PRATT

Henry Pratt Company

Check Valves

Engineering Creative Solutions
for Fluid Systems Since 1901

A Tradition of Excellence

With the development of the first rubber seated butterfly valve more than 70 years ago, the Henry Pratt Company became a trusted name in the flow control industry, setting the standard for product quality and customer service. Today Pratt provides the following range of superior products to the water, wastewater and power generation industries.

Butterfly Valves: from 3" to 162"

Rectangular Valves: 1' x 1' to 14' x 16'

Ball Valves –
Rubber Seated: from 4" to 60"
Metal Seated: from 6" to 48"

Plug Valves: from 1/2" to 72", 100% port available up to 48", 3 ways

Air Valves for Water and Wastewater: from 1/2" to 20"

Hydraulic Control Systems

Valve Controls

Energy Dissipating Valves and Fixed Energy Dissipaters

Cone Valves

Check Valves

Plunger Valves

A Commitment to Meeting The Customers' Needs

Henry Pratt valves represent a long-term commitment to both the customer and to a tradition of product excellence. This commitment is evident in the number of innovations we have brought to the industries we serve. In fact, the Henry Pratt Company was the first to introduce many of the flow control products in use today, including the first rubber seated butterfly valve, one of the first nuclear N-Stamp valves, and the bonded seat butterfly valve.

Innovative Products For Unique Applications

Though many of the standard valves we produce are used in water filtration and distribution applications, Pratt has built a reputation on the ability to develop specialized products that help customers to meet their individual operational challenges.

Creative Engineering for Fluid Systems

Pratt's ability to provide practical solutions to complex issues is demonstrated by the following case histories.

Earthquake Proof Valves

Pratt designed and manufactured hydraulically actuated valves for a water storage application so that the valves would automatically operate in the event of earthquakes. This led to the development of a valve that will withstand acceleration forces of up to 6gs.

Custom Actuation/Isolation Valves

Pratt has designed and manufactured nuclear quality quarter-turn valves and parts since the first nuclear-powered generating plants were built. Our custom valves are able to close in a millisecond, using specially designed Pratt electro-pneumatic actuators.

Valves Designed for Harsh Environments

Pratt designed and manufactured a 144" diameter butterfly valve for the emergency cooling system at a jet engine test facility. The valve was designed to supply water to help dissipate the tremendous heat generated by the engines during testing.

PRATT
Henry Pratt Company

Through experience, commitment and creative engineering, Pratt is uniquely suited to provide superior products for our customers' special needs.
For more information, contact our corporate headquarters in Aurora, Illinois.

PRATT
Henry Pratt Company

401 South Highland Avenue
Aurora, Illinois 60506-5563
www.henrypratt.com
phone: 630.844.4000
fax: 630.844.4160

Table of Contents

Spring Loaded Check Valves

Standard Features 2

Double Disc Check Valve

Scope of the Line 2
Technical Specifications 2
Drawing 3
Materials of Construction 3

Globe Style Check Valve

Scope of the Line 4
Technical Specifications 4
Drawing 5
Materials of Construction 5

Compact Wafer-Silent Check Valve

Scope of the Line 6
Technical Specifications 6
Drawing 7
Materials of Construction 7

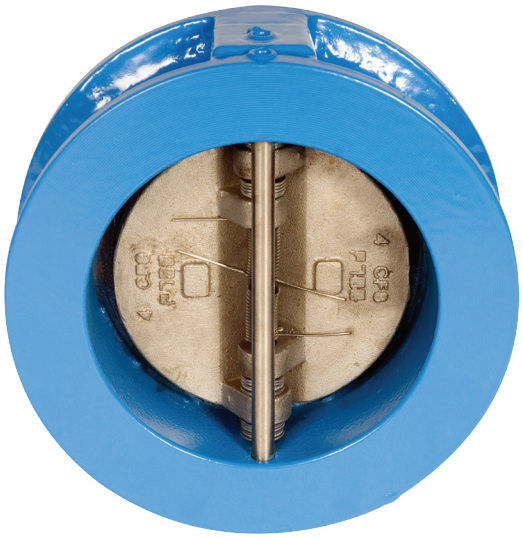
Pressure Drop Charts

Double Disc Check Valve 8
Globe Style Check Valve 8
Compact Wafer-Silent Check Valve 9

