

FUZHOU ROPO BUILDING MATERIALS CO., LTD.

TEST REPORT

SCOPE OF WORK

Aluminum Folding Door

REPORT NUMBER

210930003SHF-008

TEST DATE(S)

2021-12-10

ISSUE DATE

2021-12-24

PAGES

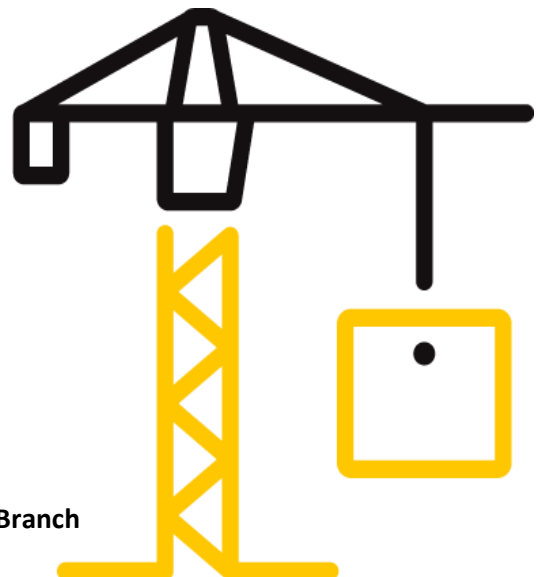
17

DOCUMENT CONTROL NUMBER

LFT-APAC-SHF-OP-10k(May 1, 2021)

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Intertek Testing Services Shenzhen Ltd. Shanghai Fengxian Branch



Test Report

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Test Report

Issue Date: 2021-12-24 Intertek Report No. 210930003SHF-008
 Applicant: Fuzhou Ropo Building Materials Co., Ltd.
 Address: Tieling Industrial Zone, Minhou, Fuzhou, Fujian, China
 Attn: Mr Deng
 Manufacturer: Fuzhou Ropo Building Materials Co., Ltd.
 Address: Tieling Industrial Zone, Minhou, Fuzhou, Fujian, China
 Test Type: Performance test, samples provided by the applicant.

Product Information

Product Name	Aluminum Folding Door	Brand	ROPO
Sample Description	Good Condition	Sample Amount	1 set
		Received Date	2021-10-22
Sample ID	Model	Specification	
S210930003SHF.004	ROPO100 FD	2500mm(Width) × 2400mm(Height)	

Test Methods And Standards

Test Standard	AS/NZS 4420.1-2016 Windows, external glazed, timber and composite doors - Methods of test Part 1: Test sequence, sampling and test methods
Specification Standard	AS 2047-2014 Windows and external glazed doors in buildings (Amdt 2-2017)
Test Conclusion	The results conform to the applicable requirements of AS 2047-2014 (Amdt 2-2017), and the results are shown in the following page.

Note:

1.This report relates specifically to the sample(s) that were drawn and provided by the applicant or their nominated third party. The reported result(s) provide no warranty or verification on the sample(s) representing any specific goods and/or shipment and only relate to the sample(s) as received and tested.

Report Authorized



 Name: Fred Bao Title: Approver
 Name: Zac Zhang Title: Reviewer
 Name: Gio Liu Title: Project Engineer

