



TWO WORLDS

Do you want the famous horn sound but are not willing or able to accommodate large-format speakers? As a rule, this means giving up the dream. Horn specialist Cessaro tries to find a way out of the dilemma.

General information

Horn loudspeakers are an interesting phenomenon. In my experience, they are something that many audiophiles take little interest in for many years as their listening habits develop. Usually there is then a key experience and the interest is aroused. Once you have understood that horns don't have to sound bloated and discolo-

The housing of the Mendelssohn is much more than a simple cuboid. The baffle for the midrange driver was deliberately designed to be narrow



red, the path is already mapped out: Once you've smelled the fuse with this type of loudspeaker, there's no going back. Completely effortless reproduction, listening to a musical event as if through an acoustic microscope, is only possible with funnels. The problem is that this type of loudspeaker is large by design and physics cannot be fooled. This applies particularly to the lower regions of the spectrum: The volume of horns that can reproduce really low frequencies is usually specified in cubic meters. For contemporaries with plenty of space and tolerant roommates, this is a great thing, no question.

Cessaro

The small German manufacturer Cessaro specializes in just such loudspeakers. There are five-way designs, all of which have been realized with horns. The low-mid horn alone measures a good one meter in diameter and weighs over 100 kilograms. Bass solutions at Cessaro are normally folded horn constructions that are powered by massive drivers from sound reinforcement technology. And you can integrate as many of these into the system as your personal taste and willingness to spend money allow.

In addition to the space required, Cessaro loudspeaker systems have a second special feature: they are in the absolute luxury segment in terms of both quality and price. However, company founder Ralph Krebs' success clearly proves him right: his unique creations can be found in the most exclusive locations all over the world.

Hybrid concept

It goes without saying that the market for such things is not endless. That's why Cessaro has been building models for a somewhat less uncompromising clientele for some time now.

This is clearly not possible without compromises. In the case of the Mendelssohn model under discussion here, this means dispensing with horn systems in the bass and mid-range. Above this, however, a horn loudspeaker sets the tone and transports as much horn fascination to the listener as possible. Named after the German composer Felix Mendelssohn



The powerful woofer requires a voluminous bass reflex tube

Bartoldy (1809 - 1847), the loudspeaker, priced at 55,000 euros per pair, is visually a sight like no other. The model, limited to ten pairs, is housed in a perfectly glossy black high-gloss cabinet, which owes its visual qualities to an excellent paint finish on the one hand and the use of acrylic cabinet elements on the other. With the best will in the world, there is no discernible difference in the surface.

With a height of 113 centimeters, the speaker can still be considered suitable for a living room, especially as it is not very wide for a system of this class at 34 centimeters and cleverly hides its volume in the depth. The most striking feature is the spotlight-like tweeter attachment, which forms the heart of the Mendelssohn: This is where the compression driver with a one-inch

Teammates

Turntable:

- Transrotor Massimo Nero / Studio 12'

Cartridge:

- Transrotor Figaro

Phono preamp;

- Musical Fidelity Nu-Vista Vinyl

Integrated amplifier:

- Soulnote A-2

Preamplifier:

- MalValve preamp three line

Power amplifiers:

- Atma-Sphere Class D

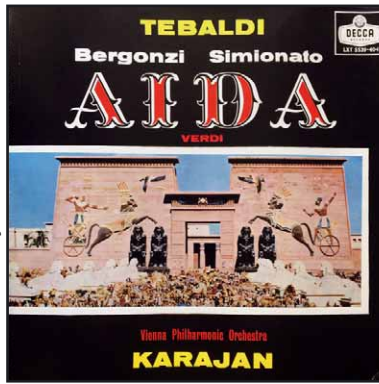
Competitors

Loudspeakers:

- Rosso Fiorentino Certaldo
- Audio Physic Tempo

A camera mounting plate is used to fix the tweeter horn in place





What we played

Verdi

Aida, Karajan, Tebaldi

Laurindo Almeida / Ray Brown

Moonlight Serenade

Rickie Lee Jones

Pirates

Slomosa

Tundra Rock



The 10" woofer is capable of top bass performance

sound outlet does its work. It is firmly bolted to a custom-made horn made of solid aluminum. With its fine gray metallic finish, this forms a fine visual contrast to the pitch-black body of the speakers. Ralph Krebs has come up with an interesting detailed solution for mounting his exclusive tweeter: It is held to the base with a moun-

ting plate from the professional photography sector. Normally, heavy studio cameras are mounted immovably with this arrangement, but the completely invisible technology is also excellent for this application.

