

ARITA UL/FM Resilient Seat NRS Gate Valve



General

Model

NGA-32FF series	NRS Flange x Flange
NGA-32GG series	NRS Groove x Groove
NGA-32MJ series	NRS Mechanical Joint x Mechanical Joint
NGA-32FG series	NRS Flange x Groove
NGA-32FM series	NRS 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 Waterway	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 remove need of extra tapping saddle

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

NGA32 Series

Body : Ductile Iron, ASTM A536 Gr. 65-45-12

Bonnet : Ductile Iron, ASTM A536 Gr. 65-45-12

Body/Bonnet Coating : Epoxy Resin Fusion Bonded

Stem : Stainless Steel, AISI SS304

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

Packing : PTFE

Gasket : EPDM Rubber

O-Ring : EPDM Rubber

Stem Nut : Bronze, ASTM B62

Bolt, Nut, Plug: ASTM SS304

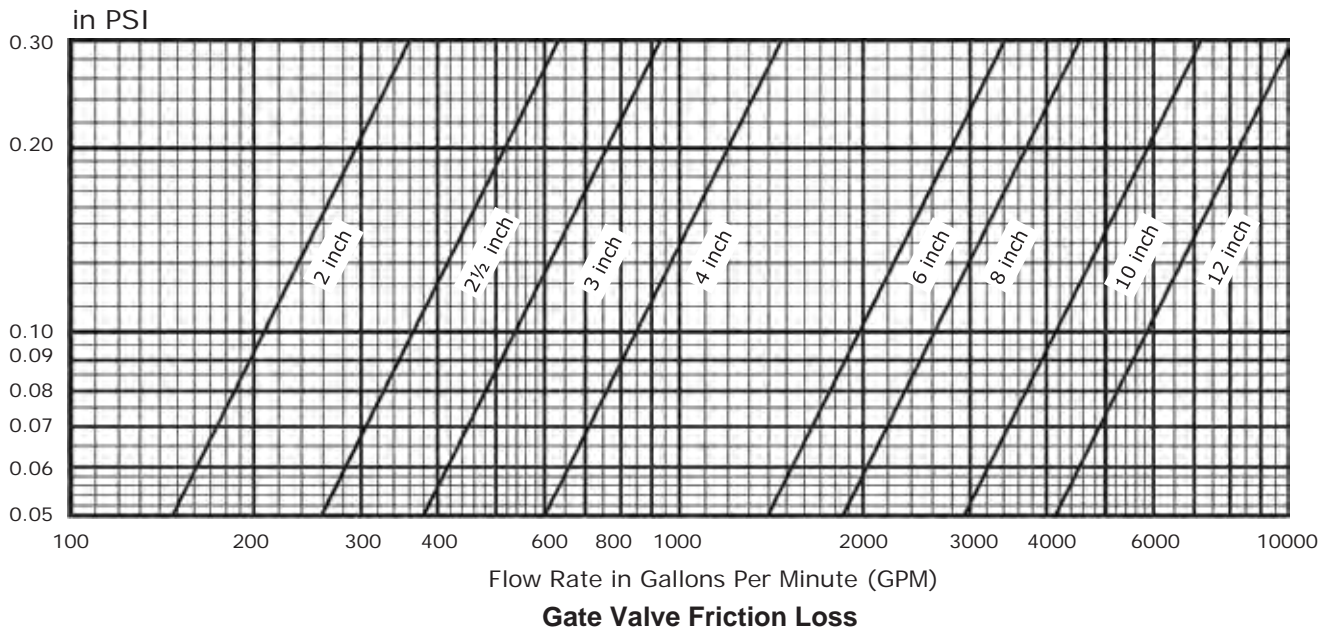
Optional

Couple with UIP series (Underground) or WIP (Wall Post) series Indicator Post

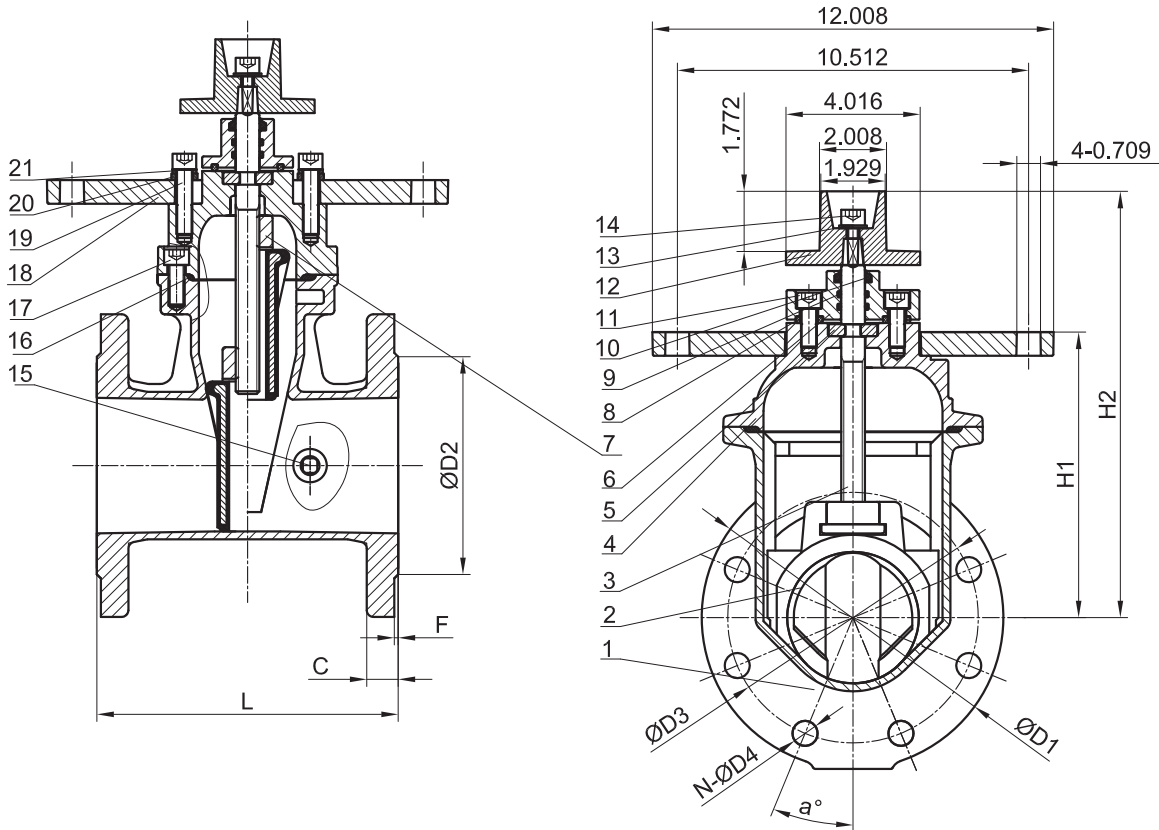
FLOW RATE



Nominal Pressure Drop



**NRS RESILIENT SEAT GATE VALVE 2"-12"
ANSI 125/150 FLANGE END**



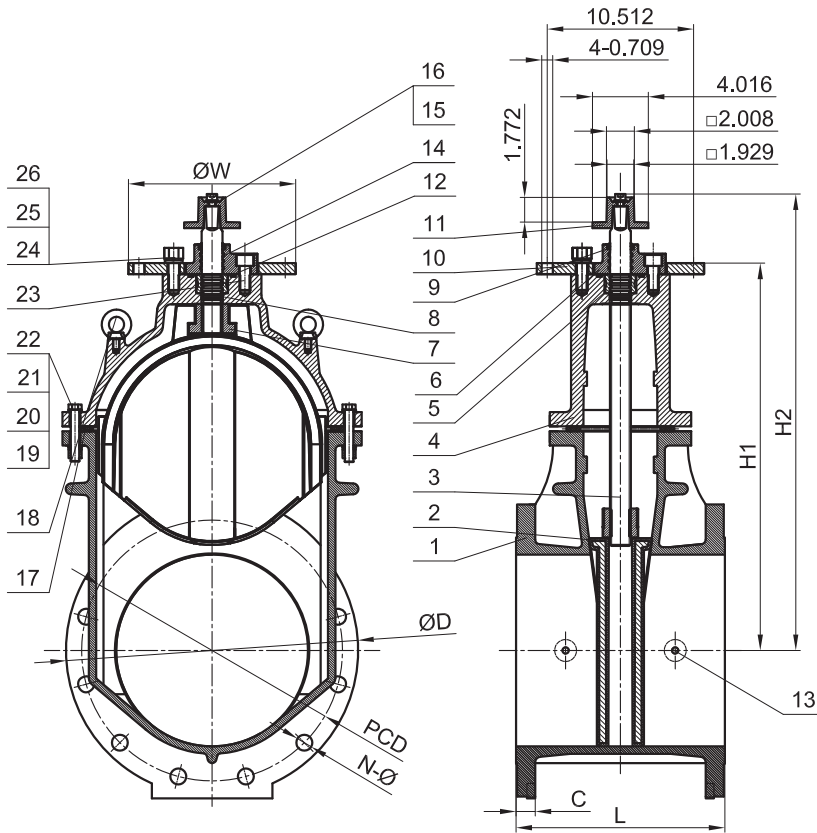
NOTE:

1. JOINT: FLANGE TO ANSI150.
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	Thrust Collar	ASTM C51100
6	Gland	ASTM A536 65-45-12/ASTM A351 CF8
7	Disc Nut	ASTM B62
8	Seat Ring	EPDM
9	O-Ring	EPDM
10	Dustproof Cover	EPDM
11	Hex. Socket Cap Screw	GR 8.8
12	Wrench Nut	ASTM A536 65-45-12
13	Washer	ASTM SS304
14	Hex. Socket Cap Screw	FR 8.8
