

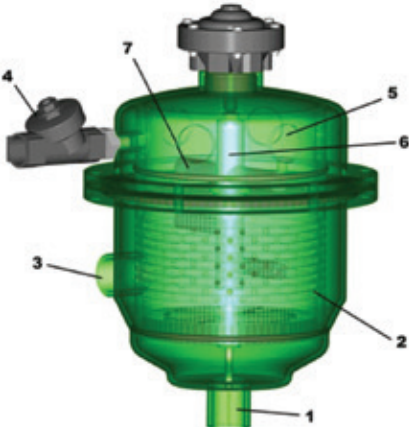
## G-Series Hydraulic Suction Scanning Screen Filter

### Economy and Value with Lower Backwash Volumes

Rain Bird's G-Series Hydraulic Suction Scanning Screen Filter provides worry free medium-flow rate 120 micron (125 mesh) 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.



#### 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 or 6/12 VDC (standard).

#### 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 120 micron (125 mesh) 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 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 120 micron (125 mesh). Optional SS screen sizes available for 50, 80, 100, 150 or 200 micron.
- Standard flow rates from 25 to 3,500 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.

# AG FILTRATION

## G-Series Suction Scanning Screen Filter Performance Data

Line Size (in)	Carbon Steel Model Number	300		200		120		100		Micron	300		200		120		100		Micron
		Std. Flow Rate (GPM)		Std. Flow Rate (GPM)		Std. Flow Rate (GPM)		Std. Flow Rate (GPM)		Mesh	Std. Flow Rate (GPM)		Std. Flow Rate (GPM)		Std. Flow Rate (GPM)		Std. Flow Rate (GPM)		Mesh
2	HS-G-02-LE	110	110	85	65	64	110	110	110	95	96	8-10	4-5	1	30	Bolted			
3	HS-G-03-LE	175	175	155	120	120	175	175	175	175	180	12-16	6-8	1	30	Bolted			
4	HS-G-04-LS	280	215	155	120	120	350	325	235	175	180	12-16	6-8	1	30	Bolted			
4	HS-G-04-LE	350	350	350	350	466	350	350	350	350	700	12-16	14-18	1.5	30	Bolted			

Chart above is for standard models. Consult factory for additional models and custom configurations.

Flow rates shown above are based on water quality of 25 PPM or better (good water quality).

For water with particulate load greater than 25 PPM please consult Rain Bird for appropriate flow de-rating.

Drawings of standard filter models listed above are available on [www.rainbird.com](http://www.rainbird.com)

### Hydraulic Controllers

Model	Power
F-2-110V	110/220V AC
F-2-9V	9V DC

### Water Quality

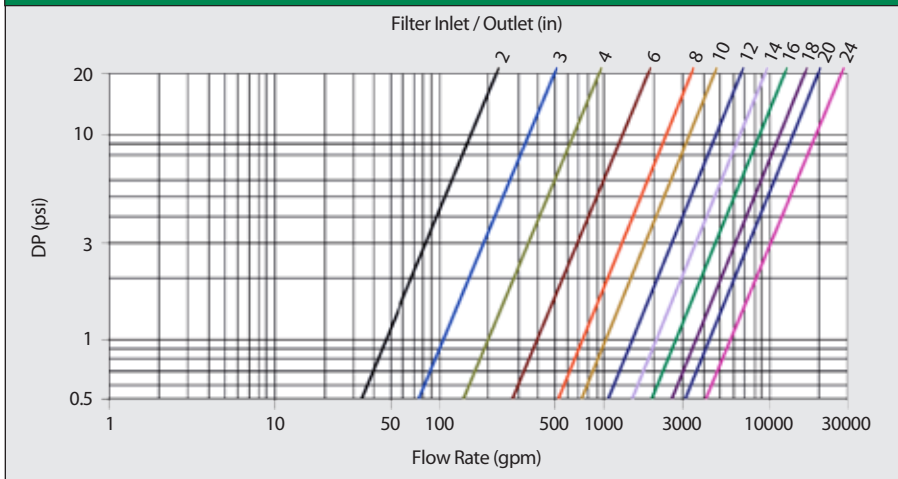
Good: TSS ≤ 20 mg/L (ppm)

Fair: TSS ≤ 40 mg/L (ppm)


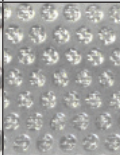
Poor: TSS ≤ 80 mg/L (ppm)

Bad: TSS ≤ 110 mg/L (ppm)

### Pressure Drop vs. Flow Rate



### Screens

	Woven on PVC Support	Multilayer Sintered
Screen Patterns		
Open Screen Area	40%	60%
Hydraulic Collapse D.P.	300 PSI	300 PSI
Temp Rating	150°F	300°F
Material	St/St 316L	St/St 316L

**NOTE:** Filter with bypass manifolds available upon request.

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[www.rainbird.com](http://www.rainbird.com)