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# Air Injection Filter

For Iron removal

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*Product Manual*



## **Your Neotec Air Injection Iron Filter (Birm Filter)**

Congratulations on choosing the Neotec Air Injection Iron Filter (NAIF). This system will remove iron from your water in addition to visible impurities. The Neotec System is designed for years of reliable & trouble-free service.

### ***Problems caused by Iron in water?***

Iron is a common element found in most water supplies, particularly well water. The human body needs iron as an essential nutrient for development. However, high iron content in water causes several problems making it essential to remove Iron from the water supply.

Excessive Iron causes deposits on pipelines, pressure tanks, water heaters and water softeners, reducing the available water flow and pressure. It affects the flavor and color of food and water. It may react with tannins in coffee, tea and some alcoholic beverages to produce a black sludge, which affects both taste and appearance.

Iron causes reddish-brown staining of laundry, porcelain, dishes, utensils and even glassware. Soaps and detergents do not remove these stains, and use of chlorine bleach and alkaline builders (such as sodium and carbonate) may intensify the stains.

A problem that frequently results from iron in water is iron bacteria. These nonpathogenic (not health threatening) bacteria occur in soil, shallow aquifers and some surface waters. The bacteria feed on iron in water and form red-brown (iron) slime in toilet tanks and can also clog water systems.

The Neotec Air Injection Iron Filter removes iron, giving you clean water continuously. You can now say good-bye to those rusty red stains that spoil your washroom, sink, kitchen & bathtub &, of course, iron bacteria.



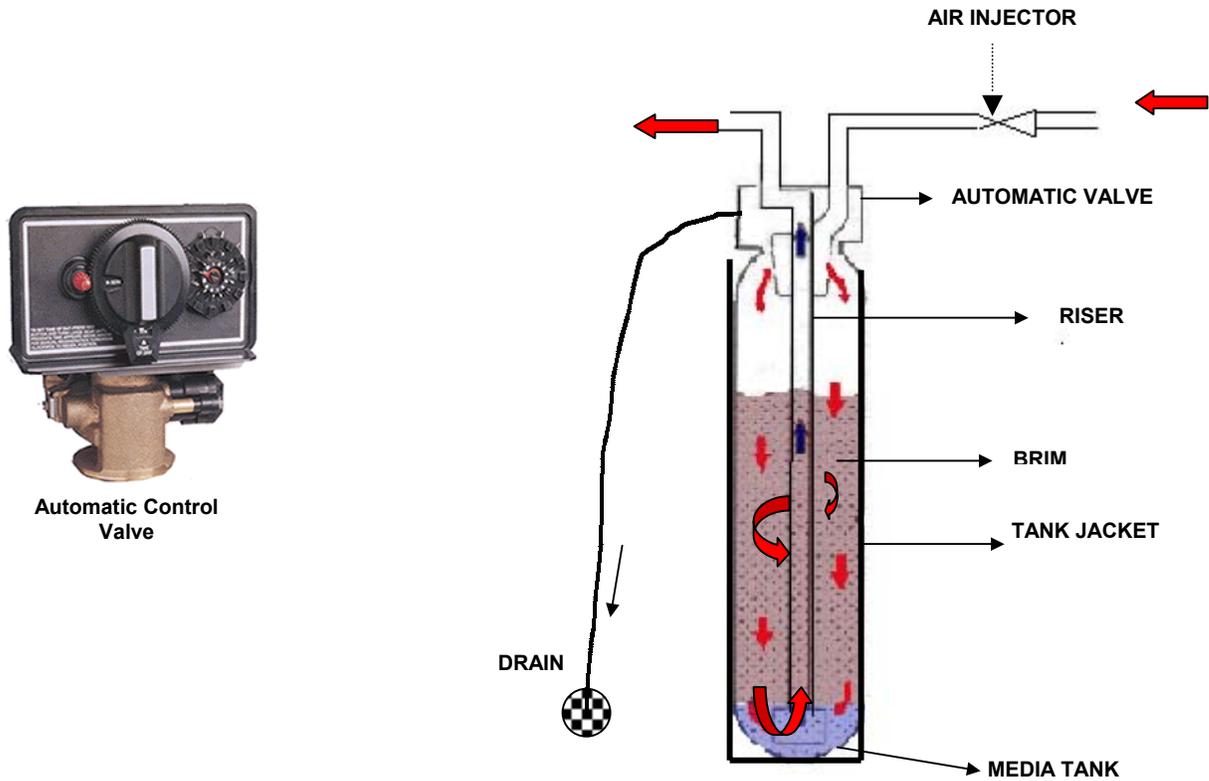
### ***How does Air Injection remove iron?***



Air injection iron filters use oxygen in the air to oxidize iron in water. A small venturi type air injector is installed between the pump and pressure tank to draw the air into the water. The iron oxidizes to form rust particles, which are then strained out by a filter medium (birm).

