Reference List

FOOD & BEVERAGE INDUSTRY

GEOCLIMA
Smart HVAC Solutions

OUR EXPERTISE FOR THE FOOD INDUSTRY

In the food & beverage industry, refrigeration and air treatment equipment plays a key role.

Whether it's supermarkets, warehouses or controlled temperature cellars, reliability and efficiency are essential conditions for the quality and safety of the finished product.
Geoclima has been working for this sector for many years, through the development of customised solutions for large and small projects, assuring high efficiency and reliability, minimum vibrations, lower noise levels and reduced energy consumption.

UNITS

Place	Model	Cooling Capacity (kW)	Description	N.
Bryansk, Russia	GSA-B 3160/04/BT/Sp	340	Condensing unit	1
	GSA-B 250/22/BT/Sp	90		1
	GSA-B 235/22/BT/Sp	120		1
	VSA B 219-22 Sp	70		1
	VSA B 109-22 Sp	15		1
Moscow, Russia	GHA-B 290/ 22/PU	290	Air cooled chiller	1
Vitebsk, Russia	VSE–B 112/04/BT/EEX	30	Condenserless water chiller	1
Moscow, Russia	TMA Energy 340/34/TP	340	Air cooled chiller	1
Saratov, Russia	VSA – C 111 / 66	25	Condensing unit	1
Sheremetyevo Airport, Russia	VSA	-	Condensing unit	5
	GSE		Condenserless water chiller	1
	GKK		Compressor unit	1
Rome, Italy	VSA – C 209 / 04 / SP	209	Condensing unit	1
	VSA – C 209 / 66 / SP	209		2
	VSA – C 209 / 04 / SP	209		1
	VSA – C 209 / 04 / SP	209		6
Rome, Italy	VSA-C 211/34/SP	211	Condensing unit	4
Milan, Italy	TYH 8000 Split	384	Compressor unit	1
	GKK-F 4100/07	339		1
Bari, Italy	GSE-F 380/507/PU	211	Condenserless water chiller	4
	GSA-F 390/07	113	Condensing unit	1
Ilyichevsk, Ukraine	GSA-F 235/07/RC	1200	Condensing unit	2
India	GKK – B 4125 / 04 / BT / SP	480	Compressor unit	1
Switzerland	GNA-B 2130/717/PU/SP	286	Air cooled unit	3
France	GNE-B 1150/717/BT/SC	200	Water cooled unit	1
Poland	TMA200/34	290	Air cooled unit	1
Monforte del Cid, Spain	GHA F2160A EC-ZE-HR-SPEC	620	Air cooled unit	2
Villena, Spain	GHA F2110A EC-ZE HR	201	Air cooled unit	1
Ostsee Fisch – Germany	GHA F2120A LN EC-290	405	Air cooled chiller	1

CASE STUDIES

FOOD FACTORY - POLAND

Background

An important Polish food factory has completed the expansion of the meat processing plants. This enlargement has also led to a considerable increase in the thermal needs which could no longer be satisfied by the existing chiller.

Purposes

The new chiller had to be designed to manage the cooling of meat processing cells where different temperature zones can be found.
Our Polish partner Energycool was in charge of the delivery, assembly and commissioning of the new chiller to be placed on the roof of the plant's technical building.

Project

Geoclima has designed an air cooled 850 kW chiller with 4 independent circuits to ensure redundancy, stepless screw compressors for better power control and multichannel aluminum condensers for high efficiency. The unit was designed in a "low temperature" version able to produce glycol at -6 °C, using the low environmental impact refrigerant HFO-1234ze (GWP <1).

Reasons

The reasons for this choice lie in the fact that the paired Energycool-Geoclima is able to guarantee an advantageous combination of experience, technology and quality service, proven by similar previous projects (the delivery of another Geoclima chiller had taken place 4 months before). Added to this is the possibility of relying on remote access to the unit and effective post-sales with timely on-site interventions.

