



**SILENT CHECK VALVE ♦ SINGLE DISC ♦ THREADED ENDS**  
**ASME CLASS 300 ♦ STAINLESS STEEL BODY**

## MODEL: CV 80-SS

STAINLESS STEEL BODY  
 VITON SEAT



SIZE RANGE:  
 3/8" THROUGH 3"

## FEATURES

- ♦ **QUICK CLOSURE TO REDUCE WATER HAMMER**  
 SILENT SHUT-OFF IS ACHIEVED VIA THE FULLY AUTOMATIC, SPRING ASSISTED DISC THAT CLOSES NEAR ZERO FLOW VELOCITY. THE LIGHTWEIGHT, CENTER GUIDED DISC DESIGN CREATES A POSITIVE SHUTOFF PRIOR TO FLOW REVERSAL AND HELPS TO KEEP SLAMMING AND SURGES TO A MINIMUM.
- ♦ **MINIMAL HEAD LOSS**  
 THE CONTOUR OF BODY PROVIDES A SHORT AND STRAIGHT FLOW PATH THAT GENERATES VERY LITTLE TURBULENCE. ADDITIONALLY, THE SPRING-LOADED, CENTER GUIDED DISC IS DESIGNED WITH VERY LOW CRACKING PRESSURE WHICH REDUCES THE AMOUNT OF ENERGY REQUIRED TO OPEN THE VALVE.
- ♦ **BUBBLE TIGHT SEAL**  
 BY UTILIZING A VITON SEAT AND PTFE GASKET IN CONJUNCTION WITH PRECISION MACHINED SEALING SURFACES, THE CV 80-SS MAINTAINS A BUBBLE TIGHT SEAL THAT MEETS OR EXCEEDS API 598 LEAKAGE REQUIREMENTS.
- ♦ **DESIGNED FOR LONG SERVICE LIFE**  
 THE CV 80-SS UTILIZES A HIGHLY RELIABLE INVESTMENT CASTING, STAINLESS STEEL CONSTRUCTION, AND A SIMPLIFIED DESIGN (ONLY SIX PARTS) THAT CAN PROVIDE A LONG SERVICE LIFE FOR A WIDE VARIETY OF APPLICATIONS.
- ♦ **VERSATILE AND ECONOMICAL DESIGN**  
 THE CV 80-SS CAN BE INSTALLED IN ANY POSITION (HORIZONTAL OR VERTICAL WITH UPWARD FLOW) - CONSULT FACTORY FOR VERTICAL WITH DOWNWARD FLOW. HEX ENDS ARE PROVIDED FOR QUICK AND EASY INSTALLATIONS.

## TECHNICAL

**PRESSURE/TEMPERATURE RATING**  
 SS - ASTM A351 GR. CF8M - CLASS 300

WOG (Non-shock): 720 PSI @ 100 °F  
 Max Liquid: Consult Factory

**SEAT MATERIAL**  
**TEMPERATURE RANGE**

Viton: - 40 ~ 400 °F

**SPRING MATERIAL**  
**MAXIMUM TEMPERATURE**

Type 316 SS: 450 °F

1. The above listed temperatures are theoretical and may vary during actual operating conditions.
2. Max and min temperatures are for reference only. Prolonged use at these temperatures is not recommended for optimal service life.

## APPLICATIONS

**MARKETS:** OIL & GAS PRODUCTION, GENERAL INDUSTRY, CHEMICAL INDUSTRY, PETROCHEMICAL INDUSTRY, POWER, FOOD & BEVERAGE INDUSTRIES.

**SERVICE:** CHEMICAL / NITROGEN LINES, GAS INJECTION, CONDENSATE RECOVERY, PUMP & COMPRESSOR DISCHARGE, PUMP JACK FLOW LINES, CHILLER & BOILER FEED

**VITON PROPERTIES:** OFFERS A BROAD RANGE OF CHEMICAL RESISTANCE AND EXCELLENT HEAT RESISTANCE. GOOD MECHANICAL PROPERTIES AND COMPRESSION SET RESISTANCE. OFTEN USED IN APPLICATIONS WHERE NOTHING ELSE WILL WORK. FAIR LOW TEMPERATURE RESISTANCE AND LIMITED HOT-WATER RESISTANCE AND SHRINKAGE.

*The above data represents common market and service applications. No representation or guarantee, expressed or implied, is given due to the numerous variations of concentrations, temperatures and flow conditions that may occur during actual service.*

**TITAN® FLOW CONTROL, INC.**  
**YOUR PIPELINE TO THE FUTURE!**

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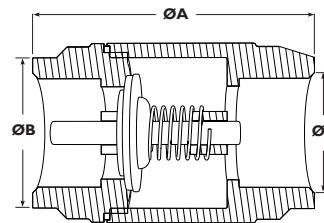
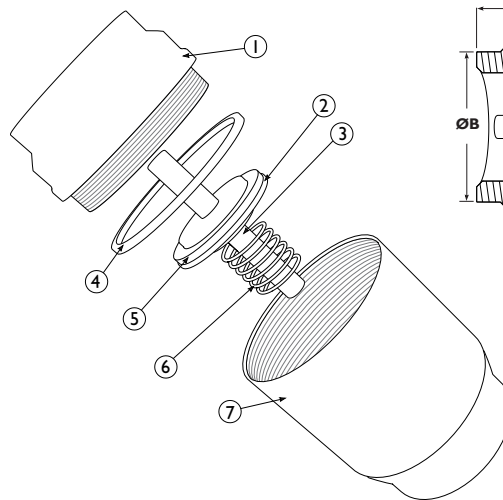
**IN-LINE • SILENT CHECK VALVE  
CENTER GUIDED • THREADED ENDS  
MODEL: CV 80-SS**

