

# eNPure CAS-Series CARBON ADSORPTION SYSTEM



## Water Treatment Equipment and Solutions

### Carbon adsorption systems are designed to remove chlorine and reduce Total Organic Carbon (TOC).

The feed water is introduced into the top of the vessel, flows down through the carbon bed and is collected through a bottom underdrain system.

During filtration, the carbon sites available for chlorine, organic and particulate removal become plugged. To regenerate the carbon, it must be backwashed, requiring a two step process. First, the particulates are loosened from their tapped sites and washed away, followed by a rinse to re-compact the carbon bed.

During the first step, water enters the bottom of the vessel and lifts the carbon bed causing the bed to expand and freeing the particles and other impurities. These impurities are washed out of the carbon bed through the top distributor. In the second step, water enters the top distributor, passes through the media and drains out the bottom collector, compacting the carbon bed into its “in service” condition.

All Carbon Filter vessels are ASME Code designed and stamped. Materials of construction can be either composite, steel, or alloy. Manways and handholes are sized to suit the internals and service. Steel vessels are epoxy lined and painted with structural steel legs.

Standard internals and face piping are schedule 80 PVC, but can be available in other materials. The inlet distributor consists of either a hub or header with drilled laterals; the outlet collector consists of a hub or header with slotted laterals. The selection of a hub or header arrangement is dependent upon the size of the filter vessel. Both internal and face piping are factory supported.

Standard valving is pneumatically actuated. For line sizes 2” and smaller, ball valves are utilized; in larger line sizes, butterfly valves.

A PLC Controller to automate the backwash, rinse, and in service cycles is standard with the unit. The system is completely factory assembled and tested.



### Available Options

- Carbon Filter (Adsorber)
- Automation Delete
- Stainless Steel or Alloy Piping
- Stainless Steel or Alloy Internals
- Custom Instrumentation
- Sub-Surface Wash Header
- Air Scour Header/Blower
- Valve Upgrades
- Sight Glasses
- Resin Trap
- Multiple/Alternating Units
- Manway Options
- Lining Options
- Paint Options
- Relief Valve
- Auto Sanitization

Your source for Value Engineered Water Treatment Equipment and Solutions



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