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 48"
- Compact Design

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

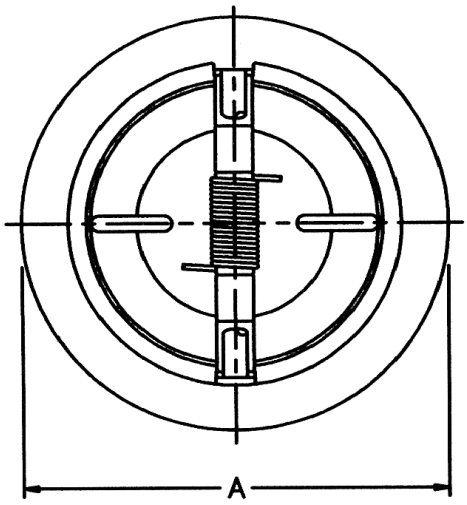


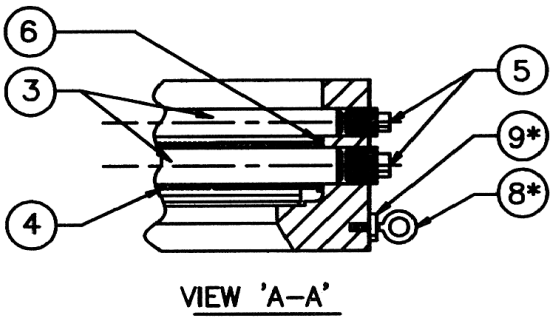
Body:	Ductile Iron-Wafer Pattern
Disc:	Stainless Steel
Seat:	EPDM (elastomer)
Rating:	250 psi
Availability:	2" thru 48"

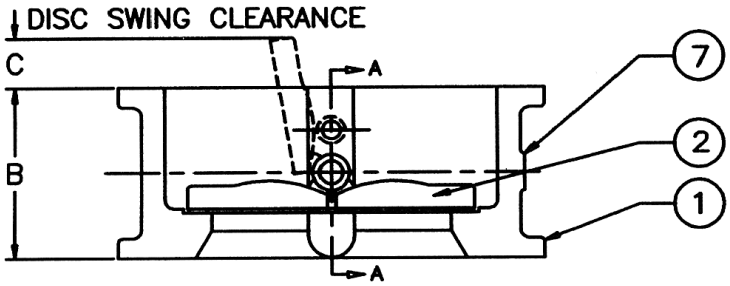
Double Disc Check Valve: Technical Specifications

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. 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 304/316 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 740A as manufactured by Henry Pratt Company.

Double Disc Check Valve – Series 740A







Materials of Construction

ITEM	QTY	DESCRIPTION	MATERIAL
1	1	BODY/SEAT	DUCTILE IRON/EPDM
2	2	DISC	304 STN. STL.
3	2	SHAFT	304 STN. STL.
4	2	SPRING	304/316 STN. STL.
5	4	PLUG	304 STN. STL.
6	AR	WASHER	304 STN. STL.
7	1	NAME PLATE	ALUMINUM
8*	2	EYE BOLT	STEEL
9*	2	HEX NUT	STEEL

*NOTE: ITEMS 8 & 9 FOR 8" AND LARGER VALVES

SIZE	2	2.5	3	4	5	6	8	10	12	14	16	18	20	24	30	36	42	48
A	4.10	4.88	5.33	6.88	7.75	8.75	11	13.38	16.13	17.75	20.25	21.63	23.88	28.25	34.75	41.25	47.88	54.50
B	2.13	2.13	2.25	2.5	2.75	3	3.75	4.25	5.63	7.25	7.5	8	8.38	8.75	12	15.25	17.00	20.63
C	–	.16	.63	.94	1.34	1.72	2.5	3.38	4.13	3.13	4.38	5.13	6.0	8.5	11	11.38	12.75	19.70
WT	8.8	12.6	18.3	26.2	34.8	42.1	75	119.5	188.1	227.3	282.2	337.3	370.6	638.2	1050	1600	2090	3400

NOTE: Drawings are for information purposes only; please request certified drawings before preparing piping diagrams.