15	Plug	ASTM SS304
16	Gasket	EPDM
17	Hex. Socket Cap Screw	GR 8.8
18	Post Flange	ASTM A536 65-45-12
19	Hex. Socket Cap Screw	GR 8.8
20	Washer	Carbon Steel Galvanization
21	Spring Washer	Carbon Steel Galvanization

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	6.81	6.81	7.60	8.54	10.94	12.28	15.63	19.37	22.76
H2	10.98	10.98	12.01	12.76	15.51	16.85	21.14	25.20	28.46
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

**NRS RESILIENT SEAT GATE VALVE 14"-24"
ANSI 125/150 FLANGE END**



Valve Compliances to Standards and Specifications:

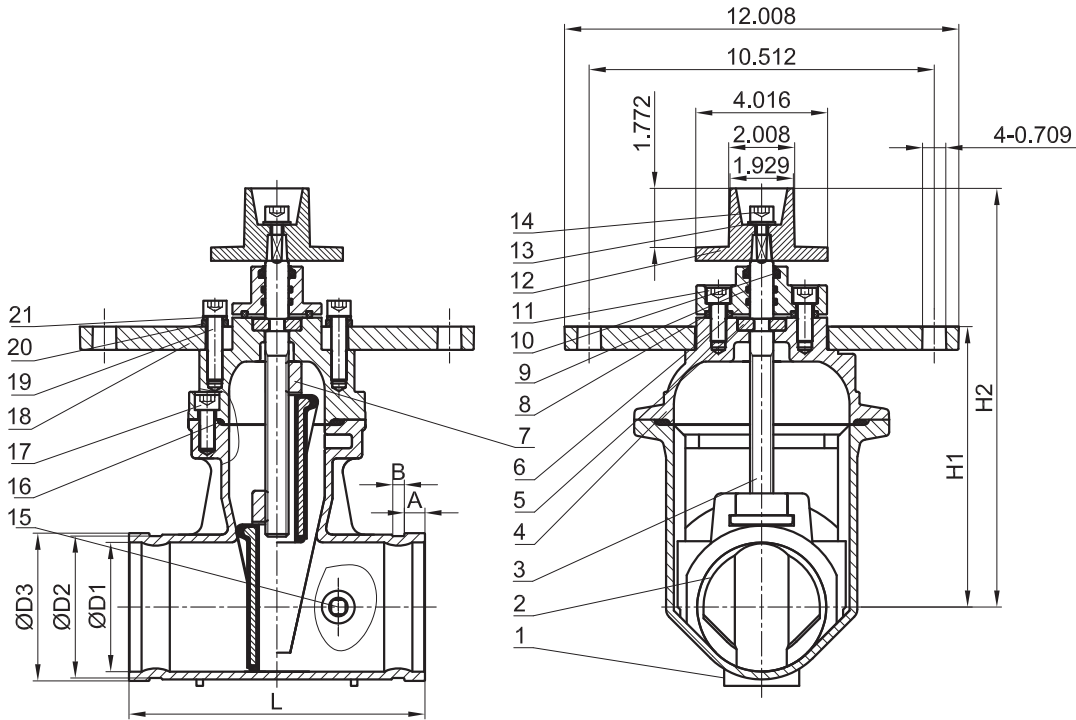
- 1.Design and manufacture are according to AWWAC515;
- 2.Face to face accords to EN558-1 series 3;
- 3.End flanges are drilled to ANSI CLASS 150 .

