SAATIvent® NM Series

PFAS-Free Acoustic Venting Membranes

FOR THE MANY, BY THE FEW

SAATI

PFAS-Free Priority

PFAS-Free Venting Membranes Ensuring Sustainability

In response to increasing regulatory and environmental demands, SAATIvent® NM membranes deliver reliable acoustic venting without the use of PFAS.

Per- and polyfluoroalkyl substances (PFAS) have long been used in traditional venting membranes for their water-repellent properties. Yet their persistence in the environment and potential health risks have led to strict global restrictions.

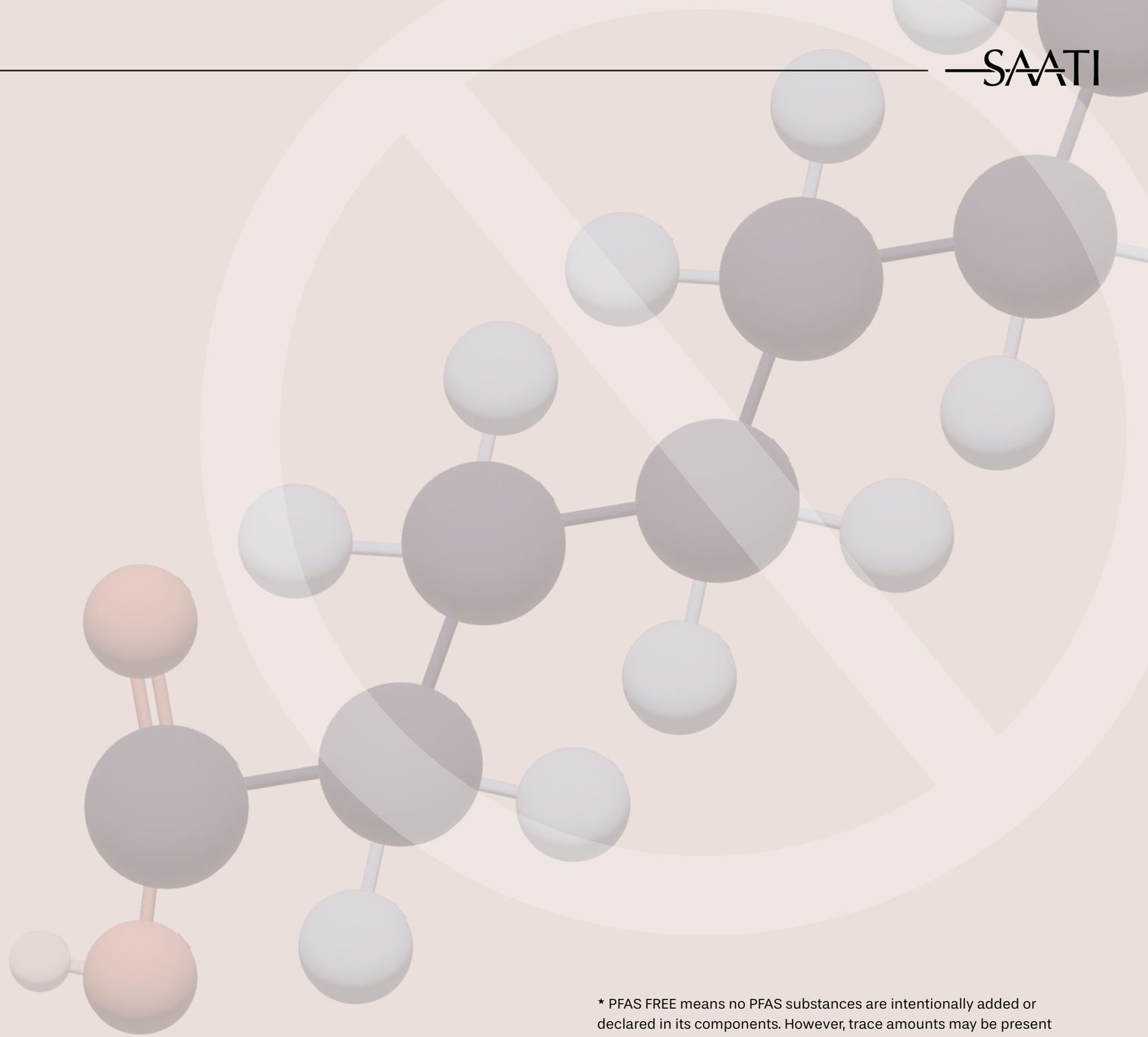
By eliminating PFAS, SAATIvent® NM offers a safer, more sustainable alternative – without compromising on performance or protection.

