



## Economical Wound Taste and Odor Cartridges

### Problem:

Unpleasant tastes and odors, such as chlorine and/or sulfur(rotten egg), in your water.

### Solution:

#### The Keystone Economical Dual-Purpose GWC Series Cartridges

These filter cartridges are made of activated carbon which is proven to remove bad tastes and odors by adsorption. The cartridges are tightly wound and use very fine activated carbon particles to maximize adsorption efficiency. The filter also provides 10 micron sediment removal, with a pleated cartridge surrounding the carbon.

It is very important to maintain your filter properly by changing the cartridge on a regular basis. You will find that the life of your filter cartridges can vary depending on the amount of chlorine added to the water supply in your area. The best way to determine when your taste/odor cartridge needs to be changed is to wait until the offending taste/odor returns. If your problem is minimal or your water usage is low, the cartridge should be replaced at least once a year.

### Specifications

MODEL NUMBER	MICRON RATING	MAXIMUM OPERATING TEMP. °F (°C)	FLOW RATE GPM (LPM) *	CARTRIDGE SIZE (IN.)	SHIPPING WEIGHT/ CART. (LB.)
GWC3	10	100(38)	4(15)	9.75 X 4.5	.75
GWC3-20	10	100(38)	8(30)	20.0 X 4.5	1.4

\* At 3.2 PSID

Note: This unit may be purchased with gauge to indicate sediment changeout.

### Recommendation:

Consider an acceptable flow rate for your home or business in connection with your problem.

## More Options from Keystone Filter



**Sediment Filters**  
Request Bulletin KF-2S



**Taste and Odor Filters**  
Request Bulletin KF-2TO



**Giant Housings**  
Request Bulletin GH-1



**Giant Sediment Cartridges**  
Request Bulletin GFK-2S



4-1/2" O. D. GIANT Cartridges

PCB

Benzene

Chlorine

TCE

Benzene

PCB

Printed on Recycled Paper

BULLETIN GKF-2TO  
**GIANT REPLACEMENT CARTRIDGES**  
FOR TASTE AND ODOR REMOVAL

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# What is Carbon Filtration?

**Water in your home can contain contaminants such as chlorine, sulfur (rotten egg smell), volatile organic chemicals (VOC's) and other bad tastes or odors.**

## What can you do? Solve your problems with a Keystone GIANT Whole House Filter

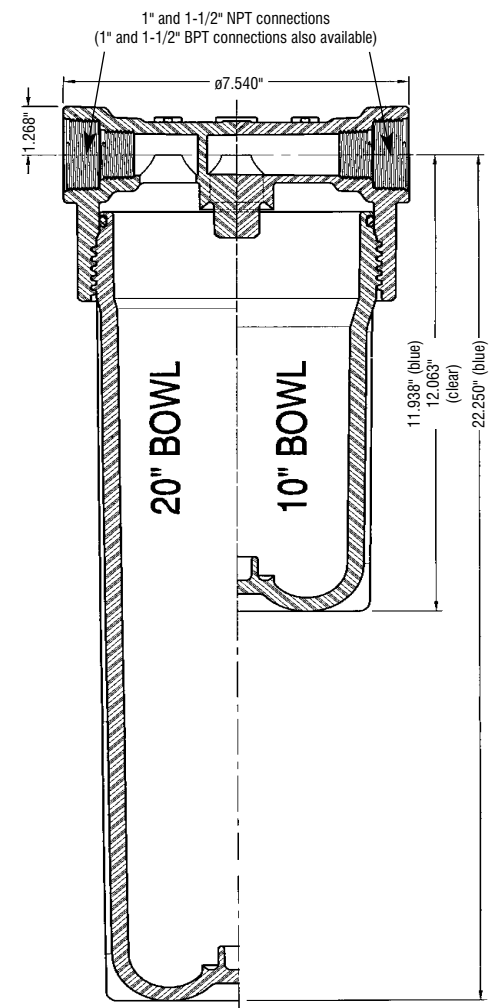
Activated carbon can be used as an effective method to adsorb various unpleasant contaminants, tastes and odors from your water. Carbon is an ideal means of eliminating these problems because it is an environmentally sound solution. Carbon is made from organic matter such as coconut shells, coal and other natural materials.

Chlorine is commonly added to public water supplies to disinfect the water. It can be absorbed into pores and inhaled when showering. The Keystone Whole House Filter using any of these cartridges can reduce this

concern. In addition, removing chlorine and toxins can give you smoother skin and shinier hair.

Effective performance of carbon filtration requires maximum contact time between the water and the carbon. It is essential that activated carbon filters be properly sized to accommodate home water flow requirements.

Keystone offers a wide choice of filter models depending on the specific problem you want to solve. Evaluate the many choices we offer and select the one that is right for your situation or call us for help with your selection.



See Bulletin GH-1 for details on Keystone's 10" and 20" filter housings

## High-Performance Carbon Block Cartridges

### Problem:

Are you concerned with numerous water problems?

### Solution:

Use Keystone GCB cartridges for sediment, taste/odor, chemical contaminant removal and Giardia cyst and lead reduction.

The most economical multi-purpose filters available today. These cartridges remove 99.9% of two micron and larger particles including Giardia cysts.

These high-performance cartridges remove or reduce:

**Heavy Metals**-Reduction of soluble lead with an ion exchange media that is specific to soluble lead.

**Chemicals**-Removal of chlorine and other chemicals including those that contribute to unpleasant tastes and odors.

**Cysts and Turbidity**-Pore sizes small enough to trap 2 micron particles which include Giardia cysts and cryptosporidium.

