

## "I-Series" Hydraulic Suction Scanning Screen Filter

MADE IN THE U.S.A.

### The High Performance Standard in Scanning Filtration

Rain Bird's "I-Series" Hydraulic Suction Scanning Screen Filter provides worry free high-flow rate 300 micron (standard) filtered water quality. 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. 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.

#### 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 each cycle. The process takes a matter of seconds, without interruption of system flow.

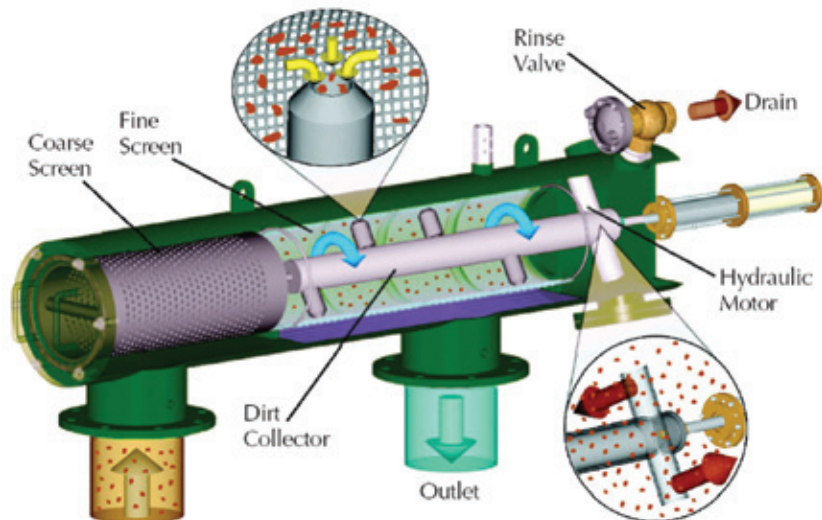
#### Monitoring and Controls

The standard Rain Bird automatic control system consists of a microprocessor based controller, a differential pressure switch and a solenoid actuated flush valve. The differential pressure switch monitors inlet and outlet pressures and comes factory preset to 7 psi. The flush valve is activated by the controller when the differential pressure exceeds 7 psi. The filtration system is automatically monitored and controlled on elapsed time since the last cleaning cycle or pressure differential (user definable). 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.*



(shown as filter only)  
HS-I-08-PE-G



#### 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, low-carbon steel. All exposed surfaces, both inside and out, polyester powder coated over a zinc phosphate primer coat. All wetted components are constructed of either engineered plastics or non-corrosive metals. Standard 300 micron wire mesh screens are PVC-supported which virtually eliminates the possibility of screen collapse. 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 non-corrosive metals. Larger screens are manufactured in a modular form which allows replacement of sections of the wire mesh, rather than the entire wire mesh element. All Rain Bird "I-Series" filters

are also available in Stainless Steel construction, for the most demanding water quality applications.

#### Basic Specifications

- Available as filter only (no bypass plumbing) or as a complete assembly with bypass plumbing and valves for easy installation
- Heavy-duty, durable, SS woven wire mesh screen filtration element with PVC support is supplied standard. Other screen construction including multi-layer sintered SS and wedgewire are also optionally available upon request.
- Standard SS woven wire mesh screens are supplied as 300 micron. Optional SS screen sizes available for 50, 80, 100, 150 or 200 micron
- Standard flow rates from 400 to 5,000 GPM

(continued)

## Basic Specifications (cont.)

- Standard maximum operating pressure of 150 PSI (higher pressures optionally available)
- Filtered, clean water backwashing initiated automatically by time or pressure differential via integrated Rain Bird controller
- Flanged inlet and outlet standard. Grooved inlet and outlet configuration optionally available

## Models

See chart below for all standard models available. Consult factory for options and custom configurations.

Economical design with integrated bypass assembly for fast and easy installation.



## "I-Series" Suction Scanning Screen Filter Performance Data

Powder Coated Carbon Steel Model Number	Stainless Steel Model Number	Maximum Flow US GPM	m <sup>3</sup> /Hour	Max Pressure (psi)	Inlet / Outlet Flange Size (in)	Flush Line Size (in)	Minimum Inlet Pressure During Rinse Cycle (psi)
<b>Filter Only</b>							
HS-I-04-PE-M	HS-I-04-PE-S-M	400	90.9	150	4	4	30
HS-I-06-PE-G	HS-I-06-PE-S-G	650	147.6	150	6	4	30
HS-I-08-PS-G	HS-I-08-PS-S-G	1200	272.6	150	8	4	30
HS-I-08-PE-G	HS-I-08-PE-S-G	1500	340.7	150	8	4	30
HS-I-10-PS-G	HS-I-10-PS-S-G	1750	397.5	150	10	4	30
HS-I-10-PE-G	HS-I-10-PE-S-G	2000	454.3	150	10	4	30
HS-I-12-PS-G	HS-I-12-PS-S-G	2500	567.9	150	12	4	30
<b>Filter Assembly with Bypass Manifold</b>							
HS-I-04-PE-B-M	HS-I-04-PE-S-B-M	400	90.9	150	4	4	30
HS-I-06-PE-B-G	HS-I-06-PE-S-B-G	650	147.6	150	6	4	30
HS-I-08-PS-B-G	HS-I-08-PS-S-B-G	1200	272.6	150	8	4	30
HS-I-08-PE-B-G	HS-I-08-PE-S-B-G	1500	340.7	150	8	4	30
HS-I-10-PS-B-G	HS-I-10-PS-S-B-G	1750	397.5	150	10	4	30
HS-I-10-PE-B-G	HS-I-10-PE-S-B-G	2000	454.3	150	10	4	30
HS-I-12-PS-B-G	HS-I-12-PS-S-B-G	2500	567.9	150	12	4	30
DS-I-08-PE-B-G	DS-I-08-PE-S-B-G	3000	681.5	150	12	4	30
DS-I-10-PS-B-G	DS-I-10-PS-S-B-G	3500	795.0	150	12	4	30
DS-I-10-PE-B-G	DS-I-10-PE-S-B-G	4000	908.6	150	14	4	30
DS-I-12-PS-B-G	DS-I-12-PS-S-B-G	5000	1135.8	150	14	4	30

\*Filter flow is based on 200 micron 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 for filter selection assistance for these applications.

-M denotes Commercial model number, -G denotes Golf model number

Contact Rain Bird for drawings or visit [www.rainbird.com](http://www.rainbird.com) to download.

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