

AMERICAN FLOW CONTROL 2"-12" SERIES 2500
RESILIENT WEDGE GATE VALVE

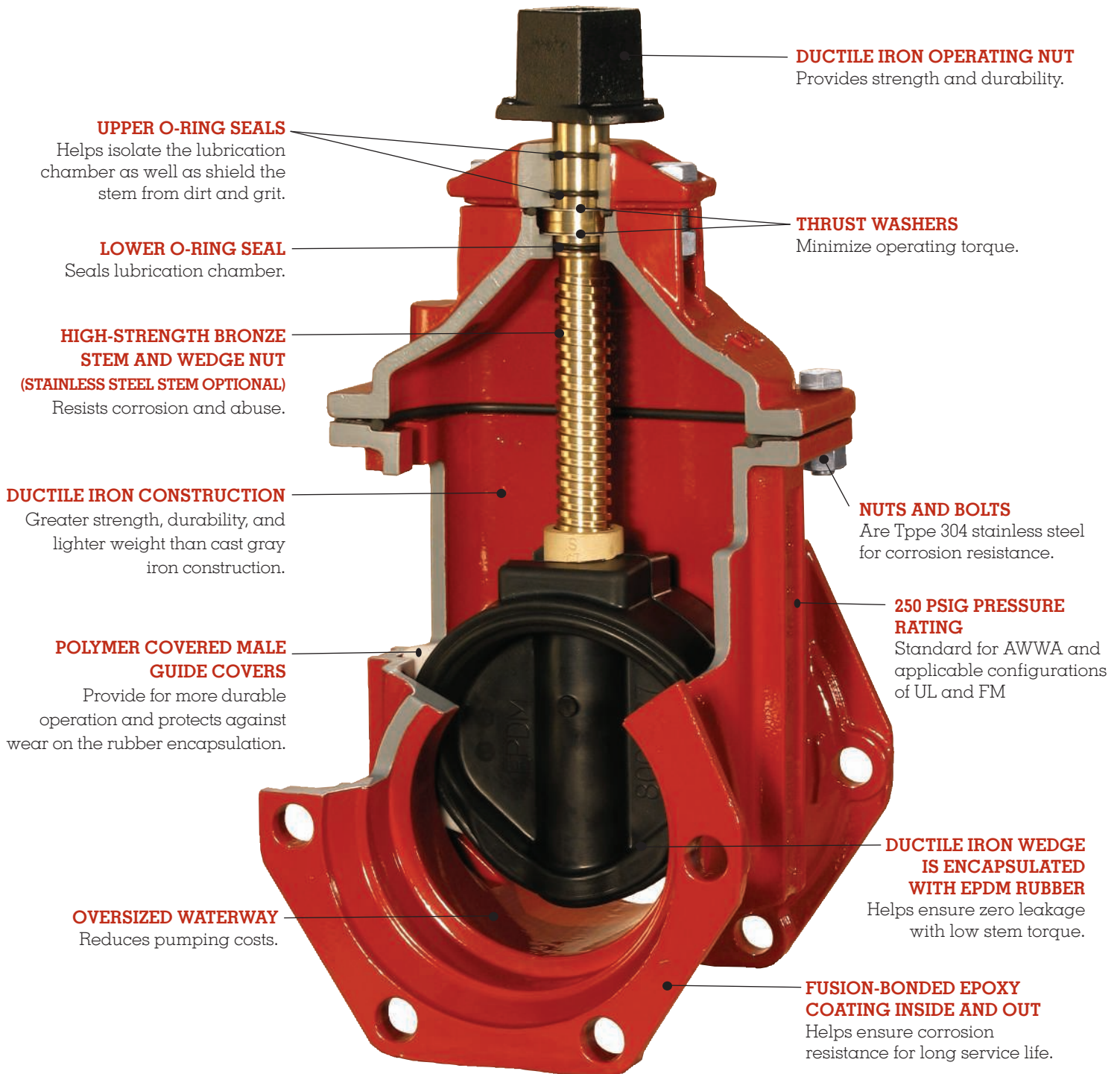


AMERICAN

FLOW CONTROL

THE RIGHT WAY

CONSTRUCTION



FEATURES/SPECIFICATIONS

FEATURES

The AMERICAN Series 2500 Ductile Iron Resilient Wedge Gate Valve is designed for use in drinking water, sewage and fire protection systems as well as irrigation and backflow control 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 2500 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 2500 Ductile Iron Resilient Wedge Gate Valve has these standard features:

