

Product News

New Fluid Bed Energy Recovery System by Kason reduces Energy Costs up to 50%

Edited by on 9. Aug. 2023 Chicago (IL), United States -

Kason has released the new VIBRO-BED Energy Recovery System (ERS), an exhaust air recycling system engineered to help material processors drastically lower energy costs, reduce unpleasant odors and curb emissions. The VIBRO-BED ERS is the latest add-on to Kason's popular VIBRO-BED fluid bed processor, the first and only fluid bed with a circular design for more efficient drying, cooling and moisturizing.



The VIBRO-BED ERS can be used in a wide variety of drying applications. (Picture: ©Kason USA)

The VIBRO-BED ERS can be retrofitted on Kason and competitor fluid bed drying systems or added on new installs. A partial loop drying system, it recycles a portion of the heated air exhausted by the fluid bed, while removing excess water vapor from the air stream. A Programmable Logic Controller opens and closes a series of backdraft dampers, forcing the previously heated air back into the fluid bed dryer.

"When the exhaust air temperature needs to be increased, relative humidity and temperature sensors ensure the optimal blend of fresh outside air and exhaust air is achieved," said Parth Jani, Principal Thermal Mechanical Engineer for Advanced Material Processing, Kason's parent company. "This allows us to raise the temperature as high as possible using less energy, while also keeping water content in the air to a minimum."

While the VIBRO-BED ERS can be used in a wide variety of drying applications, ideal situations include processes with:

- Exhaust air temperatures that exceed 150°F (66°C)
- Large particle sizes that do not release moisture easily
- Low drying rates for materials that have bound moisture content, such as grains, fruits and vegetables, various building materials, pharmaceutical formulations and hygroscopic substances

By recirculating heated exhaust air, processors can:

- Save up to 50% in energy costs
- Lower fossil fuel and particulate emissions expelled into the atmosphere
- Reduce or eliminate foul smelling odors inside and outside facilities
- Potentially qualify for lower air quality permits

Depending on the process air temperature and drying time, processors can achieve a payback period of as little as 12 months.

"The VIBRO-BED ERS is a win-win-win for customers," said Seth Vance, CEO of Advanced Material Processing. "There aren't too many processing machines out there that can cut your energy bill in half, reduce emissions and make the work environment safer and more enjoyable for your staff."