
Installed Face-to-Face Dimensions for Flanged Clamp or Pinch Valves



ISA-S75.08 — Installed Face-to-Face Dimensions for Flanged Clamp or Pinch Valves

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1 Scope

1.1 This standard applies to valves, sizes 1 inch through 8 inches of the clamp or pinch valve design incorporating clamp or pinch elements.

2 Purpose

2.1 The purpose of this standard is to aid users in their piping design by providing installed face-to-face dimensions for control valves, incorporating clamp or pinch elements, which have flanges that mate with ANSI B16.1 Class 125 (PN20) and/or ANSI B16.5 Class 150 (PN20) flanges, without giving special consideration to the manufacturer of the equipment to be used.

2.2 This standard excludes solenoid-actuated valves and direct fluid-actuated valves.

2.3 In the absence of other standards, this standard can be applied to handwheel-operated valves.

3 Definitions

3.1 For definitions of terms used in this standard, see ISA-S75.05-1983, "Control Valve Terminology."

3.2 One-piece-element clamp or pinch valve: A *one-piece-element clamp* or *pinch valve* is a valve consisting of a one-piece flexible element or liner installed in a body with the element or liner extending over the flange faces and acting as gaskets between the valve and connecting piping. See [Table 1](#) for dimensions. "Long style" dimensions are the same as those for flanged-end control valves in ANSI B16.10 and ANSI/ISA-S75.03-1985 except for the 6-inch size. "Short style" dimensions are the same as those for flanged-end gate valves in ANSI B16.10 and MSS SP-72, except for the 6-inch and the 8-inch sizes.

3.3 Two-piece-element clamp or pinch valve: A *two-piece-element clamp* or *pinch valve* is a valve consisting of two flexible elastomeric elements or liners installed between a two-piece flanged body. The flexible elements or liners also extend over the flange faces and act as gaskets between the valve and the connecting piping. See [Table 2](#) for dimensions. No prior standards exist for these two-piece-element valves.

3.4 Face-to-face: Each of the *face-to-face* dimensions in the tables is to be applied to the installed length of the valve after installation into a piping system. The free length face-to-face dimension of a valve before installation into a piping system may be slightly longer than dimensions shown in either [Table 1](#) or [Table 2](#).

4 Bibliography

4.1 American National Standards Institute, Inc. (ANSI) Standard B16.10-1973, "Face-to-Face and End-to-End Dimensions of Ferrous Valves."

4.2 American National Standards Institute, Inc., ANSI/ISA-S75.03-1985, "Face-to-Face Dimensions for Flanged Globe-Style Control Valve Bodies."

4.3 ISA Standard ISA-S75.05-1983, "Control Valve Terminology."

4.4 Manufacturers Standardization Society of the Valve and Fittings Industry, Inc. (MSS), SP-72-1970, "Ball Valves with Flanged or Butt-Welding Ends for General Service."

5 Dimensional data of installed valves

5.1 For face-to-face dimensions for flanged clamp or pinch valves, see [Tables 1 and 2](#).

Table 1 — One-piece-element design

(See Paragraph 3.2)

Nominal Valve Size		Installed Face-to-Face Dimension "A" ^a			
		Long Style		Short Style	
		mm ^{b,c}	inches ^{b,c}	mm ^{b,c}	inches ^{b,c}
25	1	184	7.25	127	5.00
40	1-1/2	222	8.75	165	6.50
50	2	254	10.00	178	7.00
65	2-1/2	276	10.88	190	7.50
80	3	298	11.75	203	8.00
100	4	352	13.88	229	9.00
125	5	381	15.00	—	—
150	6	457	18.00	406	16.00
200	8	543	21.38	483	19.00

^a See [Figure 1](#) for dimension "A"

^b Tolerance for 25 through 125-mm (1 through 5-inch) size valves:
±1.5 mm (±0.06 inches)

^c Tolerance for 150 and 200-mm (6 and 8-inch) size valves:
±3.0 mm (±0.12 inches)

Table 2 — Two-piece-element design

(See Paragraph 3.3)

Nominal Valve Size		Installed Face-to-Face Dimension "A" ^a	
mm	inches	mm ^b	inches ^b
25	1	133	5.25
40	1-1/2	178	7.00
50	2	229	9.00
65	2-1/2	254	10.00
80	3	305	12.00
100	4	381	15.00
150	6	495	19.50
200	8	625	24.63

^a See [Figure 1](#) for dimension "A"

^b Tolerance for all size valves: ± 1.5 mm (± 0.06 inches)

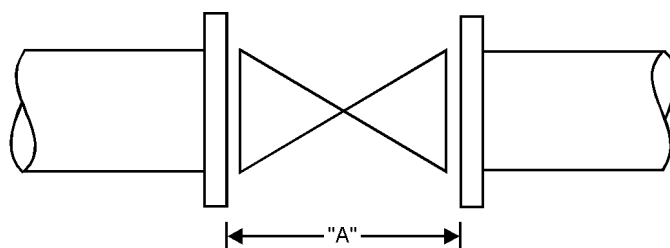


Figure 1 — Installed face-to-face dimension "A"

Appendix

This appendix is not part of the ISA Standard S75.08 but is included to facilitate its use.

Dimensions for metrically sized valves are nominal conversions that are conventionally used in documents by the Manufacturers Standardization Society (MSS) of the Valve and Fitting Industry (MSS-SP86-1981), by the International Organization for Standardization (ISO), and by the International Electrotechnical Commission (IEC).

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