



WHY THINGS HAVE GONE

QUIET

FOR THE MOST EFFICIENT BUSINESSES



Product
designed by
Dingley



“ Research identified 'noise' as a likely cause of employee dissatisfaction with the work atmosphere in terms of low motivation to work, reduced performance and irritation (Ooman, Knowles, & Zhao, 2008) ”

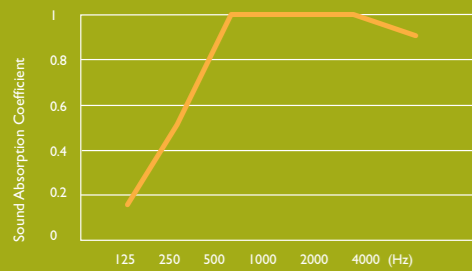
In the modern workplace, the emphasis is on teamwork, flexibility and communication. For most companies and designers, this means open plan work areas. Gone are the days of being tucked away in private offices. But while the move to open plan has many advantages, it has also meant a loss of privacy and the constant distraction of noise. **Acoustics at Work** have the solution. We can help you manage sound levels with a high degree of accuracy, ensuring that productivity and privacy needs are met.

RANGE GUIDE

Acoustics at Work has developed a range of modular, lightweight, high performance Acoustic Panels that can create, within the office, effective acoustic environments for a multitude of uses - meeting rooms, Pods, break out areas and many others.

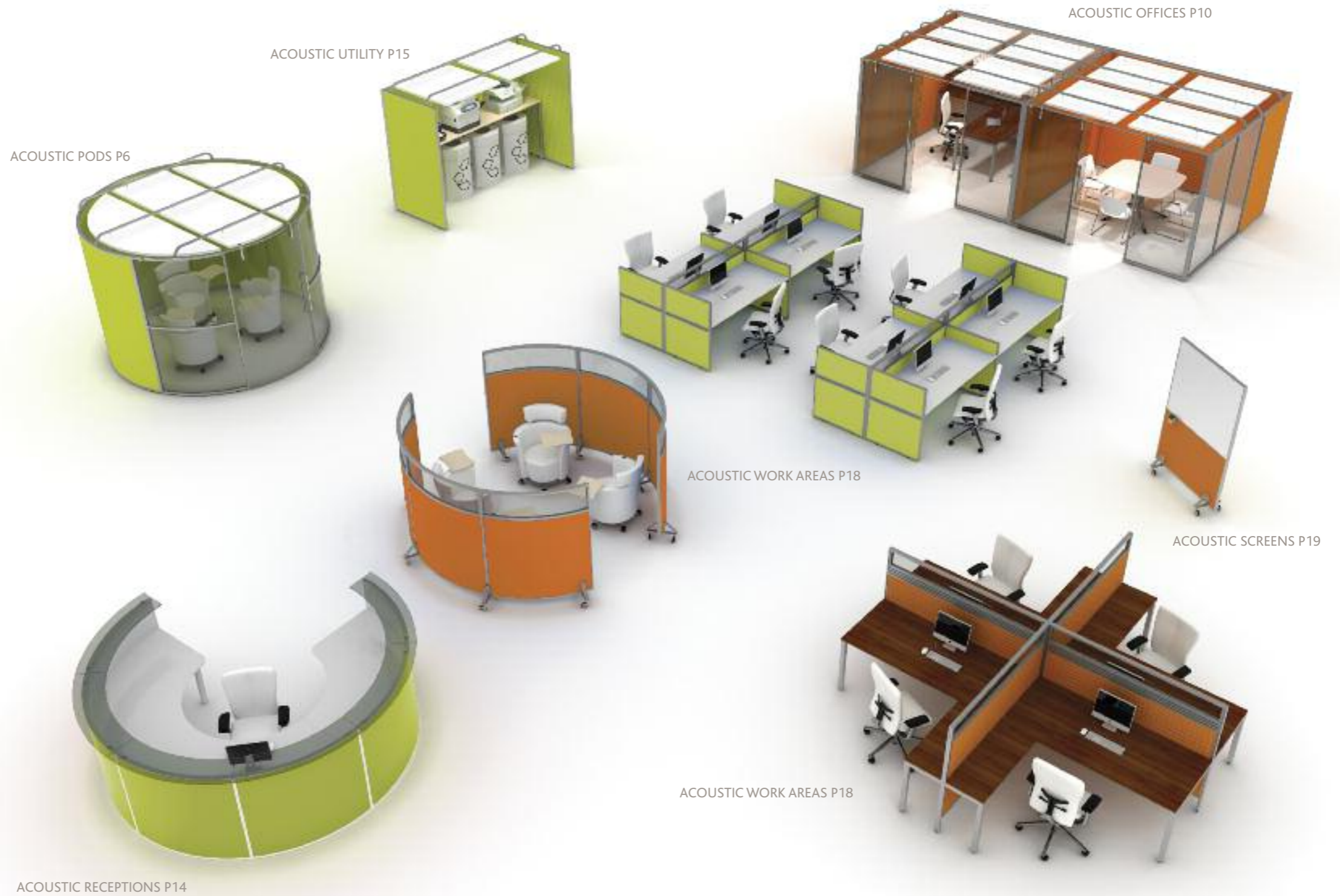
The design of the walls and the patented roof system is such that sound absorption is optimised whilst still allowing the free flow of existing air conditioning systems.

