



THEM-OMEGA-TECH

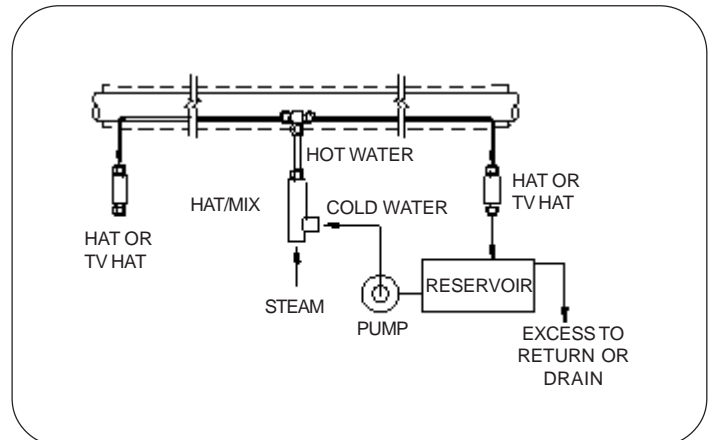
ISO 9001 CERTIFIED

APPLICATION PROFILE #6

HOT WATER TRACING SYSTEM

APPLICATION:

Some chemical products must be heated to an optimum temperature above ambient temperature, but are also sensitive to overheating, e.g.: formaldehyde.



THEM-OMEGA-TECH's HAT/MIX valves can be used to provide a convenient, economical, reliable and effective hot water tracing system. Steam and water supplies are all that must be connected to the valve.

At an eastern specialty chemicals plant, it was required to maintain formaldehyde lines at about 100°F. Lower temperatures would affect product quality, while higher temperatures would cause the formation of formic acid and other undesirable side products.

The solution was to install **THEM-OMEGA-TECH's HAT/MIX-100** and **HAT-100** valves which together provide both temperature control and backup safety high limit control. Approximately 100 psig steam and 50 psig water were piped to each **HAT/MIX** valve. The outlet from the valve then supplied the 3/8" tracer lines on various formaldehyde process piping. At the end of each tracer line just before connection to the return system, a **HAT-100** valve was installed. After the system was started-up, the water temperature at the outlet of the **HAT/MIX** was approximately 100°F, exactly as the system design specified. As the safety backup, if for any reason the tracer temperature at the tracer end exceeds 110°F, the **HAT-100** will close off to prevent overheating. In this particular case, the customer chose to recycle the heated water to the cooling tower sump, where the water was cooled for reuse. A pump drawing from the cooling tower sump supplies water to the **HAT/MIX** valves.

In addition to the **HAT/MIX** and **HAT** valves, additional system protection and reliability was achieved by installation of **THEM-OMEGA-TECH's HAT/FP** valves at key locations and low points. These **HAT/FP** valves provide positive freeze protection to system components and piping in the event of a failure of the steam supply, which could happen if the boiler or its controls fail. The **HAT/FP** valves will drain the water from the system at 35°F to prevent freeze damage.

For further information about an application of this system, or for help in solving your other temperature control problems, please call **THEM-OMEGA-TECH, INC.** at 1-877-379-8258 to talk to an application engineer.

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