

MIL-V-24624(SH)  
AMENDMENT 1  
13 February 1984

## MILITARY SPECIFICATION

### VALVES, BUTTERFLY, WAFER AND LUG STYLE, SHIPBOARD SERVICE

This amendment forms a part of Military Specification MIL-V-24624(SH), dated 3 November 1983, and is approved for use by the Naval Sea Systems Command, Department of the Navy and is available for use by all Departments and Agencies of the Department of Defense.

#### PAGE 5

3.3.2: Add "and shall be established in accordance with the tests of 4.3.5."

#### PAGE 6

3.6.2, line 1: Delete "and disc" and substitute ", disc and seat".

#### PAGE 7

3.6.4.1: Add as second sentence: "The seat retainer shall not protrude beyond the body face nor be so deeply recessed that a spiral wound or other gasket is ineffective over the sealing surface."

3.7.1, line 2: Delete "or removing an actuator from the valve."

#### PAGE 8

3.13: Delete and substitute:

"3.13 Life cycle and throttling. The valves shall be designed for a life of 20,000 cycles and shall be capable of throttling in the 15 percent to 17 percent open position for a minimum of 12 hours. The valves shall pass the tests of 4.3.6."

#### PAGE 10

4.3, fourth sentence: Delete and substitute "Valve sizes shall be 4, 8, 14 and 24 inches."

4.3: Add "Prior to testing, preliminary drawings in accordance with 3.17 shall be submitted for review and approval."

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4.3.6 and 4.3.6.1: Delete and substitute:

"4.3.6 Life cycle and throttling tests. The following life cycle and throttling tests shall be conducted to determine conformance with the requirements of 3.3.2 and 3.13. The sequence of these tests shall be determined by the manufacturer.

"4.3.6.1 Life cycle test. Each test valve shall be pressurized 20,000 times to 285 lb/in<sup>2</sup> on the manufacturer's designated upstream side and subsequently exhausted to atmospheric pressure. During each cycle, the disc shall be rotated to the fully open position in a maximum time of 35 seconds. The seat and stem seal shall not be replaced during the test. Upon completion of the cycle tests, a seat leakage test shall be conducted in accordance with and shall conform with the acceptance criteria of FCI 70-2, class 4. The test fluid shall be clean tap water. Galling or seizing of the moving parts shall constitute failure of the test.

"4.3.6.2 Throttling tests. Each test valve shall be set in the 15 percent to 17 percent open position and clean tap water shall be passed through the valve for a minimum of 12 hours. Valve sizes 4, 8 and 14 inches shall be throttled through a 100 lb/in<sup>2</sup> differential, and valve size 24 inches shall be throttled through a 50 lb/in<sup>2</sup> differential. A new seat may be used for this test. Upon completion of the throttling test, a seat leakage test shall be conducted in accordance with and shall conform with the acceptance criteria of FCI 70-2, class 4."

4.3.7: Delete and substitute:

"4.3.7 Fire tests. Type I valve sizes 4, 8 and 14 inches shall be subjected to and shall pass fire tests in accordance with API 607. Valve seats may be replaced with seats of identical material and design prior to this test. Successful completion of the fire tests series shall be extended to intermediate sizes and to valve sizes 16, 18, 20 and 24 inches and to type III valves of all sizes."

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4.4.1: Add "Style B valves shall be tested using a method that demonstrates conformance with 3.6.4.1."

Preparing activity:  
Navy - SH  
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