

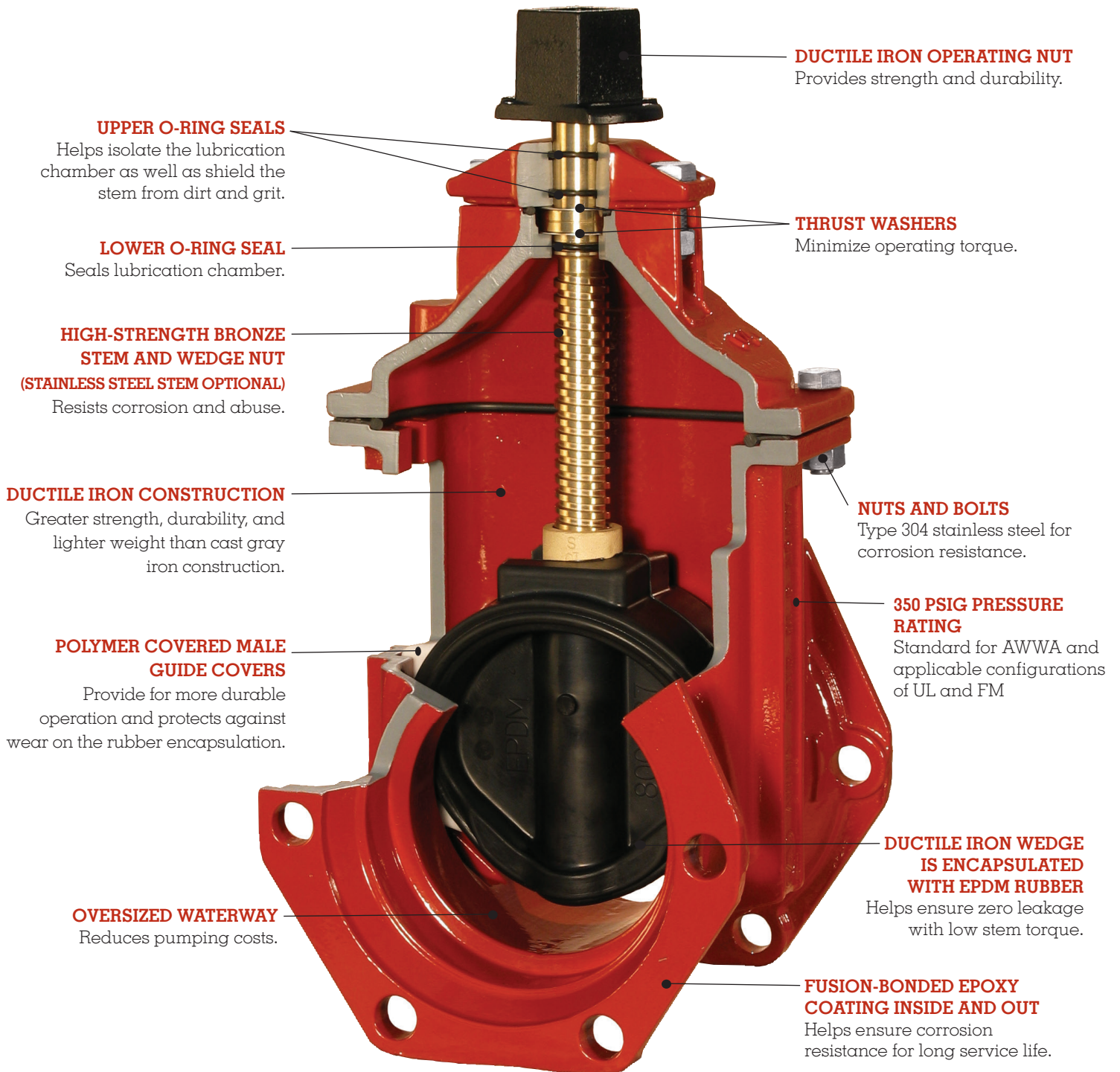
**AMERICAN FLOW CONTROL 4"-12" SERIES 3500
RESILIENT WEDGE GATE VALVE**



AMERICAN
FLOW CONTROL

THE RIGHT WAY

CONSTRUCTION



FEATURES/SPECIFICATIONS

FEATURES

The AMERICAN Series 3500 Ductile Iron Resilient Wedge Gate Valve is designed for use in high pressure water, wastewater and fire protection systems.

