

Filters and Artists in action

Given the prospect of reviewing a collection of SE Instrument Reflexion Filters, **JON THORNTON** grabs a load of Audio-Technica Artist Series mics and runs in search of a drumkit to try them all on.



IT'S TRUE TO say that you get used to certain ways of doing things — we have all probably defined our own pet mic choices and placements for a given job over a period of time. It sometimes takes a combination of events to shake things up a bit and get you to try something new, and rather like waiting for a bus, new acquisitions tend to come along all at once rather than incrementally. So, having recently refitted one of our rooms with a beautiful little SSL AWS900+, and also having taken delivery of a couple of nice shiny Yamaha Recording Custom drum kits for the live rooms, it seemed only fitting to put them both through their paces in conjunction with some SE Electronics Instrument Reflexion Filters and Audio-Technica Artist Series microphones and maybe try something new.

Having first set my current favourite pair of kit mics as a fairly close spaced pair (Audix SCX-25s if you're interested), the first of the new contenders to enter the fray was the ATM 650 for the snare top instead of the more usual SM57. In comparison with said SM57, the ATM 650 sounds a little bit more focussed at the top end, with a little more bite to the transients, but lacks a little of that mid range dirt that the 57 has, particularly if you're a little heavy handed with compression. The same was true on the toms — good stick noise and initial tone, but not quite as weighty as a Sennheiser 421 or Beyer 201 here.

The ATM350 clip-on proved interesting. On a tom it was big and punchy — lots of attack and bags of tone, but despite the shockmount working as advertised, its innate sensitivity meant that acoustic crosstalk was problematic as you'd expect with any capacitor microphone in this position. This seemed a perfect opportunity for an IRF to be brought in to play. Although the ATM350 isn't a stick design, a bit of hardware manoeuvring and a small amount of swearing (*Optional or obligatory? Ed*) allowed an IRF to be positioned around the capsule, and helped considerably in focussing the sound more — certainly getting rid of some unpleasant off-axis honk from the room.

It was still sounding a little too open for my taste though, but it got me thinking. Wheeling in some AKG C535s (not usually my first choice), and positioning each inside an IRF was quite eye opening. It helps that the 535's slim body means that you can position

it exactly where you want within the IRF, so that the basket ends up just slightly forward of the front plane of the filter. The result is a sound that's rich in tone and dynamics, and while there's still a degree of spill from tom to tom, some careful positioning of the microphone and IRF arrangement to try to shadow one mic from another really tightens up the sound.

Where the IRF really stands out in drum miking though, is in managing to provide a much greater degree of spill control from that perennial problem — the hi-hat and snare. Fitting an SM57 into the IRF is a bit challenging because of its tapered body, which leaves it significantly proud of the filter. No such problems with a Beyer 201 though, and positioning this with the rear of the filter angled towards the hi-hat gave some truly impressive results and not just for the snare microphone. With care and a willing drummer, it's just about possible for two IRFs to be used facing in opposite directions for snare

Instrument Reflexion Filter



SE Electronics' original Reflexion filter was marketed as a convenient way to record live sound sources in relatively uncontrolled acoustic environments. Using some clever materials technology, it comprises a roughly semi-circular absorbent panel that surrounds the microphone — generally of the side-address type. While the majority of its users will be recording vocals of some description, it has also found favour with some engineers when recording electric guitar with the caveat, of course, that you use a microphone with said side-address form factor. In fact, positioning most stick mics sufficiently inside the yolk of the Reflexion Filter to get sufficient isolation would be a little problematic, and the relative bulk of the device would really prohibit it being used in any situation where space is on the tight side — like a drum kit for example.

This obviously got the folks at SE thinking, and the result is the Instrument Reflexion Filter, or IRF. At first glance, this looks a little like its big brother that got shrunk in the wash, but on closer inspection

and hi-hat, but even with just the one around the snare mic, it acts as a pretty good baffle for the hat microphone, and makes EQing the hat a whole lot easier. It certainly beats my usual little gobo made of cardboard gaffered to a mic stand.

So far, then, the IRFs are scoring better than the Artist Series when it comes to trying new things but the best of the range is saved to last. First the ATM250DE. My current 'go-to' mic for kick drum has to be the Audix D6. Granted, it can sound a little dark and lacking in edge for some applications, but it does do a wonderful job of taming the most unruly kick drum pretty much out of the box. I think, though, that it's about to be supplanted by the ATM250.

