Pumps & Filtration

Water Saving Tips

- Newer high-efficiency motors are able to convert a higher percentage of their electric input to useful mechanical work resulting in energy and cost savings.
- Rain Bird Variable Frequency Drive (VFD) pump stations save energy while delivering the water pressure necessary to ensure maximum water use efficiency.
- Rain Bird designs pump stations specifically for the application, ensuring the pump runs at maximum efficiency. Delivering the right pressure as demanded by the system ensures your irrigation system is efficient and effective. For assistance call 520-806-5620 or email pumps@rainbird.com.

CLP Series

NEW *Expanded Models*

Compact Low Profile 5HP VFD Pump Station

Rain Bird's CLP Series pump station is designed for boost and flooded suction-lift applications. The CLP Series is a complete pump package that is simple to install and operate. It includes a professional-grade pump, a marine-grade aluminum enclosure, highest quality pump protection, and optional mounting for a Rain Bird controller. Home owner associations, small sports fields, schools, parks, and small agricultural projects are ideal applications. With this complete solution there is no need to deal with the hassle of stick building a pump station with non-compatible parts and a makeshift enclosure. Only Rain Bird provides a totally integrated irrigation solution with UL-listed components and a one-year warranty that dependably deliver healthy, beautiful landscapes, saving time and minimizing maintenance.

CLP Series
(Suction Lift shown)

Features

- Plumbing Configurations
  - Inlet and discharge piping on opposite sides of the enclosure (as shown)
  - ¾" and 2" Priming Ports Included
- Mechanical Features
  - Isolation valve
  - Liquid filled pressure gauge
  - Rugged centrifugal pump (Suction Lift model is self-priming)

Enclosures / External Connections

- Marine grade aluminum enclosure and deck
- Stainless Steel piping
- Fused main power disconnect
- Pump Control Runs based on signal from irrigation controller, or from optional Flow Start Switch (Boost model only)
- 24VAC Pump start relay included. Other voltages available as an accessory
- 130 °F Temperature cutout switch

At-A-Glance Description

- Variable Frequency Drive (VFD)
- Pump Start Relay included
- Aluminum Deck and Enclosure
- Stainless Steel Piping
- Isolation Valve for maintenance and priming
- Manual Switch provides user full control and override capabilities
- 2" – Discharge, 2" Intake NPT (Boost), 2 ½" Suction Port NPT (Suction Lift)
- Mounting options for Rain Bird Controllers

Accessories

- Surge Suppression Kit
  - Single Phase (208-230 VAC) p/n CLPSES1P
  - Three Phase (208-230 VAC) p/n CLPSES3P
- Pump Start Relay
  - 6VDC p/n CLPPSR06DC
  - 12VDC p/n CLPPSR12DC
- Boost Accessories (Boost Model Only
  - Flow Start Kit p/n CLPBSTSW
- Suction Lift Accessories (Suction Lift Model only)
  - Foot valve – 4"Vertical Flanged p/n CLPFTVLV4VF

CLP Series Performance Data

			Maximum Flow					
HP	Model	Description	GPM	PSI	GPM	PSI	Voltage	Phase
3	CLP03VNASA1	Compact Low Profile 3HP VFD Pump Station 200V,1P 3P	40	50	95	20	200VAC	Single or Three
3	CLP03VNASB3	Compact Low Profile 3HP VFD Pump Station 480V,3P	40	50	95	20	480VAC	Three Phase
5	CLP05VAASC1	Compact Low Profile 5HP VFD Pump Station 200V,1P 3P	30	72	85	44	200VAC	Single or Three
5	CLP05VAASD3	Compact Low Profile 5HP VFD Pump Station 480V,3P	30	72	85	44	480VAC	Three Phase
5	CLP05VBASC1	Compact Low Profile 5HP VFD Pump Station 200V,1P 3P	50	53	160	31	200VAC	Single or Three
5	CLP05VBASD3	Compact Low Profile 5HP VFD Pump Station 480V,3P	50	53	160	31	480VAC	Three Phase
5	CLP05VCASC1	Compact Low Profile 5HP VFD Pump Station 200V,1P 3P	80	36	220	21	200VAC	Single or Three
5	CLP05VCASD3	Compact Low Profile 5HP VFD Pump Station 480V,3P	80	36	220	21	480VAC	Three Phase
5	CLP05VHASC1	Compact Low Profile 5HP VFD Pump Station 200V,1P 3P	50	60	140	30	200VAC	Single or Three
7.5	CLP07VDASE1	Compact Low Profile 7.5HP VFD Pump Station 200V,1P 3P	40	99	95	68	200VAC	Single or Three
7.5	CLP07VDASG3	Compact Low Profile 7.5HP VFD Pump Station 480V,3P	40	99	95	68	480VAC	Three Phase
7.5	CLP07VEASE1	Compact Low Profile 7.5HP VFD Pump Station 200V,1P 3P	60	66	180	42	200VAC	Single or Three
7.5	CLP07VEASG3	Compact Low Profile 7.5HP VFD Pump Station 480V,3P	60	66	180	42	480VAC	Three Phase
7.5	CLP07VFASE1	Compact Low Profile 7.5HP VFD Pump Station 200V,1P 3P	100	46	240	29	200VAC	Single or Three
7.5	CLP07VFASG3	Compact Low Profile 7.5HP VFD Pump Station 480V,3P	100	46	240	29	480VAC	Three Phase
10	CLP10VGASH1	Compact Low Profile 10HP VFD Pump Station 200V,1P 3P	80	82	200	55	200VAC	Single or Three
10	CLP10VGASI3	Compact Low Profile 10HP VFD Pump Station480V,3P	80	82	200	55	480VAC	Three Phase
10	CLP10VIASH1	Compact Low Profile 10HP VFD Pump Station 200V,1P 3P	110	61	260	46	200VAC	Single or Three
10	CLP10VIASI3	Compact Low Profile 10HP VFD Pump Station 480V,3P	110	61	260	46	480VAC	Three Phase

Rain Bird® LC Series

¾ to 3 hp; Up to 60 psi (4.1 bar); Up to 115 gpm (26.1 m³/h)

