

**CLOW HORIZONTAL SWING
CHECK VALVES**

CLOW VALVE COMPANY

**CLOW AWWA Horizontal Swing Check Valves
Meet or Exceed the Requirements
of AWWA Standard C508**

Size Range	Water working Pressure psi	Hydrostatic Test psi
2"-12"	200	400
14"-30"	150	300

Available End Connections & Size Range

Figure No.

Flanged	2"-24" (Plain)	Style 1106
Flanged	14"-30" (Plain)	Style 59-02
Flanged	2"-12" Outside Weight & Lever	Style 1106LW
Flanged	14"-30" Outside Weight & Lever	Style 159-02
Flanged	2"-12" Outside Spring & Lever	Style 1106SL
Flanged	14"-30" Outside Spring & Lever	Style 259-02
Flanged	4"-12" Cushion Check	Style 1206
Flanged	14"-30" Cushion Check	Style 206

Resilient Hinge Check Valve

Flanged	4"-12" Resilient Hinged Check	Style 506
	250 psi Working Pressure	
	500 psi Hydrostatic Test	

Accessories

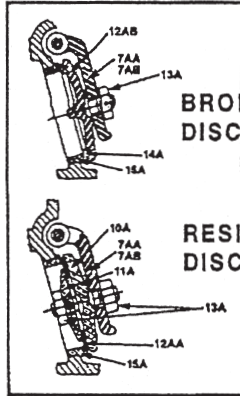
Outside Weight & Lever	Limit Switchest
Outside Spring & Lever	Rubber Faced Gates
Tapped Bosses (Drain-Bypass)	

SWING CHECK VALVES 2"-12" TECHNICAL DATA & PARTS LIST

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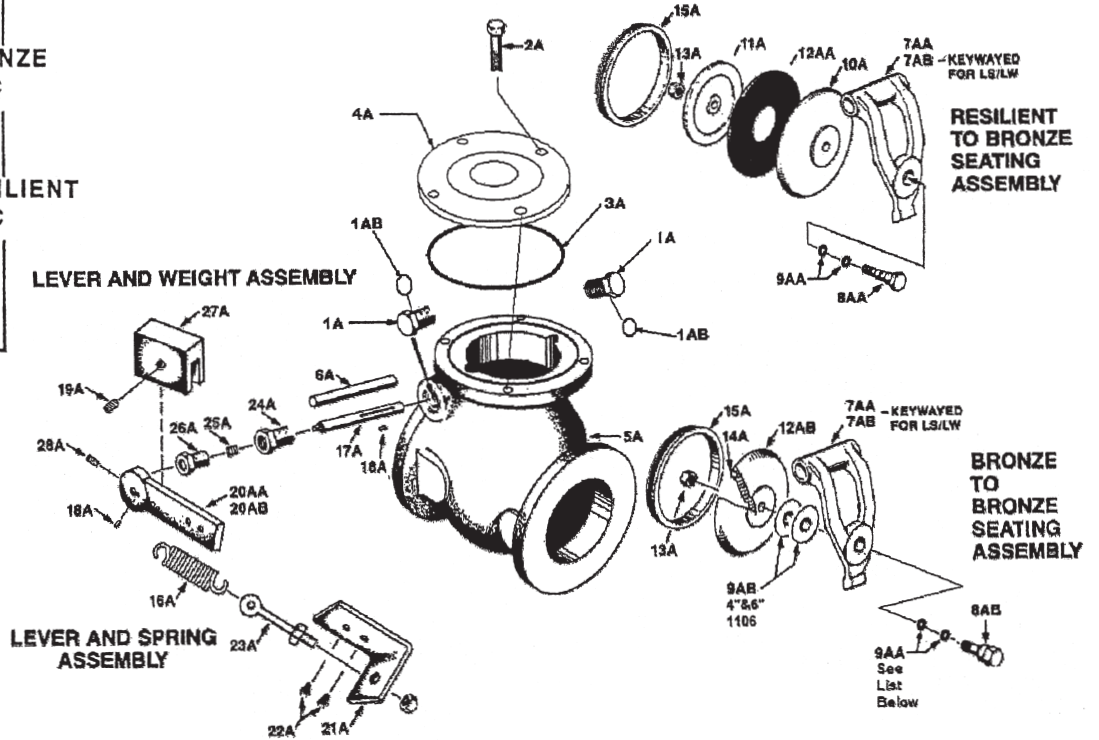
Style 1106

