

工程指示 / 要求簡箋 ENGINEER INSTRUCTIONS(E.I.)

工程指示編號:	EI- 4741	修改版本:	-
	HK- 0906		
工程編號:	J 852	工程名稱:	亞皆老街中電
收件人:	Maggie / 楊學光 (維修)	發件人:	Ang Yeung
工程項目:	伊沙富, 重型扇擋 (台灣擋) (執修用)	日期:	06/06/2022

<input type="checkbox"/> 原合約工程包	<input type="checkbox"/> 原合約工程加 / 減賬 QT-	<input type="checkbox"/> 新工程報價 QT-
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信件批核號碼/圖紙參考編號:	批核模具圖紙編號:
客戶指示附件:	管理內部批簽署:

<input type="checkbox"/> 初步鋁料 B.M.	<input type="checkbox"/> 加工拆圖, 然後生產	<input type="checkbox"/> 尺寸表
<input type="checkbox"/> 正式鋁料 B.M.	<input type="checkbox"/> 技術上資料/指示	<input type="checkbox"/> 報價
<input type="checkbox"/> 配件 B.M.	<input type="checkbox"/> 樣辦或貨品說明書	<input type="checkbox"/> 分判合約
<input type="checkbox"/> 其他:		

內容: 新訂購 6.0對 (6.0度左, 6.0度右) 重型扇擋 (台灣擋)  
供現場執修用  
如有倉儲, 請洽.

完成上列要求日期:

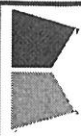
國內

<input type="checkbox"/> 生產技術總監	<input type="checkbox"/> 連附件	<input type="checkbox"/> 技術部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 生產部	<input type="checkbox"/> 連附件
<input type="checkbox"/> 採購部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 生產統籌部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 報關組	<input type="checkbox"/> 連附件
<input type="checkbox"/> 質檢部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 會計部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 機械設計部	<input type="checkbox"/> 連附件
<input type="checkbox"/> 香港辦	<input type="checkbox"/> 連附件	<input type="checkbox"/> 其他:	楊學光		

<input type="checkbox"/> 行政部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 會計部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 統籌部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 工程部	<input type="checkbox"/> 連附件
<input type="checkbox"/> 採購部	<input checked="" type="checkbox"/> 連附件	<input type="checkbox"/> QS部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 地盤管理	<input type="checkbox"/> 連附件	<input type="checkbox"/> 維修部	<input checked="" type="checkbox"/> 連附件

*發件人簽署:	*組別成員批核簽署:
傳遞編號:	項目經理簽署:

1050 11.15.20

		美特鋁質有限公司 MIDI Aluminum Fabricator Ltd.		工程號:	J-852	計算:	BESSIE	日期:	13/3/2020	送呈:	胡哥	
廠用配件B.M.表		地盤名稱:	亞皆老街	核對:		日期:		副本:				
BM編號: 852-H01		項目類別:	佛沙窗	批准:		日期:		此BM依據GBP A1-0023計算				
		A/C Code:										
序號	修改標示	配件圖號	物料編號	配件名稱	顏色	實用	後備	總數	單位	MO1	MO2	
1				台灣正源重型扇撐WF918 (左)	不銹鋼			60	隻			
2				台灣正源重型扇撐WF918 (右)	不銹鋼			60	隻			
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												

J852 重型扇撐

13/3/2020

原訂  
e: 1590

只合用  
明訂是也

	Tower	Flat	Location	樓層 (除3, 13, 14/F外)	層數	每幅窗 SH Qty	每幅窗 扇撐Qty	扇撐 總數量(隻)
1	1	A		1F-21F	18	2	4	72
2	1	A		1F-21F	18	2	4	72
3	1	A		2F-21F	17	2	4	68
4	1	A		22F, 23F	2	2	4	8
5	1	A		22F, 23F	2	2	4	8
6	1	A		22F	1	2	4	4
7	1	A		23F	1	2	4	4
8	1	A		23F	1	2	4	4
9	1	B		1F-21F	18	2	4	72
10	1	B		1F-21F	18	2	4	72
11	1	B		2F-21F	17	2	4	68
12	1	C	MBR1	1F-21F	18	2	4	72
13	1	C	BR2	1F	1	2	4	4
14	1	C	BR2	2F-21F	17	2	4	68
15	1	C	BR2	2F-21F	17	2	4	68
16	1	C	MBR1	22F, 23F	2	2	4	8
17	1	C	BR2	22F, 23F	2	2	4	8
18	1	C	BR2	22F, 23F	2	2	4	8
							<b>T1總數</b>	<b>688</b>
19	2	A	LIV	1F-21F	18	2	4	72
20	2	A		1F-21F	18	2	4	72
21	2	A		2F-21F	17	2	4	68
22	2	A		22F	1	2	4	4
23	2	A		22F	1	2	4	4
24	2	A		22F	1	2	4	4
25	2	A		23F	1	2	4	4
26	2	A	EN3	23F	1	2	4	4
27	2	A	EN4	23F	1	2	4	4
28	2	A	M.EN	23F	1	2	4	4
29	2	A	M.EN	23F	1	2	4	4
30	2	A	EN1	23F	1	2	4	4
31	2	B		1F-21F	18	2	4	72
32	2	B		1F-21F	18	2	4	72
33	2	B		2F-21F	17	2	4	68
34	2	B		22F	1	2	4	4
35	2	B		22F	1	2	4	4
36	2	B		22F	1	2	4	4
37	2	C		1F-21F	18	2	4	72
38	2	C	BR2	1F	1	2	4	4
39	2	C	BR2	2F-21F	17	2	4	68
40	2	C	BR2	2F-21F	17	2	4	68
41	2	C	MBR1	22F, 23F	2	2	4	8
42	2	C	BR2	22F, 23F	2	2	4	8
43	2	C	BR2	22F, 23F	2	2	4	8
							<b>T2總數</b>	<b>708</b>
44	3	A		1F-21F	18	2	4	72
45	3	A		1F-21F	18	2	4	72
46	3	A		2F-21F	17	2	4	68
47	3	A		22F, 23F	2	2	4	8
48	3	A		22F, 23F	2	2	4	8
49	3	A		22F	1	2	4	4
50	3	A		23F	1	2	4	4
51	3	A		23F	1	2	4	4
52	3	B		1F-21F	18	2	4	72
53	3	B		1F-21F	18	2	4	72
54	3	B		2F-21F	17	2	4	68
55	3	C	MBR1	1F-21F	18	2	4	72
56	3	C	BR2	1F	1	2	4	4
57	3	C	BR2	2F-21F	17	2	4	68
58	3	C	BR2	2F-21F	17	2	4	68
59	3	C	MBR1	22F, 23F	2	2	4	8
60	3	C	BR2	22F, 23F	2	2	4	8
61	3	C	BR2	22F, 23F	2	2	4	8
							<b>T3總數</b>	<b>688</b>
							<b>T1-T3總數(隻)</b>	<b>2084</b>
							左扇撐	1042
							右扇撐	1042



