

REALLY NEAT SOUNDS

Once the closed-back Neumann NDH 20 headphones appeared on the market, it was only a matter of time before the Berlin manufacturer also had a go at developing an open-back pair of headphones. It was actually just under three years later that the development of the NDH 30 was finished and the second pair of headphones from Neumann appeared on the shelves. Our Berlin-based author Raphael Tschernuth was able to take a closer look at one of the first models.



TEXT & PHOTOS BY RAPHAEL TSCHERNUTH

► Industry professionals were very surprised when Neumann suddenly pulled a set of closed-back headphones out of their hats at NAMM 2019. In the end, however, it seems consistent with the actions of a manufacturer who wants to offer suitable sound transducers at every stage in the recording chain. If you can produce top-class microphones and reference loudspeakers, you can probably try your hand in the headphones market. At the time, many people were surprised that the new product line was to be produced in China. However, neither the sound quality nor the design

suffered, and the NDH 20 enjoyed unabated popularity among users. I myself was surprised by the unhyped sound of the closed-back Neumann headphones, which have a really distinct tone, particularly in the upper frequency spectrum. Instead of vying for attention with over-emphasized highs that can quickly get tiring, the NDH 20 is rather reserved in the upper spectrum. The NDH 30 is designed to live up to the standards of an entirely new listening ideal: the Neumann MA-1 Monitor Alignment System. But we'll have more on this later, so let's get started!

professional audio **AUDIOGRAM**

Neumann NDH 30

- Very good craftsmanship
- Extremely comfortable to wear
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- Linear, transparent tone
- Depth graduation, neutrality
- Very well-balanced highs
- Consistent sound for MA-1 users

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The Neumann NDH 30 is a completely re-designed set of reference headphones for mixing and mastering.

The new, open-back NDH 30

The NDH 30 comes in a visually appealing and cleverly designed box which can be used to safely store your headphones. It makes an excellent first impression, without a doubt, and a soft “wow” escapes my lips. Under the lid, there is a compartment for the accessories. Here you can find the pluggable, fabric-coated cable with a length of three meters, and a suitable adapter from 3.5 mm to 6.3 mm is also included. Neumann also provides a thin, black fabric bag for storing the headphones when you’re traveling. The package also contains a quick-start guide and the warranty provisions. With the NDH 20, Neumann also provides a shorter cable. This would have been desirable with the NDH 30 as well, as it gives the user the option of switching between different lengths.

The headphones are fully assembled—the user only has to connect the cable. You do this with the NDH 30 in the same way as with the NDH 20, on the right earcup. Once this is plugged in, the cable can be secured by turning it slightly to the right. There are sturdy bend protectors on both plug ends, giving them additional protection and preventing the cable from breaking. Only the position of the cable is unusual for me, as with most other headphones in my studio, like Beyerdynamic, Austrian Audio, AKG or Audio Technica, the cable connects to the left earcup. Here, Neumann is a little bit away from what I am used to, but the exclusive Berlin brand is allowed to be different. In any case, it’s good that the cable is just connected on one side—this means that nothing gets in the way when you’re making or listening to music.

Hands on

The feel of the latest Neumann product is excellent. The design is of a very high quality throughout. All clamps and pivot joints are made of metal, or are reinforced with metal. The surface finish is also praiseworthy: starting with the coating and the inscription, to the finely cut relief and the plastic-coated headband. Since there are hardly any sharp edges, the Neumann NDH 30 is very comfortable to hold. The support pads under the headband are nice and soft, as are the fabric-covered earcup cushions. Of course, this can be swapped out by the user.

For transport, both earcups can be folded in and rotated to the side. The outer sides of the headphones are perforated to create the open tone, and painted black. A feature that sets the NDH 30 apart from the NDH 20. The latter has silver earcups which also have a smaller diameter than those of the NDH 30.

Technical specifications

The Neumann NDH 30 is a newly developed 38-millimeter Neodymium transducer which is intended to offer a resolution similar to that of magnetostatic systems. The frequency spectrum ranges from a low 12 Hz up to an inaudible 34 kHz and, according to the manufacturer, has a linearity comparable to a perfectly adjusted MA-1 listening station. The distortion factor of less than 0.03%, measured at 1 kHz and 100 dB SPL, shows extremely low harmonic distortions. At 120 ohms, the rated impedance is on the high end, and the sensitivity is stated at 104 dB SPL. The rated power is 200 mW, while the maximum load capacity is 1000 mW. The eye-catching exterior means that the weight of 352 grams is not surprising, especially since the headphones are larger than the NDH 20.

Wearing comfort

Here, there is one word that says it all: wonderful! The Neumann fits like a glove straight away, and this is especially remarkable as my head circumference



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is quite a bit above average. In the past, I’ve often had the experience of studio headphones that simply didn’t fit me. It’s often the case that the circumference is too small or the upward incline of the earcups is too pronounced. The Neumann NDH 30 offers the largest circumference of all studio headphones I have been able to test so far. The contact pressure also seems to be perfectly balanced. Nothing pinches, and yet the



The extendable headband offers a lot of additional space and fits all head shapes perfectly.

headphones remain securely in position, even when you jerk your head around or when you bend forwards. The headphones offer the ear significantly more space than the NDH 20 does, giving your ears full freedom of movement. Packed with all these great qualities, the 352 grams feel much lighter, and nothing should stand in the way of a long mixing session.