- 250 psig AWWA, UL and FM Pressure Rating in applicable configurations
- UL Listed-FM Approved configurations
- Seat Tested at 375 psig.
- Shell Tested at 500 psig.
- Fusion-Bonded Epoxy Coating Complies With ANSI/AWWA C550
- Class 250 Raised Face Flanges Available
- 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 Standard 61-G
- Complies with ANSI/AWWA C515
- Ductile Iron Body, Bonnet, Wedge, Operating Nut and Stuffing Box

SPECIFICATIONS

Valves 2 in. -12 in. in size shall be of a resilient wedge design. The valve shall have a cold water rated working pressure of 250 psig. All cast ferrous components shall be ductile iron and shall be manufactured in compliance with the latest edition of ANSI/AWWA C515. The valve shall also be UL Listed and Approved by FM Approvals, in applicable configurations. All valves shall be certified to NSF/ANSI Standard 61.

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 oversize waterway and have the marking "D.I." or "Ductile Iron" cast onto the body. The valve wedge shall be constructed of ductile iron in sizes 4 in.-12 in.. All wedges 3 in. and smaller shall be constructed of bronze. All 4 in.-12 in. wedges shall be fully encapsulated with EPDM rubber and provided with male type guides and polymer guide covers.

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 2500 more durable and allows for a 250 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 2500 Resilient Wedge Gate Valve is furnished in configurations that are UL Listed and Approved by Factory Mutual Approvals.

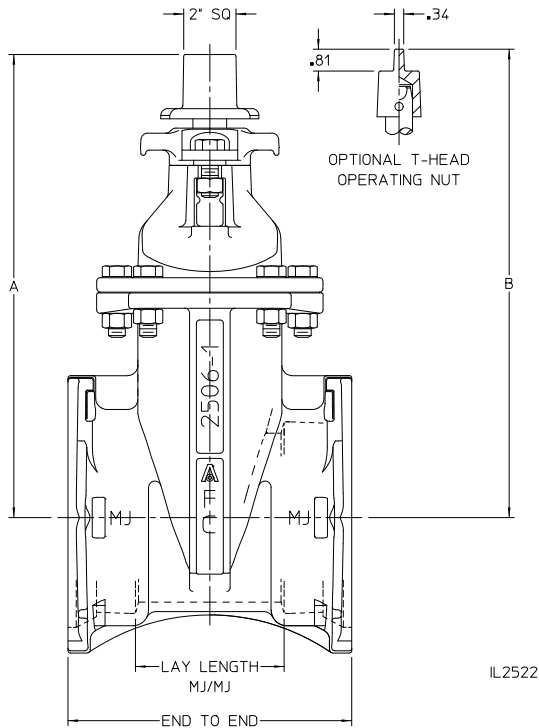
The valve shall also be equipped with thrust washers above and below the stem thrust collar for reduced operating torque.

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.

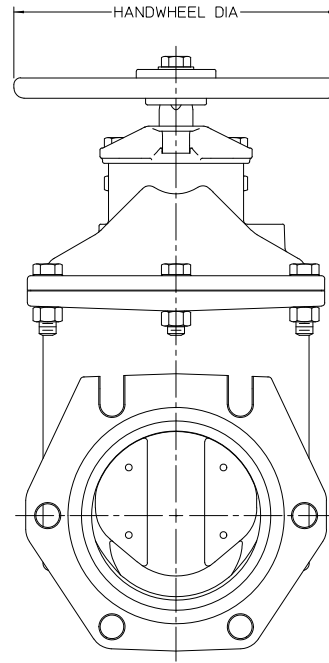
All internal and external ferrous surfaces of the valve body and bonnet shall have fusion-bonded epoxy coating, complying with ANSI/AWWA C550.

All valves shall be the AMERICAN Flow Control **Series 2500 or 2500-1 Resilient Wedge Gate Valves.**

