

PRATT

Henry Pratt Company

Check Valves



Valves for the 21st Century



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 36", 3 ways

HYDRAULIC CONTROL SYSTEMS

VALVE CONTROLS

ENERGY DISSIPATING VALVES
AND FIXED ENERGY DISSIPATERS

CONE VALVES

CHECK 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 forces of up to 6g's.

Custom Actuation/ Isolation Valves

Pratt designed and manufactured valves that would isolate a working chamber in the event of a nuclear emergency during the decommissioning of armed nuclear warheads. The valves were 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.



Henry Pratt Company

401 South Highland Avenue
Aurora, Illinois 60506-5563
www.henrypratt.com
phone: 630.844.4000
fax: 630.844.4160
toll free: 877.436.7977

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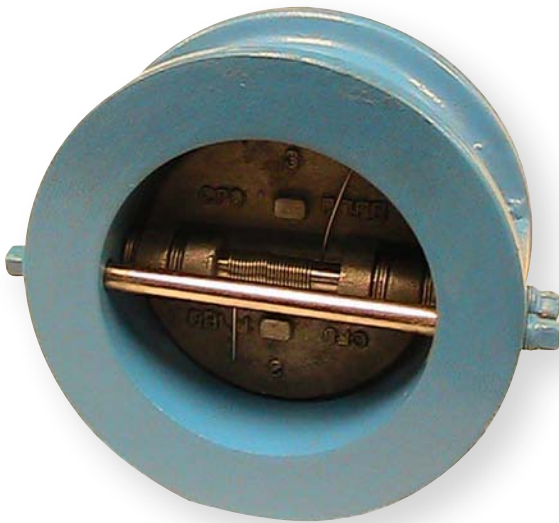
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SPRING LOADED CHECK VALVES STANDARD FEATURES

- 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
- Stocked in Sizes 2" thru 24"
- Compact Design

SCOPE OF THE LINE: DOUBLE DISC CHECK VALVE – SERIES 740A

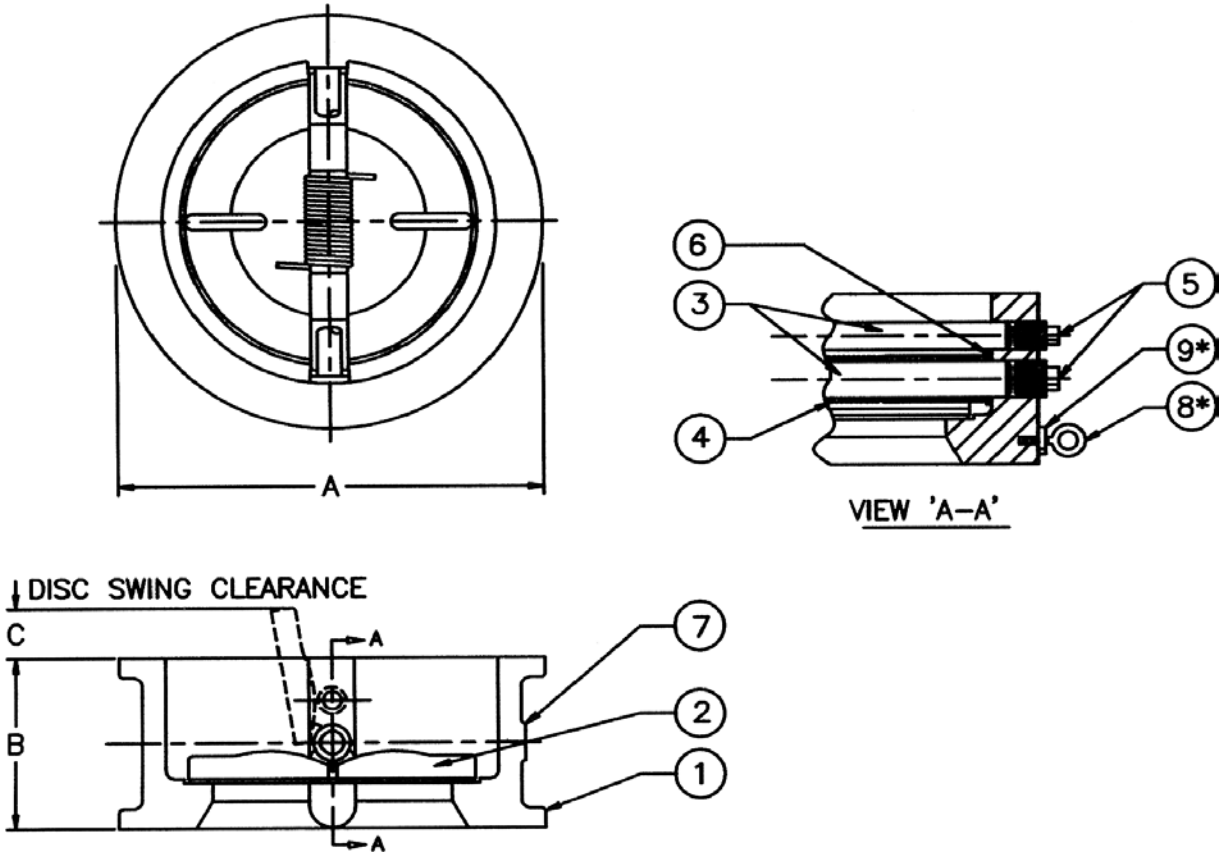


- Body:** Ductile Iron-Wafer Pattern
- Disc:** Stainless Steel
- Seat:** EPDM (elastomer)
- Rating:** 250 psi
- Availability:** 2" thru 36"

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 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 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

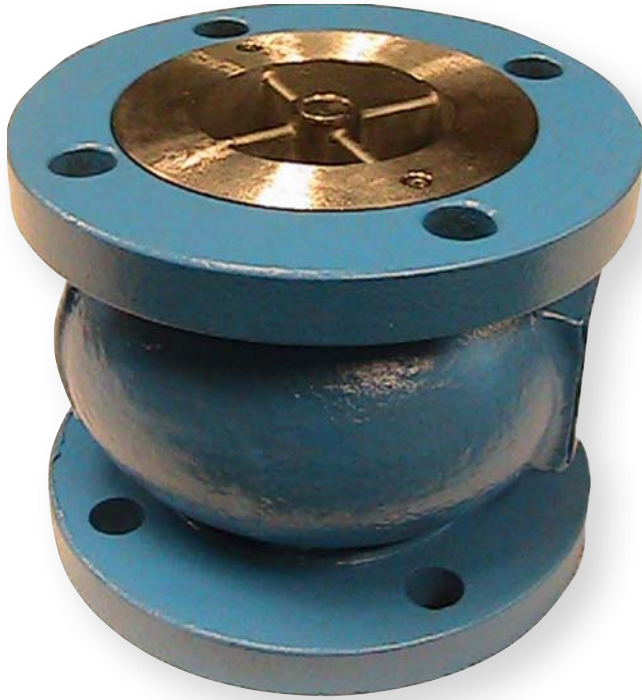
*NOTE: ITEMS 8 & 9 FOR 8" AND LARGER VALVES

SIZE	2	2.5	3	4	5	6	8	10	12	14	16	18	20	24
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
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
C	—	.16	.63	.94	1.34	1.72	2.5	3.38	4.13	3.13	4.38	5.13	6.0	8.5
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

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

Consult factory for sizes larger than 24"

SCOPE OF THE LINE: GLOBE STYLE CHECK VALVE – SERIES 821A

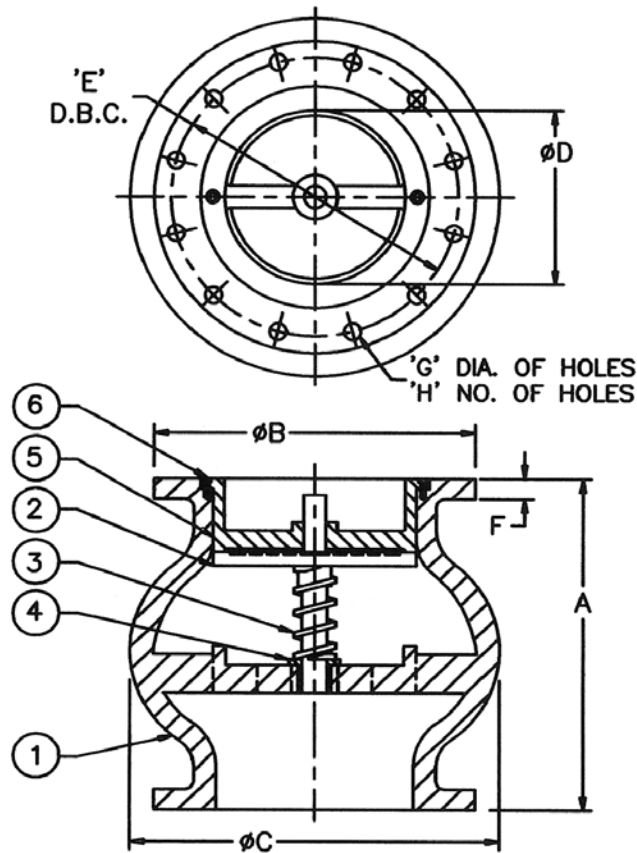


Body:	Ductile Iron
Disc:	Stainless Steel
Seat:	Stainless Steel/EPDM
Rating:	250 psi
Flanges:	ASME B16.1 CL.125
Availability:	2" thru 24"

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 thru 24 inches 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



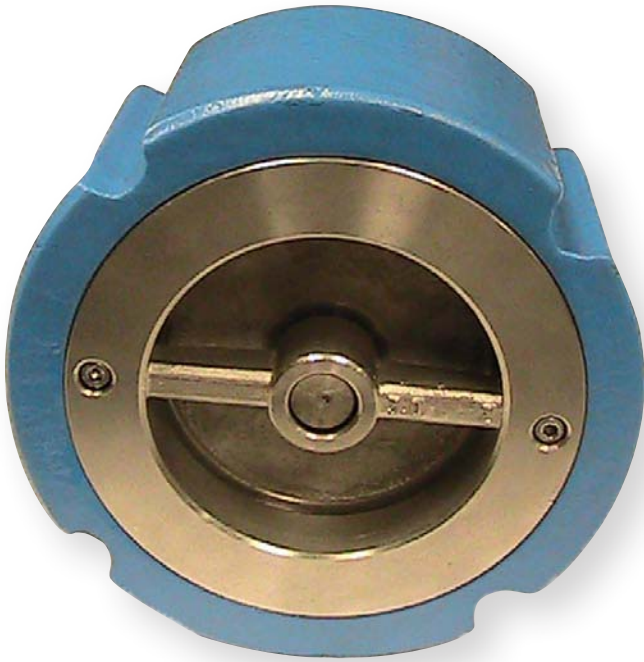
MATERIALS OF CONSTRUCTION

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
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
B	6	7	7.5	9	10	11	13.5	16	19	21	23.5	25	27.5	32
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
D	2.13	2.75	3	4	5	6	8	10	12	13.88	15.25	16.75	19.25	20.75
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
F	.62	.69	.75	.94	.94	1	1.12	1.19	1.25	1.38	1.44	1.56	1.69	1.88
G	.75	.75	.75	.75	.88	.88	.88	1	1	1.12	1.12	1.25	1.25	1.38
H	4	4	4	8	8	8	8	12	12	12	16	16	20	20
WT	14.3	24.4	28.6	44.1	56	83.4	142.4	219	362.6	465.1	660.5	919	1174	1586

NOTE: Drawings are for information purposes only; please request certified drawings before preparing piping diagrams.
Consult factory for sizes larger than 24"

