



2013

CASE HISTORY: “Plug’n Cool” CO₂ Booster unit



SCM Frigo S.p.A. is proud to announce the release of a new “Plug’n Cool” CO₂ Booster units range.

Sabcobel NV carried out the installation and commissioning for Castelein frozen storage in Ninove (Belgium).

Customer web site:
www.sabcobel.be

SCM Frigo S.p.A.

29/07/2013

CASE HISTORY

The problem

Refrigerating low temperature cold rooms and expedition area, using natural refrigerant and reducing as much as possible the installation costs, footprint and power consumption of the system during operation.

Design capacity:

50 kW for the medium temperature areas at +2°C

130 kW for the frozen cold room -25°C

The solution

The key solution is SCM's new "Plug'n Cool" CO₂ booster unit.

With a very compact footprint the new "Plug'n Cool" range of booster units provide a very easy and reliable system with the benefit:

- Easy installation, customer has only to connect the users pipes
- HP piping factory installed and tested (no additional costs for welding and high pressure testing on the plant)
- Small footprint
- High efficiency gas cooler coil integrated with the high efficiency of the EC fans technology

System description

The system is a CO₂ booster unit with 4 medium temperature compressors operated at T_{ev}. -8°C plus 2 low temperature compressors operated at T_{ev}. -32°C.

The gas cooler is integrated in the booster enclosure and equipped with five EC fans, for a total gas cooler capacity of 320 kW.

The booster unit is installed in a noise isolated enclosure adjacent to the gas cooler side, therefore a very low noise emission is provided. Doors provides an easy access to the unit for check and maintenance.

The unit is also equipped with a CO₂ Hot Gas Defrost system for the low temperatures evaporators, which further increases the overall efficiency.



Castelein, the final customer



Unit from the gas cooler side



Unit from the booster unit side



Sabcobel and SCM during startup



Low temperature evaporators and hot gas defrost valves arrangement

