

MEZZO G3 advancements over DUO GT

The MEZZO G3's cabinet design, traditionally (since introduction in 2006) featuring an extended enclosure with vertical horn flares, opens additional options in regard to cabinet reinforcement, useable air volume, bass reflex tuning as well as with time coherent driver alignment - despite using the same driver complement as with DUO GT.

While the DUO GT's design focusses on achieving a rather slender floor-stander appearance from a speaker featuring two powerful 12" bass drivers, thus transforming the classic figure of the preceding classic DUO line models into a next-generation design and performance.

By the horn flares in front of the bass drivers, the MEZZO surpasses the DUO GT's already excellent musical homogeneity, further perfecting the transition from bass range to midrange. Thus the horn flares, made from solid aluminum extrusion parts and available in a variety of finishes, not only provide an augmented radiation impedance, thereby increasing the woofers' efficiency. They also ensure that the lower midrange spectrum, as still rendered by the bass drivers, seamlessly blends with the midrange spectrum rendered by the big spherical horn.

By enlarging cabinet volume and horn flares (+ 20% compared to previous models), the MEZZO G3 features a considerably bigger air volume, utilized for a uniquely applied vented design with a twin set of large down firing tubes, using almost 7 times the volume of the DUO GT's single vent. These have their inlets centrally in the cabinet, so the cavity pressure created by the 12" drivers is used so efficiently that the subwoofer's sensitivity increases by an impressive 6 dB compared to DUO GT.

In effect, the built-in subwoofer amp module, which is basically the same as with DUO GT, needs to output only a quarter of the wattage compared to DUO GT, at same SPL. The result is a highly resolving, tune-ful and almost limitless bass performance, rather resembling the capabilities of our ultimate SpaceHorn subwoofers for the TRIO G3 models.

Enlarging the MEZZO G3's cabinet also enabled a considerable improvement by making space for a new time alignment feature with the tweeter horn, similar to the top-of-the-line TRIO G3 speakers. In a 7cm range, the tweeter can be slid back or forth, thereby precisely compensating the offset between midrange and tweeter horns, as occurring with rather low or high listening positions (in relation to a standardly assumed 115cm/45" ear height).

This feature is conveniently operated by a 50mm knurled knob below the midrange horn's housing cylinder. The relative positions are dependably identifiable by pitch lines on the tweeter's housing tube. Hence in setups where the DUO GT would need to be tilted forward or backwards for tracking the correct offset towards the listener, the MEZZO G3 can always stay in a levelled and fully upright position. Important improvements regarding depth of image and precisely outlined instruments and voices are thereby achievable without the need to reposition the speakers.

Sparked by the already improved clarity in the midrange *via* the aforementioned factors, our engineers also saw potential for further enhancing the solidity of the imaging and the overall detail resolution by electronic measures with both passive (i.e. semi-active) and iTRON versions of the MEZZO G3.

For the passive version, an upgraded version of the proprietary NatureCap capacitors, the NatureCapPlus, was specially created from copper foil instead of aluminum. While for the MEZZO G3 iTRON version, the amplifier circuitry became upgraded by state-of-the-art hand-wound copper capacitors, and by an individually calibrated active crossover section, further linearizing frequency response, and increasing detail resolution. For fully exploiting these benefits, MEZZO G3 and its iTRON modules are manufactured in a separate manufacturing and final inspection line, granting extra diligence for applying the specific modifications, calibrations and inspection schedules.

With both versions, passive and iTRON, the result of these modifications is an even more realistic staging and focusing, with the speakers as “technical items” disappearing completely once a recording provides the apt resolution and openness.

Summary of advancements of MEZZO G3 over DUO GT:

- MEZZO bass cabinet featuring a **50% bigger** air volume (MEZZO = 120 liters / DUO GT = 80 liters).
- MEZZO tweeter featuring a precisely movable **time alignment** mechanism, also see fig. 2, next page.
- MEZZO bass reflex tuning uses **700% bigger** reflex tunnel volume and centrally located reflex tube inlets for maximized low-end efficiency (+ 6dB compared to conventional vented designs), also see fig. 1, next page.
- MEZZO passive crossover improved by specially produced **NatureCapPlus** capacitors (using copper foil instead of aluminum).
- MEZZO iTRON improved by hand-wound **super-capacitors** in the signal path and modified active crossover circuitry, for higher resolution and a smooth top-end even during extremely complex music passages.
- Multiple additional **finish options** with cabinets and mounting parts.

