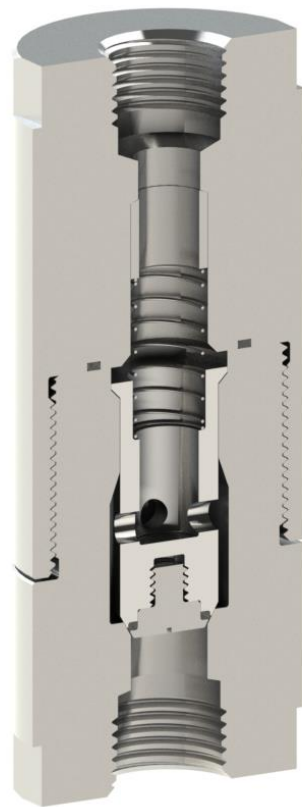




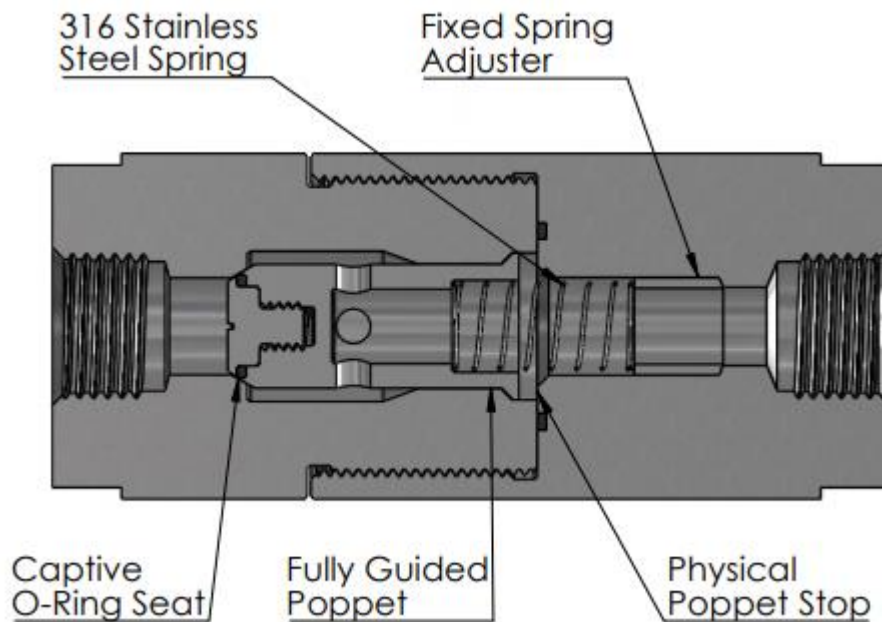
# CKVH06-NPT Stainless Steel In-Line High Pressure Check Valve Specifications



- 6000 psig (414 Barg) Working Pressure
- For Use With 6000 Class NPT Fittings or Lower
  - 1/4" – 2" FNPT Connections
  - Fully Guided Piston Type
- Cracking Pressures From 2-25 psig (0-1.7 Barg)
- Maximum Operating Temperature of 200°F (93°C) (Elastomer Dependent)
  - 316 Stainless Steel Construction
  - 316 Stainless Steel Spring
  - ANSI Class VI Seat Leakage

## Features

- **Pressure-Containing Parts:** Made from solid bar stock materials — unlike castings which have wall thickness variations and porosity.
- **Body and Trim:** Standard material is type 316 stainless steel. **316 stainless steel spring comes standard.** (Alternate materials may be available. Consult factory.)
- **No-Slam Poppet Style:** The spring force causes the poppet to seat rapidly at flow reversal. This **reduces** the chance of a pressure surge in the process lines that could result from a conditions of flow reversal.
- **Compact In-Line Porting**
- **Mechanical Travel Stop:** Damage due to over compression of the spring is reduced by mechanically inhibiting excessive poppet movement.
- **Captive O-Ring Seat:** Reduces the tendency for O-Ring blowout.



