

Case Study - CMS ISO Panels



Carillion

Industrial acoustic insulation

The Challenge

A £600 million investment in the modernisation of News International's printing facilities, which saw the construction of two brand new production sites in London and Liverpool, created one of the world's largest and most technologically advanced printworks.

However, this major development also coincided with the introduction of the EU Noise at Work Regulations.

As such, the industrial project required a sound insulation and absorption solution that would not only minimise the noise levels generally apparent in a printing press environment, but also achieve a sufficiently low reduction to ensure compliance with new legislation.

As the main contractor, Carillion was tasked with identifying a specialist partner that could help it deliver the project against the specified acoustic criteria.



The CMS ISO Enclosure Panel System was used to create a quiet working environment at two News International printing plants.



The Solution

Carillion worked with CMS Acoustic Solutions to manage the internal sound insulation requirements of the project. Assessing the critical noise areas, CMS identified the ISO Enclosure Panel System as offering the performance characteristics necessary to meet the printing press environment demands.

The ISO Enclosure Panel System consists of a core of transverse mineral wool bonded to a perforated galvanised steel sheet on one side with a solid sheet on the other. Beneath the perforated surface is an acoustically permeable membrane that prevents the breakout of fibres. This composition delivers a robust, incombustible and lightweight system.

Constructed from prefabricated building panels, jointing accessories and fittings, the ISO Enclosure Panel System can be quickly erected on site to create noise-protected structures well within project timescales.

The panels join seamlessly together to exhibit a flush, aesthetically pleasing surface with no protruding components.

In contrast to alternative sound insulation wall systems which offer a sound barrier without absorption properties, the ISO Enclosure Panel System both prevents the passage of sound through walls and its reflection in internal areas, thereby providing a more comfortable sound conditioned environment.

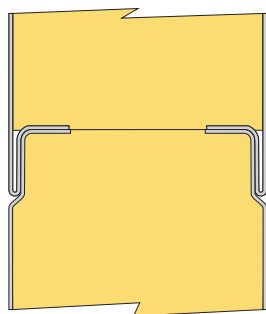
Results

Dependent on the panel thickness selected, the ISO Enclosure Panel System delivers sound insulation performance of 34-37dB (Rw).

At the same time, the perforated surface of the ISO Enclosure panels provides Class A sound absorption performance, typically absorbing 90% of reflected sound energy.

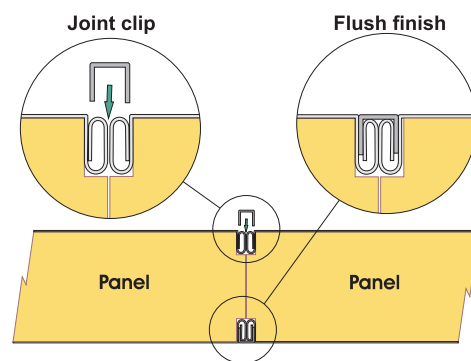
The material is also fire resistant, with 60Min and 120Min fire certification according to panel thickness.

Horizontal Joint Detail



Viewed from side

Vertical Joint Detail



Viewed from above

Northern Office:

Unit 4 Eagle Park, Eagle Park Drive,
Warrington. WA2 8JA
t: 01925 577711 f: 01925 577733

Southern Office:

Dugard House,
Peartree Road, Colchester. CO3 0UL
t: 01206 216 690 f: 01206 577954

info@cmsaccoustics.co.uk
www.cmsaccoustics.co.uk

CMS ACOUSTIC SOLUTIONS