

Automatic HDF Series 4LF Disc Filters

Automatic self-cleaning disc filtration equipment with 3" valves and high density polyethylene manifolds.

Max. Flow: 3381 gpm (768 m³/h)

Applications

- ❖ Surface and well water containing both organic (algae) and inorganic materials
 - Rivers, reservoirs, canals and waste water
- ❖ Suited for areas with or without electricity.
- ❖ Well water containing light sand (<3 PPM) and other contaminants.
- ❖ Ideal for high flow rate applications.

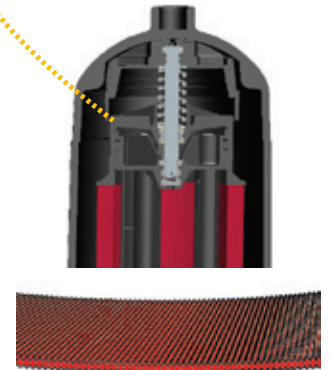
Advantages

- ❖ Rain Bird HDF systems helical action provides efficient cleaning.
- ❖ Maximum filtering surface (463 in²/2984 cm²).
- ❖ 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.
- ❖ Units are pre-assembled with HDPE (High Density Polyethylene) manifold for easy installation.
- ❖ Manual backflush cycle can be initiated from the controller.
- ❖ Plastic backflush valves are lightweight and corrosion resistant.
- ❖ Low maintenance and performs reliable backflush.
- ❖ Filtration disc versatility (filtration grade can be easily changed).
 - Standard filtration options:
 - 100 micron (150 mesh)
 - 130 micron (120 mesh)
 - 400 micron (40 mesh)
 - Custom filtration options (available by special request):
 - 200 micron (75 mesh)
 - 50 micron



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.



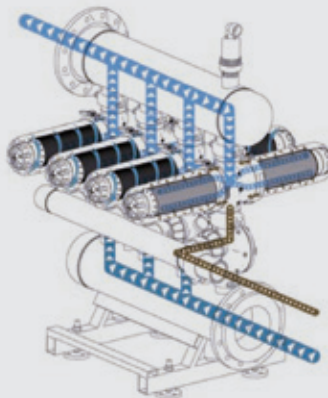
How It Works

Rain Bird HDF Series 4LF systems backflush only one element, while the rest of the equipment is still in the filtration stage, supplying the remaining installation.

FILTRATION STAGE: The helicoidal element generates a centrifugal effect of the water upon entry into the filter which moves the particulate away from the discs.

BACKFLUSHING STAGE: The clean water from the auxiliary filter is introduced from the reverse direction through the filter element. This decompresses the stack of discs allowing the discs to separate and backwash effectively. The solids are expelled from the discs and evacuated through the backwash manifold. The filtration process then restarts with the compression of the discs.

The backwash is controlled by two valves and a controller, which integrate the filtration equipment.



FILTRATION Maximum flow per 4" filter

Filtering surface 463in²/2984 cm³

QUALITY OF WATER	micron mesh	200 75	130 120	100 150	50	20
GOOD	m ³ /h gpm	72 314	64 282	48 211	34 154	18 76
AVERAGE	m ³ /h gpm	63 279	59 261	40 176	28 122	14 62
POOR	m ³ /h gpm	51 226	47 209	36 158	20 92	10 46
VERY POOR	m ³ /h gpm	32 139	28 122	24 106	14 62	6 30

HOW TO CHOOSE RAIN BIRD HDF SERIES EQUIPMENT

1. Determine the required filtration grade (micron).
2. Establish the quality of the water.
3. Calculate according to the following equation, the numbers of filters required.

$$\text{Number of filters} = \frac{\text{Flow to filter in the installation}}{\text{Max. Flow per filter}}$$

MATERIAL

Manifolds	High Density Polyethylene
Housing	Polyamide reinforced with fiberglass
Filtering element	PP grooved discs
Sealing element	Nitrile rubber (NBR)

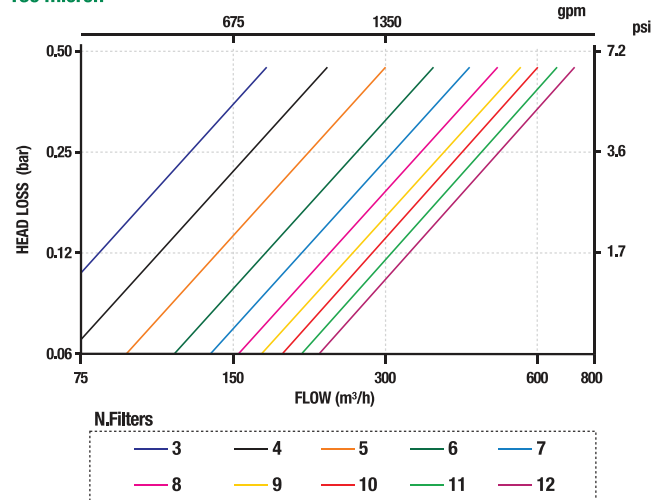
pH>4 • Maximum pressure 145 psi / 10 bar • Maximum temperature 140°F / 60°C

