TITAN FLOW CONTROL, INC.

INSERT CHECK VALVE ❖ WAFER TYPE ❖ CENTER GUIDED

ASME CLASS 150/300 ❖ STAINLESS STEEL BODY

MODEL: CV 71-SS

Body: Stainless Steel

FEATURES

SIZES: 1" ~ 6"

◇ **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 OPEN CAGE DESIGN MINIMIZES 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 AN OPTIONAL VITON SEAT AND GASKET IN CONJUNCTION WITH PRECISION MACHINED SEALING SURFACES, THE CV71SS MAINTAINS A BUBBLE TIGHT SEAL THAT MEETS OR EXCEEDS API598 LEAKAGE REQUIREMENTS.

◇ **DESIGNED FOR LONG LIFE**
THE CV 71SS USES HIGHLY RELIABLE WELDED, STAINLESS STEEL CONSTRUCTION, AND A SIMPLIFIED DESIGN (ONLY FOUR PARTS) THAT PROVIDES LONG SERVICE LIFE FOR A WIDE VARIETY OF APPLICATIONS.

◇ **VERSATILE AND ECONOMICAL DESIGN**
THE CV71SS CAN BE INSTALLED IN ANY POSITION (HORIZONTAL OR UP TO 90° VERTICAL - UP FLOW). NOT RECOMMENDED FOR VERTICAL - DOWNWARD FLOW.

TECHNICAL

PRESSURE/ TEMPERATURE RATING [1] AS51-CF8M / 316 SS - CLASS 150/300
WOG (Non-shock): 740 PSI @ 100 °F
SEAT MATERIAL [1] TEMPERATURE RANGE
STAINLESS STEEL: MAX 450° F VITON: -40 ~ 400° F
SPRING MATERIAL [1] MAXIMUM TEMPERATURE
STAINLESS STEEL: 450 °F

1. The above listed temperatures are theoretical and may vary during actual operating conditions.

APPLICATIONS

MARKETS: GENERAL INDUSTRY, CHEMICAL, PETROCHEMICAL, POWER, FOOD AND BEVERAGE

SERVICE: INTENDED FOR LIQUID SERVICE THAT IS STEADY, CLEAN (NO ABRASIVES OR SOLIDS) AND NON-PULSATING. FLOW RATE SHOULD NOT EXCEED 15 FT/SEC. NOT RECOMMENDED FOR STEAM OR RECIPROCATING COMPRESSOR SERVICE.

PRECAUTIONS: THIS VALVE IS INTENDED FOR LIQUID SERVICE THAT DOES NOT EXCEED 10 FT/SEC. IT IS DESIGNED FOR STEADY FLOW CONDITIONS AND IS NOT RECOMMENDED FOR USE IN RECIPROCATING PUMP, COMPRESSOR OR OTHER TYPE OF PHYSICAL/THERMAL SHOCK-LOAD APPLICATIONS. THIS VALVE IS NOT RECOMMENDED FOR STEAM SERVICE OR FLOW MEDIA THAT CONTAINS SOLIDS. IT SHOULD BE INSTALLED AT LEAST FIVE PIPE DIAMETERS DOWNSTREAM FROM ANY TURBULENCE PRODUCING COMPONENTS. FLOW STRAIGHTENERS MAY BE REQUIRED IN CERTAIN APPLICATIONS.

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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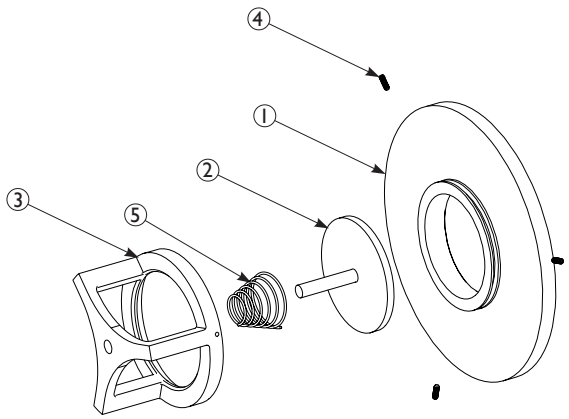
INSERT CHECK VALVE • WAFER TYPE
CENTER GUIDED DESIGN • STAINLESS STEEL
MODEL: CV 71-SS - Stainless Steel Body

ASME Class 150/300

BILL OF MATERIALS (1)

No.	PART	CV 71-SS-S
1	Body	A351 Gr. CF8M Type 316
2	Disc	A351 Gr. CF8M Type 316
3	Cage	A351 Gr. CF8M Type 316
4	Conical Spring	316 Stainless Steel

1. Bill of Materials represents standard materials. Equivalent or better materials may be substituted at the manufacturer's discretion.



