

CLOW AWWA DBL. DISC PARALLEL
SEAT IBBM GATE VALVES

CLOW VALVE COMPANY

**CLOW AWWA Dbl. Disc Parallel Seat
IBBM Gate Valves Meet or Exceed
the requirements of AWWA C500**

Size Range	2"-48"	
	Water working Pressure psi	Hydrostatic Test psi
2"-12"	200	400
14"-48"	150	300

Available in either, NRS or OS&Y.

Available End Connections & Size Range

Figure No.

Fig. -NRS	2"-48"	F-5070
Fig. -OS&Y	14"-36"	F-5072
M.J.	2"-48"	F-5065
MJ Cutting End	4"-12"	F-5067
Fig. & M.J.	4"-48"	F-5066

Accessories

Floorstands (NRS & R.S.)
Electric Motors
2" Sq. Operating Nuts
Chainwheels
"T" Handles
Stem Guides
Indicator Posts

By-pass Valves
Enclosed Gearing(Grease Case)
Position Indicators
Tracks, Rollers, & Scrapers for
Handwheels
Extension Stems
Floor Boxes

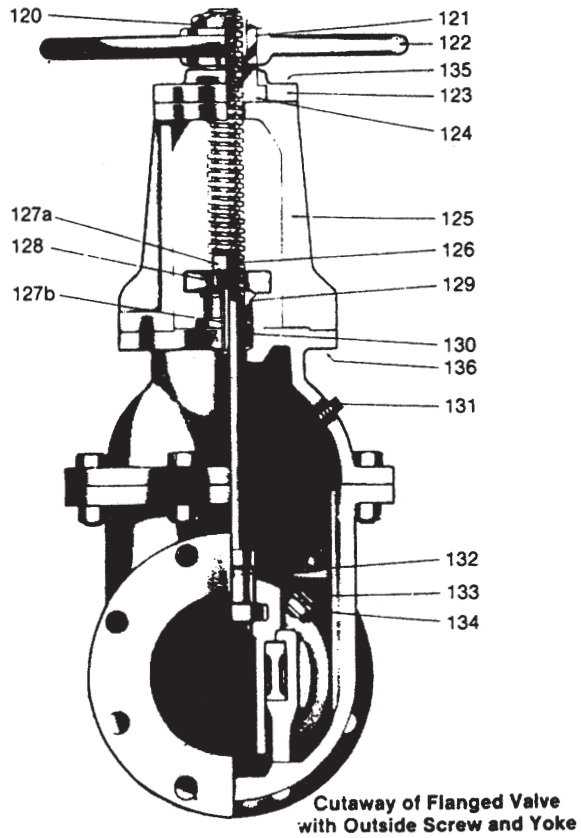
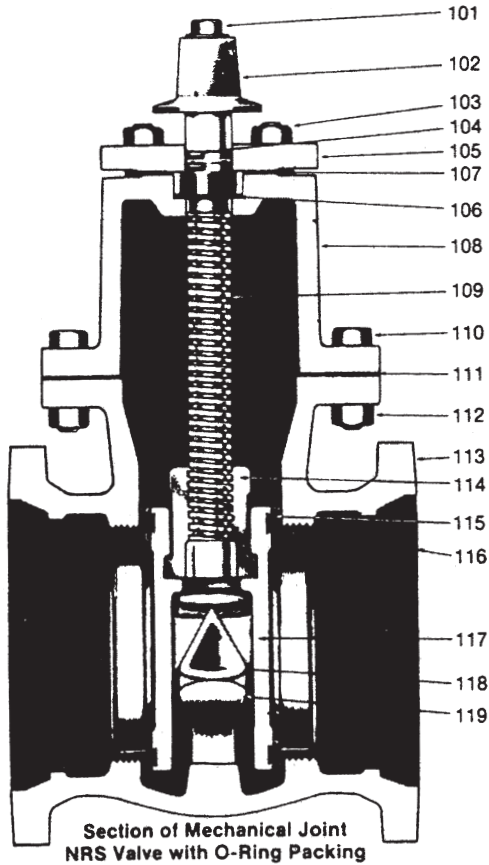
* Note: Call Factory For Special Applications and Accessory Availability.

42" & 48" Drawings Available on Request

AWWA DOUBLE DISC GATE VALVES PARTS LIST

CLOW VALVE COMPANY

*Recommended Spare Parts



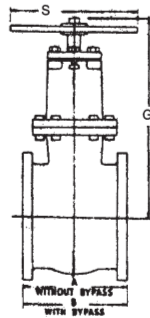
DET.	QTY.	DESCRIPTION	MATERIAL
101	1	CAP SCREW	STEEL
102	1	OPERATING NUT	CAST IRON
*103		O-RING PLATE BOLTS & NUTS	STEEL
*104	2	O-RINGS	RUBBER
105	1	O-RING PLATE	CAST IRON
106	1	LOW TORQUE BEARING	
*107	1	STUFFING BOX GASKET	
108	1	COVER	CAST IRON
*109	1	NON-RISING STEM	COPPER ALLOY
*110		NECK FLANGE BOLTS	STEEL—RUST-PROOFED
*111	1	NECK FLANGE GASKET	COMPOSITION
*112		NECK FLANGE BOLT NUTS	STEEL
113	1	BODY	CAST IRON
*114	1	GATE NUT	COPPER ALLOY
115	2	GATE RING	
116	2	CASE RING	COPPER ALLOY
*117	2	GATE	CAST IRON
*118	2	WEDGE	COPPER ALLOY
*119	2	HOOK	CAST IRON

DET.	QTY.	DESCRIPTION	MATERIAL
*120	1	HOLD DOWN NUT	COPPER ALLOY
121	1	HANDWHEEL KEY	STEEL
122	1	HANDWHEEL	CAST IRON
123	1	OS&Y RETAINER PLATE	CAST IRON
*124	1	OS&Y STEM NUT	COPPER ALLOY
125	1	OS&Y YOKE	CAST IRON
*126	1	RISING STEM	COPPER ALLOY
127A	2	FOLLOWER NUTS	COPPER ALLOY
127B	2	FOLLOWER STUDS	STEEL—RUST-PROOFED
128	1	FOLLOWER PLATE	CAST IRON
129	1	FOLLOWER GLAND	COPPER ALLOY
*130		PACKING	ACRYLIC GRAPHITE
131	1	TEST PLUG	TEFLON-COATED STEEL
*132	1	STEM NUT PIN	COPPER ALLOY
*133	4	PEGS	COPPER ALLOY
*134	2	STRAPS	*STAINLESS OR BRONZE
*135		OS&Y CAP SCREWS	STAINLESS 10" & 12" ONLY STEEL—RUST-PROOFED
136		OS&Y YOKE BOLTS & NUTS	STEEL—RUST-PROOFED

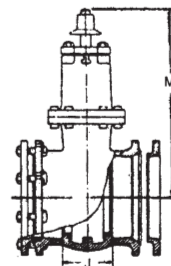
CLOW AWWA GATE VALVES
UNDERGROUND AND PLANT
PIPING SYSTEMS

CLOW VALVE COMPANY

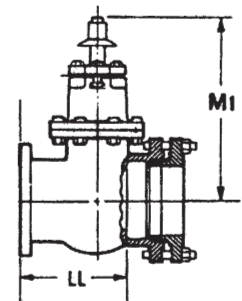
VALVE SIZE	A	B	G	J	K	M ₁	P	S	LL	Turns to Open	Diam. of Stem
2	7	-	10 1/4	3 1/4	-	10 1/4	-	7 1/4	-	5	7/8
2 1/4	7 1/2	-	10 1/4	3 1/4	-	10 1/4	-	7 1/4	-	5	7/8
2 1/2	7 1/2	-	11 3/8	-	-	11 3/8	-	7 1/4	-	6	7/8
3	8	-	12 1/4	3 1/2	-	12 1/2	-	7 1/4	-	7	7/8
4	9	-	14	4 3/4	5 1/4	14	4 1/2	10	6 7/8	15	1 1/8
5	10	-	15 1/2	-	-	15 1/2	-	10	-	18	1 1/8
6	10 1/2	-	18	5 1/4	6 1/2	18	5 1/4	12	8	21	1 1/4
8	11 1/2	-	22	6 1/2	7	22	6 1/4	14	9	27	1 3/8
10	13	-	25 5/8	6 3/4	7 1/4	25 5/8	6 1/2	18	9 7/8	33	1 1/2
12	14	-	29 1/8	7	7 3/4	29 1/8	-	18	10 1/2	39	1 1/2
14	15 3/4	23	36 1/2	7 1/4	-	39 3/4	-	22	11 1/2	45	1 7/8
16	17	23	40 3/4	9 1/4	-	43 1/2	-	22	15 3/8	52	1 7/8
18	19	24	43 1/4	9 1/4	-	46	-	26	16 1/2	58	2 1/8
20	20	24	47 1/4	10	-	50	-	26	18 3/8	64	2 1/8
24	23	28 1/2	55	16	-	56 3/4	-	30	22	76	2 1/2
30	25	32 1/2	64 3/4	12 1/2	-	66 1/2	-	30	-	63	2 3/4
36	27	36	75 3/8	23 3/4	-	77 3/8	-	36	-	75	3
42	34	34	-	-	-	-	-	30	-	88	3 1/2
48	45 1/2	45 1/2	-	-	-	-	-	30	-	100	4



