



Fluid bed dryers offer a cost-effective alternative to rotary drying technology. With a smaller footprint and greater heat transfer efficiency, these industrial dryers are ideal for processing free-flowing, uniform solids such as fertilizers, specialty chemicals, biomass, and biosolids and are backed by the extensive expertise and process development capabilities that only FEECO International can offer.

HOW FLUID BED DRYERS WORK

Fluid bed dryers are considered a pneumatic drying technology, meaning that material is moved through the dryer by air flow alone. Hot air is forced through the material bed at a velocity designed to cause the material to move in a fluidized state. This fluidized state not only results in a complete mixing of solids, but also in each particle being surrounded by air, maximizing heat transfer efficiency. The mixing action ensures that both cold wet and warm dry solids are exposed to the hottest air, allowing the use of a lower drying temperature compared to other technologies and ultimately greater efficiency.

FEATURES & BENEFITS

- Smaller footprint
- Simple, cost-effective construction
- Improved heat transfer efficiency
- Minimal structural support requirements
- Minimal maintenance requirements
- Option to reuse recovered waste heat
- Reduced capital cost and lower installation costs
- Non-plug-flow design (continuously stirred tank reactor)
- Variable Frequency Drive (VFD) for precise flow control
- Gentle handling of most solids (application dependent)
- Simple integration of additional components (ex., fire protection)

SIZE | 4' - 20' Diameter (1.2 - 6m)

CAPACITY

1 - 50 TPH | 1 - 15mmBtu/hr
3,000 - 50,000 ACFM

TEMPERATURE RANGE

300 - 1,500°F

*Testing options available