

FLOMATIC[®] VALVES

BALL CHECK VALVES

Engineered Protection for Today's Municipal, Industrial, and OEM Systems



High Quality Valves Built to Last...[®]

***Design with Confidence.
Specify with Flomatic.***

*Our valve experts are ready to help
size, select, and support your valve
specification—every step of the way.*

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BALL CHECK VALVES

ENGINEERED FOR TODAY'S DEMANDING WATER SYSTEMS

Flomatic ball check valves are a proven and reliable solution for reverse flow prevention in water and wastewater systems, particularly where solid contaminants and debris are present. Their simple, rugged design makes them well-suited for demanding applications where dependable operation and reduced maintenance are essential.

Featuring a single moving component, ball check valves use a self-cleaning ball that lifts completely from the flow path under forward flow, providing low head loss and efficient operation.

As flow slows or reverses, the ball returns to the seat to form a secure seal. Continuous ball rotation helps dislodge debris, prevent clogging, and maintain consistent performance—reducing leakage and minimizing maintenance requirements over time.

Flomatic ball check valves deliver durable, long-term performance. Manufactured under ISO 9001 and ISO 14001 certified systems, these valves reflect Flomatic's commitment to quality, environmental responsibility, and long-term value for municipal and industrial infrastructure.

FEATURES & BENEFITS

- SIMPLE, RELIABLE OPERATION**
 With only one moving part, the valve automatically opens and closes with changes in flow direction. The simplicity of the design enhances reliability and reduces the potential for mechanical failure.
- LOW HEAD LOSS**
 The full-flow design allows the ball to move completely out of the flow path, reducing friction loss. Lower head loss helps decrease pump energy requirements and operating costs.
- SELF-CLEANING DESIGN**
 As the valve cycles, the rotating ball prevents debris buildup, roping, and clogging caused by modern trash (unlike swing check valves).
- LONG SERVICE LIFE**
 Corrosion resistant valve body materials—ductile iron, stainless steel, and PVC engineered plastic—combined with random ball reseating that distributes wear evenly, deliver extended service life in high-cycle and demanding operating conditions.
- LOW MAINTENANCE**
 A removable access cover allows for in-line inspection and service without removing the valve from the pipeline. Internal components are field replaceable, reducing maintenance time and cost.
- INSTALLATION FLEXIBILITY**
 Valves may be installed in horizontal or vertical orientations, providing versatility across a wide range of system layouts and applications.
- FLO-COAT® PROTECTION**
 NSF/ANSI 61 certified Flo-Coat® fusion-bonded epoxy coating per AWWA C550 is applied inside and out of ductile iron and cast iron valve models, providing long-lasting corrosion resistance.
- RETROFIT COMPATIBILITY**
MODELS 408 AND 408S6
 Manufactured to AWWA C508 swing check valve lay lengths, allowing direct replacement without piping modifications. Ideal for upgrading existing systems while minimizing downtime and installation costs.
- AIS & BABA COMPLIANT OPTIONS**
MODELS 408 AND 408S6 (SELECT SIZES)
 American Iron & Steel (AIS) and Build America, Buy America (BABA) compliant ball check valves are available. **Must be specified at time of quote and order. Consult factory for details.**



APPLICATIONS

- Wastewater and Sewage Systems
- Wastewater Lift Stations
- Pump Discharge Protection
- Waterworks Connections
- Industrial Pumping and Slurry Applications
- Stormwater Management Systems
- Flood Control Applications
- Air Venting Applications
- Irrigation Networks

CONFIGURATIONS

CONNECTION TYPES

- Flanged ANSI B16.1, Class 150
- Threaded (NPT)
- Socket-Weld

CONSTRUCTION MATERIALS

- Ductile Iron
- Cast Iron
- Stainless Steel
- PVC Engineered Plastic



MODELS 408 & 408S6

AWWA C508 SWING CHECK VALVE LENGTHS FOR EASY RETROFIT

Flomatic's Model 408 Series Ball Check Valves (Models 408 and 408S6) deliver dependable, low maintenance backflow protection for water and wastewater systems. Designed to match AWWA C508 swing check valve lay lengths, these valves provide a true drop in replacement

for existing installations—eliminating the need for piping modifications. This retrofit-friendly design streamlines installation, minimizes system downtime, and helps reduce overall project costs while delivering long term performance and reliability.

AIS & BABA COMPLIANT

MODEL 408

The Model 408 Ball Check Valve features a **ductile iron body** with a Flo-Coat® fusion-bonded epoxy coating for enhanced corrosion resistance, and bossed outlets to accommodate additional components. This model is available in sizes 2" to 16", with most sizes being AIS and BABA-compliant.*

* **Must be specified at time of quote and order. Consult factory for details.**
Model 408 sizes 2", 5", 14", 16" are not AIS and BABA-compliant.*

MODEL 408S6

The Model 408S6 features a **316 stainless steel body** for enhanced corrosion resistance, with bossed outlets to accommodate additional components. This model is available in sizes 3" to 8", with all sizes being AIS and BABA-compliant.*

* **Must be specified at time of quote and order. Consult factory for details.**

MODEL 408 SERIES

- **ANSI B16.1 Class 150 flanged connections**
- Access ports for in-line inspection and maintenance
- Stainless steel fasteners for corrosion resistance
- **Buna-N rubber covered metal sinking ball (standard)**
- Buna-N rubber covered floating ball (option)*

* For flood control or air vent applications, add "FB" to end of ball check part number for Floating Ball—See page 8 for more information.
Consult factory for details and pricing.

