RIVACOLD

NASRC Webinar – Dec'25

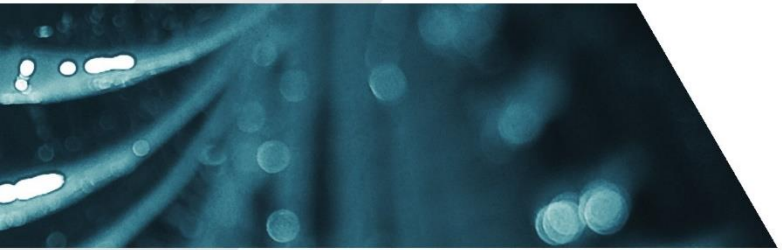
Expanding R290 Solutions: A BOLD Approach for the Retail Industry

VITRI ALCESTE GROUP

RIVACOLD
MASTERING COLD

VITRI ALCESTE GROUP

RIVACOLD
MASTERING COLD



INDEX

1. **INTRODUCTION**
ABOUT RIVACOLD

2. **R290 PACKAGED UNITS**
AND PLUG-IN SYSTEMS

3. **BEST CM R290**
PRODUCT FEATURES AND BENEFITS

4. **NEW R290 SYSTEM**
PRODUCTR FEATURES AND BENEFITS

5. **CONCLUSIONS**
AND Q&A

VITRI ALCESTE GROUP

RIVACOLD
MASTERING COLD

1.

INTRODUCTION

ABOUT RIVACOLD

RIVACOLD
MASTERING COLD

330
TURNOVER (MM €)

1.700
EMPLOYEES

1966
57 YEARS

160.000
SQM MANUFACTURING & STOCKING AREA

OEM MANUFACTURER FOR LEADING FOOD SERVICE BRANDS

APPROVED BY WORLDWIDE FOOD RETAIL ORGANIZATIONS

RIVACOLD ALL RIGHTS RESERVED

VITRI ALCESTE GROUP

VITRI ALCESTE GROUP

RIVACOLD
MASTERING COLD

2.

R290 PACKAGED SYSTEMS

AIR AND WATER COOLED MONOBLOCKS AND SEALED SYSTEMS

RIVACOLD
MASTERING COLD

SE **CU**

SF **WL**

BE **BEST**

NE W

- WATER COOLED CLOSED LOOP SYSTEM
- NATURAL REFRIGERANT
- LOW NOISE
- 100% 0% VARIABLE CAPACITY
- ENERGY SAVING
- EASY FIX

RIVACOLD ALL RIGHTS RESERVED

VITRI ALCESTE GROUP

VITRI ALCESTE GROUP

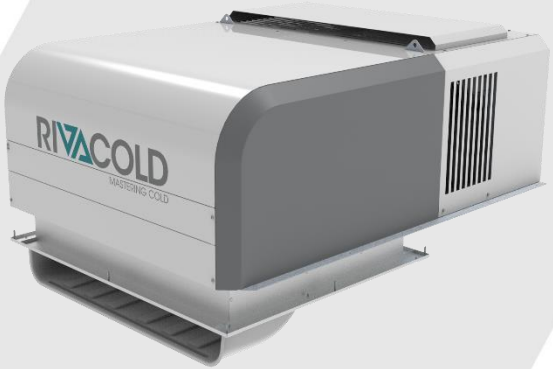
RIVACOLD
MASTERING COLD

3.