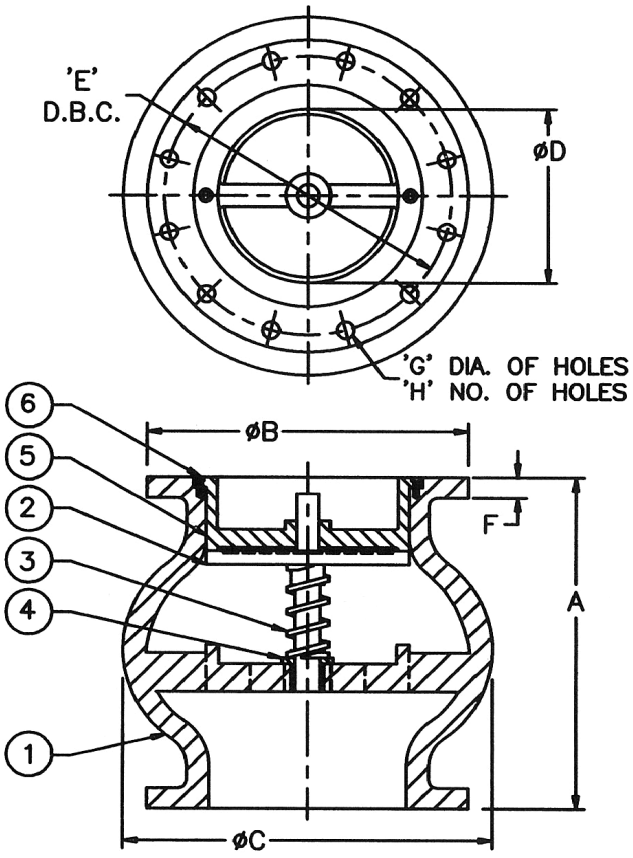
Scope of the Line: Globe Style Check Valve – Series 821A

Body:	Ductile Iron
Disc:	Stainless Steel
Seat:	Stainless Steel/EPDM
Rating:	250 psi
Flanges:	ASME B16.1 CL.125
Availability:	2" thru 36"

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 250PSI WOG, 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 Henry Pratt Series 821A as manufactured by Henry Pratt Company.

