

# Transcritical CO2 Refrigeration Unit

The transcritical CO2 refrigeration unit uses R744 refrigerant and a Bitzer screw compressor. It is suitable for medium and large cold storage applications and can meet the electricity system requirements of any country.



## ADDITIONAL IMAGES



## Overview



Modular, containerized design allows for rapid deployment and installation in various industrial sites.

## Industrial Transcritical CO2 Refrigeration

This advanced transcritical CO2 refrigeration unit utilizes the natural R744 refrigerant to deliver high-efficiency cooling and heating for medium to large-scale cold storage facilities. Engineered for versatility, the system features a robust compressor design and energy-optimization technologies such as ejector systems and auxiliary compression. It is a plug-and-play solution suitable for diverse environments, ranging from quick-freezing and low-temperature storage to high-temperature production water heating.

## Technical Specifications

Refrigerant	R744 (CO2)
Evaporation Temperature Range	-50°C to +20°C
Compressor	Screw Compressor (HSK/CSH series)
Hot Water Output Temperature	40°C - 100°C
Condenser	CO2 gas cooler

## Features

### Performance Advantages

- High COP via vapor-vapor and gas-liquid ejector technology
- Booster two-stage supercharging
- Plug and play modular design
- High-temperature heat recovery capability
- Low operating costs

### Environmental Credentials

GWP=1, ODP=0, Non-toxic, Non-flammable

## Applications



Versatile applications in food preservation, pharmaceutical storage, and scientific research.



Reliable performance for demanding industrial environments such as processing plants and cold storage warehouses.

### Typical Use Cases

Cold Storage • Quick Freezing • Process Cooling • Domestic Hot Water • Indoor Ski Slopes • Ice Rinks • Food Processing