



The first QUANTUM on the new test bed at ENGIE Refrigeration – satisfied customers!

A good climate in the Middle East.

ENGIE Refrigeration is keeping Tehran's Olympic Towers complex cool with four QUANTUM machines.

A large-scale housing and living complex is currently under construction in the West Tehran extension area: the 26-storey Olympic Towers will include 346 exclusive flats, a swimming pool facility, 750 parking spaces and an integrated shopping centre as well as a fitness centre. Around one-third of the overall area is currently under construction; two-thirds will be planted with greenery.

Central cooling as needed

ENGIE Refrigeration will be responsible for the housing development's refrigeration supply in the Olympic Towers complex (another refrigeration service provider will be overseeing the shopping centre). To this end, we will be shipping four QUANTUM chillers to Iran – each with 1.29 MW refrigeration capacity. We will use these four machines to create a district cooling network within the building complex. This will ensure efficient provision of central cooling to the various consumers. For this project, it was particularly critical that the chillers be able to respond quickly and reliably to the strongly fluctuating cooling demand.

Quality makes the difference

ENGIE Refrigeration's high quality standards were the deciding factor in winning the contract. Our comprehensive after-sales services were another point in our favour: the warehouse in Tehran will be equipped with the most critical spare parts for the supplied machines; this will not only ensure that commissioning runs smoothly but that the chillers can be serviced without interruption for at least five years.

Energy efficiency that sets new standards

The excellent energy efficiency values of QUANTUM chillers enables us to present the customer with a strong energy savings concept. This in turn was essential in order to receive state funding: the operator would only be eligible for tax benefits for the Olympic Towers complex if total consumption of electricity remained below 5 MW. The energy efficiency of QUANTUM chillers enables them to make a significant contribution to adhering to this threshold value or even undercutting it (5 MW capacity refers to the total consumption of the project, not to refrigeration capacity). In addition, the QUANTUM units will be used for heat recovery: The heat created by the refrigeration process will be used to heat the swimming pool. This adds up to further energy and cost savings.

A low-cost life cycle

Because the four QUANTUM chillers have been designed to produce extremely energy-efficient refrigeration throughout their entire life cycle, the initial outlay will pay for itself in just a few years. Therefore, the solution that ENGIE Refrigeration developed for the customer is not only unusually low-maintenance, safe and resource-friendly, but is very economical as well.

Services at a glance

- 4 x QUANTUM (W135-P3F-HH) with 1,290 kW capacity each
- Creation of a district cooling network for just under 350 individual consumers
- Heat recovery
- In-depth consulting, energy savings concept for state funding
- On-site training of employees and service personnel
- Equipping a warehouse with a sufficient supply of all critical spare parts for at least five years



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

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