Test Report

AZUMA
Design

Pool Fence

Client – Glass Hardware Australia

Product – Polaris Soft Close Hinge 125 Series

Tested By

Azuma Design Pty Ltd

AZT0350.20

Nata Accredited Laboratory No. 15147

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

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards

1 Customer Requirements

To test the pool fence sample according to AS1926.1 Set 2012- Swimming Pool Safety Standards Set- Section 3- Loading Requirements. Only the applicable tests for this type of sample shall be carried out.

2 Test Sample Information

2.1 General Information

Product Name/Number	Polaris Soft Close Hinge 125 Series
Customer	Glass Hardware Australia
Address	Unit 6, 4 Stockyard Place, West Gosford NSW 2250
Azuma Test Number	AZT0350.20
Date of Test	24/08/2020 – 03/09/2020
Sample	Supplied and installed by Customer in good condition
Overall Size	1245 mm (Height) x 2720 mm (Width)
Test Sample Description	Glass gate assembly consisting of three panels of glass. Two side fixed glass panels one with a latching bracket and the other with hinge fixings for two hinges. Hinges have soft closing action and the latch has a magnetic strike and bolt.

2.2 Barrier

Material		Toughened Glass
Overall Dimensions	**Hinge Panel**	1170 mm (H) x 100 mm (W) x 12 mm (T)
	Latch Panel	1170 mm (H) x 800 mm (W) x 12 mm (T)
Gap between Vertical Elements (< 100 mm)		N/A
Gap between Horizontal Elements (> 900 mm)		1245 mm
Total Product Height Greater than 1100 mm		1245 mm
Gap between bottom of barrier and finished ground level (< 100 mm)		75 mm

2.3 Gate

Material	Toughened Glass
Overall Dimensions	1170 mm (H) x 900 mm (W) x 12 mm
Gap between Vertical Elements (< 100 mm)	10 mm Latch side 8 mm Hinge side
Gap between Horizontal Elements (> 900 mm)	1245 mm
Total Product Height Greater than 1100 mm	1245 mm
Gap between bottom of barrier and finished ground level (< 100 mm)	75 mm

2.4 Spigots (Supplied by Azuma Design)

Material	Duplex 2205 Stainless Steel
Overall Dimensions	50 mm (Width) x 50 mm (Depth) x 160 mm (Height)
Base Plate (if applicable)	100 mm (Width) x 100 mm (Depth) x 8 mm (Thickness)
Drawing Supplied	N/A
Fixing Method	14G x 50 mm Countersunk hex drive screw into timber
Spacing between Posts	220 mm (Left Side) and 700 mm (Right Side)