Triple O-ring Stem Seals

Sealing the lubrication chamber is a series of three O-ring stem seals. The O-rings help to isolate the lubrication chamber.

Thrust Washers

Two thrust washers are used. One is located above and one is located below the thrust collar. The use of thrust washers helps provide easy operation.

Fusion-Bonded Epoxy

The Series 3500 valve is epoxy coated on the interior and the exterior. The fusion-bonded epoxy coating is applied prior to assembly. The bolt holes and body-to-bonnet flange surfaces are fully epoxy coated.

The Series 3500 Ductile Iron Resilient Wedge Gate Valve has these standard features:

- 350 psig AWWA, UL and FM Pressure Rating in applicable configurations
- UL Listed-FM Approved configurations
- Seat Tested at 525 psig.
- Shell Tested at 700 psig.
- Fusion-Bonded Epoxy Coating Complies With ANSI/AWWA C550
- 4 in. -12 in. Fully Rubber-Encapsulated Wedges with polymer guide covers
- Triple O-ring Stem Seals
- Thrust Washers
- Smooth Larger Than Nominal Waterway
- Leak-Tight Closure
- Valve is Certified to NSF/ANSI 61 and NSF/ANSI 372
- Complies with ANSI/AWWA C515
- Ductile Iron Body, Bonnet, Wedge, Operating Nut and Stuffing Box

SPECIFICATIONS

Valves 4 in. -12 in. in size shall be of a resilient wedge design. The valve shall be UL Listed and Approved by FM Approvals at a rated working pressure of 350 psig. All valves shall be certified to NSF/ANSI 61 and NSF/ANSI 372.

All cast ferrous components shall be ductile iron and shall be manufactured in compliance with the latest edition of ANSI/AWWA C515. The valve design shall be lightweight, easy to handle, and constructed with wall thickness per Table 2, of ANSI/AWWA C515. Heavy wall and/or cast gray-iron bodies are not acceptable. The valve shall have a smooth and over-size waterway, have the marking "D.I." or "Ductile Iron", cast onto the body. The valve wedge in sizes 4-12 inches shall be constructed of ductile iron, be fully encapsulated with EPDM rubber and provided with male type guides and polymer guide covers. Female style wedge guides are not allowed.

Valve stems shall be sealed by three O-rings. Two of the O-rings shall reside above the thrust collar. O-rings set in a cartridge shall not be allowed.

Ductile Iron Construction

The ductile iron body, bonnet and wedge provide strength and a pressure rating that meets or exceeds the requirements of ANSI/AWWA C515. The tensile strength of ductile iron is more than twice that of cast iron. This added strength makes the Series 3500 more durable and allows for a 350 psig pressure rating. This strength and higher pressure rating is provided in a compact, lightweight and easy-to-handle ductile iron valve.

O-ring Style Gaskets

The body-to-bonnet and stuffing box seals are pressure-energized O-rings. This reduces the need for excessive bolt loading, which is required by designs that use flat gaskets. The O-rings are reusable, which reduces downtime during any needed repair.

The Series 3500 Resilient Wedge Gate Valve is furnished in configurations that are UL Listed and Approved by Factory Mutual Approvals.