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	ASTM A536 65-45-12 + EPDM
3	Shaft	AISI SS304/SS431
4	Cover	ASTM A536 65-45-12
5	Split ring	ASTM B62 C836000
6	Seal seat	ASTM A536 65-45-12
7	Plate nut	ASTM B62 C836000
8	O-ring	EPDM
9	Dust cover	EPDM
10	Key (A type)	ASTM A1045
11	Square head	ASTM A536 65-45-12
12	O-ring	EPDM
13	Square pipe plug	ASTM SS304
14	O-ring	EPDM
15	Spring washer	ASTM SS304
16	Hex cylinder head screw	ASTM SS304 8.8
17	Gasket	EPDM
18	Lifting bolt	STEEL
19	Bolt	ASTM SS304 8.8
20	Spring washer	ASTM SS304
21	Nut	ASTM SS304
22	Washer	ASTM SS304
23	Hex cylinder head screw	ASTM SS304 8.8
24	Allen long cylinder side set screws	ASTM SS304

INCH	L	H1	H2	ØW	ØD	C	ANSI 150	
							PCD	N-Ø
14	15.00	27.83	32.80	12.01	20.98	1.38	18.75	12-1.125
16	15.98	30.79	36.30	12.01	23.50	1.52	21.25	16-1.125
18	17.01	34.92	41.42	12.01	25.20	1.69	22.75	16-1.25
20	17.99	38.27	44.88	12.01	28.15	1.69	25.00	20-1.25
24	20.00	44.25	50.87	12.01	33.07	1.95	29.50	20-1.375

**NRS RESILIENT SEAT GATE VALVE 2"-12"
GROOVE END**



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	Thrust Collar	ASTM C51100
6	Gland	ASTM A536 65-45-12/ASTM A351 CF8
7	Disc Nut	ASTM B62
8	Seat Ring	EPDM
9	O-Ring	EPDM
10	Dustproof Cover	EPDM
11	Hex. Socket Cap Screw	GR 8.8
12	Wrench Nut	ASTM A536 65-45-12
13	Washer	ASTM SS304
14	Hex. Socket Cap Screw	GR 8.8
15	Plug	ASTM SS304
16	Gasket	EPDM
17	Hex. Socket Cap Screw	GR 8.8
18	Post Flange	ASTM A536 65-45-12
19	Hex. Socket Cap Screw	GR 8.8
20	Washer	Carbon Steel Galvanization
21	Spring Washer	Carbon Steel Galvanization

