

ASSA ABLOY AUSTRALIA

## **TEST REPORT 2012059-5**

**Welded  
Fixed Security Window Grille (Small Diamond)  
Sample Number – 145984-9**

**FOR**

**Prowler Proof**



NATA Accredited Laboratory  
Number: 14426

Accredited for compliance with ISO/IEC  
17025

Date of issue: 12/09/2012

Test Report Security Window Grille			
<b>Test Report Number:</b>	2012059-5	<b>Project Number:</b>	10541
<b>Manufactured By:</b>	Prowler Proof	<b>Date of Submission:</b>	11/09/2012
<b>Tested By:</b>	A Sterrenberg and C Horton	<b>Date:</b>	11/09/2012
<b>Certified By:</b>	A Sterrenberg	<b>Date:</b>	11/09/2012
<b>Witnessed By:</b>	Michael Henry	<b>Date:</b>	11/09/2012

**Details of Test Window**

<b>Type and Class:</b>	Type 1 Class A
<b>Make or Model:</b>	Welded – Small Diamond
<b>Sample Number:</b>	145984-9
<b>Frame Size:</b>	1500mm x 900mm
<b>Framing Material:</b>	Pinus Radiata
<b>Constructional Description of Test Security Window Grille:</b>	
Fixed security window grille with infill welded to frame. Frame corners welded.	

**Details of Test Window Infill**

<b>Type and Fabrication Method:</b>	Extruded and expanded small diamond aluminium grille
<b>Manufacturer's Name / Part Number:</b>	Prowler Proof - PPSD125
<b><u>Type 1 Infill (if applicable)</u></b>	
<b>1) Number of Intersected Strands in a 150mm Circle:</b>	12
<b>2) Breaking Force in Shear of One Strand (min 3kN):</b>	3.93
<b>Multiplication of Above Points 1 and 2 (min 30kN):</b>	47.18

*(Above details supplied by customer not by testing authority)*

## Test Report Security Window Grille

### Dynamic Impact Test – AS 5039 / 5041

Measurement Before Impact Test at Impact Point (datum reading): 10mm			
Test	Remarks	Pass	Fail
Impact One:	Grille secure to frame.	✓	-
Impact Two:	Grille secure to frame.	✓	-
Impact Three:	Grille secure to frame.	✓	-
Impact Four:	Grille secure to frame.	✓	-
Impact Five:	Grille secure to frame.	✓	-
150mm Diameter Probe test using R.M.F:	-	✓	-
65mm Probe Test:	-	✓	-

### Jemmy Tests – AS 5039 / 5041

Location	Remarks	Pass	Fail
Centre Locking Point:	No gap arose to allow for jemmy tests - Pass		
Bottom Locking Point:			
Top Locking Point:			
Centre Hinge:			
Bottom Hinge			
Top Hinge:			

### Infill Pull Tests – AS 5039/5041-2003

Location	A 450mm Maximum	B 150mm Maximum	C 100x100mm Maximum	D	E	Pass	Fail
Centre Grille (1.5kN):	✓	✓	✓	✓	✓	✓	
Top Corner (1.5kN):	✓	✓	✓	✓	✓	✓	
Bottom Corner (1.5kN):	✓	✓	✓	✓	✓	✓	

A - Maximum size of any gap between grille and grille frame or grille frame and door frame under load (dynamic).

B - Maximum size of any gap between grille and grille frame or grille frame and door frame after load (static).

C - The size of any gap caused by the infill breaking away from the security grille framing.

D - Whether the grille remained in a fixed position.

E - Whether the locking device maintained the door in a locked position.

**Overall Test**      **Pass**

**Remarks:**

Impact test - Pass

Jemmy test - Pass


Pull test - Pass

This signature indicates that testing has been conducted in accordance to the current test methods of AS 5039, and test results reflect the test findings. This report is true for the test sample presented on the day of testing.

Authorised Signature

Print Name

Date



A. Sternunberg

12/09/12

Accredited for compliance with ISO/IEC 17025



**Identification Details for Security Window Grille**  
**Submitted for Type Testing in Accordance to AS 5039/5041**  
(Informative)

**General**

<b>Model Number / Name:</b>	Welded SD
<b>Sample Number:</b>	145984-9
<b>Manufactured By:</b>	Gershwin Pty Ltd trading as Prowler Proof
<b>Date of Submission:</b>	11/09/12
<b>Description:</b>	Fixed security screen window
<b>DRAWINGS: COMPLETE ATTACHED SHEETS</b>	
(To show additional specific details of door construction such as internal stiffening, hinging, etc., attach further sheets as necessary)	

**Framing Section**

<b>Type:</b>	Extruded aluminium			
<b>Manufacturer's-</b>	<b>Name:</b>	Prowler Proof	<b>Section Number:</b>	STW11
<b>Attached Dimensional Drawing-</b>	<b>Number:</b>	-	<b>Issue:</b>	-
<b>Material Type and Grade:</b>	Aluminium 6060-T5			
<b>Surface Finish:</b>	Powder coated			
<b>Mass per Metre Length (kg):</b>	-			
<b>Mounting Frame Material:</b>	See attached CAD drawings			
(Attach drawings if necessary)				

