

LEIDE®

Shandong Lede Machinery Co.Ltd
Best manufacturer of valves



Valves for Fire Protection

INTERNATIONAL APPROVAL



Certificate of Compliance

This certificate is issued for the following:

Single Check Valves
 Model H84X Grooved End
 Sizes 2, 2-1/2, 3, 4, 5, 6, 8, 10 and 12 inch NPS
 Sizes 76.1, 139.7 and 165.1 mm

Models H44X and H44X-01 Flanged End
 Sizes 2, 2-1/2, 3, 4, 5, 6, 8, 10 and 12 inch NPS

Prepared For: Shandong Lede Machinery Co., Ltd.
 No. 3998 West Weishuan N Road
 Weicheng District
 Weifang City, Shandong 261057
 China

Manufactured at: Shandong Lede Machinery Co., Ltd.
 No. 3998 West Weishuan N Road
 Weicheng District
 Weifang City, Shandong 261057
 China

FM Approvals Class: 1210, dated June 2004
 Approval Identification: PR454783 Approval Granted: November 26, 2019

To verify the availability of the Approved product, please refer to www.approvalguide.com

Said Approval is subject to satisfactory field performance, continuing Surveillance Audits, and strict conformity to the construction as shown in the Approval Guide, an online resource of FM Approvals.



David B. Fuller
 VP - Manager, Fire Protection
 FM Approvals
 1151 Boston/Providence Turnpike
 Norwood, MA 02062 USA



Member of the FM Global Group



Certificate of Compliance

This certificate is issued for the following:

Fire Service Water Control Valves
 (OS&Y and NRS Type Gate Valves)

Model Z41X, Z81X, 1210 and 1211 - OS&Y type
Model Z45X, Z85X, 1110, 1112 and 1113 - NRS type
 Sizes 2, 2-1/2, 3, 4, 5, 6, 8, 10 and 12 inch NPS

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 China

Manufactured at: Shandong Lede Machinery Co., Ltd.
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 Weicheng District
 Weifang City, Shandong 261057
 China

FM Approvals Class: 1120/1130, dated April 1997
 Approval Identification: PR454628 Approval Granted: November 22, 2019

To verify the availability of the Approved product, please refer to www.approvalguide.com

Said Approval is subject to satisfactory field performance, continuing Surveillance Audits, and strict conformity to the construction as shown in the Approval Guide, an online resource of FM Approvals.



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 VP - Manager, Fire Protection
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 Norwood, MA 02062 USA



Member of the FM Global Group



QUALITY MANAGEMENT SYSTEM CERTIFICATE

Certificate No. 001190317895M3700

We hereby certify that
Shandong Lede Machinery Co., Ltd.
 No. 3998 West Weishuan N Road, Weicheng District, Weifang City, Shandong Province, P.R. China

by reason of its
Quality Management System
 has been awarded this certificate for compliance with the standard
GB/T 19001-2016 / ISO 9001:2015
 The Quality Management System Applies in the following area:
 Design and Production of Grooved Couplings and Fittings

Certified since: March 18, 2016 Valid from: March 18, 2019 Valid until: March 4, 2020

After a surveillance audit, the certificate is valid only when used together with an Accreditation Notice of Surveillance Audit issued by CQC.



CHINA QUALITY CERTIFICATION CENTRE
 Building 8, No. 108, Zhongnanshan South Road, Beijing 100070, China

A 001190 010008



ENVIRONMENTAL MANAGEMENT SYSTEM CERTIFICATE

Certificate No. 00119E3068R1M3700

We hereby certify that
Shandong Lede Machinery Co., Ltd.
 No. 3998 West Weishuan N Road, Weicheng District, Weifang City, Shandong Province, P.R. China

by reason of its
Environmental Management System
 has been awarded this certificate for compliance with the standard
GB/T 24001-2016 / ISO 14001:2015
 The Environmental Management System Applies in the following area:
 Design, Production and Related Management Activities of Grooved Couplings and Fittings

Certified since: June 27, 2016 Valid from: March 8, 2019 Valid until: June 26, 2020

After a surveillance audit, the certificate is valid only when used together with an Accreditation Notice of Surveillance Audit issued by CQC.



CHINA QUALITY CERTIFICATION CENTRE
 Building 8, No. 108, Zhongnanshan South Road, Beijing 100070, China

A 0013816 010008



OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM CERTIFICATE

Certificate No. 00119S2470R1M3700

We hereby certify that
Shandong Lede Machinery Co., Ltd.
 No. 3998 West Weishuan N Road, Weicheng District, Weifang City, Shandong Province, P.R. China

has been awarded this certificate for compliance with the standard
GB/T 28001-2011/OHSAS 18001:2007
 The Occupational Health and Safety Management System applies in the following area:
 Design, Production and Related Management Activities of Grooved Couplings and Fittings

Certified since: June 27, 2016 Valid from: March 8, 2019 Valid until: June 26, 2020

After a surveillance audit, the certificate is valid only when used together with an Accreditation Notice of Surveillance Audit issued by CQC.



CHINA QUALITY CERTIFICATION CENTRE
 Building 8, No. 108, Zhongnanshan South Road, Beijing 100070, China


0 0002752 010008

CERTIFICATE OF COMPLIANCE

Certificate Number: 210000-00000
 Approval Number: 00000-00000
 Issue Date: 2016-03-01

By reason of its
Quality Management System
 has been awarded this certificate for compliance with the standard
GB/T 19001-2016 / ISO 9001:2015
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 Design and Production of Grooved Couplings and Fittings

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CHINA QUALITY CERTIFICATION CENTRE
 Building 8, No. 108, Zhongnanshan South Road, Beijing 100070, China

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- MOST RELIABLE SUPPLIER -



■ About us

Shandong Lede Machinery Co.,Ltd is one modernized enterprise engaging in designing and producing on valves such as gate valve, butterfly valve, check valve and deluge valve etc.

“LEDE” is dedicated in supplying best valves to the customers, the valves are researched according to the up-to-date international standard like AWWA C515, EN1074, EN1171, EN593, MSS SP-67, ISO5752, etc. All of our valves can resist higher pressure with small torque. The self-seal center-line type butterfly valve is one kind of new designed and innovative valve with micro interference between rubber disc and valve channel which can decrease the abrasion of the seal face and increase the life of valves, with its self-seal structure, the sealing property is proportional to fluid pressure, so the valves can resist very high pressure, at the same time, the seal lip on the disc can remove the mud and dirt during the closing of the valves. “LEDE” has got global patent of self-seal center-line type butterfly valves.

“LEDE” owns two big foundries with advanced electric furnaces and automatic casting lines, the product is machined with CNC and the finish is done with high quality of epoxy powder. The mold center keeps developing new products that can satisfy diverse demands from different customers.

“LEDE” valves have been sold to America, European countries, Russia, Canada, Australia, Middle East, Asia, South America and some other areas.

“LEDE” valves are wildly used in various fields as follows:

- Automatic sprinkler system for Fire Fighting Protection on Commercial, Civil and Municipal constructions like water supplying, gas supplying, heat supplying, drainage, air conditioning etc.
- Industrial pipeline system on shipping, mine, oil field, textile, power plant, paper making, beverage and steel making etc.
- Pipeline system on subway station, railway station, airport, seaport, bridge, channel etc.

www.lede-group.com

CONTENT



04 **Model No. Z45X-01**
DIN F4 Flanged Resilient Seated NRS Gate Valve



05 **Model No. Z45X-02**
BS5163 Flanged Resilient Seated NRS Gate Valve



06 **Model No. Z45X-03**
AWWA C515 Flanged Resilient Seated NRS Gate Valve



07 **Model No. 1110**
AWWA C515 Flanged Resilient Seated NRS Gate Valve



08 **Model No. 1112**
Mechanical Joint Resilient Seated NRS Gate Valves



09 **Model No. Z45X-04**
AWWA C515 Flanged Resilient Seated NRS Gate Valve with Indicator Post



10 **Model No. 1113**
Mechanical Joint Resilient Seated NRS Gate Valve with Indicator Post



