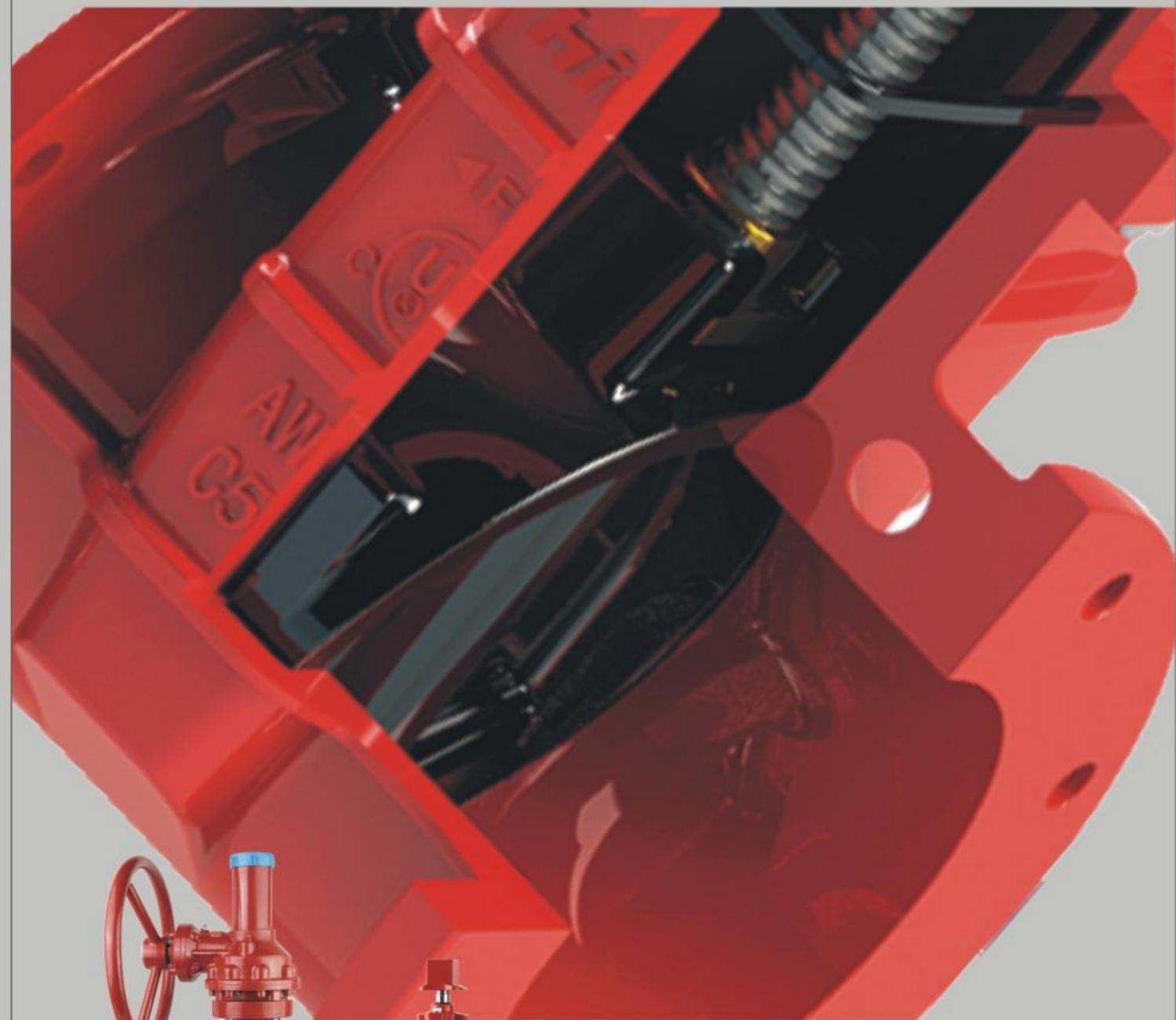


# FIRE-PROTECTION SERVICE RESILIENT WEDGE GATE VALVES



## HUIHUA VALVE INDUSTRY CO.

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***Hiwa***  
VALVE DRIVE FLOW

— SINCE 1984 —

HUIHUA VALVE INDUSTRY CO.  
[www.hiwa.cc](http://www.hiwa.cc)



**LIFTING DESIGN**

High-strength ductile iron constructure with integral lifting design to allow the valve to be installed easily in site to avoid to damage the stem because of lifting the valve by the operating nut.

