

# ViNtrol Threaded & Flanged End Swing Check Valves

**ViNtrol, Inc.**

*Your Valve Solution Specialist*





# Experience the ViNtrol Difference

## It All Starts With ViNtrol's State-of-the-Art Facility and Extensive Product Offering

ViNtrol's approximately 86,000 square foot facility in Oklahoma City, OK, maintains over 71,000 square feet for product assembly, product testing, valve automation, valve enhancements and product upgrades to meet our customer's needs. Not to mention, ViNtrol's expansive inventory and our bold commitment to stock valve sizes ranging from 1/4" thru 36" diameter.



ViNtrol Headquarters, Oklahoma City, OK, USA

## Raising the Bar

When it comes to providing unequalled customer service and delivery performance, ViNtrol has raised the bar. Our knowledgeable sales team, skilled staff and manufacturing personnel are ready to tackle your most challenging valve requirements.

Whether you choose from ViNtrol's standard product line or your project requires a customized solution, ViNtrol can solve your toughest challenges. All ViNtrol valve products are field tested and approved even in the harshest of environments.

World Class Customer Service begins with the craftsmanship and expertise of our seasoned technicians, state-of-the-art facility, Quality Assurance and customized solutions to successfully complete your project.

**ViNtrol, Inc.**



## Worldwide Support

ViNtrol's global reach is extended further as a subsidiary to International Operations abroad. ViNtrol and its parent company have a vast network of locations worldwide including the United States, India, Dubai, Singapore, Italy, Australia and the United Kingdom for delivery enhancement and unequalled customer service.

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# ViNtrol High Performance Check Valves

## Positive Backflow Prevention Check Valves

ViNtrol offers a full line of Threaded, Wafer Style, API 6D and API 6A Flanged Swing Check Valves and Piston Check Valves, available in sizes 1" thru 16", Class 150 thru 1500 and API Class 2000, 3000 and 5000. Regardless of your application, whether it's a new installation, valve replacement, or a customized solution, ViNtrol has the right valve for your project for positive backflow prevention.



## Design & Testing Standards

**Valve Face-to-Face**  
API 6D, ASME B16.10

**Valve Bore** API 6D

**Valve Flange Dimension** ASME 16.5

**Drain/Vent/Bypass** API 6D/MSS-SP45

**Castings as Per**  
MSS-SP 53, 54, 55, 59, 93, 94

**Pressure Tests**  
API 6D/API 598/BS 6755 Part I

**Fire Safe Test**  
API 607/API 6FA/BS 6755 Part II

**NACE Compliance** MR-01-75

**Quality System** ISO 9001:2000/API Q1

**Note:** Additional testing methods available upon customer request including fugitive emission, cryogenic, high pressure nitrogen/gas, vacuum, sulphide stress cracking & hydrogen induced cracking testing.

## Certifications

The ViNtrol facility has achieved ISO 9001 certification, ISO 9001:2000, APIQR Registration No. 0863; API Specification, Q1, Registration No. Q1-0615; ISO/TS 29001, Registration No. TS-0439; API Specification 6A, Certificate No. 6A-0930, and API Specification 6D, Certificate No. 6D-0850.

*Series 32 Carbon Steel & Ductile Iron Threaded Swing Check Valves*



**ViNtrol, Inc.**

*Series 110 Wafer Swing Check Valves*



*Series 35 API 6D Flanged Swing Check Valves*



*Series 35A API 6A Flanged Swing Check Valves*



*Series 50 Piston Check Valve*





# Series 32 Threaded Swing Check Valve

## Carbon Steel and Ductile Iron Check Valves

ViNtrol's rugged Series 32 threaded end valves feature a Trough Style design to eliminate leak path and provide for quick repair. Available in sizes 1" thru 3" and pressures up to 2000 WOG. For horizontal and vertical upflow service.



