

Check Valves: Flanged, Lug, Wafer, and Butt-welding

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1 Scope

If a product is supplied bearing the API Monogram and manufactured at a facility licensed by API, the requirements of Annex A apply.

This standard covers the design, material, face-to-face dimensions, pressure-temperature ratings, and examination, inspection, and test requirements for two types of check valves.

- Type “A” check valves are short face-to-face as defined in Table 2 and can be: wafer, lug, or double flanged; double flange as defined in Table 3; single plate or dual plate; gray iron, ductile iron, steel, nickel alloy, or other alloy designed for installation between Classes 125 and 250 gray iron flanges as specified in ASME B16.1, between Classes 150 and 300 ductile iron flanges as specified in ASME B16.42, between Classes 150 and 2500 flanges as specified in ASME B16.5, and between Classes 150 and 900 pipeline flanges as specified in MSS SP-44 or flanges as specified in ASME B16.47 Series A.
- Type “B” bolted cover swing check valves are long face-to-face as defined in Table 2 and can be: flanged or butt-welding ends of steel, nickel alloy, or other alloy material. End flanges shall be as specified in ASME B16.5, or ends shall be butt-welding as specified in ASME B16.25.

This standard covers the following ranges:

- Type “A” valves:

Classes 125 and 250, $50 \leq DN \leq 1200$ ($2 \leq NPS \leq 48$) (excluding DN 90 [NPS 3 $\frac{1}{2}$]);

- a) Classes 150 and 300, $50 \leq DN \leq 1200$ ($2 \leq NPS \leq 48$)*;
- b) Class 600, $50 \leq DN \leq 1050$ ($2 \leq NPS \leq 42$)*;
- c) Classes 900 and 1500, $50 \leq DN \leq 600$ ($2 \leq NPS \leq 24$)*;
- d) Class 2500, $50 \leq DN \leq 300$ ($2 \leq NPS \leq 12$)*;

- Type “B” valves:

- a) Classes 150 through 1500, $50 \leq DN \leq 600$ ($2 \leq NPS \leq 24$)*;
- b) Class 2500, $50 \leq DN \leq 300$ ($2 \leq NPS \leq 12$)*.

NOTE *Valve sizes DN 90 and DN 125 (NPS 3 $\frac{1}{2}$ and 5) are non-preferred sizes whose usage is discouraged.

- Sizes:

DN: 50, 60, 80, 100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 750, 900, 1050, 1200;

corresponding to nominal pipe sizes (NPS):

NPS: 2, 2 $\frac{1}{2}$, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 24, 30, 36, 42, 48.

Information to be specified by the purchaser is shown in Annex B.