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The party issue

BOAT

International

WORLD SUPERYACHT AWARDS 2016

The winners revealed



●
Rock legend
Pete Townshend
on how boats
shaped The
Who's hits



EXCLUSIVE

RULE THE WAVES

*I DYNASTY: CREATING
THE MOST COMPLEX
YACHT IN HISTORY*

engine room

If these walls could sing

They can now, thanks to bending wave physics and some nifty invisible tech. *Risa Merl* listens to the future of sound

Design in the name of comfort has created some exceptional office chairs and some hideous shoes. At its best, ergonomic design improves the experience of sitting, driving and even holding a cup. But is there such a thing as ergonomic sound?

Revolution Acoustics certainly thinks so. It is aiming to provide an “Ergonomic Audio” experience with its SSP6 Multiducer, a multi-directional transducer that, when fixed behind a surface – your boat’s wall, ceiling, table or floor – transforms it into a speaker. It’s a game-changer in yachting A/V: installation is quick (three to five minutes), the transducers are compact at only 6.8 x 7.3cm, there aren’t any holes or drilling involved because it simply sticks behind the surface that will conduct the sound, and it is promised to be cheaper than traditional speakers. They are certified waterproof, too.

This technology is already on some superyachts and will be seen (or not) on new builds coming soon from leading Dutch and Italian yards. It’s also in theme parks, hotels, conferencing and home audio. “Revolution Acoustics speakers are great because they can be hidden with zero architectural impact on the project and they are small and powerful,” says Sara Stimilli, communication and marketing director and yachting sales manager at A/V integrator Videoworks.

The experience certainly feels ergonomic. You step into a room where the sound is at the perfect level and it doesn’t change, no matter where you stand. “What we’re trying to do is propagate sound and fill a room,” says Bob Katz, CEO of Revolution Acoustics.

The SSP6 Multiducer aims to create a linear degradation, so the energy and sound is lost on a shallow slope rather than a sudden drop-off. Using a subset of acoustics called “bending wave physics”, surfaces are energised to radiate sound. “We put nanoscopic bending waves everywhere,” says Katz, “and where the waves collide, as they do in thousands of points on that panel – which could be in a wall, a ceiling, a piece of furniture, a number of different things – we get full frequency audio. We don’t lose the high, we don’t lose the low, it’s full frequency coming from the whole panel, firing from thousands of points.”

The material that’s energised doesn’t matter – it can be fibreglass, wood, glass or practically anything on board a yacht. This is because of the equalisation process, which tunes different materials in the room to output the same sound experience – like tuning a musical instrument.

The digital sound processor (DSP) circuit, created exclusively for Videoworks by Leaff Engineering, is what makes this possible.

Perhaps best of all for yacht owners is the invisibility that the technology promises. Fit and finish is improved when you don’t see a grille.

Revolution Acoustics is not alone in its aim to conceal speakers, of course. ASK (part of the JVC Kenwood Group) offers high-performance speakers that are extremely thin, waterproof, customisable in colour and can be integrated into the yacht’s architecture, as they have on recent launches including CRN’s *Atlante* and Wider’s *Genesis*. “Everyone wants their technology to be invisible,” Katz says.

“Technology finally serves us when it becomes invisible to us.”