Globe Style Check Valve – Series 821A



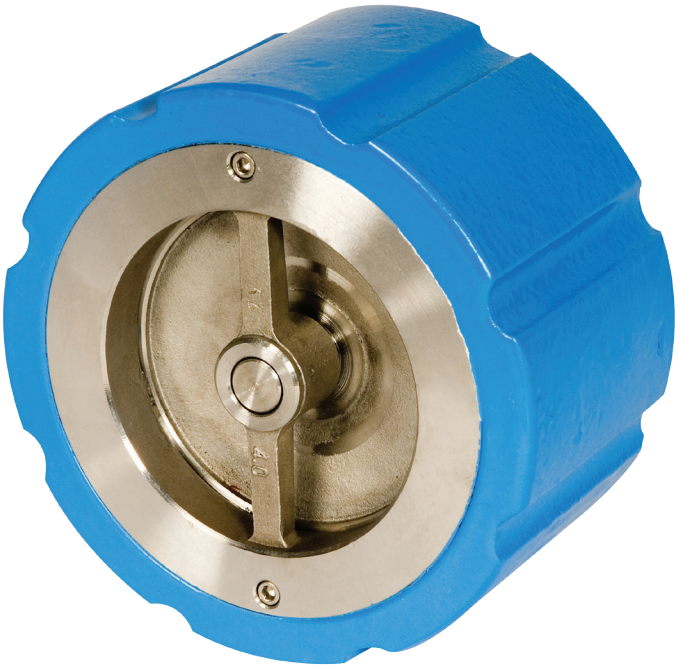
Materials of Construction

ITEM	QTY	DESCRIPTION	MATERIAL
1	1	BODY	DUCTILE IRON
2	1	DISC	304 STN. STL.
3	1	SPRING	304 STN. STL.
4	1	BUSHING	304 STN. STL.
5	1	SEAT	304 STN. STL./EPDM
6	AR	CAPSCREW	304 STN. STL.

SIZE	2	2.5	3	4	5	6	8	10	12	14	16	18	20	24	30	36
A	4	5.5	6	7.25	8.5	9.75	12.5	15.5	14.25	15.75	17.63	18.75	20.63	24	30	36
B	6	7	7.5	9	10	11	13.5	16	19	21	23.5	25	27.5	32	38.75	46
C	4.63	6	6.88	8.5	9.75	11.13	16.13	17.88	19.13	22.5	26	29	32.75	34	42.50	53
D	2.13	2.75	3	4	5	6	8	10	12	13.88	15.25	16.75	19.25	20.75	30.50	36.50
E	4.75	5.5	6	7.5	8.5	9.5	11.75	14.25	17	18.75	21.25	22.75	25	29.5	36	42.75
F	.62	.69	.75	.94	.94	1	1.12	1.19	1.25	1.38	1.44	1.56	1.69	1.88	3	3.50
G	.75	.75	.75	.75	.88	.88	.88	1	1	1.12	1.12	1.25	1.25	1.38	1.38	1.62
H	4	4	4	8	8	8	8	12	12	12	16	16	20	20	28	32
WT	14.3	24.4	28.6	44.1	56	83.4	142.4	219	362.6	465.1	660.5	919	1174	1586	2027	3255

NOTE: Drawings are for information purposes only; please request certified drawings before preparing piping diagrams.

