

**RESILIENT
WEDGE VALVES**

CLOW VALVE COMPANY

**CLOW AWWA Resilient Wedge Gate Valves
Meet or Exceed the Requirements of
AWWA Standard C515**

Size Range	Water Working Pressure psi	Bubble Tight Test psi	Hydrostatic Shell Test psi
AWWA 4"-48"	250	250	500
ULFM 4"-16"	200	200	400

Available in either non-rising stem, outside screw & yoke.

Available End Connections & Size Range

Figure No.

FLG End (NRS)	4"-48"	F-6102
M.J.	4"-48"(except 2 1/2")	F-6100
FLG & M.J.	4"-48"	F-6106
Push-on for PVC (SDR)	4"-12"	F-6110
FLG End (OS & Y)	4"-24"	F-6136
M.J. for Tapping	4"-24"	F-6114
Tyton for D.I. & C900 PVC	4"-12" & 16"	F-6112
M.J. Cutting-in	4"-12"	F-6111
Tyton for D.I. X FLG	4"-12"	F-6113

Accessories (Illustrated in the Gate Valve Section)

Indicator Posts	2" Sq. Operating Nuts
Enclosed Gearing (14"-24")	Handwheels
"T" Handles	Extension Stems
Stem Guides	Floor Boxes
Electric Motor Actuators	Chain Wheels
Floorstands (non-rising stem)	

NOTE:

It is recommended that valves be installed with stems vertical when used in raw sewage or sludge applications or in water with excessive sediment.

MODEL 2638 AWWA C515 REDUCED WALL DUCTILE IRON

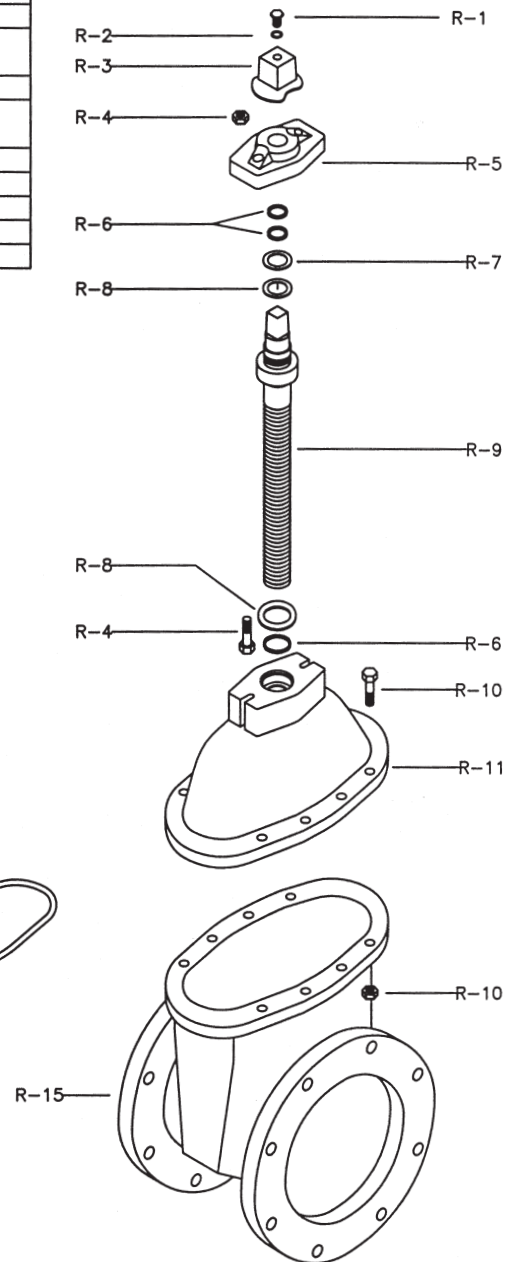
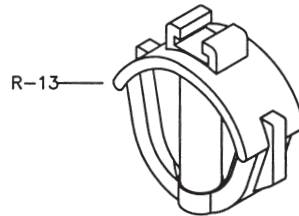
Complies with applicable requirements of AWWA C515

4"-12" R/W VALVE
NRS ASSEMBLY EXPLOSION

CLOW VALVE COMPANY

MODEL 2638

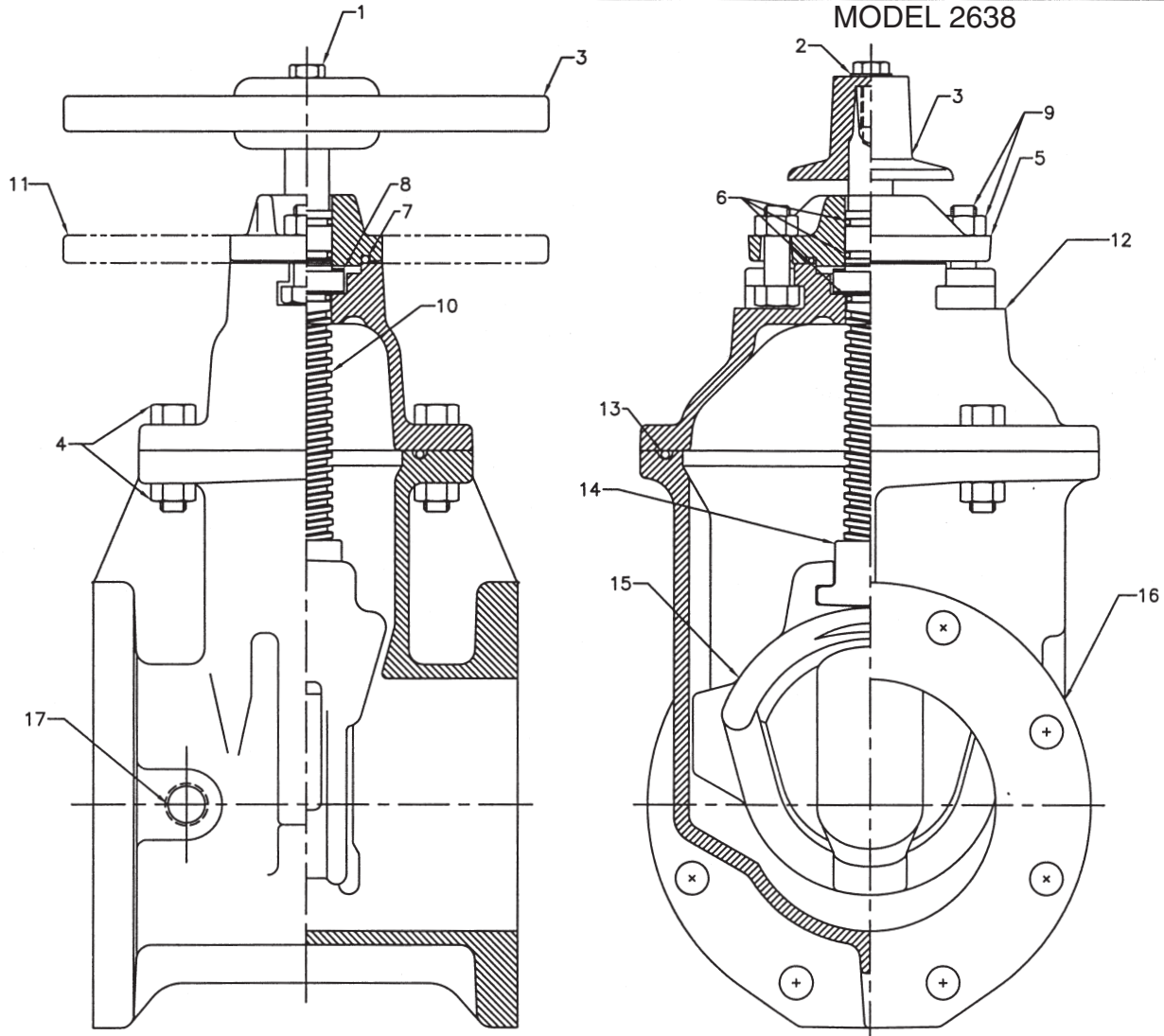
ITEM NO.	QTY.	DESCRIPTION	MATERIAL
R-1	1	HOLD DOWN BOLT	304 STAINLEES STEEL
R-2	1	HOLD DOWN BOLT WASHER	304 STAINLEES STEEL
R-3	1	SQ. OPERATING NUT OR HANDWHEEL (NOT SHOWN)	GRAY IRON
R-4	2	FOLLOWER PLATE BOLT& NUT	304 STAINLEES STEEL
R-5	1	FOLLOWER PLATE	DUCTILE IRON
R-6	3	STEM O-RING	RUBBER
R-7	1	FOLLOWER PLATE O-RING	RUBBER
R-8	1	THRUST WASHER (SIZES 2"-2.5")	
	2	THRUST WASHER (SIZES 3-12")	DELTRIN
R-9	1	STEM	COPPER ALLOY
R-10	4	COVER BOLTS&NUTS (SIZES 2" THRU 6")	304 STAINLEES STEEL
	8	COVER BOLTS&NUTS (SIZES 8" THRU 12")	304 STAINLEES STEEL
R-11	1	COVER	DUCTILE IRON
R-12	1	STEM NUT	COPPER ALLOY
R-13	1	WEDGE	GRAY IRON & RUBBER
R-14	1	COVER O-RING	RUBBER
R-15	1	BODY	DUCTILE IRON



Complies with applicable requirements of AWWA C515

4"-12" R/W VALVE
MATERIAL LIST
CLOW VALVE COMPANY

MODEL 2638



ITEM	DESCRIPTION	MATERIAL
1	Hex Head Bolt	304 Stainless Steel
2	Flat Washer	304 Stainless Steel
3	Operating Nut or Handwheel	Gray Iron
4	Hex Head Bolts & Nuts	304 Stainless Steel
5	Follower Plate	Ductile Iron
6	Stem O-Ring	Rubber
7	Follower Plate O-Ring/gasket	Rubber
8	Thrust Washer Bearing	Delrin
9	Hex Head Bolts & Nuts	304 Stainless Steel
10	Stem	Copper Alloy
11	Indicator Post Plate (Optional 3-12")	Ductile Iron
12	Cover	Ductile Iron
13	Cover O-Ring	Rubber
14	Stem Nut	Copper Alloy
15	Wedge	Gray Iron & Rubber
16	Body - all types	Ductile Iron
17	Pipe Plug (Optional Some Styles)	Stainless Steel

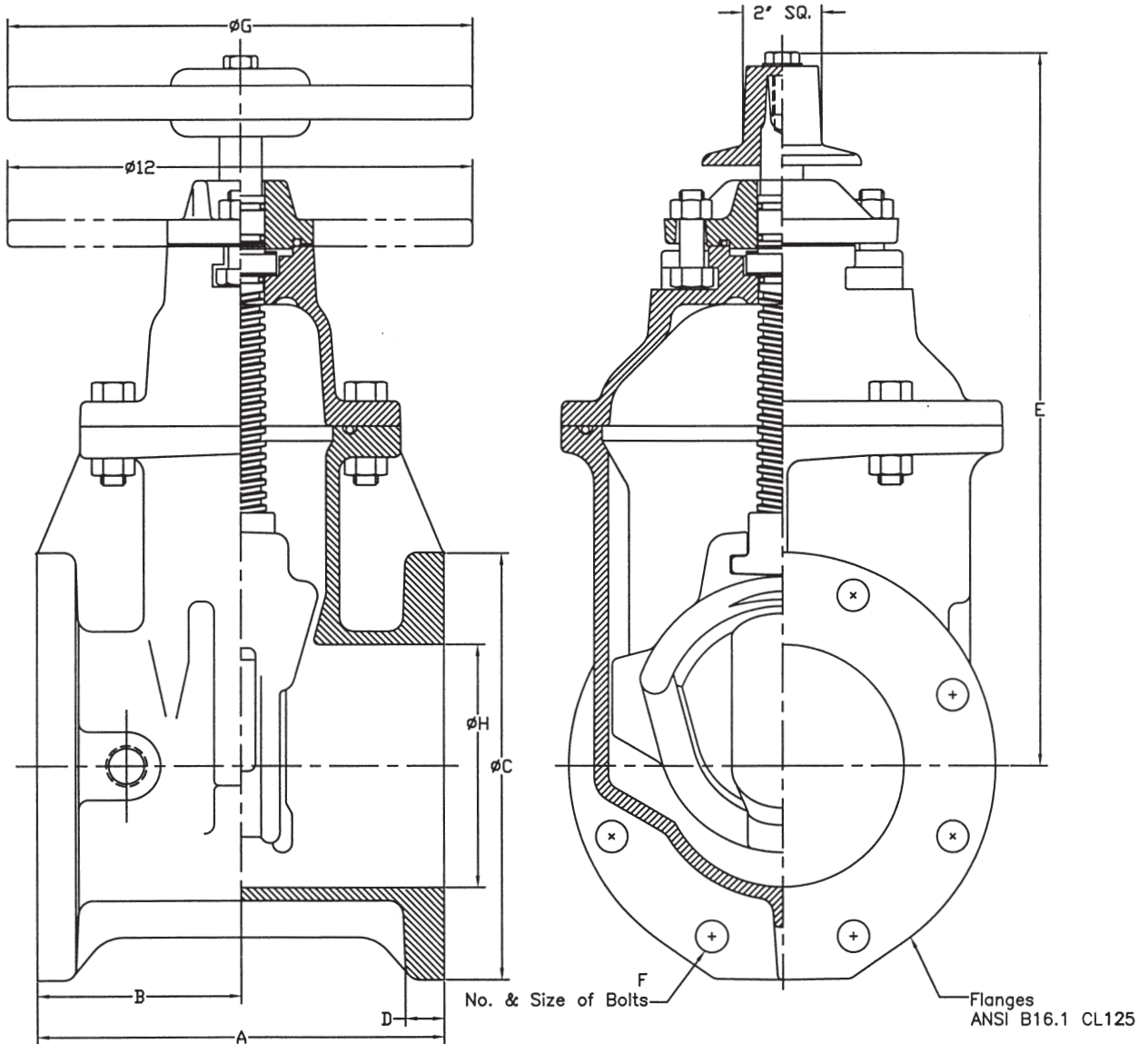
Complies with applicable requirements of AWWA C515