Deep tones

The bass range of the Mendelssohn may not have a horn, but it is something very special in another respect: it uses an exquisite ten-inch woofer from Danish specialist Scan-Speak, which enables extremely low tuning in moderate cabinet sizes. In this case, this means that the reflex-supported Mendelssohn reproduces bass up to the 20 Hertz mark with almost no drop-off, even exceeding the manufacturer's specifications. And with an efficiency of a very respectable 88 decibels - that's quite something.

Midrange

Above this, in its own compartment of course, the midrange driver does its work. It also comes from Scan-Speak and is from the high-quality Illuminator series. The driver, equipped with an extremely complex, totally open drive system with its characteristic "flower pattern" cone, is one of the best mid-range drivers on the market despite its moderate twelve centimeter diameter and is an excellent choice as a link between the extreme bass section and the exclusive horn tweeter.

The sticker on the tweeter hints at this: The Mendelssohn will only be available ten times

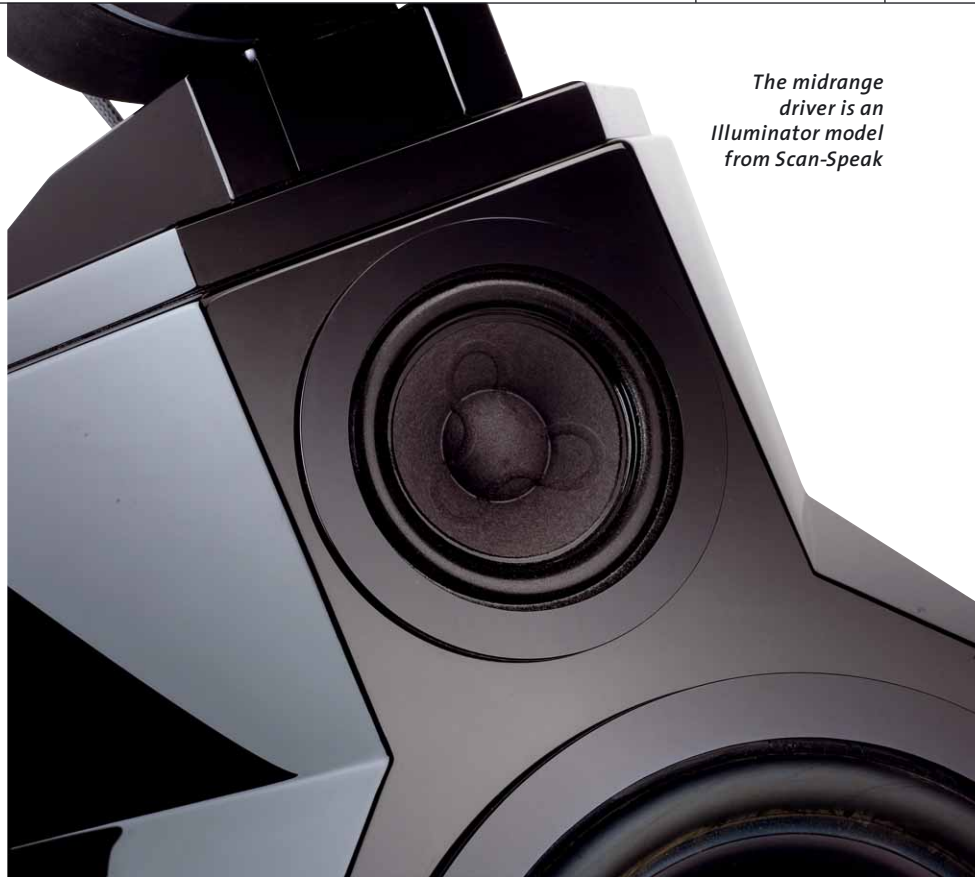


Crossover

The division of the amplifier signal into the components for the three drivers is handled by the voluminous crossover, which is located on the rear of the speaker in its own chamber behind a plate with multiple screws. Structurally flat filters with few correction elements are used, with impedance correction only in the bass range. Only the finest components are used in the freely wired construction, as you would expect in this class.

Requirements

The design of the Mendelssohn differs significantly from the horn loudspeakers normally used by Cessaro, which has consequences for the driving amplifier: The tremendous efficiency values that make it possible to drive “real” horn systems on single-ended tube amplifiers with a few watts of power do not exist here. The Mendelssohn has a very decent 89 decibels and likes to be operated with powerful ampli-



