

Product Technical Statement



Company;	Protector Aluminium and Glass Pty Ltd	
Product Name;	The Architects Choice	
Type and/ or use of product;	Certified for use as a Balustrade Barrier System	
Description of product;	Glass Balustrade System- "Semi Frameless, Chisel Mini Post and Slimline Mini Post"	
Performance Requirements;	AS1288-2021	Safety Glazing material
	AS2208-1996	Appendix E Fragmentation test
	AS/NZS-1170.1:2002	Balustrade loads
	AS/NZS-1170.2:2021	Wind Loads
	AS/NZS-1720.1:2022	Timber Substrate Fixings
	AS5216:2021	Concrete Anchor Design
BCA (2022);	Volume Two	Part 11.3

Limitations and Conditions

1 With regards to strength and/or rigidity of Safety Barriers for Balustrade systems, this Supplier Statement limits compliance with AS1288 to the following extent;

AS1288-2021:	Balustrade Systems. Where glass is used in a barrier/ fence to an area, the glass used shall be Grade A safety glass and shall comply with other relevant requirements of this Standard			
	Identification of Safety Glass			
	Original Panels			
	Maximum Areas of Safety Glass			
		Type of Glazing	Nominal Thickness (mm)	Maximum area (m2)
	Grade A Safety Glass	Toughened and toughened laminated glass	3	1.0
			4	2.2
5			3.0	
6			4.0	
8			6.0	
10			8.0	
12			10.0	
	>12	Extrapolate		

*Safety glazing material Grade A or Grade B to AS/NZS 2208

Issue Date: 20 November 2024

Expiry Date: 1st September 2025

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AS/NZS1170.1-2002:

Requirements from AS/NZS 1170.1:2002 have been derived for barriers for Occupancy Type C3 as per Table 3.3 and also covers the requirements of types A, B and E.
 The requirements are listed in Table 1 below.
 Note these loads are less severe than the wind loads.

Load	Description
0.75 kN/m	Horizontal top edge load
0.35 kN/m	Vertical top edge load
0.6 kN	Point load - inwards, outwards or downwards
0.5 kPa	Horizontal
0.25 kN	Point load - any direction

Table 1. Barrier loads considered for conformance with AS/NZS 1170.1:2002

AS/NZS1170.2-2021:

Semi-Frameless

Barrier height (mm)	Glass span (mm)	Allowable wind speed, Vdes (m/s)	Applicable wind region (assuming Vdes = VSit)	Pressure (kPa)
1000	990	65	Wind Region A	3.70
1000	1250	58	Wind Region C	2.95
1000	1500	53	Wind Region B	2.46
1000	1750	49	Wind Region B	2.10
1000	2000	46	Wind Region B	1.85
1300	990	51	Wind Region B	2.28
1300	1250	45	Wind Region B	1.77
1300	1500	41	Wind Region A	1.47
1300	1750	38	Wind Region A	1.26
1300	2000	36	Wind Region A	1.14

Table 5. Required glass thickness for Semi-Frameless

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Chisel Minipost

Barrier height (mm)	Glass span (mm)	No of spigots required	Allowable wind speed, V_{des} (m/s)	Applicable wind zone (assuming $V_{des} = V_{sit}$)	Pressure (kPa)
1000	990	4	70	Wind Region D	4.29
1000	1250	5	70	Wind Region D	4.29
1000	1500	6	70	Wind Region D	4.29
1000	1750	7	70	Wind Region D	4.29
1000	2000	8	70	Wind Region D	4.29
1300	990	7	72	Wind Region D	4.54
1300	1250	9	72	Wind Region D	4.54
1300	1500	10	70	Wind Region D	4.29
1300	1750	12	71	Wind Region D	4.42
1300	2000	13	69	Wind Region D	4.17
1000	990	3	60	Wind Region C	3.15
1000	1250	4	62	Wind Region C	3.37
1000	1500	4	57	Wind Region C	2.85
1000	1750	5	59	Wind Region C	3.05
1000	2000	6	60	Wind Region C	3.15
1300	990	5	60	Wind Region C	3.15
1300	1250	6	59	Wind Region C	3.05
1300	1500	7	58	Wind Region C	2.95
1300	1750	8	58	Wind Region C	2.95
1300	2000	9	57	Wind Region C	2.85
1000	990	2	49	Wind Region B	2.10
1000	1250	3	54	Wind Region B	2.55
1000	1500	3	49	Wind Region B	2.10
1000	1750	3	45	Wind Region B	1.77
1000	2000	4	49	Wind Region B	2.10
1300	990	3	47	Wind Region B	1.94
1300	1250	4	48	Wind Region B	2.02
1300	1500	5	49	Wind Region B	2.10
1300	1750	5	45	Wind Region B	1.77
1300	2000	6	46	Wind Region B	1.85

