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TREASURE CHEST



Magnat

Quantum Edelstein



- Extremely high-quality casing
- Gold-plated cable connections
- Highly modern speakers
- Precise spatial representation
- High detail resolution



Magnat

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Even small things can be great. This is something that Magnat, the Pulheim-based audio specialist, wants to prove with the new shelf loudspeaker it has called, "Edelstein" – which means "gem" in English. In the following test, AV Magazin will be finding out whether the new line really constitutes a little treasure. Magnat presented a really compact loudspeaker whose unusual look attracted lots of attention at the 2013 IFA in Berlin. The exhibit being tested here was presented within a new product class that has just been added to Magnat's extensive range of classical home-cinema and Hi-Fi loudspeakers: The class of high-end shelf loudspeakers. The resonant name was chosen to reflect what makes this compact loudspeaker different. A language of shape that has been reduced to the essential with clever designer features that help it stand out from the masses. With matching technology to boot. And so Magnat has only used select technical components of the finest quality to demonstrate that even small things can be great. In the following report, AV-Magazin will be introducing Magnat's new Quantum Edelstein and testing whether the quality of sound is an appropriate reflection of the generous features.

Application

Quantum Edelstein is a classical stereo loudspeaker which may be used for all styles of music. Due to its small size and corresponding resonance volume, its design means that it feels more at home in smaller rather than in bigger rooms. And Magnat has adapted the acoustics to enable the loudspeaker to develop its optimum performance on shelves or on sideboards. The adjacent areas reflect the long-waved bass and fundamental sound waves, which produces an increase in the levels of these frequencies. A loudspeaker has thus been created that takes these special circumstances into account and that has been perfectly adapted to its place of use. Even if the Edelstein does possess an efficiency that is disproportionately high for a shelf loudspeaker, the amplifier connected to it should possess enough power to deliver sufficient performances and thus provide the dynamic reserves that are required at higher volumes. The fact that the two chassis are positioned close to each other means that the sound-production centres are also located relatively close to each other – which improves omnidirectional behaviour. You therefore benefit – particularly in the near-field range – from the shorter delays that occur between the bass-midrange loudspeakers and tweeters.

Casing

The obvious highlight of the Quantum Edelstein is its elegant casing. It possesses a luxurious look thanks to the generous choice of select materials. And thanks to the quality of build, which is beyond all doubt. All clearances run extremely parallel. The speakers have been very accurately fitted into the solid casing front. The baffle itself is made of a thick aluminium profile and possesses precisely milled and turned-to-a-polish sound channels for the bass-midrange and tweeter. The finish has been finely brushed and displays the stripes characteristic of this kind of polish. The body beneath it has been built from sturdy MDF wood and comes in a mirror-smooth and perfectly applied high-gloss finish. This loudspeaker by Magnat possesses a double floor made from a polished acrylic glass panel and a solid aluminium support. The base panels have been decoupled from each other to prevent structure-borne vibrations from being transferred. The casing's interior possesses a bracing panel with integrated chassis support to help reduce material vibrations to a minimum. The bass-reflex opening is located on the rear and its conically curved exit is responsible for the optimum ventilation of the internal resonance volume. A removable fabric grille and gold-plated cable connections round off the impression, which is positive throughout.

Technology

Magnat has not spared any costs or effort to equip the Edelstein with the best-possible technology. The 110 millimetre bass-midrange loudspeaker, for instance, possesses a flow-optimised aluminium basket that helps prevent compression effects and air turbulence created by long cone throws. A powerful stray-field-optimised magnet system also guarantees that distortions are kept to a minimum at high efficiencies. A Kapton voice-coil support has been fitted inside the drive section's magnet gap to ensure that any undesirable eddy-current losses are kept to a minimum. Which means that distortions are reduced and efficiencies increased. The sandwich cone is made of aluminium and ceramics. The silver-coloured radiating surfaces in conjunction with the inversely shaped dust dome are appropriately stiff and deliver high internal suppression values, which have a positive effect on the reproduction of the midrange levels. The tweeter operates through a 25 millimetre silk dome. The domed cone has been embedded in a sound channel inside the aluminium front panel to improve radiation behaviour. A strong magnet system made from neodymium is responsible for the powerful and fast cone throw. A phase- and amplitude-optimised crossover fitted with select components has been installed

inside the casing. Here, a bass-midrange section with a particularly low-ohm design is responsible for reducing electric losses to a minimum. The separation frequency between bass-midrange and tweeter lies at around 2,500 hertz. The engineers in Pulheim have also employed high-quality cabling with large conductor cross-sections to distribute the audio signals throughout the casing with as little loss as possible.

Sound quality

We inserted Michael Buble's "Crazy Love" audio CD into the drive of our source device. An amazing temperament was immediately to be heard from both Edelstein loudspeakers. And the sound always appeared tidy and dynamically perfectly defined. Even if the actual design does not permit the sound to go right down to basement levels, the little loudspeakers were still able to convince with a certain amount of bass power. Placing the boxes close to the wall immediately filled the fundamental sound range with a pleasant saturation that is better at bringing particularly male singing voices into their own. The Edelstein loudspeakers deliver an enjoyable, highly resolved detail presentation in the treble range, which is able to tease even the smallest of facets from the sound. The tonal tuning that is full of presence imparts a refreshingly lively and bright character to these Magnat products, while the basses come across as beefy and agile. Michael Buble's voice that is so full of character and soul, for instance, sounds particularly expressive and sensitive while the percussion instruments score points at the same time with their good fine dynamics.

Plain text

With its Quantum Edelstein, Magnat has come up with a real treasure of sound that does full justice to its name. The small but fine shelf box doesn't only deliver a top-class build but also a sound that is convincing throughout. Those looking for a quite compact loudspeaker that combines sound and living-room furniture in a single piece will find their perfect loudspeaker in the Quantum Edelstein.