Test Report

Issue Date: 2021-12-24

Intertek Report No. 210930003SHF-007

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	Aluminum Folding Door
2	Model	ROPO100 FD
3	Dimension of Door Frame	2500mm(Width) x 2400mm(Height) x 100mm(Thickness)
4	Dimension of Door Leaf	782mm(Width) x 2297mm(Height) x 65mm(Thickness) × 3 Pieces
5	Aluminum Profile	Model: ROPO100 FD Manufacturer: Guangdong Jianmei Aluminium Profiles Factory (Group) Co., Ltd.
6	Frame Corner Construction Details: Joinery Type	Mitre-Cut, Assembly with Corner Bracket
7	Reinforcement	Not Applicable
8	Glazing	Dimension: 660mm(Width) × 2175mm(Height) × 3 Pieces Structure: 22mm Thick; 5mm +12mm Ar +5mm Toughened Insulated Glass Supplier: Jiangsu Jiacheng Special Manufacturing Glass Co., Ltd.
9	Hardware	Model1: 75 Series Supplier: Guangdong Ruto Hardware Technology Co., Ltd. Model2: H600 Series Supplier: Roto Frank AG
10	Weather Bar	Not Applicable
11	Thermal Break	Not Applicable
12	Drainage	Dimension: 5mm x 30mm Quantity: 3
13	Gasket (between leaf and frame)	Material: EPDM Code: GA177, GA192, GA223 Supplier: Shenyang Ruide Plastics & Rubber Manufacturer Co., Ltd.
14	Sealant of Glass	Model: DOWSIL SJ168 Material: Silicone Weatherproofing Sealant Supplier: Dow China
15	Installation	The rough opening allowed for a 6 mm shim space. 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	±	1250	Pa
Deflection / Span Ratio Framing member 1	Stile at handle side	1/1817	
Deflection / Span Ratio Framing member 2	Mullion 1	1/703	
Deflection / Span Ratio Framing member 3	Mullion 2	1/661	
Operating Force for Sash A AS/NZS 4420.1-2016 section 4	Initial Movement	Required	≤ 60 N
		Open	26 N
		Close	25 N
	Maintain Movement	Required	≤ 20 N
		Open	10 N
		Close	9 N
Operating Force for Sash B AS/NZS 4420.1-2016 section 4	Initial Movement	Required	≤ 60 N
		Open	31 N
		Close	30 N
	Maintain Movement	Required	≤ 20 N
		Open	13 N
		Close	13 N
Operating Force for Sash C AS/NZS 4420.1-2016 section 4	Initial Movement	Required	≤ 60 N
		Open	31 N
		Close	32 N
	Maintain Movement	Required	≤ 20 N
		Open	13 N
		Close	13 N
Air Infiltration at ±75 Pa AS/NZS 4420.1-2016 section 5	at +75Pa	0.72	L/s·m ²
Overall area: 6.00 m ²	at -75Pa	0.89	L/s·m ²

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Table 2 Test Results (Continued)

Water Penetration AS/NZS 4420.1-2016 section 6	No water penetration at	300 Pa
	Description: After water sprayed for 10 minutes at 375 Pa, the water penetration started between door leaf and door frame.	
Ultimate Strength Test Pressure AS/NZS 4420.1-2016 section 7	±	2130 Pa with no collapse
	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 = 1250 Pa,

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	2180	+P/4 = 313	0.1	0.3	0.1	0.2	1/10900
		+2P/4 = 625	0.3	0.8	0.3	0.5	1/4360
		+3P/4 = 938	0.7	1.5	0.5	0.9	1/2422
		+4P/4 = 1250	1.2	2.1	0.7	1.2	1/1817
		0	0.2	0.2	0.1	0.1	1/21800
Stile at handle side	2180	-P/4 = -313	0.2	0.3	0.1	0.2	1/10900
		-2P/4 = -625	0.4	0.6	0.3	0.3	1/7267
		-3P/4 = -938	0.9	1.2	0.5	0.5	1/4360
		-4P/4 = -1250	1.2	1.7	0.8	0.7	1/3114
		0	0.3	0.2	0.1	0.1	1/21800

Table 4 Test Data of Deflection Test

Member (mm)		Test Pressure (Pa)	Deflection (mm)			Actual Deflection	Deflection /Span Ratio
Item	Span Length		4	5	6		
Mullion 1	2180	+P/4 = 313	1.2	1.6	0.5	0.8	1/2725
		+2P/4 = 625	2.0	3.1	1.0	1.6	1/1363
		+3P/4 = 938	3.0	4.8	1.6	2.5	1/872
		+4P/4 = 1250	3.9	6.1	2.4	3.0	1/727
		0	0.4	0.3	0.4	<0.1	<1/21800
Mullion 1	2180	-P/4 = -313	1.2	1.7	0.5	0.9	1/2422
		-2P/4 = -625	2.4	3.3	1.0	1.6	1/1363
		-3P/4 = -938	3.8	5.4	2.2	2.4	1/908
		-4P/4 = -1250	5.1	7.3	3.4	3.1	1/703
		0	0.5	0.5	0.5	<0.1	<1/21800

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Table 5 Test Data of Deflection Test

Member (mm)		Test Pressure (Pa)	Deflection (mm)			Actual Deflection	Deflection /Span Ratio
Item	Span Length		7	8	9		
Mullion 2	2180	+P/4 = 313	1.6	1.8	0.3	0.9	1/2422
		+2P/4 = 625	2.8	3.5	1.0	1.6	1/1363
		+3P/4 = 938	3.7	5.4	2.3	2.4	1/908
		+4P/4 = 1250	4.4	6.8	2.8	3.2	1/681
		0	0.2	0.2	0.2	<0.1	<1/21800
Mullion 2	2180	-P/4 = -313	0.9	1.4	0.3	0.8	1/2725
		-2P/4 = -625	1.8	2.8	0.7	1.6	1/1363
		-3P/4 = -938	3.0	4.6	1.1	2.6	1/838
		-4P/4 = -1250	4.1	6.2	1.8	3.3	1/661
		0	0.8	0.7	0.5	0.2	1/10900

