NOVA FRIGO ENGINEERING

COMPANY PROFILE

novafrigo
INDUSTRIAL
REFRIGERATION

HEADQUARTERS

Nova Frigo has been established since 1976 and is based in Lonato del Garda, Brescia, Italy.

With many years of experience in the refrigeration business, we are dedicated to the development of new technologies with the aim of offering the highest quality products.

Since the beginning, the company has established itself as a leader in the market of industrial processes, thanks to our ability to develop products that meet customer requests.

1978

Novafrigo developed the first modular chiller, which has been patented. The RC and RS range are still today present on the market.

1984

The Company made a huge investment by creating a R&D department which implements a testing area dedicated for all new products.

1999

An additional building just next to the existing one was constructed. From that moment, the capacity of production has been increased by 40%.

2003

Novafrigo developed the first product on the market that has dual temperature. The Sigma range is still the point of reference for the plastic application, even for the Competitors.

2018

A new shareholder structure took over the majority shares of the Company adding decades of experience in the refrigeration market.

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The New shareholder structure coming in 2018 add a large experience in the refrigeration market.

From that moment the Company introduced a new commodities sector, i.e. commercial and industrial refrigeration dedicated to the food conservation.

Novafrigo has become «unique» in terms of developed product and field of application.

Today we have a turnover of 11 M euro and 40 employees.

OUR MISSION

Maintaining our grow, by following the new «rules». This is the reason why Novafrigo is dedicating the R&D structure for the developing of green refrigerants systems.

THE GREEN ‘ERA’ HAS BEGUN

2019

The R290 chillers has been introduced. The R290 refrigerant has a GWP of 3 and it is considered a natural gas.

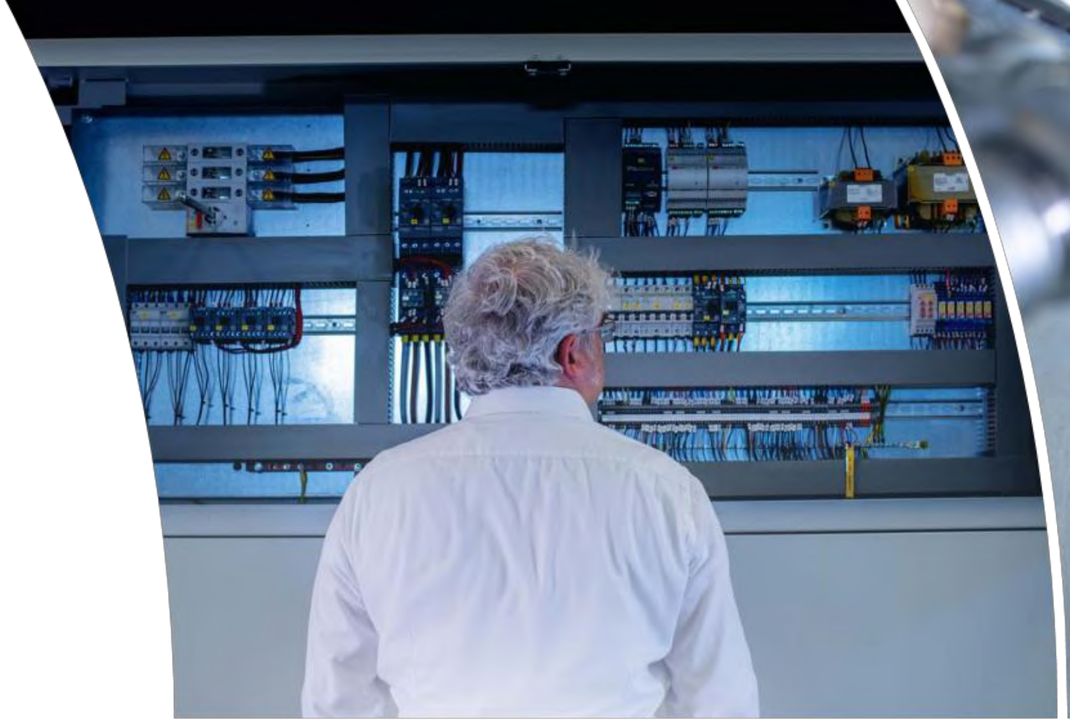
2020

The following year, we introduced the R290 heat pumps.
The 2020 was also the year on which Novafrigo introduced the R744 (CO2) as a refrigerant. The R744 is used for chillers and direct expantion units.