SCOPE OF THE LINE: COMPACT WAFER-SILENT CHECK VALVE – SERIES 720A

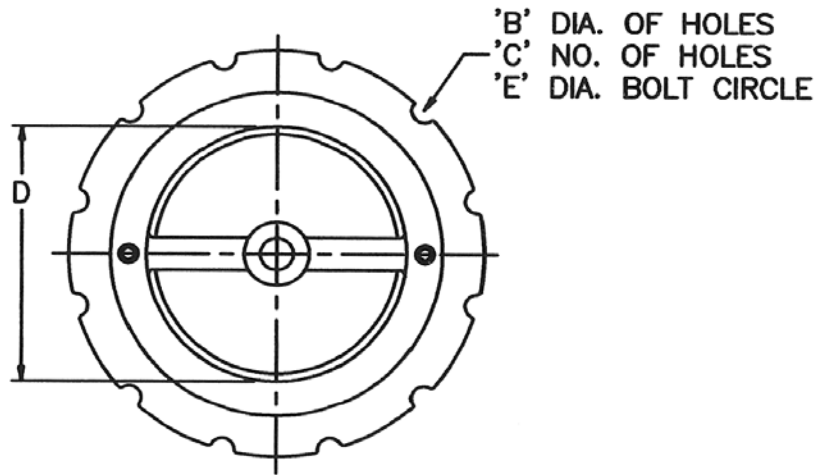


Body:	Ductile Iron
Disc:	Stainless Steel/EPDM
Seat:	Stainless Steel
Rating:	250 psi
Availability:	2" thru 12"

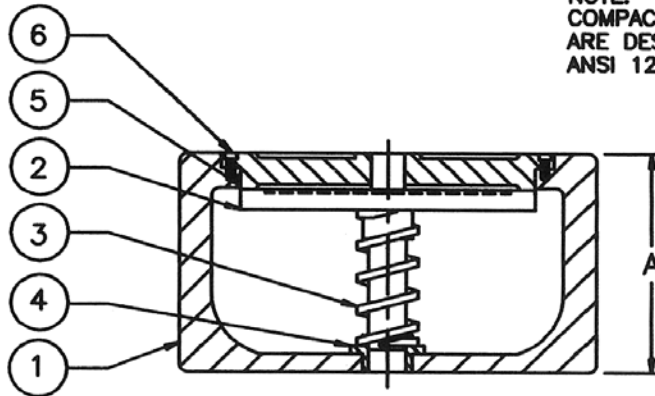
COMPACT WAFER-SILENT CHECK VALVE: TECHNICAL SPECIFICATIONS

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 12 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



NOTE:
COMPACT SILENT CHECK VALVES
ARE DESIGNED TO FIT INSIDE
ANSI 125 AND 150 BOLT CIRCLES.



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.

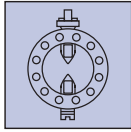


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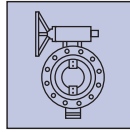


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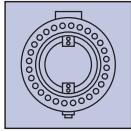
PRATT PRODUCT GUIDE



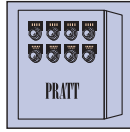
**Model
2FII**



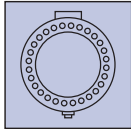
**Triton®
HP250**



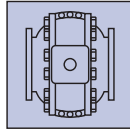
**Triton®
XR70**



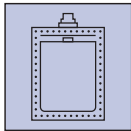
**Control
Systems**



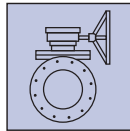
**Triton®
XL**



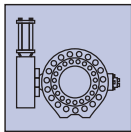
**Metal Seated
Ball Valve**



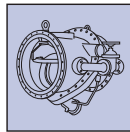
Rectangular



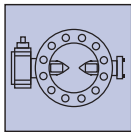
**Plug
Valve**



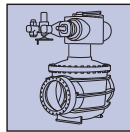
**Rubber Seated
Ball Valve**



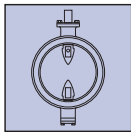
**Tilting Disc
Check Valve**



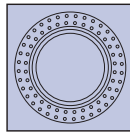
**Groundhog®
Valve**



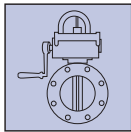
Cone Valve



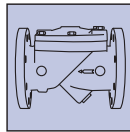
**Monoflange
MKII**



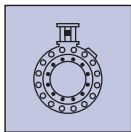
Sleeve Valve



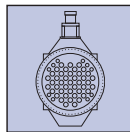
**Indicating
Butterfly Valve
UL & FM approved**



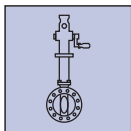
Check Valve



**N-Stamp Nuclear
Butterfly Valve**



**Compact Controllable
Energy Dissipater**



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

PRATT

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401 South Highland Avenue
Aurora, Illinois 60506-5563
Toll Free 877-436-7977
630-844-4000
Fax 630-844-4160
www.henrypratt.com
ISO 9001: 2000 Certified

RD-Series™ Check Valve



Construction Specifications:

Sizes: 2" through 24" flanged ends
3" through 16" mechanical joint ends

Body: Ductile Iron

Disc: Buna-N encapsulated steel

Seat: 45° non-slam seat

The Pratt RD-Series™ Check Valve has only one moving part: a resilient disc reinforced with steel. This simple, innovative valve provides dependable, maintenance free performance, and quiet operation with its inherent non-slam construction. The large, unobstructed flow path makes the valve an excellent choice for wastewater as well as water applications. The design has undergone a rigorous 1,000,000 continuous cycle test with no signs of wear or distortion to the valve disc or seat. All sizes have a 250 psi rating.

Features

Body

Ductile Iron in ASTM A-536 Grade 65-45-12, and features a full flow area providing 100% unrestricted flow and low head loss. Flanges are in full compliance with ANSI B16.1, Class 125.

Bonnet

Ductile iron domed access bonnet allows for easy removal and inspection of the flexible disc assembly.

Disc

The only moving part, featuring a fully Buna-N encapsulated steel disc with nylon reinforcement in the flex area. The molded elastomer with integral O-ring ensures a bubble-tight shut off, without backflow.

Body Seat

Constructed on a 45 degree angle to reduce the travel of the disc to the full open position; significantly reducing the potential for water hammer.

Flow

The flow area is equal to or greater than the equivalent pipe size throughout, resulting in low head losses, compared to other types of check valves.

Installation

Suitable for both horizontal and vertical pipelines with flow upward.

Coatings

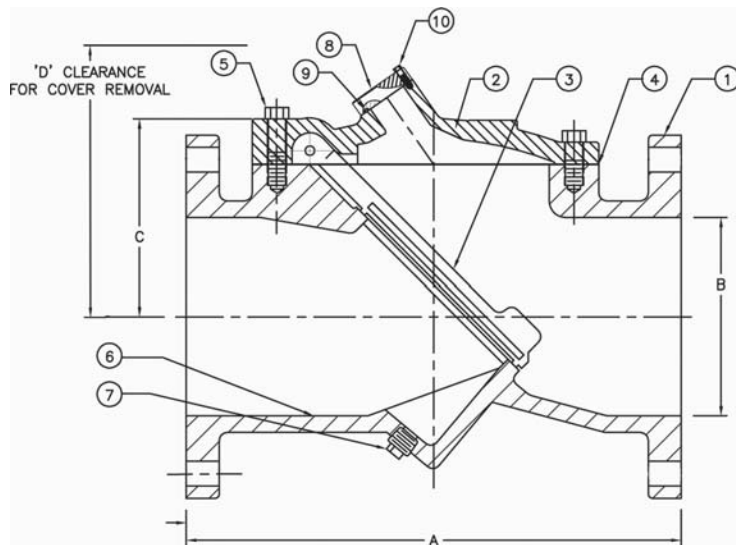
The valve interior is fully coated with liquid thermosetting epoxy suitable for use in potable water service. The exterior is provided as standard with a universal primer enamel suitable for coating in the field. Special coatings can be furnished on request.

Accessories/Options

- Disc position indicator
- External backflow device - to manually open disc
- Proximity limit switch - to transmit an electrical signal to indicate when disc is open or closed
- EPDM disc option
- Stainless steel cover bolts

Materials of Construction

Item	Qty	Description	Material	ASTM Designation
1	1	Body	Ductile Iron	ASTM A-536-GR 65-45-12
2	1	Bonnet	Ductile Iron	ASTM A-536-GR 65-45-12
3	1	Disk	Steel/Buna-N	ASTM-A36 D2000 BK 807
4	1	Gasket	Rubber (Buna N)	D2000 BK 807
5	AR	Cap Bolts	Steel/Zinc	SAE Grade 5 - Zinc Plated
6	1	Interior Lining	Epoxy	—
7	1	Plug	Ductile Iron	ASTM A-536-GR 65-45-12
8	1	Boss Cover	Ductile Iron	ASTM A-536-GR 65-45-12
9	1	O-Ring	Rubber (Buna)	D2000 BK 807
10	4	Boss Cover Bolts	Steel/Zinc	SAE Grade 5 - Zinc Plated



**Dimension 'D' Clearance
Required to Remove Access Cover**

Valve Size	A	B	C	D
2	8.0	2.0	3.38	8.38
2-1/2	8.5	2.5	3.38	8.38
3	9.5	3.0	3.88	9.00
4	11.5	4.0	4.63	9.63
5	13.75	5.0	5.13	10.25
6	15.0	6.0	5.88	11.00
8	19.5	8.0	7.63	13.75
10	24.5	10.0	9.88	16.00
12	27.5	12.0	11.38	18.50
14	31.0	14.0	13.38	20.50
16	32.0	16.0	15.38	23.50
18	36.0	18.0	17.13	25.25
20	40.0	20.0	19.13	29.25
24	48.0	24.0	22.75	32.75

Flanges are per ANSI B16.1 Class 125/150 Flat Faced

*Mechanical joint drawings and dimensions are available at www.henrypratt.com

Suggested Specification

Check valve shall be of the flanged, full body type with no internal moving parts except for the resilient disc. The flanged ends shall be manufactured in accordance with ANSI B16.1 Class 125. Valves shall be rated to 250 psi for all sizes.

The valve body shall be constructed of ductile iron ASTM A-536 Grade 65-45-12 with flow area equal to the nominal pipe inside diameter throughout the valve. Seat shall be constructed on a 45 degree angle to reduce disc travel. The seat and internal body shall be fully coated with a two part thermosetting epoxy suitable for use in both potable water and wastewater applications.

The domed bonnet shall be manufactured of ductile iron ASTM A-536 Grade 65-45-12. The bonnet-to-body seal shall be provided by a gasket to allow easy removal and replacement of the access bonnet. Bonnet bolting shall be SAE Grade 5.

The resilient disc shall feature a fully encapsulated steel pressure plate with integral molded O-ring on the face of the elastomer. Nylon reinforcements shall be provided in the flexible hinge area of the disc assembly.

If requested the manufacturer shall furnish certified results of a proof of design test performed at an independent testing laboratory. Testing shall include a million-cycle continuous test to demonstrate the durability of the flexible connection.

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Tilting Disc Check Valve



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

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Hydraulic Control Systems

Valve Controls

Energy Dissipating Valves and Fixed Energy Dissipaters

Cone Valves

Check Valves

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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.

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Introduction



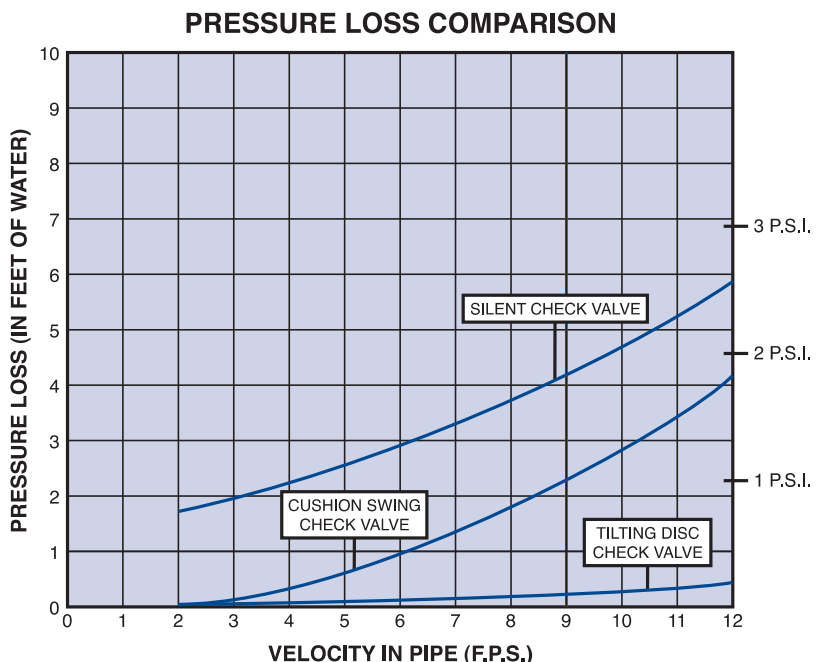
The Henry Pratt Tilting Disc Check Valve is the most versatile and reliable check valve Pratt has to offer. This valve offers significant energy and cost savings over the life of the valve due to its large flow area and low head loss characteristics. Short disc travel from full open to full close provides the ability to close very rapidly or very slowly to avoid contributing to slamming and surges. The tilting disc check valve is also offered with an upper hydraulic dashpot to aid in disc closure in multiple pump systems even after a power failure. Henry Pratt continues to expand our product offering to those customers who require specialty valves for applications where opening and closing times are critical to control flow reversal and reduce water hammer.