TEMP MAX: 180°F (80°C)

PRESSURE MAX: 150 PSI



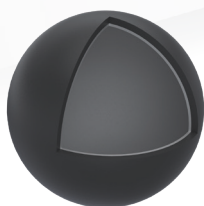
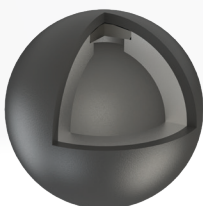
MODEL 408 SERIES BALL & ACCESSORY OPTIONS

BUNA-N SINKING BALL (STANDARD)

BUNA-N FLOATING BALL (OPTION)

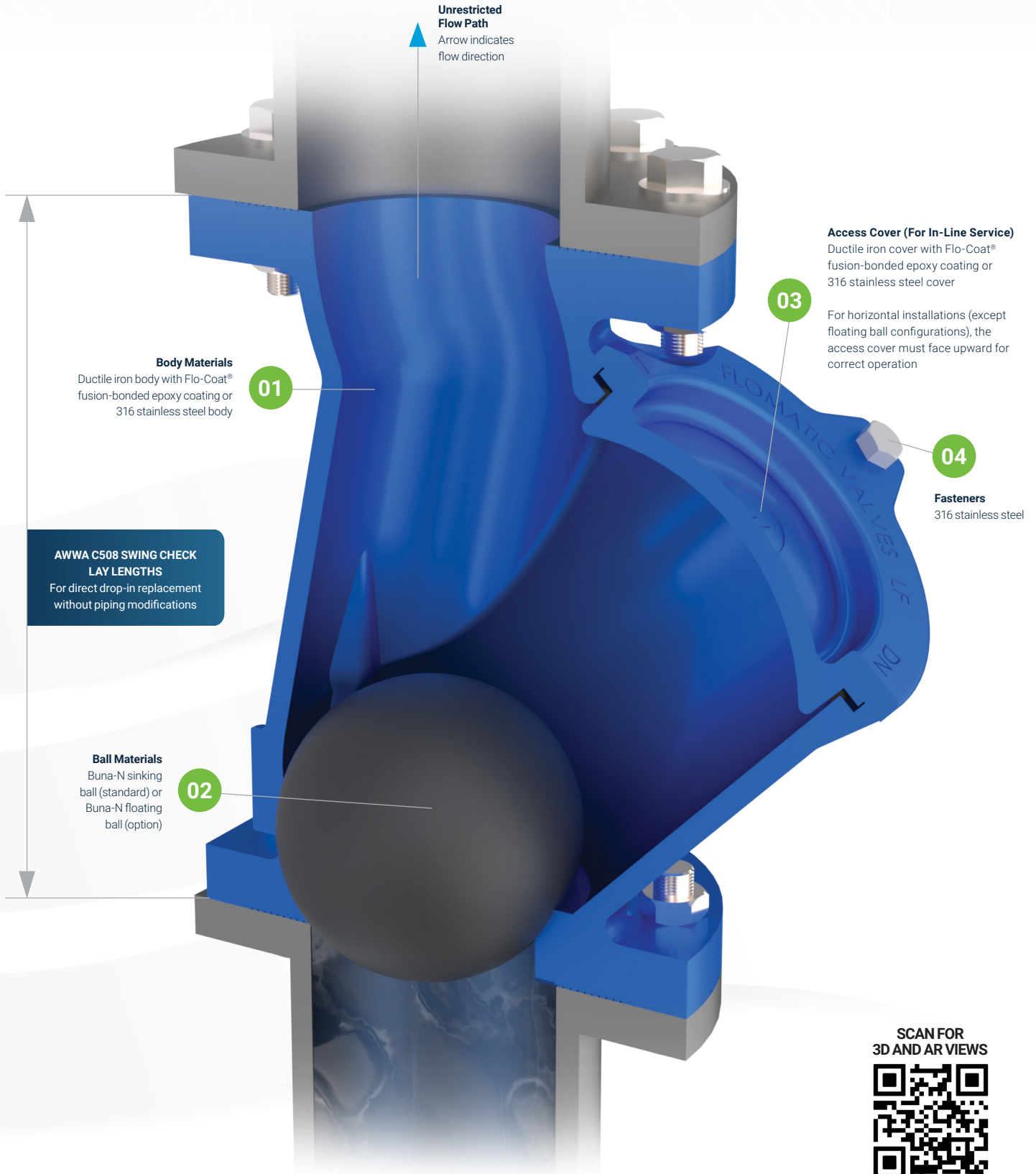
77 AUTO-VAC® VACUUM BREAKER

PROXIMITY SWITCH



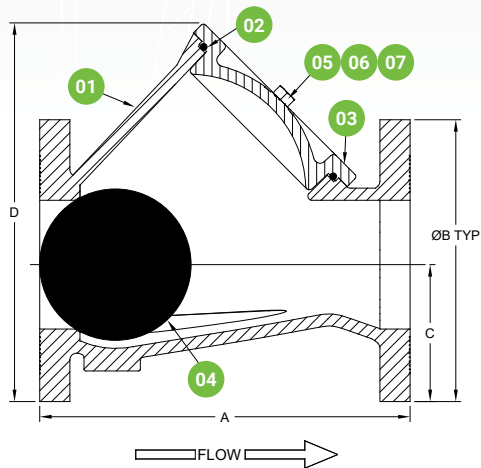
MODELS 408 & 408S6

CONSTRUCTION MATERIALS



MODEL 408 SPECIFICATIONS

SIZES: 2"–12"