4"-12" R/W VALVE NRS FLANGED ENDS
GENERAL DIMENSIONS

CLOW VALVE COMPANY

MODEL 2638

F-6102



VALVE SIZE	A	B	C	D	E	F	G	H
4	9	4 1/2	9	15/16	14 3/4	8-5/8	10	4 1/4
6	10 1/2	5 1/4	11	1	19	8-3/4	12	6 1/4
8	11 1/2	5 3/4	13 1/2	1 1/8	22 1/2	8-3/4	14	8 1/4
10	13	6 1/2	16	1 3/16	26 1/2	12-7/8	18	10 1/4
12	14	7	19	1 1/4	30	12-7/8	18	12 1/4

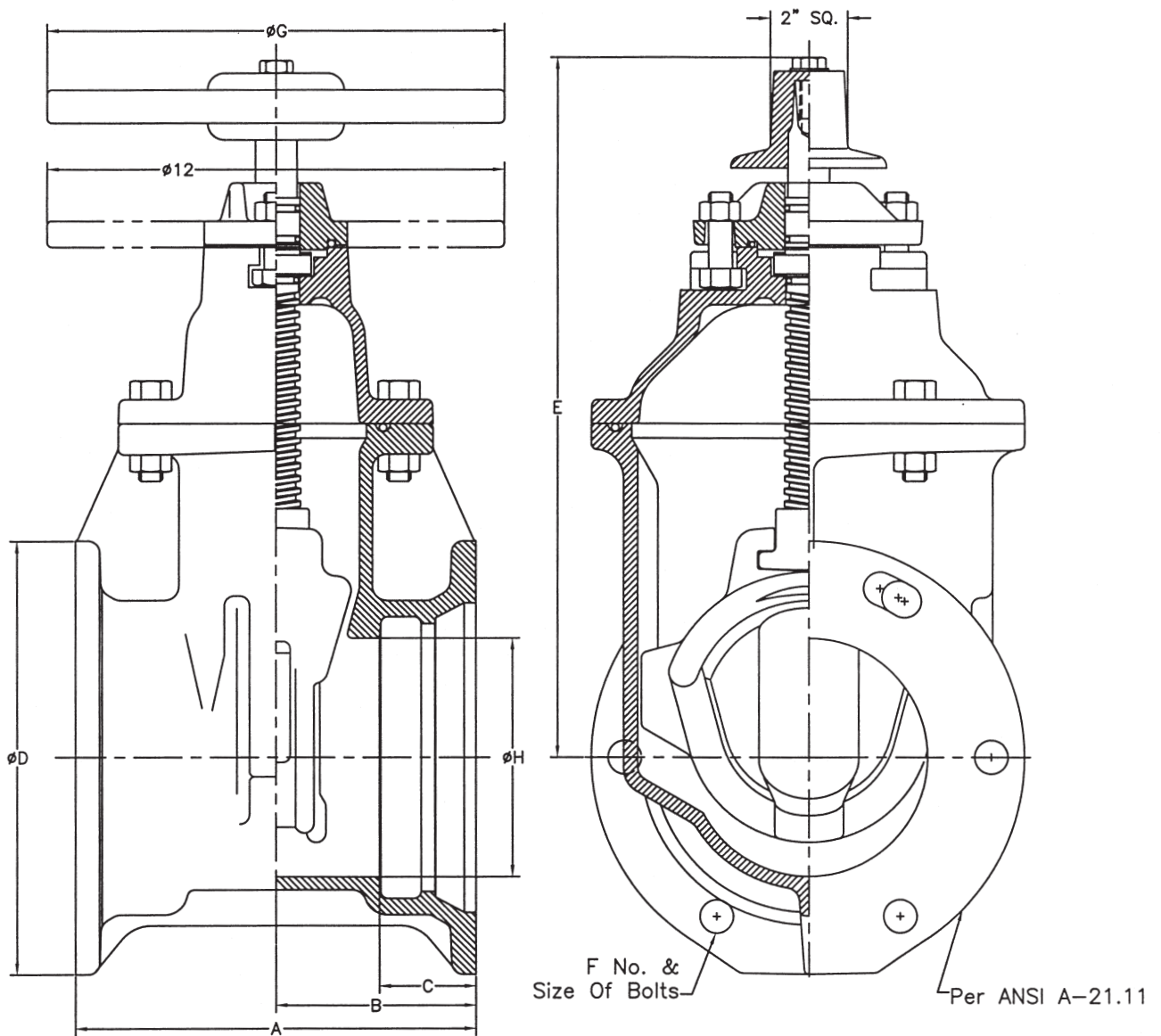
Complies with applicable requirements of AWWA C515

4"-12" RW VALVE MECHANICAL JOINT ENDS
GENERAL DIMENSIONS

CLOW VALVE COMPANY

MODEL 2638

F-6100



VALVE SIZE	A	B	C	D	E	F	G	H
4	9 1/2	4 3/4	2 1/2	9 1/8	14 3/4	4-3/4	10	4 1/4
6	10 1/2	5 1/4	2 1/2	11 1/8	19	6-3/4	12	6 1/4
8	13 1/8	6 9/16	2 1/2	13 3/4	22 1/2	6-3/4	14	8 1/4
10	15 1/2	7 3/4	2 1/2	15 3/4	26 1/2	8-3/4	18	10 1/4
12	16	8	2 5/8	18	30	8-3/4	18	12 1/4

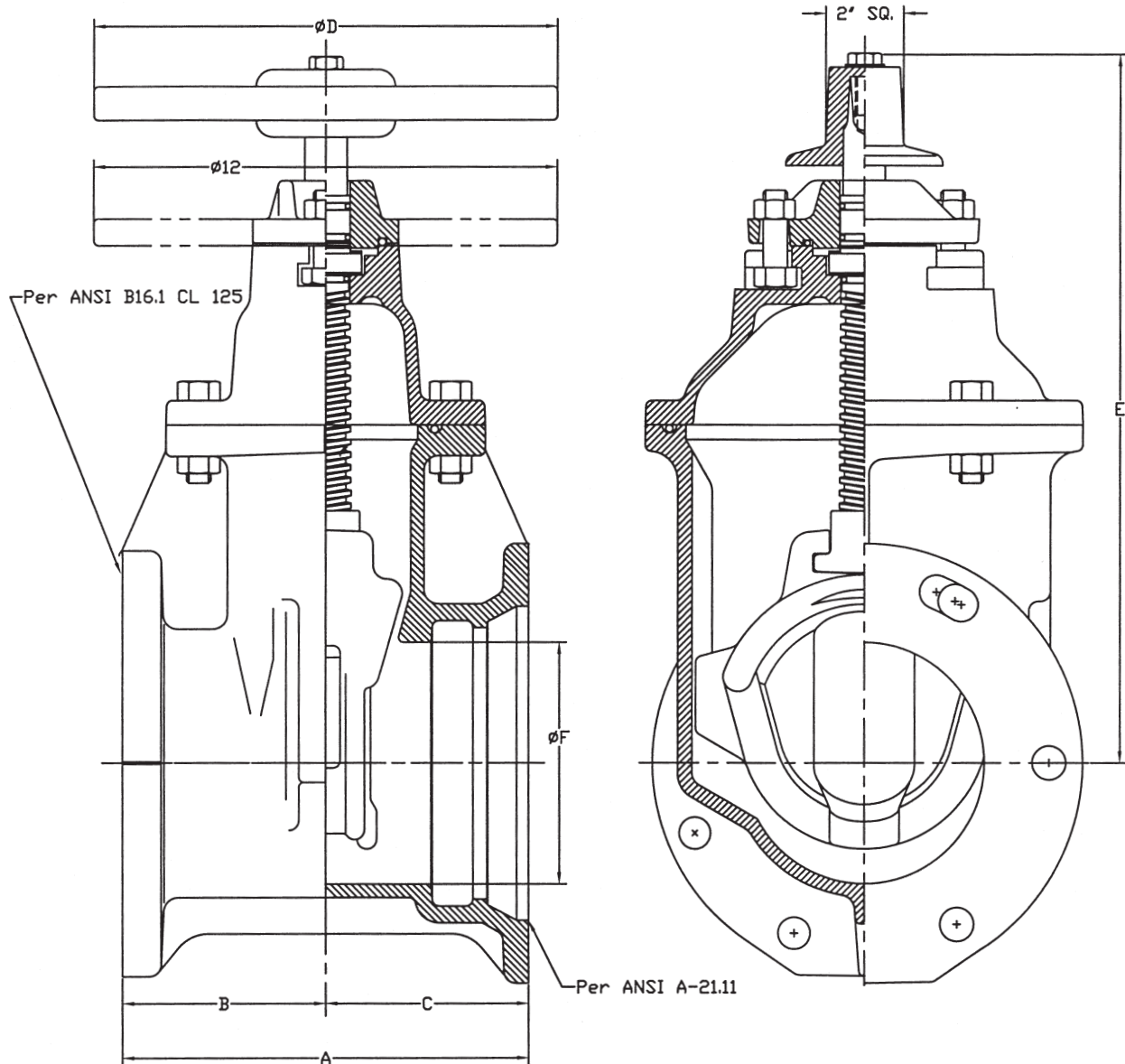
Complies with applicable requirements of AWWA C515

4"-12" R/W VALVE NRS FLANGED x MECHANICAL JOINT ENDS GENERAL DIMENSIONS

CLOW VALVE COMPANY

MODEL 2638

F-6106



VALVE SIZE	A	B	C	D	E	F
4	9 1/4	4 1/2	4 3/4	10	14 3/4	4 1/4
6	10 1/2	5 1/4	5 1/4	12	19	6 1/4
8	12 5/16	5 3/4	6 9/16	14	22 1/2	8 1/4
10	14 1/4	6 1/2	7 3/4	18	26 1/2	10 1/4
12	15	7	8	18	30	12 1/4

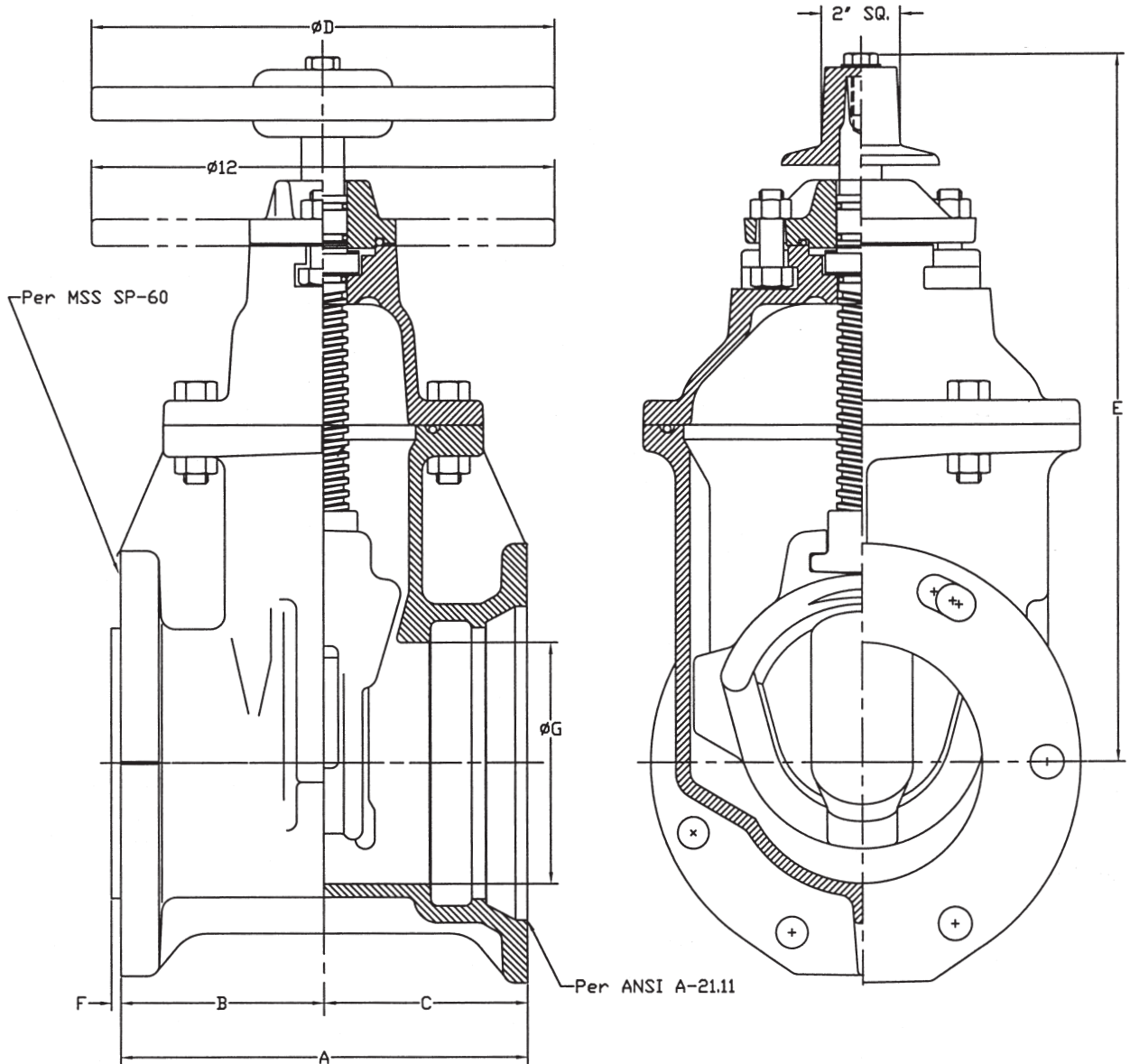
Complies with applicable requirements of AWWA C515

