

Pumps and Filtration

Rain Bird applies its industry leading irrigation expertise to the design and manufacture of pump stations and filters to provide solutions to meet customer requirements. By doing so, Rain Bird is the only irrigation manufacturer able to provide totally integrated irrigation solutions, Reservoir to Rotor. Rain Bird's solutions reliably and dependably deliver a more playable course, while lowering operational costs.



Unequaled Quality and Performance

Remote Pump Station Access

Rain Bird's user interface is a network ready design that allows for remote access via PC, laptop, tablet, smart phone, or any web-enabled mobile device. These devices are simple to navigate, properly formats to the screen of the device being used and allows for complete control and monitoring of your golf Pump Station. This remote accessibility provides Rain Bird customers the confidence to control their pumping systems when they are away from the course.

Electrical Design

Rain Bird® pump stations are built to UL508A standards and use the industry's best surge suppression reducing the risk of electronic component damage that could lead to inconvenient and costly downtime. This design includes full heavy-duty circuit breaker integration providing the ultimate protection with the best serviceability.

Backup Pressure Regulation

Every station comes with an engineered design and properly sized pressure relief valve to provide automatic pressure regulation in the event of an overpressure situation.

VFD Per Motor (VPM) Option

Rain Bird offers the industry's most comprehensive package upon request, including a VFD for each main motor on a multi-pump station. This option offers superior motor protection along with no mechanical switching components. It also provides a level of efficient backup pressure regulation that a pressure relief valve or butterfly valve cannot deliver.

Durable Polyester Powder-Coating

Rain Bird's in-house steel-grit blasting system assures all exterior surfaces of the pump station are prepared to specification standards and allows for the best coating adhesion. The polyester powder-coat Rain Bird applies is far more durable than competitive solvent-based multi-layer coatings. In fact, Rain Bird's powder-coating process scores a 10 out of 10 on an ASTM corrosion test provided by Sherwin Williams. Other industry pump stations scored four (4) out of 10 on the very same test. In addition the powder-coating process is considered very environmentally friendly.

Engineered Pump Station Skid Design

Using 3D modeling, the channel steel skid frame is engineered for strength and rigidity. This engineered design reduces vibration and eliminates the need for raised, extra-thick steel plates under the pump heads, which can be a trip hazard. The deck is the industry's strongest and longest lasting with continuously welded smooth steel plate. In addition, Rain Bird follows industry standards and manufacturer's recommendations for station components such as the proper specifications for flow meters.

Advanced Controls

With the industry's leading touch screens, Rain Bird continues to innovate by offering the largest screen as a standard. Beyond being network ready, this interface offers up to 20 years of historical memory capability and USB backup. With features such as filtration integration, water feature control, lake level control, pump lockouts, auto set point adjustment per pump, motor starts protection, and many more, Rain Bird has driven pump station innovation in the Golf Industry for the last decade.

Real-Time System Integration

Rain Bird pump stations have Pump Manager 2 and Smart Pump™ technology at the central control, so you can configure your system to automatically monitor and self-adjust to changing conditions. This seamless integration by Rain Bird improves your system's overall performance by reducing watering windows and minimizing energy use.

Pump and Motor Options

Rain Bird offers custom designed cast iron discharge heads for golf irrigation pump stations. With superior flow characteristics and 12 times the required tensile strength for golf pump stations, they are the obvious choice for the application. Rain Bird utilizes G.E. motors with industry-leading warranties, efficiencies and durability.

Air Relief

Rain Bird provides air relief on each pump. Individual air relief valves allow for the maximum amount of air to be removed from the pump columns and not enter into the irrigation system.

User Controls

Rain Bird pump stations have set the bar with simple, large-icon touchscreen controls in nine (9) different languages. Each pump has a lighted, three position Manual–Off–Auto switch for intuitive, safe backup control of the station.