J3860 - Proposed Residential Development,  
At 139 - 147 Argyle Street, Kowloon

**MATERIAL / SAMPLE SUBMISSION FORM**

To : Mr Brian Leung / Ms Yoanna Chan / Mr Nigel Lo  
Meinhardt Façade Technology (HK) Ltd  
22/F Great Smart Tower,  
230 Wanchai Road,  
Wan Chai, Hong Kong

No. MS/A/044 (Rev. 0)

Date: 25 February 2020

Ref. J3860/304.6/D02193

REQUIRED APPROVAL DATE: 10 March 2020

We submit the following material for your comment / approval by the date indicated above.

Sub-Contractor / Trade: Midi Aluminium Fabrication Ltd / Curtain Wall, Aluminium Windows and Louvres, Aluminium Cladding and Glass Balustrade

Material Description: Submission of 4 Bar Hinge Sample for Side Hung Windows (Window height larger than 2m)

Comply fully w/ Specification       Not comply fully with Specification (Deviation Listed herein)  
Addendum No.3( Post Tender) by SINO      N.A.

Equipment Originally Offered

Type : N.A.  
Manufacturer : N.A.  
Origin : N.A.  
Model No : N.A.

Equipment Offer

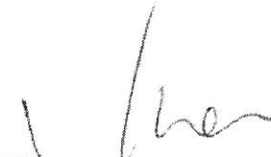
Type : 4 Bar Hinge (Grade 304)  
Manufacturer : Jam Yuan  
Origin : Taiwan  
Model No : WF918

Reason for change if any : N.A.

Location for use: Aluminium Side Hung Windows at Tower (window height larger than 2m)

Enclosures:     Catalogue       Data / Specification       Certificate / Approval  
                   Test Report       Material Sample       Installation Drawing  
                   Job Reference     Schedule       Other (specify):

Remarks: There are 2 sets of sample board kept on site for review and approval.


<p>cc <input checked="" type="checkbox"/> Pacific Shine - Mr Billy Tang / Mr Kocher Wong / Mr Edwin Chow / Mr Simon Chung / Mr Ross Pau / Mr Ken Ng / Mr Wyman Fong / Mr Jimmy Cheung / Mr C F Lee / Mr Peter Chong</p> <p><input checked="" type="checkbox"/> AGC - Ms Grace Cheng / Mr Raymond Ho</p> <p><input type="checkbox"/> ARUP (Stru) - Mr Johnson Po / Mr Don Ho / Ms Jessie Zhang</p> <p><input type="checkbox"/> W&amp;O - Mr Nier Chan / Mr Anson Lau</p> <p><input type="checkbox"/> Arcadis - Ms Brenda Mok / Ms Emily Chu</p> <p><input type="checkbox"/> AXXA - Ms Siuman Hung / Ms Sammy Tang / Mr Oscar Leung / Ms Yvonne Yau</p> <p><input type="checkbox"/> ARUP (Traffic) - Ms Carmen Chu / Mr Eddy Cheung</p> <p><input type="checkbox"/> WSP - Ms Anthea Ng / Mr Dennis Tse</p> <p><input type="checkbox"/> RE - Mr Matthew Au / Mr Andrew Tai / Mr Yang Li</p> <p><input checked="" type="checkbox"/> OSR - Mr K M Pang / Mr H T Tseung / Mr Poon Tsz Kit / Mr S T Chan / Mr Ben Li</p> <p><input type="checkbox"/> BSI (Sino) - Mr Kelvin Tam</p> <p><input type="checkbox"/> RBSE (W&amp;O) - Mr Kevin Lee</p> <p><input checked="" type="checkbox"/> Midi - Ms Bessie Lau (By Email)</p> <p><input checked="" type="checkbox"/> GCL - DY</p>	 <p><u>Dick Yuen</u> Senior Project Manager</p> <p>Gammon Engineering &amp; Construction Company Limited</p> <p>DY/AM/DM/CK/PC/tec</p>
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Encl

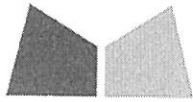
Architect's / Consultant's Reply

Approved (A)     Approved with comment (B)     Approved with comment & resubmit (C)     Rejected (D)

Comments : We have no objection on the proposed 4 bar hinge applied on the side hung operable vent which is larger than 2m height. Please be reminded to submit the others proposal hardware (eg., limiter, multi-point lock, hinge for top hung, handle and gear box, etc.) for approval.

Signed :  Designation : MFT (facade consultant) Date : 27 Feb 2020

Remarks :  w/encl.     w/o encl.



美特鋁質有限公司  
MIDI ALUMINIUM FABRICATOR LTD.

Our ref. MC/39248/852

31<sup>st</sup> December 2019

Gammon Engineering & Construction Company Limited  
139 - 147 Argyle Street,  
Kowloon, Hong Kong

By Email & Hand

Attn.: Mr. Dick Yuen / Ms. Penny Chau

Dear Sir,

**Re: Design, Supply & Installation of Aluminium Window & Cladding, Curtain Wall, Glass Wall, Louvers and Glass Balustrade Nominated Sub-Contract at K.I.L. 6038RP, K.I.L.6037RP, K.I.L. 6036RP, K.I.L. 6035RP & K.I.L. 6005, Nos. 139-147 Argyle Street, Kowloon.**

**Submission of 4 Bar Hinge Sample for Openable Window (Aluminium Window) (MS006)**

Regarding the captioned project, we would like to submit 2 sets of 4 Bar Hinge Sample for your comment and approval. Details are as follows:


For Side Hung Windows (window height larger than 2m)  
Brand: Jam Yuan  
Model: WF918  
Maximum load: 100kg

Remark:

- 1) Catalogue, Test Report, Sample Photo & MFT's specification are enclosed for your reference.
- 2) Please note that 2 sets of 4 Bar Hinge Sample would be delivered to site office directly.

