WaterSense® Specification for Commercial Pre-Rinse Spray Valves

Version 1.0

September 19, 2013

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1.0 Scope and Objective

This specification establishes the criteria for commercial pre-rinse spray valves labeled under the U.S. Environmental Protection Agency's (EPA's) WaterSense program. It applies to commercial pre-rinse spray valves, which are defined as handheld devices designed and marketed for use with commercial dishwashing and warewashing equipment and applications that spray water on dishes, flatware, and other food service items for the purpose of removing food residue before cleaning the items.

This specification does not apply to spray fittings used for pot and kettle filling, pet grooming, grocery produce and meat cleaning, residential dish rinsing, and purposes other than those described in the definition above.

This specification is designed to ensure both sustainable, efficient water use and a high level of user satisfaction with pre-rinse spray valve performance.

2.0 General Requirements

2.1 The pre-rinse spray valve shall conform to applicable requirements in *ASME A112.18.1/CSA B125.1 Plumbing Supply Fittings*,[1] with the exception of the flow rate test described in Section 3.1 and the life cycle test requirements described in Section 4.2 below.

2.2 If the pre-rinse spray valve has more than one mode, all modes must meet the maximum flow rate requirement outlined in Section 3.1, and at least one mode, as specified by the manufacturer, must meet all of the requirements outlined in this specification.

2.3 The pre-rinse spray valve shall not be packaged, marked, or provided with instructions directing the user to an alternative water-use setting that would override the maximum flow rate, as established by this specification. Any instruction related to the maintenance of the product, including changing or cleaning the pre-rinse spray valve components, shall direct the user on how to return the product to its intended maximum flow rate.

3.0 Water Efficiency Requirements

3.1 The flow rate of the pre-rinse spray valve shall be tested in accordance with the procedures in *ASTM F2324 Standard Test Method for Prerinse Spray Valves* and shall meet the following criteria:

[1] References to this and other standards or test methods apply to the most current version of those standards or test methods.

3.1.1 The manufacturer shall specify a maximum flow rate value (i.e., rated flow rate) of the pre-rinse spray valve. This specified value must be equal to or less than 1.28 gallons per minute (gpm) [4.8 liters per minute (Lpm)].

3.1.2 The maximum flow rate shall be the highest value obtained through testing when evaluated in accordance with 10 CFR 429.51. The maximum flow rate shall not exceed the maximum flow rate value specified in Section 3.1.1.

4.0 Performance Requirements

4.1 The spray force of the pre-rinse spray valve shall be tested in accordance with the procedures in *ASTM F2324* and shall meet the following criteria:

4.1.1 The minimum spray force shall not be less than 4.0 ounces-force (ozf) [113 grams-force (gramf)].

4.2 The life cycle of the pre-rinse spray valve shall be tested in accordance with the procedures in *ASME A112.18.1/CSA B125.1* and shall meet the following criteria:

4.2.1 The pre-rinse spray valves must perform for 250,000 cycles.

5.0 Marking

5.1 In addition to the marking requirements in *ASME A112.18.1/CSA B125.1*, the following markings shall apply:

5.1.1 The product shall be marked with the maximum flow rate value in gpm and Lpm as specified by the manufacturer, verified through testing, and in compliance with this specification.

5.1.2 The product packaging and/or product literature shall be marked with the maximum flow rate value in gpm and Lpm as specified by the manufacturer, verified through testing, and in compliance with this specification.

5.1.3 The product packaging and/or product literature shall be marked with the tested spray force, determined through testing, and in compliance with this specification.

5.1.4 The flow rate marking shall be in gpm and Lpm in three- and two-digit resolutions, respectively [e.g., 1.28 gpm (4.8 Lpm)].

5.1.5 The spray force marking shall be in ounces-force and grams-force in two- and three-digit resolutions, respectively [e.g., 4.0 ozf (113 gramf)].

6.0 Effective Date

This specification's effective date is September 19, 2013.

7.0 Future Specification Revisions

EPA reserves the right to revise this specification should technological and/or market changes affect is usefulness to consumers, industry, or the environment. Revisions to the specification shall be made following discussions with industry partners and other interested stakeholders.

8.0 Definitions

Definitions within *ASME A112.18.1/CSA B125.1* and *ASTM F2324* are included by reference.

ASME: American Society of Mechanical Engineers

ASTM: ASTM International, formerly the American Society for Testing and Materials

CFR: Code of Federal Regulations

CSA: Canadian Standards Association

Appendix A: Requirements for WaterSense Labeling

The following requirements must be met for products to bear the WaterSense label.

1.0 WaterSense Partnership

The manufacturer of the product must have a signed partnership agreement in place with EPA.

2.0 Conformity Assessment

Conformance to this specification must be certified by a licensed certifying body accredited in accordance with the WaterSense Product Certification System.