

# Whisper<sup>®</sup>

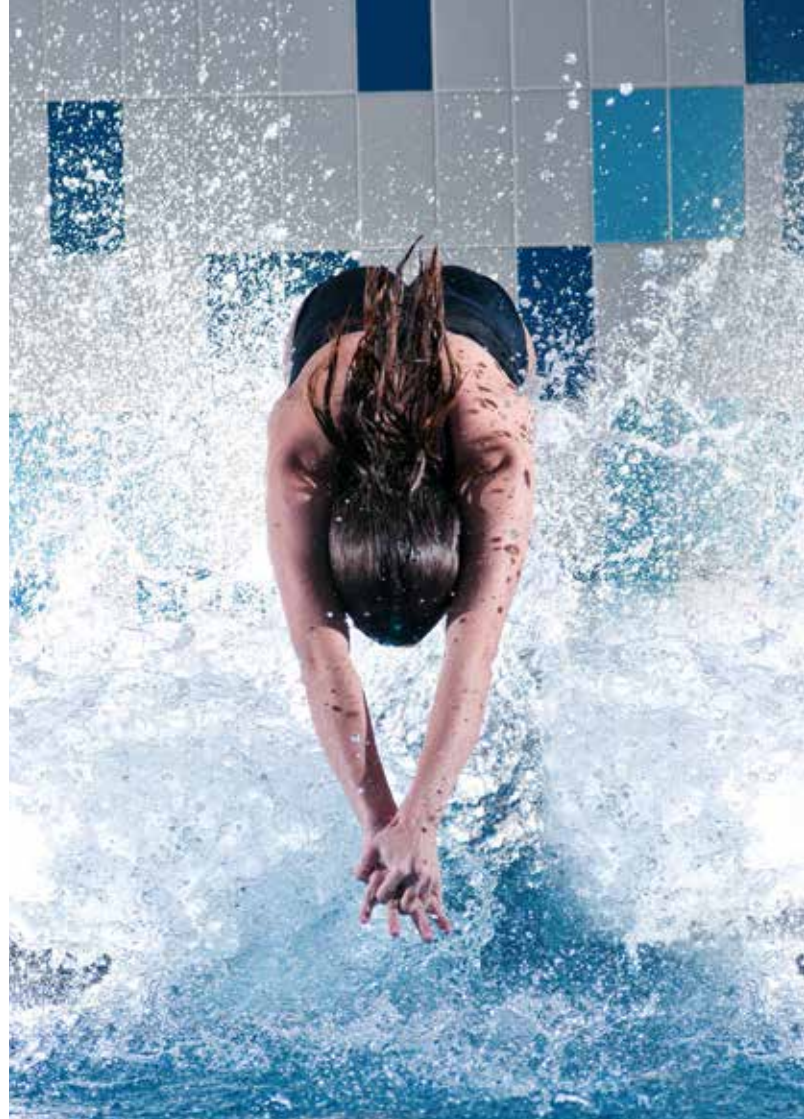
sound absorbing polyethylene foam



# swimming pools are too loud

The ambient noise level of indoor pools can be very high, especially when young children are present.

While this noise is very unpleasant for patrons, it can become a health and safety issue for staff, whether they are lifeguards or instructors.



Working in a noisy environment significantly increases the risk of hearing loss, poor speech intelligibility, and increases the potential for accidents.



Indoor pools are locations where communication is essential - students need to hear instructions, safety talks need to be heard, and lifeguards need to listen out for danger. Pools tend to echo because they're largely made from hard surfaces like steel, glass, and cement.

When reverberation and echo is high, it is human instinct to raise our voices to be heard; in fact lifeguards and swim coaches have been measured speaking at over 100 decibels.



# Case Study:

**Wollondilly Community  
Leisure Centre,  
NSW, Australia**



# The Problem:

In the modern era indoor swimming facilities cater for hundreds of swimmers of all ages in the summer season – providing fun, fitness and health. These open plan expansive indoor facilities can also be a health hazard – creating deafening noise levels for swimmers, staff and patrons.



This was the case at the indoor swimming complex at the Wollondilly Community Leisure Centre in the picturesque town of Picton, southwest of Sydney.

Built by Wollondilly Shire Council in 2003, the facility boasts a 25m x 8-lane heated indoor pool operated by Leisure Management Services.

It allows year round swim classes, school swimming carnivals and aquatic programs – seven days a week.

Wollondilly Leisure Centre employs 65 staff members, including 25-30 swimming instructors. Up to 500 people of all ages use the facility each day in summer and at times the noise was ear-splitting.

**“The existing material banners were old, stained and ineffective in reducing noise,”**

said David Emmett, Facilities Maintenance Coordinator at Wollondilly Shire Council.

