



DIAMOND STAR

STEREO exclusively tests the Bowers & Wilkins
anniversary model, at 30,000 Euro a pair.

There is no doubt that the Bowers & Wilkins 802 D3 is both fascinating and breathtaking: a fantastic loudspeaker, at €22,000 offering everything even the most demanding listener could want from a domestic design. In fact, it's so good we doubted it could be surpassed – yet now it takes second position in the range behind the 800 D3, selling for € 8,000 Euro more per pair, and at first glance apparently the same size.

Indeed, the differences between the two are really only apparent when the two models are placed side by side – as here in the STEREO listening room. The 800 D3 has 0.5cm(!) more shoulder height, larger woofers, and a slightly increased internal volume. Why? Well, that answers itself when you listen to the two against and next to each other, and discover the question is as superfluous as wondering whether the BMW 5 series or Audi A6 are so great that a 7 series or A8 are superfluous.

In Worthing, England, where the 800 Series Diamond speakers are made, this step-up model was always planned, but its launch was delayed for two reasons: first, the company had unprecedented demand for the models from 805 D3 to 802 D3, which were introduced in the Fall of 2015; and second, the 800 D3 had a further function as the symbol of the company's 50th anniversary in 2016.

The 800 D3 requires, in addition to the greater investment, a bit more amp power to reveal its ability to communicate, and a slightly larger room – although, in view of its target audience, that last requirement may well be less of a problem. The 800 D3 is a full-fledged transducer, with neither the lower frequency extension – below 20Hz – nor the maximum level on offer showing any signs of “room for improvement”. And though not small, the speaker won't challenge aesthetically-demanding housemates: its appearance is sculptural than primordial.

Powerful subwoofer

In our opinion, this flagship promises more authority for an acceptable surcharge: yes, it might go a bit deeper in the bass range, and perhaps offers a few decibels more maximum level as well as an increased level of efficiency – physics is physics, after all! However, the focus is

not on these anticipated improvements or even on the functional specifications, since the 802 D3 was hardly found wanting in these areas: instead, the increased woofer surface-area is there to reduce the required cone movement, and thus minimize distortion. And those minimal distortions, which have an effect well into the mid-high range, not only ensure clarity even when the speakers are playing at high levels but also ensure striking depth and definition – areas in which the 800 D3 speakers have no match.

It goes without saying that the 800 is full of technical goodies; but then no other loudspeaker manufacturer has a comparable “University Of Sound” (located in Steyning, not far from the production facility) with so many employees: here the company not only does pure research, but also addresses all the basics of its speakers.

For example, the famous Bowers & Wilkins midrange driver, with its eye-catching Kevlar cone, has now been replaced with a new diaphragm material the company calls Continuum. Its exact construction is still shrouded in mystery while patent applications are in hand, but surface is soft and yet stiff, and offers less distortion. The reason for the change after all these years is simple: having tried long and hard further to increase the performance of its Kevlar midrange driver, the engineers simply found a material with better performance.

Actually, ‘simply’ undersells the process, as this new cone is the result of a very long period of research and development, and we can report that the change has paid off: the sonic characteristics sometimes ascribed to Kevlar have now disappeared.

Improvements in the series

And the driver itself isn't the only change in the midband: as in the other ‘headed’ models in the series, the 803 D3 and 802 D3, the flagship sees the replacement of the Marlan head, whose material came from high-grade bathrooms and was once considered to be near-perfect in acoustic terms. The new head housing the midrange and supporting the tweeter's Nautilus tube is made of aluminum not only

KEYWORD

Matrix:
B&W's complex inner frame to increase stiffness and reduce resonances in the loudspeaker housing.



similar to that used in the construction of engines, but actually developed in cooperation experts at Rolls-Royce, whose Goodwood 'factory inside a hill' is nearby the Bowers & Wilkins plant. Described as the 'Turbine' head, it's machined from a massive casting, integrated into which is propeller-like radial bracing to minimize both vibration and resonance.


