

“I+ Series” Hydraulic Suction Scanning Screen Filter

The High Performance Standard

Rain Bird’s “I+ Series” Hydraulic Suction Scanning Screen Filter provides worry free high-flow filtration. I+ Series self-cleaning water filters have a parallel flange configured to accommodate simple installation. Models are available as a filter unit only, or as a filter assembly including bypass plumbing and valves for fast and easy installation on site.

I+ Series water filters utilize a two-stage screening process. The initial stage consist of a screen for removal of oversized contaminants, while the second stage removes remaining particles, achieving filtration at your specified level. The filter’s backwashing system produces a concentrated high velocity flow to systematically clean the fine sintered screen of any entrapped contaminants.

The I+ Series automatic water filters are used in a wide variety of industrial, irrigation, and municipal applications.

Irrigation Uses

Rain Bird’s well-established irrigation department provides self-cleaning water filters for turf, landscape, agriculture, greenhouse, golf course and nursery applications.

Rain Bird self-cleaning water filters are also applicable in emerging green and blue industries like Aquaculture.

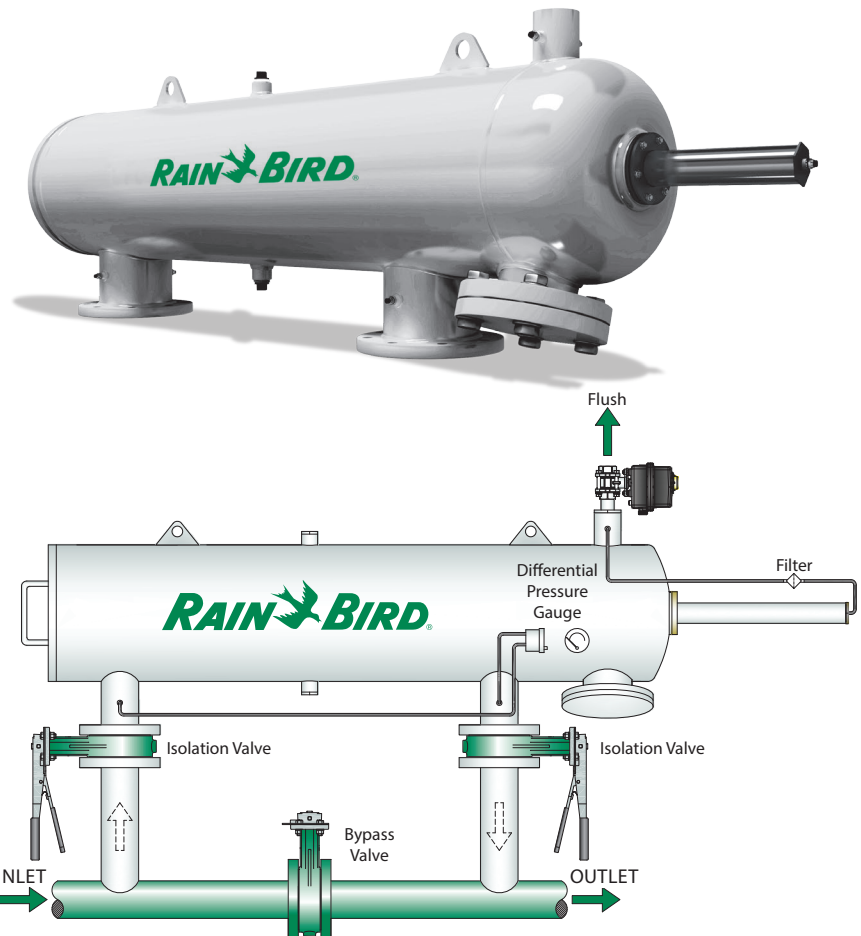
As a guideline, downstream orifices will determine the pore (i.e. micron) size and the proper filter porosity should maintain a ratio of 1:5 for drip irrigation and 1:3 for sprinklers.

