



TITAN FLOW CONTROL, INC.

SWING CHECK VALVE ♦ WAFER TYPE ♦ SINGLE DISC

ANSI CLASS 150 ♦ DUCTILE IRON

MODELS: CV 31-DI
(STAINLESS TRIM)
2" TROUGH 12"



FEATURES

- ◇ SHUT-OFF IS ACHIEVED VIA THE FULLY AUTOMATIC, SPRING-ASSISTED DISC THAT CLOSES AT ZERO FLOW VELOCITY
- ◇ QUICK CLOSURE OF THE DISC REDUCES WATER HAMMER BY CREATING A POSITIVE SHUTOFF PRIOR TO FLOW REVERSAL
- ◇ HEAD LOSS IS MINIMIZED BY PROVIDING A COMPACT FACE-TO-FACE AND A VIRTUALLY UNOBSTRUCTED FLOW PATH
- ◇ DUCTILE IRON BODY MAINTAINS THE ANTI-CORROSIVE PROPERTIES OF CAST IRON WHILE ACHIEVING A YIELD STRENGTH COMPARABLE TO CARBON STEEL
- ◇ CAN BE INSTALLED IN ANY POSITION: VERTICAL (WITH UPWARD FLOW ONLY) OR HORIZONTAL
- ◇ ANTI-CORROSIVE, STAINLESS STEEL TRIM (DISC, SPRING, AND SHAFT) ARE STANDARD
- ◇ NARROW FACE-TO-FACE DIMENSIONS AND LIGHTWEIGHT DESIGN PROVIDE AN ECONOMICAL, SPACE-SAVING SOLUTION
- ◇ FIELD REPLACEABLE SOFT SEAT (O-RING) AND PRECISION MACHINED DISC ENSURE A BUBBLE-TIGHT SEAL

TECHNICAL

PRESSURE/TEMPERATURE RATING
DUCTILE IRON ASTM A536 CLASS 150

WOG: 250 PSI @ 100 °F ⁽¹⁾

SEAT MATERIAL (O-RING)

BUNA-N: -20 ~ 250 °F

1. Ductile Iron check valves offer higher pressure ratings than Cast Iron check valves. For example, Ductile Iron check valves (2" ~ 24") are rated at 250 PSI WOG. By comparison, Cast Iron check valves (2" ~ 12") are rated at 200 PSI WOG and (14" ~ 24") are only rated at 150 PSI WOG.

APPLICATIONS

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

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

BUNA-N PROPERTIES: MOST WIDELY USED ELASTOMER. GOOD FOR MOST PETROLEUM OILS AND FLUIDS, SILICONE GREASES AND OILS, AND COLD WATER. EXCELLENT COMPRESSION SET, TEAR, AND ABRASION RESISTANCE. POOR WEATHER RESISTANCE AND MODERATE HEAT RESISTANCE. 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.

TITAN FLOW CONTROL, INC.

YOUR PIPELINE TO THE FUTURE!

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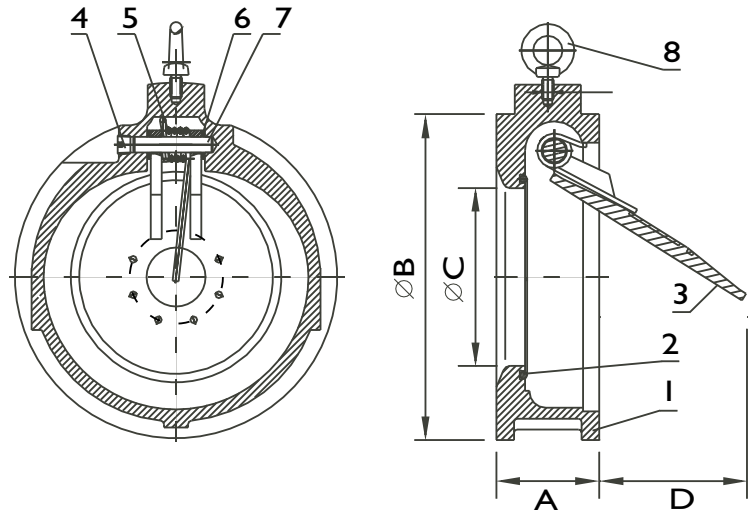
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SWING CHECK VALVE • WAFER TYPE
SINGLE DISC
MODEL: CV 31-DI (Stainless Steel Trim)

ANSI Class
 150 lb

BILL OF MATERIALS ⁽¹⁾

No.	PART	CV 31-DI
1	Body	Ductile Iron ASTM A536
2	Seat ⁽²⁾	Buna-N O-RING
3	Disc ⁽²⁾	Stainless Steel AISI 316
4	Plug	Carbon Steel ASTM A307B
5	Spring ⁽²⁾	Stainless Steel AISI 304
6	Spacer	PTFE Commercial
7	Shaft	Stainless Steel AISI 316
8	Eye Bolt	Carbon Steel ASTM A307B



