



## **WTCUP UPFLOW NEUTRALIZERS**

### **OPERATION:**

The WTCUP Neutralizer requires no backwashing. The water enters the unit from the bottom of the tank and passes upward through the acid neutralizing bed. This unique design eliminates the need for a control valve and the extra water needed to regenerate an automatic filter. The WTCUP is designed for use on a water supply that is clear, iron free, manganese free, sediment free and a pH below 7.0. Never install these units for any other purpose except pH correction. All warranties will be void if a 20 micron prefilter is not installed on the inlet side of the WTCUP unit. The unit is equipped with an upper strainer assembly to prevent mineral loss and a machined sch. 80 pvc dome plug for recharging the neutralizing bed.

### **COMPONENTS SUPPLIED WITH THE WTCUP UNIT:**

- WTCUP Valve made of Noryl® with upper strainer made of ABS
- Inlet and Outlet fitting package including nuts, snap rings, o'rings and ¾"/1" PVC pipe connections
- WTCUP tank made of non-corrosive materials and supplied with a dome plug, distributor pipe, gravel, calcite, and NS-Mix.

### **COMPONENTS SUPPLIED BY THE INSTALLER:**

- 20 Micron Cartridge Filter with either ¾" or 1" connections
- Inlet, Outlet and Bypass Ball valves for external installation piping
- All external installation piping

### **NEUTRALIZING MEDIA:**

**Calcite:** A crushed and carefully screened white marble material used to increase the pH of the water supply. Increasing the pH will eliminate the corrosiveness of the water. Calcite dissolves into the water which increases the pH and hardness. Calcite is the only filter material that is sacrificial, and must be added to periodically because of its dissolving nature. Since the Calcite filter increases hardness, a water softener is recommended. A water softener is installed after the Calcite filter to remove the hardness and any Ferrous Bicarbonate Iron.

**Magnesium Oxide** Is used in conjunction with Calcite to increase the pH of the water supply. We call this mixture NS –Mix. NS-Mix can raise a pH from 5.5 to neutral and is recommended on any water that has a pH between 5.5 and 6.0. Magnesium Oxide has the same sacrificial properties as Calcite.

### **OPERATING LIMITS:**

The unit is designed to function with minimum water pressures of 20 psi, maximum water pressures of 100 psi, and a maximum water temperature of 100 degrees F. Untreated water must be clear, sediment free, iron of less than 0.3 ppm and manganese of less than 0.05 ppm.

### **SPECIFICATION TABLE:**

<b>Model</b>	<b>MUN Flow Rate</b>	<b>Tank Dimensions</b>	<b>CF Capacity of Neutralizer Media</b>
WTCUP15ANX	5/6 gpm	10" x 54"	1.5
WTCUP25ANX	7/9 gpm	13" x 54"	2.5