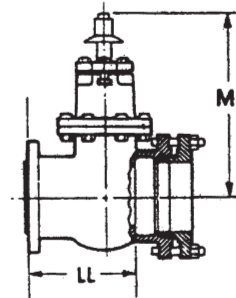
F-5070
Flanged Ends



F-5065
Mechanical Joint



F-5066
Flanged and
Mechanical Joint Ends



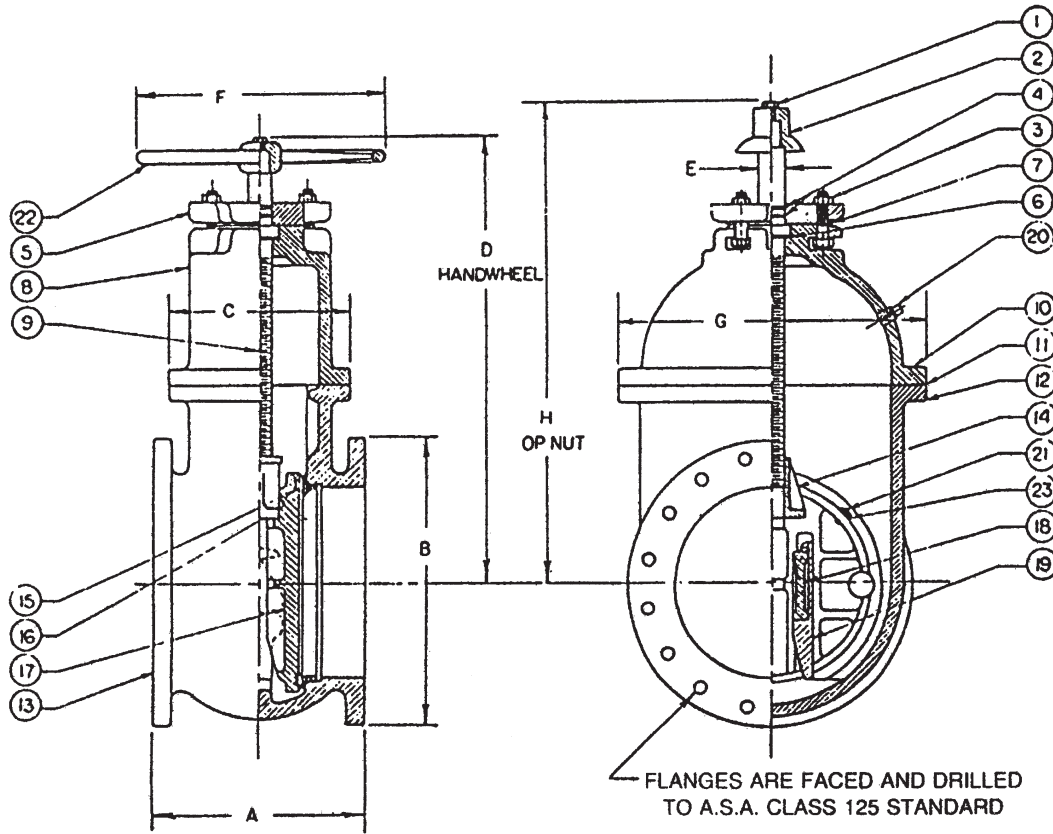
F-5093
Mechanical Joint
Tapping Valve

URNS TO OPEN ARE FOR VALVES WITHOUT GEARING

DIMENSIONS—INCHES
FLANGES ARE FACED AND DRILLED TO ANSI 125 POUND
TEMPLATE, UNLESS OTHERWISE SPECIFIED

2"-12" FLANGED END
F-5070 GATE VALVE

CLOW VALVE COMPANY



VALVE SIZE	A	B	C	D	E	F	G	H	Turns to Open
2	7	6	5	11 $\frac{1}{4}$	$\frac{7}{8}$	7 $\frac{1}{4}$	5 $\frac{7}{8}$	11 $\frac{1}{4}$	5
2 $\frac{1}{2}$	7 $\frac{1}{2}$	7	5 $\frac{1}{2}$	13	$\frac{7}{8}$	7 $\frac{1}{4}$	6 $\frac{3}{8}$	13	6
3	8	7 $\frac{1}{2}$	5 $\frac{1}{2}$	14	$\frac{7}{8}$	7 $\frac{1}{4}$	7 $\frac{7}{8}$	14	7
4	9	9	7	15 $\frac{1}{4}$	1 $\frac{1}{8}$	10	9	15 $\frac{1}{4}$	15
5	10	10	7 $\frac{3}{4}$	16 $\frac{1}{4}$	1 $\frac{1}{8}$	10	10 $\frac{3}{8}$	16 $\frac{1}{4}$	18
6	10 $\frac{1}{2}$	11	9	18 $\frac{1}{2}$	1 $\frac{1}{4}$	12	12 $\frac{3}{8}$	18 $\frac{1}{2}$	21
8	11 $\frac{1}{2}$	13 $\frac{1}{2}$	10	21 $\frac{3}{8}$	1 $\frac{3}{8}$	14	15 $\frac{1}{4}$	21 $\frac{3}{8}$	27
10	13	16	10 $\frac{3}{8}$	28 $\frac{1}{4}$	1 $\frac{1}{2}$	18	18 $\frac{1}{4}$	28 $\frac{1}{4}$	33
12	14	19	11 $\frac{1}{4}$	30 $\frac{3}{4}$	1 $\frac{1}{2}$	18	20 $\frac{1}{4}$	30 $\frac{3}{4}$	39

SEQ.	QTY.	DESCRIPTION	MATERIAL
1	1	CAPSCREW	STEEL
2	1	OPERATING NUT	CAST IRON
3		BOLTS & NUTS	RUST PROOF STEEL
4	2	"O" RINGS	RUBBER
5	1	"O" RING PLATE	CAST IRON
6	1	LOW TORQUE BEARING	DELTRIN 1
7	1	STUFFING BOX GASKET	COMPOSITION
8	1	COVER	CAST IRON
9	1	NON-RISING STEM	COPPER ALLOY
10		NECK-FLANGE BOLTS	RUST PROOF STEEL
11	1	NECK-FLANGE GASKETS	COMPOSITION
12		NECK-FLANGE NUTS	RUST PROOF STEEL
13	1	BODY	CAST IRON
14	1	GATE NUT	COPPER ALLOY
15	2	GATE RING	COPPER ALLOY
16	2	CASE RING	COPPER ALLOY
17	2	GATE	CAST IRON
18	2	WEDGE	COPPER ALLOY
19	2	HOOK	CAST IRON
20	1	PIPE PLUG	CAST IRON
21	4	PEGS—ON 10",12" & 14" VALVES	COPPER ALLOY
22	1	HANDWHEEL	CAST IRON
23	2	STRAPS—ON 10",12" & 14" VALVES	STAINLESS STEEL

sd-52
C 10/25/10

**14"-36" FLANGED END
F-5070 GATE VALVE
CLOW VALVE COMPANY**

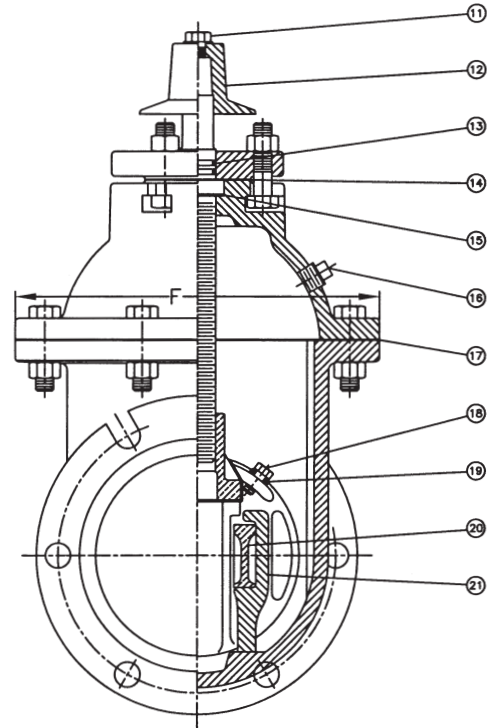
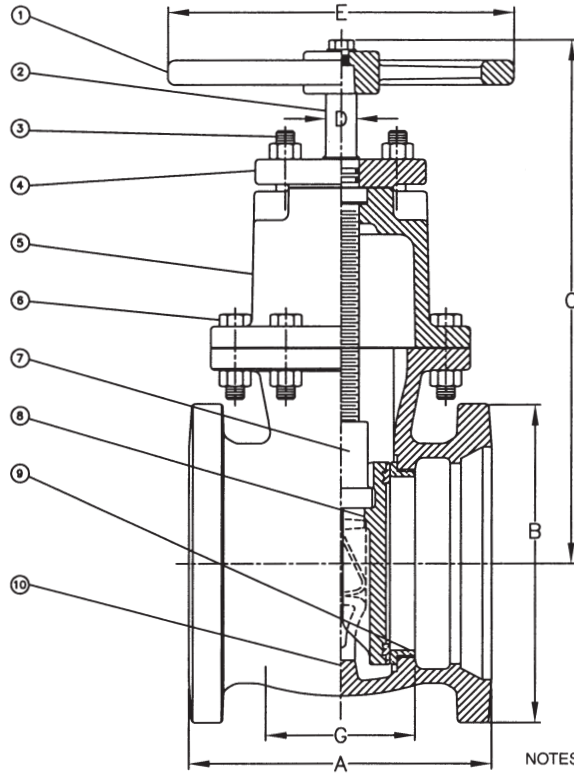


VALVE SIZE	A	B	C	D	E	F	G	H	Turns to Open
14	15 3/4	23	21	28 1/4	35 1/4	19 1/4	1 7/8	23 5/8	45
16	17	23	23 1/2	32 1/4	39 1/4	20 1/2	1 7/8	25 3/4	52
18	19	24	25	35 3/8	42 3/8	22 1/2	2 1/8	27 3/4	58
20	20	24	27 1/2	39	46	24	2 1/8	32 7/8	64
24	23	28 1/2	32	45 3/8	52 3/8	28	2 1/2	35 3/4	76
30	25	32 1/2	38 3/4	55 3/4	62 3/4	31 1/2	2 3/4	45 3/4	63
36	27	36	46	65 1/4	72 1/4	40	3	56 1/4	75

ITEM	QTY	DESCRIPTION	MATERIAL
1	1	O-ring Plate	Cast Iron, ASTM A126 Cl. B
2	2	O-ring	Buna-N
3	1	Stuffing Box Gasket	Composition
4	1	Neck Flange Gasket	Buna-N
5	1	Cover	Cast Iron, ASTM A126 Cl. B
6	2	Bushing	Bronze, ASTM B584 Alloy 836
7	1	Stem	Bronze, ASTM B584 Alloy 867
8	1	Body	Cast Iron, ASTM A126 Cl. B
9	1	Stem Nut	Bronze, ASTM B584 Alloy 836
10	2	Gate	Cast Iron, ASTM A126 Cl. B
11	2	Gate Ring	Bronze, ASTM B584 Alloy 836
12	2	Case Ring	Bronze, ASTM B584 Alloy 836
13	2	Wedge	Bronze, ASTM B584 Alloy 836
14	2	Hook	Cast Iron, ASTM A126 Cl. B
15		Bolts & Nuts	Rust Proofed Steel
16	2	Strap	Bronze, ASTM B584 Alloy 836
17	4	Peq	Bronze, ASTM B584 Alloy 836

2"-12" MECHANICAL JOINT
F-5065 GATE VALVE

CLOW VALVE COMPANY



NOTES:
 DELRIN BEARING, PART 16, USED ON 4"-12" ONLY.
 2"-3" HAS ALL BRONZE GATES, WITHOUT RINGS, HOOK AND WEDGE. ONE PIECE CAST BRONZE.
 CAPSCREW, STRAP, PARTS 19,20, USED ON 10"-12" ONLY.