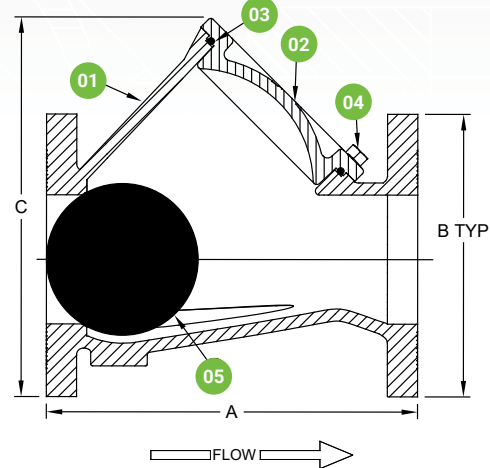


CONSTRUCTION MATERIALS

Item	Qty (2", 4")	Qty (3"-12")	Description	Material	ASTM
1	1	1	Body	Ductile Iron/SS	65-45-12
2	1	1	O-Ring	Buna-N	-
3	1	1	Cover	Ductile Iron	65-45-12
4	1	1	Ball (Sinking)*	Buna-N/Metal Ball	-
5	2	A/R	Bolt	Stainless-Steel	18-8
6	2	A/R	Washer	Stainless-Steel	18-8
7	2	A/R	Nut	Stainless-Steel	18-8

* 2" is a solid Buna-N ball. Model available in 316 stainless steel construction (3" - 8").

SIZES: 5", 14"



CONSTRUCTION MATERIALS

Item	Qty (5", 14", 16")	Description	Material	ASTM
1	1	Body	Ductile Iron	ASTM A536
2	1	Cover	Ductile Iron	ASTM A536
3	1	O-Ring	Buna-N	-
4	A/R	Bolt & Washer	Stainless Steel 18-8	ASME B18.2.1
5	1	Ball (Sinking)*	Cast Iron / Buna-N	-

*Optional floating ball available.

DIMENSIONS: 2"–12"

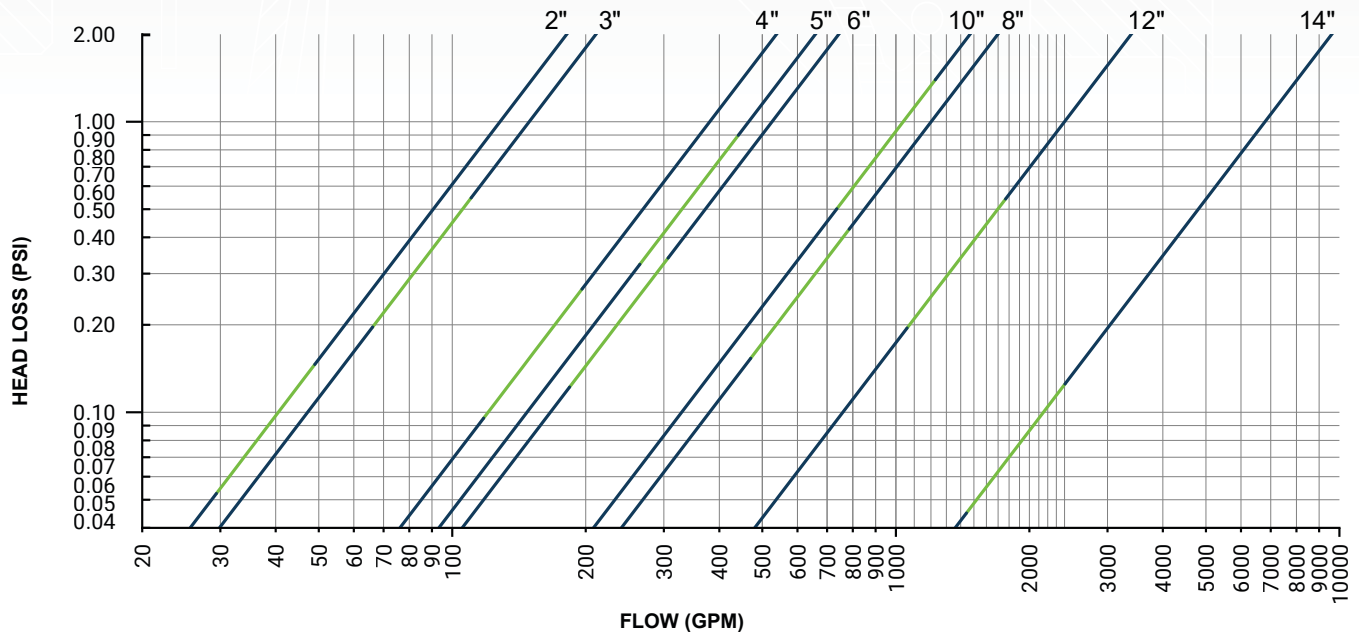
Size		Part Number	A		ØB		C		D		Weight		AIS / BABA Compliant
Inch	mm		Inch	mm	Inch	mm	Inch	mm	Inch	mm	lbs	kg	
2	50	2142-3	8.00	203	6.00	152	3.00	76	7.50	191	17	8	No
3	80	3144	9.50	241	7.50	191	3.11	79	10.25	260	37	17	Yes
4	100	3145	11.50	292	9.00	229	4.25	108	11.75	298	56	26	Yes
4	100	2145-2	11.50	292	9.00	229	4.25	108	11.75	298	56	26	No
6	150	3146	14.00	356	10.75	273	5.25	134	14.50	368	100	45	Yes
8	200	3147	19.50	495	13.06	343	6.31	160	20.25	514	194	88	Yes
10	250	3148	24.50	622	16.00	406	7.75	197	24.25	616	315	143	Yes
12	300	3149	27.50	699	19.00	483	9.50	241	27.88	708	417	189	Yes

