

ROCKING IN A CUSTOM SUIT

Can a speaker that is just 124 centimeters high and has only two 17cm-bass drivers make it into the loudspeaker Olympus? Roland Gauder wants to prove it possible with the DARC 100 – a world exclusive test.

I am certainly not a fan of astronomically expensive speakers in bonsai format. Further, with what I have heard so far, in terms of large-volume speakers equipped with ceramic drivers, I could always find fault with something, even though I've been, consequently, declared to be stubborn, hearing-impaired or incompetent by the rest of the world.

The hype about „super-speakers“ equipped with sinfully expensive Accuton drivers could never really impress me. To my ears, they always had their own distinct sound signature, which denied me access to their doubtlessly existing qualities. Additionally, as if that wasn't enough, over the years many speakers people have been raving about left me rather cold and after a listening session somewhere between sober and disappointed.

What distinguishes Gauder?

Roland Gauder promised me that his DARC 100, which is an abbreviation for „Dynamic Aluminum Rib Construction“, would neither be a disappointment nor evoke long faces in the editorial office – so we decided to try.

With a unit price of almost 25,000 euros for the only 130 centimeters high standing and rather daintily appearing 70-kilo heavy speaker, skepticism and expectations were equally present.

The delicate exterior has a special reason, as the DARC series marks the beginning of a new chapter in cabinet construction: there are several manufacturers who already use aluminum as cabinet material, some of whom have been doing so for many years. Applying a wide variety of methods, they try to neutralize the material acoustically. Gauder, though, was not convinced by any of the existing solutions and therefore came up with a new approach: layer by layer, individual ribs are stacked on top of each other and pressed together, using four threaded rods and a defined torque, until they are absolutely air-tight. In between the ribs, long-fibred, wood-like plates are used to separate them.

As Gauder, himself a learned physicist, explains, the air-tightness is essential, as it supports the low sound permeability of aluminum, which is a major advantage of the design.

Despite the four times thinner cabinet walls, the „sound insulation level“ here is 33 dB, meaning that even in the bass range virtually no sound penetrates into the environment. A conventional MDF cabinet attenuates only between 6 and 10 dB, which, according to Gauder, results in significantly less precise imaging and more problems concerning the positioning. In the DARC series' top-of-the-range model, only at one defined point, which is the bass reflex port underneath it, air is let out. By adjusting the height of the included and sturdy-looking spikes, the future owner can, therefore, influence the intensity of the bass by about 2 dB.

The additional space on the inside, gained from the thinner cabinet walls, allows the speaker to play with extremely low distortion, even at high levels and low frequencies – as our laboratory confirms.

The front of the 100s is made of MDF

and is covered with a three-millimeter thick layer of slate, while being decoupled from the aluminum cabinet. Only minimal additional damping was necessary here. These measures enable the DARC 100 to deliver a first-class performance at a wall distance of just 70 centimeters from front panel to rear wall. The design not only proves its advantages in the bass range, but also the spatial imaging is absolutely convincing. If you attach great importance to the visual aspect, the DARC 100 also has a lot to offer thanks to the possibility of close-to-wall positioning. However, also if you have highest expectations on the reproduction of your music-system, the speakers can absolutely deliver, offering a filter adaptation of the crossovers to your specific room resonances, completely fitted with the noble components from Mundorf.

Naturally more dynamics

As virtually no oscillation-energy migrates into the cabinet, the speaker has a particularly precise take on natural dynamics. Already at low volumes, even the finest level differences are audible, and previously barely perceptible details are rendered exceptionally clear-cut. Should there be something like cabinet-related distortions, they were apparently eliminated entirely. These hardly measurable crossover- or chassis-associated distortions make you want to turn up the volume, as the speaker never softens the bass or annoys in the midrange and treble. More examples of the exquisite ingredients contributing to the speaker's qualities are the 20-millimeter tweeter driver with diamond-diaphragm, costing an extra 4000 euros per unit, compared to the ceramic version, and the custom-built ceramic drivers. A specially damped 17mm chassis is responsible for the midrange. Thanks to the neodymium magnet



◀ The multifaceted, extremely rigid and low-resonance cabinet of the DARC 100 is also pleasing from above.

system, weighing around one kilo by itself, it has an unbelievably powerful magnetic drive. Gauder had the strongest neodymium available used for its drivers. The immediacy of the reproduction is also due to these constructive subtleties.

