



Instruction for loudspeaker kit

Kourtisane_4.8 is High-End bookshelves speaker, dedicated to music lovers having limited space in their listening room (15 – 25m²). Despite of its compact size, Kourtisane_4.8 has been engineered to reproduce wide frequency range from 40Hz to 30 000Hz (-3dB, on axe), with linear response.

The impressive low frequency extension allows to use this bookshelves speaker without additional subwoofer.

The high-quality tweeter Twt28_vMS is used with its dedicated short horn (Machined Aluminum), which increase the efficiency in the midband and offer a very low crossover point at 1 500Hz.

Designed to work with high quality integrated stereo amplifier (60 – 150W advised), Kourtisane_4.8 delivers detailed and smooth sounding, expressive bass and beautiful 3D soundstage.

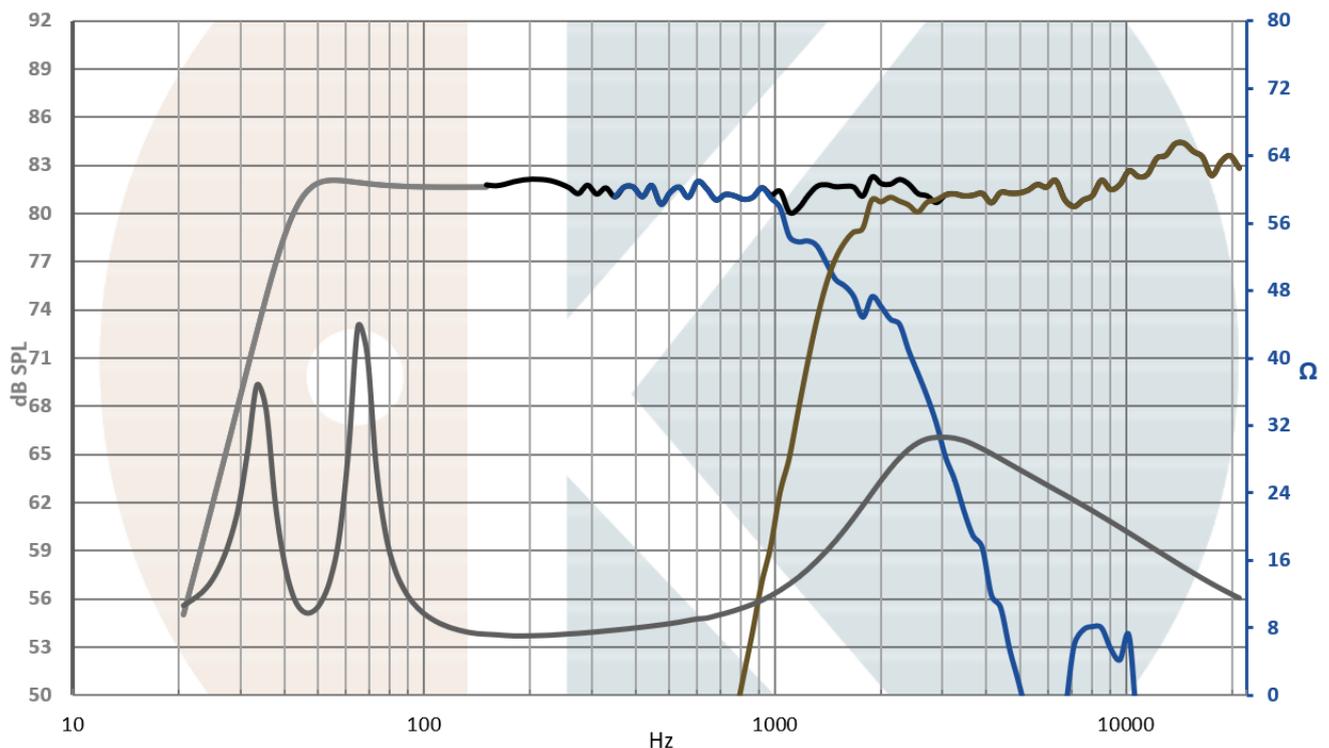


The required Cartesian components are:

- Sub120_vHE
- Twt28_vMS
- Twt28_Horn
- Crossover Kourtisane_4.8
- Terminal Bi-wiring terminal

Enclosure must be built according to following drawing.
Damping material and screws are free choices from builder.