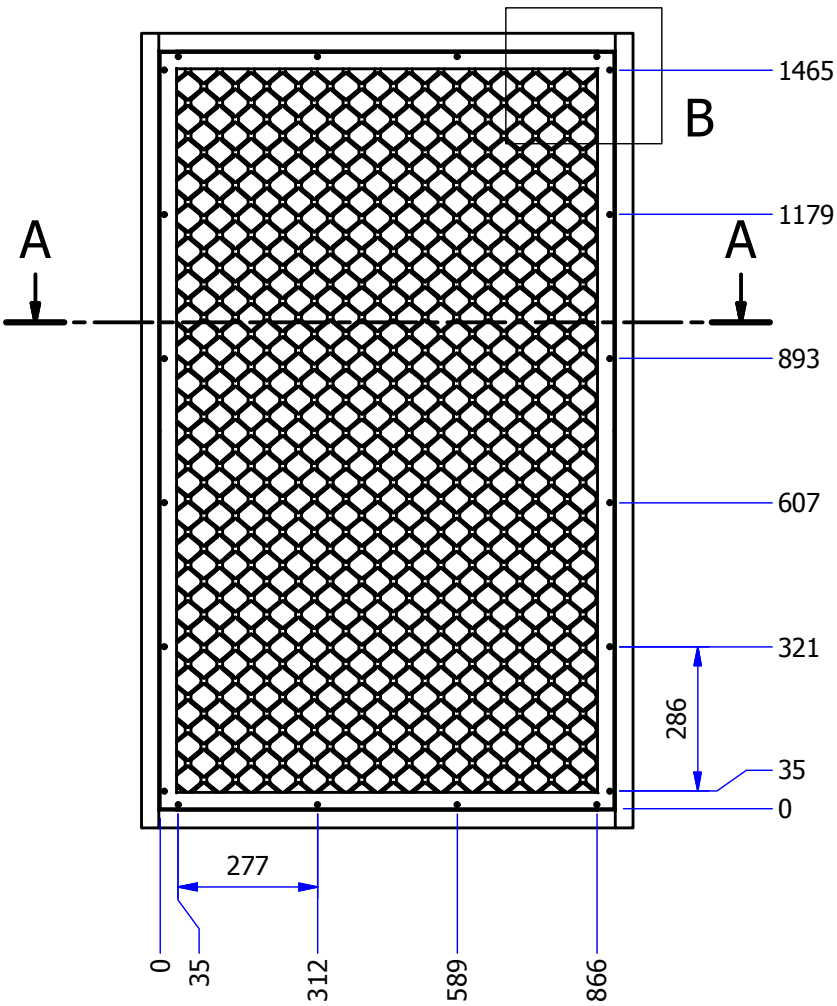
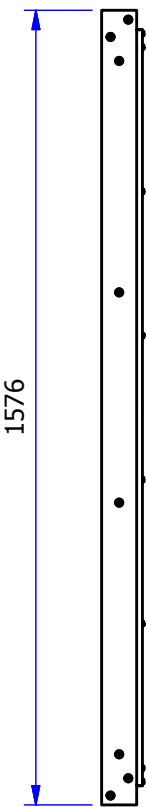
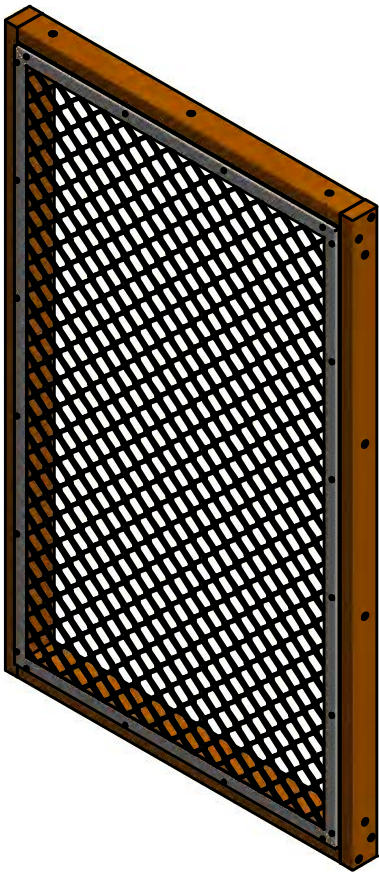
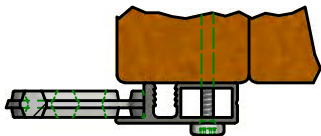
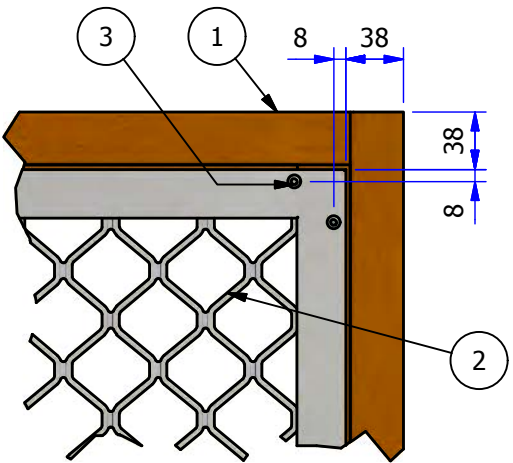
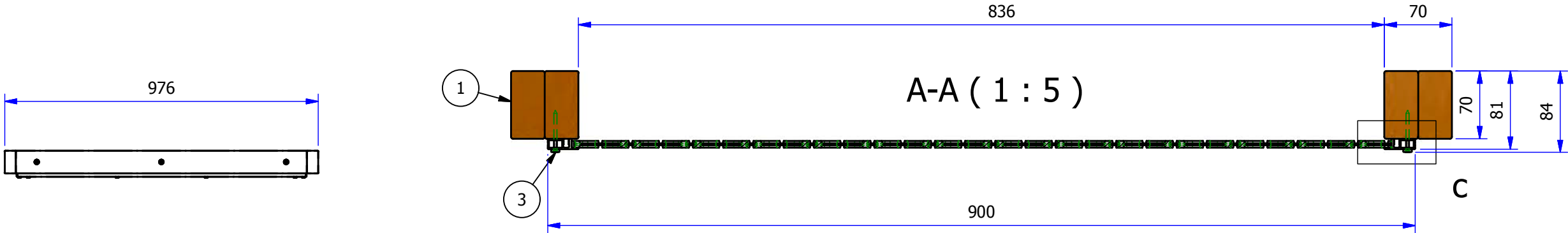
**Infill**