STANDARD 2"–12" NRS DIMENSIONS



SHOWN WITH 2" OPERATING NUTS

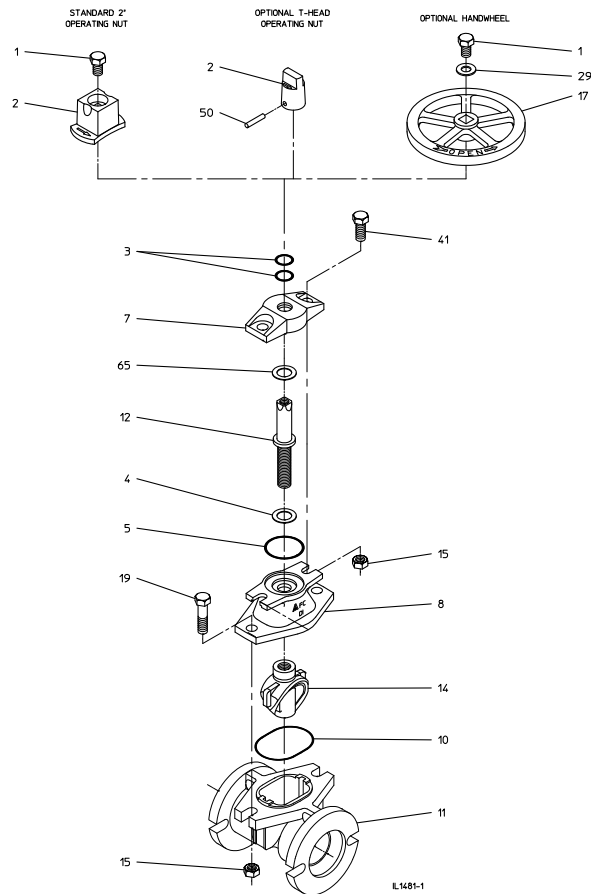


DIMENSION	VALVE SIZE							
	Series 2500			Series 2500-1				
	2"	2-1/2"	3"	4"	6"	8"	10"	12"
A	9.25	11.03	11.84	13.91	17.12	20.47	24.06	27.59
B	10.22	12.00	N/A	N/A	N/A	N/A	N/A	N/A
End to End – MJ/MJ	8.25	N/A	8.62	10.00	10.50	11.50	12.50	13.50
Lay Length – MJ/MJ	3.25	N/A	3.62	5.00	5.50	6.50	7.50	8.50
End to End – FL/FL (Class 125)	7.00	7.50	8.00	9.00	10.50	11.50	13.00	14.00
End to End – FL/FL (Class 250)	N/A	N/A	11.12	12.00	15.88	16.50	18.00	19.75
End to End – TY/TY	N/A	N/A	N/A	13.00	15.88	17.50	18.75	19.75
End to End – FL/MJ (Class 125)	N/A	N/A	8.31	9.50	10.50	12.38	13.62	14.38
End to End – FL/TY (Class 125)	N/A	N/A	N/A	11.00	13.19	14.50	15.88	16.88
End to End – PVC/PVC	10.75	11.12	11.38	13.00	15.88	17.50	N/A	N/A
End to End – Threaded	6.25	7.38	7.38	N/A	N/A	N/A	N/A	N/A
Handwheel Diameter	8.06	8.00	8.00	10.00	12.00	14.00	15.50	15.50
No. of Turns to Open	9	11	13	14	20	26	32	38

- 3 in.–12 in. valves meet or exceed requirements of ANSI/AWWA C515.
- 2 in.–12 in. valves may be ordered in configurations which are UL Listed and Approved by Factory Mutual Approvals.
- 2 in.–12 in. valves have 250 psig AWWA rated working pressure.
- 2-1/2 in.–12 in. valves have 250 psig UL and FM rated working pressure.
- Fusion-bonded epoxy coating meets or exceeds requirements of ANSI/AWWA C550.
- Bolt patterns of Class 125 flanged ends are in accordance with ANSI/AWWA C110/A21.10 (ASME B16.1 Class 125).
- Threaded ends are in accordance with ASME B16.4, Class 125.

