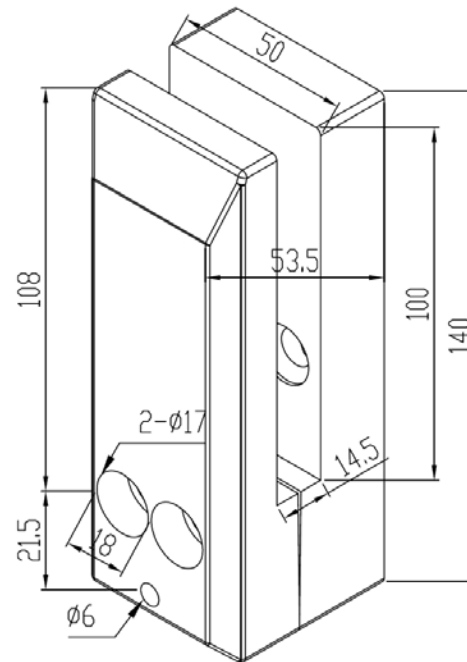
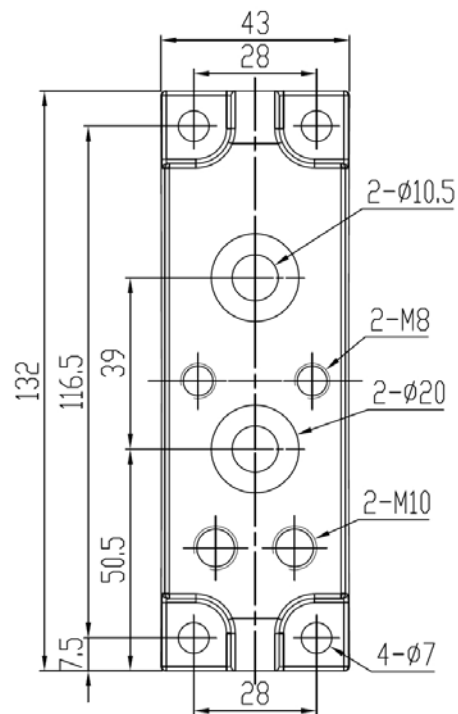


Drawing ID

FS-TSX

**Product Info.**

Finish	Code
Polish	FS-TSM
Satin	FS-TSS
Matte Black	FS-TSB
White	FS-TSW



**MATERIAL:**

Duplex 2205 Stainless Steel

**CATALOGUE AND DESCRIPTION:**

- > Glass Fixing System
- > Smarter Side Fix Spigot
- > Suitable for 12-13.52mm Glass

**NOTES:**

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# TEST REPORT

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A Z U M A  
Design

GLASS BARRIERS



---

PRODUCT – SMARTER SPIGOT

TESTED BY

AZUMA DESIGN PTY LTD

AZT0317.23

Test results in this report are relevant only to the sample tested.

NATA ACCREDITED LABORATORY NO. 15147

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Signature: 

Date: 18 AUG 2023

## 1 Customer Requirements

To test the sample by the test methods specified in Appendix H of AS1288-2021 and requirements from Section 7.

## 2 Referenced Standards

- AS1288-2021 Glass in buildings Set - Section 7 Balustrades, Appendix H
- AS/NZS1170.1:2002 Structural design actions- Permanent, imposed and other actions (Clause 3.6, Table 3.3)

## 3 Test Sample Description

Model No./Name	Smarter Spigot
Customer	
Address	
Azuma Testing Number	AZT0317.23
Date of Test	13/07/2023
Structural Connection	Yes, capping rail fixed at each end with a bracket and M8 screw and nut on a stainless-steel post to simulate a wall connection.
Test Sample Description	13.52 mm (6/1.52/6 mm) toughened laminated glass 1900 x 1200 mm. Glass is held by 2 x stainless steel spigots face mounted to the side of a concrete slab spaced at 1200 mm. Spigots are fixed to the concrete with M6 x 70 mm Hex Bolt and Hex drive screws on the mounting plate. A second piece is then attached to the mounting plate to make one half, the other half is connected to clamp the glass between using 2 x M8 x 20 mm and 2 x M10 x 45 mm Cap Screws. A capping rail is silicone to the top of the glass and attached to 50 x 50 x 1300 mm stainless steel posts with a 30 mm gap to the glass. The posts are secured to the side of the concrete slab by M8 x 150 mm bolts spaced at 120 mm apart and 65 mm from the bottom of the post. Glass fits 45 mm above the bottom of the spigot with 105 mm engagement.