Scope of Line: Tilting Disc Check Valve

- Available in sizes 4 inches through 60 inches
- Various end configurations available
- Ductile iron body, disc and cover
- Bronze disc and body seat rings
- Stainless steel hinge pin
- Other materials available upon request
- Rated working pressure 250 psi

Low Headloss Design Advantage

The Tilting Disc Check Valve offers significant energy savings compared to other types of conventional check valves because of its larger flow area and low head loss characteristics. The valve achieves full opening when the disc "tilts" in the flow of the media. The tilting disc design through lifting and stabilizing in the full-open position, provides minimal flow resistance.



NOTE: CURVES BASED ON 6 INCH VALVE SIZE FOR ILLUSTRATION PURPOSES ONLY.

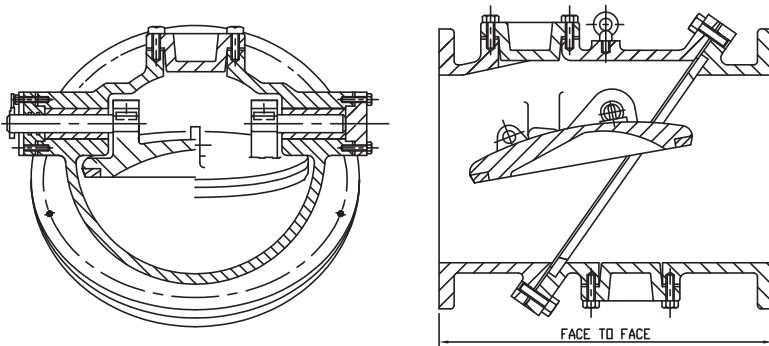
Design Details: Tilting Disc Check Valve

DESCRIPTION	MATERIAL
Body	Ductile Iron ASTM A536 Gr. 65-45-12
Disc	Ductile Iron ASTM A536 Gr. 65-45-12
Cover	Ductile Iron ASTM A536 Gr. 65-45-12
Disc Seat Ring	Stainless Steel ASTM A269 Type 304
Body Seat Ring	Stainless Steel ASTM A269 Type 304
Hinge Pin	Stainless Steel ASTM A276 Type 304
Bearing Bush	Bronze B62

Other materials available on request.

Feature	Benefit
Variable opening and closing speeds	Short disc travel from full open to full close provides the ability to close very rapidly or very slowly to avoid contributing to slamming and surges.
Cushioned closure	Action of the fluid on the disc is balanced due to pivot points that allow for cushioned movement of the disc into the seat.
Long body laying length	Permits smooth passage of water with minimum turbulence and low potential for cavitation.
Low maintenance	The stainless steel stub shafts do not come in contact with fluid and can be lubricated either manually or automatically.
Non-slam characteristics	The design of the seat and hydraulic dashpot cushions the closing forces on the disc to allow for smooth operation. This prevents slamming of the disc into the seat.
Low headloss	Minimal effort to keep the disc open is achieved through the balanced disc design that provides light weight lifting properties, which translates to minimal flow resistance.
Less risk of reverse flow	Rapid closing of the disc decreases the chance of reverse flow to occur.

Dimensional Data



Diameter	Face-to-face Length	Approximate Weight
4"	11.5"	135 lbs.
6"	15"	160 lbs.
8"	19.5"	375 lbs.
10"	24.5"	330 lbs.
12"	24"	462 lbs.
14"	30"	771 lbs.
16"	30"	1062 lbs.
18"	33"	1200 lbs.
20"	32"	1652 lbs.
24"	38"	2368 lbs.
30"	52"	3525 lbs.
36"	59.5"	5177 lbs.
42"	60"	5727 lbs.
48"	65"	8745 lbs.
54"	70"	11345 lbs.

*May vary with pressure.

Suggested Specifications

General

The check valve shall be of the tilting disc type as manufactured by Henry Pratt Company. The tilting disc check valve shall consist of a circular disc with conical rim, hinged about a fixed pivot above its center-line and offset from the plane of the seat, sealing against a body seat clamped between the two sections of the valve body.

Valve Construction

The body shall be two-piece, consisting of an entrance and a discharge section bolted together at an angle with the pipeline. An O-ring seal in a groove between the body flanges shall be in place to prevent leakage between the flanges when bolted together. The valve shall be complete with ANSI class flanges to mate with adjacent equipment.

A body seat shall be clamped in place in a slot between the two body sections. The body seat shall have a conical finish to mate with the disc seat. There shall be an inspection port provided in both the entrance and discharge sections to provide visual access both upstream and downstream of the disc. An indicator shall be provided to show disc position for the full range of travel. Bosses shall be cast in both the entrance and discharge sections to allow for a top mounted oil dashpot for controlled opening and closing.

All valve castings shall be ductile iron ASTM A536 Grade 65-45-12. The disc and body seat ring shall be stainless steel ASTM A269 Type 304. The hinge-pin shall be stainless steel ASTM A276 Type 304. The bearing sleeve shall be Bronze B62.

Testing

Seat and leakage testing shall be in strict accordance with AWWA Standard C-508 latest edition for Swing Check Valves. Rated working pressure of the check valve line is 250 psi.

Coating

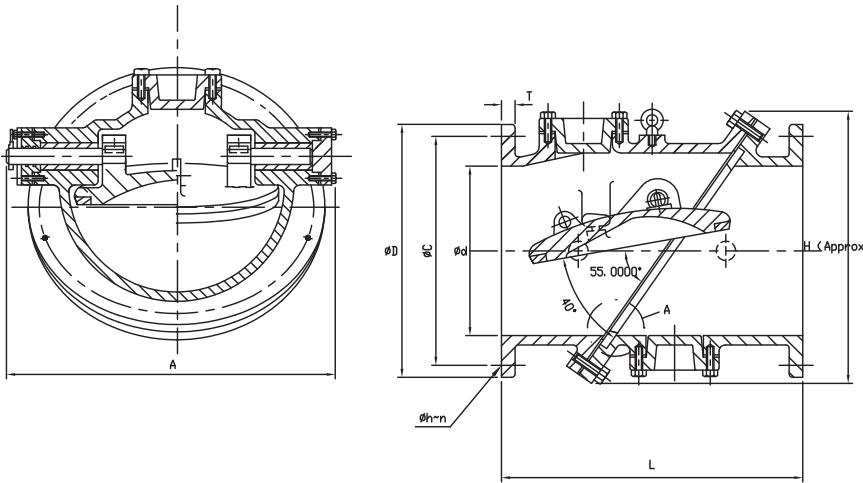
Coating shall be a NSF61 approved epoxy.

Henry Pratt reserves the right to change parts and components to improve product performance.

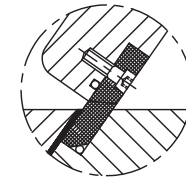
Dimensional Data: Tilting Disc Check Valve

These dimensions are correct at time of publication and are not to be construed as certified drawings. Certified drawings available upon request.

4" – 36" Tilted Disc Check Valve



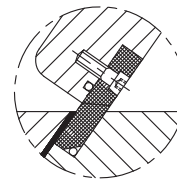
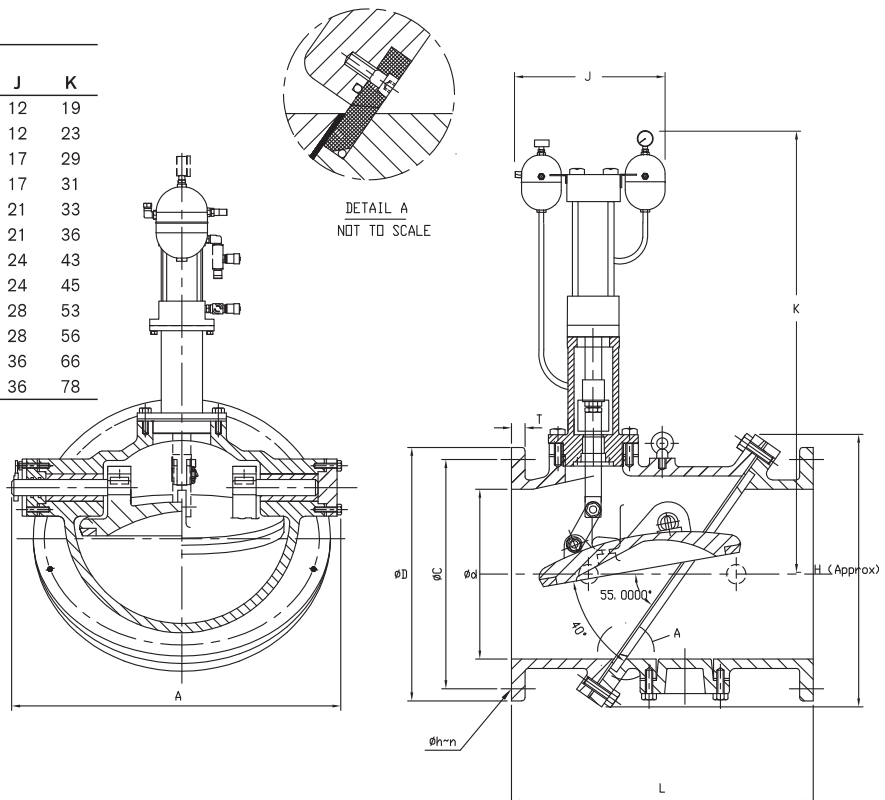
Size	ANSI B16.1 CL.125							
Ød	L	ØD	ØC	Øh	n	T	A	H
4	11½	9	7½	¾	8	1½/16	13	10
6	15	11	9½	¾	8	1	16	13
8	19½	13½	11¾	¾	8	1¾	19	16
10	24½	16	14¾	1	12	1¾/16	23	18
12	24	19	17	1	12	1¾	26	21
14	30	21	18¾	1½	12	1¾	29	23¾
16	30	23½	21¼	1¾	16	17/16	32	26¾
18	33	25	22¾	1¾	16	19/16	36	30
20	32	27½	25	1¾	20	11½/16	39	32
24	38	32	29½	1¾	20	1¾/16	46	37
30	52	38¾	36	1¾	28	23/4	54	47
36	59½	46	42¾	1¾	32	23/4	64	51



DETAIL A
NOT TO SCALE

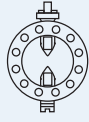
4" – 36" Tilted Disc Check Valve with Dashpot

Size	ANSI B16.1 CL.125										
Ød	L	ØD	ØC	Øh	n	T	A	H	J	K	
4	11½	9	7½	¾	8	1½/16	13	10	12	19	
6	15	11	9½	7/8	8	1	16	13	12	23	
8	19½	13½	11¾	3/16	8	1¾	19	16	17	29	
10	24½	16	14¾	1	12	1¾/16	23	18	17	31	
12	24	19	17	1	12	1¾	26	21	21	33	
14	30	23	20¾	1¾	20	2¾	29	23¾	21	36	
16	30	25½	22½	1¾	20	2¾	32	26¾	24	43	
18	33	28	24¾	1¾	24	2¾	36	30	24	45	
20	32	30½	27	1¾	24	2½	39	32	28	53	
24	38	36	32	1½	24	2¾	46	37	28	56	
30	52	43	39¾	2	28	3	54	47	36	66	
36	59½	50	46	2¾	32	3¾	64	51	36	78	

