

ARITA UL/FM Resilient Seat OS&Y Gate Valve



General

Model

RGA-33FF series	OS&Y Flange x Flange
RGA-33GG series	OS&Y Groove x Groove
RGA-33MJ series	OS&Y Mechanical Joint x Mechanical Joint
RGA-33FG series	OS&Y Flange x Groove
RGA-33FM series	OS&Y Flange x Mechanical Joint



Feature	Benefit
Ductile Iron Body and Bonnet	Weighs ~50% less than conventional cast iron design, easy on-site handling and halved shipping cost
EPDM Coated Ductile Iron Wedge	Full encapsulated design ensures drop-tight sealing and reduction of wear and jamming
Bubble Tight Closure	Zero leakage at full rated pressure
Full Port Waterwayt	At full open, grants 100% smooth unobstructed flow
Epoxy Resin Coated Body and Bonnet	Enhanced UV protection in exposed installations for long and reliable service life, internally protect against corrosion and abrasion
Three Internal Parts Design	Easy maintenance
Tapping Bosses on Valve Body	Two factory-plugged NPT threaded tapping bosses for connection to pressure gauge or switches
Stem Notch	Customary stem notch for switch installation

TECHNICAL DATA

Size

2 inch to 24 inch

Approval

UL Listed
FM Approved

Pressure Rating

2 inch to 12 inch	300 PSI
14 inch to 24 inch	250 PSI

Temperature Rating

