

Case Study

Leisure

The Clink, Restaurant, HMP High Down, Surrey

Facts about the project

The Clink Restaurant, HMP Highdown, Surrey, UK

Acoustician: Alex Krasnic, ASK Acoustics Ltd

Contractor: J L Services Ltd

Project size: 85m²

Products: Master F



Client profile

The Clink Restaurant at HMP High Down is a stylish, 92-cover restaurant in Surrey, serving contemporary British cuisine. It is unique because it's the first restaurant in the UK to be built within the secure walls of a prison.

The Clink Restaurant is part of a prisoner rehabilitation scheme designed to simulate high quality restaurant dining experiences and the day-to-day operational challenges that come with running a restaurant, for a brigade of trainee chefs and front of house staff. These chefs and waiters are all serving prisoners who've shown the potential and desire to acquire qualifications in food preparation and food service ready for more meaningful reintegration into society and full-time employment when released.

The brief

Ecophon got involved with The Clink in May 2012, when it became clear the restaurant's acoustics needed work to enhance the environment for diners and staff, in a space that could become loud when guest conversation combined with noise from the open-plan kitchen. The shapes of ceilings and walls, the spatial

arrangements, materials installed and construction methods used can dramatically affect a restaurant's interior acoustics. In fact, high noise levels in restaurants without suitable acoustic treatment can approach levels of 85 dBA. In an industrial setting, this would mean the mandatory use of ear defenders.

The way sound behaves and affects diners in the room depends heavily on the room geometry and placement of absorption material. In a reverberant room with disturbing background noise, it can be difficult to pick up speech. As a design led, single room space featuring high and sloped ceilings, artistically tiled walls, glass tables, hard wood floors and etched glass wall panelling, an unobtrusive, sound absorbing solution was essential to maintain the clean and modern look and feel of the restaurant.

Testing and design

Leading acoustician Alex Krasnic from ASK Acoustics Ltd; devised various 'raised voice' and 'normal voice' scenarios within the restaurant to determine how quickly the sound disappeared from the room when varying numbers of diners were present in it. This is known as reverberation time testing and it is critical to determining the restaurant's acoustic model and the products required to achieve the target 3dBA reduction in that reverberation time.

Using photographs taken of the internal surfaces of the restaurant to map precisely where sound absorbing tiles could be positioned to achieve the target 3dBA reduction, bright white tiles from Ecophon's high performance Master F range were chosen. Fixed directly to the walls and ceiling area by JL Services Ltd, these tiles were designed to blend seamlessly with the existing décor.

Master F is installed directly to an existing plaster ceiling, boarding, battens or concrete, creating a ceiling with a smooth appearance. The bevelled edges create a narrow groove between each tile.

Ecophon Master F tiles are manufactured from high density glass wool utilising sustainable 3RD Technology. The visible surface has an Akutex™ FT coating and the back of the tile is covered with glass tissue. The edges are reinforced and painted, giving a crisp, clean finish and they are perfect for when a traditional suspended ceiling solution cannot be used.

The results

After installation, further reverberation time tests confirmed that the Master F solution had successfully achieved the target noise reduction of 3dBA, dramatically improving the way sound travelled in the room and the quality of the dining environment for diners as a result. This equated to reductions of up to 50% in frequency specific reverberation times.



Chris Moore, chief executive, The Clink Charity comments:

"The Clink Restaurant at HMP High Down had been operating for almost three years and the nature of the finishes in the restaurant meant it could become very noisy and was hard to hear people speaking across the table. Some days when we were fully booked with 96 guests, the noise level could become unbearable. With the great support of Ask Acoustics Ltd, J L Services Ltd and Ecophon, we have installed almost invisible sound proofing panels on some of the ceilings and bulkheads. The difference in noise levels has been tremendous. It's like a totally different restaurant with a new ambiance. It all seems a lot calmer and guests can now hear each other speak. I was very surprised by the noticeable difference in noise levels from having the discreet Ecophon soundproofing panels installed."

The Clink Restaurant

Covers: 92, plus additional 20 in The Grosvenor Suite

Restaurant dimensions: 25 metres x 15 metres

Product installed: Master F, 85m²

Project timeframe: Completed in 20 weeks (due to prison security clearance required for the installation)

Results: 3dBA noise reduction, equalling a 50% reduction in frequency specific reverberation times

*For more information please contact:
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