DISC ARRANGEMENT 2" - 3"



BRONZE DISC

RESILIENT DISC



LEVER AND WEIGHT ASSEMBLY

LEVER AND SPRING ASSEMBLY

RESILIENT TO BRONZE SEATING ASSEMBLY

BRONZE TO BRONZE SEATING ASSEMBLY

Part No.	Qty.	Description	Material & ASTM Spec.
1A With 1AB (O-Ring)	2 1 for LS/W	Side Plug With O-Ring	Bronze
2A	* See foot note	Cap Bolts	ss-18-8ASTM F593C
3A	1	O-Ring	Syn. Rubber
4A	1	Cap	C.I.A-126 Cl.B
5A	1	Body	C.I.A-126 Cl.B
6A	1	Hinge Pin	SS A-276 (304)
7AA	1	Hinge	Bronze (2"-3") D.I. A-536 (4"-12")
7AB	1	Hinge w/keyway for LS/LW	Bronze (2"-3") D.I. A-536 (4"-12")
8AA	1	Disc Bolt (4"-12")	Bronze (10"-12") Steel (4"-8")
8AB	1	Disc Bolt (4"-12")	Bronze (10"-12") Steel (4"-8")
9AA	2	Disc Bolt O-Ring (4"-12" 1106A, 8"-12" 1106)	Syn. Rubber
9AB	2	Disc Bolt Gasket (4" & 8" 1106)	
10A	1	Disc Holder	Bronze (2"-3") C.I.A-126 Cl.B (4"-12")
11A	1	Disc Plate	Bronze

Part No.	Qty.	Description	Material & ASTM Spec.
12AA	1	Disc	Nitrile (Buna N) Rubber
12AB	1	Disc	Bronze (2"-3") C.I.A-126 Cl.B (4"-12")
13A	1 2 w/resilient disc (2"-3")	Disc Nut	SS18-8 ASTM F593C
14AA	1	Disc Ring (4"-12")	Bronze
15A	1	Seat Ring	Bronze
16A	1	Spring	Steel
17A	1	Extended Hinge Pin for LS/LW	SS A-276 (304)
18A	2	Key for LS/LW	SS A-276 (304)
19A	1	Set Screw	Steel
20AA	1	Lever Arm for LS	Steel
20AB	1	Lever Arm for LW	Steel
21A	1	Bracket	Steel
22A	2	Hex Head Bracket Bolt	Steel
23A	1	Eye Bolt w/2 Hex Nuts	Steel
24A	1	Stuffing Box	Bronze
25A	-	Packing	Graphite Filled
26A	1	Gland	Bronze
27A	1	Weight	C.I.A-126 Cl.B
28A	1	Set Screw	Steel