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

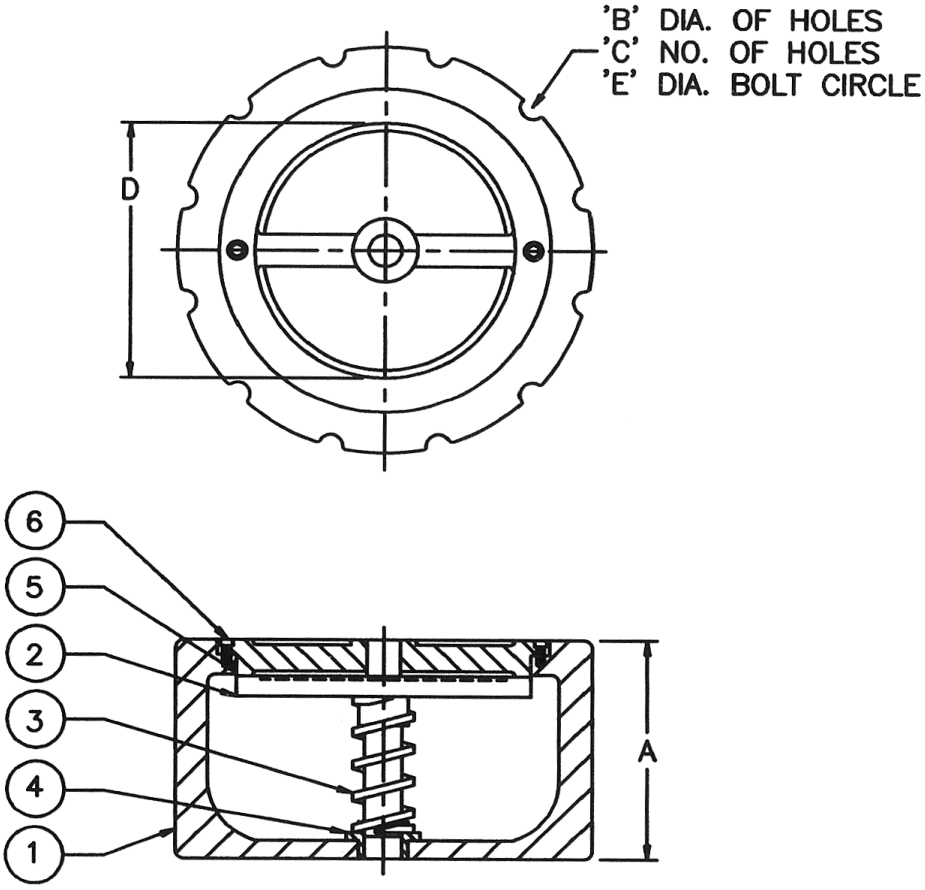


Body:	Ductile Iron
Disc:	Stainless Steel
Seat:	Stainless Steel/EPDM
Rating:	250 psi
Availability:	2" thru 12"

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 WOG for installation between ANSI Class 125 or Class 250 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 720A as manufactured by Henry Pratt Company.

Compact Wafer-Silent Check Valve – Series 720A



Materials of Construction

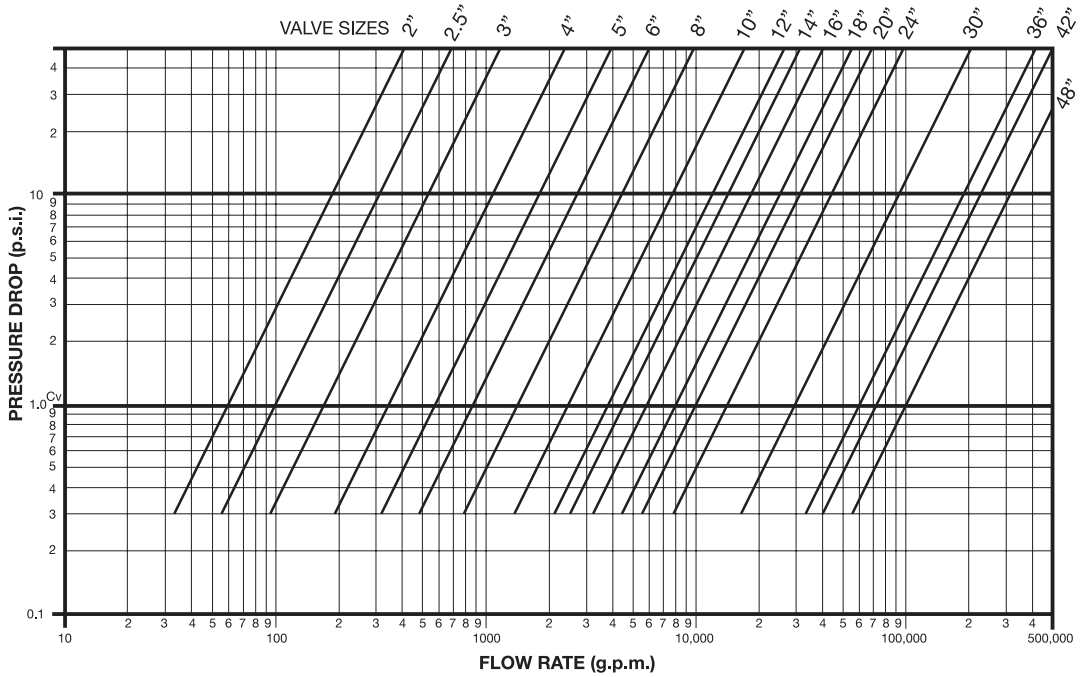
ITEM	QTY	DESCRIPTION	MATERIAL
1	1	BODY	DUCTILE IRON
2	1	DISC	304 STN. STL.
3	1	SPRING	304 STN. STL.
4	1	BUSHING	304 STN. STL.
5	1	SEAT	304 STN. STL./EPDM
6	AR	CAPSCREW	304 STN. STL.

