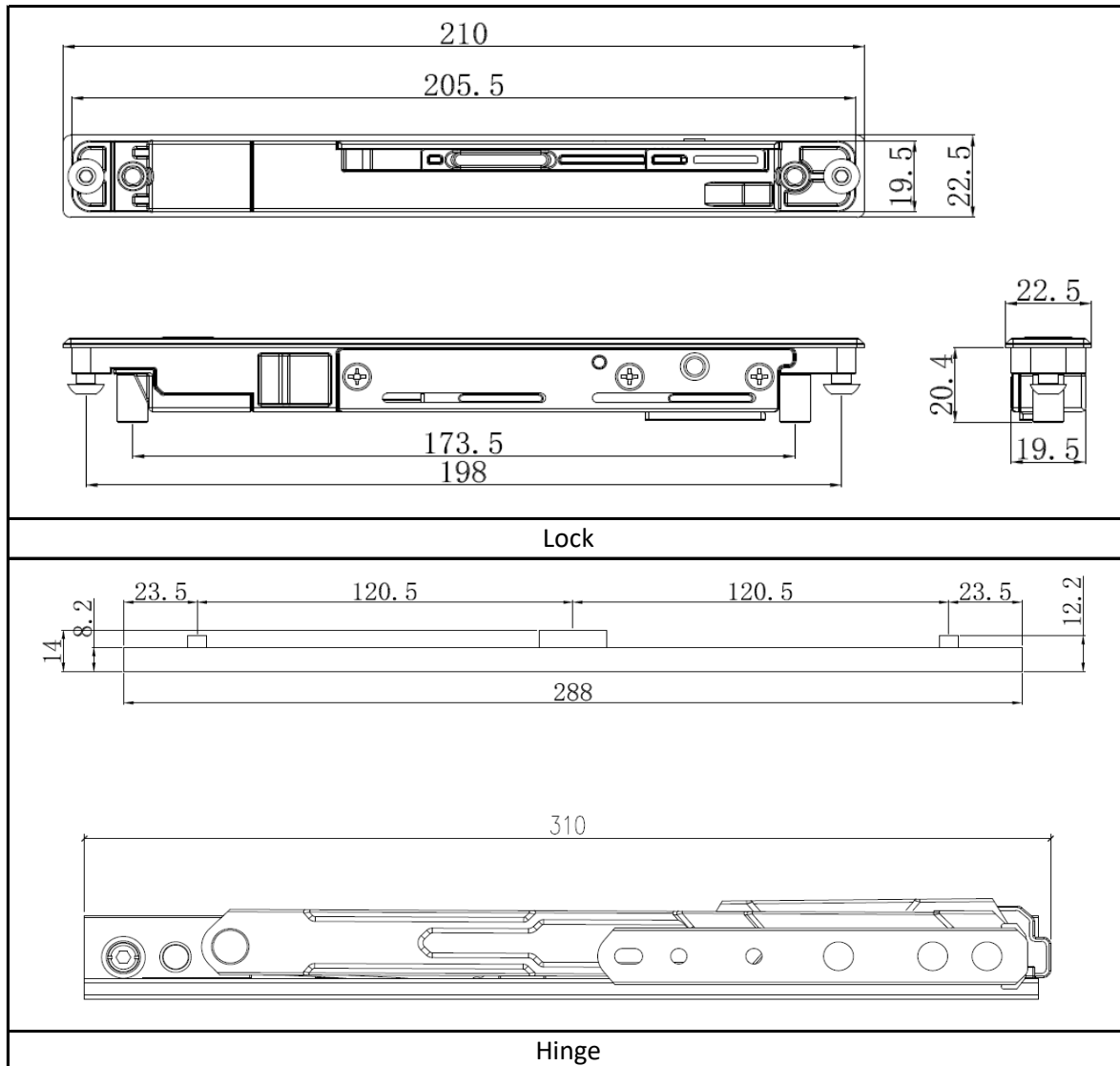


Fig.6 Drawing of Hardware

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Appendix B: Test Data

B.1 Operating force test – Test method: Section 9.3.1 of AAMA/WDMA/CSA 101/I.S.2/A440-17

Table B.1 Test Data of Operating Force Test

Force Type		Force Data, N				Requirement	Verdict
		1#	2#	3#	average		
To Initial Movement	Open	27	28	28	28	Max. 155N	Pass
	Close	25	25	26	25		
To Maintain Movement	Open	15	15	14	15	Max. 135N	
	Close	15	15	15	15		

The tested specimen met the requirements of Operating Force Test as per AAMA/WDMA/CSA 101/I.S.2/A440-17 and CSA A440S1-19.

