

Check Valves —

Check valves permit flow in one direction only and close automatically on flow reversal, preventing backflow and the water hammer that can damage pumps and downstream equipment. The range below covers swing, dual-plate, wafer and lift-type constructions, selected to suit line size, orientation and closure-speed requirements. Applications span pump discharge lines, gravity mains and process piping across water, wastewater and industrial services.

a. Swing Check & Multi-Door Check Valve

Swing check valves use a hinged disc that swings open with forward flow and closes under gravity or reverse flow, giving low pressure drop and simple, reliable operation. Multi-door (multi-disc) construction is used on larger diameters to reduce weight and cushion closure. Typically installed on pump discharge lines and gravity mains in water and wastewater systems.

Material Variant	Body / Major Components	Trim (Seat / Disc / Stem)	End Connections	Design Standard	Pressure Rating	Operation	Size Range (NB)
Standard Range (PN rated)	Body, Cover, Hinge: Cast Iron IS 210 Gr. FG 200/220/260, or Cast Steel WCB, or Stainless Steel CF8 / CF8M	Hinge Pin: SS 410/304/316. Body Seat & Disc Face: Bronze IS 318 LTB2 / SS 410/304/316, or Disc Face in Rubber (Nitrile/EPDM/Neoprene)	Flanged (drilling to suit)	IS 5312 Pt. I & II (2004) / BS 5153	PN 1.0 / 1.6 / 10 / 16	Automatic (non-return)	50 – 600 mm-SINGLE DOOR 600-1200mm-MULTIDOOR
Cast Steel — ANSI Class Rated *	Body, Bonnet, Disc: ASTM A216 Gr. WCB	Hinge Pin: SS 410/304/316. Body & Disc Seat: SS 410/304/316 or Nitrile / EPDM / PTFE	Flanged (drilling to suit)	API 594 / BS 1868 / API 6D	Class 150 / 300 or PN 20 / 25	Automatic (non-return)	50 – 600 mm-SINGLE DOOR

b. Dual Plate Check Valve

Dual plate check valves use two spring-loaded half-discs that open with flow and snap shut quickly on reversal, reducing slam compared with a conventional swing check. The compact, lightweight wafer body fits between line flanges, saving installation space and cost. Well suited to pump discharge, cooling water and process lines that demand fast, reliable closure.

Material Variant	Body / Major Components	Trim (Seat / Disc / Stem)	End Connections	Design Standard	Pressure Rating	Operation	Size Range (NB)
Standard Range (PN rated)	Body, Cover, Hinge: Cast Iron IS 210 Gr. FG 200/220/260, or Cast Steel WCB, or Stainless Steel CF8	Hinge Pin: SS 410/304/316. Body Seat & Disc Face: Bronze IS 318 LTB2 / SS 410/304/316, or Disc Face in Rubber	Flanged (drilling to suit)	API 594 / API 6D	PN 1.0 / 1.6 / 10 / 16	Automatic (non-return)	50 – 1800 mm



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Material Variant	Body / Major Components	Trim (Seat / Disc / Stem)	End Connections	Design Standard	Pressure Rating	Operation	Size Range (NB)
	/ CF8M	(Nitrile/EPDM/Neoprene)					
Cast Steel — ANSI Class Rated *	Body, Bonnet, Disc: ASTM A216 Gr. WCB	Hinge Pin: SS 410/304/316. Body: SS 410/304/316. Disc: EPDM / Nitrile / Neoprene. Spring: SS 304 / SS 316 / Inconel	Flanged / Wafer (drilling to suit)	API 594 / API 6D	Class 150 / 300 or PN 20 / 25	Automatic (non-return)	50 – 600 mm

c. Wafer Type Check Valve (Single Plate)

Single-plate wafer check valves use a lightweight, spring-assisted disc sandwiched between line flanges for a compact, economical non-return solution. The design closes quickly with minimal backflow, in a fraction of the space and weight of a swing check. Common in HVAC, pumping and general industrial piping where installation space is at a premium.

Material Variant	Body / Major Components	Trim (Seat / Disc / Stem)	End Connections	Design Standard	Pressure Rating	Operation	Size Range (NB)
Standard Range	Body, Cover, Hinge: Cast Iron IS 210 Gr. FG 200/220/260 / WCB / CF8 / CF8M	Disc Face: Rubber (Nitrile / EPDM / Neoprene)	Wafer, to sandwich between ANSI 150# or BS Table D & E flanges (or per customer requirement)	API 594 / API 6D	PN 1.0 / 1.6 / 10 / 16	Automatic (non-return)	50 – 600 mm

d. Forged Steel Lift Type Check Valve

Lift-type check valves use a piston- or ball-guided disc that lifts in line with the flow and reseats under reverse flow, sharing a body form similar to a globe valve. Forged construction suits high-pressure, high-temperature steam, feedwater and process services. Typically installed in smaller-bore piping close to pumps and compressors.

Material Variant	Body / Major Components	Trim (Seat / Disc / Stem)	End Connections	Design Standard	Pressure Rating	Operation	Size Range (NB)
Forged Carbon / Stainless Steel	Body, Cover: ASTM A105 (carbon) or ASTM A182 Gr. F304 / F316 (stainless)	Disc: SS 410/304/316. Body Seat & Disc Face: SS 410/304/316 (hardfaced on request)	Screwed (BSP/NPT) / Socket Weld / Butt Weld / Flanged	API 602 / BS 5352	Class 150 / 300 / 600 / 800 / 1500 (ANSI)	Automatic (non-return)	15 – 100 mm



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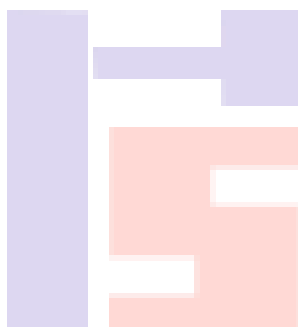


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e. Gun Metal / Bronze Lift Type Check Valve

Bronze lift check valves combine a compact screwed-end body with an integral seat for reliable non-return duty on smaller pipe sizes. Corrosion-resistant gunmetal construction suits potable water, plumbing and general utility services. A simple, low-maintenance design that is a standard choice for domestic and light commercial installations.

Material Variant	Body / Major Components	Trim (Seat / Disc / Stem)	End Connections	Design Standard	Pressure Rating	Operation	Size Range (NB)
Bronze Lift Type	Body, Disc: Leaded Tin Bronze IS 318 LTB2	Integral seat construction	Screwed to IS 554 Parallel / Taper	IS 778 Cl. 1 / Cl. 2 or MSS SP 80	PN 1.0 / 1.6	Automatic (non-return)	15 – 50 mm



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