Style 1106

HORIZONTAL SWING CHECK
VALVES 2"-12"
PLAIN - GENERAL DIMENSIONS
CLOW VALVE COMPANY

Dimensional Data 2"-12" 1106/1106LW/106LS

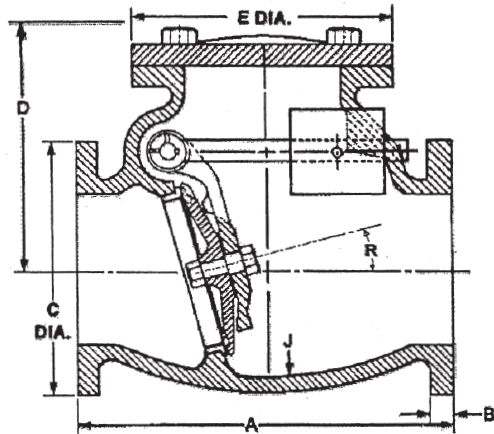
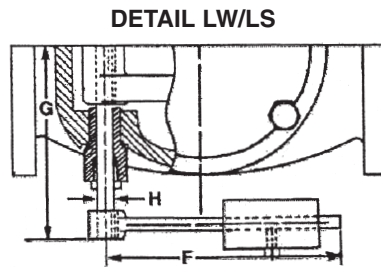
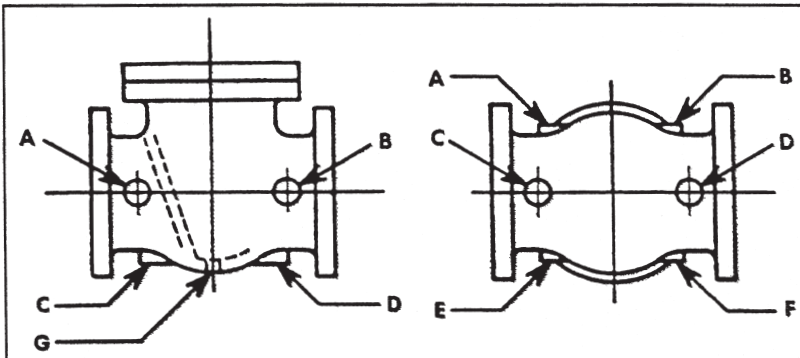


FIG. 1106LW SHOWN. SAME DIMENSIONS APPLY TO 1106 AND 1106LS



L-BOLT CIRCLE DIA. END FLANGES
M-NO. OF BOLTS PER FLAT END FLANGES
N-BOLT HOLE DIA.
END FLANGES CONFORM TO ANS1 B16.1

SIZE	A	B	C	D	E	F	G	H	J	L	M	N	Q*	R
2"	8.00	0.65	6.00	6.00	6.56	5.00	4.72	.50	0.34	4.75	4	.75	4	10.0
2 1/2"	8.50	.069	7.00	6.44	6.56	5.25	4.94	.50	0.41	5.50	4	.75	4	8.0
3"	9.50	0.78	7.50	6.85	6.56	6.00	5.34	.50	0.44	6.00	4	.75	4	8.0
4"	11.50	1.00	9.00	8.69	9.00	7.75	8.19	.62	0.41	7.50	8	.75	4	12.0
6"	14.00	1.03	11.00	10.51	11.00	9.75	9.00	.75	0.43	9.50	8	.87	4	15.0
8"	19.50	1.25	13.50	12.56	13.50	14.13	10.18	.87	0.75	11.75	8	.87	4	15.0
10"	24.50	1.31	16.00	14.07	16.75	18.00	11.62	1.00	0.81	14.25	12	1.00	6	15.0
12"	27.50	1.38	19.00	16.13	19.00	18.00	13.75	1.00	0.87	17.00	12	1.00	6	15.0