**INTEGRAL THRUST COLLAR**

The forged shaft features an integral thrust collar with the wear surface being replaceable thrust bushing instead of the shaft itself.

**V-RING DESIGN FOR REPLACEABLE O-RINGS**

Perfect V-ring design to ensure the two o-ring seals are replaceable with the valve fully open and subjected to full-rated working pressure.

**HIGH STRENGTH NUTS AND BOLTS**

High strength galvanized steel bolt & nuts provide long-life corrosion protection.

**FULLY RUBBER ENCAPSULATED DUCTILE IRON WEDGE**

Ensure zero leakage with low stem torques to ensure a lifetime of reliable service.



**EPOXY COATING OUTSIDE AND INSIDE**

Fusion bonded epoxy coating inside & outside fusion help ensure corrosion resistance for long service life.

**NON-FLAT GASKET**

Formed non-flat sealing at body to bonnet and gland to ensure the best possible sealing.

**FLAT BOTTOM PAD DESIGN**

Flat bottom pad design help to ensure the valve to stand upright during storage or installation.

**SMOOTH BODY SURFACE DESIGN**

Smooth surface body surface design in valve bottom ensure small flow resistance and minimum pressure drop.

**\* VALVE PRESSURE:**

All gate valve in this catalogues are available for 175 PSI 200PSI 250PSI 300PSI pressure ratio, and is twice for the hydrostatically tested.



