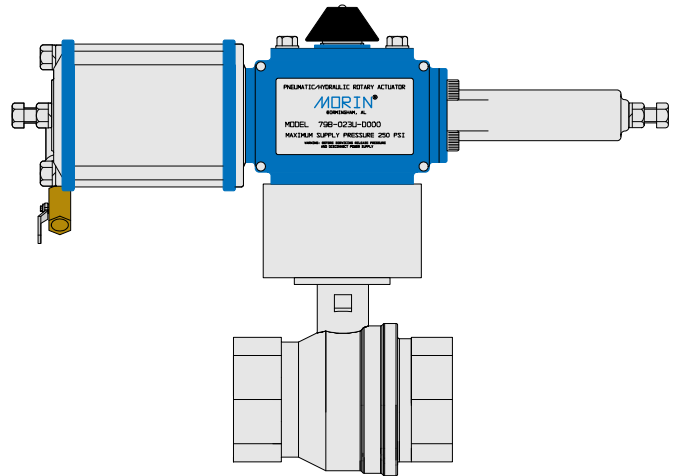


# WATER POWERED BALL VALVES STAINLESS STEEL MODELS

NPR115

- Automatic Foam Discharge Valve
- Compatible With All Foam Concentrates
- Threaded or Flanged Configurations
- Full Port Non-Restrictive Design
- NFPA Compliant



## Description

The water powered ball valve is designed for use in foam proportioning systems where automatic foam concentrate discharge is required. Actuation is accomplished by using the pressurized water supply as the actuation agent thus allowing operation of the valve without any additional power or control signal.

The pressurized water enters the water powered ball valve assembly through a 1/4" FNPT inlet, passes through a wye strainer and is directed through a run of hose to the valve actuating cylinder. As the pressurized water enters the cylinder the piston force a rack the full internal travel of the cylinder body. The piston and rack assembly in turn operates a high strength output gear that is connected to the ball valve. When the cylinder piston and rack have reached the end of their stroke, the ball valve is fully open. The pressurized water source can be supplied from the ratio controller sensing port or the alarm line of a deluge or alarm check valve thereby allowing operation to be initiated by the system water control valve or pressurization of the system. After operation, the valve must be manually closed. (Per NFPA req.)

The water powered ball valve assembly is capable of manual override or manual reset by simply removing the position indicator from the top of the actuator and resetting the valve using override wrench which is chained to the valve.

On systems where the water line is pressurized at all times, the water powered ball valve can still be used to control the foam concentrate discharge valve by the addition of a solenoid valve. The solenoid valve allows positive shutoff of the pressurized water source until energized by a remote signal. 24 VDC or 120 VAC available.

## Features

- Suitable for use with all foam concentrates.
- Water Inlet Strainer provided to keep debris from obstructing the supply line.
- Valve may be operated with pressures as low as 30 PSI (2 bar).
- Corrosion resistant materials of construction.
- Ease of operation for manual override.
- Automatic foam discharge capability without expensive control logic.
- Open & Shut positions clearly marked and easily identifiable.

## Applications

- Automated foam concentrate discharge valve.
- Bladder tank systems where water source is constantly pressurized and it is desirable to keep pressure off the tank.

## Specifications

The water powered ball valve shall consist of a ball valve with an actuator assembly designed to operate from the system water supply. The ball valve shall be of the full port design and have a stainless steel body, ASTM A351 GR. CF8M, with threaded or 150# raised flange ends and a working pressure rating of 250 psi. The valve shall have a stainless steel ball and stem with blowout proof design. Seats and seals used in the valve shall be PTFE or equal. Valve materials shall be compatible with all foam concentrates.

Actuation of the valve shall be by a hydraulic cylinder approved by the manufacturer for use with water. Construction of the cylinder shall be Type 316 stainless steel shell with mirror finish I.D. and high strength ductile iron end caps. The piston rod shall be chrome-plated steel with the piston secured to the rod. Cylinder shall have a sintered bronze piston rod bushing and Buna N piston rod seals. The actuating cylinder shall have a heat treated, plated alloy steel output shaft connecting the actuator to the full port ball valve. All mounting hardware and brackets shall be stainless steel and shall provide a stable secure mount to insure proper alignment of the actuator cylinder. Water shall be supplied to the cylinder through brass wye strainer with blow off valve and shall terminate in a 1/4" FNPT connection. The wye strainer shall be connected to the cylinder inlet port by brass piping.