32°F ~ 140°F

Standard

Compliance

UL 262 / FM 1120 / FM 1130 / NFPA 11
NFPA 13 / NFPA 14 / NFPA 15 / NFPA 16
NFPA 20 / NFPA 22 / NFPA 24



Design Standard

AWWA C509 / AWWA C515

Flange Connection Dimension

ASME B16.1 Class 125 / ASME B16.42 ANSI 150

Groove Connection Dimension

AWWA C606

Mechanical Joint Dimension

AWWA C153 / A21.11

Epoxy Coating

AWWA C550

Rubber to Iron bond on Wedge

Inspected per ASTM D 429-73

Gasket and Seals standard

UL 157

MATERIAL SPECIFICATION

RGA33 Series

Body : Ductile Iron, ASTM A536 grade 65-45-12

Bonnet : Ductile Iron, ASTM A536 grade 65-45-12

Body/Bonnet Coating : Epoxy Resin Fusion Bonded

Stem : Stainless Steel, AISI SS304

Wedge : EPDM Coated Ductile Iron, ASTM A536 grade 65-45-12

Packing : PTFE

Gasket : EPDM Rubber

O-Ring : EPDM Rubber

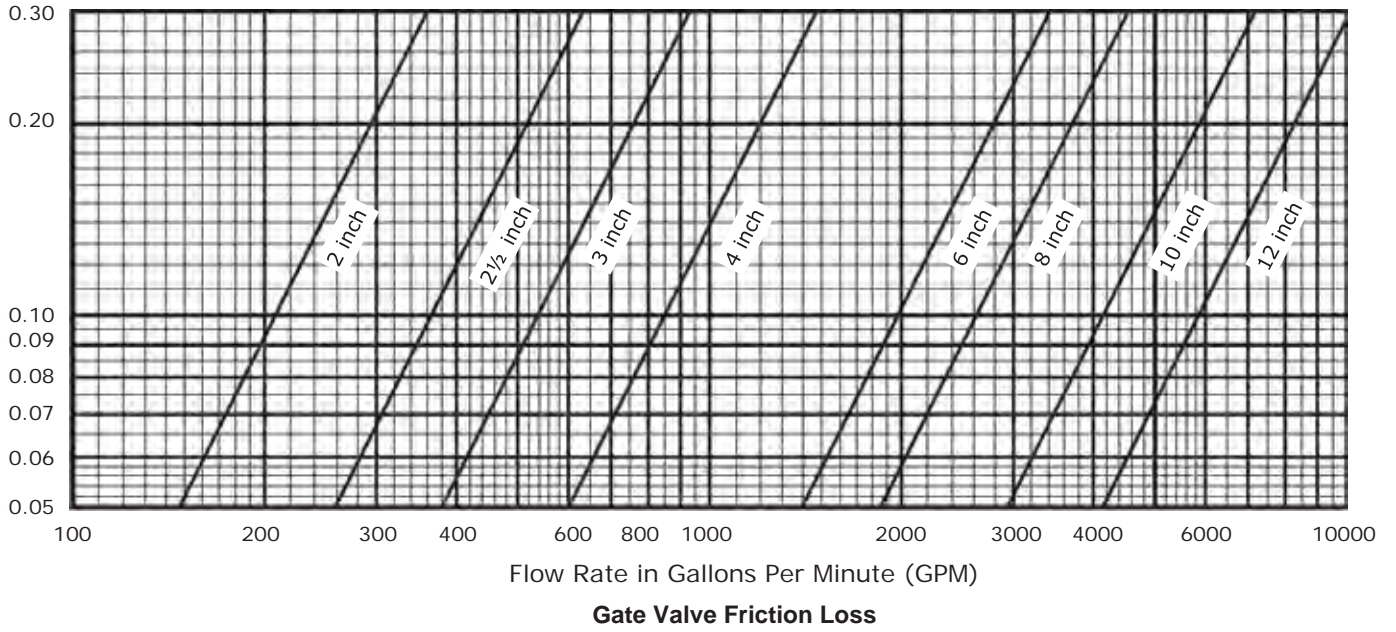
Stem Nut : Bronze, ASTM B62

Bolt, Nut, Plug: ASTM SS304

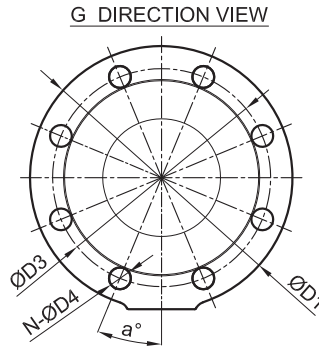
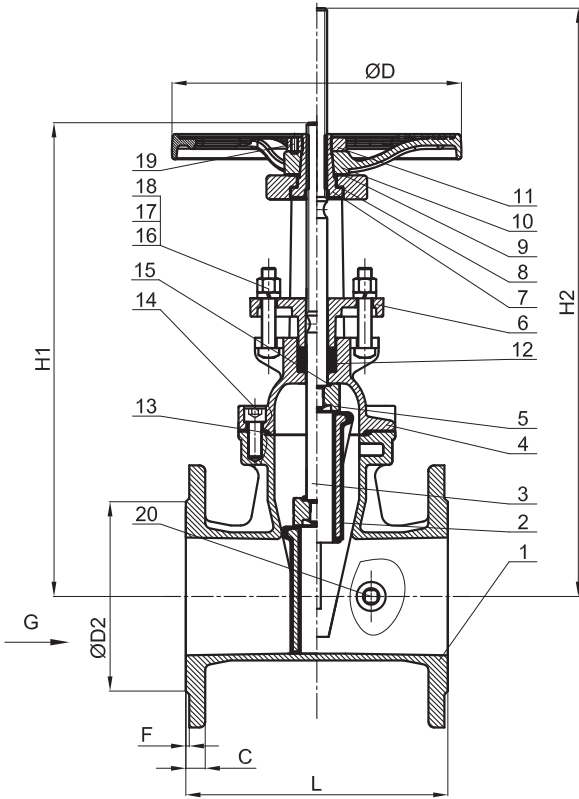
FLOW RATE



Nominal Pressure Drop
in PSI



**OS&Y RESILIENT SEAT GATE VALVE 2"-12"
ANSI 125/150 FLANGE END**



NOTE:
 1. JOINT: FLANGE TO ANSI 150.
 2. WORKING TEMPERATURE: 0°C~65°C.
 3. DESIGN STANDARD: AWWA C515.
 4. WORKING PRESSURE: 300PSI.