2.5 Hardware

Latch	Polaris Latch L180P
Hinge	Polaris 125 Series Polaris Soft Close Hinge

Figure 1: Tested Hinge

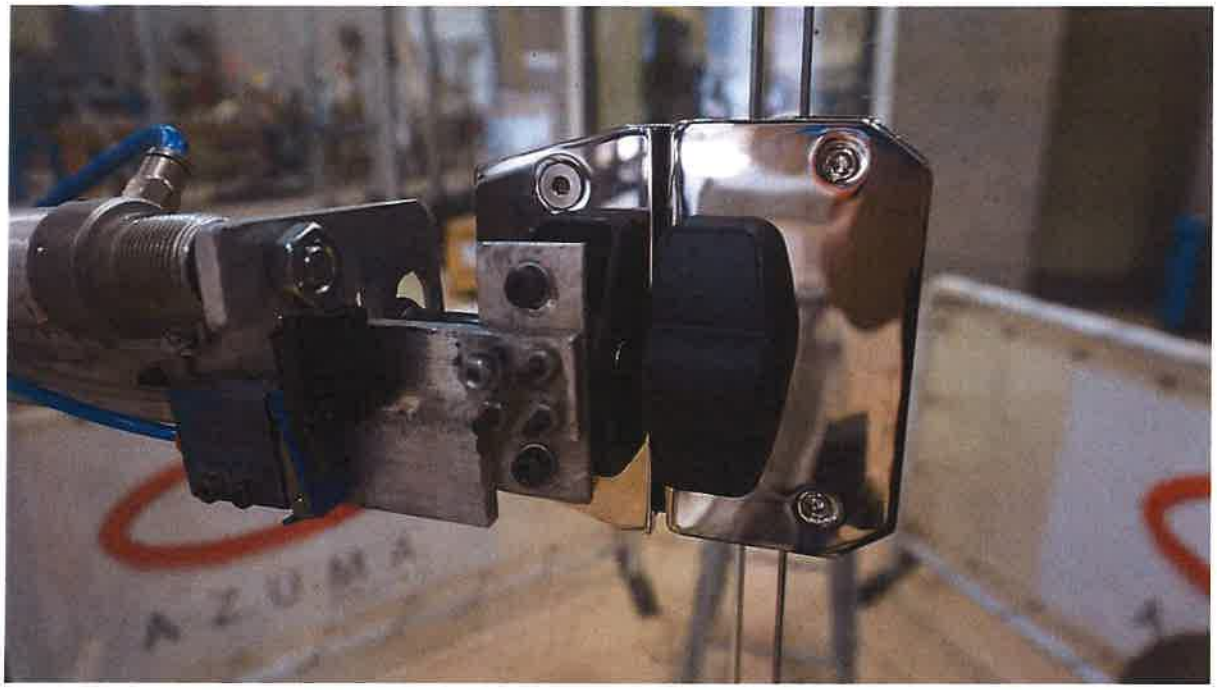


Figure 2: Tested Latch

3 Strength and Rigidity of Barrier Openings

This Test is not applicable to this test sample

4 Strength of Posts and Footings

This Test is not applicable to this test sample

5 Strength of Fencing Components

This Test is not applicable to this test sample

6 Flexible Materials & Components

This Test is not applicable to this test sample

7 Strength Test for Rigid Components of Gate Units

This Test is not applicable to this test sample

8 Durability of Gate Units

8.1 Procedure

From AS 1926.1 - 2012 - Appendix F - Test of Durability of Gate Units.

1. Install the gate unit in accordance with the manufacturer's instructions on a site which simulates the in situ condition with the gate posts securely anchored into the ground.
2. Ensure that the gate and its latch comply with Clause 2.4.
3. Measure and record the force (to the nearest 5 N) required to release the latch.
4. Release the latch and open the gate to the 90-degree position.
5. Release the gate and allow it to close under the action of the self-closing device.
6. Repeat Steps (d) and (e) for a total of 10 000 operations or until the latch fails to operate, whichever occurs first. The latch shall not be lubricated or adjusted during this test.
7. Inspect the gate to see whether it still complies with Clause 2.4.
8. Measure and record the force (to the nearest 5 N) required to release the latch.
9. Inspect the gate, including the hinges and latch together with the gate posts, for any damage which would affect the ability of the gate to comply with the requirements of Section 2.

8.2 Results

Number of Operations the sample completed	25,068 cycles
Does the gate still comply with clause 2.4 after test completed	Yes
The force required to release the latch at the start of the test	10 N
The force required to release the latch at the end of the test	10 N
Any damage to the gate, hinges, latching device or gate posts at the end of the test	Nil
Result	Pass

9 Additional Testing for Gate Units

From AS 1926.1 - 2012 - Section 3.4 - Closing and Latching of Gates.

1. The gate shall close and latch from fully open to resting on the latch, under both of the following conditions:
    a. Under the natural weight of the gate.
    b. With the gate open and after a weight of 25 kg has been placed on the top rail or component at a point 100 mm from the outer edge of the locking stile of the gate for 30 seconds and then removed.
2. With the gate closed, the latch and posts of the barrier to which the gate is attached shall be capable of retaining the gate in a closed position when 25 kg is placed at the same location and remains on the gate.

Gate Closes under natural weight	Pass
Gate opened and 25 kg placed 100 mm from locking stile	Pass
Gate closed and 25 kg placed 100 mm from locking stile	Pass
Result	Pass

Figure 3: 25 kg Gate Open

Figure 4: 25 kg Gate Closed

10 Conclusion and Signatories

10.1 Conclusion

From the results achieved, it is evident that the sample satisfied the tested requirements as per AS1926.1-2012 Swimming Pool Safety Standards Set.

