



TITAN FLOW CONTROL, INC.

SWING CHECK VALVE ♦ WAFER TYPE ♦ SINGLE DISC

ASME CLASS 150 ♦ CARBON AND STAINLESS STEEL

MODELS: CV 32-CS

(Carbon - Viton)

CV 32-SS

(Stainless - PTFE)



SIZES: 2" ~ 12"

FEATURES

- ♦ **ECONOMICAL DESIGN**
LOW WEIGHT AND SHORT LAYING LENGTH PRODUCE SAVINGS IN INITIAL COST, SPACE REQUIREMENTS, AND INSTALLATION WHEN COMPARED TO FULL-BODY, SWING-TYPE CHECK VALVES.
- ♦ **MINIMAL HEAD LOSS**
HEAD LOSS IS MINIMIZED BY PROVIDING A SHORT, STRAIGHT AND VIRTUALLY UNOBSTRUCTED FLOW PATH. ADDITIONALLY, THE SPRING-LOADED DISC IS DESIGNED WITH VERY LOW CRACKING PRESSURE WHICH REDUCES THE AMOUNT OF ENERGY REQUIRED TO OPEN THE VALVE.
- ♦ **QUICK CLOSURE TO REDUCE WATER HAMMER**
SHUT-OFF IS ACHIEVED VIA THE FULLY AUTOMATIC, SPRING-ASSISTED DISC THAT CLOSES NEAR ZERO FLOW VELOCITY. THE LIGHTWEIGHT, SINGLE DISC DESIGN CREATES A POSITIVE SHUTOFF PRIOR TO FLOW REVERSAL WHICH HELPS TO KEEP SURGES TO A MINIMUM.
- ♦ **DURABLE, HIGH QUALITY DESIGN**
THE CV32 CHECK VALVE IS AVAILABLE IN EITHER CARBON STEEL OR STAINLESS STEEL BODY CONFIGURATIONS, WHICH ALLOW IT TO PERFORM WELL IN HIGHER TEMPERATURE APPLICATIONS. THE CARBON STEEL UNITS ARE EPOXY PAINTED. ADDITIONALLY, BOTH MODELS FEATURE ANTI-CORROSIVE, STAINLESS STEEL TRIM (DISC, SPRING, SHAFT) AS STANDARD.
- ♦ **RESILIENT SOFT SEATS**
RESILIENT SOFT SEATS (VITON AND PTFE O-RING) COUPLED WITH PRECISION MACHINED SEALING SURFACES HELP TO ENSURE A BUBBLE TIGHT SEAL THAT MEETS OR EXCEEDS API 598 TEST REQUIREMENTS.

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 (O-RING)
TEMPERATURE RANGE

VITON: -40 ~ 400 °F
PTFE: -100 ~ 400 °F

SPRING MATERIAL
MAXIMUM TEMPERATURE

Stainless Steel Type 304: 450 °F

APPLICATIONS

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

PTFE PROPERTIES: RECOMMENDED FOR MOST CHEMICAL ENVIRONMENTS INCLUDING ACIDS, BASES, OILS, STEAM AND OTHER PROCESS FLUIDS. OFFERS EXCELLENT TEAR, ABRASIVE, CHEMICAL, ACID, AND ALKALI RESISTANCE. NOT RECOMMENDED FOR HIGH PRESSURE STEAM OR LARGE TEMPERATURE VARIATION APPLICATIONS.

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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**SWING CHECK VALVE • WAFER TYPE
SINGLE DISC**

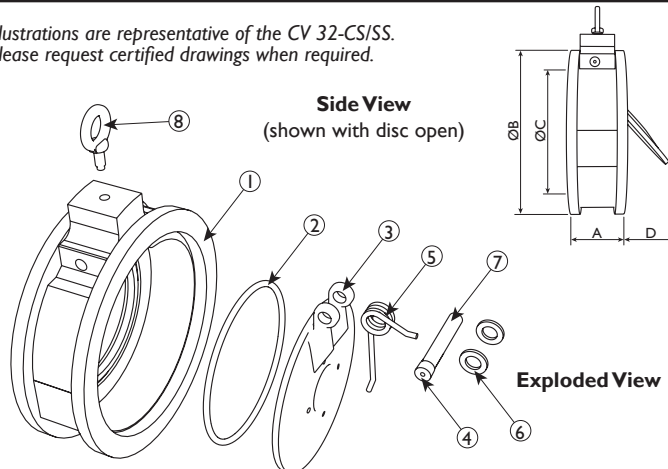
**MODELS: CV 32-CS (Carbon - Viton Seat)
CV 32-SS (Stainless - PTFE Seat)**

ASME
Class 150

BILL OF MATERIALS ⁽¹⁾

Illustrations are representative of the CV 32-CS/SS.
Please request certified drawings when required.

