Ningjin APC Industries

Ningjin APC
INDUSTRIES

www.apc-valve.com

VdS FM APPROVED c UL us LISTED CCC NSF

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NINGJIN APC INDUSTRIES®

Revised in 2025

About Us

Ningjin APC INDUSTRIES

Ningjin APC Industries Incorporated Company, established in 1999, is a comprehensive group of company that specialize in the design, manufacture, and sales of fire protection and water treatment equipment.

Our company covers an area of 200,000 square meters and employs over 400 staff, including 65 technical engineers and 5 international technical experts. With a strong technical foundation, we are equipped with over 200 advanced production and testing machines, 600 sets of various molds, and 5 large casting furnaces.

Our production process encompasses casting, machining, coating, assembling, inspecting, testing, and packaging. These are conducted on an in-house assembly line, ensuring both superior product quality and competitive pricing. The company's primary product lines include:

1.Fire protection systems: including types of firefighting valves (with automatic control valves), outdoor fire hydrants, and firefighting pipeline accessories;
2.Fire sprinkler systems (with fire sprinkler);
3.Electronic alarm systems;
4.Water treatment pipeline systems and accessories.
5.Marine valves and accessories.

Our company holds numerous international patents and over a hundred certifications, including but not limited to: FM/UL, VDS, CE, ISO 9001:2000, DNV, LR, and CCS. Our products are widely distributed and used successfully in over 100 countries and regions around the world.

In recognition of our product's outstanding quality, our company has been awarded several honors, including being named National "Little Giant" Enterprise.

In the future, we will continue to expand the market, improve product quality, and become a more dynamic company.

FM Fire Safety Valve Certificates



UL Fire Safety Valve Certificates



Evironment management system,Quality management system, Occupational health & safety management



Conformité Européenne



Product Catalog

WD-371X
Butterfly Valve

GD-381X
Butterfly Valve

HGD-381X-175
HFGD-381X-175
HGD-381X
HFGD-381X
Backflow Butterfly Valve

WD-371G
Butterfly Valve

WD-371L
Butterfly Valve

GD-381G
Butterfly Valve

GD-381L
Butterfly Valve

Z41-300
300PSI OS&Y
Flanged End Gate Valve

Z81-300
300PSI OS&Y
Grooved End Gate Valve

Z481-300
300PSI OS&Y
Flanged X Grooved End Gate Valve

Z45-300
300PSI NRS
Flanged End Gate Valve

Z85-300
300PSI NRS
Grooved End Gate Valve

Z485-300
300PSI NRS
Flanged x Grooved End Gate Valve

Z41-300A
300PSI OS&Y
Flanged End Gate Valve

Z81-300A
300PSI OS&Y
Grooved End Gate Valve

Z481-300A
300PSI OS&Y
Flanged X Grooved End Gate Valve

Z45-300A
300PSI NRS
Flanged End Gate Valve

Z85-300A
300PSI NRS
Grooved End Gate Valve

Z485-300A
300PSI NRS
Flanged X Grooved End Gate Valve

Z45-300FJA
300PSI NRS
FL X MJ Gate Valve

Z45-300MJA
300PSI NRS
MJ X MJ Gate Valve

Z41
200PSI OS&Y
Flanged End Gate Valve

Z481
200PSI OS&Y
Flanged x Grooved End Gate Valve

Z81
200PSI OS&Y
Grooved End Gate Valve

Z45
200PSI NRS
Flanged End Gate Valve

Z485
200PSI NRS
Flanged x Grooved End Gate Valve

Z85
200PSI NRS
Grooved End Gate Valve

MH-XQH-300
300PSI Flanged Swing Check Valve

MH-XQH-350G
350PSI Grooved Swing Check Valve

MH-XQH-350F
350PSI Flanged Swing Check Valve

MH-XQH-350FG-A
350PSI Grooved×Flanged Swing Check Valve

MH-XQH-350FG-B
350PSI Flanged*Grooved Swing Check Valve

Model A
Riser Manifold (Commercial and Residential)

Model B
Riser Manifold (Commercial and Residential)

ZSQ
Vertical Type Indicator Post

QSCZG
Wall Type Indicator Post

MH-1510FA
MH-1510A
Dry Barrel Fire Hydrant

MH-1511
MH-1511A
MH-1512
MH-1512A
Wet Hydrant

AMARV
Air Release Valves

SSBJ-300GG
SSBJ-300FF
SSBJ-300FGA
SSBJ-300FGB
Wet Alarm Check Valve

GY46X
GY56X
GY86X
Deluge Alarm Valve

GY46X-300
GY56X-300
GY86X-300
Deluge Alarm Valve

ZSJY 1.6BP
Pressure Switch

ZSJZ-YM-450
Vane-Type Waterflow Indicator

PFE-00A/00B
Pressure Gauge

MH-SLJL-00
Water Motor Gong

QF-300
QDFS-300
Stainless Steel Ball Valve

CFU190525N
Solenoid Valve

Ningjin APC INDUSTRIES

Butterfly Valve Model: WD-371X

Butterfly Valve c/w Signal Gearbox – Wafer End

Technical Features

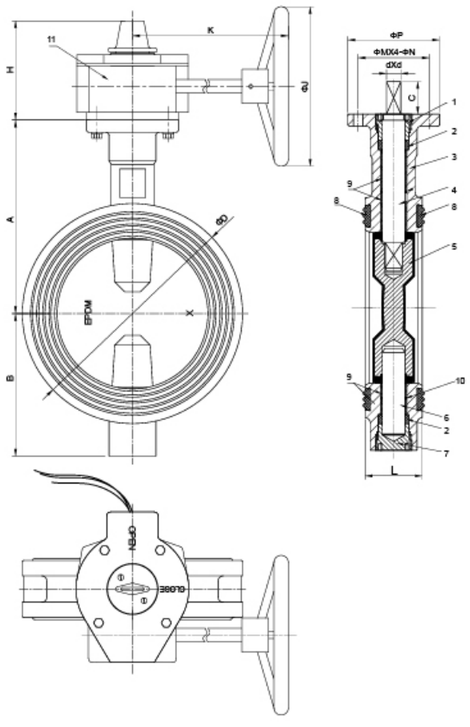
- Connection Standard: ANSI125/150, DIN2501 PN10/16
- Sizes: 2", 2½", 3", 4", 5", 6", 8", 10", 12"
- Approvals: UL, CUL, FM, NSF / ANSI 61 & NSF / ANSI 372
- Maximum Working Pressure: 300 PSI
- Maximum Testing Pressure: 600 PSI
- Pressure conforms to UL1091 & ULC / ORD-C1091 & FM 1112
- Working Temperature Range: 0~80°C / 32~176°F
- Coating Details: Epoxy coated or coating upon request
- Ductile iron disc– EPDM Encapsulated
- Top Flange Standard: ISO 5211
- Certified lead-free by NSF / ANSI 61 & NSF / ANSI 372 is available
- Application: Indoor & Outdoor Use, Fire inflow water, drain pipe, high-rising building fire fighting system, industrial factory building fire protection system

Valve Material List

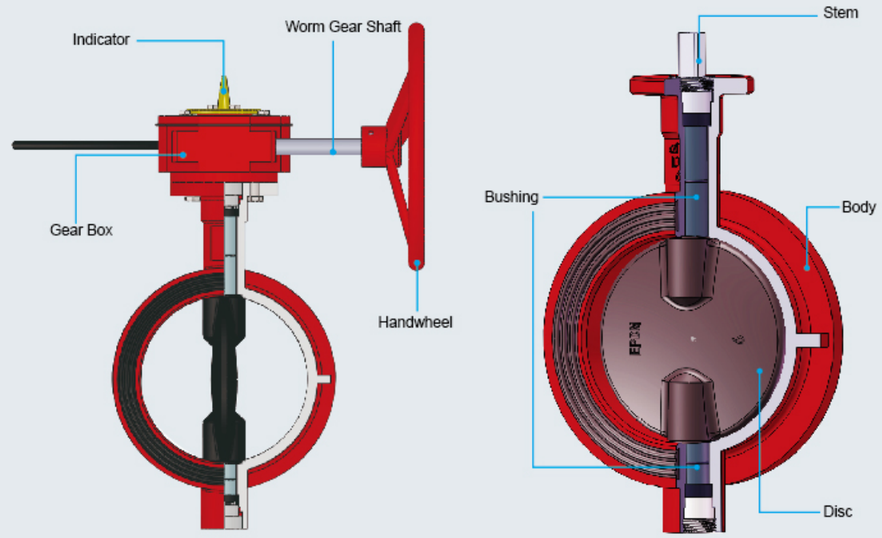
NO.	Description	Material
1	Upper Shaft Sealing Nut	WCB
2	Shaft Seal	EPDM
3	Body	Ductile Iron
4	Upper Shaft	416 Stainless Steel
5	Disc+Rubber Seat	Ductile Iron+EPDM
6	Lower Shaft	416 Stainless Steel
7	Lower Shaft Sealing Nut	WCB
8	End Face Seal	EPDM
9	Stem Bushing	PTFE / C95400
10	O-Ring	EPDM
11	Gearbox	

Dimensions

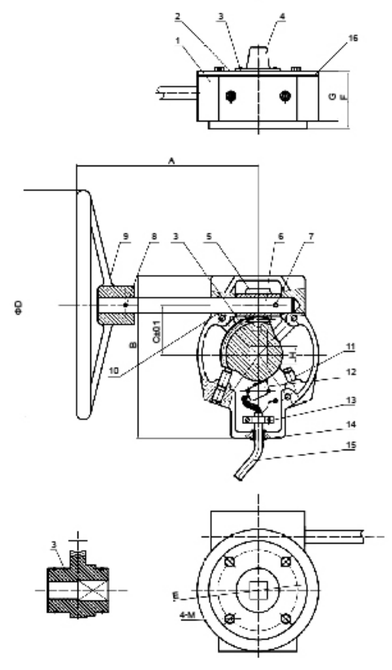
Size	A	B	C	D	H	K		J	P	M	N	d	L
2"	110	85	32	100	111	153	218	152	90	70	9	10	42
2½"	125	95	32	112	111	153	218	152	90	70	9	10	44.2
3"	140	100	32	120	111	153	218	152	90	70	9	11	45.3
4"	160	100	32	161	111	153	218	152	90	70	9	14	52
5"	170	125	32	182	111	153	218	152	90	70	9	14	54.4
6"	190	140	32	216	111	153	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



3D Pictures



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

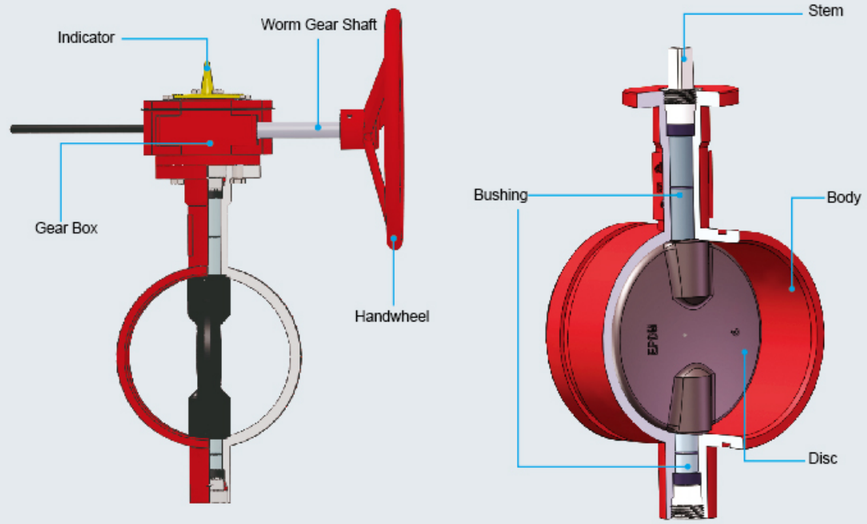
Butterfly Valve Model: GD-381X

Butterfly Valve c/w Signal Gearbox – Grooved End

Technical Features

- Groove Standard: ANSI/AWWA C606 or Metric Standard Clear Waterway design
- Sizes: 2", 2½", 3", 4", 5", 6", 8", 10", 12"
- Approvals: UL, CUL, FM, NSF / ANSI 61 & NSF/ ANSI 372
- Maximum Working Pressure: 300 PSI
- Maximum Testing Pressure: 600 PSI
- Pressure conforms to UL1091 & ULC / ORD-C1091 & FM 1112
- Working Temperature Range: 0~80°C / 32~176°F
- Coating Details: Epoxy coated or coating upon request
- Ductile iron disc– EPDM Encapsulated
- Top Flange Standard: ISO 5211
- Certified lead-free by NSF / ANSI 61 & NSF / ANSI 372 is available
- Application: Indoor & Outdoor Use, Fire inflow water, drain pipe, high-rising building fire fighting system, industrial factory building fire protection system

3D Pictures

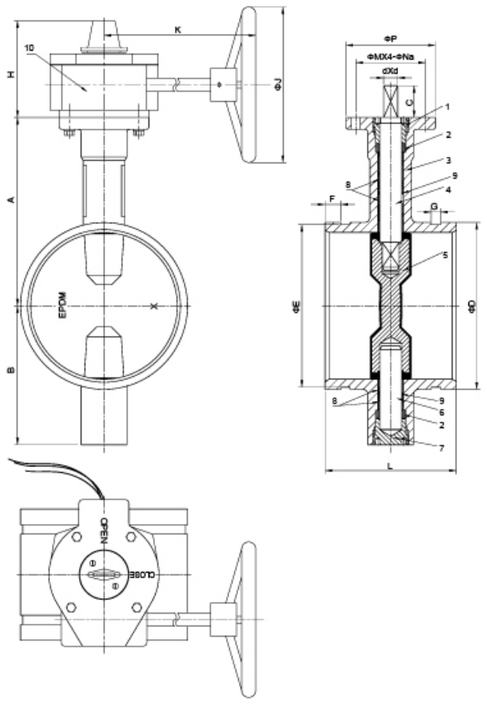


Valve Material List

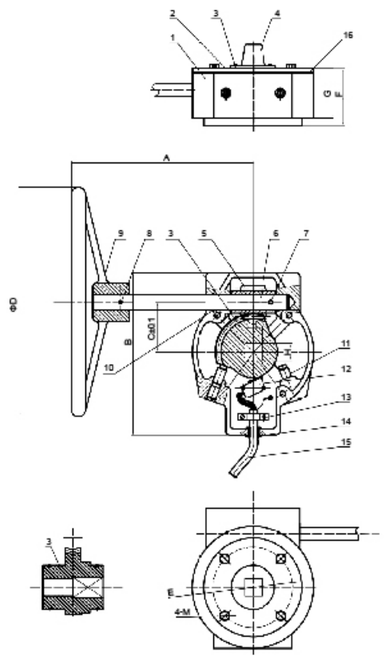
NO.	Description	Material
1	Upper Shaft Sealing Nut	WCB
2	Shaft Seal	EPDM
3	Body	Ductile Iron
4	Upper Shaft	416 Stainless Steel
5	Disc+Rubber Seat	Ductile Iron+EPDM
6	Lower Shaft	416 Stainless Steel
7	Lower Shaft Sealing Nut	WCB
8	Stem Bushing	PTFE / C95400
9	O-Ring	EPDM
10	Gearbox	

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	14	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

Backflow Butterfly Valve Model: HGD-381X-175/HFGD-381X-175/HGD-381X/HFGD-381X

Butterfly Valve c/w Signal Gearbox – Grooved End & Grooved * Flanged End

Technical Features

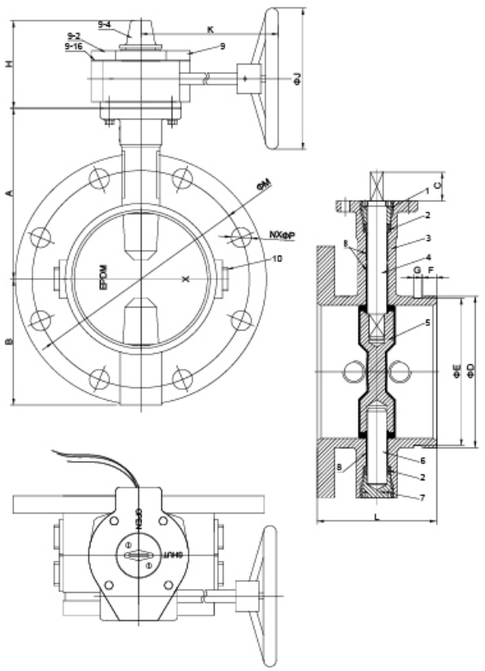
- Groove Standard: ANSI/AWWA C606 or Metric Standard Clear Waterway design
- Connections: Grooved End / Grooved * Flanged End / Flanged * Grooved End
- Sizes: 2½", 3", 4", 6", 8", 10"
- Approvals: UL, CUL, FM, NSF/ ANSI 61 & NSF/ ANSI 372
- Maximum Working Pressure: 300 PSI
- Maximum Testing Pressure: 600 PSI
- Pressure conforms to UL1091 & ULC / ORD-C1091 & FM1112
- Working Temperature Range: 0~80°C / 32~176°F
- Coating Details: Epoxy coated or coating upon request.
- Ductile iron disc– EPDM Encapsulated
- Top Flange Standard: ISO 5211
- Certified lead-free by NSF/ ANSI 61 & NSF/ ANSI 372 is available
- Application: Indoor & Outdoor Use, Fire inflow water, drain pipe, high-rising building fire fighting system, industrial factory building fire protection system

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	Signal Gearbox	
10	Plug	C95400

Dimensions

Size	A	B	C	D	E	F	G	H	K	J	L	M	N	P
2½"	125	95	32	73 76.1	69.1 72.3	15.9	7.9	111	153	152	152.4	139.7	4	19
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	165.1 168.3	160.9 164	15.9	9.5	111	153	200	177.8	241.3	8	22
8"	230	175	32	219.1 216.3	214.4 211.6	19	11.1	126	230	290	203	298.5	8	22
10"	260	200	45	267.4 273	262.6 268.3	19	12.7	126	230	290	203	362	12	25.4



Butterfly Valve Model: WD-371G/WD-371L

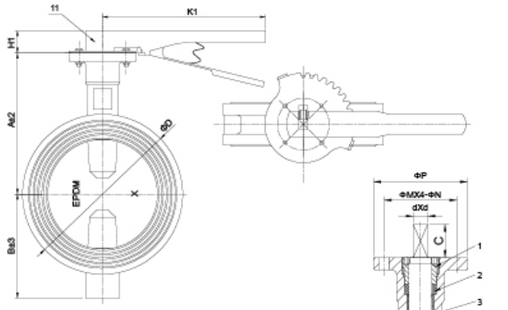
Butterfly Valve with Gearbox / Lever – Wafer End

Technical Features

- Connection Standard: ANSI125/150, DIN2501 PN10/16
- Sizes: 2", 2½", 3", 4", 5", 6", 8", 10", 12"
- Maximum Working Pressure: 300 PSI
- Maximum Testing Pressure: 600 PSI
- Pressures conforms to UL1091 & ULC / ORD-C1091 & FM 1112
- Maximum Working Temperature: 80°C / 176°F
- Coating Details: Epoxy coated or coating upon request
- Ductile iron disc– EPDM Encapsulated
- Top Flange Standard: ISO 5211
- Certified lead-free by NSF / ANSI 61 & NSF / ANSI 372 is available
- Application: Indoor & Outdoor Use, Fire inflow water, drain pipe, high-rising building fire fighting system, industrial factory building fire protection system

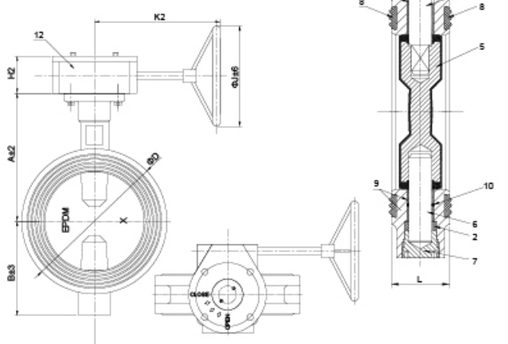
Valve Material List

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	End Face Seal	EPDM
9	Stem Bushing	PTFE / C95400
10	O-Ring	EPDM
11	Lever	
12	Gearbox	



Dimensions

Size	A	B	C	D	H1	H2	K1	K2	J	P	M	N	d	L
2"	110	85	32	100	32	65	267	151	152	90	70	9	10	42
2½"	125	95	32	112	32	65	267	151	152	90	70	9	10	44.2
3"	140	100	32	120	32	65	267	151	152	90	70	9	11	45.3
4"	160	100	32	161	32	65	267	151	152	90	70	9	14	52
5"	170	125	32	182	32	65	267	151	152	90	70	9	14	54.4
6"	190	140	32	216	32	65	267	146	200	90	70	9	16	55.8
8"	230	175	32	260	37	77	267	233	290	125	102	12	19	60.5
10"	260	200	45	320	/	77	/	233	290	125	102	12	22	66.5
12"	300	240	45	375	/	77	/	226	290	150	125	14	26	76.9



Butterfly Valve — Model: GD-381G

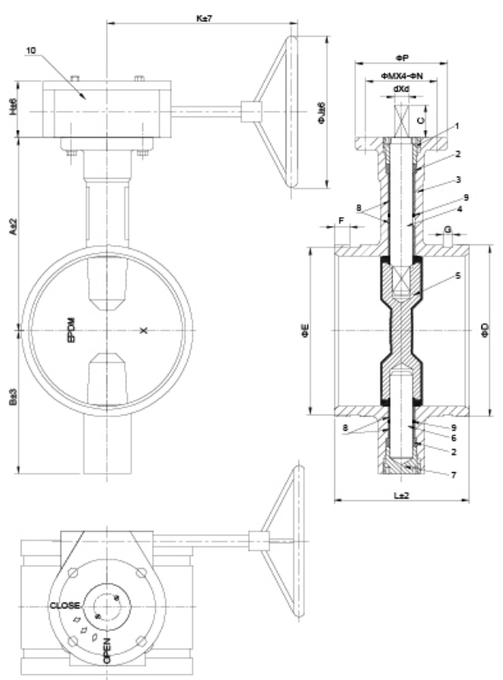
Butterfly Valve with Gearbox – Grooved End

Technical Features

- Groove Standard: ANSI/AWWA C606 or Metric Standard Clear Waterway design
- Sizes: 2", 2½", 3", 4", 5", 6", 8", 10", 12"
- Maximum Working Pressure: 300 PSI
- Maximum Testing Pressure: 600 PSI)
- Pressure conforms to UL1091 & ULC / ORD-C1091 & FM 1112
- Working Temperature Range: 0~80°C / 32~176°F
- Coating Details: Epoxy coated or coating upon request
- Ductile iron disc– EPDM Encapsulated
- Top Flange Standard: ISO 5211
- Certified lead-free by NSF / ANSI 61 & NSF / ANSI 372 is available
- Application: Indoor & Outdoor Use, Fire inflow water, drain pipe, high-rising building fire fighting system, industrial factory building fire protection system