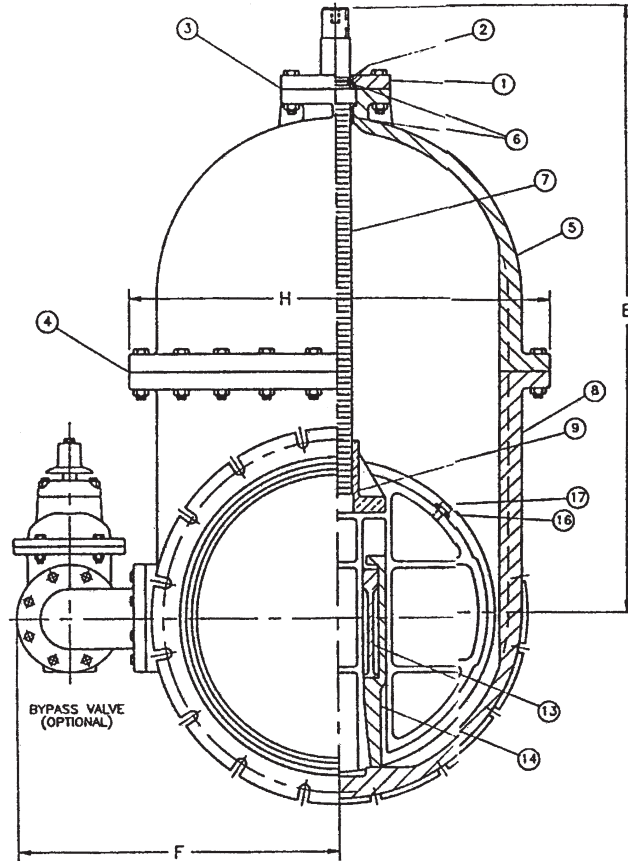
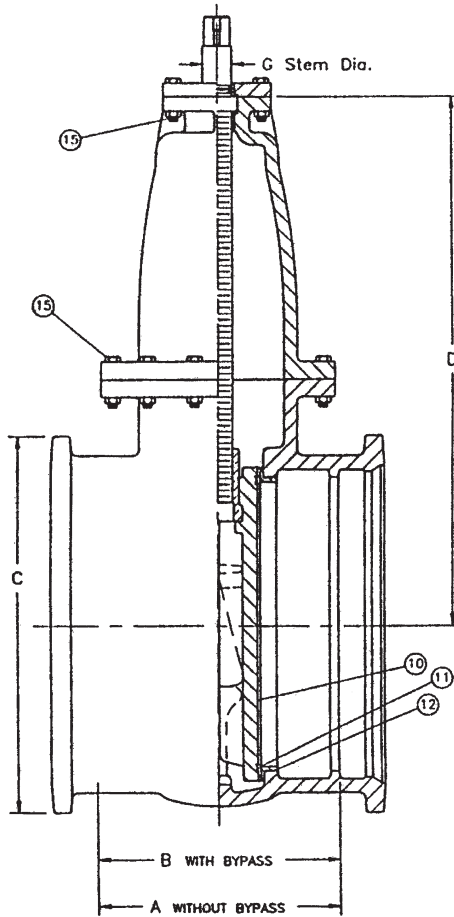
NOTE: MECH. JOINT ENDS MEET SPECS.
 A.S.A. A-21-11

SEQ.	QTY.	DESCRIPTION	MATERIAL
1	1	HANDWHEEL	CAST IRON
2	1	NON-RISING STEM	LOW ZINC BRONZE
3		BOLTS/NUTS	STEEL-ZINC COATED
4	1	"O" RING PLATE	CAST IRON
5	1	COVER	CAST IRON
6		BOLTS & NUTS	STEEL-ZINC COATED
7	1	STEM NUT	COPPER ALLOY
8	2	GATE	COPPER ALLOY
9	2	CASE RING	COPPER ALLOY
11	1	BODY, SMJ	CAST IRON
12	1	CAPSCREW-WASHER	STEEL-ZINC COATED
13	1	OPERATING NUT	CAST IRON
14	1	GASKET, STUFFBOX	COMPOSITION
15	2	"O" RINGS	RUBBER
16	1	LOW TORQUE BEARING	DELRIN
17	1	SQ. HD. PIPE PLUGSTL w/TEFLON	
18	1	GASKET, NECK FLANGE	COMPOSITION
19	4	CAPSCREW	SIL. BRONZE
20	2	STRAP	STAINLESS STEEL
21	2	WEDGE	COPPER ALLOY
22	2	HOOK	COPPER ALLOY

VALVE SIZE	A	B	C	D	E	F	G	Turns to Open
2	8¼	4½	10¼	⅞	7¼	5⅞	3¼	5
2½	8¼	4½	10¼	⅞	7¼	6⅞	3¼	6
3	9¾	7¾	12¼	⅞	7¼	7⅞	3½	7
4	10¾	9⅞	14	1⅞	10	9	4¾	15
6	10½ _{2A}	11⅞	18	1¼	12	12⅞	5¼	21
8	12	13¾	22	1⅞	14	15½	6½	27
10	12½	15¾	25⅞	1½	18	18¼	6¾	33
12	13	18	29⅞	1½	18	20¼	7½	39

14"-36" MECHANICAL JOINT
F-5065 GATE VALVE

CLOW VALVE COMPANY



VALVE SIZE	A	B	C	D	E	F	G	H
14	7¼	15½	20¼	28¼	35¼	19¼	1⅞	25¾
16	9⅞	13¾	22½	32¼	39¼	20½	1⅞	25¾
18	9¼	14	24¾	35⅝	42¾	22½	2⅞	27¾
20	10	16¾	27	39	46	24	2⅞	32⅞
24	16	21	32	45⅝	52¾	28	2½	35¾
30	12½	20¼	39⅞	55¼	62¾	31½	2¾	45¼
36	23¾	23¾	46	65¼	72¼	40	3	56¼

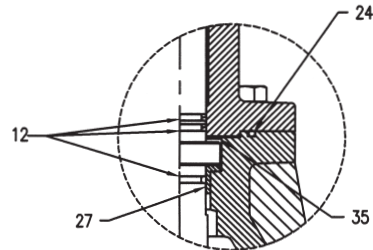
SEQ.	QTY.	DESCRIPTION	MATERIAL
1	1	"O" RING PLATE	CAST IRON
2	2	"O" RING	BUNA N
3	1	STUFFING BOX GASKET	COMPOSITION
4	1	NECK FLANGE GASKET	BUNA N
5	1	COVER	CAST IRON
6	2	BUSHING	COPPER ALLOY
7	1	STEM	COPPER ALLOY
8	1	BODY	CAST IRON
9	1	STEM NUT	COPPER ALLOY
10	2	GATE	CAST IRON
11	2	GATE RING	COPPER ALLOY
12	2	CASE RING	COPPER ALLOY
13	2	WEDGE	COPPER ALLOY
14	2	HOOK	CAST IRON
15		BOLTS&NUTS	RUST PROOFED STEEL
16	2	STRAP	COPPER ALLOY
17	4	PEG	COPPER ALLOY