Pump Station Platforms Quick Reference Guide

LP SERIES

HES1

- One horizontal end suction pump
- 5 to 10 HP motor with VFD
- Up to 100 psi (6.9 bar)
- Up to 200 gpm (12.6 lps, 45.4 m³/h)
- Aluminum Enclosure
- Monochrome touch-panel display



VM1

- One vertical multistage pump
- 1 to 2 HP motor with VFD
- Up to 50 psi (3.5 bar)
- Up to 60 gpm (355.8 lps, 13.6 m³/h)
- Aluminum Enclosure
- Monochrome touch-panel display



D SERIES

HES1

- One horizontal end suction pump
- 5 to 20 HP motor with VFD
- Up to 130 psi (9.0 bar)
- Up to 350 gpm (22.1 lps, 79.5 m³/h)
- Powder-coated steel enclosure
- Monochrome touch-panel display



VM1

- One vertical multistage pump
- 3 to 15 HP motor with VFD
- Up to 115 psi (7.9 bar)
- Up to 200 gpm (12.6 lps, 45.4 m³/h)
- Powder-coated steel enclosure
- Monochrome touch-panel display



M SERIES

HES1

- One horizontal end suction pump
- 20 to 50 HP motor with VFD
- Up to 120 psi (8.3 bar)
- Up to 600 gpm (37.9 lps, 136 m³/h)
- Aluminum Enclosure
- Monochrome touch-panel display



VM1

- One vertical multistage pump
- 15 to 60 HP motor with VFD
- Up to 155 psi (10.7 bar)
- Up to 500 gpm (31.5 lps, 114 m³/h)
- Aluminum Enclosure
- Monochrome touch-panel display



COMPACT DECK

VT1

- 25 to 75 HP motors with VFD
- Up to 140 psi (9.7 bar)
- Up to 500 gpm (31.5 lps, 114 m³/h)
- Color touch-panel display



VT2

- 25 to 75 HP motors with VFD
- Up to 140 psi (9.7 bar)
- Up to 1600 gpm (101 lps, 363 m³/h)
- Color touch-panel display



LARGE DECK

VT2

- Large Deck to accommodate optional integrated filtration
- 25 to 75 HP motors with VFD
- Up to 140 psi (9.7 bar)
- Up to 1600 gpm (101 lps, 363 m³/h)
- Color touch-panel display



VT3

- Large Deck to accommodate optional integrated filtration
- 40 to 75 HP motors with VFD
- Up to 140 psi (9.7 bar)
- Up to 2400 gpm (151 lps, 545 m³/h)
- Color touch-panel display



PUMP STATION PLATFORMS

HES2

- Two horizontal end suction pumps
- 20 to 60 HP motors with VFD
- Up to 124 psi (8.6 bar)
- Up to 1200 gpm (76 lps, 273 m³/h)
- Aluminum Enclosure
- Monochrome touch-panel display



VM2

- Two vertical multistage pumps
- 25 to 60 HP motor with VFD
- Up to 150 psi (10.3 bar)
- Up to 1000 gpm (63.1 lps, 227 m³/h)
- Aluminum Enclosure
- Monochrome touch-panel display



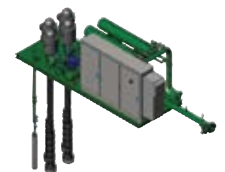
HES3

- Three horizontal end suction pumps
- 20 to 60 HP motors with VFD
- Up to 124 psi (8.6 bar)
- Up to 1800 gpm (114 lps, 409 m³/h)
- Aluminum Enclosure
- Monochrome touch-panel display



VT4-LARGE

- Large Deck to accommodate optional integrated filtration
- 40 to 75 HP motors with VFD
- Up to 140 psi (9.7 bar)
- Up to 3000 gpm (189 lps, 681 m³/h)
- Color touch-panel display



PANEL ONLY

- Controls 1-6 pumps, up to 100 HP each
- VFD or VPM
- Flow meter and pressure transducer included.



“I+ Series” Hydraulic Suction Scanning Filter

Self-cleaning line powered hydraulic water filters for turf, landscape, agriculture, greenhouse, golf course and nursery applications.