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	Gear box	



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	65	151	152	90	70	9	10	81 88
2½"	125	95	32	73 76.1	69.1 72.3	15.9	7.9	65	151	152	90	70	9	10	96.4
3"	140	100	32	88.9	84.9	15.9	7.9	65	151	152	90	70	9	11	97
4"	160	100	32	114.3	110.1	15.9	9.5	65	151	152	90	70	9	14	115.1
5"	170	125	32	139.7 141.3	135.5 137	15.9	9.5	65	151	152	90	70	9	14	132.4 148
6"	190	140	32	165.1 168.3	160.9 164	15.9	9.5	65	146	200	90	70	9	16	132.4 148
8"	230	175	32	219.1 216.3	214.4 211.6	19	11.1	77	233	290	125	102	12	19	133 147.4
10"	260	200	45	267.4 273	262.6 268.3	19	12.7	77	233	290	125	102	12	22	159
12"	300	240	45	318.5 323.8	312.9 318.3	19	12.7	77	226	290	150	125	14	26	165

Butterfly Valve — Model: GD-381L

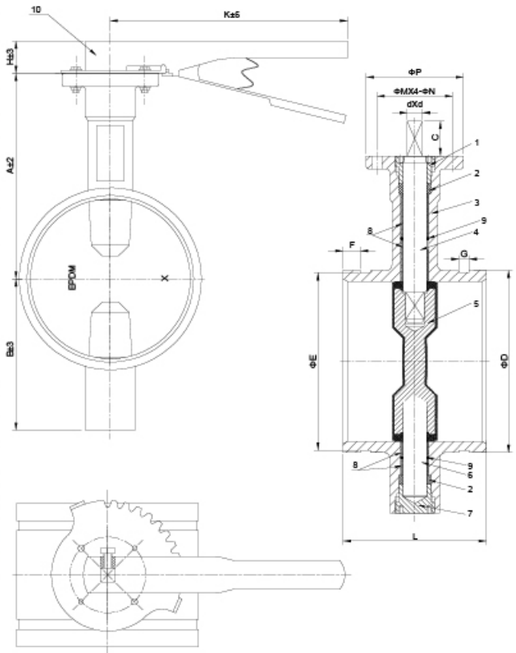
Butterfly Valve with Lever - Grooved End

Technical Features

- Groove Standard: ANSI/AWWA C606 or Metric Standard Clear Waterway design
- Sizes: 2", 2½", 3", 4", 5", 6", 8"
- Maximum Working Pressure: 300 PSI
- Maximum Testing Pressure: 600 PSI
- Pressure conforms to UL 1091 & ULC / ORD-C1091 & FM 1112
- Working Temperature Range: 0~80°C / 32~176°F
- Coating Details: Epoxy coated or coating upon request
- Ductile iron disc– EPDM Encapsulated
- Top Flange Standard: ISO 5211
- Certified lead-free by NSF/ ANSI 61 & NSF/ ANSI 372 is available
- Application: Indoor & Outdoor Use, Fire inflow water, drain pipe, high-rising building fire fighting system, industrial factory building fire protection system

Valve Material List

NO.	Name	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	Lever	Malleable Iron



Dimensions

Size	A	B	C	D	E	F	G	H	K	P	M	N	d	L
2"	110	85	32	60.3	57.2	15.9	7.9	32	267	90	70	9	10	81 88
2½"	125	95	32	73 76.1	69.1 72.3	15.9	7.9	32	267	90	70	9	10	96.4
3"	140	100	32	88.9	84.9	15.9	7.9	32	267	90	70	9	11	97
4"	160	100	32	114.3	110.1	15.9	9.5	32	267	90	70	9	14	115.1
5"	170	125	32	139.7 141.3	135.5 137	15.9	9.5	32	267	90	70	9	14	132.4 148
6"	190	140	32	165.1 168.3	160.9 164	15.9	9.5	32	267	90	70	9	16	132.4 148
8"	230	175	37	216.3 219.1	211.6 214.4	19	11.1	37	353	125	102	12	19	147.4 133

NINGJIN APC INDUSTRIES offers a complete package of resilient wedge gate valve with excellent Ductile Iron structure and stable sealing capability and popular end connection options

APC Resilient Wedge Gate Valve Features

- Conforms: ANSI / AWWA C515
- Approvals: UL, CUL, FM, NSF/ ANSI 61 & NSF/ ANSI 372 Certified lead-free
- Maximum Working Temperature: 80°C / 176°F
- Coating: Epoxy coated interior and exterior by Electrostatic Spray or Coating upon request

Application

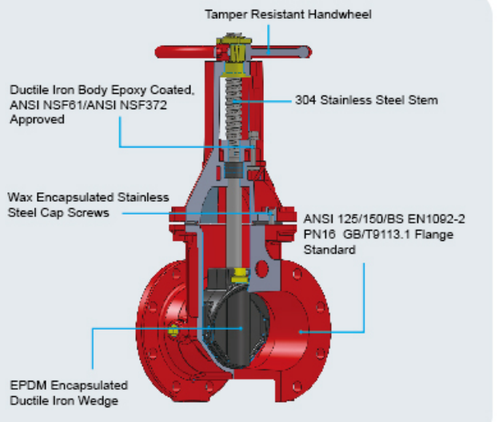
- Outdoor and Indoor Fire inflow water, water supply and drainage, potable water, high-rising building fire fighting system, industrial factory building fire protection system.
- All OS&Y gate valves have tamper resistant handwheel nuts as well as pre-grooved stems enabling seamless tamper switch installation.
- All NRS gate valves are available with operated nut installed with vertical indicator post and wall type indicator.

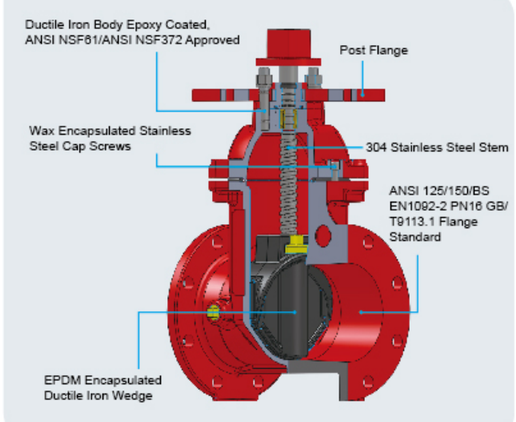
Advantages

- Valve body, bonnet, disc, gland, & operating nut are all produced with ductile iron material with superior strength-to-weight ratios to guarantee high quality.
- Long service life with resilient seat cycling test at least 5000 times.
- The bottom of gate valve adopt straight-through design, no foreign matter store to make sure smooth flow and reliable sealing.
- Self-sealing design between the bonnet and body make the sealing more tight when pressure is higher within the allowable range.
- Multiple O-ring sealing structure to protect the stem under pressure during operation and maintenance , it causes no damage to the operator.

A full range UL/FM Gate Valves to meet customers' different requirements

- UL/FM OS&Y Gate valve (200psi & 300psi)
  - Flange x Flange
  - Flange x Groove
  - Groove x Groove
- UL/FM NRS Gate valve (200psi & 300psi)
  - Flange x Flange
  - Groove x Groove
  - MJ x Flange
  - Flange x Groove
  - MJ x MJ





UL / FM OS&Y Gate Valves

Z41
Flange
ANSI, BS, DIN, GB
2"/DN50-16"/DN400
14Bar/200psi
UL/FM/NSF61/NSF372

Z481
Flange x Groove
ANSI, BS, DIN, GB
2"/DN50-12"/DN300
14Bar/200psi
UL/FM/NSF61/NSF372

Z81
Groove
ANSI, BS, DIN, GB
2"/DN50-12"/DN300
14Bar/200psi
UL/FM/NSF61/NSF372

Z41-300
Flange
ANSI, BS, DIN, GB
2½"/DN65-12"/DN300
21Bar/300psi
UL/FM/NSF61/NSF372

Z41-300A
Flange
ANSI, BS, DIN, GB
2½"/DN65-12"/DN300
21Bar/300psi
UL/FM/NSF61/NSF372

Z81-300
Groove
ANSI, BS, DIN, GB
2½"/DN65-12"/DN300
21Bar/300psi
UL/FM/NSF61/NSF372

Z81-300A
Groove
ANSI, BS, DIN, GB
2½"/DN65-12"/DN300
21Bar/300psi
UL/FM/NSF61/NSF372

Z481-300
Flange X Groove
ANSI, BS, DIN, GB
2½"/DN65-12"/DN300
21Bar/300psi
UL/FM/NSF61/NSF372

Z481-300A
Flange X Groove
ANSI, BS, DIN, GB
2½"/DN65-12"/DN300
21Bar/300psi
UL/FM/NSF61/NSF372

UL / FM Non Rising Stem Gate Valves

Z45
Flange
ANSI, BS, DIN, GB
2"/DN50-12"/DN300
14Bar/200psi
UL/FM/NSF61/NSF372

Z485
Flange X Groove
ANSI, BS, DIN, GB
2"/DN50-12"/DN300
14Bar/200psi
UL/FM/NSF61/NSF372

Z85
Groove
ANSI, BS, DIN, GB
2"/DN50-12"/DN300
14Bar/200psi
UL/FM/NSF61/NSF372

Z45-300
Flange
ANSI, DIN, GB
2½"/DN65-12"/DN300
21Bar/300psi
UL/FM/NSF61/NSF372

Z45-300A
Flange
ANSI, DIN, GB
2"/DN50-12"/DN300
21Bar/300psi
UL/FM/NSF61/NSF372

Z85-300
Groove
ANSI, DIN, GB
2½"/DN65-12"/DN300
21Bar/300psi
UL/FM/NSF61/NSF372

Z85-300A
Groove
ANSI, DIN, GB
2½"/DN65-12"/DN300
21Bar/300psi
UL/FM/NSF61/NSF372

Z485-300
Flange X Groove
ANSI, DIN, GB
2½"/DN65-12"/DN300
21Bar/300psi
UL/FM/NSF61/NSF372

Z485-300A
Flange X Groove
ANSI, DIN, GB
2½"/DN65-12"/DN300
21Bar/300psi
UL/FM/NSF61/NSF372

Z45-300FJA
Flange X MJ
ANSI, DIN, GB
2"/DN50-12"/DN300
21Bar/300psi
UL/FM/NSF61/NSF372

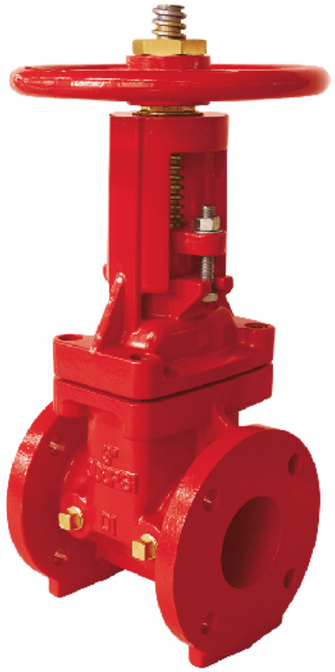
Z45-300MJA
MJ X MJ
ANSI, DIN, GB
2"/DN50-12"/DN300
21Bar/300psi
UL/FM/NSF61/NSF372

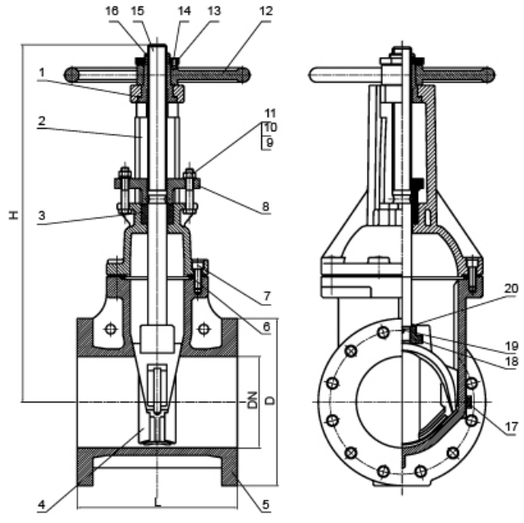
300PSI OS&Y Flanged End Gate Valve — Model: Z41-300

Resilient Wedge OS & Y Gate valve – Flanged End

Technical Features

- Flange Standard: ASME/ANSI B 16.1 Class 125
  ASME/ANSI B 16.42 Class 150
  BS EN 1092-2 PN 16
  GB / T9113.1
- Sizes: 2"(FM)
  2.5", 3", 4", 5", 6", 8", 10", 12" (FM UL)
  14", 16", 18", 20", 24"
- Face to Face Standard : ASME B 16.10
- Approvals: UL, CUL, FM, NSF / ANSI 61 & NSF / ANSI 372, CCC
- Maximum Working Pressure: 300PSI
- Maximum Testing Pressure: 600 PSI
- Pressure conforms to FM 1120 / 1130, UL 262, ULC / ORD C262-92
- Working Temperature Range: 0~80°C / 32~176°F
- Coating Details: Epoxy or Coating upon request
- NPT plug on body with 2 operating nuts
- Certified lead-free by NSF / ANSI 61 & NSF / ANSI 372 is available





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

Valve Material List

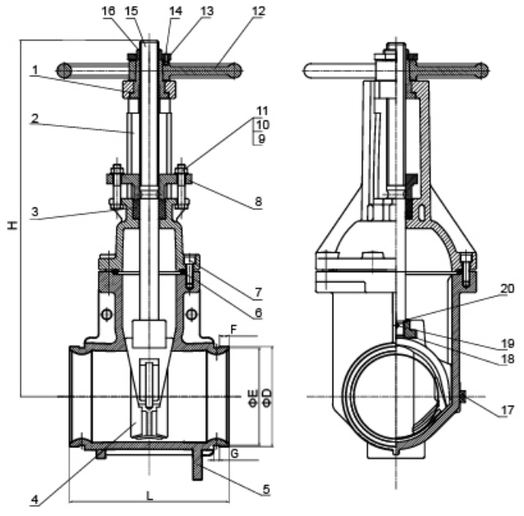
NO.	Name	Material	Standard
1	Gasket	C95400	ASTM B148
2	Bonnet	Ductile Iron	ASTM A536 Grade 65-45-12
3	Packing	Graphite	
4	Disc	Ductile Iron +EPDM	ASTM A536 Grade 65-45-12+ASTM D2000
5	Body	Ductile Iron	ASTM A536 Grade 65-45-12
6	Sealing Ring	EPDM	ASTM D2000
7	Bolt	Steel 1045	Bolt / Stainless Steel 304 / ASTM A276
8	Gland	Ductile Iron	ASTM A536 Grade 65-45-12
9	Nut	Steel 1045	Nut / Stainless Steel 304 / ASTM A276
10	Flat Washer	Steel 1045	Flat Washer / Stainless Steel 304 / ASTM A276
11	Bolt	Steel 1045	Bolt / Stainless Steel 304 / ASTM A276
12	Handwheel	Ductile Iron	ASTM A536 Grade 65-45-12
13	Lock Nut	C95400	ASTM B148
14	Locating Screw	Stainless Steel 304	ASTM A276
15	Stem	Stainless Steel 304	ASTM A276
16	Stem Nut	C95400	ASTM B148
17	Plug	C95400	ASTM B148
18	Lifting Nut	CF8	ASTM A351
19	Pin	Stainless Steel 304	ASTM A276
20	Sealing Ring	EPDM	ASTM D2000

300PSI OS&Y Grooved End Gate Valve — Model: Z81-300

Resilient Wedge OS & Y Gate valve – Grooved End

Technical Features

- Groove standard: Metric or ANSI / AWWA C606
- Face to Face Standard: ASME B16.10
- Sizes: 2"(FM)
  2.5", 3", 4", 5", 6", 8", 10", 12" (FM UL)
- Approvals: UL, CUL, FM, NSF / ANSI 61 & NSF / ANSI 372
- Maximum Working Pressure: 300PSI
- Maximum Testing Pressure: 600 PSI
- Pressure conforms to FM 1120 / 1130, UL 262, ULC / ORD C262-92
- Working Temperature Range: 0~80°C / 32~176°F
- Coating Details: Epoxy or Coating upon request
- NPT plug on body with 2 operating nuts
- Certified lead-free by NSF / ANSI 61 & NSF / ANSI 372 is available



Dimensions

Size	DN	L	F	D	E	G	H
2½"	65	190	15.9	73 76.1	69.1 72.3	7.9	370
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	139.7 141.3	135.5 137	9.5	547
6"	150	267	15.9	165.1 168.3	160.8 163.9	9.5	607
8"	200	292	19	216.3 219.1	211.6 214.3	11.1	754
10"	250	330	19	273	268.3	12.7	890
12"	300	356	19	323.9	318.3	12.7	1031

Valve Material List

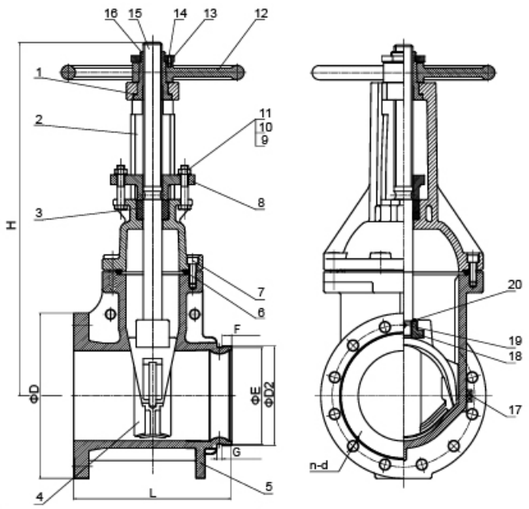
NO.	Name	Material	Standard
1	Gasket	Stainless Steel 304 or C95400	ASTM A276 or ASTM B148
2	Bonnet	Ductile Iron	ASTM A536 Grade 65-45-12
3	Packing	Graphite	
4	Disc	Ductile Iron +EPDM	ASTM A536 Grade 65-45-12+ASTM D2000
5	Body	Ductile Iron	ASTM A536 Grade 65-45-12
6	Sealing Ring	EPDM	ASTM D2000
7	Bolt	Stainless Steel 304 or Steel 1045	Bolt / Stainless Steel 304 / ASTM A276 or 1045, ASTM A29
8	Gland	Ductile Iron	ASTM A536 Grade 65-45-12
9	Nut	Stainless Steel 304 or Steel 1045	Nut / Stainless Steel 304 / ASTM A276 or 1045, ASTM A29
10	Flat Washer	Stainless Steel 304 or Steel 1045	Flat Washer / Stainless Steel 304 / ASTM A276 or 1045, ASTM A29
11	Bolt	Stainless Steel 304 or Steel 1045	Bolt / Stainless Steel 304 / ASTM A276 or 1045, ASTM A29
12	Handwheel	Ductile Iron	ASTM A536 Grade 65-45-12
13	Lock Nut	C95400	ASTM B148
14	Locating Screw	Stainless Steel 304 or Steel 1045	Stainless Steel 304 / ASTM A276 or 1045, ASTM A29
15	Stem	Stainless Steel 304 or C95400	ASTM B148
16	Stem Nut	C95400	ASTM B148
17	Plug	C95400	ASTM B148
18	Lifting Nut	CF8/CF8M or C95400	CF8/CF8M or C95400 / ASTM A351 or ASTM B148
19	Pin	Stainless Steel 304	ASTM A276
20	Sealing Ring	EPDM	ASTM D2000

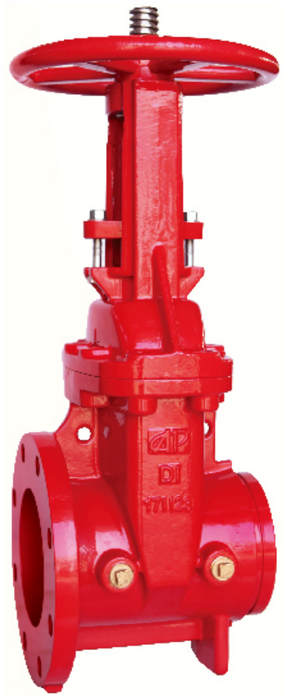
300PSI OS&Y Flanged X Grooved End Gate Valve — Model: Z481-300

Resilient Wedge OS & Y Gate valve – Flanged x Grooved End

Technical Features

- Face to Face Standard: ASME B16.10
- Sizes: 2", 2.5", 3", 4", 5", 6", 8", 10", 12"(FM UL)
- Flange Standard: ASME/ANSI B 16.1 Class 125
  ASME/ANSI B 16.42 Class 150
  BS EN 1092-2 PN 16
  GB / T9113.1
- Groove Standard: Metric or ANSI / AWWA C606
- Approvals: UL, CUL, FM, NSF / ANSI 61 & NSF / ANSI 372
- Maximum Working Pressure: 300PSI
- Maximum Testing Pressure: 600 PSI
- Pressure conforms to FM 1120 / 1130, UL 262, ULC / ORD C262-92
- Working Temperature Range: 0~80°C / 32~176°F
- Coating Details: Epoxy 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	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

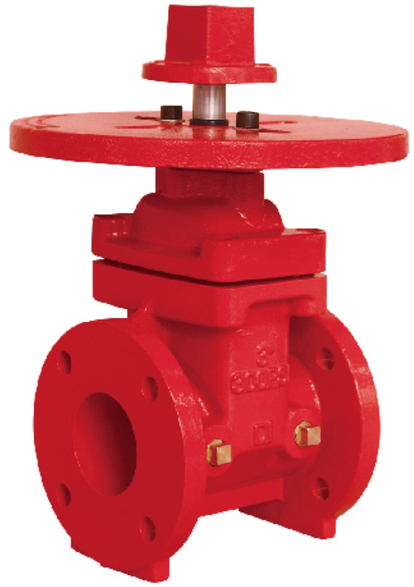
Size	DN	L	D	F	D2	E	G	H
2½"	65	190	178	15.9	73 76.1	69.1 72.3	7.9	370
3"	80	203	191	15.9	88.9	84.9	7.9	420
4"	100	229	229	15.9	114.3	110.1	9.5	447
5"	125	254	254	15.9	139.7 141.3	135.5 137	9.5	547
6"	150	267	279	15.9	165.1 168.3	160.8 163.9	9.5	607
8"	200	292	343	19	216.3 219.1	211.6 214.3	11.1	754
10"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

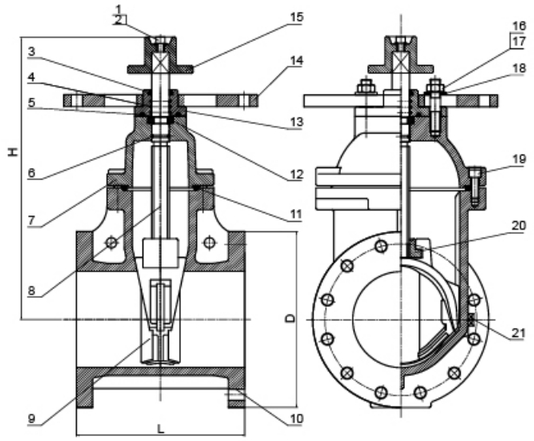
300PSI NRS Flanged End Gate Valve — Model: Z45-300

