

U-PRO

Poppet Check Valves

For Process, Power and Instrumentation



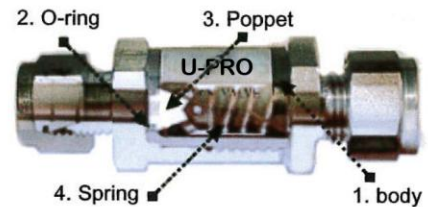
CVC™ Series

- ☐ UPRO-Lok tube connections
- ☐ Pressure rating: 3000 psig
- ☐ Standard materials: Stainless Steel 316
- ☐ Temperature rating: -15°F to +400°F
- ☐ Cracking pressures: 1/3, 1, 5 and 10 psi
- ☐ 100% factory tested
- ☐ Available in 1/4", 3/8", 1/2" (Fractional)
6, 10, 12 (Metric)

For directional flow control of liquidant.

Materials of Construction

Component	Material Grade/ASTM Specification
1 body	316 SS/A479
2 O-ring	Fluorocarbon FKM
3 Poppet	316 SS/A479
4 Spring	302 SS/A313



Example: CVC-S3-80

Technical Data

Model:	End Connection Size	Nominal Cracking Pressures	Downstream Pressure	Working Pressure at 70°F	Temperature Rating, °F	Flow Coefficient (see Flow Data)		
CVC –S3-40	1/4 in	1/3, 1, 10, and 25 psi	1000 psig ①	3000 psig	Fluorocarbon FKM seals: -10 to 375 °F	0.47		
CVC –S3-6M	6 mm							
CVC –S3-60	3/8 in		200 psig			1.47		
CVC –S3-10M	10 mm							
CVC –S3-80	1/2 in					1.68		
CVC –S3-12M	12 mm							

① For cracking pressures less than 10 psi (0.68 bar)

⚠ UPRO check valve should be used for directional flow control only. It is not suitable for code safety relief devices usage.

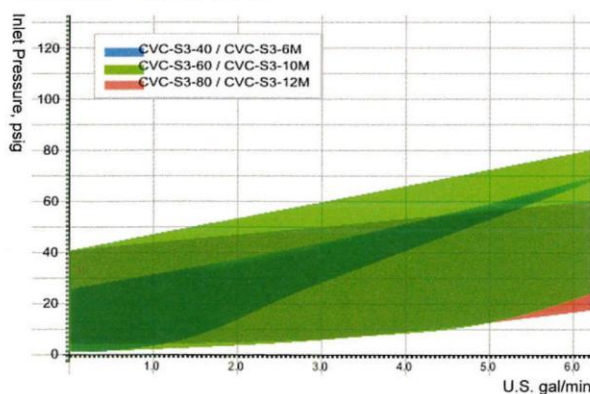
Design Considerations

The CVC™ Series Poppet Check Valve incorporates a poppet that seals on the seat. Pressure in the flow direction moves the seal off the seat first before pressure builds enough to move the poppet away from the seat.

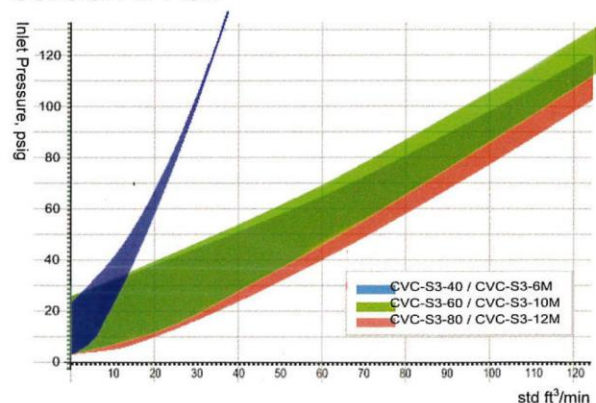
These check valves covers a wide range of air and fluid applications. It is a compact design with desired cracking pressure, high flow rate, and a positive seal at very low back pressure or slight vacuum.

Flow Data (at 70°F)

General Water Flow



General Air Flow

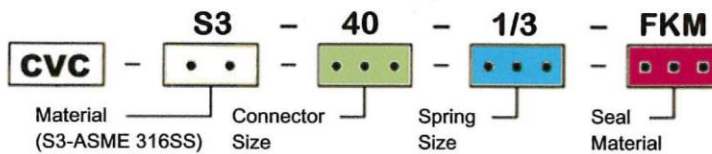


Poppet Check Valves

Ordering Information

CVC™ Poppet Check Valves are ordered by part number as listed in this catalog. Yung Hong will quote alternate materials or customize our standard products when quantities ensure competitive pricing.

Example: UPRO CVC™ ordering part number for S3-40-1/3-FKM poppet check valve.