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Appendix B: Test Data

B.2 Air Leakage Resistance Test – Test method: ASTM E283/E283M-2019

Total area: 1.20 m² (12.92 ft²)

Table B.2 Test Data of Air Leakage Resistance Test

	Air Leakage in cfm/ft ²	Air Leakage in L/s·m ²
Infiltration rate (75 Pa)	0.008	0.04
Exfiltration rate (75 Pa)	0.008	0.04
Average air leakage rate (75 Pa)	0.008	0.04

The tested specimen met the requirements of Air Leakage Resistance Test as per AAMA/WDMA/CSA 101/I.S.2/A440-17 and CSA A440S1-19.

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Appendix B: Test Data

B.3 Water resistance test – Test method ASTM E547-2000(R2016)

No water penetration occurred at 220Pa by the method of cyclic static air pressure difference during and after test according to ASTM E547-2000(R2016).

The tested specimen met the requirements of Class CW-PG30 for Water Penetration Resistance Test as per AAMA/WDMA/CSA 101/I.S.2/A440-17 and CSA A440S1-19.

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Appendix B: Test Data

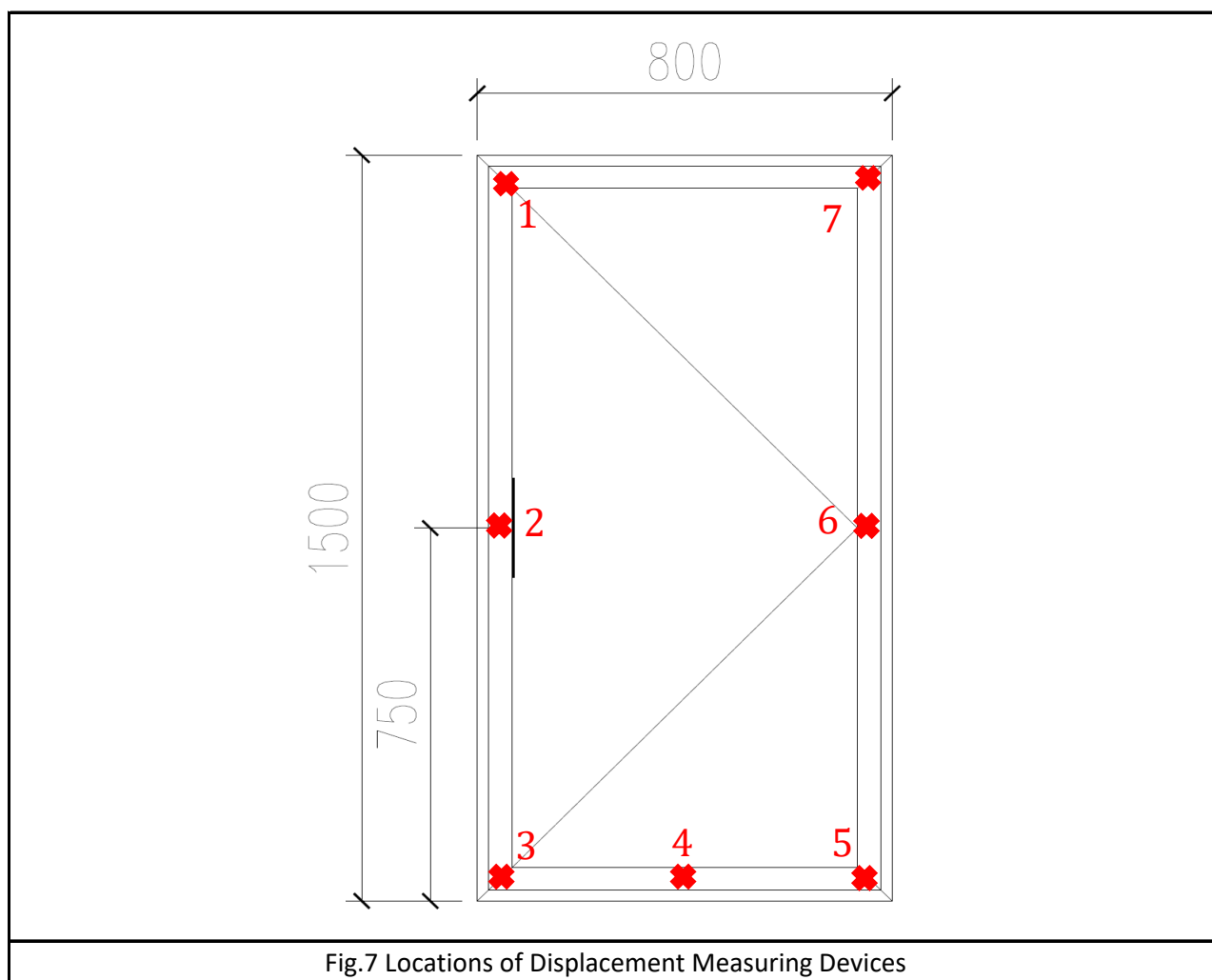
B.4 Uniform Load Deflection Test – Test method ASTM E330/E330M-2014, Procedure A