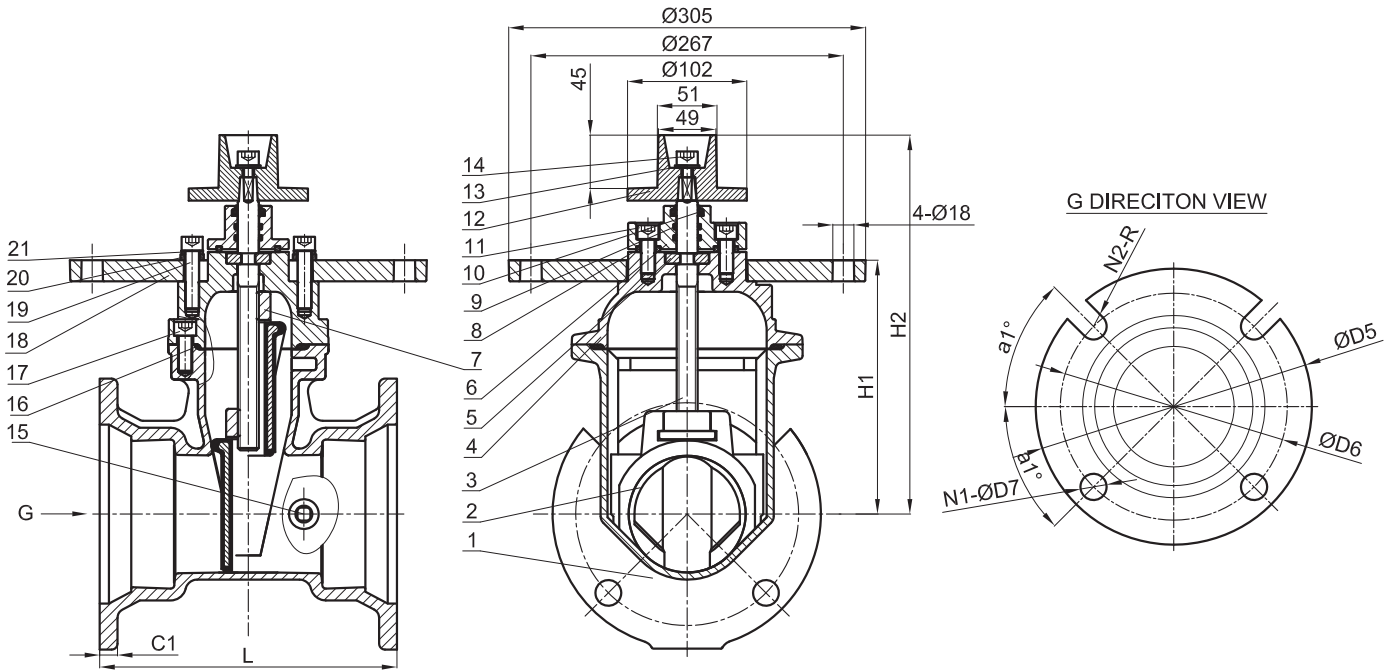
NOTE:

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

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	6.81	7.09	7.60	8.54	10.94	12.28	15.63	19.37	22.76
H2	10.98	10.98	12.01	12.76	15.51	16.85	21.14	25.20	28.46
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



