



TITAN FLOW CONTROL, INC.

## SWING CHECK VALVE ♦ WAFER TYPE ♦ SHORT PATTERN

### ANSI CLASS 150 ♦ CARBON STEEL & STAINLESS STEEL

MODELS: CV 12-CS  
(CARBON STEEL)

CV 12-SS  
(STAINLESS STEEL)

2" TROUGH 24"

## FEATURES

- ♦ SINGLE PLATE - SELF ACTING - NON-RETURN - WAFER TYPE SWING CHECK VALVE
- ♦ ROBUST DESIGN THAT PROVIDES HIGH QUALITY AND RELIABILITY WITHIN A SIMPLIFIED CONSTRUCTION
- ♦ LOW INERTIA DISC DESIGNED TO OPEN UNDER LOW DIFFERENTIAL PRESSURE CONDITIONS
- ♦ SHORT PATTERN DESIGN MINIMIZES PRESSURE DROP ACROSS THE VALVE
- ♦ SOFT SEAT (PTFE OR BUNA) AND ECCENTRIC DISC ENSURE POSITIVE SHUTOFF
- ♦ MEETS OR EXCEEDS API 598 LEAKAGE REQUIREMENTS
- ♦ LOW WEIGHT AND SHORT FACE-TO-FACE DIMENSIONS PROVIDE AN ECONOMICAL, SPACE-SAVING SOLUTION
- ♦ FLANGE GASKETS ARE TYPICALLY NOT REQUIRED DUE TO BUILT-IN, BODY SEAL O-RINGS
- ♦ CAN BE INSTALLED BETWEEN WELD NECK OR SLIP-ON TYPE COMPANION FLANGES OF DIFFERENT STANDARDS



## TECHNICAL

### PRESSURE/TEMPERATURE

SS - ASTM A240 GR. 316 - CLASS 150

WOG: 275 PSI @ 100 °F  
MAX LIQUID: 80 PSI @ 400 °F  
MAX STEAM: 50 PSI @ 109 °F

### CS - ASTM A515 GR. 70 - CLASS 150

WOG: 285 PSI @ 100 °F  
MAX LIQUID: 80 PSI @ 400 °F  
MAX STEAM: 50 PSI @ 109 °F

### SEAT MATERIAL

PTFE: -100 ~ 400 °F  
BUNA-N: -10 ~ 250 °F

**MARKETS:** OIL AND GAS PRODUCTION, GENERAL INDUSTRY, CHEMICAL, & PETROCHEMICAL

**SERVICE:** LOW FLOW SERVICE THAT IS STEADY, CLEAN (NO ABRASIVES) & NON-PULSATING.  
FLOW RATE MUST NOT EXCEED: LIQUIDS: 15 FT/SEC GASES: 100 FT/SEC

**PTFE PROPERTIES:** GOOD FOR MOST CHEMICAL ENVIRONMENTS. OFFERS EXCELLENT TEAR, ABRASIVE, CHEMICAL, ACID, AND ALKALI RESISTANCE. NOT RECOMMENDED FOR HIGH PRESSURE STEAM OR LARGE TEMPERATURE VARIATION APPLICATIONS

**BUNA PROPERTIES:** GOOD FOR MOST PETROLEUM OILS/FLUIDS, SILICONE GREASES/OILS AND COLD WATER. NOT RECOMMENDED FOR SEVERE OZONE-RESISTANT 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.

SERVICE ♦ QUALITY ♦ COMMITMENT

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**SWING CHECK VALVE • WAFERTYPE**

**SHORT PATTERN DESIGN**

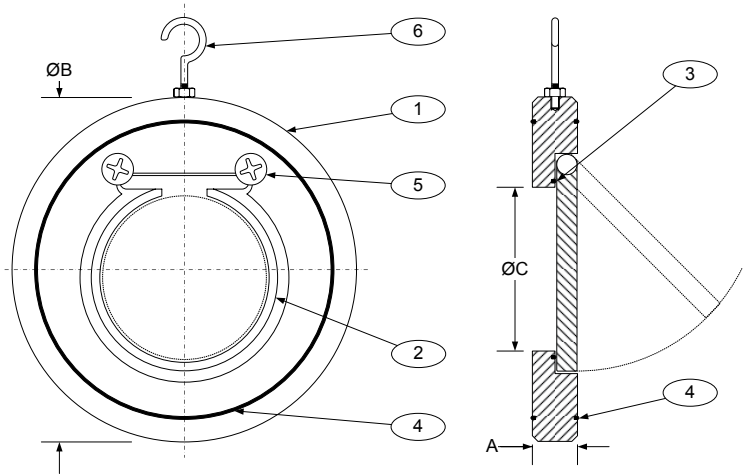
**MODELS: CV 12-CS (carbon steel)  
CV 12-SS (stainless steel)**

