



## **THE OPTIMUM CLIMATE FOR FITNESS AND HEALTH**

### **CHALLENGE**

#### **AMPLE WASTE HEAT AND SAUNA**

Just Fit has made a name for itself in a highly competitive market on the basis of its strong range of fitness and spa services. The company recently opened its 21st fitness club in Bergheim. Over three floors of the building, body-conscious and health-conscious guests can take advantage of the multitude of training options and opportunities for relaxation.

In a space where so many people are in constant motion – and with a sauna area for good measure – effective coordination between ventilation and heating/cooling is essential. Thanks to the heat pump technology by YANMAR, the fitness club is able to guarantee that the atmosphere in its rooms always meets its in-house quality assurance requirements.



## **SOLUTION**

### **HEATING AND COOLING WITH GAS MOTOR HEAT PUMPS**

At Just Fit 21, 3,000 m<sup>2</sup> of space is air-conditioned. This space features two large cycle areas and class rooms, a free weights area and a multifunctional training area. A system containing a YANMAR gas motor heat pump as its central component is responsible for keeping the area air conditioned. The Yanmar GHP VRF Heat Pump provides heat and cooling for a total of 13 ceiling cassettes as required, and supplies treated fresh air through an air handling unit connected to the GHP VRF system. The waste heat from the motor can also be used via an integrated heat exchanger in order to heat the fitness club's utility water.

## **OUTCOME**

### **FIT FOR THE FUTURE AND SAVING ENERGY ALONG THE WAY**

With its modern energy system, Just Fit 21 is able to provide its guests with exactly the right atmosphere at all times and meet the requirements set out in EnEV and EEWärmeG. The fitness club therefore benefits in several ways from the use of a highly efficient gas motor heat pump: In comparison to a system with electric heat pumps and gas condensing boilers, a saving of approximately 44% can be made. It also works perfectly with the existing transformer capacity, even despite the fact that all treadmills, cross-trainers and exercise machines are fitted with TV and internet.

## **OVERVIEW**

<b>Project:</b>	Just Fit, Bergheim
<b>Products:</b>	1x Yanmar GHP VRF unit, model ENCP850J 13x ceiling cassettes 1x Fresh air AHU
<b>Refrigeration-capacity:</b>	1x 85 kW
<b>Heating capacity:</b>	1 x 95 kW (plus 30 kW motor heat recovery unit)
<b>Air volumes:</b>	12,000 m <sup>3</sup> /h
<b>Construction area:</b>	3,000 m <sup>2</sup>
<b>EnEV:</b>	✓
<b>EEWärmeG:</b>	✓
<b>Savings:</b>	approx. 44%
<b>Competition:</b>	Electric heat pumps and gas condensing boilers

### **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