FEATURES

- Flow rate: 15 – 7,350 gpm
- Max temperature: 210° F
- Single electric ball valve for flushing operations standard
- 316 L stainless steel sintered screens standard
- Screen opening: 5µ – 4000µ
- Working pressure: 35 – 150 psi
- Material: Stainless Steel, Powder Coated Carbon Steel, Duplex Steel, or Fiberglass Reinforced Plastic
- Available as filter only, or as a complete assembly with bypass manifold and valves



Powder-coated carbon steel



Stainless steel

“I+ Series” Suction Scanning Filter Performance Data

Powder-Coated Carbon Steel Model Number	Stainless Steel Model Number	Line Size (in)	Standard Flow Rate (gpm)				Sintered Screen Area (ft ²)	Sintered Screen Area (in ²)	Flush Volume (gallons)	Flush Line Size (in)	Minimum Inlet Pressure During Rinse Cycle (psi)
			MICRON 300	200	120	100					
			MESH 50	80	125	140					
HS-I-02-A	HS-I-02-A-S	2	200	200	200	200	2.65	382	15 to 50	1.5	35
HS-I-03-A	HS-I-03-A-S	3	300	300	300	300	2.65	382	15 to 50	1.5	35
HS-I-04-A	HS-I-04-A-S	4	500	500	500	500	2.65	382	15 to 50	1.5	35
HS-I-04-B	HS-I-04-B-S	4	500	500	500	500	5.25	756	15 to 50	1.5	35
HS-I-04-C	HS-I-04-C-S	4	500	500	500	500	7.00	1008	15 to 50	1.5	35
HS-I-04-D	HS-I-04-D-S	4	500	500	500	500	9.25	1332	35 to 110	2.0	35
HS-I-06-A	HS-I-06-A-S	6	650	630	555	530	2.65	382	15 to 50	1.5	35
HS-I-06-B	HS-I-06-B-S	6	1000	1000	1000	1000	5.25	756	15 to 50	1.5	35
HS-I-06-C	HS-I-06-C-S	6	1000	1000	1000	1000	7.00	1008	15 to 50	1.5	35
HS-I-06-D	HS-I-06-D-S	6	1000	1000	1000	1000	9.25	1332	35 to 110	2.0	35
HS-I-08-B	HS-I-08-B-S	8	1400	1260	1100	1050	5.25	756	15 to 50	1.5	35
HS-I-08-C	HS-I-08-C-S	8	1700	1680	1470	1400	7.00	1008	15 to 50	1.5	35
HS-I-08-D	HS-I-08-D-S	8	2000	2000	1943	1850	9.25	1332	35 to 110	2.0	35
HS-I-10-C	HS-I-10-C-S	10	1900	1680	1470	1400	7.00	1008	15 to 50	1.5	35
HS-I-10-D	HS-I-10-D-S	10	2000	2000	1943	1850	9.25	1332	35 to 110	2.0	35
HS-I-10-E	HS-I-10-E-S	10	2700	2700	2573	2450	12.25	1764	35 to 110	2.0	35
HS-I-12-D	HS-I-12-D-S	12	2000	2000	1943	1850	9.25	1332	35 to 110	2.0	35
HS-I-12-E	HS-I-12-E-S	12	3100	2940	2573	2450	12.25	1764	35 to 110	2.0	35
HS-I-12-F	HS-I-12-F-S	12	3800	3660	3200	3050	15.25	2196	35 to 110	2.0	35
HS-I-14-E	HS-I-14-E-S	14	3100	2940	2573	2450	12.25	1764	35 to 110	2.0	35
HS-I-14-F	HS-I-14-F-S	14	3800	3660	3200	3050	15.25	2196	35 to 110	2.0	35
HS-I-14-G	HS-I-14-G-S	14	4500	4320	3780	3600	18.00	2592	35 to 110	2.0	35
HS-I-16-E	HS-I-16-E-S	16	3100	2940	2573	2450	12.25	1764	35 to 110	2.0	35
HS-I-16-F	HS-I-16-F-S	16	3800	3660	3200	3050	15.25	2196	35 to 110	2.0	35
HS-I-16-G	HS-I-16-G-S	16	4500	4320	3780	3600	18.00	2592	35 to 110	2.0	35
HS-I-16-H	HS-I-16-H-S	16	6125	5880	5145	4900	24.50	3528	35 to 110	2.0	35
HS-I-18-F	HS-I-18-F-S	18	3800	3660	3200	3050	15.25	2196	35 to 110	2.0	35
HS-I-18-G	HS-I-18-G-S	18	4500	4320	3780	3600	18.00	2592	35 to 110	2.0	35
HS-I-18-H	HS-I-18-H-S	18	6125	5880	5145	4900	24.50	3528	35 to 110	2.0	35
HS-I-20-G	HS-I-20-G-S	20	4500	4320	3780	3600	18.00	2592	35 to 110	2.0	35
HS-I-20-H	HS-I-20-H-S	20	7350	5880	5145	4900	24.50	3528	35 to 110	2.0	35
HS-I-24-H	HS-I-24-H-S	24	7350	5880	5145	4900	24.50	3528	35 to 110	2.0	35
HS-I-30-H	HS-I-30-H-S	30	7350	5880	5145	4900	24.50	3528	35 to 110	2.0	35

