



# PROTON FIRE UK LTD

## VALVES

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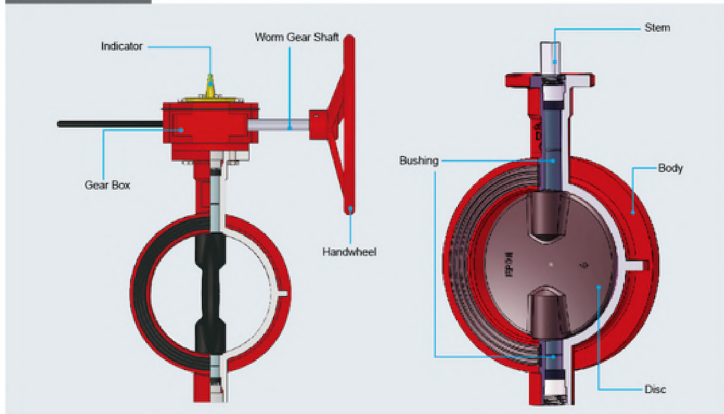
# BUTTERFLY VALVE C/W SIGNAL GEARBOX – WAFER END

## Technical Features -

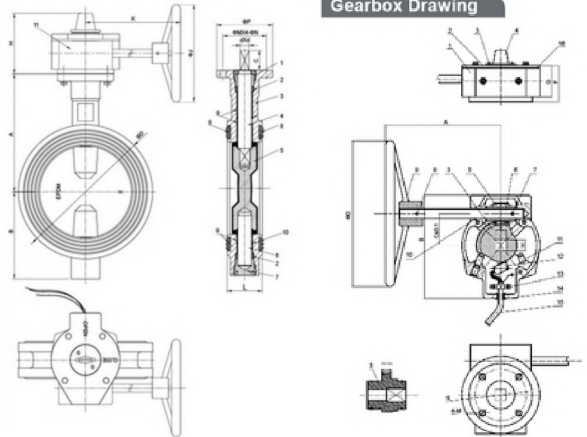
- Connection: Wafer End
- Sizes: 2", 2 1/2", 3", 4", 5", 6", 8", 10", 12"
- Approval: UL
- Maximum Working Pressure: 300 PSI (Maximum Testing Pressure: 600 PSI) conforms to UL1091
- Maximum Working Temperature: 80°C / 176°F
- Application: Indoor & Outdoor Use, Fire inflow water, drain pipe, high-rising building fire fighting system, industrial factory building fire protection system
- Coating Details: Epoxy coated interior and exterior by Electrostatic Spray or coating upon request
- Disc: Ductile Iron EPDM Rubber Encapsulated
- Top Flange Standard: ISO 5211
- Certified lead-free by NSF/ ANSI 61 & NSF/ ANSI 372 is available



## 3D Pictures



## Gearbox Drawing



NO.	Description	Material
1	Upper Shaft Sealing Nut	WCB
2	Shaft Seal	EPDM
3	Body	Ductile Iron
4	Upper Shaft	416 Stainless Steel
5	Disc+Rubber Seat	Ductile Iron+EPDM
6	Lower Shaft	416 Stainless Steel
7	Lower Shaft Sealing Nut	WCB
8	End Face Seal	EPDM
9	Stem Bushing	PTFE / C95400
10	O-Ring	EPDM
11	Gearbox	

## Dimensions

Size	A	B	C	D	H	K	J	P	M	N	d	L	
2"	110	85	32	100	111	153	218	152	90	70	9	10	42
2½"	125	95	32	112	111	153	218	152	90	70	9	10	44.2
3"	140	100	32	120	111	153	218	152	90	70	9	11	45.3
4"	160	100	32	161	111	153	218	152	90	70	9	14	52
5"	170	125	32	182	111	153	218	152	90	70	9	14	54.4
6"	190	140	32	216	111	153	218	200	90	70	9	16	55.8
8"	230	175	32	260	126	210	232	300	125	102	12	19	60.5
10"	260	200	45	320	126	210	232	300	125	102	12	24	66.5
12"	300	240	45	375	161	249	350	150	125	14	26	76.9	

## Gearbox Material List

NO.	Description	Material
1	Gear Body	Ductile Iron
2	Gear Cover	Ductile Iron
3	Worm Wheel	Ductile Iron
4	Indicator	Ductile Iron
5	Worm	Steel
6	Handwheel Shaft	Steel
7	Pin	416 Stainless Steel
8	Pin	416 Stainless Steel
9	Handwheel	Ductile Iron
10	O-Ring	EPDM
11	Set Screw	Steel
12	Signal Switch	Switch Assembly
13	Clip	Nylon
14	Sealing Ring	EPDM
15	Wire	Wire
16	Gasket	EPDM

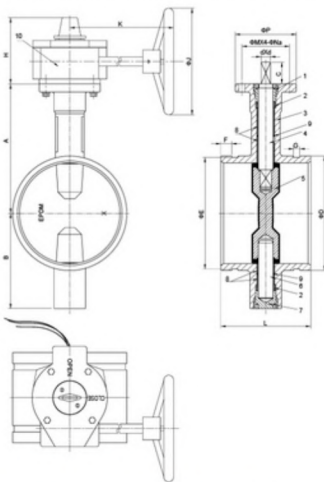
## Dimensions

Gearbox	Valve	A	B	C	D	E	F	G	H	M	
24:1	2"-2½"	153	218	164	45	152	70	65	58	10	M8
24:1	3"	153	218	164	45	152	70	65	58	11	M8
24:1	4"-5"	153	218	164	45	152	70	65	58	14	M8
24:1	6"	153	218	164	45	200	70	65	58	16	M8
30:1	8"	210	232	205	63	300	102	79	67	19	M10
30:1	10"	210	232	205	63	300	102	79	67	22	M10
80:1	12"	249	284	120	350	125	118	110	24	M12	

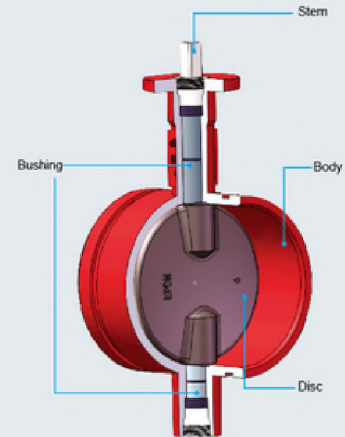
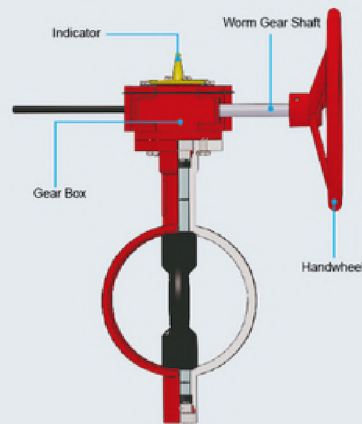
# BUTTERFLY VALVE C/W SIGNAL GEARBOX – GROOVED END

## Technical Features -

- *Conforms: ANSI / AWWA C606 or Metric Standard Clear Waterway design*
- *Connection: Grooved End*
- *Sizes: 2", 2 1/2", 3", 4", 5", 6", 8", 10", 12"*
- *Approvals: UL*
- *Maximum Working Pressure: 300 PSI (Maximum Testing Pressure: 600 PSI) conforms to UL1091*
- *Maximum Working Temperature: 80°C / 176°F*
- *Application: Indoor & Outdoor Use, Fire inflow water, drain pipe, high-rising building fire fighting system, industrial factory building fire protection system*
- *Coating Details: Epoxy coated interior and exterior by Electrostatic Spray or coating upon request*
- *Disc: Ductile Iron EPDM Rubber Encapsulated*
- *Top Flange Standard: ISO 5211*
- *Certified lead-free by NSF/ ANSI 61 & NSF/ ANSI 372 is available*



## 3D Pictures



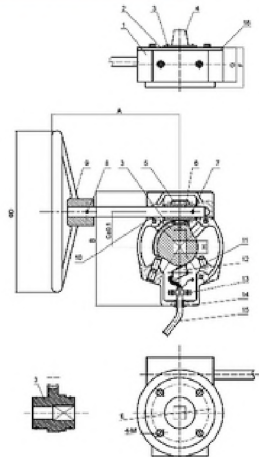
## Valve Material List

NO.	Description	Material
1	Upper Shaft Sealing Nut	WCB
2	Shaft Seal	EPDM
3	Body	Ductile Iron
4	Upper Shaft	416 Stainless Steel
5	Disc+Rubber Seat	Ductile Iron+EPDM
6	Lower Shaft	416 Stainless Steel
7	Lower Shaft Sealing Nut	WCB
8	Stem Bushing	PTFE / C95400
9	O-Ring	EPDM
10	Gearbox	

## Dimensions

Size	A	B	C	D	E	F	G	H	K	J	P	M	N	d	L	
2"	110	85	32	60.3	57.15	15.9	7.9	111	153	218	152	90	70	9	10	81 88
2½"	125	95	32	73 76.1	69.1 72.3	15.9	7.9	111	153	218	152	90	70	9	10	96.4
3"	140	100	32	88.9	84.9	15.9	7.9	111	153	218	152	90	70	9	11	97
4"	160	100	32	114.3	110.1	15.9	9.5	111	153	218	152	90	70	9	14	115.1
5"	170	125	32	139.7 141.3	135.5 137	15.9	9.5	111	153	218	152	90	70	9	14	132.4 148
6"	190	140	32	165.1 168.3	160.9 164	15.9	9.5	111	153	218	200	90	70	9	16	132.4 148
8"	230	175	32	219.1 216.3	214.4 211.6	19	11.1	126	210	232	300	125	102	12	19	133 147.4
10"	260	200	45	267.4 273	262.6 268.3	19	12.7	126	210	232	300	125	102	12	24	159
12"	300	240	45	318.5 323.8	312.9 318.3	19	12.7	161	249	350	150	125	114	26	165	

## Gearbox Drawing



## Gearbox Material List

NO.	Description	Material
1	Gear Body	Ductile Iron
2	Gear Cover	Ductile Iron
3	Worm Wheel	Ductile Iron
4	Indicator	Ductile Iron
5	Worm	Steel
6	Handwheel Shaft	Steel
7	Pin	416 Stainless Steel
8	Pin	416 Stainless Steel
9	Handwheel	Ductile Iron
10	O-Ring	EPDM
11	Set Screw	Steel
12	Signal Switch	Switch Assembly
13	Clip	Nylon
14	Sealing Ring	EPDM
15	Wire	Wire
16	Gasket	EPDM

## Dimensions

Gearbox	Valve	A	B	C	D	E	F	G	H	M	
24.1	2"-2½"	153	218	164	45	152	70	65	58	10	M8
24.1	3"	153	218	164	45	152	70	65	58	11	M8
24.1	4"-5"	153	218	164	45	152	70	65	58	14	M8
24.1	6"	153	218	164	45	200	70	65	58	16	M8
30.1	8"	210	232	205	63	300	102	79	67	19	M10
30.1	10"	210	232	205	63	300	102	79	67	22	M10
80.1	12"	249	284	120	350	125	118	110	24	M12	

## BUTTERFLY VALVE C/W SIGNAL GEARBOX - GROOVED END & GROOVED \* FLANGED END

### Technical Features-

- Conforms: ANSI / AWWA C606 or Metric Standard Clear Waterway design
- Connections: Grooved End / Grooved \* Flanged End / Flanged \* Grooved End
- Sizes: 2 1/2", 3", 4", 6", 8", 10"
- Approvals: UL
- Maximum Working Pressure: 175 PSI/ 300 PSI (Maximum Testing Pressure: 600 PSI) conforms to UL1091
- Maximum Working Temperature: 80°C / 176°F
- Application: Indoor & Outdoor Use, Fire inflow water, drain pipe, high-rising building fire fighting system, industrial factory building fire protection system
- Coating Details: Epoxy coated interior and exterior by Electrostatic Spray or coating upon request
- Disc: Ductile Iron EPDM Rubber Encapsulated
- Top Flange Standard: ISO 5211
- Certified lead-free by NSF/ ANSI 61 & NSF/ ANSI 372 is available

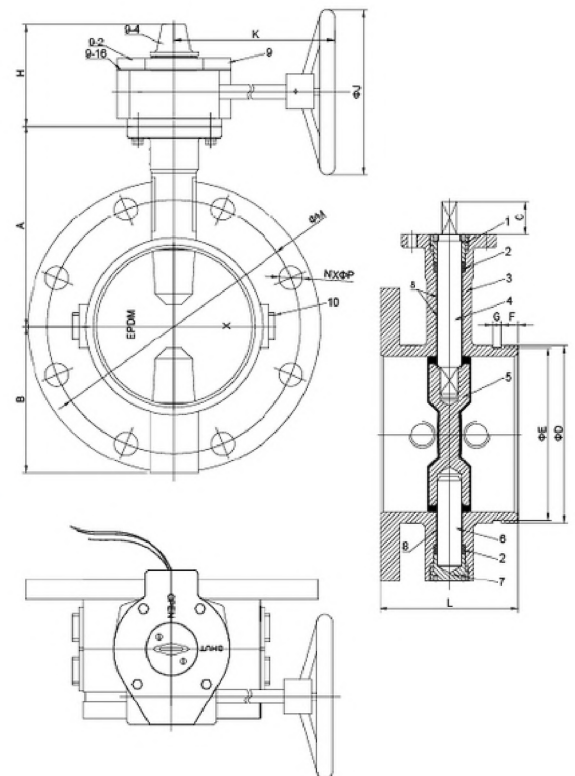


### Valve Material List

NO.	Description	Material
1	Upper Shaft Sealing Nut	WCB
2	Shaft Seal	EPDM
3	Body	Ductile Iron
4	Upper Shaft	416 Stainless Steel
5	Disc+Rubber Seat	Ductile Iron+FPDM
6	Lower Shaft	416 Stainless Steel
7	Lower Shaft Sealing Nut	WCB
8	Stem Bushing	PTFE / C95400
9	Signal Gearbox	
10	Plug	C95400