Thank you for your kind attention.

Yours faithfully,  
MIDI ALUMINIUM FABRICATOR LTD.

  
Marco Tam  
Director

Encl

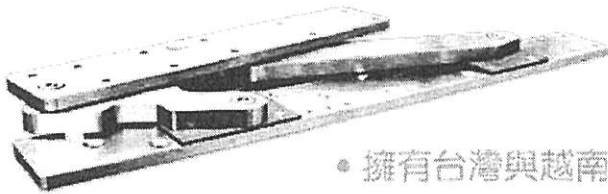
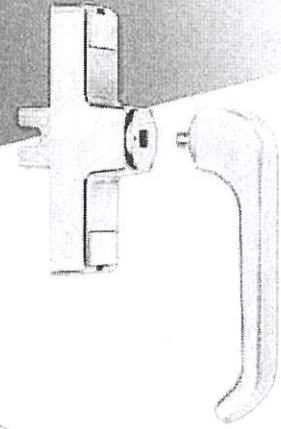
cc. Gammon - Mr. Chris Kwok / Mr. Yau Yan Fong / (w/e) (Email Only)  
- Ms. Esther Chung / Ms. Angel Man /  
- Mr. Jackson Mok

FM/MT/DW/AY/BL/HK/wk  

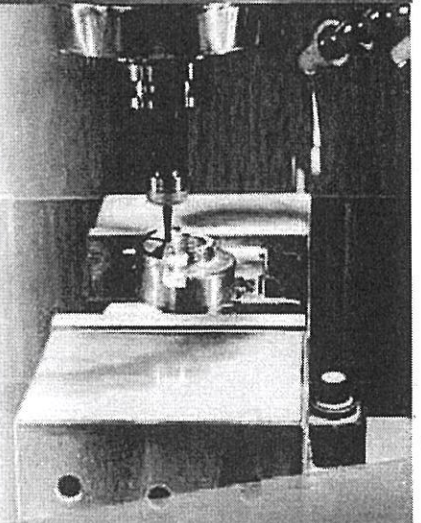
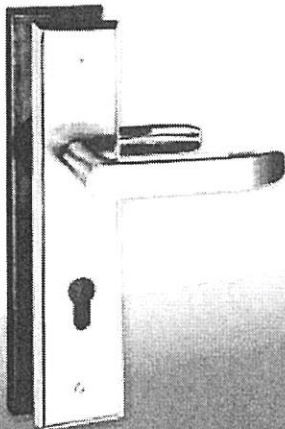

Spandrel Insulation, Fire Stop, Plaster Board	Acceptable Criteria	Contractor Proposal		Comment
		Supplier	Comply/ Will not comply	
Spandrel Insulation	<ul style="list-style-type: none"> <li>Minimum 50mm thick rock mineral Wool from USG or equivalent at 60kg/m3 / Provide Supplier</li> </ul>	CSR	} Comply with	
		USG		
		Approved equivalent	N/A	
Fire Stop	<ul style="list-style-type: none"> <li>Provide details of fire stop rating and supplier</li> </ul>	CSR	} Comply with	
		USG		
		Approved equivalent	N/A	

Others	Acceptable Criteria	Contractor Proposal		Comment
		Supplier	Comply/ Will not comply	
Door Ironmongery	<ul style="list-style-type: none"> <li>Stainless Steel Grade 316 or Aluminium</li> <li>Provide Details &amp; Supplier</li> </ul>	Dorma	Comply with	
		Geze	} N/A	
		Roto		
		G-U		
		Approved equivalent	Tung Shing	
Window Hardware	<ul style="list-style-type: none"> <li>Stainless Steel Grade 316 or Aluminium</li> <li>Provide Details &amp; Supplier</li> </ul>	Ferco	} N/A	
		Roto		
		Securistyle		
		Truth		
		Approved equivalent	Tung Shing	
Proprietary Sliding Door Hardware (Option)	<ul style="list-style-type: none"> <li>Stainless Steel Grade 316</li> <li>Provide Details &amp; Supplier</li> <li>Lift and slide</li> </ul>	Schuco	N/A	
		Siegenia	Comply with	
		Reynaers	} N/A	
		Gutmann		
		Geze		
		Approved equivalent		
Proprietary Sliding Door Hardware	<ul style="list-style-type: none"> <li>Stainless Steel Grade 316</li> <li>Provide Details &amp; Supplier</li> </ul>	Roto	} N/A	
		Solorlux		
		Sobinco		
		Approved equivalent	Siegenia	
Weather Sealant	<ul style="list-style-type: none"> <li>Approved elastomeric joint sealants and joint fillers in accordance with relevant standards</li> </ul>	Dow Corning	Comply with	
		GE	N/A	

結合經典的設計和  
無與倫比的實用性



- 擁有台灣與越南兩大製造工廠
- 完整生產線設備專業製造技術
- 卓越的五金產品創新研發概念
- OEM/ODM設計代工製造能力
- Buy Factory Direct 廠家直銷
- 一次性服務品質以達客戶為尊



專業製造 品質可靠

JAM-YUAN ENTERPRISES CO., LTD.