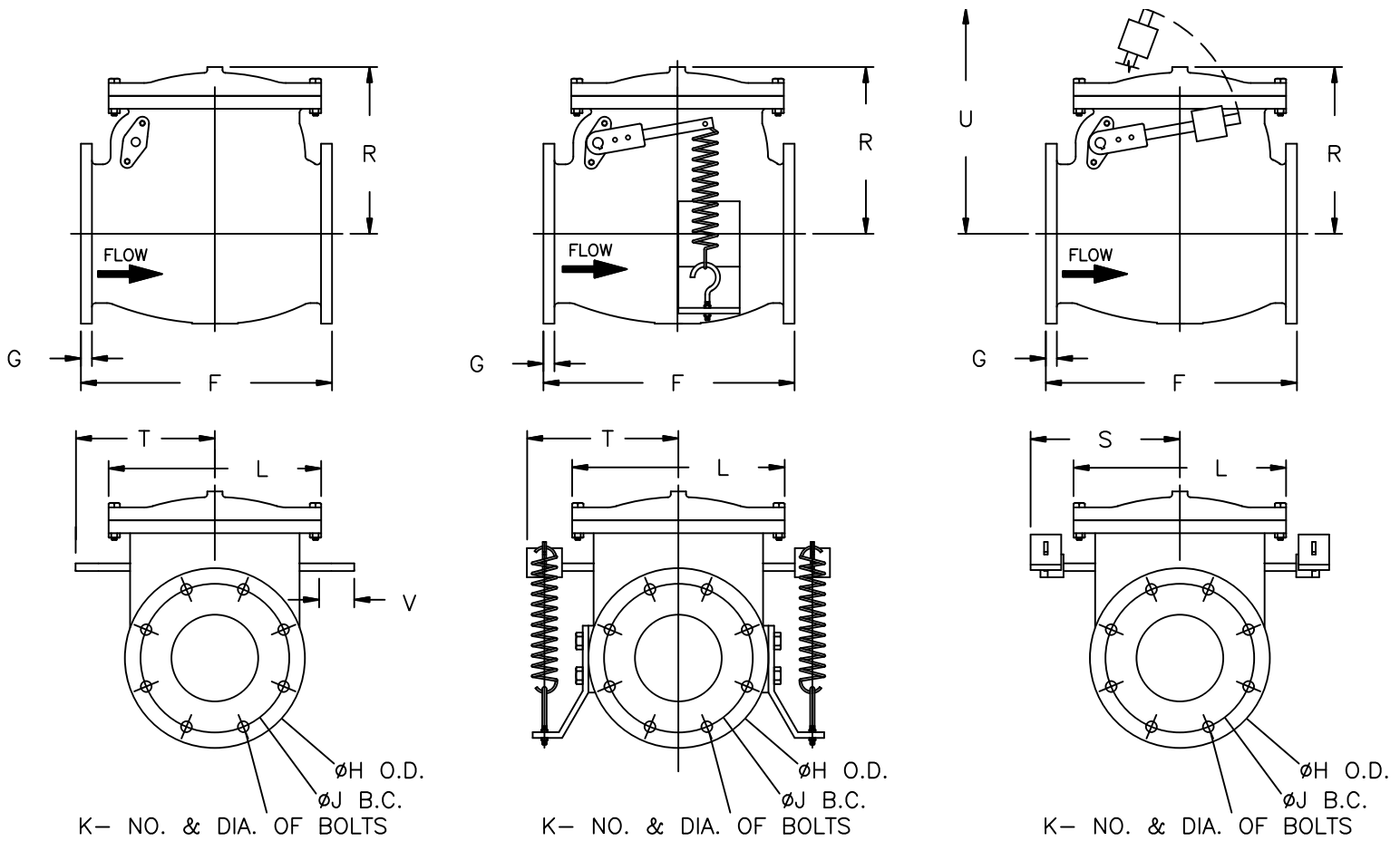


BOSS AND DRAIN TAPPING SCHEDULE

VALVE SIZE (In.) 2-3 1/2 4-5 6 8,10,12

MAX. SIZE PIPE TAP (NPT) 3/4 1 1 1/4 2

When ordering Check Valves tapped for by-pass or drain, specify exact location and size of tap using letters above for boss designation. These locations of drain and by-pass tappings conform to the Manufacturers Standardization Society Specification SP-45-1953.



