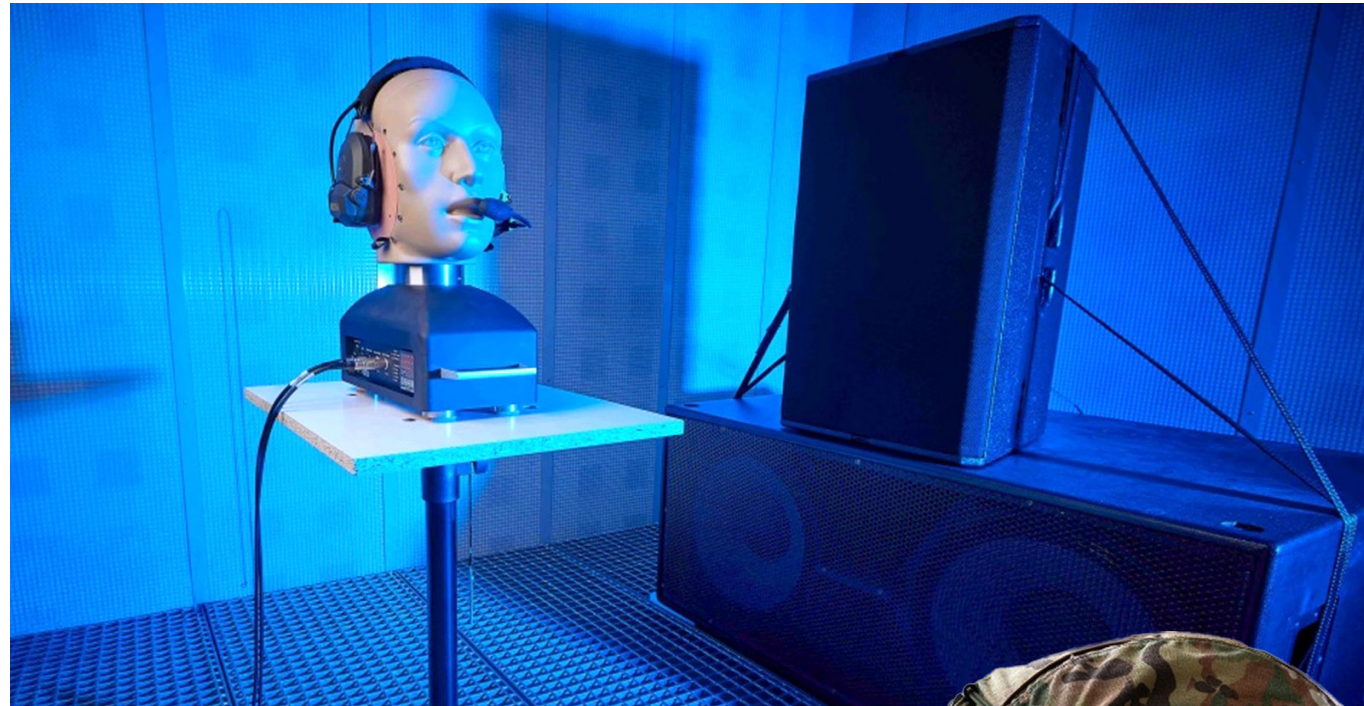


MESIT Enhances Headset Development with GRAS 45CB Acoustic Test Fixture



Uherské Hradiště, Czech Republic — In a strategic upgrade to its acoustic testing capabilities, MESIT asd — a respected member of the OMNIPOL Group and a specialist in advanced communication systems — has added the **GRAS 45CB Acoustic Test Fixture** to its development and testing facilities.

This move strengthens MESIT's ability to precisely measure and optimize the performance of headsets and hearing protection devices in conditions that closely mirror real-world human use.

Realistic Human-like Acoustic Measurement

The GRAS 45CB is a sophisticated acoustic test fixture designed to simulate a human head and ear with high fidelity, including realistic acoustic properties and body temperature. This simulation enables highly

accurate evaluations of the **acoustic characteristics** of headsets, hearing protectors, and headphones in conditions that are much closer to actual use than traditional measurement setups.

The fixture complies with international standards and is specified to meet the **ANSI/ASA S12.42 standard**, which governs sound isolation measurements for hearing protectors and related devices — assuring consistency, repeatability, and transparency in test results.



Supporting Next-Generation Headset Development

MESIT is now leveraging the 45CB during the development of its next-generation **M20A headset**, featuring **Active Noise Reduction (ANR)**. The company is creating versions tailored for both vehicle communication systems and lighter tactical use by dismounted units. By using the GRAS 45CB, MESIT engineers can:

- Precisely measure **noise attenuation**
- Assess **voice transmission quality**
- Evaluate **spatial sound perception**

...early in the design cycle, thereby optimizing acoustic performance before physical prototypes are finalized.

This depth of measurement plays a crucial role in refining headset design — especially for demanding environments where clarity of communication and protection against high levels of noise are mission-critical.

Why GRAS 45CB Matters

The strength of the GRAS 45CB lies in its robust, portable design and human-like simulation, which together enable tests that mirror realistic use cases. Importantly, the 45CB handles very **high noise levels and short impulsive sounds** — such as those encountered in military or industrial environments — without sacrificing measurement accuracy.

This capability allows MESIT to not just ensure compliance with international standards, but to push product performance to meet the expectations of demanding users in defense and professional communication sectors.

A Strategic Upgrade for MESIT's Test Infrastructure

With the installation of the GRAS 45CB, MESIT has expanded its acoustic chamber and strengthened its suite of specialized laboratories — which already includes EMC testing and durability/reliability labs for complex tactical

communication systems. This holistic approach enables the company to maintain high quality and performance across its product portfolios.

About MESIT: Czech Engineering with Global Reach

MESIT is a highly diversified Czech industrial group with more than 70 years of engineering heritage, specializing in the development, manufacture, and support of advanced technical systems for some of the world's most demanding industries. Its products and solutions are used in sectors such as aviation, defence, transport, electrical and mechanical engineering, and more. MESIT's output is exported to over 30 countries worldwide.



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