



TITAN FLOW CONTROL, INC.

AXIAL FLOW CHECK VALVE ♦ WAFER STYLE ♦ CENTER GUIDED

ASME CLASS 150 ♦ CARBON AND STAINLESS STEEL

MODELS:

CV 92-CS

(CARBON STEEL - WAFER)

CV 92-SS

(STAINLESS STEEL - WAFER)



Size Range: 2" ~ 12"

Larger Sizes available.

FEATURES

♦ VERSATILE & EFFICIENT DESIGN

CV92 IS A NON-RETURN NON-SLAM CHECK VALVE DESIGNED FOR LOW FLOW FLUCTUATING SYSTEMS AND FOR CRITICAL APPLICATIONS WHERE BACKFLOW IS A CONCERN. THE DIFFUSER PREVENTS BACKFLOWS FROM IMPACTING THE BACK SIDE OF THE DISCS. IN CASE OF A PERCEPTIBLE REDUCTION IN FLOW THE SPRING REACTS EARLY AGAINST THE FORCE OF THE REDUCING FLOW. NO SLAMMING AND NO BACKFLOW MEANS NO EXCESS PRESSURE SPIKES.

♦ MINIMAL HEAD LOSS

THE VENTURI DESIGN WITH A SPRING ASSISTED SINGLE DISC ALLOWS THE VALVE TO FULLY OPEN QUICKLY. LAMINAR FLOW PATH THROUGH THE FULL OPENING PASSAGE AND HIGH PRESSURE RECOVERY RESULTS IN LOW PRESSURE LOSS, AVOIDS TURBULENCE AND PREVENTS EROSION AND VIBRATION.

♦ QUICK CLOSURE TO REDUCE WATER HAMMER

THE CV92 NOZZLE TYPE CHECK VALVE WITH AN AXIAL SPRING COMBINED WITH THE SHORT DISPLACEMENT OF THE DISC ENABLES A RAPID SLAM-FREE RESPONSE AND DYNAMIC REACTION TO THE REDUCTION IN FLOW. THESE CHARACTERISTICS MITIGATE AGAINST PRESSURE SURGE OR IMPACT OF WATER HAMMER. THE NOZZLE TYPE CHECK RESPONDS SMOOTHLY TO CHANGES IN FLOW AND PROVIDES STABLE OPERATION

♦ FUGITIVE EMISSION DESIGN

TITAN'S INNOVATIVE RETAINER DESIGN ELIMINATES POTENTIAL LEAK PATHS TO THE ENVIRONMENT AND ENSURES ZERO EMISSIONS

♦ RESILIENT AND METAL SEATS

PRECISION MACHINED SEALING SURFACES ALLOW CV92'S TO MAINTAIN A TIGHT SEAL THAT MEETS OR EXCEEDS API 598 REQUIREMENTS. RESILIENT SEAT CAN ALSO BE FURNISHED UPON REQUEST. PLEASE CONTACT FACTORY.

TECHNICAL

PRESSURE/TEMPERATURE RATING
CS - ASTM A216 GR. WCB - CLASS 150

WOG (Non-shock): 285 PSI @ 100 °F

PRESSURE/TEMPERATURE RATING
SS - ASTM A351 GR. CF8M - CLASS 150

WOG (Non-shock): 275 PSI @ 100 °F

SEAT MATERIAL
TEMPERATURE RANGE

METAL: -325 ~ 1500 °F
VITON: -40 ~ 400 °F
BUNA-N: -20 ~ 250 °F

SPRING MATERIAL
TEMPERATURE MAXIMUM

INCONEL X-750: 1000 °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.

MARKETS: WATER & WASTEWATER, PULP & PAPER, CHEMICAL & PETROCHEMICAL, POWER, PETROLEUM AND OIL & GAS

SERVICE: PUMP DISCHARGE SERVICE IN MUNICIPAL WATER, IRRIGATION, AND INDUSTRIAL CLASS HVAC SYSTEMS. IT IS RECOMMENDED THAT A TITAN FCI STRAINER BE INSTALLED AHEAD OF THE PUMP TO ENSURE PROTECTION OF THE CHECK VALVE AND THE PUMP.

PRECAUTIONS: THIS VALVE IS INTENDED FOR LIQUID SERVICE THAT DOES NOT EXCEED 15 FT/SEC. THIS VALVE IS NOT RECOMMENDED FOR 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.

APPLICATIONS

TITAN® FLOW CONTROL, INC.

YOUR PIPELINE TO THE FUTURE!

Tel: 910-735-0000 ♦ Fax: 910-738-3848 ♦ titan@titanfci.com ♦ www.titanfci.com
290 Corporate Drive ♦ PO Box 7408 ♦ Lumberton, NC 28358



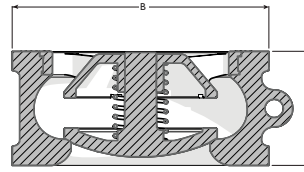
TITAN® FLOW CONTROL, Inc.
 290 Corporate Drive E-mail: titan@titanfci.com
 Lumberton, NC 28358 Web: www.titanfci.com
 Tel: 910.735.0000 Fax: 910.738.3848