台灣門窗五金領導品牌

# 公司簡介

Introduction



Satisfaction of Customer 顧客滿意

Unlimited Improving 永續成長

Product Quality

公  
司  
簡  
介

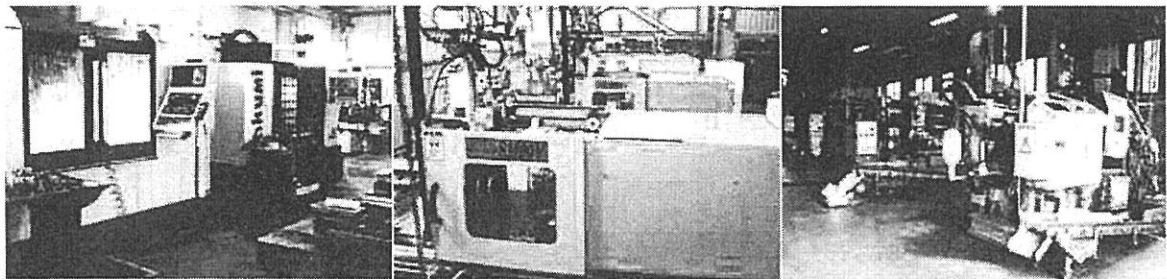
## 關於正源

**正源**企業股份有限公司成立於西元一九七三年為專業製造鋁門、鋁窗、塑膠門窗及大樓帷幕牆開窗等相關配件。

自成立以來，秉持著「專業製造、品質可靠」的經營原則，在注重品質的管理與保證下，獲得廣大客戶的愛用與肯定。

本公司注重於研發、創新，可依據客戶之需求，提供最佳的使用規劃與建議。本公司擁有最佳的合作團隊，工藝精湛的研發能力，搭配精密的生產設備，再加上優渥的製造技術，使客戶的需求可以得到最完美的實現。

未來，將再以『S、U、P、E、R』的嶄新經營理念，完整的兼顧『顧客滿意(S)』、『永續成長(U)』、『品質管控(P)』、『認真作業(E)』、『研究發展(R)』五大目標，傳承既有技術能力，不斷研發新技術、新產品，以顧客的需求為導向，力求產品創新，以回報客戶們長期以來的支持與肯定。



JAM-YUAN ENTERPRISES CO., LTD

公司簡介  
Introduction

台灣門窗五金領導品牌



Control 品質控制

Earnest Working 認真作業

Research & Development 研究發展

About JAM-YUAN

**JAM-YUAN(JY)** was established in 1973 and acted as a professional hardware manufacturer for aluminum, PVC, UPVC window/door, and curtain-wall with more than 40 years experiences.

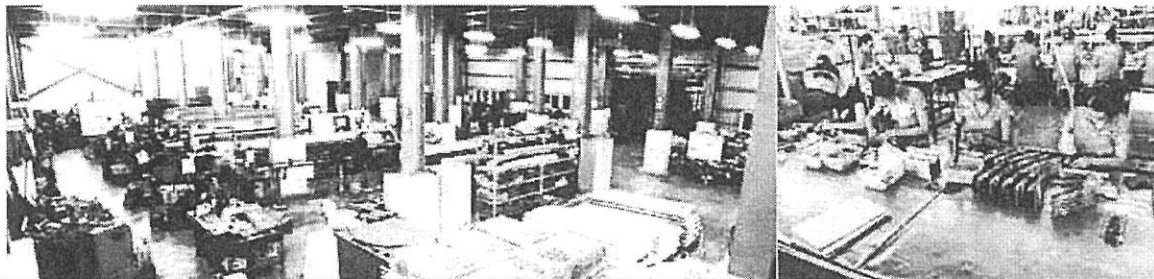
**During** 40 years effort and achievement, JY now owns two manufacturing bases (Taiwan & Vietnam factories), and has become one of leading brand in window-door hardware territory.

**With** the principle "Professional Production & Reliable Quality", JY has always obtained huge support and compliment from each of customer including worldwide.

**Major** in innovation and creativity, JY could provide the best suggestion and proposal according to the needs of customer. Our fabulous team are with strong researching and development ability, apply precisely of facilities, strict quality control from IQC to OQC, and well-trained technicians.

**In** the future, JY will operate in a completely new concept called "SUPER". These are defined as following five goals: "Satisfaction of Customer", "Unlimited Improving", "Product Quality Control", "Earnest Working", "Research and Development".

**Furthermore**, we will continue our technical capability and keep in searching new skills and products. Thus solve problems and response inquiries of each customers.

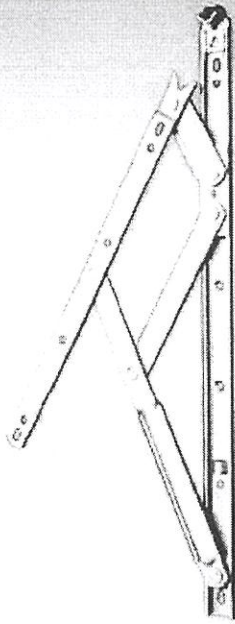


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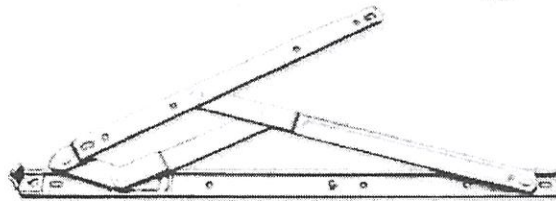
JAM-YUAN ENTERPRISES CO., LTD