Features

- Revolutionary complete pump package that includes a professional-grade pump, the highest quality pump protection and simple to install and operate fixtures all housed in a unique enclosure designed specifically for a pump
- Heavy duty pump available in ¾, 1, 1½, 2, and 3 hp offers brass impellers, cast iron housing & stainless steel bolts & ports for pressure, temperature probe & priming
- PSRPT for Shut-down protection. Provides protection if pump experiences loss of pressure or high temperature situations. The PSRPT is housed in a powder coated steel enclosure
- Aesthetically pleasing powder coated enclosure. Provides safe and vandal proof encasement of pump and controls
- Clam shell powder coated steel enclosure. Offers full accessibility to pump and electrical controls
- Quick disconnecting coupling on discharge and suction provides simple on-off connections to speed the hook-up and winterization processes
- Cooling louvres provide ample air to prevent motor and pump from overheating
- 1.5" PVC adapter and pan drain, discharge line through bottom of enclosure insures against theft
- Discharge option through bottom of enclosure or side of enclosure
- Quick disconnecting piggy-tail power cord assures at-pump safety
- 230 volt main power plug
- Padlock ring for security

Electrical Power Specification

- 60Hz, 1-phase power: 208V, 230V

Applications

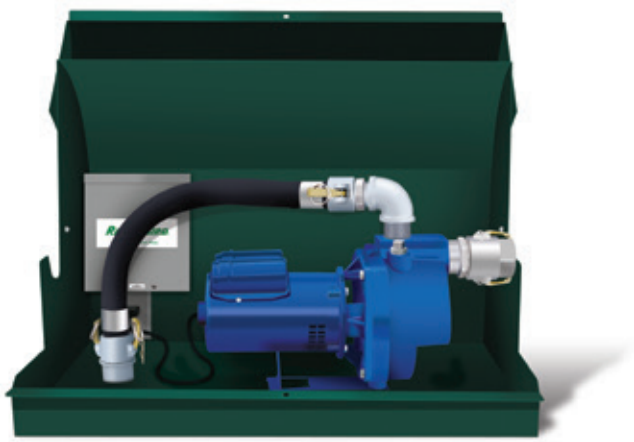
- Suction Lift or Boost
- Potable or Reclaimed Water Supply
- Residential, Light Commercial, Parks, or Recreational

Models

- LC750: LC Series - 3/4 hp, 1 ph, pump
- LC1000: LC Series - 1 hp, 1 ph, pump
- LC1500: LC Series - 1.5 hp, 1 ph, pump
- LC2000: LC Series - 2 hp, 1 ph, pump
- LC3000: LC Series - 3 hp, 1 ph, pump

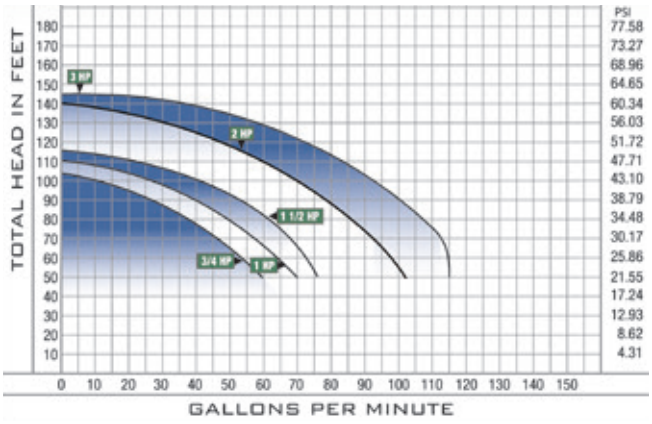
Capacity US gpm based on 5ft. Suction Lift

HP	Discharge psi								
	20	25	30	35	40	45	50	55	60
1	73	65	57	47	35	18	-	-	-
1.5	75	70	68	60	48	35	-	-	-
2	102	98	92	82	74	61	52	40	-
3	115	114	112	105	100	88	72	56	30



LC Series

LC Series Pump Performance Curves



Low Profile Pump Stations – LP Series

Rain Bird's LP Series Horizontal End Suction and Vertical multistage pump stations are designed for small to midsize boost, flooded suction and suction lift applications such as city parks and buildings, sports fields, commercial buildings, small home owner's associations and large residential sites. Its low profile design, durable centrifugal or vertical multistage pump configuration, and choice of options make it an ideal choice for Turf irrigation applications.

Standard Features

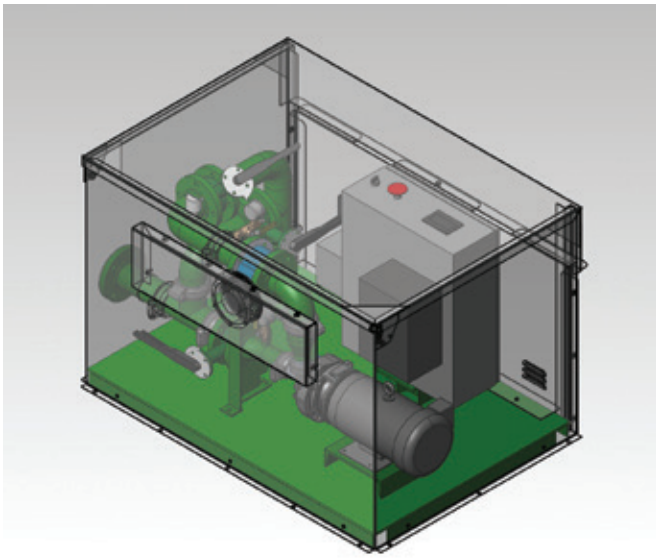
- Cost effective – Standardized VFD driven pump system in enclosure delivers high performance with minimum investment
- Low Profile – Compact aluminum enclosure with powder coated skid and piping
- Energy efficient – Variable Frequency Drive (VFD) maintains constant pressure at varying flow demand
- Reliability – Simple, standard design, easy installation and maintenance
- Mechanical Features
  - Inlet Butterfly Isolation Valve
  - Discharge Butterfly Isolation Valve
  - Silent Check Valve
- Enclosures / External Connections
  - Marine Grade Aluminum Enclosure
  - Polyester Powder-Coated Steel Deck and Piping
  - Thermostat and Fan on Mechanical Enclosure
- Pump Control
  - Pump Start Relay
  - VFD - Variable Frequency Drive for Control of Pressure
- Display
  - Monochrome Touch Screen Display

Optional Features and Accessories

Visit: www.rainbird.com/professionals/products/pumps-pump-stations

Models

- **Horizontal End Suction - LP Series**
  - 5 to 10 HP; Up to 100 psi (6.9 bar); Up to 200 gpm (12.6 lps, 45.4 m^3/h)
- **Vertical Multistage - LP Series**
  - 1 to 7.5 HP; Up to 120 psi (8.3 bar); Up to 0 gpm (5.7 lps, 20.4 m^3/h)



