

ASSA ABLOY AUSTRALIA

## **TEST REPORT 2012059-1**

**ForceField Hinged Security Screen Door  
Sample Number – 145984-1**

**FOR**

**Prowler Proof**



NATA Accredited Laboratory  
Number: 14426

Accredited for compliance with ISO/IEC  
17025

Date of issue: 12/09/2012

## ASSA ABLOY Australia

### Test Report Hinged Security Screen Door

|  |                                       |
|--|---------------------------------------|
| <b>Test Report Number:</b> 2012059-1         | <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 Door

|   |                             |
|---|-----------------------------|
| <b>Type:</b>  | Hinged security screen door |
| <b>Make or Model:</b>   | ForceField                  |
| <b>Sample Number:</b>   | 145984-1                    |
| <b>Gap Between Door and Mounting Frame:</b>   | - <b>Lock side:</b> 3.16mm  |
|   | - <b>Hinge side:</b> 3.82mm |
| <b>Frame Size:</b>  | 2040mm (H) x 870mm (W)      |
| <b>Framing Material:</b>  | Pinus Radiata.              |
| <b>Constructional Description of Test Security Hinged Door:</b>                       |                             |
| An aluminium hinged security screen door containing woven stainless steel mesh infill |                             |

#### Details of Test door Infill

|   |  |
|---|--|
| <b>Type and Fabrication Method:</b>       | Woven stainless steel mesh   |
| <b>Manufacturer's Name / Part Number:</b> | Meshtec International – SS Mesh BK   |
| <b>Type 3 Mesh Infill (if applicable)</b> |  |
| <b>Material Type and Grade:</b>           | 0.8mm 316 stainless steel woven mesh – plain weave 11x11 strands per inch- powder coated black |
| <b>Mass per m<sup>2</sup> (kg):</b>       | -  |
| <b>Knife Shear Test:</b>                  | Refer attached knife shear test report   |

## Test Report Hinged Security Screen Door

### Dynamic Impact Test – AS 5039 / 5041

| Measurement Before Impact Test at Impact Point (datum reading): 10mm |   |      |      |
|--|---|------|------|
| Test   | Remarks   | Pass | Fail |
| Impact One:  | 11mm Deflection from datum. Grille secure to frame. | ✓    | -    |
| Impact Two:  | 14mm Deflection from datum. Grille secure to frame. | ✓    | -    |
| Impact Three:  | 15mm Deflection from datum. Grille secure to frame. | ✓    | -    |
| Impact Four:   | 16mm Deflection from datum. Grille secure to frame. | ✓    | -    |
| Impact Five:   | 16mm Deflection from datum. Grille secure to frame. | ✓    | -    |
| 150mm Diameter Probe test using R.M.F:                               |   | ✓    | -    |

### Jemmy Tests – AS 5039 / 5041

| Location              | Remarks  | Pass | Fail |
|-----------------------|--|------|------|
| Centre Locking Point: | 196Nm at full rotation of lever. Locking point secure. | ✓    | -    |
| Bottom Locking Point: | 151Nm at full rotation of lever. Locking point secure. | ✓    | -    |
| Top Locking Point:    | 308Nm at full rotation of lever. Locking point secure. | ✓    | -    |
| Centre Hinge:         | 126Nm at full rotation of lever. Hinge point secure.   | ✓    | -    |
| Bottom Hinge          | 188Nm at full rotation of lever. Hinge point secure    | ✓    | -    |
| Top Hinge:            | 89Nm at full rotation of lever. Hinge point secure     | ✓    | -    |

### Infill Pull Tests – AS 5039/ 5041

| Location                                      | A<br>450mm<br>Maximum                      | B<br>150mm<br>Maximum | C<br>100x100mm<br>Maximum | D | E | Pass | Fail |
|---|--|-----------------------|---------------------------|---|---|------|------|
| Centre Locking style – Type 3 infill (1.5kN): | No gap arose to allow for pull test - Pass |                       |                           |   |   |      |      |

- 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.



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

**General**

|                             |   |  |  |
|-----------------------------|---|--|--|
| <b>Model Number / Name:</b> | ForceField  |  |  |
| <b>Sample Number:</b>       | 145984-1  |  |  |
| <b>Manufactured By:</b>     | Gershwin Pty Ltd trading as Prowler Proof   |  |  |
| <b>Date of Submission:</b>  | 11/09/12  |  |  |
| <b>Description:</b>         | Hinged security screen door   |  |  |
|                             | <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> | FFD |
| <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) |                        |     |

**Corner Stake – N/A Welded corners****Locks**

|   |   |                     |                 |
|---|---|---------------------|-----------------|
| <b>Type:</b><br>(Description of mechanism including cylinder) | Lockwood 8654 triple point security door with Lockwood anti drill euro 5-pin cylinder |                     |                 |
| <b>Manufacturer's-</b>  | <b>Name:</b> Assa Abloy   | <b>Part Number:</b> | 8654            |
| <b>Construction Material-</b>                                 | <b>Body:</b> Cast zinc  | <b>Striker:</b>     | Stainless steel |
| <b>Number of Locking Points:</b>                              | Three (3)   |                     |                 |
| <b>Handle (furniture) Identification:</b>                     | 8654 Lock furniture - Prowler Proof   |                     |                 |
| <b>Means of Mounting:</b>                                     | As per Manufacturer's instructions  |                     |                 |
| <b>Mounting Location:</b>                                     | See attached CAD drawings   |                     |                 |

**Infill**

|  |  |                          |          |                                |       |                          |       |                          |       |                                     |
|--|--|--------------------------|----------|--------------------------------|-------|--------------------------|-------|--------------------------|-------|-------------------------------------|
| <b>Type and Fabrication Method:</b>                  | Woven stainless steel mesh               |                          |          |                                |       |                          |       |                          |       |                                     |
| <b>Manufacturer's-</b>                               | <b>Name:</b> Meshtec International       |                          |          | <b>Part Number:</b> SS Mesh BK |       |                          |       |                          |       |                                     |
| <b>Attached Dimensional Drawing-</b>                 | <b>Number:</b> Refer attached shear test |                          |          | <b>Issue:</b> -                |       |                          |       |                          |       |                                     |
| <b>Material Type and Grade:</b>                      | 0.8mm 316 stainless steel                |                          |          |                                |       |                          |       |                          |       |                                     |
| <b>Surface Finish:</b>                               | Powder coated                            |                          |          |                                |       |                          |       |                          |       |                                     |
| <b>Diameter of Type 3 Infill:</b><br>(If applicable) | 0.8mm                                    |                          |          |                                |       |                          |       |                          |       |                                     |
| <b><u>Fastener Details:</u></b>                      |  |                          |          |                                |       |                          |       |                          |       |                                     |
| <b>Type:</b>   | Bonded - Every contact point             |                          |          | <b>Part Number:</b> -          |       |                          |       |                          |       |                                     |
| <b>Material</b>                                      | Alum                                     | <input type="checkbox"/> | St.Steel | <input type="checkbox"/>       | Monel | <input type="checkbox"/> | Steel | <input type="checkbox"/> | OTHER | <input checked="" type="checkbox"/> |
| (Attach drawings if necessary)                       |  |                          |          |                                |       |                          |       |                          |       |                                     |

