

## C A S E S T U D Y

### Hot Tub Water Challenge

#### OVERVIEW

A new hot tub (with a high flow pump allowing swimming against the flow of the water!) was installed by a family in Ontario Canada to replace their older standard 4-person hot tub. The two teen age kids of the family as well as the homeowner love swimming and wanted to have the ability to swim all year round (in this part of Canada the winter air temperature is -20°C so the water is heated by a gas-fired furnace).

#### WATER SYSTEM CHALLENGES

The water in the new hot tub (city water at medium hardness, approx.. 100-110 mg/L total hardness) is kept at a constant comfortable 28°C during the summer and the long winter, and the main challenge is scale for a closed circuit with such warm water. The family had to treat their older hot tub annually with acidic chemicals to remove scale formations from all surfaces and internal parts (pump and pipes) and keep it algae-free.

#### SOLUTION

A 1-1/2" ScaleBuster (ION SB40-ET) was installed in the primary loop before entering the pump and back to the tub to enhance the quality of the water and prevent scale which can affect flow rates hence damaging system performance. No scale or corrosion inhibitors are added to the water, the only chemical used is Bromine (tablets, in a soaking canister) to prevent biological contamination and algae that flourish in this hot temperature.

#### RESULTS

Water improvement compared to the situation with their previous hot tub was observed immediately, all surfaces were kept shiny with no trace of scale residue for over 12 months of initial operation (water samples analysis showing increase in pH from 6.9 to 7.2, even though the hardness stayed similar at about 100 ppm). The family are very happy with the results, keeping their hot tub scale free at no extra costs.

#### ABOUT THE TECHNOLOGY

The patented **ScaleBuster®** technology completely replaces traditional chemical treatment; providing control of scale and corrosion in various water process systems to create an exceptionally clean system. This dramatically reduces energy and water consumption, while reducing or, in certain cases, eliminating toxic water discharge to the environment.