Horizontal End Suction - LP Series Shown
5 to 10 HP; Up to 100 psi (6.9 bar);
Up to 200 gpm (12.6 lps, 45.4 m^3/h)

LP Series – Horizontal End Suction - 1 Pump – Aluminum Enclosure			
Motor Size	**5 HP**	**7.5 HP**	**10 HP**
Pump Type	Horizontal End Suction		
Power Requirement	480/60/3 V/HZ/PH		
	208-230/60/3 V/HZ/PH		
	208-230/60/1 V/HZ/PH		
Inlet Pressure Requirement	Suction Lift or Boost Applications		
Outlet Pressure	Up to 100 psi (6.9 bar) (1)		
Outlet Flow	Up to 200 gpm (12.6 lps, 45.4 m^3/h) (1)		
Concrete Slab Dimensions (min)	65" x 49" (165 cm x 125 cm)		
Platform Skid Dimensions (min)	53" x 39.75" (135 cm x 101 cm)		
Inlet / Discharge Size	2" Flange Fitting (adapter)	3" Flange Fitting	4" Flange Fitting (adapter)
Cabinet Height (from slab)	35" (89 cm)		

LP Series – Vertical Multistage – 1 Pump – Aluminum Enclosure					
Motor Size	**1 HP**	**1.5 HP**	**2 HP**	**5 HP**	**7.5 HP**
Pump Type	Vertical Multistage				
Power Requirement	480/60/3 V/HZ/PH				
	208-230/60/3 V/HZ/PH				
	208-230/60/1 V/HZ/PH				
Inlet Pressure Requirement	Suction Lift or Boost Applications				
Outlet Pressure	Up to 120 psi (8.3 bar) (1)				
Outlet Flow	Up to 90 gpm (5.7 lps, 20.4 m^3/h) (1)				
Concrete Slab Dimensions (min)	65" x 49" (165 cm x 125 cm)				
Platform Skid Dimensions (min)	53" x 39 3/4" (135 cm x 101 cm)				
Inlet / Discharge Size	2" flange fitting standard - 3" and 4" adapters available				
Cabinet Height (from slab)	35" (89 cm) or 47" (107 cm)				

(1) Refer to pump performance curves, provided upon request from pumps@rainbird.com

Low to Medium Flow Pump Stations – D-Series

Rain Bird's single pump, Vertical Multi-Stage and Horizontal End Suction stations in powder-coated green enclosures are designed for small to midsize boost, flooded suction and suction lift applications such as city parks and buildings, sports fields, commercial buildings, small home owner's associations and large residential sites. Its small footprint, durable centrifugal or multistage pump configuration, and choice of options make it an ideal choice for Turf irrigation applications.

Standard Features

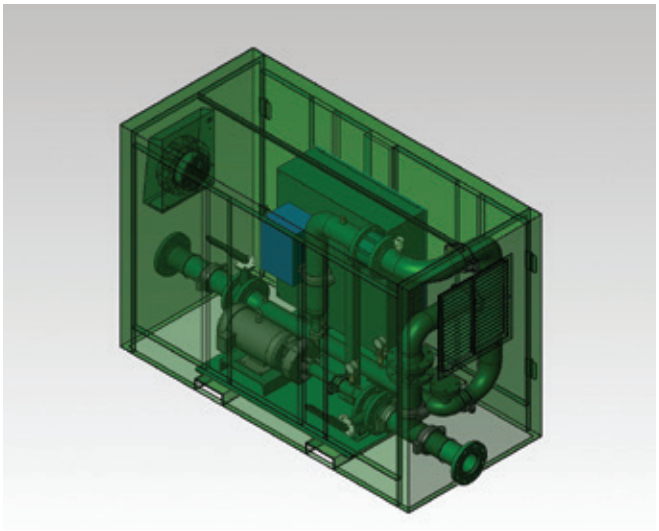
- Reliability – Integrated Plug-n-Pump provide single source responsibility for the entire pumping system insuring trouble-free installation and operation
- Energy efficient – Variable Frequency Drive (VFD) maintains constant pressure at varying flow demand
- Inlet and discharge isolation valves for easier mechanical serviceability
- Easy Start-up – All stations are water-tested at the factory prior to shipment.
- Mechanical Features
  - Inlet Butterfly Isolation Valve
  - Discharge Butterfly Isolation Valve
  - Silent Check Valve
- Pressure / Flow
  - Stainless Steel Pressure Transducer
  - Flow Switch
- Enclosures / External Connections
  - Polyester Powder Coated Steel Enclosure
  - Polyester Powder-Coated Steel Deck and Piping
  - Re-Prime Piping (Suction Lift only)
  - Thermostat and Fan on Mechanical Enclosure
- Pump Control
  - Pump Start Relay
  - VFD - Variable Frequency Drive for Control of Pressure
- Display
  - Monochrome Touch Screen Display
  - Optional Color Touch Screen Display with Remote Communication Capability

Optional Features and Accessories

Visit: www.rainbird.com/professionals/products/pumps-pump-stations

Models

- **Horizontal End Suction - 1 Pump - D Series**
  - 5 to 20 HP; Up to 130 psi (9.0 bar); Up to 180 gpm (11.4 lps, 40.9 m³/h)
- **Vertical Multistage – 1 Pump – D Series**
  - 3 to 15 HP; Up to 120 psi (8.3 bar); Up to 200 gpm (12.6 lps, 45.4 m³/h)



Horizontal End Suction - 1 Pump - D Series shown
5 to 20 HP; Up to 130 psi (9.0 bar);
Up to 350 gpm (22.1 lps, 79.5 m³/h)

D-Series – Horizontal End Suction – 1 Pump – Green Enclosure

Motor Size	5 HP	7 ½ HP	10 HP	15 HP	20 HP
Pump Type	Horizontal End Suction				
Power Requirement	480/60/3 V/HZ/PH				
	208-230/60/3 V/HZ/PH				
	230/60/1 V/HZ/PH			208/60/1 V/HZ/PH	
Inlet Pressure Requirement	Suction Lift (up to 3 ft. lift), or Boost Applications				
Outlet Pressure	Up to 130 psi (9.0 bar) (1)				
Outlet Flow	Up to 350 gpm (22.1 lps, 79.5 m³/h) (1)				
Concrete Slab Dimensions (min)	90" x 48" (229 cm x 122 cm)				
Platform Skid Dimensions (min)	78" x 36" (198 cm x 91 cm)				
Inlet / Discharge Size	4" standard - 2", 3" and 6" adapters are external accessories				
Cabinet Height (from slab)	52" (132 cm) or 64" (163 cm)				

