

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**

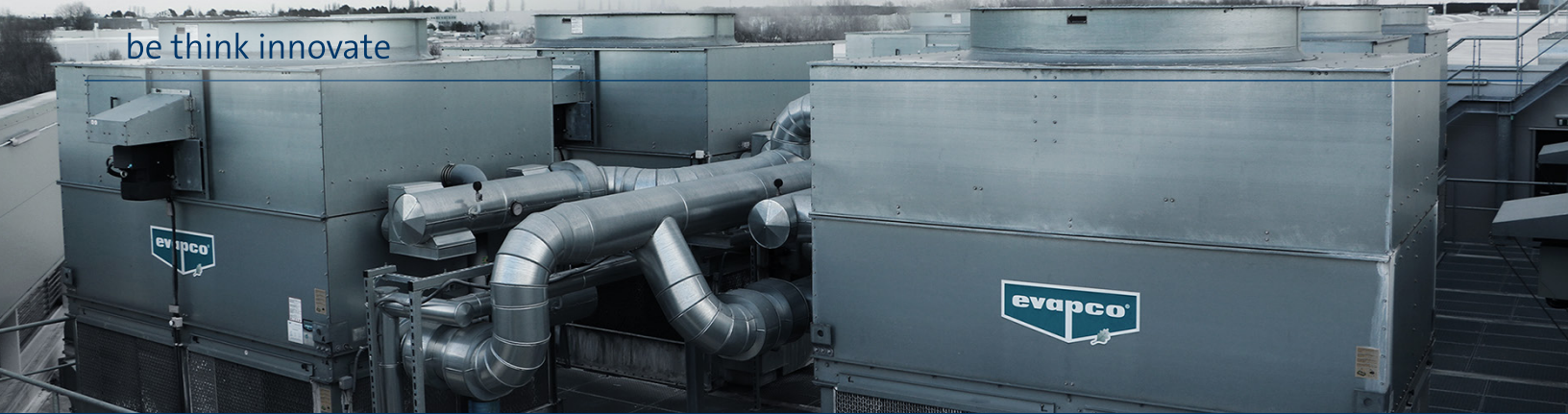
For the major US adhesives manufacturing company, improved system reliability and minimized system loss were key drivers for choosing Grundfos iSOLUTIONS in its cooling tower application. Thanks to constant temperature control, the company now has less system complexity with no need for traditional regulation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

**MINIMIZED**  
SYSTEM LOSS

**77%**  
ENERGY SAVINGS

**\$44,970**  
SAVED A YEAR

be think innovate



## 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%)

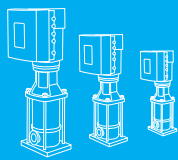
## SOLUTION & OUTCOME

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.