

Engineering Specification

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

Approval _____

Representative _____

Series FLL-100

Locksmith™ Residential Filox® Filtration Systems

Connection Sizes: 1"

Flow Rates: Up to 24 gpm (91 lpm)

Watts Locksmith™ Series FLL Filox® filtration systems are time tested, highly effective backwashing media filtration systems for the reduction of iron, manganese and hydrogen sulfide from water.

The Locksmith controller is a Watts exclusive, highly functional control board that operates 1" 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 or a wide variety of application requirements.

These systems are designed for residential applications with flow rates up to 24 gpm (91 lpm) with media bed sizes ranging from 1 to 4 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.

Filox media filtration systems are a unique, chemical free, approach to reducing red staining iron, rotten egg smelling hydrogen sulfide, and black staining manganese in your water. These systems utilize the natural dissolved oxygen (DO) in the water as oxidation agents. Additional oxidizers such as chlorine can also be introduced when DO is lacking. Together the oxidants and contaminants are introduced onto the surface of our catalytic filtration media. The media catalyzes the oxidation of the contaminants and then traps the impurities. Our Filox media is an advanced form of manganese dioxide (MD). Virtually all iron, hydrogen sulfide, and manganese reduction medias have some percentage of MD. At 80% or greater, Filox boasts the highest percentage of MD and the highest flow rates per cubic foot of all of the iron reduction medias on the market today.



FLL-100

Features

- Locksmith Controller offering Improved functionality
- Filox has highest flow rate of any iron reduction media
- 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 Locksmith™ Series FLL Filox® filtration 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 or processes requiring 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 filtration system shall be a backwashing granular media bed type with digital programmable time clock initiated backwash and high capacity manganese dioxide coated filter media. The filtration media shall be rated at 12 x 40 mesh size. The system shall include 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. The feed water pressure must not fall below 30 psi or exceed 125 psi. Water temperature must not fall below 34°F or exceed 110°F (1 m- 43°C).

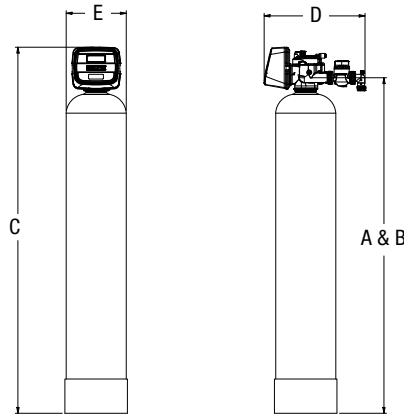
Dimensions & Weights

Feed Water Guidelines

pH	6.56 to 9
Water Pressure	30 psi to 125 psi (205 kPa to 8.5 bar)
Temperature	34 - 110°F (1 - 43°C)
H2S	Up to 3 ppm
Iron.	Up to 10 ppm
Manganese	Up to 5 ppm

*For all other guideline information please contact your Watts representative.

Series FLL-100



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Call customer service if you need assistance with technical details.

Model No.	Dimensions										Weight	
	A		B		C		D		E		lb	kg
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm		
NF09-L10F	50 1/2	1283	50 1/2	1283	55 1/2	1410	11 3/4	298	9 1/2	241	167	76
NF10-L10F	56 1/2	1435	56 1/2	1435	61 3/4	1568	12 1/4	311	10 1/2	267	235	107
NF12-L10F	55	1397	55	1397	60	1524	13 1/4	337	12 1/2	318	318	144
NF14-L10F	66	1676	66	1676	71	1803	14 1/2	368	14 3/4	375	460	209
NF16-L10F	68 1/4	1734	68 1/4	1734	73 1/2	1867	15 1/4	387	16 3/4	425	611	277

Specification and Ordering Information

MODEL NO.	ORDERING CODE	TANK SIZE	MEDIA (CU FT)	PEAK SERVICE FLOW (GPM)	BACKWASH (GPM)	FLOOR SPACE (DXWXH)	SHIP WT. (LBS.)
NF09-L10F	68112319	9x48	1	6	7.5	12" x 10" x 56"	167
NF10-L10F	68112320	10x54	1.5	9	10	12" x 11" x 62"	235
NF12-L10F	68112321	12x52	2	12	15	13" x 13" x 60"	318
NF14-L10F	68112322	14x65	3	18	20	15" x 15" x 71"	460
NF16-L10F	68112323	16x65	4	24	25	15" x 17" x 74"	611

NOTICE

Flow rates, dimensions, and capacities are per tank. Pipe size, tank size, and space requirements are in inches. Backwash flow rate may vary depending on temperature changes or specific bed expansion requirements.

NOTICE

The use of additional oxidizing agents (oxygen, chlorine, ozone, hydrogen peroxide, potassium permanganate, etc) is recommended. Oxidizers will enhance the performance of Filox. They oxidize the media, which enables Filox to perform quicker and keep cleaner. It is always a safe practice to install an oxidation method upstream (in front) of the Filox bed. Do not exceed 4 ppm free chlorine in the feed water stream or bed damage may occur.

