

Dialysis Carbon Rebed

Sales Checklist

1. Obtain carbon specifications from customer.
 - a. If customer does not have a specification provide options that meet AAMI/CMS requirements.
2. Verify EBCT with customer for flow rate.
3. Review the following with customer to determine correct type of carbon.
 - a. Carbon Quantity
 - b. Iodine Number
 - c. Mesh Size
 - d. Acid Washed - Yes or No?
 - e. Required EBCT
 - f. Total Flow – Permeate + Reject
 - g. Calculated EBCT
4. Here is an excerpt from the AAMI/ANSI/ISO dialysis recommendations.

*When granular activated carbon is used as the media, it shall have a **minimum iodine number of 900**, and each bed(both worker and polisher) shall have a minimum empty bed contact time of 5 minutes at the maximum flow rate through the bed. Other forms of carbon should not be used unless there is performance data to demonstrate that each adsorption bed has the capacity to reduce the chloramine concentration in the feed water to less than 0.1 mg/L when operating at the maximum anticipated flow rate for the maximum time interval between scheduled testing of the product water for chloramines. Regenerated carbon shall not be used for hemodialysis applications. Some granular activated carbon contains aluminum, which can elute from the carbon and add to the burden of aluminum to be removed by reverse osmosis or ion exchange. **The use of acid-washed carbon minimizes this source of aluminum in the water.** In some circumstances, carbon adsorption may not adequately remove chloramines from water.*

To determine EBCT here is the formula:

Volume (CuFt) = Flow rate (GPM) x EBCT / 7.48 (number of gallons in one CuFt of carbon)

Example: 10 GPM x 5 minutes / 7.48 = 6.69 CuFt (So, in a worker / polisher arrangement in order to get a 10 GPM flow, we need each tank to have 6.69 CuFt of carbon)