D-Series – Vertical Multistage – 1 Pump – Green Enclosure

Motor Size	3 HP	5 HP	7 ½ HP	10 HP	15 HP
Pump Type	Vertical Multi-Stage				
Power Requirement	480/60/3 V/HZ/PH				
	208-230/60/3 V/HZ/PH				
	208-230/60/1 V/HZ/PH				
Inlet Pressure Requirement	Suction Lift or Boost Applications				
Outlet Pressure	Up to 120 psi (8.3 bar) (1)				
Outlet Flow	Up to 180 gpm (11.4 lps, 40.9 m3/h) (1)				
Concrete Slab Dimensions (min)	90" x 48" (229 cm x 122 cm)				
Platform Skid Dimensions (min)	78" x 36" (198 cm x 91 cm)				
Inlet / Discharge Size	4" Standard - 2", 3", and 6" adapters available				
Cabinet Height (from slab)	52" (132 cm) or 64" (163 cm)				

(1) Refer to pump performance curves, provided upon request from pumps@rainbird.com

Medium Flow Pump Station

Rain Bird's single pump, Vertical Multi-Stage Enhanced station in a compact enclosure is designed for medium-flow boost, flooded suction and suction lift applications, such as; parks, sports complexes, golf courses, turf farms and other agricultural projects. Its compact design, durable centrifugal pump configuration, choice of options and enclosures make it an ideal choice for Turf irrigation applications with flows up to 500 gpm (31.5 lps, 114 m^3/h).

Standard Features

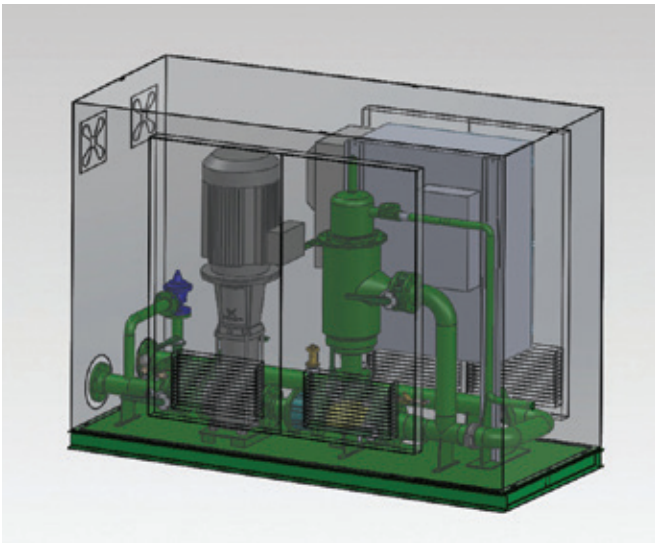
- Entry Level through High Performance
- Control Package – With either a cost-effective monochrome touch-panel display or high resolution color touch-panel display for improved user interfaced and remote monitoring via VNC (Virtual Network Computing)
- Energy efficient – Variable Frequency Drive (VFD) maintains constant pressure at varying flow demand
- Enhanced Serviceability – Modern electrical design utilizing industrial breaker motor protection instead of fuses. Industrial circuit breakers are quickly reset and designed for an extended service life
- Inlet and discharge isolation valves for easier mechanical serviceability
- Plumbing Configurations
  - Inlet and Discharge Piping on same side of the enclosure (as shown)
- Mechanical Features
  - Inlet Butterfly Isolation Valve
  - Discharge Butterfly Isolation Valve
  - Pump Isolation Valve
  - Silent Check Valve
- Pressure / Flow
  - Stainless Steel Pressure Transducer
  - Flow Switch
- Enclosures / External Connections
  - Marine Grade Aluminum Enclosure
  - Polyester Powder-Coated Steel Deck and Piping
  - Thermostat and Fan on Mechanical Enclosure

Optional Features

Visit: www.rainbird.com/professionals/products/pumps-pump-stations

Models

- **Vertical Multi-Stage – 1 Pump Enhanced – Aluminum Enclosure**
  - 5 to 50 HP; Up to 150 psi (10.3 bar); Up to 500 gpm (31.5 lps, 114 m^3/h)



Vertical Multi-Stage – 1 Pump Enhanced – Aluminum Enclosure shown
5 to 50 HP; Up to 150 psi (10.3 bar);
Up to 500 gpm (31.5 lps, 114 m^3/h)

Vertical Multi-Stage – 1 Pump Enhanced – Aluminum Enclosure

Motor Size	5 HP	7.5 HP	10 HP	15 HP	20 HP	20 HP	25 HP	30 HP	40 HP	50 HP
Pump Type	Vertical Multi-Stage									
Power Requirement (Other power configurations available upon request)	208-230/1/60 V/PH/HZ									
	208-230/3/60 V/PH/HZ									
	480/3/60 V/PH/HZ									
	575/3/60 V/PH/HZ									
Inlet Pressure Requirement	Suction Lift or Boost Applications									
Outlet Pressure	Up to 150 psi (10.3 bar) (1)									
Outlet Flow	Up to 500 gpm (31.5 lps, 114 m^3/h) (1)									
Concrete Slab Dimensions (min)	10' 3" x 4' 9" (312.4 cm x 145 cm)									
Platform Skid Dimensions (min)	9' 3" x 3' 9" (281 cm x 114.3 cm)									
Inlet / Discharge Size	4" Flanges Standard, 6" Inlet Flange (Suction Lift), 3", 4", 6", 8" Adapters Available									

(1) Refer to pump performance curves, provided upon request from pumps@rainbird.com

Main Irrigation Pump Stations

Flows Up to 5000 GPM

Reliable Variable Frequency Drive Pump Stations designed to serve as the main irrigation pump station for golf courses and large commercial sites. Rain Bird's Pump Station Platforms are designed for both new construction projects and renovation projects

Available in the following configurations:

- Vertical Turbine Pump Stations for Wet-well Applications
- Horizontal End Suction for Flooded Suction and Pressure Boosting Applications
- Vertical Multistage Pumps for Flooded Suction, Suction Lift, and Pressure Boosting Applications

Benefits:

- Enhanced Serviceability: Modern electrical design utilizing industrial breaker motor protection instead of time-wasting fuses. Industrial circuit breakers are quickly reset and designed for an extended service life
- Reduced Downtime: Industrial circuit breakers are good for thousands of trips
- Easy Operator Training: Multi-language color touch-screen that is easy to learn
- Superior Corrosion Resistance; Choice of Polyester Powder Coated or Marine Grade Aluminum deck for the highest level of corrosion resistance. Less corrosion equals longer pipe, skid, and manifold life, reducing cost
- No-Hassle Buying: Get everything you need for your irrigation system construction or renovation from the only manufacturer dedicated to irrigation for over seven decades
- Real-Time Communication: The pump station communications in real-time with the central, allowing the central to make immediate decisions to maximize the efficiency of the entire irrigations systems

Electrical Power Specifications:

- 60 Hz, 3-Phase Power: 208V - 230V (up to 60HP per pump), 460V, 575V
- 50 Hz, 3-Phase Power: 380V, 415V
- Other power configurations available upon request

Many options to choose from include:

- Air Conditioned Electrical Panel Cooling System
- Enclosures: Aluminum, Painted Steel (Government Specified Colors)
- Fertigation Systems
- Filtration: Backwashing Screen Filters and Suction Scan Filters (Hydraulic or Electric)
- Heater, Skid Mounted 5KW
- Intake Box Screen with 3 Stainless Steel Screens
- Intermediate Pump, 10-25HP
- Lake Level Control: Float Switches and Level Transducer
- Magnetic Flow Meter
- Modem, Radio, Hard-wired or Cellular Gateway connection
- Power Zones: 3, 5, or 10KVA
- Premium Efficient Motors
- VFD per pump
- Wye Strainer with Auto Back-flush
- Z Discharge Pipe

Pump Manager with SmartPump™

- Combine a Rain Bird Pump Station and central control software to fully integrate pump station operation with your central control. This combination allows the pump station and central control to respond to changes in the system and irrigation immediately, providing the highest level of efficiency
- Smart Pump™ matches the irrigation system operation with the real capacity of the pump station, shortening the water window by an average of 20 percent and decreasing energy consumption. In addition, Smart Pump alerts the superintendent in real time of irrigation and pump station problems via cell phone text messaging. When an issue occurs such as an irrigation pipe break, the system verifies the break, shuts down the system and notifies the superintendent. Other systems cannot respond in a timely manner and can lose an hour of irrigation time trying to recover from a system fault

Need Help Specifying a Pump?

- Email pumps@rainbird.com or call 520-806-5620 for assistance with quotes and specifications

Pump Start Relays

For Optimum Pump Performance and Protection

Rain Bird Pump Start Relays (PSRs) provide worry free performance for your irrigation system and are compatible with Rain Bird and other reliable irrigation controllers.

Dual Voltage Pump Start Relay Features

- Works with a lawn controller's start/stop command to facilitate the electrical path from the breaker box to the pump motor
- Provides "pilot duty" operation for all types of electrically driven pump equipment with available coil voltages of 24, 110 and 220 VAC
- 40 AMP certified relay
- Quick connect terminals with wire nuts
- Grounding provision
- Compatible with 24 VAC timed lawn controllers
- Compatible with 110 or 220 VAC 3/4 HP thru 5 HP* single phase pumps
- Grey "baked-on" powder coating, for long life in difficult environments
- UL Listed as "Enclosed Industrial Control Panels" and backed by a one-year warranty
- Housed in compact NEMA3R weather-tight enclosures
- Not recommended for use with 2-wire controller/decoder systems

Model

- PSR110220

2-Wire Pump Start Relay Features

- Works with a lawn controller's start/stop command to facilitate the electrical path from the breaker box to the pump motor
- Provides "pilot duty" operation for all types of electrically driven pump equipment with available coil voltages of 24, 110 or 220 VAC
- 40 AMP certified relay
- Quick connect terminals with wire nuts
- Grounding provision
- Compatible with 24 VAC timed lawn controllers
- Compatible with 110 or 220 VAC 3/4 HP thru 5 HP* single phase pumps
- Grey "baked-on" powder coating, for long life in difficult environments
- UL Listed as "Enclosed Industrial Control Panels" and backed by a one-year warranty
- Housed in compact NEMA3R weather-tight enclosures
- Includes an additional ice cube relay for 2-wire controller/decoder systems

Models

- PSR110IC or PSR220IC

** when thermal protection is present*

Pump Start Relays Specifications

Model	Line Voltage	Coil Voltage	hp
PSR110IC	110	24	3/4 through 2*
PSR220IC	220	24	3/4 through 5*
PSR110220	110 or 220	24	3/4 through 5*

** National electrical code (nec) states all motors will be thermally protected from excessive "amperage draw." Most motors under 2 hp are supplied with thermal protection from the motor manufacturer. For motors over 2 hp, code-compliant PSRB pump protection is recommended.*

NOTE: Circuit breakers are never classified as motor protection

NOTE: Check with your local health department for regulations and requirements for backflow prevention.

PSR110220

PSR110IC
or
PSR220IC

G-Series Hydraulic Suction Scanning Screen Filter

Economy and Value with Lower Backwash Volumes

Irrigation Uses

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

Features

- Flow rates: 25 – 1750 gpm
- Max Temperature: 210° F
- Single electric ball valve for flushing operations standard
  - Hydraulic diaphragm valve available upon request
- 316 L stainless steel sintered screens standard
  - PVC/Mesh and wedgewire screens available upon request
- PVC/Mesh screen standard
  - Sintered and wedgewire screens available upon request
- Standard screen opening: 120µ
  - Optional: 15µ – 5000µ
- Working pressure: 35-150 psi
  - Higher pressures optional
- Material of Construction: Powder coated Carbon Steel.
  - Stainless steel optional
- Backwashing initiated automatically by time or pressure differential via integrated Rain Bird controller
- Flanged inlet and outlet standard except on HS-G-02 model filter only configurations which are threaded.
  - Grooved inlet and outlet configuration optional
- Available as filter only or as filter including bypass manifold and valves.

