

Gate Valve

Standard Features

- Straight-through flow with minimal pressure drop
- Unique sliding cylindrical plug design provides larger seating area than conventional gate valves
- Made of durable, corrosion resistant plastic
- No metal to media contact anywhere in valve
- Clean-out (drain) plug in bottom area of valve body in models with polypropylene gate
- Rated for full vacuum service
- Light weight for easier and economical installation
- Positive bubble-tight shut-off
- Visual position indicator

Options

- 2" square operating nut
- Stem extensions
- Locking handles
- Electric actuation, up to 3"
- FKM seals

Caution

- Never remove valve from pipeline under pressure.
- Always wear protective gloves and goggles.

Specifications

Sizes: 1-1/2" - 14"
 Body: High Impact PVC
 Models: Flanged (ANSI)

Types / Sizes: "P" Type: PP, 1-1/2" - 14"

Seals: EPDM, FKM(Optional)

Sizes 1 1/2" - 14" PVC/PP/EPDM/FKM
 Models available with NSF-61 Certification

Type P Parts (Sizes 1-1/2" - 6")

PARTS			
NO.	DESCRIPTION	PCS.	MATERIAL
1	Body	1	PVC
2	Gate (Plug)	1	PP
3	Stem	1	PVC
4	Bonnet (A)	1	PVC
5	Bonnet (B)*	1	PVC
6	Thrust Bearing	1 Set	PP
7	Bolt, Nut, Washer	-	Stainless Steel 304
8	Hand Wheel	1	PP
9	Indicating Cover	1	PC
10	Indicating Ring	1	PVC
11	Guide Pin	1	Stainless Steel 304
12	Guide Pin Holder	1	PVC
13	Gasket	1	EPDM
14	O-Ring (A)	1	EPDM
15	Washer	1	PVC
16	Nut	1	Stainless Steel 304
17	O-Ring (B)	1	EPDM, Others
18	O-Ring (C)	2	EPDM, Others
23	Sheet Gasket	1	EPDM, Others
24	Plug	1	PVC

