

CharterOak Acoustics E700

While microphone technology may not have moved on that much in the last ten years the available choice to users has been transformed by a much wider selection of brands.

JON THORNTON looks at an imposing mic that seems to have defined a new position in the landscape.

IT'S BEEN SAID BEFORE, not least by me, but the world of microphone manufacturing is a long way from where it was even ten years ago. For sure, the big players are still there updating their product ranges, or in some cases still busily producing designs that have been around for several decades. But added to this have been an ever-increasing number of new entrants. Broadly speaking, they can be split into two categories — those who go down the 'boutique' route with highly specified, hand-crafted and usually very expensive offerings, and those who seem largely intent on maximising the lower reaches of the price/performance curve. It's probably also fair to say that the latter rely heavily on manufacture and assembly in China.

In this context then, it's not surprising that I hadn't heard of USA-based CharterOak Acoustics or its microphone range before the E700 turned up for review. Founded in 2002 by engineer Michael Deming, CharterOak has quietly developed a line of microphones that have attracted a significant following. To begin with, the product range was exclusively comprised of large diaphragm capacitor designs with valve-based electronics, but the E700 marks the first FET-based offering.

Featuring a dual 1.22-inch centre terminated diaphragm, the E700 features a switchable polar response (cardioid, omni and fig-8) and a two-position pad (-10 and -20dB). It's a fairly squat looking microphone, with considerable girth and heft to it, and comes supplied in a hard case together with a basic shockmount. Finished in silver and black, it looks the part certainly, but I couldn't help but get a sense of *deja-vu* — the smell of the packaging, the

construction of the microphone, even the supplied case seemed familiar and these things reminded me of brands of Chinese origin. A quick call to Michael Deming confirmed this — the majority of the components, including the diaphragms are indeed manufactured in China. The units are then pulled apart, checked, reassembled and tested in CharterOak's facility in Enfield, Connecticut.

Michael was keen to point out to me that a great deal of time had been spent with their Chinese manufacturing subcontractors fine-tuning the construction of the diaphragms and selecting quality components for the electronic stage and transformers, which was encouraging — nevertheless the E700 is pitched at a price point that gives it some stiff competition from some pretty established brands (US street price \$999). A quick poke around the internals reveals a tidy looking PCB with all discrete circuitry, and a hefty output transformer whose casing forms part of the structure of the microphone.

In use, the E700 sets up quickly, and despite its weight, the supplied shockmount holds it very securely. It sounds pretty quiet — equivalent noise is quoted at 17dBA — and it delivers a nice healthy output level. On a variety of close miked sources, the E700 sounded very impressive — in comparison to a 414-BULS used as a reference it more than held its own, and actually sounded remarkably similar on the cardioid setting. There's plenty of detail, lots of low frequency extension, and it's ever so slightly 'hard' at the top end.

Moving on to drums, and positioned as an overhead above the kit on an omni setting, and the E700 again sounded similar. Good transient response meant that there was plenty of punch to the sound, and the slight lift in the microphone's frequency response around 10kHz kept things sounding detailed as distances increased. Low frequency extension was good, but in comparison with the 414 sounded a little more rounded in this respect — not a bad thing as it helped curb some less than pleasant hard resonances. This trait was even more pronounced when the E700 was set up as a distant room microphone — preferable in some ways to the 414.

The acid test with any microphone of this type, though, is vocals. Male vocals were the order of the day on the test session, and it's clear that the E700 has been tuned pretty well to this task. As the 414 isn't my favourite in this application, the E700 was compared to an Audio Technica 4050, which can deliver stonking results on most voices straight out

of the box.

The E700 sounded a little less mellow than the 4050, certainly bringing out a little more 'spit' in the voice, but used close up has terrific presence and depth — a definitely larger than life vocal sound that would suit broadcast and voice-over applications as well as music tracks. Although it never sounds over-exaggerated, the E700's performance didn't seem to take EQ quite as well as the 4050 though — trying to dip the low-mids slightly and dial in some HF lift started to deliver results that sounded unnatural quite quickly.

This might just be a function of familiarity with the microphone though, and more time playing around with EQ bands might help. Interestingly, for its other (valve-based) models, CharterOak offers a customisation service, where by changing valve types and altering component values in the electronics the response of the microphones can be tweaked to the customer's preference. Sadly, this isn't on offer with the E700; as Michael Deming explained, there just isn't enough scope in the FET-based amplifier design to accommodate the tweaks.

All of which leaves me trying to decide where the E700 belongs in the scenario I outlined at the start. Calling it a boutique microphone wouldn't be strictly accurate. And putting it in the category of exploring those lower reaches of price and performance would be distinctly unfair — this is a quality piece of kit, backed up by a lifetime warranty for parts and labour. And it sounds good. It's not as much of a 'one-trick-pony' as perhaps the AT4050 is, but it does have a definite sound to it. And if you like that sound, then it works beautifully. I think that CharterOak has actually defined a new position in the microphone landscape — quality design and Chinese manufacture, together with the attention to detail and the ear of an experienced engineer means that everybody stands to gain. ■



PROS

Good build quality; very nice 'big' vocal sound; nice rounded sound to LF; good detail and transient response.

CONS

Might be a little overstated for some applications and be a little hard to pull into shape with EQ.

EXTRAS

As Jon points out in the review, there are other mics in the CharterOak



stable. There's the SA538 side-address dual-diaphragm valve condenser, which employs a centre-terminated S-1 capsule, the SA538B side-address dual-diaphragm valve condenser, which employs a side-terminated S-2 capsule, and the S-3 capsule S600 front-address valve condenser, which is sold in sequentially numbered pairs.

Contact

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