## Functional Description

The purification process involves suction of air into the water line by an air-injector. Upon contact with air, iron (present in the ferrous form) gets oxidized (to ferric form) and precipitates out. These precipitates are then filtered in a media (birm) bed and removed by “backwashing” (an automatically controlled process where the flow of water is reversed). An automatic control valve that is mounted on the media tank carries out the entire backwashing process.



Air-Injection Iron filters are generally installed at the point-of-entry. A qualified Neotec Service Representative can install the system wherever you desire\*. Another manual explaining the settings and features of the control valve is included with your system.

*\*Extra Service Charges may apply. It is recommended to have the system at the point of entry with proper drainage and electrical connection. Please allow sufficient space for maintenance.*

## How Different is the Neotec Air Injection Iron Filter from Ordinary Filters?

Neotec Air Injection Filters are manufactured to stringent quality parameters with the best available components. Each system features:

- Fully automatic backwash valve
- High quality components
- Reliability
- Ease of operation
- Very low on maintenance

## Maintenance

As the Neotec Air-Injection iron filter is designed for automatic backwashing and chemical free cleaning, the system is virtually maintenance-free.

## Troubleshooting

In the rare event that you experience any problem with your system, the following table may be useful. In most cases you can rectify the problem on your own.

<b>Problem</b>	<b>Possible Solution</b>
I still get stains on my plumbing fixtures	<ul style="list-style-type: none"><li>▪ Make sure the bypass valve is in service position.</li><li>▪ Make sure the power-cord for the valve is plugged in.</li><li>▪ Check the valve injector for plugging. Clean if required</li></ul>

If you are still unable to get the system running properly or there is a different problem, please call your dealer immediately for assistance.

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# Warranty

NEOTEC Water Treatment (referred to as The Company) hereby warrants its equipment as follows:

- 1) The company warrants its Air-Injection Iron Filter controls to be free of defects due to workmanship or materials, under normal use and service for FOUR YEARS from date of purchase. If defective due to workmanship or materials, and if reported within one (1) month from equipment failure, the Company will, at its option, repair or replace the product.
- 2) FIBREGLASS TANKS are warranted for a period of ten (10) years from the date of manufacture against defects due to poor workmanship or materials.
- 3) This warranty is valid only when the unit is installed and adjusted according to factory specifications by Neotec authorized personnel only. It does not include standard maintenance items.
- 4) If the system performance is affected due to any of the following reasons, the warranty will be void and necessary charges, as may be determined from time to time by The Company, will be applicable:
  - Change in raw water quality
  - Damage from abuse, neglect, accident, fire, flood or any other act of God.
  - Damage resulting from unauthorized alterations, attachments, or repairs.
  - Failure or malfunction occurring due to the system being operated in a corrosive and contaminated atmosphere.
  - Failure due to repair or service performed by any person or company other than those approved by Neotec.
- 5) The obligation to repair defective parts does not require replacement of the complete unit. Service which includes replacement of defective parts, repair work or adjustments within the warranty period should be handled by, or through the authorized dealer from whom the system was purchased.
- 6) This warranty becomes void if the serial number is removed or defaced.
- 7) In no event shall Neotec be liable for incidental, special, direct, indirect, consequential or multiple damages such as, but not limited to, water damage, lost business or profits arising out of the sale or use of the Neotec AC System even if advised of the possibility of such damages.
- 8) **NO OTHER WARRANTY EXPRESSED OR IMPLIED IS APPLICABLE TO THIS UNIT.**

MODEL NUMBER.....

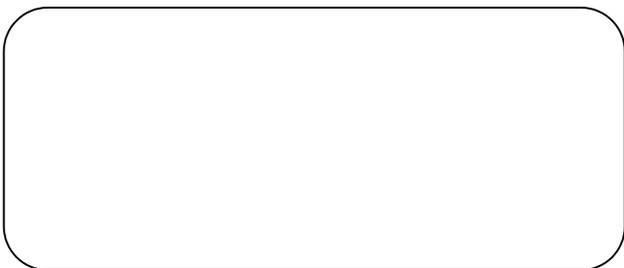
SERIAL NUMBER.....

DATE INSTALLED.....

INSTALLED BY.....

DEALER NAME.....

**Authorized Dealer:**



**Made in Canada**



**Neotec Water Treatment**  
36, Industrial Parkway South,  
Aurora L4G3W2, ON, Canada  
1-888-779-2837  
[www.neotecwater.com](http://www.neotecwater.com)