### Dimensions

Size	A	B	C	D	E	F	G	H	K	J	L	M	N	P
2 1/2"	125	95	32	73	69.1	15.9	7.9	111	153	152	152.4	139.7	4	19
				76.1	72.3									
3"	140	100	32	88.9	84.9	15.9	7.9	111	153	152	158.8	152.5	4	19
4"	160	100	32	114.3	110.1	15.9	9.5	111	153	152	168.4	190.5	8	19
6"	190	140	32	165.1	160.9	15.9	9.5	111	153	200	177.8	241.3	8	22
				168.3	164									
8"	230	175	32	219.1	214.4	19	11.1	126	230	290	203	298.5	8	22
				216.3	211.6									
10"	260	200	45	267.4	262.6	19	12.7	126	230	290	203	362	12	25.4
				273	268.3									



## RESILIENT WEDGE OS & Y GATE VALVE - FLANGED END

### Technical Features -

- Nominal Pressure: 200PSI
- Flange Standard: ASME / ANSI B16.1 Class 125 or ASME / ANSI B16.42 Class 150 or BS EN1092-2 PN16
- Sizes: 2 1/2", 3", 4", 5", 6", 8", 10", 12" with UL
- Approvals: UL
- Maximum Working Pressure: 200PSI (Maximum Testing Pressure: 400PSI) conforms to UL 262
- Maximum Working Temperature: 80°C / 176°F
- Coating Details: Epoxy coated interior and exterior by Electrostatic Spray or Coating upon request
- NPT plug on body with 2 operating nuts

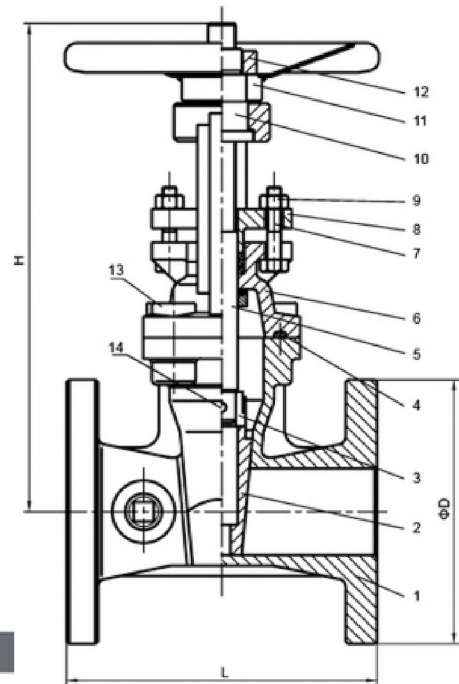


### Valve Material List

NO.	Name	Material
1	Body	Ductile Iron
2	Disc	Ductile Iron +EPDM
3	Connecting Part	C95400
4	Sealing Pad	EPDM
5	Stem	Stainless Steel 304
6	Yoke	Ductile Iron
7	Bolt	Steel 1045
8	Gland	Ductile Iron
9	Nut	Steel 1045
10	Rotating Nut	C95400
11	Handwheel	Steel 1045
12	Lock Nut	Steel 1045
13	Countersunk Head Bolt	Steel 1045
14	Cylinder Pin	Stainless Steel 304

### Dimensions

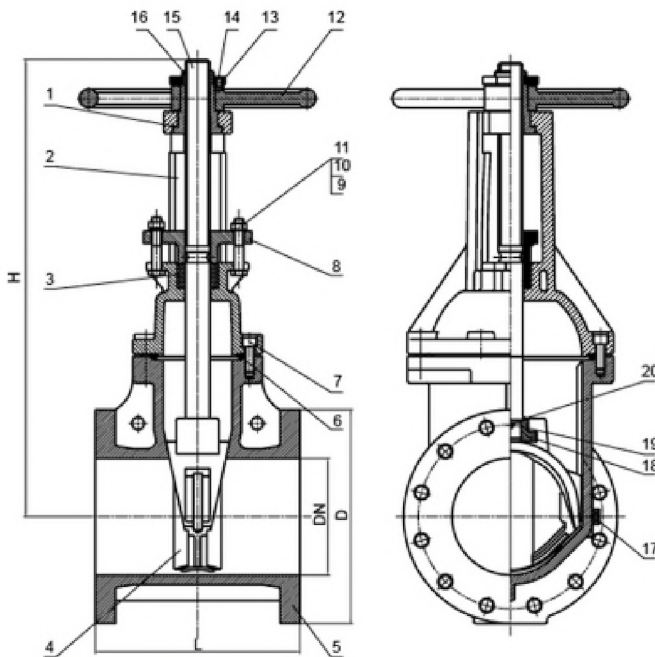
Size	L	H	øD
2"	178	313	152
2 1/2"	190	340	178
3"	203	387	191
4"	229	440	229
5"	254	546	254
6"	267	607	279
8"	292	786	343
10"	330	946	406
12"	356	1110	483



## RESILIENT WEDGE OS & Y GATE VALVE - FLANGED END

### Technical Features -

- Nominal Pressure: 300PSI
- Confirms ANSI/AWWA C515 Standard
- Flange Standard: ASME / ANSI B 16.1 Class 125 or ASME / ANSI B 16.42 Class 150 or BS EN 1092-2 PN 16
- Sizes: 2 1/2", 3", 4", 5", 6", 8", 10", 12"
- Face to Face Standard : ASME B 16.10
- Approvals: UL
- Maximum Working Pressure: 300PSI (Maximum Testing Pressure: 600PSI) conforms to UL 262
- Maximum Working Temperature: 80°C / 176°F
- Coating Details: Epoxy coated interior and exterior by Electrostatic Spray or Coating upon request
- NPT plug on body with 2 operating nuts



### Dimensions

Size	DN	L	D	H
2 1/2"	65	190	178	370
3"	80	203	191	420
4"	100	229	229	447
5"	125	254	254	547
6"	150	267	279	607
8"	200	292	343	754
10"	250	330	406	890
12"	300	356	483	1031

### Valve Material List

NO.	Name	Material
1	Gasket	C95400
2	Bonnet	Ductile Iron
3	Packing	Graphite
4	Disc	Ductile Iron +EPDM
5	Body	Ductile Iron
6	Sealing Ring	EPDM
7	Bolt	Steel 1045
8	Gland	Ductile Iron
9	Nut	Steel 1045
10	Flat Washer	Steel 1045
11	Bolt	Steel 1045
12	Handwheel	Ductile Iron
13	Lock Nut	C95400
14	Locating Screw	Stainless Steel 304
15	Stem	Stainless Steel 304
16	Stem Nut	C95400
17	Plug	C95400
18	Lifting Nut	CF8
19	Pin	Stainless Steel 304
20	Sealing Ring	EPDM

## RESILIENT WEDGE OS&Y GATE VALVE – FLANGED X GROOVED END

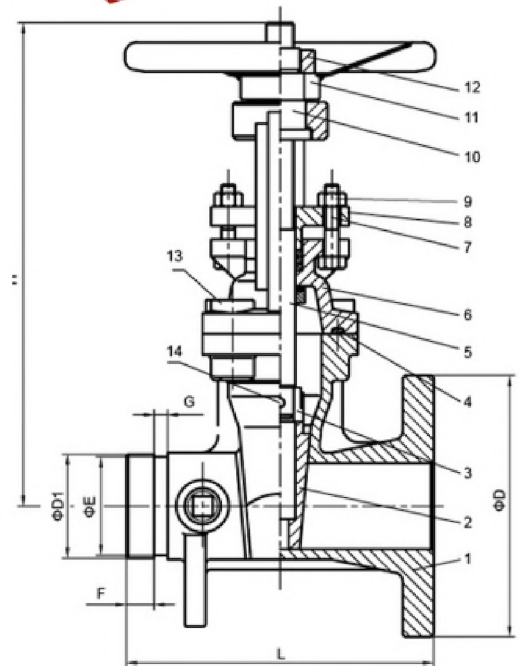
### Technical Features -

- Nominal Pressure: 200PSI
- Flange Standard: ASME / ANSI B16.1 Class 125 or ASME / ANSI B16.42 Class 150 or BS EN1092-2 PN16
- Groove standard : ANSI / AWWA C606 or Metric
- Face to Face Standard: ASME B16.10
- Sizes: 2½", 3", 4", 5", 6", 8", 10", 12"
- Approvals: UL
- Maximum Working Pressure: 200 PSI (Maximum Testing Pressure: 400PSI) conforms to UL 262
- Maximum Working Temperature: 80°C / 176°F
- Coating Details: Epoxy coated interior and exterior by Electrostatic Spray or Coating upon request
- NPT plug on body with 2 operating nuts



### Valve Material List

NO.	Name	Material
1	Body	Ductile Iron
2	Disc	Ductile Iron +EPDM
3	Connecting Part	C95400
4	Sealing Pad	EPDM
5	Stem	Stainless Steel 304
6	Yoke	Ductile Iron
7	Bolt	Steel 1045
8	Gland	Ductile Iron
9	Nut	Steel 1045
10	Rotating Nut	C95400
11	Handwheel	Steel 1045
12	Lock Nut	Steel 1045
13	Countersunk Head Bolt	Steel 1045
14	Cylinder Pin	Stainless Steel 304



### Dimensions

Size	L	H	øD	øD1	øE	F	G
2"	178	313	152	60.3	57.2	15.9	7.9
2½"	190	340	178	76.1	72.3	15.9	7.9
3"	203	387	191	88.9	84.9	15.9	7.9
4"	229	440	229	114.3	110.1	15.9	9.5
5"	254	546	254	141.3	137	15.9	9.5
6"	267	607	279	168.3	163.9	15.9	9.5
8"	292	786	343	219.1	214.4	19	11.1
10"	330	946	406	273	268.3	19	12.7
12"	356	1110	483	323.9	318.3	19	12.7

## RESILIENT WEDGE OS&Y GATE VALVE - GROOVED END

### Technical Features -

- Nominal Pressure: 200PSI
- Groove Standard : ANSI / AWWA C606 or Metric
- Face to Face Standard: ASME B16.10
- Sizes: 2½", 3", 4", 5", 6", 8", 10", 12"
- Approvals: UL
- Maximum Working Pressure: 200PSI (Maximum Testing Pressure: 400 PSI) conforms to UL 262
- Maximum Working Temperature: 80°C / 176°F
- Coating Details: Epoxy coated interior and exterior by Electrostatic Spray or Coating upon request
- NPT plug on body with 2 operating nuts

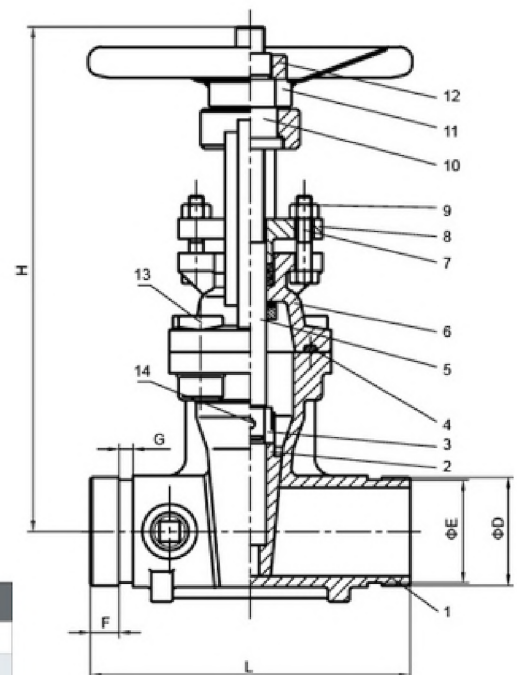


### Valve Material List

NO.	Name	Material
1	Body	Ductile Iron
2	Disc	Ductile Iron +EPDM
3	Connecting Part	C95400
4	Sealing Pad	EPDM
5	Stem	Stainless Steel 304
6	Yoke	Ductile Iron
7	Bolt	Steel 1045
8	Gland	Ductile Iron
9	Nut	Steel 1045
10	Rotating Nut	C95400
11	Handwheel	Steel 1045
12	Lock Nut	Steel 1045
13	Countersunk Head Bolt	Steel 1045
14	Cylinder Pin	Stainless Steel 304

### Dimensions

Size	L	H	øD	øE	F	G
2"	178	313	60.3	57.2	15.9	7.9
2½"	190	340	76.1	72.3	15.9	7.9
3"	203	387	88.9	84.9	15.9	7.9
4"	229	440	114.3	110.1	15.9	9.5
5"	254	546	141.3	137	15.9	9.5
6"	267	607	168.3	163.9	15.9	9.5
8"	292	786	219.1	214.4	19	11.1
10"	330	946	273	268.3	19	12.7
12"	356	1110	323.9	318.3	19	12.7





## RESILIENT WEDGE NRS GATE VALVE – FLANGED END

### Technical Features -

- Nominal Pressure: 200PSI
- Flange Standard: ASME / ANSI B16.1 Class 125 or ASME / ANSI B16.42 Class 150 or BS EN1092-2 PN16
- Face to Face Standard: ASME B16.10
- Sizes: 2 ½" 3", 4", 5", 6", 8", 10", 12"
- Approvals: UL
- Maximum Working Pressure: 200PSI (Maximum Testing Pressure: 400PSI) conforms to UL 262
- Maximum Working Temperature: 80°C / 176°F
- Coating Details: Epoxy coated interior and exterior by Electrostatic Spray or Coating upon request
- NPT plug on body with 2 operating nuts