Two Accuton drivers, nearly identical in diameter and diaphragm material, operate parallel to each other, feeding the low frequencies into the 30-liter bass cabinet. Gauder has adapted the drivers to their task with its in-house, extremely steep-flanked filter technology, enabling the rather small chassis to generate sufficient pressure even in the hands of high-volume-maniacs. Filter-slopes of 60 dB are otherwise only known, if at all, from digital crossovers, but Gauder realized them completely passive and analog. Acoustic overlaps in the range of two to three octaves, which are hardly avoidable with conventional filter technology, occur in the DARC only in the minimal frequency range of about 1/4 octave. Gauder promises minimal chassis distortion, superior pulse-response and linear phase-progression as a result, which should lead to a large auditory spaciousness, while retaining maximum precision at the same time. Gauder also sees the

chassis being matched with an accuracy of ± 0.5 dB as an essential condition for this – bye-bye serial fluctuation!

The DARC also offers some sound-tuning features – a quality of many of the Swabian manufacturer's speakers. Bass and tweeter can be raised or lowered by 1.5 dB each, using small wire-bridges. Mandatory in this price range are first-class connection terminals, here the WBT-Nextgens in bi-wiring design, bridged with proper cables, and the already mentioned solid spikes. A slight detail that can additionally improve the sound, is a small foam strip, inconspicuously attached to the front edge of the case, reducing reflections and ensuring a more coherent sound-image and a touch more precision.

Options

Given the wish for a broader foundation, a large stand, that also allows a more comfortable and reproducible height-adjustment by means of a scale, can be ordered with extra charge. A precise spirit level is included in the scope of delivery to ensure that everything always remains in scale.

Special visual desires are also welcome. From all RAL colors to various metal

surfaces, be it gold, copper or black-chrome. Almost anything is possible, but it'll surely extend the waiting time.

Are you patient?

You certainly should very seriously deliberate upon that question, as, if it hits you like it hit us when hearing the first beats from the DARC 100, it is going to be a real challenge. There was not a trace of the frequently observed „ceramic sound“, featuring dry, but often discolored bass, presumably being a material-specific effect. While sounding dust-dry on the one hand, nothing was overly damped or appeared “dead”. Instead, pressure, together with precision, a fat sound and just the right measure of oscillations, delivered an acoustical performance that let the music come to life. No records from the „audiophile“-category are required, but the sound of AC/DC's famous bells from hell are enough to get started.

It is fascinating how the loudspeakers seem to no longer exist – with open, but

For each frequency range, the Gauder has its own crossover equipped with highest quality components from Mundorf. ▼



even more so with closed eyes. They appear to only spread the energy of the sound events they radiate. When the just mentioned bells are ringing, they can be clearly assigned to their tonal origin, while still distributing their energy over the heads of the listener and throughout the room. The Gauder succeeds in combining perceivability with power in the middle range and detailing, each on a qualitative level that is spectacular and outstanding even in the respective individual disciplines. A fusion of these qualities into one was a new and extremely enjoyable experience. The impressions with the Australian rock seniors led to the first listening day having been largely spent cavorting in the area of classic rock – from Deep Purple to Led Zeppelin and Queen. At first, we did not even get the idea of seriously looking for classic audiophile qualities, because many of the songs that had been familiar for decades could be seen (heard) under a completely new light and some entirely new aspects were uncovered in them. Bass guitar riffs, whose existence could previously only be followed fragmentary, now showed constant presence, and technical subtleties of the strumming were reproduced without any effort at all.