## Principle of Operation

This check valve is available in four different fixed cracking pressures. The soft seated poppet seals against the valve seat shutting off the fluid flow in a no flow, or reverse flow situation. Once the inlet pressure exceeds the springs pre-set cracking pressure, the poppet will lift off the valve seat and allow fluid flow through the check valve. The cracking pressure for the fixed check valve cannot be changed without ordering a replacement spring and accompanying spring insert. Before removing the check valve for servicing, or adjustment to the cracking pressure, it is important to take all necessary precautions to protect any service technician from possible harm by removing any line pressure from the system.

## Applications

This compact, in-line, poppet style check valve allows fluid flow (liquid or gas) to pass through a pipe line in only one direction. Unlike some other style check valves, this fully guided poppet – spring design reduces the potential danger of pressure surges as a result of check valve slam. As the direction of flow reverses, the positive pressure differential across the valve (inlet to outlet) decreases and will want to reverse. As the pressure differential decreases to the point of full flow reversal, the poppet will have rapidly approached the seat so that at full flow reversal the valve is already providing an ANSI Class VI seal.

This check valve is recommended to be used with clean (filtered or strained), non-abrasive liquids and gases including but not limited to: water, steam, non-fluorinated chemicals, inert gases and fluids compatible with the selected materials of construction.

This product is for directional flow purposes only and is not to be used as a safety relief device. Do not install this product in a system experiencing pulsating pressures.

Typical applications include:

- Any time back flow prevention is necessary
- Use with pumps in parallel or series
- Applications with mixing

## Technical Specifications

NPS FNPT Inch (DN)	Material	Working Pressure @ psig (Barg)	Max CV	Nominal Cracking Pressure psig (Barg)	Seat Class
<b>Fixed Cracking Pressure</b>					
1/8" (6 mm)	303 SS, 316 SS	6000 (414)	0.67	2, 5, 10, 25 (0.14, 0.35,0.69,1.72)	ANSI Class VI
1/4" (8 mm)	303 SS, 316 SS	6000 (414)	0.67	2, 5, 10, 25 (0.14, 0.35,0.69,1.72)	ANSI Class VI
3/8" (10 mm)	303 SS, 316 SS	6000 (414)	1.82	2, 5, 10, 25 (0.14, 0.35,0.69,1.72)	ANSI Class VI
1/2" (15 mm)	303 SS, 316 SS	6000 (414)	1.82	2, 5, 10, 25 (0.14, 0.35,0.69,1.72)	ANSI Class VI
3/4" (20 mm)	303 SS, 316 SS	6000 (414)	5.50	2, 5, 10, 25 (0.14, 0.35,0.69,1.72)	ANSI Class VI
1" (25 mm)	303 SS, 316 SS	6000 (414)	5.50	2, 5, 10, 25 (0.14, 0.35,0.69,1.72)	ANSI Class VI
1-1/4" (32 mm)	303 SS, 316 SS	6000 (414)	9.30	2, 5, 10, 25 (0.14, 0.35,0.69,1.72)	ANSI Class VI
1-1/2" (40 mm)	303 SS, 316 SS	6000 (414)	9.30	2, 5, 10, 25 (0.14, 0.35,0.69,1.72)	ANSI Class VI
2" (50 mm)	303 SS, 316 SS	6000 (414)	12.02	2, 5, 10, 25 (0.14, 0.35,0.69,1.72)	ANSI Class VI

\*\* Cracking pressures may be higher for valves not cycled for prolonged periods of time\*\*

\*\* Actual cracking pressures may vary within +/- 10% of nominal cracking pressure\*\*

Elastomer	Temperature Range °F (°C)
Viton®	-4 ~ 300 (-4 ~ 149)
Buna®	-49 ~ 200 (-45 ~ 93)
EPDM	-35 ~ 200 (-30 ~ 93)