**Hinges**

|  |  |                          |          |                                     |                                |                                     |       |                          |                          |                          |
|--|--|--------------------------|----------|-------------------------------------|--------------------------------|-------------------------------------|-------|--------------------------|--------------------------|--------------------------|
| <b>Type:</b>   | Whitco Security Door Hinge Steel Fixed Pin |                          |          | <b>Number Fitted:</b> Three (3)     |                                |                                     |       |                          |                          |                          |
| <b>Manufacturer's-</b>   | <b>Name:</b> Assa Abloy                    |                          |          | <b>Part Number:</b> W831417         |                                |                                     |       |                          |                          |                          |
| <b>Attached Dimensional Drawing-</b>                                     | <b>Number:</b> -                           |                          |          | <b>Issue:</b> -                     |                                |                                     |       |                          |                          |                          |
| <b>Material Type and Grade-</b>  | <b>Leaves:</b> Steel                       |                          |          | <b>Pin:</b> Steel                   |                                |                                     |       |                          |                          |                          |
| <b>Surface Finish:</b>   |  |                          |          |                                     |                                |                                     |       |                          |                          |                          |
| <b>Means of Securing:</b>  | Weld                                       | <input type="checkbox"/> | Screw    | <input type="checkbox"/>            | Rivet                          | <input checked="" type="checkbox"/> | Other | <input type="checkbox"/> | <input type="checkbox"/> |                          |
| (If means of securing is OTHER, submit full details on a separate sheet) |  |                          |          |                                     |                                |                                     |       |                          |                          |                          |
| <b><u>Fastener Details:</u></b>  |  |                          |          |                                     |                                |                                     |       |                          |                          |                          |
| <b>Type:</b>   | 5-2 blind rivet                            |                          |          | <b>Part Number:</b>                 |                                |                                     |       |                          |                          |                          |
| <b>Material</b>  | Alum                                       | <input type="checkbox"/> | St.Steel | <input checked="" type="checkbox"/> | Monel                          | <input type="checkbox"/>            | Steel | <input type="checkbox"/> | OTHER                    | <input type="checkbox"/> |
| <b>Surface Finish:</b>   | Stainless steel                            |                          |          |                                     |                                |                                     |       |                          |                          |                          |
| <b>Length and Diameter:</b>  | 5-2  |                          |          |                                     |                                |                                     |       |                          |                          |                          |
| <b>Number Used and Location:</b>   | Nine (9) – see attached                    |                          |          |                                     |                                |                                     |       |                          |                          |                          |
| (indicate on figure 1)   |  |                          |          |                                     | (Attach drawings if necessary) |                                     |       |                          |                          |                          |

**Manufactured By:** Prowler Proof

**Sample Number:** 145984-1

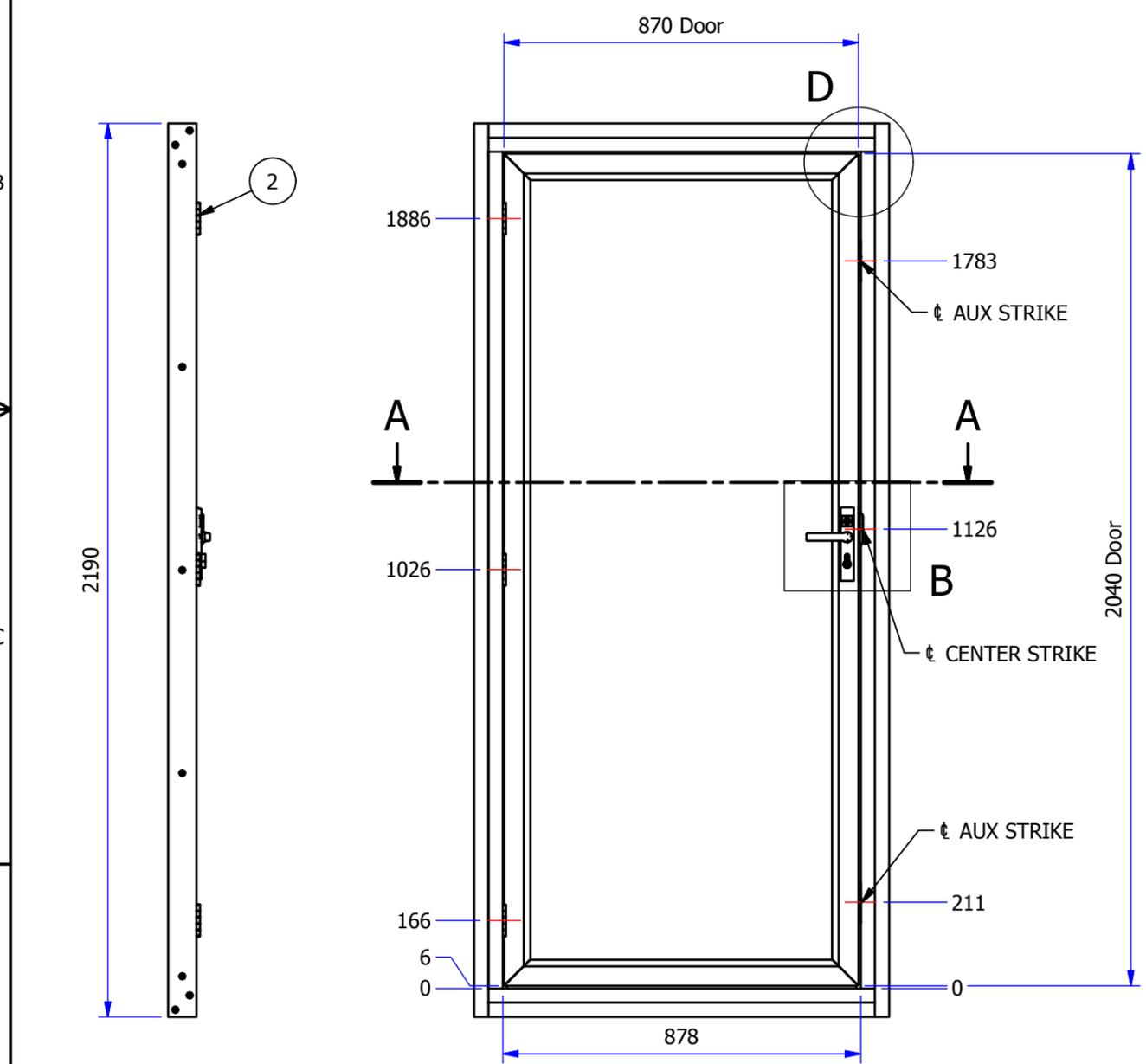
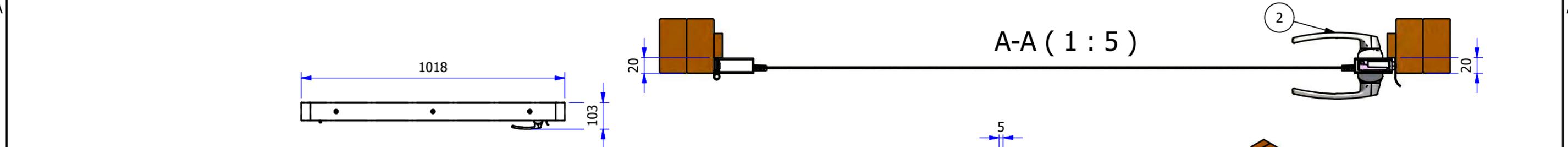
**Size of Door and Location of Locking Points, Hinges and Mid-Rail – Refer attached CAD Drawing ForceField - Hinged door**

**Means of Securing Infill to Framing, Location of Welds / Fasteners- Refer attached CAD Drawing ForceField - Hinged door**

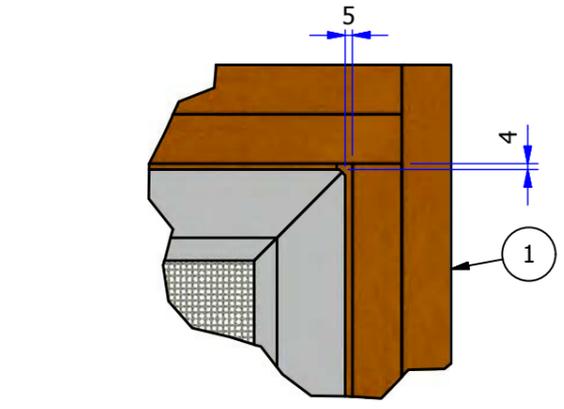
**End**

BILL OF MATERIALS

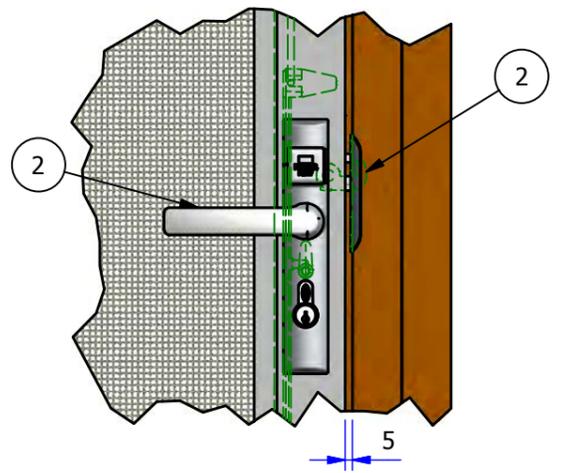
| ITEM | QTY | DESCRIPTION                   | STOCK NO./DESC.  | MATERIAL | LENGTH | WIDTH |
|------|-----|-------------------------------|------------------|----------|--------|-------|
| 1    | 1   | HINGED DOOR - PINE TEST FRAME | AS5039-FF HD2004 |          |        |       |
| 2    | 1   | FF - Hinged Door              | AS5039-FF HD2001 |          |        |       |



