

Mountair Hybaco® - new generation with EC-Motors

In October 2013 Mountair AG delivered the first 2 hybrid coolers (Hybaco®) of the new generation to Energiedienstleistungen Zürich AG (EWZ).



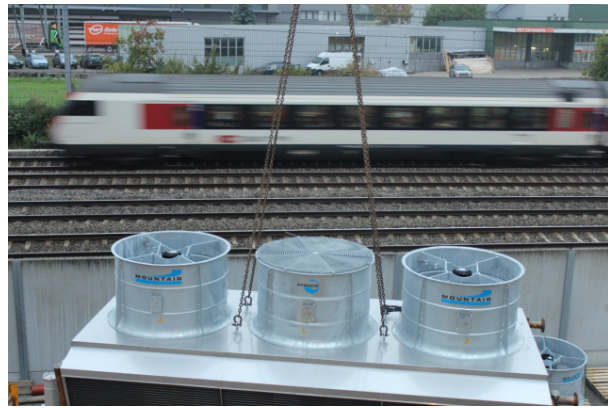
2 Hybrid Recoolers of 1550kW each are needed for the new refrigeration plant on the Wagi Areal in Schlieren (Zürich, Switzerland). Further expansion stages (1+1 Hybrid Recoolers of 1550kW each) are planned and will be realised according to customer needs.

Special feature of the new generation Mountair Hybaco® coolers are the use of newest fan and motor technology. Fiberglass-reinforced fans from Howden meets the highest acoustic requirements and allow an installation without any further sound attenuators on the Wagi Areal. The fans are driven by high efficient EC-motors which are comparable with the efficiency class IE4. EC-motors have the big advantage to allow variable speed between 5% and 100%. Furthermore their efficiency in partial load conditions is outstanding and programming/controlling is made easy using a 0-10V signal.



Motor bearings are fitted for an extraordinary long lifetime and dimensioned to operate more than 80'000 hours. All other key components of the hybrid coolers are made out of premium materials as well: heat exchanger with AlMg3 fins and tinned copper tubes, stainless steel frame; pump in stainless steel; piping in pickled stainless steel tubes; water basin in pickled stainless steel; and structural framework as a galvanized welding construction.

Each Hybaco® recoolers is equipped with a local control cabinet. The (Schneider) Xenta control system regulates the recoolers fully automatically and economically optimized. Communication from/to the BMS is made with potential free contacts. A serial (BUS) interface to BMS is available. It is programmed individually for any case of application.



A major design task is the optimization of the recoolers together with the chiller in cooperation with the other trades. Mountair AG provides the flexibility incorporating customer specific requirements. In case of Wagi Areal a higher base frame design has been implemented. It guarantees a natural draining of the piping system without any further base installations. Because of total height limitations of the transportation, the fans have been assembled on site. Mountair AG has the flexibility and experience to build recoolers for any special and individual requirements.