2021

In 2021 Novafrigo started to produce units with NH3 refrigerant.

UTMOST ATTENTION TO THE DETAILS



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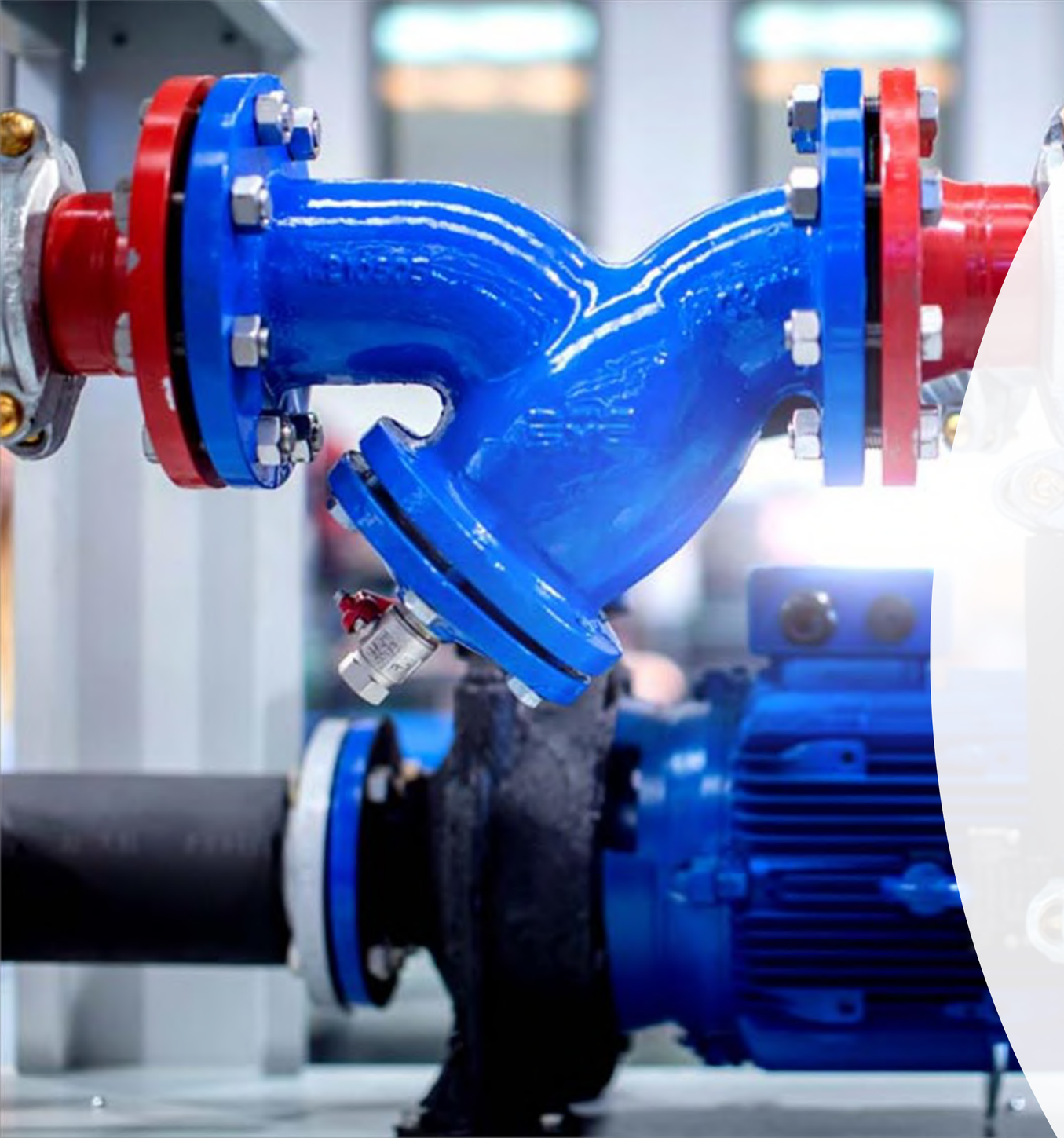
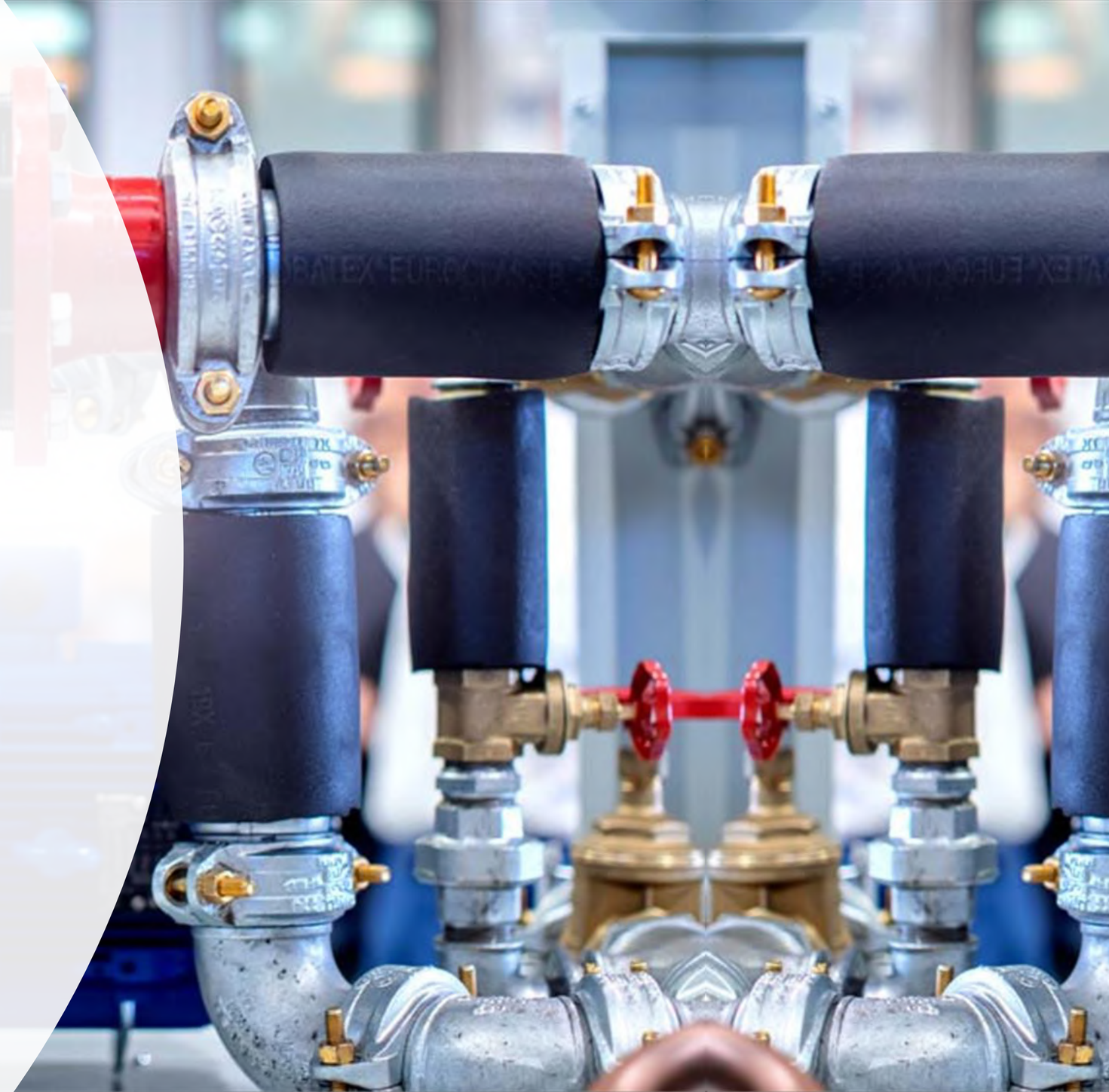