# 連桿系列

## Friction Stay Series



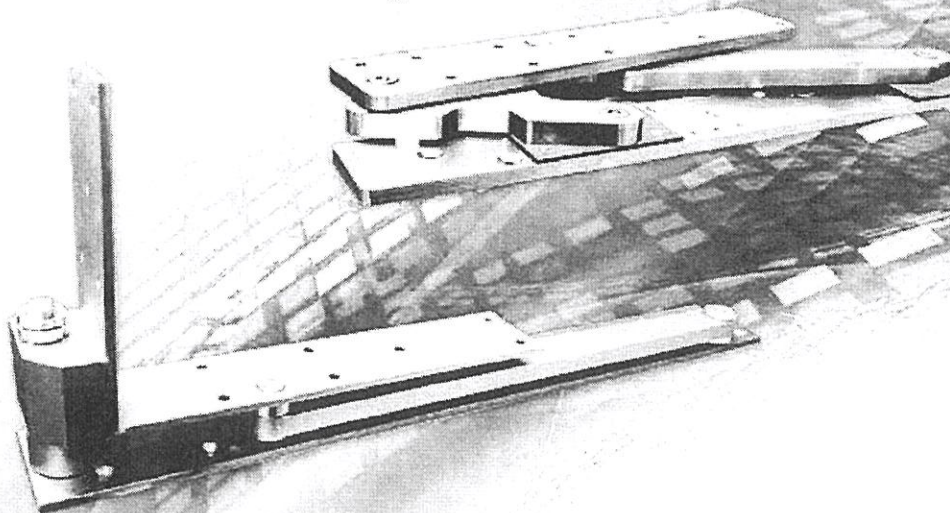
超越 Top



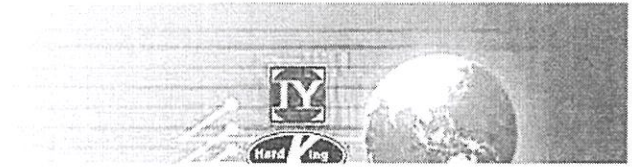
創新 Innovation


專業 Professional

品質 Quality



四連桿測試報告  
Test Report of Friction Stay



Test Report	<p><b>TEST REPORT</b></p> <p>Your Ref: Letter dated 23rd Oct 2012 Date: 27th Nov 2012</p> <p>Our Ref: SAS 0243567/004B Page: 1/6</p> <p>DD: 68051425 Fax: 87769903</p> <p><small>NOTE: This Report is subject to the Terms and Conditions Governing "Technical Services" set out in Appendix A to our Standard Terms &amp; Conditions available on our website or upon request.</small></p> <p><b>SUBJECT:</b> Testing of stainless steel Window stay supplied by Jam-Yuan Enterprises Co., Ltd.</p> <p><b>TESTED FOR:</b> Jam-Yuan Enterprises Co., Ltd No. 1, Alley A3 Kao-Shun Road, Yang-Me Tower Tainan Hsueh-Shan, Tainan 70001 Ain - Mujunm Tainan</p> <p><b>DESCRIPTION OF TEST SPECIMEN:</b> One (1) of single panel aluminum casement window with a maximum opening of 76" was used as one the testing for operation test.</p> <p>Customer overall size: * 103 mm width x 100 mm (height) Size of wash: * 103 mm width x 15.00 mm (height) Weight of wash: * 10g Friction stay model: W618</p> <p><b>DRAWING SUBMITTED:</b> <u>Drawing No.</u> 1) Construction details of friction stay: WFS-2 2) Window elevation on profile: 481E5T-1 3) Company's factory photograph: *</p> <p> PSB TEST Your product quality and safety mark <small>PSB Corporation (Singapore) Pte Ltd, 12, Woodlands Industrial Estate Drive 12, Singapore 737702. E-mail: psb@psb.com.sg. Website: www.psb.com.sg</small></p>	<p>SAS 0243567 OKD 25 PSB CORPORATION</p> <p><b>METHOD OF TEST:</b> Adopted from ANMA X-4-06 - Voluntary Specification for Friction Stays in Air-Flow Adjustment.</p> <p>A. Load test (Horizontal &amp; Vertical loads) - Clause 5.4 B. Cycling test (Weather seal gap measurements) - Clause 5.5 C. Cycling test (Sealing measurements) - Company's requirements.</p> <p><b>TABULATION OF RESULTS:</b> Date of test: 16th Nov 2012</p> <table border="1"> <thead> <tr> <th>Sequence of test</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>1. Load test (Horizontal &amp; Vertical loads)</td> <td rowspan="3">Passed</td> </tr> <tr> <td>2. Cycling test (Weather seal gap measurements)</td> </tr> <tr> <td>3. Cycling test (Sealing measurements)</td> </tr> </tbody> </table> <p><b>TEST RESULTS:</b> (1) Load Test Maximum opening 20"</p> <table border="1"> <thead> <tr> <th>Test</th> <th>Result</th> <th>ANMA X-4-06 requirements</th> </tr> </thead> <tbody> <tr> <td>Apply a 200N horizontal load to the seal in the direction of close &amp; maintain the load for 10 seconds and then remove it.</td> <td rowspan="2">Passed</td> <td rowspan="2">After removal of the load, the friction stays should function in a normal way with no apparent damage.</td> </tr> <tr> <td>Apply a 200N vertical load acting downwards, maintain the load for 1 minute and then remove it.</td> </tr> </tbody> </table> <p>Photo 1: Test setup for horizontal load test. Photo 2: Test setup for vertical load test.</p>	Sequence of test	Remarks	1. Load test (Horizontal & Vertical loads)	Passed	2. Cycling test (Weather seal gap measurements)	3. Cycling test (Sealing measurements)	Test	Result	ANMA X-4-06 requirements	Apply a 200N horizontal load to the seal in the direction of close & maintain the load for 10 seconds and then remove it.	Passed	After removal of the load, the friction stays should function in a normal way with no apparent damage.	Apply a 200N vertical load acting downwards, maintain the load for 1 minute and then remove it.
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Test Report	<p>Result</p> <p>Passed</p>	<p>JAM-YUAN ENTERPRISES CO., LTD</p>
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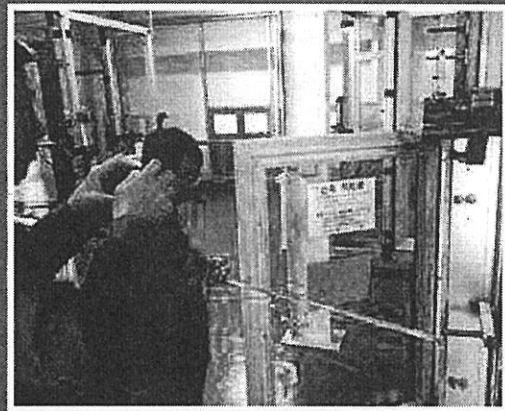
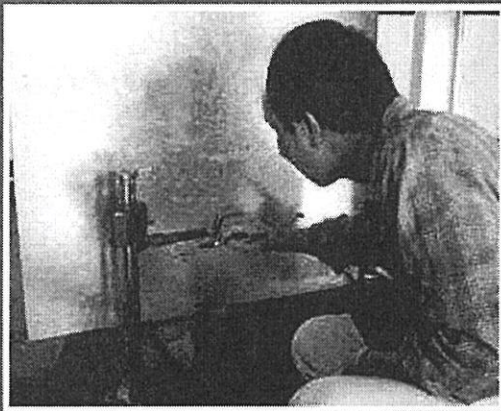
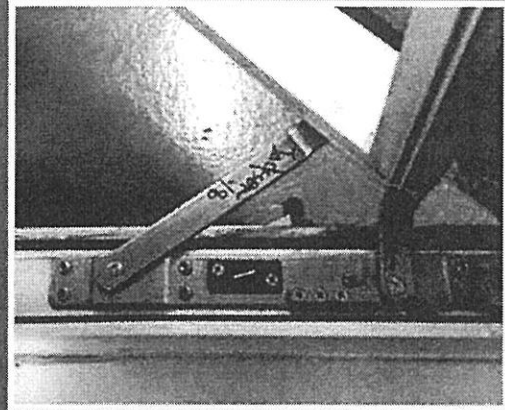
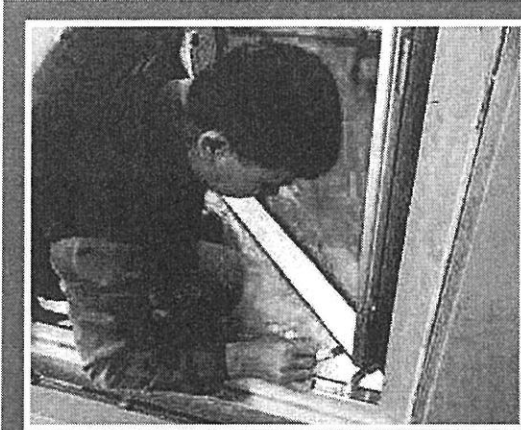