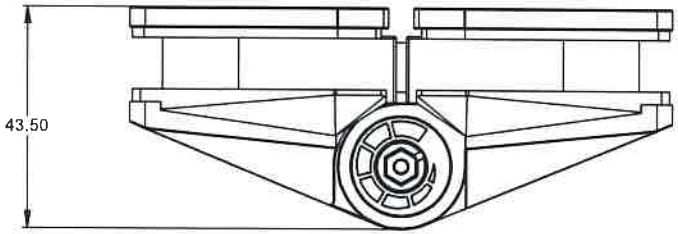
10.2 Signatories

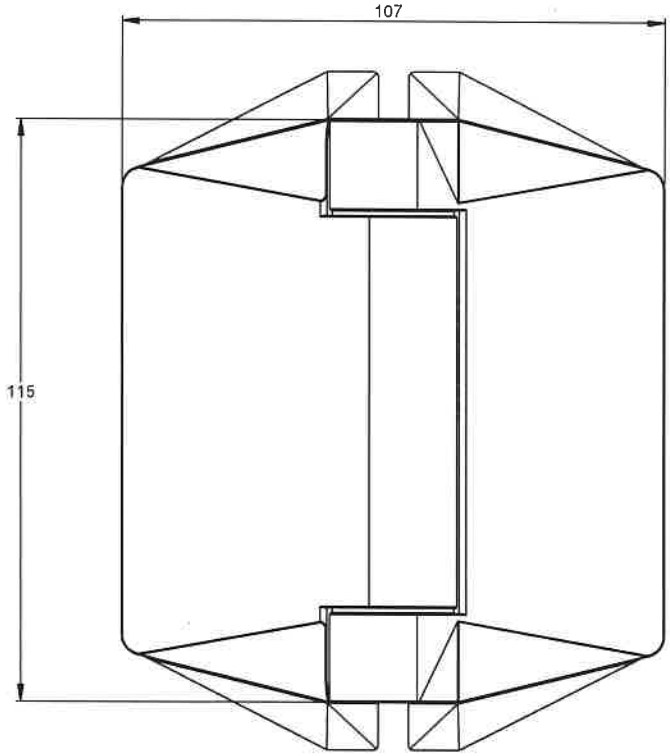
Tested By: Ash Horne

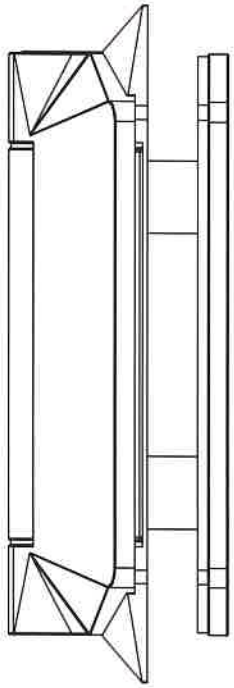
Signature: A Horne

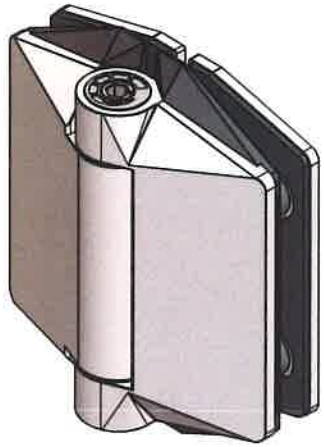
Date: 01/10/20

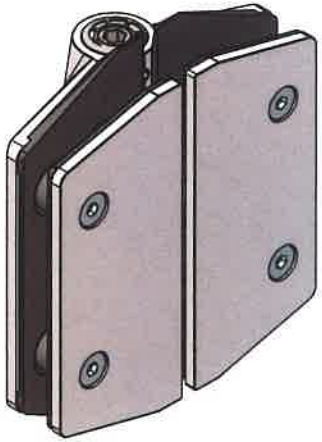
END OF REPORT





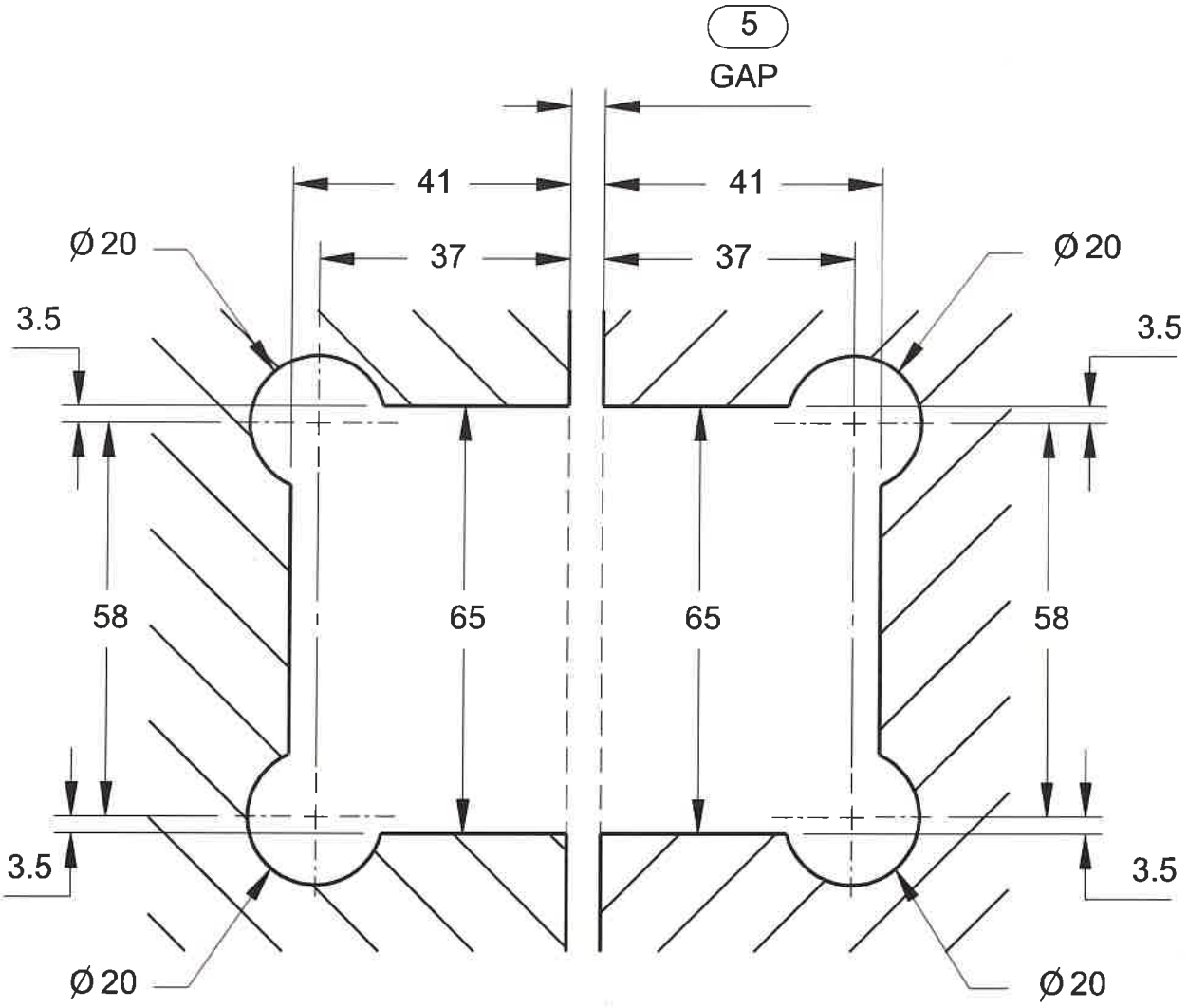






PROJECTION METHOD: THIRD ANGLE	DRAWING SCALE: DO NOT SCALE FROM THIS DRAWING	THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATERIALS SET OUT ON IT ARE CONFIDENTIAL AND THE COPYRIGHT PROPERTY OF POLARIS HINGE + GLASS HARDWARE AUSTRALIA P/L. IT MUST NOT BE DISCLOSED, COPIED, LOANED IN WHOLE OR PART OR USED FOR ANY PURPOSE WITHOUT THE PERMISSION OF SHRUDE AND/OR THEIR CLIENT	POLARIS SOFT CLOSE HINGE	DRAWN BY: CAS	DRAWN DATE: 26/05/2020	PROJECT: POLARIS 125 HINGE - GG		TITLE: 125GG HINGE - GA	
UNLESS OTHERWISE STATED LINEAR TOL.: ±0.2mm, ANGULAR TOL.: 0°5' SURFACE FINISH: 0.8µm DIMENSIONS IN: mm				APPROVED BY: -	APPROVED DATE: -	MATERIAL: SEE PARTS		PART NUMBER: 125GG-001	
						FINISH: TBA	EST. WEIGHT: 1216.20g	SHEET SIZE: A3	SHEET: 1 of 2	REV: C