DIMENSIONS: 5", 14"

Size		Part Number	A		B		C		Weight		AIS / BABA Compliant
Inch	mm		Inch	mm	Inch	mm	Inch	mm	lbs	kg	
5	125	2143	13.78	350	9.84	250	14.49	368	62	28	No
14	350	2150	34.45	875	19.88	505	32.28	820	763	346	No

MODEL 408

HEAD LOSS CHART



FLOW IN GALLONS PER MINUTE (GPM)*

Size	2"	3"	4"	5"	6"	8"	10"	12"	14"
CV	128	149	380	525	465	1,199	1,037	2,394	6,776

*Verified by independent labs.

For longer service life and higher efficiencies, **it is recommended that flow velocities be between 3 to 5 feet per second.**

Valves must be sized based on system flow velocity; head loss charts and pipe size should not be used for valve sizing.

BALL SPECIFICATIONS

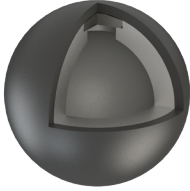
Size		Weight		Diameter		Ball Type
Inch	mm	lbs	kg	Inch	mm	
3	80	1.72	0.78	3.94	76	Sinking
4	100	2.93	1.33	4.72	120	Sinking
5	125	8.64	3.92	6.02	153	Sinking
6	150	15.5	7.05	7.24	184	Sinking
8	200	35.94	16.3	9.65	245	Sinking
10	250	51.82	23.5	11.81	300	Sinking
12	300	99.89	45.3	14.41	366	Sinking
14	350	135.03	61.24	16.54	420	Sinking
3	80	0.93	0.42	3.94	76	Floating
4	100	1.5	0.68	4.7	120	Floating
5	125	3.29	1.49	6.02	153	Floating
6	150	4.98	2.26	7.24	184	Floating
8	200	9.83	4.46	9.65	245	Floating
10	250	26.46	12	11.81	300	Floating
12	300	40.33	18.29	14.41	366	Floating
14	350	54.02	24.5	16.54	420	Floating

MODEL CONFIGURATIONS

BALL & ACCESSORY OPTIONS

BALL OPTIONS

SINKING BUNA-N BALL



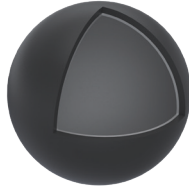
BUNA-N

Rubber covered metal sinking ball

STANDARD

On Models 408, 408S6, 208, 208T, and 208S

FLOATING BUNA-N BALL



BUNA-N

Rubber covered floating ball

FOR FLOOD CONTROL OR AIR VENT APPLICATIONS

Consult factory for details and pricing

SINKING PHENOLIC BALL



PHENOLIC

Plastic sinking ball

STANDARD

On Models 508 and 508S6

Corrosion-resistant phenolic sinking ball engineered for abrasion, impact, chemical, and heat resistance.

ACCESSORY OPTIONS

77 AUTO-VAC® VACUUM BREAKER (AVAILABLE ON ALL MODELS)

Designed to protect wastewater systems from water hammer by eliminating damaging vacuum conditions. Available in either a stainless steel or PVC body, the valve features engineered composite internal components, a stainless steel disc, and a resilient seat.

- Add "-1" to end of ball check part number for PVC Auto-Vac®
- Add "-2" to end of ball check part number for stainless steel Auto-Vac®



 **TEMP MAX: 180°F (80°C)**

PROXIMITY SWITCH (AVAILABLE ON MODELS 408 and 408S6 ONLY)

Provides remote monitoring of ball check valve operation, indicating open and closed ball position in real time. Designed for integration with SCADA and control systems, the switch allows operators to verify valve status, improve system visibility, and quickly identify abnormal operating conditions. This added monitoring capability supports proactive maintenance, enhances system reliability, and reduces the need for manual inspection in critical water and wastewater applications.

- Add "PRX" to end of ball check part number for proximity switch



MODELS 408FB

FLOATING BALL VALVES

Flomatic's Model 408FB Floating Ball Valve is engineered for flood prevention and controlled air release in water and wastewater systems specifically designed for floating ball operation. Designed for one-way flow, the valve allows for air release while preventing system overflow from rising water. The normally open floating ball design allows free airflow under normal conditions and automatically seals as water levels rise, providing reliable protection.

Available in **ductile iron or 316 stainless steel bodies**, the 408FB utilizes a **Buna-N rubber-covered floating ball** to ensure dependable sealing in demanding environments. While floating ball designs are sometimes assumed to improve efficiency due to reduced ball weight, they are specifically intended for flood control and air venting applications, and are not recommended for standard water or wastewater check valve service where a sinking ball design is required.

- Add "FB" to end of ball check Model 408 part number

FEATURES & BENEFITS

- **NORMALLY OPEN DESIGN**
Floating ball stays positioned in the body access port, allowing continuous air venting with minimal resistance to flow
- **AUTOMATIC CLOSURE**
Floating ball is guided onto the seat when fluid rises, preventing overflow and backflow
- **EFFICIENT SEALING**
A Buna-N rubber-covered ball ensures dependable, leak-tight sealing under flooded conditions

APPLICATIONS

Model 408FB is specifically suited for:

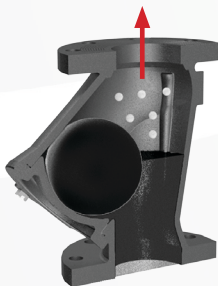
- **FLOOD CONTROL**
Prevents system overflow caused by rising water levels
- **AIR VENTING**
Allows trapped air to escape during tank or pipeline filling operations

NOTE: For applications outside of flood control or air release, a standard sinking ball check valve is recommended. Consult factory for application details and pricing.