台灣門窗五金領導品牌

# 四連桿測試過程

Test Course of Friction Stay

連桿系列



專業製造 質量可靠  
Professional Production  
& Reliable Quality

JAM-YUAN ENTERPRISES CO., LTD

# ADDENDUM NO.3 (POST-TENDER)



台灣門窗五金領導品牌

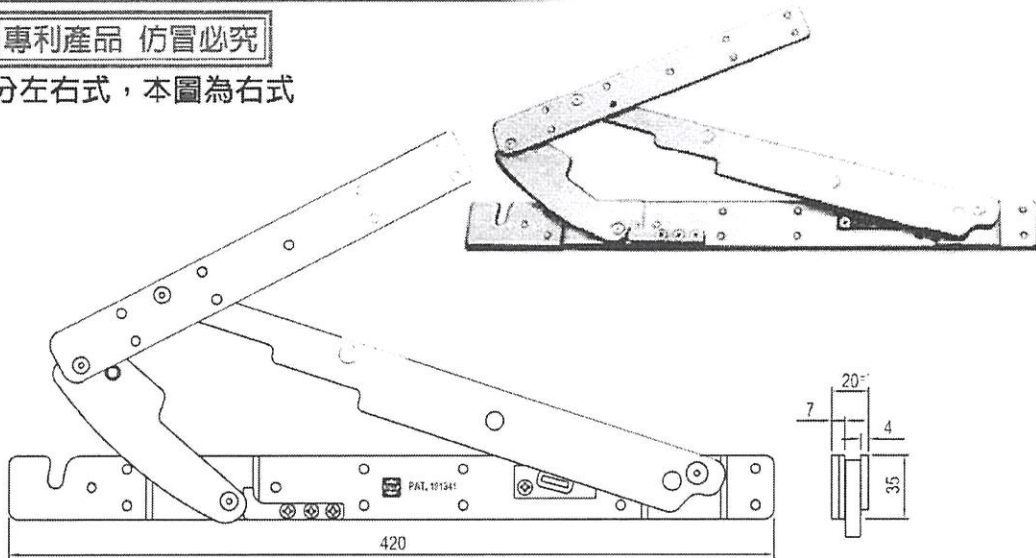
## 特殊軸型撐桿 Special Axis Friction Stay

材質SUS304(Material SUS304)

### WF618超重軸型(帷幕牆專用)

專利產品 仿冒必究

分左右式，本圖為右式



產品編號	材質	外觀尺寸(mm)			最大 開啟角度	推開窗		推射窗	
		長	寬	高		荷重(kg)	最大寬度(mm)	荷重(kg)	最大高度(mm)
WF618	SUS304	420	35	20 <sup>-1</sup>	90°	60kg以內	1200	90	2200

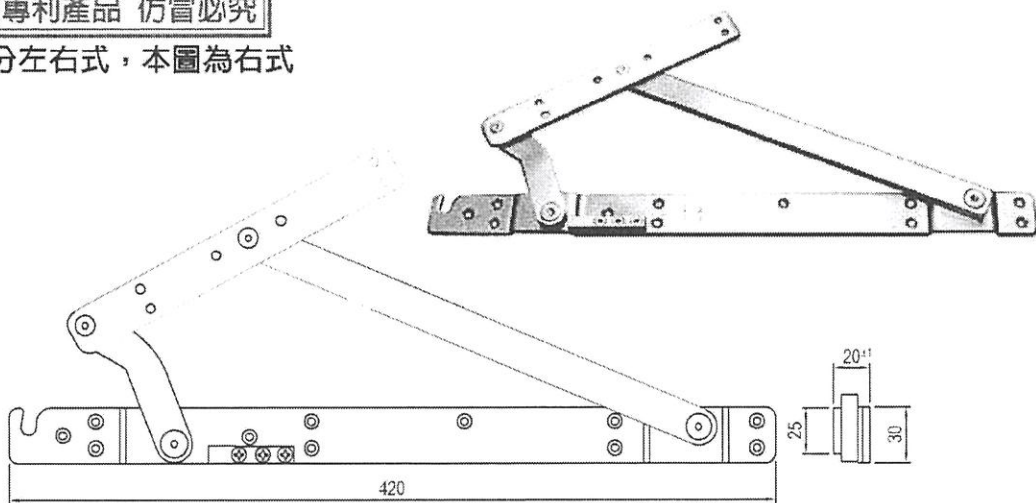
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### WF918超重軸型(帷幕牆專用)

For Aluminium Windows.