<b>Type and Fabrication Method:</b>	Small Diamond Grille							
<b>Manufacturer's-</b>	<b>Name:</b>	Prowler Proof	<b>Part Number:</b>	PPSD125				
<b>Attached Dimensional Drawing-</b>	<b>Number:</b>	Information not supplied			<b>Issue:</b>	Information not supplied		
<b>Material Type and Grade:</b>	Aluminium 6063-T5							
<b>Surface Finish:</b>	Powder coated							
<b>Diameter of Type 3 Infill:</b>	See attached							
<b>Means of Securing:</b>	Weld	<input checked="" type="checkbox"/>	Screw	<input type="checkbox"/>	Rivet	<input type="checkbox"/>	Other	<input type="checkbox"/>
(If means of securing is OTHER, submit full details on a separate sheet)								
<b>Weld Details:</b>								
<b>Type of Weld and Pattern:</b>	Welded – double welded in corners then every second contact point							


<b>Manufactured By:</b> Prowler Proof
<b>Sample Number:</b> 145984-9
<b>Location of Fixing Points, Locking Points, Hinges and Mid-Rail</b> – Refer attached CAD drawing WDSD - Testing Sample
<b>Means of Securing Infill to Framing, Location of Welds / Fasteners</b> - Refer attached CAD drawing WDSD - Welded Small Diamond Window

**End**

BILL OF MATERIALS						
ITEM	QTY	DESCRIPTION	STOCK NO./DESC.	MATERIAL	LENGTH	WIDTH
1	1	WINDOW TIMBER - TEST FRAME	AS5039-WDSD FW2004			
2	1	WDSD - Welded Small Dimond Window	AS5039-WDSD FW2001			
3	20	ASSY-Pan Head AW20 4.5x40mm	100642	Mild Steel		