Item	Name	Material
1	Body	ASTM A536 65-45-12
2	Wedge	ASTM A536 65-45-12 + EPDM
3	Stem	AISI SS304/SS420
4	Bonnet	ASTM A536 65-45-12
5	Disc Nut	ASTM A351 CF8
6	Gland	ASTM A536 65-45-12
7	Stem Nut	ASTM B62
8	Stem Nut Washer	ASTM B16
9	Handwheel Washer	ASTM B16
10	Handwheel	ASTM A536 65-45-12
11	Handwheel Nut	Carbon Steel Galvanzation
12	Packing	PTFE
13	Gasket	EPDM
14	Hex. Socket Cap Screw	8.8 Rating
15	O-Ring	EPDM
16	Nut	ASTM SS304
17	SQ Bolt	ASTM SS304
18	Spring Washer	ASTM SS304
19	Hex Cylinder Head Set Screws	ASTM SS304
20	Plug	ASTM SS304

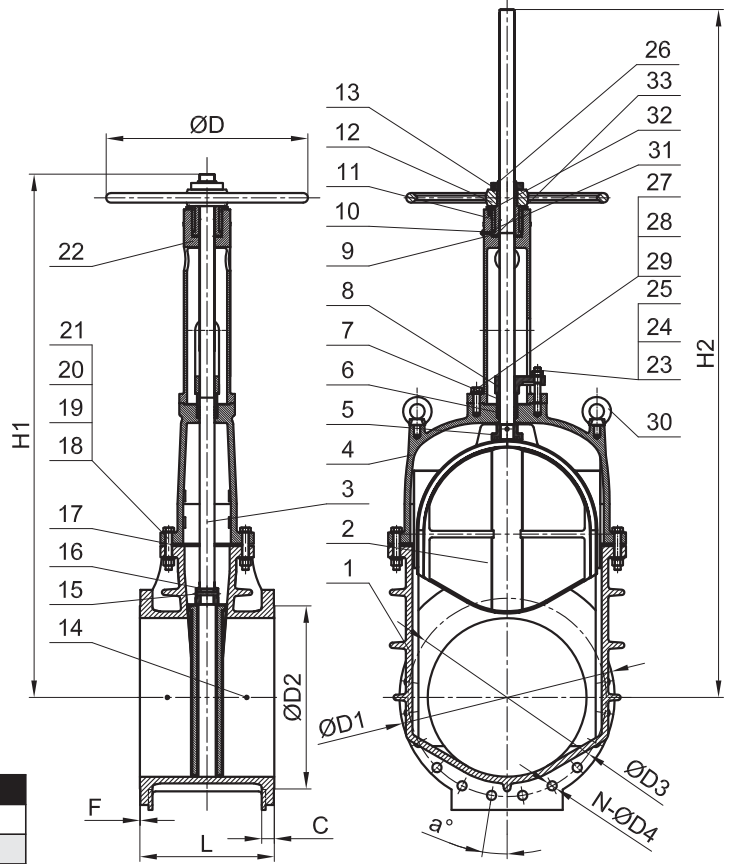
SIZE	2	2.5	3	4	5	6	8	10	12
L	7.01	7.52	7.99	9.02	10.00	10.51	11.50	12.99	14.02
H1	13.27	13.27	14.80	16.30	19.57	22.09	28.11	33.70	39.09
H2	16.18	16.18	18.19	20.24	24.76	27.91	36.30	43.94	51.18
ØD	7.20	7.20	9.96	9.96	12.05	12.05	13.98	17.52	17.52
ØD1	6.50	7.09	7.48	9.06	10.04	11.02	13.58	15.94	19.09
C	0.59	0.65	0.71	0.90	0.90	0.96	1.09	1.15	1.21
ØD2	3.63	4.13	5.00	6.19	7.31	8.50	10.63	12.75	15.00
F	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
ØD3	4.75	5.50	6.00	7.50	8.50	9.50	11.77	14.25	17.01
N	4	4	4	8	8	8	8	12	12
a°	45°	45°	45°	22.5°	22.5°	22.5°	22.5°	15°	15°
ØD4	0.75	0.75	0.75	0.75	0.87	0.87	0.87	1.00	1.00

**OS&Y RESILIENT SEATED GATE VALVE 14"-24"
ANSI 125/150 FLANGE END**



Valve Compliances to Standards and Specifications:
 1.Design and manufacture are according to AWWAC515
 2.Face to face accords to EN558-1 series 3
 3.End flanges are drilled to ANSI CLASS 150