**“Visually they were a blight on the centre,”**

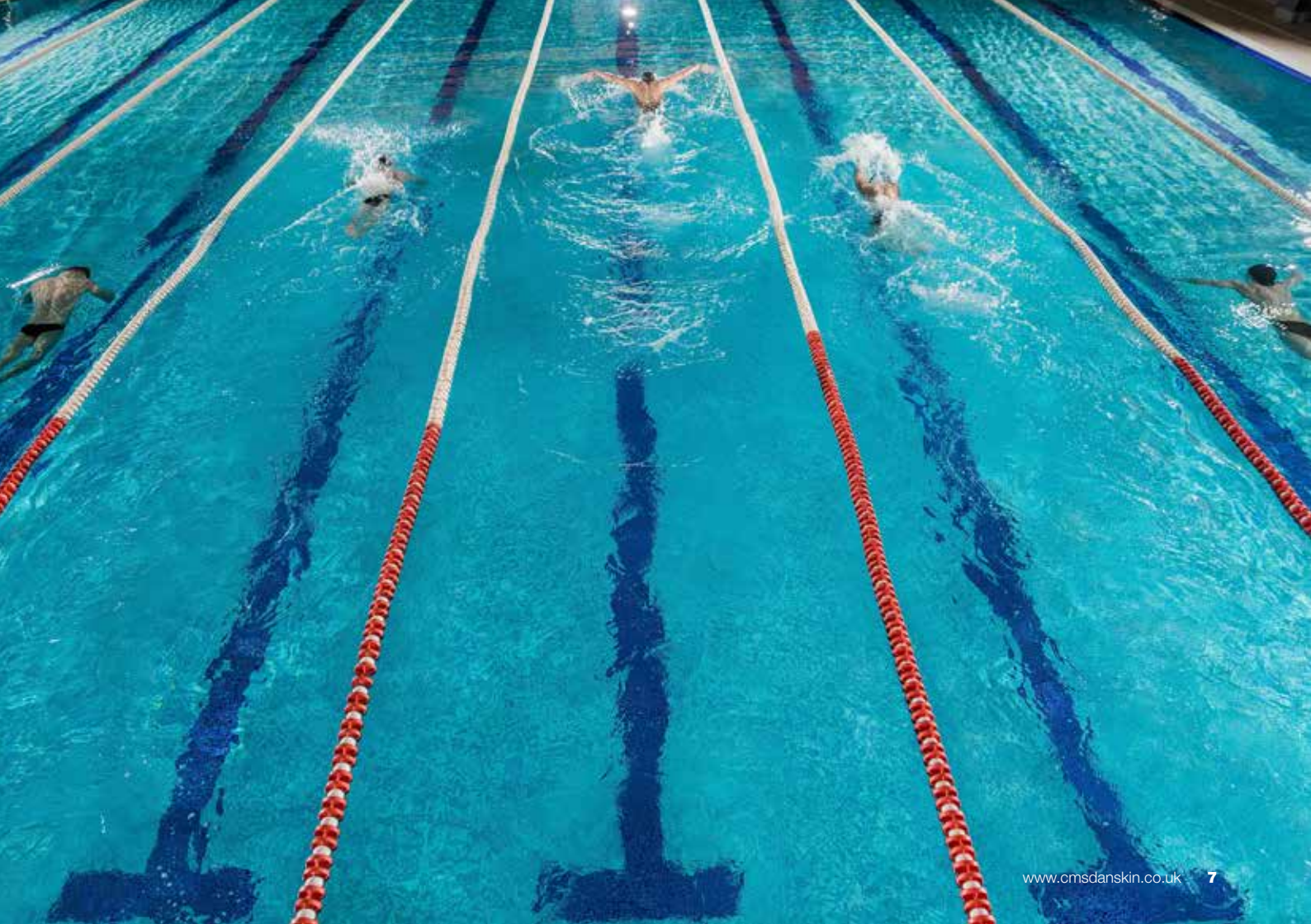
Wollondilly Leisure Centre manager James Barnes agrees.

**“On most days it was hard to have a conversation,”**

Mr Barnes said.

**“It was difficult for the swimming instructors to talk to the kids and parents couldn’t talk to each other – it was really unpleasant.”**





## The Solution:

Whisper<sup>®</sup>, a revolutionary sound absorbing material was chosen to fix the problem. Whisper<sup>®</sup> is ideal for indoor and outdoor environments where reverberant noise is a problem.





The acoustic sound absorbing panels not only control noise, they allow workers and patrons to speak and hear more effectively to provide a safer environment.

The product is washable, durable, long lasting and easy to install and is totally unique as it has does not lose acoustic performance over time in high humidity environments like many alternatives.

### **Why was Whisper® chosen?**

**“There were other alternatives however, they were unable to supply any scientific proof that the product worked,”** said Mr Emmett.

The manufacturer was able to provide evidence of effectiveness for the product in high moisture environments.

**“Council is satisfied that there is a significant noise and reverberation reduction in the indoor pool area,”** Mr Emmett said.





Acoustic engineer Rodney Stevens carried out reverberation testing.

**"Before installation we measured response times (RT) of 3 to 4 seconds,"**

Mr Stevens said.

**"But after installing only 100 panels the results improved significantly to between 0.6 and 0.8 seconds. This is close to the recommended response times for classrooms of 0.4 to 0.6 seconds. The pool complex has become an enjoyable recreational facility because of the acoustic environment".**

James Barnes said the new panels were installed in just two days – and there was no need to close the pool.

**"The staff especially are happy with the outcome, it's made a huge difference,"** he said.

BS EN 15288-1:2018 Swimming pools for public use. Safety requirements for design requires a maximum reverberation time between 1.5 and 2.0 seconds.



**15 year warranty  
against acoustic  
degradation\***



**Whisper<sup>®</sup>**

sound absorbing polyethylene foam



\*warranty applies in indoor pools when installed in accordance with manufacturers recommendations as a vertical baffle and protected from UV light, organic acids, physical abrasion, immersion and solvents.

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