BEST CM

PRODUCT FEATURES AND BENEFITS

RIVACOLD
MASTERING COLD



BEST

NEW R290 PACKAGED SYSTEMS FOR COLD ROOMS

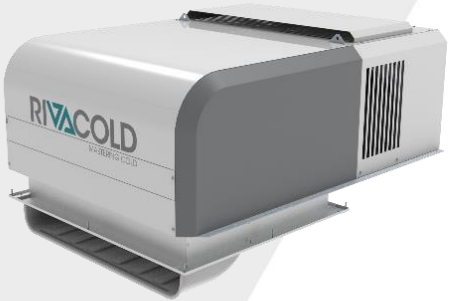
REV 00

VITRI ALCESTE GROUP

RIVACOLD
MASTERING COLD

PACKAGED SYSTEM

AIR - R290



- *Medium Temperature*
- *3 size*
- *From 23°F to 50°F*
- *From 2605 to 13657 BTU/h**
- *From 240 to 2168 ft³**

- *Low Temperature*
- *3 size*
- *From -13°F to 0°F*
- *From 1453 to 8150 Btu/h***
- *From 85 to 1176 ft³***

** Ta= 90°F , Tc = 35°F*
*** Ta= 90°F , Tc = -5°F*

c UL us LISTED

AWEF COMPLIANT

NSF COMPONENT

RISPARMIO ENERGETICO
ENERGY SAVING

REFRIGERANTE NATURALE
NATURAL REFRIGERANT

BASSA RUMOROSITÀ
LOW NOISE

EASY FIX
EASY FIX

60Hz
FREQUENZA ALIMENTAZIONE
SUPPLIES FREQUENCY

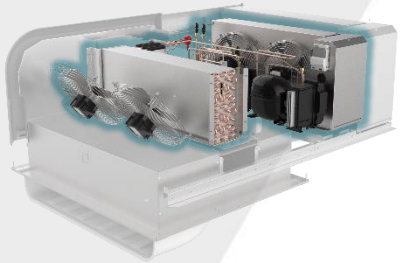
RIVACOLD ALL RIGHTS RESERVED

VITRI ALCESTE GROUP

RIVACOLD MASTERING COLD

EFFICIENCY

*The circuitry of the monoblock BEST has been completely revised and designed to **maximize the COP** of the machine, **increasing the cooling capacity** and, at the same time, **lowering energy consumption** in all working conditions.*



RISPARMIO ENERGETICO
ENERGY * SAVING
-14%

** Laboratory Data comparing BEST to Blocksystem R290*

RIVACOLD ALL RIGHTS RESERVED

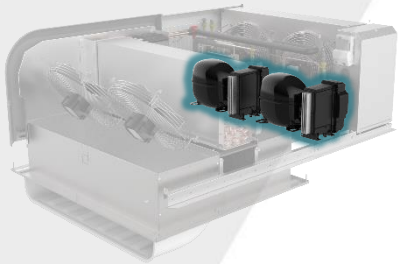
VITRI ALCESTE GROUP

RIVACOLD
MASTERING COLD

EFFICIENCY

The new range of R290 ceiling mounted packaged systems BEST uses last generation ***BLDC high-efficiency compressors.***

RISPARMIO ENERGETICO
ENERGY SAVING



RIVACOLD ALL RIGHTS RESERVED

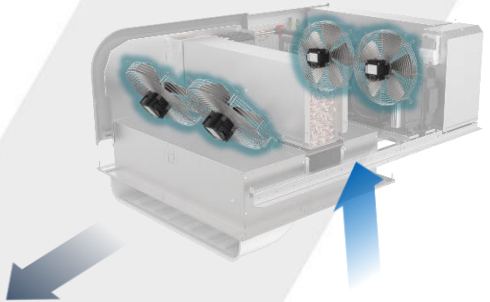
VITRI ALCESTE GROUP

RIVACOLD MASTERING COLD

EFFICIENCY

*Thanks to the electronics, the new **EC fan motors** can be activated even if the machine is in stand-by, **reducing the energy consumption, producing a lower noise** and ensuring a **greater air throw** and a **fast air distribution**. Finally, they represent an **extremely safe solution** in the propane product ranges.*

