FOSHAN CIVRO WINDOWS, DOORS & CURTAIN WALL SYSTEM CO. LTD

TEST REPORT

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180418002SHF-BP-1R1

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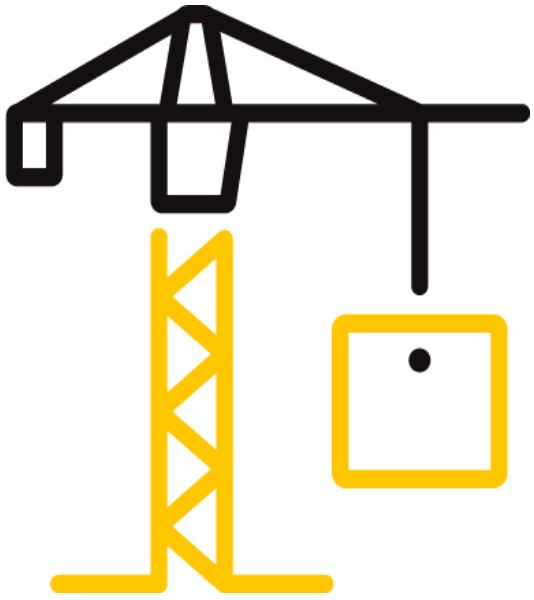

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Test Report

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Applicant: FOSHAN CIVRO WINDOWS, DOORS & CURTAIN WALL SYSTEM CO. LTD
Applicant Address: Shishan Science & Technology Park, N. Xingye Road, Nanhai District, Foshan, China
Attn: Evan Yuan
Manufacturer: FOSHAN CIVRO WINDOWS, DOORS & CURTAIN WALL SYSTEM CO. LTD
Manufacturer Address: Shishan Science & Technology Park, N. Xingye Road, Nanhai District, Foshan, China
Attn: Evan Yuan
SUBJECT: Performance testing
COD65 casement door

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 Windows and external glazed doors in buildings (Amdt 2-2017)

SAMPLE ID	MODEL	SPECIFICATION
S180418002SHF.001	COD 65	1000 mm (W) x 2800 mm (H)

SAMPLE RECEIEVED: 2018/6/28
TESTED FROM: 2018/7/3 TO 2018/7/3

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Total Quality. Assured.

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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	COD65 casement door
2	Model	COD 65
3	Dimension of Window Frame	1000mm(width) x 2800mm (height) x 65mm (thickness)
4	Dimension of Window Sash	899mm (width) x 2738.5 (height) x 65 mm (thickness)
5	Profile (Aluminum)	Model:(1) CR14401, (2) CR14601 Supplier: Foshan CIVRO Windows, Doors & Curtain Wall System Co. Ltd
6	Frame Corner Construction Details: Joinery type	Frame: Mechanically assembled: Glued & Manually screwed Panel: Mechanically assembled: Glued
7	Reinforcement	None
8	Glazing	Dimension: 745mm (width) x 2584.5mm (height) Structure: 24mm thick 6mm + 12mm air + 6mm tempered insulating glass Supplier: Foshan CIVRO Windows, Doors & Curtain Wall System Co. Ltd
9	Hardware	Handle Model: 82000L Cylinder Model:881-35k-55 Hinge Model:3751600001 Supplier: Foshan CIVRO Windows, Doors & Curtain Wall System Co. Ltd
10	Weather Bar	Not applicable
11	Thermal Break	Model: 978700 Material: PA66 Supplier: Foshan CIVRO Windows, Doors & Curtain Wall System Co. Ltd
12	Drainage	Sizes: diameter 4mm quantity: 4
13	Gasket (between leaf and frame)	Model: (1)C36001, (2)35008, (3) 35053 Material: EPDM Supplier: Foshan CIVRO Windows, Doors & Curtain Wall System Co. Ltd
14	Sealant of Glass	NA
15	Installation	The exterior perimeter of the test specimen was sealed with silicon sealant

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Test Items, Method and Results：