4"-12" R/W VALVE NRS TAP x
MECHANICAL JOINT ENDS GENERAL
DIMENSIONS

CLOW VALVE COMPANY

MODEL 2638

F-6114



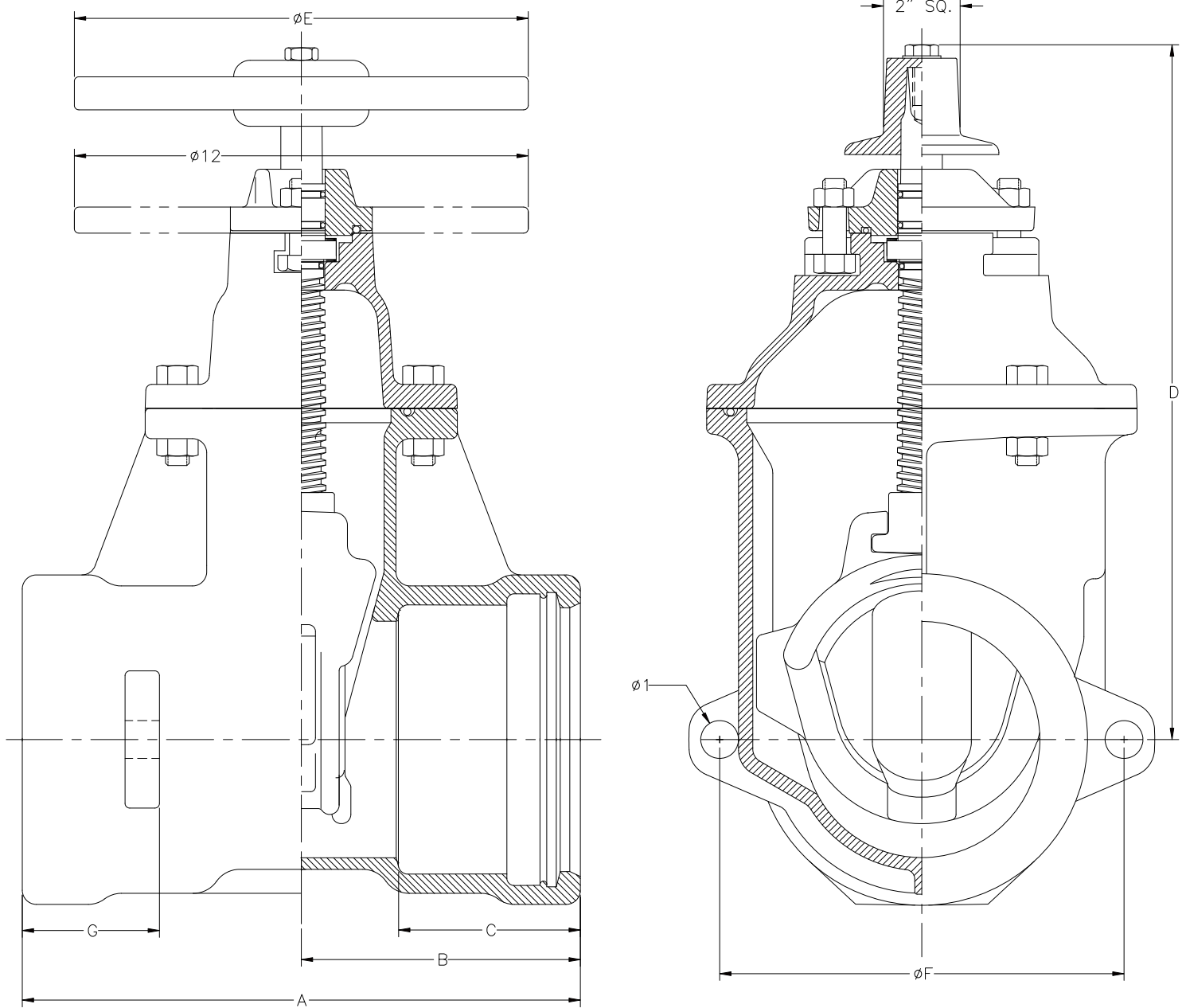
VALVE SIZE	A	B	C	D	E	F	G
4	9 1/4	4 1/2	4 3/4	10	14 3/4	3/16	4 1/4
6	10 1/2	5 1/4	5 1/4	12	19	1/4	6 1/4
8	13 1/4	5 3/4	7 1/2	14	22 1/2	1/4	8 1/4
10	14 1/4	6 1/2	7 3/4	18	26 1/2	1/4	10 1/4
12	15	7	8	18	30	1/4	12 1/4

Complies with applicable requirements of AWWA C515

4"-16" R/W VALVE TYTON ENDS
NRS GENERAL DIMENSIONS

CLOW VALVE COMPANY

MODEL 2638



VALVE SIZE	A	B	C	D	E	F	G
4	13 1/4	6 5/8	4.34	14 3/4	10	8.18	3 3/4
6	14 3/4	7 3/8	4.75	19	12	10.88	3 3/4
8	17 1/8	8 9/16	5.70	22 1/2	14	12.88	4 1/2
10	19 3/8	9 11/16	6.19	26 1/2	18	15.94	5 1/8
12	20 7/8	10 7/16	6.19	30	18	18.44	5 3/8
14	21	10 1/2	5	38 3/4	26	22.30	2 1/2
16	24 1/16	12 1/32	6.78	37 3/4	26	22.46	2 1/2

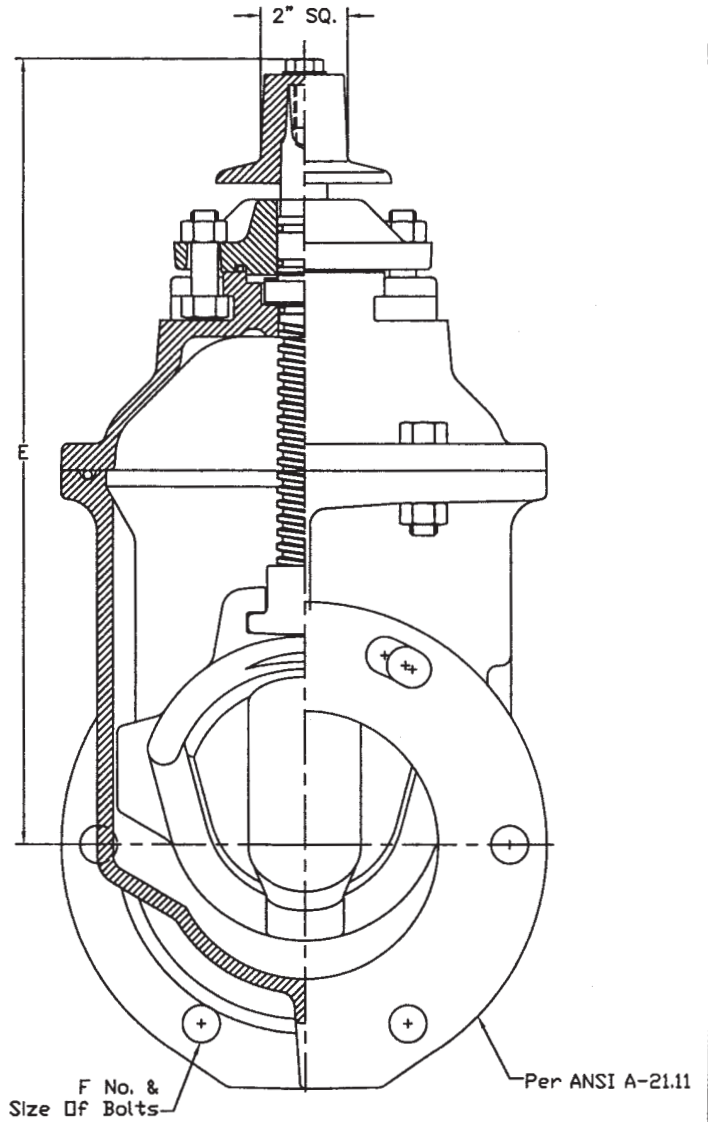
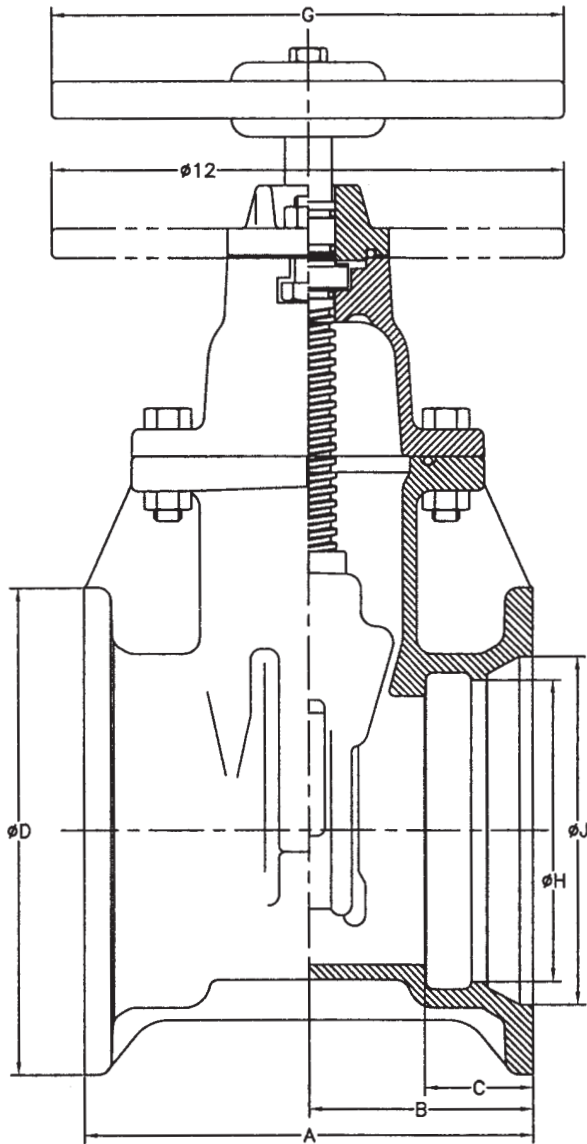
Complies with applicable requirements of AWWA C515

4"-12" R/W VALVE MECHANICAL CUT JOINT ENDS
GENERAL DIMENSIONS

CLOW VALVE COMPANY

MODEL 2638

F-6111



VALVE SIZE	A	B	C	D	E	F	G	H	J
4	9 1/2	4 3/4	2 1/2	9 1/8	14 3/4	4-3/4	10	5.10	6.20
6	10 1/2	5 1/4	2 1/2	11 1/8	19	6-3/4	12	7.20	8.30
8	13 1/8	6 9/16	2 1/2	13 3/4	22 1/2	6-3/4	14	9.40	10.50
10	15 1/2	7 3/4	2 1/2	15 3/4	26 1/2	8-3/4	18	11.50	12.62
12	16	8	2 5/8	18	30	8-3/4	18	13.60	14.72