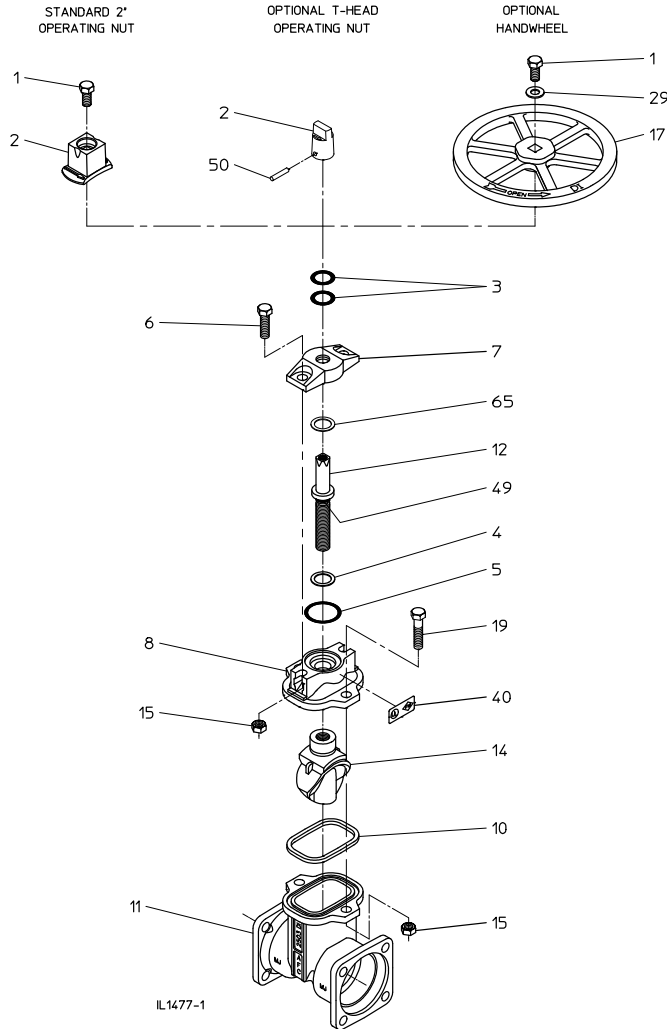
- Mechanical joint ends are in accordance with ANSI/AWWA C111/A21.11.
- Tyton® ends and push-on ends are in accordance with ANSI/AWWA C111/A21.11 for use on cast iron (CI) size ductile iron pipe. PVC ends are suitable for use on steel (IPS) sizes of PVC or steel pipe.
- MAINTENANCE:** Each valve should 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 2" NRS PARTS LIST



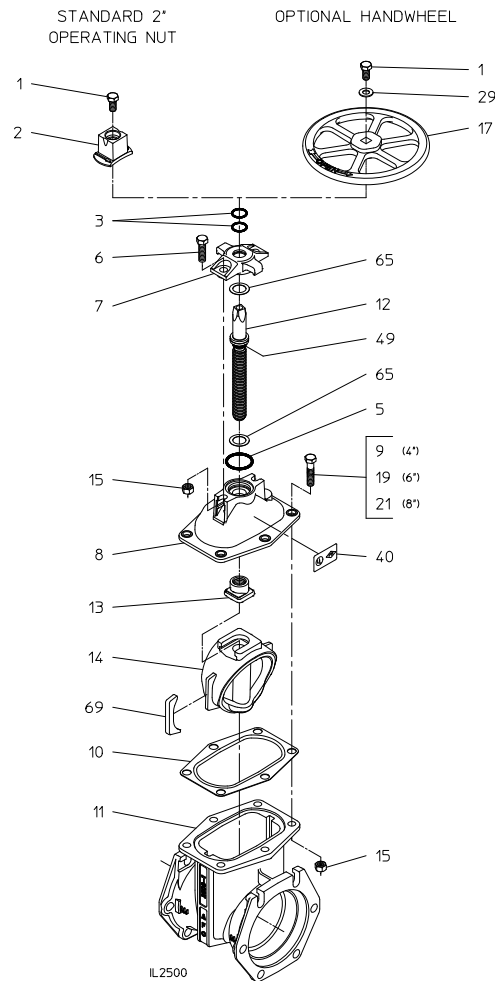
REFERENCE NUMBER	DESCRIPTION	MATERIAL	QTY Series 2500
1	Hex Head Bolt, 5/8-11 x 1"	Stainless Steel	1
2	Operating Nut, 2" Square	Ductile Iron	1
	Operating Nut, T-Head (Optional)		
3	O-ring	Rubber	2
4	Lower Thrust Washer	Nylon	1
5	Stuffing Box Gasket	Rubber O-ring	1
7	Stuffing Box	Ductile Iron	1
8	Bonnet	Ductile Iron	1
10	Bonnet Gasket	Rubber	1
11	Body	Ductile Iron	1
12	Stem	Bronze (Stainless Steel Optional)	1
14	Resilient Wedge	Cast Bronze, Coated with EPDM Rubber	1
15	Hex Nut, 5/8-11	Stainless Steel	4
17	Handwheel	Cast Aluminum	1
19	Hex Head Bolt, 5/8-11 x 2-1/4"	Stainless Steel	2
29	Flat Washer, 5/8	Stainless Steel	1
41	Hex Head Bolt, 5/8-11 x 1-1/2"	Stainless Steel	2
50	Spirol Pin, 5/16 x 1-1/2"	Stainless Steel	1
65	Upper Thrust Washer	Stainless Steel	1

