CV42 SERIES

DLINE DUO CHECK VALVES ARE DESIGN FROM THE STANDARDS INDUSTRIES TO THE HEAVIEST-REQUIRED INDUSTRIES SUCH AS:

WATER & WASTE WATER, PULP & PAPER, CHEMICAL & PETROCHEMICAL, POWER, MINING, PETROLEUM AND OIL & GAS.

DLINE DUO CHECK VALVES 2”-6” ARE DUAL PRESSURE SERVICES TO ANSI CLASS 150 & 300. THE SAME D-LINE VALVE CAN BE INSTALLED IN EITHER CLASS 150 OR CLASS 300 ANSI/ASME B16.5 FLANGES.

10” CV42M-SS

4” CV42M-SS

DESIGN FEATURES

DESIGNED FOR LONG SERVICE LIFE
DISCS AND THE SPRING ARE DESIGNED TO ALLOW THE DISCS TO LIFT LINEARLY BEFORE PIVOTING TO AVOID THE DISC HEAL FROM SCRUBBING THE SEALING SURFACE. ALSO, DISCS ARE EQUIPPED WITH CAST-IN SHOCK BUMPERS THAT HELP TO REDUCE WEAR AND TEAR ON INTERNAL COMPONENTS.

FUGITIVE EMISSION DESIGN
THE RETAINER-LESS BODY DESIGN ELIMINATES POTENITAL LEAK PATHS TO THE ENVIRONMENT SO THERE ARE NO BODY EMISSIONS.

MINIMAL HEAD LOSS
CONTOUR OF BODY PROVIDES A SHORT AND STRAIGHT FLOW PATH GENERATES VERY LITTLE TURBULANCE. ADDITIONALLY, THE SPRING-LOADED DISCS ARE DESIGNED WITH VERY LOW CRACKING PRESSURE WICH 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 THE DISC DESIGN CREATES A POSITIVE SHUTOFF PRIOR TO FLOW REVERSAL AND HELPS TO KEEP SLAMMING AND SURGES TO A MINIMUM.

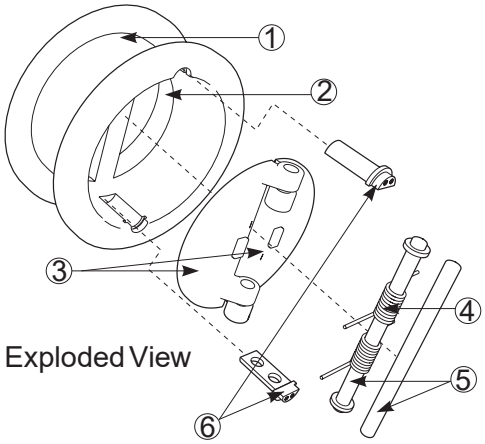
RESILENT AND METAL SEATS: BOARD, LAPPED SURFACE (METAL) MEETS OR EXCEED API 598 TEST REQUIRMENTS. RESILENT SEATS (BUNA/VITON) ENSURE A BUBBLE TIGHT SEAL. **BUNA-N SEAT** IS THE MOST WIDELY USED ELASTOMER. GOOD FOR MOST PETROLEUM OILS & FLUIDS, SILICONE GREAES AND OILS, AND COLD WATER. EXCELLENT COMPERSSION SET, TEAR AND ABRASION RESISTANCE. POOR WEATHER RESISTANCE AND MODERATE HEAT RESISTANCE. NOT RECCOMENDED FOR SEVERE OZONE-RESISTANCE APPLICATIONS. **VITON SEAT** 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.

PRESSURE-TEMPERATURE RATINGS (NON-SHOCK)		SEAT MATERIAL RATINGS		SPRING MATERIAL RATING
CS ASTM A-216 GR. WCB	285 PSI @ 100°F	VITON	-40 TO 400 °F	INCONEL X750 1000 °F
SS ASTM A-351 GR. CF8M	275 PSI @ 100 °F	BUNA	-20 TO 250 °F	

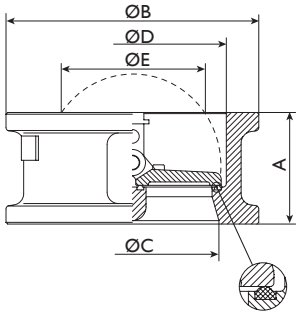
CV42 SERIES

MATERIAL LIST (1)

NO.	DESCRIPTION	CV42-CS	CV42-SS
1	BODY	ASTM A-216 GR. WCB	ASTM A-351GR. CF8M
2	SEAT(4)	METAL/VITON/BUNA-N	METAL OR VITON
3	DISC (2)	ASTM A-351 GR. CF8M	ASTM A-351 GR. CF8M
4	SPRING (2)	INCONEL X-750	INCONEL X-750
5	SHAFT /STOP PIN	ASTM A-276 GR. 316	ASTM A-276 GR. 316
6	CAP	ASTM A-105	ASTM A-351 GR. CF8M
7	EYE-BOLT (3)	CARBON STEEL	CARBON STEEL



Exploded View



Soft Seat

ILUSTRATIONS ARE REPRENTATIVE OF SERIES CV42 8"& UP.

