

PIEGA MasterONE

Technical Product Information

With the MasterONE, PIEGA wanted to combine in a dipole system the uniqueness of the coaxial ribbon system and the essential design elements of slim-line column loudspeakers. Unlike conventional large-size electrostatic panel loudspeakers, the coaxial ribbon system operates solely as a single point sound source. Compared to panel speakers, this has the advantage that the loudspeaker responds considerably more favorably to different rooms and configurations.

With its specially formed bass cabinet, we developed an elegant loudspeaker that can be integrated in the room like a normal speaker but with all the advantages and features of a dipole speaker.

The PIEGA coaxial ribbon system of the MasterONE is directly derived from the C40. The special feature of this system is the fact that the feathery membrane of the tweeter is surrounded by the membrane of the midrange. The two membranes are therefore on the same plane in all three axes and have the same point as the acoustic center. The result is a perfect addition of the individual frequency ranges, and particularly outside of the axis. This system can therefore offer a virtually perfect pulse response which is not "shrouded" by the components of the indirect sound. The resulting resolution is of a clarity that was previously unknown, without any additional effects.

A 15cm x 15cm rectangular foil is used in the midrange. The dimensions of this membrane guarantee perfect sound radiation characteristics and enable operation already from as low as 400 Hz. For this an extremely powerful neodymium drive weighing 2070 grams and a very light and yet stable membrane made from an aluminum layout only 0.02 millimeters thick are used. An efficiency of over 100 dB provides the system with considerable dynamic reserves and guarantees an animated sound quality even at low levels. The midrange operates with an exemplary linearity in both the frequency and sound range without any corrections necessary with the frequency crossover.

The tweeter is located at the center of the midrange membrane. Its key design features are based on the legendary PIEGA LDR ribbon tweeter. The outstanding features of this design are its embossed structure, a very thin membrane and strain-free mounting on four sides. Furthermore, an exceptional level of damping of any longitudinal waves can be achieved. The conductor layout takes into account the complex dynamic and thermal characteristics in the ribbon. The use of highly powerful magnets naturally guarantees an exceptional level of efficiency. The frequency and time linearity is the same as that of the midrange.

Specially adapted 22cm MOM bass chassis (Magnetic Optimized Motor) were developed in this system. To achieve the perfect combination with the coaxial midrange tweeter ribbon system, the entire drive and mounting were designed to ensure optimum transient properties. The very rigid membrane is produced individually by hand specifically for PIEGA. Needless to say, all the latest state-of-the-art technology was used in the design of the mounting and the design of the oscillation coil, as well as the carrier.

In order to fully highlight the almost perfect sound system, PIEGA took the uncompromising step of choosing a solid aluminum block with a high-damping core for the design of the baffle. The individual housing parts are pressed in one piece from a three ton aluminum block at a pressure of 7000 tons. The baffle thus combines optimum rigidity, unhindered sound radiation characteristics as well as the absence of any resonance. The elaborate bass cabinet consists of aluminum plates that are laser welded with total precision. The solid braces, as well as the lavish use of special bituminized composite material are important components in the implementation of the acoustically perfect housing. Another advantage is the large net volume of 82 liters in relation to the small dimensions.

As to be expected from PIEGA, the visual appearance of the loudspeaker is characterized by the wonderful timeless elegance typical of the Hannes Wettstein studio. The polished aluminum cabinet of the baffle and the attractive ripple finish of the bass cabinet suit any surrounding and reflect perfection impressively.