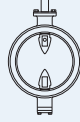


DETAIL A
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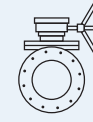
PRATT PRODUCT GUIDE



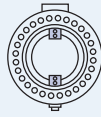
**Model
2FI**



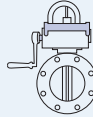
**Monoflange
MKII**



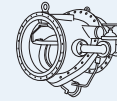
**Plug
Valve**



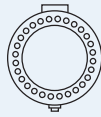
**Triton®
XR70**



**Indicating Butterfly Valve
UL & FM approved**



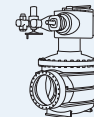
**Tilting Disc
Check Valve**



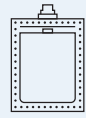
**Triton®
XL**



**N-Stamp Nuclear
Butterfly Valve**



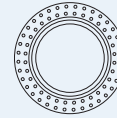
**Cone
Valve**



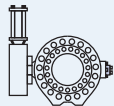
Rectangular



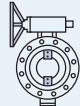
**PIVA Post Indicating Valve Assembly
UL & FM approved**



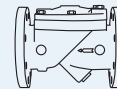
**Sleeve
Valve**



**Rubber Seated
Ball Valve**



**Triton®
HP250**



**Check
Valve**



**Groundhog®
Valve**

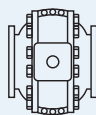


**Control
Systems**



**Compact Controllable
Energy Dissipater**

PRATT



**Metal Seated
Ball Valve**

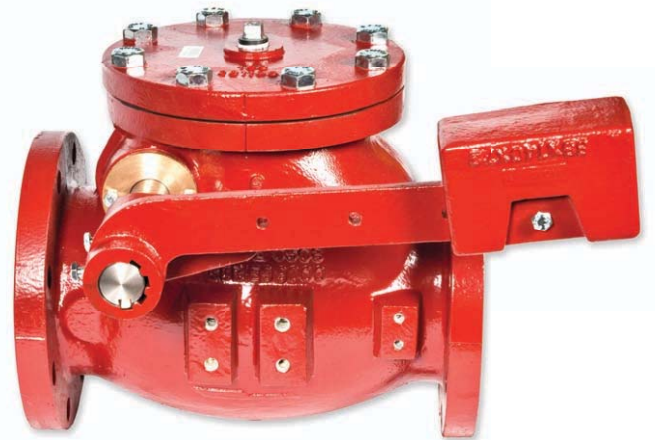
Henry Pratt Company

401 South Highland Avenue
Aurora, Illinois 60506-5563
United States
630-844-4000
Fax 630-844-4160
www.henrypratt.com
ISO 9001: 2000 Certified

PRATT

Henry Pratt Company

AWWA Swing 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, waste water 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 36", 3 ways

Hydraulic Control Systems

Valve Controls

Energy Dissipating Valves and Fixed Energy Dissipaters

Cone Valves

Check 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 6g's.

Custom Actuation/Isolation Valves

Pratt designed and manufactured valves that would isolate a working chamber in the event of a nuclear emergency during the decommissioning of armed nuclear warheads. The valves were 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.

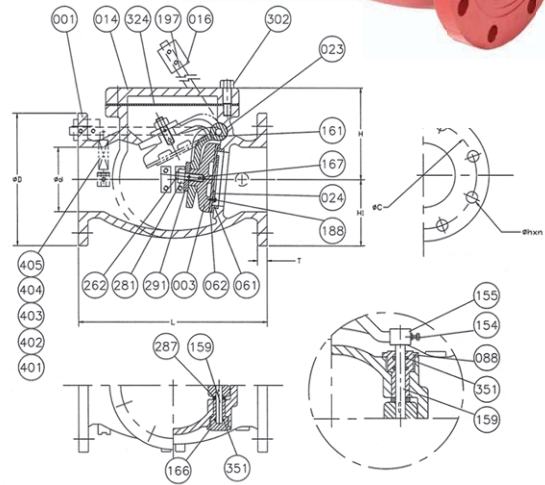
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Pratt Series 8001 AWWA Swing Check Valve Outside Lever and Weight or Spring

Series 8001 swing check valves are of self-contained, free-swinging disc style with outside lever and weight or outside lever and spring. Valves conform to all standards set forth in AWWA C508, latest edition. Suitable for use in wastewater, water, sewage, oil and gas applications. Valves are produced with cast iron body, bronze or stainless steel seat rings, Buna-N or EPDM disc inserts, and hinge pins of corrosion resistant stainless steel. Internal and external epoxy coating conforming to AWWA C550 is a standard. Valves are designed for horizontal or vertical installations and for uninterrupted continuous service.



Features/Specs

- Full waterway
- Stainless steel hinge pin
- Flanges conform to ANSI B16.1 Class 125
- Lever and weight may be installed on either side
- Valves may be installed in vertical line with flow up
- Disc seat standard with with Buna-N insert for bubble tight shut off
- Body and disc seat rings are field replaceable
- Meets AWWA C508 standards
- Low zinc bronze or stainless steel seat rings
- ANSI B16.1: Cast iron pipe flanges and flanged fittings Class 125
- AWWA C508: Swing check valves for waterworks service, 2" through 24"
- 8 mils NSF 61 epoxy in and out

Sizes: 2" - 72"

Styles: Bronze to Bronze, Bronze to Buna-N, Stainless Steel to Buna-N

Uses: Water, Sludge, Sewer Service

Test Pressures:	Size	Seat*	Shell
	2" - 12"	200psi	400psi
	14" - 72"	150psi	300psi

*rated working pressure

Size Od	ANSI B16.1 CL.125							
Inches	L	OD	OC	OH	n	T	H	H1
2	8	6	4-3/4	3/4	4	5/8	4-15/16	3
2-1/2	8-1/2	7	5-1/2	3/4	4	11/16	5-11/16	3-1/2
3	9-1/2	7-1/2	6	3/4	4	3/4	6-1/16	3-3/4
4	11-1/2	9	7-1/2	3/4	8	15/16	6-7/8	4-1/2
6	14	11	9-1/2	7/8	8	1	8-1/2	5-1/2
8	19-1/2	13-1/2	11-3/4	7/8	8	1-1/8	9-15/16	6-3/4
10	24-1/2	16	14-1/4	1	12	1-3/16	11-3/16	8
12	27-1/2	19	17	1	12	1-1/4	13-9/16	9-1/2
14	31	21	18-3/4	1-1/8	12	1-3/8	19-5/16	12-1/16
16	36	23-1/2	21-1/4	1-1/8	16	1-7/16	21-1/2	13-1/4
18	40	25	22-3/4	1-1/4	16	1-9/16	25-1/8	12-1/2
20	40	27-1/2	25	1-1/4	20	1-11/16	27	13-3/4
24	48	32	29-1/2	1-3/8	20	1-7/8	31-5/8	16
30	52-1/2	38-3/4	36	1-3/8	28	2-1/8	36-3/8	19-3/8
36	60-1/2	46	42-3/4	1-5/8	32	2-3/8	40	23

Dimensions for larger sizes available upon request.

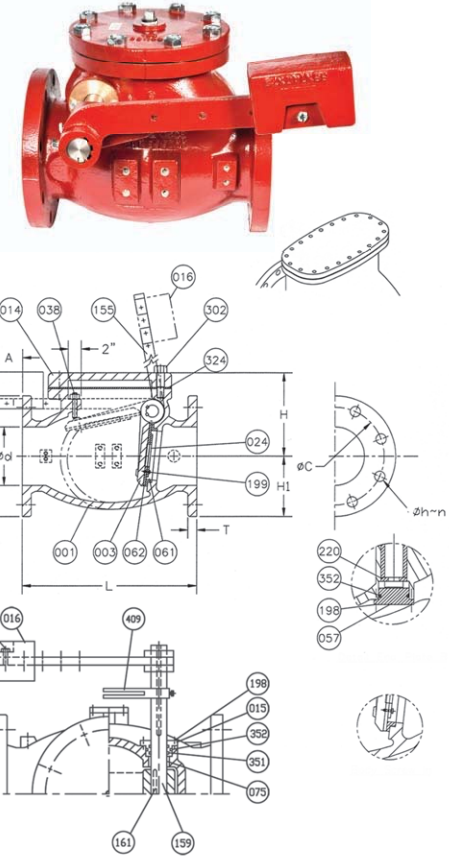
NO.	Parts	Material	ASTM Designation
405	SPRING	STAINLESS STEEL	A276 GRADE 304
404	BOLT	STAINLESS STEEL	A276 GRADE 304
403	STRAIGHT BOLT	STAINLESS STEEL	A276 GRADE 304
402	BRACKET	STAINLESS STEEL*	A276 GRADE 304
401	NUT	STAINLESS STEEL	A276 GRADE 304
351	O-RING	RUBBER (BUNA N)	D2000 BK 707
324	COVER GASKET	RUBBER (BUNA N)	D2000 BK 807
302	COVER BOLT	ZINC COATED STEEL	A307 GRADE B
291	WASHER	BRASS	B21
287	SPACER	BRASS	B21
281	DISC NUT	BRASS	B21
262	DISC STUD	BRASS	B21
197	WEIGHT BOLT	ZINC COATED STEEL	A307 GRADE B
188	DISC SEAT BOLT	STAINLESS STEEL	A276 GRADE 304
167	ROLL PIN	STAINLESS STEEL	A276 GRADE 304
166	RETAINING PLUG	BRASS	B21
161	KEY	STAINLESS STEEL	A276 GRADE 304
159	HINGE PIN	STAINLESS STEEL	A276 GRADE 304
155	WEIGHT ARM	DUCTILE IRON	A536 GRADE 65-45-12
154	BOLT W/NUT	ZINC COATED STEEL	A307 GRADE B
088	SEAT NUT	BRASS	B21
062	DISC SEAT RING	RUBBER (BUNA N)	D2000 BK 807
061	BODY SEAT RING	BRONZE	B62
024	SEAT HOLDER	2"-6" CAST IRON	A126 CLASS B
024	SEAT HOLDER	8"+ DUCTILE IRON	A536 GR 65-45-12
023	DISC ARM	DUCTILE IRON	A536 GR 65-45-12
016	WEIGHT	CAST IRON	A126 CLASS B
014	COVER	CAST IRON	A126 CLASS B
003	DISC	CAST IRON	A126 CLASS B
001	BODY	CAST IRON	A126 CLASS B

*Chrome plated steel brackets supplied on larger size valves.

**For reference ONLY. Contact Pratt for detailed sales drawings.

Pratt Series 9001 AWWA Swing Check Valve Outside Lever and Weight or Spring

Series 9001 swing check valves are self-contained, free-swinging disc style with outside lever and weight or outside lever and spring. Valves conform to all standards set forth in AWWA C508, Latest Edition. These valves feature enlarged hinge pins and upgraded materials of construction set forth for air or oil cushion valves. Suitable for use in wastewater, water, sewage, oil and gas applications. Valves are produced in cast iron body, bronze or stainless steel seat rings, Buna-N or EPDM disc inserts, and hinge pins of corrosion resistant stainless steel. Internal and external epoxy coating conforming to AWWA C550 is a standard. Valves are designed for horizontal or vertical installations and for uninterrupted continuous service. Valves are field convertible to bronze air cushion or oil cushion systems.