A further technology highlight is the diamond tweeter, which is in fact one of the few elements carried over unchanged from the previous design, and is housed in a new, higher-specification version of the company's famous Nautilus tube, so that unwanted rear-radiating energy is meticulously damped out.

Operated by immensely powerful motors, the long-throw woofers feature innovative Aerofoil membranes, varying in thickness across their radius to deliver stiffness without weight gains, thus allowing a precise pistonic motion and avoiding distortion.

They're mounted in a larger version of the bass reflex housing used for the other 800 Series Diamond floorstanding models, with a completely reworked version of the company's Matrix construction of internal bracing, designed to prevent resonances and standing waves: compared to previous versions, less material has been used without impairing the stability, gaining internal volume for bass response. Metal is used to reinforce the structure, and also form a stable platform for the two woofers, while the speaker sits on a hefty solid aluminum plinth, complete with the combination of castors for ease of positioning and high-quality – and very sharp! – retractable spikes.

Like other speakers in this series, the 800 D3 uses the 'reverse wrap' cabinet design, in which the whole of the front and sides of the enclosure is pressed as a single piece, using very thin leaves of wood and massive presses installed in the Worthing factory. That's a change from the pervious generation, which had a separate baffle mounted to a curved one-piece 'sides and rear' molding: the new version gives much greater structural integrity, reinforced by a slender aluminum 'spine' that supports (and provides a heatsink for) the speaker's crossover.

Like everything else here, those electronics are built on the grand scale, complete with extremely low-loss inductors and



**THE APPEARANCE OF
THE EXCEPTIONALLY STABLE
AND BEAUTIFULLY CRAFTED
B&W HOUSING IS THAT OF
A SOUND SCULPTURE.**

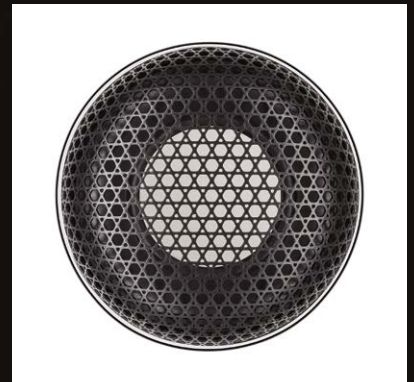
SEEN FROM ABOVE THE
NEW B&W IS A BEAUTY – AND
SOUNDS GREAT TOO.



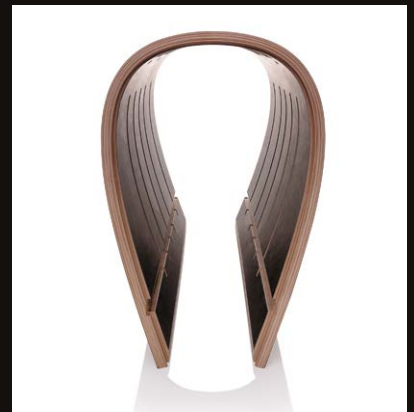
▲ The turbine-shaped aluminum construction was designed in cooperation with Rolls Royce.



▲ The new long stroke woofers with Aer-foil membranes operate very precisely.



▲ The dome tweeter is made of diamond, the stiffest material in the world.



▲ The multilayered housing has acquired an acoustically beneficial curved form.

capacitors from the renowned Cologne company Mundorf, as always chosen by the Steyning engineers after extensive measurement and listening tests.

I have rarely heard a loudspeaker give such an excellent, effortless display, even finer than the excellent Symphonic Line RG Reference HD: the sound was so exciting that several of STEREO's editors were overwhelmed with spontaneous joy! Driven by electronics from Accoustic Arts, or Octave's HP 700 SE preamp with the company's largest monoblocs - in a previous test, I reported that the first (Nautilus) 801 really flew with the tube electronics from Karlsbad - the performance of the incomparable 800 series took on an almost supernatural quality in the way the speakers breathed life into the space. The sound detached itself from the speakers, and took on truly three-dimensional presence.