Span length, L1 = 1400 mm (Point: #1-3 for Handle side stile)

Span length, L2 = 710 mm (Point: #3-5 for Bottom rail)

Span length, L3 = 1400 mm (Point: #5-7 for Hinge side stile)

Test Pressure (DP), P = 1440 Pa



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B.4 Uniform Load Deflection Test – Test method ASTM E330/E330M-2014, Procedure A (Cont.)

Table B.3 Test Data of Uniform Load Deflection Test

Member (mm)		Test Pressure (Pa)	Displacement (mm)			Deflection
Item	Span Length		1	2	3	
Handle side stile	1400	+P = +1440	0.4	1.4	0.5	1.0
		0	0.1	0.1	0.1	<0.1
		-P = -1440	0.4	0.6	0.3	0.3
		0	0.1	0.1	0.0	0.1
Member (mm)		Test Pressure (Pa)	Displacement (mm)			Deflection
Item	Span Length		3	4	5	
Bottom rail	710	+P = +1440	0.5	0.6	0.3	0.2
		0	0.1	0.2	0.2	0.1
		-P = -1440	0.3	0.7	0.5	0.3
		0	0.0	0.2	0.4	<0.1
Member (mm)		Test Pressure (Pa)	Displacement (mm)			Deflection
Item	Span Length		5	6	7	
Hinge side stile	1400	+P = +1440	0.3	1.2	0.2	1.0
		0	0.2	0.2	0.1	0.1
		-P = -1440	0.5	0.7	0.3	0.3
		0	0.4	0.1	0.1	0.2

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B.4 Uniform Load Deflection Test – Test method ASTM E330/E330M-2014, Procedure A (Cont.)

Table B.4 Test Data of Uniform Load Deflection Test for Handle side stile

Test Pressure	Positive		Negative	
	Deflection	Perm. Set	Deflection	Perm. Set
Measurements, mm	1.0	<0.1	0.3	0.1
Deflection limit at design pressure, L1/175=8 mm				

Table B.5 Test Data of Uniform Load Deflection Test for Bottom rail

Test Pressure	Positive		Negative	
	Deflection	Perm. Set	Deflection	Perm. Set
Measurements, mm	0.2	0.1	0.3	<0.1
Deflection limit at design pressure, L2/175=4.06 mm				

Table B.6 Test Data of Uniform Load Deflection Test for Hinge side stile

Test Pressure	Positive		Negative	
	Deflection	Perm. Set	Deflection	Perm. Set
Measurements, mm	1.0	0.1	0.3	0.2
Deflection limit at design pressure, L3/175=8 mm				

During each load, no main frame or sash member deflected more than L/175, where L is the length of the unsupported span. And no damage was found, the operation was normal after testing.

The tested specimen met the requirements for Class CW-PG30 for Uniform Load Deflection Test as per AAMA/WDMA/CSA 101/I.S.2/A440-17 and CSA A440S1-19.