2 Test Result

Table 2 Test Results

Test Description	Test Result		
Serviceability Design Wind Pressure AS/NZS 4420.1-2016 section 3	±	800	Pa
Deflection / Span Ratio Framing member 1	Stile at handle side	1/2373	
Deflection / Span Ratio Framing member 2	Rail at bottom	1/3775	
Operating Force AS/NZS 4420.1-2016 section 4	Initial Movement	54	N
	Maintain Movement	4	N
Air Infiltration at ±75 Pa AS/NZS 4420.1-2016 section 5 Overall area: 2.80 m^2	at +75Pa	0.95	$L/s \cdot m^2$
	at -75Pa	1.27	$L/s \cdot m^2$
Water Penetration AS/NZS 4420.1-2016 section 6	No water penetration at	450	Pa or less
	Description: After sprayed for 3 minutes at 600 Pa, the water penetration started at the bottom of door leaf and frame.		
Ultimate Strength Test Pressure AS/NZS 4420.1-2016 section 7	+	2000	Pa with no collaspe
	-	2000	Pa with no collaspe
	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 = 800 Pa, rating N4

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)	Deflection (mm)			Actual Deflection	Deflection /Span Ratio
Item	Span Length		1	2	3		
Stile at handle side	2610	+P/4 = 200	0.3	0.3	0.1	0.1	1:26100
		+2P/4 = 400	0.6	0.6	0.2	0.2	1:13050
		+3P/4 = 600	1.0	1.1	0.4	0.4	1:6525
		+4P/4 = 800	1.3	1.5	0.5	0.6	1:4350
		0	0.0	0.1	0.0	0.1	1:26100
Stile at handle side	2610	-P/4 = -200	0.3	0.3	0.1	0.1	1:26100
		-2P/4 = -400	0.6	0.8	0.2	0.4	1:6525
		-3P/4 = -600	1.0	1.5	0.4	0.8	1:3263
		-4P/4 = -800	2.0	2.3	0.5	1.1	1:2373
		0	0.7	0.3	0.1	0.3	1:8700

Table 4 Test Data of Deflection Test

Member (mm)		Test Pressure (Pa)	Deflection (mm)			Actual Deflection	Deflection /Span Ratio
Item	Span Length		3	4	5		
Rail at bottom	755	+P/4 = 200	0.1	0.1	0.0	<0.1	<1:7550
		+2P/4 = 400	0.2	0.2	0.1	<0.1	<1:7550
		+3P/4 = 600	0.4	0.4	0.1	0.2	1:3775
		+4P/4 = 800	0.5	0.5	0.2	0.2	1:3775
		0	0.0	0.0	0.0	<0.1	<1:7550
Rail at bottom	755	-P/4 = -200	0.1	0.1	0.0	<0.1	<1:7550
		-2P/4 = -400	0.2	0.2	0.0	0.1	1:7550
		-3P/4 = -600	0.4	0.4	0.1	0.2	1:3775
		-4P/4 = -800	0.5	0.5	0.1	0.2	1:3775
		0	0.1	0.1	0.0	<0.1	<1:7550

