



TEST REPORT

CLIENT: ICCL
414 Jackson St. Suite 401
San Francisco, CA 94102
United States

Attention: Brent Cohn

Test Report No: 654:009569-3	Date: April 9, 2008
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SUBJECT: Evaluation of Eclipse Stainless Steel Plumbing Supply Fittings for compliance with ASME A112.18.1-2005 / CSA B125.1-05, ADA Standards for Accessible Design, 28 CFR Part 36 – 94 section 4.27, and ICC/ANSI A117.1-03 section 309.4.

REFERENCE: Letter

SAMPLE ID: One sample of Eclipse Stainless Steel Kitchen faucet model number KS2930 (Atlantic) was received from the client on 1/4/08 in good condition.

TEST REQUESTED: The fitting was evaluated in accordance with ASME A112.18.1-2005/CSA B125.1-05 except that Section 4.9.1 (NSF/ANSI 61) tests were not performed. No revisions to this report will be allowed after 90 days of the report date.

TEST DATE: 1/5/08 – 2/14/08

CONCLUSION: The Eclipse Stainless Steel Kitchen faucet model number KS2930 (Atlantic) does comply with the requirements of ASME A112.18.1-2005/CSA B125.1-05. This model also complies with the operating requirements of ADA Standards for Accessible Design, 28 CFR Part 36 - 94 section 4.27 and ICC/ANSI A117.1-03 section 309.4.

CERTIFICATION: The tests reported here were conducted under the continuous direct supervision of SGS U.S. Testing Company Inc., Tulsa, OK.

**SIGNED FOR AND ON BEHALF OF
SGS U.S. TESTING COMPANY INC.**

Pat Batterton
Hydro Mechanical Dept. Technician

Scott Parkhurst
Hydro Mechanical Dept. Manager

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Test Procedure and Results

Design Requirements

- 4.1 Supply fittings:** **Pass**
- 4.1.1 Rated pressure:
Supply fitting are designed for a rated supply pressure of 100 psi.
Supply fittings are designed to function at any supply pressure between 20 and 125 psi.
- 4.1.2 Rated temperatures:
Supply fitting are designed for rated supply temperatures from 40 to 160 ° F.
- 4.1.3 Seating members:
The submitted fittings do have replaceable seats.
Seat disc arrangements are replaceable.
Seat discs do not vibrate while in service. Threaded devices are used to secure the disc, and remains secure after the disc has been removed and replaced five times.
- 4.2 Servicing:** **Pass**
- All fittings are designed so that replacement of wearing parts can be accomplished without removing the fitting from the supply system, piping from the body, disturbing the finished wall, and by using standard tools.
- 4.3 Installation:** **Pass**
- A method of sealing the fitting to the fixture was provided.
- 4.4 Threaded connections:** **Pass**
- Threaded connections for flexible hoses and flexible components met the performance requirements of this standard.
- 4.5 Connections other than threaded connections:** **NA**
- 4.6 Accessible design:** **Pass**
- The operating controls intended for use in accessible designs are operable with one hand, and do not require tight grasping, pinching, or twisting of the wrist. Operating force was not greater than required in this standard.
- Operating force: 1 lbf (5 lbf, Max.)

4.7 Backflow prevention:	Pass
Fittings are designed to protect the potable water supply from backflow contamination by a means that meets the applicable requirements of Clause 5.9. Diverting and anti-siphoning devices incorporate a way of removal for cleaning, repair, and replacement.	
4.8 Cover plates and escutcheons:	Pass
Circular escutcheons concealed area – <u>2.00 in. diameter</u> (1.73 in., Min.)	
4.9 Toxicity	Not Evaluated
4.10 Frost-proof faucets and hydrants:	NA
4.11 Shower heads, body sprays, and hand-held showers:	NA
4.12 Cross-flow:	NA
4.13 Fittings incorporating electrical features:	NA
4.14 Materials:	Pass
Stainless Steel Alloys – <u>304 Stainless Steel</u> (300 or 400 Series)	
4.15 Automatic compensating valve temperature control:	NA
4.16 Lawn and sediment faucets:	NA

Performance Requirements and Test Methods:

5.2 Coatings:	
5.2.1 General:	Pass
The fittings selected for testing were free of surface defects, uncoated areas, and were not stained.	
5.2.2 Corrosion (all substrates and coatings):	Pass
Coatings did not show more than one surface defect in any 1 in ² area of the surface, or up to three surface defects on a 1 inch length of parting line. Also, surface defects were not larger than 0.03 inches in any dimension when subjected to corrosion testing with procedures from ASTM B 117.	
5.2.3 Adhesion:	NA
5.2.4 Decorative organic coatings:	NA

5.3 Pressure and temperature:

5.3.1 Static and dynamic seals: **Pass**
Procedure with the valve closed:
Leakage after 5 minutes - None (none)

Procedure with the outlet blocked:
Leakage after 5 minutes - None (none)

5.3.2 Burst pressure: **Pass**
Terminal fittings:
Leakage after 1 minute at 500 psi - None (none)

5.3.3 Cross-flow check valves: **NA**

5.3.4 Hose assemblies: **Pass**
Torque:
Hose assemblies and threaded connections were torqued 150% after sealing without leakage or thread failure.

