

FLOWCOM GROUP

RELIABLE MANUFACTURER FOR YOUR PIPELINE



Your one stop sourcing supplier

VALVES



BUTTERFLY VALVE

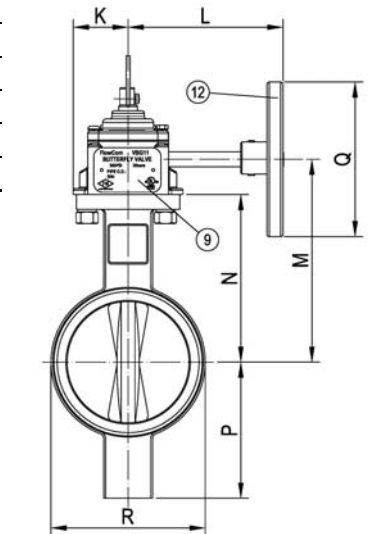
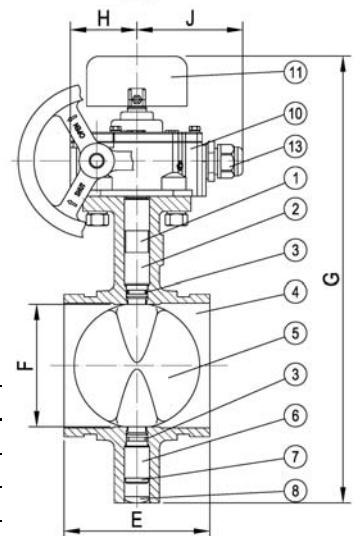


VBG12121- 300PSI Grooved-End Butterfly Valve

- Approved Gear Operator for both Indoor or Outdoor use
- NSF Certified Epoxy Coated Ductile Iron body for Excellent Protection
- Elastomer Encapsulated Disc with Outstanding Flow Characteristics
- Extended Neck
- Low Torque Operation
- Options of Double Internal Supervisory Switches
- FM Approved & UL/ULC Listed

Material Specifications

PART	SPECIFICATION
1. Upper Stem	Stainless Steel ASTM A 276 Type 420
2. Upper Bearing	PTFE Bronze Sintered on Steel
3. O-Ring	EPDM
4. Body	Ductile Iron ASTM A 395, Epoxy Coated
5. Disc	Ductile Iron ASTM A 395 with EPDM Encapsulation
6. Lower Bearing	PTFE Bronze Sintered on Steel
7. Lower Stem	Stainless Steel ASTM A 276 Type 420
8. Dust Plug	PVC
9. Name Plate	Stainless Steel
10. Gear Operator	Cast Iron and Steel
11. Indicator Flag	Steel
12. Handwheel	Cast Iron
13. Cable gland	Nylon



Dimension

Part Number	Size	OD	E	F	G	H	J	K
	in.	mm	in.	mm	in.	mm	in.	mm
VBG12121-073	2 1/2	65	73.0	3.85	98	2.40	61	11.22
VBG12121-076	3OD	65	76.1	3.85	98	2.40	61	11.22
VBG12121-089	3	80	88.9	3.85	98	2.87	73	12.20
VBG12121-114	4	100	114.3	4.56	116	3.86	98	14.17
VBG12121-140	5 1/2OD	125	139.7	5.86	149	4.80	122	15.35
VBG12121-141	5	125	141.3	5.86	149	4.80	122	15.35
VBG12121-165	6 1/2OD	150	165.1	5.86	149	5.75	146	16.73
VBG12121-168	6	150	168.3	5.86	149	5.75	146	16.73
VBG12121-219	8	200	219.1	5.27	134	7.72	196	19.41
VBG12121-273	10	250	273.0	6.30	160	9.57	243	22.76

Size	L	M	N	P	Q	R	Wt.
in.	in.	mm	in.	mm	in.	mm	lbs.
2 1/2	4.92	125	4.92	125	3.78	96	2.95
3OD	4.92	125	4.92	125	3.78	96	2.95
3	4.92	125	5.28	134	4.13	105	3.54
4	4.92	125	6.46	164	5.31	135	4.33
5 1/2OD	6.62	168	7.17	182	5.83	148	5.00
5	6.62	168	7.17	182	5.83	148	5.00
6 1/2OD	6.62	168	7.83	199	6.50	165	5.71
6	6.62	168	7.83	199	6.50	165	5.71
8	6.62	168	9.37	238	8.03	204	6.89
10	9.45	240	11.18	284	9.65	245	8.27



BUTTERFLY VALVE



Butterfly Valve Performance Data

Formulas for C_v Values

$$\Delta P = \frac{Q^2}{C_v^2}$$

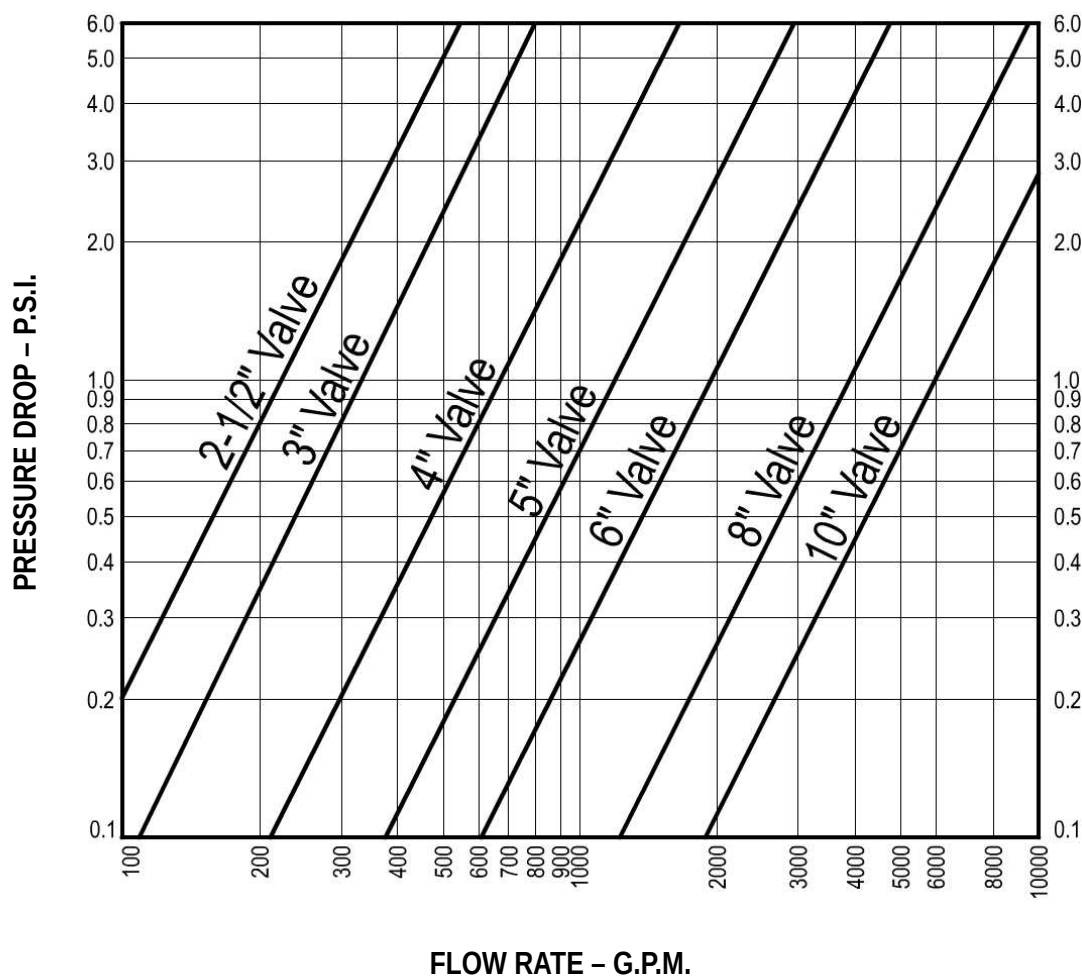
$$Q = C_v \times \sqrt{\Delta P}$$

Where: Q = Flow rate (gallons per minute: GPM)

ΔP = Pressure drop across valve (PSI)

C_v = Flow coefficient

Nominal Pipe Cv				Nominal Pipe Cv				Nominal Pipe Cv			
Size	O.D.		(Full	Size	O.D.		(Full	Size	O.D.		(Full
In.	mm	mm	Open)	In.	mm	mm	Open)	In.	mm	mm	Open)
2 1/2	65	73.0	221	5 1/2 OD	125	139.7	1200	8	200	219.1	3874
3 OD	65	76.1	221	5	125	141.3	1200	10	250	273.0	5995
3	80	88.9	324	6 1/2 OD	150	165.1	1934				
4	100	114.3	670	6	150	168.3	1934				



BUTTERFLY VALVE



VBG12C121 - 300PSI Grooved-End Butterfly Valve (CLOSE)

- Approved Gear Operator for both Indoor or Outdoor use
- NSF Certified Epoxy Coated Ductile Iron body for Excellent Protection
- Elastomer Encapsulated Disc with Outstanding Flow Characteristics
- Extended Neck
- Low Torque Operation
- Options of Double Internal Supervisory Switches
- FM Approved & UL/ULC Listed

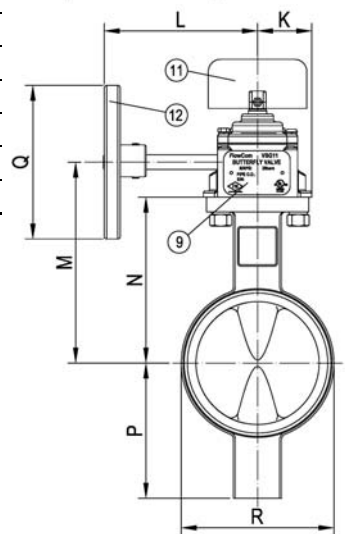
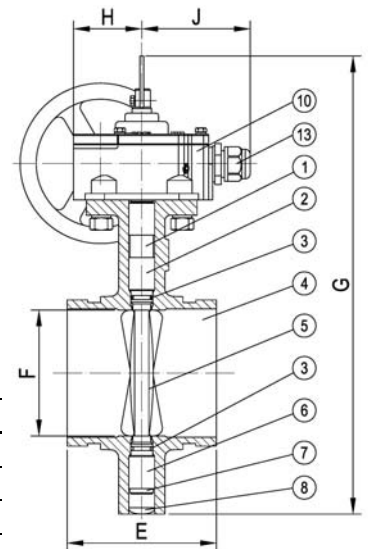
Material Specifications

PART	SPECIFICATION
1. Upper Stem	Stainless Steel ASTM A 276 Type 420
2. Upper Bearing	PTFE Bronze Sintered on Steel
3. O-Ring	EPDM
4. Body	Ductile Iron ASTM A 395, Epoxy Coated
5. Disc	Ductile Iron ASTM A 395 with EPDM Encapsulation
6. Lower Bearing	PTFE Bronze Sintered on Steel
7. Lower Stem	Stainless Steel ASTM A 276 Type 420
8. Dust Plug	PVC
9. Name Plate	Stainless Steel
10. Gear Operator	Cast Iron and Steel
11. Indicator Flag	Steel
12. Handwheel	Cast Iron
13. Cable gland	Nylon

Dimension

Part Number	Size	OD	E	F	G	H	J	K
	in.	mm	in.	mm	in.	mm	in.	mm
VBG12C121-073	2 1/2	65	73.0	3.85	98	2.40	61	11.22
VBG12C121-076	3OD	65	76.1	3.85	98	2.40	61	11.22
VBG12C121-089	3	80	88.9	3.85	98	2.87	73	12.20
VBG12C121-114	4	100	114.3	4.56	116	3.86	98	14.17
VBG12C121-140	5 1/2OD	125	139.7	5.86	149	4.80	122	15.35
VBG12C121-141	5	125	141.3	5.86	149	4.80	122	15.35
VBG12C121-165	6 1/2OD	150	165.1	5.86	149	5.75	146	16.73
VBG12C121-168	6	150	168.3	5.86	149	5.75	146	16.73
VBG12C121-219	8	200	219.1	5.27	134	7.72	196	19.41
VBG12C121-273	10	250	273.0	6.30	160	9.57	243	22.76

Size	L	M	N	P	Q	R	Wt.
in.	in.	mm	in.	mm	in.	mm	lbs.
2 1/2	4.92	125	4.92	125	3.78	96	2.95
3OD	4.92	125	4.92	125	3.78	96	2.95
3	4.92	125	5.28	134	4.13	105	3.54
4	4.92	125	6.46	164	5.31	135	4.33
5 1/2OD	6.62	168	7.17	182	5.83	148	5.00
5	6.62	168	7.17	182	5.83	148	5.00
6 1/2OD	6.62	168	7.83	199	6.50	165	5.71
6	6.62	168	7.83	199	6.50	165	5.71
8	6.62	168	9.37	238	8.03	204	6.89
10	9.45	240	11.18	284	9.65	245	8.27



BUTTERFLY VALVE



VBG12121H - 363PSI Grooved-End Butterfly Valve

- Approved Gear Operator for both Indoor or Outdoor use
- NSF Certified Epoxy Coated Ductile Iron body for Excellent Protection
- Elastomer Encapsulated Disc with Outstanding Flow Characteristics
- Extended Neck
- Low Torque Operation
- Options of Double Internal Supervisory Switches
- UL/ULC Listed

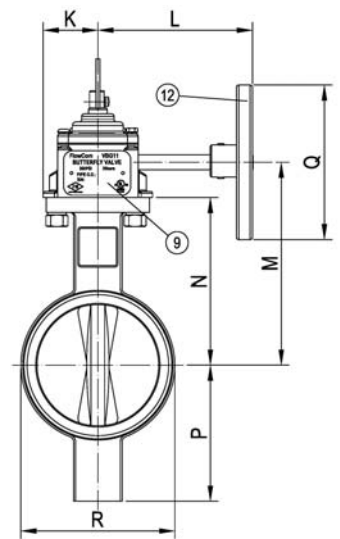
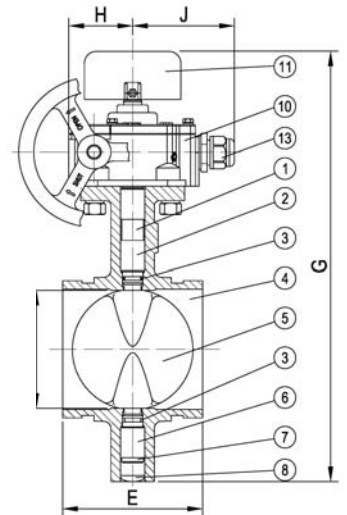
Material Specifications