Typical Micron Sizing:

- Drip 80-100 micron (200-150 mesh)
- Micro sprinklers (jets) 150-200 micron (100- 80 mesh)
- Impact sprinklers and rotors 200-400 micron (40-80 mesh)

Industrial Uses

Rain Bird’s Industrial filtration equipment is utilized throughout petrochemical plants, pulp & paper mills, sugar refineries, metal-works, plastics, food processing facilities, power generation, desalination plants, and more. The typical application improves water quality protecting



equipment and providing pre-filtration for cooling, rinsing, process and effluent streams across a wide range of industrial facilities.

Municipal Uses

In the municipal sector, Rain Bird self-cleaning equipment is utilized both for drinking and wastewater treatment. For drinking water applications Rain Bird equipment offers effective prefiltration for Reverse Osmosis, Ultrafiltration, Microfiltration etc. Filters used in municipal wastewater facilities are generally specified at the secondary or tertiary stage of treatment.

Within each of these categories are limitless variations of water sources, filtration applications, and end uses of filtered water. Rain Bird answers the needs of each with equipment uniquely suited to new design or to accommodate existing pipelines, operating pressures, flow rates and water qualities.

Features

- Flow Rate: 15 – 7,350 gpm
- Flush cycle duration: 6 – 20 seconds
- Single electric ball valve for flushing operations
- Screen opening: 5 μ – 4000 μ
- Max Temperature: 210°F
- Flush Volume: 4 – 50 gallons per backwash
- Working pressure: 35 – 150 psi
- Material: Stainless Steel, Carbon Steel, or Duplex Stainless
- Models A, B and C: 1.5” Flush Valve size
- Models D, E, F, G and H: 2.0” Flush Valve size
- Minimum Inlet pressure during rinse cycle: 35 PSI
- Available as filter only, or as a complete assembly with bypass manifold and valves
- Standard Rain Bird controllers: Auto-EC-2-110V AC and Auto-EC-2-9V DC (I-Series filters integrated with a Rain Bird Pump are controlled by pump station PLC)



