

HYDROSTATIC PRESSURE TESTING

PRESSURE TESTED. LOGGED TO PROVE IT.

NATA accredited hydrostatic testing of pipe spools, piping, fittings and pressure vessels, in our Darwin workshop or on site. Hand pumps give a controlled rise on small spools, three Haskel pumps handle the big ones, and ESI loggers record pressure and temperature up to 100,000 kPa.

NATA 0–100,000 KPA | AS 4041 | AS 1210 | AS/NZS 3788 | ASME B31.3 | ASME VIII

PRESSURE & TEMPERATURE LOGGED

NATA ACCREDITED · NO. 12303

TESTED TO THE CODE, INSIDE OUR NATA SCOPE.

Our NATA accreditation covers hydrostatic pressure testing of piping, pressure fittings and vessels from 0 to 100,000 kPa, to the codes below. Tests to other specifications run the same way and are reported without the NATA endorsement.

SECTION 17
AS 4037
Pressure equipment: examination and testing

SECTION 6.7
AS 4041
Pressure piping

SECTION 10.5
AS 1210
Pressure vessels

APPENDIX A8
AS/NZS 3788
Pressure equipment: in-service inspection

PARA 137
ASME B31.1
Power piping

PARA 345
ASME B31.3
Process piping

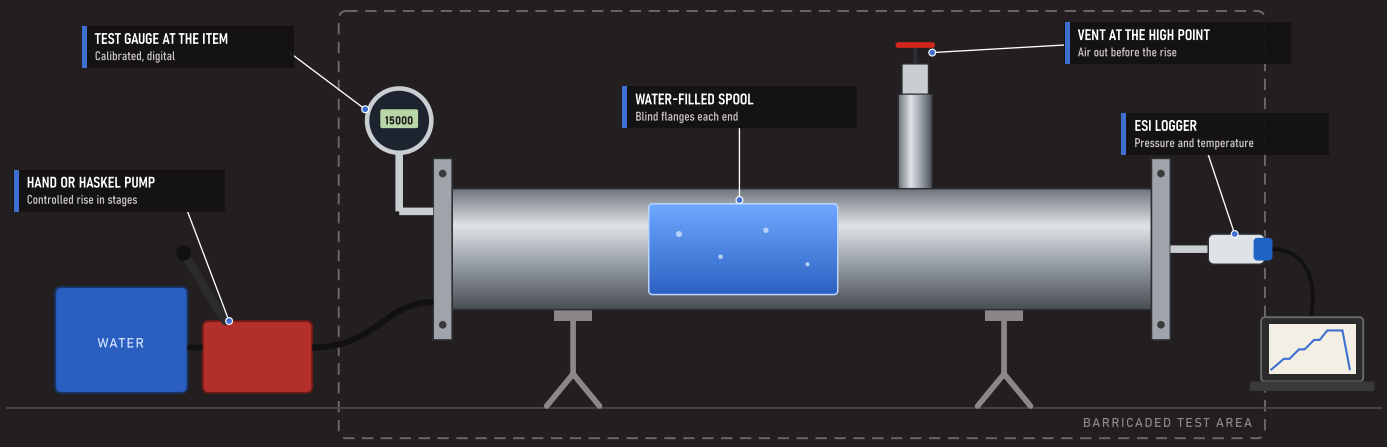
DIV 1, UG-99
ASME VIII
Pressure vessels

OUTSIDE SCOPE
YOUR SPEC
Other codes, reported without the NATA endorsement

HOW A TEST RUNS

FILLED, VENTED, RAISED IN STAGES, HELD AND LOGGED.

ILLUSTRATION



01
PLAN
Test pressure, holds and hold time from the code, design and ITP.

02
FILL & VENT
Filled with water, air vented from the high points.

03
RAISE
Pressure raised in stages, with a hold at each.

04
HOLD & INSPECT
Held at test pressure while joints and welds are checked.

05
RELEASE
Released in stages, drained, chart into the report.

WHY WATER
Water barely compresses, so a hydro test stores far less energy than a pneumatic test at the same pressure.

WHY VENT THE AIR
Trapped air stores energy and makes the pressure creep. Venting gives a safer test and a true reading.

WHY LOG TEMPERATURE
Water pressure follows its temperature during a hold. Logging both shows whether a drop is heat or a leak.

PUMPS, GAUGES AND LOGGERS

PUMPED, GAUGED AND LOGGED.

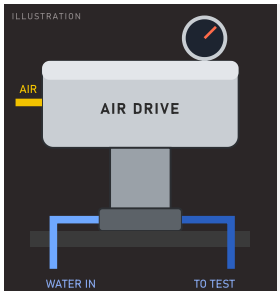
Hand pumps give a slow, controlled rise on small spools and fittings. Three air-driven Haskel pumps fill and pressurise large spools and vessels. Every test is read on a calibrated digital gauge and logged.



