



**LAHTI
PRECISION**

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Lahti Green

Fluid Bed Dryer for sand and minerals

- Sand and mineral dryer
- Standard product
 - Capacity 20 ton/h - 60 ton/h
 - Inlet 2 - 10 %
 - Outlet < 0.2 %, < 60 °C
- Saving of energy and the environment
 - Recycling of the drying gas
 - Heat recovery
 - Optimal drying process with advanced control system
- Vibrating fluid bed with twin-mass oscillation mechanism
- Compact design and simple assembly
- Fully automated
- Highly reliable
- Long life cycle
- Low cost of maintenance

A NEW FLUID BED DRYER

Lahti Precision has developed a new generation of fluidized bed dryer/cooler. The new dryer is characterized by totally improved energy efficiency and reliability.

Lahti Precision has long experience of drying sand and minerals. The new dryer was developed in collaboration

with universities. This major research and development project created significant new knowledge to Lahti Precision.

Lahti Precision is one of the world's leading suppliers of glass batch plants and mortar plants providing a complete package for the business - a package with unique technical advantages.

SUBSTANTIAL SAVING OF ENERGY

Drying systems commonly use fuels like natural gas, propane gas and light fuel oil, which are not cheap today.

Old drying systems, especially old rotary drum dryers, do not fulfill today's standards. With the new Lahti Green fluid bed dryer your drying energy costs can be reduced significantly.

OPTIMAL DRYING PROCESS

The core module of the Lahti Green dryer is a well-known fluidized bed. Effectiveness of fluidized bed technology is based on cross flow of air and sand with excellent connection. The fluidized bed technology together with gas recycling, heat recovery systems and optimal airflows provides top-class energy efficiency.

The fluid bed mechanism is a robust and wear resistant solution for high density raw materials and large capacities. It provides high reliability and low maintenance costs.

HIGHLY RELIABLE VIBRATING MECHANISM

The fluid bed vibrating system is based on a twin-mass oscillation mechanism. Conveying works by principle of a dynamic absorber, producing only negligible dynamic loads to the foundation. Further, there are no wearing parts in the power transfer system.

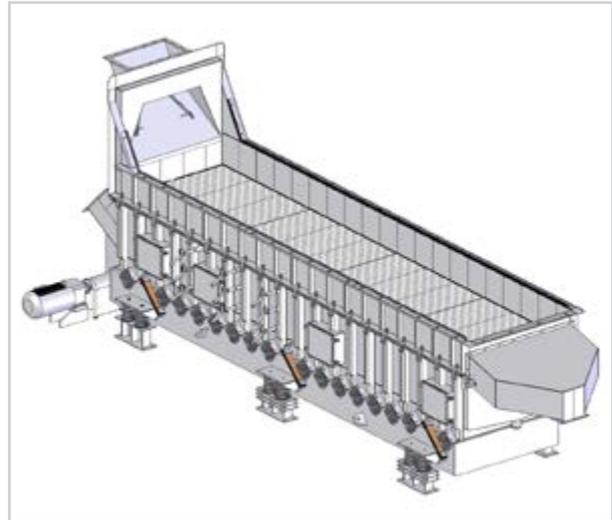
Both material and air is transported smoothly through the dryer ensuring constant and high quality of the final dry mix product. A control system can adjust oscillation width during the operation.

COMPACT DESIGN AND SIMPLE ASSEMBLY

The drying system is easy to assemble and maintain. The structure is standardized but still flexible providing correct solutions to meet customer requirements.

Erection and assembly of the Lahti Green dryer is easy, and it can also be done by the customer to save investment costs.

Lahti Precision provides full package of services from investment planning to training and production optimization.



The fluid bed vibrating system

THE DRYER WITH LONG LIFE CYCLE

The dryer is designed for long life cycles. The dust filter is cleaned automatically saving filter elements and compressed air. The airflow against the filter element is optimal and laminar containing low amount of bigger size particles.

The air heater containing a burner and a combustion chamber needs minimal amount of maintenance due to right materials, low temperatures and optimized airflows.

The dryer is equipped with control system providing condition monitoring information to extend the lifetime of machinery and equipment.

CASE LAHTI GREEN 9 FINLAND

In 2009 Lahti Precision delivered a Lahti Green 9 dryer (30 ton/h) in South Finland. An old rotary drum dryer was replaced with a new generation fluid bed dryer. The project was a success. The customer is very satisfied with 70 % savings in propane gas bills.

The system was optimised with computer based simulation software. The control system is excellent providing also remote support services from Lahti.

Customers really value the dryer that is weather proof and also comfortable for service personnel.

The new drying system decreases emissions substantially due to lower amount of dust and exhaust gases. The Lahti Green dryer saves money and the environment.