### Specifications

MODEL NUMBER	MICRON RATING	MAXIMUM OPERATING TEMP. °F (°C)	FLOW RATE GPM	CARTRIDGE SIZE (IN.)	SHIPPING WEIGHT/ CART. (LBS.)
GCB910	1-2	100 (38)†	1.5-2.5	9.75 X 4.50	3.2
GCB910-20	1-2	100 (38)†	1.5-5.0	20.0 x 4.50	6.6

†Install on cold water line only

### Technical Data

MODEL NUMBER	CHLORINE CAPACITY	LEAD REDUCTION	INITIAL PRESSURE DROP @ FLOW
GCB 910	>20,000 gal (70,000 l) @2.5 gpm	8000 gal @1.5 gpm	7.0 psid @2.5 gpm
GCB 910-20	>42,000 gal (159,000 l) @5.0 gpm	17,000 gal @1.5 gpm	6.5 psid @5.0 gpm

Maximum operating pressure = 125 psi

### Recommendation:

Start with a Giant sediment pre-filter on your main line to do your entire house. (See Bulletin GKF-2S)

Install one additional carbon unit for each 2 faucet/shower service as per following example:

Two bathroom house = one (1) GIANT sediment filter followed by two (2) high performance carbon block filters in parallel



### Recommendation:

A sediment pre-filter will extend the life of your carbon filter. Two carbon units in parallel will substantially increase your flow.



### Recommendation:

For maximum flow, use two units in parallel.

## High-Flow Granular Carbon Cartridges

### Problem:

Chemical contaminants such as TCE, PCB, Benzene or THM's in your water.

### Solution:

Keystone's Granular Activated Carbon (GAC) Cartridges.

The ability of activated carbon to adsorb unpleasant tastes and odors also applies to chemicals and THM's which are created when chlorine mixes with residue from decaying leaves. This filter also provides a nominal degree of 20 micron sediment filtration.

Volatile organic chemicals found in water (VOC's) include industrial cleaners, components of solvents, and gasoline. Changing the filter cartridge on a regular basis will insure that all of these contaminants are being effectively removed.

### Specifications

MODEL NUMBER	MAXIMUM OPERATING TEMP. °F (°C)	FLOW RATE GPM	CARTRIDGE SIZE (IN.)	CHLORINE REMOVAL CAPACITY (GAL.)	INITIAL PRESSURE DROP @ FLOW	SHIP WEIGHT/ CART. (LBS.)
GGAC10	100 (38)	2-4	9.75 x 4.50	12,500	9.0 psid @ 6.7 gpm	2.5
GGAC20	100 (38)	3-5	20.0 x 4.50	30,000	10.0 psid @ 6.0 gpm	4.7

## High-Flow Briquette Carbon Cartridges

### Problem:

Looking for maximum flow rate and chlorine removal.

### Solution:

Keystone's Carbon Briquette Cartridges.

These cartridges provide a high flow rate (7 gpm in 20" unit) while being able to remove 95% of chlorine (5.0 ppm) up to 9000 gallons (20" unit). Sediment filtration with a 2-3 micron rating is provided by synthetic fibers that also provide resistance to bacteria growth.

### Specifications

MODEL NUMBER	MAXIMUM OPERATING TEMP. °F (°C)	FLOW RATE GPM	CARTRIDGE SIZE (IN.)	CHLORINE REMOVAL CAPACITY (GAL.)	SHIP WEIGHT/ CART. (LBS.)
GBR	100 (38)	2-4	9.75 x 4.50	7,500	1.3
GBR-20	100 (38)	5-7	20.0 x 4.50	9,000	2.6

## Glossary

**Adsorption:** To take in or drink in, as a sponge imbibes water. Ability to adhere gases, liquids and other matter to a surface or exposed pores.

**Absorption:** Ability to take in or assimilate gases, liquids and other matter into a structure.

**Activated Carbon Adsorption:** Removal of soluble components from water by contact with adsorptive granular or powdered carbon.

**Chlorine:** A gas widely used in the disinfection of water.

**Flow Rate:** Quantity of water which passes a given point in a given period of time. Flow rate is expressed as gallons per minute.

**Giardia Cyst:** A cyst, 4 to 12 microns in size, that can cause various digestive problems such as diarrhea and vomiting.

**MCL (Maximum Contaminant Level):** Applicable for public water systems.

**Micron:** A linear measure equal to one millionth of a meter or 1/25,000 of an inch. The smallest particle that can be seen by the human eye is 40 microns. Human hair is generally 50 to 75 microns in width.

**TCE (Trichloroethylene):** A volatile organic contaminant. MCL = 0.005 mg/l.

**THM:** Organic chemicals suspected of being carcinogenic. Formed in water when chlorine reacts with decayed vegetation. Chloroform is a common THM. MCL = 0.005 mg/l.

**VOC (Volatile Organic Chemical):** Any one of a large number of organic chemicals that can be found in a water supply.

## Warnings

Operating conditions can change performance. Actual results will vary depending on combinations and amounts of organic contaminants, changes in pH or other conditions encountered in actual use.

**USE KEYSTONE FILTERS ONLY WITH MICROBIOLOGICALLY SAFE WATER. FOR WATER OF UNKNOWN QUALITY, USE ADEQUATE DISINFECTION BEFORE AND AFTER THE UNIT.**

Cartridges should be changed out at least once a year.

All information presented here is based on data believed to be reliable. It is offered for evaluation and verification, but is not considered to be a warranty of any kind.