

# Pearl DS60

Billed by Pearl as possibly the last microphone you'll ever need, the DS60 has a lot to live up to. This latest offering marks the Swedish company's 70th Anniversary in the microphone business — a landmark achieved by only a handful of current manufacturers.

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For those not familiar with the brand, Pearl was founded in Stockholm in 1941, and still proudly maintains a philosophy of manufacturing its products entirely in-house in Sweden. The company also features a signature rectangular diaphragm capsule, first developed by founder Rune Rosander in the 1960s. The idea here is that the single prominent diaphragm resonance of a circular diaphragm is replaced by several, less prominent resonances and this results in a flatter frequency response. Regular readers will have spotted that this approach is not unique to Pearl, but is also shared by another Swedish manufacturer, Milab. The reason for this is not some bizarre coincidence, or a predilection by the Swedes for straight lines, but instead because the two companies actually share common ancestry with Milab being initially spun out of Pearl in the 1970s, with the separation of the companies becoming permanent shortly afterwards.

Fast forward to the present though, and the DS60 (UK£2603 +VAT) makes some pretty bold claims, which start to make some sense when you realise that this is actually four microphones in one. The black body and gold head grille combination (which could look slightly tacky but somehow succeeds in not doing so) is home to two of the signature dual diaphragm, rectangular capsules. The two capsules are configured one on top of the other, and arranged 90 degrees apart from each other.

Rather than switch and combine the outputs of each of the four diaphragms internally, they are instead provided individually to the end user. A 9-pin locking LEMO connector on the microphone provides, via the supplied 10m cable, each output split individually on a male XLR connector. The idea here is that you can take any combination of diaphragm outputs, and via mixing and matrixing either on location or in postproduction, record in a huge variety of mono and stereo configurations.

The polar response of the two diaphragms on each capsule is natively cardioid so simply adding or subtracting the outputs of a single capsule together can give a polar



pattern that moves from omni, to cardioid, to fig-8 and anything in between. But remembering that the capsules are oriented 90 degrees apart also means that taking the output of one diaphragm on the bottom capsule, and another from the top capsule enables XY stereo recording. Or mixing both capsules to fig-8 makes an instant Blumlein pair. Or mixing one capsule fig-8 and one cardioid/omni gives you MS. Or... well, you get the idea.

The DS60 ships in a hard case, and is supplied with an elastic suspension and the aforementioned 10m cable, splitting to four XLR outputs via a small break out box. The microphone fits snugly into the receiver of the suspension mount, and is tightened in place by a small thumbscrew but the elastics themselves look a little less secure than they might, not being that taught even with a twist or two in them, which results in a fair amount of wobble.

Plugging in and powering up (you need to provide phantom power down at least one leg of each of the capsules) results in a small red LED illuminating just inside the grille near the edge of the mic body. As well as indicating power, this also serves as a locator to help work out which output is which, courtesy of an engraving on the top of the breakout box that references the outputs to the diaphragm's location with respect to the LED. Getting your head around this combination of lights and runes is quite confusing at first, but eventually the penny drops.

Just to get a feel for the microphone, initial testing was done with spoken and sung vocals using just a single output — effectively treating the DS60 as a fixed pattern cardioid. The result was a very smooth, unflustered, linear sounding response — with no real obvious presence peaks in the mid range or highs. If anything, the HF response is quite soft especially at a good distance from the microphone. Close up work reveals a very gentle proximity lift, and a slight brightening of HF response, but still quite gentle sounding. Off-axis response is extremely smooth, and rear attenuation, as you'd expect in a dual diaphragm design is good and broad.

Bringing in the other side of the capsule and combining the outputs

to give an omni response gives a very even polar response, and an overall sound that is actually just a touch brighter than a single cardioid. Subtracting the outputs to give a fig-8 response gives an on-axis sound that is virtually indistinguishable from the cardioid output, with a side null that is reasonably deep, but not quite as incisive as I've become accustomed to with some of the newer ribbons I've been using lately.

The next task was acoustic guitar, this time in XY stereo configuration using one diaphragm from the top capsule and one from the bottom capsule. Engraved lines on the microphone body help establish the centre lines for XY and MS configurations, which is useful as it can be hard to make out the capsules through the grille in low light. This gave a good detailed sound with solid centre imaging and a width that I wasn't expecting from a 90 degree angle. Although good, it wasn't as wide as I might have liked without getting closer than I preferred to the source and this perhaps is the one limitation of the DS60 — the inability to change the angle between the capsules. On the plus side though, it's pretty easy at this point to bring the opposing diaphragms into play as another XY pair, which allows some very interesting balances of 'source' and 'room' to be built. Taking this further, and simply because I happened to be in a 5.1 studio, chucking the 'room' output into the rears and the 'source' pair into LR also gave some very decent results — especially by decorrelating the rears a little with a small delay.

Suitably inspired, I tried the same approach with a drum kit, using the DS60 as an XY pair in front of the kit from about 1m, and then using the rear facing XY pair as a room mic. Again, instant satisfaction in both surround and stereo, helped by some gentle squashing of the 'room' pickup. The relative softness in the HF helps here adding a little more 'light' to the sound than the ribbons I've been using of late, but without harshness.

Unfortunately, I didn't have the opportunity to use the microphone in a larger space, or with a small classical ensemble and I suspect that it would really be in its element in this type of situation. Perhaps the only significant drawback here is the very thing that makes it so flexible — in all but the simplest cardioid or XY configuration, some degree of mixing and matrixing is needed. That's fine in the studio, but on a location gig it might not be as easy particularly if you're not recording to a DAW. And while you could feasibly do this in postproduction, there's still the need to monitor what's going on. Maybe an optional standalone unit that handles some of the most common configurations would be an idea here.

Having said that, I've seen quite a few variations on similar themes in the past few years, for surround, stereo and variable pattern mono applications but the DS60 is the one that has inspired me the most. The last microphone you'll ever need? Probably not. An extremely talented and flexible performer? Most definitely yes. ■

**PROS** Versatility; sweet sounding, neutral response; positively encourages experimentation; quiet, well built.

**CONS** Anything other than simple configurations needs external processing; elastic in suspension a little loose; no variable angle for XY stereo.

#### Contact

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