G-Series
(Shown with integrated bypass assembly)

G-Series Suction Scanning Screen Filter Performance Data

		Sintered Screen Std. Flow Rate (GPM)					PVC/Mesh Std. Flow Rate (GPM)									
		300	200	120	100	Micron	300	200	120	100	Micron					
		50	75	125	140	Mesh	50	75	125	140	Mesh					
Line Size (in)	Carbon Steel Model Number					PVC/Mesh Screen Area (in^2)					Sintered Screen Area (in^2)	Rinse Duration (Seconds)	Flush Volume (Gallons)	Rinse Valve Size (in)	Minimum Inlet Pressure During Rinse Cycle (PSI)	Access Type
2	HS-G-02-LE	110	110	110	95	64	110	110	85	65	96	8-10	4-5	1	30	Bolted
3	HS-G-03-LE	175	175	175	175	120	175	175	155	120	180	12-16	6-8	1	30	Bolted
4	HS-G-04-LS	350	325	235	175	120	280	215	155	120	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

Typical G-Series Filters are shown in the performance data table. More models are available upon request.
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

I-Series
Hydraulic Suction Scanning Screen Filter

NEW

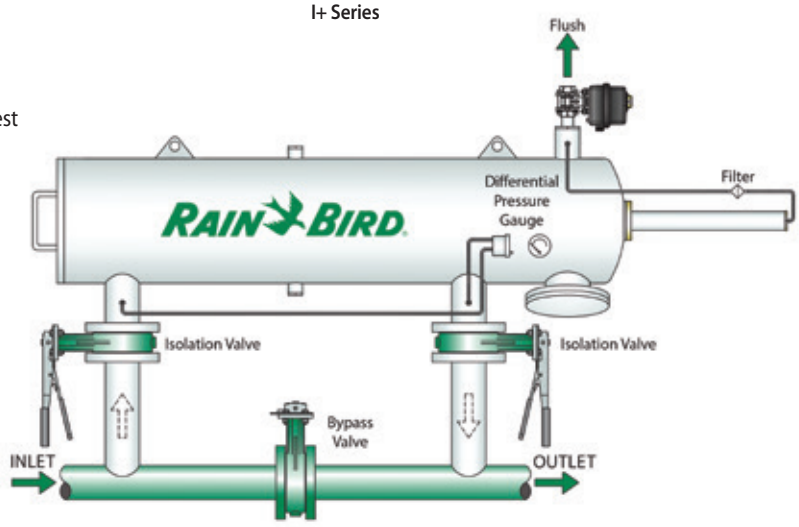
Irrigation Uses

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

Features

- Flow Rate: 15 – 8,100 gpm
- Max Temperature: 150° F
- Single electric ball valve for flushing operations standard
  - Hydraulic diaphragm valve available upon request
- 316 L stainless steel sintered screens standard
  - PVC/Mesh and wedgewire screens available upon request
- Standard screen opening: 120µ
  - Optional: 15µ – 5000µ
- Working pressure: 35-150 psi
  - Higher pressures optional
- Material of Construction: Powder coated carbon steel
  - Stainless steel optional
- Backwashing initiated automatically by time or pressure differential via integrated Rain Bird controller
- Available as filter only or as filter including bypass manifold and valves.

I+ Series



"I-Series" Suction Scanning Screen Filter Performance Data

Powder Coated Carbon Steel Model Number	Stainless Steel Model Number	Maximum Flow US GPM	m^3/Hour	Max Pressure (psi)	Inlet / Outlet Flange Size (in)	Flush Line Size (in)	Minimum Inlet Pressure During Rinse Cycle (psi)
Filter Only							
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
Filter Assembly with Bypass Manifold							
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

Typical I-Series Filters are shown in the performance data table. More models are available upon request.
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

E-Series
Electric Suction Scanning Screen Filter

NEW

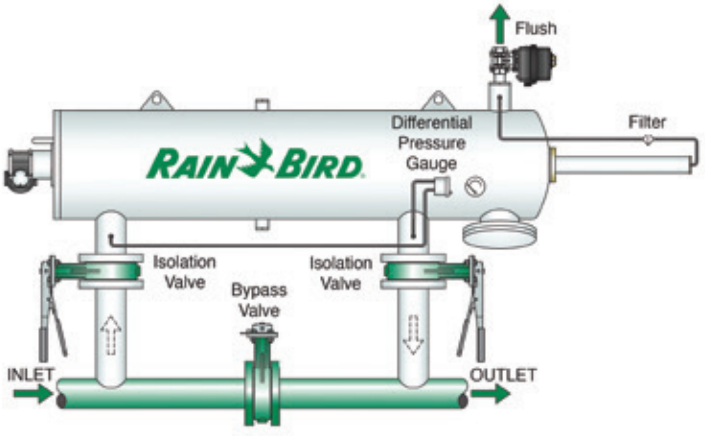
Irrigation Uses

Rain Bird's E-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.

Filter Characteristics:

- E-Series filters are parallel flanged
- Flow Rate: 15 – 12,000 gpm
- Max Temperature: 150° F
- Single electric ball valve for flushing operations standard
  - Hydraulic diaphragm valve available upon request
- 316 L stainless steel sintered screens standard
  - PVC/Mesh and wedgewire screens available upon request
- Standard screen opening: 120µ
  - Optional: 15µ – 5000µ
- Working pressure: 15 - 150 psi
- Material of Construction: Powder coated carbon steel
  - Stainless steel optional
- Backwashing initiated automatically by time or pressure differential via integrated Rain Bird controller
- Available as filter only or as filter including bypass manifold and valves

E-Series



E-Series Electric Suction Scanning Screen Filter Performance Data

Powder Coated Carbon Steel Model Number	Stainless Steel Model Number	Maximum Flow US GPM	m^3/Hour	Max Pressure (psi)	Inlet / Outlet Flange Size (in)	Flush Line Size (in)	Minimum Inlet Pressure During Rinse Cycle (psi)
Filter Only							
ES-E-03-PS-M	ES-E-03-PS-S-M	200	45.4	150	3	3	30
ES-E-04-PS-G	ES-E-04-PS-S-G	425	96.5	150	4	3	30
ES-E-08-PM-G	ES-E-08-PM-S-G	1050	238.5	150	8	3	30
ES-E-08-PS-G	ES-E-08-PS-S-G	1500	340.7	150	8	4	30
ES-E-10-PS-G	ES-E-10-PS-S-G	2000	454.3	150	10	4	30
Filter Assembly with Bypass Manifold							
ES-E-03-PS-B-M	ES-E-03-PS-S-B-M	200	45.4	150	3	3	30
ES-E-04-PS-B-G	ES-E-04-PS-S-B-G	425	96.5	150	4	3	30
ES-E-08-PM-B-G	ES-E-08-PM-S-B-G	1050	238.5	150	8	3	30
ES-E-08-PS-B-G	ES-E-08-PS-S-B-G	1500	340.7	150	8	4	30
ES-E-10-PS-B-G	ES-E-10-PS-S-B-G	2000	454.3	150	10	4	30
DS-E-08-PM-B-G	DS-E-08-PM-S-B-G	2100	477.0	150	10	4	30
DS-E-08-PS-B-G	DS-E-08-PS-S-B-G	3000	681.5	150	12	4	30
DS-E-10-PS-B-G	DS-E-10-PS-S-B-G	4000	908.6	150	14	4	30

