#### Orator series - LT model

# by

## Fletcher & Munson.®

• floorstand 2,5 way • crossover topology with progressive operation • three circuits for woofers e tweeter • balanced circuiting • systems totally calibrated in pairs • impedance compensation circuit for optimal load matching as seen from the power stage

#### **Technical features:**

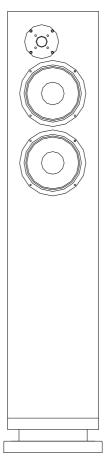
- 2,5 way reflex, floorstand
- Woofer: 2 from 6" with membrane and suspensions developed with D.A.R. Technology
- Dome tweeter: 1,1" treated silk.
- Tweeter resonance frequency: 500 Hz
- Frequency cross-over: 1850 Hz
- Circuits with progressive action
- Totally balanced circuit
- Inductive reactance compensation cell on the woofers
- Resonance impedance compensation cell on the tweeter
- Load matching circuit (on request, for tube amplifier)
- Selection tollerance:

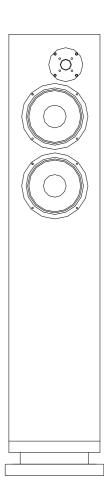
Coils: < 1%

Resistance: < 3% to coal dough

Capacitors: < 2% in metallized polypropylene (Special Edition)

- Frequency response: 30 20.000 Hz (Moeller curve Home version)
- $\bullet$  Frequency response: 32 20.000 Hz (+/- 1,5 dB Studio Monitor version)
- Sensitivity: 90 dB/2,83V/m @ 8 Ohm
- Nominal Impedance: 8 Ohm
- Max undistorted SPL: 110 dB/m a 100W rms (one loudspeaker)
- Standard finishes: metallic black laquered. Other colours on request
- Dimension (L x h x p): 240 x 1107 x 300 mm
- Net space on the ground (L x h x p): 260 x 1107 x 320 mm
- Net weight: approx 25 kg (cad.)
- Gross weight (with wooden packaging): approx 35 kg (cad.)





### If you can find a better one, buy it.



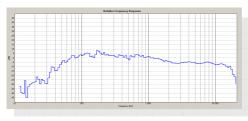




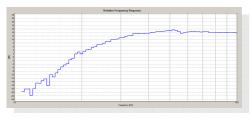
A loudspeaker system conceived to always life new and incredible moments with your favorites artists. Extended frequency response (30~Hz~-~20~kHz~a~-3dB). Circuit topology of the 2nd order entirely balanced. Filtering with progressive action. Impedance compensation circuit designed to optmize the power stage dumping factor ( $\pm$  1,00 Ohm da 100 a 20.000 Hz).

With the speakers series Orator, the listener is able to concentrate on the smallest and minute musical passage, without suffering any listener fatigue. The Studio Monitor version is suitable for use in long listening session typical of the professional field.

Despite the high confort sense, every musical passage is clear and bright, never muffled. The merit of all this consist in a carefully modeling of frequency response, according the sophisticated isophonic curve sintetyzed in 1933 from Harvey Fletcher e Wilden Munson, updated in 1956 from Davidson e Robinson, and reviewed by a team of scientists from all over the world, among wich the notable japanese contribution (about 40% of the general statistic study - norma ISO 226, updated 2003) stands out .



Frequency response



Contribute flat response of reflex conduit from about 30 Hz

Using high cabinet thickenesses and heavy internal reinforcement, losses due to crackung are reduced to a minimum. This resulted in a good correlation between the simulated parameter during designing phase, and the measurements detected. We did not use mdf in our cabinets, as we do not consider it suitable for the construction of high quality loudspeakers. We prefer to make our cabinets with multilayer wood 30 mm thick crossed wooden. The woofer seat is internally milled to improve rear emission.



Milling phase for reflex conduit

All the components of the crossover circuit (the heart of every speaker system), used selected elements in pair.All the inductances (in air, wound by hand and measured individually), have a selection tolerance <1%. In the costruction no resistance of type ceramic or to metal oxide was used. The resistor used are made of coal, parallel for obtain right wattage and have a selection tolerance for <3%.



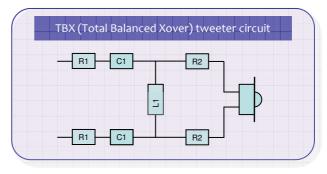
Tweeter with magnet in neodymium



Suspension with D.A.R. technologies

Using 2W resistors parallel, it's possible to obtain values with significantly lower tolerances. The parallels of polypropilene capacitors have matching tolerances of less than 2%. The drivers also selected in pairs.

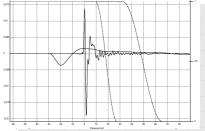
The maniacal attention to respect the tolerance is due to the simple fact that the more the values of the devices are respected, the better all those perceptual parameters will be, which are difficult to measure instrumentally.



To minimize 2nd and 3rd harmonics distorsion, the tweeter circuit has been created with an entirely balanced configuration and progressive action starting from about 2 kHz. These choise may appear exxagerated in relation to the real benefits that are obtained; in any case, the operation of the driver is beneficial, wich also optimizes its impulse feedback capability, the so-called "Back-EMF".

The 1,1" tweeter has the treated silk dome. The support and the mobile coil are made in aluminium, a material chosen for its excellent phisical characteristics of resistance and conductivity to high temperature heat. The magnet is in neodymium.

In the air-gap is not present ferrofluid. The flange is also made in aluminium. The resonant frequency is very low (500 Hz).



Tweeter impulse response – 349 µs @ 1 kHz

These peculiarities, together with the adoption of a rear damping chamber, allowed to a circuit with a low crossover frequency in a advantageous way. The tweeter was developed in collaboration with the National Research Council. - C.N.R.. - Consiglio Nazionale delle Ricerche – Ministero dell'Istruzione, dell' Università e della Ricerca.



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