



INSTALLATION NETWORK 9

With a small microphone and single speaker at the back, the i-ceiling tile is a great way of boosting sound in a classroom or lecture hall. And because the speaker is unseen, it's less prone to vandalism



Armstrong's ceiling tile is winning big business in the US and now it's Europe's turn. And, as the company's **SERGE THIERRY** says, i-ceilings not only helps you make a big noise in public, it also helps keep conversations secret, too

OVERHEAD PROJECTIONS

LAUNCHED IN 2001, i-ceilings is the first audio product to come from Armstrong World Industries, the Pennsylvania based global supplier of specialist floors, ceilings and cabinets. A licensee of NXT, Armstrong has made impressive use of NXT technology to produce ceiling component systems for background music, paging and sound masking.

From the architect/designer perspective this is an ideal solution: it is discreet to the point of invisibility, has no above-ceiling space issues concerning installation, and it offers an audio performance significantly better suited to these applications than conventional plenum-based cone loudspeakers.

Businesses in the US have been quick to appreciate the benefits, and installations in that initial launch zone are burgeoning. The marketing push has also begun in Europe and sales are beginning to ramp up. Serge Thierry, Armstrong's Paris-based vice president for Strategy

Marketing Initiative explains: 'Basically, our marketing approach for new buildings is to say, "You already have a lot of intrusions on your ceilings that could spoil the aesthetics of the design. Armstrong is offering a high quality speaker that looks and installs like a ceiling tile. Plus, NXT's technology makes it difficult to hear where the sound is actually coming from." It seems to be working.'

Even sound dispersion and the near invisibility of its source is clearly a winning combination, and suited to all manner of installations. 'We started with big retail stores. Now we are moving to smaller outlets like banks and insurance companies. In France, for example, we have put systems into pharmacies – mostly to play background music and for sales announcements. In the UK we are beginning to have some success in education, where with a very small microphone and just one speaker at the back of the classroom we

can improve the ability of pupils to hear the teacher.

Sound masking is a well established technique for improving privacy in open plan offices or in situations where partitioning or stud walls are not performing well enough, or where the much reduced noise of whirling fans and drives in modern office machinery provides insufficient masking in itself. In essence it involves adding white noise at a level which compromises the intelligibility of nearby conversations but which is not so great as to become a substantial distraction in itself. Once again, i-ceiling has found success and its sound masking systems have been met with ready acceptance in hospitals, nursing homes, doctors practices and so on.

Armstrong's installations are based on standardised component sets with set-ups optimised according to individual requirements. Typically, one loudspeaker panel is required per 25 square metres of ceiling area and the sound output is configured using programmable DSPs.

'Sound masking is relatively well known in the States, where many offices are large open spaces with cubicles. It has been used for at least ten years. In Europe, most office spaces have traditionally been separated by partitions and sound masking is only just coming in. It is very difficult to treat an acoustic in a passive way because you never know exactly what will be the design of the space at the end of the day, especially with the changes that are so often made within companies these days. Very often, sound insulation that was fine when a building was commissioned is compromised when partitioning and walls are modified for rearrangement or to add cabling etc.

'It was a slow beginning in Europe because we had to convince people about the system, but in the last six to eight months it has really started to pick up. We began in the UK because we have a good base and NXT technology was best known there. And now we are moving in France and Benelux and also have our first order in Slovenia. So already it begins to migrate, step-by-step.'