PART	SPECIFICATION
1. Upper Stem	Stainless Steel ASTM A 276 Type 420
2. Upper Bearing	PTFE Bronze Sintered on Steel
3. O-Ring	EPDM
4. Body	Ductile Iron ASTM A 395, Epoxy Coated
5. Disc	Ductile Iron ASTM A 395 with EPDM Encapsulation
6. Lower Bearing	PTFE Bronze Sintered on Steel
7. Lower Stem	Stainless Steel ASTM A 276 Type 420
8. Dust Plug	PVC
9. Name Plate	Stainless Steel
10. Gear Operator	Cast Iron and Steel
11. Indicator Flag	Steel
12. Handwheel	Cast Iron
13. Cable gland	Nylon

Dimension

Part Number	Size	OD	E	F	G	H	J
	in.	mm	mm	in.	mm	in.	mm
VBG12121-073-PN25	2 1/2	65	73.0	3.85	98	2.40	61
VBG12121-076-PN25	3OD	65	76.1	3.85	98	2.40	61
VBG12121-089-PN25	3	80	88.9	3.85	98	2.87	73
VBG12121-114-PN25	4	100	114.3	4.56	116	3.86	98
VBG12121-140-PN25	5 1/2OD	125	139.7	5.86	149	4.80	122
VBG12121-141-PN25	5	125	141.3	5.86	149	4.80	122
VBG12121-165-PN25	6 1/2OD	150	165.1	5.86	149	5.75	146
VBG12121-168-PN25	6	150	168.3	5.86	149	5.75	146
VBG12121-219-PN25	8	200	219.1	5.27	134	7.72	196
VBG12121-273-PN25	10	250	273.0	6.30	160	9.57	243

Size	K	L	M	N	P	Q	R	Wt.
in.	in.	mm	in.	mm	in.	mm	in.	lbs.
2 1/2	1.73	44	4.92	125	4.92	125	3.78	96
3OD	1.73	44	4.92	125	4.92	125	3.78	96
3	1.73	44	4.92	125	5.28	134	4.13	105
4	1.73	44	4.92	125	6.46	164	5.31	135
5 1/2OD	1.85	47	6.62	168	7.17	182	5.83	148
5	1.85	47	6.62	168	7.17	182	5.83	148
6 1/2OD	1.85	47	6.62	168	7.83	199	6.50	165
6	1.85	47	6.62	168	7.83	199	6.50	165
8	1.85	47	6.62	168	9.37	238	8.03	204
10	2.60	66	9.45	240	11.18	284	9.65	245



BUTTERFLY VALVE



Butterfly Valve Performance Data

Formulas for C_v Values

$$\Delta P = \frac{Q^2}{C_v^2}$$

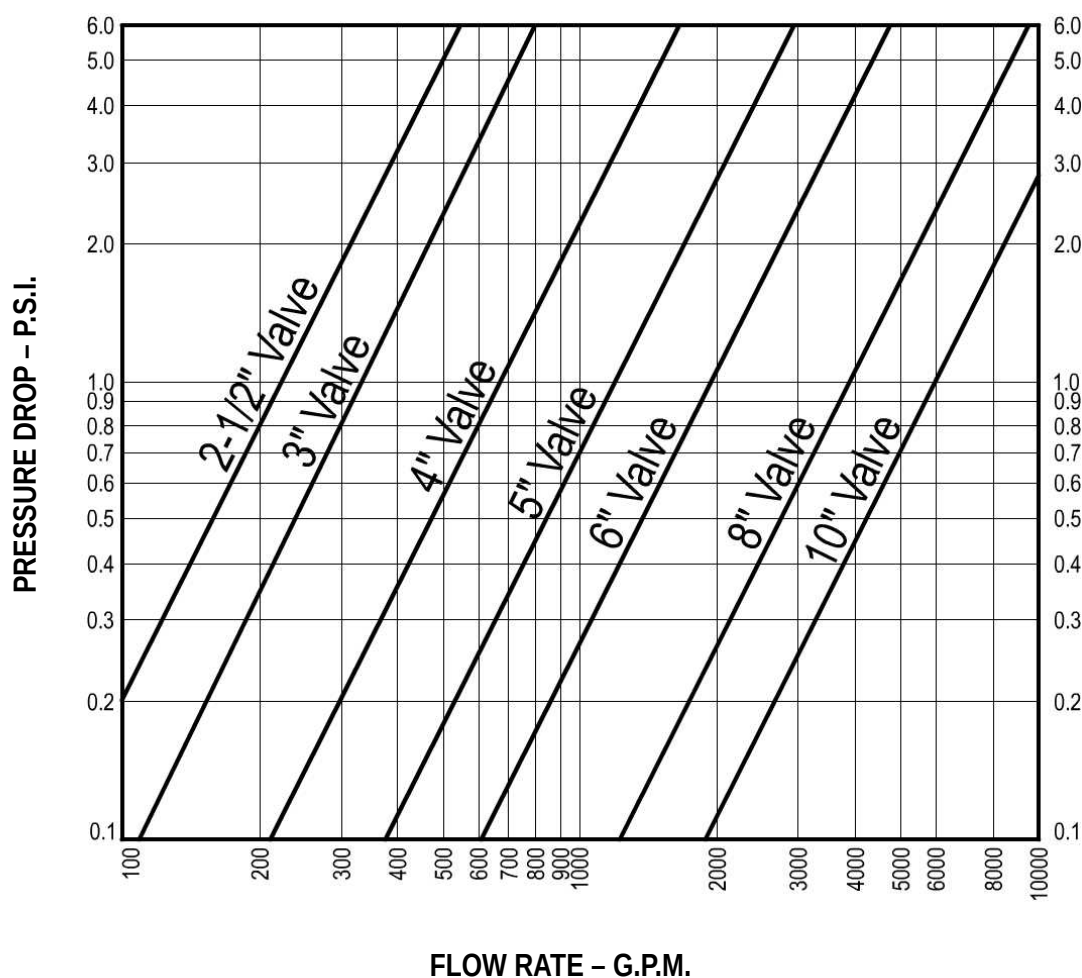
Where: Q = Flow rate (gallons per minute: GPM)

ΔP = Pressure drop across valve (PSI)

$$Q = C_v \times \sqrt{\Delta P}$$

C_v = Flow coefficient

Nominal Pipe Cv				Nominal Pipe Cv				Nominal Pipe Cv			
Size	O.D.		(Full	Size	O.D.		(Full	Size	O.D.		(Full
In.	mm	mm	Open)	In.	mm	mm	Open)	In.	mm	mm	Open)
2 1/2	65	73.0	221	5 1/2 OD	125	139.7	1200	8	200	219.1	3874
3 OD	65	76.1	221	5	125	141.3	1200	10	250	273.0	5995
3	80	88.9	324	6 1/2 OD	150	165.1	1934				
4	100	114.3	670	6	150	168.3	1934				



BUTTERFLY VALVE



VBG12C121H - 363PSI Grooved-End Butterfly Valve (CLOSE)

- Approved Gear Operator for both Indoor or Outdoor use
- NSF Certified Epoxy Coated Ductile Iron body for Excellent Protection
- Elastomer Encapsulated Disc with Outstanding Flow Characteristics
- Extended Neck
- Low Torque Operation
- Options of Double Internal Supervisory Switches
- UL/ULC Listed

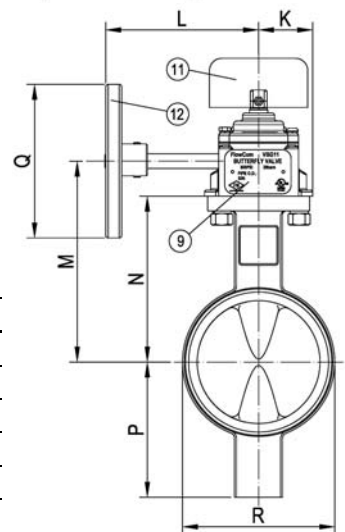
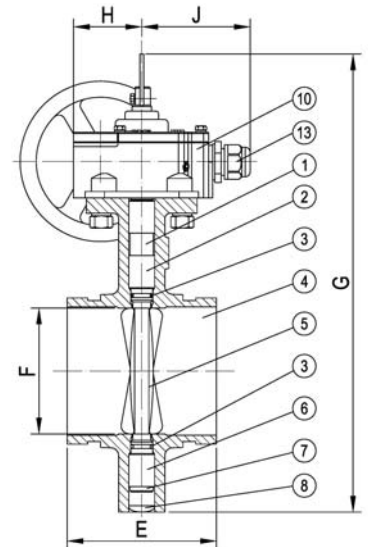
Material Specifications

PART	SPECIFICATION
1. Upper Stem	Stainless Steel ASTM A 276 Type 420
2. Upper Bearing	PTFE Bronze Sintered on Steel
3. O-Ring	EPDM
4. Body	Ductile Iron ASTM A 395, Epoxy Coated
5. Disc	Ductile Iron ASTM A 395 with EPDM Encapsulation
6. Lower Bearing	PTFE Bronze Sintered on Steel
7. Lower Stem	Stainless Steel ASTM A 276 Type 420
8. Dust Plug	PVC
9. Name Plate	Stainless Steel
10. Gear Operator	Cast Iron and Steel
11. Indicator Flag	Steel
12. Handwheel	Cast Iron
13. Cable gland	Nylon

Dimension

Part Number	Size	OD	E	F	G	H	J
	in.	mm	mm	in.	mm	in.	mm
VBG12C121-073-PN25	2 1/2	65	73.0	3.85	98	2.40	61
VBG12C121-076-PN25	3OD	65	76.1	3.85	98	2.40	61
VBG12C121-089-PN25	3	80	88.9	3.85	98	2.87	73
VBG12C121-114-PN25	4	100	114.3	4.56	116	3.86	98
VBG12C121-140-PN25	5 1/2OD	125	139.7	5.86	149	4.80	122
VBG12C121-141-PN25	5	125	141.3	5.86	149	4.80	122
VBG12C121-165-PN25	6 1/2OD	150	165.1	5.86	149	5.75	146
VBG12C121-168-PN25	6	150	168.3	5.86	149	5.75	146
VBG12C121-219-PN25	8	200	219.1	5.27	134	7.72	196
VBG12C121-273-PN25	10	250	273.0	6.30	160	9.57	243

Size	K	L	M	N	P	Q	R	Wt.
in.	in.	mm	in.	mm	in.	mm	in.	lbs.
2 1/2	1.73	44	4.92	125	4.92	125	3.78	96
3OD	1.73	44	4.92	125	4.92	125	3.78	96
3	1.73	44	4.92	125	5.28	134	4.13	105
4	1.73	44	4.92	125	6.46	164	5.31	135
5 1/2OD	1.85	47	6.62	168	7.17	182	5.83	148
5	1.85	47	6.62	168	7.17	182	5.83	148
6 1/2OD	1.85	47	6.62	168	7.83	199	6.50	165
6	1.85	47	6.62	168	7.83	199	6.50	165
8	1.85	47	6.62	168	9.37	238	8.03	204
10	2.60	66	9.45	240	11.18	284	9.65	245



VBG02123 - 300PSI Grooved-End Butterfly Valve

- Lever Handle Available for Indoor or Outdoor use
- Epoxy Coated Ductile Iron body for Excellent Protection
- Elastomer Encapsulated Disc with Outstanding Flow Characteristics
- Low Torque Operation

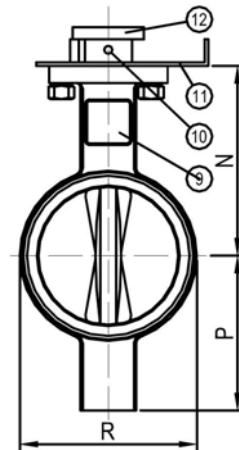
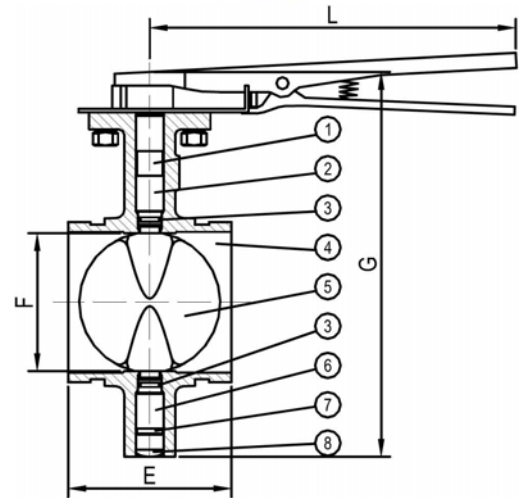
Material Specifications

PART	SPECIFICATION
1. Upper Stem	Stainless Steel ASTM A 276 Type 420
2. Upper Bearing	PTFE Bronze Sintered on Steel
3. O-Ring	EPDM
4. Body	Ductile Iron ASTM A 395, Epoxy Coated
5. Disc	Ductile Iron ASTM A 395 with EPDM Encapsulation
6. Lower Bearing	PTFE Bronze Sintered on Steel
7. Lower Stem	Stainless Steel ASTM A 276 Type 420
8. Dust Plug	PVC
9. Name Plate	Stainless Steel
10. Pin	Steel
11. Plate	Steel
12. Handle	Steel

Dimension

Part Number	Size		OD	E		F		G	
	in.	mm	mm	in.	mm	in.	mm	in.	mm
VBG02123-073	2½	65	73.0	3.85	98	2.40	61	7.32	186
VBG02123-076	3OD	65	76.1	3.85	98	2.40	61	7.32	186
VBG02123-089	3	80	88.9	3.85	98	2.87	73	8.27	210
VBG02123-114	4	100	114.3	4.56	116	3.86	98	10.2	260
VBG02123-140	5½OD	125	139.7	5.86	149	4.80	122	11.4	290
VBG02123-141	5	125	141.3	5.86	149	4.80	122	11.4	290
VBG02123-165	6½OD	150	165.1	5.86	149	5.75	146	12.8	325
VBG02123-168	6	150	168.3	5.86	149	5.75	146	12.8	325
VBG02123-219	8	200	219.1	5.27	134	7.72	196	15.9	404
VBG02123-273	10	250	273.0	6.30	160	9.57	243	18.9	480