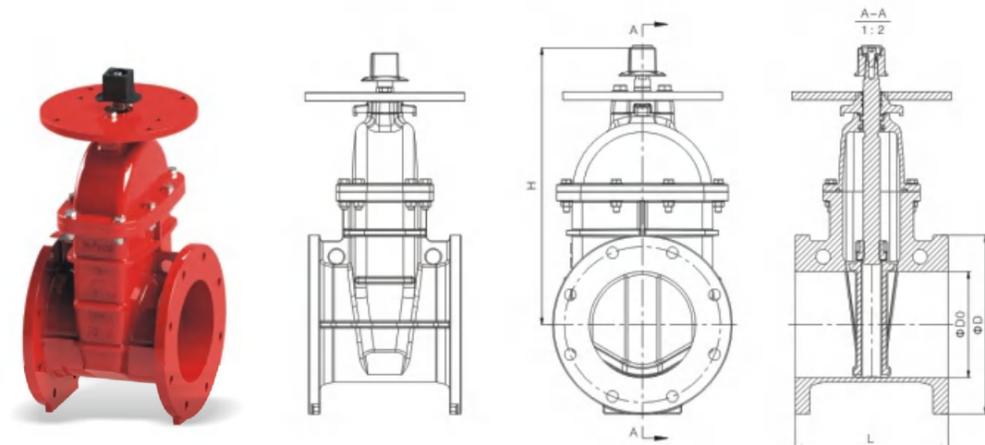
Fig.Z3713UF-FF

**DESCRIPTION:**

1. Design standard conform to AWWAC515 for 2"-8"; AWWA C509 for 10"-12"
2. Sizes - 2", 2-1/2", 3", 4", 5", 6", 8", 10", 12"
3. Face to Face standard: ANSI B16.10
4. Flange drilling complies with ASME/ANSI B16.1 Class 125/150 Other flange drilling standard available upon request
5. Fusion bond epoxy AkzoNobel coating interior and exterior to AWWA C550 standard
6. Non-rising stem (N.R.S.)
7. Available with Indicator Post Flange (PIV) for 4 inches and larger
8. 2" Square operating nut provided, Black color. (Open right valve provided with RED color square operating nut.)
9. Working pressure: UL rated working pressure: 2"-12" : 300 psi (2070kPa/20bar)  
FM rated working pressure: 2"-12" : 300 psi (2070kPa/20bar)  
UL/FM rated working pressure: 2"-12": 300 psi (2070kPa/20bar)  
250 psi (1725kPa/17bar); 200 psi (1380kPa/14bar); 175 psi (1205kPa/12bar) are available.
10. Temperature: 2°C (35°F) to 82°C (180°F)

**MATERIAL LIST**

Name	Material	Material standard
Nut	Carbon steel	
Bolt	Carbon steel	10.9
Wedge	Ductile iron encapsulated with EPDM	10.9
Gate(stem)Nut	Aluminium Bronze C95210	ASTM 952
Stem	AISI 431	AISI304 AISI316 available
Operating Nut	Ductile iron ASTM A536 65-45-12	
Indicator post flange	Ductile iron ASTM A536 65-45-12	
Gland	Ductile iron ASTM A536 65-45-12	
Bonnet	Ductile iron ASTM A536 65-45-12	
Body	Ductile iron ASTM A536 65-45-12	



**DIMENSION DATA**

Size Inch	mm	Part No (Flange x Flange)	L		D		Do		H		Turns to open	Weight(lbs)	
			Inch	mm	Inch	mm	Inch	mm	Inch	mm		Lbs	kg
2"	50	Z3713UF-FF	7	178	6	152	2	50	10	254		22	10
2-1/2"	65	Z3713UF-FF	7-1/2	191	7	178	2-1/2	65	10-9/16	268	6.5	29	13
3"	80	Z3713UF-FF	8	203	7-1/2	191	3	80	12-5/8	320	8	42	19
4"	100	Z3713UF-FF	9	229	9	229	4	102.3	14-1/2	368	10.2	79	36
5"	125	Z3713UF-FF	10	254	10	254	5	128.2	16	405	12.8	97	44
6"	150	Z3713UF-FF	10-1/2	267	11	279	6	154.1	18	455	15.4	122	55.4
8"	200	Z3713UF-FF	11-1/2	292	13-1/2	343	8	203	21-1/4	540	20.3	173	78.4
10"	250	Z3713UF-FF	13	330	16	406	10	254.6	24-5/8	625	25.5	315	142.8
12"	300	Z3713UF-FF	14	356	19	483	12	304.8	27-9/16	700	30.5	442	200.6



