

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

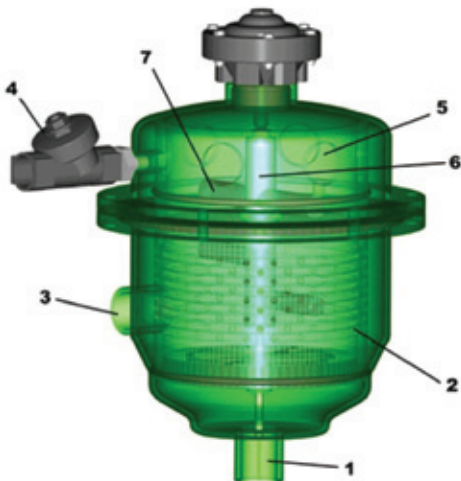
MADE IN THE U.S.A.

### Economy and Value with Lower Backwash Volumes

Rain Bird's "G-Series" Hydraulic Suction Scanning Screen Filter provides worry free medium-flow rate 300 micron (standard) 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 electric ball 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 (shown with optional wye-strainer).

#### Monitoring and Controls

The standard Rain Bird automatic control system consists of a microprocessor based controller, a differential pressure switch and an electrically 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 110 VAC and are user configurable to 220 VAC, 50 / 60 Hz power.

*Note: "G-Series" filters integrated with a Rain Bird Pump Station utilize 110VAC controls.*

#### Construction

Rain Bird "G-Series" filters are built for years of durable, trouble-free service. The bodies of "G-Series" filters are made from high-grade, low-carbon steel or 304 SS (depending on model). All exposed surfaces on carbon steel, 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 materials. SS 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.

#### Basic Specifications

- Heavy-duty, durable, SS woven wire mesh screen filtration element with PVC support or SS sintered screen (depending on model). Other screen construction including SS wedgewire is also optionally available upon request.

(continued)

## Basic Specifications (cont.)

- Configurable SS screen sizes available for 50, 80, 100, 120, 150, 200 and 300 micron
- Standard flow rates from 100 to 2,640 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 model HO-G-02 filter only configurations which is threaded. Grooved inlet and outlet configuration optionally available.

## Models

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



(shown as filter only)  
HT-G-04-LE-S



(shown as filter only)  
HO-G-03-LE-C

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

Line Size	Powder Coated Carbon Steel Model Number	Stainless Steel Model Number	Woven Screen Area (in <sup>2</sup> )	Sintered Screen Area (in <sup>2</sup> )	Max Flow Rate (GPM)	Std. Flow Rate (GPM)	Std. Flow Rate (GPM)	Std. Flow Rate (GPM)	Flush Volume (GPM)	Rinse Duration (seconds)	Flush Line Size	Inlet Pressure During Rinse Cycle (PSI)	Micron		Mesh	
													300	200	120	100
2"	HO-G-02-LE-C		64		100	100	90	65	≈ 10	8 to 10	1"	35				
3"	HO-G-03-LE-C		120		200	200	170	120	≈ 10	8 to 10	1"	35				
4"	HO-G-04-LS-C		120		300	250	170	120	≈ 10	8 to 10	1"	35				
4"	HO-G-04-LE-C		466		500	500	500	470	≈ 25	8 to 10	1.5"	35				
6"	HO-G-06-LS-C		466		750	750	650	460	≈ 25	8 to 10	1.5"	35				
8"	HO-G-08-LS-C		648		1300	1300	905	650	≈ 25	8 to 10	1.5"	35				
8"	HO-G-08-LE-C		810		1320	1320	1135	810	≈ 55	8 to 10	2"	35				
2"		HO-G-02-LE-S	64		100	100	90	65	≈ 10	8 to 10	1"	35				
3"		HO-G-03-LE-S	120		200	200	170	120	≈ 10	8 to 10	1"	35				
4"		HO-G-04-LS-S	120		300	250	170	120	≈ 10	8 to 10	1"	35				
4"		HO-G-04-LE-S	466		500	500	500	470	≈ 25	8 to 10	1.5"	35				
6"		HO-G-06-LS-S	466		750	750	650	460	≈ 25	8 to 10	1.5"	35				
8"		HO-G-08-LS-S	648		1300	1300	905	650	≈ 25	8 to 10	1.5"	35				
8"		HO-G-08-LE-S	810		1320	1320	1135	810	≈ 55	8 to 10	2"	35				
2"		HT-G-02-LE-S		216	200	200	200	200	≈ 10	8 to 10	1"	35				
2"		HT-G-02-LEX-S		432	300	300	300	300	≈ 10	8 to 10	1"	35				
3"		HT-G-03-LE-S		216	200	200	200	200	≈ 10	8 to 10	1"	35				
4"		HT-G-04-LS-S		432	500	500	500	430	≈ 10	8 to 10	1"	35				
4"		HT-G-04-LE-S		720	600	600	600	600	≈ 10	8 to 10	1"	35				

\* Filter standard flow rates are based on average water quality (<40 ppm solids) and some type of pre-filter for large solids (pump suction screen / wye-strainer) if water source is a lake or river. Appropriate de-rating is required for excessive debris loads (silt, organics, algae, etc.). Contact Rain Bird for filter selection assistance for these applications.

-M at the end of the model number denotes Commercial model number, -G denotes Golf model number, -A denotes AG number. Contact Rain Bird for drawings or visit [www.rainbird.com](http://www.rainbird.com) to download.

Standard Bypass Manifold		
Line Size	Powder Coated Carbon Steel Model Number	Max Flow Rate (GPM)
2"	G-2-CS-F	150
3"	G-3-CS-F	200
4"	G-4-CS-F	600
6"	G-6-CS-F	750
8"	G-8-CS-F	1320

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