

MIL-V-22549D(SH)
AMENDMENT-1
13 April 1977

MILITARY SPECIFICATION
VALVES, ANGLE, RELIEF,
FOR GAS AND OXYGEN SERVICE
(SIZES 2-INCHES IPS AND BELOW); NAVAL SHIPBOARD

This amendment forms a part of Military Specification MIL-V-22549D(SHIPS), dated 20 September 1968 and is approved for use by all Departments and Agencies of the Department of Defense.

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2.1, under SPECIFICATIONS, MILITARY: Delete reference to "MIL-D-1000/2" and "MIL-M-15071".

2.1, under STANDARDS, MILITARY: Add:

"MIL-STD-798 - Nondestructive Testing, Welding, Quality Control, Material Control and Identification and HI-Shock Test Requirements for Piping System Components for Naval Shipboard Use."

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3.6, delete and substitute:

"3.6 Mechanical shock and vibration. Valves shall be designed to conform to the mechanical shock requirements of MIL-S-901, the HI-shock test guidance of MIL-STD-798, and the vibration requirements of MIL-STD-167-1. Requirements for shock and vibration testing shall be when specified (see 6.2)."

PAGES 7 and 8

3.8, 3.8.1, 3.8.2, 3.8.3, and 3.9: Delete and substitute:

"3.8 Technical data. The contractor shall prepare technical data in accordance with the data ordering documents included in the contract or order (see 6.2.1), and as specified in 3.8.1 through 3.8.2.

"3.8.1 Drawings. In addition to the drawing content required by the data ordering document (see 6.2.1), the following unique features shall be included:

- (a) Assembled scaled sectional assembly which clearly depicts the design and construction of the valve.
- (b) Bill of material listing specification, grade, condition, and any other data required to fully identify the properties of the materials proposed.
- (c) Details of the seat, disc, and stem assembly and all other replaceable internal trim.
- (d) Layout of the pressure-containing envelope (body, bonnet, and bottom cap) giving dimensions which control compression of the spiral-wound gaskets. This is to assure that where remachining is necessary to repair the gasket-sealing surfaces on these parts, that compensating cuts can be accurately made to restore original gasket compression. This layout shall also specify the dimensional limits of such corrective remachining within which function of the valve remains unaffected.
- (e) Recommended assembly torques, or equivalent procedures, for making up all joints and threaded assemblies.
- (f) Tabulation of required gasket characteristics including all dimensions (with tolerances) and load versus compression characteristics (with tolerances).
- (g) Mark areas to be radiographic, magnetic particle, or dye penetrant inspected.

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"3.8.1.1 Certification data. Certification data sheets shall be prepared by the contractor (see 6.2.1). In addition to the general requirements, the certification data sheets shall include the following:

- (a) Application description including (i) through (m) of 6.2.
- (b) Valve description.
- (c) The set pressure and adjustable range of valve.
- (d) Required accuracy of regulation over specified range of operating conditions.
- (e) Rated accuracy of regulation over specified range of operating conditions.
- (f) Required maximum capacity under specified conditions.
- (g) Rated maximum capacity under specified conditions.
- (h) Fail-open capacity (for purposes of relief valve sizing).

"3.8.1.2 Provisioning data. When specified (see 6.2), provisioning data shall be prepared by the contractor (see 6.2.1).

"3.8.2 Manuals. In addition to the general requirements for technical manuals (see 6.2.1), the following shall be included as part of the contents:

- (a) Drawings for the valve (including certification data sheet). Drawings shall be supplemented by additional illustrations where necessary to adequately illustrate operation and maintenance. These additional illustrations may consist of blowouts, partial or full sections, etc., and may eliminate extraneous lines and details to clarify the interaction of parts.
- (b) Table listing wrench sizes and assembly torques (or other equivalent procedures) for making up all joints and threaded assemblies.
- (c) Instructions to permit overhaul by shipyard or other repair facility. These should include procedures for checking all critical dimensions subject to wear or change and the acceptable dimensional limits, surface finish condition, etc. Also, the appropriate procedure (that is, part replacement, correction at repair facility, or repair at manufacturer's facility) which should be followed to correct each case of damage or wear.
- (d) Detailed disassembly and reassembly procedures. In addition to providing procedures for the complete disassembly and reassembly of the equipment, maintenance and troubleshooting sections shall contain, or refer to, only the limited disassembly and reassembly required to accomplish each particular operation. This is intended to reduce the possibility of unnecessary disassembly and unnecessary disturbance of adjustments when performing specific or limited maintenance or troubleshooting operations.

(e) Adjustment procedures:

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Table IV, column 2, opposite "HI-shock test", delete and substitute: "Grade A, class I of MIL-S-901 and HI-shock test guidance of MIL-STD-798. Valve shall be pressurized during test."

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Add as paragraph 4.4:

"4.4 Tension removal. After testing and prior to shipment, each valve shall have all tension removed from the spring except that which is necessary to retain the internal parts in place during shipment and handling."

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6.2, item (n): delete and substitute:

"(n) If provisioning data is required (see 3.8.1.3)."

Add as paragraph 6.2.1, 6.2.1.1, and 6.2.1.2:

"6.2.1 Data requirements. When this specification is used in a procurement which invokes the provision of the "Requirements for Data" of the Armed Services Procurement Regulations (ASPR), the data identified below, which are required to be developed by the contractor, as specified on an approved Data Item Description (DD Form 1664), and which are required to be delivered to the Government, should be selected and specified on the approved Contract Data Requirement List (DD Form 1423) and incorporated in the contract. When the

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provisions of the "Requirements for Data" of the ASPR are not invoked in a procurement, the data required to be developed by the contractor and required to be delivered to the Government should be selected from the list below and specified in the contract.

<u>Paragraph</u>	<u>Data requirements</u>	<u>Applicable DID</u>	<u>Option</u>
3.8.1 and 3.8.1.1	Drawings, engineering and associated lists, level 3 (production)	DI-E-7015	Design activity designation - Contractor Drawing number - Contractor Delivery of hard copies - Procuring activity
3.8.1.2	Supplementary provisioning technical documentation	DI-V-7000	
3.8.2	Manuals	DI-M-2043	MIL-M-15071, type I

(Copies of data item descriptions required by the contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.)

"6.2.1.1 The data requirements of 6.2.1 and any task in section 3, 4, or 5 of the specification required to be performed to meet a data requirement may be waived by the procuring/purchasing activity upon certification by the offeror that identical data were submitted by the offeror and accepted by the Government under a previous contract for identical item procured to this specification. This does not apply to specific data which may be required for each procurement regardless of whether an identical item has been supplied previously (for example, test reports)."

"6.2.1.2 Where the Government has limited rights in the data shown on the drawings, as determined by the contractual provisions regarding rights in technical data, the drawings may be marked with a legend. If used, the "Limited Rights Legend" of ASPR should be used."

Procuring activity:
Navy - SH
(Project 4820-N369)