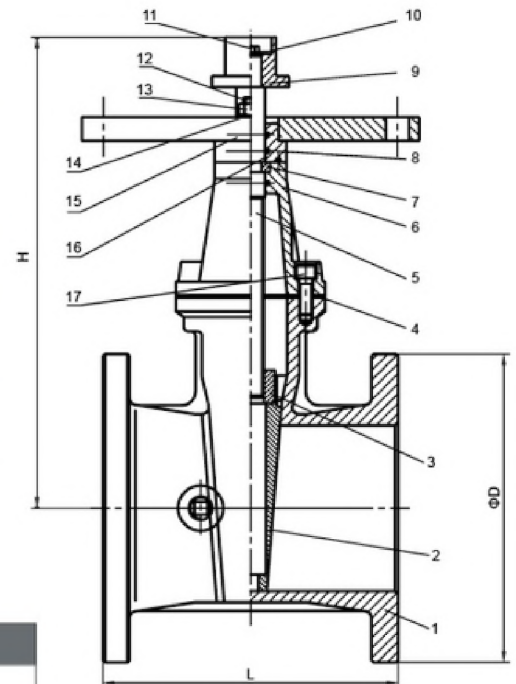


### Valve Material List

NO.	Name	Material
1	Body	Ductile Iron
2	Disc	Ductile Iron+EPDM
3	Nut	C95400
4	Gasket	EPDM
5	Stem	Stainless Steel 304
6	Cap	Ductile Iron
7	Retainer Ring	C95400
8	O-ring	EPDM
9	Wrench Nut	Ductile Iron
10	Minipad	Steel 1045
11	Bolt	Steel 1045
12	Stud	Steel 1045
13	Nut	Steel 1045
14	Flat Washer	Steel 1045
15	Coupling Flange	Ductile Iron
16	Platen	Ductile Iron
17	Countersunk Head Bolt	Steel 1045

### Dimensions

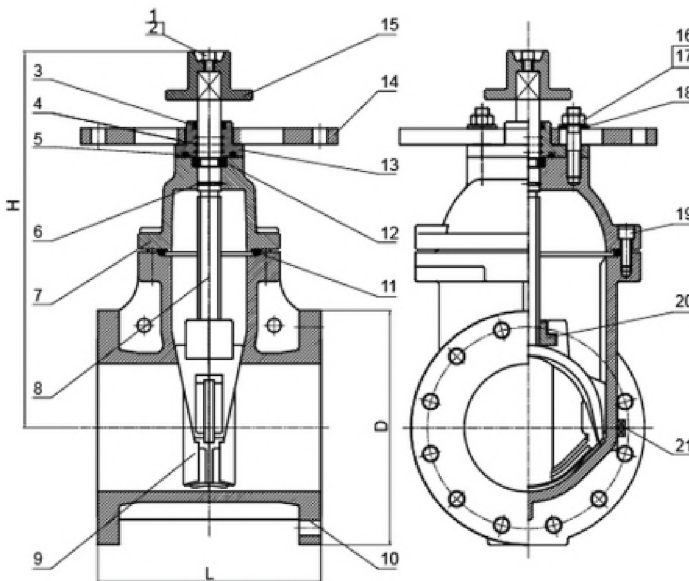
Size	L	H	øD
2"	178	265	152
2½"	190	289	178
3"	203	326	190
4"	229	355	229
5"	254	410	254
6"	267	455	279
8"	292	558	343
10"	330	648	406
12"	356	745	483



## RESILIENT WEDGE NRS GATE VALVE – FLANGED END

### Technical Features -

- Nominal Pressure: 300PSI
- Flange Standard: ASME / ANSI B16.1 Class 125 or ASM/ EANS I B16.42 Class 150 or BS EN1092-2 PN16
- Sizes: 2 ½", 3", 4", 5", 6", 8", 10", 12"
- Face to Face Standard: ASME B16.10
- Approvals: UL
- Maximum Working Pressure: 300PSI (Maximum Testing Pressure: 600PSI) conforms to UL262
- Maximum Working Temperature: 80°C / 176°F
- Coating Details: Epoxy coated interior and exterior by Electrostatic Spray or Coating upon request
- NPT plug on body with 2 operating nuts
- Certified lead-free by NSF / ANSI 61 & NSF / ANSI 372 is available



### Valve Material List

NO.	Name	Material
1	Flat Washer	Steel 1045 or Stainless Steel 304
2	Inner Hexagon Screw	Steel 1045 or Stainless Steel 304
3	Sealing Gland	EPDM
4	O-Ring	EPDM
5	Sealing Ring	EPDM
6	O-Ring	EPDM
7	Bonnet	Ductile Iron
8	Stem	Stainless Steel 304
9	Disc	Ductile Iron +EPDM
10	Body	Ductile Iron
11	Sealing Ring	EPDM
12	Retaining Ring	C95400
13	Gland	Ductile Iron
14	Terminal Pad	Ductile Iron
15	Link Block	Ductile Iron
16	Nut	Stainless Steel 304 or Steel 1045
17	Studs	Stainless Steel 304 or Steel 1045
18	Washer	Steel 1045
19	Inner Hexagon Screw	Steel 1045
20	Master Screw	C95400
21	Plug	C95400

### Dimensions

Size	DN	L	D	H
2½"	65	190	178	292
3"	80	203	191	322
4"	100	229	229	342
5"	125	254	254	412
6"	150	267	279	448
8"	200	292	343	534
10"	250	330	406	635
12"	300	356	483	720

## RESILIENT WEDGE NRS GATE VALVE – FLANGED X GROOVED END

### Technical Features -

- Nominal Pressure: 200PSI
- Flange Standard: ASME / ANSI B16.1 Class 125 or ASME / ANSI B16.42 Class 150 or BS EN1092-2 PN16
- Groove standard: ANSI / AWWA C606 or Metric
- Face to Face Standard: ASME B16.10.
- Sizes: 2", 2½", 3", 4", 5", 6", 8", 10", 12"
- Approvals: UL
- Maximum Working Pressure: 200PSI (Maximum Testing Pressure: 400PSI) conforms to UL 262
- Maximum Working Temperature: 80°C / 176°F
- Coating Details: Epoxy coated interior and exterior by Electrostatic Spray or Coating upon request
- NPT plug on body with 2 operating nuts

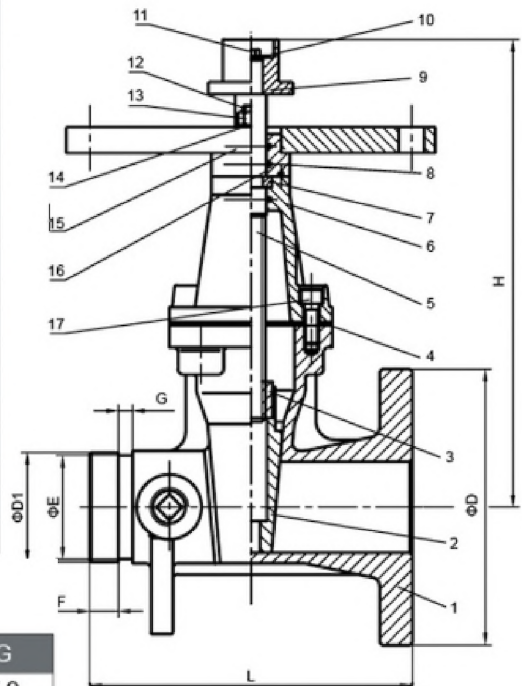


### Valve Material List

NO.	Name	Material
1	Body	Ductile Iron
2	Disc	Ductile Iron+EPDM
3	Nut	C95400
4	Gasket	EPDM
5	Stem	Stainless Steel 304
6	Cap	Ductile Iron
7	Retainer Ring	C95400
8	O-ring	EPDM
9	Wrench Nut	Ductile Iron
10	Minipad	Steel 1045
11	Bolt	Steel 1045
12	Stud	Steel 1045
13	Nut	Steel 1045
14	Flat Washer	Steel 1045
15	Coupling Flange	Ductile Iron
16	Platen	Ductile Iron
17	Countersunk Head Bolt	Steel 1045

### Dimensions

Size	L	H	øD	øD1	øE	F	G
2"	178	265	152	60.3	57.15	15.9	7.9
2½"	190	289	178	76.1	72.3	15.9	7.9
3"	203	326	191	88.9	84.9	15.9	7.9
4"	229	355	229	114.3	110.1	15.9	9.5
5"	254	410	254	141.3	137	15.9	9.5
6"	267	455	279	168.3	163.9	15.9	9.5
8"	292	558	343	219.1	214.4	19	11.1
10"	330	648	406	273	268.3	19	12.7
12"	356	745	483	323.9	318.3	19	12.7



## RESILIENT WEDGE NRS GATE VALVE – GROOVED END

### Technical Features -

- Nominal Pressure: 200PSI
- Groove standard : ANSI / AWWA C606 or Metric
- Face to Face Standard: ASME B16.10
- Sizes: 2", 2 ½ ", 3", 4", 5", 6", 8", 10", 12"
- Approvals: UL
- Maximum Working Pressure: 200PSI (Maximum Testing Pressure: 400PSI) conforms to UL 262
- Maximum Working Temperature: 80°C / 176°F
- Coating Details: Epoxy coated interior and exterior by Electrostatic Spray or Coating upon request
- NPT plug on body with 2 operating nuts

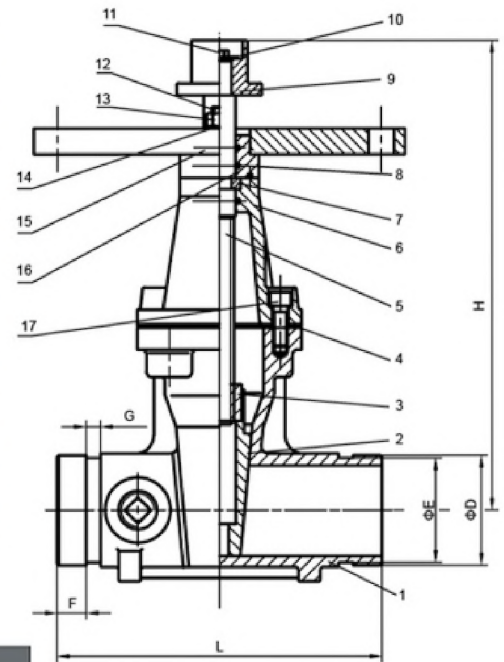


### Valve Material List

NO.	Name	Material
1	Body	Ductile Iron
2	Disc	Ductile Iron+EPDM
3	Nut	C95400
4	Gasket	EPDM
5	Stem	Stainless Steel 304
6	Cap	Ductile Iron
7	Retainer Ring	C95400
8	O-ring	EPDM
9	Wrench Nut	Ductile Iron
10	Minipad	Steel 1045
11	Bolt	Steel 1045
12	Stud	Steel 1045
13	Nut	Steel 1045
14	Flat Washer	Steel 1045
15	Coupling Flange	Ductile Iron
16	Platen	Ductile Iron
17	Countersunk Head Bolt	Steel 1045

### Dimensions

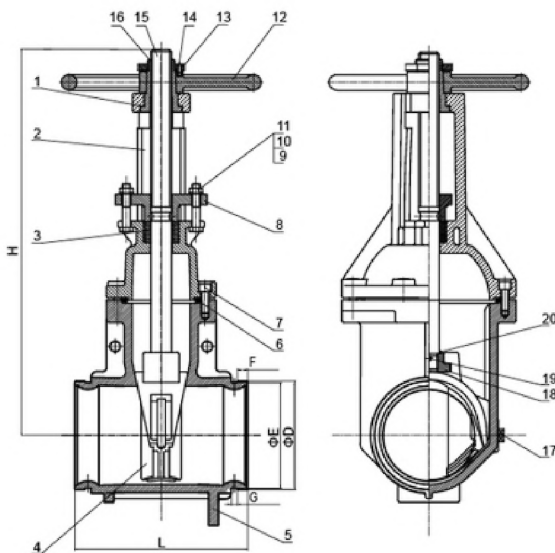
Size	L	H	øD	øE	F	G
2"	178	265	60.3	57.15	15.9	7.9
2½"	190	289	76.1	72.3	15.9	7.9
3"	203	326	88.9	84.9	15.9	7.9
4"	229	355	114.3	110.1	15.9	9.5
5"	254	410	141.3	137	15.9	9.5
6"	267	455	168.3	163.9	15.9	9.5
8"	292	558	219.1	214.4	19	11.1
10"	330	648	273	268.3	19	12.7
12"	356	745	323.9	318.3	19	12.7



## RESILIENT WEDGE OS & Y GATE VALVE – GROOVED END

### Technical Features -

- Nominal Pressure: 300PSI
- Confirms ANSI/AWWA C515 Standard
- Groove standard: Metric or ANSI / AWWA C606
- Face to Face Standard: ASME B16.10
- Sizes: 2", 3", 4", 5", 6", 8", 10", 12"
- Approvals: UL
- Maximum Working Pressure: 300PSI (Maximum Testing Pressure: 600PSI) conforms to UL 262
- Maximum Working Temperature: 80°C / 176°F
- Coating Details: Epoxy coated interior and exterior by Electrostatic Spray or Coating upon request
- NPT plug on body with 2 operating nuts



### Valve Material List

NO.	Name	Material
1	Gasket	Stainless Steel 304 or C95400
2	Bonnet	Ductile Iron
3	Packing	Graphite
4	Disc	Ductile Iron +EPDM
5	Body	Ductile Iron
6	Sealing Ring	EPDM
7	Bolt	Stainless Steel 304 or Steel 1045
8	Gland	Ductile Iron
9	Nut	Stainless Steel 304 or Steel 1045
10	Flat Washer	Stainless Steel 304 or Steel 1045
11	Bolt	Stainless Steel 304 or Steel 1045
12	Handwheel	Ductile Iron
13	Lock Nut	C95400
14	Locating Screw	Stainless Steel 304 or Steel 1045
15	Stem	Stainless Steel 304 or C95400
16	Stem Nut	C95400
17	Plug	C95400
18	Lifting Nut	CF8/CF8M or C95400
19	Pin	Stainless Steel 304
20	Sealing Ring	EPDM