11 **Model No. Z85X**
Grooved Resilient Seated NRS Gate Valve



12 **Model No. 1111**
Grooved Resilient Seated NRS Gate Valve



13 **Model No. Z41X-01**
DIN F4 Flanged Resilient Seated OS&Y Gate Valve



14 **Model No. Z41X-02**
BS5163 Flanged Resilient Seated OS&Y Gate Valve



15 **Model No. Z41X-03**
AWWA C515 Flanged Resilient Seated OS&Y Gate Valve



16 **Model No. 1210**
Flanged Resilient Seated OS&Y Gate Valve



17 **Model No. 1211**
Flanged Resilient Seated OS&Y Gate Valve



18 **Model No. Z81X**
Flanged Resilient Seated OS&Y Gate Valve



19 **Model No. 1212**
Mechanical Joint Resilient Seated OS&Y Gate Valve



20 **Model No. XD371X**
Wafer Butterfly Valve with Tamper Switch



21 **Model No. D71X**
Wafer Butterfly Valve with Lever Handle



22 **Model No. XD381X**
Grooved Butterfly Valve with Tamper Switch



23 **Model No. D81X**
Grooved Butterfly Valve with Lever Handle



24 **Model No. H44X**
Flanged Swing Check Valve



25 **Model No. H84X**
Grooved Swing Check Valve



26 **Model No. 6101**
Flanged Y Strainer



27 **Model No. 6102**
Grooved Y Strainer



28 **Model No. YL4X**
Deluge Valve



29 **Model No. 9101**
Wall Indicator Post



30 **Model No. 9102**
Vertical Indicator Post



31 **Model No. Dry Barrel Hydrant**



32 **Model No. Alarm Check Valve**



33 **Model No. Pressure Reducing Valve**

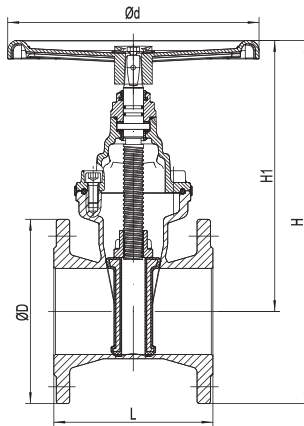
DIN F4 Flanged Resilient Seated NRS Gate Valve

Name of parts	Material
Body	Ductile iron
Wedge	Ductile iron+EPDM
Stem nut	Bronze
Stem	SS431 or SS304, SS316, bronze
Bonnet	Ductile iron
Bonnet Gasket	EPDM
Sealing Ring	EPDM
Upper cover	Ductile iron
Sliding disc	Bronze
Screw	Carbon steel with hot galvanization
O-rings	EPDM
Handwheel	Ductile iron

Model No. Z45X-01

**Technical data** >

- Sizes: DN50~DN300
- Working pressure: PN16/PN25
- Valve standard: EN1171
- Flange standard: EN1092-2
- Temperature range: 0 ~ 80 °C



Dimensions		Pressure rating	Size (mm)				
DN	inch		PN	ΦD	L	H1	H
50	2	16	165	150	256	338.5	203
		25					
65	2.5	16	185	170	256	348.5	203
		25					
80	3	16	200	180	273.5	373.5	203
		25					
100	4	16	220	190	323.5	433.5	300
		25				235	
125	5	16	250	200	376	501	300
		25				270	
150	6	16	285	210	423.5	566	300
		25				300	
200	8	16	340	230	530.5	700.5	406
		25				360	
250	10	16	400	250	645	845	406
		25				425	
300	12	16	455	270	725.5	953	406
		25				485	

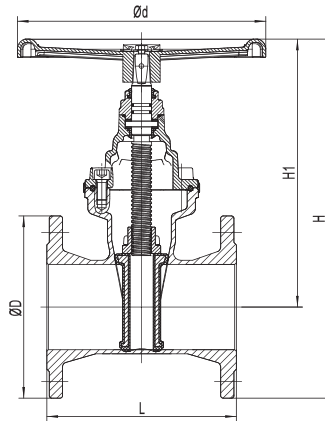
※ DN600 available upon request

BS5163 Flanged Resilient Seated NRS Gate Valve

Model No. Z45X-02



Name of parts	Material
Body	Ductile iron
Wedge	Ductile iron+EPDM
Stem nut	Bronze
Stem	SS431 or SS304, SS316, bronze
Bonnet	Ductile iron
Bonnet Gasket	EPDM
Sealing Ring	EPDM
Upper cover	Ductile iron
Sliding disc	Bronze
Screw	Carbon steel with hot galvanization
O-rings	EPDM
Handwheel	Ductile iron



Technical data >

- Sizes: DN50~DN300
- Working pressure: PN16/PN25
- Valve standard: BS5163
- Flange standard: EN1092-2
- Temperature range: 0 ~ 80 °C

Dimensions		Pressure rating	Size (mm)				
DN	inch		PN	ΦD	L	H1	H
50	2	16	165	178	256	338.5	203
		25		216			
65	2.5	16	185	190	256	348.5	203
		25		241			
80	3	16	200	203	273.5	373.5	203
		25		283			
100	4	16	220	229	323.5	433.5	300
		25	235	305		441	
125	5	16	250	254	376	501	300
		25	270	381		511	
150	6	16	285	267	423.5	566	300
		25	300	403		573.5	
200	8	16	340	292	530.5	700.5	406
		25	360	419		710.5	
250	10	16	400	330	645	845	406
		25	425	457		857.5	
300	12	16	455	356	725.5	953	406
		25	485	502		953	

AWWA C515 Flanged Resilient Seated NRS Gate Valve

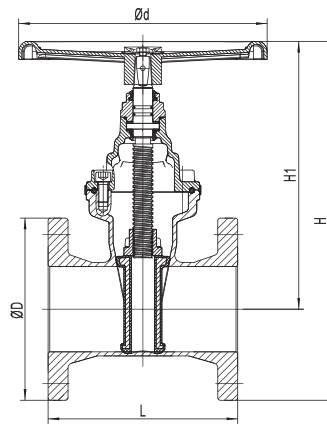
Name of parts	Material
Body	Ductile iron
Wedge	Ductile iron+EPDM
Stem nut	Bronze
Stem	SS431 or SS304,SS316,bronze
Bonnet	Ductile iron
Bonnet Gasket	EPDM
Sealing Ring	EPDM
Upper cover	Ductile iron
Sliding disc	Bronze
Screw	Carbon steel with hot galvanization
O-rings	EPDM
Handwheel	Ductile iron

Model No. Z45X-03



Technical data >

- Size: 2"~12"
- Working pressure: 175psi, 300psi
- Valve standard: AWWA C515
- Flange standard: ASME-B16.1 Class125
- Temperature range: 0~80 °C



Dimensions		Pressure rating	Size (mm)				
DN	inch		psi	ΦD	L	H1	H
50	2	175	152	178	256	332	203
		300					
65	2.5	175	178	190	256	345	203
		300					
80	3	175	191	203	273.5	369	203
		300					
100	4	175	229	229	323.5	438	300
		300					
125	5	175	254	254	376	503	300
		300					
150	6	175	279	267	423.5	563	300
		300					
200	8	175	343	292	530.5	702	406
		300					
250	10	175	406	330	645	848	406
		300					
300	12	175	483	356	725.5	967	406
		300					

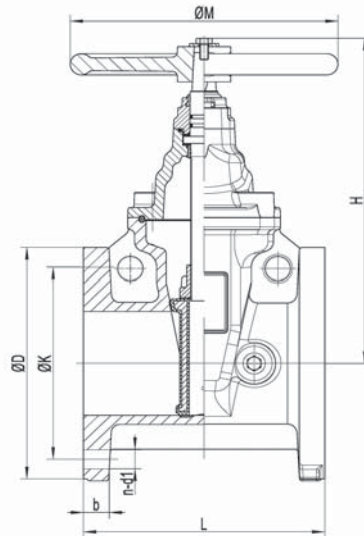
AWWA C515 Flanged Resilient Seated NRS Gate Valve

Model No. 1110



Technical data >

- Size: 2"~12"
- Working pressure: 300psi
- Design standard: AWWA C515
- Face to face: ASME B16.10
- Flange standard: ASME-B16.1 CIASS125
- Tests: AWWA C515
- Temperature range: 0~80 °C



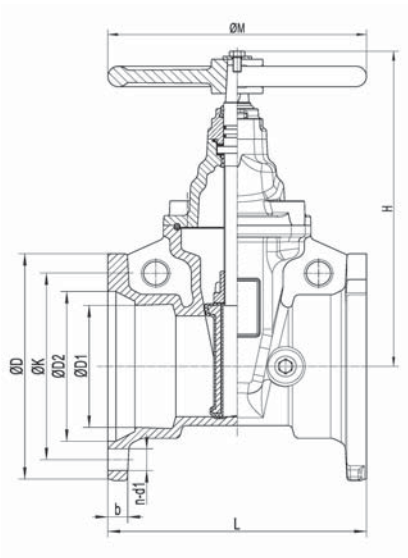
SIZE Inch	OUTLINE (Inch)			END FLANGE CIASS125 (Inch)			
	L	H	M	D	K	n-d1	b
2	7	10.08	7	6.00	4.75	4-0.75	0.62
2 1/2	7.5	10.08	7	7.00	5.50	4-0.75	0.69
3	8	10.77	7	7.50	6.00	4-0.75	0.75
4	9	12.74	10	9.00	7.50	8-0.75	0.94
5	10	14.80	10	10.00	8.50	8-0.88	0.94
6	10.5	16.67	12	11.00	9.50	8-0.88	1.00
8	11.5	20.89	14	13.50	11.75	8-0.88	1.12
10	13	25.39	16	16.00	14.25	12-1.00	1.19
12	14	28.56	16	19.00	17.00	12-1.00	1.25