Fields of application in the industrial process

- Plastic industry
- Wine production
- Rubber industry
- Air conditioning
- Galvanizing
- Oil
- Chemistry
- Metal manufacturing industry

Fields of application in the Refrigeration industry

- Supermakets
- Oil platforms
- Dry/Seasoning
- Storage warehouses
- Meat process
- Fish industry
- Covenience stores
- Ice flake makers



OUR COMPANY

- 7.000 m² covered
- 6 people in the technical dept and R&D
- 6 people in the commercial/marketing dept
- 3 people in the Administrstion dept
- 2 people in the Purchasing/Product dept
- 23 people in the production dept

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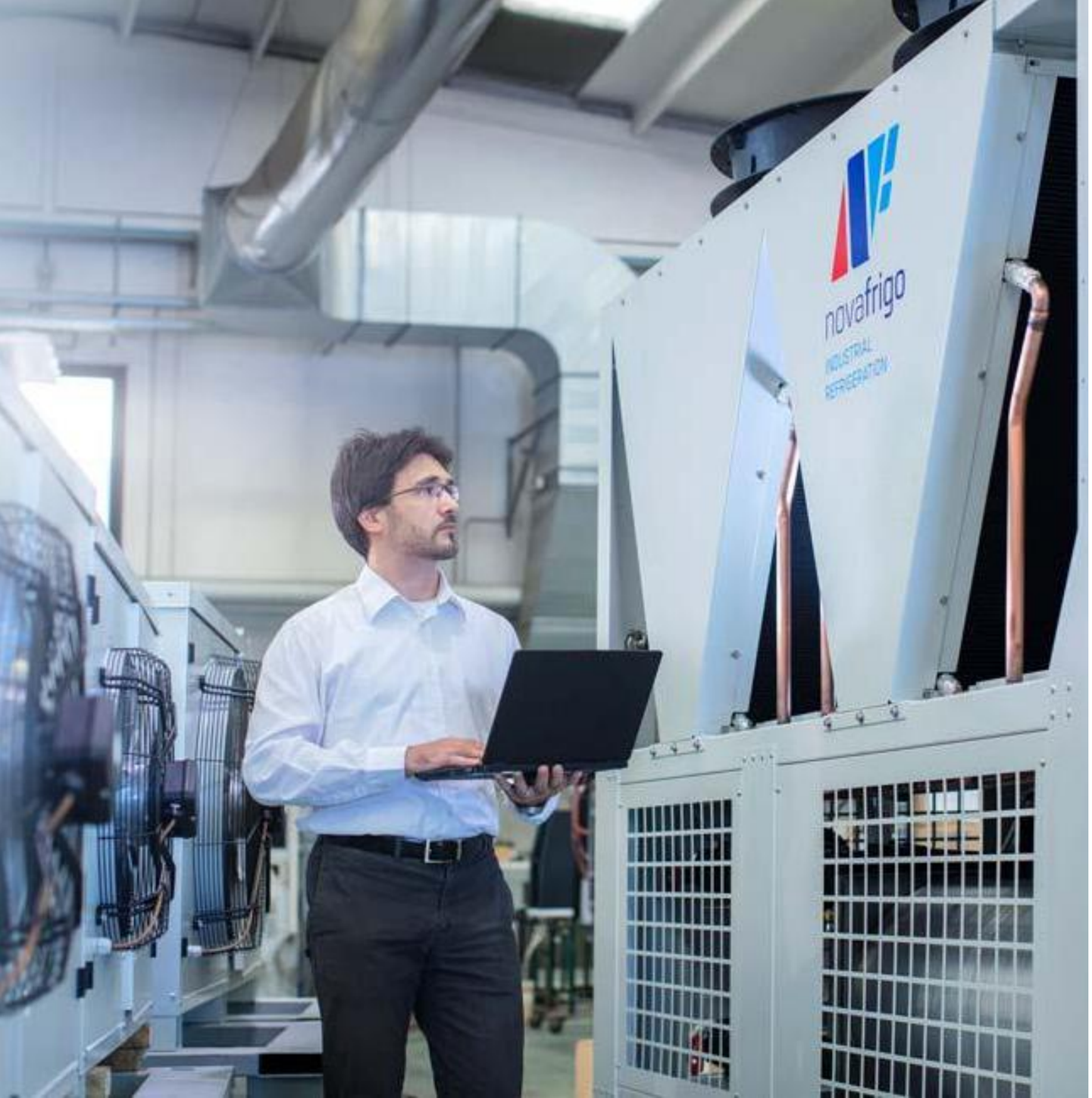

