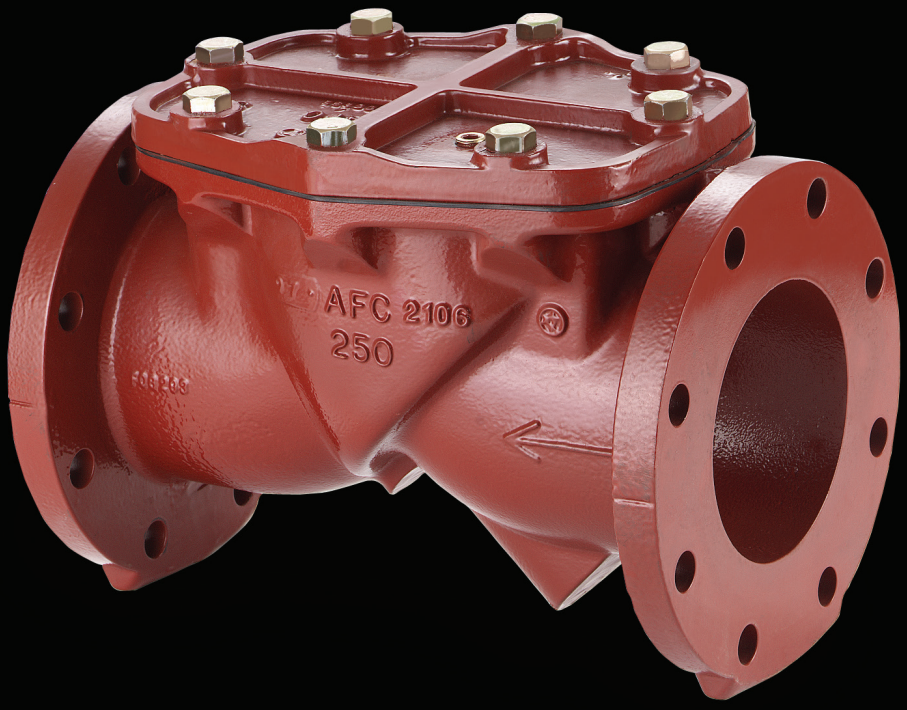
AMERICAN FLOW CONTROL 3”-16” SERIES 2100
RESILIENT SEATED CHECK VALVE



AMERICAN
FLOW CONTROL

THE RIGHT WAY

CONSTRUCTION

STAINLESS STEEL PIPE PLUG
Allows installation of pressure gauge.

STAINLESS STEEL FASTENERS
Helps provide corrosion resistance.

FUSION-BONDED EPOXY COATING INSIDE AND OUT
Helps provide corrosion resistance for long service life.

RUBBER BONNET GASKET
Provides reusable O-ring-type seal.

NO LEAKAGE
At pressures above 5 psig.

PRESSURE RATED
250 psig working pressure
500 psig shell test pressure

REVERSIBLE RUBBER-ENCAPSULATED DUCTILE IRON DISC
The 35° travel of the disc acts to reduce closing time which eliminates the need for outside lever and weights or springs.

RESILIENT SEATED DISC
Cycle tested over 2,000,000 cycles without damage.

ONE PIECE CONSTRUCTION
There are no O-rings, pins or packing to wear out and no bronze seat to damage.

DUCTILE IRON BODY
Greater strength, durability and lighter weight than gray cast iron construction.

UNOBSTRUCTED FLOW AREA
Free of pockets that can trap debris.

NO EXTERNAL MOVING PARTS
Suitable for buried service.

FEATURES/BENEFITS/SPECIFICATIONS

FEATURES

The AMERICAN Flow Control Series 2100 is designed for use in drinking water, sewage and fire protection systems, as well as irrigation and backflow control systems. The valve complies fully with ANSI/AWWA C508. It is ideal for pump and lift stations. Its design is simple and durable and helps eliminate most long-term maintenance efforts associated with metal seated swing check valve designs. The Series 2100 features a compact ductile iron body and bonnet. Ductile iron has more than twice the strength of gray cast iron.

The disc is constructed of ductile iron, a stainless steel shaft and nylon reinforcements, which are encapsulated with EPDM rubber. The Series 2100 Valve is rated for 250 psig. The valve seals with no leakage at pressures above 5 psig. In flow conditions, the waterway is unobstructed.

This valve is designed to help minimize disc slam. From open to close, the disc travels only 35°. This allows the valve to close before flow reversal in most applications.