NRS RESILIENT SEAT GATE VALVE 3"-12" MECHANICAL JOINT



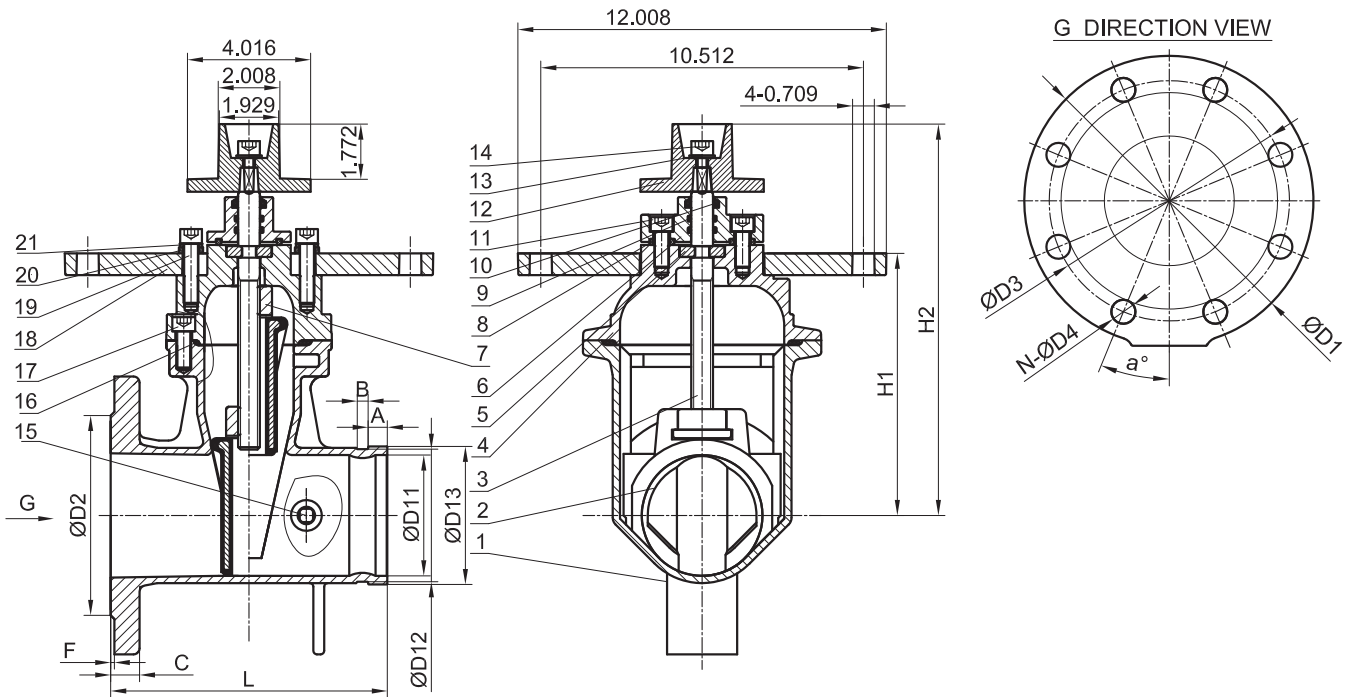
NOTE:

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/SS420
4	Bonnet	ASTM A536 65-45-12
5	Thrust Collar	ASTM C51100
6	Gland	ASTM A536 65-45-12/ASTM A351 CF8
7	Disc Nut	ASTM B62
8	Seat Ring	EPDM
9	O-Ring	EPDM
10	Dustproof Cover	EPDM
11	Hex. Socket Cap Screw	GR 8.8
12	Wrench Nut	ASTM A536 65-45-12
13	Washer	ASTM SS304
14	Hex. Socket Cap Screw	GR 8.8
15	Plug	ASTM SS304
16	Gasket	EPDM
17	Hex. Socket Cap Screw	GR 8.8
18	Post Flange	ASTM A536 65-45-12
19	Hex. Socket Cap Screw	GR 8.8
20	Washer	Carbon Steel Galvanization
21	Spring Washer	Carbon Steel Galvanization

SIZE	L	H1	H2	ØD5	C1	ØD6	N1	a1°	ØD7	N2	R
3	9.49	7.60	12.01	7.62	0.58	6.19	2	45°	0.75	2	0.37
4	10.00	8.54	12.76	9.12	0.60	7.50	2	45°	0.87	2	0.43
6	11.50	12.28	16.85	11.10	0.63	9.50	4	60°	0.87	2	0.43
8	12.52	15.63	21.14	13.31	0.66	11.75	4	60°	0.87	2	0.43
10	14.76	19.37	25.20	15.63	0.70	14.00	6	22.5°	0.87	2	0.43
12	14.88	22.76	28.46	17.87	0.73	16.25	4	22.5°	0.87	4	0.43