The system is demountable and can be easily reconfigured and unlike partitioning, there are no dilapidation costs to consider.



0.9
NRC

Weighted Sound Reduction Index (Rw) = 28dB
Sound Transmission Class (STC) = 28dB



ACOUSTIC PODS

It's difficult to build a private space without partitions, and even then sound transmission through the ceiling void and other flanking paths can result in lack of speech privacy. The aim should always be to create a space where air flows freely yet provides the desired level of acoustic privacy. A system like this takes full advantage of three principals - what we call the ABC of acoustics.



A is for Absorption. This is essential in reducing reverberation in a space, thereby lowering noise levels.

B is for Blocking. Sound is redirected by a solid, blocking surface, which must be massive enough to interrupt the direct sound path from the source to the receiver.

C is for Covering. Low noise levels are better than none, because the quieter the environment, the more likely we are to hear other peoples' conversations clearly. A non-distracting sound, much like that of an air conditioner, actually helps us concentrate better.

SHARE SPACE NOT CONVERSATION

We've all found ourselves in situations where we're trying to concentrate on a task, but get distracted by something else happening in the room. It could be someone talking on the phone or having a chat with a colleague. Whatever it is, it can be an unwelcome distraction. The result? Productivity suffers.

By improving your acoustic environment, you'll be improving efficiency. Workers will be less stressed and more productive. But don't just take our word for it.

Several studies have demonstrated the harm done by poor acoustics, leading to degrading memory, poor concentration and even health problems. They also show the vast benefits and improved quality of working life following acoustic refurbishment.



ACOUSTIC OFFICES



Here are some tips for achieving good acoustic privacy: Plan work spaces so that individuals face away from each other, preferably separated by an acoustic screen • Wherever privacy is important, install a highly absorbent acoustic ceiling. This prevents sound reflecting elsewhere • Use acoustic screens made from both absorbing and blocking elements, make sure they disrupt line of sight. Use acoustic wall panels where sound might reflect off walls into other work spaces • Where pods or demountable offices are created, ensure maximum speech privacy through the use of absorption and blocking elements • Maximise acoustic privacy through the use of a sound masking system.



Reflective walls can contribute towards an unpleasant working environment. A better option is a part reflective glass office with adjacent walls remaining acoustically treated, making a less reverberent space to work in. Reverberation - the accumulation of multiple sound reflections off hard surfaces - needs to be controlled. It can lead to a build up of sound energy in a room which in turn leads to elevated noise levels.



MAKING THE

MOST

OF YOUR OFFICE SPACE

The first thing we recommend is carrying out an acoustic assessment using a unique and simple analysis system that not only pinpoints problem areas in your office, but also offers solutions. By assessing the acoustic properties of the work space, we will immediately identify how serious the problem is in your work environment. This information will be analysed by our Acoustics Specialist, who will then recommend the best way forward.

We're constantly surprised at how often good acoustics are neglected. No-one would expect to get maximum productivity out of working in poor light or low temperatures, and the same applies to excessive noise and lack of privacy.

ACOUSTIC RECEPTIONS



Reception areas are one of the hardest-hit areas in the world of bad acoustics. This is in part, down to design. While the minimalist, clean lines, full of hard, reflective surfaces might be easy on the eye, they can play havoc with communication. Talking across the reception desk can be difficult, as can phoning in. Placing a combination of acoustic finishes such as suspended ceiling panels and acoustic wall art can alleviate some of the problem, without sacrificing the aesthetics.

