

Magnat

Quantum 807

stereoplay
Highlight

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Sound: Absolute Top Class
Price/Performance: outstanding

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A fine mix

Innovative cones bring Magnat's Quantum 807 to the very forefront in terms of sound. Its price, however, remains well-grounded.

Let's be honest: There are only rare occasions when speaker innovations come along that are truly amazing. And when they do, they are inevitably in a price class which is scarcely attainable for the average earner. A revolutionary cone material or a completely new driver only occurs once in a blue moon. Even in 2011 the majority of manufacturers are relying on dynamic constructions that have been tried and tested over the decades with current-carrying voice coils in linear and symmetrical fields of a permanent magnet. But, ultimately, it is this supposedly stale principle which allows even more significant advances in terms of sound, provided that the manufacturer embarks on intensive research and abandons customary trains of thought. Magnat has done just that in the development of its new Quantum 800 series. It wants to raise the bar by using a mix of new and tried and tested elements. These characteristics are scarcely evident elsewhere. The entire series, even the metre tall flagship Quantum 807, exhibits a timeless and elegant design. At the bottom of the speaker is a base plate, which is offset from the actual housing and features large metal feet (with height-adjustable spikes alternatively available). The appearance becomes even more conservative when the soft covered protective grilles, which are held in place by invisible magnets (not shown here), come into play. Another successful attempt to avoid a technoid impression comes via the surfaces, which are available with a Palisander veneer or a black or white piano lacquer finish. The wooden version is provided with an additional layer of clear lacquer to create a glossy effect and an exquisite appearance of the grained veneer. An impression of solidity also applies to the workmanship of the other components. Meticulously milled edges and fittings, extremely solid screw terminals and a screwed bass reflex tube - all of this does not come as a matter of course. Two bass chassis at the bottom and a midrange at the top is a configuration frequently used by Magnat, and the cones manufactured from ceramic and aluminium are also a familiar sight. The steepness of the filters, however, is around twice that of customary filters. Magnat's development centre, which is based in Pulheim near Cologne, also promises a sound-enhancing time response without major discontinuities in the acoustic phase.

The system's alignment does not need any embellishment. The handy bi-wiring terminal features solid cable bridges and large clearances for easy operation. The base plate can be fitted with spikes or large metal feet.

The most significant improvement in terms of sound may well be the departure from the hundred percent rigid cones. The oscillating plates used for the cone drivers have been designed in such a way that they only move in a piston-like manner for bass segments. At higher frequencies they behave like bending wave emitters with lots of small partial oscillations. This enables the midrange in particular to generate a broader radiation in its upper operating range than a full-blooded piston emitter of the same size. Interruptions of the



omni-directional characteristics during the transition to the higher radiating tweeter should thereby be a thing of the past. The baskets, which are manufactured from high-strength die-cast aluminium, have been designed to be particularly aerodynamic. The geometry of the magnet systems is based on complex simulations with a very linear, highly symmetrical effect on the voice coil in both directions. The effect is significant in terms of harmonic distortion (see measured values). The rasping and grating of the 807 is way below that of virtually all other speakers in its class. Another factor contributing to the good measured values, of course, is the tweeter. Its textile and glass fibre dome cone is suspended via a particularly thick and ductile edge mount, which is clearly visible to the naked eye. Behind the oscillation system is a microfibre damped chamber, whose purpose is to control natural resonances and prevent reflections.

What, however, do all these measures mean? The sound character of the 807 is rather unspectacular at first, which is likely to irritate those listeners who are accustomed to speakers from the 80s and 90s. Back then trebles could stand out plainly with anaemic mids and bass levels which were heavily exaggerated and soft like candyfloss. In the 807 no range seems to be highlighted, nothing seems forced or artificial. Despite this lack of excitement the speaker generates a tremendous amount of fun. Differences between loud and quiet levels are carved out clearly, without any aggressive undertones. Even at homicidal volumes the sound remains refined and sophisticated. When Sara K's classic "Make Believe" started to play there was elation in the listening room. The track, which is often used for demonstration purposes, sounded wonderfully velvety and compassionate. No other speaker will replicate the pedigree of sound generated by the large Quantum."



1. The solid housing of the 807 is internally divided and reinforced. The midrange operates in a separate chamber, which is undisturbed by the bustle of the woofer.

2. The largest proportion of the speaker's volume is used to control the bass driver. Surrounding reinforcements (grey) for the cross members provide additional stability.

3. The air trapped in the reflex tunnel is stimulated by both woofers to very low frequency vibrations.

4. The generously dimensioned connecting terminal is mounted towards the bottom. Better insight from the sectional drawing is lacking due to the damping material.