

Bone Char Carbon Filter Reduces Fluoride

Utilizes Brimac NSF Certified Granular Activated Bone Char to Remove or Reduce Fluoride

The **Fusion Bone Char Backwashing System** is fully automatic and uses all NSF and FDA approved components, including the Bone-Char. The electronic computer control cleans the Bone Char of accumulated contaminants while delivering clean, clear, fresh, water throughout your home with the fluoride being greatly reduced. It also reduces chemicals, trihalomethanes (THM's), pesticides, heavy metals, tastes and odors. The electronic control center is easy to set, and incorporates an automatic backwash which removes accumulated contaminants by automatically backwashing the filtration media.



Compare Bone Char to Regular Granular Activated Carbon:

Bone Char is different from activated carbon in that it contains both carbon surface area and hydroxyapatite lattice surface area. It offers good absorption of various heavy metals and is produced from selected grades of aged animal bones for better efficiency. Regular carbon has little affinity for fluoride, while bone char removes, or substantially reduces it.

The Story about Brimac Bone Char

Brimac Carbon Services is a UK Limited company which has manufactured Bone Charcoal for over 150 years. Brimac's main markets are the Sugar industry, Drinking water treatment and waste water / Effluent treatment. Bone char is produced by the calcification or "dry distillation" of cattle bones at temperatures approaching 1000°C in the absence of oxygen. The material consists primarily of apatite II (hydroxyapatite) and approximately 10% elemental carbon with some carbonate arising from the formation of CaO during the ashing process and subsequent

reaction with atmospheric CO₂. Uptake of contaminants can occur via three processes. Firstly, species can become incorporated within the hydroxyapatite lattice substituting for Ca or CO₃. Secondly, species can interact with reactive groups on the surface of either carbon or hydroxyapatite (Physisorption and Chemisorption). Lastly free phosphate can form stable compounds with contaminants leading to their precipitation. The material has found applications in the sugar and water purification industries as a cost effective and efficient means of removing trace impurities. The material has been shown to have a high adsorption capacity for a wide range of inorganic and organic contaminants including heavy metals. Bone char has also been used in the removal of radioisotopes from water. Bone Char is especially effective in removing radioactive particles, arsenic and THM's from the water as well as fluoride.

Not sure what size filter you need? Remember, it's always better to go a little too big than too small, because prolonged contact is what helps remove more fluoride. The faster the water flow through the filter, the less effectively it filters.

Features

- Electronic controller has only one internal moving part - simple to set. No complicated programs.
- Includes built-in bypass valve
- 24 Volt Electrical system uses less than \$3.00 electricity per year and offers no danger of electrical shock
- Utilizes patented "Vortech Tank" which requires 30-40% less water while cleansing the carbon much more effectively. The Vortech plate prevents channeling and helps increase carbon life. If it doesn't have the Vortech Tank, it's a dramatically inferior product.

Benefits

- The system removes or reduces Fluoride
- The system removes or reduces chlorine and other chemicals
- Great tasting water from every tap in your house
- No bad tastes
- No foul odors
- Crystal clear water for drinking, bathing and cooking
- Extremely user friendly
- Low maintenance due to automatic operation

For an extra degree of protection, add a reverse osmosis system for your drinking water.

Some water filtration systems require you to purchase separate water filters for each faucet - shower water filters, faucet filters, refrigerator filters, etc. This is a "whole-house" water filter system which delivers clean water with the fluoride removed, or dramatically reduced, throughout your entire home.

- Tank backwashes better than any other filter due to it's unique distribution system.
- Note: The 15 and 20 GPM Models have black tanks and no chrome tank protectors.

MODEL #	MAX FLOW RATE	TANK SIZE	CU/FT of MEDIA
FBF-2/BC	8 gpm	9" X 48"	1.0 cu/ft
FBF 3/BC	10 gpm	12" X 52"	2.0 cu/ft
FBF-4/BC	13gpm	13" X 54"	2.5 cu/ft
FBF-5/BC	15gpm	14" x 65"	3.0 cu/ft
FBF-6/BC	20gpm	16" x 65"	4.0 cu/ft