Size	L		N		P		R		Wt.	
in.	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	Kg.
2½	10.2	260	3.78	96	2.95	75	3.35	85	6.4	2.9
3OD	10.2	260	3.78	96	2.95	75	3.35	85	6.4	2.9
3	10.2	260	4.13	105	3.54	90	3.82	97	7.5	3.4
4	10.2	260	5.31	135	4.33	110	4.88	124	11.7	5.3
5½OD	10.2	260	5.83	148	5.00	127	6.10	155	18.7	8.5
5	10.2	260	5.83	148	5.00	127	6.10	155	18.7	8.5
6½OD	10.2	260	6.50	165	5.71	145	7.20	183	24.3	11
6	10.2	260	6.50	165	5.71	145	7.20	183	24.3	11
8	12.8	325	8.03	204	6.89	175	9.29	236	35.5	16.1
10	12.8	325	9.65	245	8.27	210	11.38	289	64	29



VBS02 - PN25 Shoulder-End Butterfly Valve

- Lever Handle Available for Indoor or Outdoor use
- Epoxy Coated Ductile Iron body for Excellent Protection
- Elastomer Encapsulated Disc with Outstanding Flow Characteristics
- Low Torque Operation

Material Specifications

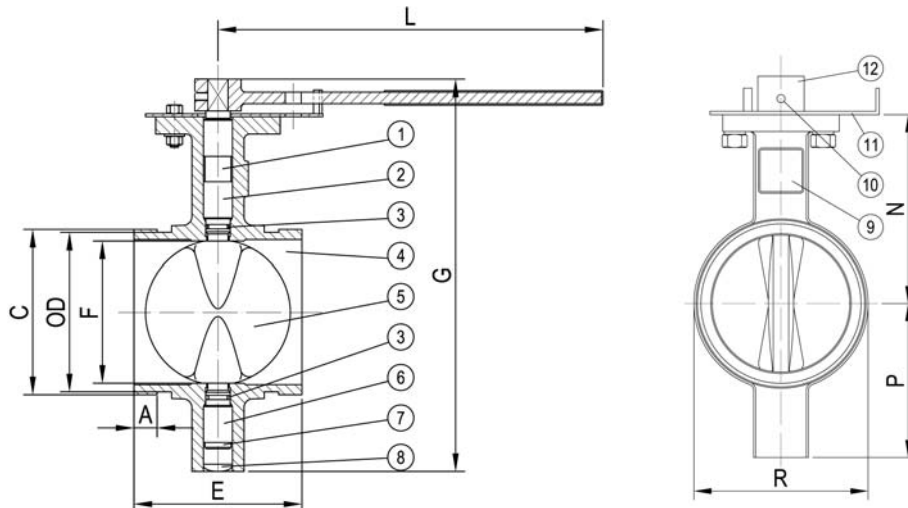
PART	SPECIFICATION
1. Upper Stem	Stainless Steel ASTM A 276 Type 420
2. Upper Bearing	PTFE Bronze Sintered on Steel
3. O-Ring	EPDM or NBR
4. Body	Ductile Iron ASTM A 395, Epoxy Coated
5. Disc	Ductile Iron ASTM A 395 with EPDM or NBR Encapsulation
6. Lower Bearing	PTFE Bronze Sintered on Steel
7. Lower Stem	Stainless Steel ASTM A 276 Type 420
8. Dust Plug	PVC
9. Name Plate	Stainless Steel
10. Pin	Steel
11. Plate	Steel
12. Handle	Steel



Dimension

Part	Size		OD	C		A		E		F	
Number	in.	mm	mm	in.	mm	in.	mm	in.	mm	in.	mm
VBS02-114	4	100	114.3	4.80	122	0.67	17	4.56	116	3.86	98
VBS02-165	6½OD	150	165.1	6.89	175	0.67	17	5.86	149	5.75	146
VBS02-219	8	200	219.1	9.13	232	0.81	20.5	5.27	134	7.72	196

Size	G		L		N		P		R		Wt.	
in.	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	Kg.
4	10.2	260	10.2	260	5.31	135	4.33	110	4.88	124	11.7	5.3
6½OD	12.8	325	10.2	260	6.50	165	5.71	145	7.20	183	24.3	11
8	15.9	404	12.8	325	8.03	204	6.89	175	9.29	236	35.5	16.1



BUTTERFLY VALVE

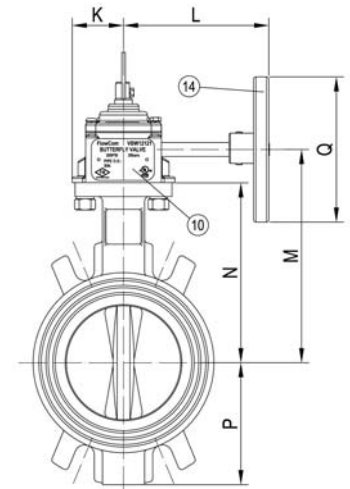
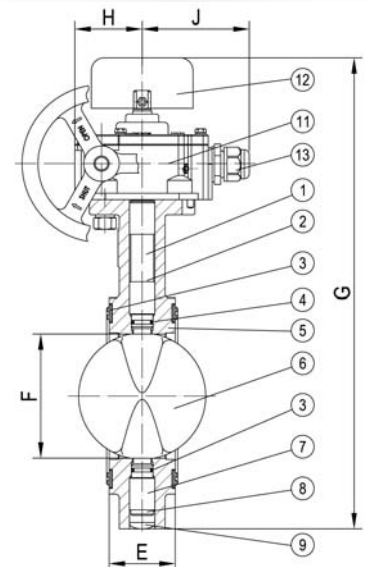


VBW12121 - 300PSI Wafer Butterfly Valve

- Approved Gear Operator for both Indoor or Outdoor use
- NSF Certified Epoxy Coated Ductile Iron body for Excellent Protection
- Elastomer Encapsulated Disc with Outstanding Flow Characteristics
- Extended Neck
- Low Torque Operation
- Options of Double Internal Supervisory Switches
- FM Approved & UL/ULC Listed

Material Specifications

PART	SPECIFICATION
1. Upper Stem	Stainless Steel ASTM A 276 Type 420
2. Upper Bearing	PTFE Bronze Sintered on Steel
3. Body Gasket	EPDM
4. O-Ring	EPDM
5. Body	Ductile Iron ASTM A 395, Epoxy Coated
6. Disc	Ductile Iron ASTM A 395 with EPDM Encapsulation
7. Lower Bearing	PTFE Bronze Sintered on Steel
8. Lower Stem	Stainless Steel ASTM A 276 Type 420
9. Dust Plug	PVC
10. Name Plate	Stainless Steel
11. Gear Operator	Cast Iron and Steel
12. Indicator Flag	Steel
13. Cable gland	Nylon
14. Handwheel	Cast Iron



Dimension

Part Number	Size		E		F		G		H		J		K	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
VBW12121-065	2 1/2	65	1.81	46	2.40	61	12.36	314	2.09	53	3.35	85	1.73	44
VBW12121-080	3	80	1.81	46	2.87	73	13.27	337	2.09	53	3.35	85	1.73	44
VBW12121-100	4	100	2.05	52	3.86	98	14.68	373	2.09	53	3.35	85	1.73	44
VBW12121-125	5	125	2.20	56	4.80	122	16.14	410	2.99	76	3.62	92	1.85	47
VBW12121-150	6	150	2.20	56	5.75	146	17.13	435	2.99	76	3.62	92	1.85	47
VBW12121-200	8	200	2.36	60	7.72	196	19.44	494	2.99	76	3.62	92	1.85	47

Size	L		M		N		P		Q		R		Wt.	
in.	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kg.
2½	4.92	125	6.06	154	4.96	126	2.95	75	4.25	108	3.35	85	10.8	4.9
3	4.92	125	6.42	163	5.31	135	3.54	90	4.25	108	3.82	97	12.1	5.5
4	4.92	125	7.20	183	6.02	155	4.13	105	4.92	125	4.88	124	15.6	7.1
5	6.62	168	8.15	207	6.81	173	4.80	122	5.90	150	6.10	155	25.4	11.5
6	6.62	168	8.62	219	7.28	185	5.31	135	5.90	150	7.20	183	28.4	12.9
8	6.62	168	9.76	248	8.42	214	6.49	165	5.90	150	9.29	236	42.1	19.1



BUTTERFLY VALVE

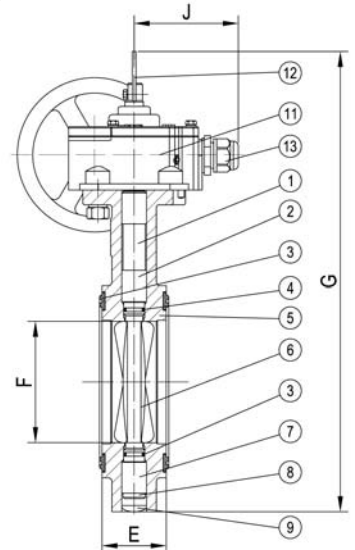


VBW12C121 - 300PSI Wafer Butterfly Valve (CLOSE)

- Approved Gear Operator for both Indoor or Outdoor use
- NSF Certified Epoxy Coated Ductile Iron body for Excellent Protection
- Elastomer Encapsulated Disc with Outstanding Flow Characteristics
- Extended Neck
- Low Torque Operation
- Options of Double Internal Supervisory Switches
- FM Approved & UL/ULC Listed

Material Specifications

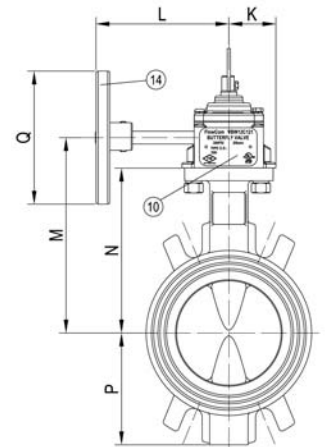
PART	SPECIFICATION
1. Upper Stem	Stainless Steel ASTM A 276 Type 420
2. Upper Bearing	PTFE Bronze Sintered on Steel
3. Body Gasket	EPDM
4. O-Ring	EPDM
5. Body	Ductile Iron ASTM A 395, Epoxy Coated
6. Disc	Ductile Iron ASTM A 395 with EPDM Encapsulation
7. Lower Bearing	PTFE Bronze Sintered on Steel
8. Lower Stem	Stainless Steel ASTM A 276 Type 420
9. Dust Plug	PVC
10. Name Plate	Stainless Steel
11. Gear Operator	Cast Iron and Steel
12. Indicator Flag	Steel
13. Cable gland	Nylon
14. Handwheel	Cast Iron



Dimension

Part	Size		E		F		G		H		J		K	
Number	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
VBW12C121-065	2 1/2	65	1.81	46	2.40	61	12.36	314	2.09	53	3.35	85	1.73	44
VBW12C121-080	3	80	1.81	46	2.87	73	13.27	337	2.09	53	3.35	85	1.73	44
VBW12C121-100	4	100	2.05	52	3.86	98	14.68	373	2.09	53	3.35	85	1.73	44
VBW12C121-125	5	125	2.20	56	4.80	122	16.14	410	2.99	76	3.62	92	1.85	47
VBW12C121-150	6	150	2.20	56	5.75	146	17.13	435	2.99	76	3.62	92	1.85	47
VBW12C121-200	8	200	2.36	60	7.72	196	19.44	494	2.99	76	3.62	92	1.85	47

Size	L		M		N		P		Q		R		Wt.	
in.	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kg.
2½	4.92	125	6.06	154	4.96	126	2.95	75	4.25	108	3.35	85	10.8	4.9
3	4.92	125	6.42	163	5.31	135	3.54	90	4.25	108	3.82	97	12.1	5.5
4	4.92	125	7.20	183	6.02	155	4.13	105	4.92	125	4.88	124	15.6	7.1
5	6.62	168	8.15	207	6.81	173	4.80	122	5.90	150	6.10	155	25.4	11.5
6	6.62	168	8.62	219	7.28	185	5.31	135	5.90	150	7.20	183	28.4	12.9
8	6.62	168	9.76	248	8.42	214	6.49	165	5.90	150	9.29	236	42.1	19.1



BUTTERFLY VALVE

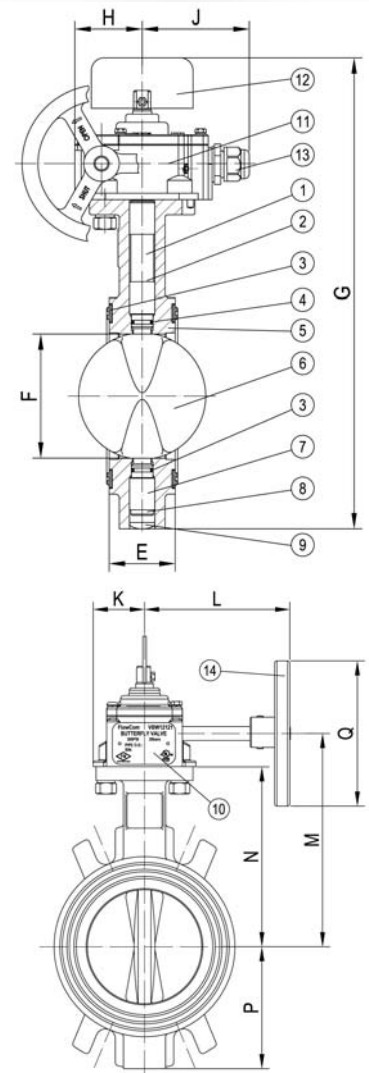


VBW12121H - 363PSI Wafer Butterfly Valve

- Approved Gear Operator for both Indoor or Outdoor use
- NSF Certified Epoxy Coated Ductile Iron body for Excellent Protection
- Elastomer Encapsulated Disc with Outstanding Flow Characteristics
- Extended Neck
- Low Torque Operation
- Options of Double Internal Supervisory Switches
- UL/ULC Listed

Material Specifications

PART	SPECIFICATION
1. Upper Stem	Stainless Steel ASTM A 276 Type 420
2. Upper Bearing	PTFE Bronze Sintered on Steel
3. Body Gasket	EPDM
4. O-Ring	EPDM
5. Body	Ductile Iron ASTM A 395, Epoxy Coated
6. Disc	Ductile Iron ASTM A 395 with EPDM Encapsulation
7. Lower Bearing	PTFE Bronze Sintered on Steel
8. Lower Stem	Stainless Steel ASTM A 276 Type 420
9. Dust Plug	PVC
10. Name Plate	Stainless Steel
11. Gear Operator	Cast Iron and Steel
12. Indicator Flag	Steel
13. Cable gland	Nylon
14. Handwheel	Cast Iron



