Room temperature is a success factor at the Lindau Inselhalle.

A QUANTUM chiller is keeping things cool at the new conference and event location in Lindau on Lake Constance.

Lindau on Lake Constance is not just one of the most beautiful holiday destinations in Germany. The island town is also an international event location with a long tradition. As a central conference and event location, Inselhalle Lindau welcomes around 100,000 guests every year. The Inselhalle underwent extensive conversion and now offers a suitable setting for conferences, trade fairs and concerts. Since this renovation, a perfect room temperature has been provided by a water-cooled QUANTUM chiller from ENGIE Refrigeration.

Special requirements concerning this project

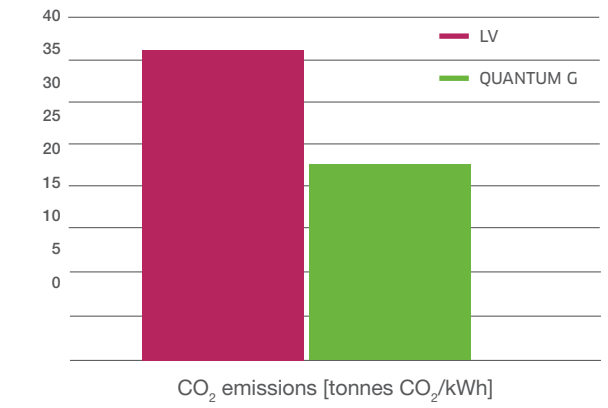
The refrigeration solution is an important part of the puzzle in a functioning overall system. The most important point for Lindau Tourismus und Kongress GmbH was to be able to work with a powerful and environmentally sustainable machine. As well as improving the efficiency of the cold supply and ensuring a pleasant atmosphere for guests, this also helps with sustainable operation of the Inselhalle. The level of service required was also a significant factor. At the same time, the chiller must not interfere with the overall operation, either by breaking down or by emitting excessively loud running noises.

Meeting the requirements by using QUANTUM

When it comes to projects like the Inselhalle that combine renovation with a new build, there are limits to how much energy efficiency can be achieved. Especially powerful machines like our QUANTUM help conserve both environmental and financial resources. As the QUANTUM is equipped with R-1234ze, a sustainable refrigerant, it makes an active contribution to protecting the environment. Moreover, in an emergency, a service technician can be on-site within 15 minutes. The Lindau Inselhalle also benefits from the QUANTUM chiller's extremely quiet operation, as it is located directly under the main event hall.

The QUANTUM chiller installed in the Inselhalle is particularly efficient and eco-friendly in operation. The QUANTUM enables the Inselhalle to achieve annual energy savings of 36 per cent and reduce CO2 emissions by 13 tonnes. The chiller uses R-1234ze, a sustainable refrigerant. This minimises its greenhouse potential by 98 per cent when compared to chillers with a traditional refrigerant. As the QUANTUM generates very little structure-borne noise, it also guarantees an undisturbed enjoyment of sound at the event location.

CO_2 emissions



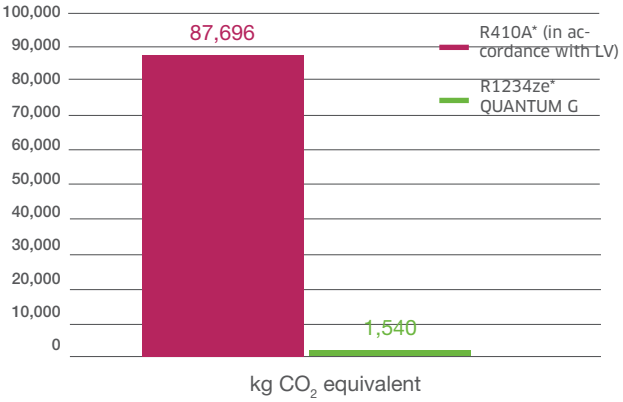
Reduction of CO_2 emissions 13 tonnes
(per year, attained by using QUANTUM G)

Use of the eco-friendly refrigerant R-1234ze ensures that the QUANTUM G chiller has a smaller CO_2 footprint and it protects the earth's atmosphere.

Efficient and eco-friendly

	LV	QUANTUM G
ESEER (European Seasonal Energy Efficiency Ratio)	5.97	9.32
Average refrigeration capacity per year [in accordance with ESEER]	250 kW	
Operating hours per year [estimated]	5,000 h/y	
Cooling consumption per year	1,250 MWh/y	
Electricity consumption per year	209 MWh/y	134 MWh/y

Greenhouse potential



*GWP values in accordance with the fourth IPCC report (2007)

Energy savings **36%**
(per year, attained by using QUANTUM G)

Greenhouse potential reduced by 98%
(attained by using QUANTUM G)

ENGIE Refrigeration GmbH
Josephine-Hirner-Straße 1&3 | D-88131 Lindau, Germany
Phone: +49 8382 706-1 | Fax: +49 8382 706-410

refrigeration@de.engie.com
engie-refrigeration.de