DIMENSIONS AND PERFORMANCE DATA (1)

SIZE		1	1 1/4	1 1/2	2	2 1/2	3	4	5	6
	mm	25	32	40	50	65	80	100	125	150
A DIMENSION FACE TO FACE	in	0.25	0.25	0.25	0.25	0.25	0.31	0.38	0.50	0.38
	mm	6.35	6.35	6.35	6.35	6.35	7.94	9.53	12.70	9.53
ØB DIMENSION OVERALL DIAMETER	in	2.50	2.88	3.25	4.00	4.75	5.25	6.75	7.63	8.63
	mm	63.50	73.03	82.55	101.60	120.65	133.35	171.45	193.68	219.08
ØC DIMENSION INLET DIAMETER	in	12.15	18.36	22.54	30.36	38.24	49.41	65.19	86.44	103.4
	mm	0.44	0.58	0.58	0.71	0.83	1.08	1.33	1.33	1.58
ØD DIMENSION MAX TRAVEL W/O SPRING	in	0.44	0.58	0.58	0.71	0.83	1.08	1.33	1.33	1.58
	kg	11.05	14.73	14.73	17.91	21.08	27.43	33.78	33.78	40.13
ØE DIMENSION DISC STEM MAX PROTRUSION W/O SPRING	in	1.28	1.57	1.60	1.97	2.29	2.79	3.35	3.44	3.94
	mm	32.42	39.78	40.58	50.10	58.04	70.74	85.03	87.38	100
ASSEMBLED WEIGHT	lb	0.39	0.53	0.69	1.12	1.60	2.38	4.69	7.63	8.32
	kg	0.18	0.24	0.31	0.51	0.73	1.08	2.13	3.46	3.77
Flow Coefficient	C_v	6.3	13.6	18.7	30.4	45.8	74.7	136	206	305
Cracking Pressure	psi	≤.50	≤.50	≤.50	≤.50	≤.50	≤.50	≤.50	≤.50	≤.50

1. Dimensions, weights, and flow coefficients are provided for reference only. When required, always request certified drawings.

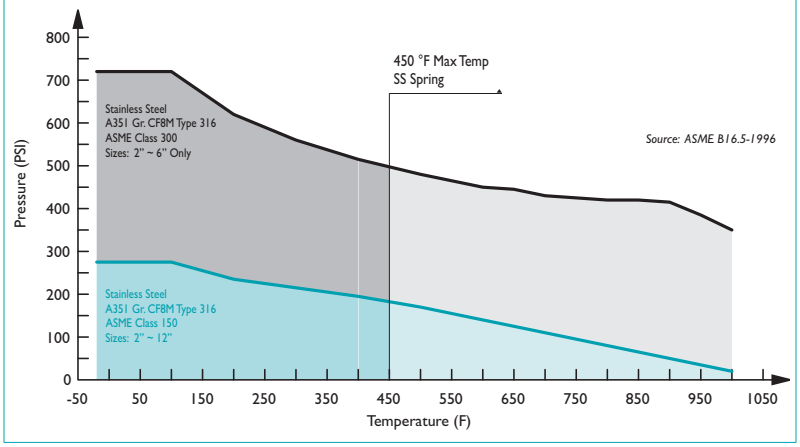
Additional Design & Technical Notes:

Valves are for liquid service only. They should be installed at least five pipe diameters downstream from any turbulence producing components.

Resilient soft seats are also available. Please contact factory for price and delivery.

Designed for installation in SCH 40 or SCH 80 pipe systems. Contact factory for heavier schedules.

PRESSURE-TEMPERATURE RATINGS (1)



1. This chart displays the pressure-temperature ratings for the valve's body per ASME B16.5. Maximum temperature limits have been added for seat and spring materials.

ORDERING CODE

Model Number	Description
CV71-SS-M	Stainless Steel Body, Stainless Steel Seat, Disc, and Spring

REFERENCED STANDARDS & CODES

CODE	DESCRIPTION
ASME B16.5	Pipe Flanges and Flanged Fittings
MSS SP-6	Standards Finishes for Connecting-end Flanges
MSS SP-25	Standard Marking System for Valves
MSS SP-126	Steel, In-Line, Spring-Assisted, Center-Guided Valves

PRESSURE/TEMPERATURE RATING (1)

ASME Class	150 lb Service	300 lb Service
WOG (Non-shock)	275 PSI @ 100 °F	720 PSI @ 100 °F

SEAT AND SPRING TEMPERATURE RATINGS (1)

SEAT	Temperature Range
Metal	-325 °F @ 1000 °F
Viton	-40 °F @ 400 °F
SPRING	**Maximum Temperature**
Stainless Steel	450 °F

1. *The listed pressure and temperature ratings for the valve's body, seat, and spring are theoretical and may vary during actual operating conditions.*