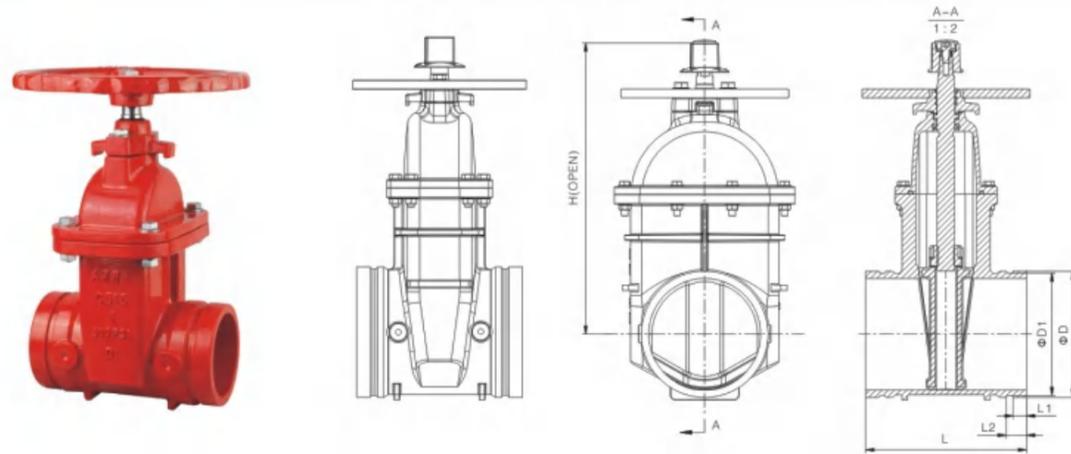
Fig. Z3713UF-GG

**DESCRIPTION:**

1. Design standard conform to AWWAC515 for 2"-8"; AWWA C509 for 10"-12"
2. Sizes - 2", 2-1/2", 3", 4", 5", 6", 8", 10", 12"
3. Face to Face standard: ANSI B16.10
4. Grooved ends complies with AWWA C606 standard
5. Fusion bond epoxy AkzoNobel coating interior and exterior to AWWA C550 standard
6. Non-rising stem (N.R.S.)
7. Available with Indicator Post Flange (PIV) for 4 inches and larger
8. 2" Square operating nut provided, Black color. (Open right valve provided with RED color square operating nut.)
9. Working pressure: UL rated working pressure: 2"-12": 300 psi (2070kPa/20bar)  
FM rated working pressure: 2"-12": 300 psi (2070kPa/20bar)  
UL/FM rated working pressure: 2"-12": 300 psi (2070kPa/20bar)  
250 psi (1725kPa/17bar); 200 psi (1380kPa/14bar); 175 psi (1205kPa/12bar) are available.
10. Temperature: 2°C (35°F) to 82°C (180°F)

**MATERIAL LIST**

Name	Material	Material standard
Nut	Carbon steel	10.9
Bolt	Carbon steel	10.9
Wedge	Ductile iron encapsulated with EPDM	ASTM 952
Gate(stem)Nut	Aluminium Bronze C95210	AISI304 AISI316 available
Stem	AISI 431	
Operating Nut	Ductile iron ASTM A536 65-45-12	
Indicator post flange	Ductile iron ASTM A536 65-45-12	
Gland	Ductile iron ASTM A536 65-45-12	
Bonnet	Ductile iron ASTM A536 65-45-12	
Body	Ductile iron ASTM A536 65-45-12	



**DIMENSION DATA**

Size Inch	mm	Part No (Flange x Flange)	L		D		D1		L1		L2		H		Turns to open	Weight(lbs)*	
			Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm		Lbs	kg
2"	50	Z3713UF-GG	7	178	2 3/8	60.33	2 1/4	57.15	5/8	15.88	15/16	23.8	10	254	5.1	15	7
2-1/2"	65	Z3713UF-GG	7-1/2	191	2 7/8	73.03	2 3/4	69.09	5/8	15.88	15/16	23.8	10-9/16	268	6.5	18	8
3"	80	Z3713UF-GG	8	203	3 1/2	88.90	3 5/16	84.94	5/8	15.88	15/16	23.8	12-5/8	320	8	31	14
4"	100	Z3713UF-GG	9	229	4 1/2	114.30	4 5/16	110.08	5/8	15.88	1	25.4	14-1/2	368	10.2	58	26.4
5"	125	Z3713UF-GG	10	254	5 5/8	141.30	5 3/8	137.03	5/8	15.88	1	25.4	16	405	12.8	71	32
6"	150	Z3713UF-GG	10-1/2	267	6 5/8	168.28	6 7/16	163.98	5/8	15.88	1	25.4	18	455	15.4	93	42
8"	200	Z3713UF-GG	11-1/2	292	8 5/8	219.08	8 7/16	214.4	3/4	19.05	1 3/16	30.18	21-1/4	540	20.3	124	56.2
10"	250	Z3713UF-GG	13	330	10 3/4	273.05	10 9/16	268.28	3/4	19.05	1 1/4	31.75	24-5/8	625	25.5	257	116.6
12"	300	Z3713UF-GG	14	356	12 1/2	323.85	12 1/2	318.29	1/2	19.05	1 1/2	31.75	27-9/16	700	30.5	341	154.8



