

Engineering Specification

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

Approval _____

Representative _____

Series PWML15 & PWML20

Locksmith® Commercial Micro Z™ Filter Systems

Connection Sizes: 1 1/2" & 2"

Flow Rates: Up to 75 gpm

Watts Locksmith® Series PWML15 and PWML20 Micro Z™ filters are highly effective backwashing media filtration systems for the removal of sediment and suspended solids from water.

The Locksmith® controller is a Watts exclusive, highly functional control board that operates 1.5" and 2" single, duplex alternating and multi tank progressive flow softeners and filters without the need of additional controller, with the ability to operate external devices for highly configurable systems to suit the needs of a wide variety of application requirements.

These systems are designed for commercial applications with flow rates up to 75 gpm with media bed sizes ranging from 2 to 15 cubic feet in size. If higher flow rates are required, multiple units can be installed in parallel. The media bed is cleaned of captured sediment by periodic backwashing and flushing. This cleaning cycle is time clock demand initiated and can be programmed to occur at any time that is convenient for the user. All steps of the cleaning cycle as well as returning to service are fully automatic and do not require manual actuation.

Series PWML15 and PWML20 sediment filters are designed for point of use or point of entry applications where filtered water is required. Micro Z™ is a naturally occurring form of zeolite that offers superior filtration characteristics over and above sand, anthracite and garnet products currently in use today. The key to Micro Z™'s performance is its hydrophilic properties combined with a jagged external surface texture. This gives Micro Z™ a sediment holding capacity of 2.8 times that of sand, which reduces backwash waste water volumes and provides higher service flow rates which reduces over all system size and cost. Micro Z™ has a 3-5 micron nominal particle size removal rating versus 15-30 micron with other conventional back-washable medias.

Municipal water filtration, reverse osmosis pretreatment, micro and ultra filtration system pretreatment, cartridge filtration pre-treatment, sediment reduction in city and rural water, as well as general turbidity reduction are all common applications for the Series PWML15 and PWML20 Micro Z™ filter systems.

Filtered water is a cleaner supply water for boilers, solenoid valves, pumps, faucets aerator screens, reverse osmosis systems, micro and ultra filtration systems, pools, aquariums, washing, and rinsing processes that reduces down time and costly repairs.

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.



PWML15 & PWML20

Features

- NSF/ANSI Certified high capacity Micro Z™ filter media
- Durable brass bodied control valve for years of service
- Fully automatic time clock initiated control valves on all 1.5" and 2" systems less than 36"
- Sophisticated digital electronic controls that store operating history that can be accessed by the user
- Watts Locksmith® proprietary electronic controller allows user friendly programmable function for application specific required control
- Fully adjustable backwash and flush cycles
- Dry contact lock out switch for remote interface is standard
- Highly corrosion resistant fiberglass tanks
- Durable polypropylene lower distribution system

⚠ WARNING

Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

Specification

A Watts Pure Water Locksmith® Series PWML15 and PWML20 Micro Z™ filter system shall be installed on the building's main water line just after it enters the building. The installation point shall be after any backflow prevention or pressure regulating valves. Other installation options are to install a system just before the plumbing equipment needing the protection of filtered water. In installations where the dedicated cold water make up to a water heater is the installation point, a backflow preventer and a thermal expansion tank must be installed as well. The system shall be installed with a bypass valve to allow for the shut down and removal of the unit without interrupting the water supply to the building. The filter system shall be a backwashing granular media bed type with digital programmable time clock initiated backwash, high-capacity alumino-silicate filter media rated for 3-5 nominal particle size removal, and all components necessary for proper operation. Electrical requirements are 120 volt 60 hertz. A local drain is required to accept drain water from the system.

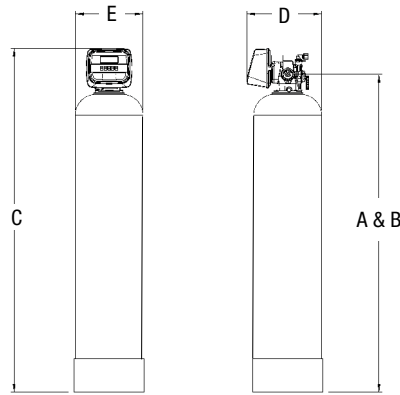
Feed Water Guidelines

pH 6 to 8.5
 Water Pressure 30 psi to 125 psi (207 kPa to 8.7 bar)
 Water Temperature 34 - 110°F (1 - 43°C)
 Oil and H2S None Allowed

*For all other guideline information please contact your Pure Water representative.

