

WATER TREATMENT

WATER FILTRATION SYSTEMS

Hitachi Aqua-Tech offers a broad range of Water Filtration System for a wide variety of applications. Our Multi-Media Filter (MMF) is designed for general-purpose water filtration. Multi-layer media is employed for elimination of turbidity and removal of organic and/or inorganic suspended solids. Hitachi Aqua-Tech Activated Carbon Filter (ACF) corrects a wide range of water quality problems by removing chlorine, tastes, odors and sediments.

The Water Filtration Systems are suitable for water pre-treatment applications (for Reverse Osmosis and Deionization system, etc) and water re-use applications (as polishing filters after Dissolved Air Flotation and Clarifier systems).



WATER BOOSTER SYSTEM EXPLODED VIEW

Pressure Vessel

Pressure tanks are made of high performance composite material with FRP filament winding with 100% corrosion resistant.

Piping Manifold

Standing pipe work, where fitted, connecting filter vessel to valving is rigid PVC. The manifold is fully assembled and hydrostatic tested.

Filter Media

Multi layers of highly quality filter media ensures filtrate quality. For MMF, top filter media includes granular low density anthracite and chemically inert silica sand. For ACF, high activity granular active carbon media is used. For both system, fine garnet, coarse garnet and gravel are used as under bedding media.

Pressure Gauges

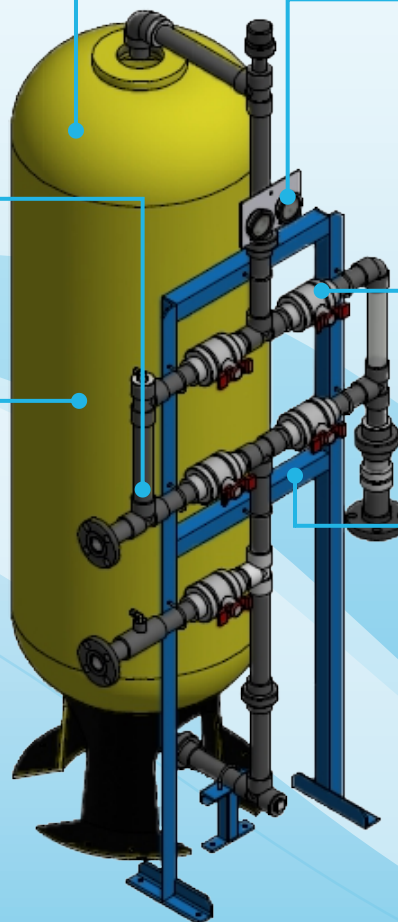
The inlet and outlet pressure gauges are continuously monitoring the feed pressure to the MMF and the pressure drop. For models with automatic operation, pressure transmitter and/or differential pressure transmitter are installed.

Valves

The valves provide flow diversion and facilitate the sequential backwash operation. Valves with different type, material and operation (auto/manual) are available.

Piping Skid

Skid with mild steel material and anticorrosion painting is provided for supporting the piping and valve manifold. SS304 material is available upon request.



FEATURES AND BENEFITS

- High flowrate FRP pressure vessels with no corrosion concerns.
- High quality multi-layer media from Italy or USA
- Filtration down to 15-20 microns
- Activated carbon with high organics absorption capacity.
- Pre-fabricated frontal piping
- Compact design for small footprint
- Seamless integration with other Hitachi Aqua-Tech water and wastewater treatment systems.
- Backwash flow control included
- Air release/vacuum break valve included
- Installation and Operation Manual

AVAILABLE OPTIONS

- Pressure vessel available in epoxy coated carbon steel or stainless steel materials
- Special coating internal and/or external
- Automatic backwash option available
- Duplex system for redundancy
- Level control
- Filter feed and backwash pumps
- Control panel
- Chemical dosing as pretreatment or post-treatment.
- Inlet and outlet monitoring (flow rate, pH, etc)

INSTALLATION CAUTIONS

System Model	Flow Rate, m3/hr				Max. Operating Pressure, bar	Max. Pressure Loss, bar	Piping In-Out Diameter	Overall Dimension			Estimated Weight		
	Filtration			Back Wash				Width, mm	Depth, mm	Height, mm	Operating, Kg	Shipping, Kg	
	Min.	Ave.	Max.										
MMF	ATDF12	-	1.8	2.7	2.3	7	0.5	1.5"	305	310	1350	170	129
	ATDF16	-	3.2	4.7	4.6	7	0.5	1.5"	408	430	1665	320	228
	ATDF21	2.0	3.7	4.7	7.9	7	1	1.5"	650	748	2120	770	470
	ATDF24	2.8	5.3	6.7	10.9	7	1	1.5"	762	835	2233	1100	680
	ATDF30	4.5	8.5	11	15.9	7	1	1.5"	780	985	2408	1700	1030
	ATDF36	7	13	17	27.3	7	1	2"	1074	1215	2408	2980	1910
	ATDF42	9	17	22	34	7	1	2.5"	1080	1340	2576	3730	2350
	ATDF48	11	21	27	40.9	7	1	2.5"	1220	1465	2790	4490	2790
	ATDF63	17	34	42	77	7	1	3"	1600	1760	2900	5500	3800
	ATDF72	25	48	60	118	5	1	4"	1830	2150	2992	6400	5400
ACF	ATDF90	36	69	86	190	5	1	4"	2286	2630	3100	12450	9010
	ATF12C	-	1.1	1.8	1.8	7	0.5	1"	305	310	1350	150	108
	ATF16C	-	1.6	3.2	3.4	7	0.5	1.5"	408	430	1665	300	178
	ATF20C	1.2	-	4.7	3.4	7	0.3	1.5"	650	748	2120	760	460
	ATF24C	2.8	-	6.7	4.5	7	0.3	1.5"	762	835	2233	1030	600
	ATF30C	4.5	-	11	6.8	7	0.3	1.5"	780	985	2408	1600	930
	ATF36C	7	-	17	10.9	7	0.3	2"	1074	1215	2408	2720	1650
	ATF42C	9	-	22	15	7	0.3	2"	1080	1340	2576	3410	2030
	ATF48C	11	-	27	18.2	7	0.3	3"	1220	1465	2790	4100	2410
	ATF63C	17	-	42	27.3	7	0.3	3"	1600	1760	2900	4500	3350
	ATF72C	25	-	60	40.9	5	0.3	4"	1830	2150	2992	5550	4600
	ATF90C	36	-	86	61.8	5	0.3	4"	2286	2630	3100	9800	7600

- A minimum 2 bar (29 psi) operating pressure is required
- Service and Backwash flow rates are based on 25°C incoming water temperature
- Operating temperature range 5-40°C
- If abrasive grit or large particles are present in the water supply, an inlet strainer is recommended to prevent damage
- Product improvement designs are subject to change without prior notice

©Hitachi Aqua-Tech Engineering Pte.Ltd.

40 Changi South Street 1, Singapore 486764
 Tel: +65 6746 1688, +65 6588 2033
 Fax: +65 6747 8224, +65 6588 2022
 Email: sales@hitachi-aqt.com
 Website: www.hitachi-aqt.com

HAQT-SS/01-01 (2021.07)

Copyright © 2021 Hitachi Aqua-Tech Engineering Pte. Ltd. All rights reserved.