PLAIN / SWING

LEVER & SPRING

LEVER & WEIGHT

DIM 'V' CONSULT Mfr. FOR MAX. CUT-OFF OF HINGE PIN TO ELIM. CLEARANCE PROBLEMS

VALVE SIZE	14	16	18	20	24	30	36
F	31	36	40	40	48	49 1/2	63
G	1 3/8	1 7/16	1 9/16	1 11/16	1 7/8	2 1/8	2 3/8
H	21	23 1/2	25	27 1/2	32	38 3/4	46
J	18 3/4	21 1/4	22 3/4	25	29 1/2	36	42 3/4
K	12-1	16-1	16-1 1/8	20-1 1/8	20-1 1/4	28-1 1/4	32-1 1/2
L	22 3/8	25 3/4	27 1/2	32	34 7/8	41	47
R	18 3/4	19 1/16	25	24 1/2	24 11/16	28	34

LEVER & SPRING CHECK VALVES--STYLE 259-02

T	18 1/2	19	20 3/4	22 1/2	26	28 1/4	35
WEIGHT	1150	1630	1835	2500	3415	4950	

LEVER & WEIGHT CHECK VALVES--STYLE 159-02

S	19	19 1/2	20 3/4	22 1/2	27 3/8	29 5/8	35
U	32 1/2	34 1/2	40	42	54 1/2	57 1/2	
WEIGHT	1130	1530	1903	2383	3298	5550	

PLAIN / SWING CHECK VALVES--STYLE 59-02

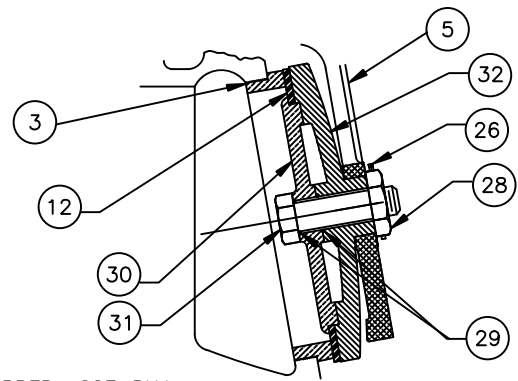
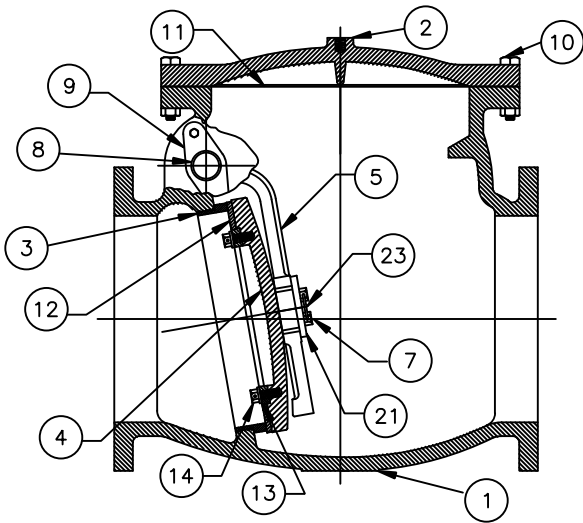
T	18 1/2	19	20 3/4	22 1/2	26	28 1/4	35
WEIGHT	1060	1460	1750	2230	3040	5200	

NOTE:

THESE DIMENSIONS WILL BE PHASED IN DURING 2013. CONTACT FACTORY FOR EXACT LAYING LENGTHS. CHECK LAYING LENGTHS WHEN REPLACING VALVES MANUFACTURED PRIOR TO 2013.

CLOW VALVE COMPANY
A DIVISION OF MCWANE INC.