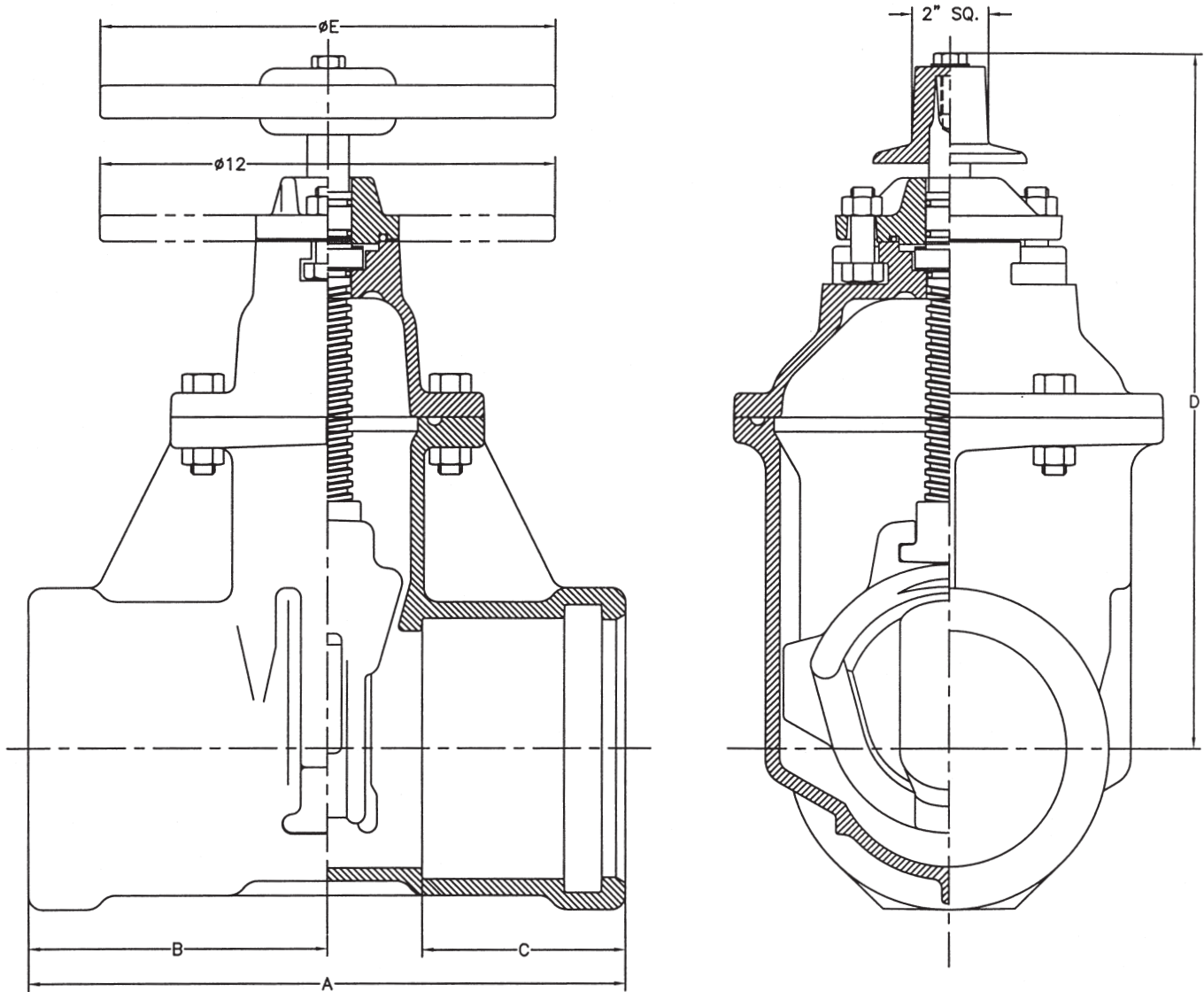
Complies with applicable requirements of AWWA C515

4"-12" R/W VALVE PVC ENDS
NRS GENERAL DIMENSIONS

CLOW VALVE COMPANY

MODEL 2638

F-6110



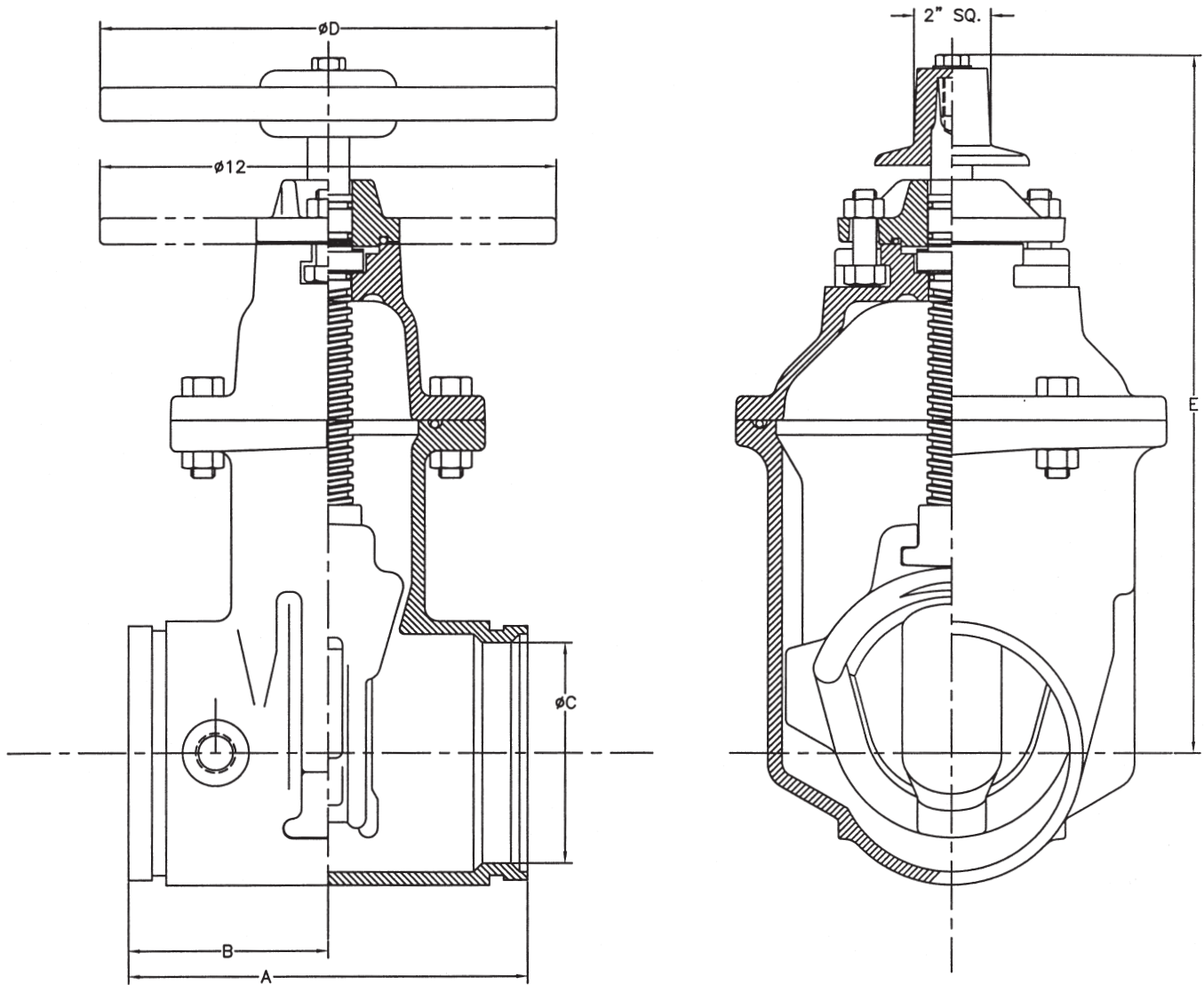
VALVE SIZE	A	B	C	D	E
4	13 1/2	6 3/4	4 1/2	14 3/4	10
6	15 3/4	7 7/8	5 3/8	19	12
8	16 1/4	8 1/8	5 3/8	22 1/2	14
10	19 3/8	9 11/16	6 3/16	26 1/2	18
12	20 7/8	10 7/16	6 3/16	30	18

Complies with applicable requirements of AWWA C515

4"-8" RW VALVE GROOVE ENDS
NRS GENERAL DIMENSIONS

CLOW VALVE COMPANY

MODEL 2638



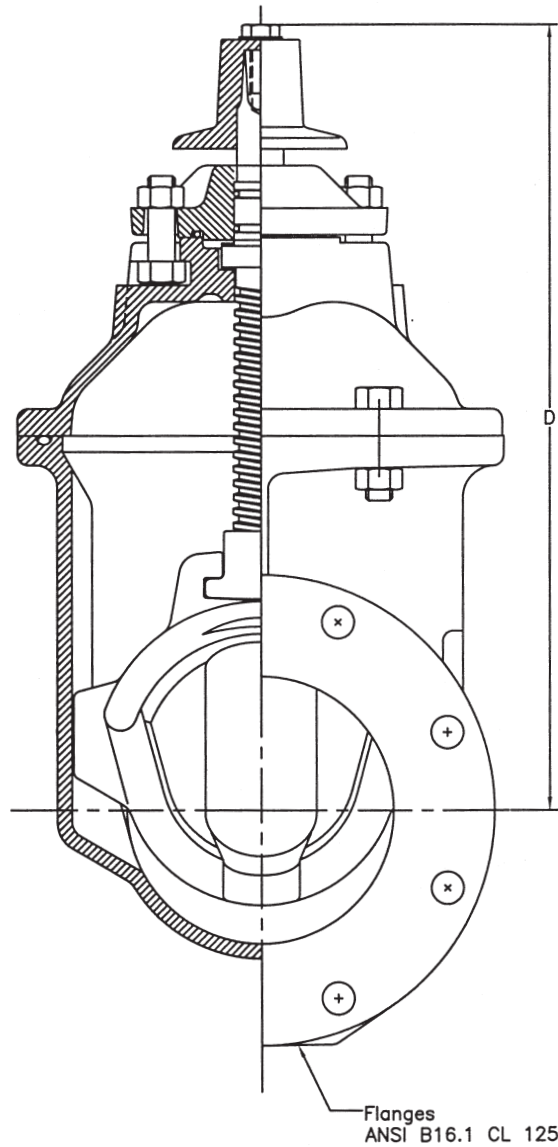
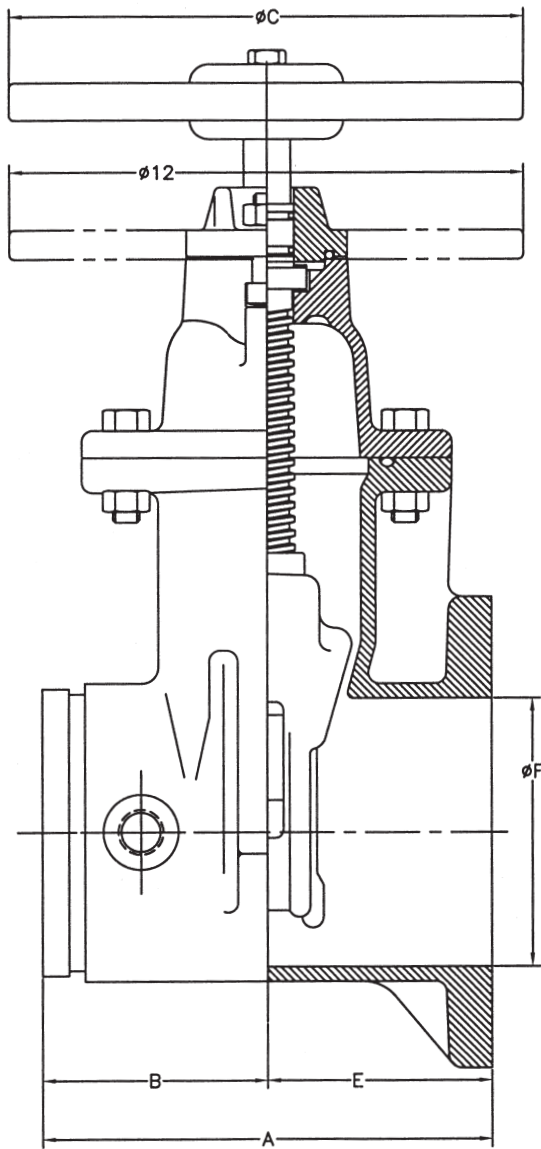
VALVE SIZE	A	B	C	D	E
4	9	4 1/2	3.75	10	14 3/4
6	10 1/2	5 1/4	5.80	12	19
8	11 1/2	5 3/4	7.67	14	22 1/2