The sound philosophy

According to Neumann, the NDH 30 was designed to allow the user to easily switch between a Neumann MA-1 reference monitoring system and the headphones. What you hear on the monitors should be precisely what you hear through the headphones. This is a bold statement, because hardly anything is as subjective as the sound of headphones.

Personally, I am a big fan of the Neumann MA-1 system (Test PAM 03/21) and use it in my studio as well as at home. Among other things, it measures the acoustics of your listening environment, and the Neumann monitors provide the most neutral, phrase-adjusted tone with a very wide sweet spot. What works excellently in practice with the speakers depends on many individual conditions in headphones: the shape of the head, the bone structure, whether or not the user has a beard, the length and diameter of the auditory canal, the anatomy of the earcup, etc. Every single factor influ-

The NDH 30 exhibits flawless craftsmanship. Both earcups can be rotated by 90 degrees and folded in.



You can identify the NDH 30 from its exterior—the perforated and black-coated earcups. The NDH 20 on the right.

ences the sound significantly and makes the evaluation of headphones an extremely subjective endeavor.

Using the NDH 30

After my first tests with the NDH 30 I am pleasantly surprised: the sound is certainly comparable to that of my MA-1 system, which consists of KH120 and KH750 monitors. The subwoofer delivers a bit more low bass than the headphones, but the imaging in the NDH 30 is a little more directly staggered, since this signal does not contain any room reverb. However, the basic character is indisputably identical, and a quick change between monitors and headphones is smooth and doesn't cause any irritation at all.

This is a fantastic advantage at work. Many of you will know the situation when the audio signal on expensive studio headphones is completely different than that of your usual listening system. This then begs the inevitable question: which system can you trust more? Which sound is true? An uncertainty creeps into the work—which will not happen when you com-

bine the NDH 30 and MA-1 system. If you set the same volume on both, you might almost think that you are using your listening station, when in reality, you're using your headphones. Fascinating!

The difference between the MA-1 system and headphones from other manufacturers becomes very clear, very quickly. In a direct comparison with the closed-back Neumann NDH 20, we can see that the NDH 30 represents a completely different approach to sound and offers superior transparency, depth graduation and transient response. The new product costs around 200 euros more than the closed-back version, and this sounds like money well spent to me.

Other headphones in my collection leave a rather overhyped impression compared to the NDH 30. Thankfully, a characteristic that the NDH 30 lacks entirely. With other headphones you can often find an overemphasis of the highs, which may sound quite exciting at first, but quickly becomes tiresome. This is not the case at all with the NDH 30. It delivers precise sound to your ear with a lightness that produces absolutely no strain on the user.

While in the past, I have assigned certain headphone models to musical styles, this is not necessary with the



Neumann has developed the NDH 30 from scratch. Its excellent, linear sound is based on the MA-1 system.

NDH 30. During testing, I didn't listen to any style in which the headphones did not wow me. From Beethoven to Billie Eilish—the Neumann is an all-rounder, it's all that you can wish for. The NDH 30 is also at home with country songs by Dolly Parton, violently distorted guitars by Nirvana or funky groove by Jamiroquai. The distorted sounds of electric guitars in particular are a benchmark for me when judging headphones—if the tone is too hyped, a heavy power chord can produce a lot of really unpleasant crackling. No other set of headphones that I've heard so far shows off its assets with such a lightness and authority as the NDH 30.

The excellent wearing comfort also contributes a great deal to the NDH 30, again and again. Contrary to my worries, the coated cable does not produce any unpleasant noise. It's fun to work with the NDH 30, and its greatest advantage is probably that, rather than leaving the user unsure, it gives them them same top-class sound they know from their MA-1 system.

Conclusion

Neumann has done everything right with the NDH 30, and offers a new set of reference headphones for mastering

and mixing activities. The Berlin-based traditional manufacturer combines the highest sound resolution and depth graduation with exemplary craftsmanship and excellent comfort. The set impresses thanks to its neutral character without any overemphasis, and it combines two things which are often incompatible in the professional world: it allows precise working on acoustic details, while also allowing you to have a lot of fun listening to music. ■

NDH 30

Manufacturer Neumann
Sales <https://de-de.neumann.com/>
Device type open, over-ear studio headphones
Price [RRP] 629 euros
Weight 352 grams (not including cable)
Dimensions 245 x 255 x 45 mm

Technical data

Transducer principle dynamic, open
Diameter 38 millimeters
Frequency range 12 Hz – 34 kHz
Impedance 120 ohms
Sensitivity 104 dB SPL
Rated power 200 mW (max. 1000 mW)
Distortion < 0.03 % (measured at 1 kHz and 100 dB SPL)
Operating conditions +5° C to +45° C, <90% RH

Equipment

- 3 meter cable, removable, fabric-coated, connects to right earcup
- Gold-plated connection, 3.5 mm jack / adapter to 6.3 mm included
- Folding mechanism, both earcups can be folded in and rotated

Accessories

Fabric bag for storage

Score

Category	upper class
Equipment	very good – outstanding
Wearing comfort	very good – outstanding
Craftsmanship	outstanding
Sound	outstanding
Overall score	outstanding

A fabric-coated 3 meter cable (6.3 mm), documentation and fabric bag are all included in delivery.