### Key Design Features

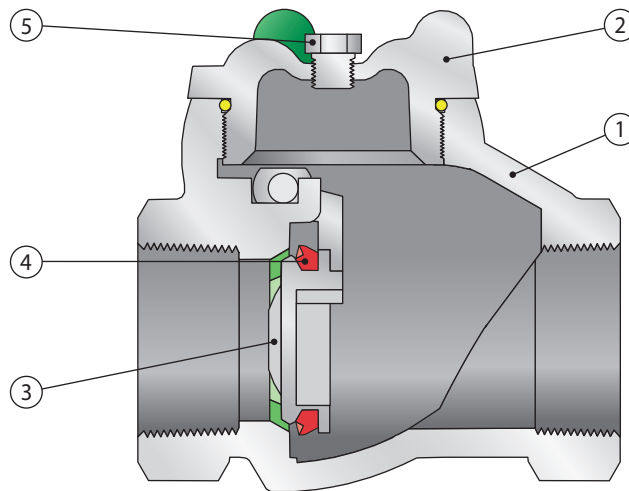
- Rugged Carbon Steel or Ductile Iron Body & Bonnet
- Stainless Steel Disc Standard
- Integral Resilient Seat
- Line-Pipe Connections
- NACE Trim is Standard



Series 32  
Carbon Steel  
Check Valve



Series 32  
Ductile Iron  
Check Valve



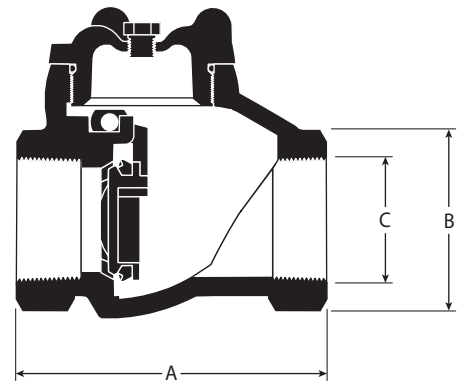
### Parts & Materials

No.	Qty.	Part	Material
1	1	Body	ASTM A216 Carbon Steel/ASTM A395 Ductile Iron
2	1	Bonnet	ASTM A216 Carbon Steel/ASTM A395 Ductile Iron
3	1	Disc/Clapper	ASTM A351 316 Stainless Steel
4	1	Disc Seal	Viton® (Fluorocarbon) Molded
5	1	Bonnet Plug	1/4" NPT Steel

# Series 32 Engineering Data

## Dimensions (in.) and Weights (Lbs.)

Dim.	Working Pressure	Size (in.)			
		1"	2"	3"	4"
A	750	4.25	6.00	8.00	10.00
	1000	4.25	6.00	8.00	10.00
	1500	4.25	6.00	8.00	—
	2000	4.25	6.00	8.00	—
B	750	3.00	3.87	5.50	6.08
	1000	3.00	3.87	5.50	6.08
	1500	3.00	3.87	5.50	—
	2000	3.00	3.87	5.50	—
C	750	1.25	1.75	2.38	3.00
	1000	1.25	1.75	2.38	3.00
	1500	1.25	1.75	2.38	—
	2000	1.25	1.75	2.38	—
Wt. (Lbs.)	750	5	10	17	35
	1000	5	10	17	35
	1500	5	10	17	—
	2000	5	10	17	—



## How To Order and Assembly Base Number

Example:

7121 - 3 2 1 1 2 1 9

Assembly Base No.	Body Material	Trim Material	End Connection	Seat Type	Seals	Actuation	Options
See Chart, Below	X Carbon Steel 3 Ductile Iron	2 316 SS NACE	1 Threaded LP	1 Integral Molded	2 Viton®	1 None	9 None

## Assembly Base Number

Class	1"	2"	3"	4"
750	7111	7112	7113	7114
1000	7121	7122	7123	7124
1500	7131	7132	7133	—
2000	7141	7142	7143	—

# Series 110 Wafer Style Swing Check Valve

## Wafer Style Swing Check Valves

ViNtrol's Series 110 Wafer Check Valve utilizes a flangeless body design with spring assisted closure. Full port bore maximizes flow while sharp leading edges of seats reduce particle build up each time the valve is operated to reduce clogging. Available in sizes 2" thru 12" and ANSI Pressure Class 125 thru 600.

