

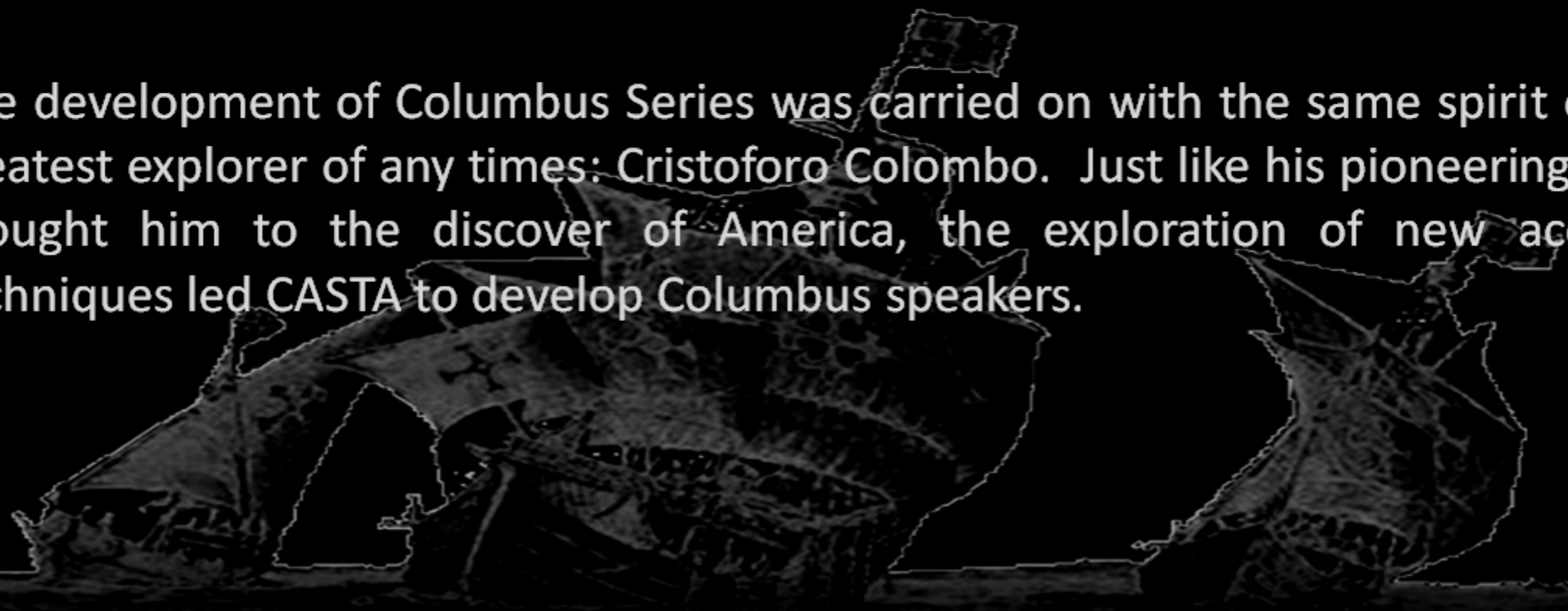


CASTA

Audio Italian Style

Never been available till now: the real high efficiency in a compact loudspeaker!

The development of Columbus Series was carried on with the same spirit of the greatest explorer of any times: Cristoforo Colombo. Just like his pioneering spirit brought him to the discover of America, the exploration of new acoustic techniques led CASTA to develop Columbus speakers.



Concept

Columbus speakers – New 2015-16

The smallest full range high efficiency speaker in the world!

Any speaker system is always a compromise between different parameters, in particular, efficiency, low frequency response and cabinet size.