Features/Specs

- Clear waterway
- Enlarged stainless steel hinge pin
- Flanges conform to ANSI B16.1 Class 125
- Lever and weight may be installed on either side
- Valve may be installed in vertical line with flow up
- Disc seat standard with Buna-N insert for bubble tight shut off
- Body and disc seat rings are field replaceable
- Meets AWWA C508 standards
- Low zinc bronze or stainless steel seat rings
- Field convertible to air or oil systems
- Valves available in ductile iron (class 125/class 250)
- ANSI B16.1: Cast iron pipe flanges and flanges fittings Class 125
- AWWA C508: Swing check valves for waterworks service, 2" through 24"
- 8 mils NSF 61 epoxy in and out

Sizes: 3" - 72"

Styles: Bronze to Bronze, Bronze to Buna-N,
Stainless Steel to Buna-N

Uses: Water, Sludge, Sewer Service

Test Pressures:	Size	Seat*	Shell
	2" - 12"	200psi	400psi
	14" - 72"	150psi	300psi

*rated working pressure

Size Od		ANSI B16.1 CL.125						
Inches	L	OD	OC	OH	n	T	H	H1
3	11	7-1/2	6	3/4	4	3/4	6-3/8	3-3/4
4	13	9	7-1/2	3/4	8	15/16	7-3/8	4-1/2
6	16	11	9-1/2	7/8	8	1	9-3/16	5-1/2
8	19-1/2	13-1/2	11-3/4	7/8	8	1-1/8	10-7/8	6-3/4
10	22	16	14-1/4	1	12	1-3/16	13-5/16	8
12	26	19	17	1	12	1-1/4	15-9/16	9-1/2
14	30	21	18-3/4	1-1/8	12	1-3/8	21-1/16	12-1/16
16	30-1/2	23-1/2	21-1/4	1-1/8	16	1-7/16	24	13-5/16
18	33-1/2	25	22-3/4	1-1/4	16	1-9/16	27-9/16	14-5/8
20	40	27-1/2	25	1-1/4	20	1-11/16	31-5/16	15-3/8
24	46	32	29-1/2	1-3/8	20	1-7/8	35-1/4	17-7/8
30	60	38-3/4	36	1-3/8	28	2-1/8	36	23-1/16
36	63	46	42-3/4	1-5/8	32	2-3/8	41-15/16	27-11/16
42	70	53	49-1/2	1-5/8	36	2-5/8	46-3/4	32-1/8
48	76	59-1/2	56	1-5/8	44	2-3/4	53-1/8	35-1/2

Dimensions for larger sizes available upon request.

NO.	Parts	Material	ASTM Designation
409	TEAR DROP	DUCTILE IRON	A536 GR.65-45-12
352	O-RING C	RUBBER (BUNA N)	D2000 BK 707
351	O-RING B	RUBBER (BUNA N)	D2000 BK 707
324	COVER GASKET	RUBBER (BUNA N)	D2000 BK 807
302	COVER BOLT	ZINC COATED STEEL	A307 GRADE B
283	ARM BOLT	ZINC COATED STEEL	A307 GRADE B
220	SNAP RING	STAINLESS STEEL	A276 GRADE 304
199	SEAT HOLDER BOLT	STAINLESS STEEL	A276 GRADE 304
198	END PLATE BOLT	ZINC COATED STEEL	A307 GRADE B
197	WEIGHT BOLT	ZINC COATED STEEL	A307 GRADE B
161	KEY	STAINLESS STEEL	A276 GRADE 304
159	HINGE PIN	STAINLESS STEEL	A276 GRADE 304
155	WEIGHT ARM	DUCTILE IRON	A536 GR.65-45-12
075	BUSHING	BRONZE	B62
062	DISC SEAT RING	RUBBER (BUNA N)	D2000 BK 807
061	BODY SEAT RING	BRONZE	B62
057	END PLATE B	DUCTILE IRON	A536 GR.65-45-12
038	STOPPER	STAINLESS STEEL	A276 GRADE 304
024	SEAT HOLDER	3"-6" CAST IRON	A126 CLASS B
024	SEAT HOLDER	8"+ DUCTILE IRON	A536 GR 65-45-12
016	WEIGHT	CAST IRON	A126 CLASS B
015	END PLATE A	BRONZE	B62
014	COVER	CAST IRON	A126 CLASS B
003	DISC	DUCTILE IRON	A536 GR.65-45-12
001	BODY	CAST IRON	A126 CLASS B

* For reference ONLY. Contact Pratt for detailed sales drawings.

Pratt Series 9001 AWWA Swing Check Valve Air Cushion with Outside Lever and Weight or Spring

Features:

- Clear waterway
- Enlarged stainless steel hinge pin
- Flanges conform to ANSI B16.1 Class 125
- Lever and weight may be installed on either side
- Valves may be installed in vertical line with flow up
- Body and disc seat rings are field replaceable
- Disc seat standard with Buna-N insert for bubble tight shut off
- Totally enclosed bronze air cushion with stainless steel hardware
- Adjustable speed control
- Meets AWWA standards of dimensional standards of large pin cushion products
- 8 mils NSF 61 epoxy in and out

Sizes: 3" - 72"

Styles: Bronze to Bronze, Bronze to Buna-N,
Stainless Steel to Buna-N

Uses: Water, Sludge, Sewer Service



Specification for Series 9001 with Air Cushion

General: Swing check valves are of self-contained, free-swinging disc style, allowing a clear waterway. Valve disc swings freely open and is keyed to valve hinge pin without the use of pins. Valves conform to all standards set forth in AWWA C508, Latest Edition. Valve hinge pin are Stainless Steel and conform to the industry standards set forth for cushion valves. Manufacturer should have a minimum of ten years experience supplying air cushion AWWA C508 valves.

Referenced Standards:

- ANSI B16.1: Cast Iron Pipe Flanges and Flanged Fittings Class 125
- AWWA C508: Swing Check Valves for Waterworks Service, 2" through 24" NPS

Rating:

Valves are rated for 200psi on 12" and smaller, and 150psi on 14" and larger water working pressure. Valves are available in ductile iron for high pressure applications. All testing is done in accordance with AWWA C508.

End Configuration:

Valves have integrally cast flat face flanges in accordance with ANSI B16.1 Class 125.

Materials:

- All cast iron used conforms to ASTM A126 CLB
- Disc is of ductile iron conforming to ASTM A536 GR65-45-12
- Hinge Pins conform to ASTM A276 GR304
- Seat Rings are of Low Zinc Bronze conforming to ASTM B62 or of Stainless Steel conforming to ASTM A276 GR316

Coating: Internal and external coatings are two-component epoxy conforming to AWWA C550.

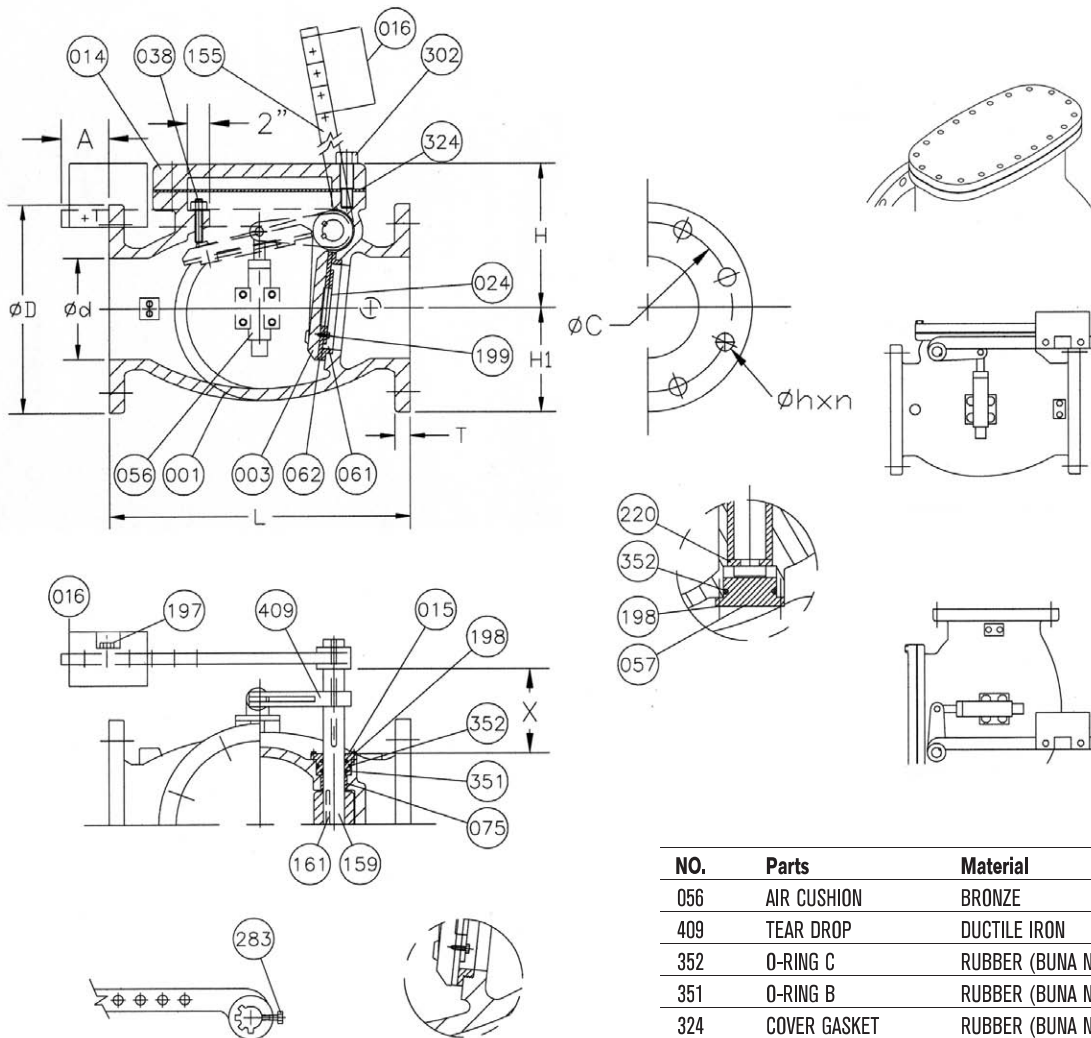
Design: All valves meet the standards of AWWA C508. All valves utilize a single disc mounted to a clevis hinge which prevents the disc from tipping. The valve disc swings open once the pump starts and allows for full flow. When closed the valve offers a tight shut-off. Valve body and cover are of Cast Iron, valve hinge is of Ductile Iron. Disc seating surface is either Bronze, Stainless Steel or of Buna-N depending on application. Valve seat rings are of Bronze or Stainless Steel.

The valve body has a bolted cover design and flanges are integral to body casting -not wafer style. Valve body and disc are designed in such a way as to minimize turbulence. Spring and cushion systems are externally mounted on the side of the body and do not come into contact with main line media.

Cushion systems are one-piece all bronze construction with integral pad mounted directly to the body with stainless steel fasteners. Air cushion shall consist of bronze and stainless steel components, be adjustable by means of a flow control valve and piston sleeve. Air cushion shall be totally enclosed with a metal end cap with an o-ring.

Installation: All valves are built for horizontal installation. However, all valves operate equally well in vertical installations. Prior to valve installation Pratt should be notified of vertical mounting position so lever arm and weight can be properly positioned on valve.

Pratt Series 9001 AWWA Swing Check Valve Air Cushion with Outside Lever and Weight or Spring



Size Od	ANSI B16.1 CL.125							
Inches	L	OD	OC	OH	n	T	H	H1
3	11	7-1/2	6	3/4	4	3/4	6-3/8	3-3/4
4	13	9	7-1/2	3/4	8	15/16	7-3/8	4-1/2
6	16	11	9-1/2	7/8	8	1	9-3/16	5-1/2
8	19-1/2	13-1/2	11-3/4	7/8	8	1-1/8	10-7/8	6-3/4
10	22	16	14-1/4	1	12	1-3/16	13-5/16	8
12	26	19	17	1	12	1-1/4	15-9/16	9-1/2
14	30	21	18-3/4	1-1/8	12	1-3/8	21-1/16	12-1/16
16	30-1/2	23-1/2	21-1/4	1-1/8	16	1-7/16	24	13-5/16
18	33-1/2	25	22-3/4	1-1/4	16	1-9/16	27-9/16	14-5/8
20	40	27-1/2	25	1-1/4	20	1-11/16	31-5/16	15-3/8
24	46	32	29-1/2	1-3/8	20	1-7/8	35-1/4	17-7/8
30	60	38-3/4	36	1-3/8	28	2-1/8	36	23-1/16
36	63	46	42-3/4	1-5/8	32	2-3/8	41-15/16	27-11/16
42	70	53	49-1/2	1-5/8	36	2-5/8	46-3/4	32-1/8
48	76	59-1/2	56	1-5/8	44	2-3/4	53-1/8	35-1/2

Dimensions for larger sizes available upon request.