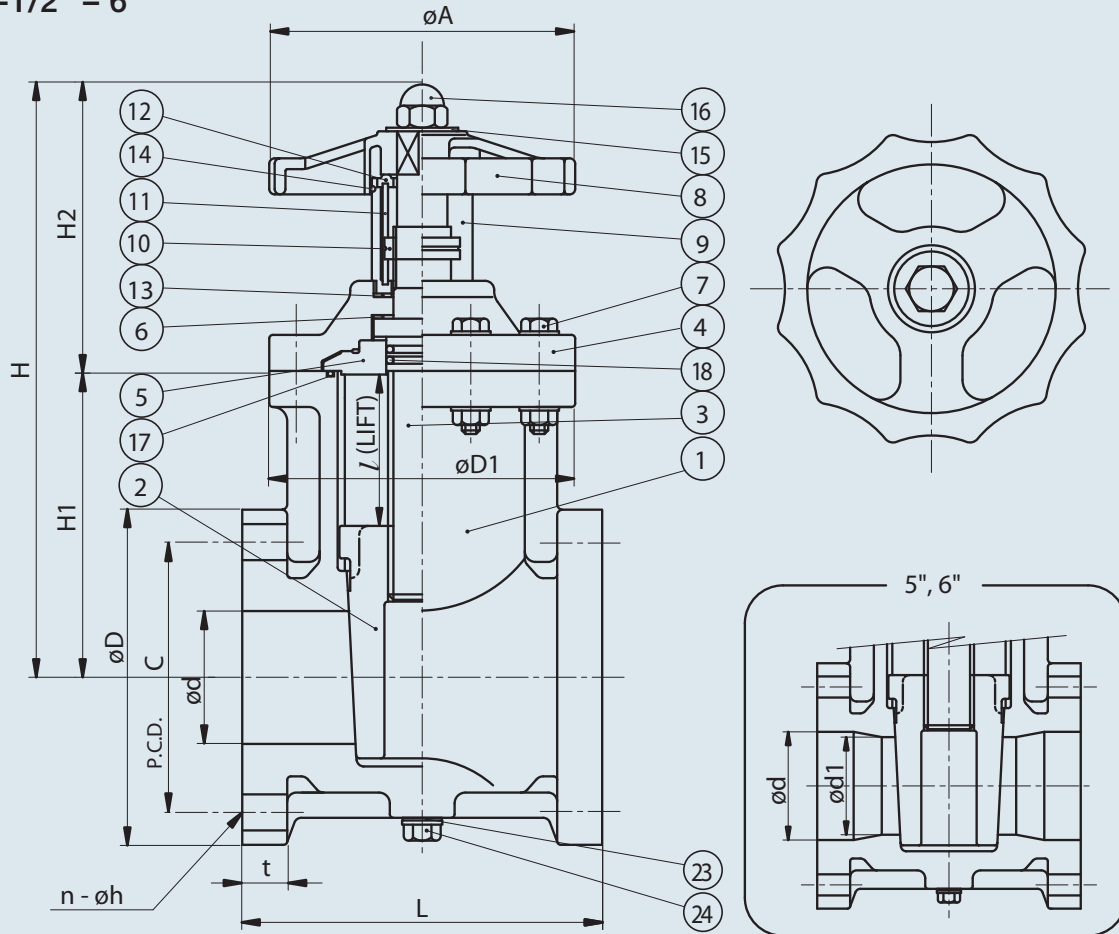
* Stem holder



Type P

Gate Valves

Sizes 1-1/2" - 6"



Troubleshooting

What if fluid still flows when fully closed?

1. Body or plug is worn or damaged. Replace.
2. Seat is worn or damaged. Replace.
3. Foreign material caught at the bottom of body. Needs cleaning.

What if handle does not engage with stem?

1. Stem damaged or broken. Change stem.

2. Engaging part of stem and/or plug damaged or broken. Need to replace stem and/or plug.

What if there are leaks between bonnet and body?

1. Bolts are not tightened properly. Tighten diagonally and evenly.
2. O-ring between body and bonnet damaged or worn. Change O-ring.

Dimensions (Sizes 1-1/2" - 6")

NOMINAL SIZE		ANSI CLASS 150													
INCHES	mm	d	d1	D	C	n	h	L	t	D1	A	l	H1	H2	H
1 1/2	40	1.57	-	5.00	3.88	4	0.62	6.50	0.87	4.72	4.72	1.93	4.21	5.20	9.41
2	50	1.97	-	6.00	4.75	4	0.75	7.01	0.91	5.12	5.12	2.36	5.28	5.35	10.63
2 1/2	65	2.56	-	7.00	5.50	4	0.75	7.48	0.94	6.10	6.10	2.95	5.98	5.91	11.89
3	80	2.95	-	7.50	6.00	4	0.75	7.99	0.98	6.69	6.69	3.35	6.69	6.10	12.79
4	100	3.94	-	9.00	7.50	8	0.75	9.02	1.06	7.68	7.68	4.33	8.15	6.42	14.57
5	125	4.92	4.33	10.00	8.50	8	0.88	10.24	1.06	9.25	9.25	4.61	8.94	7.09	16.03
6	150	5.91	5.12	11.00	9.50	8	0.88	10.51	1.06	10.63	10.63	5.43	10.35	7.17	17.52

Pressure vs. Temp.

(PSI, WATER, NON-SHOCK)

NOMINAL SIZE		30° F 120° F
INCHES	mm	
1 1/2 - 8	40-200	150
10	250	110
12-14	300-350	75

Type P Parts (Sizes 8" – 14")

Sizes: 8" – 14"