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### Specifications (cont.)

Operation of the valve to the open position shall occur when water pressure is applied to the actuator inlet port. Valve shall operate with pressures as low as 30 PSI (2 bar) or as high as 250 PSI (17 bar). The water powered ball valve assembly shall have the "Open" & "Shut" positions clearly marked on the top of the actuator. The valve shall remain in the open position until manually reset. The water powered ball valve assembly shall be capable of manual override. This shall be accomplished by removing the position indicator from the top of the actuator and resetting the valve using override wrench which is chained to the valve.

### Options

- Solenoid operation, 24 VDC or 120 VAC
- Various solenoid enclosure ratings available (Nema 1)

### Technical Data - Standard Models

#### Material of Construction:

Valve Body.....	Stainless Steel ASTM A351 Gr. CF8M
Valve Ball.....	Stainless Steel ASTM A351 Gr. CF8M
Valve Seat .....	PTFE
Valve Stem.....	Stainless Steel ASTM A276 Gr. 316
Cylinder .....	316 Stainless Steel A276
Strainer .....	Bronze
Trim Pipe .....	Brass
Mounting Hardware....	Stainless Steel
Actuator Body .....	Ductile Iron
Actuator Cylinder.....	Stainless Steel
Actuator Piston.....	Ductile Iron
Yoke .....	Stainless Steel
Seals.....	Buna N
Piston Bearing.....	Teflon
Bracket.....	Stainless Steel
Coupling .....	Stainless Steel

#### Operating Pressure:

Standard .....30 PSI to 250 PSI  
(2 bar) to (17 bar)

#### Finish:

All Components .....Natural Finish

#### Weight:

##### Threaded:

1" .....	35 lbs. (16 Kg.)
1-1/2" .....	38 lbs. (17 Kg.)
2" .....	42 lbs. (19 Kg.)
2-1/2" .....	49 lbs. (22 Kg.)

##### Flanged:

1" .....	41 lbs. (19 Kg.)
1-1/2" .....	48 lbs. (22 Kg.)
2" .....	54 lbs. (25 Kg.)

When ordering please specify the following information: Valve size, solenoid voltage if required.

### ORDERING INFORMATION

Part Number:	Description:
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#### *NPT Threaded Models*

1231-1086-1	1" NPT SS Water Powered Ball Valve
1231-1086-2	1-1/2" NPT SS Water Powered Ball Valve
1231-1086-3	2" NPT SS Water Powered Ball Valve
1231-1086-4	2-1/2" NPT SS Water Powered Ball Valve