There is only one moving part, helping make this valve virtually maintenance free. Should the disc be damaged, it can be reversed and the valve put back into immediate service

BENEFITS

The Series 2100 Resilient Seated Check Valve has these advantages over traditional metal seated swing check valves:

- 250 psig rating
- Ductile iron body, bonnet and disc
- Fusion-bonded epoxy coating inside and outside
- Does not require outside lever and weights or springs
- Only one moving part
- No O-rings, packing, pins or bearings to wear out
- No bronze seat ring to wear or replace
- Drop-tight shutoff at pressures above 5 psig
- Suitable for buried service
- Unobstructed flow area that is free of pockets
- A factory-installed backflushing actuator can be furnished as an option.

SPECIFICATIONS

Resilient seated check valves shall be manufactured from ductile iron meeting or exceeding ASTM A536. Valves shall be rated for 250 psig cold water working pressure. Check valves shall comply with ANSI/AWWA C508.

Valves shall have a ductile iron disc fully encapsulated with EPDM rubber. Disc travel to closure shall not be more than 35° and shall seal with no leakage at pressures above 5 psig.

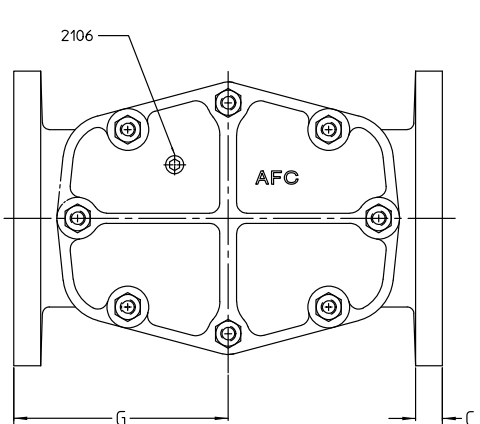
Valves to be coated with fusion-bonded epoxy on all internal and external ferrous surfaces. Body to bonnet fasteners to be Type 304 stainless steel.

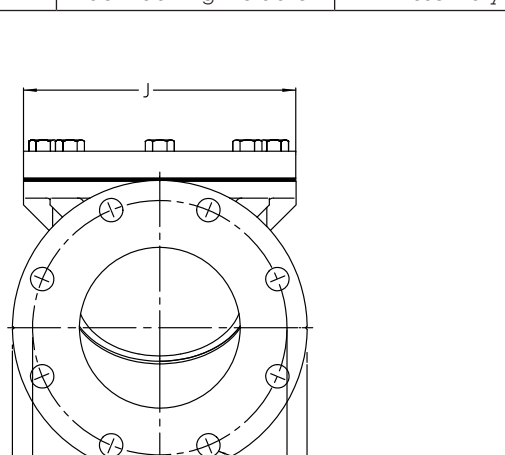
Exposed metallic rings are not allowed. Disc shall be the only allowable moving part. No O-Rings, pivot pins or other bearings are allowed. Disc must be reversible such that either side will seal equally.

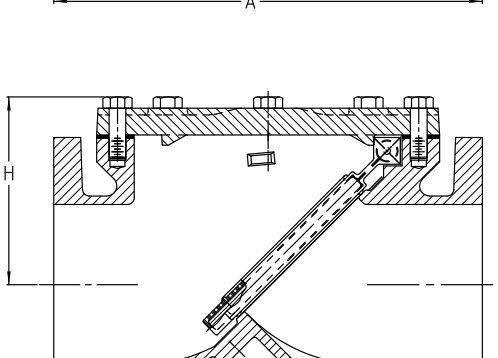
Valves shall be equal to AMERICAN Flow Control’s Series 2100 Ductile Iron Resilient Seated Check Valve.

3"-12" SECTIONAL DRAWING/DIMENSIONS/PARTS LIST

No.	Qty.	Part Name	Material
2101	1	Bonnet	Ductile Iron
2102	Varies	Bonnet Bolts & Nuts	Stainless Steel
2103	1	Bonnet Gasket	Buna N
2104	1	Flanged Ends Body	Ductile Iron
2105	1	Disc	See Note 7
2106	1	Pipe Plug 3/8"	Stainless Steel
2112	1	Pipe Plug Sq. Head	Stainless Steel
2120	1	Backflushing Actuator	Assembly