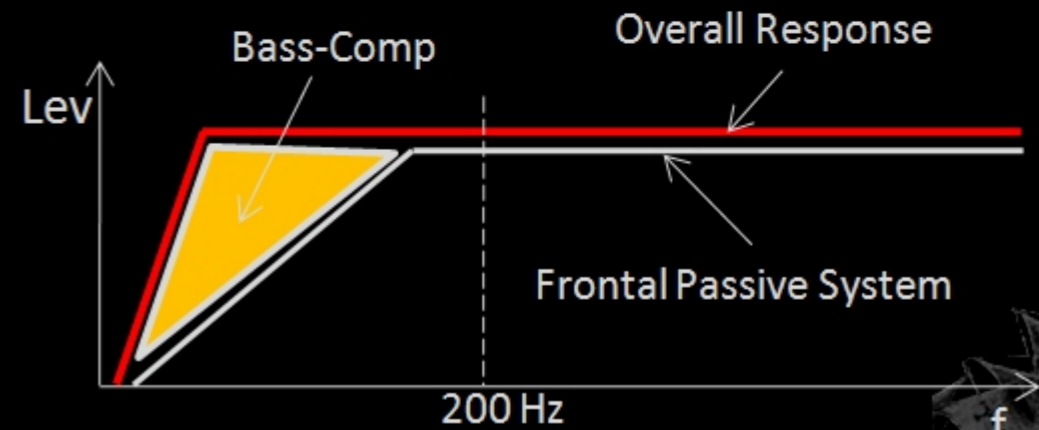
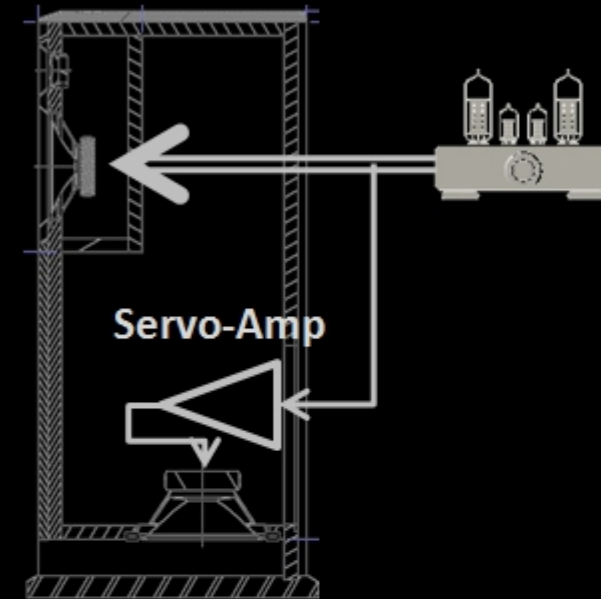
Here's the physic rule:

$$\eta = K F_o^3 v$$

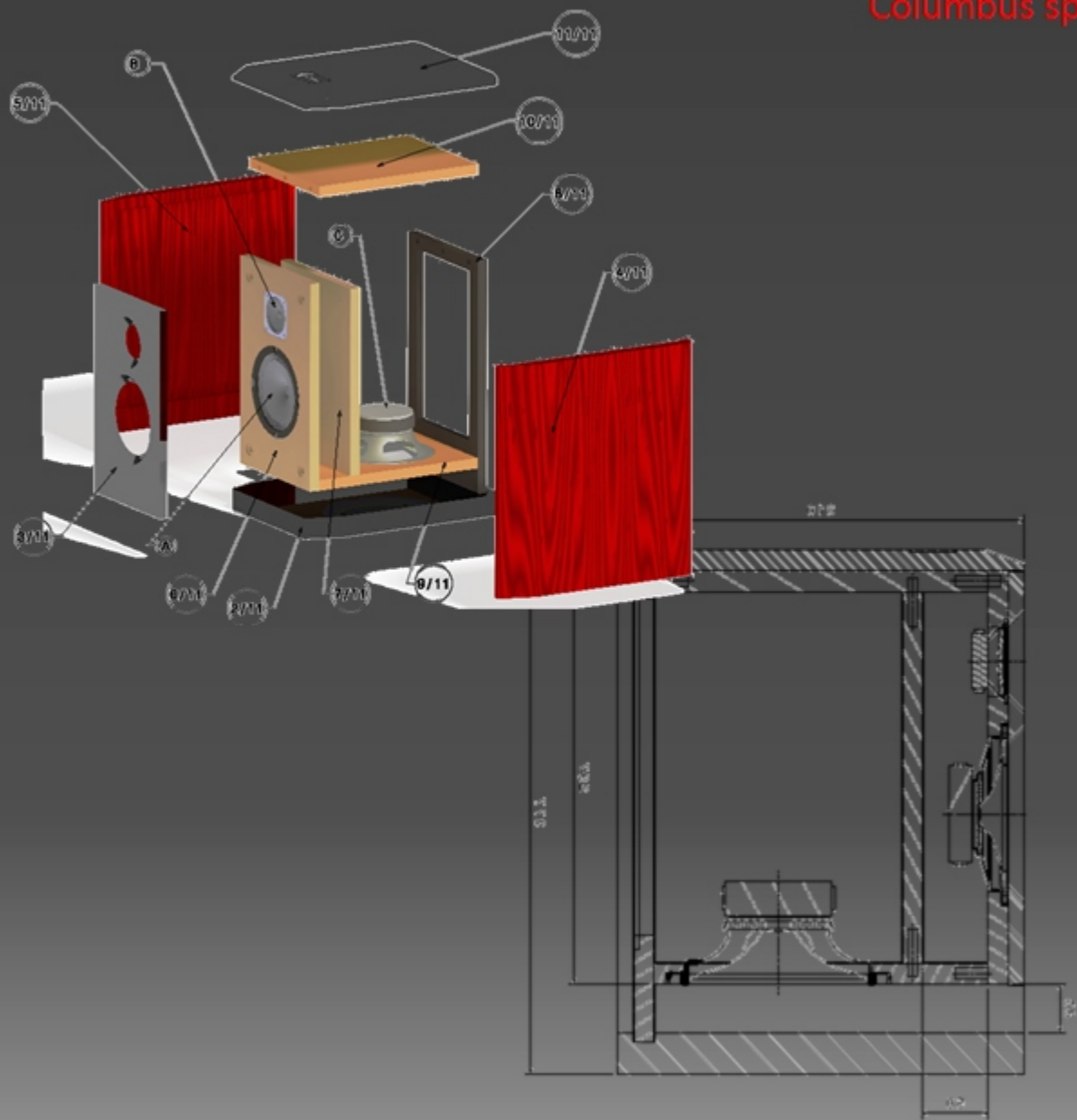
By focusing on the rule, we see that to improve the efficiency (η), we have to increase the size of the system (v) or the low cutoff frequency (F_o), and this second choice would mean the renounce to a good low frequency response. Indeed, we would be obliged to ignore the efficiency, in order to ensure a small size and a low F_o .

Columbus fixed the matter thanks to Bass-Comp technology, being this a low frequencies compensator.

The main passive system is full range and has not cutoff in low frequencies, and the Bass-Comp provides just the low frequencies needed.



Columbus speakers – New 2015-16



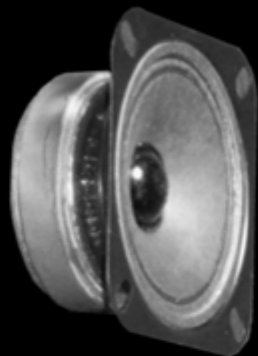
COLUMBUS 12



COLUMBUS 22



Columbus speakers – New 2015-16



Ultralight paper diaphragms for drivers.

Tweeter

Paper cone membrane with small and light voice coil: at high frequencies, beyond 8000 Hz, the emission focuses in the centre of cone, in order to modelize the ideal point source.

Moreover, the emission beyond 10 kHz comes naturally from membrane and not from the break-up phenomenon as it is in all the dome tweeters.

The directionality is optimum and is similar to the horns and to the woofer.



Woofer

Ultralight diaphragm and its suspension in a single body, so that Columbus is able to save micro-dynamics and details of middle frequencies, avoiding this way the typical problems of rubber suspension.

Powerful magnet and light membrane ensure a fast response and a high efficiency.

A profile properly optimized for voices completes the picture of performances.



