

# Reconditioning of Metallic Gate, Globe, and Check Valves

API RECOMMENDED PRACTICE 621  
THIRD EDITION, AUGUST 2010

REAFFIRMED, OCTOBER 2017



AMERICAN PETROLEUM INSTITUTE

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**Downstream Segment**

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# Reconditioning of Metallic Gate, Globe, and Check Valves

## 1 Scope

**1.1** This recommended practice (RP) provides guidelines for reconditioning heavy wall (API 600 and API 594 type) carbon steel, ferritic alloy (up to 9 % Cr), stainless steel, and nickel alloy gate, globe, and check valves for ASME pressure classes 150, 300, 400, 600, 900, 1500, and 2500. Guidelines contained in this RP apply to flanged and butt-weld cast or forged valves.

**1.2** It is an expectation of this RP that a contractual agreement shall be established between the Owner and the valve reconditioning facility. The reconditioning facility may be Original Equipment Manufacturer (OEM) owned/operated, or directly associated and approved by the OEM. At the Owner's option, an independent facility may be used. The Owner shall determine that the facility selected for valve reconditioning has a documented and established working Quality Assurance Program. The Quality Assurance Program should include the essential elements described in the ISO 9001 standard.

**1.3** *This RP does not cover reconditioning or remanufacturing of used or surplus valves intended for resale. The only intent of this RP is to provide guidelines for refurbishing an end user's (Owner) valves for continued service in the Owner's facility. Valves reconditioned or remanufactured to this RP may not meet ASME Standard requirements for new valves. The correct application of a valve reconditioned to this RP remains the responsibility of the Owner.*

## 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.

API Recommended Practice 591, *Process Valve Qualification Procedure*

API Standard 594, *Check Valves: Flanged, Lug, Wafer, and Butt-welding*

API Standard 598, *Valve Inspection and Testing*

API Standard 600 *Steel Gate Valves— Flanged and Butt-welding Ends, Bolted Bonnets*

ASME B1.3<sup>1</sup>, *Screw Thread Gaging Systems for Acceptability: Inch and Metric Screw Threads*

ASME B1.5, *Acme Screw Thread*

ASME B1.8, *Stub Acme Screw Threads*

ASME B16.5, *Pipe Flanges and Flanged Fittings*

ASME B16.10, *Face-to-Face and End-to-End Dimensions of Valves*

ASME B16.34, *Valves—Flanged, Threaded, and Welding End*

ASME B31.3, *Process Piping*

<sup>1</sup> ASME International, 3 Park Avenue, New York, New York 10016, www.asme.org.