A.2 Sample Drawings

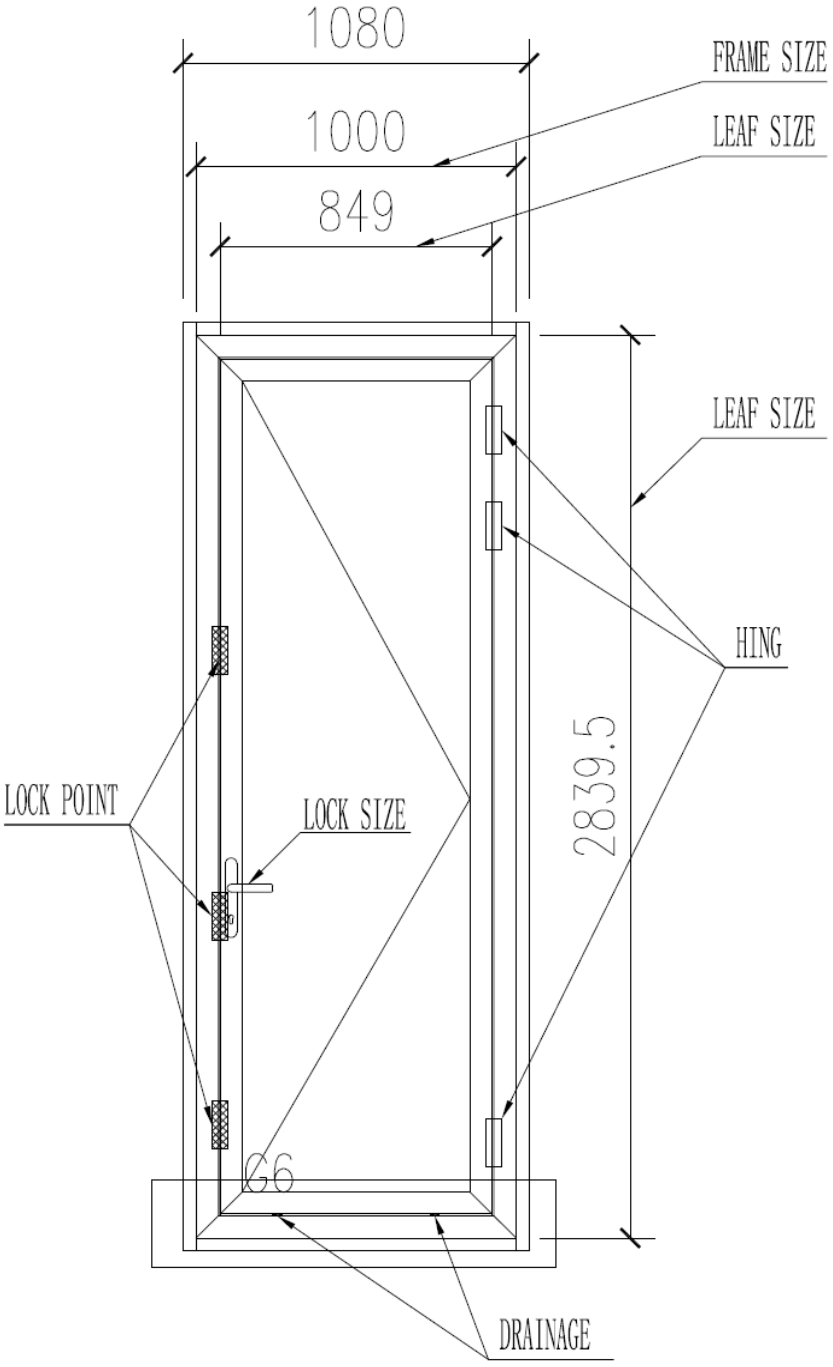

Fig.1 Drawing of Representative Sample

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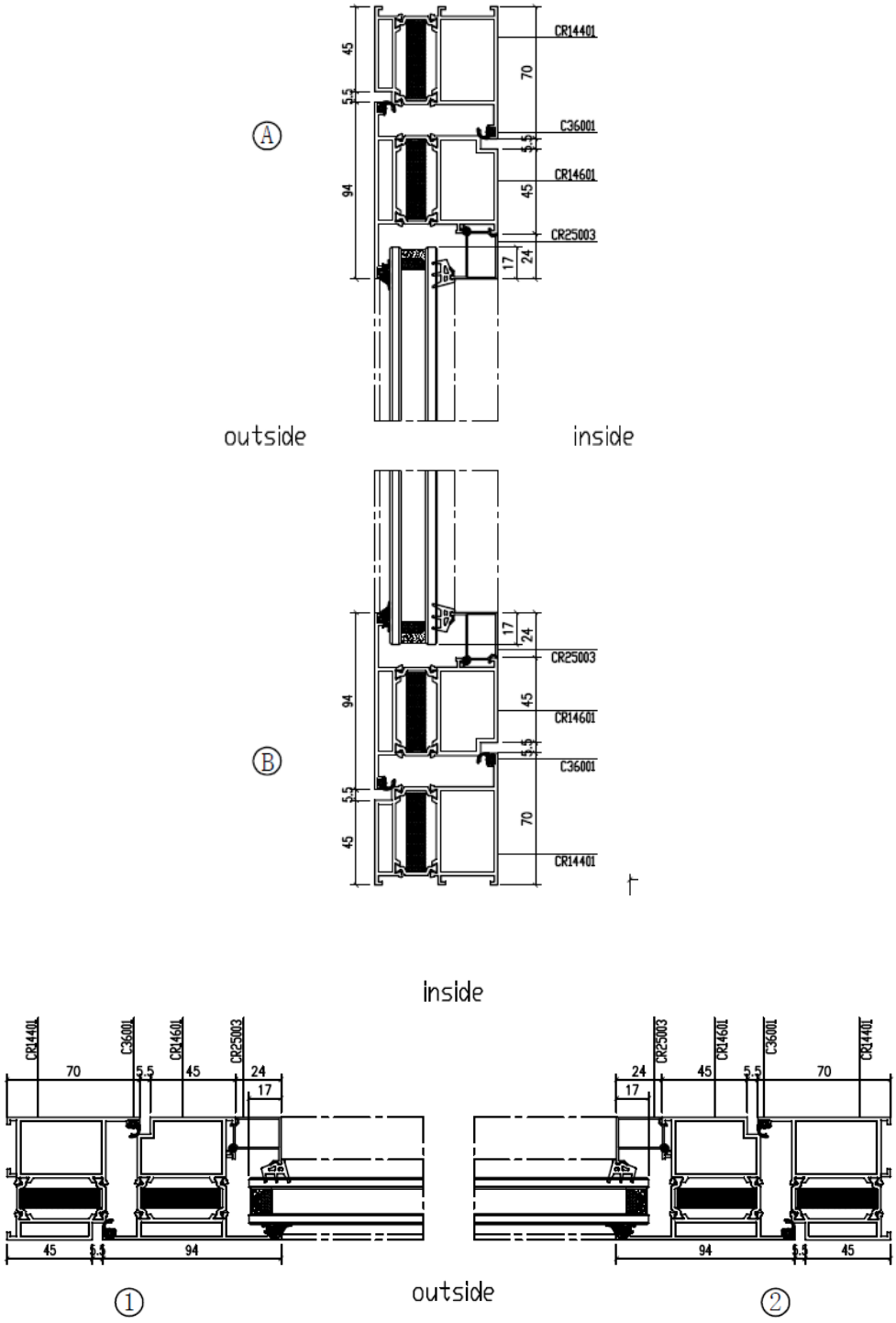