Resilient Wedge NRS Gate valve – Flanged End

Technical Features

- Flange Standard: ASME/ANSI B 16.1 Class 125
  ASME/ANSI B 16.42 Class 150
  BS EN 1092-2 PN 16
  GB / T9113.1
- Sizes: 2"(FM)
  2.5", 3", 4", 5", 6", 8", 10", 12" (FM UL)
  14", 16", 18", 20", 24"
- Face to Face Standard: ASME B16.10
- Approvals: UL, CUL, FM, NSF / ANSI 61 & NSF / ANSI 372, CCC
- Maximum Working Pressure: 300PSI
- Maximum Testing Pressure: 600PSI
- Pressure conforms to FM 1120 / 1130, UL 262, ULC / ORD C262-92
- Working Temperature Range: 0~80°C / 32~176°F
- Coating Details: Epoxy 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

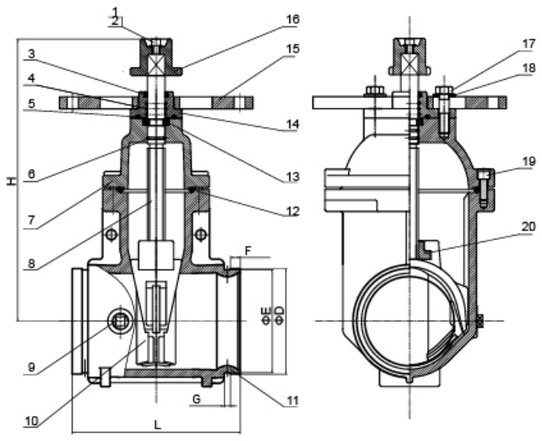
Size	DN	L	D	H
2½"	65	190	178	292
3"	80	203	191	322
4"	100	229	229	342
5"	125	254	254	412
6"	150	267	279	448
8"	200	292	343	534
10"	250	330	406	635
12"	300	356	483	720

300PSI NRS Grooved End Gate Valve — Model: Z85-300

Resilient Wedge NRS Gate valve – Grooved End

Technical Features

- Groove standard: Metric or ANSI / AWWA C606
- Face to Face Standard: ASME B16.10
- Sizes: 2"(FM)
  2.5", 3", 4", 5", 6", 8", 10", 12" (FM UL)
- Approvals: UL, CUL, FM, NSF / ANSI 61 & NSF / ANSI 372
- Maximum Working Pressure: 300PSI
- Maximum Testing Pressure: 600PSI
- Pressure conforms to FM 1120 / 1130, UL 262, ULC / ORD C262-92
- Working Temperature Range: 0~80°C / 32~176°F
- Coating Details: Epoxy or Coating upon request
- NPT plug on body with 2 operating nuts
- Certified lead-free by NSF / ANSI 61 & NSF / ANSI 372 is available



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

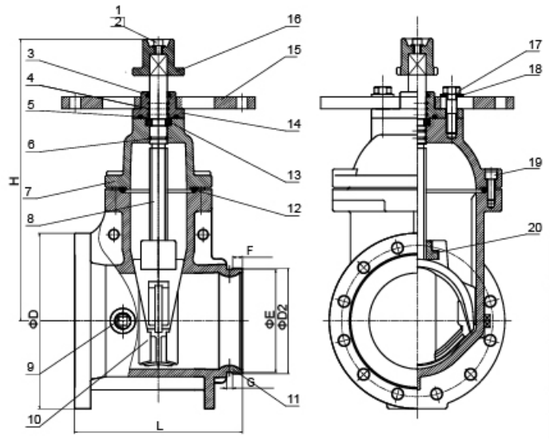
NO.	Name	Material
1	Flat Washer	Steel 1045 or Stainless Steel 304
2	Hexagon Socket Screw	Steel 1045 or Stainless Steel 304
3	Sealing Ring	EPDM
4	O-Ring	EPDM
5	Sealing Ring	EPDM
6	O-Ring	EPDM
7	Bonnet	Ductile Iron
8	Stem	Stainless Steel 304 or C95400
9	Plug	Stainless Steel 304 or C95400
10	Disc	Ductile 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
18	Washer	Stainless Steel 304 or Steel 1045
19	Hexagon Socket Screw	Steel 1045 or Stainless Steel 304
20	Stem Nut	CF8 or C95400

300PSI NRS Flanged x Grooved End Gate Valve — Model: Z485-300

Resilient Wedge NRS Gate valve – Grooved x Flanged End

Technical Features

- Face to Face Standard: ASME B16.10
- Sizes: 2.5", 3", 4", 5", 6", 8", 10", 12" (FM UL)
- Flange Standard: ASME/ANSI B 16.1 Class 125
  ASME/ANSI B 16.42 Class 150
  BS EN 1092-2 PN 16
  GB / T9113.1
- Groove Standard: Metric or ANSI / AWWA C606
- Approvals: UL, CUL, FM, NSF / ANSI 61 & NSF / ANSI 372
- Maximum Working Pressure: 300PSI
- Maximum Testing Pressure: 600PSI
- Pressure conforms to FM 1120 / 1130, UL 262, ULC / ORD C262-92
- Working Temperature Range: 0~80°C / 32~176°F
- Coating Details: Epoxy or Coating upon request
- NPT plug on body with 2 operating nuts
- Certified lead-free by NSF / ANSI 61 & NSF / ANSI 372 is available



Dimensions

Size	DN	L	D	F	D2	E	G	H
2½"	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

Valve Material List

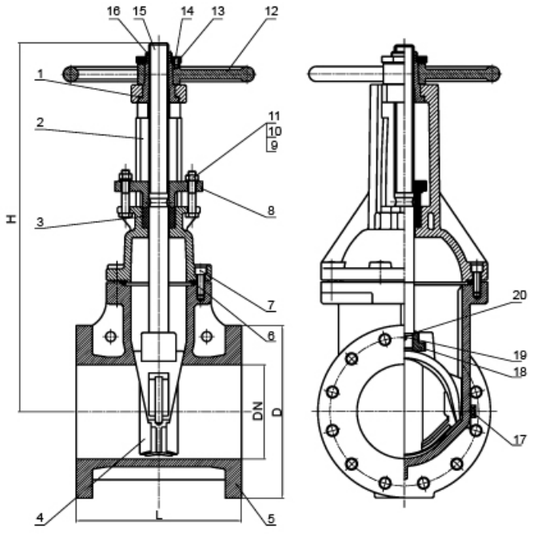
NO.	Name	Material
1	Flat Washer	Steel 1045 or Stainless Steel 304
2	Hexagon Socket Screw	Steel 1045 or Stainless Steel 304
3	Sealing Ring	EPDM
4	O-Ring	EPDM
5	Sealing Ring	EPDM
6	O-Ring	EPDM
7	Bonnet	Ductile Iron
8	Stem	Stainless Steel 304 or C95400
9	Plug	Stainless Steel 304 or C95400
10	Disc	Ductile 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

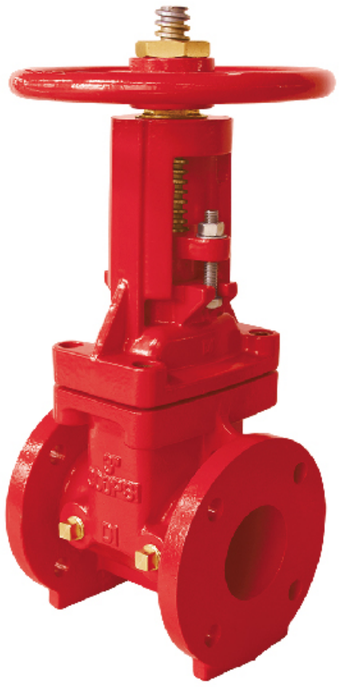
300PSI OS&Y Flanged End Gate Valve — Model: Z41-300A

Resilient Wedge OS & Y Gate Valve – Flanged End

Technical Features

- Design Standard: ANSI/AWWA C515
- Face to Face Standard : ASME B16.10
- Sizes: 2"(FM)
  2.5", 3", 4", 5", 6", 8", 10", 12" (FM UL)
  14", 16", 18", 20", 24"
- 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: FM, UL, CUL, NSF / ANSI 61 & NSF / ANSI 372
- Maximum Working Pressure: 300PSI
- Maximum Testing Pressure: 600 PSI
- Pressure conforms to FM 1120 / 1130, UL 262, ULC / ORD C262-92
- Working Temperature Range: 0~80°C / 32~176°F
- Coating Details: Epoxy or Coating upon request
- NPT plug on body with 2 operating nuts
- Certified lead-free by NSF/ANSI 61 & NSF / ANSI 372 is available





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

Valve Material List

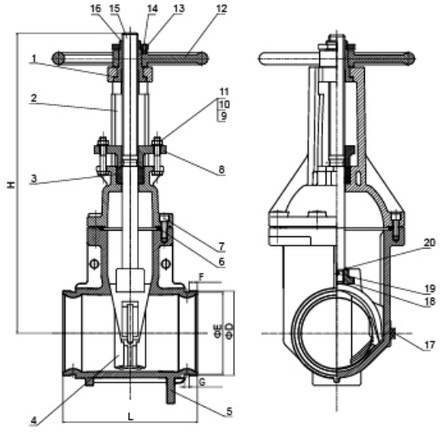
NO.	Name	Material	Standard
1	Gasket	Stainless Steel 304 or C95400	ASTM A276 or ASTM B148
2	Bonnet	Ductile Iron	ASTM A536 Grade 65-45-12
3	Packing	Graphite	
4	Disc	Ductile Iron +EPDM	ASTM A536 Grade 65-45-12+ASTM D2000
5	Body	Ductile Iron	ASTM A536 Grade 65-45-12
6	Sealing Ring	EPDM	ASTM D2000
7	Bolt	Stainless Steel 304 or Steel 1045	Bolt / Stainless Steel 304 / ASTM A276 or 1045, ASTM A29
8	Gland	Ductile Iron	ASTM A536 Grade 65-45-12
9	Nut	Stainless Steel 304 or Steel 1045	Nut / Stainless Steel 304 / ASTM A276 or 1045, ASTM A29
10	Flat Washer	Stainless Steel 304 or Steel 1045	Flat Washer / Stainless Steel 304 / ASTM A276 or 1045, ASTM A29
11	Bolt	Stainless Steel 304 or Steel 1045	Bolt / Stainless Steel 304 / ASTM A276 or 1045, ASTM A29
12	Handwheel	Ductile Iron	ASTM A536 Grade 65-45-12
13	Lock Nut	C95400	ASTM B148
14	Locating Screw	Stainless Steel 304 or Steel 1045	Stainless Steel 304 / ASTM A276 or 1045, ASTM A29
15	Stem	Stainless Steel 304 or C95400	ASTM B148
16	Stem Nut	C95400	ASTM B148
17	Plug	C95400	ASTM B148
18	Lifting Nut	CF8 or C95400	CF8/CF8M or C95400 / ASTM A351 or ASTM B148
19	Pin	Stainless Steel 304	ASTM A276
20	Sealing Ring	EPDM	ASTM D2000

300PSI OS&Y Grooved End Gate Valve — Model: Z81-300A

Resilient Wedge OS & Y Gate Valve – Grooved End

Technical Features

- Design Standard: ANSI/AWWA C515
- Flange Standard: ASME/ANSI B 16.1 Class 125
  ASME/ANSI B 16.42 Class 150
  BS EN 1092-2 PN 16
  GB / T9113.1
- Groove Standard: ANSI / AWWA C606 or Metric
- Face to Face Standard: ASME B16.10
- Sizes: 2"(FM)
  2.5", 3", 4", 5", 6", 8", 10", 12" (FM UL)
- Approvals: FM, UL, CUL, NSF / ANSI 61 & NSF / ANSI 372
- Maximum Working Pressure: 300PSI
- Maximum Testing Pressure: 600 PSI
- Pressure conforms to FM 1120 / 1130, UL 262, ULC / ORD C262-92
- Working Temperature Range: 0~80°C / 32~176°F
- Coating Details: Epoxy or Coating upon request
- NPT plug on body with 2 operating nuts
- Certified lead-free by NSF / ANSI 61 & NSF / ANSI 372 is available



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
				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

Valve Material List

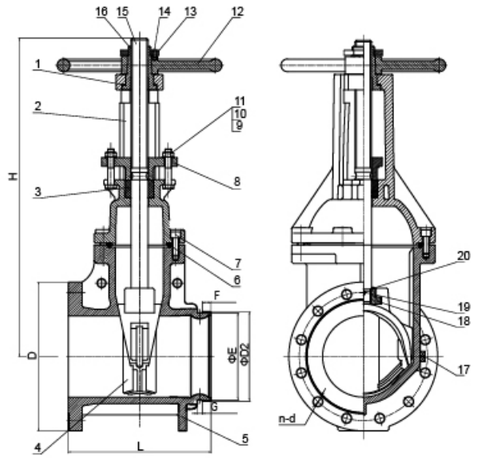
NO.	Name	Material	Standard
1	Gasket	Stainless Steel 304	ASTM A276 / C95400, ASTM B148
2	Bonnet	Ductile Iron	ASTM A536 Grade 65-45-12
3	Packing	Graphite	
4	Disc	Ductile Iron +EPDM	ASTM A536 Grade 65-45-12, ASTM D2000
5	Body	Ductile Iron	ASTM A536 Grade 65-45-12
6	Sealing Ring	EPDM	ASTM D2000
7	Bolt	Stainless Steel 304 or Steel 1045	ASTM A276 / ASTM A29
8	Gland	Ductile Iron	ASTM A536 Grade 65-45-12
9	Nut	Stainless Steel 304 or Steel 1045	ASTM A276 / ASTM A29
10	Flat Washer	Stainless Steel 304 or Steel 1045	ASTM A276 / ASTM A29
11	Bolt	Stainless Steel 304 or Steel 1045	ASTM A276 / ASTM A29
12	Handwheel	Ductile Iron	ASTM A536 Grade 65-45-12
13	Lock Nut	C95400	ASTM B148
14	Locating Screw	Stainless Steel 304 or Steel 1045	ASTM A276 / ASTM A29
15	Stem	Stainless Steel 304 or C95400	ASTM A276 / ASTM B148
16	Stem Nut	C95400	ASTM B148
17	Plug	C95400	ASTM B148
18	Lifting Nut	CF8 or C95400	ASTM A351/ ASTM B148
19	Pin	Stainless Steel 304	ASTM A276
20	Sealing Ring	EPDM	ASTM D2000

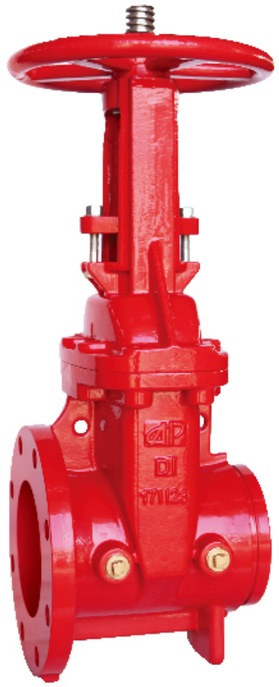
300PSI OS&Y Flanged X Grooved End Gate Valve — Model: Z481-300A

Resilient Wedge OS & Y Gate Valve – Flanged x Grooved End

Technical Features

- Design Standard: ANSI/AWWA C515
- Face to Face Standard : ASME B16.10
- Sizes: 2", 2.5", 3", 4", 5", 6", 8", 10", 12"(FM UL)
- Flange Standard: ASME/ANSI B 16.1 Class 125
  ASME/ANSI B 16.42 Class 150
  BS EN 1092-2 PN 16
  GB / T9113.1
- Groove Standard: ANSI / AWWA C606 or Metric
- Approvals: FM, UL, CUL, NSF / ANSI 61 & NSF/ANSI 372
- Maximum Working Pressure: 300PSI
- Maximum Testing Pressure: 600 PSI
- Pressure conforms to FM 1120 / 1130, UL 262, ULC / ORD C262-92
- Working Temperature Range: 0~80°C / 32~176°F
- Coating Details: Epoxy 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	Standard
1	Gasket	Stainless Steel 304 or C95400	ASTM A276 / ASTM B148
2	Bonnet	Ductile Iron	ASTM A536 Grade 65-45-12
3	Packing	Graphite	
4	Disc	Ductile Iron +EPDM	ASTM A536 Grade 65-45-12, ASTM D2000
5	Body	Ductile Iron	ASTM A536 Grade 65-45-12
6	Sealing Ring	EPDM	ASTM D2000
7	Bolt	Stainless Steel 304 or Steel 1045	ASTM A276 / ASTM A29
8	Gland	Ductile Iron	ASTM A536 Grade 65-45-12
9	Nut	Stainless Steel 304 or Steel 1045	ASTM A276 / ASTM A29
10	Flat Washer	Stainless Steel 304 or Steel 1045	ASTM A276 / ASTM A29
11	Bolt	Stainless Steel 304 or Steel 1045	ASTM A276 / ASTM A29
12	Handwheel	Ductile Iron	ASTM A536 Grade 65-45-12
13	Lock Nut	C95400	ASTM B148
14	Locating Screw	Stainless Steel 304 or Steel 1045	ASTM A276 / ASTM A29
15	Stem	Stainless Steel 304 or C95400	ASTM A276 / ASTM B148
16	Stem Nut	C95400	ASTM B148
17	Plug	C95400	ASTM B148
18	Lifting Nut	CF8 or C95400	ASTM A351 / ASTM B148
19	Pin	Stainless Steel 304	ASTM A276
20	Sealing Ring	EPDM	ASTM D2000

Dimensions

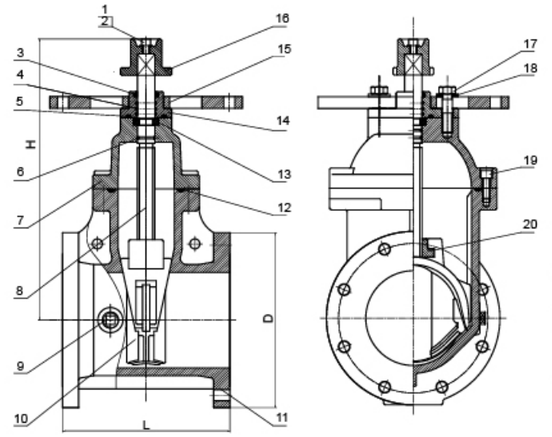
Size	DN	L	D	F	D2	E	G	H
2½"	65	190	178	15.9	73	69.1	7.9	370
					76.1	72.3		
3"	80	203	191	15.9	88.9	84.9	7.9	420
4"	100	229	229	15.9	114.3	110.1	9.5	447
5"	125	254	254	15.9	139.7	135.5	9.5	547
					141.3	137		
6"	150	267	279	15.9	165.1	160.8	9.5	607
					168.3	163.9		
8"	200	292	343	19	216.3	211.6	11.1	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

300PSI NRS Flanged End Gate Valve — Model: Z45-300A

Resilient Wedge NRS Gate Valve – Flanged End

Technical Features

- Design Standard: ANSI/AWWA C515
- Face to Face Standard : ASME B16.10
- Sizes: 2"(FM)
  2.5", 3", 4", 5", 6", 8", 10", 12" (FM UL)
  14", 16", 18", 20", 24"
- Flange Standard: ASME/ANSI B 16.1 Class 125
  ASME/ANSI B 16.42 Class 150
  BS EN 1092-2 PN 16
  GB / T9113.1
- Approvals: FM, UL, CUL, NSF / ANSI 61 & NSF / ANSI 372
- Maximum Working Pressure: 300PSI
- Maximum Testing Pressure: 600PSI
- Pressure conforms to FM 1120 / 1130, UL 262, ULC / ORD C262-92
- Working Temperature Range: 0~80°C / 32~176°F
- Coating Details: Epoxy 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

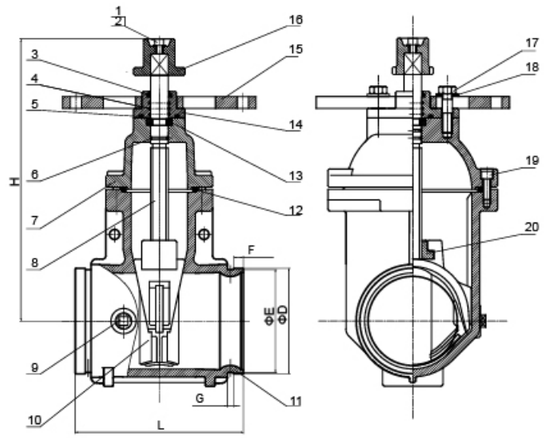
Size	DN	L	D	H
2"	50	178	152	265
2½"	65	190	178	292
3"	80	203	191	322
4"	100	229	229	342
5"	125	254	254	412
6"	150	267	279	448
8"	200	292	343	534
10"	250	330	406	635
12"	300	356	483	720

300PSI NRS Grooved End Gate Valve — Model: Z85-300A

Resilient Wedge NRS Gate Valve – Grooved End

Technical Features

- Design Standard: ANSI/AWWA C515
- Groove Standard: ANSI / AWWA C606 or Metric
- Face to Face Standard: ASME B16.10
- Sizes: 2"(FM)
  2.5", 3", 4", 5", 6", 8", 10", 12" (FM UL)
- Approvals: FM, UL, CUL, NSF / ANSI 61 & NSF / ANSI 372
- Maximum Working Pressure: 300PSI
- Maximum Testing Pressure: 600PSI
- Pressure conforms to FM 1120 / 1130, UL 262, ULC / ORD C262-92
- Working Temperature Range: 0~80°C / 32~176°F
- Coating Details: Epoxy 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
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

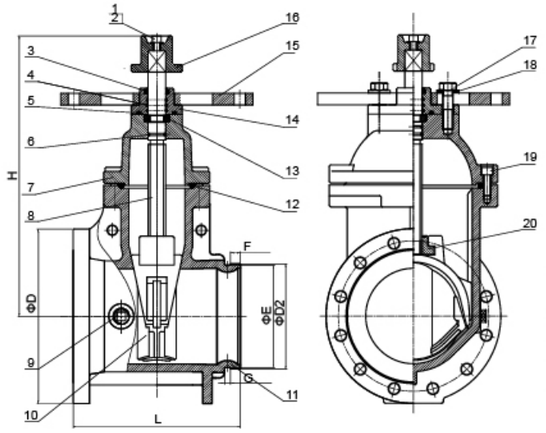
NO.	Name	Material
1	Flat Washer	Steel 1045 or Stainless Steel 304
2	Hexagon Socket Screw	Steel 1045 or Stainless Steel 304
3	Sealing Ring	EPDM
4	O-ring	EPDM
5	Sealing Ring	EPDM
6	O-ring	EPDM
7	Bonnet	Ductile Iron
8	Stem	Stainless Steel 304 or Steel 1045
9	Plug	Stainless Steel 304 or Steel 1045
10	Disc	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

300PSI NRS Flanged X Grooved End Gate Valve — Model: Z485-300A

Resilient Wedge NRS Gate Valve – Flanged x Grooved End

Technical Features

- Design Standard: ANSI/AWWA C515
- Flange Standard: ASME/ANSI B 16.1 Class 125
  ASME/ANSI B 16.42 Class 150
  BS EN 1092-2 PN 16
  GB / T9113.1
- Groove Standard: ANSI / AWWA C606 or Metric
- Face to Face Standard: ASME B16.10
- Sizes: 2"(FM)
  2.5", 3", 4", 5", 6", 8", 10", 12" (FM UL)
- Approvals: FM, UL, CUL, NSF / ANSI 61 & NSF/ANSI 372
- Maximum Working Pressure: 300PSI
- Maximum Testing Pressure: 600PSI
- Pressure conforms to FM 1120 / 1130, UL 262, ULC / ORD C262-92
- Working Temperature Range: 0~80°C / 32~176°F
- Coating Details: Epoxy 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	D	F	D2	E	G	H
2½"	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

