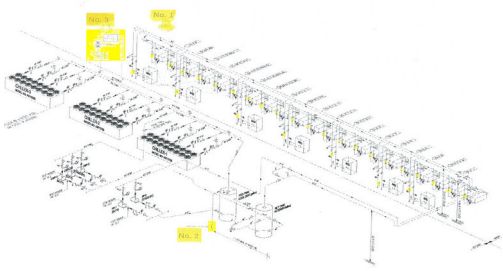
ION Enterprises LTD
ScaleBuster Technology

CASE STUDY

RD Plastics IL USA



OVERVIEW

RD Plastics is a leading manufacturer of injection molding plastic components for the automotive industry.

WATER SYSTEM CHALLENGES

Closed circuit cooling water is used for the cooling the tools. As makeup water for the cooling circuit (water-air chillers), RD uses a blend of city water and storm/rain water. Due to the jellification in the chillers, the hardness concentration resulted in a diameter decrease in the cooling ducts of the tools.
This issue was countered by a partial softening to approximately 10°dH and coping with the remaining problems. The softening system required regular regeneration with approximately over 25,000 gallon (100m3) of fresh water (and a lot of salt) every week.

SOLUTION

RD Plastics had installed three sub-systems: No. 1 shows the **ScaleBuster** units for each HX (entry) for each and every tool. No. 2 shows the makeup ScaleBuster which treats the water entering the cooling circuit and No. 3 shows the side stream which removes the precipitated hardness (using bag filters) as well as adds more corrosion protection for 300-350 US gpm (68-80 m3/h). The **ScaleBuster** units were chosen according to the flow rates for each machine.

RESULTS

The solution resulted in the effect of lime-free tool cooling ducts and the discharge locations of the re-circulating water (which previously required regular de-scaling) was free of scale and maintenance free. The maintenance engineer also reported less corrosion in the tools (which in the past required regular maintenance by Tool & Die manufacturers every 6-12 months). The General Manager said that including the saved salts, water and maintenance (labor) the **ION ScaleBuster**® conditioners will be amortized after less than 2 years, however the real success was the better plant efficiency (the drastic reduction in downtime).

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.

SCALEBUSTER technology