SIZE	2	2.5	3	4	5	6	8	10	12
A	2.63	2.88	3.13	4	4.75	5.5	6.5	8.25	11.25
B	0.75	0.75	0.75	0.75	0.88	0.88	0.88	1.00	1.00
C	4	4	4	8	8	8	8	12	12
D	2.0	2.5	3.0	4.0	5.0	6.0	8.0	10.0	12.0
E	4.75	5.50	6.00	7.50	8.50	9.50	11.75	14.25	17.0
APPROX. WGT. (LB.)	5.5	8.0	10.0	19.0	27.0	39.0	86.0	165.0	339.0

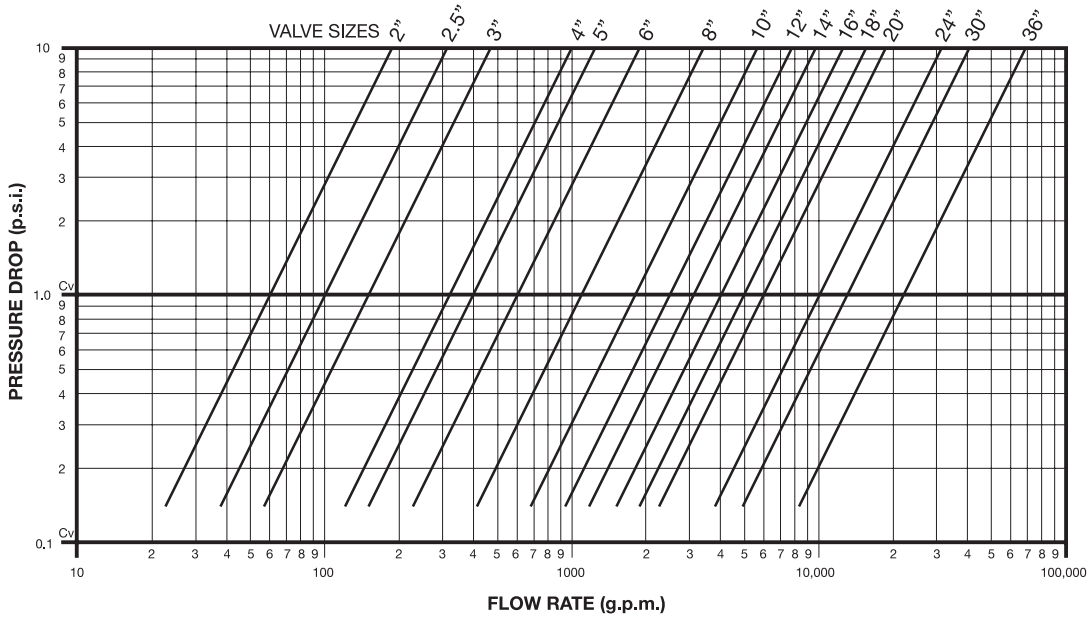
NOTE: Drawings are for information purposes only; please request certified drawings before preparing piping diagrams.