WAFER STYLES SIZES 2" THROUGH 6" ARE SCALLOPED FOR DUAL PRESSURE SERVICE (ANSI CLASS 150 AND 300)

1-. MATERIAL LIST REPRESENTS STANDARD MATERIALS. EQUIVALENT OR BETTER MATERIALS MAY BE SUBSTITUTED AT THE MANUFACTURER´S DISCRETION.

2-. DENOTE RECOMMENDED SPARE PARTS.

3-. PART #7 EYE BOLT, IS ONLY FOR 8" & UP

4-. METAL SEAT IS STAINLESS STEEL INLAY.

DIMENSIONS & PERFORMANCE DATA

SIZE IN	SIZE MM	A(2) FACE TO FACE	ØB INLET DIAMETER	ØC OUTLET DIAMETER	ØD OVERALL DIAMETER	ØF(4) MINIMUM BORE DIAMETER	WEIGHT (KG)	CRACKING PRESSURE(3) (PSI)	FLOW COEFFICENT (CV)
2"	50	2.38	2.00	2.16	4.33	0.94	2.50	≤ .25	62
2 1/2"	65	2.62	2.50	2.67	5.04	1.69	3.60	≤ .25	110
3"	80	2.88	3.00	3.23	5.31	2.63	4.50	≤ .25	175
4"	100	2.88	4.00	4.25	7.05	3.54	7.00	≤ .25	350
5"	125	3.38	5.00	5.12	8.43	4.45	10.60	≤ .25	550
6"	150	3.87	6.52	6.38	9.81	5.31	16.30	≤ .25	850
8"	200	5.00	8.00	8.66	10.91	7.13	23.30	≤ .25	1500
10"	250	5.75	10.00	10.63	13.27	8.82	39.90	≤ .25	2400
12"	300	7.12	12.00	12.60	16.02	10.47	59.40	≤ .25	3700
14"	350	7.25	13.26	13.78	17.64	11.81	80.70	≤ .25	5400
16"	400	7.50	15.24	15.75	20.15	14.29	109.70	≤ .25	8250
18"	450	8.00	17.24	17.24	21.54	15.87	125.10	≤ .25	10400
20"	500	8.62	19.50	19.50	23.78	18.03	164.20	≤ .25	14200
24"	550	8.75	23.42	23.42	28.15	22.28	209.60	≤ .25	23000

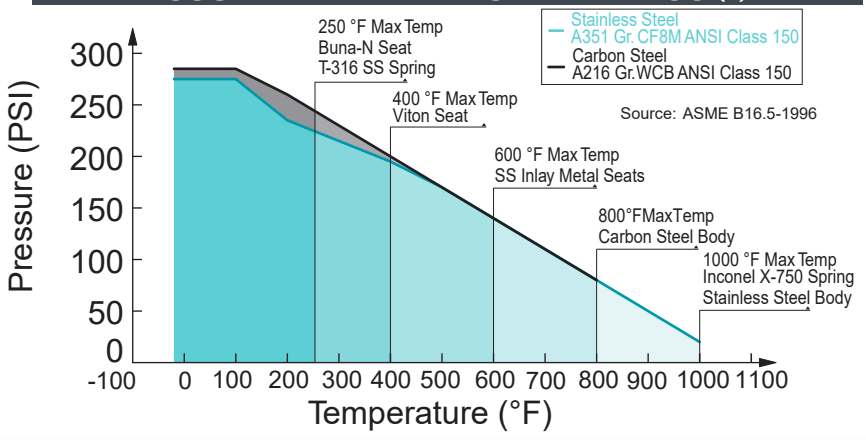
1-. DIMENSIONS ARE EXPRESSED IN INCHES AND WEIGHTS ARE EXPRESSION IN KG AND FOR REFERENCE ONLY. WHEN REQUIRED CERTIFIED DRAWINGS.

2-. FACE TO FACE VALUES HAVE A TOLERANCE OF ±0.06 IN FOR SIZES 10" & LOWER, FOR SIZES 12" & UP ± .12 IN.

3-. CRACKING PRESSURE IS FOR HORIZONTAL INSTALLATIONS ONLY FOR VERTICAL INSTALLATIONS CONSULT FACTORY.

4-. MINIMUM BORE DIAMETER INDICATES THE MINIMUM INTERNAL DIAMETER OF THE ADJACENT PIPE.

PRESSURE - TEMPERATURE RATINGS (1)



REFERENCES STANDARDS & CODES

CODE	DESCRIPTION
ANSI/API 594	VALVE DESIGN & MANUFACTURE
ASME B16.34	VALVE PRESSURE-TEMPERATURE RATINGS
ANSI/ASME B16.5	FLANGE DIMENSIONS
ANSI/API 594	VALVE FACE TO FACE DIMENSION
API 598	VALVE INSPECTION & PRESSURE TEST