Valve Material List

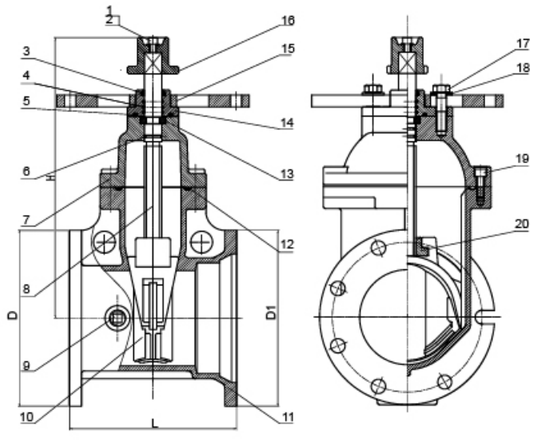
NO.	Name	Material
1	Flat Washer	Steel 1045 or Stainless Steel 304
2	Hexagon Socket Screw	Steel 1045 or Stainless Steel 304
3	Sealing Ring	EPDM
4	O-Ring	EPDM
5	Sealing Ring	EPDM
6	O-Ring	EPDM
7	Bonnet	Ductile Iron
8	Stem	Stainless Steel 304 or Steel 1045
9	Plug	Stainless Steel 304 or Steel 1045
10	Disc	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

300PSI NRS FL X MJ Gate Valve — Model: Z45-300FJA

Resilient Wedge NRS Gate Valve – Flanged x Mechanical Joint End

Technical Features

- Design Standard: ANSI/AWWA C515
- Sizes: 2"(FM)
  2.5", 5"(UL)
  3", 4", 6", 8", 12"(FM UL)
- Flange Standard: ASME/ANSI B 16.1 Class 125
  ASME/ANSI B 16.42 Class 150
  BS EN 1092-2 PN 16
  GB / T9113.1
- Mechanical Standard : ANSI / AWWA 110 or ANSI / AWWA C153
- Approvals: FM, UL, CUL, NSF / ANSI 61 & NSF / ANSI 372
- Maximum Working Pressure: 300PSI
- Maximum Testing Pressure: 600PSI
- Pressure conforms to FM 1120 / 1130, UL 262, ULC / ORD C262-92
- Working Temperature Range: 0~80°C / 32~176°F
- Coating Details: Epoxy or Coating upon request
- NPT plug on body with 1 operating nut
- 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

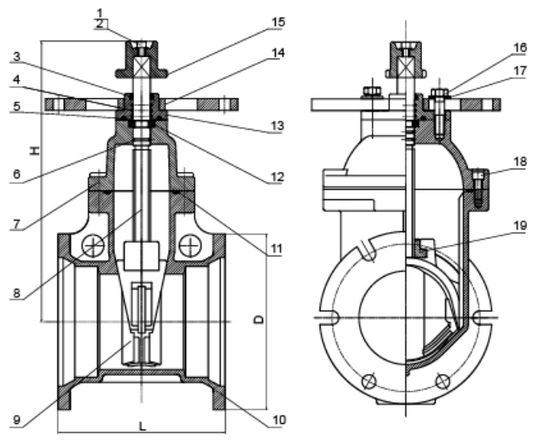
Size	DN	L	D	D1	H
2"	50	178	152	152	265
3"	80	203	191	195	322
4"	100	229	229	232	342
6"	150	267	279	282	448
8"	200	292	343	340	534
10"	250	330	406	399	635
12"	300	356	483	456	720

300PSI NRS MJ X MJ Gate Valve — Model: Z45-300MJA

Resilient Wedge NRS Gate Valve – Mechanical Joint x Mechanical Joint End

Technical Features

- Design Standard: ANSI/AWWA C515
- Sizes: 2"(FM)
  2.5", 5"(UL)
  3", 4", 6", 8", 12"(FM UL)
- Mechanical Standard : ANSI / AWWA 110 or ANSI / AWWA C153
- Approvals: FM, UL, CUL, NSF / ANSI 61 & NSF / ANSI 372
- Maximum Working Pressure: 300PSI
- Maximum Testing Pressure: 600PSI
- Pressure conforms to FM 1120 / 1130, UL 262, ULC / ORD C262-92
- Working Temperature Range: 0~80°C / 32~176°F
- Coating Details: Epoxy 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
2"	50	178	152	265
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

200PSI OS&Y Flanged End Gate Valve — Model: Z41

Resilient Wedge OS&Y Gate Valve – Flanged End

Technical Features

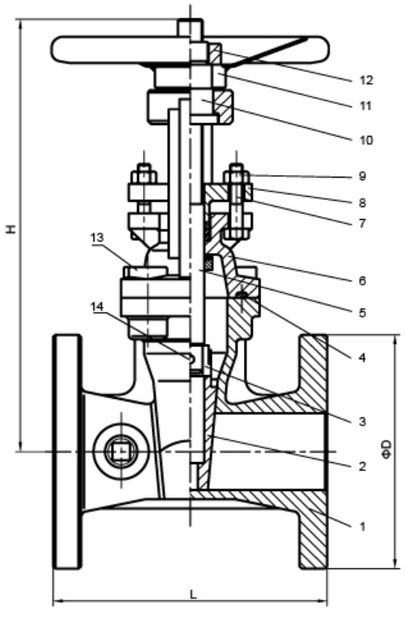
- Flange Standard: ASME/ANSI B 16.1 Class 125
  ASME/ANSI B 16.42 Class 150
  BS EN 1092-2 PN 16
  GB / T9113.1
- Face to Face Standard: ASME B16.10
- Sizes: 2", 2.5", 3", 4", 5", 6", 8", 10", 12" (FM UL)
  14", 16" (FM)
  18", 20", 24"
- 14", 16" with FM only
- Approvals: FM, UL, CUL, NSF / ANSI 61 & NSF / ANSI 372
- Maximum Working Pressure: 200PSI
- Maximum Testing Pressure: 400 PSI
- Pressure conforms to FM 1120 / 1130, UL 262, ULC / ORD C262-92
- Working Temperature Range: 0~80°C / 32~176°F
- Coating Details: Epoxy 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	Standard
1	Body	Ductile Iron	ASTM A536 Grade 65-45-12
2	Disc	Ductile Iron +EPDM	ASTM A536 Grade 65-45-12, ASTM D2000
3	Connecting Part	C95400	ASTM B148
4	Sealing Pad	EPDM	ASTM D2000
5	Stem	Stainless Steel 304	ASTM A276
6	Yoke	Ductile Iron	ASTM A536 Grade 65-45-12
7	Bolt	Steel 1045	ASTM A29
8	Gland	Ductile Iron	ASTM A536 Grade 65-45-12
9	Nut	Steel 1045	ASTM A29
10	Rotating Nut	C95400	ASTM B148
11	Handwheel	Steel 1045	ASTM A29
12	Lock Nut	Steel 1045	ASTM A29
13	Countersunk Head Bolt	Steel 1045	ASTM A29
14	Cylinder Pin	Stainless Steel 304	ASTM A276
15	Plug	C95400	ASTM B148

Dimensions

Size	L	H	øD
2"	178	313	152
2½"	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

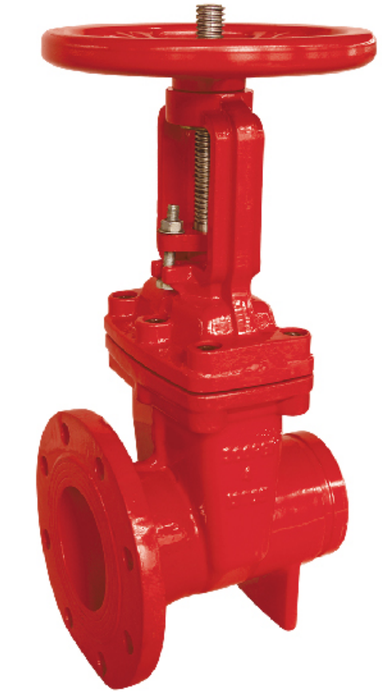


200PSI OS&Y Flanged x Grooved End Gate Valve — Model: Z481

Resilient Wedge OS&Y Gate Valve – Flanged x Grooved End

Technical Features

- Flange Standard: ASME/ANSI B 16.1 Class 125
  ASME/ANSI B 16.42 Class 150
  BS EN 1092-2 PN 16
  GB / T9113.1
- Groove standard : ANSI / AWWA C606 or Metric
- Face to Face Standard: ASME B16.10
- Sizes: 2", 2.5", 3", 4", 5", 6", 8", 10", 12"(FM UL)
- Approvals: FM, UL, CUL, NSF / ANSI 61 & NSF / ANSI 372
- Maximum Working Pressure: 200 PSI
- Maximum Testing Pressure: 400 PSI
- Pressure conforms to FM 1120 / 1130, UL 262, ULC / ORD C262-92
- Working Temperature Range: 0~80°C / 32~176°F
- Coating Details: Epoxy or Coating upon request
- NPT plug on body with 2 operating nuts
- Certified lead-free by NSF / ANSI 61 & NSF / ANSI 372 is available

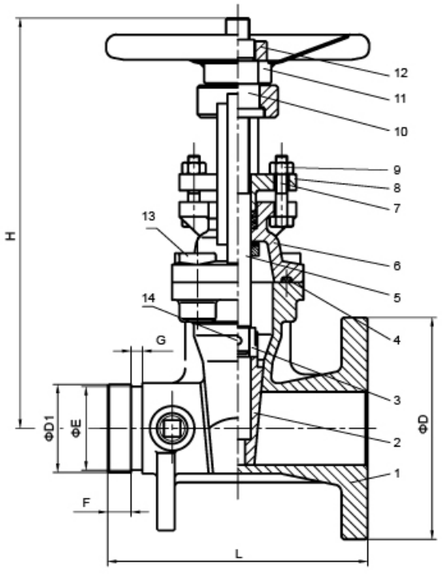


Valve Material List

NO.	Name	Material	Standard
1	Body	Ductile Iron	ASTM A536 Grade 65-45-12
2	Disc	Ductile Iron +EPDM	ASTM A536 Grade 65-45-12, ASTM D2000
3	Connecting Part	C95400	ASTM B148
4	Sealing Pad	EPDM	ASTM D2000
5	Stem	Stainless Steel 304	ASTM A276
6	Yoke	Ductile Iron	ASTM A536 Grade 65-45-12
7	Bolt	Steel 1045	ASTM A29
8	Gland	Ductile Iron	ASTM A536 Grade 65-45-12
9	Nut	Steel 1045	ASTM A29
10	Rotating Nut	C95400	ASTM B148
11	Handwheel	Steel 1045	ASTM A29
12	Lock Nut	Steel 1045	ASTM A29
13	Countersunk Head Bolt	Steel 1045	ASTM A29
14	Cylinder Pin	Stainless Steel 304	ASTM A276
15	Plug	C95400	ASTM B148

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



200PSI OS&Y Grooved End Gate Valve — Model: Z81

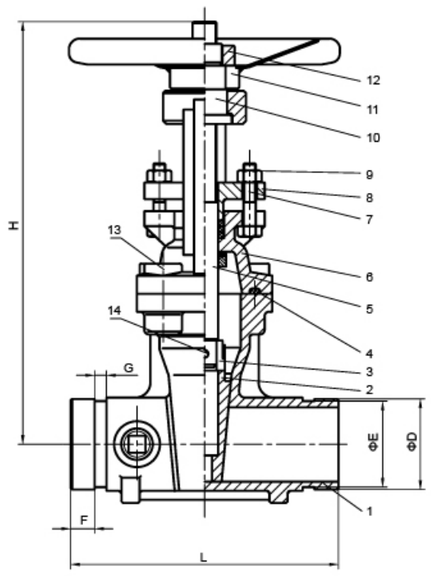
Resilient Wedge OS&Y Gate Valve – Grooved End

Technical Features

- Groove Standard : ANSI / AWWA C606 or Metric
- Face to Face Standard: ASME B16.10
- Sizes: 2"(FM)
  2.5", 3", 4", 5", 6", 8", 10", 12" (FM UL)
- Approvals: FM,UL, CUL, NSF / ANSI 61 & NSF / ANSI 372
- Maximum Working Pressure: 200PSI
- Maximum Testing Pressure: 400 PSI
- Pressure conforms to FM 1120 / 1130, UL 262, ULC / ORD C262-92
- Working Temperature Range: 0~80°C / 32~176°F
- Coating Details: Epoxy 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	Standard
1	Body	Ductile Iron	ASTM A536 Grade 65-45-12
2	Disc	Ductile Iron +EPDM	ASTM A536 Grade 65-45-12, ASTM D2000
3	Connecting Part	C95400	ASTM B148
4	Sealing Pad	EPDM	ASTM D2000
5	Stem	Stainless Steel 304	ASTM A276
6	Yoke	Ductile Iron	ASTM A536 Grade 65-45-12
7	Bolt	Stainless Steel 304	ASTM A276
8	Gland	Ductile Iron	ASTM A536 Grade 65-45-12
9	Nut	Stainless Steel 304	ASTM A276
10	Rotating Nut	C95400	ASTM B148
11	Handwheel	Steel 1045	ASTM A29
12	Lock Nut	Steel 1045	ASTM A29
13	Countersunk Head Bolt	Stainless Steel 304	ASTM A276
14	Cylinder Pin	Stainless Steel 304	ASTM A276
15	Plug	C95400	ASTM B148



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

200PSI NRS Flanged End Gate Valve — Model: Z45

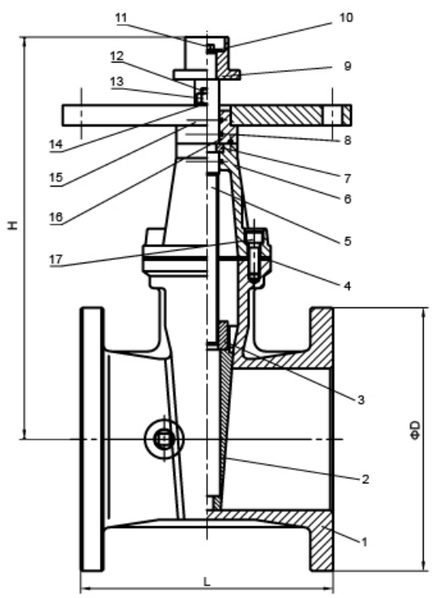
Resilient Wedge NRS Gate Valve – Flanged End

Technical Features

- Flange Standard: ASME/ANSI B 16.1 Class 125
  ASME/ANSI B 16.42 Class 150
  BS EN 1092-2 PN 16
  GB / T9113.1
- Face to Face Standard: ASME B16.10
- Sizes: 2"(FM)
  2.5", 3", 4", 5", 6", 8", 10", 12" (FM UL)
- Approvals: FM, UL, CUL, NSF / ANSI 61 & NSF / ANSI 372
- Maximum Working Pressure: 200PSI
- Maximum Testing Pressure: 400PSI
- Pressure conforms to FM 1120 / 1130, UL 262, ULC / ORD C262-92
- Working Temperature Range: 0~80°C / 32~176°F
- Coating Details: Epoxy 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	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

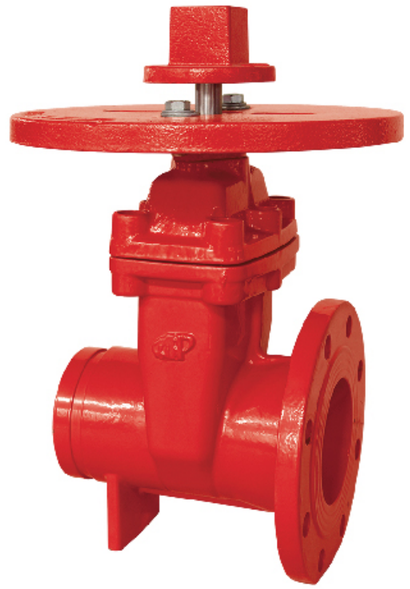
Size	L	H	øD
2"	178	265	152
2½"	190	289	178
3"	203	326	190
4"	229	355	229
5"	254	410	254
6"	267	455	279
8"	292	558	343
10"	330	648	406
12"	356	745	483

200PSI NRS Flanged x Grooved End Gate Valve — Model: Z485

Resilient Wedge NRS Gate Valve – Flanged x Grooved End

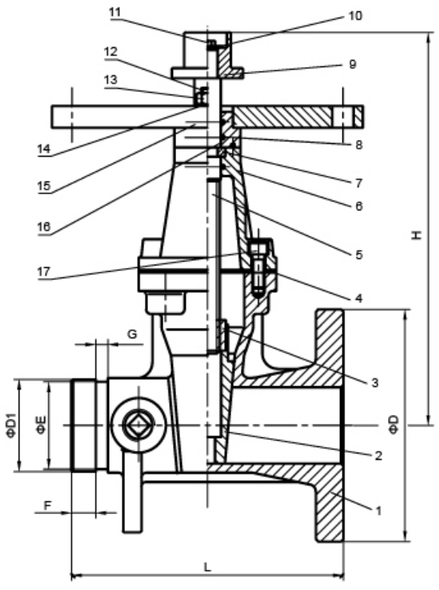
Technical Features

- Flange Standard: ASME/ANSI B 16.1 Class 125
  ASME/ANSI B 16.42 Class 150
  BS EN 1092-2 PN 16
  GB / T9113.1
- Groove standard: ANSI / AWWA C606 or Metric
- Face to Face Standard: ASME B16.10.
- Sizes: 2"(without UL/CUL), 2½", 3", 4", 5", 6", 8", 10", 12"
- Approvals: FM, UL, CUL, NSF / ANSI 61 & NSF / ANSI 372
- Maximum Working Pressure: 200PSI
- Maximum Testing Pressure: 400PSI
- Pressure conforms to FM 1120 / 1130, UL 262, ULC / ORD C262-92
- Working Temperature Range: 0~80°C / 32~176°F
- Coating Details: Epoxy 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	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

200PSI NRS Grooved End Gate Valve — Model: Z85

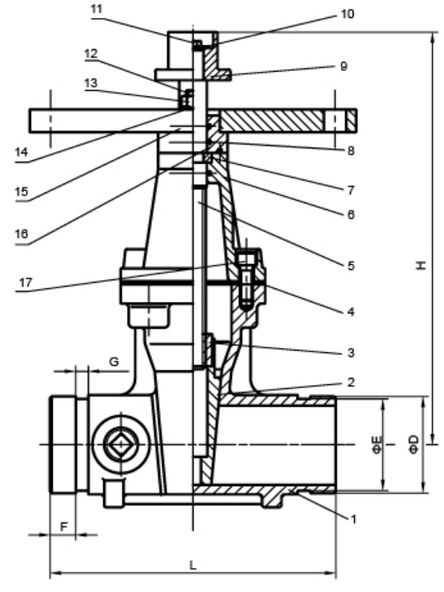
Resilient Wedge NRS Gate Valve – Grooved End

Technical Features

- Groove standard : ANSI / AWWA C606 or Metric
- Face to Face Standard: ASME B16.10
- Sizes: 2"(FM)
  2.5", 3", 4", 5", 6", 8", 10", 12" (FM UL)
- Approvals: FM, UL, CUL, NSF / ANSI 61 & NSF / ANSI 372
- Maximum Working Pressure: 200PSI
- Maximum Testing Pressure: 400PSI
- Pressure conforms to FM 1120 / 1130, UL 262, ULC / ORD C262-92
- Working Temperature Range: 0~80°C / 32~176°F
- Coating Details: Epoxy 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	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

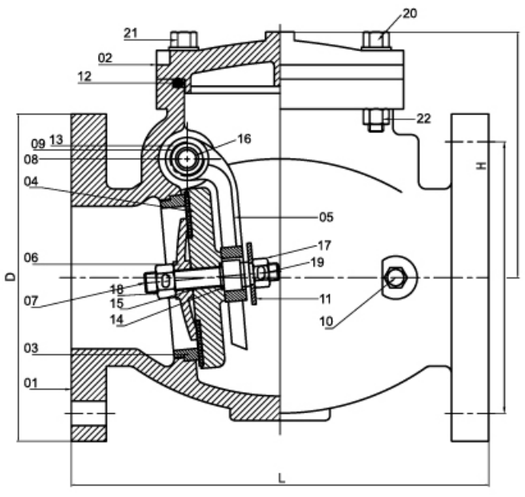
300PSI Flanged Swing Check Valve

Model: MH-XQH-300

Flanged End

Technical Features

- Design Standard: AWWA C508
- Flange Standard: ASME/ANSI B 16.1 Class 125
  ASME/ANSI B 16.42 Class 150
  BS EN 1092-2 PN 16
  GB / T9113.1
- Sizes: 2", 2½", 3", 4", 5", 6", 8", 10", 12"
- Face to Face Standard: ASME B16.10
- Approvals: UL, FM
- Maximum Working Pressure: 300PSI
- Maximum Testing Pressure: 600PSI
- Pressure conforms to UL 312/FM class 1210
- Working Temperature Range: 0~80°C / 32~176°F
- Coating Details: Epoxy coated 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
2½"	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

350PSI Grooved Swing Check Valve

Model: MH-XQH-350G

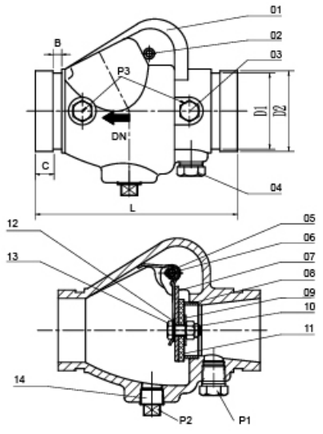
Grooved End

Technical Features

- Groove standard : ANSI / AWWA C606 or Metric
- Sizes: 2", 2½", 3", 4", 5", 6", 8", 10", 12"
- Approvals: UL, FM
- Flange Standard: ASME/ANSI B 16.1 Class 125
  ASME/ANSI B 16.42 Class 150
  BS EN 1092-2 PN 16
  GB / T9113.1
- Maximum Working Pressure: 350PSI
- Maximum Testing Pressure: 700PSI
- Pressure conforms to UL 312/FM class 1210
- Working Temperature Range: 0~80°C / 32~176°F
- Coating Details: Epoxy coated or coating upon request
- Other Connections: Flange*Flange; Groove*Flange; Flange*Groove
- Applications: Used in one-way flow pipeline to prevent the water from back flow