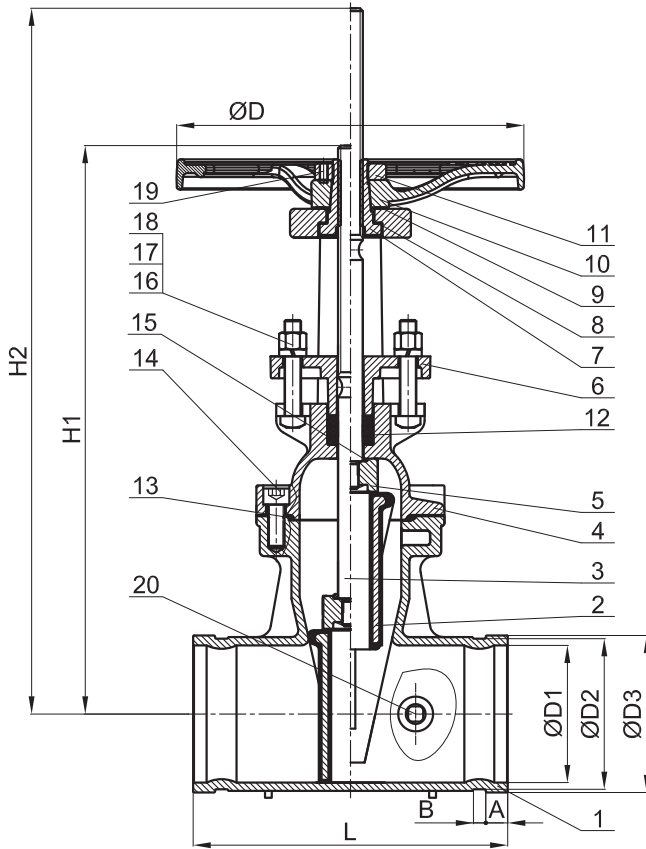
Size	Working pressure	Working temperature
14"	250PSI	-10°C~120°C
16"	250PSI	-10°C~120°C
18"	250PSI	-10°C~120°C
20"	200PSI	-10°C~120°C
24"	200PSI	-10°C~120°C



Item	Name	Material
1	Body	ASTM A536 65-45-12
2	Seat rubber coating	EPDM
3	Shaft	AISI SS304/SS431
4	Cover	ASTM A536 65-45-12
5	Disc nut	ASTM A351 CF8
6	Packing	PTFE
7	Packing gland bushing	ASTM B16
8	Packing gland	ASTM A536 65-45-12
9	Shaft nut	ASTM B62
10	Shaft nut washer	ASTM B16
11	Shaft lock nut	ASTM B16
12	Handwheel	ASTM A536 65-45-12
13	Handwheel lock nut	Steel
14	Square pipe plug	ASTM SS304
15	Pin	ASTM SS316
16	O-ring	EPDM
17	Gasket	EPDM
18	Bolt	ASTM SS304
19	Spring Washer	ASTM SS304
20	Nut	ASTM SS304
21	Washer	ASTM SS304
22	Stent	ASTM A536 65-45-12
23	Studs	ASTM SS304
24	Spring washer	ASTM SS304
25	Nut	ASTM SS304
26	Screw	ASTM SS304
27	Bolt	ASTM SS304
28	Spring washer	ASTM SS304
29	Washer	ASTM SS304
30	Lifting Bolt	ASTM SS304
31	Straight through injection oil cup	Copper
32	Slot countersunk head screws	Steel
33	Support gasket	ASTM B16

INCH	14	16	18	20	24
L	15.00	15.98	17.01	17.99	20.00
H1	47.44	54.45	61.97	69.29	77.87
H2	62.09	70.87	80.63	90.43	102.36
(All open)					
ØD	20.00	21.97	24.02	24.02	30.00
ØD1	20.98	23.50	25.20	28.15	33.07
C	1.38	1.50	1.69	1.69	1.95
ØD2	16.25	18.50	21.00	23.00	27.25
F	0.08	0.08	0.08	0.08	0.08
ØD3	18.75	21.25	22.75	25.00	29.50
N	12	16	16	20	20
ØD4	1.13	1.13	1.26	1.26	1.38
a°	15	11.25	11.25	9	9