Safe Materials, Safer Manufacturing

- **Low-impact raw materials and solvents**
- Processes designed to minimize emissions and protect operators
- Safer handling for assemblers and end users

Highlights

- **100% PFAS-free across all membrane types**
- Safer for operators, assemblers, and end users
- Compliant with RoHS, REACH, and upcoming global regulations



* PFAS FREE means no PFAS substances are intentionally added or declared in its components. However, trace amounts may be present due to unintentional contamination or background environment exposure.

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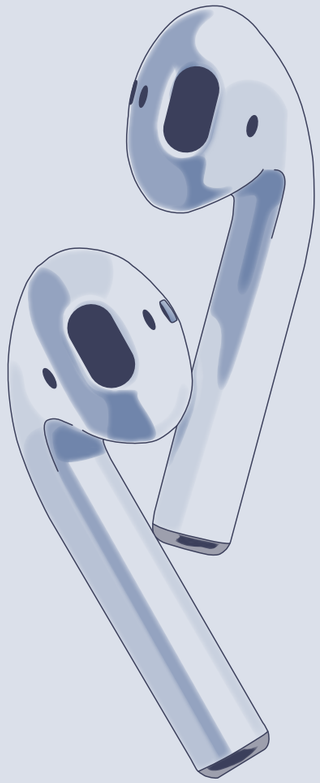
Acoustic Membranes

