

# PRATT®

## Compact Check Valves



**Engineering Creative Solutions  
for Fluid Systems Since 1901**



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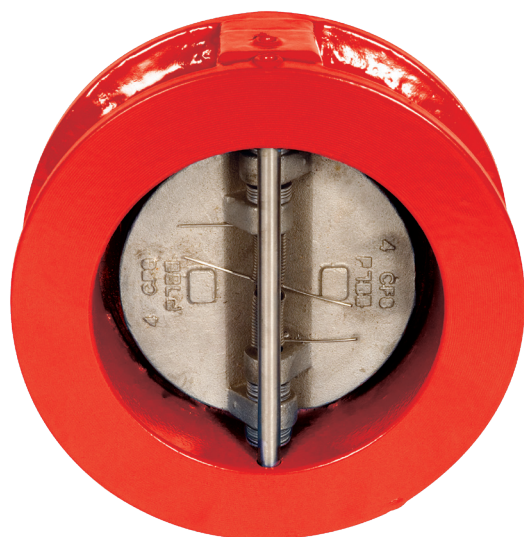
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## Spring Loaded Check Valves Standard Features

- Spring Loaded for Non-Slam Closure
- Heavy Duty Ductile Iron Body
- Automatic Operation
- Designed for ANSI Class 125 Flange Bolting
- Economical Purchase Price
- Suitable for Horizontal or Vertical (up) Piping
- Available in Sizes 2" thru 24"
- Compact Design

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## Scope of the Line: Double Disc Check Valve – Series 740G