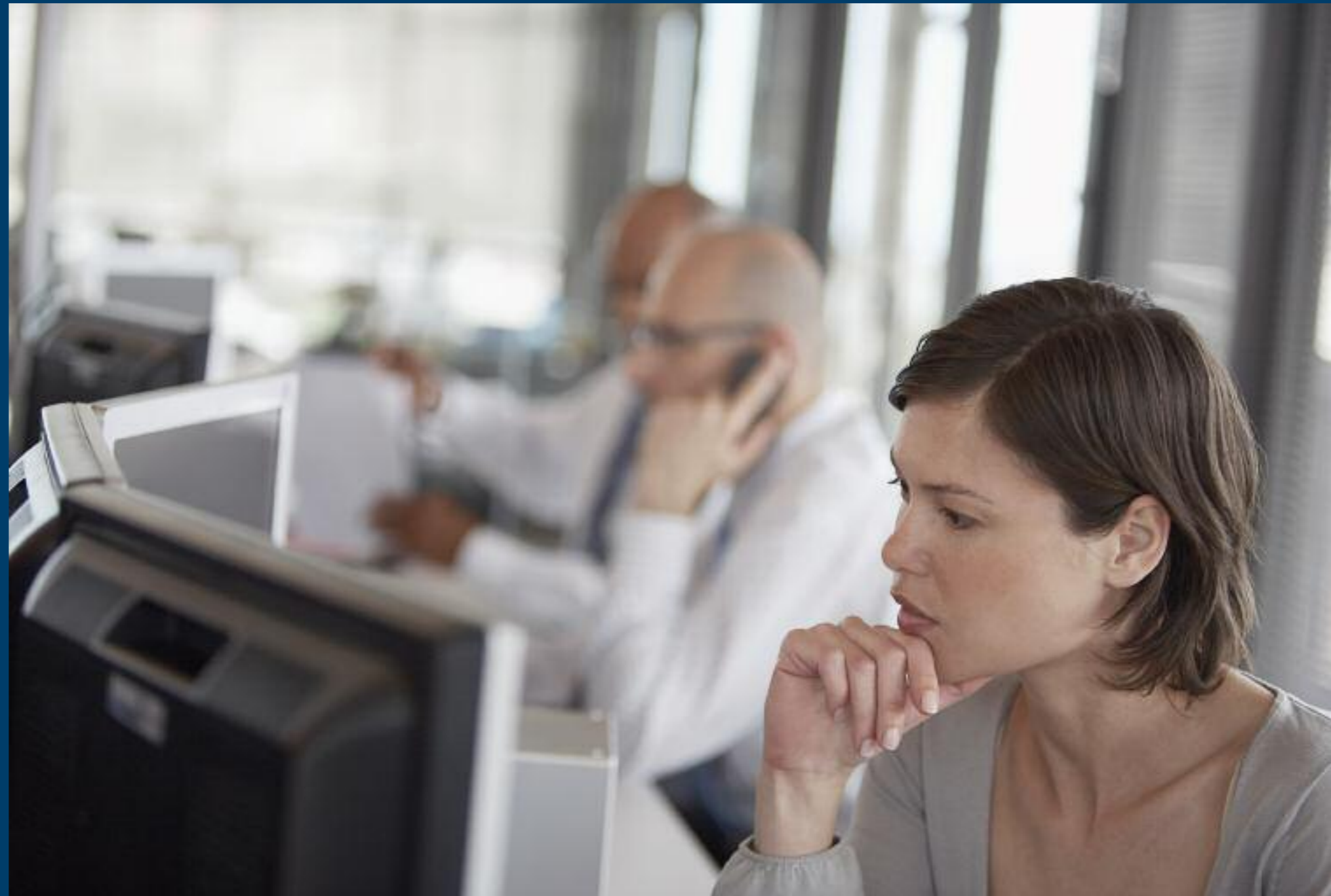


While speech is the most problematic interruption in offices, it's by no means the only one. There's also the sound of machinery, such as photocopiers, printers and scanners. Screening them off not only makes sense from an aesthetic viewpoint, but by using acoustic screens, there's the added benefit of controlling the sound. This approach can be made even more effective by placing ceiling panels above the area - this not only reduces unwanted sound, but also allows air to circulate freely, which helps to prevent overheating.



We've already touched on the harm done by poor acoustics on people working in a noisy environment . But it could also be costing you money. In a 2005 study, 99% of employees reported that their concentration was impaired by various components of office noise and in survey after survey, noise is identified as a leading cause of dissatisfaction, irritation and lowered productivity.

It's clear that health problems can stem from high noise levels. There are many documented cases of increased blood pressure, stress and fatigue. It has even been suggested that poor acoustics may be a contributory factor in so-called Sick Building syndrome.



THE HIGH COST OF NOISE LEVELS

ACOUSTIC WORK AREAS



Generally there is a basic set of requirements in an open plan office: controlled noise levels, speech intelligibility or privacy, and flexibility. Controlling noise levels is a question of managing reverberation within a space to avoid noise build-up. Speech privacy and flexibility are often difficult to achieve together, since walls or partitions are generally used to achieve privacy. This can be counter productive in terms of flexibility. The solution is covering, in the form of sound masking.