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Appendix B: Test Data

B.5 Uniform Load Structural Test – Test method ASTM E330/E330M-2014, Procedure A

Design Pressure, P = 1440 Pa ; Structural Pressure, P = 2160 Pa

Table B.7 Test Data of Uniform Load Structural Test

Member (mm)		Test Pressure (Pa)	Permanent deformation(mm)			Net permanent deformation (mm)
Item	Span Length		1	2	3	
Handle side stile	1400	+P = +2160	—	—	—	—
		0	0.1	0.1	0.1	<0.1
		-P = -2160	—	—	—	—
		0	0.2	0.1	0.1	0.1
Member (mm)		Test Pressure (Pa)	Permanent deformation(mm)			Net permanent deformation (mm)
Item	Span Length		3	4	5	
Bottom rail	710	+P = +2160	—	—	—	—
		0	0.1	0.2	0.1	0.1
		-P = -2160	—	—	—	—
		0	0.1	0.1	0.1	<0.1
Member (mm)		Test Pressure (Pa)	Permanent deformation(mm)			Net permanent deformation (mm)
Item	Span Length		5	6	7	
Hinge side stile	1400	+P = +2160	—	—	—	—
		0	0.1	0.2	0.1	0.1
		-P = -2160	—	—	—	—
		0	0.1	0.1	0.1	<0.1

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B.5 Uniform Load Structural Test – Test method ASTM E330/E330M-2014, Procedure A

Table B.8 Test Data of Uniform Load Structural Test for Handle side stile

Test Pressure	Perm. Set	
	Positive	Negative
Measurements, mm	<0.1	0.1
Permanent deflection limit, $L1 \times 0.3\% = 4.2$ mm		

Table B.9 Test Data of Uniform Load Structural Test for Bottom rail

Test Pressure	Perm. Set	
	Positive	Negative
Measurements, mm	0.1	<0.1
Permanent deflection limit, $L2 \times 0.3\% = 2.13$ mm		

Table B.10 Test Data of Uniform Load Structural Test for Hinge side stile

Test Pressure	Perm. Set	
	Positive	Negative
Measurements, mm	0.1	<0.1
Permanent deflection limit, $L3 \times 0.3\% = 4.2$ mm		

After the test loads were released, there was no failure or permanent deformation of any Part of the window system that would cause the test specimen to be inoperable. There was no permanent deformation which was in excess of 0.3% of its span.

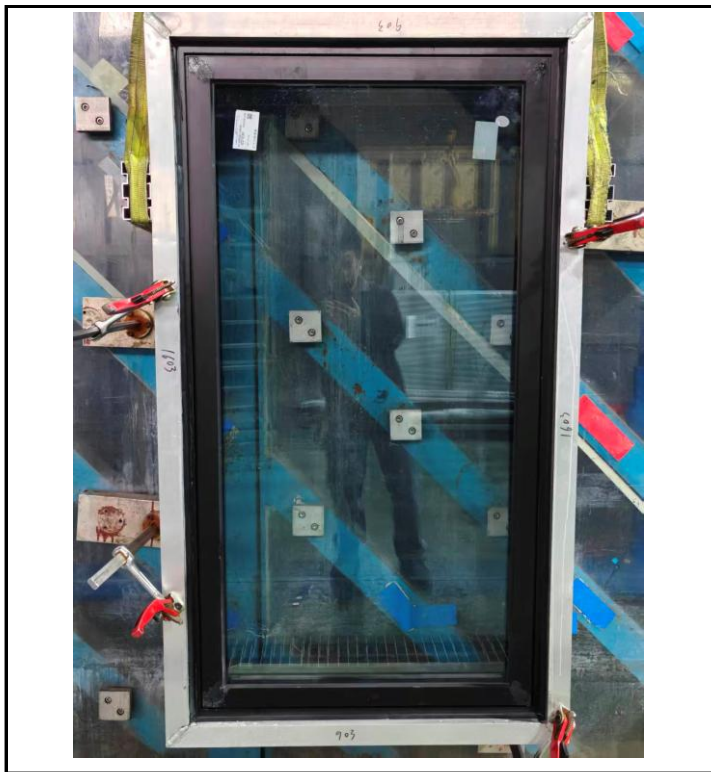
The tested specimen met the requirements for Class CW-PG30 for Uniform Load Structural Test as per AAMA/WDMA/CSA 101/I.S.2/A440-17 and CSA A440S1-19.

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Appendix C: 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

Leo Li

Name: Ziqing Chen
Title: Reviewer

Name: Leo Li
Title: Project Engineer

Revision:

Revision No.	Date	Revision Summary	Author	Reviewer
R0	2026/6/16	Original Report Issue	/	/

End of Test Report