▲ The slim base features the WBT Next-Gen-connectors and adaptation bridges for bass and treble.

Enjoying music

Vocals and acoustic instruments were a real pleasure. The speakers' price tag faded completely into the background. After all, watching Messi or Ronaldo on the pitch, you would as well enjoy their art and forget the hundreds of millions, flowing into their pockets year after year, right?

We continued our journey of discovery with Herb Alpert's fantastic „Whipped Cream“ from 1965, specifically the unforgettable „Taste Of Honey“, and Jon Lord's masterpiece „Sarabande“, which uniquely reconciles fans of classical and rock music. However, since we had already spent so much time with rock, we continued on the classical path for a while and were simply enraptured by how the Gauder presented voices and orchestras with various operas from Puccini to Bellini and Verdi (yes, these Italians!) in a very soulful manner, while clearly separating one from the other, without tearing up the stage. The seamless, dynamically impressive and tonally perfectly balanced reproduction was all the more fascinating because only the music was present, with the necessary transducers disappearing entirely – at least in terms of acoustics.

Yes it's true; you haven't read anything about the high frequencies yet. The reason being, they were simply there without ever drawing the slightest attention to themselves. Soft, but with exuberant detail, while expressive and yet self-reducing, they homogeneously fused with the mid-range, taking away the listener's breath in no time. All of the above would by itself not be a reason for me to break out into unrestrained cheering. But the pleasure is perfect, because the DARC 100 also masters what otherwise distinguishes much larger speakers: It makes a real bass with pressure and precision - even with levels that I personally consider indispensable for a 50,000 Euro speaker.

Gauder made it: He has arrived at the speaker-Olymp and is at least equal with the established competition.

Michael Lang

GAUDER AKUSTIK DARC 100

From 40000€

(With ceramic-tweeter 40,000€; tested model 48,000€; diverse cabinet options at extra cost)

Warranty: 10 years

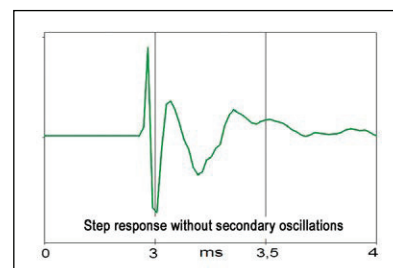
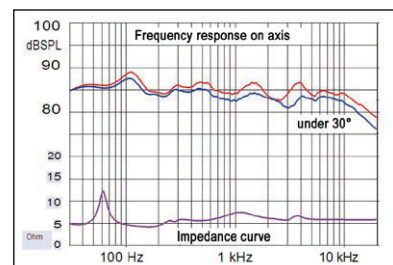
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Caution, addictive! Everything is just perfect here: the musical quality, the practical suitability, and the workmanship - a dream of a loudspeaker!

MEASUREMENT RESULTS



DC resistance	4 Ω
Minimum impedance	4 Ω at 180 Hz
Maximum impedance	12 Ω at 60 Hz
Sound pressure level (2.83 V/m)	85,2 dB SPL
Power for 94 dB SPL	30 W
Lower cut-off frequency (-3dB SPL)	29 Hz
Distortion factor at 63/3k/10k Hz	0.3/0.1/0.1 %

LABORATORY COMMENTARY: Balanced, low frequency response, consistent impedance, medium efficiency. Distortions very low, dispersion very good. Step response almost perfect. Angling is not or only minimally necessary.

EQUIPMENT

Three-way bass reflex speaker; bass and treble adjustment +/- 1.5 dB; bi-wiring with WBT NextGen jacks; spikes height adjustable; separate outriggers as optional accessory

STEREO - TEST

SOUND QUALITY 100%

PRICE/PERFORMANCE

★★★★☆
VERY GOOD