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Appendix A: Test Data and Sample Drawings:

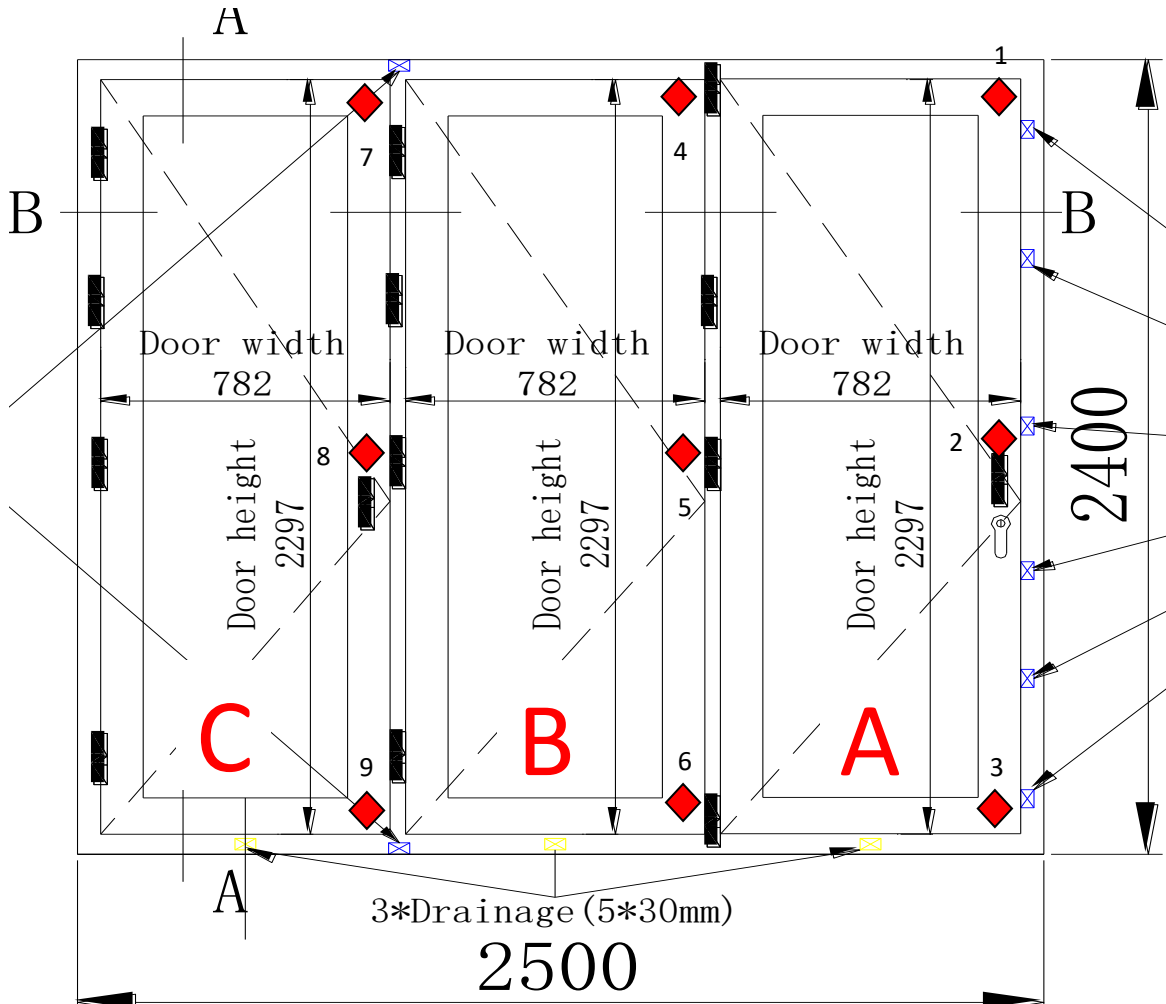
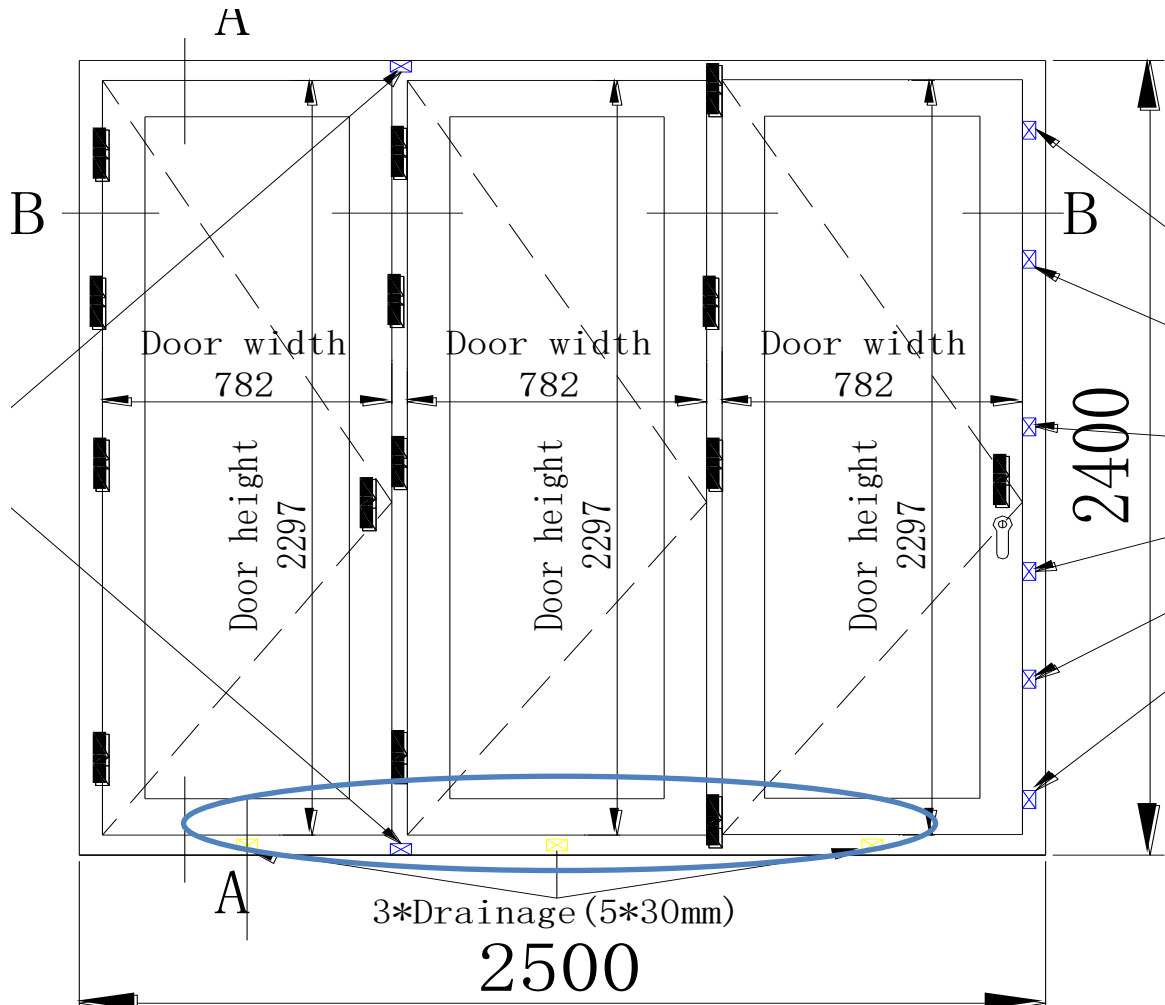