FRONT VIEW 1 ( 1 : 15 )



D ( 1 : 5 )



B ( 1 : 5 )



ISOMETRIC VIEW

|   |                    |   |   |               |
|---|--------------------|---|---|---------------|
| <p><b>Prowler Proof</b><br/>                 GERSHWIN PTY LTD<br/>                 122 BUCHANAN RD<br/>                 BANYO, QLD. 4014<br/>                 PH: +61 7 3363 0666<br/>                 FAX: +61 7 3267 5411</p> | DRAWN              | DATE  | TITLE:  | PROCESS CODE: |
|   | CAD                | 20/11/2012  | AS5039 - Testing                                  | SHEET 1 OF 1  |
|   | CHECKED            | DATE  | ForceField - Testing Sample                       | SCALE NTS     |
|   | APPR.              | DATE  | PART NUMBER:<br>AS5039-FF HD1000                  | REV.          |
| RAW MATERIAL  | MATERIAL THICKNESS | DRAWING DOCUMENT FILE NAME:<br>AS5039-FF HD1000.idw | MODEL DOCUMENT FILE NAME:<br>AS5039-FF HD1000.iam |               |
|   |                    | STOCK NUMBER / DESCRIPTION                          |   |               |

| REV. No | REVISION DESCRIPTION | DRAWN | DATE | APP. BY | DATE |
|---------|----------------------|-------|------|---------|------|
| 1       |                      |       |      |         |      |

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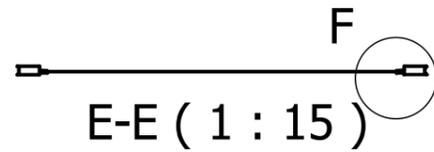
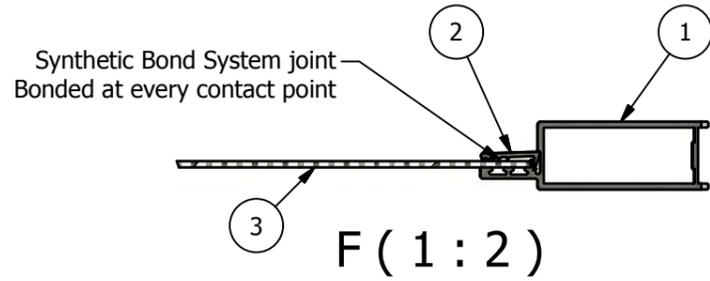
UNLESS OTHERWISE SPECIFIED  
 XX = ± 1mm      MACHINE FINISHES = 3.2/√  
 X.X = ± 0.5mm      <math>\triangleleft = \pm 1^\circ</math>  
 XX.XX = ± 0.25mm

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

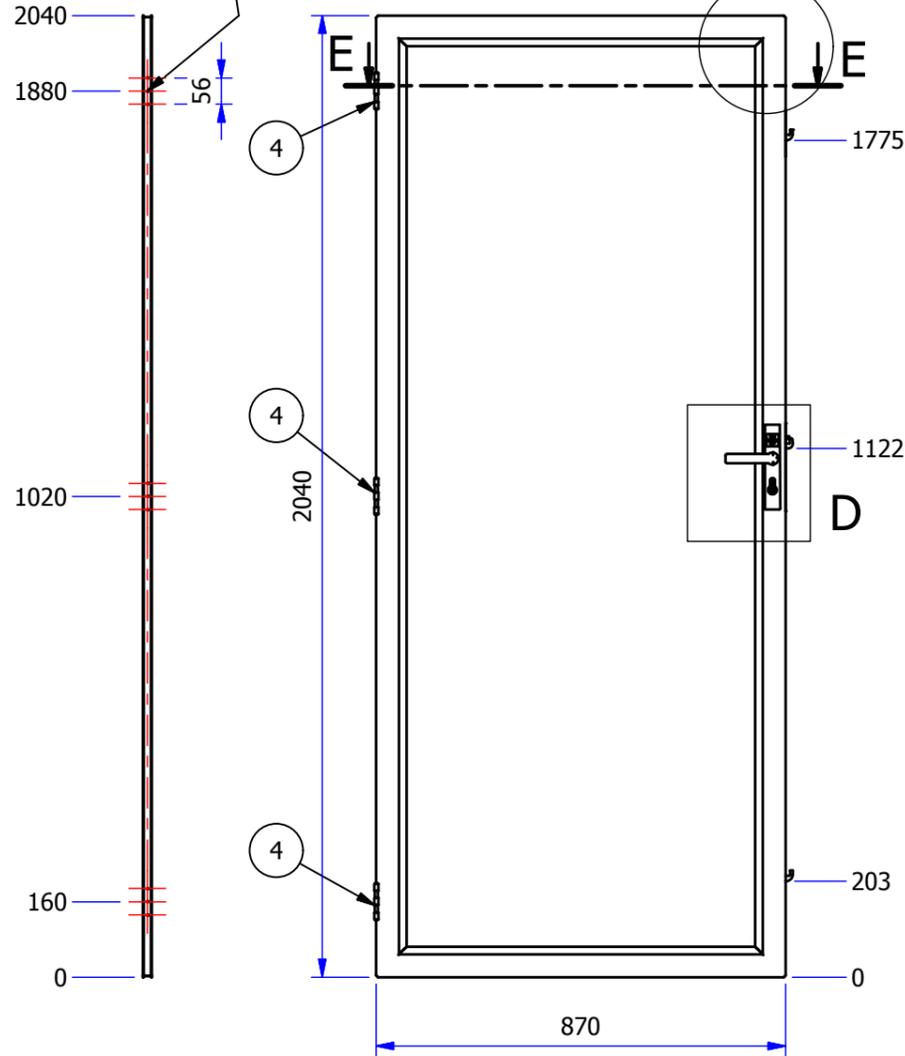
DO NOT SCALE DRAWING      WEIGHT: N/A      SHEET SIZE: A3      INV.

