



# **TURBO series references**



Chillers

## Airport

Italy



**Project:** ENAV is the Company to which the Italian State delegates the management and control of civil air traffic in Italy.

**Focus:** low noise emission, high energy efficiency, high reliability.

**Solution:** UNICO TURBO FL

**Period:** 2013

**Application:** Airport

**End user name:** ENAV – Roma, (Italy)

**Plant type:** Air cooled liquid chiller with oil free centrifugal compressor with magnetic levitation bearings

**Functions ensured by RC Group equipment:**  
Cooling

**Total installed Cooling capacity:** 550kW

**Installed equipment:** nr.1 air cooled liquid chiller equipped with turbo compressors

**UNICO TURBO FL**  
Air cooled liquid chiller  
with turbo  
compressors



TURBO  
COMPRESSOR



## Data Center

Italy



**Project:** The new Telecom Italia Data Center located in Cesano Maderno increases the Telecom Italia Data Center infrastructure that is now composed by seven physical sites distributed on the national territory to hosts the core functions of the company.

**Focus:** high energy saving, low noise, reliability

**Solution:** UNICO TURBO FL



**UNICO TURBO FL**  
Air cooled chiller with  
centrifugal compressors



**TURBO COMPRESSOR**



**Period:** 2013

**Application:** Data Center

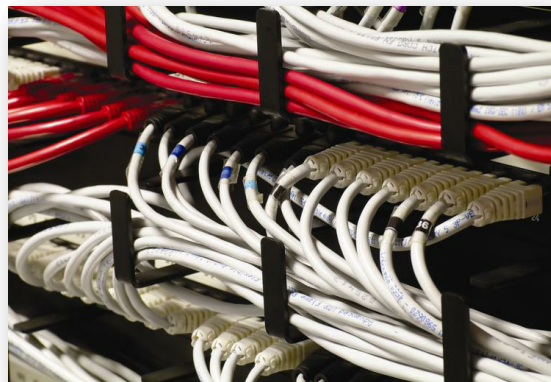
**End user name:** TELECOM, Cesano Maderno (MI) – (Italy)

**Plant type:** Air cooled liquid chiller equipped with magnetic levitation centrifugal compressors

**Functions ensured by RC Group equipment:**  
Cooling

**Total installed Cooling capacity:** 1,2 MW

**Installed equipment:** nr. 1 x air cooled liquid chiller equipped with magnetic levitation centrifugal compressors



## Data Center

United Kingdom



**Project :** World's leading financial management and advisory companies, providing financial advice and investment banking services.

**Installation description:** fully customized CRAC units & chillers supply for U.K. Data Centre & Offices cooling

**Solution:** MAXIMO SCREW, UNICO TURBO, UNICO SCREW, NEXT CW



**MAXIMO SCREW**  
Free-cooling chillers



**UNICO SCREW**  
Air cooled chillers



**NEXT**  
CRAC units



**UNICO TURBO**  
Air cooled chillers with  
centrifugal compressors

**Period:** 2007 - 2010

**Application:** Data center

**End user name:** Merrill Lynch – London (U.K.)

**Plant type:** Free cooling, conventional and magnetic levitation centrifugal liquid chillers, chilled water CRAC units

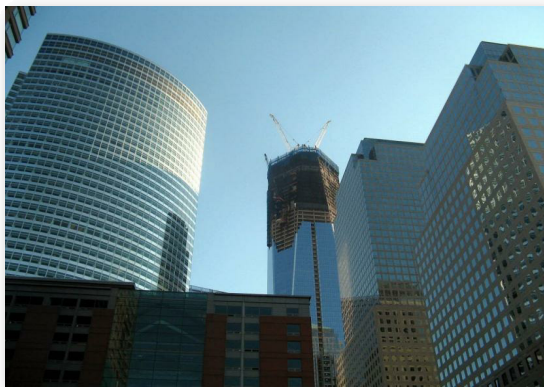
**Total installed Cooling capacity:** 30 MW

**Installed equipments:** nr. 3 x air cooled liquid chillers,

nr.12 x free cooling chillers

nr. 8 x air cooled chillers with magnetic levitation centrifugal compressors

nr. 90 x chilled water CRAC units



## Data Center

United Kingdom



**Project :** International investment bank with presence in all major markets around the world.

**Installation description:** system conceived for full reliability, high energy saving, low noise cooling of U.K. Data Centre & Offices