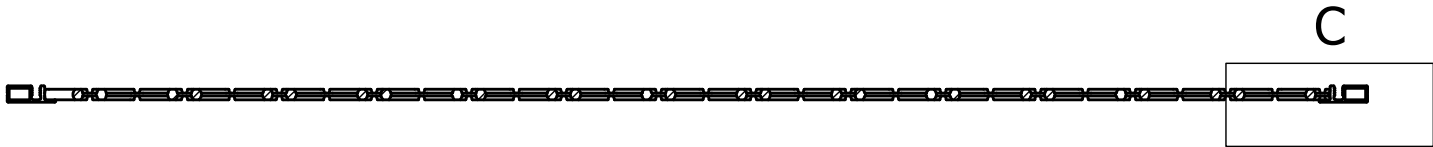
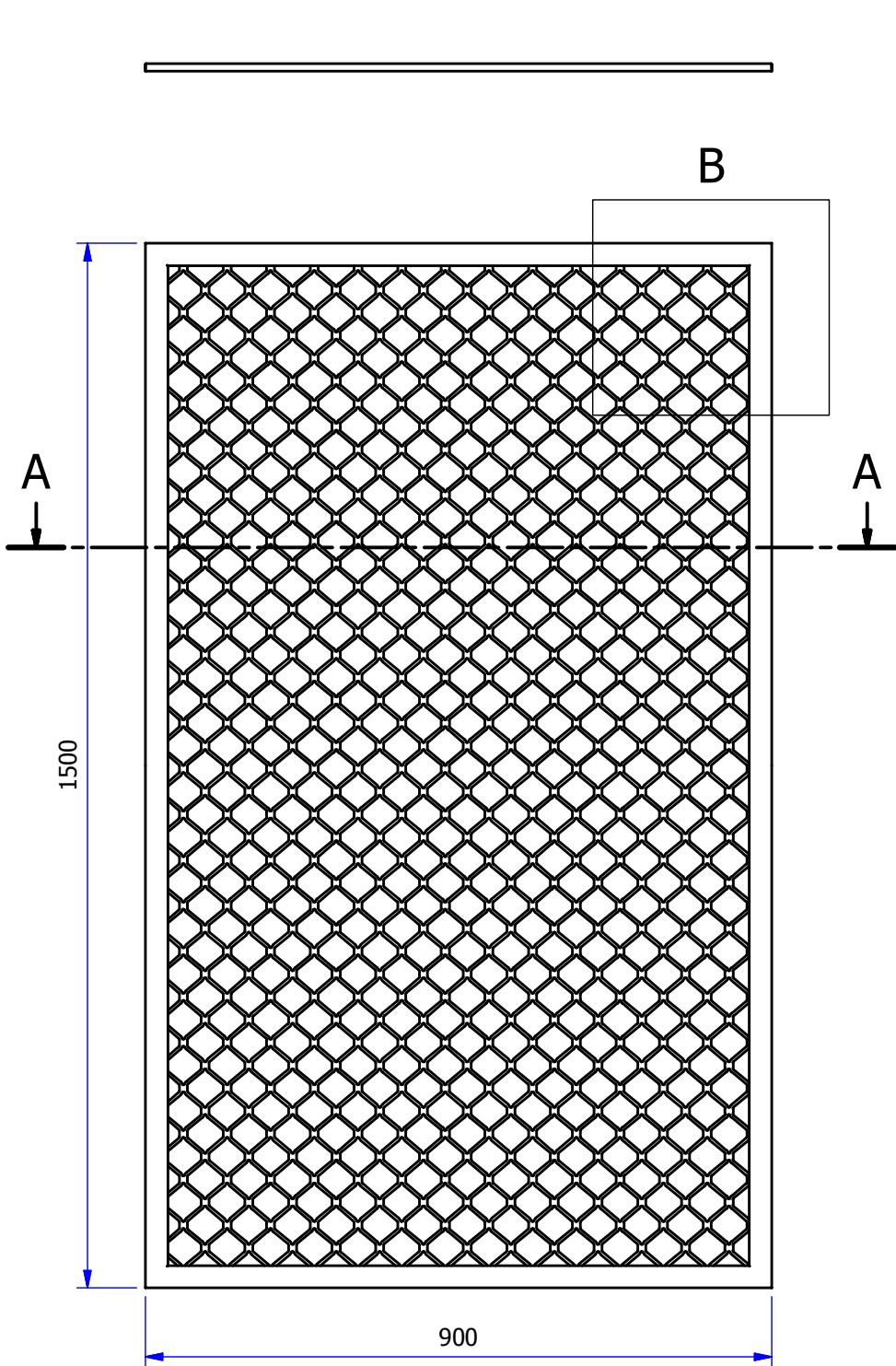
ISOMETRIC VIEW

<div>Prowler Proof</div> <div>GERSHWIN PTY LTD</div> <div>122 BUCHANAN RD</div> <div>BANYO, QLD. 4014</div> <div>PH: +61 7 3363 0666</div> <div>FAX: +61 7 3267 5411</div>	DRAWN CAD		DATE 11/11/2012		TITLE: AS5039 - Testing  WDSD - Testing Sample			PROCESS CODE:	
	CHECKED		DATE					SHEET 1 OF 1	
	APPR.		DATE		PART NUMBER: AS5039-WDSD FW1000		DRAWING DOCUMENT FILE NAME: AS5039-WDSD FW1000.idw		SCALE NTS
					MODEL DOCUMENT FILE NAME: AS5039-WDSD FW1000.lam				
	RAW MATERIAL		MATERIAL THICKNESS		STOCK NUMBER / DESCRIPTION			REV.	
<div>• THIS DRAWING AND ITS CONTENTS ARE CONFIDENTIAL AND ARE SUBJECT TO RETURN ON DEMAND AND MAY NOT BE COPIED OR DISCLOSED TO ANY THIRD PARTY OR USED DIRECTLY OR INDIRECTLY FOR ANY OTHER PURPOSE THAN AS EXPRESSLY DETERMINED IN WRITING BY Gershwin Pty. Ltd.</div>									
<div>UNLESS OTHERWISE SPECIFIED</div> <div>XX = • 1mm      MACHINE FINISHES = 3.2 ✓ X.X = • 0.5mm      = ± 1•• XX.XX = • 0.25mm</div> <div>ALL DIMENSIONS IN MILLIMETERS ALL THREAD TO BE METRIC COARSE ALL WELDS TO AS1554 ALL BURRS AND SHARP EDGES TO BE REMOVED</div> <div>PROJECTION 3RD ANGLE </div>									
DO NOT SCALE DRAWING					WEIGHT: 19.10 kg		SHEET SIZE: A3		INV.