Complies with applicable requirements of AWWA C515

4"-8" R/W VALVE GROOVE x FLANGE
NRS GENERAL DIMENSIONS

CLOW VALVE COMPANY

MODEL 2638



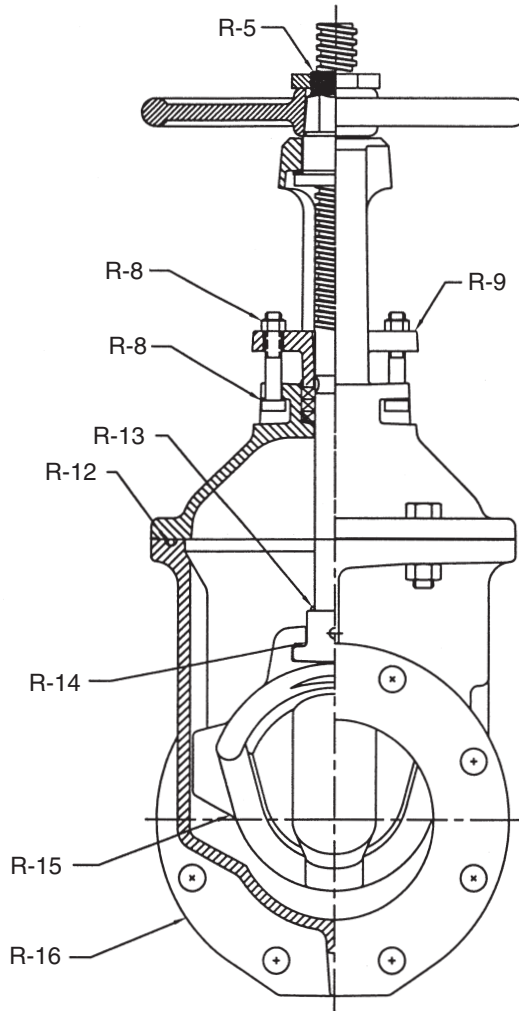
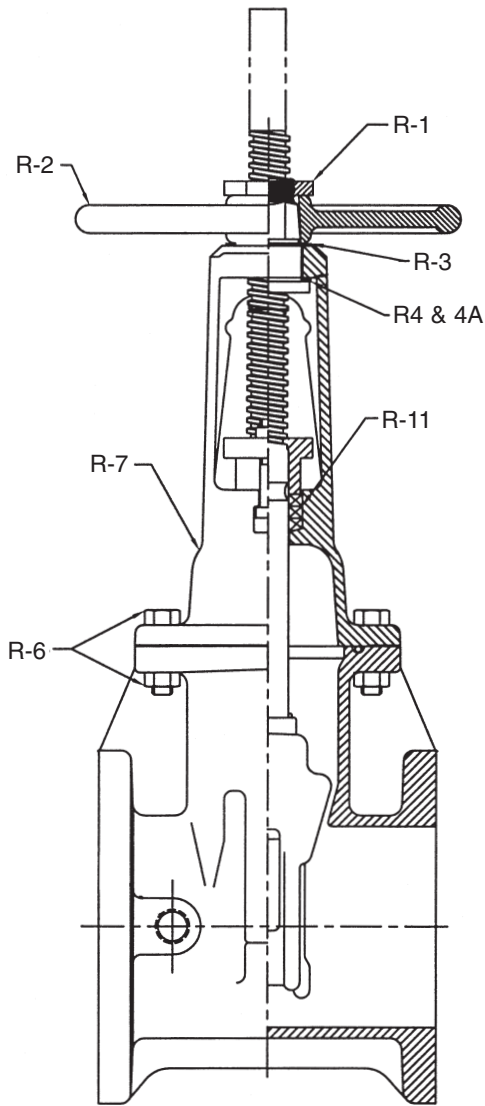
VALVE SIZE	A	B	C	D	E	F
4	9	4 1/2	10	14 3/4	4 1/2	4 1/4
6	10 1/2	5 1/4	12	19	5 1/4	6 1/4
8	11 1/2	5 3/4	14	22 1/2	5 3/4	8 1/4

Complies with applicable requirements of AWWA C515

4"-12" R/W VALVE
MATERIAL LIST

CLOW VALVE COMPANY

MODEL 2638



DET.	NAME OF PART	MATERIAL
R-1	HANDWHEEL NUT	COPPER ALLOY
R-2	HANDWHEEL	CAST IRON
R-3	UPPER THRUST WASHER	COPPER ALLOY
R-4	LOWER THRUST WASHER	COPPER ALLOY
R-4A	LOWER THRUST WASHER	DELRIN
R-5	TOP NUT	MANGANESE BRONZE
R-5	HEX. HEAD COVER BOLTS & NUTS	ZINC PLATED STEEL
R-7	COVER	DUCTILE IRON
R-8	PACKING BOLTS	ZINC PLATED STEEL
R-8	PACKING BOLT NUTS	COPPER ALLOY
R-9	GLAND FLANGE	CAST IRON
R-11	PACKING	SQ. BRAIDED NON-ASBESTOS
R-12	COVER O-RING	RUBBER
R-13	STEM O-RING	RUBBER
R-14	STEM & STEM NUT	MANGANESE BRONZE
R-15	WEDGE	RUBBER MOLDED WEDGE
R-16	BODY (ALL TYPES)	DUCTILE IRON

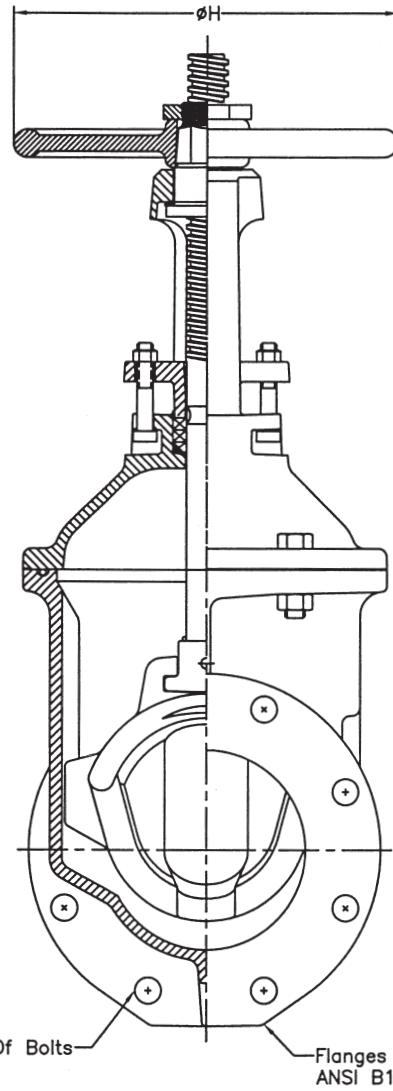
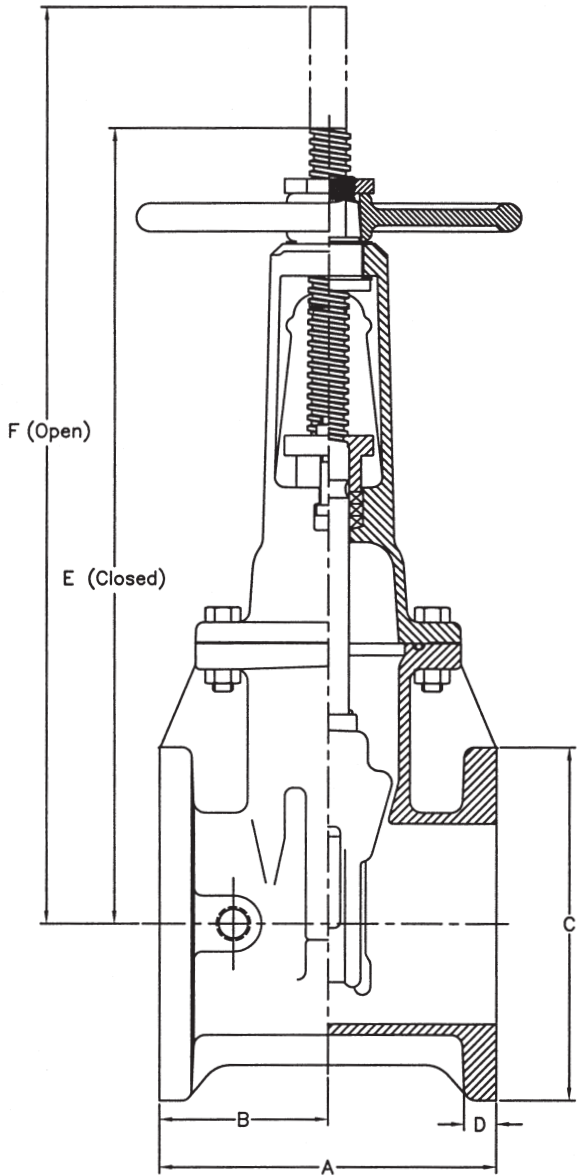
Complies with applicable requirements of AWWA C515

4"-12" R/W VALVE FLANGE ENDS
OS&Y GENERAL DIMENSIONS

CLOW VALVE COMPANY

MODEL 2638

F-6136



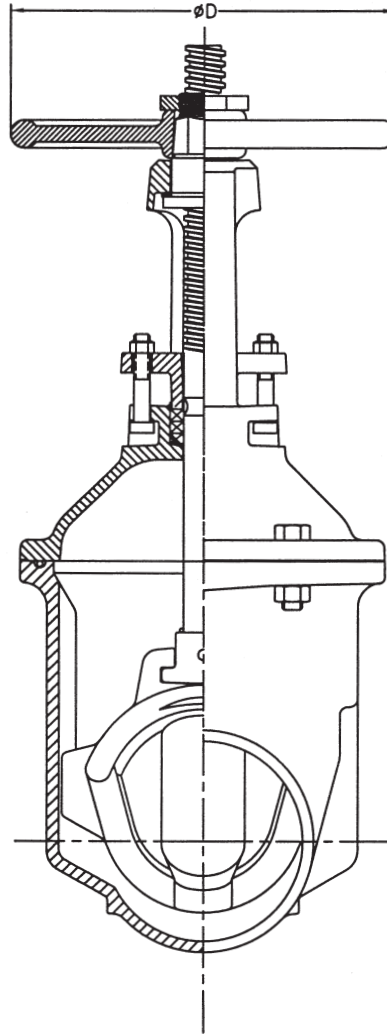
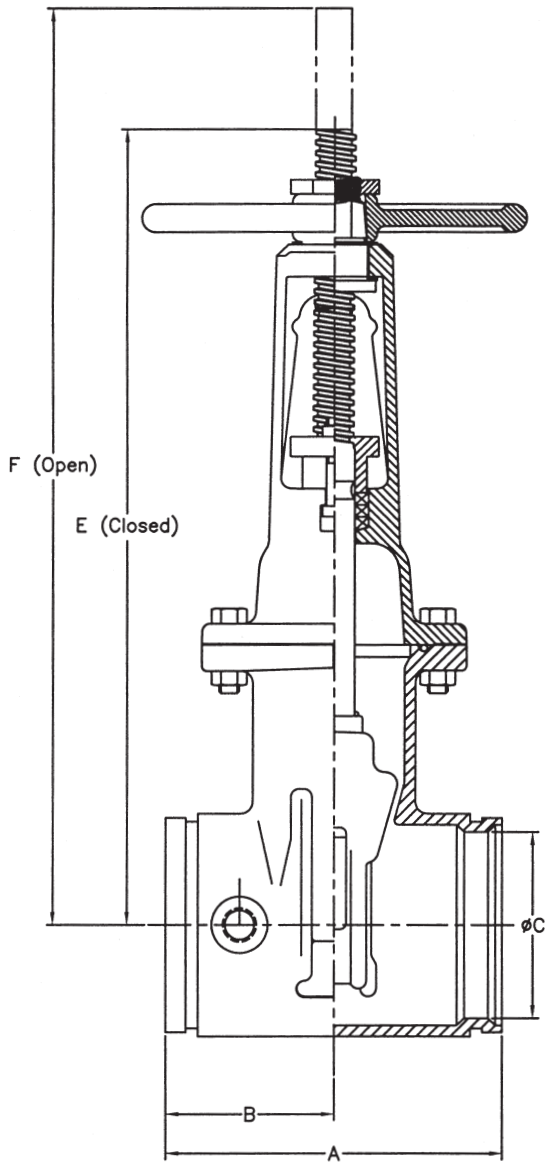
VALVE SIZE	A	B	C	D	E	F	G	H
4	9	4 1/2	9	15/16	18 1/4	22 3/4	8-5/8	10
6	10 1/2	5 1/4	11	1	23 3/4	30 1/8	8-3/4	12
8	11 1/2	5 3/4	13 1/2	1 1/8	29 1/4	37 3/4	8-3/4	14
10	13	6 1/2	16	1 3/16	35 3/8	45 3/4	12-7/8	18
12	14	7	19	1 1/4	40 5/8	53 1/8	12-7/8	18