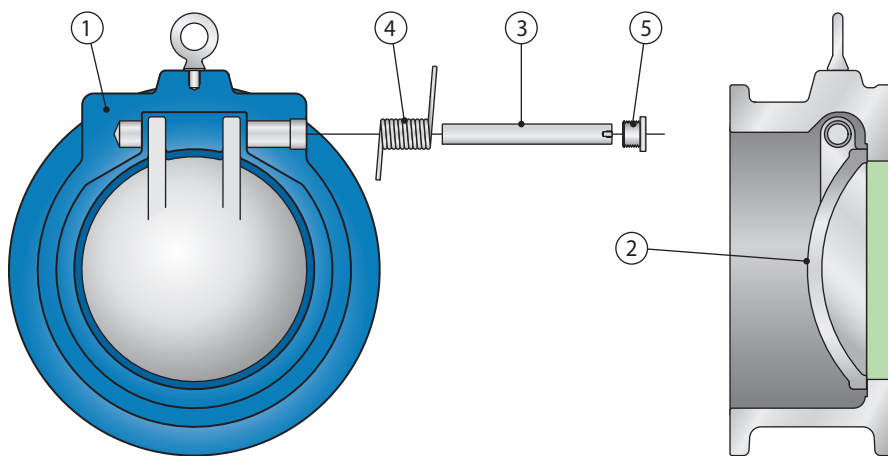


### Key Design Features

- Designed to Comply with API 6D, API 6A & API 594 Specifications
- 316 Stainless Steel Standard Trim (Additional Trim Materials Include Chrome Carbide, Stellite®, and Others)
- Ball and Seats are Mate-lapped for 100% Sealing Area Contact to Ensure Class VI Shut-off or Better
- Swing Style Disc
- Resilient Body/Resilient Disc Optional
- NACE MR0175/ISO 15156



Series 110 Wafer Swing Check Valves



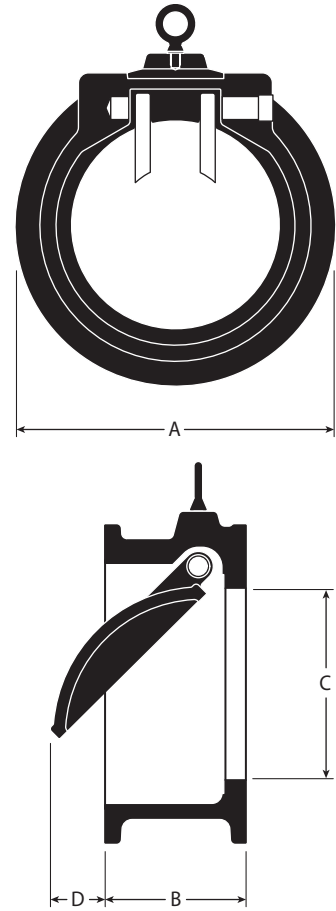
### Parts & Materials

No.	Qty.	Part	Material
1	1	Body	ASTM A216 WCB Carbon Steel
2	1	Disc/Clapper	ASTM A351 316 Stainless Steel
3	1	Shaft	316 Stainless Steel
4	1	Spring	Inconel® X-750 Stainless Steel
5	2	Bushings	316 Stainless Steel

# Series 110 Engineering Data

## Dimensions (in.) and Weights (Lbs.)

Dim.	Working Pressure	2"	3"	4"	6"	8"	10"	12"
A	125	4 1/8	5 3/8	6 7/8	8 3/4	11	13 3/8	16 1/8
	150	4 1/8	5 3/8	6 7/8	8 3/4	11	13 3/8	16 1/8
	300	4 3/8	5 7/8	7 1/8	9 7/8	12 1/8	14 1/4	16 5/8
	600	4 3/8	5 7/8	7 5/8	10 1/2	12 5/8	15 3/4	18
B	125	2 1/8	2 5/8	2 5/8	2 3/4	5	5 1/2	7 1/8
	150	2 3/8	2 7/8	2 7/8	3 7/8	5	5 3/4	7 1/8
	300	2 3/8	2 7/8	2 7/8	3 7/8	5	5 3/4	7 1/8
	600	2 3/8	2 7/8	3 1/8	5 3/8	6 1/2	8 3/8	9
C	125	1 17/32	2 1/16	3 1/32	4 3/4	6 7/16	7 5/8	9 1/2
	150	1 17/32	2 1/16	3 1/32	4 3/4	6 7/16	7 5/8	9 1/2
	300	1 17/32	2 1/16	3 1/32	4 3/4	6 7/16	7 5/8	9 1/2
	600	1 17/32	2 1/16	3 1/32	4 3/4	6 7/16	7 3/8	9 1/2
D	125	1/2	1	1 3/4	3 1/2	3 1/2	4 11/16	5 3/32
	150	1/2	3/4	1 1/2	3 3/8	3 1/2	4 7/16	5 3/32
	300	1/4	3/4	1 1/4	3 3/8	3 1/2	4 7/16	5 3/32
	600	1/4	3/4	1 1/4	1 7/8	2	2	3 7/32
Wt. (Lbs.)	125	4	9	12	26	54	80	140
	150	5	11	16	30	50	90	145
	300	8	18	24	56	25.4	70	135
	600	8	18	31	62	167	354	465



