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OSCAR DUO REVIEW – AUDIO REVIEW #415

Oscar Duo gets a complimentary and technologically in-depth write up by Audio Review.

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Gian Piero Matarazzo | Audio Review

The review in full (translated by Google Translate)

Marten Oscar Duo review

A 2-way speaker system, with stand, of a Swedish company that produces excellent speakers, made with a precise design philosophy. Containment of colours, at all levels, and careful and calculated management of speaker emissions not only on the axis; topics that in recent years have begun to make their way among the design priorities of the most careful manufacturers. The Marten Mingus Quintet floor model tested some time ago surprised by the consistency, the reproduction of transients and the neutrality characteristic of Northern European products. Even this stand speaker amazed me for the performance in the listening room.

Marten was founded by Leif Mårten Olofsson in Sweden in the late 1990s, but the history of the brand has origins more distant in time. In the early 1900s, Leif’s grandfather, Josef Olofsson, produced violins using a Stradivarius, an instrument played by Mårten Larsson, his maternal grandfather, as an element of comparison and reference. In the 1970s, Leif made his first speakers at home. A hobby he was very interested in from an early age. From the first Mingus, the range of products has grown to the Five series, and a recording studio and a record label have been added to the speakers. The company was born out of passion and has grown steadily, gaining success and respect. Since then, Marten is still a family-run company, run by Leif and his brothers, Jörgen and Lars. The Oscar series consists of two speakers, one for

the floor, the Trio model, and one for the stand, which is the one being tested. As with all Marten models, we note in both the front panel slightly inclined backwards to reduce, if not reset, the effective offset of the membranes. Obviously, and who knows who built inclined front panels well knows, this is not a panacea at all, either because it appears formally insufficient to align the “mechanical” emission centres both for the difficulty, without adequate and linear instruments in phase, of actually aligning the acoustic centres. Marten knows how to do it. In fact, to perform this initial phase, it uses a fairly mild attenuation, not in line with the mechanical geometry of the speakers. Finally a sensible operation, like the best world manufacturers. Let’s go then to see what is hidden inside this heavy speaker.

The construction

As for aesthetics, we read: “The exterior is an exercise in minimalist design, without unnecessary details”, as the designers Marten say … and they are absolutely right! The speaker is engineered with attention and with particular attention to everything that can somehow colour the sound, that is, both to internal reflections and to the solidity of the structure, starting from the thickness of the material used, that is 30 mm medium density to create a slightly rhomboid cabinet that is remarkably dull and heavy, carefully glued and well covered internally using a very dense acrylic, similar to glass wool. The solidity of the front panel was not enough, a perimeter reinforcement was added, positioned just above the woofer. Both this speaker and the tweeter are fixed flush with the panel thanks to very precise milling and tightened with long screws with a metal thread and with the nuts screwed into the panel itself. The whole is of considerable rigidity and precision. A small MDF support is fixed to the shoulders of the woofer where the crossover filter components are glued and connected together. Not even by unscrewing the only fixing screw can the filter be removed, and therefore it has been analysed on the spot thanks to the removal of the support of the two rear connectors and to some contortion by the Director. Once removed, the woofer has proven to be an SB Acoustics transducer, but I admit that it is a model that I had never seen and that I had initially mistaken for an Accuton. Despite the non-removable metal ring nut, I noticed a remarkable excursion and a particularly rigid construction of the membrane. Large slits in the basket and also under the centring device allow together with the decompression hole a considerable dissipation of the heat produced and a low colouring. The tweeter is probably the most mysterious transducer. Equipped with a remarkable flange, it actually shows a magnetic complex reminiscent of the tweeters used in-car installations. Evidently, the magnet will be in neodymium, also given the exuberant sensitivity, with a small rear decompression chamber. The dome is semi-covered by a small power factor correction and appears slightly more backward than normal thanks to a small waveguide. I get the Jorma Design cable used for wiring and terminated with polarised fastons both on the speakers and on the two input connectors, which are WBT Nextgen. The analysis of the waterfall of this diffuser has all the prerequisites for being extremely interesting, just to verify the result of all the constructive attention placed in the project. As we can actually see in Figure 1 we are faced with a result that in the medium range is to be considered remarkable, with a very decisive and rapid decay in the whole range between 1,000 and 5,000 Hz. The light hint of resonance at 3,600 Hz is disposed of very quickly in just over a millisecond. Below we notice in the medium-low range reflections between the internal walls which are almost impossible to cancel but which fade very quickly, while in the very high range we detect two resonances at 10,000 and 15,000 Hz due, in all probability, to the construction of the tweeter. The answer to the step of Figure 2 leaves me just

perplexed because of the very fast spike that goes below the zero line and which contradicts when repeatedly reiterated by Marten designers about the transducer phase. Probably, I assume, it would be necessary to verify the response to the step by integrating a large number of acquisitions on the horizontal plane and vertical. However, notice how the tip of the mid-woofer appears regular and extended. To check the crossing conditions, we also see the group delay in Figure 3, which appears “manual” with the crossing frequency firmly fixed at zero. It should also be noted that the acoustic phase at the crossover frequency is exactly -45 °.