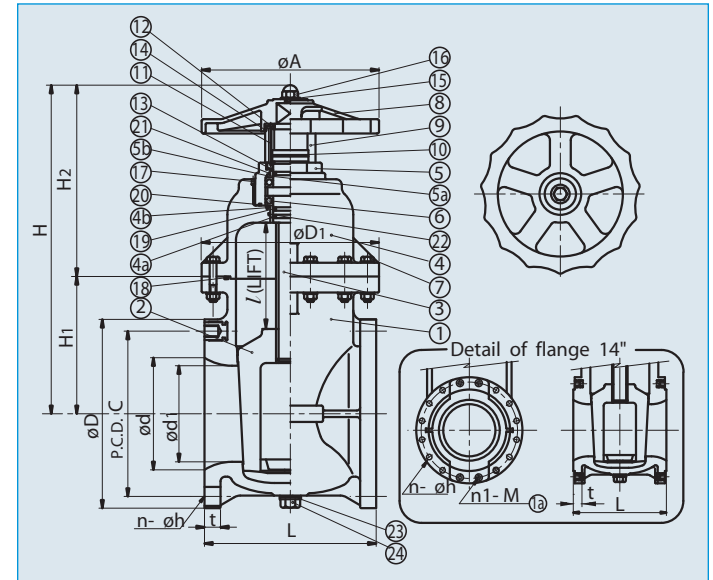
PARTS			
NO.	DESCRIPTION	PCS.	MATERIAL
1	Body	1	PVC
2	Gate (Plug)	1	PP
3	Stem	1	PVC
4	Bonnet (A)	1	PVC
4a	Bush (A)	1	PP
4b	Knock Pin (A)	1	PP
5	Bonnet (B)*	1	PVC
5a	Bush (B)	1	PP
5b	Knock Pin (B)	1	PP
6	Thrust Bearing	1 Set	High Carbon Chromium
7	Bolt, Nut, Washer	-	Stainless Steel 304
8	Hand Wheel	1	PP
9	Indicating Cover	1	PC
10	Indicating Ring	1	PVC
11	Guide Pin	1	Stainless Steel 304
12	Guide Pin Holder	1	PVC
13	Gasket	1	EPDM
14	O-Ring (A)	1	EPDM
15	Washer	1	PVC
16	Nut	1	Stainless Steel 304
17	Screw	1	Stainless Steel 304
18	O-Ring (B)	1	EPDM, Others
19	O-Ring (C)	3	EPDM, Others
20	O-Ring (D)	1	EPDM, Others
21	O-Ring (E)	1	EPDM, Others
22	O-Ring (F)	1	EPDM, Others
23	Sheet Gasket	1	EPDM, Others
24	Plug	1	PVC
1a	Body Metal Inserts**	-	Copper Alloy

* Stem holder

** 8" and 12" sizes: 4 inserts; 14" size: 8 inserts

Sample Specification

All Gate Valves shall be constructed of High Impact PVC and have no metal-to-media contact. The gate shall be a tapered cylindrical plug design (PP or SBR). PVC shall conform to ASTM D1784 Cell Classification 12454-A, & PP to ASTM D4101 Cell Classification PPO210B67272. Valves shall have a pressure rating of 150 psi at 70 degrees F sizes 1-1/2" through 8", 110 psi at 70 degrees F size 10", and



Cv Values

NOMINAL SIZE		Cv
INCHES	mm	
1 1/2	40	130
2	50	180
2 1/2	65	415
3	80	470
4	100	690
5	125	1000
6	150	1400
8	200	2900
10	250	3700
12	300	5200
14	350	7000

Weight (POUNDS)

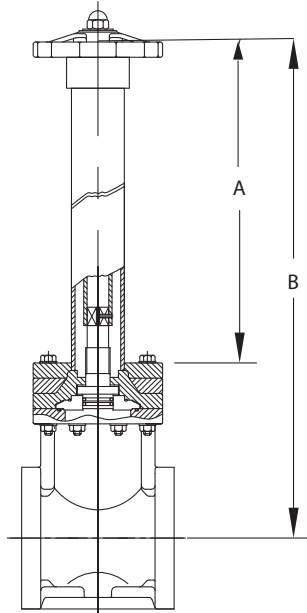
NOMINAL SIZE		FLANGED
INCHES	mm	
1 1/2	40	7.50
2	50	10.20
2 1/2	65	13.00
3	80	16.60
4	100	22.00
5	125	29.00
6	150	42.00
8	200	68.50
10	250	95.00
12	300	150.00
14	350	188.00

75 psi at 70 degrees F sizes 12" and 14". The valve shall have a non-rising stem, come standard with sealed position indicator; clean-out plug (PP gate style only) and EPDM or FKM seals as manufactured by Asahi/America Inc.

Dimensions (Sizes: 8" – 14")

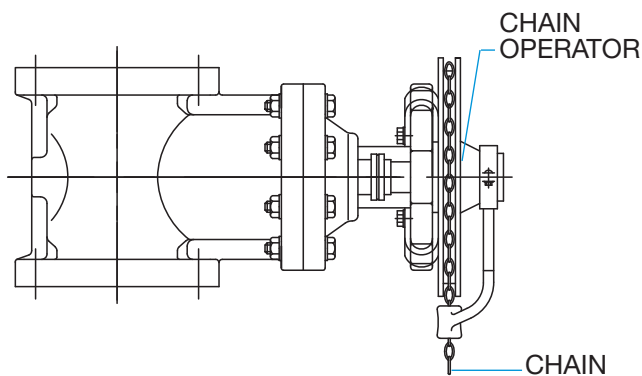
NOMINAL SIZE		ANSI CLASS 150														
INCHES	mm	d	d1	D	C	n	h	n1 – M	L	t	D1	A	l	H1	H2	H
8	200	7.72	6.61	13.50	11.75	6	0.88	2 – 3/4 UNC	11.50	1.10	12.20	12.20	7.09	9.45	13.27	22.72
10	250	9.72	8.27	16.00	14.25	12	0.98	-	14.96	1.18	14.17	14.17	8.90	10.63	16.54	27.17
12	300	11.73	10.04	19.00	17.00	10	0.98	2 – 7/8 UNC	15.75	1.22	16.14	16.14	10.75	12.60	18.90	31.50
14	350	13.70	11.69	21.00	18.75	8	1.14	4 – 1 UNC	16.93	1.26	17.32	17.91	12.56	12.20	23.62	35.83