**NRS RESILIENT SEAT GATE VALVE 2"-12"
ANSI 125/150 FLANGE AND GROOVED END**



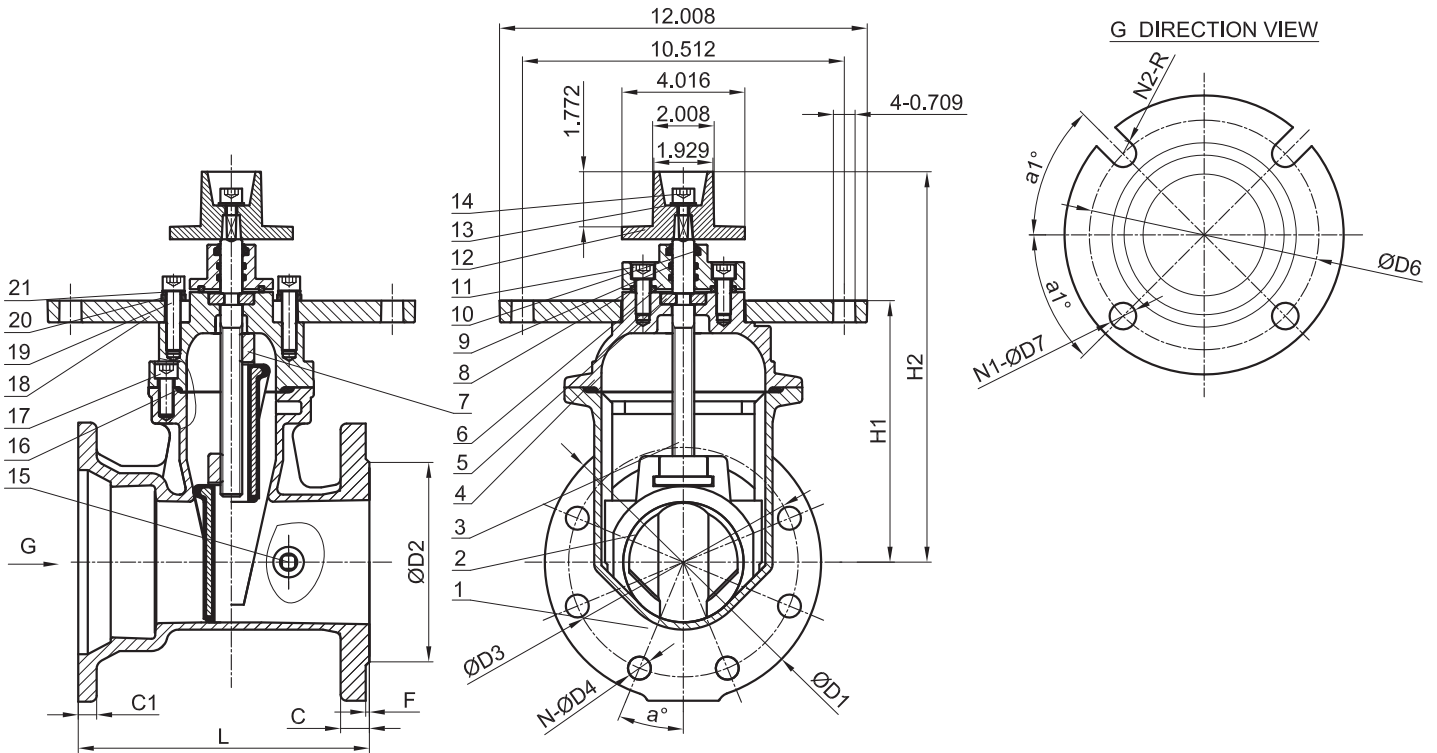
Item	Name	Material
1	Body	ASTM A536 65-45-12
2	Wedge	ASTM A536 65-45-12 + EPDM
3	Stem	AISI SS304/SS420
4	Bonnet	ASTM A536 65-45-12
5	Thrust Collar	ASTM C51100
6	Gland	ASTM A536 65-45-12/ASTM A351 CF8
7	Disc Nut	ASTM B62
8	Seat Ring	EPDM
9	O-Ring	EPDM
10	Dustproof Cover	EPDM
11	Hex. Socket Cap Screw	GR 8.8
12	Wrench Nut	ASTM A536 65-45-12
13	Washer	ASTM SS304
14	Hex. Socket Cap Screw	GR 8.8
15	Plug	ASTM SS304
16	Gasket	EPDM
17	Hex. Socket Cap Screw	GR 8.8
18	Post Flange	ASTM A536 65-45-12
19	Hex. Socket Cap Screw	GR 8.8
20	Washer	Carbon Steel Galvanization
21	Spring Washer	Carbon Steel Galvanization

NOTE:
 1. JOINT: FLANGE TO ANSI150, GROOVED AWWA C606.
 2.WORKING TEMPERATURE: 0°C~65°C.
 3.DESIGN STANDARD: AWWA C515.
 4.WORKING PRESSURE:300PSI.