RISPARMIO ENERGETICO
ENERGY SAVING



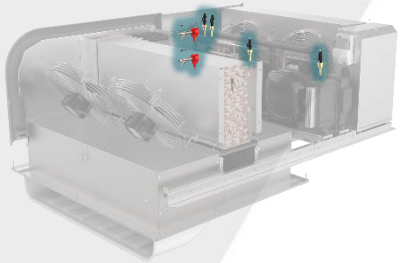
RIVACOLD ALL RIGHTS RESERVED

VITRI ALCESTE GROUP

EFFICIENCY

The electronic thermostatic expansion valve with the pressure and temperature probes, *allows the evaporator to be powered correctly in all operating conditions and throughout the regulation range of the inverter.*

RISPARMIO
ENERGETICO
ENERGY
SAVING

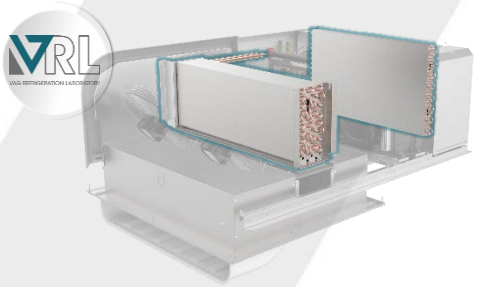


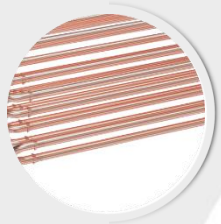
RIVACOLD ALL RIGHTS RESERVED

RIVACOLD MASTERING COLD

EFFICIENCY

Thanks to sophisticated CFD (Computational Fluid Dynamics) simulation software and extensive tests, we were able to define the best geometry and circuitry to maximize the performance of the ***condenser with a 5 mm rifled pipe****. Less volume, reduced charge and increased heat exchange, therefore* ***better product efficiency****. The choice of the* ***5/16 rifled pipe in the evaporator*** *was also taken to* ***maximize heat exchange*** *and therefore increase capacity and energy efficiency.*





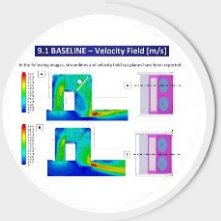
RIVACOLD ALL RIGHTS RESERVED

VAG VITRI ALCESTE GROUP

RIVACOLD
MASTERING COLD

EFFICIENCY

*Thanks to an **in-depth fluid-dynamic study, the cap, the fans and the evaporator have been optimized**, so that the **air circulation inside the evaporating area is homogeneous** and that the whole system is maximized from the point of view of the **refrigeration capacity.***

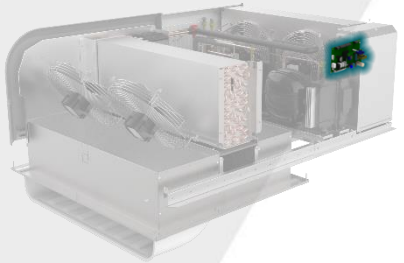


RIVACOLD ALL RIGHTS RESERVED

VITRI ALCESTE GROUP

EFFICIENCY

*The new **RIV-OLUTION** electronics and the new software developed entirely by Rivacold guarantee **efficiency, reliability and management flexibility**, ensuring always stable operating conditions.*



RISPARMIO
ENERGETICO
ENERGY
SAVING

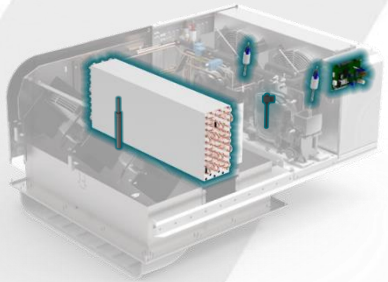
RIVACOLD ALL RIGHTS RESERVED

RIVACOLD
MASTERING COLD

EFFICIENCY

*Riv-olution is also **Smart Defrost**. Thanks to the new software, which can interface with advanced electronic hardware, the monoblock BEST has the ability to **automatically and intelligently manage defrosts, avoiding dangerous ice formation** in the evaporator and thus guaranteeing optimal circuit operation.*