專利產品 仿冒必究

分左右式，本圖為右式



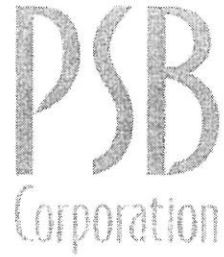
產品編號	材質	外觀尺寸(mm)			最大 開啟角度	推開窗		推射窗	
		長	寬	高		荷重(kg)	最大寬度(mm)	荷重(kg)	最大高度(mm)
WF918	SUS304	420	30	20 <sup>-1</sup>	90°	100	1000	125	1800

列

JAM-YUAN ENTERPRISES CO., LTD



## TEST REPORT



Your Ref: Letter dated 21<sup>st</sup> Oct 2002      Date: 27<sup>th</sup> Nov 2002  
Our Ref: 54S 024356/1/OKB      Page: 1/4  
D/D: 68851429      Fax: 67793903

**NOTE:** This Report is issued subject to the "Terms and Conditions Governing Technical Services" set out in the "Request for Technical Services" form. The terms and conditions governing the issue of this report are set out overleaf.

### SUBJECT:

Testing of stainless steel window-stay submitted by Jam-Yuan Enterprises Co., Ltd.

### TESTED FOR:

Jam-Yuan Enterprises Co., Ltd  
No. 1, Alley 863  
Kao-Shih Road, Yang-Mei Town  
Tao-Yuan Hsien, Taiwan R.O.C.

Attn: Mr Jimmy Tseng

### DESCRIPTION OF TEST SPECIMEN:

One unit of single panel aluminium casement window with a maximum opening of 76° was installed onto the test rig for operation test.

Casement overall size	:	1100 mm (width) x 2000 mm (height)
Size of sash	:	1000 mm (width) x 1900 mm (height)
Weight of sash	:	110 Kg
Friction-stay model	:	WF918

### DRAWING SUBMITTED:

	<u>Drawing No.</u>
1) Construction details of friction stay	WF918
2) Window extrusion profiles	4BTEST-1
3) Company's friction-stay photograph	-



Your product quality and safety mark

**METHOD OF TEST:**

Adopted from AAMA 904 - 96 - Voluntary specification for friction hinges in window application.

- A. Load test (Horizontal & vertical load)– Clause 5.4
- B. Cycling test (Weatherseal gap measurements)– Clause 5.5
- C. Cycling test (Sagging measurements) – Company's requirements.

**TABULATION OF RESULTS:**

Date of test: 18<sup>th</sup> Nov 2002

Sequence of test	Remarks
1. Load test (Horizontal & vertical load)	Passed
2. Cycling test (Weatherseal gap measurements)	
3. Cyclic test (Sagging measurements)	

**TEST RESULT:****(1) Load Test**

Maximum opening: 76°

Test	Result	AAMA 904 -96 requirements
Apply a 223N horizontal load to the sash in the direction to close it. Maintain the load for 10 seconds and then remove it.	Passed	After removal of the load, the friction hinges should function in a normal way with no apparent damage.
Apply a 267N vertical load acting downward. Maintain the load for 1 minute and then remove it.		



Photo 1: Test set-up for horizontal load test

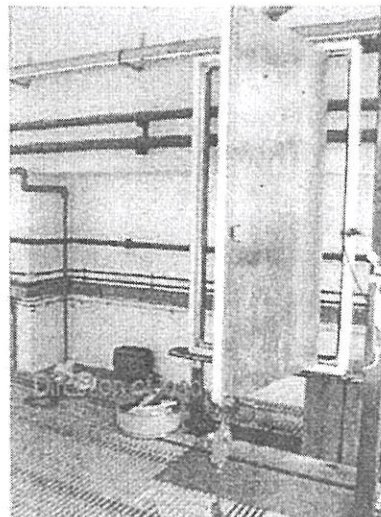


Photo 2: Test set-up for vertical load test.

*[Handwritten signature]*

**TEST RESULT (CONT'D):**

**(2) Cycling Test (Weatherseal Gap Measurements)**

The sash was operating at an angle of 45° throughout the 10,000 cycle.

Test	Weatherseal Gap (mm)		Result	AAMA 904 -96 requirements
	No. of cycles			
	0	10,000		
Close the sash completely, apply a 111N force to the upper & lower corners of the sash to measure the weathseal gap.	Set to Zero	0.08 (Top) 0.03 (Bottom) Average: 0.06	Passed	1) No structural failure of any part of the friction hinge shall be observe. 2) Weatherseal gap shall not exceed average of 1.52mm.

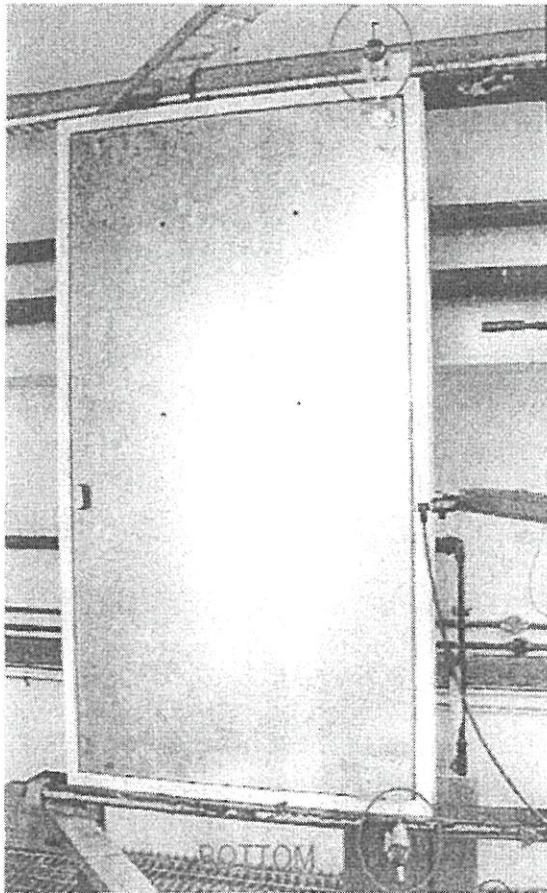


Photo 3: Test set-up for measurement of Weatherseal gap



Photo 4: Close-up view.

*M*

TEST RESULT (CONT'D):

## (3) Cycling Test (Sagging Measurements)

The sash was operating at an angle of 45° throughout the 10,000 cycle.

Test	Sagging of sash (mm)		Result	Company's requirements
	No. of cycles			
	0	10,000		
With the sash at the maximum opening position of 76°, measure the sagging at the handle side, bottom corner of the sash.	Set to Zero	0.26	Passed	The sash shall not sag more than 10 mm.