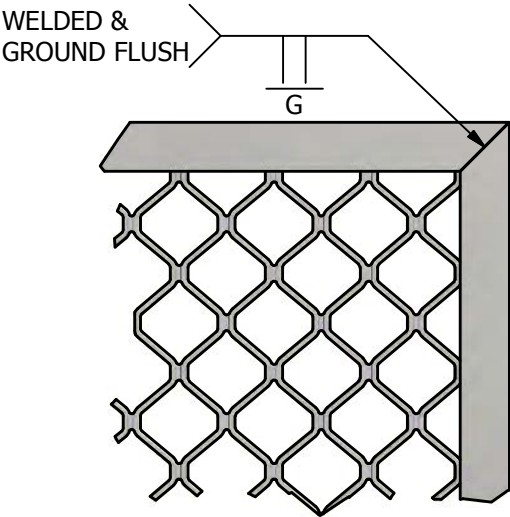
REV. No	REVISION DESCRIPTION	DRAWN	DATE	APP. BY	DATE
1	REVISION HISTORY				



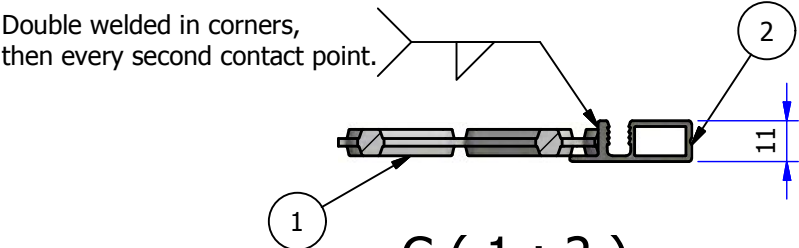
BILL OF MATERIALS						
ITEM	QTY	DESCRIPTION	STOCK NO./DESC.	MATERIAL	LENGTH	WIDTH
1	1	SD 1250 X 2450 MF	102567	AL 6063 T5	1450.4	850.4
2	4	STW11 5800mm MF	100002	AI 6060 T5		



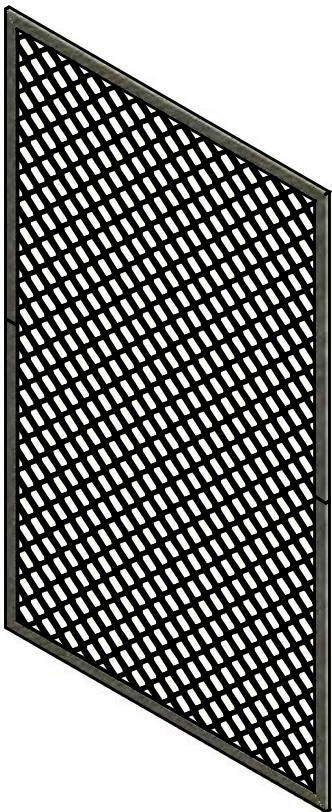
A-A ( 1 : 5 )



B ( 1 : 5 )



C ( 1 : 2 )