RISPARMIO
ENERGETICO
ENERGY
SAVING



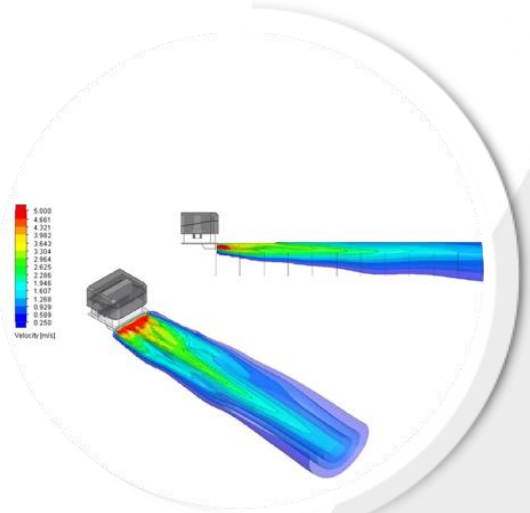
RIVACOLD ALL RIGHTS RESERVED

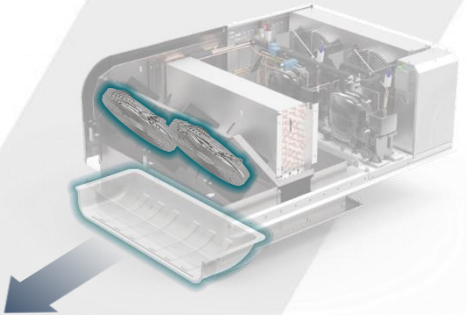
VITRI ALCESTE GROUP

RIVACOLD
MASTERING COLD

FOOD CONSERVATION

*The new deflector allows to **increase the air deflection,** reaching all corners of the cold room, making **the internal temperature uniform** and **quickly restoring the desired temperature** after opening the door.*



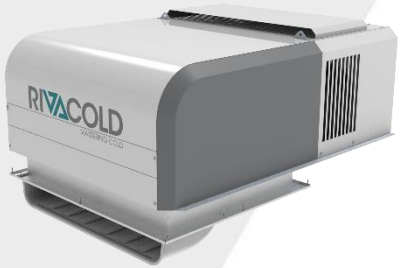


RIVACOLD ALL RIGHTS RESERVED

VITRI ALCESTE GROUP

RIVACOLD
MASTERING COLD

*The structure of BEST has been designed to build-in **multi-circuit solutions, each of them with a maximum charge of 150g**. In this way it is possible to install the units of the series BEST in any cold room, **without restrictions of any kind**, and it has been possible to increase the cooling capacity range.*



QUALITY & RELIABILITY

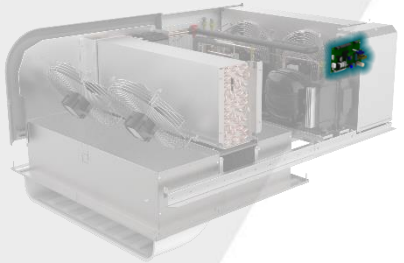
RIVACOLD ALL RIGHTS RESERVED

VITRI ALCESTE GROUP

RIVACOLD
MASTERING COLD

QUALITY & RELIABILITY

*The Riv-olution electronics allows the **alarms history to be displayed**, as well as the recording of all the **operating parameters of the last 2 days**, thus facilitating diagnosis in the event of malfunctions and without having to intervene on the unit.*



RIVACOLD ALL RIGHTS RESERVED

VITRI ALCESTE GROUP

RIVACOLD MASTERING COLD

QUALITY & RELIABILITY

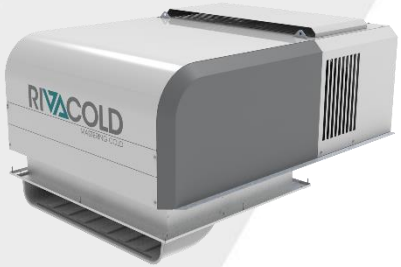
*The new monoblock BEST is also the result of **extensive research and development carried out in the VAG Refrigeration Laboratory. Performance, consumption and reliability have been tested, measured and improved** with a series of tests carried out in our laboratory, at the forefront in Europe.*

