

EWS: 121XS, 171XS, 121CS, 171CS, 121MS, 121GS

Commercial Heavy Duty 1" Valve All-Purpose Water Filters

COMMERCIAL SERIES • WATER FILTERS

All systems are available in single, duplex, triplex, and quadplex operation.



A Marmon Water/Berkshire Hathaway Company

The Science Behind Better Water®

Effective and Efficient Filtration

- Electronic Demand Control Module
- Fully Programmable
- Safe 24-Volt Electronics
- Non-Volatile Memory
- Turbine Flow Meter
- Washed Quartz Underbedding
- Exceptional Flow Rates
- Automatic Bypass During Backwash
- Fiberglass Reinforced Media Tank
- Self-Cleaning Distributors
- Regeneration Frequency Programmable
- Internal Bypass Prevention Included on Multiple Tank Systems

Activated Carbon Filters

The activated carbon filters offer an effective method to remove chlorine taste and odor and other organic substances in a water supply. Small amounts of color and low levels of hydrogen sulfide may also be removed with activated carbon. In some difficult water conditions, it may be necessary to use a different grade of carbon other than the standard grade.

Multi-Media Filters

The multi-media filters provide an efficient means to remove sediment and particulate matter from a water supply. Multi-media filters use stratified layers of graduated size media which offer a depth filtration process through the filter. The larger particles are filtered out at the top of the media and the bottom layers filter out particles as small as 10 microns.

Greensand Filters

The greensand filters employ a manganese-coated greensand as the main medium in the filter. Additional media are used to provide a depth filtration process, similar to the multi-media filter. The feed water must be treated to provide a continuous oxidation of iron, manganese and hydrogen sulfide for effective and efficient operation. This requires using a chemical feed pump to inject potassium permanganate into the supply water.



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SPECIFICATIONS

All systems are available in single, duplex, triplex, and quadplex operation.

Model	Design Flow Optimum	Design Flow Rates Peak	Tank Size	Pipe Size	Backwash Flow Rate	Washed Quartz	Suggested Media Filter Aggregate or Neutralite			
Filters (no media)							①	②		
EWS121XS	4 gpm	8 gpm	12.3" x 55"	1"	7 gpm	17#/.17 cu. ft.	2 cu. ft.			
EWS171XS	8 gpm	18 gpm	17.6" x 59.5"	1"	15 gpm	100#/1 cu. ft.	4 cu. ft.			
Model	Design Flow Optimum	Design Flow Rates Peak	Tank Size	Pipe Size	Backwash Flow Rate	Washed Quartz	Carbon Media			
Carbon Filters							①	②		
EWS121CS	4 gpm	8 gpm	12.3" x 55"	1"	7 gpm	17#/.17 cu. ft.	84#/2 cu. ft.			
EWS171CS	8 gpm	18 gpm	17.6" x 59.5"	1"	15 gpm	100#/1 cu. ft.	168#/4 cu. ft.			
Model	Design Flow Optimum	Design Flow Rates Peak	Tank Size	Pipe Size	Backwash Flow Rate	Washed Quartz	Garnet Media	Filter Sand Media	Anthracite Media	
Multi-Media Filters							①	②	③	④
EWS121MS	4 gpm	8 gpm	12.3" x 55"	1"	10 gpm	34#/.34 cu. ft.	25#/.19 cu. ft.	50#/.5 cu. ft.	52#/1 cu. ft.	
Model	Design Flow Optimum	Design Flow Rates Peak	Tank Size	Pipe Size	Backwash Flow Rate	Washed Quartz	Garnet Media	Manganese Greensand	Anthracite Media	
Greensand Filters							①	②	③	④
EWS121GS	4 gpm	8 gpm	12.3" x 55"	1"	10 gpm	17#/.17 cu. ft.	25#/.19 cu. ft.	128#/1.5 cu. ft.	26#/0.5 cu. ft.	
*Iron Removal Limits = 20										
Supply Water Limits					All Tanks					
Pressure Limits (psi)					30 - 125					
Temperature Limits (°F)					35 - 100					

Note: The filters are operated on a demand basis utilizing the turbine meter and control with an override option to initiate a backwash on a more frequent basis. The filters will operate very effectively at the optimum flow rates and should be operated at the peak flow for only short periods of time.

OPERATIONAL FLOWS*

*Data obtained from tests run by the University of Minnesota St. Anthony Falls Engineering Lab and is based on a non-fouled filter.

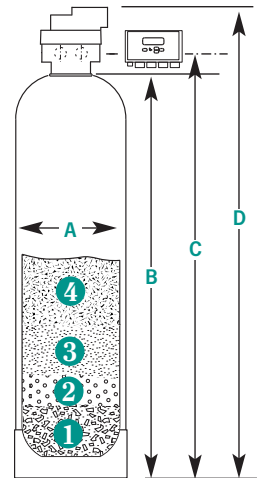
Model	Flow Rate (gpm) and Pressure (psi) Loss (ΔP)								
	2 gpm	4 gpm	6 gpm	8 gpm	10 gpm	12 gpm	14 gpm	16 gpm	18 gpm
EWS121	1 ΔP	2.3 ΔP	3.9 ΔP	5.7 ΔP	7.9 ΔP	-	-	-	-
EWS171	.6 ΔP	1.1 ΔP	2.2 ΔP	3.3 ΔP	4.6 ΔP	5.9 ΔP	7.4 ΔP	9.7 ΔP	13.68 ΔP

DIMENSIONS

Inlet-Outlet	
Pipe Size	Center Lines
1"	3.8"

*Sweat copper fittings supplied.

Model	A	B	C	D
EWS121	12.3"	55"	57"	65.75"
EWS171	17.6"	59.5"	61.5"	70.25"



The EcoWater Commercial Series Heavy Duty Water Filter is subject to a limited warranty that may give you specific rights. A copy of the warranty is printed in the installation manual. Please read the warranty carefully before installing or using an EcoWater water filter.



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