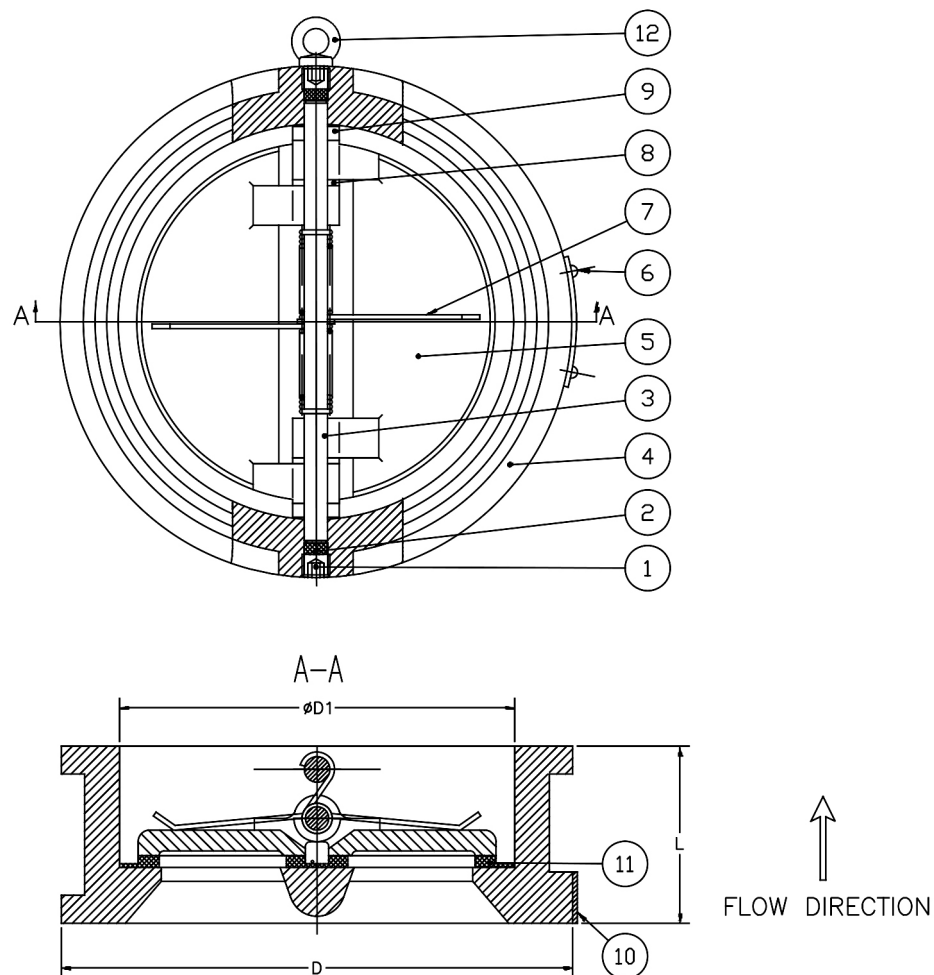


<b>Body:</b>	Ductile Iron ASTM A-536 Gr 65-45-12 Wafer Pattern
<b>Disc:</b>	304 Stainless Steel
<b>Spring:</b>	316 Stainless Steel
<b>Seat:</b>	EPDM (elastomer)
<b>Rating:</b>	250 psi
<b>Coating:</b>	Fusion Bonded Epoxy (interior and exterior)
<b>Availability:</b>	2" thru 24"

### Double Disc Check Valve: Technical Specifications

Check valve shall be of the double disc, wafer style with torsion spring induced closure. Valve shall be Wafer style for bolting between ANSI Class 125 flanges and shall be rated for 250 PSI service. Valves have a Ductile Iron body (ASTM A-536 65-45-12) to fit inside 125# ANSI bolt circles, a two piece Stainless Steel disc (ASTM type 304), type 304 Stainless Steel dual shafts, ASTM A313, type 316 Stainless Steel torsion spring and have an integrally molded elastomer seat vulcanized to the body. Valve for horizontal flow shall be installed with the shafts in vertical position. Double disc check valve shall be Pratt® Series 740G as manufactured by Henry Pratt Company.

## Double Disc Check Valve – Series 740G



### 2" - 24"

Size	L	ØD1	ØD	Weight (lbs)
2"	2.13	2.56	4.10	7.49
2.5"	2.36	3.15	4.84	9.39
3"	2.64	3.70	5.31	12.52
4"	2.64	4.61	6.85	13.62
6"	3.74	6.69	8.70	24.78
8"	5	8.58	10.98	39.13
10"	5.51	10.43	13.35	62.83
12"	7.13	12.20	16.10	96.29
14"	7.24	14.76	17.64	130.07
16"	7.52	16.38	20.16	177.47
18"	8.00	18.43	21.54	244.71
20"	8.62	20.24	23.78	260.14
24"	8.74	24.33	28.11	374.78

Item	Description	Qty	Material
1	Plug	4	ASTM 1035
2	Seal	4	EPDM
3	Shaft	2	304 Stainless Steel
4	Body	1	Ductile Iron ASTM A-536 (65-45-12)
5	Disc	2	304 Stainless Steel
6	Screw	2	Aluminum
7	Spring	2	316 Stainless Steel
8	Washer 1	4	304 Stainless Steel
9	Washer 2	2	304 Stainless Steel
10	Name Plate	1	304 Stainless Steel
11	Seat	1	EPDM
12*	Lifting Ring	1	ASTM 1035