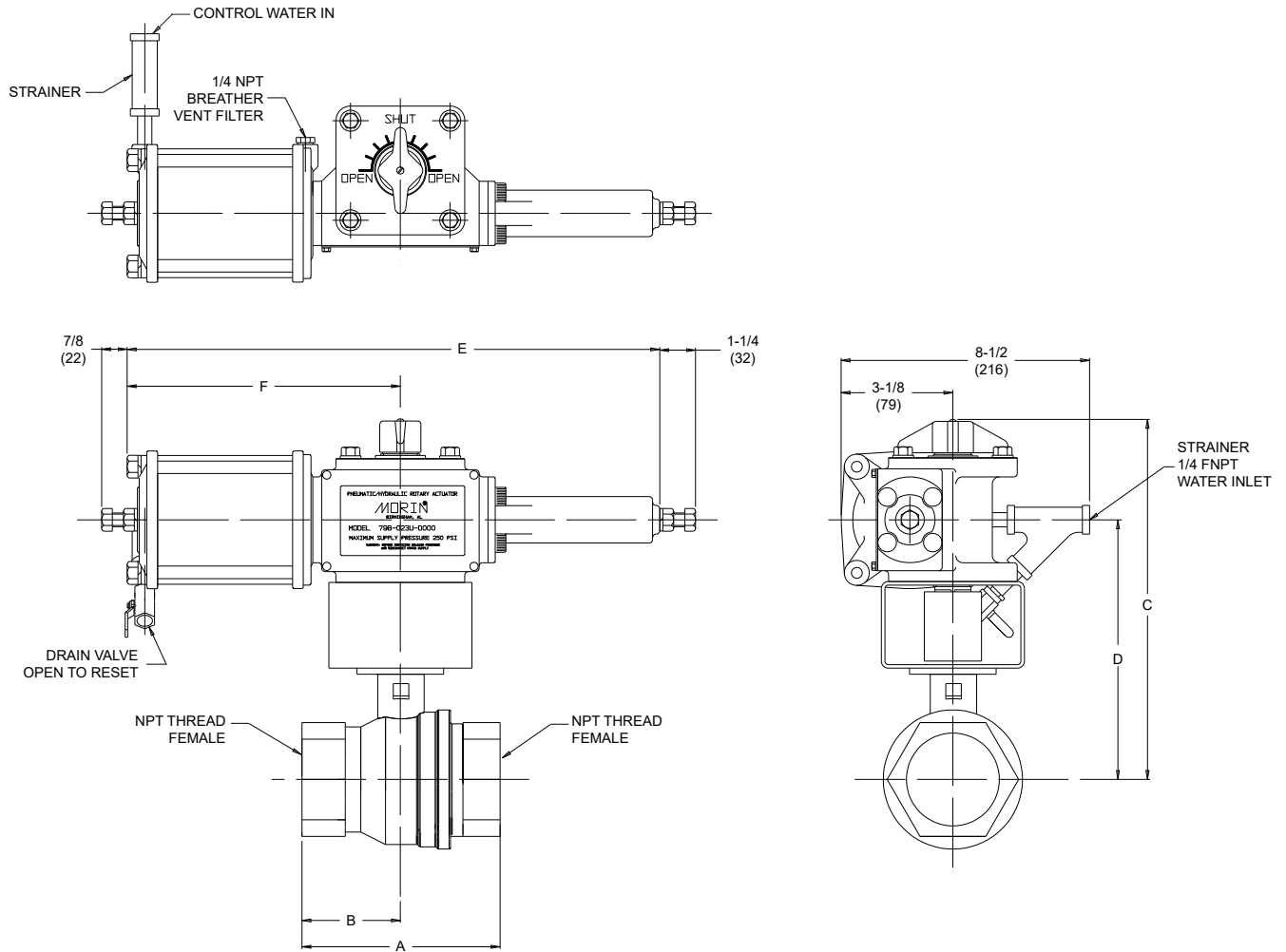
#### *Flanged Models*

1231-1085-1	1" 150# RF FLG SS Water Powered Ball Valve
1231-1085-2	1-1/2" 150# RF FLG SS Water Powered Ball Valve
1231-1085-3	2" 150# RF FLG SS Water Powered Ball Valve
1231-1085-4	2-1/2" 150# RF FLG SS Water Powered Ball Valve

# WATER POWERED BALL VALVES

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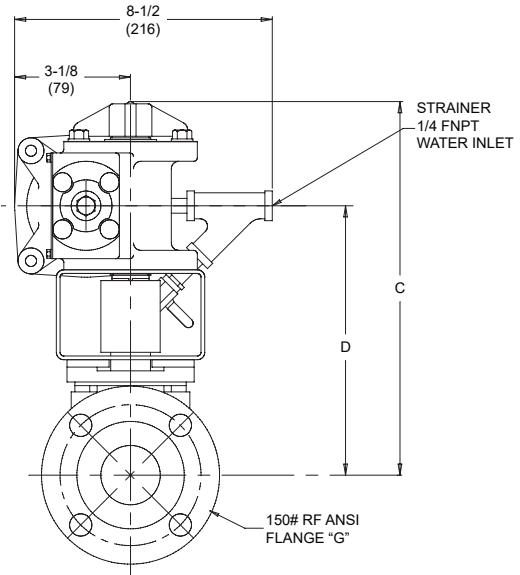
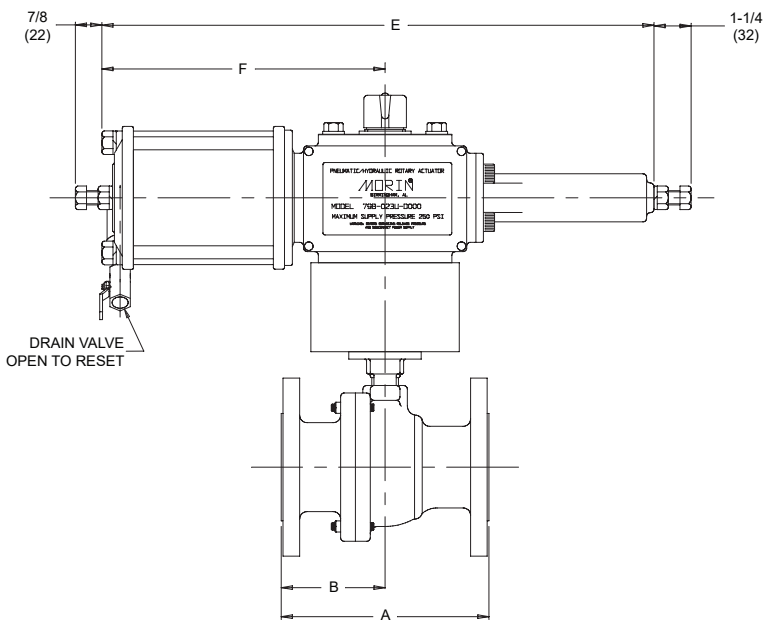
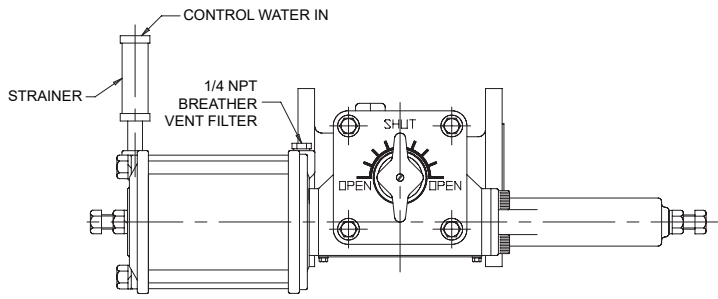
### WATER POWERED BALL VALVES - THREADED STAINLESS STEEL