Combining Sound Transparency with Protection

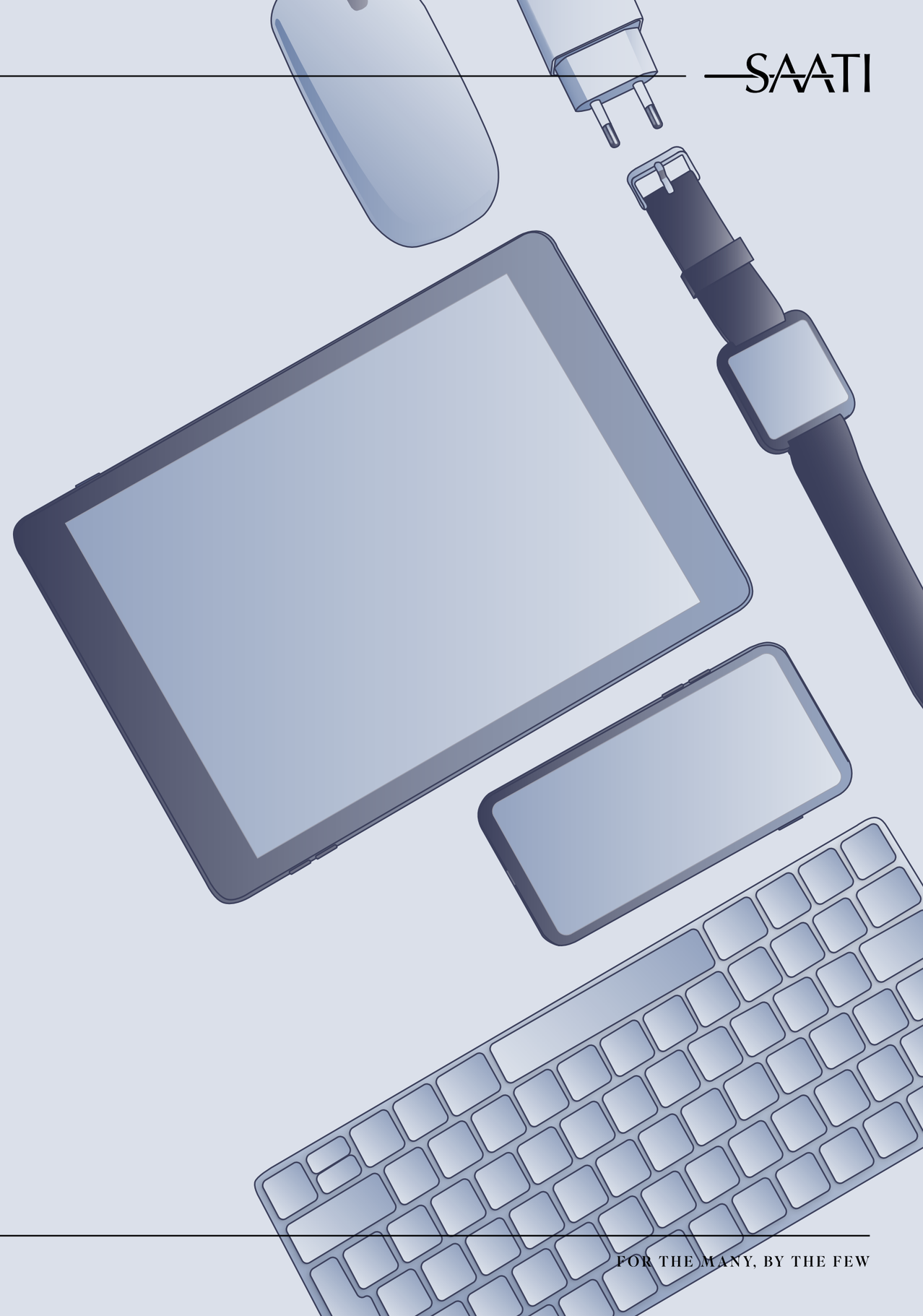


SAATIvent® NM membranes are optimized for use whenever there is a microphone or acoustic port requiring both high fidelity sound and environmental protection.

Typical use cases include **microphones** in

- Smartphones, tablets and laptops — for voice, video, noise cancellation
- Wearables and TWS earbuds — for ambient listening, voice control, telephony
- Smart home & IoT devices — voice assistants, sensors with audio input
- Automotive interfaces — cabin voice control, hands-free communication

By leveraging SAATI's complete stack (SAATIvent membrane + SAATIfil Acoustex precision woven fabrics), these applications benefit from lower insertion loss, higher IP protection, and simpler integration.



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SAATIvent® NM

PFAS-Free Acoustic Membranes

- Engineered for venting and acoustic transparency: pressure equalization, protection, and reliable sound transmission
- Manufactured with green technologies for precise control of pore size, air permeability, and thickness
- PFAS-free: sustainable material choice without compromising performance
- Flexible design range to meet specific application needs in microphones
- Available as die-cut adhesive parts for easy and reliable integration into device assemblies

SAATIvent NM Series			
Product	**NM2300UBHF**	**NM2700UBHF**	**NM3800UBHF**
Min Air Permeability L/cm²h (@ 70 mbar)	5	15	35
dB Loss up to 10KHz*	≤1.5	≤1.0	≤0.5
Thickness	12	9	3
Part Level IP Rating*	IP67/IP68		

