

Magnat

Magnat Quantum 805
very good

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Test result

Magnat's Quantum 805 is an innovative transducer that combines the advantages of a floorstanding speaker with the comeliness of an item of furniture. The enormous level stability generated provides a calming reserve, which ensures even the most imposing pieces of music can also be enjoyed in an unadulterated manner. Future owners of a Quantum 805 can look forward to a proverbially brilliant concept.



class

top class

Price/Performance

very good

A brilliant performance

“Magnat has already won numerous awards for its Quantum series speakers. Rightly so considering how much dedication and attention is given to the transducers manufactured by the Pulheim-based company. AV-Magazin chose the 805 model from the new 800 series to see what qualities the floorstanding speaker brings to the table.

Describing a new speaker and the technology it contains is not easy. The true innovations usually lie in secret and are only experienced through listening. In contrast to modern flat-panel TVs, where new features such as Internet access or three-dimensionality are readily apparent to the layman, it is really difficult when it comes to a speaker.

The money invested by the manufacturer in research and development is mainly revealed through the quality of acoustic reproduction. This is something that cannot be touched or seen. This is the case for the current subject of our test, Magnat's Quantum 805.

The speaker is simply bursting with technical finesse behind its handsome high-gloss façade. AV-Magazin will review the exceptional qualities in detail and the associated benefits for the discerning music lover in the following test report. You will also learn who is likely to benefit from investing their money in a compact floorstanding speaker like the Quantum 805.

Overview of Magnat's Quantum 800 series

The new 800 series from Magnat includes four types of speaker. The spearhead of the series is the Quantum 807 floor-standing speaker. This features a three-way crossover and two woofers, which generate a considerable bass range.

The Quantum 805 being tested here is the "smaller" floorstanding speaker. With two conical speakers, smaller dimensions and a significantly lower price, it makes an attractive entry into the world of floor-standing speakers in the 800 series.

For a home cinema setup you really can't go wrong with the Quantum 816 centre speaker. It features a typical symmetrical double cone assembly with a tweeter positioned in the middle.

The compact Quantum 803 speaker is suitable for use as a stereophonic front monitor and as a powerful surround speaker. Thanks to the uniform chassis used within the series, the individual components complement each other perfectly in every way. Ultra-modern chassis are used in the 800 series, which we will have a closer look at in the "Technology" section.

Strictly speaking the Omega 250 subwoofer is an individual product that is not assigned to any particular series. However, as it has been designed to complement the specific properties of the Quantum 800 series both audibly and visually, it makes it the optimum partner for powerful multi-channel setups.

Design and workmanship

Prospective customers can choose from three different surface designs. Magnat offers all of the components in the 800 series in a black, white or palisander finish.

What unites all of the models is an exceptional surface finish, which looks elegant and luxurious thanks to a high gloss, perfectly applied clear lacquer.

The shape of the Quantum 805 is timeless, as it is simple and elegant. The edges of the 103 cm housing are not rounded, just deburred. All the more amazing is that the veneer is fitted absolutely perfectly around the sharp edges. Even under the closest inspection there is not the slightest defect in terms of material or workmanship. The tactile quality is simply outstanding.

Underneath the perfectly applied high-gloss surface lies the black/brown striped palisander veneer. The grain runs vertically, which makes the floorstanding speaker appear a little slimmer.

Underneath the beautiful façade is an extremely sturdy wooden cabinet. The body, which has been manufactured from medium density fibreboard (MDF), features numerous reinforcing elements, which reduce the Quantum 805's susceptibility to vibration, thereby optimising its resonance properties.

The larger the housing mass and precise the workmanship, the lower the resonance frequency of the composite material. In turn this has a positive effect on sound quality, as a speaker with a diminished resonance frequency sounds more precise, agile and dynamic. This is particularly true for the fidelity of bass and midrange frequencies, as these are negatively influenced by housing resonance.