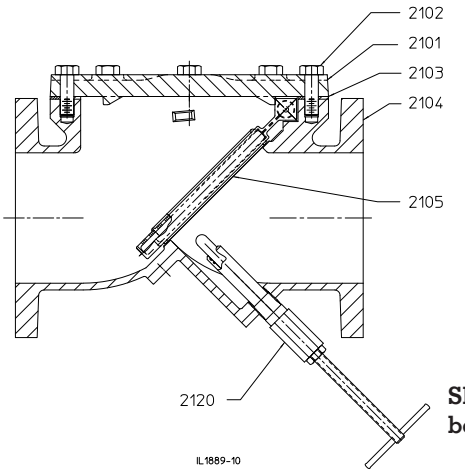




Size	A	B	C	D	E	G	H	J
3"	11.00	7.50	.75	6.00	4 - 0.62	5.50	4.50	5.31
4"	13.00	9.00	.94	7.50	8 - 0.75	6.50	5.19	6.75
6"	16.00	11.00	1.00	9.50	8 - 0.88	8.00	7.00	10.25
8"	19.50	13.50	1.13	11.75	8 - 0.88	9.75	8.41	12.06
10"	24.50	16.00	1.19	14.25	12 - 1.00	12.25	10.19	14.88
12"	27.50	19.00	1.25	17.00	12 - 1.00	13.75	11.94	17.62

NOTES:

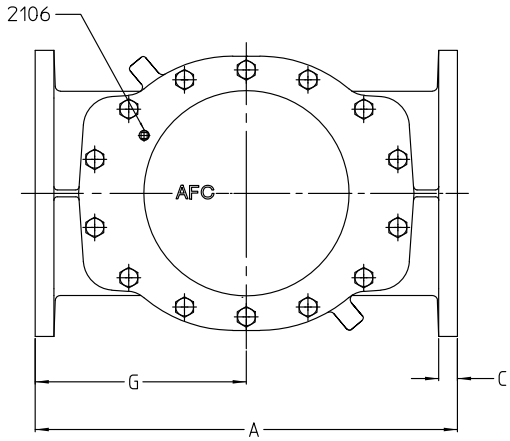
1. Series 2100 Check Valves meets or exceed requirements of ANSI/AWWA C508.
2. Series 2100 has a 250 psig rated working pressure, 500 psig test pressure.
3. Bolt patterns of Class 125 flanged ends are in accordance with ANSI/ AWWA C110/A21.10 (ASME B16.1 Class 125).
4. Body and bonnet are coated with fusion-bonded epoxy coating in compliance with ANSI/AWWA C550.
5. Valves have manufacturer's name, pressure class and year of manufacture cast on body or bonnet.
6. Ductile iron is ASTM A536.
7. Disc is ductile iron with stainless steel shaft and nylon reinforcement. All encapsulated with EPDM rubber.
8. 3 in.–16 in. valves are Certified to NSF/ANSI Standard 61-G.

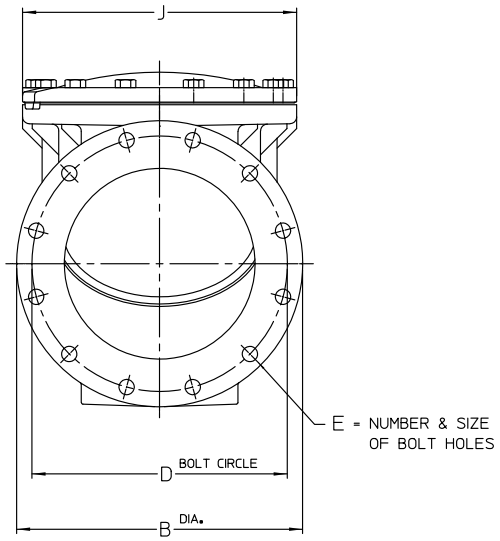


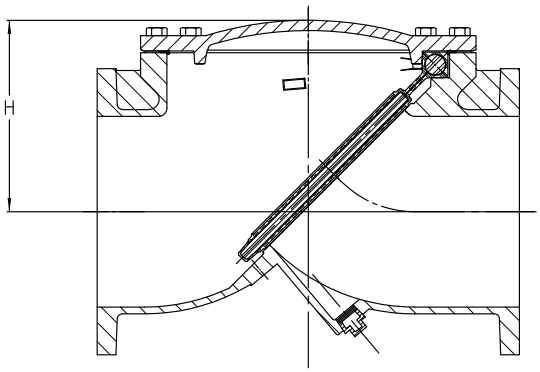
Shown with optional backflushing actuator