Dimension

Part Number	Size		E		F		G		H		J		K	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
VBW12121-065-PN25	2 1/2	65	1.81	46	2.40	61	12.36	314	2.09	53	3.35	85	1.73	44
VBW12121-080-PN25	3	80	1.81	46	2.87	73	13.27	337	2.09	53	3.35	85	1.73	44
VBW12121-100-PN25	4	100	2.05	52	3.86	98	14.68	373	2.09	53	3.35	85	1.73	44
VBW12121-125-PN25	5	125	2.20	56	4.80	122	16.14	410	2.99	76	3.62	92	1.85	47
VBW12121-150-PN25	6	150	2.20	56	5.75	146	17.13	435	2.99	76	3.62	92	1.85	47
VBW12121-200-PN25	8	200	2.36	60	7.72	196	19.44	494	2.99	76	3.62	92	1.85	47

Size	L		M		N		P		Q		R		Wt.	
in.	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kg.
2½	4.92	125	6.06	154	4.96	126	2.95	75	4.25	108	3.35	85	10.8	4.9
3	4.92	125	6.42	163	5.31	135	3.54	90	4.25	108	3.82	97	12.1	5.5
4	4.92	125	7.20	183	6.02	155	4.13	105	4.92	125	4.88	124	15.6	7.1
5	6.62	168	8.15	207	6.81	173	4.80	122	5.90	150	6.10	155	25.4	11.5
6	6.62	168	8.62	219	7.28	185	5.31	135	5.90	150	7.20	183	28.4	12.9
8	6.62	168	9.76	248	8.42	214	6.49	165	5.90	150	9.29	236	42.1	19.1



BUTTERFLY VALVE

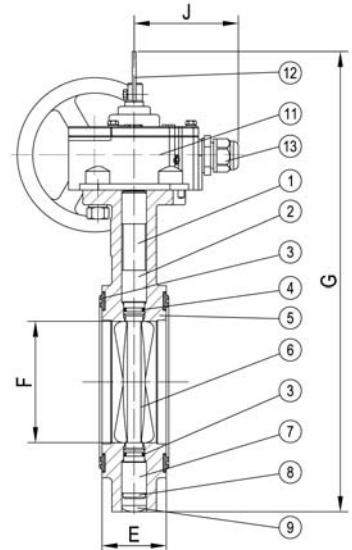


VBW12C121H - 363PSI Wafer Butterfly Valve (CLOSE)

- Approved Gear Operator for both Indoor or Outdoor use
- NSF Certified Epoxy Coated Ductile Iron body for Excellent Protection
- Elastomer Encapsulated Disc with Outstanding Flow Characteristics
- Extended Neck
- Low Torque Operation
- Options of Double Internal Supervisory Switches
- UL/ULC Listed

Material Specifications

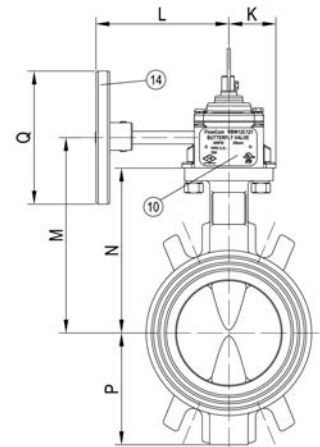
PART	SPECIFICATION
1. Upper Stem	Stainless Steel ASTM A 276 Type 420
2. Upper Bearing	PTFE Bronze Sintered on Steel
3. Body Gasket	EPDM
4. O-Ring	EPDM
5. Body	Ductile Iron ASTM A 395, Epoxy Coated
6. Disc	Ductile Iron ASTM A 395 with EPDM Encapsulation
7. Lower Bearing	PTFE Bronze Sintered on Steel
8. Lower Stem	Stainless Steel ASTM A 276 Type 420
9. Dust Plug	PVC
10. Name Plate	Stainless Steel
11. Gear Operator	Cast Iron and Steel
12. Indicator Flag	Steel
13. Cable gland	Nylon
14. Handwheel	Cast Iron



Dimension

Part Number	Size		E		F		G		H		J		K	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
VBW12C121-065-PN25	2 1/2	65	1.81	46	2.40	61	12.36	314	2.09	53	3.35	85	1.73	44
VBW12C121-080-PN25	3	80	1.81	46	2.87	73	13.27	337	2.09	53	3.35	85	1.73	44
VBW12C121-100-PN25	4	100	2.05	52	3.86	98	14.68	373	2.09	53	3.35	85	1.73	44
VBW12C121-125-PN25	5	125	2.20	56	4.80	122	16.14	410	2.99	76	3.62	92	1.85	47
VBW12C121-150-PN25	6	150	2.20	56	5.75	146	17.13	435	2.99	76	3.62	92	1.85	47
VBW12C121-200-PN25	8	200	2.36	60	7.72	196	19.44	494	2.99	76	3.62	92	1.85	47

Size	L		M		N		P		Q		R		Wt.	
in.	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kg.
2½	4.92	125	6.06	154	4.96	126	2.95	75	4.25	108	3.35	85	10.8	4.9
3	4.92	125	6.42	163	5.31	135	3.54	90	4.25	108	3.82	97	12.1	5.5
4	4.92	125	7.20	183	6.02	155	4.13	105	4.92	125	4.88	124	15.6	7.1
5	6.62	168	8.15	207	6.81	173	4.80	122	5.90	150	6.10	155	25.4	11.5
6	6.62	168	8.62	219	7.28	185	5.31	135	5.90	150	7.20	183	28.4	12.9
8	6.62	168	9.76	248	8.42	214	6.49	165	5.90	150	9.29	236	42.1	19.1



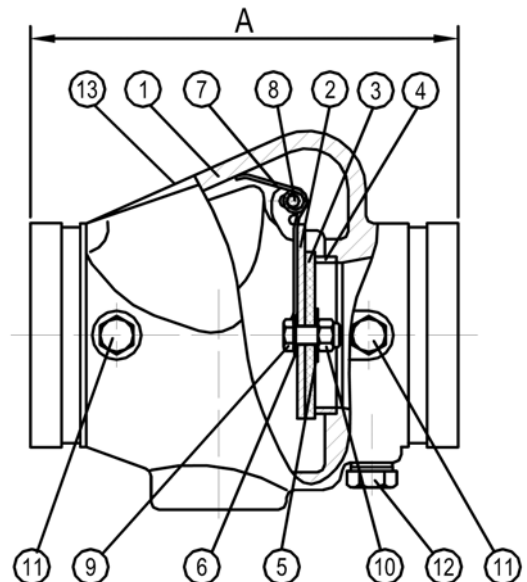
VCG01 - 350PSI Grooved-End Swing Check Valve

- Installed in both Horizontal or Vertical Line with Upward Flow
- Easier and Faster to Maintain and Install
- Low Pressure Drop
- EPDM non-stick leak tight sealing
- All Stainless Steel Wetted Parts to Provide Superior Corrosion Resistance
- FM Approved & UL/ULC Listed



Material Specifications

PART	SPECIFICATION
1. Body	Ductile Iron ASTM A395
2. Clapper	Stainless Steel 304
3. Facing Seal	EPDM Rubber
4. Seat	Bronze
5. Clamping Ring	Stainless Steel 304
6. Gasket	EPDM Rubber
7. Spring	Stainless Steel 304
8. Hinge Pin	Stainless Steel 304
9. Bolt	Stainless Steel 304
10. Locknut	Stainless Steel 304
11. Plug 1/4" NPT	Carbon Steel
12. Plug 1/2" NPT	Carbon Steel
13. Nameplate	Stainless Steel



Dimension

Part Number	Size		OD mm	A		B		Weight	
	in.	mm		in.	mm	in.	mm	lbs	kg
VCG01-060	2	50	60.3	6.65	169	3.54	90	5.5	2.5
VCG01-073	2½	65	73.0	7.20	183	3.86	98	8.8	4
VCG01-076	3OD	65	76.1	7.20	183	3.86	98	8.8	4
VCG01-089	3	80	88.9	7.80	198	4.29	109	13	6
VCG01-114	4	100	114.3	8.58	218	4.80	122	20	9
VCG01-140	5½OD	125	139.7	9.76	248	5.39	137	33	15
VCG01-141	5	125	141.3	9.76	248	5.39	137	33	15
VCG01-165	6½OD	150	165.1	10.63	270	5.83	148	42	19
VCG01-168	6	150	168.3	10.63	270	5.83	148	42	19
VCG01-219	8	200	219.1	12.80	325	7.28	185	77	35



CHECK VALVE



Check Valve Performance Data

Formulas for C_v Values

$$\Delta P = \frac{Q^2}{C_v^2}$$

$$Q = C_v \times \sqrt{\Delta P}$$

Where: Q = Flow rate (gallons per minute: GPM)

ΔP = Pressure drop across valve (PSI)

C_v = Flow coefficient

Nominal Pipe Cv				Nominal Pipe Cv				Nominal Pipe Cv			
Size		O.D.	(Full	Size		O.D.	(Full	Size		O.D.	(Full
In.	mm	mm	Open)	In.	mm	mm	Open)	In.	mm	mm	Open)
2	50	60.3	100	4	100	114.3	390	6½OD	150	165.1	1000
2½	65	73.0	140	5½OD	125	139.7	700	6	150	168.3	1000
3OD	65	76.1	140	5	125	141.3	700	8	200	219.1	1800
3	80	88.9	250								

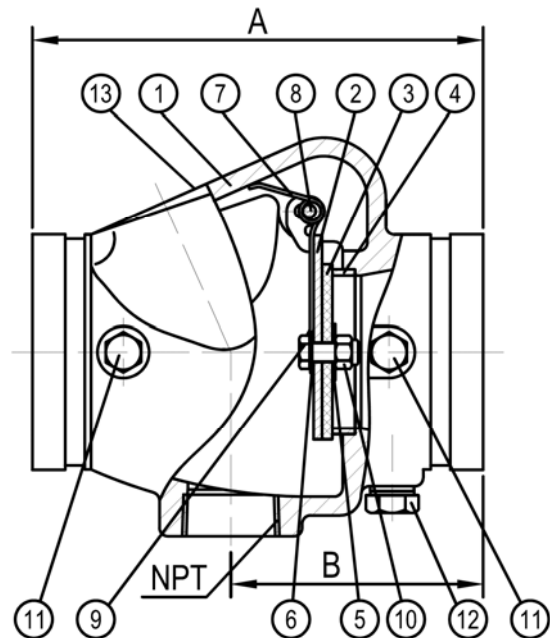
VCG02132 - 350PSI Grooved-End Riser(Shotgun)

- Installed in both Horizontal or Vertical Line with Upward Flow
- Easier and Faster to Maintain and Install
- Low Pressure Drop
- EPDM non-stick leak tight sealing
- All Stainless Steel Wetted Parts to Provide Superior Corrosion Resistance
- FM Approved & UL/ULC Listed



Material Specifications

PART	SPECIFICATION
1. Body	Ductile Iron ASTM A395
2. Clapper	Stainless Steel 304
3. Facing Seal	EPDM Rubber
4. Seat	Bronze
5. Clamping Ring	Stainless Steel 304
6. Gasket	EPDM Rubber
7. Spring	Stainless Steel 304
8. Hinge Pin	Stainless Steel 304
9. Bolt	Stainless Steel 304
10. Locknut	Stainless Steel 304
11. Plug 1/4" NPT	Carbon Steel
12. Plug 1/2" NPT	Carbon Steel
13. Nameplate	Stainless Steel



Dimension

Part Number	Size	OD	A	B	NPT	Weight
	in.	mm	in.	mm	in.	lbs
VCG02132-060	2	50	60.3	6.65	169	3.54
VCG02132-073	2 1/2	65	73.0	7.20	183	3.86
VCG02132-076	3OD	65	76.1	7.20	183	3.86
VCG02132-089	3	80	88.9	7.80	198	4.29
VCG02132-114	4	100	114.3	8.58	218	4.80
VCG02132-140	5 1/2 OD	125	139.7	9.76	248	5.39
VCG02132-141	5	125	141.3	9.76	248	5.39
VCG02132-165	6 1/2 OD	150	165.1	10.63	270	5.83
VCG02132-073	6	150	168.3	10.63	270	5.83
VCG02132-073	8	200	219.1	12.80	325	7.28



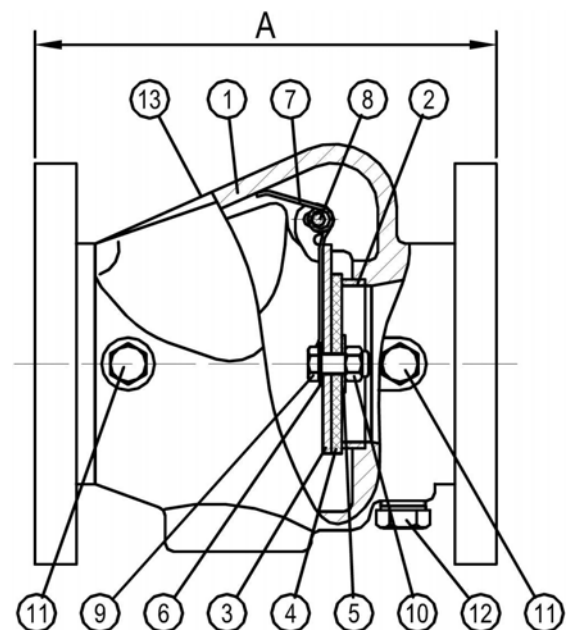
VCF01 - 350PSI Flanged Swing Check Valve

- Installed in both Horizontal or Vertical Line with Upward Flow
- Easier and Faster to Maintain and Install
- Low Pressure Drop
- EPDM non-stick leak tight sealing
- All Stainless Steel Wetted Parts to Provide Superior Corrosion Resistance
- UL/ULC Listed



Material Specifications

PART	SPECIFICATION
1. Body	Ductile Iron ASTM A395
2. Seat	Bronze
3. Clapper	Stainless Steel 304
4. Facing Seal	EPDM Rubber
5. Clamping Ring	Stainless Steel 304
6. Gasket	EPDM Rubber
7. Spring	Stainless Steel 304
8. Hinge Pin	Stainless Steel 304
9. Bolt	Stainless Steel 304
10. Locknut	Stainless Steel 304
11. Plug 1/4" NPT	Carbon Steel
12. Plug 1/2" NPT	Carbon Steel
13. Nameplate	Stainless Steel



Dimension

Part Number	size		A		Weight	
	In.	mm	In.	mm	lbs	kg
VCF01-050	2	DN50	6.65	169	13.9	6.3
VCF01-065	2 1/2	DN65	7.20	183	20.3	9.2
VCF01-080	3	DN80	7.80	198	25.4	11.5
VCF01-100	4	DN100	8.58	218	40.4	18.3
VCF01-125	5	DN125	9.76	248	57.3	26
VCF01-150	6	DN150	10.63	270	69.5	31.5
VCF01-200	8	DN200	12.80	325	119	54

