

FUZHOU ROPO BUILDING MATERIALS CO., LTD.

TEST REPORT

SCOPE OF WORK

Aluminum Hinge Door

REPORT NUMBER

210930003SHF-006

TEST DATE(S)

2021-12-07

ISSUE DATE

2021-12-24

PAGES

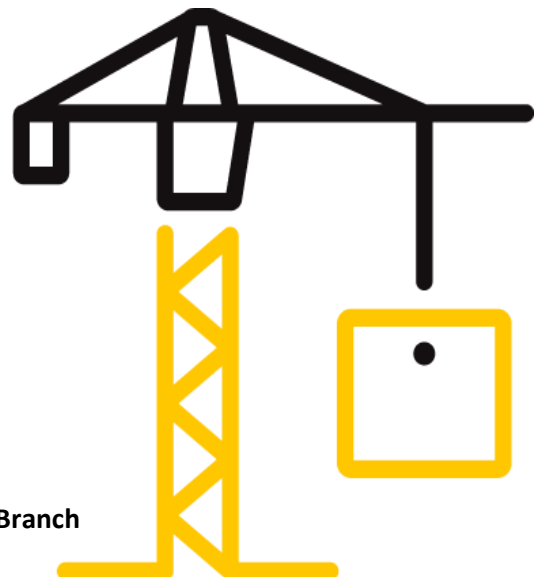
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Intertek Testing Services Shenzhen Ltd. Shanghai Fengxian Branch



Test Report

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Test Report

Issue Date: 2021-12-24 Intertek Report No. 210930003SHF-006
 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 Hinge Door	Brand	ROPO
Sample Description	Good Condition	Sample Amount	1 set
		Received Date	2021-10-22
Sample ID	Model	Specification	
S210930003SHF.003	ROPO100HD	900mm(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	Name: Zac Zhang	Name: Gio Liu
Title: Approver	Title: Reviewer	Title: Project Engineer

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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	Aluminum Hinge Door
2	Model	ROPO100 HD
3	Dimension of Door Frame	900mm(Width) x 2400mm(Height) x 100mm(Thickness)
4	Dimension of Door Leaf	832mm(Width) x 2332mm(Height) x 50mm(Thickness)
5	Aluminum Profile	Model: ROPO100 HD 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: 668mm(Width) x 2168mm(Height) Structure: 22mm Thickness; 5mm +12mm Ar +5mm Toughened Insulated Glass Supplier: Jiangsu Jiacheng Special Manufacturing Glass Co., Ltd.
9	Hardware	Model: H600 Series Supplier: Roto Frank AG
10	Weather Bar	Not Applicable
11	Thermal Break	Not Applicable
12	Drainage	None
13	Gasket (between leaf and frame)	Material: EPDM Code: 112.254 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	±	1600 Pa
Deflection / Span Ratio Framing member 1	Stile at handle side	1/1222
Deflection / Span Ratio Framing member 2	Bottom Rail	1/3500
Operating Force AS/NZS 4420.1-2016 section 4	Initial Movement	Required ≤ 60 N
		Open 38 N
		Close 36 N
	Maintain Movement	Required ≤ 20 N
		Open 17 N
		Close 17 N
Air Infiltration at ±75 Pa AS/NZS 4420.1-2016 section 5	at +75Pa	0.06 L/s·m ²
	at -75Pa	0.07 L/s·m ²
Overall area: 2.16 m ²		
Water Penetration AS/NZS 4420.1-2016 section 6	No water penetration at	455 Pa
	Description: After spryed for 10 mins at 600 pa, water penetration was observed at the joint of the sash and frame.	
Ultimate Strength Test Pressure AS/NZS 4420.1-2016 section 7	±	3000 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 = 1600 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	2200	+P/4 = 400	0.1	0.4	<0.1	0.4	1/5500
		+2P/4 = 800	0.1	0.7	0.1	0.6	1/3667
		+3P/4 = 1200	0.2	1.1	0.1	1.0	1/2200
		+4P/4 = 1600	0.4	1.5	0.2	1.2	1/1833
		0	<0.1	0.1	<0.1	0.1	1/22000
Stile at handle side	2200	-P/4 = -400	0.1	0.6	<0.1	0.6	1/3667
		-2P/4 = -800	0.2	1.1	0.1	1.0	1/2200
		-3P/4 = -1200	0.4	1.6	0.2	1.3	1/1692
		-4P/4 = -1600	0.6	2.2	0.3	1.8	1/1222
		0	<0.1	0.1	<0.1	0.1	1/22000