14" THRU 36" CHECK VALVES
FLANGED ENDS
ALL STYLES
DIMENSIONS



14" CLAPPER ASSEMBLY

5	1	CLAPPER ARM	DUCTILE IRON ASTM -536
12	1	CLAPPER RING	NEOPRENE
26	1	COTTER PIN	SS 304
28	1	CLAPPER NUT	BRONZE CDA 86400
29	2	GASKET	COPPER NON-ASBESTOS
30	1	CLAMPING RING	BRONZE CDA 84400
31	1	CAP SCREW OR BOLT	SS 18-8
32	1	CLAPPER	CI A-126 CLASS B

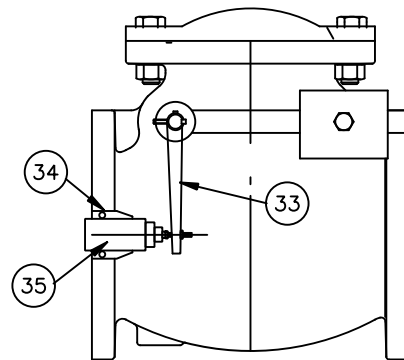
14"-30" CHECK VALVE BODY

PART NO	QTY	DESCRIPTION	MATERIAL & ASTM SPEC
1	1	BODY	CI A-126 CLASS B
2	1	COVER	CI A-126 CLASS B
3	1	BODY RING	BRONZE CDA 84400
8	1	HINGE PIN	STN. STL A-276-303
9	2	GLAND	CI A-126 CLASS B
10	*	COVER BOLTS & NUTS	STEEL A-307 GRADE B
11	1	COVER GASKET	NON-ASBESTOS

16" - 30" CLAPPER ASSEMBLY

PART NO	QTY	DESCRIPTION	MATERIAL & ASTM SPEC
4	1	CLAPPER	CI A-126 CLASS B
5	1	CLAPPER ARM	DUCTILE IRON ASTM -536
7	*	CAP SCREW	BRONZE B-21
12	1	CLAPPER RING	NEOPRENE
13	1	RING CLAMP	BRONZE CDA 84400
14	*	RING CLAMP CAP SCREW	BRONZE B-21
21	1	CAP PLATE	COPPER ALLOY 864/ASTM-132
23	1	LOCK WIRE	STAINLESS STEEL

