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"A QUANTUM SOUND"

## Magnat

### QUANTUM 720 5.1 SET

- + LIVELY SOUND,  
HIGH RESOLUTION
- + PRECISE, AIRY THREE-DIMENSIONALITY
- + VERY GOOD PRICE-PERFORMANCE RATIO



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Lise-Meitner-Str. 9 · 50259 Pulheim · Germany · [www.magnat.de](http://www.magnat.de)



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## A Quantum sound

**Traditionally, Magnat does not save on high-quality technology in its Quantum loudspeaker ranges. This is also true for the 720 range, which is amazingly economical given its high-tech features.**

"Quantum" is the name Magnat has given to five of its loudspeaker ranges, from the top-class Quantum 1000S to the Quantum 670 entry level range. The new Quantum 720 is positioned one place above this. And includes a lot of technology despite its restrained pricing. For example, all enclosures are fitted with rounded side panels, which not only minimise standing waves but, rather, also improve stability, thus reducing oscillation tendencies of the walls. On the Quantum 727 front loudspeaker and the Quantum 723 surround sound speaker, this rounding even continues to the rear, which is demanding in terms of production engineering – but also entails problems: Although a narrow, round back may be stable and look stylish, where do you accommodate the connection panel and the bass reflex ports on it?

## Technology

Magnat had to develop precise customised mouldings for this – an expensive venture that is only worthwhile for large quantities. Both the reflex ports and the terminal protrude only slightly from the rear, with the mounting flanges adapted to the curvature. The connector panel also turned out to be quite narrow, something that Magnat was able to compensate for, however, by arranging the screw terminals diagonally above each other. The Quantum enclosures are stabilised by internal bracing, in addition to the curvatures. Magnat has made the front panels 25 mm thick, which means the sound is hardly likely to be affected by the sides of the enclosure. The chassis are also anything but standard equipment: Sturdy subwoofer steel baskets provided with ventilation openings allow the membranes to operate without any interference. The latter are made of aluminium with a really deep anodised coating on both sides, causing it to be transformed into a hard ceramic material. The front speakers each have three of these 17 cm diameter chassis, the bottom two of which are responsible only for the bass range. The surround sound speakers have to make do with one 17 cm subwoofer, while the Quantum Center 72 is fitted with 2 x 13 cm chassis. At 30 mm,

the textile dome membrane of the tweeter is unusually large and is set back a bit in an aluminium waveguide intended to optimise the omnidirectional sound distribution in the transition to the subwoofer and woofer (at around 3 kilohertz). The Quantum Sub 7230 A conceals its 30 cm chassis on the side facing the bottom. It radiates onto a thick base plate, which is connected very sturdily to the actual enclosure via column-shaped spacers. Magnat hopes this design will ensure particularly clean acoustic coupling with the floor. The two large bass reflex ports are located at the rear of the subwoofer, as is its control panel. With the loudspeaker level inputs for left and right, the subwoofer also reveals itself as an optional add-on for stereo systems. Sensibly, it provides just one cinch input for home cinema LFE, rather than the usual two. Level and frequency can be set on the Quantum 7230 A via rotary controls and the phase switched between 0 and 180 degrees.

## Surround sound quality

With a lower cut-off frequency of 38 hertz, the Magnat woofer does not reach down exorbitantly far into the deep bass ranges, but can compensate for this again with a lavish maximum level of 103 decibels. There is little to criticise in the frequency responses, with all three proceeding without major fluctuations and in a very linear way. A slightly upward tendency is noticeable above 2 kilohertz. With sensitivity of 88 decibels, the front and centre speakers display a pleasingly high level of efficiency. They can therefore also cope well with smaller, less powerful home cinema receivers. The omnidirectional sound distribution of the centre speaker displays a distinct decline beyond the axis. This restricts speech intelligibility in the seats at the side. Meticulous alignment of the loudspeakers really does pay off with the Magnat set. If they are fixed too much on the listening position, they sound somewhat too light. On the other hand, if they are positioned parallel to each other, the tonal balance is correct. The Magnet set then performs in a well-balanced way in the listening room. The band 3 Doors Down is reproduced with precisely the right blend of richness of detail and hard-rock aggressiveness. The voice of lead singer Brad Arnold comes across without any major discolorations, and it became evidently clear during the test that being patient with the 720 set pays off: The longer we used it, the rounder and more homogeneous it

sounded. If a slight metallic aggressiveness could still be detected in the soundscape at the beginning, this disappeared completely after a while. This is particularly noticeable with critical female vocals like Jane Monheit on the title "They Can't Take That Away From Me" from the Blu-ray "Legends of Jazz with Ramsey Lewis" – after playing in, these were then no longer wobbly and displayed greater musicality. Also fascinating is the nimble, free and spatially precise way in which the 5.1 set performs. In addition, the developers have given the set a good bit of temperament, as demonstrated by the lightning strike at the beginning of "Ratatouille", which bursts unstopably and forcefully into the room. Even the sounds of the shotguns fired by the old women hunting rats emerge credibly from the speakers without any audible distortions.

## Stereo sound quality

The Quantum 727 is by no means dependent on the support of the subwoofer during stereo operation, it also provides its own powerful, deep bass. It's great how the speakers, weighing in at almost 20 kg, then fill the room with the vocals and instruments on Michael Ruff's "Speaking in Melodies" with no shortage whatever of fine detail. The dynamic, surging soundscape also has a feel-good effect for the listeners.

## AV conclusion

The new Magnat loudspeaker set demonstrates proper Quantum sound quality. Added to that, it offers a pleasing design and high-quality technology at a reasonable price.