14"-24" DOUBLE DISC SPUR GEAR
MATERIAL LIST

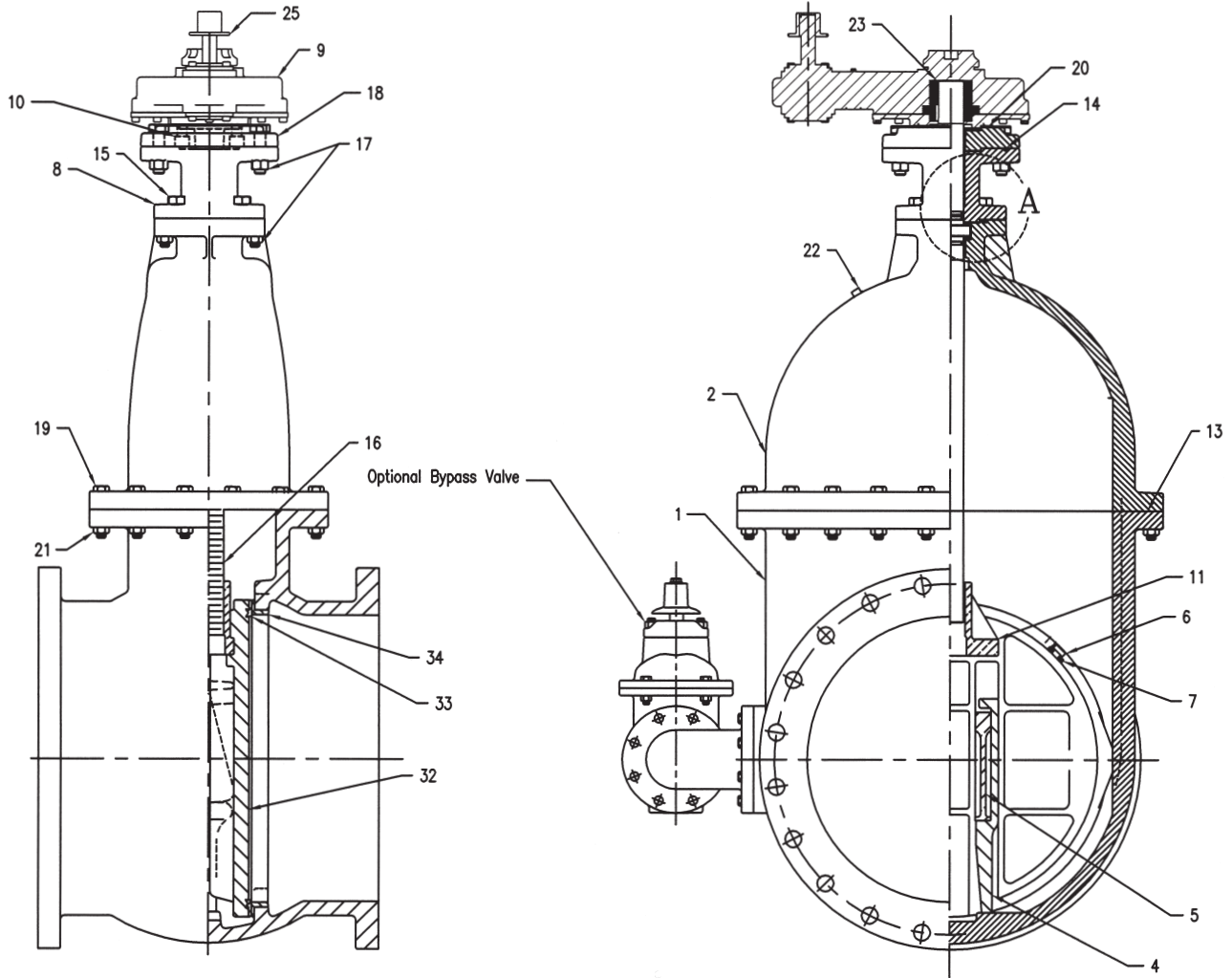
CLOW VALVE COMPANY

MODEL 2613

DET	QTY	DESCRIPTION	MATERIAL
1	1	Body	Gray Iron
2	1	Cover	Gray Iron
3	1	Cap	-----
4	2	Hook	Gray Iron
5	2	Wedge	Copper Alloy
6	4	Gate Peg	Copper Alloy
7	2	Strap	Copper Alloy
8	1	Extension	Ductile Iron
9	1	Actuator 2:1 Actuator 3:1	14"-16" Only 18"-24" Only
10	4	Socket Head Bolt	Alloy Steel
11	1	Stem Nut	Copper Alloy
12	3	O-ring--Stem	NBR
13	2	O-ring--Cover	NBR
14	1	O-ring--Extension	NBR
15	4	Capcrew	Zinc Chromate Plated Steel
16	1	Stem	Copper Alloy
17	8	Nut	Zinc Chromate Plated Steel
18	1	Adaptor Plate	Ductile Iron
19	--	Capcrew	Zinc Chromate
20	1	Gasket--Actuator	Buna-N
21	--	Nut	Zinc Chromate Plated Steel
22	1	Pipe Plug	Steel
23	1	Key	Steel
24	1	O-ring--Cover Top	NBR
25	1	Op Nut	Ductile Iron
27	1	Bushing	Copper Alloy
28	1	Shaft	Copper Alloy
32	2	Gate	Gray Iron
33	2	Gate Ring	Copper Alloy
34	2	Case Ring	Copper Alloy
35	1	Thrust Washer	Delrin (18"-24")



DETAIL A

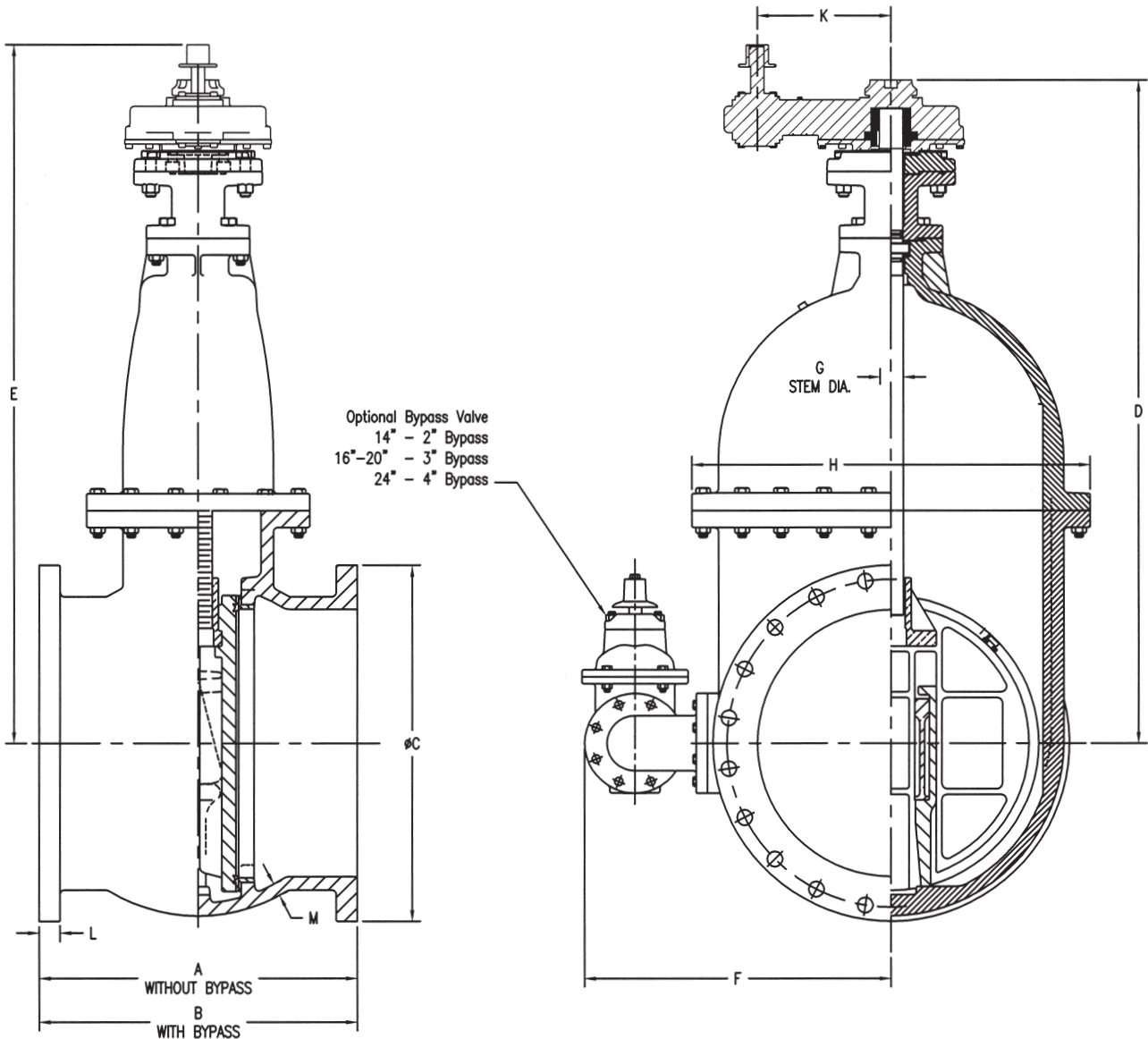


14"-24" DOUBLE DISC SPUR GEAR
FLANGE END DIMENSIONAL LIST

CLOW VALVE COMPANY

MODEL 2613

VALVE SIZE	14	16	18	20	24
A	15 $\frac{3}{4}$	17	19	20	23
B	23	23	24	24	28 $\frac{1}{2}$
C	21	23 $\frac{1}{2}$	25	27 $\frac{1}{2}$	32
D	38 $\frac{3}{4}$	42 $\frac{3}{4}$	48 $\frac{7}{8}$	52 $\frac{1}{2}$	59
E	42 $\frac{1}{2}$	46 $\frac{1}{2}$	52 $\frac{1}{2}$	56	62 $\frac{1}{2}$
F	19 $\frac{1}{4}$	20 $\frac{1}{2}$	22 $\frac{1}{2}$	24	28
G	1 $\frac{7}{8}$	1 $\frac{7}{8}$	2 $\frac{1}{8}$	2 $\frac{1}{8}$	2 $\frac{1}{2}$
H	23 $\frac{5}{8}$	25 $\frac{3}{4}$	27 $\frac{3}{4}$	32 $\frac{7}{8}$	35 $\frac{3}{4}$
K	8	8	12	12	12
L	1 $\frac{3}{8}$	1 $\frac{7}{16}$	1 $\frac{9}{16}$	1 $\frac{11}{16}$	1 $\frac{7}{8}$
M	$\frac{7}{8}$	$\frac{7}{8}$	$\frac{15}{16}$	1	1 $\frac{1}{8}$
URNS TO OPEN	90	104	174	192	228