BILL OF MATERIALS

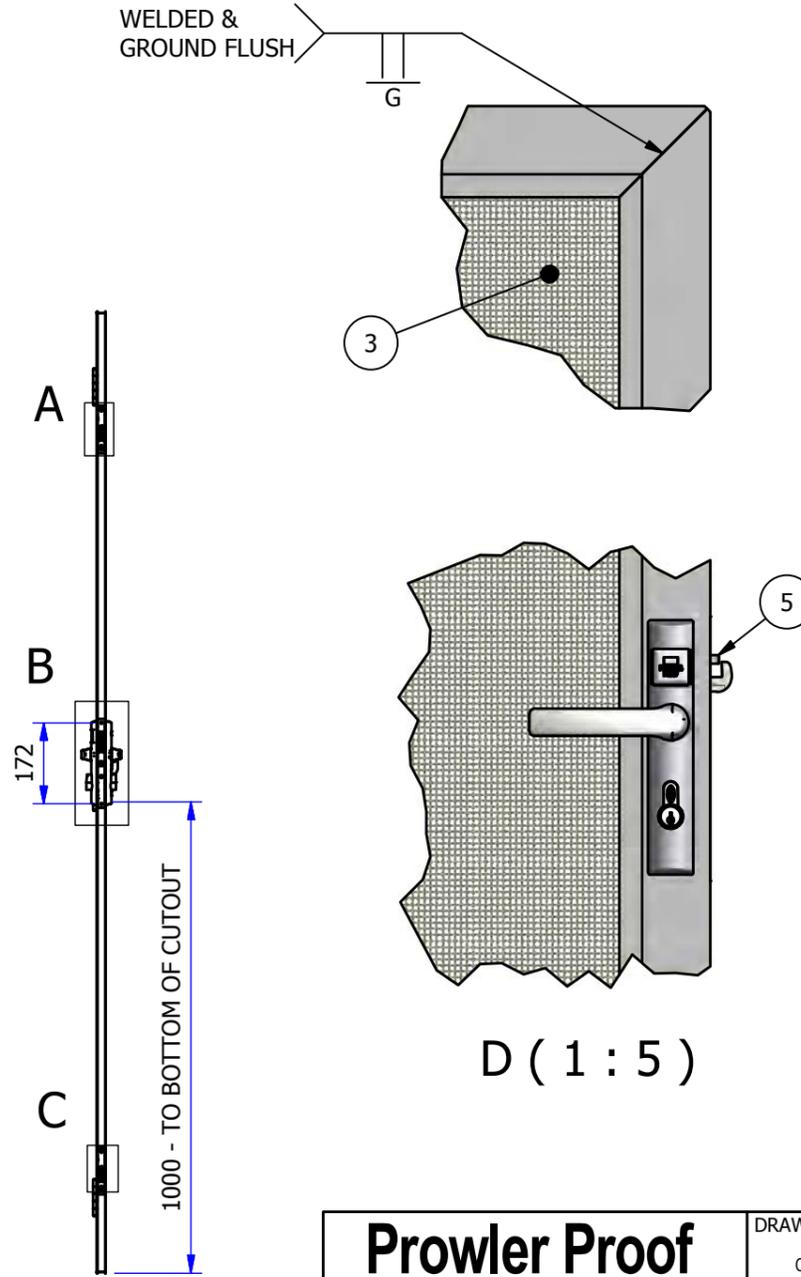
| ITEM | QTY | DESCRIPTION                            | STOCK NO./DESC. | MATERIAL   | LENGTH | WIDTH |
|------|-----|--|-----------------|------------|--------|-------|
| 1    | 4   | FFD 5800mm MF                          | 100004          | Al 6060 T5 |        |       |
| 2    | 6   | FF Retainer 3000mm BLK                 | 100089          | R-PVC      |        |       |
| 3    | 1   | SS MESH 1200 X 2000MM BK               | 100026          | SS, T316   | 1939.4 | 769.4 |
| 4    | 3   | Security Hinge - Steel                 | 100050          | Steel      |        |       |
| 5    | 1   | Lockwood - 8654 Lock Body - Black      | 102527          | Generic    |        |       |
| 6    | 1   | Lockwood - 8654 Furniture Pack - Black | 102526          | Generic    |        |       |
| 7    | 1   | Lockwood - 8654 Auxiliary Lock         | 102535          | Generic    |        |       |



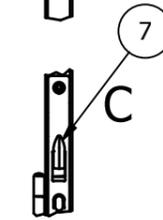
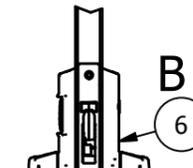
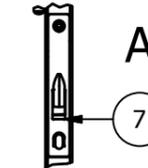
3 Pilot holes for Hinges @ 3 places



FRONT VIEW 1 ( 1 : 15 )



D ( 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<br>CAD | DATE<br>20/11/2012 | TITLE:<br>AS5039 - Testing                     |   | PROCESS CODE:   |
| CHECKED      | DATE               | FF - Hinged Door                               |   | SHEET<br>1 OF 1 |
| APPR.        | DATE               | PART NUMBER:<br>AS5039-FF HD2001               | DRAWING DOCUMENT FILE NAME:<br>AS5039-FF HD2001.idw | SCALE<br>NTS    |
| RAW MATERIAL | MATERIAL THICKNESS | STOCK NUMBER / DESCRIPTION<br>AS5039-FF HD2001 | MODEL DOCUMENT FILE NAME:<br>AS5039-FF HD2001.iam   | REV.            |

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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

DO NOT SCALE DRAWING

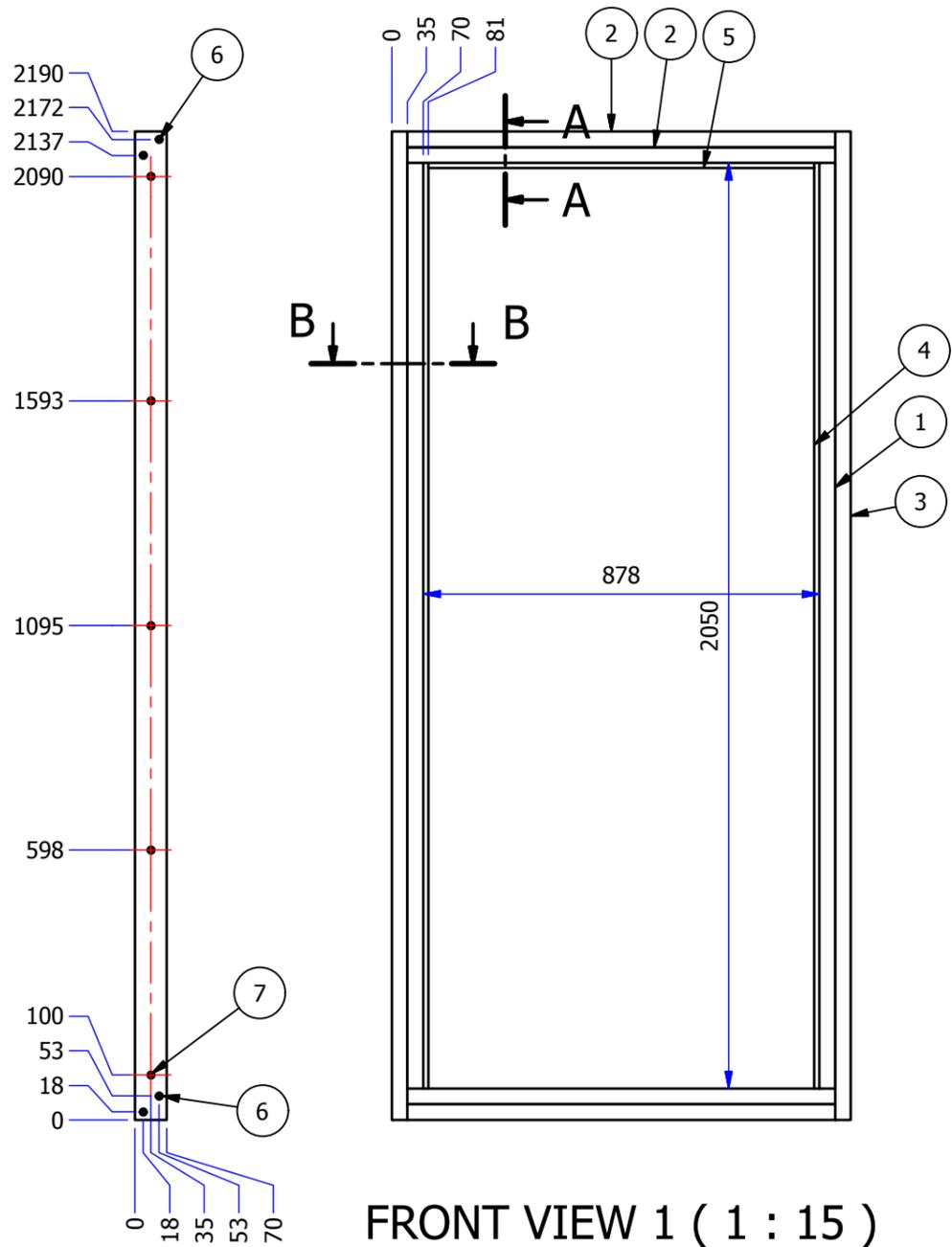
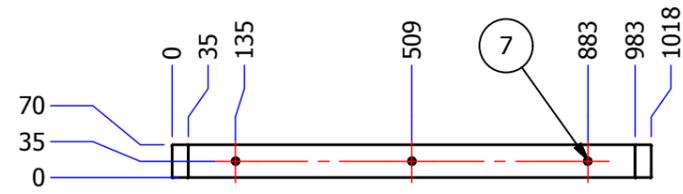
WEIGHT: N/A

SHEET SIZE: A3 INV.