## How To Order and Assembly Base Number

Example:

8303 - 1 2 6 1 4 1 9

Assembly Base No.	Body Material	Trim Material	End Connection	Seat Type	Seals	Spring	Options
See Chart, Below	1 Carbon Steel	2 316 SS NACE	6 RF	1 Integral Resilient	4 HNBR	1 Inconel® X-750	9 None

## Assembly Base Number

Class	2"	3"	4"	6"	8"	10"	12"
150	8102	8103	8104	8106	8108	8110	8112
300	8302	8303	8304	8306	8308	8310	8312
600	8602	8603	8604	8606	8608	8610	8612

# Series 35 for ANSI & 35A for API 6A Flanged Swing Check Valves

## For Horizontal and Vertical Upflow Service

ViNtrol Series 35 API 6D flanged swing check valves feature Shaft Style Full Open design with bubble tight performance. ViNtrol Flanged Swing Check valves are available in resilient and metal-to-metal sealing. Offered in standard NACE construction and Firesafe design with integral resilient for standard construction. Series 35 is offered in sizes 2" thru 16" (Non-Domestic and Domestic) in ANSI Class 150 thru 1500. Series 35A is offered in sizes 2" thru 4", in API Class 2000, 3000 and 5000.

Shaft style construction provides for a complete range of external options including lock-open, spring close and water hammer prevention.



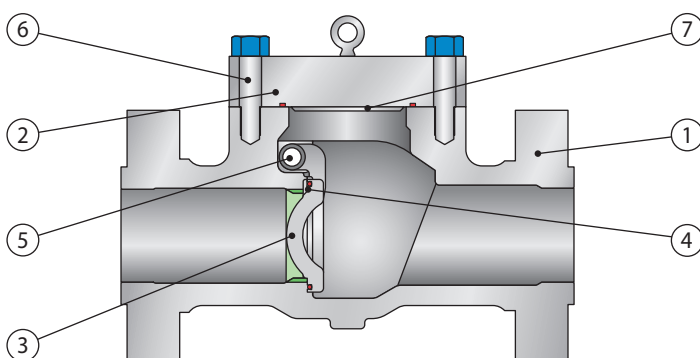
### Key Design Features

- Bolted and Threaded Bonnet with Tap and Plug
- Rugged Carbon Steel Body
- Stainless Steel Disc Standard
- Integral or Replaceable Seats Available
- ANSI and API-6A Flanges
- Piggable
- Replaceable Stainless Steel Trim for Superior Corrosion Protection
- NACE Trim is Standard



Series 35 API 6D  
Flanged Swing  
Check Valve

Series 35A API 6A  
Flanged Swing Check Valve



### Parts & Materials

No.	Qty.	Part	Material
1	1	Body	ASTM A216 WCB Carbon Steel/ASTM A487 4C
2	1	Bonnet	ASTM A216 WCB Carbon Steel/ASTM A487 4C
3	1	Disc/Clapper	ASTM A351 CF8M 316 Stainless Steel
4	1	Disc Seal	HNBR/Viton®/Aflas®/LT Buna-N
5	1	Shaft	316 Stainless Steel
6	1	Studs, Fasteners	B7/2H; L7/2LH
7	1	Gasket	Spiral Wound Graphite/Stainless Steel

### Assembly Base Number

Class	2"	3"	4"	6"
150	7202	7203	7204	7206
300	7232	7233	7234	7236
600	7262	7263	7264	7266
900	7292	7293	7294	7296
1500	7312	7313	7314	7316
API 5000	7552	7553	7554	—