All models have a rinse duration of 10 to 30 seconds.

The above calculated flow rates are based on good quality water. For fair, poor or bad water contact Rain Bird. Drawings of standard filter models are available at www.rainbird.com
Standard Rain Bird controllers: Auto-EC2-110V AC and Auto-EC2-9V DC (I+Series filters integrated with a Rain Bird Pump station are controlled by pump station PLC).

“E+ Series” and “E0+ Series” Electric Suction Scanning Filter

Rain Bird’s E+ and E0+ Series automatic self-cleaning water filters utilize an electric motor to assist in cleaning during the backwash cycle in turf, landscape, agriculture, greenhouse, golf course, nursery applications and emerging green and blue industries like Aquaculture. Rain Bird electric filters can operate at system pressures as low as 15 psi.

FILTER CHARACTERISTICS:

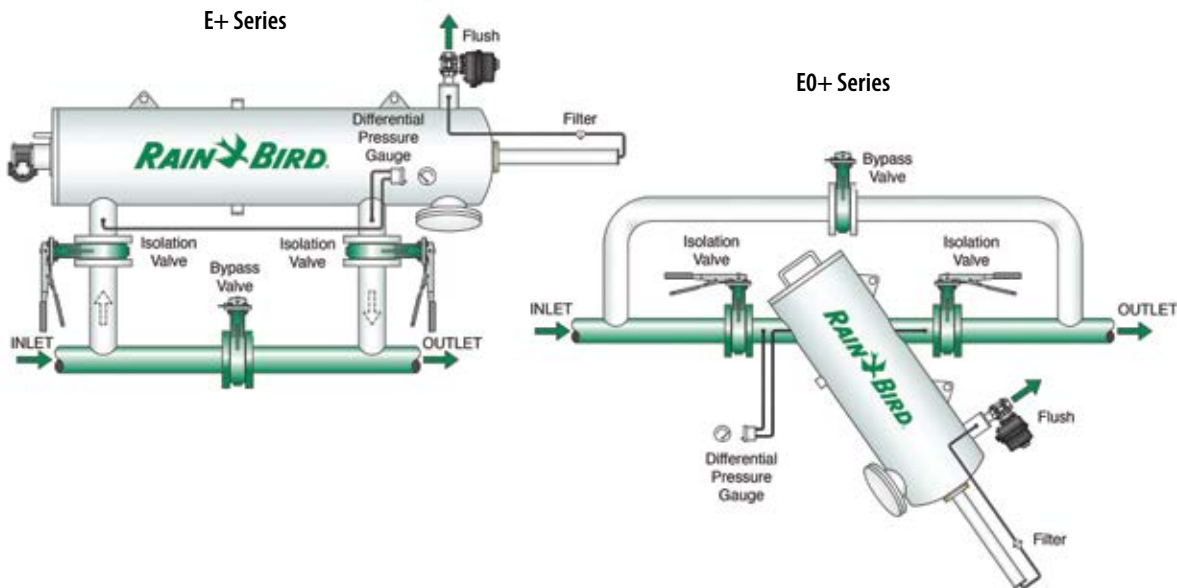
- E+ Series filters are parallel flanged
- E0+ filters are straight flanged
- Flow Rate: 15 – 7,350 gpm
- Max Temperature: 210° F
- Single electric ball valve for flushing operations standard
- 316 L stainless steel sintered screens standard
- Screen opening: 5μ – 4000μ
- Working pressure: 15 – 150 psi
- Materials of Construction: Stainless Steel, Carbon Steel, Duplex Stainless or Fiberglass Reinforce Plastic
- Available as a filter unit only, or as a filter assembly including bypass plumbing and valves