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 ¼-11	Rc1 ½-11	Rc2-11	Rc¼-19	Rc⅜-19	Rc½-14
						½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ¼-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¼-18NPT	⅜-18NPT	½-14NPT
2½"	181	69.09	73	7.95	15.88	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ¼-11	Rc1 ½-11	Rc2-11	Rc¼-19	Rc⅜-19	Rc½-14
		72.26	76.1			½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ¼-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¼-18NPT	⅜-18NPT	½-14NPT
3"	198	84.94	88.9	7.95	15.88	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ¼-11	Rc1 ½-11	Rc2-11	Rc¼-19	Rc⅜-19	Rc½-14
						½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ¼-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¼-18NPT	⅜-18NPT	½-14NPT
4"	214	110.08	114.3	9.53	15.88	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ¼-11	Rc1 ½-11	Rc2-11	Rc¼-19	Rc⅜-19	Rc½-14
						½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ¼-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¼-18NPT	⅜-18NPT	½-14NTP
5"	248	135.48	139.7	9.53	15.88	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ¼-11	Rc1 ½-11	Rc2-11	Rc¼-19	Rc⅜-19	Rc½-14
		137.03	141.3			½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ¼-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¼-18NPT	⅜-18NPT	½-14NPT
6"	270	160.78	165.1	9.53	15.88	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ¼-11	Rc1 ½-11	Rc2-11	Rc¼-19	Rc⅜-19	Rc½-14
		163.96	168.3			½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ¼-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¼-18NPT	⅜-18NPT	½-14NPT
8"	325	211.6	216.3	11.13	19.05	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ¼-11	Rc1 ½-11	Rc2-11	Rc¼-19	Rc⅜-19	Rc½-14
		214.4	219.1			½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ¼-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¼-18NPT	⅜-18NPT	½-14NPT
10"	457	268.3	273	12.7	19.05	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ¼-11	Rc1 ½-11	Rc2-11	Rc¼-19	Rc⅜-19	Rc½-14
						½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ¼-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¼-18NPT	⅜-18NPT	½-14NPT
12"	535	318.3	323.9	12.7	19.05	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ¼-11	Rc1 ½-11	Rc2-11	Rc¼-19	Rc⅜-19	Rc½-14
						½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ¼-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¼-18NPT	⅜-18NPT	½-14NPT

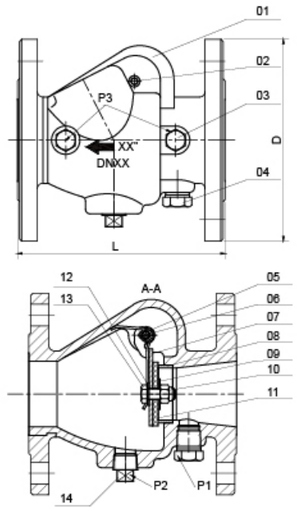
350PSI Flanged Swing Check Valve

Model: MH-XQH-350F

Flanged End

Technical Features

- Flange Standard: ASME/ANSI B 16.1 Class 125
  ASME/ANSI B 16.42 Class 150
  BS EN 1092-2 PN 16
  GB / T9113.1
- Sizes: 2", 2½", 3", 4", 5", 6", 8", 10", 12"
- Approvals: UL, FM
- Maximum Working Pressure: 350PSI
- Maximum Testing Pressure: 700PSI
- Pressure conforms to UL 312/FM class 1210
- Working Temperature Range: 0~80°C / 32~176°F
- Coating Details: Epoxy coated 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		
2"	169	152	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ¼-11	Rc1 ½-11	Rc2-11	Rc¼-19	Rc⅜-19	Rc½-14
			½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ¼-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¼-18NPT	⅜-18NPT	½-14NPT
2½"	181	178	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ¼-11	Rc1 ½-11	Rc2-11	Rc¼-19	Rc⅜-19	Rc½-14
			½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ¼-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¼-18NPT	⅜-18NPT	½-14NPT
3"	198	191	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ¼-11	Rc1 ½-11	Rc2-11	Rc¼-19	Rc⅜-19	Rc½-14
			½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ¼-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¼-18NPT	⅜-18NPT	½-14NPT
4"	214	229	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ¼-11	Rc1 ½-11	Rc2-11	Rc¼-19	Rc⅜-19	Rc½-14
			½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ¼-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¼-18NPT	⅜-18NPT	½-14NPT
5"	248	254	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ¼-11	Rc1 ½-11	Rc2-11	Rc¼-19	Rc⅜-19	Rc½-14
			½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ¼-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¼-18NPT	⅜-18NPT	½-14NPT
6"	270	280	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ¼-11	Rc1 ½-11	Rc2-11	Rc¼-19	Rc⅜-19	Rc½-14
			½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ¼-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¼-18NPT	⅜-18NPT	½-14NPT
8"	325	343	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ¼-11	Rc1 ½-11	Rc2-11	Rc¼-19	Rc⅜-19	Rc½-14
			½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ¼-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¼-18NPT	⅜-18NPT	½-14NPT
10"	457	406	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ¼-11	Rc1 ½-11	Rc2-11	Rc¼-19	Rc⅜-19	Rc½-14
			½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ¼-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¼-18NPT	⅜-18NPT	½-14NPT
12"	535	483	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ¼-11	Rc1 ½-11	Rc2-11	Rc¼-19	Rc⅜-19	Rc½-14
			½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ¼-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¼-18NPT	⅜-18NPT	½-14NPT

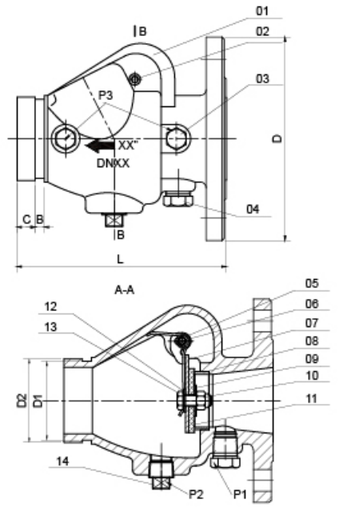
350PSI Grooved ×Flanged Swing Check Valve

Model: MH-XQH-350FG-A

Groove* Flange End

Technical Features

- Groove Standard: ANSI / AWWA C606 or Metric
- Flange Standard: ASME/ANSI B 16.1 Class 125
  ASME/ANSI B 16.42 Class 150
  BS EN 1092-2 PN 16
  GB / T9113.1
- Sizes: 2", 2½", 3", 4", 5", 6", 8", 10", 12"
- Approvals: UL, FM
- Maximum Working Pressure: 350PSI
- Maximum Testing Pressure: 700PSI
- Pressure conforms to UL 312/FM class 1210
- Working Temperature Range: 0~80°C / 32~176°F
- Coating Details: Epoxy coated 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

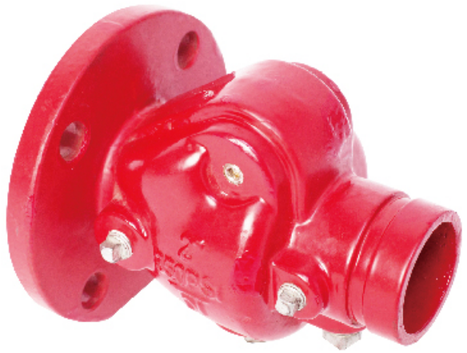
Dimensions

Size	L	D	D1	D2	B	C	P1	P2						P3		
2"	169	152	57.15	60.3	7.95	15.88	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ¼-11	Rc1 ½-11	Rc2-11	Rc¼-19	Rc⅜-19	Rc½-14
							½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ¼-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¼-18NPT	⅜-18NPT	½-14NPT
2½"	181	178	69.09	73	7.95	15.88	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ¼-11	Rc1 ½-11	Rc2-11	Rc¼-19	Rc⅜-19	Rc½-14
			72.26	76.1			½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ¼-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¼-18NPT	⅜-18NPT	½-14NPT
3"	198	191	84.94	88.9	7.95	15.88	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ¼-11	Rc1 ½-11	Rc2-11	Rc¼-19	Rc⅜-19	Rc½-14
							½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ¼-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¼-18NPT	⅜-18NPT	½-14NPT
4"	214	229	110.08	114.3	9.53	15.88	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ¼-11	Rc1 ½-11	Rc2-11	Rc¼-19	Rc⅜-19	Rc½-14
							½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ¼-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¼-18NPT	⅜-18NPT	½-14NPT
5"	248	254	135.48	139.7	9.53	15.88	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ¼-11	Rc1 ½-11	Rc2-11	Rc¼-19	Rc⅜-19	Rc½-14
			137.03	141.3			½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ¼-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¼-18NPT	⅜-18NPT	½-14NPT
6"	270	280	160.78	165.1	9.53	15.88	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ¼-11	Rc1 ½-11	Rc2-11	Rc¼-19	Rc⅜-19	Rc½-14
			163.96	168.3			½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ¼-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¼-18NPT	⅜-18NPT	½-14NPT
8"	325	343	211.6	216.3	11.13	19.05	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ¼-11	Rc1 ½-11	Rc2-11	Rc¼-19	Rc⅜-19	Rc½-14
			214.4	219.1			½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ¼-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¼-18NPT	⅜-18NPT	½-14NPT
10"	457	406	268.3	273	12.7	19.05	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ¼-11	Rc1 ½-11	Rc2-11	Rc¼-19	Rc⅜-19	Rc½-14
							½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ¼-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¼-18NPT	⅜-18NPT	½-14NPT
12"	535	483	318.3	323.9	12.7	19.05	Rc½-14	Rc½-14	Rc¾-14	Rc1-11	Rc1 ¼-11	Rc1 ½-11	Rc2-11	Rc¼-19	Rc⅜-19	Rc½-14
							½-14NPT	½-14NPT	¾-14NPT	1-11.5NPT	1 ¼-11.5NPT	1 ½-11.5NPT	2-11.5NPT	¼-18NPT	⅜-18NPT	½-14NPT

350PSI Flanged ×Grooved Swing Check Valve

Model: MH-XQH-350FG-B

Flange*Groove End

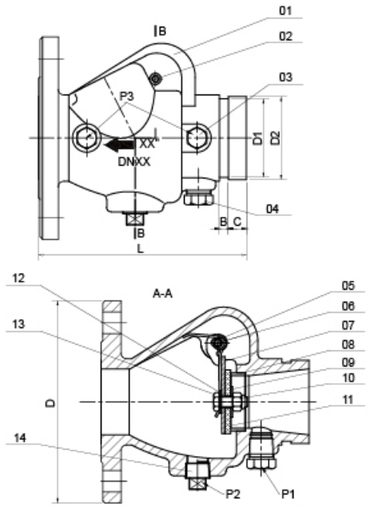


Technical Features

· Groove Standard: ANSI / AWWA C606 or Metric
· Flange Standard: ASME/ANSI B 16.1 Class 125
ASME/ANSI B 16.42 Class 150
BS EN 1092-2 PN 16
GB / T9113.1
· Sizes: 2", 2½", 3", 4", 5", 6", 8", 10", 12"
· Approvals: UL, FM .
· Maximum Working Pressure: 350 PSI
· Maximum Testing Pressure: 700 PSI
· Pressure conforms to UL312 & FM class 1210
· Working Temperature Range: 0~80°C / 32~176°F
· Coating Details: Epoxy coated 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	Rc½-14 ½-14NPT	Rc½-14 ½-14NPT	Rc¾-14 ¾-14NPT	Rc1-11 1-11.5NPT	Rc1 ¼-11 1 ¼-11.5NPT	Rc1 ½-11 1 ½-11.5NPT	Rc2-11 2-11.5NPT	Rc¼-19 ¼-18NPT	Rc⅜-19 ⅜-18NPT	Rc½-14 ½-14NPT
2½"	181	178	69.09 72.26	73 76.1	7.95	15.88	Rc½-14 ½-14NPT	Rc½-14 ½-14NPT	Rc¾-14 ¾-14NPT	Rc1-11 1-11.5NPT	Rc1 ¼-11 1 ¼-11.5NPT	Rc1 ½-11 1 ½-11.5NPT	Rc2-11 2-11.5NPT	Rc¼-19 ¼-18NPT	Rc⅜-19 ⅜-18NPT	Rc½-14 ½-14NPT
3"	198	191	84.94	88.9	7.95	15.88	Rc½-14 ½-14NPT	Rc½-14 ½-14NPT	Rc¾-14 ¾-14NPT	Rc1-11 1-11.5NPT	Rc1 ¼-11 1 ¼-11.5NPT	Rc1 ½-11 1 ½-11.5NPT	Rc2-11 2-11.5NPT	Rc¼-19 ¼-18NPT	Rc⅜-19 ⅜-18NPT	Rc½-14 ½-14NPT
4"	214	229	110.08	114.3	9.53	15.88	Rc½-14 ½-14NPT	Rc½-14 ½-14NPT	Rc¾-14 ¾-14NPT	Rc1-11 1-11.5NPT	Rc1 ¼-11 1 ¼-11.5NPT	Rc1 ½-11 1 ½-11.5NPT	Rc2-11 2-11.5NPT	Rc¼-19 ¼-18NPT	Rc⅜-19 ⅜-18NPT	Rc½-14 ½-14NPT
5"	248	254	135.48 137.03	139.7 141.3	9.53	15.88	Rc½-14 ½-14NPT	Rc½-14 ½-14NPT	Rc¾-14 ¾-14NPT	Rc1-11 1-11.5NPT	Rc1 ¼-11 1 ¼-11.5NPT	Rc1 ½-11 1 ½-11.5NPT	Rc2-11 2-11.5NPT	Rc¼-19 ¼-18NPT	Rc⅜-19 ⅜-18NPT	Rc½-14 ½-14NPT
6"	270	280	160.78 163.96	165.1 168.3	9.53	15.88	Rc½-14 ½-14NPT	Rc½-14 ½-14NPT	Rc¾-14 ¾-14NPT	Rc1-11 1-11.5NPT	Rc1 ¼-11 1 ¼-11.5NPT	Rc1 ½-11 1 ½-11.5NPT	Rc2-11 2-11.5NPT	Rc¼-19 ¼-18NPT	Rc⅜-19 ⅜-18NPT	Rc½-14 ½-14NPT
8"	325	343	211.6 214.4	216.3 219.1	11.13	19.05	Rc½-14 ½-14NPT	Rc½-14 ½-14NPT	Rc¾-14 ¾-14NPT	Rc1-11 1-11.5NPT	Rc1 ¼-11 1 ¼-11.5NPT	Rc1 ½-11 1 ½-11.5NPT	Rc2-11 2-11.5NPT	Rc¼-19 ¼-18NPT	Rc⅜-19 ⅜-18NPT	Rc½-14 ½-14NPT
10"	457	406	268.3	273	12.7	19.05	Rc½-14 ½-14NPT	Rc½-14 ½-14NPT	Rc¾-14 ¾-14NPT	Rc1-11 1-11.5NPT	Rc1 ¼-11 1 ¼-11.5NPT	Rc1 ½-11 1 ½-11.5NPT	Rc2-11 2-11.5NPT	Rc¼-19 ¼-18NPT	Rc⅜-19 ⅜-18NPT	Rc½-14 ½-14NPT
12"	535	483	318.3	323.9	12.7	19.05	Rc½-14 ½-14NPT	Rc½-14 ½-14NPT	Rc¾-14 ¾-14NPT	Rc1-11 1-11.5NPT	Rc1 ¼-11 1 ¼-11.5NPT	Rc1 ½-11 1 ½-11.5NPT	Rc2-11 2-11.5NPT	Rc¼-19 ¼-18NPT	Rc⅜-19 ⅜-18NPT	Rc½-14 ½-14NPT

Riser Manifold (Commercial and Residential)

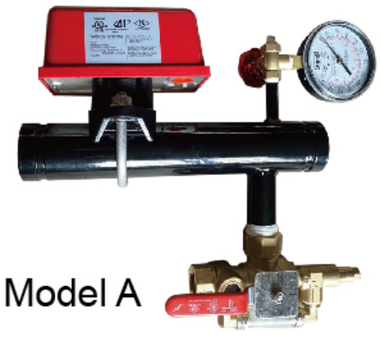
Model A & Model B

The riser manifold Model A is designed to serve as the central connection point between the water supply and the fire sprinkler piping. It integrates various components to control, monitor, and test the system.

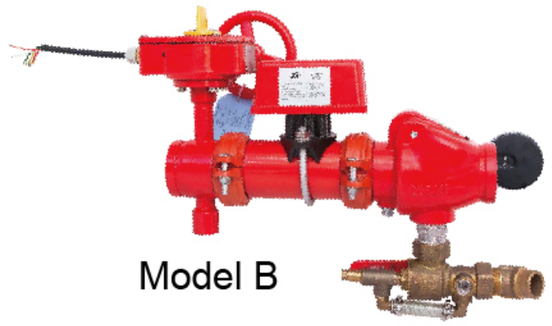
The riser manifold Model B is designed primarily for use as a floor or zone control assembly in NFPA 13 or 13R applications. It can also function as a conventional wet system riser.

Product Features

· Compact, light weight design
· Space Efficiency
· Schedule 40 welded body (2" through 8")
· Vertical or horizontal installation
· Grooved components enable universal application
· Assembled with FM&UL Approved components
· Size: DN50-DN200 /2"-8"
· Thread standard: NPT
· Groove standard: AWWA C606
· Maximum Working pressure: 300 PSI
· Working Tempreature: 4-70°C



Model A



Model B

Applications in Fire Protection

· Commercial Buildings: Office buildings, shopping malls, and warehouses use this assembly to ensure a reliable and compact fire protection solution.
· Residential High-Rises: It is used in multi-family residences to maintain compact sprinkler riser configurations.
· Industrial Facilities: Ideal for facilities with limited space but a need for robust fire protection systems.

Product Description

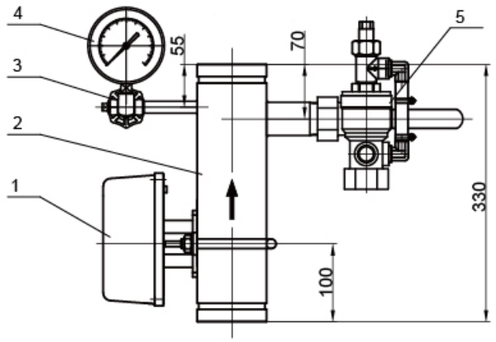
The Riser Manifold Model A is an assembled unit complete with water flow switch, pressure gauge, and test&drain as a cost-effective system riser or floor control assembly.
The Riser Manifold Model B is assembled with butterfly valve, check valve, water flow switch, pressure gauge, and test&drain as a costeffective system riser or floor control assembly.
Model A and Model B are factory-assembled and arrive ready to install.

Test and Drain Valve installed on the riser manifold provides a simplified means for testing of waterflow alarm devices and draining for feed mains. Moreover, test and drain valve reduces the risk of leaks with robust, globe-style design and offers integrated pressure relief, which has an adjustable range of 175 psi to 310 psi. Excess system pressure is exhausted internally through the valve' s drain outlet.

Model A

Dimensions

Valve Size	End Connections	Material	End to End Take Out	Drain Size
2"(50mm)	Threaded/Grooved	Schedule 40 Steel	210mm/330mm	1"(25mm)
2-½"(65mm)	Grooved	Schedule 40 Steel	330mm	1-¼"(32mm)
3"(80mm)	Grooved	Schedule 40 Steel	330mm	1-¼"(32mm)
4"(100mm)	Grooved	Schedule 40 Steel	330mm	2"(50mm)
6"(150mm)	Grooved	Schedule 40 Steel	330mm	2"(50mm)
8"(200mm)	Grooved	Schedule 40 Steel	330mm	2"(50mm)



Structure Character

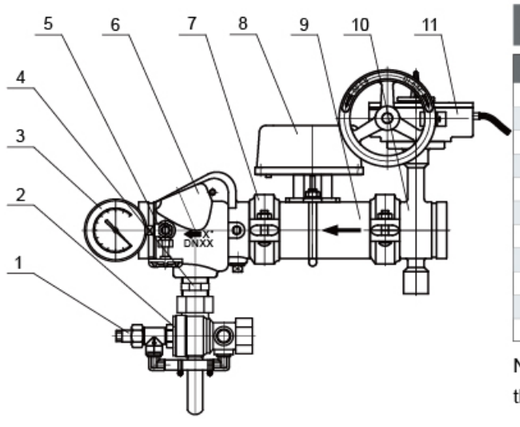
NO.	Name	Material	QTY.
1	Water Flow Switch	Spare Parts Of Water Flow Switch	1
2	Connection Pipe	Steel/ss304	1
3	Three-way Valve	Spare Parts Of Three-way Valve	1
4	Pressure Gauge	Spare Parts Of Gauge	1
5	Test&drain Valve	Spare Parts Of Test&drain Valve	1

Notes: The arrow stands for the direction of flow, please ensure the right direction when install the device.

Model B

Dimensions

Valve Size	End Connections	Material	End to End Take Out	Drain Size
2"(50mm)	Threaded/Grooved	Schedule 40 Steel	200mm	1"(25mm)
2-1/2"(65mm)	Grooved	Schedule 40 Steel	200mm	1-¼"(32mm)
3"(80mm)	Grooved	Schedule 40 Steel	200mm	1-¼"(32mm)
4"(100mm)	Grooved	Schedule 40 Steel	200mm	2"(50mm)
5"(125mm)	Grooved	Schedule 40 Steel	240mm	2"(50mm)
6"(150mm)	Grooved	Schedule 40 Steel	250mm	2"(50mm)
8"(200mm)	Grooved	Schedule 40 Steel	300mm	2"(50mm)

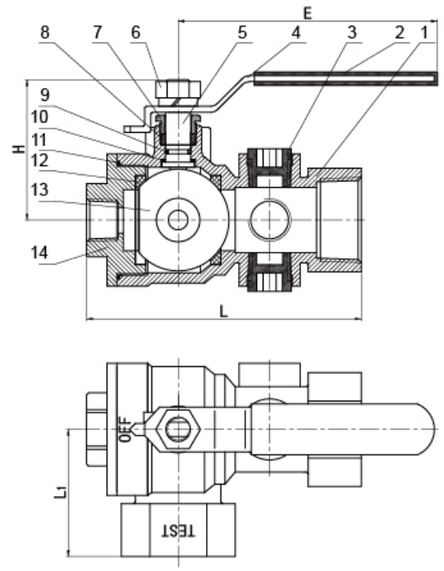


Structure Character

NO.	Name	Material	QTY.
1	Pressure Relief Valve	Spare Parts of Pressure Relief Valve	1
2	Test&drain Valve	Spare Parts of Test&drain Valve	1
3	Pressure Gauge	Spare Parts of Gauge	1
4	Connector	SS304	1
5	Three-way Valve	Spare Parts of Three-way Valve	1
6	Groove Check Valve	Spare Parts of Check Valve	1
7	Groove Coupling	Spare Parts of Groove Coupling	2
8	Water Flow Switch	Spare Parts of Water Flow Switch	1
9	Connection Pipe	Steel/SS304	1
10	Groove Butterfly Valve	Spare Parts of Butterfly Valve	1
11	Signal Gear Box	Spare Parts of Gear Box	1

Notes: The arrow stands for the direction of flow, please ensure the right direction when install the device.