Fig.1 Locations of Displacement Measuring Devices

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 : Water penetration position at 375Pa

Fig.2 Location of Water Penetration

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Appendix A: Test Data and Sample Drawings:

A.2 Sample Drawings

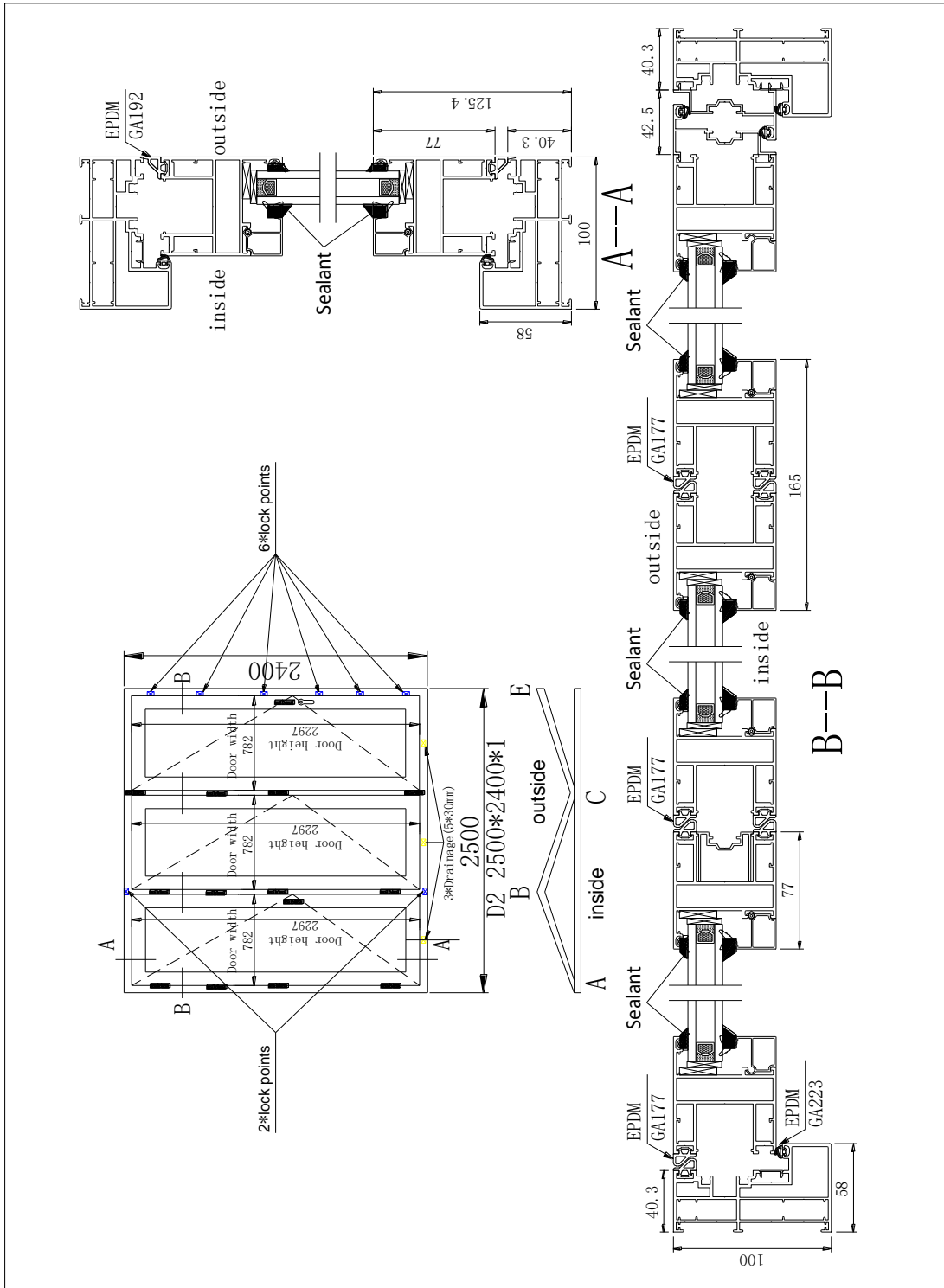


Fig.3 Drawing of Representative Sample

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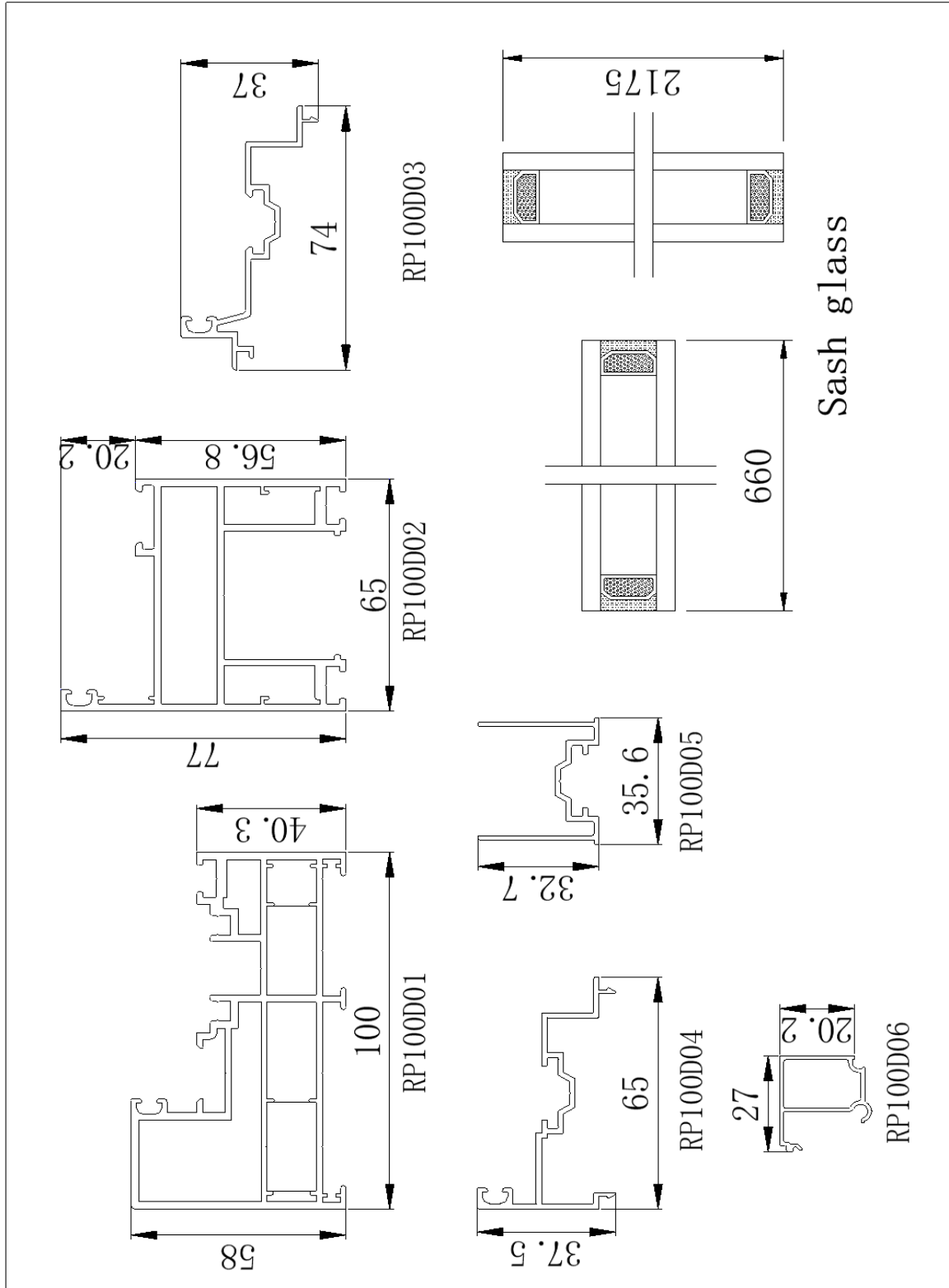


Fig.4 Drawing of Representative Sample

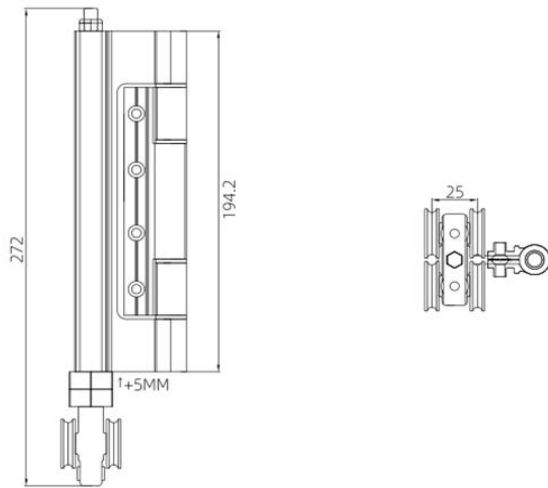
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75B 重型折叠下底轮