OUR CUSTOMERS

- Air Liquide
- Colruyt group
- MD supermarkets
- Nissan
- Intermarche supermarkets
- Lidl
- ISA/Tasselli
- Mayekawa
- Dorin
- Hilton hotels
- Jeronimo Martins
- …….

NOVAFRIGO IN THE WORLD

We are present in more than 30 countries

Key Ac es

OUR CERTIFICATIONS

EN/ISO9001-2015

PED 2014/68/EU (H1 module)

F-gas certification

CE certification

NOVA FRIGO ENGINEERING

PLANTS

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CO2 POWER PLANTS SUBCRITICAL AND TRANSCRITICAL

The range is developed for MV and LV applications by Nova Frigo Engineering with very low GWP and lower energy consumption than traditional HFC solutions.
Each unit is equipped with semi-hermetic piston compressors, for capacity: MT: from 50 to to 600KW LT: from 30 up to 300kw.

CO2 POWER PLANTS
SUBCRITICAL AND TRANSCRITICAL

STANDARD EQUIPMENT

Power supply 400V /3Ph /50Hz (others available on request)
Electrical control panel with parametric controller (Reftronix®, Carel®)
Compressor brand available: Dorin, Bock and Bitzer
First compressor with variable speed drive
Oil recovery and distribution system with generous reserve
Design pressure: up to 130 bar on the high pressure side.
Standard brazing or soldering connections
head depending on installed capacity

AVAILABLE OPTIONS

Up to two independent heat recovery systems: TW (Tap Water) heat recovery and HR (Heat Reclaim) heat recovery.
Emergency unit for maintaining pressure at the receiver
Subcooling heat exchanger for installation in hot climates
Parallel Compression
Vapor ejector
Extra Devices to Increase the Efficiency of CO2 Transcritical Cycles (Mechanical Subcooling, Adiabatic Gas Cooler, Liquid Ejector)

Media Booster & Low temperature

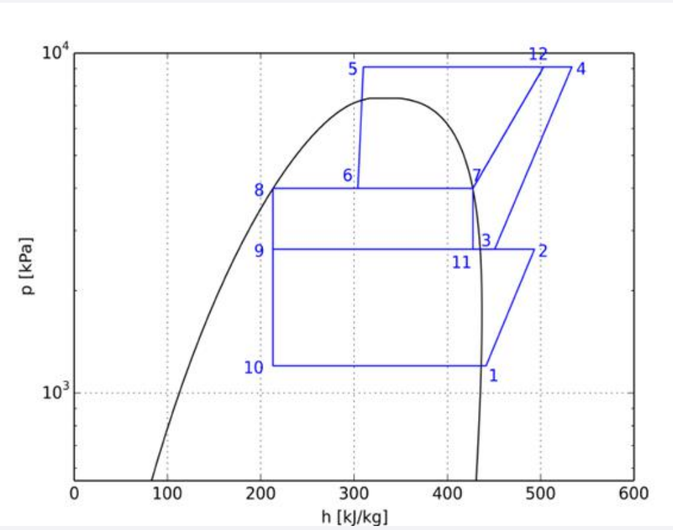
Section MT:

100 KW with evap. temp.

-- 10°C

Section BT:

35 KW with evap. temp. -35°C



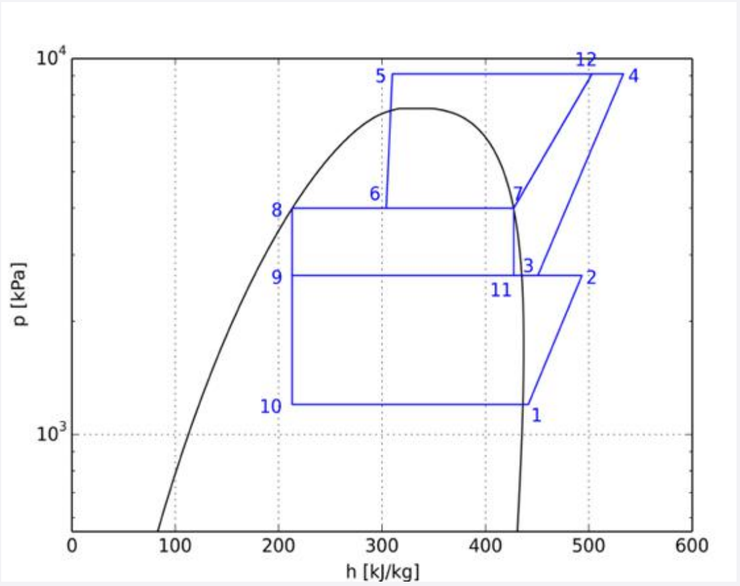
Section MT:

120 KW with evap. temp.

-10°C

Section BT:

40 KW with evap. temp. -35°C



Section MT:

40 KW with evap. temp. -4°C

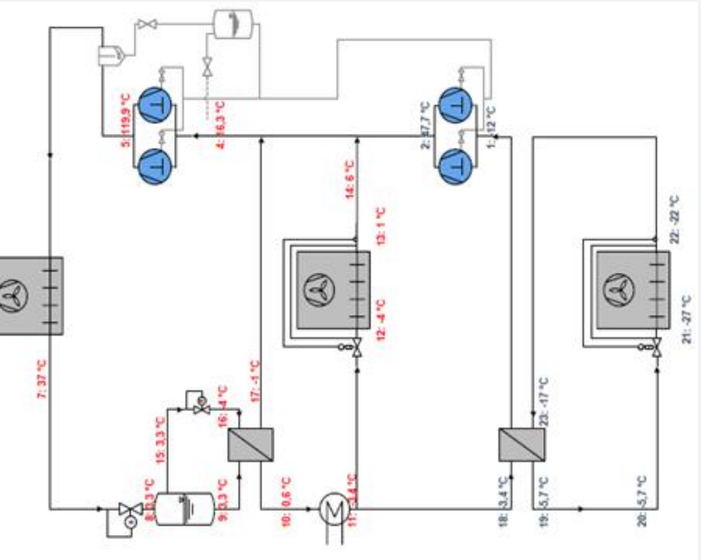
Section BT:

130 KW with evap. temp.

-38°C

Heat recovery:

60/70°C water



Transcritical booster 100 kW

Just low temperature

Evaporation temperature:

-30°C

Environment temperature:

35°C

Two heat recovery:

First: 55/65°C, EG30%

Second: 45/55°C, EG30%

CO2 Subcritical Power Plant

Capacity: 180kW

Evaporation temperature:

-25°C

Condensation temperature:

-10°C

Configuration:

Parallel compression

FLOODED CHILLERS TRANSCRITICAL

The range is developed for MV and LV applications by Nova Frigo Engineering with very low GWP and lower energy consumption than traditional HFC solutions.
Each unit is equipped with semi-hermetic piston compressors, for capacity: MT: from 50 to to 600KW LT: from 30 up to 300kw.

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FLOODED CHILLERS TRANSCRITICAL

The correct design of the flood system makes these units simple, without superfluous moving parts and therefore reliable. The addition of one or more heat recovery units allows for maximum energy savings and maximum system integration.