Connector Size

End Connector		Dimensions, in. (mm)			
Model	Size	A	B Hex	C Hex	D
CVC-S3-40	1/4 in.	25	14	17	60
CVC-S3-6M	6 mm				
CVC-S3-60	3/8 in.	42	17	22	81
CVC-S3-10M	10 mm	43	19		84
CVC-S3-80	1/2 in.		22		87
CVC-S3-12M	12 mm				



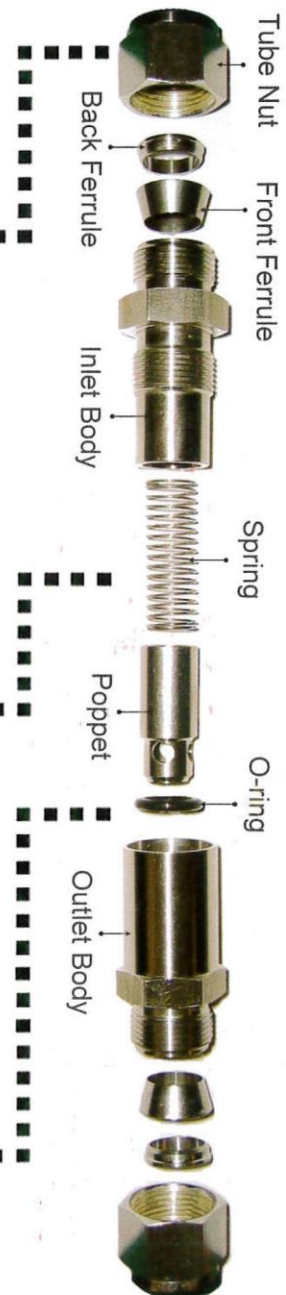
Spring Size

Cracking and Reseal Pressures at 70°F

Spring Model	Alleged Spring Pressure	Cracking Pressure Range	Reseal Pressure
1/3	1/3 psi	Up to 3 psi	Up to 6 psi upstream pressure
1	1 psi	Up to 4 psi	Up to 6 psi upstream pressure
10	10 psi	7 to 15 psi	3 psi or more upstream pressure
25	25 psi	20 to 30 psi	17 psi or more upstream pressure
Special	Special order to suit your need		

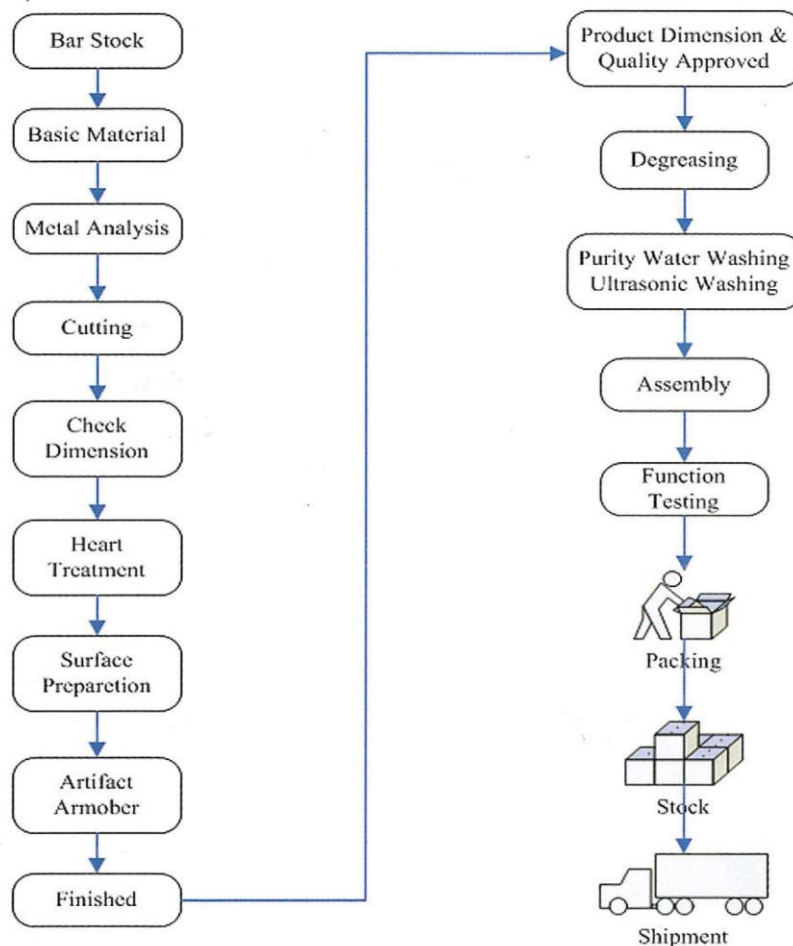
Seal Material

Material Model	Seal Material	Temperature Rating
FKM	Fluorocarbon FKM	-10° to 375° F
Special	Special order to suit your needs	



Production Process Chart

The flow diagram below traces the production of UPRO CVC Valves.



Product Test

The test includes air/water pressure, temperature, and vacuum.
UPRO CVC valves have been carefully tested to withstand the demand of high performance tube fittings.

Air/Water Pressure Test:

This examine capability of tube end CVC valve bears air/water pressure.

Temperature Test:

This assessment find out the maximum and minimum working temperature of CVC valves.

Vacuum Test:

This test inspects possible change shape of CVC valves while it bears negative pressure.

U-PRO CVC™ Poppet Check Valves
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