GEMINA TERMIX
Member of the Danfoss Group

Cooling Secures Future Digital TV Broadcasting

Gemina Termix A/S, member of the Danfoss Group, who has produced district heating units for the production of hot water and heating for one- and multi-family-houses in more than 20 years, now also delivers cooling units – to begin with to the Danish TV channels DR's and TV2's transmitting stations.

But cooling is certainly a new business area which the company expects great things from in the future. Especially shops and office buildings are estimated to require more cooling in future.

Gemina Termix has already delivered the first cooling units to Broadcast Service Danmark and the remaining units must be installed by November 2009. From this month digital TV broadcasting replaces the current analog TV broadcasting in Denmark. A total of 80 units are to be delivered.

Cooling will secure that the digital TV transmitters remain chilled. The technical equipment in the digital transmitters requires efficient cooling. If the temperature in the transmitters gets too high, they will fail and the result will be blackouts on Danish TV screens.

There are 17 television transmitting stations across Denmark which transmit television signals to the Danes. They are owned by TV2/DENMARK and DR in a joint venture company named 'Broadcast Service Danmark'.

René Hansen, service technician at Gemina Termix, tells that the cooling units have been built in various dimensions at the factory in Sunds due to different space requirements at each of the transmitting stations where the conditions are very different.

The cooling of the transmitting stations is constructed to lead surplus heat over into a tower next to the transmitting tower where it is cooled down. In Sweden the surplus heat from the transmitters is reused for heating the station buildings. In Denmark we have not yet taken advantage of this because it would require a total renovation of the heating units in all the buildings.

The main contractor on this project is Bravida in Aalborg, who delivers Gemina Termix's solution to Broadcast Service Danmark. The cooling unit has been developed in a close cooperation with Bravida, who is also responsible for the development of the controller for the cooling unit.

Gemina Termix has not previously dealt with cooling, but in principle the cooling unit is a "reversed" heat exchanger. The largest challenge for Gemina Termix in connection with the development of the cooling units has been to meet the demands of specifications and special measurements.

Gemina Termix has recently delivered several compact stations to Norway for use in cooling applications in companies with e.g. large glass facades - and currently cooling units are being produced for customers in Spain.

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On the photo Bo Rasmussen from the forging department is mounting a cooling unit which is to be sent to a transmitting station in Hedensted

The mounted cooling units in the transmitting station in Videbæk

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