Mechanical Joint Resilient Seated NRS Gate Valves

Model No. 1112

Technical data >

- Size: 3"~12"
- Working pressure: 3"~12" 362psi
- Design standard: AWWA C515
- Mechanical Joint End standard: AWWA C153/A21.53
- Tests: AWWA C515
- Temperature range: 0~80 °C



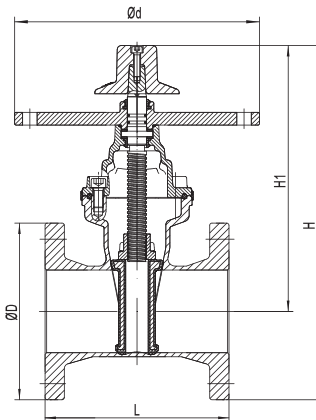
SIZE Inch	OUTLINE (Inch)			END MECHANICAL JOINT (Inch)					
	L	H	M	D	K	D2	D1	n-d1	b
3	9.5	10.77	7	7.62	6.19	4.94	4.06	4-0.75	0.58
4	10	12.74	10	9.06	7.50	6.02	4.90	4-0.88	0.60
6	10.5	16.67	12	11.06	9.50	8.12	7.00	6-0.88	0.63
8	11.5	20.89	14	13.31	11.75	10.27	9.15	6-0.88	0.66
10	13	25.39	16	15.62	14.00	12.34	11.20	8-0.88	0.70
12	14	28.56	16	17.88	16.25	14.44	13.30	8-0.88	0.73

AWWA C515 Flanged Resilient Seated NRS Gate Valve with Indicator Post

Model No. Z45X-04



Name of parts	Material
Body	Ductile iron
Wedge	Ductile iron+EPDM
Stem Nut	Bronze
Stem	SS431 or SS304,SS316,bronze
Bonnet	Ductile iron
Bonnet Gasket	EPDM
Sealing Ring	EPDM
Indicator Post Flange	Ductile iron
Sliding disc	Bronze
Screw	Carbon steel with hot galvanization
O-rings	EPDM
Wrench Nut	Ductile iron



Technical data >

- Size: 2"~12"
- Working pressure: 175psi, 300psi
- Valve standard: AWWA C515
- Flange standard: ASME-B16.1 Class125
- Temperature range: 0~80 °C

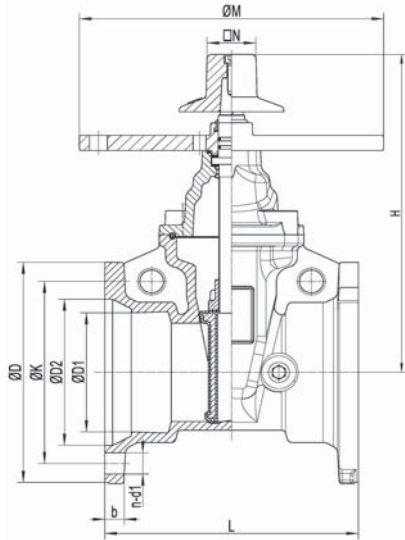
Dimensions		Pressure rating	Size (mm)				
DN	inch		psi	ΦD	L	H1	H
100	4	175	229	229	332.5	449	305
		300					
125	5	175	254	254	385	512	305
		300					
150	6	175	279	267	432.5	572	305
		300					
200	8	175	343	292	527	698.5	305
		300					
250	10	175	406	330	645	848	305
		300					
300	12	175	483	356	722	963.5	305
		300					

Mechanical Joint Resilient Seated NRS Gate Valve with Indicator Post

Model No. 1113

Technical data >

- Size: 3"~12"
- Working pressure: 3"~12" 362psi
- Design standard: AWWA C515
- Mechanical Joint End standard: AWWA C153/A21.53
- Tests: AWWA C515
- Temperature range: 0~80 C



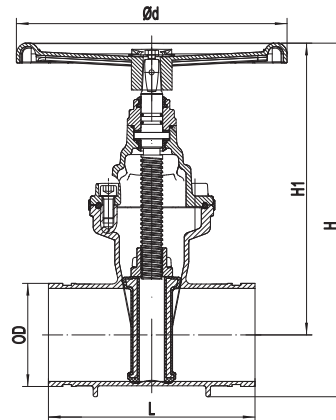
SIZE Inch	OUTLINE (Inch)				END MECHANICAL JOINT (Inch)					
	L	H	M	N	D	K	D2	D1	n-d1	b
3	9.5	11.30	12	1.93	7.62	6.19	4.94	4.06	4-0.75	0.58
4	10	13.15	12	1.93	9.06	7.50	6.02	4.90	4-0.88	0.60
6	10.5	17.13	12	1.93	11.06	9.50	8.12	7.00	6-0.88	0.63
8	11.5	20.75	12	1.93	13.31	11.75	10.27	9.15	6-0.88	0.66
10	13	25.20	12	1.93	15.62	14.00	12.34	11.20	8-0.88	0.70
12	14	28.43	12	1.93	17.88	16.25	14.44	13.30	8-0.88	0.73

Grooved Resilient Seated NRS Gate Valve

Model No. Z85X



Name of parts	Material
Body	Ductile iron
Wedge	Ductile iron+EPDM
Stem nut	Bronze
Stem	SS431 or SS304, SS316, bronze
Bonnet	Ductile iron
Bonnet Gasket	EPDM
Sealing Ring	EPDM
Upper cover	Ductile iron
Sliding disc	Bronze
Screw	Carbon steel with hot galvanization
O-rings	EPDM
Handwheel	Ductile iron



Technical data >

- Size: DN50~DN200
- Working pressure: PN25, 362psi
- Valve standard: AWWA C515
- Grooved standard: AWWA C606
- Temperature range: 0~80 °C

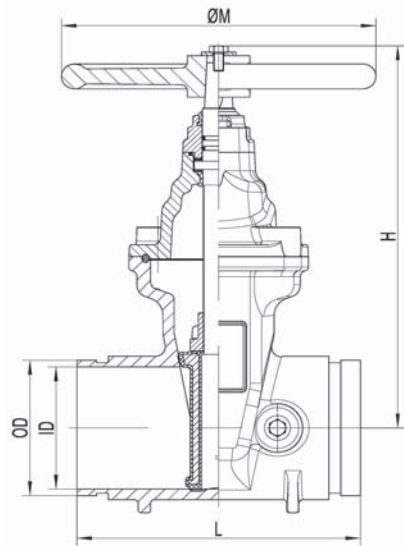
Dimensions		Pressure rating	Size (mm)				
DN	inch		ΦD	L	H1	H	Φd
50	2	362	60.3	178	256	301	203
65	2.5		73			190	
		76.1	309				
80	3	362	88.9	203	273.5	333	203
100	4	362	114.3	229	323.5	396	300
125	5	362	139.7	254	376	461	300
			141.3			462	
150	6	362	165.1	267	423.5	521	300
			168.3			523	
200	8	362	219.1	292	530.5	660	406

Grooved Resilient Seated NRS Gate Valve

Model No. 1111

Technical data >

- Size: 2"~12"
- Working pressure: 362psi
- Design standard: AWWA C515
- Grooved standard: AWWA C606
- Tests: AWWA C515
- Temperature range: 0~80 °C



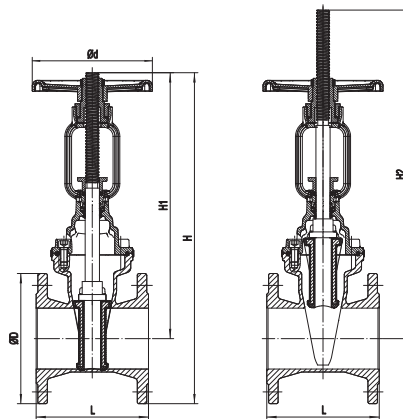
SIZE Inch	OUTLINE (Inch)			END GROOVED (Inch)	
	L	H	M	OD	ID
2	7	10.08	7	2.37	2.09
2.5	7.5	10.08	7	2.87	2.48
3	8	10.77	7	3.50	3.07
4	9	12.74	10	4.50	4.06
5	10	14.80	10	5.56	5.04
6	10.5	16.67	12	6.63	6.10
8	11.5	20.89	14	8.63	8.03
10	13	25.39	16	10.75	10.04
12	14	28.56	16	12.75	11.97

DIN F4 Flanged Resilient Seated OS&Y Gate Valve

Model No. Z41X-01



Name of parts	Material
Body	Ductile iron
Wedge	Ductile iron+EPDM
Stem nut	Bronze
Stem	SS431 or SS304, SS316, bronze
Bonnet	Ductile iron
Bonnet Gasket	EPDM
Sealing Ring	EPDM
Yoke	Ductile iron
Sliding disc	Bronze
Screw	Carbon steel with hot galvanization
O-rings	EPDM
Handwheel	Ductile iron



Technical data >

- Sizes: DN50~DN300
- Working pressure: PN16/PN25
- Valve standard: EN1171
- Flange standard: EN1092-2
- Temperature range: 0 ~ 80 °C