NOTES: \* Only for 8" and larger

## Scope of the Line: Globe Style Check Valve – Series 821G

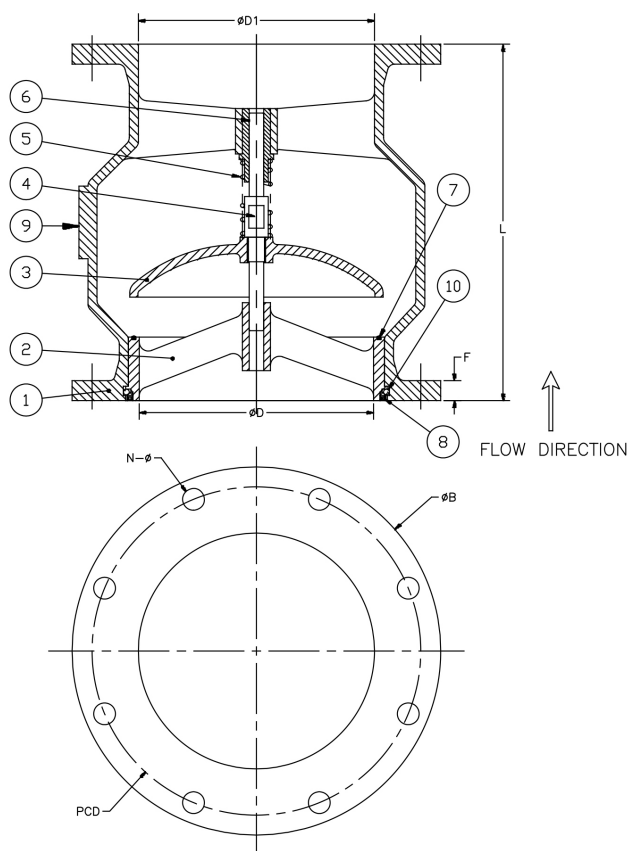


<b>Body:</b>	Ductile Iron ASTM A-536 Gr 65-45-12
<b>Disc:</b>	304 Stainless Steel
<b>Seat:</b>	304 Stainless Steel/EPDM
<b>Spring:</b>	316 Stainless Steel (2" - 16") 304 Stainless Steel (18" - 24")
<b>Rating:</b>	250 psi
<b>Flanges:</b>	ASME B16.1 CL.125
<b>Coating:</b>	Fusion Bonded Epoxy (interior and exterior)
<b>Availability:</b>	2" thru 24"

### Globe Style Check Valve: Technical Specifications

Check valve shall be of the silent operating type and the same size as the entering pipe. Globe style shall be rated for 250PSI service, have a Ductile Iron body (ASTM A-536 65-45-12), 125# ANSI Flat Face Flanges, ASTM A313 Type 304 Stainless Steel helical or conical spring, a Stainless Steel (ASTM type 304) seat and dual guided disc (top and bottom), 304 Stainless Steel guide bushing and type 304 Stainless Steel guide pins. Check valve to have a minimum open area in the body of 110% of the area of the entering or corresponding pipe. Valve is to operate silently in either vertical or horizontal positions, flow up or down. Globe style check valve shall be Pratt® Series 821G as manufactured by Henry Pratt Company.

# Globe Style Check Valve – Series 821G



## 2" - 12"

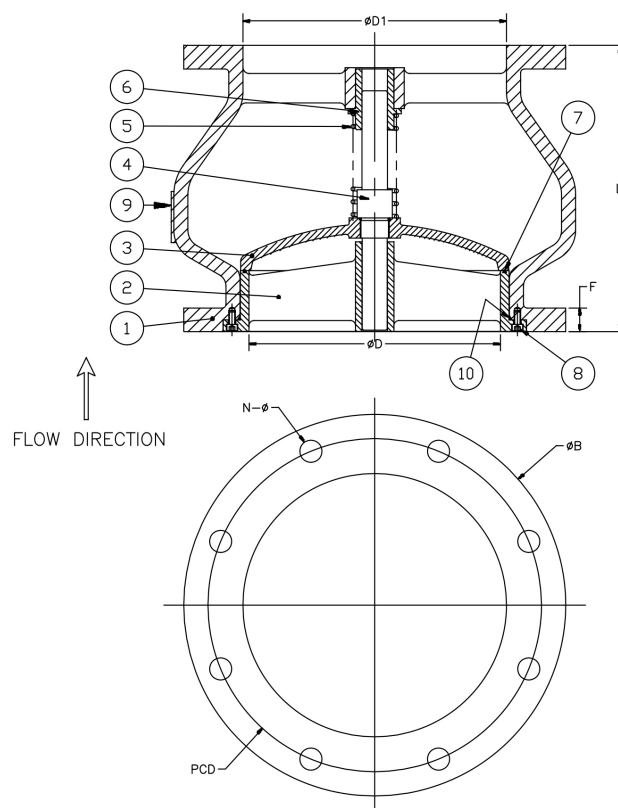
Size	L	øD	øD1	F	øB	PCD	N-ø	Weight (lbs)
2"	5.24	2.20	2.36	0.63	6.00	4.75	4-0.75	16.50
2.5"	5.50	2.87	2.95	0.69	7.00	5.50	4-0.75	20.00
3"	6.00	3.35	3.54	0.75	7.52	6.00	4-0.75	26.50
4"	7.25	4.17	4.33	0.75	9.00	7.50	8-0.75	35.50
6"	9.75	6.06	6.30	0.75	11.00	9.50	8-0.875	64.00
8"	12.50	8.19	8.11	0.79	13.50	11.75	8-0.875	128.00
10"	15.50	10.16	10.23	0.87	16.00	14.25	12-1	174.50
12"	14.25	12.13	12.2	0.98	19.00	17.00	12-1	249.50