STYLE GT-A



Two-piece Stem Housing

For submerged or buried applications. PVC housing protects stem extensions from aggressive environments. Stems are available in carbon steel with baked powder epoxy coating, stainless steel (303 and 316 etc.)



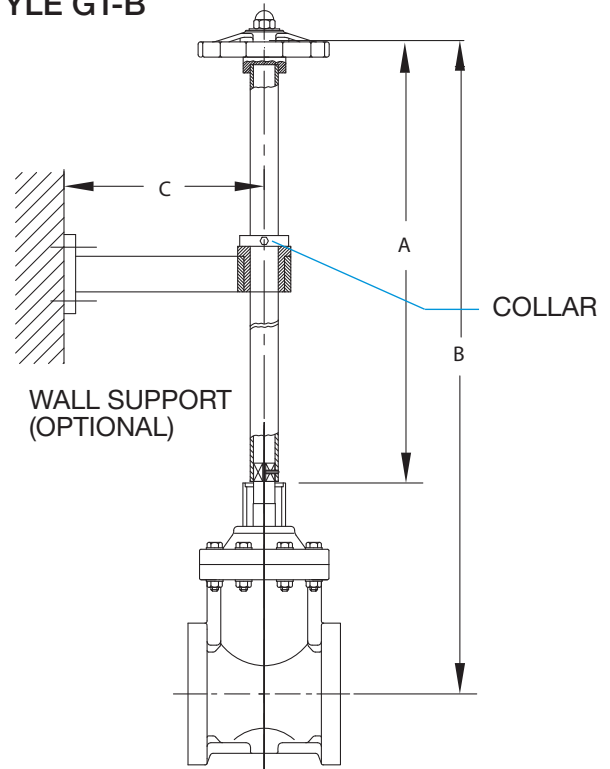
Chain Operator

For overhead, out-of-reach locations. The valve is operated by pulling on the chain installed on round hand-wheel.

Locking Mechanism

Prevents unauthorized cycling of a valve. Designed to be secured with a padlock. Two designs.

STYLE GT-B

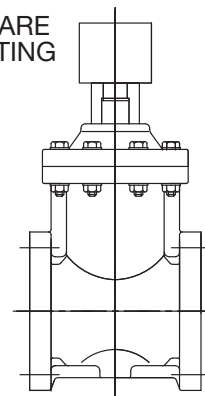


Single Stem Extensions (Non-supported)

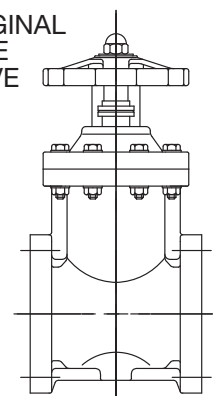
Valve handle can be extended away from the valve for out-of-reach locations. Stems come in Carbon Steel with baked powder epoxy coating, stainless steel (303 and 316 etc.)

Option: Wall-support (Patented) and Collar

2" SQUARE OPERATING NUT



ORIGINAL GATE VALVE



Remote Operating Nuts

2" square or "T" configurations on valve stem, replacing the hand-wheel. Used for remote operation of a valve by an extended wrench.

Material: 6061 Aluminum, anodized finish

Special O-Rings

FKM O-rings for corrosive applications.