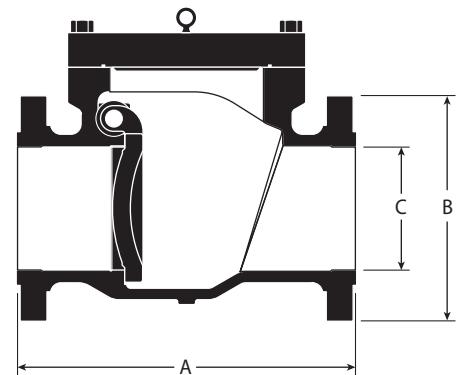
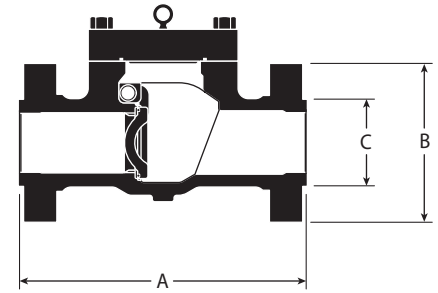
Class	8"	10"	12"	16"
150	7208	7210	7212	7216
300	7238	7240	7242	7246
600	7268	7269	7270	7272
900	7298	7300	7302	—
1500	7318	7320	7322	—



# Series 35 & 35A Engineering Data

## Dimensions (in.) and Weights (Lbs.)

Dim.	ANSI/ API Class	2"	3"	4"	6"	8"	10"	12"	14"	16"
A-RF	150	8.00	9.50	11.50	14.00	19.50	24.50	27.50	31.00	34.00
	300	10.50	12.50	14.00	17.50	21.00	24.50	28.00	33.00	34.00
	600/API 2000	11.50	14.00	17.00	22.00	26.00	31.00	33.00	35.00	39.00
	900/API 3000	14.50	15.00	18.00	21.00	29.00	33.00	38.00	—	—
	1500/API 5000	14.50	18.00	21.50	27.75	32.75	39.00	44.50	—	—
A-RTJ	150	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—
	600/API 2000	11.62	14.20	17.12	22.12	26.12	31.12	33.12	35.12	39.12
	900/API 3000	14.62	15.12	18.12	21.12	29.12	33.12	38.12	—	—
	1500/API 5000	14.62	18.62	21.62	28.00	33.12	39.38	45.12	—	—
B	150	5.75	7.20	7.95	8.74	10.78	12.63	14.40	17.00	21.75
	300	5.75	7.20	8.11	9.72	10.60	13.00	14.50	18.25	21.75
	600/API 2000	5.62	7.20	8.22	11.10	11.50	13.00	15.00	19.75	23.50
	900/API 3000	5.74	6.73	8.19	9.19	11.00	15.50	17.25	—	—
	1500/API 5000	5.74	8.74	8.31	10.75	12.75	18.25	20.50	—	—
C	150	3.00	3.75	4.50	5.50	6.75	8.00	9.50	10.50	11.75
	300	3.25	4.12	5.00	6.25	7.50	8.75	10.25	11.50	12.75
	600/API 2000	3.25	4.12	5.38	7.00	8.25	10.00	11.00	11.88	13.50
	900/API 3000	4.25	4.75	5.75	7.50	9.25	10.75	12.00	—	—
	1500/API 5000	4.25	5.25	6.12	7.75	9.50	11.50	13.25	—	—
Wt. (Lbs.)	150	32	56	75	120	220	530	648	1150	2000
	300	35	65	100	185	375	540	900	1450	2025
	600/API 2000	50	92	154	310	545	1010	1350	2000	2500
	900/API 3000	96	115	215	435	775	1250	1625	—	—
	1500/API 5000	100	130	365	770	1225	1565	2050	—	—



NOTE: API Classification available in sizes 2"-4".  
Consult factory for more information.

## How To Order (See Assembly Base Number Chart, Page 8)

Assembly Base No.	Body Material	Trim Material	End Connection	Seat/Disc Type	Seals	Seat Ring Material	Pipe Size	Options
See Chart, Page 8	A WCB/B7M	2 CF8M Disc, SS Bushings	6 Flanged RF	1 Integral Metal/Resilient	1 Buna-N	1 Steel	99 No	99 None
	7 4C LA/B7M		7 Flanged RTJ	2 Integral Metal/Metal	2 Viton®	2 Stainless Steel	XX Weld-end	
	D LCB/L7M		8 BW x BW	3 Replaceable Resilient/Metal	3 LT Buna-N	9 Steel	XX See Weld Chart	
			0 Flanged RF x BW	4 Replaceable Metal/Metal	4 HNBR	N/A (Integral Seat Face)		
			0 Flanged RTJ x BW	A Integral Metal Resilient Firesafe	5 Aflas®			
				B Integral Metal/Metal Firesafe	6 PC Buna-N			
				C Replaceable Resilient/Metal Firesafe	7 Nitrile			
				D Replaceable Metal/Metal Firesafe	8 Hydrin®			
					A J.W. Viton®			
					B Viton® GF			
					C Viton® GFLT			

