

## **Calcite PH Neutralizer System**

### **Installation, Operation, and Maintenance Manual**

#### **Facts About Calcite Ph Neutralizers**



**Calcite is a crushed and screened white marble media which can inexpensively be used to neutralize acidic or low pH waters to a neutral, less corrosive effluent. Calcite is a naturally occurring calcium carbonate media. One of the advantages of Calcite is its self-limiting property. When properly applied, it corrects pH only enough to reach a non-corrosive equilibrium. It does not overcorrect under normal conditions.**

**Upon contact with Calcite, acidic waters slowly dissolve the calcium carbonate to raise the pH which reduces the potential leaching of copper, lead and other metals found in typical plumbing systems. Periodic backwashing will prevent packing, reclassify the bed and maintain high service rates. Depending on pH, water chemistry and service flow, the Calcite bed will have to be periodically replenished as the Calcite is depleted.**

## **ADVANTAGES**

**Naturally occurring material**

**Low uniformity coefficient for maximum contact for controlled pH correction**

**Slower reacting for controlled pH correction**

**Inexpensive**

## **PHYSICAL PROPERTIES**

**Color: Near white**

**Bulk Density: 90 lbs./cu. ft.**

**Mesh Size: 16 x 40**

**Specific Gravity: 2.7**

**Effective Size: 0.4 mm**

**Uniformity Coefficient: 1.5**

**Hardness: 3.0 (Mohs scale) • Composition: CaCO<sub>3</sub>, 95% min. MgCO<sub>3</sub>, 3.0% max.**

## **CONDITIONS FOR OPERATION**

**A gravel support bed is recommended**

**Water pH range: 5.0-7.0**

**Bed depth: 24-30 in.**

**Freeboard: 50% of bed depth (min.)**

**Backwash rate: 8-12 gpm/sq. ft.**

**Backwash Bed Expansion: 35% of bed depth**

**Service flow rate: 3-6 gpm/sq. ft. but may be modified to adapt to local conditions**

**As the Calcite's calcium carbonate neutralizes the water, it will increase hardness and a softener may become necessary after the neutralizing filter. Calcite can be effectively**

combined with Clack Corosex to combine the high flow neutralization properties of Corosex, along with the slower reacting low flow properties of Calcite, increasing the ability to correct low pH. Corosex only has to be used with water that has pH levels below 5.0 in most applications.

## Included in the Box

Mineral tank with dome hole and plug Color Almond so you can see calcite level for easy monitoring of when to add calcite to your system : generally one - 50 pound bag every six months which can be purchased from us at

<https://www.qualitywatertreatment.com/product/calcite-limestone-replacement-media-2/=11>

One - Backwashing control valve with bypass valve.

Appropriate amount of bedding gravel. Gravel might be in your tank already for shipping reason.

Appropriate amount of Calcite limestone.

Distributor tube in tank, Distributor tube should be flush with top of tank.

Media funnel to add gravel and Calcite to tank when installing system.

## Installing your Calcite Filter:

Precautions and Notes to the Installer •

Install System on cold water line only.

- Do not let the system freeze.
- Place the system on a smooth, level surface in a vertical position.
- If you have or are installing a water softener with this system, the Calcite filter goes before the water softener.
- Backwash Calcite Filter and let it finish wait 2 hours once back wash is initiated before putting water softener in service or running water in home.

**Plug center distributor tube as show in picture in figure 3 below, make sure distributor tube is flush with top of tank as shown in figure 3. Note: a ¼" over top of tank is acceptable.**

**Place plastic media funnel over tank as shown in Figure 4.**

- 1 ) If Gravel is not already in the tank, add gravel first.**
- 2 ) Add Calcite. Note: 1 cubic foot system = two bags, 1.5 cubic foot system = three bags, 2.0 cubic foot system = four bags, 2.5 cubic foot system = five bags.**
- 3 ) Remove funnel and uncap distributor tube**
- 4 ) Clean tank thread with water**
- 5 ) Hand tighten control valve onto tank, Note: Be sure to line distributor tube up with center pilot hole on bottom of control valve so it slides into hole as screwing valve onto tank.**
- 6 ) System has to be plumbed in after your pressure tank in order to operate properly.**



*Figure 3*



*Figure 4*

## **Set up procedures after you have installed your system.**

- 1 ) Turn water on to system**
- 2 ) Slowly open the system bypass valve and let the calcite filter fill with water**
- 3 ) Once tank is full, close the bypass valve back to the bypass position.**
- 4 ) Follow your owners manual that came with your system and put the valve into the back wash position, this will bleed the excess air off the top of the tank eliminating the air pocket.**
- 5 ) With system still in the backwash mode open bypass valve back to the service position and let system finish the regeneration process, wait two hours so system can complete. Check drain line and system for leaks during this time.**
- 6 ) Follow your owners manual and set system to backwash every four days, this is a minimum requirement for system to operate properly.**
- 7 ) Once system regeneration is completed you can start the set up on your water softener if applicable or start using the water in the home. Note: You might have some air and possible milky water that will clear in a glass if you let it sit for a few minutes do to air, this is from the installation and will clear up as you run water.**

**For replacement Calcite media please visit us at:**

**<https://www.qualitywatertreatment.com/product/calcite-limestone-replacemet-media-2/>**