

Process Temperature Control: Batesville Casket



INDUSTRY CASE STUDY

PROBLEM

Batesville was experiencing paint line flow issues during periods of high ambient temperature. Many colors struggled with viscosity issues due to extreme changes in ambient temperature.

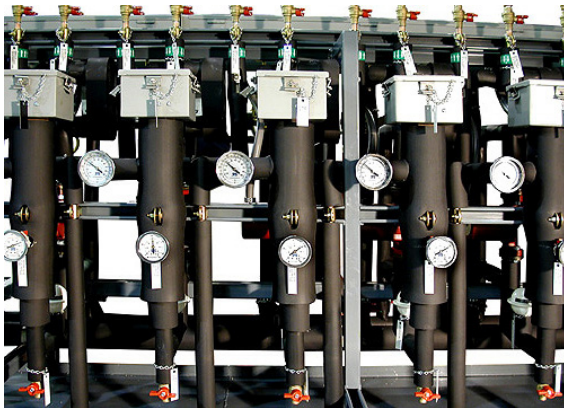


PROCESS TEMPERATURE CONTROL CASE STUDY



THE ANALYSIS

Their system addressed temperature by using electric heaters and brazed plate heat exchangers, but nothing for cooling the paint. The controllers were not able to maintain the desired setpoint when temperatures rose because of the lack of cooling. Their brazed plate heat exchangers were not matched correctly with their pumps, causing failures which lead to water and paint mixing.



THE SOLUTION

Saint Clair designed a system that individually controls each of the 28 solvent-based colors, allowing the setpoint to be maintained to $\pm 1.0^{\circ}\text{F}$. High pressure stainless, shell-and-tube heat exchangers that could withstand the constant pulsations of the paint system, replaced their brazed plate heat exchangers. The water circulating through the system originated from one dedicated chiller making it more convenient and easier to maintain

THE RESULTS

The scrap rate went from above 10% to below 2%. Batesville addressed VOC output issues by using temperature to control viscosity as opposed to solvents.

Since 1990, Saint Clair Systems has supplied over 3,600 temperature control systems around the World. Our engineering team provides cost effective solutions to manufacturers that understand that quality and productivity are too important to leave to uncontrolled variables. If you are interested in controlling your process, please contact us or visit our website for additional information.