REHAU RENEWABLE ENERGY SOLUTIONS
GROUND-AIR HEAT EXCHANGER
QUEEN ELIZABETH SCHOOL, DORSET
ENERGY EFFICIENCY AT ITS BEST
REHAU WINS LARGEST EVER CONTRACT FOR GROUND-AIR HEAT EXCHANGER SYSTEM

Renewable energy specialist REHAU has been awarded the largest ever contract for its award winning* AWADUKT Thermo ground - air heat exchanger system.

The installation to provide a renewable source of controlled ventilation will take place shortly at the new Queen Elizabeth’s School in Wimborne, Dorset, which is being built as part of the DfES Building Schools for the Future (BSF) One School Pathfinder programme.

Dorset County Council has secured additional funding for the school to become a Demonstration Project for Sustainable Schools and the AWADUKT Thermo system, which will deliver substantial energy savings on both heating and cooling, has been specified in line with that. Its performance will be data-logged by the school and the ongoing savings analysed into the future.

Around 3,500m of REHAU's 250mm diameter polypropylene pipework will shortly be installed in grids 1.5m below ground underneath three of the school’s blocks and will use the natural temperature of the ground at that depth to pre-heat or pre-cool ventilation air before it is delivered into the school.

REHAU's optimised polypropylene pipe material ensures the most efficient heat transfer between the ground and the air, while an integrated silver antimicrobial layer inside the solid walled pipes prevents microbial growth.

The temperature of the air drawn through the network of pipes will be increased by up to 9°C in winter and reduced by as much as 14°C in summer, providing not only a more comfortable internal environment for the staff and pupils during the warm summer months but also reducing the energy required for space heating in winter.

Installation is expected to begin at the end of September 2008. The main contractor for the project is Carillion, concept architects are Feildon Clegg Bradley and consultant engineers and architects are Mouchel.

* The AWADUKT Thermo ground - air heat exchanger won the HVAC&R innovation prize for 2007 awarded by the Italian newspaper Costruire Impiante, as well as a gold medal at the BUDMA international construction trade fair in Poland in January 2007 and a prize at France’s specialist trade fair ‘Salon des énergies renouvelables’ in February 2007.