SIZE	L	H1	H2	ΦD1	C	ΦD2	F	ØD3	N	a°	ΦD4	A	B	ØD11	ØD12	ØD13
2	7.0	6.8	11.0	6.5	0.6	3.6	0.1	4.8	4	45°	0.8	0.6	0.3	2.0	2.2	2.4
2.5	7.5	6.8	11.0	7.1	0.6	4.1	0.1	5.5	4	45°	0.8	0.6	0.3	2.6	2.7	2.9
3	8.0	7.6	12.0	7.5	0.7	5.0	0.1	6.0	4	45°	0.8	0.6	0.3	3.1	3.3	3.5
4	9.0	8.5	12.8	9.1	0.9	6.2	0.1	7.5	8	22.5°	0.7	0.6	0.4	3.9	4.3	4.5
5	10.0	10.9	15.5	10.0	0.9	7.3	0.1	8.5	8	22.5°	0.9	0.6	0.4	4.9	5.4	5.6
6	10.5	12.3	16.9	11.0	1.0	8.5	0.1	9.5	8	22.5°	0.9	0.6	0.4	5.9	6.4	6.6
8	11.5	15.6	21.1	13.6	1.1	10.6	0.1	11.8	8	22.5°	0.9	0.7	0.4	7.9	8.4	8.6
10	13.0	19.4	25.2	15.9	1.1	12.7	0.1	14.3	12	15°	1.0	0.7	0.5	9.8	10.6	10.7
12	14.0	22.8	28.5	19.1	1.2	15.0	0.1	17.0	12	15°	1.0	0.7	0.5	11.8	12.5	12.8



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



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	Thrust Collar	ASTM C51100
6	Gland	ASTM A536 65-45-12/ASTM A351 CF8
7	Disc Nut	ASTM B62
8	Seat Ring	EPDM
9	O-Ring	EPDM
10	Dustproof Cover	EPDM
11	Hex. Socket Cap Screw	GR 8.8
12	Wrench Nut	ASTM A536 65-45-12
13	Washer	ASTM SS304
14	Hex. Socket Cap Screw	GR 8.8
15	Plug	ASTM SS304
16	Gasket	EPDM
17	Hex. Socket Cap Screw	GR 8.8
18	Post Flange	ASTM A536 65-45-12
19	Hex. Socket Cap Screw	GR 8.8
20	Washer	Carbon Steel Galvanization
21	Spring Washer	Carbon Steel Galvanization

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.

SIZE	L	H1	H2	ØD5	C1	ØD6	N1	a1°	ØD7	N2	R	ØD1	C	ØD2	F	ØD3	N	a°	ØD4
3	8.7	7.6	12.0	7.6	0.6	6.2	2	45°	0.7	2	0.4	7.5	0.7	5.0	2	6.0	4	45°	0.8
4	9.5	8.5	12.8	9.1	0.6	7.5	2	45°	0.9	2	0.4	9.1	0.9	6.2	2	7.5	8	22.5°	0.8
6	11.0	12.3	16.9	11.1	0.6	9.5	4	60°	0.9	2	0.4	11.0	1.0	8.5	2	9.5	8	22.5°	0.9
8	12.0	15.6	21.1	13.3	0.7	11.8	4	60°	0.9	2	0.4	13.6	1.1	10.6	2	11.8	8	22.5°	0.9
10	13.9	19.4	25.2	15.6	0.7	14.0	6	22.5°	0.9	2	0.4	15.9	1.1	12.7	2	14.3	12	15°	1.0
12	14.4	22.8	28.5	17.9	0.7	16.3	4	22.5°	0.9	4	0.4	19.1	1.2	15.0	2	17.0	12	15°	1.0