SCALEBLASTER®
WATER CONDITIONER

Sustainable Solutions to Hard Water Problems

APPLICATIONS

CLM-518

Food Canning

Food Canning Applications

What does canning do?

Canning is an important, safe method for preserving food if practiced properly. The canning process involves placing foods in jars or similar containers and heating them to a temperature that destroys micro-organisms that cause food to spoil. During this heating process air is driven out of the jar and as it cools a vacuum seal is formed. This vacuum seal prevents air from getting back into the product bringing with it contaminating micro-organisms.

Safe Canning Methods

There are two safe ways of processing food, the boiling water bath method and the pressure canner method:

- The boiling water bath method is safe for tomatoes, fruits, jams, jellies, pickles and other preserves. In this method, jars of food are heated completely covered with boiling water (212°F at sea level) and cooked for a specified amount of time
- Pressure canning is the only safe method of preserving vegetables, meats, poultry and seafood. Jars of food are placed in 2 to 3 inches of water in a special pressure cooker which is heated to a temperature of at least 240° F. This temperature can only be reached using the pressure method. A microorganism called Clostridium botulinum is the main reason why pressure processing is necessary. Though the bacterial cells are killed at boiling temperatures, they can form spores that can withstand these temperatures. The spores grow well in low acid foods, in the absence of air, such as in canned low acidic foods like meats and vegetables. When the spores begin to grow, they produce the deadly botulinum toxins(poisons).

Boilers and hot water heaters - ScaleBlaster will take care of lime scale deposits in boiler tubes, pumps, pipes and the hot water tanks and heating coils.

Cooling system - ScaleBlaster will control line scale deposits on cooling tower fill, pipes, pumps, valves and condensers.

Refrigerants - Meat processing plants require large cold storage facilities. The release of ammonia into the atmosphere from leaks from cooling equipment is a health and safety issue. **ScaleBlaster** will help control plumbing, piping, cooling, heat exchangers, all HVAC systems to run in a clean and efficient state, avoiding bio-corrosive conditions which may lead to leaks.

Packing Machines - ScaleBlaster will help prevent pitting of water channels in aluminum headers that cool shrink-wrapping machines.

Ovens - ScaleBlaster will control lime scale deposits on spray nozzles that douse the cooked meat product with cooling water. Ovens are cleaned with high pressure hot water jets and chemicals. Our unit will extend the life of the cleaning equipment and reduce time to service the equipment.

Energy Savings

By reducing lime scale deposits in pipes, condensers and cooling towers, there will be considerable savings in reduced pumping costs and greater heat exchange efficiency.

Wastewater Discharges - Abattoirs use large volumes of water to maintain clean and hygienic conditions. Water may be used to hose down or pressure wash floors, machinery and containers. Waste may include blood, skin, bone, hair and salt solutions. **ScaleBlaster** will reduce clogging of spray and hose equipment and aid in the reuse of water.

Maintenance Savings by ScaleBlaster - Meat packing uses equipment like grinders, extruders, slicers, and mechanical devices for packaging. This equipment needs continuous cleaning and disinfecting. The ovens, curing booths, smokers, aging racks, pressure cookers, vacuum seal paging equipment, cutting tables, saws, and conveyors all need cleaning. Cleaning takes almost as much time as processing.

ScaleBlaster water is free of other contaminants and can do a better job with less chemicals, labor and dwell time.