

TORO

Count on it.



P-220 Scrubber Series

Valves

True dirty water irrigation valves, the Toro P-220S Scrubber Series valves are built to handle chlorine, chloramine, and other chemicals found in reclaimed and non-potable water systems. Constructed of heavy duty, glass-filled nylon and EPDM rubber components the P-220S valves feature Toro's patent-pending Active Cleansing Technology (ACT™), which helps prevent the build-up of sand, algae, and other organic materials that may inhibit water from metering properly through the valve.

Features & Benefits

Multiple Design Configurations

Available in 1", 1.5", 2", and 3" inlet/outlet designs, all of which allow the flexibility of globe or angle orientation.

Durable Glass-Filled Nylon Construction

Robustly built to operate at pressures of up to 220 psi.

Active Cleansing Technology (ACT™)

The industry's first active scrubber valve cleans continuously, whereas competing valves only clean upon their opening and closing.

Fabric-reinforced EPDM Diaphragm and EPDM Seat

Designed to work in virtually all water applications.

Rugged Internal Plastic and Stainless Steel Components

The ACT scrubber turbine, nut and metering system are constructed of marine and aerospace-grade plastics and metals that make them resistant to chlorine- and ozone-treated water.

Available with Precise Pressure Regulation

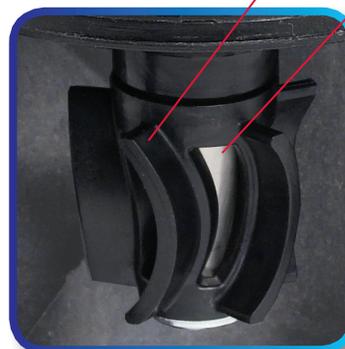
Compact EZReg® dial-design technology ensures precise downstream pressure for optimized sprinkler head performance.

Completely Serviceable and Retrofittable

The ACT scrubber diaphragm assembly can be replaced, and can also be retrofit into previously installed P-220 models.

"Scrubber" Turbine

Filter Surface



The P-220S Scrubber

The new P-220 Scrubber Series valves feature Toro's patent-pending Active Cleansing Technology (ACT™) system. The ACT system's durable turbine is in constant rotation, which in turn keeps the metering and filtration area free of dirt and algae build-up. The turbine is constructed of materials resistant to chlorine, chloramines, and ozone, thereby keeping the valve operating at peak performance.



Effluent
Options
Available



Pressure
Regulation



DC Latching
Solenoid
Option

Specifications

Dimensions

- 1" – 6 3/4" H x 3 5/8" W
- 1.5" – 7 1/4" H x 3 5/8" W
- 2" – 9 1/2" H x 6 1/8" W
- 3" – 10 3/4" H x 6 1/8" W

Operating Specifications

- Flow Range:
 - 1": 5 to 40 GPM
 - 1.5": 30 to 100 GPM
 - 2": 80 to 180 GPM
 - 3": 150 to 300 GPM
- Operating Pressure:
 - 1" and 1.5" models: 10 to 220 psi
 - 2" and 3" models: 20 to 220 psi
- Regulated Outlet Pressure Range:
 - EZR-30: 5 to 30 psi +/- 3 psi
 - EZR-100: 5 to 100 psi +/- 3 psi
- Minimum Pressure Differential (between inlet and outlet) for Pressure Regulation: 10 psi
- Body Styles: Globe/Angle with female threads
- 102-5073 Solenoid:
 - Inrush: 60 Hz, 0.4 amps
 - Holding: 60 Hz, 0.2 amps

Specifying Information—P220S

P220S-2X-XX			
Model	Activation Type	Solenoid	Size
P220S	2X	X	X
P220S—P-220S Scrubber Series Plastic Valve	26—NPT, Electric 27—NPT, Pressure-regulated EZR-100 (Standard)	0—Standard Solenoid 9—DC Latching Solenoid	4—1" 6—1.5" 8—2" 0—3"
<p>Example: A 2" P-220S Series plastic electric, pressure-regulating valve would be specified as: P220S-27-08</p>			

Additional features

- Internal and external bleed
- Available in electric or pressure-regulating models
- No external tubing for either pressure-regulating model
- Standard, built-in Schrader-type valve for downstream pressure verification
- Flow control independent of solenoid
- Self-aligning bonnet to ensure correct installation
- Self-cleaning stainless steel metering rod

Options Available

- EZR-30: EZReg, 5-30 psi regulator module
- EZR-100: EZReg, 5-100 psi regulator module
- EFF-KIT-60HZ: Effluent Water solenoid assembly and warning tag (lavender color; 24 VAC, 60 Hz)
- 102-5073: 24 VAC solenoid assembly (60 Hz, 18-inch leads, and captive plunger)
- DCLS-P: Potted DC latching solenoid assembly

Warranty

- Five years

Model	Description
P220S-26-04	P-220, 1" valve with ACT™ System
P220S-26-06	P-220, 1.5" valve with ACT™ System
P220S-26-08	P-220, 2" valve with ACT™ System
P220S-26-00	P-220, 3" valve with ACT™ System
P220S-26-94	P-220, 1" valve with ACT™ System and DC Latching Solenoid
P220S-26-96	P-220, 1.5" valve with ACT™ System and DC Latching Solenoid
P220S-26-98	P-220, 2" valve with ACT™ System and DC Latching Solenoid
P220S-26-90	P-220, 3" valve with ACT™ System and DC Latching Solenoid
P220S-27-04	P-220, 1" valve with EZReg® and ACT™ System
P220S-27-06	P-220, 1.5" valve with EZReg® and ACT™ System
P220S-27-08	P-220, 2" valve with EZReg® and ACT™ System
P220S-27-00	P-220, 3" valve with EZReg® and ACT™ System
P220S-KIT-04	1" Scrubber diaphragm assembly kit
P220S-KIT-06	1.5" Scrubber diaphragm assembly kit
P220S-KIT-08	2" Scrubber diaphragm assembly kit
P220S-KIT-00	3" Scrubber diaphragm assembly kit

Toro P-220 Scrubber Valve

Size	Config.	Gallons per Minute (GPM) Flow																			
		5	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	180	200	250	300
1"	Globe	4.63	4.74	3.10	6.05	10.75															
	Angle	4.14	4.64	2.54	5.53	9.46															
1.5"	Globe			1.14	1.56	2.85	4.36	6.28	8.57	11.20	14.03	17.20	20.46								
	Angle			0.95	1.51	2.28	3.69	5.29	6.97	9.26	11.80	14.60	17.40								
2"	Globe									3.57	4.62	5.33	6.80	8.20	9.02	10.46	11.61				
	Angle									2.79	3.50	4.41	5.62	6.39	7.35	8.81	9.37				
3"	Globe														2.06	2.34	2.70	3.88	4.86	7.26	10.23
	Angle														1.86	2.16	2.44	3.35	4.11	6.42	9.31

Note: For optimum performance when designing a system, be sure to calculate total friction loss to ensure sufficient downstream pressure. For optimum regulation performance, size regulating valves toward the higher flow ranges. Flow rates are recommended not to exceed 5 psi loss.



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