AZT0317.23

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Signature: *Alome*

Date: 18 AUG 2023

## 4 Results

### 4.1 Barrier Gap Test

Does the probe pass through any gap	No, between spigot and post and concrete
Result	Pass

### 4.2 Point Load Testing

#### 4.2.1 Outwards

Type of Load	Serviceability	Ultimate
Load Applied	600 N	990 N
Time Load Held	10 minutes	10 minutes
Deflection under Load	15.22 mm	23.92 mm
Permanent Deflection	1.19 mm	0.72 mm
Damage to Glass in Sample	No	No
Result	Pass	Pass

#### 4.2.2 Downwards

Type of Load	Serviceability	Ultimate
Load Applied	600 N	990 N
Time Load Held	10 minutes	10 minutes
Deflection under Load	2 mm	2 mm
Permanent Deflection	0 mm	1 mm
Damage to Glass in Sample	No	No
Result	Pass	Pass

#### 4.2.3 Inwards (If Non-Symmetric Design)

Type of Load	Serviceability	Ultimate
Load Applied	600 N	990 N
Time Load Held	10 minutes	10 minutes
Deflection under Load	14.37 mm	22.42 mm
Permanent Deflection	1.01 mm	0.52 mm
Damage to Glass in Sample	No	No
Result	Pass	Pass

### 4.3 Uniform Line Load Testing

#### 4.3.1 Vertical

Type of Load	Serviceability	Ultimate
Load Applied	1425 N	2352 N
Time Load Held	10 minutes	10 seconds
Deflection under Load	3 mm	3 mm
Permanent Deflection	0 mm	0 mm
Damage to Glass in Sample	No	No
Result	Pass	Pass

#### 4.3.2 Horizontal

Type of Load	Serviceability	Ultimate
Load Applied	1425 N	2352 N
Time Load Held	10 minutes	10 seconds
Deflection under Load	25.96 mm	41.26 mm
Permanent Deflection	2.17 mm	0.53 mm
Damage to Glass in Sample	No	No
Result	Pass	Pass

Signature: AHorne

Date: 18 AUG 2023

## 5 Conclusion and Signatories

### 5.1 Conclusion

The tested sample has passed the requirements of AS1288 Appendix H.