STANDARD 2-1/2" & 3" NRS PARTS LIST



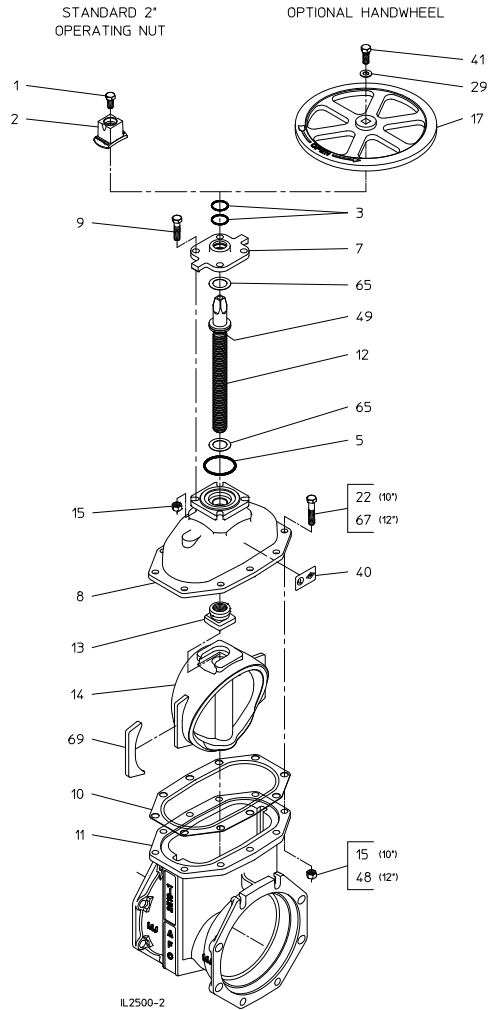
REFERENCE NUMBER	DESCRIPTION	MATERIAL	QTY Series 2500	
			2-1/2"	3"
1	Hex Head Bolt, 5/8-11 x 1"	Stainless Steel	1	1
2	Operating Nut, 2" Square	Ductile Iron	1	1
	Operating Nut, T-Head (Optional)		1	—
3	O-ring	Rubber	2	2
4	Lower Thrust Washer	Nylon	1	1
5	Stuffing Box Gasket	Rubber O-ring	1	1
6	Hex Head Bolt, 5/8-11 x 1-3/4"	Stainless Steel	2	2
7	Stuffing Box	Ductile Iron	1	1
8	Bonnet	Ductile Iron	1	1
10	Bonnet Gasket	Rubber	1	1
11	Body	Ductile Iron	1	1
12	Stem	Bronze (Stainless Steel Optional)	1	1
14	Resilient Wedge	Cast Bronze, Coated with EPDM Rubber	1	1
15	Hex Nut, 5/8-11	Stainless Steel	4	4
17	Handwheel	Ductile Iron	1	1
19	Hex Head Bolt, 5/8-11 x 2-1/4"	Stainless Steel	2	2
29	Flat Washer, 5/8	Stainless Steel	1	1
40	UL/FM Label	Film	1	1
49	O-ring	Rubber	1	1
50	Spiral Pin, 5/16 x 1-1/2"	Stainless Steel	1	—
65	Upper Thrust Washer	Stainless Steel	1	1

