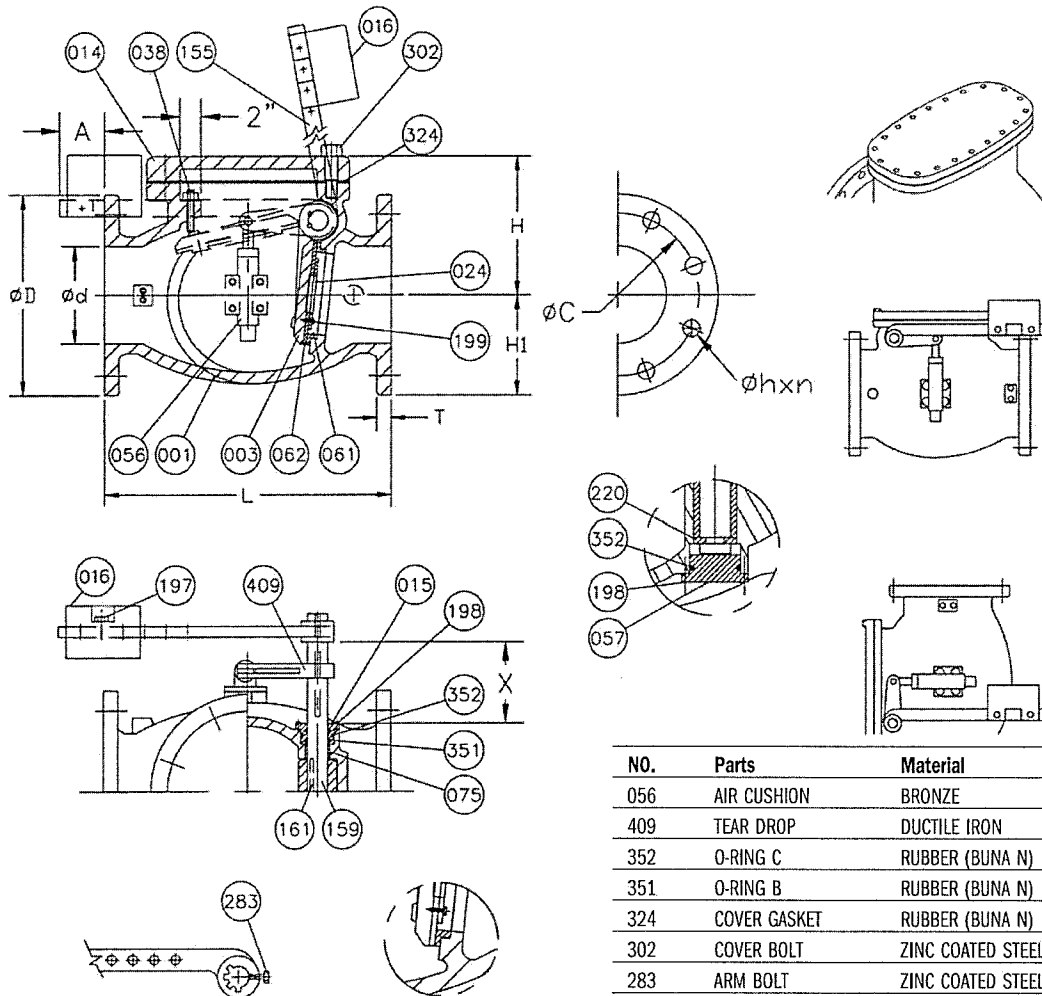


# CCNE Model 9001 AWWA Swing Check Valve Air Cushion with Outside Lever and Weight or Spring



Size Od		ANSI B16.1 CL.125						
Inches	L	OD	OC	OH	n	T	H	H1
3	11	7-1/2	6	3/4	4	3/4	6-3/8	3-3/4
4	13	9	7-1/2	3/4	8	15/16	7-3/8	4-1/2
✓ 6	16	11	9-1/2	7/8	8	1	9-3/16	5-1/2
8	19-1/2	13-1/2	11-3/4	7/8	8	1-1/8	10-7/8	6-3/4
10	22	16	14-1/4	1	12	1-3/16	13-5/16	8
12	26	19	17	1	12	1-1/4	15-9/16	9-1/2
14	30	21	18-3/4	1-1/8	12	1-3/8	21-1/16	12-1/16
16	30-1/2	23-1/2	21-1/4	1-1/8	16	1-7/16	24	13-5/16
18	33-1/2	25	22-3/4	1-1/4	16	1-9/16	27-9/16	14-5/8
20	40	27-1/2	25	1-1/4	20	1-11/16	31-5/16	15-3/8
24	46	32	29-1/2	1-3/8	20	1-7/8	35-1/4	17-7/8
30	60	38-3/4	36	1-3/8	28	2-1/8	36	23-1/16
36	63	46	42-3/4	1-5/8	32	2-3/8	41-15/16	27-11/16
42	70	53	49-1/2	1-5/8	36	2-5/8	46-3/4	32-1/8
48	76	59-1/2	56	1-5/8	44	2-3/4	53-1/8	35-1/2