Stainless steel



Powder-coated carbon steel



“E+” and “E0+ Series” Suction Scanning Filter Performance Data

E+ Series Models		E0+ Series Models		Line Size (in.)	Standard Flow Rate (gpm)				Sintered Screen Area (ft ³)	Sintered Screen Area (in ²)	Flush Volume (gal)	Flush Line Size (in.)	
Powder Coated Carbon Steel	Stainless Steel	Powder Coated Carbon Steel	Stainless Steel		MICRON	300	200	120					100
					MESH	50	75	125	140				
HS-E-02-A	HS-E-02-A-S	HS-E0-02-A	HS-E0-02-A-S	2		200	200	200	200	2.65	382	15 to 50	1.5
HS-E-03-A	HS-E-03-A-S	HS-E0-03-A	HS-E0-03-A-S	3		300	300	300	300	2.65	382	15 to 50	1.5
HS-E-04-A	HS-E-04-A-S	HS-E0-04-A	HS-E0-04-A-S	4		500	500	500	500	2.65	382	15 to 50	1.5
HS-E-04-B	HS-E-04-B-S	HS-E0-04-B	HS-E0-04-B-S	4		500	500	500	500	5.25	756	15 to 50	1.5
HS-E-04-C	HS-E-04-C-S	HS-E0-04-C	HS-E0-04-C-S	4		500	500	500	500	7.00	1008	15 to 50	1.5
HS-E-04-D	HS-E-04-D-S	HS-E0-04-D	HS-E0-04-D-S	4		500	500	500	500	9.25	1332	35 to 110	2.0
HS-E-06-A	HS-E-06-A-S	HS-E0-06-A	HS-E0-06-A-S	6		650	630	555	530	2.65	382	15 to 50	1.5
HS-E-06-B	HS-E-06-B-S	HS-E0-06-B	HS-E0-06-B-S	6		1000	1000	1000	1000	5.25	756	15 to 50	1.5
HS-E-06-C	HS-E-06-C-S	HS-E0-06-C	HS-E0-06-C-S	6		1000	1000	1000	1000	7.00	1008	15 to 50	1.5
HS-E-06-D	HS-E-06-D-S	HS-E0-06-D	HS-E0-06-D-S	6		1000	1000	1000	1000	9.25	1332	35 to 110	2.0
HS-E-08-B	HS-E-08-B-S	HS-E0-08-B	HS-E0-08-B-S	8		1400	1260	1100	1050	5.25	756	15 to 50	1.5
HS-E-08-C	HS-E-08-C-S	HS-E0-08-C	HS-E0-08-C-S	8		1700	1680	1470	1400	7.00	1008	15 to 50	1.5
HS-E-08-D	HS-E-08-D-S	HS-E0-08-D	HS-E0-08-D-S	8		2000	2000	1943	1850	9.25	1332	35 to 110	2.0
HS-E-10-C	HS-E-10-C-S	HS-E0-10-C	HS-E0-10-C-S	10		1900	1680	1470	1400	7.00	1008	15 to 50	1.5
HS-E-10-D	HS-E-10-D-S	HS-E0-10-D	HS-E0-10-D-S	10		2000	2000	1943	1850	9.25	1332	35 to 110	2.0
HS-E-10-E	HS-E-10-E-S	HS-E0-10-E	HS-E0-10-E-S	10		2700	2700	2573	2450	12.25	1764	35 to 110	2.0
HS-E-12-D	HS-E-12-D-S	HS-E0-12-D	HS-E0-12-D-S	12		2000	2000	1943	1850	9.25	1332	35 to 110	2.0
HS-E-12-E	HS-E-12-E-S	HS-E0-12-E	HS-E0-12-E-S	12		3100	2940	2573	2450	12.25	1764	35 to 110	2.0
HS-E-12-F	HS-E-12-F-S	HS-E0-12-F	HS-E0-12-F-S	12		3800	3660	3200	3050	15.25	2196	35 to 110	2.0
HS-E-14-E	HS-E-14-E-S	HS-E0-14-E	HS-E0-14-E-S	14		3100	2940	2573	2450	12.25	1764	35 to 110	2.0
HS-E-14-F	HS-E-14-F-S	HS-E0-14-F	HS-E0-14-F-S	14		3800	3660	3200	3050	15.25	2196	35 to 110	2.0
HS-E-14-G	HS-E-14-G-S	HS-E0-14-G	HS-E0-14-G-S	14		4500	4320	3780	3600	18.00	2592	35 to 110	2.0
HS-E-16-E	HS-E-16-E-S	HS-E0-16-E	HS-E0-16-E-S	16		3100	2940	2573	2450	12.25	1764	35 to 110	2.0
HS-E-16-F	HS-E-16-F-S	HS-E0-16-F	HS-E0-16-F-S	16		3800	3660	3200	3050	15.25	2196	35 to 110	2.0
HS-E-16-G	HS-E-16-G-S	HS-E0-16-G	HS-E0-16-G-S	16		4500	4320	3780	3600	18.00	2592	35 to 110	2.0
HS-E-16-H	HS-E-16-H-S	HS-E0-16-H	HS-E0-16-H-S	16		6125	5880	5145	4900	24.50	3528	35 to 110	2.0
HS-E-18-F	HS-E-18-F-S	HS-E0-18-F	HS-E0-18-F-S	18		3800	3660	3200	3050	15.25	2196	35 to 110	2.0
HS-E-18-G	HS-E-18-G-S	HS-E0-18-G	HS-E0-18-G-S	18		4500	4320	3780	3600	18.00	2592	35 to 110	2.0
HS-E-18-H	HS-E-18-H-S	HS-E0-18-H	HS-E0-18-H-S	18		6125	5880	5145	4900	24.50	3528	35 to 110	2.0
HS-E-20-G	HS-E-20-G-S	HS-E0-20-G	HS-E0-20-G-S	20		4500	4320	3780	3600	18.00	2592	35 to 110	2.0
HS-E-20-H	HS-E-20-H-S	HS-E0-20-H	HS-E0-20-H-S	20		7350	5880	5145	4900	24.50	3528	35 to 110	2.0
HS-E-24-H	HS-E-24-H-S	HS-E0-24-H	HS-E0-24-H-S	24		7350	5880	5145	4900	24.50	3528	35 to 110	2.0
HS-E-30-H	HS-E-30-H-S	HS-E0-30-H	HS-E0-30-H-S	30		7350	5880	5145	4900	24.50	3528	35 to 110	2.0