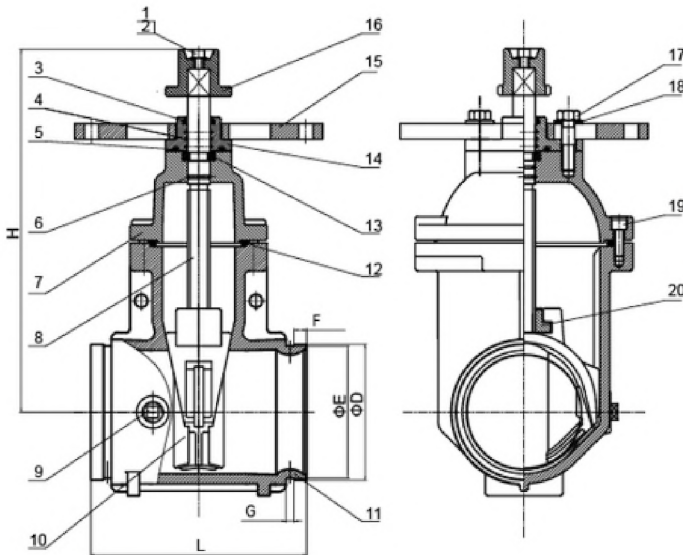
### Dimensions

Size	DN	L	F	D	E	G	H
2½"	65	190	15.9	73	69.1	7.9	370
				76.1	72.3		
3"	80	203	15.9	88.9	84.9	7.9	420
4"	100	229	15.9	114.3	110.1	9.5	447
5"	125	254	15.9	139.7	135.5	9.5	547
				141.3	137		
6"	150	267	15.9	165.1	160.8	9.5	607
				168.3	163.9		
8"	200	292	19	216.3	211.6	11.1	754
10"	250	330	19	273	268.3	12.7	890
				219.1	214.3		
12"	300	356	19	323.9	318.3	12.7	1031

## RESILIENT WEDGE NRS GATE VALVE – GROOVED END

### Technical Features -

- Nominal Pressure: 300PSI
- Groove standard: Metric or ANSI / AWWA C606
- Face to Face Standard: ASME B16.10
- Sizes: 2", 3", 4", 5", 6", 8", 10", 12"
- Approvals: UL
- Maximum Working Pressure: 300PSI (Maximum Testing Pressure: 600 PSI) conforms to UL262
- Maximum Working Temperature: 80°C / 176°F
- Coating Details: Epoxy coated interior and exterior by Electrostatic Spray or Coating upon request
- NPT plug on body with 2 operating nuts



### Dimensions

Size	DN	L	F	D	E	G	H
2½"	65	190	15.9	73	69.1	7.9	292
				76.1	72.3		
3"	80	203	15.9	88.9	84.9	7.9	322
4"	100	229	15.9	114.3	110.1	9.5	342
5"	125	254	15.9	139.7	135.5	9.5	412
				141.3	137		
6"	150	267	15.9	165.1	160.8	9.5	448
				168.3	163.9		
8"	200	292	19	216.3	211.6	11.1	534
				219.1	214.3		
10"	250	330	19	273	268.3	12.7	635
12"	300	356	19	323.9	318.3	12.7	720

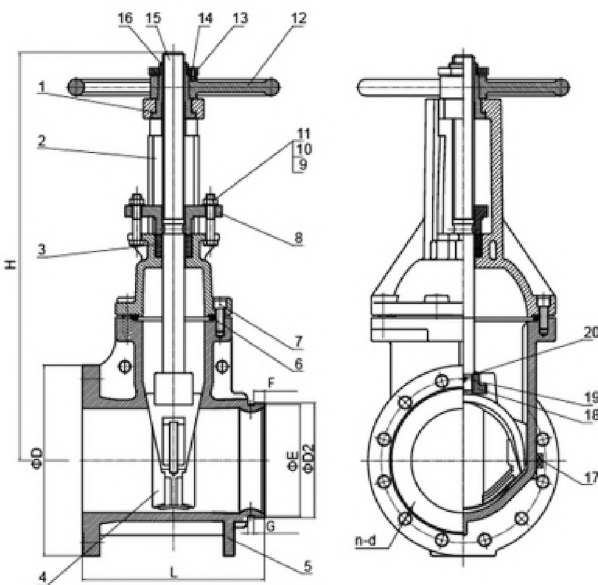
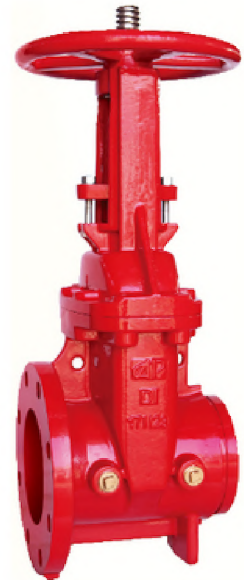
### Valve Material List

NO.	Name	Material
1	Flat Washer	Steel 1045 or Stainless Steel 304
2	Hexagon Socket Screw	Steel 1045 or Stainless Steel 304
3	Sealing Ring	EPDM
4	O-Ring	EPDM
5	Sealing Ring	EPDM
6	O-Ring	EPDM
7	Bonnet	Ductile Iron
8	Stem	Stainless Steel 304 or C95400
9	Plug	Stainless Steel 304 or C95400
10	Disc	Ductile Iron +EPDM
11	Body	Ductile Iron
12	Sealing Ring	EPDM
13	Retaining Ring	C95400
14	Gland	Ductile Iron
15	Post Flange	Ductile Iron
16	Wrench Nut	Ductile Iron
17	Bolt	Stainless Steel 304 or Steel 1045
	Washer	Stainless Steel 304 or Steel 1045
19	Hexagon Socket Screw	Steel 1045 or Stainless Steel 304
20	Stem Nut	CF8 or C95400

## RESILIENT WEDGE OS & Y GATE VALVE – FLANGED X GROOVED END

### Technical Features -

- Nominal Pressure: 300PSI
- Face to Face Standard: ASME B16.10
- Sizes: 2 ½", 3", 4", 5", 6", 8", 10", 12"
- Flange Standard: ASME / ANSI B16.1 Class 125 or ASME/ ANSI B16.42 Class 150 or BS EN1092-2 PN16
- Groove Standard: Metric or ANSI / AWWA C606
- Approvals: UL
- Maximum Working Pressure: 300PSI (Maximum Testing Pressure: 600PSI) conforms to UL262
- Maximum Working Temperature: 80°C / 176°F
- Coating Details: Epoxy coated interior and exterior by Electrostatic Spray or Coating upon request
- NPT plug on body with 2 operating nuts



### Valve Material List

NO.	Name	Material
1	Gasket	Stainless Steel 304 or C95400
2	Bonnet	Ductile Iron
3	Packing	Graphite
4	Disc	Ductile Iron +EPDM
5	Body	Ductile Iron
6	Sealing Ring	EPDM
7	Bolt	Stainless Steel 304 or Steel 1045
8	Gland	Ductile Iron
9	Nut	Stainless Steel 304 or Steel 1045
10	Flat Washer	Stainless Steel 304 or Steel 1045
11	Bolt	Stainless Steel 304 or Steel 1045
12	Handwheel	Ductile Iron
13	Lock Nut	C95400
14	Locating Screw	Stainless Steel 304 or Steel 1045
15	Stem	Stainless Steel 304 or C95400
16	Stem Nut	C95400
17	Plug	C95400
18	Lifting Nut	CF8 or C95400
19	Pin	Stainless Steel 304
20	Sealing Ring	EPDM

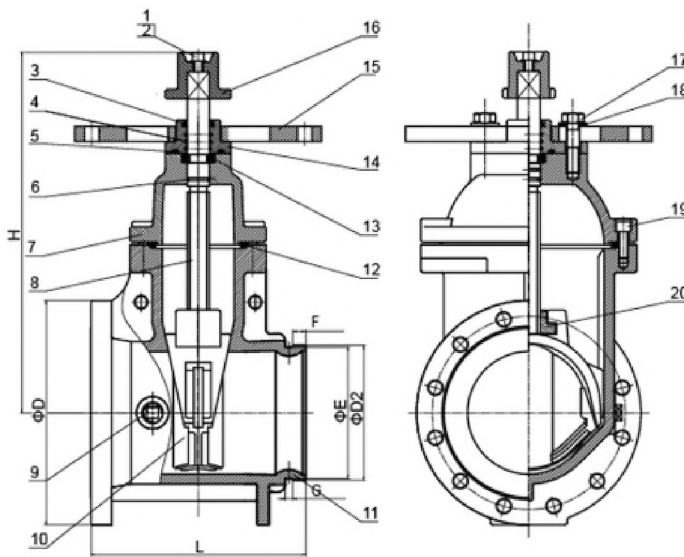
### Dimensions

Size	DN	L	D	F	D2	E	G	H
2½"	65	190	178	15.9	73	69.1	7.9	370
					76.1	72.3		
3"	80	203	191	15.9	88.9	84.9	7.9	420
4"	100	229	229	15.9	114.3	110.1	9.5	447
5"	125	254	254	15.9	139.7	135.5	9.5	547
					141.3	137		
6"	150	267	279	15.9	165.1	160.8	9.5	607
					168.3	163.9		
8"	200	292	343	19	216.3	211.6	11.1	754
					219.1	214.3		
10"	250	330	406	19	273	268.3	12.7	890
12"	300	356	483	19	323.9	318.3	12.7	1031

## RESILIENT WEDGE NRS GATE VALVE – GROOVED X FLANGED END

### Technical Features -

- Nominal Pressure: 300PSI
- Face to Face Standard ASME B16.10
- Sizes: 3", 4", 5", 6", 8", 10", 12"
- Flange Standard: ASME / ANSI B16.1 Class 125 or ASME/ ANSI B16.42 Class 150 or BS EN1092-2 PN16
- Groove Standard: Metric or ANSI / AWWA C606
- Approvals: UL
- Maximum Working Pressure: 300PSI (Maximum Testing Pressure: 600PSI) conforms to UL262
- Maximum Working Temperature: 80°C / 176°F
- Coating Details: Epoxy coated interior and exterior by Electrostatic Spray or Coating upon request
- NPT plug on body with 2 operating nuts



### Valve Material List

NO.	Name	Material
1	Flat Washer	Steel 1045 or Stainless Steel 304
2	Hexagon Socket Screw	Steel 1045 or Stainless Steel 304
3	Sealing Ring	EPDM
4	O-Ring	EPDM
5	Sealing Ring	EPDM
6	O-Ring	EPDM
7	Bonnet	Ductile Iron
8	Stem	Stainless Steel 304 or C95400
9	Plug	Stainless Steel 304 or C95400
10	Disc	Ductile Iron +EPDM
11	Body	Ductile Iron
12	Sealing Ring	EPDM
13	Retaining Ring	C95400
14	Gland	Ductile Iron
15	Post Flange	Ductile Iron
16	Wrench Nut	Ductile Iron
17	Bolt	Stainless Steel 304 or Steel 1045
18	Washer	Stainless Steel 304 or Steel 1045
19	Hexagon Socket Screw	Steel 1045 or Stainless Steel 304
20	Stem Nut	CF8 or C95400

### Dimensions

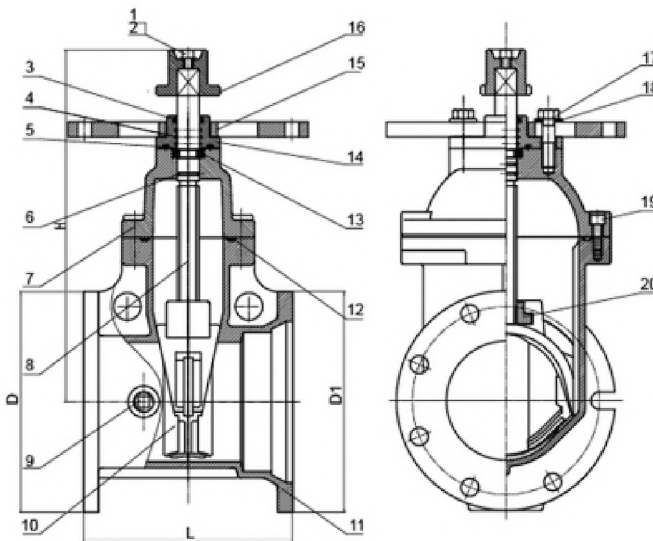
Size	DN	L	D	F	D2	E	G	H
3"	80	203	191	15.9	88.9	84.9	7.9	322
4"	100	229	229	15.9	114.3	110.1	9.5	342
5"	125	254	254	15.9	139.7	135.5	9.5	412
					141.3	137		
6"	150	267	279	15.9	165.1	160.8	9.5	448
					168.3	163.9		
8"	200	292	343	19	216.3	211.6	11.1	534
					219.1	214.3		
10"	250	330	406	19	273	268.3	12.7	635
12"	300	356	483	19	323.9	318.3	12.7	720



**RESILIENT WEDGE NRS GATE VALVE – FLANGED X MECHANICAL JOINT END**

**Technical Features -**

- Nominal Pressure: 300PSI
- Conforms: ANSI / AWWA C515 Standard
- Sizes: 3", 4", 6", 8", 10", 12"
- Flange Standard: ASME / ANSI B16.1 Class 125 or ASME / ANSI B16.42 Class 150 or BS EN1092-2 PN16 or GB / T9113.1
- Mechanical Standard : ANSI / AWWA 110 or ANSI / AWWA C153
- Approvals: UL
- Maximum Working Pressure: 300PSI (Maximum Testing Pressure: 600PSI) conforms to UL262
- Maximum Working Temperature: 80°C / 176°F
- Coating Details: Epoxy coated interior and exterior by Electrostatic Spray or Coating upon request
- NPT plug on body with 1 operating nut
- With and Without Post Flange are available