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1000	1250	2	44	Wind Region A	1.70
1000	1500	2	40	Wind Region A	1.40
1000	1750	2	37	Wind Region A	1.20
1000	2000	2	35	Wind Region A	1.07
1300	990	2	38	Wind Region A	1.26
1300	1250	2	34	Wind Region A	1.01
1300	1500	2	31	Wind Region A	0.84
1300	1750	3	35	Wind Region A	1.07
1300	2000	3	33	Wind Region A	0.95

Table 6. Required glass thickness and number of spigots for Chisel Minipost

Slimline Minipost

Barrier height (mm)	Glass span (mm)	No of spigots required	Allowable wind speed, Vdes (m/s)	Applicable wind zone (assuming Vdes = VSit)	Pressure (kPa)
1000	990	3	69	Wind Region D	4.17
1000	1250	4	72	Wind Region D	4.50
1000	1500	5	72	Wind Region D	4.54
1000	1750	6	73	Wind Region D	4.67
1000	2000	6	70	Wind Region D	4.25
1300	990	5	69	Wind Region D	4.17
1300	1250	7	73	Wind Region D	4.67
1300	1500	8	71	Wind Region D	4.42
1300	1750	9	70	Wind Region D	4.29
1300	2000	10	69	Wind Region D	4.17
1000	1250	3	61	Wind Region C	3.26
1000	1500	4	65	Wind Region C	3.70
1000	1750	4	60	Wind Region C	3.15
1000	2000	5	63	Wind Region C	3.48
1300	990	4	62	Wind Region C	3.37
1300	1250	5	61	Wind Region C	3.26
1300	1500	6	61	Wind Region C	3.26
1300	1750	6	57	Wind Region C	2.85

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1300	2000	7	57	Wind Region C	2.85
1000	990	2	56	Wind Region B	2.75
1000	1250	2	50	Wind Region B	2.19
1000	1500	2	46	Wind Region B	1.85
1000	1750	3	52	Wind Region B	2.37
1000	2000	3	48	Wind Region B	2.02
1300	990	3	53	Wind Region B	2.46
1300	1250	3	47	Wind Region B	1.94
1300	1500	4	50	Wind Region B	2.19

Table 7. Required glass thickness and number of spigots for Slimline

- 2 *Note: Where required for use as a Safety Barrier of Fencing for Swimming Pools; compliance of the barrier with Section 3.2 (Strength of Posts and Footings) of AS1926.1- 2007/2012 and AS1926.1-1993 and Section 3.5 of AS1926.1-2012 (Strength and Rigidity of a Gate Unit) is to be confirmed to the satisfaction of the Appropriate Authority. Refer PTS 100118 for technical requirements*
- 3 When referring to GRG Consulting Engineers Drawing Number 20-3169-001 the Maximum Installation Height is 4 meters and span of system 3756mm (using the friction fit Stainless Steel Handrail)
- 4 For the purposes of this Supplier Statement, the term Appropriate Authority has the meaning defined in the National Construction Code.
- 5 For Balustrade systems, the Supplier Statement only applies to the Supplier Statement holders The Architects Choice balustrade panels as appropriately branded by the Supplier Statement holder.
- 6 Information contained herein or related hereto is intended only for evaluation by technically skilled persons, with any use thereof to be at their independent discretion and risk. Nothing in this document should be construed as a warranty or guarantee by PCME Certifications, and the only applicable warranties will be those provided by the Supplier Statement Holder.
- 7 This Supplier Statement is issued based on the evidence of compliance as detailed herein. Any deviation from the specifications contained in this Supplier Statement is outside of this documents scope and the installation of the certified product/ system will not be covered by this PCME Supplier Statement. This may result in product being classified as a non-conforming building product/ system.
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Product Technical Data	
Building Classification/s;	1, 2, 3 & 4
Type and intended use of a product;	As per Page 1 (The Architects Choice Supplier Technical Statement) Glass Balustrade Panels can be used independently or with Semi Frameless, Chisel Mini Post and Slimline Mini Post Volume Two- H5P2 Fall Prevention Barriers
Description of product;	Frameless Glass Balustrade with Semi Frameless, Chisel Mini Post and Slimline Mini Post
Product specification;	Architects Choice 970 x 1300 x 12mm Glass Balustrade Panel AC 1442
	Architects Choice 970 x 1200 x 12mm Glass Balustrade Panel AC 1449
	Architects Choice 970 x 1100 x 12mm Glass Balustrade Panel AC 1456
	Architects Choice 970 x 1000 x 12mm Glass Balustrade Panel AC 1463
	Architects Choice 970 x 900 x 12mm Glass Balustrade Panel AC 1470
	Architects Choice 970 x 800 x 12mm Glass Balustrade Panel AC 1477
	Architects Choice 970 x 700 x 12mm Glass Balustrade Panel AC 1484
	Architects Choice 970 x 600 x 12mm Glass Balustrade Panel AC 1694