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		
Bottom Rail	700	+P/4 = 400	<0.1	0.1	<0.1	0.1	1/7000
		+2P/4 = 800	0.1	0.2	0.1	0.1	1/7000
		+3P/4 = 1200	0.1	0.3	0.2	0.2	1/3500
		+4P/4 = 1600	0.2	0.4	0.3	0.2	1/3500
		0	<0.1	<0.1	<0.1	<0.1	<1/7000
Bottom Rail	700	-P/4 = -400	<0.1	0.1	0.1	0.1	1/7000
		-2P/4 = -800	0.1	0.2	0.1	0.1	1/7000
		-3P/4 = -1200	0.2	0.4	0.3	0.2	1/3500
		-4P/4 = -1600	0.3	0.6	0.5	0.2	1/3500
		0	<0.1	0.1	0.1	0.1	1/7000

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Appendix A: Test Data and Sample Drawings:

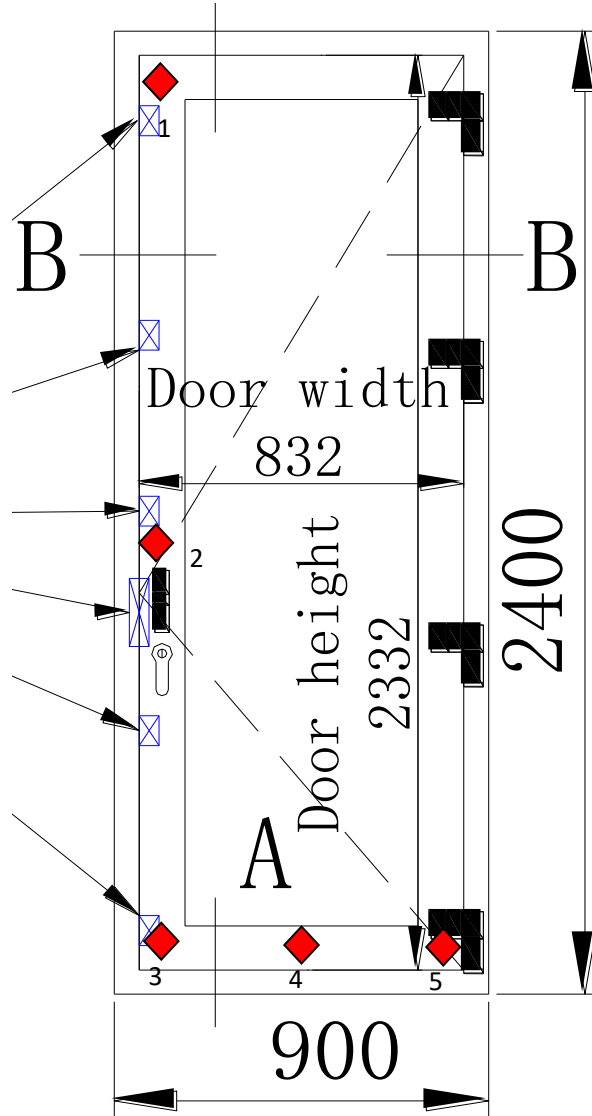


Fig.1 Locations of Displacement Measuring Devices

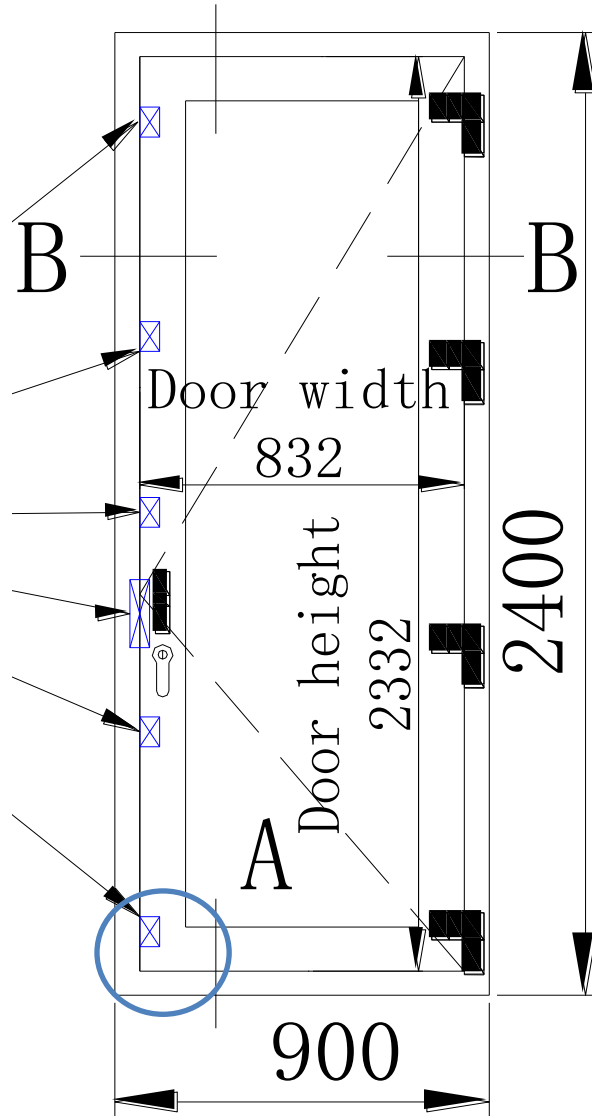
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 : Water penetration position at 600Pa

Fig.2 Location of Water Penetration

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Appendix A: Test Data and Sample Drawings:

A.2 Sample Drawings

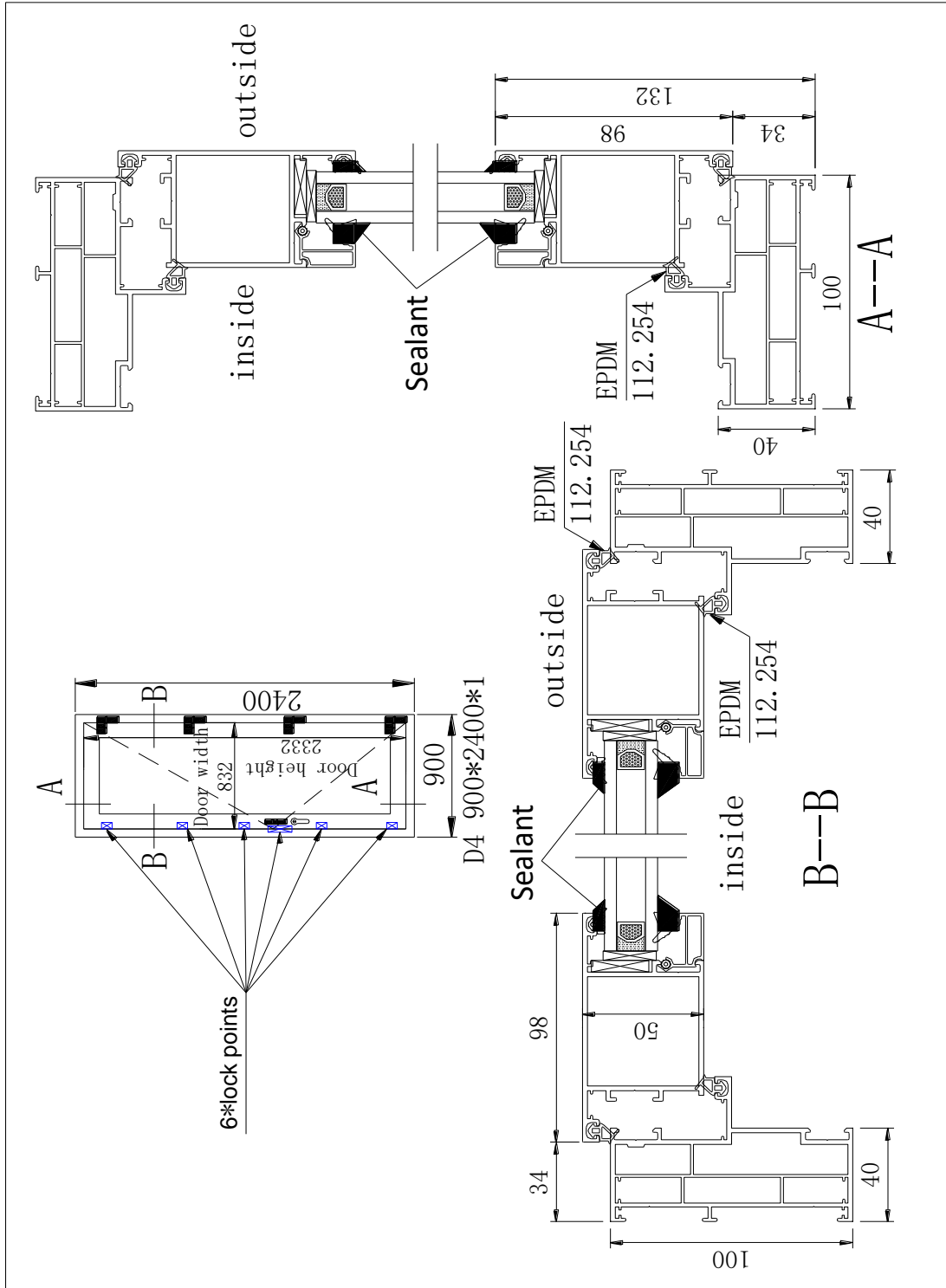


Fig.3 Drawing of Representative Sample