### 5.2 Signatories

Tested By: Ashley Horne

Position: National Business Manager

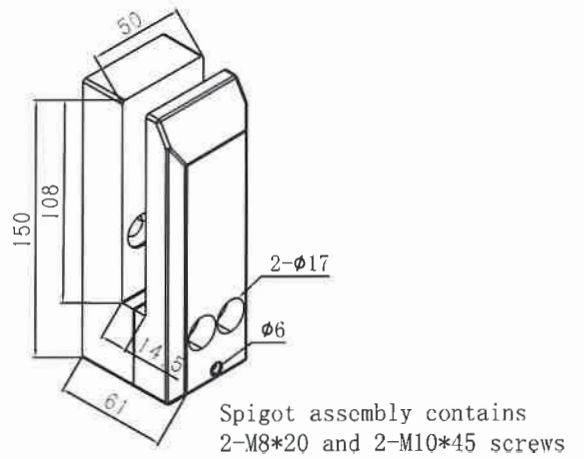
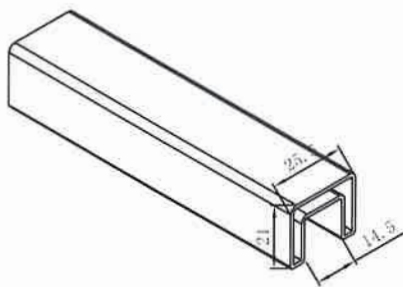
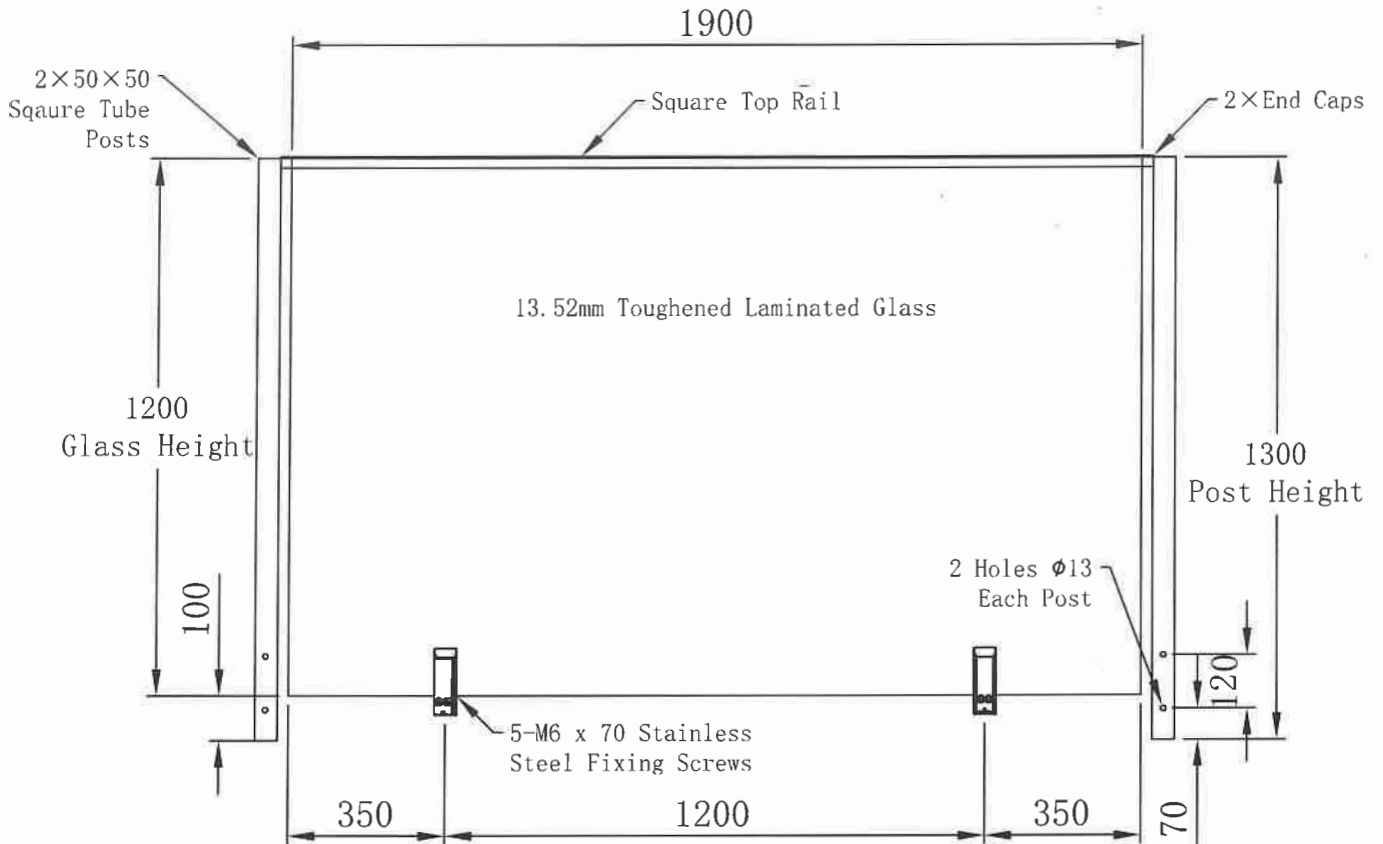
Qualifications: B.Eng (Hons), MEM, MIEAust

Signature: AHorne

Date: 18/08/2023

**END OF REPORT**

FRAMELESS GLASS TESTING  
1900 × 1200





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# TEST REPORT

---



A Z U M A  
Design

## GLASS BARRIERS



CLIENT – TCT GROUP

PRODUCT – SMARTER SPIGOT

TESTED BY

AZUMA DESIGN PTY LTD

AZT0264.23

NATA ACCREDITED LABORATORY NO. 15147

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Test results in this report are relevant only to the sample tested.



Signature: 

Date: - 3 AUG 2023

## 1 Customer Requirements

To test the sample by the test methods specified in Appendix H of AS1288-2021 and requirements from Section 7.