Valve Size	Max. Allowable ID of Flg	*STD Ring Gasket Dimensions	
		Gasket I.D.	OD for 125 lb Globe Type
2"	5.24	2.20	2.36
2.5"	5.50	2.87	2.95
3"	6.00	3.35	3.54
4"	7.25	4.17	4.33
6"	9.75	6.06	6.30
8"	12.50	8.19	8.11
10"	15.50	10.16	10.23
12"	14.25	12.13	12.2

\* Gasket supplied by others

### NOTES:

- Flat flanges and ring gaskets (rubber or compressed fiber) are required.
- The mating companion flange I.D. must overlap the valve seat.  
This is required to provide proper seat retention.
- The flange gasket must be properly centered and of the size indicated.  
This is required to achieve a seal between the seat O.D. and the body I.D. interface area.



## 14" - 24"

Size	L	øD	øD1	F	øB	PCD	N-ø	Weight (lbs)
14"	15.75	13.70	13.97	1.38	21.00	18.75	12-1.12	415
16"	17.64	15.47	16.23	1.46	23.50	21.25	16-1.12	500
18"	18.75	17.00	17.56	1.57	25.00	22.75	16-1.25	631
20"	20.63	19.29	19.84	1.65	27.50	25.00	20-1.25	741
24"	24.00	22.99	23.82	1.93	32.00	29.50	20-1.38	1,209

Item	Description	Qty	Material
1	Body	1	Ductile Iron ASTM A-536 (65-45-12)
2	Seat	1	304 Stainless Steel
3	Disc	1	304 Stainless Steel
4	Stem	1	304 Stainless Steel
5	2"-16" Spring 18"-24" Spring	1	316 Stainless Steel 304 Stainless Steel
6	Guide Bushing	1	Bronze ASTM B584
7	Seal	1	EPDM
8	SHCS	2	304 Stainless Steel
9	Name Plate	1	304 Stainless Steel
10	Steel Ball (2"-12") Seat O-Ring (14"-24")	2 1	316 Stainless Steel EPDM

