

Opera Callas review

Innovative Italian standmount flaunts impressive technology

By [Alvin Gold](#) August 10th 2008

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For	Architecturally solid, refined sound quality, good imagery, even when not sitting in the obvious hotseat
Against	Some modest deterioration in sound at high volume levels and positioning is of utmost importance. Too far from the wall and sound can be weak. Too close and the sound over compensates

We first heard the Callas loudspeaker about a year ago at Opera's own factory near Venice. At the time it was a work in progress, but even then we were suitably impressed by its balance and overall coherence.

All drivers are manufactured by SEAS of Norway and customised for the role. And, whereas the original Callas was a more or less a conventional two-way design, this model boasts two coated Sonotex, fabric dome, front-facing tweeters with neodymium magnets. This reduces the overall diameter enough for all the drivers to be tightly packed together.

Optimised design

They flank the sophisticated 125mm magnesium cone bass/mid driver, which also features a solid copper heat-dissipating phase plug, copper rings each side of the T-shaped pole piece, a 38mm low-inductance aluminium voice coil and a wide linear excursion (14mm peak).

The design is also optimised for low distortion and compression. In addition, there are also three rear-facing tweeters, identical to the ones on the front, except that they are protected by mesh fingerguards.

This feature is not unprecedented. Something similar was used, for example, with Opera's Tebaldi and Caruso, but it has been re-engineered for the Callas to fit the more restricted baffle area.

The rear-facing triplet shares the rear panel with two small reflex ports and a single pair of high-quality 4mm terminals.

Tweeter features

Although all five tweeters are physically similar, they're not all utilised in the same way. Using a three-section crossover with two independent sections for the front-facing tweeters, one is progressively rolled out of circuit as the frequency rises. The crossover includes an impedance-matching network on the front tweeters and the system has a impedance of 3.2 ohms (minimum) and a nominal 4 ohms overall impedance. Sensitivity is rated at 86dB/watt/meter, which is moderately impressive for such a compact speaker design.

If the two front tweeters are lumped together, it can be treated as a third order (18dB/octave) high-pass network, with an impressively low crossover frequency of 1.5kHz, the bass unit rolling in at 12dB/octave.

The additional tweeter(s) serve to improve power handling ability as well as improving dispersion. Below about 2kHz, the two front tweeters produce the same SPL. The rear-facing tweeters are crossed over at 2kHz, which is calculated to produce an even overall response on the main listening axis. The crossover coils have ferrite cores and low permeability cores, while the capacitors are low-tolerance, high-voltage MKT devices.

Sleek styling

The build and finish quality is superb, with the baffle dressed in leather (also a common practice with Sonus Faber). The enclosure itself is more sturdily built than most and is finished in a choice of cherry or mahogany, with a translucent lacquer finish. It's manufactured from a combination of MDF, plywood and solid wood, with a classic teardrop cross section.

The baffle and back panels are made from 30mm-thick MDF at the front and 60mm at the back (shaped to mitigate cabinet-edge diffraction) and the sides are made from 30mm multi-layer plywood, the stiffness of which is partly determined by the multiple layers of wood and glue, as well as its curved shape.

The top, base and sides are made from 40mm-thick solid wood, while the veneered areas are made from butt-jointed sections. The cabinet looks initially as though it is constructed from staves, but the finish is nothing less than exceptional and fully justifies the price tag.

Grown-up loudspeaker

The wait for the new generation Callas has been worthwhile. It sounded good a year ago as a prototype and it is clearly good now, both at the factory and when listening on a system with a range of ancillary equipment from Krell, Goldmund and others.

It isn't, however, strictly necessary to throw exotic hardware at the Opera in order to bribe it into singing like a thoroughbred, but there is more than enough substance to make the effort and expenditure worthwhile.

Given its diminutive stature, the Callas is a surprisingly grown-up loudspeaker, which is capable of making a more than decent stab at larger scale orchestral works without any danger that it will end up sounding emasculated.

The bass is acceptably deep and pure and it has more authority than you would expect from such a compact design. It is certainly tuneful and the result is that the speaker performs with great conviction.

Strong imaging

As the technical description implies, the Callas needs extra reinforcement from the back firing tweeter triplet. With the appropriate acoustic reflecting conditions in place, the sound becomes bolder and sharper and more homogenous.

However, from a vantage point near either loudspeaker the image tends to fall into the local loudspeaker, which is to be expected.

From anywhere near a central axis, or even moderately off-axis, the Callas tends to generate an image that is perceptibly taller than you would expect from a speaker this size (on the stands used) and this seems to improve the sense of an open, involving acoustic with most recordings. The Callas is also more tolerant than most and works well from a low or a high vantage point, which gives it a useful flexibility.

Musical versatility

Beyond this, the Callas is a speaker of considerable stature.

The use of multiple tweeters is probably responsible for the unusual solidity of the sound and its much better than class-average homogeneity.

At the factory we used a number of recordings, including CDs of large-scale orchestral material and was surprised at the level of grip and conviction that the diminutive Callas was able to bring to the party. It didn't sound offensive with other non-classical, smaller-scale material and this positive impression was reinforced by subsequent listening using the production pair that was shipped for review.

This approach of using additional tweeters to broaden out the stereo soundstage is far from unprecedented: Mirage has done something similar for a long time and with similar results. The sound is broader and more tactile and more detached from the box and room interactions become in some respects more obvious.

Exceptional performance

By any standards this is an exceptional loudspeaker, which retains the neutral tonality and transparency of other good compacts and builds in the areas of solidity, stability and image height (the latter partly, it seems, a function of the unusual crossover design and the use of twin front-facing tweeters).

It also boasts good power handling capacity and bass extension – the equal to, though probably not better than, others of its size.

Imagery is particularly impressive: a carefully positioned Callas pair has an unusual stability and image scale, without detracting from such areas as subtlety and fluidity.

Opera Callas

Price at launch: £2195