Flange Standard: ASME B16.5 Class150

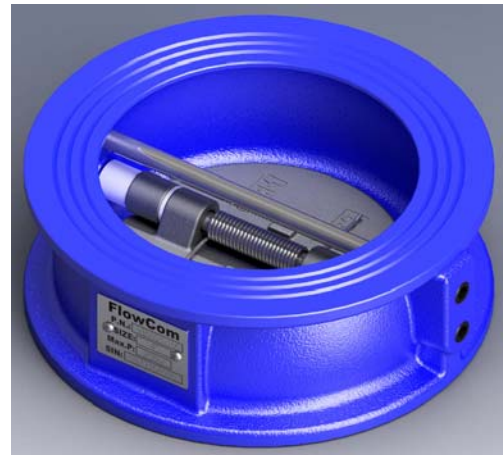
BS 4504 PN10 / PN16

AS 2129 Table D / Table E



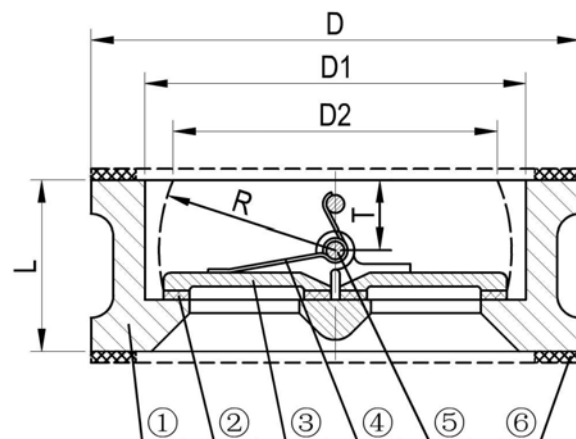
VCW01 - 300PSI Wafer Check Valve

- Installed in both Horizontal or Vertical Line with Upward Flow
- Easier and Faster to Maintain and Install
- Low Pressure Drop
- EPDM non-stick leak tight sealing
- All Stainless Steel Wetted Parts to Provide Superior Corrosion Resistance



Material Specifications

PART	SPECIFICATION
1. Body	ASTM A536
2. Seat	EPDM / NBR
3. Disc	CF8M / C954 / DI
4. Spring	ASTM A276 302
5. Stem	ASTM A582 416
6. Gasket	EPDM / NBR



Dimension

Part	SIZE		D		D1		D2		L		R		T		Weight	
Number	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs	kg
VCW01-050	2	50	4.21	107	2.56	65	1.70	43.3	1.69	43	1.13	28.8	0.75	19	3.30	1.5
VCW01-065	2 1/2	65	5.00	127	3.15	80	2.37	60.2	1.81	46	1.42	36.1	0.79	20	5.29	2.4
VCW01-080	3	80	5.59	142	3.70	94	2.61	66.4	2.52	64	1.71	43.4	1.10	28	7.93	3.6
VCW01-100	4	100	6.38	162	4.61	117	3.57	90.8	2.52	64	2.08	52.8	1.06	27	12.6	5.7
VCW01-125	5	125	7.56	192	5.71	145	4.60	116.9	2.76	70	2.59	65.7	1.18	30	16.1	7.3
VCW01-150	6	150	8.58	218	6.69	170	5.69	144.6	2.99	76	3.09	78.6	1.22	31	19.8	9.0
VCW01-200	8	200	10.75	273	8.82	224	7.80	198.2	3.50	89	4.11	104.4	1.30	33	37.4	17
VCW01-250	10	250	12.91	328	10.43	265	9.20	233.7	4.49	114	5.00	127.0	1.97	50	57.3	26
VCW01-300	12	300	14.88	378	12.20	310	11.18	283.9	4.49	114	5.84	148.3	1.69	43	92.5	42

Gauge Check Valve

- The gauge check valve, also known as No-Loss Connector, is designed for use on Fire Sprinkler Systems to safely enable a pressure gauge to be removed without the need to manually isolate.
- The spring mechanism within the valve compresses when the pressure gauge is fitted to allow the valve to open and automatically closes the valve when the gauge is removed to prevent any pressure loss. This valve can also be used on some water tanks to safely allow the fitting of a direct reading tank contents gauge.
- Maximum operating temperature 60°C
- Maximum working pressure 300PSI

Material Specifications

Part	Material
Body	Brass
Plunger	Nylon
Spring	304SS
Internal Seal	NBR



Part Number	Process Connection	Gauge Connection
VNN01-3/4"-1/2"	3/4" NPT Male	1/2" NPT Female
VNN01-1/2"-3/8"	1/2" NPT Male	3/8" NPT Female
VNN01-1/2"-1/4"	1/2" NPT Male	1/4" NPT Female
VNN01-3/8"-1/4"	3/8" NPT Male	1/4" NPT Female
VNB01-3/4"-1/2"	3/4" BSPT Male	1/2" BSPP Female
VNB01-1/2"-3/8"	1/2" BSPT Male	3/8" BSPP Female
VNB01-1/2"-1/4"	1/2" BSPT Male	1/4" BSPP Female
VNB01-3/8"-1/4"	3/8" BSPT Male	1/4" BSPP Female
VNNB01-3/4"-1/2"	3/4" NPT Male	1/2" BSPP Female
VNNB01-1/2"-3/8"	1/2" NPT Male	3/8" BSPP Female
VNNB01-1/2"-1/4"	1/2" NPT Male	1/4" BSPP Female
VNNB01-3/8"-1/4"	3/8" NPT Male	1/4" BSPP Female

NOTE: The port thread of the pressure gauge shall be taper pipe thread.

VGF907 - 300PSI Flanged-End Gate Valve

- Bolted Bonnet • Outside Screw and Yoke • Resilient Wedge • Flanged-End
- 300 PSI/20.7Bar Non-Shock Cold Working Pressure
- Conforms to AWWA C509
- FBE Coated Interior and Exterior
- Maximum Operating Temperature 185°F / 85°C
- FM Approved & UL/ULC Listed

Material Specifications

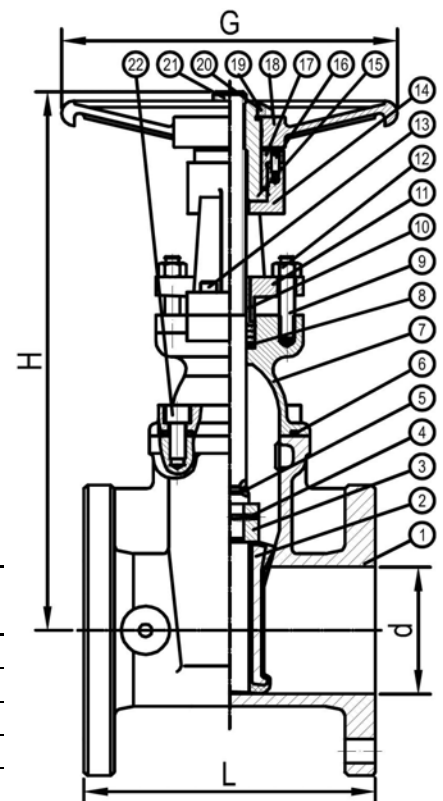
PART	SPECIFICATION
1. Valve Body	Ductile Iron ASTM A536
2. Resilient Wedge	Ductile Iron ASTM A536 with EPDM Encapsulation
3. Wedge Nut	Bronze ASTM B584 UNS C83600
4. Dowel Pin	Stainless Steel ASTM A276 UNS S42000
5. Stem Back Seat O-Ring	EPDM
6. Bonnet Gasket	EPDM
7. Bonnet	Ductile Iron ASTM A536
8. Stem Packing	EPDM
9. Threaded Rod	Carbon steel Zinc Plated
10. Gland Bushing	Brass ASTM B584
11. Gland	Cast Iron ASTM A126-B
12. Gland Nut	Stainless Steel 18-8
13. Yoke Screw	Alloy Steel ASTM A574 Zinc Plated
14. Yoke	Cast Iron ASTM A126-B
15. Yoke Bushing	Bronze ASTM B584
16. Flat Point Set Screw	Alloy Steel ASTM F912 Black Oxide
17. Yoke Bushing Retainer	Cast Iron ASTM A126-B
18. Handwheel	Ductile Iron ASTM A536
19. Handwheel Nut	Carbon steel Zinc Plated
20. Flat Head Screw	Carbon steel Zinc Plated
21. Stem	Bronze ASTM B150 UNS C61400
22. Bonnet Screw	Alloy Steel ASTM A574 Zinc Plated

Dimension

Part Number	Size	L	d	G	H(open)	H(close)	Turns To Open
	in.	mm	in.	mm	in.	mm	
VGF907-065	2.5	65	7.5	190	2.5	64	7.9
VGF907-080	3	80	8.0	203	3.0	76	10.0
VGF907-100	4	100	9.0	229	4.0	102	10.0
VGF907-150	6	150	10.5	267	6.0	152	12.4
VGF907-200	8	200	11.5	292	8.0	203	14.8
VGF907-250	10	250	13.0	330	10.0	254	16.4
VGF907-300	12	300	14.0	356	12.0	305	17.5

Note:

- ◆ Freezing Weather Precaution-Subsequent to testing a piping system, valves should be in an open position to allow complete drainage.
- ◆ Flange: ANSI Class125&150, other flange dimensions are available.

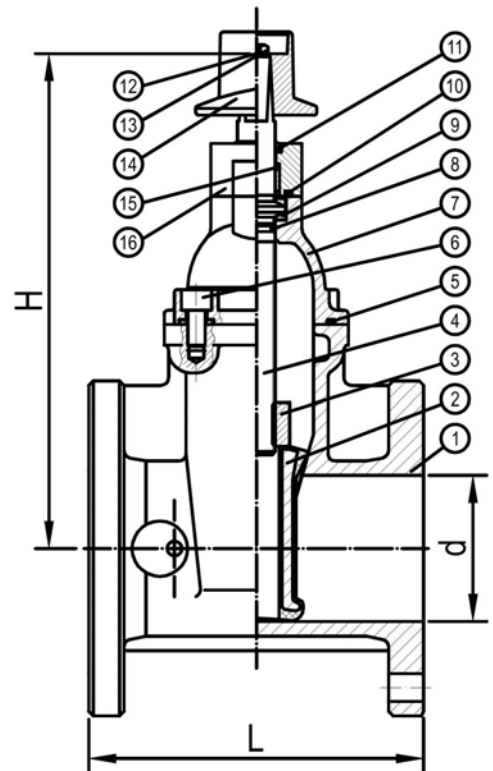


VGF909 - 300PSI Flanged-End Gate Valve

- Bolted Bonnet • Non-Rising Stem • Resilient Wedge • Flanged-End
- 300 PSI/20.7Bar Non-Shock Cold Working Pressure
- Conforms to AWWA C509
- FBE Coated Interior and Exterior
- Maximum Operating Temperature 185°F / 85°C
- FM Approved & UL/ULC Listed

Material Specifications

PART	SPECIFICATION
1. Valve Body	Ductile Iron ASTM A536
2. Resilient Wedge	Ductile Iron ASTM A536 with EPDM Encapsulation
3. Wedge Nut	Bronze ASTM B584 UNS C83600
4. Stem	Stainless Steel ASTM A276 UNS S41000
5. Bonnet Gasket	EPDM
6. Bonnet Screw	Alloy Steel ASTM A574 Zinc Plated
7. Bonnet	Cast Iron ASTM A126-B
8. Stem Primary O-Ring	EPDM
9. Stem Thrust Washer	Stainless Steel ASTM A276 UNS S41000
10. Gland Seal O-Ring	EPDM
11. Stem Ring Wiper	EPDM
12. Operating Nut Washer	Carbon steel Zinc Plated
13. Operating Nut Screw	Alloy Steel ASTM A574 Zinc Plated
14. Square Operating Nut	Cast Iron ASTM A126-B
14A. Handwheel (Optional)	Ductile Iron ASTM A536
15. Stem Primary O-Ring	EPDM
16. Stem Seal Bushing	Brass ASTM B16 UNS C36000



Dimension

Part Number	Size	L	d	H	Turns To Open
	in. mm	in. mm	in. mm	in. mm	
VGF909-065	2.5 65	7.5 190	2.5 64	11.4 289	8.8
VGF909-080	3 80	8.0 203	3.0 76	12.7 322	10.5
VGF909-100	4 100	9.0 229	4.0 102	13.5 342	13.75
VGF909-150	6 150	10.5 267	6.0 152	17.0 432	16
VGF909-200	8 200	11.5 292	8.0 203	20.4 519	17.5
VGF909-250	10 250	13.0 330	10.0 254	21.2 539	21.5
VGF909-300	12 300	14.0 356	12.0 305	26.5 672	25.5

Note:

- ◆ Freezing Weather Precaution-Subsequent to testing a piping system, valves should be in an open position to allow complete drainage.
- ◆ Flange: ANSI Class125&150, other flange dimensions are available.