Dimensions for larger sizes available upon request.

NO.	Parts	Material	ASTM Designation
056	AIR CUSHION	BRONZE	B62
409	TEAR DROP	DUCTILE IRON	A536 GR 65-45-12
352	O-RING C	RUBBER (BUNA N)	D2000 BK 707
351	O-RING B	RUBBER (BUNA N)	D2000 BK 707
324	COVER GASKET	RUBBER (BUNA N)	D2000 BK 807
302	COVER BOLT	ZINC COATED STEEL	A307 GRADE B
283	ARM BOLT	ZINC COATED STEEL	A307 GRADE B
220	SNAP RING	STAINLESS STEEL	A276 GRADE 304
199	SEAT HOLDER BOLT	STAINLESS STEEL	A276 GRADE 304
198	END PLATE BOLT	ZINC COATED STEEL	A307 GRADE B
197	WEIGHT BOLT	ZINC COATED STEEL	A307 GRADE B
161	KEY	STAINLESS STEEL	A276 GRADE 304
159	HINGE PIN	STAINLESS STEEL	A276 GRADE 304
155	WEIGHT ARM	DUCTILE IRON	A536 GR 65-45-12
075	BUSHING	BRONZE	B62
062	DISC SEAT RING	RUBBER (BUNA N)	D2000 BK 807
061	BODY SEAT RING	BRONZE	B62
057	END PLATE B	DUCTILE IRON	A536 GR 65-45-12
038	STOPPER	STAINLESS STEEL	A276 GRADE 304
024	SEAT HOLDER	3"-6" CAST IRON	A126 CLASS B
024	SEAT HOLDER	8"+ DUCTILE IRON	A536 GR 65-45-12
016	WEIGHT	CAST IRON	A126 CLASS B
015	END PLATE A	BRONZE	B62
014	COVER	CAST IRON	A126 CLASS B
003	DISC	DUCTILE IRON	A536 GR 65-45-12
001	BODY	CAST IRON	A126 CLASS B

\* For reference ONLY. Contact factory for detailed sales drawings.

## CCNE Model 9001 AWWA Swing Check Valve Oil Decelerator with Outside Lever and Weight or Spring

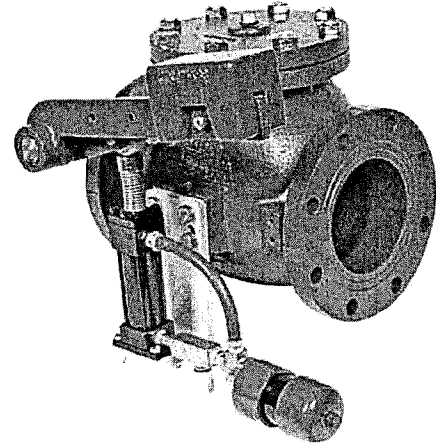
### Features:

- Clear waterway
- Enlarged stainless steel hinge pin
- Flanges conform to ANSI B16.1 Class 125
- Lever and weight may be installed on either side
- Valves may be installed in vertical line with flow up
- Body and disc seat rings are field replaceable
- Disc seat standard with Buna-N insert for bubble tight shut off
- Meets AWWA standards of dimensional standards of large pin cushion products
- 100% oil controlled system with adjustable speed control valve
- 8 mils NSF 61 epoxy in and out

**Sizes:** 3" - 72"

**Styles:** Bronze to Bronze, Bronze to Buna-N, Stainless Steel to Buna-N

**Uses:** Water, Sludge, Sewer Service



### Specification for Model 9001 with Oil Cushion

**General:** Swing check valves are of self-contained, free-swinging disc style, allowing a clear waterway. Valve disc swings freely open and is keyed to valve hinge pin without the use of pins. Valves conform to all standards set forth in AWWA C508, Latest Edition. Valve hinge pins are Stainless Steel and conform to the industry standards set forth for cushion valves. Manufacturer should have a minimum of ten years experience supplying air and oil cushion AWWA C508 valves.

