



TECH SPECS

Pressure Regulating Filters and
Pressure Regulating Filter Control Zone Kits

Fewer Parts. Quicker Installs.

The patent-pending Rain Bird® Pressure Regulating Filter (PR Filter) combines effective pressure control and first rate filtration into one compact unit. Combined with a valve, the PR Filter gives you control zone kits that measure 24% shorter. Fit up to four kits in a standard valve box and dig fewer holes, or place one control zone kit in a 10-inch round valve box and dig smaller holes.

- Simplifies installation—All-in-one compact, two piece control zone kit comes fully assembled.
- Increases reliability—Fewer parts, fewer threaded connections mean less chance of leaking.
- Reduces labor and material cost—Compact size requires fewer and smaller valve boxes for each job.

Features

Pressure Regulating Filter

- Unique, compact unit that combines filtration and pressure regulation in one unit for protection of downstream components in a drip irrigation system.
- Available in either the static RBY filter or the self-cleaning Back Flush Filter.
- PR RBY Filter Cap has sealing o-ring and unthreads to provide access to the filter element for easy cleaning.
- PR Back Flush Filter provides self-cleaning action with every cycle, as debris is flushed every time the system is turned on and off.
- 30 or 40 psi pressure regulator is integrated into filter body.
- Body and cap made of glass filled polypropylene, providing 150 psi pressure rating.
- Works with all valves to create a simple, efficient control zone kit.
- Replacement filter elements are available in two configurations: 200 mesh (75 micron) and 150 mesh (100 micron).

Pressure Regulating Filter Control Zone Kits

- Comes in 2 simple configurations: ¾" and 1" kits with PR RBY Filter.
- Control zone kits are pre-assembled for easy installation.

Operating Range

- Flow:
 - ¾" unit: 0.20 to 5.0 gpm (45,4 to 1136 liters/hour; 0,01 to 0,32 l/s)
 - 1" unit: 3.0 to 15.0 gpm (681 to 3407 liters/hour; 0,19 to 0,95 liters/sec)
- Inlet Pressure: 20 to 120 psi (1,4 to 8,2 bars)
- Regulated pressure:
 - ¾" unit: 30 psi (2,0 bars)
 - 1" unit: 40 psi (2,8 bars)
- Filtration: 200 mesh (75 micron)

Models

Pressure Regulating Filter

- PRF-075-RBY
- PRF-100-RBY*
- PRF-075-BFF
- PRF-100-BFF*

Pressure Regulating Filter Control Zone Kits

- XCZ-075-PRF (¾" Low Flow Valve + ¾" PR RBY Filter) (assembled)
- XCZ-100-PRF* (1" DV Valve + 1" PR RBY Filter) (assembled)

*Available with BSP Threads



Pressure Regulating Filter Control Zone Kits

Pressure Regulating Filter

How to Specify/Order:

PRF-075-BFF

Model
PRF:
Pressure Regulating
Filter

BFF:
Back Flush Filter
RBY:
In-line WYE Filter

Configuration

075: ¾"
100: 1"

PR Filter Control Zone Kit

How to Specify/Order:

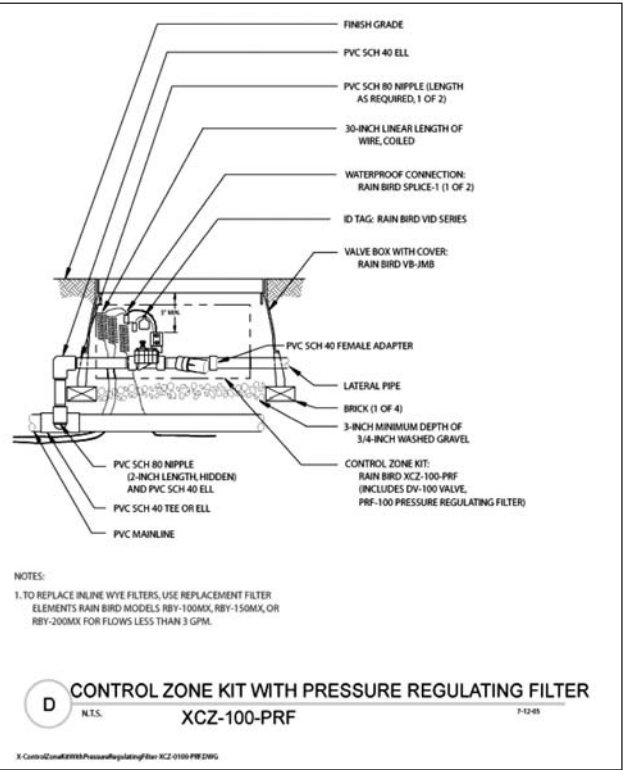
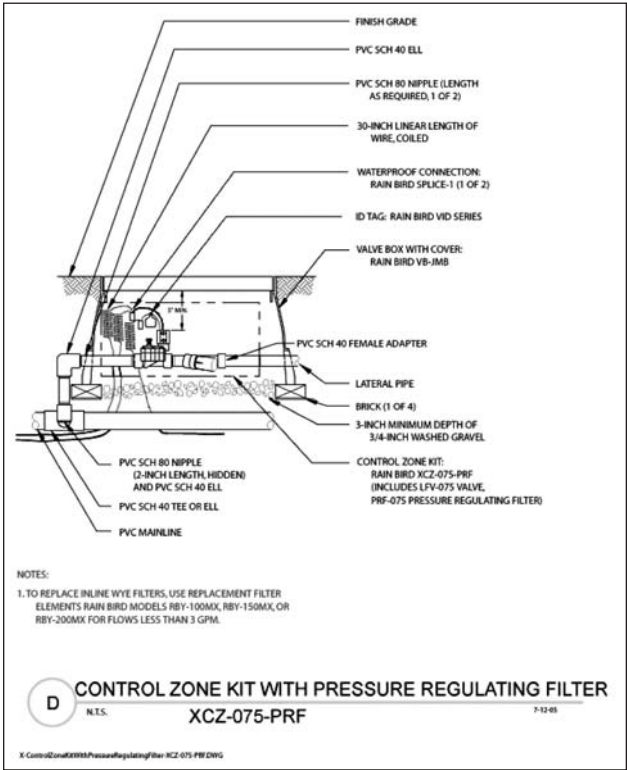
XCZ-075-PRF

Model
XCZ:
Xerigation Control
Zone

PRF:
Pressure Regulating
Filter

Configuration

075: ¾"
100: 1"



Rain Bird Corporation
6991 E. Southpoint Road, Tucson, AZ, 85706, U.S.A.
Phone: (520) 741-6100 Fax: (520) 741-6522

Rain Bird Corporation
970 W. Sierra Madre Avenue, Azusa, CA, 91702, U.S.A.
Phone: (626) 812-3400 Fax: (626) 812-3411

Rain Bird International, Inc.
145 North Grand Avenue, Glendora, CA, 91741, U.S.A.
Phone: (626) 963-9311 Fax: (626) 963-4287

Technical Service and Support
(800) RAINBIRD (U.S. and Canada only)

Specification Hotline
800-458-3005 (U.S. only)

www.rainbird.com

The Intelligent Use of Water™ -- Visit www.rainbird.com to learn about our efforts

@ Registered Trademark of Rain Bird Corporation
© 2005 Rain Bird Corporation 6/05



Specifications

Pressure Regulating Filter Control Zone Kits XCZ-075-PRF, XCZ-100-PRF

The control zone kit shall contain 2 pieces, which are pre-assembled: an intergrated Pressure-Regulating Filter (PR Filter) and a valve.

The PR Filter shall contain both a 200 mesh filter and a pressure regulator. The pressure regulating filter body shall be constructed of heavy-duty, glass-filled, UV resistant plastic material providing a pressure rating of not less than 150 psi.

The filter element shall be constructed of a durable polyester fabric attached to a propylene frame. The standard 200-mesh (75 micron) screen shall be serviceable for cleaning purposes by unscrewing the cap from the body and removing the filter element. Color –coded replaceable filter elements of (blue) 150-mesh (100 micron) and (white) 200-mesh (75 micron) shall be available from the same manufacturer of the inline filter. The ¾ pressure regulating filter body shall have a ¾" male threaded inlet and outlet. The 1" PR Filter shall have a 1" male threaded inlet and outlet. The design shall be of a compact “Y” body and cap configuration. The dimension for the filter shall not exceed the following: Height: 4 ½" (11,4 cm), Length: 5 ½" (14 cm), Width: 2" (5,1 cm).

The pressure regulating element of the pressure regulating filter is a normally open device that allows full flow with a little pressure loss unless the inlet pressure is greater than preset level. As the inlet pressure increases above the preset level it compresses a spring and begins to reduce the flow and downstream pressure. The ¾" pressure regulator shall have a preset outlet pressure of approximately 30 psi (2,0 bars) at a flow rate of ____GPM or (l/s: m³/h). The 1" pressure regulator shall have a preset outlet pressure of approximately 40 psi (2,6 bars) at a flow rate of ____GPM or (l/s: m³/h). The pressure regulator shall be able to accommodate an inlet pressure rating of not less than 120 psi (8,3 bars). The control zone kits shall have the ability to be installed either above or below ground.