GLASS PREPARATION
120, 220 & 320 SERIES HINGE
GLASS TO GLASS



GLASS CUT-OUT TOP AND BOTTOM
(ALL DIMENSIONS IN MILLIMETERS)

POLARIS
SOFT CLOSE HINGE

INFORMATION SUPPLIED BY CUSTOMER

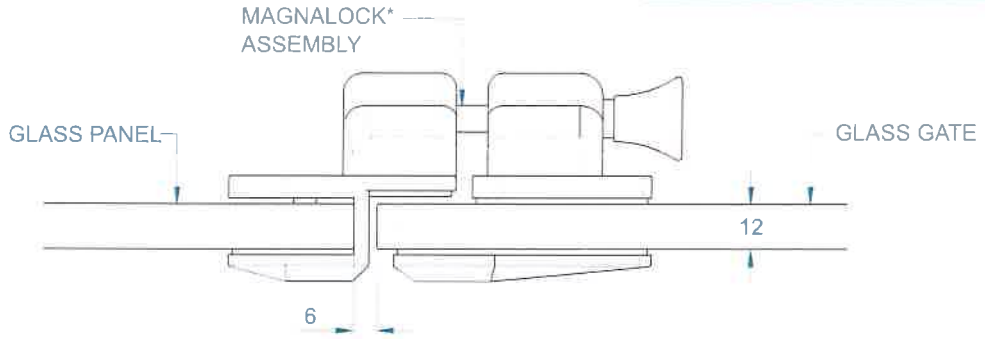
AZT0350.20

LATCH GLASS TO GLASS 180°

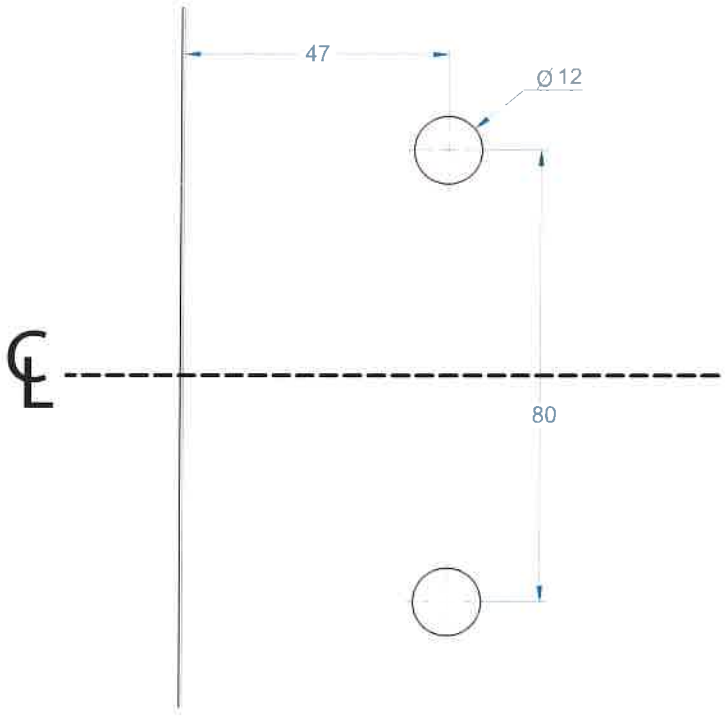
TO ORDER SPECIFY:

- **LAGG180P** POLISHED FINISH
- **LAGG180S** BRUSHED FINISH
- **LAGG180B** BLACK FINISH

*MAGNALOCK NOT INCLUDED



TOP VIEW



GLASS GATE HOLES

INFORMATION SUPPLIED BY CUSTOMER

POLARIS
SOFT CLOSE HINGE

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