Riser Manifold (Commercial and Residential) Model A & Model B



Test& Drain valve

SIZE	L	L1	E	H
1"	124	57	126	63
1 1/4"	135	62	126	68.5
1 1/2"	147	70	152	78.5
2"	161	82	152	87

NO.	Name	Qty	Material	Drawing No.	Remarks
1	Body	1	C954	MH-CSF-FT-XXX	
2	Handle sleeve	1	PVC	MH-CSF-001	
3	Sight Glass	2	PV	MH-CSF-002	
4	Handle	1	Steel/SS304	MH-CSF-003	
5	Stem	1	C954/SS304	MH-CSF-004	
6	Nut	1	Steel/SS304	DIN 985	
7	Gland	1	C954/SS304	MH-CSF-005	
8	Packing	1	PTFE	MH-CSF-006	
9	O Ring	1	EPDM	MH-CSF-007	
10	Thrust washer	1	PTFE	MH-CSF-008	
11	Gasket	1	PTFE	MH-CSF-009	
12	Seat	2	PTFE	MH-CSF-010	
13	Ball	1	C954/SS304	MH-CSF-011	
14	End cap	1	C954	MH-CSF-FG-XXX	

Installation

Prior to installation, verify compatibility of the Model materials with the water supply and the environment where the valve will be installed. This assembly must be installed in a location where the temperature is maintained at a minimum of 50° F (4° C). The Riser Manifold Model A and Model B both can be installed either horizontally (flow switch on top) or vertically (flow going up).

Step 1. Connect the inlet of the device to the water supply and the outlet of the device to the fire protection system. Ensure proper direction of flow using the diagrams contained in this catalog (Please see the arrow on the GAD).
Step 2. Connect the drain line. Set the Test and Drain Valve to the OFF position or close the drain valve.
Step 3. For wiring guidance, see the gudiance of the water flow switch/ butterfly valve.
Step 4. Place the system in service by filling the system with water. When filling the system, partially open the control valve to slowly fill the system. Filling the system slowly will help avoid damaging the waterflow alarm switch. After the system is fully pressurized, completely open the control valve.
Step 5. Secure all supply valves open except the drain valve.

Care and Maintenance

It is recommended that automatic sprinkler systems be inspected, tested, and maintained by a qualified Inspection service in accordance with local requirements and/or national codes.
And we recommend that open the drain valve every three monthes to check the status and the alarm fuction of this assembly.

Vertical Type Indicator Post

Model: ZSQ

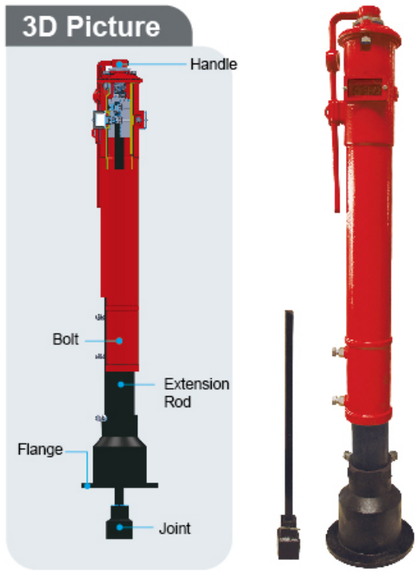
Technical Features

- Approvals: UL, CUL, FM
- Design Standard: in accordance with UL 789 & ULC / ORD-C789 & FM 1110
- Adjustable buried length: 570mm to 1500mm
- Application: Used to identify the position of buried gate Valves from 4" to 12"

Operation Manual

- Remove the indicator cover
- Adjust the length of the connecting rod according to buried depth and cut off the excessive part
- Connect the indicator post and gate valve which is in the closed position
- Adjust the indicator to the position of "SHUT"
- Tighten the bolts between the flange of the indicator post and post flange of gate valve
- Install the indicator cover

3D Picture

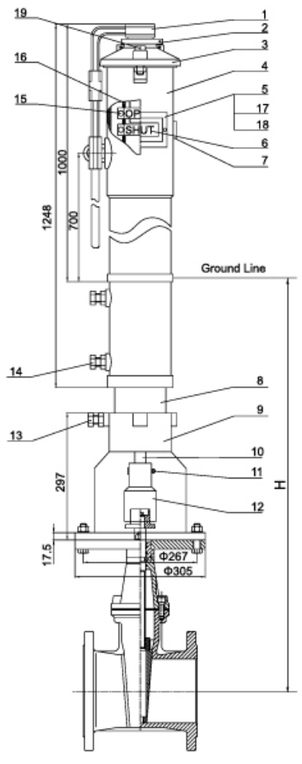


Material List

NO.	Name	Material
1	Handle	Ductile Iron
2	Driving Rod	Stainless Steel 304
3	Indicator Cover	Cast Iron
4	Housing	Cast Iron
5	Keyhole Plate	A283 Gr.C
6	Indicator Plate	A413.0
7	Screwed Plug	Steel 1035
8	Extension Rod	A283 Gr.C
9	Flange	Cast Iron
10	Connecting Rod	Steel 1045
11	Cotter Pin	Steel 1035
12	Joint	Cast Iron
13	Bolt	Steel 1035
14	Bolt	Steel 1035
15	Bolt	Steel 1035
16	Driving Nut	Stainless Steel 304
17	Keyhole Plate Gasket	EPDM
18	Indicator Flap	Organic Glass
19	Bolt	Steel 1035

Dimensions

Size	H(mm)(200PSI)		H(mm)(300PSI)	
	MIN.	MAX.	MIN.	MAX.
4"	850	1780	825	1755
5"	880	1810	890	1820
6"	917	1847	926	1856
8"	1022	1952	1012	1942
10"	1115	2045	1108	2038
12"	1204	2134	1188	2118



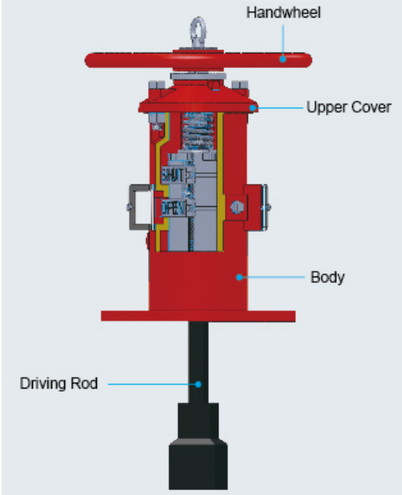
Wall Type Indicator Post

Model: QSCZG

Technical Features

- Approvals: UL, CUL, FM
- Design Standard: accordance with UL 789 & ULC / ORD-C789 & FM 1110
- Application: Used to operate a valve installed behind the wall

3D Picture

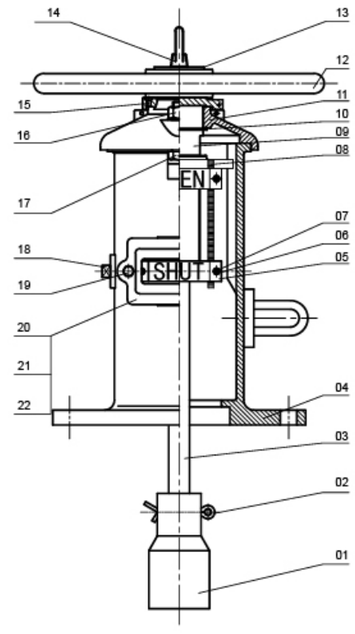


Operation Manual

- Adjust the length of the connecting rod according to the depth of gate valve and cut off the excessive part
- Install the indicator post to the wall
- Connect the indicator post and gate valve which is in the closed position
- Adjust the indicator to the position of "SHUT"

Material List

NO.	Name	Material
1	Joint	Cast Iron
2	Cotter Pin	Steel 1035
3	Driving Rod	Steel 1045
4	Main Body	Cast Iron
5	Indicator Plate	A413.0
6	Nut, Gasket	Steel 1035
7	Stud Bolt	Steel 1035
8	Position Bracket	Stainless Steel 304
9	Driver	Stainless Steel 304
10	Retainer Ring For Stem	1566
11	Upper Cover	Cast Iron
12	Handwheel	Cast Iron
13	Gasket	A283 Gr.C
14	Lift Ring	Steel 1035
15	Screw	Steel 1035
16	Nut	Steel 1035
17	Bolt	Steel 1035
18	Screwed Plug	Steel 1035
19	Bolt, Flat Gasket	Stainless Steel 304
20	Keyhole Plate	A283 Gr.C
21	Keyhole	Organic Glass
22	Keyhole Plate Gasket	EPDM



Dry Barrel Fire Hydrant

Model: MH-1510FA/MH-1510A

Technical Features

- Maximum Working Pressure: 250PSI
- Design Standard: AWWA C502
- Inlet flange size: 6" (DN150), Main Valve size: 133.4 mm / 5-1/4"
- One pumper nozzle: 4.5-4NH thread. Two hose nozzles, 2.5-7.5NH threads
  Other kinds of threads are available
- Mechnical connector: AWWA / ANSI C153 / A21.536, Model No.: MH-1510A
- Flange connector: ASME B16.5 CLASS 150/DIN 2501 PN16, Model No.: MH-1510FA
- Painting Details: Red Polyurethane paint & Bitumen Black or painting upon request
- Note: Each hydrant is supplied with a hydrant wrench
- Approvals: UL 246 Listed, FM 1510 Approved

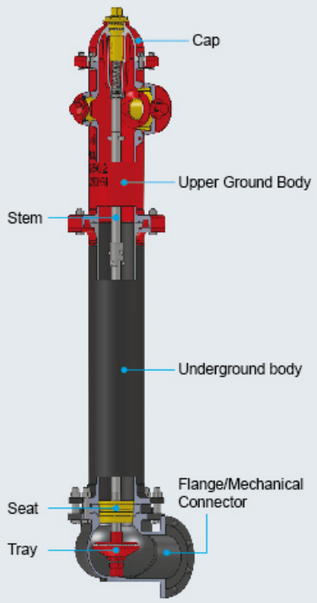
Installation

- Hydrants should be handled with care to avoid damage. It is recommended to keep hydrants closed until use
- If the hydrant is not to be used straight away then it is recommended to coat threads and other machined parts with anti-rust oil and the hydrant should be stored in a dry and ventilated area. For long-term storage, the hydrant should be checked regularly
- Before installation of hydrants, the connection should be free from dirt or other matter
- The positioning of the hydrant should be in accordance with local requirements. Ideally the pumper should face the street and all connections should be away from any obstruction to connecting hoses
- The inlet elbow should be placed on a solid surface and if possible brace the side opposite the incoming flow to reduce reaction stresses
- The underground parts of the hydrant should be surrounded with coarse gravel for support and drainage
- After the hydrant has been installed and tested, it is recommended to fully flush the hydrant before closing for service. Before replacing the nozzle caps, it is recommended to check for correct drainage of the hydrant on closing of the valve. This can be achieved by placing a hand over the nozzle opening, a suction should be felt

Operation

- Unscrew the nozzle caps and connect hoses
- Open the hydrant using the hydrant key (included) to the fully open position by turning the operation nut in an anti-clockwise direction. Do not force the hydrant to open further past the fully open position. Note that the hydrant valve is not intended to control the flow, it should be used in either the fully open or fully closed position
  To control flow, a pressure/flow control valve should be fitted to the nozzle outlets on the hydrant
- To close, turn the operation nut into a clockwise direction again, do not over tighten

3D Pictures

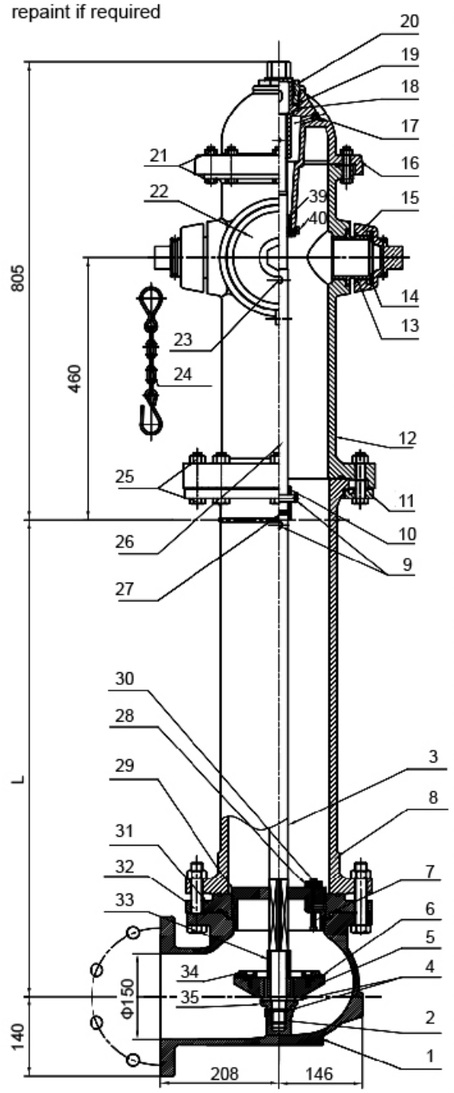


Fire Hydrant

Model: MH-1510FA/MH-1510A

Maintenance

- Carry out a visual inspection for signs of significant corrosion which may impair performance
- Where possible, carry out leakage tests by opening one of the nozzle caps slightly and then open the hydrant valve
- Once the air has escaped, tighten the hose cap and check for leaks
- Close hydrant and remove one nozzle cap so that the drainage can be checked
- Flush the hydrant
- Clean and lubricate all nozzle threads
- Clean the exterior of the hydrant and repaint if required



Buried Dimensions

L (mm)	3'6"	4'	4'6"	5'	5'6"	6'	6'6"	7'
	1063	1215	1368	1520	1673	1825	1978	2130

Material List

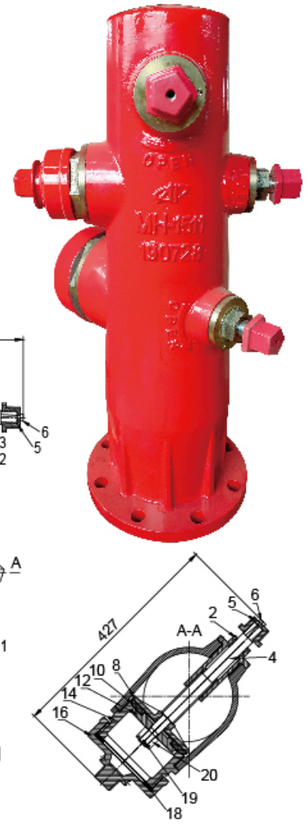
NO.	Name	Material
1	Flange Connector Or Mechnical Connector	Ductile Iron
2	Locking Nut	Ductile Iron
3	Connecting Rod	Steel 1045
4	Locking Nut Gasket	EPDM
5	Tray	Ductile Iron
6	Sealed Rubber Sheet	EPDM
7	Drain Hole Spring	316 Stainless Steel
8	Connecting Cylinder	Ductile Iron
9	Perforated Cylindrical Pin	Steel 1045
10	Connecting Rod Sleeve	Steel 1045
11	Clamp For Connection Tube	Ductile Iron
12	Main Body On Ground	Ductile Iron
13	65 Connector	C95400
14	65 Cover Gasket	EPDM
15	65 Cover	Ductile Iron
16	Upper End Cover	Ductile Iron
17	Thread Plug	C95400
18	Screw Stem Nut	C95400
19	Screw Nut Gasket	C95400
20	Screw Nut Seat	C95400
21	Bolt,nut	Steel 1035
22	100 Cover	Ductile Iron
23	Cylindrical Pin	Steel 1045
24	Cover Chain	Gr.B, ASTM A283-B
25	Bolt,nut	Steel 1035
26	Screw Stem	Steel 1045
27	Cushion Rubber	EPDM
28	Drain Hole Cover	C95400+EPDM
29	Seat	C95400
30	Bolt,nut	316 Stainless Steel
31	Seat Fixing Plate	Ductile Iron
32	Bolt,nut	Steel 1035
33	Annular Tubes	Steel 1045
34	Platen	Ductile Iron
35	Locking Nut Seat	Ductile Iron
37	100 Connector	C95400
38	100 Cover Gasket	EPDM
39	Screw Stem Bushing	316 Stainless Steel
40	Bolt	316 Stainless Steel

Wet Hydrant

Model: MH-1511/1511A/1512/1512A

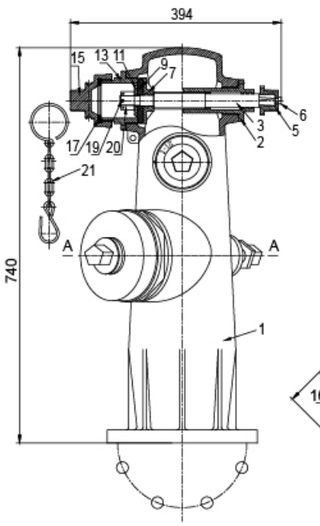
Technical Features

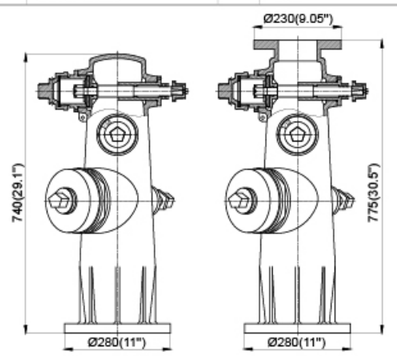
- Design Standard: AWWA C503
- External Thread Standard: NFPA 1963 2.5"-7.5NH/4"-4NH/4.5"-4NH
- Water Inlet Flange Standard: ASTM B16.5 Class150 6"/DIN2501 PN16 DN150
- Maximum Working Pressure: 250PSI
- Monitor Flange Standard: ASTM B16.5 Class150 4"/DIN2501 PN16 DN100
- Working Temperature Range: 0~80°C / 32~176°F

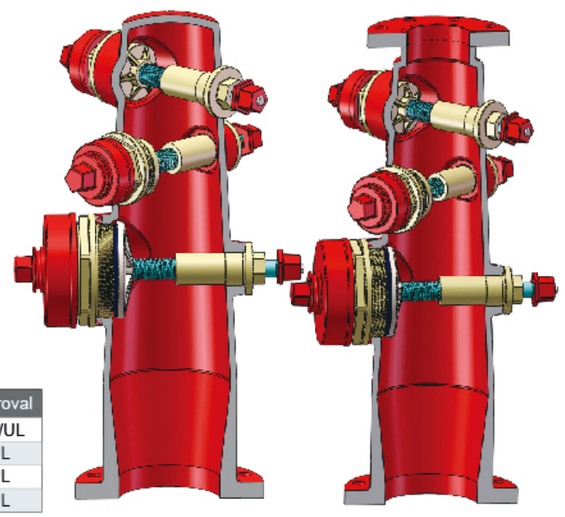


Valve Material List

NO.	Name	QTY	Material
1	Main Body	1	Ductile Iron
2	Nut	3	C954
3	2.5"Bolt	2	SS304/C954
4	4.5"Bolt	1	SS304/C954
5	Stem cap	3	Ductile Iron
6	Bolt	3	SS304
7	2.5"Tray	2	Ductile Iron/SS304/C954
8	4.5"Tray	1	Ductile Iron/SS304/C954
9	2.5"Sealing rubber sheet	2	EPDM
10	4.5"Sealing rubber sheet	1	EPDM
11	2.5"Platen	2	Ductile Iron/SS304/C954
12	4.5"Platen	1	Ductile Iron/SS304/C954
13	2.5"Outlet	2	C954
14	4.5"Outlet	1	C954
15	2.5"Outlet cover	2	Ductile Iron
16	4.5"Outlet cover	1	Ductile Iron
17	2.5"Cover gasket	2	EPDM
18	4.5"Cover gasket	1	EPDM
19	Cotter pin	3	SS304
20	Slotted nut	3	SS304
21	Cover chain		Gr.B







General Technical Information

Model Number	Hose Outlet Size	Pumper Hozzle Size	Monitor	Approval
MH-1511	2X2.5"	1X4.5"	N/A	FM/UL
MH-1511A	2X2.5"	1X4.5"	YES	UL
MH-1512	2X2.5"	1X4"	N/A	UL
MH-1512A	2X2.5"	1X4"	YES	UL

Air Release Valves

Model: AMARV

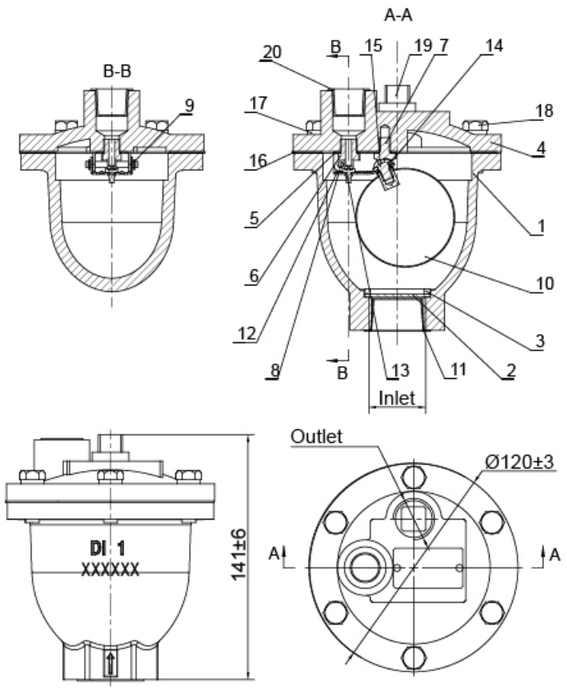
NPT or BSPT Type

Technical Features

- Inlet Size: 1"
- The inlets of the valves are 1-11 1/2NPT or Rc 1, the outlets of the valves are 1/2-14NPT or Rc 1/2
- Design Standard: in accordance with UL 2573/FM1344
- Test Standard: Pressure conforms to UL 2573/FM1344
- Working Temperature Range: 0~100°C /32~212°F
- Working Pressure:175PSI
- Test Pressure: Leakage Test 7PSI/263PSI, Strength Test 350PSI
- Advantages: This valve can ensure the excellent leak tightness and good venting capabilities under the rated working pressure.
- Application: Use in wet pipe sprinkler systems, or with horizontal split case pumps.

Valve Material List

S./N.	Description of Parts	Materials
1	Valve Body	Ductile Iron
2	Filter Screen	SS316
3	Gasket Ring	Carbon Steel
4	Bonnet	Ductile Iron
5	Yoke	SS316
6	Valve Seat	SS316
7	Bolt	SS316
8	Valve Shaft	SS316
9	E Type Retainer Ring	SS304
10	Ball	SS316
11	Large Protective Cover	Plastic
12	Lever	SS316
13	Poppet	EPDM
14	Spring Washer	SS316
15	Hex Socket Head Bolt	SS304
16	Asbestos-free Gasket	CN-705
17	Spring Washer	Carbon Steel
18	Bolt	Carbon Steel
19	Plug	Ductile Iron
20	Small Protective Cover	Plastic



Connections for Installation

- The inlet connections shall be made using the external threads of tapered pipe thread 1-11 1/2NPT conforming to the standard ASME B 1.20.1-2013, and the outlet connections shall be made using the external threads of tapered pipe thread 1/2-14NPT conforming to the standard ASME B 1.20.1-2013.
- The inlet connections shall be made using the external threads of tapered pipe thread Rc 1 conform to the standard ISO 7-1-1994,and the outlet connections shall be made using the external threads of tapered pipe thread Rc 1/2 conforming to the standard ISO 7-1-1994.

Product Features

- Designed expressly for wet pipe fire sprinkler systems
- Working pressure rated to 300 psi (20.7 bar)
- Flange and Groove end can be choosen
- Size from 2"-12"
- FM & UL approved

Technical Features

- Working pressure: 300PSI
- Flange Standard: ASME/ANSI B16.1 Class 125
  ASME/ANSI B16.42 Class 150
  BS EN 1092-2PN16
  GB/T9113.1
- Groove Standard: AWWA C606
  ISO6182-12
- Working Temperature Range: 4~70°C/ 39.2°F-158°F
- Coating Details: Epoxy coated or coating upon request

Applications in Fire Protection

This system is applicable to the places with the ambient temperature from 4°C to 70°C. This system is generally installed in the places with fire hazards, like the hotel, shopping mall, hospital, theater, office building, conference center, warehouse, high-rise building and underground garage.