Fig.2 Drawing of Representative Sample

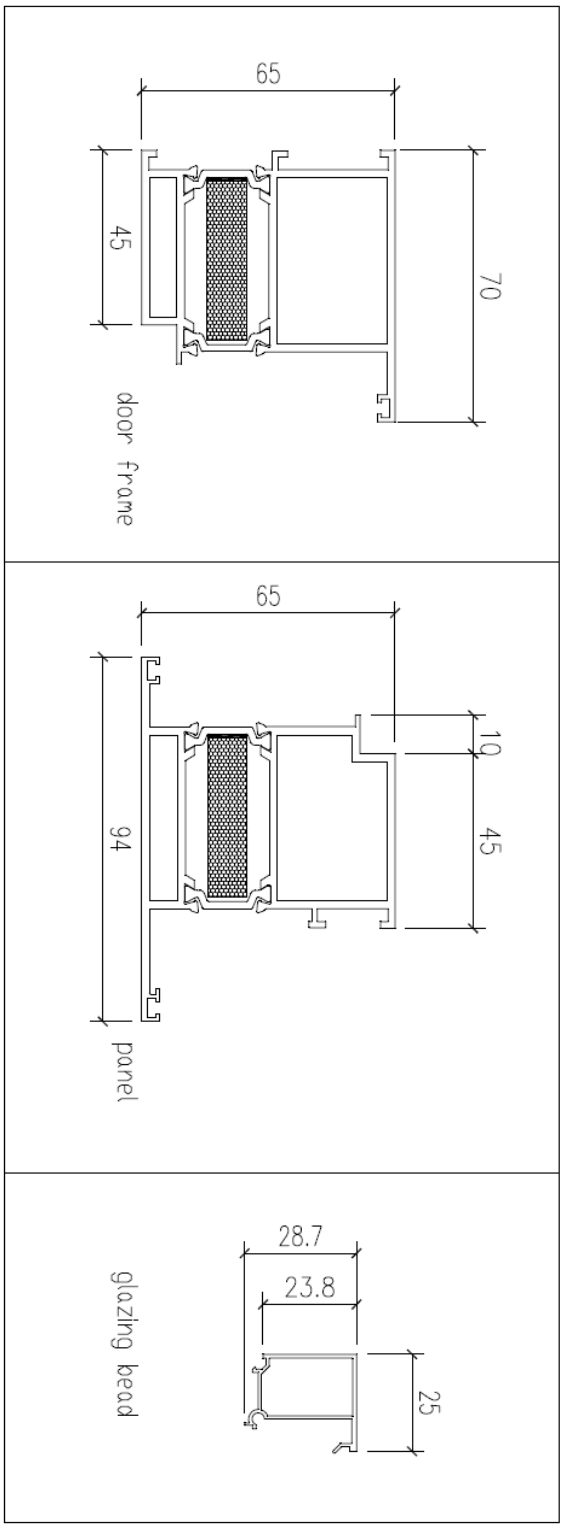
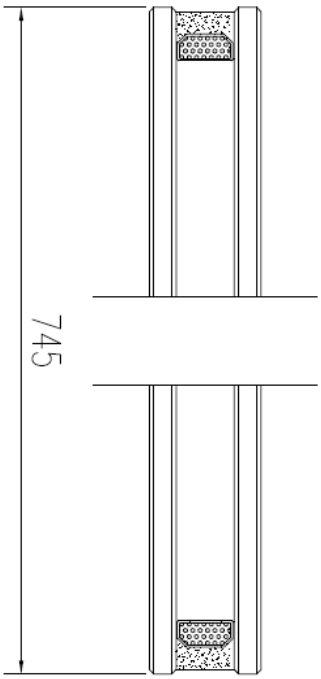


