

Iron Air Charge MangOx 2510-SXT Installation & Start-Up Guide

Thank you for purchasing a Clean Water System! With proper installation and a little routine maintenance your system will be providing iron free water for many years.

Please review this start-up guide entirely before beginning to install your system and follow the steps outlined for best results.

MEDIA CONTAINS DUST. USE PAPER MASK AND VENTILATE TO AVOID BREATHING DUST.



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Packing List by Model

Each system comes with the following:

- 1 Fleck 2510-SXT Backwash Control Valve with Pipe connector kit (either 1" or ¾")*
- 1 Fleck 2510-SXT Bypass valve
- 1 Filter Tank
- 1 Distributor tube
- 1 Media funnel

* We include two extra red clips with the pipe connector kit.

In addition, each system comes with the following, depending on the model ordered:

1.5 Cubic Foot Air Charger Sulfur Filter 2510-AIO:

Quantity	Description
1	box of filter gravel
3	½ cubic foot box of MangOx Media

2.0 Cubic Foot Air Charger Sulfur Filter 2510-AIO:

Quantity	Description
1	box of filter gravel
4	½ cubic foot box of MangOx Media

2.5 Cubic Foot Air Charger Sulfur Filter 2510-AIO:

Quantity	Description
1	box of filter gravel
5	½ cubic foot box of MangOx Media

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The Air Charger AIO Filter, when properly applied, is an efficient and cost effective system for the removal of iron and Iron. The AIO control valve maintains a compressed “air pocket” in the top of the tank while the system is in service. As the water passes thru the air pocket, iron and Iron are oxidized. Additionally, dissolved oxygen is added to the water. The Air Charger AIO filter media bed then removes the iron and Iron from the water.

Fig 1 - AIO 2510 SXT Control Valve, Front View



A daily backwash will remove accumulated iron and replenish the filter media bed. The regeneration process also adds a fresh air pocket to the system.

Application Parameters

w / Iron Removal Media

pH (Minimum)	6.8
Iron (Maximum)	7 ppm
Sulfur (Maximum)	4 ppm
Service Flow (Maximum)	8 gpm
Backwash Flow (Minimum)	3.0 gpm

Pre-Installation

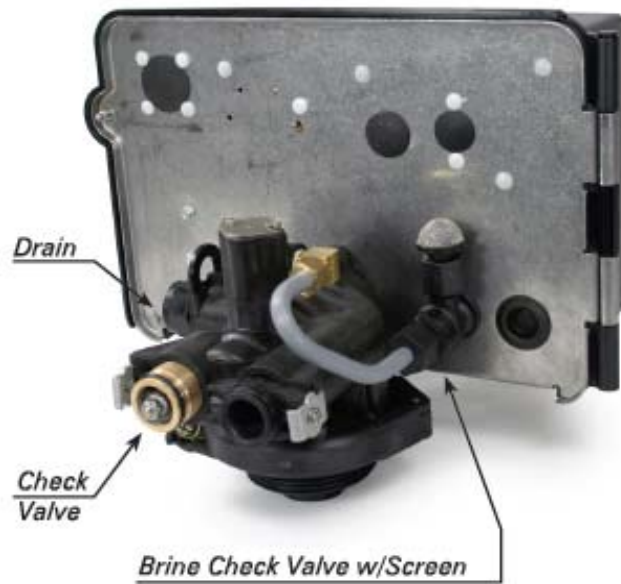
1. If you are going to be turning off the water to the house and you have an electric water heater, shut off the power to the water heater before beginning installation in case water heater is accidentally drained.
2. Pick a suitable location for your filter system on a dry level spot where it won't be exposed to freezing temperatures. A minimum of 20 PSI is required. Maximum pressure is 90 PSI.
3. Get all of your plumbing parts together before beginning installation. Installation typically takes 3 to 5 hours. However after installation the 2510 SXT Air Charger Filter must be allowed to run through a complete backwash and rinse cycle.
4. After the system is installed and running, your water may be discolored, or full of sediment or rust, particularly if this is older or corroded piping. Typically this clears up over a day or two.

