

The new star of the stadium: The RENDAMAX 3605

The vision for heating the new Parkstad Limburg Stadion in Kerkrade had been clearly defined: an efficient, high-quality heating system in a cascade solution. The standards had been set high. The system is to cover the energy needs for the pitch heating system, the hot water for all showers and the home team Roda JC's swimming pool as well as the heat for the offices and public lounges (air conditioning and radiators).

Those responsible for building the stadium chose three RENDAMAX 3605 gas condensing boilers, which provide overall heating power of around 3,300 kW. Another criterion in their decision was the fact that both the installation company Imtech and ELCO are in the area near to the football stadium. Moreover, the two companies had



established a good collaboration over the years that could be of benefit.

Location

Parkstad Limburg Stadion
Roda JC, Roda JC Ring 1
6466 NH Kerkrade
Netherlands

Installation

Imtech Building Services
Wiebachstraat 9
6466 NG Kerkrade
Netherlands

BENEFITS

Efficiency

- High efficiency level of up to 109.8 %
- Continuous modulation ratio of 1:4
- Most modern, efficient heating technology

Convenience

- Compact system unit of boilers and burners
- Weather compensated regulation with clock program for up to 15 mixing zones

- Integration into existing controls and building management systems possible

Savings

- Particularly attractive cost-benefit ratio
- Extremely low emissions
- Minimal assembly effort

New building:

Parkstad Limburg Stadion, Kerkrade, Netherlands

Home game for RENDAMAX: With maximum power and the highest degree of efficiency

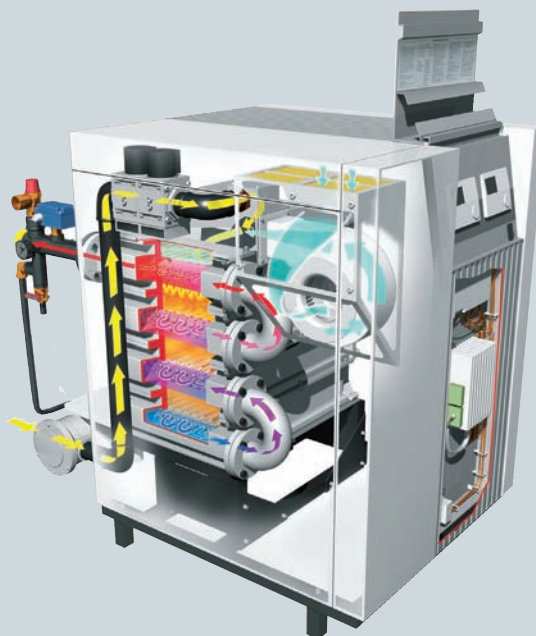
The new system

The installation of the heating system was planned under the roof. For this reason its weight took on particular significance. The RENDAMAX 3605 was very convincing given the fact that it was designed for very little water content (only 117 litres for 1,097 kW), thus making it substantially lighter than comparable burners. The advantage resulting from this is that the roof construction did not need to be additionally strengthened.

The ratio between the heat output and the size of the gas condensing boiler has allowed for a relatively compact central heating room. This has enabled more space for air conditioning and other technical systems. The option of operating the RENDAMAX 3605 gas condensing boiler with low gas pressure (min. 25 mbar) reduced the size of the gas booster for the central heating room. The overall capacity of the boilers is roughly 3,300 kW.

RENDAMAX - Peak output in the upper range

The RENDAMAX 3400 and 3600 series are ideal for use in larger real estate and commercial properties. Here they cover the upper power range all by themselves - in 11 power ranges from 639 kW to 1,189 kW. The RENDAMAX 3400 series offers an optimal cost-benefit ratio when high design temperatures are required and a high degree of efficiency in the case of a very high normal supply level. Additional advantages include the compact dimensions, the particularly quiet operation and the extremely low emissions.



Equipment	New System
Gas condensing boiler	R 3605
Full load output at 80/60 °C	1,043 kW
Minimum load output	298 kW
Normal supply level at 40/30 °C	109.8 %
Overall dimensions (W x H x D)	1,330 x 1,405 x 2,658 mm
Weight	1,410 kg

Parkstad Limburg Stadion: The home arena of Roda JC

The Dutch football club Roda JC (Sport Vereniging Roda Juliana Combinatie Kerkrade), whose first team plays in the top football league in the Netherlands, has played its home games at the Parkstad Limburg Stadion since August 2000. The stadium, located in the Kerkrade community, was built between 1999 and 2000 and can fit up to 20,000 spectators. Roda JC inaugurated the stadium on 15 August 2000 in a friendly match against Real Zaragoza from Spain.

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