SIZE in (mm)	A	B	C	D	E	F	WEIGHT lb (kg)
1"	3-5/8 (92)	1-13/16 (46)	9-1/32 (229)	6-11/16 (170)	12-5/16 (313)	7-1/32 (179)	35 (16)
1-1/2"	4-5/16 (110)	2-5/32 (55)	11-7/16 (291)	7-5/32 (182)	12-5/16 (313)	7-1/32 (179)	38 (17)
2"	5-3/16 (132)	2-19/32 (66)	10-1/32 (255)	7-11/16 (195)	12-5/16 (313)	7-1/32 (179)	42 (19)
2-1/2"	6-1/4 (159)	3-1/8 (79)	11-9/16 (294)	8-5/32 (207)	18-3/8 (473)	9-9/16 (243)	49 (22)

# WATER POWERED BALL VALVES

## STAINLESS STEEL MODELS

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### WATER POWERED BALL VALVES - FLANGED STAINLESS STEEL

SIZE in (mm)	A	B	C	D	E	F	150# RF ANSI FLANGE "G"	WEIGHT lb (kg)
1"	5 (127)	2-1/2 (64)	11-1/2 (292)	8-1/8 (206)	12-5/16 (313)	7-1/32 (179)	1 (25.4)	41 (19)
1-1/2"	6-1/2 (165)	3-1/4 (83)	12-3/16 (310)	8-3/4 (222)	12-5/16 (313)	7-1/32 (179)	1-1/2 (38)	48 (22)
2"	7 (178)	3-1/2 (89)	12-7/16 (316)	9-1/16 (230)	12-5/16 (313)	7-1/32 (179)	2 (51)	54 (25)
2-1/2"	7-1/2 (191)	3-3/4 (95)	12-15/16 (329)	9-1/2 (241)	18-3/8 (473)	9-9/16 (243)	2-1/2 (64)	62 (28)

# WATER POWERED BALL VALVES

## STAINLESS STEEL MODELS

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### Technical Data - Solenoid Models

#### Material of Construction:

Valve Body.....	Stainless Steel ASTM A351 Gr. CF8M
Valve Ball.....	Stainless Steel ASTM A351 Gr. CF8M
Valve Seat.....	PTFE
Valve Stem.....	Stainless Steel ASTM A276 Gr. 316
Cylinder.....	316 Stainless Steel A276
Strainer.....	Bronze
Trim Pipe.....	Brass
Mounting Hardware.....	Stainless Steel
Actuator Body.....	Ductile Iron
Actuator Cylinder.....	Stainless Steel
Actuator Piston.....	Ductile Iron
Yoke.....	Stainless Steel
Seals.....	Buna N
Piston Bearing.....	Teflon

#### Solenoid Valve:

Valve Body.....	Stainless Steel
Plunger.....	Stainless Steel
Seats.....	NBR
Coil....	Epoxy Molded 120VAC or 24VDC
Enclosure.....	Nema 3, 3S, 4, 4X, 6, 6P, 7 and 9