GATE VALVE



VGG135 - 300PSI Grooved-End Gate Valve

- Bolted Bonnet • Outside Screw and Yoke • Resilient Wedge • Grooved-End
- 300 PSI/20.7Bar Non-Shock Cold Working Pressure
- Conforms to AWWA C509
- FBE Coated Interior and Exterior
- Maximum Operating Temperature 185°F / 85°C
- FM Approved & UL/ULC Listed

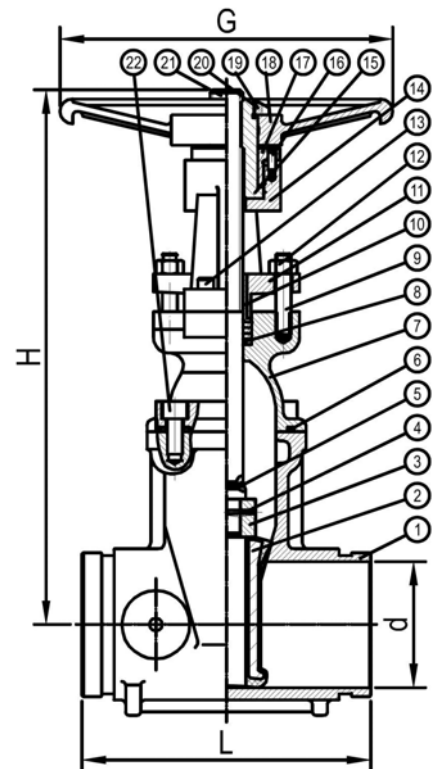
Material Specifications

PART	SPECIFICATION
1. Valve Body	Ductile Iron ASTM A536
2. Resilient Wedge	Ductile Iron ASTM A536 with EPDM Encapsulation
3. Wedge Nut	Bronze ASTM B584 UNS C83600
4. Dowel Pin	Stainless Steel ASTM A276 UNS S42000
5. Stem Back Seat O-Ring	EPDM
6. Bonnet Gasket	EPDM
7. Bonnet	Ductile Iron ASTM A536
8. Stem Packing	EPDM
9. Threaded Rod	Carbon steel Zinc Plated
10. Gland Bushing	Brass ASTM B584
11. Gland	Cast Iron ASTM A126-B
12. Gland Nut	Stainless Steel 18-8
13. Yoke Screw	Alloy Steel ASTM A574 Zinc Plated
14. Yoke	Cast Iron ASTM A126-B
15. Yoke Bushing	Bronze ASTM B584
16. Flat Point Set Screw	Alloy Steel ASTM F912 Black Oxide
17. Yoke Bushing Retainer	Cast Iron ASTM A126-B
18. Handwheel	Ductile Iron ASTM A536
19. Handwheel Nut	Carbon steel Zinc Plated
20. Flat Head Screw	Carbon steel Zinc Plated
21. Stem	Bronze ASTM B150 UNS C61400
22. Bonnet Screw	Alloy Steel ASTM A574 Zinc Plated

Dimension

Part Number	Size		L		d		G		H(open)		H(close)		Turns To Open
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	
VGG135-065	2.5	65	7.5	190	2.5	64	7.9	200	17.8	453	14.9	378	8.8
VGG135-080	3	80	8.0	203	3.0	76	10.0	254	20.1	510	15.9	405	10.5
VGG135-100	4	100	9.0	229	4.0	102	10.0	254	22.4	568	16.6	422	13.75
VGG135-150	6	150	10.5	267	6.0	152	12.4	315	30.3	769	22.9	581	16
VGG135-200	8	200	11.5	292	8.0	203	14.8	375	37.8	960	28.5	724	17.5
VGG135-250	10	250	13.0	330	10.0	254	16.4	416	44.8	1139	34.5	877	21.5
VGG135-300	12	300	14.0	356	12.0	305	17.5	445	52.2	1326	39.9	1014	25.5

Note: Freezing Weather Precaution-Subsequent to testing a piping system, valves should be in an open position to allow complete drainage.



VGG105 - 300PSI Grooved-End Gate Valve

- Bolted Bonnet • Non-Rising Stem • Resilient Wedge • Grooved-End
- 300 PSI/20.7Bar Non-Shock Cold Working Pressure
- Conforms to AWWA C509
- FBE Coated Interior and Exterior
- Maximum Operating Temperature 185°F / 85°C
- FM Approved & UL/ULC Listed

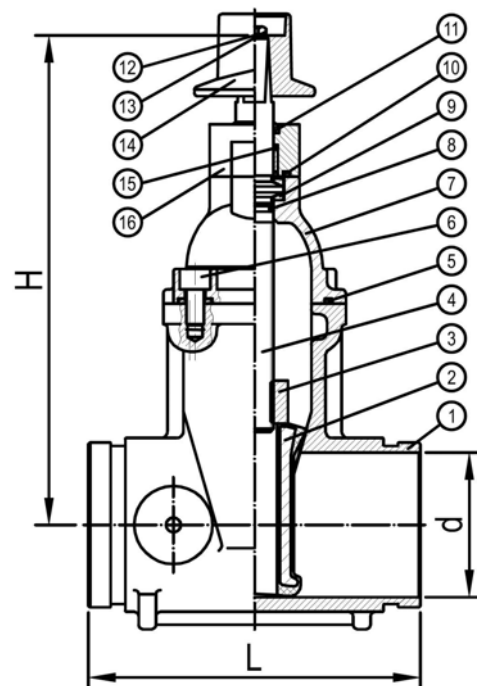
Material Specifications

PART	SPECIFICATION
1. Valve Body	Ductile Iron ASTM A536
2. Resilient Wedge	Ductile Iron ASTM A536 with EPDM Encapsulation
3. Wedge Nut	Bronze ASTM B584 UNS C83600
4. Stem	Stainless Steel ASTM A276 UNS S41000
5. Bonnet Gasket	EPDM
6. Bonnet Screw	Alloy Steel ASTM A574 Zinc Plated
7. Bonnet	Cast Iron ASTM A126-B
8. Stem Primary O-Ring	EPDM
9. Stem Thrust Washer	Stainless Steel ASTM A276 UNS S41000
10. Gland Seal O-Ring	EPDM
11. Stem Ring Wiper	EPDM
12. Operating Nut Washer	Carbon steel Zinc Plated
13. Operating Nut Screw	Alloy Steel ASTM A574 Zinc Plated
14. Square Operating Nut	Cast Iron ASTM A126-B
14A. Handwheel (Optional)	Ductile Iron ASTM A536
15. Stem Primary O-Ring	EPDM
16. Stem Seal Bushing	Brass ASTM B16 UNS C36000

Dimension

Part Number	Size		L		d		H		Turns To Open
	in.	mm	in.	mm	in.	mm	in.	mm	
VGG105-065	2.5	65	7.5	190	2.5	64	11.4	289	8.8
VGG105-080	3	80	8.0	203	3.0	76	12.7	322	10.5
VGG105-100	4	100	9.0	229	4.0	102	13.5	342	13.75
VGG105-150	6	150	10.5	267	6.0	152	17.0	432	16
VGG105-200	8	200	11.5	292	8.0	203	20.4	519	17.5
VGG105-250	10	250	13.0	330	10.0	254	21.2	539	21.5
VGG105-300	12	300	14.0	356	12.0	305	26.5	672	25.5

Note: Freezing Weather Precaution-Subsequent to testing a piping system, valves should be in an open position to allow complete drainage.



VGFG138 - 300PSI Flanged x Grooved-End Gate Valve

- Bolted Bonnet • Outside Screw and Yoke • Resilient Wedge • Flanged X Grooved-End
- 300 PSI/20.7Bar Non-Shock Cold Working Pressure
- Conforms to AWWA C509
- FBE Coated Interior and Exterior
- Maximum Operating Temperature 185°F / 85°C
- FM Approved & UL/ULC Listed

Material Specifications

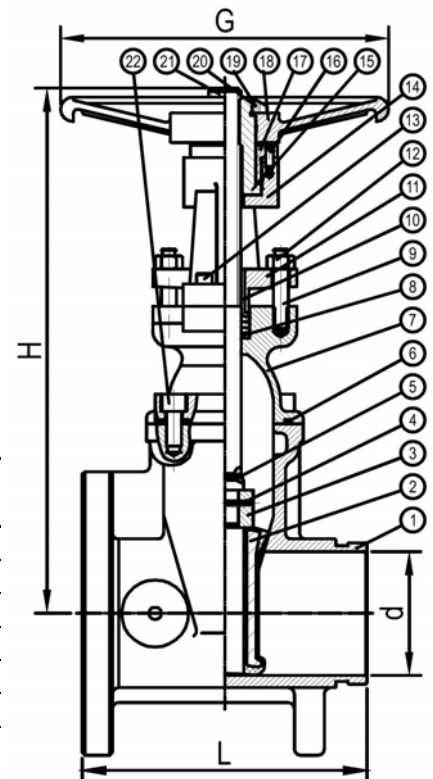
PART	SPECIFICATION
1. Valve Body	Ductile Iron ASTM A536
2. Resilient Wedge	Ductile Iron ASTM A536 with EPDM Encapsulation
3. Wedge Nut	Bronze ASTM B584 UNS C83600
4. Dowel Pin	Stainless Steel ASTM A276 UNS S42000
5. Stem Back Seat O-Ring	EPDM
6. Bonnet Gasket	EPDM
7. Bonnet	Ductile Iron ASTM A536
8. Stem Packing	EPDM
9. Threaded Rod	Carbon steel Zinc Plated
10. Gland Bushing	Brass ASTM B584
11. Gland	Cast Iron ASTM A126-B
12. Gland Nut	Stainless Steel 18-8
13. Yoke Screw	Alloy Steel ASTM A574 Zinc Plated
14. Yoke	Cast Iron ASTM A126-B
15. Yoke Bushing	Bronze ASTM B584
16. Flat Point Set Screw	Alloy Steel ASTM F912 Black Oxide
17. Yoke Bushing Retainer	Cast Iron ASTM A126-B
18. Handwheel	Ductile Iron ASTM A 536
19. Handwheel Nut	Carbon steel Zinc Plated
20. Flat Head Screw	Carbon steel Zinc Plated
21. Stem	Bronze ASTM B150 UNS C61400
22. Bonnet Screw	Alloy Steel ASTM A574 Zinc Plated

Dimension

Part Number	Size		L		d		G		H(open)		H(close)		Turns To Open
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	
VGFG138-065	2.5	65	7.5	190	2.5	64	7.9	200	17.8	453	14.9	378	8.8
VGFG138-080	3	80	8.0	203	3.0	76	10.0	254	20.1	510	15.9	405	10.5
VGFG138-100	4	100	9.0	229	4.0	102	10.0	254	22.4	568	16.6	422	13.75
VGFG138-150	6	150	10.5	267	6.0	152	12.4	315	30.3	769	22.9	581	16
VGFG138-200	8	200	11.5	292	8.0	203	14.8	375	37.8	960	28.5	724	17.5
VGFG138-250	10	250	13.0	330	10.0	254	16.4	416	44.8	1139	34.5	877	21.5
VGFG138-300	12	300	14.0	356	12.0	305	17.5	445	52.2	1326	39.9	1014	25.5

Note:

- ◆ Freezing Weather Precaution-Subsequent to testing a piping system, valves should be in an open position to allow complete drainage.
- ◆ Flange: ANSI Class125&150, other flange dimensions are available.



VGFG108 - 300PSI Flanged x Grooved-End Gate Valve

- Bolted Bonnet • Non-Rising Stem • Resilient Wedge • Flanged X Grooved-End
- 300 PSI/20.7Bar Non-Shock Cold Working Pressure
- Conforms to AWWA C509
- FBE Coated Interior and Exterior
- Maximum Operating Temperature 185°F / 85°C
- FM Approved & UL/ULC Listed

Material Specifications

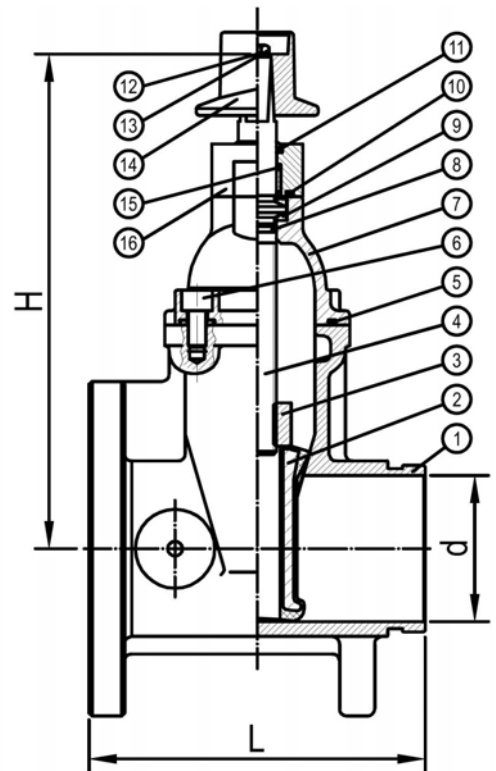
PART	SPECIFICATION
1. Valve Body	Ductile Iron ASTM A536
2. Resilient Wedge	Ductile Iron ASTM A536 with EPDM Encapsulation
3. Wedge Nut	Bronze ASTM B584 UNS C83600
4. Stem	Stainless Steel ASTM A276 UNS S41000
5. Bonnet Gasket	EPDM
6. Bonnet Screw	Alloy Steel ASTM A574 Zinc Plated
7. Bonnet	Cast Iron ASTM A126-B
8. Stem Primary O-Ring	EPDM
9. Stem Thrust Washer	Stainless Steel ASTM A276 UNS S41000
10. Gland Seal O-Ring	EPDM
11. Stem Ring Wiper	EPDM
12. Operating Nut Washer	Carbon steel Zinc Plated
13. Operating Nut Screw	Alloy Steel ASTM A574 Zinc Plated
14. Square Operating Nut	Cast Iron ASTM A126-B
14A. Handwheel (Optional)	Ductile Iron ASTM A536
15. Stem Primary O-Ring	EPDM
16. Stem Seal Bushing	Brass ASTM B16 UNS C36000

Dimension

Part Number	Size		L		d		H		Turns To Open
	in.	mm	in.	mm	in.	mm	in.	mm	
VGFG-065	2.5	65	7.5	190	2.5	64	11.4	289	8.8
VGFG-080	3	80	8.0	203	3.0	76	12.7	322	10.5
VGFG-100	4	100	9.0	229	4.0	102	13.5	342	13.75
VGFG-150	6	150	10.5	267	6.0	152	17.0	432	16
VGFG-200	8	200	11.5	292	8.0	203	20.4	519	17.5
VGFG-250	10	250	13.0	330	10.0	254	21.2	539	21.5
VGFG-300	12	300	14.0	356	12.0	305	26.5	672	25.5

Note:

- ◆ Freezing Weather Precaution-Subsequent to testing a piping system, valves should be in an open position to allow complete drainage.
- ◆ Flange: ANSI Class125&150, other flange dimensions are available.