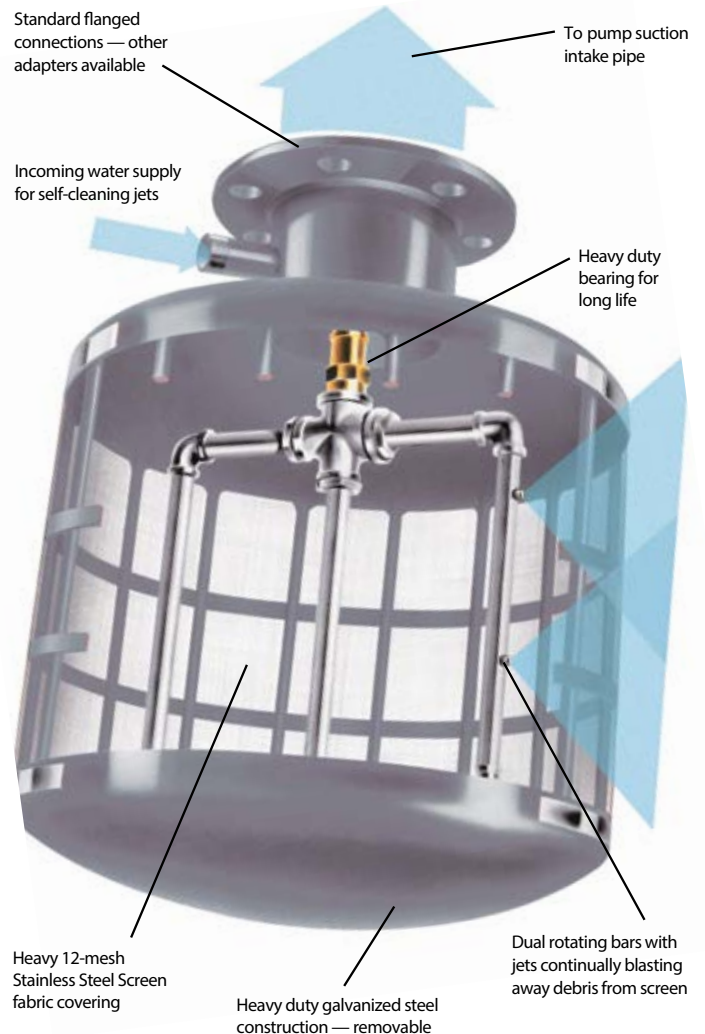
The above calculated flow rates are based on good quality water. For fair, poor or bad water contact Rain Bird. Drawings of standard filter models are available at www.rainbird.com
Standard Rain Bird controllers: Auto-EC-2-E 110/220V (Series filters integrated with a Rain Bird Pump station are controlled by pump station PLC).