**Solution:** FRIGO TURBO, UNICO SCREW, NEXT CW

**Period:** 2009 - 2010

**Application:** Data center

**End user name:** Barclays Capital

**Plant type:** Free cooling, air cooled and magnetic levitation centrifugal liquid chillers, CRAC units

**Total installed Cooling capacity:** 16 MW

**Installed equipments:** nr. 3 x air cooled liquid chillers,

nr.12 x water cooled chillers with magnetic levitation centrifugal compressors

nr. 3 x air cooled screw chillers

nr. 52 x chilled water CRAC units



**NEXT**  
CRAC units



**UNICO SCREW**  
Air cooled chillers



**FRIGO TURBO**  
Water cooled chillers with  
centrifugal compressors

## Hospital

Belgium



**Project:** Aalst hospital is one of the three campus of the (**Algemeen Stedelijk Ziekenhuis**) ASZ Hospital.

The current infrastructure implementation and building renovation will grant efficiency, comfort and modern aesthetics to the building.

**Focus:** Low noise, High energy efficiency, Reliability

**Solution:** UNICO TURBO FL

**Application:** Chillers

**End user name:** ASZ Hospital, Aalst (**Belgium**)

**Plant type:** Cooling

**Total installed Cooling capacity:** 560kW

**Installed equipment:** nr.1 x air cooled liquid chillers in "A" class energy efficiency equipped with oil-free centrifugal compressors with magnetic levitation bearings, flooded evaporator and microchannel condensing coil.



**UNICO TURBO FL**  
Air cooled liquid chiller in A class energy efficiency with centrifugal compressors



## Hospital

Italy



**Project:** I.C.O.T. (Surgical Orthopaedic Trauma Institute) is known on the national territory for the high technical-scientific level reached by the structure. The six buildings of the hospital grown on a 100.000m<sup>2</sup> surface with 46.000m<sup>2</sup> of garden and parking area.

**Focus:** Low noise, High energy efficiency, Reliability

**Solution:** UNICO TURBO FL

**Application:** Chillers

**End user name:** ICOT (ISTITUTO CHIRURGICO ORTOPEDICO TRAUMATOLOGICO), Latina (Italy)

**Plant type:** Cooling

**Total installed Cooling capacity:** 1MW

**Installed equipment:** nr.2 x air cooled liquid chillers in "A" class energy efficiency equipped with oil-free centrifugal compressors with magnetic levitation bearings, flooded evaporator and microchannel condensing coil.



**UNICO TURBO FL**  
Air cooled liquid chiller in A class energy efficiency with centrifugal compressors



## Hospital

Poland



**Project:** cooling plant of 4.8 MW to cool the new Children's Hospital of Medical University of Warsaw.  
The main objective in the implementation of the project was to follow the widely variable cooling capacity required by the building at all engine load as efficiently as possible.

**Focus:** Extremely low noise. High efficiency at partial load.  
Reliability.

**Solution:** UNICO TURBO FL

**UNICO TURBO FL**  
Air cooled liquid chiller  
with turbo  
compressors



**TURBO  
COMPRESSOR**

**Period:** 2013

**Application:** Pediatric Hospital

**End user name:** Children's Hospital of Medical University of Warsaw, Warsaw (**Poland**)

**Plant type:** Hydronic

**Functions ensured by RC Group equipment:**  
Cooling

**Total installed Cooling capacity:** 6MW

**Installed equipment:** nr. 6 air cooled liquid chiller with A class energy efficiency equipped with turbo compressors



## Museum

Germany



**Project:** At the heart of the former coal mine, the monumental coal-washing plant provides a new home for the Ruhr Museum.

**Focus:** large surfaces comfort cooling; high energy efficiency; low running costs

**Solution:** UNICO TURBO FL



**UNICO TURBO FL**  
Air cooled chiller with centrifugal compressors

A-CLASS  
RC Hi-Tech  
Italy Germany



**Period:** 2012

**Application:** MUSEUM

**End user name:** RUHR MUSEUM (Germany)

**Plant type:** Central air conditioning hydronic type

**Total installed Cooling capacity:** 1 MW

**Functions ensured by RC Group equipment:**

Cooling

**Installed equipment:** nr. 4 x air cooled chillers with magnetic levitation centrifugal compressors



## Office Buildings

Belgium



**Project:** Diamant Brussels is a leading conference centre close to the centre of Brussels with twenty comfortable modular rooms with functional furniture.