ASME Class  
300

Stainless Steel Body • Viton Seat and PTFE Gasket

**BILL OF MATERIALS (1)**

No.	PART	MATERIAL
1	CAP	ASTM A351 Gr. CF8M Stainless Steel
2	DISC	Stainless Steel 18-8
3	STEM	ASTM A351 Gr. CF8M Stainless Steel
4	GASKET (2)	PTFE
5	SEAT	Viton
6	SPRING	Type 316 Stainless Steel
7	BODY	ASTM A351 Gr. CF8M Stainless Steel



**Design Notes:**

1. Size range: 3/8" ~ 3"
2. ASME Class 300
3. Low cracking pressure
4. Minimal head loss
5. Low pressure drop
6. Spring assisted design
7. Long stem for smooth closure
8. Viton Seat for long service life

**Notes:**

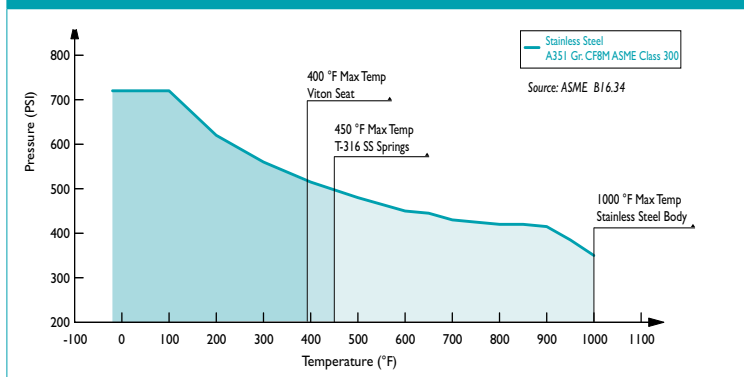
1. Bill of Materials represents standard materials. Equivalent materials may be substituted at the manufacturer's discretion.
2. Denotes recommended spare parts.
3. Viton seats are standard.

**DIMENSIONS AND PERFORMANCE DATA (1)**

SIZE	in	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
	mm	10	15	20	25	32	40	50	65	80
A DIMENSION FACE TO FACE	in	2.086	2.204	2.480	2.913	3.188	3.582	3.818	4.660	5.500
	mm	53	56	63	74	81	91	97	118	140
ØB DIMENSION OUTSIDE DIAMETER	in	0.905	1.181	1.620	1.878	2.165	2.775	3.228	4.312	4.900
	mm	23	30	41	48	55	70	82	110	125
ØC DIMENSION INSIDE DIAMETER	in	0.669	.826	1.023	1.259	1.614	1.850	2.322	2.625	3.250
	mm	17	21	26	32	41	47	59	67	83
ASSEMBLED WEIGHT	lb	0.3	0.4	0.5	1.0	1.5	2.5	3.5	6.0	11.0
	kg	0.1	0.2	0.2	0.5	0.7	1.1	1.6	2.7	5.0
Flow Coefficient	C <sub>v</sub>	6	7	14	20	40	40	80	110	162
Cracking Pressure (2)	psi	≤ .5	≤ .5	≤ .5	≤ .5	≤ .5	≤ .5	≤ .5	≤ .5	≤ .5

1. Dimensions, weights, and flow coefficients are provided for reference only. When required, always request certified drawings.
2. The listed valve cracking pressure only applies to horizontal installations. For vertical installations, cracking pressure is higher. Please consult factory.

**PRESSURE-TEMPERATURE RATINGS FOR CF8M (1) CLASS 300**



1. The above chart displays the pressure-temperature ratings for the valve's body material per ASME B16.34 - latest edition. For reference, maximum temperature limits have been added for seat and spring materials. Stainless Steel not recommended for prolonged use above 1000 °F

**REFERENCED STANDARDS & CODES**

CODE	DESCRIPTION
ASME B1.1	Unified Inch Screw Threads
ASME B1.20.1	Pipe Threads - General Purpose
ASME B16.34	Valves - Flanged, Threaded & Welding Ends
ASTM A351 GR CF8M	Austenitic Steel Castings

**PRESSURE - TEMPERATURE RATING**

**Body Material - ASTM A351 GR. CF8M - CLASS 300**

WOG (Non-shock): 720 PSI @ 100 °F

Max Liquid: Consult Factory

**SEAT AND GASKET TEMPERATURE RATING**

Seat Material	Temperature Range
Viton:	- 40 ~ 400 °F
Gasket Material	Temperature Range
Teflon (PTFE):	- 50 ~ 400 °F

**SPRING TEMPERATURE RATING**

Spring Material	Maximum Temperature
T-316 Stainless Steel	450 °F

1. Max and min temperatures are for reference only. Prolonged use at these temperatures is not recommended for optimal service life.