#### Referenced Standards:

- ANSI B16.1: Cast Iron Pipe Flanges and Flanged Fittings Class 125
- AWWA C508: Swing Check Valves for Waterworks Service, 2" through 24" NPS

**Rating:** Valves are rated for 200psi on 12" and smaller, and 150psi on 14" and larger water working pressure. Valves available in ductile iron for high pressure applications. All testing is done in accordance with AWWA C508.

**End Configuration:** Valves have integrally cast flat face flanges in accordance with ANSI B16.1 Class 125.

#### Materials:

- All cast iron used conforms to ASTM A126 CLB
- Disc is of ductile iron conforming to ASTM A536 GR65-45-12
- Hinge pins conform to ASTM A276 CR304
- Seat Rings are of Low Zinc Bronze conforming to ASTM B62 or of Stainless Steel conforming to ASTM A276 GR316

**Coating:** Internal and external coatings are two-component epoxy conforming to AWWA C550.

**Design:** All valves meet the standards of AWWA C508.

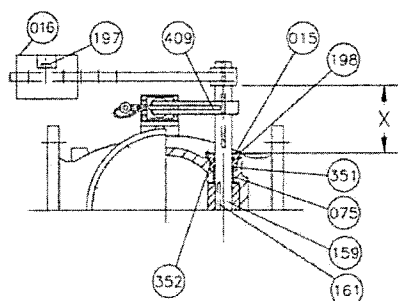
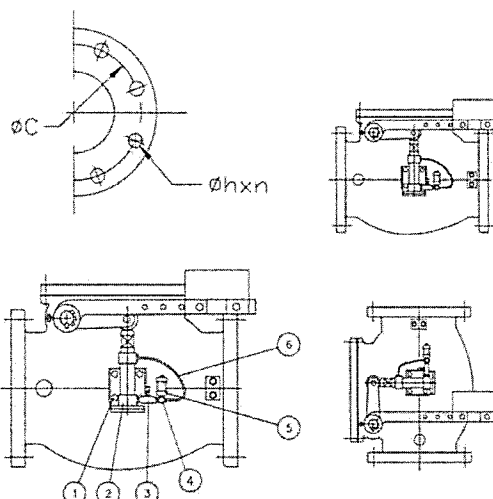
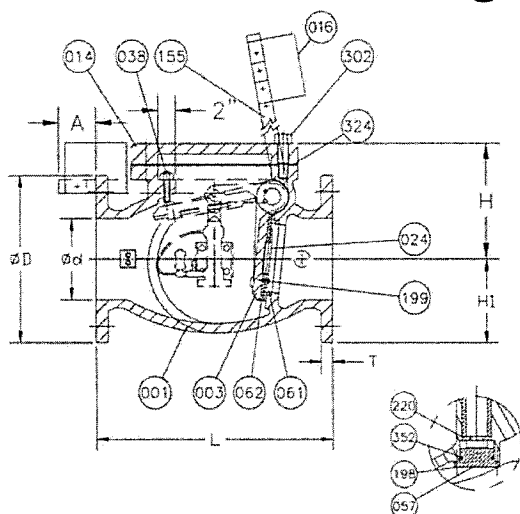
All valves utilize a single disc mounted to a clevis hinge which prevents the disc from tipping. The valve disc swings open once the pump starts and allows full flow. When closed the valve offers a tight shut-off. Valve body and cover are of Cast Iron; valve hinge is of Ductile Iron. Disc seating surface is Bronze, Stainless Steel or Buna-N depending on application. Valve seat rings are of Bronze or Stainless Steel.

The valve body has a bolted cover design and flanges are integral to body casting -not wafer style. Valve body and disc are designed in such a way as to minimize turbulence. Spring and cushion systems are externally mounted on the side of the body and do not come into contact with main line media.

The hydraulic cylinder and system, mounted on the external side of the valve, shall cushion the valve as the oil travels from the cylinder to the oil reservoir. The system is totally enclosed and separate from the line media. Contamination of the hydraulic system or obstruction of line flow is prevented in this side-mounted system. The discharge head from the pump allows the valve to open raising the outside lever and weight or spring. The disc swings freely to the open position. Upon pump shut down the outside weight or spring assists the disc to close until the roller on tear drop comes in contact with the pad on the hydraulic cylinder. The cushioning actions occur as the oil flows through the system, closure control takes place by adjustment of the control valve (part number 3). The system is completely field adjustable.

