



Finding the right heating solution for spray drying

A creamery, USA

A creamery located in the Midwest required a replacement heater for one of their spray drying systems that processes powdered milk, and the new equipment needed to be manufactured in accordance with USDA guidelines. The existing heater was no longer effective, causing the creamery to encounter nearly 20% downtime. In addition, it was installed over two stories, so the customer wanted to locate the new heater on a single story with the same footprint as the previous equipment. Consequently, the installation site had very tight dimensional constraints.

The creamery chose a custom-manufactured Munters VariMax™ IFRG heater to replace its inefficient and oversized heater. In order to fit the heater in the allotted space on a single floor, Munters' engineers worked with the OEM from the quote stage through the engineering phase to avoid existing piping, duct work, columns, walls, etc. A custom exhaust interface supplied by Munters enabled the customer to utilize their existing exhaust stack, ensuring a smooth installation.

The design conditions at the installation site were extremely low, at -20°F. The VariMax IFRG provided 8MMBH to the process, heating 17,000 SCFM from -20°F to 415°F. The VariMax IFRG was also made in accordance with USDA standards, which was an important requirement from the customer. With the VariMax IFRG, the creamery is experiencing less downtime and greater profitability.



Munters VariMax[®] IFRG

The highly efficient VariMax IFRG heater combines Munters heat exchanger design with indirect heating technologies to deliver heated, contaminated-free process air while reducing operating costs. Recirculation of the combustion gases allows the heater to attain an efficiency of 90%, 1,000°F (555°C) temperature rise, 1,200°F (649°C) discharge temperature, and a 40:1 turndown. The rugged, heavy-duty construction ensures a reliable, long-lasting heat source for many years to come.

Case study:

- Creamery in the USA

Advantages:

- Minimum of 90% thermal system efficiency
- Burner turn-down up to 40:1
- Provides constant temperature at variable airflows
- Nominal temperature rise to 1,000°F; discharge to 1,200°F

Would you like to find out if Munters has a solution for your company too? If so, please visit our website, www.munters.com/food

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