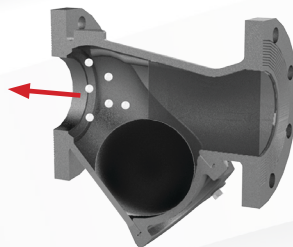
INSTALLATION

For optimal performance, vertical installation is recommended.

VERTICAL MOUNTING
(INSTALL WITH SEAT UP)



HORIZONTAL MOUNTING
(INSTALL WITH BALL ACCESS DOWN)



Red arrows indicate flow direction.



MODEL 208

CAST IRON WITH THREADED CONNECTIONS

Flomatic's Model 208 Ball Check Valve features a **cast iron body** with Flo-Coat® fusion-bonded epoxy coating and an integral clean-out access port for convenient in-line inspection and maintenance. The valve is equipped with **female x female threaded connections** and a **Buna-N rubber-covered metal sinking ball**.

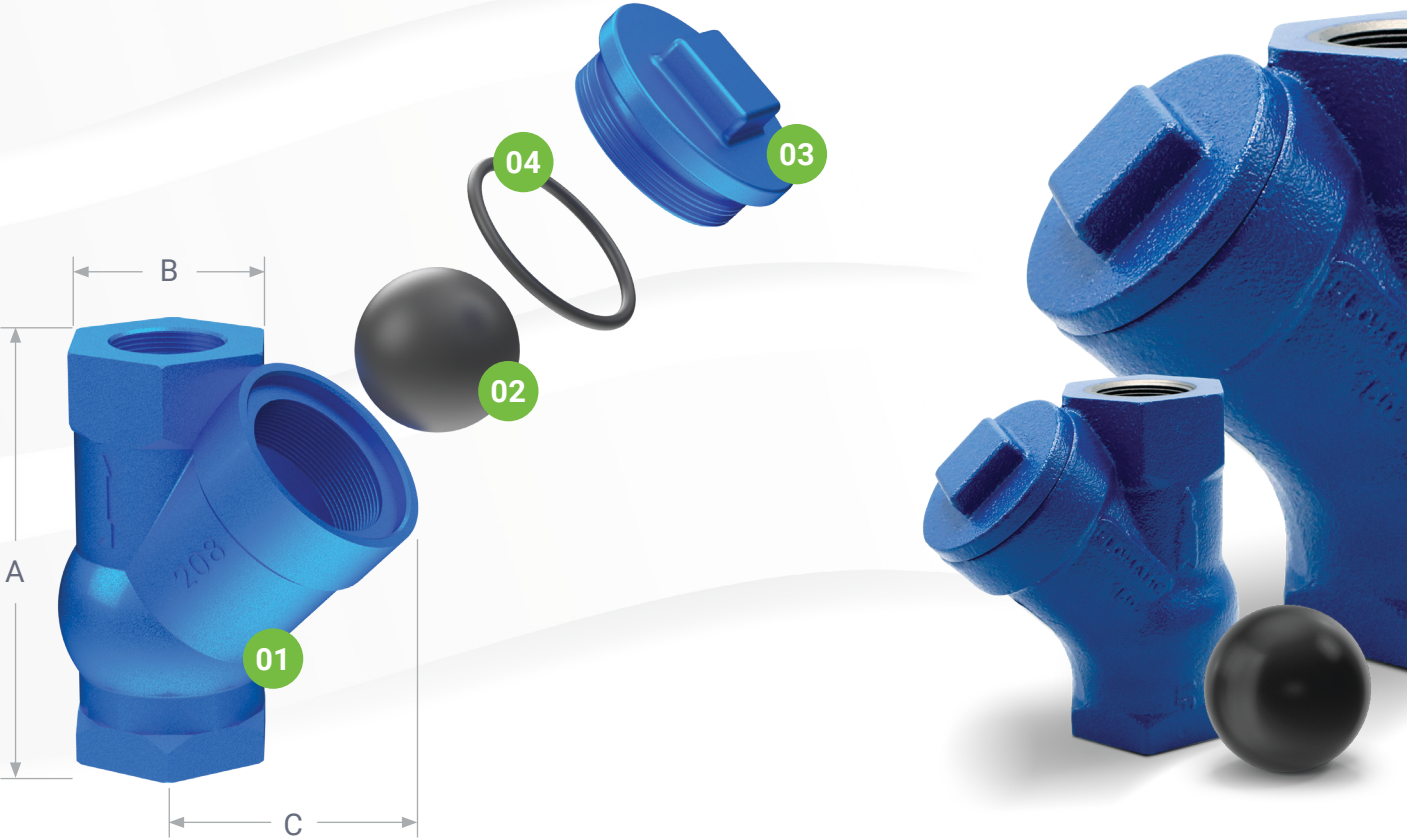
TEMP MAX: 180°F (80°C) PRESSURE MAX: 150 PSI SIZES: 1 1/4", 1 1/2", 2"

CONSTRUCTION MATERIALS

Item	Qty	Description	Material	Standard
1	1	Body (Epoxy Coated)	Cast Iron Class B	ASTM A126
2	1	Ball (Sinking)	Buna-N	-
3	1	Cover (FB Epoxy Coated)	Cast Iron Class B	ASTM A126
4	1	O-Ring	Buna-N	-