Dimensions		Pressure rating	Size (mm)					
DN	inch	PN	ΦD	L	H1	H2	H	Φd
50	2	16	165	150	358.5	420.5	441	203
		25						
65	2.5	16	185	170	359.5	429.5	452	203
		25						
80	3	16	200	180	378	462	478	203
		25						
100	4	16	220	190	449.5	553	559.5	203
		25	235				567	
125	5	16	250	200	549.5	677	674.5	300
		25	270				684.5	
150	6	16	285	210	591.5	747	734	300
		25	300				741.5	
200	8	16	340	230	735.5	938	905.5	330
		25	360				915.5	
250	10	16	400	250	900.5	1161	1100.5	406
		25	425				1113	
300	12	16	455	270	1045.5	1353	1273	406
		25	485				1288	

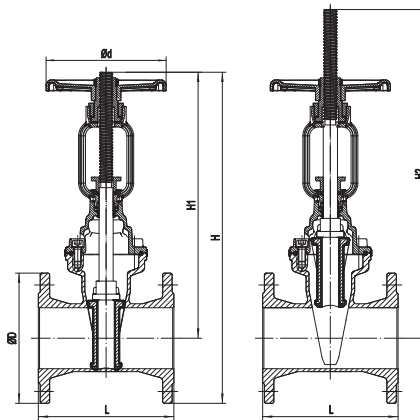
BS5163 Flanged Resilient Seated OS&Y Gate Valve

Name of parts	Material
Body	Ductile iron
Wedge	Ductile iron+EPDM
Stem nut	Bronze
Stem	SS431 or SS304, SS316, bronze
Bonnet	Ductile iron
Bonnet Gasket	EPDM
Sealing Ring	EPDM
Yoke	Ductile iron
Sliding disc	Bronze
Screw	Carbon steel with hot galvanization
O-rings	EPDM
Handwheel	Ductile iron

Model No. Z41X-02

**Technical data** >

- Sizes: DN50~DN300
- Working pressure: PN16/PN25
- Valve standard: BS5163
- Flange standard: EN1092-2
- Temperature range: 0 ~ 80 °C



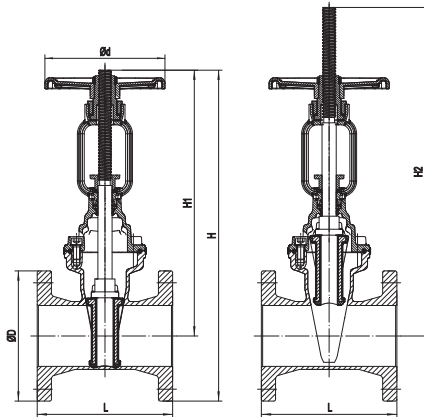
Dimensions		Pressure rating	Size (mm)					
DN	inch		PN	ΦD	L	H1	H2	H
50	2	16	165	178	358.5	420.5	441	203
		25		216				
65	2.5	16	185	190	359.5	429.5	452	203
		25		241				
80	3	16	200	203	378	462	478	203
		25		283				
100	4	16	220	229	449.5	553	559.5	203
		25	235	305			567	
125	5	16	250	254	549.5	677	674.5	300
		25	270	381			684.5	
150	6	16	285	267	591.5	747	734	300
		25	300	403			741.5	
200	8	16	340	292	735.5	938	905.5	330
		25	360	419			915.5	
250	10	16	400	330	900.5	1161	1100.5	406
		25	425	457			1113	
300	12	16	455	356	1045.5	1353	1273	406
		25	485	502			1288	

AWWA C515 Flanged Resilient Seated OS&Y Gate Valve

Model No. Z41X-03



Name of parts	Material
Body	Ductile iron
Wedge	Ductile iron+EPDM
Stem nut	Bronze
Stem	SS431 or SS304, SS316, bronze
Bonnet	Ductile iron
Bonnet Gasket	EPDM
Sealing Ring	EPDM
Yoke	Ductile iron
Sliding disc	Bronze
Screw	Carbon steel with hot galvanization
O-rings	EPDM
Handwheel	Ductile iron



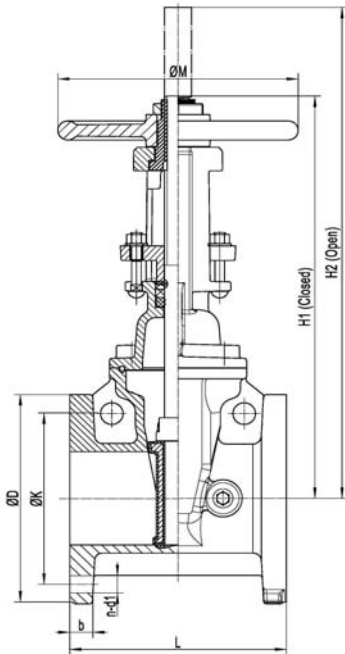
Technical data >

- Sizes: 2"~12"
- Working pressure: 175psi, 300psi
- Valve standard: AWWA C515
- Flange standard: ASME-B16.1 Class125
- Temperature range: 0~80 °C

Dimensions		Pressure rating psi	Size (mm)					
DN	inch		ΦD	L	H1	H2	H	Φd
50	2	175	152	178	358.5	420.5	434.5	203
		300						
65	2.5	175	178	190	359.5	429.5	448.5	203
		300						
80	3	175	191	203	378	462	473.5	203
		300						
100	4	175	229	229	449.5	553	564	203
		300						
125	5	175	254	254	549.5	677	676.5	300
		300						
150	6	175	279	267	591.5	747	731	300
		300						
200	8	175	343	292	735.5	938	907	330
		300						
250	10	175	406	330	900.5	1161	1103.5	406
		300						
300	12	175	483	356	1045.5	1353	1287	406
		300						

Flanged Resilient Seated OS&Y Gate Valve

Model No. 1210

**Technical data** >

- Size: 2"~12"
- Working pressure: 300psi
- Design standard: AWWA C515
- Face to face: ASME B16.10
- Flange standard: ASME-B16.1 CIASS125
- Tests: AWWA C515
- Temperature range: 0~80 °C

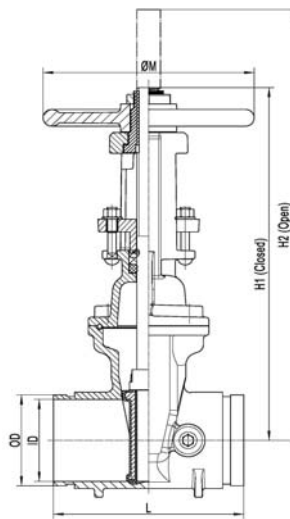
SIZE Inch	OUTLINE (Inch)				END FLANGE CIASS125 (Inch)			
	L	H1	H2	M	D	K	n-d1	b
2	7	13.46	15.67	7	6.00	4.75	4-0.75	0.62
2 1/2	7.5	13.11	15.79	7	7.00	5.50	4-0.75	0.69
3	8	14.89	18.23	7	7.50	6.00	4-0.75	0.75
4	9	17.46	21.63	10	9.00	7.50	8-0.75	0.94
5	10	20.39	25.63	10	10.00	8.50	8-0.88	0.94
6	10.5	23.29	29.59	12	11.00	9.50	8-0.88	1.00
8	11.5	28.78	37.01	14	13.50	11.75	8-0.88	1.12
10	13	35.04	45.28	16	16.00	14.25	12-1.00	1.19
12	14	40.61	52.78	16	19.00	17.00	12-1.00	1.25

Flanged Resilient Seated OS&Y Gate Valve

Model No. 1211



Name of parts	Material
Body	Ductile iron
Wedge	Ductile iron+EPDM
Stem nut	Bronze
Stem	SS431 or SS304, SS316, bronze
Bonnet	Ductile iron
Bonnet Gasket	EPDM
Sealing Ring	EPDM
Yoke	Ductile iron
Sliding disc	Bronze
Screw	Carbon steel with hot galvanization
O-rings	EPDM
Handwheel	Ductile iron



Technical data >

- Sizes: 2"~12"
- Working pressure: 362psi
- Valve standard: AWWA C515
- Grooved standard: AWWA C606
- Temperature range: 0~80 °C

SIZE Inch	OUTLINE (Inch)				END GROOVED (Inch)	
	L	H1	H2	M	OD	ID
2	7	13.46	15.67	7	2.37	2.09
2.5	7.5	13.11	15.79	7	2.87	2.48
3	8	14.89	18.23	7	3.50	3.07
4	9	17.46	21.63	10	4.50	4.06
5	10	20.39	25.63	10	5.56	5.04
6	10.5	23.29	29.59	12	6.63	6.10
8	11.5	28.78	37.01	14	8.63	8.03
10	13	35.04	45.28	16	10.75	10.04
12	14	40.61	52.78	16	12.75	11.97