NON-SLAM CHECK VALVE • WAFER TYPE
CENTER GUIDED DESIGN • AXIAL FLOW
MODEL: CV 92-CS/SS

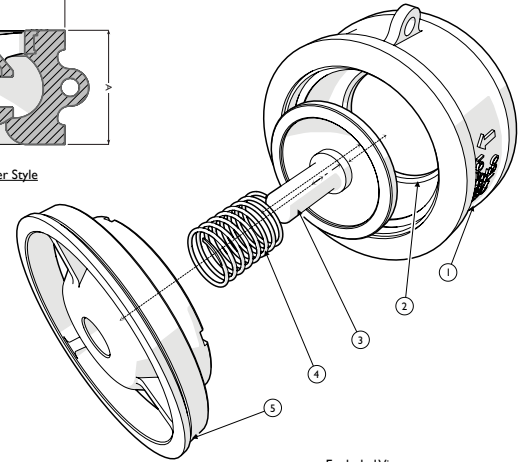
ASME
 Class 150

BILL OF MATERIALS (1)

No.	PART	CV92-CS	CV92-SS
1	Body (4)	Carbon Steel A216 Gr.WCB	Stainless Steel A351 Gr. CF8M
2	Seat(3)(4)	Metal/Viton/Buna-N	Metal or Viton
3	Disc	Stainless Steel ASTMA182 F316	Stainless Steel ASTMA182 F316
4	Spring (2)	Inconel X-750	Inconel X-750
5	Diffuser	Stainless Steel A351 Gr. CF8M	Stainless Steel A351 Gr. CF8M



Cutaway View - Wafer Style



Exploded View

1. Bill of Materials represents standard materials. Equivalent or better materials may be substituted at the manufacturer's discretion.
2. Denotes recommended spare parts.
3. Metal seat is 316 stainless steel inlay.
4. Alternate Body and Seat materials available. Contact factory.

Additional Design & Technical Notes:

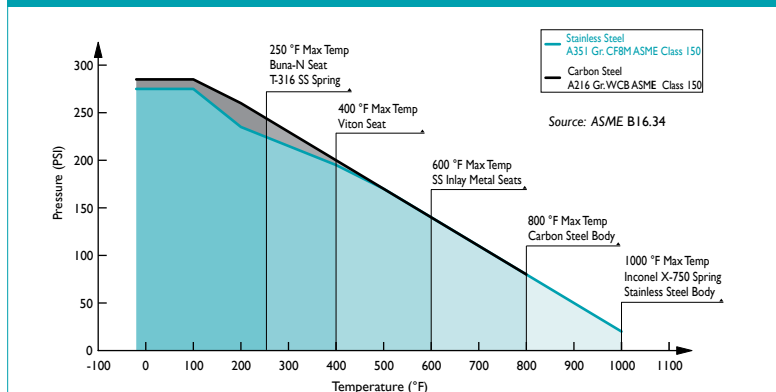
- The CV92 has a fugitive emission design. The innovative retainer design eliminates potential leak paths to the environment so there are no body emissions.

DIMENSIONS AND PERFORMANCE DATA (1)

SIZE	in	2	2 1/2	3	4	5	6	8	10	12
	mm	50	65	80	100	125	150	200	250	300
A DIMENSION FACE TO FACE (2)	in	2.38	2.62	2.88	2.88	3.38	3.88	5.00	5.75	7.12
	mm	60	67	73	73	86	99	127	146	181
ØB DIMENSION OVERALL DIAMETER	in	4.06	4.80	5.31	6.81	7.65	8.62	10.88	13.25	16.00
	mm	103	122	135	173	195	219	277	337	406
ASSEMBLED WEIGHT	lb	4.8	7.7	11.0	16.25	23.0	30.0	62.0	86.0	147.5
	kg	2.2	3.5	5.0	7.3	10.5	13.5	28.0	39.0	67.0
Flow Coefficient	C _v	120	205	260	430	625	825	1310	1875	2525
Cracking Pressure (3)	psi	≤ .50	≤ .50	≤ .50	≤ .50	≤ .50	≤ .50	≤ .50	≤ .50	≤ .50

1. Dimensions and weights are for reference only. When required, request certified drawings.
2. Face to face values have a tolerance of ±0.06 in (±2.0 mm) for sizes 10" and lower and a tolerance of ±0.12 in (±3.0 mm) for sizes 12" and larger.
3. Cracking pressure is for horizontal installations only. For vertical installations, please consult factory.

PRESSURE - TEMPERATURE RATINGS (1)



1. The above chart displays the pressure-temperature ratings for the valve's body material per ASME B16.34. Max temperature limits have been added for seat and spring materials.

REFERENCED STANDARDS & CODES

CODE	DESCRIPTION
ASME B16.34	Valve Design and Manufacture
ASME 16.5	Flange Dimensions
API 594	Valve Face to Face Dimensions
API 598	Valve Inspection and Pressure Test
ASME B16.34	Pressure-Temperature Rating

PRESSURE - TEMPERATURE RATING

Body Material	A216 Gr.WCB	A351 Gr. CF8M
WOG (Non-shock):	285 PSI @ 100 °F	275 PSI @ 100 °F

SEAT AND SPRING TEMPERATURE RATING

Seat Material	Range	Spring Material	Max
METAL:	-325 ~ 1500 °F	INCONEL X-750:	1000 °F
BUNA-N:	-20 ~ 250 °F		
VITON:	-40 ~ 400 °F		

As †Titan product changes occur, there may be short-term differences between actual product specifications and the information contained within our literature. †Titan FCI reserves the right to make design and specification changes to improve our products without prior notification. When required, request certified drawings. †TITAN is a registered trademark of Titan Flow Control Incorporated.