DIMENSIONS

Size		Part Number	A		B		C		D		Weight	
Inch	mm		Inch	mm	Inch	mm	Inch	mm	Inch	mm	lbs	kg
1 1/4"	32	2141	5.06	129	2.5	64	3.25	83	2.19	56	4.5	2
1 1/2"	40	2142-0	6.75	171	3.5	89	4.41	112	3	77	9.5	4.3
2"	50	2142	6.75	171	3.5	89	4.41	112	3	77	9	4.1



MODELS 208T & 208S

PVC ENGINEERED PLASTIC WITH THREADED CONNECTIONS OR SOCKET-WELDS

Flomatic's Models 208T & 208S Ball Check Valves feature corrosion-resistant **PVC bodies** and an integral clean-out access port for convenient in-line inspection and maintenance. The valve is equipped with a **Buna-N rubber-covered metal sinking ball** and Buna-N seal. It's available with **female x female threaded connections (Model 208T)** or **socket-weld connections (Model 208S)**. PVC engineered plastic body is not suitable for ground burial applications.

TEMP MAX: 180°F (80°C)

PRESSURE MAX: 150 PSI

SIZES: 1", 1 1/4", 1 1/2", 2"

CONSTRUCTION MATERIALS

Item	Qty	Description	Material
1	1	Cap	PVC
2	1	O-Ring	Buna-N
3	1	Ball (Sinking)	Buna-N
4	1	Body	PVC
5	2	Bushing (not shown)	PVC

DIMENSIONS

Size		Part Number	A		B		Weight	
Inch	mm		Inch	mm	Inch	mm	lbs	kg
1"	25	2131-T	4.5	114	6.84	174	1	0.45
1 1/4"	32	2132-T	4.5	114	5.66	144	1	0.45
1 1/2"	40	2133-T	6.34	161	8.2	208	2	0.91
2"	50	2134-T	6.34	161	7.06	179	2	0.91

NOTE: For BSPP threaded connections, change the part number from "T" to "P".
For socket-weld connections, change part number from "T" to "S".



MODEL 508

DUCTILE IRON WITH THREADED CONNECTIONS

Flomatic's Model 508 Ball Check Valve features a **ductile iron body** with Flo-Coat® fusion-bonded epoxy coating and an integral clean-out access cover for convenient in-line inspection and maintenance. The valve is available with **threaded connections** and standard construction includes a corrosion-resistant **phenolic sinking ball** engineered for abrasion, impact, chemical, and heat resistance, a resilient seat for dependable sealing, and stainless-steel fasteners for enhanced corrosion resistance.

Flomatic's Model 508FB Ball Valve, featuring a **Buna-N rubber-covered floating ball**, is specifically designed for flood control and air vent applications. The normally open floating ball design allows free airflow under normal conditions and automatically seals as water levels rise, providing reliable protection against overflow. **Consult factory for application details and pricing.**

- Add "FB" to end of ball check Model 508 Series part number

TEMP MAX: 180°F (80°C)

PRESSURE MAX: 150 PSI

SIZES: 1"-4"

CONSTRUCTION MATERIALS

Item	Qty	Description	Material	Standard	Item	Qty	Description	Material	Standard
1	1	Body (Epoxy Coated)	Ductile Iron	65-45-12	5	1	Cover Seal	Nitrile	-
2	1	Cover (FB Epoxy Coated)	Ductile Iron	65-45-12	6	2	Bolt	Stainless Steel	18-8
3	1	Ball (Sinking)	Phenolic	-	7	4	Washer	Stainless Steel	18-8
4	1	O-Ring	Buna-N	-	8	2	Hex Nut	Stainless Steel	18-8

* 2 1/2" Cast Iron ASTM A48 & 304 SS Fasteners

DIMENSIONS

Size		Part Number	A		B		Width		Weight	
Inch	mm		Inch	mm	Inch	mm	Inch	mm	lbs	kg
1"	25	3232	2.66	68	4.5	114	3.94	100	3.5	1.6
1 1/4"	32	3233	3.11	79	5.2	132	4.25	108	4.5	2.1
1 1/2"	40	3234	3.41	87	5.7	145	4.8	122	6	2.7
2"	50	3235	4	102	6.84	174	5.44	138	8	3.6
2 1/2"	65	3236	4.91	125	7.88	200	6.25	159	11.5	5.2