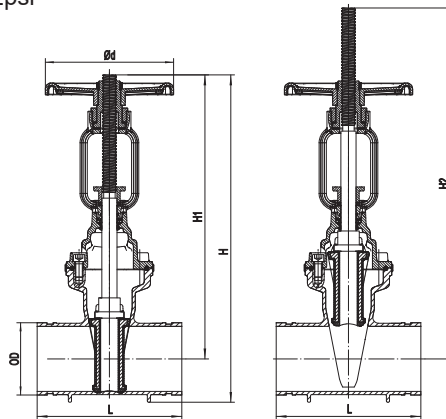
Flanged Resilient Seated OS&Y Gate Valve

Name of parts	Material
Body	Ductile iron
Wedge	Ductile iron+EPDM
Stem nut	Bronze
Stem	SS431 or SS304, SS316, bronze
Bonnet	Ductile iron
Bonnet Gasket	EPDM
Sealing Ring	EPDM
Yoke	Ductile iron
Sliding disc	Bronze
Screw	Carbon steel with hot galvanization
O-rings	EPDM
Handwheel	Ductile iron

Model No. Z81X

**Technical data** >

- Sizes: DN50~DN200
- Working pressure: Up to PN25, 362psi
- Valve standard: AWWA C515
- Grooved standard: AWWA C606
- Temperature range: 0~80 C



Dimensions		Pressure rating psi	Size (mm)					
DN	inch		OD	L	H1	H2	H	Φd
50	2	362	60.3	178	358.5	420.5	403.5	203
65	2.5	362	73	190	359.5	429.5	411	203
			76.1					
80	3	362	88.9	203	378	462	437.5	203
100	4	362	114.3	229	449.5	553	518.5	203
125	5	362	139.7	254	549.5	677	631	300
			141.3					
150	6	362	165.1	267	591.5	747	686	300
			168.3					
200	8	362	219.1	292	735.5	938	865	330

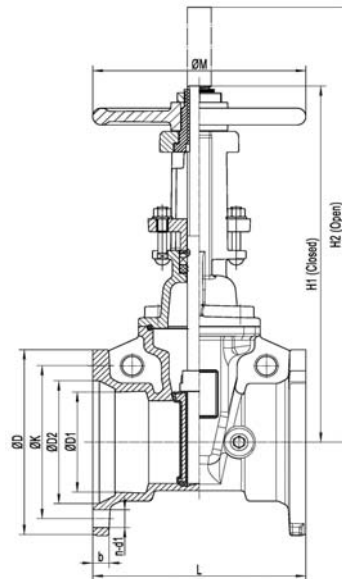
Mechanical Joint Resilient Seated OS&Y Gate Valve

Model No. 1212



Technical data >

- Size: 3"~12"
- Working pressure: 3"~12" 362psi
- Design standard: AWWA C515
- Mechanical Joint End standard: AWWA C153/A21.53
- Tests: AWWA C515
- Temperature range: 0~80 °C



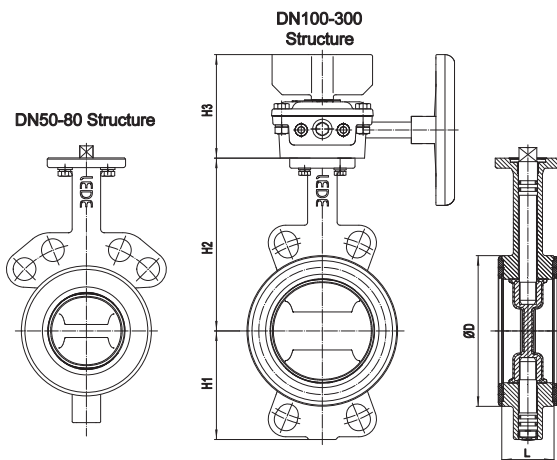
SIZE Inch	OUTLINE (Inch)				END GROOVED (Inch)					
	L	H1	H2	M	D	K	D2	D1	n-d1	b
3	9.5	14.89	18.23	7	7.62	6.19	4.94	4.06	4-0.75	0.58
4	10	17.46	21.63	10	9.06	7.50	6.02	4.90	4-0.88	0.60
6	10.5	23.29	29.59	12	11.06	9.50	8.12	7.00	6-0.88	0.63
8	11.5	28.78	37.01	14	13.31	11.75	10.27	9.15	6-0.88	0.66
10	13	35.04	45.28	16	15.62	14.00	12.34	11.20	8-0.88	0.70
12	14	40.61	52.78	16	17.88	16.25	14.44	13.30	8-0.88	0.73

Wafer Butterfly Valve with Tamper Switch

Name of parts	Material
Body	Ductile iron
Plug	EPDM
Driven shaft	1Cr17Ni2
Disc	Ductile iron and EPDM
Actuating shaft	1Cr17Ni2
Bearing bush	Bronze
O-rings	EPDM
Gear operator	Ductile iron and steel



Model No. XD371X

**Technical data** >

- Sizes: DN50~DN300
- Working pressure: PN16/PN25
- Valve standard: EN593
- Flange standard: ASME-B16.1 Class125 and EN1092-2
- Top Flange standard: EN ISO 5211
- Temperature range: 0 ~ 80 C
- Suitable for indoor and outdoor use

Dimensions		Pressure rating	Size (mm)					
DN	inch		psi	ΦD	L	H1	H2	H3
50	2	362	91	43	70	125	H3	F05
65	2.5	362	108	46	76	143.5	103	F05
80	3	362	124	46	94	151	103	F05
100	4	362	150	52	108	172	103	F07
125	5	362	178	56	127	190	103	F07
150	6	362	205	56	139	202	103	F07
200	8	232	260	60	175	235	103	F07
250	10	232	313	68	210	265	109	F10
300	12	232	364	78	238	285	109	F10

Wafer Butterfly Valve with Lever Handle

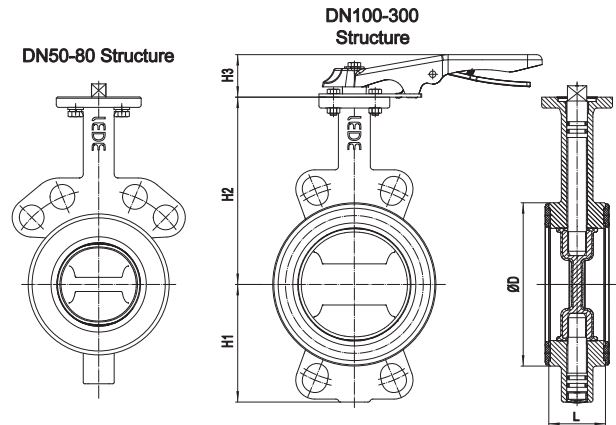
Model No. D71X



Name of parts	Material
Body	Ductile iron
Plug	EPDM
Driven shaft	1Cr17Ni2 or 2Cr13
Disc	Ductile iron and EPDM
Actuating shaft	1Cr17Ni2 or 2Cr13
Bearing bush	Bronze
O-rings	EPDM
Lever handle	Ductile iron and steel

Technical data >

- Sizes: DN50~DN300
- Working pressure: PN16/PN25
- Valve standard: EN593
- Flange standard: ASME-B16.1 Class125 and EN1092-2
- Top Flange standard: EN ISO 5211
- Temperature range: 0 ~ 80 C



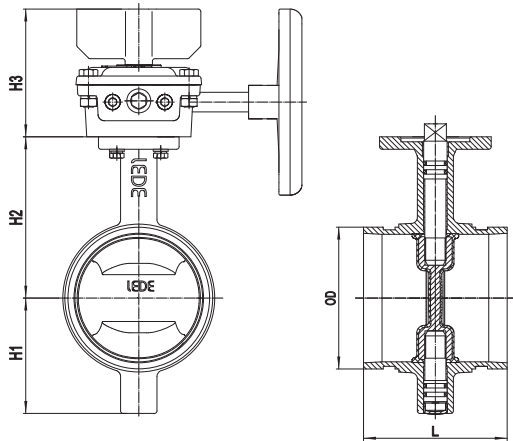
Dimensions		Pressure rating	Size (mm)					
DN	inch		PN	ΦD	L	H1	H2	H3
50	2	10/16/25	91	43	70	125	39	F05
65	2.5	10/16/25	108	46	76	143.5	39	F05
80	3	10/16/25	124	46	94	151	39	F05
100	4	10/16/25	150	52	108	172	39	F07
125	5	10/16/25	178	56	127	190	39	F07
150	6	10/16/25	205	56	139	202	39	F07
200	8	10/16/25	260	60	175	235	39	F07

Grooved Butterfly Valve with Tamper Switch

Name of parts	Material
Body	Ductile iron
Plug	EPDM
Driven shaft	1Cr17Ni2
Disc	Ductile iron and EPDM
Actuating shaft	1Cr17Ni2
Bearing bush	Bronze
O-rings	EPDM
Gear operator	Ductile iron and steel