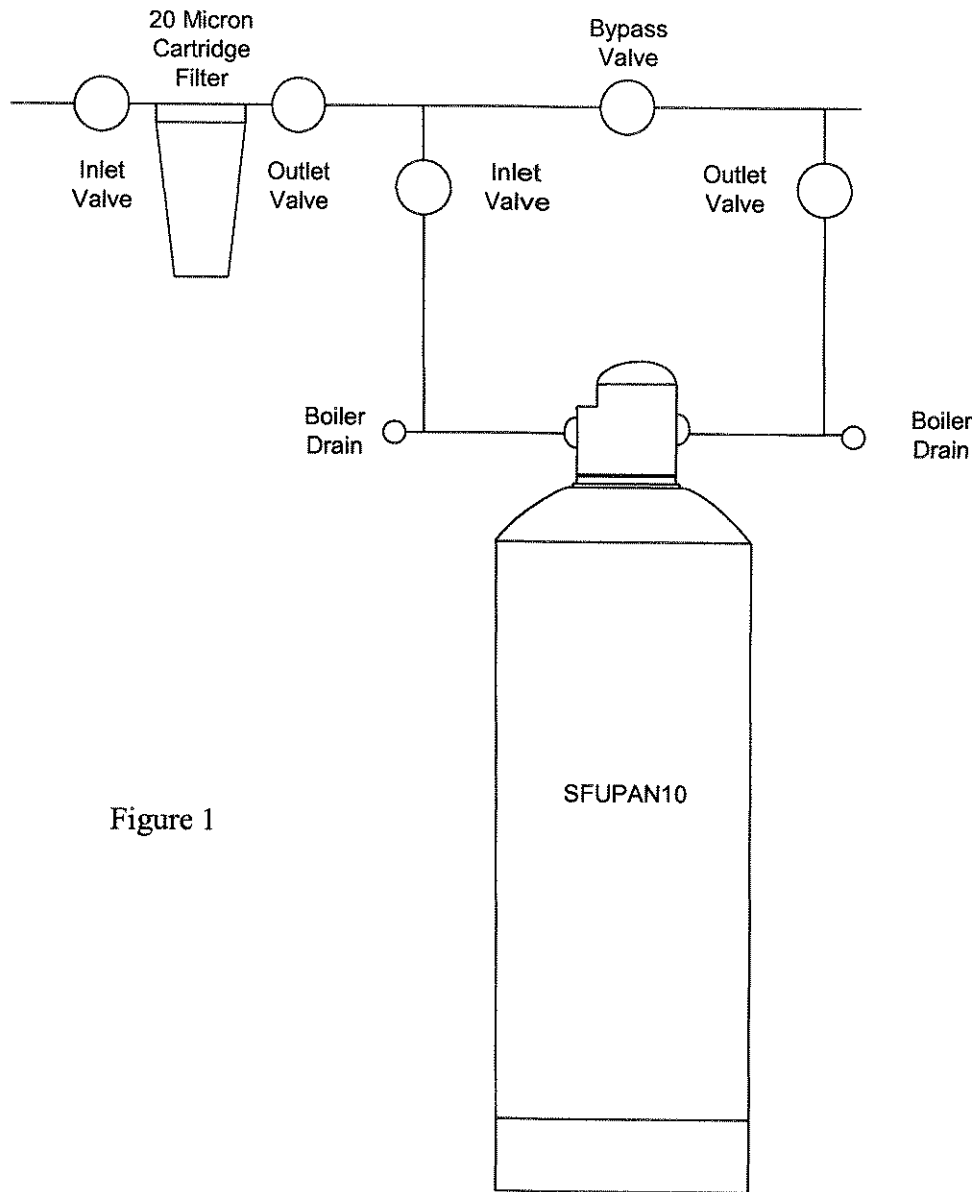


Figure 1

**INSTALLATION INSTRUCTIONS:**

1. Place conditioner in desired position. Keep unit far enough away from walls and other obstructions to allow for servicing the unit.
2. Remove the Dome Plug from the top of the mineral tank. Fill the mineral tank with the provided media, which is shipped in separate cartons. Secure Dome Plug to tank.
3. Use teflon tape on the 6" gray nipple and secure nipple to outlet of 20 micron prefilter assembly and the inlet of the WTCUP head assembly. **DO NOT OVER TIGHTEN OR STRAINER AND HEAD ASSEMBLY WILL CRACK.**

4. Pipe unit into the service lines by following Figure #2. All piping connections are 3/4". If using copper pipe, make all sweat connections away from the tank, strainer and head assemblies or the heat will damage them and void warranty. Use unions on the inlet and outlet connections.
5. Pipe a boiler drain into the inlet and outlet piping as shown in Figure #2.
6. Open inlet stop valve and outlet boiler drain. Close inlet boiler drain, bypass valve and outlet stop valve.
7. Direct water from the outlet boiler drain to a floor drain. Run water until the water becomes clear. When clear, close outlet boiler drain and inlet stop valve. Open the inlet boiler drain, bypass valve and outlet valve. Direct water from the inlet boiler drain to a floor drain until the water becomes clear. When clear, close inlet boiler drain and bypass valve and open the inlet stop valve. The unit has been thoroughly purged.
8. The unit is now in the service position and will produce a pH of 7.0 or greater, which will prevent the blue/green stains on your fixtures. If stains re-occur please recharge the unit with the proper neutralizing mineral. See recharging instructions attached.
9. If an extreme loss of water pressure occurs, support the 20 micron prefilter assembly and unthread the white sump, remove the stainless steel strainer and clean. Return all parts and **HAND-TIGHTEN** white sump to prevent damage.