RIVACOLD ALL RIGHTS RESERVED

VAG VITRI ALCESTE GROUP

RIVACOLD
MASTERING COLD

*Considering the increasing need to have **a more insulated and efficient cold room**, the **compatible insulation width** has been increased: from a minimum of **3,2 in** (80 mm) to a maximum of **7,8 in** (200 mm). **Greater flexibility**, therefore, and a product suitable for all types of installation. By also fixing the deflector from the inside of the cell, the monoblock **adheres better** to the ceiling and therefore guarantees **greater insulation and efficiency.***



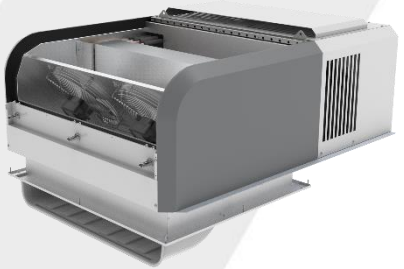
EASY INSTALLATION & MAINTENANCE

RIVACOLD ALL RIGHTS RESERVED

VITRI ALCESTE GROUP

RIVACOLD
MASTERING COLD

*The structure of monoblock BEST has been completely re-designed to guarantee **ease in case of assistance**: the panels can be **dismantled very quickly** and already with **a few simple operations** it is possible to **access the main components** of the circuit from the external.*



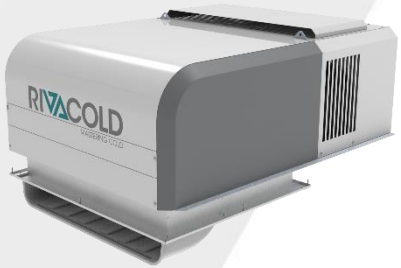
EASY INSTALLATION & MAINTENANCE

RIVACOLD ALL RIGHTS RESERVED

VITRI ALCESTE GROUP

RIVACOLD
MASTERING COLD

***Revolutionized maintenance** thanks to the new electronics. By connecting via **Bluetooth** it will be possible to **view in real time all the operating parameters of the monoblock on your mobile phone,** with a simple click.*



EASY INSTALLATION & MAINTENANCE

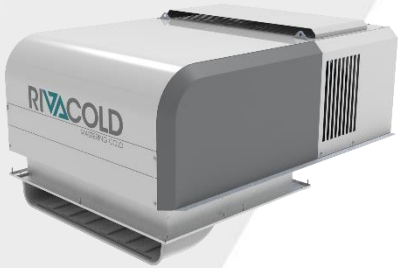
RIVACOLD ALL RIGHTS RESERVED

VITRI ALCESTE GROUP

RIVACOLD
MASTERING COLD

*The monoblock BEST is equipped with a **Modbus connectivity system for integration with any customer-side supervision.** The connection cable is already wired in the standard configuration, so as to **allow easy inclusion of the product into the supervision system.***

Modbus



EASY INSTALLATION & MAINTENANCE

RIVACOLD ALL RIGHTS RESERVED

VITRI ALCESTE GROUP

VITRI ALCESTE GROUP

RIVACOLD
MASTERING COLD

4.

