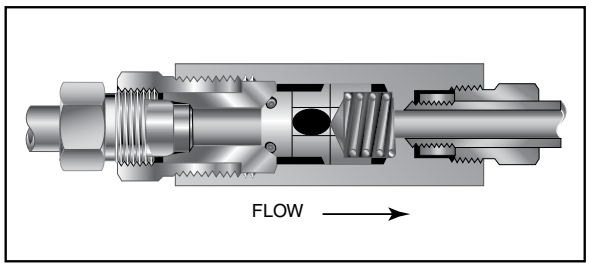
High Pressure Check Valves

Pressures to 60,000 psi (4137 bar)

O-Ring Check Valves



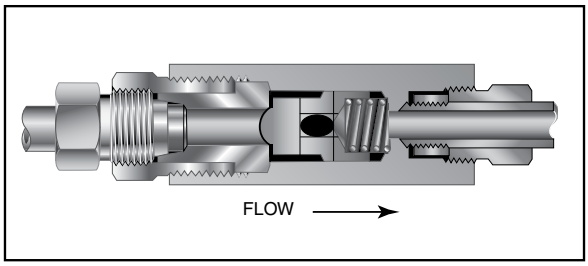
Minimum operating temperature for standard o-ring check valves 0°F (-17.8°C).
For low temperature option to -423°F (-252°C) add suffix LTTO (Low temperature spring & PTFE o-ring).

Provides unidirectional flow and tight shut-off for liquids and gas with high reliability. When differential drops below cracking pressure*, valve shuts off. **(Not for use as relief valve.)**

Materials: 316 Stainless Steel: body, cover, poppet, cover gland. 300 Series Stainless Steel: spring. Standard O-ring: Viton, for operation to 400° F (204°C). Buna-N or PTFE available for 250°F (121°C) or 400°F (204°C) respectively; specify when ordering.

***Cracking Pressure:** 20 psi (1.38 bar) ±30%. Springs for higher cracking pressures (up to 100 psi (6.89 bar) available on special order for O-ring style check valves only.

Ball Check Valves



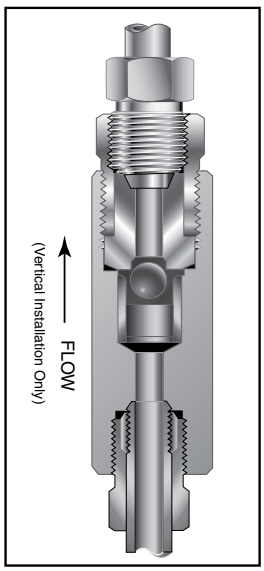
Minimum operating temperature for standard ball check valves -110°F (-79°C).
For low temperature option to -423°F (-252°C) add suffix LT (Low temperature spring).

Prevents reverse flow where **leak-tight shut-off is not mandatory**. When differential drops below cracking pressure, valve closes. With all-metal components, valve can be used up to 1200°F (649°C). See Technical Information section for connection temperature limitations. **(Not for use as a relief valve.)**

Ball and poppet are an integral design to assure positive, in-line seating without "chatter". Poppet is designed essentially for axial flow with minimum pressure drop.

Materials: 316 Stainless Steel: body, cover, ball poppet, cover gland. 300 Series Stainless Steel: spring.

Ball Type Excess Flow Valves



Protects pressure gauges and pressure instrumentation from surges in flow or sudden venting in the event of line failure.

Materials: 316 Stainless Steel: body, cover, sleeve, cover gland. 300 Series Stainless Steel: ball.

Vertical Installation: Since this type of check valve employs a non-spring loaded ball, valve MUST be installed in VERTICAL position with arrow on valve body pointing UP. (cover gland up).

Resetting Valve: Equalize the pressure across the ball. The ball will drop and reset automatically.