#### Power Consumption:

##### 120VAC 60HZ

Amp Draw: Holding -	0.04 Amps
Inrush -	0.32 Amps

##### 24VDC

Amp Draw: Holding -	0.25 Amps
Inrush -	3.2 Amps

Bracket.....	Stainless Steel
Coupling.....	Stainless Steel
Strainer.....	Bronze

#### Operating Pressure:

Standard.....	30 PSI to 250 PSI (2 bar) to (17 bar)
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#### Finish:

All Components.....	Natural Finish
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#### Weight:

##### Threaded:

1".....	37 lbs. (16.8 Kg.)
1-1/2".....	40 lbs. (18.1 Kg.)
2".....	44 lbs. (20.0 Kg.)
2-1/2".....	51 lbs. (23.1 Kg.)

##### Flanged:

1".....	43 lbs. (19.5 Kg.)
1-1/2".....	50 lbs. (22.7 Kg.)
2".....	56 lbs. (25.4 Kg.)
2-1/2".....	64 lbs. (29.0 Kg.)

When ordering please specify the following information: Valve size, solenoid voltage if required.

### ORDERING INFORMATION

Part Number:	Description:
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#### NPT Threaded Models

1231-1086-5	1" NPT SS Water Powered Ball Valve 120 VAC Solenoid
1231-1086-6	1-1/2" NPT SS Water Powered Ball Valve 120 VAC Solenoid
1231-1086-7	2" NPT SS Water Powered Ball Valve 120 VAC Solenoid
1231-1086-8	2-1/2" NPT SS Water Powered Ball Valve 120 VAC Solenoid

1231-1087-1	1" NPT SS Water Powered Ball Valve 24 VDC Solenoid
1231-1087-2	1-1/2" NPT SS Water Powered Ball Valve 24 VDC Solenoid
1231-1087-3	2" NPT SS Water Powered Ball Valve 24 VDC Solenoid
1231-1087-4	2-1/2" NPT SS Water Powered Ball Valve 24 VDC Solenoid