SMALL SPOOLS

HAND PUMPS

Up to 100,000 kPa, with a slow, controlled rise and fine control at each hold.



LARGE SPOOLS

3 × HASKEL PUMPS

Air-driven pumps for large spools and vessels. They pump up to the set pressure, then hold it steady.



EVERY TEST

ESI LOGGERS

ESI GD4200-USB, 0–100,000 kPa, logging pressure and temperature.



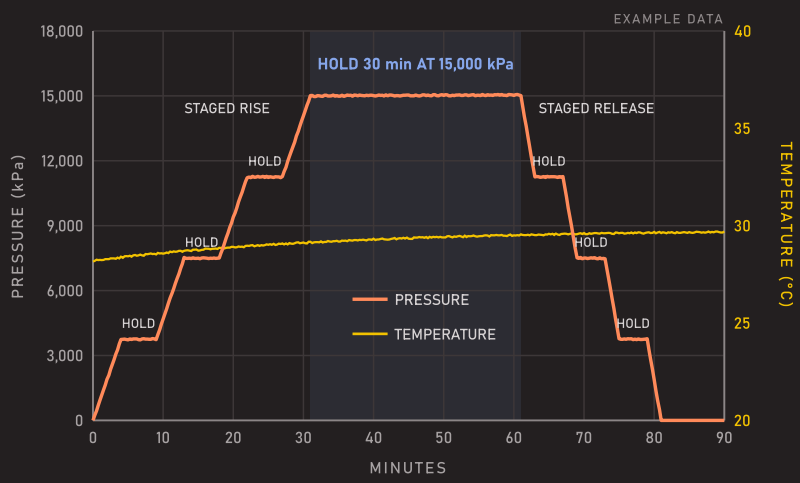
AT THE ITEM

DIGITAL TEST GAUGES

Calibrated Crystal XP2i digital gauges, fitted to the item under test.

LOGGED, NOT JUST WATCHED

PRESSURE AND TEMPERATURE, ON ONE CHART.



Example data. The code, design pressure and your ITP set the test pressure, stages and hold time.

LOGGED THROUGH THE WHOLE TEST

The ESI logger records pressure and temperature from fill to release, not just a reading at the start and end.

CHART IN THE REPORT

The chart goes in the report with the hold marked, so your QA has the evidence, not just a signature.

CALIBRATED GAUGE, EVERY TEST

Every hydrostatic test is run on a calibrated gauge, with its details on the report.

100,000 KPA
NATA range, hand pumps and loggers

3
Air-driven Haskel pumps

P + T
Pressure and temperature on every test

WHAT YOU GET

A TEST REPORT WITH THE CHART ATTACHED.

DITS

HYDROSTATIC TEST REPORT

Example

REPORT NO.	HT-EXAMPLE-01	LOCATION	DITS workshop, Darwin
TESTED TO	AS 4041, section 6.7	TEST MEDIUM	Water, vented
PUMP	Hand pump	LOGGER	ESI GD4200-USB, DO1902
GAUGE	Crystal XP2i, DO1922	HOLD	30 min at test pressure

ITEM	SIZE	DESIGN KPA	TEST KPA	HOLD	DROP	LEAKS	RESULT
SP-01	DN150	10,000	15,000	30 min	Nil	Nil	Pass
SP-02	DN100	10,000	15,000	30 min	Nil	Nil	Pass
SP-03	DN50	19,600	29,400	30 min	Nil	Nil	Pass
SP-04	DN200	4,000	6,000	30 min	Nil	Nil	Pass

EXAMPLE



Each item was held at test pressure for the time shown, with no leaks and no visible deformation. The logged pressure and temperature chart is attached.

Accredited for compliance with ISO/IEC 17025, Testing. NATA accreditation No. 12303.

TECHNICIAN SIGNATURE DATE

WITH EVERY TEST

- A NATA-endorsed report for tests within our scope
- The logged pressure and temperature chart
- Item IDs, design and test pressure, hold and result
- Gauge and logger IDs with calibration details
- Photos of the set-up

WHAT WE NEED FROM YOU

- Design pressure and code, or the test pressure
- Drawings or isometrics showing the test boundary
- On site: a water supply and a drain point



IN OUR DARWIN WORKSHOP

Bring spools, fittings and fabrications in, and they're tested and reported without tying up your yard.



ON SITE, INCLUDING REMOTE

We take the pumps, gauges and loggers to installed piping and vessels, from Darwin to remote sites.

SPOOLS READY FOR A HYDRO TEST?

Swift reporting, round the clock.

NATA 12303 | ISO 9001 | AINDT

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