NEW R290 SYSTEM

PRODUCT FEATURES AND BENEFITS

RIVACOLD
MASTERING COLD

NEW R290 INDOOR/OUTDOOR PACKAGED SYSTEMS FOR COLD ROOMS

REV 00

VITRI ALCESTE GROUP

PACKAGED SYSTEM

R290

- *Medium Temperature*
- *6 sizes*
- *From 23°F to 41°F*
- *From 2700 to 16,100 BTU/h*
- *From 200 to 3110 ft³*

- *Low Temperature*
- *5 sizes*
- *From -13°F to 5°F*
- *From 2400 to 9600 Btu/h*
- *From 150 to 1980 ft³*

RISPARMIO ENERGETICO
ENERGY SAVING

REFRIGERANTE NATURALE
NATURAL REFRIGERANT

BASSA RUMOROSITÀ
LOW NOISE

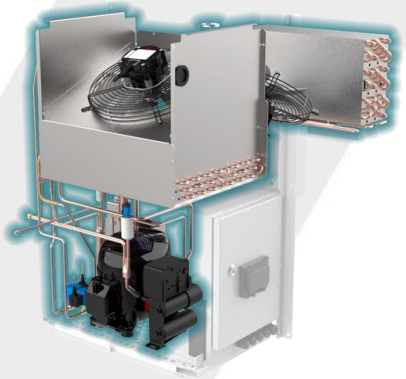
EASY FIX
EASY FIX

RIVACOLD ALL RIGHTS RESERVED

RIVACOLD
MASTERING COLD

EFFICIENCY

The circuitry of the monoblock BOLD has been completely revised and engineered to **maximize the unit's COP**, **increasing the cooling capacity** while simultaneously **reducing energy consumption** under all operating conditions.



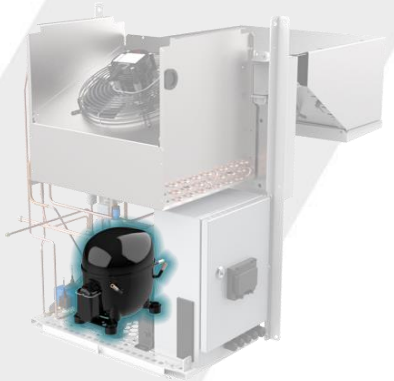
RIVACOLD ALL RIGHTS RESERVED

VITRI ALCESTE GROUP

RIVACOLD
MASTERING COLD

EFFICIENCY

The new range of BOLD R290 wall-mounted packaged systems uses next-generation **high-efficiency compressors** that provide **energy savings of up to 15%.**



RIVACOLD ALL RIGHTS RESERVED

VITRI ALCESTE GROUP

RIVACOLD
MASTERING COLD

EFFICIENCY

The new **RIV-OLUTION** electronics and the new software developed entirely by Rivacold guarantee **efficiency, reliability and management flexibility**, ensuring always stable operating conditions.

RIVACOLD ALL RIGHTS RESERVED

VITRI ALCESTE GROUP

RIVACOLD
MASTERING COLD

EFFICIENCY

The new **electronically controlled fans**, which can be activated even when the unit is in standby, **provide energy savings** and operate with **low noise levels**. They also offer an extremely safe solution for propane-based product ranges.

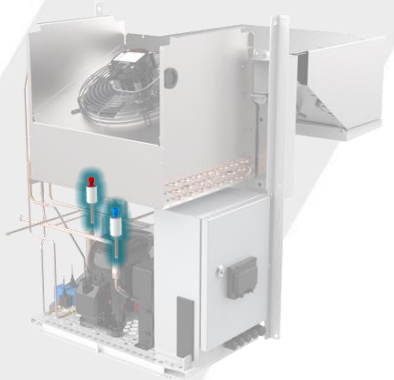
RIVACOLD ALL RIGHTS RESERVED

VITRI ALCESTE GROUP

RIVACOLD
MASTERING COLD

EFFICIENCY

Through **pressure probes**, the electronic control manages the **condensation temperature** by adjusting the condenser fans. In this way, BOLD can perfectly handle the ambient temperature variations typical of an **outdoor installation**.