Model No. XD381X

**Technical data** >

- Size: DN50~DN200
- Working pressure: DN50~DN150 362psi, DN200 232psi
- Valve standard: MSS SP-67
- Grooved standard: AWWA C606
- Top Flange standard: EN ISO 5211
- Temperature range: 0~80 °C
- Suitable for indoor and outdoor use

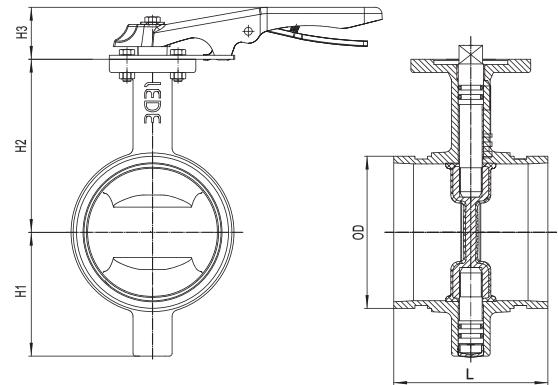
Dimensions		Pressure rating psi	Size (mm)					
DN	inch		OD	L	H1	H2	H3	Top Flange
50	2	362	60.3	81	56	91	103	F05
65	2.5	362	73	96.8	68	104	103	F05
			76.1					
80	3	362	88.9	96.8	75	111	103	F07
100	4	362	114.3	115.8	93	130	103	F07
125	5	362	139.7	147.6	111	153	103	F07
			141.3		111	153		
150	6	362	165.1	147.6	123	165	103	F07
			168.3		123	165		
200	8	232	219.1	133.4	160	194	109	F07

Grooved Butterfly Valve with Lever Handle

Model No. D81X



Name of parts	Material
Body	Ductile iron
Plug	EPDM
Driven shaft	1Cr17Ni2
Disc	Ductile iron and EPDM
Actuating shaft	1Cr17Ni2
Bearing bush	Bronze
O-rings	EPDM
Gear operator	Ductile iron and steel



Technical data >

- Size: DN50~DN200
- Working pressurer: DN50~DN150 362psi, DN200 232psi
- Valve standard: MSS SP-67
- Grooved standard: AWWA C606
- Top Flange standard: EN ISO 5211
- Temperature range: 0~80 C

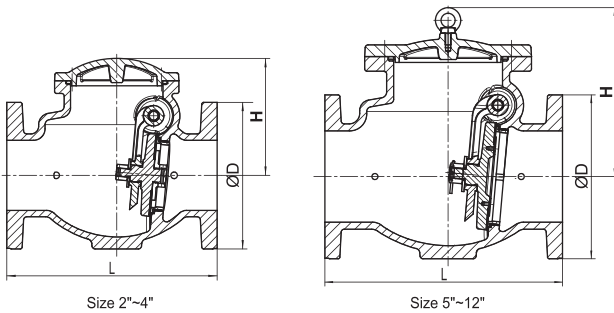
Dimensions		Pressure rating	Size (mm)					
DN	inch		psi	OD	L	H1	H2	H3
50	2	362	60.3	81	56	91	39	F05
65	2.5	362	73	96.8	68	104	39	F05
			76.1					
80	3	362	88.9	96.8	75	111	39	F07
100	4	362	114.3	115.8	93	130	39	F07
125	5	362	139.7	147.6	111	153	39	F07
			141.3		111	153		
150	6	362	165.1	147.6	123	165	39	F07
			168.3		123	165		
200	8	232	219.1	133.4	160	194	39	F07

Flanged Swing Check Valve

Model No. H44X



Name of parts	Material
Body	Ductile iron
Seat Ring	Bronze
Disc Sealing Ring	EPDM
Disc Plate	SS304
Disc	Ductile iron
Clapper Arm	Ductile iron
Bonnet Gasket	EPDM
Bonnet	Ductile iron
Hinge Pin	SS304
Hinge Bushing	Bronze
Hinge Plug	SS304

**Technical data** >

- Sizes: 2"~12"
- Working pressure: 300psi
- Valve standard: AWWA C508
- Flange standard: ASME-B16.1 Class125
- Temperature range: 0 ~ 80 °C

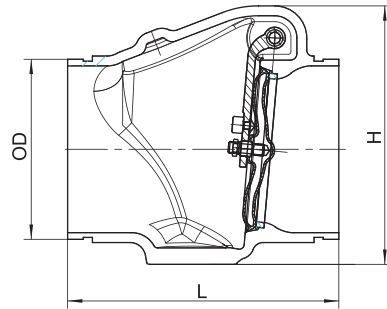
Dimensions		Pressure rating	Size (mm)		
DN	inch		psi	ΦD	L
50	2	300	152	203	125
65	2.5	300	178	254	139
80	3	300	191	279	153
100	4	300	229	330	184
125	5	300	254	356	275
150	6	300	279	406	289
200	8	300	343	495	352
250	10	300	406	559	411
300	12	300	483	660	480

Grooved Swing Check Valve

Model No. H84X



Name of parts	Material
Body	Ductile iron
Seat Ring	Bronze
Disc Sealing Ring	EPDM
Disc Plate	SS304
Disc	Ductile iron
Clapper Arm	Ductile iron
Bonnet Gasket	EPDM
Bonnet	Ductile iron
Hinge Pin	SS304
Hinge Bushing	Bronze
Hinge Plug	SS304



Technical data >

- Sizes: 2"~12"
- Working pressure: 362psi
- Grooved standard: AWWA C606
- Temperature range: 0 ~ 80 °C

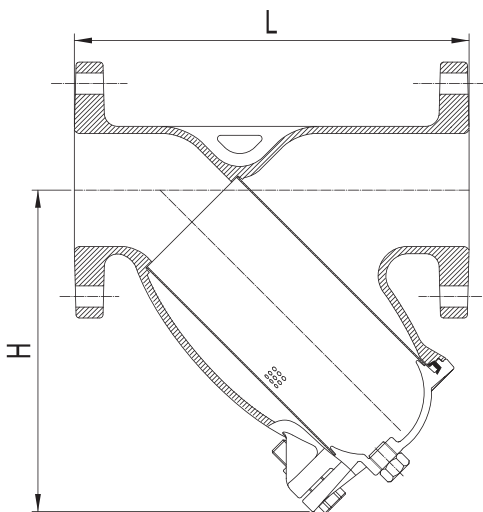
Dimensions		Pressure rating	Size (mm)		
DN	inch		psi	OD	L
50	2	362	60.3	167	122.5
65	2.5	362	73	180	136.5
			76.1		
80	3	362	88.9	198	165.5
100	4	362	114.3	229	193.6
125	5	362	139.7	254	235.5
			141.3		
150	6	362	165.1	272	252
			168.3		
200	8	362	219.1	330	314.5

Flanged Y Strainer

Model No. 6101



Name of parts	Material
Body	Ductile iron
Cover	Ductile iron
Gasket	EPDM
Screen	SS304
Plug	Bronze

**Technical data** >

- Sizes: 2"~12"
- Working pressure: 300psi
- Flange standard: ASME-B16.1 Class125
- Temperature range: 0 ~ 80 C

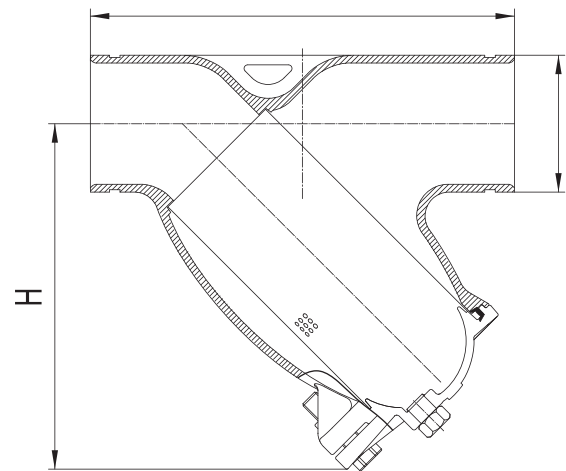
Dimensions		Pressure rating	Size (mm)		
DN	inch		psi	ΦD	L
50	2	300	152	230	154
65	2.5	300	178	290	201
80	3	300	191	310	210
100	4	300	229	350	269
125	5	300	254	400	320
150	6	300	279	480	357
200	8	300	343	550	442
250	10	300	406	650	525
300	12	300	483	750	620

Grooved Y Strainer

Model No. 6102



Name of parts	Material
Body	Ductile iron
Cover	Ductile iron
Gasket	EPDM
Screen	SS304
Plug	Bronze



Technical data >

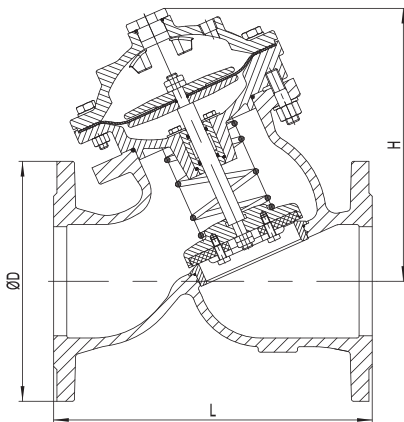
- Sizes: 2"~8"
- Working pressure: 362psi
- Grooved standard: AWWA C606
- Temperature range: 0 ~ 80 °C

