



Activated Carbon System

Product Manual



Your Neotec Activated Carbon System

Congratulations on choosing the Neotec Activated Carbon System. This system will remove chlorine, organic impurities & Trihalomethanes from your water in addition to improving taste & odor. The Neotec System is designed for years of reliable & trouble-free service. So you can now say good-bye to that chlorine smell in your coffee, tea, juice and even shower water. Of course, you won't worry about the harmful health effects of chlorine anymore.

What is Chlorine?

Chlorine is a naturally occurring compound from the *Halogen* family. Other halogens like Fluorine, Bromine & Iodine also exhibit vast similarities in their chemical & physical nature. Chlorination (adding chlorine) is perhaps the most cost-effective method of disinfecting water. Most municipal water supplies around the world are chlorinated to ensure bacteria-free water to every home.

Unfortunately, there are some disadvantages to using chlorine, which necessitate its removal at the point of use. Chlorine can pose long-term health risks through prolonged consumption or absorption through skin. Scientific studies link chlorine & chlorine by-products to cancer of the bladder, liver, stomach, rectum & colon, arteriosclerosis, anemia, high blood pressure and allergic reactions. Inhalation of vaporized chlorinated water during showers is regarded as having an additional 2 liters of chlorinated water every day.

Besides chlorine leaves a bad taste in coffee, tea, soft drinks & even plain drinking water.

Organic compounds & Trihalomethanes (THM) find their way into drinking water through organic contamination & industrial pollution. These can cause serious & even life-threatening health hazards.

What does my Neotec Activated Carbon System do?

In addition to removing chlorine, the Neotec AC system also removes many organic impurities & THMs. The system improves the water taste and odor. Visible impurities like dirt, rust etc are also greatly reduced.

How Different is the Neotec Activated Carbon System from Ordinary Filters?

Neotec AC systems are manufactured to stringent quality parameters with the best available components. Each system features:

- High quality Activated Carbon with high adsorption capacity
- Fully automatic backwash valve
- Reliability
- Ease of operation

Functional Description

The purification process involves passing water through a bed of granular activated carbon. A granule of activated carbon has a very high surface area (1 small granule can have a surface area equal to a football field). When water flows through the bed, chlorine and organic compounds get attached to the carbon surface. This “attaching” is called “**ADSORPTION**” and cannot be reversed. Thus, as water flows to the bottom of the bed, chlorine is captured by the carbon, leaving pure water

to flow up through the *riser* to various points of use.

The carbon bed requires periodic *Backwashing*, a process where the flow of water is reversed in the bed. Backwash removes trapped dirt in the bed & exposes fresh carbon surface sites for adsorption. The backwash cycle is carried out by an automatic valve that can be set for operation based on time or amount of water flow.

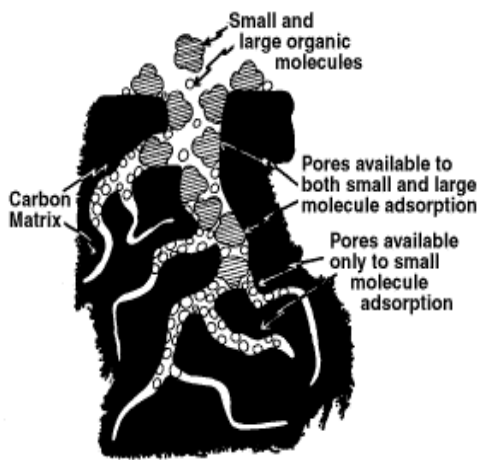
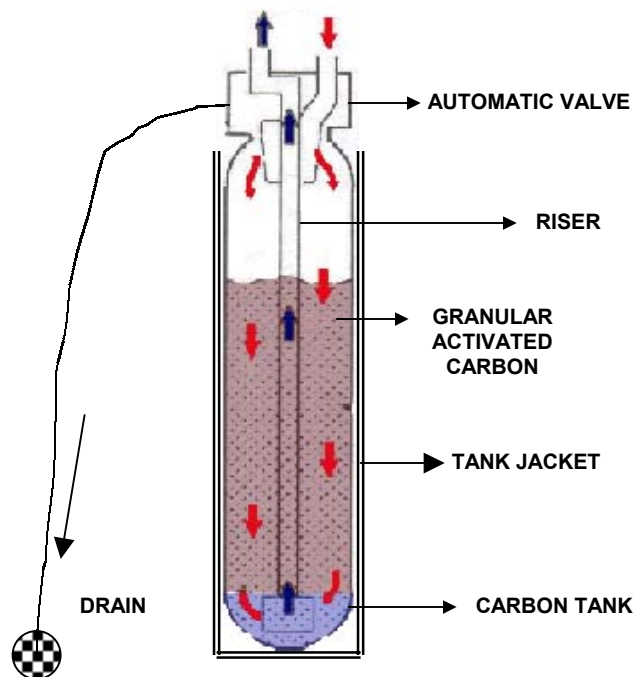


FIG : GRANULAR ACTIVATED CARBON PORE STRUCTURE



Carbon Systems are generally installed at the point-of-entry. A qualified Neotec Service Representative can install the system wherever you desire*.

*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.



METER-INITIATED



CALENDAR CLOCK

FIG: VALVE OPTIONS

The Neotec Activated Carbon System comes with two valve options ***Meter-Initiated*** and ***Calendar Clock***.

The calendar clock valve can be set to backwash on fixed days. For example it can be set to backwash every 3 days or alternate days etc.

The meter-initiated valve measures the amount of water consumed and

backwashes only when a pre-set amount of water has passed through. For example, it may be set to backwash after 1100 gallons of pure water have been consumed. Thus, this valve provides the advantage of backwashing only when necessary.

Both valves deliver excellent quality and reliability, the hallmark of all Neotec products.

Maintenance

The Neotec Activated Carbon System is virtually maintenance-free. The Carbon in the system gets exhausted after 2-3 years depending on the water usage after which you will need to re-bed your system with fresh carbon. Call your dealer for service.

Troubleshooting

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

Problem	Possible Solution
The water still smells of chlorine	<ul style="list-style-type: none"><li data-bbox="532 1115 1406 1199">▪ Make sure the bypass valve is in service position.<li data-bbox="532 1199 1406 1283">▪ Make sure the power-cord for the valve is plugged in.

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

Note that if your water supply is not bacteriologically safe, carbon beds can serve as breeding grounds for bacteria. In such cases we recommend a proper disinfection system (like ultraviolet sterilization) for protection against bacteria.

Warranty

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

- 1) The company warrants its carbon system 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 a period of one (1) month from equipment failure, the Company will, at its option, repair or replace the defective 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.....

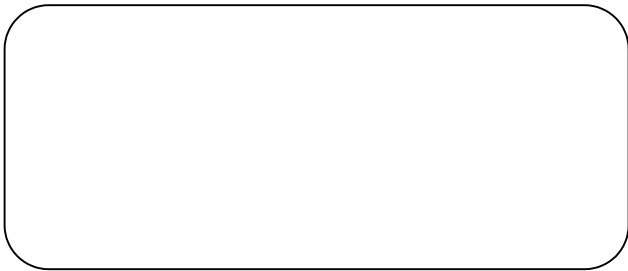
SERIAL NUMBER.....

DATE INSTALLED.....

INSTALLED BY.....

DEALER NAME.....

Authorized Dealer:



Neotec Water Treatment
36, Industrial Parkway South,
Aurora L4G3W2, ON, Canada
1-888-779-2837
www.neotecwater.com



Made in Canada