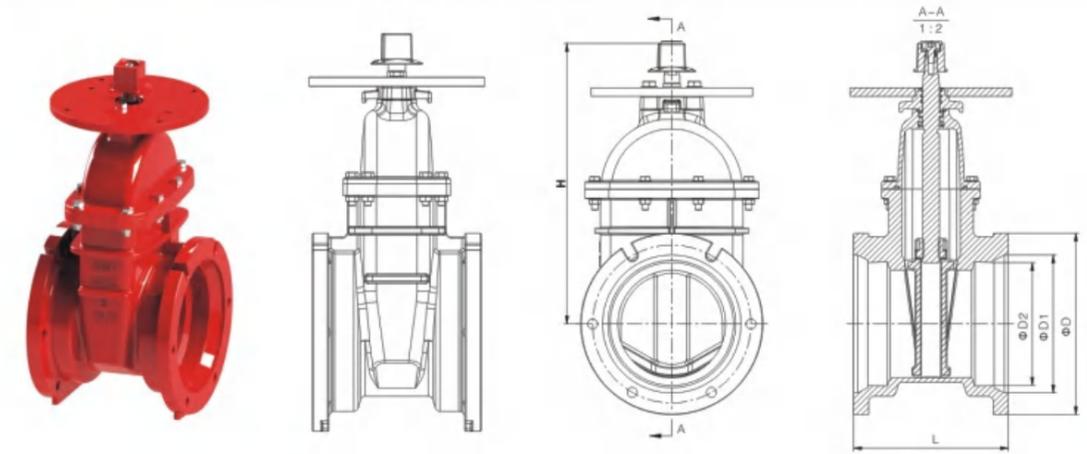
Fig. Z3713UF-MM

**DESCRIPTION:**

1. Design standard conform to AWWAC515 for 2"-8"; AWWA C509 for 10"-12"
2. Sizes - 3", 4", 6", 8", 10", 12"
3. Face to Face standard: ANSI B16.10
4. Mechanical joint ends complies with AWWA C111/A21\_11, AWWA C110 standard
5. Fusion bond epoxy AkzoNobel coating interior and exterior to AWWA C550 standard
6. Non-rising stem (N.R.S.)
7. Available with Indicator Post Flange (PIV) for 4 inches and larger
8. 2" Square operating nut provided, Black color. (Open right valve provided with RED color square operating nut.)
9. Working pressure: UL rated working pressure: 2"-12": 300 psi (2070kPa/20bar)  
FM rated working pressure: 2"-12": 300 psi (2070kPa/20bar)  
UL/FM rated working pressure: 2"-12": 300 psi (2070kPa/20bar)  
250 psi (1725kPa/17bar); 200 psi (1380kPa/14bar); 175 psi (1205kPa/12bar) are available.
10. Temperature: 2°C (35°F) to 82°C (180°F)

**MATERIAL LIST**

Name	Material	Material standard
Nut	Carbon steel	10.9
Bolt	Carbon steel	10.9
Wedge	Ductile iron encapsulated with EPDM	ASTM 952
Gate(stem)Nut	Aluminium Bronze C95210	AISI304 AISI316 available
Stem	AISI 431	
Operating Nut	Ductile iron ASTM A536 65-45-12	
Indicator post flange	Ductile iron ASTM A536 65-45-12	
Gland	Ductile iron ASTM A536 65-45-12	
Bonnet	Ductile iron ASTM A536 65-45-12	
Body	Ductile iron ASTM A536 65-45-12	