## 2 Referenced Standards

- AS1288-2021 Glass in buildings Set - Section 7 Balustrades, Appendix H
- AS/NZS1170.1:2002 Structural design actions- Permanent, imposed and other actions (Clause 3.6, Table 3.3)

## 3 Test Sample Description

Model No./Name	Smarter Spigot
Customer	TCT Group
Address	1 Harbord St, Clyde NSW 2142
Azuma Testing Number	AZT0264.23
Date of Test	13/07/2023
Structural Connection	Yes, capping rail fixed at each end with a bracket and M8 screw and nut on a stainless-steel post to simulate a wall connection.
Test Sample Description	12 mm toughened glass 1800 x 1200 mm. Glass is held by 2 x stainless steel spigots face mounted to the side of a concrete slab spaced at 1200 mm. Spigots are fixed to the concrete with M6 x 70 mm Hex Bolt and Hex drive screws on the mounting plate. A second piece is then attached to the mounting plate to make one half, the other half is connected to clamp the glass between using 2 x M8 x 20 mm and 2 x M10 x 45 mm Cap Screws. A capping rail is silicone to the top of the glass and attached to 50 x 50 x 1300 mm stainless steel posts with a 30 mm gap to the glass. The posts are secured to the side of the concrete slab by M8 x 150 mm bolts spaced at 120 mm apart and 65 mm from the bottom of the post. Glass fits 45 mm above the bottom of the spigot with 105 mm engagement.

AZT0264.23

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Signature: *A/Name*

Date: - 3 AUG 2023

## 4 Results

### 4.1 Barrier Gap Test

Does the probe pass through any gap	No, between spigot and post and concrete
Result	Pass

### 4.2 Point Load Testing

#### 4.2.1 Outwards

Type of Load	Serviceability	Ultimate
Load Applied	600 N	990 N
Time Load Held	10 minutes	10 minutes
Deflection under Load	10.12 mm	16.87 mm
Permanent Deflection	0.00 mm	0.04 mm
Damage to Glass in Sample	No	No
Result	Pass	Pass

#### 4.2.2 Downwards

Type of Load	Serviceability	Ultimate
Load Applied	600 N	990 N
Time Load Held	10 minutes	10 minutes
Deflection under Load	2 mm	2 mm
Permanent Deflection	0 mm	1 mm
Damage to Glass in Sample	No	No
Result	Pass	Pass

Signature: *Mome*

Date: - 3 AUG 2023

#### 4.2.3 Inwards (If Non-Symmetric Design)

Type of Load	Serviceability	Ultimate
Load Applied	600 N	990 N
Time Load Held	10 minutes	10 minutes
Deflection under Load	9.22 mm	18.51 mm
Permanent Deflection	0.10 mm	0.12 mm
Damage to Glass in Sample	No	No
Result	N/A	N/A

### 4.3 Uniform Line Load Testing

#### 4.3.1 Vertical

Type of Load	Serviceability	Ultimate
Load Applied	1350 N	2228 N
Time Load Held	10 minutes	10 seconds
Deflection under Load	3 mm	3 mm
Permanent Deflection	0 mm	0 mm
Damage to Glass in Sample	No	No
Result	Pass	Pass

#### 4.3.2 Horizontal

Type of Load	Serviceability	Ultimate
Load Applied	1350 N	2228 N
Time Load Held	10 minutes	10 seconds
Deflection under Load	17.74 mm	29.51 mm
Permanent Deflection	0.12 mm	0.17 mm
Damage to Glass in Sample	No	No
Result	Pass	Pass

AZT0264.23

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Signature: AHorne

Date:

- 3 AUG 2023

## 5 Conclusion and Signatories

### 5.1 Conclusion

The tested sample has passed the requirements of AS1288 Appendix H.

