CHECK VALVE  WAFFER TYPE  DUAL DISC

ANSI CLASS 150  DUCTILE IRON BODY

MODEL: CV 41-DI

Body: Ductile Iron
Seats: Buna, Viton & EPDM
Discs: Stainless Steel & Aluminum Bronze

FEATURES

- COST EFFICIENT 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
  Contour of body provides a short and straight flow path that generates very little turbulence. Additionally, the spring-loaded discs are 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 discs that close near zero flow velocity. The lightweight, split disc design creates a positive shutoff prior to flow reversal and helps to keep slamming and surges to a minimum.

- DUCTILE IRON BODY
  Ductile iron body maintains the anti-corrosive properties of cast iron while achieving a yield strength comparable to carbon steel. Ductile iron also offers higher pressure/temperature ratings than cast iron.

- RESILIENT SOFT SEATS
  Resilient soft seats (EPDM, Viton or Buna) ensure a bubble tight seal that meets or exceeds API 598 test requirements.

- VERSATILE DESIGN
  Sizes 2” through 6” are designed to fit bolt circle patterns for both cast iron ANSI classes 125/300 and ductile iron ANSI classes 150/300.

SIZES: 2” ~ 24”
LARGER SIZES AVAILABLE UPON REQUEST

TECHNICAL

PRESSURE/TEMPERATURE RATING
DI - ASTM A536 - CLASS 150 - 2” ~ 24”

- WOG (Non-shock): 250 PSI @ 100 °F
- EPDM: -20 ~ 300 °F
- BUNA-N: -20 ~ 250 °F
- VITON: -40 ~ 400 °F

SEAT MATERIAL
TEMPERATURE RANGE

- Series 300 Stainless Steel: 450 °F

SPRING MATERIAL
MAXIMUM TEMPERATURE

- Series 300 Stainless Steel: 450 °F

APPLICATIONS

- 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.

- 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.

- EPDM PROPERTIES: Probably the most water resistant rubber available. It has good resistance to mild acids, alkalis, silicone oils/greases, ketones, alcohols and other polar solvents. It is not recommended for use with petroleum oils, di-ester lubricants, mineral oils, non-polar solvents or aromatic fuels.

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!

Tel: 910-735-0000  Fax: 910-738-3848  titan@titanfci.com  www.titanfci.com
290 Corporate Drive  PO Box 7408  Lumberton, NC 28358
Ductile Iron and Cast Iron instruments have the same bolting pattern, but these materials have different properties:

- **Ductile Iron** maintains the anti-corrosive properties of Cast Iron while achieving a yield strength comparable to Carbon Steel.
- Ductile Iron also offers higher pressure/temperature ratings than Cast Iron.

### Ductile Iron Application Notes:

1. Cracking pressure is for horizontal installations only. For vertical installations, please consult factory.
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.
4. Eye Bolt is available on larger sizes onl
5. Denotes recommended spare part.
6. Materials may be substituted at the manufacturer's discretion.
7. Bill of Materials represents standard materials. Equivalent or better materials may be substituted at the manufacturer's discretion.
8. Springs may be added for seat and spring materials.
9. Sizes 2" through 6" are designed for dual pressure service (ANSI Class 150 and 300).
10. CAD illustration is representative of sizes 2" through 6". Sizes 8" through 24" are not scalloped. Sizes 2" through 6" are designed for dual pressure service (ANSI Class 150 and 300).

### Dimensions and Performance Data

| SIZE | in | 2 | 2 1/2 | 3 | 4 | 5 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 24 |
|------|----|----|-------|---|---|---|---|---|----|----|----|----|----|----|----|----|
| A DIMENSION | mm | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 500 | 600 |
| B DIMENSION | | | | | | | | | | | | | | | |
| C DIMENSION | | | | | | | | | | | | | | | |
| D DIMENSION | | | | | | | | | | | | | | | |
| E DIMENSION | | | | | | | | | | | | | | | |
| ASSEMBLED | | | | | | | | | | | | | | | |
| WEIGHT | | | | | | | | | | | | | | | |

**Flow Coefficient (Cv)**

- Cv 62 110 175 350 550 850 1500 2400 2860 3480 3970 4480 512 610

**Pressure (PSI)**


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**Referenced Standards & Codes**

- ANSI/API 594: Valve Design and Manufacture
- ASME/ANSI 16.5: Flange Dimensions
- ASME/ANSI B16.34: Valves - Flanged, Threaded, and Welding End
- API 598: Valve Inspection and Pressure Test
- FM APPROVALS CLASS 1230: Anti-Water Hammer Check Valves (2" ~12"")

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**Pressure/Temperature Ratings - ASTM A536**

- **Body Material:** Class 150 (2" ~ 24") Class 300 (2" ~ 6")
- **WOG (Non-shock):** 250 PSI @ 100 °F 640 PSI @ 100 °F

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**Seat and Spring Temperature Rating**

- **Seat Material:** Range Spring Material Max
- **EPDM:** -30 ~ 300 °F Series 300 Stainless Steel: 450 °F
- **BUNA-N:** -20 ~ 250 °F
- **VITON:** -40 ~ 400 °F

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