14”-16” SECTIONAL DRAWING/DIMENSIONS/PARTS LIST

No.	Qty.	Part Name	Material
2101	1	Bonnet	Ductile Iron
2102	Varies	Bonnet Bolts & Nuts	Stainless Steel
2103	1	Bonnet Gasket	Buna N
2104	1	Flanged Ends Body	Ductile Iron
2105	1	Disc	See Note 7
2106	1	Pipe Plug 3/8”	Stainless Steel
2112	1	Pipe Plug Sq. Head	Stainless Steel
2120	1	Backflushing Actuator	Assembly







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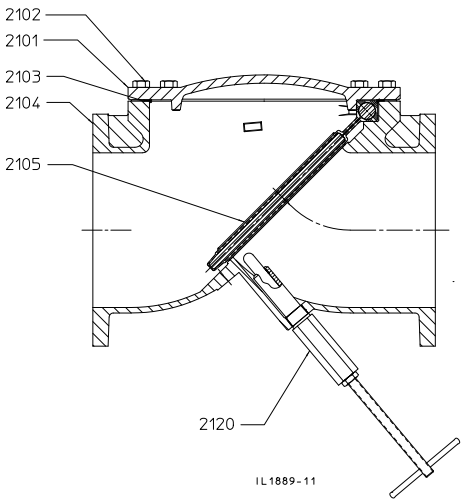
Size	A	B	C	D	E	G	H	J
14”	31.00	21.00	1.38	18.75	12 - 1.13	15.50	14.13	20.13
16”	36.00	23.50	1.44	21.25	16 - 1.13	17.00	15.75	22.88

NOTES:

1. Series 2100 Check Valves meets or exceed requirements of ANSI/AWWA C508.
2. Series 2100 has a 250 psig rated working pressure, 500 psig test pressure.
3. Bolt patterns of Class 125 flanged ends are in accordance with ANSI/AWWA C110/A21.10 (ASME B16.1 Class 125).
4. Body and bonnet are coated with fusion-bonded epoxy coating in compliance with ANSI/AWWA C550.
5. Valves have manufacturer’s name, pressure class and year of manufacture cast on body or bonnet.
6. Ductile iron is ASTM A536.
7. Disc is ductile iron with stainless steel shaft and nylon reinforcement. All encapsulated with EPDM rubber.
8. 3 in.–16 in. valves are Certified to NSF/ANSI Standard 61-G.



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Shown with optional backflushing actuator

INSTALLATION

This information is provided as a recommendation to the customer for the proper installation and use of Series 2100 Resilient Seated Check Valves.

1. When valves are received, they should be unloaded carefully. Protect stored valves from the elements. Be sure to prevent undue damage in handling.
2. Make sure the valve and flange gasket surfaces are clean and free of damage. Clean the inside of the valve to remove all debris and/or contaminants that may affect performance or fluid quality. Check for free movement of the valve disc and inspect valve seal. Verify the direction of flow in the pipeline and make sure the arrow cast on the side of the valve body agrees with the direction of flow through the valve.
3. Series 2100 Check Valves can be used in a horizontal pipeline or in a vertical pipeline, provided the flow is upward.
4. DO NOT INSTALL CHECK VALVES IN A VERTICAL LINE WITH DOWNWARD FLOW.
5. At the time of installation, make sure piping is properly aligned and supported to avoid stress on the valve body. Under no circumstances should the installation of the valve be used to correct alignment errors.

TESTING
Check to see that all valve joints and pressure-containing bolts are tight. After testing, relieve excess pressure from the upstream side of the valve.

OPERATION
Operation of the Series 2100 Check Valve is actuated by line flow. The Series 2100 Check Valve does not use external levers or weights, and no special operating instructions are necessary.

MAINTENANCE
Normally there is very little maintenance on a check valve. On standard check valves the valve should be disassembled once a year, or as needed, for inspection.

SPARE PARTS
Under most conditions spare parts are not normally needed for the Series 2100 Swing Check Valve.