**Installation description:** high energy efficiency of installed units granted by two stage oil-free centrifugal compressor with variable speed and magnetic levitation bearings.

**Solution:** UNICO TURBO



UNICO TURBO  
Air cooled chillers

**Period:** 2011

**Application:** Comfort

**End user name:** Diamant, Brussels, Belgium

**Plant type:** air cooled liquid chiller

**Total installed Cooling capacity:** 1MW

**Installed equipments:** nr. 2 x A energy class air cooled liquid chiller equipped with magnetic levitation centrifugal compressors



## Office Buildings

France



**Project:** Les Miroirs marked a turning point in the architecture of La Défense. It is the first office complex of the so-called third generation. Les Miroirs consists of 8 connected parts surrounding a central square. In the middle cylinders decorated by Deverne emerge from a pond located below the buildings.

**Focus:** high efficiency, reduced CO<sub>2</sub> emission, quiet operation

**Solution:** FRIGO.TURBO FL



**FRIGO TURBO FL**  
Liquid chillers with  
turbo compressors



**Period:** 2013

**Application:** Office buildings

**End user name:** Tour Miroir , Paris - (France)

**Plant type:** water cooled chiller with magnetic levitation centrifugal compressors

**Functions ensured by RC Group equipment:**

Comfort Cooling

**Total installed Cooling capacity:** 1,5 MW

**Installed equipment:** nr. 3 x water cooled liquid chiller with oil-free centrifugal compressors and flooded evaporator

## Office Buildings

Italy



**Project:** The most important Ericsson Development Research Center in Italy, one of the leading centers for ultra-fast broadband networks.

**Installation description:** The installed units are the best answer to the need of precise thermo-hygrometric and air purity conditions granting the optimal environment for Ericsson equipments

**Solution:** NEXT CW , UNICO TURBO

**Period:** 2012

**Application:** Operational building

**End user name:** Ericsson, Genoa, (Italy)

**Plant type:** air cooled liquid chillers, chilled water CRAC units

**Total installed Cooling capacity:** 1,5MW

**Installed equipment:** nr.20 x chilled water CRAC units

nr.1 x A class liquid chiller with magnetic levitation centrifugal compressor



**UNICO TURBO**  
Air cooled chillers

**NEXT**  
CRAC units



## Office Buildings

Italy



**Project:** Telecom Italia is the largest Italian telecommunications company, also active in the media and manufacturing industries.

**Focus:** high energy efficiency; energy saving

**Solution:** UNICO TURBO FL

**Period:** 2012

**Application:** Office building

**End user name:** TELECOM ITALIA (Italy)

**Plant type:** Central air conditioning hydronic type

**Total installed Cooling capacity:** 2,2 MW

**Functions ensured by RC Group equipment:**

Cooling

**Installed equipment:** nr. 4 x air cooled chillers with magnetic levitation centrifugal compressors



**UNICO TURBO FL**  
Air cooled chiller with  
centrifugal  
compressors

**MICROCHANNEL  
CONDENSING COIL**



## Office Buildings

Italy



**Project:** The Cassa di Risparmio Bank of Venice headquarter, realized by Mr. Pier Luigi Nervi and Mr. Angelo Scattolin is one of the rare examples of big size contemporary architecture located in the historical center of Venice.

**Installation description:** Air cooled liquid chillers made with weather resistant materials suitable for outdoor installation.

**Solution:** UNICO TURBO



**UNICO TURBO**  
Air cooled chiller with centrifugal compressors

**Period:** 2011

**Application:** Operational building

**End user name:** Cassa di Risparmio di Venezia

**Plant type:** Air cooled liquid chillers

**Total installed Cooling capacity:** 800kW

**Installed equipments:** nr.3 x air cooled liquid chillers with magnetic levitation centrifugal compressor



## Office Buildings

Luxemburg



**Project:** Drosbach is one of the largest office and congress centre in Luxemburg. Drosbach offers conference halls meeting rooms, dining halls as well as all necessary facilities for any kind of meeting.