**Valve Material List**

NO.	Name	Material
1	Flat Washer	Steel 1045 or Stainless Steel 304
2	Hexagon Socket Screw	Steel 1045 or Stainless Steel 304
3	Sealing Ring	EPDM
4	O-Ring	EPDM
5	Sealing Ring	EPDM
6	O-Ring	EPDM
7	Bonnet	Ductile Iron
8	Stem	Stainless Steel 304 or Steel 1045
9	Plug	Stainless Steel 304 or Steel 1045
10	Disc	Ductile Iron +EPDM
11	Body	Ductile Iron
12	Sealing Ring	EPDM
13	Retaining Ring	C95400
14	Gland	Ductile Iron
15	Post Flange	Ductile Iron
16	Wrench Nut	Ductile Iron
17	Bolt	Stainless Steel 304 or Steel 1045
18	Washer	Stainless Steel 304 or Steel 1045
19	Hexagon Socket Screw	Steel 1045 or Stainless Steel 304
20	Stem Nut	CF8 or C95400

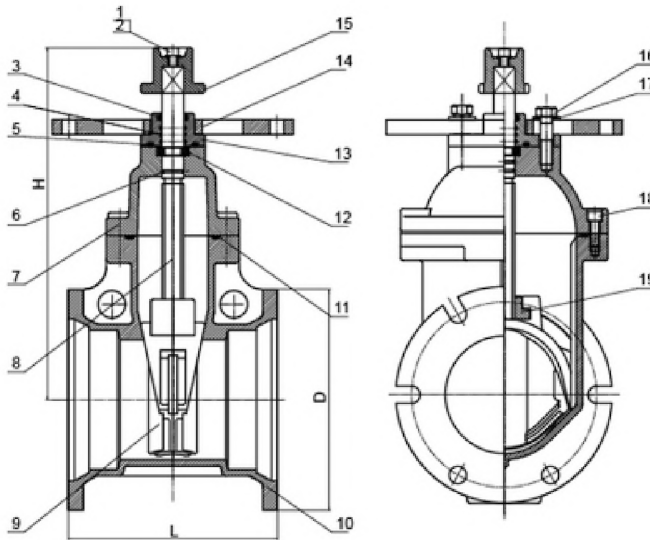
**Dimensions**

Size	DN	L	D	D1	H
3"	80	203	191	195	322
4"	100	229	229	232	342
6"	150	267	279	282	448
8"	200	292	343	340	534
10"	250	330	406	399	635
12"	300	356	483	456	720

## RESILIENT WEDGE NRS GATE VALVE – MECHANICAL JOINT X MECHANICAL JOINT END

### Technical Features -

- Nominal Pressure: 300PSI
- Conforms: ANSI / AWWA C515 Standard
- Sizes: 3", 4", 6", 8", 10", 12"
- Mechanical Standard : ANSI / AWWA 110 or ANSI / AWWA C153
- Approvals: UL
- Maximum Working Pressure: 300PSI (Maximum Testing Pressure: 600 PSI) conforms to UL262
- Maximum Working Temperature: 80°C / 176°F
- Coating Details: Epoxy coated interior and exterior by Electrostatic Spray or Coating upon request
- Certified lead-free by NSF / ANSI 61 & NSF / ANSI 372 is available
- With and Without Post Flange are available



### Valve Material List

NO.	Name	Material
1	Flat Washer	Steel 1045 or Stainless Steel 304
2	Hexagon Socket Screw	Steel 1045 or Stainless Steel 304
3	Sealing Ring	EPDM
4	O-Ring	EPDM
5	Sealing Ring	EPDM
6	O-Ring	EPDM
7	Bonnet	Ductile Iron
8	Stem	Stainless Steel 304 or Steel 1045
9	Plug	Stainless Steel 304 or Steel 1045
10	Disc	Ductile Iron +EPDM
11	Body	Ductile Iron
12	Sealing Ring	EPDM
13	Retaining Ring	C95400
14	Gland	Ductile Iron
15	Post Flange	Ductile Iron
16	Wrench Nut	Ductile Iron
17	Bolt	Stainless Steel 304 or Steel 1045
18	Washer	Stainless Steel 304 or Steel 1045
19	Hexagon Socket Screw	Steel 1045 or Stainless Steel 304
20	Stem Nut	CF8 or C95400

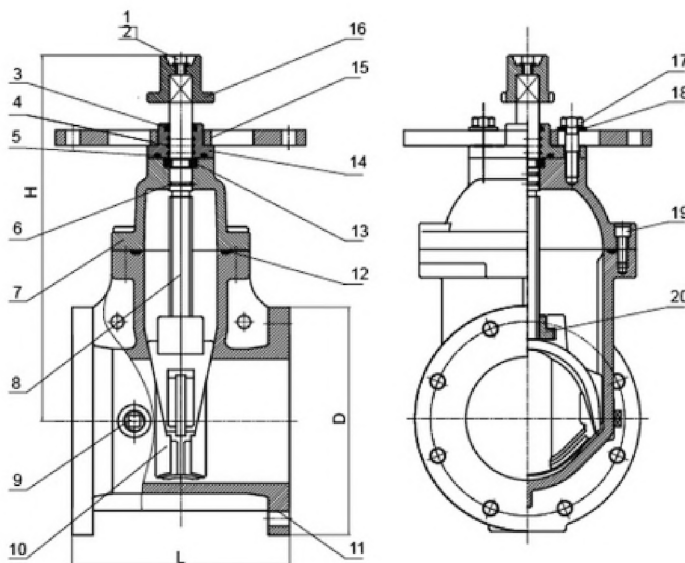
### Dimensions

Size	DN	L	D	H
3"	80	203	195	322
4"	100	229	232	342
6"	150	267	282	448
8"	200	292	340	534
10"	250	330	399	635
12"	300	356	456	720

## RESILIENT WEDGE NRS GATE VALVE – FLANGED END

### Technical Features -

- Nominal Pressure: 300PSI
- Conforms: ANSI / AWWA C515 Standard
- Face to Face Standard : ASME B16.10
- Sizes: 2 ½", 3", 4", 5", 6", 8", 10", 12"
- Flange Standard: ASME / ANSI B16.1 Class 125 or ASME / ANSI B16.42 Class 150 or BS EN1092-2 PN16 or GB / T9113.1
- Approvals: UL
- Maximum Working Pressure: 300PSI (Maximum Testing Pressure: 600 PSI) conforms to UL262
- Maximum Working Temperature: 80°C / 176°F
- Coating Details: Epoxy coated interior and exterior by Electrostatic Spray or Coating upon request
- NPT plug on body with 2 operating nuts



### Valve Material List

NO.	Name	Material
1	Flat Washer	Steel 1045 or Stainless Steel 304
2	Hexagon Socket Screw	Steel 1045 or Stainless Steel 304
3	Sealing Ring	EPDM
4	O-ring	EPDM
5	Sealing Ring	EPDM
6	O-ring	EPDM
7	Bonnet	Ductile Iron
8	Stem	Stainless Steel 304 or Steel 1045
9	Plug	Stainless Steel 304 or Steel 1045
10	Disc	Ductile Iron +EPDM
11	Body	Ductile Iron
12	Sealing Ring	EPDM
13	Retaining Ring	C95400
14	Gland	Ductile Iron
15	Post Flange	Ductile Iron
16	Wrench Nut	Ductile Iron
17	Bolt	Stainless Steel 304 or Steel 1045
18	Washer	Stainless Steel 304 or Steel 1045
19	Hexagon Socket Screw	Steel 1045 or Stainless Steel 304
20	Stem Nut	CF8 or C95400

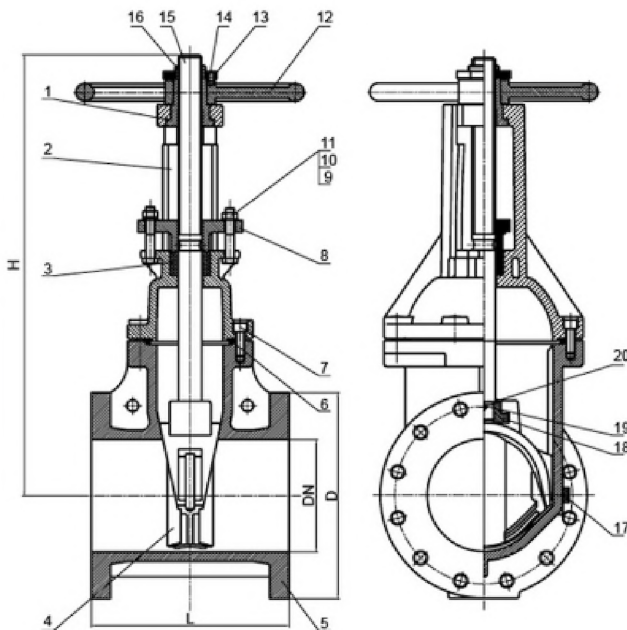
### Dimensions

Size	DN	L	D	H
2½"	65	190	178	292
3"	80	203	191	322
4"	100	229	229	342
5"	125	254	254	412
6"	150	267	279	448
8"	200	292	343	534
10"	250	330	406	635
12"	300	356	483	720

## RESILIENT WEDGE OS & Y GATE VALVE – FLANGED END

### Technical Features -

- Nominal Pressure: 300PSI
- Conforms: ANSI / AWWA C515 Standard
- Face to Face Standard : ASME B16.10
- Sizes: 2 ½", 3", 4", 5", 6", 8", 10", 12"
- Flange Standard: ASME / ANSI B16.1 Class 125 or ASME / ANSI B16.42 Class 150 or BS EN1092-2 PN16
- Approvals: UL
- Maximum Working Pressure: 300PSI (Maximum Testing Pressure: 600 PSI) conforms to UL262
- Maximum Working Temperature: 80°C / 176°F
- Coating Details: Epoxy coated interior and exterior by Electrostatic Spray or Coating upon request
- NPT plug on body with 2 operating nuts



### Valve Material List

NO.	Name	Material
1	Gasket	Stainless Steel 304 or C95400
2	Bonnet	Ductile Iron
3	Packing	Graphite
4	Disc	Ductile Iron +EPDM
5	Body	Ductile Iron
6	Sealing Ring	EPDM
7	Bolt	Stainless Steel 304 or Steel 1045
8	Gland	Ductile Iron
9	Nut	Stainless Steel 304 or Steel 1045
10	Flat Washer	Stainless Steel 304 or Steel 1045
11	Bolt	Stainless Steel 304 or Steel 1045
12	Handwheel	Ductile Iron
13	Lock Nut	C95400
14	Locating Screw	Stainless Steel 304 or Steel 1045
15	Stem	Stainless Steel 304 or C95400
16	Stem Nut	C95400
17	Plug	C95400
18	Lifting Nut	CF8 or C95400
19	Pin	Stainless Steel 304
20	Sealing Ring	EPDM

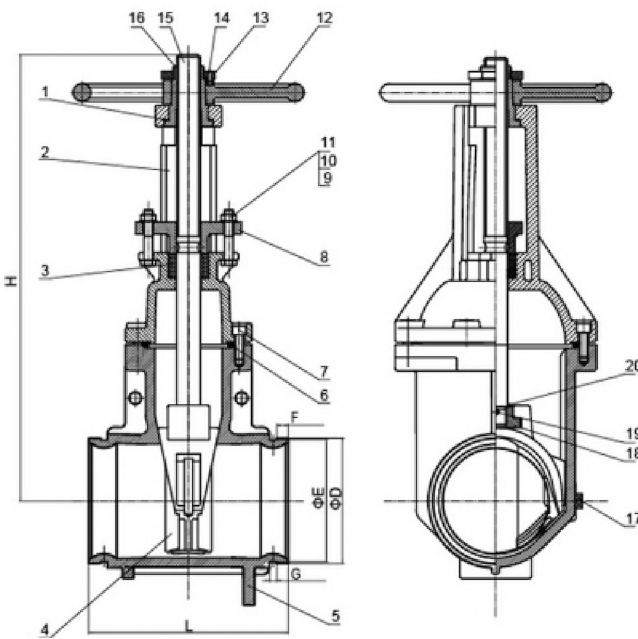
### Dimensions

Size	DN	L	D	H
2½"	65	190	178	370
3"	80	203	191	420
4"	100	229	229	447
5"	125	254	254	547
6"	150	267	279	607
8"	200	292	343	754
10"	250	330	406	890
12"	300	356	483	1031

## RESILIENT WEDGE OS & Y GATE VALVE --- GROOVED END

### Technical Features -

- Nominal Pressure: 300PSI
- Conforms: ANSI / AWWA C515 Standard
- Groove Standard: ANSI / AWWA C606 or Metric
- Face to Face Standard: ASME B16.10
- Sizes: 2 1/2", 3", 4", 5", 6", 8", 10", 12"
- Approvals: UL
- Maximum Working Pressure: 300PSI (Maximum Testing Pressure: 600 PSI) conforms to UL262
- Maximum Working Temperature: 80°C / 176°F
- Coating Details: Epoxy coated interior and exterior by Electrostatic Spray or Coating upon request
- NPT plug on body with 2 operating nuts