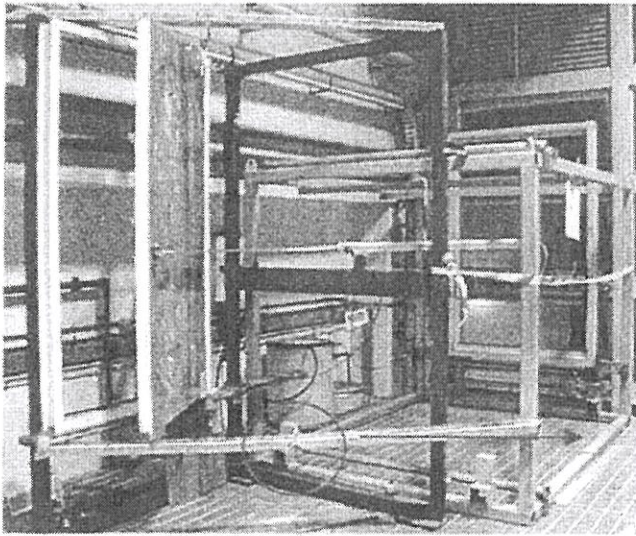


Photo 5: Set-up for cyclic test.



Photo 6: Close-up view.

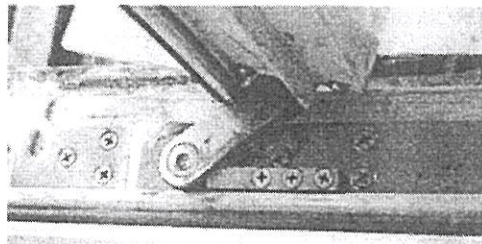
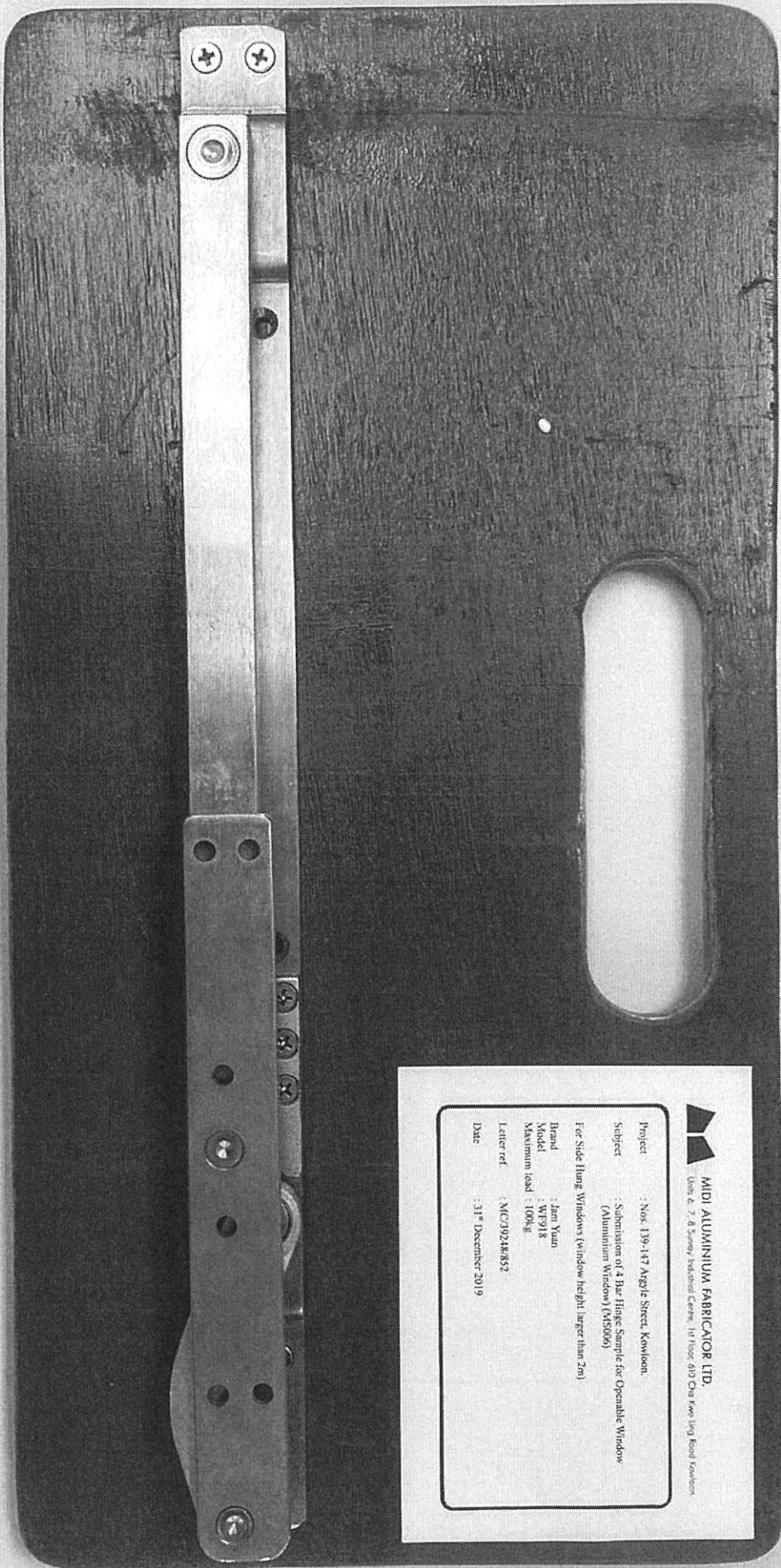


Photo 7: Close-up view of window-stay after 10,000 cycles.

Ong Khay Beng  
Associate Engineer

Raymond Tan  
Senior Engineer  
Building & Industrial Products  
Testing Group



**MIDI ALUMINIUM FABRICATOR LTD.**

Units 2, 7, 8 Sunny Industrial Centre, 1st Floor 610 Cheung Yee Road, Kowloon

Project : No. 139-147 Argyle Street, Kowloon

Subject : Submission of 4 Bar Hinge Sample for Operable Window  
(Aluminium Window) (MS5006)

For Side Hung Windows (window height larger than 2m)

Brand : Jan Yuan

Model : WF918

Maximum load : 100kg

Letter ref : MC/30248832

Date : 31<sup>st</sup> December 2019