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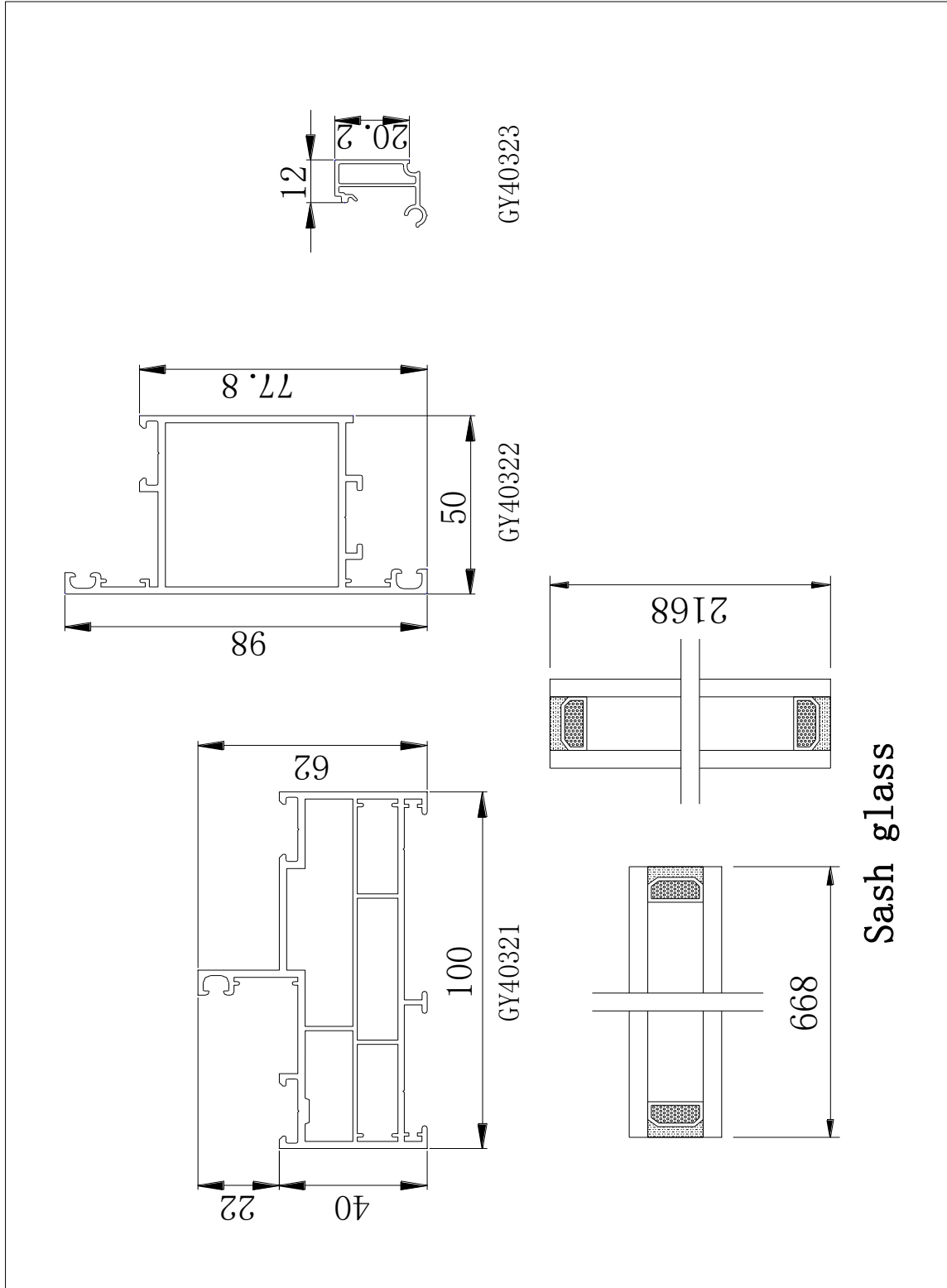


