

## FILTRATION

### Removing Contaminants and/or Sediment from your Water

Water is the most important tool for our daily lifestyle. The quality and purity of the water in our homes is crucial to us and a critical component of a healthy diet. The responsibility of the 'final barrier' is on the homeowner to provide confidence in your water.

#### ACTIVATED CARBON

Activated carbon is processed to create a high surface area with tiny pores, which makes it effective in removing contaminants.

Activated carbon is typically derived from renewable sources like coconuts, wood, bamboo, or coal. The process involves burning the material with limited oxygen to create char, followed by activation through thermal or chemical methods, which opens up its porous structure.

#### Activated carbon works in two ways:

**Chemical Reaction:** It reacts with contaminants like chlorine and chloramines, converting them into less harmful forms. Some activated carbon is specially designed for catalytic reactions to remove chloramines.

**Adsorption:** The high surface area and pore structures trap contaminants as water passes through.

Activated carbon has different types of pores, each suited for trapping different-sized contaminants. The effectiveness of an activated carbon product depends on its pore structure, making it essential to choose the right type for specific filtration needs.

#### CATALYTIC CARBON

Catalytic carbon is an advanced form of activated carbon designed for superior removal of dissolved impurities like chlorine, chloramines, and hydrogen sulfide. Made from carbon-rich materials such as coconut shells, coal, or wood, it undergoes special treatment to enhance its filtration performance.

#### How does it work?

Unlike standard activated carbon, catalytic carbon accelerates chemical reactions to break down contaminants.

This is achieved through:

**Catalytic Material Treatment** – Helps reduce chlorine, chloramines, and sulfur compounds.

#### Key Benefits:

- Superior contaminant reduction
- Versatile applications
- Longer lasting performance



#### Why Use Carbon?

Carbon will reduce chlorine that the city adds to keep the water free of bacteria. Chlorine dries out your skin and hair and breaks down the seals/o-rings in your plumbing fixtures. If chlorine is present, carbon can be put before your softener to enhance or extend the life of your softener.

If no chlorine is present, carbon can be put after a softener to improve the taste and odor of the water.

#### When to use Catalytic Carbon vs Standard Granular Activated Carbon (GAC):

Some cities use chloramines to sanitize the water and regular carbon cannot remove them. Catalytic carbon can reduce both chlorine and chloramines.

*Carbon filtration effectively reduces various water contaminants including chlorine, chloramines, volatile organic compounds (VOCs), pesticides, industrial solvents, and those causing bad tastes and odors.*

## Why Choose the ChargerPro™ Shire SYSTEM?



- **Durability and Reliability:** Known for its longevity and minimal maintenance requirements.
- **Consistent Water Quality**
- **Environmentally Friendly**
- **Customizable Settings:** Water Treatment Professionals can customize the system to meet your specific water usage needs.
- **Advanced Technology:** The control valve design provides optimum service and backwash rates.

## Shire - 1" Series

Water Filtration Systems Using Carbon



*Delivering Cleaner, Healthier Water Across America*

[www.chargerwater.com](http://www.chargerwater.com)



**Friesian with Sediment/Carbon Filter**

Model	Description
CF3100C	Filter Housing
Model	Dual Gradient Carbon Cartridges
CF3400-CT05	25 Micron/5 Micron
CF3400-CT020	25 Micron/20 Micron



**In/Out Filter**

SYSTEM SIZING			
Model	Tank Size	Standard GAC	Flow Rate
IO948CF-1	9X48	1 cu ft	4 gpm
IO1054CF-1	10X54	1.5 cu ft	6 gpm
IO1252CF-1	12X52	2 cu ft	8 gpm
IO1354CF-1	13X54	2.5 cu ft	10 gpm



**Backwashing Filter**

SYSTEM SIZING			
Model	Tank Size	Standard GAC	Flow Rate
CUCF948-1	9X48	1 cu ft	4 gpm
CUCF1054-1	10X54	1.5 cu ft	6 gpm
CUCF1252-1	12X52	2 cu ft	8 gpm
CUCF1354-1	13X54	2.5 cu ft	10 gpm

Flow rates up to 30 gpm.  
For more system sizing and flow rates,  
see additional literature.

Sizing is approximate and can change depending on water usage.  
Larger systems are available for commercial and residential.  
The In/Out and Backwashing Filter units above contain standard coconut shell 12x40 mesh  
Granular Activated Carbon (GAC) or Catalytic Carbon.

## Systems Comparison

Benefits	Filter Housing	In/Out Filter	Backwashing Filter
Removes chlorine	X	X	X
Improves water taste & odor	X	X	X
Removes chloramines*	X	X	X
Flow rates greater than 2gpm	X	X	X
Self-cleaning			X
Water usage monitoring**			X
Extended life of media			X

\*When using catalytic carbon  
\*\*When using a metered valve