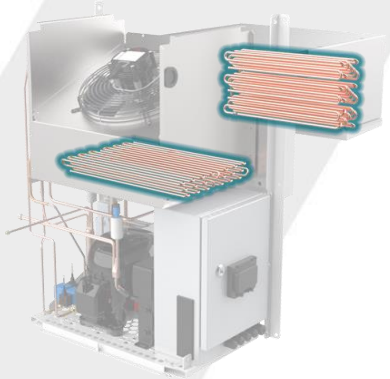
RIVACOLD ALL RIGHTS RESERVED

VITRI ALCESTE GROUP

RIVACOLD
MASTERING COLD

EFFICIENCY

Thanks to advanced CFD (**Computational Fluid Dynamics**) simulation software and extensive testing, Rivacold has optimized the geometry and circuit design, maximizing **condenser** performance with a **5 mm** internally rifled tube and **evaporator** performance with a **5/16"** rifled tube. The result is reduced internal volume, lower refrigerant charge, and increased heat exchange, leading to **improved energy efficiency** of the product.



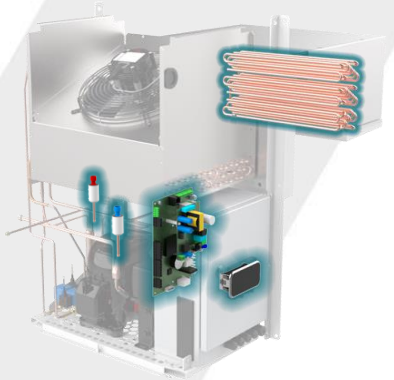
RIVACOLD ALL RIGHTS RESERVED

VITRI ALCESTE GROUP

RIVACOLD
MASTERING COLD

EFFICIENCY

Thanks to the new software developed by Rivacold, **defrosting** is **managed electronically** by the Riv-olution control system, with settings that the user can also adjust via the app. A **Safety Defrost** function has also been introduced which, working in synergy with the pressure sensors, can **prevent operating issues** caused by ice formation on the evaporator.



RIVACOLD ALL RIGHTS RESERVED

VITRI ALCESTE GROUP

RIVACOLD
MASTERING COLD

FOOD CONSERVATION

The robust construction, the IP55 rating of the electrical panel and the simple connection system make BOLD the ideal packaged unit for **outdoor installations**, whether on fixed or mobile cold rooms, such as those mounted on **trailers*** — perfect for events and **temporary applications**.

**BOLD has a 230/1/50 power supply and is designed to be relocated, but not for refrigeration applications in motion.*

RIVACOLD ALL RIGHTS RESERVED

VITRI ALCESTE GROUP

RIVACOLD MASTERING COLD

FOOD CONSERVATION

The operating range of the BOLD monoblock has been extended and now covers **ambient temperatures from a maximum of 110 °F down to – 4°F**.

- For medium-temperature models, BOLD can cool rooms **from 23 °F up to 41 °F***.
- For low-temperature models, BOLD can cool rooms **from -13°F up to 5 °F****.

This wide range ensures **great application flexibility** and excellent product preservation.

**For room temperatures above 41 °F, max 100°F ambient.*
***For room temperatures above 14 °F, max 100 °F ambient.*

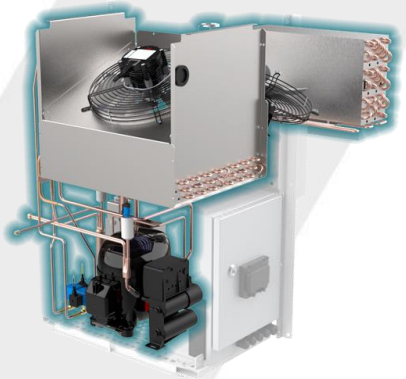
RIVACOLD ALL RIGHTS RESERVED

VITRI ALCESTE GROUP

RIVACOLD
MASTERING COLD

QUALITY & RELIABILITY

The structure of BOLD has been designed to accommodate **multi-circuit solutions**, each with a maximum charge of 150 g. This allows BOLD units to be installed in any cold room **without any restrictions**.



