

DISCOVER CASTEL'S INNOVATION: 34-E VALVES FOR HIGH-EFFICIENCY REFRIGERATION SYSTEMS



NEW 34E SERIES
HIGH PRESSURE
AND FLASH GAS
BYPASS VALVE
FOR R744

In the industrial refrigeration sector, efficiency and reliability are essential to ensure high performance and a reduced environmental impact. **Castel**, a leader in the production of refrigeration and air conditioning components, presents its innovative 34-E valve series, specifically designed for systems using CO₂ (R744) refrigerant in transcritical conditions.

Performance and Reliability Without Compromise

The 34-E series valves are high-precision electronic devices designed to regulate pressure in refrigeration systems. Thanks to their versatility, they can be used in various applications, including:

- Pressure regulation in the gas-cooler
- Flash gas bypass valve
- Expansion valve for evaporators
- Pressure regulator in the suction line

This advanced solution optimizes pressure and temperature control and management, improving the overall efficiency of the system.

Maximum Efficiency and Environmental Sustainability

The use of CO₂ as a refrigerant is an eco-friendly choice due to its low global warming potential (GWP). The 34-E valves maximize the performance of these systems, minimizing energy consumption and environmental impact. Additionally, their innovative structure integrates a control valve, filter, ball valve, and charging port, reducing the number of necessary components and simplifying installation.

Cutting-Edge Technology for Simplified Maintenance

The 34-E valves are designed to facilitate maintenance operations, thanks to the version with an integrated ball valve, allowing quick interventions such as filter cleaning, component replacement, and system inspection without the need to fully

remove the valve. This significantly reduces system downtime, improving operational continuity. Moreover, the compact design reduces the risk of refrigerant leaks and the number of required components, leading to overall cost savings for the system.

Unmatched Reliability and Safety

The 34-E valves comply with the industry's strictest regulations:

- Resistance to pressures up to 140 bar, ensuring safety even in transcritical systems
- Leak and reliability tests performed on each individual product
- Certifications in accordance with the European Directive 2014/68/EU (PED) and international industry standards

Why Choose Castel's 34-E Valves?

- Energy efficiency and performance optimization
- Reduced environmental impact thanks to CO₂ usage
- Simplified installation and lower operational costs
- Maximum safety and compliance with international regulations
- Integrated ball valve for quick and hassle-free maintenance

With over 60 years of experience and a presence in more than 90 countries worldwide, **Castel** continues to innovate to provide cutting-edge solutions in the refrigeration industry for a Greener Future.

Learn more about the 34-E valves by visiting www.castel.it or contacting our team of experts for personalized consultation.