Dimensions		Pressure rating	Size (mm)		
DN	inch		psi	OD	L
50	2	362	60.3	230	154
65	2.5		73		
		76.1	290	201	
80	3	362			88.9
100	4		114.3	350	269
125	5	362	139.7		
			141.3		
150	6	362	165.1	480	357
			168.3		
200	8	362	219.1	550	442

Deluge Valve

Model No. YL4X

Name of parts	Material
Body	Ductile iron
Seat Ring	SS304
Gland of Main Disc	SS304
Main Gasket	EPDM
Main Disc	SS304
Spring	SS420J2
Stem	SS304
Middle Bonnet	Ductile iron
Bushing	Bronze
Bottom Gland	SS304
Diaphragm	EPDM
Up Gland	SS304
Up Bonnet	Ductile iron
Cap Plug	SS304
Bolt	SS304

**Technical data** >

- Sizes: 2"~12"
- Working pressure: 300psi
- Flange standard: ASME-B16.1 Class125
- Temperature range: 0 ~ 80 C

Dimensions		Pressure rating	Size (mm)		
DN	inch		psi	ΦD	L
50	2	300	152	203	170
65	2.5	300	178	216	195
80	3	300	191	241	210
100	4	300	229	292	250
125	5	300	254	330	290
150	6	300	279	356	350
200	8	300	343	495	420
250	10	300	406	622	550
300	12	300	483	698	645

Wall Indicator Post

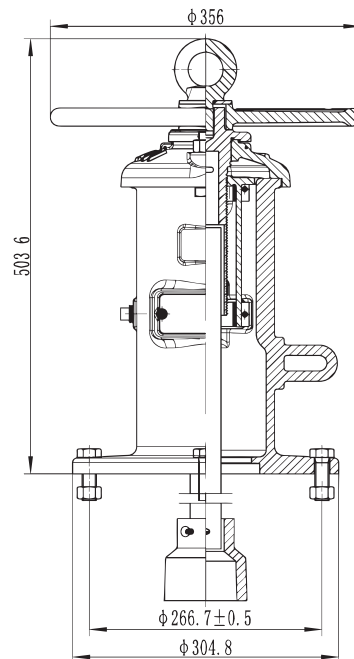
Model No. 9101



Specification >

- Indicates if the valve is in the open or shut position.
- Used to operate a valve installed behind a wall.
- With a 12" O.D. post flange to mount on a wall.
- Operated by handwheel.
- Can be supplied to open left or right.

Name of parts	Material
Body	Cast iron/Ductile iron
Cover	Cast iron/Ductile iron
Operating Nut	Bronze C83600
Target Carrier Nut	Bronze C83600
OPEN Sign	Cast Aluminium
SHUT Sign	Cast Aluminium
Window Class	Plexiglas
Gasket	EPDM
Plug	Carbon Steel ASTM A105/A105M
Snap Ring	Carbon Steel AISI1066
Eye Bolt	Carbon Steel ASTM A105/A105M
Handwheel OD356	Ductile iron
Extension Rod	Carbon Steel ASTM A1045
Coupling	Ductile iron
Bolt	Carbon Steel ASTM A105/A105M
Nut	Carbon Steel ASTM A105/A105M
Plain	Carbon Steel ASTM A105/A105M
Lead Ring	
Pin	SS304



Vertical Indicator Post

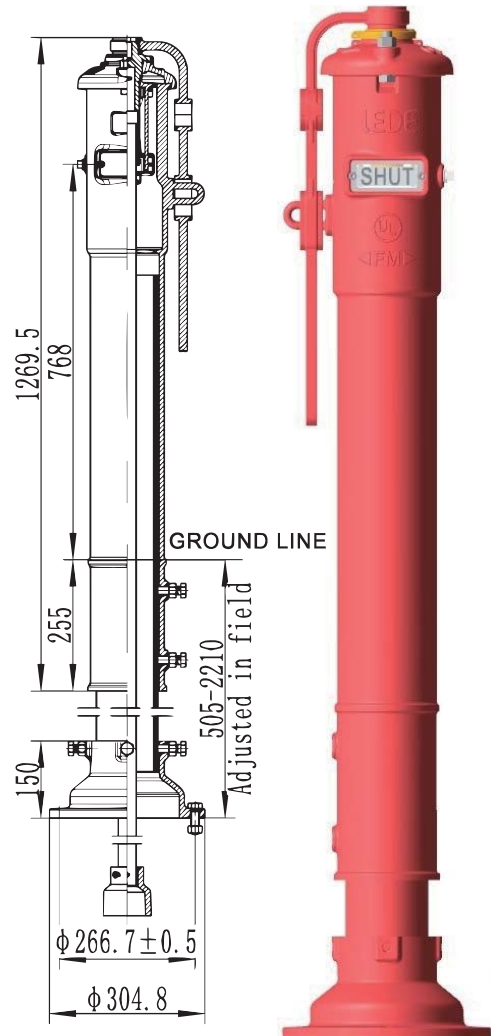
Model No. 9102

Specification >

- Indicates if the valve is in the open or shut position.
- The indicator post provides a means to operate a buried or other wise inaccessible valve.
- The wrench fits over a "U" bracket on the barrel, and may be fixed with a padlock to secure the operating wrench to the barrel.
- Can be supplied to open left or right.



Name of parts	Material
Body	Cast iron/Ductile iron
Cover	Cast iron/Ductile iron
Operating Nut	Bronze C83600
Target Carrier Nut	Bronze C83600
OPEN Sign	Cast Aluminium
SHUT Sign	Cast Aluminium
Window Class	Plexiglas
Gasket	EPDM
Plug	Carbon Steel ASTM A105/A105M
Snap Ring	Carbon Steel AISI1066
Eye Bolt	Carbon Steel ASTM A105/A105M
Wrench	Ductile iron
Extension Rod	Carbon Steel ASTM A1045
Coupling	Ductile iron
Base Flange	Ductile iron
Telescoping Barrel	Carbon Steel ASTM A53
Bolt	Carbon Steel ASTM A105/A105M
Nut	Carbon Steel ASTM A105/A105M
Plain	Carbon Steel ASTM A105/A105M
Lead Ring	
Pin	SS304

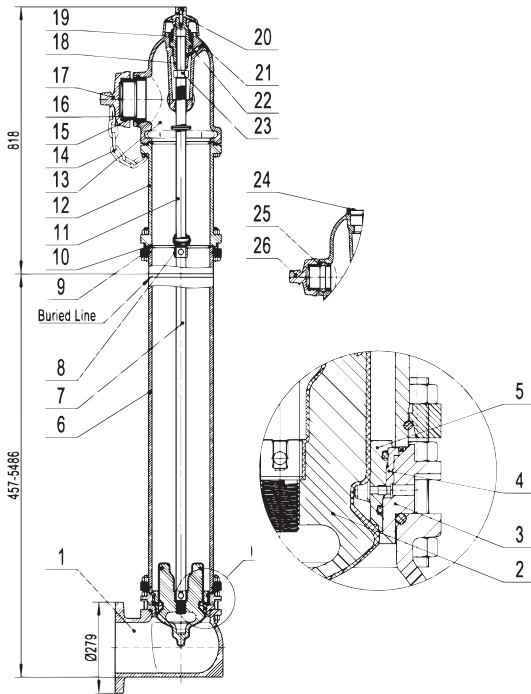


Dry Barrel Hydrant



Technical data >

- Sizes: 5-1/4"
- Working pressure: 300psi
- Valve standard: AWWA C502
- Flange standard: ASME-B16.1 Class125