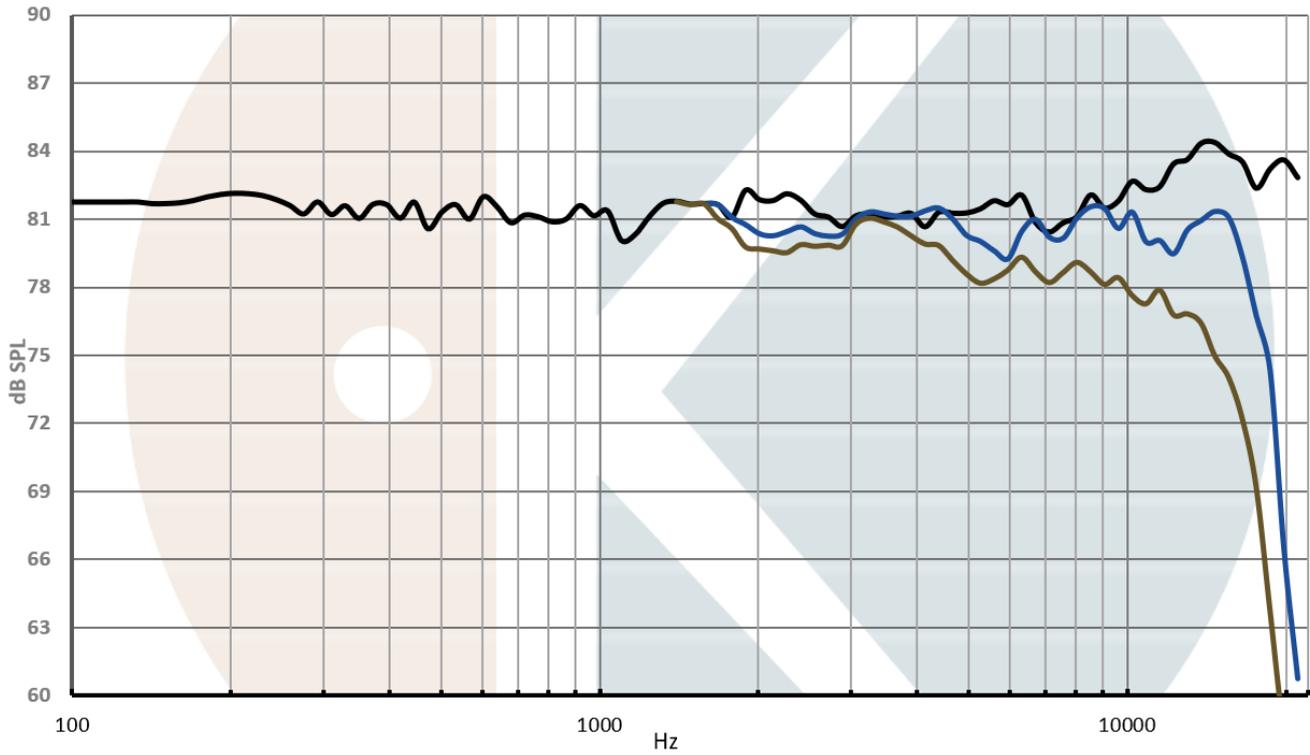
Frequency response, Crossover, Impedance



*Kourtisane_4.8 / Distance: 1m / Signal input: 2,83V / On axe / Smoothing: 1/12 Octave
Impedance measured in Kourtisane_4.8 with passive filter
Curve below 150Hz is simulated in 4.8L vented enclosure, Fc = 46Hz (as Kourtisane_4.8)*

