I-Series Hydraulic Suction Scanning Screen Filter

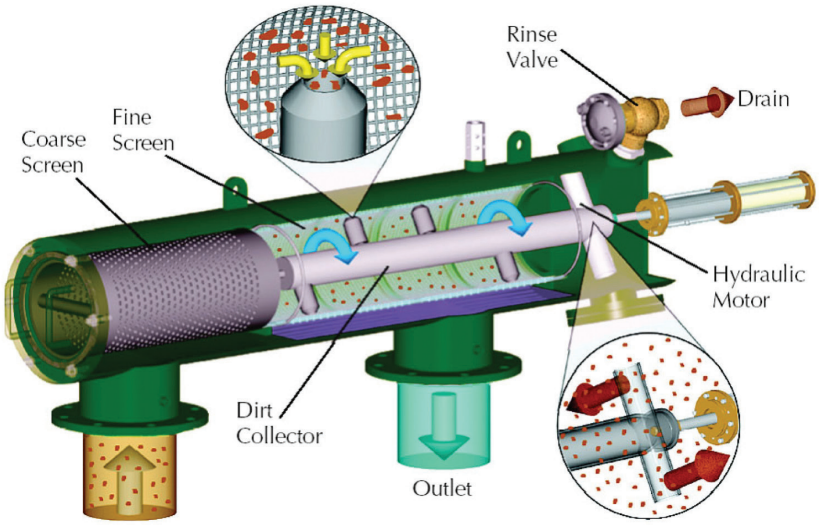
Self-Cleaning, Line-Powered Water Filters for Landscape and Turf Applications

Rain Bird's I-Series Hydraulic Suction Scanning Screen Filter provides cost-effective, worry free high-flow filtered water to protect all types of irrigation system components. Powered by source line water pressure, the filter's backwashing system produces a concentrated high velocity reverse water flow to systematically clean the mesh screen of any entrapped contaminants without interrupting the flow of filtered water to the irrigation system. 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.

Note: Pressure differential lines and controller not shown.

Operation (see illustration to the right)

The unit consists of two stages of filtration, a coarse screen pre-filter and a stainless steel fine screen. Suspended solids accumulate on the inner surface of the fine screen, building up a filter layer which eventually restricts the filter and creates a pressure differential. Once the pressure differential reaches a preset level a rinse cycle is initiated by the Rain Bird supplied controller. The solids are removed from the fine screen using a concentrated backwashing method which aggressively sucks the accumulated dirt off the screen where it is carried to drain via the rinse valve. The dirt collector rotates while it moves linearly, ensuring the entire screen is cleaned in a single cycle. The process takes a matter of seconds, without interruption of system flow.



Monitoring and Controls

The standard Rain Bird automatic control system consists of a microprocessor based controller, a differential pressure switch and a solenoid actuated rinse valve. The differential pressure switch monitors inlet and outlet pressures and comes factory preset to 7 psi. When the pressure differential of 7 psi is exceeded, the rinse valve is activated by the system controller, and the rinse cycle begins. If timed cleaning cycles are utilized, the system will automatically default to a backwash based on differential pressure if a 7 psi differential pressure is reached before the next timed cleaning cycle. Standard Rain Bird automatic controls are available for 115 VAC and 230 VAC, 50 / 60 Hz (user-configurable) single phase power.

Note: I-Series filters integrated with a Rain Bird Pump Station utilize 110 VAC solenoids.