### Valve Material List

NO.	Name	Material
1	Gasket	Stainless Steel 304 or C95400
2	Bonnet	Ductile Iron
3	Packing	Graphite
4	Disc	Ductile Iron +EPDM
5	Body	Ductile Iron
6	Sealing Ring	EPDM
7	Bolt	Stainless Steel 304 or Steel 1045
8	Gland	Ductile Iron
9	Nut	Stainless Steel 304 or Steel 1045
10	Flat Washer	Stainless Steel 304 or Steel 1045
11	Bolt	Stainless Steel 304 or Steel 1045
12	Handwheel	Ductile Iron
13	Lock Nut	C95400
14	Locating Screw	Stainless Steel 304 or Steel 1045
15	Stem	Stainless Steel 304 or C95400
16	Stem Nut	C95400
17	Plug	C95400
18	Lifting Nut	CF8 or C95400
19	Pin	Stainless Steel 304
20	Sealing Ring	EPDM

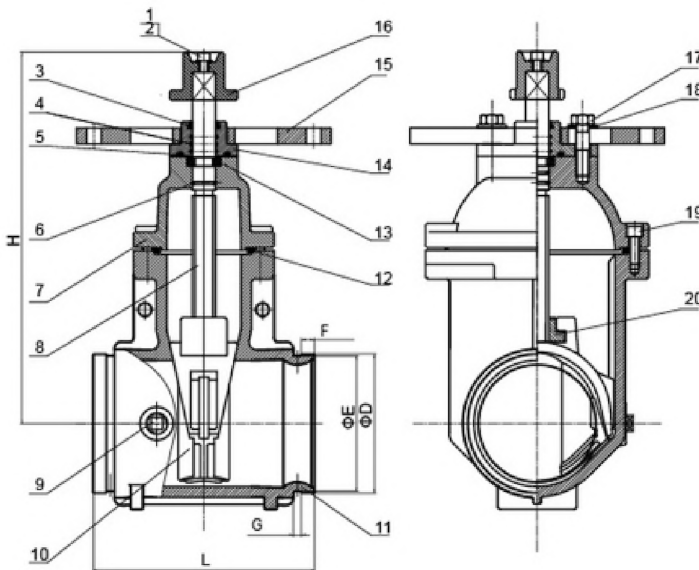
### Dimensions

Size	DN	L	F	D	E	G	H
2 1/2"	65	190	15.9	73	69.1	7.9	370
				76.1	72.3		
3"	80	203	15.9	88.9	84.9	7.9	420
4"	100	229	15.9	114.3	110.1	9.5	447
5"	125	254	15.9	139.7	135.5	9.5	547
				141.3	137		
6"	150	267	15.9	165.1	160.8	9.5	607
				168.3	163.9		
8"	200	292	19	216.3	211.6	11.1	754
				219.1	214.3		
10"	250	330	19	273	268.3	12.7	890
12"	300	356	19	323.9	318.3	12.7	1031

## RESILIENT WEDGE OS & Y GATE VALVE --- GROOVED END

### Technical Features -

- Nominal Pressure: 300PSI
- Conforms: ANSI / AWWA C515 Standard
- Groove Standard: ANSI / AWWA C606 or Metric
- Face to Face Standard: ASME B16.10
- Sizes: 2 1/2", 3", 4", 5", 6", 8", 10", 12"
- Approvals: UL
- Maximum Working Pressure: 300PSI (Maximum Testing Pressure: 600 PSI) conforms to UL262
- Maximum Working Temperature: 80°C / 176°F
- Coating Details: Epoxy coated interior and exterior by Electrostatic Spray or Coating upon request
- NPT plug on body with 2 operating nuts
- Certified lead-free by NSF / ANSI 61 & NSF / ANSI 372 is available
- With and Without Post Flange are available



### Dimensions

Size	DN	L	F	D	E	G	H
2 1/2"	65	190	15.9	73	69.1	7.9	292
				76.1	72.3		
3"	80	203	15.9	88.9	84.9	7.9	322
4"	100	229	15.9	114.3	110.1	9.5	342
5"	125	254	15.9	139.7	135.5	9.5	412
				141.3	137		
6"	150	267	15.9	165.1	160.8	9.5	448
				168.3	163.9		
8"	200	292	19	216.3	211.6	11.1	534
				219.1	214.3		
10"	250	330	19	273	268.3	12.7	635
12"	300	356	19	323.9	318.3	12.7	720

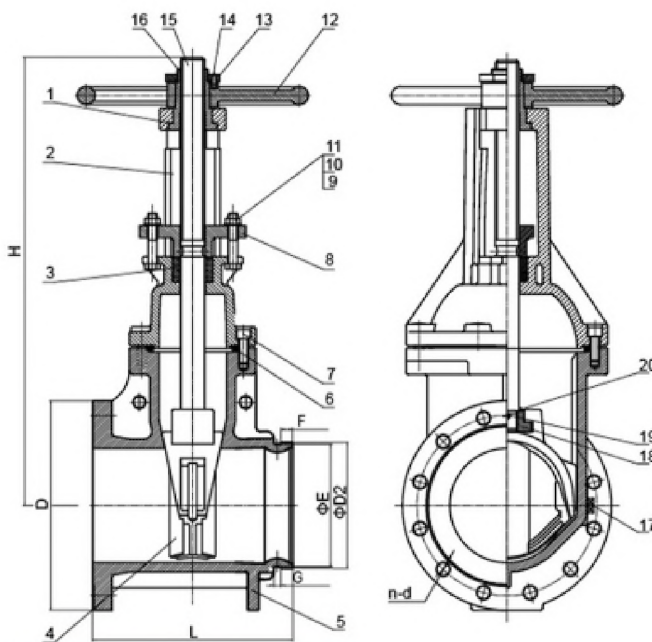
### Valve Material List

NO.	Name	Material
1	Flat Washer	Steel 1045 or Stainless Steel 304
2	Hexagon Socket Screw	Steel 1045 or Stainless Steel 304
3	Sealing Ring	EPDM
4	O-ring	EPDM
5	Sealing Ring	EPDM
6	O-ring	EPDM
7	Bonnet	Ductile Iron
8	Stem	Stainless Steel 304 or Steel 1045
9	Plug	Stainless Steel 304 or Steel 1045
10	Disc	Ductile Iron +EPDM
11	Body	Ductile Iron
12	Sealing Ring	EPDM
13	Retaining Ring	C95400
14	Gland	Ductile Iron
15	Post Flange	Ductile Iron
16	Wrench Nut	Ductile Iron
17	Bolt	Stainless Steel 304 or Steel 1045
18	Washer	Stainless Steel 304 or Steel 1045
19	Hexagon Socket Screw	Steel 1045 or Stainless Steel 304
20	Stem Nut	CF8 or C95400

## RESILIENT WEDGE OS & Y GATE VALVE – FLANGED X GROOVED END

### Technical Features -

- Nominal Pressure: 300PSI
- Conforms: ANSI / AWWA C515 Standard
- Face to Face Standard : ASME B16.10
- Sizes: 2 ½", 3", 4", 5", 6", 8", 10", 12"
- Flange Standard: ASME / ANSI B16.1 Class 125 or ASM/ ANSI B16.42
- Class 150 or BS EN1092-2 PN16
- Groove Standard: ANSI / AWWA C606 or Metric
- Approvals: UL
- Maximum Working Pressure: 300PSI (Maximum Testing Pressure: 600PSI) conforms to UL262
- Maximum Working Temperature: 80°C / 176°F
- Coating Details: Epoxy coated interior and exterior by Electrostatic Spray or Coating upon request
- NPT plug on body with 2 operating nuts



### Dimensions

Size	DN	L	D	F	D2	E	G	H
2½"	65	190	178	15.9	73	69.1	7.9	370
					76.1	72.3		
3"	80	203	191	15.9	88.9	84.9	7.9	420
4"	100	229	229	15.9	114.3	110.1	9.5	447
5"	125	254	254	15.9	139.7	135.5	9.5	547
					141.3	137		
6"	150	267	279	15.9	165.1	160.8	9.5	607
					168.3	163.9		
8"	200	292	343	19	216.3	211.6	11.1	754
					219.1	214.3		
10"	250	330	406	19	273	268.3	12.7	890
12"	300	356	483	19	323.9	318.3	12.7	1031

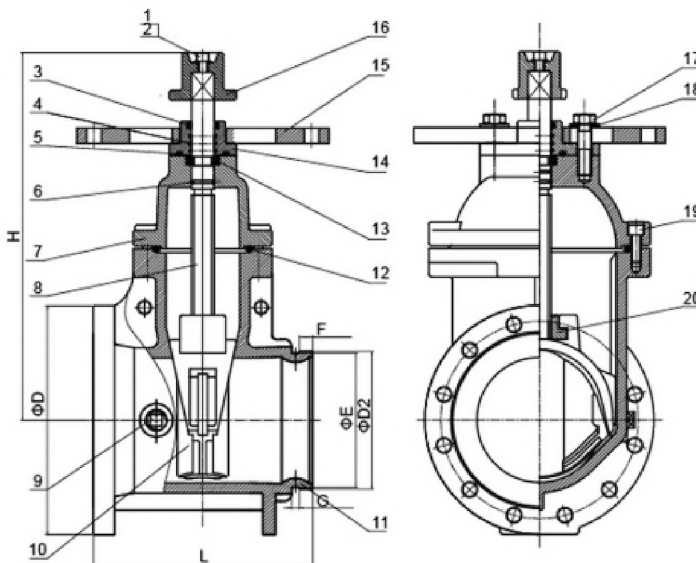
### Valve Material List

NO.	Name	Material
1	Gasket	Stainless Steel 304 or C95400
2	Bonnet	Ductile Iron
3	Packing	Graphite
4	Disc	Ductile Iron +EPDM
5	Body	Ductile Iron
6	Sealing Ring	EPDM
7	Bolt	Stainless Steel 304 or Steel 1045
8	Gland	Ductile Iron
9	Nut	Stainless Steel 304 or Steel 1045
10	Flat Washer	Stainless Steel 304 or Steel 1045
11	Bolt	Stainless Steel 304 or Steel 1045
12	Handwheel	Ductile Iron
13	Lock Nut	C95400
14	Locating Screw	Stainless Steel 304 or Steel 1045
15	Stem	Stainless Steel 304 or C95400
16	Stem Nut	C95400
17	Plug	C95400
18	Lifting Nut	CF8 or C95400
19	Pin	Stainless Steel 304
20	Sealing Ring	EPDM

## RESILIENT WEDGE NRS GATE VALVE – FLANGED X GROOVED END

### Technical Features -

- Nominal Pressure: 300PSI
- Conforms: ANSI / AWWA C515 Standard
- Flange Standard: ASME / ANSI B16.1 Class 125 or ASME / ANSI B16.42 Class 150 or BS EN1092-2 PN16
- Groove Standard: ANSI / AWWA C606 or Metric
- Face to Face Standard: ASME B16.10
- Sizes: 2 1/2", 3", 4", 5", 6", 8", 10", 12"
- Approvals: UL
- Maximum Working Pressure: 300PSI (Maximum Testing Pressure: 600PSI) conforms to UL262
- Maximum Working Temperature: 80°C / 176°F
- Coating Details: Epoxy coated interior and exterior by Electrostatic Spray or Coating upon request
- NPT plug on body with 2 operating nuts
- Certified lead-free by NSF / ANSI 61 & NSF / ANSI 372 is available
- With and Without Post Flange are available



### Valve Material List

NO.	Name	Material
1	Flat Washer	Steel 1045 or Stainless Steel 304
2	Hexagon Socket Screw	Steel 1045 or Stainless Steel 304
3	Sealing Ring	EPDM
4	O-Ring	EPDM
5	Sealing Ring	EPDM
6	O-Ring	EPDM
7	Bonnet	Ductile Iron
8	Stem	Stainless Steel 304 or Steel 1045
9	Plug	Stainless Steel 304 or Steel 1045
10	Disc	Ductile Iron +EPDM
11	Body	Ductile Iron
12	Sealing Ring	EPDM
13	Retaining Ring	C95400
14	Gland	Ductile Iron
15	Post Flange	Ductile Iron
16	Wrench Nut	Ductile Iron
17	Bolt	Stainless Steel 304 or Steel 1045
18	Washer	Stainless Steel 304 or Steel 1045
19	Hexagon Socket Screw	Steel 1045 or Stainless Steel 304
20	Stem Nut	CF8 or C95400

### Dimensions

Size	DN	L	D	F	D2	E	G	H
2 1/2"	65	190	178	15.9	73	69.1	7.9	292
					76.1	72.3		
3"	80	203	191	15.9	88.9	84.9	7.9	322
4"	100	229	229	15.9	114.3	110.1	9.5	342
5"	125	254	254	15.9	139.7	135.5	9.5	412
					141.3	137		
6"	150	267	279	15.9	165.1	160.8	9.5	448
					168.3	163.9		
8"	200	292	343	19	216.3	211.6	11.1	534
					219.1	214.3		
10"	250	330	406	19	273	268.3	12.7	635
12"	300	356	483	19	323.9	318.3	12.7	720



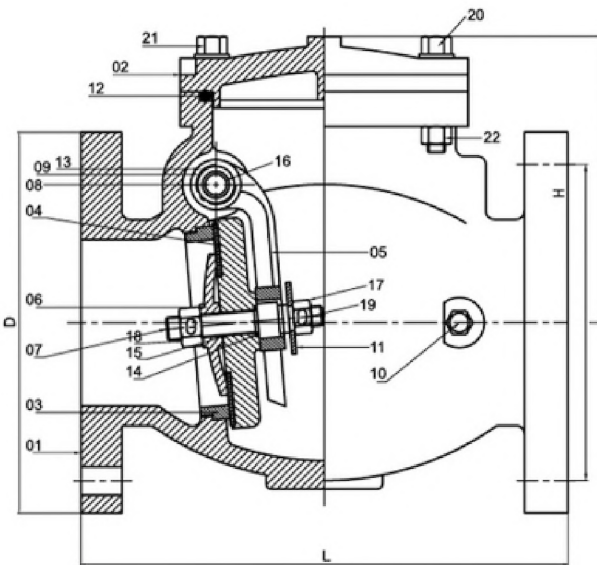
## FLANGED END SWING TYPE CHECK VALVE

### Technical Features -

- Nominal Pressure: 300PSI
- Conforms: AWWA C508
- Flange Standard: ASME / ANSI B16.1 Class 125 or ASME / ANSI B16.42 Class 150 or BS EN1092-2 PN16
- Sizes: 2", 2 1/2", 3", 4", 5", 6", 8", 10", 12"
- Face to Face Standard: ASME B16.10
- Approvals: UL
- Maximum Working Pressure: 300PSI (Maximum Testing Pressure: 600PSI conforms to UL 312)
- Working Temperature: 80°C / 176°F
- Coating Details: Epoxy coated interior and exterior by Electrostatic Spray or coating upon request