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Horizontal off-axis frequency response



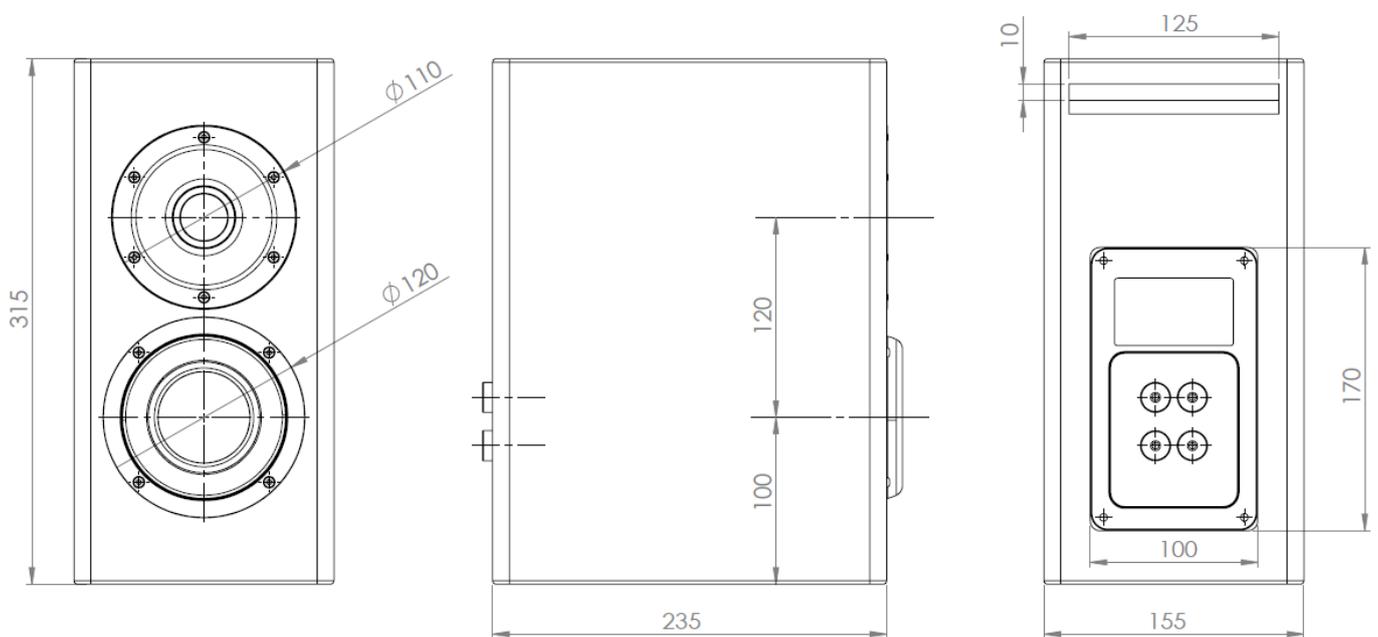
*Kourtisane_4.8 / Distance: 1m / Signal input: 2,83V / On axis / Smoothing: 1/12 Octave
Black: Axe / Blue: 20° / Dark yellow: 40°*