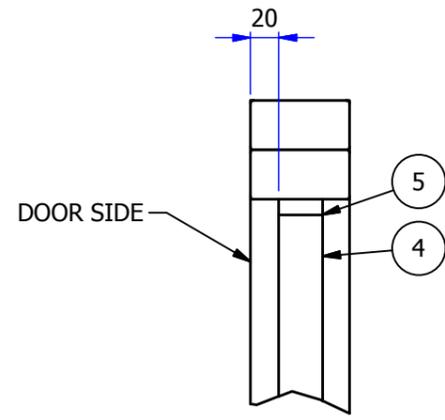
| REV. No | REVISION DESCRIPTION | DRAWN | DATE | APP. BY | DATE |
|---------|----------------------|-------|------|---------|------|
| 1       | REVISION HISTORY     |       |      |         |      |

BILL OF MATERIALS

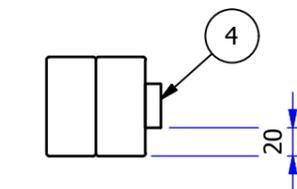
| ITEM | QTY | DESCRIPTION                       | STOCK NO./DESC. | MATERIAL    | LENGTH | WIDTH |
|------|-----|-----------------------------------|-----------------|-------------|--------|-------|
| 1    | 2   | Pine Stud 70x35                   |                 | Pine        | 2050   | 35    |
| 2    | 4   | Pine Stud 70x35                   |                 | Pine        | 948    | 35    |
| 3    | 2   | Pine Stud 70x35                   |                 | Pine        | 2190   | 35    |
| 4    | 2   | Pine Trim 33x11                   |                 | Pine        | 2050   | 33    |
| 5    | 1   | Pine Trim 33x11                   |                 | Pine        | 856    | 33    |
| 6    | 8   | Bugle Head Batten Screw 14gx100mm |                 | Steel, Mild | 100    |       |
| 7    | 16  | Bugle Head Batten Screw 14gx50mm  |                 | Steel, Mild | 50     |       |



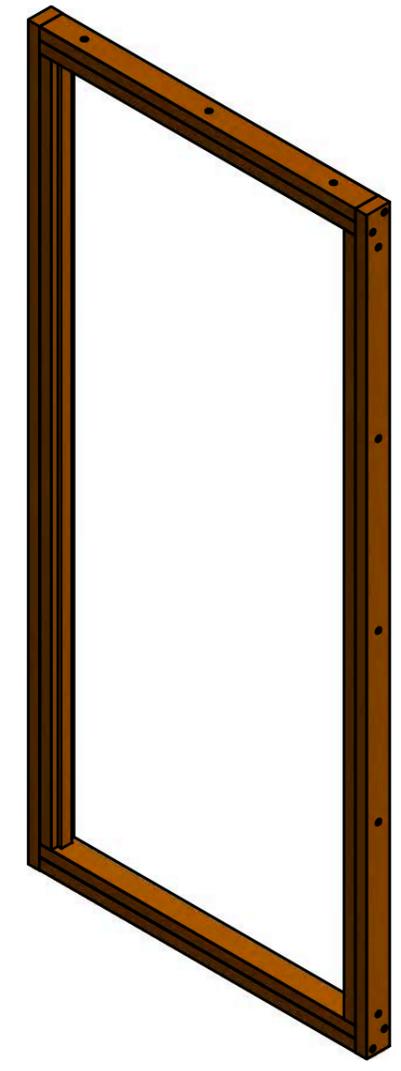
FRONT VIEW 1 ( 1 : 15 )



A ( 1 : 5 )



B-B ( 1 : 5 )



ISOMETRIC VIEW ( 1 : 15 )

|   |              |                    |  |                     |
|---|--------------|--------------------|--|---------------------|
| <p><b>Prowler Proof</b><br/>                 GERSHWIN PTY LTD<br/>                 122 BUCHANAN RD<br/>                 BANYO, QLD. 4014<br/>                 PH: +61 7 3363 0666<br/>                 FAX: +61 7 3267 5411</p> | DRAWN<br>CAD | DATE<br>20/11/2012 | TITLE:<br><b>AS5039 - Testing</b>              | PROCESS CODE:       |
|   | CHECKED      | DATE               | HINGED DOOR - PINE TEST FRAME                  | SHEET<br>1 OF 1     |
|   | APPR.        | DATE               | PART NUMBER:<br><b>AS5039-FF HD2004</b>        | SCALE<br><b>NTS</b> |
|   | RAW MATERIAL | MATERIAL THICKNESS | STOCK NUMBER / DESCRIPTION<br>AS5039-FF HD2004 | REV.                |

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UNLESS OTHERWISE SPECIFIED  
 XX = • 1mm  
 X.X = • 0.5mm  
 XX.XX = • 0.25mm

MACHINE FINISHES = 3.2/√

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

DO NOT SCALE DRAWING

WEIGHT: 18.36 kg

SHEET SIZE: A3

INV.

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



# Test Certificate



TESTING  
NO. 0243

Knife Shear Test.

Certificate No. 11-032-KS

Page 1 of 1

Model Number/Name: Fixed Window 11mm  
 Report/Sample Number: KS11-030(0.8mm#316/ Gershwin)  
 Manufactured By: Meshtec International  
 Date of Test: 8-September-2011

Test method AS 5041

Tick box if ok

Pre-Test visual check



- to make sure regulator (2) seals are not broken
- force/ pressure apparatus (for two direction)

Calibrated by: ACS %Humidity = 63 % (Less than 80%)  
 Certificated No.: TH.AC./003-A-3 Temp.= 24,9 °C At time= 8.25 AM  
 Expiry dates: 25 May 2012 (23± 5°C for force gauge)

## RESULTS

|           | Length of completed Penetration (mm) | New Blade used (Yes/No) |
|-----------|--------------------------------------|-------------------------|
| Test No 1 | <u>3.10 mm (1 line)</u>              | <u>Yes</u>              |
| Test No 2 | <u>3.07 mm (1 line)</u>              | <u>Yes</u>              |
| Test No 3 | <u>3.10 mm (1 line)</u>              | <u>Yes</u>              |

Observations: Stroke No.1 wire penetration 3.10 mm. (1 line), Stroke No.2 wire penetration 3.07mm (1 line),  
Stroke No.3 wire penetration 3.10 mm (1 line).  
: Total wire penetration = 9.27 mm (3 lines)

AS 5041 requires continuous penetration to be less than 150 mm after the third test. Uncertainty of test method = ± 0.110 mm [(Uncertainty of test method + Completed penetration after the third test)< 150mm]

**PASS** / ~~FAIL~~

To requirements of AS 5041

NOTE: Cross out whichever does not apply.

Jakkrit U.

Name of Examiner

Wichian K.

Approved By

Signatory:         

Signatory:         

- TLAS accredited testing laboratory No. 0243
- This Certificate is issued in accordance with the conditions of accreditations granted by the Thai Laboratory Accreditation Scheme which has assessed the measurement capability of the laboratory accredited for compliance with ISO 17025.
- This certificate may not be reproduced other than in full except with the prior written approval of the Meshtec International Laboratory.
- *This report is certified only on the sample tested.*



## Product Information

| No | Item   | Method/ Specification   |
|----|--|---|
| 1  | Mesh   | Stainless steel mesh  |
| 2  | Wire specs   | High tensile stainless steel  |
| 3  | Diameter   | 0.8 ± 0.015 mm  |
| 4  | Alloy  | Grade 316   |
| 5  | Mpa  | 860-940 Mpa   |
| 6  | Weave Type   | Plain weave   |
| 7  | Number of strands per inch / 25.4mms                 | 11/10.5 per inch  |
| 8  | Finish (Woven)                                       | Wire Mesh (ISO9044/ASTM E2016-06)   |
| 9  | Basic pre-treatment                                  | Alkaline cleaning/Acid etching  |
| 10 | Finish (powder coat) brand and type of powder        | Interpon D610 (Akzo Nobel) , Polyester  |
| 11 | Colour   | Ultra Black Low Sheen   |
| 12 | Testing  | AS3715-2002,AAMA2603-05,AAMA2605-05   |
| 13 | Internal testing on wire and finish                  | See the internal testing ( second page)   |
| 14 | External testing to relevant architectural standards | Salt Spary : 10 000 Hrs (Akzo Nobel)<br><br>Salt Spary : 10 000 Hrs (Akzo Nobel) |
| 15 | Knife shear test                                     | AS5041-2003 Section 8.  |
| 16 | Open Area Space Specification                        | 42.5%   |