Electric Actuator

Specifications

- Series 92:** Motor Type – Reversing, single phase
 Model – S92 for sizes 1-1/2" – 3"
 Torque – 400 in.- lbs.
 Voltage – 120 Vac, 50/60 Hz
 Max Ambient Temp. – 150° F
 Switches – Two single pole, double throw (15 Amp rating)

Series 92 Electric Actuators

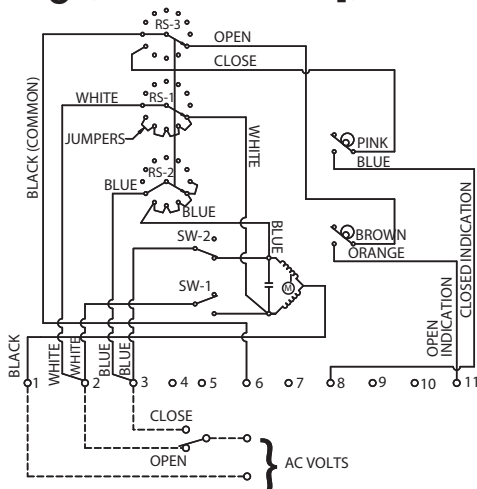
Standard Features (Sizes 1-1/2" – 3")

- Brushless, capacitor-run motors
- Integral thermal overload protection with auto-reset
- Permanently lubricated gear train
- Combination NEMA 4X, 7 and 9 enclosure with thermally bonded powder coating/304 ss trim
- ISO bolt circle
- Two 1/2" NPT conduit ports prevent interference between control and power signals
- Declutchable manual override
- Highly visible position indicator
- 3-Layer rotary switch for dry contact indication

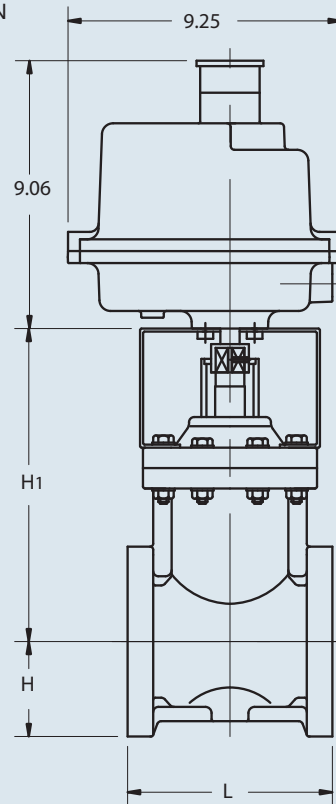
Options

- Extra limit switches
- Feedback potentiometer
- Heater and thermostat (to -40° F)
- Milliamp positioner: 4–20mA or 0–10 Vdc input signal
- 4–20mA output position transmitter

AC Wiring (For 115 Vac only)



SERIES 92 ON TYPE P GATE VALVE



Engineering Data

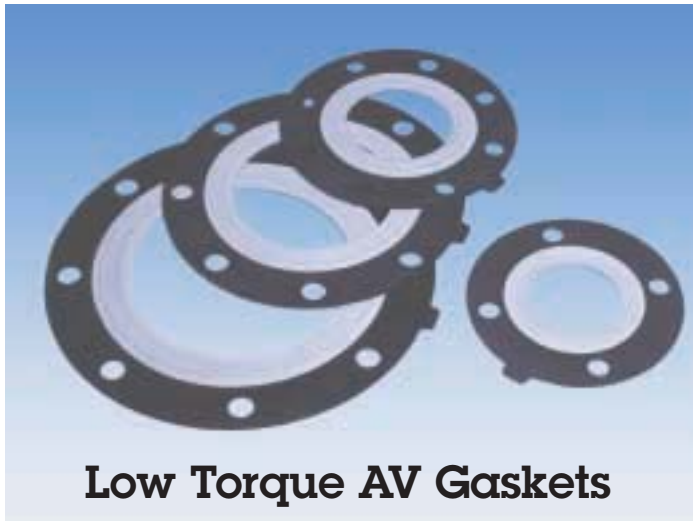
ACTUATOR MODEL	VOLTAGE	DUTY CYCLE	AMP DRAW	WEIGHT
S92	120 VAC	25%	.50	10 lbs.

NOTE TO WIRING DIAGRAM:

1. IF 120 VAC MODEL IS PLC DRIVEN, OUTPUT CONTACTS OF PLC SHOULD BE RATED AT A MINIMUM OF 1.5 TIMES REQUIRED INPUT VOLTAGE OF ACTUATOR.
2. EACH ACTUATOR MUST BE POWERED THROUGH ITS OWN INDIVIDUAL SWITCH CONTACTS TO AVOID CROSS FEED.
3. MOTOR HAS A THERMAL PROTECTOR AS SHOWN BY (M) IN DIAGRAM.