STANDARD 4" -8" NRS PARTS LIST



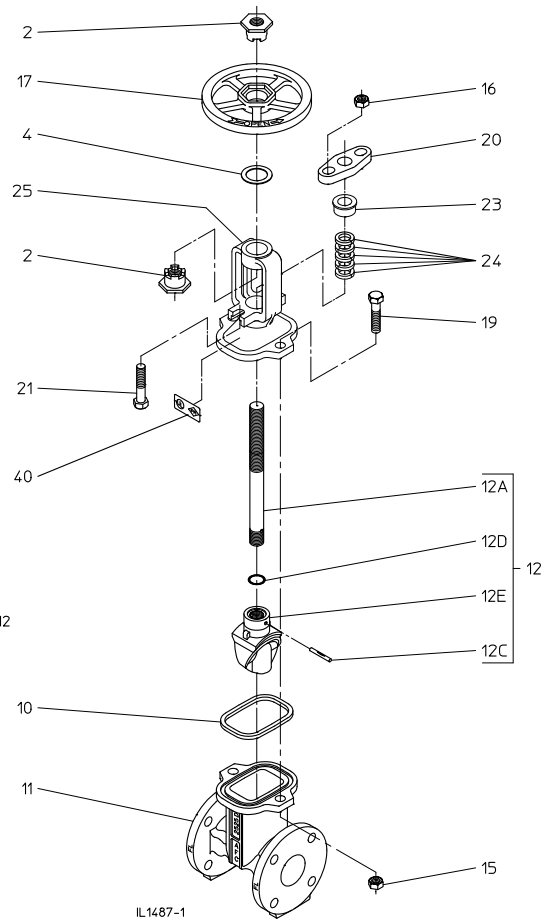
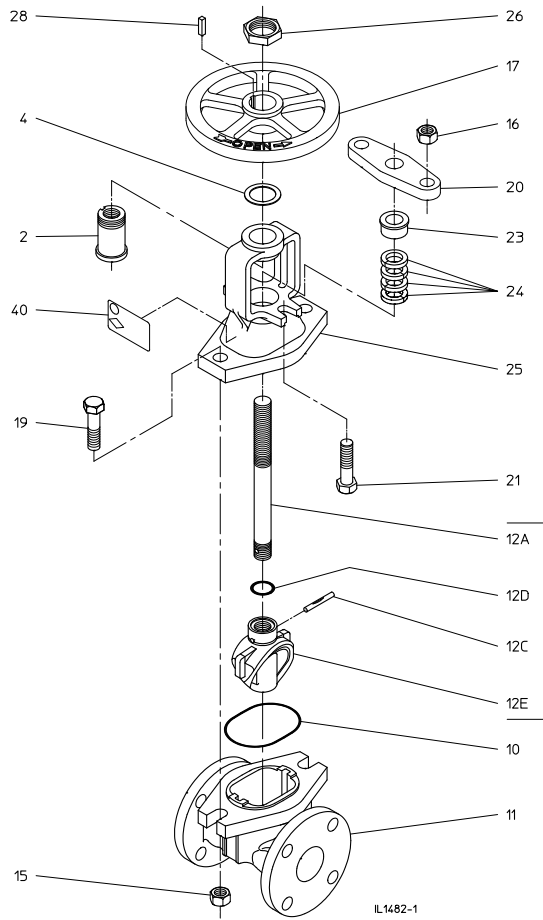
REFERENCE NUMBER	DESCRIPTION	MATERIAL	QTY Series 2500-1		
			4"	6"	8"
1	Hex Head Bolt, 5/8-11 x 1"	Stainless Steel	1	1	1
2	Operating Nut, 2" Square	Ductile Iron	1	1	1
3	O-ring	Rubber	2	2	2
5	Stuffing Box Gasket	Rubber O-ring	1	1	1
6	Hex Head Bolt, 5/8-11 x 1-3/4"	Stainless Steel	2	2	2
7	Stuffing Box	Ductile Iron	1	1	1
8	Bonnet	Ductile Iron	1	1	1
9	Hex Head Bolt, 5/8-11 x 2"	Stainless Steel	4	—	—
10	Bonnet Gasket	EPDM Rubber	1	1	1
11	Body	Ductile Iron	1	1	1
12	Stem	Bronze (Stainless Steel Optional)	1	1	1
13	Wedge Nut	Bronze	1	1	1
14	Resilient Wedge	Ductile Iron, Encapsulated with EPDM Rubber	1	1	1
15	Hex Nut, 5/8-11	Stainless Steel	6	8	10
17	Handwheel	Ductile Iron	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
29	Flat Washer, 5/8	Stainless Steel	1	1	1
40	UL/FM Label	Film	1	1	1
49	O-ring	Rubber	1	1	1
65	Thrust Washer	Stainless Steel	2	2	2
69	Wedge Cover	Polymer	2	2	2

