

# CASE STUDY



## PETROCHEMICAL PLANT IN SAUDI ARABIA

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LEARN HOW HAWS' ENGINEERED SOLUTIONS  
DIVISION CREATED A CUSTOM SAFETY EQUIPMENT  
SOLUTION FOR A PLANT IN THE MIDDLE EAST.



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*Petrochemical Plant  
Saudi Arabia*

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Responding to industrial emergencies becomes more challenging every day with new advancements in the industrial technologies. It seems as though every product advancement and manufacturing process improvement invariably drives greater risk. Consequently, the ANSI standards that regulate emergency response procedures become more stringent with each new update.

The traditional approach of specifying standard off-the-shelf emergency equipment often can't keep pace with each plant's specific requirements. Finished applications often package emergency drench showers, eyewashes, water tempering and/or reverse tempering and re-circulation capabilities. Balancing and matching all of the components needed in a single application and planning for the possible simultaneous use of several installations is no small feat!

With Engineered Solutions™, Haws® continues to push equipment to a new level of innovation. The Engineered Solutions Division (ESD) manufactures a complete lineup of custom engineered turnkey mixing valves, tempered water solutions, recirculation systems, air-charged systems and alarms. Below is an example of an exceptional ESD product application.

### OBJECTIVE

A petrochemical plant located in the Jubail region of Saudi Arabia was expanding its current operations. Included in this expansion was the need for tempered water for every safety shower and eye/face wash in the plant. Since the region is extremely hot in the summer, with temperatures reaching over 100° F, and cool in the winter, average temperature of 50-degrees-fahrenheit, the requirement called for both chilling and heating equipment. In addition, the plant needed every shower and eye/face wash to be connected on a centralized loop with a total distance of 1.5 miles (2.5 kilometers) with the ability to have three showers and eye/face washes running simultaneously.

### SOLUTION

Communicating directly with the engineering firm, the Haws ESD team developed a single system consisting of chillers, heating equipment, pumps and controls that ensured proper pressure to all showers within the loop. Furthermore, calculations were done to determine the proper speed of the recirculation water to ensure the desired water temperature was maintained at all points of use. The controls monitored the temperatures and pressures of the system and communicated back to a central control station with the use of a Programmable Logic Controller (PLC). Additional controls were provided to switch from summer mode to winter mode.

### ABOUT HAWS

Haws Corporation designs, manufactures and distributes drinking fountains and emergency equipment that are ranked #1 in quality by specifiers in both product categories.