## Scope of the Line: Compact Wafer-Silent Check Valve – Series 720G

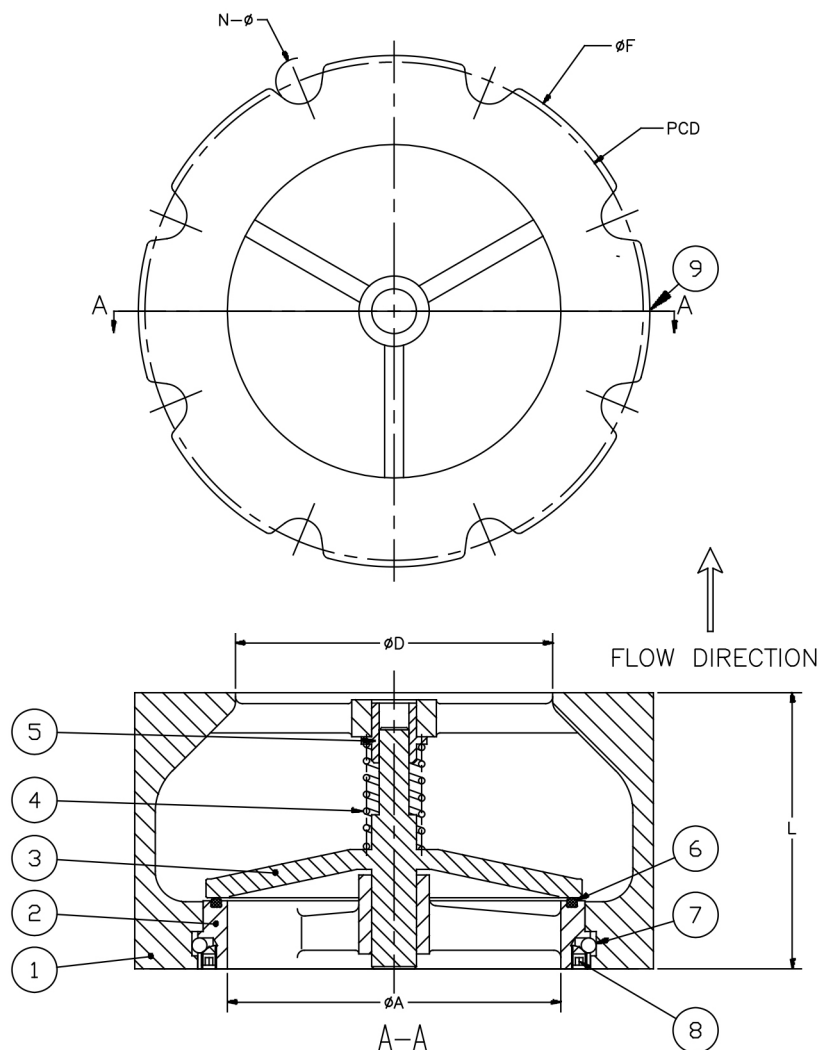


<b>Body:</b>	Ductile Iron ASTM A-536 Gr 65-45-12
<b>Disc:</b>	304 Stainless Steel
<b>Spring:</b>	316 Stainless Steel
<b>Seat:</b>	304 Stainless Steel/EPDM
<b>Rating:</b>	250 psi
<b>Coating:</b>	Fusion Bonded Epoxy (interior and exterior)
<b>Availability:</b>	2" thru 12"

### Compact Wafer-Silent Check Valve: Technical Specifications

Check valve shall be of the silent wafer type and the same size as the entering pipe. Valves shall be the compact wafer style and have a pressure and temperature rating equal to or greater than the pipeline in which they are installed. Compact wafer-silent style check valves thru 6 inches shall be rated for 250PSI service for installation between ANSI Class 125 flanges, have a Ductile Iron body (ASTM A-536 65-45-12), ASTM A313, Type 304 Stainless Steel helical or conical spring, a Stainless Steel guide bushing and type 304 Stainless Steel guide pins. Valves are to operate silently in either vertical or horizontal positions, flow up or down. Compact wafer-silent check valve shall be Pratt® Series 720G as manufactured by Henry Pratt Company.

# Compact Wafer-Silent Check Valve – Series 720G



## 2" - 12"

Size	L	øD	øF	øA	PCD	N-ø	Weight (lbs)
2"	2.63	2.68	4.33	2.52	4.75	4-0.75	4.75
2.5"	2.87	3.07	5.35	2.83	5.50	4-0.75	8.00
3"	3.13	3.54	5.98	3.38	6.00	4-0.75	12.80
4"	4.00	4.25	7.00	4.50	7.50	8-0.75	15.50
6"	5.50	6.38	9.72	6.38	9.50	8-0.875	37.50
8"	6.50	8.50	13.37	8.37	11.75	8-0.875	80.00
10"	8.27	10.67	15.89	10.06	14.25	12-1	132.50
12"	11.26	12.24	16.34	12.12	17.00	12-1	176.50

### NOTES:

1. Flat flanges and ring gaskets (rubber or compressed fiber) are required.
2. The mating companion flange I.D. must overlap the valve seat. This is required to provide proper seat retention.
3. The flange gasket must be properly centered and of the size indicated. This is required to achieve a seal between the seat O.D. and the body I.D. interface area.