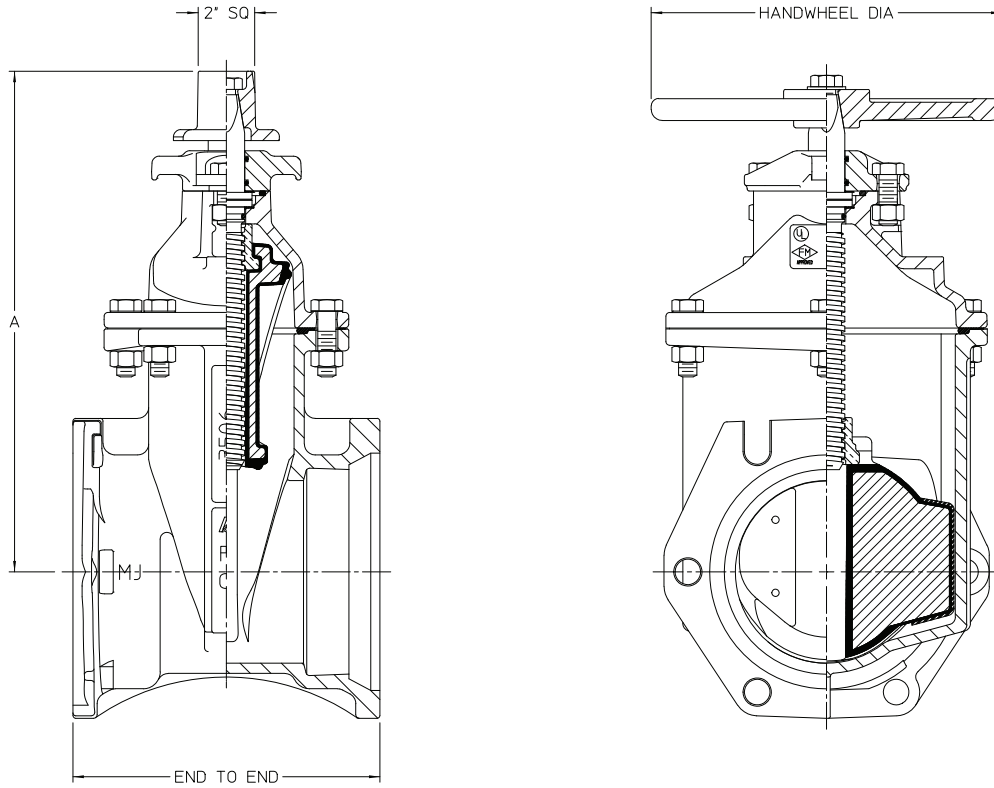
The valve shall also be equipped with thrust washers above and below the stem thrust collar for reduced operating torque.

All exterior valve body bolting shall be Type 304 stainless steel and shall be provided with hexagonal heads with dimensions conforming to ANSI B18.2.1. Metric size and/or socket head cap screws, or bolts, are not allowed. The operating nut shall be 2 in. square and shall be constructed of ductile iron fitted to a square tapered stem to help ensure even distribution of input torque. All body gaskets shall be of the pressure energized O-ring style design.

All internal and external ferrous surfaces of the valve body and bonnet shall have fusion-bonded epoxy coating, complying with ANSI/AWWA C550.

All valves shall be the AMERICAN Flow Control **Series 3500 Resilient Wedge Gate Valves**.

STANDARD 4"–12" NRS DIMENSIONS

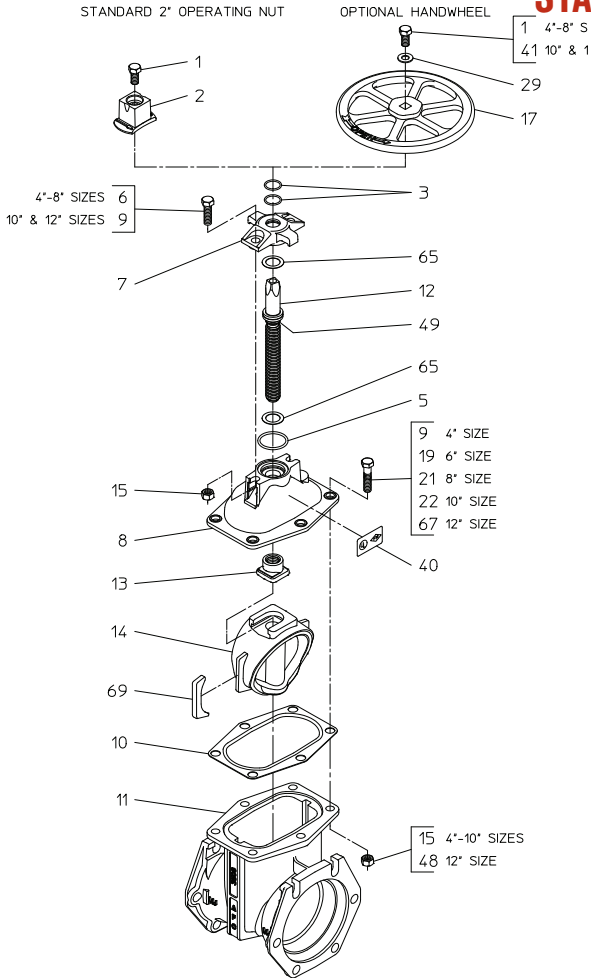


DIMENSION	VALVE SIZE				
	Series 3500				
	4"	6"	8"	10"	12"
A	13.91	17.12	20.47	24.06	27.59
End to End – MJ/MJ	10.00	10.50	11.50	12.50	13.50
Lay Length – MJ/MJ	5.00	5.50	6.50	7.50	8.50
End to End – FL/FL (Class 125)	9.00	10.50	11.50	13.00	14.00
End to End – FL/MJ (Class 125)	9.50	10.50	12.38	13.62	14.38
Handwheel Diameter	10.00	12.00	14.00	15.50	15.50
No. of Turns to Open	14	20	26	32	38

