Specification for Valves

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Introduction

Changes from the 24th to the 25th Edition

This specification is the result of updating the requirements from API Specification 6D, 24th Edition, including Addendum 1 and Addendum 2. The revision of API 6D, 25th Edition, was developed based on input from the API 6D Task Group technical experts globally. The technical revisions have been made to accommodate the needs of industry and address many interpretations to move this specification to a higher level of service to the petroleum and natural gas industry. Highlights of some of the significant changes between the 24th edition and 25th edition, include:

— changing the title of the specification;

— reorganizing the specification requirements in an order more aligned with the manufacturing process;

— the addition of axial valves to the types of valves covered by this specification;

— the removal of Class 400 as a standard pressure class;

— requiring conformance to API 6DX for valves supplied with actuators;

— identifying allowable adjustments for subsize impact specimens;

— identifying minimum heat treatment requirements;

— identifying minimum bolting requirements;

— revising marking requirements;

— providing updated design validation guidance;

— addition of requirements for repair and remanufacture of valves from API 6DR in new Annex A;

— collecting all purchaser-specified requirements into annexes (Annex K and Annex L);

— combining QSL requirements from the 24th edition (Annexes I, J, and H into one annex [Annex I]);

— adding guidance through-out the document reference to API 20 series specifications and standards.

Units of Measurement

In this standard, data are expressed in both U.S. customary (USC) and metric (SI) units.

Rounding

Except as otherwise required by this specification, to determine conformance with the specified requirements, observed or calculated values are rounded to the nearest unit in the last right-hand place of figures used in expressing the limiting value, in conformance with the rounding method of ASTM E29 or ISO 80000-1, Annex B, Rule A.

Specification for Valves

1 Scope

This specification defines the requirements for the design, manufacturing, materials, welding, quality control, assembly, testing, marking, documentation, and process controls of axial, ball, check, gate, and plug valves for application in the petroleum and natural gas industries, and hydrogen gas service.

This specification applies to ASME Class 150, 300, 600, 900, 1500, and 2500.

NOTE ASME Class 400 has been removed from this specification.

API 6DR for repair and remanufacture of valves has been withdrawn and has been replaced by Annex A.

Annexes A, B, D, E, F, J, L, and M are informative and contain optional requirements used in this specification.

Annexes C, G, H, I, and K are normative and are mandatory in the use of this specification.

Information marked "NOTE" are not requirements but are provided for guidance in understanding or clarifying the associated requirement.

2 Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

AMPP (formerly NACE)[1]

NACE MR0175/ISO15156 (all parts), *Petroleum and natural gas industries—Materials for use in H_2S-containing environments in oil and gas production*

API

API Standard 6ACRA, *Age-hardened Nickel-based Alloys for Oil and Gas Drilling and Production Equipment*

API Standard 6DX, *Standard for Actuators and Mounting Kits for Valves*

API Specification 6FA, *Specification for Fire Test for Valves*

API Specification 20A, *Carbon Steel, Alloy Steel, Stainless Steel, and Nickel Base Alloy Castings for Use in the Petroleum and Natural Gas Industry*

API Specification 20B, *Open Die Shaped Forgings for Use in the Petroleum and Natural Gas Industry*

API Specification 20C, *Closed Die Forgings for Use in the Petroleum and Natural Gas Industry*

API Specification 20E, *Alloy and Carbon steel bolting for Use in the Petroleum and Natural Gas Industries,* 2nd Edition

[1] Association for Material Protection and Performance (formerly NACE International), 1440 South Creek Drive, Houston, Texas 77084-4906, www.nace.org.