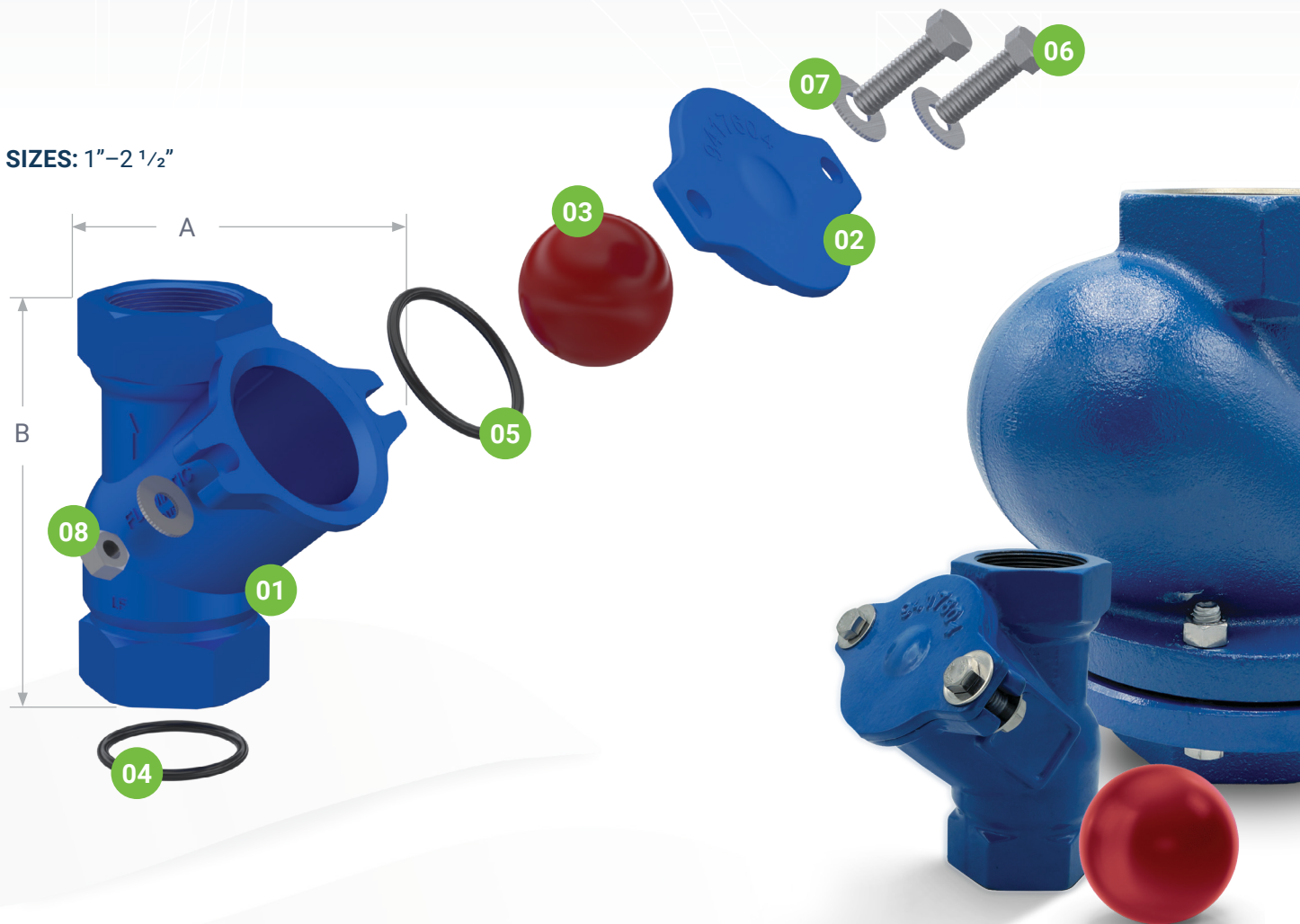
Size		Part Number	A		B		Width		Weight	
Inch	mm		Inch	mm	Inch	mm	Inch	mm	lbs	kg
3"	80	2044	8.56	218	9.59	244	-	-	30	14

Size		Part Number	A		ØB		C		D		Weight	
Inch	mm		Inch	mm	Inch	mm	Inch	mm	Inch	mm	lbs	kg
4"	100	2045-1	11.5	292	9	229	4.25	108	11.75	298	56	26

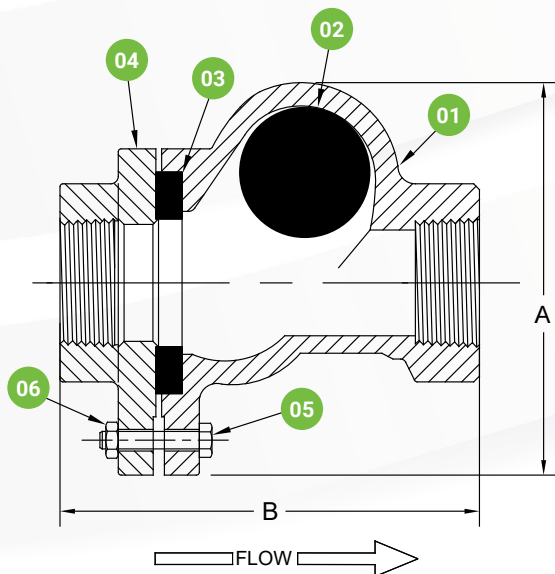
MODEL 508

CONSTRUCTION MATERIALS & DIMENSIONS

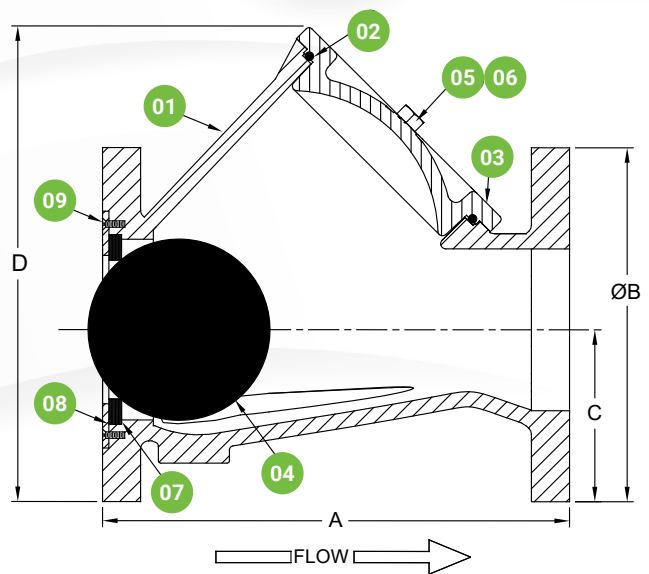
SIZES: 1"–2 1/2"



SIZE: 3"



SIZE: 4"



MODEL 508S6

STAINLESS STEEL WITH THREADED CONNECTIONS

Flomatic's Model 508S6 Ball Check Valve features a **316 stainless steel body** with an integral clean-out access cover for convenient in-line inspection and maintenance. The valve is available with **threaded connections** and standard construction includes a corrosion-resistant **phenolic sinking ball** engineered for abrasion, impact, chemical, and heat resistance, a resilient seat for dependable sealing, and stainless steel fasteners for corrosion resistance.