### 5.2 Signatories

Tested By: Ashley Horne

Position: National Business Manager

Qualifications: B.Eng (Hons), MEM, MIEAust

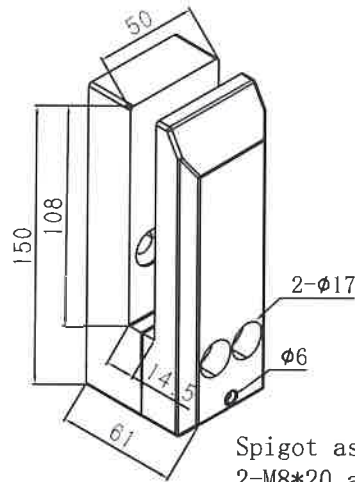
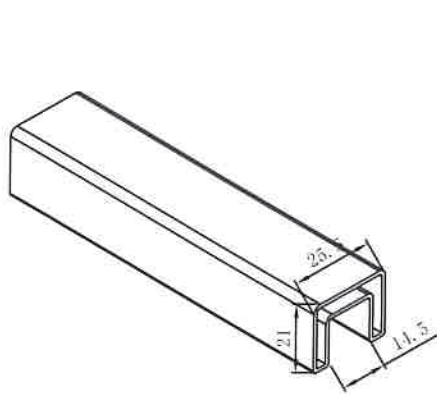
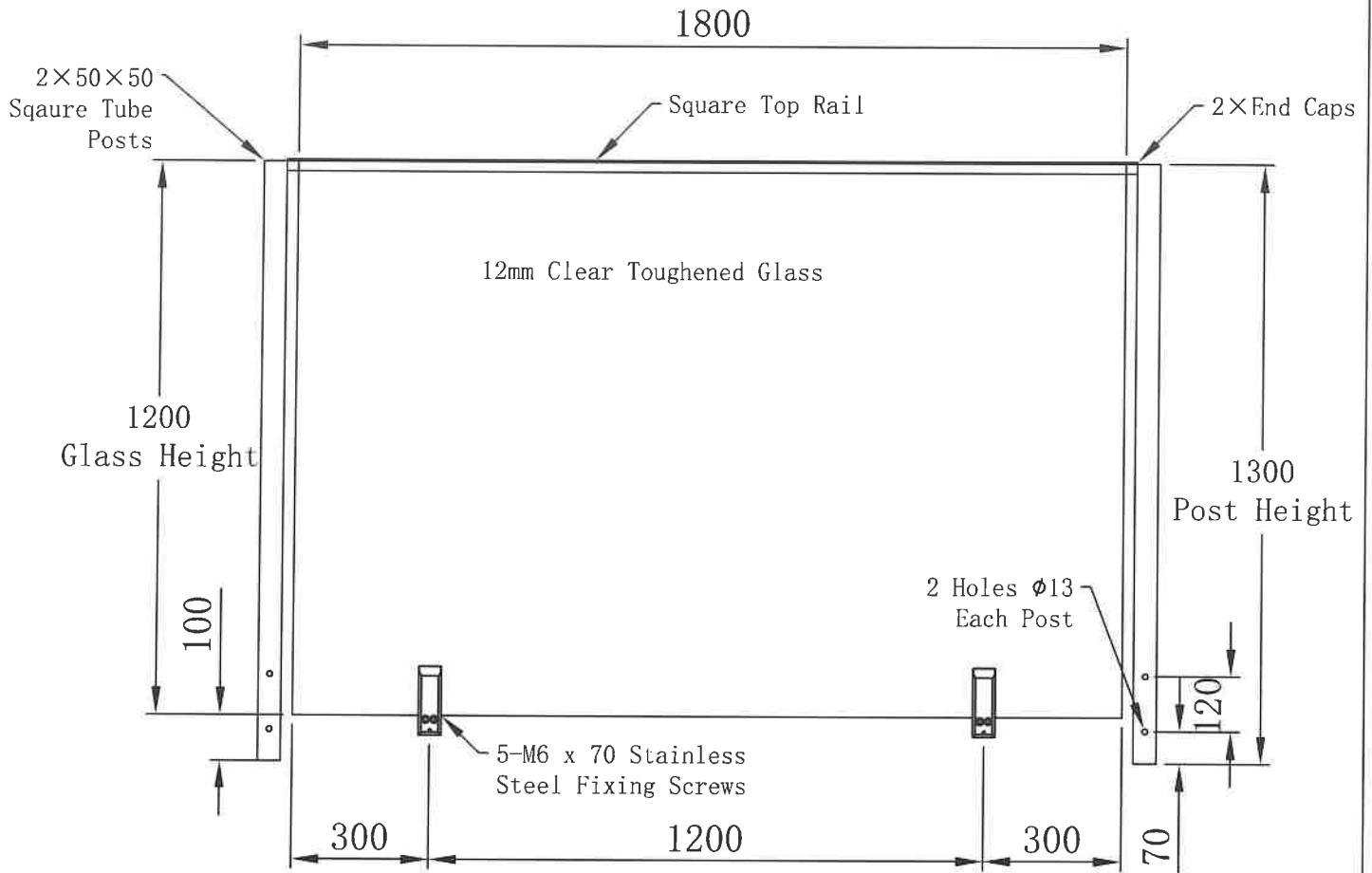
Signature: AHorne

Date: 03/08/2023

**END OF REPORT**

Alome

FRAMELESS GLASS TESTING  
1800×1200



Spigot assembly contains  
2-M8\*20 and 2-M10\*45 screws

INFORMATION SUPPLIED BY CUSTOMER