

## Engineering Specification

Job Name \_\_\_\_\_

Contractor \_\_\_\_\_

Job Location \_\_\_\_\_

Approval \_\_\_\_\_

Engineer \_\_\_\_\_

Contractor's P.O. No. \_\_\_\_\_

Approval \_\_\_\_\_

Representative \_\_\_\_\_

# Series FLLAIO-125

## Locksmith™ Residential Filox®

### Iron Filtration Systems

Connection Sizes: 1 1/4"

Flow Rates: Up to 12 gpm (45 lpm)

Watts Locksmith™ Series FLLAIO Filox® AIO (air injection oxidation) 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, with AIO, is a Watts exclusive, highly functional control board that operates 1 1/4" 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. It controls the operation of the system including the air draw and air volume control function.

These systems are designed for residential applications with flow rates up to 12 gpm (45 lpm) with media bed sizes ranging from 1 to 2 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 use a process called AIO (Air Injection Oxidization), which allows the natural air we breathe to charge the water with oxygen. Together the oxygen and contaminants are introduced onto the surface of our catalytic filtration media. The media uses the injected oxygen to oxidize 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.



FLLAIO-125

### Features

- Locksmith Controller offering Improved functionality
- Filox has highest flow rate of any iron reduction media
- Media performance and efficiency improved through the AIO process
- 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 FLLAIO Filox® air injection oxidization 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).

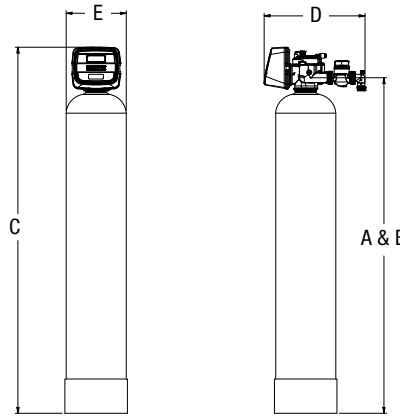
## Dimensions & Weights

## 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 FLLAIO-125



### Series FLLAIO-125

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		
N2349-FAIO	50 1/2	1283	50 1/2	1283	55 1/2	1410	11 3/4	298	9 1/2	241	167	76
N2350-FAIO	56 1/2	1435	56 1/2	1435	61 3/4	1568	12 1/4	311	10 1/2	267	235	107
N2351-FAIO	55	1397	55	1397	60	1524	13 1/4	337	12 1/2	318	318	144

## 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.)
N2349-FAIO	68112352	9x48	1	6	7	12" x 10" x 56"	167
N2350-FAIO	68112353	10x54	1.5	9	10	12" x 11" x 62"	235
N2351-FAIO	68112354	12x52	2	12	15	13" x 13" x 60"	318

### 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

This system uses an AIO process which introduces oxygen as an oxidizing agent. Additional oxidizing agents include chlorine, ozone, hydrogen peroxide, potassium permanganate. Oxidizers will enhance the performance of Filox. They oxidize the contaminants, 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.