# Series 50 Piston Check Valve

## High Performance Piston Check Valve

ViNtrol's Series 50 Piston Check Valve is designed for quiet operation and positive back flow prevention. The Piston seat can be removed and replaced while remaining inline for easy maintenance and repair. Available in sizes 2" thru 8", ANSI Class 600 & 900. For gas and liquid service applications, horizontal & vertical upflow service.



### Key Design Features

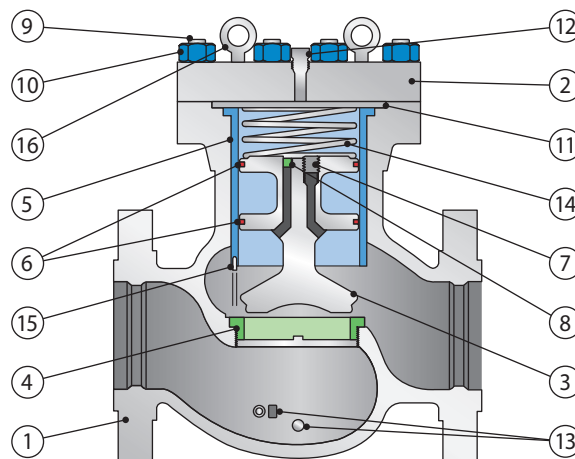
- Designed to Comply with ANSI B16.34 & B16.5 Specifications
- Bolted and Threaded Bonnet with Tap and Plug
- Replaceable Stainless Steel Trim for Superior Corrosion Protection
- NACE Trim is Standard



Series 50 Piston Check Valve

**Note:** 6" & 8" valves should be installed in horizontal lines only with piston positioned in a vertical upright orientation.

2", 3" & 4" valves can generally be mounted in either horizontal or vertical line. However, spring-loading may be required when piston is mounted in the horizontal plane. Consult the spring application chart on the next page for more information.



### Parts & Materials

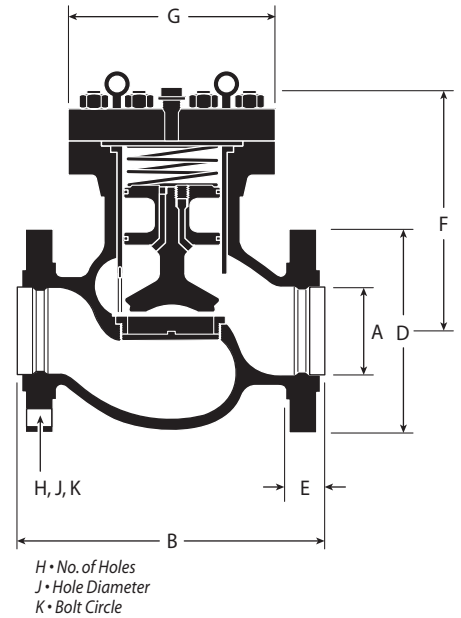
No.	Qty.	Part	Material
1	1	Body	ASTM A216 WCB Carbon Steel/ASTM A352 LCC
2	1	Bonnet	ASTM A516 Gr. 70
3	1	Piston	ASTM A351 CF8M/ASTM A487 CA15
4	1	Seat	ASTM A351 CF8M/ASTM A487 CA15
5	1	Sleeve	Cast Iron/CF8M
6*	2	Piston Ring	Cast Iron/Teflon®
7*	1	Check Valve	4140 Carbon Steel/316 Stainless Steel (NACE)
8*	1	Orifice	316 Stainless Steel
9	8, 12**	Stud	ASTM A193 Gr. B7, B7M (NACE)/A320 Gr. L7, L7M (NACE)
10	8, 12**	Nut	ASTM A194 Gr. 2H, 2HM (NACE)/A320 Gr. L7, L7M (NACE)
11*	2	Gasket	Garlock® (Graphite & Wire Mesh)
12	1	Bleed Valve	303 Stainless Steel (Non-NACE)/316 Stainless Steel (NACE)
13	1	Drain Plug	Carbon Steel/316 Stainless Steel
14	1	Spring	Carbon Steel/Inconel® X-750 (NACE)
15	1	Locking Pin	316 Stainless Steel
16	1	Eye Bolt	Carbon Steel