RIVACOLD ALL RIGHTS RESERVED

VITRI ALCESTE GROUP

RIVACOLD
MASTERING COLD

QUALITY & RELIABILITY

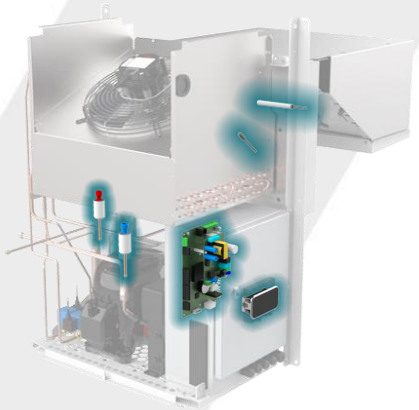
The Riv-olution control displays the **full alarm history** and records all **operating parameters** from the previous **two days**. This makes troubleshooting significantly easier in the event of a malfunction, without requiring direct intervention on the unit.

RIVACOLD ALL RIGHTS RESERVED

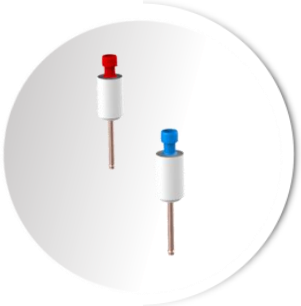
VITRI ALCESTE GROUP

RIVACOLD
MASTERING COLD

The Riv-olution control system enables **real-time monitoring of the unit's operating conditions** — such as room, condensation, and evaporation temperatures — using dedicated **temperature** and **pressure** probes.



QUALITY & RELIABILITY



RIVACOLD ALL RIGHTS RESERVED

VITRI ALCESTE GROUP

RIVACOLD
MASTERING COLD

QUALITY & RELIABILITY

The new BOLD packaged system is the result of **extensive research and development carried out in the VAG Refrigeration Laboratory. Performance, consumption and reliability** have been **tested, measured** and **improved** with a series of tests carried out in a laboratory at the forefront in Europe.

VRL
VAG REFRIGERATION LABORATORY

RIVACOLD ALL RIGHTS RESERVED

VAG
VITRI ALCESTE GROUP

RIVACOLD
MASTERING COLD

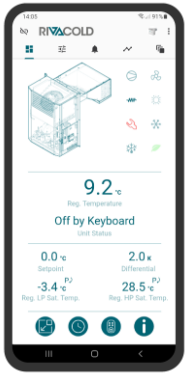
The structure of the BOLD packaged system has been designed to provide **immediate access** to the **electrical panel**, allowing **quick maintenance** operations and fast connection of accessories.

EASY INSTALLATION & MAINTENANCE

RIVACOLD ALL RIGHTS RESERVED

VITRI ALCESTE GROUP

Thanks to the new electronic system, maintenance is revolutionized**.** By connecting via **Bluetooth** with the **Rivacold SMART CONTROL** app, users can view and configure **all operating parameters** of the packaged system in real time on their mobile device, with just a tap.



EASY INSTALLATION & MAINTENANCE

RIVACOLD ALL RIGHTS RESERVED

RIVACOLD
MASTERING COLD

The BOLD packaged system is equipped with a **Modbus connectivity system for integration with any customer-side supervision.** The connection cable is already wired in the standard configuration, so as to **allow easy integration of the product into the supervision system.**

Modbus

EASY INSTALLATION & MAINTENANCE

RIVACOLD ALL RIGHTS RESERVED

VITRI ALCESTE GROUP

RIVACOLD
MASTERING COLD

The ability to configure BOLD in a **client & server** setup makes it possible to increase the available cooling capacity, enabling **medium and large** cold rooms to be served using multiple units.

EASY INSTALLATION & MAINTENANCE

RIVACOLD ALL RIGHTS RESERVED

VITRI ALCESTE GROUP

GRAZIE PER L'ATTENZIONE

THANKS FOR YOUR ATTENTION

nelsonpinheiro@rivacoldamerica.com
www.rivacold.com

VITRI ALCESTE GROUP

RIVACOLD
MASTERING COLD