STANDARD 10" & 12" NRS PARTS LIST



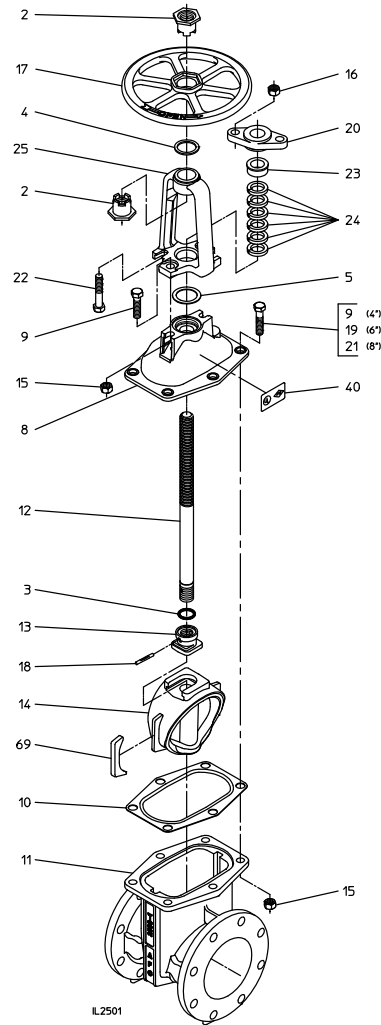
REFERENCE NUMBER	DESCRIPTION	MATERIAL	QTY Series 2500-1	
			10"	12"
1	Hex Head Bolt, 5/8-11 x 1"	Stainless Steel	1	1
2	Operating Nut, 2" Square	Ductile Iron	1	1
3	O-ring	Rubber	2	2
5	Stuffing Box Gasket	Rubber O-ring	1	1
7	Stuffing Box	Ductile Iron	1	1
8	Bonnet	Ductile Iron	1	1
9	Hex Head Bolt, 5/8-11 x 2"	Stainless Steel	4	4
10	Bonnet Gasket	EPDM Rubber	1	1
11	Body	Ductile Iron	1	1
12	Stem	Bronze (Stainless Steel Optional)	1	1
13	Wedge Nut	Bronze	1	1
14	Resilient Wedge	Ductile Iron, Encapsulated with EPDM Rubber	1	1
15	Hex Nut, 5/8-11	Stainless Steel	14	4
17	Handwheel	Ductile Iron	1	1
22	Hex Head Bolt, 5/8-11 x 2-3/4"	Stainless Steel	10	—
29	Flat Washer, 5/8	Stainless Steel	1	1
40	UL/FM Label	Film	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
65	Thrust Washer	Stainless Steel	2	2
67	Hex Head Bolt, 3/4-10 x 3"	Stainless Steel	—	10
69	Wedge Cover	Polymer	2	2

2", 2-1/2", & 3" OS & Y PARTS LIST



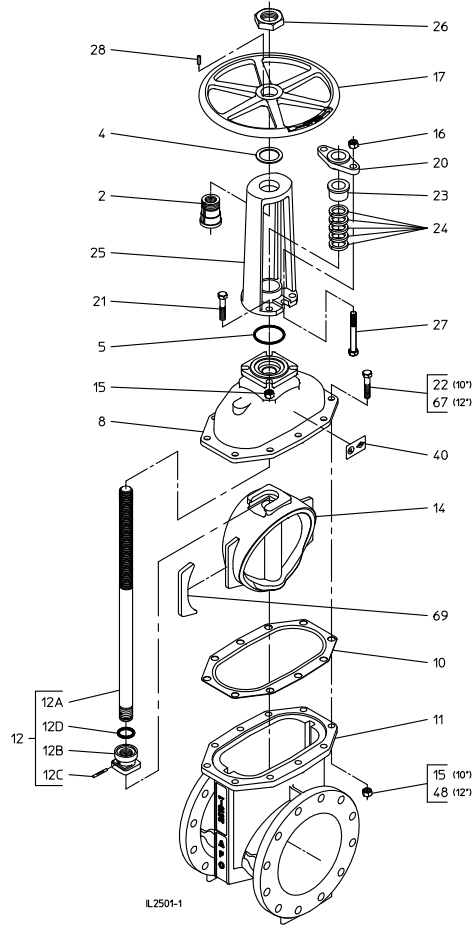
REFERENCE NUMBER	DESCRIPTION	MATERIAL	QTY Series 2500		
			2"	2-1/2"	3"
2	Yoke Nut	Bronze	1	—	—
2	Stem Nut	Forging Brass	—	2	2
4	Handwheel Washer	Nylon	1	1	1
10	Bonnet Gasket	Rubber	1	1	1
11	Body	Ductile Iron	1	1	1
12	Stem & Wedge Assembly	See Below	1	1	1
12A	Stem	Bronze (Stainless Steel Optional)	1	1	1
12C	Groove Pin	Stainless Steel	1	1	1
12D	O-ring	Rubber	1	1	1
12E	Resilient Wedge	Cast Bronze, Coated with EPDM Rubber	1	1	1
15	Hex Nut, 58-11	Stainless Steel	2	2	2
16	Hex Nut, 58-11	Brass	2	2	2
17	Handwheel	Gray Iron	1	—	—
17	Handwheel	Ductile Iron	—	1	1
19	Hex Head Bolt, 58-11 x 2-14"	Stainless Steel	2	2	2
20	Gland Follower	Ductile Iron	1	1	1
21	Hex Head Bolt, 58-11 x 2-12"	Stainless Steel	2	2	2
23	Gland	Bronze	1	1	1
24	Packing Ring	Packing Material	4	5	5
25	Bonnet	Ductile Iron	1	1	1
26	Handwheel Nut	Cast Bronze	1	—	—
28	Square Key	Stainless Steel	1	—	—
40	ULFM Label	Film	1	1	1