**OS&Y RESILIENT SEAT GATE VALVE 2"-12"
GROOVE END**



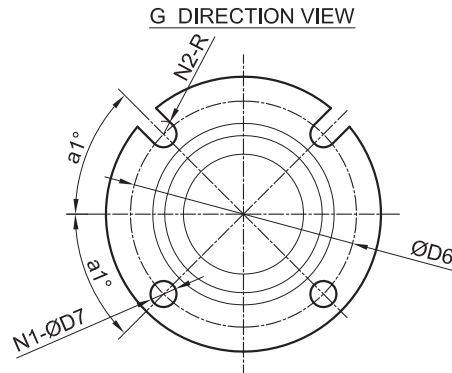
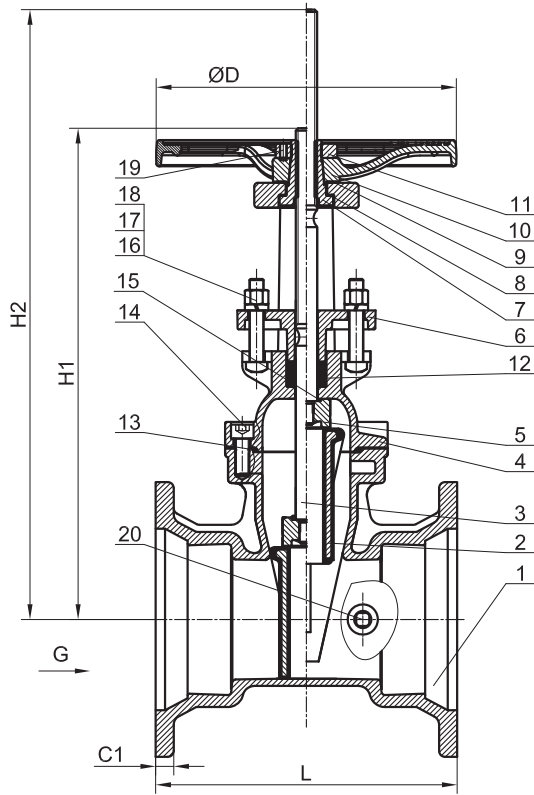
NOTE:

1. JOINT: GROOVED AWWA C606 .
2. WORKING TEMPERATURE: 0°C~65°C.
3. DESIGN STANDARD: AWWA C515.
4. WORKING PRESSURE: 300PSI.

Item	Name	Material
1	Body	ASTM A536 65-45-12
2	Wedge	ASTM A536 65-45-12 + EPDM
3	Stem	AISI SS304/SS420
4	Bonnet	ASTM A536 65-45-12
5	Disc Nut	ASTM A351 CF8
6	Gland	ASTM A536 65-45-12
7	Stem Nut	ASTM B62
8	Stem Nut Washer	ASTM B16
9	Handwheel Washer	ASTM B16
10	Handwheel	ASTM A536 65-45-12
11	Handwheel Nut	Carbon Steel Galvanzation
12	Packing	PTFE
13	Gasket	EPDM
14	Hex. Socket Cap Screw	8.8 Rating
15	O-Ring	EPDM
16	Nut	ASTM SS304
17	SQ Bolt	ASTM SS304
18	Spring Washer	ASTM SS304
19	Hex Cylinder Head Set Screws	ASTM SS304
20	Plug	ASTM SS304

SIZE	2	2.5	3	4	5	6	8	10	12
L	7.01	7.52	7.99	9.02	10.00	10.75	11.50	12.99	14.02
H1	13.27	13.27	14.80	16.30	19.57	22.09	28.11	33.70	39.09
H2	16.18	16.18	18.19	20.24	24.76	27.91	36.30	43.94	51.18
ØD	7.20	7.20	9.96	9.96	12.05	12.05	13.98	17.52	17.52
A	0.63	0.63	0.63	0.63	0.63	0.63	0.75	0.75	0.75
B	0.31	0.31	0.31	0.37	0.37	0.37	0.43	0.50	0.50
ØD1	1.97	2.56	3.15	3.94	4.92	5.91	7.87	9.84	11.81
ØD2	2.24	2.71	3.33	4.32	5.39	6.44	8.43	10.55	12.52
ØD3	2.37	2.87	3.50	4.50	5.56	6.63	8.63	10.75	12.75