NO.	Parts	Material	ASTM Designation
056	AIR CUSHION	BRONZE	B62
409	TEAR DROP	DUCTILE IRON	A536 GR 65-45-12
352	O-RING C	RUBBER (BUNA N)	D2000 BK 707
351	O-RING B	RUBBER (BUNA N)	D2000 BK 707
324	COVER GASKET	RUBBER (BUNA N)	D2000 BK 807
302	COVER BOLT	ZINC COATED STEEL	A307 GRADE B
283	ARM BOLT	ZINC COATED STEEL	A307 GRADE B
220	SNAP RING	STAINLESS STEEL	A276 GRADE 304
199	SEAT HOLDER BOLT	STAINLESS STEEL	A276 GRADE 304
198	END PLATE BOLT	ZINC COATED STEEL	A307 GRADE B
197	WEIGHT BOLT	ZINC COATED STEEL	A307 GRADE B
161	KEY	STAINLESS STEEL	A276 GRADE 304
159	HINGE PIN	STAINLESS STEEL	A276 GRADE 304
155	WEIGHT ARM	DUCTILE IRON	A536 GR 65-45-12
075	BUSHING	BRONZE	B62
062	DISC SEAT RING	RUBBER (BUNA N)	D2000 BK 807
061	BODY SEAT RING	BRONZE	B62
057	END PLATE B	DUCTILE IRON	A536 GR 65-45-12
038	STOPPER	STAINLESS STEEL	A276 GRADE 304
024	SEAT HOLDER	3"-6" CAST IRON	A126 CLASS B
024	SEAT HOLDER	8"+ DUCTILE IRON	A536 GR 65-45-12
016	WEIGHT	CAST IRON	A126 CLASS B
015	END PLATE A	BRONZE	B62
014	COVER	CAST IRON	A126 CLASS B
003	DISC	DUCTILE IRON	A536 GR 65-45-12
001	BODY	CAST IRON	A126 CLASS B

* For reference ONLY. Contact Pratt for detailed sales drawings.

Pratt Series 9001 AWWA Swing Check Valve Oil Decelerator with Outside Lever and Weight or Spring

Features:

- Clear waterway
- Enlarged stainless steel hinge pin
- Flanges conform to ANSI B16.1 Class 125
- Lever and weight may be installed on either side
- Valves may be installed in vertical line with flow up
- Body and disc seat rings are field replaceable
- Disc seat standard with Buna-N insert for bubble tight shut off
- Meets AWWA standards of dimensional standards of large pin cushion products
- 100% oil controlled system with adjustable speed control valve
- 8 mils NSF 61 epoxy in and out

Sizes: 3" - 72"

Styles: Bronze to Bronze, Bronze to Buna-N, Stainless Steel to Buna-N

Uses: Water, Sludge, Sewer Service



Specification for Series 9001 with Oil Cushion

General: Swing check valves are of self-contained, free-swinging disc style allowing a clear waterway. Valve disc swings freely open and is keyed to valve hinge pin without the use of pins. Valves conform to all standards set forth in AWWA C508, Latest Edition. Valve hinge pins are Stainless Steel and conform to the industry standards set forth for cushion valves. Manufacturer should have a minimum of ten years experience supplying oil cushion AWWA C508 valves.

Referenced Standards:

- ANSI B16.1: Cast Iron Pipe Flanges and Flanged Fittings Class 125
- AWWA C508: Swing Check Valves for Waterworks Service, 2" through 24" NPS

Rating:

Valves are rated for 200psi on 12" and smaller, and 150psi on 14" and larger water working pressure. Valves available in ductile iron for high pressure applications. All testing is done in accordance with AWWA C508.

End Configuration: Valves have integrally cast flat face flanges in accordance with ANSI B16.1 Class 125.

Materials:

- All cast iron used conforms to ASTM A126 CLB
- Disc is of ductile iron conforming to ASTM A536 GR65-45-12
- Hinge pins conform to ASTM A276 CR304
- Seat Rings are of Low Zinc Bronze conforming to ASTM B62 or of Stainless Steel conforming to ASTM A276 GR316

Coating: Internal and external coatings are two-component epoxy conforming to AWWA C550.

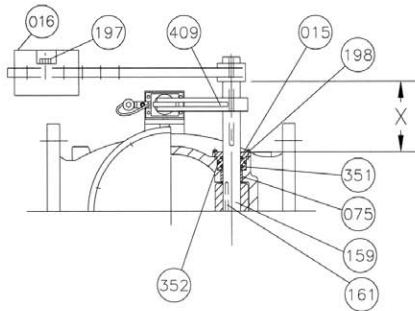
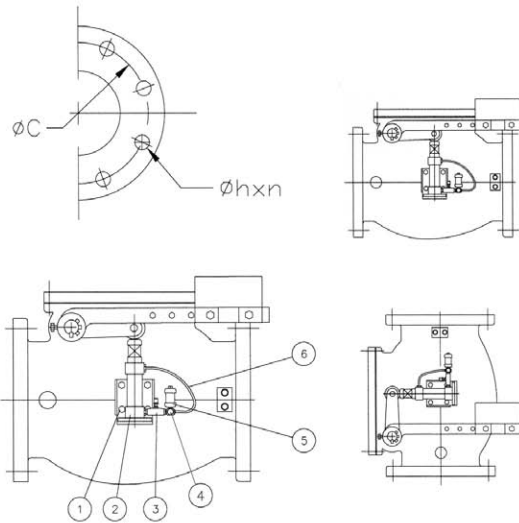
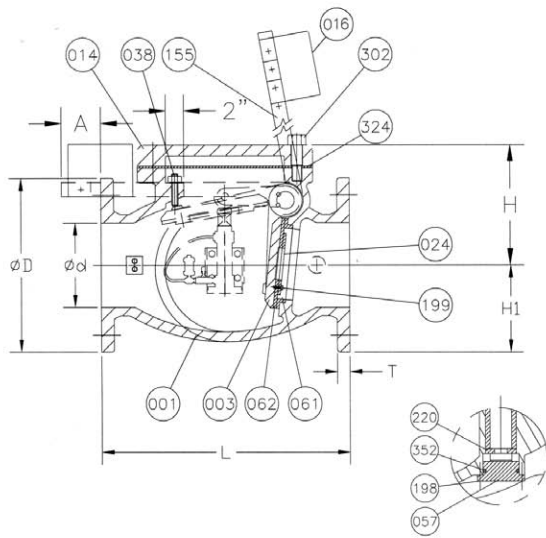
Design: All valves meet the standards of AWWA C508. All valves utilize a single disc mounted to a clevis hinge which prevents the disc from tipping. The valve disc swings open once the pump starts and allows full flow. When closed the valve offers a tight shut-off. Valve body and cover are of Cast Iron; valve hinge is of Ductile Iron. Disc seating surface is Bronze, Stainless Steel or Buna-N depending on application. Valve seat rings are of Bronze or Stainless Steel.

The valve body has a bolted cover design and flanges are integral to body casting -not wafer style. Valve body and disc are designed in such a way as to minimize turbulence. Spring and cushion systems are externally mounted on the side of the body and do not come into contact with main line media.

The hydraulic cylinder and system, mounted on the external side of the valve, shall cushion the valve as the oil travels from the cylinder to the oil reservoir. The system is totally enclosed and separate from the line media. Contamination of the hydraulic system or obstruction of line flow is prevented in this side-mounted system. The discharge head from the pump allows the valve to open raising the outside lever and weight or spring. The disc swings freely to the open position. Upon pump shut down the outside weight or spring assists the disc to close until the roller on tear drop comes in contact with the pad on the hydraulic cylinder. The cushioning actions occur as the oil flows through the system, closure control takes place by adjustment of the control valve (part number 3). The system is completely field adjustable.

Installation: All valves are built for horizontal installation. However, all valves operate equally well in vertical installations. Prior to valve installation Pratt should be notified of vertical mounting position so lever arm and weight can be properly positioned on valve.

Pratt Series 9001 AWWA Swing Check Valve Oil Decelerator with Outside Lever and Weight or Spring



Sizes Od		ANSI B16.1 CL.125						
Inches	L	OD	OC	OH	n	T	H	H1
3	11	7-1/2	6	3/4	4	3/4	6-3/8	3-3/4
4	13	9	7-1/2	3/4	8	15/16	7-3/8	4-1/2
6	16	11	9-1/2	7/8	8	1	9-3/16	5-1/2
8	19-1/2	13-1/2	11-3/4	7/8	8	1-1/8	10-7/8	6-3/4
10	22	16	14-1/4	1	12	1-3/16	13-5/16	8
12	26	19	17	1	12	1-1/4	15-9/16	9-1/2
14	30	21	18-3/4	1-1/8	12	1-3/8	21-1/16	12-1/16
16	30-1/2	23-1/2	21-1/4	1-1/8	16	1-7/16	24	13-5/16
18	33-1/2	25	22-3/4	1-1/4	16	1-9/16	27-9/16	14-5/8
20	40	27-1/2	25	1-1/4	20	1-11/16	31-5/16	15-3/8
24	46	32	29-1/2	1-3/8	20	1-7/8	35-1/4	17-7/8
30	60	38-3/4	36	1-3/8	28	2-1/8	36	23-1/16
36	63	46	42-3/4	1-5/8	32	2-3/8	41-15/16	27-11/16
42	70	53	49-1/2	1-5/8	36	2-5/8	46-3/4	32-1/8
48	76	59-1/2	56	1-5/8	44	2-3/4	53-1/8	35-1/2

Dimensions for larger sizes available upon request.

NO.	Parts	Material	ASTM Designation
6	HYDRAULIC HOSE	3000PSI	COMMERCIAL
5	RESERVOIR	PVC	GREY PVC
4	BRASS TEE	BRASS	B124 GR377
3	CONTROL VALVE	BRASS, NEEDLE CHECK	B124 GR377
2	OIL CUSHION	COMMERCIAL HYDRAULIC CYLINDER	NFPA RATED
1	MOUNTING BRACKET	STEEL	A36
409	TEAR DROP	DUCTILE IRON	A536 GR.65-45-12
352	O-RING C	RUBBER (BUNA N)	D2000 BK 707
351	O-RING B	RUBBER (BUNA N)	D2000 BK 707
324	COVER GASKET	RUBBER (BUNA N)	D2000 BK 807
302	COVER BOLT	ZINC COATED STEEL	A307 GRADE B
283	ARM BOLT	ZINC COATED STEEL	A307 GRADE B
220	SNAP RING	STAINLESS STEEL	A276 GRADE 304
199	SEAT HOLDER BOLT	STAINLESS STEEL	A276 GRADE 304
198	END PLATE BOLT	ZINC COATED STEEL	A307 GRADE B
197	WEIGHT BOLT	ZINC COATED STEEL	A307 GRADE B
161	KEY	STAINLESS STEEL	A276 GRADE 304
159	HINGE PIN	STAINLESS STEEL	A276 GRADE 304
155	WEIGHT ARM	DUCTILE IRON	A536 GR.65-45-12
075	BUSHING	BRONZE	B62
062	DISC SEAT RING	RUBBER (BUNA N)	D2000 BK 807
061	BODY SEAT RING	BRONZE	B62
057	END PLATE B	DUCTILE IRON	A536 GR.65-45-12
038	STOPPER	STAINLESS STEEL	A276 GRADE 304
024	SEAT HOLDER	3"-6" CAST IRON	A126 CLASS B
024	SEAT HOLDER	8"+ DUCTILE IRON	A536 GR 65-45-12
016	WEIGHT	CAST IRON	A126 CLASS B
015	END PLATE A	BRONZE	B62
014	COVER	CAST IRON	A126 CLASS B
003	DISC	DUCTILE IRON	A536 GR.65-45-12
001	BODY	CAST IRON	A126 CLASS B

* For reference ONLY. Contact Pratt for detailed sales drawings.