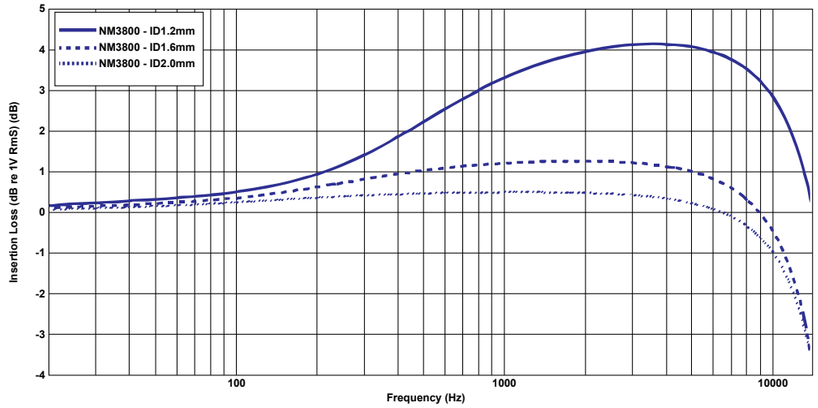
*Part size 1.6 x 1.6mm

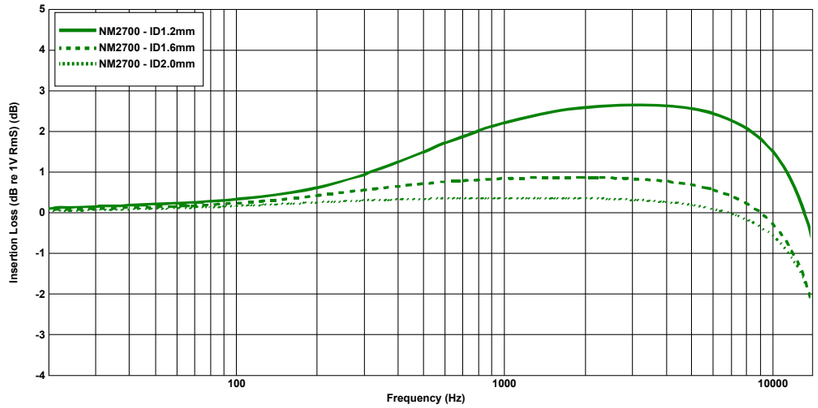
Click here to view SAATIfil Acoustex Woven Meshes that can complete the stack that achieves improved protection and acoustic performance.

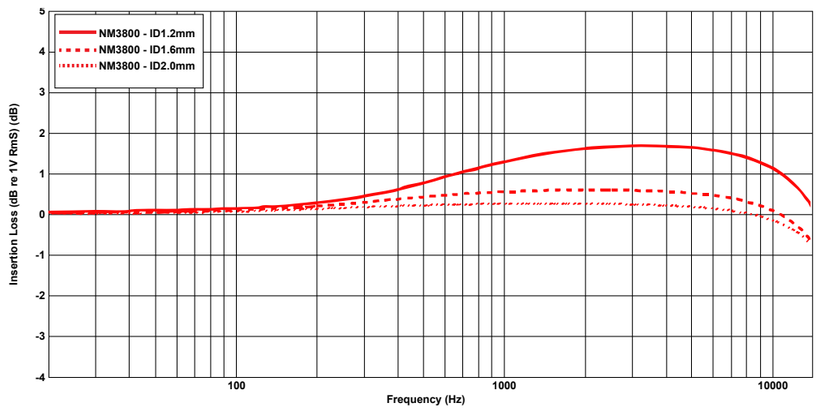
Clear Sound with Reliable Ingress Protection

Our SAATIvent® NM acoustic vents deliver:

- Low insertion loss — minimal insertion loss across critical frequency bands, preserving clarity especially in voice and microphone paths
- High ingress protection (IP ratings) — ensuring protection against dust and water intrusion without compromising acoustic transparency







Insertion loss simulated with SAATIvent NM membranes across three IDs according to SAATI's microphone fixture design. Results may change according to die-cut part design, composition and assembling conditions.

SAATIvent NM

Reliable Material and Acoustic Characterization for Engineering Decisions

SAATI operates advanced laboratories dedicated to quality control, material development, and acoustic performance. This ensures every SAATIvent® NM membrane meets the reliability and performance standards required by leading device manufacturers.

Material & Media Characterization

- Optical and SEM microscopy for surface and morphology analysis
- Porometry and air permeability to define pore structure and flow
- Contact angle measurement for hydrophobic behavior

Acoustic Performance Testing

- Acoustic impedance and insertion loss
- THD and SPL measurements for membranes and vents
- Simulation and modeling of membranes and sound-transparent media to predict acoustic response and optimize designs

From raw materials to finished membranes, SAATI provides engineers with validated data and predictive insights to accelerate product development.

