

## **REFrigerated REcycled Sanitary & Hygienic**

*With REFRESH™ systems, AVANTech provides recycled high quality sanitized and hygienic pure water for vegetable washing and plant operations.*

### **REFRESH™ System Benefits**

- ✓ Produces sanitized and hygienic pure water
- ✓ Produces high quality disinfected product water
- ✓ Removes bacteria
- ✓ Prevents cross contamination
- ✓ Can achieve recycle >75%
- ✓ Reduces capital costs
- ✓ Reduces O&M costs and sewer charges
- ✓ Operates in cold chain environment
- ✓ Returns water to plant at lowest temperature possible
- ✓ Saves energy needed for chilling
- ✓ Meets discharge requirements
- ✓ Offers potential for zero liquid discharge
- ✓ Doesn't harm the environment
- ✓ Doesn't deplete natural resources
- ✓ Lease and Design/  
Build/Operate/Maintain  
(DBOM) options  
available



Recycling cold treated water from the food washing process increases safety and decreases water use.

*We design, manufacture, and install systems that meet your operational and budgetary needs and accommodate your space/layout constraints.*



# REFRESH™ Process Water Systems

## REFrigerated REcycled Sanitary & Hygienic

### Innovation in Food Safety

Because it's vital to prevent contamination of our food supply, modern fresh-cut vegetable and food service facilities operate within a complete **cold chain environment**. This means that fruit and vegetable products are kept under refrigeration (32°F - 38°F) from the time they're harvested until they're purchased by the consumer.

To maintain the cold chain, the water used to clean the produce must be chilled. The cost of purchasing and cooling this water is high, as many of today's washing processes use a "flume" system that recirculates wash water with no treatment -- or only introduction of disinfectant -- between washings. This process creates the potential for cross contamination.

AVANTech's patent pending **REFRESH™ Process Water System** delivers valuable improvements. It provides a cost effective method of treating and recycling cod waste water from the washing process, facilitates use of a one-pass wash system, and eliminates the possibility of cross contamination.

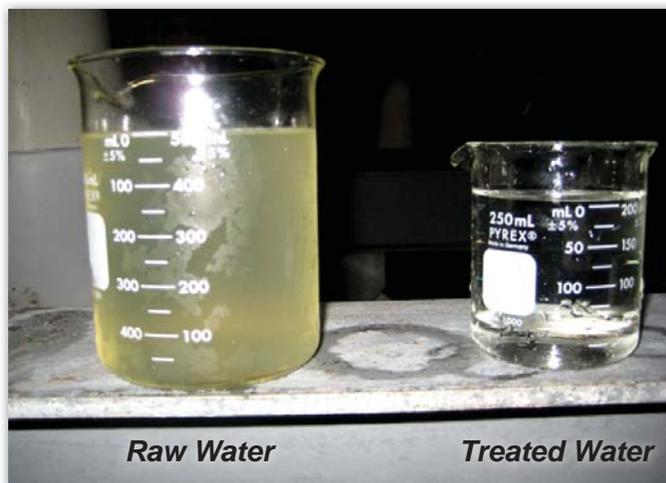


### Pilot Testing

A pilot study is indispensable for optimizing the performance of a wastewater treatment system.

**AVANTech pilot testing can:**

- ✓ Evaluate feedwater quality baseline
- ✓ Provide specific design criteria
- ✓ Verify treatment system compatibility
- ✓ Verify component performance
- ✓ Qualify and optimize system parameters
- ✓ Determine system cost effectiveness
- ✓ Optimize system cost
- ✓ Establish basis for guaranteed performance
- ✓ Determine feasible recovery rate (%)
- ✓ Estimate cost of consumables
- ✓ Train operators



### DBOM Lease Option

One contract option we offer is a DBOM lease. The lease rate includes the operation, maintenance, capital, and consumable costs for this service, thus allowing your staff to focus on production as we save you money.

**AVANTech's sustainability objectives focus on water reuse, energy efficiency, and reduced liquid discharge.**