No fault could be found either in the tonal or in the imaging qualities here, for instance with Norah Jones for instance: the timing is exemplary, as is the sense of soundstage depth and focus, but beyond that precision there is real sense of intuition, charisma and emotion. Feet instinctively tap to Eric Clapton's "Tears In Heaven" - a sure sign for superior sound and well over average musicality - here is no doubt that the fine resolution of these loudspeakers is world-class. Indeed, it has to be heard to be believed, as some comparable designs cost twice as much.

The impressive 802 D3 therefore trails its (slightly) larger stablemate in a direct comparison: in the individual criteria such as micro- and macro-dynamics, imaging and bass control the two may seem close, but in the sum the 800 clearly pulls away. It plays orchestral tutti such as Strauss' "Also sprach Zarathustra" - not to mention Pink Floyd's helicopter in "The Wall" or AC/DC's "Thunderstruck" - seamlessly and totally convincingly, not to mention in an entirely breathtaking fashion. In essence, this is all the speaker you will ever need.

Music extra class

These sound experiences are rare even for an established STEREO editor with 40 years of hifi history, and I became fond of this speaker. I moved the massive crates; unpacked the speakers (all 116kg apiece!); was present for the measurements and photography; carefully installed the pair in the listening room; and spent days sounding them out with changing electronics and enjoying it. And it is clear this is a design immediately able to perform at the highest level, and reveal every change and improvement in the system with which it is used.

Describing the new 800 D3 as just another top loudspeaker would be falling short of the truth: it's way beyond that - and therefore, inevitably, STEREO's reference of the moment!

Tom Frantzen

◀ The redesign of the Matrix construction stabilizes the 800 series like a frame - and allows the direct mounting of the drivers to the internal structure

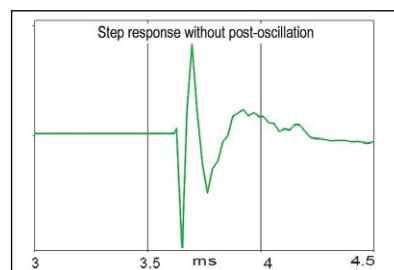
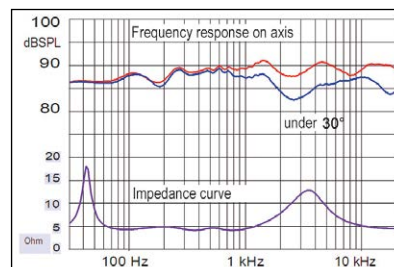


B&W 800 D3

About €30,000/pr
 (Gloss black, Satin white, Rosenut)
 Dimensions: 41,3 x 121,7 x 61,1 cm (WxHxD)
 Guarantee: 10 years, Contact: B&W Group,
 Tel.: +49 5201/87170
 www.bowers-wilkins.com

This brand new flagship, launched just in time to celebrate the company's 50th anniversary, is the best B&W of all time, and one of the best loudspeakers STEREO has ever tested. Incredibly good!

MEASUREMENT RESULTS



Nominal impedance	4 Ω
Minimum impedance	4,4 Ω at 840 Hertz
Maximum impedance	17,5 Ω at 44 Hertz
Nominal sound pressure (2,83 V/1m)	91 dB SPL
Output for 94 dB (1m)	4 W
Lower frequency limit (-3 dB)	<20 Hertz
Harmonic distortion at 63 / 3k / 10 Hz	0,3 0,1 0,1 %

LAB COMMENTS

The deep reaching frequency response of the large B&W is still balanced, but typically somewhat less smooth than assumed after the listening test. By definition, B&W relies on low-loss, less low-cut filters than on linearization at any cost since the room acoustics will also have an effect. The loudspeaker ought to be slightly toed-in toward the listening position and shouldn't be operated too near to walls in middle-sized or large rooms over 25 square meters; the efficiency is above-average; the timing too. The impedance is easy-going and distortion extremely low.

STEREO-TEST

SOUND QUALITY 100%

PRICE/PERFORMANCE

★★★★☆

EXCELLENT