

PESB-R Series Valves

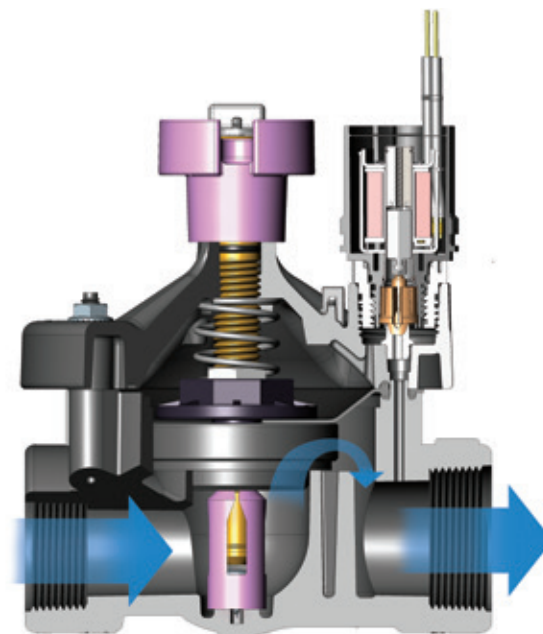
Durable Plastic – chlorine resistant Professional Plastic Irrigation Valves for reclaimed water irrigation applications

Features

- Plastic diaphragm and scrubber components molded of chlorine- and chemical-resistant plastic material
- Durable glass-filled nylon construction for long life and heavy-duty performance at 200 psi (13.80 bars) pressure
- Stainless steel studs molded into the body. Bonnet can be attached and removed easily without damaging threads
- One-piece solenoid design with captured plunger and spring for easy servicing. Prevents loss of parts during field service
- External bleed protects the solenoid ports from debris when system is flushed
- Internal bleed operates the valve without allowing water into the valve box; allows pressure regulator to be adjusted without turning on the valve at the controller first
- Slow closing to prevent water hammer and subsequent system damage
- Scrubber mechanism scrapes stainless steel screen clean to break down grit and plant material
- Purple flow control handle standard on PESB-R Series valves
- Five-year trade warranty

Options

- Accommodates optional, field installed PRS-D pressure regulating module to ensure optimum sprinkler performance. Regulates up to 100 psi (6.9 bar)
- Accepts latching solenoid for use with Rain Bird battery-operated controllers up to 150 psi (10.35 bar)
- Compatible with ESP-LXD decoders



PESB-R Cutaway

150-PESB-R



How to Specify

100 - PESBR - PRS-D

Model
PESB-R:
scrubber
model

Size
100: 1" NPT
150: 1½" NPT
200: 2" NPT

Optional Feature
PRS-Dial: pressure
regulating module
(must be ordered
separately)

Note: Valve and PRS-Dial module must be ordered separately.

Specifications

- Pressure: 20 to 200 psi (1.38 to 13.80 bar)
- Flow: 0.25 to 200 gpm (0.06 to 45.40 m³/h; 0.02 to 12.60 l/s)
- Flow with PRS-Dial: 5 to 200 gpm (1.14 to 45.40 m³/h; 0.32 to 12.60 l/s)
- Temperature: Up to 150° F (66° C)
- 24VAC 50/60Hz (cycles/sec) solenoid power requirement
- Inrush current: 0.41A (9.9VA) at 50/60Hz
- Holding current: 0.14A (3.43VA) at 50/60Hz
- Solenoid coil resistance: 30-39 Ohms, nominal

Dimensions

Model	Height	Length	Width
• 100-PESB-R	6½" (16.5 cm)	4" (10.2 cm)	4" (10.2 cm)
• 150-PESB-R	8" (20.3 cm)	6" (15.2 cm)	6" (15.2 cm)
• 200-PESB-R	8" (20.3 cm)	6" (15.2 cm)	6" (15.2 cm)

Note: The PRS-Dial option adds 2" (5.1 cm) to valve height

Models

- 100-PESB-R: 1" NPT
- 150-PESB-R: 1½" NPT
- 200-PESB-R: 2" NPT

BSP threads available, specify when ordering

Recommendations

1. Rain Bird recommends flow rates in the supply line not to exceed 7.5 ft/sec (2.29 m/s) in order to reduce the effects of water hammer
2. For flows below 5 gpm (1.14 m³/h; 19.21 l/m), Rain Bird recommends use of upstream filtration to prevent debris from collecting below the diaphragm
3. For flows below 10 gpm (2.27 m³/h; 37.8 l/m) Rain Bird recommends the flow control stem be turned down two full turns from the fully open position

PESB-R Series Valve Pressure Loss (psi)

Flow gpm	100-PESB-R 1"	150-PESB-R 1½"	200-PESB-R 2"
0.25	1.6	-	-
0.5	3.0	-	-
1	1.8	-	-
5	2.9	-	-
10	2.9	-	-
20	2.6	3.5	-
30	5.8	3.1	-
40	10.2	2.3	-
50	16.0	2.1	3.7
75	-	4.3	3.3
100	-	7.5	4.7
125	-	11.9	8.6
150	-	17.0	12.6
175	-	-	14.8
200	-	-	18.9

PESB-R Series Valve Pressure Loss (bar)

Flow m ³ /h	Flow l/m	100-PESB-R 2.5cm	150-PESB-R 3.8cm	200-PESB-R 5.1cm
0.06	1	0.11	-	-
0.3	5	0.13	-	-
0.6	10	0.15	-	-
1.2	20	0.20	-	-
3	50	0.19	-	-
6	100	0.32	0.22	-
9	150	0.69	0.16	-
12	200	-	0.16	0.25
15	250	-	0.24	0.24
18	300	-	0.33	0.25
21	350	-	0.45	0.30
24	400	-	0.59	0.38
27	450	-	0.75	0.53
30	500	-	0.91	0.67
33	550	-	1.10	0.82
36	600	-	-	0.92
39	650	-	-	1.00
42	700	-	-	1.13
45	757	-	-	1.30

Notes

1. Loss values are with flow control fully open
2. PRS-Dial recommended for use in shaded area only