UVAS DOCE

Background

For one of the leading European companies growing and exporting grape, Uvas Doce S.L., Geoclima has co-operated with customer Frimavi in the replacement of the cooling plant of the facility in Monforte del Cid, Alicante, Spain.

Purposes

The purpose of the project was to provide a highly efficient and energy saving solution, reducing carbon emissions and, in this way, ensuring also a low environmental impact.

Project

For this project Geoclima has designed and produced two 300 kW (85 ton) GHA units with HFO1234ze for a total power of 600 kW (170 ton) and a maximum Cooling COP of 2.4/2.6 (W/W).
Every hour, 12 tons of grapes are processed: they enter at a temperature of about 26 / 28 °C and come out at 1 / 3 °C.

Results

This solution provided by Geoclima ensures high efficiency levels, with Cooling COP around 2.4 and 2.6 (W/W)*, and, at the same time, provides very low environmental impact, thanks to the use of HFO-1234ze refrigerant with GWP<1.

WAITROSE BROMLEY

Background

The supermarket chain Waitrose has a long tradition in using eco-friendly refrigeration.

Purposes

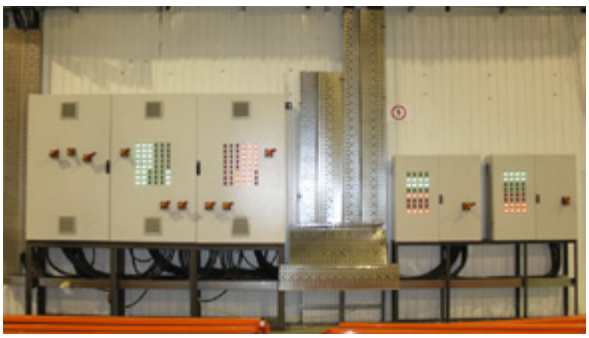
For the sale point in Bromley, in the South of London, we developed **the first HFO chiller in the world** to be installed in a supermarket.

Project

The project concerned two 180 kW air cooled chillers VHA with reciprocating compressors and HFO-1234ze refrigerant with low environmental impact.

Results

The comparison of this plant with a sale point in Canterbury with a similar system using R290 as refrigerant has pointed out a reduction of 22% in energy consumption. It is a remarkable result for a cutting-edge project, awarded with the ACR News Awards 2012.



CHEESE STORAGE

Background

Geoclima's expertise in the design of HVAC systems for food storage has recently been employed in a cheese warehouse in Domodedovo, in the Moscow Region.

Purposes

The purpose of this project is the design of high-performance warehouse, taking into account specific problems concerning to cheese storage and dairy production. The first problem concerned the necessity to remain within a very narrow temperature range (temperature of storing is + 4 °C±1-1,5 °C), humidity (65%) and ventilation rate (2.4), due to the specific storage conditions of these products. The second important problem was the need to create a specific microflora for cheese storage. Finally, there was the need to develop a system able to control sudden changes of temperature and humidity caused by different conditions, such as external climate variations or interventions within the warehouse (opening/closing of doors, etc.).

Project

At the customer's request Geoclima made a turn-key project, which includes the design, manufacture, installation and commissioning of the units.
To ensure high performance of the warehouse, Geoclima designed and produced 4 condensing units and 40 air coolers with a special antibacterial coating.
Specifically for this project Geoclima designed a centralized and autonomous equipment control and monitoring system in the three zones.

ABOUT US

We design and produce special units for applications in air conditioning, refrigeration and air handling systems, with low environmental impact and specifically designed to meet all specific clients' requirements in terms of size, capacity, performance and temperature. **Where the others stop, we go on.**

Our identity is founded on:

INNOVATION
We use the highest technology available in order to maximize efficiency, reduce start-up costs and guarantee a satisfactory return on investment.

CUSTOMIZATION
All types of machines can be provided and developed in non-standard version, thanks to the flexibility of our production system.

ECO-SUSTAINABILITY
We aim to develop applications with the lowest environmental impact possible, using refrigerants with a very low GWP, such as the HFO-1234ze and the R290.

Our facilities and sales offices around the world.

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