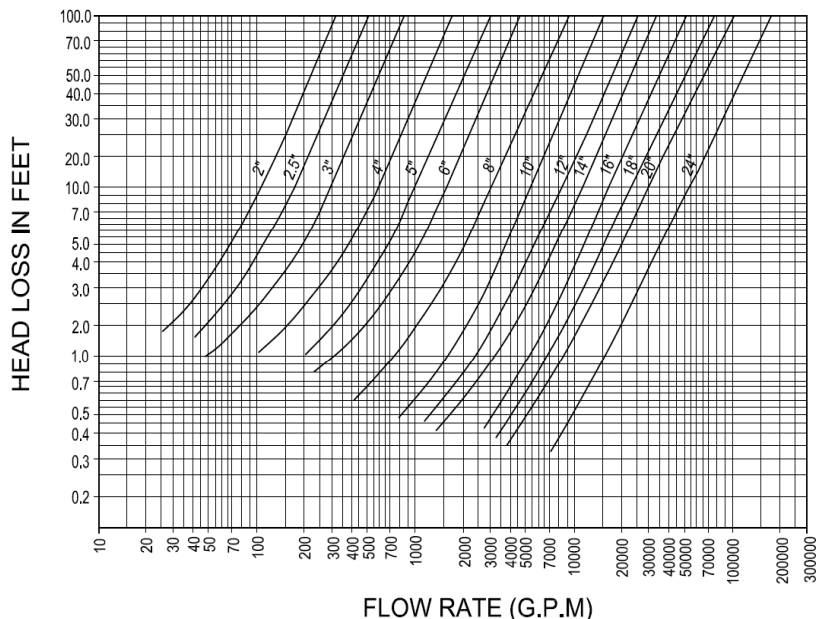
Valve Size	Max. Allowable ID of Flg	*STD Ring Gasket Dimensions	
		Gasket I.D.	OD for 125 lb Wafer Type
2"	2.76	2.56	4.09
2.5"	2.76	2.87	4.84
3"	3.35	3.50	5.35
4"	4.72	4.53	6.46
5"	5.51	5.59	7.64
6"	6.5	6.42	8.66
8"	8.27	8.46	10.67
10"	10.24	10.16	13.03
12"	12.40	12.20	14.84

\* Gasket supplied by others

Item	Description	Qty	Material
1	Body	1	Ductile Iron ASTM A-536 (65-45-12)
2	Seat	1	304 Stainless Steel
3	Disc	1	304 Stainless Steel
4	Spring	1	316 Stainless Steel
5	Guide Bushing	1	Bronze ASTM B584
6	Seal	1	EPDM
7	Steel Ball	1	304 Stainless Steel
8	Set Screw	2	316 Stainless Steel
9	Name Plate	1	304 Stainless Steel