"I+ Series" Suction Scanning Screen Filter Performance Data

Line Size (in)	Powder Coated Carbon Steel Model Number	Stainless Steel Model Number	300	200	120	100	Micron							
			50	75	125	140	Mesh	Std. Flow Rate (GPM)	Std. Flow Rate (GPM)	Std. Flow Rate (GPM)	Std. Flow Rate (GPM)	Sintered Screen Area (ft ²)	Sintered Screen Area (in ²)	Rinse Duration (Seconds)
2	HS-I-02-A	HS-I-02-A-S	200	200	200	200	2.65	382	10 to 30	15 to 50	1.5	35		
3	HS-I-03-A	HS-I-03-A-S	300	300	300	300	2.65	382	10 to 30	15 to 50	1.5	35		
4	HS-I-04-A	HS-I-04-A-S	500	500	500	500	2.65	382	10 to 30	15 to 50	1.5	35		
4	HS-I-04-B	HS-I-04-B-S	500	500	500	500	5.25	756	10 to 30	15 to 50	1.5	35		
4	HS-I-04-C	HS-I-04-C-S	500	500	500	500	7.00	1008	10 to 30	15 to 50	1.5	35		
4	HS-I-04-D	HS-I-04-D-S	500	500	500	500	9.25	1332	10 to 30	35 to 110	2	35		
6	HS-I-06-A	HS-I-06-A-S	650	630	555	530	2.65	382	10 to 30	15 to 50	1.5	35		
6	HS-I-06-B	HS-I-06-B-S	1000	1000	1000	1000	5.25	756	10 to 30	15 to 50	1.5	35		
6	HS-I-06-C	HS-I-06-C-S	1000	1000	1000	1000	7.00	1008	10 to 30	15 to 50	1.5	35		
8	HS-I-08-B	HS-I-08-B-S	1400	1260	1100	1050	5.25	756	10 to 30	15 to 50	1.5	35		
8	HS-I-08-C	HS-I-08-C-S	1700	1680	1470	1400	7.00	1008	10 to 30	15 to 50	1.5	35		
8	HS-I-08-D	HS-I-08-D-S	2000	2000	1943	1850	9.25	1332	10 to 30	35 to 110	2	35		
10	HS-I-10-C	HS-I-10-C-S	1900	1680	1470	1400	7.00	1008	10 to 30	15 to 50	1.5	35		
10	HS-I-10-D	HS-I-10-D-S	2000	2000	1943	1850	9.25	1332	10 to 30	35 to 110	2	35		
10	HS-I-10-E	HS-I-10-E-S	2700	2700	2573	2450	12.25	1764	10 to 30	35 to 110	2	35		
12	HS-I-12-D	HS-I-12-D-S	2000	2000	1943	1850	9.25	1332	10 to 30	35 to 110	2	35		
12	HS-I-12-E	HS-I-12-E-S	3100	2940	2573	2450	12.25	1764	10 to 30	35 to 110	2	35		
12	HS-I-12-F	HS-I-12-F-S	3800	3660	3200	3050	15.25	2196	10 to 30	35 to 110	2	35		
14	HS-I-14-E	HS-I-14-E-S	3100	2940	2573	2450	12.25	1764	10 to 30	35 to 110	2	35		
14	HS-I-14-F	HS-I-14-F-S	3800	3660	3200	3050	15.25	2196	10 to 30	35 to 110	2	35		
14	HS-I-14-G	HS-I-14-G-S	4500	4320	3780	3600	18.00	2592	10 to 30	35 to 110	2	35		
16	HS-I-16-E	HS-I-16-E-S	3100	2940	2573	2450	12.25	1764	10 to 30	35 to 110	2	35		
16	HS-I-16-F	HS-I-16-F-S	3800	3660	3200	3050	15.25	2196	10 to 30	35 to 110	2	35		
16	HS-I-16-G	HS-I-16-G-S	4500	4320	3780	3600	18.00	2592	10 to 30	35 to 110	2	35		
16	HS-I-16-H	HS-I-16-H-S	6125	5880	5145	4900	24.50	3528	10 to 30	35 to 110	2	35		
18	HS-I-18-F	HS-I-18-F-S	3800	3660	3200	3050	15.25	2196	10 to 30	35 to 110	2	35		
18	HS-I-18-G	HS-I-18-G-S	4500	4320	3780	3600	18.00	2592	10 to 30	35 to 110	2	35		
18	HS-I-18-H	HS-I-18-H-S	6125	5880	5145	4900	24.50	3528	10 to 30	35 to 110	2	35		
20	HS-I-20-G	HS-I-20-G-S	4500	4320	3780	3600	18.00	2592	10 to 30	35 to 110	2	35		
20	HS-I-20-H	HS-I-20-H-S	7350	5880	5145	4900	24.50	3528	10 to 30	35 to 110	2	35		
24	HS-I-24-H	HS-I-24-H-S	7350	5880	5145	4900	24.50	3528	10 to 30	35 to 110	2	35		
30	HS-I-30-H	HS-I-30-H-S	7350	5880	5145	4900	24.50	3528	10 to 30	35 to 110	2	35		

** The above calculated flow rates are based on good quality water. For fair, poor or bad water derate using the multiplier below for your water quality.

Hydraulic Filter Controllers		Water Quality	De-rating Multiplier	
Model	Power	Good: TSS ≤ 20 mg/L (ppm)	NA	<i>Note: Filter with Bypass Manifolds available upon request.</i> <i>Drawings of standard filter models are available at www.rainbird.com</i>
Auto EC-2-110V	110VAC	Fair: TSS ≤ 40 mg/L (ppm)	0.85	
Auto EC-2-9V	9VDC	Poor: TSS ≤ 80 mg/L (ppm)	0.50	
		Bad: TSS ≤ 110 mg/L (ppm)	0.35	

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