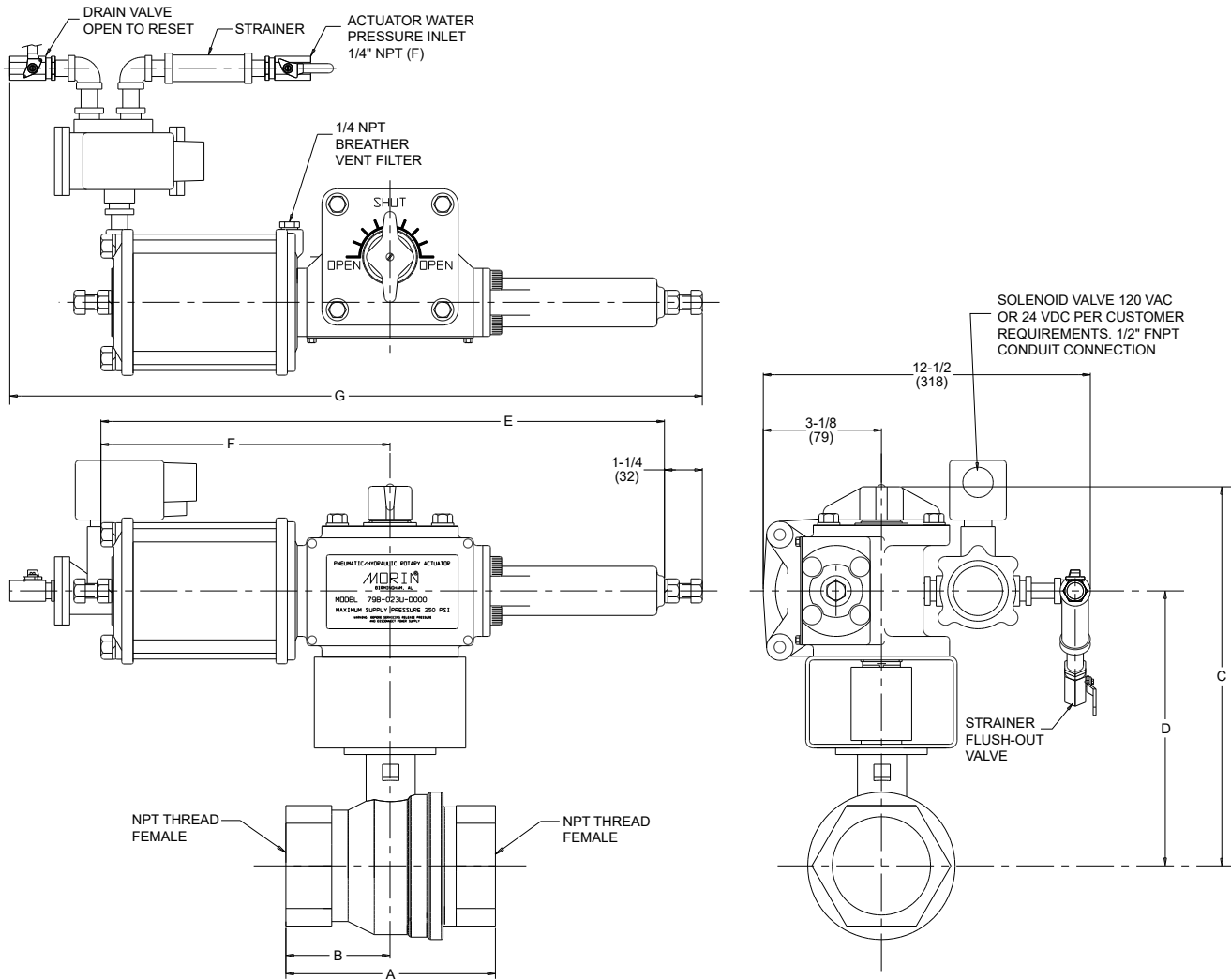
#### Flanged Models

1231-1085-5	1" 150# RF FLG SS Water Powered Ball Valve 120 VAC Solenoid
1231-1085-6	1-1/2" 150# RF FLG SS Water Powered Ball Valve 120 VAC Solenoid
1231-1085-7	2" 150# RF FLG SS Water Powered Ball Valve 120 VAC Solenoid
1231-1085-8	2-1/2" 150# RF FLG SS Water Powered Ball Valve 120 VAC Solenoid
1231-1087-5	1" 150# RF FLG SS Water Powered Ball Valve 24 VDC Solenoid
1231-1087-6	1-1/2" 150# RF FLG SS Water Powered Ball Valve 24 VDC Solenoid
1231-1087-7	2" 150# RF FLG SS Water Powered Ball Valve 24 VDC Solenoid
1231-1087-8	2-1/2" 150# RF FLG SS Water Powered Ball Valve 24 VDC Solenoid