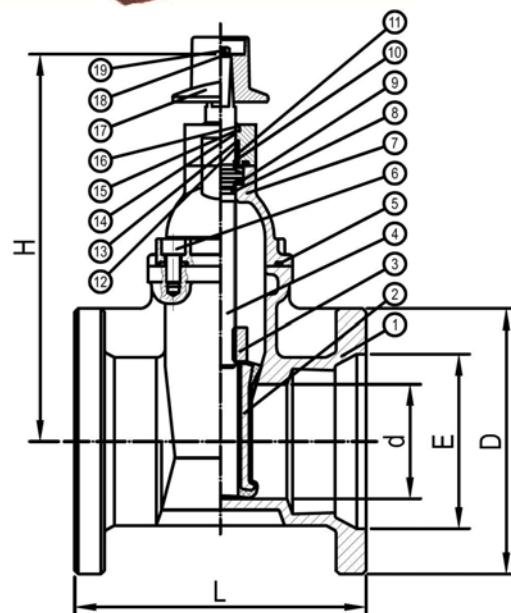


VGMJ909 - 300PSI Mechanical Joint Ends Gate Valve

- Bolted Bonnet • Non-Rising Stem • Resilient Wedge • MJ End
- 300PSI/20.7Bar Non-Shock Cold Working Pressure
- CONFORMS TO AWWA C509
- FBE Coated Interior and Exterior
- Maximum Operating Temperature 185°F / 85°C
- FM Approved & UL/ULC Listed

Material Specifications

PART	SPECIFICATION
1. Valve Body	Ductile Iron ASTM A536
2. Resilient Wedge	Ductile Iron ASTM A536 with EPDM Encapsulation
3. Wedge Nut	Bronze ASTM B584 UNS C83600
4. Stem	Bronze ASTM B150 UNS C61400
5. Bonnet Gasket	EPDM
6. Bonnet Screw	Alloy Steel ASTM A574 Zinc Plated
7. Bonnet	Ductile Iron ASTM A536
8. Stem Back Seat O-Ring	EPDM
9. Stem Thrust Washer(Lower)	Bronze ASTM B584 UNS C83600
10. Stem Thrust Washer(Upper)	Stainless Steel ASTM A276 UNS S41000
11. Gland Seal O-Ring	EPDM
12. Stem Seal Bushing	Bronze ASTM B584 UNS C83600
13. Stem Secondary O-Ring(2)	EPDM
14. Gland Flange	Ductile Iron ASTM A536
15. Gland Flange Screw	Alloy Steel ASTM A574 Zinc Plated
16. Stem Ring Wiper	EPDM
17. Square Operating Nut	Cast Iron ASTM A126-B
17A. Handwheel (Optional)	Ductile Iron ASTM A536
18. Flat Washer	Carbon Steel Zinc Plated
19. Screw	Alloy Steel ASTM A574 Zinc Plated



Dimension

Part Number	Size	L	D	H	d	E	Bolt Circle	Flange Holes	Turns To Open
	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm		
VGMJ909-080	3 80	8.0 203	7.7 196	12.7 322	3.1 80	4.9 126	6.19 157	4	10.8
VGMJ909-100	4 100	10.0 254	9.1 232	13.5 344	3.9 100	6.0 153	7.50 191	4	13.0
VGMJ909-150	6 150	11.5 292	11.1 283	17.4 441	5.9 150	8.1 206	9.50 241	6	15.7
VGMJ909-200	8 200	11.5 292	13.4 340	20.8 529	7.9 200	10.3 261	11.75 298	6	17.3
VGMJ909-250	10 250	13.0 330	15.7 400	24.2 614	9.8 250	12.3 313	14.00 356	8	21.4
VGMJ909-300	12 300	14.0 356	18.0 456	27.6 700	11.8 300	14.4 367	16.25 413	8	25.3

Note:

- ◆ Freezing Weather Precaution-Subsequent to testing a piping system, valves should be in an open position to allow complete drainage.



Test & Drain Valve

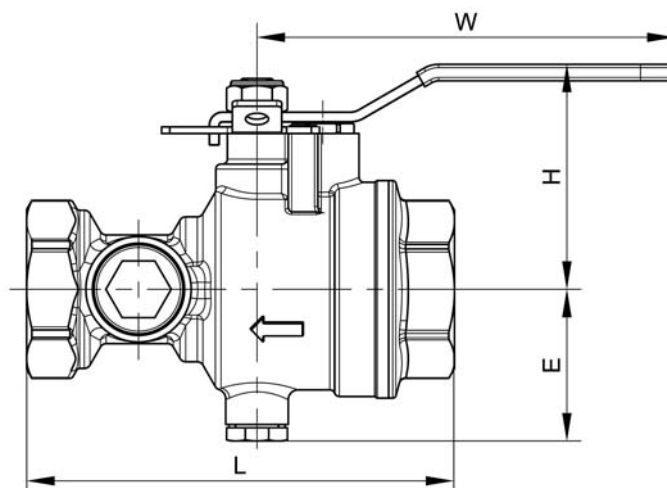
VTN01 - 300PSI Test & Drain Valve

- Complies with the requirements of NFPA 13, NPPA 13D, and NFPA 13R requirements.
- Combines the functions of test and drain for wet sprinkler systems.
- Single-handle ball valves with three working positions.
- Tamper resistant test orifice and sight glass for the visual control.
- The "OFF" position can be locked to avoid misoperation.
- NPT threads end (BSPT available).
- Specifiable orifice Sizes: 3/8"(K2.8), 7/16"(K4.2), 1/2"(K5.6), 17/32"(K8.0).
- UL/ULC Listed



Materials:

Body	Forged Brass
Ball	Brass chrome plated
Seat	PTFE
Stem	304SS
Sight glasses	Polycarbonate
Indicator Plate	Steel
Handle	Steel



Dimension:

Part	SIZE		L		H		E		W		Weight	
Number	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs	kg
VTN01-025	1	25	5.12	130	2.68	68	1.81	46	4.96	126	2.87	1.3
VTN01-032	1 ¹ / ₄	32	5.12	130	2.68	68	1.81	46	4.96	126	3.09	1.4
VTN01-040	1 ¹ / ₂	40	6.81	173	3.31	84	2.28	58	6.14	156	6.62	3.0
VTN01-050	2	50	6.81	173	3.31	84	2.28	58	6.14	156	7.06	3.2

HV05 - 300PSI Angle Hose Valve

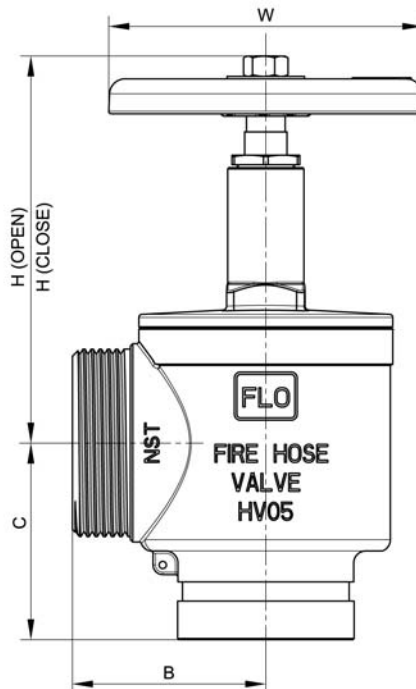
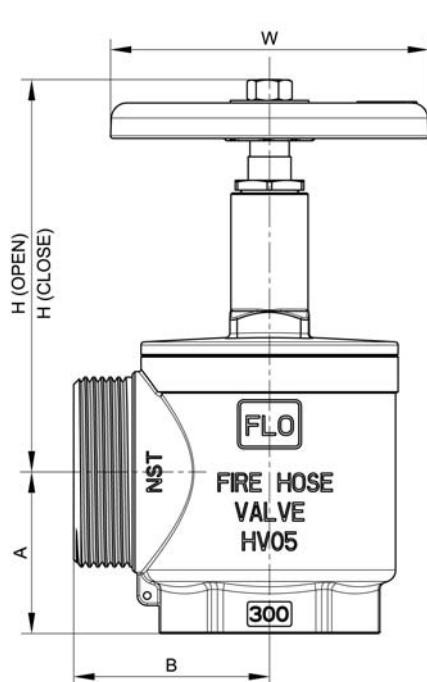
- Used with Fire Hose Rack Assembly, or as a Fire Dept. outlet connection.
- Forged brass body and bonnet for rigidity and light weight.
- Red coated hand wheel
- UL/ULC Listed

Materials:

Body & Bonnet	Forged Brass
Seat	Brass
Seat seal	EPDM
Stem	Brass
O-ring	EPDM
Hand wheel	Aluminium alloy

Optional Finish:

- PB - Polished Brass
- RC - Rough Chrome
- PC - Polished Chrome



Threads:

2½"	FNPT	x	MNST
		x	FNPT
		x	MBCT
		x	MQST
		x	MONT
		x	MPHX
		x	MTEM
		x	MCLV
		x	MNYFD
		x	MDET
		x	MCF
		x	MRCH
		x	MNPSH
		x	MCSA
		x	MWCT
		x	MBA
		x	MNS
		x	MFDNY
		x	MNYC
2½"	GRV	x	MNST
		x	FNPT
		x	MBCT
		x	MQST
		x	MNYFD
1½"	FNPT	x	FNPT
		x	MBCT
		x	MNST
		x	MNPSH
		x	MFDNY
		x	MNYC

Dimension:

Part Number	SIZE	A	B	C	H (Close)	H (Open)	W
	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm
HV05-065	2½" x 2½" 65 x 65	2.60 66	3.15 80	3.39 86	7.01 178	8.78 223	5.11 130
HV05-040	1½" x 1½" 40 x 40	1.81 46	2.28 58	/ /	4.88 124	5.91 150	3.74 95

HV05D - 300PSI Angle Hose Valve With Hydrolator

- Used with Fire Hose Rack Assembly, or as a Fire Dept. outlet connection.
- Automatically drains and vents, safeguarding against hose deterioration.
- Forged brass body and bonnet for rigidity and light weight.
- Red coated hand wheel
- UL/ULC Listed

Materials:

Body & Bonnet	Forged Brass
Seat	Brass
Seat seal	EPDM
Stem	Brass
O-ring	EPDM
Hand wheel	Aluminium alloy

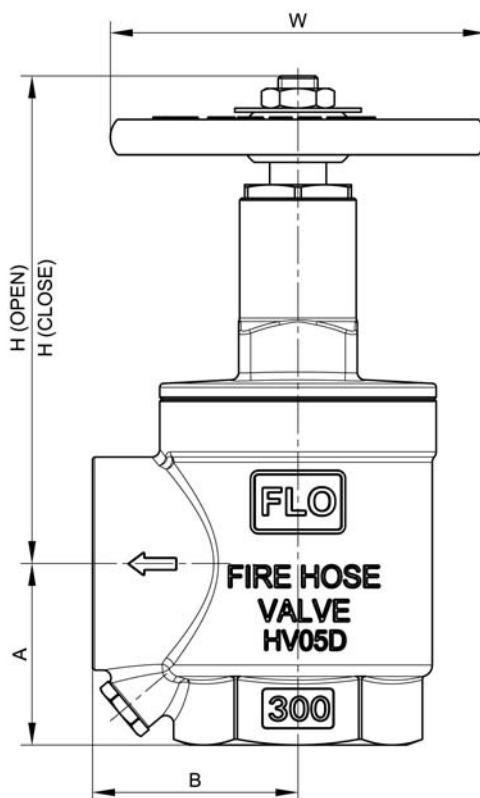


Optional Finish:

- PB - Polished Brass
- RC - Rough Chrome
- PC - Polished Chrome

Threads:

1½"	FNPT	x	FNPT
		x	MNST
		x	MNPSH
		x	MFDNY
		x	MNYC



Dimension:

Part Number	SIZE		A		B		H (Close)		H (Open)		W	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
HV05D-040	1½ x 1½	40 x 40	1.81	46	2.05	52	4.88	124	5.91	150	3.74	95

VSG01 - 300PSI Grooved-End Y Type Strainer

- Installed in both Horizontal or Vertical Line with Upward Flow
- Easier and Faster to Maintain and Install
- Low Pressure Drop

Material Specifications

1. Body: Ductile Iron ASTM A536

Standard Surface Finish: FBE coated interior and exterior

Standard Color: Red RAL3000 / Blue RAL5015

Option: Hot dip galvanized

2. Screen: Stainless Steel 304, Perforated metal

Standard: 2 – 3"(DN50 – 80): 0.062"(1.6mm) diameter perforations.

4 – 12"(DN100 – 300): 0.125"(3.2mm) diameter perforations.

Option: 2 – 12"(DN50 – 300): 0.315"(8mm) diameter perforations.

Other perforation available upon request

3. Grooved Coupling:

Housing: Material: Ductile Iron ASTM A 536

Standard Surface Finish: Hot dip galvanized

Other material or finish available upon request

Rubber Gaskets:

Standard:

Grade "E" EPDM (Color code: Green stripe)

Temperature range -30°F to +230°F (-34°C to +110°C). Recommended for cold and hot water service within the specified temperature range plus a variety of dilute acids, oil-free air and many chemical services. NOT RECOMMENDED FOR PETROLEUM SERVICES.

Option:

Grade "T" Nitrile (Color code: Orange stripe)

Temperature range -20°F to +180°F (-29°C to +82°C). Recommended for petroleum products, air with oil vapors, vegetable and mineral oils within the specified temperature range. Not recommended for hot water services over +150°F (+66°C) or for hot dry air over +140°F (+60°C).

Other material available upon request

Bolts/Nuts: Heat treated carbon steel zinc electroplated to ASTM B633, track head conforming to physical properties of ASTM A183 minimum tensile 110,000 psi/758340 kPa.

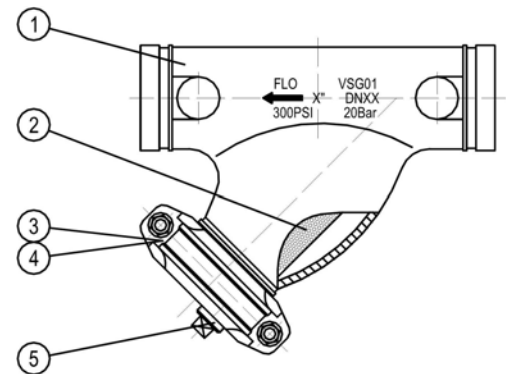
4. Grooved Cap: Ductile Iron ASTM A536

Standard Surface Finish: Hot dip galvanized, Other material or finish available upon request

5. Plug: Malleable Iron ASTM A197 / A47

Standard Surface Finish: Hot dip galvanized

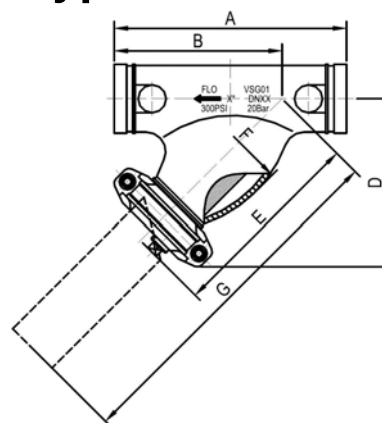
Threaded: NPT pipe threaded, Other threaded available upon request