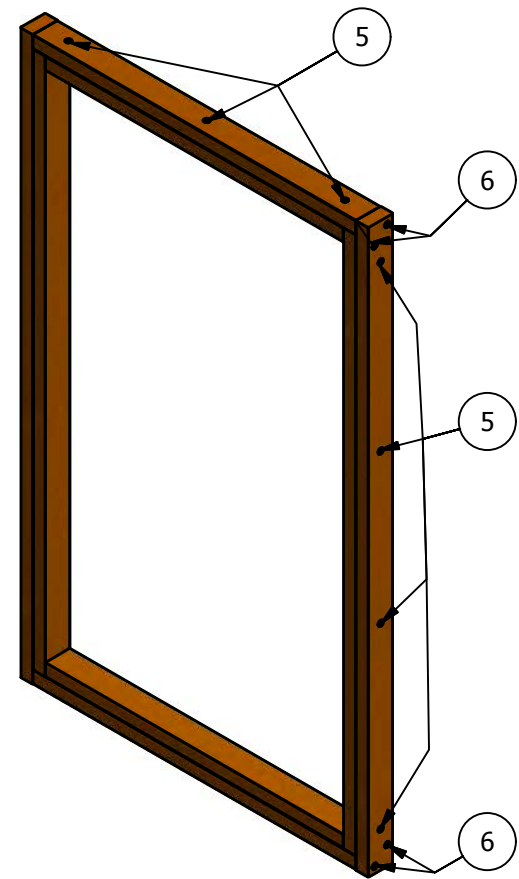
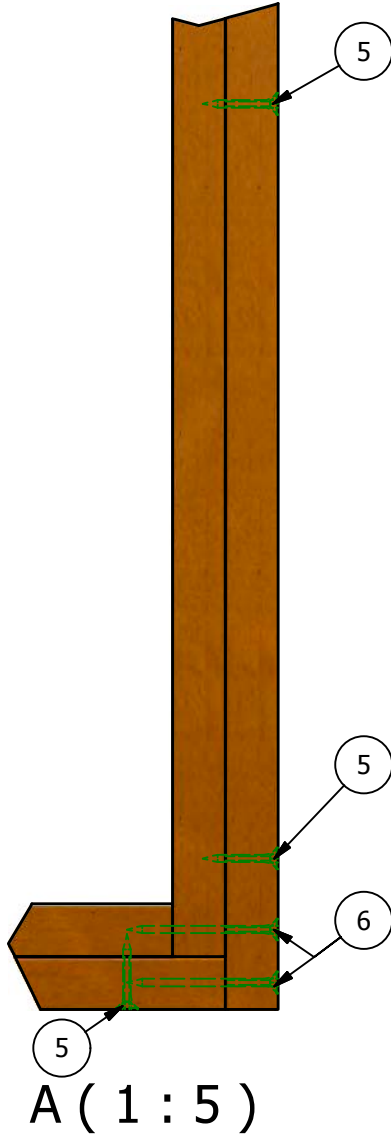
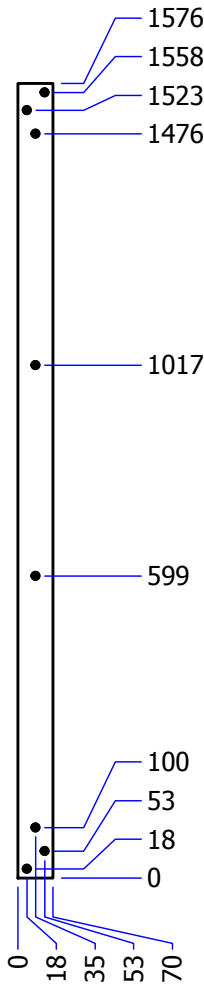
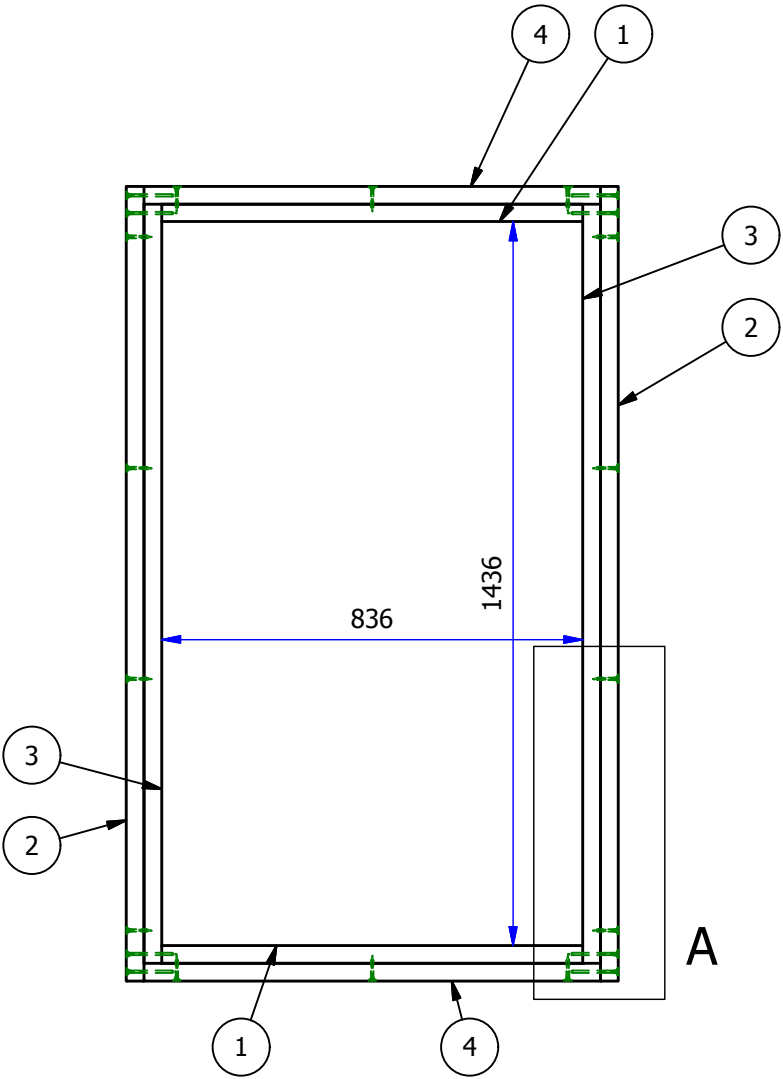
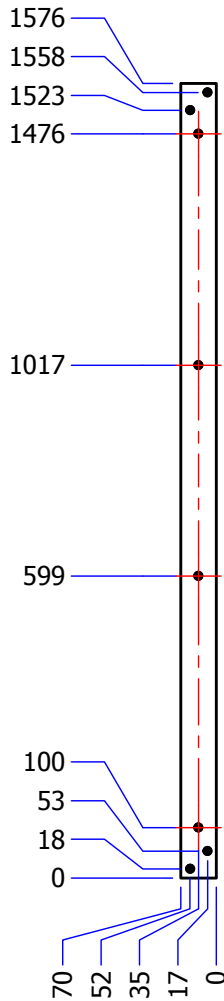
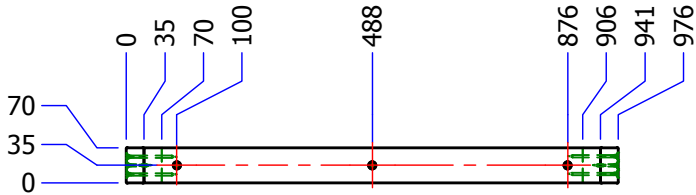
ISOMETRIC VIEW