1. 4 in.–12 in. valves meet or exceed requirements of ANSI/AWWA C515.
2. 4 in.–12 in. valves may be ordered in configurations which are UL Listed and Approved by Factory Mutual Approvals.
3. 4 in.–12 in. valves have 350 psig AWWA rated working pressure.
4. 4 in.–12 in. valves have 350 psig UL and FM rated working pressure.
5. Fusion-bonded epoxy coating meets or exceeds requirements of ANSI/AWWA C550.
6. Bolt patterns of Class 125 flanged ends are in accordance with ANSI/AWWA C110/A21.10 (ASME B16.1 Class 125).

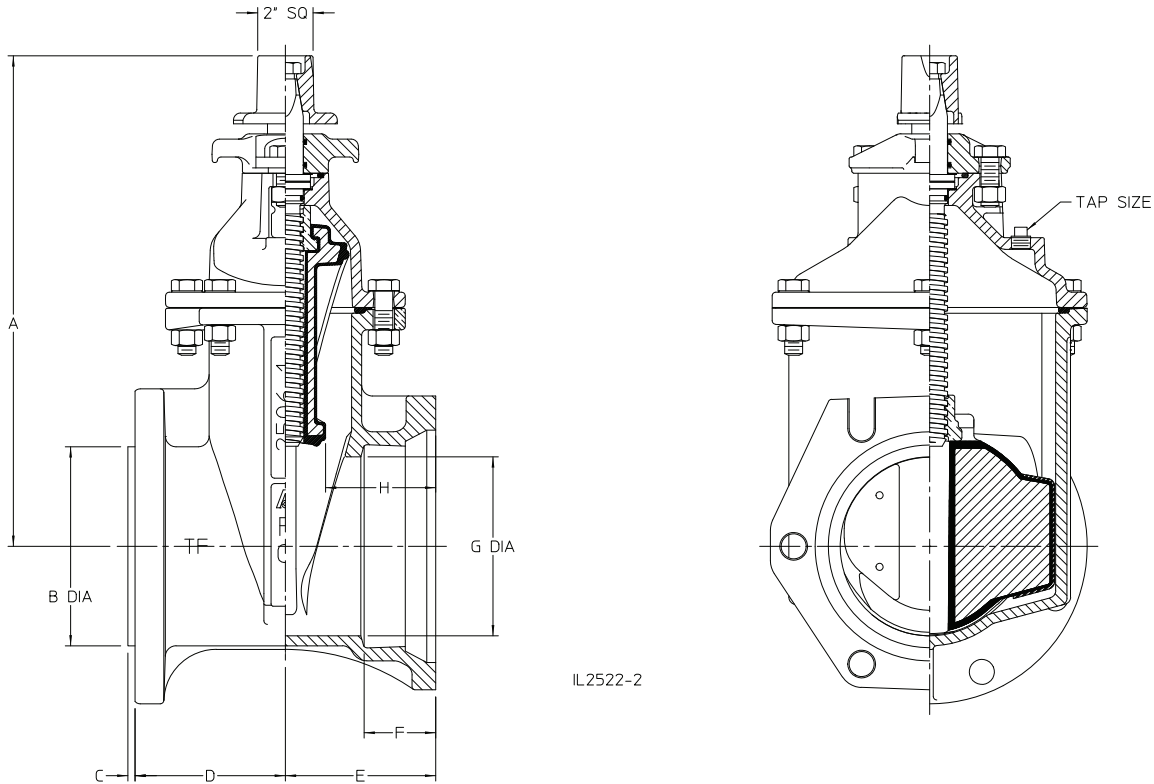
7. As noted in AWWA C111, flange joints may be rated for up to 350 psi with the use of special gaskets, such as the AMERICAN Toruseal gasket.
8. Mechanical joint ends are in accordance with ANSI/AWWA C111/A21.11.
9. **MAINTENANCE:** Each valve should be operated through a full cycle and returned to its normal position. This should be done on a time schedule that is designed to prevent a buildup of tuberculation or other deposits that could render the valve inoperable or prevent a tight shutoff. It is recommended this be done once a year.