**OS&Y RESILIENT SEAT GATE VALVE 3"-12"
MECHANICAL JOINT**

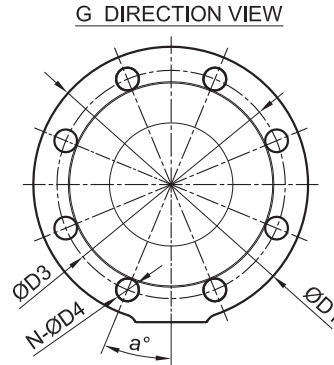
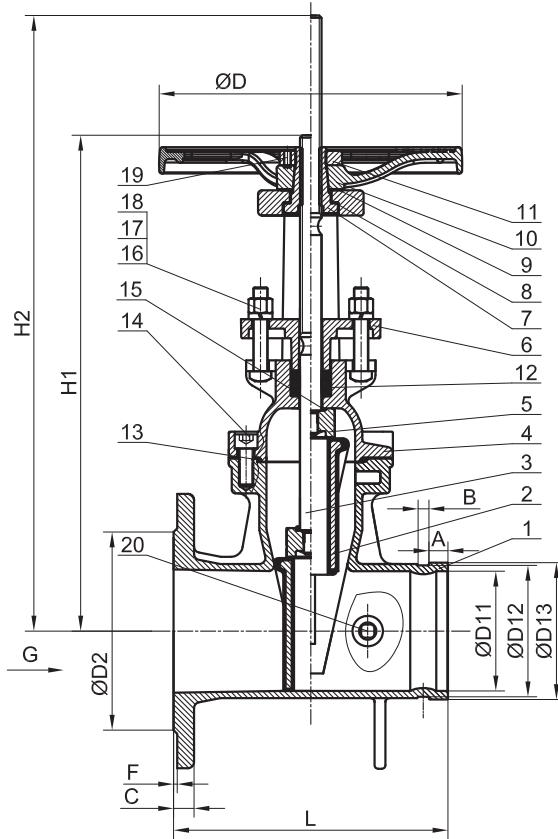


- NOTE:**
- 1.JOINT: MECHANICAL JOINT FLANGE TO AWWA C153/A21.11.
 - 2.WORKING TEMPERATURE:0°C~65°C.
 - 3.DESIGN STANDARD: AWWA C515.
 - 4.WORKING PRESSURE:300PSI.

Item	Name	Material
1	Body	ASTM A536 65-45-12
2	Wedge	ASTM A536 65-45-12 + EPDM
3	Stem	AISI SS304
4	Bonnet	ASTM A536 65-45-12
5	Disc Nut	ASTM A351 CF8
6	Gland	ASTM A536 65-45-12
7	Stem Nut	ASTM B62
8	Stem Nut Washer	ASTM B16
9	Handwheel Washer	ASTM B16
10	Handwheel	ASTM A536 65-45-12
11	Handwheel Nut	Carbon Steel Galvanzation
12	Packing	PTFE
13	Gasket	EPDM
14	Hex. Socket Cap Screw	8.8 Rating
15	O-Ring	EPDM
16	Nut	ASTM SS304
17	SQ Bolt	ASTM SS304
18	Spring Washer	ASTM SS304
19	Hex Cylinder Head Set Screws	ASTM SS304
20	Plug	ASTM SS304

SIZE	3"	4"	6"	8"	10"	12"
L	9.49	10.00	11.50	12.52	14.76	14.88
H1	14.80	16.30	22.09	28.11	33.70	39.09
H2	18.19	20.24	27.91	36.30	43.94	51.18
ØD	9.96	9.96	12.05	13.98	17.52	17.52
ØD5	7.62	9.12	11.10	13.31	15.63	17.87
C1	0.58	0.60	0.63	0.66	0.70	0.73
ØD6	6.19	7.50	9.50	11.75	14.00	16.25
N1	2	2	4	4	6	4
a1°	45°	45°	60°	60°	22.5°	22.5°
ØD7	0.75	0.87	0.87	0.87	0.87	0.87
N2	2	2	2	2	2	4
R	0.37	0.43	0.43	0.43	0.43	0.43

