

Testing & evaluation to ATS 5200.103:2004 of Water conditioner Model - House Unit

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Client
Natural Action Technologies Inc.
475 W Mesa Lane Camp Verde
Arizona 86322 United States of America

Commercial-in-confidence



NATA Test Laboratory
Accreditation No. 165
Corporate Site No. 4580
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Limitation

The results reported herein relate only to the item(s) tested.

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Testing & evaluation to ATS 5200.103:2004 of Water conditioner Model - House Unit

1 Introduction

1.1 Client details

The sponsor (Client) for this CSIRO report was Australian Certification Services acting on behalf of Natural Action Technologies Inc. 475 W Mesa Lane Camp Verde Arizona 86322 United States of America.

1.2 Description of specimen

The Client supplied and identified the following water treatment unit for testing:

Table 1 Summary of submitted test specimen

MODEL	DESCRIPTION
House Unit	Water conditioner, plastic bodied, 3/4" female threaded connector ends

Note: CSIRO accepts no responsibility for the selection of specimens. The results in this report apply to the specimens tested and may not be applicable to other specimens of the same product.

1.3 Test Standard

Water conditioner, Model - House Unit was tested and evaluated to following:

Table 2 Testing schedule for submitted test specimen

Product	Test Requirements
Water conditioner, Model – House Unit	ATS 5200.103:2004, Technical Specification for plumbing and drainage products Part 103: Water treatment systems (other than those specified in AS/NZS 3497) Section 9, Performance Requirements Clause number 9.2 Hydrostatic test, 2000 kPa Clause number 9.3 Endurance test, 100 000 cycles, ambient conditions

Note the testing schedule for the Water conditioner was drafted and submitted to CSIRO by the Client.

1.4 Apparatus

Water conditioner was tested and evaluated within the CSIRO Hydraulics laboratory facility at North Ryde.

The following table identifies the instrumentation, accuracy and uncertainty limits used for the product performance tests:

Instrumentation	Limits of measuring accuracy and uncertainty
Pressure gauge	0.001 bar and uncertainty of measurement at 95% confidence level, $K = 2$, ± 0.002 bar
Temperature	0.0°C and uncertainty of measurement at 95% confidence level, $K = 2$, ± 0.1 °C
Timer	00 (minutes):00(seconds):00(tens of second) and error ± 0.2 s over 24 hours

2 Results summary

This section summaries the results from testing and evaluation to the relevant clauses of the Standard(s).

2.1 ATS 5200.103:2004 Technical Specification for plumbing and drainage products – Part 103: Water treatment systems (other than those specified in AS/NZS 3497)

SECTION 5 – TESTS

Refer to below table and attached CSIRO Test Sheet of this report.

Table 3 Summary of test results for submitted test specimen

CLAUSE NUMBER	SPECIMEN MODEL ID	RESULTS
9.2 Hydrostatic test	Water conditioner, Model - House Unit	Body and connections of the water conditioner unit complied with this clause.
9.3 Endurance test	Water conditioner, Model - House Unit	Body and connections of the water conditioner unit complied with this clause.

Note: The above is only a summary of the overall results, and must be read in conjunction with the relevant Appendices of this report.



SJ Smith
Project Leader/Technical Manager



G Williams
Technical Officer

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Appendix A Test Sheet – Water Conditioner Unit

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SPECIMEN MODEL	CSIRO REPORT No.	TEST SHEET	1
House Unit	HHI 3054	PAGE	1 of 2

DESCRIPTION: Water conditioner, Model - House Unit, plastic bodied, ¾" female threaded ends.

SUPPLIER: Natural Action Technologies Inc.

JOB NUMBER: WBS2 R-90504-11 HI 3149

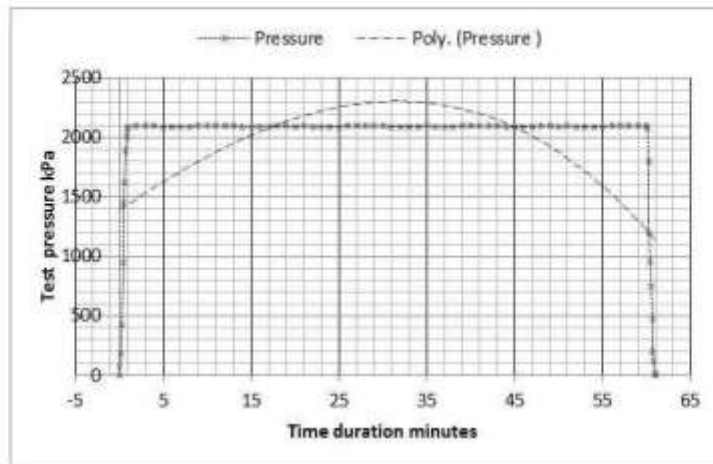
RESULTS The results for compliance with specifications are shown in the following pages under the relevant clause numbers:


Note: # Denotes compliance with specification not established.
 ## Denotes non-compliance with specifications.

ATS 5200.103:2004 Technical Specifications for plumbing and drainage products.
Part 103: Water treatment systems (other than those specified in AS/NZS 3497)

Section 9 Performance Requirements

9.2 Hydrostatic Test	
Water conditioner, Model - House Unit, was subjected to hydrostatic pressure test.	
Test	Observation :
Water conditioner was subjected to a hydrostatic pressure of 2000 +100 – 0 kPa for duration of 60 + 10 – 0 minutes. Water temperature was 23 ± 2 °C	The bodies and all connection joints of the water conditioner showed no sign of leakage or other failure.



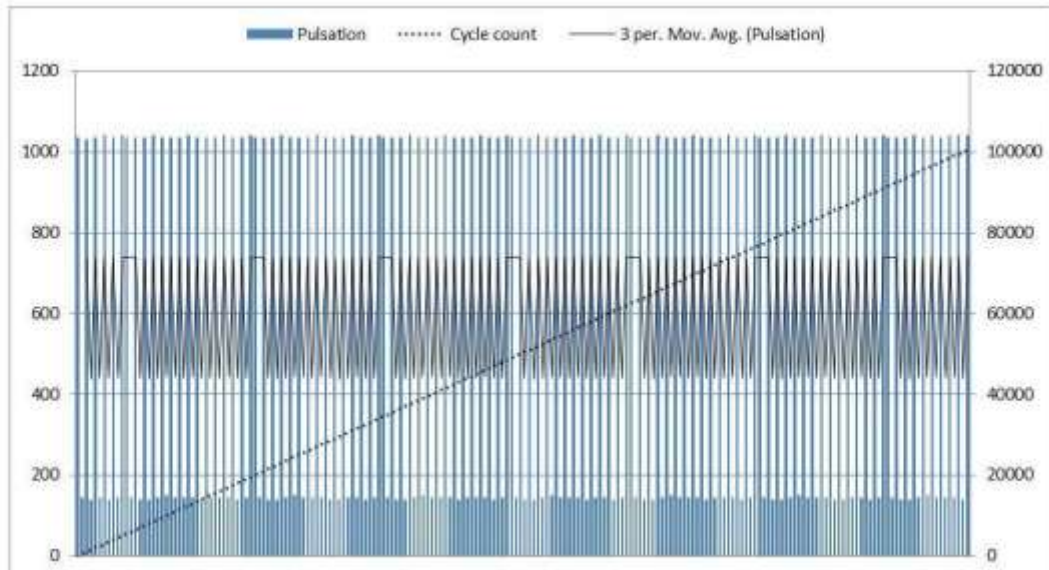
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	This test sheet may only be reproduced in full.	

SPECIMEN MODEL	CSIRO REPORT No.	TEST SHEET	1
House Unit	HHI 3054	PAGE	2 of 2

9.3 Endurance Test

Water conditioner, Model - House Unit, was subjected to cyclic pressure test in accordance with AS 3707.

Test	Observation :
Water conditioner was subjected to a 100 000 cycle pressure test. Pressure pulsations between 0 + 20 kPa and 1034 +20 – 0 kPa at a frequency of 30 ± 2 cycles per minute. Water temperature was 23 ± 2 °C (ambient)	Water conditioner completed endurance test without failure. The bodies and all connection joints of the water conditioner showed no sign of leakage or other failure.



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Testing Officer: *[Signature]*
 Name: Glenn Williams
 Date: 4/05/2017

Signatory: *[Signature]*
 Name: Stephen Smith
 Date: 4/05/2017

Appendix B Product Image – House Unit



End of report

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