

## C A S E S T U D Y

### Warehouse Closed loop Cooling system (Abu Dhabi, UAE)



#### OVERVIEW

New state-of-the-art cooling system (Smart Cooling system) is installed for 100sqm warehouse for energy reduction.

#### WATER SYSTEM CHALLENGES

The new cooling system is a closed loop installed in Abu Dhabi where temperature during the long summer reaches over 50°C in the shade, and that water challenges are scale and corrosion for such closed circuits.

Primary loop of the system consists of Stainless-Steel piping, brass valves and galvanized tanks where galvanic corrosion is a challenge too.

#### SOLUTION

A ¾" ScaleBuster (ION SB20-ET) has been installed on the primary loop before entering the pump and back to the chiller to enhance the quality of the water and prevent scale and corrosion which can affect flow rates hence damaging system performance.

No scale or corrosion inhibitors were injected whatsoever into the system.

#### RESULTS

Water improvement was observed (based on water samples analysis showing increase in pH from 6.8 to 7.2, dropping TDS from 198 to 118 ppm. Local owners are very happy with the results, saving them not only in operational expenditure (OpEx) but also extending the chiller and pump's life expectancy (which falls under capital expenditure or CapEx).

#### 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.