Dimensions

NOMINAL SIZE		H	H1	L
INCHES	mm			
1 1/2	40	2.50	9.00	6.50
2	50	3.00	10.46	7.01
3	80	3.75	14.06	7.99



Low Torque AV Gaskets

Standard Features

- EPDM – durometer A, hardness 65 - 68
- PTFE or PVDF-bonded EPDM for maximum corrosion resistance
- Perfect sealing at low bolt tightening torque ratings, longer gasket life
- Ideal for plastic piping systems, as well as metal or plastic-lined metal systems
- Working temperature:
 - 1) EPDM: - 40 – 195° F
 - 2) PTFE-bonded: - 40 – 250° F
 - 3) PVDF-bonded: - 40 – 250° F
- Approx. a 1/3 bolt tightening torque ratings as compared with flat or envelope type gasket.
- Thickness of bonded materials
 - PTFE: All Sizes: 0.016" (0.4mm)
 - PVDF: Sizes 1/2" - 2": 0.016" (0.4mm)
 - PVDF: Sizes 3" - 10": 0.020" (0.5mm)
- PTFE-bonded gasket excellent for most corrosive chemicals.
- PVDF-bonded gasket is ideal for the following:
 - 1) Semi-conductor industry because of its purity
 - 2) Aggressive chemicals (strong acids, bases, halogens, etc.)
 - 3) Media that generates any volatile gas (PVDF gas permeation is only 1/50 of PTFE)
- Both the PTFE and PVDF-bonded gaskets employ a proprietary laminating process for bonding to EPDM, providing the greater elasticity required for lower sealing torques.

Sample Specification

All AV Gaskets shall be of low torque, full face to ANSI B16.5 dimensions and shall have two concentric, convex, molded rings between center hole and bolt hole circle in EPDM, PTFE-bonded EPDM or PVDF-bonded EPDM, as manufactured by Asahi/America, Inc.

Low Torque AV Gaskets

Materials/Sizes:	Specifications
	1) EPDM: 1/2" - 12"
	2) PTFE-bonded EPDM: 1/2" - 12"
	3) PVDF-bonded EPDM: 1/2" - 10" (Except 1-1/4" and 2-1/2")

Dimensions (Sizes 1/2" – 12")

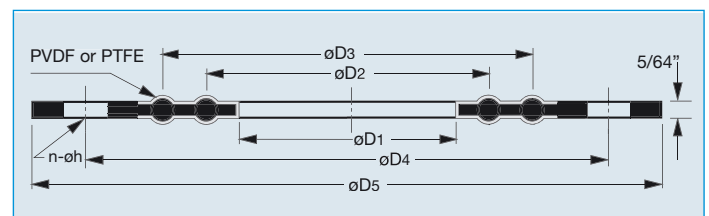
NOMINAL SIZE		D1	D2	D3	D4	D5	h	n
INCHES	mm							
1/2	15	0.7	1.0	1.6	2.4	3.4	0.6	4
3/4	20	0.9	1.3	1.9	2.8	3.8	0.6	4
1	25	1.2	1.5	2.1	3.1	4.2	0.6	4
1 1/4	30	1.5	2.0	2.6	3.5	4.5	0.6	4
1 1/2	40	1.7	2.1	2.7	3.9	4.9	0.6	4
2	50	2.1	2.7	3.3	4.7	5.9	0.8	4
2 1/2	65	2.7	3.4	4.0	5.5	6.9	0.8	4
3	80	3.2	3.9	4.4	6.0	7.4	0.8	4
4	100	4.0	4.7	5.4	7.5	8.9	0.8	8
5	125	5.0	5.7	6.5	8.5	9.9	0.9	8
6	150	5.9	6.6	7.5	9.5	10.9	0.9	8
8	200	7.8	8.5	9.7	11.8	13.4	0.9	8
10	250	9.8	10.6	12.1	14.3	15.9	1.0	12
12	300	11.1	12.8	13.9	17.0	18.9	1.0	12

Recommended Bolt Torque*

NOMINAL SIZE		PTFE PVDF	EPDM
INCHES	mm		
1/2	15	174	157
3/4	20	174	157
1	25	174	157
1 1/4	30	191	165
1 1/2	40	217	174
2	50	217	174
2 1/2	65	304	217
3	80	304	217
4	100	304	217
5	125	348	260
6	150	348	260
8	200	435	304
10	250	435	304
12	300	522	435

* Expressed in INCH-POUNDS

PVDF or PTFE-Bonded Gasket



EPDM Gasket