Bass-Comp Adjustment

Columbus speakers – New 2015-16



BASSCOMP



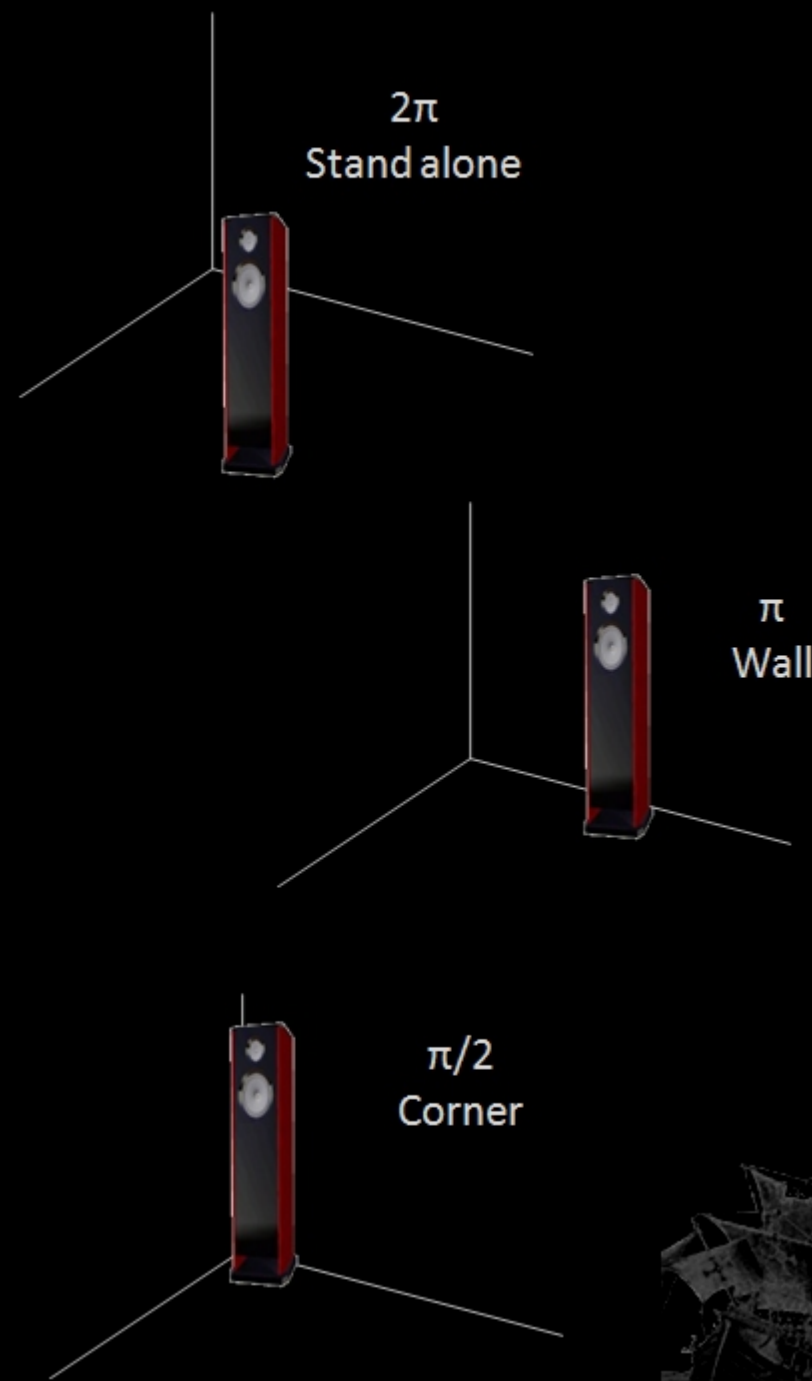
- $\pi/2$ CORNER
- π WALL
- 2π STAND ALONE

Wherever installation

The emission level of low frequencies depends on the distance between the system and the walls.

If a system is designed to have a correct frequency response when placed far from walls, it will produce an unbalanced response with intrusive low frequencies in case of placing near a wall or even in corner.