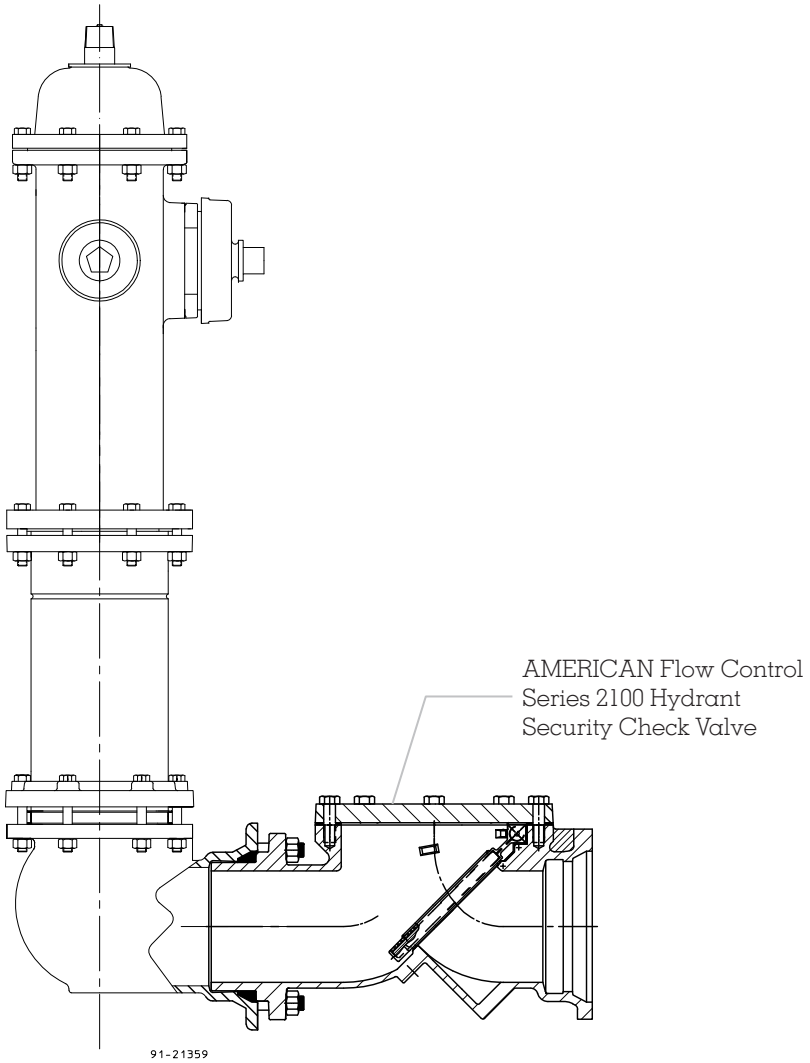
WARNING: Special care should be taken in the installation, inspection and repair of pressure containing devices such as valves and hydrants. FAILURE TO FOLLOW PROPER PRATICE AND GUIDELINES CAN RESULT IN SERIOUS INJURY OR DEATH. Do not make repairs while check valve is under pressure.

SERIES 2100 HYDRANT SECURITY CHECK VALVE

The AMERICAN Flow Control Series 2100 is available in a hydrant security check valve configuration. It incorporates many of the features of the standard Series 2100 Check Valve. Its proven, simple design makes it the solution to securing all makes and models of fire hydrants in a water system. The check valve is designed with MJ x Solid Gland ends. It connects easily to the MJ shoe of the fire hydrant and can be restrained. The valve comes with fusion-bonded epoxy coating inside and out and is furnished with corrosion resistant stainless steel body bolts. It uses only one moving part and is rated at 250 psig, with no leakage. In this design, the check valve is independent of the hydrant shoe. Therefore, it can be installed in conjunction with any hydrant, regardless of brand. It also can be installed on pre-existing hydrants.

SPECIFICATIONS

All fire hydrants shall be equipped with a hydrant security check valve. The check valve shall be configured with a mechanical joint on the inlet and a solid gland end on the discharge. The valve shall be made of ASTM A536 ductile iron and rated for 250 psig cold water working pressure. All ferrous body components shall be fusion-bonded epoxy coated and held together with Type 304 stainless steel fasteners. The check valve shall be equipped with a single component ductile iron disc, fully encapsulated with EPDM rubber. Bronze seats are not allowed. The disc shall travel no more than 35° to close and be without leakage at pressures above 5 psig. The disc must be reversible so either side will seal equally well. All hydrant security check valves shall be AMERICAN Flow Control Series 2100 Hydrant Security Check Valve.



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THE RIGHT WAY

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2100 Check Valve Product Information

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EOE/Minority/Female/Veteran/Disability

AFC-4/15-1.5M