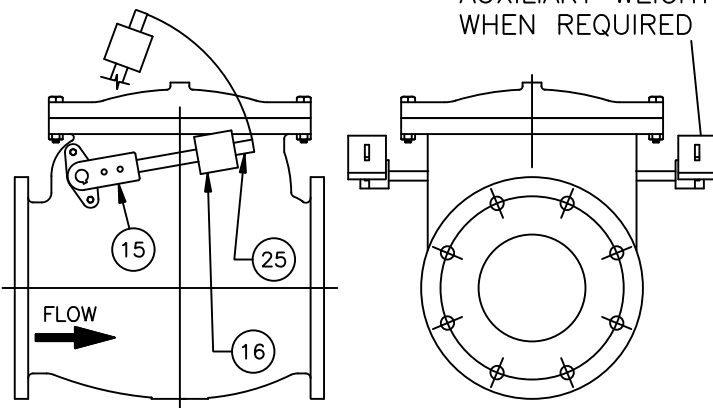
* VARIES



LIMIT SWITCH OPTION

33	1	TRIPPER ARM	STEEL
34	1	MOUNTING BRACKET	STEEL
35	1	LIMIT SWITCH	SD-D-TYPE-CR53E

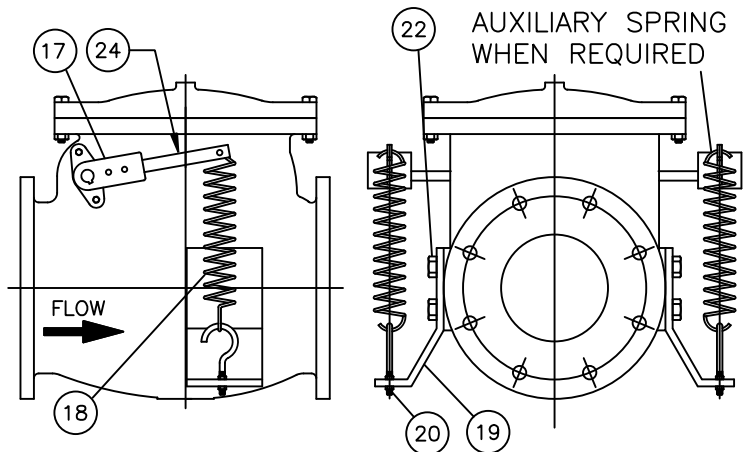
AUXILIARY WEIGHT WHEN REQUIRED



LEVER & WEIGHT CHECK VALVE

15	1	WEIGHT LEVER ARM	CI A-126 CLASS B
16	1	WEIGHT	FAB. STEEL
25	1	WEIGHT ARM BAR	CR STEEL C-1018/1020

AUXILIARY SPRING WHEN REQUIRED



LEVER & SPRING CHECK VALVE

17	1	SPRING ARM LEVER	CI A-126 CLASS B
18	1	SPRING	STEEL
19	1	SPRING BRACKET	STEEL
20	1	SPRING EYEBOLT	STEEL A-307 GRADE B
22	*	SPRING BRACKET CAP SCREW	STEEL A-307 GRADE B
24	1	SPRING ARM BAR	CR STEEL C-1018/1020

* VARIES

CLOW VALVE COMPANY
A DIVISION OF MCWANE INC.

14" THRU 30" CHECK VALVES
FLANGED ENDS
ALL STYLES
MATERIAL LIST

**CLOW SWING CHECK VALVES
FEATURES AND BENEFITS**

CLOW VALVE COMPANY

- Full/clear port opening in all diameters.
- All working parts can be removed through the top.
- Heavy, solid, bronze (2" - 3" and 14" - 30") and Ductile Iron (4" - 12") hinge gives maximum gate support.
- Cast iron integral stops in body prevent gate sticking in open position.
- Seating surfaces are bronze to bronze 2" - 12" and rubber to bronze on 14" - 30" size.
- Easily converted from plain to outside lever and weight or outside lever and spring.
- Outside lever and weight or outside lever and spring can be mounted on either side of assembly.
- Stainless steel hinge pin operates in bronze support bearings.
- Bosses may be tapped for draining or used for by-pass.

RECOMMENDED SPECIFICATIONS FOR CLOW SWING CHECK VALVES

CLOW VALVE COMPANY

- Check valves shall be of swing type and shall meet the material and design requirements of AWWA specification C508. The valve shall be iron body, bronze mounted, 2" - 12" and iron body-resilient seat 14" - 30" single gate for non-shock working pressure 200 psi 2" - 12", 150 psi 14" - 30" and hydrostatically tested at double the working pressure. Ends shall be 125 # ANSI flanged.
- When there is no flow through the line, the gate shall hang lightly against the seat.
- The valve shall be so constructed that by simply unbolting and lifting off the cover, the internal working parts may easily be removed and replaced without removing the valve from the line. The valve shall be furnished plain or with outside lever and spring or outside lever and weight.
- Check valves shall be suitable for mounting in horizontal lines or vertical lines when water flow is up.
- Check valves shall have stainless steel hinge pin.
- Hinge pin shall operate in bronze support bearings.

Check Valve Ordering Information - AWWA

- Please furnish all the information requested below:
- Quantity
- Size: Available in 2" - 30"
- Type: Whether plain, outside lever and weight, outside lever and spring
- End types: Flanged
- Special features: Rubber faces or bronze gates - Cushion Device
- Check valve type:

2" - 12"	Plain	Style	1106
14" - 30"	Plain	Style	59-02
2" - 12"	W/L	Style	1106LW
14" - 30"	W/L	Style	159-02
2" - 12"	S/L	Style	1106LS
14" - 30"	S/L	Style	259-02

Check Valve Ordering Information - UL/ULC

- Quantity
- Size: Available in 2½" - 12"
- Type: Plain
- End types: Style 1126 Fig. (Bronze faced gate)
- Special features: Style 1126A Fig. (Rubber faced gate)