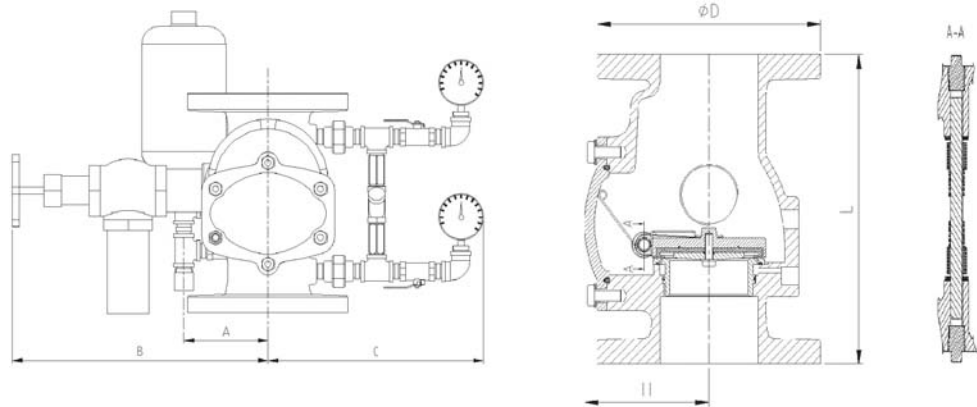
No.	Name of parts	Material
1	Base	Ductile Iron ASTM A536
2	Base Valve Disc	EPDM, Encapsulated Ductile Iron
3	Base Valve Flange	Ductile Iron ASTM A536
4	Drain Ring	Bronze ASTM B62 C83600
5	Valve Seat Ring	Bronze ASTM B62 C83600
6	Lower Barrel	Ductile Iron ASTM A536
7	Lower Stem Rod	Carbon Steel AISI 1045
8	Breakable Stem Rod Coupling	304 Stainless Steel
9	Breakable Flange	Ductile Iron ASTM A536
10	Barrel Gasket	EPDM
11	Upper Stem Rod	Carbon Steel AISI 1045
12	Upper Barrel	Ductile Iron ASTM A536
13	Bonnet	Ductile Iron ASTM A536
14	Chain Set	Electro Zinc Plated Steel
15	4/4.5 Pumper Nozzle	Bronze ASTM B62 C83600
16	4/4.5 Pumper Nozzle Gasket	EPDM
17	4/4.5 Pumper Nozzle Cap	Ductile Iron ASTM A536
18	Operating Nut	Bronze ASTM B62 C83600
19	Thrust Nut	Bronze ASTM B62 C83600
20	Weathershield	Ductile Iron ASTM A536
21	Plug Screw NPT1/8	304 Stainless Steel
22	Anti-Friction Washer	POM
23	Nut	304 Stainless Steel
24	Lock Plate	304 Stainless Steel
25	2.5 Pumper Nozzle	Bronze ASTM B62 C83600
26	2.5 Pumper Nozzle Cap	Ductile Iron ASTM A536

Alarm Check Valve

Technical data >

- Nominal diameter: 3"~8"
- Nominal pressure: 300psi
- Valve standard: UL193
- Face to face length: EN558-1 12 Series
- Flange type: ASME B16.1

Name of parts	Material
Body	EN-GJS-500-7
Cover	EN-GJS-500-7
Disc	Bronze
Seat ring on body	Stainless Steel 304
Seal	EPDM
Shaft	Stainless Steel 304
Bearing bush	Brass
Spring	Stainless Steel 304

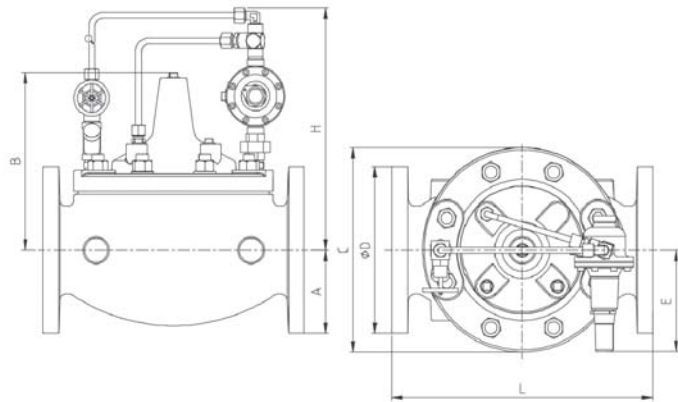
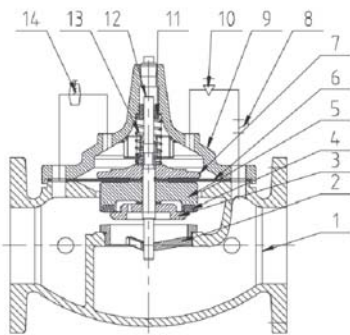


Dimensions		Pressure rating psi	Size (mm)						
DN	inch		ΦD	L	H	A	B	C	E
80	3	300	190	283	120	120	296	300	238
100	4	300	229	305	127.5	120	365	305	182
150	6	300	280	394	182	120	402	330	218
200	8	300	345	457	214	120	424	365	248

Pressure Reducing Valve

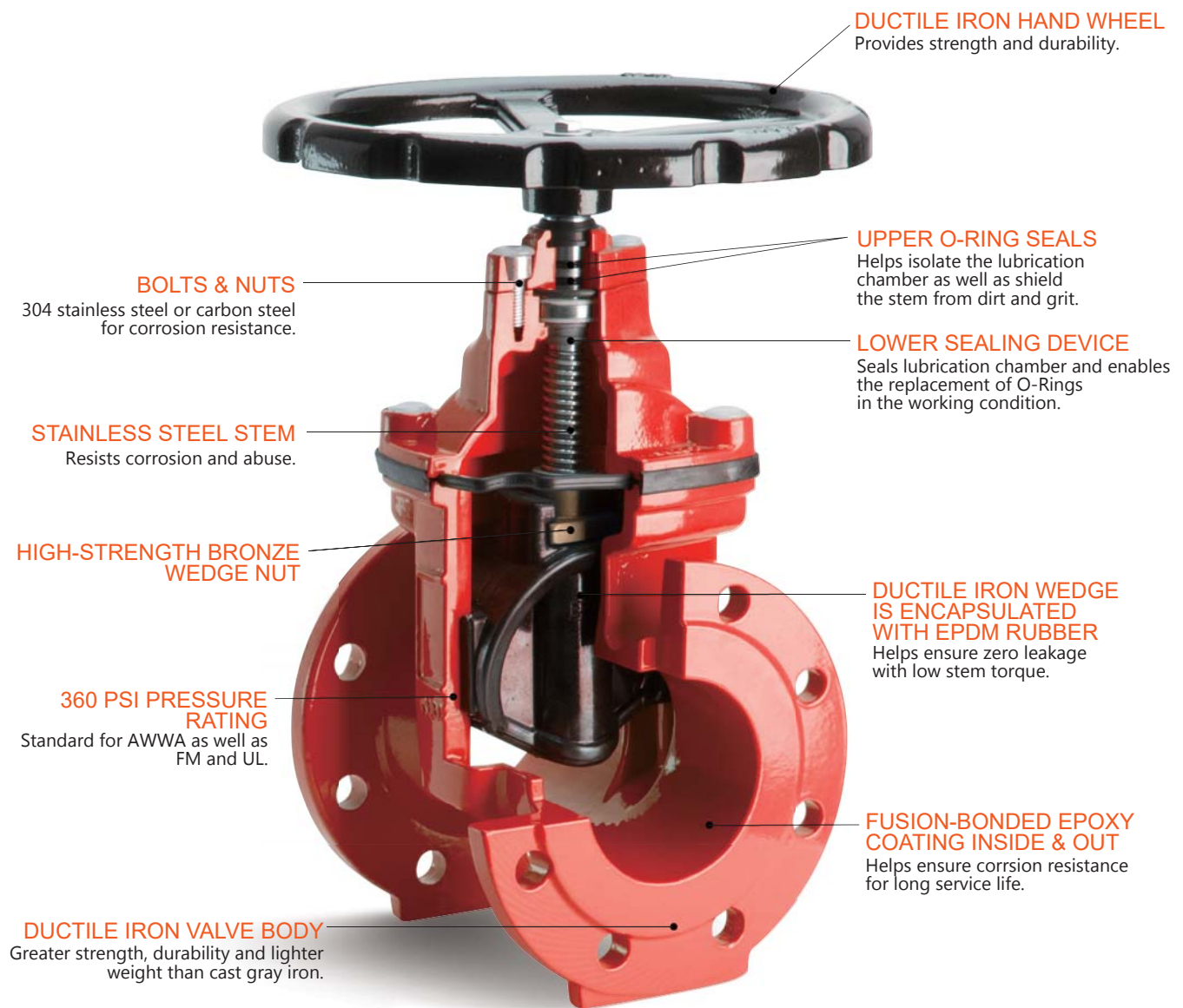


No.	Name of parts	Material
1	Body	Ductile Iron AS1831 500-7
2	valve seat	Stainless Steel 304
3	Valve plate	Stainless Steel 304
4	seal gasket	EPDM AS1646
5	valve disk	Ductile Iron AS1831 500-7
6	diaphragm	EPDM+Nylon
7	Diaphragm plate	Ductile Iron AS1831 500-7
8	Filter	Stainless Steel 304
9	Valve cover	Ductile Iron AS1831 500-7
10	Needle	Stainless Steel 304
11	Guiding plug	Stainless Steel 304
12	Valve shaft	Stainless Steel 304
13	Spring	Stainless Steel 304
14	Pilot-Relief valve	Stainless Steel 304



Dimensions		Pressure rating	Size (mm)						
DN	inch		psi	ΦD	L	H	A	B	C
50	2	300	150	230	294	82.5	152	155	134
65	2-1/2	300	180	290	298	92.5	170	190	134
80	3	300	190	310	310	100	197	233	134
100	4	300	230	350	320	110	234	270	134
150	6	300	280	480	352	158	311	378	134
200	8	300	345	600	382	190	377	496	134

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