



ENERGY-EFFICIENT AIR CONDITIONING FOR A MAJOR PROJECT FOR A MAJOR PROJECT

CHALLENGE

ENERGY-EFFICIENT AIR CONDITIONING FOR A MAJOR PROJECT

The Grieshaber Logistics Group's construction project is currently the largest gas engine heating pump project in the whole of Germany! Cooling, heating and ventilating with a total of 14 Yanmar gas motor heating pumps installed in various halls, warehouses and offices - this project presents plenty of challenges.

At the 25,000-square-metre site, Grieshaber Logistics Group AG will provide pharmaceutical customers with high-quality logistics and value-added services premised on a wholesale and manufacturing plant.

The logistics park will act as a national central warehouse and international distribution platform for customers.



SOLUTION

A PERFORMANCE-BASED SYSTEM FOR AN EXTENSIVE CONSTRUCTION PROJECT

KKU Concept developed an energy-efficient and resource-saving master plan based on gas motor heating pumps for the Grieshaber Logistics Group's extensive complex, consisting of several warehouses, communal rooms and office units. The Yanmar energy systems were combined with ducted units and central ventilation devices, among others, which round off KKU Concept's successful and sophisticated concept and contribute to a pleasant room climate. The GHP provide countless benefits in the enormous warehouses. These benefits include, for example, energy savings through the Yanmar engine running on natural gas and resource-saving operation by using free environmental heat and waste heat from the engine and refrigeration circuit. The entire installed plant can be configured and monitored in a few simple steps by connecting the central monitoring and control unit. Various desired temperatures can be entered here that can then be monitored using room sensors and adjusted using the ducted units installed. The cold and/or heat output occurs through the extraction of the air which is then filtered and thermally treated, as required, and finally fed back into the room via a jet nozzle system.

OUTCOME

AN EXCELLENT ENERGY CONCEPT WHICH FULFILS HIGH REQUIREMENTS

KKU Concept developed an extensive concept that meets the strict requirements of the construction project based on the specifications from current legal positions relating to EnEV (German Energy Saving Regulation) and EEWärmeGesetz (German Renewable Energy Heat Act) combined with the desire for energy-efficient heating and cooling. By combining gas engine heating pumps with various ducted units and ventilation devices that can be monitored altogether using a central monitoring and control unit, KKU Concept managed to simplify a complex and extremely extensive energy concept for the user and thus generate the greatest level of customer satisfaction.

OVERVIEW

Project:	Rhine-Main Logistics Park
Construction time:	four months
Completion date:	July 2014
Products:	14x Yanmar Gas Engine Heat Pumps direct expansion units (10 C/H hall, 3 C/H ventilation system, flammable liquids warehouse, 1 C/H office), 3x AHU DX Kits, 2 ventilation systems, 40 x Indoor A/C units
Heating capacity:	1,285 kW
Cooling capacity:	1,150 kW
Construction area:	25,000 m ² hall, 210 m ² office

YANMAR

Energy System Europe GmbH
Elbestraße 2-4, 45768 Marl

T. +49 (0)2365 92490-44
F. +49 (0)2365 92490-59

info@energysystem-yanmar.com
www.energysystem-yanmar.com