This is something the Quantum 805 doesn't have to worry about. The perfectly designed body provides the three integrated speakers with an optimum foundation in both a technical and visual aspect. The chassis are also stabilised by a rear housing mount, which further improves natural resonance properties. In order to optimise the dispersion

properties and visual appearance, the speakers are recessed in the baffle so that they lie flush with the high-gloss front. These can be provided, if required, with the supplied cover frame. There are no unsightly mounting sockets in the acoustic baffle thanks to the practical magnetic attachment of the cover, thereby further enhancing the Quantum 805's appearance.

Added stability is provided by four circular aluminium/rubber absorbers, which are mounted underneath the solid base plate. Alternatively the included metal spikes can be used to couple the speaker acoustically to the surface.

Technology

Magnat's Quantum 805 is a 2.5-way speaker. This means that the audio signal which is delivered via copper wire is divided into 2.5 frequency bands by the amplifier. This is where the integrated crossover is of particular importance. Passive components such as capacitors, coils and resistors are used to construct filter circuits which feed the exact signal to each speaker, where it is turned into audible sound. High tones need a small cone due to their short wavelengths, while deep tones require as large a cone surfaces as possible due their extremely long amplitudes.

A 2.5-way network, such as the one used by the currently tested Quantum 805, combines several mechanical and acoustical benefits. Unlike a conventional three-way system, which has one cone for the bass and one for the midrange, a typical 2.5-way configuration uses two equally sized cones. One chassis here caters for sounds up to the upper bass range, while another chassis caters for sounds up to the tweeter's crossover frequency. The resulting electromechanical advantage in this construction lies in the effective enlargement of the woofer's cone surface. Magnat's Quantum 805 therefore has two large 17 cm conical speakers at its disposal for the bass range, whose aluminium/ceramic cones promise a potent bass response. The acoustic advantage lies in the avoidance of disruptive phase interference in the critical midrange, which would otherwise significantly restrict the omni-directional characteristics.

To further improve performance Magnat has constructed flow-optimised die-cast aluminium baskets. These reduce harmful air turbulence and material resonance behind the radiating surface. Vented voice coils are used in the drive section to ensure sufficient level stability and a low-distortion bass, even when operated under high thermal loads. The surrounding permanent magnet is provided with a shield to prevent electromagnetic interference with other electronic components.

A small 25 mm domed cone operates in the treble range. The light grey fabric cone is finely woven and coated with ceramic particles to prevent uncontrolled material deformation. Like the cones, the short-wave transducer also features a distortion-optimised and shielded magnet system. To ensure optimum dispersion properties Magnat has equipped the front panel of the tweeter with an inwardly curved waveguide.

Also worthy of mention is the fact that the audio specialists from Pulheim have attached great importance to the connection area. The bi-wiring terminal is particularly pleasing with its solid, gold-plated screw terminals, which can either accommodate banana plugs, cable shoes or stranded wires. High quality cable bridges are used to connect the two main frequency paths instead of simple metal bridges.

Sound

Magnat's Quantum 805 now has to use our listening test to prove that the numerous technical refinements are reflected in a corresponding sound quality. To start with we played several jazz pieces from the DMP label. Magnat's speakers were enthralling here with the best resolution. String and percussion instruments are positioned meticulously in the stereo sound stage and are reproduced with an extreme level of detail. The excellent audio recordings are resplendent with enormous transparency and plasticity, which is something that isn't even guaranteed by a € 1,000 speaker. Thanks to the diligent crossover coordination and speaker alignment, the Quantum 805 units are also expressive and accurate from the side, outside the 'sweet spot'. The good reflex coordination is noticeable in the bass range with an extremely agile and deep-reaching bass response. The spherical sounds of crisp bass drums and wonderfully earthy bass lines in the Chill-Out album by Schiller are emphasised really well.

Magnat's Quantum 805 performs dominantly in the upper midrange sector, which can sometimes cause female vocals and harmonically rich instruments to be a little superficial. If highly compressed audio mastering is used, as is common with today's popular music, it can seem like overkill. The speaker then acknowledges "S" sounds with an unpleasant hiss. However, if the recording and mastering are perfectly co-ordinated, the 805 speaker rewards the listener with a refreshingly lively and brilliant sound."