Architects Choice Balustrade Panel Glazing Mark (Ref. 1288-2006);	
5.23	Identification of Safety Glass); and
5.23.3	Minimum Marking Requirements;

Architects Choice Semi Frameless Post (AC1512 Joiner Post and AC1526 End Post) and Cast In Aluminium Joiner and End Posts;	
Architects Choice Chisel Mini Post- (AC1127), (AC1141), (AC1134), (AC1148);	
Architects Choice Slimline Mini Post- Stainless Steel (AC1155), (AC1169);	

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**Friction Fit Handrail (Stainless Steel/ Matt Black), Brackets (Stainless Steel/ Matt Black),
Joiners Straight- Stainless Steel/ Matt Black), Joiner 90 Degree (Stainless Steel/ Matt Black)**



Installation requirements;

Installations of these products are outside the scope of this Product Technical Statement. Each State in Australia has its own regulations regarding balustrade and must be installed in accordance to the relevant Structural/ Civil Engineers specifications, Building Codes, Australian/ New Zealand Standards, Regulations and Legislations.

It is recommended that this product be installed by a suitably qualified tradesperson. The finished balustrade must be inspected and approved by a certified Building Inspector/ Surveyor or Building Authority.

(Refer Fixings below)

Semi Frameless System

1. General information on the installation of this product can be found at:
<https://youtu.be/dF5UxVe9BD0>
2. How to Set Out Semi Frameless Posts Video
<https://youtu.be/INmHw16Rt8k>
3. How to Install "Semi Frameless Post System" Video
<https://youtu.be/xM7IRCDaMTQ>
4. Friction Fit Handrail Installation
https://thearchitectschoice.com.au/wp-content/uploads/diy-installation-guides/AC_HandrailFFninstall_Landscape.pdf
5. Maintenance
<https://thearchitectschoice.com.au/diy-installation-guide-glass-balustrade/#maintenance>
6. Warranty Information
<https://thearchitectschoice.com.au/warranty-information/>

Chisel Mini Post System & Chisel Slimline Post System

1. General information on the installation of this product can be found at:
https://thearchitectschoice.com.au/wp-content/uploads/diy-installation-guides/AC_MiniPostinstall_Landscape.pdf
2. How to Set Out Mini Posts Video
https://youtu.be/87zkwwodE_U
3. Friction Fit Handrail Installation
https://thearchitectschoice.com.au/wp-content/uploads/diy-installation-guides/AC_HandrailFFninstall_Landscape.pdf
4. Maintenance
<https://thearchitectschoice.com.au/diy-installation-guide-glass-balustrade/#maintenance>
5. Warranty Information
<https://thearchitectschoice.com.au/warranty-information/>



Fixings

Semi-Frameless

Substrate Material	Fixing/per base plate	Minimum Geometric Distance
Steel	4x Stainless Steel 316 M8 Bolt	15 mm (edge distance)
Timber (suitable for joint group J1-J2, JD1-JD3 only)	4x Stainless Steel 316 M8 Bolt*	32 mm (from edge of member) 40 mm (from end of member) <i>*Requires minimum 100x100x6mm steel backing plate on opposite fastening end of timber substrate</i>
	4x Stainless Steel 316 M8 coach screw	40 mm (from edge of member) 80 mm (from end of member) 100 mm (embedment depth)
Concrete	4x M8 Hilti HUS-4/Powers Blue Tip II Concrete Anchor or equivalent	60 mm (embedment depth) 150 mm (concrete thickness) 80 mm (edge distance) Specific design required for overall size

Table 2. Fixing Details for Semi-Frameless

Chisel Minipost

Substrate Material	Fixing/per base plate	Minimum Geometric Distance
Steel	4x Stainless Steel 316 M8 Bolt	15 mm (edge distance)
Timber (suitable for joint group J1-J2, JD1-JD3 only)	4x Stainless Steel 316 M8 Bolt*	40 mm (from edge of member) 100 mm (from end of member) <i>*Requires minimum 100x100x6mm steel backing plate on opposite fastening end of timber substrate</i>
	4x Stainless Steel 316 M8 coach screw	40 mm (from edge of member) 80 mm (from end of member) 110 mm (embedment depth)
Concrete	4x M8 Powers Blue Tip II Concrete Anchor or equivalent	70 mm (embedment depth) 150 mm (concrete thickness) 80 mm (edge distance) Specific design required for overall size