Fig.3 Drawing of Representative Sample



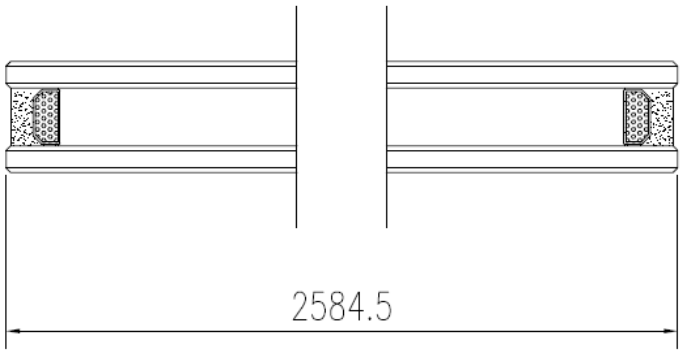


Fig.4 Drawing of Representative Sample

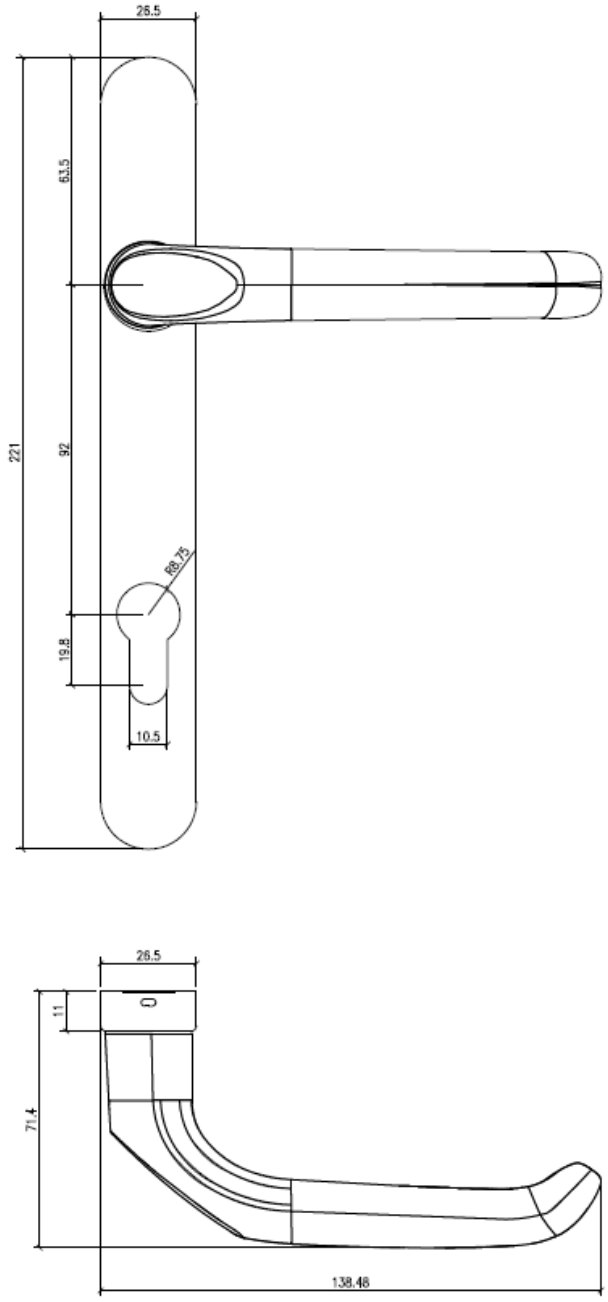


Fig.5 Drawing of Representative Sample

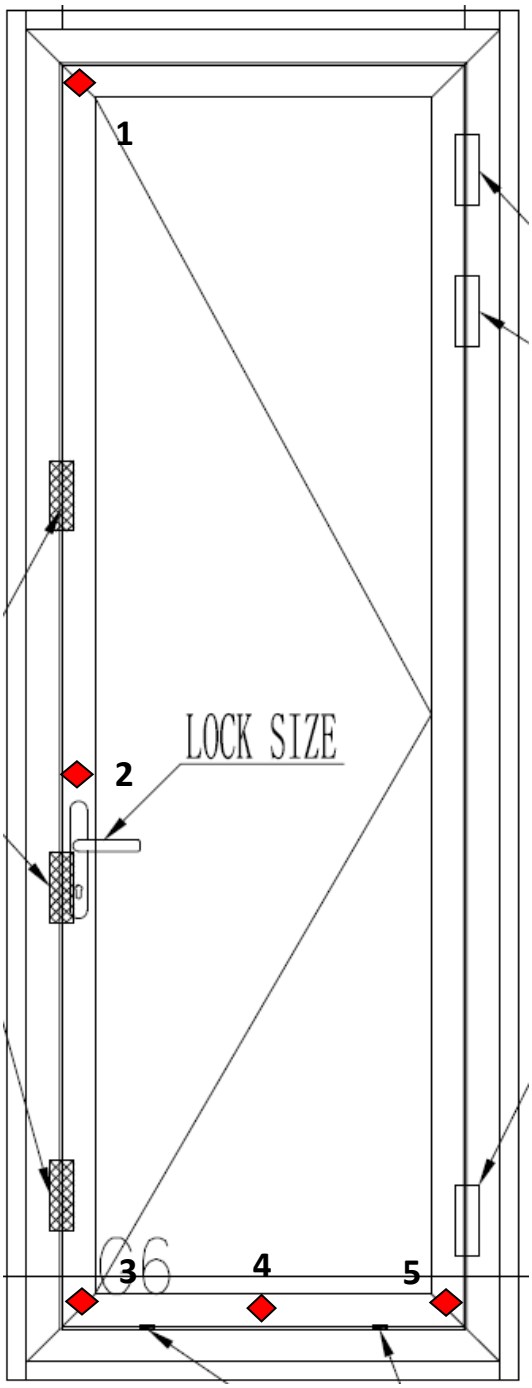
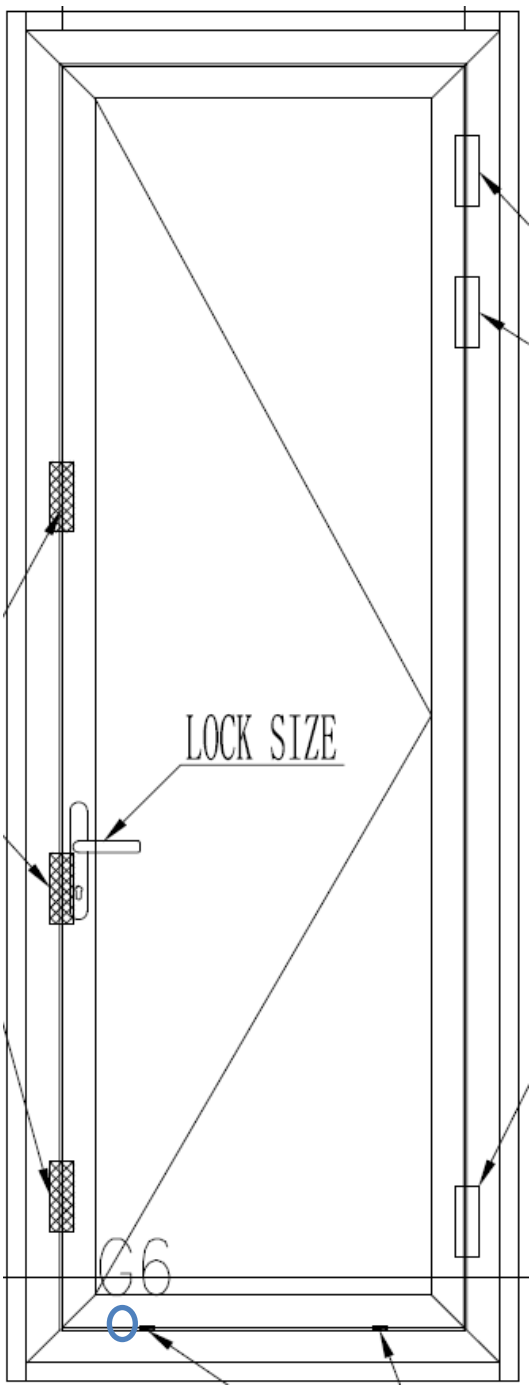