Drawing main dimension

See detailed drawing on separate PDF

Suggested material: MDF, thickness: 15mm

Unit : mm

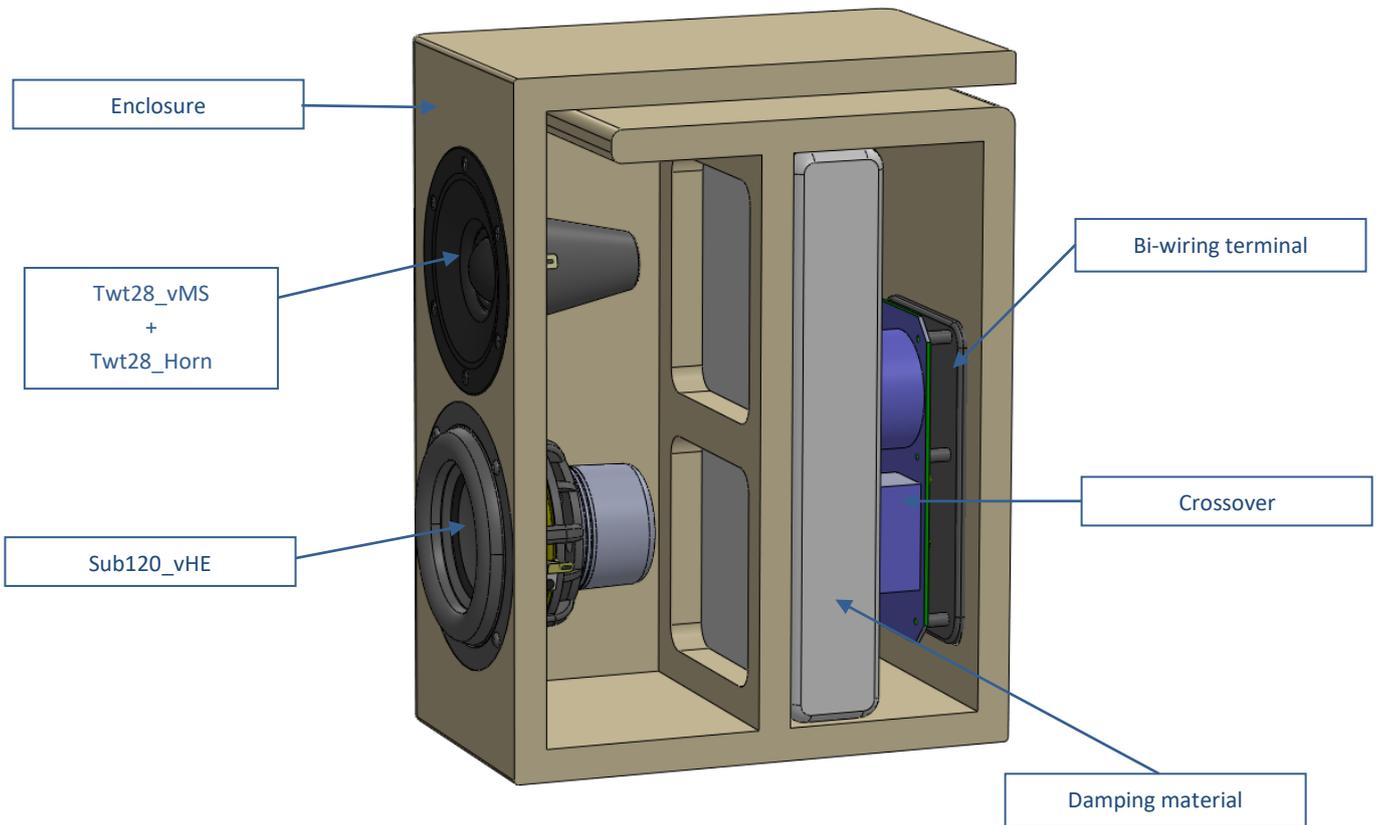




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Overall view



Crossover kit.

Wires to connect loudspeakers and terminal are included on crossover board (Silver plated cooper, PTFE sheath).

Components has been carefully selected for optimized listening experience:

High-pass filter capacitor is silver foil, low -pass inductance is made of 7 OFC wires with $\varnothing 0.5\text{mm}$.

Low-pass filter is 1st order (6dB/Octave) with impedance linearization, and cone break-up attenuator.

High pass filter is 2nd order, (12dB/Octave), with L-Pad for tweeter attenuation.

