

INDUSTRIAL COOLING:

REACHING OPTIMAL SYSTEM PERFORMANCE

GRUNDFOS
iSOLUTIONS | A SMART SOLUTION
FOR YOU

FIND OUT HOW GRUNDFOS iSOLUTIONS ENABLED A MAJOR US ADHESIVES MANUFACTURING COMPANY TO OPTIMIZE PERFORMANCE AND SAVE SIGNIFICANT OPERATING COSTS WITH A PAY-BACK TIME OF LESS THAN 2 YEARS

For the major US adhesives manufacturing company, improved system reliability and minimized system loss were key drivers for choosing Grundfos iSOLUTIONS in its cooling tower application. Thanks to constant temperature control, the company now has less system complexity with no need for traditional regulation valves.

MINIMIZED
SYSTEM LOSS

77%
ENERGY SAVINGS

\$44,970
SAVED A YEAR

be
think
innovate

GRUNDFOS 

be think innovate



EXISTING SYSTEM:

Existing pumps details (Loop A):

x2 end-suction pumps

Existing pumps details (Loop B):

x2 end-suction pumps

Existing control mode:

Fixed speed

Existing operation model:

Uncontrolled, all x4 pumps running at full speed (100%)

Loop A: 65.8 hp/pump

Loop B: 27.8 hp/pump

NEW SYSTEM:

New system details (Loop A):

Grundfos 50123 LCSE + CUE 3X 460v 30 hp + temperature sensor

New system details (Loop B):

Grundfos 50957 LCSE + CUE 3X 460v 30 hp + temperature sensor

New control mode: Temperature control – Constant temperature

New operation mode:

Pumps will adjust their speed depending on how much flow is needed to guarantee a constant temperature in the heat exchange pipe

New measured P1: 14.2 hp/pump (-77.8%) + 6.4 hp/pump (-76.89%)

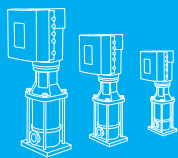
SOLUTION & OUTCOME

Based on decades of cooling application knowledge, Grundfos delivered an out-the-box solution with built-in controls. This has enabled reliable process optimization with improvements to the entire existing pump system.



EASY OPERATION

As pump and control is built to compliment each other, operation is made easier and ensures reliable process optimization.



FULL CONTROL

Constant temperature control is built into the pump. This benefits most systems in terms of reliability, user-friendliness, process adaptability and operating efficiency.



REDUCED OPEX

Investing in intelligent control and high-efficiency pumps has improved operation, minimized downtime, reduced repair, and resulted in energy savings of 367,511.04 kWh per year.