

## Residential Applications for Homes, Apartments and Condominiums

**Typical problems and/or concerns in household water systems resulting from contaminated (hard water) water.**

- Unpleasant taste of drinking water (chlorine, fishy or stale etc.).
- Spotting on dishes or glass ware.
- Clothes and linens are stiff, do not come clean.
- High cost of heating water due to corrosion in elements.
- Clogging of lines and inadequate performance of appliances such as dishwashers, washing machines, and showers.
- Inadequate performance of heating, ventilation or air conditioning.
- Lawn and garden watering does not produce desired root growth nor satisfactory plant production.
- Pools and spas, decorative water features and aquariums require excessive chemical treatment and maintenance.

The Triangular Wave Technologies systems help virtually all these matters and produce high quality water for the entire household. A complete Triangular Wave Technologies system may utilize all or only some of the following items depending upon the nature of the problems.

Solutions:

### **A. Filtration**

For residences located in rural areas where the source of household water may be ponds, wells or streams that have high exposure to contamination from airborne pollutants, surface run-off, agricultural or industrial waste or similar dangers, the first step in achieving clean water is to install a primary filtration device, that effectively remove particulate matter and similar debris.

### **B. Deposit Control**

The TWT Deposit Control system, comprised of a microprocessor unit and a solenoid coil (either an on-site wrap or a factory wrapped reaction chamber), provides an array of benefits:

- Removes and prevents scale build-up and bio-film deposits (descales entire plumbing system over time).
- Improves efficiency of all water-fed appliances and extends their useful life (saves 5% to 30% on water heating bills).
- Provides the effects of softened water without the harsh chemicals by neutralizing calcium hardness effects in water, and leaving in the beneficial minerals.
- Less scum formed on the bathtub, and an improved soap lather.
- Eliminates septic bed toxic salt poisoning.
- Requires minimum space.
- Requires only \$10-\$14 per year of electricity.
- Non-invasive, safe and maintenance-free.
- Pays for itself quickly and provides continuous savings throughout its life.
- Controls algae and bacteria (they are dispersed in the water and prevented from attaching to surfaces where they feed and reproduce), thus eliminating damage to vessel surfaces from bio-growth.
- In effect, a clean, bio-film, corrosion-free plumbing system is restored and maintained in an environmentally safe, responsible, and chemical-free manner.

### **C. Purification**

In residential locations lacking adequate treatment systems with effective purification methods for treating water-borne microorganisms (bacteria, viruses, etc.) that threaten health, or when existing systems are inadequate or poorly managed, the ultra violet method of purification produces water that is disease and pathogen-free. It effectively kills 99.9% of microorganisms including bacteria and viruses. The UV lamp requires replacement every 10 to 12 months (a simple 10 minute procedure).

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### **D. Filtration**

The ultimate method is via the Whole House Water Filtration System ( a dual tank system that provides extraordinary performance and longevity of service).

The second method is via point-of-use filtration units at water taps in the kitchen and bathroom, and shower-head filters in the bath.

All of these filtration methods employ the patented KDF technology, they provide a bacteriostatic environment and are designed to remove chlorine, lead volatile organic chemicals, hydrogen sulfide and sulphur, herbicides, pesticides, chemical fertilizer residues, trihalomethane and many other pollutants. These filters remove odor and restore the taste and clarity of municipally treated water. They are comprised of KDF, a specially formulated copper/zinc alloy media, and GAC, granular activated carbon, which combine to provide a highly effective filtration system. In comparison, some filtration systems eliminate only a portion of these pollutants. In addition, some of these systems contain filters that must be changed frequently (every few months). The Triangular Wave Technologies point-of-use filters effectively treat 7,500 gallons or more (nearly a 2 year supply of water for the average household) and the Whole House Unit filters in excess of two million gallons. Removing the chlorine is a strong health advantage.

These steps provide a totally safe system for household water. However, all steps may not be required depending upon the specific conditions. A buyer may only wish to employ point-of-use filtration. Or if the user is confident that his water supply comes from a well managed municipal system, he may eliminate the sediment filter and the ultra-violet treatment. All households can benefit from installation of the Triangular Wave Technologies Deposit Control System.

### **E. Swimming Pools & Spa Disinfection System**

Keeping swimming pools free of bacteria and algae is a constant battle. The standard treatment regimen is chlorine. Chlorine brings with it the safety of handling concerns, unpleasant eye irritation, bleaching of clothes, and deterioration of equipment. Another common treatment practice is "ionization". Triangular Wave Technologies Deposit Control System and Ionuard Purification System offer a safe and economical substitute for chlorine or other chemical treatments. Chemical treatment may be reduced by 80% or more, making the swimmer's experience much more gratifying.

Consider these compelling facts:

**Water is simultaneously one of the most precious and yet potentially most abused or dangerous substances. Clean water is absolutely essential to human health.**

Even a small amount of contaminated water can result in serious illness. Yet most all sources of drinking water on the planet today are contaminated. The United Nations World Health Organization has declared that increasing levels of pollution in water is one of our most serious worldwide health problems .

**A recent survey conducted by the US Environmental Protection Agency (EPA) showed significant levels of contamination in the drinking water sources in virtually every state in the US.**

Exposure to such harmful contaminants is today unnecessary and can be virtually eliminated by the use of TWT components and fully configured systems, producing high quality water and well maintained plumbing systems.