

**FORANE[®] 427A CASE STUDY:
MOBY LINES CHOOSES FORANE[®] 427A
FOR A FERRY BOAT CHILLER CONVERSION**



In April 2010, *Tecnoimpianti* implemented a chiller retrofit with Forane[®] 427A on one of Moby's ferry boats in the port of Genoa, Italy. *Tecnoimpianti* has done several retrofits with this product and has therefore recommended it to its customer.

Unit description

The installation was made of Chillers for production of cooled water : Temperature at 7°C
The refrigerant charge was 400 kg x 3 = 1 200 Kg

The installation was equipped with

- 3 STALL SVR 57 screw compressors (1300 KWx3) 3.700 turns - 60 Hz;
- sea water cooled shell and tube condenser;
- electronic Danfoss expansion valve.

The subcooling was set at 3°C.
The superheat was set at 7°C.



Retrofit procedure:

Unload of installations

- Unloaded Refrigerant R22
- Cleaned the 3 filters
- Replaced the 3 dehydrators filters
- 24 hour of drying of the system with vacuum pump

Recharge of installations

- new charge of POE oil - Shell R100 - 60 Kg x 3 units
 - empty of the system with vacuum pump
 - new charge (1:1) of refrigerant Forane®427A - 400 Kg x 3 units
- Start up of the system without any others operations, reaching normal work conditions.

After the retrofit, all system temperatures and pressures with Forane® 427A were similar to those measured with R-22.

The ferry is now travelling around Italian islands.

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