Fig.6 Locations of Displacement Measuring Devices



: Water penetration position

Fig.7 Location of Water Penetration

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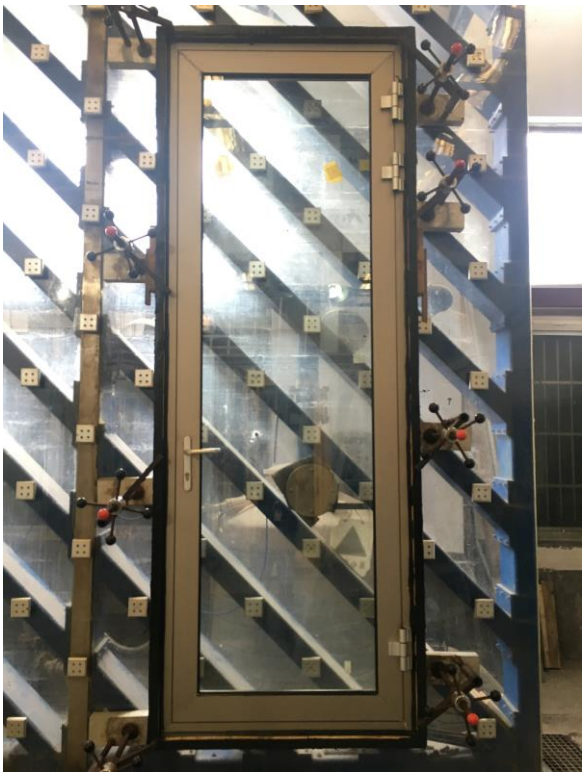
APPENDIX: SAMPLE RECEIVED PHOTO



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.

Name: Weber Wang Name: Daniel Zhang
Title: Reviewer Title: Project Engineer

Revision:

NO.	DATE	CHANGES	AUTHOR	REVIEWER
180418002SHF-BP-1	2018/7/9	First issue	Daniel Zhang	Weber Wang
180418002SHF-BP-1R1	2018/7/12	Revise the written description from chinese to English on drawing	Daniel Zhang	Weber Wang