BACKFLUSHING

	200 - 130 micron 75-120 mesh	100 micron 150 mesh	50-20 micron
Minimum backflushing pressure per filter 4"	2.8 bar 40 psi	3.5 bar 50 psi	4 bar 58 psi
Minimum backflushing flow per filter 4"	5 l/s 78 gpm	6.2 l/s 100 gpm	6.6 l/s 104 gpm

HDF SERIES 4LF HEAD LOSS

130 micron

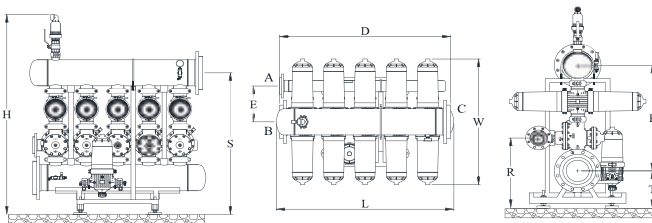


Model	Specifications				Dimensions (mm)															
	N. Filters	Manifold	Filtering Surface (cm ²)	(in ²)	F	E	D	L	R	T	S	H								
4L3/6F	4" x 3	6"-150	8952	1388	888	35	277	11	930	37	1060	42	605	24	300	12	1188	47	1705	67
4L4/6F	4" x 4	6"-150	11936	1850	888	35	277	11	1145	45	1305	51	605	24	300	12	1188	47	1705	67
4L4/8F	4" x 4	8"-200	11936	1850	928	37	277	11	1195	47	1300	51	645	25	320	13	1248	49	1785	70
4L5/6F	4" x 5	6"-150	14920	2313	888	35	277	11	1420	56	1580	62	605	24	300	12	1188	47	1705	67
4L5/8F	4" x 5	8"-200	14920	2313	928	37	277	11	1470	58	1580	62	645	25	320	13	1248	49	1785	70
4L6/8F	4" x 6	8"-200	17904	2775	928	37	277	11	1745	69	1855	73	645	25	320	13	1248	49	1785	70
4L6/10F	4" x 6	10"-273	17904	2775	978	39	277	11	1779	70	1870	74	700	28	350	14	1328	52	1890	74
4L7/8F	4" x 7	8"-200	20888	3238	928	37	277	11	2259	89	2343	92	645	25	320	13	1248	49	1785	70
4L7/10F	4" x 7	10"-273	20888	3238	978	39	277	11	2259	89	2346	92	700	28	350	14	1328	52	1890	74
4L8/8F	4" x 8	8"-200	23872	3700	928	37	277	11	2474	97	2558	101	645	25	320	13	1248	49	1785	70
4L8/10F	4" x 8	10"-273	23872	3700	978	39	277	11	2474	97	2561	101	700	28	350	14	1328	52	1890	74
4L9/10F	4" x 9	10"-273	26856	4163	978	39	277	11	2749	108	2833	112	700	28	350	14	1328	52	1890	74
4L9/12F	4" x 9	12"-323.9	26856	4163	1043	41	277	11	2749	108	2837	112	773	30	390	15	1433	56	2030	80
4L10/10F	4" x 10	10"-273	29840	4625	978	39	277	11	3024	119	3108	122	700	28	350	14	1328	52	1890	74
4L10/12F	4" x 10	12"-323.9	29840	4625	1043	41	277	11	3024	119	3112	123	773	30	390	15	1433	56	2025	80
4L11/12F	4" x 11	12"-323.9	32824	5088	1043	41	277	11	3299	130	3387	133	773	30	390	15	1433	56	2025	80
4L12/12F	4" x 12	12"-323.9	35808	5550	1043	41	277	11	3574	141	3662	144	773	30	390	15	1433	56	2025	80

Consult factory for other configurations.

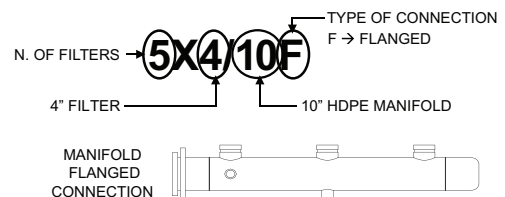
Drainage manifolds included - Grooved connection.

Rain Bird reserves the right to change the characteristics of these products without prior notice.



A = Drainage manifold
B = Inlet manifold
C = Outlet manifold

Model numbers follow the logic described below:



Rain Bird Corporation
6991 E. Southpoint Road
Tucson, AZ 85756
Phone: (520) 741-6100
Fax: (520) 741-6522

Rain Bird Corporation
970 West Sierra Madre Avenue
Azusa, CA 91702
Phone: (626) 812-3400
Fax: (626) 812-3411

Rain Bird International, Inc.
1000 West Sierra Madre Ave.
Azusa, CA 91702
Phone: (626) 963-9311
Fax: (626) 852-7343

Rain Bird Technical Services
(800) RAINBIRD (1-800-724-6247)
(U.S. and Canada)

Specification Hotline
800-458-3005 (U.S. and Canada)

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www.rainbird.com
industrial.rainbird.com