Self-Cleaning Pump Suction Screen

Keep Debris Out of Your Pumping and Irrigation System

FEATURES

- Galvanized, self-cleaning pump suction screen removes large trash and debris from water sources, saving time and money in energy, pumping efficiency and maintenance costs
- Heavy 12 or 24 mesh stainless steel screen increases your pump efficiency for many years to come
- All water must pass through the pump suction screen attached to the end of the pump suction line before entering the pump intake pipe. A small, side-stream from the pump discharge plumbing drives two spray bars that continually rotate, jetting water at the screen and blasting debris away



Self-Cleaning Pump Suction Screen Performance Data

12 Mesh Filter

Model Number	Flow US gpm	Flow m ³ /h	Screen Length (in)	Total Length (in)	Screen Diameter (in)	Flange Size (in)	Return Inlet Pipe Size (in)	Operating Pressure (min - max psi)	Weight Lbs.	Cleaning Spray (gpm)
PSS200	325	73.8	11	25	16	4	1.5	35-100	38	20
PSS400	550	124.9	15	28.8	16	6	1.5	40-100	57	20
PSS600	750	170.3	16	32.5	24	8	1.5	40-100	101	20
PSS800	950	215.7	18	34.5	24	10	1.5	45-100	108	20
PSS1000	1350	306.5	23	39.5	24	10	1.5	50-100	116	24
PSS1400	1650	374.6	26	42.5	24	12	1.5	55-100	128	24
PSS1700	1950	442.7	28	44.5	26	12	1.5	55-100	148	24
PSS2000	2350	533.5	32	48.5	26	14	1.5	60-100	160	24
PSS2400	2600	590.2	35	52.5	30	16	1.5	65-100	233	28
PSS3000	3000	681.0	40	57.5	30	16	1.5	40-65	236	44
PSS3500	3500	794.5	40	59.5	36	18	1.5	40-65	283	44
PSS4000	4000	908.0	40	63.5	42	18	1.5	40-65	358	44
PSS400024-G	2765	627.7	40	63.5	42	18	1.5	40-65	358	44

Additional Filtration Products

Rain Bird offers an extensive line of filtration products to fit any course need. For more information about these products, contact Rain Bird Filter Department at filters@rainbird.com or 1-877-646-9532.

"C+ Series"

- Automatic hydraulic suction scanning screen filters



"G Series" Hydraulic Suction Scanning Screen Filter

- Economy and value with lower backwash volumes.



HDF 1x2 Disc Filters

- Automatic self-cleaning 2" filter for low flow ranges



HDF 2 Disc Filters

- Automatic self-cleaning disc filtration equipment with 2" valves and high density polyethylene manifold



Centrifugal Sand Separators

- Remove contaminants to minimize required maintenance and increase efficiency