

# Thermo-Z™ reduces fuel costs on spray drying process

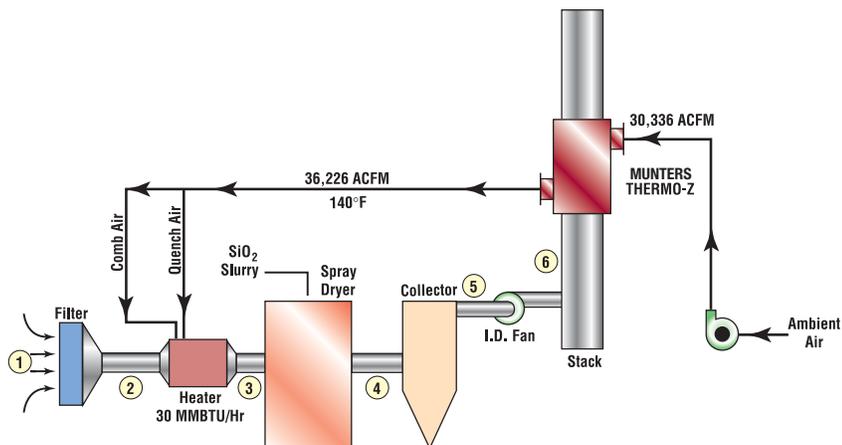
Munters designed an energy efficient custom solution for an engineered minerals and specialty chemicals producer. The customer needed a unit that could efficiently recover heat from their spray drying process and then utilize the recovered heat as preheated combustion air for the spray drying process. In order to satisfy this need, Munters utilized a customized Thermo-Z™ industrial heat exchanger.

Stack-exhaust losses can consume a significant portion of the total fuel required to run a process. With this customer, Munters saw an opportunity to harness energy recovery and air-flow technology to lower energy consumption and costs, reduce emissions and increase productivity.

Due to the high temperatures and corrosive environment, Munters recommended a Thermo-Z™ plate-style heat exchanger. The Thermo-Z™ is constructed of heavy-gauge stainless steel to withstand high temperatures and corrosion. At high temperatures, Thermo-Z™ integral expansion joints allow the unit to expand without causing excessive stress. Thermo-Z™ is available with multiple flow patterns and therefore was a good fit for this project.

The fuel cost savings the customer experienced with the installation of the Thermo-Z™, reduced this efficient heat exchanger's pay off to one short year. This industrial success story is one of many that features the Munters Thermo-Z™ heat exchanger.

## Flow Diagram – Spray Dryer Application



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## CASE STUDY: Spray Drying Process



## BENEFITS

- Integral access doors for inspection and cleaning
- Heavy gauge construction for matrix for abrasion resistance
- Recovered waste heat from the stack to preheat the combustion air for the process heater

