TEDOM
YANMAR GROUP

TURKEY

CHP UNIT INSTALLATION
at Altunizade Hospital, Turkey

21st hospital of Acibadem Healthcare Group opened its doors in Altunizade, at the beginning of 2017. Acibadem Altunizade Hospital has many specialized care units along an advanced technical infrastructure, medical technology, professional healthcare personnel in all branches.

As the primary source of heat and power, the hospital procured and installed two QUANTO 1200 containerized CHP from TEDOM which were installed by Arke Enerji company.

The installation had unique challenges and due to space limitations and the CHP's had to be located on the roof of the hospital which is 55 meters above the ground level. Further complications were caused by the extreme weight of containers on the roof, therefore a customized 500mm steel base with enhanced vibration mounts to reduce noise. These mounts were designed and constructed for the base of the CHP's which were directly supported from the main load bearing columns of the building.

CHP unit type	2x TEDOM Quanto 1200 kW
Fuel	Natural Gas
Electrical Output	2400 kW
Heat Output	2590 kW
Total Efficiency (LHV)	90,8 %
Commissioning Date	April 2017
Place of installation	Acibadem Altunizade Hospital Istanbul, Turkey

Combined heat and power production, also known as cogeneration, is an electricity production method that utilizes the heat released by the electricity production process in a useful manner. In doing so, a high utilisation efficiency of the energy from fuel is attained when the fuel is mostly a natural gas, LPG or biogas. Cogeneration pays off where demands for higher supplies of heat or cold exist. The power generated in the CHP unit can be utilised for the plant's own consumption or it can be distributed to the power grid.