**OS&Y RESILIENT SEAT GATE VALVE 2"-12"
ANSI 125/150 FLANGE AND GROOVE END**

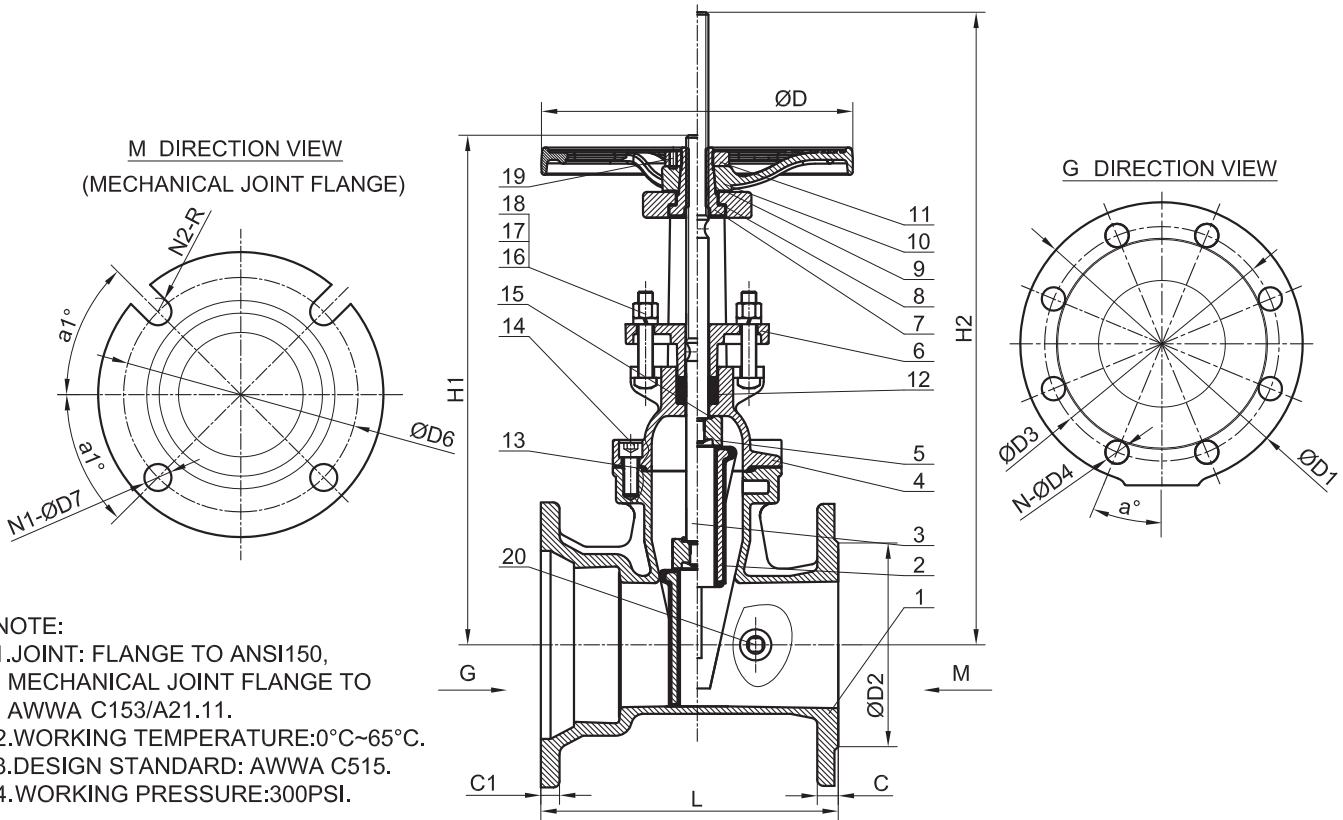


- NOTE:**
1. JOINT: FLANGE TO ANSI 150, GROOVED AWWA C606 .
 2. WORKING TEMPERATURE: 0°C~65°C.
 3. DESIGN STANDARD: AWWA C515.
 4. WORKING PRESSURE: 300PSI.

Item	Name	Material
1	Body	ASTM A536 65-45-12
2	Wedge	ASTM A536 65-45-12 + EPDM
3	Stem	AISI SS304
4	Bonnet	ASTM A536 65-45-12
5	Disc Nut	ASTM A351 CF8
6	Gland	ASTM A536 65-45-12
7	Stem Nut	ASTM B62
8	Stem Nut Washer	ASTM B16
9	Handwheel Washer	ASTM B16
10	Handwheel	ASTM A536 65-45-12
11	Handwheel Nut	Carbon Steel Galvanization
12	Packing	PTFE
13	Gasket	EPDM
14	Hex. Socket Cap Screw	8.8 Rating
15	O-Ring	EPDM
16	Nut	ASTM SS304
17	SQ Bolt	ASTM SS304
18	Spring Washer	ASTM SS304
19	Hex Cylinder Head Set Screws	ASTM SS304
20	Plug	ASTM SS304

