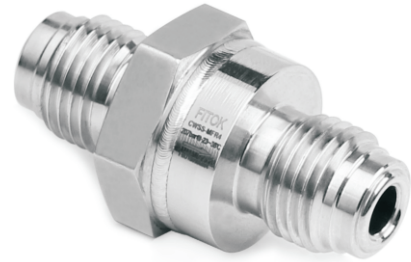


# All-Welded Check Valves

## CW Series

### Features

- Internally threadless and all-welded design
- Forward flow starts at less than 2 psig (0.14 bar) pressure differential
- Standard surface roughness finished to an average of Ra 20  $\mu\text{in.}$  (0.51  $\mu\text{m}$ ) or electropolished to Ra 10  $\mu\text{in.}$  (0.25  $\mu\text{m}$ ) optional
- Variety of end connections available



### Technical Data

Ports Size	1/4" to 1/2" or 6 mm to 12 mm
Flow Coefficient (Cv)	0.55 or 0.70
Cracking Pressure <sup>①</sup>	Less than 2 psig (0.14 bar)
Max. Working Pressure	3000 psig (206 bar)
Max. Pressure Drop	145 psig (10 bar)
Working Temperature	-10~400°F (-23~204°C)

① For valves not actuated for a period of time, initial cracking pressure may be higher than the set cracking pressure.

### Flow Data

Air @ 70°F (21°C)

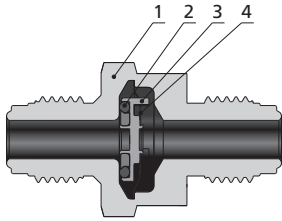
Pressure Drop to Atmosphere psi (bar)	Cv 0.55 (l/min)	Cv 0.70 (l/min)
10 (0.68)	170	220
50 (3.4)	450	590
100 (6.8)	820	1040

### Process Specification

Technology	Standard Cleaning and Packaging (FC-01)	Special Cleaning and Packaging (FC-02)	Ultra High Purity (FC-03)
Material/Specification	316L SS/ASTM A479		316L SS/ASTM A479 316L VAR/SEMI F20
Wetted Surface Roughness	Ra 20 $\mu\text{in.}$ (0.51 $\mu\text{m}$ )		Ra 10 $\mu\text{in.}$ (0.25 $\mu\text{m}$ )
Polishing Process	Machine finished		Electropolished

Note: Refer to page P-01 for a detailed description of Process Specification, and to page P-01 for Process Comparison.

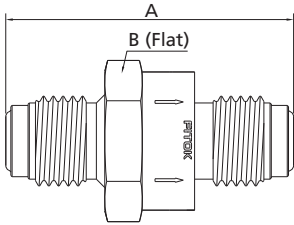
Major Materials of Construction



Component		Material Grade/ASTM Specification
1	Body	316L SS/A479
2	Poppet	Fluorocarbon FKM-bonded 316 SS/A479
3	Belleville Spring	Hastelloy
4	Poppet Stop	316L SS/A240

Note: Check valves are designed for directional flow control only and should never be used as code safety relief devices.

Dimensions



Basic Ordering Number	Connection Type and Size		Cv	Dimensions, in. (mm)	
	Inlet	Outlet		A	B
CW□□-TB4	1/4" TB	1/4" TB	0.55	1.24 (31.5)	7/8 (22.22)
CW□□-TB6	3/8" TB	3/8" TB	0.70		
CW□□-TB8	1/2" TB	1/2" TB	0.55		
CW□□-MTB6	6 mm MTB	6 mm MTB	0.70	1.80 (45.7)	1 (25.4)
CW□□-FR4	1/4" Male FR	1/4" Male FR	0.70	2.06 (52.3)	
CW□□-FR8	1/2" Male FR	1/2" Male FR			

Ordering Number Description

CW6L – FFR4 – FR4 – B – F2							
Series	Body Material	Inlet Type		Inlet Size		Outlet Type	Process Specification
CW	6L 316L SS	FFR	Female FR Fitting	4	1/4"	Same as Inlet Specified in the same way as the inlet type and size	FC-01
	6LV 316L VAR SS	FR	Male FR Fitting	6	3/8" or 6 mm		FC-02
		RFR	Rotatable Male FR Fitting	8	1/2" or 8 mm		FC-03
		TB	Fractional Tube Butt Weld	10	10 mm		
		MTB	Metric Tube Butt Weld	12	12 mm		
						Outlet Size	
						Seal Material	
						Fluorocarbon FKM	
						B Buna N	
						E EPDM	