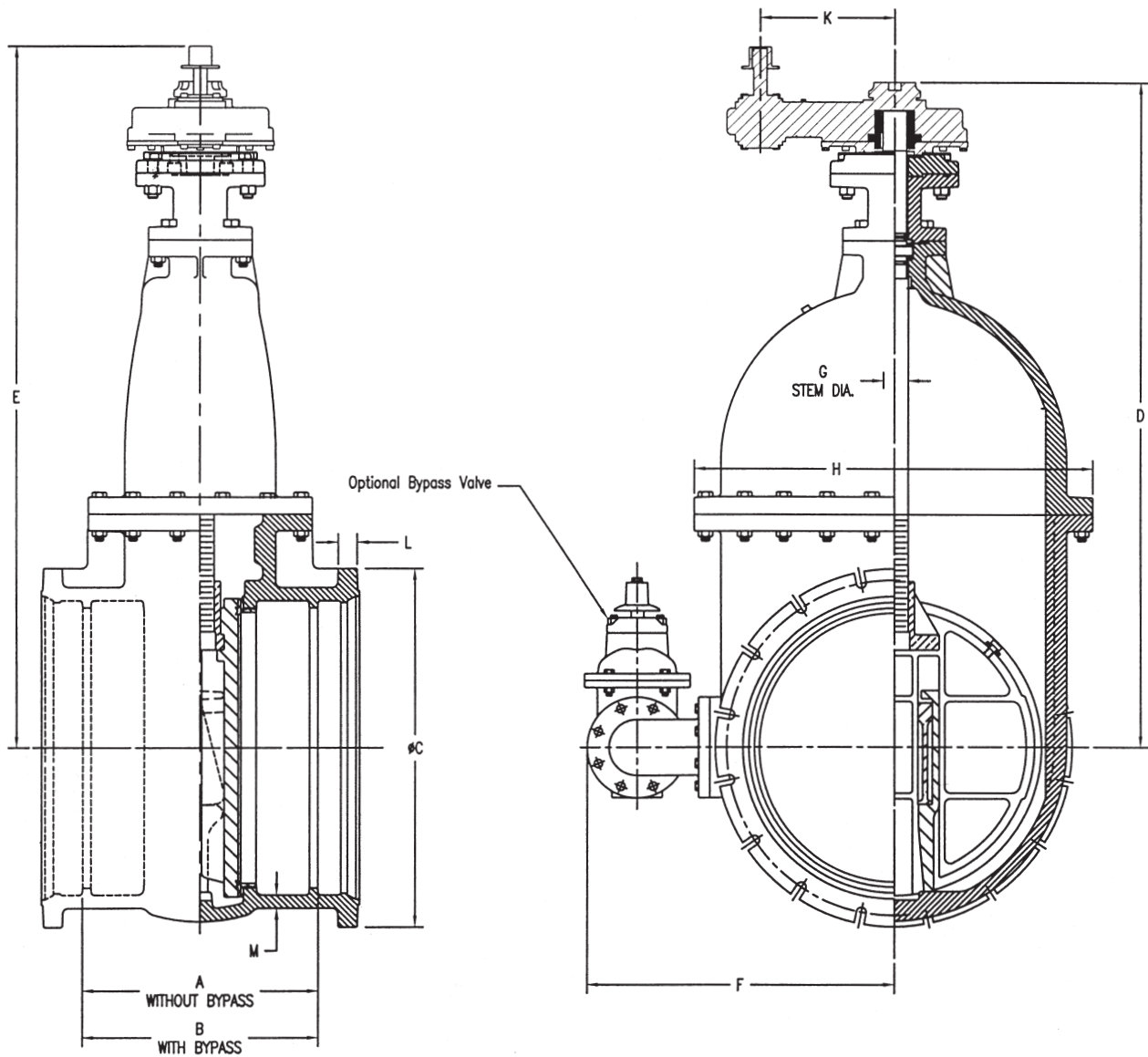


14"-24" DOUBLE DISC SPUR GEAR
MJ END DIMENSIONAL LIST

CLOW VALVE COMPANY

MODEL 2613

VALVE SIZE	14	16	18	20	24
A	7 $\frac{1}{4}$	9 $\frac{1}{8}$	9 $\frac{1}{4}$	10	16
B	15 $\frac{1}{2}$	13 $\frac{3}{4}$	14	16 $\frac{3}{4}$	21
C	20 $\frac{1}{4}$	22 $\frac{1}{2}$	24 $\frac{3}{4}$	27	32
D	38 $\frac{3}{4}$	42 $\frac{3}{4}$	48 $\frac{7}{8}$	52 $\frac{1}{2}$	59
E	42 $\frac{1}{2}$	46 $\frac{1}{2}$	52 $\frac{1}{2}$	56	62 $\frac{1}{2}$
F	19 $\frac{1}{4}$	20 $\frac{1}{2}$	22 $\frac{1}{2}$	24	28
G	1 $\frac{7}{8}$	1 $\frac{7}{8}$	2 $\frac{1}{8}$	2 $\frac{1}{8}$	2 $\frac{1}{2}$
H	23 $\frac{5}{8}$	25 $\frac{3}{4}$	27 $\frac{3}{4}$	32 $\frac{7}{8}$	35 $\frac{3}{4}$
K	8	8	12	12	12
L	1 $\frac{3}{8}$	1 $\frac{7}{16}$	1 $\frac{9}{16}$	1 $\frac{11}{16}$	1 $\frac{7}{8}$
M	$\frac{7}{8}$	$\frac{7}{8}$	$\frac{15}{16}$	1	1 $\frac{1}{8}$
TURNS TO OPEN	90	104	174	192	228

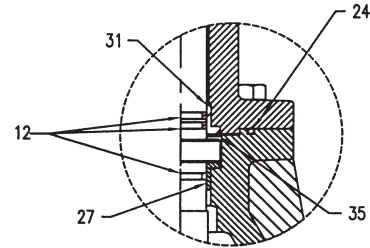


14"-24" DOUBLE DISC BEVEL GEAR
MATERIAL LIST

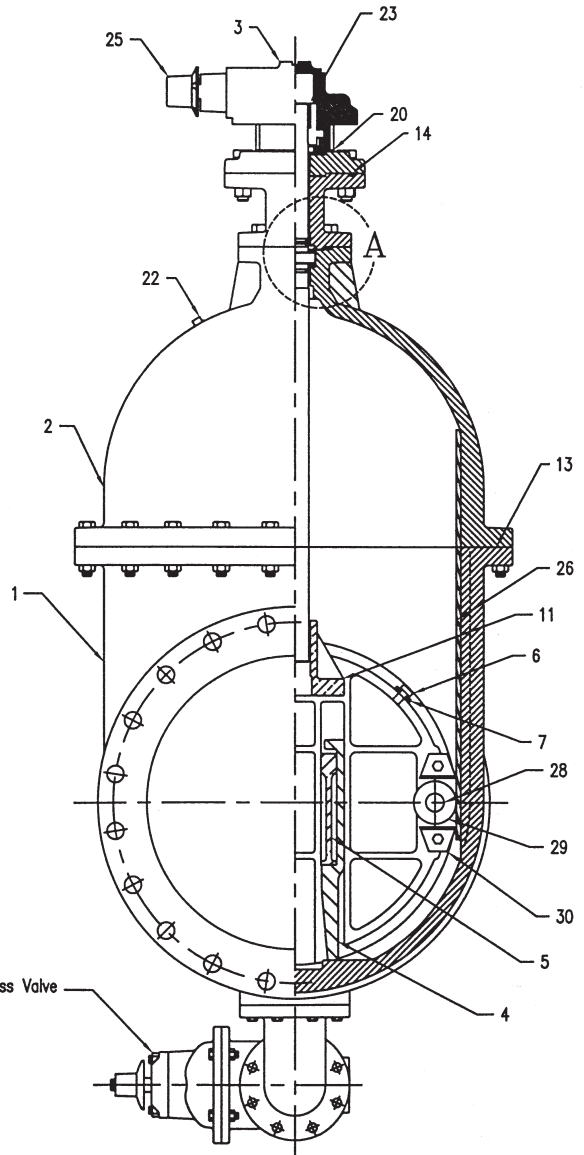
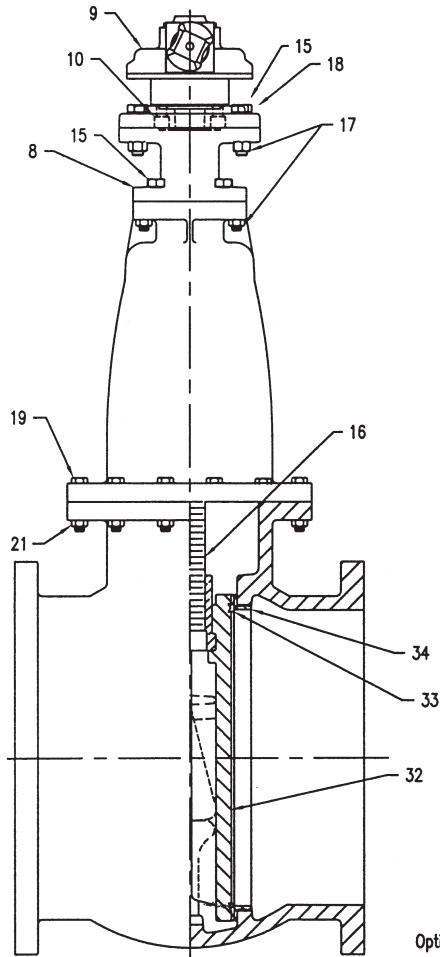
CLOW VALVE COMPANY

MODEL 2613

DET	QTY	DESCRIPTION	MATERIAL
1	1	Body	Gray Iron
2	1	Cover	Gray Iron
3	1	Cap	-----
4	2	Hook	Gray Iron
5	2	Wedge	Copper Alloy
6	4	Gate Peg	Copper Alloy
7	2	Strap	Copper Alloy
8	1	Extension	Ductile Iron
9	1	Actuator 2:1	14"-18" Only
		Actuator 3:1	18"-24" Only
10	4	Socket Head Bolt	Alloy Steel
11	1	Stem Nut	Copper Alloy
12	3	Oring-Stem	NBR
13	2	Oring-Cover	NBR
14	1	Oring-Extension	NBR
15	4	Capscrew	Zinc Chromate Plated Steel
16	1	Stem	Copper Alloy
17	8	Nut	Zinc Chromate Plated Steel
18	1	Adaptor Plate	Ductile Iron
19	18	Capscrew	Zinc Chromate
20	1	Gasket-Actuator	Buna-N
21	18	Nut	Zinc Chromate Plated Steel
22	1	Pipe Plug	Steel
23	1	Key	Steel
24	1	Oring-Cover Top	NBR
25	1	Op Nut	Ductile Iron
26	1	Track	Copper Alloy
27	1	Bushing	Copper Alloy
28	1	Shaft	Copper Alloy
29	1	Roller	Copper Alloy
30	2	Scraper	Copper Alloy
31	1	Bushing	Copper Alloy
32	2	Gate	Gray Iron, ASTM A126 Class B
33	2	Gate Ring	Copper Alloy
34	2	Case Ring	Copper Alloy
35	1	Thrust Washer	Delrin (18"-24")