CAUTION: *While testing has shown O-Rings to provide satisfactory service life, both cyclic and shelf life may vary widely with differing service conditions, properties of reactants, pressure and temperature cycling and age of the O-ring. FREQUENT INSPECTIONS SHOULD BE MADE to detect any deterioration, and O-rings replaced as required.*

NOTE: *For optional material see Needle Valve Options section.*

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High Pressure Check Valves

Catalog Number	Fits Connection Type	Pressure Rating psi (bar)*	Orifice inches (mm)	Rated C_V	Dimensions - inches (mm)				
					A	B	C	D Typical	Hex
O-Ring Check Valves									
CKO4400	F250C	60,000 (4136.79)	0.094 (2.39)	0.15	3.38 (85.85)	2.50 (63.50)	0.50 (12.70)	0.63 (16.00)	1.18 (29.97)
CKO6600	F375C	60,000 (4136.79)	0.125 (3.18)	0.28	3.75 (95.25)	2.62 (66.55)	0.53 (13.46)	0.75 (19.05)	1.18 (29.97)
CKO9900	F562C	60,000 (4136.79)	0.187 (4.75)	0.63	4.62 (117.35)	3.38 (85.85)	0.81 (20.57)	1.12 (28.45)	1.50 (38.10)
40CKO9900	F562C40	40,000 (2757.85)	0.250 (6.35)	0.78	4.64 (117.86)	3.38 (85.73)	0.72 (18.29)	1.19 (30.23)	1.50 (38.10)
43CKO16	F1000C43	43,000 (2964.70)	0.438 (11.13)	4.3	6.54 (166.11)	5.63 (143.00)	.72 (18.29)	1.38 (35.05)	1.88† (47.76)
Ball Check Valves									
CB4401	F250C	60,000 (4136.79)	0.094 (2.39)	0.15	3.38 (85.85)	2.50 (63.50)	0.50 (12.70)	0.63 (16.00)	1.18 (29.97)
100CB4401+	F312C150	100,000 (6894.65)	0.0094 (2.39)	0.11	4.61 (117.09)	3.50 (88.9)	0.52 (13.21)	1.75† (44.50)	.75 (19.05)
100CB5501+	F312C150	100,000 (6894.65)	0.0094 (2.39)	0.11	4.61 (117.09)	3.50 (88.9)	.52 (13.21)	1.75† (44.50)	.75 (19.05)
CB6601	F375C	60,000 (4136.79)	0.125 (3.18)	0.28	3.75 (95.25)	2.62 (66.55)	0.53 (13.46)	0.75 (19.05)	1.18 (29.97)
100CB6601+	F312C150	100,000 (6894.65)	0.0094 (2.39)	0.11	4.61 (117.09)	3.50 (88.9)	.52 (13.21)	1.75† (44.50)	.75 (19.05)
CB9901	F562C	60,000 (4136.79)	0.187 (4.75)	0.63	4.62 (117.35)	3.38 (85.85)	0.81 (20.57)	1.12 (28.45)	1.50 (38.10)
43CB16	F1000C43	43,000 (2964.70)	0.438 (11.13)	4.3	6.54 (166.11)	5.63 (143.00)	.72 (18.29)	1.38 (35.05)	1.88† (47.76)
Ball Type Excess Flow Valves									
CK4402	F250C	60,000 (4136.79)	0.094 (2.39)		3.38 (85.85)	2.50 (63.50)	0.50 (12.70)	0.63 (16.00)	1.18 (29.97)
CK6602	F375C	60,000 (4136.79)	0.125 (3.18)		3.75 (95.25)	2.62 (66.55)	0.53 (13.46)	0.75 (19.05)	1.18 (29.97)
CK9902	F562C	60,000 (4136.79)	0.187 (4.75)		4.62 (117.35)	3.38 (85.85)	0.81 (20.57)	1.12 (28.45)	1.50 (38.10)

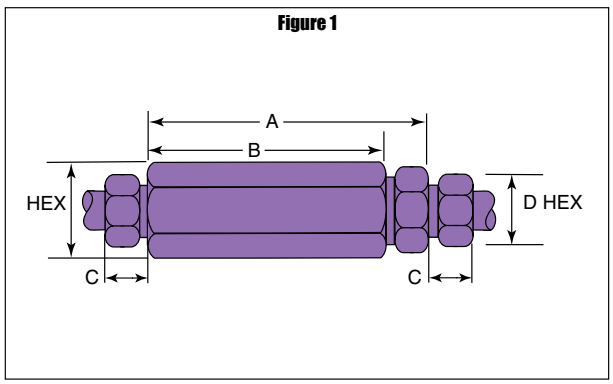
+Body material is 15-5PH

*Maximum pressure rating is based on the lowest rating of any component.
Actual working pressure may be determined by tubing pressure rating, if lower.

† Distance across flats

All dimensions for reference only and subject to change.
For prompt service, Parker Autoclave Engineers stocks select products. Consult your local representative.

Figure 1



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