Pratt Series 9001 AWWA Swing Check Valve Three Stage Oil Cushion with Outside Lever and Weight or Spring

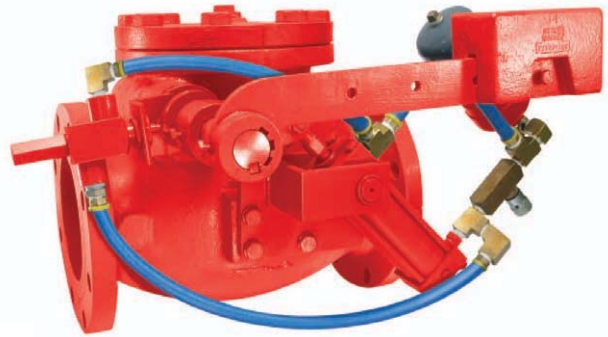
Features:

- Clear waterway
- Enlarged stainless steel hinge pin
- Flanges conform to ANSI B16.1 Class 125
- Lever and weight may be installed on either side
- Valves may be installed in vertical line with flow up
- Body and disc seat rings are field replaceable
- Disc seat standard with Buna-N insert for bubble tight shut off
- Meets AWWA standards of dimensional standards of large pin cushion products
- 100% oil controlled system with adjustable speed control valve timing valve
- Totally enclosed oil cushion system with stainless steel hardware
- 8 mils NSF 61 epoxy in and out

Sizes: 3" - 72"

Styles: Bronze to Bronze, Bronze to Buna-N, Stainless Steel to Buna-N

Uses: Water, Sludge, Sewer Service



Specification for Series 9001 with 3-Stage Oil Cushion

General: Swing check valves are of self-contained, free-swinging disc style, allowing a clear waterway. Valve disc swings freely open and is keyed to valve hinge pin without the use of pins. Valves conform to all standards set forth in AWWA C508, Latest Edition. Valve hinge pins are Stainless Steel and conform to the industry standards set forth for cushion valves. Manufacturer should have a minimum of ten years experience supplying air and oil cushion AWWA C508 valves.

Referenced Standards:

- ANSI B16.1: Cast Iron Pipe Flanges and Flanged Fittings Class 125
- AWWA C508: Swing Check Valves for Waterworks Service, 2" through 24" NPS

Rating: Valves are rated for 200psi on 12" and smaller, and 150psi on 14" and larger water working pressure. Valves available in ductile iron for high pressure applications. All testing is done in accordance with AWWA C508.

End Configuration: Valves have integrally cast flat face flanges in accordance with ANSI B16.1 Class 125.

Materials:

- All cast iron used conforms to ASTM A126 CLB
- Disc is of ductile iron conforming to ASTM A536 GR65-45-12
- Hinge Pins conform to ASTM A276 GR316
- Seat Rings are of Stainless Steel conforming to ASTM A276 GR316

Coating: Internal and external coatings are two-component epoxy conforming to AWWA C550.

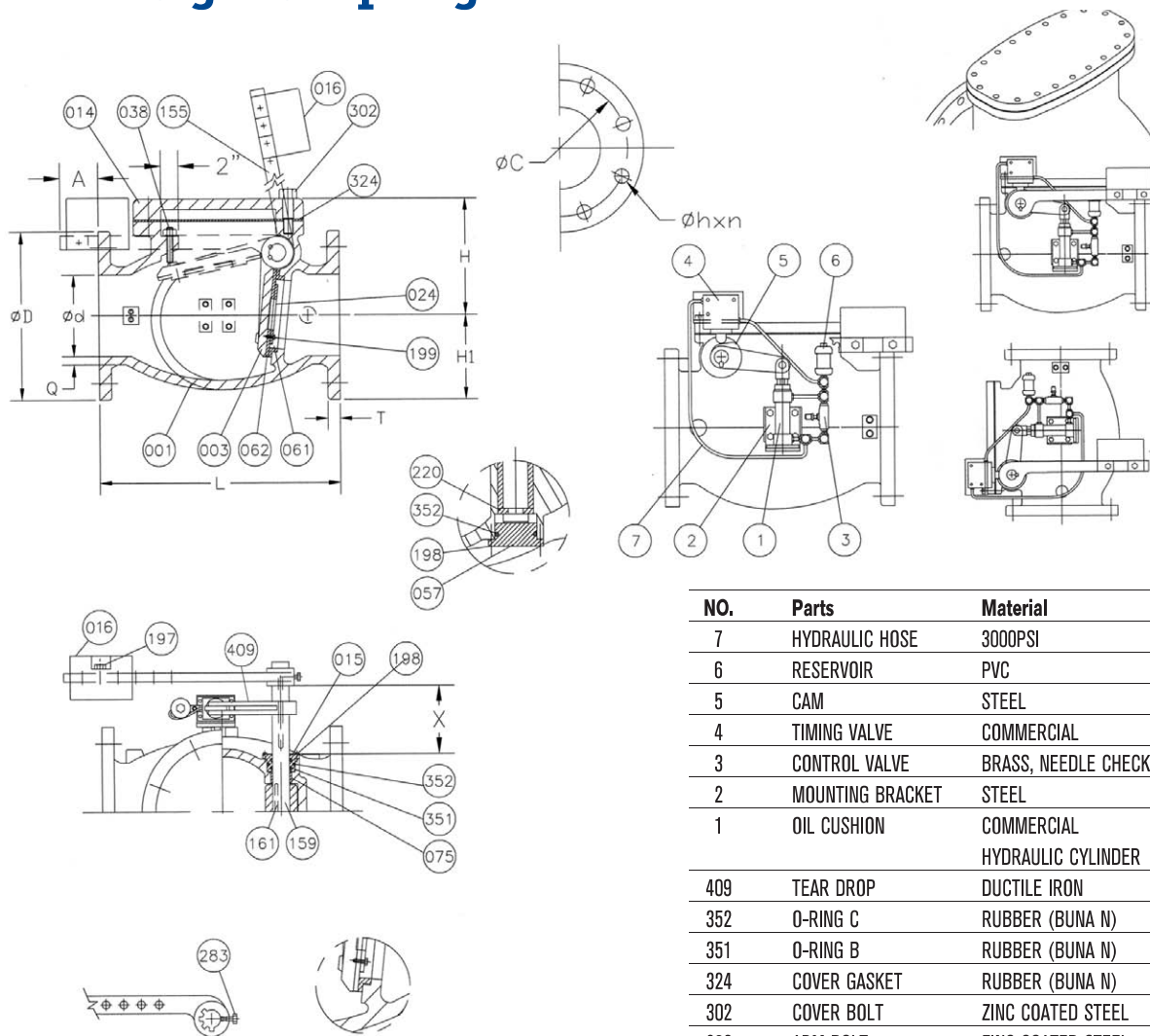
Design: All valves meet the standards of AWWA C508. All valves utilize a single disc mounted to a clevis hinge which prevents the disc from tipping. The valve disc swings open once the pump starts and allows for full flow. When closed the valve offers a tight shut-off. Valve body and cover are of Cast Iron; valve hinge is of Ductile Iron. Disc seating surface is Buna-N with seat holder of Stainless Steel. Valve seat rings are of Stainless Steel ASTM A276 GR316. Cover fasteners shall be Stainless Steel.

The valve body has a bolted cover design and flanges are integral to body casting -not wafer style. Valve body and disc are designed in such a way as to minimize turbulence. Spring and cushion systems are externally mounted on the side of the body and do not come into contact with main line media.

The three stage oil cushion system is totally enclosed, providing slow open and controlled closing to prevent surge and water hammer. Stage one shall be controlled by a timing valve, stage two by flow control valve and stage three by an internal cushion adjustment of the cylinder. Each stage is independently field adjustable in this totally enclosed system. The timing valve is plunger activated that makes contact with the cam on the hinge pin. Adjustment of the cam increases or reduces the closure speed of the swing check valve. The cushioning actions occur as the oil flows through the system.

Installations: All valves are built for horizontal installation. However, all valves operate equally well in vertical installations. Prior to valve installation Pratt should be notified of vertical mounting position so lever arm and weight can be properly positioned on valve.

Pratt Series 9001 AWWA Swing Check Valve Three Stage Oil Cushion with Outside Lever and Weight or Spring



Size Od	ANSI B16.1 CL.125							
Inches	L	OD	OC	OH	n	T	H	H1
3	11	7-1/2	6	3/4	4	3/4	6-3/8	3-3/4
4	13	9	7-1/2	3/4	8	15/16	7-3/8	4-1/2
6	16	11	9-1/2	7/8	8	1	9-3/16	5-1/2
8	19-1/2	13-1/2	11-3/4	7/8	8	1-1/8	10-7/8	6-3/4
10	22	16	14-1/4	1	12	1-3/16	13-5/16	8
12	26	19	17	1	12	1-1/4	15-9/16	9-1/2
14	30	21	18-3/4	1-1/8	12	1-3/8	21-1/16	12-1/16
16	30-1/2	23-1/2	21-1/4	1-1/8	16	1-7/16	24	13-5/16
18	33-1/2	25	22-3/4	1-1/4	16	1-9/16	27-9/16	14-5/8
20	40	27-1/2	25	1-1/4	20	1-11/16	31-5/16	15-3/8
24	46	32	29-1/2	1-3/8	20	1-7/8	35-1/4	17-7/8
30	60	38-3/4	36	1-3/8	28	2-1/8	36	23-1/16
36	63	46	42-3/4	1-5/8	32	2-3/8	41-15/16	27-11/16
42	70	53	49-1/2	1-5/8	36	2-5/8	46-3/4	32-1/8
48	76	59-1/2	56	1-5/8	44	2-3/4	53-1/8	35-1/2

Dimensions for larger sizes available upon request.

NO.	Parts	Material	ASTM Designation
7	HYDRAULIC HOSE	3000PSI	COMMERCIAL
6	RESERVOIR	PVC	GREY PVC
5	CAM	STEEL	A36
4	TIMING VALVE	COMMERCIAL	FORGED STEEL
3	CONTROL VALVE	BRASS, NEEDLE CHECK	B124 GR377
2	MOUNTING BRACKET	STEEL	A36
1	OIL CUSHION	COMMERCIAL HYDRAULIC CYLINDER	NFPA RATED
409	TEAR DROP	DUCTILE IRON	A536 GR.65-45-12
352	O-RING C	RUBBER (BUNA N)	D2000 BK 707
351	O-RING B	RUBBER (BUNA N)	D2000 BK 707
324	COVER GASKET	RUBBER (BUNA N)	D2000 BK 807
302	COVER BOLT	ZINC COATED STEEL	A307 GRADE B
283	ARM BOLT	ZINC COATED STEEL	A307 GRADE B
220	SNAP RING	STAINLESS STEEL	A276 GRADE 304
199	SEAT HOLDER BOLT	STAINLESS STEEL	A276 GRADE 304
198	END PLATE BOLT	ZINC COATED STEEL	A307 GRADE B
197	WEIGHT BOLT	ZINC COATED STEEL	A307 GRADE B
161	KEY	STAINLESS STEEL	A276 GRADE 304
159	HINGE PIN	STAINLESS STEEL	A276 GRADE 304
155	WEIGHT ARM	DUCTILE IRON	A536 GR.65-45-12
075	BUSHING	BRONZE	B62
062	DISC SEAT RING	RUBBER (BUNA N)	D2000 BK 807
061	BODY SEAT RING	BRONZE	B62
057	END PLATE B	DUCTILE IRON	A536 GR.65-45-12
038	STOPPER	STAINLESS STEEL	A276 GRADE 304
024	SEAT HOLDER	3"-6" CAST IRON	A126 CLASS B
024	SEAT HOLDER	8"+ DUCTILE IRON	A536 GR 65-45-12
016	WEIGHT	CAST IRON	A126 CLASS B
015	END PLATE A	BRONZE	B62
014	COVER	CAST IRON	A126 CLASS B
003	DISC	DUCTILE IRON	A536 GR.65-45-12
001	BODY	CAST IRON	A126 CLASS B

* For reference ONLY. Contact Pratt for detailed sales drawings.