SIZE	2"	2.5"	3"	4"	5"	6"	8"	10"	12"
L	7.01	7.52	7.99	9.02	10.00	10.51	11.50	12.99	14.02
H1	13.27	13.27	14.80	16.30	19.57	22.09	28.11	33.70	39.09
H2	16.18	16.18	18.19	20.24	24.76	27.91	36.30	43.94	51.18
ØD	7.20	7.20	9.96	9.96	12.05	12.05	13.98	17.52	17.52
ØD1	6.50	7.09	7.48	9.06	10.04	11.02	13.58	15.94	19.09
C	0.59	0.65	0.71	0.90	0.90	0.96	1.09	1.15	1.21
ØD3	4.75	5.50	6.00	7.50	8.50	9.50	11.77	14.25	17.01
N	4	4	4	8	8	8	8	12	12
a°	45°	45°	45°	22.5°	22.5°	22.5°	22.5°	15°	15°
ØD4	0.75	0.75	0.75	0.75	0.87	0.87	0.87	1.00	1.00
A	0.63	0.63	0.63	0.63	0.63	0.63	0.75	0.75	0.75
B	0.31	0.31	0.31	0.37	0.37	0.37	0.43	0.50	0.50
ØD11	1.97	2.56	3.15	3.94	4.92	5.91	7.87	9.84	11.81
ØD12	2.24	2.71	3.33	4.32	5.39	6.44	8.43	10.55	12.52
ØD13	2.37	2.87	3.50	4.50	5.56	6.63	8.63	10.75	12.75

**OS&Y RESILIENT SEAT GATE VALVE 3"-12"
ANSI 125/150 FLANGE AND MECHANICAL JOINT**



NOTE:

1. JOINT: FLANGE TO ANSI150, MECHANICAL JOINT FLANGE TO AWWA C153/A21.11.
2. WORKING TEMPERATURE: 0°C~65°C.
3. DESIGN STANDARD: AWWA C515.
4. WORKING PRESSURE: 300PSI.

Item	Name	Material
1	Body	ASTM A536 65-45-12
2	Wedge	ASTM A536 65-45-12 + EPDM
3	Stem	AISI SS304
4	Bonnet	ASTM A536 65-45-12
5	Disc Nut	ASTM A351 CF8
6	Gland	ASTM A536 65-45-12
7	Stem Nut	ASTM B62
8	Stem Nut Washer	ASTM B16
9	Handwheel Washer	ASTM B16
10	Handwheel	ASTM A536 65-45-12
11	Handwheel Nut	Carbon Steel Galvanzation
12	Packing	PTFE
13	Gasket	EPDM
14	Hex. Socket Cap Screw	8.8 Rating
15	O-Ring	EPDM
16	Nut	ASTM SS304
17	SQ Bolt	ASTM SS304
18	Spring Washer	ASTM SS304
19	Hex Cylinder Head Set Screws	ASTM SS304
20	Plug	ASTM SS304

SIZE	3"	4"	6"	8"	10"	12"
L	8.74	9.51	11.00	12.01	13.88	14.45
H1	14.80	16.30	22.09	28.11	33.70	39.09
H2	18.19	20.24	27.91	36.30	43.94	51.18
ØD	9.96	9.96	12.05	13.98	17.52	17.52
ØD5	7.62	9.12	11.10	13.31	15.63	17.87
C1	0.58	0.60	0.63	0.66	0.70	0.73
ØD6	6.19	7.50	9.50	11.75	14.00	16.25
N1	2	2	4	4	6	4
a1°	45°	45°	60°	60°	22.5°	22.5°
ØD7	0.75	0.87	0.87	0.87	0.87	0.87
N2	2	2	2	2	2	4
R	0.37	0.43	0.43	0.43	0.43	0.43
ØD1	7.48	9.06	11.02	13.58	15.94	19.09
C	0.71	0.90	0.96	1.09	1.15	1.21
ØD2	5.00	6.19	8.50	10.63	12.75	15.00
F	0.08	0.08	0.08	0.08	0.08	0.08
ØD3	6.00	7.50	9.50	11.77	14.25	17.01
N	4	8	8	8	12	12
a°	45°	22.5°	22.5°	22.5°	15°	15°
ØD4	0.75	0.75	0.87	0.87	1.00	1.00