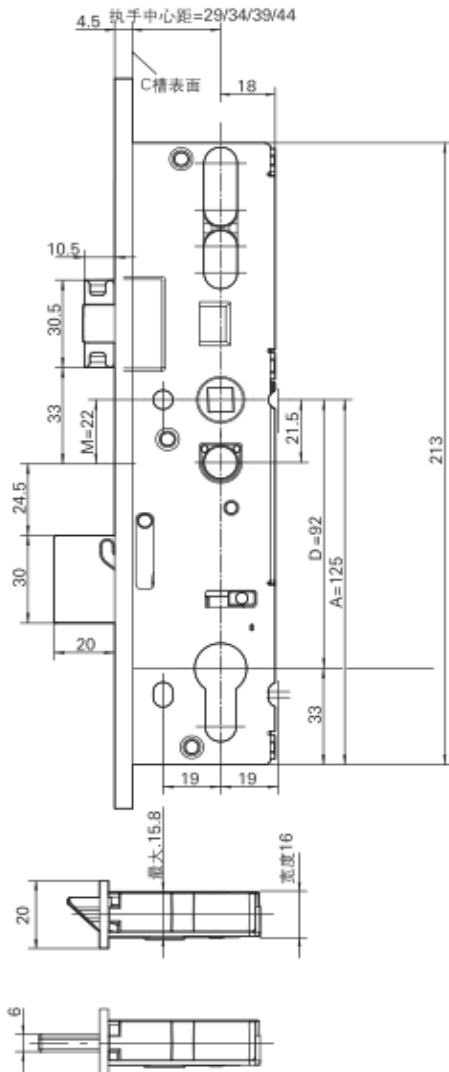
Fig.4 Drawing of Representative Sample

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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