**DIMENSION DATA**

Size Inch	mm	Part No (Flange x Flange)	L		D		D1		D2		H		Turns to open	Weight(lbs)*	
			Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm		Lbs	kg
3"	80	Z3713UF-MM	9	228.6	7 11/16	195.32	4 15/16	125.48	4 1/16	103.1	12-5/8	320	8	31	14
4"	100	Z3713UF-MM	9	229	9 1/8	231.65	6	152.9	4 7/8	124.5	14-1/2	368	10.2	58	26.4
6"	150	Z3713UF-MM	10-1/2	267	11 1/8	282.5	8 1/8	206.25	7	177.8	18	455	15.4	93	42
8"	200	Z3713UF-MM	11-1/2	292	13 1/2	343	10 1/4	260.8	9 1/8	232.4	21-1/4	540	20.3	124	56.2
10"	250	Z3713UF-MM	13	330	15 15/16	404.62	12 3/8	314.96	11 3/16	284.5	24-5/8	625	25.5	257	116.6
12"	300	Z3713UF-MM	14	356	18	457.2	14 1/2	368.3	13 5/16	337.8	27-9/16	700	30.5	341	154.8



- Bolted Bonnet . Resilient Wedge . Flanged End
- Conforms to AWWA C515
- AWWA C509 is available as per request

### CONNECTION

ANSI B16.1 Class125 / ANSI B16.5 Class 150 (FL)  
 AWWA C111/ A21.11 (MJ)  
 AWWA C606 (GV)

No	Name	Material	Specification
1	Body	Ductile Iron	A536 65-45-12
2	Wedge	Ductile Iron Encapsulated with EPDM	A536 65-45-12+EPDM
3	Stem Nut	Aluminium Bronze	AS1565 C95210
4	Pin	Stainless Steel	ASTMA276 304
5	Stem	Stainless Steel	ASTMA276 431/304/316
6	Bonnet Gasket	EPDM	ASTM D2000
7	Nut	Galvanized steel	A307 Q235-A
8	Washer	Galvanized steel	A307 Q235-A
9	Bolt	Galvanized steel 10.9grade	A307 Q235-A
10	Bonnet	Ductile Iron	A536 65-45-12
11	V-Ring	EPDM	ASTM D2000
12	O-Ring	EPDM	ASTM D2000
13	Packing	EPDM	ASTM D2000
14	Yoke	Ductile Iron	A536 65-45-12
17	Washer	Galvanized steel	A307 Q235-A
16	studs	Galvanized steel 10.9grade	A307 Q235-A
17	Nut	Galvanized steel	A307 Q235-A
18	Nut	Ductile Iron	A536 65-45-12
19	Yoke Nut	Aluminium Bronze	AS1565 C95210
20	Washer	Aluminium Bronze	AS1565 C95210
21	Handweel	Ductile Iron	A536 65-45-12
22	Thin Nut	Stainless Steel	ASTMA276 304

\* For selection.

### FEATURES

The body, bonnet & gland are all made of high strength ductile iron .  
 Fully rubber encapsulated wedge ensure zero leakage with low stem torques.  
 Cold-rolled stainless steel stem provide as standard to eliminate bent or broken stem.  
 High strength galvanized steel