| No. | PART | CV 32-CS | CV 32-SS |
|-----|-----------------------|--------------------------|-------------------------------|
| 1 | Body | Carbon Steel A216 Gr.WCB | Stainless Steel A351 Gr. CF8M |
| 2 | Seat ⁽²⁾ | Viton O-Ring | PTFE Commercial O-Ring |
| 3 | Disc ⁽²⁾ | Stainless Steel Type 316 | Stainless Steel Type 316 |
| 4 | Plug | Carbon Steel ASTM A307B | Stainless Steel Type 316 |
| 5 | Spring ⁽²⁾ | Stainless Steel Type 304 | Stainless Steel Type 304 |
| 6 | Spacer | PTFE Commercial | PTFE Commercial |
| 7 | Shaft | Stainless Steel Type 316 | Stainless Steel Type 316 |
| 8 | Eye Bolt | Carbon Steel ASTM A307B | Carbon Steel ASTM A307B |



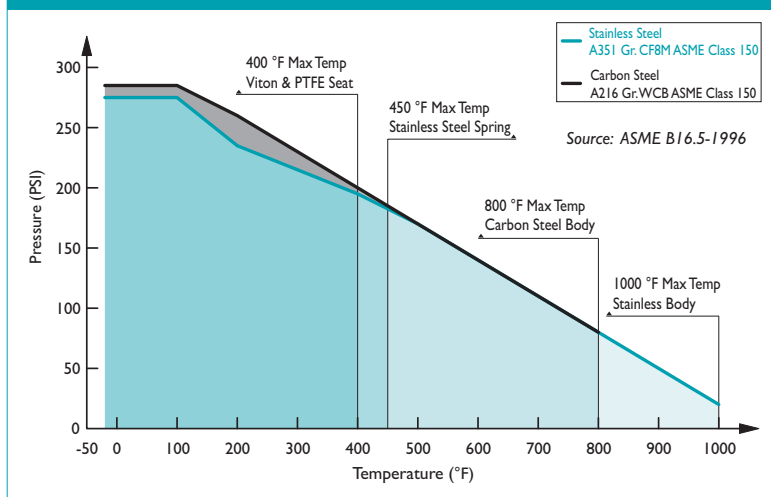
1. Bill of Materials represents standard materials. Equivalent or better materials may be substituted at the manufacturer's discretion. All materials conform to ASTM specifications.
2. Denotes recommended spare parts.

DIMENSIONS AND PERFORMANCE DATA ⁽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 | 2.62 | 2.62 | 3.25 | 3.75 | 5 | 5.75 | 7.12 |
| | mm | 60 | 67 | 67 | 67 | 83 | 95 | 127 | 146.05 | 180.85 |
| ØB DIMENSION OVERALL DIAMETER | in | 4.00 | 4.875 | 5.25 | 6.75 | 7.75 | 8.625 | 10.875 | 13.25 | 16.0 |
| | mm | 102 | 124 | 133 | 171 | 197 | 219 | 276 | 337 | 406 |
| 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 | 0.5 | 0.62 | 0.8 | 1.87 | 3.3 | 2.7 | 3 | 4.35 | 4 |
| | mm | 12 | 15.5 | 20.3 | 47.5 | 83.8 | 68.6 | 76 | 110.5 | 102 |
| ASSEMBLED WEIGHT | lb | 4.3 | 7.3 | 8.8 | 13.3 | 18.5 | 32 | 50 | 80 | 126 |
| | kg | 1.9 | 3.3 | 4.0 | 6.0 | 8.4 | 14.5 | 22.7 | 36.2 | 57.1 |
| Flow Coefficient | C _v | 62 | 109 | 166 | 318 | 471 | 720 | 1384 | 2298 | 4153 |
| Cracking Pressure ⁽³⁾ | psi | ≤ .25 | ≤ .25 | ≤ .25 | ≤ .25 | ≤ .25 | ≤ .25 | ≤ .25 | ≤ .25 | ≤ .25 |

1. Dimensions, weights, and flow coefficients 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 B16.5. Max temperature limits have been added for seat and spring materials.

PRESSURE/TEMPERATURE RATING ⁽¹⁾

| | | |
|------------------|--------------------------|-------------------------------|
| Class 150 | Carbon Steel A216 Gr.WCB | Stainless Steel A351 Gr. CF8M |
| WOG (Non-shock) | 285 PSI @ 100 °F | 275 PSI @ 100 °F |

REFERENCED STANDARDS & CODES

| CODE | DESCRIPTION |
|-------------|--|
| ASME B16.34 | Steel Valves - Flanged, Threaded, & Welding Ends |
| ASME B16.10 | Face-to-Face & End-to-End Dimensions of Valves |
| ASME B16.5 | Pipe Flanges & Flanged Fittings |
| 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 |

SEAT AND SPRING TEMPERATURE RATINGS ⁽¹⁾

| SEAT (O-Ring) | Temperature Range |
|--------------------------|---------------------|
| Viton | -40 ~ 400 °F |
| PTFE | -100 ~ 400 °F |
| SPRING ⁽²⁾ | Maximum Temperature |
| Stainless Steel Type 304 | 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.
2. As the temperature increases, the load capacity of the spring diminishes significantly. At higher temperatures, a different material spring may be required. Please consult for specific application assistance.