编号 Code	材质 Material	适用于 Suitable for
AS-066	锌合金	平开窗



75B 重型折叠上顶轮

编号 Code	材质 Material	适用于 Suitable for
AS-066	锌合金	平开窗

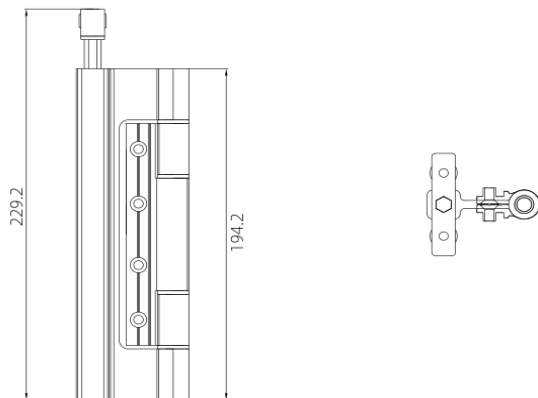


Fig.5 Drawing of Representative Sample

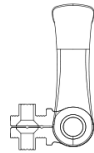
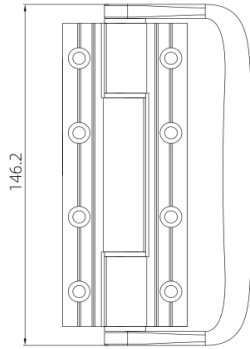
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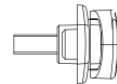
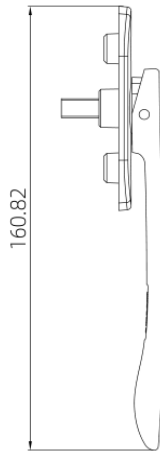
75B 重型折叠双拉手合页

型号: AS-066



75B 重型折叠天地插销执手

型号: AS-066



75B 重型折叠中较合页

型号: AS-066

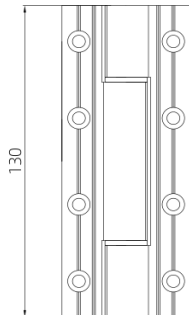


Fig.6 Drawing of Representative Sample

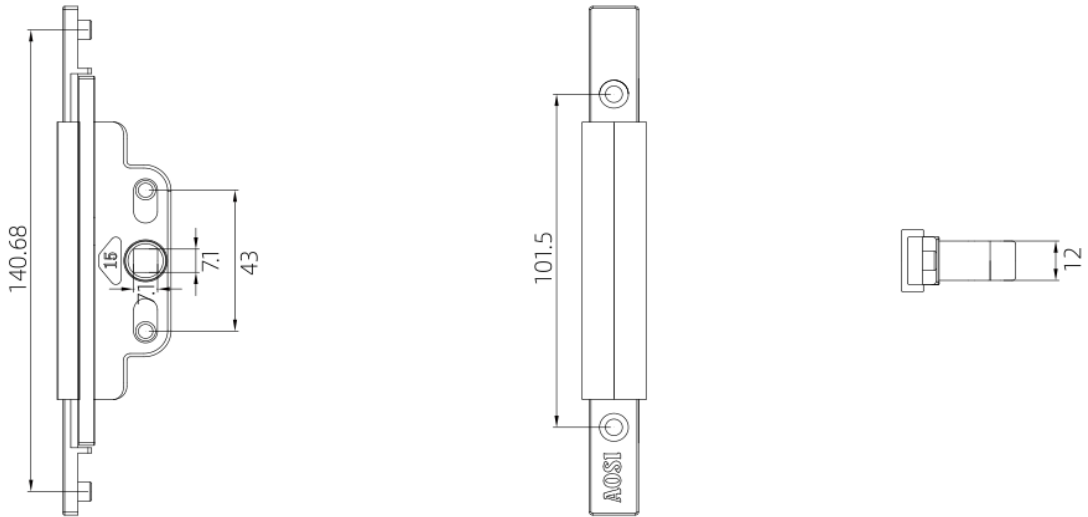
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75B 重型折叠双向传动盒 (15mm)

