

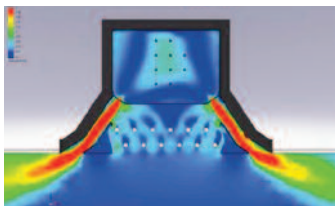
## ADVANCED AIR OPEN NEW R & D CENTRE



Advanced Air demonstrated its commitment in becoming the No. 1 terminal air conditioning system supplier by announcing the completion of the final phase of its R & D Centre. The investment in the centre and R & D in general has now exceeded £250,000 and Advanced Air's General Manager, Andrew Sargent, said: "We have been able to amalgamate a wide range of product development and technical activities into this new centre which include product testing and development, together with real room mock ups for fan coils, chilled beams and air terminal devices"

The main test area is 15m x 6m and can accommodate most customer requirements including acoustic testing down to NR20 levels. A further two test and development rooms enable prototype products to be manufactured and bench testing to be undertaken. In all the Advanced Air R & D and technical staff total 10, but with the market requiring more and more real room mock ups the figure is set to rise.

With these facilities Advanced Air have developed the most energy efficient fan coil unit in the world which has specific fan powers (SFP) as low as 0.15 w/l/s. This fan coil unit was recently applied to a project where very low noise levels were required, NR20, and the unit was fully tested in these facilities.



Investment has covered a wide spectrum of instrumentation and computer aided design tools – one such example is Engineering Fluid Dynamics (EFD). EFD is the latest evolution of Computational Fluid Dynamics and allows the engineers at Advanced Air to optimise their product designs without the time and costs associated with physical prototyping. EFD is embedded in Solidworks CAD software so it is easy to import and manipulate product models within the same environment in which CFD analysis are carried out.

The most powerful feature is the what-if analysis that can be carried out. Small changes to models can be studied again and again over a short period of time. Having the option to investigate more ideas, even those that are somewhat of the wall and obscure visions, provides the potential to eke out advances in product performance that would have otherwise never been found.

Analysing small scale parts like an individual induction nozzle can take a matter of minutes. As the models get built up and involve more components it becomes necessary to run some studies over days to get a reliable result

Advanced air now have the facilities to conduct virtually all types of tests that may be required by the design team for terminal air conditioning systems.

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PRESS RELEASE