DETAIL A



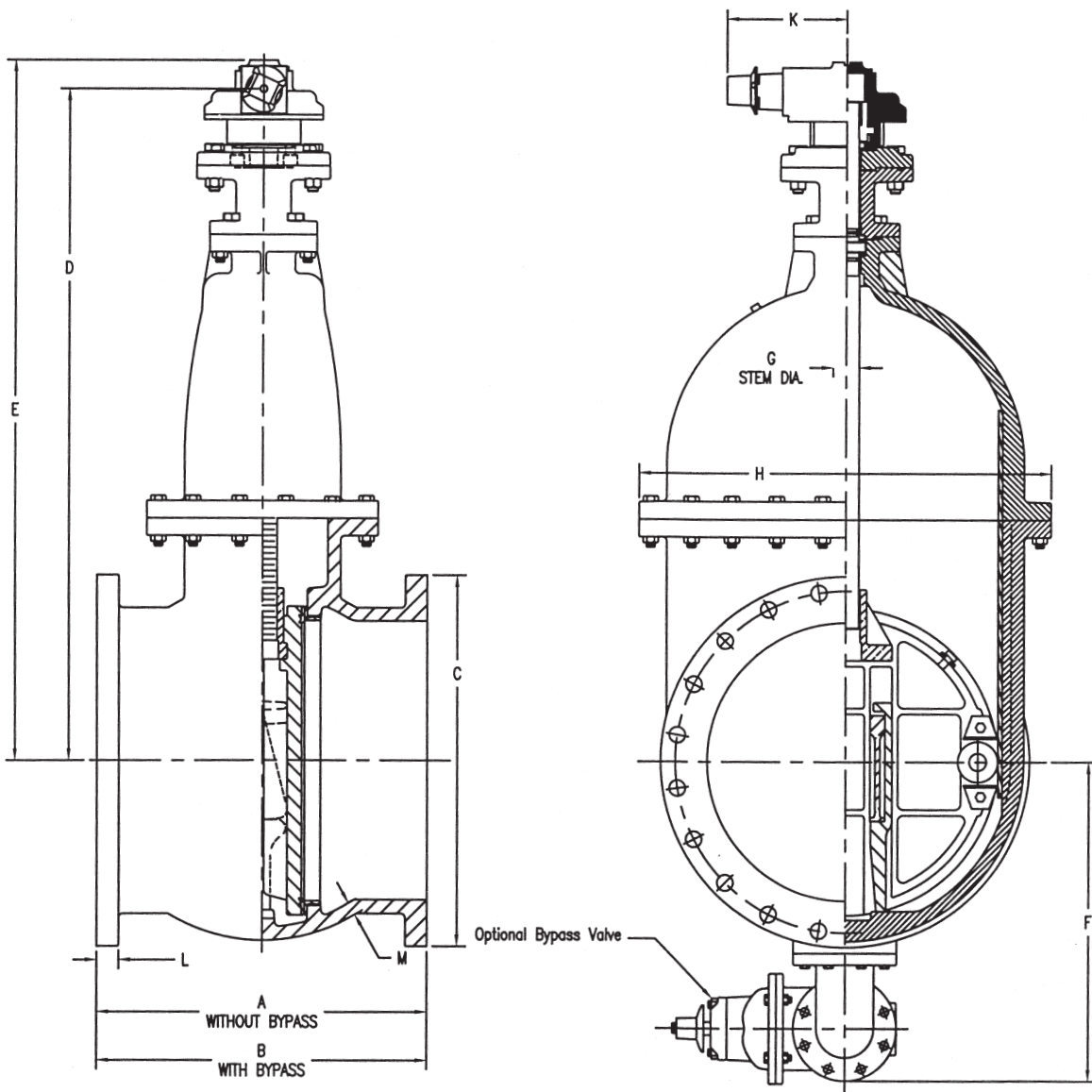
Optional Bypass Valve

14"-24" DOUBLE DISC BEVEL GEAR
FLANGE END DIMENSIONAL LIST

CLOW VALVE COMPANY

MODEL 2613

VALVE SIZE	14	16	18	20	24
A	15 $\frac{3}{4}$	17	19	20	23
B	23	23	24	24	28 $\frac{1}{2}$
C	21	23 $\frac{1}{2}$	25	27 $\frac{1}{2}$	32
D	37	41	47 $\frac{7}{8}$	51 $\frac{1}{2}$	58
E	39 $\frac{1}{4}$	43 $\frac{1}{4}$	50 $\frac{3}{8}$	54	60 $\frac{1}{2}$
F	19 $\frac{1}{4}$	20 $\frac{1}{2}$	22 $\frac{1}{2}$	24	28
G	1 $\frac{7}{8}$	1 $\frac{7}{8}$	2 $\frac{1}{8}$	2 $\frac{1}{8}$	2 $\frac{1}{2}$
H	23 $\frac{3}{8}$	25 $\frac{3}{4}$	27 $\frac{3}{4}$	32 $\frac{7}{8}$	35 $\frac{3}{4}$
K	9 $\frac{1}{4}$	9 $\frac{1}{4}$	10 $\frac{1}{4}$	10 $\frac{1}{4}$	10 $\frac{1}{4}$
L	1 $\frac{3}{8}$	1 $\frac{7}{16}$	1 $\frac{9}{16}$	1 $\frac{11}{16}$	1 $\frac{7}{8}$
M	$\frac{7}{8}$	$\frac{7}{8}$	$\frac{15}{16}$	1	1 $\frac{1}{8}$
TURNS TO OPEN	90	104	174	192	228