Table 3. Fixing Details for Chisel Minipost

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Slimline Minipost

Substrate Material	Fixing/per base plate	Minimum Geometric Distance
Steel	2x Stainless Steel 316 M10 Bolt	20 mm (edge distance)
Timber (suitable for joint group J1-J2, JD1-JD3 only)	2x Stainless Steel 316 M10 Bolt*	40 mm (from edge of member) 50 mm (from end of member) <i>*Requires minimum 150x120x6mm steel backing plate on opposite fastening end of timber substrate</i>
	2x Stainless Steel 316 M10 coach screw	50 mm (from edge of member) 100 mm (from end of member) 170 mm (embedment depth)
Concrete	2x M10 Hilti HUS-4/Powers Blue Tip II Concrete Anchor or equivalent	105 mm (embedment depth) 150 mm (concrete thickness) 100 mm (edge distance) Specific design required for overall size

Table 4. Fixing Details for Slimline Minipost

Other relevant technical data;

H5P2- Fall prevention barriers

1. A barrier must be provided where people could fall-
 - (a) 1m or more-
 - (i) from a floor or roof or through an opening (other than through an openable window) in the external wall; or
 - (ii) due to a sudden change of level within or associated with a building;
2. A barrier required by (1) must be—
 - (a) continuous and extend for the full extent of the hazard; and
 - (b) of a height to protect people from accidentally falling from the floor or roof or through the opening or openable window; and
 - (c) constructed to prevent people from falling through the barrier; and
 - (d) capable of restricting the passage of children; and
 - (e) of strength and rigidity to withstand—
 - (i) the foreseeable impact of people; and
 - (ii) where appropriate, the static pressure of people pressing against it.

Evaluation Statements

Evaluation methods;

PCME Certifications has followed the following procedures for compiling of Protector Premium Architects Choice (branded) Balustrade Supplier Statement;

- Assessment of the Architects Choice (branded) Balustrade products
- Assessing a quality plan for the Protector Aluminium and Glass Pty Ltd Balustrade that conforms to ISO1005
- Reviewing testing of samples supplied to ascertain whether the product meets the performance requirements specified on this Technical Statement; and
- Conducting site audits of the factory to verify compliance of the Protector Aluminium and Glass Pty Ltd Architects Choice Balustrade Systems

Note; The Product Technical Statement Holder has chosen not to make the above evidence of compliance publicly available, due to the documents being considered commercial confidence. For validation of the mentioned test reports Building Authority must contact the Product Statement Holder directly.

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Reports;

- a) Brevity
Project Number: 22083364-04-3
Design of Balustrade Systems- Semi Frameless, Chisel Mini Post and Slimline Mini Post
Date of issue: 13th July 2023
- b) Certificate of Compliance Regulation 126
Brevity
Endorsed Engineer- Matthew Bishop
Address- Victoria Park Market, Unit 72B, 31A Drake Street, Auckland 1010
RPEQ: 22712
Date of issue: 13th July 2023
- c) Form 15
Brevity
Endorsed Engineer- Matthew Bishop
Address- Victoria Park Market, Unit 72B, 31A Drake Street, Auckland 1010
RPEQ: 22712
Date of issue: 13th July 2023
- d) Standardsmark Licence
SAI Global
Manufactured to: AS/NZS 2208:1996- Safety Glazing Materials in Buildings
Licence Number- SMK40802
Issued- 4 November 2022
Expires- 15 January 2028
- e) GRG Consulting Engineers
Endorsed Engineer- Gary Gibson
RPEQ: 07587
CPEng: 1302262
RBP Civil: EC41474
RBP Mech: EM41473
Project No: 20-3169
Balustrade Spigot Certification
General Arrangement 3 x 1200mm Panels
Drawing Number: 20-3169-001

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Scope of Supplier Technical Statement:

The PCME (Product Compliance Made Easy) Product Technical Statement is to confirm that the relevant requirements of the Building Code of Australia (BCA) as claimed have been met. The responsibility for the product performance and its fitness for the intended use remain with the Supplier Technical Statement Holder. PCME Certification ensures all requirements to be classed as "Product Technical Statement", as per the National Construction Code for demonstrating compliance are fulfilled.

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Note: This Product Technical Statement is only valid when reproduced in its entirety.

Stefan Ossenberg

PCME Certifications Representative Name

A handwritten signature in blue ink, appearing to read 'Stefan Ossenberg', written over a light blue circular stamp.

Signature

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