



富士豪
FRASCOLD SPA

**PRODUCT
LINE**





RECIPROCATING COMPRESSORS

SYNTHETIC REFRIGERANTS

Single stage

Two stage

NATURAL REFRIGERANTS

AX Series

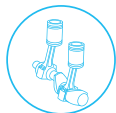
CO₂
Subcritical

CO₂
Transcritical

ATEX SERIES

Reciprocating
compressors

Screw
compressors



SCREW COMPRESSORS

SEMI HERMETIC SERIES

CX Series
Magnetic Series
FVR Series
Aluminium Series

OPEN DRIVE SERIES

ATS Series



CONDENSING UNITS

EC MOTOR FANS

EB SERIES

Moderate climate

EBT SERIES

Tropical climate

AC MOTOR FANS

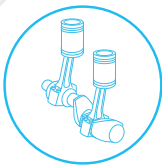
LB2 SERIES

Moderate climate

LBT2 SERIES

Tropical climate



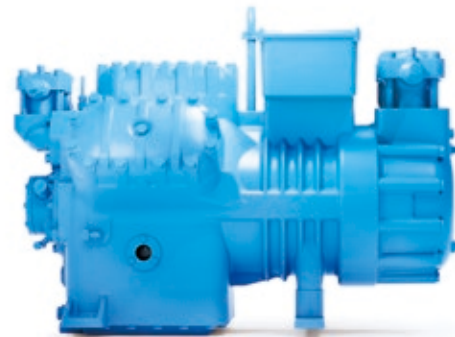


Product range

RECIPROCATING COMPRESSORS

Full product range for standard refrigerants.
8 Series with 84 models designed to guarantee high performances, reliability and efficiency.
In addition to standard models we offer ATEX-certified models.

Our solutions for CO₂ applications include semi-hermetic reciprocating compressors for use in both subcritical and transcritical conditions, in single-cycle, cascade and booster versions with broad operating limits, excellent performances and high levels of safety.



COMMERCIAL &
TRANSPORT
REFRIGERATION



PROCESS
COOLING

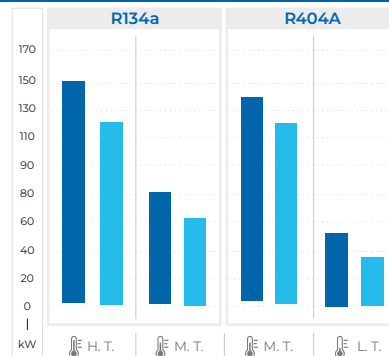


COMFORT
SOLUTIONS



INDUSTRIAL
REFRIGERATION

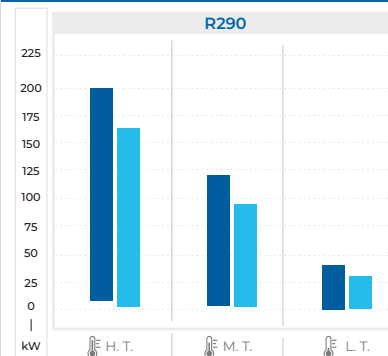
STANDARD REFRIGERANTS



Testing conditions data reference:

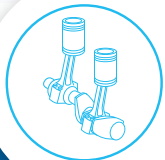
H.T.: evap. T. +5°C; cond. T. +50°C
M.T.: evap. T. -10°C; cond. T. +45°C
L.T.: evap. T. -35°C; cond. T. +40°C

NATURAL REFRIGERANT



Testing conditions data reference:

H.T.: evap. T. +5°C; cond. T. +50°C
M.T.: evap. T. -10°C; cond. T. +45°C
L.T.: evap. T. -35°C; cond. T. +40°C