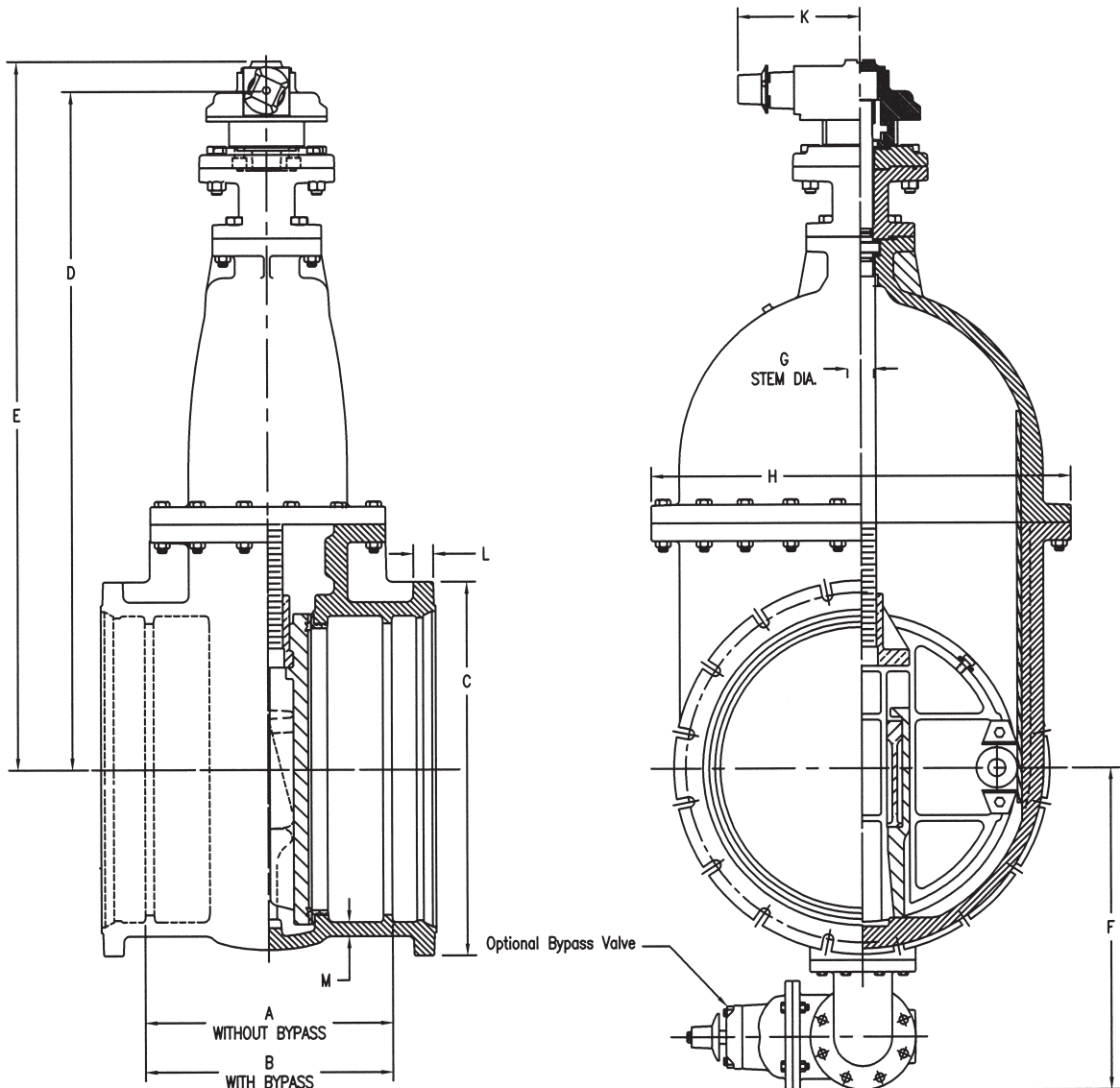


14"-24" DOUBLE DISC BEVEL GEAR
MJ END DIMENSIONAL LIST

CLOW VALVE COMPANY

MODEL 2613

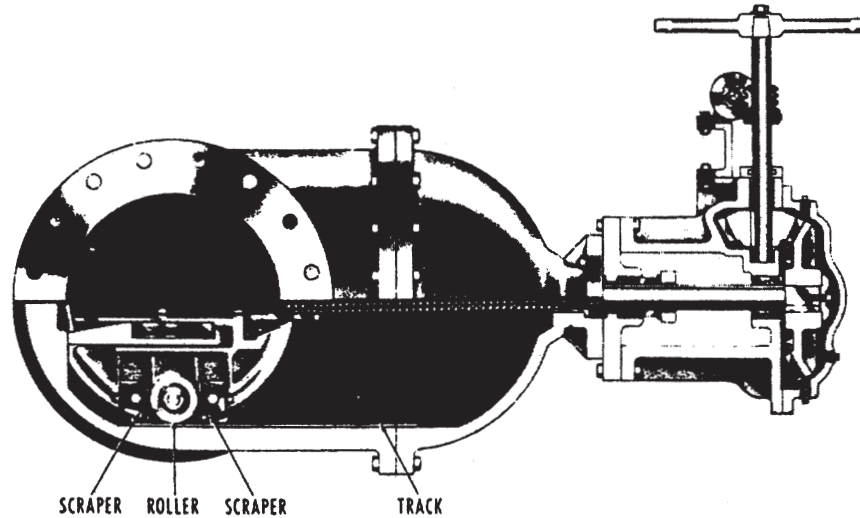
VALVE SIZE	14	16	18	20	24
A	7 $\frac{1}{4}$	9 $\frac{1}{8}$	9 $\frac{1}{4}$	10	16
B	15 $\frac{1}{2}$	13 $\frac{3}{4}$	14	16 $\frac{3}{4}$	21
C	20 $\frac{1}{4}$	22 $\frac{1}{2}$	24 $\frac{3}{4}$	27	32
D	37	41	47 $\frac{7}{8}$	51 $\frac{1}{2}$	58
E	39 $\frac{1}{4}$	43 $\frac{1}{4}$	50 $\frac{3}{8}$	54	60 $\frac{1}{2}$
F	19 $\frac{1}{4}$	20 $\frac{1}{2}$	22 $\frac{1}{2}$	24	28
G	1 $\frac{7}{8}$	1 $\frac{7}{8}$	2 $\frac{1}{8}$	2 $\frac{1}{8}$	2 $\frac{1}{2}$
H	23 $\frac{5}{8}$	25 $\frac{3}{4}$	27 $\frac{3}{4}$	32 $\frac{7}{8}$	35 $\frac{3}{4}$
K	9 $\frac{1}{4}$	9 $\frac{1}{4}$	10 $\frac{1}{4}$	10 $\frac{1}{4}$	10 $\frac{1}{4}$
L	1 $\frac{5}{16}$	1 $\frac{7}{16}$	1 $\frac{7}{16}$	1 $\frac{1}{2}$	1 $\frac{5}{8}$
M	$\frac{7}{8}$	$\frac{7}{8}$	1 $\frac{5}{16}$	1	1 $\frac{1}{8}$
URNS TO OPEN	90	104	174	192	228



CLOW GATE VALVES, ROLLERS,
TRACKS AND SCRAPERS

CLOW VALVE COMPANY

For 14-inch and Larger Diameter Gate Valves
Installed Horizontally

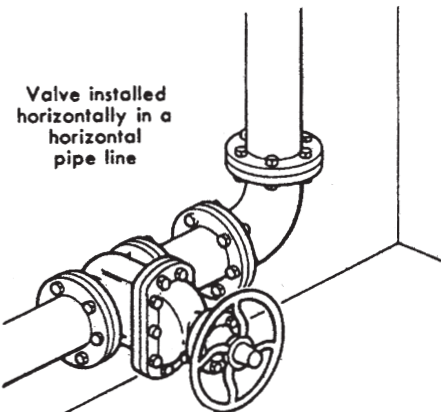


Cutaway view of valve showing rollers, tracks, and scrapers

Rollers, Tracks and Scrapers

Valves 14" and larger installed in a horizontal pipe line with their stems horizontal should be equipped with rollers, tracks and scrapers, as illustrated. The rollers assist the travel of the gate assembly along tracks set into the valve body, retaining it in alignment, and promoting ease of operation, not otherwise possible. Scrapers are provided ahead of the rollers to clear the track of obstruction or foreign matter.

When required, rollers, tracks and scrapers are bronze.



Valve installed horizontally in a horizontal pipe line

CLOW LIST 16 EXTRA HEAVY
PRESSURE DBL. DISC, PARALLEL
SEAT IBBM GATE VALVES

CLOW VALVE COMPANY

**CLOW LIST 16DbL. Discs Parallel Seat
IBBM Gate Valves Meet or Exceed
the requirements of AWWA C500**

Size Range	4" – 30"
-------------------	-----------------

	Water Working Pressure psi	Hydrostatic Test psi
4" – 20"	250	500
24" – 48"	225	450

Available in either, NRS or OS&Y.

Available End Connections & Size Range

Fig. (NRS) 4" – 48"

Fig. (OS & Y) 14" – 48"

Figure No.

F-5300

F-5305

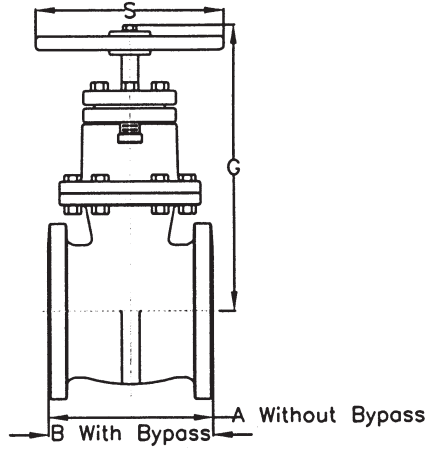
Accessories

Same as listed for CLOW AWWA Dbl. Disc
Parallel Seat IBBM Gate Valves

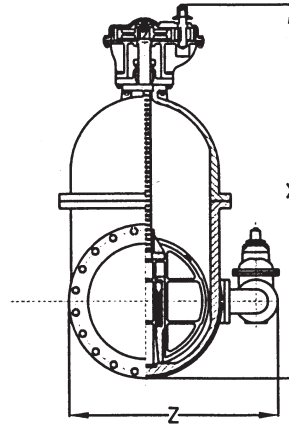
Flanges are faced and drilled to ANSI Class 250 Standard

LIST 16 EXTRA HEAVY DOUBLE DISC
GATE VALVES GENERAL DIMENSIONS

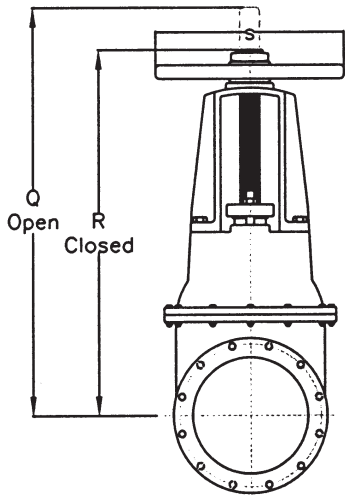
CLOW VALVE COMPANY



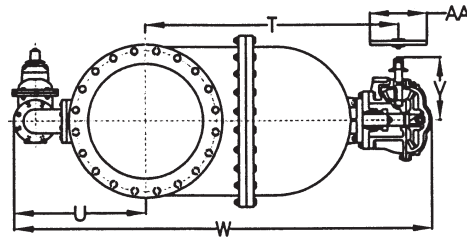
Flanged Ends, NRS



Flanged ends
NRS Spur
Gear
By-Pass



Flanged Ends, OS&Y



Flanged ends, NRS,
with Bevel Gears,
By-Pass

VALVE SIZE	A	B	G	Q	R	S	T	U	V	W	X	Y	Z	AA	Turns to Open	Diag. of Stem
4	9 $\frac{5}{8}$	—	14	24	19 $\frac{3}{4}$	10	—	—	—	—	—	—	—	—	15	1 $\frac{1}{8}$
6	11 $\frac{1}{2}$	—	18	32 $\frac{1}{2}$	25 $\frac{1}{2}$	12	—	—	—	—	—	—	—	—	21	1 $\frac{1}{4}$
8	12 $\frac{1}{2}$	—	22	40 $\frac{1}{2}$	31 $\frac{1}{2}$	14	—	—	—	—	—	—	—	—	27	1 $\frac{3}{8}$
10	14 $\frac{1}{2}$	—	25 $\frac{5}{8}$	47 $\frac{1}{4}$	36 $\frac{1}{4}$	18	—	—	—	—	—	—	—	—	33	1 $\frac{1}{2}$
12	17	—	29 $\frac{1}{8}$	58 $\frac{1}{4}$	45 $\frac{3}{4}$	18	27 $\frac{5}{8}$	—	13	—	36 $\frac{1}{8}$	8	—	18	39	1 $\frac{1}{2}$
14	17 $\frac{1}{2}$	26 $\frac{1}{4}$	36 $\frac{1}{4}$	67 $\frac{3}{4}$	52 $\frac{3}{4}$	22	33	21	13	58 $\frac{1}{4}$	41	8	33	18	45	1 $\frac{7}{8}$
16	19	27 $\frac{1}{2}$	40 $\frac{1}{4}$	74 $\frac{3}{4}$	57 $\frac{3}{4}$	26	36 $\frac{7}{8}$	22	13	64	45	8	35 $\frac{1}{4}$	18	52	2
18	21	27 $\frac{1}{2}$	43 $\frac{3}{8}$	82 $\frac{1}{2}$	63 $\frac{1}{2}$	26	39 $\frac{7}{8}$	24	13	69 $\frac{3}{4}$	48	8	38 $\frac{1}{2}$	18	58	2 $\frac{1}{8}$
20	21 $\frac{1}{2}$	28	48	90 $\frac{1}{4}$	69 $\frac{1}{4}$	30	43 $\frac{3}{4}$	24 $\frac{3}{4}$	13	74	51 $\frac{3}{4}$	8	41 $\frac{1}{2}$	18	64	2 $\frac{1}{4}$
24	26	34	54 $\frac{3}{8}$	105	79 $\frac{3}{4}$	30	52 $\frac{1}{2}$	29 $\frac{1}{2}$	17 $\frac{1}{2}$	89	60 $\frac{5}{8}$	10	47 $\frac{1}{4}$	18	51	2 $\frac{1}{4}$
30	30	34	65 $\frac{3}{8}$	128 $\frac{1}{4}$	97	36	64 $\frac{1}{8}$	33 $\frac{1}{2}$	23 $\frac{3}{4}$	105 $\frac{1}{2}$	79 $\frac{1}{8}$	13 $\frac{3}{8}$	57 $\frac{1}{2}$	22	63	3