Assembly and Installation Instructions

1. The 2510 SXT Air Charger filter is installed after the pressure tank. If you are also installing a water softener, install the softener after the 2510 SXT Air Charger filter.
2. Make sure to follow to connect the in pipe to the Fleck 2510 SXT inlet and the outlet to the outlet (see Fig 2). As you face the Fleck 2510 SXT control from the front, the water enters on the right and exits on the left. From the back (see Fig 2) the water enters on the left. The inlet and outlet are attached to the bypass valve which is marked with arrows as well.
3. Make sure there is a working gate or ball valve before the Fleck 2510 SXT Air Charger filter and also one after. Pressure gauges are optional and perhaps not necessary but a hose bib (which is a faucet that you can attach a garden hose to) is strongly recommended after the 2510 SXT Air Charger filter before the second ball valve. This makes it easy to rinse your new 2510 SXT Air Charger filter on start-up and gives you a place to test the water before it enters your household plumbing.
4. If you will be using copper piping, do not sweat the copper pipe directly on to the Fleck 2510 SXT control valve. Avoid heating up the Fleck 2510 SXT control valve plastic with the torch.
5. You do not need unions to install your Fleck 2510 SXT control. If you need to remove it, the Fleck 2510 SXT has quick-release couplings that make it easy to put the 2510 SXT Air Charger filter on by-pass and remove the filter system from the piping.
6. The drain line tubing (not supplied) is connected to a drain from the drain outlet using flexible ½" ID tubing. Note that the drain can run up above the Fleck 2510 SXT control and into a drain, it does not have to drain down, as the filter backwashes under line pressure from your well pump.

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Fig 2 - AIO 2510 SXT Control Valve, Back View



7. Insure the brine line check valve with screen is installed on the brine valve (See Fig. 2) This is the AIR DRAW point of entry.
8. You should have a small plastic diffuser cone – This will be placed on the distributor tube to help with the oxidation as water passes through the air pocket.

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System Limitations

- The Air Charger Filter utilizes air, oxidation and filtration for the removal of Iron and Iron. This process will leave some air or effervescence in the water. The effervescence may give the water a milky appearance and is simply excess air in the water. While a certain amount of effervescence will always be present, it may be most noticeable during the first 30 days after installation of the system.

Media Loading Guide

If it is necessary to load your new Air Charger AIO Filter System with the filter media provided, please follow these guidelines.

1. Place the media tank on a level surface in an area with adequate ventilation. Proper precautions should be taken to cover your eyes, mouth and nose before pouring the medias into the tank.
2. After removing the control valve, center the riser tube in the tank and place the PVC cap on the riser to prevent media from entering the tube. It is important that the riser tube stays properly centered in the tank as the media is installed.
3. Attach the plastic diffuser cone to the distributor tube. In order to do this, swab PVC glue on the distributor tube 4 inches below threads on the tank. The diffuser cone can then be slipped over the distributor and attached to this location. See Fig. 1 for an idea of placement.
4. Add the medium size gravel first, then the fine gravel. Once the first three media layers are installed, add the boxes marked **MangOx** to the tank. The tank should be 2/3 full.
5. Place the plastic diffuser cone face-down on the distributor tube. Have this cone sit about 6 inches below the threads of the tank. It will fit snugly on the distributor. (See diagram on fig. 1 to see placement on distributor tube)
6. Fill the tank with water and add 2 cups of household bleach to the tank and gently shake the tank so the chlorine can mix with the water. Alternatively you can add bleach to a 5 gallon bucket and fill the tank with the water and bleach mixture. Allow to soak for a minimum of 1 hour.
7. Once the media has been installed, carefully assemble the valve to the tank. The riser tube must be properly centered in the valve and should not be forced as the valve is installed. The check valve that is provided must be installed on the inlet of the unit.

8. Complete the installation process per local plumbing code.

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Bypass Assembly

The system must be backwashed once upon startup. First, put the system into service mode. Normally the system ships in the bypass position. Once the system is properly plumbed in, make sure to turn both of the bypass valve knobs 90 degrees into service mode.



Regeneration Cycle (59 minutes)

1. **Backwash** (14 minutes) During this cycle, the water carrying the iron runs to the drain. Untreated water is available during regeneration.
2. **Air Recharge** (40 minutes) during this cycle, the unit empties water to the drain and is recharged with air. The sound of air being recharged will be heard. Air bubbles should go down to the drain before proceeding to the next step. Adjust cycle time if necessary.
3. **Rapid Rinse** (5 minutes) During this cycle, water enters the tank, compressing the air into a pocket at the top of the tank.
4. **Brine Refill** (Off)
5. **Unit Returns to the In-Service Position**

NOTE: Due to the air pocket, exceeding 80 psi will adversely impact performance.

The frequency and time of regeneration can be changed due to the following reasons.

- In conditions of high water usage and/or high levels of iron, the unit may need to regenerate more frequently than once every three days. The unit can be set for daily regeneration or to regenerate every two days. DO NOT set the regeneration frequency for a longer period than 3 days, as the

filter medium can become fouled with iron, rendering the unit ineffective.