# WATER POWERED BALL VALVES

## STAINLESS STEEL MODELS

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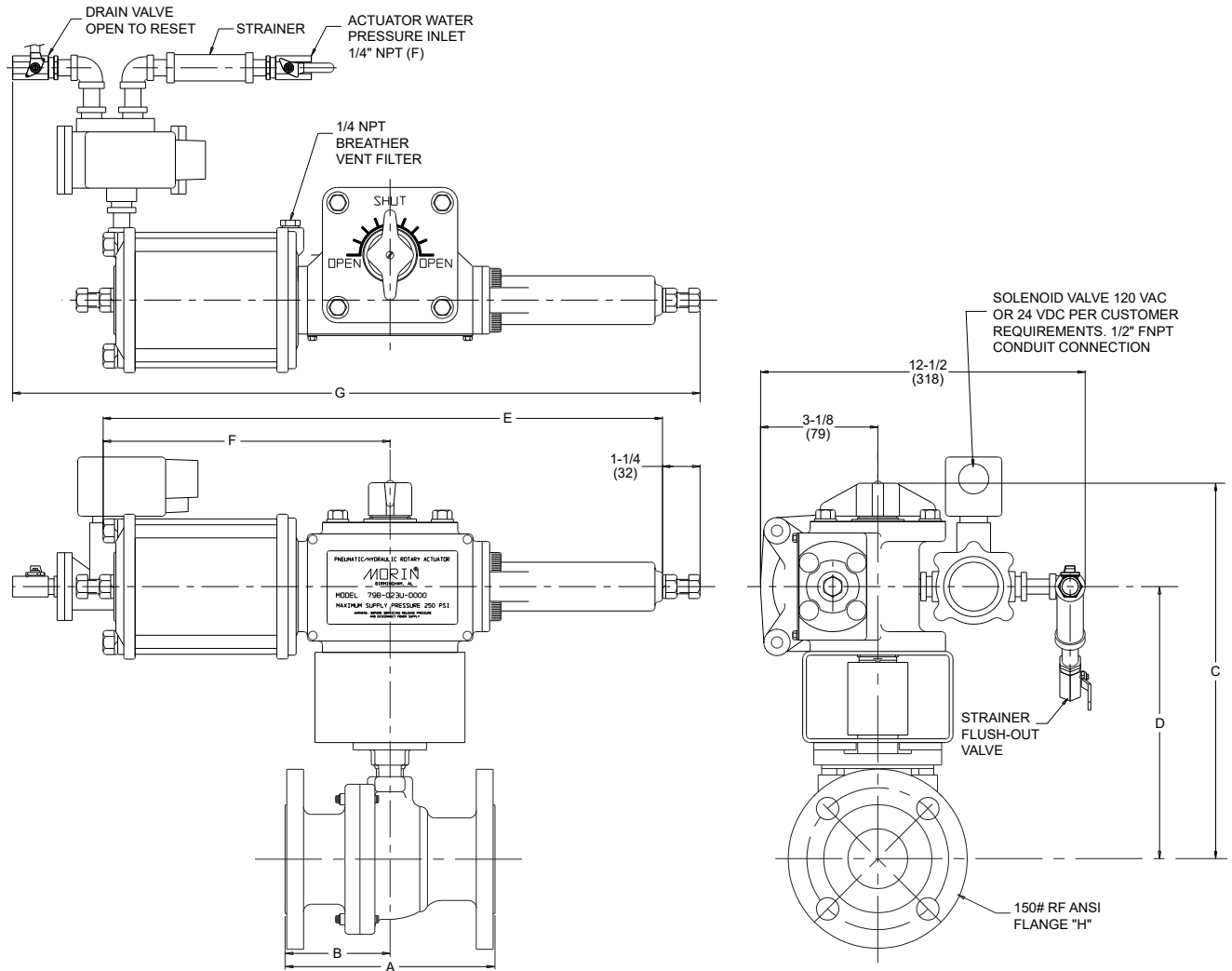
### WATER POWERED BALL VALVES WITH SOLENOID RELEASE - THREADED STAINLESS STEEL

SIZE in (mm)	A	B	C	D	E	F	G	WEIGHT lb (kg)
1"	3-5/8 (92)	1-13/16 (46)	9-1/32 (229)	6-11/16 (170)	12-5/16 (313)	7-1/32 (179)	21-3/8 (543)	37 (16.8)
1-1/2"	4-5/16 (110)	2-5/32 (55)	11-7/16 (291)	7-5/32 (182)	12-5/16 (313)	7-1/32 (179)	21-3/8 (543)	40 (18.1)
2"	5-3/16 (132)	2-19/32 (66)	10-1/32 (255)	7-11/16 (195)	12-5/16 (313)	7-1/32 (179)	21-3/8 (543)	44 (20.0)
2-1/2"	6-1/4 (159)	3-1/8 (79)	11-9/16 (294)	8-5/32 (207)	18-3/8 (473)	9-9/16 (243)	22-7/8 (581)	51 (23.1)

# WATER POWERED BALL VALVES

## STAINLESS STEEL MODELS

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### WATER POWERED BALL VALVES WITH SOLENOID RELEASE - FLANGED STAINLESS STEEL

SIZE in (mm)	A	B	C	D	E	F	G	150# RF ANSI FLANGE "G"	WEIGHT lb (kg)
1"	5 (127)	2-1/2 (64)	11-1/2 (292)	8-1/8 (206)	12-5/16 (313)	7-1/32 (179)	21-3/8 (543)	1 (25.4)	43 (19.5)
1-1/2"	6-1/2 (165)	3-1/4 (83)	12-3/16 (310)	8-3/4 (222)	12-5/16 (313)	7-1/32 (179)	21-3/8 (543)	1-1/2 (38)	50 (22.7)
2"	7 (178)	3-1/2 (89)	12-7/16 (316)	9-1/16 (230)	12-5/16 (313)	7-1/32 (179)	21-3/8 (543)	2 (51)	56 (25.4)
2-1/2"	7-1/2 (191)	3-3/4 (95)	12-15/16 (329)	9-1/2 (241)	18-3/8 (473)	9-9/16 (243)	22-7/8 (581)	2-1/2 (64)	64 (29.0)

# WATER POWERED BALL VALVES

## STAINLESS STEEL MODELS

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