\*Recommended spare parts for 1 year service. \*\*Stud & Nut Quantities: 2" thru 4"

# Series 50 Engineering Data

## Dimensions (in.) and Weights (Lbs.)

Dim.	Working Pressure	2"	3"	4"	6"	8"	
A	600	2.067	3.068	4.026	6.065	7.981	
	900	1.939	2.900	3.826	5.761	7.625	
B	600	RF	11.000	14.750	28.500	20.750	24.000
		RTJ	11.125	14.875	18.625	20.875	24.125
	900	RF	13.625	14.875	19.375	21.875	24.875
		RTJ	13.750	15.000	19.500	22.000	25.000
D	600	6.500	8.250	10.750	14.000	16.500	
	900	8.500	9.500	11.500	15.000	18.500	
E	600	1.250	1.500	1.750	2.125	2.4375	
	900	1.750	1.750	2.000	2.4375	2.750	
F	600	8.500	10.750	12.750	18.000	20.750	
	900	9.250	11.125	13.000	18.500	21.125	
G	600	7.500	9.875	11.000	14.500	16.875	
	900	8.500	11.000	11.500	15.375	19.250	
H	600	8.000	8.000	8.000	12.000	12.000	
	900	8.000	8.000	8.000	12.000	12.000	
J	600	0.625	0.750	0.875	1.000	1.125	
	900	0.875	0.875	1.125	1.125	1.375	
K	600	5.000	6.625	8.500	11.500	13.750	
	900	6.500	7.500	9.250	12.500	15.500	
Ring Groove	600 RTJ Only	R23	R31	R37	R45	R49	
	900 RTJ Only	R24	R31	R37	R45	R49	
Wt. (Lbs.)	600	85	175	290	550	810	
	900	135	235	335	790	1285	



## Flow Coefficient (Cv)

2"	3"	4"	6"	8"
32	100	210	470	775

## How to Order, Assembly Base Number and Spring Application

Example:

6262 - A 7 6 1 1 G 031 1

Assembly Base No.	Body Material	Piston/Seat/Sleeve	End Connections	Piston & Seat Type	Specification	Flow Media	Orifice	Spring
See Chart, Below	A WCB/B7M	2 CF8M/ Teflon®	6 Flanged RF	1 Standard	1 Standard (Non-NACE)	G Gas	031 .031 2" / Gas Service	1 With Spring
	D LCB/L7M	7 Piston Rings CA15/CA15/ Cast Iron Piston Rings	7 Flanged RTJ	7 Stellite® Face	2 NACE (Requires CF8M Piston, Seat & Sleeve)	L Liquid	062 .046 3" & 4" / Gas Service 062 .062 6" & 8" / Gas Service 218 .218 Liquid Service Std.	9 Without Spring

## Spring Application

### Assembly Base Number

Class	2"	3"	4"	6"	8"
600	6262	6263	6264	6266	6268
900	6292	6293	6294	6296	6298

		Application	Reciprocating	Centrifugal
Liquid	Vert.		Spring	No Spring
	Horiz.		No Spring	Spring
Gas	Vert.		Spring	Spring
	Horiz.		No Spring	No Spring



# Custom Check Valve Modification Services

## Operation Options:

- Lever Weight
- Spring Assist
- Spring Assist with Cushioned Dampener

## Overlays and Coatings:

- 304SS, 316SS, 317SS, Inconel®, Hastelloy® and Monel®
- Nedox®
- Coal-Tar Set Epoxy
- Enduro-Bond™
- Xylan®
- E-Coat Ceramics

Contact your ViNtrol customer service sales department for more information about custom modifications, or visit our website at [www.vintrol.com](http://www.vintrol.com)



**ViNtrol, Inc.**  
*Valve Solution Specialist*

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