
TEST REPORT



A Z U M A
Design

POOL FENCE



CLIENT – TCT GROUP PTY LTD

PRODUCT – ORION SOFT CLOSE HINGE

TESTED BY

AZUMA DESIGN PTY LTD

AZT0010.22

NATA ACCREDITED LABORATORY NO. 15147

This document shall not be reproduced, except in full

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. Customer is only looking at the performance of the hinges without the latch.

2 Test Sample Information

2.1 General Information

Product Name/Number	Orion Soft Close Hinge
Customer	TCT Group PTY LTD
Address	1 Harbord Street, Clyde NSW 2142
Azuma Test Number	AZT0010.22
Date of Test	02/02/2022 – 16/02/2022
Sample Installation	TCT Group PTY LTD
Overall Size	3625 mm (Width) x 1252 mm (Height)
Test Sample Description	Glass panels held by deck mounted spigots, sample contains two hinges and no latch mechanism. Sample does include the gate leaf stop at latch position.

2.2 Barrier

Material	12 mm Toughened Glass		
Glass Designation	Latch Side	Hinge Side	
Overall Dimensions	Horizontal	1100 mm	1600 mm
	Vertical	1200 mm	1200 mm
Gap between Vertical Elements (< 100 mm)	10 mm		
Spacing between Vertical Elements	N/A		
NCZ between Horizontal Elements (>900 mm)	1032 mm (Hinges), 1101 mm (Spigot)		
Total Product Height Greater than 1100 mm	1252 mm		
Gap between bottom of barrier and finished ground level (< 100 mm)	52 mm		

2.3 Gate

Material	12 mm Toughened Glass
Overall Dimensions	900 mm (Width) x 1200 mm (Height)
Gap between Vertical Elements (< 100 mm)	10 mm
NCZ between Horizontal Elements (>900 mm)	1032 mm (Hinges), 1101 mm (Spigot)
Total Product Height Greater than 1100 mm	1252 mm
Gap between bottom of barrier and finished ground level (< 100 mm)	52 mm

2.4 Spigots

Material	Duplex 2205 Stainless Steel
Overall Dimensions	50 mm x 50 mm x 155 mm
Base Plate (if applicable)	100 mm 100 mm x 10 mm
Drawing Supplied	
Fixing Method	Timber Screws with washers
Spacing between Posts	900 mm (Hinge Side), 500 mm (Latch Side)

2.5 Hardware

Latch Product Name	Not Installed
Latch Manufacturer	N/A
Latch Position	N/A
Latch Type	N/A
Hinge Product Name	Orion Soft Close Hinge
Hinge Manufacturer	TCT Group PTY LTD
Number of Hinges	2
Hinge Positions	87.5 mm from top and bottom of gate panel
Hinge Type	Hydraulic + Ramp

3 Strength and Rigidity of Barrier Openings

Not Required for customer test sample

4 Strength of Posts and Footings

Not Required for customer test sample

5 Strength of Fencing Components

Not Required for customer test sample

6 Flexible Materials & Components

Not Required for customer test sample

7 Strength Test for Rigid Components of Gate Units

Not Required for customer 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	10,000 cycles	25,000 cycles
Does the gate still comply with clause 2.4 after test completed	Yes	Yes
The force required to release the latch at the start of the test	No latch installed	No latch installed
The force required to release the latch at the end of the test	No latch installed	No latch installed
Any damage to the gate, hinges, latching device or gate posts at the end of the test	Nil	Nil
Result	Pass	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.

Number of Cycles Completed	10,000 cycles	25,000 cycles
Gate Closes under natural weight	Yes	Yes
Gate opened and 25 kg placed 100 mm from locking stile	Yes	Yes
Gate closed and 25 kg placed 100 mm from locking stile	Not tested, no latch installed	Not tested, no latch installed
Result	Pass	Pass

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 for the hinges installed only.

10.2 Signatories

Tested By:

Ash Horne

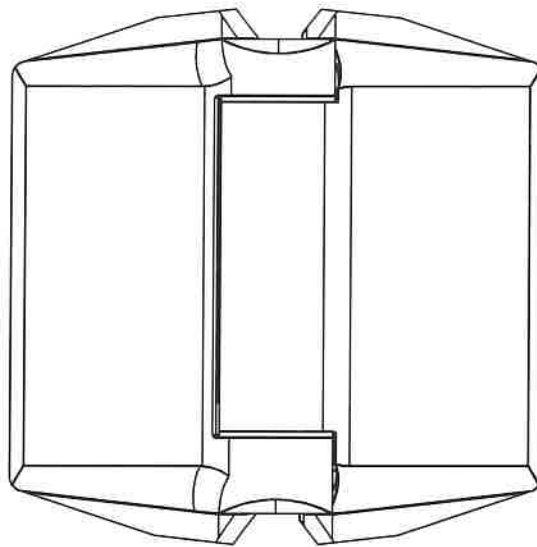
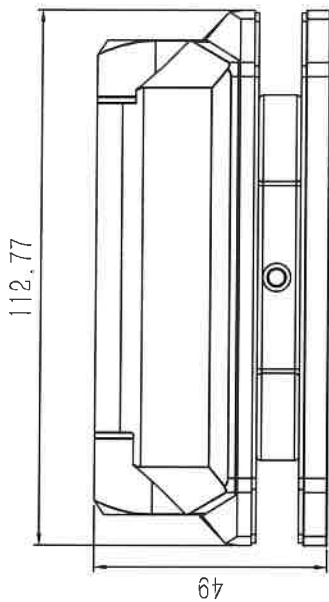
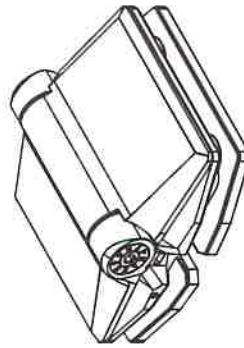
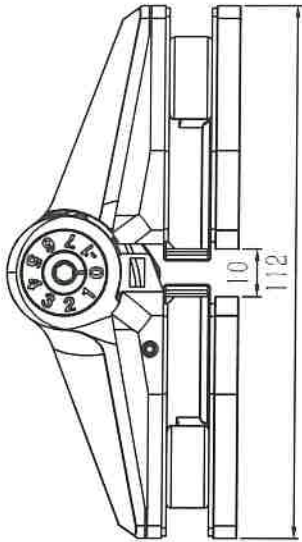
Signature:

AHorne

Date:

16/02/2022

END OF REPORT



INFORMATION SUPPLIED BY CUSTOMER