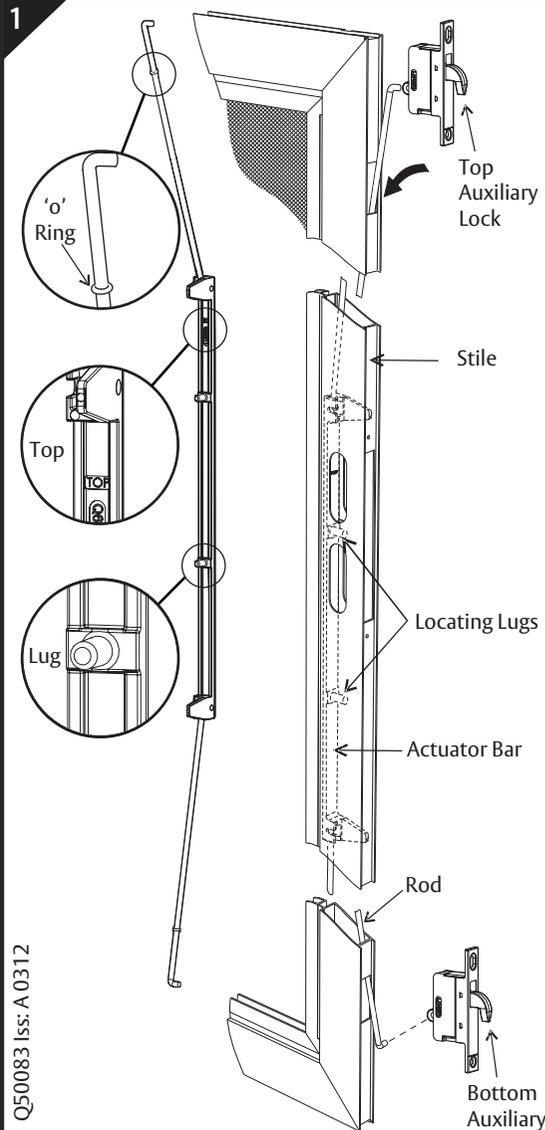


## Internal Testing

### Test Requirement

| No  | Test                        | Test Method                      | Specification   |
|-----|-----------------------------|----------------------------------|---|
| 1.  | Gloss at 60°                | AAMA 2605-05 Section 7.2         | Series 610 : 37+/-5   |
| 2.  | Coating thickness           | AS3715-2002 Section 2.5.3        | Minimum coating thickness : 60 µm   |
| 3.  | Impact Resistance           | AAMA 2605-05 Section 7.5         | No removal of film from substrate   |
| 4.  | Indentation                 | AS3715-2002 Section 2.5.6        | Buchholz > 80   |
| 5.  | Adhesion                    | AAMA 2605-05 Section 7.4.1.1     | No removal of film under the tape within or outside of the cross-hatched area or blistering anywhere. |
| 6.  | Bend Test                   | QUALICOAT Section 2.7            | Bending around a 5 mm mandrel or an 8 mm mandrel. (Not show any sign of cracking or detachment)       |
| 7.  | Polymerisation test         | QUALICOAT Section 2.14           | Cannot be scratched with a finger-nail.   |
| 8.  | Resistance to boiling water | AAMA 2605-05 Section 7.4.1.3     | No removal of film under the tape within or outside of the cross-hatched area or blistering anywhere. |
| 9.  | Color                       | AAMA 2605-05 Section 7.1         | Color uniformity consistent with the color range  |
| 10. | Knife Shear Test            | AS5041-2003 Section 8            | Max 150 mms   |
| 12. | Tensile Test                | ISO 682 1998,BS-EN 10002-1 2001. | 860-940 Mpa   |
| 13. | Chemical Composition        | Alloy Testing                    | Determine alloy 316,304 etc.  |

1



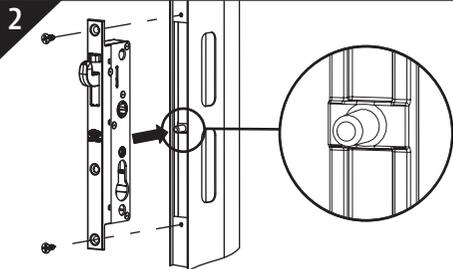
Q50083 Iss: A 0312

**Fitting the Actuator Bar and Auxiliary Locks**

**Note:** For ease of fitment remove door from the door frame.

- Assemble the Actuating Bar and Rods as shown prior to fitting to the door stile. With the "TOP" mark facing the front.
- Keep the locating lugs of the Actuating Bar facing the front edge of the door.
- Insert the Actuator Bar and rod assembly through the top cut-out and slide it through the door stile.
- With the Auxiliary locks in the locked position (as shown), **Important:** Connect the top Auxiliary lock first to the end of the rod followed by the bottom Auxiliary lock.
- Then push them both into the door stile.

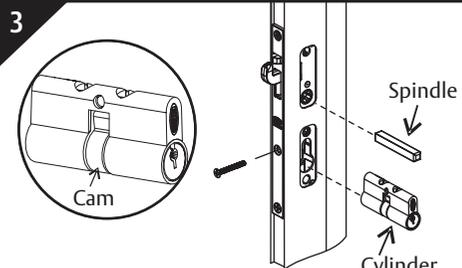
2



**Fitting Central Lock**

With the central lock in the factory set **Deadlock** position, insert into the stile. Locate and engage the lug on the Actuating Bar with the lock, then secure with screws. **Important:** The lock must be installed in the position shown, product warranty cannot be assured if installed upside down.

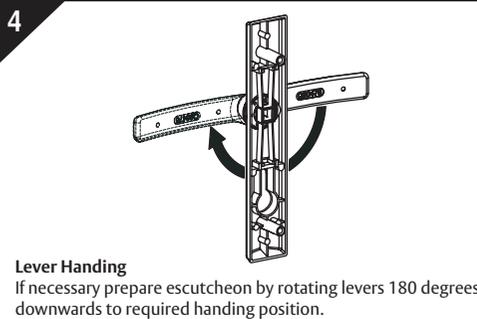
3



**Fitting Cylinder & Spindle**

- Insert cylinder so cam turns towards front of door.
- Loosely fix cylinder with screw.
- Then insert spindle into lock body.

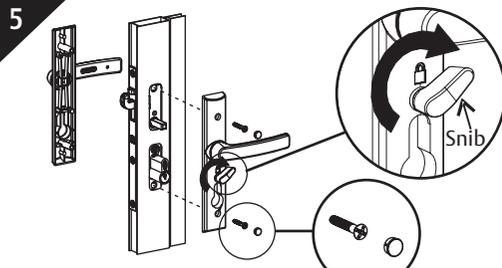
4



**Lever Handling**

If necessary prepare escutcheon by rotating levers 180 degrees downwards to required handing position.

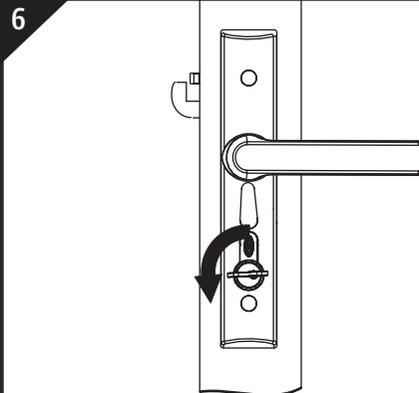
5



**Fitting Escutcheon**

- Fit escutcheon with snib on the inside face of the door.
- Ensure snib is to 90 degrees in the direction of the lever.
- Secure inside and outside escutcheons with screws and screw hole plugs.