<b>Prowler Proof</b> GERSHWIN PTY LTD 122 BUCHANAN RD BANYO, QLD. 4014 PH: +61 7 3363 0666 FAX: +61 7 3267 5411		DRAWN CAD	DATE 11/11/2012	TITLE: <b>AS5039 - Testing</b> WSD - Welded Small Dimond Window		PROCESS CODE:
		CHECKED	DATE			SHEET 1 OF 1
		APPR.	DATE	PART NUMBER: <b>AS5039-WSD FW2001</b>	DRAWING DOCUMENT FILE NAME: AS5039-WSD FW2001.idw MODEL DOCUMENT FILE NAME: AS5039-WSD FW2001.lam	SCALE <b>NTS</b>
		RAW MATERIAL		MATERIAL THICKNESS	STOCK NUMBER / DESCRIPTION AS5039-WSD FW2001	REV.
• THIS DRAWING AND ITS CONTENTS ARE CONFIDENTIAL AND ARE SUBJECT TO RETURN ON DEMAND AND MAY NOT BE COPIED OR DISCLOSED TO ANY THIRD PARTY OR USED DIRECTLY OR INDIRECTLY FOR ANY OTHER PURPOSE THAN AS EXPRESSLY DETERMINED IN WRITING BY Gershwin Pty. Ltd.		UNLESS OTHERWISE SPECIFIED XX = • 1mm X.X = • 0.5mm XX.XX = • 0.25mm			ALL DIMENSIONS IN MILLIMETERS ALL THREAD TO BE METRIC COARSE ALL WELDS TO AS1554 ALL BURRS AND SHARP EDGES TO BE REMOVED	PROJECTION 3RD ANGLE
		MACHINE FINISHES = 3.2/ = ± 1•			DO NOT SCALE DRAWING	WEIGHT: 5.31 kg
REVISION HISTORY		SHEET SIZE: A3		INV.		
REV. No	REVISION DESCRIPTION	DRAWN	DATE	APP. BY	DATE	



BILL OF MATERIALS

ITEM	QTY	DESCRIPTION	STOCK NO./DESC.	MATERIAL	LENGTH	WIDTH
1	2	Radiata Pine - MGP15 Stud 70x35		Pine	836	35
2	2	Radiata Pine - MGP15 Stud 70x35		Pine	1576	35
3	2	Radiata Pine - MGP15 Stud 70x35		Pine	1506	35
4	2	Radiata Pine - MGP15 Stud 70x35		Pine	906	35
5	14	Bugle Head Batten Screw 14gx50mm		Steel, Mild	50	
6	8	Bugle Head Batten Screw 14gx100mm		Steel, Mild	100	



FRONT VIEW 1  
( 1 : 15 )

A ( 1 : 5 )

ISOMETRIC VIEW

Prowler Proof

GERSHWIN PTY LTD

122 BUCHANAN RD  
BANYO, QLD. 4014

PH: +61 7 3363 0666

FAX: +61 7 3267 5411

DRAWN  
CAD

DATE  
11/11/2012

CHECKED

DATE

APPR.

DATE

RAW MATERIAL

TITLE:

AS5039 - Testing

WINDOW TIMBER - TEST FRAME

PART NUMBER:

AS5039-WDSD FW2004

MATERIAL THICKNESS

UNLESS OTHERWISE SPECIFIED

XX = • 1mm  
X.X = • 0.5mm  
XX.XX = • 0.25mm

MACHINE FINISHES = 3.2/  
= ± 1•

ALL DIMENSIONS IN MILLIMETERS  
ALL THREAD TO BE METRIC COARSE  
ALL WELDS TO AS1554  
ALL BURRS AND SHARP EDGES TO BE REMOVED

PROJECTION  
3RD ANGLE



WEIGHT: 13.72 kg

SHEET SIZE: A3

INV.