**Installation description:** very high energy savings with the state of the art in terms of components for high tech liquid chiller machines

**Solution:** FRIGO TURBO

**Period:** 2012

**Application:** Comfort

**End user name:** Indiat, Luxemburg Drosbach Centre (Luxemburg)

**Plant type:** water cooled chillers

**Total installed Cooling capacity:** 1MW

**Installed equipment:** nr. 2 x water cooled chillers with magnetic levitation centrifugal compressors



**FRIGO TURBO**  
Water cooled chillers  
with centrifugal  
compressors



## Office Buildings

People's Republic of China



**Project:** The **Shanghai Stock Exchange** is the biggest stock exchange operating in the People's Republic of China and the World's 7th largest stock market by market capitalization.

**Focus:** Free-cooling, A-class energy efficiency, Low energy consumption, Low noise, High reliability.

**Solution:** UNICO TURBO FL FREE

**Period:** 2014

**Application:** Chillers

**End user name:** Shanghai Stock Exchange, Shanghai (**People's Republic of China**)

**Plant type:** Office building

**Total installed Cooling capacity:** 3,6MW

**Installed equipment:** nr.3x Air cooled liquid chillers with **free-cooling** system in "A" class energy efficiency, equipped with oil-free centrifugal compressors with magnetic levitation bearings .



### UNICO TURBO FL FREE

Air cooled liquid chillers with **free-cooling** system in "A" class energy efficiency, equipped with oil-free centrifugal compressors with magnetic levitation bearings, flooded evaporator and micro-channel condensing coils

## Office Buildings

Switzerland



**ToniAreal** is a crucial part of the plan to breathe new urban life into Zürich West. It features spaces for cultural events, as well as apartments for the Zürich University of the Arts and the Zürich University of Applied Sciences.

**Installation description:** Frigo Turbo chillers have been supplied for this project to achieve the highest performance ratings, to optimize the power consumption of this building styles.

**Solution:** FRIGO.TURBO FL 1140



**A-CLASS**  
RC Hi-Tech

**FRIGO TURBO FL**  
Liquid chillers with  
turbo compressors

**Period:** 2012

**Application:** Operational building

**End user name:** TONI ALEAR, (Switzerland)

**Plant type:** water cooled chiller with magnetic levitation centrifugal compressors

**Total installed Cooling capacity:** 3,5 MW

**Installed equipment:** nr. 3 x water cooled chiller with magnetic levitation centrifugal compressor



## Office Buildings

United Kingdom



**Project :** U.K. flag carrier airline and second largest measured by passengers carried.

**Installation description** UNICO TURBO FL

**Solution:** filling out the request of high efficiency using the magnetic levitation compressor

**Period:** 2012

**Application:** Operational Building

**End user name:** British Airways (U.K.)

**Plant type:** conventional air cooled chillers

**Total installed Cooling capacity:** 1.5 MW

**Installed equipment:** nr. 2 x air cooled chillers with magnetic levitation centrifugal compressors



**UNICO TURBO FL**  
Air cooled chiller with centrifugal compressors



## Retail

Belgium



**Project:** Located in "Rue Neuve", in the heart of the city of Brussels, City 2, with its 51.000 m<sup>2</sup>, is the largest urban shopping centre in Belgium.

**Installation description:** large surfaces comfort cooling by technological system focused on energy efficiency and low running costs

**Solution:** UNICO TURBO

**Period:** 2012

**Application:** Comfort

**End user name:** COFELY Services

**Plant type:** shopping centre – Brussels (BELGIUM)

**Total installed Cooling capacity:** 2,4 MW

**Installed equipments:** nr. 4 x air cooled chillers with magnetic levitation centrifugal compressors



**UNICO TURBO**  
Air cooled chiller with centrifugal compressors





**Project:** Plaza Hollywood is one of the largest shopping centres in the Diamond Hill area, New Kowloon, Hong Kong. Featuring four floors surrounding a central atrium, its main advertising scheme involves everything similar to Hollywood. It was developed by the Wharf Holdings.

**Focus:** top yearly energy saving, low noise, reliability

**Solution:** UNICO TURBO FL



**A-CLASS**  
RC Hi-Tech

**UNICO TURBO FL**  
Air cooled chiller with centrifugal compressors

TURBO COMPRESSOR



**Period:** 2013

**Application:** Commercial Building

**End user name:** Atal Building Serv. (Hong Kong)

**Plant type:** Hydronic system

**Total installed Cooling capacity:** 1,4 MW

**Installed equipment:** nr. 2 liquid chillers equipped with centrifugal compressors and flooded evaporator



## University - Educational

People's Republic of China



**Project :** Kellet School is a British International School in Hong Kong. It 's situated across two campuses: the Preparatory Section housed at the Pok Fu Lam campus and the Senior Section at the Shau Kei Wan campus.

