

LABORATORY TEST REPORT

000641



Report Title: Spiraweld Stainless Ltd - Pipe DF DN200 x 425mm PN16 Pressure Testing

Report: **GMT No.** 000641 **Date:** 14 March 2025

Laboratory: Gillies Metaltech Laboratory
Address: 28 Tyne Street, Oamaru
New Zealand

Customer: Spiraweld Stainless Ltd
Address: 6 Rylock Place
Pakuranga
Auckland 2010

Purpose: To free-end hydrostatically pressure test the supplied spiral-welded Pipe DF DN200 x 425mm

Method:

- The supplied pipe was bolted into the tester at one end with the other end being capped.
- Inside flange-to-flange distance and outside diameter was measured prior to pressurising.
- The test fitting was pressurised to 38 Bar and monitored for signs of leakage at the welds.
- Measurements were repeated whilst under pressure and again after pressure was released to assess the pipe for distortion.

Destruction Test

- The test pipe was pressurised to 45 bar however the test was aborted due to the PN16 gasket failing.

Apparatus: 500mm Digital Callipers, 50-300mm Diameter Tape, Hydrostatic Pressure Tester

Testing Date(s): 14 March 2025

Summary

- The supplied spiral welded pipe showed no signs of leakage at visible welds.
- Post test dimensions showed a minimal increase as below:

Dimension	Measurement Increase
Outside Diameter	0.1mm
Inside FI-FI	0.37mm

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000641

- Testing was conducted at ambient temperature; this may have contributed to the increase of the outside diameter observed.
- Bolt torque was increased during the test and may have contributed to the inside flange to flange measurement increase observed.

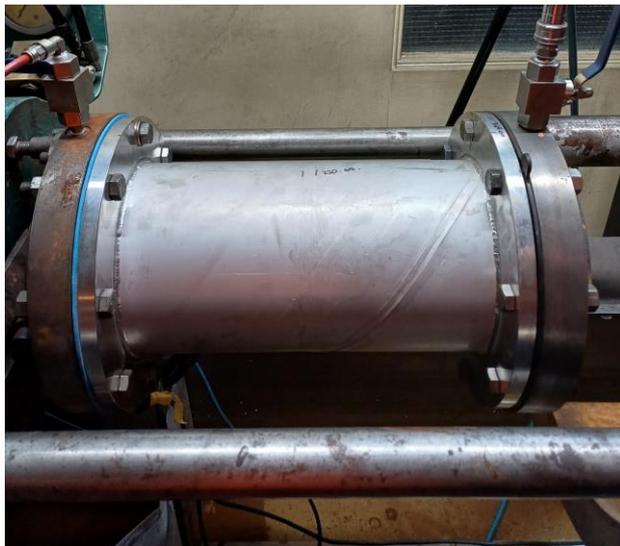
Results: *(All tests carried out at Gillies Metaltech Laboratory unless stated otherwise)*

- The test pipe was pressurised to 39.08 Bar at ambient temperature.
- No leakage was observed from visible welds.
- The depressurised fitting was dimensionally measured and compared with initial measurements– minimal difference in measurements was noted.
- The pipe was pressurised to approximately 45 Bar before the PN16 rated gasket failed.
- No leakage was observed from visible welds.

Pressure Test – 38 Bar (39.08 actual)

<i>Dimension</i>	<i>Pre-Pressure (mm)</i>	<i>During Pressure (mm)</i>	<i>Post Pressure (mm)</i>
Inside FI-FI	385.0	386.62	385.37*
Outside Diameter	220.45	220.65	220.55

* Bolt torque was increased during the test.



Test Set Up

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000641



Testing Completed by:

Name(s): K Kovacs

Name: Russell McCabe

Position(s): Quality Coordinator

Position: R&D Technical Manager

Signature:

A handwritten signature in blue ink, appearing to read "K Kovacs", written over a horizontal line.

Signature:

A handwritten signature in blue ink, appearing to read "RJM McCabe", written over a horizontal line.

Date: 14 March 2025

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