The control zone kits shall have an automatic irrigation control valve. The valve shall be normally closed at 24 VAC 50/60 cycle, solenoid actuated, balance pressure type capable of a flow rate of __GPM of (l/s: m³/h) with a pressure loss not to exceed __psi(bars). The valve pressure rating shall not be less than 120 psi. The valve body and bonnet shall be constructed of high impact, weather-resistant plastic, stainless steel and other chemical/UV resistant materials. The valve shall have a diaphragm constructed of

durable Buna-N rubber with a clog-resistant metering orifice. The valve shall have one 90-mesh (200 micron) filter attached to the solenoid base.

The kits with a ¾" valve shall have a valve that has a diaphragm with a double-knife seal, a ½" diameter seat and a ¾" NPT inlet and outlet. The kits with a 1" valve shall have a valve with a 1" FNPT inlet and outlet. The valve shall be actuated by a low power .30 amp(A) (7,2VA) inrush current and a 0.19 amp(A) (4.56VA) holding current. The valve shall be capable of on/off control by turning the solenoid ¼ turn.

The control zone kits shall be manufactured by Rain Bird Corporation, Glendora, California.

Pressure Regulating Filter (RBY or Back Flush Filter)

FRICTION LOSS CHARACTERISTICS

Flow GPM	Flow GPH	PRF-075-RBY psi	PRF-100-RBY psi	PRF-075-BFF psi	PRF-100-BFF psi
0.5	12	3.0	N/A	3.2	N/A
1	60	4.0	N/A	4.1	N/A
3	180	6.1	0.8	6.2	0.5
5	300	10.0	2.0	10.3	2.1
8	480	N/A	3.8	N/A	4.1
10	600	N/A	5.2	N/A	5.3
15	900	N/A	12.4	N/A	12.6

METRIC

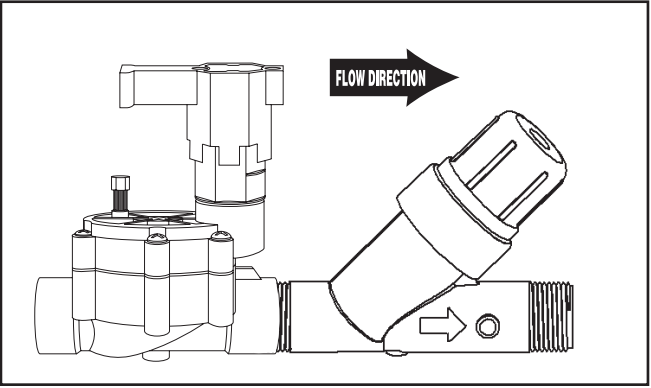
Flow l/h	Flow l/s	PRF-075-RBY bar	PRF-100-RBY bar	PRF-075-BFF bar	PRF-100-BFF bar
113	0,01	0,2	N/A	0,2	N/A
227	0,06	0,3	N/A	0,3	N/A
681	0,19	0,4	0,06	0,4	0,03
1136	0,32	0,7	0,1	0,7	0,1
1817	0,51	N/A	0,3	N/A	0,3
2271	0,63	N/A	0,4	N/A	0,4
3407	0,95	N/A	0,9	N/A	0,9

Control Zone Kits with Pressure Regulating RBY Filter Minimum Inlet Pressure for 30 or 40 psi (2,1 or 2,8 bars) Outlet Pressure

		30 psi	40 psi
Flow GPM	Flow GPH	XCZ-075-PRF psi	XCZ-100-PRF psi
0.2	12	34.4	N/A
1	60	36.1	N/A
3	180	38.1	42.9
5	300	43.4	44.1
8	480	N/A	46.9
10	600	N/A	48.5
15	900	N/A	55.5

METRIC

		2,1 bars	2,8 bars
Flow l/h	Flow l/s	XCZ-075-PRF bars	XCZ-100-PRF bars
45	0,01	2,4	N/A
227	0,06	2,5	N/A
681	0,19	2,7	3
1136	0,32	3	3
1817	0,51	N/A	3,2
2271	0,63	N/A	3,3
3407	0,95	N/A	3,8



Pressure Regulating Back Flush Filters



Pressure Regulating RBY Filters