### Applications:

- Used both vertically and horizontally
- Used in one-way flow pipeline to prevent the water from back flow



### Valve Material List

NO.	Name	Material
1	Body	Ductile Iron
2	Bonnet	Ductile Iron
3	Seat Ring	C95400
4	Disc	Ductile Iron+EPDM
5	Rocker Arm	Ductile Iron
6	Baffle Plate	C95400
7	Middle Stem	Stainless Steel 304
8	Stem	Stainless Steel 304
9	Bracket Screw	Stainless Steel 304
10	Plug	C95400
11	Gasket	Stainless Steel 304
12	O-ring	EPDM
13	O-ring	EPDM
14	O-ring	EPDM
15	O-ring	EPDM
16	Bronze Bushing	Powder Metallurgy
17	Nut	Stainless Steel 304
18	Nut	Stainless Steel 304
19	Cotter Pin	Stainless Steel 304
20	Bolt	Steel 1045
21	Bolt	Steel 1045
22	Nut	Steel 1045

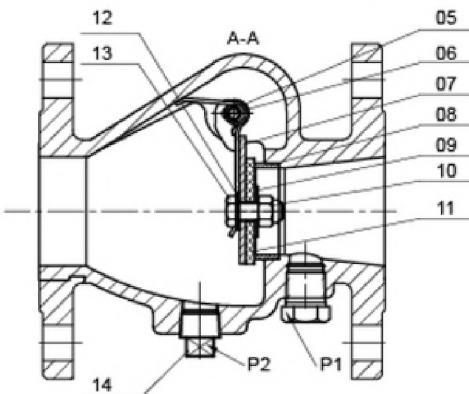
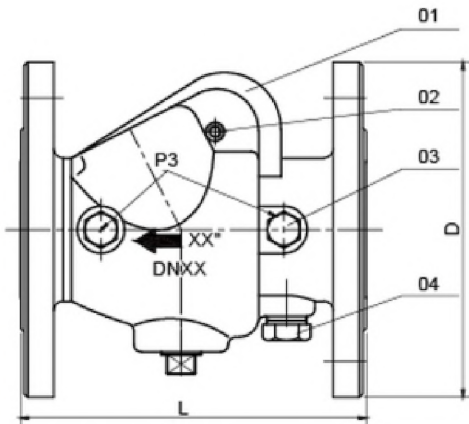
### Dimensions

Size	DN	L	D	H
2"	DN50	203	152	142
2 1/2"	DN65	216	178	148
3"	DN80	241	191	163.5
4"	DN100	292	229	172
5"	DN125	330	254	237
6"	DN150	356	279	233
8"	DN200	495	343	301
10"	DN250	622	406	348
12"	DN300	698	483	419

## FLANGED END TWIN CHECK VALVE

### Technical Features -

- Nominal Pressure: 350PSI
- Flange Standard: ASME/ANSI B16.1 Class 125 or ASME/ANSI B16.42
- Class 150 or BS EN1092-2 PN16
- Sizes: 2", 2 1/2", 3", 4", 5", 6", 8", 10", 12"
- Approvals: UL
- Maximum Working Pressure: 350 PSI (Maximum Testing Pressure: 700 PSI) conforms to UL 312
- Maximum Working Temperature: 80°C / 176°F
- Coating Details: Epoxy coated interior and exterior by Electrostatic Spray or Coating upon request Electrostatic Spray or Coating upon request
- Applications: Used in one-way flow pipeline to prevent the water from back flow



### Valve Material List

NO.	Name	Material	Standard
1	Valve Body	Ductile Iron	ASTM A536 65-45-12
2	Bolt	Steel 1045	ASTM A29
3	Plug	Steel 1045	ASTM A29
4	Plug	Steel 1045	ASTM A29
5	Spring	Stainless Steel 304	ASTM A276
6	Hinge Pin	Stainless Steel 304/Ductile Iron	ASTM A276/ASTM A536 65-45-12
7	Clapper	Stainless Steel 304	ASTM A276
8	Seat	C95400	ASTM A148
9	Clamping Ring	Stainless Steel 304	ASTM A276
10	Locknut	Stainless Steel 304	ASTM A276
11	Facing Seal	EPDM	ASTM D2000
12	Gasket	EPDM	ASTM D2000
13	Bolt	Stainless Steel 304	ASTM A276
14	Plug	Steel 1045	ASTM A29

### Dimensions

Size	L	D	P1			P2			P3			
			Rc 1/2-14	Rc 1/2-14	Rc 1/2-14	Rc 1-11	Rc 1-11	Rc 1-11	Rc 2-11	Rc 2-11	Rc 2-11	Rc 2-11
2"	169	152	Rc 1/2-14NPT	Rc 1/2-14NPT	Rc 1/2-14NPT	1-11.5NPT	1-11.5NPT	1-11.5NPT	2-11.5NPT	1/4-18NPT	1/4-18NPT	1/4-18NPT
2 1/2"	181	178	Rc 1/2-14NPT	Rc 1/2-14NPT	Rc 1/2-14NPT	1-11.5NPT	1-11.5NPT	1-11.5NPT	2-11.5NPT	1/4-18NPT	1/4-18NPT	1/4-18NPT
3"	198	191	Rc 1/2-14NPT	Rc 1/2-14NPT	Rc 1/2-14NPT	1-11.5NPT	1-11.5NPT	1-11.5NPT	2-11.5NPT	1/4-18NPT	1/4-18NPT	1/4-18NPT
4"	214	229	Rc 1/2-14NPT	Rc 1/2-14NPT	Rc 1/2-14NPT	1-11.5NPT	1-11.5NPT	1-11.5NPT	2-11.5NPT	1/4-18NPT	1/4-18NPT	1/4-18NPT
5"	248	254	Rc 1/2-14NPT	Rc 1/2-14NPT	Rc 1/2-14NPT	1-11.5NPT	1-11.5NPT	1-11.5NPT	2-11.5NPT	1/4-18NPT	1/4-18NPT	1/4-18NPT
6"	270	280	Rc 1/2-14NPT	Rc 1/2-14NPT	Rc 1/2-14NPT	1-11.5NPT	1-11.5NPT	1-11.5NPT	2-11.5NPT	1/4-18NPT	1/4-18NPT	1/4-18NPT
8"	325	343	Rc 1/2-14NPT	Rc 1/2-14NPT	Rc 1/2-14NPT	1-11.5NPT	1-11.5NPT	1-11.5NPT	2-11.5NPT	1/4-18NPT	1/4-18NPT	1/4-18NPT
10"	457	406	Rc 1/2-14NPT	Rc 1/2-14NPT	Rc 1/2-14NPT	1-11.5NPT	1-11.5NPT	1-11.5NPT	2-11.5NPT	1/4-18NPT	1/4-18NPT	1/4-18NPT
12"	535	483	Rc 1/2-14NPT	Rc 1/2-14NPT	Rc 1/2-14NPT	1-11.5NPT	1-11.5NPT	1-11.5NPT	2-11.5NPT	1/4-18NPT	1/4-18NPT	1/4-18NPT

## GROOVED END SWING TYPE CHECK VALVE

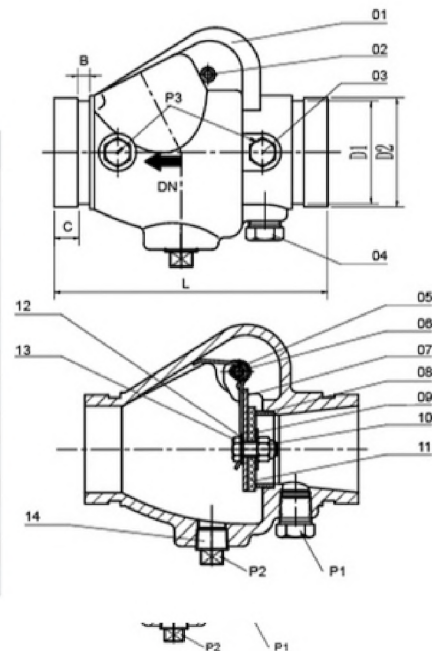
### Technical Features -

- Nominal Pressure: 350PSI
- Groove standard : ANSI / AWWA C606 or Metric
- Sizes: 2", 2 1/2", 3", 4", 5", 6", 8", 10", 12"
- Approvals: UL
- Flange Standard: ASME / ANSI B16.1 Class 125 or ASME / ANSI B16.42 Class 150 or BS EN1092-2 PN16
- Maximum Working Pressure: 350PSI (Maximum Testing Pressure: 700 PSI) conforms to UL 312
- Maximum Working Temperature: 80°C / 176°F
- Coating Details: Epoxy coated interior and exterior by Electrostatic Spray or coating upon request
- Applications: Used in one-way flow pipeline to prevent the water from back flow
- Other Connections: Flange\*Flange; Groove\*Flange; Flange\*Groove



### Valve Material List

NO.	Name	Material
1	Valve Body	Ductile Iron
2	Bolt	Steel 1045
3	Plug	Steel 1045
4	Plug	Steel 1045
5	Spring	Stainless Steel 304
6	Hinge Pin	Stainless Steel 304/Ductile Iron
7	Clapper	Stainless Steel 304
8	Seat	C95400
9	Clamping Ring	Stainless Steel 304
10	Locknut	Stainless Steel 304
11	Facing Seal	EPDM
12	Gasket	EPDM
13	Bolt	Stainless Steel 304
14	Plug	Steel 1045



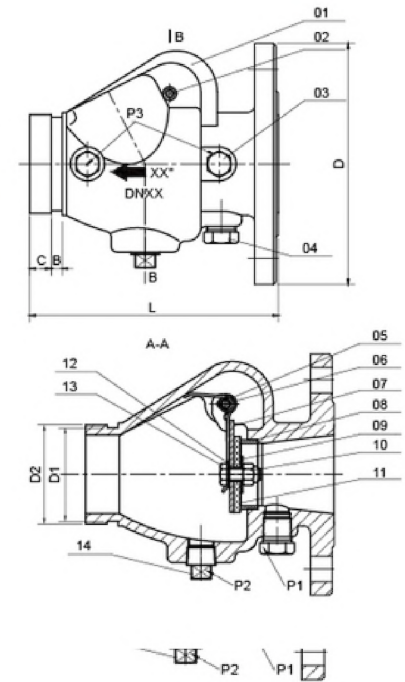
### Dimensions

Size	L	D1	D2	B	C	P1			P2				P3		
2"	169	57.15	60.3	7.95	15.88	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ½-11	Rc1 ½-11	Rc2-11	Rc¾-19	Rc¾-19	Rc½-14
			137.03			141.3	½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ½-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¾-18NPT	¾-18NPT
2½"	181	69.09	73	7.95	15.88	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ½-11	Rc1 ½-11	Rc2-11	Rc¾-19	Rc¾-19	Rc½-14
			72.26			76.1	½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ½-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¾-18NPT	¾-18NPT
3"	198	84.94	88.9	7.95	15.88	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ½-11	Rc1 ½-11	Rc2-11	Rc¾-19	Rc¾-19	Rc½-14
			137.03			141.3	½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ½-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¾-18NPT	¾-18NPT
4"	214	110.08	114.3	9.53	15.88	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ½-11	Rc1 ½-11	Rc2-11	Rc¾-19	Rc¾-19	Rc½-14
			137.03			141.3	½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ½-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¾-18NPT	¾-18NPT
5"	248	135.48	139.7	9.53	15.88	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ½-11	Rc1 ½-11	Rc2-11	Rc¾-19	Rc¾-19	Rc½-14
			137.03			141.3	½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ½-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¾-18NPT	¾-18NPT
6"	270	160.78	165.1	9.53	15.88	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ½-11	Rc1 ½-11	Rc2-11	Rc¾-19	Rc¾-19	Rc½-14
			163.96			168.3	½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ½-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¾-18NPT	¾-18NPT
8"	325	211.6	216.3	11.13	19.05	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ½-11	Rc1 ½-11	Rc2-11	Rc¾-19	Rc¾-19	Rc½-14
			214.4			219.1	½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ½-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¾-18NPT	¾-18NPT
10"	457	268.3	273	12.7	19.05	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ½-11	Rc1 ½-11	Rc2-11	Rc¾-19	Rc¾-19	Rc½-14
			268.3			273	½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ½-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¾-18NPT	¾-18NPT
12"	535	318.3	323.9	12.7	19.05	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ½-11	Rc1 ½-11	Rc2-11	Rc¾-19	Rc¾-19	Rc½-14
			318.3			323.9	½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ½-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¾-18NPT	¾-18NPT

## GROOVE\* FLANGE END SWING TYPE CHECK VALVE

### Technical Features -

- Nominal Pressure: 350PSI
- Groove Standard: ANSI / AWWA C606 or Metric
- Flange Standard: ASME/ANSI B16.1 Class 125 or ASME/ANSI B16.42 Class 150 or BS EN1092-2 PN16
- Sizes: 2", 2 1/2", 3", 4", 5", 6", 8", 10", 12"
- Approvals: UL
- Maximum Working Pressure: 350 PSI (Maximum Testing Pressure: 700 PSI) conforms to UL 312
- Maximum Working Temperature: 80°C / 176°F
- Coating Details: Epoxy coated interior and exterior by Coating upon request Electrostatic Spray or Coating upon request
- Applications: Used in one-way flow pipeline to prevent the water from back flow



