

P-220S 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 patented ACT™ (Active Cleansing Technology), which helps prevent the build-up of sand, algae, and other organic materials that may inhibit water from metering properly through the valve.

Additional Features

- ✓ Internal and external bleeds
- ✓ 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

FEATURES & BENEFITS

Multiple Design Configurations

Available in 1", 1 1/2", 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 15,1 Bar

ACT™ (Active Cleansing Technology)

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 Seal

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.



Effluent
Options
Available



Pressure
Regulation



DC Latching
Solenoid
Option

SPECIFICATIONS

Operational

- Flow Range:
 - 1": 19-151 LPM
 - 1½": 114-416 LPM
 - 2": 302,8-681,3 LPM
 - 3": 567,8-1135,6 LPM
- Operating Pressure
 - 1" & 1½" Models: 0,7-15,1 Bar
 - 2" & 3" Models: 1,4-15,1 Bar
- Pressure Regulating:
 - Outlet (EZR-30): 0,3-2,1 Bar ±0,2
 - Outlet (EZR-100): 0,3-7,0 Bar ± 0,2
 - Minimum flow requirement of 18,9 LPM

- Minimum Pressure Differential (between inlet and outlet) for Pressure Regulation: 0,7 Bar
- Body Styles:
 - Globe/Angle with female threads
- 118-5983 Solenoid: 24 Vac (50 Hz) Standard
 - Inrush: 50 Hz: 0.4 amps
 - Holding: 50 Hz: 0.2 amps

Options Available

- EZR-30 - EZReg®, 0,3-2,1 Bar Regulator Module
- EZR-100 - EZReg®, 0,3-7,0 Bar Regulator Module
- EFF-KIT-50HZ - Effluent Water Solenoid Assembly, 24 Vac, 50 Hz; and Warning Tag
- DCLS-P - Potted DC Latching Solenoid Assembly
- 118-5983 - 24 VAC Solenoid Assembly, 50 Hz, 457mm Leads, Captive Plunger
- SGS -12 - Spike Guard™ Solenoid: 50/60 Hz (24 VAC)

Dimensions

- 1": 171 x 92mm (H x W)
- 1½": 184 x 92mm (H x W)
- 2": 241 x 156mm (H x W)
- 3": 273 x 156mm (H x W)

Warranty

- Five years

PRODUCT HIGHLIGHT



The P-220S Scrubber Series Valves Feature Toro's Patented ACT™ (Active Cleansing Technology) 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.

P-220S SCRUBBER SERIES MODEL LIST

Model	Description
P220S-23-54	1" BSP with ACT™ System
P220S-23-56	1½" BSP with ACT™ System
P220S-23-58	2" BSP with ACT™ System
P220S-23-50	3" BSP with ACT™ System
P220S-23-94	1" BSP with ACT™ System, DC Latching Solenoid
P220S-23-96	1½" BSP with ACT™ System, DC Latching Solenoid
P220S-23-98	2" BSP with ACT™ System, DC Latching Solenoid
P220S-23-90	3" BSP with ACT™ System, DC Latching Solenoid
P220S-KIT-04	1" Scrubber diaphragm assembly kit
P220S-KIT-06	1½" Scrubber diaphragm assembly kit
P220S-KIT-08	2" Scrubber diaphragm assembly kit
P220S-KIT-00	3" Scrubber diaphragm assembly kit

P-220S SCRUBBER VALVES

Size	Config.	LPM Flow																					
		40	60	80	100	120	140	160	180	200	250	300	350	400	450	500	550	600	700	800	900	1000	1100
1"	Globe	0,32	0,33	0,21	0,42	0,74																	
	Angle	0,29	0,32	0,18	0,38	0,65																	
1½"	Globe			0,08	0,12	0,19	0,29	0,44	0,60	0,77	0,97	1,19	1,41										
	Angle			0,07	0,11	0,18	0,26	0,36	0,48	0,64	0,81	0,99	1,20										
2"	Globe									0,27	0,30	0,30	0,45	0,54	0,64	0,69	0,84						
	Angle									0,19	0,25	0,39	0,39	0,44	0,51	0,62	0,68						
3"	Globe																0,18	0,23	0,35	0,41	0,46	0,53	0,76
	Angle																0,14	0,18	0,32	0,30	0,38	0,48	0,67

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.

Specifying Information—P-220S Scrubber Series Valves

P220S-2X-XX			
Model	Activation Type	Solenoid	Size
P220S	2X	X	X
P220S—P-220S Scrubber Series Plastic Valve	3-BSP, Electric	5—50Hz Solenoid 9—DC Latching Solenoid	4—1" 6—1½" 8—2" 0—3"

Example: A 2" P-220S Series plastic electric DC, would be specified as: **P220S-23-98**

VALVE ACCESSORIES

SOLENOIDS

DCLS-P

- Potted DC Latching Solenoid for Toro valves
- Compatible with EZ-Flo Plus, TPV, P-200, P-220S Scrubber and 220 Brass Series valves.



118-5983

- 24 Vac Solenoid assembly for EZ-Flo Plus, TPV, P-150, P-220, P-220S Scrubber, and 220 Brass Series valves.
- Captive hex plunger
- 18" leads



SGS-12

- 24 Vac Spike Guard Solenoid assembly for EZ-Flo Plus, TPV, P-150, P-220, P-220S Scrubber, and 220 Brass Series valves.
- 20,000 volts lightning rating
- Inrush 0.2 amps/ Holding 0.1 amps



LWS

- 19 Vac Low Wattage Solenoid assembly for EZ-Flo Plus, TPV, P-150, P-220, P-220S Scrubber, and 220 Brass Series valves.
- Inrush 0.2 amps/ Holding 0.1 amps



EFFLUENT WATER INDICATORS

EFF-KIT-50HZ

- Lavender-colored 118-5983 Solenoid assembly for EZ-Flo Plus, TPV, P-220, P-220S Scrubber, and 220 Brass Series valves.
- Lavender-colored Effluent warning tag



RWSG-Kit

- Effluent tag and Solenoid sticker



UNIVERSAL VALVE BOXES*

EU-TUCS

Toro Universal valve boxe small circular

EU-TUCM

Toro Universal valve boxe medium circular

EU-TURS

Toro Universal valve boxe standard rectangular

EU-TURJ

Toro Universal valve boxe jumbo rectangular



EZREG® PRESSURE/INSTALLATION REGULATOR & EHC ACCESSORIES

EZR-30 and EZR-100

- Pressure regulator module for use with P-150, P-220, P-220S Scrubber and 220 Brass Series Valves
- EZR-30: 0,3-2,0Bar
- EZR-100: 0,3-7,0Bar



995-51

- Pressure gauge kit



995-49

- 0-200 psi pressure gauge
- Hermetically sealed shock resistant face



850-00

- Valve cover



995-14

- Supply screen fitting



995-02

- Flushing adaptor



*For details see pag. 153