



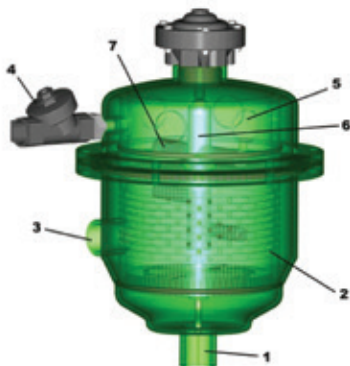
“G-Series” Hydraulic Suction Scanning Screen Filter

Economy and Value with up to 90% Lower Backwash Volumes

Rain Bird’s “G-Series” Hydraulic Suction Scanning Screen Filter provides worry free medium-flow rate filtered water quality. Powered by source line water pressure, the filter’s backwashing system produces a concentrated high velocity and low volume reverse water flow to systematically clean the 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 below)

Dirty water enters the inlet (1), where it enters the fine screen (2). The water passes through the screen from the inside to the out (3). The solids accumulate on the inner surface of the screen creating a pressure differential across the screen. Once the pressure differential reaches a preset value, a rinse cycle is activated and the Rain Bird supplied control system opens the rinse valve (4) to drain. As a result, the pressure drops in the hydraulic motor chamber (5) and dirt collector assembly (6). The pressure drop causes water to backflush through the screen in a small concentrated area at the nozzle openings. The high velocity backwash stream pulls the dirt off the screen. The backwash water is carried through the collector and ejected out of the holes in the hydraulic motor (7). The dirt collector rotates while it moves linearly (on models with a piston assembly), ensuring the entire screen is cleaned each cycle. The process takes a matter of seconds, without interruption of system flow.



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

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 are user configurable to 230 VAC, 50 / 60 Hz power.

Note: “G-Series” filters integrated with a Rain Bird Pump Station utilize 115 VAC solenoids.

Construction

Rain Bird “G-Series” filters are built for years of durable, trouble-free service. The bodies of standard “G-Series” filters are made from high-grade, low-carbon steel. All exposed surfaces, both inside and out, are polyester powder coated over a zinc phosphate primer coat. All wetted components are constructed of either engineered plastics or non-corrosive metals. Standard wire mesh screens are PVC-supported which virtually eliminates the possibility of screen collapse. All Rain Bird “G-Series” filters are also available in Stainless Steel construction, for the most demanding water quality applications.

IRRIGATION

Basic Specifications

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.

- Screens are available from 15 - 5000 micron
- Standard flow rates from 25 to 1,750 GPM
- 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 except on models HS-V-01 and HS-G-02 filter only configurations which are threaded. Grooved inlet and outlet configuration optionally available.

Models

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



(shown as filter only)
HS-G-03-LE

G-Series Suction Scanning Screen Filter Performance Data

Powder Coated Carbon Steel Model Number	Line Size (in)	Screen Length	Wire Mesh / PVC Screen area in ² (Standard)	Flush Flow (Gallons)	Rinse Duration (Seconds)	Flush Line Size (in)	Minimum Inlet Pressure During Rinse Cycle (psi)
HS-G-02-LE	2	Extended	64	4 to 5	8 to 10	2	30
HS-G-03-LE	3	Extended	120	6 to 8	12 to 16	2	30
HS-G-04-LS	4	Standard	120	6 to 8	12 to 16	2	30
HSG-04-LE	4	Extended	466	14 to 18	12 to 16	3	30

* Filter flow is based 200 micron 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.

Contact Rain Bird for drawings or visit www.rainbird.com to download.

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