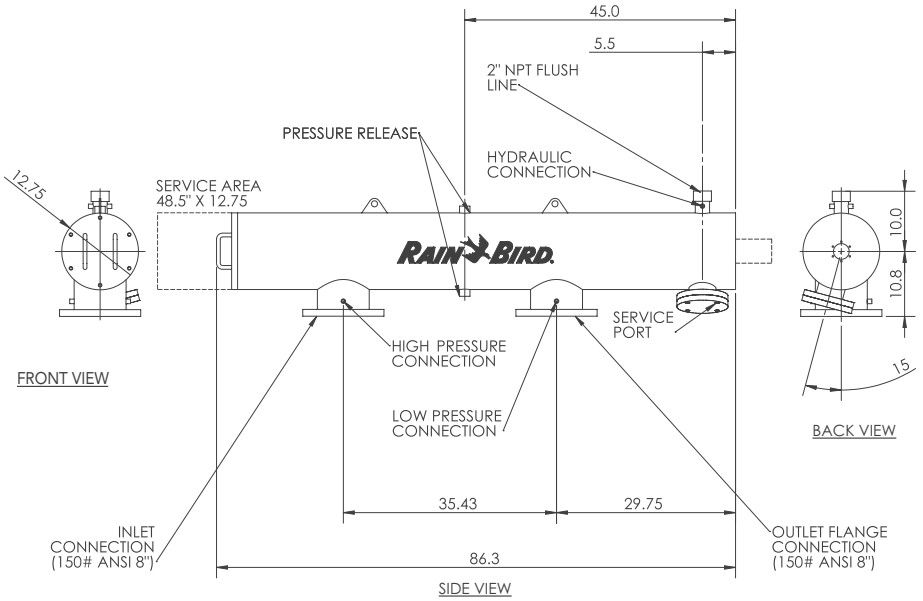
Construction

Rain Bird I-Series filters are built for years of durable, trouble-free service. The housing and covers of standard filters are made from thick wall high-grade 304 stainless steel. 316 L sintered stainless and wedge wire screens are available to trap sand, silt, algae and other debris from clogging drip emitters, rotors, nozzles, and spray heads. Easy maintenance access to the internal components of the filter is via a removable front cover with handles that are secured to the front end of the filter housing. All wetted components are constructed of either engineered plastics or corrosion resistant metals. Larger screens are manufactured in a modular form which allows replacement of sections of the screen, rather that the entire screen element.

(continued)

Specifications

- Flow rate: 600-3,400 gpm
- Material of construction:
  - Filter body: 304 stainless steel
  - Fine screen: 316L sintered stainless steel standard, wedge wire slotted screen for high algae applications is available
  - Optional bypass manifold: painted carbon steel
- Filtration level:
  - Mesh: 150, 200 standard, others optional
  - Micron: 100, 200 & 300 standard, others optional
- Inlet/Outlet connections: 4" - 12" flanged
- Flush line: 2" NPT
- Minimum operating pressure: 40 psi
- Maximum operating pressure: 150 psi



Model HS-I-08-PE-S shown

I-Series Suction Scanning Screen Filter Performance Data

Model Number, Golf Course	Model Number, Landscape	Maximum Flow GPM	m^3/Hour	Max Pressure (psi)	Inlet / Outlet Flange Size (in)	Flush Line Size (in)	Minimum Inlet Pressure During Rinse Cycle (psi)
Filter Only							
HT-I-04-PE-G	HT-I-04-D-S	600	136	150	4	2	40
HT-I-06-PE-G	HT-I-06-D-S	800	182	150	6	2	40
HT-I-08-PS-G	HT-I-08-B-S	1400	318	150	8	2	40
HT-I-08-PE-G	HT-I-08-D-S	1500	341	150	8	2	40
HT-I-10-PS-G	HT-I-10-E-S	2200	500	150	10	2	40
HT-I-10-PE-G	HT-I-10-D-S	3200	727	150	10	2	40
HT-I-12-PS-G	HT-I-12-D-S	3400	772	150	12	2	40

- *Filter flow is based on 150 mesh filtration of clear irrigation water. Appropriate flow de-rating is required for excessive debris loads (silt, organics, algae, etc.), reclaim water and finer screens. Contact Rain Bird at filters@rainbird.com for filter selection assistance for these applications.*
- *Other flow ranges are available, please contact Rain Bird at filters@rainbird.com for assistance.*

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