Pratt Series 8501 Ductile Iron AWWA Swing Check Valves Air Cushion with Outside Lever and Weight or Spring

Features:

- Full waterway
- Ductile iron body, cover and disc hinge arm construction
- Stainless steel hinge pin
- Flanges conform to ANSI B16.1 Class 125 (250# flange available)
- Lever and weight may be installed on either side
- Valves may be installed in vertical line with flow up
- Disc seat standard with Buna-N insert for bubble tight shut off
- Body and disc seat rings are field replaceable
- Meets AWWA standards
- Totally enclosed bronze air cushion with stainless steel hardware
- For cushioning in low velocity applications (8-10 feet/second)
- Adjustable speed control
- 8 mils NSF 61 epoxy in and out

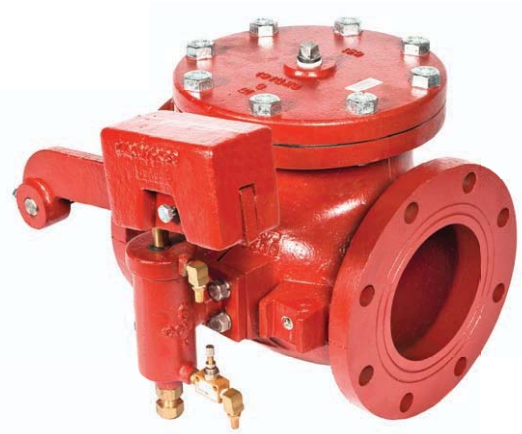
Sizes: 3" - 24"

Styles: Stainless Steel to Buna-N standard

Uses: Water, Sludge, Sewer Service

Test Pressures:	Seat*	Shell
	350psi	700psi

*rated working pressure



Specification:

General: Swing check valves are of self-contained, free-swinging disc style, allowing a full waterway. Valve disc swings freely open and is keyed to valve hinge pin without use of pins. Valves conform to all standards set forth in AWWA C508, Latest Edition. Valve hinge pins are Stainless Steel. Manufacturer should have minimum of 10 years experience supplying AWWA C508 valves

Referenced Standards:

- ANSI B16.1: Cast Iron Pipe Flanges and Flanged Fittings Class 125
- AWWA C508: Swing Check Valves for Waterworks Service, 2" through 24"

Rating: Valves are rated for 350psi water working pressure. All testing is done in accordance with AWWA C508.

End Configuration: Valves have integrally cast flat face flanges in accordance with ANSI B16.1 Class 125.

Materials:

- All ductile iron, which includes Hinge, Disc, Body and Cover conforms to ASTM GR-65-45-12
- Hinge Pins conform to ASTM A276 GR316
- Seat Rings are Stainless Steel conforming to ASTM A276 GR316

Coatings: Internal and external coatings are two-component epoxy conforming to AWWA C550.

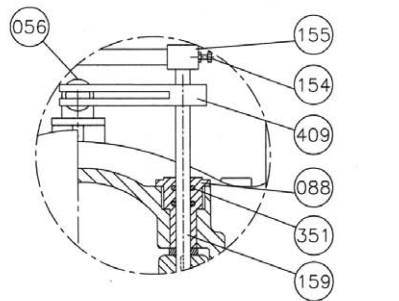
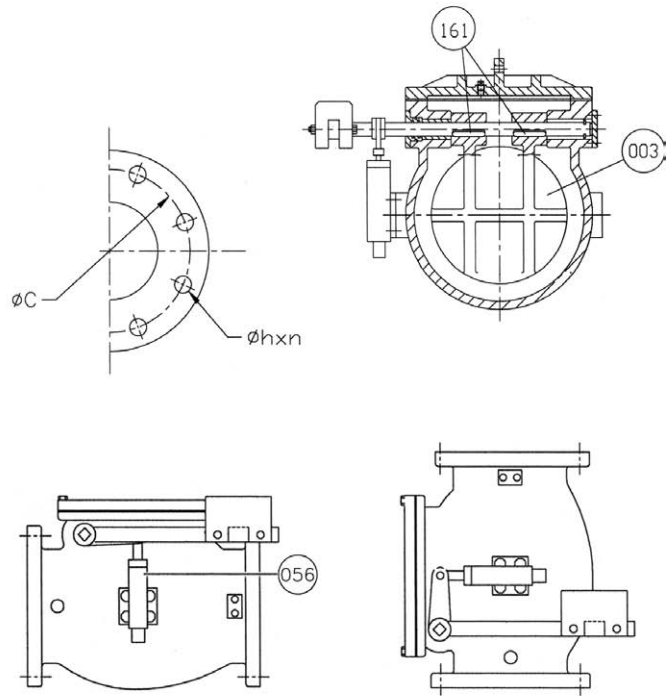
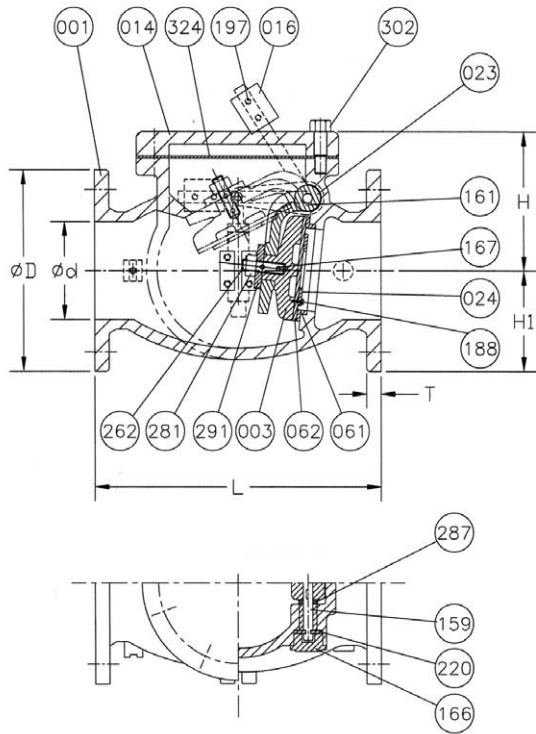
Design: All valves meet the standards of AWWA C508. All valves utilize a single disc mounted to a clevis hinge which prevents the disc from tipping. The valve disc swings open once the pump starts and allows for full flow. When closed the valve offers a tight shut-off. Valve body, cover and valve hinge are of Ductile Iron. Disc seating surface is Buna-N. Valve seat rings are of Stainless Steel.

The valve body has a bolted cover design and flanges are integral to body casting -not wafer style. Valve body and disc are designed in such a way as to minimize turbulence. Spring and Cushion systems are externally mounted on the side of the body and do not come in contact with main line media.

Cushion systems are one piece all bronze construction with integral pad mounted directly to the body with stainless steel fasteners. Air cushion shall consist of bronze and stainless steel components, be adjustable by means of a flow control valve and piston sleeve. Air cushion shall be totally enclosed with a metal end cap with an o-ring.

Installation: All valves are built for horizontal installation. However, all valves operate equally well in vertical installations. Prior to valve installation Pratt should be notified of vertical mounting position so lever arm and weight can be properly positioned on valve.

Pratt Series 8501 Ductile Iron AWWA Swing Check Valves Air Cushion with Outside Lever and Weight or Spring



Size Od	ANSI B16.1 CL.125								
	Inches	L	OD	OC	OH	n	T	H	H1
3	9-1/2	7-1/2	6	3/4	4	3/4	6-1/16	3-3/4	
4	11-1/2	9	7-1/2	3/4	8	15/16	6-5/8	4-1/2	
6	14	11	9-1/2	7/8	8	1	8-1/2	5-1/2	
8	19-1/2	13-1/2	11-3/4	7/8	8	1-1/8	9-15/16	6-3/4	
10	24-1/2	16	14-1/4	1	12	1-3/16	11-3/16	8	
12	27-1/2	19	17	1	12	1-1/4	13-9/16	9-1/2	
14	31	21	18-3/4	1-1/8	12	1-3/8	19-5/16	12-1/16	
16	36	23-1/2	21-1/4	1-1/8	16	1-7/16	21-1/2	13-5/16	
18	40	25	22-3/4	1-1/4	16	1-9/16	25	14-5/8	
20	40	27-1/2	25	1-1/4	20	1-11/16	27-9/16	15-3/8	
24	48	32	29-1/2	1-3/8	20	1-7/8	32-11/16	17-7/8	

Dimensions for larger sizes available upon request.

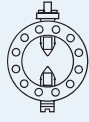
NO.	Parts	Material	ASTM Designation
056	AIR CUSHION	BRONZE	B62
409	TEAR DROP	DUCTILE IRON	A536 GR.65-45-12
351	O-RING	RUBBER (BUNA N)	D2000 BK 707
324	COVER GASKET	RUBBER (BUNA N)	D2000 BK 807
302	COVER BOLT	ZINC COATED STEEL	A307 GRADE B
291	WASHER	BRASS	B21
287	SPACER	BRASS	B21
281	DISC NUT	BRASS	B21
262	DISC STUD	BRASS	B21
220	SNAP RING	STAINLESS STEEL	-
197	WEIGHT BOLT W/NUT	ZINC COATED STEEL	A307 GRADE B
188	DISC SEAT BOLT	STAINLESS STEEL	A276 GRADE 304
167	ROLL PIN	STAINLESS STEEL	A276 GRADE 304
166	PLUG	MALLEABLE IRON	A47
161	KEY	STAINLESS STEEL	A27 GRADE 304
159	HINGE PIN	STAINLESS STEEL	A276 GRADE 316
155	LEVER	DUCTILE IRON	A536 GR.65-45-12
154	BOLT W/NUT	ZINC COATED STEEL	A307 GRADE B
088	SEAT NUT	BRASS	B21
062	DISC SEAT RING	RUBBER (BUNA N)	D2000 BK 807
061	BODY SEAT RING	STAINLESS STEEL	A276 GRADE 316
024	SEAT HOLDER	DUCTILE IRON	A536 GR.65-45-12
023	HINGE	DUCTILE IRON	A536 GR.65-45-12
016	WEIGHT	CAST IRON	A126 CLASS B
014	COVER	DUCTILE IRON	A536 GR.65-45-12
003	DISC	DUCTILE IRON	A536 GR.65-45-12
001	BODY	DUCTILE IRON	A536 GR.65-45-12

* For reference ONLY. Contact Pratt for detailed sales drawings.

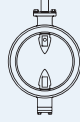
Notes

Notes

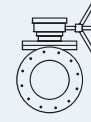
PRATT PRODUCT GUIDE



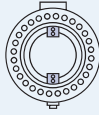
**Model
2FI**



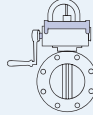
**Monoflange
MKII**



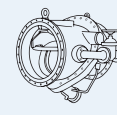
**Plug
Valve**



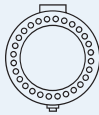
**Triton®
XR70**



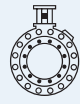
**Indicating Butterfly Valve
UL & FM approved**



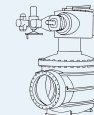
**Tilting Disc
Check Valve**



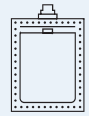
**Triton®
XL**



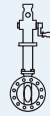
**N-Stamp Nuclear
Butterfly Valve**



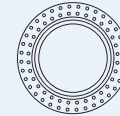
**Cone
Valve**



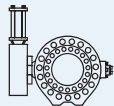
Rectangular



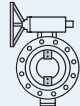
**PIVA Post Indicating Valve Assembly
UL & FM approved**



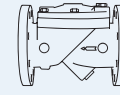
**Sleeve
Valve**



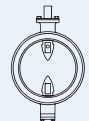
**Rubber Seated
Ball Valve**



**Triton®
HP250**



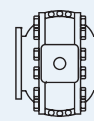
**Check
Valve**



**Groundhog®
Valve**



**Control
Systems**



**Metal Seated
Ball Valve**

PRATT



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Actuators**

Henry Pratt Company

401 South Highland Avenue
Aurora, Illinois 60506-5563
United States
630-844-4000
Fax 630-844-4160
www.henrypratt.com
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