



Quality NDE  
164, St-Jean-Baptiste  
Mercier, Quebec J6R 2C2  
Tel.: (450) 691-9090 / 1-800-361-3630  
[www.qnde.ca](http://www.qnde.ca)

## **INSTALLATION & OPERATING INSTRUCTIONS**

The CARBON ACTIVATED canister should be placed in an accessible area, preferably close to the source of liquid to be treated. Once the CARBON ACTIVATED canister is installed it is designed to operate virtually unattended.

As contaminated liquid flows through the canister, the activated carbon adsorbs the impurities. The treated liquid flows into a collector at the bottom of the carbon bed and is directed to the outlet nozzle at the top. As impurities are adsorbed in the carbon bed, it will start to become saturated and some impurities will bleed into the effluent.

### **Replacing the first DRUM**

Two (or three) canisters are connected in series and operated until the lead canister becomes completely saturated with impurities (i.e., the effluent concentration equals the influent concentration); or the effluent impurity level of the second canister approaches the treatment objective; or when the lead canister's inlet pressure reads 10 psig or more (clogged with solids).

The lead canister is then removed from service and replaced with the second canister. The second canister is then replaced with the third canister... and a fresh new third canister is installed.

The useful life of the canister will differ from one application to another, as the capacity of the activated carbon will vary with the type and concentration of contaminants in the liquid passed through it. For that reason the most precise measurement of canister life will come from the practical experience of using it under a specific set of operating conditions.

**IMPORTANT:** The drum is designed for a maximum pressure of 10 PSIG and a maximum flow rate of 10 GPM. Exceeding this may damage the drum.

## **INSTALLATION**

- 1- Remove the plastic inlet and outlet plugs on the canister.

### **NEW System**

- a. Make sure to properly degas both drums to prevent air entrapment. Fill with water or the liquid to be treated at a slow rate (1 - 2 gpm) into the canister outlet port until filled. The canister should then be allowed to stand for 24 hours with inlet connection open to permit de-gassing of the carbon bed. Periodically during this time, additional liquid should be added to the canister as the level drops due to gas displacement.
- b. Once degassed, connect the whole system and start using.
- c. NOTE: During initial startup, carbons fines will be washed away which is normal (approx. 5 bed volumes).

### **EXISTING System – Replacing the first DRUM**

- 2- Remove the lead canister and replaced with the second canister (DRUM 2).
- 3- If applicable, the second canister (DRUM 2) is then replaced with the third canister (DRUM 3).
- 4- The last canister is then replaced with a fresh new canister.
- 5- Reinstall the plumbing as per instructions below.



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## **CLOSURE INSTRUCTIONS FOR HAZARDOUS SPENT CANISTERS**

Spent canisters should be drained for transport. Open the 2" outlet on the lower side of the canister and let gravity drain the drum. Alternatively, compressed air at 5 psi maximum can be applied to the inlet connection to force the water out through the outlet connection. Drained liquids should be returned to the upstream feed point for reprocessing.

Prior to offsite recycling or disposal, hazardous spent canisters need to be properly closed for transportation. Two (2) 2" FNPT pipe plugs are needed to plug the inlet and outlet fittings in the lid. All plugs need to be tightened according to the following torque requirements:

2" NPT plugs for inlet/outlet in lid	Tightening torque: 20 ft.-lbs.
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## **CAUTION**

1. Operating pressure for CARBON ACTIVATED canisters should not exceed 10 psig.
2. Activated carbon has been known to react adversely with some contaminants. If the effect of the contaminant you wish to treat on activated carbon is unknown, then it must be tested.
3. Best results are obtained when suspended solids in the untreated liquid are removed prior to treatment in the canister. This will prevent fouling of the activated carbon, which may result in a reduction of its useful life, and an increased back pressure.
4. Install appropriate shipping plugs and follow all State and Federal EPA Regulations when regenerating or disposing of spent carbon canisters.

## **WARRANTY**

This product is designed to remove toxic elements from liquids. However, there is no assurance of its capacity. SELLER WARRANTS THAT THE GOODS ARE AS DESCRIBED, BUT NO OTHER WARRANTY IS GIVEN, WHETHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Seller will not be liable for loss or damage to property or any incidental or consequential loss or expense from property damage due directly or indirectly from the use of the product.



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### Plumbing installation – NPT everywhere

1. Install the Tee with a pressure gauge on Drum 1's INLET.
2. Install the BARBED elbow on Drum 1's OUTLET towards Drum 2's INLET with sufficient hose length.
3. Install the Tee with a sample valve on Drum 2's INLET.
4. Install the BARBED elbow on Drum 2's OUTLET towards Drum 3's INLET with sufficient hose length.
5. Install the BARBED elbow on Drum 3's INLET.
6. Install the BARBED elbow on Drum 3's OUTLET with the remaining hose length to the sewer.