Dimensions & Weights

Series PWML15 & PWML20



Series PWML15

Model No.	Dimensions										Shipping Weight	
	A		B		C		D		E		lb	kg
	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>		
PWM151L1C11	53.25	1353	53.25	1353	61	1550	12	305	12	305	161	73
PWM151L1D11	68.25	1734	68.25	1734	73.63	1869	14	356	14	356	259	117
PWM151L1E11	68.25	1734	68.25	1734	73.63	1869	16	406	16	406	314	142
PWM151L1F11	68.25	1734	68.25	1734	73.63	1869	18	457	18	457	424	192
PWM151L1G11	65.25	1657	65.25	1657	70.63	1793	21	533	21	533	547	248
PWM151L1H11	75.25	1911	75.25	1911	80.63	2047	24	610	24	610	818	372

Series PWML20

Model No.	Dimensions										Shipping Weight	
	A		B		C		D		E		lb	kg
	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>		
PWM201L1C11	53.5	1359	53.5	1359	61.63	1567	14	356	12	305	169	77
PWM201L1D11	68.5	1740	68.5	1740	74.25	1886	15	381	14	381	267	121
PWM201L1E11	68.5	1740	68.5	1740	74.25	1886	16	406	16	406	322	146
PWM201L1F11	68.5	1740	68.5	1740	74.25	1886	18	457	18	457	432	196
PWM201L1G11	65.5	1664	65.5	1664	73	1854	21	533	21	533	555	252
PWM201L1H11	75.5	1918	75.5	1918	83	2108	24	610	24	610	827	375
PWM201L1I11	75.5	1918	75.5	1918	83	2108	30	762	30	762	1195	542

Specifications

Model No.	Mineral Tank			Flow Rates for Service and Backwash			Backwash GPM
	Tank Size	Tank Size FT2	Micro Z™ FT3	Service GPM			
				10 GPM FT2	15 GPM FT2	20 GPM FT2	
PWM151L1C11	12 X 52	0.79	2	7.9	11.8	15.7	10
PWM151L1D11	14 x 65	1.07	3	10.7	16.0	21.4	20
PWM151L1E11	16 x 65	1.40	4	14.0	20.9	27.9	20
PWM151L1F11	18 x 65	1.77	5	17.7	26.5	35.3	30
PWM151L1G11	21 x 62	2.40	7	24.0	36.1	48.1	40
PWM151L1H11	24 x 72	3.14	10	31.4	47.1	62.8	50
PWM201L1C11	12 X 52	0.79	2	7.9	11.8	15.7	10
PWM201L1D11	14 x 65	1.07	3	10.7	16.0	21.4	20
PWM201L1E11	16 x 65	1.40	4	14.0	20.9	27.9	20
PWM201L1F11	18 x 65	1.77	5	17.7	26.5	35.3	30
PWM201L1G11	21 x 62	2.40	7	24.0	36.1	48.1	40
PWM201L1H11	24 x 72	3.14	10	31.4	47.1	62.8	50
PWM201L1I11	30 x 72	4.91	15	49.1	73.6	98.1	80

Ordering Information

Model No.	Ordering Codes	Description	Pipe Size	Space Required		Weight		
			In.	W	D	H	lb	kg
PWM151L1C11	7101367	2 Cubic Foot 1 1/2" Micro Z with Auto Backwash	1.5	15	13	64	161	73
PWM151L1D11	7101368	3 Cubic Foot 1 1/2" Micro Z with Auto Backwash	1.5	16	15	77	259	117
PWM151L1E11	7101369	4 Cubic Foot 1 1/2" Micro Z with Auto Backwash	1.5	18	17	77	314	142
PWM151L1F11	7101370	5 Cubic Foot 1 1/2" Micro Z with Auto Backwash	1.5	19	19	77	424	192
PWM151L1G11	7101371	7 Cubic Foot 1 1/2" Micro Z with Auto Backwash	1.5	24	23	84	547	248
PWM151L1H11	7101372	10 Cubic Foot 1 1/2" Micro Z with Auto Backwash	1.5	26	25	92	819	372
PWM201L1C11	7101373	2 Cubic Foot 2" Micro Z with Auto Backwash	2	16	13	64	169	77
PWM201L1D11	7101374	3 Cubic Foot 2" Micro Z with Auto Backwash	2	17	15	77	267	121
PWM201L1E11	7101375	4 Cubic Foot 2" Micro Z with Auto Backwash	2	18	17	79	322	146
PWM201L1F11	7101376	5 Cubic Foot 2" Micro Z with Auto Backwash	2	20	19	77	432	196
PWM201L1G11	7101377	7 Cubic Foot 2" Micro Z with Auto Backwash	2	23	22	77	555	252
PWM201L1H11	7101378	10 Cubic Foot 2" Micro Z with Auto Backwash	2	25	25	88	827	375
PWM201L1I11	7101379	15 Cubic Foot 2" Micro Z with Auto Backwash	2	38	30	107	1195	542

NOTICE

Flow rates, dimensions, and capacities are per tank. Pipe size, tank size, and space requirements are in inches. 20 gpm per square foot flow rates are for intermittent peak flows only and should not be used as continuous flows.



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