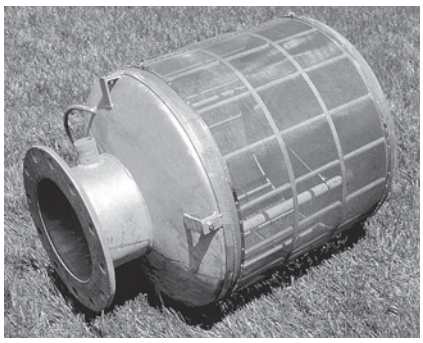
Typical E-Series Filters are shown in the performance data table. More models are available upon request.
The above calculated flow rates are based on good quality water. For fair, poor or bad water contact Rain Bird.
Drawings of standard filter models are available at www.rainbird.com
Standard Rain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

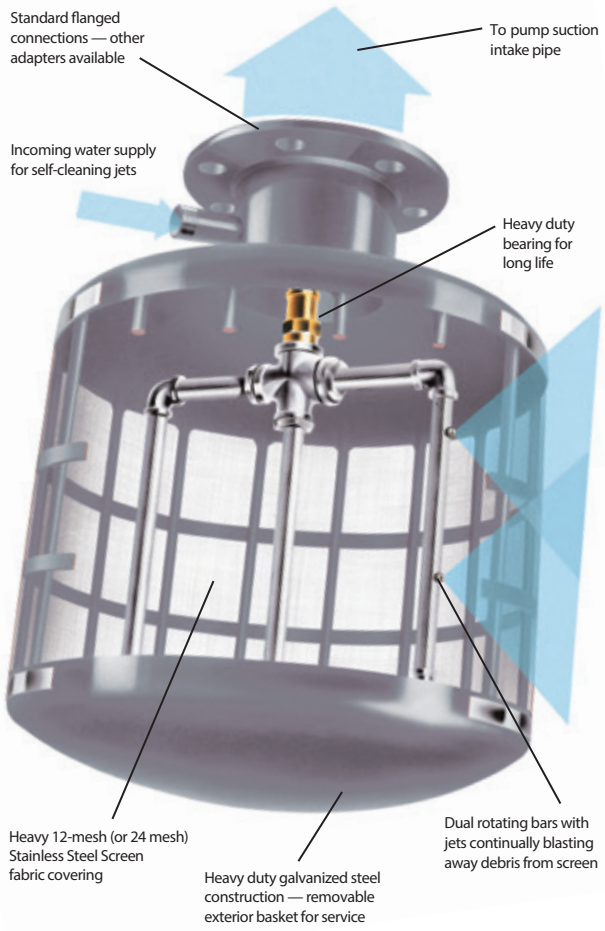
PSS Series
Self-Cleaning Pump Suction Screen

Keep Debris Out of Your Pump 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
- 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
- Heavy 12 mesh stainless steel screen increases your pump efficiency for many years to come





12 Mesh Self-Cleaning Pump Suction Screen Performance Data

Model Number	Flow US GPM	Flow m^3/Hour	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)
12 Mesh Filter										
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	223	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

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

CS Series
Centrifugal Sand Separator

Remove contaminants to minimize required maintenance and increase efficiency

Features

- Capacities of 4 to 8300 gpm
- Simple installation (no electrical power required)
- Efficient pre-filter to reduce sand load on downstream components
- Rain Bird Centrifugal Sand Separators are designed to separate abrasive particles before they can enter the irrigation system, keeping equipment clean and clear of debris, which minimizes the amount of maintenance required and increases operational efficiency
- The separator removes sand and particles that are heavier than water (materials with a specific gravity of 2 or greater)
- Liquids and solids enter the unit and begin traveling in a circular flow. This centrifugal action throws heavier particulates towards the filter walls and eventually downward in a spiral motion to the separation chamber. The particulates collect in the separation chamber and are purged manually from the system. The filtered water is then drawn to the separator's vortex and through the outlet
- An optional automatic purge controller and valve can be used on all applications to automate the purge process, which eliminates the need for manual flushing. Small vertical design separators may be wall mounted or supported by the system piping

Centrifugal Sand Separator

Centrifugal Sand Separators Performance Data

Model Number	Flow* US GPM	Flow m^3/Hour	Inlet / Outlet Line Size (in)	Length (in)	Length (cm)	Weight Lbs.	Max. Particle Size (in)	Flush Valve Size (in)
Vertical Separators								
VCS-R5V	4 -10	0.9 - 2.3	0.5	20	50.8	13	0.625	1
VCS-R7V	10 - 20	2.3 - 4.6	0.75	20	50.8	15	0.375	1
VCS-R10V	18 - 38	4 - 8.7	1	30.5	77.5	26	0.5	1
VCS-R12V	26 - 52	6 - 12	1.25	30.5	77.5	26	0.5	1
VCS-R15V	38 - 79	8.7 - 18	1.5	30.5	77.5	26	0.5	1
VCS-R20V	63 - 120	14.5 - 27.6	2	36	91.4	44	0.5	2
VCS-R25V	100 - 180	23 - 41.4	2.5	44	111.8	55	0.5	2
VCS-R30V	125 - 260	28.8 - 59.8	3	48	121.9	75	0.5	2
VCS-R40V	190 - 345	43.7 - 79.4	4	52	132.1	120	0.5	2
Angled Separators								
ACS-R40LA	200 - 525	46 - 120	4	80	221	280	1.5	2
ACS-R60LA	365 - 960	84 - 220	6	106.25	293.4	493	1.5	2
ACS-R80LA	800 - 1600	184 - 369	8	114	316.9	722	1.5	2
ACS-R100LA	1300 - 2300	299 - 529	10	123.5	342.9	840	1.5	2
ACS-R120LA	2025 - 3400	465 - 782	12	139	396.2	1400	1.5	2
ACS-R140LA	2975 - 5000	684 - 1150	14	148	424.2	1550	2	2
ACS-R160LA	4000 - 6200	920 - 1426	16	160	462.3	1850	2	2
ACS-R180LA	5100 - 8300	1173 - 1909	18	177	462.3	2400	2	3