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

Double Disc Check Valve – Series 740A



Globe Style Check Valve – Series 821A

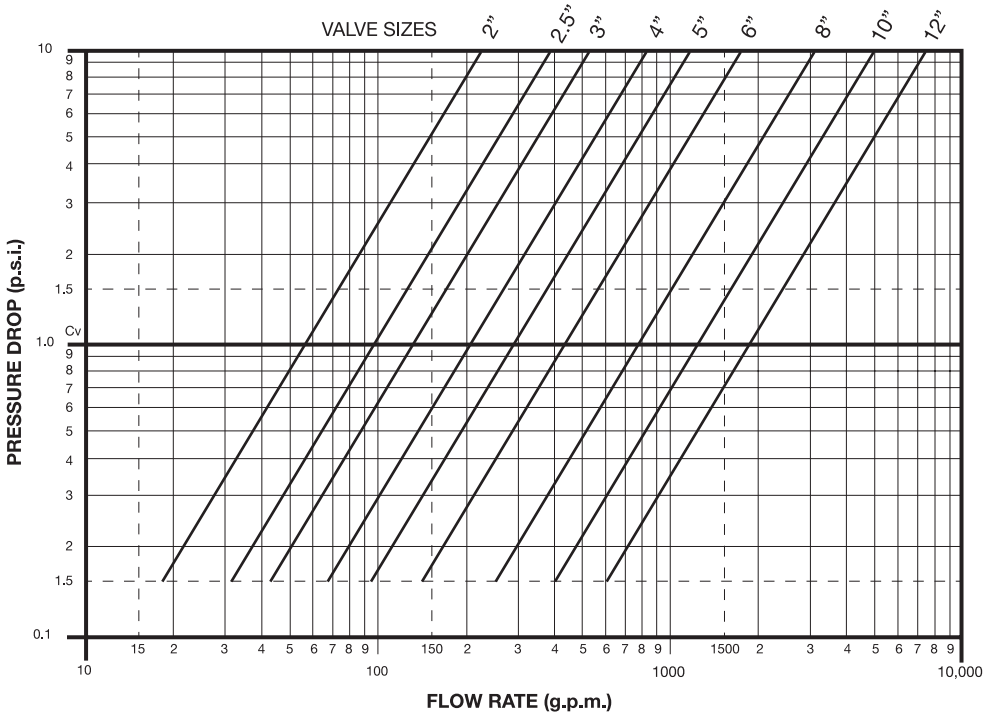


These charts are based on the flow of clean water at ambient temperature. Consult our Engineering Department for pressure drop information on steam, gases or viscous fluids.

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.

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

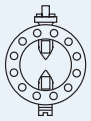
Compact Wafer Silent Check Valve – Series 720A



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.

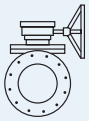
Good piping practice recommends placement of check valves a distance equal to 5 to 10 pipe diameters from any turbulence producing device such as elbow, pumps etc.

PRATT PRODUCT GUIDE

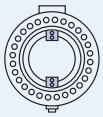


Model
2FII

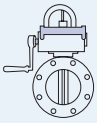
Monoflange
MKII



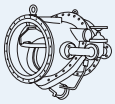
Plug
Valve



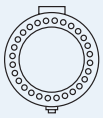
Triton®
XR70



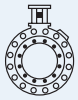
Indicating Butterfly Valve
UL & FM approved



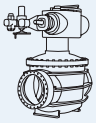
Tilting Disc
Check Valve



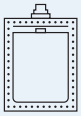
Triton®
XL



N-Stamp Nuclear
Butterfly Valve

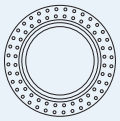


Cone
Valve

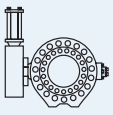


Rectangular

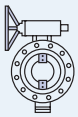
PIVA Post Indicating Valve Assembly
UL & FM approved



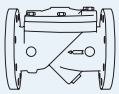
Sleeve
Valve



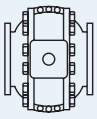
Rubber Seated
Ball Valve



Triton®
HP250

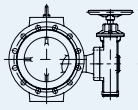


Check
Valve



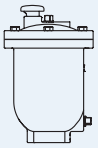
Metal Seated
Ball Valve

Control
Systems



Plunger Valve

PRATT



Air Valve

Henry Pratt Company
401 South Highland Avenue
Aurora, Illinois 60506-5563 - US
P: 630-844-4000 F: 630-844-4160
www.henrypratt.com
ISO 9001: 2000 Certified