The magic filter

I invite you to look carefully now at the crossover scheme of Figure 4. Simplicity is the characteristic of this filter, so much so that some “crossover and keyboard hero” could exclaim: “Toh, and what does it take?”. On the other hand, a minimum of experience tells us that very rarely a seemingly simple filter indicates that it is also easy. The group delay, the acoustic phase and the step response tell us that the designer has sipped the values and the circuit with extreme care. Starting from the low pass, which is then the real manager of this filter, we notice how the 1.2 mH inductance is followed by a notch cell centred at about 7 kHz with a notable attenuation, which at spanne should be worth about thirty dB, and with a high factor of merit. Remind you of anything? It seems to me, with all possible cautions, a dual-slope filter, illustrated some time ago with a wealth of details on the pages of our magazine. The “dual slope” filter, that is double slope, has the acoustic bending up to just over 1,200 Hz which is the characteristic of a first-order, while going up beyond this frequency the slope starts to increase, managed by the notch cell merit factor, up to beyond the fourth-order, but with the emission now of the all attenuated. The tweeter sees a particularly damped second-order high-pass cell and an attenuator of about 4 dB which definitely normalizes the load seen from the foregoing. To obtain an average rectilinear trend there is the counterpart precisely of the phase reversal of the tweeter which however conducts its acoustic phase fairly close to that of the woofer even if slightly delayed, a delay that adds up to the inclination of the front panel. Not simple.

Listening

For this listening session, I proceeded to position the speakers placed on the supports supplied by the same manufacturer very carefully. The positioning session can be considered finished when a broadband monophonic track is perceived exactly at the centre of the stage. Years ago, in fact, I isolated a track of Led Zeppelin which thanks to guitar, drums and voice manage to concentrate at the centre all the spectrum reasonably involved (with spans between 250 and 12,000 Hz) so as to be able to regulate the rotation of the single speakers. At the end of the positioning, switching to stereophony, there is always a little wonder for the size of the stage. The distance from the rear wall is slightly less than one meter, while a good medium-low balance was obtained with about 60 cm from the sidewall, which is treated on average by us. On the first track of Ulla Meinecke I can immediately check the stability of the scene and the tonal performance on the singer’s voice. Even the transients are rubbing their eyelashes, suddenly awakened by the connection with the Unico 150 already heated properly. With the track of George Duke, I repeat to myself the conviction of a natural tone, perhaps just cold in the very high range, but still well balanced. Even the articulation and the definition of the details is remarkable, both at low and at high listening levels, a clear manifestation of the low distortion and the very low colouring of the two pieces of furniture. Exactly, this, unless disastrous distortions and impossible colours, is the first indication of a project made by those who know how to do their job. James Taylor offers us a very high defined and extended range and the presence of the choir right next to the singer, an effect often hidden in the reproduction and which comes out only on headphones or

with well-built speakers. His voice is stable in the middle of the stage, motionless and at the altitude I expected. The whistle of “Isn’t she lovely” in the Livingston version is natural, with the clear and precise traces of the acoustic guitar. Nothing effective or abnormal, simply natural and well reproduced. I think that although this tweeter is anti-pathic to me due to a certain initial cold vein, it is now melting, becoming amiable and very extensive, even without special effects. The track with electric bass, trumpet and drums shows the position of the wind instrument in a centred position, just behind the drums, and sorry if it is not enough, with all the dimensions well respected. The large orchestra has the usual effect: the stage expands both in width and in width as depth. Wind instruments are arranged correctly and fortunately, they are not leaning against each other. The violins on the left are never annoying and are precisely defined in the position. The transients still amaze me, with the medium-high range advancing very little in full orchestral. The transition to the “Carmina Burana” is by no means critical, with the size of the orchestra very precise and with the choir that remains clearly understandable from behind even in full orchestra. Listening to the mixed choir of the Montefiore Choral Group focuses well on both the female and male components, being able in some steps to also define the different quota, well in the mind of those present at the registration. The snap of fingers in Diana Krall’s track is deadly, clean but very fast, so much so that, to use a statement that I don’t generally use, it seems to form exactly in the middle of the listening room. The bass is more extensive than it seems but is extended without excess pressure localized to the medium-low. On the contrary, it shows itself only when it is actually required by the piece, with no internal ripples in the cabinet and without particular colours as long as you don’t exaggerate with the level, which however is very high before the woofers show any sign of disagreement. In short, the tonal balance is everything, with the medium-low that binds very well and the linear medium range is dry enough. Even the transition to rock music does not upset the sound performance that much. Of course, the speaker becomes more aggressive and aggressive but does not alter the tone balance at all. The yield on the transients seems to enhance the snare shots, the prizes on the electric guitar and the power of the toms, which are dynamically free of apparent compressions. In practice, the pressure level rises but the diffuser does not change the character or the articulation. And it’s no small thing.

Conclusion

This speaker is not cheap but worth it. This performance cannot be achieved without taking care of the whole construction and without carrying out an accurate series of measurements and optimizations. If one made a direct comparison of this two-way with the best-known brands, he would probably win the challenge without excessive effort. The designer seems to be a little ahead of the others for the design vision and for how the speaker emission is controlled in the space of the listening room. Combined with the dedicated stands, it has provided a remarkable performance, showing that when science follows the right path, it achieves results that some call “magic”.

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