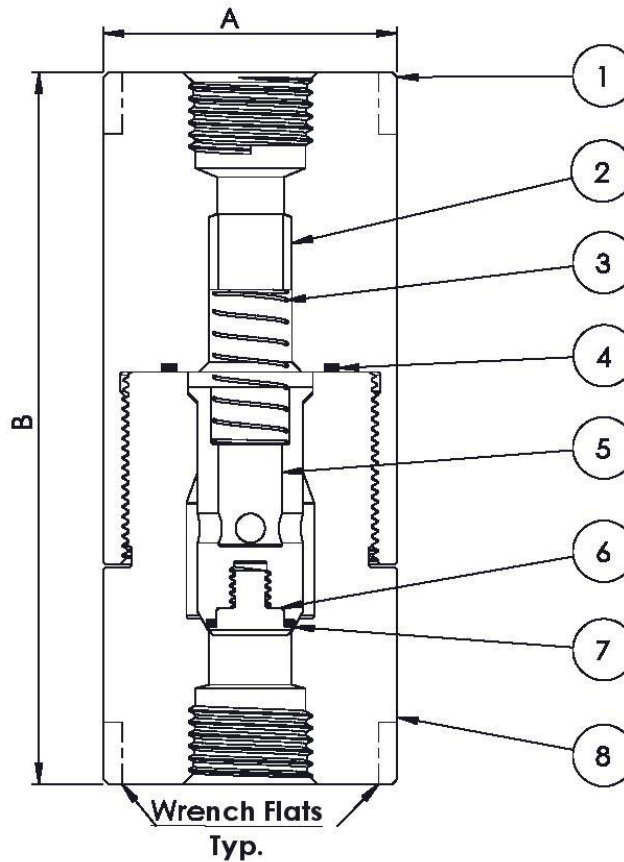
## Options

- Connection Sizes: 1/4"-2" FNPT typical
  - Consult factory for alternative end connections
- Fixed Cracking Pressures
  - Nominal Cracking Pressures: 2, 5, 10, 25 psig (0.14, 0.35, 0.69, 1.72 Barg)
- Seal and Seat Elastomers:
  - Viton®
  - Buna®
  - EPDM
  - Other elastomers available upon request. Consult factory
- Chrome Plated Poppet for Wear Resistance

**\*\*Price May Vary with Materials of Construction, Size, and Selected Options/Alternatives\*\***

## Model CKVH06i-NPT Material List and Schematics

NPS (DN)	Cv	A Inch (mm)	B Inch (mm)	PART NO.	DESCRIPTION	MATERIALS
<b>Fixed Cracking Pressure</b>				1	UPPER BODY	303SS, 316SS
				2	SPRING INSERT	303SS, 316SS
1/4" (8 mm)	0.67	1-5/16 (33)	3-1/4 (83)	3	SPRING	316SS
3/8" (10 mm)	1.82	1-7/8 (48)	4-3/8 (111)	4	O-RING	BUNA®, VITON®, EPDM
1/2" (15 mm)	1.82	1-7/8 (48)	4-3/8 (111)	5	POPPET	303SS, 316SS, HARD CHROMED
3/4" (20 mm)	5.50	2-3/4 (70)	5-5/8 (143)	6	SEAT HOLDER	303SS, 316SS
1" (25 mm)	5.50	2-3/4 (70)	5-5/8 (143)	7	SEAT O-RING	BUNA®, VITON®, EPDM
1-1/4" (32 mm)	9.30	3-1/8 (80)	7 (178)	8	LOWER BODY	303SS, 316SS
1-1/2" (40 mm)	9.30	3-1/8 (80)	7 (178)			
2" (50 mm)	12.02	3-3/4 (96)	8.25 (210)			



ALL DIMENSIONS ARE EXPRESSED NOMINALLY UNLESS NOTED OTHERWISE.  PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF STRAVAL MACHINE CO. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF STRAVAL MACHINE CO. IS PROHIBITED.	CLASS CHECK VALVE	NOMINAL CRACKING PRESSURES FIXED: 2 PSIG (0-10.34 BARG) 5 PSIG (0-10.34 BARG) 10 PSIG (0-10.34 BARG) 25 PSIG (0-10.34 BARG)	FINISH 32-64 RA INDUSTRIAL FINISH MINIMUM  SEAT ANSI CLASS VI (SOFT SEATED)	PH 973-340-9955 FX 973-340-9933 89 BUSHES LANE ELMWOOD PARK, NJ 07407  
	SIZE 1/4" - 2" (DN6 - DN50)	CONNECTIONS THREADED FNPT	PRESSURE RATING 6000 PSIG (414 Bar) @ 70 °F	COMMENTS: CHROME PLATED POPPET AVAILABLE AT ADDITIONAL COST  DRAWN: A.S.      DATE: 06/07/2021

Note: Dimensions are approximate and are subject to change without notice.



## Product Disclaimer

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