Y TYPE STRAINER



VSG01 - 300PSI Grooved-End Y Type Strainer



Dimension

Part Number	size		OD	A		B		D		E		F		G		Plug	Weight	
	in.	mm	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	lbs	kg
VSG01-060	2	50	60.3	9.75	248	7.00	178	7.00	178	8.54	217	3.50	89	13.58	345	1/2	10.0	4.5
VSG01-073	2 1/2	65	73.0	10.75	273	7.75	197	7.83	199	9.32	237	4.13	105	15.04	382	1/2	14.0	6.4
VSG01-076	2 1/2	65	76.1	10.75	273	7.75	197	7.87	200	9.32	237	4.13	105	15.04	382	1/2	14.0	6.4
VSG01-089	3	80	88.9	11.75	299	8.50	216	8.50	216	10.14	258	4.75	121	16.26	413	3/4	20.0	9.1
VSG01-114	4	100	114.3	14.25	362	10.50	267	10.87	276	12.72	323	6.25	159	21.30	541	1	32.0	14.5
VSG01-140	5	125	139.7	16.50	419	12.50	318	12.75	324	14.36	365	7.88	200	23.43	595	1	50.0	22.7
VSG01-141	5	125	141.3	16.50	419	12.50	318	12.75	324	14.36	365	7.88	200	23.43	595	1	50.0	22.7
VSG01-165	6	150	165.1	18.50	470	14.00	356	13.82	351	16.06	408	9.25	235	26.61	676	1 1/4	72.0	32.7
VSG01-168	6	150	168.3	18.50	470	14.00	356	13.90	353	16.06	408	9.25	235	26.61	676	1 1/4	72.0	32.7
VSG01-219	8	200	219.1	24.00	610	18.00	457	17.76	451	20.31	516	12.38	315	34.09	866	1 1/2	125	56.7
VSG01-273	10	250	273.0															
VSG01-324	12	300	323.9															

Y Type Strainer Performance Date

Formulas for C_v Values

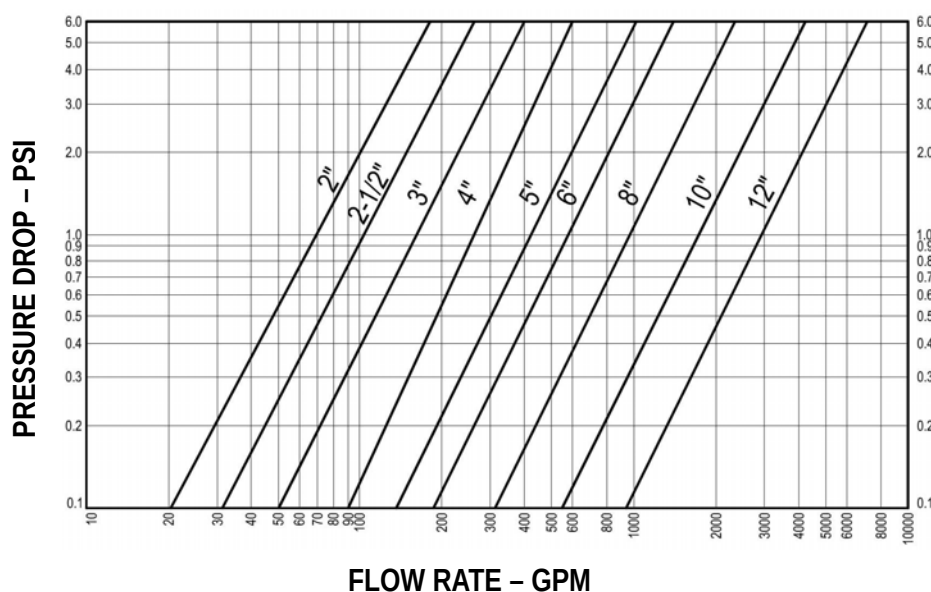
$$\Delta P = \frac{Q^2}{C_v^2}$$

$$Q = C_v \times \sqrt{\Delta P}$$

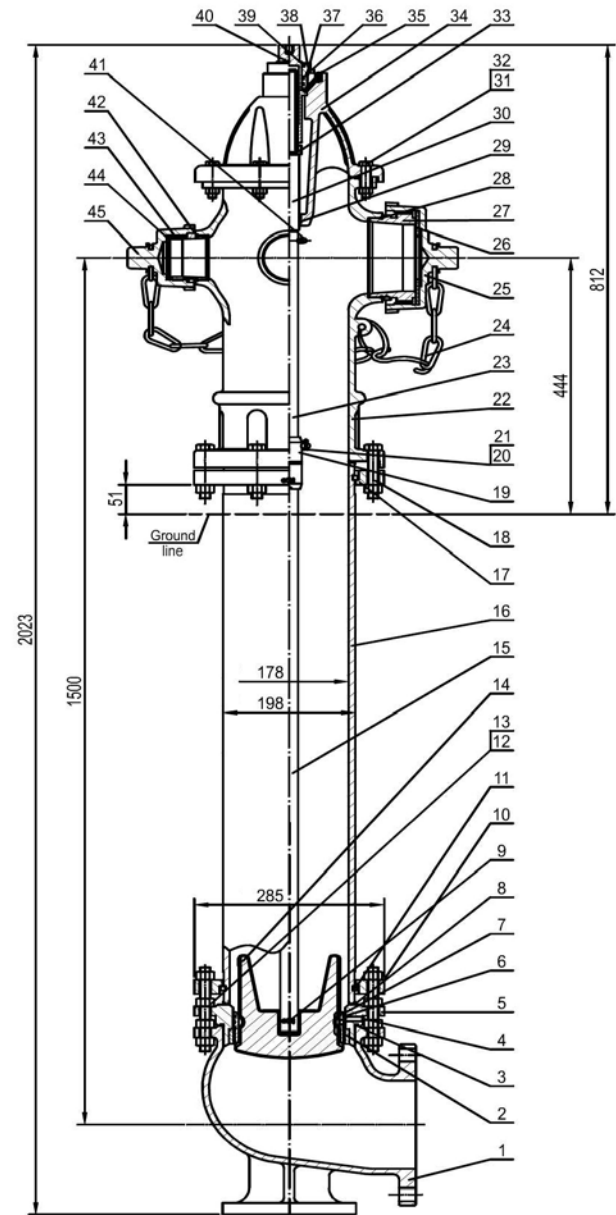
Where: Q = Flow rate (gallons per minute: GPM)

ΔP = Pressure drop across valve (PSI)

C_v = Flow coefficient



Triplicate-gate Dry Barrel Fire Hydrants



Material Specifications

PART	SPECIFICATION	PART	SPECIFICATION	PART	SPECIFICATION
1. Hydrant Body	ASTM A536	16. Barrel	ASTM A536	31. Hex Nuts	ASTM A574
2. Seal-ring	ASTM B584	17. Breakable Flange	ASTM A126B	32. Screw	ASTM A574
3. O-ring	EPDM	18. Bolts	ASTM A574	33. Stop Nut	45#
4. Scrwed Plug	ASTM B584	19. Coupling	ASTM A536	34. Hydrant Bonnet	ASTM A536
5. Main Valve Flange	ASTM A536	20. Pin Axes	SS304	35. Oil Cup	
6. O-ring	EPDM	21. Pin	SS304	36. O-ring	EPDM
7. Valve Seat	ASTM B584	22. Drainpipe	ASTM A536	37. O-ring	EPDM
8. Barrel Gasket	EPDM	23. Up Stem	ASTM A574M	38. Bush	ASTM B16-H02 C36000
9. Pin Axes	SS304	24. Link		39. Dustproof Ring	EPDM
10. Lower Flange	ASTM A536	25. Big Nozzle Cap	ASTM A536	40. Stem Nut	ASTM B584
11. Lock Ring	SS304	26. Big Sealed Gasket	EPDM	41. Pin Axes	SS304
12. Hex Nuts	ASTM A574	27. Big Outlet	ASTM B584	42. O-ring	EPDM
13. Stud Bolts	ASTM A574	28. O-ring	EPDM	43. Small Outlet	ASTM B584
14. Wedge	ASTM A536 with EPDM	29. O-ring	EPDM	44. Small Sealed Gasket	EPDM
15. Lower Stem	ASTM A574M	30. Stem	SS410	45. Small Nozzle Cap	ASTM A536

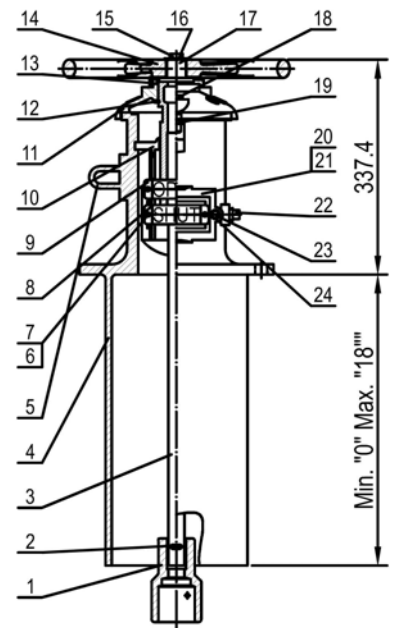
INDICATOR POST



701Q Indicator Post

Material Specifications

PART	SPECIFICATION	PART	SPECIFICATION
1. Wrench	ASTM A536	13. Slotted Countersunk	
2. Cotter Pin	ASTM A105	Flat Head Screw	ASTM A105
3. Operating Bar	ASTM A105	14. Hand Wheel	ASTM A536
4. Barrel	ASTM A536	15. Hexagon Bolt	ASTM A105
5. Special U-Bolt	ASTM A105	16. Big Washer	ASTM A105
6. Slotted Pan		17. Operating Cap	ASTM C61400
Head Screw	ASTM A105	18. T Bolt	ASTM A105
7. Hexagon Nut	ASTM A105	19. Square Nut	ASTM A105
8. Target Plate (SHUT)	ZL101	20. Cover Board	PMMA
9. Target Plate (OPEN)	ZL101	21. Gasket	Silicon Rubber
10. Loading Bogie	ASTM A126B	22. Plug	KT30-16
11. Bonnet	ASTM A536	23. Hexagon	
12. Circlip	65Mn	Head Screw	ASTM A276
		24. Washer	ASTM A105



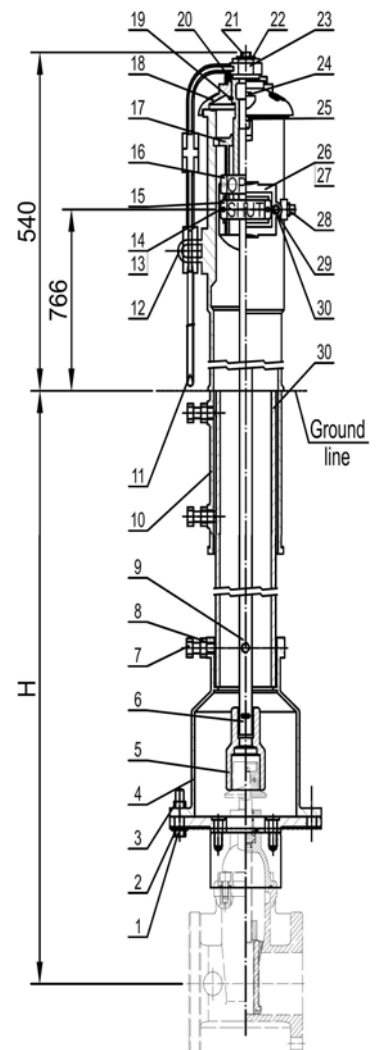
701S Indicator Post

Material Specifications

PART	SPECIFICATION	PART	SPECIFICATION
1. Hexagon Bolt	ASTM A105	16. Target Plate (OPEN)	ZL101
2. Washer	ASTM A105	18. Bonnet	ASTM A536
3. Hexagon Nut	ASTM A105	19. Circlip	65Mn
4. Seat	ASTM A536	20. Slotted Countersunk	
5. Wrench Socket	ASTM A536	Flat Head Screw	ASTM A105
6. Cotter Pin	ASTM A105	21. Hexagon Bolt	ASTM A105
7. Hexagon Bolt	ASTM A105	22. Big Washer	ASTM A105
8. Hexagon Nut	ASTM A105	23. Operating Nut	ASTM C61400
9. Operating Bar	ASTM A105	24. T Bolt	ASTM A105
10. Barrel	ASTM A536	25. Square Nut	ASTM A105
11. Wrench	ASTM A536	26. Cover Board	PMMA
12. Special U-Bolt	ASTM A105	27. Gasket	Silicon Rubber
13. Slotted Pan		28. Plug	KT30-16
Head Screw	ASTM A105	29. Hexagon	
14. Hexagon Nut	ASTM A105	Head Screw	ASTM A276
15. Target Plate (SHUT)	ZL101	30. Washer	ASTM A105
17. Loading Bogie	ASTM A126B	31. Stand Pipe	ASTM A536

Dimension

Valve Size		Min. Bury Depth: H(mm)			Max. Bury Depth: H(mm)		
In.	mm	701S-1A	701S-2A	701S-3A	701S-1A	701S-2A	701S-3A
4	DN100	839	1296	1499	1321	1778	2236
6	DN150	1016	1474	1931	1499	1956	3413
8	DN200	1093	1550	2007	1575	2032	2490
10	DN250	1220	1677	3134	1702	2159	2617
12	DN300	1321	1778	2236	1804	2261	2718



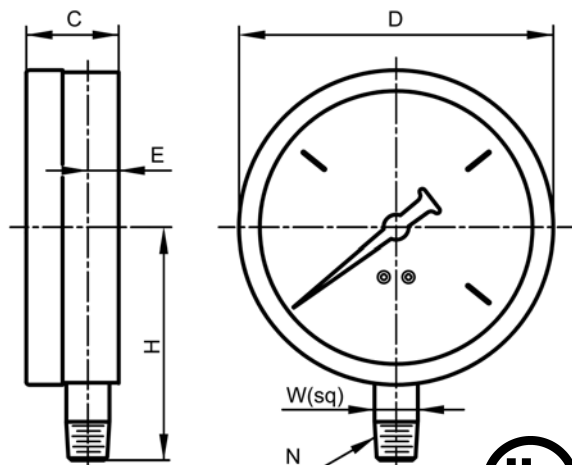
PRESSURE GAUGE

PG01 - Pressure Gauge

- Suitable for Fire sprinkler systems
- Design: EN 837-1 & ASME B40.100
- Ranges: 0/300 psi (20bar), water or air
- UL Listed (UL-393)
- Ambient temperature: -40 ~ +60°C
- Maximum medium temperature: +60°C

Product Specifications

Size	4"(100mm)
Accuracy	ASME B40.100 Grade B ($\pm 3/2/3\%$ of span)
Case	Black epoxy coated
Dial	White aluminum with stop pin; black and red lettering
Pointer	Black aluminum
Window	Tempered glass
Bourdon tube	C- shape; bronze
Movement	Brass
Socket	Brass
Connection	NPT1/4" or BSPT/BSPP1/4" lower mount
Liquid filling	No



DIMENSIONS

Part Number	D	C	H	E	W	N
PG01-100-L1/4N						NPT1/4"
PG01-100-L1/4B	102	30	75	10	14	BSPT1/4"
PG01-100-L1/4G						BSPP1/4"