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Acustica Beyma New Horizons In Loudspeaker Technology

By Acustica Beyma Staff

Acustica Beyma's official headquarters in Valencia, Spain

Since 1969, Acustica Beyma, SL, has designed and manufactured a wide range of loudspeakers solutions at its factory in Valencia, Spain.

Acustica Beyma Background

Established by the Masip family, Acustica Beyma's factory is located in Valencia. From the beginning, Acustica Beyma utilized a constant growth strategy, always researching new developments in loudspeaker technology. In the late 1970s, Acustica Beyma consolidated its position in the domestic market, started to expand into exports, and began selling its products in the international market.

At the 1974 Musikmesse show in Frankfurt, Germany, Acustica Beyma launched its international expansion strategy. And, the company's focus on quality, attention to detail, and response to the customers' needs along with aftersales service, have made that growth possible.

Its continuous growth as well as its export capabilities has enabled Acustica Beyma to flourish. Acustica Beyma currently distributes in more than 80 countries and has its own sales offices in Guangzhou (China) and a partnership in New York (US), which guarantees great service in two of its important markets.

During its history, Acustica Beyma has undergone three expansions of its facilities. The current production factory and headquarters are located in Moncada (Valencia, Spain), where Acustica Beyma owns modern and functional facilities that include 6,500 m² production premises, offices, and a warehouse. Thanks to its skilled work force, the company produces 180,000 products per year, with a production capacity of 350,000 units.

In 2007–2008, Acustica Beyma designed and implemented a high-tech semi-automated assembly line for speakers, offering additional reliability and consistency. Currently, the facility is notable for its unique and innovative industrial model, which is completely customized to the company's manufacturing needs.

Acustica Beyma was awarded an ISO 9001:2000 certification by the Spanish AENOR institute in 2002. However, the company is most proud of the validation it receives from its customers,

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Acustica Beyma's semi-automated production line



Acustica Beyma's assembly line

recognized manufacturers (OEM), and exclusive national and international distributors. Each OEM manufacturer specifies custom-made products or variants to derive personalized performance, and Acustica Beyma can tweak the products from its catalog accordingly.

Acustica Beyma's R&D department is key to the company's development strategy, representing almost 30% of Beyma's workforce with approximately 800 m² of space exclusively for R&D and Quality Control. Its engineering work has been recognized by the most reputable organizations in the industry, such as the Audio Engineering Society (AES), of which Beyma is a member.

Technological Achievements

For the past 10 years, Acustica Beyma's engineers have regularly submitted articles and papers to the Audio Engineering Society (AES) conventions and been published in the *Journal of the Audio Engineering Society*.

Working to combine technology advancements and product knowledge for better sound, Acustica Beyma also works with universities and technology institutions, such as the University of Alicante and Valencia Polytechnic University and the AIMME Metal-Processing Technology Institute, in Valencia. The result of that cooperation has enabled important patents such as the Helicex Technology, which was based in part on Acustica Beyma's recognition that the metal parts standardized in subwoofer magnet assemblies was affected by heat dissipation.

Helicex Technology was patented in 2008 following exhaustive research, demonstrating the loudspeaker designs could operate at lower temperature rates. With a higher power handling



Acustica Beyma's diaphragm assembly line



Acustica Beyma's production line

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capacity in excess of 1,500 W, the thermal limit has been effectively reduced, allowing the voice coil to operate 80°C below that of a previous thermal circuit. Having reduced the power compression losses, the Helicex transducers have demonstrated more consistent SPL readings.

Acustica Beyma's engineers also devised Neck Coupling Reinforcement (NCR) membranes as a result of extensive R&D in the critical zones of the cone and suspension together with new spider materials and designs. Furthermore, the Mechanical Mirror Suspension System (MMMS) was devised as a tool for the application in soft parts design, providing a symmetric and linear behavior of the moving assembly displacement, resulting in low distortion and low offset issues. Acustica Beyma also continually attempts to devise new products for new markets, as exemplified with the recent addition of the 18SW1600Nd and 6p200 woofers.

Current R&D department efforts in new technologies and designs are based on high performance pressed-steel baskets designs, new compression drivers in 1 and 1,4", new pleated diaphragm tweeters and high-efficiency mid-range



drivers using carbon fiber cones.

Looking ahead, Acustica Beyma has committed to environmentally friendly operations and sustainable resources. One of the most distinctive features of the Acustica Beyma's factory building is the extensive solar paneling, which the company installed in 2007 to take advantage of the Valencia sunshine and make its facilities more ecoconscious. For information, visit beyma.com. LIS

Members of Acustica Beyma's R&D department