Reciprocating

SINGLE STAGE



High Efficiency



RSH Capacity control - Optional



Compact Design



Silent Operation



All Models VFD Compatible



Excellent Reliability



A, B, D

2 Cylinders | 22 Models
4 - 19 m³/h | 0,5 - 4 HP



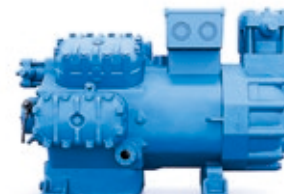
Q, S, & V

4 Cylinders | 40 Models
20 - 123 m³/h | 4 - 40 HP



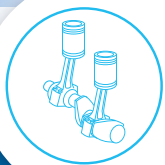
Z

6 Cylinders | 11 Models
106 - 185 m³/h | 25 - 50 HP



W

8 Cylinders | 11 Models
142 - 240 m³/h | 40 - 80 HP



Reciprocating

TWO STAGE FOR REFRIGERATION



Increased Efficiency



Optimized liquid injection



Reliable & Sturdy



Silent Operation



Compact Design



Sub-Cooler Kit



S

4 Cylinders | 2 Models
1st stage: 26 - 27 m³/h
2nd stage: 16 - 19 m³/h | 5 - 7 HP



2V

4 Cylinders | 3 Models
1st stage: 42 - 62 m³/h
2nd stage: 29 - 35 m³/h | 10 - 20 HP



2Z

6 Cylinders | 6 Models
1st stage: 60 - 123 m³/h
2nd stage: 30 - 62 m³/h | 15 - 40 HP



2W

8 Cylinders | 4 Models
1st stage: 139 - 180 m³/h
2nd stage: 60 m³/h | 40 - 65 HP

Exclusive Motor Cooling System



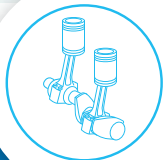
Constant and accurate control
of the motor temperature



Liquid injection monitoring



Prevention of motor
overheating



Reciprocating

NATURAL REFRIGERANTS CO₂



Wide Operating limits



Silent Operation



Strong Construction



High Efficiency



Excellent Reliability



80 bar(a) standstill pressure

SUBCRITICAL



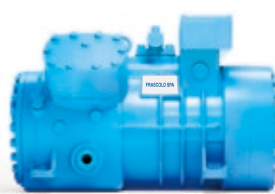
A-SK3

2 Cylinders | 5 Models
1,7 - 4,9 m³/h | 0,7 - 2,5 HP



D-SK3

2 Cylinders | 4 Models
6,51 - 11,3 m³/h | 3 - 5 HP



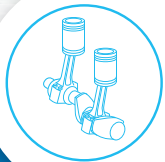
Q-SK3

4 Cylinders | 2 Models
106 - 185 m³/h | 7 - 9 HP



S-SK3

4 Cylinders | 4 Models
28 - 47,2 m³/h | 15 - 30 HP



Reciprocating

NATURAL REFRIGERANTS CO₂



Wide Operating limits



Silent Operation



Very Low Oil Carryover



High Efficiency



Special Piston Design



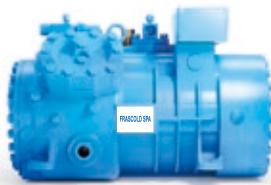
140 bar (a) Maximum Allowable Working Pressure

TRANSCRITICAL



D-TK HD

2 Cylinders | 7 Models
1,9 - 3,5 m³/h | 3 - 5 HP



Q-TK HD

4 Cylinders | 10 Models
4 - 9,6 m³/h | 5 - 10 HP



S-TK HD

4 Cylinders | 14 Models
8 - 26 m³/h | 8 - 40 HP



Z-TK HD

6 Cylinders | 3 Models
30,7 - 37,9 m³/h | 40 - 50 HP



Reciprocating **ATEX SERIES**

The ATEX-certified reciprocating compressor series is made to use with hydrocarbons and stands out for its reliability, silent operations and compact size.



Sustainable

Suitable for any hydrocarbons refrigerants.



Efficient

Capacity modulation is delivered through the exclusive RSH system by reducing the suction of the heads.



Quiet

A perfect mechanical balance to minimize vibrations and provide whisper-quiet operations.