Positioned inside the shell (no need for an IRF here, then) and individually each of the dual elements sound less than awe inspiring. The dynamic output has a good sense of weight and power, but lacks a little in definition and tone, and the capacitor element sounds a little too clicky and resonant. Put both together though, and they just work, complementing each other neatly, and with no real phase issues — certainly not in the frequency ranges we're talking about here. You get the added bonus of being able to quickly fine-tune a sound by altering the relative balance — although I found equal levels with a minimal amount of EQ worked just fine. Given time and space, I'm sure that the sound could be bettered with an alternative pairing of a dynamic and capacitor

it is slightly different. It still employs the same multilayer composite panels, but you can clearly see three separate panels with a substantial air-gap between each one. The most significant difference is the inclusion of a metal tube that passes through the panels, into which can be inserted your stick microphone of choice. A spring-loaded bung of silicone rubber-like material is pulled out to make way for the mic, and then released to clamp it firmly in place.

The whole assembly is then attached via a bendy gooseneck that terminates in a clamp similar to those found on pop shields, and clamped to a microphone boom arm. If this all sounds vaguely Heath Robinson, it is. The whole ensemble falls a little short of elegance when put together, and I can't help thinking that a mounting arrangement using a standard mic stand thread might have been a little more satisfactory.

In practice, the diameter of the hole does restrict the range of microphones that can be used with the IRF. Any stick microphone that doesn't taper down its body is easy to fit, so no problems with the likes of M201s, 451s and KM184s. Anything with a taper though, we're talking here about the likes of SM57s and SM58s, and indeed the ATM650 on test here, and you can only get the microphone so far into the hole. Depending on the length of the microphone, this might or might not put the capsule in the most appropriate position relative to the IRF.

PROS

Work well in controlling unwanted ambience; makes a good pairing with some capacitor mics; go a great way to solving the perennial snare/hat bleed issue.

CONS

Doesn't fit all stick mics very well; positioning and clamping arrangement seems a little clumsy.

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mic but for quick results with the minimum of hassle this is a great solution.

The other jewel in the Artist Series crown has to be the diminutive AT450. Its size and side-address form factor make it great for just peeking over the edge of a snare, or for positioning snugly between an IRF and a hi-hat. It takes high SPLs well, although I found myself with the pad engaged more often than not, and is remarkably free from the HF 'sizzle' that you often find with small diaphragm back-electret designs. I'd generally avoid capacitor mics on a snare for that reason but this made me rethink my position.

So, what did I learn? Well, it's good to try new things, but it's sometimes hard to depose some of your favourites. The IRFs certainly proved their worth, although ultimately where quite frustrating when trying to position accurately. And all of the microphones in the Artist Series are worthy performers and well priced but it's the AT450 and the AT250DE that really stand out and succeeded in toppling some of my more established favourites. ■



A-T Artist Series



Audio-Technica's Artist Series comprises quite an eclectic range of microphones. Sitting in the product line somewhere between the entry level Midnight Blue Series and the Artist Elite Series, the Artist Series includes both dynamic and capacitor models for instrument and vocal applications in live and studio environments. Although not representing the entire range, AT supplied the following microphones for review.

First, and visually at least the most unremarkable, is the ATM650. A hypercardioid dynamic with a vaguely 1970's look to the head grille assembly, this is very firmly in Beta 57 territory here. A wide presence peak around 5kHz together with a much narrower one around 14kHz looks to have snare drum or guitar cab written all over it.

The ATM350 is a miniature small-diaphragm cardioid back-electret microphone in a clip-on type design for close instrument miking. Supplied with a foam windshield that covers the microphone entirely, and with both a shock-absorbing clip-mount and a violin mount, suggested applications are snare, toms, violin, brass, reeds and acoustic bass. It's quite diminutive in size — certainly when compared with something like a Sennheiser e604, although this is partly attributable to the use of a captive cable that connects via a TA3-type connector to a separate power module that houses the XLR connector.

A little more unusual is the ATM450, which is a tiny stick microphone

featuring a side address back electret capsule. While larger than the ATM350, it really is tiny for such a design, which should make positioning in tight situations easy, and looks and feels very substantial given its dimensions (126mm long and 21mm in diameter). You get an isolation clamp included, which is one of those featuring a screw that tightens the clamp around the mic body RE20 fashion — I'm not sure exactly how much isolation this provides, and I'm always terrified of either stripping the thread or losing the screw from those type of clips. A -10dB pad and high pass filter (80Hz, 12dB/octave) are also on offer.

Finally, and perhaps the most distinctive in terms of its internals, is the ATM250DE. Designed with kick-drum and guitar amps in mind, the 'DE' in the model number refers to the dual elements lurking in the housing. A cardioid capacitor element and a hypercardioid dynamic element are positioned inside, allegedly in a perfect phase relationship, the outputs of which are fed to a five pin XLR connector. A splitter lead is supplied which breaks this out to give separate outputs for each element, and a -10dB pad and 80Hz high pass filter can be switched into the capacitor element's output.

PROS

Well made, good value and useful range of microphones for stage and studio; ATM250DE fabulous on kick; ATM450 very nice sounding and easy to position.

CONS

ATM650 a little too bright for my taste; not sure about the longevity of the clips supplied with the ATM450 and 250DE.

Contact

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