**Focus:** high energy efficiency

**Solution:** UNICO TURBO FL using the magnetic levitation compressor



**UNICO TURBO FL**  
Air cooled chiller with centrifugal compressors



**TURBO COMPRESSOR**



**Period:** 2012

**Application:** multifunctional complex

**End user name:** KELLETT SCHOOL (China)

**Plant type:** air conditioning

**Total installed Cooling capacity:** 1,7 MW

**Functions ensured by RC Group equipment:**

Cooling

**Installed equipment:** nr. 3 x air cooled chillers with magnetic levitation centrifugal compressors



## University - Educational

Germany



**Project:** Bergakademie is a German university with about 6000 students. The chilled water produced by the RC Group's units is used for cooling numbers of laboratories as well as the data center of the University.

**Focus:** High energy efficiency at partial load, Low noise, Reliability, EER higher than 7,0

**Solution:** FRIGO TURBO FL



**FRIGO TURBO FL**  
Liquid chillers with  
turbo compressors

**A-CLASS**  
RC Hi-Tech

**Period:** 2013

**Application:** University

**End user name:** BERGAKADEMIE, Freiberg  
University of Mining and Technology, Freiberg,  
Saxony (Germany)

**Plant type:** Hydronic

**Functions ensured by RC Group equipment:**  
Centralized chilled water supply

**Total installed Cooling capacity:** 800kW

**Installed equipment:** nr. 2 x water cooled liquid  
chiller with A class energy efficiency, oil-free  
centrifugal compressors and flooded evaporator



## University - Educational

Germany



**Project:** The University of Bonn is one of the world's leading research based Universities founded almost 200 years ago that proudly maintains partnerships with 56 universities in Europe, America, Asia and Australia.

**Focus:** operating reliability, reduced CO<sub>2</sub> emission, quiet operation

**Solution:** FRIGO.TURBO FL

**Period:** 2013

**Application:** Research laboratory

**End user name:** BONN UNIVERSITY, Bonn  
GERMANY

**Plant type:** Research laboratory cooling

**Functions ensured by RC Group equipment:**

Comfort Cooling

**Total installed Cooling capacity:** 1 MW

**Installed equipment:** nr. 2 x water cooled liquid chiller with oil-free centrifugal compressors and flooded evaporator



**FRIGO TURBO FL**  
Liquid chillers with  
turbo compressors





**Project:** Politecnico in Torino is internationally known as a leading institution in engineering and architecture studies. Politecnico in Torino offers its 32000 students a multicultural study environment and a close relationship with the business.

**Focus:** High energy savings, Low noise, Reliability

**Solution:** FRIGO TURBO FL

**Period:** 2014

**Application:** Chillers

**End user name:** Politecnico di Torino, Planning, Administration and Finance Area, Torino (Italy)

**Plant type:** Cooling

**Total installed Cooling capacity:** 1,1 MW

**Installed equipment:** nr.2 x water cooled liquid chillers in "A" class energy efficiency equipped with oil-free centrifugal compressors with magnetic levitation bearings, flooded evaporator and shell and tube condenser.



**FRIGO TURBO FL**  
Water cooled liquid chiller  
in A class energy  
efficiency with centrifugal  
compressors

**A-CLASS**  
RC Hi-Tech

**LOW NOISE**  
RC Hi-Tech

**INVERTER**  
RC Hi-Tech





**Project :** leading provider of premium network independent data centres in Europe

**Installation description:** the units have been selected to maximize efficiency, to compliment the sustainable development of the whole building on Stockholm 1 & 2 sites Data Centre

**Solution:** GLIDER FREE, FRIGO TURBO

**Period:** 2009 - 2011

**Application:** Data center

**End user name:** Telecity Group - Stockholm (SWEDEN)

**Plant type:** Free cooling chiller, water cooled chiller with magnetic levitation centrifugal compressors

**Total installed Cooling capacity:** 10 MW

**Installed equipments:** nr. 7 x free cooling chillers

nr. 1 x water cooled chiller with magnetic levitation centrifugal compressor



**GLIDER FREE**  
Free-cooling chillers



**FRIGO TURBO**  
Water cooled chillers with centrifugal compressors



**Start here!**  
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