

Beyer M160

Ribbon mics are enjoying a renaissance for good reason. **JON THORNTON** returns to a design classic, and falls in love with it all over again.



atop a fairly chunky body that tapers slightly at the top as it meets the housing. This housing contains the guts of the microphone, a dual aluminium ribbon element. Unlike most other ribbon designs, the M160 uses two aluminium ribbons spaced 0.5mm apart — an attempt to reduce the mass of each element and thereby improve its transient response, while maximising surface area and therefore signal-to-noise ratio. The orientation is indicated by two red dots on the housing. These become important when positioning the mic because unusually for a ribbon design, the M160 features a hypercardioid polar pattern rather than a fig-8. This directionality means that the M160 is a great tool in applications where a conventional fig-8 ribbon would pick up too much to the rear. Add to this a pronounced proximity bump, and a slightly wider high-frequency pickup in the horizontal plane compared to the vertical, and you have a microphone for which position is everything.

Many people new to ribbons try close-miking a guitar cab first, so this seemed a sensible way to start. To respect its internals, a single M160 was placed slightly off-centre from the middle of the speaker cone and about 6-inches distant, fitted with the obligatory pop shield in case of unexpected air movements. The result was pretty much an out-of-the-box 'classic' sound, with plenty of body and weight; the harder edges were nicely rounded off without sounding dull or lacking in clarity. In comparison, an SM57 (albeit slightly closer in) pulled out more attack to the sound, but at the expense of a lack of weight and a slightly irritating mid-range honk. This was no real surprise, but I was impressed by the effortless way in which the M160 seemed to add body to the sound without ever sounding lumpy.

Switching to acoustic guitar, the story changes somewhat. There's still that great sense of weight and smoothness, but a distinct lack of detail to the edge of the sound and high harmonics, particularly with picked playing styles. You also notice just how low the M160's sensitivity is in this application — the spec sheet quotes around 1mV per Pascal, and you'll need a nice quiet preamp with plenty of usable gain when working with quieter sources.

Reaching for a large-diaphragm capacitor is, for most of us, an instinctive choice for most types of vocal recording. However, for spoken word, announcing and voiceover applications, the M160 could very well change your mind. It's here that the 'tuneability' of the microphone really shines through. Straight on, about six inches away from a male spoken vocal, the microphone delivers a really rich textured sound. There's plenty of definition and a slight tendency to sound a little 'splatty' on occasions, but the sound has nothing of the harshness in the high mids that you so often have to gently EQ out with some voices. Moving closer onto the mic gives a much more hyped sound — there's a fairly vicious proximity lift that kicks in from about 1kHz downwards — and very close positions can start to sound comparatively boomy as a result on some voices. Having said that, careful experimenting with a source's distance and

relative height to the microphone reveals a huge tonal palette — much more so than with a typical large-diaphragm capacitor. With these characteristics in mind, it was time to move on to a real challenge for a ribbon — a drum kit.

With a good (read careful) drummer, and a well-tuned kit, the M160s are really very powerful and flexible tools. When used as close mics on toms, the mic delivers an astonishingly deep and rich sound due to its proximity effect, giving the sort of clarity and harmonic richness that you might expect from a capacitor mic, but with a lot more focus and less annoying crosstalk. Certainly, the relatively tight pickup pattern and strong rejection from the rear and sides helps here, but it's a completely different and much more organic sound than, say, an MD421 in a similar position.

Where the M160s really stand out though, is as a kit pair. While a ribbon design isn't going to deliver the same transient detail and extended high-frequency response as a capacitor, in this application they give a sound that can only be described as chunky and smooth, and one that really helps a kit sit in the mix. Their low sensitivity means that treating them as a kit pair rather than overheads helps — lowering their positions so that one is peeking over the floor tom and the other is about 70cm directly above the snare gives a very tightly focused sound, and one that delivers far more of the kit than the room. Having tried other ribbon microphones in similar positions, I've often found that the pickup to the rear compromises the sound to some extent, and that's not the case here.

In comparison to other, more recent offerings, such as the SE R1 and the Royer 121 and 122, the diminutive M160s are slightly darker-sounding, and don't have anything like the same sensitivity of the active R122. Yet they score highly because of their versatility and ability to command a wonderfully lush sound from such a variety of sources. Little wonder, then, that the design and manufacturing process has changed so little in 50 years. If it ain't broke... ■



WHILE RIBBON MICROPHONES have undergone something of a renaissance lately with new manufacturers making inroads into the market, it's worth remembering that a couple of more established brands have been quietly producing ribbon designs for quite some time now. A good example is Beyerdynamic, whose M160 ribbon microphone (UK£341 + VAT) reaches its 50th anniversary this year. The company is manufacturing a special limited-edition run of 200 microphones with the original nickel finish to celebrate the fact, which gave us a good opportunity to revisit the mic.

Not wishing to soil a limited-edition pair, the good folk at Beyer shipped over a pair of standard-issue (black) M160s (*Are we on underwear or mics? Ed*). If you're not familiar with the microphone, the first thing that strikes you is that it seems somehow out of proportion, with a small spherical housing sitting

PROS

Succeeds in adding great warmth and depth to most sources; very 'tuneable' response via careful positioning; hypercardioid response a bonus in some applications.

CONS

Needs a good quiet preamp to extract its best performance.

EXTRAS

To celebrate the 50th anniversary of the M160 beyerdynamic is releasing 200 limited special edition M160s in their original chrome-plated housing and a further 50 will be offered together with an M130 as M/S stereo sets.



Contact

BEYERDYNAMIC, GERMANY:
Website: www.beyerdynamic.co.uk