FLANGES ARE FACED AND DRILLED TO CLASS 250 STANDARD

NOTE: 36", 42", AND 48" DIMENSIONS CONTACT FACTORY

**CLOW AWWA DOUBLE DISC GATE VALVES
IRON BODY, BRONZE MOUNTED, PARALLEL SEAT**

CLOW VALVE COMPANY

Description and Advantages

CLOW AWWA Gate Valves are designed primarily for flow control of water in underground pipe lines. They equal or exceed the requirements established by standards of the American Water Works Association and conform to Federal Specifications WW-V-58B, Type II, Class I.

CLOW AWWA Gate Valves are specifically designed for heavy pressure service. Neck, flanges, and bell are made extra heavy to withstand pipe strain and possible shifting. Body, cover, gates, and stem are built for extra strength, with clean and simple internal construction, to assure long service and low maintenance.

Operation of the Valve

Turning the stem releases the wedging pressure on the gates allowing them to move away from their seats before starting upward travel. Further turning of the stem raises the gates into the fully opened position.

When closing the valve, the gates move freely downward without friction, to a position opposite their seats.

As the gates approach the bottom of the valve, the iron hooks come into contact with stops which prevent further downward movement of the hooks. The bronze wedges riding on these hooks spread the gates apart and force them against their seats.

Construction

Body: Cast iron, bronze mounted. Sturdy proportions provide protection against damage.

Stem: Manganese bronze of high tensile and torsional strength, with accurate, perfectly machined threads. Ample diameters assure smooth valve movements.

Stem Nut: Solid bronze. Independent of hooks, gates, and wedges. Stem or stem nut will not bind or spring out of line, as can happen when stem nut is attached to wedges.

Wedges: Independent, solid bronze, 2" – 3" valves have integral hook and wedge. 4" – 8" have independent solid bronze wedges placed loosely in iron hooks, and are free to adjust to varying positions of the gates. In 10" and larger valves, each wedge has

one long and one short surface. The bottom of each wedge forms a rocker bearing on the iron hooks, letting wedges adjust to varying positions of the gates in closing. The long side is used in closing the valve and the short side in opening it.

Low Torque Thrust Bearing: Valves 4" – 12" are fitted below the stem collar with an exclusive Low Torque Thrust Bearing which provides high load capacity and low friction. This bearing reduces operating torque up to 50% yet seals perfectly for repacking under pressure.

Gates and Gate Rings: Gates 3" and smaller are bronze. Gates 4" and larger are high strength cast iron with bronze gate rings rolled into machined and dovetailed grooves under pressure to make gate and ring one inseparable unit. After fitting, gate rings are accurately machined.

Case Rings: Bronze case rings are screwed into place and machined. They can be removed and replaced if necessary.

Packing: O-Ring packing is standard on all non-rising stem gate valves. Rising stem and geared valves are furnished with conventional packing.

Operating Nut and Handwheel: All valves except flanged valves and outside screw and yoke valves are supplied with 2" square operating nuts of high strength cast iron unless otherwise specified. Flanged valves and outside screw and yoke valves are supplied with handwheels of high strength cast iron unless otherwise specified. Direction of opening is indicated by arrow cast on operating nut skirt or on the rim of the handwheel.

Yoke: Yokes for outside screw and yoke valves are of rugged cast iron. Careful machining assures accurate stem alignment.

Accessories: Valves may be fitted with any large number or accessories: cylinders, electric motor operators, gearing, bypasses, etc.

Rollers, Tracks and Scrapers: Recommended for 14" and larger diameter valves carry weight of the gates for valves installed in a horizontal line in a vertical line.

NOTE: All valves open to the left (counter clockwise) unless otherwise specified.

SAMPLE GATE VALVE SPECIFICATION CLOW CAST IRON GATE VALVE

CLOW VALVE COMPANY

Gate Valves:

Valves shall be manufactured in accordance with AWWA Standard C500. Valves 12" and smaller shall be designed for 200 psi water working pressure and 150 psi for valves 14" – 48" inclusive. Valves shall have (M/J, Flanged or as indicated on plans) ends and shall have clear waterway equal to the full nominal diameter of the valve. Valves shall be double disc parallel seat type with (non-rising, rising) stems, opening by turning (left, right) and provided with (2" square nuts, handwheel), with arrow cast in metal to indicate direction of opening.

Manufacturer of 2–48" gate valves must have the full range of valves in both NRS and OS&Y styles.

Each manufacturer shall provide certification that they have manufactured 2" through 48" valves for a minimum of ten years.

Each valve shall have manufacturer's name, pressure rating and year in which manufactured cast on body. Prior to shipment from the factory each valve shall be hydrostatically shell tested at a pressure of 400 psig in sizes 12" and smaller and 300 psig in sizes 14" and larger. In addition each valve shall be hydrostatically seat tested at a pressure of 200 psig in sizes 12" and smaller and 150 psig in sizes 14" and larger. Valves shall be CLOW AWWA valves as manufactured by the CLOW Valve Company, Oskaloosa, Iowa.

Stuffing Boxes:

Stuffing Boxes shall be "O" ring seal type with two orings located in stem above thrust collar in valves without gearing. Sizes 14" through 48" there shall be a copper alloy busing meeting ASTM B584.

Bolts and Nuts:

Body and cover bolts and nuts shall meet specification ASTM A-307 rust proofed.

Wedging:

Valves will be bottom wedging type with two part floating wedge contact. The wedge and hook shall be separate castings and not a one piece casting in valves 4" through 36". In valves 42" and 48" the hooks and wedges shall be one piece design with the outside of the wedge area covered with a bronze shoe. No side wedging will be acceptable.

Stems:

Stems shall be in full conformance with AWWA Specs. Sizes 14" through 36" copper alloy ASTM B584 with 80,000 tensile strength, and cast integral stem collar. 42" and 48" shall be type 304 stainless steel.

Stem Nuts:

Stem nuts shall be made of solid bronze independent of hooks, gates and wedges. No pins will be allowed to retain gates to stem nut.

Gates and Gate Rings:

Gates shall be high strength cast iron, sturdily proportioned without pockets on backs. Cam surfaces shall open to bottom. Gate rings shall be rolled into dovetailed grooves under pressure to make one inseparable unit. The gate ring face shall be machined to a smooth finish.

Case Rings:

Copper alloy case rings shall be screwed into place and the contact face machined to a smooth finish. Use of screws, rivets or other means of retention will not be acceptable.

Valves 14" and Larger:

Valves installed with stem horizontal shall be equipped with bronze rollers, tracks, scrapers.

Bypasses:

Bypasses shall be provided on 16" and larger valves where indicated and mounted directly to valve body with cast iron flanged connections. Bypass valves shall be resilient seated AWWA and ULFM approved as manufactured by the CLOW Valve Company for sizes through 36" and integral double disc type bypass valves for 42" and 48" sizes.

Gearing:

Enclosed spur or bevel gearing with extended type gear cases will be provided where indicated on plans. Side cover plates will be provided to completely enclose stem and stuffing box. Manufacturer must be able to supply open and enclosed gearing as standard.

CLOW VALVES
ORDERING INFORMATION

CLOW VALVE COMPANY

Use Figure Number wherever possible to identify product wanted

When placing orders or making inquiries, please furnish the following information. This information will enable us to answer your questions, prepare quotations, and fill your order promptly. Lack of essential information is almost sure to cause delays.

1. **Quantity**
2. **Size**
3. **Working pressure:** Refer to tables of pressure ratings.
4. **End type or types:** Gate valves are furnished with many end types.
 - 4A. **Flanged valves:** Furnished with ANSI 125 pound Standard flanges with bolt holes straddling center lines.
 - 4B. **Mechanical Joint valves:** Normally furnished with standardized mechanical joints with plain rubber gaskets. Cutting-in type mechanical joints also available for use in existing cast iron pipe lines.
5. **Direction of opening:** Must be specified. Open left (counterclockwise); or open right (clockwise).
6. **Type of stem:** State whether non-rising stem or rising stem with outside screw and yoke.
7. **Installation position:** Indicate position in which valve will be installed (vertically, horizontally, or otherwise).
8. **Operating nut or handwheel:** All flanged valves and all rising stem valves with outside screw and yoke are furnished with handwheels unless otherwise specified. Other valves are furnished with a 2-inch square operating nut unless otherwise specified.
9. **Stuffing box:** Whether conventional or O-ring. Unless otherwise specified, we regularly furnish NRS valves with O-ring packing; other valves are regularly furnished with conventional stuffing box packing.
10. **Indicator posts and valves:** State depth of trench (distance from ground line to bottom of the pipe line); size and shape of operating nut, if other than standard. For valves already in place, state whether valve is equipped with a flange for post support; if so, give flange dimensions, and distance from centerline of valve to top of flange.
11. **By-pass Valves:** State location, whether manually operated by-pass will have handwheel or operating nut, and any special instructions necessary.
12. **Parts:** Always order parts by number.