ANSI Class  
150 lb <sup>(5)</sup>

**BILL OF MATERIALS <sup>(1)</sup>**

No.	PART	CV 12-CS	CV 12-SS
1	BODY	A515 Gr. 70	A240 Gr. 316
2	DISC	Zinc Plated	A351 Gr. CF8M
3	SEAT <sup>(2)</sup>	BUNA-N	PTFE
4	BODY SEAL <sup>(2)</sup>	BUNA-N	PTFE
5	BOLT	Type 304-SS	Type 304-SS
6	EYE BOLT	Chrome Plated	Chrome Plated

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

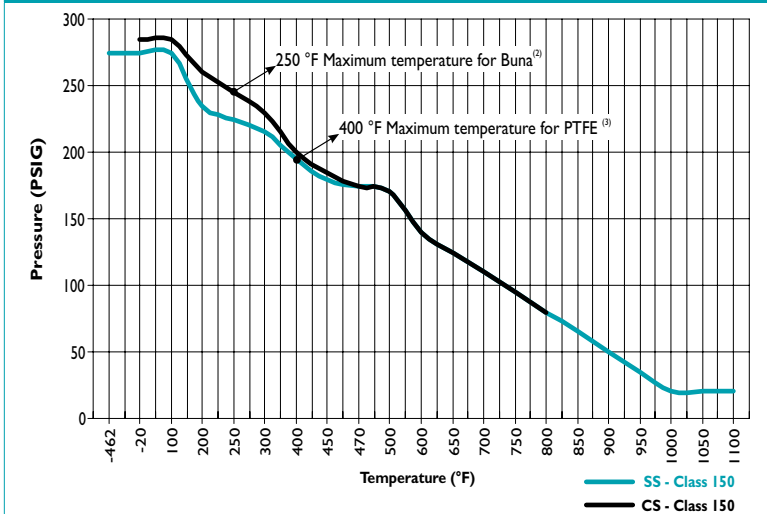


**DIMENSIONS AND PERFORMANCE DATA**

SIZE	in	2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	24
	mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600
<b>A DIMENSION</b> FACE TO FACE	in	.75	.75	.75	.75	.75	.75	1.125	1.125	1.50	1.75	2.00	2.375	2.50	2.50
	mm	20	20	20	20	20	20	29	29	39	45	51	61	64	64
<b>ØB DIMENSION</b> OVERALL DIAMETER	in	4.125	4.875	5.50	6.875	7.75	8.75	11.00	13.375	16.125	17.75	20.25	21.50	24.00	28.25
	mm	105	124	140	175	197	223	280	340	410	451	515	547	610	718
<b>ØC DIMENSION</b> INLET DIAMETER	in	1.25	1.625	2.125	3.00	3.375	4.375	6.125	8.00	9.50	10.625	12.25	14.125	16.125	19.25
	mm	32	42	54	77	86	112	156	204	242	270	312	359	410	489
<b>ASSEMBLED WEIGHT</b>	lb	2.5	3.5	6.0	7.0	8.5	10.0	22.0	33.5	64.5	93.5	140.0	174.0	232.0	352.0
	kg	1.1	1.6	2.7	3.2	3.9	4.5	10.0	15.2	29.2	42.4	63.4	78.8	105.1	159.5
Flow Coefficient	C <sub>v</sub>	75	124	300	405	675	1000	1950	3050	C/F	C/F	C/F	C/F	C/F	C/F
Cracking Pressure	psi	< .25	< .25	< .25	< .25	< .25	< .25	< .25	< .25	< .25	< .25	< .25	< .25	< .25	< .25

Dimensions and weights are for reference only. When required, request certified drawings.

**PRESSURE-TEMPERATURE RATINGS <sup>(1)</sup>: CS & SS CLASS 150**



1. Pressure-Temperature ratings in accordance with ASME/ANSI B16.34-1996.
2. 250 °F maximum operating temperature for Buna.
3. 400 °F maximum operating temperature for PTFE.

**REFERENCED STANDARDS & CODES**

CODE	DESCRIPTION
API 598 / ANSI B16.5	Valve Testing
API 6D / ANSI B16.5	Design & Face-to-Face Dimensions
ANSI 150	Flange Standard Conformity

**PRESSURE/TEMPERATURE RATING**

	CV 12-CS	CV 12-SS
WOG (water, oil, gas)	285 PSI @ 100 °F	275 PSI @ 100 °F
MAX LIQUID	80 PSI @ 400 °F	80 PSI @ 400 °F
MAX STEAM	50 PSI @ 109 °F	50 PSI @ 109 °F

**SEAT MATERIAL**

PTFE	-100 ~ 400 °F
BUNA	-10 ~ 250 °F

4. Valve can not be installed in the vertical position with flow downward.
5. 300 lb and 600 lb units are also available. Please contact factory.

Ordering Code: \_\_\_\_\_ Size: \_\_\_\_\_

Customer/Project: \_\_\_\_\_

Inq./P.O. No.: \_\_\_\_\_

Titan Order No.: \_\_\_\_\_

Certified By: \_\_\_\_\_ Date: \_\_\_\_\_



**TITAN FLOW CONTROL, INC.**  
Engineering Specification Submittal

**Wafer Type Swing Check Valve - Short Pattern • Models: CV 12-CS/SS**

Size	Model Number	Description	Drawing Number