PROCESS CODE:

SHEET  
1 OF 1

SCALE  
NTS

REV.

REV. No	REVISION DESCRIPTION	DRAWN	DATE	APP. BY	DATE
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REVISION HISTORY



A Z U M A  
Design

AS5039

TEST REPORT  
(Shear test only)

**Azuma Design Pty Ltd**

Address: 160 Newton Rd Wetherill Park NSW 2164 Australia PH: 61(02)9604 0255 FAX: 61(02)9604 0466

## **SHEAR TEST REPORT**

AZT Number: AZT0065.12

Date: 1<sup>st</sup> May 2012

Manufactured By: PROWLER PROOF

Sample identification: KAU 1859, Alloy Temper 6063

Surface finish: Mill finish Aperture: 42mm

Type: I

**Aim:** To test the sample in accordance with Section 7 of AS5041-2003-Methods of test- Security Screen Doors and Window Grilles.

### **Method:**

- Transpose a circle of 150 mm diameter onto the infill of the test specimen. Count and record the number of chords/strands of the infill material/grille that are intersected by the circle.
- Choose a sample chord from the test specimen. For infill material of a regular, uniform design, the sample shall be a typical strand, clear of any knuckles or webs. For infill materials of irregular design and varying strand size, the thinnest structural strand intersected by the 150 mm circle shall be taken.
- Position the sample in the shear apparatus so that its orientation in relation to the cutting edges corresponds approximately to the direction of attack within a cutting tool in situ in an infill.
- Apply a load to the test sample at a rate of 19 mm/min cross-head travel and increase the load until fracture occurs.
- Record the shear force at fracture. If a double shear tool is used, the shear force recorded shall be half that which was measured.

### **Requirements:**

- (a) The breaking force of the chords shall be not less than 30 kN.
- (b) The shear force of any chord shall be not less than 3 kN.

### **Test equipment:**

Azuma Hydraulic test rig  
Double shear tool

### **Azuma Design Pty Ltd**

Address: 160 Newton Rd Wetherill Park NSW 2164 Australia PH: 61(02)9604 0255 FAX: 61(02)9604 0466

## **SHEAR TEST REPORT**

### **Results:**

#### **Sample C**

Shear	Orientation	Double shear force	Shear force (Half of double shear force)
1	Vertical	6980	3490
2	Vertical	7350	3675
3	Vertical	7480	3740
4	Horizontal	8140	4070
5	Horizontal	8420	4210
6	Horizontal	8460	4230
7	Diagonal	8020	4010
8	Diagonal	8080	4040
9	Diagonal	7850	3925
Average =			3932.22 N

1 Number of Intersections of Strands by 150mm Dia Circle: 12

2 Average Breaking Force in Shear of one Strand (min 3kN): 3.93 kN

Multiplication of above points 1 and 2 (min 30kN): 47.18 kN

Remarks: **PASSED**

### **Azuma Design Pty Ltd**

Address: 160 Newton Rd Wetherill Park NSW 2164 Australia PH: 61(02)9604 0255 FAX: 61(02)9604 0466



## SHEAR TEST REPORT

### Sample D

Shear	Orientation	Double shear force	Shear force (Half of double shear force)
1	Vertical	7710	3855
2	Vertical	7300	3650
3	Vertical	7500	3750
4	Horizontal	8750	4375
5	Horizontal	8220	4110
6	Horizontal	8770	4385
7	Diagonal	8400	4200
8	Diagonal	7820	3910
9	Diagonal	7870	3935
Average =			4018.88 N

3 Number of Intersections of Strands by 150mm Dia Circle: 12

4 Average Breaking Force in Shear of one Strand (min 3kN): 4.01 kN

Multiplication of above points 1 and 2 (min 30kN): 48.22 kN

Remarks: PASSED

## CONCLUSION

From the results achieved it is evident that the sample satisfies requirement 7.6 of AS5039-2008-  
Security screen doors and window grilles.

SIGNATORY NAME: Rob Irwin

SIGNATURE: 

DATE: 1<sup>st</sup> May 2012

### **Azuma Design Pty Ltd**

Address: 160 Newton Rd Wetherill Park NSW 2164 Australia PH: 61(02)9604 0255 FAX: 61(02)9604 0466

DATE: 1<sup>st</sup> May 2012

**EQUIPMENTS USED TO PERFORM THE ABOVE TEST**

EQUIPMENT NAME	EQUIPMENT NUMBER	√ IF USED
Tape Measure	AZTAPE0001	
1500mm Steel Rule	AZRULE0001	
Shear Test Apparatus	AZTEST0009	
Hydraulic Load Test Rig Readout	AZTEST0008	
200 mm Digital Caliper	AZCALI0010	
Knife Shear Knife	AZKNIF0001	
Knife Shear Blade	AZBLAD0001	

**Azuma Design Pty Ltd**

Address: 160 Newton Rd Wetherill Park NSW 2164 Australia PH: 61(02)9604 0255 FAX: 61(02)9604 0466