# Pressure Drop Chart for Double Door Type Check (740G) & Globe Type Silent Check (821G) Valves

## Double Disc Check Valve – Series 740G

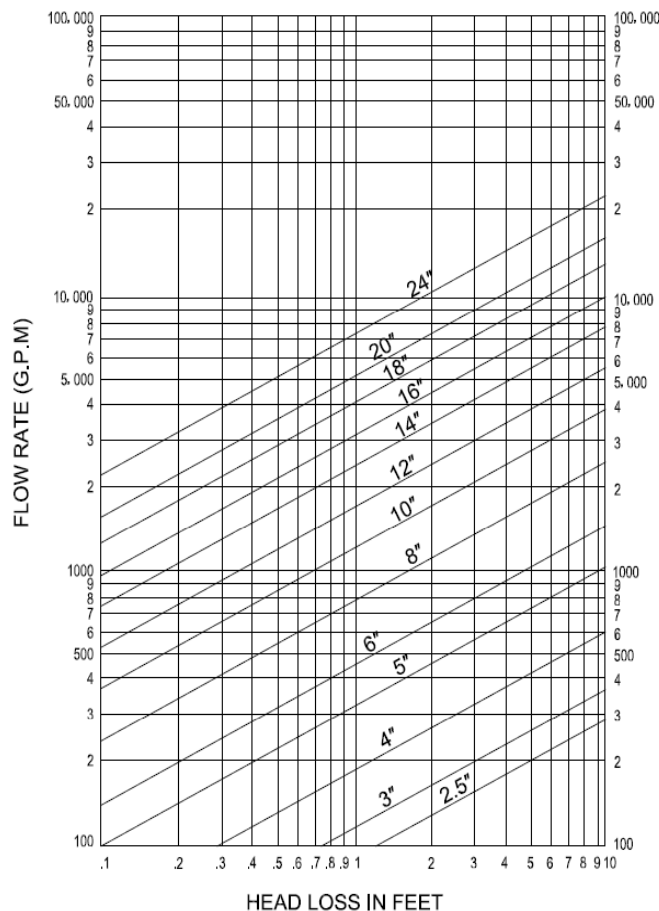


### Cv Value of Double Disc Wafer Check Valves

Nominal Diameter (inches)	Cv
2"	79
2.5"	120
3"	226
4"	404
5"	695
6"	1075
8"	1920
10"	3360
12"	5320
14"	6200
16"	7650
18"	9900
20"	12700
24"	19200

\*Cv = The flow rate of water in U.S. gallons per minute of 60° F water, which passes through the valve with 1 PSI pressure drop across the valve.

## Globe Style Check Valve – Series 821G



These charts are based on the flow of clean water at ambient temperature. Consult our Engineering Department for pressure drop information on steam, gases or viscous fluids.

Good piping practice recommends placement of check valves a distance equal to 5 to 10 pipe diameters from any turbulence producing device such as elbow, pumps etc.

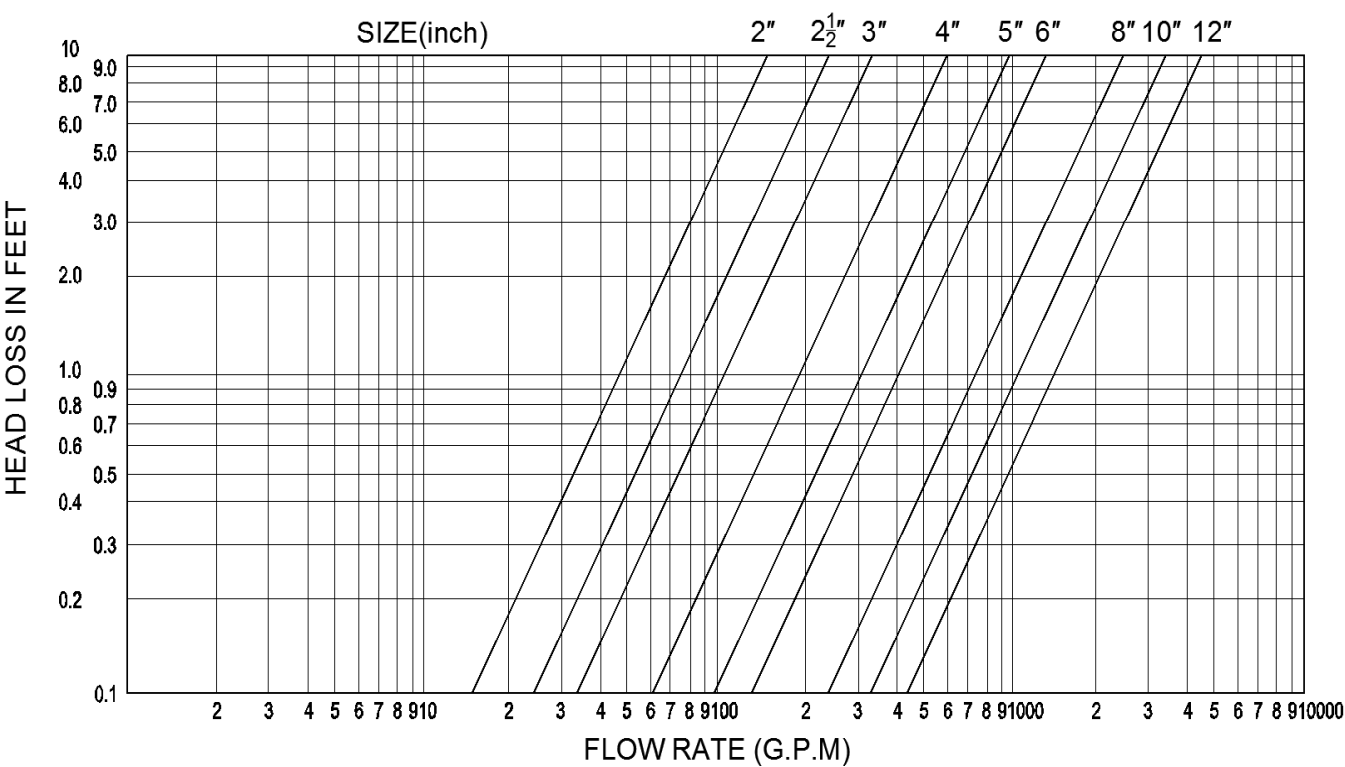
### Cv Value of 821G Globe Silent Check Valves