Complies with applicable requirements of AWWA C515

4"-8" R/W VALVE GROOVE ENDS
OS&Y GENERAL DIMENSIONS

CLOW VALVE COMPANY

MODEL 2638



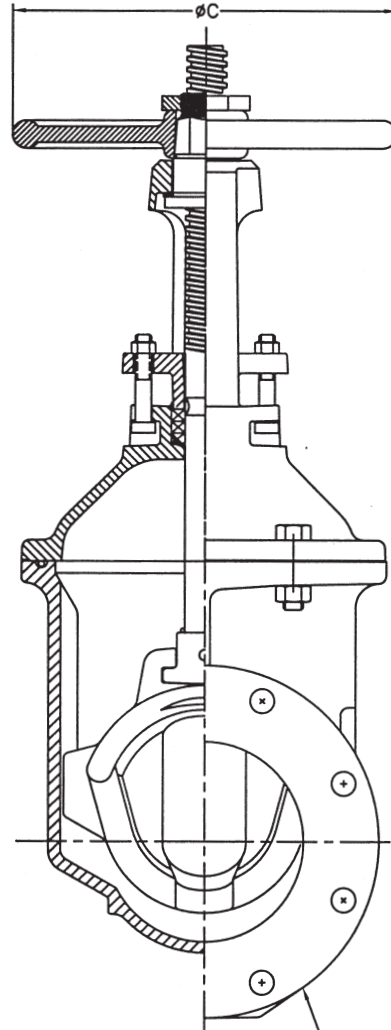
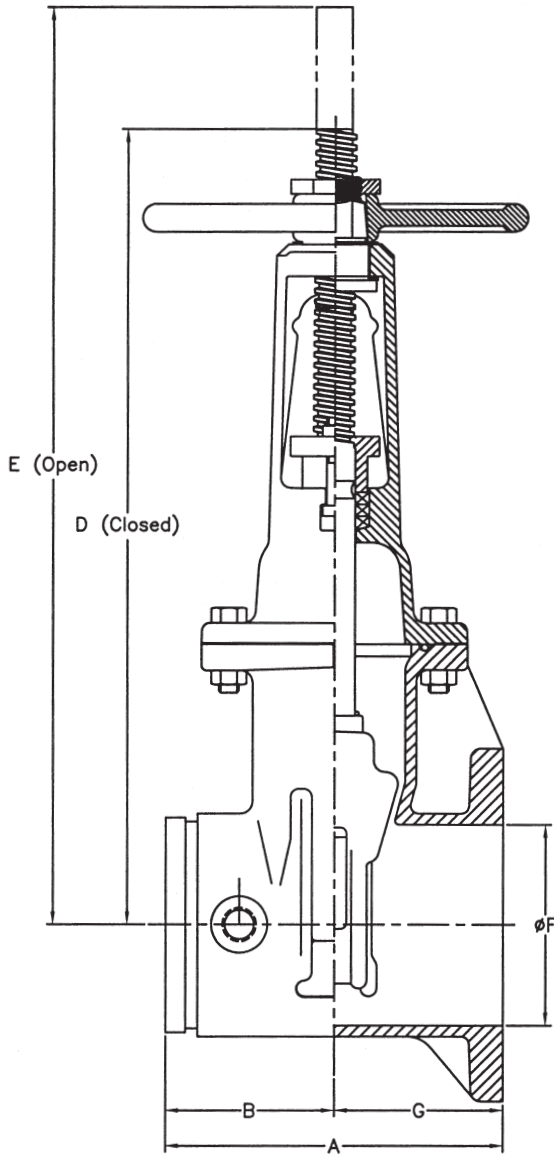
VALVE SIZE	A	B	C	D	E	F
4	9	4 1/2	3.75	10	18 1/4	22 3/4
6	10 1/2	5 1/4	5.80	12	23 3/4	30 1/8
8	11 1/2	5 3/4	7.67	14	29 1/4	37 3/4

Complies with applicable requirements of AWWA C515

4" -8" R/W VALVE FLANGE x GROOVE
OS&Y GENERAL DIMENSIONS

CLOW VALVE COMPANY

MODEL 2638



Flanges
ANSI B16.1 CL 125

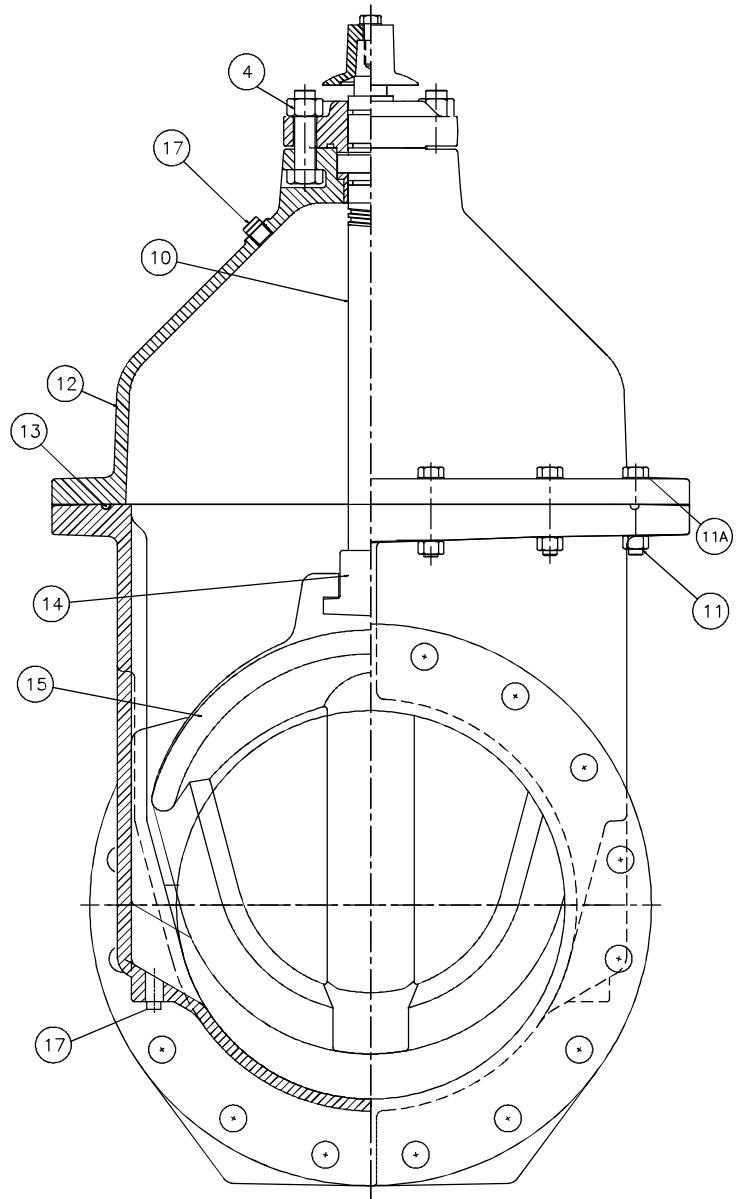
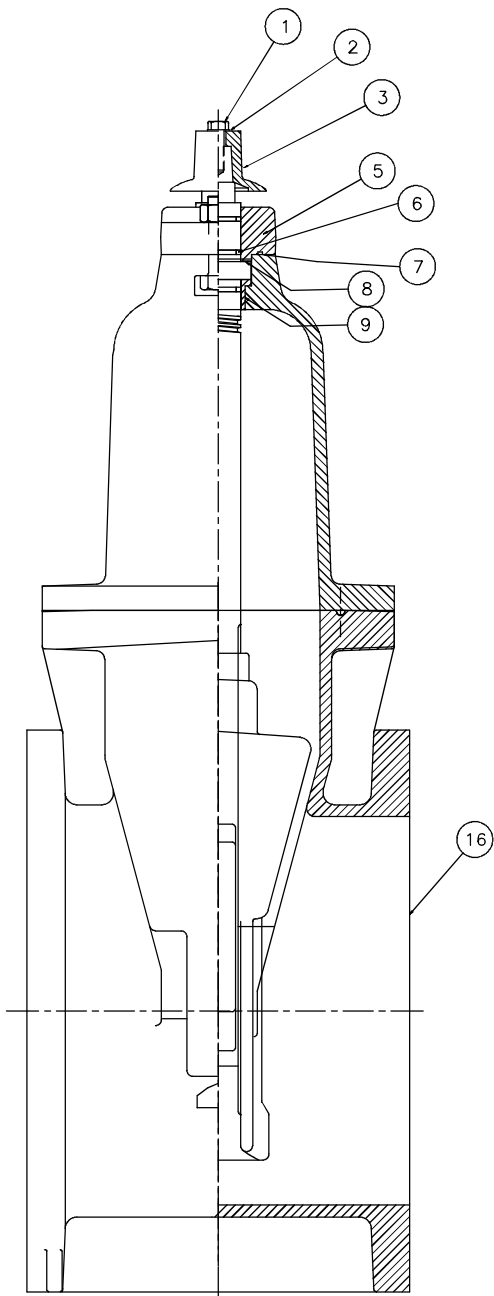
VALVE SIZE	A	B	C	D	E	F	G
4	9	4 1/2	10	18 1/4	22 3/4	4 1/4	4 1/2
6	10 1/2	5 1/4	12	23 3/4	30 1/8	6 1/4	5 1/4
8	11 1/2	5 3/4	14	29 1/4	37 3/4	8 1/4	5 3/4

Complies with applicable requirements of AWWA C515

14"-16" R/W VALVE
NRS ASSEMBLY MATERIAL LIST

CLOW VALVE COMPANY

MODEL 2638



ITEM	DESCRIPTION	MATERIAL	ASTM SPEC.
1	Hex Head Bolts	Stainless Steel	ASTM F593 304 SST
2	Flat Washer	Stainless Steel	304 SST
3	Operating Nut or Handwheel	Gray Iron	ASTM A126 CI B
4	Hex Head Bolts & Nuts	Stainless Steel	ASTM F593/4 304 SST
5	Follower Plate	Ductile Iron	ASTM A536 65-45-12
6	Stem O-Ring	EPDM	-----
7	Follower Plate O-Ring/gasket	EPDM	-----
8	Thrust Washer Bearing	Delrin	-----
9	Bonnet Bushing	Copper Alloy	ASTM B584 C83600
10	Stem	Copper Alloy	ASTM B763 C86700
11	Hex Head Bolts & Nuts	Stainless Steel	ASTM F593/4 304 SST
11A	Flat Washer	Stainless Steel	ASTM F593/4 304 SST
12	Cover	Ductile Iron	ASTM A536 65-45-12
13	Cover O-Ring	EPDM	-----
14	Stem Nut	Copper Alloy	ASTM B584 C87850
15	Wedge	Ductile Iron & EPDM	ASTM A536 65-45-12
16	Body - all types	Ductile Iron	ASTM A536 65-45-12
17	Pipe Plug	Bronze	-----

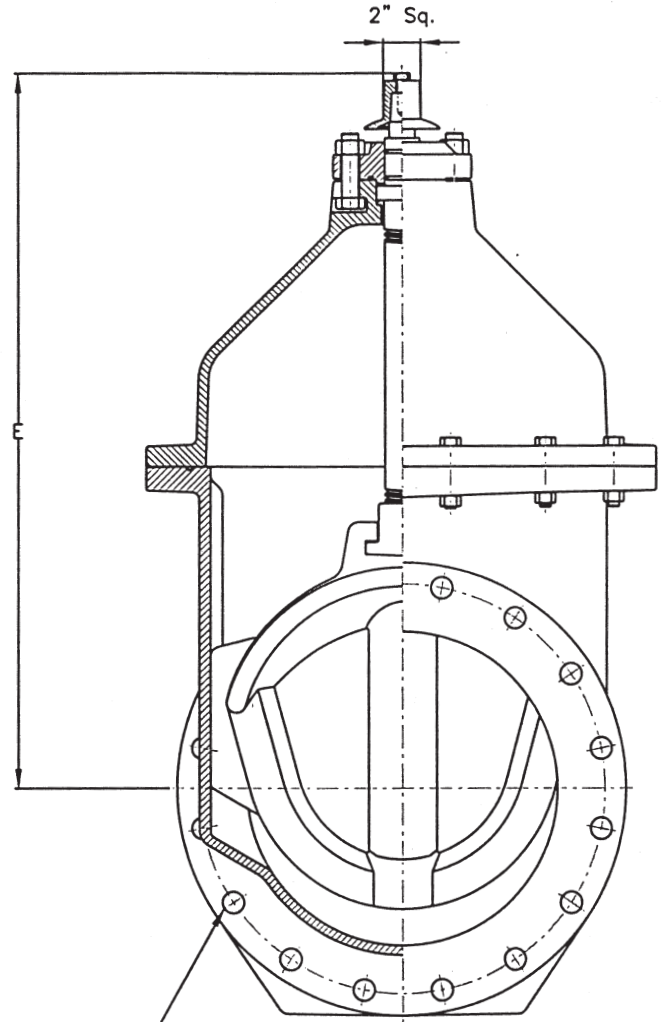
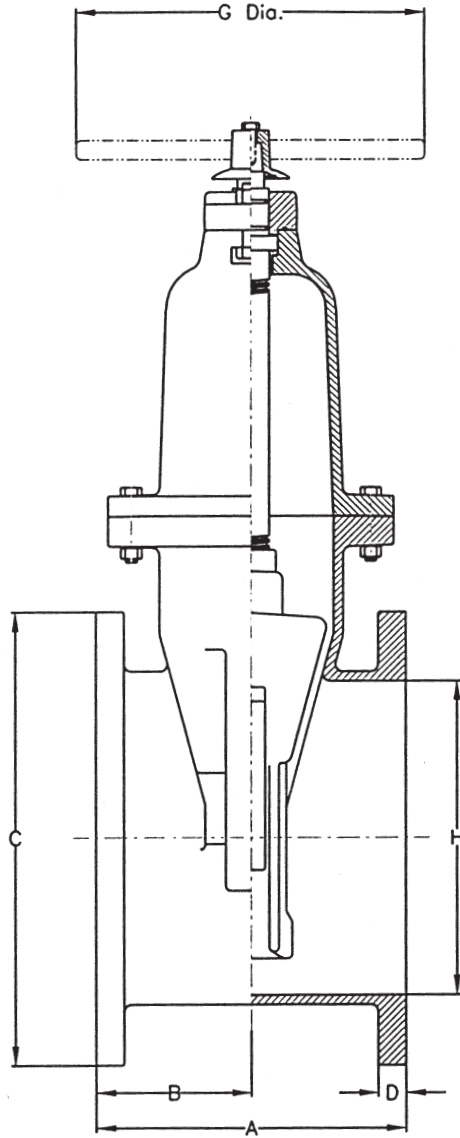
Complies with applicable requirements of AWWA C515