STANDARD 4" -12" NRS PARTS LIST



REFERENCE NUMBER	DESCRIPTION	MATERIAL	QTY Series 3500				
			4"	6"	8"	10"	12"
1	Hex Head Bolt, 5/8-11 x 1"	Stainless Steel	1	1	1	1	1
2	Operating Nut, 2" Square	Ductile Iron	1	1	1	1	1
3	O-ring	Rubber	2	2	2	2	2
5	Stuffing Box Gasket	Rubber	1	1	1	1	1
6	Hex Head Bolt, 5/8-11 x 1-3/4"	Stainless Steel	2	2	2	-	-
7	Stuffing Box	Ductile Iron	1	1	1	1	1
8	Bonnet	Ductile Iron	1	1	1	1	1
9	Hex Head Bolt, 5/8-11 x 2"	Stainless Steel	4	-	-	4	4
10	Bonnet Gasket	EPDM Rubber	1	1	1	1	1
11	Body	Ductile Iron	1	1	1	1	1
12	Stem	Bronze (Stainless Steel Optional)	1	1	1	1	1
13	Wedge Nut	Bronze	1	1	1	1	1
14	Resilient Wedge	Ductile Iron, Encapsulated with EPDM Rubber	1	1	1	1	1
15	Hex Nut, 5/8-11	Stainless Steel	6	8	10	14	4
17	Handwheel	Ductile Iron	1	1	1	1	1
19	Hex Head Bolt, 5/8-11 x 2-1/4"	Stainless Steel	-	6	-	-	-
21	Hex Head Bolt, 5/8-11 x 2-1/2"	Stainless Steel	-	-	8	-	-
22	Hex Head Bolt, 5/8-11 x 2-3/4"	Stainless Steel	-	-	-	10	-
29	Flat Washer 5/8	Stainless Steel	1	1	1	1	1
40	UL/FM Label	Film	1	1	1	1	1
41	Hex Head Bolt, 5/8-11 x 1-1/2"	Stainless Steel	-	-	-	1	1
48	Hex Nut, 3/4-10	Stainless Steel	-	-	-	-	10
49	O-ring	Rubber	1	1	1	1	1
65	Thrust Washer	Stainless Steel	2	2	2	2	2
67	Hex Head Bolt, 3/4-10 x 3"	Stainless Steel	-	-	-	-	10
69	Wedge Cover	Polymer	2	2	2	2	2

4" -12" TAPPING VALVE DIMENSIONS



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DIMENSION	VALVE SIZE				
	Series 3500				
	4"	6"	8"	10"	12"
A	13.91	17.12	20.47	24.06	27.59
B +.000/- .031	4.984	6.984	8.984	10.984	12.984
C +/- .016	.188	.250	.250	.250	.250
D (Flange End) (TF) (Class 125)	4.50	5.25	5.75	6.50	7.00
E (MJ End) (TM)	5.00	5.25	6.62	7.12	7.38
F	2.50	2.50	2.50	2.50	2.50
G Waterway Diameter	4.25	6.25	8.25	10.25	12.25
No. of turns to open	14	20	26	32	38
Tap Size	3/8 NPT	3/8 NPT	3/8 NPT	3/8 NPT	3/8 NPT
MAX. CUTTER DIA.	4.00	6.00	8.00	10.00	12.00

Series 3500 Ductile Iron Resilient Wedge Tapping Valve, 350 psig pressure rating.

1. 4 in.-12 in. valves meet or exceed requirements of ANSI/AWWA C515, and are rated at 350 psig.
2. 4 in.-12 in. valves may be ordered in configurations UL Listed and Approved by FM Approvals.
3. 4 in.-12 in. valves in Listed and Approved configurations have 350 psig UL and FM rated working pressure.
4. Fusion-bonded epoxy coating meets or exceeds requirements of ANSI/AWWA C550.
5. Mechanical joint ends are in accordance with ANSI/AWWA C111/A21.53 and MSS SP-113.
6. Bolt patterns of Class 125 flanged ends are in accordance with ANSI/AWWA C110/A21.10 (ASME B16.1 Class 125).
7. Raised pilot dimensions of flanged ends on tapping valves are in accordance with MSS SP-60.
8. Tapping valves are supplied with flanged-end hardware, including bolts, nuts, ring-type gasket and flange protection kit. The flange-end bolting is furnished in the same material as specified for the valve body bolting.
9. 4 in.-12 in. valves are Certified to NSF/ANSI 61 and NSF/ANSI 372.

NOTES



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