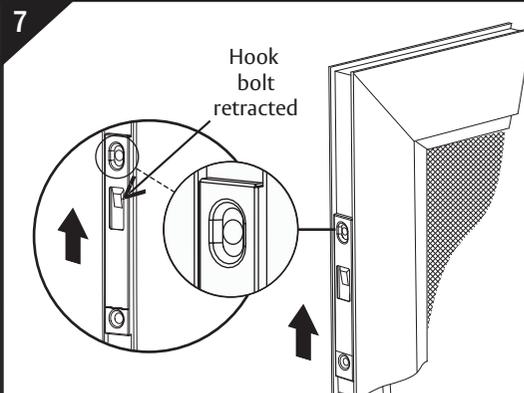
6



**Passage Mode**

With the central lock in the factory set **Deadlock** position, insert key and rotate 90 degrees away from the lever to the unlocked position or **Passage** mode. Snib rotates to the vertical position.

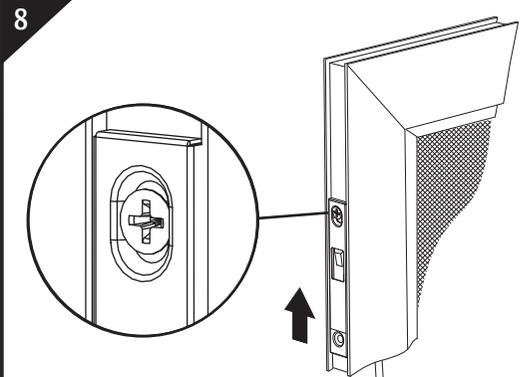
7



**Drilling Hole in Top and Bottom Auxiliary Locks**

- Gently push the top Auxiliary lock upwards to retract the hook bolt.
- Then drill a 3mm hole in the centre of the slotted hole.
- Repeat this step for the bottom Auxiliary lock.

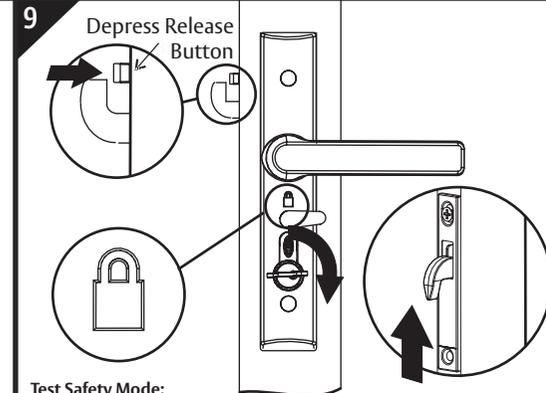
8



**Fixing Screw to Top and Bottom Auxiliary Locks**

- Gently push the top Auxiliary lock upwards to retract the hook bolt.
- Lightly fix screw in slotted hole.
- Repeat this step for the bottom Auxiliary lock.

9

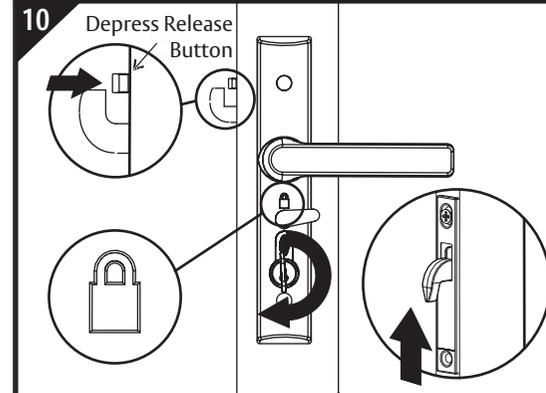


**Test Safety Mode:**

**Important:** Release button above hook bolt must be depressed. **Rotate key or snib 90 degrees towards the lever:**

- Padlock symbol is visible.
- Inside and outside levers are locked.
- Auxiliary hook bolts are thrown and locked, push hook bolts upwards to check.
- Repeat **STEP 6** to return lock to Passage mode.

10



**Test Deadlock Mode:**

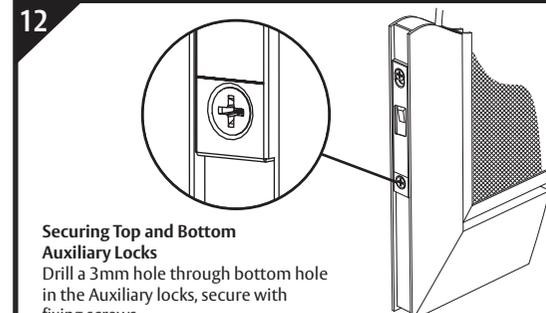
**Important:** Release button above hook bolt must be depressed. **Rotate key 180 degrees towards the lever:**

- Snib rotates 90 degrees towards the lever, padlock symbol is visible.
- Inside and outside levers are locked.
- Auxiliary hook bolts are thrown and locked, push hook bolts upwards to check.

11

**Important:** Reposition top and bottom Auxiliary locks if necessary to achieve Safety and Deadlock modes, then fully tighten fixing screws in **STEP 8**.

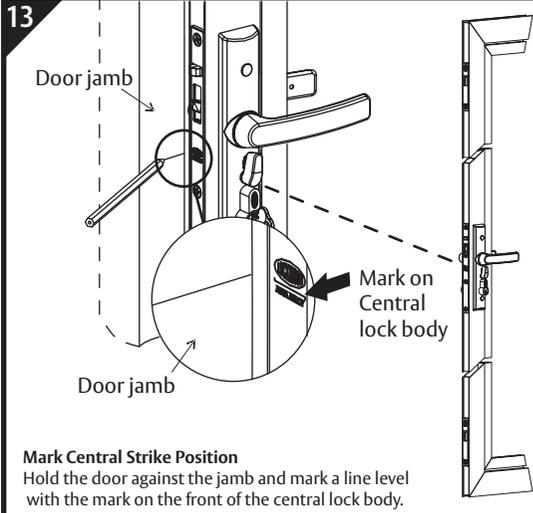
12



**Securing Top and Bottom Auxiliary Locks**

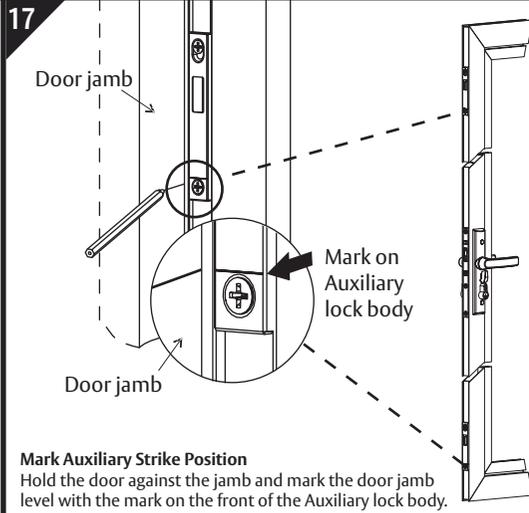
- Drill a 3mm hole through bottom hole in the Auxiliary locks, secure with fixing screws.

**Timber Door Central Strike Installation (Standard 19mm door)**

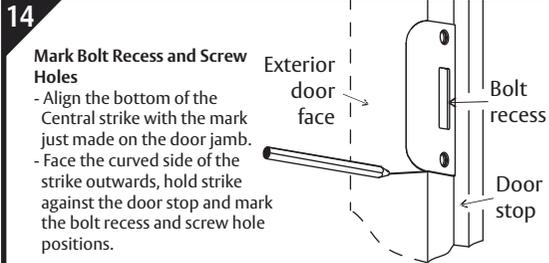


**Mark Central Strike Position**  
Hold the door against the jamb and mark a line level with the mark on the front of the central lock body.