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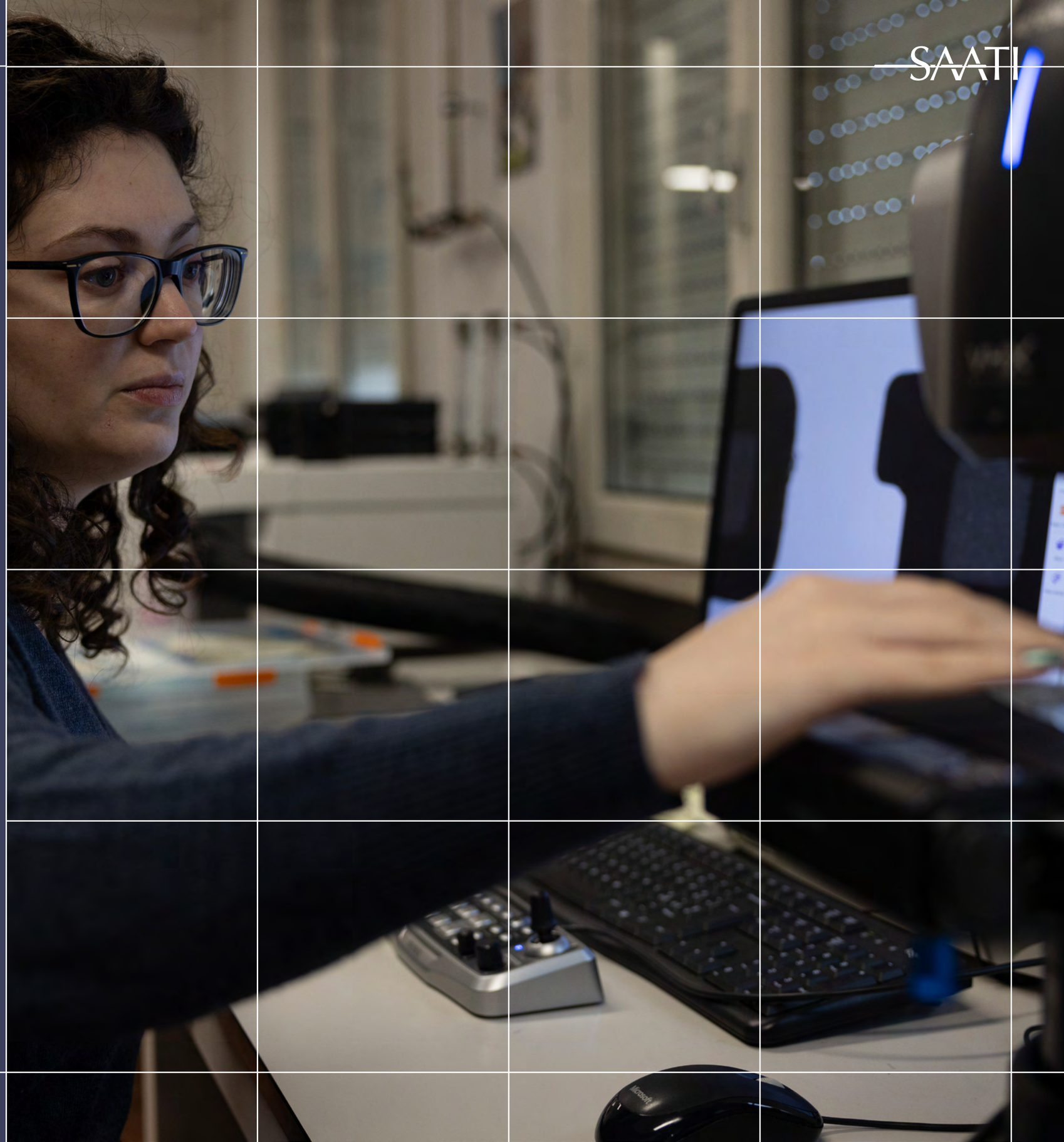
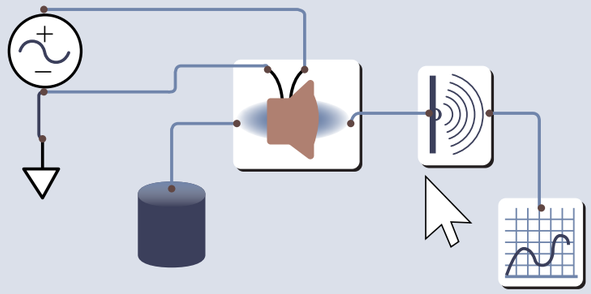


ARES

Rapid Acoustic Design
with Predictive Simulation



ARES is SAATI's proprietary software for modeling, simulating, and analyzing acoustic systems.
It helps engineers predict membrane and vent behavior, optimize component design, and reduce costly physical prototyping.

Key Modules

Modeler – linear acoustic system simulation
Nonlinear Modeler – advanced component behavior
Coordinate Mapper – spatial mapping of measured fields

Benefits for Engineers

- Accelerates development, reducing time-to-market
- Cuts prototyping and testing costs
- Improves device acoustic performance
- Supports design of smartphones, earbuds, tablets, and wearables
- User friendly interface

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SAATI supports customers from design validation to production, with die-cut conversion, material pairing, and acoustic testing.

Contact us to request SAATIvent® NM samples or for venting simulations with ARES:

Click the Button to Contact Us

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We strongly recommend conducting appropriate tests and evaluations to ensure compatibility and safety for specific applications.

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