**Installations:** All valves are built for horizontal installation. However, all valves operate equally well in vertical installations. Prior to valve installation manufacturer should be notified of vertical mounting position so lever arm and weight can be properly positioned on valve.

# CCNE Model 9001 AWWA Swing Check Valve Oil Decelerator with Outside Lever and Weight or Spring



Sizes Od		ANSI B16.1 CL.125						
Inches	L	OD	OC	OH	n	T	H	H1
3	11	7-1/2	6	3/4	4	3/4	6-3/8	3-3/4
4	13	9	7-1/2	3/4	8	15/16	7-3/8	4-1/2
6	16	11	9-1/2	7/8	8	1	9-3/16	5-1/2
8	19-1/2	13-1/2	11-3/4	7/8	8	1-1/8	10-7/8	6-3/4
10	22	16	14-1/4	1	12	1-3/16	13-5/16	8
12	26	19	17	1	12	1-1/4	15-9/16	9-1/2
14	30	21	18-3/4	1-1/8	12	1-3/8	21-1/16	12-1/16
16	30-1/2	23-1/2	21-1/4	1-1/8	16	1-7/16	24	13-5/16
18	33-1/2	25	22-3/4	1-1/4	16	1-9/16	27-9/16	14-5/8
20	40	27-1/2	25	1-1/4	20	1-11/16	31-5/16	15-3/8
24	46	32	29-1/2	1-3/8	20	1-7/8	35-1/4	17-7/8
30	60	38-3/4	36	1-3/8	28	2-1/8	36	23-1/16
36	63	46	42-3/4	1-5/8	32	2-3/8	41-15/16	27-11/16
42	70	53	49-1/2	1-5/8	36	2-5/8	46-3/4	32-1/8
48	76	59-1/2	56	1-5/8	44	2-3/4	53-1/8	35-1/2

Dimensions for larger sizes available upon request.

NO.	Parts	Material	ASTM Designation
6	HYDRAULIC HOSE	3000PSI	COMMERCIAL
5	RESERVOIR	PVC	GREY PVC
4	BRASS TEE	BRASS	B124 GR377
3	CONTROL VALVE	BRASS, NEEDLE CHECK	B124 GR377
2	OIL CUSHION	COMMERCIAL HYDRAULIC CYLINDER	NFPA RATED
1	MOUNTING BRACKET	STEEL	A36
409	TEAR DROP	DUCTILE IRON	A536 GR.65-45-12
352	O-RING C	RUBBER (BUNA N)	D2000 BK 707
351	O-RING B	RUBBER (BUNA N)	D2000 BK 707
324	COVER GASKET	RUBBER (BUNA N)	D2000 BK 807
302	COVER BOLT	ZINC COATED STEEL	A307 GRADE B
283	ARM BOLT	ZINC COATED STEEL	A307 GRADE B
220	SNAP RING	STAINLESS STEEL	A276 GRADE 304
199	SEAT HOLDER BOLT	STAINLESS STEEL	A276 GRADE 304
198	END PLATE BOLT	ZINC COATED STEEL	A307 GRADE B
197	WEIGHT BOLT	ZINC COATED STEEL	A307 GRADE B
161	KEY	STAINLESS STEEL	A276 GRADE 304
159	HINGE PIN	STAINLESS STEEL	A276 GRADE 304
155	WEIGHT ARM	DUCTILE IRON	A536 GR.65-45-12
075	BUSHING	BRONZE	B62
062	DISC SEAT RING	RUBBER (BUNA N)	D2000 BK 807
061	BODY SEAT RING	BRONZE	B62
057	END PLATE B	DUCTILE IRON	A536 GR.65-45-12
038	STOPPER	STAINLESS STEEL	A276 GRADE 304
024	SEAT HOLDER	3\"-6\" CAST IRON	A126 CLASS B
024	SEAT HOLDER	8\"+ DUCTILE IRON	A536 GR 65-45-12
016	WEIGHT	CAST IRON	A126 CLASS B
015	END PLATE A	BRONZE	B62
014	COVER	CAST IRON	A126 CLASS B
003	DISC	DUCTILE IRON	A536 GR.65-45-12
001	BODY	CAST IRON	A126 CLASS B

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