HDF Series Disc Filters

Automatic self-cleaning disc filtration equipment

Features

- Automatic self-cleaning disc filtration equipment with 2" valves and high density polyethylene manifolds
- Ideal for surface and well water containing both organic (algae) and inorganic materials: rivers, reservoirs, canals, waste water, and well water containing light sand (<3PPM) and other contaminants
- The patented system's helical action provides efficient cleaning
- Manufactured from engineered plastics to resist rust and corrosion from chemicals and water
- All units are factory tested prior to shipment
- Disc elements provide depth filtration -not just surface filtration
- Unit is pre-assembled with HDPE (High –density polyethylene) manifold for easy installation
- DP, time or manual backflush cycle can be imitated from the controller
- Plastic backflush valves are lightweight and corrosion resistant.
- Low maintenance and performs reliable backflush
- Filtration disc versatility (filtration grades can be easily changed)
- Available with 100, 130, 200 or 400 micron discs (specify when ordering)

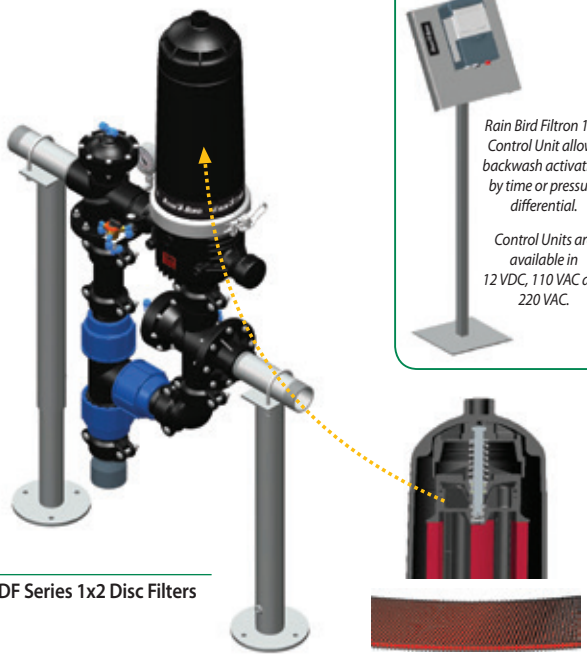
Rain Bird HDF Series 1X2 filter backwash.

- **FILTRATION STAGE:** As water goes through the discs, particles are projected away due to the cyclone effect, reducing the backflushing frequency
- **BACKFLUSHING STAGE:** Water is projected through the discs, expelling the retained particles and evacuating them through the drainage manifold while the rest of the equipment is still in the filtration stage, supplying the remaining installation

Rain Bird HDF Series-2 systems backwashes one station at a time while the remaining elements continue filtering.

- **FILTRATION STAGE:** As water goes through the discs, particles are projected away and kept in suspension due to the cyclone effect, reducing the backflushing frequency.
- **BACKFLUSHING STAGE:** Water is projected through the discs, expelling the retained particles and evacuating them through the drainage manifold. The rest of the filters battery continue filtering.

The filtration process restarts when the discs recompress. The backflush process is controlled by the Rain Bird Control Unit.



Rain Bird Filtron 110 Control Unit allows backwash activation by time or pressure differential.

Control Units are available in 12 VDC, 110 VAC and 220 VAC.

HDF Series 1x2 Disc Filters

HDF Series-2 Disc Filters

HDF Series 4 Disc Filters

HDF Series Disc Filters (cont.)

Specifications

HDF Series 1x2 Disc Filters

- Suited for areas with or without electricity.
- Ideal where manual cleaning is troublesome.
- Compact design fits in tight spaces.
- Control Unit functions on pressure differential or time.
- Automatic self-cleaning 2" filter for low flow ranges.
- Maximum Flow: 106 gpm (24 m^3/h)
- Maximum filtering surface (231 in^2/1492 cm^2).
- Maximum pressure: 145 psi (10 bar)
- Maximum temperature: 140° F (60° C)
- Standard 100 micron : Optional 130, 200 or 400 micron.

HDF Series 2 Disc Filters

- Suitable for surface and well waters containing both organic (algae) and inorganic materials.
  - Rivers, reservoirs, canals and waste water
- Well water containing light sand (<3 PPM) and other contaminants.
- Maximum flow: 845 gpm (192 m^3/h)
- Maximum filtering surface: (231 in^2/1492 cm^2)
- Maximum pressure: 145 psi (10 bar)
- Maximum temperature: 140° F (60° C)
- Standard: 100 micron. Optional: 20, 50, 130, 200 or 400 micron.

Control Units

- Rain Bird Filtron 110 allows backwash activation by time or pressure differential. Controllers are available in 12 VDC, 110 VAC and 220 VAC.

HDF Series 1x2 Disc Filters Specifications

Model Number	Number of Filters	Manifold	Filtering Surface (in)	Filtering Surface (cm)
1X2/2G	1-2"	Inlet: 2" PVC Outlet: 2" NPT Drainage: 2: NPT	231	1492

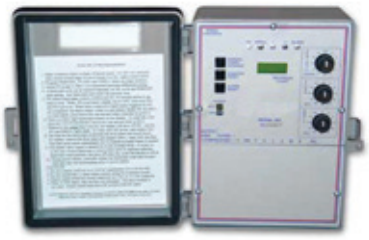
HDF Series 2 Disc Filters Specifications

Model Number	Number of Filters	Manifold	Filtering Surface (in)	Filtering Surface (cm)
2X2/3G	2	3"- GROOVED	463	2,984
3X2/4G	3	4"- GROOVED	694	4,476
4X2/6G	4	6"- GROOVED	925	5,968
5X2/6G	5	6"- GROOVED	1,156	7,460
6X2/6G	6	6"- GROOVED	1,388	8,952
7X2/6G	7	6"- GROOVED	1,619	10,444
8X2/8G	8	8"- GROOVED	1,850	11,936

Drainage manifolds included.
Dimensions of the models with flange connection. 2", 3", 4", 6" and 8" Dyrson grooved flanges are available.
Consult factory for other configurations.
Rain Bird reserves the right to change the characteristics of these products without prior notice.

HDF Series 4 Disc Filtration systems for flows of 850 GPM and higher quoted upon request.

Rain Bird Filtration Controller



F2 AC/DC-P Specifications

INPUT
115 - 230VAC
12 - 15VDC
230VAC (optional)
OUTPUT
24VAC, 12VDC
FEATURES
Up to Two (2) stations plus master valve
Input voltage 115, 230 VAC (optional) 12VDC
Output selectable to operate 24VAC, 12VDC solenoids
Pressure differential (PD) gauge included
Fixed PD delay
Resettable backwash count
Resettable alarm
Plastic outdoor box
Periodic, manual, or pressure differential (PD) actuation
Accurate timing
Simple programming