The midrange driver is an Illuminator model from Scan-Speak

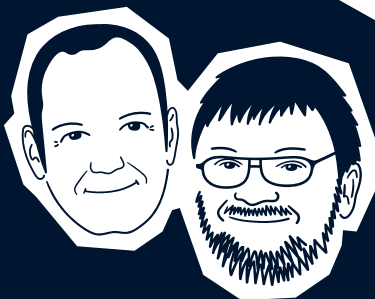


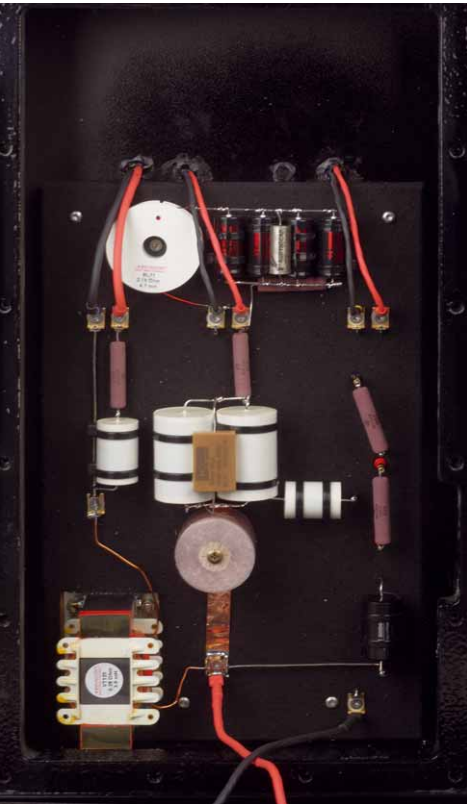
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The crossover is structurally simple and is realized with top components

Behind the tweeter horn is a 1" compression driver



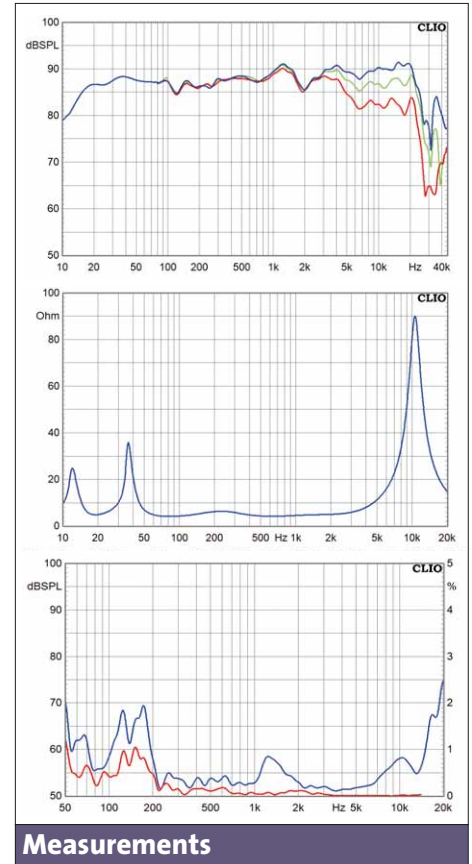
fiers – this is primarily due to the extremely powerful bass range.

If it has to be a tube, then I recommend a push-pull solution of the KT88 class and upwards. Experience has shown that solid-state amplifiers are easier, and we had the best experiences with the great Soulnote A-2.

Sound

Unbelievable – sometimes you could actually believe you were sitting in front of a “real” horn loudspeaker. This is because the horn tweeter actually dominates the overall sound impression of the Mendelssohn. This is best illustrated, for example, by the Karajan Aida with Maria Tebaldi, which I hold in high esteem: the singer’s voice and the strings in particular display an extreme openness and transparency that is only possible with horn constructions. Tebaldi seems highly motivated, the loudspeaker conveys a convincingly dramatic atmosphere. This recording in particular benefits from its extremely potent bass range, which provides a convincingly powerful foundation for the action on stage. The bass tuning can be considered very successful, the Mendelssohn sounds variable and colorful in the low frequencies, no trace of bass reflex booming.

In terms of spatial imaging, I’m pretty sure that a “real” horn system would have a hard time overtaking it. The Mendelssohn can physically disappear completely from the sound image and can fill the room with music as a matter



Lab commentary

The amplitude response of the Mendelssohn is very balanced. The bass range impresses with its immense depth down to the 20 Hz mark. There is no noticeable tonal irregularity in the crossover between the midrange and tweeter, and the tweeter works without any problems above the 20-kilohertz mark. The overall efficiency is around 89 decibels at two volts. The impedance chart reveals four-ohm behavior; over long distances the impedance is even lower. The speaker needs current-potent amplifiers! The distortion curve at 90 decibels sound pressure reveals a small, harmless k2 peak in the midrange driver, otherwise the design is quite low-distortion.

of course. The manufacturer recommends it for a room size of up to 40 square meters, which I think is pretty conservative: our listening room is about 65 square meters in size and we had the feeling that we were pushing the speaker to its limits in terms of level. Of course, this transducer can’t do magic either: it can’t reproduce the explosive dynamics of a full-range horn system. But it can also play large-format music very convincingly across the entire frequency range, and the deep bass in particular deserves top marks here.

Holger Barske