Product Description

APC wet alarm check valve consists of wet alarm valve, retard chamber, pressure gauges, water motor alarm, pressure switch, drain valve and filter etc.

Alarm Check Valves act as a water flowalarm initiating device in wet pipe sprinkler systems. When waterflows in the sprinkler system due to the operation of one or more automatic fire sprinklers, the alarm valve opens allowing continuous flow of water into the system, which will activate water motor bell and pressure switches.

The design of the Alarm Check Valve allows for installation under both variable and constant supply pressureconditions. The valve trim incorporates a bypass between the water supply and the wet pipe system. When pressure surges in the waters supply occur, the trim allows a small amount of water to bypass the clapper limiting the potential of false alarms.

Installation

This instrument shall be installed in places where is easy to observe and access. Install The wet alarm valve vertically on the pipes which have been properly tested for its pressure and cleaned. Please note that the arrow for water flow direction is pointing upwards. Reserve enough operation space for repair and maintenance before installation.

Step1: Clean the system pipe network completely before installation. Ensure that the inner wall of the pipes is coated with rust-proof layer and there is no dreg or dirt in the pipes.

Step2: In order to facilitate the observation of the pipe in which an alarm occurs, it is recommended to discharge the water from an open port or have the water discharge state easy to be observed before installation.

Step3: Check whether there is any damage at the joint between the wet alarm valve and the flange, check whether the seal is in good condition and whether the valve disc moves flexibly, carry out the leakage test with a pressure of two times of the rated working pressure. After the test, the valve disc shall be free of leakage; If there is any problem, replace the spare parts or clear the trouble before assembling the parts together.

Wet Alarm Check Valve Model: SSBJ-300GG/SSBJ-300FF/SSBJ-300FGA/SSBJ-300FGB

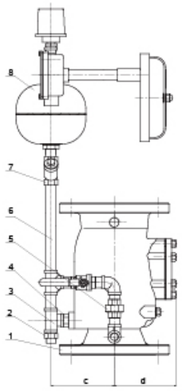
Step4: Turn the pressure gauge to the position where the reading is clearly visible.

Step5: The pressure switch shall be installed on the top of the delayer. This pressure switch must be installed vertically and could only be used indoors. After installation, check if it acts reliably.

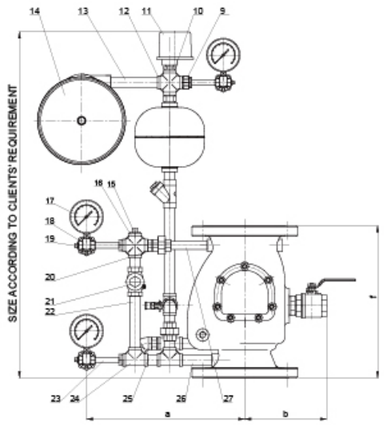
Step6: The water motor alarm shall be installed on the top of the delayer, after installation, check if it acts reliably.

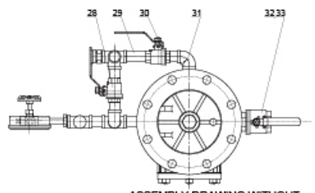
Step7: With the exception of support from the trim piping, the ratard chamber will also be binded by a clamp with the piping to avoid any movement or looseness.

Dimensions



ASSEMBLY DRAWING WITHOUT COMPENSATOR SYSTEM



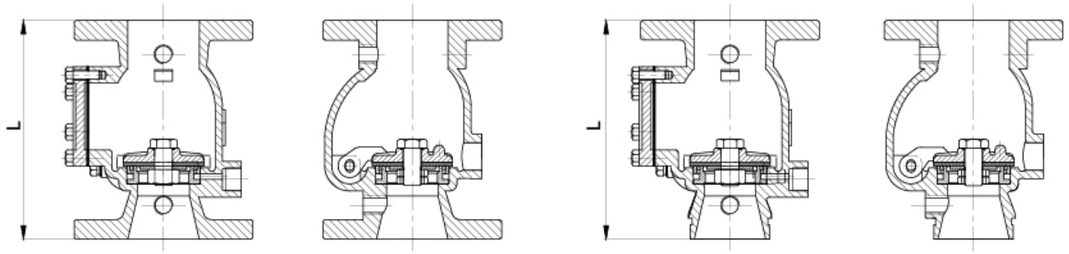


ASSEMBLY DRAWING WITHOUT COMPENSATOR SYSTEM

Size	a	b	c	d
2"	340	205	145	110
2.5"	340	205	145	110
3"	340	205	145	110
4"	342	250	160	136
5"	349	274	180	162
6"	349	274	180	162
8"	415	290	205	195
10"	475	340	240	235
12"	495	368	270	270

No	Name	QTY	Material	Standard
1	Alarm Valve	1	Ductile Iron	ASTM A-536 Grade 65-45-12
2	Office, Retard	1	C954	ASTM B148
3	Tee	2	SS304	ASTM A276
4	Nipple	6	SS304	ASTM A276
5	Union	1	SS304	ASTM A276
6	Nipple	1	SS304 / Steel	ASTM A276/1045
7	Y Strainer	1	SS304	ASTM A276
8	Retard Chamber	1	Steel	1045, ASTM 1045
9	Reducer Bushing	1	SS304	ASTM A276
10	Reducer Bushing	1	SS304	ASTM A276
11	Pressure Switch	1	ZSJY1.6BP	Assembly
12	Cross	1	SS304	ASTM A276
13	Nipple	1	SS304 / Steel	ASTM A276/1045, ASTM A29
14	Gong Assembly	1	MH-SLJL-00	Assembly
15	Plug	1	SS304 / C954	ASTM A276/1045, ASTM B148
16	Cross	2	SS304	ASTM A276
17	Pressure Gauge	3	PFE-00A 600SPI	Assembly
18	3-way Valve Gauge	3	C954	ASTM B148
19	Plug	3	Steel/C954	ASTM 1045 A276/B148
20	Orifice, Retard	1	C954	ASTM B148
21	Check Valve	1	SS304	ASTM A276
22	Nipple	1	SS304 / Steel	ASTM A276/1045, ASTM A29
23	Nipple	3	SS304 / Steel	ASTM A276/1045, ASTM A29
24	Tee	2	SS304	ASTM A276
25	Nipple	4	SS304 / Steel	ASTM A276/1045, ASTM A29
26	Nipple	1	SS304 / Steel	ASTM A276/1045, ASTM A29
27	Nipple	1	SS304 / Steel	ASTM A276/1045, ASTM A29
28	Ball Valve	1	SS304	ASTM A276
29	Nipple	1	SS304 / Steel	ASTM A276/1045, ASTM A29
30	Ball Valve	1	SS304	ASTM A276
31	Elbow	2	SS304	ASTM A276
32	Nipple	1	SS304	ASTM A276
33	Ball Valve	1	SS304	ASTM A276

General Technical Information



Flange*Flange

Model No. SSBJ-300FF

Dimension Chart

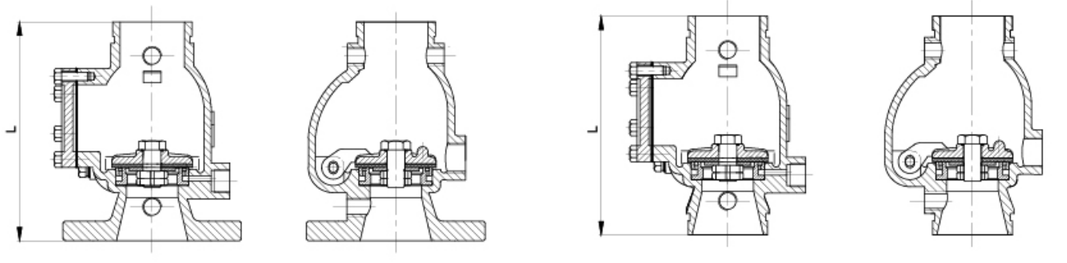
Size	L(mm)	L(inch)
DN50(2in)	233	9.17
DN65(2.5in)	236	9.29
DN80(3in)	245	9.65
DN100(4in)	316	12.44
DN125(5in)	386	15.20
DN150(6in)	390	15.35
DN200(8in)	438	17.24
DN250(10in)	535	21.06
DN300(12in)	622	24.49

Flange*Groove

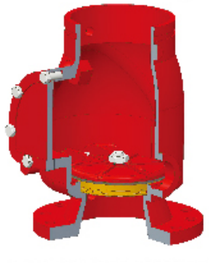
Model No. SSBJ-300FGA

Dimension Chart

Size	L(mm)	L(inch)
DN50(2in)	239	9.41
DN65(2.5in)	240	9.45
DN80(3in)	245	9.65
DN100(4in)	316	12.44
DN125(5in)	386	15.20
DN150(6in)	390	15.35
DN200(8in)	438	17.24
DN250(10in)	535	21.06
DN300(12in)	622	24.49



Groove*Flange

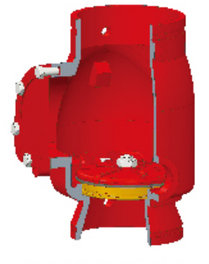


Model No. SSBJ-300FGB

Dimension Chart

Size	L(mm)	L(inch)
DN50(2in)	239	9.41
DN65(2.5in)	240	9.45
DN80(3in)	245	9.65
DN100(4in)	316	12.44
DN125(5in)	386	15.20
DN150(6in)	390	15.35
DN200(8in)	438	17.24
DN250(10in)	535	21.06
DN300(12in)	622	24.49

Groove*Groove



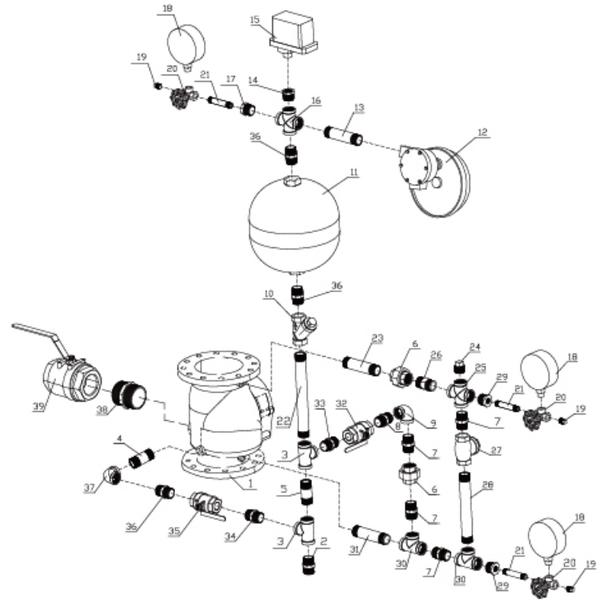
Model No. SSBJ-300GG

Dimension Chart

Size	L(mm)	L(inch)
DN50(2in)	245	9.65
DN65(2.5in)	245	9.65
DN80(3in)	245	9.65
DN100(4in)	316	12.44
DN125(5in)	386	15.20
DN150(6in)	390	15.35
DN200(8in)	438	17.24
DN250(10in)	535	21.06
DN300(12in)	622	24.49

Wet Alarm Check Valve Model: SSBJ-300GG/SSBJ-300FF/SSBJ-300FGA/SSBJ-300FGB

Structural Characteristics



No	Name	QTY	Material
1	Alarm Valve	1	Assembly
2	Orifice Restriction	1	C954
3	Tee	2	SS304/KTH350-10
4	Pipe	1	Galvanized pipe
5	Pipe	2	Galvanized pipe
6	Union	2	SS304/KTH350-10
7	Nipple	4	SS304/KTH350-10
8	Nipple	1	SS304/KTH350-10
9	Elbow	1	SS304/KTH350-10
10	Y Strainer	1	SS304
11	Retard Chamber	1	Assembly
12	Alarm Bell	1	Assembly
13	Pipe	1	Galvanized pipe
14	Nipple	1	SS304/KTH350-10
15	Pressure Switch	1	Assembly
16	Cross	1	SS304/KTH350-10
17	Nipple	1	SS304/KTH350-10
18	Pressure Switch	3	Assembly
19	Plug	3	Galvanized pipe
20	3-Way Valve	3	Assembly
21	Pipe	3	Galvanized pipe
22	Pipe	1	Galvanized pipe
23	Pipe	1	Galvanized pipe
24	Plug	1	C954
25	Cross	1	SS304/KTH350-10
26	Orifice Restriction	1	C954
27	Check Valve	1	Assembly
28	Pipe	1	Galvanized pipe
29	Nipple	2	SS304/KTH350-10
30	Tee	2	SS304/KTH350-10
31	Pipe	1	Galvanized pipe
32	Ball Valve	1	Assembly
33	Nipple	1	SS304/Galvanized pipe
34	Nipple	1	SS304/Galvanized pipe
35	Ball Valve	1	Assembly
36	Nipple	3	SS304/KTH350-10
37	Elbow	1	SS304/KTH350-10
38	Nipple	1	SS304/KTH350-10
39	Ball Valve	1	Assembly

Care and Maintenance

- Clean the dirt and foreign matters attached on the rubber seal surface of the valve disc. Generally, the service life of the rubber seals is no more than eighteen months. Replace the seals in time if they are worn out or aging.
- Clean the dirt and foreign matters from the small holes and seal surface in the groove of the valve disc seals. Be careful not to scratch the surface and keep the small holes unobstructed. If the seal surface can't be repaired, replace it with a new one.
- Clean the blockage in the filter of the alarm valve instrument timely and keep the pipeline unblocked.
- Check and clean the dirt in the delayer, and be sure that the small throttle holes will not be blocked by foreign matters.
- Check the water motor alarm every three months:
  Step1: Turn on the alarm bell to check whether its sound is loud, immediately remove any trouble if found.
  Step2: Remove the alarm shell and clear up the dirt and the sediment in the alarm, then reassemble the alarm shell and gaskets in turn.
  Step3: Remove the leaking joints from the water-wheel and clear up the dirt in it.
- Check the pressure switch periodically (it is recommended to test every three months or more frequently).

Deluge Alarm Valve Model: GY46X/GY56X/GY86X/GY46X-300/GY56X-300/GY86X-300

Product Features

- Valve can be activated remotely
- Remote action control mode: electric or pneumatic
- Connection: Groove"Groove, Flange*Groove, Flange*Flange
- Suitable for horizontal or vertical installation

Technical Features

- Design Standard: ASME B16.42-2016
- Flange Standard: Class150300 or DIN2501 PN16/PN25
- Groove Standard: AWWA C606/IS0 6182
- Working Temperature Range: 4~52°C/39.2~125.6°F
- Reserved alarm valve system interface: 3/4"NPT
- Available Sizes: 2"-8"
- Maximum Working Pressure: 250PSI or 300PSI(can be chosen)
- Maximum Testing Pressure: 500PSI/600PSI conforms to UL260, FM1011/1012/1013, FM1020

Applications in Fire Protection

It is suitable for automatic sprinkler systems installed in places such as residential houses, hospitals, hotels, shopping malls, factories, airports, casinos, libraries, stadiums, convention and exhibition centers. The operating ambient temperature shall not be lower than 4°C and not higher than 52°C.

Product Description

APC deluge alarm valve adopts the Straight-through cone diaphragm seal, using the good self-sealing of the cone to open and close the valve. The pressure in the diaphragm chamber is released by electric, pneumatic or manual methods, the valve disc opens automatically so that the water can flow into the sprinkler system in one direction automatically and alarm at the same time. It can also form a variety of deluge alarm and firefighting systems with other components.

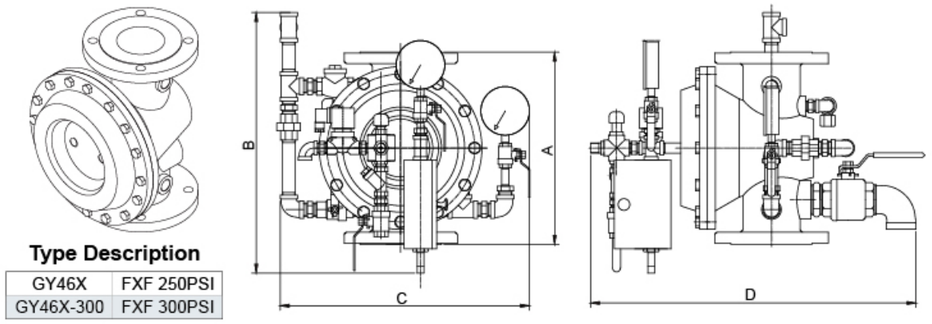
Note

The deluge alarm valve with groove end connections may be ordered with or without control valves (water supply valve and upper service valve). Control valves will be APC Model GD381X grooved end butterfly valves with integral tamper switches.

Deluge Alarm Valve Model: GY46X/GY56X/GY86X/GY46X-300/GY56X-300/GY86X-300

Dimension

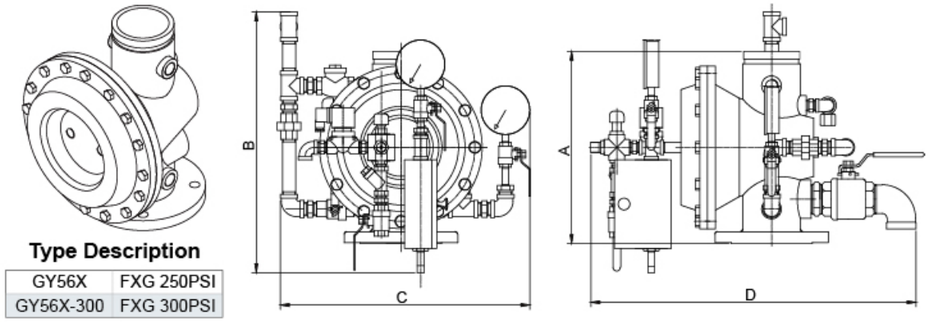
Figure 1 Outline dimensional drawing of deluge alarm valve (Flange connection)



Type Description

GY46X	FXF 250PSI
GY46X-300	FXF 300PSI

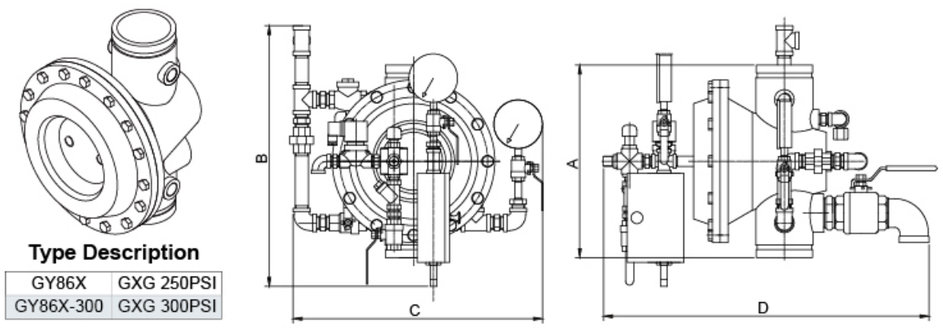
Figure 2 Outline dimensional drawing of deluge alarm valve (Grooved * Flange connection)



Type Description

GY56X	FXG 250PSI
GY56X-300	FXG 300PSI

Figure 3 Outline dimensional drawing of deluge alarm valve (Grooved connection)

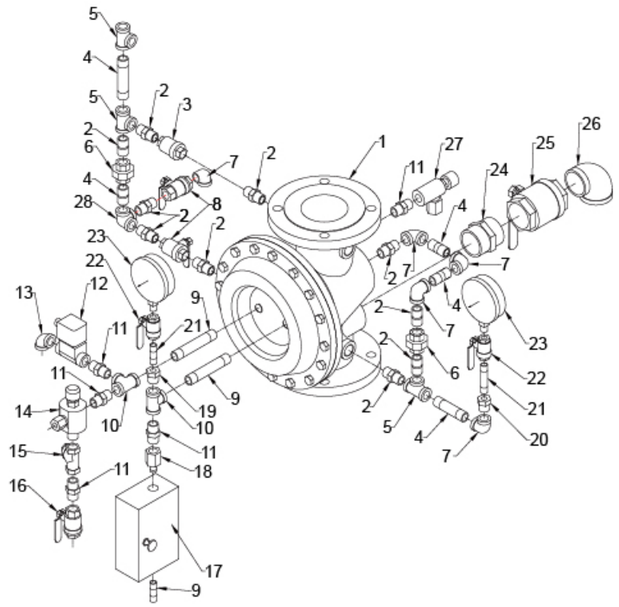


Type Description

GY86X	GXG 250PSI
GY86X-300	GXG 300PSI

Diameter(in/mm)	A(mm)	B(mm)	C(mm)	D(mm)
2/50	287±2	440±10	460±10	500±10
2.5/65	287±2	440±10	460±10	540±10
3/80	340(324)±2	450±10	490±10	570±10
4/100	390(350)±2	520±10	490±10	680±10
6/150	508(460)±2	570±10	570±10	800±10
8/200	584(570)±2	900±10	650±10	900±10

Structural characteristics

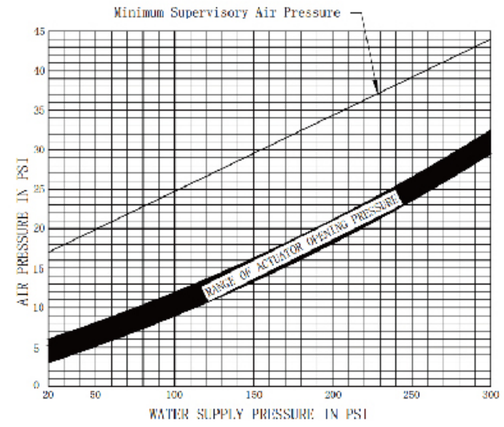


NO.	Name	Qty	Size	Material	Standard
1	Deluge valve	1			
2	Butt joint	n	¾"	DI/CF8/CF8M/C95400/C95800	ASTM A536/A351/B148
3	Check valve	1	¾"	CF8/CF8M/C95400/C95800	ASTM A351/B148
4	Pipe fittings	n	¾"	Gr.A/TP304/C60800	ASTM A53/A312/B111M
5	Tee joint	n	¾"	DI/CF8/CF8M/C95400/C95800	ASTM A536/A351/B148
6	Union	2	¾"	DI/CF8/CF8M/C95400/C95800	ASTM A536/A351/B148
7	90° Joint	n	¾"	DI/CF8/CF8M/C95400/C95800	ASTM A536/A351/B148
8	Ball valve	2	¾"	CF8/CF8M/C95400/C95800	ASTM A351/B148
9	Pipe fittings	n	½"	Gr.A/TP304/C60800	ASTM A53/A312/B111M
10	Tee joint	2	½"	DI/CF8/CF8M/C95400/C95800	ASTM A536/A351/B148
11	Butt joint	n	½"	DI/CF8/CF8M/C95400/C95800	ASTM A536/A351/B148
12	Solenoid valve	1	½"		
13	90° Joint	n	½"	DI/CF8/CF8M/C95400/C95800	ASTM A536/A351/B148
14	Manual reset valve	1	½"		
15	Y type filter	1	½"	CF8/CF8M/C95400/C95800	ASTM A351/B148
16	Ball valve	2	½"	CF8/CF8M/C95400/C95800	ASTM A351/B148
17	Emergency release valve bank	1			
18	Release valve joint	1	½"	DI/CF8/CF8M/C95400/C95800	ASTM A536/A351/B148
19	Joint	1	½"-¼"	DI/CF8/CF8M/C95400/C95800	ASTM A536/A351/B148
20	Joint	1	¾"-¼"	DI/CF8/CF8M/C95400/C95800	ASTM A536/A351/B148
21	Pipe fittings	n	¼"	Gr.A/TP304/C60800	ASTM A53/A312/B111M
22	Ball valve	2	¼"	CF8/CF8M/C95400/C95800	ASTM A351/B148
23	Pressure gauge	2			
24	Butt joint	1	¾"-2"	DI/CF8/CF8M/C95400/C95800	ASTM A536/A351/B148
25	Ball valve	1	¾"-2"	CF8/CF8M/C95400/C95800	ASTM A351/B148
26	90° Joint	1	¾"-2"	DI/CF8/CF8M/C95400/C95800	ASTM A536/A351/B148
27	Drip valve	1	½"		
28	Stereoscopic tee joint	1	¾"	DI/CF8/CF8M/C95400/C95800	ASTM A536/A351/B148

Installation

- The deluge alarm valve shall be installed in a room with a temperature greater than 4°C and less than 52°C with drainage facilities. It shall be installed close to the protection target for easy operation to reduce the length of the water distribution pipeline and improve the system response time.
- The deluge alarm valve can be installed horizontally or vertically. But the installation of the solenoid valve shall always keep the solenoid core in a vertical position. The set air pressure of the pneumatic actuator shall not be lower than the recommended minimum system air pressure (Table 1).Service clearance shall be reserved in four directions, with the distance to the ground of 1.2m, the distance from both sides to the wall not less than 0.5m, and the distance from the front to the wall not less than 1.2m.
- The water supply control valve in front of the alarm valve and control valve behind the alarm valve shall be installed for convenience of repair and commissioning.
- The valve body shall be installed as per the water flow direction indicated by arrows. Before installation, pipes shall be rinsed till the water becomes clear, in order to avoid the sealing performance of the valve from being affected by the deposited sediment or sewage.
- Water motor alarm bell shall be installed on the outer walls of common aisle or near the duty room, and the steel pipe connecting the alarm bell to the deluge alarm valve shall not be greater than 20m in length.