A, B, D

2 Cylinders | 22 Models
4 - 19 m³/h | 0,5 - 4 HP



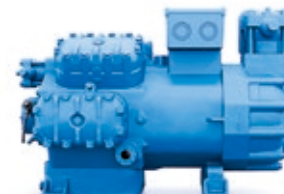
Q, S, & V

4 Cylinders | 40 Models
20 - 123 m³/h | 4 - 40 HP



Z

6 Cylinders | 11 Models
106 - 185 m³/h | 25 - 50 HP



W

8 Cylinders | 11 Models
142 - 240 m³/h | 40 - 80 HP



Reciprocating

ATEX HT SERIES



High Efficiency



Flexible



HC refrigerants



Safe



Green Deal Compliant



Excellent Reliability



S & V

4 Cylinders | 9 Models
33 to 103 m³/h | 7 - 35 HP



Z

6 Cylinders | 3 Models
106 to 140 m³/h | 35 - 50 HP



W

8 Cylinders | 4 Models
142 to 206 m³/h | 40 - 70 HP



RECIPROCATING COMPRESSORS

ATEX CERTIFIED - STANDARD EXTENT OF DELIVERY

KRIWAN Module

Diagnose & protection function.

- To be installed remotely in a safe area.

Lubricating Oil

Lubricating oil for HC (PAG) or other refrigerants (POE).

Crankcase Heater

Encapsulated crankcase oil heater with ATEX connections.

- PTC technology allow self regulating functioning.

Oil Pump pressure Switch

Device which controls the oil pump operation.

- Ability to turn off the compressor functions.
- Discharge temperature sensor ATEX certified.

ATEX Coils & Connectors

The coils and connectors are used for part load functions.

- Discharge temperature sensor ATEX certified.

Terminal box ATEX Caps

Electrical insulation & protection from dust and moisture.

SCREW COMPRESSORS

STANDARD EXTENT OF DELIVERY - ATEX CERTIFIED

KRIWAN Module

Diagnose & protection function.

- To be installed remotely in a safe area.

ATEX PTC Cable Glands

The cable glands permit to have:
Resistance to corrosion
Moisture-proof exterior

Crankcase Heater

Crankcase oil heater with ATEX connections.

- Heater encapsulated in the casting.

Oil Flow Switch

Device which controls the oil flow.

- Ability to turn off the compressor functions when the oil rate is lower than the permitted level.

ATEX Coils & Connectors

The coils and connectors are used for part load functions.

Terminal box ATEX Caps

Electrical insulation & protection from dust and moisture.



Product range

SCREW COMPRESSORS



Our screw compressor series are developed for universal applications for medium and low temperature refrigeration systems, and are suitable for operation in parallel multi-compressor systems (FVR only).

Designed to function continuously for long periods, without stops and intensive maintenance operations, they guarantee excellent performance coefficients and implement technical solutions to reduce noise.



COMMERCIAL &
TRANSPORT
REFRIGERATION



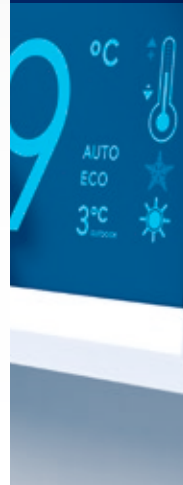
PROCESS
COOLING



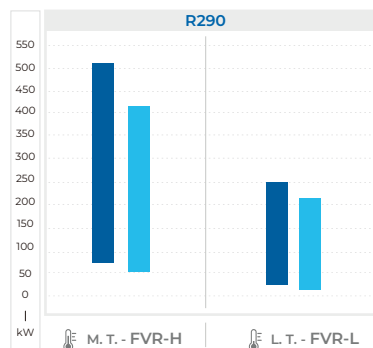
COMFORT
SOLUTIONS



INDUSTRIAL
REFRIGERATION



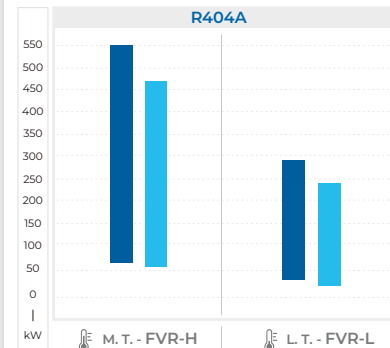
NATURAL REFRIGERANT



Testing conditions data reference:

M.T.: evap. T. -10°C; cond. T. +45°C
B.T.: evap. T. -35°C; cond. T. +40°C ECO

STANDARD REFRIGERANT



Testing conditions data reference:

M.T.: evap. T. -10°C; cond. T. +45°C
B.T.: evap. T. -35°C; cond. T. +40°C ECO



Screw

COMPACT SEMI-HERMETIC



Axial Suction Connection



Easy Installation and Accessibility



Safe operation



Excellent Reliability



All Models VFD Compatible



Available in ATEX Version



CX H

For High compression ratio | 31 Models
199 - 1085 m³/h | 50 - 310 HP



CX W

For Low compression ratio | 29 Models
199 - 1085 m³/h | 50 - 310 HP



CX EVO

Full & Part load efficiency - HFO Design
Optimized lubrication & Oil flow | 12 Models
204 - 1085 m³/h | 70 - 310 HP



Screw

MAGNETIC SERIES



IPM Motor



Lower Operating Cost



Smooth Operation



High Efficiency



High Flexibility



Vi Variable Control System



MAG 5

3 Models

152 - 804 m³/h | 170 - 206 HP



MAG 9

2 Models

254 - 1176 m³/h | 310 HP



Screw

FVR FOR REFRIGERATION



High Efficiency



Compact Design



Easy Installation and Accessibility



Silent Operation



All Models VFD Compatible



Available in ATEX Version



FVR H

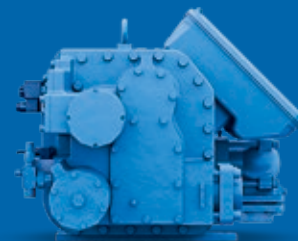
30 Models
120 - 910 m³/h | 30 - 300 HP



FVR L

15 Models
120 - 910 m³/h | 30 - 280 HP

For
NH₃



Aluminium Series

H series: 4 Models
315 - 470 m³/h | 130 - 160 HP
L series: 4 Models
315 - 470 m³/h | 130 - 160 HP



Screw

OPEN DRIVE



High Precision



Low Noise



Easy Installation and Accessibility



High Flexibility



Long Operational Life



Coupling and Coupling Housing



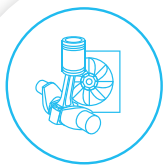
ATS H

For Low compression ratio &
medium-high evaporating temperature
8 Models | 120 - 360 m³/h



ATS L

For High compression ratio &
low evaporating temperature
8 Models | 120 - 360 m³/h

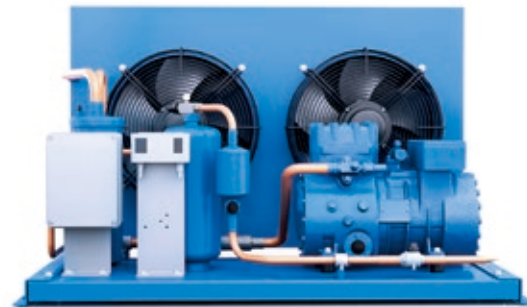


Product range

CONDENSING UNITS

A wide range of commercial and industrial air-cooled condensing units for medium and low temperature applications. Their compact design is ideal for installations where it is important to occupy a minimal amount of space and keep noise levels down.

The EB and EBT series are 100% Ecodesign compliant, to reach the highest level of efficiency. The EBT and LBT2 tropicalized series are suitable for operation at very high ambient temperatures.



COMMERCIAL &
TRANSPORT
REFRIGERATION



PROCESS
COOLING



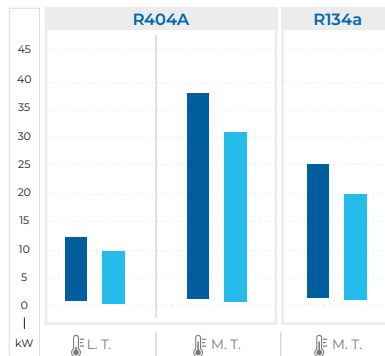
COMFORT
SOLUTIONS



INDUSTRIAL
REFRIGERATION



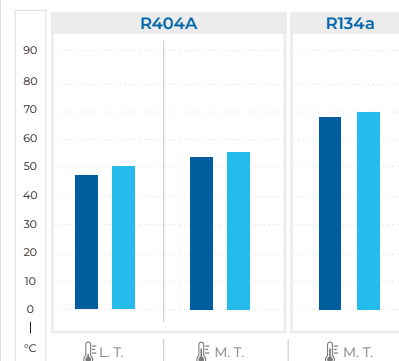
EB \ LB2 RANGE



Testing conditions data reference:

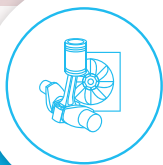
M.T.: cooling capacity @32°C ambient T.; evap. T. -10°C
L.T.: cooling capacity @32°C ambient T.; evap. T. -35°C

MAX AMBIENT TEMPERATURE (C°)



Testing conditions data reference:

M.T.: evap. T. -10°C
L.T.: evap. T. -35°C



Condensing units - EC motor fans

AIR COOLED EB - EBT



Compact & Complete



Low Noise

3°C



Easy to Install and Maintain



Reliable Operation



Reduced Consumption



Wide Temperature Range & Universal Use



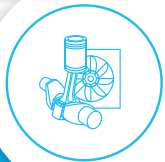
EB UNITS

For moderate climate areas
28 Models | 4 - 56 m³/h | 0,5 - 20 HP



EBT UNITS

For tropicalized climate areas
28 Models | 4 - 56 m³/h | 0,5 - 15 HP



Condensing units - AC motor fans

AIR COOLED LB2 - LBT2



Compact & Complete



Low Noise



Easy to Install and Maintain



Reliable Operation



Reduced Consumption



Wide Temperature Range & Universal Use



LB2 UNITS

For moderate climate areas
28 Models | 4 - 56 m³/h | 0,5 - 20 HP



LBT2 UNITS

For tropicalized climate areas
28 Models | 4 - 56 m³/h | 0,5 - 15 HP



Excellent performance and reliability

CERTIFICATIONS AND STANDARDS



ISO 9001:2015

We are certified for "Design, development, manufacture and servicing of refrigerating compressors and condensing units for refrigeration and air conditioning".



ATEX – Directive 2014/34/UE

The ATEX directive is a certification for equipment and protective systems intended for use in potentially explosive atmospheres, caused by the presence of gases or solid dust. Our complete range of reciprocating compressors and screw compressors is 100% certified in 3G - Zone 2. Protection is guaranteed, in an area where explosive atmosphere, caused by gases, may be present, but only in rare cases or for short periods.



ECODesign – Directive 2009/125/EC and Regulation 2015/1095/EU

Our full range of EB and EBT condensing unit is 100% ECODesign compliant.



ASERCOM Performance Certification

Frascold is a founding member of Asercom, the association of european refrigeration component manufacturers, since its foundation in 1992. The Association is responsible for issuing guidelines related to the state of the art, supporting measures to improve energy efficiency and reduce losses in systems, and managing certification programs for compressors and condensing units performance. Check more information at www.asercom.org. Asercom-certified compressors and condensing units can be recognized by the presence of the logo in the FSS3.

	RECIPROCATING	CO ₂	SCREW	
 UL	✓	✓	✓	All our reciprocating and screw compressors product lines are UL certified
 CCC	✓			A-B-D series are certified
 SASO	✓	✓	✓	All our products (spare parts included) are pre-registered to obtain SASO certification

After - consulting & pre sales

SOFTWARE

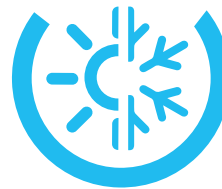
We accompany our Customers through the entire development process, offering pre- and after-sales services.

We stand by our customers, providing a range of courses and training services, installation manuals, declarations of conformity and all the documentation necessary for technical support.

Our sophisticated product selection and configuration software for CO₂ systems provides a thorough preliminary analysis to immediately identify the best solution available for the customer's cooling requirements and optimize the refrigeration and air conditioning systems.

Our spare parts program is an ally when you need to quickly and easily identify the components and accessories of each compressor.

In addition to our full range of 200 compressor models, we develop custom solutions to meet all the needs of our customers.



CO₂ Calculation
Software



Cold Room
Calculation Software



Selection Software



Spare Parts Software

At the pinnacle

TECHNOLOGY

Research and Development are paramount to Frascold's mission.

Our talented engineers and designers focus constantly on innovation, working on research projects in laboratories and universities.

We have been working with the most important Italian technical universities, such as the Politecnico di Milano and Università di Padova, internationally recognized as among the most authoritative in terms of engineering, technology and design.

This combination of unique skills and particularities interact with and complement each other to achieve the highest quality standard required by the market.



Around the world

GLOBAL FOOTPRINT

HEADQUARTER & PRODUCTION PLANT

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