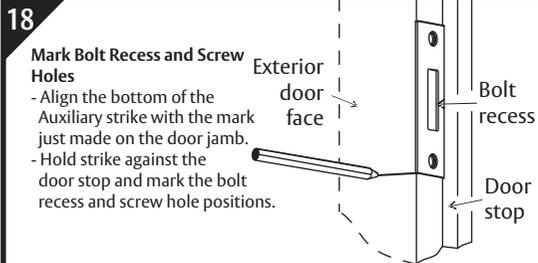
**Timber Door Auxiliary Strike Installation (Standard 19mm door)**



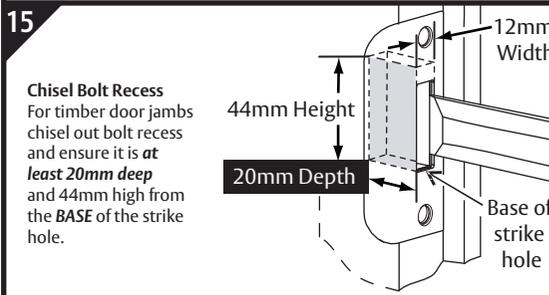
**Mark Auxiliary Strike Position**  
Hold the door against the jamb and mark the door jamb level with the mark on the front of the Auxiliary lock body.



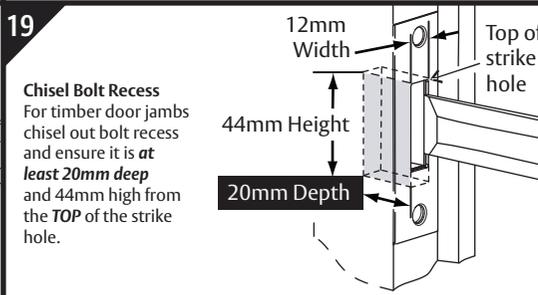
**Mark Bolt Recess and Screw Holes**  
- Align the bottom of the Central strike with the mark just made on the door jamb.  
- Face the curved side of the strike outwards, hold strike against the door stop and mark the bolt recess and screw hole positions.



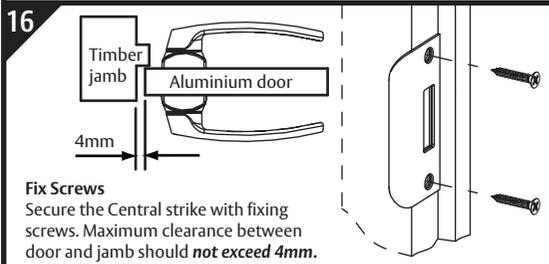
**Mark Bolt Recess and Screw Holes**  
- Align the bottom of the Auxiliary strike with the mark just made on the door jamb.  
- Hold strike against the door stop and mark the bolt recess and screw hole positions.



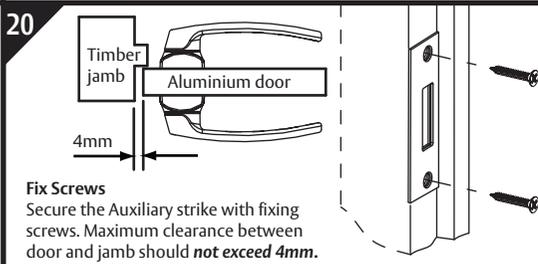
**Chisel Bolt Recess**  
For timber door jambs chisel out bolt recess and ensure it is **at least 20mm deep** and 44mm high from the **BASE** of the strike hole.



**Chisel Bolt Recess**  
For timber door jambs chisel out bolt recess and ensure it is **at least 20mm deep** and 44mm high from the **TOP** of the strike hole.

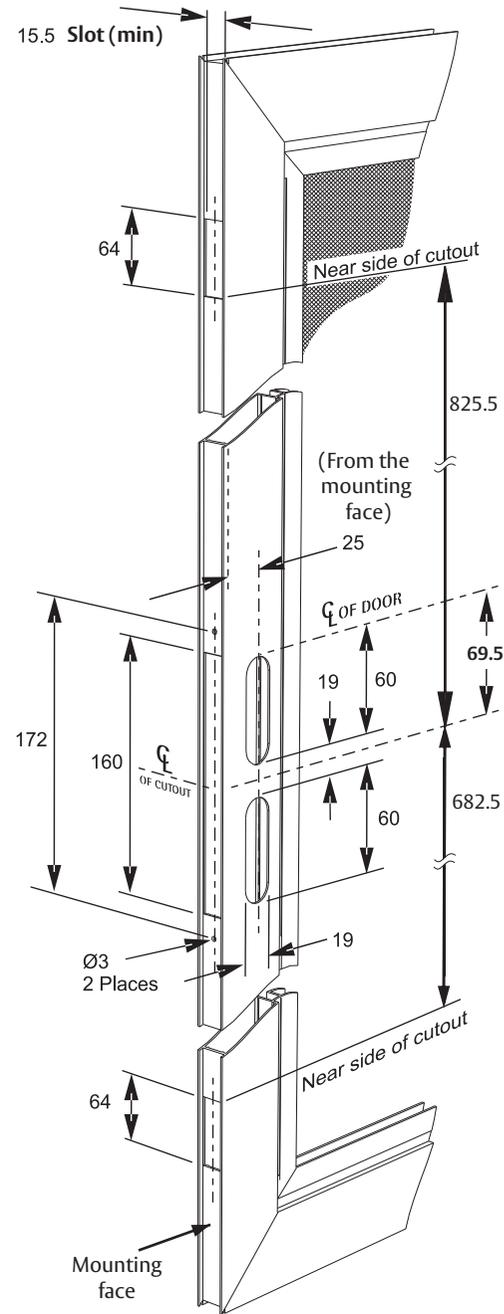


**Fix Screws**  
Secure the Central strike with fixing screws. Maximum clearance between door and jamb should **not exceed 4mm**.



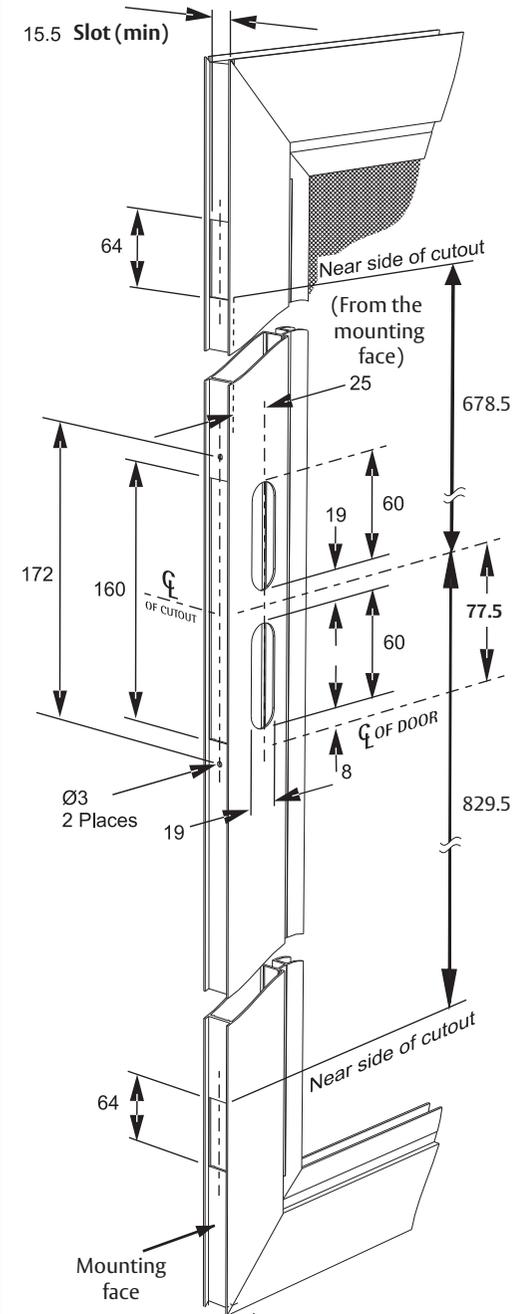
**Fix Screws**  
Secure the Auxiliary strike with fixing screws. Maximum clearance between door and jamb should **not exceed 4mm**.

**Mounting handle BELOW centreline of door**



Both sides of the door section must be cut to the dimensions given. Start with the centre of door (CL OF DOOR) then measure **69.5mm BELOW** and mark the (CL OF CUTOUT).

**Mounting handle ABOVE centreline of door**



Both sides of the door section must be cut to the dimensions given. Start with the centre of door (CL OF DOOR) then measure **77.5mm ABOVE** and mark the (CL OF CUTOUT).