Table 1. Recommended minimum system air pressure



Reset Procedure

a. Switch off the water supply control valve in front of the alarm valve and the ball valve on the water injection loop.

b. Switch on the drain valve (switch off the auxiliary drain valve on the system, if any) to drain all the residual water in the system.

c. Push the reset button of the drip valve at least twice; the water has been drained when the water flow is small or stops.

d. Switch off all drain valves and the emergency manual release valve, and make sure the solenoid valve or pneumatic actuator is off and the ball valve on the alarm test loop is off.

e. Switch on the ball valve on the water injection loop, and slowly press the reset valve reset button. In this process, it is normal for the reset valve to have water flowing out of the drain hole, and the water flow will stop when the pressure in the diaphragm chamber increases. Release the reset button when the indication values on the water supply pressure gauge and the diaphragm chamber pressure gauge are the same. Then completely switch on the water supply control valve in front of the alarm valve. The system enters the ready condition.

f. Make sure the alarm system is open when the deluge valve group in a ready condition.

Deluge Alarm Valve

Model: GY46X/GY56X/GY86X/GY46X-300/GY56X-300/GY86X-300

Care and Maintenance

· Alarm test, switch function test and other tests should be carried out regularly after the system is installed. After the test, open the drain valve of the alarm system,and close the valve after the water draining out from the valve group.

· **Alarm test**

The test is recommended to be conducted once a month (the frequency can be set based on factors such as fire rating and use environment). The test shall be conducted according to the following procedures:

a: Switch on the ball valve on the alarm test loop when the valve bank is in the ready condition to make the water motor alarm bell or pressure switch actuate and alarm.

b: Confirm that the alarm system is normal, switch off the ball valve on the alarm test loop to stop the alarm.

· **Manual switch function test**

The test is recommended to be conducted once every quarter (the frequency can be set based on factors such as fire resistance and use environment) in the warm climate. Before the test, drainage measures should be taken near the valve bank, and the alarm valve bank is in a ready condition. The test should be conducted according to the following procedures:

a: Notify relevant personnel and departments.

b: Switch off the control valve behind the alarm valve .

c: Manually switch on the ball valve of the emergency release valve bank, and the readings on the pressure gauge in the diaphragm chamber decrease.

d: Press the reset button of the drip valve,sufficient water flows out of the drain loop or the alarm system alarms, proving the successful actuation of the deluge alarm valve.

e: Complete the reset following steps a through f, and switch on the control valve behind the alarm valve. The manual switch function test is completed.

· **Remote switch function test**

The test is recommended to be conducted once every quarter (the frequency can be set based on factors such as fire resistance and use environment) in the warm climate. Before the test, drainage measures should be taken near the valve bank, and the alarm valve bank is in a ready condition. The test should be conducted according to the following procedures:

a: Notify relevant personnel and departments.

b: Switch off the control valve behind the alarm valve.

c: Simulate a fire, and actuate a detector, so that the solenoid valve pneumatic actuator is switched on, and the readings on the pressure gauge in the diaphragm chamber drop.

d. Press the reset button of the drip valve,Sufficient water flows out of the drain loop or the alarm system alarms, proving the successful actuation of the deluge alarm valve.

e: Complete the reset following steps a through f, and switch on the control valve behind the alarm valve. The remote switch function test is completed.

· **The deluge alarm valve should be maintained and repaired regularly, and the maintenance and repair shall be conducted when the valve is disabled. The operating steps are shown as below:**

a: Switch off the water supply control valve in front of the alarm valve and the control valve behind the alarm valve, and switch off the ball valve on the water injection loop.

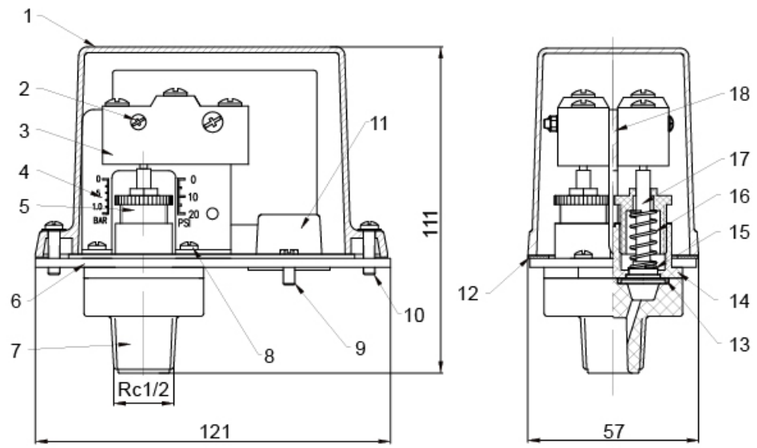
b: Switch on the drain valve and emergency release valve of the deluge alarm valve. Maintenance and repair can be conducted at this time.

Pressure Switch

Model: ZSJY 1.6BP

Technical Features

· Dimension: 121mm(4 3/4")*57mm(2 1/4")*111mm(4 3/8")
· Wiring Inlet Size: 1/2" NPT
· Differential Pressure Setting: 1 PSI (cannot be adjusted after consignment)
· Maximum Working Pressure: 300PSI
· Switch Contact: double SPDT
· Contact Capacity: 15 Amps under 125/250 VAC, 2.5 Amps under 30 VDC
· Dust Proof and Waterproof Lever: IP66
· Working Temperature Range: -40~60°C/-40~140°F
· Tamper proof fasteners on outer cover



Technical Specifications

NO.	Name	Qty	Material
1	Outer Cover	1	YZAlSi11Cu3
2	Bolt	2	Q235
3	2-Micro Switch	2	Assembly
4	Calibration Sticker	1	PET
5	Regulating Screw	1	Reinforced Nylon
6	Base	1	Q235
7	Joint	1	Reinforced Nylon
8	Galvanized Inner Plum Tapping Screw	2	20Mn
9	Green Slotted Screw with Hexagon Head	1	Q235
10	Tamper-proofing Screw	2	D667
11	Incoming Line Coil	1	PE-LD
12	Gasket Seal	1	EPDM
13	Diaphragm	2	EPDM
14	Connecting Base	1	Reinforced Nylon
15	Flat Washer	2	06Cr18Ni11Ti
16	Regulating Spring	2	60Si2MnA
17	Pushrod	2	Reinforced Nylon
18	Bracket	1	Q235

Technical Features

- Size: DN50-DN250 / 2"- 10"
- Working Pressure:
  2"-6" (450PSI for FM&UL listed)
  8" (450PSI for FM listed)
  8" (300PSI for FM&UL listed)
  10" (300 PSI for FM listed)
- Sensitivity:
  FM: 1. No-alarm flow ≤15L/min
  2. Alarm flow ＞15L/min, ≤75L/min
  UL: 1. No-alarm flow ≤15L/min
  2. Alarm flow ＞15L/min, ≤37.5L/min
- Capacity of Switch Contacts:
  AC 125/250V 8A
  DC 24V 3A
  DC 30V 2.5A
- Working Temperature Range: 0~49°C / 32~120.2°F
- Steel Pipe: SCH10-40
- 0-90 Seconds Field Replaceable Retard

Technical Information

- I. Overview
  The vane type water flow switch use in wet pipe systems only. Water flow in the pipe deflects a vane, which produces a switched output usually after a specified delay.
- II. Main Components
  ZSJZ series water flow indicator is mainly composed of the saddle, blade rack, bottom plate, outer cover, Air delay device, micro-switch, junction box, etc.
  1. The main outline drawing is shown in Figure 1 Outline Drawing.
  2. Main dimensions of water flow indicator are shown in Table 1.
  3. Materials of the main components are shown in Table 2.

Dimensions

Model	Specification	INCH	L	H
ZSJZ-YM-450	DN50	2"	85	188
ZSJZ-YM-450	DN65	2.5"	92	200
ZSJZ-YM-450	DN80	3"	106	220
ZSJZ-YM-450	DN100	4"	134	245
ZSJZ-YM-450	DN125	5"	162	272
ZSJZ-YM-450	DN150	6"	189.5	298
ZSJZ-YM-450	DN200	8"	240	350

Table 1

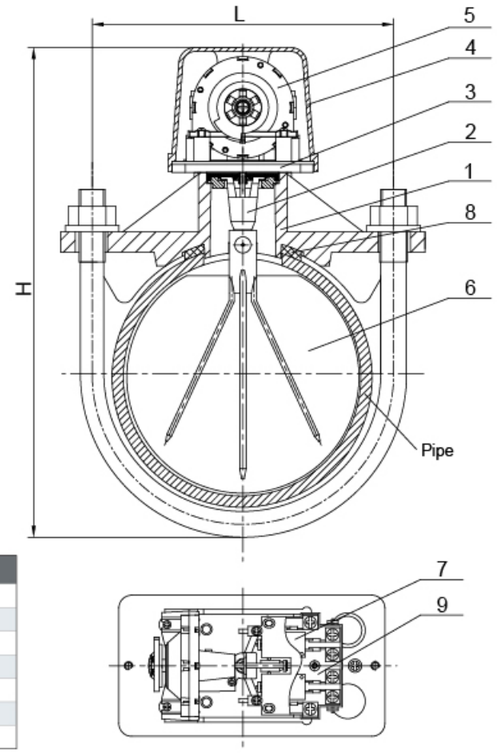


Figure 1 Outline Drawing

Vane-Type Waterflow Indicator Model: ZSJZ-YM-450

Installation and Debugging as well as Precautions

- Installation of water flow indicator:
  at the pre-set installation position, use a tapper to drill on the main pipeline and remove burrs according to the product specification;
  roll up the blade into a small size and put it into the pipeline, install the U-shaped bolt and fasten it up with two fastening nuts, and the specific installation drawing is shown in Figure 2.

Materials of Main Components

No.	Name	Materials
1	Body	Ductile Iron
2	Blade Rack	SS304+EPDM
3	Bottom Plate	SS304
4	Outer Cover	Aluminum
5	Air Delay Device	Component
6	Blade	LLDPE
7	Micro-switch	Component
8	Sealing Gasket	EPDM
9	Junction Box	PC

Table 2

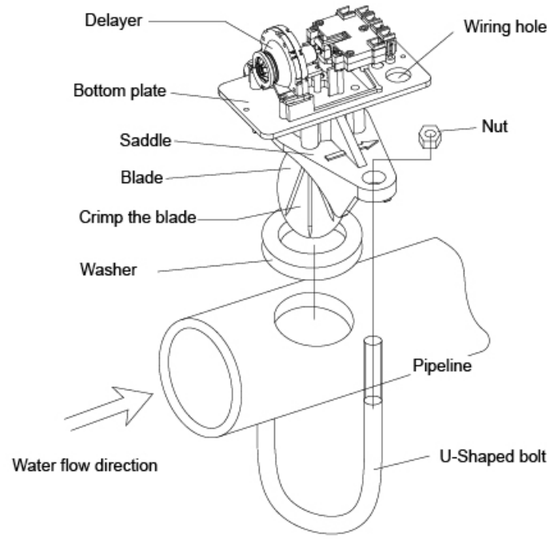


Figure 2 Installation Drawing

The typical wiring diagram is shown in Figure 3

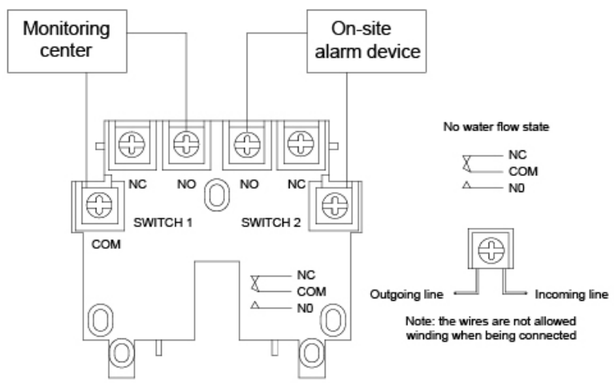


Figure 3

The hole size is shown in Table 3

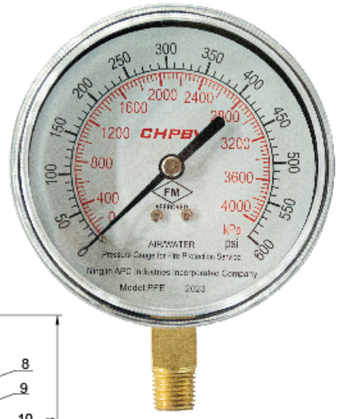
Specification	Hole size
DN50, DN65	32+2mm
DN80-DN200	51+2mm

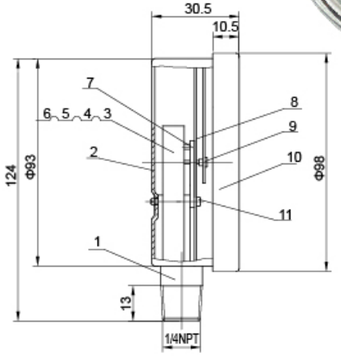
Table 3

Pressure Gauge — Model: PFE-00A/00B

Technical Features

- Pressure Gauge for Fire Protection system
- Designed and manufactured in accordance with FM2311
- Test Standard: FM2311
- Working Temperature Range: 0~80°C / 32~176°F
- Wiring Inlet Size: 1/4" NPT
  Nominal Pressure: 0-300PSI, Model No. PFE-00B
  0-600PSI, Model No. PFE-00A
- Approvals: FM approved





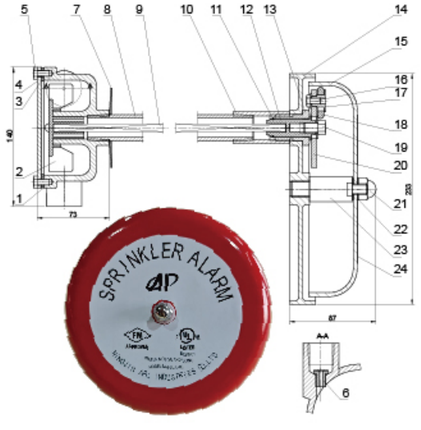
Material List

NO.	Name	Material
1	Base	HPb59-1
2	Watchcase	1008
3	Spring pipe	Qsn0.8-2
4	Rivet	HPb59-1
5	Connecting rod	H62
6	Free end	H62
7	Inner core combination	HPb59-1
8	Dial plate	HPb59-1
9	Pointer component	Al
10	Watchcase	PC
11	Rivet column	HPb59-1

Water Motor Gong — Model: MH-SLJL-00

Technical Features

- Designed and manufactured in accordance with UL 193/FM 1055
- Test Standard: UL 193/FM 1055
- Working Temperature Range: 0~100°C / 32-212°F
- Maximum working pressure: 300PSI
- Inlet Connection: 3/4" NPT
- Outlet Connection: 1" NPT



Material List

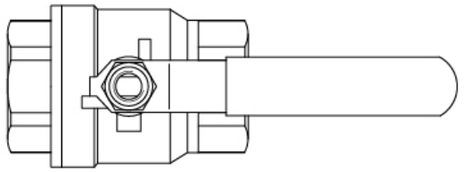
NO.	Name	Material
1	Driver Shell	Aluminium Alloy
2	Impeller	Delrin
3	Sealing Gasket	Epdm
4	Cover	1045 or SS304
5	Bolt	1045 or SS304
6	Nozzle	C954
7	Gasket	1566
8	Support Pipe	1045 or SS304
9	Drive Shaft	Aluminium Alloy
10	Sleeve	1045 or SS304
11	Internal Circlips	SS304
12	Drive Shaft Adaptor	Delrin
13	Supporting Screw	Aluminium Alloy or SS304
14	Bell Seat	Aluminium Alloy
15	Gong	Aluminium Alloy
16	Bolt	Aluminium Alloy or 1045
17	Support Nut	Aluminium Alloy
18	Striker	Phenolic Resin
19	Bolt	Aluminium Alloy or SS304
20	Joint	Aluminium Alloy
21	Screw Nut	Aluminium Alloy or SS304
22	Gasket	Delrin
23	Supporting Post	Aluminium Alloy or SS304
24	Tag	Paper

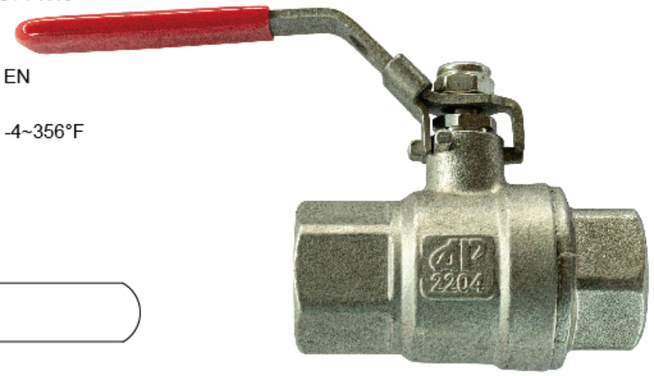
Stainless Steel Ball Valve — Model: QF-300/QDFS-300

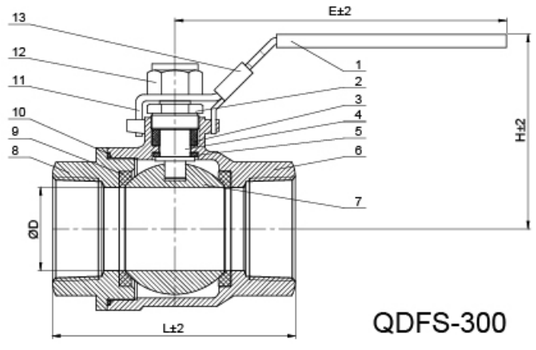
With Lock Type / Without Lock Type

Technical Features

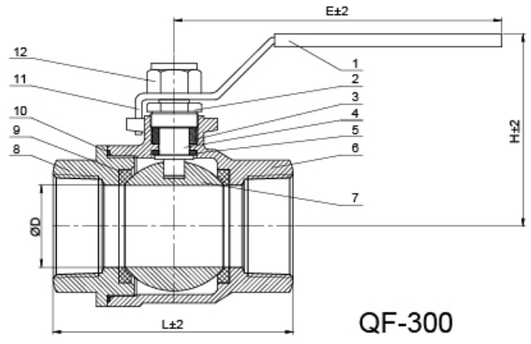
- Size: DN15-DN50 / 1/2"-2"
- Working Pressure: 200PSI / 300PSI / PN10 / PN16
- Design Standard: API608
- Test Standard: API598
- Connection Standard: ASME B1.20.1 / BS EN 10226-1/GB/T 7307
- Working Temperature Range: -20~180°C / -4~356°F
- Approvals: FM, UL







QDFS-300



QF-300

Valve Material List

NO.	Name	Qty	Material
1	Handle sleeve	1	PVC
2	Gland	1	S20100 / S30400 / S31600
3	Packing	1	PTFE
4	Stem	1	S20100 / S30400 / S31600
5	Thrust washer	1	PTFE
6	Body	1	CF8 / CF8M
7	Ball	1	CF8 / CF8M
8	End cap	1	CF8 / CF8M
9	Seat	2	PTFE
10	Gasket	1	PTFE
11	Handle(lock)	1	S20100 / S30400 / S31600 / Steel
12	Nut	1	S20100 / S30400 / S31600
13	Lock Block	1	S20100 / S30400 / S31600 / Steel

Dimensions

DN	INCH	D	L	E	H
15	0.5"	15	64.5	100	58
20	0.75"	20	77	100	62
25	1"	25	85	126	68
32	1.25"	32	100	126	75
40	1.5"	38	111	150	89
50	2"	50	124	150	97

Solenoid Valve

Model: CFU190525N

Technical Features

- Working Temperature Range: 0~85°C / 32~185°F
- Connection Sizes: 1/2" NPT
- Maximum Working Pressure: 350PSI
- Electrical Ratings: DC24V, 16W IP68
- Medium: Water and Air

Structure Character

NO.	Name	Material
1	Nut	A3
2	Coil	
3	Static Iron Core	1J117
4	Dynamic Iron Core	1J117
5	Spring	304H
6	Chock Plug	EPDM
7	Plastic Housing	
8	Flange	ZCuAl8Mn13Fe3
9	O-ring(Φ25xΦ1.5)	EPDM
10	Valve Body I	ZCuAl8Mn13Fe3
11	O-ring(Φ28xΦ1.5)	EPDM
12	Casting Insert	ZCuAl8Mn13Fe3
13	O-ring(Φ6xΦ1.2)	EPDM
14	Pagoda Spring	304H
15	Piston	ZCuAl8Mn13Fe3
16	Wearing Ring	
17	Hard Seang	PTFE
18	Flat Washer	SOS304
19	Valve Body Ii	ZCuAl8Mn13Fe3
20	Casing Pipe	S304