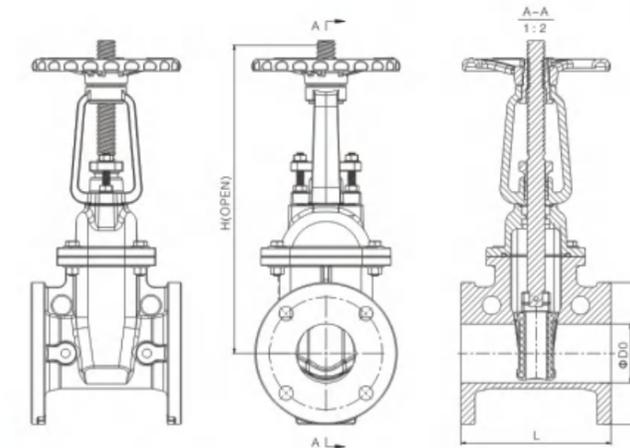
Fig.Z3113UF-FF

### Description:

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3. Face to Face standard: ANSI B16.10
4. Flange drilling complies with ASME/ANSI B16.1 Class 125/150 Other flange drilling standard available upon request
5. Fusion bond epoxy AkzoNobel coating interior and exterior to AWWA C550 standard
6. Outside Screw and Yoke (O.S.&Y.), Rising stem
7. High quality rubber Packing, which can replace when the valve is opne and at rated pressure.
8. Hand wheel - Open left or open right, with indicate direction of opening
9. Working pressure:UL rated working pressure: 2"-12" : 300 psi (2070kPa/20bar)  
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Stem	AISI 431	
Hand wheel	Ductile iron ASTM A536 65-45-12	
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Bonnet	Ductile iron ASTM A536 65-45-12	
Body	Ductile iron ASTM A536 65-45-12	



### DIMENSION DATA

Size	mm	Part No (Flange x Flange)	L		D		D0		H(Open)		Turns to open	Weight(lbs)*	
			Inch	mm	Inch	mm	Inch	mm	Inch	mm		Lbs	kg
2"	50	Z3113UF-FF	7	178	6	152	2	50	16 5/8	423	12.7	26	12
2-1/2"	65	Z3113UF-FF	7-1/2	191	7	178	2-1/2	65	17 3/4	450	16.3	31	14
3"	80	Z3113UF-FF	8	203	7-1/2	191	3	80	21 1/16	535	20	48	22
4"	100	Z3113UF-FF	9	229	9	229	4	102.3	23 1/4	590	20.5	70	32
5"	125	Z3113UF-FF	10	254	10	254	5	128.2	28 1/16	713	25.6	97	44
6"	150	Z3113UF-FF	10-1/2	267	11	279	6	154.1	31 1/8	790	30.8	120	54.4
8"	200	Z3113UF-FF	11-1/2	292	13-1/2	343	8	203	38 3/8	974	33.8	195	88.6
10"	250	Z3113UF-FF	13	330	16	406	10	254.6	46 5/8	1185	42.4	334	151.6
12"	300	Z3113UF-FF	14	356	19	483	12	304.8	54 1/8	1375	50.8	475	215.6



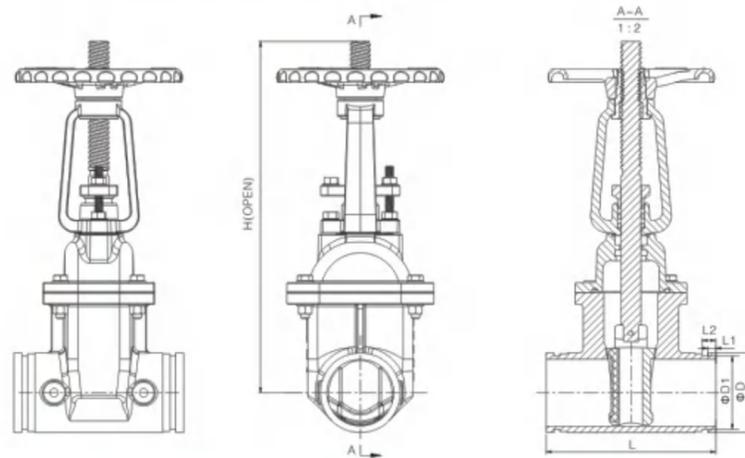
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Body	Ductile iron ASTM A536 65-45-12	