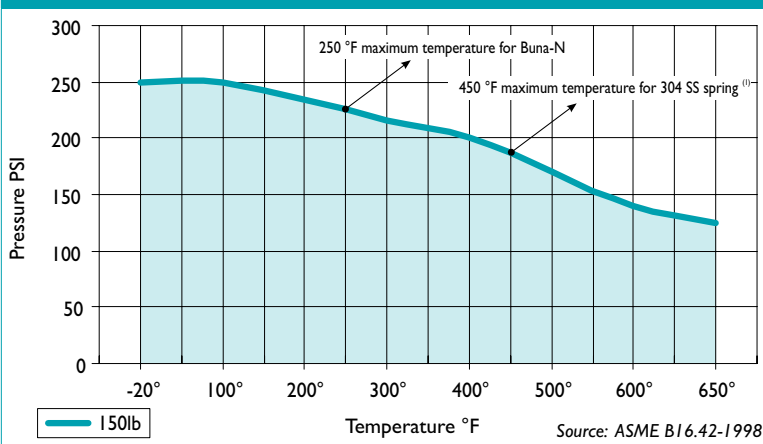
1. Bill of Materials represents standard materials. Equivalent or better materials may be substituted at the manufacturer's discretion. All materials conform to ASTM specifications.
2. Denotes recommended spare parts.

DIMENSIONS AND PERFORMANCE DATA

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	in	1.75	1.875	2.00	2.25	2.50	2.75	2.875	3.125	3.375
	mm	45	48	51	58	64	70	74	80	86
ØB DIMENSION OVERALL DIAMETER	in	4.125	4.875	5.375	6.875	7.75	8.75	11.00	13.375	16.125
	mm	105	124	137	175	197	223	280	340	410
ØC DIMENSION INLET DIAMETER	in	1.313	1.85	2.063	3.00	3.75	4.75	6.438	7.625	9.50
	mm	34	47	53	77	96	121	164	194	242
D DIMENSION DISC MAX TRAVEL	in	.50	.75	1.31	2.31	2.75	3.38	4.00	4.75	5.00
	mm	13	20	34	59	70	86	102	121	127
ASSEMBLED WEIGHT	lb	4.0	5.0	7.0	11.0	16.0	20.0	32.0	52.0	77.0
	kg	1.8	2.3	3.2	5.0	7.2	9.1	14.5	23.6	34.9
Flow Coefficient	C _v	62	109	166	318	471	720	1384	2298	4153
Cracking Pressure	psi	< .25	< .25	< .25	< .25	< .25	< .25	< .25	< .25	< .25

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

PRESSURE-TEMPERATURE RATINGS ⁽¹⁾: D.I. A536 CLASS 150



1. As the temperature increases, the load capacity of the spring diminishes significantly. At higher temperatures, Inconel Springs must be used.

REFERENCED STANDARDS & CODES

CODE	DESCRIPTION
ANSI B16.42	Ductile Iron Pipe Flanges and Flanged Fittings
ANSI B16.5	Pipe Flanges & Flanged Fittings
API 594	Wafer, Wafer-Lug, & Double Flanged Type Check Valve
API 598	Valve Inspection and Testing
MSS SP-6	Standard Finishes for Connecting-end Flanges
MSS SP-25	Standard Marking System for Valves
MSS SP-55	Quality Standard for Valve Castings

PRESSURE/TEMPERATURE RATING

Pressure Class	D.I. A536 CLASS 150
WOG (water, oil, gas)	250 PSI @ 100 °F ⁽¹⁾

1. Ductile Iron check valves offer higher pressure ratings than Cast Iron check valves. For example, Ductile Iron check valves (2" ~ 24") are rated at 250 PSI WOG. By comparison, Cast Iron check valves (2" ~ 12") are rated at 200 PSI WOG and (14" ~ 24") are only rated at 150 PSI WOG.

Ordering Code: _____ Size: _____
 Customer/Project: _____
 Inq./P.O. No.: _____
 Titan Order No.: _____
 Certified By: _____ Date: _____

Engineering Specification Submittal

Titan FCI makes every effort to ensure the information presented on our literature accurately reflects exact product specifications. However, as changes occur, there may short-term differences between actual product specifications and the information shown on our literature. Titan FCI reserves the right to make specification changes to improve our products without prior notification.

Wafer Type - Swing Check Valve - Single Disc • Model: CV 31-DI

Size	Model Number	Description	Drawing Number