



Biofuels Heating

Heat-Tracing Solutions for Alternative Fuels Facilities

Tyco Thermal Controls provides complete Heat Management Systems solutions to keep plants operating efficiently and reliably. It's crucial to maintain process temperatures and protect pipes from freezing to keep production at full capacity. With years of experience in the ethanol and biodiesel markets as well as experience in the biomass and cellulosic technology industries, Tyco Thermal Controls is the ideal partner for customers all over the world who count on us to supply the knowledge, products, and services they need to solve their unique heat management needs. We offer:

- Audits
- Design
- Installation
- Maintenance
- Heat-Tracing Cables
- Control and Monitoring Systems
- Components
- Pipe and Tank Insulation

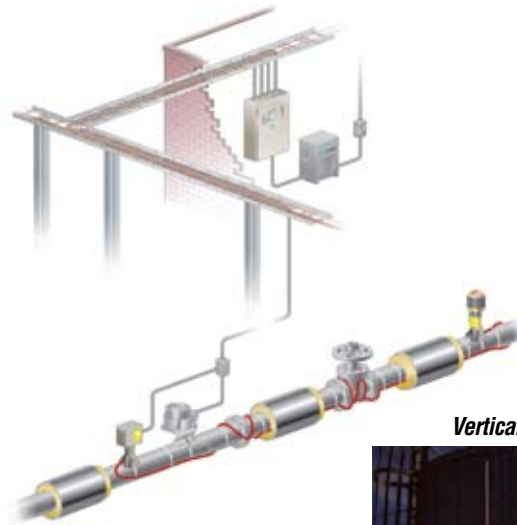
Heat Management System Integrator

Tyco Thermal Controls manufactures the individual product components of a Heat Management System. However, the true power of these components is realized when they are combined by Tyco Control Controls into a Heat Management System that is planned and executed by our Engineering, Procurement, Project Management, Construction and Maintenance personnel and includes our industry leading "Warm Pipe Warranty".



Many of the processes in these plants require an external heat source to provide the necessary warmth to maintain process temperatures and to protect against freezing.





Heat-Tracing System



Vertical Lock-Seam Tank Insulation



Heat Management System Overview

A **Heat Management System (HMS)** is an engineered system designed to maintain or protect process piping, equipment, vessels and instrumentation at pre-determined temperatures and within defined design criteria. A HMS includes the following components:

- Heat Delivery System** which is either electrically powered or transfers heat through re-circulating fluids such as glycol, steam or hot oil.
- Control & Monitoring System** of the heat delivery system.
- Utility Distribution System** which can be electricity, steam/condensate, hot oil, or glycol to the heat delivery system.
- Thermal Insulation System** installed over the heat delivery system.



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Worldwide Headquarters
Tyco Thermal Controls
307 Constitution Drive
Menlo Park, CA 94025-1164
USA
Tel: 800-545-6258
Tel: 650-216-1526
Fax: 800-527-5703
Fax: 650-474-7711
info@tycothermal.com
www.tycothermal.com

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