**DIMENSION DATA**

Size	mm	Part No (Flange x Flange)	L	D	D1	L1	L2	H(Open)	Turns to open	Weight(lbs)							
Inch			Inch	mm	Inch	mm	Inch	mm		Lbs	kg						
2"	50	Z3113UF-GG	7	178	2 3/8	60.33	2 1/4	57.15	5/8	15.88	15/16	23.8	16 5/8	423	12.7	26	12
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3"	80	Z3113UF-GG	8	203	3 1/2	88.90	3 5/16	84.94	5/8	15.88	15/16	23.8	21 1/16	535	20	48	22
4"	100	Z3113UF-GG	9	229	4 1/2	114.30	4 5/16	110.08	5/8	15.88	1	25.4	23 1/4	590	20.5	70	32
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8"	200	Z3113UF-GG	11-1/2	292	8 5/8	219.08	8 7/16	214.4	3/4	19.05	1 3/16	30.18	38 3/8	974	33.8	195	88.6
10"	250	Z3113UF-GG	13	330	10 3/4	273.05	10 9/16	268.28	3/4	19.05	1 1/4	31.75	46 5/8	1185	42.4	334	151.6
12"	300	Z3113UF-GG	14	356	12 1/2	323.85	12 1/2	318.29	3/4	19.05	1 1/4	31.75	54 1/8	1375	50.8	475	215.6



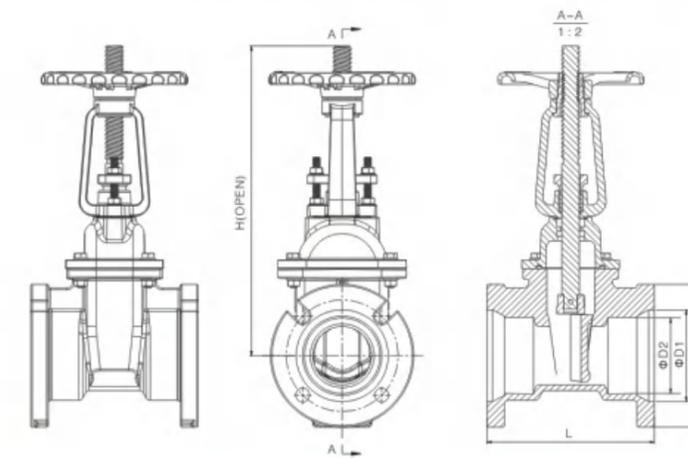
Fig.Z3113UF-MM

**Description:**

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10. Temperature: 2°C (35°F) to 82°C (180°F)

**MATERIAL LIST**

Name	Material	Material standard
Nut	Carbon steel	10.9
Bolt	Carbon steel	10.9
Wedge	Ductile iron encapsulated with EPDM	ASTM 952
Gate(stem)Nut	Aluminium Bronze C95210	AISI304 AISI316 available
Stem	AISI 431	
Hand wheel	Ductile iron ASTM A536 65-45-12	
Yoke	Ductile iron ASTM A536 65-45-12	
Gland	Ductile iron ASTM A536 65-45-12	
Bonnet	Ductile iron ASTM A536 65-45-12	
Body	Ductile iron ASTM A536 65-45-12	



**DIMENSION DATA**

Size	mm	Part No (Flange x Flange)	L	D	D1	D2	H	Turns to open	Weight(lbs)						
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3"	80	Z3113UF-MM	9	228.6	7 11/16	195.3	4 15/16	125.48	4 1/16	103.1	21 1/16	535	20	31	14
4"	100	Z3113UF-MM	9	229	9 1/8	231.65	6	152.9	4 7/8	124.5	23 1/4	590	20.5	58	26.4
6"	150	Z3113UF-MM	10-1/2	267	11 1/8	282.5	8 1/8	206.25	7	177.8	31 1/8	790	30.8	93	42
8"	200	Z3113UF-MM	11-1/2	292	13 1/2	343	10 1/4	260.8	9 1/8	232.4	38 3/8	974	33.8	124	56.2
10"	250	Z3113UF-MM	13	330	15 15/16	404.62	12 3/8	314.96	11 3/16	284.5	46 5/8	1185	42.4	257	116.6
12"	300	Z3113UF-MM	14	356	18	457.2	14 1/2	368.3	13 5/16	337.8	54 1/8	1375	50.8	341	154.8