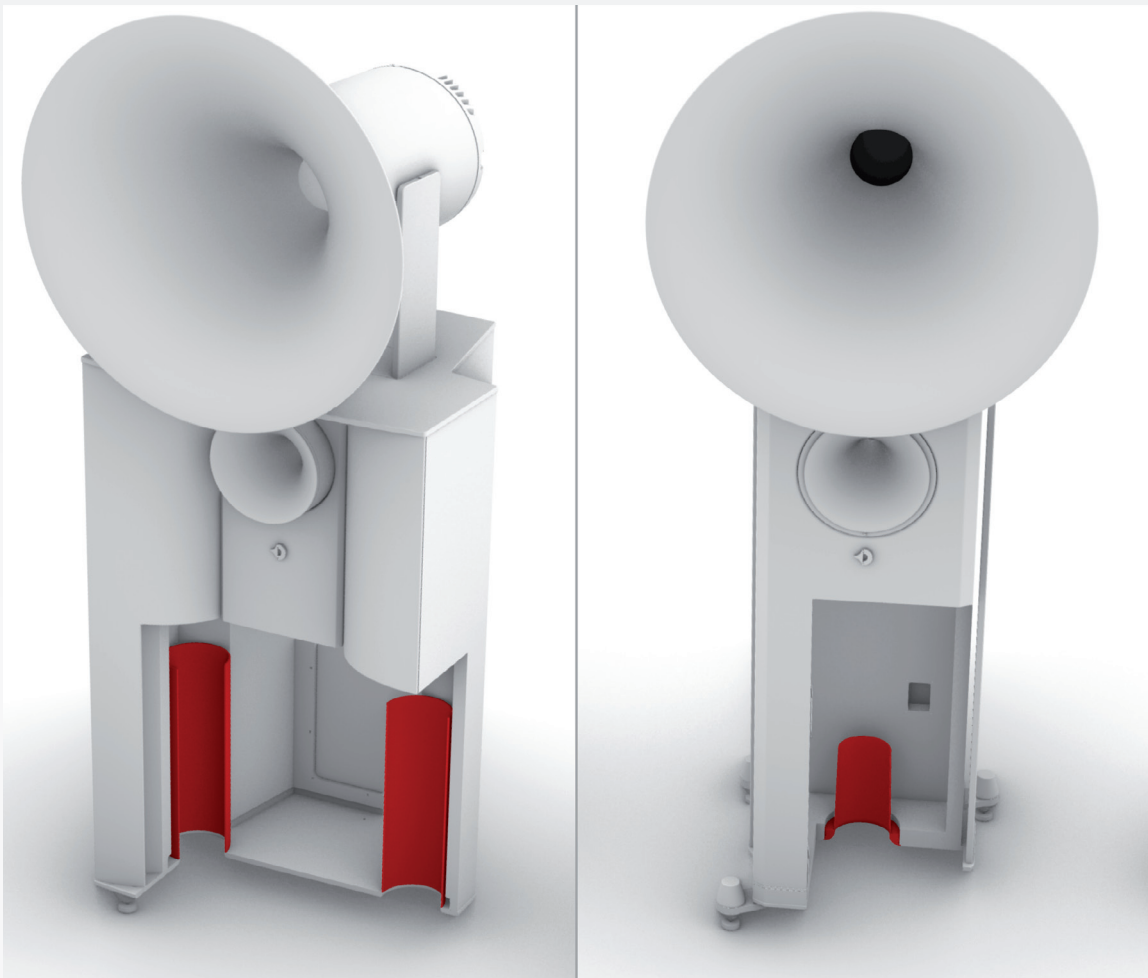


Fig. 1: improved bass reflex tuning of MEZZO G3 vs DUO GT.



Fig. 2: precisely adjustable time alignment mechanism of MEZZO G3 tweeter.