

Type Testing of Quarter-turn Valves for Fugitive Emissions

API STANDARD 641
SECOND EDITION, OCTOBER 2023



American
Petroleum
Institute

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Type Testing of Quarter-turn Valves for Fugitive Emissions

1 Scope

This standard specifies the requirements and acceptance criteria for fugitive emission type testing of quarter-turn valves.

Valves larger than NPS 60 or valves greater than ASME B16.34 class 1500 are outside the scope of this standard. Valves with a pressure rating at ambient temperature less than 6.89 barg (100 psig) are outside the scope of this standard.

For all valves rated greater than or equal to 400 °C (750 °F), an additional high temperature test may be performed in accordance with [Annex C](#) or when specified by the purchaser.

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 Standard 622, *Type Testing of Process Valve Packing for Fugitive Emissions*

ASME B16.34,¹ *Valves—Flanged, Threaded, and Welding End*

3 Terms, Definitions, and Symbols

3.1 Terms and Definitions

For the purposes of this standard, the following terms and definitions apply.

3.1.1

ambient temperature

A temperature that is between 15 °C to 40 °C (59 °F to 104 °F).

3.1.2

auxiliary connection(s)

Drain(s), vent(s), thermal relief(s), or injection port(s).

3.1.3

closing torque

The amount of torque required to achieve valve closure and seat leakage tightness meeting manufacturer's published acceptance criteria at maximum pressure differential.

3.1.4

dynamic leak measurement

Measurement of leakage taken at the valve stem while the stem is traveling through both an opening and closing cycle.

3.1.5

emissions

Gaseous leak given off by a piece of equipment used in reference to volatile organic compounds and expressed in parts per million volumetric (ppmv or ppm) for methane.

¹ ASME International, 2 Park Avenue, New York, New York 10016-5990, www.asme.org.