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TRANSCRITICAL FLOODED CHILLERS

STANDARD EQUIPMENT

Power supply 400V /3Ph /50Hz (others available on request)
Electrical control panel with parametric controller (Reftronix®, Carel®)
Compressor brand available: Dorin, Bock and Bitzer
First compressor with variable speed drive
Oil recovery and distribution system with generous reserve
Design pressure: up to 130 bar on the high pressure side,
Standard brazing or butt welding connections depending on installed capacity

AVAILABLE OPTIONS

Up to two independent heat recovery systems
Extra devices for maximizing the recovered heat capacity (heat pump mode)
Emergency unit for maintaining pressure at the receiver
Subcooling heat exchanger for installation in hot climates
On-board water gas cooler (shell and tube heat exchanger on request)

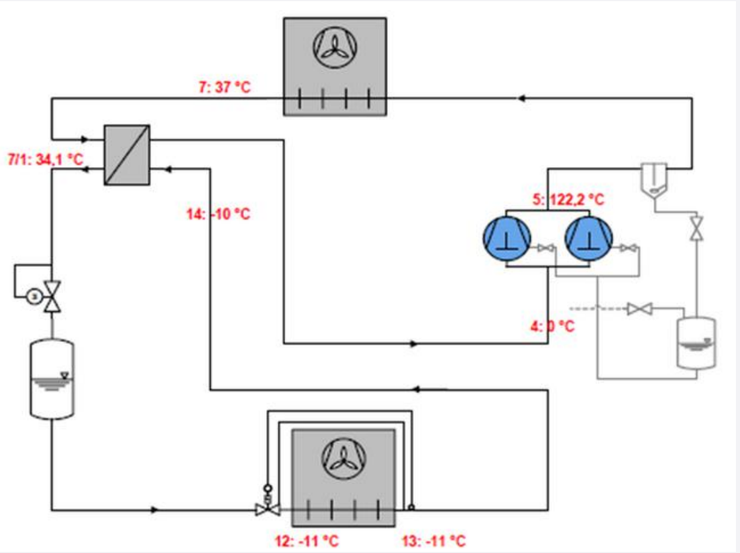
Transcritical flooded chiller

Capacity: 125KW

Evaporation temperature: -11°C

Condensation temperature: 35°C

Temperature EG30%: -4/-8°C



R290 PROPANE LIQUID CHILLERS

The range is developed for MV and LV applications by Nova Frigo Engineering with very low GWP and lower energy consumption than traditional HFC solutions. Each unit is equipped with semi-hermetic piston compressors, for capacity: MT: from 50 to 600KW LT: from 30 to 300kw.

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R290 PROPANE LIQUID CHILLERS

STANDARD EQUIPMENT

Microchannel Capacitors

Electronic axial fans with automatic speed adjustment

Semi-hermetic reciprocating or screw compressors, brands available Frascold, Dorin, Bock and Bitzer

Leak sensor complies with safety standards for flammable refrigerants model SMART3G

Liquid line including: liquid receiver with safety valve, filter, passage light, solenoid valve

Electronic expansion valve

AISI 316 stainless steel plate evaporator, brazed in copper, with single or double flow switch refrigerant circuit

Regenerative heat exchanger with stainless steel plates, AISI 316, brazed in copper, to increase energy efficiency

Electrical control panel with parametric controller (Dixell®, Carel®)

Power supply 400V /3Ph /50Hz (others available on request)

R290 PROPANE LIQUID CHILLERS

AVAILABLE OPTIONS

Inverter compressor

Water condensation

Partial/total heat recovery

Soundproofing compressor compartment

Single or double primary hydraulic pump

Storage tank

Expansion tank

Propane chillers
Air conditioning range

Capacity: 280KW

Glycol temperature: 12/7°C

Number of circuits: 2

Number of compressors: 2

COP: 3,5

Propane Chillers
Mid Temperature Range

Capacity: 480KW

Glycol temperature: -4/-8°C

Number of circuits: 3

Number of compressors: 3

Water kit: 800l tanks
and two ON/OFF pumps
high prevalence

Capacity: 465KW

Glycol temperature: -15/-19°C

Number of circuits: 3

Number of compressors: 3

NOVA FRIGO ENGINEERING

INSTALLATIONS

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AUTOMOTIVE


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FISHERIES SECTOR

MEDICAL-PHARMACEUTICAL SECTOR

AGRI-FOOD SECTOR

AGRI-FOOD SECTOR

AIR CONDITIONING

ICE ARENA

COLD ROOMS

CONTACTS

030.9913250

www.novafrigo.it

info@novafrigo.it

assistenza@novafrigo.it

nova-frigo-engineering-srl

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