Sound masking raises the level of ambient noise around us, by producing a benign broadband signal that we can easily ignore. This has two main benefits. Firstly, by providing masking throughout the office, workers can concentrate on tasks without distraction from nearby workstations. Secondly, by installing a screen, senior members of staff can carry out private conversations without the risk of being overheard. Within screened or partitioned off areas, speech which is transmitted into surrounding areas is made less intelligible, increasing the privacy of the screened off space.



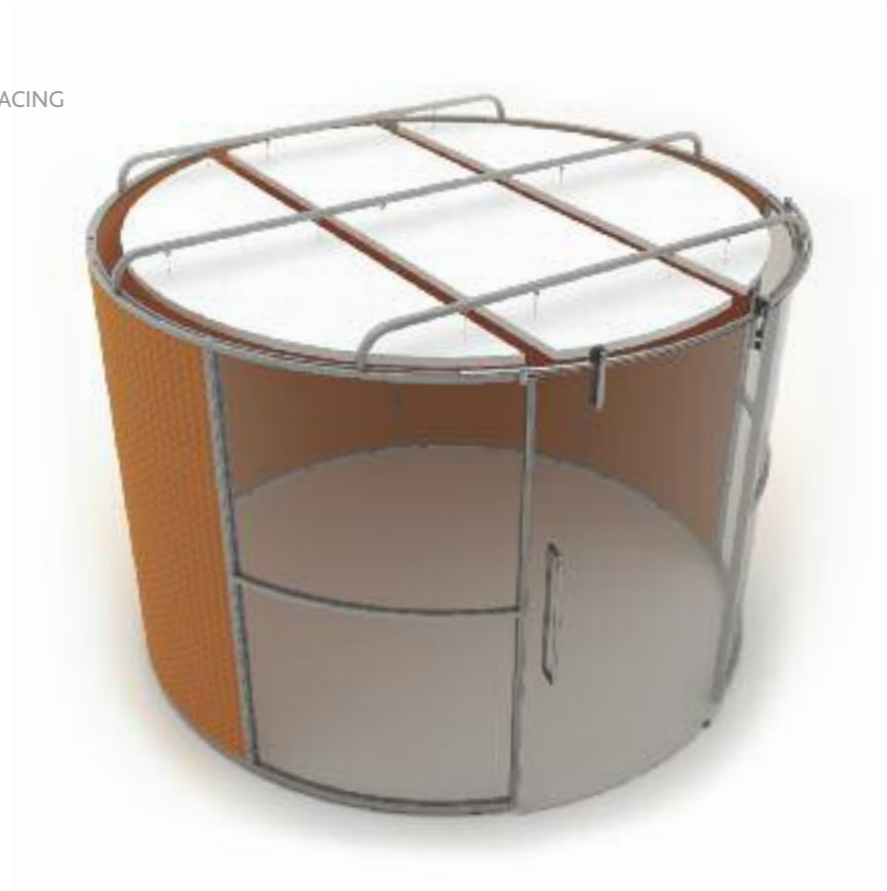
ANATOMY OF A POD



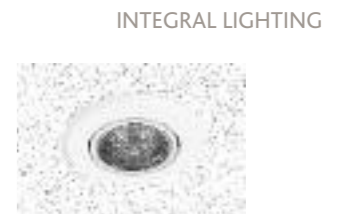
DEMOUNTABLE ROOFING SYSTEM



INLINE BRACING



Creating acoustically private spaces is difficult without building partitioning, and even then, sound transmission through the ceiling void can result in a high degree of speech transmission where this is not desirable. The aim is therefore to create a space where air can circulate freely, can be demounted and moved if need be, but provide the desired level of acoustic privacy. Such a system would take advantage of the A, B and C of acoustics.



INTEGRAL LIGHTING



ACOUSTIC CORE



SLIDING DOOR MECHANISM



POWER TOWER



SEALED GLAZING UNIT

MASKING SYSTEMS

The 'C' of the ABC of acoustics is possibly the most counterintuitive of all. Covering refers to sound masking which introduces a new noise source into the space in order to make distracting sounds less obvious. When correctly tuned and installed by an experienced team, a masking system should produce a sound which is non-disruptive and easily ignored – much like the sound of the ocean. The system produces a uniform broadband sound from loudspeakers which are located within the ceiling void so as not to produce 'shadow and light' zones. These loudspeakers are capable of producing sound at noise levels which are powerful enough to penetrate through the ceiling. Sound masking is suitable for both large and small projects and is a great alternative to reconstructing partitions due to speech privacy problems.