

Industrial Refrigeration Dryer

This refrigeration unit is designed for industrial use. It features a compact design and integrated gauges for monitoring system performance.



Overview

High-Efficiency Industrial Drying Solution

This industrial refrigeration dryer utilizes advanced heat pump technology to recover and transfer energy for optimal material processing. By repeatedly heating air and removing moisture through condensed water removal, it ensures continuous and consistent drying. This system is designed to maintain the physical form, color, and pharmacological properties of sensitive materials while maximizing energy efficiency.

Technical Principles

Heat Pump Evaporation System

The unit's evaporator absorbs heat from the external environment or recovers residual heat from the drying process. This energy is transferred via a compressor to the drying box condenser. Hot air circulates through the materials, absorbing moisture and lowering temperature before dewatering, ensuring a controlled and efficient moisture vent.

Applications

Target Industries

- Tobacco Industry (Leaf quality improvement)
- Coal Slime (Moisture reduction from 50% to 12%)
- Food Processing (Dried fish, aquatic products, laver, soya cream)
- Agriculture (Mushrooms and grain)
- Pharmaceuticals (Chinese herbal medicine)
- Industrial Goods (Paper, timber, leather, incense coils)

Performance Features

Key Capabilities

Heat Recovery • Precise Humidity Control • Continuous Drying • Energy Transfer • Condensed Water Removal

Moisture Reduction Performance

50 %

Initial Coal Slime Moisture

12 %

Final Coal Slime Moisture

Design & Monitoring

System Design Features

- Compact refrigeration unit design
- Top-mounted fan for heat dissipation
- Integrated performance monitoring gauges
- Dual-fan external cooling unit