Burst pressure:
Leakage after hydrostatic pressure of 100 psi – None (none)
Leakage after hydrostatic pressure of 290 psi – None (none)

5.3.5 Ball joints: **NA**

5.3.6 Diverters: **NA**

5.4 Flow rate **Pass**

<u>Fitting</u>	<u>60 psi</u>	<u>Requirement (Table1)</u>
Kitchen Faucet	2.15 gpm	2.2 Max., gpm

*Flow rate remained unchanged after performing the life cycle testing.

5.5 Operating requirements

5.5.1 Torque or force: **Pass**

Opening (axial) force – 1 lbf (10 lbf, Max.)
Closing (axial) force - 1 lbf (10 lbf, Max.)

Meets the accessible design requirements of 5 lbf maximum.

5.5.2 Accessible designs: **Pass**
Accessible designs were tested at the high pressure of 80 psi instead of 125 psi.

5.5.3	Swing spouts: Turning force – <u>1 lbf</u> (10 lbf Max. at the end of spout)	Pass																
5.5.4	Ball joints:	NA																
5.6	Life cycle																	
5.6.1.2	Valves or controls:	Pass																
	<table border="0"> <thead> <tr> <th><u>Fitting type</u></th> <th><u>Number of cycles</u></th> <th><u>Force</u></th> <th><u>Requirement</u></th> </tr> </thead> <tbody> <tr> <td>Kitchen Faucet w/Spray</td> <td>500,000</td> <td>1 lbf (open)</td> <td>12 lbf, Max.</td> </tr> <tr> <td></td> <td></td> <td>1 lbf (operate)</td> <td>12 lbf, Max.</td> </tr> <tr> <td></td> <td></td> <td>1 lbf (close)</td> <td>12 lbf, Max.</td> </tr> </tbody> </table>	<u>Fitting type</u>	<u>Number of cycles</u>	<u>Force</u>	<u>Requirement</u>	Kitchen Faucet w/Spray	500,000	1 lbf (open)	12 lbf, Max.			1 lbf (operate)	12 lbf, Max.			1 lbf (close)	12 lbf, Max.	
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5.6.1.3	Swing spouts: Leakage - <u>None</u> (none) Turning force – <u>1 lbf</u> (10 lbf Max. at the end of spout)	Pass																
5.6.1.4	Shower heads, body sprays, and hand-held shower assemblies:	NA																
5.6.1.5	Diverter:	NA																
5.6.5.1	Shower hoses, pullout spout hoses, and side spray hoses:	NA																
5.6.5.2	Axial force of hose end connection:	NA																
5.6.5.3	Mandrel test:	NA																
5.7	Resistance to installation loading	NA																
5.8	Resistance to use loading																	
5.8.1.1	Operating Controls: Force (axial) applied - <u>>30 lbf</u> (30 lbf) Any Fracture or handle or stem - <u>None</u> (none)	Pass																
5.8.1.2	Wall-mounted bath or shower controls:	NA																
5.8.1.3	All other operating controls:	NA																
5.8.2	Maintenance of installed position:	NA																
5.8.3	Swing spout strength: The swing spout withstood a 14 lb load for 3 minutes - <u>Yes</u> (yes) Deflection angle after 30 minutes - <u>0°</u> (15° Max.)	Pass																

5.9 Backflow prevention	
5.9.2.1 Air gaps: Air Gap – <u>9-1/8 in.</u> (1-1/2 in., Min.)	Pass
5.9.3 Fittings with a submersible outlet:	NA
5.9.4 Backflow devices in single outlet fittings with a submersible outlet:	NA
5.9.5 Back siphonage prevention in side spray diverters:	NA
5.10 Automatic compensating valves	NA

Markings

6.1 General:	Pass
Plumbing fitting markings: <u>Eclipse Trademark</u> (Shall be marked with the manufacturer's recognized name, trademark, or other mark for private labeling). Was mark permanent on the plumbing fitting - <u>Yes</u> (yes) Was mark visible on the plumbing fitting after installation - <u>Yes</u> (yes)	
6.2 Temperature identification:	Pass
Markings on temperature control settings – <u>C / H</u> (cold, warm, hot, etc.).	
6.3 Packaging:	Pass
Package markings – <u>Eclipse Stainless Steel</u> (Shall be marked with the manufacturer's Recognized name, trademark, or other mark for private labeling). Model number – <u>KS 2930</u> (yes)	
6.4 Instruction for automatic compensating valves:	N/A

End of Report