14"-16" R/W VALVE FLANGED ENDS
GENERAL DIMENSION

CLOW VALVE COMPANY

MODEL 2638

F-6102



F No. & size of bolts
Drilling per ANSI B16.1 class 125

VALVE SIZE	A	B	C	D	E	F	G	H
14	15	7.5	21	1.38	37.75	12-1	26	14.25
16	16	8	23.5	1.44	37.75	16-1	26	16.25

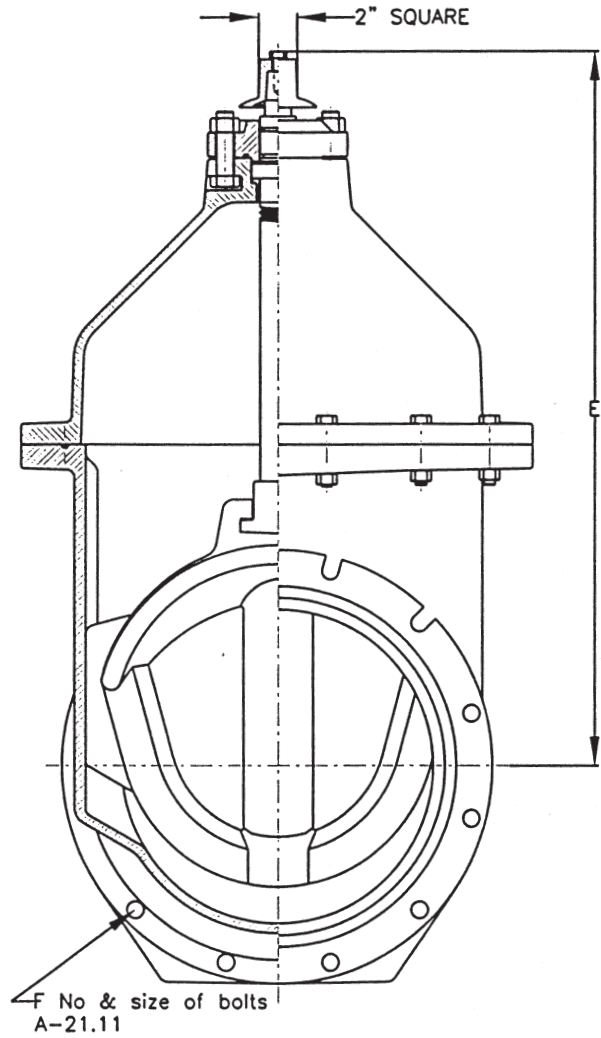
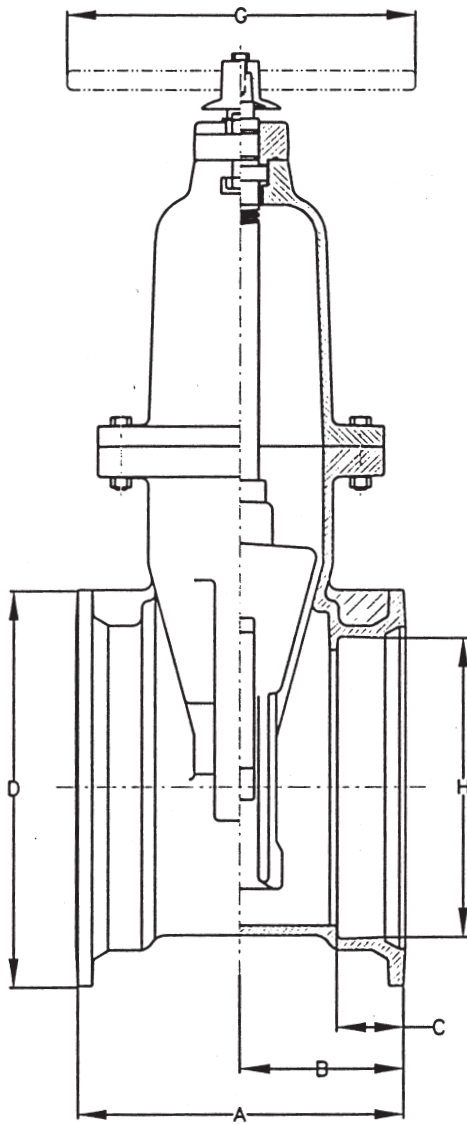
Complies with applicable requirements of AWWA C515

14"-16" R/W VALVE MJ ENDS
GENERAL DIMENSION

CLOW VALVE COMPANY

MODEL 2638

F-6100



VALVE SIZE	A	B	C	D	E	F	G	H
14	17	8.5	3.5	20.25	37.75	10 ^{-3/4}	18	14 ^{1/4}
16	17	8.5	3.5	22.5	37.75	12 ^{-3/4}	18	16 ^{1/4}

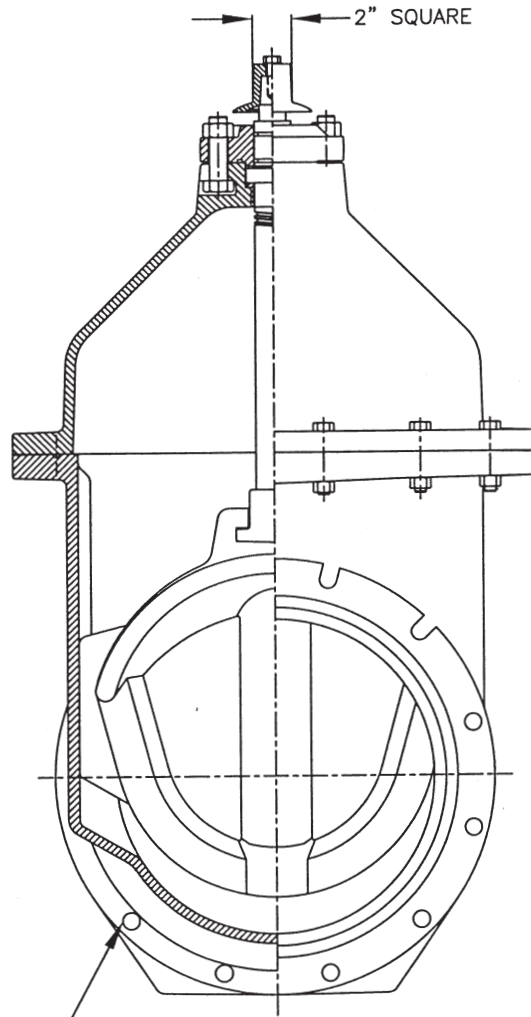
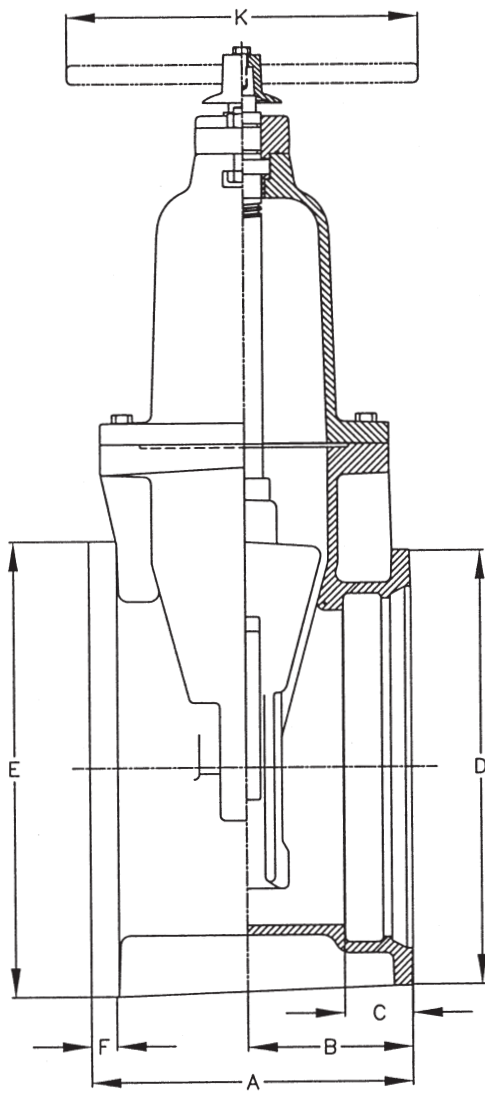
Complies with applicable requirements of AWWA C515

14"-16" R/W VALVE FLANGE X MJ ENDS
GENERAL DIMENSION

CLOW VALVE COMPANY

MODEL 2638

F-6106



No. & size of bolts
H- Flange Ends per ANSI B16.1
J- MJ End per A21.1

VALVE SIZE	A	B	C	D	E	F	G	H	J	K
14	17	8.5	3.5	20.25	21	1.38	37.75	12-1	10-3/4	18
16	16.5	8.5	3.5	22.5	23.5	1.50	37.75	16-1	12-3/4	18

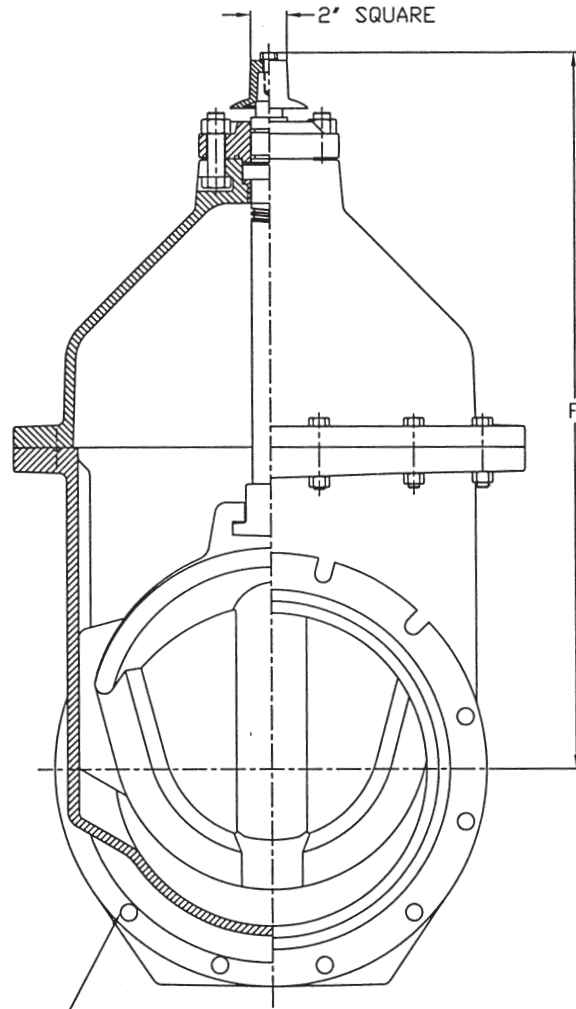
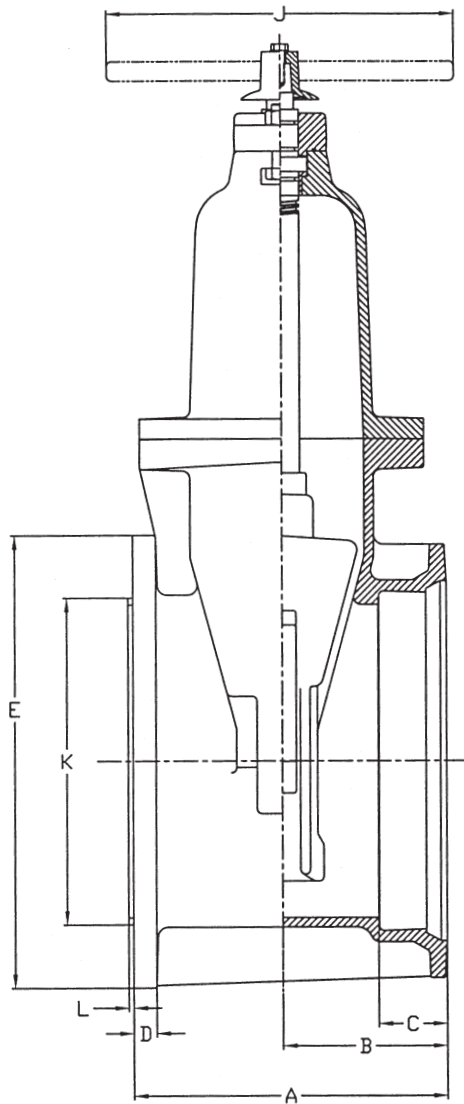
Complies with applicable requirements of AWWA C515

14"-16" R/W VALVE
MJ TAPPING GENERAL DIMENSION

CLOW VALVE COMPANY

MODEL 2638

F-6114



No. & size of bolts
G—Flange Ends per ANSI B16.1
H—MJ Ends per A21.1

VALVE SIZE	A	B	C	D	E	F	G	H	J	K	L
14	16.75	8.5	3.5	1.18	21	37.75	21-1	10-3/4	18	14 ¹⁵ / ₁₆	1/4
16	16.25	8.5	3.5	1.25	23.5	37.75	16-1	12-3/4	18	16 ¹⁵ / ₁₆	1/4