Nominal Diameter (inches)	Cv
2.5"	130
3"	160
4"	275
5"	452
6"	639
8"	1110
10"	1720
12"	2490
14"	3450
16"	4480
18"	5700
20"	7000
24"	10050

\*Cv = The flow rate of water in U.S. gallons per minute of 60° F water, which passes through the valve with 1 PSI pressure drop across the valve.

# Pressure Drop Chart for Compact Wafer Silent Check (720G) Valve

## Compact Wafer Silent Check Valve – Series 720G



This chart is based on the flow of clean water at ambient temperature. Consult our Engineering Department for pressure drop information on steam, gases or viscous fluids.

Good piping practice recommends placement of check valves a distance equal to 5 to 10 pipe diameters from any turbulence producing device such as elbow, pumps etc.

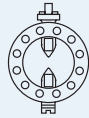
### Cv Value of 720G Wafer Silent Check Valve

NominalDiameter (inches)	Cv
2"	67
2.5"	108
3"	155
4"	274
5"	433
6"	575
8"	1047
10"	1490
12"	2070

\*Cv = The flow rate of water in U.S. gallons per minute of 60° F water, which passes through the valve with 1PSI pressure drop across the valve.

## NOTES

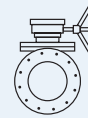
# PRATT® PRODUCT GUIDE



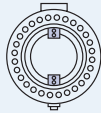
**Model  
2FII**



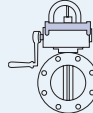
**Monoflange  
MKII**



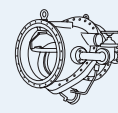
**Plug  
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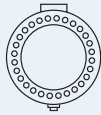
**Triton®  
XR70**



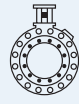
**Indicating Butterfly Valve  
UL & FM approved**



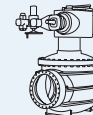
**Tilting Disc  
Check Valve**



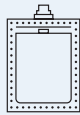
**Triton®  
XL**



**N-Stamp Nuclear  
Butterfly Valve**



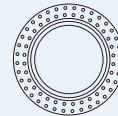
**Cone  
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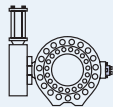
**Rectangular**



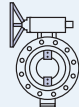
**PIVA Post Indicating Valve Assembly  
UL & FM approved**



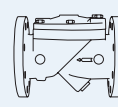
**Sleeve  
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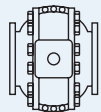
**Rubber Seated  
Ball Valve**



**Triton®  
HP250**



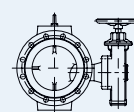
**Check  
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**Metal Seated  
Ball Valve**

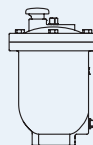


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