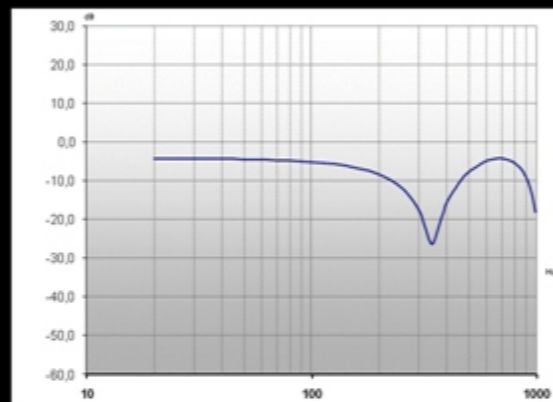
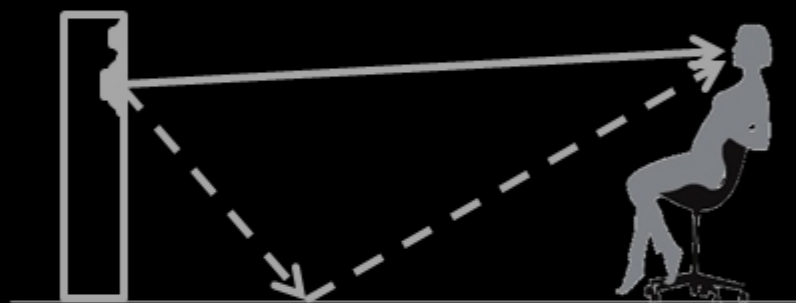
The Bass-Comp system of Columbus loudspeaker solves definitely the problem, thanks to a tunable system that let you have the correct frequency response at any installations.



Columbus speakers – New 2015-16

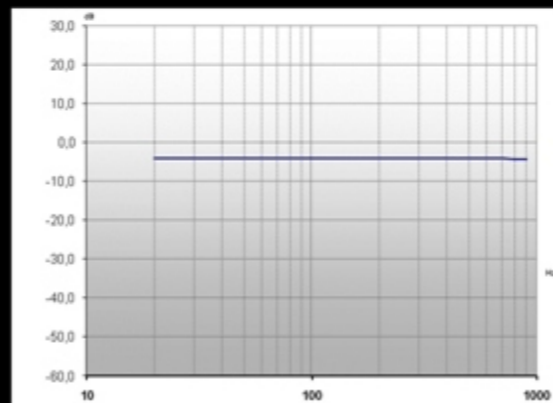
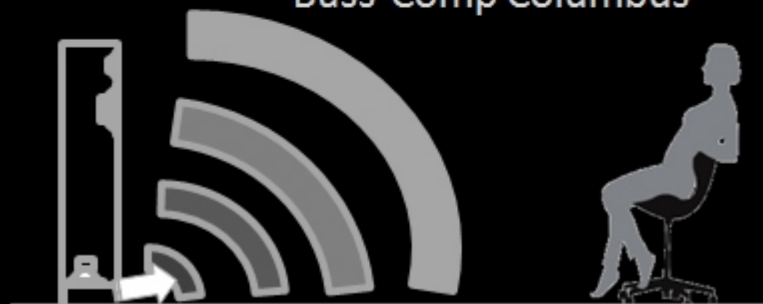
Low frequencies and environment

Traditional system



In a common speaker system, the frequency response in low frequency range is disturbed by peaks and dips because of the bad interaction between direct emission of driver and reflected emission from floor.

Bass-Comp Columbus



In Bass-Comp Columbus, the floor is used to linearized the frequency response and to increase the efficiency: low frequencies are reproduced with linearity until the lowest extreme.





Columbus speaker – New 2015-16

Model	COLUMBUS 12	COLUMBUS 22
System	2+1 way bookshelf Bass Comp	2+1 way floor standing Bass Comp
Sensitivity	92 dB @ 1 watt 101 dB @ 8 watt	93 dB @ 1 watt 104 dB @ 16 watt
Woofer	100 mm	100 mm
Tweeter	50 mm	50 mm
Bass-Comp	160 mm servo amp.	160 mm servo amp.
Crossover	2,5 kHz	2,5 kHz
Impedance	10 ohm	10 ohm
	easy load for all tube amp	
Frequency Response	40 – 20000 Hz	30 – 20000 Hz
Min. Power	0,5 watt	0,5 watt
Max. Power	15 watt	25 watt
Dimension LxHxW	23,2x37,7x31,0 cm	23,2 x 80,0 x 31,0 cm

