## Gauder Akustik DARC 250 Mk II Loudspeaker

\$249,975

The DARC 250 Mk II is a 4-way design with 60dB/octave crossover slopes on all drivers. This speaker system utilizes a 3/4" pure-diamond tweeter, a 2" pure-diamond high-midrange driver, a 7" ceramic lower-midrange driver, and two 9" back-coated aluminum woofers paralleled in a high-pass-filtered bass-reflex enclosure.

At the heart of the DARC 250 Mk II are complex and symmetrical 12th-order passive crossovers that have 60dB/octave slopes. These steep crossover slopes allow each driver to play its intended spectrum of music with greater clarity and dynamic headroom, avoiding driver breakup modes and crossover-distortion characteristics that tend to reveal themselves much sooner in certain lower-order crossover designs using similar drivers. A vital component of the design of the DARC 250 Mk II are two compensating time-delay circuits used to counter the inherent inductor-induced group delay between the two diamond drivers and the ceramic midrange that results in generally observed smeared impulses and smoothed over transients. Implementing the Time-Delay-Control (TDC) circuit in the DARC 250 Mk II properly corrects this time-delay. The resultant output is a synchronous projection of sound into the listening room for

a more precise impulse response that leads to better perceived instrumental attack without transient smoothing or energy robbing time smear.

The DARC 250 Mk II has three sets of adjustments that can help with in-room setup and/or personal sound preferences. The first are individual high-frequency and low-frequency shelf adjustments of ±1.5dB from a OdB reference for the pure-diamond tweeter and woofers. The second in-room-selectable option is the novel Bass Extension adjustment that allows six different bass level settings between 30Hz and 70Hz, where room-related bass issues tend to arise.

To mitigate cabinet resonances typically associated with solid-panel aluminum enclosures, the DARC 250 Mk II is constructed from vertical stacks of high-quality oval/drop-shaped aluminum ribs with fiber damping ribs installed between each of them. The front baffle is made of a thick wood-based material with an additional constrained-layer-damped heavy black flagstone coupled to its exterior that has a textured finish to help breakup acoustic resonances.

Interestingly, the DARC 250 Mk II was developed with a physics-based systems-design approach utilizing mathematical models. These models are derived from Euler's formulas that describe the complex relationship of every parameter of the speaker system (drivers, cabinet, and crossover) along with the speaker's performance characteristics (including vibration, oscillation, damping and decay of driver diaphragms, cabinet materials, and electrical components). More mathematical transforms are then applied to create transfer functions representing the speaker enclosure size, driver Thiele Small parameters, and electrical components for the complete speaker system.

The sound of the DARC 250 Mk II, as evaluated in my listening room, is a musical presentation that is as near complete as any loudspeaker-anchored system experienced anywhere. The level of transparency, dynamics, inner detail, spaciousness, depth



of soundstage, truth to timbre, and getting an idea of the final intentions of the end sound product—be it musician, mastering engineer, composer, or a combination of any or all—can be exciting, educational, enjoyable, and hypnotic all at once. These forementioned performance characteristics are all for naught if a speaker cannot put you at ease and allow you to enjoy the performance, fall into the music, and get lost (if one chooses) in the purity of the moment. The DARC 250 Mk II's have that musical ease that gives one the elusive element of satisfaction with the thrill, sorrow, joy, humanness, and/or musical flow of a performance. Through these speakers, one gets the feeling of music that sounds complete and coherent without any audible distortions or other anomalies that tend to spoil the moment. The sound produced by the DARC 250 Mk II is spectacular, so much so that the speaker is mesmerizing in the way it removes itself from the performance. It has fabulous transparency to both the music and upstream equipment. Based on the many attributes observed during in-house evaluation and those mentioned throughout the TAS equipment report, the DARC 250 Mk II is truly an upper-echelon performer worthy of this Golden Ear Award. (349)