Output cables must be connected as below:

- Black / Green = Sub120_vHE. Black on negative speaker terminal, Green on positive speaker terminal.
- Black / Blue = Twt28_vMS. Black on negative speaker terminal, Green on positive speaker terminal.

The PCB is designed to be screwed on Kartesian terminal as shown below (crossover and terminal separately sold).



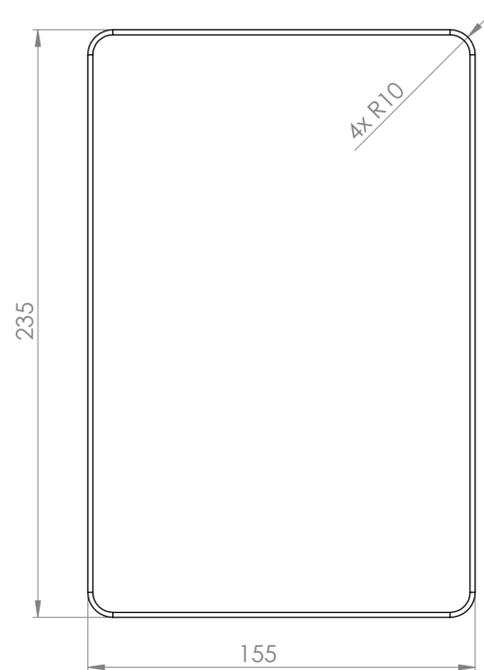
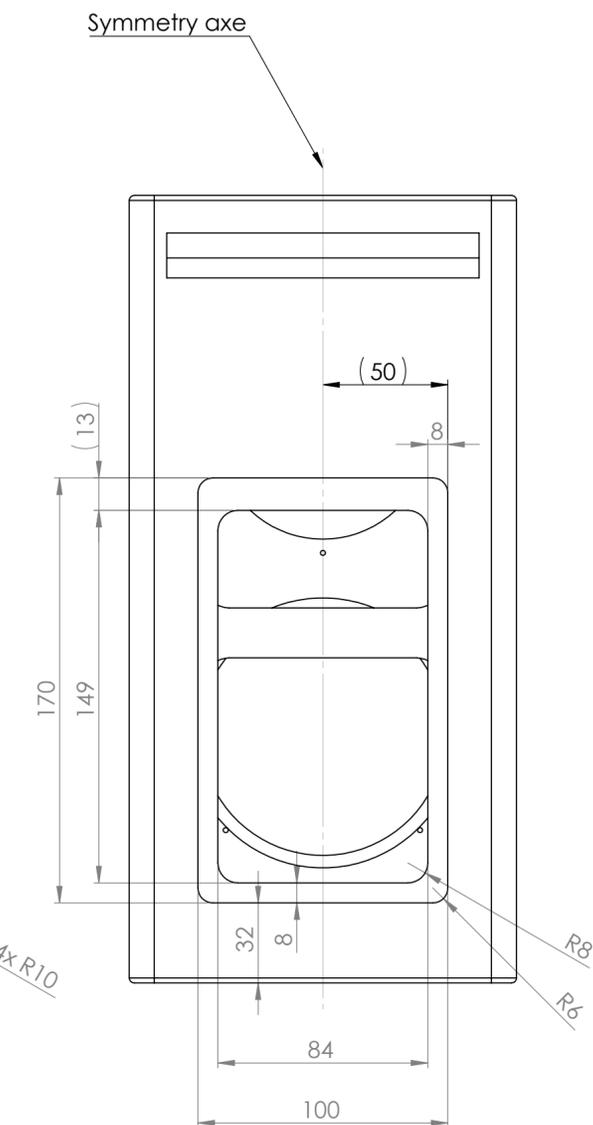
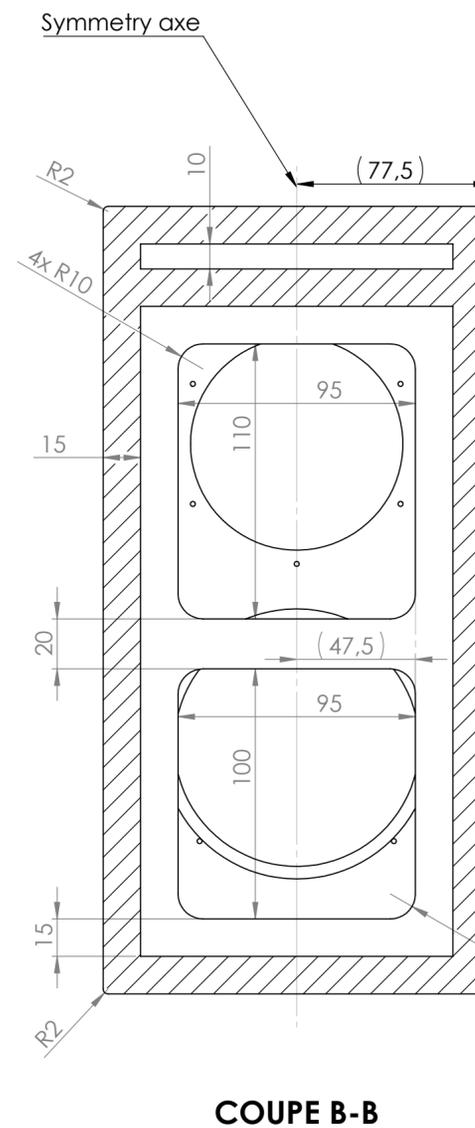
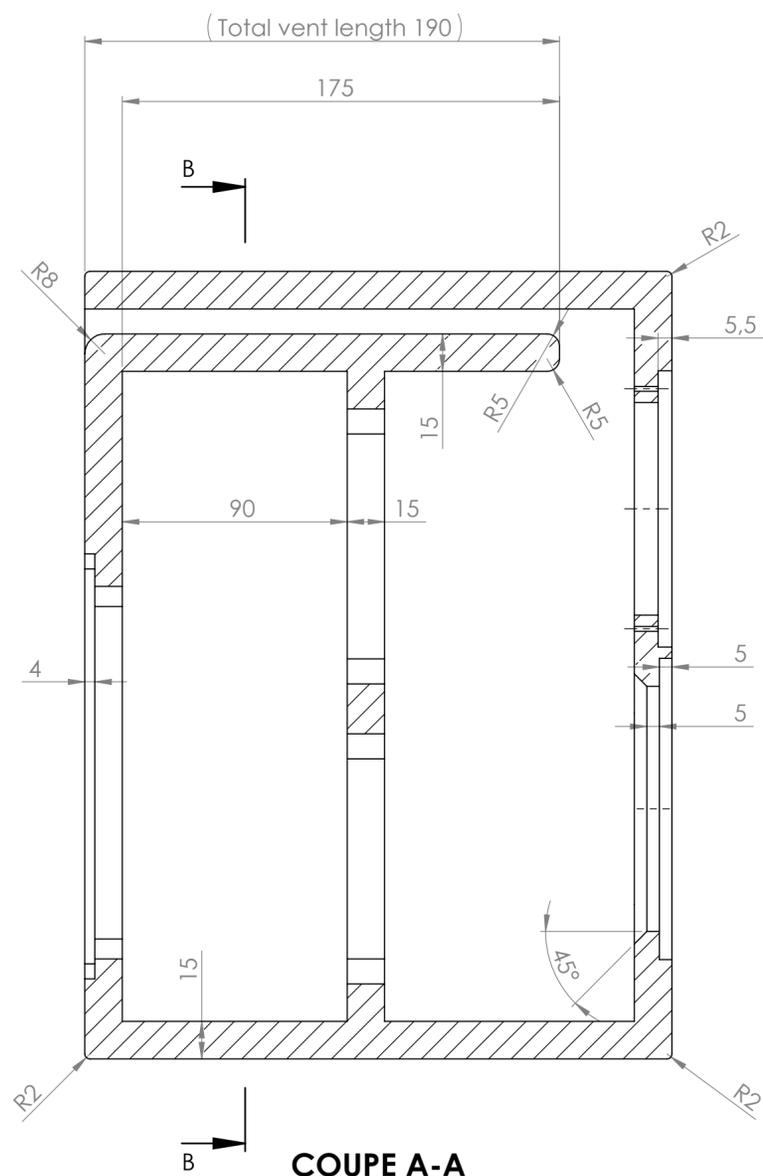
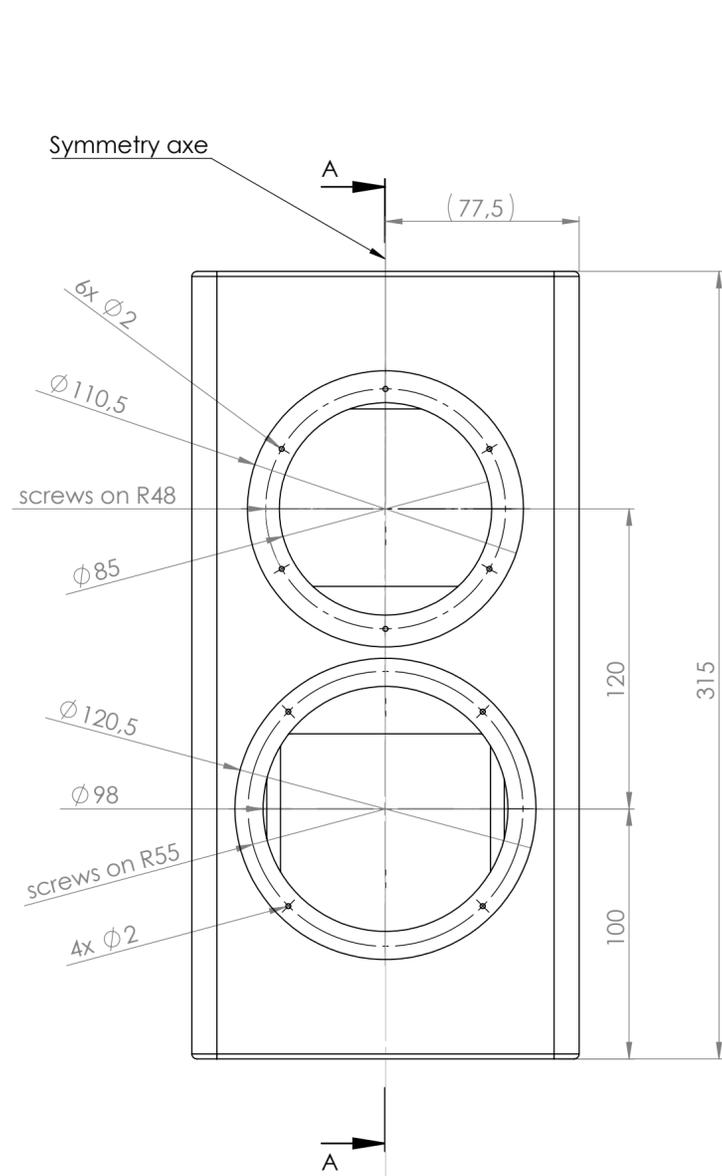
Damping material

We recommend to used synthetic acoustic damping

1 sheet of 130mm x 220mm, thickness 45mm provide good compromise for bass extension and control.

We suggest to integrate the damping on the back of enclosure reinforcement frame, as shown on the picture above.

Additional damping will slow down the air velocity and decrease the energy in low frequency.



Kit Kourtisane_4.8
 Unit : mm
 Material : MDF or Plywood
 Thickness : 15mm

*Note: This kit is dedicated to DIY community.
 Kartesian couldn't be responsible of assembling
 mistake and its consequences.*

