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Magnat Quantum 757

Test result: very good

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Magnat

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Price Tip

Sound Quality

very good

Laboratory

good - very good

Workmanship

very good

Magnat

The sturdy ones

The 757, the largest speaker in Magnat's 750 series, really has a lot to offer. It's not only the obligatory depth and level stability of the Quantum 757 that are compelling.

The developers at Magnat have been able to draw on a wide range of technical innovations for many years. The speaker manufacturer from Pulheim, which is near Cologne, introduced a new generation of chassis for its Quantum series that has been nurtured over the years. The most striking features include the aluminium/ceramic cones for the bass and midrange, as well as a compound fabric dome for the high-frequency sector.

The metal cones have a distinct advantage over their plastic or paper counterparts in that they are significantly more rigid. This advantage, however, is obtained through more pronounced partial oscillations and cone resonance that can cause audible distortion. Here's a brief background: Each cone vibrates up to a particular frequency depending on its diameter in the same manner as a piston. Beyond this the cone "breaks", i.e. it partially vibrates out-of-phase. The more rigid the cone, the higher this range becomes, which also results in a more pronounced resonance. There is a trick, however, to soften this effect.

If the cone is not formed as a straight cone, but as a so-called Navi cone with a curved contour, then the resonance can be significantly reduced.

Magnat's aluminium/ceramic cones have been optimised to that effect and are securely seated thanks to a robust aluminium die-cast basket. Inverse dust caps also help improve the partial oscillating characteristics. The bass and midrange cones are identical externally; it's only the drive that differs. Two 17 cm chassis in the Quantum 757 handle frequencies up to 250 Hz, while one 17 cm chassis is solely responsible for playback between 250 and 2800 Hz. In connection with the tweeter, the floorstanding speaker exhibits a classic three-way configuration - i.e. the midrange does not have to cater for an intensive bass range in addition to fine resolutions, as is the case for normal two and a half-way speakers. All of the chassis have been optimised with the Klippel Analysis System to ensure minimum distortion levels. Both large signal amplitudes and the smallest cone excursions should ensure unadulterated listening pleasure. A large airflex port at the rear of the housing is used to support the generation of low frequencies.

The 25 mm tweeter is manufactured from a compound material, which offers an excellent compromise between rigidity and internal damping. A powerful drive in conjunction with a damped pole piece hole also allows a flat high-pass response with enhanced phase characteristics. The solid tweeter front panel features a minimal sound guide, which improves dispersion properties in the crossover to the midrange.

Successful teamwork

To ensure good interaction between all chassis units a complex phase- and amplitude-optimised crossover is used. High quality internal wiring ensures optimum transmission of the music signals. Thanks to the inclusion of bi-wiring terminals, the user has the option of using a separate wiring setup or amplifying the bass and mid/treble range.

In terms of housing quality, the manufacturer from Pulheim has really splashed out. The high-gloss, 45 mm thick baffle is composed of two layers, while elaborate struts prevent the development of any kind of resonance. The 35 mm thick base

plate, which also exhibits a high gloss finish, is fitted with resonance-damping rubber feet to prevent any vibrations being transmitted to the floor. The housing is optionally available in a silk-mat black or white finish, as well as a mocha-coloured wooden veneer.

Without any grilles the Quantum 757 speakers cut a fine figure. The tall, narrow floorstanding speakers look particularly elegant on the glossy base with a black front panel and mocha housing.

We listened eagerly to the first bars of music. We notice immediately that the speakers are capable of demonstrating a high degree of efficiency. In other words, they are able to generate rich levels with a low amplifier power. The chassis also seem to be particularly free of distortion - which really tempts you to crank up the volume for the Quantum speakers.

No reason for squeamishness

Where others exhibit a level of compression and are no longer able to play cleanly is precisely where the fun starts with the 757 speakers. This is because the above-average dynamics of Magnat's column speakers also come into play here. The way "Dark Day" by the Blues Company gets going is fantastic. The fresh, detailed reproduction brings the finest cymbal hisses to the surface. With their powerful bass segments and warm fundamental range the Quantum units certainly don't sound anaemic. The degree of spatial representation generated is not too narrow, but rather extensive in nature. The electric bass in Peter Weniger's "Half-Life" causes some chassis to sweat and bass reflex tubes to rattle. This is not the case for Magnat's units. They create a pounding bass that is second to none. In doing so, they also manage to remain differentiated. The floorstanding speakers definitely benefit from not being set up too close to the wall. They could provide an excessive level of bass in some smaller rooms.

We now come to vocal reproduction. Diana Krall's voice in "The Girl In The Other Room" sounds clear, while the instruments are reproduced extremely well. From the fine cymbal hisses to the bass lines - no details are overlooked. The vocals are nice and throaty, yet sibilant sounds appear somewhat dominant on times as a result of the recording. A similar pattern is evident with Patricia Barber's "When The Beat Goes On", only the live characteristics seem even better here. Thanks to the coarse and fine dynamic qualities, as well as the extensive representation generated by the speakers, you really get the sensation of being live in a jazz basement - in the very front row.

Test result

Strictly speaking, Magnat's units are not absolutely neutral in terms of tone, but they outshine all potential criticism with their extremely casual, superior performance. The tonal representation, which is sometimes quite fresh, may be somewhat detrimental to over-present recordings, however, the Quantum 757 delivers cleanly recorded tracks into the listening room with low-distortion and such a detailed sound pattern that leaves us, as experienced music enthusiasts, astounded and **amazed by the excellent price/performance ratio**. The 757 reproduces recordings that exhibit deep, good quality content with optimum levels of precision and vigour. **One thing is certain: Anyone who gets to listen to Magnat's speakers will be utterly amazed.**