



## Case study 2

March 2009

### Giacomini Underfloor Heating helps with 'the sound of music'

The building of the new Manor C.E School & Performing Arts College, in Low Poppleton, York, is a project with demands unlike most conventional places of education. With its accent on dance and drama studios, music rooms, practice rooms, recording area and music technology facilities and including a 400-seat auditorium that can transform into an amazing theatre space, heating required an ambitious and radical solution.

The M&E contractor, H&C Moore has just the right experience for this, with established projects where schools have used underfloor heating to create maximum space and remove the risk of accidental burns from hot surfaces. The alternative of using LST (low surface temperature) radiators was considered expensive and more intrusive and, in consequence, a tried and trusted partner, Giacomini UK Limited, was chosen for the installation of an underfloor heating system covering 9,500m<sup>2</sup> on two levels.

The new Manor C.E. School & Performing Arts College, in Low Poppleton, York.

"Giacomini have carried out two previous contracts with us, both of which had special difficulties to overcome", states Alec Esgate, Contracts Manager of H&C Moore. "While theirs was not the lowest cost tender, we appreciated the help and professionalism they had shown in bringing other projects successfully together on time. The quality of their products and workmanship gave us complete confidence that the Manor School project would be equally successful".

The installation required an array of manifolds, with pumps to supply each heated floor area, fed by a total of 31,000 metres of 18mm PE-X pipe. The ground floor was insulated with 50mm 100HDN materials and the first floor included 25mm EPS 100 insulation and a 5mm sound deadener. Giacomini completed the installation, using a 75mm Mapie Topcem screed, which is very fast to cure.



Alec Esgate sees a distinct advantage in this system: "We believe that the installation of underfloor heating is easier than heat emitters because the bulk of the work is carried out as a first fix item, as floors are laid. Therefore, other than piping to manifolds, the installation is not reliant on numerous other trades - nor the site management headache of getting them all in and out on a tight schedule".

Part of a £17.6m major school project, aimed at providing an environmentally sustainable facility for 21st century learning, the underfloor heating contributes to the comfort and welfare of all students and staff. Care has been taken in its design to adequately control the system so that when the heating turns itself off, rooms do not overheat due to residual warmth in the floor structure. It was with considerations such as this, plus many client design changes, that the experience of Giacomini came to the fore.

The whole system is currently undergoing commissioning trials and is seen to have met all the requirements of the design brief. It has enabled an economical solution to be obtained with utmost flexibility for room layout, according to required uses, from up-to-the-minute design technology, ICT and science areas to art, music and drama facilities.

"Lower operating temperatures than wall hung heat emitters



**The eye-catching school dining area is heated by Giacomini underfloor heating.**

contribute to lower energy costs", says Chris Pritchard, Managing Director of Giacomini in the UK. "This, together with the lack of intrusive radiators, makes underfloor heating immediately attractive to new build projects and an extremely versatile choice for retrofit work, no matter how old the building".

Technically, the Giacomini system has proved its worth as a high performance solution in a diverse range of projects, from the prestigious to the everyday - designed at the start for new buildings and sympathetically incorporated into historic or modern refurbishments. Its

inclusion at Manor School shows again the value of using an experienced team in bringing the client's dreams into reality, with a showpiece educational facility that can be comfortably enjoyed by all the surrounding community.



**Chris Pritchard (left), Managing Director, Giacomini UK, congratulates M&E Contractor, Alec Esgate, Contracts Manager H&C Moore.**

## **Giacomini - A Global Operation**

A truly global operation, Giacomini S.p.a. of Italy reaches out to 87 countries and currently exports 85% of its production worldwide, from its headquarter location in San Maurizio d'Opaglio, Italy. Its three factories produce millions of brass fittings every year, including lever ball, gate and radiator valves, plus thousands of kilometres of plastic tube for its underfloor heating systems.

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