

U-PRO

Poppet Check Valves

For Process, Power and Instrumentation



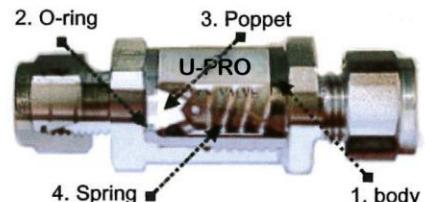
CVC™ Series

- 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 | | | | | 1.47 |
| CVC-S3-10M | 10 mm | | 200 psig | | | |
| CVC-S3-80 | 1/2 in | | | | | 1.68 |
| CVC-S3-12M | 12 mm | | | | | |

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

Design Considerations

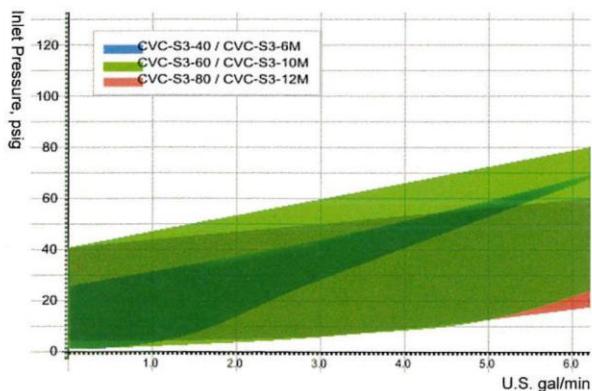
The CVC™ Series Poppet Check Valve incorporates a poppet that seals on the seat. Pressure in the flow direction moves the seal off the seat first before pressure builds enough to move the poppet away from the seat.

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.

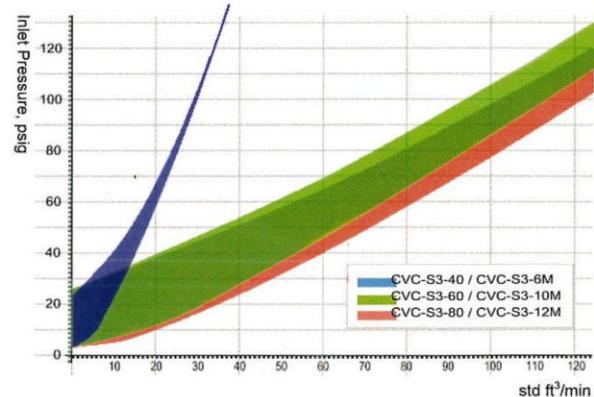
⚠ UPRO check valve should be used for directional flow control only. It is not suitable for code safety relief devices usage.

Flow Data (at 70°F)

General Water Flow



General Air Flow

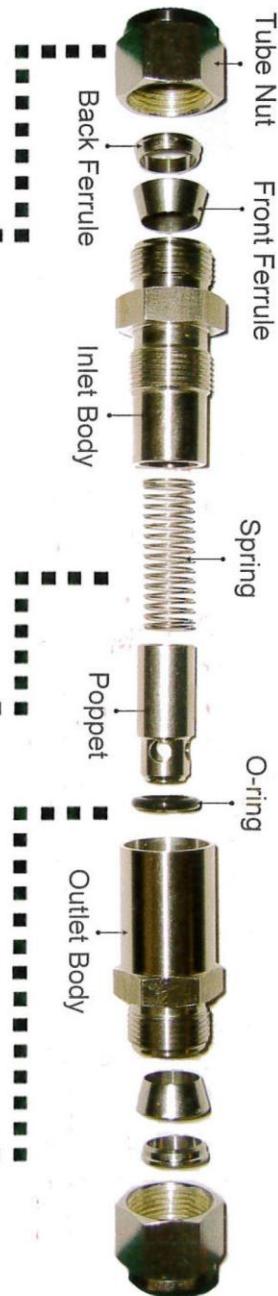
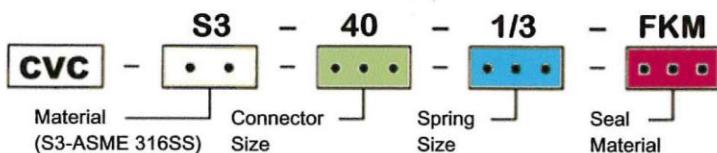


Poppet Check Valves

Ordering Information

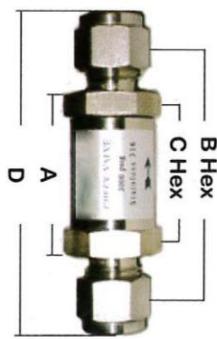
CVC™ Poppet Check Valves are ordered by part number as listed in this catalog. Yung Hong will quote alternate materials or customize our standard products when quantities ensure competitive pricing.

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 | | 81 |
| CVC-S3-10M | 10 mm | | 19 | | 84 |
| CVC-S3-80 | 1/2 in | 43 | 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 | | |

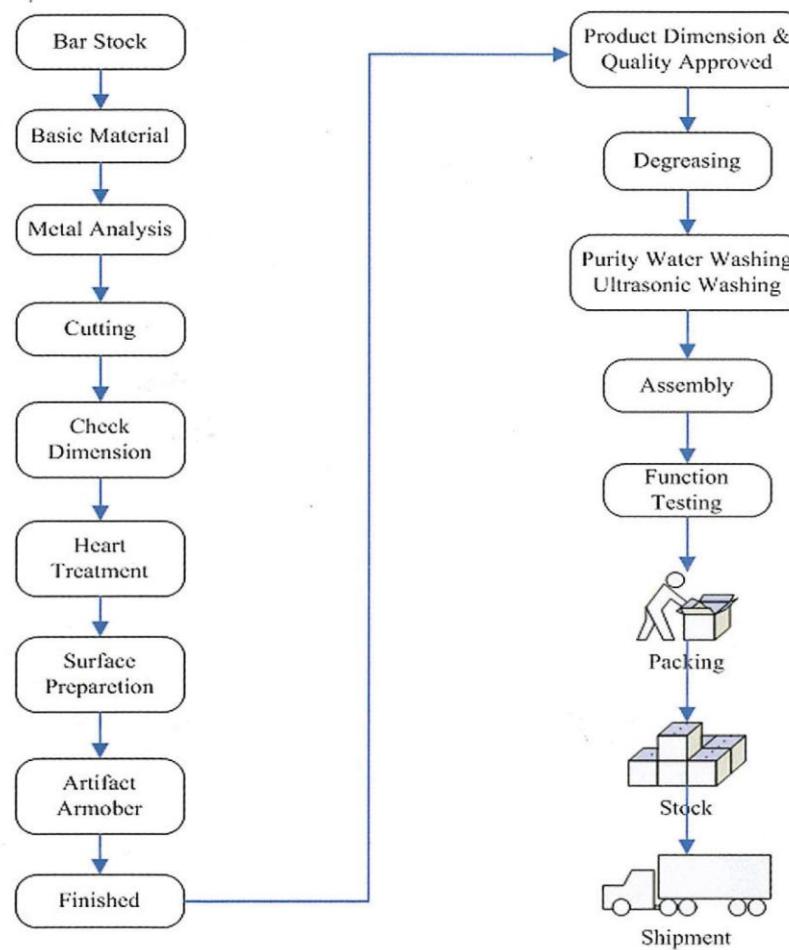


✓ Seal Material

| 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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