Flomatic's Model 508S6FB Ball Valve, featuring a **Buna-N rubber-covered floating ball**, is specifically designed for flood control and air vent applications. The normally open floating ball design allows free airflow under normal conditions and automatically seals as water levels rise, providing reliable protection against overflow. **Consult factory for application details and pricing.**

- Add "FB" to end of ball check Model 508S6 Series part number

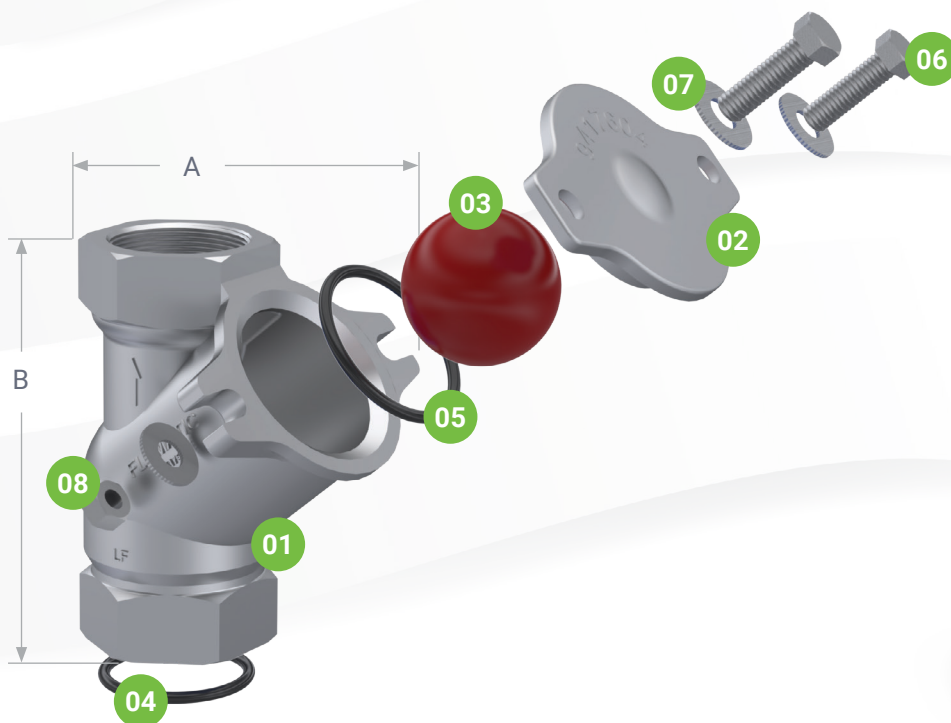
TEMP MAX: 180°F (80°C) PRESSURE MAX: 150 PSI SIZES: 1 1/4", 1 1/2", 2"

CONSTRUCTION MATERIALS

Item	Qty	Description	Material	Standard	Item	Qty	Description	Material	Standard
1	1	Body	Stainless Steel	316	5	1	Cover Seal	Buna-N	-
2	1	Cover	Stainless Steel	316	6	2	Bolt	Stainless Steel	316
3	1	Ball (Sinking)	Phenolic	-	7	4	Washer	Stainless Steel	316
4	1	O-Ring	Buna-N	-	8	2	Hex Nut	Stainless Steel	316

DIMENSIONS

Size		Part Number	A		B		Width		Weight	
Inch	mm		Inch	mm	Inch	mm	Inch	mm	lbs	kg
1 1/4"	32	3233S6	3.11	79	5.2	132	4.25	108	4.5	2.1
1 1/2"	40	3234S6	3.41	87	5.7	145	4.8	122	6	2.7
2"	50	3235S6	4	102	6.84	174	5.44	138	8	3.6





Built on Partnership. Driven by Solutions.

Since 1933, Flomatic® Valves has been a trusted manufacturer of *High Quality Valves Built To Last...®*. For nearly a century, we've built our reputation on durability, technical expertise, and continuous innovation, delivering valve solutions that perform reliably in the most demanding real-world conditions.



At Flomatic, it's not just about the valve, it's about the partnership behind it. We work closely with engineers, contractors, distributors, and municipalities to help size, select, and specify the right solution for every application. From design through installation and operation, our team provides practical guidance, responsive support, and the confidence that comes with having the right partner at your side. Through strong relationships with our distribution network, we ensure reliable availability, responsive lead times, and dependable delivery, keeping projects on track and systems performing long after installation.

Flomatic is committed to delivering more than valve solutions...
we deliver the **expertise, support, and partnership** needed to keep vital water systems flowing reliably.



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LIMITED ONE-YEAR WARRANTY: The Flomatic Corporation warrants that its ball check valves in all sizes are free from defects in materials and workmanship. Flomatic will replace any valve covered by this warranty found to be defective within one-year from time of sale. This warranty will be void if the product has been modified in any way by the purchaser, or is subject to unreasonable use.

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