4" - 8" OS & Y PARTS LIST



REFERENCE NUMBER	DESCRIPTION	MATERIAL	QTY Series 2500-1		
			4"	6"	8"
2	Stem Nut	Bronze	2	2	2
3	O-ring	Rubber	1	1	1
4	Handwheel Washer	Brass	1	1	1
5	Stuffing Box Gasket	Rubber	1	1	1
8	Bonnet	Ductile Iron	1	1	1
9	Hex Head Bolt, 5/8-11 x 2"	Stainless Steel	6	2	2
10	Bonnet Gasket	EPDM Rubber	1	1	1
11	Body	Ductile Iron	1	1	1
12	Stem	Bronze (Stainless Steel Optional)	1	1	1
13	Wedge Nut	Ductile Iron	1	1	1
14	Resilient Wedge	Ductile Iron, Encapsulated with EPDM Rubber	1	1	1
15	Hex Nut, 5/8-11	Stainless Steel	6	8	10
16	Hex Nut, 5/8-11	Brass	2	2	2
17	Handwheel	Ductile Iron	1	1	1
18	Groove Pin	Stainless Steel	1	1	1
19	Hex Head Bolt, 5/8-11 x 2-1/4"	Stainless Steel	-	6	-
20	Gland Follower	Ductile Iron	1	1	1
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	2	2	2
23	Gland	Bronze	1	1	1
24	Packing Ring	Packing Material	5 or 6	5 or 6	5 or 6
25	Yoke	Ductile Iron	1	1	1
40	UL/FM Label	Film	1	1	1
69	Wedge Cover	Polymer	2	2	2

10" & 12" OS & Y PARTS LIST



REFERENCE NUMBER	DESCRIPTION	MATERIAL	QTY Series 2500-1	
			10"	12"
2	Yoke Nut	Bronze	1	1
4	Handwheel Washer	Brass	1	1
5	Stuffing Box Gasket	Rubber O-ring	1	1
8	Bonnet	Ductile Iron	1	1
10	Bonnet Gasket	EPDM Rubber	1	1
11	Body	Ductile Iron	1	1
12	Stem & Wedge Assembly	Bronze	1	1
12A	Stem	Bronze (Stainless Steel Optional)	1	1
12B	Wedge Nut	Ductile Iron	1	1
12C	Groove Pin	Stainless Steel	1	1
12D	O-ring	Rubber	1	1
14	Resilient Wedge	Ductile Iron, Encapsulated with EPDM Rubber	1	1
15	Hex Nut, 5/8-11	Stainless Steel	14	4
16	Hex Nut, 5/8-11	Brass	2	2
17	Handwheel	Ductile Iron	1	1
20	Gland Follower	Ductile Iron	1	1
21	Hex Head Bolt, 5/8-11 x 2-1/2"	Stainless Steel	4	4
22	Hex Head Bolt, 5/8-11 x 2-3/4"	Stainless Steel	10	—
23	Gland	Bronze	1	1
24	Packing Ring	Packing Material	5	5
25	Yoke	Ductile Iron	1	1
26	Handwheel Nut	Cast Bronze	1	1
27	Hex Head Bolt, 5/8-11 x 4-1/4"	Stainless Steel	2	2
28	Square Key	Stainless Steel	1	1
40	UL/FM Label	Film	1	1
48	Hex Nut, 3/4-10	Stainless Steel	—	10
67	Hex Head Bolt, 3/4-10 x 3"	Stainless Steel	—	10
69	Wedge Cover	Polymer	2	2



AMERICAN

FLOW CONTROL

THE RIGHT WAY

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Series 2500 Product Video

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