### Valve Material List

NO.	Name	Material	Standard
1	Valve Body	Ductile Iron	ASTM A536 65-45-12
2	Bolt	Steel 1045	ASTM A29
3	Plug	Steel 1045	ASTM A29
4	Plug	Steel 1045	ASTM A29
5	Spring	Stainless Steel 304	ASTM A276
6	Hinge Pin	Stainless Steel 304/Ductile Iron	ASTM A276/ASTM A536 65-45-12
7	Clapper	Stainless Steel 304	ASTM A276
8	Seat	C95400	ASTM A148
9	Clamping Ring	Stainless Steel 304	ASTM A276
10	Locknut	Stainless Steel 304	ASTM A276
11	Facing Seal	EPDM	ASTM D2000
12	Gasket	EPDM	ASTM D2000
13	Bolt	Stainless Steel 304	ASTM A276
14	Plug	Steel 1045	ASTM A29

### Dimensions

Size	L	D	D1	D2	B	C	P1			P2				P3		
2"	169	152	57.15	60.3	7.95	15.88	Rc1/2-14	Rc1/2-14	Rc3/4-14	Rc1-11	Rc1 1/2-11	Rc1 1/2-11	Rc2-11	Rc3/4-19	Rc3/4-19	Rc1/2-14
							1/2-14NPT	1/2-14NPT	3/4-14NPT	1-11.5NPT	1 1/4-11.5NPT	1 1/2-11.5NPT	2-11.5NPT	1/4-18NPT	3/8-18NPT	1/2-14NPT
2 1/2"	181	178	69.09	73	7.95	15.88	Rc1/2-14	Rc1/2-14	Rc3/4-14	Rc1-11	Rc1 1/2-11	Rc1 1/2-11	Rc2-11	Rc3/4-19	Rc3/4-19	Rc1/2-14
			72.26	76.1			1/2-14NPT	1/2-14NPT	3/4-14NPT	1-11.5NPT	1 1/4-11.5NPT	1 1/2-11.5NPT	2-11.5NPT	1/4-18NPT	3/8-18NPT	1/2-14NPT
3"	198	191	84.94	88.9	7.95	15.88	Rc1/2-14	Rc1/2-14	Rc3/4-14	Rc1-11	Rc1 1/2-11	Rc1 1/2-11	Rc2-11	Rc3/4-19	Rc3/4-19	Rc1/2-14
			1/2-14NPT	1/2-14NPT			3/4-14NPT	1-11.5NPT	1 1/4-11.5NPT	1 1/2-11.5NPT	2-11.5NPT	1/4-18NPT	3/8-18NPT	1/2-14NPT		
4"	214	229	110.08	114.3	9.53	15.88	Rc1/2-14	Rc1/2-14	Rc3/4-14	Rc1-11	Rc1 1/2-11	Rc1 1/2-11	Rc2-11	Rc3/4-19	Rc3/4-19	Rc1/2-14
			1/2-14NPT	1/2-14NPT			3/4-14NPT	1-11.5NPT	1 1/4-11.5NPT	1 1/2-11.5NPT	2-11.5NPT	1/4-18NPT	3/8-18NPT	1/2-14NPT		
5"	248	254	135.48	139.7	9.53	15.88	Rc1/2-14	Rc1/2-14	Rc3/4-14	Rc1-11	Rc1 1/2-11	Rc1 1/2-11	Rc2-11	Rc3/4-19	Rc3/4-19	Rc1/2-14
			137.03	141.3			1/2-14NPT	1/2-14NPT	3/4-14NPT	1-11.5NPT	1 1/4-11.5NPT	1 1/2-11.5NPT	2-11.5NPT	1/4-18NPT	3/8-18NPT	1/2-14NPT
6"	270	280	160.78	165.1	9.53	15.88	Rc1/2-14	Rc1/2-14	Rc3/4-14	Rc1-11	Rc1 1/2-11	Rc1 1/2-11	Rc2-11	Rc3/4-19	Rc3/4-19	Rc1/2-14
			163.96	168.3			1/2-14NPT	1/2-14NPT	3/4-14NPT	1-11.5NPT	1 1/4-11.5NPT	1 1/2-11.5NPT	2-11.5NPT	1/4-18NPT	3/8-18NPT	1/2-14NPT
8"	325	343	211.6	216.3	11.13	19.05	Rc1/2-14	Rc1/2-14	Rc3/4-14	Rc1-11	Rc1 1/2-11	Rc1 1/2-11	Rc2-11	Rc3/4-19	Rc3/4-19	Rc1/2-14
			214.4	219.1			1/2-14NPT	1/2-14NPT	3/4-14NPT	1-11.5NPT	1 1/4-11.5NPT	1 1/2-11.5NPT	2-11.5NPT	1/4-18NPT	3/8-18NPT	1/2-14NPT
10"	457	406	268.3	273	12.7	19.05	Rc1/2-14	Rc1/2-14	Rc3/4-14	Rc1-11	Rc1 1/2-11	Rc1 1/2-11	Rc2-11	Rc3/4-19	Rc3/4-19	Rc1/2-14
			1/2-14NPT	1/2-14NPT			3/4-14NPT	1-11.5NPT	1 1/4-11.5NPT	1 1/2-11.5NPT	2-11.5NPT	1/4-18NPT	3/8-18NPT	1/2-14NPT		
12"	535	483	318.3	323.9	12.7	19.05	Rc1/2-14	Rc1/2-14	Rc3/4-14	Rc1-11	Rc1 1/2-11	Rc1 1/2-11	Rc2-11	Rc3/4-19	Rc3/4-19	Rc1/2-14
			1/2-14NPT	1/2-14NPT			3/4-14NPT	1-11.5NPT	1 1/4-11.5NPT	1 1/2-11.5NPT	2-11.5NPT	1/4-18NPT	3/8-18NPT	1/2-14NPT		

## FLANGE\*GROOVE END SWING TYPE CHECK VALVE

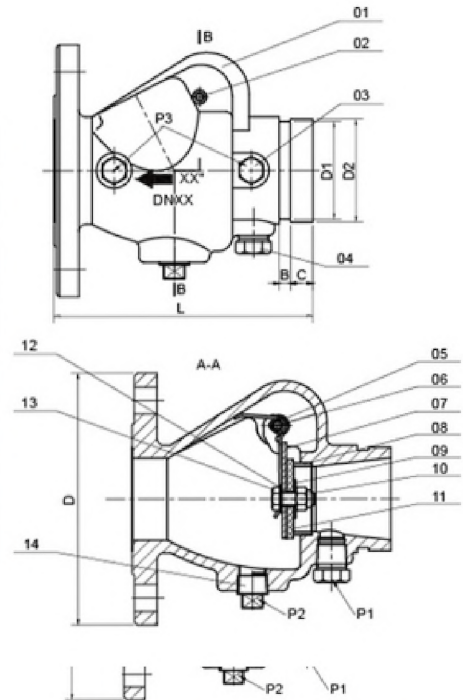
### Technical Features -

- Nominal Pressure: 350PSI
- Groove Standard: ANSI / AWWA C606 or Metric
- Flange Standard: ASME/ANSI B16.1 Class 125 or ASME/ANSI B16.42 Class 150 or BS EN1092-2 PN16
- Sizes: 2", 2 1/2", 3", 4", 5", 6", 8", 10", 12"
- Approvals: UL
- Maximum Working Pressure: 350 PSI (Maximum Testing Pressure: 700 PSI) conforms to UL 312
- Maximum Working Temperature: 80°C / 176°F
- Coating Details: Epoxy coated interior and exterior by Electrostatic Spray or Coating upon request
- Applications: Used in one-way flow pipeline to prevent the water from back flow



### Valve Material List

NO.	Name	Material	Standard
1	Valve Body	Ductile Iron	ASTM A536 65-45-12
2	Bolt	Steel 1045	ASTM A29
3	Plug	Steel 1045	ASTM A29
4	Plug	Steel 1045	ASTM A29
5	Spring	Stainless Steel 304	ASTM A276
6	Hinge Pin	Stainless Steel 304/Ductile Iron	ASTM A276/ASTM A536 65-45-12
7	Clapper	Stainless Steel 304	ASTM A276
8	Seat	C95400	ASTM A148
9	Clamping Ring	Stainless Steel 304	ASTM A276
10	Locknut	Stainless Steel 304	ASTM A276
11	Facing Seal	EPDM	ASTM D2000
12	Gasket	EPDM	ASTM D2000
13	Bolt	Stainless Steel 304	ASTM A276
14	Plug	Steel 1045	ASTM A29



### Dimensions

Size	L	D	D1	D2	B	C	P1			P2				P3		
2"	169	152	57.15	60.3	7.95	15.88	Rc 1/2-14	Rc 1/2-14	Rc 3/4-14	Rc 1-11	Rc 1 1/2-11	Rc 1 1/2-11	Rc 2-11	Rc 3/4-19	Rc 3/4-19	Rc 1/2-14
							1/2-14NPT	1/2-14NPT	3/4-14NPT	1-11.5NPT	1 1/2-11.5NPT	1 1/2-11.5NPT	2-11.5NPT	3/4-18NPT	3/4-18NPT	1/2-14NPT
2 1/2"	181	178	69.09	73	7.95	15.88	Rc 1/2-14	Rc 1/2-14	Rc 3/4-14	Rc 1-11	Rc 1 1/2-11	Rc 1 1/2-11	Rc 2-11	Rc 3/4-19	Rc 3/4-19	Rc 1/2-14
			72.26	76.1			1/2-14NPT	1/2-14NPT	3/4-14NPT	1-11.5NPT	1 1/2-11.5NPT	1 1/2-11.5NPT	2-11.5NPT	3/4-18NPT	3/4-18NPT	1/2-14NPT
3"	198	191	84.94	88.9	7.95	15.88	Rc 1/2-14	Rc 1/2-14	Rc 3/4-14	Rc 1-11	Rc 1 1/2-11	Rc 1 1/2-11	Rc 2-11	Rc 3/4-19	Rc 3/4-19	Rc 1/2-14
							1/2-14NPT	1/2-14NPT	3/4-14NPT	1-11.5NPT	1 1/2-11.5NPT	1 1/2-11.5NPT	2-11.5NPT	3/4-18NPT	3/4-18NPT	1/2-14NPT
4"	214	229	110.08	114.3	9.53	15.88	Rc 1/2-14	Rc 1/2-14	Rc 3/4-14	Rc 1-11	Rc 1 1/2-11	Rc 1 1/2-11	Rc 2-11	Rc 3/4-19	Rc 3/4-19	Rc 1/2-14
							1/2-14NPT	1/2-14NPT	3/4-14NPT	1-11.5NPT	1 1/2-11.5NPT	1 1/2-11.5NPT	2-11.5NPT	3/4-18NPT	3/4-18NPT	1/2-14NPT
5"	248	254	135.48	139.7	9.53	15.88	Rc 1/2-14	Rc 1/2-14	Rc 3/4-14	Rc 1-11	Rc 1 1/2-11	Rc 1 1/2-11	Rc 2-11	Rc 3/4-19	Rc 3/4-19	Rc 1/2-14
			160.78	165.1			1/2-14NPT	1/2-14NPT	3/4-14NPT	1-11.5NPT	1 1/2-11.5NPT	1 1/2-11.5NPT	2-11.5NPT	3/4-18NPT	3/4-18NPT	1/2-14NPT
6"	270	280	160.78	165.1	9.53	15.88	Rc 1/2-14	Rc 1/2-14	Rc 3/4-14	Rc 1-11	Rc 1 1/2-11	Rc 1 1/2-11	Rc 2-11	Rc 3/4-19	Rc 3/4-19	Rc 1/2-14
			163.96	168.3			1/2-14NPT	1/2-14NPT	3/4-14NPT	1-11.5NPT	1 1/2-11.5NPT	1 1/2-11.5NPT	2-11.5NPT	3/4-18NPT	3/4-18NPT	1/2-14NPT
8"	325	343	211.6	216.3	11.13	19.05	Rc 1/2-14	Rc 1/2-14	Rc 3/4-14	Rc 1-11	Rc 1 1/2-11	Rc 1 1/2-11	Rc 2-11	Rc 3/4-19	Rc 3/4-19	Rc 1/2-14
			214.4	219.1			1/2-14NPT	1/2-14NPT	3/4-14NPT	1-11.5NPT	1 1/2-11.5NPT	1 1/2-11.5NPT	2-11.5NPT	3/4-18NPT	3/4-18NPT	1/2-14NPT
10"	457	406	268.3	273	12.7	19.05	Rc 1/2-14	Rc 1/2-14	Rc 3/4-14	Rc 1-11	Rc 1 1/2-11	Rc 1 1/2-11	Rc 2-11	Rc 3/4-19	Rc 3/4-19	Rc 1/2-14
							1/2-14NPT	1/2-14NPT	3/4-14NPT	1-11.5NPT	1 1/2-11.5NPT	1 1/2-11.5NPT	2-11.5NPT	3/4-18NPT	3/4-18NPT	1/2-14NPT
12"	535	483	318.3	323.9	12.7	19.05	Rc 1/2-14	Rc 1/2-14	Rc 3/4-14	Rc 1-11	Rc 1 1/2-11	Rc 1 1/2-11	Rc 2-11	Rc 3/4-19	Rc 3/4-19	Rc 1/2-14
							1/2-14NPT	1/2-14NPT	3/4-14NPT	1-11.5NPT	1 1/2-11.5NPT	1 1/2-11.5NPT	2-11.5NPT	3/4-18NPT	3/4-18NPT	1/2-14NPT