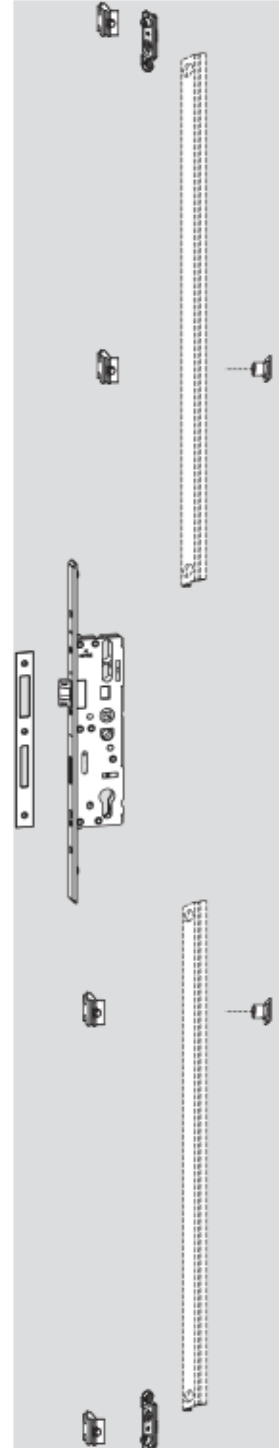


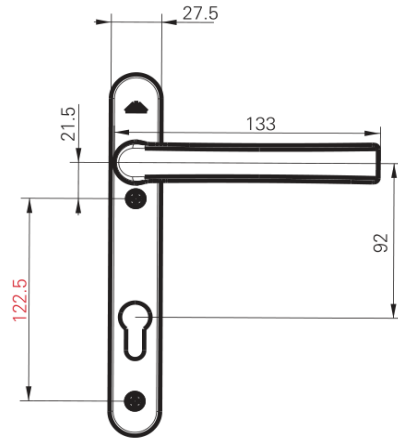
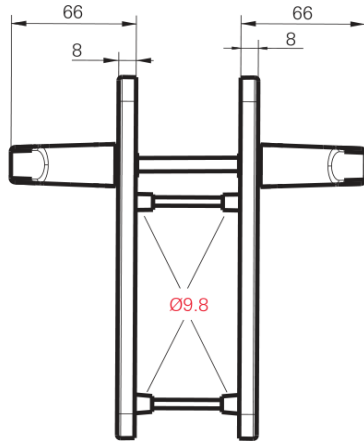
Fig.5 Drawing of Representative Sample

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199/3820 系列门执手



门合页 两叶 4型 Dr.H				
A	B	颜色	SAP	备注
20.5	62.5	EV1 银色	644165	含固定件

门合页 三叶 4型 Dr.H				
A	B	颜色	SAP	备注
20.5	62.5	EV1 银色	644166	含固定件

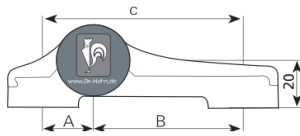


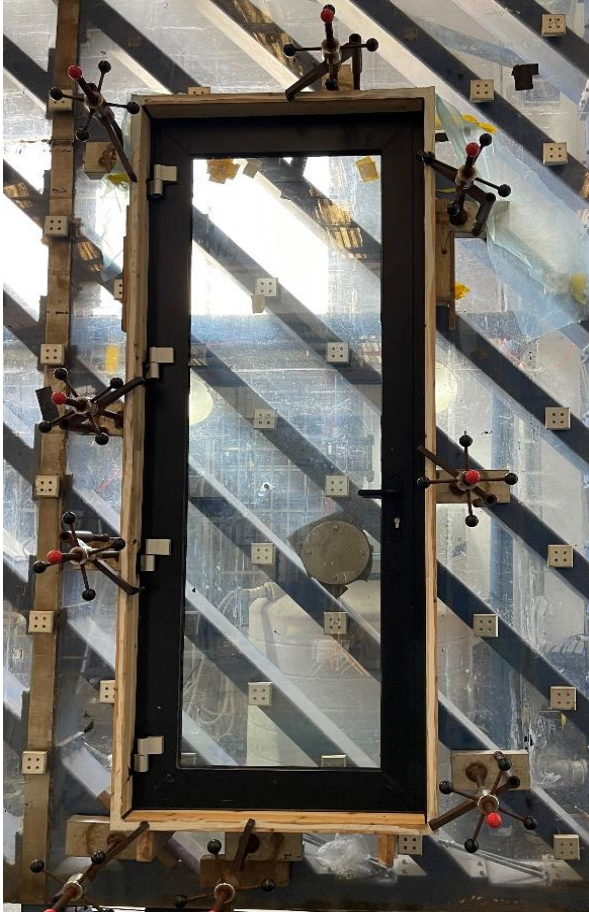
Fig.6 Drawing of Representative Sample

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Appendix B: Sample Received Photo



Revision:

NO.	Date	Changes
210930003SHF-006	2021-12-24	First issue

