

TEST REPORT

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Report Number: 1707-12002-004

Report Issued: October 19, 2012

Project No.: 20461

Client: Watermiser Manufacturing Company
1106 Second Street, Suite # 637
Encinitas, CA 92024

Contact: Mr. Ken Margulis

Source of Samples: The samples were sent by Watermiser Manufacturing Company and received by IAPMO R&T Lab in good condition on May 23, 2012, July 19, 2012, August 23, 2012 and September 21, 2012.

Date of Testing: June 11, 2012 through October 16, 2012

Sample Description: 303 stainless steel shower flow control valves

Models: FCVSSS Series: 1.5 GPM, 1.75 GPM, 2.0 GPM, 2.25 GPM and 2.5 GPM

Scope of Testing: The purpose of the testing was to determine if the samples tested of the 303 stainless steel shower flow control valves met the applicable requirements of ASME A112.18.1-2011/CSA B125.1-11 (with Updated No. 1 dated November 2011), entitled, "Plumbing Supply Fittings".

Conclusion: The samples tested of the 303 stainless steel shower flow control valves, FCVSSS Series as listed above, from Watermiser Manufacturing Company **COMPLIED** with the applicable requirements of ASME A112.18.1-2011/CSA B125.1-11 (with Updated No. 1 dated November 2011).

By our signatures below we certify that all the testing and sample preparation for this report was performed under continuous, direct supervision of IAPMO R&T Lab, unless otherwise stated.

Tested by,

A handwritten signature in black ink, appearing to read "Simon Hadi".

Simon Hadi, Test Technician

Reviewed by,

A handwritten signature in black ink, appearing to read "Andy Ho".

Andy Ho, Manager, Fitting Testing

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Primary Standard: ASME A112.18.1-2011/CSA B125.1-11, clauses tested / evaluated:

4.1	Supply Fittings	4.2	Servicing
4.4	Threaded Connections	4.9	Toxicity
5.1	General	5.3	Pressure and Temperature
5.4	Flow Rate	5.7	Resistance to Installation Loading
6.0	Markings		

Clauses of ASME A112.18.1-2011/CSA B125.1-11 not listed above were considered not applicable to subject product.

Test Results: All tests and evaluations were conducted per the written procedures specified in the standard.

ASME A112.18.1-2011/CSA B125.1-11

4.1 Supply Fittings

4.1.1 Rated Pressure – COMPLIED

4.1.1.1 The shower flow control valves were designed for a rated pressure of 100 psi.

4.1.1.2 The shower flow control valves were designed to function at a supply pressure between 20 psi and 125 psi.

4.1.2 Rated Temperatures – COMPLIED

The shower flow control valves were designed for rated supply temperatures from 40 °F to 160 °F.

4.2 Servicing – COMPLIED

The shower flow control valves were designed so that the replacement of wearing parts could be accomplished without removing the fittings from the supply system, without removing the piping from the body, without disturbing the finished wall, and by using standard tools or manufacturer provided tools.

4.4 Threaded Connections – COMPLIED

4.4.1 The ½” female NPSM (inlet) and ½” male NPT (outlet) pipe threads complied with ASME B1.20.1.

4.9 Toxicity

4.9.1 NSF/ANSI 61-9 – NOT APPLICABLE

The NSF/ANSI 61-9 test is not applicable to shower fittings.

4.9.2 Metal Alloys – COMPLIED

Metal alloys in contact with potable water contained less than 8% lead as required.

Finding: The stainless steel body contained 0.007% lead. No solder and flux were used.

5.1 General – FOLLOWED

Before testing, specimens were conditioned at ambient laboratory conditions for not less than 12 h. All applicable tests were conducted in accordance with Table B.1 of this standard.

5.3 Pressure and Temperature

5.3.1 Static and Dynamic Seals – COMPLIED

The seals of the shower flow control valves did not leak or otherwise fail when tested in accordance with Clauses 5.3.1.2 to 5.3.1.4 of the standard. The test pressure was applied at 20 psi and 125 psi for 5 minutes each with the outlet blocked.

5.3.2 Burst Pressure – NOT APPLICABLE

The shower flow control valves are not intended for use under continuous pressure application.

5.4 Flow Rate – COMPLIED

5.4.1 The shower flow control valves met the maximum allowable flow rate requirement (2.5 gpm at 80 psi for shower applications) as specified in Table 1, at the temperature and flowing pressure specified in Clause 5.4.2.3.

Finding:

Flow Version	Measured Flow Rate at 45 psi (gpm) <i>(For Reference Only)</i>	Measured Flow Rate at 80 psi (gpm)
1.5 gpm	1.16 gpm	1.47 gpm
1.75 gpm	1.29 gpm	1.65 gpm
2.0 gpm	1.62 gpm	2.04 gpm
2.25 gpm	1.69 gpm	2.13 gpm
2.5 gpm	1.78 gpm	2.26 gpm

5.7 Resistance to Installation Loading

5.7.2 Thread Torque Strength – COMPLIED

5.7.2.1 The ½” NPT metal threaded connection withstood a torque load of 45 lbf-ft as specified in Table 4 of the standard without evidence of cracking or separation.

5.7.2.2 The threaded connections intended to seal water did not crack, strip, or leak when tested in accordance with Clause 5.3.1.3 with the threaded connection tightened to (a) the torque required to affect the seal; and (b) 150% of the torque required by Item (a).

5.7.2.3 NOT APPLICABLE – Clause 5.3.2 (Burst Pressure Test) only applies to threaded supply connections intended for use under continuous pressure. Shower flow control valves are not intended for use under continuous pressure application.

6.0 Markings

6.1 General – COMPLIED (*Per manufacturer’s provided labeling photo*)

6.1.1 The shower flow control valves will be permanently marked with the manufacturer’s name “Watermiser” on the UL 969 certified label. The marking can be visible after installation.

6.3 Packaging – **NOT EVALUATED**

6.3.1 The packaging shall be marked with the manufacturer’s name or trademark and model number.

Finding: No formal production packaging was received for evaluation.

Photograph of Sample Tested:



FCVSSS Series