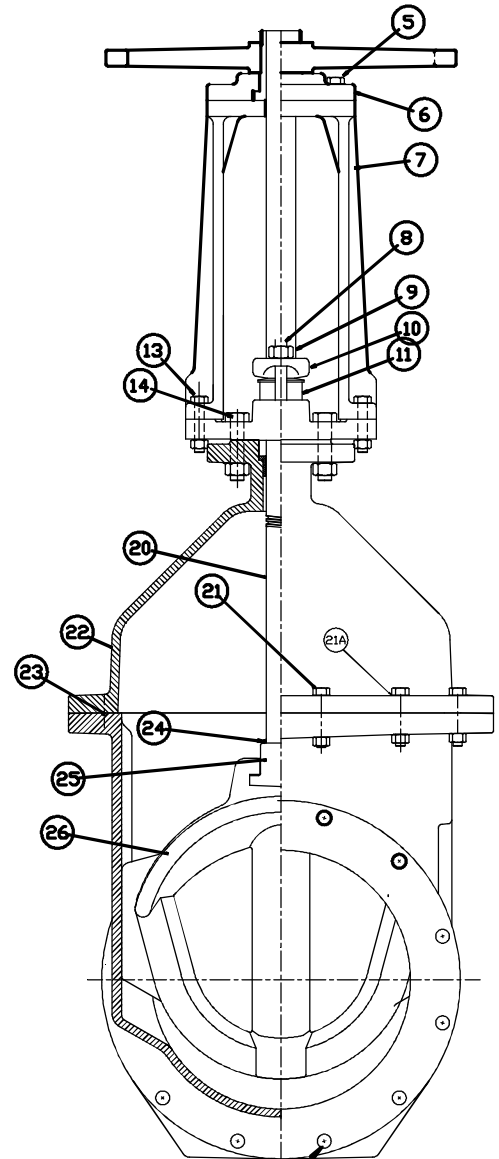
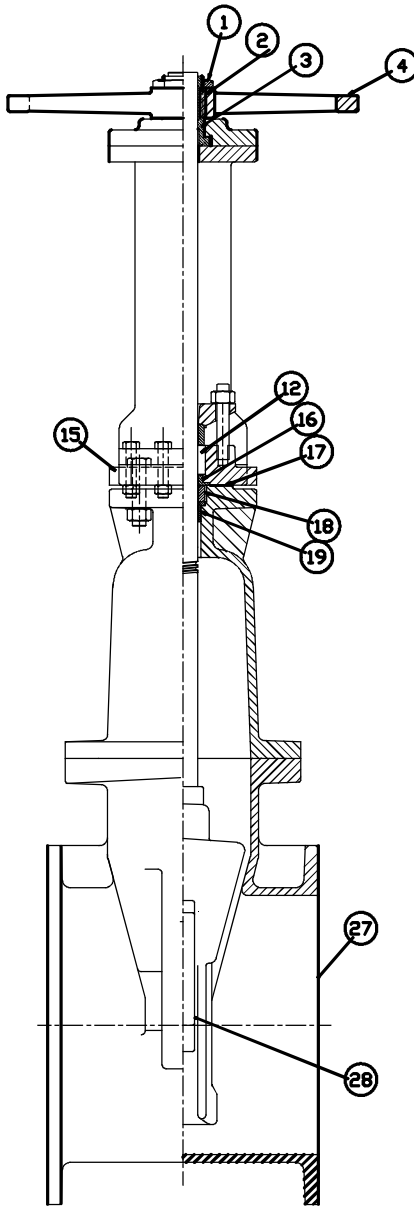
EACH SIZE ACCOMMODATES A FULL SIZE DIA TAPPING CUTTER

Complies with applicable requirements of AWWA C515

14"-16" RW VALVE OS&Y
MATERIAL LIST

CLOW VALVE COMPANY

MODEL 2638



Drilling per ANSI B16.1 Class 125

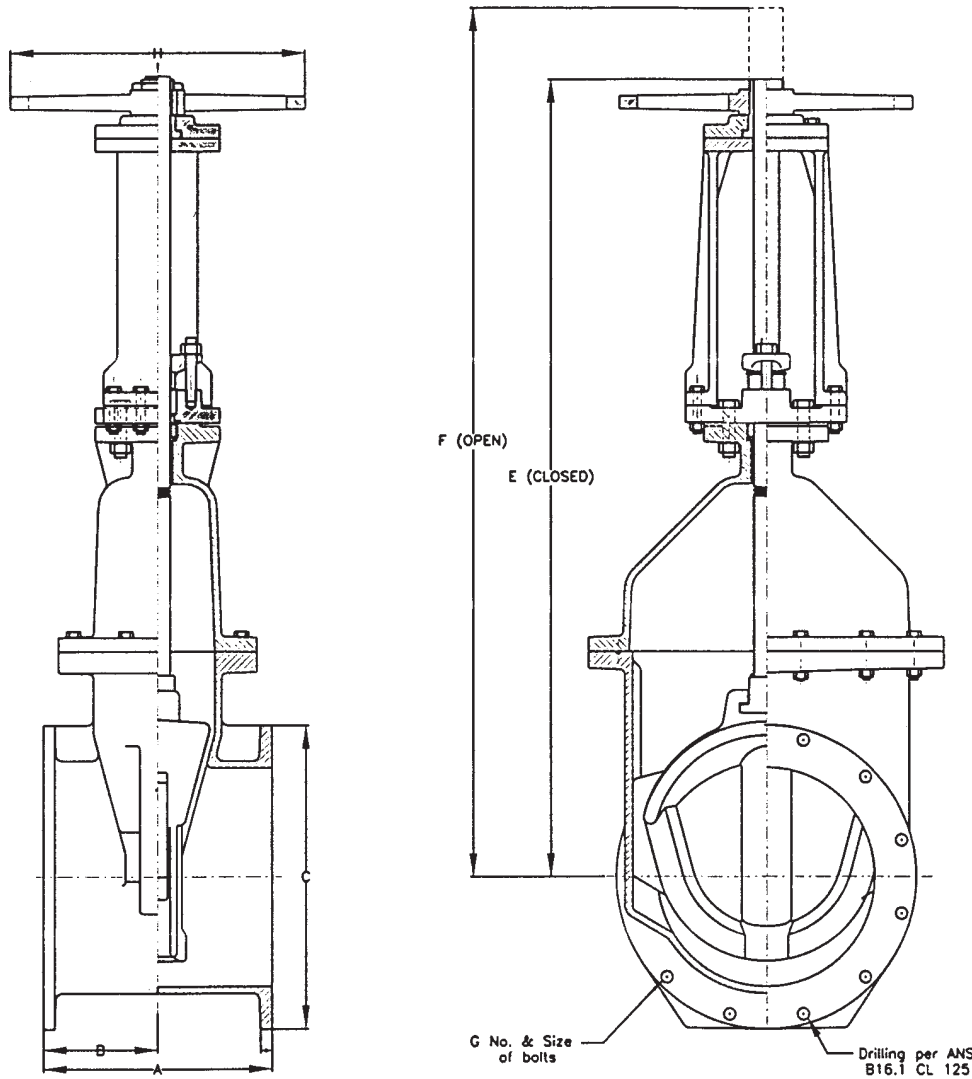
Item	Description	
1	Hold down Nut	Bronze ASTM B584 C83600
2	Square Key	Commercial Steel
3	Top Stem Nut	Bronze ASTM B584 C83600
4	Handwheel	Gray Iron ASTM A126 Class B
5	Hex Capscrew	Stainless Steel
6	Adapter	Gray Iron ASTM A126 Class B
7	Yoke	Gray Iron ASTM A126 Class B
8	Stud	316 Stainless Steel
9	Hex Nut	Stainless Steel
10	Follower	Gray Iron ASTM A126 Class B
11	Gland	Bronze ASTM B584 C83600
12	Packing	Square braided Fibre
13	Hex Capscrew & Hex Nut	Stainless Steel
14	Hex Capscrew & Hex Nut	Stainless Steel
15	Adapter	Gray Iron ASTM A126 Class B
16	Bushing	Bronze ASTM B584 C83600
17	Follower Gasket	Fibre
18	Cover Spacer	Bronze ASTM B584 C83600
19	Cover Bushing	Bronze ASTM B584 C83600
20	Stem & Bottom Nut	Bronze ASTM B21 Alloy 464
21	Hex Capscrew & Hex Nut	Stainless Steel
21A	Flat Washer	Stainless Steel
22	Cover	Ductile Iron ASTM A536 Grade 65-45-12
23	Cover O-Ring	EPDM
24	Stem O-Ring	EPDM
25	Stem Nut	Bronze ASTM B584 C83600
26	Wedge	Ductile Iron ASTM A536 & EPDM
27	Body	Ductile Iron ASTM A536 Grade 65-45-12

Complies with applicable requirements of AWWA C515

14"-16" R/W OS&Y VALVE FLANGED END
GENERAL DEMINSIONS

CLOW VALVE COMPANY

F-6136



VALVE SIZE	A	B	C	D	E	F	G	H
14"	15	7½	21	1⅝	59¾	74¾	12-1	22
16"	16	8	23½	1⅞	59¾	74¾	16-1	22

4"-16" R/W VALVE UL/FM
Performance Information

CLOW VALVE COMPANY

MODEL 2638

1. Valve complies with AWWA specs where applicable.
2. Valve complies with Underwriters Laboratory standard UL 262.
3. Valve is rated at 200 psi working pressure.
4. Valve is bubble-tight at all pressures up to full rated pressure (200 psi).
5. Valve is capable of bubble-tight seal at twice the rated pressure (400 psi) for short periods of time.
6. 2" thru 6" valve sizes have been hydrostatically shell tested at five (5) times the rated pressure (1000 psi).
7. 8", 10", 12", 14", and 16" valve sizes have been hydrostatically shell tested at four (4) times the rated pressure (800)psi).
8. Valve has been subjected to torques 150 percent of the designated minimum required torques.
9. Valve has been cycle tested 5,000 times without loss of bubble-tight seal.
10. Rubber to iron bond on wedge is inspected for strength as per ASTM D 429 specification.

For complete data on the tests
Underwriters Laboratories performed
reference UL File EX2697
Project 87NK7353

4"–12" R/W VALVE AWWA SERVICE
Performance Information

CLOW VALVE COMPANY

MODEL 2638

1. Valve complies with AWWA C515 specs where applicable.
2. Valve is rated at 250 psi working pressure.
3. Valve is bubble-tight at all pressures up to full rated pressure (250 psi).
4. Valve is capable of bubble-tight seal at twice the rated pressure (500 psi) for short periods of time.
5. 2" thru 12" valve sizes have been hydrostatically shell tested at 2.5 times the rated pressure (625 psi).
6. Valve has been subjected to torques 150 percent of the designated minimum required torques.
7. Valve has been cycle tested 5,000 times without loss of bubble-tight seal.
8. Rubber to iron bond on wedge is inspected for strength as per ASTM D 429 specification.

14"-48" R/W VALVE AWWA SERVICE
Performance Information

CLOW VALVE COMPANY

MODEL 2638

1. Valve complies with AWWA C515 specs where applicable.
2. Valve is rated at 250 psi working pressure.
3. Valve is bubble-tight at all pressures up to full rated pressure (250 psi).
4. Valve is capable of bubble-tight seal at twice the rated pressure (500 psi) for short periods of time.
5. Valve has been subjected to torques 150 percent of the designated minimum required torques.
6. Valve has been cycle tested 5,000 times without loss of bubble-tight seal.
7. Rubber to iron bond on wedge is inspected for strength as per ASTM D 429 specification.

NOTE:

It is recommended that valves be installed with stems vertical when used in raw sewage or sludge applications or in water with excessive sediment.

RECOMMENDED SPECIFICATIONS FOR
C-515 RESILIENT WEDGE GATE VALVES

CLOW VALVE COMPANY

MODEL 2638

NOTE:

It is recommended that valves be installed with stems vertical when used in raw sewage or sludge applications or in water with excessive sediment.

Valves shall conform to the latest revision of AWWA Standard C-515 covering Resilient Wedge Gate Valves for Water Supply Service.

The valves shall have a ductile iron body, bonnet, and oring plate. The wedge shall be totally encapsulated with rubber.

The sealing rubber shall be permanently bonded to the wedge per ASTM D429.

Valves shall be supplied with oring seals at all pressure retaining joints. No flat gaskets shall be allowed.

The valves shall be either non-rising or rising stem, opening by turning left or right, and provided with 2" square operating nut or a handwheel with the word "Open" and an arrow to indicate the direction to open.

Stems for NRS assemblies shall be cast bronze with integral collars in full compliance with AWWA. OS&Y(rising stems) shall be of bronze. All stems shall operate with bronze stem nuts independent of wedge and of stem (in NRS valves). Stainless steel stems or stem nuts are not allowed. NRS stems shall have two orings located above thrust collar and one oring below. Stem orings shall be replaceable with valve fully open and subjected to full pressure. The NRS stems on 4"-12" shall also have two low torque thrust bearings located above and below the stem collar to reduce friction during operation.

Waterway shall be smooth, unobstructed and free of all pockets, cavities and depressions in the seat area. Valves 4" and larger shall accept a full size tapping cutter.

The body, bonnet, and oring plate shall be epoxy coated, both interior and exterior on body and bonnet. Epoxy shall be applied in accordance with AWWA C-550 and be NSF 61 certified.

Each valve shall have maker's name, pressure rating, and year in which it was manufactured cast in the body. Prior to shipment from the factory, each valve shall be tested by hydrostatic pressure equal to the requirements of AWWA C-515 (and ULFM where applicable).

Valves shall have all component parts cast and assembled in the USA and shall be manufactured by the Clow Valve Company.