

# Milab DC96-C

Swedish manufacturer Milab's newest release is the latest derivative of the DC96 microphone, a design that dates back to 1967. JON THORNTON looks at the DC96-C, which sits in the product line alongside the original DC96-B.

Milab doesn't manufacture in huge volumes and doesn't have much market presence so many readers will not be aware of it. At the risk of repeating myself from previous reviews, it might be worth going over a few basics again. The first thing to appreciate is that Milab is one of only a handful of manufacturers that employ rectangular, rather than circular, diaphragms in their large diaphragm capacitor microphones. The idea here is that by avoiding the symmetry of a traditional circular diaphragm, you also avoid a very pronounced primary resonance. And as the surface area of a circular diaphragm increases so does its signal to noise ratio but at the expense of lowering this primary resonant frequency, which starts to have noticeable effects on the microphone's frequency response. A rectangular design introduces more of these primary resonant modes, but their magnitude is reduced — allowing larger diaphragm surface areas (better signal to noise) while maintaining a more linear frequency response. In other words, it combines the best attributes of traditional small and large diaphragm capacitor microphones.

The second thing is that the DC96-C, in common with the other variants in the range, is incredibly tightly packaged. At 145mm in length and 27mm at its widest point, it's one of smallest side-addressed large diaphragm capacitor microphones around. The microphone ships in an unassuming vinyl case, and comes complete with a windshield, individual frequency response chart and a shockmount. The last of these is a small tube with a solid rubber mount that slides over the microphone body, holding it firmly and snugly. While this might not seem as effective as a more conventional suspension mount, it works well enough as there is also a degree of internal shock-mounting of the capsule.

Finished in black, at first glance there is little to distinguish the DC-96C from the DC-96B. The addition of a -12dB pad on the



side of the microphone is the only major visual change. And as both microphones are fixed pattern cardioids, their initial spec also seems very similar. The key changes are under the hood though, as the DC-96C shares its transformerless electronics and capsule with the far newer multi-pattern DC-196 (*Resolution* V5.6). This is very apparent when comparing the performance figures of the two microphones. The DC-96C offers significant improvements over its predecessor in terms of sensitivity (21.5mV/Pa versus 6mV/Pa), equivalent noise level (12dB(A) versus 19dB(A)) and SPL handling (132dB versus 122dB).

First outing for the Swedish newcomer was acoustic guitar, going up against the Austrian contingent, for comparative purposes, of a C414XLS on cardioid setting and a C451. First impressions are of a nice open sound that preserves a good sense of weight — by comparison the 451 sounded a little closed in. There was also plenty of high frequency detail and resolution, capturing plucked string sounds extremely well. What stands out here is a sense of crispness and detail to the sound that still remains fairly soft sounding — the 414 sounded a little less forgiving here. In keeping with my experience of the DC-196, the DC-96C takes EQ very well and even fairly hefty shoves of HF shelving boost help to add a little more air without ever making the microphone sound overly brittle or strained. And there's a nice, progressive proximity bump that seems to cross over smoothly into the low-mid frequency response, with no hint of that little dip between the lows and the low mids that I detected when testing the DC-196.

A quick walk round test with spoken and sung male shows an incredibly smooth and progressive off-axis response, coupled with a nice, deep null towards the rear of the pickup. Less impressive was the overall sound with sung vocals. You get a very balanced, neutral sound through the mid-range, which could suit some voices, and the progressive HF roll-off adds a certain vintage quality to the sound, but I suspect that a large diaphragm capacitor design that has a little more 'colour' in the mid-range might be the more favoured choice in some situations.

With the improvements in SPL handling in mind (up to 144dB with the pad engaged), the DC-96C was then introduced to a drum kit — in the first instance as a single overhead microphone, positioned a little above the drummer's head

height and slightly forward of the resonant head of the kick drum. I have to say it sounds fabulous in this application — plenty of transient resolution, lots of HF detail without any splashiness to the cymbals, and nice weight and focus on the kick, snare and toms. But it also plays well when set as a close spot microphone. I tried it here on the hi-hats, ride cymbal and snare. The compact size is a help when positioning, and on snare and hi-hat particularly there's a very smooth, full sound on offer without any hint of distortion or other 'fizziness'.

In summary, this is an extremely capable little microphone, and a pair of them would undoubtedly cover nearly every base. What makes it distinctive is that unique blend of the linearity of a small diaphragm design, with the sensitivity and that hint of character from a large diaphragm design. It's a great example of how a classic design can and should be reinvigorated, although it shares more in common technically and sonically with the DC-196 than it does with its predecessor. This explains why Milab has decided to keep the B and C variants in the current product line — you are now officially spoilt for choice. ■



## PROS

Beautifully made; compact packaging; quiet; HF detail without harshness; plays well at a distance and close up.

## CONS

Not necessarily the first choice for vocals.

## EXTRAS

Milab's SRND 360 is based around three matched, near-coincident cardioid capsules placed at 120 degrees to each other within a single microphone body. By combining the outputs of two adjacent capsules and subtracting an amount of the opposing capsule, the three physical capsules can generate three additional 'virtual' capsules with an effective cardioid response. This results in simulating the effect of six near-coincident cardioid capsules placed at angles of 60 degrees relative to each other. In this configuration, L, R and Bs are generated by 'virtual' capsules, and C, Ls and Rs are generated by physical capsules.



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