型号: AS-066



75B 重型折叠专用插销

型号: AS-066

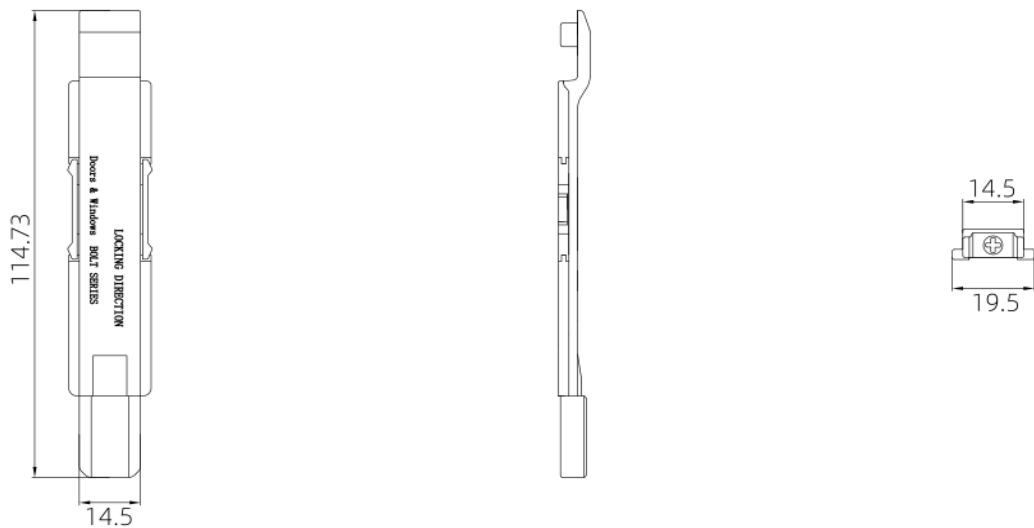


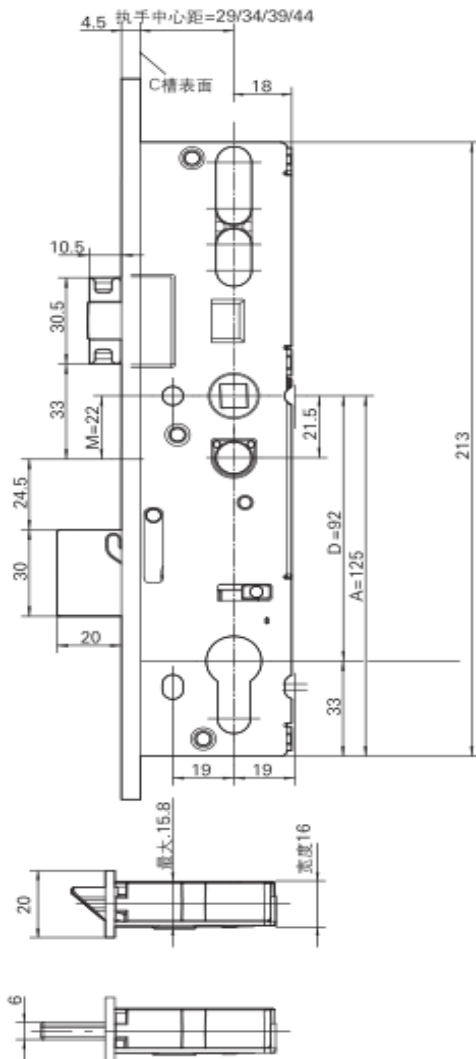
Fig.7 Drawing of Representative Sample

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H600主锁体 C槽 面板20/U4.5					
B	D	⌀	HH	SF	SAP
29	92	8	-	SL	799874
34	92	8	-	SL	640870
39	92	8	-	SL	640871
44	92	8	-	SL	858923
端盖					640885



注：标准 C 槽使用

执手：锁芯孔与方轴孔距92mm, 8×8方轴。

参见P458-P459

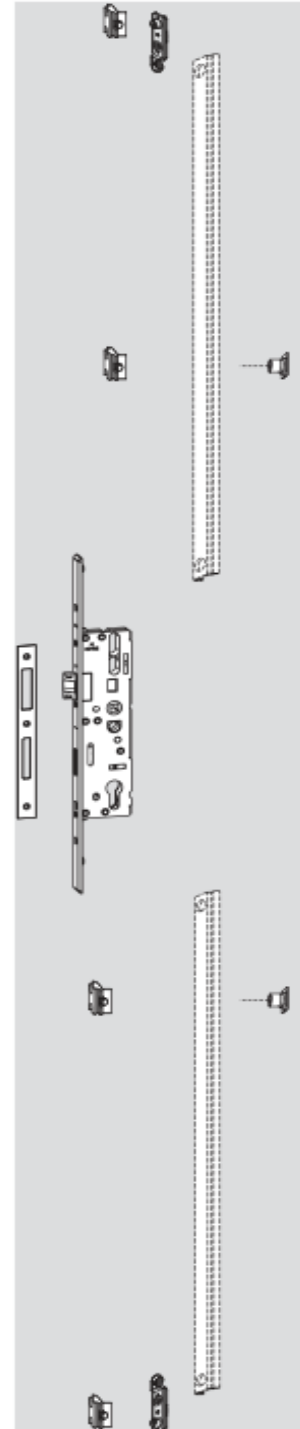


Fig.8 Drawing of Representative Sample

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Appendix B: Sample Received Photo



Revision:

NO.	Date	Changes
210930003SHF-008	2021-12-24	First issue