

SE Reflexion Filter

Solving a studio problem without resorting to soft furnishings and DIY, JON THORNTON discovers a device that puts a vocal booth on the end of a mic stand.



ONE OF THE MOST satisfying things I find about recording is the need to apply hefty doses of ingenuity and creativity on an almost daily basis. And I'm not just talking about being able to whip up esoteric interconnects at a moment's notice, or finding new and unusual places to stick a microphone — but rather that well-known branch of civil engineering that affirms that you can build anything from carpet, duvets, mic stands and gaffer tape.

OK, maybe not anything, but we've all built a tunnel around a kick drum, or improvised an impromptu vocal booth in search for that 'in your face' close vocal sound. The Reflexion Filter (UK£229) from SE is a product designed to save you from all that hassle, at least as far as vocals are concerned. Presented as a portable vocal booth, it's essentially an almost semi-circular absorbent panel that sits behind a microphone with the aim of reducing the amount of room ambience that hits the microphone.

The first thing that strikes you when you unpack it from its box is that it's a lot smaller than you expect it to be. The second thing that strikes you is the lack of any instruction manual, followed by — well how hard can it be to screw together assorted bits of ironmongery? Mistake. Twenty minutes, several assembly permutations and no end of 'how many sound engineers does it take...' jokes later, it all finally makes sense. I do strongly recommend downloading James Young's very good instruction leaflet from the website.

Most of the confusion surrounds the mechanical arrangement by which the Reflexion filter attaches to a microphone stand. This arrangement in turn provides you with a standard thread mount for a microphone clip or shockmount, which allows you to adjust the placement of the microphone forwards and backwards in the 'throat' of the filter, and allows the filter itself to be raised or lowered in height. It actually works quite well once assembled correctly, although the combined weight of filter, mic and mounting assembly requires care to be taken with counter-weighting a boom stand properly (*SE now makes a very suitable stand as well. Ed*).

The science bit is that the main filter is comprised of six layers. A punched aluminium sheet is followed by a layer of wool, a sheet of aluminium foil, an air gap held open by struts passing through the device, then another layer of wool followed by another punched aluminium sheet. This construction aims to achieve maximum diffusion and absorption across as wide a range of frequencies as possible in a relatively lightweight and compact design. Attached to the inner surface of the filter are four panels of lightweight absorptive material to further aid the process, and, one assumes, counter reflections that would otherwise be caused by the aluminium skin.

SE defines a number of possible applications that largely involve recording sound sources in less than ideally-treated environments. In practice it works

reasonably well, although its first test was in a room that was reasonably dry to start with. Nevertheless, with close miking and positioning the microphone's capsule about an inch into the throat of the filter, there was a noticeable change in the sound, resulting in that very dry, close radio announcer timbre. This was, unsurprisingly, far more evident when using an omnidirectional pattern as opposed to a cardioid pattern, and the Reflexion filter managed to attenuate a lot of the room ambience even at quite high acoustic levels. Moving into a slightly less controlled environment also worked reasonably well — although a solution like this is never going to result in a totally dry sound, it was certainly able to tame the influence of the room acoustic in quite a natural sounding manner.

There's some mileage in experimenting with the placement of the microphone with respect to the filter — although there's some very obvious, and not particularly pleasant colouration to the sound when it is placed too far in. With omnidirectional microphones particularly, two or three inches in is really the maximum distance.

Whether you see yourself in the market for the Filter rather depends on your particular situation. If you are recording the occasional vocal in a control room, or working in less than ideal room acoustics on a regular basis and need a quick and easy fix, then it's worth investigating. In a more controlled studio environment, though, it's neither one thing nor another — it's not dead enough for that 'ultra-dry' sound, and it doesn't offer the levels of isolation you might need in an 'as-live' tracking situation. But it's certainly a lot less hassle than the duvet... ■

PROS

Neat, lightweight and portable; does a good job of taming unwanted room ambience; cheap when compared to some alternatives.

CONS

Can never totally remove the influence of the room; isolation characteristics not as good as other (but more expensive) alternatives.

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